



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 20, 2026 – 03:36 AM UTC

PDB ID : 6CFJ / pdb_00006cfj
Title : Crystal structure of the *Thermus thermophilus* 70S ribosome in complex with histidyl-CAM and bound to mRNA and A-, P-, and E-site tRNAs at 2.8Å resolution
Authors : Tereshchenkov, A.G.; Dobosz-Bartoszek, M.; Osterman, I.A.; Marks, J.; Sergeeva, V.A.; Kasatsky, P.; Komarova, E.S.; Stavrianidi, A.N.; Rodin, I.A.; Konevega, A.L.; Sergiev, P.V.; Sumbatyan, N.V.; Mankin, A.S.; Bogdanov, A.A.; Polikanov, Y.S.
Deposited on : 2018-02-15
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 : 9.0.010 (Gargrove)
Density-Fitness : 1.0.12

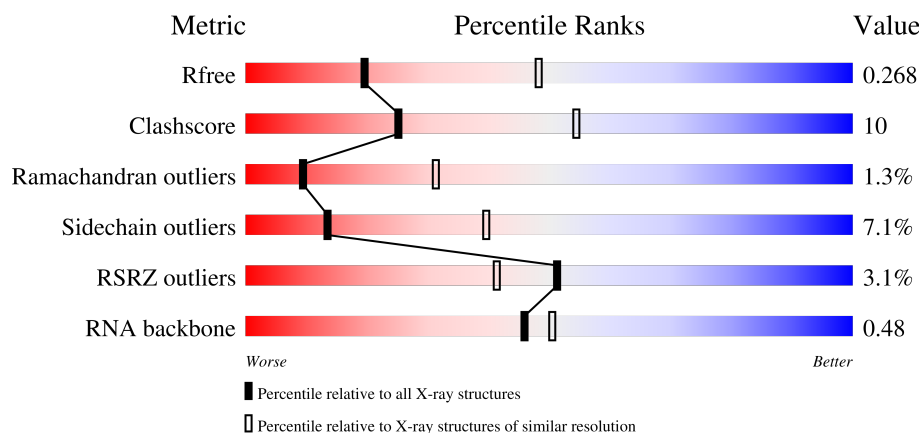
1 Overall quality at a glance

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)

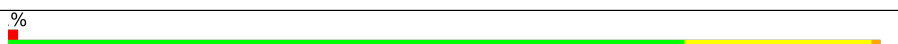
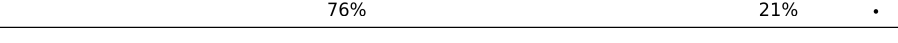
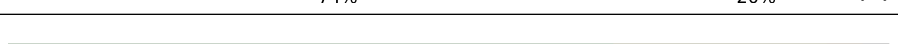
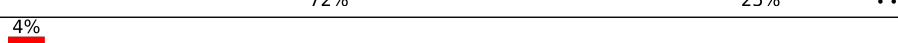
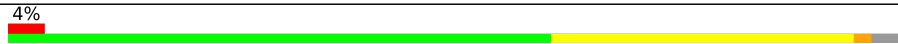
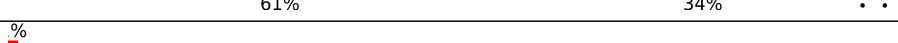
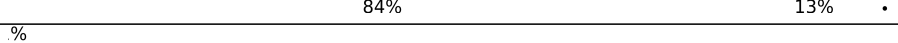
The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. 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	

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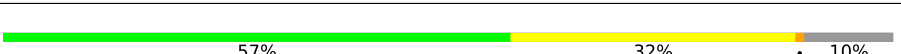
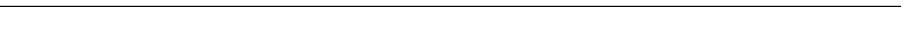
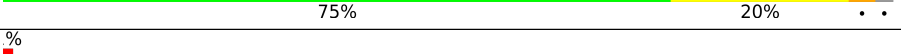
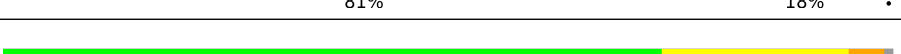
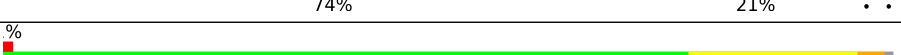
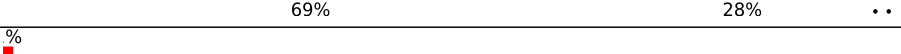
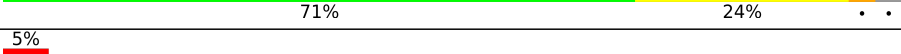
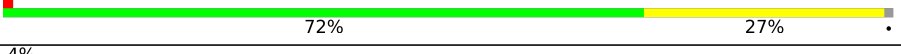
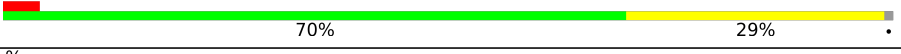
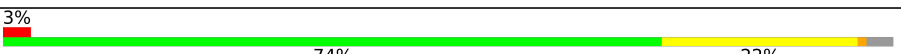
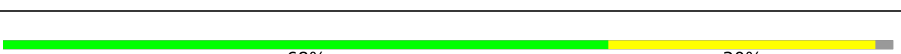
Ideal geometry (proteins) : Engh & Huber (2001)
 Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
 Validation Pipeline (wwPDB-VP) : 2.49

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Mol	Chain	Length	Quality of chain
1	2A	2915	
2	1B	121	
2	2B	121	
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	

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Mol	Chain	Length	Quality of chain
14	1S	112	
14	2S	112	
15	1T	146	
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	

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Mol	Chain	Length	Quality of chain
26	24	71	
27	15	60	
27	25	60	
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	

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Mol	Chain	Length	Quality of chain
39	1h	138	
39	2h	138	
40	1i	128	
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	

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Mol	Chain	Length	Quality of chain
51	2t	106	
52	1u	27	
52	2u	27	
53	1v	24	
53	2v	24	
54	1w	76	
54	1y	76	
54	2w	76	
54	2y	76	
55	1x	77	
55	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
54	PSU	2y	55	-	-	X	-
56	MG	1D	304	-	-	-	X

2 Entry composition

There are 61 unique types of molecules in this entry. The entry contains 299109 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			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
1A	1273	G	UNK	conflict	GB 37223181
2A	1227	G	UNK	conflict	GB 37223181

- 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			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
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			
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			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
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			
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			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
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			
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	123	Total	C	N	O	S	0	0	0
			958	592	198	166	2			
44	2m	122	Total	C	N	O	S	0	0	0
			950	586	197	165	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			

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
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	13	Total	C	N	O	P	0	0	0
			277	125	51	88	13			
53	2v	13	Total	C	N	O	P	0	0	0
			277	125	51	88	13			

- Molecule 54 is a RNA chain called A-site and E-site tRNAs.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
54	1w	74	Total	C	N	O	P	S	0	0	0
			1592	713	285	518	74	2			
54	1y	74	Total	C	N	O	P	S	0	0	0
			1585	707	285	518	74	1			
54	2w	72	Total	C	N	O	P	S	0	0	0
			1544	690	278	502	72	2			
54	2y	73	Total	C	N	O	P	S	0	0	0
			1565	698	283	510	73	1			

- Molecule 55 is a RNA chain called P-site tRNA.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
55	1x	76	Total	C	N	O	P	S	0	0	0
			1625	725	294	529	76	1			
55	2x	76	Total	C	N	O	P	S	0	0	0
			1625	725	294	529	76	1			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
1x	8	4SU	G	conflict	GB 205271127
2x	8	4SU	G	conflict	GB 205271127

- Molecule 56 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	1A	1063	Total	Mg	0	0
			1063	1063		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	1B	38	Total 38	Mg 38	0	0
56	1D	14	Total 14	Mg 14	0	0
56	1E	13	Total 13	Mg 13	0	0
56	1F	9	Total 9	Mg 9	0	0
56	1G	5	Total 5	Mg 5	0	0
56	1I	1	Total 1	Mg 1	0	0
56	1N	5	Total 5	Mg 5	0	0
56	1O	7	Total 7	Mg 7	0	0
56	1P	3	Total 3	Mg 3	0	0
56	1Q	5	Total 5	Mg 5	0	0
56	1R	5	Total 5	Mg 5	0	0
56	1S	3	Total 3	Mg 3	0	0
56	1T	2	Total 2	Mg 2	0	0
56	1U	6	Total 6	Mg 6	0	0
56	1V	3	Total 3	Mg 3	0	0
56	1W	5	Total 5	Mg 5	0	0
56	1X	6	Total 6	Mg 6	0	0
56	1Y	2	Total 2	Mg 2	0	0
56	1Z	4	Total 4	Mg 4	0	0
56	10	5	Total 5	Mg 5	0	0
56	11	5	Total 5	Mg 5	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	12	2	Total 2	Mg 2	0	0
56	13	2	Total 2	Mg 2	0	0
56	15	6	Total 6	Mg 6	0	0
56	16	3	Total 3	Mg 3	0	0
56	17	5	Total 5	Mg 5	0	0
56	18	3	Total 3	Mg 3	0	0
56	19	1	Total 1	Mg 1	0	0
56	1a	215	Total 215	Mg 215	0	0
56	1b	2	Total 2	Mg 2	0	0
56	1e	1	Total 1	Mg 1	0	0
56	1f	1	Total 1	Mg 1	0	0
56	1l	3	Total 3	Mg 3	0	0
56	1m	1	Total 1	Mg 1	0	0
56	1n	2	Total 2	Mg 2	0	0
56	1p	1	Total 1	Mg 1	0	0
56	1q	1	Total 1	Mg 1	0	0
56	1r	1	Total 1	Mg 1	0	0
56	1s	1	Total 1	Mg 1	0	0
56	1t	1	Total 1	Mg 1	0	0
56	1v	1	Total 1	Mg 1	0	0
56	1w	11	Total 11	Mg 11	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	1x	15	Total 15	Mg 15	0	0
56	1y	4	Total 4	Mg 4	0	0
56	2A	754	Total 754	Mg 754	0	0
56	2B	21	Total 21	Mg 21	0	0
56	2D	7	Total 7	Mg 7	0	0
56	2E	10	Total 10	Mg 10	0	0
56	2F	4	Total 4	Mg 4	0	0
56	2G	1	Total 1	Mg 1	0	0
56	2O	2	Total 2	Mg 2	0	0
56	2P	1	Total 1	Mg 1	0	0
56	2Q	3	Total 3	Mg 3	0	0
56	2R	4	Total 4	Mg 4	0	0
56	2T	3	Total 3	Mg 3	0	0
56	2U	6	Total 6	Mg 6	0	0
56	2V	2	Total 2	Mg 2	0	0
56	2W	3	Total 3	Mg 3	0	0
56	2X	2	Total 2	Mg 2	0	0
56	2Z	1	Total 1	Mg 1	0	0
56	20	3	Total 3	Mg 3	0	0
56	21	1	Total 1	Mg 1	0	0
56	23	1	Total 1	Mg 1	0	0

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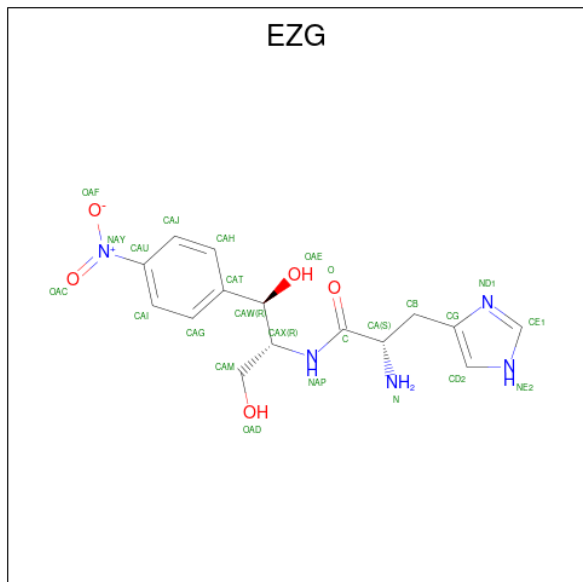
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	25	3	Total 3	Mg 3	0	0
56	27	2	Total 2	Mg 2	0	0
56	28	2	Total 2	Mg 2	0	0
56	2a	233	Total 233	Mg 233	0	0
56	2d	2	Total 2	Mg 2	0	0
56	2e	1	Total 1	Mg 1	0	0
56	2f	1	Total 1	Mg 1	0	0
56	2g	1	Total 1	Mg 1	0	0
56	2j	2	Total 2	Mg 2	0	0
56	2l	4	Total 4	Mg 4	0	0
56	2q	4	Total 4	Mg 4	0	0
56	2r	2	Total 2	Mg 2	0	0
56	2t	1	Total 1	Mg 1	0	0
56	2v	5	Total 5	Mg 5	0	0
56	2w	9	Total 9	Mg 9	0	0
56	2x	5	Total 5	Mg 5	0	0
56	2y	7	Total 7	Mg 7	0	0

- Molecule 57 is POTASSIUM ION (CCD ID: K) (formula: K).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	1A	2	Total 2	K 2	0	0
57	2A	2	Total 2	K 2	0	0

- Molecule 58 is N-[(1R,2R)-1,3-dihydroxy-1-(4-nitrophenyl)propan-2-yl]-L-histidinamide (CCD ID: EZG) (formula: C₁₅H₁₉N₅O₅).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
58	1A	1	Total	C	N	O	0	0
			25	15	5	5		
58	2A	1	Total	C	N	O	0	0
			25	15	5	5		

- Molecule 59 is ZINC ION (CCD ID: ZN) (formula: Zn).

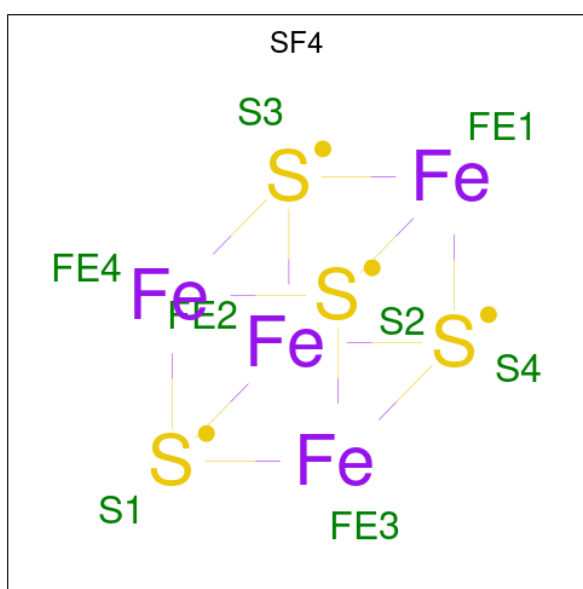
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	1Y	1	Total	Zn	0	0
			1	1		
59	14	1	Total	Zn	0	0
			1	1		
59	15	1	Total	Zn	0	0
			1	1		
59	16	1	Total	Zn	0	0
			1	1		
59	19	1	Total	Zn	0	0
			1	1		
59	1n	1	Total	Zn	0	0
			1	1		
59	2Y	1	Total	Zn	0	0
			1	1		
59	24	1	Total	Zn	0	0
			1	1		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	25	1	Total	Zn	0	0
			1	1		
59	26	1	Total	Zn	0	0
			1	1		
59	29	1	Total	Zn	0	0
			1	1		
59	2n	1	Total	Zn	0	0
			1	1		

- Molecule 60 is IRON/SULFUR CLUSTER (CCD ID: SF4) (formula: Fe_4S_4).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
60	1d	1	Total	Fe	S	0	0
			8	4	4		
60	2d	1	Total	Fe	S	0	0
			8	4	4		

- Molecule 61 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
61	1A	1433	Total	O	0	0
			1433	1433		
61	1B	65	Total	O	0	0
			65	65		
61	1D	24	Total	O	0	0
			24	24		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
61	1E	30	Total 30	O 30	0	0
61	1F	10	Total 10	O 10	0	0
61	1G	8	Total 8	O 8	0	0
61	1H	1	Total 1	O 1	0	0
61	1I	2	Total 2	O 2	0	0
61	1N	6	Total 6	O 6	0	0
61	1O	8	Total 8	O 8	0	0
61	1P	18	Total 18	O 18	0	0
61	1Q	12	Total 12	O 12	0	0
61	1R	12	Total 12	O 12	0	0
61	1S	4	Total 4	O 4	0	0
61	1T	7	Total 7	O 7	0	0
61	1U	9	Total 9	O 9	0	0
61	1V	8	Total 8	O 8	0	0
61	1W	8	Total 8	O 8	0	0
61	1X	8	Total 8	O 8	0	0
61	1Y	2	Total 2	O 2	0	0
61	1Z	1	Total 1	O 1	0	0
61	10	10	Total 10	O 10	0	0
61	11	7	Total 7	O 7	0	0
61	12	2	Total 2	O 2	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
61	13	4	Total 4	O 4	0	0
61	15	5	Total 5	O 5	0	0
61	16	2	Total 2	O 2	0	0
61	17	9	Total 9	O 9	0	0
61	18	7	Total 7	O 7	0	0
61	1a	315	Total 315	O 315	0	0
61	1b	1	Total 1	O 1	0	0
61	1e	1	Total 1	O 1	0	0
61	1f	1	Total 1	O 1	0	0
61	1g	1	Total 1	O 1	0	0
61	1j	1	Total 1	O 1	0	0
61	1l	6	Total 6	O 6	0	0
61	1m	1	Total 1	O 1	0	0
61	1n	1	Total 1	O 1	0	0
61	1q	3	Total 3	O 3	0	0
61	1u	1	Total 1	O 1	0	0
61	1v	6	Total 6	O 6	0	0
61	1w	20	Total 20	O 20	0	0
61	1x	14	Total 14	O 14	0	0
61	1y	2	Total 2	O 2	0	0
61	2A	885	Total 885	O 885	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
61	2B	26	Total 26	O 26	0	0
61	2D	18	Total 18	O 18	0	0
61	2E	14	Total 14	O 14	0	0
61	2F	18	Total 18	O 18	0	0
61	2I	4	Total 4	O 4	0	0
61	2N	1	Total 1	O 1	0	0
61	2P	12	Total 12	O 12	0	0
61	2Q	2	Total 2	O 2	0	0
61	2R	2	Total 2	O 2	0	0
61	2T	6	Total 6	O 6	0	0
61	2U	3	Total 3	O 3	0	0
61	2V	1	Total 1	O 1	0	0
61	2W	3	Total 3	O 3	0	0
61	2X	1	Total 1	O 1	0	0
61	2Y	1	Total 1	O 1	0	0
61	2Z	2	Total 2	O 2	0	0
61	20	4	Total 4	O 4	0	0
61	21	8	Total 8	O 8	0	0
61	22	1	Total 1	O 1	0	0
61	23	1	Total 1	O 1	0	0
61	25	4	Total 4	O 4	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
61	26	1	Total 1	O 1	0	0
61	27	4	Total 4	O 4	0	0
61	28	4	Total 4	O 4	0	0
61	29	1	Total 1	O 1	0	0
61	2a	258	Total 258	O 258	0	0
61	2c	1	Total 1	O 1	0	0
61	2d	3	Total 3	O 3	0	0
61	2e	1	Total 1	O 1	0	0
61	2g	1	Total 1	O 1	0	0
61	2i	1	Total 1	O 1	0	0
61	2j	4	Total 4	O 4	0	0
61	2l	6	Total 6	O 6	0	0
61	2o	1	Total 1	O 1	0	0
61	2p	2	Total 2	O 2	0	0
61	2q	1	Total 1	O 1	0	0
61	2r	1	Total 1	O 1	0	0
61	2t	5	Total 5	O 5	0	0
61	2u	1	Total 1	O 1	0	0
61	2v	2	Total 2	O 2	0	0
61	2w	2	Total 2	O 2	0	0
61	2x	6	Total 6	O 6	0	0

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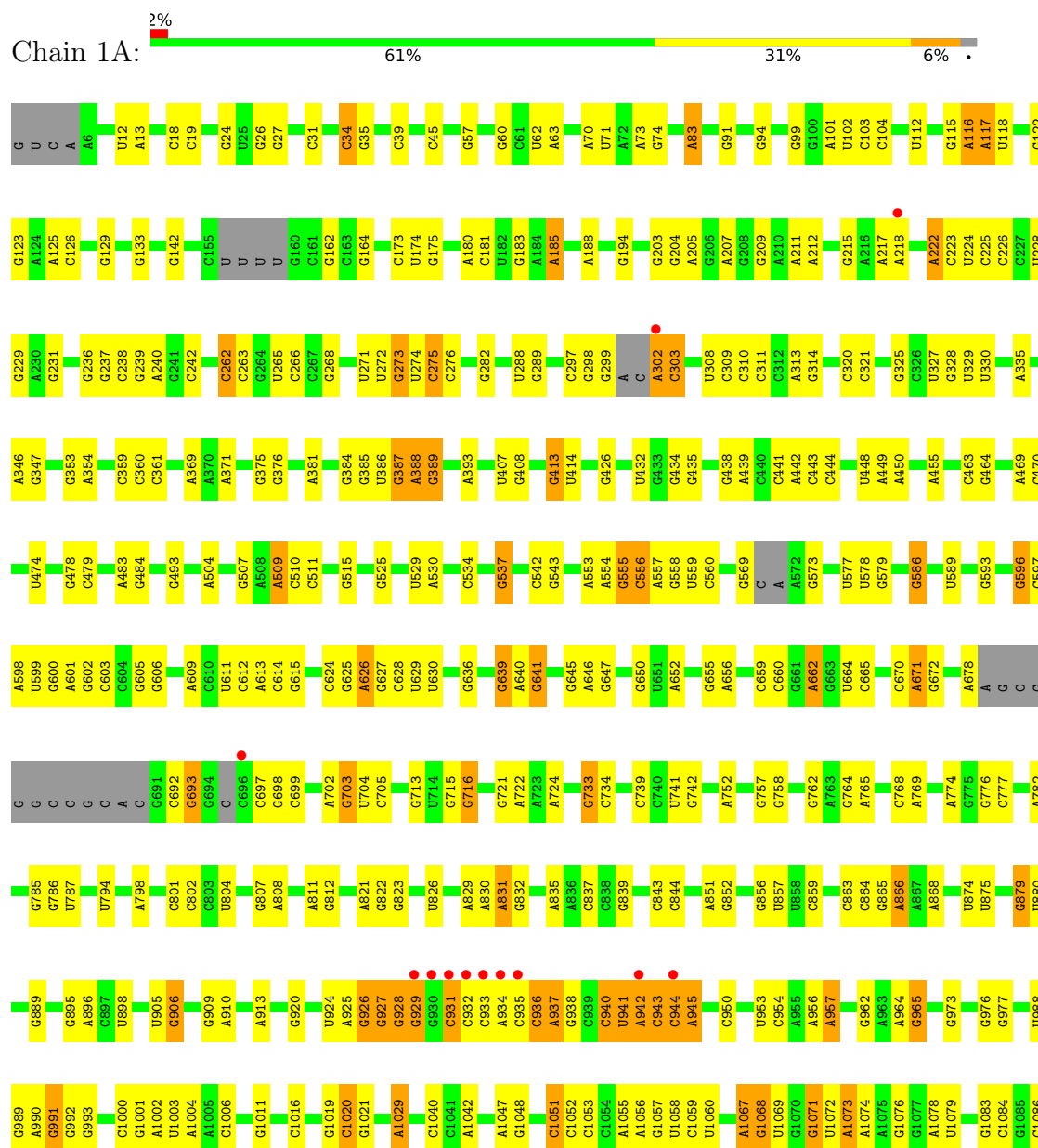
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
61	2y	18	Total	O	0	0
			18	18		

3 Residue-property plots

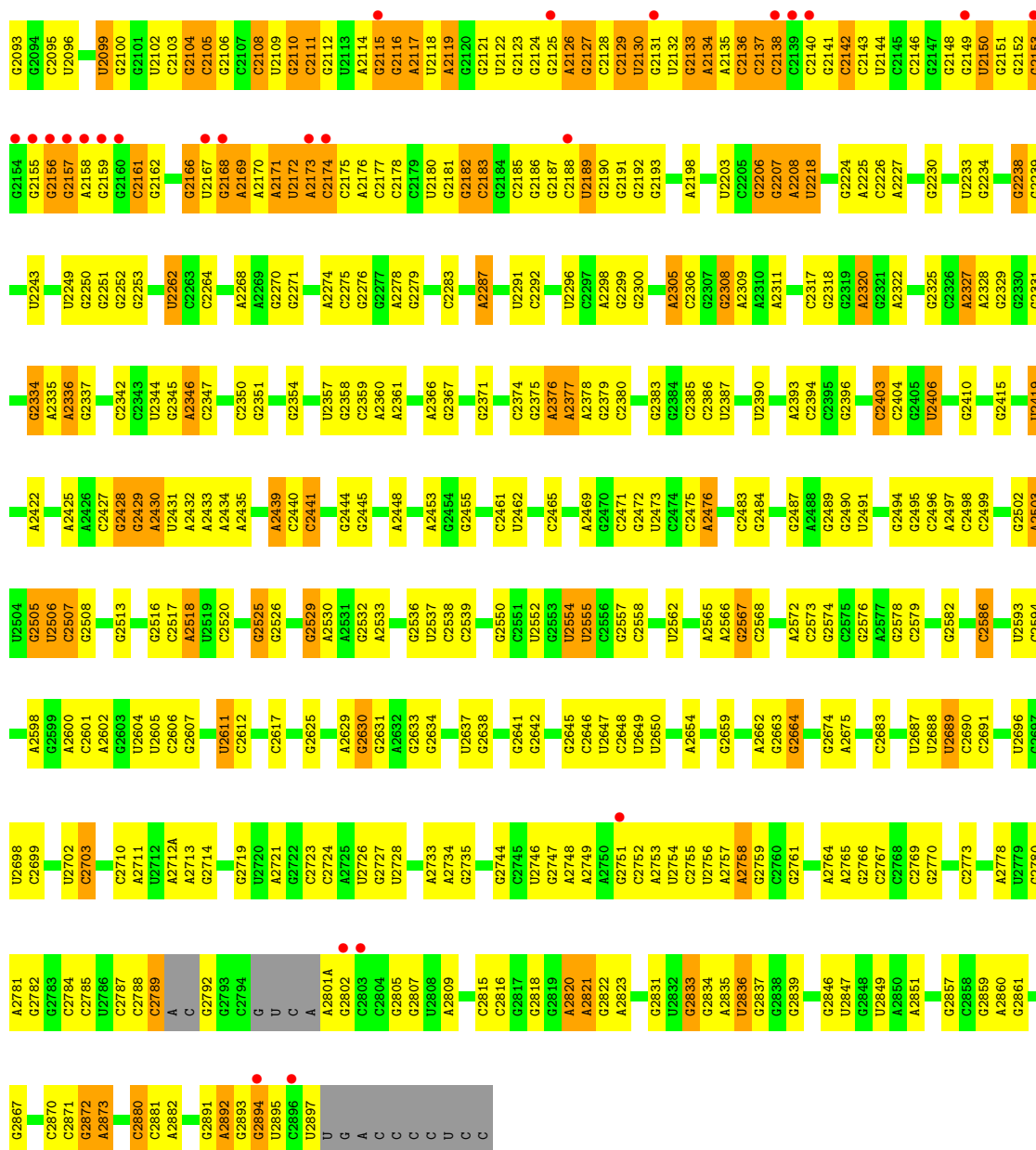
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red dot above a residue indicates a poor fit to the electron density ($RSRZ > 2$). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

• Molecule 1: 23S Ribosomal RNA



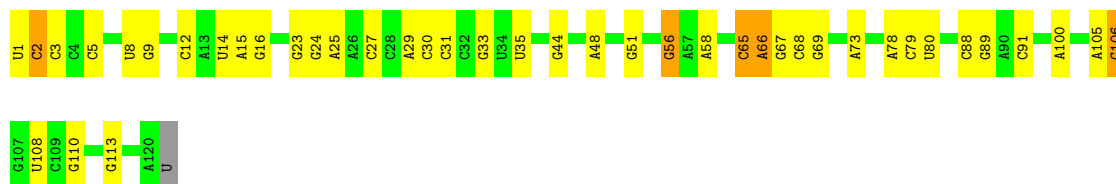
A2434	G2337	G2236	G2163	U1973	A1843	U1740	A1626	G1530	A1400	C1245	A1149	C1087
A2437	C2338	A2237	C2164	A1974	A1846	G1743	A1627	A1536	G1401	C1246	G1150	G1088
G2441	A2239	C2085	U2166	G1976	G1847	A1747	G1628	A1539	A1406	U1151	U1151	G1089
A2442	G2343	G2091	C2167	U1977	G1848	A1748	C1631	C1539	A1406	U1256	G1152	G1090
U2443	G2344	G2094	G2169	A1982	U1849	G1749	A1632	A1540	G1410	U1256	U1154	A1092
A2447	G2345	G2095	G2170	C1983	U1851	G1750	A1633	A1541	A1411	U1256	G1155	G1093
A2451	G2346	G2096	G2171	U1985	G1859	U1756	C1634	G1546	U1418	G1275	G1156	A1094
C2452	A2348	U2097	G2174	A1989	A1860	C1757	C1635	C1547	C1422	U1286	A1157	A1095
C2453	C2359	U2101	G2175	G1990	G1871	U1760	C1653	C1552	A1425	G1285	G1160	C1098
C2455	C2362	A2104	G2176	A1991	A1878	G1761	A1654	A1553	A1426	A1287	C1162	A1100
G2456	G2367	U2108	G2177	A1992	A1879	G1766	A1655	A1554	G1431	A1288	G1163	G1101
G2457	C2367	G2109	G2178	A1994	G1892	A1767	A1656	C1555	A1430	G1291	G1168	A1103
A2460	G2367	G2109	G2179	G1997	G1896	A1770	C1657	A1556	C1432	A1299	G1171	A1105
G2466	G2370	G2116	G2180	G2006	G1899	C1775	G1658	U1580	C1433	G1302	U1106	U1106
C2483	C2371	G2117	G2181	U2013	A1899	G1776	A1660	C1561	U1440	G1302	U1106	U
A2488	A2372	G2118	G2182	U2014	C1904	G1787	G1668	G1567	U1441	G1310	G1176	G1108
C2489	A2373	U2120	G2183	U2015	G1905	A1793	G1674	U1569	U1442	A1311	U1176	G1109
A2490	C2377	U2121	U2189	G2019	A1911	G1794	U1675	G1570	C1445	U1313	G1180	G1110
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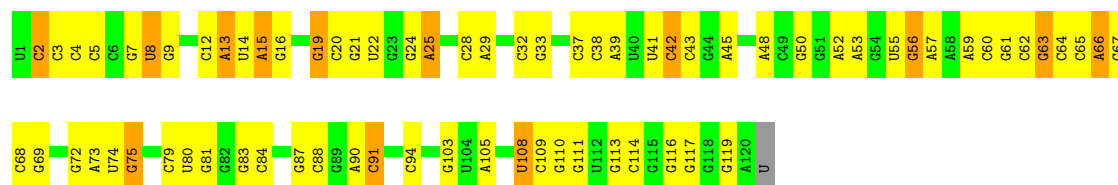
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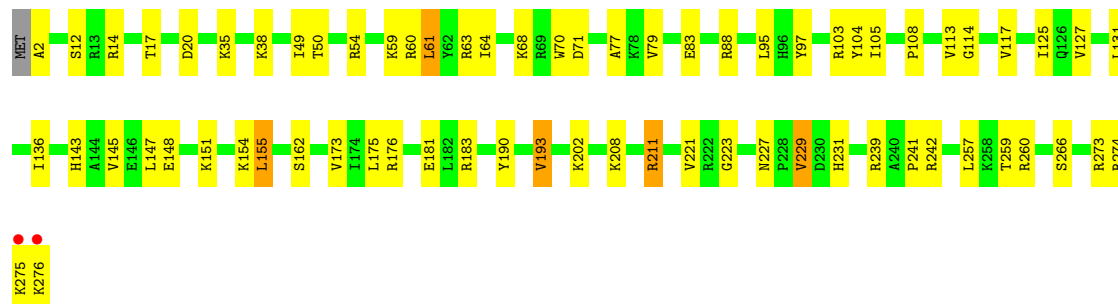
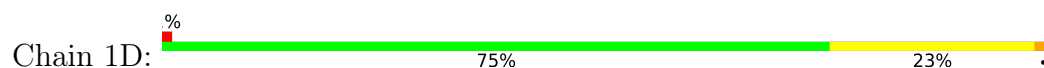
• Molecule 2: 5S Ribosomal RNA

Chain 1B: 64% 31%

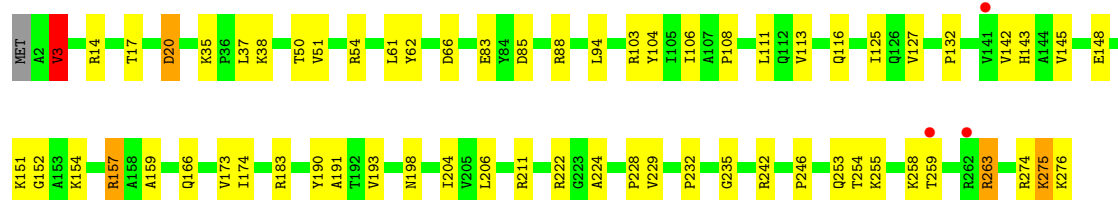
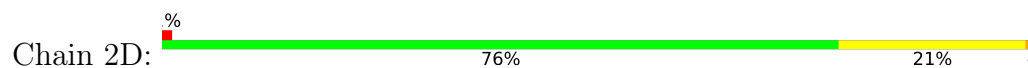




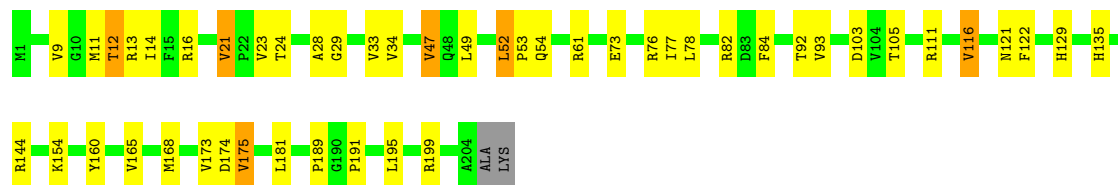
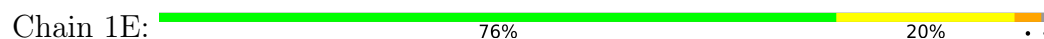
• Molecule 3: 50S ribosomal protein L2



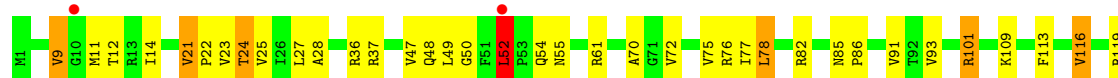
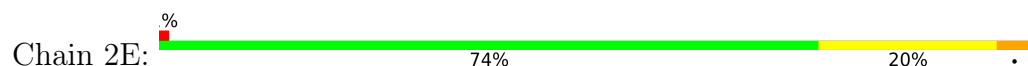
• Molecule 3: 50S ribosomal protein L2

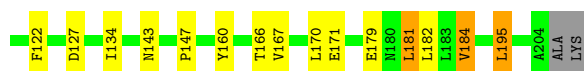


• Molecule 4: 50S ribosomal protein L3



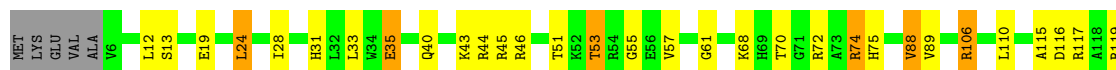
• Molecule 4: 50S ribosomal protein L3





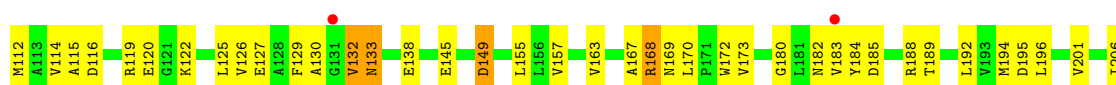
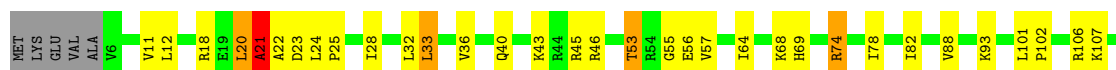
• Molecule 5: 50S ribosomal protein L4

Chain 1F: 68% 24%



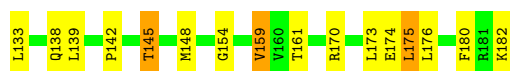
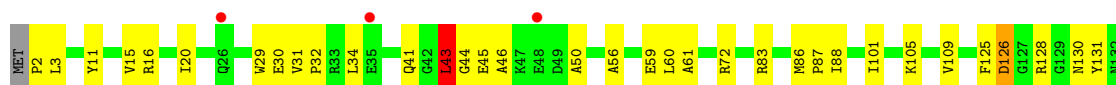
• Molecule 5: 50S ribosomal protein L4

Chain 2F: 62% 30%



• Molecule 6: 50S ribosomal protein L5

Chain 1G: 72% 25%

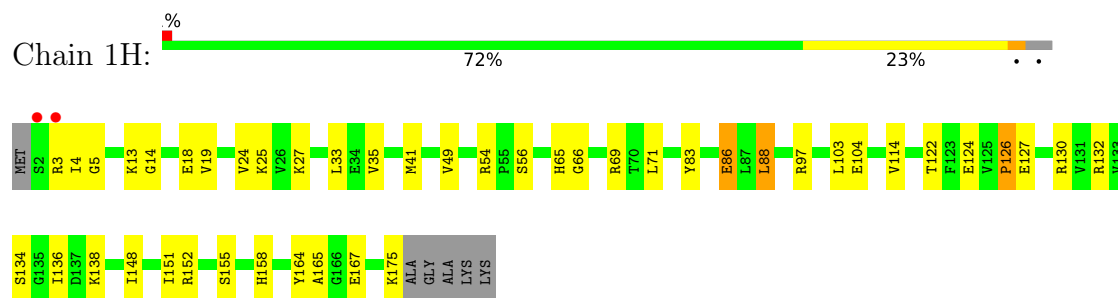


• Molecule 6: 50S ribosomal protein L5

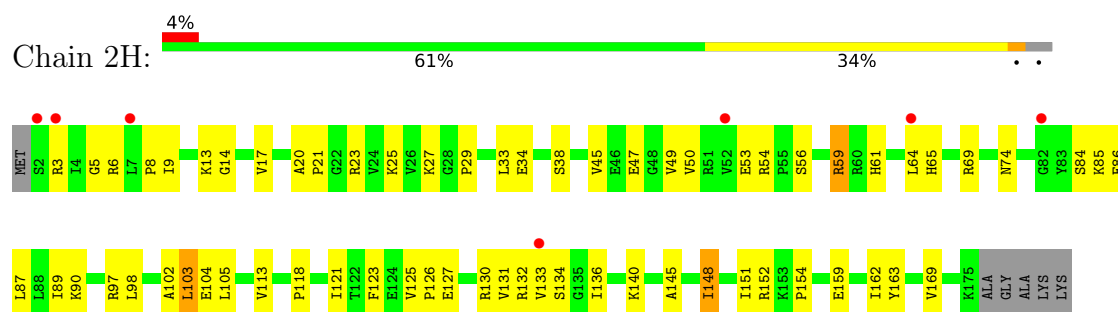
Chain 2G: 58% 39%



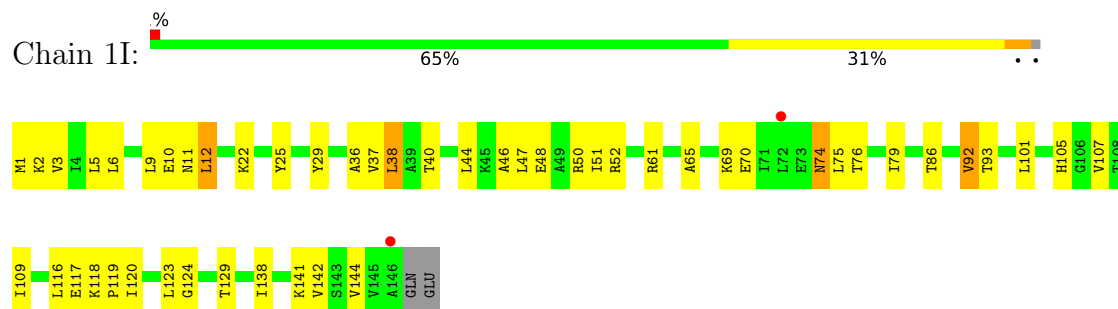
- Molecule 7: 50S ribosomal protein L6



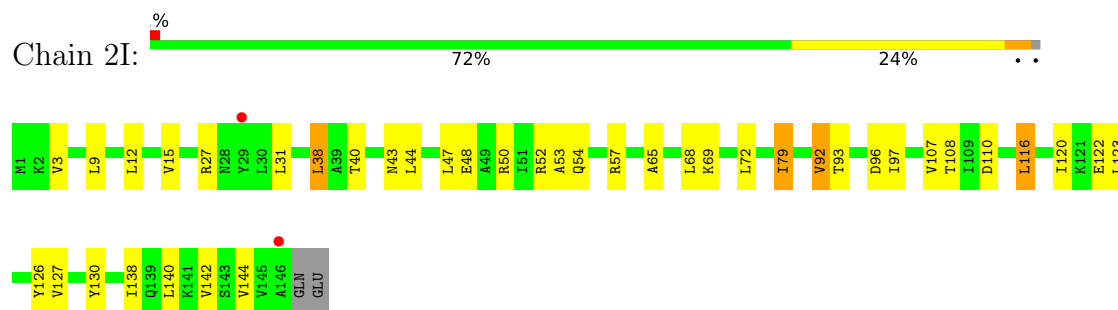
- Molecule 7: 50S ribosomal protein L6



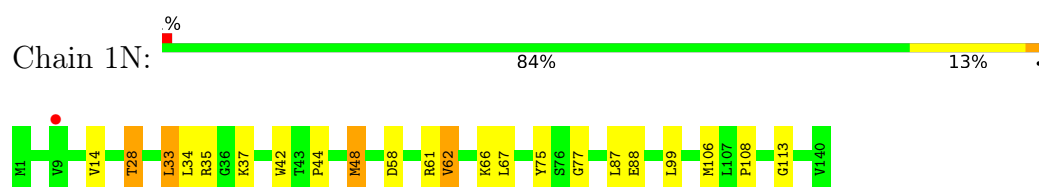
- Molecule 8: 50S ribosomal protein L9



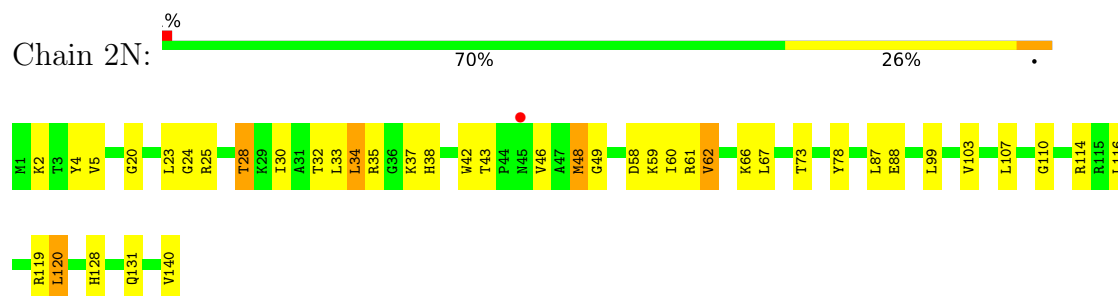
- Molecule 8: 50S ribosomal protein L9



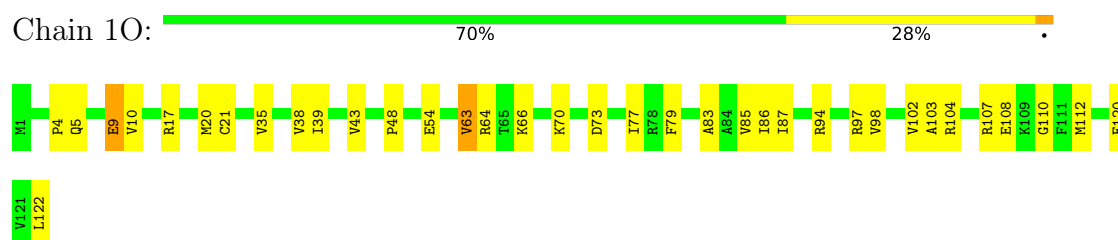
- Molecule 9: 50S ribosomal protein L13



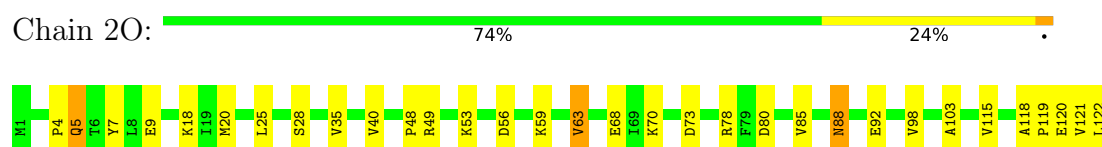
- Molecule 9: 50S ribosomal protein L13



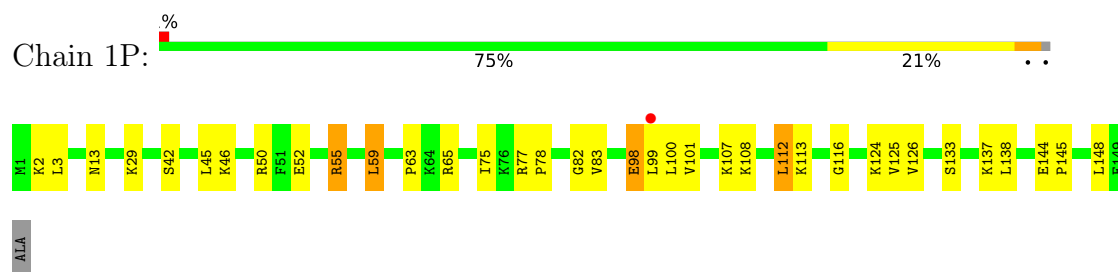
- Molecule 10: 50S ribosomal protein L14



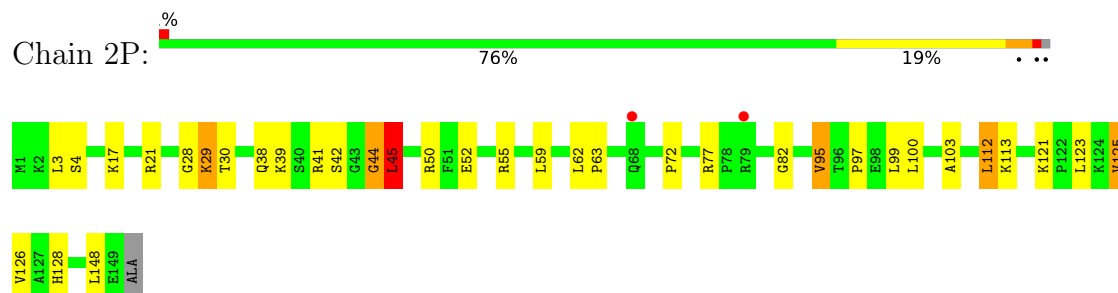
- Molecule 10: 50S ribosomal protein L14



- Molecule 11: 50S ribosomal protein L15

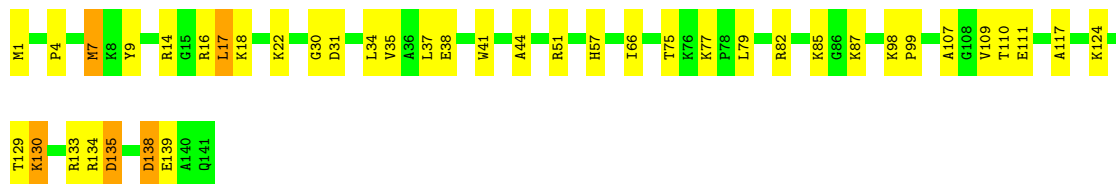


- Molecule 11: 50S ribosomal protein L15



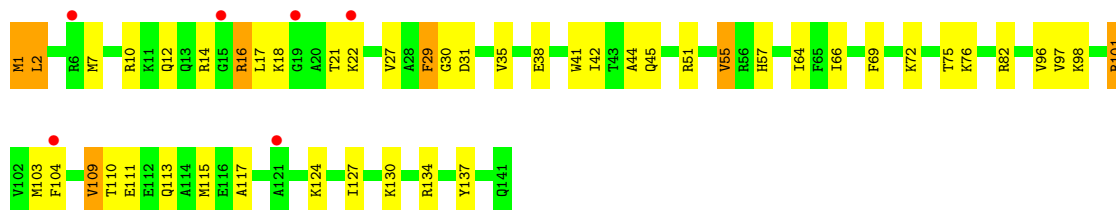
- Molecule 12: 50S ribosomal protein L16

Chain 1Q:  71% 26% .



- Molecule 12: 50S ribosomal protein L16

Chain 2Q:  4% 66% 29% 5%



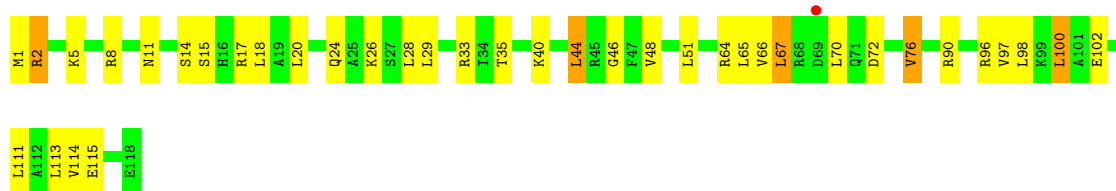
- Molecule 13: 50S ribosomal protein L17

Chain 1R:  75% 20% 5%



- Molecule 13: 50S ribosomal protein L17

Chain 2R:  % 68% 28% .



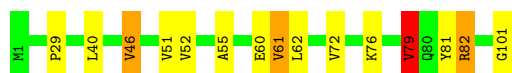
- Molecule 14: 50S ribosomal protein L18

Chain 1S:  73% 20% 5% .

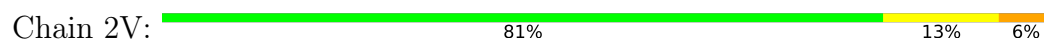


- Molecule 14: 50S ribosomal protein L18

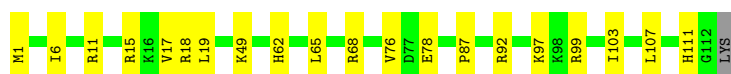
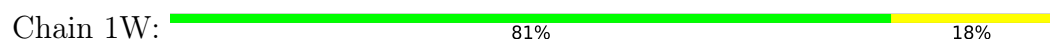
Chain 2S:  4% 58% 37% . .



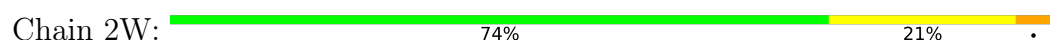
- Molecule 17: 50S ribosomal protein L21



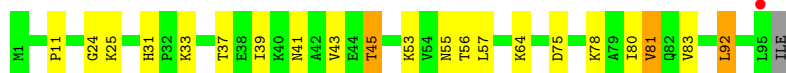
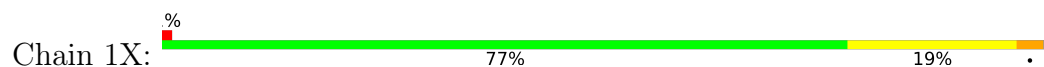
- Molecule 18: 50S ribosomal protein L22



- Molecule 18: 50S ribosomal protein L22



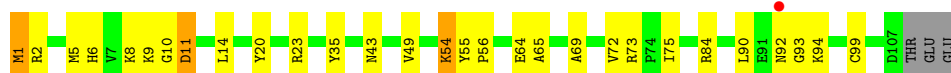
- Molecule 19: 50S ribosomal protein L23



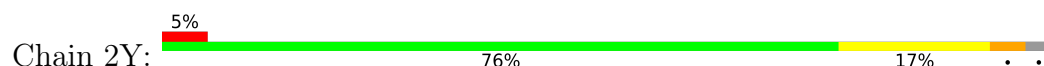
- Molecule 19: 50S ribosomal protein L23



- Molecule 20: 50S ribosomal protein L24

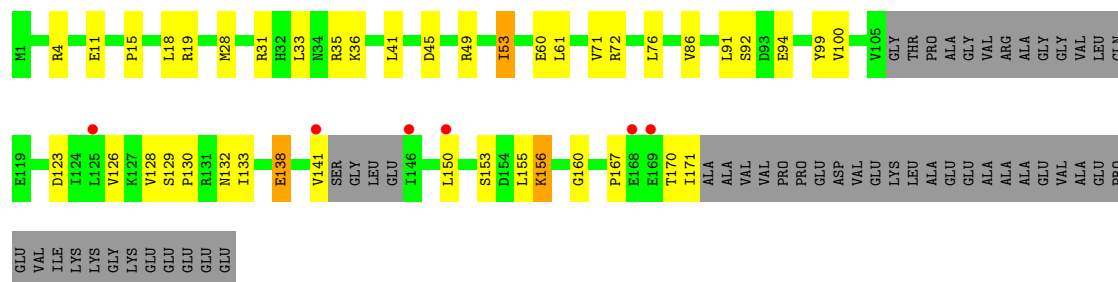


- Molecule 20: 50S ribosomal protein L24

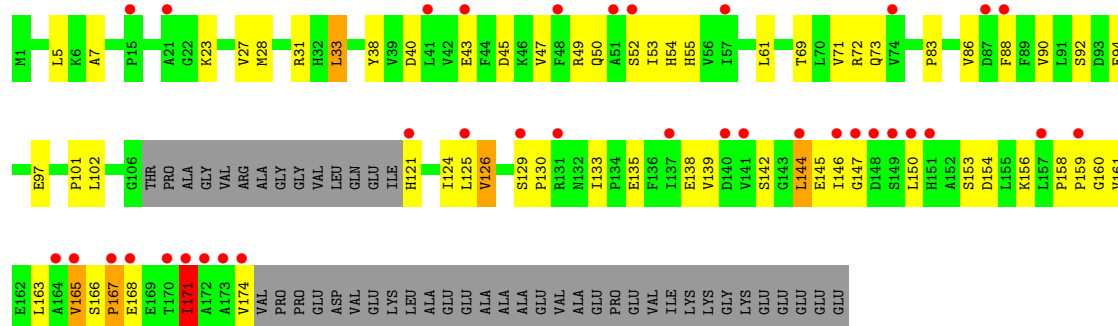




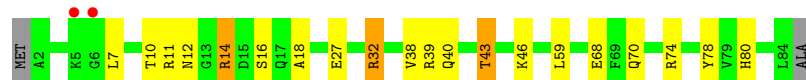
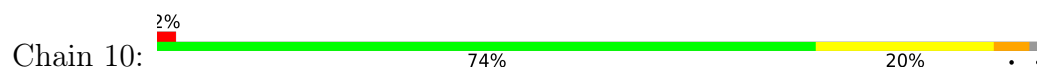
- Molecule 21: 50S ribosomal protein L25



- Molecule 21: 50S ribosomal protein L25



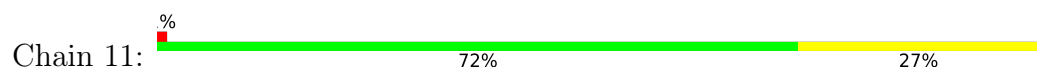
- Molecule 22: 50S ribosomal protein L27



- Molecule 22: 50S ribosomal protein L27



- Molecule 23: 50S ribosomal protein L28





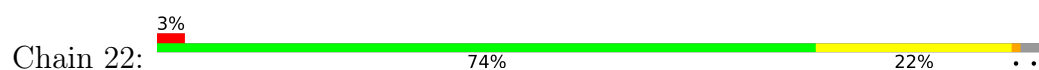
- Molecule 23: 50S ribosomal protein L28



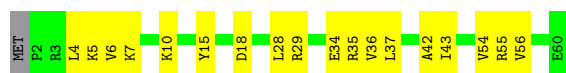
- Molecule 24: 50S ribosomal protein L29



- Molecule 24: 50S ribosomal protein L29



- Molecule 25: 50S ribosomal protein L30



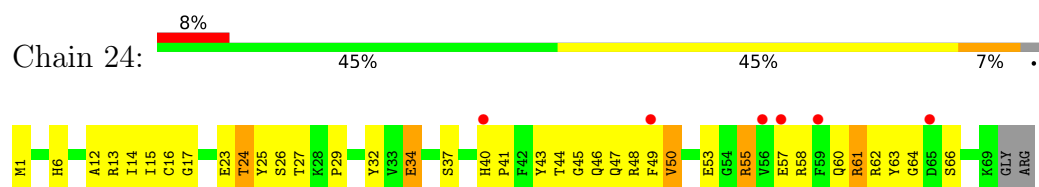
- Molecule 25: 50S ribosomal protein L30



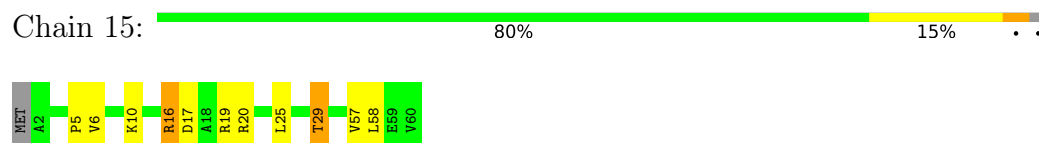
- Molecule 26: 50S ribosomal protein L31



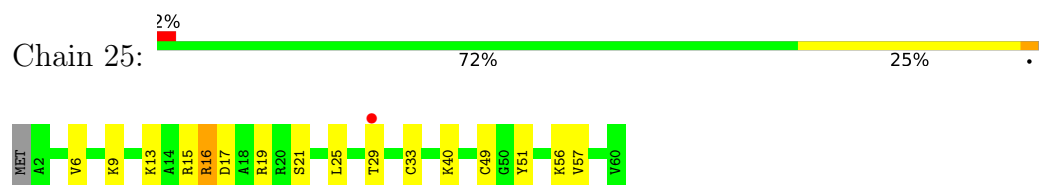
- Molecule 26: 50S ribosomal protein L31



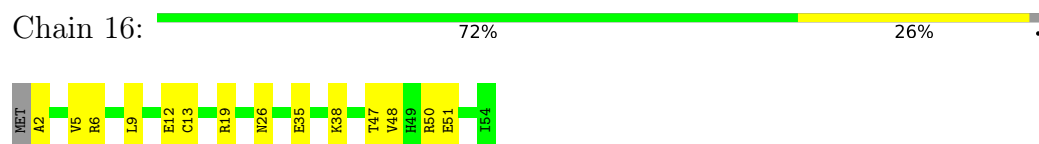
- Molecule 27: 50S ribosomal protein L32



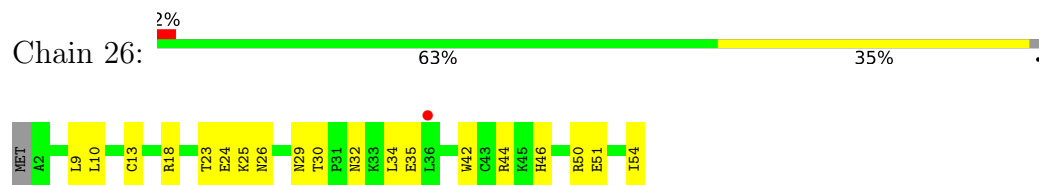
- Molecule 27: 50S ribosomal protein L32



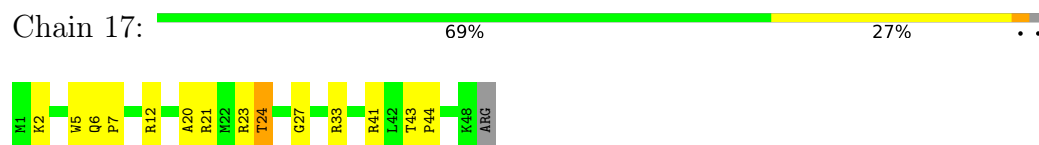
- Molecule 28: 50S ribosomal protein L33



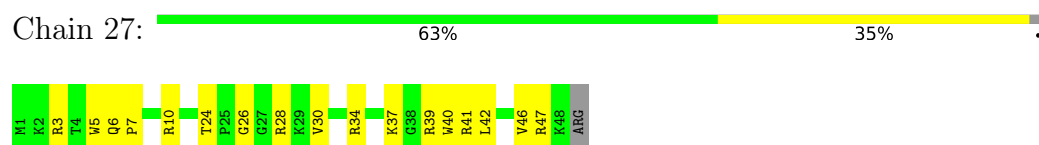
- Molecule 28: 50S ribosomal protein L33



- Molecule 29: 50S ribosomal protein L34



- Molecule 29: 50S ribosomal protein L34



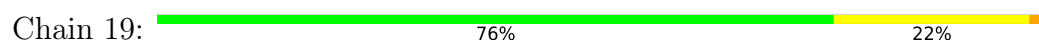
- Molecule 30: 50S ribosomal protein L35



- Molecule 30: 50S ribosomal protein L35



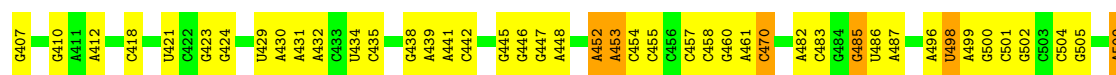
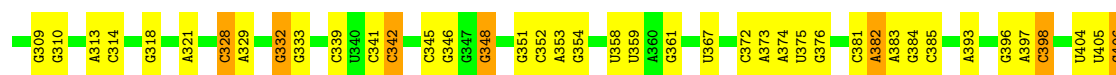
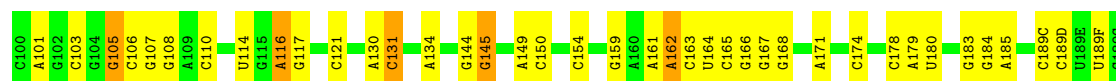
- Molecule 31: 50S ribosomal protein L36

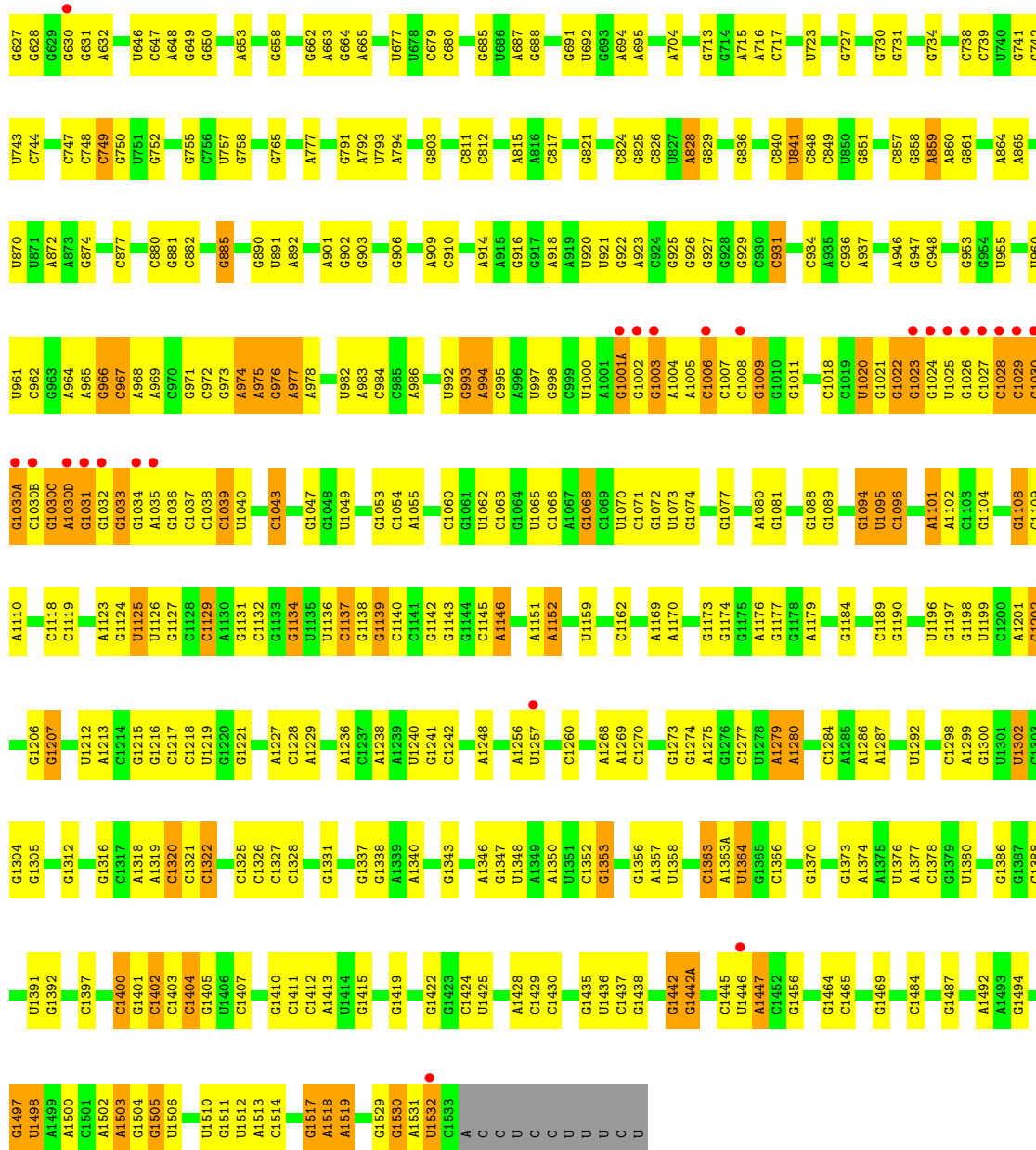


- Molecule 31: 50S ribosomal protein L36

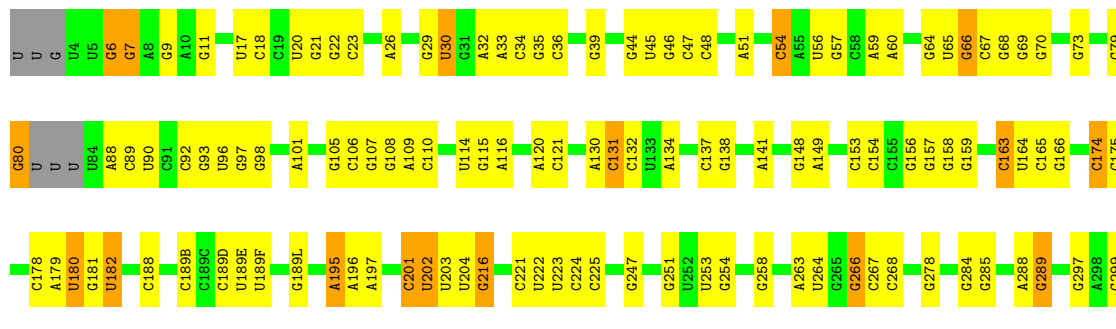


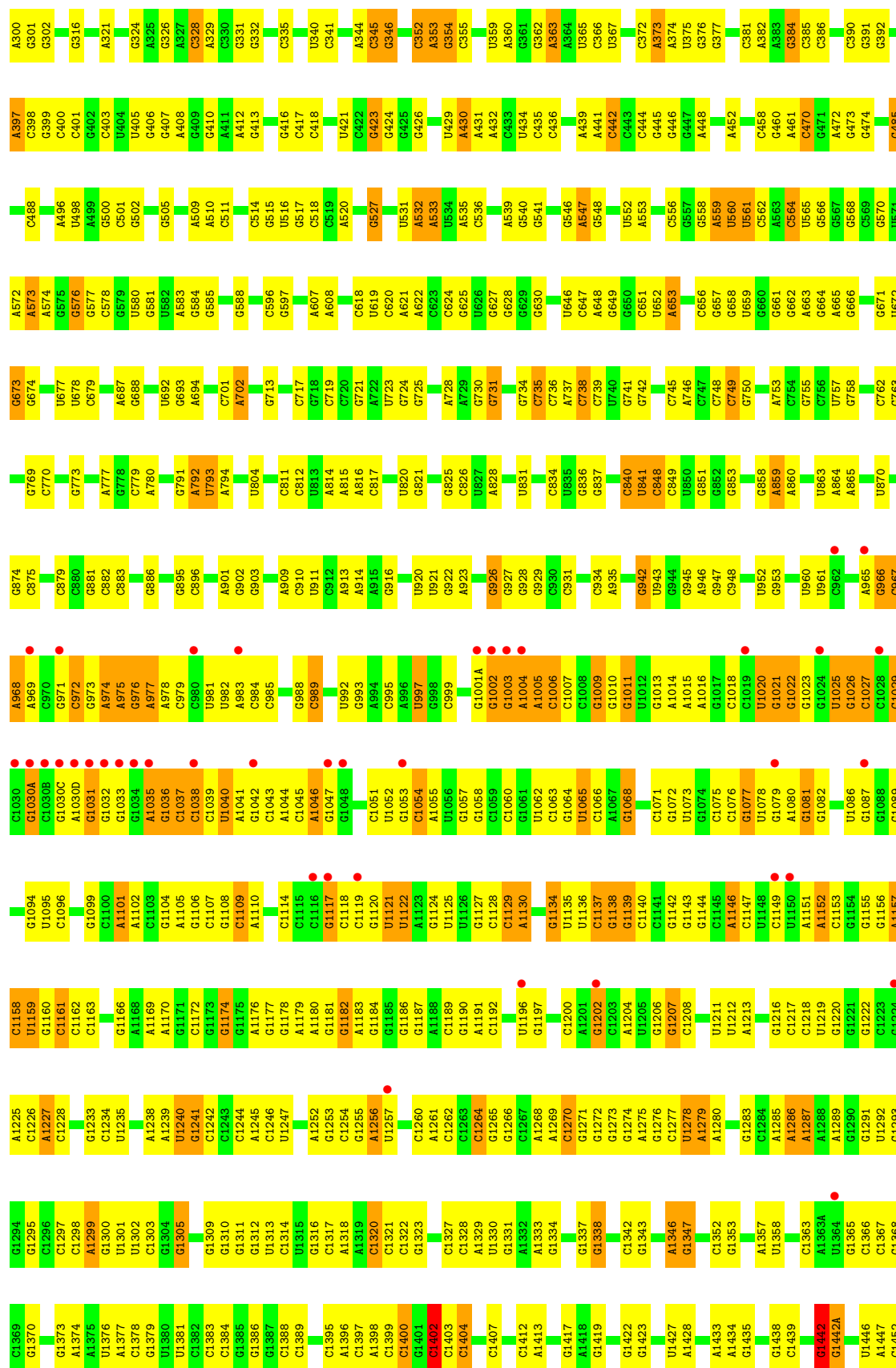
- Molecule 32: 16S Ribosomal RNA





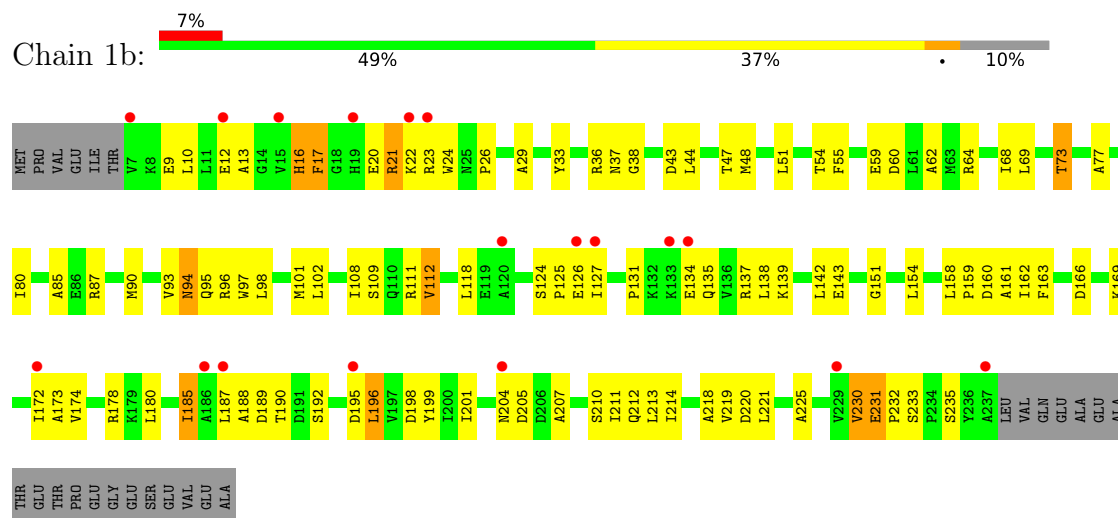
• Molecule 32: 16S Ribosomal RNA



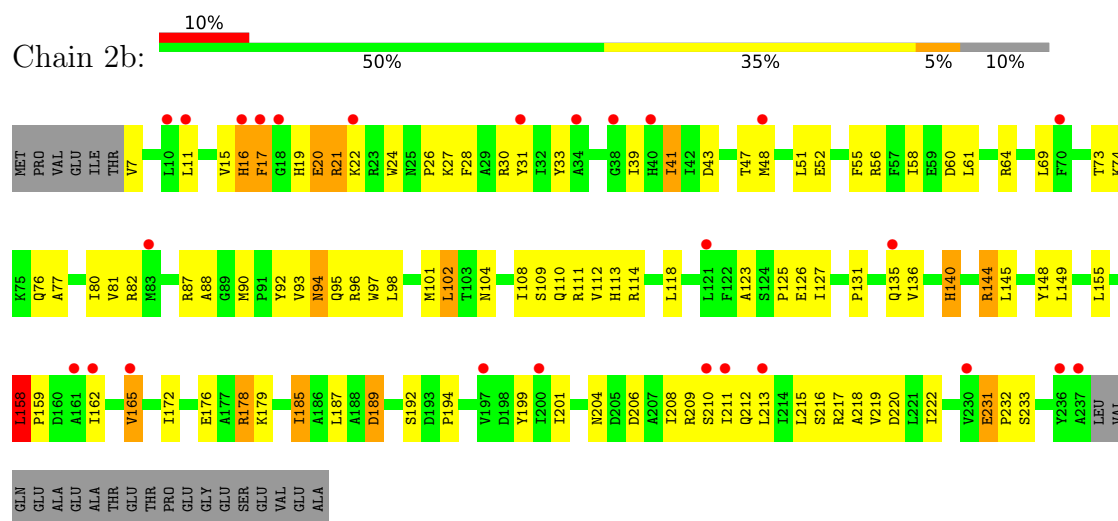




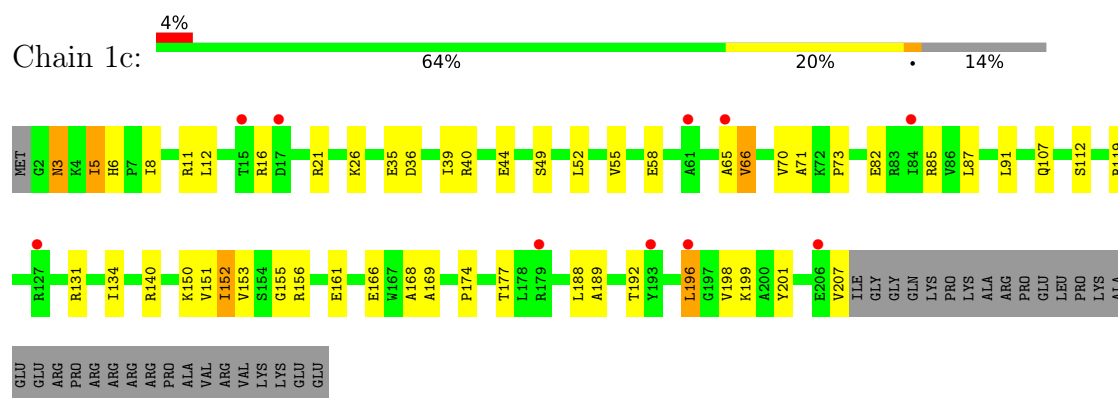
• Molecule 33: 30S ribosomal protein S2



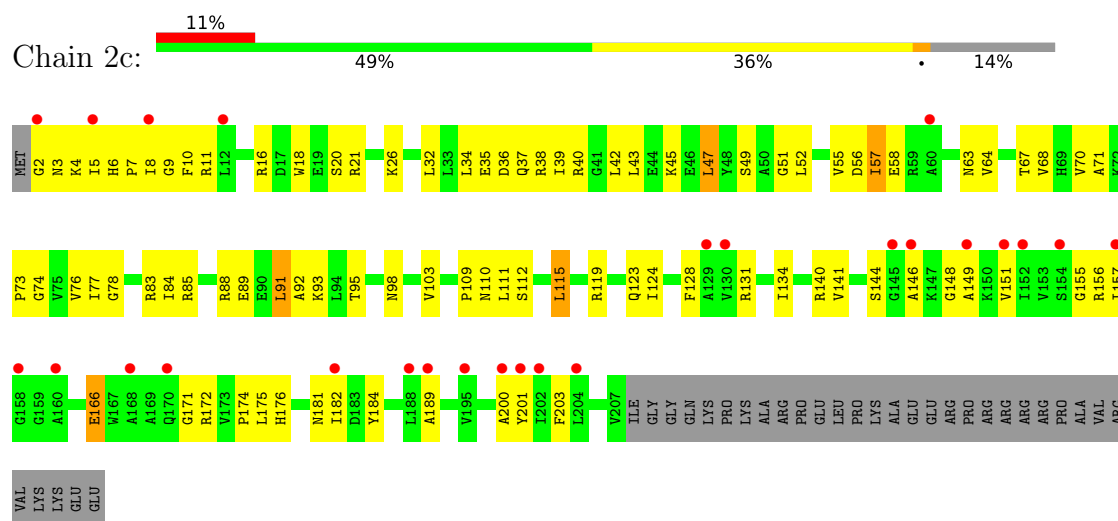
• Molecule 33: 30S ribosomal protein S2



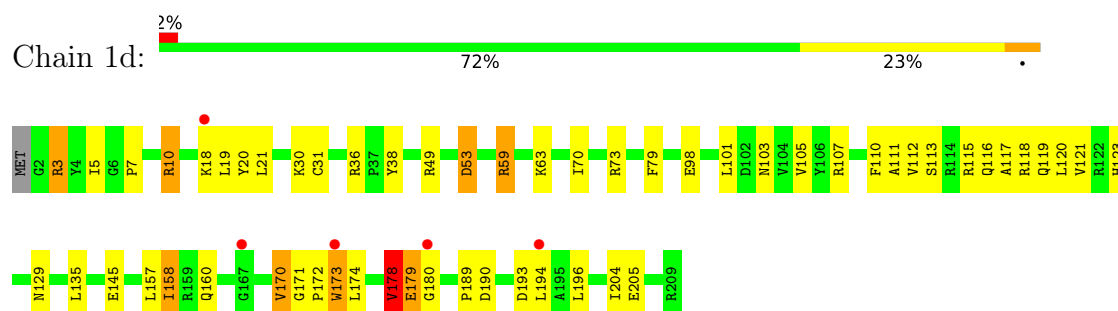
• Molecule 34: 30S ribosomal protein S3



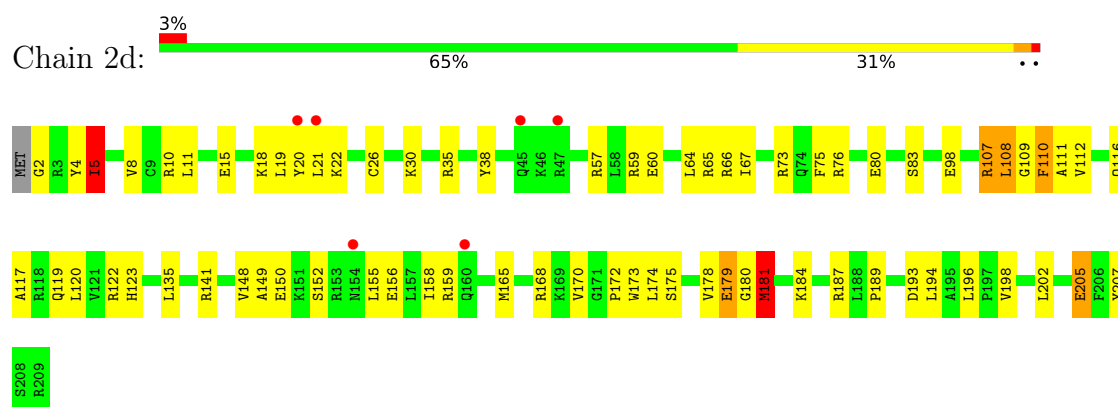
- Molecule 34: 30S ribosomal protein S3



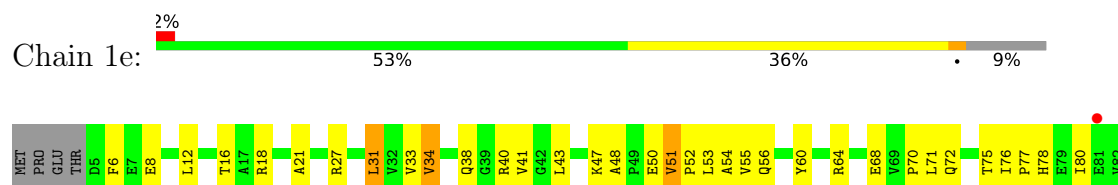
- Molecule 35: 30S ribosomal protein S4



- Molecule 35: 30S ribosomal protein S4

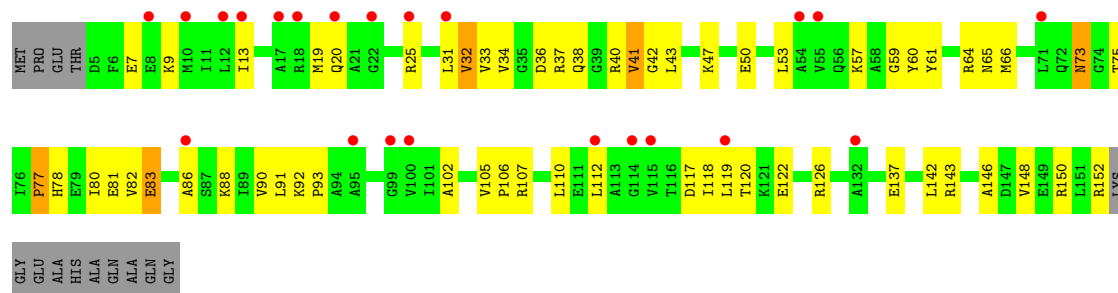


- Molecule 36: 30S ribosomal protein S5





• Molecule 36: 30S ribosomal protein S5



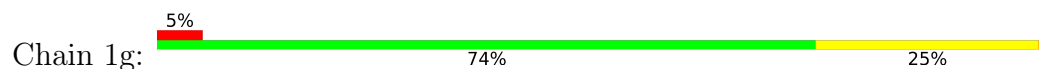
• Molecule 37: 30S ribosomal protein S6



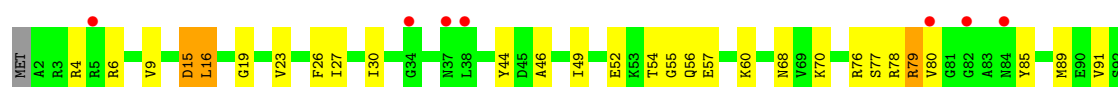
• Molecule 37: 30S ribosomal protein S6

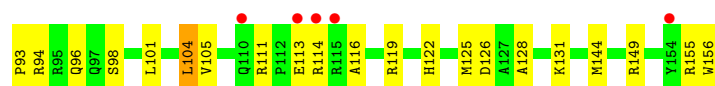


• Molecule 38: 30S ribosomal protein S7



• Molecule 38: 30S ribosomal protein S7





- Molecule 39: 30S ribosomal protein S8



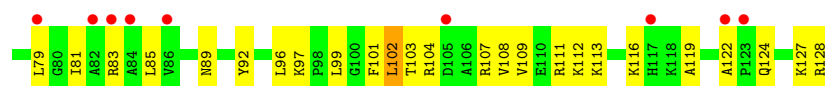
- Molecule 39: 30S ribosomal protein S8



- Molecule 40: 30S ribosomal protein S9

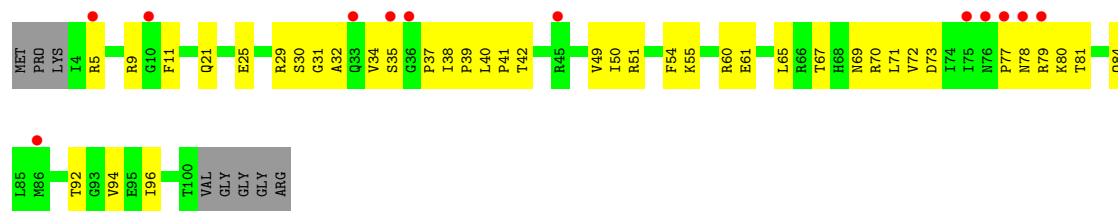


- Molecule 40: 30S ribosomal protein S9

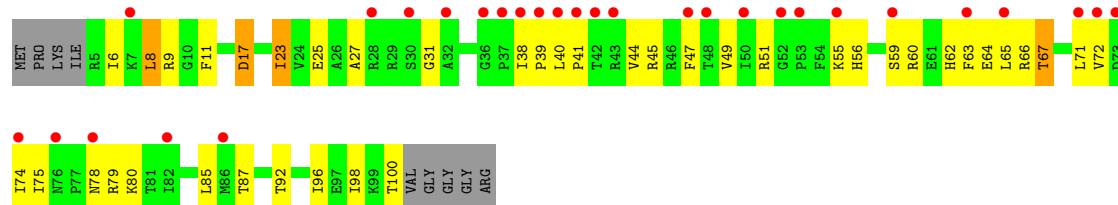


- Molecule 41: 30S ribosomal protein S10

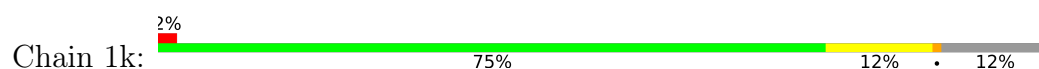




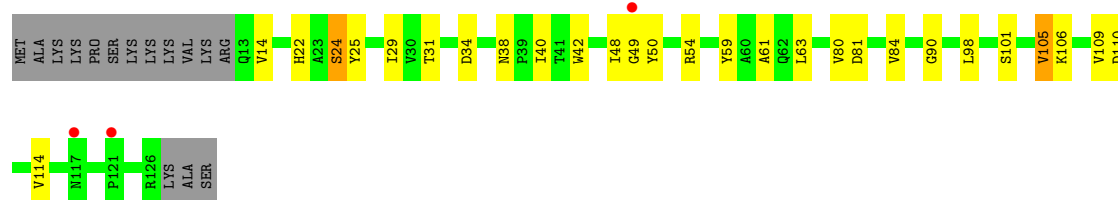
- Molecule 41: 30S ribosomal protein S10



- Molecule 42: 30S ribosomal protein S11



- Molecule 42: 30S ribosomal protein S11

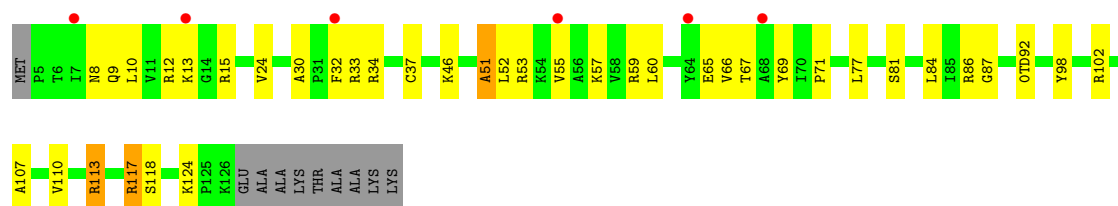


- Molecule 43: 30S ribosomal protein S12

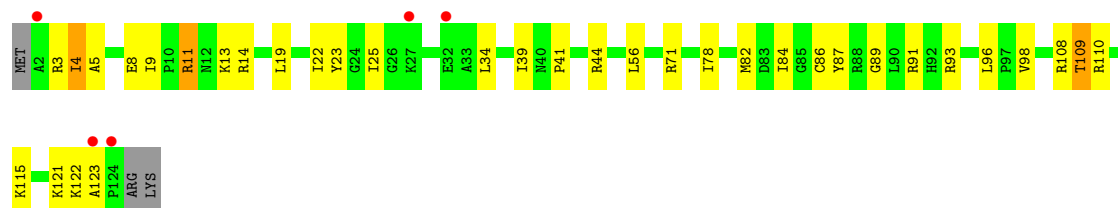
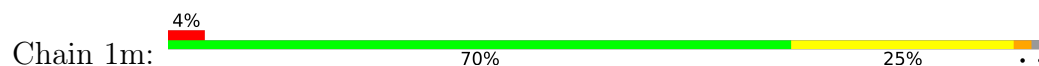


- Molecule 43: 30S ribosomal protein S12

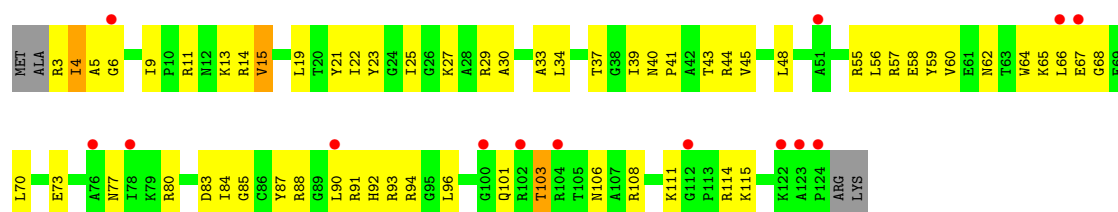




- Molecule 44: 30S ribosomal protein S13



- Molecule 44: 30S ribosomal protein S13



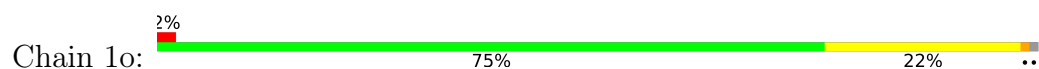
- Molecule 45: 30S ribosomal protein S14 type Z



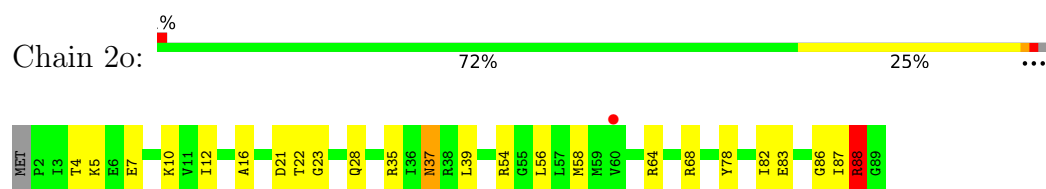
- Molecule 45: 30S ribosomal protein S14 type Z



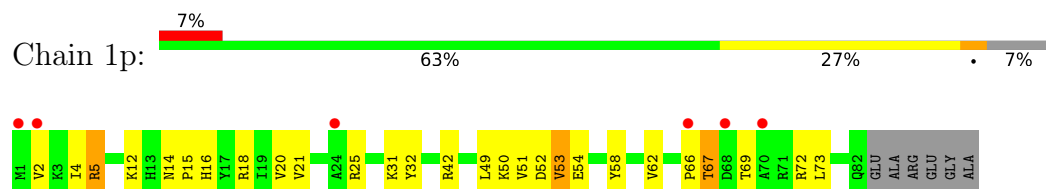
- Molecule 46: 30S ribosomal protein S15



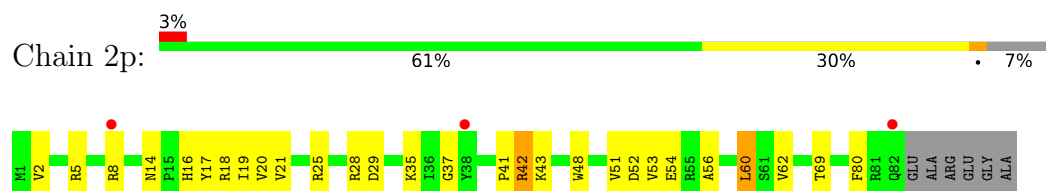
- Molecule 46: 30S ribosomal protein S15



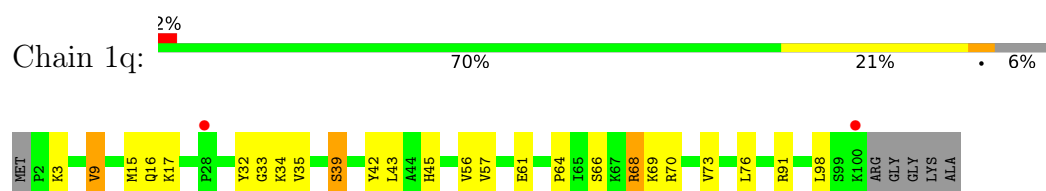
- Molecule 47: 30S ribosomal protein S16



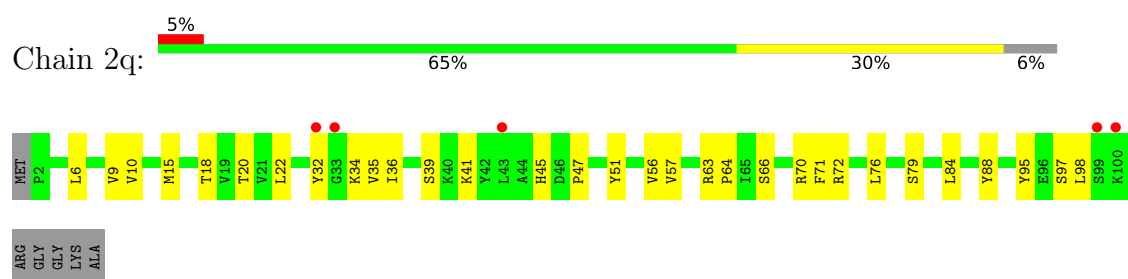
- Molecule 47: 30S ribosomal protein S16



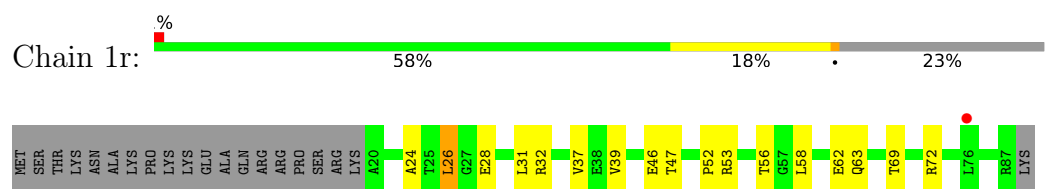
- Molecule 48: 30S ribosomal protein S17



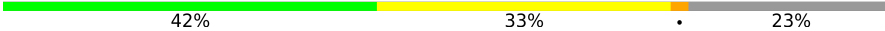
- Molecule 48: 30S ribosomal protein S17

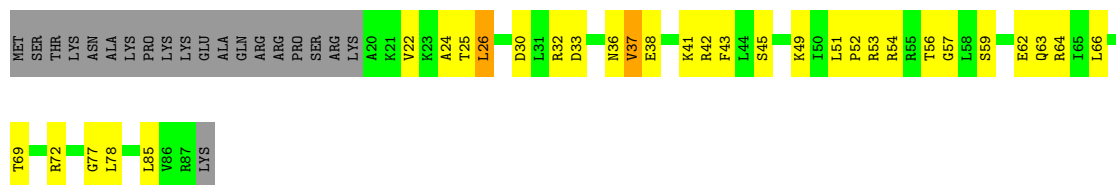


- Molecule 49: 30S ribosomal protein S18



- Molecule 49: 30S ribosomal protein S18

Chain 2r: 



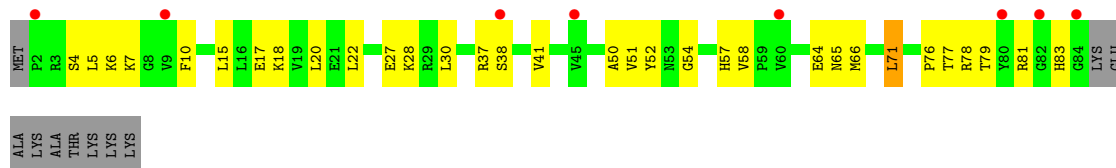
- Molecule 50: 30S ribosomal protein S19

Chain 1s: 



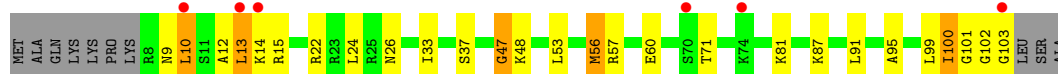
- Molecule 50: 30S ribosomal protein S19

Chain 2s: 



- Molecule 51: 30S ribosomal protein S20

Chain 1t: 



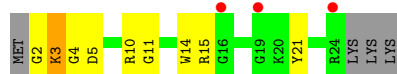
- Molecule 51: 30S ribosomal protein S20

Chain 2t: 

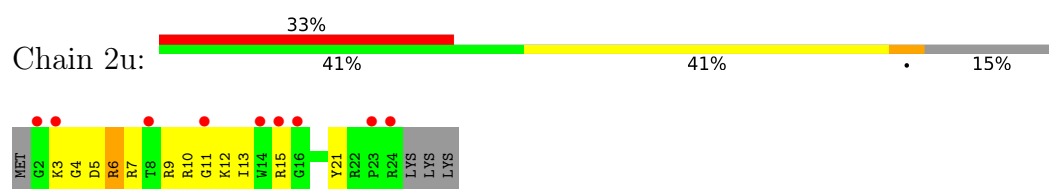


- Molecule 52: 30S ribosomal protein Thx

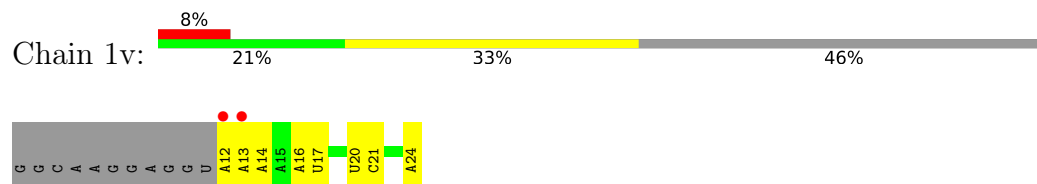
Chain 1u: 



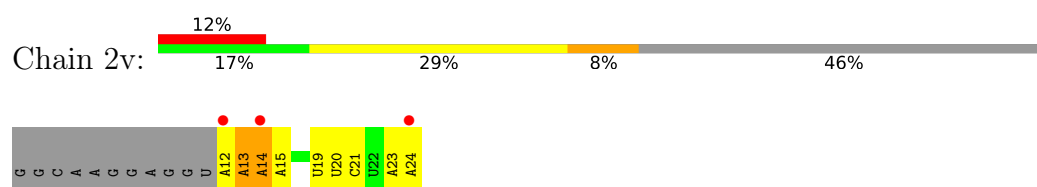
- Molecule 52: 30S ribosomal protein Thx



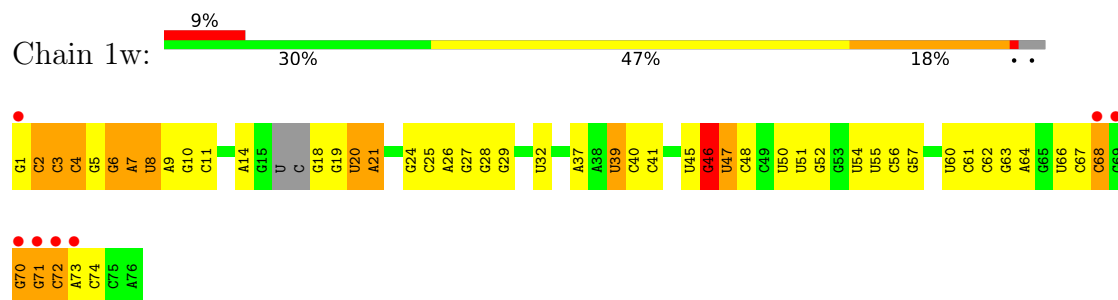
• Molecule 53: mRNA



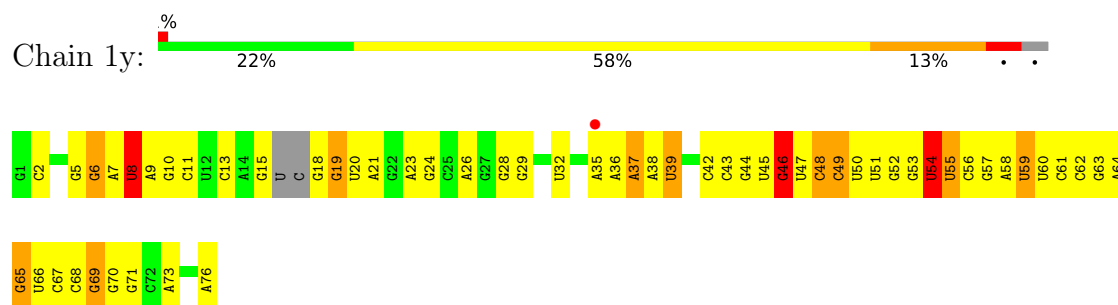
• Molecule 53: mRNA



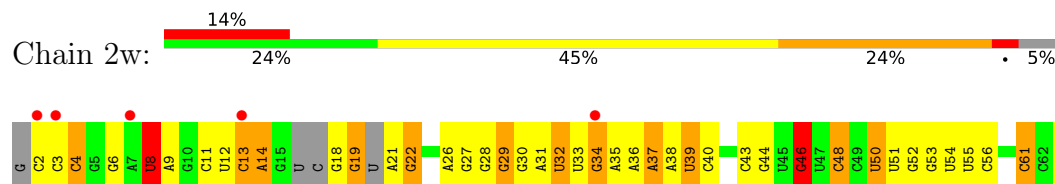
• Molecule 54: A-site and E-site tRNAs

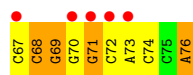


• Molecule 54: A-site and E-site tRNAs

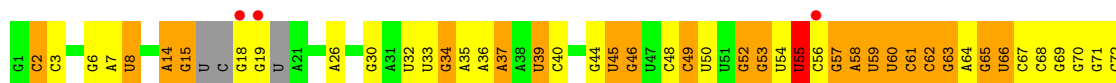


• Molecule 54: A-site and E-site tRNAs

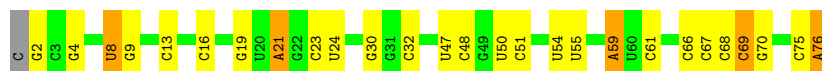




• Molecule 54: A-site and E-site tRNAs



• Molecule 55: P-site tRNA



• Molecule 55: 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	209.78Å 449.83Å 622.74Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	152.54 – 2.80 152.54 – 2.80	Depositor EDS
% Data completeness (in resolution range)	94.0 (152.54-2.80) 94.0 (152.54-2.80)	Depositor EDS
R_{merge}	0.14	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.35 (at 2.82Å)	Xtriage
Refinement program	PHENIX 1.8.2	Depositor
R, R_{free}	0.214 , 0.269 0.216 , 0.268	Depositor DCC
R_{free} test set	67418 reflections (4.72%)	wwPDB-VP
Wilson B-factor (Å ²)	54.9	Xtriage
Anisotropy	0.247	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.28 , 50.4	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	299109	wwPDB-VP
Average B, all atoms (Å ²)	53.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.07% 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: MG, K, 4SU, 7MG, OMG, ZN, 4OC, MIA, PSU, 0TD, MA6, UR3, 5MC, 5MU, 2MU, M2G, SF4, 2MA, 2MG, EZG

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	0.28	0/69009	0.46	1/107712 (0.0%)
1	2A	0.22	0/67293	0.41	1/105034 (0.0%)
2	1B	0.23	0/2882	0.43	0/4494
2	2B	0.20	0/2879	0.40	0/4487
3	1D	0.27	0/2186	0.50	0/2944
3	2D	0.25	0/2186	0.52	1/2944 (0.0%)
4	1E	0.29	0/1592	0.54	0/2149
4	2E	0.22	0/1592	0.47	0/2149
5	1F	0.26	0/1619	0.50	0/2193
5	2F	0.22	0/1615	0.48	2/2188 (0.1%)
6	1G	0.22	0/1448	0.45	0/1957
6	2G	0.19	0/1453	0.43	1/1963 (0.1%)
7	1H	0.24	0/1356	0.43	0/1834
7	2H	0.25	1/1356 (0.1%)	0.43	0/1834
8	1I	0.19	0/1112	0.41	0/1514
8	2I	0.18	0/1079	0.39	0/1475
9	1N	0.27	0/1144	0.48	0/1543
9	2N	0.20	0/1144	0.44	0/1543
10	1O	0.27	0/943	0.48	0/1269
10	2O	0.21	0/943	0.49	0/1269
11	1P	0.27	0/1152	0.49	0/1533
11	2P	0.23	0/1152	0.51	2/1533 (0.1%)
12	1Q	0.25	0/1143	0.45	0/1527
12	2Q	0.20	0/1143	0.46	0/1527
13	1R	0.26	0/982	0.50	0/1312
13	2R	0.21	0/982	0.45	0/1312
14	1S	0.22	0/883	0.49	0/1176
14	2S	0.20	0/880	0.46	0/1172
15	1T	0.24	0/1105	0.49	0/1477
15	2T	0.20	0/1097	0.45	0/1468
16	1U	0.30	0/977	0.48	0/1301

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
16	2U	0.21	0/977	0.42	0/1301
17	1V	0.26	0/782	0.48	0/1049
17	2V	0.19	0/782	0.42	0/1049
18	1W	0.28	0/897	0.49	0/1205
18	2W	0.22	0/897	0.42	0/1205
19	1X	0.27	0/764	0.53	0/1025
19	2X	0.20	0/764	0.47	0/1025
20	1Y	0.25	0/819	0.50	0/1095
20	2Y	0.21	0/819	0.44	0/1095
21	1Z	0.25	0/1267	0.50	1/1717 (0.1%)
21	2Z	0.22	0/1299	0.46	0/1763
22	10	0.28	0/662	0.54	0/881
22	20	0.21	0/662	0.48	0/881
23	11	0.24	0/762	0.45	0/1014
23	21	0.23	0/762	0.47	0/1014
24	12	0.29	0/590	0.45	0/781
24	22	0.19	0/590	0.42	0/781
25	13	0.27	0/474	0.48	0/635
25	23	0.19	0/469	0.39	0/630
26	14	0.27	0/565	0.62	1/761 (0.1%)
26	24	0.25	0/545	0.52	0/737
27	15	0.29	0/469	0.49	0/635
27	25	0.23	0/469	0.41	0/635
28	16	0.27	0/460	0.54	0/613
28	26	0.22	0/456	0.46	0/608
29	17	0.30	0/426	0.55	0/561
29	27	0.28	0/426	0.56	0/561
30	18	0.29	0/525	0.50	0/691
30	28	0.22	0/525	0.43	0/691
31	19	0.26	0/310	0.49	0/407
31	29	0.21	0/310	0.44	0/407
32	1a	0.20	0/35795	0.38	0/55864
32	2a	0.20	0/35886	0.38	1/56005 (0.0%)
33	1b	0.21	0/1881	0.48	0/2542
33	2b	0.22	0/1860	0.50	0/2518
34	1c	0.19	0/1572	0.40	0/2126
34	2c	0.21	0/1566	0.46	1/2119 (0.0%)
35	1d	0.19	0/1685	0.46	0/2262
35	2d	0.19	0/1704	0.46	0/2284
36	1e	0.20	0/1145	0.44	0/1543
36	2e	0.20	0/1149	0.48	0/1548
37	1f	0.19	0/823	0.41	0/1115
37	2f	0.19	0/829	0.37	0/1123

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
38	1g	0.22	0/1250	0.44	0/1679
38	2g	0.18	0/1254	0.40	0/1683
39	1h	0.19	0/1108	0.40	0/1494
39	2h	0.19	0/1108	0.40	0/1494
40	1i	0.20	0/1002	0.46	0/1346
40	2i	0.21	0/997	0.49	0/1343
41	1j	0.19	0/722	0.43	0/982
41	2j	0.24	0/727	0.52	0/988
42	1k	0.17	0/844	0.38	0/1145
42	2k	0.18	0/848	0.40	0/1149
43	1l	0.22	0/937	0.43	0/1260
43	2l	0.22	0/937	0.50	0/1260
44	1m	0.20	0/969	0.44	0/1302
44	2m	0.21	0/961	0.46	0/1291
45	1n	0.20	0/501	0.45	0/664
45	2n	0.26	0/501	0.53	0/664
46	1o	0.19	0/739	0.38	0/985
46	2o	0.19	0/739	0.43	0/985
47	1p	0.20	0/697	0.47	0/939
47	2p	0.19	0/693	0.43	0/935
48	1q	0.19	0/836	0.42	0/1117
48	2q	0.19	0/836	0.38	0/1117
49	1r	0.21	0/560	0.45	0/746
49	2r	0.18	0/560	0.39	0/746
50	1s	0.23	0/667	0.51	0/900
50	2s	0.26	0/661	0.61	0/893
51	1t	0.20	0/730	0.51	0/965
51	2t	0.21	0/729	0.46	0/965
52	1u	0.21	0/203	0.51	0/266
52	2u	0.23	0/203	0.48	0/266
53	1v	0.20	0/310	0.32	0/480
53	2v	0.23	0/310	0.36	0/480
54	1w	0.27	1/1606 (0.1%)	0.43	0/2497
54	1y	0.26	1/1606 (0.1%)	0.42	0/2497
54	2w	0.27	1/1556 (0.1%)	0.43	0/2418
54	2y	0.28	1/1583 (0.1%)	0.43	0/2459
55	1x	0.26	0/1725	0.41	0/2689
55	2x	0.25	1/1725 (0.1%)	0.39	0/2689
All	All	0.23	6/316686 (0.0%)	0.43	12/474113 (0.0%)

All (6) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
54	1w	8	4SU	O3'-P	5.30	1.61	1.56
7	2H	53	GLU	C-N	5.15	1.44	1.33
55	2x	8	4SU	O3'-P	5.15	1.61	1.56
54	1y	8	4SU	O3'-P	5.07	1.61	1.56
54	2y	8	4SU	O3'-P	5.06	1.61	1.56
54	2w	8	4SU	O3'-P	5.01	1.61	1.56

All (12) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	1Z	53	ILE	N-CA-C	-6.57	106.06	111.91
1	1A	2014	G	C2'-C3'-O3'	5.89	118.34	109.50
34	2c	84	ILE	N-CA-C	-5.64	105.59	112.76
26	14	54	GLY	N-CA-C	5.50	123.46	115.32
1	2A	1992	G	C2'-C3'-O3'	5.29	117.43	109.50
11	2P	44	GLY	CA-C-N	5.20	131.07	121.70
11	2P	44	GLY	C-N-CA	5.20	131.07	121.70
5	2F	21	ALA	CA-C-N	5.14	130.96	121.70
5	2F	21	ALA	C-N-CA	5.14	130.96	121.70
6	2G	45	GLU	N-CA-C	-5.07	107.16	113.19
3	2D	275	LYS	N-CA-C	-5.03	101.68	109.72
32	2a	1442	G	P-O3'-C3'	5.02	125.72	119.70

There are no chirality outliers.

There are no planarity outliers.

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	31192	685	0
1	2A	60322	0	30423	795	0
2	1B	2577	0	1305	25	0
2	2B	2575	0	1303	45	0
3	1D	2136	0	2218	48	0
3	2D	2136	0	2218	52	0
4	1E	1559	0	1618	28	0
4	2E	1559	0	1618	40	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
5	1F	1584	0	1625	39	0
5	2F	1580	0	1619	48	0
6	1G	1423	0	1436	29	0
6	2G	1428	0	1438	48	0
7	1H	1330	0	1407	27	0
7	2H	1330	0	1407	45	0
8	1I	1097	0	1140	31	0
8	2I	1064	0	1082	22	0
9	1N	1117	0	1184	16	0
9	2N	1117	0	1184	26	0
10	1O	933	0	996	23	0
10	2O	933	0	996	25	0
11	1P	1135	0	1212	29	0
11	2P	1135	0	1212	39	0
12	1Q	1122	0	1179	28	0
12	2Q	1122	0	1179	35	0
13	1R	968	0	1033	20	0
13	2R	968	0	1033	23	0
14	1S	873	0	927	22	0
14	2S	870	0	923	37	0
15	1T	1091	0	1151	23	0
15	2T	1083	0	1136	33	0
16	1U	959	0	1019	19	0
16	2U	959	0	1019	26	0
17	1V	771	0	830	7	0
17	2V	771	0	830	11	0
18	1W	886	0	940	16	0
18	2W	886	0	940	15	0
19	1X	750	0	814	15	0
19	2X	750	0	814	20	0
20	1Y	806	0	881	16	0
20	2Y	806	0	881	15	0
21	1Z	1240	0	1240	19	0
21	2Z	1271	0	1273	38	0
22	10	653	0	674	19	0
22	20	653	0	674	20	0
23	11	755	0	826	16	0
23	21	755	0	826	23	0
24	12	588	0	643	9	0
24	22	588	0	643	14	0
25	13	469	0	518	13	0
25	23	464	0	514	11	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
26	14	552	0	533	13	0
26	24	532	0	503	28	0
27	15	455	0	465	9	0
27	25	455	0	465	14	0
28	16	453	0	473	9	0
28	26	449	0	469	10	0
29	17	418	0	467	9	0
29	27	418	0	467	18	0
30	18	517	0	582	18	0
30	28	517	0	582	20	0
31	19	307	0	335	7	0
31	29	307	0	335	8	0
32	1a	32246	0	16295	419	0
32	2a	32327	0	16339	579	0
33	1b	1846	0	1867	76	0
33	2b	1825	0	1828	80	0
34	1c	1548	0	1535	35	0
34	2c	1542	0	1517	66	0
35	1d	1655	0	1672	41	0
35	2d	1674	0	1714	53	0
36	1e	1129	0	1184	38	0
36	2e	1133	0	1191	42	0
37	1f	810	0	804	18	0
37	2f	816	0	808	21	0
38	1g	1231	0	1238	23	0
38	2g	1235	0	1249	31	0
39	1h	1088	0	1126	32	0
39	2h	1088	0	1126	35	0
40	1i	983	0	986	34	0
40	2i	978	0	966	40	0
41	1j	709	0	650	27	0
41	2j	714	0	672	31	0
42	1k	829	0	825	8	0
42	2k	833	0	836	14	0
43	1l	932	0	981	26	0
43	2l	932	0	981	30	0
44	1m	958	0	1002	23	0
44	2m	950	0	988	56	0
45	1n	492	0	529	19	0
45	2n	492	0	529	26	0
46	1o	728	0	760	13	0
46	2o	728	0	760	14	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
47	1p	681	0	697	21	0
47	2p	677	0	686	20	0
48	1q	823	0	891	18	0
48	2q	823	0	891	20	0
49	1r	555	0	618	11	0
49	2r	555	0	618	28	0
50	1s	652	0	662	19	0
50	2s	646	0	644	26	0
51	1t	728	0	798	20	0
51	2t	727	0	796	13	0
52	1u	199	0	208	8	0
52	2u	199	0	208	12	0
53	1v	277	0	140	6	0
53	2v	277	0	140	8	0
54	1w	1592	0	819	42	0
54	1y	1585	0	804	51	0
54	2w	1544	0	788	46	0
54	2y	1565	0	795	45	0
55	1x	1625	0	827	11	0
55	2x	1625	0	828	23	0
56	10	5	0	0	0	0
56	11	5	0	0	0	0
56	12	2	0	0	0	0
56	13	2	0	0	0	0
56	15	6	0	0	0	0
56	16	3	0	0	0	0
56	17	5	0	0	0	0
56	18	3	0	0	0	0
56	19	1	0	0	0	0
56	1A	1063	0	0	0	0
56	1B	38	0	0	0	0
56	1D	14	0	0	0	0
56	1E	13	0	0	0	0
56	1F	9	0	0	0	0
56	1G	5	0	0	0	0
56	1I	1	0	0	0	0
56	1N	5	0	0	0	0
56	1O	7	0	0	0	0
56	1P	3	0	0	0	0
56	1Q	5	0	0	0	0
56	1R	5	0	0	0	0
56	1S	3	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	1T	2	0	0	0	0
56	1U	6	0	0	0	0
56	1V	3	0	0	0	0
56	1W	5	0	0	0	0
56	1X	6	0	0	0	0
56	1Y	2	0	0	0	0
56	1Z	4	0	0	0	0
56	1a	215	0	0	0	0
56	1b	2	0	0	0	0
56	1e	1	0	0	0	0
56	1f	1	0	0	0	0
56	1l	3	0	0	0	0
56	1m	1	0	0	0	0
56	1n	2	0	0	0	0
56	1p	1	0	0	0	0
56	1q	1	0	0	0	0
56	1r	1	0	0	0	0
56	1s	1	0	0	0	0
56	1t	1	0	0	0	0
56	1v	1	0	0	0	0
56	1w	11	0	0	0	0
56	1x	15	0	0	0	0
56	1y	4	0	0	0	0
56	20	3	0	0	0	0
56	21	1	0	0	0	0
56	23	1	0	0	0	0
56	25	3	0	0	0	0
56	27	2	0	0	0	0
56	28	2	0	0	0	0
56	2A	754	0	0	0	0
56	2B	21	0	0	0	0
56	2D	7	0	0	0	0
56	2E	10	0	0	0	0
56	2F	4	0	0	0	0
56	2G	1	0	0	0	0
56	2O	2	0	0	0	0
56	2P	1	0	0	0	0
56	2Q	3	0	0	0	0
56	2R	4	0	0	0	0
56	2T	3	0	0	0	0
56	2U	6	0	0	0	0
56	2V	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	2W	3	0	0	0	0
56	2X	2	0	0	0	0
56	2Z	1	0	0	0	0
56	2a	233	0	0	0	0
56	2d	2	0	0	0	0
56	2e	1	0	0	0	0
56	2f	1	0	0	0	0
56	2g	1	0	0	0	0
56	2j	2	0	0	0	0
56	2l	4	0	0	0	0
56	2q	4	0	0	0	0
56	2r	2	0	0	0	0
56	2t	1	0	0	0	0
56	2v	5	0	0	0	0
56	2w	9	0	0	0	0
56	2x	5	0	0	0	0
56	2y	7	0	0	0	0
57	1A	2	0	0	0	0
57	2A	2	0	0	0	0
58	1A	25	0	0	2	0
58	2A	25	0	0	1	0
59	14	1	0	0	0	0
59	15	1	0	0	0	0
59	16	1	0	0	0	0
59	19	1	0	0	0	0
59	1Y	1	0	0	0	0
59	1n	1	0	0	0	0
59	24	1	0	0	0	0
59	25	1	0	0	0	0
59	26	1	0	0	0	0
59	29	1	0	0	0	0
59	2Y	1	0	0	0	0
59	2n	1	0	0	0	0
60	1d	8	0	0	0	0
60	2d	8	0	0	0	0
61	10	10	0	0	0	0
61	11	7	0	0	0	0
61	12	2	0	0	0	0
61	13	4	0	0	0	0
61	15	5	0	0	1	0
61	16	2	0	0	0	0
61	17	9	0	0	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
61	18	7	0	0	1	0
61	1A	1433	0	0	74	0
61	1B	65	0	0	2	0
61	1D	24	0	0	0	0
61	1E	30	0	0	4	0
61	1F	10	0	0	4	0
61	1G	8	0	0	2	0
61	1H	1	0	0	0	0
61	1I	2	0	0	0	0
61	1N	6	0	0	1	0
61	1O	8	0	0	0	0
61	1P	18	0	0	1	0
61	1Q	12	0	0	0	0
61	1R	12	0	0	0	0
61	1S	4	0	0	0	0
61	1T	7	0	0	0	0
61	1U	9	0	0	0	0
61	1V	8	0	0	0	0
61	1W	8	0	0	0	0
61	1X	8	0	0	1	0
61	1Y	2	0	0	0	0
61	1Z	1	0	0	0	0
61	1a	315	0	0	20	0
61	1b	1	0	0	0	0
61	1e	1	0	0	0	0
61	1f	1	0	0	0	0
61	1g	1	0	0	0	0
61	1j	1	0	0	0	0
61	1l	6	0	0	0	0
61	1m	1	0	0	0	0
61	1n	1	0	0	0	0
61	1q	3	0	0	0	0
61	1u	1	0	0	1	0
61	1v	6	0	0	0	0
61	1w	20	0	0	1	0
61	1x	14	0	0	0	0
61	1y	2	0	0	0	0
61	20	4	0	0	0	0
61	21	8	0	0	0	0
61	22	1	0	0	0	0
61	23	1	0	0	0	0
61	25	4	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
61	26	1	0	0	0	0
61	27	4	0	0	0	0
61	28	4	0	0	0	0
61	29	1	0	0	0	0
61	2A	885	0	0	53	0
61	2B	26	0	0	0	0
61	2D	18	0	0	4	0
61	2E	14	0	0	2	0
61	2F	18	0	0	0	0
61	2I	4	0	0	0	0
61	2N	1	0	0	0	0
61	2P	12	0	0	1	0
61	2Q	2	0	0	0	0
61	2R	2	0	0	0	0
61	2T	6	0	0	0	0
61	2U	3	0	0	0	0
61	2V	1	0	0	0	0
61	2W	3	0	0	0	0
61	2X	1	0	0	0	0
61	2Y	1	0	0	1	0
61	2Z	2	0	0	0	0
61	2a	258	0	0	17	0
61	2c	1	0	0	0	0
61	2d	3	0	0	0	0
61	2e	1	0	0	0	0
61	2g	1	0	0	0	0
61	2i	1	0	0	0	0
61	2j	4	0	0	1	0
61	2l	6	0	0	1	0
61	2o	1	0	0	0	0
61	2p	2	0	0	0	0
61	2q	1	0	0	0	0
61	2r	1	0	0	1	0
61	2t	5	0	0	0	0
61	2u	1	0	0	0	0
61	2v	2	0	0	1	0
61	2w	2	0	0	1	0
61	2x	6	0	0	0	0
61	2y	18	0	0	1	0
All	All	299109	0	196685	4585	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 10.

All (4585) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2158:C:N4	1:1A:2177:G:H1	1.36	1.21
54:1w:6:G:H1	54:1w:67:C:N4	1.46	1.12
1:2A:2136:C:N4	1:2A:2155:G:H1	1.46	1.12
1:2A:2129:C:N4	1:2A:2159:G:H1	1.49	1.10
1:1A:1128:U:H3	1:1A:1132:A:N6	1.48	1.09
32:2a:997:U:H3	32:2a:1044:A:N6	1.52	1.06
1:1A:2149:G:H1	1:1A:2183:C:N4	1.54	1.05
1:2A:2138:C:N4	1:2A:2153:G:H1	1.56	1.03
32:2a:1002:G:H1	32:2a:1038:C:N4	1.57	1.02
54:2w:26:A:N6	54:2w:44:G:H1	1.58	1.00
32:2a:201:C:H42	32:2a:216:G:H1	1.11	0.99
1:2A:2129:C:H42	1:2A:2159:G:H1	1.04	0.97
54:2w:50:U:H3	54:2w:64:A:H61	0.98	0.97
32:2a:947:G:H1	32:2a:1234:C:H42	0.96	0.96
1:1A:1128:U:O4	1:1A:1132:A:N1	1.99	0.95
54:2w:27:G:H1	54:2w:43:C:N4	1.62	0.95
1:2A:2114:A:N6	1:2A:2119:A:N7	2.15	0.95
1:1A:1100:A:N6	1:1A:1151:U:H3	1.65	0.94
32:2a:1134:G:H1	32:2a:1140:C:N4	1.63	0.94
32:2a:1002:G:H1	32:2a:1038:C:H42	0.99	0.94
32:2a:1025:U:H3	32:2a:1036:G:H1	0.95	0.93
54:2y:26:A:N1	54:2y:44:G:C6	2.36	0.93
32:1a:1162:C:H42	32:1a:1174:G:H1	1.05	0.92
1:2A:2129:C:N3	1:2A:2159:G:N2	2.17	0.92
32:1a:931:C:H42	32:1a:1386:G:H1	0.94	0.92
54:1w:6:G:N2	54:1w:67:C:N3	2.17	0.91
11:2P:39:LYS:HB2	11:2P:45:LEU:HG	1.50	0.90
54:2w:27:G:H1	54:2w:43:C:H42	1.04	0.90
32:1a:931:C:N4	32:1a:1386:G:H1	1.68	0.90
1:1A:1100:A:H61	1:1A:1151:U:H3	1.16	0.89
32:2a:947:G:H1	32:2a:1234:C:N4	1.70	0.89
32:2a:1134:G:H1	32:2a:1140:C:H42	0.92	0.89
54:2w:50:U:H3	54:2w:64:A:N6	1.69	0.89
1:1A:2158:C:N3	1:1A:2177:G:N2	2.20	0.89
1:1A:2149:G:H1	1:1A:2183:C:H42	0.88	0.88
1:2A:2143:C:H42	1:2A:2148:G:H1	1.20	0.87
1:2A:2807:G:N1	1:2A:2893:G:O6	2.07	0.87
32:1a:1162:C:N4	32:1a:1174:G:H1	1.73	0.87
54:1w:18:G:O2'	54:1w:57:G:N2	2.08	0.86
1:2A:2136:C:N4	1:2A:2155:G:N1	2.23	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1264:C:H42	32:2a:1271:G:H1	1.20	0.86
54:1y:50:U:O4	54:1y:64:A:N1	2.08	0.86
1:2A:1264:G:OP1	27:25:19:ARG:NH2	2.09	0.85
1:2A:2138:C:H42	1:2A:2153:G:H1	0.86	0.85
54:2y:18:G:N2	54:2y:55:PSU:N3	2.23	0.85
1:1A:1111:U:O2	1:1A:1119:A:N6	2.08	0.85
29:17:24:THR:HG22	29:17:27:GLY:H	1.39	0.85
1:2A:2108:C:H42	1:2A:2181:G:H1	1.19	0.85
10:2O:48:PRO:HB3	32:2a:1422:G:H5''	1.58	0.85
1:1A:656:A:OP1	11:1P:65:ARG:NH1	2.09	0.85
10:1O:35:VAL:HG11	10:1O:103:ALA:HB3	1.58	0.84
20:1Y:92:ASN:HB3	20:1Y:94:LYS:H	1.42	0.84
32:1a:1008:C:N3	32:1a:1021:G:O6	2.11	0.84
54:1y:50:U:H3	54:1y:64:A:H2	1.22	0.84
8:2I:93:THR:H	8:2I:96:ASP:HB2	1.42	0.84
32:1a:376:G:H5''	47:1p:5:ARG:HG2	1.58	0.84
32:2a:929:G:H1	32:2a:1388:C:H42	1.22	0.83
1:2A:2308:G:O6	1:2A:2311:A:N6	2.12	0.83
32:2a:948:C:H42	32:2a:1233:G:H1	1.27	0.83
14:1S:25:ARG:NH1	14:1S:42:ASP:OD1	2.12	0.83
33:2b:185:ILE:HB	33:2b:199:TYR:HB2	1.59	0.83
42:2k:54:ARG:NH2	54:2y:39:PSU:O2'	2.09	0.83
1:2A:2136:C:N3	1:2A:2155:G:N2	2.26	0.83
8:1I:92:VAL:HG13	8:1I:120:ILE:HB	1.60	0.82
32:1a:975:A:H4'	32:1a:976:G:H5''	1.61	0.82
1:2A:2206:G:H3'	1:2A:2207:G:C8	2.14	0.82
1:1A:1118:C:O2	1:1A:1138:C:N4	2.12	0.82
32:2a:559:A:H4'	32:2a:560:U:H3'	1.60	0.82
54:2w:26:A:H61	54:2w:44:G:H1	0.86	0.82
1:1A:2695:C:O2	10:1O:70:LYS:NZ	2.12	0.82
41:2j:49:VAL:HG23	45:2n:41:ARG:HB2	1.61	0.82
1:1A:1140:U:H1'	1:1A:1143:U:H5	1.44	0.82
1:1A:1117:G:O6	1:1A:1146:C:N4	2.13	0.82
32:2a:1226:C:O2'	44:2m:111:LYS:NZ	2.12	0.82
25:13:6:VAL:HG13	25:13:54:VAL:HG11	1.60	0.82
1:1A:2121:U:H3	1:1A:2212:G:H1	1.28	0.82
1:1A:2149:G:N2	1:1A:2183:C:N3	2.27	0.82
32:1a:984:C:H42	32:1a:1221:G:H1	1.28	0.81
1:1A:1104:G:H1	1:1A:1126:C:N4	1.77	0.81
19:1X:57:LEU:HD11	19:1X:78:LYS:HE2	1.63	0.80
1:2A:2136:C:H42	1:2A:2155:G:H1	1.26	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:2O:35:VAL:HG11	10:2O:103:ALA:HB3	1.63	0.80
47:1p:51:VAL:HG12	47:1p:53:VAL:H	1.46	0.80
43:2l:71:PRO:O	43:2l:102:ARG:NH1	2.14	0.80
1:1A:1001:G:O6	61:1A:4119:HOH:O	1.99	0.80
34:1c:40:ARG:NH1	34:1c:55:VAL:O	2.15	0.80
7:2H:159:GLU:HG3	7:2H:169:VAL:HG11	1.62	0.80
3:1D:17:THR:O	3:1D:211:ARG:NH2	2.14	0.80
33:1b:185:ILE:HG22	33:1b:199:TYR:HB2	1.64	0.80
17:2V:40:LEU:HB2	17:2V:46:VAL:HG22	1.63	0.79
32:1a:677:U:H3	32:1a:713:G:H22	1.30	0.79
54:1w:3:C:H42	54:1w:70:G:H1	1.30	0.79
32:2a:363:A:OP2	43:2l:34:ARG:NH1	2.15	0.79
32:2a:922:G:H4'	36:2e:20:GLN:HA	1.62	0.79
1:2A:821:A:N1	61:2A:3845:HOH:O	2.15	0.79
1:2A:1153:C:OP1	16:2U:92:ARG:NH2	2.15	0.79
32:2a:1089:G:H1	32:2a:1096:C:H42	1.29	0.79
13:2R:67:LEU:HD13	13:2R:76:VAL:HG21	1.62	0.79
40:2i:50:LEU:HD13	40:2i:56:LEU:HA	1.63	0.79
1:1A:641:G:OP1	5:1F:40:GLN:NE2	2.16	0.79
46:1o:54:ARG:HG2	46:1o:58:MET:HE2	1.65	0.79
4:2E:119:ARG:HD2	4:2E:160:TYR:HB2	1.63	0.79
1:2A:975:C:OP1	61:2A:3830:HOH:O	2.00	0.78
34:2c:9:GLY:HA3	45:2n:49:HIS:HA	1.64	0.78
33:2b:88:ALA:HB2	33:2b:219:VAL:HG13	1.64	0.78
44:2m:33:ALA:HB1	44:2m:56:LEU:HD11	1.63	0.78
32:2a:656:C:O2'	46:2o:28:GLN:NE2	2.16	0.78
32:2a:1026:G:O6	32:2a:1036:G:N2	2.16	0.78
1:1A:2387:G:N7	61:1A:4143:HOH:O	2.16	0.78
32:1a:664:G:H22	32:1a:741:G:H1	1.29	0.78
32:1a:1009:G:O6	32:1a:1020:U:O2	2.01	0.78
40:2i:9:ARG:HG2	40:2i:14:VAL:HG12	1.64	0.78
1:2A:2345:G:H4'	1:2A:2346:A:H5''	1.64	0.78
2:2B:7:G:H21	14:2S:38:GLN:HE22	1.30	0.78
1:2A:2379:G:O2'	14:2S:17:ARG:NH1	2.13	0.78
1:1A:1829:U:H5'	3:1D:259:THR:HG22	1.67	0.77
33:1b:118:LEU:HB3	33:1b:142:LEU:HD12	1.67	0.77
1:2A:2287:A:H62	1:2A:2344:U:H3	1.32	0.77
43:2l:57:LYS:HG2	43:2l:67:THR:HG22	1.64	0.77
1:2A:1204:A:H2	1:2A:1241:A:H62	1.30	0.77
31:29:25:VAL:HB	31:29:34:GLN:HB2	1.67	0.77
33:2b:178:ARG:HH22	39:2h:74:PRO:HB3	1.47	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2B:20:C:N4	2:2B:63:G:O6	2.16	0.77
32:2a:1055:A:N7	32:2a:1200:C:N4	2.33	0.77
54:2w:27:G:N2	54:2w:43:C:N3	2.32	0.77
1:1A:1110:C:N3	1:1A:1120:G:O6	2.18	0.77
54:1w:7:A:N6	54:1w:66:U:H3	1.83	0.77
1:2A:529:A:N6	1:2A:2041:U:O2	2.18	0.77
32:2a:975:A:H4'	32:2a:976:G:H5''	1.67	0.77
32:2a:1128:C:O2	32:2a:1147:C:N4	2.17	0.77
32:1a:953:G:H5'	32:1a:965:A:H61	1.50	0.76
3:2D:228:PRO:O	61:2D:401:HOH:O	2.01	0.76
5:2F:167:ALA:HB1	5:2F:173:VAL:HG11	1.65	0.76
32:2a:1244:C:H42	32:2a:1293:G:H1	1.30	0.76
10:1O:97:ARG:NH1	32:1a:339:C:OP2	2.19	0.76
24:12:65:ASN:OD1	24:12:69:ARG:NH1	2.18	0.76
1:2A:1171:G:H1	1:2A:1178:C:H42	1.31	0.76
1:1A:641:G:OP2	5:1F:43:LYS:NZ	2.19	0.76
1:1A:973:G:N7	61:1A:4152:HOH:O	2.18	0.76
32:1a:159:G:N2	32:1a:162:A:OP2	2.18	0.76
39:2h:29:SER:HB3	39:2h:32:LYS:HG3	1.68	0.76
1:1A:2162:C:N3	1:1A:2173:G:O6	2.17	0.76
1:1A:1056:A:OP2	61:1A:4120:HOH:O	2.02	0.76
1:1A:2562:G:OP1	61:1A:4122:HOH:O	2.04	0.76
37:2f:30:LEU:HD23	37:2f:75:LEU:HD11	1.66	0.76
11:1P:52:GLU:OE1	11:1P:55:ARG:NH1	2.19	0.76
6:2G:44:GLY:HA2	6:2G:88:ILE:HB	1.68	0.76
40:1i:3:GLN:HE21	40:1i:20:ARG:HE	1.34	0.75
32:2a:673:G:H2'	32:2a:674:G:C8	2.21	0.75
32:1a:1027:C:N3	32:1a:1034:G:N2	2.34	0.75
5:2F:24:LEU:HD23	5:2F:115:ALA:HA	1.68	0.75
32:2a:1029:C:N4	32:2a:1032:G:H1	1.84	0.75
1:1A:479:C:OP1	61:1A:4121:HOH:O	2.03	0.75
12:1Q:75:THR:HG21	12:1Q:87:LYS:HE3	1.69	0.75
34:1c:131:ARG:HH11	34:1c:166:GLU:HG3	1.50	0.75
1:2A:2127:G:N2	1:2A:2161:C:N3	2.34	0.75
1:1A:359:C:H4'	20:1Y:73:ARG:HD3	1.67	0.75
1:2A:1689:A:H62	1:2A:1698:A:H2	1.34	0.75
3:2D:148:GLU:HB2	3:2D:151:LYS:HD2	1.69	0.75
5:2F:11:VAL:HG22	5:2F:125:LEU:HB2	1.69	0.75
1:2A:1363:C:OP1	23:21:61:ARG:NH1	2.20	0.75
41:2j:6:ILE:HG12	41:2j:98:ILE:HG13	1.68	0.75
32:2a:1002:G:N2	32:2a:1038:C:N3	2.32	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:2e:60:TYR:OH	36:2e:64:ARG:NH2	2.20	0.75
1:1A:2164:C:N3	1:1A:2171:G:O6	2.19	0.75
41:1j:49:VAL:HG23	45:1n:41:ARG:HB2	1.68	0.75
2:2B:87:G:N2	2:2B:90:A:OP2	2.19	0.75
42:2k:22:HIS:HB3	42:2k:29:ILE:HB	1.68	0.75
1:1A:2143:G:H1	1:1A:2199:C:H42	1.31	0.75
1:2A:2138:C:N3	1:2A:2153:G:N2	2.29	0.75
2:2B:8:U:N3	2:2B:113:G:O6	2.15	0.75
32:2a:196:A:OP1	51:2t:68:LYS:NZ	2.18	0.75
54:2w:4:C:H42	54:2w:69:G:H1	1.34	0.75
1:1A:325:G:OP2	20:1Y:84:ARG:NH2	2.19	0.74
32:1a:1008:C:O2	32:1a:1021:G:N1	2.20	0.74
1:2A:2721:A:OP1	61:2A:3831:HOH:O	2.05	0.74
36:2e:78:HIS:HD2	39:2h:104:ARG:HD2	1.52	0.74
39:2h:12:ARG:HD2	39:2h:26:VAL:HG12	1.69	0.74
1:2A:1031:G:H5''	31:29:8:LYS:HE3	1.70	0.74
1:2A:1651:G:OP1	13:2R:40:LYS:NZ	2.20	0.74
11:1P:50:ARG:HD3	30:18:7:HIS:CD2	2.22	0.74
2:2B:4:C:H42	2:2B:117:G:H1	1.36	0.74
47:2p:51:VAL:HG12	47:2p:53:VAL:H	1.52	0.74
38:2g:126:ASP:HB3	38:2g:131:LYS:HB2	1.69	0.74
39:1h:10:LEU:HD22	39:1h:83:ILE:HD11	1.68	0.74
5:1F:157:VAL:HB	5:1F:194:MET:HG2	1.70	0.74
26:14:54:GLY:N	26:14:55:ARG:HA	2.02	0.74
54:2w:53:G:H1	54:2w:61:C:H42	1.34	0.74
35:2d:57:ARG:HD3	35:2d:205:GLU:HB3	1.68	0.74
1:2A:692:C:O2'	3:2D:38:LYS:NZ	2.20	0.74
1:2A:761:A:N7	61:2A:3866:HOH:O	2.20	0.74
1:2A:2206:G:H3'	1:2A:2207:G:H8	1.53	0.74
21:2Z:121:HIS:N	21:2Z:171:ILE:O	2.21	0.74
32:2a:597:G:OP2	61:2a:1905:HOH:O	2.05	0.74
12:2Q:109:VAL:HG13	12:2Q:113:GLN:HB3	1.70	0.73
35:1d:205:GLU:OE2	36:1e:107:ARG:NH1	2.21	0.73
54:2y:26:A:N1	54:2y:44:G:O6	2.21	0.73
1:1A:1057:G:OP1	16:1U:77:SER:OG	2.05	0.73
32:1a:1027:C:N4	32:1a:1034:G:N1	2.36	0.73
40:1i:50:LEU:HD13	40:1i:56:LEU:HA	1.71	0.73
22:10:11:ARG:O	22:10:14:ARG:NH2	2.22	0.73
1:1A:1896:G:OP1	61:1A:4124:HOH:O	2.07	0.73
48:1q:43:LEU:HD12	48:1q:68:ARG:HG2	1.70	0.73
36:1e:50:GLU:HB2	36:1e:53:LEU:HD13	1.70	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:1g:79:ARG:HD2	38:1g:80:VAL:H	1.54	0.73
32:2a:1166:G:N2	32:2a:1170:A:OP2	2.21	0.73
32:1a:116:A:OP1	61:1a:3308:HOH:O	2.06	0.73
33:1b:93:VAL:HG21	33:1b:97:TRP:HD1	1.54	0.73
1:2A:1817:G:OP1	3:2D:88:ARG:NH2	2.21	0.73
32:1a:407:G:H5''	35:1d:115:ARG:HG2	1.71	0.72
1:2A:2849:U:OP2	15:2T:95:ARG:NH1	2.22	0.72
32:2a:405:U:O4	35:2d:2:GLY:N	2.22	0.72
54:2w:2:C:N3	54:2w:71:G:O6	2.22	0.72
1:1A:2460:A:OP1	61:1A:4101:HOH:O	2.06	0.72
1:2A:962:G:OP1	61:2A:3812:HOH:O	2.06	0.72
32:2a:1134:G:N2	32:2a:1140:C:N3	2.33	0.72
54:2y:18:G:H22	54:2y:55:PSU:HN3	1.36	0.72
18:1W:65:LEU:HD12	18:1W:68:ARG:HE	1.54	0.72
33:1b:33:TYR:HB2	33:1b:43:ASP:HB2	1.70	0.72
1:2A:517:C:OP1	27:25:16:ARG:NH2	2.21	0.72
1:1A:625:G:O2'	1:1A:702:A:N6	2.23	0.72
1:1A:2604:G:OP1	61:1A:4123:HOH:O	2.06	0.72
1:1A:2804:C:H2'	1:1A:2805:G:H8	1.55	0.72
3:1D:83:GLU:OE1	3:1D:104:TYR:OH	2.05	0.72
5:1F:72:ARG:O	61:1F:401:HOH:O	2.08	0.72
7:1H:25:LYS:HD3	7:1H:27:LYS:HE3	1.69	0.72
32:1a:1030(C):G:N7	32:1a:1031:G:N2	2.37	0.72
44:2m:58:GLU:O	44:2m:62:ASN:ND2	2.21	0.72
1:1A:183:G:N7	61:1A:4172:HOH:O	2.21	0.72
17:2V:72:VAL:HG13	17:2V:85:LYS:HB2	1.70	0.72
1:2A:2134:A:OP2	1:2A:2157:G:N2	2.22	0.72
34:2c:58:GLU:HB3	41:2j:92:THR:HG21	1.72	0.72
5:2F:185:ASP:HA	5:2F:188:ARG:HD3	1.72	0.72
32:2a:983:A:N1	32:2a:1222:G:N2	2.37	0.72
12:2Q:18:LYS:O	12:2Q:98:LYS:NZ	2.18	0.72
1:1A:928:G:N2	1:1A:943:C:O2	2.23	0.71
4:2E:127:ASP:OD2	61:2E:401:HOH:O	2.07	0.71
43:1l:28:LYS:HB2	43:1l:33:ARG:HH21	1.55	0.71
32:2a:974:A:OP2	45:2n:29:ARG:NH2	2.22	0.71
47:2p:14:ASN:OD1	47:2p:42:ARG:NH2	2.24	0.71
37:1f:82:ARG:HB2	37:1f:85:VAL:HG23	1.72	0.71
1:1A:931:C:H42	1:1A:938:G:H1	1.39	0.71
1:1A:1829:U:OP2	3:1D:274:ARG:NH2	2.22	0.71
1:2A:2129:C:N4	1:2A:2159:G:N1	2.25	0.71
1:2A:2805:G:H2'	1:2A:2807:G:C8	2.25	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:303:C:H42	1:1A:385:G:H1	1.39	0.71
22:10:10:THR:HG22	22:10:12:ASN:H	1.54	0.71
2:2B:33:G:H5'	6:2G:2:PRO:HD3	1.72	0.71
1:2A:2127:G:N1	1:2A:2161:C:N4	2.38	0.71
4:2E:48:GLN:HE21	4:2E:78:LEU:HG	1.56	0.71
11:1P:42:SER:O	61:1P:301:HOH:O	2.09	0.71
1:2A:2513:G:N2	4:2E:143:ASN:OD1	2.24	0.71
32:2a:7:G:O2'	36:2e:120:THR:O	2.07	0.71
50:2s:38:SER:HB2	50:2s:71:LEU:HD22	1.72	0.71
1:2A:1530:C:H42	1:2A:1539:G:H1	1.38	0.71
16:2U:66:ASN:HD21	16:2U:70:ARG:HH21	1.39	0.71
40:2i:23:ASN:HD21	40:2i:25:LYS:HE2	1.55	0.71
32:1a:1401:G:N7	61:1a:3323:HOH:O	2.24	0.71
1:2A:271(H):G:H1	1:2A:271(P):C:H42	1.39	0.71
32:2a:770:C:OP1	61:2a:1906:HOH:O	2.08	0.71
32:2a:947:G:N2	32:2a:1234:C:N3	2.38	0.71
39:1h:41:ARG:NH2	39:1h:123:GLU:OE2	2.23	0.70
1:2A:1434:A:H61	1:2A:1558:A:H62	1.39	0.70
54:2w:14:A:H61	54:2w:21:A:H2	1.39	0.70
1:2A:2108:C:N4	1:2A:2181:G:H1	1.89	0.70
1:2A:2136:C:O2'	1:2A:2137:C:O5'	2.08	0.70
1:2A:2143:C:N4	1:2A:2148:G:H1	1.88	0.70
44:2m:34:LEU:HD13	44:2m:41:PRO:HB3	1.73	0.70
54:2w:8:4SU:S4	54:2w:13:C:O2'	2.49	0.70
1:1A:1104:G:N2	1:1A:1126:C:N3	2.37	0.70
1:1A:1299:A:N7	61:1A:4140:HOH:O	2.23	0.70
13:1R:67:LEU:HD13	13:1R:76:VAL:HG21	1.73	0.70
32:1a:964:A:OP1	61:1a:3310:HOH:O	2.08	0.70
1:1A:1275:G:N7	61:1A:4191:HOH:O	2.24	0.70
33:1b:69:LEU:HB3	33:1b:162:ILE:HG22	1.74	0.70
35:2d:148:VAL:HB	35:2d:181:MET:HG3	1.74	0.70
1:1A:556:C:OP2	61:1A:4125:HOH:O	2.08	0.70
1:1A:1552:C:H2'	1:1A:1553:A:H8	1.57	0.70
32:1a:903:G:OP1	61:1a:3309:HOH:O	2.08	0.70
1:2A:307:G:N1	1:2A:310:A:OP2	2.25	0.70
1:2A:1971:A:OP1	61:2A:3832:HOH:O	2.09	0.70
32:2a:1060:C:H5''	41:2j:51:ARG:HG2	1.71	0.70
1:1A:692:C:H42	1:1A:698:G:H1	1.39	0.70
32:2a:1244:C:N4	32:2a:1293:G:H1	1.90	0.70
1:1A:739:C:O2'	3:1D:38:LYS:NZ	2.25	0.70
32:2a:826:C:O2	32:2a:874:G:N2	2.18	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:1F:61:GLY:O	61:1F:402:HOH:O	2.09	0.70
32:1a:1348:U:H4'	40:1i:120:ARG:HD2	1.73	0.70
32:2a:376:G:H5''	47:2p:5:ARG:HB2	1.73	0.70
1:1A:2331:G:H22	14:1S:3:ARG:HD3	1.57	0.70
34:1c:82:GLU:OE2	34:1c:85:ARG:NH1	2.24	0.70
1:2A:1449:A:O2'	1:2A:1529:G:N2	2.24	0.70
1:2A:2162:G:H4'	1:2A:2172:U:H2'	1.72	0.70
1:2A:2292:C:OP1	14:2S:17:ARG:NH2	2.25	0.69
1:2A:2789:C:O2	1:2A:2894:G:N2	2.25	0.69
21:2Z:97:GLU:HB3	21:2Z:125:LEU:HD11	1.74	0.69
34:2c:37:GLN:NE2	45:2n:52:GLN:OE1	2.25	0.69
1:2A:1607:C:N4	1:2A:1622:G:OP2	2.24	0.69
1:2A:2171:A:N3	1:2A:2172:U:N3	2.39	0.69
20:1Y:11:ASP:OD1	20:1Y:11:ASP:N	2.21	0.69
32:1a:567:G:N3	61:1a:3324:HOH:O	2.24	0.69
1:2A:143:G:H4'	19:2X:35:THR:HG21	1.73	0.69
1:2A:2114:A:N6	1:2A:2115:G:H21	1.89	0.69
1:1A:2672:A:N7	7:1H:175:LYS:NZ	2.40	0.69
32:1a:515:G:N7	61:1a:3325:HOH:O	2.25	0.69
1:2A:2169:A:H2'	1:2A:2170:A:C8	2.27	0.69
1:2A:2394:C:N3	54:2y:76:A:O2'	2.24	0.69
1:1A:1219:A:H4'	1:1A:1220:U:OP1	1.92	0.69
1:1A:2164:C:O2	1:1A:2171:G:N1	2.25	0.69
20:1Y:20:TYR:HB3	20:1Y:23:ARG:HG3	1.73	0.69
20:2Y:102:CYS:SG	20:2Y:103:GLY:N	2.55	0.69
21:2Z:72:ARG:NH2	21:2Z:97:GLU:O	2.26	0.69
33:2b:144:ARG:NH2	33:2b:148:TYR:OH	2.25	0.69
1:1A:1990:G:OP1	61:1A:4126:HOH:O	2.09	0.69
32:1a:929:G:H1	32:1a:1388:C:H42	1.40	0.69
54:1w:5:G:H1	54:1w:68:C:H42	1.38	0.69
1:1A:646:A:OP2	11:1P:108:LYS:NZ	2.26	0.69
1:2A:2494:G:H2'	1:2A:2495:G:H8	1.57	0.69
1:2A:2518:A:OP2	61:2A:3834:HOH:O	2.10	0.69
22:20:10:THR:HG22	22:20:12:ASN:H	1.58	0.69
32:2a:1264:C:N4	32:2a:1271:G:H1	1.91	0.69
1:1A:1069:U:OP2	61:1A:4109:HOH:O	2.09	0.69
32:1a:548:G:OP1	61:1a:3311:HOH:O	2.11	0.69
1:2A:2296:U:OP2	14:2S:9:ARG:NH2	2.25	0.69
7:2H:125:VAL:HG12	7:2H:131:VAL:HG22	1.75	0.69
8:2I:92:VAL:HG22	8:2I:120:ILE:HB	1.74	0.69
32:2a:953:G:H5'	32:2a:965:A:N6	2.07	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:889:G:N7	61:1A:4195:HOH:O	2.25	0.69
1:2A:1169:G:N2	1:2A:1181:C:O2	2.26	0.69
1:2A:1801:G:OP2	3:2D:154:LYS:NZ	2.25	0.69
7:2H:86:GLU:OE2	7:2H:130:ARG:NH1	2.25	0.69
32:1a:811:C:O2'	32:1a:901:A:N1	2.27	0.68
1:2A:2010:G:OP1	61:2A:3833:HOH:O	2.10	0.68
8:2I:43:ASN:ND2	23:21:75:GLU:OE2	2.26	0.68
32:2a:1009:G:O6	32:2a:1020:U:O2	2.11	0.68
38:2g:113:GLU:HB2	38:2g:119:ARG:HG2	1.75	0.68
32:2a:929:G:H1	32:2a:1388:C:N4	1.91	0.68
32:2a:1381:U:H1'	38:2g:79:ARG:HD3	1.75	0.68
1:1A:1310:G:OP1	27:15:19:ARG:NH2	2.27	0.68
1:1A:1813:C:OP1	61:1A:4128:HOH:O	2.11	0.68
1:2A:775:G:O3'	61:2A:3835:HOH:O	2.10	0.68
5:2F:157:VAL:HB	5:2F:194:MET:HG2	1.76	0.68
1:1A:880:U:O2	11:1P:55:ARG:NH2	2.25	0.68
33:1b:87:ARG:NH2	33:1b:220:ASP:OD1	2.26	0.68
1:2A:1769:G:O2'	1:2A:1958:C:OP1	2.12	0.68
9:2N:32:THR:HG23	9:2N:37:LYS:HB2	1.74	0.68
41:2j:44:VAL:HG22	41:2j:66:ARG:HG2	1.76	0.68
2:1B:106:G:H5'	21:1Z:31:ARG:HG2	1.74	0.68
8:1I:3:VAL:HG12	8:1I:38:LEU:HA	1.76	0.68
32:1a:1060:C:H5''	41:1j:51:ARG:HG2	1.75	0.68
17:1V:76:LYS:HB2	17:1V:81:TYR:HB3	1.73	0.68
2:2B:22:U:H3	2:2B:61:G:H1	1.40	0.68
54:2w:33:U:N3	54:2w:36:A:OP2	2.26	0.68
1:1A:1108:G:H1	1:1A:1123:A:H61	1.40	0.68
5:1F:13:SER:OG	5:1F:127:GLU:OE1	2.10	0.68
20:1Y:54:LYS:HA	20:1Y:56:PRO:HD3	1.74	0.68
12:1Q:138:ASP:N	12:1Q:138:ASP:OD1	2.24	0.68
52:1u:5:ASP:OD2	61:1u:101:HOH:O	2.11	0.68
11:2P:52:GLU:OE1	11:2P:55:ARG:NH1	2.27	0.68
32:1a:1353:G:OP1	52:1u:10:ARG:NH1	2.26	0.68
1:2A:659:C:H2'	1:2A:660:G:H8	1.59	0.68
32:2a:864:A:OP2	61:2a:1907:HOH:O	2.11	0.68
1:1A:2849:G:H5'	13:1R:46:GLY:HA2	1.76	0.67
32:1a:962:C:O2'	61:1a:3313:HOH:O	2.12	0.67
32:1a:1469:G:N7	61:1a:3331:HOH:O	2.27	0.67
1:2A:974:G:OP1	1:2A:1187:G:O2'	2.10	0.67
24:22:1:MET:N	24:22:52:ASP:OD1	2.26	0.67
36:2e:7:GLU:OE2	36:2e:37:ARG:NH2	2.27	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:1A:4108:HOH:O	4:1E:135:HIS:NE2	2.27	0.67
35:1d:53:ASP:N	35:1d:53:ASP:OD1	2.23	0.67
43:1l:39:VAL:HG11	43:1l:41:ARG:HH11	1.59	0.67
54:1w:6:G:H1	54:1w:67:C:H42	0.73	0.67
1:1A:988:U:OP2	61:1A:4129:HOH:O	2.12	0.67
1:1A:1232:G:O6	61:1A:4127:HOH:O	2.11	0.67
6:1G:125:PHE:O	61:1G:3101:HOH:O	2.12	0.67
5:2F:101:LEU:O	5:2F:106:ARG:NH1	2.27	0.67
1:1A:1202:A:OP2	61:1A:4130:HOH:O	2.12	0.67
32:1a:1011:G:H1	32:1a:1018:C:H42	1.42	0.67
54:1y:26:A:H61	54:1y:44:G:H1	1.42	0.67
1:2A:2031:A:N3	1:2A:2455:G:O2'	2.28	0.67
32:2a:335:C:O2'	32:2a:1433:A:N3	2.27	0.67
1:1A:1128:U:C4	1:1A:1132:A:N1	2.63	0.67
1:2A:784:A:C6	3:2D:229:VAL:HG11	2.29	0.67
7:2H:98:LEU:HA	7:2H:103:LEU:HA	1.75	0.67
11:2P:59:LEU:HD11	30:28:10:ALA:HB2	1.77	0.67
32:2a:1240:U:N3	38:2g:30:ILE:O	2.23	0.67
40:2i:31:GLN:HE21	40:2i:36:TYR:HD1	1.41	0.67
1:1A:1132:A:O2'	1:1A:1133:G:N7	2.27	0.67
7:1H:86:GLU:OE2	7:1H:132:ARG:NH2	2.27	0.67
1:2A:731:C:OP2	61:2A:3836:HOH:O	2.12	0.67
32:2a:576:G:OP1	61:2a:1908:HOH:O	2.12	0.67
32:2a:1366:C:O2'	41:2j:60:ARG:NH2	2.28	0.67
36:2e:78:HIS:CD2	39:2h:104:ARG:HD2	2.29	0.67
1:1A:1310:G:N7	61:1A:4206:HOH:O	2.28	0.67
33:2b:52:GLU:HG2	33:2b:56:ARG:HH12	1.59	0.67
1:1A:927:G:H2'	1:1A:928:G:H8	1.60	0.67
32:1a:1304:G:OP2	61:1a:3312:HOH:O	2.12	0.67
1:2A:1345:C:OP2	61:2A:3837:HOH:O	2.12	0.67
1:1A:1700:G:H3'	13:1R:2:ARG:HD3	1.77	0.67
5:2F:132:VAL:HG21	5:2F:163:VAL:HG22	1.77	0.67
43:2l:66:VAL:HG11	43:2l:98:TYR:HE2	1.60	0.67
1:1A:2831:A:OP2	61:1A:4117:HOH:O	2.12	0.67
32:1a:978:A:O2'	32:1a:1322:C:N3	2.25	0.67
4:2E:11:MET:HG2	4:2E:24:THR:HB	1.77	0.67
10:2O:49:ARG:NH1	32:2a:1422:G:O3'	2.28	0.67
14:2S:10:ARG:NE	14:2S:91:PRO:O	2.26	0.67
33:2b:15:VAL:HG23	33:2b:16:HIS:HD2	1.60	0.67
43:2l:86:ARG:NH1	61:2l:301:HOH:O	2.28	0.67
32:1a:1033:G:H2'	32:1a:1034:G:H8	1.60	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1445:C:O2'	32:1a:1447:A:N6	2.28	0.66
1:2A:1022:G:N2	1:2A:1023:U:O4	2.28	0.66
32:2a:1118:C:OP1	40:2i:104:ARG:NH1	2.28	0.66
44:2m:90:LEU:HD23	44:2m:93:ARG:HD2	1.77	0.66
36:1e:110:LEU:HD13	36:1e:118:ILE:HG21	1.76	0.66
39:1h:17:THR:O	39:1h:78:GLN:NE2	2.28	0.66
3:2D:152:GLY:O	61:2D:402:HOH:O	2.14	0.66
12:2Q:97:VAL:HG11	12:2Q:103:MET:HE3	1.77	0.66
55:2x:9:G:N2	55:2x:46:G:OP2	2.27	0.66
41:2j:11:PHE:HE1	41:2j:67:THR:HG22	1.60	0.66
32:2a:35:G:O2'	43:2l:118:SER:O	2.13	0.66
1:1A:1485:A:OP1	61:1A:4135:HOH:O	2.14	0.66
1:1A:2058:C:OP1	61:1A:4125:HOH:O	2.13	0.66
3:2D:232:PRO:O	61:2D:403:HOH:O	2.14	0.66
32:1a:542:G:OP1	35:1d:10:ARG:NH2	2.29	0.66
1:2A:1019:U:H2'	1:2A:1020:A:H8	1.60	0.66
14:2S:67:ARG:HG2	14:2S:71:ARG:HD2	1.78	0.66
32:2a:1353:G:OP1	52:2u:10:ARG:NH1	2.28	0.66
33:2b:80:ILE:HD12	33:2b:208:ILE:HG23	1.77	0.66
1:1A:1020:C:OP1	61:1A:4134:HOH:O	2.14	0.66
5:2F:21:ALA:HB3	5:2F:22:ALA:HA	1.78	0.66
1:1A:1139:G:H3'	1:1A:1140:U:H5''	1.78	0.66
1:1A:2239:A:OP2	61:1A:4138:HOH:O	2.14	0.66
1:1A:2641:A:O2'	1:1A:2642:G:OP2	2.13	0.66
32:2a:997:U:H3	32:2a:1044:A:H61	0.77	0.66
1:1A:925:A:N6	1:1A:945:A:O2'	2.26	0.66
32:1a:407:G:OP1	35:1d:115:ARG:NH2	2.29	0.66
42:2k:48:ILE:O	42:2k:50:TYR:N	2.25	0.66
2:1B:58:A:OP2	61:1B:301:HOH:O	2.12	0.66
41:1j:38:ILE:HD11	41:1j:71:LEU:HD23	1.79	0.66
2:2B:41:U:H5	6:2G:70:VAL:H	1.43	0.66
32:1a:757:U:H2'	32:1a:758:G:O4'	1.96	0.65
4:1E:122:PHE:O	61:1E:401:HOH:O	2.14	0.65
32:1a:1518:MA6:N6	32:1a:1519:MA6:H103	2.11	0.65
1:2A:1762:A:N1	61:2A:3903:HOH:O	2.28	0.65
32:2a:64:G:H4'	32:2a:65:U:H3'	1.79	0.65
32:2a:1029:C:N3	32:2a:1032:G:N2	2.40	0.65
53:2v:19:U:OP1	61:2v:3101:HOH:O	2.13	0.65
1:1A:992:G:OP2	61:1A:4137:HOH:O	2.14	0.65
1:1A:1138:C:H2'	1:1A:1139:G:H5'	1.78	0.65
1:2A:1462:C:H4'	1:2A:2703:C:H5'	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2G:18:GLU:HG2	6:2G:175:LEU:HD21	1.78	0.65
12:2Q:55:VAL:HG12	12:2Q:64:ILE:HD12	1.78	0.65
32:2a:1139:G:N2	32:2a:1142:G:O6	2.27	0.65
40:2i:97:LYS:HA	40:2i:102:LEU:HG	1.78	0.65
1:2A:2141:G:O6	1:2A:2150:U:O2	2.13	0.65
14:2S:68:GLN:HA	14:2S:71:ARG:HD3	1.78	0.65
19:2X:61:GLY:N	19:2X:75:ASP:OD1	2.26	0.65
33:2b:80:ILE:HD11	33:2b:212:GLN:HB2	1.78	0.65
1:1A:1355:G:H4'	29:17:7:PRO:HB2	1.79	0.65
1:1A:2094:G:O6	61:1A:4131:HOH:O	2.13	0.65
11:1P:59:LEU:HD11	30:18:10:ALA:HB2	1.79	0.65
24:12:22:GLU:OE2	24:12:68:ARG:NH2	2.30	0.65
37:1f:94:GLN:HB3	49:1r:32:ARG:HH11	1.61	0.65
1:2A:1920:4OC:HM22	1:2A:1921:G:H5'	1.79	0.65
32:2a:1404:5MC:O2	32:2a:1519:MA6:O2'	2.11	0.65
1:1A:857:U:OP1	61:1A:4140:HOH:O	2.14	0.65
32:1a:618:C:H5''	32:1a:619:U:H5''	1.79	0.65
32:1a:658:G:OP1	46:1o:8:LYS:NZ	2.29	0.65
1:2A:563:G:OP2	61:2A:3842:HOH:O	2.14	0.65
1:2A:789:A:N1	61:2A:3911:HOH:O	2.29	0.65
6:2G:135:LEU:HD21	6:2G:157:ILE:HD12	1.77	0.65
8:2I:3:VAL:HG12	8:2I:38:LEU:HA	1.79	0.65
32:2a:826:C:N3	32:2a:874:G:N1	2.35	0.65
54:2w:4:C:N4	54:2w:69:G:H1	1.94	0.65
1:1A:133:G:N7	61:1A:4216:HOH:O	2.29	0.65
17:1V:40:LEU:HB2	17:1V:46:VAL:HG13	1.78	0.65
54:1w:7:A:N6	54:1w:66:U:N3	2.44	0.65
22:20:11:ARG:O	22:20:14:ARG:NH2	2.28	0.65
32:2a:875:C:O2'	39:2h:14:ARG:NH1	2.30	0.65
32:2a:1271:G:N1	32:2a:1272:G:O6	2.30	0.65
33:1b:68:ILE:HG12	33:1b:161:ALA:HB3	1.76	0.65
54:1w:60:U:H5''	54:1w:61:C:H5	1.61	0.65
1:2A:826:U:H4'	11:2P:55:ARG:HB3	1.79	0.65
1:2A:1019:U:H2'	1:2A:1020:A:C8	2.32	0.65
32:2a:148:G:H2'	32:2a:149:A:H8	1.62	0.65
32:2a:148:G:H2'	32:2a:149:A:C8	2.31	0.65
32:2a:1071:C:H2'	32:2a:1072:G:H8	1.62	0.65
32:2a:1499:A:H1'	32:2a:1520:G:H5'	1.77	0.65
40:2i:46:ALA:HB2	40:2i:74:ILE:HG23	1.79	0.65
1:1A:1285:G:OP1	61:1A:4132:HOH:O	2.13	0.65
1:1A:1684:A:OP1	61:1A:4139:HOH:O	2.14	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2717:A:N3	61:1A:4218:HOH:O	2.29	0.65
43:1l:117:ARG:HG2	43:1l:122:THR:HB	1.79	0.65
32:2a:920:U:H2'	32:2a:921:U:C6	2.31	0.65
32:2a:1129:C:H2'	32:2a:1139:G:N7	2.11	0.65
1:2A:571:A:OP2	61:2A:3838:HOH:O	2.14	0.65
13:2R:97:VAL:HG22	13:2R:114:VAL:HG13	1.78	0.65
54:2y:18:G:N2	54:2y:55:PSU:HN3	1.93	0.65
40:1i:65:VAL:HG11	40:1i:73:GLN:HB3	1.79	0.64
1:2A:2582:G:OP2	61:2A:3841:HOH:O	2.14	0.64
26:24:16:CYS:SG	26:24:17:GLY:N	2.70	0.64
32:2a:671:G:H5'	37:2f:77:ARG:HH22	1.61	0.64
32:2a:1119:C:H2'	32:2a:1120:G:C8	2.31	0.64
1:1A:2227:G:H3'	1:1A:2228:G:C8	2.33	0.64
45:1n:4:LYS:HA	45:1n:7:ILE:HG22	1.80	0.64
12:2Q:17:LEU:HD21	12:2Q:41:TRP:HE1	1.62	0.64
32:2a:953:G:H5'	32:2a:965:A:H61	1.60	0.64
32:2a:1030(A):G:N2	32:2a:1030(D):A:OP2	2.30	0.64
45:2n:23:ARG:HB3	45:2n:28:GLY:HA2	1.80	0.64
1:1A:2182:G:O6	1:1A:2183:C:N4	2.30	0.64
32:1a:131:C:O2	32:1a:231:G:N2	2.18	0.64
54:1w:2:C:H42	54:1w:71:G:H1	1.44	0.64
1:2A:900:A:H2'	1:2A:901:A:H8	1.63	0.64
1:2A:1958:C:OP2	61:2A:3844:HOH:O	2.15	0.64
18:2W:67:ASP:OD1	18:2W:67:ASP:N	2.24	0.64
32:2a:730:G:OP1	61:2a:1910:HOH:O	2.15	0.64
1:1A:83:A:H5''	20:1Y:8:LYS:HG2	1.78	0.64
1:1A:449:A:OP2	61:1A:4133:HOH:O	2.13	0.64
16:1U:104:GLN:HE21	16:1U:105:VAL:HG23	1.62	0.64
18:2W:12:ILE:HD13	18:2W:17:VAL:HG13	1.79	0.64
18:2W:73:ALA:HB3	18:2W:106:ILE:HD12	1.80	0.64
32:2a:948:C:N4	32:2a:1233:G:H1	1.96	0.64
40:2i:16:ARG:HB2	40:2i:64:THR:HG22	1.80	0.64
48:2q:22:LEU:HD13	48:2q:41:LYS:HG2	1.78	0.64
1:1A:1099:C:H42	1:1A:1152:G:H1	1.45	0.64
1:2A:1798:U:H5'	3:2D:259:THR:HG22	1.79	0.64
4:2E:116:VAL:HG13	4:2E:122:PHE:HB2	1.79	0.64
36:2e:102:ALA:O	36:2e:107:ARG:NH2	2.31	0.64
1:1A:865:G:OP2	61:1A:4127:HOH:O	2.15	0.64
1:1A:2124:U:H3	1:1A:2209:G:H1	1.44	0.64
32:1a:803:G:OP1	61:1a:3315:HOH:O	2.15	0.64
34:1c:6:HIS:HD2	34:1c:8:ILE:H	1.44	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:2N:67:LEU:HB3	9:2N:88:GLU:HG3	1.79	0.64
35:2d:60:GLU:HG3	35:2d:202:LEU:HD12	1.79	0.64
38:2g:46:ALA:HA	38:2g:49:ILE:HD12	1.78	0.64
32:1a:627:G:H2'	32:1a:628:G:H8	1.62	0.64
1:2A:1816:G:O6	3:2D:35:LYS:NZ	2.20	0.64
1:2A:1920:4OC:O5'	1:2A:1920:4OC:H6	1.98	0.64
1:1A:238:C:O2	30:18:12:LYS:NZ	2.20	0.64
1:1A:1313:U:OP1	61:1A:4141:HOH:O	2.15	0.64
32:1a:624:C:O2'	47:1p:14:ASN:ND2	2.30	0.64
2:2B:28:C:N4	2:2B:56:G:O6	2.20	0.64
2:1B:51:G:N7	14:1S:62:LYS:NZ	2.41	0.64
20:1Y:43:ASN:HB3	20:1Y:65:ALA:HB3	1.80	0.64
33:1b:166:ASP:HB3	33:1b:169:LYS:HB3	1.78	0.64
47:1p:15:PRO:O	47:1p:16:HIS:ND1	2.31	0.64
1:2A:2134:A:O2'	1:2A:2159:G:N2	2.30	0.64
32:2a:1298:C:C4	38:2g:114:ARG:HD2	2.32	0.64
1:1A:1104:G:N1	1:1A:1126:C:N4	2.41	0.64
54:1w:5:G:H1	54:1w:68:C:N4	1.95	0.64
1:2A:784:A:OP1	61:2A:3840:HOH:O	2.14	0.64
1:2A:1937:A:OP1	61:2A:3846:HOH:O	2.15	0.64
32:2a:1009:G:H22	32:2a:1021:G:H1'	1.62	0.64
1:1A:555:G:N1	1:1A:2045:G:OP1	2.28	0.63
36:1e:91:LEU:HG	36:1e:118:ILE:HD11	1.81	0.63
36:1e:152:ARG:NH2	39:1h:107:LEU:O	2.32	0.63
1:2A:907:U:H4'	12:2Q:101:ARG:HH22	1.63	0.63
4:2E:36:ARG:HG2	4:2E:47:VAL:HG12	1.79	0.63
19:2X:4:ALA:HB1	19:2X:42:ALA:HA	1.81	0.63
21:2Z:52:SER:OG	21:2Z:54:HIS:ND1	2.29	0.63
32:2a:1305:G:O2'	32:2a:1331:G:N2	2.30	0.63
1:1A:1982:A:HO2'	32:1a:1484:C:HO2'	1.43	0.63
5:1F:31:HIS:NE2	5:1F:35:GLU:OE2	2.30	0.63
10:1O:110:GLY:HA2	10:1O:112:MET:HE2	1.79	0.63
54:1y:6:G:O6	54:1y:67:C:N3	2.32	0.63
1:2A:2788:C:OP1	4:2E:61:ARG:NH2	2.31	0.63
1:2A:2815:C:H5'	27:25:29:THR:HG21	1.79	0.63
5:2F:53:THR:HG23	5:2F:55:GLY:H	1.62	0.63
7:2H:20:ALA:HB2	7:2H:25:LYS:HG2	1.80	0.63
15:2T:59:THR:HG23	15:2T:78:LEU:HB3	1.79	0.63
54:2w:4:C:N3	54:2w:69:G:N2	2.47	0.63
1:1A:1221:G:H1'	1:1A:1222:A:H5'	1.80	0.63
6:1G:170:ARG:NH2	6:1G:182:LYS:O	2.30	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:998:G:H1	32:1a:1043:C:H42	1.47	0.63
32:1a:1356:G:H2'	32:1a:1357:A:C8	2.34	0.63
41:1j:40:LEU:HB2	41:1j:69:ASN:HB2	1.78	0.63
47:1p:52:ASP:O	47:1p:54:GLU:N	2.31	0.63
32:2a:362:G:N2	32:2a:365:U:OP2	2.30	0.63
32:2a:1117:G:N2	32:2a:1180:A:O2'	2.31	0.63
1:1A:1040:C:OP2	16:1U:54:LYS:NZ	2.30	0.63
19:1X:11:PRO:HB3	19:1X:92:LEU:HD11	1.79	0.63
32:1a:165:C:H2'	32:1a:166:G:C8	2.34	0.63
33:1b:54:THR:HG21	33:1b:201:ILE:HD11	1.80	0.63
54:1w:29:G:H1	54:1w:41:C:H42	1.47	0.63
1:1A:1342:G:OP1	1:1A:2721:G:O2'	2.16	0.63
46:1o:55:GLY:HA2	46:1o:58:MET:HE3	1.80	0.63
1:2A:586:A:N1	1:2A:809:G:O2'	2.31	0.63
1:2A:2143:C:H2'	1:2A:2144:U:O4'	1.98	0.63
5:2F:28:ILE:HG23	5:2F:112:MET:HE3	1.79	0.63
11:2P:50:ARG:HD3	30:28:7:HIS:CD2	2.34	0.63
32:2a:1004:A:N6	32:2a:1037:C:O2	2.26	0.63
55:2x:15:G:H2'	55:2x:59:A:N1	2.13	0.63
54:1w:51:U:H3	54:1w:63:G:H1	1.47	0.63
1:2A:2121:G:H1	1:2A:2177:C:N4	1.96	0.63
3:2D:85:ASP:OD2	3:2D:88:ARG:NH1	2.31	0.63
4:2E:24:THR:HG23	4:2E:184:VAL:HG13	1.81	0.63
36:2e:53:LEU:O	36:2e:57:LYS:N	2.27	0.63
5:1F:75:HIS:ND1	61:1F:404:HOH:O	2.31	0.63
32:1a:1027:C:H5	32:1a:1028:C:C4	2.16	0.63
1:2A:2105:C:H2'	1:2A:2106:G:H8	1.64	0.63
1:2A:2781:A:H5''	1:2A:2782:G:H5'	1.81	0.63
32:2a:165:C:H2'	32:2a:166:G:H8	1.64	0.63
32:2a:588:G:OP2	61:2a:1913:HOH:O	2.15	0.63
32:2a:1239:A:H4'	32:2a:1240:U:H5'	1.80	0.63
54:2w:72:C:N3	54:2w:73:A:N6	2.47	0.63
1:1A:2013:U:H2'	1:1A:2014:G:H5''	1.80	0.62
32:1a:1292:U:P	38:1g:41:ARG:HH22	2.22	0.62
1:1A:122:G:OP1	1:1A:1422:C:O2'	2.15	0.62
1:2A:2110:G:H3'	1:2A:2111:C:H5'	1.81	0.62
32:2a:1089:G:H1	32:2a:1096:C:N4	1.96	0.62
36:2e:32:VAL:HG11	36:2e:59:GLY:HA2	1.80	0.62
41:2j:6:ILE:HB	41:2j:72:VAL:HG23	1.79	0.62
45:2n:47:LEU:HD22	45:2n:52:GLN:HB2	1.81	0.62
28:16:13:CYS:SG	28:16:47:THR:HG21	2.38	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:679:C:H2'	32:1a:680:C:H6	1.64	0.62
38:1g:69:VAL:HG21	38:1g:104:LEU:HD11	1.80	0.62
38:1g:78:ARG:NH1	38:1g:154:TYR:O	2.32	0.62
50:1s:50:ALA:HB1	50:1s:57:HIS:HB3	1.80	0.62
54:1w:5:G:H2'	54:1w:6:G:C8	2.34	0.62
1:2A:531:C:OP1	1:2A:561:G:N1	2.32	0.62
1:2A:2291:U:H2'	1:2A:2292:C:C6	2.33	0.62
32:2a:328:C:H4'	32:2a:329:A:H5'	1.82	0.62
32:2a:1075:C:OP1	33:2b:179:LYS:NZ	2.33	0.62
34:2c:26:LYS:HA	45:2n:36:PHE:HE1	1.64	0.62
44:2m:19:LEU:HD21	44:2m:56:LEU:HD21	1.81	0.62
54:2w:8:4SU:H1'	54:2w:48:C:H1'	1.81	0.62
1:1A:1140:U:H1'	1:1A:1143:U:C5	2.32	0.62
32:1a:1089:G:H1	32:1a:1096:C:H42	1.46	0.62
1:2A:1652:A:OP1	13:2R:8:ARG:NH1	2.33	0.62
1:2A:2431:U:OP1	61:2A:3849:HOH:O	2.16	0.62
6:2G:60:LEU:HD21	6:2G:92:VAL:HG11	1.82	0.62
10:1O:48:PRO:HB3	32:1a:1422:G:H5''	1.82	0.62
32:1a:45:U:H2'	32:1a:46:G:C8	2.35	0.62
32:1a:117:G:OP2	61:1a:3308:HOH:O	2.16	0.62
32:2a:1010:G:H2'	32:2a:1011:G:H8	1.63	0.62
45:2n:48:ALA:HB2	45:2n:53:LEU:HD12	1.81	0.62
1:1A:1087:C:H42	1:1A:1160:G:H1	1.48	0.62
1:1A:2227:G:H3'	1:1A:2228:G:H8	1.63	0.62
8:1I:93:THR:HG22	8:1I:119:PRO:HB3	1.81	0.62
32:1a:890:G:O2'	32:1a:906:G:O6	2.17	0.62
32:2a:297:G:N2	32:2a:300:A:OP2	2.32	0.62
32:2a:1192:C:OP2	34:2c:4:LYS:NZ	2.32	0.62
41:2j:64:GLU:OE2	41:2j:66:ARG:NH1	2.32	0.62
1:2A:852:G:H2'	1:2A:853:G:H8	1.64	0.62
4:2E:36:ARG:NH1	4:2E:85:ASN:OD1	2.32	0.62
32:2a:1029:C:N4	32:2a:1032:G:N1	2.47	0.62
41:2j:38:ILE:HD11	41:2j:71:LEU:HD23	1.82	0.62
49:2r:32:ARG:HA	49:2r:69:THR:HG21	1.82	0.62
54:2y:67:C:H2'	54:2y:68:C:H6	1.65	0.62
1:1A:1827:U:H2'	1:1A:1828:C:C6	2.34	0.62
1:1A:2156:A:OP1	1:1A:2178:G:N2	2.33	0.62
32:1a:976:G:OP2	32:1a:1358:U:O2'	2.16	0.62
11:2P:62:LEU:O	30:28:13:ARG:NH1	2.33	0.62
22:20:5:LYS:NZ	55:2x:2:G:OP1	2.33	0.62
32:2a:17:U:H2'	32:2a:18:C:C6	2.35	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2c:52:LEU:HD11	34:2c:55:VAL:HG22	1.81	0.62
50:2s:27:GLU:HB2	50:2s:28:LYS:HA	1.82	0.62
1:1A:1817:A:H1'	1:1A:1960:A:N6	2.15	0.62
15:1T:109:GLU:O	15:1T:113:LYS:HG2	2.00	0.62
32:1a:134:A:H61	47:1p:25:ARG:NH1	1.98	0.62
32:1a:984:C:N4	32:1a:1221:G:H1	1.96	0.62
32:1a:1510:U:H2'	32:1a:1511:G:C8	2.35	0.62
39:1h:110:ALA:HB3	39:1h:121:ASP:HB3	1.81	0.62
4:2E:28:ALA:HB3	4:2E:93:VAL:HG12	1.81	0.62
5:2F:18:ARG:NH2	5:2F:127:GLU:OE2	2.32	0.62
32:2a:130:A:N3	32:2a:263:A:O2'	2.29	0.62
32:2a:913:A:OP1	43:2l:46:LYS:NZ	2.33	0.62
32:2a:1347:G:N2	32:2a:1373:G:H2'	2.14	0.62
32:2a:1417:G:O6	61:2a:1909:HOH:O	2.13	0.62
33:2b:187:LEU:HA	33:2b:201:ILE:HB	1.81	0.62
1:1A:2324:U:H5'	6:1G:88:ILE:HD11	1.80	0.62
10:1O:21:CYS:HB2	10:1O:39:ILE:HD12	1.82	0.62
32:1a:92:C:H2'	32:1a:93:G:C8	2.34	0.62
1:2A:2099:U:H3	1:2A:2190:G:H1	1.46	0.62
32:2a:628:G:O6	61:2a:1911:HOH:O	2.15	0.62
36:2e:146:ALA:HB1	36:2e:150:ARG:HH12	1.64	0.62
1:1A:831:A:O4'	3:1D:227:ASN:ND2	2.33	0.61
1:1A:2172:U:N3	1:1A:2173:G:N7	2.47	0.61
4:2E:47:VAL:HG11	4:2E:86:PRO:HD2	1.82	0.61
11:2P:39:LYS:NZ	61:2P:3101:HOH:O	2.25	0.61
35:2d:111:ALA:HB1	35:2d:116:GLN:HG3	1.81	0.61
40:2i:3:GLN:HE21	40:2i:20:ARG:HH21	1.47	0.61
5:2F:184:TYR:CE2	5:2F:188:ARG:HD2	2.34	0.61
32:2a:1149:C:OP2	40:2i:9:ARG:NH2	2.33	0.61
32:1a:56:U:H2'	32:1a:57:G:C8	2.34	0.61
8:2I:110:ASP:N	8:2I:130:TYR:OH	2.31	0.61
33:2b:208:ILE:HD13	33:2b:211:ILE:HD12	1.83	0.61
34:2c:111:LEU:HD22	34:2c:146:ALA:HB2	1.82	0.61
32:1a:44:G:O6	61:1a:3314:HOH:O	2.14	0.61
32:1a:1027:C:C2	32:1a:1034:G:N2	2.68	0.61
1:2A:441:U:O2	5:2F:46:ARG:NH2	2.32	0.61
1:2A:1593:G:H2'	1:2A:1594:G:C8	2.36	0.61
32:2a:26:A:N6	32:2a:558:G:O2'	2.33	0.61
48:2q:22:LEU:HD11	48:2q:39:SER:HB2	1.83	0.61
50:1s:27:GLU:OE1	50:1s:27:GLU:N	2.26	0.61
3:2D:51:VAL:HG11	3:2D:54:ARG:HE	1.63	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1099:G:OP2	33:2b:144:ARG:NH2	2.34	0.61
1:1A:742:G:OP1	1:1A:1426:G:O2'	2.18	0.61
1:1A:1831:C:OP2	3:1D:183:ARG:NH2	2.34	0.61
32:1a:946:A:H2'	32:1a:947:G:C8	2.35	0.61
3:2D:20:ASP:OD1	3:2D:20:ASP:N	2.31	0.61
5:1F:44:ARG:NH1	61:1F:403:HOH:O	2.23	0.61
26:14:15:ILE:O	26:14:33:VAL:N	2.34	0.61
1:2A:908:C:OP2	12:2Q:22:LYS:NZ	2.33	0.61
1:2A:2471:C:N4	1:2A:2476:A:O2'	2.31	0.61
32:2a:344:A:OP2	32:2a:345:C:N4	2.34	0.61
38:2g:57:GLU:HG3	38:2g:60:LYS:H	1.65	0.61
40:2i:127:LYS:O	40:2i:128:ARG:HB3	1.98	0.61
48:2q:9:VAL:HG12	48:2q:56:VAL:HG22	1.81	0.61
2:2B:21:G:H1	2:2B:62:C:H42	1.48	0.61
7:2H:23:ARG:NH1	7:2H:34:GLU:OE1	2.34	0.61
32:2a:1310:G:H2'	32:2a:1311:G:H8	1.66	0.61
1:1A:2825:C:H5'	27:15:29:THR:HG21	1.81	0.61
23:11:59:THR:O	23:11:91:LYS:NZ	2.24	0.61
36:1e:85:GLY:O	36:1e:87:SER:N	2.30	0.61
23:21:46:LEU:HD13	23:21:61:ARG:HD3	1.83	0.61
30:28:28:GLY:O	30:28:36:LYS:NZ	2.29	0.61
1:1A:2401:G:H5''	1:1A:2402:U:H5'	1.83	0.61
25:13:10:LYS:NZ	25:13:15:TYR:OH	2.34	0.61
32:1a:405:U:OP2	35:1d:3:ARG:NH1	2.34	0.61
1:2A:1266:G:O2'	1:2A:2012:G:O6	2.13	0.61
5:2F:195:ASP:OD1	5:2F:196:LEU:N	2.30	0.61
32:2a:174:C:H2'	32:2a:175:C:H6	1.66	0.61
44:2m:43:THR:HB	44:2m:48:LEU:HD21	1.83	0.61
1:1A:1633:A:H2'	1:1A:1634:C:C6	2.36	0.60
1:1A:2889:C:OP2	61:1A:4144:HOH:O	2.16	0.60
8:1I:69:LYS:HG3	8:1I:138:ILE:HG12	1.81	0.60
32:1a:200:G:H1	32:1a:217:C:H42	1.49	0.60
54:1y:8:4SU:H4'	54:1y:48:C:H4'	1.83	0.60
54:1y:48:C:C2	54:1y:59:U:H1'	2.36	0.60
1:2A:938:G:OP2	30:28:52:LYS:NZ	2.24	0.60
1:2A:1028:A:N6	1:2A:1125:G:H2'	2.16	0.60
1:2A:2327:A:H2'	1:2A:2328:A:C8	2.36	0.60
9:2N:42:TRP:CD1	9:2N:48:MET:HE1	2.36	0.60
34:2c:78:GLY:HA3	34:2c:83:ARG:H	1.66	0.60
38:2g:68:ASN:HD22	38:2g:128:ALA:HA	1.66	0.60
1:1A:1405:A:H2	1:1A:1418:U:O4	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:1I:116:LEU:HD21	8:1I:119:PRO:HA	1.83	0.60
1:2A:10:G:H1'	1:2A:2801(A):A:H62	1.66	0.60
1:2A:509:C:OP1	61:2A:3850:HOH:O	2.16	0.60
14:2S:11:LYS:HE3	14:2S:15:ARG:HH12	1.66	0.60
32:2a:1225:A:OP1	44:2m:103:THR:OG1	2.18	0.60
42:2k:24:SER:OG	42:2k:25:TYR:N	2.34	0.60
32:1a:67:C:H2'	32:1a:68:G:C8	2.36	0.60
32:1a:1065:U:O2'	32:1a:1066:C:OP2	2.18	0.60
33:1b:21:ARG:O	33:1b:23:ARG:N	2.32	0.60
39:1h:7:ALA:HB2	39:1h:85:ARG:HG3	1.83	0.60
41:1j:30:SER:HG	41:1j:81:THR:HG1	1.47	0.60
32:2a:1080:A:OP1	36:2e:47:LYS:HD3	2.00	0.60
54:2y:18:G:N1	54:2y:55:PSU:C4	2.68	0.60
1:1A:2178:G:H2'	1:1A:2179:G:C2	2.36	0.60
32:1a:562:C:H1'	43:1l:15:ARG:HB3	1.81	0.60
1:2A:1309:G:H4'	29:27:7:PRO:HB2	1.82	0.60
6:2G:48:GLU:O	6:2G:51:ARG:NH1	2.34	0.60
32:2a:36:C:O2'	43:2l:117:ARG:NH2	2.34	0.60
1:1A:1109:G:N2	1:1A:1122:C:O2'	2.34	0.60
32:1a:1129:C:H2'	32:1a:1139:G:N7	2.16	0.60
1:2A:1653:G:O6	13:2R:11:ASN:ND2	2.34	0.60
2:2B:45:A:O4'	6:2G:95:ARG:NH1	2.35	0.60
54:2w:12:U:H3'	54:2w:13:C:H5''	1.82	0.60
1:1A:1040:C:OP1	16:1U:53:ARG:NH2	2.34	0.60
2:1B:113:G:N2	14:1S:45:GLY:O	2.26	0.60
55:2x:15:G:N2	55:2x:21:A:N3	2.50	0.60
1:1A:2163:G:C4	1:1A:2164:C:H1'	2.36	0.60
54:1y:38:A:H2'	54:1y:39:PSU:O4'	2.02	0.60
1:2A:952:G:OP1	12:2Q:16:ARG:NH2	2.34	0.60
1:2A:2250:G:C8	1:2A:2496:C:H5''	2.36	0.60
41:2j:47:PHE:HB2	41:2j:63:PHE:HB2	1.84	0.60
1:1A:639:G:N2	5:1F:44:ARG:O	2.34	0.60
1:1A:2801:C:OP1	4:1E:61:ARG:NH2	2.35	0.60
5:2F:20:LEU:HD13	5:2F:125:LEU:HD22	1.83	0.60
32:2a:1302:U:OP2	44:2m:21:TYR:OH	2.11	0.60
47:2p:18:ARG:HD3	47:2p:35:LYS:HD2	1.84	0.60
1:1A:2658:C:OP2	1:1A:2745:G:O2'	2.19	0.60
5:1F:53:THR:HG22	5:1F:55:GLY:H	1.65	0.60
1:2A:1266:G:O5'	18:2W:15:ARG:NH2	2.35	0.60
1:2A:1412:A:H2'	1:2A:1413:G:H8	1.67	0.60
7:2H:121:ILE:HD11	7:2H:140:LYS:HG2	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:2O:49:ARG:HH12	32:2a:1423:G:P	2.25	0.60
34:2c:172:ARG:HH21	34:2c:174:PRO:HG3	1.66	0.60
54:2w:6:G:O6	54:2w:67:C:N3	2.35	0.60
8:1I:75:LEU:HD22	8:1I:105:HIS:CD2	2.36	0.60
38:1g:59:LEU:HD11	38:1g:63:LYS:HE2	1.84	0.60
1:2A:1507:A:O2'	1:2A:1508:A:O5'	2.20	0.60
1:2A:2342:C:O2'	1:2A:2374:C:OP1	2.19	0.60
21:2Z:124:ILE:HD13	21:2Z:163:LEU:HD11	1.84	0.60
32:2a:1286:A:H8	32:2a:1287:A:H4'	1.66	0.60
1:1A:2457:G:OP1	5:1F:74:ARG:NH2	2.35	0.59
1:2A:516:C:OP1	27:25:13:LYS:NZ	2.34	0.59
12:2Q:111:GLU:O	12:2Q:115:MET:HG2	2.02	0.59
33:2b:101:MET:HA	33:2b:108:ILE:HG13	1.83	0.59
21:1Z:11:GLU:O	21:1Z:36:LYS:NZ	2.24	0.59
1:2A:816:C:OP2	61:2A:3854:HOH:O	2.17	0.59
7:2H:84:SER:HB3	7:2H:132:ARG:HH11	1.67	0.59
15:2T:39:ARG:NH2	32:2a:345:C:OP2	2.29	0.59
32:2a:903:G:OP1	61:2a:1912:HOH:O	2.15	0.59
32:2a:1342:C:H2'	32:2a:1343:G:H8	1.67	0.59
34:2c:63:ASN:HA	34:2c:98:ASN:H	1.65	0.59
39:2h:10:LEU:HD22	39:2h:83:ILE:HD11	1.84	0.59
1:1A:1577:C:H42	1:1A:1586:G:H1	1.49	0.59
1:2A:2052:G:H4'	4:2E:143:ASN:O	2.02	0.59
1:2A:2432:A:OP2	61:2A:3851:HOH:O	2.17	0.59
5:2F:145:GLU:OE1	5:2F:145:GLU:N	2.35	0.59
12:2Q:57:HIS:HD2	12:2Q:117:ALA:HB2	1.67	0.59
17:2V:43:GLU:OE1	17:2V:43:GLU:N	2.35	0.59
43:2I:32:PHE:HB3	43:2I:84:LEU:HD11	1.83	0.59
44:2m:88:ARG:O	44:2m:92:HIS:ND1	2.36	0.59
32:1a:108:G:N1	51:1t:15:ARG:HG2	2.17	0.59
32:1a:929:G:H1	32:1a:1388:C:N4	1.99	0.59
33:1b:24:TRP:HZ3	33:1b:29:ALA:HB2	1.67	0.59
41:1j:5:ARG:HD3	41:1j:71:LEU:HD11	1.85	0.59
1:2A:222:A:OP1	61:2A:3848:HOH:O	2.16	0.59
1:2A:900:A:O2'	1:2A:901:A:OP1	2.17	0.59
1:2A:1901:A:OP2	3:2D:255:LYS:NZ	2.31	0.59
5:2F:149:ASP:OD1	5:2F:149:ASP:N	2.30	0.59
11:1P:50:ARG:HD3	30:18:7:HIS:HD2	1.64	0.59
32:1a:1125:U:H4'	41:1j:5:ARG:HH22	1.66	0.59
33:1b:187:LEU:HA	33:1b:201:ILE:HB	1.84	0.59
1:2A:958:U:OP2	12:2Q:14:ARG:NH1	2.31	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2659:G:N7	61:2A:3917:HOH:O	2.31	0.59
8:2I:130:TYR:HB3	8:2I:138:ILE:HB	1.83	0.59
31:29:17:ILE:HD12	31:29:26:ILE:HD11	1.84	0.59
40:2i:7:THR:O	40:2i:83:ARG:NH1	2.35	0.59
32:1a:159:G:HO2'	32:1a:161:A:H62	1.51	0.59
46:1o:18:PHE:O	46:1o:20:GLY:N	2.34	0.59
1:2A:800:A:H8	1:2A:800:A:OP1	1.86	0.59
32:2a:1013:G:N2	32:2a:1016:A:OP2	2.35	0.59
1:1A:1832:G:OP2	3:1D:154:LYS:NZ	2.35	0.59
32:1a:931:C:N3	32:1a:1386:G:N2	2.41	0.59
13:2R:44:LEU:HD22	13:2R:48:VAL:HG23	1.85	0.59
16:2U:50:ARG:HH22	17:2V:72:VAL:HB	1.68	0.59
21:2Z:130:PRO:HA	21:2Z:133:ILE:HG13	1.84	0.59
32:2a:1107:C:O2	32:2a:1191:A:O2'	2.21	0.59
41:2j:78:ASN:O	41:2j:80:LYS:N	2.35	0.59
1:1A:1539:C:N4	1:1A:2227:G:O2'	2.36	0.59
1:1A:2600:G:OP1	61:1A:4146:HOH:O	2.17	0.59
1:2A:2074:U:O4	61:2A:3839:HOH:O	2.14	0.59
1:2A:2291:U:OP1	1:2A:2380:C:O2'	2.21	0.59
32:2a:931:C:H42	32:2a:1386:G:H1	1.50	0.59
34:2c:6:HIS:HD2	34:2c:8:ILE:H	1.50	0.59
1:1A:929:G:H1	1:1A:940:C:H42	1.51	0.59
35:1d:178:VAL:O	35:1d:180:GLY:N	2.32	0.59
1:2A:740:U:OP1	61:2A:3856:HOH:O	2.17	0.59
1:2A:2375:G:N2	1:2A:2378:A:OP2	2.33	0.59
7:2H:20:ALA:HB1	7:2H:21:PRO:HD2	1.85	0.59
7:2H:20:ALA:HB3	7:2H:23:ARG:HG3	1.84	0.59
11:2P:95:VAL:HG13	11:2P:125:VAL:HA	1.83	0.59
1:1A:1288:A:N1	11:1P:2:LYS:NZ	2.51	0.59
1:1A:1997:G:OP2	61:1A:4147:HOH:O	2.17	0.59
7:1H:97:ARG:NH2	7:1H:104:GLU:OE1	2.35	0.59
44:1m:3:ARG:NH2	44:1m:9:ILE:O	2.26	0.59
46:1o:39:LEU:HD13	46:1o:56:LEU:HB2	1.85	0.59
1:2A:1183:G:H5''	25:23:30:ARG:HH22	1.67	0.59
1:2A:2690:C:OP2	13:2R:17:ARG:NH2	2.35	0.59
11:2P:50:ARG:HD3	30:28:7:HIS:HD2	1.68	0.59
49:2r:26:LEU:HD11	49:2r:42:ARG:HD2	1.85	0.59
1:1A:1218:G:O2'	1:1A:1219:A:O4'	2.21	0.58
1:1A:2143:G:H1	1:1A:2199:C:N4	2.00	0.58
6:1G:101:ILE:HG22	6:1G:105:LYS:HE2	1.85	0.58
23:11:18:ILE:HG12	23:11:37:ILE:HG12	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:410:G:OP1	35:1d:30:LYS:NZ	2.25	0.58
34:1c:58:GLU:HB3	41:1j:92:THR:HG21	1.84	0.58
35:1d:119:GLN:HG2	35:1d:123:HIS:CD2	2.38	0.58
42:1k:79:SER:HA	42:1k:104:GLN:HB3	1.84	0.58
1:2A:271(G):C:H2'	1:2A:271(H):G:H8	1.66	0.58
21:2Z:5:LEU:HB2	21:2Z:47:VAL:HG21	1.85	0.58
12:1Q:111:GLU:OE2	12:1Q:133:ARG:NH2	2.36	0.58
40:1i:50:LEU:HD23	40:1i:81:ILE:HD11	1.83	0.58
1:2A:1783:A:HO2'	1:2A:2607:G:HO2'	1.50	0.58
23:21:51:VAL:HG11	23:21:74:VAL:HG21	1.84	0.58
32:2a:1376:U:H2'	32:2a:1377:A:C8	2.38	0.58
1:1A:1312:G:O2'	1:1A:2034:G:O6	2.21	0.58
1:1A:1714:G:O2'	1:1A:2013:U:O4	2.19	0.58
1:1A:1959:A:H1'	1:1A:1961:5MU:H72	1.85	0.58
1:1A:2153:G:OP1	1:1A:2154:U:O2'	2.19	0.58
33:1b:97:TRP:HZ2	33:1b:102:LEU:HD13	1.67	0.58
51:1t:57:ARG:HH12	51:1t:100:ILE:HD12	1.68	0.58
1:2A:674:G:H1'	5:2F:74:ARG:HD3	1.85	0.58
1:2A:1924:C:H4'	55:2x:13:C:O2'	2.03	0.58
32:2a:627:G:H2'	32:2a:628:G:H8	1.67	0.58
32:2a:1053:G:N7	32:2a:1200:C:H5''	2.18	0.58
36:2e:57:LYS:HG2	36:2e:61:TYR:HE2	1.68	0.58
54:2w:28:G:H2'	54:2w:29:G:O4'	2.04	0.58
1:1A:556:C:O2	61:1A:4136:HOH:O	2.14	0.58
16:1U:46:ALA:O	16:1U:50:ARG:HG2	2.04	0.58
32:1a:532:A:H2	32:1a:1206:G:H21	1.50	0.58
32:1a:864:A:OP1	61:1a:3316:HOH:O	2.17	0.58
1:2A:796:C:H2'	1:2A:797:C:C6	2.38	0.58
32:2a:1003:G:H2'	32:2a:1004:A:O4'	2.04	0.58
32:2a:1228:C:OP1	44:2m:115:LYS:NZ	2.32	0.58
35:2d:76:ARG:NH1	35:2d:80:GLU:OE2	2.36	0.58
1:1A:2260:C:OP2	61:1A:4149:HOH:O	2.17	0.58
25:13:7:LYS:HB2	25:13:34:GLU:HG2	1.85	0.58
42:2k:110:ASP:HB3	49:2r:85:LEU:HB3	1.84	0.58
23:11:51:VAL:HG11	23:11:74:VAL:HG21	1.86	0.58
41:1j:78:ASN:O	41:1j:80:LYS:N	2.33	0.58
32:2a:1007:C:N3	32:2a:1022:G:O6	2.36	0.58
44:2m:11:ARG:HA	44:2m:45:VAL:HB	1.86	0.58
1:1A:173:C:H2'	1:1A:174:U:C6	2.38	0.58
5:1F:188:ARG:HA	11:1P:3:LEU:HD11	1.85	0.58
6:1G:34:LEU:HD23	6:1G:161:THR:HG22	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:679:C:H2'	32:1a:680:C:C6	2.39	0.58
1:2A:1371:G:N7	61:2A:3931:HOH:O	2.32	0.58
8:2I:48:GLU:HB3	8:2I:52:ARG:HH12	1.69	0.58
16:2U:28:ARG:NH1	16:2U:38:THR:OG1	2.35	0.58
32:2a:662:G:O2'	32:2a:836:G:OP1	2.20	0.58
1:1A:223:C:H2'	1:1A:224:U:H6	1.68	0.58
1:1A:2205:C:H2'	1:1A:2206:G:H8	1.67	0.58
14:1S:39:ILE:HB	14:1S:49:VAL:HG13	1.85	0.58
32:1a:1021:G:O2'	32:1a:1022:G:O5'	2.18	0.58
32:1a:1305:G:N2	32:1a:1331:G:H1'	2.19	0.58
38:1g:47:CYS:HA	38:1g:50:ILE:HG22	1.85	0.58
1:2A:878:A:N6	1:2A:900:A:N7	2.51	0.58
3:2D:125:ILE:HG12	37:2f:81:ILE:HD11	1.86	0.58
32:2a:1027:C:N4	32:2a:1036:G:O6	2.36	0.58
32:2a:1346:A:N1	32:2a:1374:A:H5''	2.19	0.58
33:2b:81:VAL:HB	33:2b:94:ASN:HD21	1.67	0.58
36:1e:84:PHE:HB2	36:1e:134:ALA:HB2	1.86	0.58
1:2A:271(H):G:H2'	1:2A:271(I):G:H8	1.67	0.58
1:2A:290:G:H1	1:2A:350:U:H3	1.52	0.58
1:2A:1468:C:OP1	61:2A:3852:HOH:O	2.17	0.58
1:2A:2758:A:C2	1:2A:2759:G:H1'	2.39	0.58
33:2b:55:PHE:HE1	33:2b:218:ALA:HA	1.69	0.58
34:2c:47:LEU:HD12	34:2c:68:VAL:HG11	1.84	0.58
50:2s:30:LEU:HD11	50:2s:50:ALA:HB2	1.86	0.58
1:1A:713:G:N2	30:18:2:PRO:O	2.37	0.58
32:1a:1162:C:N3	32:1a:1174:G:N2	2.44	0.58
40:1i:40:LEU:O	40:1i:43:ALA:N	2.34	0.58
51:1t:53:LEU:HA	51:1t:56:MET:HB3	1.86	0.58
1:2A:1023:U:OP2	61:2A:3817:HOH:O	2.17	0.58
27:25:33:CYS:HB2	27:25:40:LYS:HD3	1.86	0.58
32:2a:532:A:H2	32:2a:1055:A:H1'	1.68	0.58
33:2b:21:ARG:HA	33:2b:39:ILE:HG23	1.86	0.58
23:11:64:ALA:HA	23:11:67:ILE:HG13	1.85	0.57
32:1a:1145:C:H4'	32:1a:1146:A:H5'	1.84	0.57
32:1a:1429:C:H2'	32:1a:1430:C:C6	2.39	0.57
34:1c:3:ASN:OD1	34:1c:3:ASN:N	2.36	0.57
1:2A:223:A:O2'	1:2A:420:C:O2	2.22	0.57
1:2A:922:U:O2'	22:20:29:GLN:NE2	2.36	0.57
9:2N:30:ILE:HG22	9:2N:34:LEU:HD22	1.84	0.57
32:2a:501:C:H2'	32:2a:502:G:H8	1.67	0.57
32:2a:757:U:H2'	32:2a:758:G:O4'	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:976:G:H5'	32:2a:1358:U:O2'	2.03	0.57
45:2n:24:CYS:HB3	45:2n:27:CYS:SG	2.44	0.57
1:1A:1111:U:H1'	1:1A:1120:G:C2	2.39	0.57
1:1A:1639:G:H2'	1:1A:1640:G:C8	2.39	0.57
1:2A:1532:C:H41	1:2A:1537:G:H1	1.51	0.57
1:2A:1813:G:O6	61:2A:3858:HOH:O	2.17	0.57
8:2I:140:LEU:HD22	8:2I:142:VAL:HG22	1.86	0.57
10:2O:9:GLU:OE2	10:2O:18:LYS:NZ	2.37	0.57
32:2a:107:G:N7	51:2t:15:ARG:NH2	2.52	0.57
32:2a:263:A:OP1	51:2t:79:ARG:NH1	2.36	0.57
33:2b:69:LEU:HB3	33:2b:162:ILE:HG22	1.85	0.57
46:2o:78:TYR:OH	46:2o:88:ARG:NH1	2.36	0.57
32:1a:165:C:H2'	32:1a:166:G:H8	1.68	0.57
33:1b:12:GLU:HG3	33:1b:44:LEU:HD23	1.86	0.57
41:1j:21:GLN:NE2	41:1j:25:GLU:OE2	2.37	0.57
1:2A:1751:C:HO2'	1:2A:2861:G:HO2'	1.50	0.57
6:2G:11:TYR:HA	6:2G:15:VAL:HB	1.86	0.57
9:2N:30:ILE:O	9:2N:34:LEU:N	2.32	0.57
19:2X:60:ARG:HH22	29:27:47:ARG:HH12	1.52	0.57
36:2e:31:LEU:HD22	36:2e:43:LEU:HD11	1.84	0.57
54:2w:39:PSU:H2'	54:2w:40:C:C6	2.39	0.57
1:1A:223:C:H2'	1:1A:224:U:C6	2.39	0.57
1:1A:1121:C:H2'	1:1A:1122:C:H5'	1.86	0.57
22:10:27:GLU:HG3	22:10:68:GLU:HA	1.85	0.57
32:1a:1004:A:H5''	32:1a:1025:U:H5	1.70	0.57
1:2A:2129:C:H5'	1:2A:2130:U:OP2	2.04	0.57
9:2N:20:GLY:HA2	9:2N:61:ARG:HG3	1.85	0.57
21:2Z:138:GLU:H	21:2Z:156:LYS:HE2	1.70	0.57
32:2a:1327:C:H2'	32:2a:1328:C:C6	2.39	0.57
35:2d:98:GLU:HG3	35:2d:194:LEU:HD21	1.86	0.57
48:2q:41:LYS:NZ	48:2q:88:TYR:OH	2.34	0.57
49:2r:22:VAL:HB	49:2r:56:THR:HA	1.86	0.57
5:1F:51:THR:HB	5:1F:88:VAL:HG11	1.87	0.57
23:11:50:ARG:HG2	23:11:59:THR:HG22	1.87	0.57
24:12:14:ARG:O	24:12:67:LYS:NZ	2.37	0.57
32:1a:204:U:H4'	32:1a:216:G:O5'	2.05	0.57
47:1p:18:ARG:NH1	47:1p:32:TYR:OH	2.37	0.57
1:2A:2625:G:O6	61:2A:3843:HOH:O	2.15	0.57
6:2G:29:TRP:O	6:2G:33:ARG:NH1	2.36	0.57
7:2H:113:VAL:HG11	7:2H:151:ILE:HD13	1.87	0.57
17:2V:46:VAL:HG23	17:2V:52:VAL:HG11	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:559:A:OP1	36:2e:126:ARG:NH2	2.36	0.57
40:2i:92:TYR:HB3	40:2i:96:LEU:HD12	1.86	0.57
42:2k:34:ASP:HB3	42:2k:40:ILE:HD11	1.86	0.57
4:1E:103:ASP:OD2	4:1E:168:MET:HE2	2.03	0.57
32:1a:166:G:H2'	32:1a:167:G:C8	2.40	0.57
36:1e:77:PRO:HD2	36:1e:142:LEU:HD13	1.85	0.57
40:1i:15:ALA:HB2	40:1i:65:VAL:HG13	1.86	0.57
1:2A:648:G:O2'	1:2A:2351:G:OP1	2.21	0.57
1:2A:863:A:H2'	1:2A:864:G:H8	1.69	0.57
1:2A:1469:A:OP2	61:2A:3855:HOH:O	2.17	0.57
1:2A:1658:C:OP1	61:2A:3859:HOH:O	2.17	0.57
1:2A:2140:C:H1'	1:2A:2152:G:N2	2.19	0.57
4:2E:14:ILE:HG13	4:2E:21:VAL:HG13	1.86	0.57
34:2c:71:ALA:HB2	34:2c:109:PRO:HB3	1.87	0.57
32:1a:280:C:N3	48:1q:39:SER:OG	2.38	0.57
32:1a:345:C:H5'	32:1a:346:G:C5	2.39	0.57
32:1a:1435:G:H2'	32:1a:1436:U:C6	2.40	0.57
34:1c:153:VAL:HG22	34:1c:198:VAL:HG22	1.85	0.57
35:1d:116:GLN:HE21	35:1d:157:LEU:HD21	1.69	0.57
54:1w:3:C:N4	54:1w:70:G:H1	1.98	0.57
1:2A:947:G:OP2	61:2A:3861:HOH:O	2.18	0.57
1:2A:1237:A:OP1	61:2A:3863:HOH:O	2.18	0.57
13:2R:33:ARG:NH1	13:2R:115:GLU:OE1	2.36	0.57
32:2a:407:G:H2'	32:2a:408:A:C8	2.40	0.57
32:2a:1218:C:H2'	32:2a:1219:U:C6	2.40	0.57
32:2a:1272:G:N2	32:2a:1273:G:C5	2.72	0.57
1:1A:1711:A:OP1	61:1A:4106:HOH:O	2.17	0.57
1:1A:2339:A:H2'	1:1A:2340:A:C8	2.40	0.57
2:1B:88:C:H2'	2:1B:89:G:O4'	2.04	0.57
54:1y:51:U:H3	54:1y:63:G:H1	1.53	0.57
1:2A:2746:U:OP1	7:2H:85:LYS:NZ	2.29	0.57
26:24:24:THR:OG1	26:24:25:TYR:N	2.32	0.57
32:2a:157:G:H1	32:2a:164:U:H3	1.52	0.57
32:2a:1071:C:H2'	32:2a:1072:G:C8	2.40	0.57
54:2w:21:A:O2'	54:2w:22:G:OP1	2.23	0.57
32:1a:993:G:O2'	32:1a:994:A:N7	2.37	0.57
32:1a:1074:G:O2'	32:1a:1101:A:N1	2.34	0.57
1:2A:2375:G:O2'	1:2A:2377:A:N7	2.28	0.57
58:2A:3746:EZG:ND1	61:2A:3933:HOH:O	2.33	0.57
48:2q:9:VAL:HG11	48:2q:84:LEU:HD12	1.87	0.57
45:1n:29:ARG:HD3	45:1n:40:CYS:SG	2.44	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:1v:20:U:H2'	53:1v:21:C:H6	1.69	0.57
54:1y:26:A:N6	54:1y:44:G:H1	2.02	0.57
22:20:63:VAL:HG21	22:20:83:PRO:HG3	1.87	0.57
45:2n:21:TYR:HE1	45:2n:23:ARG:HE	1.52	0.57
50:2s:15:LEU:HD12	50:2s:18:LYS:HD2	1.86	0.57
55:2x:44:A:H2'	55:2x:45:G:C8	2.40	0.57
54:2y:8:4SU:H1'	54:2y:48:C:H1'	1.87	0.57
54:2y:14:A:O2'	54:2y:15:G:OP1	2.20	0.57
12:1Q:37:LEU:HD21	12:1Q:130:LYS:HE2	1.87	0.56
33:1b:16:HIS:CG	33:1b:17:PHE:H	2.23	0.56
39:1h:14:ARG:NH1	39:1h:83:ILE:O	2.37	0.56
1:2A:2498:C:H3'	61:2A:3829:HOH:O	2.03	0.56
4:2E:76:ARG:NH1	61:2E:403:HOH:O	2.38	0.56
8:2I:38:LEU:HB2	8:2I:40:THR:HG23	1.86	0.56
21:2Z:69:THR:HG22	21:2Z:90:VAL:HA	1.87	0.56
23:21:53:VAL:HG22	23:21:74:VAL:HG13	1.86	0.56
32:2a:748:C:H4'	32:2a:749:C:O5'	2.05	0.56
32:2a:952:U:H2'	32:2a:953:G:C8	2.40	0.56
33:2b:112:VAL:HG22	33:2b:149:LEU:HD13	1.87	0.56
1:1A:297:C:H2'	1:1A:298:G:H8	1.71	0.56
1:1A:493:G:OP1	29:17:33:ARG:NH1	2.38	0.56
1:1A:1159:U:H2'	1:1A:1160:G:C8	2.40	0.56
1:1A:2104:A:H5'	61:1A:4178:HOH:O	2.05	0.56
1:1A:2157:A:H5'	1:1A:2182:G:H4'	1.87	0.56
32:1a:625:G:H2'	32:1a:626:U:C6	2.40	0.56
32:1a:1025:U:O2	32:1a:1036:G:O6	2.21	0.56
54:1y:26:A:N1	54:1y:44:G:N2	2.53	0.56
1:2A:1530:C:N4	1:2A:1539:G:H1	2.03	0.56
2:2B:24:G:N7	2:2B:56:G:H2'	2.20	0.56
19:2X:12:VAL:HG22	19:2X:29:TRP:CE2	2.41	0.56
22:20:10:THR:HG22	22:20:12:ASN:N	2.20	0.56
30:28:6:THR:HG22	30:28:63:PRO:HD2	1.87	0.56
32:2a:972:C:O2'	41:2j:55:LYS:O	2.23	0.56
1:1A:174:U:H2'	1:1A:175:G:H8	1.70	0.56
1:1A:1217:G:OP2	1:1A:1219:A:N6	2.38	0.56
1:1A:2507:G:H5''	12:1Q:82:ARG:HG2	1.87	0.56
32:1a:166:G:H2'	32:1a:167:G:H8	1.70	0.56
34:1c:150:LYS:HB3	34:1c:201:TYR:HB2	1.87	0.56
54:1w:6:G:N1	54:1w:67:C:N4	2.26	0.56
1:2A:639:U:H2'	1:2A:640:C:C6	2.40	0.56
1:2A:861:A:N3	2:2B:79:C:O2'	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1639:U:H2'	1:2A:1640:C:H5''	1.88	0.56
1:2A:2461:C:H2'	1:2A:2462:U:C6	2.40	0.56
2:2B:72:G:O2'	2:2B:105:A:N6	2.37	0.56
26:24:41:PRO:HG3	26:24:49:PHE:CZ	2.40	0.56
32:2a:578:C:O2'	32:2a:728:A:N3	2.35	0.56
33:2b:189:ASP:OD1	33:2b:189:ASP:N	2.31	0.56
40:2i:42:ARG:NH1	40:2i:75:ASP:OD2	2.38	0.56
41:2j:23:ILE:HD12	41:2j:85:LEU:HD22	1.86	0.56
44:2m:3:ARG:HD3	44:2m:9:ILE:N	2.20	0.56
50:2s:22:LEU:O	50:2s:27:GLU:N	2.39	0.56
51:2t:16:HIS:O	51:2t:19:SER:OG	2.20	0.56
54:2y:7:A:O2'	54:2y:49:C:O4'	2.21	0.56
1:1A:1151:U:H2'	1:1A:1152:G:H8	1.71	0.56
1:1A:1495:G:O2'	1:1A:1575:A:N1	2.39	0.56
1:1A:2642:G:H2'	1:1A:2643:G:C8	2.40	0.56
2:1B:8:U:OP1	14:1S:15:ARG:NH2	2.38	0.56
32:1a:532:A:N6	32:1a:1206:G:O2'	2.39	0.56
32:1a:1027:C:N4	32:1a:1034:G:C6	2.73	0.56
1:2A:27:G:O2'	1:2A:28:A:OP2	2.23	0.56
32:2a:254:G:OP1	48:2q:66:SER:OG	2.21	0.56
32:2a:1073:U:O2'	33:2b:104:ASN:OD1	2.24	0.56
32:2a:1310:G:H2'	32:2a:1311:G:C8	2.40	0.56
39:2h:51:VAL:HG11	39:2h:60:ARG:HH12	1.70	0.56
54:2w:34:G:H2'	54:2w:35:A:H8	1.70	0.56
7:2H:45:VAL:HG12	7:2H:50:VAL:HG22	1.86	0.56
32:2a:573:A:N3	32:2a:883:C:O2'	2.37	0.56
32:2a:1396:A:OP2	61:2a:1915:HOH:O	2.18	0.56
1:1A:1716:A:OP2	61:1A:4122:HOH:O	2.18	0.56
32:1a:1373:G:H5''	38:1g:36:LYS:HE2	1.88	0.56
54:1w:1:G:O6	54:1w:72:C:N3	2.38	0.56
32:2a:426:G:OP1	35:2d:38:TYR:OH	2.15	0.56
32:2a:662:G:H2'	32:2a:663:A:C8	2.41	0.56
33:2b:16:HIS:CB	33:2b:210:SER:HB2	2.34	0.56
35:2d:64:LEU:HB2	35:2d:198:VAL:HG11	1.87	0.56
36:2e:122:GLU:O	36:2e:126:ARG:NH1	2.39	0.56
1:1A:692:C:N4	1:1A:698:G:H1	2.04	0.56
13:1R:44:LEU:HD22	13:1R:48:VAL:HG23	1.88	0.56
32:1a:192:U:H2'	32:1a:193:C:C6	2.41	0.56
38:1g:50:ILE:HD11	38:1g:61:VAL:HG11	1.88	0.56
54:1y:58:A:O2'	54:1y:59:U:OP1	2.19	0.56
1:2A:218:A:OP2	61:2A:3862:HOH:O	2.18	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:857:C:OP2	22:20:77:ARG:NH2	2.38	0.56
1:2A:1599:C:OP1	61:2A:3857:HOH:O	2.17	0.56
6:2G:170:ARG:O	6:2G:174:GLU:HB2	2.06	0.56
32:2a:1262:C:H42	32:2a:1273:G:H1	1.52	0.56
33:2b:77:ALA:HA	33:2b:80:ILE:HG22	1.87	0.56
1:1A:2367:C:H1'	22:10:39:ARG:HH21	1.70	0.56
32:1a:551:U:H2'	32:1a:552:U:C6	2.41	0.56
1:2A:2121:G:H1	1:2A:2177:C:H42	1.52	0.56
21:2Z:47:VAL:O	21:2Z:50:GLN:NE2	2.39	0.56
43:2l:110:VAL:HB	43:2l:113:ARG:HG2	1.88	0.56
48:2q:95:TYR:HA	48:2q:98:LEU:HD12	1.87	0.56
1:1A:2177:G:H3'	1:1A:2178:G:C8	2.41	0.56
20:1Y:92:ASN:N	20:1Y:93:GLY:HA2	2.19	0.56
32:1a:45:U:H2'	32:1a:46:G:H8	1.70	0.56
32:1a:1366:C:O2'	41:1j:60:ARG:NH1	2.37	0.56
36:1e:78:HIS:HE1	36:1e:143:ARG:H	1.54	0.56
1:2A:1794:U:H2'	1:2A:1795:C:C6	2.41	0.56
4:2E:143:ASN:HD22	4:2E:147:PRO:HD3	1.71	0.56
18:2W:88:ARG:NH1	18:2W:94:ASP:OD2	2.36	0.56
21:2Z:92:SER:O	21:2Z:130:PRO:HG3	2.06	0.56
43:2l:53:ARG:HB3	43:2l:69:TYR:HE1	1.71	0.56
1:1A:347:G:C8	5:1F:171:PRO:HG3	2.41	0.56
1:1A:559:U:H2'	1:1A:560:C:C6	2.41	0.56
1:1A:1552:C:H2'	1:1A:1553:A:C8	2.41	0.56
1:2A:882:G:H2'	1:2A:883:G:H8	1.70	0.56
1:2A:1508:A:H4'	1:2A:1509(A):A:C5	2.41	0.56
32:2a:928:G:H1	32:2a:1389:C:H42	1.54	0.56
32:2a:1309:G:OP1	44:2m:88:ARG:NH2	2.39	0.56
54:2w:34:G:H2'	54:2w:35:A:C8	2.41	0.56
1:1A:1051:C:O2'	9:1N:28:THR:HG21	2.06	0.55
1:1A:2348:A:H61	22:10:43:THR:CG2	2.19	0.55
5:1F:12:LEU:HB3	5:1F:126:VAL:HG12	1.88	0.55
6:1G:16:ARG:O	6:1G:20:ILE:HG13	2.05	0.55
8:1I:79:ILE:HB	8:1I:144:VAL:HG12	1.87	0.55
32:1a:1102:A:O3'	33:1b:96:ARG:NH2	2.38	0.55
33:1b:16:HIS:HB2	33:1b:204:ASN:HB3	1.87	0.55
36:1e:60:TYR:OH	36:1e:64:ARG:NH2	2.33	0.55
1:2A:108:U:H2'	1:2A:109:G:H8	1.71	0.55
1:2A:484:C:H2'	1:2A:485:C:H6	1.71	0.55
5:2F:185:ASP:OD1	5:2F:188:ARG:NH1	2.34	0.55
23:21:50:ARG:HG2	23:21:59:THR:HG22	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1220:G:N2	50:2s:54:GLY:O	2.37	0.55
32:2a:1270:C:H2'	32:2a:1271:G:C8	2.41	0.55
44:2m:4:ILE:HG12	44:2m:5:ALA:H	1.70	0.55
47:2p:52:ASP:O	47:2p:54:GLU:N	2.36	0.55
1:1A:2584:A:C8	4:1E:144:ARG:HD3	2.41	0.55
32:1a:848:C:H2'	32:1a:849:C:C6	2.41	0.55
32:1a:1031:G:H2'	32:1a:1032:G:C8	2.40	0.55
33:1b:51:LEU:HD22	33:1b:55:PHE:HE2	1.71	0.55
45:1n:50:LYS:HG2	45:1n:52:GLN:HG3	1.87	0.55
1:2A:265:A:C8	1:2A:266:G:H1'	2.40	0.55
9:2N:42:TRP:HD1	9:2N:48:MET:HE1	1.71	0.55
32:2a:977:A:O2'	32:2a:979:C:OP2	2.18	0.55
1:1A:2158:C:H42	1:1A:2177:G:H1	0.63	0.55
1:1A:2291:G:O6	22:10:14:ARG:HG3	2.07	0.55
8:1I:47:LEU:HG	8:1I:51:ILE:HD11	1.88	0.55
28:16:35:GLU:OE2	28:16:50:ARG:NH1	2.39	0.55
39:1h:124:ALA:O	39:1h:128:GLY:N	2.39	0.55
41:1j:11:PHE:HE1	41:1j:67:THR:HG22	1.72	0.55
1:2A:1155:A:H5''	16:2U:55:ARG:NH1	2.21	0.55
1:2A:2022:U:O2'	1:2A:2617:C:H5'	2.07	0.55
2:2B:43:C:H5''	26:24:1:MET:HG2	1.87	0.55
2:2B:83:G:H1	2:2B:94:C:H42	1.54	0.55
1:1A:1388:A:O2'	1:1A:1390:G:OP2	2.21	0.55
1:1A:2153:G:N2	1:1A:2180:A:N1	2.55	0.55
6:1G:45:GLU:OE2	61:1G:3102:HOH:O	2.17	0.55
7:1H:41:MET:HE1	7:1H:54:ARG:HB3	1.88	0.55
8:1I:65:ALA:O	8:1I:69:LYS:N	2.39	0.55
19:1X:56:THR:O	61:1X:201:HOH:O	2.18	0.55
1:2A:1149:G:H2'	1:2A:1150:C:C6	2.41	0.55
1:2A:2331:G:O2'	1:2A:2336:A:N1	2.36	0.55
1:2A:2882:A:H5'	13:2R:96:ARG:HG3	1.87	0.55
4:2E:179:GLU:HG3	15:2T:9:LEU:HD21	1.87	0.55
47:2p:19:ILE:N	47:2p:37:GLY:O	2.39	0.55
4:1E:105:THR:OG1	4:1E:199:ARG:NH2	2.36	0.55
33:1b:162:ILE:O	33:1b:185:ILE:HG12	2.06	0.55
33:1b:178:ARG:HB3	39:1h:72:PRO:HA	1.89	0.55
54:1y:19:G:N2	54:1y:56:C:N3	2.55	0.55
1:2A:602:G:O2'	1:2A:655:A:N6	2.39	0.55
5:2F:120:GLU:HG3	5:2F:122:LYS:HG2	1.89	0.55
32:2a:501:C:H2'	32:2a:502:G:C8	2.41	0.55
32:2a:973:G:H3'	32:2a:974:A:H5''	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1051:C:H2'	32:2a:1052:U:C6	2.42	0.55
35:2d:30:LYS:HA	35:2d:35:ARG:HD2	1.89	0.55
1:1A:71:U:OP1	61:1A:4148:HOH:O	2.17	0.55
1:1A:2101:U:O3'	23:11:35:THR:OG1	2.25	0.55
6:1G:131:TYR:HB3	6:1G:159:VAL:HG13	1.87	0.55
32:1a:1391:U:H2'	32:1a:1392:G:C8	2.42	0.55
14:2S:28:VAL:HG11	14:2S:98:VAL:HG13	1.88	0.55
6:1G:145:THR:HG23	6:1G:148:MET:HG2	1.89	0.55
7:1H:164:TYR:HB2	7:1H:167:GLU:HB2	1.88	0.55
9:1N:108:PRO:O	9:1N:113:GLY:HA3	2.07	0.55
50:1s:66:MET:HB2	50:1s:74:PHE:CZ	2.42	0.55
51:1t:13:LEU:HD12	51:1t:14:LYS:N	2.22	0.55
21:2Z:166:SER:O	21:2Z:168:GLU:N	2.39	0.55
32:2a:1187:G:H5''	40:2i:113:LYS:HD3	1.87	0.55
5:1F:185:ASP:HA	5:1F:188:ARG:HD3	1.89	0.55
33:1b:210:SER:O	33:1b:214:ILE:HG12	2.06	0.55
1:2A:1939:5MU:OP1	1:2A:2604:U:O2'	2.21	0.55
32:2a:553:A:H5''	43:2l:24:VAL:HG21	1.87	0.55
32:2a:1272:G:N2	32:2a:1273:G:C4	2.75	0.55
34:2c:36:ASP:O	34:2c:40:ARG:HG2	2.07	0.55
51:2t:57:ARG:HH12	51:2t:100:ILE:HD12	1.72	0.55
1:1A:879:G:H5'	11:1P:45:LEU:HD21	1.89	0.55
1:1A:1320:A:N3	1:1A:1343:C:H1'	2.22	0.55
1:1A:2442:A:H2'	1:1A:2442:A:N3	2.22	0.55
1:1A:2732:G:OP2	61:1A:4153:HOH:O	2.18	0.55
32:1a:1068:G:H8	32:1a:1068:G:OP2	1.90	0.55
32:1a:1131:G:OP1	40:1i:20:ARG:NH2	2.40	0.55
36:1e:12:LEU:HB3	36:1e:31:LEU:HB2	1.89	0.55
54:1y:49:C:H42	54:1y:65:G:H1	1.53	0.55
1:2A:652(D):C:H42	1:2A:652(U):G:H1	1.54	0.55
1:2A:2393:A:H5''	11:2P:63:PRO:HB3	1.89	0.55
1:2A:2489:G:N2	1:2A:2491:U:O4	2.32	0.55
32:2a:758:G:N7	61:2a:1934:HOH:O	2.33	0.55
32:2a:1327:C:OP1	52:2u:12:LYS:NZ	2.39	0.55
37:2f:70:ASP:OD1	37:2f:70:ASP:N	2.36	0.55
1:1A:1100:A:N6	1:1A:1151:U:N3	2.35	0.55
34:1c:189:ALA:HB3	34:1c:196:LEU:HB2	1.88	0.55
39:1h:51:VAL:HG12	39:1h:52:ASP:H	1.72	0.55
50:1s:80:TYR:O	50:1s:82:GLY:N	2.39	0.55
1:2A:111:A:O2'	24:22:65:ASN:ND2	2.34	0.55
5:2F:25:PRO:HD2	5:2F:115:ALA:HB2	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:2Q:17:LEU:HD21	12:2Q:41:TRP:NE1	2.21	0.55
19:2X:53:LYS:HB3	19:2X:82:GLN:HB3	1.87	0.55
32:2a:1241:G:H2'	32:2a:1242:C:C6	2.41	0.55
1:1A:1484:U:O2	1:1A:1602:G:N2	2.41	0.54
33:1b:73:THR:HB	33:1b:95:GLN:O	2.08	0.54
36:1e:8:GLU:HG2	36:1e:34:VAL:HG23	1.89	0.54
5:2F:53:THR:HG22	5:2F:56:GLU:HG3	1.88	0.54
14:2S:58:LEU:HD12	14:2S:65:VAL:HG13	1.89	0.54
32:2a:109:A:C6	32:2a:326:G:C6	2.95	0.54
32:2a:1333:A:H2'	32:2a:1334:G:O4'	2.07	0.54
40:2i:23:ASN:ND2	40:2i:25:LYS:HE2	2.20	0.54
1:1A:2129:C:H42	1:1A:2204:G:H1	1.54	0.54
6:1G:83:ARG:O	6:1G:86:MET:HG3	2.07	0.54
7:1H:148:ILE:HA	7:1H:151:ILE:HD12	1.89	0.54
22:10:38:VAL:HB	22:10:59:LEU:HB2	1.89	0.54
36:1e:43:LEU:HD21	36:1e:132:ALA:HB1	1.88	0.54
1:2A:632:A:H2'	1:2A:633:A:C8	2.42	0.54
1:2A:656:G:H2'	1:2A:657:U:O4'	2.06	0.54
1:2A:1477:A:H2'	1:2A:1478:G:O4'	2.08	0.54
1:2A:2141:G:H2'	1:2A:2142:C:O4'	2.07	0.54
1:2A:2328:A:H2'	1:2A:2329:G:C8	2.43	0.54
5:2F:64:ILE:HG21	5:2F:78:ILE:HG23	1.89	0.54
15:2T:122:ASP:O	15:2T:126:ALA:N	2.36	0.54
32:2a:20:U:H2'	32:2a:21:G:O4'	2.06	0.54
44:2m:23:TYR:HB3	44:2m:67:GLU:HA	1.88	0.54
55:2x:3:C:H2'	55:2x:4:G:C8	2.42	0.54
1:1A:650:G:O6	11:1P:107:LYS:NZ	2.40	0.54
1:1A:2545:A:H2'	1:1A:2546:A:O4'	2.06	0.54
1:1A:2602:A:O3'	3:1D:239:ARG:NH2	2.40	0.54
1:1A:2713:C:OP1	61:1A:4151:HOH:O	2.18	0.54
32:1a:715:A:H2'	32:1a:716:A:C8	2.43	0.54
35:1d:173:TRP:CE3	35:1d:174:LEU:HG	2.42	0.54
1:2A:740:U:H2'	1:2A:741:G:C8	2.41	0.54
1:2A:2089:U:H3	1:2A:2230:G:H1	1.54	0.54
2:2B:14:U:O3'	2:2B:108:U:O2'	2.23	0.54
6:2G:3:LEU:O	6:2G:8:LYS:NZ	2.41	0.54
32:2a:657:G:N2	46:2o:22:THR:OG1	2.36	0.54
32:2a:947:G:H2'	32:2a:948:C:C6	2.43	0.54
32:2a:1001(A):G:H5'	32:2a:1002:G:O5'	2.07	0.54
34:2c:43:LEU:HD21	34:2c:91:LEU:HD13	1.89	0.54
1:1A:1105:G:H2'	1:1A:1106:U:C5	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1829:U:H5'	3:1D:259:THR:CG2	2.36	0.54
12:1Q:51:ARG:HD3	12:1Q:66:ILE:HD11	1.89	0.54
32:1a:1004:A:H5''	32:1a:1025:U:C5	2.42	0.54
34:1c:11:ARG:NH2	34:1c:177:THR:O	2.40	0.54
1:2A:2357:U:P	22:20:20:ARG:HE	2.30	0.54
1:2A:2357:U:OP1	22:20:20:ARG:NE	2.34	0.54
15:2T:24:PRO:HA	15:2T:49:VAL:HG23	1.89	0.54
1:1A:1115:A:H2'	1:1A:1119:A:N7	2.23	0.54
1:1A:2650:G:P	4:1E:82:ARG:HH12	2.31	0.54
1:1A:2717:A:O2'	1:1A:2862:G:OP1	2.21	0.54
23:11:89:GLU:O	23:11:93:GLU:HG2	2.07	0.54
40:1i:16:ARG:HB2	40:1i:64:THR:HG22	1.88	0.54
43:1l:113:ARG:HH21	43:1l:116:SER:HB2	1.72	0.54
54:1y:26:A:N6	54:1y:44:G:N1	2.48	0.54
54:1y:48:C:N3	54:1y:59:U:H1'	2.22	0.54
1:2A:863:A:H2'	1:2A:864:G:C8	2.42	0.54
1:2A:1183:G:H5''	25:23:30:ARG:NH2	2.23	0.54
1:2A:2128:C:H2'	1:2A:2129:C:O4'	2.06	0.54
32:2a:1129:C:H1'	32:2a:1130:A:N7	2.21	0.54
32:2a:1312:G:H5'	50:2s:5:LEU:HD11	1.89	0.54
1:1A:542:C:OP1	27:15:16:ARG:NH2	2.41	0.54
1:1A:1346:U:H4'	1:1A:1347:A:H5''	1.88	0.54
1:1A:1514:C:OP2	1:1A:1593:C:O2'	2.25	0.54
1:1A:1904:C:H2'	1:1A:1905:G:O4'	2.08	0.54
35:1d:19:LEU:HB3	35:1d:21:LEU:HD21	1.89	0.54
1:2A:108:U:H2'	1:2A:109:G:C8	2.43	0.54
1:2A:686:G:H8	29:27:6:GLN:O	1.91	0.54
1:2A:922:U:H2'	1:2A:923:C:C6	2.43	0.54
1:2A:2572:A:OP1	1:2A:2574:G:O2'	2.26	0.54
29:27:34:ARG:HB2	29:27:42:LEU:HD22	1.89	0.54
32:2a:373:A:H2'	32:2a:374:A:H8	1.73	0.54
33:2b:16:HIS:CG	33:2b:17:PHE:N	2.75	0.54
50:2s:15:LEU:HA	50:2s:18:LYS:HD2	1.90	0.54
7:1H:24:VAL:HG22	7:1H:35:VAL:HB	1.90	0.54
32:1a:79:G:H1'	32:1a:91:C:O2	2.07	0.54
32:1a:501:C:OP1	43:1l:117:ARG:NH2	2.40	0.54
32:1a:1316:G:H2'	32:1a:1318:A:OP2	2.06	0.54
32:1a:1337:G:N7	61:1a:3347:HOH:O	2.34	0.54
40:1i:20:ARG:O	40:1i:60:ASP:N	2.40	0.54
1:2A:624:C:OP1	61:2A:3860:HOH:O	2.17	0.54
1:2A:1187:G:H8	1:2A:1187:G:OP2	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:825:G:H1	32:2a:875:C:H42	1.54	0.54
32:2a:984:C:H2'	32:2a:985:C:H6	1.73	0.54
32:2a:1189:C:O2'	34:2c:176:HIS:ND1	2.35	0.54
32:2a:1517:G:H3'	32:2a:1518:MA6:H8	1.89	0.54
41:2j:65:LEU:HD13	45:2n:56:VAL:HG22	1.90	0.54
1:1A:798:A:OP1	61:1A:4150:HOH:O	2.18	0.54
32:1a:1376:U:H2'	32:1a:1377:A:C8	2.43	0.54
36:1e:18:ARG:HD3	36:1e:27:ARG:HH12	1.73	0.54
1:2A:981:A:N1	1:2A:2027:G:O2'	2.40	0.54
19:2X:60:ARG:HH22	29:27:47:ARG:NH1	2.05	0.54
20:2Y:94:LYS:NZ	61:2Y:601:HOH:O	2.34	0.54
32:2a:1064:G:O6	32:2a:1191:A:N6	2.41	0.54
35:2d:173:TRP:CD1	35:2d:189:PRO:HG3	2.42	0.54
38:2g:93:PRO:HA	38:2g:96:GLN:HB2	1.88	0.54
1:1A:2307:C:OP1	14:1S:10:ARG:NH1	2.40	0.54
10:1O:38:VAL:HG13	10:1O:87:ILE:HD11	1.90	0.54
32:1a:646:U:H2'	32:1a:647:C:H6	1.73	0.54
1:2A:2880:C:O3'	13:2R:90:ARG:NH1	2.40	0.54
7:2H:25:LYS:HB3	7:2H:27:LYS:HZ3	1.72	0.54
21:2Z:166:SER:C	21:2Z:168:GLU:H	2.16	0.54
32:2a:1277:C:O2'	32:2a:1279:A:H1'	2.08	0.54
33:2b:81:VAL:HA	33:2b:215:LEU:HD21	1.90	0.54
49:2r:52:PRO:HB2	49:2r:54:ARG:HG2	1.90	0.54
1:1A:1347:A:O2'	1:1A:1348:A:H3'	2.06	0.54
11:1P:82:GLY:HA2	11:1P:113:LYS:O	2.08	0.54
28:16:9:LEU:HD13	28:16:51:GLU:HB2	1.90	0.54
32:1a:559:A:H4'	32:1a:560:U:H3'	1.89	0.54
1:2A:2649:U:H2'	1:2A:2650:U:C6	2.43	0.54
32:2a:390:C:O3'	47:2p:28:ARG:NH2	2.40	0.54
32:2a:624:C:H2'	32:2a:625:G:H8	1.73	0.54
34:2c:123:GLN:O	34:2c:128:PHE:HB2	2.08	0.54
36:2e:77:PRO:HD2	36:2e:142:LEU:HD13	1.90	0.54
44:2m:73:GLU:O	44:2m:77:ASN:HB2	2.08	0.54
54:2w:76:A:OP1	61:2w:201:HOH:O	2.18	0.54
1:1A:586:G:H22	1:1A:601:A:H2	1.56	0.53
1:1A:2130:C:H2'	1:1A:2131:U:H6	1.73	0.53
11:1P:124:LYS:HA	11:1P:144:GLU:HB3	1.91	0.53
31:19:2:LYS:HE2	31:19:31:LYS:O	2.07	0.53
44:1m:96:LEU:C	44:1m:110:ARG:HG2	2.33	0.53
1:2A:1790:C:H5''	1:2A:1791:A:OP1	2.08	0.53
1:2A:2483:C:N3	12:2Q:124:LYS:NZ	2.55	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:22:24:LEU:HD23	24:22:60:LEU:HD21	1.88	0.53
32:2a:1240:U:OP2	38:2g:116:ALA:N	2.38	0.53
32:2a:1286:A:C8	32:2a:1287:A:H4'	2.41	0.53
33:2b:15:VAL:O	33:2b:17:PHE:N	2.41	0.53
35:2d:119:GLN:HG3	35:2d:123:HIS:CD2	2.43	0.53
6:1G:72:ARG:NH1	6:1G:87:PRO:HG3	2.24	0.53
6:1G:142:PRO:HB2	26:14:31:ILE:HG21	1.90	0.53
32:1a:1228:C:P	44:1m:115:LYS:HZ3	2.31	0.53
34:1c:8:ILE:HD12	34:1c:16:ARG:HG3	1.89	0.53
32:2a:966:M2G:HM22	55:2x:34:C:H5'	1.90	0.53
35:2d:112:VAL:H	35:2d:116:GLN:NE2	2.06	0.53
1:1A:715:G:H5'	1:1A:716:G:OP2	2.09	0.53
13:1R:59:ASP:OD1	13:1R:59:ASP:N	2.42	0.53
22:10:38:VAL:HG12	22:10:40:GLN:HG2	1.91	0.53
29:17:21:ARG:NH1	61:17:5001:HOH:O	2.31	0.53
54:1w:50:U:O4	54:1w:64:A:N1	2.41	0.53
55:1x:66:C:H2'	55:1x:67:C:O4'	2.08	0.53
1:2A:2495:G:H5''	12:2Q:82:ARG:HG2	1.90	0.53
21:2Z:40:ASP:OD2	21:2Z:43:GLU:N	2.21	0.53
25:23:23:LEU:HD13	25:23:50:VAL:HG11	1.90	0.53
32:2a:1289:A:H5'	52:2u:10:ARG:HH22	1.73	0.53
35:2d:22:LYS:HB2	35:2d:26:CYS:SG	2.49	0.53
1:1A:174:U:H2'	1:1A:175:G:C8	2.43	0.53
1:1A:346:A:OP1	5:1F:168:ARG:HD2	2.08	0.53
4:1E:111:ARG:HD2	4:1E:160:TYR:CD2	2.44	0.53
7:1H:86:GLU:HB3	7:1H:165:ALA:HB2	1.89	0.53
35:1d:170:VAL:HG12	35:1d:171:GLY:H	1.74	0.53
55:1x:8:4SU:O2	55:1x:21:A:H2	1.91	0.53
1:2A:607:U:OP1	5:2F:102:PRO:HA	2.07	0.53
1:2A:784:A:C5	3:2D:229:VAL:HG11	2.44	0.53
32:2a:253:U:H2'	32:2a:254:G:H8	1.73	0.53
32:2a:1004:A:N3	32:2a:1038:C:C2	2.76	0.53
54:2y:18:G:N2	54:2y:55:PSU:C4	2.76	0.53
1:1A:768:C:H2'	1:1A:769:A:C8	2.44	0.53
6:1G:11:TYR:HA	6:1G:15:VAL:HB	1.89	0.53
15:1T:29:ARG:HG3	15:1T:46:GLU:HB2	1.91	0.53
15:1T:65:LYS:HE3	15:1T:67:SER:HB2	1.90	0.53
32:1a:664:G:N2	32:1a:741:G:H1	2.01	0.53
33:1b:77:ALA:HB2	33:1b:211:ILE:HD13	1.91	0.53
1:2A:566:U:H5''	11:2P:29:LYS:HE3	1.91	0.53
1:2A:568:U:H5'	1:2A:945:A:N1	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1441:G:O2'	61:2A:3864:HOH:O	2.18	0.53
21:2Z:55:HIS:CE1	21:2Z:135:GLU:HG3	2.44	0.53
23:21:83:GLU:OE1	23:21:83:GLU:N	2.41	0.53
32:2a:1190:G:H5'	34:2c:176:HIS:HE1	1.73	0.53
34:2c:34:LEU:HD11	34:2c:38:ARG:HH21	1.73	0.53
46:2o:64:ARG:O	46:2o:68:ARG:N	2.38	0.53
1:1A:1825:U:H2'	1:1A:1826:C:C6	2.43	0.53
48:1q:32:TYR:O	48:1q:34:LYS:N	2.41	0.53
55:1x:50:U:H2'	55:1x:51:C:C6	2.44	0.53
54:1y:63:G:H2'	54:1y:64:A:O4'	2.08	0.53
1:2A:1125:G:H5'	31:29:37:GLY:HA2	1.90	0.53
1:2A:1410:G:H2'	1:2A:1411:C:C6	2.43	0.53
1:2A:2137:C:O2'	1:2A:2138:C:OP2	2.25	0.53
14:2S:11:LYS:HG3	14:2S:91:PRO:HD3	1.90	0.53
26:24:46:GLN:NE2	26:24:48:ARG:HD3	2.24	0.53
29:27:34:ARG:HH21	29:27:39:ARG:HG2	1.74	0.53
32:2a:266:G:H5''	32:2a:268:C:H41	1.73	0.53
32:2a:671:G:H2'	32:2a:672:U:O4'	2.08	0.53
50:2s:52:TYR:HB2	50:2s:57:HIS:CE1	2.43	0.53
1:1A:664:U:H2'	1:1A:665:C:C6	2.44	0.53
8:1I:101:LEU:HG	8:1I:107:VAL:HB	1.88	0.53
32:1a:1124:G:N7	32:1a:1145:C:O2'	2.40	0.53
1:2A:1711:C:H2'	1:2A:1712:C:C6	2.44	0.53
1:2A:1803:A:O2'	3:2D:259:THR:HG21	2.08	0.53
1:2A:2630:G:H2'	1:2A:2631:G:C8	2.44	0.53
15:2T:117:ASP:OD2	15:2T:120:ARG:NE	2.35	0.53
26:24:60:GLN:O	26:24:62:ARG:NH1	2.41	0.53
32:2a:1301:U:O2'	32:2a:1302:U:H5'	2.08	0.53
35:2d:189:PRO:HB2	35:2d:194:LEU:HD11	1.90	0.53
39:2h:51:VAL:HG21	39:2h:60:ARG:HB2	1.90	0.53
39:2h:51:VAL:HG12	39:2h:52:ASP:H	1.72	0.53
44:2m:84:ILE:HB	50:2s:66:MET:HE2	1.90	0.53
1:1A:655:G:OP2	30:18:15:LYS:NZ	2.35	0.53
1:1A:1387:U:O2	19:1X:80:ILE:HD12	2.08	0.53
1:1A:2586:G:OP1	61:1A:4155:HOH:O	2.19	0.53
3:1D:68:LYS:HD3	3:1D:70:TRP:CH2	2.44	0.53
6:1G:126:ASP:HB3	6:1G:130:ASN:HB2	1.91	0.53
11:1P:126:VAL:HG12	11:1P:148:LEU:HD23	1.90	0.53
13:1R:28:LEU:HD23	13:1R:48:VAL:HG21	1.90	0.53
1:2A:848:G:H2'	1:2A:849:A:C8	2.42	0.53
1:2A:1239:G:H2'	1:2A:1240:U:O4'	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2807:G:H22	1:2A:2893:G:H1	1.57	0.53
32:2a:156:G:H2'	32:2a:157:G:H8	1.72	0.53
32:2a:1040:U:H2'	32:2a:1041:A:H8	1.73	0.53
40:2i:3:GLN:HA	40:2i:20:ARG:HG2	1.90	0.53
46:2o:39:LEU:HB3	46:2o:56:LEU:HD13	1.89	0.53
1:1A:2504:U:H2'	1:1A:2505:U:C6	2.44	0.53
4:1E:121:ASN:ND2	61:1E:403:HOH:O	2.34	0.53
24:12:28:LYS:HD2	24:12:53:LEU:HD21	1.91	0.53
26:14:53:GLU:HB2	26:14:55:ARG:HA	1.91	0.53
50:1s:30:LEU:HD11	50:1s:50:ALA:HB2	1.91	0.53
51:1t:26:ASN:OD1	51:1t:71:THR:OG1	2.18	0.53
1:2A:1824:G:N3	3:2D:254:THR:OG1	2.42	0.53
1:2A:2839:G:H5'	13:2R:46:GLY:HA2	1.90	0.53
5:2F:133:ASN:N	5:2F:138:GLU:OE1	2.42	0.53
6:2G:108:ASN:HA	26:24:37:SER:HB2	1.90	0.53
32:2a:407:G:H2'	32:2a:408:A:H8	1.73	0.53
32:2a:1255:G:OP1	41:2j:45:ARG:NH2	2.41	0.53
32:2a:1305:G:N2	32:2a:1331:G:H1'	2.23	0.53
37:2f:46:ARG:HH22	49:2r:37:VAL:HG11	1.74	0.53
1:1A:302:A:O2'	1:1A:303:C:OP1	2.25	0.53
1:2A:271(G):C:H2'	1:2A:271(H):G:C8	2.43	0.53
1:1A:1123:A:H2'	1:1A:1124:U:H4'	1.90	0.52
1:1A:1291:G:OP1	11:1P:13:ASN:ND2	2.29	0.52
2:1B:79:C:H2'	2:1B:80:U:O4'	2.09	0.52
21:1Z:92:SER:O	21:1Z:130:PRO:HG2	2.09	0.52
32:1a:1498:UR3:O2'	53:1v:17:U:OP1	2.27	0.52
37:1f:100:ASN:C	49:1r:28:GLU:HG3	2.33	0.52
40:1i:9:ARG:HG2	40:1i:14:VAL:HG12	1.90	0.52
1:2A:1654:A:OP1	13:2R:1:MET:N	2.35	0.52
11:2P:38:GLN:HG2	11:2P:45:LEU:H	1.74	0.52
12:2Q:1:MET:HG3	12:2Q:44:ALA:HB1	1.91	0.52
22:20:40:GLN:HE21	22:20:57:PHE:HB3	1.73	0.52
32:2a:651:C:N4	32:2a:753:A:OP2	2.42	0.52
32:2a:1204:A:OP1	45:2n:3:ARG:NH2	2.40	0.52
32:2a:1517:G:N7	32:2a:1518:MA6:H103	2.24	0.52
1:1A:906:G:O2'	1:1A:962:G:O6	2.16	0.52
1:1A:1825:U:H2'	1:1A:1826:C:H6	1.74	0.52
1:1A:2153:G:H5''	1:1A:2154:U:H3'	1.91	0.52
4:1E:174:ASP:OD1	4:1E:175:VAL:N	2.42	0.52
32:1a:149:A:H2'	32:1a:150:C:C6	2.44	0.52
32:1a:572:A:OP2	61:1a:3317:HOH:O	2.19	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1006:C:H42	32:1a:1023:G:H1	1.54	0.52
34:1c:36:ASP:O	34:1c:40:ARG:HG2	2.09	0.52
54:1w:9:A:O2'	54:1w:10:G:N7	2.42	0.52
1:2A:1429:G:H2'	1:2A:1430:C:C6	2.44	0.52
1:2A:1697:G:OP2	1:2A:1698:A:O2'	2.19	0.52
1:2A:2507:C:H5''	1:2A:2573:C:N4	2.24	0.52
7:2H:33:LEU:HD11	7:2H:136:ILE:HG22	1.92	0.52
32:2a:1105:A:H2'	32:2a:1106:G:H8	1.74	0.52
32:2a:1330:U:H4'	44:2m:23:TYR:CE1	2.45	0.52
33:2b:30:ARG:HH21	33:2b:194:PRO:HB2	1.74	0.52
1:1A:1425:A:H4'	1:1A:1426:G:OP2	2.10	0.52
1:1A:1814:A:H5'	1:1A:2620:G:H4'	1.91	0.52
5:1F:123:LEU:HD13	5:1F:192:LEU:HB3	1.90	0.52
7:1H:24:VAL:O	7:1H:35:VAL:N	2.39	0.52
9:1N:42:TRP:CH2	9:1N:44:PRO:HB3	2.44	0.52
32:1a:460:G:C6	32:1a:470:C:H5'	2.45	0.52
33:1b:13:ALA:HB2	33:1b:44:LEU:HD22	1.90	0.52
41:1j:35:SER:HB3	41:1j:73:ASP:HB2	1.91	0.52
1:2A:184:C:H2'	1:2A:185:U:C6	2.45	0.52
1:2A:517:C:OP2	27:25:13:LYS:HE2	2.09	0.52
3:2D:274:ARG:O	3:2D:275:LYS:HD2	2.09	0.52
6:2G:64:THR:HB	6:2G:94:LEU:HD21	1.90	0.52
10:2O:53:LYS:N	10:2O:56:ASP:OD2	2.38	0.52
10:2O:88:ASN:ND2	10:2O:92:GLU:OE1	2.40	0.52
16:2U:113:ALA:O	16:2U:117:GLN:HG2	2.08	0.52
26:24:61:ARG:NH1	26:24:62:ARG:O	2.43	0.52
32:2a:1161:C:H2'	32:2a:1162:C:C6	2.45	0.52
34:2c:148:GLY:HA3	34:2c:203:PHE:HB3	1.91	0.52
38:2g:16:LEU:HD11	40:2i:45:ALA:HB2	1.91	0.52
1:1A:768:C:H2'	1:1A:769:A:H8	1.75	0.52
1:1A:1108:G:H1	1:1A:1123:A:N6	2.07	0.52
29:17:12:ARG:NH2	29:17:44:PRO:HB3	2.24	0.52
34:1c:44:GLU:HA	34:1c:52:LEU:HD13	1.92	0.52
37:1f:10:LEU:HD13	37:1f:61:LEU:HD13	1.92	0.52
55:1x:4:G:H1	55:1x:69:C:H42	1.57	0.52
2:2B:15:A:H5''	2:2B:16:G:H8	1.73	0.52
8:2I:38:LEU:H	8:2I:38:LEU:HD12	1.74	0.52
15:2T:41:ARG:NH2	32:2a:346:G:OP1	2.38	0.52
32:2a:165:C:H2'	32:2a:166:G:C8	2.44	0.52
32:2a:736:C:H2'	32:2a:737:A:C8	2.44	0.52
32:2a:837:G:H1	32:2a:849:C:H42	1.56	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1020:U:H2'	32:2a:1021:G:C8	2.45	0.52
35:2d:179:GLU:C	35:2d:181:MET:H	2.17	0.52
1:1A:957:A:H2'	12:1Q:9:TYR:OH	2.08	0.52
1:1A:1154:U:H2'	1:1A:1155:C:O4'	2.10	0.52
1:1A:2176:G:C2	1:1A:2177:G:H1'	2.45	0.52
32:1a:67:C:O2'	32:1a:171:A:N3	2.35	0.52
32:1a:748:C:H4'	32:1a:749:C:O5'	2.10	0.52
32:1a:1032:G:H2'	32:1a:1033:G:C8	2.45	0.52
1:2A:1012:U:O2	9:2N:25:ARG:NH1	2.43	0.52
1:2A:1366:A:H2'	1:2A:1367:A:O4'	2.09	0.52
1:2A:2116:G:N7	1:2A:2166:G:N2	2.57	0.52
1:2A:2168:G:H8	1:2A:2170:A:N7	2.07	0.52
1:2A:2206:G:H8	1:2A:2207:G:N7	2.08	0.52
11:2P:52:GLU:HG3	30:28:57:ARG:HH22	1.74	0.52
12:2Q:30:GLY:O	12:2Q:134:ARG:NH1	2.43	0.52
32:2a:926:G:N2	53:2v:15:A:H5''	2.25	0.52
33:2b:218:ALA:O	33:2b:222:ILE:HG23	2.10	0.52
46:2o:54:ARG:HG2	46:2o:58:MET:HE2	1.92	0.52
1:1A:2152:U:H2'	1:1A:2180:A:N1	2.25	0.52
3:1D:71:ASP:HB3	3:1D:103:ARG:HH12	1.74	0.52
8:1I:70:GLU:O	8:1I:74:ASN:HB2	2.09	0.52
8:1I:92:VAL:HG11	8:1I:144:VAL:HG11	1.90	0.52
34:1c:39:ILE:HG23	34:1c:91:LEU:HD11	1.92	0.52
46:1o:56:LEU:O	46:1o:60:VAL:HG23	2.09	0.52
1:2A:315:G:H2'	1:2A:316:C:C6	2.45	0.52
1:2A:668:G:H5'	1:2A:669:G:OP2	2.10	0.52
1:2A:2233:U:H2'	1:2A:2234:G:C8	2.44	0.52
2:2B:43:C:OP1	26:24:6:HIS:NE2	2.42	0.52
9:2N:116:LEU:O	9:2N:119:ARG:N	2.39	0.52
32:2a:1102:A:O3'	33:2b:96:ARG:NH2	2.40	0.52
34:2c:112:SER:HB3	34:2c:115:LEU:HD22	1.91	0.52
1:1A:308:U:H2'	1:1A:309:C:C6	2.45	0.52
1:1A:645:G:H5'	1:1A:645:G:N3	2.25	0.52
1:1A:762:G:O6	46:1o:53:HIS:NE2	2.39	0.52
2:1B:33:G:H5'	6:1G:2:PRO:HD3	1.91	0.52
5:1F:133:ASN:N	5:1F:138:GLU:OE1	2.31	0.52
24:12:9:GLN:HE21	24:12:60:LEU:HD21	1.74	0.52
32:1a:9:G:H2'	32:1a:10:A:H8	1.74	0.52
32:1a:1036:G:H5''	32:1a:1037:C:C5	2.44	0.52
50:1s:63:THR:O	50:1s:66:MET:HG2	2.10	0.52
1:2A:1412:A:H2'	1:2A:1413:G:C8	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2155:G:C5	1:2A:2156:G:H1'	2.44	0.52
7:2H:3:ARG:HG2	7:2H:6:ARG:HE	1.75	0.52
32:2a:6:G:O2'	32:2a:7:G:H5''	2.09	0.52
33:2b:51:LEU:HD22	33:2b:55:PHE:CE2	2.45	0.52
54:2y:67:C:H2'	54:2y:68:C:C6	2.45	0.52
1:1A:407:U:H2'	1:1A:408:G:H8	1.75	0.52
1:1A:1223:C:H2'	1:1A:1224:C:H6	1.74	0.52
1:1A:2082:A:OP1	61:1A:4156:HOH:O	2.19	0.52
1:1A:2130:C:H2'	1:1A:2131:U:C6	2.45	0.52
12:1Q:30:GLY:HA2	12:1Q:107:ALA:HB2	1.90	0.52
26:14:16:CYS:SG	26:14:17:GLY:N	2.82	0.52
32:1a:576:G:O6	32:1a:880:C:O2'	2.19	0.52
32:1a:948:C:OP1	44:1m:109:THR:OG1	2.27	0.52
37:1f:35:ALA:HA	37:1f:67:MET:HB3	1.92	0.52
39:1h:42:GLU:HG3	39:1h:109:ILE:HD13	1.91	0.52
1:2A:920:G:H2'	1:2A:921:G:H8	1.75	0.52
1:2A:1116:C:H2'	1:2A:1117:G:C8	2.44	0.52
14:2S:10:ARG:O	14:2S:14:VAL:HG12	2.10	0.52
32:2a:448:A:P	32:2a:485:G:H22	2.33	0.52
32:2a:596:C:OP2	61:2a:1916:HOH:O	2.19	0.52
32:2a:1010:G:H2'	32:2a:1011:G:C8	2.43	0.52
44:2m:40:ASN:HB3	44:2m:43:THR:HG23	1.92	0.52
47:2p:51:VAL:HG12	47:2p:53:VAL:N	2.23	0.52
7:1H:33:LEU:HD21	7:1H:136:ILE:HG13	1.92	0.52
8:1I:10:GLU:O	8:1I:12:LEU:N	2.43	0.52
10:1O:120:GLU:HG2	10:1O:122:LEU:HG	1.92	0.52
32:1a:62:U:OP1	32:1a:385:C:O2'	2.27	0.52
44:1m:22:ILE:HB	44:1m:25:ILE:HD12	1.91	0.52
48:1q:57:VAL:HG12	48:1q:76:LEU:HA	1.92	0.52
54:1w:27:G:H2'	54:1w:28:G:H8	1.75	0.52
1:2A:300:A:P	20:2Y:86:ARG:HH21	2.33	0.52
1:2A:1991:U:H2'	1:2A:1992:G:H5''	1.91	0.52
1:2A:2095:C:H2'	1:2A:2096:U:O4'	2.09	0.52
10:2O:7:TYR:CE1	10:2O:20:MET:HB2	2.45	0.52
32:2a:1518:MA6:N6	32:2a:1519:MA6:H103	2.25	0.52
49:2r:53:ARG:O	49:2r:57:GLY:N	2.36	0.52
9:1N:62:VAL:HG21	9:1N:66:LYS:HB2	1.92	0.52
40:1i:40:LEU:HD11	40:1i:70:LYS:HD2	1.92	0.52
1:2A:335:C:H4'	20:2Y:73:ARG:HD3	1.92	0.52
1:2A:774:A:H2'	1:2A:774:A:N3	2.25	0.52
6:2G:41:GLN:HB3	6:2G:43:LEU:HD22	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:804:U:OP1	61:2a:1917:HOH:O	2.19	0.52
32:2a:815:A:N7	32:2a:1509:C:O2'	2.40	0.52
32:2a:1179:A:H2'	32:2a:1180:A:O4'	2.10	0.52
35:2d:112:VAL:H	35:2d:116:GLN:HE21	1.58	0.52
55:2x:47:U:N3	55:2x:50:U:OP1	2.43	0.52
1:1A:1451:U:H2'	1:1A:1452:U:C6	2.46	0.51
1:1A:1735:U:O2	1:1A:1747:A:H5'	2.10	0.51
9:1N:62:VAL:HG23	9:1N:66:LYS:HD2	1.91	0.51
32:1a:1033:G:H2'	32:1a:1034:G:C8	2.43	0.51
16:2U:110:VAL:HG12	16:2U:114:LYS:HE3	1.92	0.51
32:2a:1003:G:N2	32:2a:1025:U:O4	2.42	0.51
48:2q:70:ARG:C	48:2q:71:PHE:HD1	2.18	0.51
1:1A:1233:U:H4'	17:1V:79:VAL:HG22	1.92	0.51
1:1A:1338:U:H2'	1:1A:1339:C:C6	2.44	0.51
1:1A:1846:A:OP2	3:1D:54:ARG:NH2	2.43	0.51
4:1E:11:MET:HG2	4:1E:24:THR:HB	1.91	0.51
11:1P:138:LEU:HD23	11:1P:145:PRO:HB3	1.92	0.51
2:2B:19:G:H2'	2:2B:20:C:O4'	2.09	0.51
7:2H:8:PRO:O	7:2H:69:ARG:NH2	2.41	0.51
21:2Z:33:LEU:HD21	21:2Z:90:VAL:HG21	1.92	0.51
32:2a:444:C:H2'	32:2a:445:G:H8	1.74	0.51
32:2a:646:U:H2'	32:2a:647:C:C6	2.46	0.51
33:2b:16:HIS:HB3	33:2b:210:SER:HB2	1.91	0.51
42:2k:31:THR:HG23	42:2k:42:TRP:HB3	1.91	0.51
42:2k:98:LEU:O	42:2k:101:SER:OG	2.18	0.51
1:1A:1055:A:OP2	61:1A:4120:HOH:O	2.19	0.51
1:1A:2175:G:H2'	1:1A:2176:G:C8	2.45	0.51
1:1A:2376:C:H2'	1:1A:2377:G:O4'	2.11	0.51
1:1A:2564:2MU:O5'	1:1A:2564:2MU:H6	2.10	0.51
2:1B:65:C:O2'	2:1B:66:A:OP1	2.28	0.51
4:1E:77:ILE:HG12	4:1E:195:LEU:HD22	1.92	0.51
6:1G:41:GLN:HG2	6:1G:154:GLY:O	2.11	0.51
32:1a:161:A:H2'	32:1a:162:A:C8	2.45	0.51
32:1a:1035:A:C4	32:1a:1036:G:N2	2.78	0.51
54:1y:6:G:C6	54:1y:7:A:C6	2.98	0.51
1:2A:271(Q):G:H2'	1:2A:271(R):G:H8	1.76	0.51
1:2A:2127:G:C2	1:2A:2161:C:N3	2.78	0.51
1:2A:2238:G:H2'	1:2A:2238:G:N3	2.26	0.51
1:2A:2727:G:O2'	10:2O:70:LYS:NZ	2.44	0.51
3:2D:108:PRO:HG2	3:2D:111:LEU:HB2	1.92	0.51
9:2N:99:LEU:O	9:2N:103:VAL:HG23	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:2V:50:PRO:HG2	17:2V:51:VAL:HG12	1.92	0.51
26:24:64:GLY:C	26:24:66:SER:H	2.18	0.51
32:2a:1347:G:H5''	40:2i:107:ARG:HB3	1.92	0.51
33:2b:60:ASP:O	33:2b:64:ARG:HG2	2.10	0.51
50:2s:77:THR:HG23	50:2s:78:ARG:HG3	1.92	0.51
54:2w:38:A:H2'	54:2w:39:PSU:O4'	2.09	0.51
1:1A:24:G:O2'	18:1W:78:GLU:O	2.25	0.51
1:1A:207:A:C2	1:1A:224:U:H4'	2.45	0.51
1:1A:2044:U:O2'	1:1A:2629:C:H5'	2.11	0.51
1:1A:2340:A:H2'	1:1A:2341:G:C8	2.46	0.51
1:1A:2858:G:H1'	1:1A:2877:G:N2	2.25	0.51
10:1O:73:ASP:HB2	15:1T:82:LEU:HD13	1.93	0.51
15:1T:112:ARG:HG3	15:1T:115:ARG:NH2	2.26	0.51
21:1Z:53:ILE:HG22	21:1Z:71:VAL:HG12	1.92	0.51
32:1a:1277:C:O2'	32:1a:1279:A:H1'	2.10	0.51
36:1e:85:GLY:C	36:1e:87:SER:H	2.16	0.51
41:1j:54:PHE:CD2	41:1j:55:LYS:HB3	2.46	0.51
49:1r:32:ARG:HA	49:1r:69:THR:HG21	1.92	0.51
1:2A:882:G:N2	1:2A:895:U:O2	2.42	0.51
1:2A:1467:C:C5	1:2A:1546:C:H2'	2.44	0.51
1:2A:1837:C:O2'	1:2A:1927:A:N3	2.36	0.51
1:2A:1882:C:H5''	23:21:26:ARG:HH21	1.76	0.51
1:2A:2723:C:OP2	4:2E:109:LYS:NZ	2.44	0.51
9:2N:128:HIS:O	9:2N:131:GLN:NE2	2.43	0.51
33:2b:74:LYS:NZ	33:2b:206:ASP:OD1	2.43	0.51
34:2c:18:TRP:O	34:2c:21:ARG:NH1	2.43	0.51
48:2q:45:HIS:HB3	48:2q:72:ARG:HG2	1.91	0.51
1:1A:1518:A:OP2	1:1A:1567:G:N1	2.37	0.51
1:1A:1705:C:OP1	4:1E:135:HIS:NE2	2.44	0.51
36:1e:52:PRO:HG2	36:1e:53:LEU:HD12	1.90	0.51
51:1t:47:GLY:HA2	51:1t:48:LYS:C	2.36	0.51
54:1y:67:C:H2'	54:1y:68:C:C6	2.45	0.51
1:2A:1946:U:H2'	1:2A:1947:C:C6	2.45	0.51
1:2A:2019:A:N7	27:25:9:LYS:HE2	2.25	0.51
7:2H:90:LYS:HE2	7:2H:159:GLU:HG2	1.91	0.51
8:2I:122:GLU:O	8:2I:126:TYR:OH	2.26	0.51
10:2O:115:VAL:HG13	10:2O:121:VAL:HG21	1.92	0.51
32:2a:264:U:O2	48:2q:64:PRO:HG2	2.10	0.51
32:2a:430:A:OP2	35:2d:8:VAL:HG12	2.11	0.51
32:2a:736:C:OP1	49:2r:72:ARG:NH2	2.37	0.51
34:2c:155:GLY:O	34:2c:157:ILE:N	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:2f:97:PHE:HE2	49:2r:62:GLU:HG2	1.75	0.51
1:1A:2162:C:H2'	1:1A:2163:G:C8	2.46	0.51
1:1A:2851:C:H2'	1:1A:2852:G:H8	1.75	0.51
32:1a:584:G:H5'	48:1q:91:ARG:NH2	2.25	0.51
1:2A:27:G:N2	1:2A:512:G:H1'	2.25	0.51
1:2A:305:U:H2'	1:2A:306:U:C6	2.46	0.51
1:2A:605:C:O2	1:2A:657:U:O2'	2.23	0.51
1:2A:1226:A:OP1	17:2V:84:LYS:NZ	2.26	0.51
1:2A:2025:C:H2'	1:2A:2026:C:C6	2.46	0.51
32:2a:514:C:H2'	32:2a:515:G:H8	1.76	0.51
32:2a:1151:A:O2'	32:2a:1152:A:H8	1.92	0.51
32:2a:1157:A:H4'	32:2a:1158:C:O5'	2.11	0.51
35:2d:179:GLU:O	35:2d:181:MET:HE2	2.11	0.51
46:2o:4:THR:OG1	46:2o:7:GLU:OE1	2.16	0.51
48:2q:64:PRO:HB3	48:2q:70:ARG:HH11	1.73	0.51
1:1A:313:A:H2'	1:1A:314:G:O4'	2.10	0.51
1:1A:2495:C:N3	12:1Q:124:LYS:NZ	2.58	0.51
8:1I:25:TYR:O	8:1I:29:TYR:HB3	2.09	0.51
19:1X:31:HIS:CD2	19:1X:33:LYS:H	2.29	0.51
51:1t:33:ILE:O	51:1t:37:SER:OG	2.19	0.51
1:2A:484:C:H2'	1:2A:485:C:C6	2.46	0.51
1:2A:909:A:C6	1:2A:912:C:C2	2.99	0.51
1:2A:1261:C:OP2	18:2W:83:LYS:NZ	2.27	0.51
1:2A:2203:U:H4'	3:2D:151:LYS:HG2	1.93	0.51
15:2T:28:VAL:HG13	15:2T:86:ILE:HG23	1.92	0.51
26:24:34:GLU:OE1	44:2m:3:ARG:N	2.43	0.51
28:26:10:LEU:HG	28:26:54:ILE:HG13	1.92	0.51
32:2a:431:A:H2'	32:2a:432:A:H8	1.76	0.51
32:2a:652:U:O2'	32:2a:653:A:OP2	2.21	0.51
32:2a:757:U:O2'	32:2a:879:C:O2	2.28	0.51
32:2a:1011:G:H1	32:2a:1018:C:H42	1.59	0.51
32:2a:1228:C:P	44:2m:108:ARG:HH22	2.34	0.51
52:2u:6:ARG:HE	52:2u:15:ARG:NH1	2.09	0.51
1:1A:721:G:O2'	5:1F:74:ARG:HD3	2.10	0.51
1:1A:1121:C:C2'	1:1A:1122:C:H5'	2.40	0.51
3:1D:125:ILE:HB	37:1f:81:ILE:HD11	1.93	0.51
22:10:70:GLN:OE1	22:10:80:HIS:NE2	2.42	0.51
23:11:23:LYS:HB3	23:11:29:GLY:HA3	1.91	0.51
32:1a:1136:U:H5''	32:1a:1137:C:N3	2.26	0.51
1:2A:1007:C:OP1	9:2N:35:ARG:NH1	2.44	0.51
1:2A:2406:U:C2	11:2P:72:PRO:HG2	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:2H:89:ILE:HG12	7:2H:162:ILE:HG12	1.92	0.51
8:2I:65:ALA:O	8:2I:69:LYS:N	2.42	0.51
32:2a:737:A:H1'	37:2f:73:ASN:HD21	1.76	0.51
32:2a:1305:G:H5'	52:2u:4:GLY:HA3	1.92	0.51
44:2m:60:VAL:HG12	44:2m:66:LEU:HD11	1.92	0.51
1:1A:388:A:H3'	1:1A:389:G:H8	1.75	0.51
1:1A:2034:G:OP1	18:1W:11:ARG:NH2	2.44	0.51
1:1A:2762:A:OP1	7:1H:3:ARG:NH1	2.44	0.51
2:1B:8:U:O3'	14:1S:25:ARG:NH2	2.44	0.51
13:1R:24:GLN:HE22	13:1R:36:THR:HG21	1.76	0.51
32:1a:974:A:H8	32:1a:974:A:OP1	1.94	0.51
32:1a:1391:U:O2'	32:1a:1532:U:OP1	2.16	0.51
35:1d:111:ALA:HB2	35:1d:120:LEU:HD12	1.92	0.51
1:2A:566:U:OP1	17:2V:80:GLN:NE2	2.40	0.51
1:2A:1653:G:H3'	13:2R:2:ARG:HD3	1.92	0.51
1:2A:2149:G:C2	1:2A:2150:U:H1'	2.46	0.51
13:2R:51:LEU:HD22	13:2R:66:VAL:HG13	1.93	0.51
20:2Y:83:THR:OG1	20:2Y:84:ARG:N	2.44	0.51
32:2a:1159:U:O2'	32:2a:1160:G:OP2	2.26	0.51
32:2a:1270:C:H2'	32:2a:1271:G:H8	1.76	0.51
34:2c:131:ARG:NH2	36:2e:50:GLU:HG3	2.26	0.51
39:2h:83:ILE:HB	39:2h:137:VAL:HG13	1.93	0.51
44:2m:39:ILE:HD11	44:2m:55:ARG:HD2	1.93	0.51
54:2y:15:G:N2	54:2y:48:C:H42	2.08	0.51
1:1A:2205:C:H2'	1:1A:2206:G:C8	2.44	0.51
1:1A:2519:C:H2'	1:1A:2520:G:O4'	2.11	0.51
40:1i:3:GLN:NE2	40:1i:20:ARG:HH21	2.08	0.51
43:1l:39:VAL:HG11	43:1l:41:ARG:NH1	2.26	0.51
1:2A:122:G:OP1	1:2A:149:A:O2'	2.22	0.51
1:2A:1301:A:H2	1:2A:1626:G:N3	2.08	0.51
1:2A:1711:C:H2'	1:2A:1712:C:H6	1.76	0.51
1:2A:2134:A:HO2'	1:2A:2159:G:N2	2.08	0.51
2:2B:55:U:O3'	6:2G:27:ASN:ND2	2.44	0.51
12:2Q:38:GLU:HG3	12:2Q:127:ILE:HG22	1.93	0.51
32:2a:188:C:H42	32:2a:189(L):G:H1	1.59	0.51
32:2a:977:A:H2'	32:2a:978:A:H5''	1.93	0.51
34:2c:88:ARG:HA	34:2c:91:LEU:HB2	1.94	0.51
39:2h:21:LYS:O	39:2h:65:TYR:OH	2.25	0.51
54:2w:2:C:O2	54:2w:71:G:N1	2.34	0.51
54:2w:51:U:H2'	54:2w:52:G:C8	2.46	0.51
1:1A:553:A:O2'	1:1A:554:A:H5'	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:909:G:H2'	1:1A:910:A:O4'	2.11	0.50
1:1A:2285:A:H2'	1:1A:2286:A:C8	2.46	0.50
1:1A:2303:U:H2'	1:1A:2304:C:C6	2.45	0.50
12:1Q:31:ASP:HA	12:1Q:134:ARG:NH1	2.25	0.50
32:1a:149:A:H2'	32:1a:150:C:H6	1.76	0.50
32:1a:966:M2G:HM13	32:1a:967:5MC:H1'	1.93	0.50
32:1a:1437:C:H2'	32:1a:1438:G:C8	2.46	0.50
33:1b:80:ILE:HD13	33:1b:211:ILE:HG22	1.93	0.50
54:1w:5:G:H2'	54:1w:6:G:H8	1.75	0.50
15:2T:11:GLU:O	15:2T:15:VAL:HG23	2.11	0.50
32:2a:359:U:H2'	32:2a:360:A:H8	1.75	0.50
32:2a:1318:A:O2'	50:2s:37:ARG:HB2	2.12	0.50
33:2b:15:VAL:HB	33:2b:209:ARG:HB3	1.93	0.50
1:1A:964:A:N3	2:1B:80:U:O2'	2.40	0.50
1:1A:1740:U:H1'	3:1D:14:ARG:NH2	2.26	0.50
20:1Y:6:HIS:H	20:1Y:6:HIS:CD2	2.29	0.50
30:18:6:THR:HG22	30:18:63:PRO:HD2	1.93	0.50
32:1a:936:C:H2'	32:1a:937:A:O4'	2.11	0.50
32:1a:1027:C:H42	32:1a:1034:G:H1	1.57	0.50
34:1c:131:ARG:NH1	34:1c:166:GLU:HG3	2.24	0.50
54:1w:9:A:H8	54:1w:11:C:H41	1.59	0.50
1:2A:1180:C:H2'	1:2A:1181:C:H6	1.76	0.50
1:2A:1889:A:H2'	1:2A:1890:A:C8	2.46	0.50
1:2A:1912:A:OP1	61:2A:3865:HOH:O	2.19	0.50
1:2A:2305:A:H1'	6:2G:136:ARG:HB3	1.93	0.50
9:2N:24:GLY:O	9:2N:28:THR:OG1	2.29	0.50
32:2a:1402:4OC:HM22	32:2a:1403:C:H5'	1.92	0.50
1:1A:636:G:N2	1:1A:640:A:O2'	2.44	0.50
1:1A:989:G:N7	61:1A:4255:HOH:O	2.34	0.50
1:1A:1398:U:OP2	61:1A:4158:HOH:O	2.19	0.50
1:1A:2085:C:OP2	61:1A:4159:HOH:O	2.19	0.50
1:1A:2348:A:H61	22:10:43:THR:HG21	1.76	0.50
1:1A:2800:C:H2'	1:1A:2801:C:H6	1.76	0.50
4:1E:16:ARG:NH1	4:1E:173:VAL:HG13	2.26	0.50
13:1R:38:VAL:HG12	13:1R:42:LYS:HE3	1.92	0.50
16:1U:58:ARG:HA	16:1U:61:TRP:CE3	2.46	0.50
32:1a:434:U:H2'	32:1a:435:C:C6	2.46	0.50
32:1a:974:A:OP2	45:1n:29:ARG:NH2	2.44	0.50
33:1b:87:ARG:NE	33:1b:233:SER:HB3	2.26	0.50
1:2A:597:U:H2'	1:2A:598:G:C8	2.47	0.50
1:2A:824:A:H1'	1:2A:2358:G:N7	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2G:179:PRO:HG3	26:24:43:TYR:OH	2.10	0.50
18:2W:18:ARG:NH1	18:2W:76:VAL:O	2.45	0.50
23:21:51:VAL:HG12	23:21:53:VAL:HG23	1.93	0.50
32:2a:533:A:OP1	61:2a:1918:HOH:O	2.20	0.50
32:2a:564:C:O2'	39:2h:91:ARG:NH2	2.43	0.50
32:2a:664:G:OP1	49:2r:64:ARG:NE	2.33	0.50
34:2c:91:LEU:C	34:2c:93:LYS:H	2.20	0.50
1:1A:265:U:H2'	1:1A:266:C:C6	2.46	0.50
1:1A:1060:U:OP2	61:1A:4157:HOH:O	2.19	0.50
1:1A:1111:U:H1'	1:1A:1120:G:N1	2.26	0.50
1:1A:1223:C:H2'	1:1A:1224:C:C6	2.46	0.50
19:1X:24:GLY:O	19:1X:83:VAL:HG22	2.12	0.50
21:1Z:132:ASN:HD21	21:1Z:160:GLY:HA3	1.75	0.50
32:1a:504:C:OP1	61:1a:3318:HOH:O	2.20	0.50
33:1b:134:GLU:HA	33:1b:137:ARG:HH21	1.75	0.50
36:1e:102:ALA:O	36:1e:107:ARG:NH2	2.44	0.50
40:1i:7:THR:O	40:1i:83:ARG:NH1	2.45	0.50
1:2A:287:C:H2'	1:2A:288:C:C6	2.47	0.50
2:2B:66:A:H61	2:2B:109:C:H5''	1.75	0.50
26:24:34:GLU:HA	44:2m:57:ARG:NH1	2.26	0.50
32:2a:532:A:C2	32:2a:1055:A:H1'	2.45	0.50
34:2c:70:VAL:HG21	34:2c:73:PRO:HA	1.94	0.50
49:2r:32:ARG:NE	61:2r:5001:HOH:O	2.45	0.50
1:1A:209:G:O2'	1:1A:222:A:N3	2.35	0.50
1:1A:1086:C:H2'	1:1A:1087:C:O4'	2.10	0.50
1:1A:2576:A:C2	1:1A:2659:U:H4'	2.47	0.50
1:1A:2851:C:H2'	1:1A:2852:G:C8	2.47	0.50
31:19:32:HIS:O	31:19:34:GLN:HG3	2.11	0.50
32:1a:1505:G:OP2	61:1a:3302:HOH:O	2.20	0.50
38:1g:37:ASN:O	38:1g:41:ARG:HG3	2.12	0.50
51:1t:99:LEU:HA	51:1t:100:ILE:O	2.12	0.50
53:1v:20:U:H2'	53:1v:21:C:C6	2.46	0.50
1:2A:1029:A:N1	1:2A:2465:C:O2'	2.37	0.50
1:2A:2065:C:H2'	1:2A:2066:C:C6	2.46	0.50
1:2A:2453:A:N7	61:2A:3942:HOH:O	2.34	0.50
4:2E:77:ILE:HD11	4:2E:195:LEU:HD22	1.94	0.50
8:2I:50:ARG:O	8:2I:54:GLN:HB2	2.12	0.50
23:21:85:LEU:HD23	23:21:89:GLU:HG2	1.92	0.50
32:2a:340:U:H2'	32:2a:341:C:C6	2.47	0.50
32:2a:359:U:H2'	32:2a:360:A:C8	2.45	0.50
32:2a:664:G:H22	32:2a:741:G:H1	1.58	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1268:A:H2'	32:2a:1269:A:C8	2.47	0.50
32:2a:1427:U:H2'	32:2a:1428:A:C8	2.47	0.50
33:2b:155:LEU:HD21	33:2b:159:PRO:HD3	1.94	0.50
34:2c:6:HIS:CD2	34:2c:8:ILE:H	2.28	0.50
38:2g:54:THR:O	38:2g:56:GLN:N	2.42	0.50
39:2h:6:ILE:O	39:2h:10:LEU:HG	2.12	0.50
46:2o:37:ASN:N	46:2o:37:ASN:OD1	2.45	0.50
53:2v:23:A:H4'	53:2v:24:A:H5'	1.94	0.50
55:2x:21:A:N6	55:2x:46:G:H2'	2.26	0.50
1:1A:1698:G:O6	61:1A:4145:HOH:O	2.17	0.50
1:1A:2227:G:H8	1:1A:2228:G:N7	2.09	0.50
1:1A:2641:A:HO2'	1:1A:2642:G:P	2.31	0.50
3:1D:77:ALA:HA	3:1D:97:TYR:HA	1.94	0.50
4:1E:14:ILE:HG13	4:1E:21:VAL:HG13	1.94	0.50
39:1h:77:GLU:HG2	39:1h:78:GLN:H	1.76	0.50
39:1h:86:ILE:HG21	39:1h:133:LEU:HD13	1.92	0.50
49:1r:53:ARG:HG3	49:1r:63:GLN:HE21	1.77	0.50
1:2A:1786:A:H1'	1:2A:1938:A:N6	2.27	0.50
1:2A:1942:5MC:OP2	1:2A:1943:U:O2'	2.29	0.50
1:2A:2379:G:HO2'	14:2S:17:ARG:HH12	1.51	0.50
1:2A:2857:G:N2	1:2A:2860:A:OP2	2.45	0.50
1:2A:2870:C:H2'	1:2A:2871:C:O4'	2.11	0.50
25:23:6:VAL:HG22	25:23:56:VAL:HG22	1.92	0.50
26:24:13:ARG:HG2	26:24:23:GLU:HA	1.93	0.50
32:2a:1178:G:N2	32:2a:1181:G:OP2	2.43	0.50
1:1A:2800:C:H2'	1:1A:2801:C:C6	2.46	0.50
5:1F:152:GLU:OE1	5:1F:191:ARG:HD2	2.12	0.50
14:1S:15:ARG:O	14:1S:19:LYS:HG3	2.12	0.50
32:1a:40:C:H2'	32:1a:41:G:H8	1.76	0.50
32:1a:130:A:O2'	32:1a:131:C:O5'	2.25	0.50
32:1a:1218:C:OP2	45:1n:9:LYS:NZ	2.29	0.50
32:1a:1429:C:H2'	32:1a:1430:C:H6	1.76	0.50
33:1b:189:ASP:OD1	33:1b:189:ASP:N	2.36	0.50
41:1j:50:ILE:HA	41:1j:60:ARG:HG2	1.93	0.50
43:1l:88:GLY:O	43:1l:99:HIS:HD2	1.95	0.50
49:1r:26:LEU:HD21	49:1r:39:VAL:HG13	1.93	0.50
54:1y:2:C:H42	54:1y:71:G:H1	1.59	0.50
1:2A:793:A:OP2	1:2A:2071:A:O2'	2.28	0.50
1:2A:1983:C:H4'	1:2A:2606:C:H4'	1.93	0.50
1:2A:2151:G:C2	1:2A:2152:G:C8	2.99	0.50
3:2D:206:LEU:O	3:2D:211:ARG:HD3	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:2E:167:VAL:HG22	4:2E:170:LEU:HD11	1.93	0.50
32:2a:779:C:H2'	32:2a:780:A:O4'	2.12	0.50
32:2a:1118:C:H1'	32:2a:1179:A:C5	2.46	0.50
35:2d:76:ARG:HD2	35:2d:207:TYR:CE1	2.47	0.50
36:2e:83:GLU:HA	36:2e:88:LYS:HA	1.94	0.50
37:2f:67:MET:HE1	37:2f:75:LEU:HD22	1.93	0.50
38:2g:70:LYS:HD3	38:2g:96:GLN:HB3	1.94	0.50
1:1A:1615:G:H5'	3:1D:60:ARG:HA	1.94	0.50
1:1A:2198:A:H2'	1:1A:2199:C:C6	2.46	0.50
11:1P:98:GLU:HG3	11:1P:99:LEU:N	2.27	0.50
32:1a:193:C:H2'	32:1a:194:C:C6	2.47	0.50
32:1a:254:G:O2'	48:1q:16:GLN:O	2.30	0.50
32:1a:691:G:OP2	42:1k:26:ASN:ND2	2.45	0.50
32:1a:1037:C:H2'	32:1a:1038:C:H6	1.75	0.50
1:2A:8:A:H2'	1:2A:9:U:C6	2.47	0.50
1:2A:946:G:H2'	1:2A:947:G:C8	2.47	0.50
7:2H:3:ARG:NH1	7:2H:5:GLY:H	2.09	0.50
12:2Q:66:ILE:HG12	12:2Q:104:PHE:HD1	1.77	0.50
15:2T:30:VAL:HG22	15:2T:86:ILE:HG12	1.93	0.50
18:2W:23:LEU:HD11	27:25:25:LEU:HB2	1.92	0.50
32:2a:59:A:H3'	32:2a:331:G:H22	1.77	0.50
32:2a:539:A:H2'	32:2a:540:G:C8	2.46	0.50
32:2a:1139:G:H4'	32:2a:1140:C:H5'	1.94	0.50
32:2a:1376:U:H2'	32:2a:1377:A:H8	1.77	0.50
44:2m:25:ILE:HG13	44:2m:66:LEU:HD22	1.93	0.50
44:2m:91:ARG:O	44:2m:96:LEU:N	2.45	0.50
48:2q:51:TYR:HE1	48:2q:76:LEU:HB2	1.77	0.50
54:2w:68:C:H2'	54:2w:69:G:H8	1.77	0.50
55:2x:28:C:H2'	55:2x:29:G:H8	1.76	0.50
54:2y:61:C:H2'	54:2y:62:C:C6	2.47	0.50
1:1A:99:G:H21	24:12:7:ARG:HH22	1.59	0.50
1:1A:920:G:H1	1:1A:950:C:H42	1.60	0.50
32:1a:328:C:H4'	32:1a:329:A:H5'	1.92	0.50
32:1a:381:C:H2'	32:1a:382:A:O4'	2.12	0.50
32:1a:976:G:N2	32:1a:1363:C:OP2	2.29	0.50
32:1a:1049:U:O4	45:1n:3:ARG:NH1	2.44	0.50
32:1a:1240:U:OP2	38:1g:116:ALA:N	2.45	0.50
33:1b:24:TRP:CZ3	33:1b:26:PRO:HA	2.47	0.50
35:1d:172:PRO:C	35:1d:174:LEU:H	2.20	0.50
1:2A:946:G:H2'	1:2A:947:G:H8	1.77	0.50
1:2A:1915:5MU:H2'	1:2A:1916:A:O4'	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:2F:107:LYS:HG3	5:2F:206:ILE:HA	1.94	0.50
10:2O:88:ASN:HD21	10:2O:92:GLU:HB2	1.76	0.50
29:27:26:GLY:O	29:27:30:VAL:HG23	2.12	0.50
34:2c:7:PRO:O	34:2c:11:ARG:NH1	2.44	0.50
36:2e:75:THR:OG1	36:2e:117:ASP:O	2.21	0.50
37:2f:97:PHE:CE2	49:2r:62:GLU:HG2	2.47	0.50
54:2y:52:G:O6	54:2y:62:C:N3	2.44	0.50
1:1A:18:C:O2'	1:1A:577:U:OP1	2.30	0.49
1:1A:142:G:H1'	19:1X:37:THR:HG21	1.94	0.49
1:1A:1138:C:C2'	1:1A:1139:G:H5'	2.41	0.49
32:1a:105:G:OP1	51:1t:22:ARG:NH2	2.45	0.49
32:1a:266:G:H2'	32:1a:266:G:N3	2.25	0.49
32:1a:552:U:O2	43:1l:31:PRO:HB3	2.11	0.49
32:1a:727:G:N2	32:1a:730:G:OP2	2.41	0.49
32:1a:1037:C:H2'	32:1a:1038:C:C6	2.47	0.49
33:1b:16:HIS:CG	33:1b:17:PHE:N	2.80	0.49
1:2A:30:G:H2'	1:2A:31:C:C6	2.47	0.49
1:2A:271(Q):G:H2'	1:2A:271(R):G:C8	2.47	0.49
1:2A:1341:U:OP2	1:2A:1394:U:O2'	2.26	0.49
1:2A:1899:G:H2'	1:2A:1899:G:N3	2.26	0.49
1:2A:2001:A:H2'	1:2A:2002:G:C8	2.47	0.49
1:2A:2537:U:H2'	1:2A:2538:C:C6	2.47	0.49
1:2A:2557:G:H2'	1:2A:2558:C:H6	1.77	0.49
2:2B:24:G:H4'	2:2B:25:A:C8	2.47	0.49
13:2R:26:LYS:HD3	13:2R:70:LEU:O	2.12	0.49
32:2a:195:A:N3	32:2a:222:U:O2'	2.43	0.49
32:2a:1011:G:H1	32:2a:1018:C:N4	2.10	0.49
35:2d:165:MET:SD	35:2d:168:ARG:NE	2.75	0.49
52:2u:5:ASP:O	52:2u:11:GLY:HA3	2.12	0.49
53:2v:14:A:H2'	53:2v:14:A:N3	2.27	0.49
1:1A:602:G:H2'	1:1A:603:C:C6	2.47	0.49
1:1A:1834:A:O2'	3:1D:259:THR:HG21	2.12	0.49
1:1A:2143:G:H2'	1:1A:2144:U:C6	2.47	0.49
1:1A:2346:G:O6	22:10:74:ARG:NH2	2.42	0.49
1:1A:2372:A:H2'	1:1A:2373:A:O4'	2.12	0.49
1:1A:2707:C:H2'	1:1A:2708:U:C6	2.47	0.49
6:1G:56:ALA:O	6:1G:59:GLU:HG2	2.11	0.49
10:1O:86:ILE:HG22	10:1O:94:ARG:HD3	1.94	0.49
21:1Z:99:TYR:HB3	21:1Z:123:ASP:OD2	2.12	0.49
1:2A:1543:C:H5''	61:2A:4225:HOH:O	2.11	0.49
1:2A:2103:C:H2'	1:2A:2104:G:C8	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2336:A:H61	22:20:43:THR:HG22	1.77	0.49
32:2a:34:C:H2'	32:2a:35:G:H8	1.77	0.49
33:2b:15:VAL:HG21	33:2b:213:LEU:HD13	1.94	0.49
1:1A:302:A:H2'	1:1A:303:C:C6	2.47	0.49
32:1a:749:C:H2'	32:1a:750:G:H8	1.77	0.49
32:1a:1007:C:N3	32:1a:1022:G:O6	2.45	0.49
33:1b:80:ILE:HD11	33:1b:212:GLN:HA	1.93	0.49
36:1e:6:PHE:HB3	36:1e:34:VAL:HG22	1.94	0.49
1:2A:443:A:C5	5:2F:45:ARG:HD2	2.47	0.49
1:2A:833:U:O2'	30:28:57:ARG:NH1	2.45	0.49
1:2A:1336:A:H2'	1:2A:1337:G:C8	2.48	0.49
7:2H:3:ARG:HG2	7:2H:6:ARG:NE	2.27	0.49
11:2P:82:GLY:HA2	11:2P:113:LYS:O	2.12	0.49
12:2Q:35:VAL:HG12	12:2Q:130:LYS:O	2.12	0.49
28:26:35:GLU:HG2	28:26:50:ARG:HD3	1.94	0.49
32:2a:546:G:OP1	35:2d:73:ARG:HG2	2.12	0.49
36:2e:92:LYS:HB3	36:2e:119:LEU:HB2	1.95	0.49
48:2q:64:PRO:HB3	48:2q:70:ARG:NH1	2.26	0.49
1:1A:509:A:O2'	20:1Y:49:VAL:O	2.30	0.49
1:1A:1821:C:H2'	1:1A:1822:A:C5	2.48	0.49
1:1A:2247:G:H2'	1:1A:2248:C:C6	2.47	0.49
1:1A:2381:A:H2'	1:1A:2382:G:H8	1.77	0.49
32:1a:310:G:H5''	47:1p:31:LYS:HB2	1.95	0.49
32:1a:1503:A:N1	53:1v:12:A:H2	2.10	0.49
40:1i:32:ASP:OD1	40:1i:33:PHE:N	2.46	0.49
46:1o:74:ASP:HB3	46:1o:77:ARG:HB2	1.94	0.49
55:1x:23:C:H2'	55:1x:24:U:H6	1.76	0.49
1:2A:529:A:H2	61:2A:3888:HOH:O	1.96	0.49
1:2A:588:U:H2'	1:2A:589:C:C6	2.47	0.49
1:2A:858:U:O2	1:2A:2268:A:H2'	2.12	0.49
1:2A:1165:U:H2'	1:2A:1166:C:C6	2.47	0.49
4:2E:50:GLY:HA2	4:2E:77:ILE:O	2.13	0.49
32:2a:377:G:H1	32:2a:386:C:H42	1.60	0.49
32:2a:1412:C:H2'	32:2a:1413:A:C8	2.47	0.49
33:2b:90:MET:HE2	33:2b:222:ILE:HD12	1.93	0.49
1:1A:463:C:H2'	1:1A:464:G:H8	1.75	0.49
1:1A:1834:A:H4'	3:1D:259:THR:HG23	1.95	0.49
11:1P:59:LEU:HD21	30:18:10:ALA:HA	1.95	0.49
13:1R:118:GLU:H	13:1R:118:GLU:CD	2.20	0.49
32:1a:341:C:H2'	32:1a:342:C:C6	2.47	0.49
32:1a:738:C:OP1	37:1f:4:TYR:OH	2.19	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1218:C:H2'	32:1a:1219:U:C6	2.47	0.49
33:1b:109:SER:O	33:1b:112:VAL:HG22	2.13	0.49
35:1d:7:PRO:HB2	35:1d:10:ARG:HD2	1.93	0.49
1:2A:38:A:H2'	1:2A:39:C:C6	2.48	0.49
1:2A:2127:G:H1	1:2A:2161:C:N4	2.08	0.49
3:2D:127:VAL:HA	3:2D:193:VAL:HG23	1.95	0.49
32:2a:45:U:H2'	32:2a:46:G:C8	2.47	0.49
32:2a:736:C:H2'	32:2a:737:A:H8	1.77	0.49
35:2d:156:GLU:HG3	35:2d:159:ARG:NH2	2.28	0.49
44:2m:80:ARG:HA	44:2m:83:ASP:HB2	1.95	0.49
9:1N:75:TYR:CE2	9:1N:77:GLY:HA2	2.47	0.49
32:1a:826:C:H4'	39:1h:12:ARG:HG2	1.94	0.49
33:1b:138:LEU:O	33:1b:142:LEU:N	2.39	0.49
36:1e:33:VAL:HG21	36:1e:109:ILE:HA	1.95	0.49
43:1l:84:LEU:HB2	43:1l:105:TYR:CE2	2.47	0.49
1:2A:819:A:OP2	1:2A:1187:G:N2	2.36	0.49
1:2A:848:G:C2	1:2A:933:A:H1'	2.47	0.49
1:2A:1420:U:O2'	1:2A:1421:G:OP1	2.22	0.49
1:2A:1796:U:H2'	1:2A:1797:C:C6	2.47	0.49
1:2A:2127:G:C6	1:2A:2161:C:N4	2.80	0.49
8:2I:31:LEU:HD21	8:2I:38:LEU:HG	1.93	0.49
11:2P:100:LEU:HD12	11:2P:112:LEU:HD11	1.95	0.49
32:2a:435:C:H2'	32:2a:436:C:H6	1.77	0.49
32:2a:1009:G:N2	32:2a:1021:G:H1'	2.27	0.49
32:2a:1247:U:H1'	32:2a:1291:G:N2	2.28	0.49
33:2b:15:VAL:HG23	33:2b:16:HIS:CD2	2.44	0.49
1:1A:1186:U:H4'	1:1A:1188:A:O4'	2.13	0.49
29:17:20:ALA:HA	29:17:23:ARG:HH21	1.78	0.49
32:1a:626:U:H2'	32:1a:627:G:C8	2.48	0.49
35:1d:194:LEU:HG	35:1d:196:LEU:HD13	1.94	0.49
54:1y:15:G:H22	54:1y:48:C:H42	1.59	0.49
1:2A:581:C:H2'	1:2A:582:G:C8	2.47	0.49
1:2A:1486:A:H2'	1:2A:1487:G:H8	1.76	0.49
2:2B:43:C:O2	6:2G:95:ARG:NE	2.42	0.49
21:2Z:28:MET:HE1	21:2Z:61:LEU:HD21	1.94	0.49
32:2a:403:C:O2'	35:2d:122:ARG:NH2	2.45	0.49
32:2a:1187:G:C5'	40:2i:113:LYS:HD3	2.42	0.49
47:2p:43:LYS:HG2	47:2p:48:TRP:CG	2.48	0.49
1:1A:180:A:N1	61:1A:4262:HOH:O	2.35	0.49
1:1A:943:C:N3	1:1A:944:C:N4	2.60	0.49
1:1A:1074:A:N6	1:1A:1171:G:H2'	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1445:C:OP1	19:1X:25:LYS:NZ	2.45	0.49
1:1A:2262:G:OP1	12:1Q:85:LYS:NZ	2.30	0.49
32:1a:1077:G:N2	32:1a:1080:A:OP2	2.45	0.49
32:1a:1318:A:H5''	50:1s:3:ARG:NH1	2.27	0.49
33:1b:24:TRP:CD1	33:1b:24:TRP:H	2.31	0.49
54:1w:7:A:N1	54:1w:66:U:O2	2.46	0.49
54:1y:51:U:H2'	54:1y:52:G:C8	2.48	0.49
1:2A:1379:A:H4'	1:2A:1380:G:OP2	2.13	0.49
16:2U:76:TYR:CZ	16:2U:80:ILE:HG13	2.46	0.49
32:2a:1025:U:N3	32:2a:1036:G:N1	2.40	0.49
32:2a:1513:A:H2'	32:2a:1514:C:C6	2.48	0.49
33:2b:97:TRP:HH2	33:2b:102:LEU:HD13	1.78	0.49
50:2s:51:VAL:O	50:2s:58:VAL:N	2.38	0.49
1:1A:1057:G:OP2	16:1U:70:ARG:NH2	2.46	0.49
1:1A:2123:G:H1	1:1A:2210:C:H42	1.61	0.49
1:1A:2402:U:P	30:18:35:GLN:HE22	2.36	0.49
1:2A:197:A:O2'	61:2A:3847:HOH:O	2.15	0.49
19:2X:41:ASN:O	19:2X:45:THR:HG23	2.13	0.49
32:2a:1109:C:H2'	32:2a:1110:A:O4'	2.13	0.49
35:2d:149:ALA:HB3	35:2d:152:SER:HB2	1.95	0.49
1:1A:629:U:H4'	1:1A:705:C:H4'	1.95	0.49
1:1A:1136:U:C2	1:1A:1148:C:H1'	2.47	0.49
1:1A:1431:G:O2'	1:1A:1442:U:O2	2.22	0.49
1:1A:1572:G:C6	1:1A:1573:G:C2	3.01	0.49
1:1A:1717:C:O2	4:1E:129:HIS:NE2	2.44	0.49
1:1A:2417:G:H5''	11:1P:75:ILE:HG21	1.93	0.49
32:1a:107:G:N7	51:1t:15:ARG:NH2	2.61	0.49
33:1b:131:PRO:O	33:1b:135:GLN:N	2.40	0.49
1:2A:75:G:H4'	24:22:55:ARG:HH11	1.77	0.49
5:2F:126:VAL:HG21	5:2F:129:PHE:CZ	2.48	0.49
9:2N:34:LEU:HD21	9:2N:120:LEU:HB2	1.95	0.49
32:2a:750:G:N3	46:2o:23:GLY:HA3	2.28	0.49
34:2c:124:ILE:HD11	34:2c:189:ALA:HB1	1.94	0.49
54:2y:55:PSU:HN1	54:2y:57:G:C5'	2.25	0.49
1:1A:225:C:H2'	1:1A:226:C:C6	2.48	0.48
1:1A:1000:C:OP1	12:1Q:87:LYS:NZ	2.32	0.48
1:1A:2328:C:H1'	6:1G:128:ARG:HH21	1.77	0.48
7:1H:3:ARG:CZ	7:1H:5:GLY:H	2.26	0.48
32:1a:848:C:H2'	32:1a:849:C:H6	1.77	0.48
32:1a:1326:C:H2'	32:1a:1327:C:C6	2.47	0.48
47:1p:14:ASN:OD1	47:1p:42:ARG:NH2	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:994:C:O2'	1:2A:996:A:OP1	2.27	0.48
8:2I:48:GLU:HB3	8:2I:52:ARG:NH1	2.28	0.48
21:2Z:150:LEU:HB2	21:2Z:171:ILE:HD11	1.94	0.48
25:23:10:LYS:HB3	25:23:53:LEU:HA	1.94	0.48
32:2a:1329:A:OP2	52:2u:7:ARG:NH1	2.45	0.48
32:2a:1442:G:H2'	32:2a:1442:G:N3	2.28	0.48
33:2b:126:GLU:CD	33:2b:126:GLU:H	2.21	0.48
33:2b:136:VAL:O	33:2b:140:HIS:HB2	2.13	0.48
36:2e:42:GLY:HA2	36:2e:65:ASN:O	2.14	0.48
48:2q:10:VAL:HA	48:2q:20:THR:O	2.13	0.48
1:1A:449:A:H2'	1:1A:450:A:C8	2.48	0.48
1:1A:515:G:N7	18:1W:49:LYS:NZ	2.60	0.48
32:1a:1089:G:H1	32:1a:1096:C:N4	2.11	0.48
36:1e:90:VAL:O	36:1e:120:THR:HA	2.13	0.48
1:2A:1568:G:H5''	3:2D:61:LEU:HD13	1.96	0.48
1:2A:2105:C:H2'	1:2A:2106:G:C8	2.47	0.48
1:2A:2567:G:H2'	1:2A:2568:C:C6	2.48	0.48
1:2A:2820:A:O2'	1:2A:2821:A:OP1	2.30	0.48
3:2D:108:PRO:HD2	3:2D:111:LEU:HD22	1.95	0.48
15:2T:109:GLU:HG2	15:2T:112:ARG:NH2	2.28	0.48
32:2a:114:U:H2'	32:2a:115:G:C8	2.48	0.48
32:2a:863:U:H2'	32:2a:865:A:OP2	2.13	0.48
32:2a:1327:C:H2'	32:2a:1328:C:H6	1.76	0.48
33:2b:87:ARG:NE	33:2b:233:SER:HB3	2.28	0.48
33:2b:109:SER:HA	33:2b:112:VAL:HG23	1.94	0.48
37:2f:75:LEU:O	37:2f:79:LEU:HG	2.12	0.48
1:1A:242:C:OP2	30:18:5:LYS:NZ	2.34	0.48
1:1A:589:U:H5''	11:1P:29:LYS:HE3	1.94	0.48
1:1A:2589:A:OP1	61:1A:4163:HOH:O	2.20	0.48
25:13:37:LEU:HB3	25:13:43:ILE:HD13	1.96	0.48
32:1a:17:U:H2'	32:1a:18:C:C6	2.49	0.48
32:1a:632:A:OP1	39:1h:98:LYS:NZ	2.43	0.48
32:1a:920:U:H2'	32:1a:921:U:C6	2.48	0.48
40:1i:50:LEU:HA	40:1i:53:VAL:HG22	1.94	0.48
40:1i:77:ILE:O	40:1i:81:ILE:HG22	2.13	0.48
54:1w:4:C:H2'	54:1w:5:G:H8	1.78	0.48
54:1y:10:G:H2'	54:1y:10:G:N3	2.27	0.48
54:1y:53:G:H2'	54:1y:54:5MU:H73	1.94	0.48
1:2A:336:C:H2'	1:2A:337:C:C6	2.48	0.48
1:2A:578:A:OP2	61:2A:3868:HOH:O	2.20	0.48
1:2A:2317:C:N4	1:2A:2318:G:O6	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2B:91:C:H5'	12:2Q:18:LYS:HA	1.94	0.48
32:2a:1202:G:H1'	45:2n:29:ARG:HD2	1.95	0.48
45:2n:37:PHE:C	45:2n:39:LEU:H	2.21	0.48
47:2p:8:ARG:HB3	47:2p:28:ARG:NH1	2.27	0.48
50:2s:50:ALA:HB1	50:2s:57:HIS:HB3	1.95	0.48
1:1A:715:G:N7	61:1A:4264:HOH:O	2.35	0.48
1:1A:2391:G:O2'	14:1S:17:ARG:NH2	2.33	0.48
8:1I:46:ALA:HB1	8:1I:50:ARG:HH22	1.79	0.48
32:1a:313:A:H2'	32:1a:314:C:C6	2.49	0.48
32:1a:691:G:H2'	32:1a:692:U:C6	2.48	0.48
32:1a:1003:G:C4	32:1a:1004:A:H2	2.31	0.48
50:1s:36:ARG:HB3	50:1s:72:GLY:HA3	1.94	0.48
50:1s:80:TYR:C	50:1s:82:GLY:H	2.20	0.48
54:1y:51:U:H2'	54:1y:52:G:H8	1.79	0.48
1:2A:204:A:O3'	1:2A:205:G:H4'	2.14	0.48
1:2A:2557:G:H2'	1:2A:2558:C:C6	2.48	0.48
1:2A:2646:C:H2'	1:2A:2647:U:O4'	2.13	0.48
1:2A:2867:G:OP2	15:2T:119:LYS:NZ	2.38	0.48
24:22:32:LEU:HD13	24:22:53:LEU:HB3	1.94	0.48
32:2a:179:A:H2'	32:2a:180:U:C6	2.48	0.48
32:2a:1144:G:H21	32:2a:1146:A:H62	1.61	0.48
37:2f:50:TYR:CE2	49:2r:77:GLY:HA2	2.49	0.48
41:2j:17:ASP:OD1	41:2j:17:ASP:N	2.46	0.48
50:2s:64:GLU:CD	50:2s:64:GLU:H	2.21	0.48
54:2y:58:A:H1'	54:2y:60:U:H3	1.77	0.48
5:1F:53:THR:CG2	5:1F:55:GLY:H	2.26	0.48
6:1G:101:ILE:HD13	26:14:25:TYR:HB2	1.95	0.48
7:1H:3:ARG:HH22	7:1H:66:GLY:N	2.12	0.48
15:1T:74:ARG:HG2	15:1T:76:PHE:CZ	2.49	0.48
15:1T:107:ASP:OD2	15:1T:111:ARG:NH1	2.46	0.48
32:1a:625:G:H2'	32:1a:626:U:H6	1.76	0.48
32:1a:685:G:N1	32:1a:704:A:OP2	2.39	0.48
32:1a:765:G:N1	32:1a:812:C:O2'	2.39	0.48
32:1a:977:A:H1'	32:1a:982:U:O4	2.13	0.48
44:1m:39:ILE:CD1	44:1m:56:LEU:HB2	2.43	0.48
53:1v:16:A:H2'	53:1v:17:U:O4'	2.14	0.48
1:2A:322:A:OP2	5:2F:169:ASN:HB2	2.13	0.48
1:2A:2037:G:H2'	1:2A:2038:G:C8	2.48	0.48
11:2P:38:GLN:O	11:2P:39:LYS:HB3	2.14	0.48
20:2Y:31:LEU:HD23	20:2Y:31:LEU:HA	1.70	0.48
21:2Z:31:ARG:HH11	21:2Z:94:GLU:HG2	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:24:47:GLN:C	26:24:49:PHE:H	2.21	0.48
32:2a:730:G:C5	32:2a:731:G:H1'	2.49	0.48
32:2a:769:G:H4'	32:2a:1513:A:H4'	1.96	0.48
32:2a:1271:G:C2	32:2a:1272:G:N7	2.82	0.48
32:2a:1271:G:N2	32:2a:1272:G:N7	2.61	0.48
40:2i:23:ASN:OD1	40:2i:25:LYS:HG2	2.12	0.48
54:2y:65:G:H2'	54:2y:66:U:C6	2.49	0.48
1:1A:993:G:OP1	61:1A:4162:HOH:O	2.20	0.48
1:1A:2053:A:C6	1:1A:2510:C:H1'	2.48	0.48
1:1A:2504:U:H2'	1:1A:2505:U:H6	1.77	0.48
5:1F:116:ASP:OD1	5:1F:119:ARG:NH2	2.47	0.48
17:1V:55:ALA:HA	17:1V:101:GLY:HA2	1.94	0.48
32:1a:103:C:OP2	51:1t:14:LYS:NZ	2.37	0.48
1:2A:514:A:N3	1:2A:581:C:O2'	2.44	0.48
1:2A:903:C:H2'	1:2A:904:C:C6	2.49	0.48
1:2A:1509(B):A:H2'	1:2A:1510:G:H8	1.78	0.48
1:2A:2683:C:OP1	15:2T:53:ARG:NH2	2.37	0.48
6:2G:106:LEU:O	6:2G:110:ALA:HB3	2.14	0.48
6:2G:109:VAL:HG21	26:24:14:ILE:HD13	1.95	0.48
6:2G:173:LEU:HB3	6:2G:178:PHE:CD2	2.48	0.48
19:2X:88:LYS:HG2	19:2X:93:GLU:HG3	1.96	0.48
32:2a:620:C:H2'	32:2a:621:A:O4'	2.14	0.48
32:2a:1073:U:O2	33:2b:104:ASN:ND2	2.46	0.48
32:2a:1101:A:H4'	32:2a:1102:A:O5'	2.14	0.48
33:2b:19:HIS:CE1	33:2b:206:ASP:HB2	2.48	0.48
54:2y:15:G:H22	54:2y:48:C:H42	1.60	0.48
1:1A:369:A:N3	1:1A:371:A:N6	2.62	0.48
4:1E:29:GLY:HA3	61:1E:408:HOH:O	2.14	0.48
32:1a:649:G:H2'	32:1a:650:G:H8	1.78	0.48
32:1a:925:G:H1'	32:1a:1502:A:C4	2.49	0.48
37:1f:39:LYS:NZ	37:1f:40:VAL:O	2.39	0.48
47:1p:4:ILE:HB	47:1p:66:PRO:HA	1.94	0.48
1:2A:880:G:H22	1:2A:898:C:H1'	1.77	0.48
1:2A:893:C:H2'	1:2A:894:C:C5	2.48	0.48
1:2A:2227:A:OP1	3:2D:263:ARG:HD2	2.13	0.48
1:2A:2430:A:OP2	61:2A:3867:HOH:O	2.20	0.48
32:2a:141:A:H1'	32:2a:182:U:O2	2.14	0.48
32:2a:859:A:H2'	32:2a:860:A:O4'	2.13	0.48
35:2d:76:ARG:O	35:2d:80:GLU:HG2	2.13	0.48
54:2w:72:C:H2'	54:2w:73:A:C8	2.49	0.48
54:2y:57:G:N2	61:2y:3102:HOH:O	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:469:A:H1'	1:1A:1246:C:O4'	2.13	0.48
20:1Y:14:LEU:HB2	20:1Y:75:ILE:HD11	1.95	0.48
21:1Z:4:ARG:HH21	21:1Z:60:GLU:HG2	1.78	0.48
32:1a:857:C:H2'	32:1a:858:G:O4'	2.13	0.48
33:1b:47:THR:O	33:1b:51:LEU:HG	2.13	0.48
34:1c:52:LEU:HD21	34:1c:55:VAL:HG23	1.96	0.48
44:1m:78:ILE:HG22	44:1m:82:MET:HE2	1.96	0.48
1:2A:801:G:O6	5:2F:53:THR:OG1	2.32	0.48
1:2A:1481:U:H3	1:2A:1510:G:H1	1.61	0.48
1:2A:2144:U:H1'	1:2A:2148:G:N2	2.29	0.48
1:2A:2600:A:H2'	1:2A:2601:C:C6	2.49	0.48
6:2G:16:ARG:O	6:2G:20:ILE:HG13	2.13	0.48
20:2Y:91:GLU:OE1	20:2Y:91:GLU:N	2.45	0.48
32:2a:666:G:OP2	32:2a:725:G:N2	2.33	0.48
32:2a:1054:C:C4	54:2w:34:G:H1'	2.49	0.48
32:2a:1295:G:O2'	44:2m:14:ARG:NH1	2.46	0.48
38:2g:89:MET:SD	38:2g:155:ARG:HB2	2.54	0.48
44:2m:33:ALA:O	44:2m:37:THR:OG1	2.27	0.48
44:2m:90:LEU:HD22	44:2m:94:ARG:NH1	2.29	0.48
1:1A:103:C:H2'	1:1A:104:C:H6	1.79	0.48
1:1A:609:A:N1	1:1A:856:G:O2'	2.44	0.48
1:1A:1473:A:H4'	1:1A:1474:C:O4'	2.13	0.48
1:1A:1674:G:H2'	1:1A:1675:U:C6	2.47	0.48
28:16:12:GLU:OE1	28:16:19:ARG:NH1	2.47	0.48
32:1a:192:U:H2'	32:1a:193:C:H6	1.78	0.48
1:2A:1113:U:H2'	1:2A:1114:G:C8	2.48	0.48
1:2A:2142:C:H2'	1:2A:2143:C:C6	2.49	0.48
1:2A:2698:U:H2'	1:2A:2699:C:C6	2.49	0.48
6:2G:127:GLY:H	6:2G:166:ASP:CG	2.21	0.48
14:2S:87:PHE:CE1	14:2S:102:ALA:HB2	2.48	0.48
32:2a:1114:C:H42	32:2a:1186:G:H1	1.61	0.48
44:2m:3:ARG:HH21	44:2m:45:VAL:HG12	1.78	0.48
1:1A:1634:C:H2'	1:1A:1635:C:H6	1.79	0.48
1:1A:1827:U:H2'	1:1A:1828:C:H6	1.79	0.48
1:1A:2564:2MU:H2'	1:1A:2566:U:OP2	2.14	0.48
1:1A:2745:G:H3'	1:1A:2746:A:O4'	2.14	0.48
1:1A:2784:C:H2'	1:1A:2785:C:C6	2.49	0.48
5:1F:116:ASP:OD2	5:1F:117:ARG:NH1	2.47	0.48
21:1Z:31:ARG:HD3	21:1Z:94:GLU:OE1	2.14	0.48
32:1a:1126:U:O2	32:1a:1280:A:H2'	2.14	0.48
33:1b:73:THR:OG1	33:1b:169:LYS:NZ	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:1i:27:THR:HG22	40:1i:62:TYR:HA	1.95	0.48
1:2A:560:C:H4'	16:2U:52:ARG:CZ	2.44	0.48
1:2A:957:A:H5'	12:2Q:76:LYS:HG3	1.96	0.48
1:2A:1973:G:OP1	61:2A:3869:HOH:O	2.20	0.48
1:2A:1996:C:H4'	1:2A:1997:G:OP1	2.12	0.48
1:2A:2441:C:OP2	1:2A:2586:C:O2'	2.31	0.48
2:2B:66:A:N6	2:2B:108:U:H3'	2.29	0.48
3:2D:37:LEU:HD13	3:2D:62:TYR:HB2	1.96	0.48
5:2F:53:THR:HG23	5:2F:55:GLY:N	2.29	0.48
29:27:30:VAL:O	29:27:34:ARG:HG2	2.13	0.48
32:2a:583:A:N6	32:2a:758:G:O2'	2.47	0.48
32:2a:977:A:H1'	32:2a:981:U:H3	1.78	0.48
37:2f:37:VAL:HA	37:2f:65:VAL:HG12	1.95	0.48
41:2j:85:LEU:C	41:2j:87:THR:H	2.22	0.48
1:1A:116:A:C8	1:1A:117:A:C8	3.02	0.47
1:1A:386:U:O2'	1:1A:387:G:H5''	2.13	0.47
1:1A:1232:G:H5''	17:1V:81:TYR:CE1	2.49	0.47
18:1W:78:GLU:OE2	18:1W:99:ARG:NH1	2.43	0.47
27:15:16:ARG:NH1	27:15:17:ASP:OD1	2.46	0.47
32:1a:877:C:H5''	39:1h:88:LYS:HD3	1.96	0.47
32:1a:1011:G:H1	32:1a:1018:C:N4	2.09	0.47
32:1a:1151:A:O2'	32:1a:1152:A:H8	1.97	0.47
32:1a:1189:C:OP1	41:1j:51:ARG:NH2	2.38	0.47
32:1a:1346:A:N1	32:1a:1374:A:H5''	2.28	0.47
32:1a:1403:C:C2	32:1a:1404:5MC:HM52	2.49	0.47
32:1a:1442:G:H2'	32:1a:1442:G:N3	2.29	0.47
36:1e:95:ALA:HB1	36:1e:96:PRO:HD2	1.95	0.47
39:1h:17:THR:HB	39:1h:78:GLN:OE1	2.13	0.47
54:1w:29:G:H1	54:1w:41:C:N4	2.09	0.47
1:2A:1264:G:H2'	1:2A:2014:A:N6	2.28	0.47
1:2A:2127:G:N2	1:2A:2161:C:C2	2.82	0.47
5:2F:32:LEU:O	5:2F:36:VAL:HG23	2.14	0.47
14:2S:34:HIS:ND1	14:2S:53:SER:OG	2.46	0.47
22:20:51:VAL:N	22:20:62:LEU:HD12	2.29	0.47
32:2a:580:U:H2'	32:2a:581:G:O4'	2.14	0.47
32:2a:1135:U:H2'	32:2a:1137:C:N4	2.29	0.47
32:2a:1402:4OC:CM2	32:2a:1403:C:H5'	2.44	0.47
33:2b:24:TRP:CD1	33:2b:24:TRP:H	2.31	0.47
39:2h:36:LEU:HA	39:2h:39:LEU:HB2	1.96	0.47
44:2m:37:THR:O	44:2m:55:ARG:HD3	2.14	0.47
45:2n:23:ARG:HD2	45:2n:28:GLY:O	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1633:A:H2'	1:1A:1634:C:H6	1.77	0.47
1:1A:2122:G:H1	1:1A:2211:U:H3	1.62	0.47
11:1P:63:PRO:HG2	30:18:25:MET:HB2	1.96	0.47
22:10:43:THR:OG1	22:10:46:LYS:HG2	2.13	0.47
32:1a:279:A:C5	48:1q:98:LEU:HD23	2.49	0.47
44:1m:84:ILE:HB	50:1s:66:MET:HE2	1.96	0.47
44:1m:87:TYR:O	44:1m:91:ARG:HG2	2.14	0.47
45:1n:26:ARG:NH1	45:1n:46:GLU:OE1	2.46	0.47
1:2A:918:A:N3	2:2B:80:U:H4'	2.29	0.47
3:2D:275:LYS:HA	3:2D:276:LYS:C	2.40	0.47
12:2Q:66:ILE:HG12	12:2Q:104:PHE:CD1	2.48	0.47
20:2Y:13:VAL:HG12	20:2Y:74:PRO:HA	1.95	0.47
20:2Y:73:ARG:HH21	20:2Y:83:THR:C	2.21	0.47
32:2a:266:G:H2'	32:2a:266:G:N3	2.28	0.47
32:2a:1020:U:H2'	32:2a:1021:G:H8	1.80	0.47
33:2b:118:LEU:HD12	33:2b:145:LEU:HD12	1.96	0.47
34:2c:51:GLY:O	34:2c:70:VAL:HG12	2.13	0.47
35:2d:173:TRP:CD2	35:2d:189:PRO:HB3	2.49	0.47
44:2m:5:ALA:HB3	44:2m:22:ILE:HD13	1.95	0.47
1:1A:31:C:OP1	61:1A:4161:HOH:O	2.20	0.47
1:1A:1078:A:H2	1:1A:1168:G:H22	1.62	0.47
1:1A:1379:C:OP2	61:1A:4167:HOH:O	2.20	0.47
8:1I:38:LEU:HD13	8:1I:40:THR:HG23	1.96	0.47
8:1I:48:GLU:HB3	8:1I:52:ARG:HH22	1.78	0.47
13:1R:87:TYR:OH	13:1R:117:VAL:O	2.26	0.47
15:1T:15:VAL:HG13	15:1T:79:HIS:CE1	2.49	0.47
32:1a:741:G:H2'	32:1a:742:G:O4'	2.14	0.47
32:1a:1030(A):G:O2'	32:1a:1031:G:N2	2.47	0.47
1:2A:511:U:O4	1:2A:512:G:N1	2.47	0.47
1:2A:928:G:H8	1:2A:928:G:O5'	1.96	0.47
1:2A:1213:A:N3	1:2A:1238:G:O2'	2.43	0.47
1:2A:2645:G:N2	1:2A:2767:C:OP2	2.48	0.47
2:2B:42:C:O2'	6:2G:67:LYS:O	2.23	0.47
8:2I:40:THR:O	8:2I:44:LEU:HB2	2.14	0.47
13:2R:72:ASP:O	13:2R:76:VAL:HG23	2.14	0.47
14:2S:67:ARG:HH12	14:2S:103:GLU:HB2	1.77	0.47
27:25:16:ARG:HG3	27:25:17:ASP:N	2.29	0.47
32:2a:60:A:N6	32:2a:110:C:N3	2.62	0.47
32:2a:607:A:H2'	32:2a:608:A:O4'	2.14	0.47
32:2a:1054:C:C5	54:2w:34:G:H1'	2.50	0.47
32:2a:1438:G:H2'	32:2a:1439:C:C6	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:327:U:H2'	1:1A:328:G:C8	2.50	0.47
1:1A:1405:A:H5'	1:1A:1405:A:N3	2.29	0.47
1:1A:2108:U:H2'	1:1A:2109:G:C8	2.50	0.47
7:1H:41:MET:HE2	7:1H:65:HIS:HA	1.96	0.47
32:1a:510:A:OP2	35:1d:49:ARG:NH1	2.47	0.47
32:1a:825:G:H2'	32:1a:826:C:C6	2.49	0.47
32:1a:1248:A:N3	40:1i:70:LYS:HE2	2.29	0.47
33:1b:10:LEU:HG	33:1b:48:MET:HE3	1.97	0.47
44:1m:123:ALA:HB2	54:1w:39:PSU:H1'	1.97	0.47
45:1n:2:ALA:HB1	45:1n:6:LEU:HD22	1.95	0.47
45:1n:33:VAL:HA	45:1n:40:CYS:HA	1.95	0.47
54:1w:60:U:H5''	54:1w:61:C:C5	2.47	0.47
54:1y:23:A:H2'	54:1y:24:G:C8	2.49	0.47
54:1y:53:G:H1	54:1y:61:C:H42	1.62	0.47
1:2A:68:G:H2'	1:2A:69:C:O4'	2.14	0.47
1:2A:196:A:O2'	1:2A:805:G:O6	2.27	0.47
1:2A:1507:A:O2'	1:2A:1508:A:O4'	2.33	0.47
1:2A:2224:G:H4'	1:2A:2226:C:C2	2.48	0.47
3:2D:108:PRO:HB3	3:2D:143:HIS:CE1	2.49	0.47
6:2G:101:ILE:HG22	6:2G:105:LYS:HE2	1.96	0.47
14:2S:99:LYS:HE2	14:2S:103:GLU:OE2	2.15	0.47
26:24:15:ILE:HB	26:24:32:TYR:HD1	1.79	0.47
32:2a:1005:A:H5''	32:2a:1006:C:C5	2.49	0.47
32:2a:1080:A:H5''	32:2a:1081:G:OP2	2.14	0.47
36:2e:36:ASP:C	36:2e:38:GLN:H	2.22	0.47
43:2l:51:ALA:O	43:2l:52:LEU:HD12	2.14	0.47
1:1A:310:C:H2'	1:1A:311:C:C6	2.49	0.47
1:1A:1110:C:H2'	1:1A:1111:U:O4'	2.14	0.47
3:1D:12:SER:HB3	3:1D:208:LYS:HB3	1.96	0.47
9:1N:62:VAL:CG2	9:1N:66:LYS:HB2	2.44	0.47
12:1Q:16:ARG:O	12:1Q:18:LYS:N	2.48	0.47
32:1a:78:G:O6	32:1a:92:C:N4	2.46	0.47
32:1a:1060:C:OP1	45:1n:45:ARG:NH2	2.48	0.47
33:1b:212:GLN:NE2	33:1b:235:SER:HA	2.29	0.47
34:1c:134:ILE:HG23	34:1c:151:VAL:HB	1.97	0.47
51:1t:60:GLU:HG3	51:1t:81:LYS:HD2	1.96	0.47
54:1w:51:U:H2'	54:1w:52:G:C8	2.48	0.47
1:2A:297:C:OP1	20:2Y:87:LYS:NZ	2.45	0.47
1:2A:446:G:OP1	16:2U:3:ARG:NH1	2.48	0.47
1:2A:526:A:N3	1:2A:2044:C:H1'	2.30	0.47
1:2A:573:G:O2'	1:2A:574:C:H3'	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:614(C):A:C4	5:2F:180:GLY:HA3	2.49	0.47
1:2A:2059:A:O2'	5:2F:69:HIS:HD2	1.96	0.47
1:2A:2102:U:H2'	1:2A:2103:C:C6	2.49	0.47
1:2A:2117:A:O2'	1:2A:2118:U:H5''	2.14	0.47
1:2A:2419:U:H5''	30:28:33:ASN:HB2	1.95	0.47
1:2A:2472:G:H2'	1:2A:2475:C:H42	1.78	0.47
7:2H:154:PRO:HB3	7:2H:163:TYR:CZ	2.49	0.47
14:2S:38:GLN:NE2	14:2S:47:THR:OG1	2.33	0.47
25:23:16:PRO:HB2	25:23:18:ASP:OD1	2.14	0.47
26:24:12:ALA:HB3	26:24:26:SER:HB3	1.96	0.47
32:2a:181:G:H4'	32:2a:182:U:H5'	1.95	0.47
32:2a:1119:C:H2'	32:2a:1120:G:H8	1.78	0.47
32:2a:1256:A:N1	32:2a:1278:U:H1'	2.30	0.47
32:2a:1270:C:N4	32:2a:1271:G:O6	2.47	0.47
39:2h:23:SER:HA	39:2h:63:LEU:HD13	1.96	0.47
40:2i:26:VAL:HG13	40:2i:61:ALA:HB3	1.96	0.47
1:1A:268:G:H4'	23:11:81:LYS:HG2	1.97	0.47
1:1A:1101:G:H2'	1:1A:1102:G:O4'	2.14	0.47
1:1A:1199:C:H2'	1:1A:1200:G:O4'	2.14	0.47
1:1A:1245:C:H5'	61:1A:4421:HOH:O	2.14	0.47
1:1A:2162:C:O2	1:1A:2173:G:N1	2.25	0.47
22:10:46:LYS:HD2	22:10:78:TYR:CZ	2.49	0.47
32:1a:22:G:H4'	32:1a:885:G:C8	2.49	0.47
32:1a:881:G:P	43:1l:12:ARG:HH22	2.37	0.47
32:1a:1070:U:H2'	32:1a:1071:C:C6	2.50	0.47
32:1a:1316:G:N2	32:1a:1318:A:H3'	2.30	0.47
1:2A:262:A:H2'	1:2A:263:C:O4'	2.14	0.47
1:2A:286:C:H2'	1:2A:287:C:C6	2.50	0.47
1:2A:1405:U:H2'	1:2A:1406:U:C6	2.50	0.47
1:2A:1434:A:H61	1:2A:1558:A:N6	2.09	0.47
1:2A:2141:G:C5	1:2A:2151:G:C2	3.03	0.47
3:2D:3:VAL:HG13	3:2D:17:THR:HB	1.96	0.47
7:2H:56:SER:HB3	7:2H:61:HIS:ND1	2.28	0.47
7:2H:97:ARG:O	7:2H:104:GLU:N	2.44	0.47
28:26:34:LEU:HB2	28:26:51:GLU:HB3	1.96	0.47
32:2a:1121:U:C2'	32:2a:1122:U:H5'	2.45	0.47
32:2a:1151:A:O2'	32:2a:1152:A:O5'	2.28	0.47
32:2a:1179:A:H4'	40:2i:103:THR:HA	1.95	0.47
33:2b:55:PHE:CE1	33:2b:218:ALA:HA	2.50	0.47
44:2m:65:LYS:O	44:2m:70:LEU:HD12	2.15	0.47
50:2s:17:GLU:HA	50:2s:20:LEU:HB2	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:698:G:H2'	1:1A:699:C:C6	2.49	0.47
1:1A:1441:A:OP1	61:1A:4166:HOH:O	2.20	0.47
1:1A:1775:C:H5'	1:1A:1776:G:OP2	2.14	0.47
1:1A:2162:C:N3	1:1A:2173:G:C6	2.83	0.47
1:1A:2724:U:OP1	1:1A:2727:G:H4'	2.15	0.47
1:1A:2857:U:OP1	15:1T:98:LYS:NZ	2.46	0.47
3:1D:95:LEU:HD11	3:1D:105:ILE:HD13	1.95	0.47
8:1I:123:LEU:HD12	8:1I:144:VAL:HG23	1.97	0.47
15:1T:118:ARG:HD3	15:1T:118:ARG:HA	1.59	0.47
18:1W:11:ARG:HH11	18:1W:11:ARG:C	2.23	0.47
29:17:5:TRP:NE1	29:17:7:PRO:HG3	2.29	0.47
32:1a:376:G:P	47:1p:67:THR:HG21	2.55	0.47
32:1a:892:A:O2'	32:1a:1415:G:H4'	2.14	0.47
33:1b:90:MET:HE2	33:1b:90:MET:HA	1.96	0.47
33:1b:151:GLY:HA2	33:1b:154:LEU:HD13	1.95	0.47
38:1g:90:GLU:CD	38:1g:90:GLU:H	2.22	0.47
39:1h:4:ASP:CG	39:1h:85:ARG:HH21	2.22	0.47
39:1h:87:SER:HB2	39:1h:93:VAL:H	1.80	0.47
46:1o:82:ILE:O	46:1o:86:GLY:N	2.46	0.47
51:1t:10:LEU:HD23	51:1t:12:ALA:HB3	1.95	0.47
55:1x:8:4SU:O5'	55:1x:8:4SU:H6	2.14	0.47
54:1y:63:G:C2	54:1y:64:A:H1'	2.49	0.47
1:2A:615:G:OP2	5:2F:43:LYS:NZ	2.22	0.47
1:2A:708:C:H42	1:2A:723:G:H1	1.63	0.47
1:2A:902:C:H2'	1:2A:903:C:H6	1.80	0.47
1:2A:910:A:N3	1:2A:2264:C:O2'	2.45	0.47
1:2A:2022:U:OP2	27:25:15:ARG:NH2	2.48	0.47
1:2A:2507:C:H5''	1:2A:2573:C:C4	2.49	0.47
1:2A:2674:G:H2'	1:2A:2675:A:C8	2.50	0.47
1:2A:2689:U:P	1:2A:2719:G:H22	2.38	0.47
1:2A:2881:C:H2'	1:2A:2882:A:O4'	2.15	0.47
2:2B:75:G:H22	21:2Z:73:GLN:HE21	1.63	0.47
7:2H:87:LEU:O	7:2H:131:VAL:N	2.47	0.47
10:2O:119:PRO:HB2	15:2T:68:TYR:CZ	2.50	0.47
13:2R:2:ARG:NH1	13:2R:5:LYS:O	2.48	0.47
26:24:46:GLN:C	26:24:48:ARG:H	2.23	0.47
26:24:58:ARG:HH21	44:2m:80:ARG:NH2	2.13	0.47
32:2a:585:G:O2'	32:2a:879:C:OP1	2.27	0.47
32:2a:1013:G:H2'	32:2a:1015:A:OP2	2.15	0.47
32:2a:1321:C:H4'	44:2m:87:TYR:CE2	2.50	0.47
32:2a:1329:A:H5'	44:2m:29:ARG:NE	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1469:G:H2'	32:2a:1470:G:C8	2.49	0.47
37:2f:60:PHE:HE2	49:2r:78:LEU:HD21	1.79	0.47
43:2l:10:LEU:HB3	48:2q:32:TYR:CE2	2.50	0.47
54:2w:50:U:O2	54:2w:64:A:N1	2.48	0.47
1:1A:273:G:N2	8:1I:50:ARG:HH11	2.12	0.47
1:1A:905:U:O2	1:1A:2280:A:H2'	2.15	0.47
1:1A:936:C:OP2	1:1A:936:C:H2'	2.14	0.47
1:1A:1115:A:H1'	1:1A:1142:A:H4'	1.97	0.47
1:1A:1554:A:O2'	1:1A:1555:C:H5''	2.15	0.47
1:1A:2856:G:H2'	1:1A:2857:U:O4'	2.15	0.47
32:1a:184:G:H2'	32:1a:185:A:H8	1.80	0.47
32:1a:646:U:H2'	32:1a:647:C:C6	2.49	0.47
32:1a:742:G:OP2	46:1o:35:ARG:NH2	2.38	0.47
35:1d:101:LEU:HG	35:1d:121:VAL:HG21	1.96	0.47
1:2A:271(H):G:H2'	1:2A:271(I):G:C8	2.48	0.47
1:2A:334:C:OP1	1:2A:336:C:N4	2.48	0.47
1:2A:392:C:H5''	1:2A:409:C:H5''	1.97	0.47
1:2A:459:U:H5''	29:27:40:TRP:CD2	2.50	0.47
1:2A:1010:A:N3	1:2A:1153:C:H1'	2.29	0.47
1:2A:2148:G:H2'	1:2A:2149:G:C8	2.49	0.47
1:2A:2638:G:OP1	4:2E:82:ARG:NH2	2.31	0.47
15:2T:26:ASP:O	15:2T:49:VAL:HG22	2.15	0.47
32:2a:865:A:H5'	32:2a:1078:U:C5	2.50	0.47
32:2a:1366:C:H2'	32:2a:1367:C:C6	2.49	0.47
1:1A:313:A:N6	1:1A:375:G:O2'	2.48	0.47
1:1A:1617:A:H2'	1:1A:1618:A:C8	2.50	0.47
1:1A:2205:C:O2'	1:1A:2206:G:OP1	2.30	0.47
1:1A:2365:G:H5''	22:10:32:ARG:NH1	2.30	0.47
1:1A:2658:C:H2'	1:1A:2659:U:O4'	2.15	0.47
32:1a:1179:A:H4'	40:1i:103:THR:HA	1.97	0.47
38:1g:79:ARG:CD	38:1g:80:VAL:H	2.26	0.47
39:1h:36:LEU:HD23	39:1h:39:LEU:HD12	1.97	0.47
51:1t:10:LEU:HD12	51:1t:10:LEU:HA	1.74	0.47
1:2A:2218:U:N3	23:21:55:GLY:O	2.48	0.47
1:2A:2507:C:H2'	1:2A:2508:G:O4'	2.13	0.47
1:2A:2638:G:P	4:2E:82:ARG:HH12	2.37	0.47
1:2A:2815:C:C5'	27:25:29:THR:HG21	2.45	0.47
19:2X:9:LEU:HA	24:22:36:ARG:HH21	1.80	0.47
23:21:21:ARG:HD3	23:21:35:THR:HG21	1.95	0.47
25:23:18:ASP:OD1	25:23:18:ASP:N	2.48	0.47
32:2a:34:C:H2'	32:2a:35:G:C8	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1190:G:H5'	34:2c:176:HIS:CE1	2.49	0.47
32:2a:1320:C:H2'	32:2a:1321:C:O4'	2.15	0.47
38:2g:26:PHE:CE2	38:2g:30:ILE:HD11	2.50	0.47
1:1A:843:C:H2'	1:1A:844:C:C6	2.49	0.47
1:1A:1108:G:N2	1:1A:1134:A:C6	2.83	0.47
1:1A:2732:G:O6	61:1A:4169:HOH:O	2.20	0.47
32:1a:236:G:H5''	48:1q:42:TYR:OH	2.15	0.47
32:1a:1008:C:N3	32:1a:1021:G:C6	2.83	0.47
54:1y:59:U:H3'	54:1y:60:U:C6	2.49	0.47
1:2A:557:U:H2'	1:2A:558:G:H8	1.80	0.47
1:2A:807:U:OP2	11:2P:41:ARG:NH2	2.48	0.47
1:2A:993:G:H1'	17:2V:89:GLN:OE1	2.15	0.47
1:2A:1579:A:H2'	1:2A:1580:A:C8	2.51	0.47
1:2A:1913:A:H4'	1:2A:1914:C:H5''	1.96	0.47
1:2A:2126:A:N3	1:2A:2127:G:H1'	2.30	0.47
2:2B:43:C:O4'	6:2G:66:GLN:NE2	2.47	0.47
18:2W:2:GLU:OE2	18:2W:72:LYS:NZ	2.40	0.47
18:2W:12:ILE:O	18:2W:101:SER:OG	2.30	0.47
21:2Z:45:ASP:OD1	21:2Z:49:ARG:NE	2.35	0.47
35:2d:11:LEU:HD23	35:2d:66:ARG:HB3	1.96	0.47
38:2g:15:ASP:O	38:2g:19:GLY:HA2	2.15	0.47
1:1A:1109:G:C5	1:1A:1110:C:N4	2.84	0.46
1:1A:1137:G:C6	1:1A:1138:C:C4	3.03	0.46
1:1A:1546:G:H2'	1:1A:1547:C:C6	2.50	0.46
1:1A:1660:A:P	1:1A:1660:A:H8	2.38	0.46
1:1A:2671:G:OP1	7:1H:158:HIS:NE2	2.47	0.46
17:1V:29:PRO:HA	17:1V:61:VAL:HG22	1.97	0.46
32:1a:580:U:H2'	32:1a:581:G:O4'	2.15	0.46
54:1y:50:U:N3	54:1y:64:A:C2	2.75	0.46
1:2A:117:G:OP2	1:2A:119:A:O2'	2.29	0.46
1:2A:1161:C:H2'	1:2A:1162:G:H8	1.79	0.46
1:2A:2114:A:H2'	1:2A:2114:A:N3	2.30	0.46
1:2A:2376:A:N3	14:2S:106:ARG:NH2	2.62	0.46
22:20:53:MET:HG3	22:20:59:LEU:HD23	1.97	0.46
32:2a:664:G:N2	32:2a:741:G:H1	2.13	0.46
32:2a:1378:C:H5''	38:2g:6:ARG:NH2	2.30	0.46
38:2g:76:ARG:HG2	38:2g:156:TRP:HH2	1.80	0.46
1:1A:275:C:H2'	1:1A:276:C:C6	2.50	0.46
1:1A:463:C:H2'	1:1A:464:G:C8	2.50	0.46
1:1A:2343:G:O2'	1:1A:2348:A:N1	2.45	0.46
14:1S:10:ARG:O	14:1S:14:VAL:HG13	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:998:G:H1	32:1a:1043:C:N4	2.11	0.46
32:1a:1299:A:H2'	32:1a:1299:A:N3	2.30	0.46
32:1a:1343:G:H1'	40:1i:121:ARG:NH1	2.29	0.46
33:1b:36:ARG:C	33:1b:38:GLY:H	2.23	0.46
1:2A:2096:U:H3	1:2A:2193:G:H1	1.63	0.46
2:2B:13:A:N1	2:2B:69:G:O2'	2.47	0.46
26:24:40:HIS:CD2	26:24:41:PRO:HD2	2.50	0.46
38:2g:149:ARG:HG2	42:2k:59:TYR:CZ	2.50	0.46
41:2j:8:LEU:HB3	41:2j:96:ILE:HG12	1.97	0.46
44:2m:85:GLY:HA2	44:2m:93:ARG:HH22	1.79	0.46
55:2x:33:U:N3	55:2x:36:U:OP2	2.47	0.46
1:1A:1102:G:H21	1:1A:1149:A:H62	1.64	0.46
5:1F:148:LEU:HD13	5:1F:154:VAL:HG21	1.97	0.46
23:11:91:LYS:HA	23:11:94:LEU:HD12	1.98	0.46
32:1a:189(C):C:H2'	32:1a:189(D):C:O4'	2.16	0.46
32:1a:289:G:OP2	61:1a:3308:HOH:O	2.20	0.46
34:1c:87:LEU:O	34:1c:91:LEU:N	2.38	0.46
51:1t:9:ASN:O	51:1t:10:LEU:HB2	2.15	0.46
1:2A:443:A:H5''	1:2A:444:C:OP1	2.15	0.46
1:2A:582:G:H2'	1:2A:583:G:C8	2.50	0.46
1:2A:1523:U:H2'	1:2A:1524:G:O4'	2.15	0.46
15:2T:127:ALA:C	15:2T:129:ARG:H	2.22	0.46
32:2a:1046:A:H2'	32:2a:1047:G:H5'	1.97	0.46
32:2a:1216:G:H5''	45:2n:5:ALA:CB	2.45	0.46
33:2b:51:LEU:HD22	33:2b:55:PHE:HE2	1.80	0.46
38:2g:76:ARG:HD3	38:2g:76:ARG:HA	1.64	0.46
39:2h:28:ALA:HB3	39:2h:57:PRO:HB2	1.97	0.46
40:2i:3:GLN:NE2	40:2i:20:ARG:HH21	2.12	0.46
49:2r:22:VAL:HA	49:2r:25:THR:HG22	1.96	0.46
1:1A:1757:C:O2'	1:1A:2868:C:N3	2.43	0.46
1:1A:1836:U:O2	3:1D:50:THR:HB	2.14	0.46
1:1A:2210:C:H2'	1:1A:2211:U:O4'	2.15	0.46
2:1B:105:A:OP1	21:1Z:72:ARG:NH1	2.45	0.46
12:1Q:4:PRO:HB2	12:1Q:7:MET:HE2	1.96	0.46
12:1Q:34:LEU:HD11	12:1Q:129:THR:HB	1.96	0.46
36:1e:51:VAL:O	36:1e:55:VAL:HG23	2.16	0.46
47:1p:69:THR:O	47:1p:73:LEU:HG	2.15	0.46
1:2A:320:A:H4'	1:2A:322:A:N7	2.30	0.46
1:2A:1179:C:H2'	1:2A:1180:C:C6	2.51	0.46
1:2A:1636:C:H2'	1:2A:1637:A:C8	2.50	0.46
1:2A:1799:G:O3'	3:2D:183:ARG:NH1	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2065:C:H2'	1:2A:2066:C:H6	1.80	0.46
1:2A:2554:U:H2'	1:2A:2555:U:C6	2.50	0.46
4:2E:54:GLN:OE1	4:2E:55:ASN:N	2.48	0.46
18:2W:17:VAL:HG11	18:2W:103:ILE:HD11	1.97	0.46
19:2X:40:LYS:HG3	19:2X:51:VAL:HB	1.96	0.46
28:26:23:THR:OG1	28:26:24:GLU:N	2.47	0.46
32:2a:812:C:O2	61:2a:1919:HOH:O	2.20	0.46
33:2b:87:ARG:HH11	33:2b:219:VAL:HG12	1.80	0.46
36:2e:36:ASP:OD1	36:2e:40:ARG:HB2	2.15	0.46
39:2h:95:VAL:HB	39:2h:99:GLU:HB2	1.97	0.46
1:1A:831:A:N6	3:1D:229:VAL:HG11	2.31	0.46
1:1A:1688:A:H2'	1:1A:1689:G:O4'	2.16	0.46
1:1A:1698:G:OP1	13:1R:40:LYS:NZ	2.49	0.46
7:1H:124:GLU:HG3	7:1H:132:ARG:HB3	1.97	0.46
32:1a:1229:A:O2'	55:1x:30:G:OP1	2.31	0.46
32:1a:1328:C:OP1	52:1u:21:TYR:OH	2.28	0.46
33:1b:97:TRP:CH2	33:1b:173:ALA:HA	2.51	0.46
42:1k:50:TYR:O	42:1k:51:LYS:HD2	2.16	0.46
54:1y:59:U:H3'	54:1y:60:U:H6	1.80	0.46
1:2A:1913:A:H4'	1:2A:1914:C:C5'	2.46	0.46
1:2A:2180:U:H2'	1:2A:2181:G:O4'	2.15	0.46
1:2A:2752:C:H2'	1:2A:2753:A:O4'	2.15	0.46
7:2H:154:PRO:HB3	7:2H:163:TYR:CE1	2.50	0.46
14:2S:14:VAL:O	14:2S:18:ILE:HG12	2.16	0.46
20:2Y:9:LYS:HA	20:2Y:10:GLY:HA2	1.59	0.46
32:2a:56:U:H2'	32:2a:57:G:C8	2.51	0.46
32:2a:1026:G:N3	32:2a:1026:G:H2'	2.30	0.46
34:2c:6:HIS:CG	45:2n:49:HIS:HB3	2.50	0.46
35:2d:119:GLN:HG3	35:2d:123:HIS:HD2	1.81	0.46
35:2d:187:ARG:NH1	35:2d:193:ASP:OD2	2.44	0.46
37:2f:91:VAL:HG11	49:2r:72:ARG:NH1	2.31	0.46
50:2s:27:GLU:OE2	50:2s:28:LYS:NZ	2.43	0.46
55:2x:40:C:H2'	55:2x:41:C:H6	1.79	0.46
1:1A:1052:C:C2	1:1A:1183:G:N2	2.84	0.46
1:1A:1071:G:C4	1:1A:1180:C:H1'	2.51	0.46
1:1A:1400:A:H2'	1:1A:1401:G:O4'	2.15	0.46
1:1A:1653:C:N4	1:1A:1668:G:OP2	2.44	0.46
32:1a:98:G:H5'	32:1a:99:U:OP2	2.16	0.46
32:1a:382:A:H2'	32:1a:383:A:C8	2.51	0.46
32:1a:1198:G:H2'	32:1a:1199:U:C6	2.50	0.46
34:1c:12:LEU:HA	34:1c:12:LEU:HD23	1.74	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1e:78:HIS:CE1	36:1e:143:ARG:H	2.34	0.46
43:1l:54:LYS:HD2	43:1l:54:LYS:N	2.31	0.46
45:1n:26:ARG:HD2	45:1n:47:LEU:HD11	1.98	0.46
49:1r:52:PRO:O	49:1r:56:THR:HG23	2.16	0.46
1:2A:143:G:H2'	1:2A:143(A):C:C6	2.51	0.46
1:2A:200:U:O2	1:2A:386:G:N2	2.48	0.46
1:2A:261:G:O2'	1:2A:610:G:O2'	2.32	0.46
1:2A:538:G:H5'	9:2N:5:VAL:HG11	1.98	0.46
1:2A:1027:A:C6	1:2A:1126:A:C4	3.03	0.46
1:2A:1426:G:O2'	1:2A:1572:A:N6	2.45	0.46
1:2A:1533:G:N2	1:2A:1536:C:O2'	2.49	0.46
32:2a:446:G:H1	32:2a:488:C:H42	1.63	0.46
32:2a:570:G:H1'	32:2a:820:U:C4	2.51	0.46
44:2m:3:ARG:NH1	44:2m:11:ARG:HH21	2.13	0.46
44:2m:33:ALA:HA	44:2m:59:TYR:CE2	2.51	0.46
49:2r:53:ARG:HG2	49:2r:63:GLN:HE21	1.80	0.46
1:1A:231:G:C8	30:18:5:LYS:HG2	2.50	0.46
1:1A:578:U:O2'	1:1A:579:G:N7	2.42	0.46
1:1A:831:A:OP2	61:1A:4165:HOH:O	2.20	0.46
1:1A:2128:G:H2'	1:1A:2129:C:C6	2.51	0.46
1:1A:2298:A:H4'	1:1A:2299:A:O4'	2.16	0.46
1:1A:2370:G:N1	61:1A:4194:HOH:O	2.24	0.46
1:1A:2694:U:O2'	15:1T:58:ASN:ND2	2.49	0.46
12:1Q:85:LYS:N	12:1Q:85:LYS:HD2	2.31	0.46
13:1R:97:VAL:HG22	13:1R:114:VAL:HG13	1.98	0.46
31:19:17:ILE:HD11	31:19:24:TYR:HB2	1.97	0.46
32:1a:627:G:H2'	32:1a:628:G:C8	2.48	0.46
32:1a:738:C:H2'	32:1a:739:C:C6	2.50	0.46
32:1a:1404:5MC:H2'	32:1a:1405:G:C8	2.51	0.46
44:1m:82:MET:O	44:1m:93:ARG:NH2	2.49	0.46
48:1q:66:SER:OG	48:1q:69:LYS:HB2	2.16	0.46
1:2A:276:A:H5''	1:2A:277:C:H5'	1.98	0.46
1:2A:340:A:H2'	1:2A:341:G:O4'	2.16	0.46
1:2A:666:G:H1'	30:28:4:MET:HE3	1.97	0.46
1:2A:1469:A:H2'	1:2A:1470:G:O4'	2.16	0.46
1:2A:1475:G:C2	1:2A:1517:G:C2	3.04	0.46
1:2A:2119:A:C5	1:2A:2170:A:C6	3.04	0.46
5:2F:56:GLU:OE1	5:2F:93:LYS:NZ	2.49	0.46
8:2I:53:ALA:O	8:2I:57:ARG:HG2	2.15	0.46
19:2X:35:THR:HG22	19:2X:37:THR:N	2.31	0.46
32:2a:441:A:H3'	32:2a:442:C:H6	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:886:G:H1	32:2a:911:U:H3	1.64	0.46
32:2a:1245:A:H2'	32:2a:1246:C:O4'	2.15	0.46
32:2a:1342:C:H2'	32:2a:1343:G:C8	2.50	0.46
34:2c:5:ILE:HD12	41:2j:51:ARG:HH12	1.81	0.46
34:2c:149:ALA:HA	34:2c:201:TYR:O	2.16	0.46
1:1A:1108:G:P	1:1A:1116:A:H1'	2.56	0.46
12:1Q:85:LYS:HD3	22:10:7:LEU:HD12	1.97	0.46
30:18:52:LYS:HB3	30:18:52:LYS:HE2	1.71	0.46
32:1a:154:C:N3	32:1a:168:G:N2	2.64	0.46
38:1g:146:GLU:O	38:1g:149:ARG:HB2	2.16	0.46
47:1p:58:TYR:O	47:1p:62:VAL:HG23	2.15	0.46
1:2A:80:G:O2'	1:2A:294:A:N1	2.41	0.46
1:2A:243:U:OP1	30:28:6:THR:OG1	2.29	0.46
1:2A:952:G:C6	1:2A:966:G:C6	3.04	0.46
1:2A:1637:A:H4'	1:2A:2711:A:O2'	2.16	0.46
1:2A:2086:U:H2'	1:2A:2087:G:C8	2.51	0.46
1:2A:2320:A:N3	1:2A:2320:A:H2'	2.31	0.46
1:2A:2815:C:H2'	1:2A:2816:C:C6	2.51	0.46
32:2a:224:C:H2'	32:2a:225:C:H6	1.81	0.46
32:2a:284:G:H2'	32:2a:285:G:C8	2.51	0.46
32:2a:717:C:H2'	32:2a:734:G:OP2	2.15	0.46
32:2a:1064:G:OP1	32:2a:1386:G:H4'	2.14	0.46
32:2a:1297:C:H1'	32:2a:1298:C:H5	1.80	0.46
33:2b:47:THR:O	33:2b:51:LEU:N	2.46	0.46
34:2c:20:SER:OG	34:2c:36:ASP:OD2	2.34	0.46
43:2l:117:ARG:NH2	43:2l:124:LYS:HB2	2.30	0.46
54:2w:18:G:O2'	54:2w:19:G:OP2	2.29	0.46
1:1A:39:C:O2	5:1F:46:ARG:NH2	2.33	0.46
1:1A:236:G:H4'	1:1A:413:G:C5	2.50	0.46
1:1A:329:U:H2'	1:1A:330:U:C6	2.50	0.46
1:1A:704:U:H2'	1:1A:705:C:C6	2.51	0.46
9:1N:77:GLY:O	61:1N:301:HOH:O	2.20	0.46
10:1O:64:ARG:HB2	10:1O:79:PHE:CG	2.51	0.46
10:1O:86:ILE:HG21	10:1O:94:ARG:HH11	1.81	0.46
32:1a:375:U:OP1	47:1p:69:THR:HG21	2.16	0.46
32:1a:1030:C:H42	32:1a:1031:G:H1	1.62	0.46
33:1b:230:VAL:HG22	33:1b:231:GLU:H	1.80	0.46
40:1i:48:GLU:OE2	40:1i:51:ARG:HD2	2.16	0.46
1:2A:362:U:O2'	1:2A:363:G:H5''	2.16	0.46
1:2A:990:A:H1'	1:2A:1156:A:N3	2.30	0.46
1:2A:1818:U:OP2	3:2D:157:ARG:HD3	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1004:A:C8	32:2a:1005:A:H4'	2.51	0.46
32:2a:1508:G:H2'	32:2a:1509:C:C6	2.50	0.46
48:2q:45:HIS:CD2	48:2q:47:PRO:HD3	2.51	0.46
54:2w:39:PSU:H2'	54:2w:40:C:H6	1.79	0.46
1:1A:310:C:H2'	1:1A:311:C:H6	1.81	0.46
1:1A:1110:C:N3	1:1A:1120:G:C6	2.84	0.46
1:1A:2549:U:H2'	1:1A:2550:C:C6	2.51	0.46
3:1D:275:LYS:HG3	3:1D:276:LYS:HB2	1.98	0.46
4:1E:12:THR:HG22	4:1E:13:ARG:H	1.81	0.46
30:18:42:ARG:NH1	61:18:5001:HOH:O	2.13	0.46
33:1b:174:VAL:O	33:1b:178:ARG:HG2	2.15	0.46
1:2A:1292:U:H2'	1:2A:1293:C:C6	2.51	0.46
6:2G:125:PHE:HB3	6:2G:166:ASP:CG	2.41	0.46
7:2H:59:ARG:HA	7:2H:59:ARG:HD2	1.77	0.46
15:2T:73:GLU:OE2	15:2T:103:ARG:NE	2.48	0.46
16:2U:16:LYS:HB3	16:2U:16:LYS:HE2	1.73	0.46
32:2a:353:A:H5'	32:2a:353:A:H8	1.81	0.46
32:2a:1151:A:H5'	41:2j:41:PRO:HA	1.98	0.46
42:2k:59:TYR:CZ	42:2k:63:LEU:HD11	2.51	0.46
53:2v:13:A:H8	53:2v:13:A:OP2	1.99	0.46
54:2y:63:G:H2'	54:2y:64:A:O4'	2.16	0.46
1:1A:801:C:H2'	1:1A:802:C:H6	1.81	0.45
1:1A:2255:U:H2'	1:1A:2256:U:C6	2.51	0.45
2:1B:14:U:O3'	2:1B:108:U:O2'	2.34	0.45
13:1R:44:LEU:HD23	13:1R:44:LEU:HA	1.85	0.45
15:1T:24:PRO:HA	15:1T:49:VAL:HG22	1.97	0.45
15:1T:91:ARG:HH11	15:1T:120:ARG:NH1	2.13	0.45
33:1b:16:HIS:HB2	33:1b:204:ASN:CB	2.45	0.45
36:1e:146:ALA:O	36:1e:150:ARG:HG3	2.15	0.45
40:1i:5:TYR:HB2	40:1i:18:PHE:CD1	2.51	0.45
54:1y:36:A:H2'	54:1y:37:MIA:O4'	2.16	0.45
1:2A:855:G:H2'	1:2A:856:C:C6	2.51	0.45
1:2A:2126:A:H61	1:2A:2162:G:C2'	2.28	0.45
1:2A:2206:G:H5''	1:2A:2207:G:N7	2.31	0.45
5:2F:120:GLU:HG3	5:2F:122:LYS:CG	2.46	0.45
11:2P:126:VAL:HG12	11:2P:148:LEU:HD23	1.97	0.45
22:20:32:ARG:H	22:20:35:ASN:ND2	2.13	0.45
32:2a:967:5MC:H2'	32:2a:968:A:C8	2.51	0.45
32:2a:976:G:C8	32:2a:1358:U:C2	3.03	0.45
32:2a:1161:C:H2'	32:2a:1162:C:H6	1.80	0.45
32:2a:1330:U:H2'	32:2a:1331:G:H5'	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:2g:23:VAL:O	38:2g:27:ILE:HG13	2.16	0.45
39:2h:4:ASP:CG	39:2h:7:ALA:H	2.25	0.45
1:1A:662:A:OP1	11:1P:133:SER:OG	2.31	0.45
1:1A:1221:G:H1'	1:1A:1222:A:C5'	2.46	0.45
1:1A:1343:C:OP2	61:1A:4171:HOH:O	2.21	0.45
1:1A:2120:U:H3	1:1A:2213:G:H1	1.62	0.45
3:1D:35:LYS:HE2	3:1D:64:ILE:HG12	1.98	0.45
6:1G:15:VAL:HG13	6:1G:175:LEU:HB3	1.98	0.45
25:13:18:ASP:OD1	25:13:18:ASP:N	2.49	0.45
26:14:41:PRO:HG3	26:14:49:PHE:CE1	2.52	0.45
32:1a:976:G:OP1	45:1n:32:SER:N	2.49	0.45
32:1a:1202:G:H1'	45:1n:29:ARG:HD2	1.97	0.45
35:1d:103:ASN:O	35:1d:107:ARG:HG2	2.16	0.45
53:1v:12:A:H8	53:1v:12:A:OP1	1.98	0.45
1:2A:458:G:O2'	1:2A:469:G:O6	2.32	0.45
1:2A:531:C:OP1	1:2A:561:G:N2	2.49	0.45
1:2A:811:U:H2'	11:2P:21:ARG:HA	1.98	0.45
1:2A:1430:C:H2'	1:2A:1431:U:C6	2.51	0.45
1:2A:1547:C:H2'	1:2A:1548:C:C6	2.51	0.45
1:2A:1814:G:H4'	3:2D:51:VAL:HG21	1.98	0.45
1:2A:2119:A:N6	1:2A:2171:A:C6	2.84	0.45
1:2A:2648:C:H2'	1:2A:2649:U:C6	2.51	0.45
4:2E:9:VAL:HG23	15:2T:7:ILE:HD11	1.97	0.45
9:2N:103:VAL:O	9:2N:107:LEU:HG	2.16	0.45
10:2O:73:ASP:OD2	15:2T:32:TYR:OH	2.30	0.45
14:2S:27:SER:HA	14:2S:88:ASP:HB3	1.99	0.45
22:20:48:GLY:H	22:20:51:VAL:HB	1.81	0.45
32:2a:108:G:C6	51:2t:15:ARG:HG2	2.51	0.45
32:2a:514:C:H2'	32:2a:515:G:C8	2.51	0.45
32:2a:692:U:O2'	32:2a:694:A:N7	2.44	0.45
32:2a:841:U:C5	32:2a:848:C:H1'	2.51	0.45
44:2m:37:THR:HB	44:2m:55:ARG:HG2	1.98	0.45
1:1A:733:G:N2	1:1A:835:A:H61	2.15	0.45
1:1A:1218:G:N2	1:1A:1222:A:OP2	2.43	0.45
1:1A:1831:C:OP1	3:1D:260:ARG:NH2	2.49	0.45
1:1A:2163:G:C6	1:1A:2164:C:C2	3.04	0.45
4:1E:191:PRO:HD2	61:1E:410:HOH:O	2.16	0.45
10:1O:66:LYS:HA	10:1O:79:PHE:O	2.15	0.45
14:1S:61:ASN:O	14:1S:65:VAL:HG23	2.16	0.45
20:1Y:9:LYS:HA	20:1Y:10:GLY:HA2	1.69	0.45
32:1a:955:U:O2'	50:1s:83:HIS:HD2	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1068:G:N7	32:1a:1094:G:H2'	2.31	0.45
39:1h:81:HIS:ND1	39:1h:138:TRP:OXT	2.50	0.45
40:1i:3:GLN:HE21	40:1i:20:ARG:NE	2.07	0.45
46:1o:18:PHE:C	46:1o:20:GLY:H	2.24	0.45
54:1y:50:U:C4	54:1y:64:A:N1	2.81	0.45
1:2A:26:G:C6	1:2A:27:G:N1	2.84	0.45
1:2A:2473:U:O2	1:2A:2473:U:H2'	2.15	0.45
5:2F:155:LEU:HB2	5:2F:189:THR:HG21	1.97	0.45
7:2H:25:LYS:HE3	7:2H:27:LYS:HZ3	1.82	0.45
12:2Q:10:ARG:NH1	55:2x:64:G:H4'	2.31	0.45
32:2a:532:A:N6	32:2a:1206:G:O2'	2.50	0.45
32:2a:1031:G:H2'	32:2a:1032:G:C8	2.51	0.45
32:2a:1316:G:N7	50:2s:7:LYS:NZ	2.63	0.45
36:2e:146:ALA:HB1	36:2e:150:ARG:NH1	2.30	0.45
53:2v:12:A:N3	53:2v:12:A:H2'	2.32	0.45
54:2y:2:C:H2'	54:2y:3:C:H6	1.81	0.45
54:2y:14:A:H3'	54:2y:15:G:C8	2.51	0.45
1:1A:320:C:H2'	1:1A:321:C:H6	1.81	0.45
1:1A:671:A:H2'	1:1A:672:G:O4'	2.16	0.45
1:1A:1047:A:H2'	1:1A:1048:G:O4'	2.17	0.45
1:1A:1057:G:P	16:1U:77:SER:HG	2.38	0.45
1:1A:1405:A:C2	1:1A:1418:U:O4	2.67	0.45
1:1A:2096:U:H2'	1:1A:2097:U:C6	2.52	0.45
1:1A:2494:G:O3'	54:1w:64:A:H4'	2.17	0.45
1:1A:2786:C:H2'	1:1A:2787:C:H6	1.81	0.45
14:1S:87:PHE:HB2	14:1S:112:PHE:CE1	2.51	0.45
26:14:20:ASN:OD1	26:14:21:VAL:N	2.50	0.45
32:1a:486:U:H2'	32:1a:487:A:C8	2.51	0.45
32:1a:1038:C:O2'	32:1a:1039:C:H5'	2.16	0.45
32:1a:1070:U:H2'	32:1a:1071:C:H6	1.82	0.45
32:1a:1101:A:H4'	32:1a:1102:A:O5'	2.16	0.45
33:1b:204:ASN:OD1	33:1b:205:ASP:N	2.50	0.45
39:1h:11:THR:OG1	39:1h:14:ARG:NH2	2.50	0.45
54:1y:8:4SU:H4'	54:1y:48:C:C4'	2.44	0.45
1:2A:445:C:OP1	16:2U:2:PRO:HA	2.16	0.45
1:2A:577:G:O2'	1:2A:1254:A:OP1	2.26	0.45
1:2A:752:A:P	29:27:3:ARG:HH22	2.39	0.45
1:2A:795:C:H2'	1:2A:796:C:C6	2.52	0.45
1:2A:1219:G:N2	1:2A:1221:C:N3	2.64	0.45
1:2A:1784:A:H5''	61:2A:3978:HOH:O	2.15	0.45
1:2A:2051:A:H5'	1:2A:2578:G:O4'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2734:A:H2'	1:2A:2735:G:O4'	2.17	0.45
3:2D:222:ARG:NH1	3:2D:224:ALA:HB3	2.31	0.45
10:2O:63:VAL:HG11	10:2O:85:VAL:HG23	1.98	0.45
11:2P:121:LYS:HG2	11:2P:123:LEU:HG	1.99	0.45
13:2R:28:LEU:HD22	13:2R:48:VAL:HG21	1.99	0.45
14:2S:94:TYR:CZ	14:2S:99:LYS:HG3	2.51	0.45
32:2a:89:C:H2'	32:2a:90:U:O4'	2.16	0.45
32:2a:130:A:H5'	48:2q:63:ARG:HH11	1.82	0.45
32:2a:811:C:O2'	32:2a:901:A:N1	2.44	0.45
39:2h:64:LYS:HE2	39:2h:64:LYS:HB3	1.74	0.45
41:2j:74:ILE:HG22	61:2j:8102:HOH:O	2.15	0.45
52:2u:9:ARG:O	52:2u:13:ILE:HG13	2.16	0.45
54:2w:21:A:N6	54:2w:46:7MG:C4	2.84	0.45
1:1A:2143:G:OP2	1:1A:2143:G:H8	1.98	0.45
12:1Q:38:GLU:HA	12:1Q:99:PRO:HG3	1.98	0.45
14:1S:14:VAL:O	14:1S:18:ILE:HG12	2.16	0.45
25:13:6:VAL:HG12	25:13:28:LEU:HD11	1.99	0.45
32:1a:453:A:C5	32:1a:454:C:C4	3.05	0.45
32:1a:825:G:H2'	32:1a:826:C:H6	1.82	0.45
32:1a:1298:C:H4'	32:1a:1299:A:C4	2.52	0.45
33:1b:102:LEU:HB3	33:1b:180:LEU:HD12	1.97	0.45
34:1c:119:ARG:HG2	34:1c:140:ARG:HH22	1.80	0.45
36:1e:105:VAL:HB	36:1e:106:PRO:HD3	1.98	0.45
54:1y:28:G:H2'	54:1y:29:G:C8	2.52	0.45
1:2A:500:G:N1	1:2A:503:A:OP2	2.50	0.45
1:2A:848:G:C4	1:2A:933:A:H8	2.34	0.45
1:2A:868:U:C4	1:2A:869:G:N7	2.84	0.45
1:2A:1608:A:H1'	1:2A:1610:A:OP2	2.16	0.45
1:2A:2190:G:H2'	1:2A:2191:G:O4'	2.16	0.45
2:2B:80:U:H2'	2:2B:81:G:C8	2.51	0.45
6:2G:39:ILE:HG12	6:2G:157:ILE:HG12	1.99	0.45
23:21:23:LYS:HB3	23:21:29:GLY:HA3	1.99	0.45
29:27:5:TRP:NE1	29:27:7:PRO:HG3	2.32	0.45
32:2a:67:C:H2'	32:2a:68:G:C8	2.52	0.45
32:2a:110:C:O2'	47:2p:25:ARG:O	2.32	0.45
32:2a:134:A:H61	47:2p:25:ARG:NH1	2.15	0.45
32:2a:297:G:O2'	32:2a:299:G:N7	2.41	0.45
32:2a:1120:G:C6	32:2a:1121:U:C4	3.05	0.45
32:2a:1328:C:O2'	44:2m:29:ARG:NH2	2.48	0.45
33:2b:216:SER:O	33:2b:220:ASP:N	2.34	0.45
39:2h:110:ALA:HB3	39:2h:121:ASP:HB3	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:2h:132:GLU:O	39:2h:134:ILE:HD12	2.16	0.45
44:2m:30:ALA:O	44:2m:34:LEU:HG	2.17	0.45
1:1A:441:C:H2'	1:1A:442:A:C8	2.51	0.45
1:1A:1110:C:O2	1:1A:1120:G:N1	2.29	0.45
1:1A:1615:G:H5''	3:1D:61:LEU:HD13	1.98	0.45
1:1A:1704:C:H2'	1:1A:1705:C:C6	2.51	0.45
4:1E:54:GLN:HB2	4:1E:76:ARG:HG2	1.99	0.45
10:1O:4:PRO:O	10:1O:5:GLN:HB2	2.17	0.45
25:13:6:VAL:HG13	25:13:54:VAL:CG1	2.39	0.45
26:14:63:TYR:N	26:14:63:TYR:CD1	2.84	0.45
30:18:32:LEU:O	30:18:36:LYS:HE3	2.17	0.45
32:1a:1352:C:OP1	52:1u:3:LYS:NZ	2.42	0.45
37:1f:8:ILE:HD11	37:1f:79:LEU:HD13	1.99	0.45
40:1i:17:VAL:HG23	40:1i:63:ILE:HG12	1.97	0.45
1:2A:118:A:OP2	1:2A:119:A:H5''	2.17	0.45
1:2A:459:U:H4'	29:27:40:TRP:CZ3	2.52	0.45
1:2A:792:G:N3	1:2A:2072:G:O2'	2.45	0.45
1:2A:906:G:O4'	12:2Q:29:PHE:HE2	2.00	0.45
1:2A:1183:G:H2'	1:2A:1184:G:H8	1.82	0.45
6:2G:123:ASN:O	6:2G:125:PHE:N	2.49	0.45
9:2N:33:LEU:HD12	9:2N:38:HIS:CD2	2.52	0.45
12:2Q:42:ILE:HD13	12:2Q:97:VAL:HB	1.97	0.45
13:2R:98:LEU:HB2	13:2R:113:LEU:HD11	1.99	0.45
21:2Z:23:LYS:HD2	21:2Z:40:ASP:HA	1.99	0.45
21:2Z:159:PRO:HA	21:2Z:160:GLY:HA2	1.54	0.45
32:2a:302:G:N3	32:2a:556:C:H4'	2.31	0.45
32:2a:792:A:H4'	32:2a:793:U:H5''	1.98	0.45
32:2a:864:A:H5'	36:2e:86:ALA:HB2	1.98	0.45
32:2a:1182:G:H4'	32:2a:1183:A:H5''	1.99	0.45
33:2b:41:ILE:HA	33:2b:41:ILE:HD13	1.68	0.45
1:1A:613:A:H2'	1:1A:614:C:O4'	2.16	0.45
1:1A:1099:C:N4	1:1A:1152:G:H1	2.11	0.45
1:1A:2171:G:C6	1:1A:2172:U:C2	3.04	0.45
3:1D:61:LEU:O	3:1D:63:ARG:NH1	2.50	0.45
9:1N:48:MET:HE3	9:1N:48:MET:HB2	1.82	0.45
11:1P:116:GLY:O	11:1P:137:LYS:NZ	2.37	0.45
14:1S:110:LEU:HD12	14:1S:110:LEU:HA	1.78	0.45
32:1a:1302:U:OP1	44:1m:13:LYS:NZ	2.39	0.45
32:1a:1350:A:O2'	38:1g:33:ASP:OD1	2.26	0.45
55:1x:75:C:H5''	55:1x:76:A:OP2	2.16	0.45
1:2A:13:A:N6	1:2A:526:A:OP2	2.45	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2186:G:H2'	1:2A:2187:G:H8	1.81	0.45
1:2A:2252:G:H2'	1:2A:2253:G:O4'	2.17	0.45
1:2A:2562:U:H4'	10:2O:25:LEU:HD21	1.98	0.45
2:2B:38:C:O2	2:2B:48:A:H1'	2.17	0.45
7:2H:38:SER:HB2	7:2H:64:LEU:HD22	1.99	0.45
13:2R:33:ARG:NH2	27:25:57:VAL:O	2.49	0.45
28:26:18:ARG:HD2	28:26:42:TRP:CD1	2.51	0.45
32:2a:946:A:O2'	32:2a:1333:A:N3	2.46	0.45
32:2a:1227:A:C8	50:2s:83:HIS:HB3	2.51	0.45
32:2a:1252:A:H61	32:2a:1285:A:H61	1.63	0.45
32:2a:1256:A:OP1	34:2c:26:LYS:NZ	2.49	0.45
34:2c:74:GLY:C	34:2c:76:VAL:H	2.25	0.45
38:2g:111:ARG:HB3	38:2g:113:GLU:OE1	2.17	0.45
1:1A:185:A:H2'	1:1A:185:A:N3	2.32	0.45
1:1A:1099:C:C2	1:1A:1100:A:H1'	2.52	0.45
1:1A:1921:G:N3	1:1A:1921:G:H2'	2.32	0.45
1:1A:2021:C:H4'	1:1A:2736:C:O2	2.17	0.45
1:1A:2134:G:C2	1:1A:2135:U:H1'	2.51	0.45
1:1A:2164:C:N3	1:1A:2171:G:C6	2.85	0.45
12:1Q:1:MET:HB3	12:1Q:44:ALA:HB1	1.99	0.45
21:1Z:28:MET:HE2	21:1Z:35:ARG:HB2	1.98	0.45
24:12:25:VAL:HG13	24:12:29:LYS:HD2	1.98	0.45
25:13:4:LEU:O	25:13:36:VAL:HA	2.17	0.45
26:14:40:HIS:HB3	26:14:43:TYR:CD2	2.52	0.45
32:1a:521:G:OP2	43:1l:54:LYS:NZ	2.35	0.45
32:1a:1118:C:H2'	32:1a:1119:C:C6	2.52	0.45
32:1a:1134:G:N3	32:1a:1134:G:H2'	2.32	0.45
33:1b:178:ARG:NH2	39:1h:71:GLY:O	2.42	0.45
33:1b:231:GLU:HB3	33:1b:232:PRO:HD3	1.99	0.45
39:1h:25:ASP:N	39:1h:25:ASP:OD1	2.49	0.45
54:1y:18:G:H1	54:1y:55:PSU:H1'	1.81	0.45
1:2A:274:G:H2'	1:2A:275:G:C8	2.52	0.45
1:2A:601:C:O2	1:2A:605:C:H4'	2.17	0.45
1:2A:2390:U:P	30:28:35:GLN:HE22	2.40	0.45
1:2A:2663:G:H3'	1:2A:2664:G:H8	1.81	0.45
1:2A:2747:G:O6	1:2A:2755:C:H5''	2.17	0.45
4:2E:49:LEU:HD21	4:2E:91:VAL:HG21	1.98	0.45
11:2P:39:LYS:CB	11:2P:45:LEU:HG	2.35	0.45
14:2S:105:ALA:O	14:2S:110:LEU:HB2	2.17	0.45
32:2a:1062:U:H2'	32:2a:1063:C:C6	2.52	0.45
32:2a:1134:G:N1	32:2a:1140:C:N4	2.42	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1352:C:H2'	32:2a:1353:G:C8	2.51	0.45
40:2i:4:TYR:O	40:2i:18:PHE:HA	2.17	0.45
54:2y:33:U:H2'	54:2y:34:G:H5''	1.98	0.45
1:1A:1312:G:O5'	18:1W:15:ARG:NH2	2.50	0.45
1:1A:2754:A:OP1	31:19:22:ARG:NH2	2.32	0.45
2:1B:78:A:C2	2:1B:100:A:C4	3.04	0.45
10:1O:63:VAL:HG23	10:1O:64:ARG:HG2	1.99	0.45
13:1R:54:LEU:HD12	13:1R:54:LEU:HA	1.84	0.45
15:1T:22:PHE:HB3	15:1T:88:ILE:HD11	1.98	0.45
32:1a:219:C:H2'	32:1a:220:G:O4'	2.17	0.45
32:1a:625:G:H4'	47:1p:16:HIS:CD2	2.52	0.45
32:1a:1173:G:H2'	32:1a:1174:G:C8	2.52	0.45
36:1e:31:LEU:HD23	36:1e:31:LEU:HA	1.74	0.45
47:1p:50:LYS:HA	47:1p:50:LYS:HD2	1.78	0.45
51:1t:13:LEU:HD12	51:1t:14:LYS:H	1.80	0.45
55:1x:23:C:H2'	55:1x:24:U:C6	2.52	0.45
54:1y:43:C:H2'	54:1y:44:G:O4'	2.17	0.45
1:2A:2792:G:H2'	1:2A:2792:G:N3	2.31	0.45
6:2G:150:ASP:OD1	6:2G:153:ARG:NH2	2.48	0.45
7:2H:98:LEU:HD12	7:2H:102:ALA:C	2.42	0.45
32:2a:791:G:H2'	32:2a:792:A:H5'	1.98	0.45
34:2c:182:ILE:HG12	34:2c:203:PHE:HA	1.98	0.45
39:2h:121:ASP:N	39:2h:121:ASP:OD1	2.49	0.45
43:2l:30:ALA:HB2	43:2l:33:ARG:HH21	1.80	0.45
1:1A:626:A:N1	1:1A:650:G:O2'	2.49	0.45
1:1A:2290:A:OP2	22:10:12:ASN:ND2	2.50	0.45
1:1A:2527:C:O2'	1:1A:2528:G:H5'	2.17	0.45
2:1B:91:C:H5'	12:1Q:18:LYS:HG2	1.99	0.45
5:1F:74:ARG:H	5:1F:74:ARG:HG3	1.49	0.45
9:1N:67:LEU:HB3	9:1N:88:GLU:HG3	1.98	0.45
30:18:26:LYS:HG2	30:18:46:ARG:O	2.16	0.45
32:1a:499:A:H4'	32:1a:500:G:OP1	2.17	0.45
32:1a:1047:G:O2'	32:1a:1215:G:O2'	2.31	0.45
32:1a:1273:G:C2	32:1a:1274:G:H1'	2.52	0.45
38:1g:57:GLU:O	38:1g:61:VAL:HG23	2.17	0.45
39:1h:81:HIS:N	39:1h:138:TRP:O	2.50	0.45
40:1i:28:VAL:HA	40:1i:63:ILE:O	2.16	0.45
54:1y:5:G:H2'	54:1y:6:G:O4'	2.17	0.45
1:2A:1628:G:H2'	1:2A:1629:U:C6	2.52	0.45
2:2B:103:G:H21	21:2Z:73:GLN:NE2	2.14	0.45
3:2D:145:VAL:HG13	3:2D:191:ALA:HB2	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:2Q:137:TYR:CE1	21:2Z:83:PRO:HG3	2.51	0.45
16:2U:52:ARG:HG3	16:2U:55:ARG:NH2	2.31	0.45
21:2Z:45:ASP:O	21:2Z:49:ARG:HG2	2.17	0.45
32:2a:909:A:H2'	32:2a:910:C:O4'	2.17	0.45
35:2d:8:VAL:HG21	35:2d:21:LEU:HB2	1.99	0.45
40:2i:81:ILE:O	40:2i:85:LEU:HG	2.17	0.45
41:2j:55:LYS:HG3	41:2j:56:HIS:CD2	2.51	0.45
51:2t:10:LEU:HG	51:2t:12:ALA:H	1.81	0.45
51:2t:25:ARG:HG2	51:2t:29:LYS:NZ	2.31	0.45
1:1A:543:G:H4'	18:1W:18:ARG:NE	2.32	0.44
1:1A:794:U:H4'	18:1W:92:ARG:HH22	1.82	0.44
1:1A:2659:U:H2'	1:1A:2660:C:C6	2.53	0.44
1:1A:2699:U:H2'	1:1A:2700:U:O4'	2.18	0.44
6:1G:11:TYR:OH	6:1G:32:PRO:O	2.30	0.44
11:1P:77:ARG:HB2	11:1P:78:PRO:HD2	1.98	0.44
19:1X:55:ASN:O	19:1X:80:ILE:N	2.42	0.44
31:19:10:ILE:HD11	31:19:34:GLN:HE21	1.82	0.44
32:1a:973:G:H3'	32:1a:974:A:H5''	2.00	0.44
39:1h:91:ARG:HD3	48:1q:32:TYR:O	2.17	0.44
47:1p:49:LEU:HD12	47:1p:50:LYS:N	2.32	0.44
48:1q:9:VAL:HG12	48:1q:56:VAL:HG22	1.99	0.44
50:1s:66:MET:HB2	50:1s:74:PHE:HZ	1.81	0.44
52:1u:14:TRP:HE3	52:1u:15:ARG:HD2	1.83	0.44
1:2A:70:G:H5''	1:2A:112:U:O2	2.16	0.44
1:2A:253:C:OP2	30:28:5:LYS:NZ	2.36	0.44
1:2A:1557:C:OP2	1:2A:1558:A:O2'	2.25	0.44
1:2A:2152:G:C2	1:2A:2153:G:H1'	2.52	0.44
19:2X:50:LYS:HB3	19:2X:87:GLN:HE22	1.82	0.44
23:21:83:GLU:HA	23:21:84:GLY:HA2	1.75	0.44
24:22:35:LEU:HD12	24:22:53:LEU:HD12	1.99	0.44
32:2a:401:C:O2'	32:2a:621:A:N3	2.46	0.44
32:2a:1031:G:C8	32:2a:1032:G:N7	2.85	0.44
32:2a:1041:A:H2'	32:2a:1042:G:C8	2.52	0.44
32:2a:1265:G:C6	32:2a:1266:G:C5	3.05	0.44
33:2b:87:ARG:NH1	33:2b:219:VAL:HG12	2.32	0.44
35:2d:180:GLY:C	35:2d:181:MET:HG2	2.42	0.44
36:2e:41:VAL:O	36:2e:66:MET:HA	2.17	0.44
36:2e:73:ASN:N	36:2e:73:ASN:OD1	2.49	0.44
1:1A:2434:A:O4'	54:1y:76:A:N6	2.49	0.44
1:1A:2734:A:H8	1:1A:2734:A:O5'	2.00	0.44
1:1A:2830:A:OP2	13:1R:2:ARG:NH2	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:1U:102:GLU:HB3	16:1U:104:GLN:NE2	2.32	0.44
19:1X:64:LYS:HD3	19:1X:64:LYS:HA	1.82	0.44
32:1a:376:G:O3'	47:1p:5:ARG:HD2	2.17	0.44
36:1e:148:VAL:HG21	39:1h:107:LEU:HD22	1.98	0.44
37:1f:19:LEU:HD21	37:1f:59:TYR:CE2	2.51	0.44
39:1h:77:GLU:HG2	39:1h:78:GLN:N	2.32	0.44
43:1l:28:LYS:HB2	43:1l:33:ARG:NH2	2.27	0.44
44:1m:34:LEU:HD13	44:1m:41:PRO:HA	1.98	0.44
1:2A:784:A:N6	3:2D:229:VAL:HG11	2.31	0.44
1:2A:1161:C:H2'	1:2A:1162:G:C8	2.51	0.44
1:2A:1489:U:HO2'	1:2A:1490:A:H8	1.62	0.44
1:2A:2444:G:OP2	5:2F:68:LYS:NZ	2.35	0.44
1:2A:2529:G:O6	31:29:31:LYS:NZ	2.51	0.44
11:2P:97:PRO:HG3	11:2P:112:LEU:HD12	1.99	0.44
21:2Z:163:LEU:HG	21:2Z:165:VAL:HG22	1.99	0.44
26:24:57:GLU:HA	26:24:58:ARG:HA	1.65	0.44
32:2a:1108:G:H5'	34:2c:176:HIS:CD2	2.52	0.44
33:2b:110:GLN:O	33:2b:113:HIS:HB2	2.18	0.44
34:2c:110:ASN:O	34:2c:141:VAL:HG22	2.18	0.44
35:2d:109:GLY:HA3	35:2d:165:MET:HG3	1.99	0.44
47:2p:28:ARG:HG2	47:2p:29:ASP:OD1	2.17	0.44
1:1A:1859:G:OP2	1:1A:1859:G:H8	2.00	0.44
3:1D:127:VAL:HA	3:1D:193:VAL:HG22	2.00	0.44
6:1G:15:VAL:HG21	6:1G:176:LEU:HD23	1.99	0.44
8:1I:6:LEU:HG	8:1I:36:ALA:HA	1.99	0.44
13:1R:56:LYS:NZ	13:1R:90:ARG:O	2.50	0.44
32:1a:1326:C:H2'	32:1a:1327:C:H6	1.81	0.44
39:1h:83:ILE:HG13	39:1h:137:VAL:HG22	1.99	0.44
43:1l:33:ARG:HG2	43:1l:60:LEU:HD23	1.99	0.44
51:1t:87:LYS:O	51:1t:91:LEU:HG	2.17	0.44
1:2A:211:A:H2'	1:2A:212:G:O4'	2.17	0.44
1:2A:455:C:N3	1:2A:472:A:H2'	2.32	0.44
1:2A:636:G:N7	11:2P:113:LYS:NZ	2.56	0.44
1:2A:652(B):A:N6	1:2A:655:A:H1'	2.32	0.44
1:2A:1639:U:C2'	1:2A:1640:C:H5''	2.47	0.44
1:2A:2149:G:C6	1:2A:2150:U:C2	3.05	0.44
1:2A:2427:C:H5''	1:2A:2428:G:OP1	2.17	0.44
2:2B:55:U:H2'	2:2B:56:G:O4'	2.17	0.44
9:2N:48:MET:HE2	9:2N:48:MET:HB3	1.87	0.44
18:2W:45:TYR:CZ	18:2W:49:LYS:HE3	2.53	0.44
32:2a:114:U:O2'	32:2a:115:G:H5'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:178:C:H2'	32:2a:179:A:H8	1.82	0.44
36:2e:110:LEU:HD13	36:2e:118:ILE:HG21	1.98	0.44
43:2l:8:ASN:HB2	48:2q:34:LYS:HZ3	1.81	0.44
43:2l:24:VAL:HG12	43:2l:98:TYR:CE1	2.52	0.44
44:2m:23:TYR:HE2	44:2m:70:LEU:HD22	1.81	0.44
54:2w:21:A:HO2'	54:2w:22:G:P	2.40	0.44
1:1A:757:G:H2'	1:1A:758:G:C8	2.52	0.44
1:1A:1016:C:O2'	1:1A:1029:A:N3	2.45	0.44
1:1A:1183:G:N3	9:1N:106:MET:HE2	2.33	0.44
1:1A:1222:A:H2'	1:1A:1222:A:N3	2.33	0.44
61:1A:5058:HOH:O	22:10:14:ARG:HB2	2.17	0.44
6:1G:61:ALA:HB1	26:14:7:PRO:HG3	1.99	0.44
15:1T:33:LYS:HA	15:1T:42:ILE:HD13	1.99	0.44
18:1W:6:ILE:HA	18:1W:103:ILE:O	2.18	0.44
33:1b:60:ASP:O	33:1b:64:ARG:HG2	2.17	0.44
54:1w:66:U:H2'	54:1w:67:C:C6	2.53	0.44
54:1y:28:G:H1	54:1y:42:C:H42	1.65	0.44
1:2A:307:G:H21	1:2A:330:A:H62	1.66	0.44
1:2A:747:U:O2'	18:2W:92:ARG:NH1	2.50	0.44
1:2A:910:A:H62	12:2Q:12:GLN:HA	1.83	0.44
1:2A:954:G:O2'	1:2A:2274:A:N1	2.47	0.44
1:2A:972:G:OP2	1:2A:973:A:O2'	2.35	0.44
1:2A:1020:A:N1	1:2A:1141:U:H1'	2.32	0.44
1:2A:2872:G:C2	1:2A:2873:A:N6	2.84	0.44
6:2G:5:VAL:HG23	6:2G:8:LYS:HB2	2.00	0.44
21:2Z:53:ILE:HG22	21:2Z:71:VAL:HG12	2.00	0.44
32:2a:222:U:H2'	32:2a:223:U:C6	2.52	0.44
32:2a:253:U:H2'	32:2a:254:G:C8	2.51	0.44
32:2a:375:U:OP1	47:2p:69:THR:HG21	2.18	0.44
32:2a:1015:A:H2'	32:2a:1016:A:C8	2.52	0.44
32:2a:1172:C:O5'	32:2a:1172:C:H6	2.00	0.44
34:2c:134:ILE:HG23	34:2c:151:VAL:HB	2.00	0.44
38:2g:122:HIS:HA	38:2g:125:MET:HB2	1.98	0.44
43:2l:71:PRO:O	43:2l:102:ARG:HD3	2.18	0.44
1:1A:1653:C:H5''	1:1A:1654:A:H5'	1.98	0.44
1:1A:2346:G:H4'	1:1A:2347:A:OP2	2.17	0.44
3:1D:70:TRP:HB3	3:1D:190:TYR:CE2	2.51	0.44
5:1F:182:ASN:HD21	5:1F:185:ASP:CG	2.25	0.44
16:1U:17:ILE:HG13	16:1U:32:PHE:HE1	1.81	0.44
32:1a:93:G:H2'	32:1a:96:U:C6	2.52	0.44
32:1a:255:G:OP1	48:1q:69:LYS:NZ	2.37	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:93:VAL:HG21	33:1b:97:TRP:CD1	2.42	0.44
35:1d:18:LYS:HD2	35:1d:20:TYR:CZ	2.53	0.44
39:1h:56:LYS:HB2	39:1h:58:TYR:HE2	1.82	0.44
42:1k:33:THR:HA	42:1k:39:PRO:HA	2.00	0.44
1:2A:324:A:N6	1:2A:338:G:O2'	2.50	0.44
1:2A:942:G:OP1	11:2P:39:LYS:NZ	2.45	0.44
1:2A:2403:C:N3	1:2A:2415:G:C2	2.86	0.44
1:2A:2494:G:C4	1:2A:2495:G:C8	3.06	0.44
1:2A:2754:U:O2'	31:29:17:ILE:HD13	2.17	0.44
10:2O:80:ASP:OD2	15:2T:64:ARG:NH2	2.44	0.44
32:2a:278:G:OP2	48:2q:41:LYS:HE2	2.18	0.44
32:2a:678:U:H2'	32:2a:679:C:C6	2.52	0.44
32:2a:942:G:C2	32:2a:1342:C:C2	3.05	0.44
32:2a:975:A:N6	41:2j:60:ARG:HH12	2.15	0.44
32:2a:1060:C:C5	34:2c:2:GLY:HA3	2.53	0.44
32:2a:1206:G:C6	32:2a:1207:2MG:C5	3.06	0.44
32:2a:1291:G:C6	32:2a:1292:U:C4	3.05	0.44
32:2a:1343:G:H4'	40:2i:122:ALA:HB3	1.98	0.44
32:2a:1399:C:H4'	32:2a:1400:5MC:H3'	1.98	0.44
32:2a:1442:G:O2'	32:2a:1442(A):G:H5'	2.18	0.44
32:2a:1459:C:OP1	51:2t:31:SER:OG	2.32	0.44
54:2y:44:G:H2'	54:2y:45:U:H5'	1.99	0.44
1:1A:180:A:H2'	1:1A:181:C:C6	2.52	0.44
1:1A:1088:G:H2'	1:1A:1089:C:C6	2.52	0.44
1:1A:1830:G:N2	3:1D:155:LEU:HD12	2.32	0.44
3:1D:223:GLY:HA3	3:1D:231:HIS:CE1	2.52	0.44
8:1I:61:ARG:HA	8:1I:61:ARG:HD3	1.61	0.44
32:1a:486:U:H2'	32:1a:487:A:H8	1.83	0.44
32:1a:509:A:O2'	32:1a:510:A:OP1	2.25	0.44
32:1a:1127:G:H1'	32:1a:1280:A:C6	2.52	0.44
32:1a:1337:G:OP2	61:1a:3319:HOH:O	2.21	0.44
33:1b:24:TRP:H	33:1b:24:TRP:HD1	1.66	0.44
34:1c:26:LYS:HE2	34:1c:26:LYS:HB3	1.77	0.44
54:1w:2:C:N4	54:1w:71:G:H1	2.11	0.44
1:2A:184:C:H2'	1:2A:185:U:H6	1.83	0.44
1:2A:492:A:H2'	1:2A:493:G:O4'	2.17	0.44
1:2A:597:U:H2'	1:2A:598:G:H8	1.82	0.44
1:2A:1557:C:H5''	1:2A:1558:A:OP2	2.17	0.44
1:2A:2360:A:H2'	1:2A:2361:A:O4'	2.18	0.44
1:2A:2593:U:H2'	1:2A:2594:C:C6	2.52	0.44
11:2P:44:GLY:HA2	11:2P:45:LEU:HB2	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:2Q:2:LEU:HG	12:2Q:69:PHE:CE1	2.52	0.44
12:2Q:51:ARG:O	12:2Q:55:VAL:HG13	2.18	0.44
32:2a:284:G:H2'	32:2a:285:G:H8	1.81	0.44
32:2a:421:U:O2'	32:2a:423:G:N7	2.51	0.44
32:2a:533:A:O2'	32:2a:535:A:OP2	2.34	0.44
32:2a:921:U:O2	36:2e:19:MET:HB2	2.18	0.44
32:2a:1065:U:H3	32:2a:1109:C:H5''	1.82	0.44
32:2a:1338:G:H21	55:2x:41:C:H1'	1.82	0.44
40:2i:47:LEU:O	40:2i:50:LEU:HG	2.18	0.44
49:2r:33:ASP:OD2	49:2r:36:ASN:HB2	2.17	0.44
54:2y:44:G:C2'	54:2y:45:U:H5'	2.47	0.44
1:1A:308:U:H2'	1:1A:309:C:H6	1.80	0.44
1:1A:510:C:H2'	1:1A:511:C:C6	2.53	0.44
1:1A:605:G:H2'	1:1A:606:G:C8	2.52	0.44
1:1A:1560:U:H2'	1:1A:1561:C:C6	2.53	0.44
32:1a:78:G:C6	32:1a:91:C:N4	2.86	0.44
32:1a:200:G:H1	32:1a:217:C:N4	2.15	0.44
32:1a:953:G:H5'	32:1a:965:A:N6	2.25	0.44
32:1a:1320:C:O2	50:1s:36:ARG:NH2	2.47	0.44
43:1l:90:VAL:O	43:1l:92:OTD:N	2.51	0.44
54:1w:20:U:OP1	54:1w:20:U:H4'	2.18	0.44
1:2A:323:G:O2'	1:2A:1205:U:N3	2.48	0.44
1:2A:705:A:C2	1:2A:727:A:H1'	2.52	0.44
1:2A:1218:C:OP2	16:2U:15:LYS:NZ	2.49	0.44
1:2A:1252:G:N3	16:2U:33:ARG:HG2	2.32	0.44
1:2A:2833:G:H4'	1:2A:2834:G:OP2	2.17	0.44
3:2D:166:GLN:HB2	3:2D:174:ILE:HG22	1.99	0.44
5:2F:116:ASP:OD1	5:2F:119:ARG:NH2	2.47	0.44
6:2G:148:MET:HE2	6:2G:148:MET:HB3	1.81	0.44
9:2N:34:LEU:O	9:2N:49:GLY:HA3	2.17	0.44
13:2R:44:LEU:HD23	13:2R:44:LEU:HA	1.78	0.44
14:2S:4:LEU:HD23	14:2S:4:LEU:HA	1.84	0.44
15:2T:109:GLU:HG2	15:2T:112:ARG:HH22	1.83	0.44
27:25:51:TYR:CE2	27:25:56:LYS:HD3	2.52	0.44
32:2a:397:A:H3'	32:2a:397:A:N3	2.32	0.44
32:2a:624:C:H2'	32:2a:625:G:C8	2.53	0.44
32:2a:737:A:H2'	32:2a:738:C:C6	2.52	0.44
32:2a:742:G:OP2	46:2o:35:ARG:NH2	2.51	0.44
33:2b:80:ILE:HD12	33:2b:208:ILE:HD12	1.99	0.44
35:2d:110:PHE:N	35:2d:110:PHE:CD1	2.86	0.44
39:2h:104:ARG:HD3	39:2h:104:ARG:HA	1.64	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:2m:15:VAL:O	44:2m:19:LEU:HD13	2.18	0.44
44:2m:60:VAL:HG13	44:2m:64:TRP:HE3	1.82	0.44
55:2x:23:C:H2'	55:2x:24:U:C6	2.53	0.44
55:2x:53:G:H2'	55:2x:54:5MU:C6	2.52	0.44
54:2y:60:U:O2'	54:2y:61:C:H5'	2.18	0.44
1:1A:942:A:H4'	1:1A:943:C:OP1	2.18	0.44
1:1A:1841:A:H2'	1:1A:1842:G:O4'	2.18	0.44
1:1A:2274:U:OP1	1:1A:2399:U:O2'	2.33	0.44
1:1A:2787:C:H2'	1:1A:2788:A:O4'	2.17	0.44
1:1A:2879:G:H2'	1:1A:2880:C:O4'	2.17	0.44
2:1B:29:A:H2'	2:1B:30:C:O4'	2.18	0.44
2:1B:31:C:H4'	6:1G:29:TRP:CH2	2.53	0.44
11:1P:100:LEU:HD12	11:1P:112:LEU:HD11	1.99	0.44
18:1W:1:MET:HE2	18:1W:62:HIS:ND1	2.33	0.44
32:1a:191:G:H21	51:1t:103:GLY:HA2	1.81	0.44
32:1a:523:A:H61	43:1l:92:0TD:CG	2.31	0.44
32:1a:1304:G:C6	32:1a:1305:G:N1	2.85	0.44
38:1g:113:GLU:HG2	38:1g:118:VAL:HG12	1.99	0.44
41:1j:69:ASN:O	41:1j:70:ARG:NH1	2.46	0.44
46:1o:16:ALA:HB1	46:1o:21:ASP:HB3	2.00	0.44
1:2A:141:A:C8	1:2A:1408:C:O2'	2.71	0.44
1:2A:699:A:H2'	1:2A:700:G:O4'	2.17	0.44
1:2A:816:C:N4	1:2A:1192:G:O6	2.51	0.44
1:2A:900:A:C2'	1:2A:901:A:H8	2.27	0.44
1:2A:1022:G:H1	1:2A:1142(A):A:H2	1.64	0.44
1:2A:1027:A:N6	1:2A:1126:A:C4	2.86	0.44
1:2A:1028:A:H2'	1:2A:1029:A:C8	2.53	0.44
1:2A:1263:U:C4	1:2A:1264:G:C6	3.05	0.44
1:2A:2386:C:H2'	1:2A:2387:U:C6	2.53	0.44
1:2A:2773:C:OP1	4:2E:166:THR:OG1	2.34	0.44
1:2A:2872:G:O2'	1:2A:2873:A:H5'	2.18	0.44
9:2N:58:ASP:OD1	9:2N:58:ASP:N	2.50	0.44
9:2N:62:VAL:HG11	9:2N:66:LYS:HB2	1.99	0.44
19:2X:9:LEU:HB2	19:2X:29:TRP:O	2.18	0.44
24:22:8:LYS:HD2	24:22:8:LYS:HA	1.79	0.44
32:2a:344:A:H5''	32:2a:345:C:H5	1.83	0.44
32:2a:997:U:O2	32:2a:1044:A:N1	2.50	0.44
32:2a:1106:G:H4'	34:2c:171:GLY:O	2.18	0.44
32:2a:1217:C:H2'	32:2a:1218:C:O4'	2.17	0.44
32:2a:1510:U:H2'	32:2a:1511:G:C8	2.53	0.44
36:2e:33:VAL:HG13	36:2e:112:LEU:HD12	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:807:G:OP1	61:1A:4170:HOH:O	2.21	0.44
1:1A:2148:A:H4'	1:1A:2149:G:OP1	2.18	0.44
1:1A:2236:G:H4'	1:1A:2238:C:C2	2.53	0.44
3:1D:145:VAL:HB	3:1D:155:LEU:HB2	2.00	0.44
7:1H:104:GLU:HG3	7:1H:114:VAL:HG22	2.00	0.44
8:1I:117:GLU:HG3	8:1I:118:LYS:H	1.82	0.44
21:1Z:128:VAL:HG23	21:1Z:160:GLY:O	2.17	0.44
32:1a:454:C:H3'	32:1a:455:C:C6	2.53	0.44
32:1a:993:G:H2'	32:1a:995:C:H41	1.82	0.44
32:1a:1511:G:H2'	32:1a:1512:U:O4'	2.18	0.44
35:1d:105:VAL:HG13	35:1d:110:PHE:HB2	2.00	0.44
1:2A:249:C:H4'	1:2A:250:G:O5'	2.17	0.44
1:2A:1016:G:H2'	1:2A:1017:G:H8	1.83	0.44
1:2A:1242:A:N1	11:2P:4:SER:OG	2.41	0.44
1:2A:1693:U:O3'	3:2D:14:ARG:NH2	2.51	0.44
1:2A:2335:A:C8	1:2A:2337:G:C5	3.06	0.44
1:2A:2851:A:O2'	13:2R:64:ARG:NH2	2.48	0.44
10:2O:7:TYR:HE1	10:2O:20:MET:HE3	1.81	0.44
12:2Q:17:LEU:HD22	12:2Q:96:VAL:HG13	1.99	0.44
19:2X:60:ARG:NH2	29:27:47:ARG:HH12	2.14	0.44
26:24:50:VAL:HG11	44:2m:64:TRP:C	2.43	0.44
32:2a:196:A:N3	32:2a:222:U:H1'	2.33	0.44
32:2a:653:A:P	39:2h:56:LYS:HZ1	2.40	0.44
32:2a:1253:G:H2'	32:2a:1254:C:C6	2.53	0.44
32:2a:1279:A:OP2	41:2j:9:ARG:NH2	2.49	0.44
40:2i:3:GLN:HE21	40:2i:20:ARG:NH2	2.13	0.44
40:2i:21:PRO:HA	40:2i:59:PHE:HA	2.00	0.44
42:2k:34:ASP:OD1	42:2k:38:ASN:N	2.51	0.44
1:1A:624:C:O2'	1:1A:628:C:H5''	2.18	0.43
1:1A:722:A:C8	1:1A:851:A:C6	3.05	0.43
1:1A:2137:G:H8	1:1A:2137:G:O5'	2.00	0.43
1:1A:2518:U:N3	58:1A:4030:EZG:CG	2.80	0.43
14:1S:3:ARG:HD3	14:1S:3:ARG:HA	1.88	0.43
21:1Z:132:ASN:ND2	21:1Z:160:GLY:HA3	2.33	0.43
23:11:10:LYS:NZ	23:11:65:SER:OG	2.44	0.43
32:1a:406:G:H21	35:1d:119:GLN:HE22	1.65	0.43
36:1e:43:LEU:CD2	36:1e:132:ALA:HB1	2.48	0.43
50:1s:27:GLU:HB2	50:1s:28:LYS:HD3	2.00	0.43
1:2A:839:U:H2'	1:2A:840:C:C6	2.53	0.43
1:2A:2161:C:H3'	1:2A:2162:G:C8	2.53	0.43
4:2E:9:VAL:HG22	4:2E:25:VAL:HB	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:2H:148:ILE:H	7:2H:148:ILE:HG13	1.50	0.43
16:2U:49:HIS:HA	16:2U:52:ARG:HB3	1.98	0.43
19:2X:57:LEU:HD22	19:2X:78:LYS:HE2	2.00	0.43
20:2Y:9:LYS:NZ	20:2Y:28:LYS:O	2.43	0.43
21:2Z:144:LEU:HD23	21:2Z:145:GLU:H	1.82	0.43
25:23:6:VAL:HG12	25:23:28:LEU:HD11	2.00	0.43
30:28:52:LYS:HG2	30:28:56:GLU:OE2	2.17	0.43
32:2a:163:C:H2'	32:2a:164:U:C6	2.53	0.43
32:2a:826:C:H4'	39:2h:12:ARG:HG3	2.00	0.43
32:2a:1014:A:OP2	50:2s:18:LYS:NZ	2.48	0.43
33:2b:82:ARG:HG3	33:2b:92:TYR:OH	2.18	0.43
34:2c:83:ARG:C	34:2c:85:ARG:N	2.76	0.43
35:2d:110:PHE:N	35:2d:110:PHE:HD1	2.16	0.43
54:2w:30:G:O6	54:2w:31:A:N6	2.51	0.43
1:1A:1087:C:N4	1:1A:1160:G:H1	2.15	0.43
1:1A:1387:U:OP2	1:1A:1440:U:O2'	2.24	0.43
1:1A:2885:C:O2'	15:1T:2:ASN:OD1	2.36	0.43
5:1F:184:TYR:O	5:1F:188:ARG:HG3	2.18	0.43
19:1X:41:ASN:O	19:1X:45:THR:HG23	2.18	0.43
32:1a:828:A:H2'	32:1a:829:G:O4'	2.18	0.43
32:1a:1176:A:H2'	32:1a:1177:G:C8	2.53	0.43
33:1b:124:SER:HA	33:1b:125:PRO:HA	1.80	0.43
37:1f:2:ARG:HB2	37:1f:4:TYR:CE2	2.54	0.43
40:1i:4:TYR:CE2	40:1i:88:TYR:HD1	2.37	0.43
43:1l:83:VAL:HG23	43:1l:107:ALA:HB2	1.99	0.43
50:1s:11:VAL:HG12	50:1s:12:ASP:H	1.83	0.43
54:1y:19:G:N1	54:1y:56:C:N4	2.67	0.43
1:2A:320:A:O2'	1:2A:322:A:OP2	2.36	0.43
1:2A:535:C:O3'	16:2U:53:ARG:NH1	2.50	0.43
1:2A:657:U:H2'	1:2A:658:C:C6	2.53	0.43
1:2A:992:C:OP1	16:2U:47:TYR:OH	2.25	0.43
1:2A:1315:C:H42	1:2A:1337:G:H1	1.66	0.43
1:2A:1651:G:H2'	1:2A:1652:A:O4'	2.18	0.43
1:2A:2506:U:O2'	54:2w:76:A:H4'	2.18	0.43
3:2D:253:GLN:HG3	61:2D:412:HOH:O	2.17	0.43
32:2a:11:G:H1	32:2a:23:C:H42	1.66	0.43
32:2a:46:G:H2'	32:2a:366:C:C5	2.53	0.43
32:2a:434:U:H2'	32:2a:435:C:C6	2.52	0.43
32:2a:663:A:O3'	49:2r:64:ARG:NH2	2.49	0.43
32:2a:831:U:P	33:2b:22:LYS:HZ1	2.41	0.43
32:2a:1051:C:H2'	32:2a:1052:U:H6	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:33:TYR:HB2	33:2b:43:ASP:HB2	2.00	0.43
34:2c:32:LEU:O	34:2c:36:ASP:HB2	2.19	0.43
35:2d:11:LEU:HG	35:2d:66:ARG:HD3	1.99	0.43
36:2e:105:VAL:HB	36:2e:106:PRO:HD3	1.99	0.43
37:2f:69:GLU:O	37:2f:72:VAL:HG12	2.18	0.43
43:2l:37:CYS:SG	43:2l:81:SER:HB2	2.58	0.43
43:2l:77:LEU:HD21	43:2l:107:ALA:HB2	1.99	0.43
1:1A:941:U:O2'	1:1A:942:A:OP1	2.31	0.43
1:1A:1683:C:H2'	1:1A:1684:A:C8	2.53	0.43
1:1A:1973:U:O2	1:1A:1975:A:H8	2.01	0.43
1:1A:2123:G:H2'	1:1A:2124:U:C6	2.53	0.43
2:1B:5:C:O2'	2:1B:27:C:O2	2.35	0.43
10:1O:70:LYS:HE2	10:1O:70:LYS:HB3	1.77	0.43
15:1T:24:PRO:HD3	15:1T:52:ILE:HD12	2.00	0.43
18:1W:18:ARG:HG3	18:1W:76:VAL:HB	1.99	0.43
32:1a:452:A:H4'	47:1p:72:ARG:NH1	2.32	0.43
32:1a:1055:A:O2'	34:1c:161:GLU:O	2.23	0.43
32:1a:1190:G:OP1	34:1c:5:ILE:N	2.49	0.43
32:1a:1464:G:H2'	32:1a:1465:C:C6	2.52	0.43
35:1d:63:LYS:HE3	35:1d:63:LYS:HB2	1.81	0.43
35:1d:190:ASP:HB2	35:1d:193:ASP:OD2	2.17	0.43
40:1i:5:TYR:OH	40:1i:7:THR:OG1	2.31	0.43
48:1q:3:LYS:HB3	48:1q:61:GLU:HB3	2.00	0.43
52:1u:2:GLY:O	52:1u:4:GLY:N	2.51	0.43
54:1w:51:U:H2'	54:1w:52:G:H8	1.83	0.43
1:2A:271(E):U:H2'	1:2A:271(F):C:C6	2.54	0.43
1:2A:478:A:C6	1:2A:480:A:C6	3.07	0.43
1:2A:1155:A:H5''	16:2U:55:ARG:HH11	1.83	0.43
1:2A:2687:U:H2'	1:2A:2688:U:O4'	2.19	0.43
15:2T:118:ARG:HG2	32:2a:1442(A):G:C8	2.54	0.43
26:24:15:ILE:HB	26:24:32:TYR:CD1	2.54	0.43
26:24:53:GLU:C	26:24:55:ARG:H	2.27	0.43
32:2a:458:C:H2'	32:2a:460:G:O4'	2.18	0.43
32:2a:677:U:H3	32:2a:713:G:H22	1.66	0.43
32:2a:762:C:H2'	32:2a:763:G:C8	2.54	0.43
32:2a:1207:2MG:C6	32:2a:1208:C:C4	3.07	0.43
33:2b:73:THR:HA	33:2b:94:ASN:O	2.17	0.43
1:1A:414:U:P	23:11:20:ARG:HH12	2.40	0.43
1:1A:426:G:OP2	61:1A:4164:HOH:O	2.20	0.43
1:1A:609:A:H5'	5:1F:89:VAL:HG21	2.00	0.43
1:1A:1654:A:H1'	1:1A:1656:A:OP2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1B:2:C:H2'	2:1B:3:C:H6	1.82	0.43
5:1F:106:ARG:H	5:1F:106:ARG:HG2	1.50	0.43
26:14:44:THR:O	26:14:46:GLN:N	2.51	0.43
32:1a:193:C:H2'	32:1a:194:C:H6	1.82	0.43
32:1a:692:U:O2'	32:1a:694:A:N7	2.33	0.43
32:1a:1109:C:H2'	32:1a:1110:A:O4'	2.18	0.43
33:1b:163:PHE:CD1	33:1b:185:ILE:HG13	2.54	0.43
34:1c:150:LYS:HG3	34:1c:169:ALA:HB2	1.99	0.43
41:1j:38:ILE:CG1	41:1j:71:LEU:HB3	2.48	0.43
42:1k:43:SER:HB3	42:1k:68:ALA:HB2	2.00	0.43
1:2A:93:G:H2'	1:2A:94:C:C6	2.53	0.43
1:2A:125:G:C6	29:27:10:ARG:HG3	2.53	0.43
1:2A:296:C:O3'	20:2Y:95:LYS:NZ	2.51	0.43
1:2A:1528:A:H2'	1:2A:1528(A):A:C8	2.54	0.43
1:2A:1529:G:O6	1:2A:1530:C:N4	2.51	0.43
1:2A:2274:A:C5	1:2A:2276:G:C8	3.05	0.43
4:2E:101:ARG:NH1	4:2E:171:GLU:HB2	2.34	0.43
11:2P:97:PRO:HD3	11:2P:126:VAL:O	2.18	0.43
32:2a:984:C:H2'	32:2a:985:C:C6	2.54	0.43
32:2a:1502:A:H5'	32:2a:1504:G:N7	2.33	0.43
34:2c:36:ASP:OD1	34:2c:57:ILE:HG21	2.17	0.43
34:2c:111:LEU:HD21	34:2c:144:SER:O	2.18	0.43
37:2f:53:ALA:HB3	37:2f:86:ARG:CZ	2.48	0.43
41:2j:40:LEU:HD23	41:2j:40:LEU:HA	1.86	0.43
41:2j:62:HIS:HB3	45:2n:59:ALA:HB3	2.00	0.43
1:1A:703:G:H2'	1:1A:704:U:O4'	2.18	0.43
1:1A:733:G:H8	29:17:6:GLN:O	2.02	0.43
1:1A:1343:C:O2'	1:1A:1348:A:N1	2.49	0.43
1:1A:1387:U:O4'	19:1X:57:LEU:HD23	2.18	0.43
1:1A:1756:U:H2'	1:1A:1757:C:C6	2.53	0.43
1:1A:1935:A:H4'	1:1A:1936:C:H5''	2.00	0.43
1:1A:2372:A:H8	1:1A:2372:A:O5'	2.02	0.43
1:1A:2819:A:H2'	1:1A:2820:A:C8	2.54	0.43
1:1A:2826:C:O2	1:1A:2893:A:O2'	2.35	0.43
2:1B:23:G:O6	61:1B:302:HOH:O	2.21	0.43
8:1I:40:THR:O	8:1I:44:LEU:HB2	2.19	0.43
12:1Q:18:LYS:O	12:1Q:98:LYS:NZ	2.29	0.43
32:1a:31:G:N2	32:1a:47:C:O5'	2.51	0.43
32:1a:184:G:H2'	32:1a:185:A:C8	2.53	0.43
32:1a:332:G:H2'	32:1a:333:G:H8	1.82	0.43
32:1a:986:A:H1'	50:1s:54:GLY:O	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1216:G:H5''	45:1n:5:ALA:CB	2.48	0.43
46:1o:29:VAL:HG11	46:1o:67:LEU:HD21	2.00	0.43
54:1w:52:G:C6	54:1w:63:G:C6	3.07	0.43
1:2A:212:G:H2'	1:2A:213:A:O4'	2.19	0.43
1:2A:1495:A:H2'	1:2A:1496:A:C8	2.53	0.43
1:2A:2133:G:O2'	1:2A:2134:A:OP1	2.30	0.43
1:2A:2334:G:H5'	14:2S:9:ARG:HG2	2.00	0.43
1:2A:2366:A:H2'	1:2A:2367:G:O4'	2.18	0.43
1:2A:2429:G:OP2	61:2A:3867:HOH:O	2.21	0.43
1:2A:2637:U:H5''	4:2E:82:ARG:NH1	2.34	0.43
3:2D:242:ARG:HG2	3:2D:246:PRO:HG3	1.99	0.43
5:2F:33:LEU:HD13	5:2F:112:MET:HE2	2.00	0.43
7:2H:13:LYS:HA	7:2H:14:GLY:HA2	1.51	0.43
10:2O:48:PRO:CB	32:2a:1422:G:H5''	2.39	0.43
14:2S:15:ARG:O	14:2S:19:LYS:HG2	2.18	0.43
15:2T:18:ASP:OD1	15:2T:18:ASP:N	2.45	0.43
19:2X:1:MET:HE1	24:22:22:GLU:HG2	2.00	0.43
32:2a:448:A:O5'	32:2a:485:G:N2	2.50	0.43
32:2a:966:M2G:HM23	32:2a:967:5MC:H1'	2.00	0.43
41:2j:23:ILE:HD13	41:2j:23:ILE:HA	1.83	0.43
42:2k:80:VAL:HG23	42:2k:105:VAL:HA	2.00	0.43
55:2x:47:U:H3'	55:2x:48:C:H5'	2.00	0.43
1:1A:659:C:H2'	1:1A:660:C:C6	2.54	0.43
1:1A:868:A:O2'	1:1A:991:G:OP2	2.31	0.43
1:1A:1115:A:H4'	1:1A:1116:A:H8	1.83	0.43
1:1A:1410:G:N7	23:11:3:LYS:HD2	2.33	0.43
1:1A:2769:U:H1'	1:1A:2770:A:H5''	1.99	0.43
2:1B:24:G:N7	2:1B:56:G:H2'	2.33	0.43
6:1G:46:ALA:HB1	6:1G:50:ALA:O	2.19	0.43
7:1H:3:ARG:HG3	7:1H:4:ILE:N	2.34	0.43
30:18:23:VAL:CG1	30:18:47:LYS:HB3	2.49	0.43
32:1a:663:A:H5'	32:1a:836:G:OP1	2.18	0.43
32:1a:1001(A):G:C2	32:1a:1002:G:H1'	2.53	0.43
32:1a:1004:A:H5'	32:1a:1024:G:O6	2.18	0.43
32:1a:1268:A:H2'	32:1a:1269:A:C8	2.53	0.43
32:1a:1513:A:H2'	32:1a:1514:C:C6	2.53	0.43
34:1c:152:ILE:HB	34:1c:199:LYS:HB2	2.01	0.43
36:1e:76:ILE:HD13	36:1e:91:LEU:HB3	2.00	0.43
54:1y:55:PSU:N3	54:1y:58:A:OP2	2.49	0.43
1:2A:75:G:H4'	24:22:55:ARG:NH1	2.34	0.43
1:2A:265:A:H8	1:2A:266:G:H1'	1.81	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:557:U:H2'	1:2A:558:G:C8	2.54	0.43
1:2A:859:G:N2	1:2A:917:A:OP2	2.38	0.43
1:2A:956:G:N2	1:2A:959:A:H3'	2.33	0.43
1:2A:1131:G:O6	1:2A:2040:C:H1'	2.18	0.43
1:2A:2061:G:H5''	1:2A:2503:2MA:C2	2.48	0.43
1:2A:2642:G:H5''	9:2N:78:TYR:CD1	2.53	0.43
6:2G:111:LEU:HD23	6:2G:117:PHE:CZ	2.53	0.43
14:2S:105:ALA:HB1	14:2S:110:LEU:HD22	2.01	0.43
25:23:6:VAL:O	25:23:34:GLU:HA	2.17	0.43
32:2a:693:G:H2'	32:2a:694:A:C8	2.53	0.43
32:2a:1177:G:H3'	32:2a:1178:G:H8	1.84	0.43
32:2a:1378:C:N3	32:2a:1379:G:H1'	2.33	0.43
34:2c:131:ARG:HD3	34:2c:166:GLU:OE2	2.18	0.43
35:2d:111:ALA:HB3	35:2d:117:ALA:HB2	2.01	0.43
35:2d:172:PRO:HD2	35:2d:173:TRP:CZ3	2.53	0.43
36:2e:80:ILE:HG22	36:2e:91:LEU:HB2	2.00	0.43
41:2j:67:THR:O	41:2j:67:THR:OG1	2.32	0.43
55:2x:19:G:H5''	55:2x:60:U:O4	2.18	0.43
54:2y:55:PSU:HN1	54:2y:57:G:H5'	1.82	0.43
1:1A:1001:G:H5''	12:1Q:77:LYS:HD2	2.01	0.43
1:1A:1221:G:H21	1:1A:1222:A:H4'	1.84	0.43
1:1A:1851:U:C2	3:1D:202:LYS:HD3	2.53	0.43
7:1H:41:MET:HB3	7:1H:41:MET:HE3	1.64	0.43
10:1O:9:GLU:O	10:1O:83:ALA:HA	2.18	0.43
28:16:2:ALA:HA	28:16:6:ARG:HB2	2.01	0.43
32:1a:97:G:H2'	32:1a:98:G:O4'	2.19	0.43
32:1a:110:C:O2'	47:1p:25:ARG:O	2.34	0.43
32:1a:881:G:H2'	32:1a:882:C:O4'	2.18	0.43
32:1a:1062:U:H2'	32:1a:1063:C:C6	2.54	0.43
33:1b:62:ALA:HB3	33:1b:225:ALA:HB3	2.01	0.43
34:1c:71:ALA:O	34:1c:73:PRO:HD3	2.19	0.43
35:1d:173:TRP:CD1	35:1d:173:TRP:H	2.36	0.43
37:1f:1:MET:HA	37:1f:67:MET:O	2.18	0.43
38:1g:46:ALA:HB1	38:1g:121:ALA:HB2	1.99	0.43
41:1j:31:GLY:HA3	41:1j:32:ALA:HA	1.86	0.43
1:2A:263:C:H2'	1:2A:264:C:O4'	2.19	0.43
1:2A:359:A:H2'	1:2A:360:G:O4'	2.19	0.43
1:2A:864:G:C6	1:2A:865:C:N4	2.87	0.43
1:2A:2025:C:H2'	1:2A:2026:C:H6	1.83	0.43
1:2A:2143:C:N3	1:2A:2148:G:N2	2.55	0.43
2:2B:7:G:H2'	2:2B:8:U:O4'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2G:116:ASP:OD2	44:2m:68:GLY:HA3	2.19	0.43
22:20:14:ARG:H	22:20:14:ARG:HG2	1.66	0.43
32:2a:431:A:H2'	32:2a:432:A:C8	2.53	0.43
32:2a:548:G:OP1	61:2a:1921:HOH:O	2.21	0.43
32:2a:928:G:H1	32:2a:1389:C:N4	2.16	0.43
32:2a:1155:G:H2'	32:2a:1156:G:C8	2.54	0.43
36:2e:110:LEU:HD13	36:2e:118:ILE:HD13	2.00	0.43
43:2l:55:VAL:HG22	43:2l:69:TYR:HA	2.01	0.43
54:2y:26:A:C6	54:2y:44:G:O6	2.72	0.43
1:1A:596:G:O2'	1:1A:597:C:H3'	2.19	0.43
1:1A:1627:A:OP2	1:1A:1627:A:H8	2.02	0.43
1:1A:1766:G:H1'	1:1A:1770:A:H61	1.84	0.43
8:1I:116:LEU:HD11	8:1I:120:ILE:HG13	2.00	0.43
8:1I:124:GLY:H	8:1I:144:VAL:HG23	1.82	0.43
10:1O:107:ARG:HD3	15:1T:37:GLY:H	1.84	0.43
18:1W:68:ARG:HH11	18:1W:111:HIS:HA	1.84	0.43
32:1a:256:U:H2'	32:1a:257:G:O4'	2.19	0.43
32:1a:431:A:H2'	32:1a:432:A:O4'	2.19	0.43
32:1a:662:G:H2'	32:1a:663:A:C8	2.54	0.43
32:1a:865:A:H2	32:1a:918:A:H4'	1.84	0.43
32:1a:880:C:OP1	43:1l:8:ASN:ND2	2.52	0.43
32:1a:909:A:H2'	32:1a:910:C:O4'	2.19	0.43
32:1a:1260:C:O5'	32:1a:1284:C:H4'	2.18	0.43
34:1c:188:LEU:HD12	34:1c:188:LEU:HA	1.87	0.43
35:1d:173:TRP:CD2	35:1d:189:PRO:HG3	2.54	0.43
44:1m:89:GLY:O	44:1m:93:ARG:HG3	2.18	0.43
1:2A:918:A:C2	2:2B:80:U:H4'	2.53	0.43
1:2A:1221(A):C:H42	1:2A:1228:G:H1	1.66	0.43
1:2A:1581:G:H2'	1:2A:1582:C:O4'	2.18	0.43
1:2A:1669:A:H5''	1:2A:2550:G:OP1	2.17	0.43
1:2A:2530:A:O2'	1:2A:2532:G:OP2	2.34	0.43
20:2Y:28:LYS:HD2	20:2Y:40:GLU:OE1	2.19	0.43
32:2a:473:G:H2'	32:2a:474:G:H8	1.83	0.43
32:2a:540:G:H2'	32:2a:541:G:O4'	2.18	0.43
32:2a:945:G:N1	32:2a:1337:G:C2	2.87	0.43
32:2a:1077:G:N1	32:2a:1080:A:OP2	2.51	0.43
35:2d:108:LEU:HD12	35:2d:108:LEU:HA	1.88	0.43
38:2g:101:LEU:O	38:2g:105:VAL:HG23	2.18	0.43
1:1A:442:A:H2'	1:1A:443:C:C6	2.54	0.43
1:1A:776:G:C6	3:1D:208:LYS:HB2	2.54	0.43
1:1A:863:C:H2'	1:1A:864:C:H6	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1120:G:N1	1:1A:1121:C:H1'	2.34	0.43
1:1A:1514:C:OP2	1:1A:1594:C:H5	2.02	0.43
1:1A:2389:A:H2'	1:1A:2390:A:C8	2.54	0.43
3:1D:79:VAL:O	3:1D:114:GLY:N	2.52	0.43
16:1U:97:ASP:OD1	16:1U:101:ARG:NH1	2.51	0.43
32:1a:1530:G:H2'	32:1a:1531:A:C8	2.53	0.43
38:1g:48:LYS:O	38:1g:52:GLU:HG3	2.19	0.43
48:1q:66:SER:O	48:1q:70:ARG:NH1	2.52	0.43
51:1t:57:ARG:HH22	51:1t:100:ILE:HD12	1.83	0.43
55:1x:16:C:H5'	55:1x:59:A:N1	2.33	0.43
1:2A:64:A:O3'	19:2X:71:GLY:HA3	2.19	0.43
1:2A:332:A:O2'	1:2A:334:C:OP2	2.28	0.43
1:2A:372:G:H8	23:21:65:SER:O	2.01	0.43
1:2A:1274:A:N3	1:2A:1297:C:H1'	2.34	0.43
1:2A:1848:A:C6	32:2a:702:A:C6	3.07	0.43
1:2A:2136:C:O2'	1:2A:2137:C:C6	2.68	0.43
1:2A:2831:G:OP1	1:2A:2834:G:H4'	2.18	0.43
6:2G:11:TYR:HB2	6:2G:176:LEU:HD21	1.99	0.43
6:2G:16:ARG:HB2	6:2G:17:PRO:HD3	2.00	0.43
7:2H:113:VAL:HG11	7:2H:151:ILE:HG21	2.00	0.43
14:2S:77:ALA:O	14:2S:81:GLY:N	2.52	0.43
15:2T:119:LYS:HG2	15:2T:123:GLN:HE21	1.84	0.43
21:2Z:146:ILE:HG12	21:2Z:174:VAL:HG13	2.00	0.43
32:2a:391:G:C6	32:2a:392:G:C5	3.07	0.43
32:2a:976:G:OP1	45:2n:32:SER:N	2.50	0.43
33:2b:98:LEU:O	33:2b:101:MET:HG3	2.19	0.43
34:2c:119:ARG:HE	34:2c:140:ARG:CZ	2.31	0.43
44:2m:101:GLN:OE1	44:2m:101:GLN:N	2.49	0.43
1:1A:1001:G:H2'	1:1A:1002:A:H2'	2.00	0.43
1:1A:2605:U:H2'	1:1A:2606:C:C6	2.54	0.43
15:1T:118:ARG:HG3	32:1a:1442(A):G:C8	2.53	0.43
25:13:35:ARG:HE	25:13:37:LEU:HD21	1.84	0.43
28:16:38:LYS:HB3	28:16:38:LYS:HE3	1.79	0.43
32:1a:49:U:C2	32:1a:361:G:N2	2.87	0.43
32:1a:1024:G:H2'	32:1a:1025:U:H5''	1.99	0.43
32:1a:1030:C:N3	32:1a:1031:G:C2	2.87	0.43
33:1b:59:GLU:HB2	33:1b:221:LEU:HD11	2.01	0.43
33:1b:213:LEU:HD22	33:1b:214:ILE:HD13	2.00	0.43
35:1d:59:ARG:HD3	35:1d:59:ARG:HA	1.85	0.43
40:1i:37:PHE:HD1	40:1i:40:LEU:HD12	1.83	0.43
41:1j:37:PRO:HA	41:1j:72:VAL:HG12	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:1w:4:C:H2'	54:1w:5:G:C8	2.54	0.43
1:2A:140:G:N2	1:2A:1596:A:H4'	2.33	0.43
1:2A:271(H):G:H1	1:2A:271(P):C:N4	2.13	0.43
1:2A:674:G:O2'	5:2F:74:ARG:HD3	2.19	0.43
1:2A:2100:G:H1	1:2A:2189:U:H3	1.65	0.43
1:2A:2175:C:H2'	1:2A:2176:A:O4'	2.18	0.43
3:2D:132:PRO:HD3	3:2D:190:TYR:CZ	2.53	0.43
3:2D:275:LYS:HE3	3:2D:276:LYS:O	2.19	0.43
6:2G:170:ARG:NH2	6:2G:182:LYS:O	2.52	0.43
7:2H:127:GLU:OE1	7:2H:130:ARG:NE	2.38	0.43
11:2P:59:LEU:HD11	30:28:10:ALA:CB	2.46	0.43
14:2S:14:VAL:HG11	14:2S:90:GLY:O	2.18	0.43
14:2S:66:ALA:O	14:2S:69:VAL:HG12	2.19	0.43
30:28:50:LEU:HA	30:28:50:LEU:HD23	1.77	0.43
32:2a:131:C:H2'	32:2a:132:C:C6	2.54	0.43
32:2a:156:G:H2'	32:2a:157:G:C8	2.52	0.43
32:2a:158:G:H2'	32:2a:159:G:C8	2.54	0.43
32:2a:324:G:N2	32:2a:326:G:H3'	2.34	0.43
32:2a:501:C:OP2	43:2l:124:LYS:NZ	2.42	0.43
32:2a:560:U:H4'	32:2a:561:U:O5'	2.18	0.43
32:2a:583:A:H2'	32:2a:584:G:O4'	2.19	0.43
32:2a:658:G:H2'	32:2a:659:U:C6	2.53	0.43
32:2a:1063:C:H3'	32:2a:1064:G:H2'	2.00	0.43
32:2a:1152:A:H2'	32:2a:1153:C:C6	2.54	0.43
33:2b:24:TRP:H	33:2b:24:TRP:HD1	1.67	0.43
50:2s:10:PHE:HE2	50:2s:37:ARG:HD3	1.83	0.43
55:2x:58:A:H4'	55:2x:59:A:OP1	2.19	0.43
1:1A:741:U:OP1	3:1D:59:LYS:NZ	2.50	0.42
1:1A:1128:U:N3	1:1A:1132:A:N6	2.30	0.42
1:1A:1139:G:H3'	1:1A:1140:U:C5'	2.47	0.42
1:1A:1198:C:H1'	16:1U:77:SER:HB3	2.00	0.42
1:1A:2296:C:OP2	28:16:6:ARG:HG3	2.19	0.42
16:1U:102:GLU:HB3	16:1U:104:GLN:HE22	1.84	0.42
21:1Z:72:ARG:HD3	21:1Z:72:ARG:HA	1.65	0.42
32:1a:232:G:H1'	32:1a:262:A:N1	2.34	0.42
32:1a:1034:G:N3	32:1a:1034:G:H2'	2.34	0.42
34:1c:35:GLU:HG2	34:1c:39:ILE:HD11	2.01	0.42
1:2A:143(A):C:H2'	1:2A:144:C:H6	1.84	0.42
1:2A:244:A:C2	1:2A:255:A:C4	3.07	0.42
1:2A:479:A:H4'	1:2A:480:A:OP1	2.18	0.42
1:2A:826:U:C4'	11:2P:55:ARG:HB3	2.45	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1877:A:H5'	1:2A:1878:G:OP2	2.19	0.42
1:2A:1965:C:H3'	1:2A:1966:A:H2'	2.01	0.42
1:2A:2023:G:H5'	1:2A:2617:C:H4'	2.01	0.42
9:2N:62:VAL:CG1	9:2N:66:LYS:HB2	2.49	0.42
20:2Y:43:ASN:O	20:2Y:64:GLU:HA	2.19	0.42
32:2a:895:G:C6	32:2a:896:C:C4	3.08	0.42
32:2a:1007:C:O2	32:2a:1022:G:N1	2.42	0.42
32:2a:1317:C:O2	50:2s:37:ARG:NH1	2.52	0.42
34:2c:8:ILE:C	34:2c:10:PHE:H	2.27	0.42
34:2c:119:ARG:HE	34:2c:140:ARG:NE	2.16	0.42
36:2e:148:VAL:HG13	36:2e:152:ARG:NH2	2.34	0.42
38:2g:77:SER:HA	38:2g:85:TYR:O	2.19	0.42
42:2k:48:ILE:C	42:2k:50:TYR:H	2.23	0.42
54:2y:35:A:H3'	54:2y:36:A:C8	2.54	0.42
1:1A:27:G:N2	1:1A:537:G:H1'	2.34	0.42
1:1A:262:C:H42	1:1A:282:G:H1	1.66	0.42
1:1A:1102:G:O6	1:1A:1147:U:H5''	2.19	0.42
1:1A:1199:C:OP1	16:1U:76:TYR:OH	2.33	0.42
1:1A:1341:C:H2'	1:1A:1342:G:H8	1.83	0.42
1:1A:2284:U:H5''	1:1A:2285:A:OP1	2.18	0.42
5:1F:183:VAL:O	5:1F:187:VAL:HG23	2.18	0.42
9:1N:58:ASP:OD1	9:1N:58:ASP:N	2.51	0.42
10:1O:104:ARG:CZ	15:1T:34:VAL:HG11	2.50	0.42
20:1Y:5:MET:HE2	20:1Y:5:MET:HB2	1.74	0.42
32:1a:255:G:O3'	48:1q:17:LYS:HE3	2.19	0.42
32:1a:438:G:H4'	35:1d:123:HIS:ND1	2.35	0.42
32:1a:1028:C:H2'	32:1a:1029:C:O4'	2.20	0.42
36:1e:71:LEU:HD21	36:1e:115:VAL:HG22	2.01	0.42
43:1l:71:PRO:O	43:1l:102:ARG:NH1	2.51	0.42
50:1s:80:TYR:CZ	50:1s:82:GLY:HA2	2.54	0.42
52:1u:11:GLY:O	52:1u:15:ARG:HG2	2.19	0.42
1:2A:1219:G:H1	1:2A:1230:C:H42	1.66	0.42
1:2A:2010:G:H5''	18:2W:42:ARG:HB2	2.00	0.42
1:2A:2299:G:H2'	1:2A:2300:G:H8	1.84	0.42
1:2A:2611:U:H3'	1:2A:2611:U:OP2	2.20	0.42
3:2D:108:PRO:HB3	3:2D:143:HIS:HE1	1.83	0.42
6:2G:123:ASN:C	6:2G:125:PHE:H	2.25	0.42
12:2Q:45:GLN:H	12:2Q:45:GLN:CD	2.27	0.42
23:21:80:LEU:HB3	23:21:82:LEU:HD21	2.01	0.42
32:2a:66:G:H8	32:2a:66:G:OP1	2.02	0.42
32:2a:461:A:O2'	32:2a:470:C:H5'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:922:G:C2	32:2a:923:A:C4	3.07	0.42
32:2a:1233:G:H2'	32:2a:1234:C:C6	2.54	0.42
32:2a:1299:A:H2'	32:2a:1299:A:N3	2.35	0.42
33:2b:27:LYS:O	33:2b:194:PRO:HG2	2.19	0.42
33:2b:231:GLU:H	33:2b:232:PRO:CD	2.32	0.42
34:2c:6:HIS:HA	34:2c:7:PRO:HD3	1.92	0.42
39:2h:25:ASP:OD1	39:2h:25:ASP:N	2.51	0.42
43:2l:9:GLN:O	43:2l:13:LYS:N	2.37	0.42
1:1A:125:A:H5''	1:1A:126:C:C6	2.53	0.42
1:1A:360:C:H2'	1:1A:361:C:C6	2.55	0.42
1:1A:1212:C:H2'	1:1A:1213:U:C6	2.55	0.42
1:1A:1513:G:H2'	1:1A:1594:C:H41	1.83	0.42
1:1A:2158:C:N4	1:1A:2177:G:N1	2.19	0.42
1:1A:2705:A:H2'	1:1A:2706:G:C8	2.54	0.42
4:1E:165:VAL:O	4:1E:189:PRO:HG2	2.19	0.42
5:1F:24:LEU:HD23	5:1F:115:ALA:HA	2.02	0.42
6:1G:159:VAL:HG21	6:1G:173:LEU:HD21	2.02	0.42
8:1I:38:LEU:H	8:1I:38:LEU:HG	1.62	0.42
32:1a:179:A:H2'	32:1a:180:U:O4'	2.19	0.42
32:1a:1002:G:H3'	32:1a:1003:G:H4'	2.01	0.42
32:1a:1320:C:H2'	32:1a:1321:C:O4'	2.19	0.42
33:1b:187:LEU:HD23	33:1b:188:ALA:N	2.35	0.42
44:1m:23:TYR:CE2	44:1m:71:ARG:HG3	2.54	0.42
44:1m:122:LYS:HD2	44:1m:123:ALA:H	1.85	0.42
45:1n:23:ARG:NH1	45:1n:30:ALA:HB2	2.34	0.42
1:2A:478:A:N1	1:2A:500:G:H4'	2.34	0.42
1:2A:915:C:H3'	1:2A:916:G:H8	1.83	0.42
1:2A:1354:A:O3'	3:2D:38:LYS:HE2	2.20	0.42
1:2A:1682:G:H1'	1:2A:1762:A:C6	2.54	0.42
1:2A:2108:C:N3	1:2A:2181:G:N2	2.55	0.42
1:2A:2505:G:H2'	1:2A:2576:G:O6	2.18	0.42
1:2A:2600:A:H2'	1:2A:2601:C:H6	1.84	0.42
1:2A:2747:G:OP1	7:2H:74:ASN:ND2	2.51	0.42
1:2A:2821:A:H2'	1:2A:2822:G:C8	2.54	0.42
3:2D:159:ALA:HB1	3:2D:198:ASN:O	2.19	0.42
7:2H:54:ARG:HB3	7:2H:65:HIS:CD2	2.54	0.42
14:2S:71:ARG:H	14:2S:71:ARG:HG3	1.65	0.42
28:26:10:LEU:HD12	28:26:54:ILE:HA	2.01	0.42
32:2a:69:G:H2'	32:2a:70:G:H8	1.84	0.42
32:2a:1004:A:N6	32:2a:1037:C:C2	2.84	0.42
32:2a:1265:G:C4	32:2a:1271:G:N2	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:28:PHE:CE2	33:2b:31:TYR:HB2	2.54	0.42
40:2i:85:LEU:HB3	40:2i:92:TYR:HD2	1.82	0.42
49:2r:22:VAL:O	49:2r:25:THR:HG22	2.20	0.42
50:2s:50:ALA:HA	50:2s:58:VAL:O	2.19	0.42
53:2v:19:U:C4	54:2w:37:MIA:H113	2.54	0.42
1:1A:821:A:H2'	1:1A:821:A:N3	2.34	0.42
1:1A:1474:C:O2'	1:1A:1616:A:OP2	2.27	0.42
1:1A:1613:A:OP1	3:1D:211:ARG:NH1	2.50	0.42
1:1A:2182:G:C6	1:1A:2183:C:C4	3.06	0.42
1:1A:2224:C:H2'	1:1A:2225:U:O4'	2.20	0.42
1:1A:2603:C:H2'	1:1A:2604:G:C8	2.54	0.42
4:1E:47:VAL:HG22	4:1E:84:PHE:O	2.19	0.42
11:1P:133:SER:O	11:1P:137:LYS:HB2	2.20	0.42
32:1a:96:U:H2'	32:1a:97:G:H8	1.84	0.42
32:1a:445:G:H2'	32:1a:446:G:C8	2.54	0.42
32:1a:1088:G:H2'	32:1a:1089:G:O4'	2.19	0.42
32:1a:1095:U:P	32:1a:1108:G:H1	2.42	0.42
54:1y:7:A:H5''	54:1y:8:4SU:H5	2.01	0.42
1:2A:1486:A:H2'	1:2A:1487:G:C8	2.54	0.42
1:2A:1613:G:N1	1:2A:1617:C:O2'	2.46	0.42
1:2A:1926:U:O2'	1:2A:1928:A:N7	2.43	0.42
3:2D:228:PRO:HD3	3:2D:235:GLY:CA	2.50	0.42
4:2E:170:LEU:HB3	4:2E:184:VAL:HG23	2.02	0.42
11:2P:44:GLY:CA	11:2P:45:LEU:HB2	2.49	0.42
14:2S:87:PHE:HB2	14:2S:112:PHE:CE1	2.55	0.42
29:27:34:ARG:NH2	29:27:39:ARG:HG2	2.34	0.42
32:2a:93:G:H2'	32:2a:96:U:C6	2.54	0.42
32:2a:738:C:H2'	32:2a:739:C:C6	2.54	0.42
32:2a:836:G:C6	32:2a:851:G:C6	3.08	0.42
32:2a:1137:C:O2	32:2a:1138:G:N2	2.51	0.42
32:2a:1163:C:O2	32:2a:1174:G:N2	2.52	0.42
32:2a:1240:U:H3'	32:2a:1241:G:H5'	2.00	0.42
32:2a:1314:C:OP2	50:2s:4:SER:OG	2.36	0.42
32:2a:1328:C:O2'	44:2m:29:ARG:NE	2.51	0.42
34:2c:42:LEU:HA	34:2c:45:LYS:NZ	2.35	0.42
36:2e:77:PRO:O	36:2e:93:PRO:HG3	2.20	0.42
38:2g:91:VAL:HG12	38:2g:96:GLN:HG3	2.01	0.42
1:1A:1121:C:O2	1:1A:1122:C:H2'	2.19	0.42
1:1A:1685:C:O3'	1:1A:2721:G:N2	2.53	0.42
1:1A:2314:G:H2'	1:1A:2315:G:H8	1.84	0.42
1:1A:2429:C:OP1	11:1P:65:ARG:NH2	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1B:16:G:C6	2:1B:69:G:C2	3.08	0.42
3:1D:2:ALA:O	3:1D:20:ASP:HB3	2.20	0.42
21:1Z:130:PRO:HA	21:1Z:133:ILE:HG13	2.01	0.42
32:1a:195:A:N3	32:1a:222:U:O2'	2.36	0.42
32:1a:551:U:H2'	32:1a:552:U:H6	1.80	0.42
35:1d:36:ARG:HB3	35:1d:38:TYR:CZ	2.54	0.42
54:1w:21:A:C6	54:1w:46:7MG:C6	3.07	0.42
1:2A:18:C:H2'	1:2A:19:C:C6	2.55	0.42
1:2A:98:G:P	24:22:2:LYS:HG2	2.60	0.42
1:2A:1532:C:N4	1:2A:1537:G:N1	2.68	0.42
1:2A:2270:G:H2'	1:2A:2271:G:O4'	2.20	0.42
1:2A:2432:A:C6	1:2A:2433:A:C6	3.07	0.42
1:2A:2823:A:OP1	4:2E:113:PHE:HB2	2.20	0.42
5:2F:184:TYR:HE1	11:2P:3:LEU:HD21	1.84	0.42
6:2G:15:VAL:HA	6:2G:175:LEU:HD23	2.02	0.42
7:2H:145:ALA:HA	7:2H:148:ILE:HD12	2.01	0.42
15:2T:114:LEU:HD23	15:2T:114:LEU:HA	1.87	0.42
29:27:37:LYS:HD3	29:27:39:ARG:HD3	2.01	0.42
32:2a:137:C:H2'	32:2a:138:G:C8	2.55	0.42
32:2a:473:G:H2'	32:2a:474:G:C8	2.55	0.42
32:2a:719:C:O2'	49:2r:49:LYS:HB3	2.20	0.42
32:2a:922:G:N3	32:2a:1398:A:H2	2.17	0.42
32:2a:1169:A:H2'	32:2a:1170:A:C8	2.54	0.42
32:2a:1265:G:C6	32:2a:1271:G:N1	2.87	0.42
32:2a:1518:MA6:C6	32:2a:1519:MA6:H103	2.50	0.42
33:2b:16:HIS:HB2	33:2b:204:ASN:CB	2.49	0.42
54:2y:50:U:C2	54:2y:65:G:N2	2.87	0.42
1:1A:1660:A:C6	18:1W:87:PRO:HB3	2.54	0.42
1:1A:2128:G:H1	1:1A:2205:C:H42	1.66	0.42
1:1A:2180:A:O2'	1:1A:2181:G:OP2	2.32	0.42
1:1A:2418:U:H6	1:1A:2418:U:H2'	1.60	0.42
1:1A:2807:C:N4	1:1A:2813:G:H22	2.17	0.42
1:1A:2819:A:C6	1:1A:2820:A:C6	3.07	0.42
5:1F:172:TRP:CD1	5:1F:172:TRP:H	2.37	0.42
6:1G:174:GLU:HG3	6:1G:180:PHE:CD2	2.55	0.42
28:16:6:ARG:HH11	28:16:26:ASN:HB2	1.85	0.42
32:1a:447:G:O6	32:1a:485:G:O2'	2.29	0.42
32:1a:872:A:C8	32:1a:874:G:C8	3.08	0.42
32:1a:1027:C:N3	32:1a:1034:G:C2	2.88	0.42
32:1a:1169:A:H2'	32:1a:1170:A:C8	2.55	0.42
32:1a:1412:C:H2'	32:1a:1413:A:C8	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:55:PHE:HE1	33:1b:218:ALA:HA	1.84	0.42
33:1b:134:GLU:HA	33:1b:137:ARG:HE	1.85	0.42
35:1d:98:GLU:OE1	35:1d:103:ASN:ND2	2.51	0.42
36:1e:68:GLU:HG3	36:1e:70:PRO:HD3	2.02	0.42
52:1u:2:GLY:C	52:1u:4:GLY:H	2.27	0.42
1:2A:247:G:H4'	1:2A:386:G:C5	2.55	0.42
1:2A:271(S):G:H2'	1:2A:271(T):C:C6	2.55	0.42
1:2A:2073:C:O2'	1:2A:2598:A:O2'	2.31	0.42
11:2P:59:LEU:HD12	30:28:58:ILE:HG12	2.01	0.42
15:2T:105:LEU:HB2	15:2T:110:ILE:HG13	2.01	0.42
22:20:69:PHE:CE1	22:20:79:VAL:HG22	2.55	0.42
29:27:24:THR:O	29:27:28:ARG:HG3	2.20	0.42
32:2a:224:C:H2'	32:2a:225:C:C6	2.55	0.42
32:2a:560:U:H5'	32:2a:566:G:N2	2.34	0.42
32:2a:560:U:H6	32:2a:560:U:H2'	1.64	0.42
32:2a:1030(A):G:N3	32:2a:1030(C):G:C8	2.88	0.42
32:2a:1235:U:O2'	32:2a:1305:G:O5'	2.37	0.42
34:2c:6:HIS:ND1	45:2n:49:HIS:HB3	2.33	0.42
35:2d:19:LEU:HG	35:2d:67:ILE:HG12	2.02	0.42
55:2x:66:C:H2'	55:2x:67:C:O4'	2.19	0.42
54:2y:18:G:N2	54:2y:58:A:C4	2.87	0.42
1:1A:320:C:H2'	1:1A:321:C:C6	2.55	0.42
1:1A:863:C:H2'	1:1A:864:C:C6	2.54	0.42
1:1A:1055:A:OP2	9:1N:37:LYS:NZ	2.49	0.42
1:1A:1056:A:N3	1:1A:1199:C:H1'	2.35	0.42
1:1A:1993:A:C4	3:1D:241:PRO:HD3	2.55	0.42
1:1A:2188:G:N7	1:1A:2190:G:N2	2.68	0.42
1:1A:2193:A:O2'	1:1A:2194:U:H5''	2.20	0.42
3:1D:183:ARG:NH2	3:1D:266:SER:HB2	2.34	0.42
18:1W:19:LEU:HB3	27:15:25:LEU:HD11	2.02	0.42
20:1Y:35:TYR:CE2	20:1Y:69:ALA:HB3	2.55	0.42
32:1a:374:A:C6	32:1a:375:U:C4	3.07	0.42
37:1f:86:ARG:O	37:1f:87:ARG:HG2	2.19	0.42
38:1g:89:MET:SD	38:1g:155:ARG:HB2	2.60	0.42
41:1j:61:GLU:OE2	45:1n:49:HIS:HE1	2.02	0.42
54:1w:27:G:H2'	54:1w:28:G:C8	2.52	0.42
1:2A:77:C:OP1	24:22:59:ARG:HD3	2.20	0.42
1:2A:1025:G:C4	1:2A:1135:C:H1'	2.55	0.42
1:2A:2359:C:H2'	1:2A:2360:A:O4'	2.18	0.42
18:2W:43:GLY:O	18:2W:47:VAL:HG23	2.20	0.42
32:2a:472:A:H5''	47:2p:80:PHE:HB3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:952:U:H2'	32:2a:953:G:H8	1.80	0.42
32:2a:1176:A:H2'	32:2a:1177:G:O4'	2.19	0.42
32:2a:1395:C:N4	32:2a:1396:A:H62	2.17	0.42
40:2i:111:ARG:HD2	45:2n:61:TRP:CD1	2.54	0.42
45:2n:27:CYS:SG	45:2n:28:GLY:N	2.93	0.42
54:2y:49:C:H2'	54:2y:50:U:C6	2.55	0.42
1:1A:599:U:H2'	1:1A:600:G:C8	2.55	0.42
1:1A:2225:U:O2'	1:1A:2226:C:H5'	2.20	0.42
1:1A:2517:G:O6	1:1A:2588:G:H2'	2.20	0.42
1:1A:2821:G:N2	1:1A:2900:G:H1'	2.34	0.42
5:1F:164:ARG:HD2	5:1F:175:THR:HG23	2.01	0.42
6:1G:138:GLN:OE1	6:1G:138:GLN:N	2.39	0.42
7:1H:88:LEU:HD23	7:1H:130:ARG:HG2	2.01	0.42
21:1Z:138:GLU:N	21:1Z:156:LYS:HZ1	2.17	0.42
32:1a:406:G:C2	32:1a:407:G:C8	3.08	0.42
32:1a:418:C:H1'	32:1a:540:G:O2'	2.20	0.42
32:1a:1136:U:H5''	32:1a:1137:C:C4	2.55	0.42
32:1a:1142:G:H2'	32:1a:1143:G:O4'	2.20	0.42
33:1b:51:LEU:O	33:1b:55:PHE:HD2	2.02	0.42
34:1c:5:ILE:HG12	34:1c:6:HIS:H	1.85	0.42
43:1l:7:ILE:O	43:1l:11:VAL:HG23	2.20	0.42
1:2A:272(G):C:H42	1:2A:363(C):G:H1	1.68	0.42
1:2A:530:G:O4'	1:2A:530:G:N3	2.52	0.42
1:2A:531:C:H4'	1:2A:532:A:H5''	2.01	0.42
1:2A:848:G:N9	1:2A:933:A:H8	2.18	0.42
1:2A:897:C:H1'	54:2w:56:C:C5	2.54	0.42
1:2A:1270:C:H4'	1:2A:1325:G:N7	2.35	0.42
1:2A:1399:C:OP1	19:2X:25:LYS:NZ	2.51	0.42
1:2A:1493:C:N4	1:2A:2206:G:O2'	2.44	0.42
1:2A:1805:U:O2	3:2D:50:THR:HB	2.20	0.42
1:2A:2296:U:OP2	14:2S:6:ALA:HB2	2.20	0.42
1:2A:2846:G:H2'	1:2A:2847:U:O4'	2.19	0.42
1:2A:2859:G:H2'	1:2A:2860:A:C8	2.55	0.42
2:2B:55:U:O2'	6:2G:27:ASN:ND2	2.42	0.42
4:2E:52:LEU:O	4:2E:76:ARG:HG3	2.20	0.42
6:2G:111:LEU:HA	6:2G:114:ILE:HD12	2.01	0.42
10:2O:40:VAL:HG22	10:2O:59:LYS:HG2	2.00	0.42
32:2a:399:G:H2'	32:2a:400:C:C6	2.55	0.42
35:2d:11:LEU:O	35:2d:15:GLU:HG2	2.19	0.42
35:2d:65:ARG:HG3	35:2d:75:PHE:CD1	2.54	0.42
40:2i:79:LEU:HD22	40:2i:104:ARG:HB2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:2j:78:ASN:C	41:2j:80:LYS:H	2.28	0.42
43:2l:59:ARG:HA	43:2l:65:GLU:HA	2.02	0.42
52:2u:7:ARG:HG2	52:2u:21:TYR:CE2	2.55	0.42
1:1A:692:C:H2'	1:1A:693:G:O4'	2.19	0.42
1:1A:2227:G:H5''	1:1A:2228:G:C8	2.55	0.42
1:1A:2418:U:H2'	1:1A:2418:U:OP2	2.20	0.42
1:1A:2490:A:H5'	31:19:31:LYS:HE2	2.01	0.42
1:1A:2803:A:H5''	1:1A:2804:C:H5''	2.01	0.42
7:1H:152:ARG:HD3	7:1H:152:ARG:HA	1.84	0.42
9:1N:61:ARG:HD3	9:1N:61:ARG:HA	1.54	0.42
10:1O:17:ARG:HD3	10:1O:17:ARG:HA	1.90	0.42
16:1U:83:LEU:HD13	16:1U:113:ALA:HB2	2.02	0.42
32:1a:250:A:H4'	32:1a:251:G:O5'	2.19	0.42
32:1a:405:U:O2'	32:1a:498:U:H5'	2.20	0.42
32:1a:502:G:OP1	43:1l:118:SER:OG	2.26	0.42
32:1a:860:A:H2'	32:1a:861:G:O4'	2.20	0.42
32:1a:1055:A:H2'	34:1c:156:ARG:HD2	2.01	0.42
32:1a:1118:C:H1'	32:1a:1179:A:C5	2.55	0.42
32:1a:1279:A:OP1	41:1j:9:ARG:NH2	2.53	0.42
32:1a:1312:G:O6	50:1s:2:PRO:HD2	2.20	0.42
39:1h:112:LEU:HB3	39:1h:133:LEU:HA	2.01	0.42
40:1i:26:VAL:HG13	40:1i:61:ALA:HB3	2.02	0.42
45:1n:21:TYR:HE1	45:1n:23:ARG:NE	2.18	0.42
1:2A:171:G:H2'	1:2A:172:C:H6	1.85	0.42
1:2A:1425:G:C6	1:2A:1426:G:C6	3.07	0.42
1:2A:2182:G:H2'	1:2A:2183:C:C6	2.55	0.42
1:2A:2769:C:H2'	1:2A:2770:G:O4'	2.19	0.42
3:2D:83:GLU:OE1	3:2D:104:TYR:OH	2.35	0.42
8:2I:93:THR:O	8:2I:97:ILE:HG13	2.20	0.42
10:2O:120:GLU:HG2	10:2O:122:LEU:HG	2.01	0.42
32:2a:300:A:H8	32:2a:300:A:O5'	2.03	0.42
32:2a:738:C:H2'	32:2a:739:C:H6	1.83	0.42
32:2a:1365:G:C6	32:2a:1366:C:C4	3.08	0.42
32:2a:1497:G:H1'	32:2a:1518:MA6:H2	2.00	0.42
36:2e:102:ALA:HB1	36:2e:106:PRO:HB2	2.02	0.42
44:2m:4:ILE:HD13	44:2m:22:ILE:HD11	2.02	0.42
47:2p:60:LEU:HD12	47:2p:60:LEU:HA	1.80	0.42
48:2q:15:MET:HB3	48:2q:18:THR:HB	2.00	0.42
54:2w:63:G:H2'	54:2w:64:A:H5''	2.02	0.42
55:2x:53:G:H3'	55:2x:54:5MU:H73	2.01	0.42
54:2y:8:4SU:H6	54:2y:8:4SU:O5'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:469:A:C5	5:1F:45:ARG:HD2	2.55	0.42
1:1A:1106:U:N3	1:1A:1108:G:O2'	2.48	0.42
1:1A:2283:G:OP1	22:10:18:ALA:HB1	2.20	0.42
1:1A:2466:G:H1'	61:1A:4665:HOH:O	2.20	0.42
1:1A:2631:C:O2'	4:1E:154:LYS:HB3	2.20	0.42
12:1Q:135:ASP:O	12:1Q:139:GLU:HG3	2.20	0.42
27:15:5:PRO:O	61:15:201:HOH:O	2.22	0.42
27:15:16:ARG:HD2	27:15:20:ARG:NH1	2.35	0.42
32:1a:162:A:H2	32:1a:348:G:H4'	1.85	0.42
32:1a:1350:A:OP1	40:1i:121:ARG:HD3	2.20	0.42
35:1d:79:PHE:HE1	35:1d:204:ILE:HD13	1.85	0.42
40:1i:4:TYR:CE1	40:1i:88:TYR:HA	2.54	0.42
1:2A:581:C:H2'	1:2A:582:G:H8	1.84	0.42
1:2A:1027:A:N6	1:2A:1126:A:N3	2.68	0.42
1:2A:2104:G:C2	1:2A:2186:G:C2	3.08	0.42
1:2A:2123:G:H2'	1:2A:2124:G:C8	2.55	0.42
1:2A:2207:G:H3'	1:2A:2208:A:H5''	2.02	0.42
1:2A:2689:U:H4'	1:2A:2690:C:H5'	2.02	0.42
1:2A:2809:A:N6	1:2A:2891:G:H2'	2.35	0.42
2:2B:28:C:H2'	2:2B:29:A:O4'	2.20	0.42
2:2B:37:C:N4	2:2B:38:C:N3	2.68	0.42
13:2R:100:LEU:HD12	13:2R:100:LEU:HA	1.82	0.42
23:21:67:ILE:N	23:21:68:PRO:HD2	2.34	0.42
24:22:51:ARG:HG2	24:22:55:ARG:NH2	2.35	0.42
32:2a:382:A:O5'	32:2a:382:A:H8	2.03	0.42
33:2b:58:ILE:HA	33:2b:61:LEU:HB3	2.02	0.42
35:2d:107:ARG:HA	35:2d:107:ARG:HD3	1.63	0.42
39:2h:87:SER:HB2	39:2h:93:VAL:H	1.85	0.42
40:2i:43:ALA:HA	40:2i:74:ILE:HD13	2.02	0.42
40:2i:99:LEU:HB3	40:2i:101:PHE:CE2	2.55	0.42
44:2m:13:LYS:O	44:2m:44:ARG:HA	2.20	0.42
47:2p:17:TYR:HE2	47:2p:41:PRO:HG3	1.85	0.42
1:1A:611:U:H2'	1:1A:612:C:C6	2.55	0.41
1:1A:1222:A:O2'	1:1A:1223:C:O4'	2.27	0.41
1:1A:1245:C:H1'	16:1U:2:PRO:HG3	2.01	0.41
1:1A:2142:G:C2'	1:1A:2143:G:H5'	2.50	0.41
12:1Q:79:LEU:HD23	12:1Q:79:LEU:HA	1.88	0.41
14:1S:10:ARG:HG2	14:1S:91:PRO:HA	2.01	0.41
14:1S:93:LYS:HG2	14:1S:95:HIS:HB2	2.02	0.41
32:1a:743:U:H2'	32:1a:744:C:C6	2.55	0.41
32:1a:859:A:H2'	32:1a:860:A:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1072:G:C6	32:1a:1073:U:C4	3.08	0.41
33:1b:97:TRP:CZ2	33:1b:102:LEU:HD13	2.51	0.41
54:1y:67:C:H2'	54:1y:68:C:H6	1.82	0.41
1:2A:118:A:N3	1:2A:178:G:H1'	2.35	0.41
1:2A:196:A:N3	1:2A:196:A:H2'	2.36	0.41
1:2A:571:A:N6	1:2A:2499:C:O3'	2.53	0.41
1:2A:2483:C:H2'	1:2A:2484:G:O4'	2.20	0.41
5:2F:33:LEU:HD12	5:2F:33:LEU:HA	1.74	0.41
11:2P:28:GLY:O	11:2P:30:THR:N	2.53	0.41
12:2Q:12:GLN:NE2	12:2Q:72:LYS:HG3	2.35	0.41
21:2Z:54:HIS:CG	21:2Z:101:PRO:HG3	2.55	0.41
26:24:44:THR:O	26:24:46:GLN:N	2.53	0.41
32:2a:105:G:H5'	32:2a:106:C:OP2	2.20	0.41
32:2a:1357:A:N6	32:2a:1358:U:O4	2.53	0.41
35:2d:18:LYS:HE3	35:2d:20:TYR:CE1	2.55	0.41
51:2t:77:ALA:O	51:2t:81:LYS:HG3	2.20	0.41
1:1A:18:C:H2'	1:1A:19:C:C6	2.55	0.41
1:1A:478:G:C2	1:1A:484:G:C5	3.08	0.41
1:1A:831:A:C5	3:1D:229:VAL:HG21	2.56	0.41
1:1A:1095:C:H1'	1:1A:1159:U:O2'	2.19	0.41
1:1A:1198:C:H4'	16:1U:77:SER:HA	2.01	0.41
1:1A:1211:U:H2'	1:1A:1212:C:C6	2.55	0.41
1:1A:2189:U:H2'	1:1A:2190:G:O4'	2.20	0.41
4:1E:116:VAL:HG13	4:1E:122:PHE:HB2	2.01	0.41
13:1R:28:LEU:HD22	13:1R:44:LEU:HD13	2.02	0.41
16:1U:85:LYS:HE3	16:1U:116:ALA:O	2.19	0.41
17:1V:81:TYR:C	17:1V:82:ARG:HG3	2.44	0.41
20:1Y:1:MET:HB3	20:1Y:2:ARG:H	1.69	0.41
32:1a:309:G:H1'	32:1a:608:A:C2	2.55	0.41
32:1a:1206:G:H2'	32:1a:1207:2MG:O4'	2.19	0.41
35:1d:129:ASN:OD1	35:1d:145:GLU:N	2.33	0.41
1:2A:720:C:H2'	1:2A:721:C:C6	2.56	0.41
1:2A:875:G:N1	1:2A:903:C:C2	2.88	0.41
1:2A:1364:G:O5'	23:21:3:LYS:HG3	2.20	0.41
1:2A:2130:U:H4'	1:2A:2133:G:H4'	2.02	0.41
2:2B:2:C:H5''	2:2B:3:C:OP2	2.20	0.41
6:2G:38:VAL:HG22	6:2G:93:THR:HG23	2.01	0.41
8:2I:68:LEU:O	8:2I:72:LEU:HG	2.20	0.41
14:2S:10:ARG:HH21	14:2S:91:PRO:HB2	1.85	0.41
17:2V:81:TYR:C	17:2V:82:ARG:HG2	2.45	0.41
25:23:39:ASP:OD1	25:23:44:ARG:NH1	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:417:C:H2'	32:2a:418:C:C6	2.55	0.41
32:2a:663:A:H61	32:2a:742:G:H1	1.68	0.41
32:2a:840:C:H4'	32:2a:841:U:OP1	2.19	0.41
32:2a:931:C:N4	32:2a:1386:G:H1	2.15	0.41
32:2a:1068:G:H8	32:2a:1068:G:OP2	2.03	0.41
39:2h:95:VAL:HA	39:2h:99:GLU:OE1	2.20	0.41
1:1A:26:G:C6	1:1A:27:G:N1	2.89	0.41
1:1A:1053:C:OP1	9:1N:37:LYS:NZ	2.49	0.41
1:1A:1432:C:H2'	1:1A:1433:C:C6	2.55	0.41
1:1A:1760:U:H2'	1:1A:1761:G:H8	1.84	0.41
1:1A:1821:C:H5''	1:1A:1822:A:OP1	2.20	0.41
1:1A:2050:U:H2'	1:1A:2051:G:O4'	2.19	0.41
2:1B:2:C:H2'	2:1B:3:C:C6	2.55	0.41
9:1N:33:LEU:HD12	9:1N:33:LEU:HA	1.82	0.41
21:1Z:100:VAL:O	21:1Z:123:ASP:HB2	2.19	0.41
32:1a:382:A:H2'	32:1a:383:A:H8	1.86	0.41
32:1a:692:U:H5	42:1k:26:ASN:OD1	2.03	0.41
32:1a:841:U:P	32:1a:841:U:H6	2.43	0.41
32:1a:1428:A:H2'	32:1a:1429:C:C6	2.55	0.41
32:1a:1464:G:H2'	32:1a:1465:C:H6	1.84	0.41
33:1b:101:MET:HA	33:1b:108:ILE:HG13	2.01	0.41
37:1f:73:ASN:HD22	37:1f:73:ASN:HA	1.68	0.41
44:1m:3:ARG:HG3	44:1m:4:ILE:N	2.36	0.41
55:1x:2:G:H2'	55:1x:2:G:N3	2.35	0.41
1:2A:16:G:H2'	1:2A:17:G:H8	1.85	0.41
1:2A:27:G:HO2'	1:2A:28:A:P	2.42	0.41
1:2A:39:C:H2'	1:2A:40:C:C6	2.55	0.41
1:2A:643:A:C8	28:26:44:ARG:NH1	2.88	0.41
1:2A:857:C:H2'	1:2A:858:U:C6	2.55	0.41
1:2A:892:G:H3'	1:2A:893:C:C5'	2.50	0.41
1:2A:1450(A):C:N3	1:2A:1451:C:N4	2.68	0.41
1:2A:2659:G:N2	1:2A:2662:A:OP2	2.52	0.41
1:2A:2891:G:H5''	1:2A:2892:A:OP2	2.20	0.41
14:2S:19:LYS:HG2	14:2S:19:LYS:H	1.65	0.41
32:2a:29:G:C2'	32:2a:30:U:H5'	2.51	0.41
32:2a:221:C:H2'	32:2a:222:U:H6	1.85	0.41
32:2a:943:U:H1'	40:2i:124:GLN:HE22	1.85	0.41
32:2a:1086:U:H3	32:2a:1099:G:H22	1.66	0.41
32:2a:1192:C:P	34:2c:4:LYS:HZ2	2.43	0.41
32:2a:1352:C:P	52:2u:3:LYS:HZ1	2.43	0.41
33:2b:172:ILE:O	33:2b:176:GLU:HG3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:2e:36:ASP:O	36:2e:38:GLN:N	2.49	0.41
49:2r:38:GLU:HA	49:2r:41:LYS:HE3	2.01	0.41
54:2y:52:G:H5'	54:2y:53:G:OP2	2.20	0.41
54:2y:62:C:H2'	54:2y:63:G:C8	2.54	0.41
1:1A:443:C:H2'	1:1A:444:C:C6	2.55	0.41
1:1A:898:U:O2'	25:13:42:ALA:O	2.38	0.41
1:1A:943:C:H1'	54:1w:56:C:C5	2.56	0.41
1:1A:1314:A:C2	1:1A:2035:A:C4	3.08	0.41
1:1A:1942:4OC:H6	1:1A:1942:4OC:O5'	2.20	0.41
1:1A:1973:U:O2'	1:1A:1975:A:N7	2.42	0.41
1:1A:2182:G:C6	1:1A:2183:C:N4	2.88	0.41
3:1D:108:PRO:HB3	3:1D:143:HIS:CE1	2.55	0.41
7:1H:13:LYS:HA	7:1H:14:GLY:HA2	1.59	0.41
7:1H:18:GLU:HG2	7:1H:19:VAL:N	2.35	0.41
32:1a:994:A:N1	32:1a:1047:G:H4'	2.35	0.41
32:1a:1126:U:O2'	32:1a:1127:G:H8	2.02	0.41
32:1a:1410:G:H2'	32:1a:1411:C:C6	2.56	0.41
32:1a:1437:C:H2'	32:1a:1438:G:H8	1.84	0.41
34:1c:152:ILE:O	34:1c:198:VAL:HA	2.20	0.41
34:1c:155:GLY:HA3	34:1c:196:LEU:HD22	2.02	0.41
36:1e:40:ARG:HA	36:1e:40:ARG:HD2	1.76	0.41
36:1e:71:LEU:HD23	36:1e:71:LEU:HA	1.76	0.41
44:1m:11:ARG:C	44:1m:13:LYS:H	2.27	0.41
44:1m:108:ARG:HA	44:1m:108:ARG:HD3	1.71	0.41
54:1w:2:C:OP1	61:1w:201:HOH:O	2.22	0.41
1:2A:387:U:OP2	23:21:20:ARG:NH1	2.41	0.41
1:2A:2134:A:P	1:2A:2157:G:H22	2.44	0.41
1:2A:2371:G:O2'	28:26:46:HIS:ND1	2.45	0.41
1:2A:2815:C:H2'	1:2A:2816:C:H6	1.84	0.41
6:2G:117:PHE:CZ	6:2G:179:PRO:HG2	2.55	0.41
7:2H:118:PRO:HD2	7:2H:121:ILE:HG21	2.01	0.41
8:2I:79:ILE:HB	8:2I:144:VAL:HG12	2.02	0.41
10:2O:88:ASN:ND2	10:2O:92:GLU:HB2	2.35	0.41
25:23:12:PRO:HB2	25:23:20:LYS:HE3	2.03	0.41
28:26:25:LYS:NZ	28:26:51:GLU:OE2	2.35	0.41
30:28:33:ASN:HA	30:28:36:LYS:HD2	2.02	0.41
32:2a:54:C:N4	32:2a:353:A:OP2	2.47	0.41
32:2a:153:C:H2'	32:2a:154:C:C6	2.56	0.41
32:2a:1003:G:N7	32:2a:1035:A:N6	2.68	0.41
34:2c:8:ILE:C	34:2c:10:PHE:N	2.79	0.41
40:2i:99:LEU:HB3	40:2i:101:PHE:HE2	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:2o:5:LYS:HE2	46:2o:5:LYS:HB2	1.87	0.41
46:2o:82:ILE:O	46:2o:86:GLY:N	2.52	0.41
51:2t:54:LYS:HE2	51:2t:54:LYS:HB3	1.71	0.41
55:2x:28:C:H2'	55:2x:29:G:C8	2.55	0.41
1:1A:785:G:H3'	1:1A:786:G:C8	2.56	0.41
1:1A:794:U:O2	1:1A:2036:A:H1'	2.21	0.41
1:1A:928:G:H3'	1:1A:929:G:C8	2.55	0.41
1:1A:2163:G:N3	1:1A:2164:C:H1'	2.36	0.41
1:1A:2541:G:H5''	1:1A:2542:A:H5''	2.02	0.41
12:1Q:14:ARG:HG2	12:1Q:41:TRP:HH2	1.86	0.41
21:1Z:45:ASP:CG	21:1Z:49:ARG:HE	2.28	0.41
23:11:25:LYS:C	23:11:27:GLU:H	2.29	0.41
24:12:55:ARG:O	24:12:59:ARG:HG3	2.20	0.41
32:1a:40:C:H2'	32:1a:41:G:C8	2.54	0.41
32:1a:358:U:H2'	32:1a:359:U:C6	2.55	0.41
35:1d:110:PHE:N	35:1d:110:PHE:CD1	2.88	0.41
35:1d:158:ILE:H	35:1d:158:ILE:HG13	1.63	0.41
37:1f:89:MET:HE1	49:1r:72:ARG:HG2	2.03	0.41
40:1i:127:LYS:O	40:1i:128:ARG:HB3	2.20	0.41
54:1w:39:PSU:H2'	54:1w:40:C:C6	2.56	0.41
1:2A:300:A:N3	1:2A:319:C:H1'	2.36	0.41
1:2A:1359:A:H2	1:2A:1372:U:O4	2.04	0.41
1:2A:2161:C:H3'	1:2A:2162:G:H8	1.85	0.41
1:2A:2336:A:H61	22:20:43:THR:CG2	2.33	0.41
1:2A:2404:C:O3'	11:2P:77:ARG:NH2	2.52	0.41
1:2A:2533:A:O2'	1:2A:2664:G:H5''	2.19	0.41
4:2E:11:MET:HB3	4:2E:11:MET:HE2	1.73	0.41
4:2E:181:LEU:HA	4:2E:181:LEU:HD12	1.72	0.41
5:2F:40:GLN:NE2	5:2F:182:ASN:HB2	2.36	0.41
7:2H:3:ARG:CZ	7:2H:5:GLY:H	2.34	0.41
12:2Q:31:ASP:HA	12:2Q:134:ARG:NH1	2.34	0.41
15:2T:33:LYS:HB3	15:2T:82:LEU:HD23	2.02	0.41
15:2T:97:ALA:C	15:2T:98:LYS:HD2	2.45	0.41
16:2U:61:TRP:CZ2	16:2U:93:LYS:HG3	2.55	0.41
21:2Z:153:SER:HB3	21:2Z:167:PRO:HA	2.02	0.41
22:20:53:MET:HG3	22:20:59:LEU:CD2	2.51	0.41
30:28:14:VAL:HG22	30:28:24:ALA:HB2	2.02	0.41
32:2a:189(D):C:H2'	32:2a:189(E):U:O4'	2.20	0.41
32:2a:562:C:H1'	43:2l:15:ARG:HB3	2.01	0.41
32:2a:1139:G:N2	32:2a:1143:G:C6	2.88	0.41
33:2b:19:HIS:CG	33:2b:20:GLU:H	2.38	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:24:TRP:CE2	33:2b:26:PRO:HG3	2.55	0.41
33:2b:118:LEU:HD23	33:2b:118:LEU:HA	1.93	0.41
33:2b:158:LEU:HA	33:2b:159:PRO:HD3	1.95	0.41
33:2b:165:VAL:HG12	33:2b:187:LEU:HD22	2.03	0.41
35:2d:4:TYR:O	35:2d:5:ILE:HG22	2.20	0.41
36:2e:107:ARG:O	36:2e:110:LEU:N	2.53	0.41
38:2g:104:LEU:HD12	38:2g:104:LEU:HA	1.75	0.41
39:2h:104:ARG:HB3	39:2h:107:LEU:HB2	2.03	0.41
49:2r:24:ALA:C	49:2r:26:LEU:H	2.28	0.41
1:1A:895:G:H2'	1:1A:896:A:C8	2.56	0.41
1:1A:1011:G:O4'	1:1A:2279:A:N6	2.53	0.41
1:1A:1108:G:H5''	1:1A:1116:A:O2'	2.21	0.41
1:1A:1452:U:H2'	1:1A:1453:C:C6	2.55	0.41
1:1A:2169:G:H3'	1:1A:2169:G:N3	2.36	0.41
4:1E:21:VAL:O	4:1E:23:VAL:HG13	2.20	0.41
4:1E:52:LEU:HA	4:1E:53:PRO:HD3	1.95	0.41
12:1Q:57:HIS:CD2	12:1Q:117:ALA:HB2	2.56	0.41
19:1X:25:LYS:HA	19:1X:81:VAL:O	2.21	0.41
32:1a:270:A:H2'	32:1a:271:C:O4'	2.21	0.41
32:1a:396:G:O2'	32:1a:398:C:OP1	2.25	0.41
32:1a:1517:G:N7	32:1a:1518:MA6:H103	2.36	0.41
33:1b:158:LEU:HA	33:1b:159:PRO:HD3	1.91	0.41
33:1b:187:LEU:HD21	33:1b:204:ASN:O	2.20	0.41
33:1b:188:ALA:HB1	33:1b:192:SER:OG	2.20	0.41
34:1c:156:ARG:HE	34:1c:156:ARG:HB3	1.70	0.41
36:1e:83:GLU:HG2	36:1e:88:LYS:HB2	2.03	0.41
36:1e:110:LEU:HD13	36:1e:118:ILE:HD13	2.03	0.41
44:1m:87:TYR:CE2	44:1m:91:ARG:HD3	2.55	0.41
1:2A:197:A:N6	1:2A:2430:A:H2'	2.35	0.41
1:2A:319:C:O2'	1:2A:320:A:H5'	2.20	0.41
1:2A:443:A:H1'	1:2A:1201:C:O4'	2.20	0.41
1:2A:1364:G:P	23:21:3:LYS:HG3	2.61	0.41
1:2A:1430:C:H2'	1:2A:1431:U:H6	1.86	0.41
1:2A:1754:C:OP1	15:2T:96:ARG:NH1	2.53	0.41
1:2A:1998:G:H4'	1:2A:2724:C:O2'	2.19	0.41
1:2A:2516:G:C6	1:2A:2517:C:C4	3.09	0.41
1:2A:2565:A:H62	10:2O:28:SER:CB	2.34	0.41
4:2E:70:ALA:O	4:2E:72:VAL:N	2.52	0.41
5:2F:24:LEU:HD21	5:2F:114:VAL:HG12	2.01	0.41
10:2O:98:VAL:HG23	10:2O:118:ALA:HA	2.02	0.41
14:2S:4:LEU:HD22	14:2S:8:GLU:CD	2.44	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:2S:64:GLU:H	14:2S:64:GLU:HG3	1.62	0.41
32:2a:441:A:H3'	32:2a:442:C:C6	2.56	0.41
32:2a:1040:U:OP1	32:2a:1040:U:H4'	2.20	0.41
32:2a:1104:G:O3'	33:2b:111:ARG:NH2	2.53	0.41
32:2a:1298:C:H4'	32:2a:1299:A:O5'	2.20	0.41
32:2a:1434:A:H2'	32:2a:1435:G:O4'	2.21	0.41
36:2e:82:VAL:HG11	36:2e:137:GLU:HB3	2.02	0.41
40:2i:112:LYS:HA	40:2i:119:ALA:HA	2.02	0.41
43:2l:51:ALA:C	43:2l:52:LEU:HD12	2.46	0.41
52:2u:6:ARG:HE	52:2u:15:ARG:HH12	1.67	0.41
1:1A:27:G:C2	1:1A:537:G:N3	2.88	0.41
1:1A:99:G:H21	24:12:7:ARG:NH2	2.17	0.41
1:1A:360:C:H2'	1:1A:361:C:H6	1.86	0.41
1:1A:925:A:H3'	1:1A:926:G:C8	2.55	0.41
1:1A:1073:A:C2	1:1A:2500:A:H5'	2.56	0.41
1:1A:1501:U:OP1	13:1R:77:ARG:NH1	2.40	0.41
1:1A:1698:G:N2	1:1A:2029:C:C2	2.89	0.41
1:1A:2455:C:OP1	5:1F:68:LYS:HD3	2.20	0.41
1:1A:2864:G:H2'	1:1A:2865:C:C6	2.56	0.41
7:1H:126:PRO:HB2	7:1H:127:GLU:H	1.64	0.41
8:1I:76:THR:HG22	8:1I:141:LYS:HE2	2.02	0.41
11:1P:46:LYS:HE3	11:1P:46:LYS:HB3	1.91	0.41
13:1R:37:THR:OG1	13:1R:39:PRO:HD2	2.21	0.41
14:1S:36:TYR:N	14:1S:36:TYR:CD2	2.87	0.41
19:1X:57:LEU:HD12	19:1X:57:LEU:O	2.21	0.41
32:1a:1518:MA6:C6	32:1a:1519:MA6:H103	2.50	0.41
33:1b:178:ARG:NH1	33:1b:198:ASP:OD1	2.54	0.41
36:1e:80:ILE:CG2	36:1e:91:LEU:HB2	2.51	0.41
42:1k:16:SER:O	42:1k:35:PRO:HD3	2.20	0.41
42:1k:48:ILE:O	42:1k:50:TYR:N	2.54	0.41
1:2A:897:C:H5'	54:2w:56:C:OP1	2.20	0.41
1:2A:927:G:H2'	1:2A:928:G:O4'	2.20	0.41
1:2A:1418:G:H8	1:2A:1418:G:O5'	2.04	0.41
1:2A:1589:C:H2'	1:2A:1590:U:C6	2.55	0.41
1:2A:1830:C:H2'	1:2A:1831:G:C8	2.56	0.41
1:2A:2305:A:H2'	1:2A:2306:C:O4'	2.21	0.41
1:2A:2633:G:H2'	1:2A:2634:G:O4'	2.21	0.41
2:2B:38:C:H2'	2:2B:39:A:H8	1.86	0.41
7:2H:9:ILE:HB	7:2H:50:VAL:HB	2.03	0.41
16:2U:106:PHE:O	16:2U:110:VAL:HG23	2.20	0.41
28:26:26:ASN:O	28:26:29:ASN:N	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:130:A:O2'	32:2a:131:C:O5'	2.38	0.41
32:2a:735:C:H2'	32:2a:736:C:H6	1.86	0.41
32:2a:1052:U:O2'	32:2a:1055:A:OP2	2.28	0.41
32:2a:1072:G:C6	32:2a:1073:U:C4	3.09	0.41
32:2a:1157:A:C6	32:2a:1180:A:C6	3.08	0.41
32:2a:1271:G:H4'	50:2s:6:LYS:NZ	2.35	0.41
32:2a:1502:A:C8	32:2a:1505:G:N2	2.88	0.41
34:2c:35:GLU:O	34:2c:39:ILE:N	2.44	0.41
35:2d:194:LEU:HD23	35:2d:196:LEU:HD11	2.03	0.41
37:2f:60:PHE:CE2	49:2r:78:LEU:HD21	2.55	0.41
43:2l:113:ARG:HD2	43:2l:113:ARG:HA	1.79	0.41
46:2o:82:ILE:HB	46:2o:87:ILE:HB	2.01	0.41
50:2s:71:LEU:HD12	50:2s:71:LEU:HA	1.86	0.41
51:2t:72:LEU:HD23	51:2t:72:LEU:HA	1.73	0.41
54:2w:11:C:H6	54:2w:11:C:O5'	2.04	0.41
54:2y:7:A:C6	54:2y:49:C:C2	3.08	0.41
54:2y:59:U:H3'	54:2y:60:U:O2	2.20	0.41
1:1A:704:U:H2'	1:1A:705:C:H6	1.86	0.41
1:1A:782:A:N7	1:1A:808:A:H2	2.18	0.41
1:1A:936:C:O2'	1:1A:937:A:O5'	2.31	0.41
4:1E:12:THR:HG21	15:1T:11:GLU:HG2	2.03	0.41
7:1H:4:ILE:O	7:1H:69:ARG:HD2	2.21	0.41
10:1O:9:GLU:H	10:1O:9:GLU:HG2	1.60	0.41
10:1O:63:VAL:HG11	10:1O:85:VAL:HG23	2.02	0.41
15:1T:27:THR:O	15:1T:89:VAL:HG13	2.21	0.41
32:1a:7:G:H5'	32:1a:298:A:O4'	2.20	0.41
32:1a:144:G:H2'	32:1a:145:G:H5''	2.02	0.41
32:1a:164:U:H2'	32:1a:165:C:C6	2.56	0.41
32:1a:841:U:H6	32:1a:841:U:OP2	2.04	0.41
32:1a:1104:G:H4'	33:1b:111:ARG:CZ	2.51	0.41
32:1a:1424:C:H2'	32:1a:1425:U:O4'	2.20	0.41
35:1d:178:VAL:HG12	35:1d:179:GLU:H	1.86	0.41
41:1j:70:ARG:HA	41:1j:70:ARG:HD3	1.88	0.41
43:1l:92:0TD:H8	43:1l:92:0TD:H4	1.91	0.41
44:1m:14:ARG:HG3	44:1m:44:ARG:NH1	2.35	0.41
54:1w:25:C:H2'	54:1w:26:A:O4'	2.20	0.41
54:1y:49:C:N4	54:1y:65:G:H1	2.18	0.41
1:2A:11:G:O5'	1:2A:11:G:H8	2.04	0.41
1:2A:1845:G:OP1	3:2D:258:LYS:NZ	2.45	0.41
1:2A:1942:5MC:HM52	1:2A:1943:U:C2	2.55	0.41
1:2A:2150:U:H2'	1:2A:2151:G:C8	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:2I:27:ARG:HD3	23:21:71:TYR:CE2	2.55	0.41
21:2Z:158:PRO:HA	21:2Z:159:PRO:HD3	1.96	0.41
32:2a:107:G:H2'	32:2a:108:G:O4'	2.21	0.41
32:2a:384:G:H2'	32:2a:385:C:C6	2.56	0.41
32:2a:1135:U:H2'	32:2a:1137:C:C4	2.55	0.41
33:2b:76:GLN:HE21	33:2b:206:ASP:HA	1.85	0.41
33:2b:192:SER:O	33:2b:194:PRO:HD3	2.20	0.41
34:2c:3:ASN:OD1	34:2c:3:ASN:N	2.53	0.41
34:2c:37:GLN:O	34:2c:40:ARG:N	2.54	0.41
34:2c:111:LEU:HD11	34:2c:144:SER:O	2.20	0.41
35:2d:111:ALA:HA	35:2d:116:GLN:HE21	1.85	0.41
37:2f:95:GLU:O	49:2r:32:ARG:NH1	2.54	0.41
49:2r:43:PHE:CD2	49:2r:66:LEU:HD11	2.55	0.41
49:2r:45:SER:HB3	49:2r:51:LEU:HD21	2.02	0.41
54:2y:8:4SU:S4	54:2y:14:A:N7	2.94	0.41
1:1A:225:C:H2'	1:1A:226:C:H6	1.84	0.41
1:1A:407:U:H2'	1:1A:408:G:C8	2.54	0.41
1:1A:646:A:H5'	1:1A:647:G:OP2	2.21	0.41
1:1A:764:G:H2'	1:1A:765:A:O4'	2.21	0.41
1:1A:1094:A:N1	1:1A:1158:G:O2'	2.38	0.41
1:1A:1096:A:H2'	1:1A:1097:G:O4'	2.21	0.41
1:1A:1228:G:O2'	25:13:29:ARG:NH1	2.54	0.41
1:1A:1468:G:H1'	1:1A:1542:A:N1	2.36	0.41
1:1A:1820:A:H2'	1:1A:1821:C:O4'	2.21	0.41
1:1A:1849:U:O4	3:1D:154:LYS:HD2	2.20	0.41
1:1A:2144:U:H2'	1:1A:2145:G:O4'	2.21	0.41
1:1A:2156:A:O2'	1:1A:2157:A:OP1	2.39	0.41
1:1A:2179:G:H4'	1:1A:2180:A:OP1	2.20	0.41
1:1A:2303:U:OP1	1:1A:2392:C:O2'	2.37	0.41
1:1A:2518:U:H3	58:1A:4030:EZG:CG	2.33	0.41
1:1A:2756:C:OP1	31:19:33:LYS:NZ	2.43	0.41
8:1I:5:LEU:H	8:1I:5:LEU:HD12	1.86	0.41
8:1I:86:THR:HG22	8:1I:123:LEU:H	1.86	0.41
12:1Q:37:LEU:HD21	12:1Q:130:LYS:CE	2.51	0.41
19:1X:39:ILE:O	19:1X:43:VAL:HG23	2.21	0.41
25:13:5:LYS:HG3	25:13:36:VAL:HG22	2.02	0.41
32:1a:51:A:N7	32:1a:114:U:O2'	2.51	0.41
32:1a:262:A:C6	32:1a:263:A:C6	3.09	0.41
32:1a:824:C:H2'	32:1a:825:G:H8	1.86	0.41
32:1a:1027:C:C4	32:1a:1034:G:C2	3.08	0.41
32:1a:1034:G:N2	32:1a:1035:A:C4	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1241:G:H2'	32:1a:1242:C:C6	2.55	0.41
32:1a:1305:G:H22	32:1a:1331:G:H1'	1.84	0.41
32:1a:1363(A):A:H4'	32:1a:1364:U:H2'	2.03	0.41
32:1a:1402:4OC:HM43	32:1a:1500:A:H61	1.85	0.41
33:1b:94:ASN:HB3	33:1b:95:GLN:HG3	2.02	0.41
33:1b:160:ASP:OD1	33:1b:160:ASP:N	2.53	0.41
33:1b:189:ASP:HB2	33:1b:190:THR:H	1.75	0.41
33:1b:196:LEU:HD12	33:1b:196:LEU:HA	1.81	0.41
35:1d:113:SER:O	35:1d:117:ALA:N	2.47	0.41
44:1m:4:ILE:HA	44:1m:5:ALA:HA	1.80	0.41
44:1m:86:CYS:HB2	50:1s:73:GLU:HB3	2.03	0.41
54:1y:37:MIA:H2'	54:1y:38:A:C8	2.56	0.41
54:1y:46:7MG:H81	54:1y:46:7MG:H2'	1.82	0.41
54:1y:62:C:H2'	54:1y:63:G:H8	1.85	0.41
54:1y:66:U:C4	54:1y:67:C:N4	2.89	0.41
1:2A:80:G:H1	1:2A:106:C:H42	1.67	0.41
1:2A:116:C:H2'	1:2A:117:G:O4'	2.20	0.41
1:2A:521:G:H2'	1:2A:522:G:H8	1.85	0.41
1:2A:659:C:H2'	1:2A:660:G:C8	2.47	0.41
1:2A:1198:U:H2'	1:2A:1199:U:C6	2.56	0.41
1:2A:1260:G:C6	1:2A:1261:C:C4	3.09	0.41
1:2A:1638:C:H5''	1:2A:2710:C:O2'	2.20	0.41
1:2A:1683:C:H2'	1:2A:1684:C:C6	2.56	0.41
1:2A:1818:U:H2'	3:2D:157:ARG:HD2	2.03	0.41
1:2A:1833:U:O2'	1:2A:1969:A:N1	2.45	0.41
1:2A:2070:G:H2'	1:2A:2071:A:C8	2.55	0.41
1:2A:2526:G:O3'	31:29:33:LYS:NZ	2.54	0.41
1:2A:2728:U:O2'	4:2E:22:PRO:HG2	2.21	0.41
1:2A:2784:C:H2'	1:2A:2785:C:H6	1.85	0.41
1:2A:2787:C:H2'	1:2A:2788:C:C6	2.56	0.41
1:2A:2847:U:OP2	15:2T:98:LYS:NZ	2.54	0.41
7:2H:105:LEU:O	7:2H:113:VAL:N	2.44	0.41
12:2Q:7:MET:HE2	12:2Q:7:MET:HB3	2.00	0.41
17:2V:15:GLU:O	17:2V:18:LEU:HB3	2.21	0.41
21:2Z:7:ALA:HB3	21:2Z:61:LEU:HD12	2.03	0.41
26:24:26:SER:OG	26:24:27:THR:N	2.54	0.41
26:24:48:ARG:HD2	26:24:48:ARG:HA	1.81	0.41
32:2a:390:C:H2'	32:2a:391:G:C8	2.56	0.41
32:2a:416:G:O6	61:2a:1914:HOH:O	2.17	0.41
32:2a:520:A:C2	32:2a:536:C:H1'	2.55	0.41
32:2a:745:C:H2'	32:2a:746:A:H8	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:909:A:N3	32:2a:1413:A:O2'	2.45	0.41
32:2a:1002:G:C2	32:2a:1003:G:C8	3.09	0.41
32:2a:1305:G:H5'	52:2u:4:GLY:CA	2.51	0.41
33:2b:28:PHE:CD1	33:2b:194:PRO:HG3	2.56	0.41
33:2b:131:PRO:O	33:2b:135:GLN:HB2	2.21	0.41
34:2c:6:HIS:HB3	45:2n:49:HIS:ND1	2.36	0.41
34:2c:26:LYS:HA	45:2n:36:PHE:CE1	2.51	0.41
35:2d:64:LEU:HB2	35:2d:198:VAL:HG21	2.03	0.41
35:2d:116:GLN:O	35:2d:120:LEU:HG	2.21	0.41
35:2d:173:TRP:CD1	35:2d:174:LEU:HG	2.55	0.41
39:2h:110:ALA:O	39:2h:121:ASP:N	2.53	0.41
40:2i:116:LYS:HD2	40:2i:122:ALA:HA	2.01	0.41
44:2m:60:VAL:HG13	44:2m:64:TRP:CE3	2.56	0.41
45:2n:18:VAL:C	45:2n:20:ALA:H	2.28	0.41
46:2o:16:ALA:HB1	46:2o:21:ASP:HB3	2.02	0.41
47:2p:17:TYR:CE2	47:2p:41:PRO:HG3	2.55	0.41
51:2t:27:LYS:HA	51:2t:30:LYS:HE2	2.01	0.41
54:2w:68:C:H2'	54:2w:69:G:C8	2.54	0.41
54:2y:18:G:C2	54:2y:55:PSU:C4	3.09	0.41
1:1A:34:C:H5''	1:1A:35:G:OP2	2.20	0.41
1:1A:101:A:C6	1:1A:102:U:C4	3.09	0.41
1:1A:239:G:C6	1:1A:240:A:C6	3.09	0.41
1:1A:826:U:OP1	3:1D:49:ILE:HG13	2.21	0.41
1:1A:866:A:C4	1:1A:1234:A:C2	3.09	0.41
1:1A:1686:U:H4'	1:1A:2711:C:H4'	2.03	0.41
1:1A:2297:C:OP2	28:16:6:ARG:HD3	2.21	0.41
1:1A:2524:C:H2'	1:1A:2525:G:O4'	2.21	0.41
1:1A:2859:U:H4'	1:1A:2878:A:C2	2.56	0.41
3:1D:68:LYS:HB2	3:1D:70:TRP:CE2	2.55	0.41
3:1D:145:VAL:HG11	3:1D:175:LEU:HD11	2.02	0.41
4:1E:28:ALA:HB3	4:1E:93:VAL:HG12	2.02	0.41
13:1R:12:ARG:O	13:1R:17:ARG:NH1	2.54	0.41
14:1S:76:LYS:H	14:1S:76:LYS:HG3	1.70	0.41
15:1T:94:ALA:HB1	15:1T:99:LEU:HD21	2.03	0.41
25:13:54:VAL:HG12	25:13:55:ARG:N	2.36	0.41
26:14:16:CYS:HA	26:14:33:VAL:O	2.20	0.41
32:1a:584:G:H5'	48:1q:91:ARG:HH22	1.86	0.41
32:1a:1030(B):C:O2	32:1a:1030(C):G:H5'	2.21	0.41
32:1a:1030(D):A:H2'	32:1a:1031:G:H4'	2.02	0.41
32:1a:1217:C:H2'	32:1a:1218:C:O4'	2.21	0.41
34:1c:65:ALA:O	34:1c:66:VAL:HB	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:1f:46:ARG:HH21	49:1r:37:VAL:CG1	2.33	0.41
38:1g:28:ASN:HD21	38:1g:36:LYS:NZ	2.19	0.41
41:1j:78:ASN:C	41:1j:80:LYS:H	2.24	0.41
43:1l:77:LEU:HD22	43:1l:81:SER:HB3	2.03	0.41
1:2A:56:A:H2'	1:2A:57:C:O4'	2.21	0.41
1:2A:98:G:H5''	24:22:3:LEU:HG	2.02	0.41
1:2A:401:A:H2'	1:2A:402:A:O4'	2.20	0.41
1:2A:949:C:H2'	1:2A:950:G:C8	2.56	0.41
1:2A:1192:G:OP2	11:2P:17:LYS:NZ	2.46	0.41
1:2A:1759:A:H1'	1:2A:2711:A:C2	2.56	0.41
1:2A:1826:G:H4'	3:2D:242:ARG:CZ	2.51	0.41
1:2A:2019:A:O3'	16:2U:27:LEU:HD12	2.20	0.41
1:2A:2422:A:O4'	54:2y:76:A:N6	2.54	0.41
1:2A:2788:C:H5''	4:2E:61:ARG:HH21	1.86	0.41
2:2B:68:C:H2'	2:2B:69:G:H8	1.84	0.41
3:2D:66:ASP:HB2	3:2D:103:ARG:HD3	2.03	0.41
21:2Z:28:MET:HA	21:2Z:88:PHE:O	2.22	0.41
27:25:49:CYS:SG	27:25:51:TYR:HB2	2.61	0.41
31:29:2:LYS:HD3	31:29:4:ARG:NH2	2.35	0.41
32:2a:410:G:OP1	35:2d:30:LYS:NZ	2.53	0.41
32:2a:500:G:H2'	32:2a:501:C:C6	2.56	0.41
32:2a:1054:C:H4'	32:2a:1055:A:O5'	2.20	0.41
32:2a:1298:C:H2'	38:2g:114:ARG:NH2	2.36	0.41
32:2a:1383:C:H2'	32:2a:1384:C:H6	1.86	0.41
37:2f:44:GLY:HA2	37:2f:59:TYR:CE1	2.56	0.41
38:2g:15:ASP:OD2	38:2g:44:TYR:OH	2.36	0.41
41:2j:27:ALA:HB2	41:2j:85:LEU:HD21	2.02	0.41
1:1A:752:A:C2	1:1A:774:A:H1'	2.56	0.40
1:1A:965:G:N2	1:1A:2281:A:OP2	2.52	0.40
1:1A:1068:G:C5	1:1A:1185:C:C4	3.08	0.40
1:1A:1118:C:H5''	1:1A:1119:A:OP1	2.21	0.40
1:1A:1197:G:O3'	16:1U:81:HIS:HB2	2.21	0.40
1:1A:1660:A:N1	18:1W:87:PRO:HB3	2.36	0.40
1:1A:1680:G:C6	1:1A:1682:G:C4	3.09	0.40
1:1A:1810:U:H2'	61:1A:4292:HOH:O	2.20	0.40
1:1A:2039:U:O2	27:15:10:LYS:HB2	2.21	0.40
1:1A:2274:U:H5	22:10:16:SER:HB3	1.86	0.40
1:1A:2803:A:H5'	1:1A:2902:G:H21	1.86	0.40
32:1a:1118:C:H1'	32:1a:1179:A:C4	2.56	0.40
32:1a:1260:C:OP1	32:1a:1284:C:O2'	2.35	0.40
32:1a:1325:C:H2'	32:1a:1326:C:C6	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:85:ALA:HB1	33:1b:90:MET:O	2.21	0.40
33:1b:98:LEU:O	33:1b:101:MET:HG3	2.20	0.40
41:1j:54:PHE:O	41:1j:55:LYS:HG2	2.21	0.40
43:1l:113:ARG:HD2	43:1l:113:ARG:HA	1.81	0.40
49:1r:24:ALA:O	49:1r:26:LEU:N	2.45	0.40
54:1y:65:G:C6	54:1y:66:U:C4	3.09	0.40
1:2A:422:A:H2'	1:2A:423:A:C8	2.56	0.40
1:2A:600:G:N2	1:2A:605:C:O3'	2.54	0.40
1:2A:1448:G:H4'	1:2A:1542:A:OP1	2.21	0.40
1:2A:2516:G:C6	1:2A:2517:C:N4	2.90	0.40
1:2A:2647:U:H2'	1:2A:2648:C:C6	2.56	0.40
7:2H:17:VAL:O	7:2H:45:VAL:HG11	2.20	0.40
7:2H:20:ALA:CB	7:2H:25:LYS:HG2	2.49	0.40
8:2I:9:LEU:HD22	8:2I:12:LEU:HD12	2.03	0.40
9:2N:4:TYR:CD2	16:2U:100:VAL:HG11	2.56	0.40
9:2N:110:GLY:O	9:2N:114:ARG:HG3	2.20	0.40
12:2Q:2:LEU:HA	12:2Q:2:LEU:HD12	1.82	0.40
23:21:46:LEU:HD23	23:21:46:LEU:HA	1.91	0.40
23:21:89:GLU:O	23:21:93:GLU:HG2	2.21	0.40
32:2a:109:A:H2'	32:2a:326:G:N2	2.36	0.40
32:2a:352:C:O2'	32:2a:354:G:OP1	2.36	0.40
32:2a:552:U:O3'	43:2l:87:GLY:HA3	2.21	0.40
32:2a:625:G:H4'	47:2p:16:HIS:CD2	2.56	0.40
32:2a:988:G:H2'	32:2a:989:C:O4'	2.21	0.40
32:2a:1007:C:N3	32:2a:1022:G:C6	2.89	0.40
32:2a:1376:U:P	38:2g:94:ARG:HH22	2.44	0.40
33:2b:16:HIS:HB2	33:2b:204:ASN:HB3	2.02	0.40
34:2c:56:ASP:HB2	34:2c:67:THR:HB	2.04	0.40
34:2c:184:TYR:HD1	34:2c:200:ALA:O	2.04	0.40
36:2e:90:VAL:O	36:2e:91:LEU:HD12	2.21	0.40
54:2y:6:G:O2'	54:2y:7:A:H5'	2.21	0.40
1:1A:273:G:O2'	1:1A:274:U:H5''	2.21	0.40
1:1A:954:C:OP1	12:1Q:22:LYS:HB3	2.21	0.40
1:1A:2390:A:H4'	14:1S:23:ARG:NH1	2.35	0.40
1:1A:2780:C:H2'	1:1A:2781:C:H6	1.85	0.40
2:1B:68:C:H2'	2:1B:69:G:O4'	2.20	0.40
3:1D:148:GLU:HB2	3:1D:151:LYS:HD2	2.03	0.40
10:1O:43:VAL:HG12	10:1O:54:GLU:HA	2.03	0.40
14:1S:11:LYS:HE2	14:1S:15:ARG:HH12	1.86	0.40
21:1Z:153:SER:HB3	21:1Z:167:PRO:HB3	2.03	0.40
32:1a:448:A:P	32:1a:485:G:H22	2.44	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:983:A:H2	32:1a:984:C:C6	2.39	0.40
32:1a:1240:U:OP1	38:1g:119:ARG:NH2	2.49	0.40
34:1c:134:ILE:HG22	34:1c:168:ALA:HB3	2.03	0.40
35:1d:120:LEU:HD23	35:1d:120:LEU:HA	1.86	0.40
35:1d:173:TRP:CZ3	35:1d:174:LEU:HG	2.57	0.40
1:2A:117:G:C6	1:2A:119:A:C6	3.09	0.40
1:2A:218:A:C2	1:2A:235:U:H4'	2.56	0.40
1:2A:663:G:C6	1:2A:664:C:C4	3.09	0.40
1:2A:828:U:H2'	1:2A:829:A:C8	2.56	0.40
1:2A:987:G:O2'	1:2A:1000:A:N3	2.43	0.40
1:2A:1139:G:O3'	9:2N:24:GLY:HA3	2.21	0.40
1:2A:1780:A:N6	61:2A:4058:HOH:O	2.54	0.40
1:2A:1794:U:H2'	1:2A:1795:C:H6	1.84	0.40
1:2A:2019:A:H2	1:2A:2035:G:H22	1.68	0.40
1:2A:2207:G:H2'	1:2A:2208:A:C2	2.57	0.40
1:2A:2749:A:OP1	7:2H:3:ARG:NH1	2.54	0.40
2:2B:59:A:H2'	2:2B:60:C:O4'	2.22	0.40
6:2G:107:LEU:HD23	6:2G:111:LEU:HD13	2.04	0.40
11:2P:128:HIS:CD2	11:2P:148:LEU:HD11	2.56	0.40
15:2T:64:ARG:NH1	15:2T:103:ARG:HG2	2.36	0.40
21:2Z:102:LEU:HD23	21:2Z:139:VAL:HG21	2.03	0.40
32:2a:44:G:C2	32:2a:45:U:H1'	2.57	0.40
32:2a:79:G:H2'	32:2a:80:G:C8	2.56	0.40
32:2a:201:C:H2'	32:2a:202:U:H2'	2.03	0.40
32:2a:288:A:H2'	32:2a:289:G:H4'	2.02	0.40
32:2a:946:A:C6	32:2a:947:G:C6	3.10	0.40
32:2a:1525:G:H2'	32:2a:1526:G:O4'	2.22	0.40
33:2b:217:ARG:HA	33:2b:220:ASP:HB2	2.04	0.40
34:2c:16:ARG:HD3	34:2c:16:ARG:HA	1.92	0.40
35:2d:59:ARG:HD3	35:2d:59:ARG:HA	1.91	0.40
42:2k:61:ALA:CB	42:2k:90:GLY:HA3	2.51	0.40
43:2l:117:ARG:HB3	43:2l:117:ARG:CZ	2.50	0.40
44:2m:108:ARG:NE	44:2m:114:ARG:HG2	2.36	0.40
1:1A:434:G:H2'	1:1A:435:G:H8	1.86	0.40
1:1A:927:G:H2'	1:1A:928:G:C8	2.47	0.40
1:1A:1067:A:N3	1:1A:1067:A:H3'	2.36	0.40
1:1A:1091:A:OP1	1:1A:1092:A:H3'	2.21	0.40
1:1A:2116:G:OP1	8:1I:22:LYS:HD2	2.21	0.40
1:1A:2143:G:O6	1:1A:2198:A:N6	2.54	0.40
1:1A:2899:C:H2'	1:1A:2900:G:O4'	2.21	0.40
27:15:16:ARG:HH11	27:15:16:ARG:HG2	1.85	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:105:G:H5'	32:1a:106:C:OP2	2.20	0.40
32:1a:265:G:H5'	48:1q:64:PRO:O	2.22	0.40
32:1a:621:A:H2'	32:1a:622:A:C8	2.56	0.40
32:1a:791:G:N2	32:1a:1497:G:O3'	2.54	0.40
35:1d:174:LEU:HD23	35:1d:174:LEU:HA	1.90	0.40
36:1e:72:GLN:O	36:1e:75:THR:HG22	2.21	0.40
37:1f:68:PRO:HB2	37:1f:70:ASP:OD1	2.21	0.40
39:1h:12:ARG:HD3	39:1h:26:VAL:HG12	2.02	0.40
40:1i:29:ASN:HD21	40:1i:65:VAL:H	1.70	0.40
48:1q:45:HIS:O	48:1q:73:VAL:HG23	2.22	0.40
49:1r:58:LEU:HB3	49:1r:62:GLU:HB2	2.04	0.40
54:1y:5:G:H1'	54:1y:69:G:N2	2.36	0.40
1:2A:468:G:N7	29:27:39:ARG:NH2	2.69	0.40
1:2A:882:G:H1	1:2A:894:C:H42	1.69	0.40
1:2A:947:G:H2'	1:2A:948:G:C8	2.56	0.40
1:2A:1404:C:H2'	1:2A:1405:U:H6	1.87	0.40
1:2A:1547:C:H2'	1:2A:1548:C:H6	1.87	0.40
1:2A:2173:A:H5''	1:2A:2174:C:OP2	2.22	0.40
1:2A:2836:U:H2'	1:2A:2837:G:C8	2.56	0.40
5:2F:172:TRP:CD1	5:2F:172:TRP:H	2.40	0.40
11:2P:38:GLN:HG2	11:2P:45:LEU:N	2.36	0.40
16:2U:66:ASN:ND2	16:2U:70:ARG:HH21	2.12	0.40
21:2Z:126:VAL:HG13	21:2Z:161:VAL:HG23	2.03	0.40
32:2a:547:A:H4'	32:2a:548:G:O5'	2.21	0.40
32:2a:648:A:H2'	32:2a:649:G:C8	2.56	0.40
32:2a:1057:G:H2'	32:2a:1058:G:C8	2.56	0.40
32:2a:1065:U:H3	32:2a:1109:C:C5'	2.34	0.40
33:2b:114:ARG:O	33:2b:118:LEU:N	2.53	0.40
38:2g:144:MET:HE3	38:2g:144:MET:HB3	1.96	0.40
39:2h:6:ILE:HB	39:2h:85:ARG:HH11	1.87	0.40
39:2h:44:PHE:CD1	39:2h:80:ILE:HG12	2.56	0.40
47:2p:56:ALA:O	47:2p:60:LEU:HB2	2.21	0.40
53:2v:20:U:H2'	53:2v:21:C:H6	1.86	0.40
54:2w:6:G:C6	54:2w:67:C:N3	2.89	0.40
1:1A:504:A:N1	1:1A:525:G:H4'	2.36	0.40
1:1A:2661:U:H2'	1:1A:2662:U:C6	2.56	0.40
2:1B:44:G:C2	2:1B:48:A:C2	3.09	0.40
32:1a:159:G:N2	32:1a:161:A:H3'	2.37	0.40
32:1a:178:C:H2'	32:1a:179:A:C8	2.57	0.40
32:1a:648:A:H2'	32:1a:649:G:C8	2.57	0.40
32:1a:1380:U:C4	38:1g:3:ARG:HG2	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:1g:29:LYS:HD2	38:1g:29:LYS:HA	1.93	0.40
51:1t:100:ILE:HB	51:1t:101:GLY:H	1.69	0.40
54:1w:46:7MG:HO2'	54:1w:47:U:P	2.42	0.40
54:1y:28:G:H1	54:1y:42:C:N4	2.20	0.40
1:2A:250:G:C6	1:2A:251:A:C6	3.09	0.40
1:2A:271:A:N6	1:2A:271(X):G:H1'	2.36	0.40
1:2A:395:U:O2'	1:2A:396:G:N7	2.43	0.40
1:2A:700:G:H2'	1:2A:701:G:O4'	2.21	0.40
1:2A:870:A:H5'	1:2A:871:U:OP2	2.21	0.40
1:2A:2249:U:N3	1:2A:2253:G:OP2	2.48	0.40
1:2A:2439:A:C8	1:2A:2439:A:H5'	2.56	0.40
1:2A:2525:G:N2	1:2A:2539:C:C2	2.89	0.40
1:2A:2648:C:H2'	1:2A:2649:U:H6	1.87	0.40
5:2F:23:ASP:O	5:2F:24:LEU:HD12	2.21	0.40
6:2G:23:PHE:HB2	6:2G:25:TYR:CE2	2.56	0.40
11:2P:100:LEU:HA	11:2P:103:ALA:HB3	2.03	0.40
16:2U:68:ALA:O	16:2U:71:GLN:HB2	2.21	0.40
19:2X:64:LYS:HA	19:2X:64:LYS:HD3	1.80	0.40
21:2Z:23:LYS:HB3	21:2Z:38:TYR:CD1	2.56	0.40
22:20:70:GLN:HG2	22:20:72:ARG:HG3	2.04	0.40
32:2a:444:C:H2'	32:2a:445:G:C8	2.55	0.40
32:2a:618:C:C2	32:2a:622:A:N6	2.89	0.40
32:2a:881:G:H2'	32:2a:882:C:O4'	2.21	0.40
32:2a:1262:C:N4	32:2a:1273:G:H1	2.17	0.40
1:1A:228:U:H2'	1:1A:229:G:O4'	2.21	0.40
1:1A:593:G:H2'	1:1A:2052:A:C5	2.57	0.40
1:1A:734:C:OP1	29:17:2:LYS:NZ	2.55	0.40
1:1A:757:G:H2'	1:1A:758:G:H8	1.85	0.40
1:1A:830:A:H2'	1:1A:830:A:N3	2.36	0.40
1:1A:1116:A:N6	1:1A:1142:A:N3	2.70	0.40
1:1A:2230:U:O4'	23:11:52:ARG:NH2	2.43	0.40
1:1A:2408:G:OP1	23:11:25:LYS:NZ	2.33	0.40
5:1F:53:THR:HG22	5:1F:55:GLY:N	2.34	0.40
6:1G:43:LEU:HB3	6:1G:44:GLY:H	1.50	0.40
7:1H:83:TYR:CE2	7:1H:138:LYS:HB2	2.57	0.40
8:1I:47:LEU:O	8:1I:51:ILE:HG13	2.21	0.40
21:1Z:15:PRO:O	21:1Z:19:ARG:HG3	2.21	0.40
30:18:23:VAL:HG13	30:18:47:LYS:HB3	2.03	0.40
32:1a:393:A:OP2	47:1p:12:LYS:HD3	2.22	0.40
32:1a:404:U:OP1	35:1d:118:ARG:HD3	2.22	0.40
32:1a:620:C:H2'	32:1a:621:A:O4'	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:922:G:C6	32:1a:923:A:C6	3.09	0.40
32:1a:1151:A:H5'	41:1j:41:PRO:HA	2.04	0.40
33:1b:139:LYS:O	33:1b:143:GLU:HG3	2.22	0.40
36:1e:48:ALA:HB3	36:1e:54:ALA:HB2	2.04	0.40
37:1f:91:VAL:HG11	49:1r:72:ARG:NH1	2.37	0.40
41:1j:65:LEU:HD13	45:1n:56:VAL:HG22	2.03	0.40
43:1l:118:SER:H	43:1l:118:SER:HG	1.64	0.40
1:2A:561:G:HO2'	16:2U:45:TYR:HE1	1.69	0.40
1:2A:637:A:C6	1:2A:652:C:H4'	2.56	0.40
1:2A:1878:G:C5	1:2A:1879:C:C4	3.09	0.40
1:2A:2262:U:H4'	1:2A:2328:A:C2	2.57	0.40
1:2A:2298:A:N6	1:2A:2318:G:C8	2.89	0.40
1:2A:2784:C:H1'	4:2E:37:ARG:HH12	1.86	0.40
2:2B:33:G:N3	2:2B:50:G:N2	2.70	0.40
4:2E:27:LEU:HD22	15:2T:1:MET:HE1	2.02	0.40
6:2G:55:LYS:O	6:2G:59:GLU:N	2.28	0.40
6:2G:96:ARG:O	6:2G:99:MET:HB3	2.22	0.40
7:2H:123:PHE:CE1	7:2H:133:VAL:HG22	2.57	0.40
10:2O:4:PRO:O	10:2O:5:GLN:HB2	2.22	0.40
10:2O:68:GLU:CD	10:2O:68:GLU:H	2.29	0.40
32:2a:565:U:OP2	32:2a:566:G:O2'	2.36	0.40
32:2a:814:A:N7	32:2a:816:A:C4	2.89	0.40
32:2a:1076:C:C2	32:2a:1082:G:N2	2.90	0.40
32:2a:1124:G:C2	32:2a:1127:G:N2	2.90	0.40
32:2a:1202:G:C1'	45:2n:29:ARG:HD2	2.51	0.40
32:2a:1261:A:H5'	32:2a:1283:G:O3'	2.21	0.40
32:2a:1291:G:H4'	40:2i:38:GLN:O	2.21	0.40
35:2d:155:LEU:HD23	35:2d:155:LEU:HA	1.92	0.40
36:2e:9:LYS:HA	36:2e:9:LYS:HD2	1.84	0.40
36:2e:143:ARG:HE	39:2h:77:GLU:CD	2.29	0.40
37:2f:25:ILE:O	37:2f:29:ALA:N	2.49	0.40
37:2f:96:PRO:HB3	49:2r:30:ASP:OD2	2.21	0.40
39:2h:112:LEU:HD11	39:2h:124:ALA:HB2	2.03	0.40
44:2m:27:LYS:HA	44:2m:27:LYS:HD2	1.87	0.40
54:2y:71:G:H2'	54:2y:72:C:O4'	2.22	0.40

There are no symmetry-related clashes.

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%)	257 (94%)	16 (6%)	0	100	100
3	2D	273/276 (99%)	254 (93%)	18 (7%)	1 (0%)	30	60
4	1E	202/206 (98%)	189 (94%)	12 (6%)	1 (0%)	24	55
4	2E	202/206 (98%)	190 (94%)	11 (5%)	1 (0%)	24	55
5	1F	201/210 (96%)	196 (98%)	4 (2%)	1 (0%)	24	55
5	2F	201/210 (96%)	184 (92%)	13 (6%)	4 (2%)	6	21
6	1G	179/182 (98%)	168 (94%)	10 (6%)	1 (1%)	21	51
6	2G	179/182 (98%)	156 (87%)	18 (10%)	5 (3%)	4	14
7	1H	172/180 (96%)	160 (93%)	11 (6%)	1 (1%)	21	51
7	2H	172/180 (96%)	149 (87%)	20 (12%)	3 (2%)	7	25
8	1I	144/148 (97%)	133 (92%)	10 (7%)	1 (1%)	18	47
8	2I	144/148 (97%)	126 (88%)	17 (12%)	1 (1%)	18	47
9	1N	138/140 (99%)	131 (95%)	7 (5%)	0	100	100
9	2N	138/140 (99%)	126 (91%)	9 (6%)	3 (2%)	5	19
10	1O	120/122 (98%)	112 (93%)	8 (7%)	0	100	100
10	2O	120/122 (98%)	111 (92%)	7 (6%)	2 (2%)	7	25
11	1P	147/150 (98%)	138 (94%)	9 (6%)	0	100	100
11	2P	147/150 (98%)	134 (91%)	11 (8%)	2 (1%)	9	30
12	1Q	139/141 (99%)	131 (94%)	7 (5%)	1 (1%)	18	47
12	2Q	139/141 (99%)	128 (92%)	10 (7%)	1 (1%)	18	47
13	1R	116/118 (98%)	110 (95%)	6 (5%)	0	100	100
13	2R	116/118 (98%)	109 (94%)	5 (4%)	2 (2%)	7	25
14	1S	108/112 (96%)	102 (94%)	5 (5%)	1 (1%)	14	41
14	2S	108/112 (96%)	100 (93%)	6 (6%)	2 (2%)	6	22
15	1T	129/146 (88%)	120 (93%)	8 (6%)	1 (1%)	16	44

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
15	2T	129/146 (88%)	118 (92%)	10 (8%)	1 (1%)	16	44
16	1U	114/118 (97%)	113 (99%)	1 (1%)	0	100	100
16	2U	114/118 (97%)	111 (97%)	3 (3%)	0	100	100
17	1V	99/101 (98%)	97 (98%)	1 (1%)	1 (1%)	12	38
17	2V	99/101 (98%)	93 (94%)	5 (5%)	1 (1%)	12	38
18	1W	110/113 (97%)	108 (98%)	2 (2%)	0	100	100
18	2W	110/113 (97%)	107 (97%)	3 (3%)	0	100	100
19	1X	93/96 (97%)	90 (97%)	3 (3%)	0	100	100
19	2X	93/96 (97%)	84 (90%)	9 (10%)	0	100	100
20	1Y	105/110 (96%)	96 (91%)	8 (8%)	1 (1%)	12	38
20	2Y	105/110 (96%)	96 (91%)	7 (7%)	2 (2%)	6	22
21	1Z	148/206 (72%)	133 (90%)	14 (10%)	1 (1%)	18	47
21	2Z	156/206 (76%)	132 (85%)	19 (12%)	5 (3%)	3	11
22	10	81/85 (95%)	79 (98%)	2 (2%)	0	100	100
22	20	81/85 (95%)	77 (95%)	3 (4%)	1 (1%)	10	34
23	11	95/98 (97%)	93 (98%)	2 (2%)	0	100	100
23	21	95/98 (97%)	91 (96%)	4 (4%)	0	100	100
24	12	68/72 (94%)	66 (97%)	2 (3%)	0	100	100
24	22	68/72 (94%)	63 (93%)	4 (6%)	1 (2%)	8	28
25	13	57/60 (95%)	54 (95%)	3 (5%)	0	100	100
25	23	57/60 (95%)	53 (93%)	3 (5%)	1 (2%)	6	23
26	14	67/71 (94%)	55 (82%)	8 (12%)	4 (6%)	1	3
26	24	67/71 (94%)	50 (75%)	13 (19%)	4 (6%)	1	3
27	15	57/60 (95%)	55 (96%)	2 (4%)	0	100	100
27	25	57/60 (95%)	54 (95%)	3 (5%)	0	100	100
28	16	51/54 (94%)	49 (96%)	2 (4%)	0	100	100
28	26	51/54 (94%)	44 (86%)	7 (14%)	0	100	100
29	17	46/49 (94%)	46 (100%)	0	0	100	100
29	27	46/49 (94%)	43 (94%)	2 (4%)	1 (2%)	5	19
30	18	62/65 (95%)	61 (98%)	1 (2%)	0	100	100
30	28	62/65 (95%)	59 (95%)	3 (5%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
31	19	35/37 (95%)	34 (97%)	1 (3%)	0	100	100
31	29	35/37 (95%)	32 (91%)	3 (9%)	0	100	100
33	1b	229/256 (90%)	192 (84%)	27 (12%)	10 (4%)	2	7
33	2b	229/256 (90%)	200 (87%)	20 (9%)	9 (4%)	2	8
34	1c	204/239 (85%)	190 (93%)	11 (5%)	3 (2%)	8	28
34	2c	204/239 (85%)	173 (85%)	25 (12%)	6 (3%)	3	13
35	1d	206/209 (99%)	190 (92%)	13 (6%)	3 (2%)	8	28
35	2d	206/209 (99%)	187 (91%)	15 (7%)	4 (2%)	6	22
36	1e	146/162 (90%)	134 (92%)	10 (7%)	2 (1%)	9	30
36	2e	146/162 (90%)	131 (90%)	14 (10%)	1 (1%)	18	47
37	1f	98/101 (97%)	94 (96%)	4 (4%)	0	100	100
37	2f	98/101 (97%)	91 (93%)	7 (7%)	0	100	100
38	1g	153/156 (98%)	138 (90%)	12 (8%)	3 (2%)	6	21
38	2g	153/156 (98%)	135 (88%)	15 (10%)	3 (2%)	6	21
39	1h	135/138 (98%)	129 (96%)	4 (3%)	2 (2%)	8	28
39	2h	135/138 (98%)	125 (93%)	8 (6%)	2 (2%)	8	28
40	1i	125/128 (98%)	110 (88%)	15 (12%)	0	100	100
40	2i	125/128 (98%)	113 (90%)	12 (10%)	0	100	100
41	1j	95/105 (90%)	83 (87%)	8 (8%)	4 (4%)	2	7
41	2j	94/105 (90%)	79 (84%)	11 (12%)	4 (4%)	2	7
42	1k	112/129 (87%)	105 (94%)	6 (5%)	1 (1%)	14	41
42	2k	112/129 (87%)	103 (92%)	6 (5%)	3 (3%)	4	15
43	1l	119/132 (90%)	110 (92%)	8 (7%)	1 (1%)	16	44
43	2l	119/132 (90%)	103 (87%)	15 (13%)	1 (1%)	16	44
44	1m	121/126 (96%)	112 (93%)	9 (7%)	0	100	100
44	2m	120/126 (95%)	102 (85%)	15 (12%)	3 (2%)	4	16
45	1n	58/61 (95%)	52 (90%)	6 (10%)	0	100	100
45	2n	58/61 (95%)	53 (91%)	5 (9%)	0	100	100
46	1o	86/89 (97%)	80 (93%)	5 (6%)	1 (1%)	10	34
46	2o	86/89 (97%)	80 (93%)	5 (6%)	1 (1%)	10	34
47	1p	80/88 (91%)	69 (86%)	10 (12%)	1 (1%)	9	31

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
47	2p	80/88 (91%)	72 (90%)	8 (10%)	0	100	100
48	1q	97/105 (92%)	87 (90%)	9 (9%)	1 (1%)	12	38
48	2q	97/105 (92%)	91 (94%)	6 (6%)	0	100	100
49	1r	66/88 (75%)	60 (91%)	6 (9%)	0	100	100
49	2r	66/88 (75%)	64 (97%)	2 (3%)	0	100	100
50	1s	81/93 (87%)	68 (84%)	12 (15%)	1 (1%)	10	34
50	2s	81/93 (87%)	66 (82%)	13 (16%)	2 (2%)	4	16
51	1t	94/106 (89%)	84 (89%)	5 (5%)	5 (5%)	1	5
51	2t	94/106 (89%)	83 (88%)	5 (5%)	6 (6%)	1	3
52	1u	21/27 (78%)	18 (86%)	2 (10%)	1 (5%)	2	6
52	2u	21/27 (78%)	19 (90%)	2 (10%)	0	100	100
All	All	11370/12128 (94%)	10425 (92%)	802 (7%)	143 (1%)	9	31

All (143) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
5	1F	130	ALA
6	1G	43	LEU
7	1H	126	PRO
26	14	53	GLU
33	1b	22	LYS
34	1c	107	GLN
38	1g	4	ARG
50	1s	81	ARG
3	2D	3	VAL
6	2G	47	LYS
12	2Q	27	VAL
26	24	45	GLY
29	27	46	VAL
33	2b	16	HIS
33	2b	17	PHE
33	2b	21	ARG
33	2b	125	PRO
36	2e	77	PRO
41	2j	79	ARG
8	1I	11	ASN
20	1Y	54	LYS
26	14	45	GLY

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Mol	Chain	Res	Type
33	1b	126	GLU
36	1e	21	ALA
38	1g	6	ARG
41	1j	79	ARG
43	1l	91	LYS
5	2F	130	ALA
7	2H	47	GLU
7	2H	126	PRO
9	2N	48	MET
10	2O	5	GLN
11	2P	29	LYS
13	2R	14	SER
17	2V	79	VAL
21	2Z	171	ILE
33	2b	95	GLN
33	2b	231	GLU
34	2c	91	LEU
34	2c	156	ARG
35	2d	179	GLU
38	2g	4	ARG
41	2j	75	ILE
42	2k	49	GLY
46	2o	88	ARG
51	2t	9	ASN
51	2t	10	LEU
51	2t	47	GLY
15	1T	37	GLY
17	1V	79	VAL
26	14	61	ARG
33	1b	20	GLU
33	1b	231	GLU
35	1d	173	TRP
35	1d	178	VAL
36	1e	86	ALA
41	1j	29	ARG
41	1j	77	PRO
46	1o	19	PRO
51	1t	47	GLY
51	1t	95	ALA
4	2E	52	LEU
5	2F	21	ALA
6	2G	124	SER

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Mol	Chain	Res	Type
7	2H	29	PRO
8	2I	116	LEU
9	2N	2	LYS
14	2S	84	GLN
20	2Y	102	CYS
20	2Y	103	GLY
21	2Z	167	PRO
26	24	61	ARG
33	2b	20	GLU
33	2b	123	ALA
34	2c	181	ASN
35	2d	181	MET
38	2g	55	GLY
51	2t	95	ALA
4	1E	52	LEU
12	1Q	17	LEU
26	14	57	GLU
33	1b	9	GLU
33	1b	17	PHE
33	1b	21	ARG
33	1b	207	ALA
38	1g	80	VAL
51	1t	100	ILE
52	1u	3	LYS
9	2N	59	LYS
11	2P	45	LEU
13	2R	2	ARG
21	2Z	142	SER
24	22	46	GLN
33	2b	158	LEU
34	2c	64	VAL
34	2c	92	ALA
34	2c	95	THR
35	2d	5	ILE
35	2d	10	ARG
38	2g	80	VAL
41	2j	31	GLY
42	2k	106	LYS
44	2m	106	ASN
50	2s	76	PRO
51	2t	102	GLY
14	1S	94	TYR

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Mol	Chain	Res	Type
33	1b	16	HIS
34	1c	66	VAL
35	1d	179	GLU
39	1h	133	LEU
48	1q	33	GLY
51	1t	10	LEU
5	2F	168	ARG
6	2G	51	ARG
6	2G	179	PRO
15	2T	117	ASP
22	20	12	ASN
26	24	29	PRO
26	24	55	ARG
39	2h	3	THR
43	2l	51	ALA
50	2s	81	ARG
51	2t	99	LEU
21	1Z	156	LYS
47	1p	53	VAL
51	1t	102	GLY
5	2F	133	ASN
10	2O	88	ASN
14	2S	96	GLY
39	1h	83	ILE
42	1k	105	VAL
21	2Z	147	GLY
42	2k	105	VAL
44	2m	4	ILE
33	1b	230	VAL
41	1j	39	PRO
6	2G	177	GLY
41	2j	39	PRO
39	2h	73	ASP
44	2m	6	GLY
34	1c	174	PRO
21	2Z	165	VAL
25	23	50	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%)	196 (91%)	19 (9%)	9	29
3	2D	215/218 (99%)	204 (95%)	11 (5%)	21	54
4	1E	164/166 (99%)	151 (92%)	13 (8%)	11	35
4	2E	164/166 (99%)	149 (91%)	15 (9%)	9	28
5	1F	160/166 (96%)	140 (88%)	20 (12%)	4	15
5	2F	159/166 (96%)	144 (91%)	15 (9%)	8	27
6	1G	143/156 (92%)	131 (92%)	12 (8%)	10	32
6	2G	143/156 (92%)	133 (93%)	10 (7%)	14	40
7	1H	144/148 (97%)	135 (94%)	9 (6%)	16	45
7	2H	144/148 (97%)	138 (96%)	6 (4%)	26	61
8	1I	113/124 (91%)	102 (90%)	11 (10%)	8	25
8	2I	105/124 (85%)	95 (90%)	10 (10%)	8	26
9	1N	118/119 (99%)	109 (92%)	9 (8%)	12	36
9	2N	118/119 (99%)	107 (91%)	11 (9%)	8	27
10	1O	100/100 (100%)	92 (92%)	8 (8%)	11	34
10	2O	100/100 (100%)	98 (98%)	2 (2%)	48	80
11	1P	115/116 (99%)	108 (94%)	7 (6%)	17	46
11	2P	115/116 (99%)	109 (95%)	6 (5%)	21	53
12	1Q	111/111 (100%)	103 (93%)	8 (7%)	13	39
12	2Q	111/111 (100%)	101 (91%)	10 (9%)	9	28
13	1R	101/101 (100%)	91 (90%)	10 (10%)	7	24
13	2R	101/101 (100%)	88 (87%)	13 (13%)	4	14
14	1S	86/88 (98%)	78 (91%)	8 (9%)	8	27
14	2S	85/88 (97%)	78 (92%)	7 (8%)	10	33
15	1T	115/127 (91%)	111 (96%)	4 (4%)	32	67
15	2T	113/127 (89%)	106 (94%)	7 (6%)	16	45
16	1U	93/94 (99%)	85 (91%)	8 (9%)	10	31
16	2U	93/94 (99%)	88 (95%)	5 (5%)	20	51
17	1V	80/82 (98%)	71 (89%)	9 (11%)	5	19

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
17	2V	80/82 (98%)	71 (89%)	9 (11%)	5	19
18	1W	90/92 (98%)	87 (97%)	3 (3%)	33	69
18	2W	90/92 (98%)	80 (89%)	10 (11%)	6	20
19	1X	77/78 (99%)	72 (94%)	5 (6%)	15	43
19	2X	77/78 (99%)	72 (94%)	5 (6%)	15	43
20	1Y	85/91 (93%)	78 (92%)	7 (8%)	10	33
20	2Y	85/91 (93%)	79 (93%)	6 (7%)	13	39
21	1Z	135/179 (75%)	120 (89%)	15 (11%)	6	20
21	2Z	137/179 (76%)	129 (94%)	8 (6%)	18	49
22	10	65/67 (97%)	62 (95%)	3 (5%)	24	58
22	20	65/67 (97%)	62 (95%)	3 (5%)	24	58
23	11	80/83 (96%)	77 (96%)	3 (4%)	29	64
23	21	80/83 (96%)	79 (99%)	1 (1%)	61	86
24	12	65/67 (97%)	60 (92%)	5 (8%)	12	36
24	22	65/67 (97%)	64 (98%)	1 (2%)	57	84
25	13	51/52 (98%)	50 (98%)	1 (2%)	48	80
25	23	50/52 (96%)	44 (88%)	6 (12%)	5	17
26	14	59/63 (94%)	54 (92%)	5 (8%)	10	31
26	24	53/63 (84%)	49 (92%)	4 (8%)	12	37
27	15	50/52 (96%)	45 (90%)	5 (10%)	7	24
27	25	50/52 (96%)	47 (94%)	3 (6%)	17	47
28	16	51/52 (98%)	49 (96%)	2 (4%)	28	64
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%)	40 (98%)	1 (2%)	43	77
30	18	54/55 (98%)	51 (94%)	3 (6%)	19	50
30	28	54/55 (98%)	51 (94%)	3 (6%)	19	50
31	19	34/34 (100%)	33 (97%)	1 (3%)	37	73
31	29	34/34 (100%)	31 (91%)	3 (9%)	9	29
33	1b	192/220 (87%)	182 (95%)	10 (5%)	21	53
33	2b	187/220 (85%)	172 (92%)	15 (8%)	11	34

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
34	1c	142/188 (76%)	132 (93%)	10 (7%)	14	40
34	2c	140/188 (74%)	131 (94%)	9 (6%)	16	44
35	1d	169/181 (93%)	155 (92%)	14 (8%)	10	32
35	2d	173/181 (96%)	158 (91%)	15 (9%)	9	30
36	1e	113/123 (92%)	103 (91%)	10 (9%)	9	29
36	2e	114/123 (93%)	106 (93%)	8 (7%)	14	40
37	1f	84/90 (93%)	80 (95%)	4 (5%)	23	56
37	2f	85/90 (94%)	81 (95%)	4 (5%)	23	57
38	1g	119/127 (94%)	113 (95%)	6 (5%)	22	54
38	2g	120/127 (94%)	112 (93%)	8 (7%)	15	42
39	1h	114/119 (96%)	104 (91%)	10 (9%)	9	29
39	2h	114/119 (96%)	105 (92%)	9 (8%)	11	35
40	1i	90/99 (91%)	85 (94%)	5 (6%)	19	50
40	2i	89/99 (90%)	84 (94%)	5 (6%)	19	50
41	1j	66/92 (72%)	61 (92%)	5 (8%)	12	36
41	2j	69/92 (75%)	62 (90%)	7 (10%)	7	23
42	1k	82/99 (83%)	77 (94%)	5 (6%)	17	46
42	2k	83/99 (84%)	77 (93%)	6 (7%)	13	39
43	1l	96/108 (89%)	86 (90%)	10 (10%)	7	22
43	2l	96/108 (89%)	92 (96%)	4 (4%)	26	61
44	1m	93/101 (92%)	86 (92%)	7 (8%)	12	37
44	2m	92/101 (91%)	90 (98%)	2 (2%)	45	78
45	1n	49/50 (98%)	44 (90%)	5 (10%)	7	23
45	2n	49/50 (98%)	44 (90%)	5 (10%)	7	23
46	1o	78/80 (98%)	76 (97%)	2 (3%)	40	75
46	2o	78/80 (98%)	73 (94%)	5 (6%)	16	44
47	1p	69/74 (93%)	64 (93%)	5 (7%)	13	39
47	2p	68/74 (92%)	62 (91%)	6 (9%)	9	29
48	1q	94/97 (97%)	89 (95%)	5 (5%)	20	52
48	2q	94/97 (97%)	88 (94%)	6 (6%)	16	44
49	1r	59/77 (77%)	55 (93%)	4 (7%)	14	42

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
49	2r	59/77 (77%)	56 (95%)	3 (5%)	21	54
50	1s	69/80 (86%)	67 (97%)	2 (3%)	37	73
50	2s	67/80 (84%)	63 (94%)	4 (6%)	17	47
51	1t	70/82 (85%)	67 (96%)	3 (4%)	26	60
51	2t	70/82 (85%)	66 (94%)	4 (6%)	18	49
52	1u	18/22 (82%)	18 (100%)	0	100	100
52	2u	18/22 (82%)	17 (94%)	1 (6%)	19	50
All	All	9303/10064 (92%)	8644 (93%)	659 (7%)	13	39

All (659) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	1D	61	LEU
3	1D	88	ARG
3	1D	113	VAL
3	1D	117	VAL
3	1D	131	LEU
3	1D	136	ILE
3	1D	147	LEU
3	1D	155	LEU
3	1D	162	SER
3	1D	173	VAL
3	1D	176	ARG
3	1D	181	GLU
3	1D	193	VAL
3	1D	211	ARG
3	1D	221	VAL
3	1D	229	VAL
3	1D	242	ARG
3	1D	257	LEU
3	1D	273	ARG
4	1E	9	VAL
4	1E	12	THR
4	1E	21	VAL
4	1E	33	VAL
4	1E	34	VAL
4	1E	47	VAL
4	1E	49	LEU
4	1E	73	GLU
4	1E	78	LEU

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Mol	Chain	Res	Type
4	1E	92	THR
4	1E	116	VAL
4	1E	175	VAL
4	1E	181	LEU
5	1F	19	GLU
5	1F	24	LEU
5	1F	28	ILE
5	1F	33	LEU
5	1F	35	GLU
5	1F	53	THR
5	1F	57	VAL
5	1F	70	THR
5	1F	74	ARG
5	1F	88	VAL
5	1F	106	ARG
5	1F	110	LEU
5	1F	125	LEU
5	1F	161	GLU
5	1F	170	LEU
5	1F	175	THR
5	1F	183	VAL
5	1F	189	THR
5	1F	192	LEU
5	1F	201	VAL
6	1G	3	LEU
6	1G	30	GLU
6	1G	31	VAL
6	1G	43	LEU
6	1G	60	LEU
6	1G	109	VAL
6	1G	126	ASP
6	1G	133	LEU
6	1G	139	LEU
6	1G	145	THR
6	1G	159	VAL
6	1G	175	LEU
7	1H	49	VAL
7	1H	56	SER
7	1H	71	LEU
7	1H	86	GLU
7	1H	88	LEU
7	1H	103	LEU

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Mol	Chain	Res	Type
7	1H	122	THR
7	1H	134	SER
7	1H	155	SER
8	1I	1	MET
8	1I	2	LYS
8	1I	9	LEU
8	1I	12	LEU
8	1I	37	VAL
8	1I	38	LEU
8	1I	74	ASN
8	1I	92	VAL
8	1I	109	ILE
8	1I	129	THR
8	1I	142	VAL
9	1N	14	VAL
9	1N	28	THR
9	1N	33	LEU
9	1N	34	LEU
9	1N	35	ARG
9	1N	48	MET
9	1N	62	VAL
9	1N	87	LEU
9	1N	99	LEU
10	1O	9	GLU
10	1O	10	VAL
10	1O	20	MET
10	1O	63	VAL
10	1O	77	ILE
10	1O	98	VAL
10	1O	102	VAL
10	1O	108	GLU
11	1P	55	ARG
11	1P	59	LEU
11	1P	83	VAL
11	1P	98	GLU
11	1P	101	VAL
11	1P	112	LEU
11	1P	125	VAL
12	1Q	7	MET
12	1Q	17	LEU
12	1Q	35	VAL
12	1Q	109	VAL

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Mol	Chain	Res	Type
12	1Q	110	THR
12	1Q	130	LYS
12	1Q	135	ASP
12	1Q	138	ASP
13	1R	6	SER
13	1R	29	LEU
13	1R	36	THR
13	1R	37	THR
13	1R	44	LEU
13	1R	54	LEU
13	1R	67	LEU
13	1R	79	LEU
13	1R	111	LEU
13	1R	114	VAL
14	1S	11	LYS
14	1S	14	VAL
14	1S	36	TYR
14	1S	42	ASP
14	1S	46	VAL
14	1S	49	VAL
14	1S	69	VAL
14	1S	110	LEU
15	1T	28	VAL
15	1T	49	VAL
15	1T	89	VAL
15	1T	118	ARG
16	1U	8	VAL
16	1U	9	VAL
16	1U	50	ARG
16	1U	59	ARG
16	1U	74	LEU
16	1U	77	SER
16	1U	83	LEU
16	1U	95	LEU
17	1V	46	VAL
17	1V	51	VAL
17	1V	52	VAL
17	1V	60	GLU
17	1V	61	VAL
17	1V	62	LEU
17	1V	72	VAL
17	1V	79	VAL

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Mol	Chain	Res	Type
17	1V	82	ARG
18	1W	17	VAL
18	1W	97	LYS
18	1W	107	LEU
19	1X	45	THR
19	1X	53	LYS
19	1X	75	ASP
19	1X	81	VAL
19	1X	92	LEU
20	1Y	1	MET
20	1Y	11	ASP
20	1Y	55	TYR
20	1Y	64	GLU
20	1Y	72	VAL
20	1Y	90	LEU
20	1Y	99	CYS
21	1Z	18	LEU
21	1Z	33	LEU
21	1Z	41	LEU
21	1Z	61	LEU
21	1Z	76	LEU
21	1Z	86	VAL
21	1Z	91	LEU
21	1Z	126	VAL
21	1Z	129	SER
21	1Z	138	GLU
21	1Z	141	VAL
21	1Z	150	LEU
21	1Z	155	LEU
21	1Z	170	THR
21	1Z	171	ILE
22	10	14	ARG
22	10	32	ARG
22	10	43	THR
23	11	30	VAL
23	11	56	GLN
23	11	95	LEU
24	12	25	VAL
24	12	30	ARG
24	12	40	SER
24	12	41	ILE
24	12	70	GLN

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Mol	Chain	Res	Type
25	13	56	VAL
26	14	27	THR
26	14	33	VAL
26	14	49	PHE
26	14	52	THR
26	14	53	GLU
27	15	6	VAL
27	15	16	ARG
27	15	29	THR
27	15	57	VAL
27	15	58	LEU
28	16	5	VAL
28	16	48	VAL
29	17	24	THR
29	17	41	ARG
29	17	43	THR
30	18	6	THR
30	18	14	VAL
30	18	32	LEU
31	19	33	LYS
33	1b	37	ASN
33	1b	73	THR
33	1b	94	ASN
33	1b	112	VAL
33	1b	127	ILE
33	1b	172	ILE
33	1b	185	ILE
33	1b	195	ASP
33	1b	196	LEU
33	1b	219	VAL
34	1c	3	ASN
34	1c	5	ILE
34	1c	21	ARG
34	1c	49	SER
34	1c	70	VAL
34	1c	112	SER
34	1c	152	ILE
34	1c	192	THR
34	1c	196	LEU
34	1c	207	VAL
35	1d	3	ARG
35	1d	5	ILE

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Mol	Chain	Res	Type
35	1d	10	ARG
35	1d	31	CYS
35	1d	53	ASP
35	1d	59	ARG
35	1d	70	ILE
35	1d	73	ARG
35	1d	112	VAL
35	1d	135	LEU
35	1d	158	ILE
35	1d	160	GLN
35	1d	170	VAL
35	1d	178	VAL
36	1e	16	THR
36	1e	31	LEU
36	1e	34	VAL
36	1e	38	GLN
36	1e	41	VAL
36	1e	47	LYS
36	1e	51	VAL
36	1e	56	GLN
36	1e	91	LEU
36	1e	140	ARG
37	1f	25	ILE
37	1f	72	VAL
37	1f	73	ASN
37	1f	93	SER
38	1g	12	LEU
38	1g	16	LEU
38	1g	24	THR
38	1g	42	ILE
38	1g	94	ARG
38	1g	120	ILE
39	1h	25	ASP
39	1h	29	SER
39	1h	49	GLU
39	1h	51	VAL
39	1h	82	HIS
39	1h	83	ILE
39	1h	85	ARG
39	1h	112	LEU
39	1h	118	VAL
39	1h	133	LEU

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Mol	Chain	Res	Type
40	1i	17	VAL
40	1i	64	THR
40	1i	65	VAL
40	1i	86	VAL
40	1i	87	GLN
41	1j	34	VAL
41	1j	42	THR
41	1j	84	GLN
41	1j	94	VAL
41	1j	96	ILE
42	1k	31	THR
42	1k	48	ILE
42	1k	84	VAL
42	1k	109	VAL
42	1k	114	VAL
43	1l	27	LEU
43	1l	37	CYS
43	1l	40	VAL
43	1l	52	LEU
43	1l	55	VAL
43	1l	58	VAL
43	1l	59	ARG
43	1l	83	VAL
43	1l	113	ARG
43	1l	117	ARG
44	1m	4	ILE
44	1m	8	GLU
44	1m	11	ARG
44	1m	19	LEU
44	1m	98	VAL
44	1m	109	THR
44	1m	121	LYS
45	1n	6	LEU
45	1n	7	ILE
45	1n	13	THR
45	1n	18	VAL
45	1n	23	ARG
46	1o	39	LEU
46	1o	87	ILE
47	1p	2	VAL
47	1p	5	ARG
47	1p	20	VAL

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Mol	Chain	Res	Type
47	1p	21	VAL
47	1p	67	THR
48	1q	9	VAL
48	1q	15	MET
48	1q	35	VAL
48	1q	39	SER
48	1q	68	ARG
49	1r	26	LEU
49	1r	31	LEU
49	1r	46	GLU
49	1r	47	THR
50	1s	12	ASP
50	1s	28	LYS
51	1t	13	LEU
51	1t	24	LEU
51	1t	56	MET
3	2D	3	VAL
3	2D	20	ASP
3	2D	94	LEU
3	2D	106	ILE
3	2D	113	VAL
3	2D	116	GLN
3	2D	142	VAL
3	2D	157	ARG
3	2D	173	VAL
3	2D	204	ILE
3	2D	263	ARG
4	2E	9	VAL
4	2E	12	THR
4	2E	21	VAL
4	2E	23	VAL
4	2E	24	THR
4	2E	52	LEU
4	2E	75	VAL
4	2E	78	LEU
4	2E	101	ARG
4	2E	116	VAL
4	2E	134	ILE
4	2E	181	LEU
4	2E	182	LEU
4	2E	184	VAL
4	2E	195	LEU

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Mol	Chain	Res	Type
5	2F	12	LEU
5	2F	20	LEU
5	2F	33	LEU
5	2F	53	THR
5	2F	57	VAL
5	2F	74	ARG
5	2F	82	ILE
5	2F	88	VAL
5	2F	132	VAL
5	2F	149	ASP
5	2F	168	ARG
5	2F	170	LEU
5	2F	183	VAL
5	2F	192	LEU
5	2F	201	VAL
6	2G	5	VAL
6	2G	7	LEU
6	2G	31	VAL
6	2G	43	LEU
6	2G	133	LEU
6	2G	135	LEU
6	2G	139	LEU
6	2G	140	ILE
6	2G	145	THR
6	2G	159	VAL
7	2H	49	VAL
7	2H	59	ARG
7	2H	103	LEU
7	2H	134	SER
7	2H	148	ILE
7	2H	152	ARG
8	2I	15	VAL
8	2I	38	LEU
8	2I	47	LEU
8	2I	79	ILE
8	2I	92	VAL
8	2I	107	VAL
8	2I	108	THR
8	2I	116	LEU
8	2I	123	LEU
8	2I	127	VAL
9	2N	23	LEU

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Mol	Chain	Res	Type
9	2N	28	THR
9	2N	34	LEU
9	2N	43	THR
9	2N	46	VAL
9	2N	60	ILE
9	2N	62	VAL
9	2N	73	THR
9	2N	87	LEU
9	2N	120	LEU
9	2N	140	VAL
10	2O	63	VAL
10	2O	78	ARG
11	2P	42	SER
11	2P	45	LEU
11	2P	95	VAL
11	2P	99	LEU
11	2P	112	LEU
11	2P	125	VAL
12	2Q	1	MET
12	2Q	2	LEU
12	2Q	16	ARG
12	2Q	21	THR
12	2Q	29	PHE
12	2Q	55	VAL
12	2Q	75	THR
12	2Q	101	ARG
12	2Q	109	VAL
12	2Q	110	THR
13	2R	15	SER
13	2R	18	LEU
13	2R	20	LEU
13	2R	24	GLN
13	2R	29	LEU
13	2R	35	THR
13	2R	44	LEU
13	2R	65	LEU
13	2R	67	LEU
13	2R	76	VAL
13	2R	100	LEU
13	2R	102	GLU
13	2R	111	LEU
14	2S	8	GLU

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Mol	Chain	Res	Type
14	2S	21	THR
14	2S	36	TYR
14	2S	46	VAL
14	2S	58	LEU
14	2S	64	GLU
14	2S	110	LEU
15	2T	6	LEU
15	2T	10	VAL
15	2T	31	SER
15	2T	46	GLU
15	2T	67	SER
15	2T	96	ARG
15	2T	104	ASN
16	2U	6	THR
16	2U	17	ILE
16	2U	33	ARG
16	2U	74	LEU
16	2U	95	LEU
17	2V	14	VAL
17	2V	18	LEU
17	2V	38	LEU
17	2V	51	VAL
17	2V	52	VAL
17	2V	61	VAL
17	2V	72	VAL
17	2V	79	VAL
17	2V	82	ARG
18	2W	11	ARG
18	2W	17	VAL
18	2W	19	LEU
18	2W	23	LEU
18	2W	67	ASP
18	2W	92	ARG
18	2W	96	ILE
18	2W	100	THR
18	2W	107	LEU
18	2W	109	GLU
19	2X	14	SER
19	2X	45	THR
19	2X	52	VAL
19	2X	57	LEU
19	2X	81	VAL

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Mol	Chain	Res	Type
20	2Y	14	LEU
20	2Y	38	ILE
20	2Y	72	VAL
20	2Y	83	THR
20	2Y	84	ARG
20	2Y	99	CYS
21	2Z	27	VAL
21	2Z	33	LEU
21	2Z	86	VAL
21	2Z	126	VAL
21	2Z	129	SER
21	2Z	144	LEU
21	2Z	154	ASP
21	2Z	171	ILE
22	20	27	GLU
22	20	36	ILE
22	20	63	VAL
23	21	4	VAL
24	22	53	LEU
25	23	23	LEU
25	23	30	ARG
25	23	31	LEU
25	23	40	THR
25	23	53	LEU
25	23	54	VAL
26	24	24	THR
26	24	34	GLU
26	24	50	VAL
26	24	63	TYR
27	25	6	VAL
27	25	16	ARG
27	25	21	SER
28	26	9	LEU
28	26	13	CYS
28	26	30	THR
28	26	32	ASN
29	27	41	ARG
30	28	14	VAL
30	28	23	VAL
30	28	32	LEU
31	29	4	ARG
31	29	7	VAL

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Mol	Chain	Res	Type
31	29	17	ILE
33	2b	7	VAL
33	2b	11	LEU
33	2b	41	ILE
33	2b	48	MET
33	2b	93	VAL
33	2b	94	ASN
33	2b	102	LEU
33	2b	127	ILE
33	2b	140	HIS
33	2b	144	ARG
33	2b	158	LEU
33	2b	165	VAL
33	2b	178	ARG
33	2b	185	ILE
33	2b	189	ASP
34	2c	47	LEU
34	2c	49	SER
34	2c	57	ILE
34	2c	77	ILE
34	2c	89	GLU
34	2c	103	VAL
34	2c	115	LEU
34	2c	166	GLU
34	2c	175	LEU
35	2d	5	ILE
35	2d	83	SER
35	2d	107	ARG
35	2d	108	LEU
35	2d	110	PHE
35	2d	135	LEU
35	2d	141	ARG
35	2d	150	GLU
35	2d	158	ILE
35	2d	170	VAL
35	2d	175	SER
35	2d	178	VAL
35	2d	181	MET
35	2d	184	LYS
35	2d	205	GLU
36	2e	13	ILE
36	2e	25	ARG

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Mol	Chain	Res	Type
36	2e	32	VAL
36	2e	34	VAL
36	2e	41	VAL
36	2e	73	ASN
36	2e	81	GLU
36	2e	83	GLU
37	2f	10	LEU
37	2f	28	ARG
37	2f	37	VAL
37	2f	75	LEU
38	2g	9	VAL
38	2g	15	ASP
38	2g	16	LEU
38	2g	52	GLU
38	2g	78	ARG
38	2g	79	ARG
38	2g	98	SER
38	2g	104	LEU
39	2h	2	LEU
39	2h	3	THR
39	2h	60	ARG
39	2h	68	ARG
39	2h	83	ILE
39	2h	87	SER
39	2h	112	LEU
39	2h	119	LEU
39	2h	134	ILE
40	2i	64	THR
40	2i	89	ASN
40	2i	102	LEU
40	2i	108	VAL
40	2i	109	VAL
41	2j	8	LEU
41	2j	17	ASP
41	2j	23	ILE
41	2j	25	GLU
41	2j	59	SER
41	2j	67	THR
41	2j	100	THR
42	2k	14	VAL
42	2k	24	SER
42	2k	81	ASP

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Mol	Chain	Res	Type
42	2k	84	VAL
42	2k	109	VAL
42	2k	114	VAL
43	2l	12	ARG
43	2l	60	LEU
43	2l	113	ARG
43	2l	117	ARG
44	2m	15	VAL
44	2m	103	THR
45	2n	6	LEU
45	2n	11	LYS
45	2n	25	VAL
45	2n	33	VAL
45	2n	44	LEU
46	2o	10	LYS
46	2o	12	ILE
46	2o	37	ASN
46	2o	83	GLU
46	2o	88	ARG
47	2p	2	VAL
47	2p	20	VAL
47	2p	21	VAL
47	2p	42	ARG
47	2p	60	LEU
47	2p	62	VAL
48	2q	6	LEU
48	2q	35	VAL
48	2q	36	ILE
48	2q	57	VAL
48	2q	79	SER
48	2q	97	SER
49	2r	26	LEU
49	2r	37	VAL
49	2r	59	SER
50	2s	41	VAL
50	2s	65	ASN
50	2s	71	LEU
50	2s	79	THR
51	2t	24	LEU
51	2t	70	SER
51	2t	72	LEU
51	2t	84	LEU

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Mol	Chain	Res	Type
52	2u	6	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (122) such sidechains are listed below:

Mol	Chain	Res	Type
5	1F	8	GLN
5	1F	69	HIS
5	1F	203	GLN
6	1G	79	ASN
8	1I	11	ASN
8	1I	104	GLN
8	1I	105	HIS
9	1N	56	ASN
9	1N	69	GLN
10	1O	5	GLN
12	1Q	57	HIS
13	1R	61	HIS
13	1R	71	GLN
14	1S	61	ASN
15	1T	58	ASN
15	1T	84	GLN
16	1U	72	HIS
16	1U	94	ASN
16	1U	104	GLN
18	1W	60	ASN
19	1X	31	HIS
19	1X	82	GLN
20	1Y	6	HIS
20	1Y	43	ASN
21	1Z	32	HIS
21	1Z	54	HIS
23	11	56	GLN
24	12	9	GLN
25	13	32	GLN
26	14	47	GLN
27	15	4	HIS
28	16	20	ASN
30	18	35	GLN
33	1b	37	ASN
33	1b	40	HIS
33	1b	212	GLN
34	1c	6	HIS

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Mol	Chain	Res	Type
34	1c	37	GLN
34	1c	69	HIS
34	1c	104	GLN
35	1d	77	ASN
35	1d	116	GLN
35	1d	119	GLN
35	1d	123	HIS
36	1e	78	HIS
37	1f	13	ASN
37	1f	73	ASN
38	1g	28	ASN
40	1i	3	GLN
40	1i	23	ASN
40	1i	34	ASN
40	1i	58	HIS
40	1i	124	GLN
41	1j	56	HIS
42	1k	116	HIS
43	1l	80	HIS
43	1l	99	HIS
44	1m	40	ASN
45	1n	49	HIS
46	1o	46	HIS
46	1o	50	HIS
47	1p	13	HIS
50	1s	83	HIS
3	2D	87	ASN
3	2D	112	GLN
4	2E	48	GLN
4	2E	66	HIS
5	2F	40	GLN
5	2F	69	HIS
5	2F	203	GLN
6	2G	79	ASN
7	2H	158	HIS
9	2N	38	HIS
10	2O	5	GLN
12	2Q	12	GLN
12	2Q	13	GLN
12	2Q	123	HIS
13	2R	13	HIS
13	2R	71	GLN

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Mol	Chain	Res	Type
14	2S	38	GLN
15	2T	43	GLN
15	2T	104	ASN
15	2T	123	GLN
16	2U	71	GLN
16	2U	81	HIS
19	2X	31	HIS
21	2Z	55	HIS
21	2Z	73	GLN
21	2Z	121	HIS
23	21	56	GLN
24	22	65	ASN
26	24	46	GLN
27	25	22	HIS
28	26	32	ASN
30	28	43	GLN
33	2b	94	ASN
33	2b	95	GLN
34	2c	6	HIS
34	2c	108	ASN
34	2c	162	GLN
35	2d	42	GLN
35	2d	77	ASN
35	2d	116	GLN
35	2d	125	HIS
36	2e	127	ASN
36	2e	141	GLN
37	2f	73	ASN
37	2f	100	ASN
38	2g	28	ASN
38	2g	68	ASN
39	2h	82	HIS
40	2i	3	GLN
40	2i	31	GLN
40	2i	58	HIS
41	2j	13	HIS
41	2j	68	HIS
42	2k	104	GLN
46	2o	28	GLN
47	2p	16	HIS
48	2q	45	HIS
49	2r	63	GLN

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Mol	Chain	Res	Type
51	2t	75	ASN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	1A	2863/2915 (98%)	474 (16%)	28 (0%)
1	2A	2791/2915 (95%)	502 (17%)	22 (0%)
2	1B	120/121 (99%)	12 (10%)	2 (1%)
2	2B	118/121 (97%)	32 (27%)	0
32	1a	1497/1521 (98%)	243 (16%)	0
32	2a	1501/1521 (98%)	271 (18%)	0
53	1v	12/24 (50%)	3 (25%)	0
53	2v	12/24 (50%)	2 (16%)	0
54	1w	72/76 (94%)	22 (30%)	0
54	1y	72/76 (94%)	21 (29%)	0
54	2w	69/76 (90%)	24 (34%)	0
54	2y	70/76 (92%)	27 (38%)	0
55	1x	75/77 (97%)	12 (16%)	0
55	2x	75/77 (97%)	9 (12%)	0
All	All	9347/9620 (97%)	1654 (17%)	52 (0%)

All (1654) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	1A	12	U
1	1A	13	A
1	1A	34	C
1	1A	45	C
1	1A	57	G
1	1A	60	G
1	1A	62	U
1	1A	63	A
1	1A	70	A
1	1A	73	A
1	1A	74	G
1	1A	83	A
1	1A	91	G
1	1A	94	G
1	1A	112	U
1	1A	116	A
1	1A	117	A

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Mol	Chain	Res	Type
1	1A	118	U
1	1A	123	G
1	1A	129	G
1	1A	162	G
1	1A	164	G
1	1A	185	A
1	1A	188	A
1	1A	194	G
1	1A	203	G
1	1A	204	G
1	1A	205	A
1	1A	211	A
1	1A	212	A
1	1A	215	G
1	1A	217	A
1	1A	218	A
1	1A	222	A
1	1A	237	G
1	1A	262	C
1	1A	263	C
1	1A	272	U
1	1A	273	G
1	1A	275	C
1	1A	288	U
1	1A	289	G
1	1A	299	G
1	1A	303	C
1	1A	335	A
1	1A	353	G
1	1A	354	A
1	1A	376	G
1	1A	381	A
1	1A	384	G
1	1A	387	G
1	1A	388	A
1	1A	389	G
1	1A	393	A
1	1A	413	G
1	1A	432	U
1	1A	438	G
1	1A	439	A
1	1A	448	U

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Mol	Chain	Res	Type
1	1A	455	A
1	1A	470	C
1	1A	474	U
1	1A	483	A
1	1A	507	G
1	1A	529	U
1	1A	530	A
1	1A	534	C
1	1A	537	G
1	1A	555	G
1	1A	556	C
1	1A	557	A
1	1A	558	G
1	1A	569	G
1	1A	573	G
1	1A	586	G
1	1A	596	G
1	1A	598	A
1	1A	615	G
1	1A	626	A
1	1A	627	G
1	1A	630	U
1	1A	639	G
1	1A	641	G
1	1A	652	A
1	1A	662	A
1	1A	670	C
1	1A	671	A
1	1A	678	A
1	1A	693	G
1	1A	697	C
1	1A	703	G
1	1A	716	G
1	1A	724	A
1	1A	733	G
1	1A	777	C
1	1A	787	U
1	1A	804	U
1	1A	811	A
1	1A	812	G
1	1A	822	G
1	1A	823	G

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Mol	Chain	Res	Type
1	1A	829	A
1	1A	831	A
1	1A	832	G
1	1A	837	C
1	1A	839	G
1	1A	852	G
1	1A	859	C
1	1A	866	A
1	1A	874	U
1	1A	875	U
1	1A	879	G
1	1A	906	G
1	1A	913	A
1	1A	924	U
1	1A	926	G
1	1A	927	G
1	1A	928	G
1	1A	929	G
1	1A	931	C
1	1A	932	C
1	1A	933	C
1	1A	934	A
1	1A	935	C
1	1A	936	C
1	1A	937	A
1	1A	940	C
1	1A	941	U
1	1A	942	A
1	1A	943	C
1	1A	944	C
1	1A	945	A
1	1A	953	U
1	1A	956	A
1	1A	957	A
1	1A	965	G
1	1A	976	G
1	1A	977	G
1	1A	990	A
1	1A	991	G
1	1A	1003	U
1	1A	1004	A
1	1A	1006	C

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Mol	Chain	Res	Type
1	1A	1019	G
1	1A	1020	C
1	1A	1021	G
1	1A	1029	A
1	1A	1042	A
1	1A	1051	C
1	1A	1058	U
1	1A	1059	C
1	1A	1068	G
1	1A	1071	G
1	1A	1072	U
1	1A	1073	A
1	1A	1076	G
1	1A	1079	U
1	1A	1083	G
1	1A	1084	C
1	1A	1087	C
1	1A	1090	G
1	1A	1092	A
1	1A	1093	G
1	1A	1094	A
1	1A	1100	A
1	1A	1101	G
1	1A	1104	G
1	1A	1105	G
1	1A	1112	U
1	1A	1114	G
1	1A	1117	G
1	1A	1119	A
1	1A	1120	G
1	1A	1121	C
1	1A	1122	C
1	1A	1124	U
1	1A	1125	C
1	1A	1126	C
1	1A	1133	G
1	1A	1134	A
1	1A	1137	G
1	1A	1138	C
1	1A	1139	G
1	1A	1140	U
1	1A	1142	A

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Mol	Chain	Res	Type
1	1A	1146	C
1	1A	1149	A
1	1A	1156	G
1	1A	1157	A
1	1A	1158	G
1	1A	1162	C
1	1A	1164	C
1	1A	1175	A
1	1A	1176	U
1	1A	1180	C
1	1A	1181	G
1	1A	1187	U
1	1A	1216	G
1	1A	1217	G
1	1A	1218	G
1	1A	1219	A
1	1A	1220	U
1	1A	1221	G
1	1A	1222	A
1	1A	1256	U
1	1A	1263	C
1	1A	1287	A
1	1A	1299	A
1	1A	1302	G
1	1A	1317	G
1	1A	1318	A
1	1A	1319	U
1	1A	1335	C
1	1A	1346	U
1	1A	1347	A
1	1A	1349	G
1	1A	1375	U
1	1A	1388	A
1	1A	1398	U
1	1A	1405	A
1	1A	1406	A
1	1A	1411	A
1	1A	1426	G
1	1A	1430	A
1	1A	1431	G
1	1A	1441	A
1	1A	1442	U

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Mol	Chain	Res	Type
1	1A	1462	G
1	1A	1463	C
1	1A	1466	U
1	1A	1474	C
1	1A	1475	G
1	1A	1485	A
1	1A	1491	A
1	1A	1497	G
1	1A	1502	G
1	1A	1514	C
1	1A	1529	G
1	1A	1530	G
1	1A	1536	A
1	1A	1539	C
1	1A	1540	A
1	1A	1545	C
1	1A	1554	A
1	1A	1555	C
1	1A	1556	A
1	1A	1569	U
1	1A	1571	G
1	1A	1601	A
1	1A	1605	A
1	1A	1606	G
1	1A	1613	A
1	1A	1616	A
1	1A	1625	U
1	1A	1627	A
1	1A	1628	G
1	1A	1631	C
1	1A	1632	A
1	1A	1654	A
1	1A	1658	C
1	1A	1694	G
1	1A	1695	C
1	1A	1700	G
1	1A	1701	A
1	1A	1721	G
1	1A	1743	G
1	1A	1747	A
1	1A	1748	A
1	1A	1750	G

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Mol	Chain	Res	Type
1	1A	1767	A
1	1A	1776	G
1	1A	1787	G
1	1A	1793	A
1	1A	1794	G
1	1A	1795	G
1	1A	1800	G
1	1A	1804	A
1	1A	1811	A
1	1A	1813	C
1	1A	1822	A
1	1A	1831	C
1	1A	1843	A
1	1A	1847	G
1	1A	1859	G
1	1A	1860	A
1	1A	1871	G
1	1A	1878	A
1	1A	1879	A
1	1A	1892	G
1	1A	1899	A
1	1A	1911	A
1	1A	1915	C
1	1A	1922	A
1	1A	1928	G
1	1A	1941	A
1	1A	1949	A
1	1A	1951	G
1	1A	1952	G
1	1A	1953	U
1	1A	1956	C
1	1A	1959	A
1	1A	1960	A
1	1A	1977	U
1	1A	1985	U
1	1A	1989	C
1	1A	1992	A
1	1A	1993	A
1	1A	1994	A
1	1A	2006	G
1	1A	2014	G
1	1A	2015	U

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Mol	Chain	Res	Type
1	1A	2019	G
1	1A	2042	A
1	1A	2045	G
1	1A	2053	A
1	1A	2054	G
1	1A	2055	A
1	1A	2061	C
1	1A	2065	C
1	1A	2074	G
1	1A	2077	C
1	1A	2078	G
1	1A	2082	A
1	1A	2083	G
1	1A	2084	A
1	1A	2091	G
1	1A	2118	U
1	1A	2120	U
1	1A	2124	U
1	1A	2132	G
1	1A	2135	U
1	1A	2136	A
1	1A	2141	A
1	1A	2143	G
1	1A	2144	U
1	1A	2148	A
1	1A	2149	G
1	1A	2151	C
1	1A	2152	U
1	1A	2153	G
1	1A	2154	U
1	1A	2155	G
1	1A	2156	A
1	1A	2157	A
1	1A	2158	C
1	1A	2164	C
1	1A	2166	U
1	1A	2168	C
1	1A	2169	G
1	1A	2170	G
1	1A	2172	U
1	1A	2177	G
1	1A	2179	G

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Mol	Chain	Res	Type
1	1A	2180	A
1	1A	2181	G
1	1A	2188	G
1	1A	2189	U
1	1A	2190	G
1	1A	2192	A
1	1A	2194	U
1	1A	2195	A
1	1A	2196	C
1	1A	2200	C
1	1A	2203	G
1	1A	2206	G
1	1A	2207	C
1	1A	2211	U
1	1A	2214	G
1	1A	2220	A
1	1A	2227	G
1	1A	2228	G
1	1A	2229	A
1	1A	2230	U
1	1A	2237	A
1	1A	2250	G
1	1A	2251	G
1	1A	2280	A
1	1A	2281	A
1	1A	2285	A
1	1A	2292	G
1	1A	2295	C
1	1A	2299	A
1	1A	2306	C
1	1A	2317	A
1	1A	2320	G
1	1A	2332	A
1	1A	2337	G
1	1A	2346	G
1	1A	2348	A
1	1A	2359	C
1	1A	2362	C
1	1A	2366	G
1	1A	2373	A
1	1A	2384	G
1	1A	2395	G

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Mol	Chain	Res	Type
1	1A	2397	C
1	1A	2408	G
1	1A	2418	U
1	1A	2419	G
1	1A	2422	G
1	1A	2430	A
1	1A	2434	A
1	1A	2437	A
1	1A	2441	G
1	1A	2442	A
1	1A	2443	U
1	1A	2447	A
1	1A	2451	A
1	1A	2453	C
1	1A	2460	A
1	1A	2483	C
1	1A	2488	A
1	1A	2489	C
1	1A	2490	A
1	1A	2502	G
1	1A	2506	G
1	1A	2514	G
1	1A	2517	G
1	1A	2518	U
1	1A	2530	A
1	1A	2532	C
1	1A	2537	G
1	1A	2541	G
1	1A	2561	G
1	1A	2566	U
1	1A	2576	A
1	1A	2578	A
1	1A	2579	G
1	1A	2585	C
1	1A	2594	G
1	1A	2614	A
1	1A	2621	U
1	1A	2623	U
1	1A	2624	C
1	1A	2641	A
1	1A	2642	G
1	1A	2646	G

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Mol	Chain	Res	Type
1	1A	2666	A
1	1A	2681	G
1	1A	2682	A
1	1A	2701	U
1	1A	2702	C
1	1A	2703	C
1	1A	2714	U
1	1A	2715	C
1	1A	2725	A
1	1A	2726	A
1	1A	2727	G
1	1A	2739	U
1	1A	2745	G
1	1A	2746	A
1	1A	2757	G
1	1A	2763	A
1	1A	2765	C
1	1A	2770	A
1	1A	2771	A
1	1A	2774	G
1	1A	2777	A
1	1A	2778	A
1	1A	2779	G
1	1A	2782	C
1	1A	2791	A
1	1A	2793	G
1	1A	2803	A
1	1A	2804	C
1	1A	2807	C
1	1A	2813	G
1	1A	2830	A
1	1A	2831	A
1	1A	2845	A
1	1A	2882	G
1	1A	2890	C
1	1A	2901	A
1	1A	2903	G
2	1B	2	C
2	1B	9	G
2	1B	12	C
2	1B	15	A
2	1B	25	A

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Mol	Chain	Res	Type
2	1B	35	U
2	1B	56	G
2	1B	66	A
2	1B	67	G
2	1B	73	A
2	1B	106	G
2	1B	110	G
32	1a	7	G
32	1a	9	G
32	1a	32	A
32	1a	39	G
32	1a	47	C
32	1a	48	C
32	1a	51	A
32	1a	52	G
32	1a	54	C
32	1a	61	G
32	1a	79	G
32	1a	91	C
32	1a	96	U
32	1a	98	G
32	1a	101	A
32	1a	105	G
32	1a	116	A
32	1a	121	C
32	1a	131	C
32	1a	145	G
32	1a	162	A
32	1a	163	C
32	1a	174	C
32	1a	183	G
32	1a	189(F)	U
32	1a	189(H)	G
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

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Mol	Chain	Res	Type
32	1a	251	G
32	1a	258	G
32	1a	266	G
32	1a	267	C
32	1a	289	G
32	1a	301	G
32	1a	318	G
32	1a	321	A
32	1a	328	C
32	1a	332	G
32	1a	342	C
32	1a	348	G
32	1a	351	G
32	1a	352	C
32	1a	353	A
32	1a	354	G
32	1a	367	U
32	1a	372	C
32	1a	373	A
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	421	U
32	1a	423	G
32	1a	424	G
32	1a	429	U
32	1a	430	A
32	1a	439	A
32	1a	441	A
32	1a	442	C
32	1a	452	A
32	1a	453	A
32	1a	457	C
32	1a	458	C
32	1a	461	A
32	1a	470	C
32	1a	482	A
32	1a	483	C
32	1a	485	G

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Mol	Chain	Res	Type
32	1a	496	A
32	1a	498	U
32	1a	505	G
32	1a	509	A
32	1a	510	A
32	1a	511	C
32	1a	518	C
32	1a	524	G
32	1a	531	U
32	1a	532	A
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	576	G
32	1a	596	C
32	1a	607	A
32	1a	619	U
32	1a	630	G
32	1a	631	G
32	1a	653	A
32	1a	665	A
32	1a	687	A
32	1a	688	G
32	1a	695	A
32	1a	717	C
32	1a	723	U
32	1a	731	G
32	1a	734	G
32	1a	747	C
32	1a	749	C
32	1a	752	G
32	1a	755	G
32	1a	777	A
32	1a	792	A
32	1a	793	U
32	1a	794	A
32	1a	815	A

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Mol	Chain	Res	Type
32	1a	817	C
32	1a	821	G
32	1a	828	A
32	1a	840	C
32	1a	841	U
32	1a	851	G
32	1a	859	A
32	1a	870	U
32	1a	885	G
32	1a	891	U
32	1a	902	G
32	1a	914	A
32	1a	916	G
32	1a	926	G
32	1a	927	G
32	1a	931	C
32	1a	934	C
32	1a	960	U
32	1a	961	U
32	1a	968	A
32	1a	969	A
32	1a	971	G
32	1a	972	C
32	1a	974	A
32	1a	975	A
32	1a	976	G
32	1a	977	A
32	1a	992	U
32	1a	993	G
32	1a	994	A
32	1a	997	U
32	1a	1000	U
32	1a	1001(A)	G
32	1a	1003	G
32	1a	1005	A
32	1a	1006	C
32	1a	1009	G
32	1a	1020	U
32	1a	1022	G
32	1a	1023	G
32	1a	1026	G
32	1a	1028	C

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Mol	Chain	Res	Type
32	1a	1029	C
32	1a	1030	C
32	1a	1030(A)	G
32	1a	1030(C)	G
32	1a	1030(D)	A
32	1a	1031	G
32	1a	1033	G
32	1a	1039	C
32	1a	1040	U
32	1a	1043	C
32	1a	1053	G
32	1a	1054	C
32	1a	1068	G
32	1a	1081	G
32	1a	1094	G
32	1a	1095	U
32	1a	1096	C
32	1a	1101	A
32	1a	1108	G
32	1a	1123	A
32	1a	1125	U
32	1a	1129	C
32	1a	1132	C
32	1a	1134	G
32	1a	1137	C
32	1a	1138	G
32	1a	1139	G
32	1a	1140	C
32	1a	1146	A
32	1a	1152	A
32	1a	1159	U
32	1a	1184	G
32	1a	1196	U
32	1a	1197	G
32	1a	1201	A
32	1a	1202	G
32	1a	1212	U
32	1a	1213	A
32	1a	1227	A
32	1a	1236	A
32	1a	1238	A
32	1a	1256	A

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Mol	Chain	Res	Type
32	1a	1257	U
32	1a	1270	C
32	1a	1275	A
32	1a	1279	A
32	1a	1280	A
32	1a	1286	A
32	1a	1287	A
32	1a	1300	G
32	1a	1302	U
32	1a	1319	A
32	1a	1320	C
32	1a	1322	C
32	1a	1338	G
32	1a	1340	A
32	1a	1347	G
32	1a	1353	G
32	1a	1363	C
32	1a	1364	U
32	1a	1370	G
32	1a	1378	C
32	1a	1397	C
32	1a	1400	5MC
32	1a	1419	G
32	1a	1442	G
32	1a	1442(A)	G
32	1a	1446	U
32	1a	1447	A
32	1a	1456	G
32	1a	1487	G
32	1a	1492	A
32	1a	1494	G
32	1a	1497	G
32	1a	1503	A
32	1a	1504	G
32	1a	1505	G
32	1a	1506	U
32	1a	1517	G
32	1a	1529	G
32	1a	1530	G
32	1a	1532	U
53	1v	13	A
53	1v	14	A

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Mol	Chain	Res	Type
53	1v	24	A
54	1w	2	C
54	1w	3	C
54	1w	4	C
54	1w	6	G
54	1w	7	A
54	1w	8	4SU
54	1w	14	A
54	1w	19	G
54	1w	20	U
54	1w	21	A
54	1w	24	G
54	1w	45	U
54	1w	46	7MG
54	1w	47	U
54	1w	48	C
54	1w	62	C
54	1w	68	C
54	1w	70	G
54	1w	71	G
54	1w	72	C
54	1w	73	A
54	1w	74	C
55	1x	9	G
55	1x	13	C
55	1x	19	G
55	1x	21	A
55	1x	47	U
55	1x	48	C
55	1x	59	A
55	1x	61	C
55	1x	68	C
55	1x	69	C
55	1x	70	G
55	1x	76	A
54	1y	6	G
54	1y	8	4SU
54	1y	9	A
54	1y	11	C
54	1y	13	C
54	1y	19	G
54	1y	20	U

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Mol	Chain	Res	Type
54	1y	21	A
54	1y	35	A
54	1y	45	U
54	1y	46	7MG
54	1y	47	U
54	1y	48	C
54	1y	49	C
54	1y	54	5MU
54	1y	57	G
54	1y	59	U
54	1y	65	G
54	1y	69	G
54	1y	70	G
54	1y	73	A
1	2A	11	G
1	2A	12	U
1	2A	15	G
1	2A	29	U
1	2A	35	G
1	2A	45	C
1	2A	71	A
1	2A	74	A
1	2A	75	G
1	2A	84	A
1	2A	90	U
1	2A	96	G
1	2A	100	G
1	2A	102	G
1	2A	118	A
1	2A	119	A
1	2A	120	U
1	2A	125	G
1	2A	157	U
1	2A	173	G
1	2A	181	A
1	2A	196	A
1	2A	198	C
1	2A	205	G
1	2A	214	G
1	2A	215	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	230	U
1	2A	232	G
1	2A	243	U
1	2A	248	G
1	2A	249	C
1	2A	250	G
1	2A	266	G
1	2A	271(E)	U
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	G
1	2A	272(B)	G
1	2A	272(I)	U
1	2A	272(J)	C
1	2A	277	C
1	2A	278	A
1	2A	294	A
1	2A	311	A
1	2A	312	G
1	2A	320	A
1	2A	329	G
1	2A	330	A
1	2A	342	G
1	2A	352	G
1	2A	354	G
1	2A	361	G
1	2A	362	U
1	2A	363	G
1	2A	363(B)	G
1	2A	386	G
1	2A	391	G
1	2A	396	G
1	2A	399	G
1	2A	405	U

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Mol	Chain	Res	Type
1	2A	411	G
1	2A	422	A
1	2A	443	A
1	2A	444	C
1	2A	454	A
1	2A	455	C
1	2A	456	C
1	2A	457	A
1	2A	474	G
1	2A	481	G
1	2A	498	G
1	2A	505	A
1	2A	508	G
1	2A	509	C
1	2A	528	A
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	563	G
1	2A	568	U
1	2A	573	G
1	2A	575	A
1	2A	588	U
1	2A	599	G
1	2A	603	A
1	2A	604	G
1	2A	607	U
1	2A	614(B)	G
1	2A	615	G
1	2A	616	G
1	2A	627	A
1	2A	637	A
1	2A	645	C
1	2A	652(B)	A
1	2A	652(U)	G
1	2A	669	G
1	2A	686	G
1	2A	701	G
1	2A	717	G

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Mol	Chain	Res	Type
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	782	A
1	2A	783	A
1	2A	784	A
1	2A	785	G
1	2A	790	C
1	2A	792	G
1	2A	805	G
1	2A	812	C
1	2A	819	A
1	2A	827	U
1	2A	828	U
1	2A	857	C
1	2A	859	G
1	2A	866	A
1	2A	869	G
1	2A	870	A
1	2A	874	G
1	2A	877	U
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	890	A
1	2A	893	C
1	2A	894	C
1	2A	896	A
1	2A	900	A
1	2A	901	A
1	2A	904	C
1	2A	910	A
1	2A	917	A
1	2A	932	G

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Mol	Chain	Res	Type
1	2A	933	A
1	2A	938	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	980	A
1	2A	983	A
1	2A	996	A
1	2A	999	U
1	2A	1012	U
1	2A	1013	C
1	2A	1022	G
1	2A	1025	G
1	2A	1026	U
1	2A	1027	A
1	2A	1033	U
1	2A	1038	C
1	2A	1039	G
1	2A	1041	C
1	2A	1043	C
1	2A	1114	G
1	2A	1116	C
1	2A	1122	G
1	2A	1130	U
1	2A	1135	C
1	2A	1136	G
1	2A	1137	G
1	2A	1139	G
1	2A	1142(A)	A
1	2A	1143	A
1	2A	1144	G
1	2A	1171	G
1	2A	1188	U
1	2A	1208	C
1	2A	1210	A
1	2A	1211	U

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Mol	Chain	Res	Type
1	2A	1220	A
1	2A	1236	G
1	2A	1244	G
1	2A	1247	A
1	2A	1248	G
1	2A	1250	G
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	1345	C
1	2A	1347	G
1	2A	1352	U
1	2A	1359	A
1	2A	1360	A
1	2A	1365	A
1	2A	1370	C
1	2A	1379	A
1	2A	1384	A
1	2A	1385	G
1	2A	1386	C
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	1441	G
1	2A	1445	A
1	2A	1449	A
1	2A	1450	G
1	2A	1455	G
1	2A	1460	A
1	2A	1461	G
1	2A	1467	C

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Mol	Chain	Res	Type
1	2A	1471	A
1	2A	1478	G
1	2A	1482	G
1	2A	1490	A
1	2A	1493	C
1	2A	1494	A
1	2A	1495	A
1	2A	1496	A
1	2A	1497	U
1	2A	1508	A
1	2A	1509	C
1	2A	1509(A)	A
1	2A	1511	C
1	2A	1531	C
1	2A	1533	G
1	2A	1542	A
1	2A	1547	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	1588	C
1	2A	1603	A
1	2A	1608	A
1	2A	1609	A
1	2A	1610	A
1	2A	1616	A
1	2A	1640	C
1	2A	1647	G
1	2A	1648	C
1	2A	1654	A
1	2A	1663	C
1	2A	1664	A
1	2A	1674	G
1	2A	1676	A
1	2A	1680	U
1	2A	1691	C
1	2A	1694	C

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Mol	Chain	Res	Type
1	2A	1696	G
1	2A	1700	A
1	2A	1701	A
1	2A	1703	G
1	2A	1721	G
1	2A	1722	A
1	2A	1739	U
1	2A	1740	G
1	2A	1746	G
1	2A	1756	G
1	2A	1758	G
1	2A	1762	A
1	2A	1763	G
1	2A	1764	G
1	2A	1773	A
1	2A	1780	A
1	2A	1791	A
1	2A	1800	C
1	2A	1801	G
1	2A	1806	C
1	2A	1811	G
1	2A	1812	A
1	2A	1816	G
1	2A	1835	G
1	2A	1839	G
1	2A	1847	A
1	2A	1848	A
1	2A	1857	G
1	2A	1866	C
1	2A	1877	A
1	2A	1878	G
1	2A	1900	A
1	2A	1906	G
1	2A	1913	A
1	2A	1914	C
1	2A	1929	G
1	2A	1930	G
1	2A	1936	A
1	2A	1955	U
1	2A	1963	U
1	2A	1967	C
1	2A	1970	A

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Mol	Chain	Res	Type
1	2A	1971	A
1	2A	1972	A
1	2A	1993	U
1	2A	1996	C
1	2A	1997	G
1	2A	2020	A
1	2A	2023	G
1	2A	2031	A
1	2A	2033	A
1	2A	2043	C
1	2A	2051	A
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	2070	G
1	2A	2093	G
1	2A	2099	U
1	2A	2104	G
1	2A	2105	C
1	2A	2108	C
1	2A	2109	U
1	2A	2110	G
1	2A	2111	C
1	2A	2112	G
1	2A	2115	G
1	2A	2116	G
1	2A	2117	A
1	2A	2119	A
1	2A	2122	U
1	2A	2125	G
1	2A	2126	A
1	2A	2127	G
1	2A	2129	C
1	2A	2130	U
1	2A	2131	G
1	2A	2132	U
1	2A	2133	G
1	2A	2134	A
1	2A	2135	A

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Mol	Chain	Res	Type
1	2A	2136	C
1	2A	2137	C
1	2A	2138	C
1	2A	2142	C
1	2A	2146	C
1	2A	2150	U
1	2A	2153	G
1	2A	2156	G
1	2A	2157	G
1	2A	2158	A
1	2A	2161	C
1	2A	2166	G
1	2A	2167	U
1	2A	2168	G
1	2A	2169	A
1	2A	2171	A
1	2A	2172	U
1	2A	2173	A
1	2A	2174	C
1	2A	2178	C
1	2A	2182	G
1	2A	2183	C
1	2A	2185	C
1	2A	2188	C
1	2A	2189	U
1	2A	2192	G
1	2A	2198	A
1	2A	2206	G
1	2A	2207	G
1	2A	2208	A
1	2A	2218	U
1	2A	2225	A
1	2A	2238	G
1	2A	2239	G
1	2A	2243	U
1	2A	2262	U
1	2A	2275	C
1	2A	2278	A
1	2A	2279	G
1	2A	2283	C
1	2A	2287	A
1	2A	2305	A

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Mol	Chain	Res	Type
1	2A	2308	G
1	2A	2309	A
1	2A	2320	A
1	2A	2322	A
1	2A	2325	G
1	2A	2327	A
1	2A	2334	G
1	2A	2336	A
1	2A	2346	A
1	2A	2347	C
1	2A	2350	C
1	2A	2354	G
1	2A	2376	A
1	2A	2377	A
1	2A	2383	G
1	2A	2385	C
1	2A	2396	G
1	2A	2403	C
1	2A	2406	U
1	2A	2410	G
1	2A	2419	U
1	2A	2425	A
1	2A	2428	G
1	2A	2429	G
1	2A	2430	A
1	2A	2434	A
1	2A	2435	A
1	2A	2439	A
1	2A	2440	C
1	2A	2441	C
1	2A	2445	G
1	2A	2448	A
1	2A	2469	A
1	2A	2476	A
1	2A	2487	G
1	2A	2490	G
1	2A	2497	A
1	2A	2502	G
1	2A	2505	G
1	2A	2506	U
1	2A	2507	C
1	2A	2518	A

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Mol	Chain	Res	Type
1	2A	2520	C
1	2A	2525	G
1	2A	2529	G
1	2A	2536	G
1	2A	2554	U
1	2A	2555	U
1	2A	2566	A
1	2A	2567	G
1	2A	2579	C
1	2A	2586	C
1	2A	2602	A
1	2A	2611	U
1	2A	2612	C
1	2A	2629	A
1	2A	2630	G
1	2A	2641	G
1	2A	2654	A
1	2A	2664	G
1	2A	2689	U
1	2A	2691	C
1	2A	2696	U
1	2A	2702	U
1	2A	2703	C
1	2A	2712(A)	A
1	2A	2713	A
1	2A	2714	G
1	2A	2726	U
1	2A	2733	A
1	2A	2744	G
1	2A	2748	A
1	2A	2751	G
1	2A	2757	A
1	2A	2758	A
1	2A	2761	G
1	2A	2764	A
1	2A	2765	A
1	2A	2766	G
1	2A	2778	A
1	2A	2780	G
1	2A	2789	C
1	2A	2802	G
1	2A	2818	G

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Mol	Chain	Res	Type
1	2A	2820	A
1	2A	2821	A
1	2A	2833	G
1	2A	2835	A
1	2A	2836	U
1	2A	2872	G
1	2A	2873	A
1	2A	2880	C
1	2A	2892	A
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	9	G
2	2B	12	C
2	2B	13	A
2	2B	15	A
2	2B	19	G
2	2B	25	A
2	2B	32	C
2	2B	42	C
2	2B	52	A
2	2B	53	A
2	2B	56	G
2	2B	57	A
2	2B	63	G
2	2B	64	C
2	2B	65	C
2	2B	66	A
2	2B	67	G
2	2B	73	A
2	2B	74	U
2	2B	75	G
2	2B	84	C
2	2B	88	C
2	2B	91	C
2	2B	108	U
2	2B	110	G
2	2B	111	G
2	2B	114	C

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Mol	Chain	Res	Type
2	2B	116	G
2	2B	119	G
32	2a	6	G
32	2a	7	G
32	2a	9	G
32	2a	22	G
32	2a	30	U
32	2a	32	A
32	2a	33	A
32	2a	39	G
32	2a	47	C
32	2a	48	C
32	2a	51	A
32	2a	54	C
32	2a	66	G
32	2a	73	G
32	2a	80	G
32	2a	88	A
32	2a	92	C
32	2a	97	G
32	2a	98	G
32	2a	101	A
32	2a	116	A
32	2a	120	A
32	2a	121	C
32	2a	131	C
32	2a	163	C
32	2a	174	C
32	2a	180	U
32	2a	182	U
32	2a	189(B)	C
32	2a	189(F)	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	258	G

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Mol	Chain	Res	Type
32	2a	266	G
32	2a	267	C
32	2a	289	G
32	2a	301	G
32	2a	316	G
32	2a	321	A
32	2a	328	C
32	2a	332	G
32	2a	345	C
32	2a	346	G
32	2a	352	C
32	2a	353	A
32	2a	354	G
32	2a	355	C
32	2a	363	A
32	2a	367	U
32	2a	372	C
32	2a	373	A
32	2a	381	C
32	2a	384	G
32	2a	397	A
32	2a	398	C
32	2a	406	G
32	2a	412	A
32	2a	413	G
32	2a	423	G
32	2a	424	G
32	2a	429	U
32	2a	430	A
32	2a	439	A
32	2a	442	C
32	2a	452	A
32	2a	470	C
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	517	G
32	2a	518	C

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Mol	Chain	Res	Type
32	2a	527	7MG
32	2a	531	U
32	2a	532	A
32	2a	533	A
32	2a	547	A
32	2a	559	A
32	2a	560	U
32	2a	561	U
32	2a	564	C
32	2a	568	G
32	2a	572	A
32	2a	573	A
32	2a	574	A
32	2a	576	G
32	2a	577	G
32	2a	619	U
32	2a	630	G
32	2a	653	A
32	2a	661	G
32	2a	665	A
32	2a	673	G
32	2a	687	A
32	2a	688	G
32	2a	701	C
32	2a	702	A
32	2a	721	G
32	2a	723	U
32	2a	724	G
32	2a	731	G
32	2a	735	C
32	2a	738	C
32	2a	749	C
32	2a	755	G
32	2a	773	G
32	2a	777	A
32	2a	792	A
32	2a	793	U
32	2a	794	A
32	2a	817	C
32	2a	821	G
32	2a	828	A
32	2a	834	C

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Mol	Chain	Res	Type
32	2a	840	C
32	2a	841	U
32	2a	848	C
32	2a	853	G
32	2a	858	G
32	2a	859	A
32	2a	870	U
32	2a	902	G
32	2a	914	A
32	2a	916	G
32	2a	926	G
32	2a	927	G
32	2a	934	C
32	2a	935	A
32	2a	942	G
32	2a	960	U
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
32	2a	995	C
32	2a	997	U
32	2a	999	C
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

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Mol	Chain	Res	Type
32	2a	1023	G
32	2a	1025	U
32	2a	1026	G
32	2a	1027	C
32	2a	1029	C
32	2a	1030(A)	G
32	2a	1031	G
32	2a	1033	G
32	2a	1035	A
32	2a	1036	G
32	2a	1037	C
32	2a	1038	C
32	2a	1039	C
32	2a	1040	U
32	2a	1043	C
32	2a	1045	C
32	2a	1046	A
32	2a	1054	C
32	2a	1065	U
32	2a	1066	C
32	2a	1068	G
32	2a	1077	G
32	2a	1079	G
32	2a	1081	G
32	2a	1087	G
32	2a	1094	G
32	2a	1095	U
32	2a	1101	A
32	2a	1109	C
32	2a	1117	G
32	2a	1121	U
32	2a	1122	U
32	2a	1125	U
32	2a	1129	C
32	2a	1130	A
32	2a	1134	G
32	2a	1136	U
32	2a	1137	C
32	2a	1138	G
32	2a	1139	G
32	2a	1146	A
32	2a	1152	A

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Mol	Chain	Res	Type
32	2a	1157	A
32	2a	1158	C
32	2a	1159	U
32	2a	1161	C
32	2a	1174	G
32	2a	1182	G
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	1238	A
32	2a	1240	U
32	2a	1241	G
32	2a	1256	A
32	2a	1257	U
32	2a	1260	C
32	2a	1264	C
32	2a	1270	C
32	2a	1274	G
32	2a	1275	A
32	2a	1276	G
32	2a	1278	U
32	2a	1279	A
32	2a	1280	A
32	2a	1286	A
32	2a	1287	A
32	2a	1299	A
32	2a	1300	G
32	2a	1303	C
32	2a	1305	G
32	2a	1313	U
32	2a	1320	C
32	2a	1322	C
32	2a	1323	G
32	2a	1338	G
32	2a	1346	A
32	2a	1347	G
32	2a	1363	C

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Mol	Chain	Res	Type
32	2a	1368	G
32	2a	1370	G
32	2a	1397	C
32	2a	1402	4OC
32	2a	1419	G
32	2a	1442	G
32	2a	1442(A)	G
32	2a	1446	U
32	2a	1447	A
32	2a	1452	C
32	2a	1456	G
32	2a	1492	A
32	2a	1499	A
32	2a	1503	A
32	2a	1504	G
32	2a	1506	U
32	2a	1517	G
32	2a	1520	G
32	2a	1529	G
32	2a	1530	G
32	2a	1532	U
53	2v	13	A
53	2v	14	A
54	2w	3	C
54	2w	4	C
54	2w	8	4SU
54	2w	9	A
54	2w	13	C
54	2w	14	A
54	2w	19	G
54	2w	22	G
54	2w	29	G
54	2w	32	PSU
54	2w	34	G
54	2w	46	7MG
54	2w	48	C
54	2w	50	U
54	2w	61	C
54	2w	64	A
54	2w	65	G
54	2w	66	U
54	2w	68	C

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Mol	Chain	Res	Type
54	2w	69	G
54	2w	70	G
54	2w	71	G
54	2w	74	C
54	2w	76	A
55	2x	9	G
55	2x	19	G
55	2x	20	U
55	2x	21	A
55	2x	47	U
55	2x	48	C
55	2x	62	C
55	2x	67	C
55	2x	76	A
54	2y	2	C
54	2y	14	A
54	2y	15	G
54	2y	19	G
54	2y	30	G
54	2y	34	G
54	2y	37	MIA
54	2y	40	C
54	2y	45	U
54	2y	46	7MG
54	2y	49	C
54	2y	52	G
54	2y	53	G
54	2y	55	PSU
54	2y	56	C
54	2y	57	G
54	2y	58	A
54	2y	59	U
54	2y	60	U
54	2y	61	C
54	2y	62	C
54	2y	63	G
54	2y	65	G
54	2y	66	U
54	2y	69	G
54	2y	70	G
54	2y	73	A

All (52) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	1A	115	G
1	1A	185	A
1	1A	271	U
1	1A	302	A
1	1A	509	A
1	1A	716	G
1	1A	811	A
1	1A	913	A
1	1A	941	U
1	1A	1067	A
1	1A	1093	G
1	1A	1201	A
1	1A	1219	A
1	1A	1220	U
1	1A	1221	G
1	1A	1255	A
1	1A	1286	U
1	1A	1554	A
1	1A	1700	G
1	1A	2014	G
1	1A	2156	A
1	1A	2205	C
1	1A	2418	U
1	1A	2442	A
1	1A	2451	A
1	1A	2641	A
1	1A	2701	U
1	1A	2769	U
2	1B	1	U
2	1B	65	C
1	2A	34	C
1	2A	195	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	856	C
1	2A	900	A
1	2A	1026	U

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Mol	Chain	Res	Type
1	2A	1210	A
1	2A	1420	U
1	2A	1442	G
1	2A	1530	C
1	2A	1653	G
1	2A	1913	A
1	2A	1992	G
1	2A	2126	A
1	2A	2756	U

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

84 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
55	5MU	2x	54	55	19,22,23	1.33	5 (26%)	27,32,35	2.28	6 (22%)
54	5MU	1y	54	54	19,22,23	1.49	6 (31%)	27,32,35	2.02	5 (18%)
54	4SU	1y	8	54	18,21,22	1.74	4 (22%)	25,30,33	1.99	5 (20%)
43	0TD	2l	92	43	8,9,10	4.49	1 (12%)	6,11,13	2.53	3 (50%)
54	PSU	1w	39	54	18,21,22	1.36	2 (11%)	21,30,33	2.07	4 (19%)
1	5MC	1A	1964	1	19,22,23	1.61	3 (15%)	26,32,35	1.26	3 (11%)
32	7MG	1a	527	32	23,26,27	1.44	5 (21%)	27,39,42	2.50	5 (18%)
1	5MU	1A	1937	1	19,22,23	1.43	5 (26%)	27,32,35	2.24	7 (25%)
1	PSU	2A	1911	1	18,21,22	1.36	2 (11%)	21,30,33	1.90	3 (14%)
54	4SU	2y	8	54	18,21,22	1.72	4 (22%)	25,30,33	2.42	6 (24%)
54	PSU	2w	55	54	18,21,22	1.37	2 (11%)	21,30,33	2.02	4 (19%)
32	2MG	2a	1207	32	23,26,27	1.22	2 (8%)	33,38,41	2.28	8 (24%)
54	5MU	1w	54	54	19,22,23	1.41	6 (31%)	27,32,35	2.15	7 (25%)
32	M2G	2a	966	32	24,27,28	1.27	4 (16%)	33,40,43	1.84	6 (18%)
1	2MU	2A	2552	1,56	19,22,24	1.27	2 (10%)	25,31,36	1.85	5 (20%)
1	4OC	2A	1920	1	19,22,24	0.76	0	25,31,35	0.83	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
1	OMG	2A	2251	1,56,55	23,26,27	1.21	2 (8%)	32,38,41	2.02	5 (15%)
1	PSU	1A	1939	1	18,21,22	1.37	2 (11%)	21,30,33	1.87	3 (14%)
1	5MU	1A	1961	1,56	19,22,23	1.31	4 (21%)	27,32,35	2.38	6 (22%)
54	7MG	2y	46	54	23,26,27	1.37	4 (17%)	27,39,42	2.62	6 (22%)
54	PSU	1w	55	54	18,21,22	1.37	2 (11%)	21,30,33	2.03	3 (14%)
54	PSU	1w	32	54	18,21,22	1.36	2 (11%)	21,30,33	1.99	3 (14%)
32	2MG	1a	1207	32	23,26,27	1.26	3 (13%)	33,38,41	2.20	8 (24%)
54	MIA	2y	37	54	21,24,32	1.62	4 (19%)	30,35,47	2.03	8 (26%)
55	4SU	2x	8	56,55	18,21,22	2.07	6 (33%)	25,30,33	1.51	5 (20%)
32	PSU	2a	516	32	18,21,22	1.32	2 (11%)	21,30,33	1.96	4 (19%)
1	PSU	2A	1917	1	18,21,22	1.38	2 (11%)	21,30,33	2.06	3 (14%)
54	7MG	2w	46	54	23,26,27	1.36	3 (13%)	27,39,42	2.53	7 (25%)
1	2MA	1A	2515	1,56	22,25,26	1.51	5 (22%)	32,37,40	2.18	7 (21%)
32	5MC	2a	1400	32	19,22,23	1.85	3 (15%)	26,32,35	1.20	3 (11%)
1	5MU	2A	1939	1,56	19,22,23	1.45	6 (31%)	27,32,35	2.25	6 (22%)
55	5MU	1x	54	56,55	19,22,23	1.41	5 (26%)	27,32,35	2.01	6 (22%)
54	PSU	1y	32	54	18,21,22	1.34	2 (11%)	21,30,33	1.86	3 (14%)
32	UR3	2a	1498	32	19,22,23	0.99	1 (5%)	26,32,35	1.76	3 (11%)
1	OMG	1A	2263	1,56,55	23,26,27	1.23	3 (13%)	32,38,41	1.94	6 (18%)
54	4SU	2w	8	54	18,21,22	1.78	4 (22%)	25,30,33	2.39	5 (20%)
54	PSU	2y	32	54	18,21,22	1.32	2 (11%)	21,30,33	1.95	5 (23%)
43	0TD	1l	92	43	8,9,10	4.60	1 (12%)	6,11,13	3.35	2 (33%)
55	PSU	1x	55	55	18,21,22	1.34	2 (11%)	21,30,33	2.09	4 (19%)
54	PSU	2w	32	54	18,21,22	1.35	3 (16%)	21,30,33	1.93	4 (19%)
1	5MU	2A	1915	1	19,22,23	1.43	4 (21%)	27,32,35	2.13	6 (22%)
55	5MC	1x	32	55	19,22,23	1.60	3 (15%)	26,32,35	1.22	3 (11%)
32	5MC	2a	1407	32	19,22,23	1.53	3 (15%)	26,32,35	1.22	3 (11%)
32	MA6	2a	1519	32	23,26,27	1.55	4 (17%)	33,38,41	2.40	13 (39%)
32	4OC	1a	1402	32	20,23,24	0.75	0	25,32,35	0.98	1 (4%)
32	PSU	1a	516	56,32	18,21,22	1.37	3 (16%)	21,30,33	1.93	5 (23%)
54	5MU	2y	54	54	19,22,23	1.48	5 (26%)	27,32,35	2.23	9 (33%)
1	2MU	1A	2564	1,56	19,22,24	1.35	3 (15%)	25,31,36	1.93	5 (20%)
1	PSU	1A	2617	1,56	18,21,22	1.35	3 (16%)	21,30,33	2.04	5 (23%)
1	PSU	2A	2605	1	18,21,22	1.34	2 (11%)	21,30,33	2.17	4 (19%)
32	5MC	1a	967	32	19,22,23	1.52	3 (15%)	26,32,35	1.24	3 (11%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
54	MIA	1w	37	54	28,31,32	2.35	6 (21%)	38,44,47	2.62	12 (31%)
54	PSU	2y	39	54	18,21,22	1.39	2 (11%)	21,30,33	1.94	5 (23%)
55	PSU	2x	55	55	18,21,22	1.34	2 (11%)	21,30,33	2.01	4 (19%)
54	PSU	2w	39	54	18,21,22	1.35	2 (11%)	21,30,33	1.80	4 (19%)
32	M2G	1a	966	32	24,27,28	1.35	4 (16%)	33,40,43	1.98	5 (15%)
1	4OC	1A	1942	1	19,22,24	0.79	0	25,31,35	0.87	0
1	5MC	2A	1942	1	19,22,23	1.66	3 (15%)	26,32,35	1.14	2 (7%)
54	PSU	2y	55	54	18,21,22	1.42	3 (16%)	21,30,33	1.93	4 (19%)
55	4SU	1x	8	55	18,21,22	2.21	4 (22%)	25,30,33	1.68	6 (24%)
32	5MC	1a	1400	32	19,22,23	1.57	3 (15%)	26,32,35	1.18	3 (11%)
1	PSU	1A	1933	1	18,21,22	1.44	2 (11%)	21,30,33	2.13	3 (14%)
1	5MC	2A	1962	1,56	19,22,23	1.52	3 (15%)	26,32,35	1.12	2 (7%)
1	2MA	2A	2503	1,56	22,25,26	1.48	5 (22%)	32,37,40	2.22	8 (25%)
32	UR3	1a	1498	32	19,22,23	1.07	1 (5%)	26,32,35	1.71	2 (7%)
32	MA6	1a	1519	32	23,26,27	1.53	4 (17%)	33,38,41	2.24	13 (39%)
54	7MG	1y	46	54	23,26,27	1.34	2 (8%)	27,39,42	2.74	6 (22%)
54	7MG	1w	46	54	23,26,27	1.35	3 (13%)	27,39,42	2.66	7 (25%)
32	MA6	1a	1518	32	23,26,27	1.53	5 (21%)	33,38,41	2.28	13 (39%)
32	5MC	1a	1404	32	19,22,23	1.66	3 (15%)	26,32,35	1.14	3 (11%)
32	5MC	1a	1407	32	19,22,23	1.47	3 (15%)	26,32,35	1.11	2 (7%)
54	5MU	2w	54	54	19,22,23	1.30	4 (21%)	27,32,35	1.96	7 (25%)
54	4SU	1w	8	54	18,21,22	1.86	5 (27%)	25,30,33	2.17	4 (16%)
32	5MC	2a	967	32	19,22,23	1.77	3 (15%)	26,32,35	1.06	2 (7%)
32	MA6	2a	1518	32	23,26,27	1.60	4 (17%)	33,38,41	2.26	12 (36%)
54	MIA	1y	37	54	21,24,32	1.63	4 (19%)	30,35,47	1.98	8 (26%)
54	MIA	2w	37	54	24,27,32	2.01	5 (20%)	32,39,47	2.44	9 (28%)
54	PSU	1y	39	54	18,21,22	1.38	2 (11%)	21,30,33	1.85	3 (14%)
32	7MG	2a	527	56,32	23,26,27	1.30	3 (13%)	27,39,42	2.68	7 (25%)
55	5MC	2x	32	55	19,22,23	1.66	3 (15%)	26,32,35	1.26	3 (11%)
32	4OC	2a	1402	56,32	20,23,24	0.74	0	25,32,35	1.02	1 (4%)
54	PSU	1y	55	54	18,21,22	1.34	2 (11%)	21,30,33	2.16	5 (23%)
32	5MC	2a	1404	32	19,22,23	1.67	3 (15%)	26,32,35	1.18	2 (7%)
1	5MC	1A	1984	1,56	19,22,23	1.68	3 (15%)	26,32,35	1.25	4 (15%)

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
55	5MU	2x	54	55	-	0/7/25/26	0/2/2/2
54	5MU	1y	54	54	-	2/7/25/26	0/2/2/2
54	4SU	1y	8	54	-	4/7/25/26	0/2/2/2
43	0TD	2l	92	43	-	1/7/12/14	-
54	PSU	1w	39	54	-	0/7/25/26	0/2/2/2
1	5MC	1A	1964	1	-	0/7/25/26	0/2/2/2
32	7MG	1a	527	32	-	3/7/37/38	0/3/3/3
1	5MU	1A	1937	1	-	0/7/25/26	0/2/2/2
1	PSU	2A	1911	1	-	0/7/25/26	0/2/2/2
54	4SU	2y	8	54	-	0/7/25/26	0/2/2/2
54	PSU	2w	55	54	-	0/7/25/26	0/2/2/2
32	2MG	2a	1207	32	-	0/9/27/28	0/3/3/3
54	5MU	1w	54	54	-	0/7/25/26	0/2/2/2
32	M2G	2a	966	32	-	0/11/29/30	0/3/3/3
1	2MU	2A	2552	1,56	-	1/9/27/28	0/2/2/2
1	4OC	2A	1920	1	-	1/9/27/30	0/2/2/2
1	OMG	2A	2251	1,56,55	-	0/9/27/28	0/3/3/3
1	PSU	1A	1939	1	-	0/7/25/26	0/2/2/2
1	5MU	1A	1961	1,56	-	0/7/25/26	0/2/2/2
54	7MG	2y	46	54	-	1/7/37/38	0/3/3/3
54	PSU	1w	55	54	-	0/7/25/26	0/2/2/2
54	PSU	1w	32	54	-	0/7/25/26	0/2/2/2
32	2MG	1a	1207	32	-	0/9/27/28	0/3/3/3
54	MIA	2y	37	54	-	3/7/25/34	0/3/3/3
55	4SU	2x	8	56,55	-	0/7/25/26	0/2/2/2
32	PSU	2a	516	32	-	1/7/25/26	0/2/2/2
1	PSU	2A	1917	1	-	0/7/25/26	0/2/2/2
54	7MG	2w	46	54	-	3/7/37/38	0/3/3/3
1	2MA	1A	2515	1,56	-	1/7/25/26	0/3/3/3
32	5MC	2a	1400	32	-	0/7/25/26	0/2/2/2
1	5MU	2A	1939	1,56	-	0/7/25/26	0/2/2/2
55	5MU	1x	54	56,55	-	0/7/25/26	0/2/2/2
54	PSU	1y	32	54	-	0/7/25/26	0/2/2/2
32	UR3	2a	1498	32	-	0/7/25/26	0/2/2/2
1	OMG	1A	2263	1,56,55	-	0/9/27/28	0/3/3/3
54	4SU	2w	8	54	-	1/7/25/26	0/2/2/2
54	PSU	2y	32	54	-	0/7/25/26	0/2/2/2
43	0TD	1l	92	43	-	2/7/12/14	-
55	PSU	1x	55	55	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
54	PSU	2w	32	54	-	2/7/25/26	0/2/2/2
1	5MU	2A	1915	1	-	1/7/25/26	0/2/2/2
55	5MC	1x	32	55	-	0/7/25/26	0/2/2/2
32	5MC	2a	1407	32	-	0/7/25/26	0/2/2/2
32	MA6	2a	1519	32	-	4/11/29/30	0/3/3/3
32	4OC	1a	1402	32	-	2/9/29/30	0/2/2/2
32	PSU	1a	516	56,32	-	0/7/25/26	0/2/2/2
54	5MU	2y	54	54	-	3/7/25/26	0/2/2/2
1	2MU	1A	2564	1,56	-	0/9/27/28	0/2/2/2
1	PSU	1A	2617	1,56	-	0/7/25/26	0/2/2/2
1	PSU	2A	2605	1	-	0/7/25/26	0/2/2/2
32	5MC	1a	967	32	-	1/7/25/26	0/2/2/2
54	MIA	1w	37	54	-	1/15/33/34	0/3/3/3
54	PSU	2y	39	54	-	0/7/25/26	0/2/2/2
55	PSU	2x	55	55	-	0/7/25/26	0/2/2/2
54	PSU	2w	39	54	-	0/7/25/26	0/2/2/2
32	M2G	1a	966	32	-	0/11/29/30	0/3/3/3
1	4OC	1A	1942	1	-	0/9/27/30	0/2/2/2
1	5MC	2A	1942	1	-	0/7/25/26	0/2/2/2
54	PSU	2y	55	54	-	1/7/25/26	0/2/2/2
55	4SU	1x	8	55	-	0/7/25/26	0/2/2/2
32	5MC	1a	1400	32	-	2/7/25/26	0/2/2/2
1	PSU	1A	1933	1	-	0/7/25/26	0/2/2/2
1	5MC	2A	1962	1,56	-	0/7/25/26	0/2/2/2
1	2MA	2A	2503	1,56	-	1/7/25/26	0/3/3/3
32	UR3	1a	1498	32	-	0/7/25/26	0/2/2/2
32	MA6	1a	1519	32	-	3/11/29/30	0/3/3/3
54	7MG	1y	46	54	-	3/7/37/38	0/3/3/3
54	7MG	1w	46	54	-	1/7/37/38	0/3/3/3
32	MA6	1a	1518	32	-	3/11/29/30	0/3/3/3
32	5MC	1a	1404	32	-	0/7/25/26	0/2/2/2
32	5MC	1a	1407	32	-	0/7/25/26	0/2/2/2
54	5MU	2w	54	54	-	0/7/25/26	0/2/2/2
54	4SU	1w	8	54	-	0/7/25/26	0/2/2/2
32	5MC	2a	967	32	-	1/7/25/26	0/2/2/2
32	MA6	2a	1518	32	-	3/11/29/30	0/3/3/3
54	MIA	1y	37	54	-	0/7/25/34	0/3/3/3
54	MIA	2w	37	54	-	4/11/29/34	0/3/3/3
54	PSU	1y	39	54	-	0/7/25/26	0/2/2/2
32	7MG	2a	527	56,32	-	3/7/37/38	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
55	5MC	2x	32	55	-	0/7/25/26	0/2/2/2
32	4OC	2a	1402	56,32	-	2/9/29/30	0/2/2/2
54	PSU	1y	55	54	-	2/7/25/26	0/2/2/2
32	5MC	2a	1404	32	-	0/7/25/26	0/2/2/2
1	5MC	1A	1984	1,56	-	0/7/25/26	0/2/2/2

All (260) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	1l	92	0TD	CB-SB	-12.59	1.69	1.82
43	2l	92	0TD	CB-SB	-12.42	1.69	1.82
54	1w	37	MIA	C13-C14	7.07	1.53	1.32
32	2a	1400	5MC	C5-C4	6.99	1.49	1.44
54	1w	37	MIA	C2-S10	-6.65	1.70	1.75
32	2a	967	5MC	C5-C4	6.53	1.49	1.44
54	2w	37	MIA	C2-S10	-6.32	1.70	1.75
32	2a	1404	5MC	C5-C4	6.06	1.48	1.44
1	1A	1984	5MC	C5-C4	6.06	1.48	1.44
1	2A	1942	5MC	C5-C4	5.98	1.48	1.44
32	1a	1404	5MC	C5-C4	5.88	1.48	1.44
55	2x	32	5MC	C5-C4	5.88	1.48	1.44
1	1A	1964	5MC	C5-C4	5.72	1.48	1.44
55	1x	32	5MC	C5-C4	5.53	1.48	1.44
32	1a	1400	5MC	C5-C4	5.48	1.48	1.44
1	2A	1962	5MC	C5-C4	5.46	1.48	1.44
32	2a	1407	5MC	C5-C4	5.33	1.48	1.44
32	1a	967	5MC	C5-C4	5.31	1.48	1.44
54	1w	8	4SU	C4-S4	-5.17	1.59	1.68
55	1x	8	4SU	C4-N3	-5.16	1.32	1.37
32	1a	1407	5MC	C5-C4	5.14	1.48	1.44
54	2y	37	MIA	C5-C4	5.11	1.48	1.39
54	1y	37	MIA	C5-C4	5.08	1.48	1.39
32	2a	1518	MA6	C5-C4	4.98	1.48	1.39
54	1w	37	MIA	C5-C4	4.90	1.47	1.39
54	2w	37	MIA	C5-C4	4.84	1.47	1.39
55	2x	8	4SU	C4-N3	-4.84	1.32	1.37
54	2y	8	4SU	C4-S4	-4.81	1.60	1.68
54	2w	8	4SU	C4-S4	-4.80	1.60	1.68
32	2a	1519	MA6	C5-C4	4.79	1.47	1.39
32	1a	1519	MA6	C5-C4	4.77	1.47	1.39
55	1x	8	4SU	C4-S4	-4.65	1.60	1.68
32	1a	1518	MA6	C5-C4	4.62	1.47	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	1A	2515	2MA	C5-C4	4.59	1.47	1.39
55	2x	8	4SU	C4-S4	-4.55	1.60	1.68
54	1y	8	4SU	C4-S4	-4.53	1.60	1.68
1	2A	2503	2MA	C5-C4	4.40	1.46	1.39
55	1x	8	4SU	C2-N3	-4.11	1.30	1.38
54	1w	55	PSU	C6-C5	4.00	1.39	1.35
54	1y	39	PSU	C6-C5	3.83	1.39	1.35
54	1y	32	PSU	C6-C5	3.77	1.39	1.35
55	2x	55	PSU	C6-C5	3.76	1.39	1.35
54	2y	32	PSU	C6-C5	3.74	1.39	1.35
54	2w	55	PSU	C6-C5	3.67	1.39	1.35
1	2A	1911	PSU	C6-C5	3.67	1.39	1.35
54	2y	39	PSU	C6-C5	3.65	1.39	1.35
32	2a	516	PSU	C6-C5	3.64	1.39	1.35
54	1y	46	7MG	C5-C4	3.63	1.48	1.37
54	1y	55	PSU	C6-C5	3.63	1.39	1.35
55	1x	55	PSU	C6-C5	3.61	1.39	1.35
1	2A	1917	PSU	C6-C5	3.61	1.39	1.35
54	2w	39	PSU	C6-C5	3.61	1.39	1.35
1	1A	1933	PSU	C6-C5	3.57	1.39	1.35
1	1A	1939	PSU	C6-C5	3.57	1.39	1.35
32	1a	527	7MG	C5-C4	3.52	1.48	1.37
54	2y	55	PSU	C6-C5	3.51	1.39	1.35
54	2y	46	7MG	C5-C4	3.50	1.48	1.37
32	1a	516	PSU	C6-C5	3.45	1.39	1.35
54	2w	32	PSU	C6-C5	3.43	1.39	1.35
1	2A	2605	PSU	C6-C5	3.42	1.39	1.35
54	1w	39	PSU	C6-C5	3.40	1.39	1.35
55	1x	8	4SU	C5-C4	-3.39	1.38	1.42
54	2w	46	7MG	C4-N9	-3.38	1.33	1.37
54	1w	46	7MG	C5-C4	3.38	1.48	1.37
1	1A	2564	2MU	C4-N3	-3.35	1.32	1.38
32	1a	527	7MG	C4-N9	-3.34	1.33	1.37
54	1w	32	PSU	C6-C5	3.34	1.39	1.35
54	2w	46	7MG	C5-C4	3.33	1.47	1.37
54	1w	46	7MG	C4-N9	-3.30	1.33	1.37
54	1w	8	4SU	C4-N3	-3.28	1.34	1.37
1	2A	2251	OMG	C5-C4	3.27	1.47	1.38
32	2a	1518	MA6	C5-C6	3.24	1.49	1.41
32	2a	966	M2G	C5-C4	3.21	1.47	1.38
32	2a	527	7MG	C5-C4	3.20	1.47	1.37
54	2y	54	5MU	C2-N1	3.18	1.43	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	2a	1207	2MG	C5-C4	3.18	1.47	1.38
32	1a	966	M2G	C5-C4	3.16	1.47	1.38
32	1a	1207	2MG	C5-C4	3.13	1.47	1.38
32	1a	966	M2G	C2-N2	3.11	1.40	1.35
54	1y	8	4SU	C4-N3	-3.08	1.34	1.37
55	1x	32	5MC	C6-C5	3.04	1.39	1.34
55	2x	8	4SU	C5-C4	-3.04	1.38	1.42
32	2a	1519	MA6	C5-C6	3.04	1.49	1.41
32	2a	527	7MG	C4-N9	-3.02	1.34	1.37
1	1A	2263	OMG	C5-C4	3.00	1.47	1.38
32	1a	1518	MA6	C5-C6	2.96	1.49	1.41
1	2A	1939	5MU	C6-C5	2.95	1.39	1.34
55	2x	32	5MC	C6-C5	2.95	1.39	1.34
54	2w	8	4SU	C4-N3	-2.94	1.34	1.37
32	2a	1404	5MC	C6-C5	2.94	1.39	1.34
54	2y	37	MIA	C5-C6	2.92	1.49	1.41
32	1a	1404	5MC	C6-C5	2.92	1.39	1.34
54	1y	37	MIA	C5-C6	2.91	1.49	1.41
54	2w	37	MIA	C5-C6	2.91	1.48	1.41
1	1A	2263	OMG	C6-N1	-2.91	1.33	1.38
32	1a	1400	5MC	C6-C5	2.89	1.39	1.34
1	1A	1937	5MU	C2-N1	2.88	1.43	1.38
54	2w	8	4SU	C2-N1	2.86	1.42	1.38
1	1A	2617	PSU	C4-N3	-2.85	1.33	1.38
32	2a	1407	5MC	C6-C5	2.84	1.39	1.34
1	1A	1937	5MU	C6-C5	2.83	1.39	1.34
32	1a	1519	MA6	C5-C6	2.82	1.48	1.41
32	1a	966	M2G	C6-N1	-2.81	1.33	1.38
32	2a	967	5MC	C6-C5	2.81	1.39	1.34
32	2a	1400	5MC	C6-C5	2.81	1.39	1.34
55	2x	8	4SU	C2-N3	-2.78	1.33	1.38
1	2A	1915	5MU	C6-C5	2.78	1.39	1.34
32	1a	1407	5MC	C6-C5	2.76	1.39	1.34
54	1y	54	5MU	C6-C5	2.76	1.39	1.34
1	1A	2617	PSU	C6-C5	2.76	1.38	1.35
1	2A	1915	5MU	C2-N1	2.76	1.42	1.38
1	1A	1984	5MC	C6-C5	2.74	1.39	1.34
54	2y	54	5MU	C4-C5	2.74	1.49	1.44
54	2y	54	5MU	C6-C5	2.74	1.39	1.34
1	1A	1964	5MC	C6-C5	2.72	1.39	1.34
55	1x	54	5MU	C6-C5	2.71	1.39	1.34
1	2A	1942	5MC	C6-C5	2.71	1.39	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
54	1w	54	5MU	C4-C5	2.71	1.49	1.44
54	1w	37	MIA	C5-C6	2.71	1.48	1.41
32	2a	966	M2G	C2-N2	2.70	1.40	1.35
54	1y	54	5MU	C4-N3	-2.69	1.33	1.38
54	1y	54	5MU	C2-N1	2.69	1.42	1.38
54	2y	39	PSU	C4-N3	-2.68	1.33	1.38
1	2A	1939	5MU	C4-N3	-2.68	1.33	1.38
1	2A	2251	OMG	C6-N1	-2.68	1.33	1.38
54	1w	8	4SU	C5-C4	-2.66	1.39	1.42
1	2A	2552	2MU	C4-N3	-2.65	1.34	1.38
54	1w	39	PSU	C4-N3	-2.64	1.33	1.38
1	2A	2503	2MA	C5-N7	-2.63	1.34	1.39
32	1a	516	PSU	C4-N3	-2.63	1.33	1.38
54	1w	54	5MU	C6-C5	2.62	1.38	1.34
1	2A	1917	PSU	C4-N3	-2.62	1.33	1.38
1	1A	1939	PSU	C4-N3	-2.62	1.33	1.38
55	2x	54	5MU	C6-C5	2.61	1.38	1.34
1	2A	2605	PSU	C4-N3	-2.61	1.34	1.38
55	1x	54	5MU	C4-N3	-2.60	1.34	1.38
1	1A	1933	PSU	C4-N3	-2.60	1.34	1.38
54	2w	39	PSU	C4-N3	-2.59	1.34	1.38
1	1A	1961	5MU	C6-C5	2.58	1.38	1.34
54	1w	32	PSU	C4-N3	-2.56	1.34	1.38
54	2w	55	PSU	C4-N3	-2.56	1.34	1.38
1	1A	1961	5MU	C4-N3	-2.56	1.34	1.38
32	1a	1207	2MG	C6-N1	-2.55	1.34	1.38
54	2y	37	MIA	C8-N7	2.54	1.36	1.31
54	2y	8	4SU	C2-N1	2.54	1.42	1.38
54	1y	37	MIA	C8-N7	2.52	1.36	1.31
55	2x	54	5MU	C4-C5	2.52	1.48	1.44
54	1y	55	PSU	C4-N3	-2.52	1.34	1.38
54	1y	54	5MU	C4-C5	2.51	1.48	1.44
54	1y	8	4SU	C5-C4	-2.50	1.39	1.42
54	2w	8	4SU	C5-C4	-2.49	1.39	1.42
54	2y	8	4SU	C4-N3	-2.49	1.35	1.37
1	2A	1962	5MC	C6-C5	2.49	1.38	1.34
54	2y	8	4SU	C5-C4	-2.48	1.39	1.42
1	1A	1937	5MU	C4-N3	-2.48	1.34	1.38
1	1A	2515	2MA	C5-N7	-2.47	1.34	1.39
1	1A	2515	2MA	C5-C6	2.46	1.47	1.41
32	1a	967	5MC	C6-N1	-2.46	1.33	1.38
1	2A	1915	5MU	C4-N3	-2.46	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2A	1915	5MU	C4-C5	2.46	1.48	1.44
54	1w	37	MIA	C5-N7	-2.45	1.34	1.39
1	2A	1911	PSU	C4-N3	-2.45	1.34	1.38
1	2A	1939	5MU	C4-C5	2.44	1.48	1.44
54	2y	55	PSU	C4-N3	-2.44	1.34	1.38
1	1A	2564	2MU	C5-C4	2.44	1.49	1.43
1	2A	1939	5MU	C6-N1	-2.44	1.33	1.38
54	1w	54	5MU	C4-N3	-2.43	1.34	1.38
54	2w	54	5MU	C6-C5	2.43	1.38	1.34
1	2A	2552	2MU	C5-C4	2.41	1.48	1.43
32	2a	527	7MG	C6-N1	-2.40	1.34	1.38
55	2x	55	PSU	C4-N3	-2.40	1.34	1.38
1	1A	2515	2MA	C4-N9	-2.38	1.32	1.37
32	1a	1519	MA6	C8-N7	2.37	1.36	1.31
54	2w	32	PSU	C4-N3	-2.36	1.34	1.38
54	2y	54	5MU	C4-N3	-2.36	1.34	1.38
1	2A	2503	2MA	C5-C6	2.35	1.47	1.41
54	2w	37	MIA	C8-N7	2.35	1.36	1.31
1	1A	2564	2MU	C2-N3	-2.35	1.33	1.38
54	2y	46	7MG	C8-N9	2.34	1.47	1.45
32	1a	527	7MG	C6-N1	-2.34	1.34	1.38
32	1a	967	5MC	C6-C5	2.34	1.38	1.34
1	1A	1984	5MC	C6-N1	-2.34	1.34	1.38
54	1w	37	MIA	C8-N7	2.33	1.36	1.31
32	2a	1518	MA6	C8-N7	2.33	1.36	1.31
54	1w	54	5MU	C2-N1	2.33	1.42	1.38
55	1x	54	5MU	C2-N1	2.33	1.42	1.38
54	1y	8	4SU	C2-N1	2.33	1.42	1.38
32	1a	1518	MA6	C4-N9	-2.32	1.32	1.37
1	1A	2263	OMG	C5-N7	-2.31	1.34	1.39
32	2a	516	PSU	C4-N3	-2.30	1.34	1.38
55	1x	54	5MU	C4-C5	2.30	1.48	1.44
54	1y	39	PSU	C4-N3	-2.30	1.34	1.38
1	1A	1961	5MU	C6-N1	-2.30	1.34	1.38
54	2w	54	5MU	C4-C5	2.30	1.48	1.44
54	2y	46	7MG	C6-N1	-2.30	1.34	1.38
32	2a	1519	MA6	C5-N7	-2.29	1.34	1.39
54	2w	37	MIA	C5-N7	-2.29	1.34	1.39
1	2A	2503	2MA	C8-N7	2.29	1.36	1.31
1	2A	1962	5MC	C6-N1	-2.29	1.34	1.38
54	1y	46	7MG	C6-N1	-2.28	1.34	1.38
54	1y	32	PSU	C4-N3	-2.27	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	2a	1207	2MG	C6-N1	-2.27	1.34	1.38
32	1a	1404	5MC	C6-N1	-2.27	1.34	1.38
55	2x	54	5MU	C4-N3	-2.27	1.34	1.38
1	1A	1937	5MU	C4-C5	2.27	1.48	1.44
54	2y	32	PSU	C4-N3	-2.27	1.34	1.38
54	1w	55	PSU	C4-N3	-2.26	1.34	1.38
32	1a	527	7MG	C8-N9	2.25	1.47	1.45
1	1A	1964	5MC	C6-N1	-2.25	1.34	1.38
32	2a	1404	5MC	C6-N1	-2.24	1.34	1.38
1	2A	1942	5MC	C6-N1	-2.24	1.34	1.38
54	2y	46	7MG	C4-N9	-2.24	1.35	1.37
32	1a	1518	MA6	C5-N7	-2.23	1.35	1.39
55	2x	32	5MC	C6-N1	-2.22	1.34	1.38
32	2a	1519	MA6	C8-N7	2.22	1.36	1.31
54	1y	54	5MU	C2-N3	-2.22	1.34	1.38
55	2x	8	4SU	O2-C2	2.21	1.27	1.23
55	2x	8	4SU	C2-N1	2.21	1.41	1.38
54	2w	54	5MU	C4-N3	-2.21	1.34	1.38
55	1x	32	5MC	C6-N1	-2.21	1.34	1.38
54	1w	46	7MG	C6-N1	-2.20	1.34	1.38
32	1a	527	7MG	C5-C6	2.19	1.49	1.43
1	2A	1939	5MU	C2-N1	2.18	1.41	1.38
54	1w	8	4SU	C2-N3	-2.17	1.34	1.38
1	2A	2503	2MA	C4-N9	-2.16	1.33	1.37
1	1A	2617	PSU	C2-N3	-2.16	1.33	1.37
32	1a	1498	UR3	C2-N1	2.15	1.41	1.38
1	1A	1961	5MU	C2-N1	2.14	1.41	1.38
32	2a	1407	5MC	C6-N1	-2.14	1.34	1.38
54	2y	55	PSU	C2-N1	-2.14	1.33	1.36
54	1y	54	5MU	C6-N1	-2.13	1.34	1.38
32	1a	1519	MA6	C5-N7	-2.13	1.35	1.39
1	2A	1939	5MU	C2-N3	-2.13	1.34	1.38
32	1a	1518	MA6	C8-N7	2.12	1.35	1.31
55	1x	55	PSU	C4-N3	-2.12	1.34	1.38
55	1x	54	5MU	C6-N1	-2.11	1.34	1.38
32	2a	1400	5MC	C6-N1	-2.11	1.34	1.38
32	1a	1407	5MC	C6-N1	-2.10	1.34	1.38
54	1w	8	4SU	C2-N1	2.10	1.41	1.38
32	2a	966	M2G	C6-N1	-2.10	1.34	1.38
55	2x	54	5MU	C2-N1	2.07	1.41	1.38
54	1w	54	5MU	C6-N1	-2.06	1.34	1.38
32	2a	1518	MA6	C5-N7	-2.06	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
54	1y	37	MIA	C5-N7	-2.06	1.35	1.39
1	1A	2515	2MA	C8-N7	2.06	1.35	1.31
54	2w	32	PSU	C4-C5	2.06	1.50	1.44
55	2x	54	5MU	C6-N1	-2.05	1.34	1.38
54	2y	54	5MU	C6-N1	-2.04	1.34	1.38
54	2w	54	5MU	C2-N3	-2.04	1.34	1.38
54	2w	46	7MG	C6-N1	-2.04	1.35	1.38
32	2a	967	5MC	C6-N1	-2.04	1.34	1.38
54	2y	37	MIA	C5-N7	-2.03	1.35	1.39
54	1w	54	5MU	C2-N3	-2.03	1.34	1.38
32	1a	516	PSU	O4'-C1'	-2.01	1.41	1.43
32	2a	1498	UR3	C6-C5	2.01	1.39	1.35
32	1a	966	M2G	C5-N7	-2.01	1.35	1.39
1	1A	1937	5MU	C6-N1	-2.01	1.34	1.38
32	2a	966	M2G	C5-N7	-2.01	1.35	1.39
32	1a	1207	2MG	C2-N3	2.01	1.35	1.32
32	1a	1400	5MC	C6-N1	-2.01	1.34	1.38

All (420) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	1y	46	7MG	N9-C4-N3	9.84	139.87	125.46
54	1w	46	7MG	N9-C4-N3	9.32	139.12	125.46
54	2y	46	7MG	N9-C4-N3	9.20	138.95	125.46
32	2a	527	7MG	N9-C4-N3	9.04	138.71	125.46
32	1a	527	7MG	N9-C4-N3	8.65	138.13	125.46
54	1w	37	MIA	C12-C13-C14	-8.51	111.73	127.01
54	2w	37	MIA	C5-C4-N3	-8.50	118.23	127.18
54	2w	46	7MG	N9-C4-N3	8.40	137.77	125.46
1	2A	2503	2MA	C5-C4-N3	-7.82	118.94	127.18
54	1w	37	MIA	C5-C4-N3	-7.63	119.15	127.18
1	1A	2515	2MA	C5-C4-N3	-7.20	119.59	127.18
32	2a	1498	UR3	C4-N3-C2	-7.15	118.82	124.58
54	2y	8	4SU	C4-N3-C2	-7.13	120.48	127.31
32	2a	1207	2MG	C2-N3-C4	7.03	120.80	112.00
43	1l	92	0TD	CSB-SB-CB	-7.00	89.78	102.36
54	2w	8	4SU	C4-N3-C2	-6.96	120.64	127.31
32	1a	1207	2MG	C2-N3-C4	6.92	120.66	112.00
32	1a	1498	UR3	C4-N3-C2	-6.74	119.16	124.58
1	1A	1933	PSU	N1-C2-N3	6.70	122.23	115.17
54	1y	55	PSU	N1-C2-N3	6.67	122.20	115.17
32	1a	966	M2G	C5-C4-N3	-6.63	117.83	128.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2A	1917	PSU	N1-C2-N3	6.56	122.09	115.17
54	1w	39	PSU	N1-C2-N3	6.54	122.06	115.17
1	2A	2605	PSU	N1-C2-N3	6.53	122.05	115.17
54	1w	8	4SU	C4-N3-C2	-6.44	121.14	127.31
1	2A	2251	OMG	C5-C4-N3	-6.44	118.14	128.39
55	1x	55	PSU	N1-C2-N3	6.38	121.90	115.17
54	2w	37	MIA	N3-C4-N9	6.32	135.01	126.99
32	2a	1519	MA6	C5-C4-N3	-6.30	118.04	126.72
55	2x	55	PSU	N1-C2-N3	6.25	121.76	115.17
54	2y	39	PSU	N1-C2-N3	6.21	121.72	115.17
1	1A	2263	OMG	C5-C4-N3	-6.16	118.59	128.39
54	2w	55	PSU	N1-C2-N3	6.15	121.65	115.17
54	1w	55	PSU	N1-C2-N3	6.12	121.62	115.17
1	2A	2503	2MA	N3-C4-N9	6.07	134.70	126.99
32	2a	516	PSU	N1-C2-N3	6.07	121.57	115.17
54	1w	32	PSU	N1-C2-N3	6.07	121.57	115.17
1	1A	2515	2MA	N3-C4-N9	6.02	134.63	126.99
54	2y	8	4SU	C5-C4-N3	6.02	120.35	114.75
32	1a	1207	2MG	C5-C4-N3	-6.00	118.85	128.39
54	1w	8	4SU	C5-C4-N3	5.97	120.31	114.75
54	2y	32	PSU	N1-C2-N3	5.92	121.42	115.17
54	2w	8	4SU	C5-C4-N3	5.91	120.25	114.75
1	2A	1911	PSU	N1-C2-N3	5.90	121.40	115.17
1	1A	2617	PSU	N1-C2-N3	5.90	121.39	115.17
54	2w	32	PSU	N1-C2-N3	5.87	121.36	115.17
32	2a	966	M2G	C5-C4-N3	-5.82	119.13	128.39
1	1A	1961	5MU	O4-C4-C5	-5.81	118.27	124.92
54	1w	37	MIA	N3-C4-N9	5.81	134.36	126.99
1	1A	1939	PSU	N1-C2-N3	5.78	121.27	115.17
32	1a	516	PSU	N1-C2-N3	5.77	121.26	115.17
54	2y	55	PSU	N1-C2-N3	5.76	121.24	115.17
54	1y	39	PSU	N1-C2-N3	5.74	121.22	115.17
32	2a	527	7MG	N9-C8-N7	-5.72	95.27	103.37
54	1y	32	PSU	N1-C2-N3	5.72	121.20	115.17
32	2a	1207	2MG	C5-C4-N3	-5.71	119.30	128.39
1	1A	1961	5MU	C4-N3-C2	-5.70	119.87	127.34
54	1y	8	4SU	C4-N3-C2	-5.68	121.87	127.31
54	1y	46	7MG	C5-C4-N3	-5.68	117.48	128.13
55	2x	54	5MU	C4-N3-C2	-5.67	119.91	127.34
54	2y	37	MIA	C5-C4-N3	-5.63	118.96	126.72
1	1A	2564	2MU	N3-C2-N1	5.61	122.19	114.89
1	2A	1939	5MU	C4-N3-C2	-5.59	120.00	127.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	1a	1519	MA6	C5-C4-N3	-5.57	119.04	126.72
54	1y	37	MIA	C5-C4-N3	-5.54	119.08	126.72
32	2a	1518	MA6	C5-C4-N3	-5.53	119.10	126.72
32	1a	527	7MG	C5-C4-N3	-5.49	117.82	128.13
55	2x	54	5MU	N3-C2-N1	5.49	122.04	114.89
54	2w	39	PSU	N1-C2-N3	5.46	120.93	115.17
54	2y	46	7MG	C5-C4-N3	-5.39	118.00	128.13
54	1w	46	7MG	N9-C8-N7	-5.38	95.76	103.37
54	2w	46	7MG	N9-C8-N7	-5.36	95.79	103.37
54	2y	54	5MU	C4-N3-C2	-5.35	120.32	127.34
32	2a	527	7MG	C5-C4-N3	-5.35	118.09	128.13
1	1A	1937	5MU	C4-N3-C2	-5.34	120.34	127.34
54	1w	54	5MU	C4-N3-C2	-5.31	120.38	127.34
1	2A	1939	5MU	N3-C2-N1	5.29	121.77	114.89
1	1A	1937	5MU	N3-C2-N1	5.25	121.72	114.89
54	2y	54	5MU	N3-C2-N1	5.19	121.65	114.89
54	1w	46	7MG	C5-C4-N3	-5.13	118.50	128.13
54	1w	54	5MU	N3-C2-N1	5.12	121.55	114.89
1	2A	2552	2MU	N3-C2-N1	5.11	121.54	114.89
32	1a	966	M2G	N9-C4-N3	5.07	136.09	125.95
1	2A	1915	5MU	C4-N3-C2	-5.07	120.69	127.34
54	2w	46	7MG	C5-C4-N3	-5.06	118.64	128.13
54	2y	8	4SU	C5-C4-S4	-5.05	118.53	124.31
1	2A	2251	OMG	C2-N3-C4	5.05	121.00	112.30
54	2y	46	7MG	N9-C8-N7	-5.04	96.24	103.37
1	1A	1961	5MU	C5-C4-N3	5.02	119.69	115.32
54	1y	46	7MG	N9-C8-N7	-4.96	96.34	103.37
54	1y	54	5MU	N3-C2-N1	4.91	121.28	114.89
1	1A	1937	5MU	C5-C4-N3	4.90	119.58	115.32
32	1a	1518	MA6	C5-C4-N3	-4.89	119.99	126.72
1	2A	1915	5MU	C5-C4-N3	4.86	119.55	115.32
54	1y	54	5MU	C4-N3-C2	-4.86	120.97	127.34
1	1A	1961	5MU	N3-C2-N1	4.85	121.20	114.89
32	1a	527	7MG	N9-C8-N7	-4.83	96.53	103.37
1	1A	1937	5MU	O4-C4-C5	-4.82	119.40	124.92
55	1x	54	5MU	N3-C2-N1	4.81	121.15	114.89
54	1y	8	4SU	C5-C4-N3	4.80	119.22	114.75
1	2A	2552	2MU	C4-N3-C2	-4.78	120.67	126.61
1	2A	2605	PSU	C4-N3-C2	-4.78	119.79	126.37
55	1x	54	5MU	C4-N3-C2	-4.76	121.09	127.34
32	1a	966	M2G	C2-N3-C4	4.76	121.31	112.51
1	1A	2263	OMG	C2-N3-C4	4.76	120.49	112.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	2a	1519	MA6	N3-C4-N9	4.72	135.19	127.17
54	1y	46	7MG	C2-N3-C4	4.71	120.42	112.30
32	1a	1518	MA6	C2-N1-C6	4.70	123.30	111.83
1	2A	1915	5MU	N3-C2-N1	4.68	120.99	114.89
1	1A	2263	OMG	N9-C4-N3	4.66	135.26	125.95
1	2A	1939	5MU	C5-C4-N3	4.61	119.33	115.32
43	2l	92	0TD	CSB-SB-CB	-4.59	94.12	102.36
32	2a	1518	MA6	C9-N6-C6	-4.55	108.94	120.52
54	1w	54	5MU	C5-C4-N3	4.53	119.26	115.32
54	2w	54	5MU	O4-C4-C5	-4.52	119.75	124.92
54	2w	54	5MU	C4-N3-C2	-4.50	121.45	127.34
55	2x	54	5MU	C5-C4-N3	4.49	119.22	115.32
1	2A	2251	OMG	N9-C4-N3	4.48	134.92	125.95
54	2y	37	MIA	N3-C4-N9	4.48	134.78	127.17
32	2a	1518	MA6	C2-N1-C6	4.47	122.74	111.83
1	1A	2564	2MU	C4-N3-C2	-4.44	121.10	126.61
54	2y	54	5MU	C5-C4-N3	4.44	119.18	115.32
1	1A	2617	PSU	C4-N3-C2	-4.42	120.28	126.37
32	2a	1518	MA6	C4-C5-N7	-4.41	105.53	110.58
54	2w	54	5MU	C5-C4-N3	4.41	119.16	115.32
1	2A	1939	5MU	C5-C6-N1	-4.39	118.54	123.31
32	2a	966	M2G	C2-N3-C4	4.38	120.61	112.51
32	2a	527	7MG	C2-N3-C4	4.37	119.82	112.30
55	2x	54	5MU	O4-C4-C5	-4.36	119.93	124.92
54	2w	46	7MG	C2-N3-C4	4.36	119.81	112.30
54	1y	37	MIA	N3-C4-N9	4.33	134.54	127.17
54	1y	55	PSU	C4-N3-C2	-4.33	120.41	126.37
54	2y	46	7MG	C2-N3-C4	4.32	119.75	112.30
1	2A	1915	5MU	O4-C4-C5	-4.31	119.99	124.92
32	1a	527	7MG	C2-N3-C4	4.29	119.68	112.30
32	1a	1518	MA6	C9-N6-C6	-4.28	109.64	120.52
1	1A	1933	PSU	O2-C2-N1	-4.27	118.39	122.79
54	2w	8	4SU	C5-C4-S4	-4.27	119.43	124.31
32	1a	1519	MA6	C2-N1-C6	4.25	122.20	111.83
1	1A	1961	5MU	C5-C6-N1	-4.25	118.70	123.31
32	2a	1519	MA6	C4-C5-N7	-4.25	105.73	110.58
32	2a	966	M2G	N9-C4-N3	4.22	134.40	125.95
54	1y	54	5MU	C5-C4-N3	4.22	118.99	115.32
54	1w	39	PSU	C4-N3-C2	-4.22	120.56	126.37
32	1a	1519	MA6	N3-C4-N9	4.20	134.31	127.17
32	1a	1519	MA6	C9-N6-C6	-4.20	109.84	120.52
32	1a	1518	MA6	C4-C5-N7	-4.16	105.82	110.58

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	2w	55	PSU	C4-N3-C2	-4.14	120.67	126.37
55	2x	55	PSU	C4-N3-C2	-4.11	120.71	126.37
54	2w	54	5MU	N3-C2-N1	4.11	120.24	114.89
1	2A	1939	5MU	O4-C4-C5	-4.10	120.23	124.92
55	1x	54	5MU	C5-C4-N3	4.10	118.88	115.32
54	2w	8	4SU	N3-C2-N1	4.09	120.22	114.89
55	1x	55	PSU	C4-N3-C2	-4.06	120.78	126.37
32	2a	1207	2MG	C6-C5-N7	4.05	137.66	130.29
32	2a	1519	MA6	C2-N1-C6	4.04	121.69	111.83
32	2a	516	PSU	C4-N3-C2	-4.03	120.82	126.37
54	2y	8	4SU	N3-C2-N1	4.02	120.13	114.89
32	1a	1207	2MG	N9-C4-N3	4.00	133.95	125.95
54	1w	46	7MG	C2-N3-C4	4.00	119.19	112.30
55	1x	55	PSU	O2-C2-N1	-3.99	118.67	122.79
54	1w	32	PSU	C4-N3-C2	-3.98	120.88	126.37
32	1a	516	PSU	C4-N3-C2	-3.98	120.89	126.37
54	2y	32	PSU	C4-N3-C2	-3.98	120.89	126.37
54	2y	55	PSU	O2-C2-N1	-3.94	118.72	122.79
1	2A	1917	PSU	C4-N3-C2	-3.94	120.94	126.37
1	1A	1933	PSU	C4-N3-C2	-3.94	120.95	126.37
32	2a	1400	5MC	C5-C6-N1	-3.94	119.04	123.31
54	2y	54	5MU	O4-C4-C5	-3.93	120.42	124.92
55	1x	8	4SU	C6-C5-C4	-3.93	116.55	119.95
55	1x	54	5MU	O4-C4-C5	-3.92	120.43	124.92
32	2a	1519	MA6	C9-N6-C6	-3.91	110.57	120.52
54	1y	8	4SU	N3-C2-N1	3.90	119.97	114.89
32	1a	1519	MA6	C4-C5-N7	-3.86	106.16	110.58
54	1w	55	PSU	C4-N3-C2	-3.84	121.08	126.37
54	1w	8	4SU	N3-C2-N1	3.83	119.87	114.89
32	2a	1518	MA6	N3-C4-N9	3.81	133.65	127.17
55	1x	8	4SU	C5-C4-N3	3.79	118.28	114.75
1	1A	1939	PSU	C4-N3-C2	-3.78	121.16	126.37
54	1w	55	PSU	O2-C2-N1	-3.77	118.90	122.79
1	1A	2564	2MU	O2-C2-N1	-3.76	117.90	122.80
54	2y	39	PSU	C4-N3-C2	-3.74	121.22	126.37
54	1w	54	5MU	O4-C4-C5	-3.74	120.64	124.92
1	2A	1911	PSU	C4-N3-C2	-3.74	121.22	126.37
32	2a	1519	MA6	C2-N3-C4	3.73	120.94	111.83
54	2w	32	PSU	C4-N3-C2	-3.72	121.24	126.37
54	1y	55	PSU	O2-C2-N1	-3.72	118.95	122.79
32	1a	1207	2MG	C6-C5-N7	3.71	137.04	130.29
54	1w	32	PSU	O2-C2-N1	-3.71	118.97	122.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	2w	39	PSU	C4-N3-C2	-3.70	121.27	126.37
55	2x	8	4SU	C1'-N1-C2	3.70	124.24	117.59
55	1x	8	4SU	O2-C2-N1	3.70	127.61	122.80
32	2a	1518	MA6	C2-N3-C4	3.69	120.83	111.83
1	2A	1917	PSU	O2-C2-N1	-3.67	119.00	122.79
54	2w	37	MIA	C2-N3-C4	3.67	121.90	112.29
32	1a	1519	MA6	C2-N3-C4	3.66	120.78	111.83
55	2x	8	4SU	C5-C4-N3	3.64	118.14	114.75
54	2w	37	MIA	C4-C5-N7	-3.64	106.42	110.58
54	1y	39	PSU	C4-N3-C2	-3.63	121.36	126.37
54	1y	32	PSU	O2-C2-N1	-3.63	119.05	122.79
54	1w	37	MIA	C16-C14-C13	-3.63	111.76	122.66
54	1w	8	4SU	C5-C4-S4	-3.63	120.16	124.31
54	1y	37	MIA	C2-N3-C4	3.63	120.69	111.83
1	1A	1964	5MC	C5-C6-N1	-3.63	119.37	123.31
54	2y	37	MIA	C2-N3-C4	3.62	120.66	111.83
54	2y	37	MIA	C4-C5-N7	-3.60	106.47	110.58
1	2A	1962	5MC	C5-C6-N1	-3.59	119.41	123.31
32	1a	1518	MA6	N3-C4-N9	3.58	133.25	127.17
32	1a	1518	MA6	N1-C2-N3	-3.57	123.17	128.58
55	2x	54	5MU	O2-C2-N1	-3.56	118.17	122.80
54	1y	37	MIA	C4-C5-N7	-3.55	106.52	110.58
1	1A	2515	2MA	N6-C6-N1	3.55	121.82	117.03
32	2a	1207	2MG	N9-C4-N3	3.54	133.04	125.95
54	1w	37	MIA	C15-C14-C13	-3.54	112.03	122.66
54	2y	37	MIA	N3-C2-N1	-3.53	123.23	128.58
54	1y	54	5MU	C5-C6-N1	-3.53	119.48	123.31
54	2y	55	PSU	C4-N3-C2	-3.52	121.52	126.37
54	1w	54	5MU	C5-C6-N1	-3.52	119.49	123.31
54	1y	54	5MU	O4-C4-C5	-3.51	120.90	124.92
54	1y	37	MIA	N3-C2-N1	-3.51	123.28	128.58
32	2a	1207	2MG	N1-C2-N2	3.50	120.14	116.56
54	2w	8	4SU	C1'-N1-C2	3.48	123.85	117.59
54	1y	32	PSU	C4-N3-C2	-3.47	121.59	126.37
1	2A	2251	OMG	C6-C5-N7	3.46	136.59	130.29
32	2a	1404	5MC	C5-C6-N1	-3.45	119.56	123.31
55	1x	32	5MC	C5-C6-N1	-3.45	119.56	123.31
32	1a	1518	MA6	C2-N3-C4	3.45	120.26	111.83
55	2x	54	5MU	C5-C6-N1	-3.44	119.57	123.31
54	1w	37	MIA	C4-C5-N7	-3.41	106.68	110.58
55	2x	32	5MC	C5-C6-N1	-3.41	119.61	123.31
54	2w	32	PSU	O2-C2-N1	-3.41	119.27	122.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	2w	55	PSU	O2-C2-N1	-3.40	119.29	122.79
32	2a	966	M2G	C6-C5-N7	3.38	136.44	130.29
1	1A	1984	5MC	C5-C6-N1	-3.37	119.65	123.31
32	2a	1518	MA6	N1-C2-N3	-3.37	123.49	128.58
32	2a	1407	5MC	C5-C4-N3	-3.35	118.32	121.75
1	2A	2552	2MU	O2-C2-N1	-3.32	118.47	122.80
32	1a	1519	MA6	N1-C2-N3	-3.32	123.56	128.58
54	1w	37	MIA	C2-N3-C4	3.32	120.98	112.29
54	2w	37	MIA	C6-C5-N7	3.30	136.03	132.43
54	1w	37	MIA	C6-C5-N7	3.29	136.02	132.43
43	1l	92	0TD	OD2-CG-CB	3.29	120.25	113.15
1	2A	2503	2MA	C4-C5-N7	-3.29	106.83	110.58
1	2A	1915	5MU	C5-C6-N1	-3.27	119.76	123.31
54	2y	54	5MU	C5-C6-N1	-3.25	119.78	123.31
54	1y	8	4SU	C5-C4-S4	-3.23	120.62	124.31
32	2a	1498	UR3	C5-C4-N3	3.23	119.29	115.04
32	1a	1404	5MC	C5-C4-N3	-3.21	118.47	121.75
55	1x	54	5MU	C5-C6-N1	-3.20	119.83	123.31
32	2a	1207	2MG	C4-C5-N7	-3.19	105.61	110.67
32	1a	1400	5MC	C5-C4-N3	-3.19	118.49	121.75
32	1a	1498	UR3	C5-C4-N3	3.18	119.23	115.04
54	2y	32	PSU	O2-C2-N1	-3.17	119.52	122.79
1	1A	2515	2MA	C2-N1-C6	3.17	122.98	118.10
32	1a	1207	2MG	C4-C5-N7	-3.16	105.66	110.67
32	2a	516	PSU	O2-C2-N1	-3.16	119.53	122.79
54	1y	39	PSU	O2-C2-N1	-3.15	119.54	122.79
43	2l	92	0TD	OD2-CG-CB	3.14	119.92	113.15
1	2A	2605	PSU	O2-C2-N1	-3.13	119.56	122.79
54	1w	39	PSU	O2-C2-N1	-3.11	119.58	122.79
54	1w	46	7MG	C5-C4-N9	-3.10	102.37	106.33
1	2A	2503	2MA	N6-C6-N1	3.09	121.20	117.03
1	1A	1964	5MC	C5-C4-N3	-3.08	118.60	121.75
55	1x	32	5MC	C5-C4-N3	-3.08	118.60	121.75
32	2a	967	5MC	C5-C6-N1	-3.07	119.98	123.31
1	2A	1942	5MC	C5-C4-N3	-3.06	118.62	121.75
32	2a	1519	MA6	C5-N7-C8	3.05	108.25	103.45
32	1a	1400	5MC	C5-C6-N1	-3.04	120.01	123.31
55	2x	55	PSU	O2-C2-N1	-3.02	119.67	122.79
32	1a	966	M2G	C6-C5-N7	3.01	135.77	130.29
1	1A	1961	5MU	O2-C2-N1	-3.00	118.89	122.80
32	2a	1207	2MG	N2-C2-N3	-2.98	116.71	120.51
1	2A	1911	PSU	O2-C2-N1	-2.97	119.72	122.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
55	2x	32	5MC	C5-C4-N3	-2.97	118.71	121.75
32	2a	1404	5MC	C5-C4-N3	-2.97	118.72	121.75
32	2a	527	7MG	C5-C6-N1	2.94	116.12	110.94
32	1a	1407	5MC	C5-C4-N3	-2.93	118.75	121.75
32	1a	1404	5MC	C5-C6-N1	-2.92	120.14	123.31
1	1A	1937	5MU	C5-C6-N1	-2.92	120.14	123.31
32	1a	967	5MC	C1'-N1-C6	-2.92	116.34	121.15
32	1a	1407	5MC	C5-C6-N1	-2.92	120.14	123.31
1	1A	2515	2MA	C4-N9-C8	2.90	108.79	105.74
1	2A	2251	OMG	C4-C5-N7	-2.90	106.07	110.67
32	2a	1519	MA6	N1-C2-N3	-2.90	124.19	128.58
54	1y	46	7MG	C5-C4-N9	-2.89	102.64	106.33
1	2A	2552	2MU	C5-C4-N3	2.89	118.84	114.80
32	2a	1407	5MC	C5-C6-N1	-2.89	120.18	123.31
1	1A	2263	OMG	C6-C5-N7	2.86	135.49	130.29
32	1a	1518	MA6	C10-N6-C6	-2.85	113.26	120.52
54	2w	37	MIA	C12-N6-C6	-2.85	120.21	122.85
32	1a	1518	MA6	C5-N7-C8	2.85	107.93	103.45
54	2w	54	5MU	C5-C6-N1	-2.83	120.23	123.31
32	2a	1519	MA6	N1-C6-N6	2.83	120.30	116.86
32	1a	1518	MA6	C4-N9-C8	2.83	108.71	105.74
32	2a	1518	MA6	C5-N7-C8	2.82	107.88	103.45
32	1a	1518	MA6	C10-N6-C9	-2.81	107.14	116.18
1	2A	1939	5MU	O2-C2-N1	-2.79	119.16	122.80
1	1A	2515	2MA	C4-C5-N7	-2.78	107.40	110.58
32	2a	1519	MA6	C10-N6-C6	-2.77	113.47	120.52
1	2A	1942	5MC	C5-C6-N1	-2.76	120.32	123.31
55	1x	8	4SU	O2-C2-N3	-2.74	116.44	121.49
32	2a	966	M2G	C4-C5-N7	-2.72	106.36	110.67
54	2y	39	PSU	O2-C2-N1	-2.72	119.98	122.79
54	1w	37	MIA	C2-N1-C6	2.70	122.67	117.54
1	1A	2564	2MU	C2'-C1'-N1	-2.70	109.12	114.24
1	1A	2617	PSU	O2-C2-N1	-2.69	120.01	122.79
54	2w	46	7MG	C5-C6-N1	2.69	115.67	110.94
32	1a	1402	4OC	C6-C5-C4	2.67	120.21	117.00
32	1a	1519	MA6	C5-N7-C8	2.65	107.61	103.45
1	1A	1984	5MC	C5-C4-N3	-2.64	119.05	121.75
54	2y	54	5MU	C1'-N1-C2	2.64	122.34	117.59
55	1x	8	4SU	C1'-N1-C2	2.64	122.33	117.59
54	2y	37	MIA	C5-N7-C8	2.63	107.58	103.45
54	2y	37	MIA	C4-N9-C8	2.62	108.48	105.74
54	1y	8	4SU	C1'-N1-C2	2.62	122.29	117.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2A	2503	2MA	C4-N9-C8	2.61	108.48	105.74
54	2w	37	MIA	N3-C2-N1	-2.61	122.23	127.00
32	1a	1518	MA6	C6-C5-N7	2.59	137.57	133.43
1	2A	2552	2MU	O4-C4-C5	-2.59	120.70	125.16
32	1a	1519	MA6	C4-N9-C8	2.59	108.45	105.74
1	2A	2503	2MA	C2-N1-C6	2.58	122.06	118.10
54	2y	46	7MG	C5-C4-N9	-2.58	103.03	106.33
54	1w	54	5MU	O2-C2-N1	-2.57	119.45	122.80
1	1A	2564	2MU	C5-C4-N3	2.57	118.39	114.80
54	1y	37	MIA	C4-N9-C8	2.56	108.43	105.74
32	2a	1518	MA6	C6-C5-N7	2.55	137.51	133.43
54	1w	37	MIA	N3-C2-N1	-2.55	122.34	127.00
54	1y	37	MIA	C5-N7-C8	2.55	107.46	103.45
54	2w	37	MIA	C5-N7-C8	2.55	107.45	103.45
1	2A	2605	PSU	C5-C6-N1	-2.55	118.61	122.14
32	2a	1402	4OC	C6-C5-C4	2.54	120.06	117.00
1	1A	1939	PSU	O2-C2-N1	-2.53	120.17	122.79
32	1a	966	M2G	C4-C5-N7	-2.53	106.67	110.67
55	2x	32	5MC	O2-C2-N3	-2.53	118.35	122.33
1	1A	1984	5MC	O2-C2-N3	-2.52	118.36	122.33
32	1a	967	5MC	C5-C6-N1	-2.52	120.58	123.31
32	1a	967	5MC	C5-C4-N3	-2.51	119.18	121.75
32	2a	967	5MC	C5-C4-N3	-2.51	119.18	121.75
32	1a	516	PSU	O2-C2-N1	-2.50	120.20	122.79
55	2x	8	4SU	C6-C5-C4	-2.50	117.78	119.95
54	2w	32	PSU	C6-C5-C4	-2.49	116.49	118.17
54	2y	55	PSU	C6-C5-C4	-2.49	116.49	118.17
32	1a	1207	2MG	N1-C2-N2	2.48	119.10	116.56
32	1a	527	7MG	C5-C6-N1	2.46	115.27	110.94
1	1A	2617	PSU	C5-C6-N1	-2.46	118.73	122.14
32	2a	527	7MG	C5-C4-N9	-2.45	103.19	106.33
32	2a	1407	5MC	O2-C2-N3	-2.44	118.48	122.33
54	1y	55	PSU	C5-C6-N1	-2.44	118.75	122.14
1	2A	2503	2MA	C5-N7-C8	2.43	107.27	103.45
55	1x	8	4SU	S4-C4-N3	-2.43	117.66	120.20
54	1w	37	MIA	C5-N7-C8	2.41	107.24	103.45
32	2a	1498	UR3	C3U-N3-C4	2.41	121.21	117.87
1	1A	2263	OMG	C4-C5-N7	-2.40	106.87	110.67
54	1y	46	7MG	C5-C6-N1	2.38	115.14	110.94
43	2l	92	0TD	OD1-CG-CB	-2.38	117.45	122.44
32	1a	516	PSU	O4'-C1'-C2'	2.38	108.44	105.15
54	2w	37	MIA	C2-N1-C6	2.37	122.04	117.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	2w	54	5MU	C5M-C5-C4	2.35	121.30	118.78
1	1A	1964	5MC	O2-C2-N3	-2.35	118.62	122.33
54	1w	39	PSU	C5-C6-N1	-2.35	118.88	122.14
55	1x	32	5MC	O2-C2-N3	-2.33	118.65	122.33
55	2x	8	4SU	O2-C2-N1	2.33	125.83	122.80
32	2a	1400	5MC	C5-C4-N3	-2.33	119.37	121.75
54	1w	54	5MU	C5M-C5-C4	2.32	121.26	118.78
54	1w	46	7MG	O6-C6-C5	-2.31	121.94	127.62
1	2A	1962	5MC	C5-C4-N3	-2.31	119.38	121.75
54	2y	39	PSU	C5-C6-N1	-2.31	118.93	122.14
32	2a	1519	MA6	C4-N9-C8	2.30	108.15	105.74
32	1a	1207	2MG	N2-C2-N3	-2.29	117.59	120.51
32	1a	1400	5MC	O2-C2-N3	-2.28	118.73	122.33
55	2x	55	PSU	C5-C6-N1	-2.27	118.98	122.14
1	1A	1984	5MC	CM5-C5-C6	-2.27	119.78	122.85
54	2y	54	5MU	C1'-N1-C6	-2.25	117.44	121.15
32	2a	1400	5MC	O2-C2-N3	-2.25	118.78	122.33
32	1a	1518	MA6	N9-C8-N7	-2.23	110.78	113.94
54	1w	46	7MG	C5-C6-N1	2.22	114.85	110.94
55	1x	54	5MU	O2-C2-N1	-2.22	119.91	122.80
54	2y	46	7MG	C5-C6-N1	2.19	114.79	110.94
54	2y	8	4SU	O2-C2-N1	-2.18	119.95	122.80
32	1a	1404	5MC	O2-C2-N3	-2.18	118.89	122.33
54	2w	54	5MU	O2-C2-N1	-2.18	119.96	122.80
54	1y	37	MIA	C6-C5-N7	2.17	136.28	132.09
54	2y	8	4SU	C1'-N1-C2	2.17	121.49	117.59
54	2y	54	5MU	C5M-C5-C4	2.17	121.09	118.78
1	1A	2263	OMG	O6-C6-C5	-2.16	120.82	126.53
1	1A	2617	PSU	O4-C4-C5	-2.15	118.66	124.01
54	2w	46	7MG	C5-C4-N9	-2.15	103.58	106.33
54	2y	37	MIA	C2-N1-C6	2.14	122.25	118.73
32	1a	1207	2MG	C8-N7-C5	2.14	108.07	104.26
1	1A	1937	5MU	C1'-N1-C2	2.14	121.43	117.59
32	1a	1519	MA6	C6-C5-N7	2.13	136.83	133.43
1	1A	1937	5MU	O2-C2-N3	-2.12	117.57	121.49
1	2A	1915	5MU	C5M-C5-C4	2.12	121.04	118.78
54	2w	39	PSU	O2-C2-N1	-2.12	120.61	122.79
32	2a	1519	MA6	C4-C5-C6	2.09	118.07	115.91
54	1w	37	MIA	C4-N9-C8	2.09	107.93	105.74
32	1a	516	PSU	C5-C6-N1	-2.08	119.25	122.14
32	2a	1518	MA6	C4-N9-C8	2.08	107.92	105.74
54	2w	46	7MG	O6-C6-C5	-2.08	122.52	127.62

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	2a	1518	MA6	C10-N6-C6	-2.07	115.24	120.52
54	2y	54	5MU	C5M-C5-C6	-2.07	120.04	122.85
54	2w	55	PSU	C5-C6-N1	-2.06	119.28	122.14
32	2a	516	PSU	O4'-C1'-C2'	2.06	108.00	105.15
54	2w	39	PSU	C5-C6-N1	-2.06	119.28	122.14
32	2a	527	7MG	O6-C6-C5	-2.05	122.58	127.62
54	2y	32	PSU	C5-C6-N1	-2.05	119.29	122.14
32	2a	1207	2MG	CM2-N2-C2	-2.05	119.25	123.65
55	1x	55	PSU	C5-C6-N1	-2.04	119.31	122.14
32	1a	1519	MA6	C10-N6-C6	-2.03	115.35	120.52
1	2A	2503	2MA	N9-C8-N7	-2.03	111.06	113.94
55	2x	8	4SU	O2-C2-N3	-2.02	117.75	121.49
32	1a	1519	MA6	N1-C6-N6	2.02	119.32	116.86
54	2y	32	PSU	O4'-C1'-C2'	2.02	107.94	105.15
54	1y	55	PSU	O4'-C1'-C2'	2.02	107.94	105.15
32	2a	1518	MA6	C10-N6-C9	-2.01	109.71	116.18
32	2a	966	M2G	O6-C6-C5	-2.01	121.23	126.53
1	1A	2515	2MA	C5-N7-C8	2.01	106.61	103.45
54	2y	39	PSU	O2-C2-N3	-2.01	118.30	121.86
32	2a	1519	MA6	N9-C8-N7	-2.00	111.09	113.94
32	1a	1519	MA6	N9-C8-N7	-2.00	111.09	113.94

There are no chirality outliers.

All (67) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
32	1a	1518	MA6	C5-C6-N6-C9
32	2a	1518	MA6	C5-C6-N6-C9
54	2w	32	PSU	C2'-C1'-C5-C4
54	1w	37	MIA	C12-C13-C14-C16
54	2w	37	MIA	C5-C6-N6-C12
54	2w	37	MIA	N1-C6-N6-C12
54	2w	37	MIA	N3-C2-S10-C11
54	2y	37	MIA	O4'-C4'-C5'-O5'
54	2y	37	MIA	C3'-C4'-C5'-O5'
54	1y	46	7MG	C4'-C5'-O5'-P
54	2w	46	7MG	O4'-C4'-C5'-O5'
54	2w	46	7MG	C3'-C4'-C5'-O5'
54	2y	46	7MG	C2'-C1'-N9-C8
54	1y	54	5MU	O4'-C4'-C5'-O5'
32	1a	1519	MA6	O4'-C4'-C5'-O5'
32	2a	527	7MG	C3'-C4'-C5'-O5'

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Mol	Chain	Res	Type	Atoms
32	2a	1402	4OC	O4'-C4'-C5'-O5'
32	2a	1519	MA6	O4'-C4'-C5'-O5'
54	1y	54	5MU	C3'-C4'-C5'-O5'
54	2w	37	MIA	N1-C2-S10-C11
32	1a	1400	5MC	O4'-C4'-C5'-O5'
54	1y	8	4SU	C3'-C4'-C5'-O5'
54	1y	8	4SU	O4'-C4'-C5'-O5'
54	2y	54	5MU	C3'-C4'-C5'-O5'
54	2y	54	5MU	O4'-C4'-C5'-O5'
32	2a	1518	MA6	N1-C6-N6-C9
32	1a	1402	4OC	O4'-C4'-C5'-O5'
32	1a	527	7MG	C3'-C4'-C5'-O5'
32	1a	1518	MA6	N1-C6-N6-C9
32	1a	1519	MA6	C3'-C4'-C5'-O5'
32	2a	527	7MG	O4'-C4'-C5'-O5'
32	2a	1402	4OC	C3'-C4'-C5'-O5'
32	2a	1519	MA6	C3'-C4'-C5'-O5'
54	1y	46	7MG	C3'-C4'-C5'-O5'
32	1a	1519	MA6	C5-C6-N6-C10
32	1a	1400	5MC	C3'-C4'-C5'-O5'
1	2A	2552	2MU	O4'-C4'-C5'-O5'
54	1w	46	7MG	C4'-C5'-O5'-P
1	2A	1915	5MU	O4'-C4'-C5'-O5'
32	1a	1518	MA6	C5-C6-N6-C10
32	2a	1519	MA6	C5-C6-N6-C10
32	1a	527	7MG	O4'-C4'-C5'-O5'
32	1a	967	5MC	O4'-C4'-C5'-O5'
43	1l	92	0TD	CG-CB-SB-CSB
43	2l	92	0TD	CG-CB-SB-CSB
32	2a	967	5MC	O4'-C4'-C5'-O5'
1	2A	1920	4OC	C3'-C2'-O2'-CM2
54	2w	46	7MG	C4'-C5'-O5'-P
32	2a	516	PSU	O4'-C1'-C5-C4
54	1y	55	PSU	O4'-C1'-C5-C4
32	2a	527	7MG	C4'-C5'-O5'-P
32	2a	1519	MA6	C4'-C5'-O5'-P
54	2y	37	MIA	C4'-C5'-O5'-P
32	1a	1402	4OC	C3'-C4'-C5'-O5'
32	1a	527	7MG	C4'-C5'-O5'-P
54	1y	46	7MG	C2'-C1'-N9-C8
43	1l	92	0TD	SB-CB-CG-OD2
54	2w	8	4SU	C2'-C1'-N1-C6

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Mol	Chain	Res	Type	Atoms
54	1y	8	4SU	C4'-C5'-O5'-P
54	1y	55	PSU	O4'-C1'-C5-C6
54	2y	54	5MU	C2'-C1'-N1-C6
32	2a	1518	MA6	C5-C6-N6-C10
1	1A	2515	2MA	C4'-C5'-O5'-P
54	2w	32	PSU	C2'-C1'-C5-C6
54	2y	55	PSU	C2'-C1'-C5-C6
1	2A	2503	2MA	O4'-C4'-C5'-O5'
54	1y	8	4SU	C2'-C1'-N1-C2

There are no ring outliers.

42 monomers are involved in 74 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
55	2x	54	5MU	2	0
54	1y	54	5MU	1	0
54	1y	8	4SU	3	0
54	1w	39	PSU	2	0
54	2y	8	4SU	3	0
32	2a	1207	2MG	2	0
32	2a	966	M2G	2	0
1	2A	1920	4OC	2	0
1	1A	1961	5MU	1	0
32	1a	1207	2MG	1	0
54	2w	46	7MG	1	0
32	2a	1400	5MC	1	0
1	2A	1939	5MU	1	0
54	2w	8	4SU	2	0
43	1l	92	0TD	3	0
1	2A	1915	5MU	1	0
32	2a	1519	MA6	3	0
32	1a	1402	4OC	1	0
1	1A	2564	2MU	2	0
32	1a	967	5MC	1	0
54	2y	39	PSU	1	0
54	2w	39	PSU	3	0
32	1a	966	M2G	1	0
1	1A	1942	4OC	1	0
1	2A	1942	5MC	2	0
54	2y	55	PSU	8	0
55	1x	8	4SU	2	0
1	2A	2503	2MA	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
32	1a	1498	UR3	1	0
32	1a	1519	MA6	2	0
54	1y	46	7MG	1	0
54	1w	46	7MG	2	0
32	1a	1518	MA6	3	0
32	1a	1404	5MC	2	0
32	2a	967	5MC	2	0
32	2a	1518	MA6	5	0
54	1y	37	MIA	2	0
54	2w	37	MIA	1	0
54	1y	39	PSU	1	0
32	2a	1402	4OC	2	0
54	1y	55	PSU	2	0
32	2a	1404	5MC	1	0

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 2625 ligands modelled in this entry, 2621 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	EZG	2A	3746	-	26,26,26	3.33	4 (15%)	32,35,35	1.39	4 (12%)
60	SF4	1d	501	35	0,12,12	-	-	-		
60	SF4	2d	501	35	0,12,12	-	-	-		
58	EZG	1A	4030	-	26,26,26	2.59	4 (15%)	32,35,35	1.54	6 (18%)

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	EZG	2A	3746	-	-	8/24/26/26	0/2/2/2
60	SF4	1d	501	35	-	-	0/6/5/5
60	SF4	2d	501	35	-	-	0/6/5/5
58	EZG	1A	4030	-	-	5/24/26/26	0/2/2/2

All (8) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
58	2A	3746	EZG	OAC-NAY	13.76	1.46	1.22
58	1A	4030	EZG	CAT-CAW	-8.60	1.39	1.51
58	2A	3746	EZG	CAT-CAW	-7.86	1.40	1.51
58	1A	4030	EZG	OAC-NAY	7.61	1.35	1.22
58	1A	4030	EZG	CAU-NAY	-4.89	1.33	1.45
58	2A	3746	EZG	CAU-NAY	-4.69	1.34	1.45
58	2A	3746	EZG	CG-ND1	-2.36	1.32	1.38
58	1A	4030	EZG	CG-ND1	-2.16	1.33	1.38

All (10) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
58	1A	4030	EZG	CAW-CAX-NAP	5.37	119.74	110.03
58	2A	3746	EZG	CA-CB-CG	-4.78	101.99	113.77
58	2A	3746	EZG	CAX-NAP-C	-3.12	117.83	123.25
58	1A	4030	EZG	CAT-CAW-CAX	2.89	116.89	111.72
58	1A	4030	EZG	CA-CB-CG	-2.73	107.03	113.77
58	1A	4030	EZG	CAI-CAG-CAT	-2.64	118.54	121.18
58	2A	3746	EZG	CAW-CAX-NAP	2.55	114.63	110.03
58	2A	3746	EZG	CB-CG-CD2	-2.42	124.39	129.33
58	1A	4030	EZG	CAM-CAX-NAP	-2.31	105.64	109.28
58	1A	4030	EZG	CB-CG-CD2	-2.15	124.93	129.33

There are no chirality outliers.

All (13) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
58	2A	3746	EZG	O-C-CA-CB
58	2A	3746	EZG	NAP-C-CA-CB
58	2A	3746	EZG	NAP-C-CA-N
58	2A	3746	EZG	OAD-CAM-CAX-CAW
58	2A	3746	EZG	OAD-CAM-CAX-NAP
58	2A	3746	EZG	O-C-CA-N
58	1A	4030	EZG	C-CA-CB-CG

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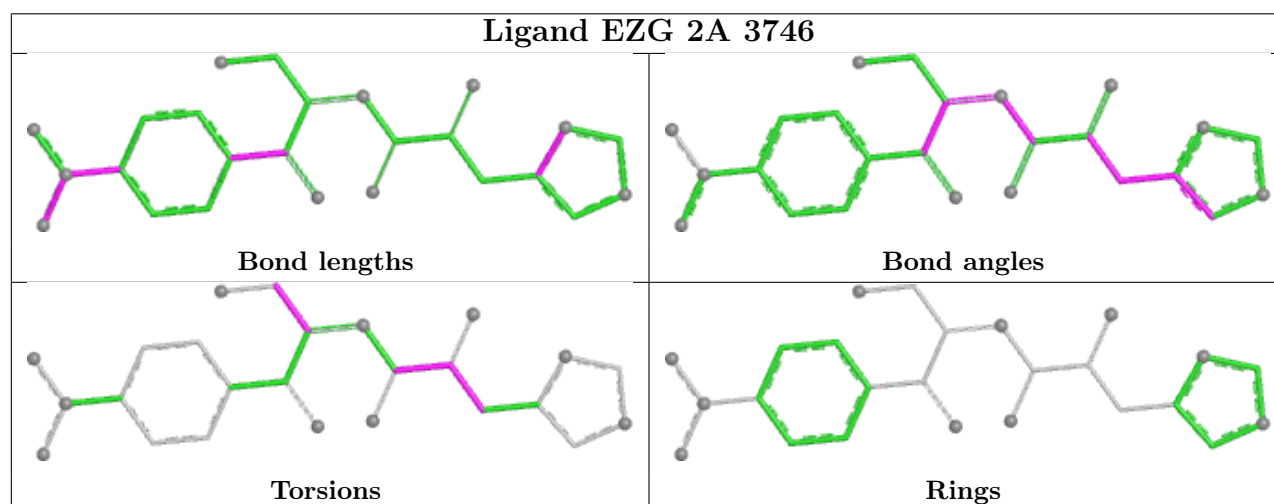
Mol	Chain	Res	Type	Atoms
58	2A	3746	EZG	C-CA-CB-CG
58	1A	4030	EZG	CAM-CAX-NAP-C
58	1A	4030	EZG	OAD-CAM-CAX-NAP
58	1A	4030	EZG	N-CA-CB-CG
58	2A	3746	EZG	N-CA-CB-CG
58	1A	4030	EZG	OAE-CAW-CAX-CAM

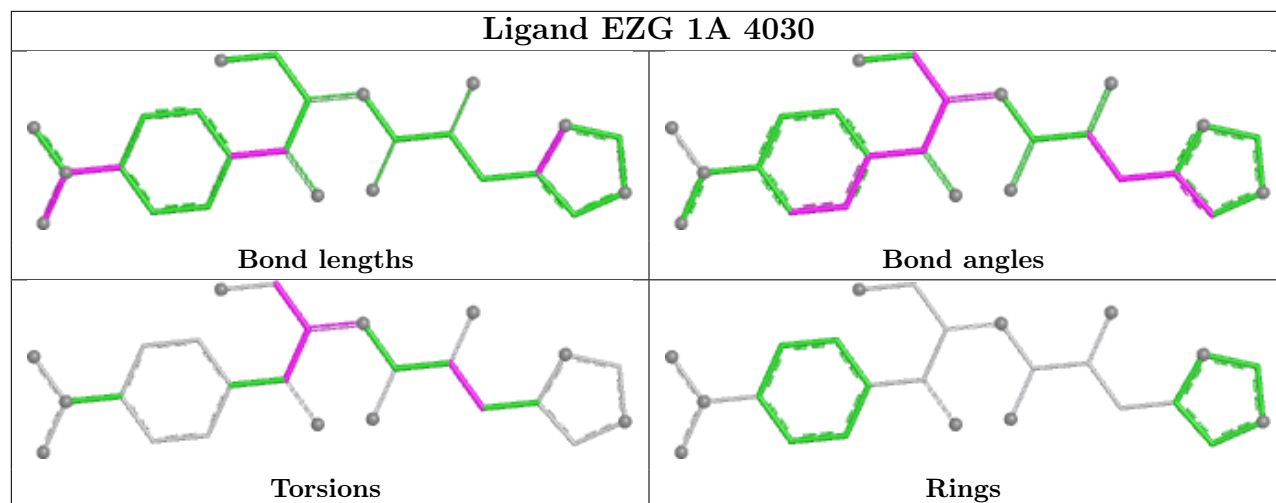
There are no ring outliers.

2 monomers are involved in 3 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
58	2A	3746	EZG	1	0
58	1A	4030	EZG	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 ⓘ

6.1 Protein, DNA and RNA chains ⓘ

In the following table, the column labelled ‘#RSRZ> 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 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%)	-0.52	46 (1%) 70 61	13, 30, 88, 101	0
1	2A	2789/2915 (95%)	-0.12	41 (1%) 72 63	25, 51, 87, 100	0
2	1B	120/121 (99%)	-0.46	0 100 100	23, 43, 57, 85	0
2	2B	120/121 (99%)	0.51	0 100 100	53, 71, 80, 89	0
3	1D	275/276 (99%)	-0.21	2 (0%) 84 77	16, 31, 46, 74	0
3	2D	275/276 (99%)	0.14	3 (1%) 78 70	23, 43, 56, 66	0
4	1E	204/206 (99%)	-0.22	0 100 100	13, 33, 54, 71	0
4	2E	204/206 (99%)	0.15	2 (0%) 79 72	28, 54, 67, 74	0
5	1F	203/210 (96%)	-0.17	0 100 100	15, 35, 62, 82	0
5	2F	203/210 (96%)	0.23	2 (0%) 79 72	30, 62, 74, 82	0
6	1G	181/182 (99%)	0.23	3 (1%) 69 60	35, 51, 69, 78	0
6	2G	181/182 (99%)	0.80	7 (3%) 43 34	56, 72, 78, 83	0
7	1H	174/180 (96%)	-0.03	2 (1%) 78 70	34, 46, 59, 66	0
7	2H	174/180 (96%)	0.76	7 (4%) 42 33	61, 75, 81, 86	0
8	1I	146/148 (98%)	0.44	2 (1%) 73 64	39, 67, 75, 81	0
8	2I	146/148 (98%)	0.48	2 (1%) 73 64	50, 66, 77, 81	0
9	1N	140/140 (100%)	-0.11	1 (0%) 84 77	21, 35, 55, 68	0
9	2N	140/140 (100%)	0.42	1 (0%) 84 77	43, 58, 72, 75	0
10	1O	122/122 (100%)	-0.26	0 100 100	22, 35, 50, 56	0
10	2O	122/122 (100%)	0.27	0 100 100	43, 54, 67, 70	0
11	1P	149/150 (99%)	-0.05	1 (0%) 84 77	14, 40, 62, 66	0
11	2P	149/150 (99%)	0.30	2 (1%) 75 66	30, 61, 75, 83	0
12	1Q	141/141 (100%)	-0.19	0 100 100	22, 36, 49, 72	0
12	2Q	141/141 (100%)	0.69	6 (4%) 40 31	41, 60, 70, 76	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	1R	118/118 (100%)	-0.17	0 100 100	18, 29, 44, 54	0
13	2R	118/118 (100%)	0.11	1 (0%) 82 75	33, 46, 55, 66	0
14	1S	110/112 (98%)	-0.05	0 100 100	32, 44, 55, 60	0
14	2S	110/112 (98%)	0.91	4 (3%) 46 37	58, 67, 76, 79	0
15	1T	131/146 (89%)	-0.12	2 (1%) 72 63	25, 39, 61, 71	0
15	2T	131/146 (89%)	0.31	0 100 100	46, 58, 69, 75	0
16	1U	116/118 (98%)	-0.41	0 100 100	14, 25, 42, 56	0
16	2U	116/118 (98%)	0.22	1 (0%) 81 74	35, 55, 67, 73	0
17	1V	101/101 (100%)	-0.30	0 100 100	19, 34, 53, 69	0
17	2V	101/101 (100%)	0.36	0 100 100	36, 63, 74, 78	0
18	1W	112/113 (99%)	-0.33	0 100 100	21, 26, 48, 71	0
18	2W	112/113 (99%)	0.22	0 100 100	33, 44, 59, 84	0
19	1X	95/96 (98%)	-0.13	1 (1%) 78 70	19, 31, 53, 75	0
19	2X	95/96 (98%)	0.34	0 100 100	40, 53, 64, 72	0
20	1Y	107/110 (97%)	0.01	1 (0%) 81 74	29, 43, 61, 72	0
20	2Y	107/110 (97%)	0.79	6 (5%) 30 23	54, 65, 74, 78	0
21	1Z	154/206 (74%)	0.46	6 (3%) 43 34	35, 57, 79, 85	0
21	2Z	160/206 (77%)	1.36	36 (22%) 2 1	61, 75, 84, 91	0
22	10	83/85 (97%)	-0.06	2 (2%) 59 49	18, 31, 51, 56	0
22	20	83/85 (97%)	0.71	4 (4%) 35 28	36, 58, 69, 74	0
23	11	97/98 (98%)	0.07	1 (1%) 79 72	20, 38, 62, 70	0
23	21	97/98 (98%)	0.37	4 (4%) 41 33	35, 50, 68, 73	0
24	12	70/72 (97%)	-0.06	1 (1%) 73 64	29, 41, 53, 64	0
24	22	70/72 (97%)	0.50	2 (2%) 53 43	47, 62, 70, 73	0
25	13	59/60 (98%)	-0.21	0 100 100	19, 31, 54, 72	0
25	23	59/60 (98%)	0.54	1 (1%) 69 60	48, 58, 70, 76	0
26	14	69/71 (97%)	0.55	3 (4%) 40 31	43, 65, 83, 84	0
26	24	69/71 (97%)	0.92	6 (8%) 16 11	67, 77, 86, 87	0
27	15	59/60 (98%)	-0.37	0 100 100	14, 28, 41, 50	0
27	25	59/60 (98%)	0.10	1 (1%) 69 60	32, 46, 56, 64	0
28	16	53/54 (98%)	-0.27	0 100 100	27, 36, 50, 54	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
28	26	53/54 (98%)	0.55	1 (1%) 66 57	42, 54, 67, 68	0
29	17	48/49 (97%)	-0.24	0 100 100	16, 21, 50, 60	0
29	27	48/49 (97%)	-0.03	0 100 100	24, 35, 51, 60	0
30	18	64/65 (98%)	-0.18	1 (1%) 70 61	21, 27, 37, 55	0
30	28	64/65 (98%)	0.40	1 (1%) 70 61	40, 49, 58, 68	0
31	19	37/37 (100%)	-0.10	0 100 100	22, 33, 50, 55	0
31	29	37/37 (100%)	0.72	2 (5%) 31 24	53, 62, 71, 75	0
32	1a	1488/1521 (97%)	0.04	26 (1%) 69 60	32, 59, 86, 102	0
32	2a	1491/1521 (98%)	0.36	42 (2%) 55 45	43, 69, 89, 101	0
33	1b	231/256 (90%)	0.72	18 (7%) 19 14	59, 73, 82, 85	0
33	2b	231/256 (90%)	1.03	26 (11%) 10 7	64, 79, 85, 90	0
34	1c	206/239 (86%)	0.52	10 (4%) 35 27	51, 66, 74, 80	0
34	2c	206/239 (86%)	1.11	26 (12%) 8 6	66, 78, 82, 85	0
35	1d	208/209 (99%)	0.58	5 (2%) 59 49	50, 64, 76, 83	0
35	2d	208/209 (99%)	0.58	6 (2%) 53 43	53, 62, 72, 81	0
36	1e	148/162 (91%)	0.37	3 (2%) 65 56	48, 60, 70, 78	0
36	2e	148/162 (91%)	1.05	22 (14%) 5 4	58, 71, 79, 86	0
37	1f	100/101 (99%)	0.47	2 (2%) 65 56	48, 60, 69, 70	0
37	2f	100/101 (99%)	0.49	0 100 100	51, 63, 70, 76	0
38	1g	155/156 (99%)	0.52	8 (5%) 33 25	51, 62, 74, 88	0
38	2g	155/156 (99%)	0.69	12 (7%) 19 14	62, 71, 78, 84	0
39	1h	137/138 (99%)	0.54	2 (1%) 72 63	48, 61, 67, 72	0
39	2h	137/138 (99%)	0.77	6 (4%) 39 31	64, 71, 77, 85	0
40	1i	127/128 (99%)	0.93	10 (7%) 18 13	46, 69, 77, 83	0
40	2i	127/128 (99%)	1.43	30 (23%) 2 1	68, 77, 82, 88	0
41	1j	97/105 (92%)	1.05	12 (12%) 8 6	52, 71, 78, 83	0
41	2j	96/105 (91%)	1.52	29 (30%) 1 1	70, 78, 85, 87	0
42	1k	114/129 (88%)	0.34	2 (1%) 67 58	40, 58, 72, 79	0
42	2k	114/129 (88%)	0.48	3 (2%) 57 47	49, 66, 74, 78	0
43	1l	121/132 (91%)	0.06	2 (1%) 69 60	33, 47, 59, 66	0
43	2l	121/132 (91%)	0.62	6 (4%) 34 26	53, 61, 71, 75	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
44	1m	123/126 (97%)	0.43	5 (4%) 41 33	47, 59, 70, 74	0
44	2m	122/126 (96%)	1.01	14 (11%) 9 7	62, 75, 81, 85	0
45	1n	60/61 (98%)	0.50	1 (1%) 69 60	50, 59, 67, 71	0
45	2n	60/61 (98%)	1.70	20 (33%) 1 1	68, 77, 81, 87	0
46	1o	88/89 (98%)	0.25	2 (2%) 61 51	44, 59, 70, 75	0
46	2o	88/89 (98%)	0.36	1 (1%) 78 70	53, 65, 74, 75	0
47	1p	82/88 (93%)	0.99	6 (7%) 21 15	51, 61, 70, 75	0
47	2p	82/88 (93%)	0.79	3 (3%) 45 36	55, 62, 71, 75	0
48	1q	99/105 (94%)	0.56	2 (2%) 65 56	47, 59, 72, 75	0
48	2q	99/105 (94%)	0.65	5 (5%) 33 25	55, 65, 73, 75	0
49	1r	68/88 (77%)	0.23	1 (1%) 72 63	48, 61, 71, 73	0
49	2r	68/88 (77%)	0.36	0 100 100	57, 63, 73, 77	0
50	1s	83/93 (89%)	0.64	2 (2%) 59 49	49, 64, 73, 77	0
50	2s	83/93 (89%)	1.05	8 (9%) 13 10	71, 78, 84, 87	0
51	1t	96/106 (90%)	0.64	6 (6%) 26 19	50, 64, 73, 78	0
51	2t	96/106 (90%)	0.68	8 (8%) 17 12	52, 63, 76, 79	0
52	1u	23/27 (85%)	0.96	3 (13%) 7 6	52, 59, 63, 70	0
52	2u	23/27 (85%)	1.66	9 (39%) 1 0	67, 73, 80, 80	0
53	1v	13/24 (54%)	0.77	2 (15%) 5 4	42, 56, 81, 90	0
53	2v	13/24 (54%)	1.06	3 (23%) 2 1	59, 74, 91, 97	0
54	1w	67/76 (88%)	0.60	7 (10%) 11 8	32, 82, 93, 96	0
54	1y	67/76 (88%)	0.82	1 (1%) 72 63	28, 88, 96, 100	0
54	2w	65/76 (85%)	1.13	11 (16%) 4 3	54, 87, 95, 99	0
54	2y	66/76 (86%)	0.86	3 (4%) 38 30	49, 90, 94, 97	0
55	1x	72/77 (93%)	0.04	0 100 100	32, 58, 76, 85	0
55	2x	72/77 (93%)	0.49	1 (1%) 73 64	45, 71, 81, 83	0
All	All	20875/21748 (95%)	0.18	650 (3%) 51 41	13, 57, 83, 102	0

All (650) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
34	2c	168	ALA	5.9
21	2Z	172	ALA	5.1

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Mol	Chain	Res	Type	RSRZ
44	2m	102	ARG	5.0
41	2j	65	LEU	4.8
32	2a	1033	G	4.8
41	2j	32	ALA	4.6
1	1A	1140	U	4.6
1	1A	1141	A	4.5
45	2n	18	VAL	4.5
21	2Z	144	LEU	4.5
32	2a	1034	G	4.5
21	2Z	149	SER	4.5
1	1A	1114	G	4.3
1	1A	1142	A	4.2
36	2e	20	GLN	4.2
45	2n	38	GLY	4.2
21	2Z	21	ALA	4.2
26	14	56	VAL	4.2
1	1A	931	C	4.1
34	2c	2	GLY	4.1
33	2b	237	ALA	4.1
20	2Y	57	GLN	4.1
45	2n	13	THR	4.1
21	2Z	171	ILE	4.0
1	1A	1139	G	4.0
45	2n	12	ARG	4.0
23	2l	2	SER	4.0
41	2j	55	LYS	4.0
45	1n	2	ALA	3.9
1	2A	883	G	3.9
40	2i	13	ALA	3.9
21	2Z	150	LEU	3.9
21	2Z	173	ALA	3.9
32	1a	1023	G	3.8
40	2i	11	LYS	3.8
32	2a	1030(B)	C	3.8
1	1A	932	C	3.8
1	1A	1110	C	3.8
47	1p	2	VAL	3.8
47	1p	68	ASP	3.8
40	2i	14	VAL	3.8
54	2w	71	G	3.8
32	2a	1149	C	3.7
21	2Z	147	GLY	3.7

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Mol	Chain	Res	Type	RSRZ
31	29	37	GLY	3.7
34	2c	149	ALA	3.7
41	1j	75	ILE	3.7
1	1A	1138	C	3.7
32	2a	1002	G	3.7
54	1w	70	G	3.7
41	2j	40	LEU	3.7
9	2N	45	ASN	3.7
51	1t	103	GLY	3.7
1	1A	1112	U	3.7
1	2A	2155	G	3.6
44	2m	100	GLY	3.6
45	2n	11	LYS	3.6
33	1b	237	ALA	3.6
40	2i	84	ALA	3.6
51	1t	74	LYS	3.6
40	2i	117	HIS	3.5
36	2e	18	ARG	3.5
44	2m	123	ALA	3.5
12	2Q	22	LYS	3.5
33	2b	236	TYR	3.5
53	2v	12	A	3.5
41	2j	47	PHE	3.5
51	1t	13	LEU	3.5
1	1A	1105	G	3.5
26	24	57	GLU	3.5
40	1i	56	LEU	3.5
50	2s	2	PRO	3.5
44	1m	123	ALA	3.5
12	2Q	15	GLY	3.4
40	2i	9	ARG	3.4
21	1Z	141	VAL	3.4
34	2c	189	ALA	3.4
22	20	2	ALA	3.4
51	2t	9	ASN	3.4
34	2c	151	VAL	3.4
41	1j	10	GLY	3.3
54	2w	70	G	3.3
36	2e	25	ARG	3.3
51	2t	82	SER	3.3
40	2i	10	ARG	3.3
42	2k	117	ASN	3.3

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Mol	Chain	Res	Type	RSRZ
32	2a	1038	C	3.3
43	1l	6	THR	3.3
41	2j	37	PRO	3.3
32	1a	1034	G	3.3
34	2c	154	SER	3.3
41	2j	74	ILE	3.2
33	1b	186	ALA	3.2
3	1D	276	LYS	3.2
23	1l	2	SER	3.2
1	1A	1106	U	3.2
26	24	56	VAL	3.2
23	2l	84	GLY	3.2
36	1e	85	GLY	3.2
52	1u	19	GLY	3.2
38	1g	85	TYR	3.2
1	2A	2139	C	3.2
32	1a	630	G	3.2
21	2Z	52	SER	3.1
38	1g	2	ALA	3.1
45	2n	9	LYS	3.1
51	1t	14	LYS	3.1
40	2i	86	VAL	3.1
44	2m	104	ARG	3.1
22	20	5	LYS	3.1
41	1j	76	ASN	3.1
45	2n	39	LEU	3.1
32	1a	1024	G	3.1
38	1g	82	GLY	3.1
42	2k	49	GLY	3.1
21	2Z	148	ASP	3.1
1	2A	1026	U	3.1
47	2p	38	TYR	3.0
20	2Y	107	ASP	3.0
32	2a	1257	U	3.0
54	2w	72	C	3.0
41	2j	52	GLY	3.0
32	1a	1532	U	3.0
32	2a	1031	G	3.0
52	2u	23	PRO	3.0
1	2A	652(B)	A	3.0
5	2F	131	GLY	3.0
38	2g	38	LEU	3.0

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Mol	Chain	Res	Type	RSRZ
1	2A	2751	G	3.0
32	2a	971	G	3.0
41	2j	41	PRO	3.0
21	2Z	51	ALA	3.0
41	2j	71	LEU	2.9
15	1T	131	ALA	2.9
46	2o	60	VAL	2.9
41	1j	5	ARG	2.9
6	2G	20	ILE	2.9
52	2u	14	TRP	2.9
1	2A	896	A	2.9
32	1a	1035	A	2.9
40	2i	28	VAL	2.9
21	2Z	121	HIS	2.9
51	2t	83	ARG	2.9
34	2c	152	ILE	2.9
36	2e	114	GLY	2.9
50	1s	84	GLY	2.9
32	2a	1004	A	2.9
21	2Z	164	ALA	2.9
38	2g	80	VAL	2.9
40	2i	122	ALA	2.9
33	2b	17	PHE	2.9
54	2w	13	C	2.9
45	2n	34	TYR	2.9
43	2l	13	LYS	2.9
38	1g	3	ARG	2.9
40	2i	71	SER	2.9
1	2A	1847	A	2.9
7	2H	82	GLY	2.8
38	2g	34	GLY	2.8
44	1m	124	PRO	2.8
54	2w	67	C	2.8
1	1A	1145	G	2.8
26	24	59	PHE	2.8
21	2Z	170	THR	2.8
23	21	46	LEU	2.8
30	18	65	GLU	2.8
1	1A	933	C	2.8
8	2I	146	ALA	2.8
33	1b	120	ALA	2.8
38	1g	153	HIS	2.8

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Mol	Chain	Res	Type	RSRZ
1	1A	1133	G	2.8
32	1a	1031	G	2.8
12	2Q	19	GLY	2.8
53	2v	24	A	2.8
54	2w	73	A	2.8
6	1G	26	GLN	2.8
6	2G	48	GLU	2.8
22	20	7	LEU	2.8
1	2A	888	C	2.8
20	2Y	58	GLY	2.8
32	2a	1032	G	2.8
36	2e	13	ILE	2.8
49	1r	76	LEU	2.8
41	1j	36	GLY	2.8
35	2d	47	ARG	2.7
36	2e	100	VAL	2.7
12	2Q	104	PHE	2.7
33	2b	31	TYR	2.7
32	2a	1150	U	2.7
32	2a	1532	U	2.7
43	1l	14	GLY	2.7
41	1j	77	PRO	2.7
54	2w	3	C	2.7
7	2H	52	VAL	2.7
50	1s	9	VAL	2.7
1	2A	2158	A	2.7
45	2n	17	LYS	2.7
32	2a	1030(A)	G	2.7
40	2i	38	GLN	2.7
24	22	66	GLU	2.7
21	2Z	174	VAL	2.7
1	2A	884	C	2.7
7	2H	64	LEU	2.7
21	1Z	146	ILE	2.7
34	1c	65	ALA	2.7
32	2a	965	A	2.7
1	1A	2906	U	2.7
40	2i	75	ASP	2.7
41	2j	39	PRO	2.7
48	2q	33	GLY	2.7
1	1A	1109	G	2.7
1	2A	2802	G	2.7

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Mol	Chain	Res	Type	RSRZ
7	1H	2	SER	2.7
36	2e	71	LEU	2.7
33	2b	161	ALA	2.7
41	2j	50	ILE	2.7
52	2u	3	LYS	2.7
35	2d	20	TYR	2.7
54	2w	2	C	2.7
3	2D	262	ARG	2.7
52	2u	24	ARG	2.7
34	1c	15	THR	2.7
44	2m	124	PRO	2.7
51	2t	103	GLY	2.7
33	2b	211	ILE	2.6
54	1w	1	G	2.6
54	2w	65	G	2.6
22	20	76	GLY	2.6
35	1d	180	GLY	2.6
33	2b	121	LEU	2.6
50	2s	45	VAL	2.6
8	1I	146	ALA	2.6
36	2e	10	MET	2.6
1	2A	2159	G	2.6
38	2g	5	ARG	2.6
48	1q	28	PRO	2.6
1	2A	2138	C	2.6
20	1Y	92	ASN	2.6
32	2a	980	C	2.6
26	24	65	ASP	2.6
1	1A	1144	A	2.6
32	2a	1531	A	2.6
41	1j	35	SER	2.6
3	1D	275	LYS	2.6
8	1I	72	LEU	2.6
21	2Z	137	ILE	2.6
34	2c	195	VAL	2.6
33	2b	135	GLN	2.6
21	2Z	48	PHE	2.6
1	2A	885	C	2.6
1	2A	2803	C	2.6
34	1c	17	ASP	2.6
33	2b	16	HIS	2.6
44	2m	122	LYS	2.6

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Mol	Chain	Res	Type	RSRZ
39	2h	133	LEU	2.6
9	1N	9	VAL	2.6
33	2b	83	MET	2.6
41	2j	48	THR	2.6
47	1p	1	MET	2.6
1	2A	2153	G	2.5
1	2A	2157	G	2.5
41	2j	73	ASP	2.6
21	2Z	151	HIS	2.5
52	1u	24	ARG	2.5
48	2q	99	SER	2.5
1	1A	1103	A	2.5
11	1P	99	LEU	2.5
40	2i	65	VAL	2.5
38	2g	113	GLU	2.5
15	1T	130	ALA	2.5
40	2i	82	ALA	2.5
1	1A	1111	U	2.5
7	2H	2	SER	2.5
1	1A	1104	G	2.5
1	2A	882	G	2.5
1	2A	2125	G	2.5
1	2A	2131	G	2.5
1	2A	886	C	2.5
20	2Y	106	LEU	2.5
40	1i	4	TYR	2.5
53	2v	14	A	2.5
33	1b	12	GLU	2.5
41	2j	63	PHE	2.5
41	2j	43	ARG	2.5
36	2e	99	GLY	2.5
43	2l	7	ILE	2.5
45	2n	25	VAL	2.5
1	1A	1146	C	2.5
32	2a	1030	C	2.5
32	2a	1003	G	2.5
32	2a	1224	G	2.5
55	2x	70	G	2.5
6	2G	73	ALA	2.5
1	1A	934	A	2.5
38	1g	5	ARG	2.5
39	1h	4	ASP	2.5

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Mol	Chain	Res	Type	RSRZ
33	1b	127	ILE	2.5
34	2c	182	ILE	2.5
21	2Z	43	GLU	2.5
1	1A	944	C	2.5
32	1a	1008	C	2.5
32	1a	1030	C	2.5
32	1a	1003	G	2.5
32	2a	1001(A)	G	2.5
38	2g	84	ASN	2.5
53	1v	12	A	2.5
24	22	1	MET	2.4
36	2e	31	LEU	2.4
34	1c	84	ILE	2.4
38	2g	115	ARG	2.4
14	2S	33	LYS	2.4
32	2a	1028	C	2.4
6	2G	62	LEU	2.4
36	2e	119	LEU	2.4
40	1i	47	LEU	2.4
40	2i	56	LEU	2.4
54	2w	7	A	2.4
21	2Z	15	PRO	2.4
40	2i	105	ASP	2.4
54	1w	69	G	2.4
41	2j	72	VAL	2.4
52	2u	16	GLY	2.4
7	2H	3	ARG	2.4
45	2n	3	ARG	2.4
21	2Z	168	GLU	2.4
22	10	5	LYS	2.4
32	1a	1257	U	2.4
36	1e	81	GLU	2.4
41	1j	33	GLN	2.4
47	1p	70	ALA	2.4
47	2p	82	GLN	2.4
21	2Z	57	ILE	2.4
45	2n	7	ILE	2.4
1	2A	652(V)	C	2.4
32	1a	1029	C	2.4
32	2a	1116	C	2.4
21	2Z	140	ASP	2.4
31	29	12	ASP	2.4

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Mol	Chain	Res	Type	RSRZ
1	2A	229	A	2.4
54	1w	73	A	2.4
40	2i	83	ARG	2.4
1	1A	1102	G	2.4
1	2A	2154	G	2.4
32	1a	306	G	2.4
40	1i	18	PHE	2.4
20	2Y	48	ALA	2.4
39	2h	124	ALA	2.4
38	2g	110	GLN	2.4
33	2b	10	LEU	2.4
51	1t	10	LEU	2.4
41	2j	38	ILE	2.4
45	2n	15	LYS	2.4
50	2s	82	GLY	2.4
40	1i	9	ARG	2.4
1	1A	1122	C	2.4
36	2e	8	GLU	2.4
1	1A	929	G	2.4
1	1A	1124	U	2.4
32	1a	1030(A)	G	2.4
40	2i	5	TYR	2.4
40	2i	27	THR	2.4
50	2s	80	TYR	2.4
54	1w	71	G	2.4
21	1Z	150	LEU	2.4
21	2Z	146	ILE	2.4
30	28	16	ILE	2.4
46	1o	87	ILE	2.4
46	1o	19	PRO	2.4
5	2F	183	VAL	2.3
41	2j	76	ASN	2.3
22	10	6	GLY	2.3
52	2u	2	GLY	2.3
33	2b	70	PHE	2.3
45	2n	37	PHE	2.3
34	2c	60	ALA	2.3
34	2c	146	ALA	2.3
37	1f	29	ALA	2.3
32	1a	1006	C	2.3
21	1Z	125	LEU	2.3
21	2Z	41	LEU	2.3

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Mol	Chain	Res	Type	RSRZ
33	2b	11	LEU	2.3
34	2c	202	ILE	2.3
21	2Z	167	PRO	2.3
33	1b	22	LYS	2.3
1	2A	2115	G	2.3
32	1a	1002	G	2.3
32	1a	1032	G	2.3
33	2b	165	VAL	2.3
4	2E	10	GLY	2.3
41	2j	36	GLY	2.3
25	23	51	ALA	2.3
34	2c	129	ALA	2.3
35	2d	160	GLN	2.3
6	2G	3	LEU	2.3
44	2m	66	LEU	2.3
1	1A	2168	C	2.3
26	24	40	HIS	2.3
32	1a	1027	C	2.3
32	1a	1030(B)	C	2.3
32	2a	962	C	2.3
1	1A	2135	U	2.3
33	1b	23	ARG	2.3
33	2b	230	VAL	2.3
38	1g	80	VAL	2.3
44	2m	112	GLY	2.3
43	2l	32	PHE	2.3
32	1a	1001(A)	G	2.3
33	1b	134	GLU	2.3
43	2l	68	ALA	2.3
41	2j	86	MET	2.3
33	1b	187	LEU	2.3
35	1d	194	LEU	2.3
39	1h	88	LYS	2.3
44	2m	78	ILE	2.3
3	2D	259	THR	2.3
40	2i	7	THR	2.3
52	2u	15	ARG	2.3
36	2e	55	VAL	2.3
40	2i	123	PRO	2.3
53	1v	13	A	2.3
34	2c	145	GLY	2.3
35	2d	154	ASN	2.3

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Mol	Chain	Res	Type	RSRZ
33	1b	126	GLU	2.3
34	2c	204	LEU	2.3
6	2G	74	LYS	2.3
1	1A	930	G	2.3
1	2A	2149	G	2.3
32	2a	1030(C)	G	2.3
32	2a	1117	G	2.3
33	1b	19	HIS	2.3
33	2b	200	ILE	2.3
35	1d	173	TRP	2.3
38	2g	114	ARG	2.3
40	1i	10	ARG	2.3
34	1c	193	TYR	2.3
16	2U	90	VAL	2.3
44	2m	6	GLY	2.3
50	2s	84	GLY	2.3
1	1A	1123	A	2.2
1	2A	1536	C	2.2
32	2a	1030(D)	A	2.2
39	2h	4	ASP	2.2
11	2P	79	ARG	2.2
27	25	29	THR	2.2
40	1i	21	PRO	2.2
40	2i	64	THR	2.2
33	2b	210	SER	2.2
43	2l	64	TYR	2.2
1	2A	2156	G	2.2
32	2a	1079	G	2.2
54	2y	19	G	2.2
33	2b	18	GLY	2.2
36	2e	22	GLY	2.2
51	2t	47	GLY	2.2
32	1a	204	U	2.2
32	2a	1196	U	2.2
45	2n	20	ALA	2.2
1	1A	1113	A	2.2
21	2Z	125	LEU	2.2
34	2c	12	LEU	2.2
41	2j	78	ASN	2.2
44	2m	90	LEU	2.2
1	1A	2167	C	2.2
1	1A	2186	C	2.2

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Mol	Chain	Res	Type	RSRZ
34	2c	157	ILE	2.2
21	2Z	141	VAL	2.2
34	2c	130	VAL	2.2
37	1f	9	VAL	2.2
41	2j	42	THR	2.2
41	2j	59	SER	2.2
4	2E	52	LEU	2.2
34	1c	206	GLU	2.2
40	2i	43	ALA	2.2
44	2m	51	ALA	2.2
51	2t	59	ALA	2.2
39	2h	15	ASN	2.2
11	2P	68	GLN	2.2
12	2Q	6	ARG	2.2
14	2S	3	ARG	2.2
21	2Z	131	ARG	2.2
35	2d	45	GLN	2.2
32	2a	983	A	2.2
32	2a	1035	A	2.2
1	1A	1121	C	2.2
1	2A	2174	C	2.2
33	2b	40	HIS	2.2
54	1w	68	C	2.2
47	1p	66	PRO	2.2
50	2s	9	VAL	2.2
34	2c	158	GLY	2.2
35	1d	167	GLY	2.2
39	2h	128	GLY	2.2
21	2Z	88	PHE	2.2
28	26	36	LEU	2.2
21	1Z	169	GLU	2.2
40	2i	12	GLU	2.2
44	1m	32	GLU	2.2
32	1a	1025	U	2.2
34	1c	127	ARG	2.2
34	2c	170	GLN	2.2
1	2A	2894	G	2.2
32	2a	1024	G	2.2
32	2a	1202	G	2.2
54	2y	18	G	2.2
21	2Z	74	VAL	2.2
32	1a	1030(D)	A	2.2

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Mol	Chain	Res	Type	RSRZ
32	1a	1028	C	2.2
54	2y	56	C	2.2
33	2b	22	LYS	2.2
40	2i	72	GLY	2.2
34	2c	201	TYR	2.2
48	2q	32	TYR	2.2
21	2Z	157	LEU	2.2
36	2e	54	ALA	2.2
40	1i	2	GLU	2.2
44	1m	2	ALA	2.2
33	2b	162	ILE	2.1
41	1j	79	ARG	2.1
33	1b	7	VAL	2.1
36	2e	115	VAL	2.1
43	2l	55	VAL	2.1
1	2A	2168	G	2.1
1	2A	2173	A	2.1
32	2a	1053	G	2.1
32	2a	1087	G	2.1
45	2n	61	TRP	2.1
7	2H	7	LEU	2.1
33	2b	213	LEU	2.1
48	2q	43	LEU	2.1
34	2c	160	ALA	2.1
36	2e	132	ALA	2.1
40	1i	126	SER	2.1
40	2i	15	ALA	2.1
44	2m	76	ALA	2.1
26	14	58	ARG	2.1
41	1j	45	ARG	2.1
47	2p	8	ARG	2.1
33	1b	172	ILE	2.1
41	2j	82	ILE	2.1
33	2b	48	MET	2.1
42	2k	121	PRO	2.1
45	2n	54	PRO	2.1
33	2b	38	GLY	2.1
40	2i	67	GLY	2.1
52	1u	16	GLY	2.1
52	2u	8	THR	2.1
26	24	49	PHE	2.1
36	2e	12	LEU	2.1

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Mol	Chain	Res	Type	RSRZ
40	2i	79	LEU	2.1
12	2Q	121	ALA	2.1
41	2j	28	ARG	2.1
51	2t	8	ARG	2.1
21	1Z	168	GLU	2.1
44	2m	67	GLU	2.1
54	2w	34	G	2.1
1	2A	2896	C	2.1
54	1w	72	C	2.1
35	1d	18	LYS	2.1
38	2g	37	ASN	2.1
41	1j	78	ASN	2.1
1	2A	2167	U	2.1
6	2G	19	LEU	2.1
13	2R	69	ASP	2.1
34	1c	196	LEU	2.1
35	2d	21	LEU	2.1
40	2i	50	LEU	2.1
52	2u	11	GLY	2.1
34	1c	179	ARG	2.1
38	1g	4	ARG	2.1
6	1G	35	GLU	2.1
6	1G	48	GLU	2.1
34	2c	8	ILE	2.1
45	2n	21	TYR	2.1
1	1A	218	A	2.1
1	1A	942	A	2.1
32	2a	969	A	2.1
50	2s	38	SER	2.1
51	1t	70	SER	2.1
1	1A	935	C	2.1
1	1A	2816	G	2.1
1	2A	652(C)	G	2.1
1	2A	1043	C	2.1
1	2A	2140	C	2.1
1	2A	2188	C	2.1
32	1a	1026	G	2.1
32	2a	1119	C	2.1
33	1b	15	VAL	2.1
33	1b	133	LYS	2.1
33	1b	204	ASN	2.1
34	2c	188	LEU	2.1

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Mol	Chain	Res	Type	RSRZ
36	2e	112	LEU	2.1
14	2S	45	GLY	2.1
26	14	59	PHE	2.1
21	2Z	87	ASP	2.1
33	1b	195	ASP	2.1
36	1e	86	ALA	2.1
36	2e	86	ALA	2.1
42	1k	75	TYR	2.1
21	2Z	129	SER	2.0
41	2j	30	SER	2.0
1	1A	2141	A	2.0
42	1k	14	VAL	2.0
54	1y	35	A	2.0
21	2Z	159	PRO	2.0
1	1A	696	C	2.0
19	1X	95	LEU	2.0
51	2t	10	LEU	2.0
1	1A	2137	G	2.0
1	2A	652(U)	G	2.0
32	2a	1042	G	2.0
39	2h	90	GLY	2.0
14	2S	39	ILE	2.0
32	1a	1446	U	2.0
34	2c	5	ILE	2.0
20	2Y	78	ALA	2.0
34	1c	61	ALA	2.0
34	2c	200	ALA	2.0
36	2e	95	ALA	2.0
41	2j	7	LYS	2.0
48	1q	100	LYS	2.0
48	2q	100	LYS	2.0
41	1j	86	MET	2.0
45	2n	49	HIS	2.0
50	2s	60	VAL	2.0
41	2j	53	PRO	2.0
1	1A	302	A	2.0
1	1A	1119	A	2.0
7	1H	3	ARG	2.0
24	12	69	ARG	2.0
38	2g	82	GLY	2.0
40	1i	22	GLY	2.0
32	2a	1019	C	2.0

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Mol	Chain	Res	Type	RSRZ
33	2b	34	ALA	2.0
36	2e	17	ALA	2.0
45	2n	10	ALA	2.0
47	1p	24	ALA	2.0
32	2a	1364	U	2.0
1	1A	2187	G	2.0
1	2A	2160	G	2.0
32	2a	1047	G	2.0
32	2a	1048	G	2.0
44	1m	27	LYS	2.0
8	2I	29	TYR	2.0
38	2g	154	TYR	2.0
3	2D	141	VAL	2.0
7	2H	133	VAL	2.0
21	2Z	165	VAL	2.0
23	2I	62	VAL	2.0
33	1b	229	VAL	2.0
33	2b	197	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
54	PSU	1y	55	20/21	0.64	0.14	85,93,105,123	0
54	7MG	2y	46	24/25	0.66	0.13	83,92,97,112	0
54	7MG	2w	46	24/25	0.66	0.13	78,92,98,107	0
54	7MG	1w	46	24/25	0.68	0.13	76,87,106,118	0
54	5MU	1y	54	21/22	0.69	0.14	79,87,99,114	0
54	4SU	2y	8	20/21	0.69	0.14	83,95,104,112	0
54	5MU	2y	54	21/22	0.70	0.17	84,91,97,115	0
54	MIA	2y	37	22/30	0.71	0.11	69,81,100,111	0
54	4SU	1y	8	20/21	0.72	0.11	91,96,103,105	0
54	PSU	2y	55	20/21	0.72	0.15	85,92,104,109	0
54	7MG	1y	46	24/25	0.73	0.14	86,94,99,108	0
54	MIA	1y	37	22/30	0.74	0.15	70,78,88,93	0
54	4SU	2w	8	20/21	0.74	0.13	85,89,104,109	0
54	PSU	2y	32	20/21	0.76	0.13	69,84,92,94	0
54	PSU	2y	39	20/21	0.82	0.11	77,84,98,102	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	PSU	2w	55	20/21	0.83	0.09	75,81,89,94	0
54	PSU	1w	55	20/21	0.83	0.11	61,70,79,80	0
54	4SU	1w	8	20/21	0.84	0.11	74,81,92,95	0
32	2MG	2a	1207	24/25	0.85	0.11	74,77,86,91	0
55	PSU	2x	55	20/21	0.85	0.13	67,78,81,81	0
54	PSU	1y	32	20/21	0.86	0.11	71,81,88,90	0
43	0TD	2l	92	10/11	0.86	0.14	58,64,65,80	0
1	5MU	2A	1915	21/22	0.86	0.13	59,64,71,73	0
54	5MU	2w	54	21/22	0.87	0.10	68,75,81,83	0
55	5MU	2x	54	21/22	0.88	0.13	77,81,86,94	0
55	4SU	2x	8	20/21	0.88	0.13	69,73,78,81	0
54	PSU	2w	39	20/21	0.89	0.12	60,73,79,81	0
54	PSU	2w	32	20/21	0.89	0.13	67,78,88,89	0
32	PSU	2a	516	20/21	0.90	0.10	50,70,74,75	0
54	PSU	1y	39	20/21	0.90	0.09	70,77,87,90	0
1	PSU	2A	1917	20/21	0.91	0.10	55,60,65,69	0
55	PSU	1x	55	20/21	0.91	0.09	53,58,67,72	0
43	0TD	1l	92	10/11	0.91	0.12	43,48,51,69	0
55	5MU	1x	54	21/22	0.92	0.09	55,62,70,76	0
32	5MC	2a	1400	21/22	0.92	0.11	60,67,71,73	0
32	7MG	2a	527	24/25	0.92	0.10	46,56,67,71	0
55	5MC	2x	32	21/22	0.92	0.12	65,68,73,74	0
32	5MC	2a	967	21/22	0.92	0.11	62,67,71,73	0
1	4OC	2A	1920	21/23	0.93	0.10	53,58,64,66	0
1	5MC	2A	1942	21/22	0.93	0.12	49,56,62,66	0
32	4OC	2a	1402	22/23	0.93	0.11	52,58,64,67	0
32	5MC	2a	1404	21/22	0.93	0.11	47,51,56,61	0
1	PSU	2A	1911	20/21	0.93	0.09	50,60,65,67	0
1	PSU	1A	1939	20/21	0.93	0.09	38,46,53,54	0
32	M2G	2a	966	25/26	0.93	0.13	60,65,72,79	0
1	5MU	1A	1937	21/22	0.93	0.11	43,49,54,56	0
32	7MG	1a	527	24/25	0.94	0.10	34,42,51,55	0
32	2MG	1a	1207	24/25	0.94	0.09	57,62,67,68	0
54	PSU	1w	32	20/21	0.94	0.09	57,62,68,69	0
32	PSU	1a	516	20/21	0.94	0.09	32,49,53,54	0
32	5MC	2a	1407	21/22	0.94	0.09	44,48,55,60	0
32	MA6	2a	1518	24/25	0.94	0.10	47,59,63,66	0
32	MA6	2a	1519	24/25	0.94	0.11	47,56,64,66	0
55	4SU	1x	8	20/21	0.94	0.09	50,57,65,67	0
54	MIA	2w	37	25/30	0.94	0.13	60,68,74,78	0
55	5MC	1x	32	21/22	0.95	0.11	44,50,57,66	0
54	MIA	1w	37	29/30	0.95	0.12	41,51,60,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
32	M2G	1a	966	25/26	0.95	0.09	41,48,56,63	0
32	5MC	1a	1400	21/22	0.95	0.10	37,47,50,55	0
1	5MU	2A	1939	21/22	0.95	0.09	34,38,43,44	0
32	UR3	2a	1498	21/22	0.95	0.10	44,50,54,63	0
32	5MC	1a	967	21/22	0.95	0.09	45,50,58,64	0
54	PSU	1w	39	20/21	0.96	0.08	44,60,69,70	0
32	5MC	1a	1407	21/22	0.96	0.09	28,34,39,40	0
32	MA6	1a	1519	24/25	0.96	0.10	33,39,43,44	0
1	PSU	1A	1933	20/21	0.96	0.08	30,37,44,45	0
32	5MC	1a	1404	21/22	0.96	0.09	31,38,42,44	0
1	5MC	2A	1962	21/22	0.96	0.08	32,45,48,61	0
1	OMG	2A	2251	24/25	0.96	0.09	32,37,42,45	0
1	2MU	2A	2552	21/23	0.96	0.08	31,41,45,52	0
54	5MU	1w	54	21/22	0.96	0.07	44,60,67,72	0
1	5MC	1A	1984	21/22	0.97	0.07	24,31,36,41	0
1	2MA	2A	2503	23/24	0.97	0.08	24,33,37,46	0
1	2MU	1A	2564	21/23	0.97	0.07	18,23,28,31	0
1	4OC	1A	1942	21/23	0.97	0.08	32,39,45,47	0
32	4OC	1a	1402	22/23	0.97	0.09	38,42,47,53	0
1	5MU	1A	1961	21/22	0.97	0.06	19,23,26,32	0
1	5MC	1A	1964	21/22	0.97	0.08	30,39,46,50	0
32	MA6	1a	1518	24/25	0.98	0.07	31,38,40,40	0
1	PSU	2A	2605	20/21	0.98	0.06	27,31,37,38	0
1	2MA	1A	2515	23/24	0.98	0.06	11,16,19,22	0
1	OMG	1A	2263	24/25	0.98	0.07	14,18,24,25	0
1	PSU	1A	2617	20/21	0.98	0.06	16,20,25,28	0
32	UR3	1a	1498	21/22	0.98	0.07	27,39,42,46	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
56	MG	2y	3005	1/1	0.49	0.19	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2y	3006	1/1	0.50	0.15	88,88,88,88	0
56	MG	2A	3484	1/1	0.56	0.25	70,70,70,70	0
56	MG	2B	3013	1/1	0.61	0.16	74,74,74,74	0
56	MG	1B	236	1/1	0.61	0.14	65,65,65,65	0
56	MG	2A	3491	1/1	0.61	0.23	75,75,75,75	0
56	MG	1A	3801	1/1	0.62	0.16	71,71,71,71	0
56	MG	1a	3049	1/1	0.62	0.22	60,60,60,60	0
56	MG	2A	3560	1/1	0.62	0.15	50,50,50,50	0
56	MG	2A	3630	1/1	0.63	0.21	55,55,55,55	0
56	MG	1A	3986	1/1	0.63	0.15	67,67,67,67	0
56	MG	1y	103	1/1	0.64	0.34	82,82,82,82	0
56	MG	2a	1640	1/1	0.64	0.20	62,62,62,62	0
56	MG	2A	3550	1/1	0.65	0.13	58,58,58,58	0
56	MG	2A	3433	1/1	0.66	0.12	60,60,60,60	0
56	MG	1a	3026	1/1	0.67	0.29	72,72,72,72	0
56	MG	2v	3002	1/1	0.67	0.14	67,67,67,67	0
56	MG	2a	1810	1/1	0.68	0.15	81,81,81,81	0
56	MG	2A	3684	1/1	0.69	0.28	68,68,68,68	0
56	MG	1A	3458	1/1	0.70	0.31	68,68,68,68	0
56	MG	2a	1807	1/1	0.70	0.16	61,61,61,61	0
56	MG	1A	3653	1/1	0.70	0.20	20,20,20,20	0
56	MG	2j	8001	1/1	0.71	0.15	66,66,66,66	0
56	MG	2A	3420	1/1	0.71	0.20	67,67,67,67	0
56	MG	2A	3632	1/1	0.71	0.11	62,62,62,62	0
56	MG	28	102	1/1	0.71	0.34	64,64,64,64	0
56	MG	1A	3622	1/1	0.72	0.26	56,56,56,56	0
56	MG	2A	3570	1/1	0.72	0.33	56,56,56,56	0
56	MG	2a	1769	1/1	0.72	0.15	75,75,75,75	0
56	MG	2A	3618	1/1	0.73	0.11	71,71,71,71	0
56	MG	2a	1815	1/1	0.73	0.16	61,61,61,61	0
56	MG	1A	3863	1/1	0.73	0.19	56,56,56,56	0
56	MG	2A	3374	1/1	0.73	0.12	41,41,41,41	0
56	MG	11	102	1/1	0.73	0.24	72,72,72,72	0
56	MG	2A	3695	1/1	0.73	0.16	58,58,58,58	0
56	MG	2B	3018	1/1	0.74	0.20	80,80,80,80	0
56	MG	2G	3001	1/1	0.74	0.12	60,60,60,60	0
56	MG	1e	201	1/1	0.74	0.09	59,59,59,59	0
56	MG	1A	3832	1/1	0.74	0.16	69,69,69,69	0
56	MG	2A	3648	1/1	0.75	0.12	46,46,46,46	0
56	MG	2a	1770	1/1	0.75	0.16	59,59,59,59	0
56	MG	1a	3149	1/1	0.75	0.31	76,76,76,76	0
56	MG	1D	304	1/1	0.75	0.59	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3723	1/1	0.75	0.22	67,67,67,67	0
56	MG	2a	1617	1/1	0.75	0.22	73,73,73,73	0
56	MG	2B	3009	1/1	0.75	0.27	63,63,63,63	0
56	MG	2a	1661	1/1	0.75	0.20	63,63,63,63	0
56	MG	2a	1662	1/1	0.75	0.12	59,59,59,59	0
56	MG	1x	101	1/1	0.76	0.28	54,54,54,54	0
56	MG	1A	3527	1/1	0.76	0.17	66,66,66,66	0
56	MG	2A	3530	1/1	0.76	0.11	64,64,64,64	0
56	MG	1A	3898	1/1	0.76	0.18	71,71,71,71	0
56	MG	2a	1738	1/1	0.76	0.14	71,71,71,71	0
56	MG	1A	3931	1/1	0.76	0.13	47,47,47,47	0
56	MG	1A	3980	1/1	0.76	0.13	62,62,62,62	0
56	MG	1A	3960	1/1	0.77	0.17	51,51,51,51	0
56	MG	1a	3146	1/1	0.77	0.12	64,64,64,64	0
56	MG	1A	3802	1/1	0.77	0.24	54,54,54,54	0
56	MG	2A	3720	1/1	0.77	0.08	97,97,97,97	0
56	MG	1a	3177	1/1	0.77	0.12	57,57,57,57	0
56	MG	2j	8002	1/1	0.77	0.14	62,62,62,62	0
56	MG	2A	3436	1/1	0.77	0.21	62,62,62,62	0
56	MG	1A	3951	1/1	0.77	0.14	62,62,62,62	0
56	MG	1B	232	1/1	0.77	0.13	66,66,66,66	0
56	MG	1A	3566	1/1	0.78	0.15	62,62,62,62	0
56	MG	2a	1674	1/1	0.78	0.20	55,55,55,55	0
56	MG	1A	3521	1/1	0.78	0.13	50,50,50,50	0
56	MG	2A	3457	1/1	0.78	0.17	58,58,58,58	0
56	MG	1A	3209	1/1	0.78	0.27	61,61,61,61	0
56	MG	2a	1788	1/1	0.78	0.08	55,55,55,55	0
56	MG	2a	1791	1/1	0.78	0.15	69,69,69,69	0
56	MG	1A	3859	1/1	0.78	0.16	61,61,61,61	0
56	MG	2A	3638	1/1	0.78	0.14	66,66,66,66	0
56	MG	2A	3400	1/1	0.78	0.20	72,72,72,72	0
56	MG	2a	1609	1/1	0.78	0.18	57,57,57,57	0
56	MG	2A	3650	1/1	0.78	0.16	52,52,52,52	0
56	MG	2a	1632	1/1	0.78	0.24	67,67,67,67	0
56	MG	2x	103	1/1	0.78	0.14	63,63,63,63	0
56	MG	2A	3532	1/1	0.78	0.16	62,62,62,62	0
56	MG	1A	3674	1/1	0.78	0.15	56,56,56,56	0
56	MG	2y	3007	1/1	0.78	0.24	81,81,81,81	0
56	MG	1A	3306	1/1	0.79	0.12	43,43,43,43	0
56	MG	2A	3285	1/1	0.79	0.16	58,58,58,58	0
56	MG	1A	3971	1/1	0.79	0.09	65,65,65,65	0
56	MG	2v	3003	1/1	0.79	0.16	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2w	106	1/1	0.79	0.23	59,59,59,59	0
56	MG	1A	3227	1/1	0.79	0.22	49,49,49,49	0
56	MG	1A	3679	1/1	0.79	0.15	14,14,14,14	0
56	MG	2A	3697	1/1	0.79	0.19	50,50,50,50	0
56	MG	1A	3760	1/1	0.79	0.13	44,44,44,44	0
56	MG	1A	3795	1/1	0.80	0.15	50,50,50,50	0
56	MG	2B	3012	1/1	0.80	0.12	75,75,75,75	0
56	MG	1A	3170	1/1	0.80	0.12	63,63,63,63	0
56	MG	1a	3037	1/1	0.80	0.30	61,61,61,61	0
56	MG	2A	3071	1/1	0.80	0.22	60,60,60,60	0
56	MG	2Z	8001	1/1	0.80	0.16	73,73,73,73	0
56	MG	2A	3208	1/1	0.80	0.11	49,49,49,49	0
56	MG	1A	3523	1/1	0.80	0.13	46,46,46,46	0
56	MG	2a	1821	1/1	0.80	0.18	66,66,66,66	0
56	MG	2a	1833	1/1	0.80	0.15	62,62,62,62	0
56	MG	2A	3658	1/1	0.80	0.19	36,36,36,36	0
56	MG	1A	3465	1/1	0.80	0.38	55,55,55,55	0
56	MG	2A	3536	1/1	0.80	0.13	54,54,54,54	0
56	MG	1E	310	1/1	0.80	0.16	60,60,60,60	0
56	MG	2A	3408	1/1	0.80	0.12	53,53,53,53	0
56	MG	2a	1668	1/1	0.80	0.15	55,55,55,55	0
56	MG	1S	3003	1/1	0.80	0.15	61,61,61,61	0
56	MG	2a	1709	1/1	0.80	0.26	49,49,49,49	0
56	MG	2a	1724	1/1	0.80	0.20	73,73,73,73	0
56	MG	2a	1624	1/1	0.81	0.08	78,78,78,78	0
56	MG	1A	3942	1/1	0.81	0.12	47,47,47,47	0
56	MG	1A	3593	1/1	0.81	0.13	30,30,30,30	0
56	MG	1A	3691	1/1	0.81	0.17	55,55,55,55	0
56	MG	2A	3636	1/1	0.81	0.14	55,55,55,55	0
56	MG	2A	3533	1/1	0.81	0.16	52,52,52,52	0
56	MG	1a	3092	1/1	0.81	0.15	55,55,55,55	0
56	MG	2F	304	1/1	0.81	0.16	64,64,64,64	0
56	MG	2A	3539	1/1	0.81	0.26	59,59,59,59	0
56	MG	2U	202	1/1	0.81	0.27	55,55,55,55	0
56	MG	1A	3883	1/1	0.81	0.20	59,59,59,59	0
56	MG	1A	3730	1/1	0.81	0.18	42,42,42,42	0
56	MG	1A	3675	1/1	0.81	0.24	66,66,66,66	0
56	MG	2A	3604	1/1	0.81	0.20	58,58,58,58	0
56	MG	1A	3775	1/1	0.82	0.17	41,41,41,41	0
56	MG	2A	3366	1/1	0.82	0.22	67,67,67,67	0
56	MG	2a	1645	1/1	0.82	0.09	74,74,74,74	0
56	MG	16	103	1/1	0.82	0.11	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3639	1/1	0.82	0.13	56,56,56,56	0
56	MG	2a	1663	1/1	0.82	0.18	48,48,48,48	0
56	MG	1A	3445	1/1	0.82	0.10	47,47,47,47	0
56	MG	1A	3568	1/1	0.82	0.08	30,30,30,30	0
56	MG	1A	3695	1/1	0.82	0.21	50,50,50,50	0
56	MG	2a	1719	1/1	0.82	0.18	55,55,55,55	0
56	MG	2A	3676	1/1	0.82	0.13	79,79,79,79	0
56	MG	2a	1730	1/1	0.82	0.14	65,65,65,65	0
56	MG	1a	3059	1/1	0.82	0.21	61,61,61,61	0
56	MG	2a	1740	1/1	0.82	0.13	60,60,60,60	0
56	MG	2a	1762	1/1	0.82	0.20	52,52,52,52	0
56	MG	2a	1765	1/1	0.82	0.28	64,64,64,64	0
56	MG	1A	3815	1/1	0.82	0.11	35,35,35,35	0
56	MG	1A	3828	1/1	0.82	0.17	62,62,62,62	0
56	MG	2a	1775	1/1	0.82	0.27	74,74,74,74	0
56	MG	2a	1785	1/1	0.82	0.21	63,63,63,63	0
56	MG	1A	3706	1/1	0.82	0.12	27,27,27,27	0
56	MG	1a	3162	1/1	0.82	0.16	62,62,62,62	0
56	MG	2a	1802	1/1	0.82	0.26	69,69,69,69	0
56	MG	1B	221	1/1	0.82	0.09	36,36,36,36	0
56	MG	1a	3205	1/1	0.82	0.21	69,69,69,69	0
56	MG	1A	3242	1/1	0.82	0.16	59,59,59,59	0
56	MG	1r	3001	1/1	0.82	0.20	61,61,61,61	0
56	MG	2a	1824	1/1	0.82	0.23	63,63,63,63	0
56	MG	2a	1829	1/1	0.82	0.20	68,68,68,68	0
56	MG	1A	3735	1/1	0.82	0.14	22,22,22,22	0
56	MG	2A	3544	1/1	0.82	0.15	30,30,30,30	0
56	MG	1x	109	1/1	0.82	0.11	57,57,57,57	0
56	MG	1A	3741	1/1	0.82	0.18	40,40,40,40	0
56	MG	1A	3621	1/1	0.82	0.14	44,44,44,44	0
56	MG	2A	3098	1/1	0.82	0.18	68,68,68,68	0
56	MG	2a	1611	1/1	0.82	0.48	65,65,65,65	0
56	MG	2a	1616	1/1	0.82	0.65	67,67,67,67	0
56	MG	1A	3907	1/1	0.82	0.17	39,39,39,39	0
56	MG	2A	3246	1/1	0.82	0.16	48,48,48,48	0
56	MG	2A	3737	1/1	0.83	0.13	42,42,42,42	0
56	MG	2a	1727	1/1	0.83	0.21	87,87,87,87	0
56	MG	2A	3033	1/1	0.83	0.23	52,52,52,52	0
56	MG	1a	3050	1/1	0.83	0.16	50,50,50,50	0
56	MG	2A	3083	1/1	0.83	0.11	53,53,53,53	0
56	MG	1a	3052	1/1	0.83	0.26	58,58,58,58	0
56	MG	2B	3019	1/1	0.83	0.14	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3140	1/1	0.83	0.19	60,60,60,60	0
56	MG	2A	3149	1/1	0.83	0.08	57,57,57,57	0
56	MG	2a	1772	1/1	0.83	0.12	54,54,54,54	0
56	MG	1A	3905	1/1	0.83	0.26	54,54,54,54	0
56	MG	1A	3831	1/1	0.83	0.26	68,68,68,68	0
56	MG	1a	3142	1/1	0.83	0.12	64,64,64,64	0
56	MG	1A	3916	1/1	0.83	0.10	54,54,54,54	0
56	MG	2a	1799	1/1	0.83	0.24	59,59,59,59	0
56	MG	1A	3606	1/1	0.83	0.14	61,61,61,61	0
56	MG	2a	1806	1/1	0.83	0.19	76,76,76,76	0
56	MG	1A	3833	1/1	0.83	0.14	58,58,58,58	0
56	MG	1A	3752	1/1	0.83	0.30	36,36,36,36	0
56	MG	1a	3180	1/1	0.83	0.13	62,62,62,62	0
56	MG	2a	1630	1/1	0.83	0.34	57,57,57,57	0
56	MG	1A	3534	1/1	0.83	0.11	39,39,39,39	0
56	MG	1A	3055	1/1	0.83	0.15	54,54,54,54	0
56	MG	2A	3656	1/1	0.83	0.17	68,68,68,68	0
56	MG	1A	3895	1/1	0.83	0.18	71,71,71,71	0
56	MG	1v	3001	1/1	0.83	0.33	72,72,72,72	0
56	MG	2A	3490	1/1	0.83	0.13	72,72,72,72	0
56	MG	1A	3790	1/1	0.83	0.20	27,27,27,27	0
56	MG	2w	105	1/1	0.83	0.12	72,72,72,72	0
56	MG	2A	3529	1/1	0.83	0.21	59,59,59,59	0
56	MG	2a	1681	1/1	0.83	0.14	69,69,69,69	0
56	MG	2a	1701	1/1	0.83	0.29	72,72,72,72	0
56	MG	1a	3038	1/1	0.83	0.26	55,55,55,55	0
56	MG	1B	213	1/1	0.83	0.12	55,55,55,55	0
56	MG	2A	3587	1/1	0.84	0.30	55,55,55,55	0
56	MG	1A	3761	1/1	0.84	0.16	48,48,48,48	0
56	MG	2A	3160	1/1	0.84	0.08	47,47,47,47	0
56	MG	2A	3619	1/1	0.84	0.11	60,60,60,60	0
56	MG	2A	3196	1/1	0.84	0.21	53,53,53,53	0
56	MG	2a	1692	1/1	0.84	0.33	60,60,60,60	0
56	MG	1A	3920	1/1	0.84	0.13	39,39,39,39	0
56	MG	2A	3215	1/1	0.84	0.12	58,58,58,58	0
56	MG	1a	3148	1/1	0.84	0.15	55,55,55,55	0
56	MG	2A	3257	1/1	0.84	0.20	57,57,57,57	0
56	MG	2A	3267	1/1	0.84	0.20	52,52,52,52	0
56	MG	1A	3698	1/1	0.84	0.08	41,41,41,41	0
56	MG	2A	3289	1/1	0.84	0.24	53,53,53,53	0
56	MG	2A	3334	1/1	0.84	0.18	58,58,58,58	0
56	MG	2A	3360	1/1	0.84	0.12	25,25,25,25	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3858	1/1	0.84	0.20	54,54,54,54	0
56	MG	1a	3168	1/1	0.84	0.19	63,63,63,63	0
56	MG	1A	3700	1/1	0.84	0.10	27,27,27,27	0
56	MG	1A	3212	1/1	0.84	0.12	50,50,50,50	0
56	MG	1a	3186	1/1	0.84	0.18	48,48,48,48	0
56	MG	2a	1784	1/1	0.84	0.22	66,66,66,66	0
56	MG	1a	3194	1/1	0.84	0.10	59,59,59,59	0
56	MG	1a	3020	1/1	0.84	0.16	47,47,47,47	0
56	MG	1a	3207	1/1	0.84	0.15	41,41,41,41	0
56	MG	2A	3471	1/1	0.84	0.16	37,37,37,37	0
56	MG	2a	1801	1/1	0.84	0.33	63,63,63,63	0
56	MG	2B	3016	1/1	0.84	0.13	54,54,54,54	0
56	MG	1A	3882	1/1	0.84	0.12	62,62,62,62	0
56	MG	1A	3094	1/1	0.84	0.19	56,56,56,56	0
56	MG	1A	3321	1/1	0.84	0.19	45,45,45,45	0
56	MG	2a	1812	1/1	0.84	0.26	64,64,64,64	0
56	MG	2A	3506	1/1	0.84	0.17	48,48,48,48	0
56	MG	2A	3508	1/1	0.84	0.20	57,57,57,57	0
56	MG	2A	3514	1/1	0.84	0.10	56,56,56,56	0
56	MG	2a	1828	1/1	0.84	0.26	64,64,64,64	0
56	MG	1A	4013	1/1	0.84	0.10	21,21,21,21	0
56	MG	1A	4037	1/1	0.84	0.25	28,28,28,28	0
56	MG	1A	3563	1/1	0.84	0.08	35,35,35,35	0
56	MG	2A	3002	1/1	0.84	0.43	61,61,61,61	0
56	MG	1a	3055	1/1	0.84	0.27	49,49,49,49	0
56	MG	1A	3356	1/1	0.84	0.13	48,48,48,48	0
56	MG	2w	104	1/1	0.84	0.12	83,83,83,83	0
56	MG	1a	3064	1/1	0.84	0.16	54,54,54,54	0
56	MG	1A	3631	1/1	0.84	0.12	32,32,32,32	0
56	MG	2A	3108	1/1	0.84	0.17	49,49,49,49	0
56	MG	2y	3003	1/1	0.84	0.13	59,59,59,59	0
56	MG	2a	1644	1/1	0.84	0.15	62,62,62,62	0
56	MG	2A	3565	1/1	0.84	0.09	45,45,45,45	0
56	MG	1a	3114	1/1	0.84	0.21	68,68,68,68	0
56	MG	2A	3486	1/1	0.85	0.15	53,53,53,53	0
56	MG	2a	1603	1/1	0.85	0.17	73,73,73,73	0
56	MG	1a	3072	1/1	0.85	0.57	54,54,54,54	0
56	MG	1A	3230	1/1	0.85	0.15	44,44,44,44	0
56	MG	2a	1783	1/1	0.85	0.20	62,62,62,62	0
56	MG	1a	3105	1/1	0.85	0.19	59,59,59,59	0
56	MG	1B	202	1/1	0.85	0.18	42,42,42,42	0
56	MG	1a	3141	1/1	0.85	0.12	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3516	1/1	0.85	0.21	62,62,62,62	0
56	MG	1A	3794	1/1	0.85	0.12	18,18,18,18	0
56	MG	1x	108	1/1	0.85	0.12	61,61,61,61	0
56	MG	1a	3036	1/1	0.85	0.26	49,49,49,49	0
56	MG	1A	3959	1/1	0.85	0.11	76,76,76,76	0
56	MG	2a	1648	1/1	0.85	0.11	63,63,63,63	0
56	MG	1A	3861	1/1	0.85	0.18	58,58,58,58	0
56	MG	1a	3155	1/1	0.85	0.14	53,53,53,53	0
56	MG	2A	3054	1/1	0.85	0.19	53,53,53,53	0
56	MG	1a	3161	1/1	0.85	0.11	53,53,53,53	0
56	MG	2a	1673	1/1	0.85	0.32	57,57,57,57	0
56	MG	2B	3011	1/1	0.85	0.23	69,69,69,69	0
56	MG	2a	1678	1/1	0.85	0.26	65,65,65,65	0
56	MG	2A	3075	1/1	0.85	0.14	51,51,51,51	0
56	MG	1A	3526	1/1	0.85	0.12	42,42,42,42	0
56	MG	1A	3881	1/1	0.85	0.11	44,44,44,44	0
56	MG	2q	204	1/1	0.85	0.19	65,65,65,65	0
56	MG	1A	3302	1/1	0.85	0.31	32,32,32,32	0
56	MG	2A	3443	1/1	0.85	0.11	34,34,34,34	0
56	MG	1A	3991	1/1	0.85	0.12	66,66,66,66	0
56	MG	1Z	3003	1/1	0.85	0.10	52,52,52,52	0
56	MG	2A	3477	1/1	0.85	0.12	64,64,64,64	0
56	MG	2a	1736	1/1	0.85	0.11	82,82,82,82	0
56	MG	2x	104	1/1	0.85	0.30	64,64,64,64	0
56	MG	2y	3001	1/1	0.85	0.14	64,64,64,64	0
56	MG	2U	203	1/1	0.85	0.11	55,55,55,55	0
56	MG	2W	201	1/1	0.85	0.10	50,50,50,50	0
56	MG	1A	3231	1/1	0.85	0.14	45,45,45,45	0
56	MG	25	504	1/1	0.85	0.36	67,67,67,67	0
56	MG	1A	3495	1/1	0.86	0.12	31,31,31,31	0
56	MG	1a	3073	1/1	0.86	0.28	59,59,59,59	0
56	MG	2A	3373	1/1	0.86	0.11	25,25,25,25	0
56	MG	2a	1680	1/1	0.86	0.24	45,45,45,45	0
56	MG	1x	103	1/1	0.86	0.14	54,54,54,54	0
56	MG	2A	3640	1/1	0.86	0.22	47,47,47,47	0
56	MG	2a	1698	1/1	0.86	0.22	60,60,60,60	0
56	MG	2A	3382	1/1	0.86	0.18	46,46,46,46	0
56	MG	1x	104	1/1	0.86	0.18	54,54,54,54	0
56	MG	2a	1712	1/1	0.86	0.24	63,63,63,63	0
56	MG	1A	3083	1/1	0.86	0.22	55,55,55,55	0
56	MG	1a	3097	1/1	0.86	0.17	62,62,62,62	0
56	MG	2A	3430	1/1	0.86	0.18	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3677	1/1	0.86	0.12	48,48,48,48	0
56	MG	1Q	204	1/1	0.86	0.08	41,41,41,41	0
56	MG	1R	204	1/1	0.86	0.15	33,33,33,33	0
56	MG	2a	1739	1/1	0.86	0.09	57,57,57,57	0
56	MG	2A	3011	1/1	0.86	0.14	54,54,54,54	0
56	MG	2a	1748	1/1	0.86	0.16	60,60,60,60	0
56	MG	2A	3021	1/1	0.86	0.15	58,58,58,58	0
56	MG	2A	3469	1/1	0.86	0.12	39,39,39,39	0
56	MG	1A	3965	1/1	0.86	0.10	63,63,63,63	0
56	MG	2A	3753	1/1	0.86	0.10	52,52,52,52	0
56	MG	1A	3680	1/1	0.86	0.26	36,36,36,36	0
56	MG	2A	3480	1/1	0.86	0.13	47,47,47,47	0
56	MG	2A	3483	1/1	0.86	0.16	59,59,59,59	0
56	MG	10	105	1/1	0.86	0.14	50,50,50,50	0
56	MG	1A	3596	1/1	0.86	0.15	44,44,44,44	0
56	MG	2B	3017	1/1	0.86	0.12	61,61,61,61	0
56	MG	1A	3248	1/1	0.86	0.29	49,49,49,49	0
56	MG	1A	3844	1/1	0.86	0.10	23,23,23,23	0
56	MG	2D	304	1/1	0.86	0.12	53,53,53,53	0
56	MG	2A	3494	1/1	0.86	0.10	49,49,49,49	0
56	MG	1a	3160	1/1	0.86	0.13	52,52,52,52	0
56	MG	2R	3001	1/1	0.86	0.14	58,58,58,58	0
56	MG	2A	3117	1/1	0.86	0.18	61,61,61,61	0
56	MG	2A	3132	1/1	0.86	0.16	58,58,58,58	0
56	MG	1A	4009	1/1	0.86	0.16	41,41,41,41	0
56	MG	2A	3518	1/1	0.86	0.09	45,45,45,45	0
56	MG	2A	3521	1/1	0.86	0.17	63,63,63,63	0
56	MG	1A	3441	1/1	0.86	0.10	49,49,49,49	0
56	MG	2A	3154	1/1	0.86	0.23	51,51,51,51	0
56	MG	1A	3284	1/1	0.86	0.14	42,42,42,42	0
56	MG	1A	3061	1/1	0.86	0.11	39,39,39,39	0
56	MG	1A	3934	1/1	0.86	0.10	22,22,22,22	0
56	MG	2A	3538	1/1	0.86	0.22	49,49,49,49	0
56	MG	1B	220	1/1	0.86	0.13	57,57,57,57	0
56	MG	1A	3117	1/1	0.86	0.12	48,48,48,48	0
56	MG	2A	3253	1/1	0.86	0.34	68,68,68,68	0
56	MG	2a	1633	1/1	0.86	0.34	63,63,63,63	0
56	MG	1A	3493	1/1	0.86	0.21	23,23,23,23	0
56	MG	1B	235	1/1	0.86	0.15	55,55,55,55	0
56	MG	2A	3279	1/1	0.86	0.09	64,64,64,64	0
56	MG	1a	3063	1/1	0.86	0.26	53,53,53,53	0
56	MG	1A	3956	1/1	0.86	0.20	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3296	1/1	0.86	0.27	54,54,54,54	0
56	MG	2A	3308	1/1	0.86	0.24	54,54,54,54	0
56	MG	1s	101	1/1	0.86	0.23	62,62,62,62	0
56	MG	2A	3621	1/1	0.87	0.07	49,49,49,49	0
56	MG	1a	3028	1/1	0.87	0.17	37,37,37,37	0
56	MG	2A	3376	1/1	0.87	0.12	45,45,45,45	0
56	MG	1A	3617	1/1	0.87	0.11	45,45,45,45	0
56	MG	2A	3390	1/1	0.87	0.11	58,58,58,58	0
56	MG	2A	3040	1/1	0.87	0.14	39,39,39,39	0
56	MG	2A	3046	1/1	0.87	0.14	58,58,58,58	0
56	MG	2A	3047	1/1	0.87	0.15	60,60,60,60	0
56	MG	1A	3823	1/1	0.87	0.23	50,50,50,50	0
56	MG	2a	1688	1/1	0.87	0.35	53,53,53,53	0
56	MG	1B	225	1/1	0.87	0.10	57,57,57,57	0
56	MG	1A	3620	1/1	0.87	0.08	49,49,49,49	0
56	MG	2A	3672	1/1	0.87	0.24	46,46,46,46	0
56	MG	2a	1705	1/1	0.87	0.19	54,54,54,54	0
56	MG	2a	1706	1/1	0.87	0.24	54,54,54,54	0
56	MG	2A	3082	1/1	0.87	0.17	69,69,69,69	0
56	MG	1a	3163	1/1	0.87	0.18	47,47,47,47	0
56	MG	2a	1713	1/1	0.87	0.13	48,48,48,48	0
56	MG	2a	1714	1/1	0.87	0.33	68,68,68,68	0
56	MG	2A	3087	1/1	0.87	0.24	59,59,59,59	0
56	MG	2A	3093	1/1	0.87	0.20	58,58,58,58	0
56	MG	2A	3472	1/1	0.87	0.12	42,42,42,42	0
56	MG	2A	3708	1/1	0.87	0.14	63,63,63,63	0
56	MG	1A	3592	1/1	0.87	0.11	30,30,30,30	0
56	MG	1A	3781	1/1	0.87	0.27	51,51,51,51	0
56	MG	1A	3783	1/1	0.87	0.17	31,31,31,31	0
56	MG	1A	3981	1/1	0.87	0.09	30,30,30,30	0
56	MG	2B	3002	1/1	0.87	0.11	62,62,62,62	0
56	MG	2a	1753	1/1	0.87	0.21	45,45,45,45	0
56	MG	2B	3006	1/1	0.87	0.14	65,65,65,65	0
56	MG	1a	3190	1/1	0.87	0.21	51,51,51,51	0
56	MG	2A	3141	1/1	0.87	0.18	40,40,40,40	0
56	MG	1N	201	1/1	0.87	0.26	45,45,45,45	0
56	MG	1a	3203	1/1	0.87	0.20	69,69,69,69	0
56	MG	2a	1773	1/1	0.87	0.09	70,70,70,70	0
56	MG	2B	3014	1/1	0.87	0.07	71,71,71,71	0
56	MG	2A	3501	1/1	0.87	0.17	53,53,53,53	0
56	MG	1A	3909	1/1	0.87	0.11	46,46,46,46	0
56	MG	2A	3191	1/1	0.87	0.23	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3718	1/1	0.87	0.11	39,39,39,39	0
56	MG	1a	3209	1/1	0.87	0.36	60,60,60,60	0
56	MG	2E	307	1/1	0.87	0.12	60,60,60,60	0
56	MG	1A	3417	1/1	0.87	0.08	42,42,42,42	0
56	MG	1p	101	1/1	0.87	0.19	55,55,55,55	0
56	MG	2A	3522	1/1	0.87	0.16	49,49,49,49	0
56	MG	2T	3002	1/1	0.87	0.09	59,59,59,59	0
56	MG	1T	202	1/1	0.87	0.14	47,47,47,47	0
56	MG	1A	3169	1/1	0.87	0.10	53,53,53,53	0
56	MG	2V	3002	1/1	0.87	0.09	56,56,56,56	0
56	MG	1A	4027	1/1	0.87	0.13	61,61,61,61	0
56	MG	2A	3277	1/1	0.87	0.12	54,54,54,54	0
56	MG	1a	3110	1/1	0.87	0.14	50,50,50,50	0
56	MG	27	101	1/1	0.87	0.07	44,44,44,44	0
56	MG	2A	3281	1/1	0.87	0.24	60,60,60,60	0
56	MG	1A	3134	1/1	0.87	0.23	30,30,30,30	0
56	MG	2a	1604	1/1	0.87	0.18	48,48,48,48	0
56	MG	1a	3121	1/1	0.87	0.13	54,54,54,54	0
56	MG	2r	3002	1/1	0.87	0.12	64,64,64,64	0
56	MG	2A	3291	1/1	0.87	0.14	55,55,55,55	0
56	MG	2a	1615	1/1	0.87	0.09	54,54,54,54	0
56	MG	16	101	1/1	0.87	0.11	35,35,35,35	0
56	MG	1A	3697	1/1	0.87	0.16	27,27,27,27	0
56	MG	2A	3567	1/1	0.87	0.12	44,44,44,44	0
56	MG	2A	3310	1/1	0.87	0.20	58,58,58,58	0
56	MG	1y	102	1/1	0.87	0.20	83,83,83,83	0
56	MG	2A	3592	1/1	0.87	0.13	43,43,43,43	0
56	MG	2A	3601	1/1	0.87	0.20	53,53,53,53	0
56	MG	1a	3144	1/1	0.87	0.20	66,66,66,66	0
56	MG	1B	203	1/1	0.87	0.12	39,39,39,39	0
56	MG	1A	3806	1/1	0.87	0.10	45,45,45,45	0
56	MG	1a	3045	1/1	0.88	0.20	52,52,52,52	0
56	MG	2a	1637	1/1	0.88	0.13	52,52,52,52	0
56	MG	2A	3273	1/1	0.88	0.35	57,57,57,57	0
56	MG	2a	1642	1/1	0.88	0.17	55,55,55,55	0
56	MG	2A	3586	1/1	0.88	0.08	44,44,44,44	0
56	MG	1A	3443	1/1	0.88	0.09	32,32,32,32	0
56	MG	1A	3779	1/1	0.88	0.09	50,50,50,50	0
56	MG	2a	1659	1/1	0.88	0.16	47,47,47,47	0
56	MG	1A	3545	1/1	0.88	0.11	25,25,25,25	0
56	MG	1A	3082	1/1	0.88	0.11	40,40,40,40	0
56	MG	1w	101	1/1	0.88	0.15	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2a	1667	1/1	0.88	0.12	61,61,61,61	0
56	MG	1w	102	1/1	0.88	0.10	76,76,76,76	0
56	MG	1w	106	1/1	0.88	0.09	70,70,70,70	0
56	MG	2A	3623	1/1	0.88	0.23	46,46,46,46	0
56	MG	1w	110	1/1	0.88	0.14	75,75,75,75	0
56	MG	1A	3904	1/1	0.88	0.14	71,71,71,71	0
56	MG	2A	3316	1/1	0.88	0.09	53,53,53,53	0
56	MG	1a	3061	1/1	0.88	0.13	56,56,56,56	0
56	MG	2A	3337	1/1	0.88	0.18	27,27,27,27	0
56	MG	2a	1693	1/1	0.88	0.06	75,75,75,75	0
56	MG	1A	3307	1/1	0.88	0.12	49,49,49,49	0
56	MG	1A	3906	1/1	0.88	0.11	60,60,60,60	0
56	MG	1A	3308	1/1	0.88	0.10	49,49,49,49	0
56	MG	1A	3570	1/1	0.88	0.13	57,57,57,57	0
56	MG	1a	3075	1/1	0.88	0.21	46,46,46,46	0
56	MG	2a	1710	1/1	0.88	0.12	64,64,64,64	0
56	MG	1a	3077	1/1	0.88	0.18	42,42,42,42	0
56	MG	1B	231	1/1	0.88	0.13	59,59,59,59	0
56	MG	2A	3018	1/1	0.88	0.14	51,51,51,51	0
56	MG	1A	3586	1/1	0.88	0.16	17,17,17,17	0
56	MG	1A	3241	1/1	0.88	0.10	58,58,58,58	0
56	MG	2A	3036	1/1	0.88	0.13	48,48,48,48	0
56	MG	2A	3705	1/1	0.88	0.11	64,64,64,64	0
56	MG	1A	3922	1/1	0.88	0.10	49,49,49,49	0
56	MG	2A	3710	1/1	0.88	0.09	76,76,76,76	0
56	MG	2A	3719	1/1	0.88	0.10	70,70,70,70	0
56	MG	1A	3924	1/1	0.88	0.12	34,34,34,34	0
56	MG	2A	3442	1/1	0.88	0.09	23,23,23,23	0
56	MG	2a	1752	1/1	0.88	0.11	62,62,62,62	0
56	MG	1a	3118	1/1	0.88	0.18	65,65,65,65	0
56	MG	2A	3738	1/1	0.88	0.17	63,63,63,63	0
56	MG	2a	1763	1/1	0.88	0.16	72,72,72,72	0
56	MG	2A	3049	1/1	0.88	0.21	53,53,53,53	0
56	MG	1D	313	1/1	0.88	0.16	52,52,52,52	0
56	MG	1E	308	1/1	0.88	0.10	28,28,28,28	0
56	MG	1A	3333	1/1	0.88	0.16	43,43,43,43	0
56	MG	1a	3143	1/1	0.88	0.13	74,74,74,74	0
56	MG	1G	3003	1/1	0.88	0.08	51,51,51,51	0
56	MG	2a	1777	1/1	0.88	0.20	55,55,55,55	0
56	MG	1A	3506	1/1	0.88	0.08	24,24,24,24	0
56	MG	1A	3510	1/1	0.88	0.15	50,50,50,50	0
56	MG	2B	3015	1/1	0.88	0.18	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3713	1/1	0.88	0.12	48,48,48,48	0
56	MG	1A	3616	1/1	0.88	0.09	58,58,58,58	0
56	MG	1A	3513	1/1	0.88	0.15	29,29,29,29	0
56	MG	2A	3131	1/1	0.88	0.11	40,40,40,40	0
56	MG	1A	3288	1/1	0.88	0.10	47,47,47,47	0
56	MG	2a	1804	1/1	0.88	0.23	48,48,48,48	0
56	MG	10	104	1/1	0.88	0.16	49,49,49,49	0
56	MG	1A	3964	1/1	0.88	0.12	45,45,45,45	0
56	MG	2a	1808	1/1	0.88	0.14	58,58,58,58	0
56	MG	1A	3737	1/1	0.88	0.09	29,29,29,29	0
56	MG	1A	3849	1/1	0.88	0.10	35,35,35,35	0
56	MG	1A	3289	1/1	0.88	0.16	41,41,41,41	0
56	MG	2a	1820	1/1	0.88	0.16	60,60,60,60	0
56	MG	2A	3163	1/1	0.88	0.08	44,44,44,44	0
56	MG	2A	3168	1/1	0.88	0.09	39,39,39,39	0
56	MG	1a	3018	1/1	0.88	0.09	55,55,55,55	0
56	MG	1A	3425	1/1	0.88	0.10	34,34,34,34	0
56	MG	2a	1831	1/1	0.88	0.06	53,53,53,53	0
56	MG	2A	3201	1/1	0.88	0.07	55,55,55,55	0
56	MG	2g	8001	1/1	0.88	0.08	59,59,59,59	0
56	MG	20	3001	1/1	0.88	0.20	52,52,52,52	0
56	MG	2A	3202	1/1	0.88	0.12	56,56,56,56	0
56	MG	2l	202	1/1	0.88	0.16	66,66,66,66	0
56	MG	2q	202	1/1	0.88	0.20	59,59,59,59	0
56	MG	2q	203	1/1	0.88	0.11	75,75,75,75	0
56	MG	1A	3226	1/1	0.88	0.30	49,49,49,49	0
56	MG	2A	3213	1/1	0.88	0.15	50,50,50,50	0
56	MG	1A	3638	1/1	0.88	0.10	56,56,56,56	0
56	MG	1A	3997	1/1	0.88	0.09	45,45,45,45	0
56	MG	2v	3004	1/1	0.88	0.15	73,73,73,73	0
56	MG	2A	3545	1/1	0.88	0.13	45,45,45,45	0
56	MG	2A	3547	1/1	0.88	0.21	47,47,47,47	0
56	MG	1A	3774	1/1	0.88	0.15	56,56,56,56	0
56	MG	2A	3551	1/1	0.88	0.24	48,48,48,48	0
56	MG	2A	3552	1/1	0.88	0.13	35,35,35,35	0
56	MG	2a	1623	1/1	0.88	0.17	46,46,46,46	0
56	MG	1A	4012	1/1	0.88	0.14	47,47,47,47	0
56	MG	2a	1625	1/1	0.88	0.28	67,67,67,67	0
56	MG	2A	3562	1/1	0.88	0.10	40,40,40,40	0
56	MG	2A	3260	1/1	0.88	0.07	48,48,48,48	0
56	MG	2A	3097	1/1	0.89	0.09	42,42,42,42	0
56	MG	2A	3503	1/1	0.89	0.12	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3952	1/1	0.89	0.20	50,50,50,50	0
56	MG	2A	3102	1/1	0.89	0.11	44,44,44,44	0
56	MG	1A	3463	1/1	0.89	0.12	38,38,38,38	0
56	MG	1A	3152	1/1	0.89	0.15	43,43,43,43	0
56	MG	2A	3119	1/1	0.89	0.16	41,41,41,41	0
56	MG	1A	3257	1/1	0.89	0.10	34,34,34,34	0
56	MG	1Z	3004	1/1	0.89	0.14	41,41,41,41	0
56	MG	2A	3528	1/1	0.89	0.13	58,58,58,58	0
56	MG	10	103	1/1	0.89	0.20	54,54,54,54	0
56	MG	1A	3320	1/1	0.89	0.28	48,48,48,48	0
56	MG	1a	3176	1/1	0.89	0.14	59,59,59,59	0
56	MG	1A	3707	1/1	0.89	0.10	45,45,45,45	0
56	MG	2A	3158	1/1	0.89	0.28	49,49,49,49	0
56	MG	1A	3261	1/1	0.89	0.11	35,35,35,35	0
56	MG	1A	3977	1/1	0.89	0.08	44,44,44,44	0
56	MG	1A	3263	1/1	0.89	0.15	48,48,48,48	0
56	MG	2A	3170	1/1	0.89	0.17	44,44,44,44	0
56	MG	2a	1643	1/1	0.89	0.12	61,61,61,61	0
56	MG	2A	3185	1/1	0.89	0.22	46,46,46,46	0
56	MG	1a	3017	1/1	0.89	0.26	57,57,57,57	0
56	MG	1A	3721	1/1	0.89	0.29	53,53,53,53	0
56	MG	2a	1655	1/1	0.89	0.09	67,67,67,67	0
56	MG	2a	1656	1/1	0.89	0.29	68,68,68,68	0
56	MG	1A	3618	1/1	0.89	0.12	55,55,55,55	0
56	MG	2A	3553	1/1	0.89	0.18	57,57,57,57	0
56	MG	1a	3021	1/1	0.89	0.17	40,40,40,40	0
56	MG	2A	3561	1/1	0.89	0.10	56,56,56,56	0
56	MG	2a	1666	1/1	0.89	0.29	51,51,51,51	0
56	MG	1A	3282	1/1	0.89	0.08	56,56,56,56	0
56	MG	2A	3212	1/1	0.89	0.13	59,59,59,59	0
56	MG	1a	3212	1/1	0.89	0.21	41,41,41,41	0
56	MG	1A	3996	1/1	0.89	0.09	49,49,49,49	0
56	MG	2A	3571	1/1	0.89	0.13	57,57,57,57	0
56	MG	2A	3583	1/1	0.89	0.25	40,40,40,40	0
56	MG	2A	3217	1/1	0.89	0.10	51,51,51,51	0
56	MG	2a	1684	1/1	0.89	0.22	49,49,49,49	0
56	MG	2A	3228	1/1	0.89	0.30	38,38,38,38	0
56	MG	2a	1691	1/1	0.89	0.11	56,56,56,56	0
56	MG	2A	3233	1/1	0.89	0.10	42,42,42,42	0
56	MG	2A	3593	1/1	0.89	0.15	47,47,47,47	0
56	MG	2A	3241	1/1	0.89	0.10	55,55,55,55	0
56	MG	2a	1700	1/1	0.89	0.12	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1l	203	1/1	0.89	0.11	50,50,50,50	0
56	MG	2A	3605	1/1	0.89	0.11	42,42,42,42	0
56	MG	2A	3613	1/1	0.89	0.08	61,61,61,61	0
56	MG	2a	1707	1/1	0.89	0.10	68,68,68,68	0
56	MG	2a	1708	1/1	0.89	0.17	61,61,61,61	0
56	MG	1m	201	1/1	0.89	0.21	57,57,57,57	0
56	MG	1A	3383	1/1	0.89	0.06	42,42,42,42	0
56	MG	2A	3259	1/1	0.89	0.15	53,53,53,53	0
56	MG	1A	4004	1/1	0.89	0.25	55,55,55,55	0
56	MG	1A	3869	1/1	0.89	0.14	19,19,19,19	0
56	MG	2a	1717	1/1	0.89	0.09	66,66,66,66	0
56	MG	1A	3870	1/1	0.89	0.10	55,55,55,55	0
56	MG	1A	3397	1/1	0.89	0.18	51,51,51,51	0
56	MG	1A	3624	1/1	0.89	0.22	26,26,26,26	0
56	MG	1A	3759	1/1	0.89	0.09	32,32,32,32	0
56	MG	1w	107	1/1	0.89	0.21	64,64,64,64	0
56	MG	2A	3642	1/1	0.89	0.15	43,43,43,43	0
56	MG	1A	4042	1/1	0.89	0.08	40,40,40,40	0
56	MG	1A	4060	1/1	0.89	0.33	19,19,19,19	0
56	MG	2A	3653	1/1	0.89	0.11	37,37,37,37	0
56	MG	2A	3654	1/1	0.89	0.16	33,33,33,33	0
56	MG	1A	3398	1/1	0.89	0.08	37,37,37,37	0
56	MG	2a	1757	1/1	0.89	0.14	48,48,48,48	0
56	MG	1A	3414	1/1	0.89	0.09	55,55,55,55	0
56	MG	2A	3663	1/1	0.89	0.17	47,47,47,47	0
56	MG	2A	3664	1/1	0.89	0.23	41,41,41,41	0
56	MG	2A	3671	1/1	0.89	0.16	29,29,29,29	0
56	MG	1A	3644	1/1	0.89	0.13	12,12,12,12	0
56	MG	1a	3069	1/1	0.89	0.39	59,59,59,59	0
56	MG	1x	114	1/1	0.89	0.13	67,67,67,67	0
56	MG	2A	3678	1/1	0.89	0.17	71,71,71,71	0
56	MG	2A	3682	1/1	0.89	0.15	61,61,61,61	0
56	MG	2a	1780	1/1	0.89	0.10	57,57,57,57	0
56	MG	1A	3019	1/1	0.89	0.10	32,32,32,32	0
56	MG	2A	3690	1/1	0.89	0.10	58,58,58,58	0
56	MG	2A	3692	1/1	0.89	0.21	52,52,52,52	0
56	MG	2A	3348	1/1	0.89	0.17	47,47,47,47	0
56	MG	2a	1789	1/1	0.89	0.18	54,54,54,54	0
56	MG	2A	3354	1/1	0.89	0.13	53,53,53,53	0
56	MG	2a	1798	1/1	0.89	0.10	60,60,60,60	0
56	MG	2A	3701	1/1	0.89	0.11	50,50,50,50	0
56	MG	1A	3666	1/1	0.89	0.09	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1y	104	1/1	0.89	0.08	44,44,44,44	0
56	MG	1A	3672	1/1	0.89	0.23	68,68,68,68	0
56	MG	2A	3714	1/1	0.89	0.15	50,50,50,50	0
56	MG	2A	3003	1/1	0.89	0.12	49,49,49,49	0
56	MG	1A	3285	1/1	0.89	0.10	34,34,34,34	0
56	MG	2A	3017	1/1	0.89	0.23	59,59,59,59	0
56	MG	1A	3103	1/1	0.89	0.11	33,33,33,33	0
56	MG	2a	1813	1/1	0.89	0.17	54,54,54,54	0
56	MG	1A	3201	1/1	0.89	0.16	42,42,42,42	0
56	MG	2A	3402	1/1	0.89	0.20	49,49,49,49	0
56	MG	1a	3100	1/1	0.89	0.17	61,61,61,61	0
56	MG	2a	1822	1/1	0.89	0.19	52,52,52,52	0
56	MG	2B	3003	1/1	0.89	0.20	60,60,60,60	0
56	MG	2A	3409	1/1	0.89	0.15	54,54,54,54	0
56	MG	2A	3414	1/1	0.89	0.20	49,49,49,49	0
56	MG	1A	3065	1/1	0.89	0.22	62,62,62,62	0
56	MG	2A	3429	1/1	0.89	0.12	59,59,59,59	0
56	MG	1D	301	1/1	0.89	0.16	44,44,44,44	0
56	MG	2A	3041	1/1	0.89	0.10	46,46,46,46	0
56	MG	2A	3044	1/1	0.89	0.16	61,61,61,61	0
56	MG	1A	3923	1/1	0.89	0.17	39,39,39,39	0
56	MG	1A	3682	1/1	0.89	0.13	55,55,55,55	0
56	MG	2A	3445	1/1	0.89	0.13	47,47,47,47	0
56	MG	2A	3446	1/1	0.89	0.12	32,32,32,32	0
56	MG	1E	307	1/1	0.89	0.10	50,50,50,50	0
56	MG	2D	307	1/1	0.89	0.15	35,35,35,35	0
56	MG	1a	3138	1/1	0.89	0.18	66,66,66,66	0
56	MG	2A	3065	1/1	0.89	0.20	52,52,52,52	0
56	MG	1A	3690	1/1	0.89	0.16	42,42,42,42	0
56	MG	1A	3447	1/1	0.89	0.17	47,47,47,47	0
56	MG	2A	3079	1/1	0.89	0.19	57,57,57,57	0
56	MG	2A	3081	1/1	0.89	0.17	53,53,53,53	0
56	MG	1A	3808	1/1	0.89	0.09	34,34,34,34	0
56	MG	2V	3001	1/1	0.89	0.10	46,46,46,46	0
56	MG	1A	3947	1/1	0.89	0.10	49,49,49,49	0
56	MG	1O	205	1/1	0.89	0.13	57,57,57,57	0
56	MG	2A	3088	1/1	0.89	0.08	40,40,40,40	0
56	MG	1A	3087	1/1	0.89	0.12	47,47,47,47	0
56	MG	2I	3001	1/1	0.90	0.13	36,36,36,36	0
56	MG	1A	3121	1/1	0.90	0.14	33,33,33,33	0
56	MG	1A	3496	1/1	0.90	0.09	35,35,35,35	0
56	MG	1A	3958	1/1	0.90	0.08	32,32,32,32	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3517	1/1	0.90	0.11	51,51,51,51	0
56	MG	1A	3598	1/1	0.90	0.17	48,48,48,48	0
56	MG	2a	1607	1/1	0.90	0.36	73,73,73,73	0
56	MG	2A	3520	1/1	0.90	0.11	52,52,52,52	0
56	MG	1a	3195	1/1	0.90	0.15	45,45,45,45	0
56	MG	1A	3200	1/1	0.90	0.07	44,44,44,44	0
56	MG	1A	3961	1/1	0.90	0.08	36,36,36,36	0
56	MG	2A	3186	1/1	0.90	0.25	51,51,51,51	0
56	MG	2a	1620	1/1	0.90	0.32	64,64,64,64	0
56	MG	1A	3822	1/1	0.90	0.08	45,45,45,45	0
56	MG	2A	3531	1/1	0.90	0.07	60,60,60,60	0
56	MG	2A	3193	1/1	0.90	0.31	51,51,51,51	0
56	MG	1A	3610	1/1	0.90	0.21	45,45,45,45	0
56	MG	2a	1631	1/1	0.90	0.13	66,66,66,66	0
56	MG	2A	3199	1/1	0.90	0.07	53,53,53,53	0
56	MG	1a	3001	1/1	0.90	0.19	52,52,52,52	0
56	MG	1a	3004	1/1	0.90	0.12	50,50,50,50	0
56	MG	1A	3968	1/1	0.90	0.07	55,55,55,55	0
56	MG	2A	3210	1/1	0.90	0.17	58,58,58,58	0
56	MG	2A	3211	1/1	0.90	0.13	68,68,68,68	0
56	MG	1A	3825	1/1	0.90	0.24	43,43,43,43	0
56	MG	1A	3826	1/1	0.90	0.13	27,27,27,27	0
56	MG	1A	3508	1/1	0.90	0.12	26,26,26,26	0
56	MG	1A	3703	1/1	0.90	0.10	24,24,24,24	0
56	MG	2A	3558	1/1	0.90	0.19	50,50,50,50	0
56	MG	2A	3220	1/1	0.90	0.08	49,49,49,49	0
56	MG	2A	3223	1/1	0.90	0.12	45,45,45,45	0
56	MG	1A	3705	1/1	0.90	0.14	39,39,39,39	0
56	MG	1a	3031	1/1	0.90	0.22	54,54,54,54	0
56	MG	2A	3238	1/1	0.90	0.10	60,60,60,60	0
56	MG	2A	3568	1/1	0.90	0.22	47,47,47,47	0
56	MG	2A	3569	1/1	0.90	0.11	63,63,63,63	0
56	MG	2a	1671	1/1	0.90	0.11	58,58,58,58	0
56	MG	2A	3240	1/1	0.90	0.21	51,51,51,51	0
56	MG	1A	3234	1/1	0.90	0.19	43,43,43,43	0
56	MG	2a	1676	1/1	0.90	0.17	48,48,48,48	0
56	MG	2A	3582	1/1	0.90	0.13	44,44,44,44	0
56	MG	1w	104	1/1	0.90	0.09	36,36,36,36	0
56	MG	2A	3248	1/1	0.90	0.06	44,44,44,44	0
56	MG	2a	1682	1/1	0.90	0.12	48,48,48,48	0
56	MG	1A	3839	1/1	0.90	0.10	34,34,34,34	0
56	MG	2A	3256	1/1	0.90	0.06	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3843	1/1	0.90	0.11	66,66,66,66	0
56	MG	2A	3599	1/1	0.90	0.12	61,61,61,61	0
56	MG	1a	3043	1/1	0.90	0.26	50,50,50,50	0
56	MG	1A	3433	1/1	0.90	0.12	50,50,50,50	0
56	MG	2A	3261	1/1	0.90	0.20	50,50,50,50	0
56	MG	2A	3263	1/1	0.90	0.11	54,54,54,54	0
56	MG	1a	3046	1/1	0.90	0.20	54,54,54,54	0
56	MG	1a	3048	1/1	0.90	0.11	43,43,43,43	0
56	MG	1A	3436	1/1	0.90	0.17	62,62,62,62	0
56	MG	1A	3852	1/1	0.90	0.12	55,55,55,55	0
56	MG	2A	3624	1/1	0.90	0.16	62,62,62,62	0
56	MG	2A	3625	1/1	0.90	0.15	52,52,52,52	0
56	MG	2a	1711	1/1	0.90	0.30	67,67,67,67	0
56	MG	1A	3016	1/1	0.90	0.11	40,40,40,40	0
56	MG	1A	4016	1/1	0.90	0.15	55,55,55,55	0
56	MG	1A	4021	1/1	0.90	0.08	47,47,47,47	0
56	MG	1a	3060	1/1	0.90	0.11	50,50,50,50	0
56	MG	2A	3293	1/1	0.90	0.28	46,46,46,46	0
56	MG	1A	3135	1/1	0.90	0.19	23,23,23,23	0
56	MG	1A	3860	1/1	0.90	0.15	54,54,54,54	0
56	MG	1A	3727	1/1	0.90	0.11	42,42,42,42	0
56	MG	1A	4053	1/1	0.90	0.12	42,42,42,42	0
56	MG	1A	3056	1/1	0.90	0.14	50,50,50,50	0
56	MG	2A	3336	1/1	0.90	0.17	58,58,58,58	0
56	MG	1A	3733	1/1	0.90	0.17	55,55,55,55	0
56	MG	2a	1745	1/1	0.90	0.20	64,64,64,64	0
56	MG	2A	3022	1/1	0.90	0.09	38,38,38,38	0
56	MG	2a	1750	1/1	0.90	0.09	60,60,60,60	0
56	MG	2a	1751	1/1	0.90	0.13	87,87,87,87	0
56	MG	2A	3662	1/1	0.90	0.18	28,28,28,28	0
56	MG	2A	3350	1/1	0.90	0.09	50,50,50,50	0
56	MG	2A	3024	1/1	0.90	0.10	50,50,50,50	0
56	MG	2A	3358	1/1	0.90	0.13	47,47,47,47	0
56	MG	2A	3031	1/1	0.90	0.19	57,57,57,57	0
56	MG	2A	3362	1/1	0.90	0.20	58,58,58,58	0
56	MG	1A	3626	1/1	0.90	0.11	23,23,23,23	0
56	MG	1A	3628	1/1	0.90	0.09	16,16,16,16	0
56	MG	2a	1771	1/1	0.90	0.25	62,62,62,62	0
56	MG	2A	3680	1/1	0.90	0.09	62,62,62,62	0
56	MG	1a	3081	1/1	0.90	0.11	67,67,67,67	0
56	MG	1A	3630	1/1	0.90	0.13	38,38,38,38	0
56	MG	1A	3744	1/1	0.90	0.13	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2a	1778	1/1	0.90	0.21	68,68,68,68	0
56	MG	2A	3383	1/1	0.90	0.12	56,56,56,56	0
56	MG	2A	3694	1/1	0.90	0.10	54,54,54,54	0
56	MG	2A	3387	1/1	0.90	0.13	50,50,50,50	0
56	MG	1a	3099	1/1	0.90	0.09	72,72,72,72	0
56	MG	1A	3382	1/1	0.90	0.09	41,41,41,41	0
56	MG	1B	226	1/1	0.90	0.10	67,67,67,67	0
56	MG	2A	3707	1/1	0.90	0.10	47,47,47,47	0
56	MG	2a	1793	1/1	0.90	0.18	53,53,53,53	0
56	MG	2a	1797	1/1	0.90	0.23	70,70,70,70	0
56	MG	1A	3542	1/1	0.90	0.15	44,44,44,44	0
56	MG	1A	3456	1/1	0.90	0.14	33,33,33,33	0
56	MG	2A	3410	1/1	0.90	0.19	61,61,61,61	0
56	MG	2A	3413	1/1	0.90	0.15	55,55,55,55	0
56	MG	1A	3650	1/1	0.90	0.10	34,34,34,34	0
56	MG	2A	3722	1/1	0.90	0.18	47,47,47,47	0
56	MG	1A	3292	1/1	0.90	0.14	43,43,43,43	0
56	MG	2A	3422	1/1	0.90	0.14	49,49,49,49	0
56	MG	2A	3428	1/1	0.90	0.07	43,43,43,43	0
56	MG	2A	3742	1/1	0.90	0.08	52,52,52,52	0
56	MG	1a	3123	1/1	0.90	0.08	60,60,60,60	0
56	MG	1A	3459	1/1	0.90	0.19	53,53,53,53	0
56	MG	1A	3461	1/1	0.90	0.18	55,55,55,55	0
56	MG	2B	3004	1/1	0.90	0.12	60,60,60,60	0
56	MG	1A	3386	1/1	0.90	0.06	33,33,33,33	0
56	MG	2B	3008	1/1	0.90	0.19	59,59,59,59	0
56	MG	2A	3086	1/1	0.90	0.15	62,62,62,62	0
56	MG	1A	3580	1/1	0.90	0.09	18,18,18,18	0
56	MG	1A	3789	1/1	0.90	0.14	44,44,44,44	0
56	MG	1A	3584	1/1	0.90	0.10	44,44,44,44	0
56	MG	2A	3449	1/1	0.90	0.21	63,63,63,63	0
56	MG	2A	3094	1/1	0.90	0.10	47,47,47,47	0
56	MG	2A	3095	1/1	0.90	0.08	52,52,52,52	0
56	MG	1E	312	1/1	0.90	0.14	44,44,44,44	0
56	MG	1A	3166	1/1	0.90	0.16	31,31,31,31	0
56	MG	1a	3154	1/1	0.90	0.13	59,59,59,59	0
56	MG	2D	301	1/1	0.90	0.19	54,54,54,54	0
56	MG	1A	3681	1/1	0.90	0.06	23,23,23,23	0
56	MG	2t	3001	1/1	0.90	0.20	53,53,53,53	0
56	MG	2A	3481	1/1	0.90	0.24	58,58,58,58	0
56	MG	1A	3796	1/1	0.90	0.09	33,33,33,33	0
56	MG	1O	207	1/1	0.90	0.11	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2w	102	1/1	0.90	0.18	78,78,78,78	0
56	MG	2A	3127	1/1	0.90	0.18	56,56,56,56	0
56	MG	2A	3489	1/1	0.90	0.20	48,48,48,48	0
56	MG	1A	3935	1/1	0.90	0.15	43,43,43,43	0
56	MG	2w	109	1/1	0.90	0.15	63,63,63,63	0
56	MG	2x	102	1/1	0.90	0.20	57,57,57,57	0
56	MG	1A	3798	1/1	0.90	0.28	45,45,45,45	0
56	MG	2A	3493	1/1	0.90	0.07	28,28,28,28	0
56	MG	2A	3139	1/1	0.90	0.14	41,41,41,41	0
56	MG	2A	3498	1/1	0.90	0.07	46,46,46,46	0
56	MG	1A	3799	1/1	0.90	0.31	29,29,29,29	0
56	MG	1A	3078	1/1	0.90	0.23	26,26,26,26	0
56	MG	1V	202	1/1	0.90	0.13	44,44,44,44	0
58	EZG	2A	3746	25/25	0.90	0.15	35,43,49,51	0
56	MG	2a	1628	1/1	0.91	0.28	49,49,49,49	0
56	MG	2A	3309	1/1	0.91	0.20	52,52,52,52	0
56	MG	2A	3580	1/1	0.91	0.09	39,39,39,39	0
56	MG	2A	3078	1/1	0.91	0.18	54,54,54,54	0
56	MG	1A	3518	1/1	0.91	0.18	41,41,41,41	0
56	MG	2a	1634	1/1	0.91	0.22	59,59,59,59	0
56	MG	2A	3584	1/1	0.91	0.06	50,50,50,50	0
56	MG	2A	3319	1/1	0.91	0.25	62,62,62,62	0
56	MG	2A	3329	1/1	0.91	0.13	46,46,46,46	0
56	MG	2A	3589	1/1	0.91	0.20	45,45,45,45	0
56	MG	2A	3590	1/1	0.91	0.08	50,50,50,50	0
56	MG	1a	3156	1/1	0.91	0.09	50,50,50,50	0
56	MG	1a	3159	1/1	0.91	0.12	41,41,41,41	0
56	MG	2a	1651	1/1	0.91	0.07	60,60,60,60	0
56	MG	2a	1653	1/1	0.91	0.16	67,67,67,67	0
56	MG	1a	3002	1/1	0.91	0.10	46,46,46,46	0
56	MG	2A	3339	1/1	0.91	0.18	58,58,58,58	0
56	MG	1A	4041	1/1	0.91	0.31	35,35,35,35	0
56	MG	1A	3919	1/1	0.91	0.15	42,42,42,42	0
56	MG	2A	3353	1/1	0.91	0.13	35,35,35,35	0
56	MG	1A	3609	1/1	0.91	0.12	61,61,61,61	0
56	MG	1A	3750	1/1	0.91	0.09	31,31,31,31	0
56	MG	1A	3171	1/1	0.91	0.07	29,29,29,29	0
56	MG	1A	3522	1/1	0.91	0.15	30,30,30,30	0
56	MG	2A	3364	1/1	0.91	0.10	45,45,45,45	0
56	MG	2a	1672	1/1	0.91	0.18	50,50,50,50	0
56	MG	1a	3027	1/1	0.91	0.22	58,58,58,58	0
56	MG	1A	3126	1/1	0.91	0.33	21,21,21,21	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3143	1/1	0.91	0.18	37,37,37,37	0
56	MG	2A	3103	1/1	0.91	0.09	46,46,46,46	0
56	MG	2A	3104	1/1	0.91	0.10	51,51,51,51	0
56	MG	1a	3032	1/1	0.91	0.14	54,54,54,54	0
56	MG	2A	3111	1/1	0.91	0.14	36,36,36,36	0
56	MG	1A	3619	1/1	0.91	0.12	36,36,36,36	0
56	MG	1B	222	1/1	0.91	0.10	48,48,48,48	0
56	MG	2A	3126	1/1	0.91	0.15	50,50,50,50	0
56	MG	2A	3406	1/1	0.91	0.17	40,40,40,40	0
56	MG	1A	3692	1/1	0.91	0.09	29,29,29,29	0
56	MG	2a	1697	1/1	0.91	0.15	64,64,64,64	0
56	MG	2A	3655	1/1	0.91	0.13	53,53,53,53	0
56	MG	1a	3042	1/1	0.91	0.10	44,44,44,44	0
56	MG	1A	3943	1/1	0.91	0.10	38,38,38,38	0
56	MG	2a	1702	1/1	0.91	0.18	56,56,56,56	0
56	MG	1a	3044	1/1	0.91	0.19	46,46,46,46	0
56	MG	1a	3214	1/1	0.91	0.20	58,58,58,58	0
56	MG	1b	3002	1/1	0.91	0.13	53,53,53,53	0
56	MG	2A	3669	1/1	0.91	0.11	27,27,27,27	0
56	MG	1A	3392	1/1	0.91	0.07	38,38,38,38	0
56	MG	1A	3314	1/1	0.91	0.08	42,42,42,42	0
56	MG	2A	3156	1/1	0.91	0.10	42,42,42,42	0
56	MG	1A	3853	1/1	0.91	0.12	38,38,38,38	0
56	MG	2A	3432	1/1	0.91	0.19	56,56,56,56	0
56	MG	1A	3855	1/1	0.91	0.12	49,49,49,49	0
56	MG	2A	3435	1/1	0.91	0.12	47,47,47,47	0
56	MG	1B	237	1/1	0.91	0.12	46,46,46,46	0
56	MG	2a	1720	1/1	0.91	0.11	66,66,66,66	0
56	MG	2A	3689	1/1	0.91	0.11	56,56,56,56	0
56	MG	2A	3439	1/1	0.91	0.08	49,49,49,49	0
56	MG	2a	1729	1/1	0.91	0.14	61,61,61,61	0
56	MG	1A	3204	1/1	0.91	0.08	39,39,39,39	0
56	MG	2A	3693	1/1	0.91	0.12	68,68,68,68	0
56	MG	1a	3053	1/1	0.91	0.21	56,56,56,56	0
56	MG	2A	3172	1/1	0.91	0.09	48,48,48,48	0
56	MG	1A	3399	1/1	0.91	0.05	42,42,42,42	0
56	MG	2a	1744	1/1	0.91	0.09	67,67,67,67	0
56	MG	2A	3698	1/1	0.91	0.15	58,58,58,58	0
56	MG	1a	3058	1/1	0.91	0.22	58,58,58,58	0
56	MG	2A	3187	1/1	0.91	0.14	54,54,54,54	0
56	MG	1D	309	1/1	0.91	0.10	28,28,28,28	0
56	MG	1A	3205	1/1	0.91	0.31	28,28,28,28	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3195	1/1	0.91	0.08	50,50,50,50	0
56	MG	1A	3262	1/1	0.91	0.14	33,33,33,33	0
56	MG	2A	3716	1/1	0.91	0.08	44,44,44,44	0
56	MG	2A	3198	1/1	0.91	0.08	43,43,43,43	0
56	MG	1A	3423	1/1	0.91	0.09	38,38,38,38	0
56	MG	1A	3346	1/1	0.91	0.09	43,43,43,43	0
56	MG	1a	3067	1/1	0.91	0.20	46,46,46,46	0
56	MG	2A	3735	1/1	0.91	0.07	45,45,45,45	0
56	MG	1A	3429	1/1	0.91	0.15	29,29,29,29	0
56	MG	2A	3488	1/1	0.91	0.09	53,53,53,53	0
56	MG	2a	1774	1/1	0.91	0.26	44,44,44,44	0
56	MG	1F	309	1/1	0.91	0.18	50,50,50,50	0
56	MG	2A	3750	1/1	0.91	0.18	40,40,40,40	0
56	MG	1A	3877	1/1	0.91	0.14	28,28,28,28	0
56	MG	2A	3757	1/1	0.91	0.20	55,55,55,55	0
56	MG	1x	111	1/1	0.91	0.17	64,64,64,64	0
56	MG	1A	3504	1/1	0.91	0.10	48,48,48,48	0
56	MG	1a	3076	1/1	0.91	0.18	48,48,48,48	0
56	MG	2A	3495	1/1	0.91	0.17	60,60,60,60	0
56	MG	2B	3007	1/1	0.91	0.12	56,56,56,56	0
56	MG	1O	201	1/1	0.91	0.11	45,45,45,45	0
56	MG	1A	3347	1/1	0.91	0.17	42,42,42,42	0
56	MG	2a	1794	1/1	0.91	0.29	58,58,58,58	0
56	MG	2A	3221	1/1	0.91	0.11	54,54,54,54	0
56	MG	1A	3086	1/1	0.91	0.18	55,55,55,55	0
56	MG	2A	3224	1/1	0.91	0.17	54,54,54,54	0
56	MG	2a	1800	1/1	0.91	0.15	61,61,61,61	0
56	MG	2A	3510	1/1	0.91	0.08	50,50,50,50	0
56	MG	1a	3094	1/1	0.91	0.15	40,40,40,40	0
56	MG	1A	3887	1/1	0.91	0.11	16,16,16,16	0
56	MG	2A	3012	1/1	0.91	0.08	44,44,44,44	0
56	MG	1A	3990	1/1	0.91	0.08	38,38,38,38	0
56	MG	1A	3889	1/1	0.91	0.16	39,39,39,39	0
56	MG	1A	3805	1/1	0.91	0.16	60,60,60,60	0
56	MG	2A	3247	1/1	0.91	0.18	63,63,63,63	0
56	MG	2A	3523	1/1	0.91	0.09	37,37,37,37	0
56	MG	2a	1814	1/1	0.91	0.26	63,63,63,63	0
56	MG	2E	305	1/1	0.91	0.12	51,51,51,51	0
56	MG	2A	3525	1/1	0.91	0.19	52,52,52,52	0
56	MG	2A	3526	1/1	0.91	0.11	49,49,49,49	0
56	MG	1A	3897	1/1	0.91	0.12	44,44,44,44	0
56	MG	2A	3251	1/1	0.91	0.17	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2T	3001	1/1	0.91	0.11	52,52,52,52	0
56	MG	1X	105	1/1	0.91	0.07	44,44,44,44	0
56	MG	2U	201	1/1	0.91	0.11	49,49,49,49	0
56	MG	2A	3255	1/1	0.91	0.09	54,54,54,54	0
56	MG	2d	503	1/1	0.91	0.23	56,56,56,56	0
56	MG	1Y	502	1/1	0.91	0.08	67,67,67,67	0
56	MG	1Z	3002	1/1	0.91	0.24	46,46,46,46	0
56	MG	2A	3258	1/1	0.91	0.20	58,58,58,58	0
56	MG	1A	3437	1/1	0.91	0.12	52,52,52,52	0
56	MG	2W	202	1/1	0.91	0.14	46,46,46,46	0
56	MG	1a	3129	1/1	0.91	0.20	65,65,65,65	0
56	MG	1A	3511	1/1	0.91	0.12	20,20,20,20	0
56	MG	2A	3042	1/1	0.91	0.09	54,54,54,54	0
56	MG	1A	3812	1/1	0.91	0.11	43,43,43,43	0
56	MG	2A	3549	1/1	0.91	0.09	43,43,43,43	0
56	MG	2A	3268	1/1	0.91	0.14	47,47,47,47	0
56	MG	1A	3673	1/1	0.91	0.12	54,54,54,54	0
56	MG	1A	4014	1/1	0.91	0.20	33,33,33,33	0
56	MG	1A	3365	1/1	0.91	0.11	39,39,39,39	0
56	MG	2A	3052	1/1	0.91	0.08	36,36,36,36	0
56	MG	13	101	1/1	0.91	0.12	39,39,39,39	0
56	MG	2a	1614	1/1	0.91	0.18	52,52,52,52	0
56	MG	2A	3058	1/1	0.91	0.13	65,65,65,65	0
56	MG	1A	3740	1/1	0.91	0.11	46,46,46,46	0
56	MG	1A	3910	1/1	0.91	0.09	32,32,32,32	0
56	MG	2a	1618	1/1	0.91	0.09	51,51,51,51	0
56	MG	2A	3073	1/1	0.91	0.08	38,38,38,38	0
56	MG	2A	3303	1/1	0.91	0.16	35,35,35,35	0
56	MG	2A	3306	1/1	0.91	0.21	47,47,47,47	0
56	MG	16	104	1/1	0.91	0.22	38,38,38,38	0
56	MG	2a	1626	1/1	0.91	0.25	50,50,50,50	0
56	MG	1A	3969	1/1	0.92	0.08	41,41,41,41	0
56	MG	2A	3556	1/1	0.92	0.14	46,46,46,46	0
56	MG	1A	3722	1/1	0.92	0.09	29,29,29,29	0
56	MG	2a	1619	1/1	0.92	0.16	53,53,53,53	0
56	MG	2A	3559	1/1	0.92	0.15	61,61,61,61	0
56	MG	2A	3290	1/1	0.92	0.17	39,39,39,39	0
56	MG	2A	3066	1/1	0.92	0.17	40,40,40,40	0
56	MG	1A	3074	1/1	0.92	0.12	24,24,24,24	0
56	MG	2A	3563	1/1	0.92	0.13	55,55,55,55	0
56	MG	1A	3979	1/1	0.92	0.09	56,56,56,56	0
56	MG	2a	1629	1/1	0.92	0.15	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3179	1/1	0.92	0.27	23,23,23,23	0
56	MG	1A	3407	1/1	0.92	0.14	45,45,45,45	0
56	MG	1a	3151	1/1	0.92	0.22	62,62,62,62	0
56	MG	1A	3413	1/1	0.92	0.15	55,55,55,55	0
56	MG	1A	3092	1/1	0.92	0.11	44,44,44,44	0
56	MG	2A	3572	1/1	0.92	0.09	66,66,66,66	0
56	MG	2a	1638	1/1	0.92	0.08	49,49,49,49	0
56	MG	2A	3578	1/1	0.92	0.15	27,27,27,27	0
56	MG	2A	3311	1/1	0.92	0.15	50,50,50,50	0
56	MG	2A	3312	1/1	0.92	0.15	57,57,57,57	0
56	MG	2A	3314	1/1	0.92	0.21	40,40,40,40	0
56	MG	1A	3023	1/1	0.92	0.15	43,43,43,43	0
56	MG	2A	3085	1/1	0.92	0.11	48,48,48,48	0
56	MG	1a	3158	1/1	0.92	0.10	47,47,47,47	0
56	MG	1l	104	1/1	0.92	0.12	59,59,59,59	0
56	MG	1A	3420	1/1	0.92	0.07	49,49,49,49	0
56	MG	2A	3089	1/1	0.92	0.10	40,40,40,40	0
56	MG	2A	3338	1/1	0.92	0.16	42,42,42,42	0
56	MG	15	107	1/1	0.92	0.12	45,45,45,45	0
56	MG	2A	3346	1/1	0.92	0.17	48,48,48,48	0
56	MG	2A	3347	1/1	0.92	0.14	53,53,53,53	0
56	MG	1A	3342	1/1	0.92	0.16	21,21,21,21	0
56	MG	2A	3606	1/1	0.92	0.13	49,49,49,49	0
56	MG	1A	3025	1/1	0.92	0.28	42,42,42,42	0
56	MG	2A	3617	1/1	0.92	0.09	43,43,43,43	0
56	MG	2A	3352	1/1	0.92	0.14	50,50,50,50	0
56	MG	1a	3164	1/1	0.92	0.12	58,58,58,58	0
56	MG	1A	3426	1/1	0.92	0.09	44,44,44,44	0
56	MG	2a	1675	1/1	0.92	0.10	53,53,53,53	0
56	MG	1a	3170	1/1	0.92	0.14	66,66,66,66	0
56	MG	1A	3871	1/1	0.92	0.10	59,59,59,59	0
56	MG	1A	3758	1/1	0.92	0.10	32,32,32,32	0
56	MG	2A	3626	1/1	0.92	0.20	46,46,46,46	0
56	MG	2A	3627	1/1	0.92	0.22	50,50,50,50	0
56	MG	2A	3629	1/1	0.92	0.11	62,62,62,62	0
56	MG	1a	3178	1/1	0.92	0.09	54,54,54,54	0
56	MG	2A	3631	1/1	0.92	0.09	53,53,53,53	0
56	MG	1A	3106	1/1	0.92	0.24	24,24,24,24	0
56	MG	1a	3183	1/1	0.92	0.10	51,51,51,51	0
56	MG	1a	3006	1/1	0.92	0.23	59,59,59,59	0
56	MG	2A	3375	1/1	0.92	0.12	36,36,36,36	0
56	MG	1a	3015	1/1	0.92	0.08	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1a	3193	1/1	0.92	0.12	47,47,47,47	0
56	MG	1A	3431	1/1	0.92	0.18	34,34,34,34	0
56	MG	2a	1704	1/1	0.92	0.07	52,52,52,52	0
56	MG	1A	3432	1/1	0.92	0.05	31,31,31,31	0
56	MG	1a	3196	1/1	0.92	0.11	46,46,46,46	0
56	MG	2A	3394	1/1	0.92	0.11	29,29,29,29	0
56	MG	1a	3200	1/1	0.92	0.13	41,41,41,41	0
56	MG	1A	4022	1/1	0.92	0.14	46,46,46,46	0
56	MG	2A	3147	1/1	0.92	0.12	50,50,50,50	0
56	MG	1A	3524	1/1	0.92	0.16	20,20,20,20	0
56	MG	1A	3648	1/1	0.92	0.09	20,20,20,20	0
56	MG	1A	3525	1/1	0.92	0.08	9,9,9,9	0
56	MG	2A	3412	1/1	0.92	0.08	47,47,47,47	0
56	MG	2a	1716	1/1	0.92	0.08	43,43,43,43	0
56	MG	1a	3210	1/1	0.92	0.22	41,41,41,41	0
56	MG	1A	3351	1/1	0.92	0.06	34,34,34,34	0
56	MG	2A	3675	1/1	0.92	0.29	62,62,62,62	0
56	MG	2a	1722	1/1	0.92	0.10	79,79,79,79	0
56	MG	1A	4045	1/1	0.92	0.30	39,39,39,39	0
56	MG	2A	3164	1/1	0.92	0.08	53,53,53,53	0
56	MG	2A	3166	1/1	0.92	0.09	47,47,47,47	0
56	MG	1A	4047	1/1	0.92	0.18	29,29,29,29	0
56	MG	1A	3659	1/1	0.92	0.17	40,40,40,40	0
56	MG	2A	3431	1/1	0.92	0.07	24,24,24,24	0
56	MG	2A	3687	1/1	0.92	0.17	65,65,65,65	0
56	MG	1A	4058	1/1	0.92	0.18	69,69,69,69	0
56	MG	2a	1743	1/1	0.92	0.09	70,70,70,70	0
56	MG	2A	3177	1/1	0.92	0.11	36,36,36,36	0
56	MG	2A	3434	1/1	0.92	0.18	46,46,46,46	0
56	MG	2A	3180	1/1	0.92	0.16	33,33,33,33	0
56	MG	1A	4059	1/1	0.92	0.07	22,22,22,22	0
56	MG	1A	3355	1/1	0.92	0.20	30,30,30,30	0
56	MG	2A	3441	1/1	0.92	0.14	62,62,62,62	0
56	MG	1A	3670	1/1	0.92	0.08	43,43,43,43	0
56	MG	2A	3188	1/1	0.92	0.14	57,57,57,57	0
56	MG	2a	1759	1/1	0.92	0.13	50,50,50,50	0
56	MG	1A	3291	1/1	0.92	0.11	38,38,38,38	0
56	MG	1t	3001	1/1	0.92	0.21	57,57,57,57	0
56	MG	2A	3448	1/1	0.92	0.08	33,33,33,33	0
56	MG	2a	1767	1/1	0.92	0.08	39,39,39,39	0
56	MG	2A	3194	1/1	0.92	0.12	51,51,51,51	0
56	MG	1A	3243	1/1	0.92	0.12	25,25,25,25	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3460	1/1	0.92	0.14	39,39,39,39	0
56	MG	2A	3464	1/1	0.92	0.11	29,29,29,29	0
56	MG	2A	3465	1/1	0.92	0.20	42,42,42,42	0
56	MG	2A	3466	1/1	0.92	0.10	41,41,41,41	0
56	MG	1A	3376	1/1	0.92	0.08	31,31,31,31	0
56	MG	2A	3725	1/1	0.92	0.12	47,47,47,47	0
56	MG	2A	3470	1/1	0.92	0.11	53,53,53,53	0
56	MG	1A	3548	1/1	0.92	0.11	52,52,52,52	0
56	MG	1A	3913	1/1	0.92	0.15	39,39,39,39	0
56	MG	2A	3474	1/1	0.92	0.11	35,35,35,35	0
56	MG	2A	3200	1/1	0.92	0.12	50,50,50,50	0
56	MG	2a	1786	1/1	0.92	0.19	66,66,66,66	0
56	MG	2A	3478	1/1	0.92	0.26	38,38,38,38	0
56	MG	1A	3556	1/1	0.92	0.15	20,20,20,20	0
56	MG	1A	3379	1/1	0.92	0.08	53,53,53,53	0
56	MG	2a	1792	1/1	0.92	0.12	61,61,61,61	0
56	MG	2A	3203	1/1	0.92	0.13	53,53,53,53	0
56	MG	1A	3565	1/1	0.92	0.11	26,26,26,26	0
56	MG	1w	111	1/1	0.92	0.09	69,69,69,69	0
56	MG	1A	3297	1/1	0.92	0.09	35,35,35,35	0
56	MG	1B	233	1/1	0.92	0.11	50,50,50,50	0
56	MG	1A	3683	1/1	0.92	0.28	41,41,41,41	0
56	MG	1x	107	1/1	0.92	0.17	46,46,46,46	0
56	MG	2A	3492	1/1	0.92	0.12	49,49,49,49	0
56	MG	1A	3450	1/1	0.92	0.09	40,40,40,40	0
56	MG	1A	3930	1/1	0.92	0.10	33,33,33,33	0
56	MG	1A	3811	1/1	0.92	0.09	32,32,32,32	0
56	MG	1D	303	1/1	0.92	0.14	26,26,26,26	0
56	MG	1A	3933	1/1	0.92	0.18	54,54,54,54	0
56	MG	1A	3109	1/1	0.92	0.10	50,50,50,50	0
56	MG	1A	3457	1/1	0.92	0.11	32,32,32,32	0
56	MG	2A	3237	1/1	0.92	0.07	43,43,43,43	0
56	MG	2A	3509	1/1	0.92	0.08	52,52,52,52	0
56	MG	2a	1816	1/1	0.92	0.09	48,48,48,48	0
56	MG	1E	305	1/1	0.92	0.11	50,50,50,50	0
56	MG	2A	3513	1/1	0.92	0.12	52,52,52,52	0
56	MG	1a	3074	1/1	0.92	0.17	49,49,49,49	0
56	MG	2F	301	1/1	0.92	0.10	35,35,35,35	0
56	MG	2F	302	1/1	0.92	0.09	50,50,50,50	0
56	MG	1A	3939	1/1	0.92	0.08	44,44,44,44	0
56	MG	2A	3242	1/1	0.92	0.10	47,47,47,47	0
56	MG	2Q	3003	1/1	0.92	0.16	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3244	1/1	0.92	0.11	47,47,47,47	0
56	MG	2R	3004	1/1	0.92	0.09	49,49,49,49	0
56	MG	1A	3581	1/1	0.92	0.10	19,19,19,19	0
56	MG	1A	3040	1/1	0.92	0.06	30,30,30,30	0
56	MG	1A	3387	1/1	0.92	0.11	37,37,37,37	0
56	MG	2I	204	1/1	0.92	0.08	43,43,43,43	0
56	MG	1F	302	1/1	0.92	0.08	30,30,30,30	0
56	MG	1A	3949	1/1	0.92	0.07	18,18,18,18	0
56	MG	1A	3391	1/1	0.92	0.06	46,46,46,46	0
56	MG	1I	3001	1/1	0.92	0.08	64,64,64,64	0
56	MG	1A	3225	1/1	0.92	0.13	40,40,40,40	0
56	MG	1A	3044	1/1	0.92	0.12	37,37,37,37	0
56	MG	1a	3106	1/1	0.92	0.10	52,52,52,52	0
56	MG	1A	3597	1/1	0.92	0.07	50,50,50,50	0
56	MG	2w	101	1/1	0.92	0.34	65,65,65,65	0
56	MG	20	3003	1/1	0.92	0.14	56,56,56,56	0
56	MG	1A	3466	1/1	0.92	0.12	39,39,39,39	0
56	MG	25	503	1/1	0.92	0.15	40,40,40,40	0
56	MG	1A	3834	1/1	0.92	0.12	51,51,51,51	0
56	MG	1A	3480	1/1	0.92	0.21	35,35,35,35	0
56	MG	1A	3841	1/1	0.92	0.11	33,33,33,33	0
56	MG	2A	3048	1/1	0.92	0.22	57,57,57,57	0
56	MG	1A	3482	1/1	0.92	0.12	38,38,38,38	0
56	MG	2A	3278	1/1	0.92	0.21	57,57,57,57	0
56	MG	1A	3489	1/1	0.92	0.16	30,30,30,30	0
56	MG	2A	3280	1/1	0.92	0.10	50,50,50,50	0
56	MG	2a	1612	1/1	0.92	0.33	58,58,58,58	0
56	MG	1V	203	1/1	0.92	0.10	63,63,63,63	0
58	EZG	1A	4030	25/25	0.92	0.12	19,29,40,41	0
56	MG	2A	3283	1/1	0.92	0.08	42,42,42,42	0
56	MG	2A	3497	1/1	0.93	0.23	63,63,63,63	0
56	MG	1a	3007	1/1	0.93	0.08	50,50,50,50	0
56	MG	1a	3008	1/1	0.93	0.09	51,51,51,51	0
56	MG	1A	3168	1/1	0.93	0.09	43,43,43,43	0
56	MG	1q	201	1/1	0.93	0.10	50,50,50,50	0
56	MG	1A	3460	1/1	0.93	0.09	41,41,41,41	0
56	MG	1A	3590	1/1	0.93	0.26	36,36,36,36	0
56	MG	1a	3019	1/1	0.93	0.10	54,54,54,54	0
56	MG	23	101	1/1	0.93	0.13	54,54,54,54	0
56	MG	25	502	1/1	0.93	0.20	47,47,47,47	0
56	MG	2A	3512	1/1	0.93	0.17	55,55,55,55	0
56	MG	1A	3301	1/1	0.93	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
56	MG	2A	3226	1/1	0.93	0.21	42,42,42,42	0
56	MG	1A	3251	1/1	0.93	0.30	25,25,25,25	0
56	MG	2a	1601	1/1	0.93	0.11	46,46,46,46	0
56	MG	2a	1602	1/1	0.93	0.14	54,54,54,54	0
56	MG	2A	3231	1/1	0.93	0.11	49,49,49,49	0
56	MG	2A	3232	1/1	0.93	0.18	54,54,54,54	0
56	MG	1a	3023	1/1	0.93	0.17	44,44,44,44	0
56	MG	2A	3234	1/1	0.93	0.14	47,47,47,47	0
56	MG	2A	3235	1/1	0.93	0.06	40,40,40,40	0
56	MG	1a	3024	1/1	0.93	0.14	52,52,52,52	0
56	MG	2A	3524	1/1	0.93	0.07	61,61,61,61	0
56	MG	1A	3714	1/1	0.93	0.07	26,26,26,26	0
56	MG	1A	3716	1/1	0.93	0.07	45,45,45,45	0
56	MG	1A	3305	1/1	0.93	0.16	51,51,51,51	0
56	MG	1A	3719	1/1	0.93	0.13	47,47,47,47	0
56	MG	1A	3039	1/1	0.93	0.08	26,26,26,26	0
56	MG	1a	3033	1/1	0.93	0.11	57,57,57,57	0
56	MG	2a	1621	1/1	0.93	0.12	65,65,65,65	0
56	MG	2a	1622	1/1	0.93	0.10	39,39,39,39	0
56	MG	1A	3469	1/1	0.93	0.21	43,43,43,43	0
56	MG	1x	105	1/1	0.93	0.24	59,59,59,59	0
56	MG	2A	3249	1/1	0.93	0.18	54,54,54,54	0
56	MG	2A	3250	1/1	0.93	0.16	51,51,51,51	0
56	MG	1A	3868	1/1	0.93	0.09	24,24,24,24	0
56	MG	2A	3542	1/1	0.93	0.09	36,36,36,36	0
56	MG	1A	4029	1/1	0.93	0.14	36,36,36,36	0
56	MG	1A	3477	1/1	0.93	0.07	32,32,32,32	0
56	MG	2A	3546	1/1	0.93	0.14	45,45,45,45	0
56	MG	1A	3608	1/1	0.93	0.27	54,54,54,54	0
56	MG	1A	3388	1/1	0.93	0.10	30,30,30,30	0
56	MG	1A	3873	1/1	0.93	0.10	42,42,42,42	0
56	MG	1A	3875	1/1	0.93	0.08	43,43,43,43	0
56	MG	1A	4048	1/1	0.93	0.26	31,31,31,31	0
56	MG	2a	1641	1/1	0.93	0.12	53,53,53,53	0
56	MG	2A	3001	1/1	0.93	0.25	44,44,44,44	0
56	MG	2A	3262	1/1	0.93	0.05	44,44,44,44	0
56	MG	1A	4052	1/1	0.93	0.13	31,31,31,31	0
56	MG	2A	3266	1/1	0.93	0.19	54,54,54,54	0
56	MG	1A	3027	1/1	0.93	0.34	27,27,27,27	0
56	MG	2A	3007	1/1	0.93	0.08	32,32,32,32	0
56	MG	2A	3008	1/1	0.93	0.08	34,34,34,34	0
56	MG	1A	3036	1/1	0.93	0.14	26,26,26,26	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3739	1/1	0.93	0.17	29,29,29,29	0
56	MG	1A	3396	1/1	0.93	0.07	44,44,44,44	0
56	MG	1A	4065	1/1	0.93	0.13	36,36,36,36	0
56	MG	1B	201	1/1	0.93	0.09	49,49,49,49	0
56	MG	1A	3313	1/1	0.93	0.11	35,35,35,35	0
56	MG	2A	3284	1/1	0.93	0.06	37,37,37,37	0
56	MG	1A	3048	1/1	0.93	0.17	42,42,42,42	0
56	MG	2A	3576	1/1	0.93	0.15	52,52,52,52	0
56	MG	2a	1670	1/1	0.93	0.11	55,55,55,55	0
56	MG	2A	3286	1/1	0.93	0.06	46,46,46,46	0
56	MG	2A	3287	1/1	0.93	0.12	47,47,47,47	0
56	MG	2A	3581	1/1	0.93	0.07	28,28,28,28	0
56	MG	1B	208	1/1	0.93	0.18	59,59,59,59	0
56	MG	1B	211	1/1	0.93	0.33	45,45,45,45	0
56	MG	1a	3066	1/1	0.93	0.14	58,58,58,58	0
56	MG	1A	3892	1/1	0.93	0.17	33,33,33,33	0
56	MG	1B	218	1/1	0.93	0.11	40,40,40,40	0
56	MG	2A	3298	1/1	0.93	0.15	50,50,50,50	0
56	MG	2A	3299	1/1	0.93	0.18	43,43,43,43	0
56	MG	2A	3300	1/1	0.93	0.27	58,58,58,58	0
56	MG	1A	3747	1/1	0.93	0.07	31,31,31,31	0
56	MG	2a	1689	1/1	0.93	0.21	57,57,57,57	0
56	MG	2a	1690	1/1	0.93	0.16	57,57,57,57	0
56	MG	2A	3304	1/1	0.93	0.12	49,49,49,49	0
56	MG	2A	3600	1/1	0.93	0.11	56,56,56,56	0
56	MG	1A	3896	1/1	0.93	0.14	42,42,42,42	0
56	MG	2a	1695	1/1	0.93	0.15	56,56,56,56	0
56	MG	2A	3602	1/1	0.93	0.24	62,62,62,62	0
56	MG	1A	3317	1/1	0.93	0.11	45,45,45,45	0
56	MG	1A	3505	1/1	0.93	0.11	31,31,31,31	0
56	MG	1A	3900	1/1	0.93	0.09	44,44,44,44	0
56	MG	1B	229	1/1	0.93	0.08	57,57,57,57	0
56	MG	2A	3615	1/1	0.93	0.09	66,66,66,66	0
56	MG	2A	3616	1/1	0.93	0.12	51,51,51,51	0
56	MG	2A	3050	1/1	0.93	0.07	38,38,38,38	0
56	MG	1a	3080	1/1	0.93	0.17	46,46,46,46	0
56	MG	1B	230	1/1	0.93	0.13	42,42,42,42	0
56	MG	2A	3318	1/1	0.93	0.11	42,42,42,42	0
56	MG	2A	3055	1/1	0.93	0.16	44,44,44,44	0
56	MG	2A	3322	1/1	0.93	0.07	55,55,55,55	0
56	MG	1a	3089	1/1	0.93	0.09	40,40,40,40	0
56	MG	1a	3091	1/1	0.93	0.23	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3264	1/1	0.93	0.10	39,39,39,39	0
56	MG	2A	3069	1/1	0.93	0.05	39,39,39,39	0
56	MG	1A	3409	1/1	0.93	0.19	54,54,54,54	0
56	MG	2a	1718	1/1	0.93	0.09	55,55,55,55	0
56	MG	1a	3096	1/1	0.93	0.16	47,47,47,47	0
56	MG	2A	3343	1/1	0.93	0.15	36,36,36,36	0
56	MG	1A	3281	1/1	0.93	0.21	29,29,29,29	0
56	MG	1A	3329	1/1	0.93	0.05	41,41,41,41	0
56	MG	2a	1726	1/1	0.93	0.11	64,64,64,64	0
56	MG	1A	3766	1/1	0.93	0.11	36,36,36,36	0
56	MG	1a	3102	1/1	0.93	0.13	39,39,39,39	0
56	MG	2A	3351	1/1	0.93	0.07	43,43,43,43	0
56	MG	2a	1731	1/1	0.93	0.11	56,56,56,56	0
56	MG	1a	3104	1/1	0.93	0.14	45,45,45,45	0
56	MG	1A	3769	1/1	0.93	0.14	15,15,15,15	0
56	MG	1A	3332	1/1	0.93	0.07	34,34,34,34	0
56	MG	1a	3109	1/1	0.93	0.15	30,30,30,30	0
56	MG	1A	3914	1/1	0.93	0.12	54,54,54,54	0
56	MG	1A	3188	1/1	0.93	0.05	12,12,12,12	0
56	MG	1A	3334	1/1	0.93	0.14	22,22,22,22	0
56	MG	2A	3659	1/1	0.93	0.14	41,41,41,41	0
56	MG	1A	3640	1/1	0.93	0.10	36,36,36,36	0
56	MG	2A	3369	1/1	0.93	0.12	53,53,53,53	0
56	MG	2A	3370	1/1	0.93	0.22	44,44,44,44	0
56	MG	1A	3336	1/1	0.93	0.08	35,35,35,35	0
56	MG	1a	3124	1/1	0.93	0.12	54,54,54,54	0
56	MG	1A	3784	1/1	0.93	0.12	57,57,57,57	0
56	MG	1a	3134	1/1	0.93	0.24	47,47,47,47	0
56	MG	2A	3099	1/1	0.93	0.08	38,38,38,38	0
56	MG	1A	3340	1/1	0.93	0.13	47,47,47,47	0
56	MG	2A	3386	1/1	0.93	0.18	43,43,43,43	0
56	MG	1A	3926	1/1	0.93	0.10	18,18,18,18	0
56	MG	1A	3341	1/1	0.93	0.15	38,38,38,38	0
56	MG	2A	3683	1/1	0.93	0.14	42,42,42,42	0
56	MG	1A	3196	1/1	0.93	0.07	34,34,34,34	0
56	MG	2A	3685	1/1	0.93	0.10	41,41,41,41	0
56	MG	2A	3396	1/1	0.93	0.10	29,29,29,29	0
56	MG	1F	303	1/1	0.93	0.08	35,35,35,35	0
56	MG	2A	3401	1/1	0.93	0.13	32,32,32,32	0
56	MG	2A	3113	1/1	0.93	0.23	48,48,48,48	0
56	MG	2a	1779	1/1	0.93	0.09	60,60,60,60	0
56	MG	2A	3115	1/1	0.93	0.16	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3116	1/1	0.93	0.16	55,55,55,55	0
56	MG	1a	3145	1/1	0.93	0.13	48,48,48,48	0
56	MG	2A	3118	1/1	0.93	0.17	42,42,42,42	0
56	MG	1A	3107	1/1	0.93	0.14	24,24,24,24	0
56	MG	1A	3237	1/1	0.93	0.10	49,49,49,49	0
56	MG	1A	3668	1/1	0.93	0.07	22,22,22,22	0
56	MG	2A	3706	1/1	0.93	0.06	42,42,42,42	0
56	MG	2A	3417	1/1	0.93	0.15	35,35,35,35	0
56	MG	2A	3419	1/1	0.93	0.12	55,55,55,55	0
56	MG	2A	3130	1/1	0.93	0.24	51,51,51,51	0
56	MG	2A	3421	1/1	0.93	0.10	39,39,39,39	0
56	MG	1A	3938	1/1	0.93	0.17	40,40,40,40	0
56	MG	1N	204	1/1	0.93	0.15	46,46,46,46	0
56	MG	2A	3133	1/1	0.93	0.07	44,44,44,44	0
56	MG	1A	3528	1/1	0.93	0.13	23,23,23,23	0
56	MG	1A	3349	1/1	0.93	0.08	39,39,39,39	0
56	MG	1O	206	1/1	0.93	0.08	60,60,60,60	0
56	MG	2a	1805	1/1	0.93	0.09	53,53,53,53	0
56	MG	2A	3726	1/1	0.93	0.11	43,43,43,43	0
56	MG	2A	3728	1/1	0.93	0.22	56,56,56,56	0
56	MG	2A	3146	1/1	0.93	0.15	50,50,50,50	0
56	MG	1A	3538	1/1	0.93	0.06	45,45,45,45	0
56	MG	2a	1811	1/1	0.93	0.10	71,71,71,71	0
56	MG	1P	203	1/1	0.93	0.28	33,33,33,33	0
56	MG	1A	3945	1/1	0.93	0.10	30,30,30,30	0
56	MG	1A	3803	1/1	0.93	0.12	41,41,41,41	0
56	MG	2A	3440	1/1	0.93	0.11	51,51,51,51	0
56	MG	2A	3755	1/1	0.93	0.39	48,48,48,48	0
56	MG	1S	3002	1/1	0.93	0.13	36,36,36,36	0
56	MG	1A	3350	1/1	0.93	0.12	44,44,44,44	0
56	MG	2A	3161	1/1	0.93	0.13	46,46,46,46	0
56	MG	2a	1823	1/1	0.93	0.14	53,53,53,53	0
56	MG	1A	3439	1/1	0.93	0.11	37,37,37,37	0
56	MG	2a	1827	1/1	0.93	0.16	58,58,58,58	0
56	MG	1A	3678	1/1	0.93	0.16	22,22,22,22	0
56	MG	1A	3071	1/1	0.93	0.09	31,31,31,31	0
56	MG	2a	1830	1/1	0.93	0.14	71,71,71,71	0
56	MG	1A	3158	1/1	0.93	0.07	31,31,31,31	0
56	MG	1A	3559	1/1	0.93	0.15	15,15,15,15	0
56	MG	2B	3010	1/1	0.93	0.08	64,64,64,64	0
56	MG	2A	3458	1/1	0.93	0.14	40,40,40,40	0
56	MG	1A	3562	1/1	0.93	0.07	18,18,18,18	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3173	1/1	0.93	0.08	45,45,45,45	0
56	MG	1A	3444	1/1	0.93	0.07	18,18,18,18	0
56	MG	2l	203	1/1	0.93	0.07	62,62,62,62	0
56	MG	1A	3073	1/1	0.93	0.29	42,42,42,42	0
56	MG	2q	201	1/1	0.93	0.11	46,46,46,46	0
56	MG	2A	3468	1/1	0.93	0.09	40,40,40,40	0
56	MG	1a	3189	1/1	0.93	0.08	53,53,53,53	0
56	MG	1A	3361	1/1	0.93	0.33	57,57,57,57	0
56	MG	1A	3967	1/1	0.93	0.11	53,53,53,53	0
56	MG	1A	3293	1/1	0.93	0.29	51,51,51,51	0
56	MG	2A	3190	1/1	0.93	0.07	44,44,44,44	0
56	MG	1A	3829	1/1	0.93	0.12	43,43,43,43	0
56	MG	1l	103	1/1	0.93	0.10	31,31,31,31	0
56	MG	2E	306	1/1	0.93	0.18	43,43,43,43	0
56	MG	1a	3199	1/1	0.93	0.17	47,47,47,47	0
56	MG	2w	103	1/1	0.93	0.09	44,44,44,44	0
56	MG	2E	310	1/1	0.93	0.07	50,50,50,50	0
56	MG	1A	3970	1/1	0.93	0.08	53,53,53,53	0
56	MG	1A	3693	1/1	0.93	0.12	40,40,40,40	0
56	MG	2F	303	1/1	0.93	0.29	55,55,55,55	0
56	MG	1A	3975	1/1	0.93	0.13	51,51,51,51	0
56	MG	1A	3366	1/1	0.93	0.10	50,50,50,50	0
56	MG	1A	3574	1/1	0.93	0.10	16,16,16,16	0
56	MG	1A	3373	1/1	0.93	0.10	41,41,41,41	0
56	MG	2y	3002	1/1	0.93	0.19	51,51,51,51	0
56	MG	1A	3836	1/1	0.93	0.09	56,56,56,56	0
56	MG	1A	3295	1/1	0.93	0.07	38,38,38,38	0
56	MG	2A	3206	1/1	0.93	0.16	42,42,42,42	0
56	MG	1A	3989	1/1	0.93	0.08	49,49,49,49	0
56	MG	1A	3702	1/1	0.93	0.05	23,23,23,23	0
56	MG	1l	202	1/1	0.93	0.08	85,85,85,85	0
59	ZN	24	501	1/1	0.93	0.08	103,103,103,103	0
56	MG	2E	301	1/1	0.94	0.08	33,33,33,33	0
56	MG	2E	302	1/1	0.94	0.12	44,44,44,44	0
56	MG	2E	303	1/1	0.94	0.05	50,50,50,50	0
56	MG	1A	3901	1/1	0.94	0.19	44,44,44,44	0
56	MG	1A	3732	1/1	0.94	0.17	45,45,45,45	0
56	MG	2A	3454	1/1	0.94	0.13	52,52,52,52	0
56	MG	2A	3150	1/1	0.94	0.11	49,49,49,49	0
56	MG	1A	3357	1/1	0.94	0.10	43,43,43,43	0
56	MG	1A	3057	1/1	0.94	0.16	45,45,45,45	0
56	MG	1A	3060	1/1	0.94	0.09	26,26,26,26	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3159	1/1	0.94	0.09	50,50,50,50	0
56	MG	1A	3228	1/1	0.94	0.12	40,40,40,40	0
56	MG	2Q	3001	1/1	0.94	0.17	54,54,54,54	0
56	MG	1A	3294	1/1	0.94	0.17	40,40,40,40	0
56	MG	1A	3374	1/1	0.94	0.10	40,40,40,40	0
56	MG	1E	311	1/1	0.94	0.27	36,36,36,36	0
56	MG	1a	3153	1/1	0.94	0.12	52,52,52,52	0
56	MG	1A	3603	1/1	0.94	0.12	43,43,43,43	0
56	MG	1E	313	1/1	0.94	0.07	25,25,25,25	0
56	MG	2A	3171	1/1	0.94	0.24	51,51,51,51	0
56	MG	1A	3745	1/1	0.94	0.09	33,33,33,33	0
56	MG	2U	205	1/1	0.94	0.09	49,49,49,49	0
56	MG	1A	3746	1/1	0.94	0.09	49,49,49,49	0
56	MG	2A	3175	1/1	0.94	0.10	43,43,43,43	0
56	MG	2A	3482	1/1	0.94	0.15	38,38,38,38	0
56	MG	1A	3112	1/1	0.94	0.11	40,40,40,40	0
56	MG	1A	3378	1/1	0.94	0.14	27,27,27,27	0
56	MG	2A	3181	1/1	0.94	0.09	35,35,35,35	0
56	MG	2A	3182	1/1	0.94	0.26	43,43,43,43	0
56	MG	2A	3184	1/1	0.94	0.08	52,52,52,52	0
56	MG	1G	3004	1/1	0.94	0.06	38,38,38,38	0
56	MG	1A	3467	1/1	0.94	0.22	49,49,49,49	0
56	MG	1A	3018	1/1	0.94	0.14	43,43,43,43	0
56	MG	1N	202	1/1	0.94	0.06	36,36,36,36	0
56	MG	1a	3165	1/1	0.94	0.08	60,60,60,60	0
56	MG	1A	3611	1/1	0.94	0.10	45,45,45,45	0
56	MG	1N	205	1/1	0.94	0.17	48,48,48,48	0
56	MG	1A	3927	1/1	0.94	0.19	37,37,37,37	0
56	MG	2A	3499	1/1	0.94	0.09	41,41,41,41	0
56	MG	1A	3928	1/1	0.94	0.09	37,37,37,37	0
56	MG	2a	1605	1/1	0.94	0.18	61,61,61,61	0
56	MG	2A	3502	1/1	0.94	0.07	42,42,42,42	0
56	MG	2a	1608	1/1	0.94	0.15	47,47,47,47	0
56	MG	1A	3471	1/1	0.94	0.28	45,45,45,45	0
56	MG	2a	1610	1/1	0.94	0.07	63,63,63,63	0
56	MG	1A	3474	1/1	0.94	0.18	38,38,38,38	0
56	MG	2A	3507	1/1	0.94	0.12	67,67,67,67	0
56	MG	1a	3181	1/1	0.94	0.10	41,41,41,41	0
56	MG	1a	3182	1/1	0.94	0.15	45,45,45,45	0
56	MG	1P	201	1/1	0.94	0.23	16,16,16,16	0
56	MG	1A	3381	1/1	0.94	0.09	46,46,46,46	0
56	MG	1A	3767	1/1	0.94	0.12	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3204	1/1	0.94	0.05	43,43,43,43	0
56	MG	2A	3515	1/1	0.94	0.11	44,44,44,44	0
56	MG	1A	3479	1/1	0.94	0.06	30,30,30,30	0
56	MG	1R	205	1/1	0.94	0.10	34,34,34,34	0
56	MG	1A	3936	1/1	0.94	0.12	49,49,49,49	0
56	MG	1A	3298	1/1	0.94	0.06	40,40,40,40	0
56	MG	1A	3046	1/1	0.94	0.11	50,50,50,50	0
56	MG	1a	3197	1/1	0.94	0.06	39,39,39,39	0
56	MG	2a	1627	1/1	0.94	0.30	53,53,53,53	0
56	MG	2A	3214	1/1	0.94	0.23	49,49,49,49	0
56	MG	1A	3941	1/1	0.94	0.11	34,34,34,34	0
56	MG	1A	3172	1/1	0.94	0.08	44,44,44,44	0
56	MG	2A	3219	1/1	0.94	0.21	54,54,54,54	0
56	MG	1W	3003	1/1	0.94	0.11	33,33,33,33	0
56	MG	1a	3204	1/1	0.94	0.06	44,44,44,44	0
56	MG	1A	3623	1/1	0.94	0.15	41,41,41,41	0
56	MG	2a	1636	1/1	0.94	0.19	66,66,66,66	0
56	MG	1A	3944	1/1	0.94	0.06	39,39,39,39	0
56	MG	1A	3492	1/1	0.94	0.14	35,35,35,35	0
56	MG	2A	3227	1/1	0.94	0.05	40,40,40,40	0
56	MG	2A	3535	1/1	0.94	0.12	27,27,27,27	0
56	MG	1A	3625	1/1	0.94	0.16	10,10,10,10	0
56	MG	2A	3537	1/1	0.94	0.08	46,46,46,46	0
56	MG	2A	3229	1/1	0.94	0.10	34,34,34,34	0
56	MG	2A	3230	1/1	0.94	0.06	41,41,41,41	0
56	MG	2a	1646	1/1	0.94	0.22	71,71,71,71	0
56	MG	2a	1647	1/1	0.94	0.15	80,80,80,80	0
56	MG	1A	3304	1/1	0.94	0.17	41,41,41,41	0
56	MG	2a	1650	1/1	0.94	0.28	68,68,68,68	0
56	MG	1A	3494	1/1	0.94	0.10	35,35,35,35	0
56	MG	1A	3791	1/1	0.94	0.13	23,23,23,23	0
56	MG	1A	3793	1/1	0.94	0.17	26,26,26,26	0
56	MG	1A	3629	1/1	0.94	0.11	60,60,60,60	0
56	MG	2a	1658	1/1	0.94	0.13	59,59,59,59	0
56	MG	2A	3548	1/1	0.94	0.16	51,51,51,51	0
56	MG	2a	1660	1/1	0.94	0.15	59,59,59,59	0
56	MG	1A	3238	1/1	0.94	0.06	33,33,33,33	0
56	MG	1A	3239	1/1	0.94	0.08	38,38,38,38	0
56	MG	2A	3239	1/1	0.94	0.22	64,64,64,64	0
56	MG	1n	502	1/1	0.94	0.30	51,51,51,51	0
56	MG	1A	3636	1/1	0.94	0.16	21,21,21,21	0
56	MG	13	102	1/1	0.94	0.18	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	15	101	1/1	0.94	0.15	27,27,27,27	0
56	MG	2A	3245	1/1	0.94	0.10	59,59,59,59	0
56	MG	15	105	1/1	0.94	0.17	33,33,33,33	0
56	MG	1A	3174	1/1	0.94	0.12	32,32,32,32	0
56	MG	1A	3068	1/1	0.94	0.13	41,41,41,41	0
56	MG	1A	3182	1/1	0.94	0.06	33,33,33,33	0
56	MG	2A	3564	1/1	0.94	0.10	42,42,42,42	0
56	MG	1A	3646	1/1	0.94	0.14	19,19,19,19	0
56	MG	2a	1679	1/1	0.94	0.13	44,44,44,44	0
56	MG	2A	3566	1/1	0.94	0.18	56,56,56,56	0
56	MG	1w	103	1/1	0.94	0.20	68,68,68,68	0
56	MG	1A	3029	1/1	0.94	0.13	17,17,17,17	0
56	MG	1A	3192	1/1	0.94	0.13	54,54,54,54	0
56	MG	1a	3003	1/1	0.94	0.15	56,56,56,56	0
56	MG	1w	108	1/1	0.94	0.15	66,66,66,66	0
56	MG	1A	3318	1/1	0.94	0.08	46,46,46,46	0
56	MG	1A	3654	1/1	0.94	0.14	37,37,37,37	0
56	MG	2A	3577	1/1	0.94	0.16	45,45,45,45	0
56	MG	1A	3408	1/1	0.94	0.14	40,40,40,40	0
56	MG	1A	3515	1/1	0.94	0.12	11,11,11,11	0
56	MG	1a	3009	1/1	0.94	0.14	32,32,32,32	0
56	MG	1a	3011	1/1	0.94	0.08	41,41,41,41	0
56	MG	2a	1699	1/1	0.94	0.15	58,58,58,58	0
56	MG	2A	3265	1/1	0.94	0.10	46,46,46,46	0
56	MG	1x	106	1/1	0.94	0.17	66,66,66,66	0
56	MG	1a	3013	1/1	0.94	0.12	45,45,45,45	0
56	MG	1A	3816	1/1	0.94	0.14	46,46,46,46	0
56	MG	1A	3252	1/1	0.94	0.16	32,32,32,32	0
56	MG	1A	3984	1/1	0.94	0.10	52,52,52,52	0
56	MG	2A	3591	1/1	0.94	0.11	34,34,34,34	0
56	MG	1x	112	1/1	0.94	0.14	45,45,45,45	0
56	MG	1A	3410	1/1	0.94	0.11	45,45,45,45	0
56	MG	2A	3595	1/1	0.94	0.13	59,59,59,59	0
56	MG	1x	115	1/1	0.94	0.09	50,50,50,50	0
56	MG	1A	3988	1/1	0.94	0.10	34,34,34,34	0
56	MG	1A	3824	1/1	0.94	0.10	33,33,33,33	0
56	MG	1a	3022	1/1	0.94	0.11	48,48,48,48	0
56	MG	2a	1715	1/1	0.94	0.11	50,50,50,50	0
56	MG	1A	3030	1/1	0.94	0.33	20,20,20,20	0
56	MG	1A	3322	1/1	0.94	0.10	38,38,38,38	0
56	MG	1A	3993	1/1	0.94	0.14	44,44,44,44	0
56	MG	2A	3609	1/1	0.94	0.26	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3138	1/1	0.94	0.26	30,30,30,30	0
56	MG	2A	3614	1/1	0.94	0.09	51,51,51,51	0
56	MG	2a	1723	1/1	0.94	0.21	57,57,57,57	0
56	MG	1A	3419	1/1	0.94	0.12	42,42,42,42	0
56	MG	2a	1725	1/1	0.94	0.15	49,49,49,49	0
56	MG	2A	3009	1/1	0.94	0.12	29,29,29,29	0
56	MG	1a	3029	1/1	0.94	0.20	49,49,49,49	0
56	MG	1A	4001	1/1	0.94	0.07	45,45,45,45	0
56	MG	2A	3014	1/1	0.94	0.12	54,54,54,54	0
56	MG	1A	3330	1/1	0.94	0.08	28,28,28,28	0
56	MG	2A	3622	1/1	0.94	0.09	55,55,55,55	0
56	MG	2a	1737	1/1	0.94	0.07	57,57,57,57	0
56	MG	1A	4006	1/1	0.94	0.18	41,41,41,41	0
56	MG	1a	3034	1/1	0.94	0.15	44,44,44,44	0
56	MG	1A	4007	1/1	0.94	0.16	39,39,39,39	0
56	MG	2a	1741	1/1	0.94	0.18	57,57,57,57	0
56	MG	1A	3331	1/1	0.94	0.07	39,39,39,39	0
56	MG	2A	3025	1/1	0.94	0.15	54,54,54,54	0
56	MG	2A	3027	1/1	0.94	0.13	32,32,32,32	0
56	MG	2A	3028	1/1	0.94	0.12	42,42,42,42	0
56	MG	2A	3030	1/1	0.94	0.10	25,25,25,25	0
56	MG	1A	3140	1/1	0.94	0.30	23,23,23,23	0
56	MG	2A	3633	1/1	0.94	0.12	66,66,66,66	0
56	MG	2A	3032	1/1	0.94	0.11	41,41,41,41	0
56	MG	2A	3637	1/1	0.94	0.09	53,53,53,53	0
56	MG	2a	1758	1/1	0.94	0.11	52,52,52,52	0
56	MG	1a	3041	1/1	0.94	0.15	51,51,51,51	0
56	MG	1A	3043	1/1	0.94	0.10	19,19,19,19	0
56	MG	1A	3427	1/1	0.94	0.33	29,29,29,29	0
56	MG	2A	3321	1/1	0.94	0.13	44,44,44,44	0
56	MG	2A	3643	1/1	0.94	0.07	43,43,43,43	0
56	MG	2A	3644	1/1	0.94	0.23	57,57,57,57	0
56	MG	2A	3647	1/1	0.94	0.19	51,51,51,51	0
56	MG	1A	3540	1/1	0.94	0.11	46,46,46,46	0
56	MG	2A	3324	1/1	0.94	0.05	40,40,40,40	0
56	MG	2A	3328	1/1	0.94	0.23	45,45,45,45	0
56	MG	1A	3687	1/1	0.94	0.11	33,33,33,33	0
56	MG	1A	3147	1/1	0.94	0.09	50,50,50,50	0
56	MG	2A	3335	1/1	0.94	0.08	49,49,49,49	0
56	MG	2A	3045	1/1	0.94	0.17	55,55,55,55	0
56	MG	1A	3335	1/1	0.94	0.15	33,33,33,33	0
56	MG	1A	3547	1/1	0.94	0.07	22,22,22,22	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	4035	1/1	0.94	0.05	38,38,38,38	0
56	MG	1A	4036	1/1	0.94	0.19	29,29,29,29	0
56	MG	2A	3667	1/1	0.94	0.08	63,63,63,63	0
56	MG	2A	3668	1/1	0.94	0.17	41,41,41,41	0
56	MG	2A	3345	1/1	0.94	0.13	63,63,63,63	0
56	MG	1A	3269	1/1	0.94	0.20	35,35,35,35	0
56	MG	1A	3694	1/1	0.94	0.24	51,51,51,51	0
56	MG	2A	3673	1/1	0.94	0.17	47,47,47,47	0
56	MG	2A	3053	1/1	0.94	0.07	30,30,30,30	0
56	MG	1A	3854	1/1	0.94	0.12	46,46,46,46	0
56	MG	2a	1795	1/1	0.94	0.09	64,64,64,64	0
56	MG	1A	3549	1/1	0.94	0.09	30,30,30,30	0
56	MG	1A	4046	1/1	0.94	0.22	20,20,20,20	0
56	MG	2A	3063	1/1	0.94	0.20	43,43,43,43	0
56	MG	1A	3857	1/1	0.94	0.14	32,32,32,32	0
56	MG	1A	3551	1/1	0.94	0.13	17,17,17,17	0
56	MG	2A	3359	1/1	0.94	0.08	52,52,52,52	0
56	MG	1A	3339	1/1	0.94	0.10	48,48,48,48	0
56	MG	2A	3070	1/1	0.94	0.10	33,33,33,33	0
56	MG	1A	3699	1/1	0.94	0.05	25,25,25,25	0
56	MG	1A	4055	1/1	0.94	0.25	31,31,31,31	0
56	MG	1a	3068	1/1	0.94	0.22	62,62,62,62	0
56	MG	2A	3076	1/1	0.94	0.16	45,45,45,45	0
56	MG	2A	3372	1/1	0.94	0.14	42,42,42,42	0
56	MG	1A	4056	1/1	0.94	0.15	33,33,33,33	0
56	MG	1A	3558	1/1	0.94	0.09	16,16,16,16	0
56	MG	1A	3862	1/1	0.94	0.11	52,52,52,52	0
56	MG	1A	3273	1/1	0.94	0.05	38,38,38,38	0
56	MG	2A	3377	1/1	0.94	0.17	37,37,37,37	0
56	MG	1A	3276	1/1	0.94	0.08	40,40,40,40	0
56	MG	1A	4066	1/1	0.94	0.12	35,35,35,35	0
56	MG	1A	3704	1/1	0.94	0.14	28,28,28,28	0
56	MG	1A	3277	1/1	0.94	0.08	37,37,37,37	0
56	MG	2A	3389	1/1	0.94	0.07	35,35,35,35	0
56	MG	2a	1825	1/1	0.94	0.18	56,56,56,56	0
56	MG	1A	3280	1/1	0.94	0.17	26,26,26,26	0
56	MG	1B	205	1/1	0.94	0.21	45,45,45,45	0
56	MG	1a	3090	1/1	0.94	0.13	41,41,41,41	0
56	MG	2A	3397	1/1	0.94	0.10	37,37,37,37	0
56	MG	1A	3207	1/1	0.94	0.23	52,52,52,52	0
56	MG	1B	210	1/1	0.94	0.09	50,50,50,50	0
56	MG	2A	3096	1/1	0.94	0.06	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2e	3001	1/1	0.94	0.10	60,60,60,60	0
56	MG	1a	3093	1/1	0.94	0.12	49,49,49,49	0
56	MG	1A	3708	1/1	0.94	0.07	42,42,42,42	0
56	MG	1A	3876	1/1	0.94	0.07	34,34,34,34	0
56	MG	2A	3100	1/1	0.94	0.12	59,59,59,59	0
56	MG	1B	217	1/1	0.94	0.10	44,44,44,44	0
56	MG	2A	3748	1/1	0.94	0.06	27,27,27,27	0
56	MG	2A	3749	1/1	0.94	0.17	34,34,34,34	0
56	MG	1A	3105	1/1	0.94	0.10	30,30,30,30	0
56	MG	1A	3878	1/1	0.94	0.09	16,16,16,16	0
56	MG	2A	3105	1/1	0.94	0.14	34,34,34,34	0
56	MG	1A	3879	1/1	0.94	0.11	18,18,18,18	0
56	MG	2B	3001	1/1	0.94	0.12	75,75,75,75	0
56	MG	2A	3109	1/1	0.94	0.20	39,39,39,39	0
56	MG	1a	3103	1/1	0.94	0.06	46,46,46,46	0
56	MG	1A	3157	1/1	0.94	0.13	50,50,50,50	0
56	MG	1B	223	1/1	0.94	0.06	51,51,51,51	0
56	MG	1A	3715	1/1	0.94	0.06	23,23,23,23	0
56	MG	1A	3222	1/1	0.94	0.13	51,51,51,51	0
56	MG	1A	3717	1/1	0.94	0.10	45,45,45,45	0
56	MG	1a	3112	1/1	0.94	0.14	48,48,48,48	0
56	MG	2A	3124	1/1	0.94	0.10	48,48,48,48	0
56	MG	2w	108	1/1	0.94	0.06	68,68,68,68	0
56	MG	1A	3448	1/1	0.94	0.08	37,37,37,37	0
56	MG	1A	3223	1/1	0.94	0.11	34,34,34,34	0
56	MG	1A	3893	1/1	0.94	0.17	27,27,27,27	0
56	MG	2A	3437	1/1	0.94	0.20	39,39,39,39	0
56	MG	1A	3583	1/1	0.94	0.15	22,22,22,22	0
56	MG	1A	3455	1/1	0.94	0.27	28,28,28,28	0
56	MG	1A	3725	1/1	0.94	0.12	30,30,30,30	0
56	MG	1a	3130	1/1	0.94	0.16	46,46,46,46	0
56	MG	2B	3021	1/1	0.94	0.14	59,59,59,59	0
56	MG	1A	3075	1/1	0.94	0.12	34,34,34,34	0
56	MG	1a	3135	1/1	0.94	0.08	52,52,52,52	0
56	MG	2D	305	1/1	0.94	0.07	29,29,29,29	0
56	MG	1A	3588	1/1	0.94	0.16	32,32,32,32	0
56	MG	1A	3600	1/1	0.95	0.14	50,50,50,50	0
56	MG	2W	203	1/1	0.95	0.07	41,41,41,41	0
56	MG	2A	3013	1/1	0.95	0.04	27,27,27,27	0
56	MG	1A	3602	1/1	0.95	0.15	48,48,48,48	0
56	MG	1B	209	1/1	0.95	0.13	53,53,53,53	0
56	MG	1A	3246	1/1	0.95	0.15	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1a	3062	1/1	0.95	0.15	36,36,36,36	0
56	MG	1A	3472	1/1	0.95	0.11	41,41,41,41	0
56	MG	1A	3385	1/1	0.95	0.06	29,29,29,29	0
56	MG	1A	3476	1/1	0.95	0.13	27,27,27,27	0
56	MG	1A	3247	1/1	0.95	0.10	27,27,27,27	0
56	MG	28	101	1/1	0.95	0.17	49,49,49,49	0
56	MG	1A	3190	1/1	0.95	0.11	43,43,43,43	0
56	MG	1A	3902	1/1	0.95	0.08	55,55,55,55	0
56	MG	1A	3903	1/1	0.95	0.05	23,23,23,23	0
56	MG	1A	3613	1/1	0.95	0.07	30,30,30,30	0
56	MG	1B	224	1/1	0.95	0.07	54,54,54,54	0
56	MG	1A	3137	1/1	0.95	0.12	40,40,40,40	0
56	MG	2a	1606	1/1	0.95	0.11	43,43,43,43	0
56	MG	1A	3390	1/1	0.95	0.07	43,43,43,43	0
56	MG	2A	3269	1/1	0.95	0.10	36,36,36,36	0
56	MG	2A	3543	1/1	0.95	0.07	45,45,45,45	0
56	MG	2A	3270	1/1	0.95	0.15	34,34,34,34	0
56	MG	2A	3271	1/1	0.95	0.09	45,45,45,45	0
56	MG	1B	228	1/1	0.95	0.04	24,24,24,24	0
56	MG	2A	3275	1/1	0.95	0.05	37,37,37,37	0
56	MG	2A	3276	1/1	0.95	0.12	58,58,58,58	0
56	MG	1A	3748	1/1	0.95	0.09	38,38,38,38	0
56	MG	1A	3749	1/1	0.95	0.18	31,31,31,31	0
56	MG	1a	3084	1/1	0.95	0.11	54,54,54,54	0
56	MG	1a	3086	1/1	0.95	0.12	60,60,60,60	0
56	MG	1A	3485	1/1	0.95	0.08	21,21,21,21	0
56	MG	1A	3911	1/1	0.95	0.08	29,29,29,29	0
56	MG	1A	3487	1/1	0.95	0.10	34,34,34,34	0
56	MG	1A	3756	1/1	0.95	0.15	27,27,27,27	0
56	MG	2A	3051	1/1	0.95	0.15	46,46,46,46	0
56	MG	1A	3052	1/1	0.95	0.05	31,31,31,31	0
56	MG	1A	3491	1/1	0.95	0.14	17,17,17,17	0
56	MG	1a	3095	1/1	0.95	0.11	55,55,55,55	0
56	MG	1A	3315	1/1	0.95	0.11	37,37,37,37	0
56	MG	2A	3292	1/1	0.95	0.12	31,31,31,31	0
56	MG	1A	3921	1/1	0.95	0.08	43,43,43,43	0
56	MG	2A	3294	1/1	0.95	0.10	45,45,45,45	0
56	MG	2A	3062	1/1	0.95	0.26	47,47,47,47	0
56	MG	2A	3297	1/1	0.95	0.22	51,51,51,51	0
56	MG	1A	3198	1/1	0.95	0.07	43,43,43,43	0
56	MG	2A	3064	1/1	0.95	0.12	44,44,44,44	0
56	MG	1D	307	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
56	MG	2A	3573	1/1	0.95	0.08	37,37,37,37	0
56	MG	2a	1639	1/1	0.95	0.06	60,60,60,60	0
56	MG	1A	3762	1/1	0.95	0.06	12,12,12,12	0
56	MG	1A	3765	1/1	0.95	0.11	19,19,19,19	0
56	MG	1E	301	1/1	0.95	0.18	26,26,26,26	0
56	MG	2A	3307	1/1	0.95	0.07	35,35,35,35	0
56	MG	1A	3925	1/1	0.95	0.08	12,12,12,12	0
56	MG	1A	3104	1/1	0.95	0.10	45,45,45,45	0
56	MG	2A	3074	1/1	0.95	0.06	32,32,32,32	0
56	MG	1A	3319	1/1	0.95	0.12	53,53,53,53	0
56	MG	1A	3141	1/1	0.95	0.11	38,38,38,38	0
56	MG	2a	1649	1/1	0.95	0.11	41,41,41,41	0
56	MG	1A	3773	1/1	0.95	0.07	15,15,15,15	0
56	MG	2A	3588	1/1	0.95	0.10	52,52,52,52	0
56	MG	2a	1652	1/1	0.95	0.10	55,55,55,55	0
56	MG	2A	3315	1/1	0.95	0.08	42,42,42,42	0
56	MG	1A	3503	1/1	0.95	0.12	22,22,22,22	0
56	MG	1A	3053	1/1	0.95	0.11	43,43,43,43	0
56	MG	1a	3120	1/1	0.95	0.12	43,43,43,43	0
56	MG	1F	301	1/1	0.95	0.26	23,23,23,23	0
56	MG	2A	3594	1/1	0.95	0.11	54,54,54,54	0
56	MG	1A	3144	1/1	0.95	0.11	37,37,37,37	0
56	MG	2A	3597	1/1	0.95	0.09	34,34,34,34	0
56	MG	2A	3598	1/1	0.95	0.10	39,39,39,39	0
56	MG	1A	3326	1/1	0.95	0.12	25,25,25,25	0
56	MG	2A	3325	1/1	0.95	0.11	63,63,63,63	0
56	MG	1a	3125	1/1	0.95	0.20	42,42,42,42	0
56	MG	1a	3126	1/1	0.95	0.10	46,46,46,46	0
56	MG	2A	3332	1/1	0.95	0.21	56,56,56,56	0
56	MG	2A	3333	1/1	0.95	0.10	25,25,25,25	0
56	MG	1a	3127	1/1	0.95	0.09	48,48,48,48	0
56	MG	2A	3607	1/1	0.95	0.07	48,48,48,48	0
56	MG	2A	3608	1/1	0.95	0.13	48,48,48,48	0
56	MG	1F	305	1/1	0.95	0.18	28,28,28,28	0
56	MG	2a	1677	1/1	0.95	0.15	55,55,55,55	0
56	MG	1F	306	1/1	0.95	0.07	36,36,36,36	0
56	MG	1F	307	1/1	0.95	0.06	40,40,40,40	0
56	MG	1A	3507	1/1	0.95	0.13	24,24,24,24	0
56	MG	1A	3637	1/1	0.95	0.07	20,20,20,20	0
56	MG	1a	3139	1/1	0.95	0.18	56,56,56,56	0
56	MG	1A	3785	1/1	0.95	0.10	35,35,35,35	0
56	MG	2a	1687	1/1	0.95	0.06	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3940	1/1	0.95	0.07	29,29,29,29	0
56	MG	1A	3265	1/1	0.95	0.07	26,26,26,26	0
56	MG	1A	3509	1/1	0.95	0.12	31,31,31,31	0
56	MG	2A	3349	1/1	0.95	0.10	30,30,30,30	0
56	MG	1A	3412	1/1	0.95	0.18	37,37,37,37	0
56	MG	1A	3062	1/1	0.95	0.08	12,12,12,12	0
56	MG	2a	1694	1/1	0.95	0.09	66,66,66,66	0
56	MG	2A	3106	1/1	0.95	0.15	50,50,50,50	0
56	MG	2a	1696	1/1	0.95	0.16	48,48,48,48	0
56	MG	1A	3006	1/1	0.95	0.08	33,33,33,33	0
56	MG	2A	3628	1/1	0.95	0.10	40,40,40,40	0
56	MG	1O	202	1/1	0.95	0.06	56,56,56,56	0
56	MG	1a	3150	1/1	0.95	0.16	65,65,65,65	0
56	MG	2A	3112	1/1	0.95	0.14	52,52,52,52	0
56	MG	1A	3649	1/1	0.95	0.09	16,16,16,16	0
56	MG	1A	3274	1/1	0.95	0.16	40,40,40,40	0
56	MG	2A	3635	1/1	0.95	0.08	57,57,57,57	0
56	MG	1A	3950	1/1	0.95	0.17	54,54,54,54	0
56	MG	1A	3418	1/1	0.95	0.12	30,30,30,30	0
56	MG	1A	3047	1/1	0.95	0.15	50,50,50,50	0
56	MG	1A	3955	1/1	0.95	0.08	32,32,32,32	0
56	MG	1A	3656	1/1	0.95	0.15	25,25,25,25	0
56	MG	2A	3641	1/1	0.95	0.16	50,50,50,50	0
56	MG	2A	3125	1/1	0.95	0.24	32,32,32,32	0
56	MG	1A	3221	1/1	0.95	0.10	21,21,21,21	0
56	MG	1S	3001	1/1	0.95	0.08	47,47,47,47	0
56	MG	2A	3128	1/1	0.95	0.12	35,35,35,35	0
56	MG	1A	3662	1/1	0.95	0.12	32,32,32,32	0
56	MG	1A	3804	1/1	0.95	0.12	45,45,45,45	0
56	MG	2A	3652	1/1	0.95	0.09	38,38,38,38	0
56	MG	1A	3279	1/1	0.95	0.10	41,41,41,41	0
56	MG	2A	3384	1/1	0.95	0.10	27,27,27,27	0
56	MG	1U	203	1/1	0.95	0.12	23,23,23,23	0
56	MG	2A	3136	1/1	0.95	0.06	36,36,36,36	0
56	MG	2A	3657	1/1	0.95	0.14	41,41,41,41	0
56	MG	1A	3963	1/1	0.95	0.05	33,33,33,33	0
56	MG	1A	3424	1/1	0.95	0.16	32,32,32,32	0
56	MG	1A	3069	1/1	0.95	0.09	27,27,27,27	0
56	MG	2A	3145	1/1	0.95	0.14	48,48,48,48	0
56	MG	1X	102	1/1	0.95	0.08	35,35,35,35	0
56	MG	1A	3966	1/1	0.95	0.09	41,41,41,41	0
56	MG	2a	1733	1/1	0.95	0.06	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3810	1/1	0.95	0.14	40,40,40,40	0
56	MG	1A	3671	1/1	0.95	0.06	14,14,14,14	0
56	MG	2A	3403	1/1	0.95	0.12	29,29,29,29	0
56	MG	2A	3405	1/1	0.95	0.11	35,35,35,35	0
56	MG	1A	3337	1/1	0.95	0.31	27,27,27,27	0
56	MG	1A	3162	1/1	0.95	0.07	24,24,24,24	0
56	MG	1A	3113	1/1	0.95	0.22	27,27,27,27	0
56	MG	1A	3972	1/1	0.95	0.06	49,49,49,49	0
56	MG	2A	3411	1/1	0.95	0.12	27,27,27,27	0
56	MG	2a	1747	1/1	0.95	0.10	56,56,56,56	0
56	MG	1A	3819	1/1	0.95	0.11	29,29,29,29	0
56	MG	1a	3191	1/1	0.95	0.08	53,53,53,53	0
56	MG	1a	3192	1/1	0.95	0.09	62,62,62,62	0
56	MG	2A	3415	1/1	0.95	0.12	47,47,47,47	0
56	MG	1A	3283	1/1	0.95	0.20	28,28,28,28	0
56	MG	2A	3418	1/1	0.95	0.15	46,46,46,46	0
56	MG	1A	3677	1/1	0.95	0.10	18,18,18,18	0
56	MG	1A	3537	1/1	0.95	0.08	30,30,30,30	0
56	MG	2a	1760	1/1	0.95	0.28	60,60,60,60	0
56	MG	1A	3070	1/1	0.95	0.15	23,23,23,23	0
56	MG	1A	3026	1/1	0.95	0.11	30,30,30,30	0
56	MG	2a	1764	1/1	0.95	0.09	51,51,51,51	0
56	MG	2A	3426	1/1	0.95	0.09	48,48,48,48	0
56	MG	2A	3427	1/1	0.95	0.15	46,46,46,46	0
56	MG	1A	3985	1/1	0.95	0.13	60,60,60,60	0
56	MG	1A	3434	1/1	0.95	0.20	47,47,47,47	0
56	MG	2A	3700	1/1	0.95	0.10	61,61,61,61	0
56	MG	1a	3202	1/1	0.95	0.12	45,45,45,45	0
56	MG	2A	3702	1/1	0.95	0.12	59,59,59,59	0
56	MG	2A	3703	1/1	0.95	0.10	50,50,50,50	0
56	MG	1A	3286	1/1	0.95	0.15	34,34,34,34	0
56	MG	2A	3178	1/1	0.95	0.06	44,44,44,44	0
56	MG	1A	3058	1/1	0.95	0.11	33,33,33,33	0
56	MG	1A	3229	1/1	0.95	0.10	28,28,28,28	0
56	MG	1A	3440	1/1	0.95	0.10	28,28,28,28	0
56	MG	2A	3713	1/1	0.95	0.14	26,26,26,26	0
56	MG	18	101	1/1	0.95	0.08	37,37,37,37	0
56	MG	2A	3715	1/1	0.95	0.07	56,56,56,56	0
56	MG	1A	3550	1/1	0.95	0.15	26,26,26,26	0
56	MG	2A	3438	1/1	0.95	0.09	36,36,36,36	0
56	MG	1a	3211	1/1	0.95	0.13	35,35,35,35	0
56	MG	2a	1790	1/1	0.95	0.23	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3721	1/1	0.95	0.12	50,50,50,50	0
56	MG	1A	3128	1/1	0.95	0.15	27,27,27,27	0
56	MG	1A	3837	1/1	0.95	0.07	54,54,54,54	0
56	MG	1A	3998	1/1	0.95	0.08	55,55,55,55	0
56	MG	1a	3005	1/1	0.95	0.08	41,41,41,41	0
56	MG	2a	1796	1/1	0.95	0.18	54,54,54,54	0
56	MG	2A	3444	1/1	0.95	0.15	42,42,42,42	0
56	MG	2A	3731	1/1	0.95	0.06	37,37,37,37	0
56	MG	2A	3733	1/1	0.95	0.24	30,30,30,30	0
56	MG	1l	201	1/1	0.95	0.17	31,31,31,31	0
56	MG	1A	3352	1/1	0.95	0.08	36,36,36,36	0
56	MG	1A	3354	1/1	0.95	0.08	39,39,39,39	0
56	MG	2a	1803	1/1	0.95	0.35	51,51,51,51	0
56	MG	1A	3129	1/1	0.95	0.13	27,27,27,27	0
56	MG	2A	3744	1/1	0.95	0.07	40,40,40,40	0
56	MG	2A	3451	1/1	0.95	0.09	44,44,44,44	0
56	MG	1A	3560	1/1	0.95	0.14	26,26,26,26	0
56	MG	1A	3845	1/1	0.95	0.07	42,42,42,42	0
56	MG	2A	3752	1/1	0.95	0.10	61,61,61,61	0
56	MG	1a	3012	1/1	0.95	0.11	41,41,41,41	0
56	MG	1A	3130	1/1	0.95	0.15	10,10,10,10	0
56	MG	1a	3014	1/1	0.95	0.08	55,55,55,55	0
56	MG	1A	3850	1/1	0.95	0.11	43,43,43,43	0
56	MG	1A	3236	1/1	0.95	0.16	35,35,35,35	0
56	MG	2A	3205	1/1	0.95	0.16	55,55,55,55	0
56	MG	2a	1818	1/1	0.95	0.06	48,48,48,48	0
56	MG	2a	1819	1/1	0.95	0.12	52,52,52,52	0
56	MG	1A	3449	1/1	0.95	0.07	52,52,52,52	0
56	MG	2A	3207	1/1	0.95	0.12	40,40,40,40	0
56	MG	1A	3097	1/1	0.95	0.04	24,24,24,24	0
56	MG	1A	3451	1/1	0.95	0.11	24,24,24,24	0
56	MG	1A	3454	1/1	0.95	0.14	30,30,30,30	0
56	MG	2A	3475	1/1	0.95	0.12	37,37,37,37	0
56	MG	2a	1826	1/1	0.95	0.08	55,55,55,55	0
56	MG	2A	3476	1/1	0.95	0.19	44,44,44,44	0
56	MG	1w	105	1/1	0.95	0.10	64,64,64,64	0
56	MG	1A	3362	1/1	0.95	0.12	33,33,33,33	0
56	MG	1A	4033	1/1	0.95	0.28	25,25,25,25	0
56	MG	1A	3575	1/1	0.95	0.08	11,11,11,11	0
56	MG	2a	1832	1/1	0.95	0.10	37,37,37,37	0
56	MG	2A	3216	1/1	0.95	0.18	51,51,51,51	0
56	MG	1A	3180	1/1	0.95	0.08	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3218	1/1	0.95	0.06	39,39,39,39	0
56	MG	1A	3101	1/1	0.95	0.16	28,28,28,28	0
56	MG	2A	3487	1/1	0.95	0.11	62,62,62,62	0
56	MG	1A	4039	1/1	0.95	0.14	33,33,33,33	0
56	MG	2I	201	1/1	0.95	0.05	51,51,51,51	0
56	MG	2D	302	1/1	0.95	0.08	39,39,39,39	0
56	MG	2D	303	1/1	0.95	0.11	41,41,41,41	0
56	MG	1A	3710	1/1	0.95	0.10	28,28,28,28	0
56	MG	1A	3711	1/1	0.95	0.14	44,44,44,44	0
56	MG	1A	3867	1/1	0.95	0.09	19,19,19,19	0
56	MG	2A	3225	1/1	0.95	0.13	53,53,53,53	0
56	MG	1A	3712	1/1	0.95	0.11	34,34,34,34	0
56	MG	2r	3001	1/1	0.95	0.14	56,56,56,56	0
56	MG	1A	3367	1/1	0.95	0.10	46,46,46,46	0
56	MG	1A	3369	1/1	0.95	0.06	38,38,38,38	0
56	MG	2v	3001	1/1	0.95	0.26	49,49,49,49	0
56	MG	1A	3299	1/1	0.95	0.18	28,28,28,28	0
56	MG	1x	110	1/1	0.95	0.20	59,59,59,59	0
56	MG	1A	3300	1/1	0.95	0.16	29,29,29,29	0
56	MG	2A	3500	1/1	0.95	0.07	49,49,49,49	0
56	MG	1A	3183	1/1	0.95	0.09	39,39,39,39	0
56	MG	1A	3464	1/1	0.95	0.12	39,39,39,39	0
56	MG	1A	3186	1/1	0.95	0.08	27,27,27,27	0
56	MG	1y	101	1/1	0.95	0.05	35,35,35,35	0
56	MG	2O	8001	1/1	0.95	0.13	56,56,56,56	0
56	MG	2w	107	1/1	0.95	0.10	55,55,55,55	0
56	MG	2A	3236	1/1	0.95	0.09	49,49,49,49	0
56	MG	1A	3720	1/1	0.95	0.08	41,41,41,41	0
56	MG	1A	3595	1/1	0.95	0.17	40,40,40,40	0
56	MG	2R	3002	1/1	0.95	0.07	56,56,56,56	0
56	MG	1A	4061	1/1	0.95	0.14	38,38,38,38	0
56	MG	2A	3511	1/1	0.95	0.09	39,39,39,39	0
56	MG	1a	3047	1/1	0.95	0.09	46,46,46,46	0
56	MG	1A	4063	1/1	0.95	0.14	31,31,31,31	0
56	MG	1A	3303	1/1	0.95	0.14	44,44,44,44	0
56	MG	2A	3006	1/1	0.95	0.08	44,44,44,44	0
56	MG	1A	3136	1/1	0.95	0.05	21,21,21,21	0
57	K	1A	4028	1/1	0.95	0.05	40,40,40,40	0
56	MG	1A	3244	1/1	0.95	0.06	34,34,34,34	0
56	MG	1A	3728	1/1	0.95	0.07	39,39,39,39	0
56	MG	1A	3599	1/1	0.95	0.05	15,15,15,15	0
56	MG	1A	3546	1/1	0.96	0.06	14,14,14,14	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	4017	1/1	0.96	0.13	37,37,37,37	0
56	MG	2X	3001	1/1	0.96	0.05	46,46,46,46	0
56	MG	2X	3002	1/1	0.96	0.06	49,49,49,49	0
56	MG	1A	3435	1/1	0.96	0.13	56,56,56,56	0
56	MG	1A	3846	1/1	0.96	0.10	48,48,48,48	0
56	MG	1A	4025	1/1	0.96	0.10	24,24,24,24	0
56	MG	1A	4026	1/1	0.96	0.14	35,35,35,35	0
56	MG	1A	3847	1/1	0.96	0.11	18,18,18,18	0
56	MG	1x	113	1/1	0.96	0.13	58,58,58,58	0
56	MG	1A	3054	1/1	0.96	0.06	26,26,26,26	0
56	MG	1A	4032	1/1	0.96	0.16	30,30,30,30	0
56	MG	1A	3072	1/1	0.96	0.12	27,27,27,27	0
56	MG	27	102	1/1	0.96	0.10	47,47,47,47	0
56	MG	1A	4034	1/1	0.96	0.31	28,28,28,28	0
56	MG	1A	3145	1/1	0.96	0.32	34,34,34,34	0
56	MG	1a	3035	1/1	0.96	0.09	49,49,49,49	0
56	MG	2A	3252	1/1	0.96	0.10	38,38,38,38	0
56	MG	1A	3216	1/1	0.96	0.07	25,25,25,25	0
56	MG	1A	3696	1/1	0.96	0.17	46,46,46,46	0
56	MG	1A	3555	1/1	0.96	0.12	29,29,29,29	0
56	MG	2A	3004	1/1	0.96	0.06	37,37,37,37	0
56	MG	1A	3217	1/1	0.96	0.15	19,19,19,19	0
56	MG	1A	3004	1/1	0.96	0.16	21,21,21,21	0
56	MG	1A	3151	1/1	0.96	0.14	36,36,36,36	0
56	MG	1A	3041	1/1	0.96	0.20	32,32,32,32	0
56	MG	1A	3224	1/1	0.96	0.18	42,42,42,42	0
56	MG	1A	3155	1/1	0.96	0.08	29,29,29,29	0
56	MG	1A	4049	1/1	0.96	0.35	30,30,30,30	0
56	MG	1A	4051	1/1	0.96	0.09	13,13,13,13	0
56	MG	2A	3015	1/1	0.96	0.14	37,37,37,37	0
56	MG	1A	3359	1/1	0.96	0.05	32,32,32,32	0
56	MG	1A	3864	1/1	0.96	0.12	20,20,20,20	0
56	MG	2A	3019	1/1	0.96	0.22	50,50,50,50	0
56	MG	1A	3290	1/1	0.96	0.22	46,46,46,46	0
56	MG	1A	3005	1/1	0.96	0.10	36,36,36,36	0
56	MG	1a	3054	1/1	0.96	0.14	46,46,46,46	0
56	MG	1A	3453	1/1	0.96	0.21	41,41,41,41	0
56	MG	1a	3057	1/1	0.96	0.16	43,43,43,43	0
56	MG	1A	3571	1/1	0.96	0.09	17,17,17,17	0
56	MG	1A	3028	1/1	0.96	0.21	20,20,20,20	0
56	MG	1A	3110	1/1	0.96	0.06	27,27,27,27	0
56	MG	1A	3874	1/1	0.96	0.14	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3282	1/1	0.96	0.12	51,51,51,51	0
56	MG	1A	4064	1/1	0.96	0.08	30,30,30,30	0
56	MG	2A	3034	1/1	0.96	0.07	56,56,56,56	0
56	MG	2A	3035	1/1	0.96	0.13	52,52,52,52	0
56	MG	1A	3577	1/1	0.96	0.09	54,54,54,54	0
56	MG	2A	3037	1/1	0.96	0.06	61,61,61,61	0
56	MG	2A	3039	1/1	0.96	0.14	25,25,25,25	0
56	MG	1A	3578	1/1	0.96	0.08	23,23,23,23	0
56	MG	1A	3579	1/1	0.96	0.12	31,31,31,31	0
56	MG	2A	3579	1/1	0.96	0.05	51,51,51,51	0
56	MG	1A	3163	1/1	0.96	0.04	24,24,24,24	0
56	MG	1A	3368	1/1	0.96	0.10	39,39,39,39	0
56	MG	1A	3880	1/1	0.96	0.19	23,23,23,23	0
56	MG	2A	3295	1/1	0.96	0.17	43,43,43,43	0
56	MG	1A	3582	1/1	0.96	0.08	26,26,26,26	0
56	MG	1A	3111	1/1	0.96	0.10	30,30,30,30	0
56	MG	1A	3370	1/1	0.96	0.06	37,37,37,37	0
56	MG	1A	3885	1/1	0.96	0.05	16,16,16,16	0
56	MG	1B	212	1/1	0.96	0.12	46,46,46,46	0
56	MG	2A	3301	1/1	0.96	0.05	40,40,40,40	0
56	MG	2A	3302	1/1	0.96	0.14	43,43,43,43	0
56	MG	1A	3372	1/1	0.96	0.11	35,35,35,35	0
56	MG	1B	214	1/1	0.96	0.05	42,42,42,42	0
56	MG	1A	3296	1/1	0.96	0.13	37,37,37,37	0
56	MG	2a	1654	1/1	0.96	0.14	58,58,58,58	0
56	MG	1a	3083	1/1	0.96	0.20	54,54,54,54	0
56	MG	1A	3890	1/1	0.96	0.10	36,36,36,36	0
56	MG	2a	1657	1/1	0.96	0.08	36,36,36,36	0
56	MG	1a	3085	1/1	0.96	0.15	33,33,33,33	0
56	MG	2A	3060	1/1	0.96	0.10	32,32,32,32	0
56	MG	1A	3724	1/1	0.96	0.05	44,44,44,44	0
56	MG	1a	3087	1/1	0.96	0.07	44,44,44,44	0
56	MG	1a	3088	1/1	0.96	0.25	57,57,57,57	0
56	MG	2A	3603	1/1	0.96	0.06	37,37,37,37	0
56	MG	1A	3462	1/1	0.96	0.13	22,22,22,22	0
56	MG	1A	3591	1/1	0.96	0.09	30,30,30,30	0
56	MG	2A	3067	1/1	0.96	0.10	46,46,46,46	0
56	MG	1A	3167	1/1	0.96	0.15	47,47,47,47	0
56	MG	1A	3079	1/1	0.96	0.16	32,32,32,32	0
56	MG	1A	3377	1/1	0.96	0.16	40,40,40,40	0
56	MG	2A	3610	1/1	0.96	0.05	47,47,47,47	0
56	MG	2A	3612	1/1	0.96	0.14	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3235	1/1	0.96	0.04	22,22,22,22	0
56	MG	1A	3734	1/1	0.96	0.10	42,42,42,42	0
56	MG	1A	3080	1/1	0.96	0.09	41,41,41,41	0
56	MG	1A	3736	1/1	0.96	0.19	16,16,16,16	0
56	MG	2A	3330	1/1	0.96	0.15	42,42,42,42	0
56	MG	2A	3331	1/1	0.96	0.06	47,47,47,47	0
56	MG	1a	3098	1/1	0.96	0.17	39,39,39,39	0
56	MG	1A	3380	1/1	0.96	0.12	33,33,33,33	0
56	MG	2A	3080	1/1	0.96	0.07	28,28,28,28	0
56	MG	2a	1685	1/1	0.96	0.08	53,53,53,53	0
56	MG	1A	3059	1/1	0.96	0.10	36,36,36,36	0
56	MG	1A	3118	1/1	0.96	0.05	29,29,29,29	0
56	MG	1A	3119	1/1	0.96	0.09	49,49,49,49	0
56	MG	2A	3084	1/1	0.96	0.09	29,29,29,29	0
56	MG	1A	3743	1/1	0.96	0.16	42,42,42,42	0
56	MG	1A	3240	1/1	0.96	0.09	38,38,38,38	0
56	MG	1A	3045	1/1	0.96	0.12	13,13,13,13	0
56	MG	1D	302	1/1	0.96	0.11	21,21,21,21	0
56	MG	1A	3912	1/1	0.96	0.08	25,25,25,25	0
56	MG	2A	3090	1/1	0.96	0.17	32,32,32,32	0
56	MG	2A	3092	1/1	0.96	0.10	38,38,38,38	0
56	MG	1a	3111	1/1	0.96	0.07	45,45,45,45	0
56	MG	1A	3177	1/1	0.96	0.06	34,34,34,34	0
56	MG	1a	3113	1/1	0.96	0.10	40,40,40,40	0
56	MG	1A	3124	1/1	0.96	0.05	33,33,33,33	0
56	MG	1A	3084	1/1	0.96	0.07	35,35,35,35	0
56	MG	2a	1703	1/1	0.96	0.13	41,41,41,41	0
56	MG	1D	311	1/1	0.96	0.06	36,36,36,36	0
56	MG	1A	3918	1/1	0.96	0.07	33,33,33,33	0
56	MG	1D	314	1/1	0.96	0.08	29,29,29,29	0
56	MG	2A	3101	1/1	0.96	0.04	30,30,30,30	0
56	MG	1A	3483	1/1	0.96	0.20	32,32,32,32	0
56	MG	2A	3645	1/1	0.96	0.06	33,33,33,33	0
56	MG	2A	3646	1/1	0.96	0.08	59,59,59,59	0
56	MG	1A	3484	1/1	0.96	0.12	22,22,22,22	0
56	MG	1E	306	1/1	0.96	0.17	38,38,38,38	0
56	MG	1A	3309	1/1	0.96	0.05	32,32,32,32	0
56	MG	2A	3651	1/1	0.96	0.07	42,42,42,42	0
56	MG	2A	3371	1/1	0.96	0.11	22,22,22,22	0
56	MG	1A	3755	1/1	0.96	0.12	21,21,21,21	0
56	MG	2A	3107	1/1	0.96	0.12	27,27,27,27	0
56	MG	1A	3245	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
56	MG	1a	3133	1/1	0.96	0.11	47,47,47,47	0
56	MG	1A	3181	1/1	0.96	0.12	43,43,43,43	0
56	MG	1A	3001	1/1	0.96	0.10	32,32,32,32	0
56	MG	1a	3136	1/1	0.96	0.11	49,49,49,49	0
56	MG	2A	3661	1/1	0.96	0.26	36,36,36,36	0
56	MG	1A	3009	1/1	0.96	0.10	24,24,24,24	0
56	MG	1A	3089	1/1	0.96	0.09	21,21,21,21	0
56	MG	2A	3385	1/1	0.96	0.08	27,27,27,27	0
56	MG	2A	3666	1/1	0.96	0.08	46,46,46,46	0
56	MG	1a	3140	1/1	0.96	0.11	38,38,38,38	0
56	MG	1A	3400	1/1	0.96	0.07	33,33,33,33	0
56	MG	2a	1732	1/1	0.96	0.12	56,56,56,56	0
56	MG	1A	3929	1/1	0.96	0.35	35,35,35,35	0
56	MG	2a	1735	1/1	0.96	0.09	50,50,50,50	0
56	MG	2A	3123	1/1	0.96	0.06	58,58,58,58	0
56	MG	1A	3402	1/1	0.96	0.12	28,28,28,28	0
56	MG	1A	3403	1/1	0.96	0.06	33,33,33,33	0
56	MG	2A	3674	1/1	0.96	0.13	23,23,23,23	0
56	MG	1A	3497	1/1	0.96	0.05	23,23,23,23	0
56	MG	2A	3398	1/1	0.96	0.12	26,26,26,26	0
56	MG	2A	3399	1/1	0.96	0.06	57,57,57,57	0
56	MG	1A	3498	1/1	0.96	0.10	39,39,39,39	0
56	MG	1G	3001	1/1	0.96	0.10	29,29,29,29	0
56	MG	2A	3681	1/1	0.96	0.16	49,49,49,49	0
56	MG	2A	3129	1/1	0.96	0.24	54,54,54,54	0
56	MG	1G	3002	1/1	0.96	0.12	39,39,39,39	0
56	MG	1A	3771	1/1	0.96	0.09	17,17,17,17	0
56	MG	1A	3772	1/1	0.96	0.15	22,22,22,22	0
56	MG	2A	3686	1/1	0.96	0.12	40,40,40,40	0
56	MG	2a	1756	1/1	0.96	0.14	43,43,43,43	0
56	MG	1A	3937	1/1	0.96	0.05	40,40,40,40	0
56	MG	2A	3134	1/1	0.96	0.12	51,51,51,51	0
56	MG	2A	3135	1/1	0.96	0.10	49,49,49,49	0
56	MG	2A	3691	1/1	0.96	0.06	68,68,68,68	0
56	MG	1A	3627	1/1	0.96	0.07	26,26,26,26	0
56	MG	2A	3137	1/1	0.96	0.12	50,50,50,50	0
56	MG	1A	3405	1/1	0.96	0.15	46,46,46,46	0
56	MG	1A	3406	1/1	0.96	0.07	48,48,48,48	0
56	MG	1A	3777	1/1	0.96	0.06	36,36,36,36	0
56	MG	2a	1768	1/1	0.96	0.06	55,55,55,55	0
56	MG	2A	3416	1/1	0.96	0.10	40,40,40,40	0
56	MG	2A	3142	1/1	0.96	0.08	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3187	1/1	0.96	0.06	28,28,28,28	0
56	MG	1A	3253	1/1	0.96	0.38	24,24,24,24	0
56	MG	1A	3632	1/1	0.96	0.23	27,27,27,27	0
56	MG	1A	3255	1/1	0.96	0.05	36,36,36,36	0
56	MG	1A	3946	1/1	0.96	0.08	46,46,46,46	0
56	MG	2A	3151	1/1	0.96	0.09	47,47,47,47	0
56	MG	2A	3152	1/1	0.96	0.13	45,45,45,45	0
56	MG	2A	3153	1/1	0.96	0.16	49,49,49,49	0
56	MG	2A	3712	1/1	0.96	0.10	35,35,35,35	0
56	MG	2a	1782	1/1	0.96	0.14	58,58,58,58	0
56	MG	1A	3256	1/1	0.96	0.10	33,33,33,33	0
56	MG	1A	3324	1/1	0.96	0.07	33,33,33,33	0
56	MG	2A	3157	1/1	0.96	0.22	51,51,51,51	0
56	MG	1a	3166	1/1	0.96	0.07	49,49,49,49	0
56	MG	2a	1787	1/1	0.96	0.15	53,53,53,53	0
56	MG	2A	3718	1/1	0.96	0.05	56,56,56,56	0
56	MG	1Q	201	1/1	0.96	0.24	33,33,33,33	0
56	MG	1Q	202	1/1	0.96	0.12	28,28,28,28	0
56	MG	1a	3171	1/1	0.96	0.09	55,55,55,55	0
56	MG	2A	3162	1/1	0.96	0.14	54,54,54,54	0
56	MG	1Q	203	1/1	0.96	0.07	28,28,28,28	0
56	MG	2A	3724	1/1	0.96	0.11	66,66,66,66	0
56	MG	1A	3639	1/1	0.96	0.05	39,39,39,39	0
56	MG	2A	3165	1/1	0.96	0.06	40,40,40,40	0
56	MG	2A	3727	1/1	0.96	0.14	49,49,49,49	0
56	MG	1R	202	1/1	0.96	0.10	30,30,30,30	0
56	MG	2A	3730	1/1	0.96	0.19	32,32,32,32	0
56	MG	1A	3325	1/1	0.96	0.11	33,33,33,33	0
56	MG	1A	3641	1/1	0.96	0.09	13,13,13,13	0
56	MG	2A	3734	1/1	0.96	0.10	25,25,25,25	0
56	MG	1A	3953	1/1	0.96	0.07	40,40,40,40	0
56	MG	1A	3642	1/1	0.96	0.08	34,34,34,34	0
56	MG	1a	3184	1/1	0.96	0.05	49,49,49,49	0
56	MG	1A	3643	1/1	0.96	0.25	29,29,29,29	0
56	MG	1a	3188	1/1	0.96	0.09	47,47,47,47	0
56	MG	2A	3747	1/1	0.96	0.07	35,35,35,35	0
56	MG	2a	1809	1/1	0.96	0.15	58,58,58,58	0
56	MG	1A	3957	1/1	0.96	0.07	55,55,55,55	0
56	MG	2A	3450	1/1	0.96	0.12	37,37,37,37	0
56	MG	2A	3179	1/1	0.96	0.19	45,45,45,45	0
56	MG	2A	3452	1/1	0.96	0.10	32,32,32,32	0
56	MG	1A	3133	1/1	0.96	0.09	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3415	1/1	0.96	0.12	38,38,38,38	0
56	MG	1A	3090	1/1	0.96	0.20	18,18,18,18	0
56	MG	2A	3459	1/1	0.96	0.11	50,50,50,50	0
56	MG	1A	3516	1/1	0.96	0.08	30,30,30,30	0
56	MG	2A	3462	1/1	0.96	0.06	54,54,54,54	0
56	MG	1A	3962	1/1	0.96	0.07	23,23,23,23	0
56	MG	2B	3005	1/1	0.96	0.08	55,55,55,55	0
56	MG	1A	3031	1/1	0.96	0.18	34,34,34,34	0
56	MG	1A	3651	1/1	0.96	0.07	22,22,22,22	0
56	MG	1A	3519	1/1	0.96	0.15	21,21,21,21	0
56	MG	2A	3189	1/1	0.96	0.10	38,38,38,38	0
56	MG	1a	3198	1/1	0.96	0.14	46,46,46,46	0
56	MG	1A	3049	1/1	0.96	0.07	21,21,21,21	0
56	MG	1A	3096	1/1	0.96	0.06	26,26,26,26	0
56	MG	1A	3807	1/1	0.96	0.09	28,28,28,28	0
56	MG	1A	3658	1/1	0.96	0.05	46,46,46,46	0
56	MG	1A	3422	1/1	0.96	0.10	43,43,43,43	0
56	MG	1A	3199	1/1	0.96	0.17	32,32,32,32	0
56	MG	2d	502	1/1	0.96	0.10	58,58,58,58	0
56	MG	1A	3663	1/1	0.96	0.13	43,43,43,43	0
56	MG	1a	3208	1/1	0.96	0.16	42,42,42,42	0
56	MG	1A	3813	1/1	0.96	0.13	29,29,29,29	0
56	MG	1l	105	1/1	0.96	0.08	32,32,32,32	0
56	MG	12	3001	1/1	0.96	0.11	44,44,44,44	0
56	MG	1A	3665	1/1	0.96	0.05	12,12,12,12	0
56	MG	1A	3024	1/1	0.96	0.10	32,32,32,32	0
56	MG	1A	3817	1/1	0.96	0.12	20,20,20,20	0
56	MG	15	102	1/1	0.96	0.07	22,22,22,22	0
56	MG	2D	306	1/1	0.96	0.24	43,43,43,43	0
56	MG	1A	3667	1/1	0.96	0.06	31,31,31,31	0
56	MG	1A	3982	1/1	0.96	0.12	46,46,46,46	0
56	MG	1A	3270	1/1	0.96	0.06	31,31,31,31	0
56	MG	1A	3271	1/1	0.96	0.19	53,53,53,53	0
56	MG	2E	304	1/1	0.96	0.05	49,49,49,49	0
56	MG	1A	3272	1/1	0.96	0.04	34,34,34,34	0
56	MG	1n	503	1/1	0.96	0.10	38,38,38,38	0
56	MG	17	102	1/1	0.96	0.17	31,31,31,31	0
56	MG	2E	308	1/1	0.96	0.09	49,49,49,49	0
56	MG	2E	309	1/1	0.96	0.08	41,41,41,41	0
56	MG	2v	3005	1/1	0.96	0.15	56,56,56,56	0
56	MG	1A	3530	1/1	0.96	0.07	25,25,25,25	0
56	MG	1A	3532	1/1	0.96	0.07	29,29,29,29	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3827	1/1	0.96	0.11	47,47,47,47	0
56	MG	1A	3533	1/1	0.96	0.07	47,47,47,47	0
56	MG	1A	3992	1/1	0.96	0.11	49,49,49,49	0
56	MG	1A	3428	1/1	0.96	0.10	26,26,26,26	0
56	MG	2A	3222	1/1	0.96	0.24	44,44,44,44	0
56	MG	1A	3830	1/1	0.96	0.20	39,39,39,39	0
56	MG	2Q	3002	1/1	0.96	0.06	41,41,41,41	0
56	MG	2x	101	1/1	0.96	0.07	52,52,52,52	0
56	MG	1A	3535	1/1	0.96	0.06	23,23,23,23	0
56	MG	1A	3010	1/1	0.96	0.09	33,33,33,33	0
56	MG	1A	3203	1/1	0.96	0.05	27,27,27,27	0
56	MG	2x	105	1/1	0.96	0.14	47,47,47,47	0
56	MG	1A	4002	1/1	0.96	0.08	32,32,32,32	0
56	MG	1A	3539	1/1	0.96	0.07	20,20,20,20	0
56	MG	1A	3102	1/1	0.96	0.17	31,31,31,31	0
56	MG	1A	3142	1/1	0.96	0.06	17,17,17,17	0
56	MG	1A	4008	1/1	0.96	0.10	24,24,24,24	0
56	MG	1A	3543	1/1	0.96	0.06	20,20,20,20	0
56	MG	1x	102	1/1	0.96	0.18	49,49,49,49	0
57	K	2A	3745	1/1	0.96	0.06	53,53,53,53	0
56	MG	1A	3840	1/1	0.96	0.14	32,32,32,32	0
56	MG	1A	3345	1/1	0.96	0.07	24,24,24,24	0
56	MG	1A	3688	1/1	0.96	0.14	21,21,21,21	0
56	MG	12	3002	1/1	0.97	0.09	35,35,35,35	0
56	MG	1A	3215	1/1	0.97	0.05	54,54,54,54	0
56	MG	1A	3098	1/1	0.97	0.16	36,36,36,36	0
56	MG	1A	4043	1/1	0.97	0.23	23,23,23,23	0
56	MG	1a	3174	1/1	0.97	0.05	51,51,51,51	0
56	MG	1a	3175	1/1	0.97	0.06	58,58,58,58	0
56	MG	1A	4044	1/1	0.97	0.10	29,29,29,29	0
56	MG	1A	3501	1/1	0.97	0.14	30,30,30,30	0
56	MG	2A	3342	1/1	0.97	0.11	49,49,49,49	0
56	MG	2A	3121	1/1	0.97	0.06	31,31,31,31	0
56	MG	15	106	1/1	0.97	0.12	19,19,19,19	0
56	MG	1a	3179	1/1	0.97	0.14	39,39,39,39	0
56	MG	1A	3585	1/1	0.97	0.10	30,30,30,30	0
56	MG	1A	3786	1/1	0.97	0.07	34,34,34,34	0
56	MG	1A	3787	1/1	0.97	0.07	36,36,36,36	0
56	MG	1A	3310	1/1	0.97	0.05	24,24,24,24	0
56	MG	17	101	1/1	0.97	0.06	27,27,27,27	0
56	MG	1A	3587	1/1	0.97	0.05	12,12,12,12	0
56	MG	1a	3187	1/1	0.97	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
56	MG	17	103	1/1	0.97	0.20	33,33,33,33	0
56	MG	2A	3355	1/1	0.97	0.12	23,23,23,23	0
56	MG	2a	1635	1/1	0.97	0.08	39,39,39,39	0
56	MG	17	105	1/1	0.97	0.07	34,34,34,34	0
56	MG	1A	3100	1/1	0.97	0.06	38,38,38,38	0
56	MG	18	102	1/1	0.97	0.05	29,29,29,29	0
56	MG	18	103	1/1	0.97	0.11	41,41,41,41	0
56	MG	19	502	1/1	0.97	0.11	39,39,39,39	0
56	MG	1A	3792	1/1	0.97	0.08	19,19,19,19	0
56	MG	1A	4054	1/1	0.97	0.09	37,37,37,37	0
56	MG	1A	3685	1/1	0.97	0.05	21,21,21,21	0
56	MG	1A	3915	1/1	0.97	0.06	34,34,34,34	0
56	MG	2A	3144	1/1	0.97	0.07	33,33,33,33	0
56	MG	2A	3620	1/1	0.97	0.05	34,34,34,34	0
56	MG	1A	4057	1/1	0.97	0.07	27,27,27,27	0
56	MG	1A	3589	1/1	0.97	0.12	23,23,23,23	0
56	MG	1A	3371	1/1	0.97	0.09	39,39,39,39	0
56	MG	1a	3201	1/1	0.97	0.16	44,44,44,44	0
56	MG	1A	3011	1/1	0.97	0.06	20,20,20,20	0
56	MG	2A	3378	1/1	0.97	0.07	25,25,25,25	0
56	MG	2A	3379	1/1	0.97	0.08	41,41,41,41	0
56	MG	2A	3381	1/1	0.97	0.07	33,33,33,33	0
56	MG	1A	3268	1/1	0.97	0.11	31,31,31,31	0
56	MG	1a	3010	1/1	0.97	0.09	45,45,45,45	0
56	MG	1A	4062	1/1	0.97	0.06	21,21,21,21	0
56	MG	1a	3206	1/1	0.97	0.05	51,51,51,51	0
56	MG	1A	3173	1/1	0.97	0.10	34,34,34,34	0
56	MG	1A	3594	1/1	0.97	0.06	46,46,46,46	0
56	MG	2A	3388	1/1	0.97	0.11	25,25,25,25	0
56	MG	1A	3037	1/1	0.97	0.20	22,22,22,22	0
56	MG	1A	3438	1/1	0.97	0.07	29,29,29,29	0
56	MG	2a	1664	1/1	0.97	0.29	56,56,56,56	0
56	MG	2a	1665	1/1	0.97	0.05	49,49,49,49	0
56	MG	2A	3392	1/1	0.97	0.04	33,33,33,33	0
56	MG	2A	3393	1/1	0.97	0.09	44,44,44,44	0
56	MG	1A	3175	1/1	0.97	0.16	21,21,21,21	0
56	MG	1A	3512	1/1	0.97	0.04	40,40,40,40	0
56	MG	1a	3213	1/1	0.97	0.19	33,33,33,33	0
56	MG	1A	3123	1/1	0.97	0.06	21,21,21,21	0
56	MG	1b	3001	1/1	0.97	0.07	69,69,69,69	0
56	MG	1A	3146	1/1	0.97	0.21	23,23,23,23	0
56	MG	1B	207	1/1	0.97	0.18	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1f	3001	1/1	0.97	0.08	31,31,31,31	0
56	MG	2A	3169	1/1	0.97	0.15	45,45,45,45	0
56	MG	2A	3404	1/1	0.97	0.11	39,39,39,39	0
56	MG	1A	3442	1/1	0.97	0.16	36,36,36,36	0
56	MG	1A	3038	1/1	0.97	0.14	25,25,25,25	0
56	MG	1A	3323	1/1	0.97	0.06	19,19,19,19	0
56	MG	1a	3025	1/1	0.97	0.11	24,24,24,24	0
56	MG	2A	3174	1/1	0.97	0.13	47,47,47,47	0
56	MG	1A	3607	1/1	0.97	0.09	19,19,19,19	0
56	MG	2a	1686	1/1	0.97	0.06	67,67,67,67	0
56	MG	1A	3520	1/1	0.97	0.08	11,11,11,11	0
56	MG	1A	3148	1/1	0.97	0.09	26,26,26,26	0
56	MG	1A	3446	1/1	0.97	0.07	43,43,43,43	0
56	MG	1a	3030	1/1	0.97	0.16	43,43,43,43	0
56	MG	1B	215	1/1	0.97	0.05	34,34,34,34	0
56	MG	1A	3149	1/1	0.97	0.25	28,28,28,28	0
56	MG	2A	3183	1/1	0.97	0.11	38,38,38,38	0
56	MG	1A	3709	1/1	0.97	0.08	30,30,30,30	0
56	MG	1B	219	1/1	0.97	0.06	27,27,27,27	0
56	MG	1A	3384	1/1	0.97	0.13	38,38,38,38	0
56	MG	2A	3670	1/1	0.97	0.10	46,46,46,46	0
56	MG	1A	3278	1/1	0.97	0.12	40,40,40,40	0
56	MG	2A	3425	1/1	0.97	0.05	59,59,59,59	0
56	MG	1A	3150	1/1	0.97	0.09	27,27,27,27	0
56	MG	1A	3184	1/1	0.97	0.15	14,14,14,14	0
56	MG	1a	3040	1/1	0.97	0.09	41,41,41,41	0
56	MG	1A	3232	1/1	0.97	0.08	17,17,17,17	0
56	MG	1A	3389	1/1	0.97	0.09	34,34,34,34	0
56	MG	1A	3531	1/1	0.97	0.07	19,19,19,19	0
56	MG	2A	3679	1/1	0.97	0.27	49,49,49,49	0
56	MG	1A	3233	1/1	0.97	0.11	35,35,35,35	0
56	MG	1A	3185	1/1	0.97	0.08	26,26,26,26	0
56	MG	1A	3063	1/1	0.97	0.14	23,23,23,23	0
56	MG	1A	3393	1/1	0.97	0.11	24,24,24,24	0
56	MG	1A	3536	1/1	0.97	0.06	25,25,25,25	0
56	MG	1A	3015	1/1	0.97	0.14	37,37,37,37	0
56	MG	1A	3835	1/1	0.97	0.21	42,42,42,42	0
56	MG	1a	3051	1/1	0.97	0.18	55,55,55,55	0
56	MG	2A	3688	1/1	0.97	0.07	57,57,57,57	0
56	MG	1A	3154	1/1	0.97	0.14	31,31,31,31	0
56	MG	1A	3287	1/1	0.97	0.04	30,30,30,30	0
56	MG	1A	3838	1/1	0.97	0.12	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3726	1/1	0.97	0.07	35,35,35,35	0
56	MG	1A	3076	1/1	0.97	0.15	26,26,26,26	0
56	MG	2a	1721	1/1	0.97	0.05	73,73,73,73	0
56	MG	2A	3209	1/1	0.97	0.09	35,35,35,35	0
56	MG	1A	3077	1/1	0.97	0.13	21,21,21,21	0
56	MG	2A	3447	1/1	0.97	0.13	27,27,27,27	0
56	MG	1D	305	1/1	0.97	0.08	28,28,28,28	0
56	MG	2A	3699	1/1	0.97	0.06	39,39,39,39	0
56	MG	1D	306	1/1	0.97	0.05	17,17,17,17	0
56	MG	1A	3842	1/1	0.97	0.07	34,34,34,34	0
56	MG	1A	3729	1/1	0.97	0.07	49,49,49,49	0
56	MG	1D	310	1/1	0.97	0.04	33,33,33,33	0
56	MG	2A	3453	1/1	0.97	0.06	34,34,34,34	0
56	MG	1A	3195	1/1	0.97	0.14	27,27,27,27	0
56	MG	2a	1734	1/1	0.97	0.15	48,48,48,48	0
56	MG	1a	3065	1/1	0.97	0.10	41,41,41,41	0
56	MG	1A	3731	1/1	0.97	0.13	16,16,16,16	0
56	MG	2A	3709	1/1	0.97	0.13	40,40,40,40	0
56	MG	1A	3633	1/1	0.97	0.05	52,52,52,52	0
56	MG	2A	3711	1/1	0.97	0.04	37,37,37,37	0
56	MG	1A	3544	1/1	0.97	0.04	12,12,12,12	0
56	MG	2A	3461	1/1	0.97	0.06	45,45,45,45	0
56	MG	2A	3005	1/1	0.97	0.07	42,42,42,42	0
56	MG	1A	3020	1/1	0.97	0.05	18,18,18,18	0
56	MG	1a	3070	1/1	0.97	0.04	30,30,30,30	0
56	MG	2A	3717	1/1	0.97	0.07	57,57,57,57	0
56	MG	1A	3344	1/1	0.97	0.17	31,31,31,31	0
56	MG	2a	1749	1/1	0.97	0.11	55,55,55,55	0
56	MG	2A	3467	1/1	0.97	0.14	28,28,28,28	0
56	MG	1A	3197	1/1	0.97	0.09	32,32,32,32	0
56	MG	1A	3468	1/1	0.97	0.05	37,37,37,37	0
56	MG	1E	309	1/1	0.97	0.08	15,15,15,15	0
56	MG	1A	3159	1/1	0.97	0.21	36,36,36,36	0
56	MG	1A	3160	1/1	0.97	0.34	29,29,29,29	0
56	MG	1a	3078	1/1	0.97	0.44	48,48,48,48	0
56	MG	1a	3079	1/1	0.97	0.14	47,47,47,47	0
56	MG	1A	3974	1/1	0.97	0.08	50,50,50,50	0
56	MG	1A	3856	1/1	0.97	0.07	62,62,62,62	0
56	MG	2A	3729	1/1	0.97	0.13	43,43,43,43	0
56	MG	1a	3082	1/1	0.97	0.07	41,41,41,41	0
56	MG	1A	3348	1/1	0.97	0.14	44,44,44,44	0
56	MG	2a	1766	1/1	0.97	0.11	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3742	1/1	0.97	0.04	28,28,28,28	0
56	MG	1A	3553	1/1	0.97	0.09	10,10,10,10	0
56	MG	2A	3026	1/1	0.97	0.12	43,43,43,43	0
56	MG	1A	3473	1/1	0.97	0.19	42,42,42,42	0
56	MG	2A	3485	1/1	0.97	0.17	56,56,56,56	0
56	MG	2A	3740	1/1	0.97	0.15	37,37,37,37	0
56	MG	1A	3002	1/1	0.97	0.13	46,46,46,46	0
56	MG	2A	3029	1/1	0.97	0.07	36,36,36,36	0
56	MG	1A	3557	1/1	0.97	0.12	25,25,25,25	0
56	MG	2A	3243	1/1	0.97	0.15	49,49,49,49	0
56	MG	1A	3411	1/1	0.97	0.08	45,45,45,45	0
56	MG	1A	3095	1/1	0.97	0.22	28,28,28,28	0
56	MG	1A	3202	1/1	0.97	0.17	27,27,27,27	0
56	MG	1A	3561	1/1	0.97	0.05	17,17,17,17	0
56	MG	1A	3751	1/1	0.97	0.08	23,23,23,23	0
56	MG	2A	3756	1/1	0.97	0.08	33,33,33,33	0
56	MG	1G	3005	1/1	0.97	0.08	52,52,52,52	0
56	MG	2A	3496	1/1	0.97	0.07	37,37,37,37	0
56	MG	1A	3164	1/1	0.97	0.11	12,12,12,12	0
56	MG	1A	3753	1/1	0.97	0.14	27,27,27,27	0
56	MG	1A	3754	1/1	0.97	0.14	22,22,22,22	0
56	MG	1N	203	1/1	0.97	0.11	51,51,51,51	0
56	MG	2A	3254	1/1	0.97	0.06	34,34,34,34	0
56	MG	1A	3994	1/1	0.97	0.13	21,21,21,21	0
56	MG	2A	3043	1/1	0.97	0.08	40,40,40,40	0
56	MG	2A	3504	1/1	0.97	0.06	29,29,29,29	0
56	MG	1A	3657	1/1	0.97	0.10	23,23,23,23	0
56	MG	1a	3101	1/1	0.97	0.12	42,42,42,42	0
56	MG	1A	3250	1/1	0.97	0.18	20,20,20,20	0
56	MG	1A	3416	1/1	0.97	0.04	17,17,17,17	0
56	MG	1A	4000	1/1	0.97	0.08	29,29,29,29	0
56	MG	1A	3661	1/1	0.97	0.09	18,18,18,18	0
56	MG	1A	3165	1/1	0.97	0.15	31,31,31,31	0
56	MG	2A	3264	1/1	0.97	0.04	47,47,47,47	0
56	MG	1a	3107	1/1	0.97	0.14	39,39,39,39	0
56	MG	1a	3108	1/1	0.97	0.17	40,40,40,40	0
56	MG	2B	3020	1/1	0.97	0.14	54,54,54,54	0
56	MG	1A	4003	1/1	0.97	0.06	32,32,32,32	0
56	MG	1A	3035	1/1	0.97	0.10	24,24,24,24	0
56	MG	1A	3664	1/1	0.97	0.09	43,43,43,43	0
56	MG	2A	3056	1/1	0.97	0.07	52,52,52,52	0
56	MG	2A	3057	1/1	0.97	0.04	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3272	1/1	0.97	0.13	33,33,33,33	0
56	MG	1A	3763	1/1	0.97	0.10	22,22,22,22	0
56	MG	1A	3206	1/1	0.97	0.04	30,30,30,30	0
56	MG	2A	3061	1/1	0.97	0.17	30,30,30,30	0
56	MG	1A	3488	1/1	0.97	0.12	23,23,23,23	0
56	MG	1a	3115	1/1	0.97	0.08	48,48,48,48	0
56	MG	2a	1817	1/1	0.97	0.23	51,51,51,51	0
56	MG	1Q	205	1/1	0.97	0.06	28,28,28,28	0
56	MG	1a	3119	1/1	0.97	0.12	52,52,52,52	0
56	MG	1A	4011	1/1	0.97	0.11	37,37,37,37	0
56	MG	1R	203	1/1	0.97	0.17	34,34,34,34	0
56	MG	1A	3884	1/1	0.97	0.06	30,30,30,30	0
56	MG	2A	3534	1/1	0.97	0.09	53,53,53,53	0
56	MG	1A	3573	1/1	0.97	0.05	24,24,24,24	0
56	MG	1A	3886	1/1	0.97	0.06	24,24,24,24	0
56	MG	2A	3072	1/1	0.97	0.14	32,32,32,32	0
56	MG	1A	4015	1/1	0.97	0.10	55,55,55,55	0
56	MG	1A	3768	1/1	0.97	0.04	33,33,33,33	0
56	MG	2A	3540	1/1	0.97	0.05	37,37,37,37	0
56	MG	1a	3128	1/1	0.97	0.07	50,50,50,50	0
56	MG	2P	201	1/1	0.97	0.06	54,54,54,54	0
56	MG	1T	201	1/1	0.97	0.06	42,42,42,42	0
56	MG	1A	3254	1/1	0.97	0.17	11,11,11,11	0
56	MG	1U	202	1/1	0.97	0.03	30,30,30,30	0
56	MG	1A	4018	1/1	0.97	0.05	24,24,24,24	0
56	MG	1U	204	1/1	0.97	0.07	23,23,23,23	0
56	MG	2f	3001	1/1	0.97	0.09	40,40,40,40	0
56	MG	2R	3003	1/1	0.97	0.28	48,48,48,48	0
56	MG	1A	4020	1/1	0.97	0.11	50,50,50,50	0
56	MG	1A	3770	1/1	0.97	0.08	12,12,12,12	0
56	MG	1A	3891	1/1	0.97	0.05	33,33,33,33	0
56	MG	2T	3003	1/1	0.97	0.07	41,41,41,41	0
56	MG	1W	3004	1/1	0.97	0.07	21,21,21,21	0
56	MG	1W	3005	1/1	0.97	0.06	21,21,21,21	0
56	MG	1X	101	1/1	0.97	0.08	73,73,73,73	0
56	MG	2U	204	1/1	0.97	0.24	60,60,60,60	0
56	MG	2A	3554	1/1	0.97	0.08	24,24,24,24	0
56	MG	2U	206	1/1	0.97	0.05	42,42,42,42	0
56	MG	1A	4023	1/1	0.97	0.45	21,21,21,21	0
56	MG	2A	3557	1/1	0.97	0.18	27,27,27,27	0
56	MG	1X	104	1/1	0.97	0.08	31,31,31,31	0
56	MG	1A	4024	1/1	0.97	0.21	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3305	1/1	0.97	0.14	51,51,51,51	0
56	MG	2A	3091	1/1	0.97	0.11	38,38,38,38	0
56	MG	1A	3669	1/1	0.97	0.09	35,35,35,35	0
56	MG	1Y	503	1/1	0.97	0.17	42,42,42,42	0
56	MG	1Z	3001	1/1	0.97	0.05	42,42,42,42	0
56	MG	20	3002	1/1	0.97	0.05	52,52,52,52	0
56	MG	1A	3360	1/1	0.97	0.05	32,32,32,32	0
56	MG	1A	3894	1/1	0.97	0.07	37,37,37,37	0
56	MG	1a	3152	1/1	0.97	0.05	60,60,60,60	0
56	MG	2A	3313	1/1	0.97	0.19	41,41,41,41	0
56	MG	1A	3081	1/1	0.97	0.10	24,24,24,24	0
56	MG	10	101	1/1	0.97	0.06	41,41,41,41	0
56	MG	10	102	1/1	0.97	0.07	25,25,25,25	0
56	MG	2A	3317	1/1	0.97	0.09	36,36,36,36	0
56	MG	1A	3114	1/1	0.97	0.17	22,22,22,22	0
56	MG	2A	3574	1/1	0.97	0.11	46,46,46,46	0
56	MG	2A	3575	1/1	0.97	0.07	46,46,46,46	0
56	MG	1A	3364	1/1	0.97	0.04	23,23,23,23	0
56	MG	1A	3210	1/1	0.97	0.14	25,25,25,25	0
56	MG	11	101	1/1	0.97	0.06	28,28,28,28	0
56	MG	2A	3323	1/1	0.97	0.18	31,31,31,31	0
56	MG	2y	3004	1/1	0.97	0.14	36,36,36,36	0
56	MG	1A	3899	1/1	0.97	0.05	35,35,35,35	0
56	MG	1A	3778	1/1	0.97	0.08	13,13,13,13	0
56	MG	1A	3115	1/1	0.97	0.11	39,39,39,39	0
56	MG	1A	4038	1/1	0.97	0.09	31,31,31,31	0
56	MG	1A	3780	1/1	0.97	0.13	44,44,44,44	0
56	MG	2A	3585	1/1	0.97	0.07	34,34,34,34	0
56	MG	2A	3110	1/1	0.97	0.09	37,37,37,37	0
56	MG	2a	1613	1/1	0.97	0.24	60,60,60,60	0
59	ZN	2n	501	1/1	0.97	0.05	93,93,93,93	0
56	MG	2A	3380	1/1	0.98	0.08	25,25,25,25	0
56	MG	2A	3741	1/1	0.98	0.09	39,39,39,39	0
56	MG	1A	3647	1/1	0.98	0.08	16,16,16,16	0
56	MG	2A	3743	1/1	0.98	0.06	51,51,51,51	0
56	MG	2A	3059	1/1	0.98	0.07	35,35,35,35	0
56	MG	1A	3122	1/1	0.98	0.05	32,32,32,32	0
56	MG	1A	3572	1/1	0.98	0.09	12,12,12,12	0
56	MG	1A	3917	1/1	0.98	0.10	31,31,31,31	0
56	MG	1A	3820	1/1	0.98	0.06	35,35,35,35	0
56	MG	2A	3751	1/1	0.98	0.29	44,44,44,44	0
56	MG	1A	3249	1/1	0.98	0.09	31,31,31,31	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3211	1/1	0.98	0.10	30,30,30,30	0
56	MG	2A	3754	1/1	0.98	0.04	43,43,43,43	0
56	MG	1A	3085	1/1	0.98	0.06	13,13,13,13	0
56	MG	1A	4031	1/1	0.98	0.17	35,35,35,35	0
56	MG	1a	3185	1/1	0.98	0.07	26,26,26,26	0
56	MG	1A	3576	1/1	0.98	0.07	15,15,15,15	0
56	MG	1A	3655	1/1	0.98	0.08	11,11,11,11	0
56	MG	2A	3395	1/1	0.98	0.14	33,33,33,33	0
56	MG	1A	3343	1/1	0.98	0.11	30,30,30,30	0
56	MG	1A	3214	1/1	0.98	0.12	32,32,32,32	0
56	MG	1A	3021	1/1	0.98	0.05	29,29,29,29	0
56	MG	1O	203	1/1	0.98	0.05	48,48,48,48	0
56	MG	1A	3738	1/1	0.98	0.04	32,32,32,32	0
56	MG	2A	3077	1/1	0.98	0.13	41,41,41,41	0
56	MG	1A	3125	1/1	0.98	0.24	19,19,19,19	0
56	MG	1A	3660	1/1	0.98	0.05	26,26,26,26	0
56	MG	1A	4040	1/1	0.98	0.09	34,34,34,34	0
56	MG	1P	202	1/1	0.98	0.06	23,23,23,23	0
56	MG	1a	3056	1/1	0.98	0.12	50,50,50,50	0
56	MG	1A	3032	1/1	0.98	0.08	26,26,26,26	0
56	MG	1A	3452	1/1	0.98	0.16	30,30,30,30	0
56	MG	1A	3514	1/1	0.98	0.06	21,21,21,21	0
56	MG	1A	3218	1/1	0.98	0.04	23,23,23,23	0
56	MG	1A	3219	1/1	0.98	0.12	19,19,19,19	0
56	MG	1A	3517	1/1	0.98	0.07	28,28,28,28	0
56	MG	1R	201	1/1	0.98	0.16	36,36,36,36	0
56	MG	1A	3259	1/1	0.98	0.11	45,45,45,45	0
56	MG	1A	3260	1/1	0.98	0.17	18,18,18,18	0
56	MG	1A	3220	1/1	0.98	0.08	24,24,24,24	0
56	MG	1A	4050	1/1	0.98	0.14	26,26,26,26	0
56	MG	1A	3353	1/1	0.98	0.07	35,35,35,35	0
56	MG	1A	3127	1/1	0.98	0.05	37,37,37,37	0
56	MG	2A	3596	1/1	0.98	0.08	32,32,32,32	0
56	MG	1A	3153	1/1	0.98	0.07	29,29,29,29	0
56	MG	1a	3071	1/1	0.98	0.10	43,43,43,43	0
56	MG	1A	3088	1/1	0.98	0.13	32,32,32,32	0
56	MG	1A	3050	1/1	0.98	0.04	45,45,45,45	0
56	MG	1a	3215	1/1	0.98	0.07	39,39,39,39	0
56	MG	1U	201	1/1	0.98	0.04	20,20,20,20	0
56	MG	1A	3358	1/1	0.98	0.07	44,44,44,44	0
56	MG	2a	1742	1/1	0.98	0.04	70,70,70,70	0
56	MG	1A	3848	1/1	0.98	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
56	MG	1A	3676	1/1	0.98	0.15	31,31,31,31	0
56	MG	1U	205	1/1	0.98	0.06	23,23,23,23	0
56	MG	2a	1746	1/1	0.98	0.06	67,67,67,67	0
56	MG	1U	206	1/1	0.98	0.07	16,16,16,16	0
56	MG	1A	3948	1/1	0.98	0.05	14,14,14,14	0
56	MG	1A	3757	1/1	0.98	0.08	22,22,22,22	0
56	MG	1W	3001	1/1	0.98	0.08	34,34,34,34	0
56	MG	2A	3611	1/1	0.98	0.06	47,47,47,47	0
56	MG	1W	3002	1/1	0.98	0.11	29,29,29,29	0
56	MG	2O	8002	1/1	0.98	0.12	52,52,52,52	0
56	MG	2a	1754	1/1	0.98	0.11	61,61,61,61	0
56	MG	2a	1755	1/1	0.98	0.07	70,70,70,70	0
56	MG	1A	3851	1/1	0.98	0.12	44,44,44,44	0
56	MG	1A	3156	1/1	0.98	0.13	27,27,27,27	0
56	MG	1A	3051	1/1	0.98	0.10	22,22,22,22	0
56	MG	2A	3114	1/1	0.98	0.17	29,29,29,29	0
56	MG	1A	3529	1/1	0.98	0.14	34,34,34,34	0
56	MG	1A	3312	1/1	0.98	0.04	42,42,42,42	0
56	MG	1X	103	1/1	0.98	0.09	29,29,29,29	0
56	MG	1A	3131	1/1	0.98	0.09	35,35,35,35	0
56	MG	1A	3601	1/1	0.98	0.05	24,24,24,24	0
56	MG	2A	3274	1/1	0.98	0.14	45,45,45,45	0
56	MG	2A	3120	1/1	0.98	0.23	38,38,38,38	0
56	MG	1A	3764	1/1	0.98	0.07	24,24,24,24	0
56	MG	1A	3363	1/1	0.98	0.05	32,32,32,32	0
56	MG	1B	204	1/1	0.98	0.04	29,29,29,29	0
56	MG	1A	3684	1/1	0.98	0.04	44,44,44,44	0
56	MG	1B	206	1/1	0.98	0.05	36,36,36,36	0
56	MG	1A	3189	1/1	0.98	0.07	23,23,23,23	0
56	MG	2A	3455	1/1	0.98	0.08	42,42,42,42	0
56	MG	2A	3456	1/1	0.98	0.06	26,26,26,26	0
56	MG	2a	1776	1/1	0.98	0.12	47,47,47,47	0
56	MG	1w	109	1/1	0.98	0.22	37,37,37,37	0
56	MG	1A	3686	1/1	0.98	0.07	18,18,18,18	0
56	MG	2A	3634	1/1	0.98	0.12	48,48,48,48	0
56	MG	1A	3470	1/1	0.98	0.12	33,33,33,33	0
56	MG	2a	1781	1/1	0.98	0.06	67,67,67,67	0
56	MG	1A	3132	1/1	0.98	0.04	37,37,37,37	0
56	MG	1A	3865	1/1	0.98	0.10	18,18,18,18	0
56	MG	1A	3689	1/1	0.98	0.33	20,20,20,20	0
56	MG	2A	3463	1/1	0.98	0.12	27,27,27,27	0
56	MG	2A	3288	1/1	0.98	0.11	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3316	1/1	0.98	0.24	34,34,34,34	0
56	MG	1A	3191	1/1	0.98	0.07	24,24,24,24	0
56	MG	1A	3421	1/1	0.98	0.10	37,37,37,37	0
56	MG	1B	216	1/1	0.98	0.08	42,42,42,42	0
56	MG	2A	3138	1/1	0.98	0.13	34,34,34,34	0
56	MG	1A	3475	1/1	0.98	0.13	28,28,28,28	0
56	MG	1A	3872	1/1	0.98	0.05	27,27,27,27	0
56	MG	1A	3776	1/1	0.98	0.14	25,25,25,25	0
56	MG	2A	3649	1/1	0.98	0.04	21,21,21,21	0
56	MG	2A	3473	1/1	0.98	0.05	29,29,29,29	0
56	MG	1A	3108	1/1	0.98	0.04	25,25,25,25	0
56	MG	2A	3143	1/1	0.98	0.09	41,41,41,41	0
56	MG	1A	3615	1/1	0.98	0.05	12,12,12,12	0
56	MG	1A	3976	1/1	0.98	0.08	50,50,50,50	0
56	MG	1A	3541	1/1	0.98	0.10	35,35,35,35	0
56	MG	2A	3479	1/1	0.98	0.07	34,34,34,34	0
56	MG	15	103	1/1	0.98	0.23	25,25,25,25	0
56	MG	2A	3148	1/1	0.98	0.05	34,34,34,34	0
56	MG	1A	3978	1/1	0.98	0.05	33,33,33,33	0
56	MG	2A	3660	1/1	0.98	0.05	37,37,37,37	0
56	MG	1a	3116	1/1	0.98	0.04	35,35,35,35	0
56	MG	1A	3275	1/1	0.98	0.07	25,25,25,25	0
56	MG	1A	3478	1/1	0.98	0.07	47,47,47,47	0
56	MG	1A	3782	1/1	0.98	0.10	34,34,34,34	0
56	MG	2A	3665	1/1	0.98	0.03	36,36,36,36	0
56	MG	1A	3194	1/1	0.98	0.07	35,35,35,35	0
56	MG	2A	3155	1/1	0.98	0.05	34,34,34,34	0
56	MG	1a	3122	1/1	0.98	0.10	40,40,40,40	0
56	MG	1A	3983	1/1	0.98	0.04	32,32,32,32	0
56	MG	1A	3161	1/1	0.98	0.23	20,20,20,20	0
56	MG	1A	3701	1/1	0.98	0.03	15,15,15,15	0
56	MG	1A	3481	1/1	0.98	0.03	28,28,28,28	0
56	MG	17	104	1/1	0.98	0.04	27,27,27,27	0
56	MG	1B	234	1/1	0.98	0.10	41,41,41,41	0
56	MG	2A	3010	1/1	0.98	0.04	31,31,31,31	0
56	MG	1A	3091	1/1	0.98	0.04	31,31,31,31	0
56	MG	2A	3320	1/1	0.98	0.12	17,17,17,17	0
56	MG	1A	3788	1/1	0.98	0.06	25,25,25,25	0
56	MG	1a	3132	1/1	0.98	0.09	34,34,34,34	0
56	MG	2A	3167	1/1	0.98	0.05	42,42,42,42	0
56	MG	1A	3033	1/1	0.98	0.04	21,21,21,21	0
56	MG	1B	238	1/1	0.98	0.04	23,23,23,23	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3326	1/1	0.98	0.10	48,48,48,48	0
56	MG	2A	3505	1/1	0.98	0.07	42,42,42,42	0
56	MG	2A	3016	1/1	0.98	0.10	32,32,32,32	0
56	MG	1A	3093	1/1	0.98	0.05	31,31,31,31	0
56	MG	1A	3375	1/1	0.98	0.22	34,34,34,34	0
56	MG	1a	3137	1/1	0.98	0.05	51,51,51,51	0
56	MG	2A	3020	1/1	0.98	0.04	29,29,29,29	0
56	MG	1A	3430	1/1	0.98	0.20	40,40,40,40	0
56	MG	2A	3176	1/1	0.98	0.11	41,41,41,41	0
56	MG	1A	3042	1/1	0.98	0.04	19,19,19,19	0
56	MG	1A	3554	1/1	0.98	0.09	14,14,14,14	0
56	MG	1A	3066	1/1	0.98	0.03	22,22,22,22	0
56	MG	1A	3328	1/1	0.98	0.09	25,25,25,25	0
56	MG	2A	3696	1/1	0.98	0.03	39,39,39,39	0
56	MG	1D	308	1/1	0.98	0.05	26,26,26,26	0
56	MG	1A	3999	1/1	0.98	0.05	25,25,25,25	0
56	MG	2A	3519	1/1	0.98	0.07	35,35,35,35	0
56	MG	1A	3797	1/1	0.98	0.04	33,33,33,33	0
56	MG	2A	3344	1/1	0.98	0.05	24,24,24,24	0
56	MG	1A	3139	1/1	0.98	0.11	21,21,21,21	0
56	MG	1a	3147	1/1	0.98	0.05	58,58,58,58	0
56	MG	1A	3034	1/1	0.98	0.17	12,12,12,12	0
56	MG	1A	3800	1/1	0.98	0.06	54,54,54,54	0
56	MG	1A	3022	1/1	0.98	0.03	22,22,22,22	0
56	MG	2A	3527	1/1	0.98	0.10	52,52,52,52	0
56	MG	1E	302	1/1	0.98	0.12	16,16,16,16	0
56	MG	1a	3016	1/1	0.98	0.07	38,38,38,38	0
56	MG	1E	304	1/1	0.98	0.15	22,22,22,22	0
56	MG	2A	3192	1/1	0.98	0.07	54,54,54,54	0
56	MG	1A	4005	1/1	0.98	0.17	10,10,10,10	0
56	MG	1A	3014	1/1	0.98	0.10	27,27,27,27	0
56	MG	2A	3356	1/1	0.98	0.05	42,42,42,42	0
56	MG	1A	3099	1/1	0.98	0.08	23,23,23,23	0
56	MG	1a	3157	1/1	0.98	0.08	58,58,58,58	0
56	MG	1A	3007	1/1	0.98	0.05	12,12,12,12	0
56	MG	2A	3361	1/1	0.98	0.06	46,46,46,46	0
56	MG	1A	3120	1/1	0.98	0.10	29,29,29,29	0
56	MG	1A	3564	1/1	0.98	0.07	36,36,36,36	0
56	MG	2A	3541	1/1	0.98	0.07	32,32,32,32	0
56	MG	1A	3500	1/1	0.98	0.10	20,20,20,20	0
56	MG	2A	3367	1/1	0.98	0.07	28,28,28,28	0
56	MG	2A	3368	1/1	0.98	0.04	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3208	1/1	0.98	0.04	29,29,29,29	0
56	MG	1A	3809	1/1	0.98	0.07	30,30,30,30	0
56	MG	1A	3502	1/1	0.98	0.24	20,20,20,20	0
56	MG	1A	3723	1/1	0.98	0.10	34,34,34,34	0
56	MG	1A	3569	1/1	0.98	0.06	17,17,17,17	0
56	MG	1F	304	1/1	0.98	0.10	20,20,20,20	0
56	MG	2a	1683	1/1	0.98	0.16	33,33,33,33	0
57	K	1A	3486	1/1	0.98	0.03	19,19,19,19	0
56	MG	2A	3732	1/1	0.98	0.15	24,24,24,24	0
56	MG	1A	3645	1/1	0.98	0.04	25,25,25,25	0
56	MG	1A	4019	1/1	0.98	0.13	26,26,26,26	0
56	MG	1a	3173	1/1	0.98	0.06	39,39,39,39	0
59	ZN	1n	501	1/1	0.98	0.03	51,51,51,51	0
59	ZN	2Y	501	1/1	0.98	0.04	79,79,79,79	0
56	MG	1A	3013	1/1	0.98	0.05	14,14,14,14	0
56	MG	1F	308	1/1	0.98	0.04	42,42,42,42	0
60	SF4	1d	501	8/8	0.98	0.05	52,54,61,66	0
60	SF4	2d	501	8/8	0.98	0.05	58,60,69,79	0
56	MG	2A	3122	1/1	0.99	0.04	26,26,26,26	0
56	MG	2a	1669	1/1	0.99	0.25	56,56,56,56	0
56	MG	2A	3357	1/1	0.99	0.06	21,21,21,21	0
56	MG	2A	3423	1/1	0.99	0.04	22,22,22,22	0
56	MG	2A	3424	1/1	0.99	0.02	24,24,24,24	0
56	MG	1A	3338	1/1	0.99	0.14	19,19,19,19	0
56	MG	1a	3167	1/1	0.99	0.06	42,42,42,42	0
56	MG	2A	3068	1/1	0.99	0.03	35,35,35,35	0
56	MG	1a	3117	1/1	0.99	0.03	27,27,27,27	0
56	MG	1a	3169	1/1	0.99	0.06	38,38,38,38	0
56	MG	2A	3363	1/1	0.99	0.05	43,43,43,43	0
56	MG	1D	312	1/1	0.99	0.19	27,27,27,27	0
56	MG	2A	3365	1/1	0.99	0.07	38,38,38,38	0
56	MG	2A	3704	1/1	0.99	0.07	37,37,37,37	0
56	MG	1A	3003	1/1	0.99	0.15	19,19,19,19	0
56	MG	1a	3172	1/1	0.99	0.04	46,46,46,46	0
56	MG	1A	3258	1/1	0.99	0.13	33,33,33,33	0
56	MG	1A	3604	1/1	0.99	0.05	28,28,28,28	0
56	MG	1A	3605	1/1	0.99	0.03	14,14,14,14	0
56	MG	1E	303	1/1	0.99	0.04	22,22,22,22	0
56	MG	2a	1761	1/1	0.99	0.09	34,34,34,34	0
56	MG	1A	3490	1/1	0.99	0.06	26,26,26,26	0
56	MG	2A	3023	1/1	0.99	0.06	41,41,41,41	0
56	MG	1A	3954	1/1	0.99	0.10	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3995	1/1	0.99	0.03	32,32,32,32	0
56	MG	1A	3814	1/1	0.99	0.07	8,8,8,8	0
56	MG	2A	3197	1/1	0.99	0.05	39,39,39,39	0
56	MG	1A	3634	1/1	0.99	0.05	28,28,28,28	0
56	MG	1A	3635	1/1	0.99	0.10	25,25,25,25	0
56	MG	1A	3311	1/1	0.99	0.03	37,37,37,37	0
56	MG	1a	3131	1/1	0.99	0.07	38,38,38,38	0
56	MG	1A	3818	1/1	0.99	0.04	21,21,21,21	0
56	MG	1A	3064	1/1	0.99	0.05	12,12,12,12	0
56	MG	1A	3327	1/1	0.99	0.05	10,10,10,10	0
56	MG	1A	3888	1/1	0.99	0.08	15,15,15,15	0
56	MG	1A	3821	1/1	0.99	0.06	32,32,32,32	0
56	MG	1a	3039	1/1	0.99	0.03	47,47,47,47	0
56	MG	1A	3012	1/1	0.99	0.07	13,13,13,13	0
56	MG	2A	3038	1/1	0.99	0.13	33,33,33,33	0
56	MG	1A	3176	1/1	0.99	0.19	25,25,25,25	0
56	MG	2A	3391	1/1	0.99	0.06	41,41,41,41	0
56	MG	1A	3612	1/1	0.99	0.04	24,24,24,24	0
56	MG	1B	227	1/1	0.99	0.05	36,36,36,36	0
56	MG	1V	201	1/1	0.99	0.04	40,40,40,40	0
56	MG	1A	3394	1/1	0.99	0.12	37,37,37,37	0
56	MG	1A	3614	1/1	0.99	0.06	15,15,15,15	0
56	MG	2A	3736	1/1	0.99	0.06	37,37,37,37	0
56	MG	1A	3395	1/1	0.99	0.03	33,33,33,33	0
56	MG	1A	3932	1/1	0.99	0.12	13,13,13,13	0
56	MG	2A	3739	1/1	0.99	0.08	29,29,29,29	0
56	MG	1A	3193	1/1	0.99	0.04	30,30,30,30	0
56	MG	1A	3499	1/1	0.99	0.04	23,23,23,23	0
56	MG	1A	3973	1/1	0.99	0.06	47,47,47,47	0
56	MG	1A	3116	1/1	0.99	0.15	26,26,26,26	0
56	MG	1A	3213	1/1	0.99	0.07	36,36,36,36	0
56	MG	2A	3340	1/1	0.99	0.10	30,30,30,30	0
56	MG	2A	3341	1/1	0.99	0.07	39,39,39,39	0
56	MG	1A	3178	1/1	0.99	0.10	21,21,21,21	0
56	MG	2A	3407	1/1	0.99	0.04	35,35,35,35	0
56	MG	1A	3866	1/1	0.99	0.12	20,20,20,20	0
56	MG	1A	3266	1/1	0.99	0.08	24,24,24,24	0
56	MG	2a	1728	1/1	0.99	0.05	46,46,46,46	0
56	MG	1X	106	1/1	0.99	0.04	21,21,21,21	0
56	MG	1A	3401	1/1	0.99	0.11	38,38,38,38	0
56	MG	1A	3652	1/1	0.99	0.08	23,23,23,23	0
57	K	2A	3327	1/1	0.99	0.03	29,29,29,29	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3267	1/1	0.99	0.02	24,24,24,24	0
56	MG	1A	3008	1/1	0.99	0.10	18,18,18,18	0
56	MG	1A	3404	1/1	0.99	0.10	28,28,28,28	0
59	ZN	1Y	501	1/1	0.99	0.02	58,58,58,58	0
59	ZN	14	501	1/1	0.99	0.03	70,70,70,70	0
59	ZN	19	501	1/1	0.99	0.07	42,42,42,42	0
56	MG	1O	204	1/1	0.99	0.06	45,45,45,45	0
56	MG	1A	3908	1/1	0.99	0.08	27,27,27,27	0
56	MG	1A	3552	1/1	0.99	0.08	23,23,23,23	0
59	ZN	25	501	1/1	0.99	0.05	45,45,45,45	0
59	ZN	26	501	1/1	0.99	0.03	59,59,59,59	0
59	ZN	29	501	1/1	0.99	0.04	63,63,63,63	0
56	MG	1A	3067	1/1	0.99	0.03	22,22,22,22	0
56	MG	1A	3987	1/1	0.99	0.06	36,36,36,36	0
56	MG	2A	3555	1/1	0.99	0.05	38,38,38,38	0
56	MG	1A	4010	1/1	1.00	0.06	23,23,23,23	0
56	MG	1A	3017	1/1	1.00	0.07	19,19,19,19	0
56	MG	1A	3567	1/1	1.00	0.09	13,13,13,13	0
59	ZN	15	104	1/1	1.00	0.07	42,42,42,42	0
59	ZN	16	102	1/1	1.00	0.05	38,38,38,38	0

6.5 Other polymers

There are no such residues in this entry.