



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 6, 2026 – 03:16 PM UTC

PDB ID : 5DOY / pdb_00005doy
Title : Crystal structure of the *Thermus thermophilus* 70S ribosome in complex with antibiotic Hygromycin A, mRNA and three tRNAs in the A, P and E sites at 2.6Å resolution
Authors : Polikanov, Y.S.; Starosta, A.L.; Juette, M.F.; Altman, R.B.; Terry, D.S.; Lu, W.; Burnett, B.J.; Dinos, G.; Reynolds, K.; Blanchard, S.C.; Steitz, T.A.; Wilson, D.N.
Deposited on : 2015-09-11
Resolution : 2.60 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
Ideal geometry (proteins)	:	Engh & Huber (2001)

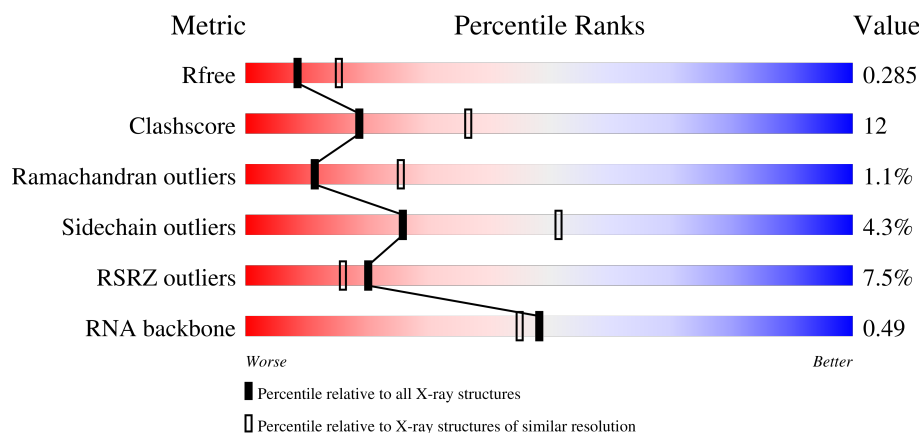
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.60 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	4008 (2.60-2.60)
Clashscore	190562	4347 (2.60-2.60)
Ramachandran outliers	187476	4277 (2.60-2.60)
Sidechain outliers	187428	4277 (2.60-2.60)
RSRZ outliers	180081	4008 (2.60-2.60)
RNA backbone	3983	1014 (2.84-2.36)

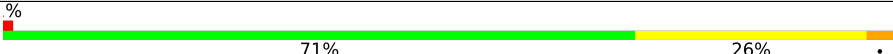
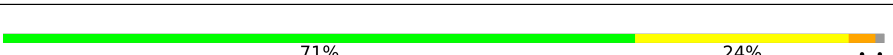
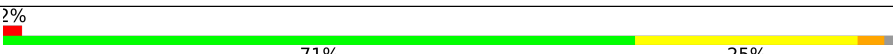
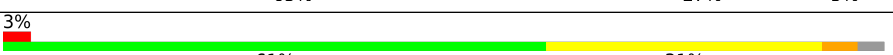
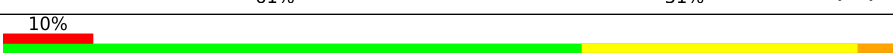
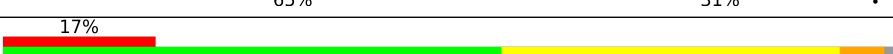
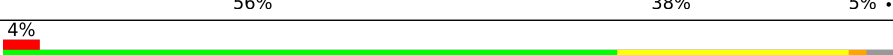
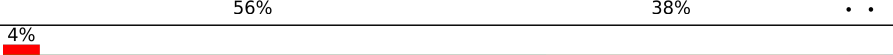
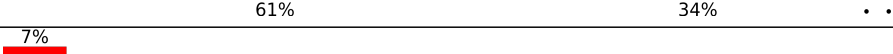
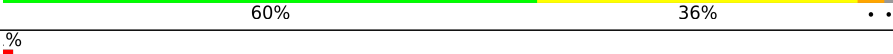
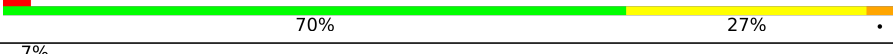
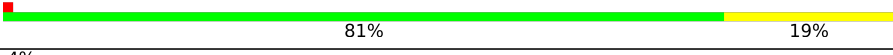
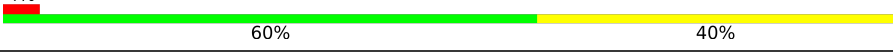
The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. 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	
1	2A	2915	

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Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.49

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Mol	Chain	Length	Quality of chain
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	
14	1S	112	

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Mol	Chain	Length	Quality of chain
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	
26	24	71	

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Mol	Chain	Length	Quality of chain
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	
39	1h	138	

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Mol	Chain	Length	Quality of chain
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	
51	2t	106	

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Mol	Chain	Length	Quality of chain
52	1u	27	
52	2u	27	
53	1v	27	
53	2v	27	
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
60	SF4	1d	501	-	-	X	-

2 Entry composition

There are 62 unique types of molecules in this entry. The entry contains 298925 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a RNA chain called 23S Ribosomal RNA.

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

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

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

- Molecule 3 is a protein called 50S Ribosomal Protein L2.

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

- Molecule 4 is a protein called 50S Ribosomal Protein L3.

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

- Molecule 5 is a protein called 50S Ribosomal Protein L4.

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

- Molecule 6 is a protein called 50S Ribosomal Protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	1G	181	Total	C	N	O	S	0	0	0
			1429	916	256	253	4			
6	2G	181	Total	C	N	O	S	0	0	0
			1428	913	258	253	4			

- Molecule 7 is a protein called 50S Ribosomal Protein L6.

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

- Molecule 8 is a protein called 50S Ribosomal Protein L9.

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

- Molecule 9 is a protein called 50S Ribosomal Protein L13.

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

- Molecule 10 is a protein called 50S Ribosomal Protein L14.

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

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

- Molecule 11 is a protein called 50S Ribosomal Protein L15.

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

- Molecule 12 is a protein called 50S Ribosomal Protein L16.

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

- Molecule 13 is a protein called 50S Ribosomal Protein L17.

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

- Molecule 14 is a protein called 50S Ribosomal Protein L18.

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

- Molecule 15 is a protein called 50S Ribosomal Protein L19.

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

- Molecule 16 is a protein called 50S Ribosomal Protein L20.

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

- Molecule 17 is a protein called 50S Ribosomal Protein L21.

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

- Molecule 18 is a protein called 50S Ribosomal Protein L22.

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

- Molecule 19 is a protein called 50S Ribosomal Protein L23.

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

- Molecule 20 is a protein called 50S Ribosomal Protein L24.

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

- Molecule 21 is a protein called 50S Ribosomal Protein L25.

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

- Molecule 22 is a protein called 50S Ribosomal Protein L27.

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

- Molecule 23 is a protein called 50S Ribosomal Protein L28.

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

- Molecule 24 is a protein called 50S Ribosomal Protein L29.

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

- Molecule 25 is a protein called 50S Ribosomal Protein L30.

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

- Molecule 26 is a protein called 50S Ribosomal Protein L31.

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

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

- Molecule 27 is a protein called 50S Ribosomal Protein L32.

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

- Molecule 28 is a protein called 50S Ribosomal Protein L33.

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

- Molecule 29 is a protein called 50S Ribosomal Protein L34.

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

- Molecule 30 is a protein called 50S Ribosomal Protein L35.

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

- Molecule 31 is a protein called 50S Ribosomal Protein L36.

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

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

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

- Molecule 33 is a protein called 30S Ribosomal Protein S2.

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

- Molecule 34 is a protein called 30S Ribosomal Protein S3.

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

- Molecule 35 is a protein called 30S Ribosomal Protein S4.

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

- Molecule 36 is a protein called 30S Ribosomal Protein S5.

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

- Molecule 37 is a protein called 30S Ribosomal Protein S6.

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

- Molecule 38 is a protein called 30S Ribosomal Protein S7.

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

- Molecule 39 is a protein called 30S Ribosomal Protein S8.

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

- Molecule 40 is a protein called 30S Ribosomal Protein S9.

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

- Molecule 41 is a protein called 30S Ribosomal Protein S10.

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

- Molecule 42 is a protein called 30S Ribosomal Protein S11.

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

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

- Molecule 43 is a protein called 30S Ribosomal Protein S12.

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

- Molecule 44 is a protein called 30S Ribosomal Protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	1m	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.

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

- Molecule 46 is a protein called 30S Ribosomal Protein S15.

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

- Molecule 47 is a protein called 30S Ribosomal Protein S16.

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

- Molecule 48 is a protein called 30S Ribosomal Protein S17.

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

- Molecule 49 is a protein called 30S Ribosomal Protein S18.

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

- Molecule 50 is a protein called 30S Ribosomal Protein S19.

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

- Molecule 51 is a protein called 30S Ribosomal Protein S20.

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

- Molecule 52 is a protein called 30S Ribosomal Protein THX.

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

- Molecule 53 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	1v	14	Total	C	N	O	P	0	0	0
			281	125	51	91	14			
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	75	Total 1574	C 704	N 283	O 512	P 73	S 2	0	0	1
54	1y	74	Total 1581	C 707	N 285	O 515	P 73	S 1	0	0	0
54	2w	74	Total 1547	C 688	N 278	O 507	P 73	S 1	0	0	1
54	2y	73	Total 1561	C 698	N 283	O 507	P 72	S 1	0	0	0

- 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			

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

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	1A	963	Total	Mg	0	0
			963	963		
56	1B	29	Total	Mg	0	0
			29	29		
56	1D	5	Total	Mg	0	0
			5	5		
56	1E	6	Total	Mg	0	0
			6	6		
56	1F	7	Total	Mg	0	0
			7	7		
56	1G	4	Total	Mg	0	0
			4	4		
56	1I	1	Total	Mg	0	0
			1	1		
56	1N	7	Total	Mg	0	0
			7	7		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	1O	6	Total 6	Mg 6	0	0
56	1P	4	Total 4	Mg 4	0	0
56	1Q	6	Total 6	Mg 6	0	0
56	1R	3	Total 3	Mg 3	0	0
56	1S	2	Total 2	Mg 2	0	0
56	1T	3	Total 3	Mg 3	0	0
56	1U	5	Total 5	Mg 5	0	0
56	1V	2	Total 2	Mg 2	0	0
56	1W	6	Total 6	Mg 6	0	0
56	1X	4	Total 4	Mg 4	0	0
56	1Y	1	Total 1	Mg 1	0	0
56	1Z	5	Total 5	Mg 5	0	0
56	10	4	Total 4	Mg 4	0	0
56	11	3	Total 3	Mg 3	0	0
56	12	1	Total 1	Mg 1	0	0
56	13	3	Total 3	Mg 3	0	0
56	15	2	Total 2	Mg 2	0	0
56	16	1	Total 1	Mg 1	0	0
56	17	2	Total 2	Mg 2	0	0
56	18	2	Total 2	Mg 2	0	0
56	19	2	Total 2	Mg 2	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	1a	239	Total 239	Mg 239	0	0
56	1b	2	Total 2	Mg 2	0	0
56	1d	2	Total 2	Mg 2	0	0
56	1e	1	Total 1	Mg 1	0	0
56	1f	2	Total 2	Mg 2	0	0
56	1l	3	Total 3	Mg 3	0	0
56	1t	1	Total 1	Mg 1	0	0
56	1v	1	Total 1	Mg 1	0	0
56	1w	6	Total 6	Mg 6	0	0
56	1x	10	Total 10	Mg 10	0	0
56	1y	2	Total 2	Mg 2	0	0
56	2A	673	Total 673	Mg 673	0	0
56	2B	18	Total 18	Mg 18	0	0
56	2D	4	Total 4	Mg 4	0	0
56	2E	5	Total 5	Mg 5	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	4	Total 4	Mg 4	0	0
56	2R	1	Total 1	Mg 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	2T	1	Total 1	Mg 1	0	0
56	2U	4	Total 4	Mg 4	0	0
56	2V	1	Total 1	Mg 1	0	0
56	2X	1	Total 1	Mg 1	0	0
56	2Z	1	Total 1	Mg 1	0	0
56	20	3	Total 3	Mg 3	0	0
56	23	1	Total 1	Mg 1	0	0
56	26	1	Total 1	Mg 1	0	0
56	28	1	Total 1	Mg 1	0	0
56	2a	196	Total 196	Mg 196	0	0
56	2d	1	Total 1	Mg 1	0	0
56	2e	1	Total 1	Mg 1	0	0
56	2f	2	Total 2	Mg 2	0	0
56	2g	1	Total 1	Mg 1	0	0
56	2j	2	Total 2	Mg 2	0	0
56	2l	2	Total 2	Mg 2	0	0
56	2p	1	Total 1	Mg 1	0	0
56	2q	2	Total 2	Mg 2	0	0
56	2r	1	Total 1	Mg 1	0	0
56	2t	1	Total 1	Mg 1	0	0
56	2v	1	Total 1	Mg 1	0	0

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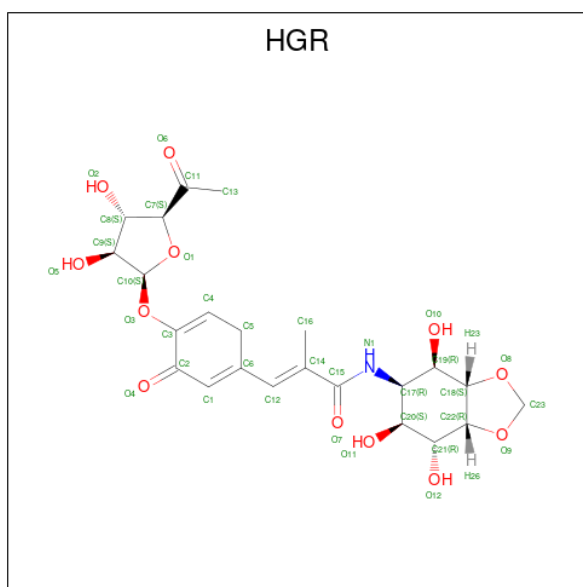
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	2w	3	Total	Mg	0	0
			3	3		
56	2x	2	Total	Mg	0	0
			2	2		

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

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

- Molecule 58 is Hygromycin A (CCD ID: HGR) (formula: C₂₃H₂₉NO₁₂).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
58	1A	1	Total	C	N	O	0	0
			36	23	1	12		
58	2A	1	Total	C	N	O	0	0
			36	23	1	12		

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

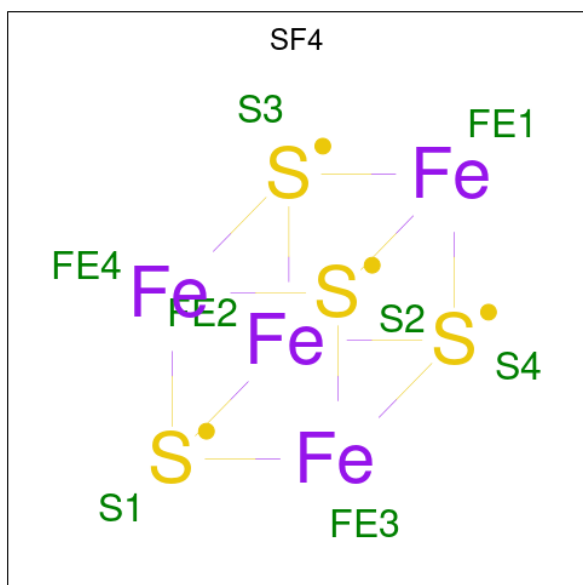
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	1Y	1	Total	Zn	0	0
			1	1		

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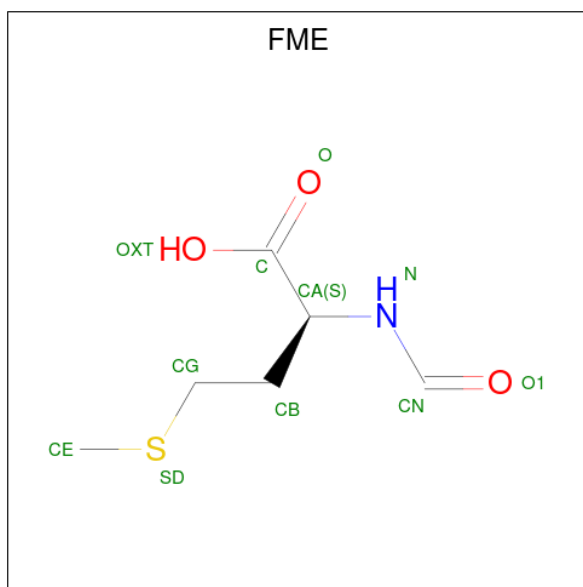
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	14	1	Total	Zn	0	0
			1	1		
59	15	1	Total	Zn	0	0
			1	1		
59	16	1	Total	Zn	0	0
			1	1		
59	19	1	Total	Zn	0	0
			1	1		
59	1n	1	Total	Zn	0	0
			1	1		
59	2Y	1	Total	Zn	0	0
			1	1		
59	24	1	Total	Zn	0	0
			1	1		
59	25	1	Total	Zn	0	0
			1	1		
59	26	1	Total	Zn	0	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 N-FORMYLMETHIONINE (CCD ID: FME) (formula: $C_6H_{11}NO_3S$).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
61	1x	1	Total	C	N	O	S	0	0
			10	6	1	2	1		
61	2x	1	Total	C	N	O	S	0	0
			10	6	1	2	1		

- Molecule 62 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
62	1A	1577	Total	O	0	0
			1577	1577		
62	1B	43	Total	O	0	0
			43	43		
62	1D	23	Total	O	0	0
			23	23		
62	1E	25	Total	O	0	0
			25	25		
62	1F	17	Total	O	0	0
			17	17		
62	1G	3	Total	O	0	0
			3	3		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
62	1H	1	Total 1	O 1	0	0
62	1N	3	Total 3	O 3	0	0
62	1O	4	Total 4	O 4	0	0
62	1P	20	Total 20	O 20	0	0
62	1Q	4	Total 4	O 4	0	0
62	1R	5	Total 5	O 5	0	0
62	1S	3	Total 3	O 3	0	0
62	1T	4	Total 4	O 4	0	0
62	1U	9	Total 9	O 9	0	0
62	1V	5	Total 5	O 5	0	0
62	1W	8	Total 8	O 8	0	0
62	1X	7	Total 7	O 7	0	0
62	1Y	2	Total 2	O 2	0	0
62	1Z	1	Total 1	O 1	0	0
62	10	9	Total 9	O 9	0	0
62	11	3	Total 3	O 3	0	0
62	12	4	Total 4	O 4	0	0
62	13	3	Total 3	O 3	0	0
62	14	1	Total 1	O 1	0	0
62	15	4	Total 4	O 4	0	0
62	16	2	Total 2	O 2	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
62	17	5	Total O 5 5	0	0
62	18	10	Total O 10 10	0	0
62	19	1	Total O 1 1	0	0
62	1a	287	Total O 287 287	0	0
62	1e	1	Total O 1 1	0	0
62	1h	1	Total O 1 1	0	0
62	1i	1	Total O 1 1	0	0
62	1l	4	Total O 4 4	0	0
62	1m	1	Total O 1 1	0	0
62	1n	1	Total O 1 1	0	0
62	1o	1	Total O 1 1	0	0
62	1p	1	Total O 1 1	0	0
62	1q	1	Total O 1 1	0	0
62	1s	1	Total O 1 1	0	0
62	1v	3	Total O 3 3	0	0
62	1w	8	Total O 8 8	0	0
62	1x	6	Total O 6 6	0	0
62	1y	1	Total O 1 1	0	0
62	2A	1063	Total O 1063 1063	0	0
62	2B	10	Total O 10 10	0	0
62	2D	20	Total O 20 20	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
62	2E	9	Total	O	0	0
			9	9		
62	2F	7	Total	O	0	0
			7	7		
62	2I	1	Total	O	0	0
			1	1		
62	2N	2	Total	O	0	0
			2	2		
62	2O	1	Total	O	0	0
			1	1		
62	2P	14	Total	O	0	0
			14	14		
62	2Q	1	Total	O	0	0
			1	1		
62	2R	3	Total	O	0	0
			3	3		
62	2T	2	Total	O	0	0
			2	2		
62	2U	1	Total	O	0	0
			1	1		
62	2V	2	Total	O	0	0
			2	2		
62	2W	2	Total	O	0	0
			2	2		
62	2X	3	Total	O	0	0
			3	3		
62	2Y	1	Total	O	0	0
			1	1		
62	2Z	1	Total	O	0	0
			1	1		
62	20	4	Total	O	0	0
			4	4		
62	21	3	Total	O	0	0
			3	3		
62	23	1	Total	O	0	0
			1	1		
62	25	2	Total	O	0	0
			2	2		
62	26	2	Total	O	0	0
			2	2		
62	28	5	Total	O	0	0
			5	5		

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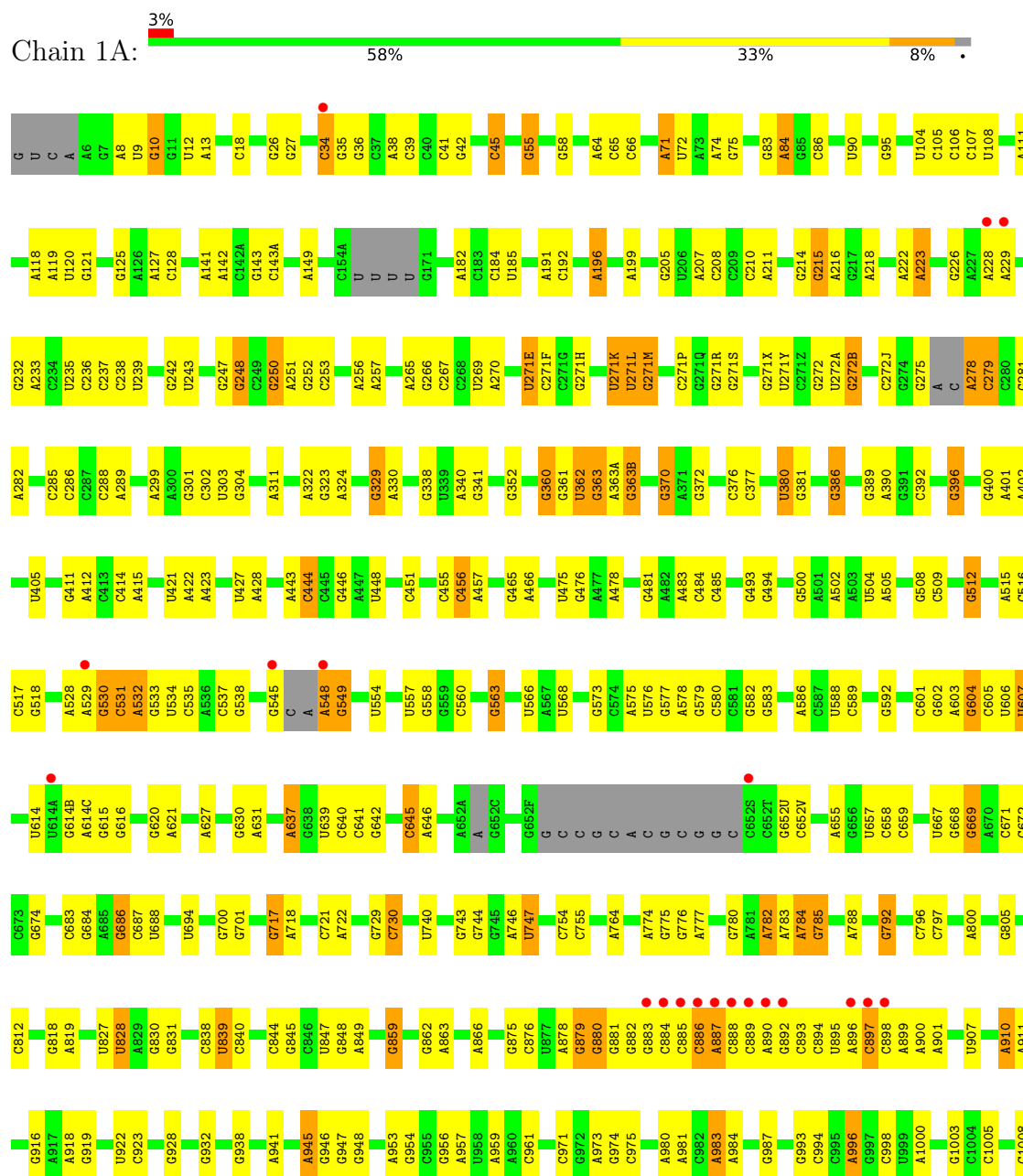
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
62	29	1	Total 1	O 1	0	0
62	2a	213	Total 213	O 213	0	0
62	2d	3	Total 3	O 3	0	0
62	2g	2	Total 2	O 2	0	0
62	2i	2	Total 2	O 2	0	0
62	2j	5	Total 5	O 5	0	0
62	2l	3	Total 3	O 3	0	0
62	2n	1	Total 1	O 1	0	0
62	2o	1	Total 1	O 1	0	0
62	2p	3	Total 3	O 3	0	0
62	2r	1	Total 1	O 1	0	0
62	2t	2	Total 2	O 2	0	0
62	2v	1	Total 1	O 1	0	0
62	2w	2	Total 2	O 2	0	0
62	2x	6	Total 6	O 6	0	0

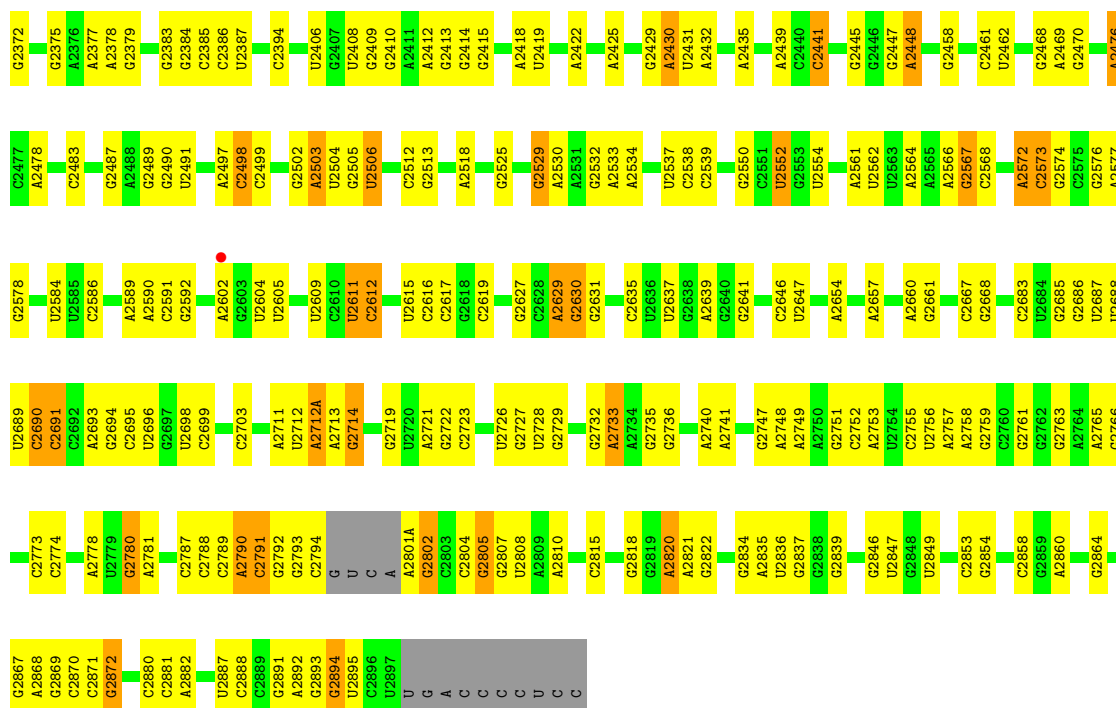
3 Residue-property plots

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.

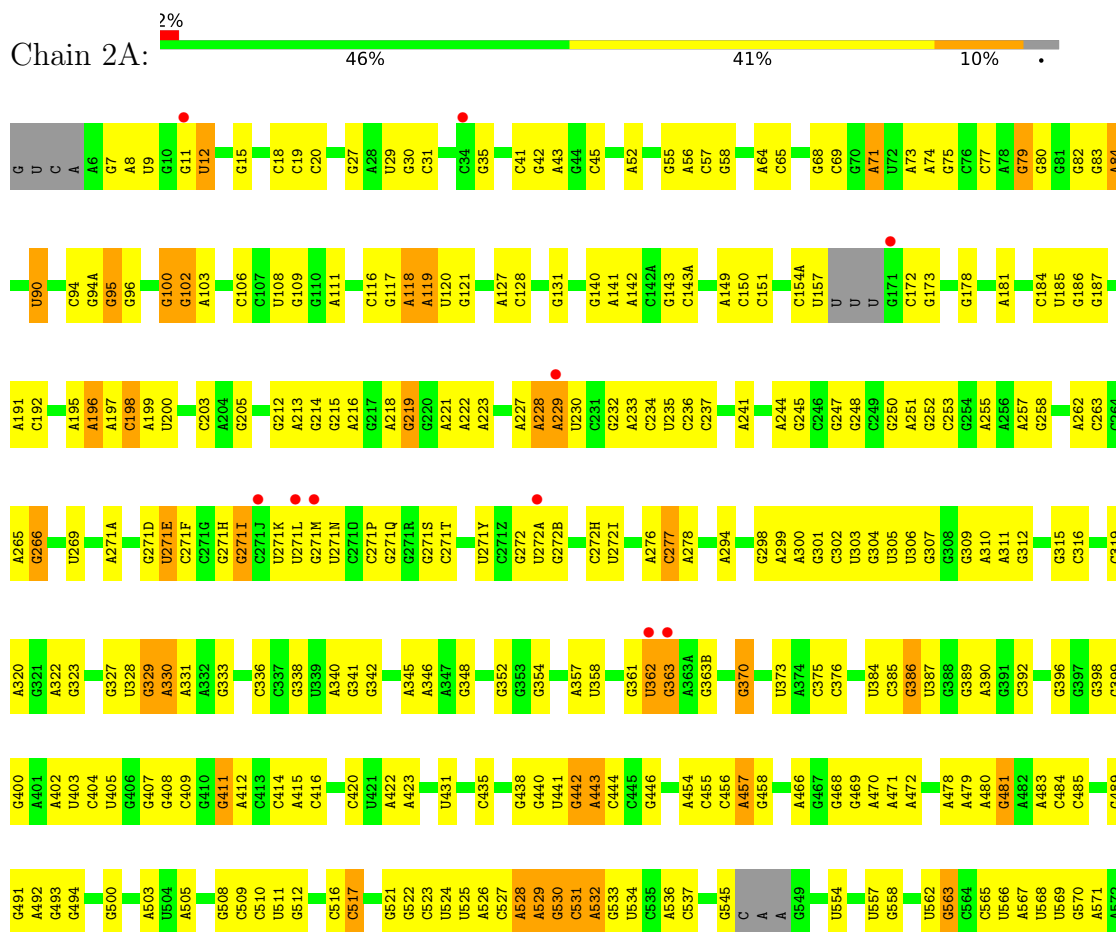
• Molecule 1: 23S Ribosomal RNA







• Molecule 1: 23S Ribosomal RNA

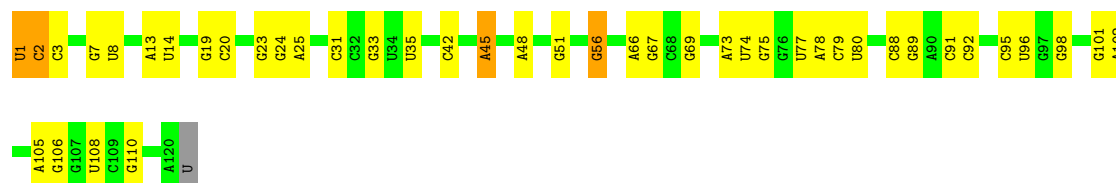


C1577	A1496	G1416	C1330	A1242	G1170	G	G1039	G966	C888	C817	C721	G647	G573
U1578	U1497	C1417	A1331	G1243	G1171	C	C1040	G966	C889	G818	A722	G646	C574
A1579	G1500	A1418	G1332	G1250	A	U	C1041	C971	A890	A819	G723	G646	A575
A1580	C1501	U1420	G1336	G1251	G	U	C1043	C972	G892	A820	U724	A652B	U576
G1581	C1502	G1421	A1253	G1252	U	A	G	A973	C893	G725	G725	G652C	G577
C1582	U1503		A1254	A1253	A	U	G	G974	C894	G726	G726	G652D	A578
A1583		A1427	G1339	A1255	C1178	U	A	C975	U895	A824	A727	G652E	G579
C1584	A1507	C1428		U1255		G	A		A896		G728	G	C581
A1586	A1508	G1429	A1342	G1256	C1181	G	G	A983	C897	U827	G729	G	G582
C1587	C1509	C1430	G1343	A1256	C1182	U	C	A984	C898	U828	C730	C	G583
C1588	A1509A	U1431	G1344	G1264	G1183	U	C	C985	A899	A829	C	C	A586
C1589	A1509B	C1432	C1345	A1265	G1186	G	A	C986	A900	G830	U740	G	C587
U1590	G1510	U1433		G1266	A	A	C	G987	A901	G831	G741	C	C587
G1591	C1511	A1352	U1352	U1267	G1187	G	C	G988	C902	G832		A	U588
C1592	G1512	A1353	A1353	U1268	U1188	C	C	G989	C903	U833	A746	C	C589
G1593	C1513	G1435	A1354	A1269	G1114	C	C	A990	C904	C834	U747	G	A590
G1594	U1514	A1436	G1355	G1270	G1115	G	G	A991	C905	C835	C903	C	C591
G1595	G1515	C1437	G1356	G1271	G1116	C	C	C992	A910	A835	A752	G	G592
	C1516	G1442	U1357	A1272	G1117	A	G	G993	A911	U839	C753	G	G593
G1517	G1518		G1358	G1273	G1118	G	G	C995	C912	C840	C754	C	
A1445	A1445	A1445	A1359	U1273	C1121	U	U	A996	U913	A941	C756	C	U597
			A1360	A1278	G1122	U	U	G997	G916	U847	C756	G652T	G598
G1525		G1448	G1364	G1283	G1125	G	C	C998	A917	G848	G763	A653	G599
A1525	G1525	G1449	A1365	A1284	A1126	U	C	U999	A918	A849	A764	A654	C600
G1529	G1529	G1450	A1366	G1285		U	C	A1000	G920	G852	G771	A655	G602
C1530	C1530	C1450A	A1367	A1286	U1130	U	U	C1005	G921	G853	A774	G656	A603
C1531	A1452	A1452	G1368	A1287	G1131	U	U	C1006	U922	G854	G775	U657	G604
C1532	A1453	A1453	G1369	U1288	A1132	G	G		C923	C658	G776	C659	C605
G1533	G1455	G1455	C1370	U1292	U1133	A	A	A1009	C924	C856	A777	G660	U606
U			G1371	C1208	G1135	A	A	A1010	C925	C857		G661	U607
A			U1372	C1209	G1136	G	G	A1011	A926	U858		G662	G613
C1536	G1460	G1460	A1373	U1210	G1137	C	C	U1012	G859	G927	A782	G663	U614
G1537	G1461	G1461		G1211	G1138	A	A	C1013	U860	A783	A783	G664	U614A
G1538	G1462	G1462	A1379	G1212	G1139	G	G	U1014	A861	A784	G785	G665	G614B
G1539	G1466	G1466	G1380	U1300	G1140	C	C	G1015	G862	G666	G786	G667	A614C
U1540	C1467	C1467	A1384	A1301	U1141	C	C	G1016	A863	G668	A788	G668	G615
G1541	C1468	C1468	G1385	A1302	U1142	A	A	G1017	C965	G669		G669	G616
A1542	A1469	A1469	C1386	C1221	A1143	U	U	C1018	A866	C790	A789		G620
A1545	G1470	G1470	G1387	G1306	G1144	C	C	U1019	C967	C791	G792	C672	A621
C1546	A1471	A1471	G1388	A1307	C1224	U	U	A1020	U868	G793	G793	C673	G622
C1547	G1474	G1474	G1389	A1308	A1225	U	U	G1021	G869	A675	G794	G674	G623
C1550	G1475	G1475	U1394	G1309	A1226	C	C	U1022	A870	A676	C795	G675	C624
C1557	G1479	G1479	G1400	G1310	G1227	A	A	G1023	G873	G676	C796		G625
G1558			G1401	G1311	G1228	A	A	G1024	G874	G686	C797	G687	U626
G1559	G1482	G1482	G1402	U1312	C1230	C	C	U1025	G875	G687	G798		G628
G1560	G1484	G1484	G1404	C1314	G1154	A	A	A1027	G947				
G1561	G1485	G1485	U1405	G1155	A1155	G	G	A1028	A878	A699	G805	A699	A631
A1562	A1486	A1486	U1406	G1160	G1160	U	U	G1029	G879	G700	C806	G700	A634
G1563	G1487	G1487	C1407	G1161	G1161	C	C	G1030	G880		U807		C634
G1564			G1408	G1162	G1162	G	G	G1031	G881	U709	G808		
A1566	A1490	A1490	G1410	G1236	G1163	U	U	U1032	G882	G710	G809	G710	A637
G1567			C1411	A1237		C	C	U1033	G883		U810		
G1568			G1238	G1238	C1166	A	A	G1036	C884	U811	U811	G717	A643
G1569			U1239	G1239	U1167	U	U	G1037	C885	A718	A718	A719	A644
A1572			U1240	U1240	G1168	U	U	C1038	C886	C719	U813	C720	A645
			G1413	G1413	G1169	A	A						A646

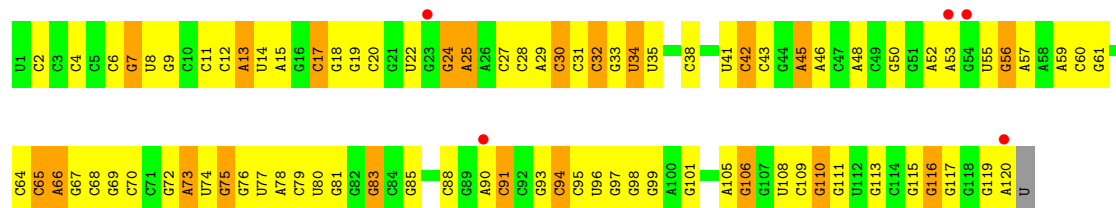
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U2696	C2699	C2699	C2699	C2701	U2702	C2703	C2704	C2705	G2706	A2711	U2712	A2712A	A2713	G2714	G2719	G2793	G2793	G2794	G2794	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G2795	G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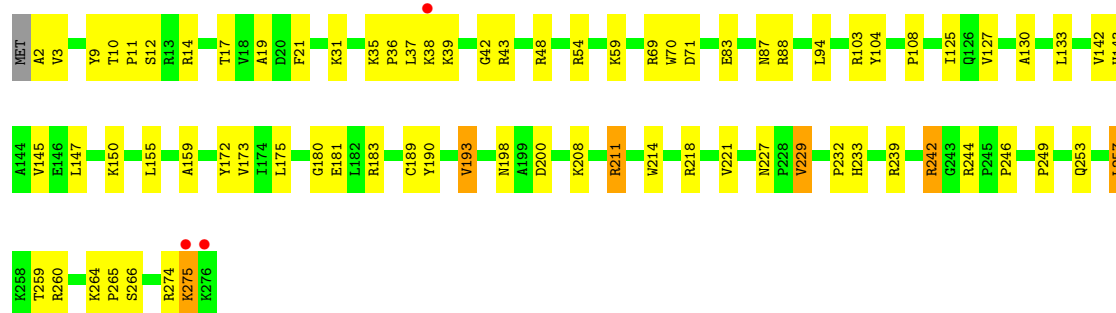
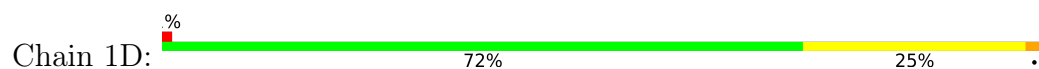
• Molecule 2: 5S Ribosomal RNA



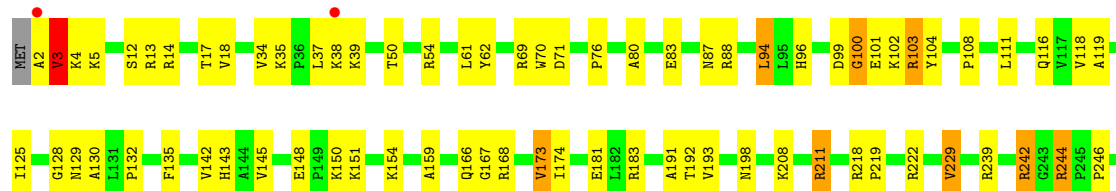
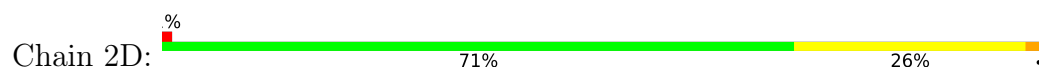
• Molecule 2: 5S Ribosomal RNA



• Molecule 3: 50S Ribosomal Protein L2



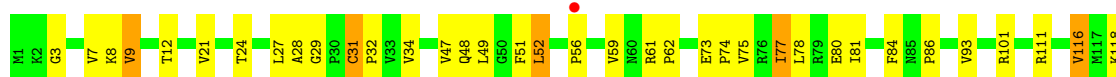
• Molecule 3: 50S Ribosomal Protein L2





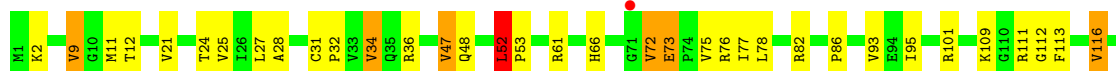
• Molecule 4: 50S Ribosomal Protein L3

Chain 1E: 71% 24% ..



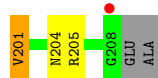
• Molecule 4: 50S Ribosomal Protein L3

Chain 2E: 71% 25% ..



• Molecule 5: 50S Ribosomal Protein L4

Chain 1F: 65% 27% 5% .



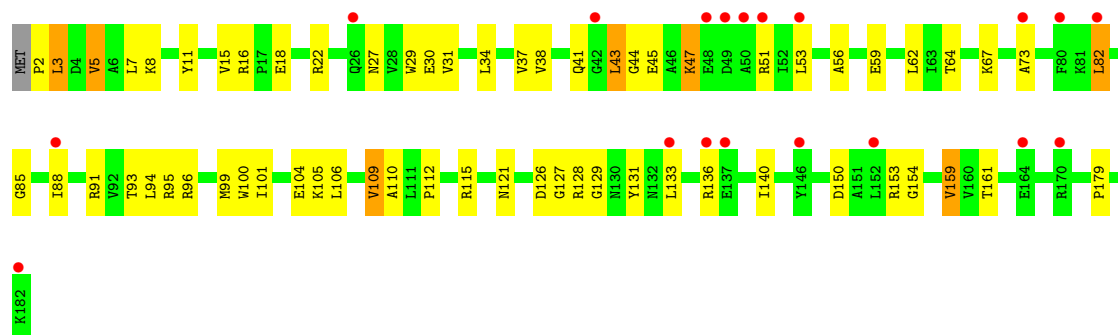
• Molecule 5: 50S Ribosomal Protein L4

Chain 2F: 61% 31% .

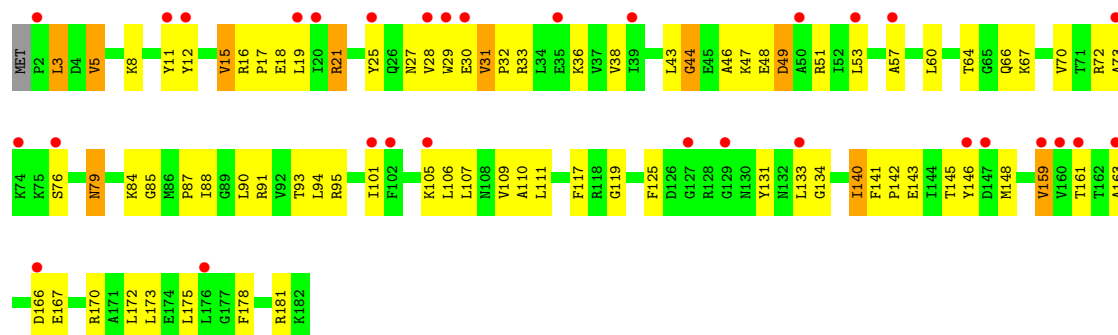




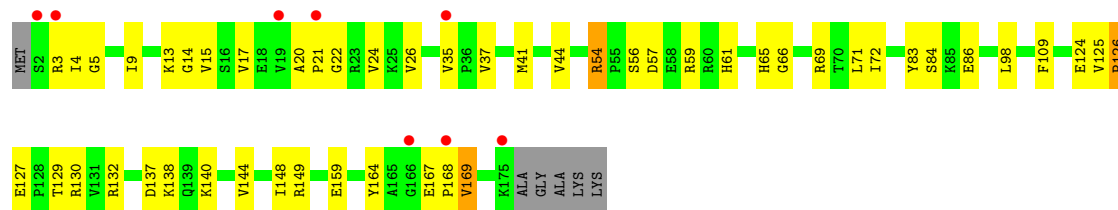
• Molecule 6: 50S Ribosomal Protein L5



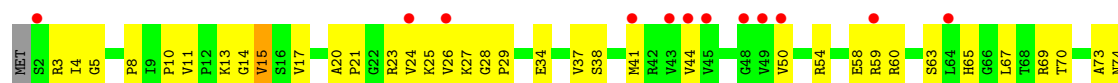
• Molecule 6: 50S Ribosomal Protein L5

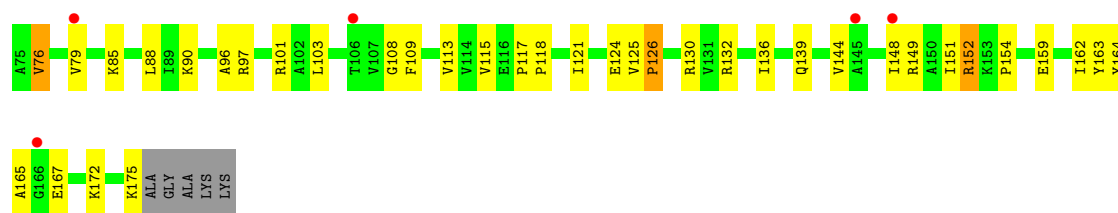


• Molecule 7: 50S Ribosomal Protein L6

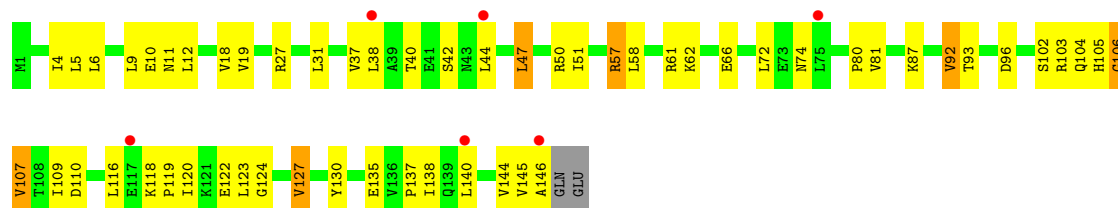


• Molecule 7: 50S Ribosomal Protein L6

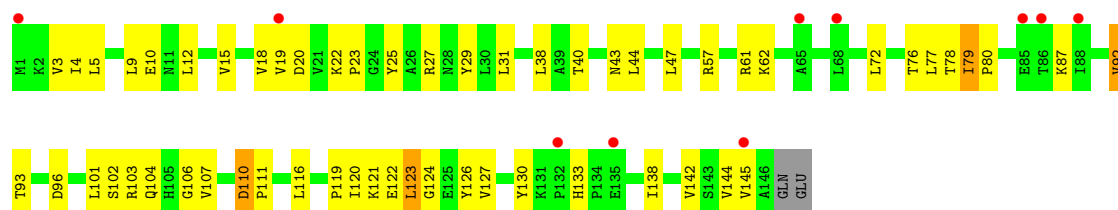




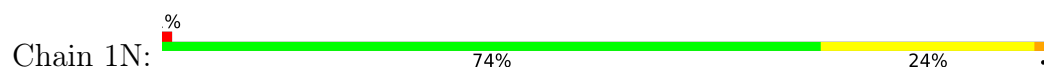
• Molecule 8: 50S Ribosomal Protein L9



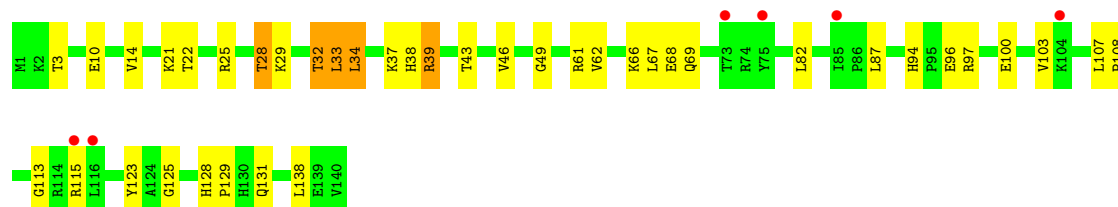
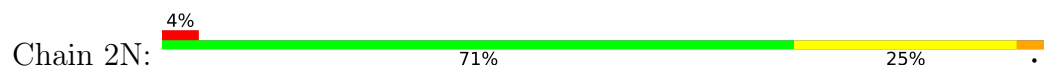
• Molecule 8: 50S Ribosomal Protein L9



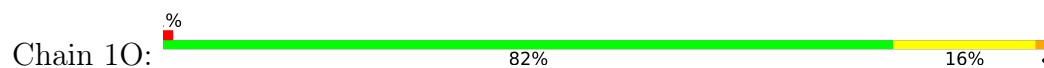
• Molecule 9: 50S Ribosomal Protein L13



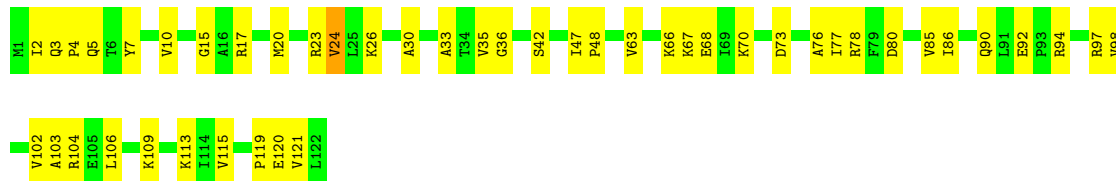
• Molecule 9: 50S Ribosomal Protein L13



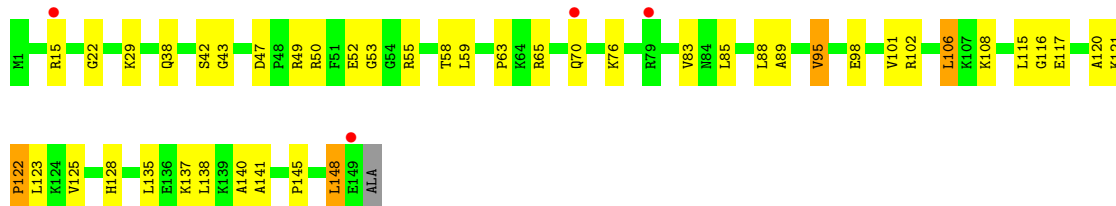
- Molecule 10: 50S Ribosomal Protein L14



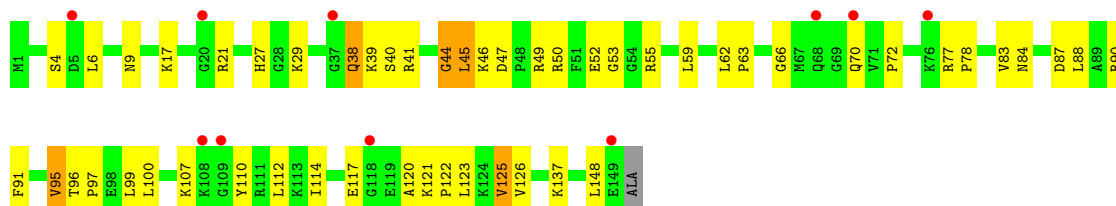
- Molecule 10: 50S Ribosomal Protein L14



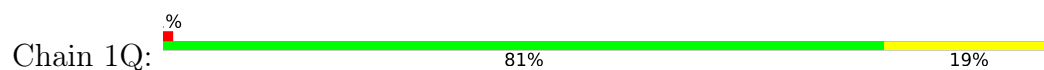
- Molecule 11: 50S Ribosomal Protein L15



- Molecule 11: 50S Ribosomal Protein L15

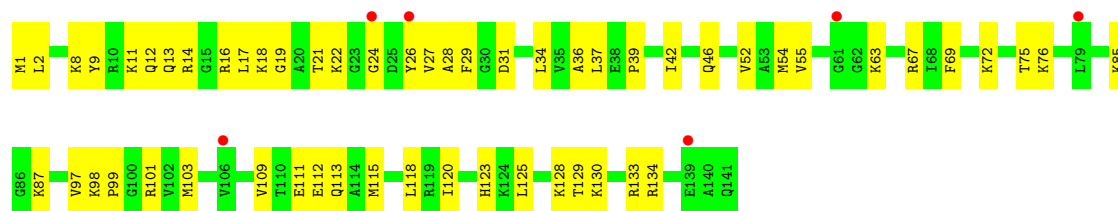


- Molecule 12: 50S Ribosomal Protein L16



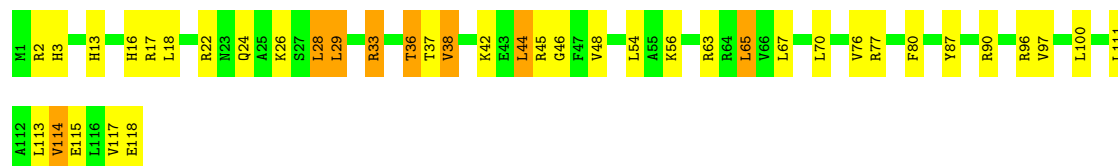
- Molecule 12: 50S Ribosomal Protein L16





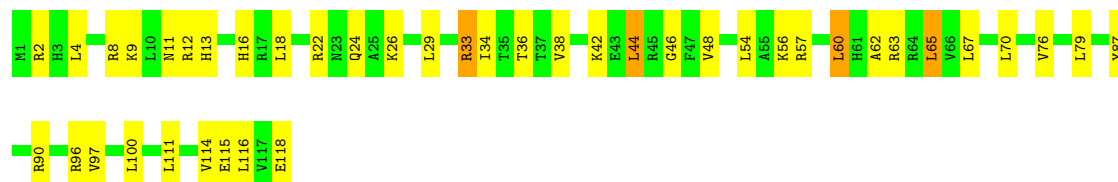
• Molecule 13: 50S Ribosomal Protein L17

Chain 1R: 66% 27% 7%



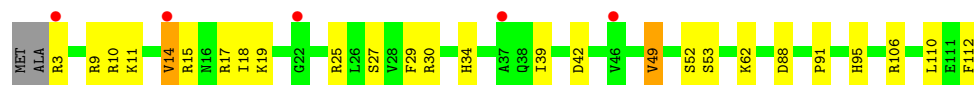
• Molecule 13: 50S Ribosomal Protein L17

Chain 2R: 64% 32% 4%



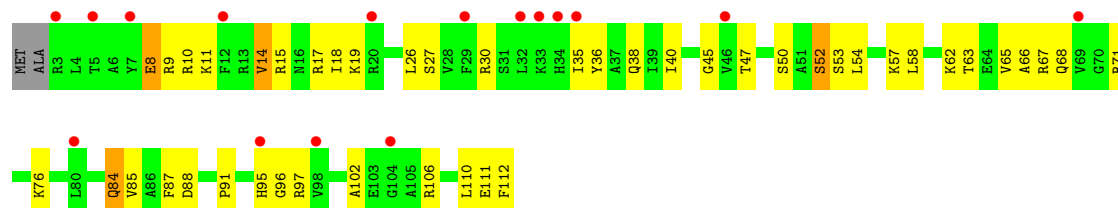
• Molecule 14: 50S Ribosomal Protein L18

Chain 1S: 75% 21% 4%



• Molecule 14: 50S Ribosomal Protein L18

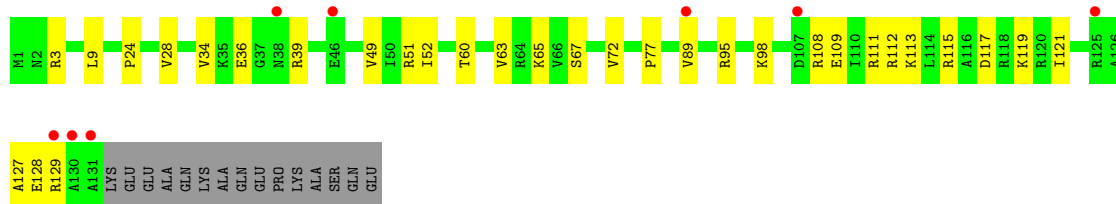
Chain 2S: 58% 37% 14%



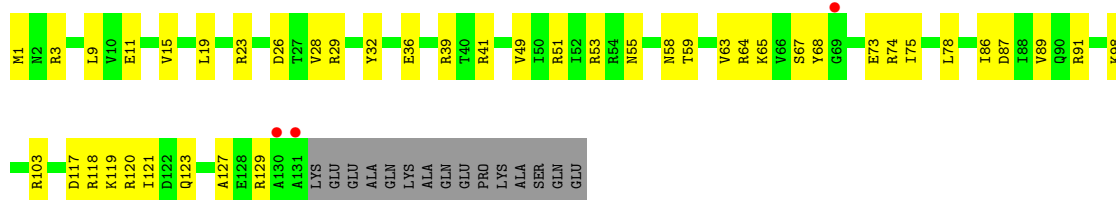
• Molecule 15: 50S Ribosomal Protein L19

Chain 1T: 68% 21% 10%

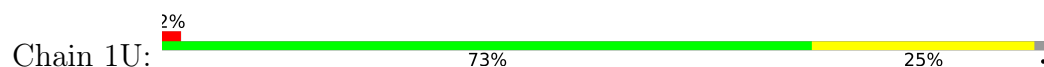




• Molecule 15: 50S Ribosomal Protein L19



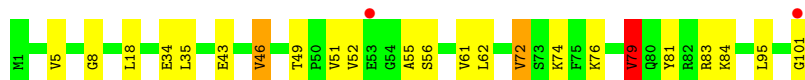
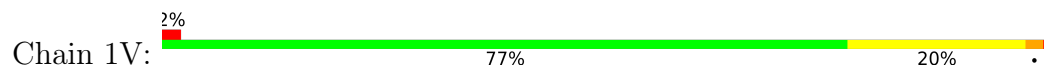
• Molecule 16: 50S Ribosomal Protein L20



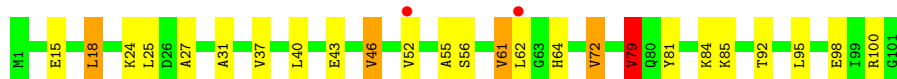
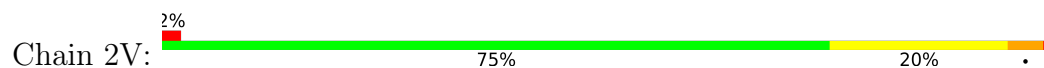
• Molecule 16: 50S Ribosomal Protein L20



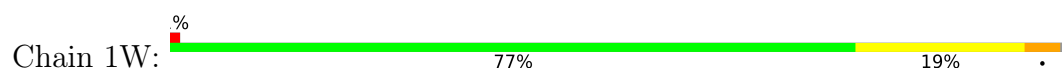
• Molecule 17: 50S Ribosomal Protein L21



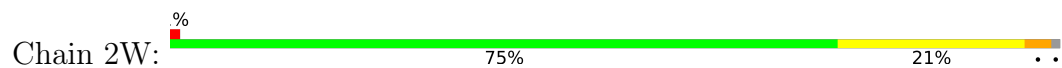
• Molecule 17: 50S Ribosomal Protein L21



• Molecule 18: 50S Ribosomal Protein L22



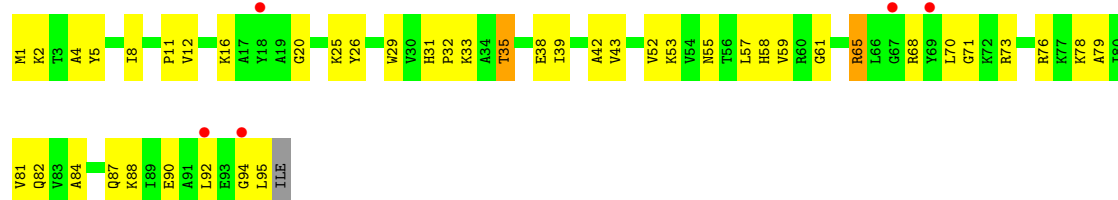
• Molecule 18: 50S Ribosomal Protein L22



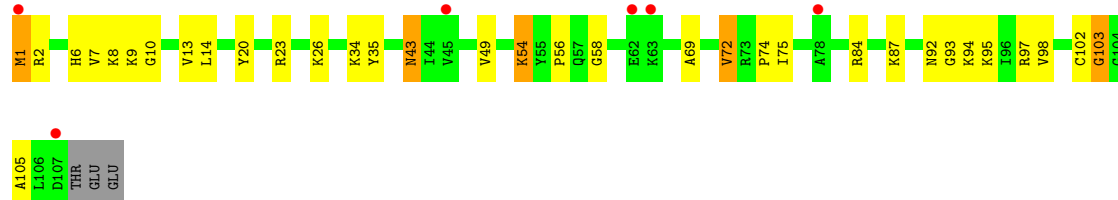
• Molecule 19: 50S Ribosomal Protein L23



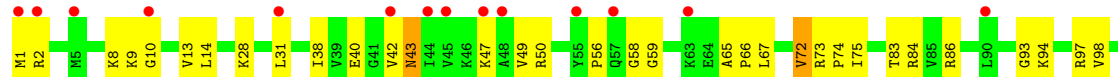
• Molecule 19: 50S Ribosomal Protein L23

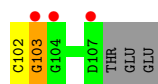


• Molecule 20: 50S Ribosomal Protein L24

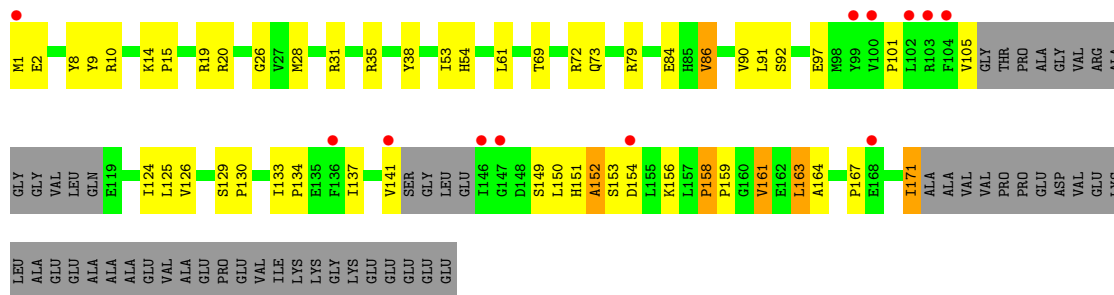


• Molecule 20: 50S Ribosomal Protein L24

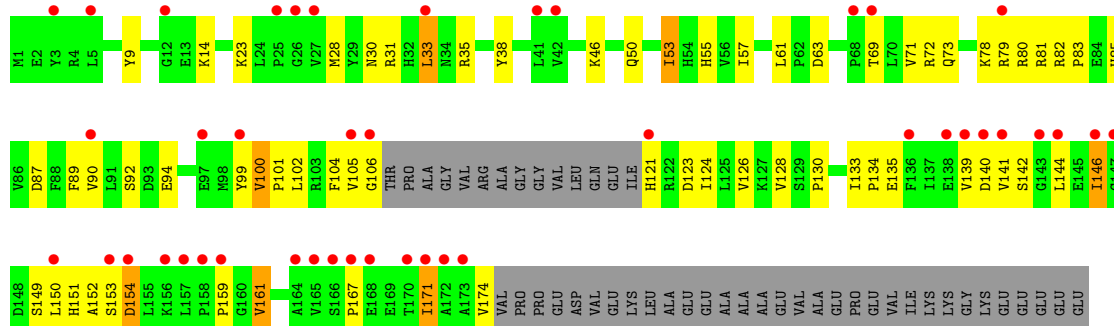




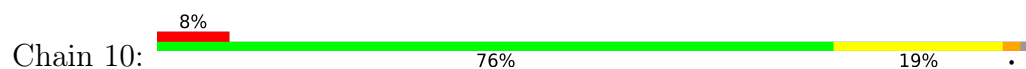
- Molecule 21: 50S Ribosomal Protein L25



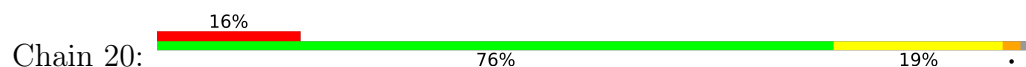
- Molecule 21: 50S Ribosomal Protein L25



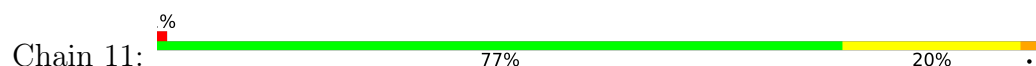
- Molecule 22: 50S Ribosomal Protein L27

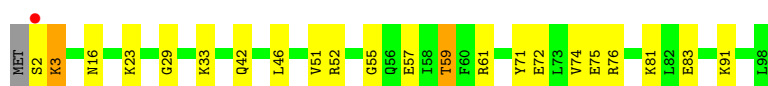


- Molecule 22: 50S Ribosomal Protein L27

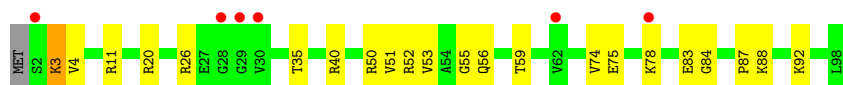
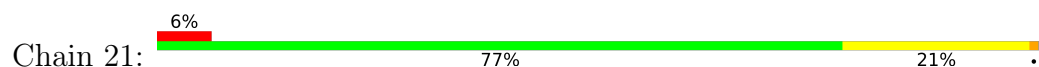


- Molecule 23: 50S Ribosomal Protein L28

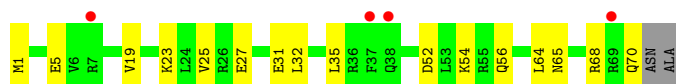
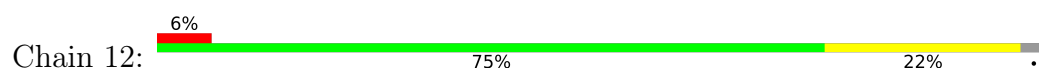




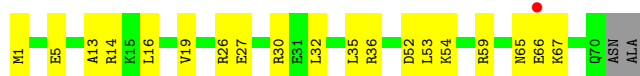
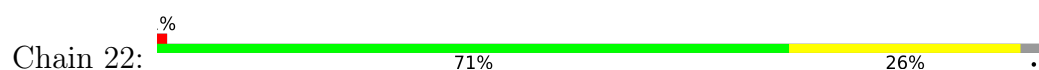
- Molecule 23: 50S Ribosomal Protein L28



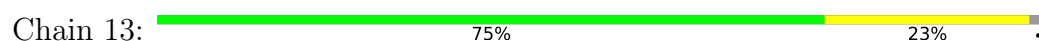
- Molecule 24: 50S Ribosomal Protein L29



- Molecule 24: 50S Ribosomal Protein L29



- Molecule 25: 50S Ribosomal Protein L30



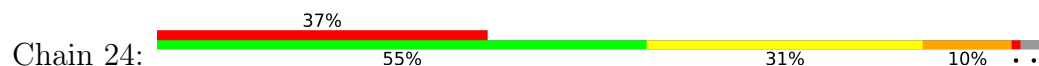
- Molecule 25: 50S Ribosomal Protein L30



- Molecule 26: 50S Ribosomal Protein L31



- Molecule 26: 50S Ribosomal Protein L31





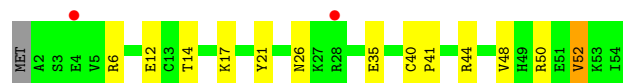
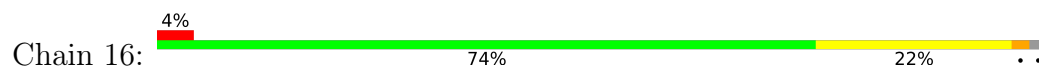
● Molecule 27: 50S Ribosomal Protein L32



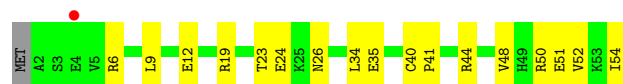
● Molecule 27: 50S Ribosomal Protein L32



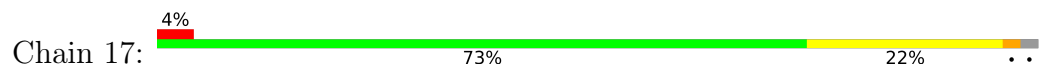
● Molecule 28: 50S Ribosomal Protein L33



● Molecule 28: 50S Ribosomal Protein L33



● Molecule 29: 50S Ribosomal Protein L34



● Molecule 29: 50S Ribosomal Protein L34



● Molecule 30: 50S Ribosomal Protein L35

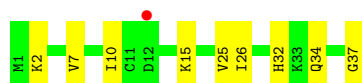
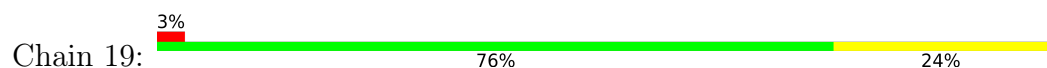




- Molecule 30: 50S Ribosomal Protein L35



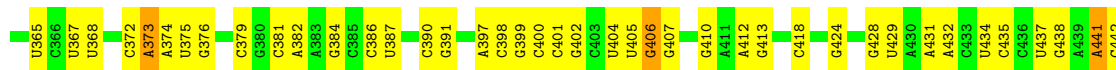
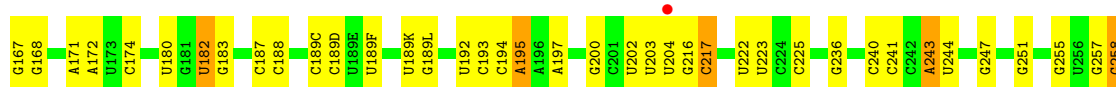
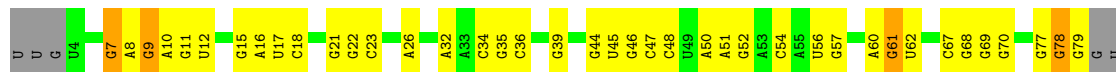
- Molecule 31: 50S Ribosomal Protein L36

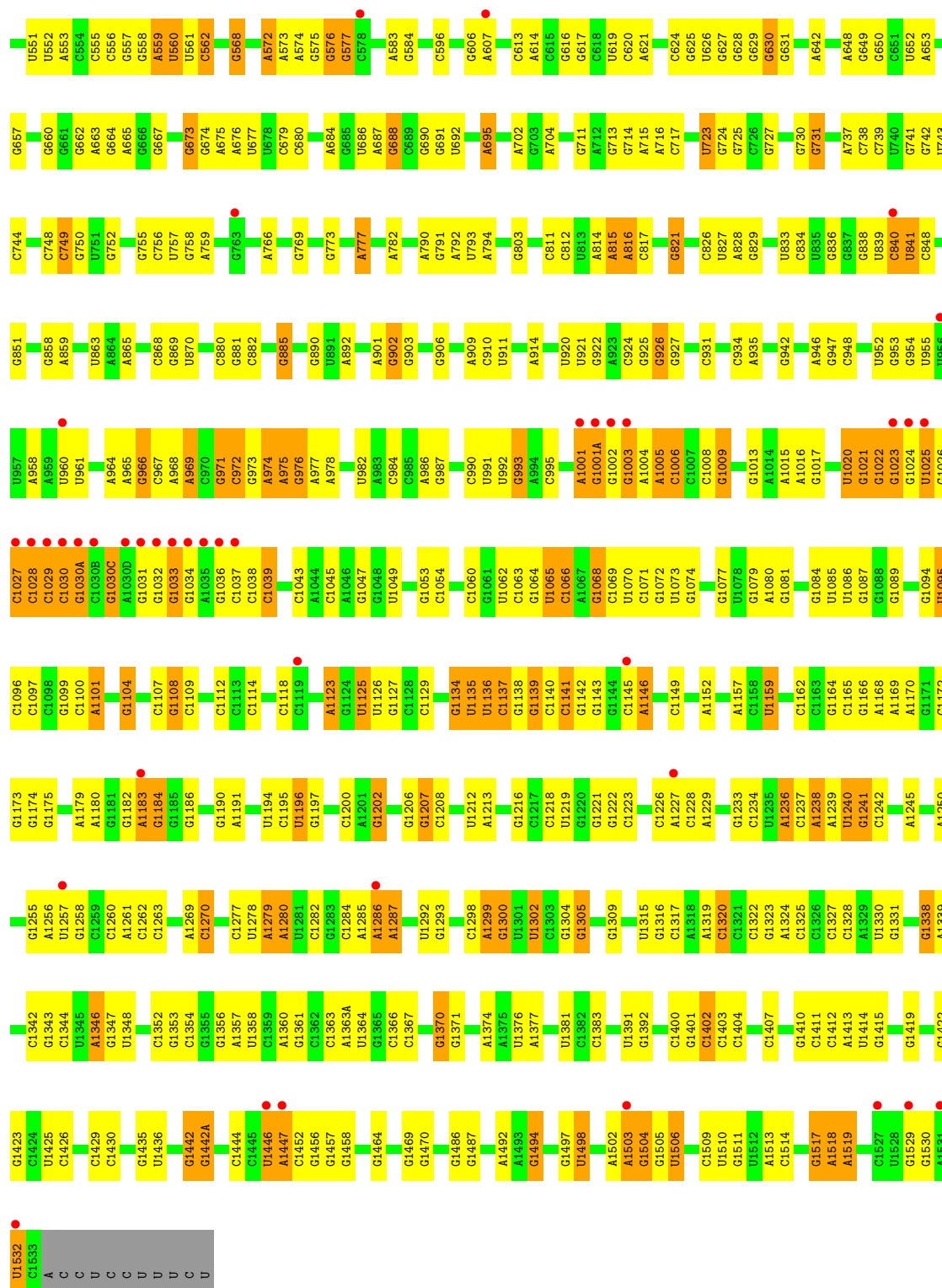


- Molecule 31: 50S Ribosomal Protein L36



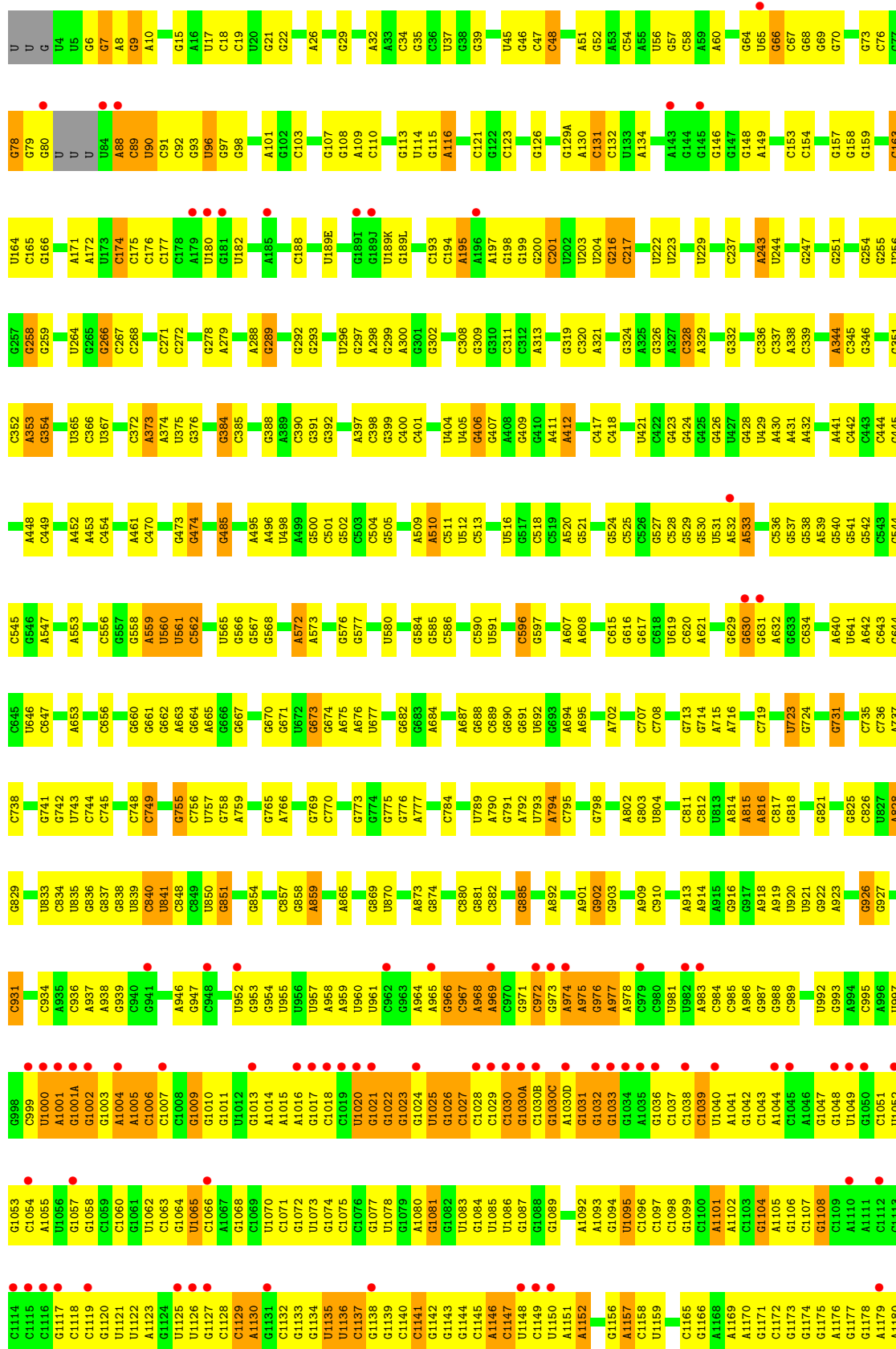
- Molecule 32: 16S Ribosomal RNA

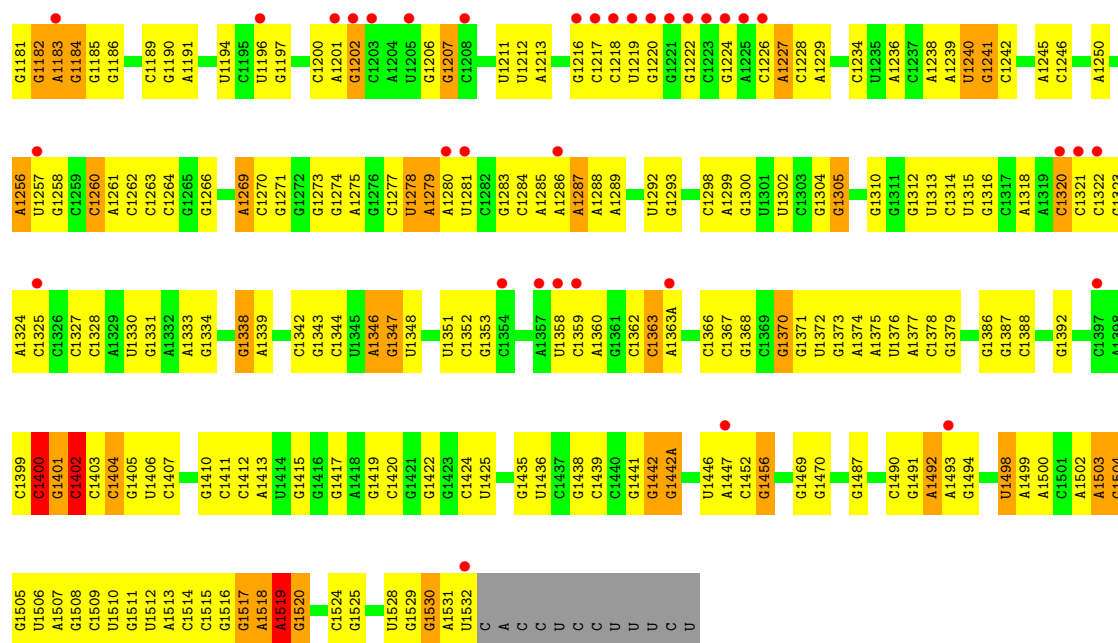




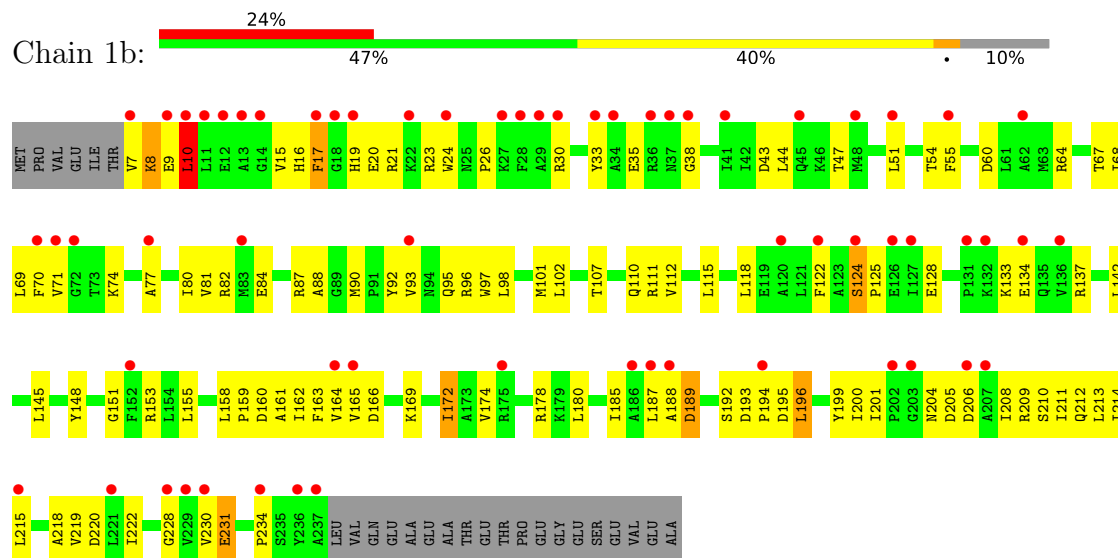
• Molecule 32: 16S Ribosomal RNA



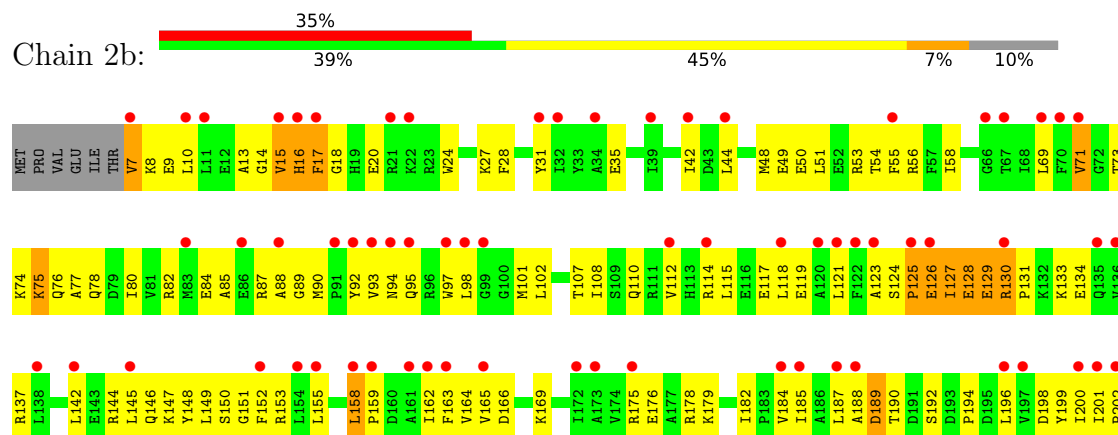


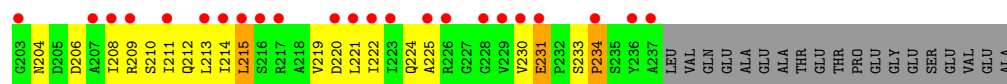


• Molecule 33: 30S Ribosomal Protein S2

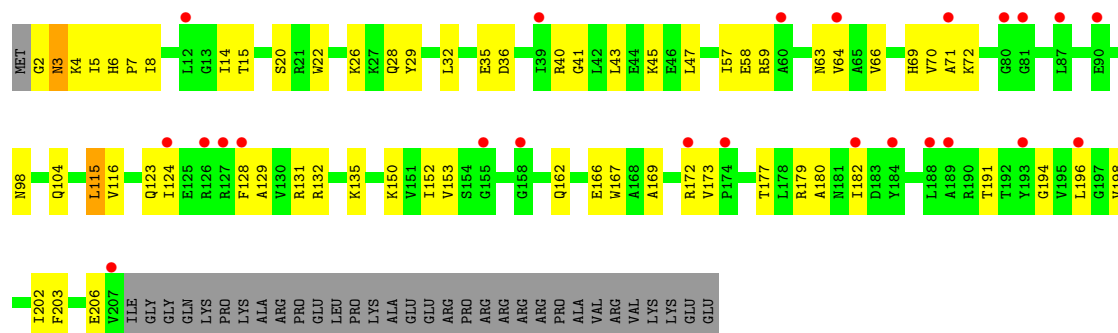


• Molecule 33: 30S Ribosomal Protein S2

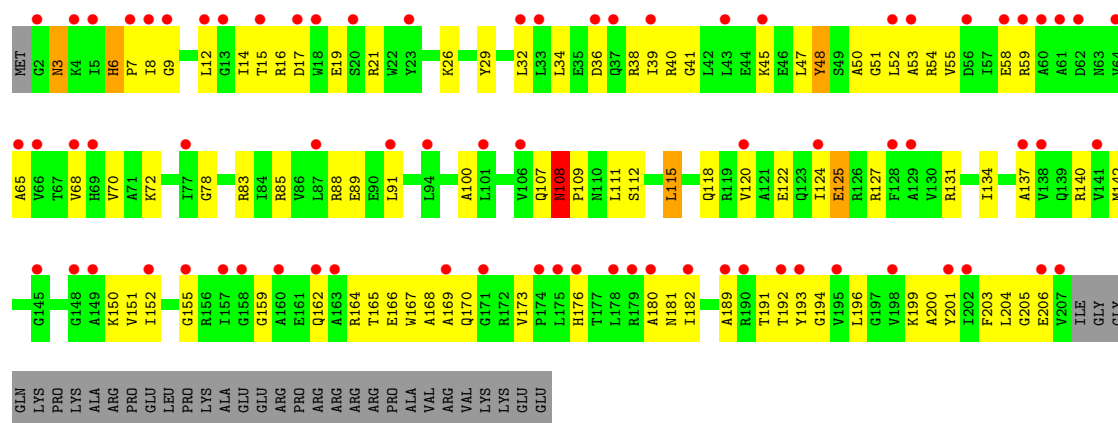




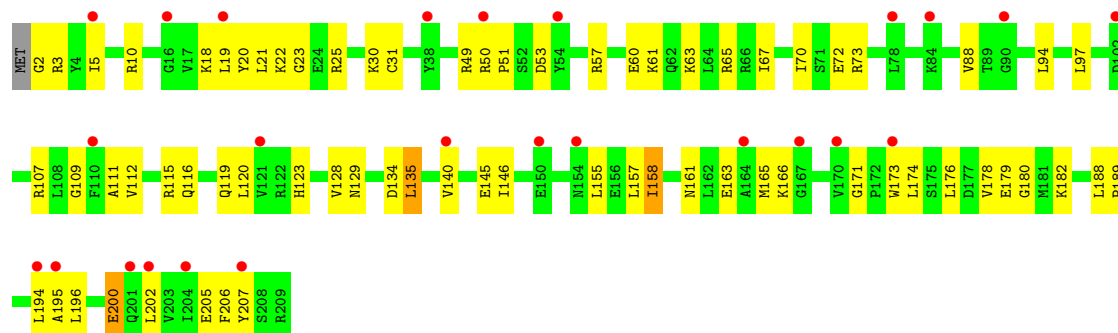
- Molecule 34: 30S Ribosomal Protein S3



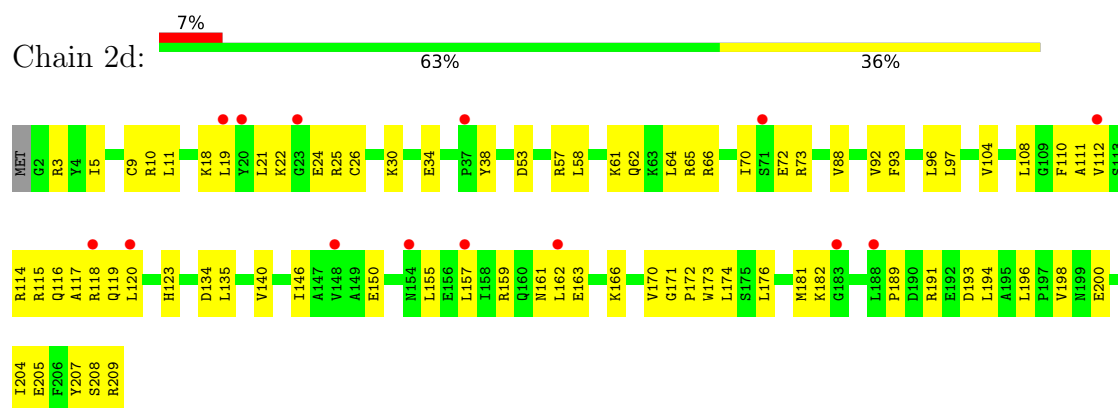
- Molecule 34: 30S Ribosomal Protein S3



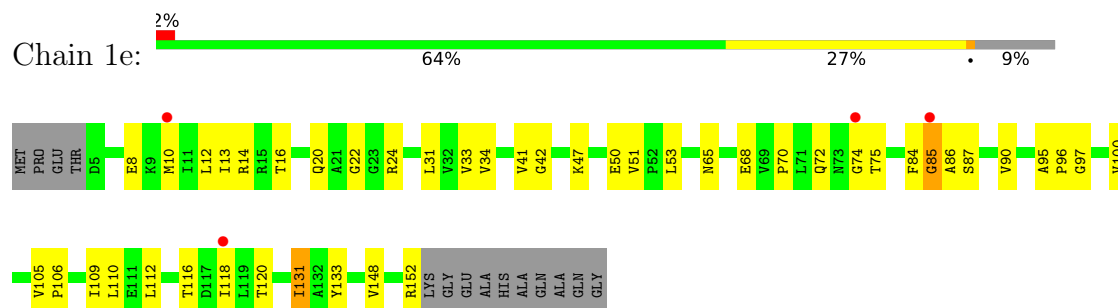
- Molecule 35: 30S Ribosomal Protein S4



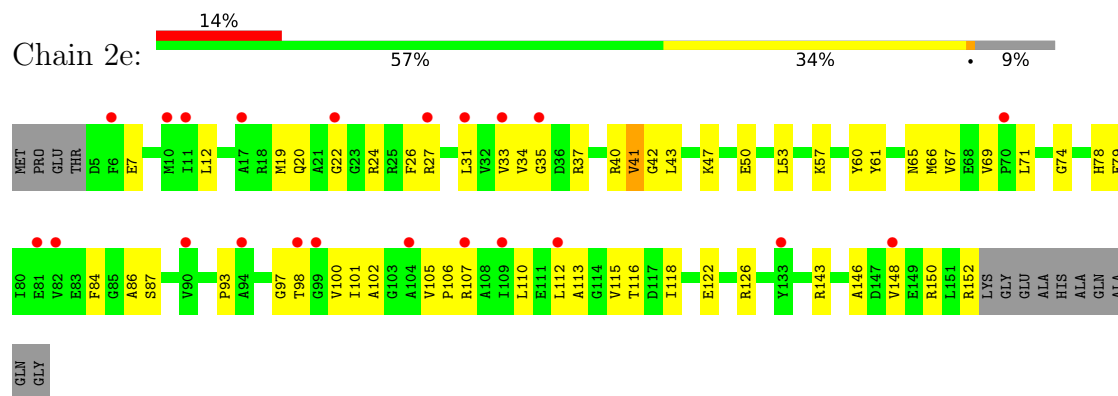
- Molecule 35: 30S Ribosomal Protein S4



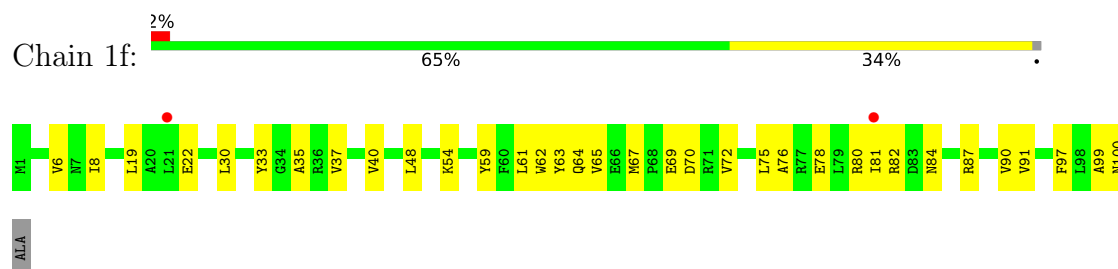
• Molecule 36: 30S Ribosomal Protein S5



• Molecule 36: 30S Ribosomal Protein S5



• Molecule 37: 30S Ribosomal Protein S6

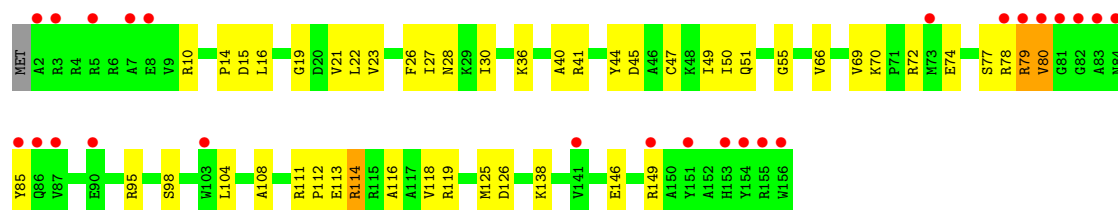


• Molecule 37: 30S Ribosomal Protein S6

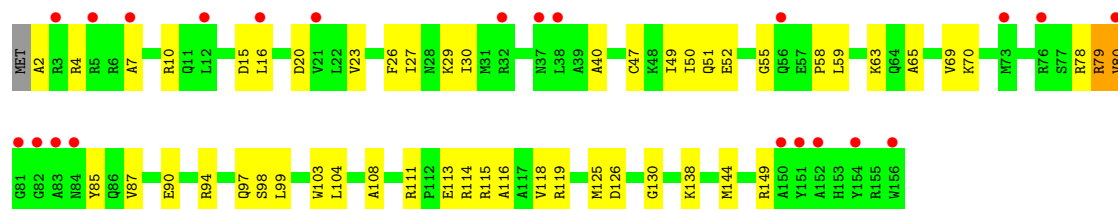




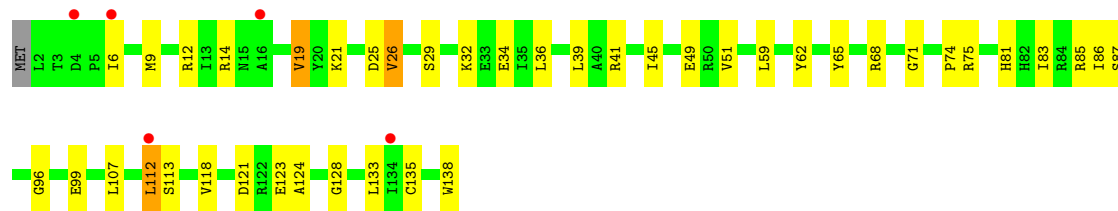
• Molecule 38: 30S Ribosomal Protein S7



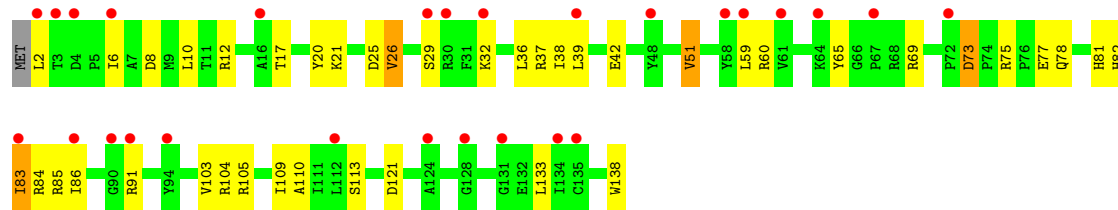
• Molecule 38: 30S Ribosomal Protein S7



• Molecule 39: 30S Ribosomal Protein S8

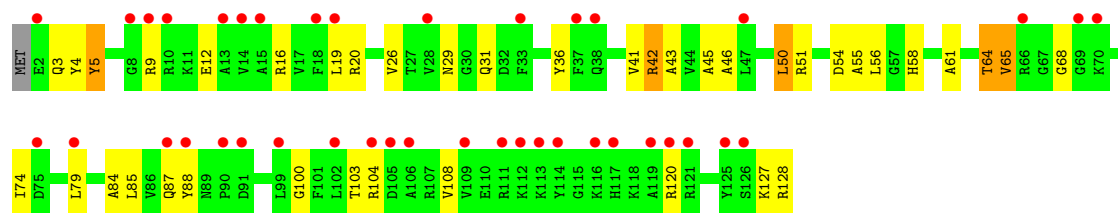


• Molecule 39: 30S Ribosomal Protein S8

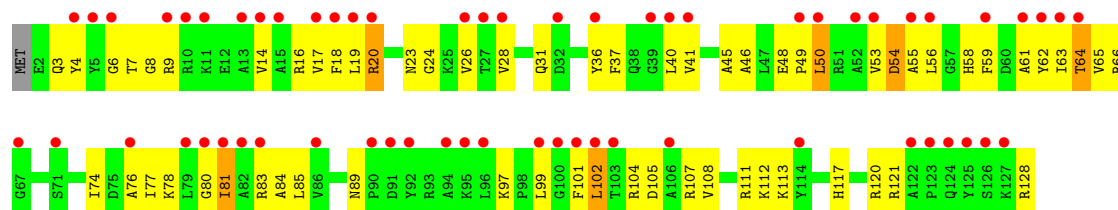


• Molecule 40: 30S Ribosomal Protein S9

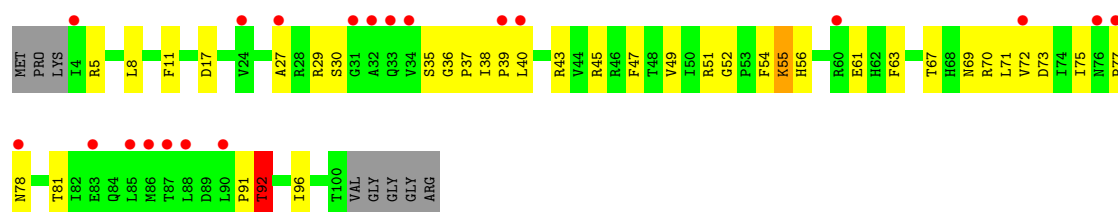




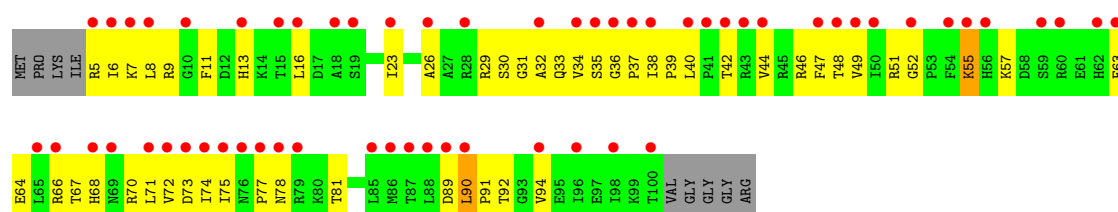
• Molecule 40: 30S Ribosomal Protein S9



• Molecule 41: 30S Ribosomal Protein S10



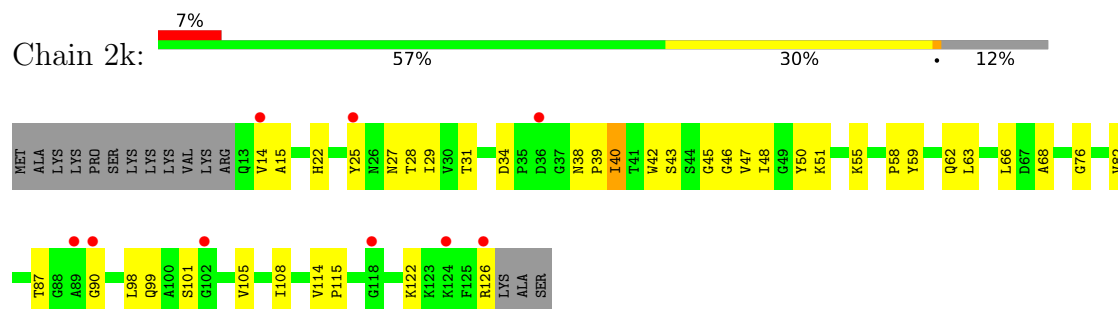
• Molecule 41: 30S Ribosomal Protein S10



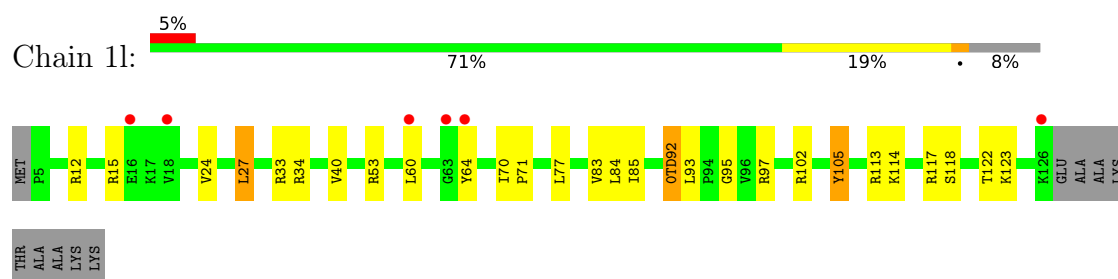
• Molecule 42: 30S Ribosomal Protein S11



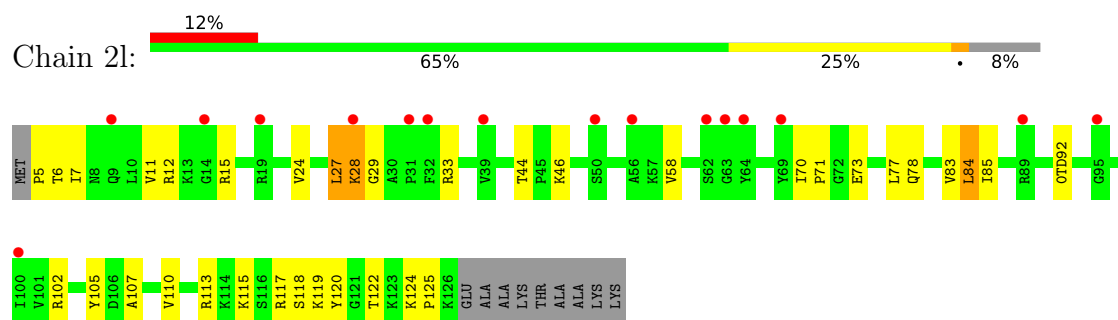
- Molecule 42: 30S Ribosomal Protein S11



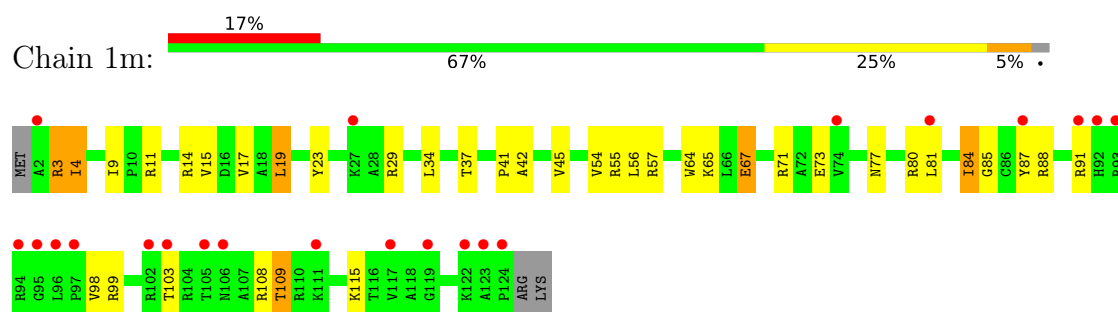
- Molecule 43: 30S Ribosomal Protein S12



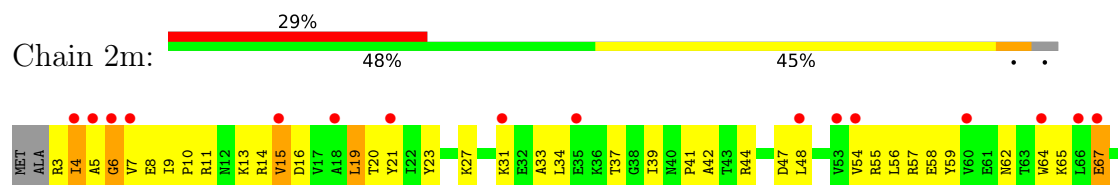
- Molecule 43: 30S Ribosomal Protein S12



- Molecule 44: 30S Ribosomal Protein S13



- Molecule 44: 30S Ribosomal Protein S13

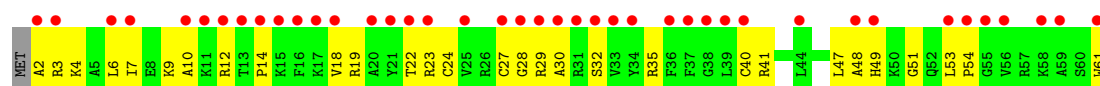




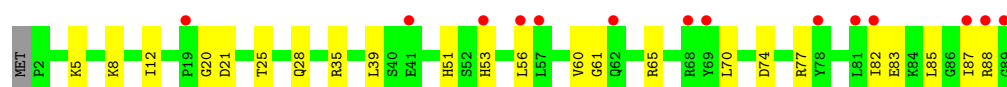
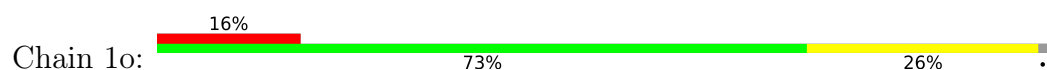
• Molecule 45: 30S Ribosomal Protein S14



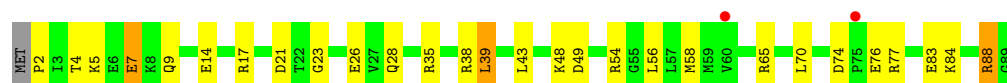
• Molecule 45: 30S Ribosomal Protein S14



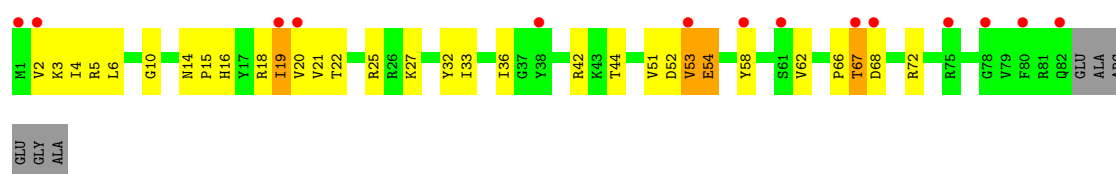
• Molecule 46: 30S Ribosomal Protein S15



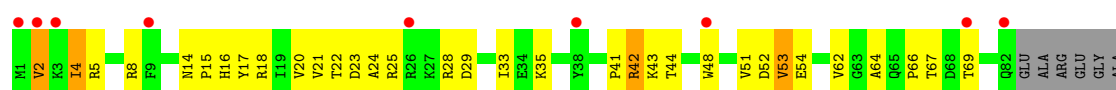
• Molecule 46: 30S Ribosomal Protein S15



• Molecule 47: 30S Ribosomal Protein S16

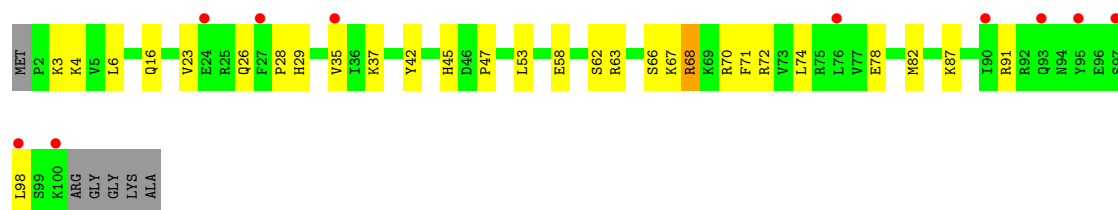


• Molecule 47: 30S Ribosomal Protein S16



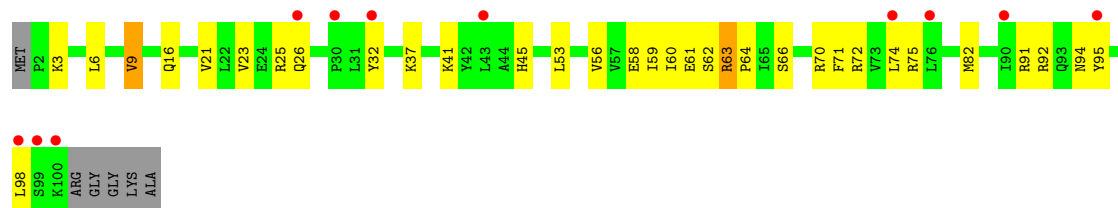
- Molecule 48: 30S Ribosomal Protein S17

Chain 1q: 



- Molecule 48: 30S Ribosomal Protein S17

Chain 2q: 



- Molecule 49: 30S Ribosomal Protein S18

Chain 1r: 



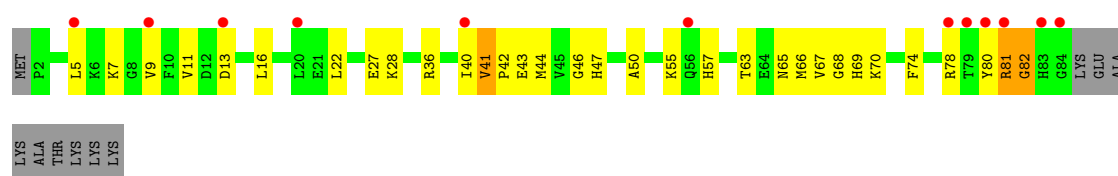
- Molecule 49: 30S Ribosomal Protein S18

Chain 2r: 

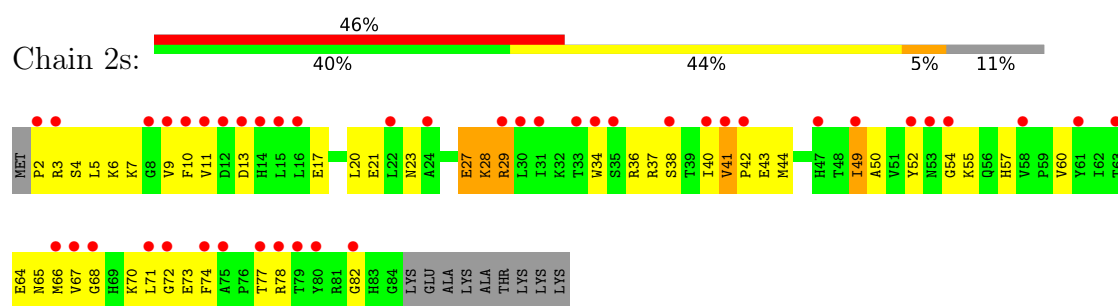


- Molecule 50: 30S Ribosomal Protein S19

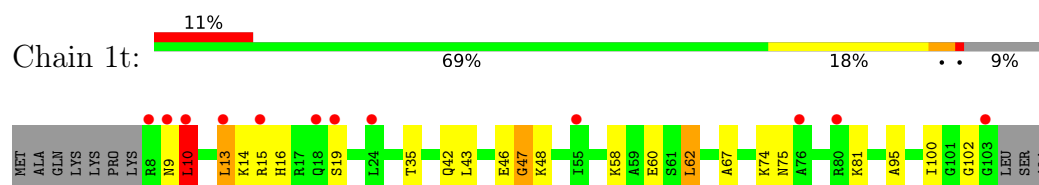
Chain 1s: 



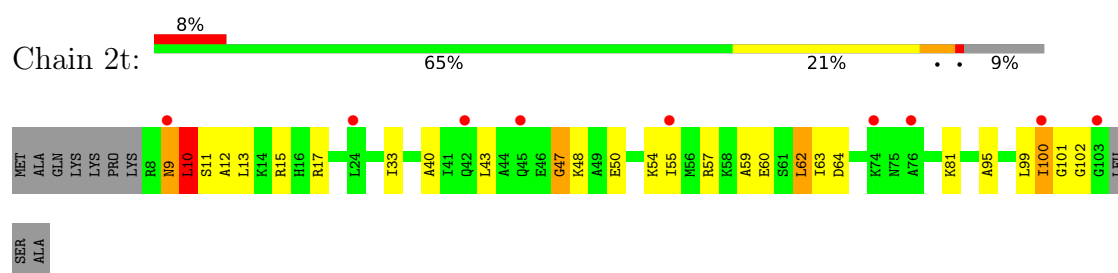
- Molecule 50: 30S Ribosomal Protein S19



• Molecule 51: 30S Ribosomal Protein S20



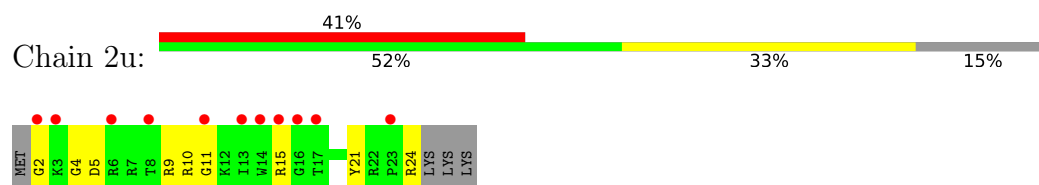
• Molecule 51: 30S Ribosomal Protein S20



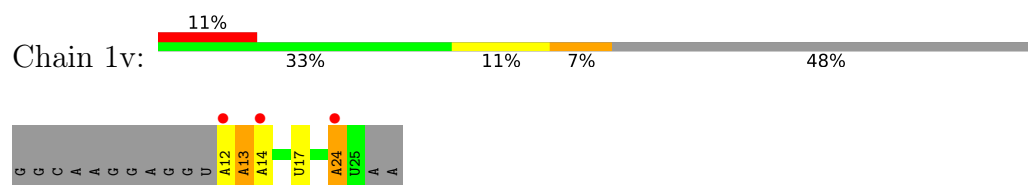
• Molecule 52: 30S Ribosomal Protein THX



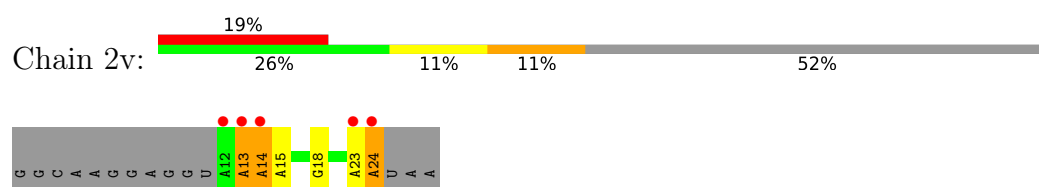
• Molecule 52: 30S Ribosomal Protein THX



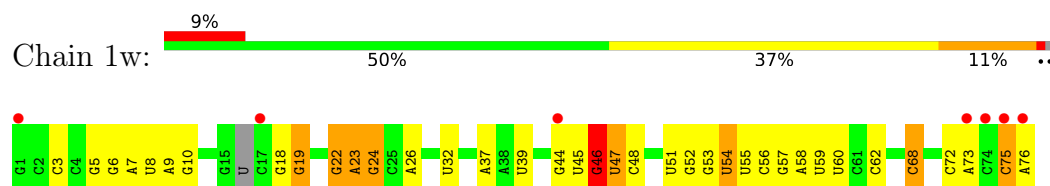
• Molecule 53: mRNA



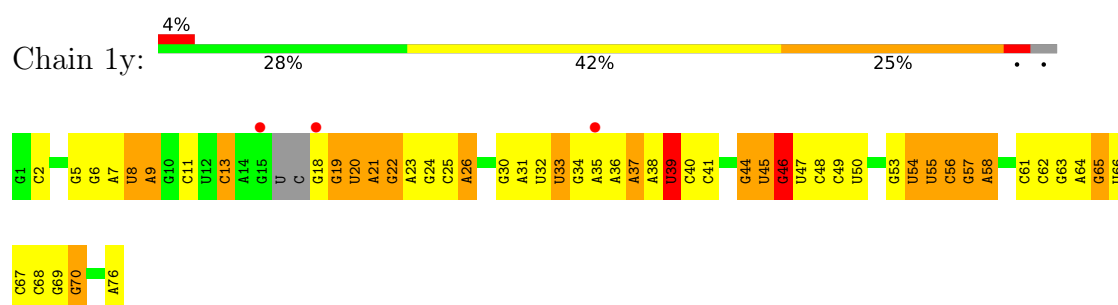
• Molecule 53: mRNA



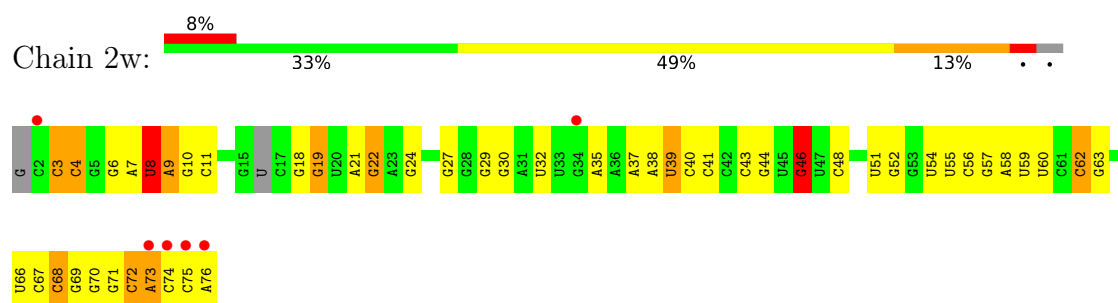
- Molecule 54: A-site and E-site tRNAs



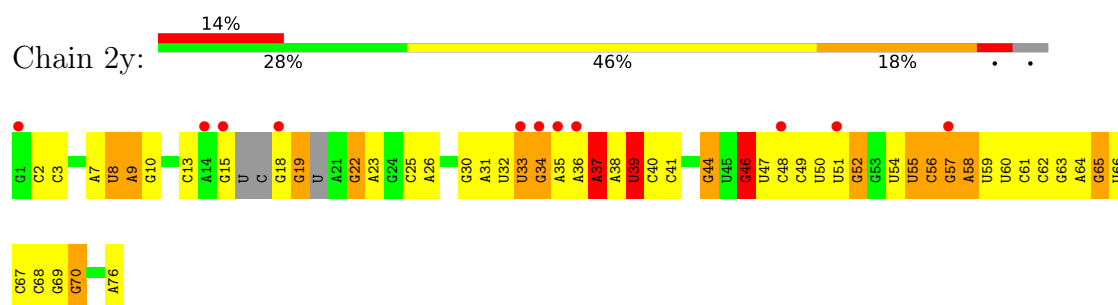
- Molecule 54: A-site and E-site tRNAs



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

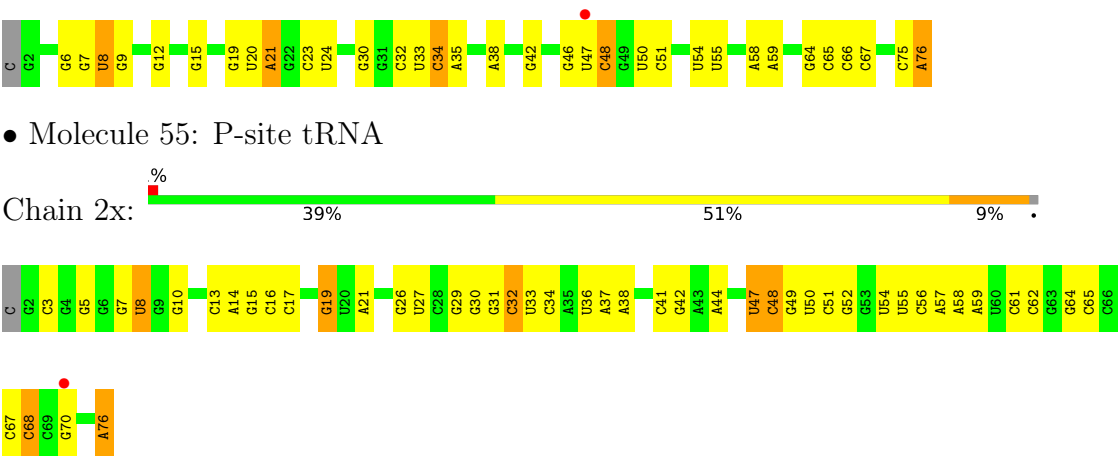


- Molecule 54: A-site and E-site tRNAs



- Molecule 55: P-site tRNA





4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	208.39Å 444.58Å 619.20Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	361.14 – 2.60 361.14 – 2.60	Depositor EDS
% Data completeness (in resolution range)	99.3 (361.14-2.60) 99.3 (361.14-2.60)	Depositor EDS
R_{merge}	0.19	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.29 (at 2.62Å)	Xtriage
Refinement program	PHENIX	Depositor
R, R_{free}	0.233 , 0.283 0.239 , 0.285	Depositor DCC
R_{free} test set	86608 reflections (4.98%)	wwPDB-VP
Wilson B-factor (Å ²)	51.7	Xtriage
Anisotropy	0.120	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.35 , 78.9	EDS
L-test for twinning ²	$\langle L \rangle = 0.37$, $\langle L^2 \rangle = 0.19$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.88	EDS
Total number of atoms	298925	wwPDB-VP
Average B, all atoms (Å ²)	58.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.63% of the height of the origin peak. No significant pseudotranslation is detected.*

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: FME, UR3, 7MG, HGR, K, 5MU, PSU, 0TD, 2MA, SF4, MA6, MG, 4OC, MIA, 2MU, 4SU, OMG, 5MC, M2G, 2MG, ZN

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	0.29	0/69009	0.46	2/107712 (0.0%)
1	2A	0.24	0/67293	0.44	1/105034 (0.0%)
2	1B	0.23	0/2882	0.39	0/4494
2	2B	0.24	0/2879	0.42	0/4487
3	1D	0.50	0/2186	0.88	2/2944 (0.1%)
3	2D	0.44	0/2186	0.91	5/2944 (0.2%)
4	1E	0.49	0/1592	0.90	2/2149 (0.1%)
4	2E	0.43	0/1592	0.90	4/2149 (0.2%)
5	1F	0.47	0/1619	0.88	5/2193 (0.2%)
5	2F	0.40	0/1615	0.94	4/2188 (0.2%)
6	1G	0.42	0/1454	0.85	3/1964 (0.2%)
6	2G	0.39	0/1453	0.93	4/1963 (0.2%)
7	1H	0.45	0/1356	0.89	4/1834 (0.2%)
7	2H	0.41	0/1356	0.90	0/1834
8	1I	0.39	0/1112	0.92	5/1514 (0.3%)
8	2I	0.37	0/1079	0.92	3/1475 (0.2%)
9	1N	0.45	0/1144	0.87	2/1543 (0.1%)
9	2N	0.37	0/1144	0.91	6/1543 (0.4%)
10	1O	0.48	0/943	0.81	0/1269
10	2O	0.42	0/943	0.79	0/1269
11	1P	0.46	0/1152	0.82	3/1533 (0.2%)
11	2P	0.40	0/1152	0.94	3/1533 (0.2%)
12	1Q	0.51	0/1143	0.82	0/1527
12	2Q	0.42	0/1143	0.86	0/1527
13	1R	0.50	0/982	0.85	1/1312 (0.1%)
13	2R	0.44	0/982	0.82	1/1312 (0.1%)
14	1S	0.42	0/883	0.84	0/1176
14	2S	0.38	0/880	0.91	1/1172 (0.1%)
15	1T	0.44	0/1105	0.80	0/1477
15	2T	0.38	0/1097	0.84	0/1468
16	1U	0.54	0/977	0.80	0/1301

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
16	2U	0.42	0/977	0.85	0/1301
17	1V	0.49	0/782	0.80	0/1049
17	2V	0.40	0/782	0.82	0/1049
18	1W	0.53	0/897	0.86	2/1205 (0.2%)
18	2W	0.47	0/897	0.87	2/1205 (0.2%)
19	1X	0.51	0/764	0.89	2/1025 (0.2%)
19	2X	0.42	0/764	0.82	0/1025
20	1Y	0.45	0/819	0.88	0/1095
20	2Y	0.37	0/819	0.87	3/1095 (0.3%)
21	1Z	0.41	0/1267	0.91	3/1717 (0.2%)
21	2Z	0.38	0/1299	0.92	6/1763 (0.3%)
22	10	0.44	0/662	0.85	1/881 (0.1%)
22	20	0.36	0/662	0.91	2/881 (0.2%)
23	11	0.46	0/762	0.86	0/1014
23	21	0.40	0/762	0.84	0/1014
24	12	0.44	0/590	0.80	0/781
24	22	0.36	0/590	0.77	0/781
25	13	0.48	0/474	0.84	0/635
25	23	0.40	0/469	0.89	0/630
26	14	0.40	0/565	1.08	4/761 (0.5%)
26	24	0.45	0/545	1.08	3/737 (0.4%)
27	15	0.52	0/469	0.83	1/635 (0.2%)
27	25	0.43	0/469	0.86	0/635
28	16	0.47	0/460	0.75	0/613
28	26	0.37	0/456	0.75	0/608
29	17	0.52	0/426	0.78	0/561
29	27	0.46	0/426	0.86	0/561
30	18	0.49	0/525	0.87	2/691 (0.3%)
30	28	0.41	0/525	0.82	0/691
31	19	0.44	0/310	0.82	0/407
31	29	0.37	0/310	0.92	0/407
32	1a	0.22	0/35795	0.41	0/55864
32	2a	0.21	0/35886	0.42	2/56005 (0.0%)
33	1b	0.38	0/1881	0.97	6/2542 (0.2%)
33	2b	0.41	0/1860	0.99	9/2518 (0.4%)
34	1c	0.38	0/1572	0.85	2/2126 (0.1%)
34	2c	0.41	0/1566	0.95	8/2119 (0.4%)
35	1d	0.38	0/1685	0.84	2/2262 (0.1%)
35	2d	0.36	0/1704	0.81	2/2284 (0.1%)
36	1e	0.43	0/1145	0.90	0/1543
36	2e	0.39	0/1149	0.96	4/1548 (0.3%)
37	1f	0.39	0/823	0.78	0/1115
37	2f	0.38	0/829	0.79	1/1123 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
38	1g	0.40	0/1250	0.88	1/1679 (0.1%)
38	2g	0.37	0/1254	0.96	1/1683 (0.1%)
39	1h	0.37	0/1108	0.94	5/1494 (0.3%)
39	2h	0.35	0/1108	0.87	2/1494 (0.1%)
40	1i	0.37	0/1002	0.94	2/1346 (0.1%)
40	2i	0.36	0/997	0.87	2/1343 (0.1%)
41	1j	0.36	0/722	0.99	3/982 (0.3%)
41	2j	0.40	0/727	0.99	2/988 (0.2%)
42	1k	0.39	0/844	0.84	0/1145
42	2k	0.37	0/848	0.83	1/1149 (0.1%)
43	1l	0.38	0/937	0.81	1/1260 (0.1%)
43	2l	0.40	0/937	0.98	6/1260 (0.5%)
44	1m	0.41	0/969	0.90	1/1302 (0.1%)
44	2m	0.41	0/961	0.91	1/1291 (0.1%)
45	1n	0.37	0/501	0.81	2/664 (0.3%)
45	2n	0.37	0/501	0.83	0/664
46	1o	0.39	0/739	0.84	1/985 (0.1%)
46	2o	0.36	0/739	0.86	0/985
47	1p	0.37	0/697	0.80	0/939
47	2p	0.40	0/693	0.85	1/935 (0.1%)
48	1q	0.36	0/836	0.86	2/1117 (0.2%)
48	2q	0.35	0/836	0.83	0/1117
49	1r	0.38	0/560	0.80	0/746
49	2r	0.36	0/560	0.84	0/746
50	1s	0.37	0/667	0.95	3/900 (0.3%)
50	2s	0.44	0/661	1.05	4/893 (0.4%)
51	1t	0.37	0/730	0.90	0/965
51	2t	0.38	0/729	0.89	2/965 (0.2%)
52	1u	0.33	0/203	0.77	0/266
52	2u	0.37	0/203	0.86	0/266
53	1v	0.22	0/314	0.35	0/487
53	2v	0.22	0/310	0.41	0/480
54	1w	0.28	0/1585	0.52	0/2468
54	1y	0.25	1/1602 (0.1%)	0.44	0/2493
54	2w	0.30	1/1562 (0.1%)	0.52	0/2431
54	2y	0.26	0/1579	0.45	0/2455
55	1x	0.34	1/1725 (0.1%)	0.49	2/2689 (0.1%)
55	2x	0.29	1/1725 (0.1%)	0.46	1/2689 (0.0%)
All	All	0.31	4/316673 (0.0%)	0.59	174/474103 (0.0%)

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

sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
26	14	0	1
50	2s	0	1
All	All	0	2

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
55	1x	76	A	N7-C5	-5.73	1.27	1.39
54	1y	8	4SU	O3'-P	5.38	1.61	1.56
55	2x	8	4SU	O3'-P	5.26	1.61	1.56
54	2w	8	4SU	O3'-P	5.21	1.61	1.56

All (174) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	2a	1420	C	OP1-P-O3'	-9.41	79.77	108.00
40	1i	51	ARG	N-CA-C	-9.39	103.91	114.62
21	1Z	158	PRO	CA-C-N	8.93	131.01	119.84
21	1Z	158	PRO	C-N-CA	8.93	131.01	119.84
26	14	59	PHE	N-CA-C	-8.65	101.49	114.64
55	2x	76	A	O4'-C1'-N9	8.16	120.44	108.20
33	2b	124	SER	CA-C-N	-8.03	109.80	119.84
33	2b	124	SER	C-N-CA	-8.03	109.80	119.84
55	1x	75	C	OP1-P-O3'	-7.88	84.37	108.00
5	2F	9	ILE	N-CA-C	7.61	116.40	107.73
43	2l	44	THR	CA-C-N	7.59	128.03	120.52
43	2l	44	THR	C-N-CA	7.59	128.03	120.52
32	2a	1420	C	OP2-P-O3'	-7.59	85.23	108.00
50	1s	82	GLY	N-CA-C	7.47	119.95	110.38
50	2s	82	GLY	N-CA-C	7.47	120.99	110.38
33	2b	129	GLU	N-CA-C	-7.45	104.17	113.18
26	14	60	GLN	N-CA-C	-7.27	104.50	113.15
4	2E	72	VAL	CA-C-N	7.20	134.65	121.70
4	2E	72	VAL	C-N-CA	7.20	134.65	121.70
6	2G	44	GLY	N-CA-C	-7.08	106.00	115.21
43	2l	28	LYS	N-CA-C	7.06	121.40	111.52
44	1m	84	ILE	N-CA-C	7.02	118.65	111.00
26	14	40	HIS	CA-C-N	6.95	126.47	119.24
26	14	40	HIS	C-N-CA	6.95	126.47	119.24
50	2s	41	VAL	CA-C-N	6.78	128.32	119.84
50	2s	41	VAL	C-N-CA	6.78	128.32	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	2c	72	LYS	CA-C-N	6.76	126.45	119.82
34	2c	72	LYS	C-N-CA	6.76	126.45	119.82
35	2d	171	GLY	CA-C-N	6.68	126.19	119.24
35	2d	171	GLY	C-N-CA	6.68	126.19	119.24
6	1G	127	GLY	N-CA-C	-6.66	105.59	114.25
50	1s	41	VAL	CA-C-N	6.64	128.14	119.84
50	1s	41	VAL	C-N-CA	6.64	128.14	119.84
8	1I	118	LYS	CA-C-N	6.64	126.67	119.90
8	1I	118	LYS	C-N-CA	6.64	126.67	119.90
21	2Z	53	ILE	N-CA-C	-6.55	106.61	112.90
1	1A	1992	G	C2'-C3'-O3'	6.53	119.30	109.50
41	2j	90	LEU	CA-C-N	6.53	127.42	120.11
41	2j	90	LEU	C-N-CA	6.53	127.42	120.11
33	1b	38	GLY	N-CA-C	-6.47	106.31	115.43
5	1F	9	ILE	CA-C-N	6.46	126.42	119.76
5	1F	9	ILE	C-N-CA	6.46	126.42	119.76
4	2E	190	GLY	CA-C-N	6.43	126.89	120.52
4	2E	190	GLY	C-N-CA	6.43	126.89	120.52
34	1c	72	LYS	CA-C-N	6.40	126.09	119.82
34	1c	72	LYS	C-N-CA	6.40	126.09	119.82
39	1h	71	GLY	CA-C-N	6.35	126.10	119.05
39	1h	71	GLY	C-N-CA	6.35	126.10	119.05
34	2c	6	HIS	CA-C-N	6.25	125.94	119.56
34	2c	6	HIS	C-N-CA	6.25	125.94	119.56
20	2Y	93	GLY	N-CA-C	-6.23	106.91	113.58
22	20	82	ARG	CA-C-N	6.22	126.57	119.92
22	20	82	ARG	C-N-CA	6.22	126.57	119.92
11	2P	44	GLY	CA-C-N	6.18	132.83	121.70
11	2P	44	GLY	C-N-CA	6.18	132.83	121.70
51	2t	101	GLY	N-CA-C	6.16	121.31	111.64
33	2b	130	ARG	CA-C-N	6.14	127.52	119.84
33	2b	130	ARG	C-N-CA	6.14	127.52	119.84
18	1W	13	SER	CA-C-N	6.12	125.61	119.24
18	1W	13	SER	C-N-CA	6.12	125.61	119.24
9	2N	10	GLU	CA-C-N	6.10	126.01	119.85
9	2N	10	GLU	C-N-CA	6.10	126.01	119.85
7	1H	54	ARG	CA-C-N	6.08	125.70	119.56
7	1H	54	ARG	C-N-CA	6.08	125.70	119.56
5	1F	89	VAL	N-CA-C	6.04	116.21	110.53
44	2m	106	ASN	N-CA-C	6.04	119.69	111.17
50	2s	10	PHE	N-CA-C	6.03	119.88	110.17
5	2F	21	ALA	CA-C-N	6.02	132.54	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	2F	21	ALA	C-N-CA	6.02	132.54	121.70
41	1j	92	THR	N-CA-C	5.93	117.83	111.36
13	2R	38	VAL	CB-CA-C	-5.93	108.07	113.70
55	1x	75	C	OP2-P-O3'	5.92	125.76	108.00
3	2D	244	ARG	CA-C-N	-5.91	114.29	120.38
3	2D	244	ARG	C-N-CA	-5.91	114.29	120.38
43	2l	119	LYS	N-CA-C	-5.90	102.75	110.53
34	2c	48	TYR	N-CA-C	-5.89	104.98	111.82
8	2I	79	ILE	N-CA-C	5.88	113.89	107.60
21	2Z	14	LYS	CA-C-N	5.86	125.72	119.28
21	2Z	14	LYS	C-N-CA	5.86	125.72	119.28
41	1j	52	GLY	CA-C-N	5.84	125.46	119.56
41	1j	52	GLY	C-N-CA	5.84	125.46	119.56
33	1b	128	GLU	N-CA-C	-5.82	105.55	114.16
9	1N	125	GLY	CA-C-N	5.78	125.88	119.87
9	1N	125	GLY	C-N-CA	5.78	125.88	119.87
18	2W	13	SER	CA-C-N	5.72	125.19	119.24
18	2W	13	SER	C-N-CA	5.72	125.19	119.24
39	1h	19	VAL	N-CA-C	-5.71	107.18	112.43
33	1b	228	GLY	N-CA-C	5.63	118.10	111.63
47	2p	67	THR	N-CA-C	-5.61	103.29	110.53
34	2c	125	GLU	N-CA-C	-5.59	105.28	111.71
43	1l	105	TYR	CB-CA-C	-5.59	110.14	116.63
33	2b	75	LYS	N-CA-C	5.54	117.18	111.03
45	1n	13	THR	CA-C-N	5.52	125.51	120.21
45	1n	13	THR	C-N-CA	5.52	125.51	120.21
39	2h	73	ASP	CA-C-N	5.52	127.56	120.89
39	2h	73	ASP	C-N-CA	5.52	127.56	120.89
42	2k	40	ILE	N-CA-C	-5.51	107.27	111.62
9	2N	125	GLY	CA-C-N	5.50	125.58	119.87
9	2N	125	GLY	C-N-CA	5.50	125.58	119.87
7	1H	9	ILE	N-CA-C	5.50	112.56	107.56
5	1F	16	GLY	N-CA-C	5.49	118.73	111.70
34	2c	108	ASN	CA-C-N	5.47	126.67	119.84
34	2c	108	ASN	C-N-CA	5.47	126.67	119.84
13	1R	38	VAL	CB-CA-C	-5.46	108.51	113.70
21	2Z	100	VAL	CA-C-N	5.46	126.66	119.84
21	2Z	100	VAL	C-N-CA	5.46	126.66	119.84
36	2e	35	GLY	N-CA-C	5.45	118.44	110.38
39	1h	75	ARG	CA-C-N	5.45	125.39	119.78
39	1h	75	ARG	C-N-CA	5.45	125.39	119.78
3	1D	274	ARG	N-CA-C	5.43	117.55	110.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	2G	15	VAL	N-CA-C	5.42	115.63	110.53
38	2g	87	VAL	N-CA-C	5.40	113.27	108.63
33	1b	10	LEU	N-CA-C	5.39	122.29	110.80
43	2l	58	VAL	N-CA-C	5.38	115.64	108.11
11	1P	38	GLN	N-CA-C	5.37	117.83	111.33
1	2A	1992	G	C2'-C3'-O3'	5.36	117.55	109.50
3	2D	100	GLY	N-CA-C	-5.33	108.28	115.21
9	2N	39	ARG	CA-C-N	5.33	125.04	119.82
9	2N	39	ARG	C-N-CA	5.33	125.04	119.82
22	10	9	SER	N-CA-C	5.32	116.36	108.60
51	2t	11	SER	N-CA-C	-5.30	106.49	113.17
40	2i	20	ARG	CA-C-N	5.30	125.30	119.90
40	2i	20	ARG	C-N-CA	5.30	125.30	119.90
33	2b	71	VAL	N-CA-C	5.28	113.97	106.53
27	15	27	PRO	O-C-N	5.26	123.73	121.31
19	1X	94	GLY	CA-C-N	5.25	131.15	121.70
19	1X	94	GLY	C-N-CA	5.25	131.15	121.70
33	1b	193	ASP	CA-C-N	5.22	125.28	119.32
33	1b	193	ASP	C-N-CA	5.22	125.28	119.32
3	2D	70	TRP	N-CA-C	-5.22	106.74	113.01
14	2S	40	ILE	N-CA-C	5.22	116.23	108.46
33	2b	14	GLY	N-CA-C	-5.22	107.16	115.66
36	2e	98	THR	N-CA-C	5.20	116.64	110.97
7	1H	169	VAL	N-CA-C	5.19	111.76	106.21
35	1d	171	GLY	CA-C-N	5.19	124.64	119.24
35	1d	171	GLY	C-N-CA	5.19	124.64	119.24
46	1o	20	GLY	N-CA-C	5.18	121.08	114.66
5	2F	151	SER	N-CA-C	-5.17	106.97	113.28
6	1G	96	ARG	CB-CA-C	-5.17	110.60	116.54
21	2Z	152	ALA	N-CA-C	5.16	117.69	111.40
20	2Y	31	LEU	CA-C-N	5.15	125.19	119.32
20	2Y	31	LEU	C-N-CA	5.15	125.19	119.32
30	18	62	LEU	CA-C-N	5.14	124.75	119.56
30	18	62	LEU	C-N-CA	5.14	124.75	119.56
8	1I	110	ASP	CA-C-N	5.13	124.74	119.05
8	1I	110	ASP	C-N-CA	5.13	124.74	119.05
11	2P	44	GLY	N-CA-C	-5.10	102.98	112.37
43	2l	105	TYR	CB-CA-C	-5.10	110.71	116.63
8	1I	51	ILE	N-CA-C	-5.09	105.42	110.62
3	1D	42	GLY	N-CA-C	-5.09	108.26	115.43
36	2e	148	VAL	N-CA-C	5.08	115.31	110.53
1	1A	1992	G	P-O3'-C3'	5.08	127.81	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	2b	158	LEU	N-CA-C	5.07	115.43	109.60
6	1G	45	GLU	N-CA-C	-5.07	106.92	113.01
8	2I	110	ASP	CA-C-N	5.07	124.68	119.05
8	2I	110	ASP	C-N-CA	5.07	124.68	119.05
38	1g	114	ARG	N-CA-C	5.07	116.49	111.07
11	1P	22	GLY	CA-C-N	5.05	124.35	118.85
11	1P	22	GLY	C-N-CA	5.05	124.35	118.85
21	1Z	53	ILE	N-CA-C	-5.04	107.38	112.17
4	1E	31	CYS	CA-C-N	5.04	124.94	119.85
4	1E	31	CYS	C-N-CA	5.04	124.94	119.85
48	1q	29	HIS	CA-C-N	5.04	125.31	119.47
48	1q	29	HIS	C-N-CA	5.04	125.31	119.47
3	2D	3	VAL	N-CA-C	-5.04	98.87	109.34
6	2G	141	PHE	CA-C-N	5.03	124.64	119.56
6	2G	141	PHE	C-N-CA	5.03	124.64	119.56
26	24	59	PHE	N-CA-C	5.03	118.75	109.24
5	1F	9	ILE	N-CA-C	5.03	113.46	107.73
37	2f	69	GLU	N-CA-C	5.03	117.49	111.71
36	2e	26	PHE	N-CA-C	5.01	117.51	110.14
40	1i	5	TYR	N-CA-C	5.01	117.56	109.40
26	24	28	LYS	CA-C-N	5.00	126.09	119.84
26	24	28	LYS	C-N-CA	5.00	126.09	119.84

There are no chirality outliers.

All (2) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
26	14	67	TYR	Peptide
50	2s	28	LYS	Peptide

5.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	1A	61852	0	31191	825	0
1	2A	60322	0	30426	1087	0
2	1B	2577	0	1305	34	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	2B	2575	0	1303	79	0
3	1D	2136	0	2218	61	0
3	2D	2136	0	2218	64	0
4	1E	1559	0	1618	42	0
4	2E	1559	0	1618	40	0
5	1F	1584	0	1625	43	0
5	2F	1580	0	1619	52	0
6	1G	1429	0	1447	40	0
6	2G	1428	0	1438	73	0
7	1H	1330	0	1407	37	0
7	2H	1330	0	1407	49	0
8	1I	1097	0	1140	35	0
8	2I	1064	0	1082	33	1
9	1N	1117	0	1184	26	0
9	2N	1117	0	1184	29	0
10	1O	933	0	996	21	0
10	2O	933	0	996	36	0
11	1P	1135	0	1212	33	0
11	2P	1135	0	1212	49	0
12	1Q	1122	0	1179	24	0
12	2Q	1122	0	1179	46	0
13	1R	968	0	1033	31	0
13	2R	968	0	1033	33	0
14	1S	873	0	927	22	0
14	2S	870	0	923	41	0
15	1T	1091	0	1151	24	0
15	2T	1083	0	1136	35	0
16	1U	959	0	1019	28	0
16	2U	959	0	1019	37	0
17	1V	771	0	830	15	0
17	2V	771	0	829	23	0
18	1W	886	0	940	15	0
18	2W	886	0	940	16	0
19	1X	750	0	814	21	0
19	2X	750	0	814	33	0
20	1Y	806	0	881	25	0
20	2Y	806	0	881	26	0
21	1Z	1240	0	1240	34	0
21	2Z	1271	0	1273	49	0
22	10	653	0	674	20	0
22	20	653	0	674	15	0
23	11	755	0	826	19	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
23	21	755	0	826	17	0
24	12	588	0	643	8	0
24	22	588	0	643	15	0
25	13	469	0	518	9	0
25	23	464	0	514	12	0
26	14	552	0	533	29	0
26	24	532	0	503	29	0
27	15	455	0	465	14	0
27	25	455	0	465	17	0
28	16	453	0	472	8	0
28	26	449	0	469	11	0
29	17	418	0	467	8	0
29	27	418	0	467	10	0
30	18	517	0	582	18	0
30	28	517	0	582	20	0
31	19	307	0	335	8	0
31	29	307	0	335	15	0
32	1a	32246	0	16296	544	1
32	2a	32327	0	16340	684	0
33	1b	1846	0	1867	78	0
33	2b	1825	0	1828	107	0
34	1c	1548	0	1535	44	0
34	2c	1542	0	1517	65	0
35	1d	1655	0	1671	60	0
35	2d	1674	0	1714	61	0
36	1e	1129	0	1185	27	0
36	2e	1133	0	1191	43	0
37	1f	810	0	804	25	0
37	2f	816	0	808	27	0
38	1g	1231	0	1238	35	0
38	2g	1235	0	1249	41	0
39	1h	1088	0	1126	28	0
39	2h	1088	0	1126	33	0
40	1i	983	0	986	31	0
40	2i	978	0	966	51	0
41	1j	709	0	650	29	0
41	2j	714	0	672	39	0
42	1k	829	0	825	19	0
42	2k	833	0	836	27	0
43	1l	932	0	981	20	0
43	2l	932	0	980	25	0
44	1m	958	0	1002	32	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
44	2m	950	0	988	52	0
45	1n	492	0	529	25	0
45	2n	492	0	529	29	0
46	1o	728	0	760	16	0
46	2o	728	0	760	20	0
47	1p	681	0	697	24	0
47	2p	677	0	686	25	0
48	1q	823	0	891	25	0
48	2q	823	0	891	28	0
49	1r	555	0	618	14	0
49	2r	555	0	618	23	0
50	1s	652	0	662	25	0
50	2s	646	0	644	39	0
51	1t	728	0	798	16	0
51	2t	727	0	796	19	0
52	1u	199	0	208	6	0
52	2u	199	0	208	8	0
53	1v	281	0	139	4	0
53	2v	277	0	140	6	0
54	1w	1574	0	810	28	0
54	1y	1581	0	805	44	0
54	2w	1547	0	783	38	0
54	2y	1561	0	796	48	0
55	1x	1625	0	828	18	0
55	2x	1625	0	828	29	0
56	10	4	0	0	0	0
56	11	3	0	0	0	0
56	12	1	0	0	0	0
56	13	3	0	0	0	0
56	15	2	0	0	0	0
56	16	1	0	0	0	0
56	17	2	0	0	0	0
56	18	2	0	0	0	0
56	19	2	0	0	0	0
56	1A	963	0	0	1	0
56	1B	29	0	0	0	0
56	1D	5	0	0	0	0
56	1E	6	0	0	0	0
56	1F	7	0	0	0	0
56	1G	4	0	0	0	0
56	1I	1	0	0	0	0
56	1N	7	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	1O	6	0	0	0	0
56	1P	4	0	0	0	0
56	1Q	6	0	0	0	0
56	1R	3	0	0	0	0
56	1S	2	0	0	0	0
56	1T	3	0	0	0	0
56	1U	5	0	0	0	0
56	1V	2	0	0	0	0
56	1W	6	0	0	0	0
56	1X	4	0	0	0	0
56	1Y	1	0	0	0	0
56	1Z	5	0	0	0	0
56	1a	239	0	0	0	0
56	1b	2	0	0	0	0
56	1d	2	0	0	0	0
56	1e	1	0	0	0	0
56	1f	2	0	0	0	0
56	1l	3	0	0	0	0
56	1t	1	0	0	0	0
56	1v	1	0	0	0	0
56	1w	6	0	0	0	0
56	1x	10	0	0	0	0
56	1y	2	0	0	0	0
56	20	3	0	0	0	0
56	23	1	0	0	0	0
56	26	1	0	0	0	0
56	28	1	0	0	0	0
56	2A	673	0	0	0	0
56	2B	18	0	0	0	0
56	2D	4	0	0	0	0
56	2E	5	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	4	0	0	0	0
56	2R	1	0	0	0	0
56	2T	1	0	0	0	0
56	2U	4	0	0	0	0
56	2V	1	0	0	0	0
56	2X	1	0	0	0	0
56	2Z	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	2a	196	0	0	0	0
56	2d	1	0	0	0	0
56	2e	1	0	0	0	0
56	2f	2	0	0	0	0
56	2g	1	0	0	0	0
56	2j	2	0	0	0	0
56	2l	2	0	0	0	0
56	2p	1	0	0	0	0
56	2q	2	0	0	0	0
56	2r	1	0	0	0	0
56	2t	1	0	0	0	0
56	2v	1	0	0	0	0
56	2w	3	0	0	0	0
56	2x	2	0	0	0	0
57	1A	1	0	0	0	0
57	2A	1	0	0	0	0
58	1A	36	0	29	2	0
58	2A	36	0	29	5	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	2	0
60	2d	8	0	0	0	0
61	1x	10	0	10	0	0
61	2x	10	0	10	0	0
62	10	9	0	0	2	0
62	11	3	0	0	0	0
62	12	4	0	0	0	0
62	13	3	0	0	0	0
62	14	1	0	0	0	0
62	15	4	0	0	0	0
62	16	2	0	0	0	0
62	17	5	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
62	18	10	0	0	0	0
62	19	1	0	0	0	0
62	1A	1577	0	0	94	0
62	1B	43	0	0	2	0
62	1D	23	0	0	0	0
62	1E	25	0	0	2	0
62	1F	17	0	0	0	0
62	1G	3	0	0	1	0
62	1H	1	0	0	0	0
62	1N	3	0	0	1	0
62	1O	4	0	0	1	0
62	1P	20	0	0	3	0
62	1Q	4	0	0	0	0
62	1R	5	0	0	0	0
62	1S	3	0	0	0	0
62	1T	4	0	0	0	0
62	1U	9	0	0	0	0
62	1V	5	0	0	0	0
62	1W	8	0	0	2	0
62	1X	7	0	0	0	0
62	1Y	2	0	0	1	0
62	1Z	1	0	0	0	0
62	1a	287	0	0	24	0
62	1e	1	0	0	0	0
62	1h	1	0	0	0	0
62	1i	1	0	0	0	0
62	1l	4	0	0	0	0
62	1m	1	0	0	0	0
62	1n	1	0	0	0	0
62	1o	1	0	0	0	0
62	1p	1	0	0	0	0
62	1q	1	0	0	0	0
62	1s	1	0	0	0	0
62	1v	3	0	0	0	0
62	1w	8	0	0	0	0
62	1x	6	0	0	0	0
62	1y	1	0	0	0	0
62	20	4	0	0	0	0
62	21	3	0	0	0	0
62	23	1	0	0	0	0
62	25	2	0	0	0	0
62	26	2	0	0	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
62	28	5	0	0	0	0
62	29	1	0	0	0	0
62	2A	1063	0	0	90	0
62	2B	10	0	0	1	0
62	2D	20	0	0	0	0
62	2E	9	0	0	1	0
62	2F	7	0	0	0	0
62	2I	1	0	0	0	0
62	2N	2	0	0	1	0
62	2O	1	0	0	0	0
62	2P	14	0	0	1	0
62	2Q	1	0	0	0	0
62	2R	3	0	0	0	0
62	2T	2	0	0	0	0
62	2U	1	0	0	0	0
62	2V	2	0	0	0	0
62	2W	2	0	0	0	0
62	2X	3	0	0	0	0
62	2Y	1	0	0	1	0
62	2Z	1	0	0	0	0
62	2a	213	0	0	18	0
62	2d	3	0	0	0	0
62	2g	2	0	0	0	0
62	2i	2	0	0	0	0
62	2j	5	0	0	2	0
62	2l	3	0	0	1	0
62	2n	1	0	0	0	0
62	2o	1	0	0	0	0
62	2p	3	0	0	0	0
62	2r	1	0	0	0	0
62	2t	2	0	0	0	0
62	2v	1	0	0	0	0
62	2w	2	0	0	0	0
62	2x	6	0	0	2	0
All	All	298925	0	196763	5536	1

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 12.

All (5536) 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:1082:U:H3	1:1A:1086:A:N6	1.44	1.14
54:2w:4:C:N4	54:2w:69:G:H1	1.55	1.04
54:2y:7:A:N6	54:2y:66:U:H3	1.55	1.03
32:2a:79:G:H1	32:2a:90:U:H3	1.07	1.03
54:1y:53:G:H1	54:1y:61:C:H42	1.06	0.98
54:2w:3:C:N4	54:2w:70:G:H1	1.62	0.97
1:1A:1059:G:H1	1:1A:1079:C:N4	1.61	0.97
1:1A:2499:C:OP1	62:1A:4001:HOH:O	1.82	0.97
1:1A:631:A:OP1	11:1P:65:ARG:NH1	1.98	0.97
1:2A:2104:G:H1	1:2A:2185:C:N4	1.62	0.94
1:1A:1082:U:O4	1:1A:1086:A:N1	1.99	0.94
12:2Q:21:THR:HG21	12:2Q:101:ARG:HG2	1.50	0.93
10:2O:48:PRO:HB3	32:2a:1422:G:H5''	1.46	0.93
22:10:10:THR:HG22	22:10:12:ASN:H	1.32	0.93
32:2a:1245:A:H61	32:2a:1292:U:H3	1.08	0.93
1:1A:2099:U:H3	1:1A:2190:G:H1	1.15	0.92
32:2a:1089:G:H1	32:2a:1096:C:H42	1.03	0.92
32:2a:1264:C:H42	32:2a:1271:G:H1	1.15	0.92
32:2a:1029:C:C4	32:2a:1032:G:N1	2.38	0.92
54:2w:3:C:H42	54:2w:70:G:H1	0.97	0.92
54:1y:19:G:N2	54:1y:56:C:N3	2.18	0.91
20:1Y:92:ASN:HB3	20:1Y:94:LYS:H	1.36	0.91
34:2c:180:ALA:HB1	34:2c:203:PHE:HE1	1.35	0.90
32:2a:1182:G:H4'	32:2a:1183:A:H5'	1.54	0.90
12:2Q:85:LYS:HG2	22:20:7:LEU:HB3	1.51	0.90
32:1a:1036:G:H21	32:1a:1037:C:H1'	1.37	0.89
32:2a:76:C:H42	32:2a:93:G:H1	1.09	0.89
1:1A:1082:U:H3	1:1A:1086:A:H61	0.90	0.89
32:2a:947:G:H1	32:2a:1234:C:H42	1.20	0.89
32:1a:1182:G:H4'	32:1a:1183:A:H5'	1.56	0.88
21:1Z:153:SER:HB3	21:1Z:167:PRO:HB3	1.54	0.88
32:2a:1089:G:H1	32:2a:1096:C:N4	1.71	0.88
1:2A:2121:G:H1	1:2A:2177:C:H42	1.21	0.88
1:2A:2736:G:N2	1:2A:2768:C:O2	2.05	0.88
1:2A:300:A:OP1	20:2Y:86:ARG:NH2	2.08	0.87
41:1j:35:SER:HB3	41:1j:73:ASP:HB2	1.57	0.87
32:2a:1000:U:H3	32:2a:1041:A:H61	1.21	0.87
1:2A:1204:A:H2	1:2A:1241:A:H62	1.24	0.86
1:2A:2139:C:N4	1:2A:2152:G:N1	2.22	0.86
3:2D:242:ARG:HH11	3:2D:242:ARG:HG3	1.40	0.86
41:2j:8:LEU:HB2	41:2j:70:ARG:HB2	1.57	0.86
1:2A:198:C:OP2	62:2A:3701:HOH:O	1.94	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1065:U:O2	1:1A:1073:A:N6	2.07	0.86
22:20:10:THR:HG22	22:20:12:ASN:H	1.39	0.86
1:1A:2136:C:H42	1:1A:2155:G:H1	1.20	0.86
26:14:58:ARG:HH21	50:1s:68:GLY:HA3	1.38	0.85
32:2a:997:U:H3	32:2a:1044:A:H61	1.18	0.85
38:2g:113:GLU:HG2	38:2g:119:ARG:HG2	1.56	0.85
1:2A:2138:C:H42	1:2A:2153:G:H1	1.24	0.85
32:2a:1028:C:N3	32:2a:1033:G:C6	2.44	0.85
8:1I:130:TYR:HB3	8:1I:138:ILE:HB	1.58	0.85
1:2A:2839:G:H5'	13:2R:46:GLY:HA2	1.58	0.85
1:1A:2239:G:OP2	62:1A:4002:HOH:O	1.92	0.85
3:1D:242:ARG:HG3	3:1D:242:ARG:HH11	1.41	0.85
32:2a:64:G:H4'	32:2a:65:U:H3'	1.56	0.85
33:1b:185:ILE:HG22	33:1b:199:TYR:HB2	1.60	0.84
54:1y:53:G:H1	54:1y:61:C:N4	1.75	0.84
54:2w:4:C:H42	54:2w:69:G:H1	0.84	0.84
1:2A:1689:A:H62	1:2A:1698:A:H2	1.20	0.84
1:2A:2637:U:H5''	4:2E:82:ARG:HH12	1.41	0.84
54:2w:29:G:H1	54:2w:41:C:H42	1.25	0.84
1:2A:1532:C:H42	1:2A:1537:G:H1	1.24	0.83
32:2a:975:A:H4'	32:2a:976:G:H5''	1.60	0.83
36:2e:122:GLU:O	36:2e:126:ARG:NH1	2.12	0.83
32:2a:1003:G:N2	32:2a:1025:U:O4	2.12	0.83
32:2a:1310:G:H1	32:2a:1327:C:H42	1.26	0.83
10:1O:35:VAL:HG11	10:1O:103:ALA:HB3	1.61	0.83
1:2A:792:G:O6	62:2A:3702:HOH:O	1.94	0.83
32:1a:407:G:H5''	35:1d:115:ARG:HG2	1.59	0.83
33:1b:69:LEU:HB3	33:1b:162:ILE:HG22	1.61	0.83
1:2A:2104:G:H1	1:2A:2185:C:H42	0.88	0.83
32:1a:266:G:H5''	32:1a:268:C:H41	1.43	0.82
6:2G:38:VAL:HG22	6:2G:93:THR:HG23	1.61	0.82
54:2y:22:G:N7	54:2y:46:7MG:N2	2.27	0.82
1:1A:1602:U:O4	62:1A:4003:HOH:O	1.95	0.82
51:2t:50:GLU:HB2	51:2t:99:LEU:HD22	1.59	0.82
1:2A:2139:C:N3	1:2A:2152:G:N2	2.26	0.82
48:1q:26:GLN:HG2	48:1q:37:LYS:HG2	1.61	0.82
55:2x:49:G:H1	55:2x:65:C:H42	1.21	0.82
54:2y:15:G:H22	54:2y:48:C:H42	1.28	0.82
32:2a:201:C:H42	32:2a:216:G:H1	1.25	0.82
44:1m:3:ARG:HD2	44:1m:9:ILE:HG12	1.62	0.81
12:1Q:111:GLU:OE2	12:1Q:133:ARG:NH2	2.13	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:2X:53:LYS:HB3	19:2X:82:GLN:HB3	1.62	0.81
33:2b:115:LEU:HD12	33:2b:145:LEU:HB3	1.61	0.81
32:1a:975:A:H4'	32:1a:976:G:H5''	1.60	0.81
7:2H:24:VAL:HG13	7:2H:37:VAL:HG21	1.62	0.81
17:2V:24:LYS:HG3	17:2V:64:HIS:HD2	1.45	0.81
1:2A:878:A:N6	1:2A:899:A:O2'	2.13	0.81
44:1m:84:ILE:HG13	44:1m:85:GLY:HA2	1.61	0.81
5:2F:53:THR:HG23	5:2F:55:GLY:H	1.45	0.81
1:2A:740:U:OP2	62:2A:3703:HOH:O	1.98	0.81
1:1A:1059:G:H1	1:1A:1079:C:H42	1.27	0.81
1:1A:1784:A:OP2	62:1A:4005:HOH:O	1.98	0.81
32:2a:1030(A):G:N2	32:2a:1030(D):A:OP2	2.14	0.81
32:2a:953:G:H5'	32:2a:965:A:H61	1.45	0.80
10:2O:35:VAL:HG11	10:2O:103:ALA:HB3	1.64	0.80
1:1A:1013:C:OP2	62:1A:4006:HOH:O	1.98	0.80
32:1a:664:G:H22	32:1a:741:G:H1	1.27	0.80
1:1A:2723:C:OP1	13:1R:3:HIS:ND1	2.13	0.80
1:1A:568:U:O4	62:1A:4007:HOH:O	2.00	0.80
1:1A:792:G:O6	62:1A:4004:HOH:O	1.98	0.80
54:1y:19:G:H1	54:1y:56:C:N4	1.80	0.80
1:2A:64:A:N6	1:2A:90:U:O4	2.14	0.80
32:2a:677:U:H3	32:2a:713:G:H22	1.27	0.80
32:2a:1133:G:H1	32:2a:1141:C:H42	1.26	0.80
54:2y:10:G:H1	54:2y:25:C:H42	1.29	0.80
1:2A:2099:U:H3	1:2A:2190:G:H1	1.30	0.79
34:1c:153:VAL:HG22	34:1c:198:VAL:HG12	1.63	0.79
1:1A:2100:G:H1	1:1A:2189:U:H3	1.29	0.79
54:1y:19:G:H1	54:1y:56:C:H42	1.24	0.79
11:2P:100:LEU:HD12	11:2P:112:LEU:HD11	1.64	0.79
44:1m:3:ARG:HG3	44:1m:4:ILE:H	1.47	0.79
32:2a:1245:A:N6	32:2a:1292:U:H3	1.81	0.79
33:1b:93:VAL:HG21	33:1b:97:TRP:HD1	1.46	0.79
1:1A:2384:G:OP2	22:10:55:ARG:NH1	2.15	0.79
1:1A:1053:C:H42	1:1A:1106:G:H1	1.30	0.79
1:1A:2136:C:N3	1:1A:2155:G:N2	2.30	0.79
1:1A:1817:G:OP1	3:1D:88:ARG:NH2	2.15	0.79
32:2a:76:C:N4	32:2a:93:G:H1	1.79	0.79
54:2w:52:G:H1	54:2w:62:C:H42	1.31	0.79
1:1A:998:C:OP1	62:1A:4011:HOH:O	2.01	0.78
6:2G:64:THR:HB	6:2G:94:LEU:HD21	1.64	0.78
32:2a:656:C:O2'	46:2o:28:GLN:NE2	2.16	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:1i:128:ARG:NH2	55:1x:33:U:OP2	2.16	0.78
1:2A:987:G:O2'	1:2A:1000:A:N3	2.14	0.78
1:1A:1647:G:OP1	62:1A:4012:HOH:O	2.02	0.78
38:2g:16:LEU:HD21	40:2i:45:ALA:HB2	1.65	0.78
1:2A:1973:G:OP1	62:2A:3704:HOH:O	2.01	0.78
32:2a:931:C:H42	32:2a:1386:G:H1	1.32	0.78
1:1A:1264:G:OP1	27:15:19:ARG:NH2	2.16	0.78
1:1A:2447:G:OP2	62:1A:4009:HOH:O	2.01	0.78
33:1b:33:TYR:HB2	33:1b:43:ASP:HB2	1.65	0.78
1:1A:1985:G:OP2	62:1A:4008:HOH:O	2.00	0.77
23:11:52:ARG:HH21	23:11:57:GLU:HG3	1.48	0.77
1:2A:958:U:OP2	12:2Q:14:ARG:NH1	2.17	0.77
1:2A:1772:G:OP1	62:2A:3705:HOH:O	2.02	0.77
1:2A:2615:U:OP1	62:2A:3706:HOH:O	2.02	0.77
32:1a:78:G:N2	32:1a:91:C:N3	2.32	0.77
2:2B:83:G:H1	2:2B:94:C:H42	1.29	0.77
3:2D:38:LYS:NZ	3:2D:39:LYS:O	2.18	0.77
1:1A:1779:U:OP2	62:1A:4010:HOH:O	2.01	0.77
32:1a:299:G:O6	62:1a:3301:HOH:O	2.02	0.77
42:2k:82:VAL:HB	42:2k:108:ILE:HG12	1.67	0.77
44:2m:19:LEU:HD21	44:2m:56:LEU:HD21	1.67	0.77
35:1d:94:LEU:HD11	35:1d:200:GLU:HG2	1.66	0.77
42:2k:51:LYS:HA	42:2k:55:LYS:HE3	1.66	0.77
11:1P:52:GLU:OE1	11:1P:55:ARG:NH1	2.18	0.77
20:1Y:102:CYS:SG	20:1Y:103:GLY:N	2.58	0.77
32:1a:376:G:H5''	47:1p:5:ARG:HG2	1.66	0.77
1:2A:971:C:OP2	62:2A:3707:HOH:O	2.03	0.77
1:2A:1434:A:H61	1:2A:1558:A:H62	1.31	0.77
44:2m:20:THR:HG21	44:2m:27:LYS:HD2	1.65	0.77
1:1A:2139:C:N4	1:1A:2152:G:H1	1.83	0.77
1:1A:2448:A:OP1	62:1A:4001:HOH:O	2.02	0.77
1:2A:1300:U:H4'	1:2A:1301:A:H5'	1.67	0.77
1:2A:2819:G:N7	62:2A:3740:HOH:O	2.18	0.77
1:2A:527:C:N4	1:2A:2779:U:OP2	2.17	0.77
1:1A:1054:A:H61	1:1A:1105:U:H3	1.34	0.76
32:1a:642:A:N3	39:1h:113:SER:OG	2.17	0.76
41:1j:40:LEU:HB2	41:1j:69:ASN:HB2	1.67	0.76
1:1A:517:C:OP1	27:15:16:ARG:NH2	2.17	0.76
32:2a:1020:U:H2'	32:2a:1021:G:C8	2.20	0.76
44:2m:58:GLU:O	44:2m:62:ASN:ND2	2.18	0.76
1:1A:2139:C:N3	1:1A:2152:G:N2	2.33	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1399:C:H4'	32:2a:1400:5MC:H5'	1.66	0.76
1:1A:248:G:OP1	62:1A:4015:HOH:O	2.03	0.76
11:2P:52:GLU:OE1	11:2P:55:ARG:NH1	2.19	0.76
55:2x:5:G:H1	55:2x:68:C:H42	1.34	0.76
32:2a:976:G:H5'	32:2a:1358:U:O2'	1.86	0.76
1:1A:1059:G:N2	1:1A:1079:C:N3	2.33	0.76
49:1r:32:ARG:HA	49:1r:69:THR:HG21	1.67	0.76
23:21:51:VAL:HG11	23:21:74:VAL:HG21	1.67	0.76
32:1a:1027:C:N3	32:1a:1034:G:C6	2.54	0.76
40:2i:28:VAL:HG22	40:2i:63:ILE:HB	1.68	0.76
40:1i:31:GLN:HE21	40:1i:36:TYR:HD1	1.31	0.76
1:2A:1022:G:H22	1:2A:1142(A):A:H2	1.34	0.76
1:1A:2574:G:OP1	62:1A:4014:HOH:O	2.03	0.76
1:2A:83:G:H1	1:2A:102:G:HO2'	1.31	0.76
32:2a:1029:C:C2	32:2a:1032:G:N2	2.54	0.76
12:2Q:26:TYR:O	12:2Q:67:ARG:NH1	2.19	0.75
32:1a:1402:4OC:HM22	32:1a:1403:C:H5'	1.67	0.75
1:2A:1801:G:OP2	3:2D:154:LYS:NZ	2.19	0.75
32:2a:1007:C:N3	32:2a:1022:G:O6	2.19	0.75
41:2j:49:VAL:HG23	45:2n:41:ARG:HB2	1.67	0.75
50:2s:38:SER:HB2	50:2s:71:LEU:HD22	1.69	0.75
1:2A:1171:G:H1	1:2A:1178:C:H42	1.32	0.75
1:2A:1830:C:OP2	62:2A:3709:HOH:O	2.05	0.75
1:2A:2139:C:N4	1:2A:2152:G:H1	1.82	0.75
19:2X:8:ILE:O	24:22:36:ARG:NH2	2.19	0.75
32:2a:999:C:H42	32:2a:1042:G:H1	1.35	0.75
1:1A:1815:A:N1	62:1A:4058:HOH:O	2.20	0.75
7:1H:159:GLU:HG2	7:1H:169:VAL:HG11	1.67	0.75
9:2N:128:HIS:O	9:2N:131:GLN:NE2	2.19	0.75
18:2W:1:MET:HE3	18:2W:62:HIS:HB3	1.68	0.75
21:2Z:106:GLY:HA3	21:2Z:141:VAL:H	1.50	0.75
1:1A:2136:C:N4	1:1A:2155:G:H1	1.83	0.75
32:1a:78:G:C2	32:1a:91:C:N3	2.54	0.75
1:2A:888:C:OP1	44:2m:93:ARG:NH1	2.20	0.75
32:2a:406:G:H5'	35:2d:5:ILE:HD11	1.69	0.75
32:2a:1343:G:H1'	40:2i:121:ARG:HH12	1.49	0.75
54:2y:7:A:H61	54:2y:66:U:H3	0.81	0.75
32:1a:1518:MA6:N6	32:1a:1519:MA6:H103	2.02	0.75
1:2A:143:G:H4'	19:2X:35:THR:HG21	1.69	0.75
1:2A:1652:A:OP1	13:2R:8:ARG:NH1	2.20	0.75
33:1b:77:ALA:HB2	33:1b:211:ILE:HD13	1.68	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:195:A:N7	62:2A:3701:HOH:O	2.19	0.75
1:2A:2134:A:O2'	1:2A:2159:G:N2	2.15	0.75
12:2Q:67:ARG:O	12:2Q:101:ARG:NH2	2.20	0.75
32:2a:922:G:H4'	36:2e:20:GLN:HA	1.69	0.75
1:1A:1105:U:H2'	1:1A:1106:G:H8	1.52	0.74
1:1A:1986:A:OP1	62:1A:4013:HOH:O	2.03	0.74
32:2a:838:G:H2'	32:2a:839:U:H2'	1.69	0.74
29:17:24:THR:HG22	29:17:27:GLY:H	1.52	0.74
38:1g:27:ILE:HD12	38:1g:40:ALA:HA	1.69	0.74
44:1m:37:THR:O	44:1m:55:ARG:NH1	2.20	0.74
1:2A:301:G:OP2	20:2Y:84:ARG:NH2	2.20	0.74
1:2A:2063:C:OP1	62:2A:3708:HOH:O	2.04	0.74
1:2A:2364:C:OP1	22:20:55:ARG:NH1	2.20	0.74
32:2a:35:G:O2'	43:2l:118:SER:O	2.04	0.74
32:1a:812:C:N3	62:1a:3318:HOH:O	2.21	0.74
1:2A:1264:G:OP1	27:25:19:ARG:NH2	2.20	0.74
1:2A:833:U:O2	11:2P:55:ARG:NH2	2.20	0.74
1:1A:72:U:OP1	62:1A:4017:HOH:O	2.06	0.74
1:1A:1798:U:H5'	3:1D:259:THR:HG22	1.70	0.74
1:2A:2807:G:N1	1:2A:2893:G:O6	2.20	0.74
32:2a:158:G:N2	32:2a:163:C:O2	2.18	0.74
14:2S:38:GLN:NE2	14:2S:47:THR:OG1	2.20	0.74
32:1a:116:A:OP1	62:1a:3302:HOH:O	2.05	0.74
1:2A:2012:G:OP1	18:2W:11:ARG:NH2	2.19	0.74
36:2e:33:VAL:HG13	36:2e:112:LEU:HD12	1.70	0.74
2:1B:105:A:OP1	21:1Z:72:ARG:NH1	2.21	0.74
32:1a:78:G:N1	32:1a:91:C:N4	2.34	0.74
32:1a:686:U:O2	32:1a:704:A:N6	2.19	0.74
1:2A:1155:A:H5''	16:2U:55:ARG:HH11	1.52	0.74
1:1A:2124:G:H1	1:1A:2174:C:H42	1.33	0.73
1:2A:2127:G:O6	1:2A:2161:C:N3	2.21	0.73
34:2c:17:ASP:HB2	34:2c:21:ARG:HH21	1.52	0.73
54:2y:26:A:N1	54:2y:44:G:C6	2.56	0.73
21:2Z:150:LEU:HB3	21:2Z:171:ILE:HD11	1.70	0.73
54:2y:26:A:N1	54:2y:44:G:O6	2.22	0.73
1:1A:981:A:OP1	62:1A:4018:HOH:O	2.06	0.73
3:1D:38:LYS:NZ	3:1D:39:LYS:O	2.20	0.73
32:2a:539:A:OP2	43:2l:115:LYS:NZ	2.21	0.73
32:2a:1000:U:H3	32:2a:1041:A:N6	1.85	0.73
32:2a:1128:C:H1'	32:2a:1147:C:H42	1.52	0.73
1:1A:301:G:OP2	20:1Y:84:ARG:NH2	2.21	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:253:C:O2'	62:2A:3710:HOH:O	2.05	0.73
1:2A:2042:A:OP1	62:2A:3712:HOH:O	2.07	0.73
1:1A:400:G:N7	62:1A:4067:HOH:O	2.21	0.73
1:1A:279:C:H42	1:1A:361:G:H1	1.37	0.73
15:1T:39:ARG:HH21	32:1a:345:C:H5''	1.51	0.73
1:2A:1530:C:O2'	1:2A:1531:C:O5'	2.06	0.73
1:1A:2196:C:OP2	62:1A:4016:HOH:O	2.05	0.73
35:2d:25:ARG:NH1	35:2d:30:LYS:O	2.20	0.73
1:1A:1324:G:O6	62:1A:4019:HOH:O	2.07	0.73
54:1w:5:G:H1	54:1w:68:C:H42	1.36	0.73
8:2I:43:ASN:ND2	23:21:75:GLU:OE2	2.22	0.73
32:1a:407:G:OP1	35:1d:115:ARG:NH2	2.21	0.73
33:1b:82:ARG:NH1	33:1b:92:TYR:OH	2.22	0.73
2:2B:55:U:H1'	6:2G:29:TRP:HE1	1.54	0.73
32:2a:1348:U:H4'	40:2i:120:ARG:HD2	1.71	0.73
54:2y:18:G:N2	54:2y:55:PSU:N3	2.36	0.73
1:1A:2749:A:OP1	7:1H:3:ARG:NH1	2.22	0.73
32:1a:111:G:H5''	47:1p:27:LYS:HG2	1.71	0.73
36:1e:85:GLY:O	36:1e:87:SER:N	2.19	0.73
1:2A:527:C:OP1	62:2A:3711:HOH:O	2.06	0.73
13:1R:67:LEU:HD13	13:1R:76:VAL:HG21	1.71	0.72
1:2A:1031:G:N3	31:29:36:GLN:NE2	2.37	0.72
15:2T:119:LYS:HG2	15:2T:123:GLN:HE21	1.53	0.72
20:2Y:94:LYS:NZ	62:2Y:601:HOH:O	2.17	0.72
32:2a:1264:C:N4	32:2a:1271:G:H1	1.86	0.72
42:2k:99:GLN:HG2	42:2k:105:VAL:HG21	1.71	0.72
1:1A:1070:A:N7	1:1A:1096:A:O2'	2.18	0.72
32:2a:953:G:H5'	32:2a:965:A:N6	2.05	0.72
32:2a:972:C:O2'	41:2j:55:LYS:O	2.07	0.72
1:1A:1041:C:H42	1:1A:1114:G:H1	1.34	0.72
1:1A:1783:A:OP1	62:1A:4005:HOH:O	2.07	0.72
1:2A:307:G:N1	1:2A:310:A:OP2	2.22	0.72
32:1a:1069:C:OP2	62:1a:3303:HOH:O	2.06	0.72
32:1a:1228:C:OP1	44:1m:115:LYS:NZ	2.19	0.72
54:1y:26:A:H61	54:1y:44:G:H1	1.33	0.72
1:2A:2129:C:H42	1:2A:2159:G:H1	1.37	0.72
1:2A:2206:G:H5''	1:2A:2207:G:C6	2.25	0.72
12:2Q:34:LEU:HB2	12:2Q:118:LEU:HD22	1.71	0.72
1:1A:1173:G:O2'	1:1A:1174:A:O4'	2.07	0.72
10:1O:48:PRO:HB3	32:1a:1422:G:H5''	1.71	0.72
32:1a:1305:G:N2	32:1a:1331:G:H1'	2.04	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:1p:51:VAL:HG12	47:1p:53:VAL:H	1.54	0.72
34:2c:21:ARG:HH22	34:2c:54:ARG:HH21	1.36	0.72
1:1A:973:A:OP2	62:1A:4007:HOH:O	2.07	0.72
32:1a:1030:C:N4	32:1a:1030(A):G:N3	2.37	0.72
5:1F:108:LYS:HG2	5:1F:112:MET:HE2	1.72	0.72
1:2A:2141:G:O6	1:2A:2150:U:O2	2.07	0.72
31:29:25:VAL:HB	31:29:34:GLN:HB2	1.70	0.72
32:2a:1129:C:H42	32:2a:1143:G:H1	1.36	0.72
1:1A:1169:G:H2'	1:1A:1170:G:H5''	1.72	0.72
32:2a:947:G:H1	32:2a:1234:C:N4	1.88	0.72
1:2A:1798:U:H5'	3:2D:259:THR:HG22	1.72	0.71
32:2a:997:U:H3	32:2a:1044:A:N6	1.88	0.71
1:1A:2807:G:N1	1:1A:2893:G:O6	2.18	0.71
3:1D:180:GLY:HA3	3:1D:275:LYS:HG3	1.70	0.71
32:1a:1316:G:N7	50:1s:7:LYS:NZ	2.38	0.71
1:2A:992:C:OP1	16:2U:47:TYR:OH	2.08	0.71
32:2a:673:G:H2'	32:2a:674:G:C8	2.25	0.71
32:2a:1279:A:OP2	41:2j:9:ARG:NH1	2.22	0.71
32:1a:1370:G:N7	62:1a:3321:HOH:O	2.22	0.71
1:1A:1315:C:OP2	62:1A:4022:HOH:O	2.08	0.71
54:1w:18:G:O2'	54:1w:57:G:N2	2.19	0.71
34:2c:47:LEU:HD12	34:2c:68:VAL:HG11	1.72	0.71
44:2m:82:MET:O	44:2m:93:ARG:NH2	2.23	0.71
1:1A:400:G:O6	62:1A:4021:HOH:O	2.08	0.71
32:1a:406:G:H5'	35:1d:5:ILE:HD11	1.72	0.71
32:1a:838:G:H2'	32:1a:839:U:H2'	1.73	0.71
32:1a:1348:U:H4'	40:1i:120:ARG:HD2	1.72	0.71
50:1s:11:VAL:HG12	50:1s:13:ASP:H	1.56	0.71
3:2D:71:ASP:OD2	3:2D:103:ARG:NH2	2.22	0.71
32:2a:737:A:H1'	37:2f:73:ASN:HD21	1.55	0.71
47:2p:28:ARG:NH1	47:2p:29:ASP:OD1	2.23	0.71
1:1A:271(R):G:OP1	23:11:76:ARG:NH1	2.22	0.71
35:1d:166:LYS:NZ	35:1d:179:GLU:OE2	2.23	0.71
1:2A:1324:G:O6	62:2A:3715:HOH:O	2.09	0.71
1:2A:2234:G:N7	62:2A:3767:HOH:O	2.22	0.71
4:2E:34:VAL:HG21	4:2E:78:LEU:HD23	1.71	0.71
36:2e:78:HIS:HE1	36:2e:143:ARG:H	1.38	0.71
54:1y:54:5MU:O2	54:1y:58:A:N7	2.23	0.71
1:2A:399:G:OP2	62:2A:3713:HOH:O	2.07	0.71
1:2A:2595:G:N7	62:2A:3776:HOH:O	2.24	0.71
2:2B:41:U:H5	6:2G:70:VAL:H	1.36	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1402:4OC:HM22	32:2a:1403:C:H5'	1.71	0.71
38:2g:80:VAL:HB	38:2g:85:TYR:HE2	1.55	0.71
44:2m:16:ASP:HB3	44:2m:34:LEU:HD11	1.73	0.71
1:2A:197:A:OP1	62:2A:3701:HOH:O	2.09	0.71
1:2A:2753:A:N3	31:29:15:LYS:NZ	2.38	0.71
32:2a:1166:G:N2	32:2a:1170:A:OP2	2.24	0.71
3:1D:17:THR:O	3:1D:211:ARG:NH2	2.23	0.70
1:1A:740:U:OP2	62:1A:4005:HOH:O	2.08	0.70
32:1a:36:C:OP1	43:1l:123:LYS:NZ	2.24	0.70
48:1q:66:SER:O	48:1q:70:ARG:NH1	2.24	0.70
1:2A:1645:G:H5''	1:2A:1646:C:H5'	1.72	0.70
54:2y:15:G:N2	54:2y:48:C:H42	1.89	0.70
1:1A:563:G:OP2	62:1A:4020:HOH:O	2.07	0.70
32:2a:1133:G:H1	32:2a:1141:C:N4	1.89	0.70
1:1A:1630:G:O2'	62:1A:4023:HOH:O	2.09	0.70
1:1A:2144:U:O2	1:1A:2147:G:N1	2.20	0.70
33:1b:166:ASP:HB3	33:1b:169:LYS:HB3	1.73	0.70
34:2c:41:GLY:O	34:2c:45:LYS:NZ	2.23	0.70
1:1A:1354:A:H4'	3:1D:38:LYS:HE2	1.73	0.70
34:1c:14:ILE:HG22	34:1c:15:THR:HG23	1.74	0.70
34:1c:58:GLU:HB3	41:1j:92:THR:HG21	1.72	0.70
1:2A:1297:C:OP2	62:2A:3716:HOH:O	2.10	0.70
32:2a:504:C:OP1	62:2a:3203:HOH:O	2.10	0.70
32:2a:1010:G:N2	32:2a:1020:U:O2'	2.25	0.70
32:1a:1166:G:N2	32:1a:1170:A:OP2	2.23	0.70
33:1b:16:HIS:HB2	33:1b:204:ASN:HB3	1.72	0.70
1:2A:1189:A:OP2	62:2A:3714:HOH:O	2.08	0.70
1:2A:2394:C:N3	54:2y:76:A:O2'	2.22	0.70
32:2a:1347:G:HO2'	32:2a:1373:G:H1	1.39	0.70
32:1a:276:G:O3'	48:1q:68:ARG:NH1	2.24	0.70
32:1a:953:G:H5'	32:1a:965:A:H61	1.56	0.70
32:1a:1006:C:H42	32:1a:1023:G:H1	1.38	0.70
50:1s:11:VAL:HG11	50:1s:16:LEU:HB2	1.73	0.70
2:2B:93:G:OP1	21:2Z:79:ARG:NH2	2.18	0.70
36:1e:74:GLY:HA3	36:1e:116:THR:HG22	1.74	0.70
50:2s:28:LYS:HB3	50:2s:29:ARG:HA	1.72	0.70
1:1A:847:U:OP2	62:1A:4024:HOH:O	2.10	0.69
1:1A:2469:A:O2'	12:1Q:56:ARG:NH1	2.25	0.69
1:1A:2612:C:OP2	27:15:2:ALA:N	2.25	0.69
33:1b:118:LEU:HB3	33:1b:142:LEU:HD12	1.74	0.69
1:2A:1028:A:N6	1:2A:1125:G:H2'	2.07	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1315:C:OP2	62:2A:3719:HOH:O	2.10	0.69
11:2P:39:LYS:HB2	11:2P:45:LEU:HG	1.72	0.69
32:2a:426:G:OP1	35:2d:38:TYR:OH	2.09	0.69
32:2a:1020:U:H2'	32:2a:1021:G:H8	1.57	0.69
41:2j:32:ALA:HB1	41:2j:33:GLN:HA	1.73	0.69
32:1a:428:G:OP2	35:1d:10:ARG:NH1	2.26	0.69
1:2A:994:C:OP1	16:2U:53:ARG:NH2	2.25	0.69
1:1A:1332:G:OP1	62:1A:4022:HOH:O	2.10	0.69
2:2B:106:G:H5'	21:2Z:31:ARG:HG2	1.74	0.69
1:1A:2049:G:N7	62:1A:4080:HOH:O	2.24	0.69
32:1a:134:A:H61	47:1p:25:ARG:HH12	1.40	0.69
32:1a:574:A:OP2	62:1a:3304:HOH:O	2.09	0.69
1:2A:821:A:N1	62:2A:3781:HOH:O	2.25	0.69
1:2A:2857:G:N2	1:2A:2860:A:OP2	2.26	0.69
5:2F:101:LEU:O	5:2F:106:ARG:NH1	2.25	0.69
1:1A:880:G:H2'	1:1A:881:G:H8	1.58	0.69
23:21:50:ARG:HG2	23:21:59:THR:HG22	1.74	0.69
33:2b:187:LEU:HA	33:2b:201:ILE:HB	1.73	0.69
48:2q:26:GLN:HG2	48:2q:37:LYS:HG2	1.73	0.69
32:1a:1021:G:O2'	32:1a:1022:G:O5'	2.09	0.69
38:1g:69:VAL:HG21	38:1g:104:LEU:HD11	1.75	0.69
1:2A:2624:G:N7	62:2A:3785:HOH:O	2.26	0.69
14:2S:67:ARG:HG2	14:2S:71:ARG:HD2	1.74	0.69
20:2Y:102:CYS:SG	20:2Y:103:GLY:N	2.64	0.69
55:2x:49:G:H1	55:2x:65:C:N4	1.90	0.69
2:1B:48:A:H4'	14:1S:95:HIS:HD2	1.56	0.69
32:2a:1083:U:OP2	62:2a:3202:HOH:O	2.09	0.69
1:2A:854:G:H2'	1:2A:855:G:H8	1.58	0.69
1:2A:1021:A:H62	1:2A:1141:U:H3	1.40	0.69
32:2a:297:G:N2	32:2a:300:A:OP2	2.26	0.69
33:2b:118:LEU:HB3	33:2b:142:LEU:HD12	1.74	0.69
15:2T:65:LYS:HE3	15:2T:67:SER:HB2	1.74	0.68
1:1A:2139:C:N4	1:1A:2152:G:N1	2.41	0.68
47:2p:51:VAL:HG12	47:2p:53:VAL:H	1.57	0.68
1:1A:392:C:OP1	62:1A:4028:HOH:O	2.11	0.68
1:1A:2312:U:H5'	6:1G:88:ILE:HD11	1.75	0.68
1:2A:2127:G:N1	1:2A:2161:C:O2	2.27	0.68
32:2a:1129:C:N4	32:2a:1143:G:H1	1.91	0.68
32:1a:309:G:O2'	32:1a:607:A:N1	2.27	0.68
1:2A:946:G:OP1	62:2A:3717:HOH:O	2.10	0.68
1:2A:1036:G:OP2	7:2H:59:ARG:NH2	2.26	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2637:U:H5''	4:2E:82:ARG:NH1	2.08	0.68
5:2F:143:ALA:HB1	5:2F:148:LEU:HB2	1.76	0.68
18:2W:88:ARG:NH1	18:2W:94:ASP:OD2	2.25	0.68
21:2Z:153:SER:HB3	21:2Z:167:PRO:HB3	1.75	0.68
1:1A:1014:U:OP2	62:1A:4006:HOH:O	2.11	0.68
1:1A:1664:A:OP1	62:1A:4026:HOH:O	2.10	0.68
1:1A:1968:G:OP1	62:1A:4030:HOH:O	2.12	0.68
1:1A:2124:G:H1	1:1A:2174:C:N4	1.91	0.68
6:1G:3:LEU:O	6:1G:8:LYS:NZ	2.21	0.68
54:2w:4:C:N3	54:2w:69:G:N2	2.34	0.68
1:1A:2719:G:OP2	62:1A:4029:HOH:O	2.11	0.68
32:1a:662:G:H2'	32:1a:663:A:C8	2.29	0.68
41:1j:49:VAL:HG23	45:1n:41:ARG:HB2	1.75	0.68
1:2A:1622:G:OP2	62:2A:3723:HOH:O	2.12	0.68
32:1a:972:C:O2'	41:1j:55:LYS:O	2.10	0.68
32:2a:1028:C:N3	32:2a:1033:G:O6	2.27	0.68
33:2b:87:ARG:NH1	33:2b:220:ASP:OD1	2.27	0.68
44:2m:78:ILE:HA	44:2m:81:LEU:HD12	1.76	0.68
1:1A:2589:A:N7	62:1A:4096:HOH:O	2.26	0.68
2:1B:13:A:N1	2:1B:69:G:O2'	2.27	0.68
32:1a:343:U:O2'	32:1a:346:G:O6	2.11	0.68
1:2A:568:U:H5'	1:2A:945:A:N1	2.09	0.68
1:2A:2632:A:HO2'	1:2A:2811:G:HO2'	1.35	0.68
1:2A:2836:U:H2'	1:2A:2837:G:C8	2.29	0.68
40:2i:26:VAL:HG13	40:2i:61:ALA:HB3	1.75	0.68
54:2w:29:G:H1	54:2w:41:C:N4	1.92	0.68
1:1A:1701:A:OP2	62:1A:4027:HOH:O	2.10	0.68
15:1T:112:ARG:HG3	15:1T:115:ARG:HH21	1.58	0.68
39:1h:86:ILE:HG13	39:1h:133:LEU:HD22	1.76	0.68
54:1y:19:G:N1	54:1y:56:C:N4	2.35	0.68
1:2A:900:A:O2'	1:2A:901:A:OP1	2.11	0.68
32:2a:1026:G:O6	32:2a:1036:G:N2	2.27	0.68
1:1A:2014:A:N1	62:1A:4086:HOH:O	2.25	0.68
32:1a:966:M2G:HM12	55:1x:34:C:H5'	1.76	0.68
1:2A:1592:C:H2'	1:2A:1593:G:H8	1.58	0.68
32:2a:1274:G:N2	32:2a:1275:A:N7	2.42	0.68
33:2b:87:ARG:HH21	33:2b:230:VAL:HG13	1.59	0.68
1:2A:643:A:N1	1:2A:2369:A:O2'	2.25	0.67
1:2A:886:C:O2'	1:2A:889:C:N4	2.25	0.67
32:1a:1196:U:H3	34:1c:162:GLN:HE22	1.42	0.67
1:1A:1385:G:O2'	1:1A:1396:U:O2	2.11	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:76:GLN:NE2	33:2b:206:ASP:OD1	2.28	0.67
1:2A:624:C:OP1	62:2A:3720:HOH:O	2.11	0.67
1:2A:1796:U:H2'	1:2A:1797:C:C6	2.29	0.67
42:2k:22:HIS:HB3	42:2k:29:ILE:HB	1.75	0.67
52:2u:9:ARG:HH21	52:2u:10:ARG:HH21	1.42	0.67
5:2F:20:LEU:HD23	5:2F:22:ALA:HB2	1.76	0.67
5:2F:53:THR:HG22	5:2F:56:GLU:HG3	1.77	0.67
2:1B:33:G:H5'	6:1G:2:PRO:HD3	1.77	0.67
25:13:5:LYS:NZ	25:13:34:GLU:OE2	2.25	0.67
1:2A:921:G:O6	62:2A:3718:HOH:O	2.10	0.67
1:2A:1314:C:OP1	62:2A:3719:HOH:O	2.11	0.67
1:2A:1912:A:OP1	62:2A:3722:HOH:O	2.12	0.67
4:2E:116:VAL:HG13	4:2E:122:PHE:HB2	1.75	0.67
10:2O:68:GLU:HB3	10:2O:78:ARG:HG3	1.76	0.67
33:2b:15:VAL:HG21	33:2b:213:LEU:HD12	1.75	0.67
4:1E:47:VAL:HG21	4:1E:86:PRO:HD2	1.76	0.67
32:1a:78:G:C6	32:1a:91:C:N4	2.62	0.67
32:2a:1051:C:H42	32:2a:1207:2MG:HN1	1.40	0.67
1:1A:1054:A:N6	1:1A:1105:U:H3	1.92	0.67
1:1A:2592:G:OP1	62:1A:4033:HOH:O	2.13	0.67
16:1U:52:ARG:HH11	16:1U:55:ARG:HH21	1.42	0.67
1:2A:2640:G:N7	62:2A:3753:HOH:O	2.26	0.67
18:1W:31:GLU:OE1	62:1W:3101:HOH:O	2.12	0.67
32:1a:649:G:H2'	32:1a:650:G:H8	1.60	0.67
34:1c:152:ILE:HG23	34:1c:167:TRP:HB3	1.77	0.67
54:1y:26:A:N6	54:1y:44:G:N1	2.40	0.67
32:2a:533:A:OP1	62:2a:3206:HOH:O	2.13	0.67
34:2c:52:LEU:HD21	34:2c:55:VAL:HG23	1.77	0.67
32:1a:21:G:OP1	62:1a:3305:HOH:O	2.12	0.66
32:1a:1136:U:H5''	32:1a:1137:C:C4	2.31	0.66
51:2t:57:ARG:HH12	51:2t:100:ILE:HD12	1.60	0.66
11:2P:87:ASP:O	11:2P:90:ARG:NH1	2.29	0.66
33:1b:88:ALA:HB2	33:1b:219:VAL:HG13	1.77	0.66
1:2A:882:G:H2'	1:2A:883:G:C8	2.30	0.66
1:2A:1031:G:H5''	31:29:8:LYS:HE3	1.76	0.66
1:2A:2630:G:N2	1:2A:2788:C:O2	2.19	0.66
32:2a:567:G:N3	62:2a:3224:HOH:O	2.27	0.66
41:2j:44:VAL:HG22	41:2j:66:ARG:HG2	1.78	0.66
1:1A:1053:C:N4	1:1A:1106:G:H1	1.93	0.66
1:1A:1452:A:OP2	62:1A:4036:HOH:O	2.13	0.66
1:1A:2422:A:O4'	54:1y:76:A:N6	2.28	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:77:C:O2'	24:22:14:ARG:NH2	2.28	0.66
1:2A:881:G:H1	1:2A:895:U:H3	1.41	0.66
1:2A:2105:C:H2'	1:2A:2106:G:H8	1.60	0.66
19:2X:35:THR:HG22	19:2X:38:GLU:H	1.59	0.66
1:1A:2483:C:N3	12:1Q:124:LYS:NZ	2.39	0.66
11:1P:59:LEU:HD11	30:18:10:ALA:HB2	1.77	0.66
1:2A:1005:C:H2'	1:2A:1006:C:C6	2.31	0.66
32:2a:586:C:O2	32:2a:755:G:N2	2.20	0.66
33:2b:85:ALA:O	33:2b:89:GLY:N	2.28	0.66
48:2q:9:VAL:HG13	48:2q:56:VAL:HG22	1.76	0.66
1:1A:607:U:OP1	5:1F:102:PRO:HA	1.96	0.66
8:1I:93:THR:H	8:1I:96:ASP:HB2	1.60	0.66
32:1a:674:G:H2'	32:1a:675:A:H8	1.60	0.66
32:1a:1435:G:H2'	32:1a:1436:U:C6	2.30	0.66
54:1y:26:A:N6	54:1y:44:G:H1	1.92	0.66
1:2A:1762:A:N1	62:2A:3805:HOH:O	2.29	0.66
9:2N:94:HIS:HB3	9:2N:97:ARG:HD3	1.77	0.66
32:2a:1152:A:OP1	41:2j:70:ARG:NH2	2.28	0.66
40:2i:55:ALA:HA	40:2i:58:HIS:HD2	1.60	0.66
1:1A:1642:G:N7	62:1A:4101:HOH:O	2.27	0.66
8:1I:104:GLN:O	8:1I:106:GLY:N	2.28	0.66
12:1Q:60:ARG:NH1	54:1w:54:5MU:OP2	2.29	0.66
32:1a:78:G:N2	32:1a:91:C:C2	2.63	0.66
32:2a:54:C:N4	32:2a:353:A:OP2	2.28	0.66
1:1A:2059:A:OP2	62:1A:4034:HOH:O	2.13	0.66
2:1B:48:A:OP2	14:1S:30:ARG:NH2	2.28	0.66
47:1p:22:THR:HA	47:1p:33:ILE:HG12	1.76	0.66
1:2A:11:G:H2'	1:2A:12:U:H5'	1.77	0.66
1:2A:2121:G:H1	1:2A:2177:C:N4	1.92	0.66
1:2A:2171:A:N3	1:2A:2172:U:N3	2.44	0.66
19:2X:57:LEU:HD11	19:2X:78:LYS:HE2	1.77	0.66
32:2a:1118:C:OP1	40:2i:104:ARG:NH1	2.26	0.66
32:1a:1162:C:H42	32:1a:1174:G:H1	1.41	0.66
8:2I:87:LYS:NZ	8:2I:122:GLU:OE2	2.25	0.66
32:2a:1314:C:N4	50:2s:2:PRO:O	2.29	0.66
44:2m:3:ARG:HG2	44:2m:9:ILE:H	1.60	0.66
1:1A:730:C:OP2	62:1A:4032:HOH:O	2.12	0.66
1:1A:1267:U:OP1	62:1A:4037:HOH:O	2.14	0.66
32:1a:558:G:OP1	62:1a:3301:HOH:O	2.14	0.66
1:2A:2133:G:H22	1:2A:2157:G:H1'	1.61	0.66
32:2a:1302:U:O4	44:2m:14:ARG:NH1	2.29	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:583:G:OP2	16:1U:10:ARG:NH1	2.29	0.65
32:1a:984:C:H42	32:1a:1221:G:H1	1.42	0.65
1:2A:2136:C:HO2'	1:2A:2137:C:P	2.18	0.65
32:2a:854:G:O6	62:2a:3201:HOH:O	2.09	0.65
1:1A:2577:A:OP2	27:15:3:LYS:NZ	2.28	0.65
21:1Z:69:THR:HG22	21:1Z:90:VAL:HA	1.78	0.65
32:1a:1047:G:H5''	45:1n:4:LYS:HD3	1.78	0.65
1:2A:974:G:N7	62:2A:3707:HOH:O	2.29	0.65
1:1A:1783:A:N7	62:1A:4121:HOH:O	2.29	0.65
2:1B:102:A:N7	62:1B:3102:HOH:O	2.28	0.65
32:1a:501:C:OP1	43:1l:117:ARG:NH2	2.29	0.65
32:1a:1245:A:H61	32:1a:1292:U:H3	1.45	0.65
54:1w:9:A:H1'	54:1w:45:U:H2'	1.78	0.65
1:2A:2232:U:P	23:21:40:ARG:HH12	2.19	0.65
32:2a:775:G:N2	32:2a:804:U:O4	2.29	0.65
1:1A:2759:G:N7	62:1A:4113:HOH:O	2.28	0.65
54:1w:5:G:H2'	54:1w:6:G:H8	1.61	0.65
1:1A:2029:G:OP2	62:1A:4035:HOH:O	2.13	0.65
1:1A:2134:A:H62	1:1A:2157:G:H1'	1.62	0.65
1:2A:276:A:H5''	1:2A:277:C:H5'	1.79	0.65
1:2A:662:G:OP1	62:2A:3726:HOH:O	2.14	0.65
7:2H:23:ARG:NH1	7:2H:34:GLU:OE1	2.30	0.65
1:1A:2763:G:OP2	62:1A:4040:HOH:O	2.15	0.65
32:1a:572:A:OP1	62:1a:3309:HOH:O	2.15	0.65
32:1a:803:G:OP1	62:1a:3307:HOH:O	2.14	0.65
1:2A:861:A:N3	2:2B:79:C:O2'	2.29	0.65
1:2A:1671:U:OP2	62:2A:3725:HOH:O	2.13	0.65
15:2T:41:ARG:NH2	32:2a:346:G:OP1	2.30	0.65
41:2j:52:GLY:O	45:2n:41:ARG:NH1	2.28	0.65
1:1A:2415:G:OP1	62:1A:4042:HOH:O	2.15	0.65
5:1F:185:ASP:HA	5:1F:188:ARG:HD3	1.79	0.65
1:1A:18:C:O2'	1:1A:554:U:OP1	2.15	0.65
32:1a:128:G:O2'	48:1q:3:LYS:NZ	2.29	0.65
32:1a:405:U:O4	35:1d:2:GLY:N	2.30	0.65
32:1a:1240:U:OP2	38:1g:116:ALA:N	2.29	0.65
1:1A:2328:A:H2'	1:1A:2329:G:C8	2.31	0.65
32:1a:677:U:H3	32:1a:713:G:H22	1.43	0.65
32:1a:1320:C:O2	50:1s:36:ARG:NH2	2.30	0.65
44:1m:34:LEU:HD13	44:1m:41:PRO:HA	1.79	0.65
1:2A:2070:G:OP2	62:2A:3727:HOH:O	2.14	0.65
3:2D:69:ARG:HE	3:2D:130:ALA:HB2	1.62	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:2P:59:LEU:HD11	30:28:10:ALA:HB2	1.79	0.65
17:2V:72:VAL:HG13	17:2V:85:LYS:HB2	1.78	0.65
26:24:33:VAL:HG12	26:24:35:VAL:H	1.61	0.65
32:2a:986:A:H1'	50:2s:55:LYS:HA	1.78	0.65
32:2a:1417:G:O6	62:2a:3204:HOH:O	2.12	0.65
33:2b:51:LEU:HD23	33:2b:201:ILE:HD12	1.77	0.65
1:1A:2815:C:H5'	27:15:29:THR:HG21	1.77	0.65
7:1H:86:GLU:OE2	7:1H:132:ARG:NH2	2.30	0.65
34:1c:32:LEU:HD23	34:1c:59:ARG:HD3	1.79	0.65
1:2A:880:G:H2'	1:2A:881:G:H8	1.62	0.65
1:2A:2116:G:N2	1:2A:2162:G:OP1	2.30	0.65
32:2a:999:C:H2'	32:2a:1000:U:O4'	1.97	0.65
32:2a:1127:G:H1	32:2a:1145:C:H42	1.45	0.65
1:1A:987:G:O2'	1:1A:1000:A:N3	2.30	0.64
1:1A:1155:A:OP1	16:1U:55:ARG:HD2	1.97	0.64
1:1A:2810:A:N6	1:1A:2891:G:O2'	2.28	0.64
32:1a:1159:U:OP1	33:1b:133:LYS:NZ	2.25	0.64
1:2A:2287:A:H62	1:2A:2344:U:H3	1.45	0.64
1:2A:2547:U:O2	10:2O:23:ARG:NH2	2.29	0.64
33:2b:88:ALA:HB2	33:2b:219:VAL:HG13	1.79	0.64
41:2j:47:PHE:N	41:2j:63:PHE:O	2.26	0.64
1:1A:993:G:OP1	16:1U:50:ARG:NH2	2.29	0.64
1:1A:1156:A:OP1	16:1U:55:ARG:NH1	2.29	0.64
1:1A:1173:G:O2'	1:1A:1174:A:O5'	2.16	0.64
1:1A:2278:A:OP2	22:10:12:ASN:ND2	2.30	0.64
1:1A:2871:C:N3	62:1A:4123:HOH:O	2.30	0.64
16:1U:50:ARG:HH12	17:1V:72:VAL:HA	1.60	0.64
38:1g:111:ARG:NH2	38:1g:126:ASP:OD2	2.29	0.64
46:1o:39:LEU:HD22	46:1o:56:LEU:HD13	1.79	0.64
1:2A:1015:G:H2'	1:2A:1016:G:H8	1.61	0.64
1:2A:2070:G:H2'	1:2A:2071:A:H8	1.62	0.64
13:2R:67:LEU:HD13	13:2R:76:VAL:HG21	1.79	0.64
36:2e:122:GLU:HB2	36:2e:126:ARG:HH11	1.62	0.64
1:1A:380:U:OP1	62:1A:4041:HOH:O	2.15	0.64
1:1A:2136:C:N4	1:1A:2155:G:N1	2.35	0.64
4:1E:56:PRO:HG3	4:1E:74:PRO:HG2	1.80	0.64
41:1j:8:LEU:HD22	41:1j:96:ILE:HG22	1.79	0.64
1:2A:2849:U:H4'	1:2A:2868:A:C2	2.33	0.64
5:2F:184:TYR:CE2	5:2F:188:ARG:HD2	2.32	0.64
1:2A:41:C:H2'	1:2A:42:G:H8	1.62	0.64
9:2N:68:GLU:HG3	9:2N:69:GLN:HG3	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:2w:3:C:N3	54:2w:70:G:N2	2.36	0.64
1:1A:1048:A:OP2	1:1A:1109:C:N4	2.30	0.64
1:1A:1070:A:H5''	1:1A:1072:C:OP1	1.97	0.64
1:1A:2849:U:OP2	15:1T:95:ARG:NH1	2.30	0.64
32:1a:583:A:OP2	62:1a:3308:HOH:O	2.14	0.64
1:2A:2104:G:N2	1:2A:2185:C:N3	2.37	0.64
1:2A:2365:G:N7	30:28:39:LYS:NZ	2.40	0.64
12:2Q:27:VAL:O	12:2Q:29:PHE:N	2.30	0.64
1:1A:1174:A:H4'	1:1A:1175:U:OP1	1.96	0.64
1:1A:1796:U:H2'	1:1A:1797:C:C6	2.31	0.64
1:2A:2727:G:O2'	10:2O:70:LYS:NZ	2.30	0.64
32:2a:1025:U:H3	32:2a:1036:G:H1	1.44	0.64
40:2i:46:ALA:HB2	40:2i:74:ILE:HG23	1.78	0.64
1:2A:2138:C:N4	1:2A:2153:G:H1	1.94	0.64
30:28:33:ASN:HA	30:28:36:LYS:HD2	1.79	0.64
32:2a:815:A:N7	32:2a:1509:C:O2'	2.31	0.64
54:2y:10:G:H1	54:2y:25:C:N4	1.96	0.64
26:14:55:ARG:H	26:14:56:VAL:HA	1.62	0.64
32:1a:1238:A:OP2	62:1a:3310:HOH:O	2.15	0.64
1:2A:400:G:N7	62:2A:3814:HOH:O	2.30	0.64
1:2A:1670:C:OP1	62:2A:3725:HOH:O	2.15	0.64
1:2A:2590:A:O3'	3:2D:239:ARG:NH2	2.31	0.64
32:2a:1004:A:H8	32:2a:1005:A:H4'	1.62	0.64
32:2a:1412:C:H2'	32:2a:1413:A:C8	2.33	0.64
1:1A:1453:U:OP1	13:1R:77:ARG:NH1	2.29	0.64
1:1A:1587:A:H2'	1:1A:1588:C:C6	2.33	0.64
1:2A:2126:A:N6	1:2A:2163:C:O4'	2.31	0.64
32:2a:148:G:H2'	32:2a:149:A:H8	1.63	0.64
34:2c:32:LEU:HD23	34:2c:59:ARG:HD3	1.80	0.64
40:2i:117:HIS:HB2	40:2i:121:ARG:HG2	1.79	0.64
3:1D:108:PRO:HB3	3:1D:143:HIS:CE1	2.32	0.64
1:2A:2454:G:O6	62:2A:3730:HOH:O	2.15	0.64
32:2a:798:G:O6	62:2a:3205:HOH:O	2.13	0.64
1:1A:1143:A:OP2	62:1A:4043:HOH:O	2.15	0.63
50:1s:50:ALA:HB1	50:1s:57:HIS:HB3	1.80	0.63
1:2A:1012:U:H5	9:2N:28:THR:HG21	1.63	0.63
8:2I:4:ILE:HD11	8:2I:44:LEU:HD12	1.80	0.63
34:2c:14:ILE:HG22	34:2c:15:THR:HG23	1.79	0.63
1:1A:2105:C:H2'	1:1A:2106:G:C8	2.34	0.63
32:1a:67:C:H2'	32:1a:68:G:C8	2.33	0.63
32:1a:1036:G:H3'	32:1a:1037:C:C6	2.34	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:1d:23:GLY:HA3	35:1d:112:VAL:HG12	1.79	0.63
40:1i:26:VAL:HG13	40:1i:61:ALA:HB3	1.81	0.63
54:1w:5:G:H1	54:1w:68:C:N4	1.96	0.63
1:2A:1147:C:H2'	1:2A:1148:A:H8	1.62	0.63
1:2A:2070:G:H2'	1:2A:2071:A:C8	2.33	0.63
1:2A:2385:C:OP1	62:2A:3731:HOH:O	2.15	0.63
32:2a:401:C:OP2	35:2d:73:ARG:NH2	2.32	0.63
33:2b:98:LEU:HB2	33:2b:101:MET:HG3	1.79	0.63
33:2b:178:ARG:NH1	33:2b:198:ASP:OD1	2.31	0.63
54:2y:50:U:H3	54:2y:64:A:H61	1.45	0.63
1:1A:363:G:H2'	1:1A:363(A):A:H8	1.63	0.63
1:1A:1889:A:H2'	1:1A:1890:A:C8	2.34	0.63
1:1A:2687:U:OP2	62:1A:4044:HOH:O	2.15	0.63
24:12:32:LEU:HD11	24:12:54:LYS:HG2	1.81	0.63
32:1a:45:U:H2'	32:1a:46:G:C8	2.33	0.63
4:2E:27:LEU:HD22	15:2T:1:MET:HE1	1.78	0.63
7:2H:101:ARG:NH2	7:2H:121:ILE:O	2.31	0.63
34:2c:29:TYR:OH	45:2n:54:PRO:O	2.15	0.63
34:2c:55:VAL:HG22	34:2c:68:VAL:HG22	1.79	0.63
1:1A:516:C:OP1	27:15:13:LYS:NZ	2.32	0.63
32:1a:1025:U:O2	32:1a:1036:G:O6	2.16	0.63
33:1b:201:ILE:HG21	33:1b:214:ILE:HG21	1.79	0.63
1:2A:84:A:H5'	20:2Y:8:LYS:HG2	1.80	0.63
1:2A:1713:U:H2'	1:2A:1714:G:H8	1.64	0.63
1:2A:1803:A:O2'	3:2D:259:THR:HG21	1.98	0.63
4:2E:179:GLU:HG3	15:2T:9:LEU:HD21	1.79	0.63
32:2a:17:U:H2'	32:2a:18:C:C6	2.33	0.63
5:2F:21:ALA:HB3	5:2F:22:ALA:HA	1.81	0.63
40:2i:50:LEU:HD12	40:2i:56:LEU:HD12	1.79	0.63
1:1A:1113:U:H2'	1:1A:1114:G:C8	2.33	0.63
1:1A:1113:U:H2'	1:1A:1114:G:H8	1.63	0.63
1:1A:2336:A:H61	22:10:43:THR:HG22	1.62	0.63
10:1O:97:ARG:NH1	32:1a:339:C:OP2	2.31	0.63
1:2A:625:G:N7	11:2P:107:LYS:NZ	2.45	0.63
1:2A:890:A:H2'	1:2A:892:G:H8	1.62	0.63
1:2A:2630:G:H2'	1:2A:2631:G:C8	2.34	0.63
8:2I:40:THR:O	8:2I:44:LEU:HB2	1.98	0.63
26:24:44:THR:O	26:24:46:GLN:N	2.32	0.63
44:2m:34:LEU:HD13	44:2m:41:PRO:HB3	1.79	0.63
54:2w:43:C:H2'	54:2w:44:G:C8	2.33	0.63
5:1F:178:PRO:HB2	5:1F:201:VAL:HG21	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2608:G:N7	62:2A:3811:HOH:O	2.30	0.63
32:2a:1132:C:H42	32:2a:1142:G:H1	1.45	0.63
54:2y:19:G:H1	54:2y:56:C:H42	1.47	0.63
32:1a:557:G:OP1	62:1a:3311:HOH:O	2.16	0.63
6:2G:79:ASN:OD1	6:2G:79:ASN:N	2.22	0.63
14:2S:50:SER:O	14:2S:76:LYS:NZ	2.21	0.63
33:2b:98:LEU:HD13	33:2b:108:ILE:HD12	1.80	0.63
54:2w:27:G:H1	54:2w:43:C:N4	1.97	0.63
1:1A:1357:U:O4	62:1A:4025:HOH:O	2.10	0.63
8:1I:72:LEU:C	8:1I:74:ASN:H	2.05	0.63
1:2A:247:G:H4'	1:2A:386:G:C5	2.34	0.63
1:2A:2176:A:H2'	1:2A:2177:C:C6	2.34	0.63
1:2A:2693:A:H2'	1:2A:2694:G:H8	1.63	0.63
32:2a:134:A:H61	47:2p:25:ARG:NH1	1.96	0.63
32:2a:373:A:H61	32:2a:391:G:H1'	1.63	0.63
32:2a:1219:U:OP1	45:2n:19:ARG:NH1	2.28	0.63
32:2a:1305:G:N2	32:2a:1331:G:H1'	2.13	0.63
1:1A:1989:G:O6	62:1A:4031:HOH:O	2.12	0.62
1:2A:582:G:H2'	1:2A:583:G:C8	2.34	0.62
1:2A:2022:U:O2'	1:2A:2617:C:H5'	1.98	0.62
1:2A:2660:A:N7	7:2H:175:LYS:NZ	2.46	0.62
8:1I:106:GLY:HA2	8:1I:107:VAL:O	1.99	0.62
17:1V:34:GLU:HB3	17:1V:56:SER:HB2	1.80	0.62
32:1a:1194:U:H4'	36:1e:22:GLY:HA2	1.81	0.62
35:1d:31:CYS:CB	60:1d:501:SF4:S3	2.87	0.62
1:2A:2737:G:O6	62:2A:3724:HOH:O	2.12	0.62
32:2a:88:A:H4'	32:2a:89:C:H5''	1.81	0.62
36:2e:7:GLU:OE1	36:2e:37:ARG:NH2	2.32	0.62
1:1A:1653:G:H3'	13:1R:2:ARG:HD3	1.81	0.62
32:1a:1183:A:O2'	32:1a:1184:G:OP1	2.17	0.62
1:2A:602:G:O2'	1:2A:655:A:N6	2.32	0.62
1:2A:1012:U:OP1	16:2U:75:ASN:ND2	2.25	0.62
2:2B:80:U:H2'	2:2B:81:G:C8	2.34	0.62
15:2T:127:ALA:C	15:2T:129:ARG:H	2.06	0.62
27:25:16:ARG:NH1	27:25:17:ASP:OD1	2.31	0.62
54:2w:52:G:H1	54:2w:62:C:N4	1.96	0.62
13:1R:33:ARG:HB2	13:1R:115:GLU:HB3	1.80	0.62
37:1f:33:TYR:OH	37:1f:78:GLU:HG3	1.98	0.62
1:2A:302:C:H42	1:2A:315:G:H1	1.47	0.62
11:2P:88:LEU:HD11	11:2P:114:ILE:HD12	1.80	0.62
32:2a:45:U:H2'	32:2a:46:G:C8	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1070:U:H2'	32:2a:1071:C:H6	1.64	0.62
32:2a:1310:G:H1	32:2a:1327:C:N4	1.95	0.62
33:2b:24:TRP:CD1	33:2b:24:TRP:H	2.17	0.62
2:1B:23:G:O6	62:1B:3101:HOH:O	2.11	0.62
6:1G:41:GLN:NE2	6:1G:154:GLY:O	2.32	0.62
11:1P:50:ARG:HD3	30:18:7:HIS:CD2	2.34	0.62
26:14:61:ARG:HG3	26:14:62:ARG:N	2.15	0.62
33:1b:67:THR:N	33:1b:160:ASP:OD2	2.33	0.62
1:2A:897:C:H3'	1:2A:898:C:C6	2.35	0.62
1:2A:2296:U:OP2	14:2S:9:ARG:NH2	2.30	0.62
35:2d:157:LEU:O	35:2d:161:ASN:ND2	2.32	0.62
1:1A:322:A:OP1	5:1F:168:ARG:HD2	2.00	0.62
5:1F:116:ASP:OD1	5:1F:119:ARG:NH2	2.32	0.62
32:1a:553:A:H5''	43:1l:24:VAL:HG21	1.81	0.62
32:1a:1391:U:O2'	32:1a:1532:U:OP2	2.14	0.62
1:2A:1019:U:H3	1:2A:1142(A):A:H62	1.48	0.62
1:2A:2365:G:O6	30:28:43:GLN:NE2	2.28	0.62
32:2a:1013:G:N2	32:2a:1016:A:OP2	2.32	0.62
1:1A:1187:G:H5''	17:1V:81:TYR:CE1	2.34	0.62
1:1A:1238:G:OP2	62:1A:4045:HOH:O	2.16	0.62
5:1F:161:GLU:HG2	5:1F:164:ARG:NH2	2.15	0.62
15:1T:49:VAL:HG12	15:1T:63:VAL:HG22	1.80	0.62
1:2A:2674:G:H5''	10:2O:26:LYS:HE3	1.82	0.62
5:2F:197:ASP:OD1	5:2F:198:ALA:N	2.31	0.62
32:2a:674:G:H2'	32:2a:675:A:H8	1.65	0.62
1:1A:2183:C:H2'	1:1A:2184:G:H8	1.65	0.62
33:1b:97:TRP:HZ2	33:1b:102:LEU:HD13	1.65	0.62
1:2A:568:U:O4	62:2A:3728:HOH:O	2.14	0.62
6:2G:19:LEU:HD13	6:2G:32:PRO:HG2	1.80	0.62
30:28:26:LYS:HB3	30:28:44:LYS:O	2.00	0.62
51:2t:10:LEU:HB3	51:2t:12:ALA:H	1.65	0.62
34:2c:162:GLN:NE2	53:2v:24:A:O2'	2.32	0.62
1:1A:271(M):G:N2	8:1I:50:ARG:HH12	1.98	0.62
1:1A:278:A:H2	1:1A:362:U:H3	1.47	0.62
1:1A:2629:A:O2'	1:1A:2630:G:OP2	2.15	0.62
3:1D:69:ARG:HE	3:1D:130:ALA:HB2	1.65	0.62
44:2m:31:LYS:HA	44:2m:34:LEU:HD12	1.81	0.62
32:1a:1070:U:H2'	32:1a:1071:C:H6	1.64	0.61
36:1e:110:LEU:HD13	36:1e:118:ILE:HG21	1.82	0.61
39:1h:41:ARG:NH2	39:1h:123:GLU:OE2	2.33	0.61
54:1y:33:U:H2'	54:1y:35:A:OP2	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2803:C:H2'	1:2A:2804:C:H6	1.65	0.61
6:2G:125:PHE:CE2	6:2G:170:ARG:HB2	2.35	0.61
12:2Q:16:ARG:HD2	12:2Q:18:LYS:HG3	1.82	0.61
18:2W:71:VAL:HA	18:2W:107:LEU:HD12	1.81	0.61
32:2a:1028:C:O2	32:2a:1033:G:N1	2.34	0.61
32:2a:1375:A:O2'	38:2g:29:LYS:NZ	2.32	0.61
1:1A:1178:C:H2'	1:1A:1179:C:C6	2.35	0.61
7:1H:41:MET:HE2	7:1H:65:HIS:HA	1.82	0.61
15:1T:127:ALA:C	15:1T:129:ARG:H	2.07	0.61
35:1d:65:ARG:HG3	35:1d:70:ILE:HG22	1.81	0.61
1:2A:2705:A:O2'	1:2A:2852:G:OP1	2.17	0.61
5:2F:11:VAL:HG22	5:2F:125:LEU:HB2	1.82	0.61
17:2V:25:LEU:O	17:2V:64:HIS:NE2	2.31	0.61
43:2l:24:VAL:HB	43:2l:27:LEU:HD22	1.81	0.61
54:2w:18:G:O2'	54:2w:57:G:N2	2.24	0.61
1:1A:602:G:O2'	1:1A:655:A:N6	2.33	0.61
1:1A:1087:G:H2'	1:1A:1089:G:C8	2.35	0.61
32:1a:1036:G:H3'	32:1a:1037:C:H6	1.65	0.61
44:1m:23:TYR:HB3	44:1m:67:GLU:HA	1.82	0.61
4:2E:72:VAL:HG13	4:2E:73:GLU:HB3	1.83	0.61
32:2a:1226:C:H2'	44:2m:103:THR:HB	1.81	0.61
54:2y:15:G:H22	54:2y:48:C:N4	1.95	0.61
6:1G:27:ASN:HB3	6:1G:30:GLU:HG3	1.82	0.61
33:1b:19:HIS:CD2	33:1b:20:GLU:HG3	2.35	0.61
1:2A:2117:A:O2'	1:2A:2118:U:H5''	2.01	0.61
1:2A:2327:A:H2'	1:2A:2328:A:C8	2.35	0.61
32:2a:770:C:OP1	62:2a:3208:HOH:O	2.16	0.61
37:2f:11:ASN:HB3	37:2f:14:LEU:HG	1.82	0.61
1:1A:243:U:OP1	30:18:6:THR:OG1	2.16	0.61
44:1m:14:ARG:HE	44:1m:42:ALA:HA	1.66	0.61
1:2A:2769:C:H2'	1:2A:2770:G:O4'	2.00	0.61
6:2G:32:PRO:HB2	6:2G:172:LEU:HD22	1.82	0.61
32:2a:1040:U:H2'	32:2a:1041:A:H8	1.65	0.61
33:2b:84:GLU:HG3	33:2b:215:LEU:HB3	1.82	0.61
33:2b:118:LEU:HD12	33:2b:145:LEU:HD12	1.81	0.61
43:1l:71:PRO:O	43:1l:102:ARG:NH1	2.32	0.61
1:2A:2880:C:O3'	13:2R:90:ARG:NH1	2.33	0.61
1:1A:2869:G:H2'	1:1A:2870:C:O4'	2.00	0.61
2:1B:42:C:N4	6:1G:91:ARG:HH12	1.99	0.61
35:1d:31:CYS:HB2	60:1d:501:SF4:S3	2.40	0.61
36:1e:10:MET:HB3	36:1e:13:ILE:HD11	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:586:A:N1	1:2A:809:G:O2'	2.25	0.61
32:2a:742:G:P	46:2o:35:ARG:HH22	2.21	0.61
1:1A:882:G:H1	1:1A:894:C:H42	1.48	0.61
3:1D:260:ARG:NH2	3:1D:266:SER:OG	2.33	0.61
33:1b:122:PHE:C	33:1b:124:SER:H	2.08	0.61
7:2H:113:VAL:HG11	7:2H:151:ILE:HD13	1.83	0.61
32:2a:56:U:H2'	32:2a:57:G:C8	2.35	0.61
32:2a:1256:A:OP2	34:2c:26:LYS:NZ	2.34	0.61
32:2a:1342:C:H2'	32:2a:1343:G:H8	1.66	0.61
12:1Q:30:GLY:HA2	12:1Q:107:ALA:HB2	1.80	0.61
32:1a:108:G:C6	51:1t:15:ARG:HG2	2.36	0.61
32:1a:376:G:O3'	47:1p:5:ARG:HD2	2.01	0.61
32:1a:437:U:H5'	35:1d:155:LEU:HD21	1.82	0.61
1:2A:812:C:H2'	1:2A:813:U:H6	1.66	0.61
26:24:58:ARG:HD2	50:2s:68:GLY:H	1.65	0.61
32:2a:931:C:N4	32:2a:1386:G:H1	1.98	0.61
19:1X:35:THR:HG22	19:1X:38:GLU:H	1.65	0.61
23:11:51:VAL:HG11	23:11:74:VAL:HG21	1.82	0.61
32:1a:559:A:H4'	32:1a:560:U:H3'	1.82	0.61
32:1a:1183:A:H3'	32:1a:1184:G:H5''	1.83	0.61
41:1j:30:SER:O	41:1j:81:THR:OG1	2.19	0.61
1:2A:1005:C:H2'	1:2A:1006:C:H6	1.66	0.61
1:2A:1187:G:H5'	17:2V:81:TYR:CE1	2.35	0.61
1:2A:1507:A:O2'	1:2A:1508:A:O4'	2.18	0.61
8:2I:116:LEU:HD11	8:2I:120:ILE:HG13	1.83	0.61
1:1A:1508:A:O2'	1:1A:1509:C:OP1	2.19	0.60
43:1l:117:ARG:HG2	43:1l:122:THR:HB	1.83	0.60
32:2a:376:G:H5''	47:2p:5:ARG:HD3	1.82	0.60
11:1P:121:LYS:HG2	11:1P:122:PRO:HD2	1.83	0.60
16:1U:81:HIS:CE1	16:1U:85:LYS:HD2	2.35	0.60
35:1d:61:LYS:NZ	35:1d:72:GLU:OE1	2.33	0.60
1:2A:2441:C:OP2	1:2A:2586:C:O2'	2.20	0.60
8:2I:31:LEU:HD21	8:2I:38:LEU:HG	1.82	0.60
14:2S:30:ARG:HB2	14:2S:35:ILE:HD13	1.81	0.60
32:2a:1029:C:N3	32:2a:1032:G:N2	2.49	0.60
32:2a:1183:A:O2'	32:2a:1184:G:OP1	2.17	0.60
1:1A:456:C:H4'	62:1A:5025:HOH:O	2.01	0.60
1:1A:1165:U:H2'	1:1A:1166:C:C6	2.37	0.60
1:1A:2001:A:H2'	1:1A:2002:G:C8	2.36	0.60
1:1A:2867:G:OP2	15:1T:119:LYS:NZ	2.24	0.60
21:1Z:151:HIS:O	21:1Z:153:SER:N	2.30	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:61:ARG:HG3	26:14:62:ARG:H	1.65	0.60
2:2B:7:G:H21	14:2S:38:GLN:HE22	1.48	0.60
8:2I:78:THR:H	8:2I:104:GLN:HE22	1.49	0.60
8:2I:93:THR:H	8:2I:96:ASP:HB2	1.66	0.60
32:2a:642:A:N3	39:2h:113:SER:OG	2.32	0.60
32:2a:881:G:P	43:2l:12:ARG:HH22	2.25	0.60
33:2b:189:ASP:OD1	33:2b:189:ASP:N	2.26	0.60
40:2i:31:GLN:HE21	40:2i:36:TYR:HD1	1.48	0.60
1:1A:493:G:O6	62:1A:4039:HOH:O	2.15	0.60
32:1a:1027:C:C2	32:1a:1034:G:N1	2.69	0.60
32:1a:1353:G:OP1	52:1u:10:ARG:NH1	2.33	0.60
5:2F:185:ASP:HA	5:2F:188:ARG:HD3	1.84	0.60
32:2a:1089:G:N2	32:2a:1096:C:N3	2.41	0.60
32:2a:1316:G:N7	50:2s:7:LYS:NZ	2.46	0.60
34:2c:150:LYS:HG3	34:2c:169:ALA:HB2	1.82	0.60
39:2h:21:LYS:O	39:2h:65:TYR:OH	2.20	0.60
44:2m:90:LEU:HD23	44:2m:93:ARG:HD2	1.84	0.60
50:2s:64:GLU:OE2	50:2s:65:ASN:ND2	2.34	0.60
1:1A:184:C:H2'	1:1A:185:U:C6	2.37	0.60
1:1A:1141:U:OP1	9:1N:25:ARG:NH1	2.35	0.60
1:1A:2728:U:H5'	10:1O:70:LYS:HZ3	1.65	0.60
33:1b:93:VAL:HG21	33:1b:97:TRP:CD1	2.34	0.60
36:1e:50:GLU:HB2	36:1e:53:LEU:HD13	1.83	0.60
1:2A:330:A:H2	1:2A:1210:A:HO2'	1.47	0.60
1:2A:991:C:OP2	62:2A:3732:HOH:O	2.15	0.60
1:2A:2552:2MU:H2'	1:2A:2554:U:OP2	2.01	0.60
5:2F:140:LEU:HD11	5:2F:170:LEU:HD11	1.83	0.60
34:2c:182:ILE:HG12	34:2c:203:PHE:HD1	1.66	0.60
14:1S:15:ARG:O	14:1S:19:LYS:HG2	2.01	0.60
32:1a:56:U:H2'	32:1a:57:G:C8	2.37	0.60
32:1a:266:G:O3'	48:1q:67:LYS:HB2	2.01	0.60
32:2a:989:C:H1'	32:2a:1016:A:H2	1.66	0.60
55:2x:30:G:O6	62:2x:201:HOH:O	2.12	0.60
28:16:35:GLU:OE2	28:16:50:ARG:NH1	2.34	0.60
32:1a:1292:U:OP2	38:1g:41:ARG:NH2	2.34	0.60
40:1i:50:LEU:HD22	40:1i:56:LEU:HA	1.83	0.60
1:2A:687:C:H5''	29:27:2:LYS:HE2	1.82	0.60
6:2G:73:ALA:HB3	6:2G:85:GLY:H	1.66	0.60
9:2N:38:HIS:CE1	9:2N:39:ARG:HG3	2.36	0.60
11:2P:44:GLY:O	62:2P:301:HOH:O	2.16	0.60
33:2b:16:HIS:HB3	33:2b:210:SER:HB2	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:1X:53:LYS:HB3	19:1X:82:GLN:HB3	1.83	0.60
47:1p:18:ARG:NH1	47:1p:32:TYR:OH	2.34	0.60
54:1y:50:U:O4	54:1y:64:A:N1	2.34	0.60
1:2A:1239:G:H2'	1:2A:1240:U:O4'	2.01	0.60
1:2A:1783:A:HO2'	1:2A:2607:G:HO2'	1.50	0.60
1:2A:1815:A:P	3:2D:54:ARG:HH22	2.25	0.60
1:2A:1919:A:O3'	32:2a:1517:G:H1'	2.02	0.60
7:2H:25:LYS:HG3	7:2H:27:LYS:HE3	1.84	0.60
32:2a:544:G:OP1	35:2d:62:GLN:NE2	2.31	0.60
32:2a:1060:C:H5''	41:2j:51:ARG:HG2	1.82	0.60
44:2m:37:THR:O	44:2m:55:ARG:NH1	2.35	0.60
1:1A:2134:A:OP1	1:1A:2156:G:N2	2.34	0.60
1:2A:1507:A:O2'	1:2A:1508:A:O5'	2.20	0.60
1:2A:2387:U:O2'	22:20:19:LYS:NZ	2.35	0.60
32:2a:1503:A:O2'	53:2v:13:A:N1	2.35	0.60
33:2b:77:ALA:HB2	33:2b:211:ILE:HD13	1.82	0.60
38:2g:111:ARG:NH2	38:2g:126:ASP:OD2	2.33	0.60
1:1A:2646:C:OP2	1:1A:2732:G:O2'	2.18	0.60
2:1B:1:U:HO2'	2:1B:2:C:H6	1.50	0.60
3:1D:14:ARG:HG2	3:1D:14:ARG:HH11	1.67	0.60
22:10:46:LYS:NZ	22:10:75:LEU:O	2.24	0.60
32:1a:532:A:N6	32:1a:1206:G:O2'	2.35	0.60
32:1a:812:C:O2	62:1a:3306:HOH:O	2.12	0.60
32:1a:1097:C:O2'	32:1a:1169:A:N3	2.30	0.60
32:1a:1328:C:OP1	52:1u:21:TYR:OH	2.15	0.60
1:2A:1786:A:H1'	1:2A:1938:A:N6	2.17	0.60
1:2A:2127:G:N1	1:2A:2161:C:C2	2.67	0.60
3:2D:14:ARG:HG2	3:2D:14:ARG:HH11	1.67	0.60
8:2I:4:ILE:HG12	8:2I:18:VAL:HG22	1.83	0.60
21:2Z:46:LYS:O	21:2Z:50:GLN:NE2	2.30	0.60
32:2a:8:A:C6	35:2d:209:ARG:HB2	2.37	0.60
32:2a:1239:A:H62	32:2a:1299:A:H62	1.48	0.60
1:1A:2042:A:OP1	62:1A:4047:HOH:O	2.17	0.59
1:1A:2683:C:O2	10:1O:70:LYS:NZ	2.28	0.59
1:2A:203:C:OP2	62:2A:3736:HOH:O	2.17	0.59
1:2A:882:G:H2'	1:2A:883:G:H8	1.66	0.59
1:2A:1653:G:H3'	13:2R:2:ARG:HD3	1.84	0.59
1:2A:2334:G:O6	22:20:74:ARG:NH2	2.35	0.59
32:2a:952:U:H2'	32:2a:953:G:H8	1.66	0.59
1:1A:880:G:H2'	1:1A:881:G:C8	2.37	0.59
32:1a:163:C:H2'	32:1a:164:U:C6	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:405:U:OP2	35:1d:3:ARG:NH1	2.33	0.59
32:1a:715:A:H2'	32:1a:716:A:C8	2.37	0.59
1:2A:848:G:H2'	1:2A:849:A:C8	2.36	0.59
1:2A:2693:A:H2'	1:2A:2694:G:C8	2.37	0.59
32:2a:1157:A:H5'	32:2a:1158:C:C6	2.37	0.59
40:2i:97:LYS:HA	40:2i:102:LEU:HG	1.83	0.59
9:1N:22:THR:HB	9:1N:25:ARG:HB2	1.83	0.59
40:1i:29:ASN:ND2	40:1i:65:VAL:O	2.32	0.59
43:1l:53:ARG:HG3	43:1l:93:LEU:HD21	1.85	0.59
1:2A:8:A:H2'	1:2A:9:U:H6	1.67	0.59
1:2A:1783:A:OP1	62:2A:3703:HOH:O	2.16	0.59
2:2B:50:G:OP1	14:2S:63:THR:N	2.34	0.59
6:2G:15:VAL:HG22	6:2G:175:LEU:HB3	1.84	0.59
20:2Y:86:ARG:HB2	20:2Y:98:VAL:HG23	1.84	0.59
32:2a:742:G:OP2	46:2o:35:ARG:NH2	2.34	0.59
36:2e:78:HIS:CD2	39:2h:104:ARG:HD2	2.38	0.59
38:2g:26:PHE:CE2	38:2g:30:ILE:HD11	2.36	0.59
40:2i:28:VAL:HA	40:2i:63:ILE:O	2.02	0.59
41:2j:6:ILE:HB	41:2j:72:VAL:HG23	1.82	0.59
1:1A:10:G:N2	1:1A:2802:G:OP1	2.35	0.59
1:1A:278:A:H2'	1:1A:279:C:C6	2.37	0.59
1:1A:671:C:N4	62:1A:4155:HOH:O	2.35	0.59
11:1P:63:PRO:HD3	30:18:27:THR:HG22	1.82	0.59
21:1Z:92:SER:O	21:1Z:130:PRO:HG2	2.02	0.59
32:1a:77:G:O6	32:1a:92:C:N3	2.36	0.59
42:1k:99:GLN:HA	42:1k:105:VAL:HG21	1.84	0.59
1:2A:468:G:N7	29:27:39:ARG:NH2	2.51	0.59
1:2A:994:C:O2'	1:2A:996:A:OP1	2.19	0.59
1:2A:2218:U:H1'	23:21:52:ARG:HH12	1.67	0.59
1:2A:2379:G:O2'	14:2S:17:ARG:NH2	2.35	0.59
32:2a:562:C:H1'	43:2l:15:ARG:HD2	1.84	0.59
32:2a:1047:G:H5''	45:2n:4:LYS:HD3	1.83	0.59
1:1A:323:G:C8	5:1F:171:PRO:HG3	2.38	0.59
1:2A:854:G:H2'	1:2A:855:G:C8	2.36	0.59
2:2B:48:A:H4'	14:2S:95:HIS:HD2	1.67	0.59
3:2D:76:PRO:HB2	3:2D:116:GLN:HE21	1.67	0.59
17:2V:43:GLU:OE1	17:2V:43:GLU:N	2.36	0.59
21:2Z:141:VAL:HG12	21:2Z:144:LEU:HD13	1.83	0.59
32:2a:501:C:H2'	32:2a:502:G:C8	2.37	0.59
32:2a:1224:G:OP1	62:2a:3207:HOH:O	2.15	0.59
41:2j:16:LEU:HD13	41:2j:70:ARG:HG2	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:2p:17:TYR:HE2	47:2p:41:PRO:HG3	1.66	0.59
50:2s:28:LYS:HB3	50:2s:29:ARG:CA	2.31	0.59
1:1A:2296:U:OP2	14:1S:9:ARG:NH2	2.35	0.59
1:1A:2567:G:H2'	1:1A:2568:C:C6	2.37	0.59
32:1a:129:U:H5'	48:1q:3:LYS:HZ1	1.65	0.59
1:2A:1951:U:O4	62:2A:3721:HOH:O	2.11	0.59
32:2a:825:G:O2'	39:2h:12:ARG:NH2	2.36	0.59
32:2a:909:A:N3	32:2a:1413:A:O2'	2.36	0.59
40:2i:53:VAL:O	40:2i:55:ALA:N	2.34	0.59
41:2j:5:ARG:N	62:2j:8101:HOH:O	2.35	0.59
1:1A:271(E):U:H2'	1:1A:271(F):C:C6	2.37	0.59
1:1A:882:G:N2	1:1A:894:C:N3	2.45	0.59
1:1A:1059:G:N2	1:1A:1079:C:C2	2.70	0.59
1:1A:1405:U:H2'	1:1A:1406:U:C6	2.38	0.59
32:1a:1162:C:N4	32:1a:1174:G:H1	2.00	0.59
32:1a:1346:A:N1	32:1a:1374:A:H5''	2.16	0.59
1:2A:1355:G:O6	62:2A:3734:HOH:O	2.16	0.59
32:2a:399:G:H2'	32:2a:400:C:C6	2.37	0.59
1:1A:1062:G:P	1:1A:1070:A:H1'	2.43	0.59
14:1S:25:ARG:NH1	14:1S:42:ASP:OD1	2.36	0.59
24:12:1:MET:HE2	24:12:5:GLU:HB3	1.84	0.59
34:2c:88:ARG:HA	34:2c:91:LEU:HB2	1.84	0.59
1:1A:2887:U:H2'	1:1A:2888:C:C6	2.38	0.59
21:1Z:28:MET:HE2	21:1Z:35:ARG:HB2	1.84	0.59
32:1a:976:G:H5'	32:1a:1358:U:O2'	2.03	0.59
33:1b:68:ILE:H	33:1b:90:MET:HE3	1.67	0.59
33:1b:70:PHE:HD1	33:1b:163:PHE:HB3	1.67	0.59
1:2A:2377:A:H2'	1:2A:2378:A:C8	2.38	0.59
10:2O:76:ALA:HB3	15:2T:75:ILE:HB	1.85	0.59
26:24:24:THR:OG1	26:24:25:TYR:N	2.36	0.59
32:2a:407:G:H5''	35:2d:115:ARG:HB3	1.83	0.59
32:2a:501:C:OP2	43:2l:124:LYS:NZ	2.29	0.59
35:2d:11:LEU:HG	35:2d:66:ARG:HD3	1.83	0.59
35:2d:65:ARG:HG3	35:2d:70:ILE:HG22	1.83	0.59
41:2j:38:ILE:HD11	41:2j:71:LEU:HD23	1.84	0.59
1:1A:1786:A:H1'	1:1A:1938:A:N6	2.17	0.59
1:1A:2379:G:O2'	14:1S:17:ARG:NH2	2.36	0.59
5:1F:158:THR:O	5:1F:164:ARG:NH1	2.33	0.59
32:1a:310:G:OP2	47:1p:27:LYS:NZ	2.20	0.59
32:1a:438:G:H4'	35:1d:123:HIS:CE1	2.38	0.59
32:1a:836:G:OP1	49:1r:61:LYS:NZ	2.31	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1557:C:OP2	1:2A:1558:A:O2'	2.16	0.59
1:2A:2305:A:H5''	6:2G:134:GLY:HA3	1.84	0.59
35:2d:114:ARG:HA	35:2d:117:ALA:HB3	1.85	0.59
1:1A:1039:G:H1	1:1A:1116:C:H42	1.51	0.58
19:1X:57:LEU:HD11	19:1X:78:LYS:HE2	1.85	0.58
32:1a:695:A:OP2	42:1k:53:SER:N	2.33	0.58
32:1a:892:A:O2'	32:1a:1415:G:H4'	2.03	0.58
54:1y:19:G:H3'	54:1y:20:U:H5'	1.84	0.58
1:2A:362:U:O2'	1:2A:363:G:H5''	2.02	0.58
1:2A:658:C:H2'	1:2A:659:C:C6	2.38	0.58
1:2A:1688:U:O2	1:2A:1700:A:H5'	2.03	0.58
3:2D:148:GLU:HB2	3:2D:151:LYS:HD2	1.85	0.58
33:2b:87:ARG:NH1	33:2b:233:SER:HB3	2.18	0.58
1:1A:729:G:C6	3:1D:208:LYS:HB2	2.38	0.58
1:2A:184:C:H2'	1:2A:185:U:C6	2.37	0.58
1:2A:2060:A:N3	62:2A:3825:HOH:O	2.32	0.58
19:2X:88:LYS:NZ	19:2X:90:GLU:OE1	2.36	0.58
21:2Z:146:ILE:HG12	21:2Z:174:VAL:HG12	1.83	0.58
37:2f:35:ALA:HA	37:2f:67:MET:HB3	1.85	0.58
41:2j:30:SER:O	41:2j:81:THR:OG1	2.17	0.58
44:2m:10:PRO:HG2	44:2m:21:TYR:CD2	2.38	0.58
54:2w:51:U:H2'	54:2w:52:G:C8	2.38	0.58
1:1A:2319:G:H22	14:1S:3:ARG:HD3	1.67	0.58
15:2T:26:ASP:OD1	15:2T:120:ARG:NH2	2.27	0.58
1:1A:414:C:H2'	1:1A:415:A:C8	2.38	0.58
1:1A:560:C:H5'	16:1U:52:ARG:HH21	1.67	0.58
1:1A:674:G:O2'	5:1F:74:ARG:HD3	2.04	0.58
1:1A:1352:U:OP2	62:1A:4049:HOH:O	2.17	0.58
1:1A:1418:G:OP2	62:1A:4048:HOH:O	2.17	0.58
1:1A:1937:A:H1'	1:1A:1939:5MU:H72	1.85	0.58
4:1E:29:GLY:HA3	62:1E:404:HOH:O	2.04	0.58
6:1G:38:VAL:HG22	6:1G:93:THR:HG23	1.86	0.58
12:1Q:67:ARG:O	12:1Q:101:ARG:NH2	2.37	0.58
26:14:24:THR:OG1	26:14:25:TYR:N	2.37	0.58
1:2A:2846:G:N7	62:2A:3824:HOH:O	2.32	0.58
5:2F:178:PRO:HB3	5:2F:198:ALA:HA	1.85	0.58
26:24:62:ARG:HH11	26:24:62:ARG:H	1.51	0.58
32:2a:324:G:N7	62:2a:3229:HOH:O	2.32	0.58
32:2a:537:G:H5''	43:2l:113:ARG:HH12	1.68	0.58
32:2a:1119:C:H2'	32:2a:1120:G:C8	2.39	0.58
40:2i:9:ARG:HG2	40:2i:14:VAL:HG12	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2532:G:O2'	1:1A:2657:A:N1	2.36	0.58
11:1P:140:ALA:O	25:23:38:GLU:HG2	2.02	0.58
15:1T:24:PRO:HD3	15:1T:52:ILE:HD12	1.85	0.58
32:1a:1191:A:OP1	34:1c:4:LYS:NZ	2.27	0.58
1:2A:411:G:OP1	62:2A:3735:HOH:O	2.16	0.58
1:2A:652(B):A:H61	1:2A:655:A:H1'	1.68	0.58
1:2A:2674:G:H2'	1:2A:2675:A:C8	2.39	0.58
11:2P:63:PRO:HG2	30:28:25:MET:HB2	1.85	0.58
17:2V:24:LYS:HG3	17:2V:64:HIS:CD2	2.34	0.58
25:23:7:LYS:HB2	25:23:34:GLU:HG3	1.85	0.58
33:2b:76:GLN:HG3	33:2b:206:ASP:O	2.03	0.58
38:2g:78:ARG:HH21	38:2g:79:ARG:HH12	1.52	0.58
40:2i:7:THR:HB	40:2i:83:ARG:HH11	1.68	0.58
54:2w:18:G:HO2'	54:2w:57:G:H22	1.47	0.58
4:1E:48:GLN:HE21	4:1E:78:LEU:HD23	1.67	0.58
32:1a:1070:U:H2'	32:1a:1071:C:C6	2.38	0.58
1:2A:298:G:O2'	1:2A:322:A:N1	2.31	0.58
1:2A:1024:G:HO2'	1:2A:1144:G:HO2'	1.51	0.58
1:2A:2573:C:H41	58:2A:3652:HGR:H29	1.52	0.58
6:2G:16:ARG:HE	6:2G:31:VAL:HG11	1.68	0.58
8:2I:92:VAL:HG13	8:2I:120:ILE:HB	1.84	0.58
8:2I:130:TYR:HB3	8:2I:138:ILE:HB	1.86	0.58
17:2V:40:LEU:HB2	17:2V:46:VAL:HG22	1.85	0.58
1:1A:363(A):A:H2'	1:1A:363(B):G:C8	2.39	0.58
26:14:55:ARG:N	26:14:56:VAL:HA	2.19	0.58
1:2A:223:A:O2'	1:2A:420:C:O2	2.20	0.58
1:2A:1011:G:OP2	16:2U:70:ARG:NH2	2.37	0.58
1:2A:1514:U:H2'	1:2A:1515:G:C8	2.37	0.58
1:2A:2805:G:H2'	1:2A:2807:G:C8	2.38	0.58
7:2H:124:GLU:HB2	7:2H:132:ARG:HB3	1.84	0.58
50:2s:64:GLU:CD	50:2s:64:GLU:H	2.12	0.58
1:1A:1086:A:H3'	1:1A:1086:A:N3	2.19	0.58
1:1A:1342:A:OP2	62:1A:4003:HOH:O	2.17	0.58
1:1A:1843:C:H5'	3:1D:253:GLN:OE1	2.04	0.58
1:1A:2285:C:OP2	28:16:6:ARG:NH1	2.36	0.58
1:2A:1025:G:C4	1:2A:1135:C:H1'	2.38	0.58
1:2A:1805:U:O2	3:2D:50:THR:HB	2.04	0.58
32:2a:974:A:OP2	45:2n:29:ARG:NH2	2.37	0.58
1:1A:1156:A:P	16:1U:55:ARG:HH11	2.26	0.58
1:1A:1826:G:H4'	3:1D:242:ARG:CZ	2.34	0.58
1:1A:2327:A:H2'	1:1A:2328:A:C8	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:1I:92:VAL:HG13	8:1I:120:ILE:HB	1.85	0.58
32:1a:376:G:H5''	47:1p:5:ARG:CG	2.33	0.58
38:1g:78:ARG:HH22	38:1g:79:ARG:HH11	1.52	0.58
1:2A:322:A:OP2	5:2F:169:ASN:HB2	2.04	0.58
1:2A:2129:C:N4	1:2A:2159:G:H1	2.02	0.58
1:2A:2156:G:O5'	1:2A:2156:G:H8	1.86	0.58
44:2m:4:ILE:HG23	44:2m:5:ALA:H	1.69	0.58
1:1A:2377:A:H2'	1:1A:2378:A:C8	2.39	0.58
32:1a:1236:A:H4'	32:1a:1304:G:H4'	1.86	0.58
32:1a:1510:U:H2'	32:1a:1511:G:C8	2.39	0.58
34:1c:26:LYS:HG2	41:1j:45:ARG:HH12	1.69	0.58
32:2a:266:G:H5''	32:2a:268:C:H41	1.69	0.58
42:2k:43:SER:HA	42:2k:47:VAL:HG21	1.86	0.58
1:1A:897:C:H5'	54:1w:56:C:OP1	2.04	0.57
1:1A:1588:C:H2'	1:1A:1589:C:H6	1.68	0.57
2:1B:88:C:H2'	2:1B:89:G:O4'	2.04	0.57
54:1y:54:5MU:HN3	54:1y:58:A:H8	1.52	0.57
1:2A:111:A:O2'	24:22:65:ASN:ND2	2.37	0.57
1:2A:918:A:C5	1:2A:919:G:H1'	2.39	0.57
1:2A:2705:A:OP2	62:2A:3738:HOH:O	2.17	0.57
8:2I:57:ARG:O	8:2I:61:ARG:HG2	2.04	0.57
12:2Q:12:GLN:HE21	12:2Q:72:LYS:NZ	2.01	0.57
14:2S:15:ARG:O	14:2S:19:LYS:HG2	2.04	0.57
32:2a:1119:C:H2'	32:2a:1120:G:H8	1.69	0.57
32:2a:1135:U:H4'	32:2a:1136:U:H5	1.68	0.57
1:1A:1105:U:H2'	1:1A:1106:G:C8	2.37	0.57
1:1A:1292:U:H2'	1:1A:1293:C:C6	2.39	0.57
32:1a:1002:G:C5	32:1a:1003:G:H1'	2.39	0.57
54:1w:5:G:H2'	54:1w:6:G:C8	2.39	0.57
1:2A:27:G:N2	1:2A:512:G:H1'	2.19	0.57
1:2A:323:G:O2'	1:2A:1205:U:N3	2.36	0.57
1:2A:457:A:OP1	19:2X:68:ARG:NH2	2.37	0.57
1:2A:1227:G:OP2	16:2U:16:LYS:NZ	2.37	0.57
10:2O:115:VAL:HG13	10:2O:121:VAL:HG21	1.87	0.57
12:2Q:16:ARG:HG3	12:2Q:18:LYS:H	1.68	0.57
32:2a:48:C:OP2	62:2a:3211:HOH:O	2.17	0.57
32:2a:572:A:OP1	62:2a:3210:HOH:O	2.17	0.57
32:2a:631:G:H2'	32:2a:632:A:H8	1.69	0.57
55:2x:5:G:H1	55:2x:68:C:N4	2.02	0.57
1:1A:422:A:H2'	1:1A:423:A:C8	2.38	0.57
1:1A:484:C:H2'	1:1A:485:C:H6	1.70	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1406:U:H2'	1:1A:1407:C:C6	2.39	0.57
1:1A:1670:C:O2	4:1E:129:HIS:NE2	2.30	0.57
1:2A:2061:G:H5''	1:2A:2503:2MA:C2	2.34	0.57
6:2G:3:LEU:O	6:2G:8:LYS:NZ	2.30	0.57
19:2X:31:HIS:CD2	19:2X:33:LYS:HB2	2.39	0.57
32:2a:1376:U:H2'	32:2a:1377:A:C8	2.38	0.57
38:2g:23:VAL:O	38:2g:27:ILE:HG12	2.04	0.57
42:2k:31:THR:HG23	42:2k:42:TRP:HB3	1.85	0.57
50:2s:4:SER:HB2	50:2s:7:LYS:HG3	1.86	0.57
32:1a:741:G:H5'	46:1o:39:LEU:HD12	1.84	0.57
41:1j:5:ARG:HD3	41:1j:71:LEU:HD11	1.87	0.57
1:2A:1328:G:O6	62:2A:3729:HOH:O	2.15	0.57
1:2A:1365:A:O2'	23:21:11:ARG:NH1	2.35	0.57
1:2A:1636:C:H2'	1:2A:1637:A:C8	2.40	0.57
1:2A:2646:C:OP2	1:2A:2732:G:O2'	2.22	0.57
17:2V:25:LEU:H	17:2V:92:THR:HG1	1.52	0.57
32:2a:188:C:H42	32:2a:189(L):G:H1	1.51	0.57
32:2a:222:U:H2'	32:2a:223:U:C6	2.39	0.57
1:1A:2142:C:N3	1:1A:2149:G:O6	2.37	0.57
1:1A:2748:A:H5'	7:1H:4:ILE:HD12	1.86	0.57
32:1a:1346:A:OP1	40:1i:120:ARG:NH1	2.28	0.57
35:1d:60:GLU:HG3	35:1d:202:LEU:HD12	1.86	0.57
38:1g:16:LEU:HD22	40:1i:42:ARG:HA	1.85	0.57
1:2A:80:G:H1	1:2A:106:C:H42	1.52	0.57
1:2A:1816:G:O6	3:2D:35:LYS:NZ	2.37	0.57
1:2A:1839:G:C8	1:2A:1927:A:H1'	2.40	0.57
1:2A:2136:C:N3	1:2A:2155:G:N2	2.50	0.57
1:2A:2375:G:N2	1:2A:2378:A:OP2	2.37	0.57
9:2N:37:LYS:NZ	62:2N:201:HOH:O	2.22	0.57
36:2e:110:LEU:HD13	36:2e:118:ILE:HG21	1.86	0.57
1:1A:484:C:H2'	1:1A:485:C:C6	2.40	0.57
1:1A:630:G:OP2	30:18:15:LYS:NZ	2.28	0.57
1:1A:1183:G:O2'	25:13:29:ARG:NH1	2.38	0.57
4:1E:111:ARG:HD2	4:1E:160:TYR:CD2	2.40	0.57
5:1F:155:LEU:HB2	5:1F:189:THR:HG21	1.85	0.57
7:1H:56:SER:HB3	7:1H:61:HIS:ND1	2.20	0.57
33:1b:87:ARG:NH2	33:1b:220:ASP:OD1	2.28	0.57
47:1p:52:ASP:O	47:1p:54:GLU:N	2.38	0.57
1:2A:1030:G:OP2	12:2Q:128:LYS:NZ	2.38	0.57
1:2A:2134:A:HO2'	1:2A:2159:G:H21	1.46	0.57
1:2A:2499:C:O2	62:2A:3733:HOH:O	2.15	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2742:C:OP1	31:29:35:ARG:HD2	2.04	0.57
23:21:83:GLU:OE1	23:21:83:GLU:N	2.37	0.57
32:2a:309:G:O2'	32:2a:607:A:N1	2.36	0.57
32:2a:958:A:N3	32:2a:985:C:O2'	2.36	0.57
32:2a:1220:G:O3'	50:2s:36:ARG:HD3	2.04	0.57
35:2d:173:TRP:CD1	35:2d:174:LEU:HG	2.40	0.57
1:1A:747:U:O2	1:1A:2014:A:H1'	2.04	0.57
1:1A:971:C:O2'	1:1A:983:A:N3	2.31	0.57
1:1A:1713:U:H2'	1:1A:1714:G:H8	1.70	0.57
1:1A:2818:G:OP2	13:1R:42:LYS:NZ	2.28	0.57
1:2A:8:A:H2'	1:2A:9:U:C6	2.40	0.57
9:2N:33:LEU:HA	9:2N:38:HIS:HD2	1.70	0.57
32:2a:662:G:H2'	32:2a:663:A:C8	2.39	0.57
32:2a:714:G:H2'	32:2a:715:A:C8	2.39	0.57
32:2a:1029:C:N4	32:2a:1032:G:N1	2.52	0.57
1:1A:1063:G:H2'	1:1A:1064:C:C6	2.40	0.57
1:1A:1090:U:C2	1:1A:1102:C:H1'	2.40	0.57
1:1A:1356:G:O6	62:1A:4038:HOH:O	2.14	0.57
4:1E:111:ARG:HD3	4:1E:118:LYS:HD3	1.86	0.57
32:1a:78:G:N1	32:1a:91:C:C4	2.72	0.57
34:1c:6:HIS:HD2	34:1c:8:ILE:H	1.51	0.57
38:1g:113:GLU:HG3	38:1g:118:VAL:HG12	1.87	0.57
54:1w:58:A:O2'	54:1w:60:U:OP2	2.19	0.57
1:2A:2646:C:H2'	1:2A:2647:U:O4'	2.05	0.57
5:2F:130:ALA:H	5:2F:142:TRP:CD1	2.23	0.57
8:2I:77:LEU:HD23	8:2I:142:VAL:HG13	1.86	0.57
33:2b:71:VAL:HB	33:2b:164:VAL:HA	1.86	0.57
40:2i:6:GLY:HA3	40:2i:80:GLY:O	2.05	0.57
54:2y:58:A:O2'	54:2y:60:U:OP2	2.21	0.57
1:1A:71:A:N7	19:1X:31:HIS:HE1	2.03	0.57
1:1A:1045:A:H5'	1:1A:1046:A:H5'	1.85	0.57
1:1A:1913:A:H4'	1:1A:1914:C:H5''	1.87	0.57
1:1A:2142:C:H2'	1:1A:2143:C:C6	2.40	0.57
6:1G:43:LEU:HD11	6:1G:153:ARG:HD2	1.86	0.57
19:1X:43:VAL:HG21	19:1X:81:VAL:HG11	1.86	0.57
48:1q:28:PRO:HA	48:1q:35:VAL:HA	1.86	0.57
1:2A:2133:G:N2	1:2A:2157:G:H1'	2.20	0.57
4:2E:48:GLN:HE21	4:2E:78:LEU:HD23	1.69	0.57
32:2a:1108:G:O6	62:2a:3209:HOH:O	2.16	0.57
35:2d:119:GLN:HG2	35:2d:123:HIS:CD2	2.39	0.57
39:2h:110:ALA:HB3	39:2h:121:ASP:HB3	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:2m:6:GLY:HA3	44:2m:67:GLU:HG2	1.86	0.57
54:2y:50:U:H3	54:2y:64:A:N6	2.03	0.57
1:1A:911:A:N6	12:1Q:11:LYS:O	2.35	0.57
1:1A:1800:C:P	3:1D:183:ARG:HH12	2.28	0.57
32:1a:562:C:H1'	43:1l:15:ARG:HB3	1.86	0.57
39:1h:36:LEU:HD23	39:1h:39:LEU:HD22	1.86	0.57
54:1w:18:G:HO2'	54:1w:57:G:H22	1.48	0.57
1:2A:2291:U:H2'	1:2A:2292:C:C6	2.40	0.57
2:2B:17:C:H2'	2:2B:18:G:O4'	2.05	0.57
2:2B:22:U:H3	2:2B:61:G:H1	1.51	0.57
32:2a:1240:U:N3	38:2g:30:ILE:O	2.24	0.57
34:2c:6:HIS:CG	45:2n:49:HIS:HB3	2.40	0.57
1:1A:2140:C:N3	1:1A:2151:G:O6	2.38	0.56
1:1A:2141:G:O6	1:1A:2150:U:O2	2.23	0.56
1:1A:2430:A:N3	1:1A:2430:A:H2'	2.20	0.56
8:1I:6:LEU:HD11	8:1I:37:VAL:HG23	1.87	0.56
8:1I:130:TYR:N	8:1I:138:ILE:O	2.36	0.56
32:1a:742:G:OP2	46:1o:35:ARG:NH2	2.27	0.56
1:2A:272(H):C:H2'	1:2A:272(I):U:C6	2.39	0.56
32:2a:1367:C:OP2	40:2i:112:LYS:NZ	2.31	0.56
1:1A:1803:A:O2'	3:1D:259:THR:HG21	2.04	0.56
26:14:44:THR:O	26:14:46:GLN:N	2.38	0.56
34:1c:162:GLN:NE2	53:1v:24:A:O2'	2.38	0.56
35:1d:111:ALA:HB2	35:1d:120:LEU:HD12	1.87	0.56
1:2A:1027:A:C2	1:2A:2488:A:H5'	2.40	0.56
1:2A:1639:U:H2'	1:2A:1640:C:H5''	1.87	0.56
32:2a:1518:MA6:N6	32:2a:1519:MA6:H103	2.19	0.56
1:1A:247:G:H4'	1:1A:386:G:C5	2.39	0.56
1:1A:621:A:OP2	11:1P:108:LYS:NZ	2.34	0.56
1:1A:1265:A:OP2	62:1A:4051:HOH:O	2.18	0.56
1:1A:2130:U:O2'	1:1A:2158:A:N1	2.32	0.56
3:1D:37:LEU:HD22	3:1D:87:ASN:HD21	1.69	0.56
8:1I:104:GLN:C	8:1I:106:GLY:H	2.13	0.56
23:11:83:GLU:OE1	23:11:83:GLU:N	2.38	0.56
32:1a:1028:C:C2	32:1a:1029:C:H1'	2.40	0.56
35:1d:173:TRP:CD1	35:1d:173:TRP:H	2.21	0.56
37:1f:97:PHE:N	49:1r:30:ASP:OD1	2.37	0.56
39:1h:81:HIS:N	39:1h:138:TRP:O	2.38	0.56
39:1h:124:ALA:O	39:1h:128:GLY:N	2.38	0.56
1:2A:251:A:C5	1:2A:252:G:H1'	2.41	0.56
1:2A:571:A:N6	1:2A:2499:C:O3'	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:668:G:H5'	1:2A:669:G:OP2	2.06	0.56
1:2A:752:A:H3'	29:27:1:MET:HE1	1.86	0.56
1:2A:1243:G:O2'	11:2P:4:SER:O	2.21	0.56
1:2A:2803:C:H2'	1:2A:2804:C:C6	2.40	0.56
2:2B:7:G:H21	14:2S:38:GLN:NE2	2.03	0.56
5:2F:158:THR:O	5:2F:164:ARG:NH1	2.37	0.56
32:2a:336:C:H2'	32:2a:337:C:C6	2.40	0.56
32:2a:537:G:H5''	43:2l:113:ARG:NH1	2.20	0.56
32:2a:1006:C:N3	32:2a:1023:G:O6	2.39	0.56
32:2a:1025:U:H2'	32:2a:1027:C:C5	2.40	0.56
54:2y:8:4SU:H1'	54:2y:48:C:O2	2.05	0.56
1:1A:1778:U:H2'	1:1A:1784:A:N6	2.20	0.56
1:1A:2107:C:H42	1:1A:2182:G:H1	1.52	0.56
1:1A:2279:G:OP2	22:10:11:ARG:NH1	2.39	0.56
8:1I:116:LEU:HD21	8:1I:119:PRO:HA	1.88	0.56
32:1a:511:C:OP2	35:1d:49:ARG:NH1	2.37	0.56
35:1d:128:VAL:HG12	35:1d:129:ASN:ND2	2.21	0.56
44:1m:80:ARG:HH12	50:1s:69:HIS:HE1	1.54	0.56
55:1x:8:4SU:O2	55:1x:21:A:H2	1.88	0.56
1:2A:2584:U:H2'	1:2A:2585:U:H2'	1.88	0.56
1:2A:2682:U:O2'	15:2T:58:ASN:ND2	2.38	0.56
7:2H:17:VAL:HG13	7:2H:26:VAL:HG22	1.87	0.56
8:2I:123:LEU:HA	8:2I:144:VAL:HG23	1.87	0.56
32:2a:26:A:N6	32:2a:558:G:O2'	2.36	0.56
32:2a:1228:C:P	44:2m:108:ARG:HH22	2.29	0.56
45:2n:9:LYS:HG3	45:2n:12:ARG:HE	1.70	0.56
1:1A:1540:U:H2'	1:1A:1541:G:O4'	2.06	0.56
1:1A:2355:C:H1'	22:10:39:ARG:HH21	1.70	0.56
3:1D:71:ASP:HB3	3:1D:103:ARG:HH12	1.70	0.56
30:18:6:THR:HG23	30:18:64:TYR:HD2	1.71	0.56
1:2A:577:G:O2'	1:2A:1254:A:OP1	2.20	0.56
1:2A:1412:A:H2'	1:2A:1413:G:C8	2.40	0.56
3:2D:12:SER:HB3	3:2D:208:LYS:HB3	1.86	0.56
6:2G:106:LEU:HG	6:2G:111:LEU:HD11	1.87	0.56
17:2V:56:SER:H	17:2V:100:ARG:HB2	1.70	0.56
32:2a:22:G:H4'	32:2a:885:G:C8	2.41	0.56
32:2a:1002:G:H1	32:2a:1038:C:H42	1.53	0.56
1:1A:288:C:H2'	1:1A:289:A:H8	1.71	0.56
1:2A:2105:C:H2'	1:2A:2106:G:C8	2.40	0.56
1:2A:2218:U:N3	23:21:55:GLY:O	2.34	0.56
6:2G:131:TYR:HB3	6:2G:159:VAL:HG13	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:920:U:H2'	32:2a:921:U:C6	2.39	0.56
1:1A:2183:C:H2'	1:1A:2184:G:C8	2.40	0.56
32:1a:1179:A:H4'	40:1i:103:THR:HA	1.88	0.56
36:1e:68:GLU:HG3	36:1e:70:PRO:HD3	1.87	0.56
1:2A:884:C:N4	1:2A:893:C:N3	2.53	0.56
1:2A:1337:G:H2'	1:2A:1338:G:H8	1.71	0.56
1:2A:2149:G:C6	1:2A:2150:U:C2	2.94	0.56
1:2A:2165:G:H2'	1:2A:2166:G:O4'	2.05	0.56
1:2A:2555:U:OP2	62:2A:3739:HOH:O	2.18	0.56
6:2G:27:ASN:HB3	6:2G:30:GLU:HG3	1.86	0.56
30:28:23:VAL:HG11	30:28:47:LYS:HD3	1.87	0.56
32:2a:999:C:N4	32:2a:1042:G:H1	2.00	0.56
37:2f:9:VAL:HB	37:2f:87:ARG:HB2	1.87	0.56
1:1A:65:C:H5'	19:1X:71:GLY:HA3	1.87	0.56
1:1A:848:G:H2'	1:1A:849:A:C8	2.41	0.56
36:1e:33:VAL:HG21	36:1e:109:ILE:HA	1.87	0.56
40:1i:46:ALA:HB2	40:1i:74:ILE:HG23	1.87	0.56
47:1p:19:ILE:HG23	47:1p:36:ILE:HG13	1.88	0.56
1:2A:2320:A:N3	1:2A:2320:A:H2'	2.21	0.56
28:26:34:LEU:HB2	28:26:51:GLU:HB2	1.88	0.56
32:2a:195:A:N3	32:2a:222:U:O2'	2.37	0.56
32:2a:428:G:OP2	35:2d:10:ARG:NH1	2.39	0.56
48:2q:21:VAL:HG21	48:2q:59:ILE:HG21	1.87	0.56
1:1A:1364:G:P	23:11:3:LYS:HG3	2.46	0.56
1:1A:2791:C:H2'	1:1A:2792:G:H8	1.70	0.56
5:1F:156:LEU:HD21	5:1F:163:VAL:HG12	1.87	0.56
7:1H:3:ARG:HH21	7:1H:65:HIS:HB3	1.70	0.56
30:18:23:VAL:HG11	30:18:47:LYS:HD3	1.88	0.56
32:1a:92:C:H2'	32:1a:93:G:C8	2.40	0.56
32:1a:946:A:H2'	32:1a:947:G:C8	2.41	0.56
32:1a:1237:C:O2'	32:1a:1300:G:N2	2.35	0.56
32:1a:1391:U:H2'	32:1a:1392:G:C8	2.41	0.56
34:1c:116:VAL:HG21	34:1c:202:ILE:HD11	1.86	0.56
54:1y:55:PSU:C2	54:1y:57:G:H5'	2.41	0.56
1:2A:792:G:N3	1:2A:2072:G:O2'	2.34	0.56
15:2T:29:ARG:HB3	15:2T:87:ASP:HB2	1.88	0.56
32:2a:328:C:H4'	32:2a:329:A:H5'	1.88	0.56
38:2g:113:GLU:HG3	38:2g:118:VAL:HG12	1.88	0.56
54:2w:8:4SU:O2'	54:2w:21:A:N1	2.36	0.56
1:1A:2102:U:H3	1:1A:2187:G:H1	1.51	0.56
1:1A:2206:G:H3'	1:1A:2207:G:C8	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1O:2:ILE:HD12	10:1O:6:THR:HG21	1.87	0.56
32:1a:922:G:H4'	36:1e:20:GLN:HA	1.88	0.56
32:1a:1145:C:H4'	32:1a:1146:A:H5'	1.88	0.56
32:1a:1237:C:HO2'	32:1a:1300:G:H22	1.54	0.56
36:1e:95:ALA:HB1	36:1e:96:PRO:HD2	1.86	0.56
12:2Q:2:LEU:HD23	12:2Q:69:PHE:CD1	2.41	0.56
32:2a:473:G:H2'	32:2a:474:G:H8	1.71	0.56
32:2a:966:M2G:HM22	55:2x:34:C:H5'	1.86	0.56
32:2a:1266:G:N2	32:2a:1269:A:OP2	2.38	0.56
50:2s:70:LYS:HB2	50:2s:73:GLU:HG3	1.86	0.56
1:1A:1055:G:H21	1:1A:1085:A:H2	1.52	0.55
1:1A:2870:C:H2'	1:1A:2871:C:O4'	2.05	0.55
13:1R:44:LEU:HD22	13:1R:48:VAL:HG23	1.88	0.55
32:1a:1027:C:O2	32:1a:1034:G:C2	2.59	0.55
32:1a:1229:A:O2'	55:1x:30:G:OP1	2.22	0.55
32:1a:1298:C:H2'	38:1g:114:ARG:HH12	1.70	0.55
33:1b:162:ILE:O	33:1b:185:ILE:HG12	2.06	0.55
41:1j:47:PHE:HB2	41:1j:63:PHE:HB2	1.88	0.55
1:2A:764:A:N1	1:2A:1789:A:O2'	2.39	0.55
2:2B:42:C:C4	2:2B:43:C:C4	2.94	0.55
11:2P:38:GLN:O	11:2P:39:LYS:HB3	2.06	0.55
32:2a:1128:C:O2'	32:2a:1147:C:N3	2.31	0.55
32:2a:1342:C:H2'	32:2a:1343:G:C8	2.41	0.55
37:2f:30:LEU:HD23	37:2f:75:LEU:HD11	1.87	0.55
38:2g:40:ALA:HB3	40:2i:41:VAL:HG21	1.87	0.55
26:14:58:ARG:NH2	50:1s:68:GLY:HA3	2.16	0.55
1:2A:900:A:H2'	1:2A:901:A:H8	1.71	0.55
1:2A:2169:A:H2'	1:2A:2170:A:C8	2.42	0.55
26:24:41:PRO:HG3	26:24:49:PHE:CZ	2.40	0.55
32:2a:662:G:H2'	32:2a:663:A:H8	1.72	0.55
32:2a:676:A:H1'	42:2k:115:PRO:HB3	1.88	0.55
32:2a:957:U:O2'	32:2a:959:A:N7	2.30	0.55
32:2a:1304:G:O2'	32:2a:1333:A:N6	2.39	0.55
1:1A:641:C:O2'	1:1A:2350:C:OP1	2.14	0.55
18:1W:15:ARG:NH1	62:1W:3103:HOH:O	2.38	0.55
32:1a:165:C:H2'	32:1a:166:G:C8	2.42	0.55
32:1a:1038:C:C2'	32:1a:1039:C:H5'	2.36	0.55
1:2A:2109:U:H3	1:2A:2180:U:H3	1.52	0.55
12:2Q:111:GLU:O	12:2Q:115:MET:HG2	2.06	0.55
28:26:6:ARG:NH2	62:26:5001:HOH:O	2.38	0.55
32:2a:56:U:H2'	32:2a:57:G:H8	1.70	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:2m:13:LYS:HA	44:2m:44:ARG:HH11	1.71	0.55
1:1A:381:G:O6	62:1A:4046:HOH:O	2.16	0.55
2:1B:75:G:H22	21:1Z:73:GLN:NE2	2.05	0.55
34:1c:3:ASN:OD1	34:1c:3:ASN:N	2.40	0.55
34:1c:123:GLN:HB3	34:1c:128:PHE:HD2	1.72	0.55
54:1w:26:A:H61	54:1w:44:G:H1	1.54	0.55
1:2A:600:G:O6	62:2A:3737:HOH:O	2.17	0.55
1:2A:2314:C:H2'	1:2A:2315:G:C8	2.41	0.55
6:2G:18:GLU:OE1	6:2G:21:ARG:NH1	2.40	0.55
21:2Z:30:ASN:HA	21:2Z:89:PHE:HE1	1.70	0.55
23:21:56:GLN:HE21	23:21:87:PRO:HG3	1.71	0.55
32:2a:952:U:H2'	32:2a:953:G:C8	2.41	0.55
32:2a:1084:G:H5'	32:2a:1102:A:OP2	2.06	0.55
32:2a:1399:C:C4'	32:2a:1400:5MC:H5'	2.36	0.55
39:2h:6:ILE:HB	39:2h:85:ARG:NH1	2.22	0.55
5:1F:53:THR:CG2	5:1F:55:GLY:H	2.19	0.55
32:1a:1202:G:H1'	45:1n:29:ARG:HD2	1.88	0.55
38:1g:44:TYR:HE2	40:1i:41:VAL:HG11	1.71	0.55
1:2A:903:C:H2'	1:2A:904:C:C6	2.42	0.55
2:2B:4:C:H42	2:2B:117:G:H1	1.53	0.55
4:2E:52:LEU:HB3	4:2E:76:ARG:HD3	1.88	0.55
7:2H:20:ALA:HB1	7:2H:21:PRO:HD2	1.88	0.55
32:2a:590:C:H2'	32:2a:591:U:C6	2.42	0.55
1:1A:2336:A:H61	22:10:43:THR:CG2	2.19	0.55
15:1T:111:ARG:NH2	32:1a:1464:G:OP2	2.40	0.55
32:1a:189(K):U:H2'	32:1a:189(L):G:C8	2.42	0.55
40:1i:79:LEU:HD22	40:1i:104:ARG:HB2	1.88	0.55
1:2A:305:U:H2'	1:2A:306:U:C6	2.42	0.55
1:2A:2702:U:H4'	1:2A:2703:C:OP1	2.06	0.55
2:2B:55:U:H4'	6:2G:28:VAL:HG22	1.89	0.55
32:2a:630:G:H2'	32:2a:631:G:C8	2.42	0.55
32:2a:985:C:H2'	32:2a:986:A:C8	2.41	0.55
34:2c:180:ALA:HB1	34:2c:203:PHE:CE1	2.28	0.55
54:2w:6:G:O6	54:2w:67:C:N3	2.40	0.55
1:1A:1235:G:O6	62:1A:4050:HOH:O	2.18	0.55
6:1G:73:ALA:HB3	6:1G:85:GLY:H	1.72	0.55
9:1N:42:TRP:CD1	9:1N:48:MET:HE1	2.42	0.55
20:1Y:92:ASN:N	20:1Y:93:GLY:HA2	2.21	0.55
22:10:2:ALA:N	62:10:201:HOH:O	2.40	0.55
44:1m:81:LEU:HD13	44:1m:88:ARG:HG2	1.88	0.55
13:2R:44:LEU:HD22	13:2R:48:VAL:HG23	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:157:G:H1	32:2a:164:U:H3	1.54	0.55
32:2a:947:G:O3'	44:2m:109:THR:OG1	2.25	0.55
55:2x:33:U:N3	55:2x:36:U:OP2	2.36	0.55
3:1D:147:LEU:HD13	3:1D:155:LEU:HD11	1.88	0.55
17:1V:55:ALA:HB2	17:1V:101:GLY:HA2	1.89	0.55
18:1W:1:MET:HE3	18:1W:62:HIS:HB3	1.89	0.55
32:1a:1009:G:O6	32:1a:1020:U:O2	2.25	0.55
40:1i:55:ALA:HA	40:1i:58:HIS:HD2	1.72	0.55
54:1y:56:C:H2'	54:1y:57:G:O4'	2.07	0.55
1:2A:443:A:H1'	1:2A:1201:C:O4'	2.06	0.55
1:2A:2313:C:H4'	6:2G:91:ARG:HD3	1.88	0.55
1:2A:2689:U:P	1:2A:2719:G:H22	2.30	0.55
13:2R:33:ARG:HB2	13:2R:115:GLU:HB3	1.89	0.55
23:21:53:VAL:HG22	23:21:74:VAL:HG13	1.88	0.55
28:26:6:ARG:NH1	28:26:26:ASN:HB2	2.21	0.55
6:1G:129:GLY:O	6:1G:161:THR:OG1	2.24	0.55
32:1a:130:A:N3	32:1a:263:A:O2'	2.34	0.55
32:1a:262:A:H2'	32:1a:263:A:C8	2.42	0.55
1:2A:140:G:H1'	1:2A:141:A:H2	1.71	0.55
1:2A:667:U:O2	30:28:2:PRO:HD2	2.07	0.55
1:2A:1889:A:H2'	1:2A:1890:A:C8	2.42	0.55
2:2B:7:G:N2	14:2S:38:GLN:HE22	2.04	0.55
12:2Q:31:ASP:OD1	12:2Q:134:ARG:NH1	2.26	0.55
32:2a:986:A:N3	50:2s:52:TYR:OH	2.36	0.55
32:2a:1005:A:H3'	32:2a:1006:C:O4'	2.07	0.55
32:2a:1218:C:H2'	32:2a:1219:U:C6	2.42	0.55
34:2c:134:ILE:HG22	34:2c:168:ALA:HB3	1.88	0.55
37:2f:91:VAL:HG11	49:2r:72:ARG:NH1	2.21	0.55
43:2l:117:ARG:NH2	43:2l:124:LYS:HG2	2.21	0.55
46:2o:26:GLU:HG2	46:2o:77:ARG:HH21	1.71	0.55
50:2s:77:THR:HG23	50:2s:78:ARG:HG3	1.89	0.55
1:1A:1025:G:C4	1:1A:1135:C:H1'	2.42	0.55
1:1A:2627:G:O2'	1:1A:2781:A:N1	2.27	0.55
32:1a:138:G:H1	32:1a:225:C:H42	1.54	0.55
1:2A:1449:A:O2'	1:2A:1529:G:N2	2.27	0.55
17:2V:98:GLU:CD	17:2V:100:ARG:HH12	2.15	0.55
32:2a:1070:U:H2'	32:2a:1071:C:C6	2.42	0.55
32:2a:1305:G:O2'	32:2a:1331:G:N2	2.40	0.55
33:2b:119:GLU:OE1	33:2b:153:ARG:NH2	2.40	0.55
35:2d:111:ALA:HA	35:2d:116:GLN:HE21	1.70	0.55
47:2p:22:THR:HA	47:2p:33:ILE:HG13	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:1D:12:SER:HB3	3:1D:208:LYS:HB3	1.89	0.54
7:1H:127:GLU:OE1	7:1H:130:ARG:NE	2.36	0.54
41:1j:39:PRO:HA	41:1j:70:ARG:HD3	1.88	0.54
47:1p:4:ILE:HB	47:1p:66:PRO:HA	1.89	0.54
1:2A:2788:C:OP1	4:2E:61:ARG:NH2	2.40	0.54
1:2A:2892:A:H2'	1:2A:2893:G:H5'	1.89	0.54
3:2D:159:ALA:HB1	3:2D:198:ASN:O	2.08	0.54
26:24:64:GLY:C	26:24:66:SER:H	2.15	0.54
32:2a:646:U:H2'	32:2a:647:C:C6	2.42	0.54
39:2h:91:ARG:HD3	48:2q:32:TYR:O	2.07	0.54
1:1A:2506:U:OP1	4:1E:144:ARG:NH2	2.39	0.54
7:1H:22:GLY:HA2	7:1H:37:VAL:O	2.07	0.54
32:1a:344:A:H5''	32:1a:345:C:H5	1.72	0.54
32:1a:748:C:H4'	32:1a:749:C:O5'	2.07	0.54
41:1j:5:ARG:NE	41:1j:73:ASP:OD1	2.36	0.54
1:2A:1188:U:H4'	17:2V:79:VAL:HG22	1.89	0.54
1:2A:1799:G:O2'	3:2D:181:GLU:OE2	2.16	0.54
32:2a:664:G:H22	32:2a:741:G:H1	1.56	0.54
32:2a:1105:A:H2'	32:2a:1106:G:H8	1.72	0.54
32:2a:1456:G:N2	51:2t:43:LEU:HD11	2.22	0.54
35:2d:173:TRP:CD1	35:2d:189:PRO:HG3	2.42	0.54
1:1A:879:G:H8	1:1A:879:G:O5'	1.91	0.54
1:1A:1044:G:H5'	1:1A:1045:A:OP2	2.07	0.54
1:1A:1186:G:OP1	62:1A:4053:HOH:O	2.18	0.54
1:2A:740:U:H2'	1:2A:741:G:C8	2.41	0.54
7:2H:58:GLU:OE2	7:2H:60:ARG:NH2	2.40	0.54
32:2a:67:C:H2'	32:2a:68:G:C8	2.42	0.54
32:2a:776:G:N1	32:2a:802:A:OP1	2.36	0.54
32:2a:1513:A:H2'	32:2a:1514:C:C6	2.42	0.54
33:2b:24:TRP:H	33:2b:24:TRP:HD1	1.55	0.54
34:2c:48:TYR:HE1	34:2c:118:GLN:HB3	1.71	0.54
44:2m:89:GLY:O	44:2m:93:ARG:N	2.40	0.54
54:2w:29:G:N2	54:2w:41:C:N3	2.52	0.54
7:1H:144:VAL:O	7:1H:148:ILE:HG13	2.06	0.54
13:1R:56:LYS:NZ	13:1R:90:ARG:O	2.41	0.54
32:1a:164:U:H2'	32:1a:165:C:C6	2.42	0.54
32:1a:266:G:H2'	32:1a:266:G:N3	2.23	0.54
46:1o:56:LEU:O	46:1o:60:VAL:HG23	2.08	0.54
50:1s:28:LYS:HG3	50:1s:47:HIS:CD2	2.41	0.54
1:2A:902:C:H2'	1:2A:903:C:H6	1.72	0.54
1:2A:1292:U:H2'	1:2A:1293:C:C6	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1550:C:OP1	1:2A:1720:U:O2'	2.21	0.54
1:2A:2162:G:H4'	1:2A:2172:U:H2'	1.89	0.54
1:2A:2166:G:H3'	1:2A:2167:U:H5''	1.87	0.54
1:2A:2262:U:OP2	22:20:16:SER:OG	2.19	0.54
21:2Z:99:TYR:HA	21:2Z:124:ILE:O	2.07	0.54
54:2y:19:G:N2	54:2y:56:C:N3	2.51	0.54
62:1A:4234:HOH:O	9:1N:73:THR:HG21	2.06	0.54
32:1a:1129:C:O2'	32:1a:1139:G:N7	2.39	0.54
33:1b:158:LEU:HD21	33:1b:180:LEU:HD13	1.89	0.54
38:1g:113:GLU:HG2	38:1g:119:ARG:HG2	1.89	0.54
1:2A:1496:A:N3	1:2A:1577:C:O2'	2.38	0.54
6:2G:15:VAL:HG13	6:2G:175:LEU:HD23	1.88	0.54
10:2O:24:VAL:HG12	10:2O:33:ALA:HB2	1.89	0.54
21:2Z:57:ILE:HD12	21:2Z:71:VAL:HG23	1.89	0.54
32:2a:946:A:H2'	32:2a:947:G:C8	2.43	0.54
32:2a:976:G:N2	32:2a:1363:C:OP2	2.30	0.54
43:2l:28:LYS:N	43:2l:29:GLY:HA2	2.22	0.54
54:2w:27:G:N2	54:2w:43:C:N3	2.55	0.54
1:1A:192:C:OP1	62:1A:4054:HOH:O	2.18	0.54
1:1A:947:G:O2'	1:1A:984:A:N1	2.40	0.54
1:1A:1047:G:H2'	1:1A:1110:G:H22	1.71	0.54
1:1A:2139:C:C2	1:1A:2152:G:N2	2.75	0.54
9:1N:62:VAL:HG11	9:1N:66:LYS:HB2	1.89	0.54
15:1T:109:GLU:O	15:1T:113:LYS:HG2	2.08	0.54
21:1Z:150:LEU:HG	21:1Z:151:HIS:H	1.72	0.54
1:2A:219:G:N3	1:2A:234:C:O2'	2.39	0.54
21:2Z:55:HIS:CE1	21:2Z:135:GLU:HG3	2.43	0.54
32:2a:539:A:H2'	32:2a:540:G:C8	2.42	0.54
33:2b:76:GLN:HE21	33:2b:206:ASP:HA	1.72	0.54
35:2d:191:ARG:O	35:2d:191:ARG:NH1	2.36	0.54
42:2k:58:PRO:HA	42:2k:90:GLY:HA2	1.90	0.54
54:2y:49:C:H42	54:2y:65:G:H1	1.56	0.54
2:1B:1:U:O2'	2:1B:2:C:O5'	2.25	0.54
9:1N:67:LEU:HA	9:1N:87:LEU:HD22	1.89	0.54
12:1Q:42:ILE:HG12	12:1Q:103:MET:HE1	1.89	0.54
32:1a:743:U:H2'	32:1a:744:C:C6	2.43	0.54
1:2A:796:C:H2'	1:2A:797:C:C6	2.43	0.54
1:2A:857:C:OP2	22:20:77:ARG:NH2	2.40	0.54
1:2A:1600:C:OP1	19:2X:58:HIS:NE2	2.28	0.54
1:2A:1993:U:OP2	62:2A:3742:HOH:O	2.18	0.54
1:2A:2815:C:H5'	27:25:29:THR:HG21	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2B:24:G:H4'	2:2B:25:A:N7	2.23	0.54
3:2D:108:PRO:HB3	3:2D:143:HIS:CE1	2.41	0.54
4:2E:36:ARG:HG2	4:2E:47:VAL:HG12	1.87	0.54
7:2H:3:ARG:NH1	7:2H:5:GLY:H	2.05	0.54
21:2Z:73:GLN:O	21:2Z:87:ASP:N	2.38	0.54
25:23:10:LYS:HB3	25:23:53:LEU:HA	1.90	0.54
26:24:58:ARG:HD2	50:2s:68:GLY:N	2.23	0.54
32:2a:559:A:H4'	32:2a:560:U:H3'	1.89	0.54
32:2a:975:A:N1	41:2j:48:THR:HB	2.23	0.54
36:2e:42:GLY:HA2	36:2e:65:ASN:O	2.08	0.54
39:2h:6:ILE:HB	39:2h:85:ARG:HH11	1.72	0.54
6:1G:115:ARG:HB3	6:1G:136:ARG:NH2	2.22	0.54
11:1P:63:PRO:HG2	30:18:25:MET:HB2	1.90	0.54
19:1X:31:HIS:CD2	19:1X:33:LYS:H	2.25	0.54
32:1a:236:G:H5''	48:1q:42:TYR:OH	2.08	0.54
1:2A:2331:G:O2'	1:2A:2336:A:N6	2.40	0.54
2:2B:42:C:O2'	6:2G:67:LYS:O	2.16	0.54
2:2B:117:G:N7	62:2B:3101:HOH:O	2.33	0.54
15:2T:51:ARG:HG3	15:2T:98:LYS:HD2	1.90	0.54
51:2t:33:ILE:HG13	51:2t:62:LEU:HD22	1.90	0.54
54:2y:36:A:H2'	54:2y:37:MIA:O4'	2.07	0.54
1:1A:253:C:OP2	30:18:5:LYS:NZ	2.28	0.54
1:1A:1588:C:H2'	1:1A:1589:C:C6	2.43	0.54
16:1U:49:HIS:HA	16:1U:52:ARG:HB3	1.89	0.54
32:1a:619:U:N3	35:1d:134:ASP:OD1	2.32	0.54
39:1h:19:VAL:HG23	39:1h:21:LYS:HG2	1.89	0.54
1:2A:566:U:H5''	11:2P:29:LYS:HE3	1.90	0.54
1:2A:1336:A:H2'	1:2A:1337:G:C8	2.43	0.54
7:2H:126:PRO:HG2	7:2H:130:ARG:HD2	1.90	0.54
14:2S:10:ARG:NH2	14:2S:91:PRO:O	2.33	0.54
32:2a:838:G:H1	32:2a:848:C:H42	1.54	0.54
36:2e:146:ALA:HB1	36:2e:150:ARG:HH12	1.72	0.54
54:2w:19:G:H1	54:2w:56:C:H42	1.54	0.54
1:1A:2130:U:H2'	1:1A:2131:G:H21	1.73	0.54
32:1a:458:C:H2'	32:1a:460:G:O4'	2.07	0.54
32:1a:769:G:H4'	32:1a:1513:A:H4'	1.90	0.54
32:1a:1118:C:H1'	32:1a:1179:A:C4	2.42	0.54
32:1a:1302:U:C5	44:1m:17:VAL:HG21	2.43	0.54
33:1b:19:HIS:NE2	33:1b:206:ASP:OD2	2.40	0.54
1:2A:172:C:H2'	1:2A:173:G:H8	1.72	0.54
1:2A:526:A:N3	1:2A:2044:C:H1'	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:570:G:H2'	1:2A:2030:A:C5	2.43	0.54
1:2A:971:C:H2'	1:2A:972:G:O4'	2.08	0.54
1:2A:1405:U:H2'	1:2A:1406:U:C6	2.42	0.54
12:2Q:125:LEU:HD12	12:2Q:129:THR:HG21	1.89	0.54
32:2a:288:A:H2'	32:2a:289:G:H4'	1.90	0.54
36:2e:79:GLU:HG3	36:2e:93:PRO:HD2	1.89	0.54
1:1A:271(K):U:H4'	1:1A:271(L):U:OP2	2.09	0.53
1:1A:900:A:H2'	1:1A:901:A:O4'	2.08	0.53
1:1A:2313:C:H4'	6:1G:91:ARG:HD3	1.90	0.53
4:1E:116:VAL:HG13	4:1E:122:PHE:HB2	1.90	0.53
11:1P:138:LEU:HD23	11:1P:145:PRO:HB3	1.90	0.53
33:1b:24:TRP:CD1	33:1b:24:TRP:H	2.25	0.53
43:1l:24:VAL:HB	43:1l:27:LEU:HD22	1.90	0.53
54:1y:6:G:O6	54:1y:7:A:N6	2.41	0.53
1:2A:1434:A:H2'	1:2A:1435:G:C8	2.42	0.53
1:2A:1697:G:OP2	1:2A:1698:A:O2'	2.16	0.53
2:2B:22:U:H3	2:2B:61:G:H22	1.56	0.53
7:2H:11:VAL:HG21	7:2H:50:VAL:HG23	1.90	0.53
21:2Z:55:HIS:HE1	21:2Z:135:GLU:HG3	1.72	0.53
32:2a:60:A:N6	32:2a:110:C:N3	2.54	0.53
32:2a:1269:A:N1	32:2a:1312:G:O2'	2.41	0.53
39:2h:82:HIS:CE1	39:2h:84:ARG:HD2	2.42	0.53
32:1a:1179:A:O3'	40:1i:103:THR:OG1	2.26	0.53
32:1a:1302:U:H5	44:1m:17:VAL:HG21	1.74	0.53
40:1i:100:GLY:O	40:1i:103:THR:HG22	2.07	0.53
1:2A:111:A:O3'	24:22:65:ASN:ND2	2.42	0.53
1:2A:127:A:H5''	1:2A:128:C:C6	2.43	0.53
1:2A:839:U:H2'	1:2A:840:C:C6	2.43	0.53
1:2A:1562:A:H2'	1:2A:1563:G:C8	2.43	0.53
1:2A:1593:G:H2'	1:2A:1594:G:C8	2.43	0.53
5:2F:21:ALA:CB	5:2F:22:ALA:HA	2.38	0.53
32:2a:1030(A):G:H21	32:2a:1030(C):G:H8	1.55	0.53
34:2c:34:LEU:HG	34:2c:38:ARG:HH12	1.73	0.53
1:1A:1063:G:H1	1:1A:1075:C:N4	2.05	0.53
1:1A:2150:U:H2'	1:1A:2151:G:H8	1.73	0.53
1:1A:2564:A:C2	1:1A:2647:U:H4'	2.42	0.53
1:1A:2573:C:H3'	62:1A:4014:HOH:O	2.09	0.53
6:1G:64:THR:HB	6:1G:94:LEU:HD21	1.90	0.53
32:1a:1305:G:H22	32:1a:1331:G:H1'	1.72	0.53
1:2A:1899:G:H2'	1:2A:1899:G:N3	2.22	0.53
2:2B:75:G:N2	21:2Z:87:ASP:OD1	2.40	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2G:11:TYR:CZ	6:2G:16:ARG:HD3	2.43	0.53
11:2P:63:PRO:HD3	30:28:27:THR:HG22	1.90	0.53
21:2Z:9:TYR:OH	21:2Z:63:ASP:OD2	2.26	0.53
32:2a:921:U:O2	36:2e:19:MET:HB2	2.09	0.53
32:2a:1299:A:H2'	32:2a:1299:A:N3	2.22	0.53
32:2a:1346:A:N1	32:2a:1374:A:H5''	2.22	0.53
1:1A:886:C:OP1	1:1A:886:C:H4'	2.08	0.53
1:1A:2290:G:OP2	62:1A:4057:HOH:O	2.19	0.53
1:1A:2839:G:H5'	13:1R:46:GLY:HA2	1.89	0.53
16:1U:69:CYS:HB3	16:1U:74:LEU:HD12	1.89	0.53
20:1Y:54:LYS:H	20:1Y:56:PRO:HD3	1.72	0.53
32:1a:431:A:H2'	32:1a:432:A:O4'	2.09	0.53
32:1a:524:G:H2'	32:1a:525:C:C6	2.44	0.53
44:1m:54:VAL:HA	44:1m:57:ARG:HB3	1.89	0.53
1:2A:2062:A:H2'	1:2A:2062:A:N3	2.23	0.53
2:2B:91:C:OP1	12:2Q:16:ARG:HD3	2.08	0.53
6:2G:109:VAL:HG21	26:24:14:ILE:HG21	1.90	0.53
8:2I:3:VAL:HG12	8:2I:38:LEU:HA	1.91	0.53
8:2I:102:SER:O	8:2I:106:GLY:N	2.40	0.53
21:2Z:30:ASN:HA	21:2Z:89:PHE:CE1	2.44	0.53
32:2a:107:G:H2'	32:2a:108:G:O4'	2.08	0.53
32:2a:631:G:H2'	32:2a:632:A:C8	2.42	0.53
32:2a:978:A:H61	32:2a:1316:G:H21	1.57	0.53
32:2a:1123:A:O3'	41:2j:36:GLY:HA3	2.09	0.53
47:2p:52:ASP:O	47:2p:54:GLU:N	2.41	0.53
49:2r:56:THR:HB	49:2r:58:LEU:HD13	1.89	0.53
54:2y:51:U:H3	54:2y:63:G:H1	1.54	0.53
1:1A:1058:G:H4'	1:1A:1058:G:OP1	2.09	0.53
1:1A:1993:U:OP2	62:1A:4055:HOH:O	2.18	0.53
1:1A:2134:A:OP2	1:1A:2157:G:N2	2.42	0.53
1:1A:2150:U:H2'	1:1A:2151:G:C8	2.43	0.53
4:1E:48:GLN:NE2	4:1E:78:LEU:HD23	2.23	0.53
9:1N:30:ILE:HG22	9:1N:34:LEU:HD22	1.90	0.53
41:1j:5:ARG:NH2	41:1j:73:ASP:OD2	2.40	0.53
42:1k:20:TYR:HB2	42:1k:31:THR:HG23	1.89	0.53
42:1k:82:VAL:HB	42:1k:108:ILE:HG12	1.91	0.53
54:1y:38:A:H2'	54:1y:39:PSU:O4'	2.08	0.53
1:2A:403:U:H4'	1:2A:404:C:H5'	1.90	0.53
1:2A:1656:C:H2'	1:2A:1657:C:H6	1.74	0.53
1:2A:2674:G:H5''	10:2O:26:LYS:HG2	1.91	0.53
5:2F:192:LEU:HD13	5:2F:194:MET:HE2	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:2U:65:ILE:HD11	16:2U:95:LEU:HB3	1.91	0.53
40:2i:55:ALA:HA	40:2i:58:HIS:CD2	2.43	0.53
50:2s:41:VAL:O	50:2s:43:GLU:N	2.42	0.53
1:1A:2126:A:N1	1:1A:2162:G:O2'	2.42	0.53
10:1O:23:ARG:HD3	10:1O:24:VAL:N	2.24	0.53
11:1P:141:ALA:HA	25:23:38:GLU:HG2	1.91	0.53
32:1a:328:C:H4'	32:1a:329:A:H5'	1.91	0.53
32:1a:1135:U:H4'	32:1a:1136:U:H5	1.73	0.53
33:1b:80:ILE:HD13	33:1b:211:ILE:HG22	1.90	0.53
43:1l:113:ARG:C	43:1l:114:LYS:HD2	2.34	0.53
1:2A:384:U:H2'	1:2A:385:C:H6	1.72	0.53
1:2A:1147:C:H2'	1:2A:1148:A:C8	2.42	0.53
1:2A:2375:G:O2'	1:2A:2377:A:N7	2.32	0.53
1:1A:1799:G:O2'	3:1D:181:GLU:OE2	2.25	0.53
3:1D:125:ILE:HB	37:1f:81:ILE:HD11	1.90	0.53
8:2I:122:GLU:O	8:2I:126:TYR:OH	2.26	0.53
11:2P:77:ARG:HB2	11:2P:78:PRO:HD2	1.90	0.53
32:2a:390:C:H2'	32:2a:391:G:C8	2.44	0.53
32:2a:501:C:H2'	32:2a:502:G:H8	1.74	0.53
34:2c:180:ALA:HA	34:2c:206:GLU:HA	1.91	0.53
42:2k:62:GLN:O	42:2k:66:LEU:HG	2.09	0.53
54:2w:72:C:C2	54:2w:73:A:H1'	2.44	0.53
1:1A:1866:C:H2'	1:1A:1876:A:O4'	2.09	0.53
1:1A:2051:A:H5'	1:1A:2578:G:O4'	2.08	0.53
32:1a:1239:A:H62	32:1a:1299:A:N6	2.07	0.53
1:2A:41:C:H2'	1:2A:42:G:C8	2.43	0.53
1:2A:2114:A:H62	1:2A:2115:G:H21	1.57	0.53
1:2A:2285:C:OP2	28:26:6:ARG:NH1	2.41	0.53
1:2A:2835:A:N6	1:2A:2879:C:OP2	2.39	0.53
2:2B:83:G:H1	2:2B:94:C:N4	2.04	0.53
2:2B:98:G:H3'	2:2B:99:G:H8	1.74	0.53
17:2V:62:LEU:HD11	17:2V:95:LEU:HB2	1.89	0.53
18:2W:34:ASN:OD1	18:2W:37:ARG:NH1	2.32	0.53
18:2W:67:ASP:OD1	18:2W:67:ASP:N	2.41	0.53
32:2a:409:G:OP1	35:2d:24:GLU:N	2.42	0.53
32:2a:629:G:H2'	32:2a:630:G:O4'	2.09	0.53
33:2b:16:HIS:HB3	33:2b:210:SER:CB	2.38	0.53
1:1A:883:G:H22	1:1A:893:C:H42	1.56	0.53
1:1A:1593:G:H2'	1:1A:1594:G:C8	2.44	0.53
1:1A:2135:A:N6	1:1A:2156:G:O2'	2.37	0.53
1:1A:2223:G:OP1	3:1D:172:TYR:OH	2.20	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:1F:110:LEU:HD22	5:1F:205:ARG:HD2	1.90	0.53
26:14:59:PHE:C	26:14:61:ARG:H	2.16	0.53
32:1a:17:U:H2'	32:1a:18:C:C6	2.44	0.53
32:1a:376:G:OP2	47:1p:67:THR:HG21	2.09	0.53
33:1b:16:HIS:HB3	33:1b:210:SER:HB2	1.91	0.53
1:2A:2143:C:H2'	1:2A:2144:U:O4'	2.09	0.53
2:2B:13:A:N1	2:2B:69:G:O2'	2.40	0.53
40:2i:3:GLN:HE21	40:2i:20:ARG:NH2	2.07	0.53
1:1A:2432:A:C4	23:11:33:LYS:HG3	2.44	0.53
13:1R:33:ARG:HH22	27:15:57:VAL:HG12	1.74	0.53
32:1a:264:U:H4'	48:1q:63:ARG:HD2	1.91	0.53
32:1a:737:A:H2'	32:1a:738:C:C6	2.44	0.53
37:1f:30:LEU:HA	37:1f:75:LEU:HD11	1.90	0.53
1:2A:19:C:H2'	1:2A:20:C:H6	1.73	0.53
1:2A:172:C:H2'	1:2A:173:G:C8	2.44	0.53
1:2A:578:A:OP2	62:2A:3746:HOH:O	2.19	0.53
21:2Z:150:LEU:HG	21:2Z:151:HIS:H	1.74	0.53
32:2a:1387:G:H2'	32:2a:1388:C:C6	2.44	0.53
34:2c:131:ARG:HH11	34:2c:166:GLU:HG3	1.74	0.53
1:1A:111:A:O2'	24:12:65:ASN:ND2	2.41	0.52
1:1A:1274:A:N3	1:1A:1297:C:H1'	2.23	0.52
1:1A:1278:A:OP1	13:1R:36:THR:HG23	2.08	0.52
1:1A:1798:U:H5'	3:1D:259:THR:CG2	2.37	0.52
8:1I:87:LYS:NZ	8:1I:122:GLU:OE2	2.36	0.52
14:1S:11:LYS:HG3	14:1S:91:PRO:HD3	1.91	0.52
23:11:71:TYR:O	23:11:75:GLU:HG2	2.10	0.52
32:1a:1074:G:O2'	32:1a:1101:A:N1	2.40	0.52
33:1b:20:GLU:HG2	33:1b:23:ARG:NH2	2.24	0.52
1:2A:191:A:H2'	1:2A:192:C:C6	2.44	0.52
1:2A:648:G:O2'	1:2A:2351:G:OP1	2.15	0.52
1:2A:2135:A:H5'	1:2A:2159:G:O2'	2.09	0.52
1:2A:2148:G:H2'	1:2A:2149:G:C8	2.44	0.52
3:2D:83:GLU:OE1	3:2D:104:TYR:OH	2.18	0.52
6:2G:64:THR:HG22	6:2G:94:LEU:HD11	1.90	0.52
14:2S:27:SER:HA	14:2S:88:ASP:HB3	1.90	0.52
32:2a:1220:G:N2	50:2s:54:GLY:O	2.41	0.52
1:1A:800:A:H8	1:1A:800:A:OP1	1.93	0.52
1:1A:1636:C:H2'	1:1A:1637:A:C8	2.43	0.52
1:1A:1996:C:H4'	1:1A:1997:G:OP1	2.09	0.52
1:1A:2291:U:H2'	1:1A:2292:C:C6	2.44	0.52
32:1a:97:G:H2'	32:1a:98:G:O4'	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:677:U:O2	32:1a:777:A:O2'	2.26	0.52
32:1a:711:G:OP1	37:1f:54:LYS:NZ	2.36	0.52
32:1a:757:U:H2'	32:1a:758:G:O4'	2.09	0.52
32:1a:1277:C:O2'	32:1a:1279:A:H1'	2.08	0.52
37:1f:6:VAL:HG22	37:1f:90:VAL:HG22	1.91	0.52
54:1w:19:G:H5'	54:1w:60:U:O4	2.10	0.52
1:2A:322:A:H5'	1:2A:340:A:H1'	1.91	0.52
1:2A:1410:G:H2'	1:2A:1411:C:C6	2.43	0.52
1:2A:1482:G:H2'	1:2A:1484:G:H8	1.74	0.52
1:2A:2731:G:H5''	4:2E:203:LYS:HE3	1.91	0.52
16:2U:107:ALA:O	16:2U:111:GLU:HG2	2.09	0.52
19:2X:12:VAL:HG22	19:2X:29:TRP:CE2	2.44	0.52
32:2a:189(K):U:H2'	32:2a:189(L):G:C8	2.45	0.52
32:2a:279:A:OP2	48:2q:92:ARG:NH1	2.41	0.52
32:2a:755:G:OP2	46:2o:65:ARG:HD2	2.09	0.52
38:2g:78:ARG:HH21	38:2g:79:ARG:NH1	2.06	0.52
1:1A:475:U:OP1	62:1A:4052:HOH:O	2.18	0.52
1:1A:494:G:H4'	18:1W:6:ILE:HB	1.91	0.52
32:1a:1089:G:H1	32:1a:1096:C:H42	1.57	0.52
35:1d:157:LEU:O	35:1d:161:ASN:ND2	2.41	0.52
35:1d:163:GLU:O	35:1d:166:LYS:HG2	2.10	0.52
35:1d:173:TRP:CE3	35:1d:174:LEU:HG	2.45	0.52
1:2A:271(H):G:HO2'	1:2A:271(I):G:H8	1.55	0.52
1:2A:491:G:O6	18:2W:49:LYS:HE2	2.09	0.52
1:2A:1010:A:OP2	62:2A:3748:HOH:O	2.19	0.52
1:2A:1509(B):A:H2'	1:2A:1510:G:H8	1.75	0.52
19:2X:1:MET:HE1	24:22:26:ARG:HE	1.73	0.52
32:2a:1245:A:H2'	32:2a:1246:C:O4'	2.09	0.52
32:2a:1360:A:H8	32:2a:1360:A:OP1	1.91	0.52
33:2b:127:ILE:C	33:2b:129:GLU:H	2.18	0.52
34:2c:137:ALA:HA	34:2c:140:ARG:NH2	2.25	0.52
1:1A:65:C:H2'	1:1A:66:C:H6	1.74	0.52
1:1A:1669:A:H5''	1:1A:2550:G:OP1	2.09	0.52
1:1A:2788:C:OP1	4:1E:61:ARG:NH2	2.42	0.52
29:17:30:VAL:HG22	29:17:33:ARG:HH21	1.75	0.52
32:1a:964:A:OP1	62:1a:3313:HOH:O	2.19	0.52
34:1c:63:ASN:HA	34:1c:98:ASN:H	1.74	0.52
44:1m:3:ARG:HG3	44:1m:4:ILE:N	2.22	0.52
1:2A:1572:A:H5'	62:2A:3992:HOH:O	2.09	0.52
1:2A:2128:C:O4'	1:2A:2173:A:O2'	2.27	0.52
1:2A:2136:C:N4	1:2A:2155:G:N1	2.57	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2D:34:VAL:HB	3:2D:61:LEU:HD23	1.91	0.52
5:2F:152:GLU:OE1	5:2F:191:ARG:NE	2.43	0.52
6:2G:49:ASP:OD1	6:2G:49:ASP:N	2.40	0.52
13:2R:63:ARG:O	13:2R:67:LEU:HB2	2.09	0.52
22:20:38:VAL:HG21	22:20:45:PHE:HD2	1.75	0.52
32:2a:108:G:C6	51:2t:15:ARG:HG2	2.44	0.52
32:2a:237:C:H5''	48:2q:25:ARG:CZ	2.40	0.52
33:2b:126:GLU:CD	33:2b:126:GLU:H	2.17	0.52
1:1A:34:C:H5''	1:1A:35:G:OP2	2.09	0.52
1:1A:886:C:H2'	1:1A:887:A:H5''	1.90	0.52
36:1e:148:VAL:HG21	39:1h:107:LEU:HD22	1.90	0.52
49:1r:25:THR:O	49:1r:26:LEU:HD12	2.09	0.52
1:2A:1028:A:H2'	1:2A:1029:A:C8	2.44	0.52
1:2A:1783:A:H5'	1:2A:2608:G:H4'	1.92	0.52
1:2A:1833:U:O2'	1:2A:1969:A:N1	2.34	0.52
1:2A:2148:G:H2'	1:2A:2149:G:H8	1.75	0.52
3:2D:242:ARG:HD2	3:2D:246:PRO:HG3	1.90	0.52
4:2E:47:VAL:HG11	4:2E:86:PRO:HD2	1.91	0.52
5:2F:183:VAL:O	5:2F:187:VAL:HG23	2.10	0.52
32:2a:375:U:O2'	47:2p:28:ARG:HD2	2.09	0.52
32:2a:953:G:N7	44:2m:104:ARG:NH2	2.58	0.52
32:2a:1062:U:H2'	32:2a:1063:C:C6	2.45	0.52
32:2a:1118:C:H1'	32:2a:1179:A:C5	2.44	0.52
32:2a:1127:G:H1	32:2a:1145:C:N4	2.05	0.52
1:1A:443:A:H1'	1:1A:1201:C:O4'	2.10	0.52
1:1A:796:C:H2'	1:1A:797:C:C6	2.45	0.52
1:1A:1566:A:OP1	3:1D:211:ARG:NH1	2.42	0.52
1:1A:2506:U:O2	58:1A:3915:HGR:H23	2.10	0.52
1:1A:2591:C:H2'	1:1A:2592:G:C8	2.45	0.52
6:1G:18:GLU:HG3	6:1G:22:ARG:HD3	1.92	0.52
32:1a:148:G:H2'	32:1a:149:A:H8	1.73	0.52
32:1a:1060:C:H5''	41:1j:51:ARG:HG2	1.92	0.52
49:1r:26:LEU:HD21	49:1r:39:VAL:HG13	1.92	0.52
1:2A:1278:A:H5''	13:2R:36:THR:HG22	1.91	0.52
1:2A:1666:G:H1'	10:2O:3:GLN:HE21	1.75	0.52
1:2A:1882:C:H2'	1:2A:1883:G:O4'	2.10	0.52
1:2A:2294:C:H2'	1:2A:2295:C:O4'	2.10	0.52
5:2F:145:GLU:OE1	5:2F:145:GLU:N	2.43	0.52
14:2S:87:PHE:CZ	14:2S:102:ALA:HB2	2.44	0.52
16:2U:49:HIS:HA	16:2U:52:ARG:HB3	1.91	0.52
32:2a:1305:G:H5'	52:2u:4:GLY:HA3	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:1H:149:ARG:HD2	7:1H:164:TYR:CE2	2.44	0.52
32:1a:346:G:OP2	62:1a:3314:HOH:O	2.19	0.52
32:1a:1038:C:O2'	32:1a:1039:C:H5'	2.09	0.52
39:1h:21:LYS:O	39:1h:65:TYR:OH	2.23	0.52
1:2A:1264:G:H2'	1:2A:2014:A:N6	2.25	0.52
1:2A:1278:A:H4'	13:2R:34:ILE:HD12	1.90	0.52
1:2A:1924:C:H4'	55:2x:13:C:O2'	2.10	0.52
1:2A:2074:U:H2'	1:2A:2075:U:C6	2.45	0.52
8:2I:72:LEU:HD21	8:2I:107:VAL:HG11	1.89	0.52
36:2e:93:PRO:HG2	39:2h:105:ARG:NH2	2.25	0.52
55:2x:51:C:H2'	55:2x:52:G:H8	1.75	0.52
1:1A:1341:U:O4'	19:1X:57:LEU:HD23	2.10	0.52
1:1A:2533:A:H2'	1:1A:2534:A:O4'	2.10	0.52
2:1B:66:A:H61	2:1B:108:U:H2'	1.75	0.52
7:1H:4:ILE:O	7:1H:69:ARG:HD2	2.09	0.52
10:1O:49:ARG:NH2	32:1a:1423:G:OP1	2.33	0.52
32:1a:523:A:H61	43:1l:92:0TD:CG	2.22	0.52
32:1a:1068:G:H8	32:1a:1068:G:OP2	1.93	0.52
32:1a:1218:C:H2'	32:1a:1219:U:C6	2.45	0.52
33:1b:115:LEU:HD22	33:1b:145:LEU:HB3	1.92	0.52
1:2A:1204:A:N6	1:2A:1240:U:H2'	2.24	0.52
1:2A:1991:U:H2'	1:2A:1992:G:H5''	1.92	0.52
1:2A:2478:A:C2	1:2A:2529:G:H2'	2.45	0.52
6:2G:28:VAL:O	6:2G:31:VAL:HG12	2.09	0.52
32:2a:1184:G:H2'	32:2a:1185:G:H8	1.74	0.52
33:2b:17:PHE:HB2	33:2b:44:LEU:HD11	1.92	0.52
39:2h:17:THR:HA	39:2h:65:TYR:HE1	1.75	0.52
46:2o:14:GLU:OE2	46:2o:84:LYS:NZ	2.40	0.52
1:1A:918:A:H5''	2:1B:98:G:O2'	2.10	0.52
1:1A:1803:A:H4'	3:1D:259:THR:HG23	1.90	0.52
1:1A:2166:G:N7	1:1A:2168:G:N2	2.58	0.52
2:1B:2:C:H2'	2:1B:3:C:C6	2.45	0.52
32:1a:299:G:H2'	32:1a:300:A:C8	2.45	0.52
32:1a:613:C:H2'	32:1a:614:A:H8	1.75	0.52
32:1a:1062:U:H2'	32:1a:1063:C:C6	2.45	0.52
33:1b:54:THR:HG21	33:1b:201:ILE:HD11	1.92	0.52
45:1n:4:LYS:HA	45:1n:7:ILE:HG22	1.92	0.52
54:1y:53:G:N2	54:1y:61:C:N3	2.44	0.52
1:2A:637:A:H2'	11:2P:117:GLU:OE2	2.10	0.52
1:2A:840:C:OP2	1:2A:932:G:N2	2.41	0.52
1:2A:2360:A:H2'	1:2A:2361:A:O4'	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2815:C:H2'	1:2A:2816:C:H6	1.75	0.52
32:2a:585:G:OP1	48:2q:37:LYS:NZ	2.35	0.52
32:2a:957:U:H2'	32:2a:959:A:OP2	2.09	0.52
33:2b:55:PHE:HA	33:2b:58:ILE:HB	1.92	0.52
36:2e:106:PRO:O	36:2e:110:LEU:HG	2.10	0.52
55:2x:7:G:H5''	55:2x:8:4SU:H5	1.92	0.52
8:1I:31:LEU:HD21	8:1I:38:LEU:HG	1.91	0.52
32:1a:103:C:OP2	51:1t:14:LYS:NZ	2.33	0.52
32:1a:163:C:H2'	32:1a:164:U:H6	1.74	0.52
33:1b:16:HIS:HB2	33:1b:204:ASN:CB	2.39	0.52
33:1b:68:ILE:HG12	33:1b:161:ALA:HB3	1.90	0.52
55:1x:23:C:H2'	55:1x:24:U:C6	2.45	0.52
1:2A:524:U:H2'	1:2A:525:U:C6	2.45	0.52
1:2A:1022:G:N7	9:2N:66:LYS:HE2	2.25	0.52
1:2A:2183:C:H2'	1:2A:2184:G:H8	1.75	0.52
1:2A:2332:U:H5'	1:2A:2336:A:N6	2.25	0.52
4:2E:28:ALA:HB3	4:2E:93:VAL:HG12	1.90	0.52
12:2Q:16:ARG:HG2	12:2Q:18:LYS:NZ	2.24	0.52
26:24:59:PHE:HA	26:24:61:ARG:N	2.24	0.52
37:2f:46:ARG:HH22	49:2r:37:VAL:HG11	1.75	0.52
37:2f:50:TYR:CE2	49:2r:77:GLY:HA2	2.45	0.52
41:2j:16:LEU:HD12	41:2j:68:HIS:HB2	1.92	0.52
47:2p:43:LYS:HG2	47:2p:48:TRP:CG	2.45	0.52
1:1A:64:A:C5	19:1X:66:LEU:HD13	2.45	0.51
1:1A:1359:A:H2'	1:1A:1360:A:H5'	1.92	0.51
1:1A:1683:C:H2'	1:1A:1684:C:C6	2.44	0.51
1:1A:1792:G:O2'	1:1A:1830:C:OP1	2.26	0.51
1:1A:2882:A:OP1	13:1R:96:ARG:HD3	2.10	0.51
32:1a:161:A:N1	32:1a:347:G:O2'	2.41	0.51
32:1a:401:C:H2'	32:1a:402:G:C8	2.46	0.51
32:1a:406:G:O2'	35:1d:3:ARG:NH2	2.43	0.51
32:1a:993:G:H2'	32:1a:995:C:H41	1.75	0.51
32:1a:1325:C:OP1	52:1u:15:ARG:NH2	2.42	0.51
32:1a:1498:UR3:O2'	53:1v:17:U:OP1	2.25	0.51
40:1i:54:ASP:C	40:1i:56:LEU:H	2.17	0.51
1:2A:700:G:O2'	1:2A:1632:A:N3	2.34	0.51
1:2A:900:A:H2'	1:2A:901:A:C8	2.45	0.51
1:2A:1410:G:H2'	1:2A:1411:C:H6	1.75	0.51
21:2Z:23:LYS:HB3	21:2Z:38:TYR:CD1	2.45	0.51
32:2a:1133:G:N2	32:2a:1141:C:N3	2.56	0.51
40:2i:49:PRO:HD3	40:2i:78:LYS:HG3	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:582:G:H2'	1:1A:583:G:C8	2.45	0.51
1:1A:687:C:H5''	29:17:2:LYS:HE2	1.92	0.51
1:1A:831:G:N2	11:1P:53:GLY:O	2.44	0.51
1:1A:1837:C:O2'	1:1A:1927:A:N3	2.32	0.51
32:1a:189(F):U:O2	48:1q:63:ARG:NH2	2.42	0.51
33:1b:134:GLU:HA	33:1b:137:ARG:HE	1.75	0.51
1:2A:573:G:OP1	62:2A:3745:HOH:O	2.19	0.51
1:2A:873:G:O3'	12:2Q:63:LYS:NZ	2.43	0.51
1:2A:910:A:N1	1:2A:2277:G:H1'	2.25	0.51
1:2A:2573:C:N4	58:2A:3652:HGR:O12	2.32	0.51
62:2A:3742:HOH:O	4:2E:127:ASP:OD2	2.19	0.51
6:2G:11:TYR:O	6:2G:16:ARG:HG2	2.10	0.51
18:2W:4:LYS:HD2	18:2W:6:ILE:HD11	1.92	0.51
32:2a:130:A:O2'	32:2a:131:C:O5'	2.26	0.51
32:2a:857:C:H2'	32:2a:858:G:O4'	2.11	0.51
32:2a:1366:C:H2'	32:2a:1367:C:C6	2.45	0.51
34:2c:112:SER:HB3	34:2c:115:LEU:HD22	1.92	0.51
36:2e:74:GLY:HA3	36:2e:116:THR:HG22	1.92	0.51
1:1A:614(C):A:C4	5:1F:180:GLY:HA2	2.45	0.51
4:1E:8:LYS:NZ	4:1E:188:VAL:O	2.44	0.51
28:16:14:THR:O	28:16:17:LYS:NZ	2.41	0.51
32:1a:976:G:OP1	45:1n:32:SER:N	2.42	0.51
34:1c:131:ARG:HH21	34:1c:135:LYS:HE3	1.76	0.51
37:1f:69:GLU:O	37:1f:72:VAL:HG12	2.10	0.51
1:2A:245:G:O6	30:28:8:LYS:NZ	2.34	0.51
1:2A:856:C:H2'	1:2A:857:C:C6	2.45	0.51
1:2A:938:G:OP2	30:28:52:LYS:NZ	2.40	0.51
1:2A:1337:G:H2'	1:2A:1338:G:C8	2.45	0.51
1:2A:1357:U:H2'	1:2A:1358:G:O4'	2.10	0.51
1:2A:2094:G:P	8:2I:22:LYS:HD2	2.50	0.51
1:2A:2322:A:H2'	1:2A:2323:G:O4'	2.10	0.51
3:2D:166:GLN:HB2	3:2D:174:ILE:HG22	1.91	0.51
11:2P:95:VAL:HG13	11:2P:125:VAL:HA	1.92	0.51
37:2f:15:ASP:OD1	37:2f:18:GLN:N	2.26	0.51
50:2s:11:VAL:HG12	50:2s:13:ASP:H	1.75	0.51
1:1A:1936:A:OP1	1:1A:1937:A:H5'	2.09	0.51
1:1A:2347:C:O2'	28:16:21:TYR:OH	2.29	0.51
1:1A:2537:U:H2'	1:1A:2538:C:C6	2.45	0.51
24:12:64:LEU:HD21	24:12:68:ARG:HE	1.74	0.51
32:1a:116:A:OP2	62:1a:3312:HOH:O	2.19	0.51
32:1a:356:A:N3	32:1a:368:U:O2'	2.35	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:984:C:N4	32:1a:1221:G:H1	2.05	0.51
37:1f:91:VAL:HG11	49:1r:72:ARG:NH1	2.26	0.51
1:2A:1022:G:N2	1:2A:1023:U:O4	2.41	0.51
1:2A:2376:A:H3'	1:2A:2377:A:H8	1.75	0.51
2:2B:24:G:H4'	2:2B:25:A:C8	2.45	0.51
5:2F:132:VAL:HG11	5:2F:163:VAL:HG22	1.92	0.51
8:2I:110:ASP:N	8:2I:130:TYR:OH	2.42	0.51
32:2a:417:C:H2'	32:2a:418:C:H6	1.75	0.51
32:2a:1086:U:H3	32:2a:1099:G:H22	1.57	0.51
32:2a:1172:C:H2'	32:2a:1173:G:C8	2.45	0.51
32:2a:1264:C:N3	32:2a:1271:G:N2	2.48	0.51
32:2a:1327:C:H2'	32:2a:1328:C:C6	2.45	0.51
36:2e:27:ARG:HD3	36:2e:47:LYS:HB3	1.91	0.51
41:2j:11:PHE:HE1	41:2j:67:THR:HG22	1.75	0.51
1:1A:668:G:H5'	1:1A:669:G:OP2	2.10	0.51
1:1A:2022:U:O2'	1:1A:2617:C:H5'	2.11	0.51
9:1N:73:THR:OG1	9:1N:82:LEU:HD11	2.11	0.51
10:1O:4:PRO:O	10:1O:5:GLN:HB2	2.11	0.51
32:1a:520:A:N1	32:1a:536:C:H1'	2.25	0.51
32:1a:841:U:C5	32:1a:848:C:H1'	2.45	0.51
33:1b:218:ALA:O	33:1b:222:ILE:HG13	2.10	0.51
36:1e:8:GLU:HG2	36:1e:34:VAL:HG23	1.91	0.51
36:1e:84:PHE:CE2	36:1e:133:TYR:HD2	2.28	0.51
54:1y:20:U:H4'	54:1y:21:A:OP1	2.11	0.51
1:2A:458:G:O2'	1:2A:469:G:O6	2.28	0.51
1:2A:2120:G:H2'	1:2A:2121:G:H8	1.75	0.51
32:2a:37:U:O2'	32:2a:500:G:H4'	2.10	0.51
32:2a:748:C:H4'	32:2a:749:C:O5'	2.11	0.51
32:2a:1147:C:H1'	40:2i:16:ARG:HH21	1.74	0.51
39:2h:29:SER:HB3	39:2h:32:LYS:HG3	1.91	0.51
40:2i:23:ASN:OD1	40:2i:23:ASN:N	2.42	0.51
1:1A:2732:G:H3'	1:1A:2733:A:O4'	2.10	0.51
62:1A:4181:HOH:O	19:1X:50:LYS:HE2	2.10	0.51
36:1e:33:VAL:HG13	36:1e:112:LEU:HD12	1.92	0.51
38:1g:50:ILE:HG13	38:1g:125:MET:HG3	1.93	0.51
1:2A:600:G:N2	1:2A:605:C:O3'	2.44	0.51
1:2A:652(B):A:N6	1:2A:655:A:H1'	2.26	0.51
1:2A:940:G:N3	1:2A:1191:G:H4'	2.26	0.51
1:2A:1474:C:H2'	1:2A:1475:G:C8	2.45	0.51
1:2A:1665:A:H4'	10:2O:67:LYS:HB2	1.92	0.51
1:2A:2364:C:H2'	1:2A:2365:G:O4'	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2B:18:G:H2'	2:2B:19:G:C8	2.46	0.51
24:22:16:LEU:O	24:22:67:LYS:NZ	2.43	0.51
32:2a:828:A:H2'	32:2a:829:G:O4'	2.11	0.51
32:2a:964:A:N3	32:2a:969:A:O2'	2.36	0.51
32:2a:986:A:H2'	32:2a:987:G:O4'	2.11	0.51
39:2h:69:ARG:NH2	39:2h:75:ARG:O	2.43	0.51
40:2i:48:GLU:HG3	40:2i:101:PHE:CE1	2.45	0.51
51:2t:43:LEU:O	51:2t:47:GLY:N	2.43	0.51
1:1A:671:C:H2'	1:1A:672:C:C6	2.46	0.51
1:1A:2086:U:H2'	1:1A:2087:G:C8	2.46	0.51
5:1F:101:LEU:O	5:1F:106:ARG:NH1	2.42	0.51
6:1G:82:LEU:HD21	6:1G:88:ILE:HG21	1.92	0.51
17:1V:46:VAL:HG23	17:1V:52:VAL:HG11	1.92	0.51
22:10:3:HIS:HD2	54:1w:75:C:H42	1.58	0.51
23:11:59:THR:O	23:11:91:LYS:NZ	2.42	0.51
32:1a:662:G:H2'	32:1a:663:A:H8	1.74	0.51
32:1a:1292:U:H2'	32:1a:1293:G:C8	2.46	0.51
54:1y:8:4SU:S4	54:1y:13:C:H3'	2.50	0.51
1:2A:516:C:OP1	27:25:13:LYS:NZ	2.44	0.51
1:2A:990:A:OP2	62:2A:3732:HOH:O	2.19	0.51
1:2A:2136:C:N4	1:2A:2155:G:H1	2.08	0.51
1:2A:2139:C:N4	1:2A:2152:G:C6	2.75	0.51
10:2O:119:PRO:HB2	15:2T:68:TYR:CE2	2.45	0.51
14:2S:106:ARG:HE	14:2S:112:PHE:C	2.18	0.51
32:2a:148:G:H2'	32:2a:149:A:C8	2.43	0.51
32:2a:643:C:H2'	32:2a:644:G:H8	1.74	0.51
32:2a:1375:A:H4'	38:2g:29:LYS:HD3	1.93	0.51
32:2a:1517:G:H3'	32:2a:1518:MA6:H8	1.93	0.51
1:1A:534:U:H2'	1:1A:535:C:C6	2.45	0.51
1:1A:2572:A:N7	4:1E:144:ARG:HD2	2.26	0.51
8:1I:4:ILE:HG12	8:1I:18:VAL:HG22	1.93	0.51
26:14:63:TYR:N	26:14:64:GLY:HA2	2.26	0.51
32:1a:750:G:OP2	62:1a:3316:HOH:O	2.20	0.51
32:1a:1036:G:H5''	32:1a:1037:C:H5	1.76	0.51
32:1a:1095:U:P	32:1a:1108:G:H1	2.33	0.51
33:1b:155:LEU:HD21	33:1b:159:PRO:HD3	1.91	0.51
35:1d:119:GLN:HG2	35:1d:123:HIS:CD2	2.46	0.51
48:1q:6:LEU:HD22	48:1q:71:PHE:HE2	1.76	0.51
51:1t:16:HIS:O	51:1t:19:SER:OG	2.29	0.51
1:2A:686:G:N2	1:2A:788:A:H61	2.09	0.51
1:2A:2805:G:H2'	1:2A:2807:G:H8	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2B:11:C:H3'	2:2B:12:C:H6	1.74	0.51
5:2F:64:ILE:HG21	5:2F:78:ILE:HG23	1.92	0.51
10:2O:97:ARG:NH1	32:2a:339:C:OP2	2.43	0.51
15:2T:118:ARG:HG2	32:2a:1442(A):G:C8	2.46	0.51
32:2a:449:C:O2	47:2p:42:ARG:HD2	2.11	0.51
32:2a:689:C:OP2	42:2k:55:LYS:HE2	2.10	0.51
32:2a:1032:G:H2'	32:2a:1033:G:C8	2.46	0.51
32:2a:1228:C:OP1	44:2m:115:LYS:NZ	2.42	0.51
32:2a:1456:G:O6	51:2t:54:LYS:NZ	2.42	0.51
34:2c:124:ILE:HD11	34:2c:189:ALA:HB1	1.93	0.51
1:1A:1059:G:O6	1:1A:1088:A:H1'	2.11	0.51
3:1D:2:ALA:N	3:1D:200:ASP:OD2	2.44	0.51
13:1R:87:TYR:OH	13:1R:117:VAL:O	2.21	0.51
21:1Z:137:ILE:HA	21:1Z:156:LYS:HE2	1.93	0.51
26:14:52:THR:O	26:14:54:GLY:N	2.43	0.51
28:16:6:ARG:NH1	28:16:26:ASN:HB2	2.26	0.51
32:1a:262:A:C6	32:1a:263:A:C6	2.98	0.51
32:1a:1239:A:H62	32:1a:1299:A:H62	1.59	0.51
39:1h:26:VAL:HG22	39:1h:59:LEU:HB2	1.93	0.51
39:1h:85:ARG:NH2	39:1h:87:SER:O	2.44	0.51
1:2A:852:G:H2'	1:2A:853:G:H8	1.76	0.51
1:2A:918:A:N3	2:2B:80:U:O2'	2.37	0.51
1:2A:2662:A:H8	1:2A:2662:A:O5'	1.94	0.51
5:2F:28:ILE:HG23	5:2F:112:MET:HE3	1.93	0.51
6:2G:3:LEU:HD12	6:2G:8:LYS:NZ	2.26	0.51
20:2Y:1:MET:HG2	20:2Y:2:ARG:H	1.75	0.51
32:2a:431:A:H2'	32:2a:432:A:O4'	2.11	0.51
32:2a:1183:A:H3'	32:2a:1184:G:H5''	1.93	0.51
37:2f:2:ARG:NH2	46:2o:2:PRO:HD3	2.26	0.51
55:2x:3:C:H42	55:2x:70:G:H1	1.59	0.51
1:1A:1164:G:H2'	1:1A:1165:U:C6	2.46	0.51
1:1A:1354:A:H2'	1:1A:1355:G:O4'	2.11	0.51
1:1A:1429:G:H2'	1:1A:1430:C:C6	2.45	0.51
1:1A:1779:U:H2'	62:1A:4121:HOH:O	2.10	0.51
1:1A:2128:C:H2'	1:1A:2129:C:O4'	2.11	0.51
1:1A:2271:G:OP1	22:10:18:ALA:HB1	2.11	0.51
32:1a:189(C):C:H2'	32:1a:189(D):C:O4'	2.11	0.51
41:1j:8:LEU:HB2	41:1j:70:ARG:HB2	1.93	0.51
1:2A:141:A:N1	1:2A:142:A:N6	2.58	0.51
1:2A:912:C:OP1	12:2Q:8:LYS:NZ	2.44	0.51
1:2A:2261:C:H1'	1:2A:2388:A:N3	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2461:C:H2'	1:2A:2462:U:C6	2.46	0.51
3:2D:17:THR:O	3:2D:211:ARG:NH2	2.35	0.51
18:2W:6:ILE:HG22	18:2W:8:ARG:HG3	1.93	0.51
19:2X:4:ALA:HB1	19:2X:42:ALA:HA	1.93	0.51
21:2Z:80:ARG:HD3	21:2Z:82:ARG:NH2	2.26	0.51
26:24:61:ARG:HH21	50:2s:9:VAL:HG11	1.76	0.51
32:2a:1411:C:H2'	32:2a:1412:C:H6	1.76	0.51
39:2h:86:ILE:HG13	39:2h:133:LEU:HD22	1.93	0.51
42:2k:98:LEU:O	42:2k:101:SER:OG	2.12	0.51
1:1A:2144:U:H3	1:1A:2147:G:H22	1.58	0.50
1:1A:2646:C:H2'	1:1A:2647:U:O4'	2.11	0.50
8:1I:40:THR:O	8:1I:44:LEU:HB2	2.11	0.50
20:1Y:34:LYS:NZ	62:1Y:5001:HOH:O	2.41	0.50
32:1a:401:C:O2'	32:1a:621:A:N3	2.39	0.50
39:1h:34:GLU:HB3	39:1h:118:VAL:HG21	1.92	0.50
1:2A:446:G:OP1	16:2U:3:ARG:NH1	2.44	0.50
1:2A:1495:A:H2'	1:2A:1496:A:C8	2.46	0.50
15:2T:19:LEU:HD22	15:2T:86:ILE:HG13	1.93	0.50
26:24:58:ARG:HG3	50:2s:67:VAL:HB	1.92	0.50
32:2a:664:G:N2	32:2a:741:G:H1	2.07	0.50
32:2a:1403:C:H2'	32:2a:1404:5MC:HM53	1.92	0.50
38:2g:108:ALA:O	38:2g:111:ARG:HB3	2.11	0.50
32:1a:399:G:H2'	32:1a:400:C:C6	2.46	0.50
32:1a:509:A:OP2	62:1a:3315:HOH:O	2.20	0.50
32:1a:713:G:H2'	32:1a:714:G:C8	2.47	0.50
32:1a:1015:A:H2'	32:1a:1016:A:C8	2.47	0.50
1:2A:614(B):G:H2'	5:2F:44:ARG:HD2	1.93	0.50
1:2A:1012:U:C5	9:2N:28:THR:HG21	2.45	0.50
1:2A:2809:A:H62	1:2A:2891:G:H2'	1.76	0.50
2:2B:55:U:O3'	6:2G:27:ASN:ND2	2.44	0.50
25:23:46:ASN:O	25:23:50:VAL:HG22	2.10	0.50
32:2a:103:C:O2'	32:2a:172:A:N1	2.32	0.50
32:2a:983:A:H2	32:2a:984:C:C6	2.29	0.50
32:2a:1048:G:OP1	45:2n:3:ARG:HG2	2.11	0.50
32:2a:1177:G:H3'	32:2a:1178:G:H8	1.75	0.50
32:2a:1186:G:O3'	40:2i:113:LYS:NZ	2.44	0.50
32:2a:1330:U:H2'	32:2a:1331:G:H5'	1.92	0.50
32:2a:1502:A:H5'	32:2a:1504:G:N7	2.26	0.50
33:2b:15:VAL:O	33:2b:17:PHE:N	2.44	0.50
40:2i:17:VAL:HA	40:2i:63:ILE:HG12	1.93	0.50
1:1A:466:A:N3	1:1A:683:C:H1'	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1074:G:H3'	1:1A:1075:C:H5''	1.93	0.50
1:1A:1230:C:H2'	1:1A:1231:G:C8	2.47	0.50
1:1A:2161:C:O2'	1:1A:2162:G:H8	1.94	0.50
1:1A:2780:G:N1	9:1N:100:GLU:OE2	2.36	0.50
32:1a:11:G:O2'	32:1a:506:G:N2	2.41	0.50
32:1a:1381:U:H1'	38:1g:79:ARG:HG2	1.93	0.50
33:1b:95:GLN:HB2	33:1b:148:TYR:HD1	1.75	0.50
1:2A:1300:U:H4'	1:2A:1301:A:C5'	2.41	0.50
1:2A:2183:C:H2'	1:2A:2184:G:C8	2.46	0.50
1:2A:2461:C:H2'	1:2A:2462:U:H6	1.76	0.50
5:2F:103:LYS:HA	5:2F:106:ARG:HG3	1.94	0.50
7:2H:28:GLY:HA3	7:2H:79:VAL:HB	1.92	0.50
14:2S:14:VAL:O	14:2S:18:ILE:HG12	2.11	0.50
32:2a:15:G:H4'	36:2e:24:ARG:HE	1.77	0.50
32:2a:1075:C:H5''	33:2b:179:LYS:NZ	2.27	0.50
55:2x:47:U:H3'	55:2x:48:C:C5'	2.41	0.50
1:1A:493:G:H2'	1:1A:494:G:O4'	2.11	0.50
6:1G:37:VAL:HG23	6:1G:99:MET:HG3	1.93	0.50
10:1O:104:ARG:CZ	15:1T:34:VAL:HG21	2.41	0.50
32:1a:1060:C:C5	34:1c:2:GLY:HA3	2.47	0.50
32:1a:1223:C:OP2	50:1s:78:ARG:NH2	2.34	0.50
48:1q:6:LEU:HD23	48:1q:23:VAL:HG21	1.93	0.50
1:2A:11:G:C2'	1:2A:12:U:H5'	2.41	0.50
1:2A:2567:G:H2'	1:2A:2568:C:C6	2.47	0.50
21:2Z:104:PHE:HA	21:2Z:139:VAL:HB	1.92	0.50
32:2a:1144:G:N2	32:2a:1146:A:H62	2.09	0.50
32:2a:1220:G:H5'	50:2s:34:TRP:O	2.11	0.50
39:2h:51:VAL:HG11	39:2h:60:ARG:HE	1.76	0.50
44:2m:33:ALA:HA	44:2m:59:TYR:HE2	1.76	0.50
46:2o:4:THR:OG1	46:2o:7:GLU:OE1	2.23	0.50
49:2r:61:LYS:O	49:2r:65:ILE:HG12	2.11	0.50
10:1O:34:THR:OG1	10:1O:35:VAL:N	2.44	0.50
15:1T:127:ALA:C	15:1T:129:ARG:N	2.69	0.50
32:1a:34:C:H2'	32:1a:35:G:C8	2.46	0.50
32:1a:187:C:H2'	32:1a:188:C:C6	2.46	0.50
32:1a:193:C:H2'	32:1a:194:C:C6	2.47	0.50
32:1a:1006:C:N3	32:1a:1023:G:N2	2.59	0.50
32:1a:1255:G:N7	41:1j:43:ARG:NH2	2.60	0.50
1:2A:957:A:H5'	12:2Q:76:LYS:HG3	1.93	0.50
1:2A:1582:C:H2'	1:2A:1583:A:C8	2.46	0.50
1:2A:2537:U:H2'	1:2A:2538:C:C6	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:2X:35:THR:O	19:2X:39:ILE:HG13	2.11	0.50
26:24:59:PHE:CE2	50:2s:64:GLU:HB2	2.47	0.50
32:2a:1095:U:H2'	32:2a:1096:C:O4'	2.10	0.50
32:2a:1376:U:OP1	38:2g:98:SER:OG	2.29	0.50
32:2a:1516:G:N1	32:2a:1519:MA6:OP2	2.39	0.50
35:2d:172:PRO:HD2	35:2d:173:TRP:CZ3	2.46	0.50
1:1A:242:G:C8	30:18:5:LYS:HG2	2.47	0.50
1:1A:1796:U:H2'	1:1A:1797:C:H6	1.77	0.50
1:1A:2693:A:H2'	1:1A:2694:G:C8	2.46	0.50
6:1G:11:TYR:O	6:1G:16:ARG:HG3	2.11	0.50
13:1R:63:ARG:HG2	13:1R:80:PHE:CE2	2.47	0.50
34:1c:131:ARG:HH11	34:1c:166:GLU:HG3	1.75	0.50
1:2A:19:C:H2'	1:2A:20:C:C6	2.46	0.50
1:2A:1288:U:O2'	1:2A:1647:G:N2	2.44	0.50
1:2A:1418:G:OP2	62:2A:3752:HOH:O	2.20	0.50
1:2A:1794:U:H2'	1:2A:1795:C:C6	2.47	0.50
1:2A:2032:G:H1'	4:2E:145:LYS:HD3	1.94	0.50
1:2A:2542:A:H4'	1:2A:2543:G:C8	2.46	0.50
1:2A:2621:A:OP1	4:2E:119:ARG:NH2	2.45	0.50
20:2Y:14:LEU:HB2	20:2Y:75:ILE:HD11	1.93	0.50
21:2Z:53:ILE:HG22	21:2Z:71:VAL:HB	1.92	0.50
22:20:27:GLU:HB2	22:20:69:PHE:HD2	1.76	0.50
32:2a:553:A:H5''	43:2l:24:VAL:HG21	1.93	0.50
32:2a:1051:C:N4	32:2a:1207:2MG:HN1	2.08	0.50
32:2a:1126:U:H3	41:2j:40:LEU:HD11	1.75	0.50
32:2a:1285:A:OP2	52:2u:24:ARG:NH1	2.45	0.50
33:2b:224:GLN:HG3	33:2b:225:ALA:N	2.27	0.50
38:2g:50:ILE:HD11	38:2g:58:PRO:HA	1.94	0.50
54:2w:19:G:N2	54:2w:56:C:N3	2.59	0.50
54:2y:18:G:N2	54:2y:55:PSU:HN3	2.10	0.50
1:1A:1379:A:H4'	1:1A:1380:G:OP2	2.12	0.50
4:1E:111:ARG:HD2	4:1E:160:TYR:CE2	2.47	0.50
7:1H:24:VAL:HG22	7:1H:35:VAL:HB	1.93	0.50
7:1H:137:ASP:HB3	7:1H:140:LYS:HB3	1.93	0.50
19:1X:94:GLY:CA	19:1X:95:LEU:HB2	2.42	0.50
27:15:16:ARG:HG3	27:15:17:ASP:N	2.26	0.50
32:1a:7:G:H5'	32:1a:298:A:O4'	2.11	0.50
32:1a:1001:A:H2'	32:1a:1001(A):G:C8	2.47	0.50
38:1g:51:GLN:O	38:1g:55:GLY:HA2	2.12	0.50
1:2A:269:U:C4	1:2A:271(Y):U:C2	3.00	0.50
1:2A:484:C:H2'	1:2A:485:C:C6	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:597:U:H2'	1:2A:598:G:C8	2.47	0.50
1:2A:723:G:H2'	1:2A:724:U:O4'	2.12	0.50
1:2A:1817:G:OP1	3:2D:88:ARG:NH2	2.44	0.50
14:2S:58:LEU:HD12	14:2S:65:VAL:HG22	1.94	0.50
32:2a:682:G:H1	32:2a:708:C:H42	1.59	0.50
34:2c:9:GLY:HA3	45:2n:49:HIS:HA	1.93	0.50
35:2d:111:ALA:HB2	35:2d:120:LEU:HD12	1.93	0.50
38:2g:126:ASP:O	38:2g:130:GLY:N	2.44	0.50
44:2m:91:ARG:NE	44:2m:97:PRO:O	2.45	0.50
47:2p:18:ARG:HD3	47:2p:35:LYS:HD2	1.93	0.50
55:2x:50:U:H3	55:2x:64:G:H1	1.58	0.50
1:1A:270:A:OP2	1:1A:271(X):G:N1	2.34	0.50
1:1A:588:U:H2'	1:1A:589:C:C6	2.47	0.50
3:1D:133:LEU:HD12	3:1D:189:CYS:HB2	1.93	0.50
4:1E:73:GLU:OE1	4:1E:73:GLU:N	2.44	0.50
8:1I:72:LEU:HD21	8:1I:107:VAL:HG11	1.94	0.50
32:1a:1223:C:P	50:1s:78:ARG:HH21	2.34	0.50
41:1j:27:ALA:HB2	41:1j:81:THR:HG21	1.94	0.50
1:2A:30:G:H2'	1:2A:31:C:C6	2.46	0.50
1:2A:828:U:H4'	1:2A:831:G:N1	2.26	0.50
1:2A:1777:U:H2'	1:2A:1778:U:C6	2.46	0.50
1:2A:2037:G:H2'	1:2A:2038:G:C8	2.47	0.50
1:2A:2136:C:O2'	1:2A:2137:C:O5'	2.18	0.50
1:2A:2886:G:H2'	1:2A:2887:U:H6	1.76	0.50
5:2F:125:LEU:HD23	5:2F:194:MET:HB2	1.93	0.50
7:2H:70:THR:HA	7:2H:73:ALA:HB3	1.94	0.50
32:2a:46:G:H2'	32:2a:366:C:C5	2.47	0.50
32:2a:107:G:N7	51:2t:15:ARG:NH2	2.57	0.50
32:2a:542:G:P	35:2d:10:ARG:HH22	2.35	0.50
32:2a:1107:C:OP1	34:2c:173:VAL:N	2.45	0.50
32:2a:1277:C:O2'	32:2a:1279:A:H1'	2.11	0.50
33:2b:15:VAL:HG13	33:2b:209:ARG:HB3	1.93	0.50
36:2e:84:PHE:N	36:2e:87:SER:O	2.41	0.50
54:2y:37:MIA:H2'	54:2y:38:A:O4'	2.12	0.50
1:1A:784:A:O4'	3:1D:227:ASN:ND2	2.44	0.50
1:1A:954:G:H5''	12:1Q:13:GLN:HB3	1.94	0.50
32:1a:117:G:OP2	62:1a:3302:HOH:O	2.20	0.50
32:1a:551:U:H2'	32:1a:552:U:C6	2.47	0.50
1:2A:1786:A:OP2	62:2A:3750:HOH:O	2.19	0.50
2:2B:11:C:H3'	2:2B:12:C:C6	2.47	0.50
2:2B:95:C:H2'	2:2B:96:U:C6	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2G:72:ARG:NH1	6:2G:87:PRO:HG3	2.27	0.50
15:2T:39:ARG:NH1	15:2T:41:ARG:HB3	2.26	0.50
32:2a:1001:A:H2'	32:2a:1001(A):G:H8	1.77	0.50
33:2b:162:ILE:HD11	33:2b:184:VAL:HG22	1.94	0.50
41:2j:46:ARG:HA	41:2j:64:GLU:HA	1.94	0.50
1:1A:121:G:H4'	1:1A:149:A:H5'	1.93	0.49
1:1A:910:A:N1	1:1A:2277:G:H1'	2.26	0.49
2:1B:8:U:O3'	14:1S:25:ARG:NH2	2.45	0.49
4:1E:179:GLU:HG3	15:1T:9:LEU:HD21	1.94	0.49
32:1a:491:G:H2'	32:1a:492:G:O4'	2.12	0.49
32:1a:1320:C:OP1	50:1s:70:LYS:NZ	2.37	0.49
43:1l:60:LEU:HD21	43:1l:85:ILE:HD11	1.94	0.49
1:2A:956:G:H2'	1:2A:957:A:H2'	1.93	0.49
1:2A:2404:C:O3'	11:2P:77:ARG:NH2	2.46	0.49
2:2B:48:A:OP2	14:2S:30:ARG:NH2	2.45	0.49
32:2a:692:U:O2'	32:2a:694:A:N7	2.34	0.49
32:2a:719:C:O2'	49:2r:49:LYS:HB3	2.11	0.49
33:2b:73:THR:HA	33:2b:94:ASN:O	2.11	0.49
36:2e:100:VAL:O	36:2e:107:ARG:NH2	2.27	0.49
1:1A:55:G:O2'	1:1A:127:A:N1	2.32	0.49
1:1A:127:A:H5''	1:1A:128:C:C6	2.47	0.49
1:1A:700:G:H2'	1:1A:701:G:O4'	2.13	0.49
1:1A:1364:G:OP2	23:11:3:LYS:HG3	2.12	0.49
1:1A:1584:C:O2'	1:1A:1586:A:H5'	2.12	0.49
7:1H:3:ARG:HE	7:1H:54:ARG:HH12	1.60	0.49
11:1P:89:ALA:O	11:1P:121:LYS:NZ	2.26	0.49
26:14:46:GLN:O	26:14:48:ARG:N	2.45	0.49
32:1a:920:U:H2'	32:1a:921:U:C6	2.47	0.49
32:1a:1309:G:OP2	44:1m:99:ARG:NH2	2.41	0.49
32:1a:1442:G:O2'	32:1a:1442(A):G:H5'	2.11	0.49
36:1e:148:VAL:HG11	36:1e:152:ARG:HH21	1.76	0.49
44:1m:84:ILE:HG13	44:1m:85:GLY:CA	2.36	0.49
48:1q:58:GLU:O	48:1q:74:LEU:N	2.45	0.49
51:1t:58:LYS:HE2	51:1t:62:LEU:HD12	1.95	0.49
1:2A:1364:G:P	23:21:3:LYS:HG3	2.51	0.49
1:2A:1656:C:H2'	1:2A:1657:C:C6	2.47	0.49
12:2Q:85:LYS:HB2	22:20:7:LEU:HD22	1.94	0.49
25:23:7:LYS:NZ	25:23:32:GLN:O	2.45	0.49
32:2a:1442:G:H2'	32:2a:1442:G:N3	2.27	0.49
35:2d:61:LYS:NZ	35:2d:72:GLU:OE1	2.45	0.49
47:2p:15:PRO:O	47:2p:16:HIS:ND1	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:2x:51:C:H2'	55:2x:52:G:C8	2.47	0.49
8:1I:80:PRO:HA	8:1I:145:VAL:HG23	1.95	0.49
8:1I:127:VAL:HA	8:1I:140:LEU:O	2.12	0.49
11:1P:121:LYS:O	11:1P:123:LEU:N	2.45	0.49
14:1S:10:ARG:O	14:1S:14:VAL:HG13	2.11	0.49
25:13:10:LYS:HB3	25:13:53:LEU:HA	1.94	0.49
30:18:33:ASN:HA	30:18:36:LYS:HD2	1.95	0.49
32:1a:1202:G:O4'	45:1n:29:ARG:NH1	2.45	0.49
41:1j:54:PHE:O	41:1j:56:HIS:N	2.40	0.49
45:1n:48:ALA:HB2	45:1n:53:LEU:HD12	1.94	0.49
1:2A:529:A:H62	1:2A:2041:U:H3	1.60	0.49
1:2A:1268:A:C2	1:2A:2013:A:C4	3.00	0.49
5:2F:155:LEU:HB2	5:2F:189:THR:HG21	1.93	0.49
21:2Z:149:SER:OG	21:2Z:150:LEU:N	2.39	0.49
33:2b:16:HIS:HB2	33:2b:204:ASN:HB3	1.95	0.49
33:2b:53:ARG:O	33:2b:56:ARG:HB3	2.12	0.49
40:2i:81:ILE:O	40:2i:85:LEU:HG	2.12	0.49
41:2j:23:ILE:HA	41:2j:26:ALA:HB3	1.95	0.49
43:2l:71:PRO:O	43:2l:102:ARG:HD2	2.13	0.49
43:2l:117:ARG:HG2	43:2l:122:THR:HB	1.93	0.49
44:2m:33:ALA:HA	44:2m:59:TYR:CE2	2.47	0.49
1:1A:1094:U:H2'	1:1A:1095:A:C8	2.47	0.49
1:1A:2639:A:O2'	9:1N:97:ARG:NH2	2.46	0.49
8:1I:81:VAL:O	8:1I:146:ALA:HA	2.12	0.49
32:1a:171:A:H2'	32:1a:172:A:C8	2.47	0.49
32:1a:1136:U:H5''	32:1a:1137:C:N3	2.28	0.49
1:2A:184:C:H2'	1:2A:185:U:H6	1.77	0.49
1:2A:414:C:H2'	1:2A:415:A:C8	2.48	0.49
1:2A:721:C:H2'	1:2A:722:A:C8	2.47	0.49
1:2A:740:U:H2'	1:2A:741:G:H8	1.77	0.49
1:2A:2286:A:H4'	1:2A:2287:A:O4'	2.12	0.49
1:2A:2483:C:H2'	1:2A:2484:G:O4'	2.11	0.49
1:2A:2626:C:H2'	1:2A:2627:G:O4'	2.12	0.49
1:2A:2630:G:H2'	1:2A:2631:G:H8	1.77	0.49
3:2D:96:HIS:CD2	3:2D:102:LYS:HG2	2.47	0.49
6:2G:101:ILE:HG22	6:2G:105:LYS:HE2	1.94	0.49
12:2Q:52:VAL:HA	12:2Q:55:VAL:HG22	1.92	0.49
28:26:9:LEU:HA	28:26:54:ILE:HB	1.94	0.49
32:2a:9:G:H2'	32:2a:10:A:H8	1.77	0.49
32:2a:1002:G:C4	32:2a:1003:G:H8	2.30	0.49
46:2o:5:LYS:O	46:2o:9:GLN:HG2	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:2p:43:LYS:HA	47:2p:48:TRP:HB3	1.94	0.49
1:1A:576:U:H2'	1:1A:577:G:C8	2.46	0.49
1:1A:911:A:H2'	12:1Q:9:TYR:OH	2.11	0.49
1:1A:1054:A:C6	1:1A:1055:G:C6	3.01	0.49
1:1A:2630:G:H2'	1:1A:2631:G:C8	2.47	0.49
17:1V:52:VAL:HG23	17:1V:55:ALA:HB3	1.95	0.49
22:10:10:THR:HA	62:10:206:HOH:O	2.12	0.49
32:1a:691:G:H2'	32:1a:692:U:C6	2.47	0.49
35:1d:178:VAL:HG12	35:1d:179:GLU:H	1.77	0.49
38:1g:28:ASN:HD21	38:1g:36:LYS:HZ1	1.59	0.49
42:1k:50:TYR:O	42:1k:51:LYS:HD2	2.12	0.49
46:1o:25:THR:HG21	46:1o:70:LEU:HB2	1.94	0.49
1:2A:218:A:C2	1:2A:235:U:H4'	2.48	0.49
1:2A:478:A:N1	1:2A:500:G:H4'	2.27	0.49
1:2A:1837:C:OP1	32:2a:784:C:H4'	2.12	0.49
1:2A:2317:C:H2'	1:2A:2318:G:C8	2.48	0.49
3:2D:101:GLU:CD	3:2D:103:ARG:HH12	2.20	0.49
9:2N:38:HIS:ND1	9:2N:39:ARG:HG3	2.27	0.49
32:2a:353:A:H5'	32:2a:353:A:H8	1.76	0.49
32:2a:661:G:H1	32:2a:744:C:H42	1.60	0.49
32:2a:975:A:H5''	32:2a:1363(A):A:N6	2.26	0.49
32:2a:1330:U:H4'	44:2m:23:TYR:CE1	2.47	0.49
44:2m:92:HIS:HA	44:2m:110:ARG:HH21	1.78	0.49
1:1A:125:G:N3	29:17:48:LYS:HG2	2.27	0.49
1:1A:1713:U:H2'	1:1A:1714:G:C8	2.48	0.49
1:1A:2418:A:H2'	1:1A:2419:U:C6	2.47	0.49
7:1H:3:ARG:NH1	7:1H:5:GLY:H	2.09	0.49
19:1X:61:GLY:HA3	19:1X:73:ARG:O	2.12	0.49
32:1a:67:C:H2'	32:1a:68:G:H8	1.75	0.49
32:1a:1425:U:H2'	32:1a:1426:C:C6	2.47	0.49
32:1a:1503:A:N6	53:1v:12:A:N1	2.60	0.49
1:2A:911:A:N6	12:2Q:11:LYS:O	2.45	0.49
1:2A:1969:A:O2'	1:2A:1972:A:N3	2.44	0.49
1:2A:2746:U:H4'	7:2H:139:GLN:HA	1.95	0.49
3:2D:242:ARG:HH11	3:2D:242:ARG:CG	2.17	0.49
11:2P:39:LYS:HD2	11:2P:45:LEU:HD11	1.93	0.49
32:2a:674:G:H2'	32:2a:675:A:C8	2.47	0.49
32:2a:1001:A:H2'	32:2a:1001(A):G:C8	2.48	0.49
32:2a:1004:A:H3'	32:2a:1005:A:C5'	2.41	0.49
33:2b:125:PRO:O	33:2b:127:ILE:N	2.44	0.49
38:2g:144:MET:HE1	54:2y:40:C:O2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:2k:25:TYR:HH	42:2k:87:THR:HG1	1.59	0.49
44:2m:89:GLY:O	44:2m:93:ARG:HG3	2.13	0.49
49:2r:32:ARG:HA	49:2r:69:THR:HG21	1.95	0.49
1:1A:1468:C:OP1	62:1A:4060:HOH:O	2.20	0.49
1:1A:2611:U:H5'	1:1A:2611:U:H6	1.77	0.49
1:1A:2693:A:H2'	1:1A:2694:G:H8	1.77	0.49
1:1A:2727:G:O2'	10:1O:70:LYS:NZ	2.41	0.49
6:1G:121:ASN:O	6:1G:131:TYR:OH	2.28	0.49
8:1I:72:LEU:O	8:1I:74:ASN:N	2.46	0.49
9:1N:75:TYR:CE2	9:1N:77:GLY:HA2	2.47	0.49
26:14:63:TYR:N	26:14:63:TYR:CD1	2.80	0.49
35:1d:94:LEU:HA	35:1d:97:LEU:HD12	1.94	0.49
1:2A:784:A:C6	3:2D:229:VAL:HG11	2.48	0.49
1:2A:1579:A:H2'	1:2A:1580:A:C8	2.47	0.49
1:2A:2144:U:O2'	1:2A:2147:G:O6	2.31	0.49
1:2A:2758:A:C4	7:2H:67:LEU:HD21	2.48	0.49
2:2B:33:G:N3	2:2B:50:G:N2	2.61	0.49
17:2V:62:LEU:CD1	17:2V:95:LEU:HB2	2.42	0.49
19:2X:31:HIS:CD2	19:2X:33:LYS:H	2.30	0.49
21:2Z:153:SER:CB	21:2Z:167:PRO:HB3	2.42	0.49
32:2a:76:C:N3	32:2a:93:G:N2	2.49	0.49
32:2a:255:G:H1'	48:2q:16:GLN:OE1	2.12	0.49
32:2a:967:5MC:H2'	32:2a:968:A:C8	2.48	0.49
32:2a:1261:A:H5'	32:2a:1283:G:O3'	2.13	0.49
32:2a:1262:C:H42	32:2a:1273:G:H1	1.60	0.49
35:2d:88:VAL:HA	36:2e:97:GLY:HA3	1.94	0.49
50:2s:52:TYR:HB2	50:2s:57:HIS:CE1	2.47	0.49
54:2y:18:G:N2	54:2y:55:PSU:C4	2.80	0.49
1:1A:86:C:H4'	1:1A:104:U:H1'	1.95	0.49
1:1A:265:A:N1	1:1A:427:U:O2'	2.41	0.49
1:1A:1039:G:H1	1:1A:1116:C:N4	2.10	0.49
1:1A:1059:G:H2'	1:1A:1060:U:C5	2.47	0.49
1:1A:1062:G:C5	1:1A:1088:A:H2'	2.48	0.49
1:1A:1416:G:O2'	1:1A:1417:C:OP2	2.20	0.49
1:1A:2789:C:O2	1:1A:2894:G:N2	2.43	0.49
1:1A:2801(A):A:H1'	1:1A:2895:U:H1'	1.93	0.49
5:1F:53:THR:HG22	5:1F:55:GLY:H	1.78	0.49
32:1a:1172:C:H2'	32:1a:1173:G:H8	1.77	0.49
34:1c:29:TYR:OH	45:1n:54:PRO:O	2.22	0.49
1:2A:782:A:H5'	1:2A:783:A:N7	2.28	0.49
1:2A:1800:C:OP2	3:2D:183:ARG:NH2	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1816:G:H3'	3:2D:62:TYR:CE1	2.47	0.49
1:2A:2648:C:H2'	1:2A:2649:U:C6	2.47	0.49
12:2Q:24:GLY:HA2	12:2Q:67:ARG:NH2	2.28	0.49
20:2Y:56:PRO:C	20:2Y:58:GLY:H	2.21	0.49
24:22:13:ALA:HA	24:22:16:LEU:HD12	1.95	0.49
28:26:12:GLU:OE1	28:26:19:ARG:NH1	2.46	0.49
32:2a:126:G:H4'	32:2a:634:C:O2	2.13	0.49
32:2a:448:A:OP2	32:2a:485:G:N2	2.29	0.49
32:2a:521:G:H4'	43:2l:73:GLU:HG2	1.94	0.49
32:2a:1190:G:O2'	34:2c:3:ASN:HB2	2.13	0.49
32:2a:1442:G:O2'	32:2a:1442(A):G:H5'	2.13	0.49
55:2x:31:G:H2'	55:2x:32:5MC:H6	1.76	0.49
1:1A:1371:G:H2'	1:1A:1372:U:H5	1.77	0.49
2:1B:24:G:N7	2:1B:56:G:H2'	2.28	0.49
32:1a:130:A:C8	48:1q:63:ARG:HD3	2.48	0.49
32:1a:452:A:H4'	47:1p:72:ARG:NH1	2.27	0.49
32:1a:1004:A:H5'	32:1a:1024:G:H1	1.78	0.49
32:1a:1095:U:H5''	32:1a:1109:C:O2	2.13	0.49
1:2A:345:A:N3	1:2A:346:A:N6	2.61	0.49
1:2A:784:A:H5''	62:2A:3702:HOH:O	2.13	0.49
1:2A:1155:A:H5''	16:2U:55:ARG:NH1	2.24	0.49
1:2A:1328:G:H2'	1:2A:1330:C:C5	2.48	0.49
1:2A:2126:A:N6	1:2A:2162:G:O2'	2.36	0.49
1:2A:2140:C:H2'	1:2A:2141:G:H5'	1.94	0.49
1:2A:2245:U:O2'	1:2A:2436:G:OP2	2.29	0.49
7:2H:144:VAL:O	7:2H:148:ILE:HG12	2.13	0.49
32:2a:344:A:H5''	32:2a:345:C:H5	1.77	0.49
32:2a:580:U:H5''	46:2o:58:MET:HG2	1.95	0.49
32:2a:881:G:OP2	43:2l:12:ARG:NH2	2.46	0.49
32:2a:947:G:N2	32:2a:1234:C:N3	2.55	0.49
32:2a:1007:C:O2	32:2a:1022:G:N1	2.26	0.49
32:2a:1118:C:OP1	40:2i:9:ARG:HD2	2.11	0.49
32:2a:1435:G:H2'	32:2a:1436:U:C6	2.47	0.49
36:2e:50:GLU:HB3	36:2e:53:LEU:HD13	1.94	0.49
1:1A:579:G:H2'	1:1A:580:C:C6	2.48	0.49
1:1A:2128:C:H42	1:1A:2161:C:H42	1.58	0.49
4:1E:47:VAL:HG23	4:1E:84:PHE:O	2.12	0.49
20:1Y:56:PRO:C	20:1Y:58:GLY:H	2.21	0.49
32:1a:674:G:H2'	32:1a:675:A:C8	2.45	0.49
36:1e:105:VAL:HB	36:1e:106:PRO:HD3	1.95	0.49
42:1k:84:VAL:HG11	42:1k:91:ARG:HD2	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:1s:63:THR:OG1	50:1s:65:ASN:OD1	2.26	0.49
1:2A:71:A:N7	19:2X:31:HIS:HE1	2.11	0.49
1:2A:479:A:N3	1:2A:481:G:H5''	2.27	0.49
1:2A:1796:U:H2'	1:2A:1797:C:H6	1.76	0.49
1:2A:2543:G:H2'	1:2A:2544:G:C8	2.47	0.49
2:2B:83:G:H5''	25:23:52:HIS:CE1	2.47	0.49
6:2G:11:TYR:O	6:2G:15:VAL:HB	2.13	0.49
6:2G:57:ALA:HA	6:2G:90:LEU:HD13	1.95	0.49
9:2N:21:LYS:O	9:2N:61:ARG:N	2.38	0.49
9:2N:22:THR:HB	9:2N:25:ARG:HB2	1.95	0.49
9:2N:67:LEU:HA	9:2N:87:LEU:HD22	1.95	0.49
19:2X:31:HIS:HD2	19:2X:33:LYS:HB2	1.78	0.49
28:26:35:GLU:HG2	28:26:50:ARG:HD3	1.94	0.49
32:2a:171:A:H2'	32:2a:172:A:C8	2.48	0.49
32:2a:1028:C:C2	32:2a:1033:G:N1	2.81	0.49
36:2e:34:VAL:O	36:2e:42:GLY:N	2.45	0.49
48:2q:45:HIS:H	48:2q:72:ARG:HA	1.77	0.49
1:1A:530:G:N1	1:1A:2023:G:OP1	2.34	0.48
1:1A:1262:A:OP2	18:1W:97:LYS:NZ	2.44	0.48
9:1N:62:VAL:CG1	9:1N:66:LYS:HB2	2.43	0.48
15:1T:60:THR:HG22	15:1T:77:PRO:HA	1.94	0.48
22:10:3:HIS:CD2	54:1w:75:C:H42	2.31	0.48
28:16:44:ARG:HG2	28:16:44:ARG:HH11	1.78	0.48
32:1a:353:A:H5'	32:1a:353:A:H8	1.77	0.48
32:1a:790:A:OP1	55:1x:38:A:O2'	2.28	0.48
50:1s:80:TYR:O	50:1s:81:ARG:HG2	2.12	0.48
1:2A:94(A):G:H2'	1:2A:95:G:O4'	2.13	0.48
1:2A:1429:G:H2'	1:2A:1430:C:C6	2.48	0.48
1:2A:2345:G:H4'	1:2A:2346:A:H5''	1.95	0.48
1:2A:2478:A:OP2	31:29:2:LYS:NZ	2.43	0.48
1:2A:2528:U:H5''	31:29:31:LYS:HE2	1.95	0.48
2:2B:33:G:C6	2:2B:34:U:C4	3.01	0.48
10:2O:63:VAL:HG11	10:2O:85:VAL:HG23	1.94	0.48
16:2U:76:TYR:CZ	16:2U:80:ILE:HG13	2.47	0.48
26:24:50:VAL:HG11	44:2m:65:LYS:N	2.28	0.48
27:25:49:CYS:SG	27:25:51:TYR:HB2	2.53	0.48
29:27:34:ARG:HE	29:27:42:LEU:HA	1.78	0.48
32:2a:707:C:H2'	32:2a:708:C:C6	2.49	0.48
32:2a:1515:C:H2'	32:2a:1516:G:H8	1.77	0.48
37:2f:97:PHE:HE2	49:2r:62:GLU:HG2	1.77	0.48
40:2i:8:GLY:HA3	40:2i:76:ALA:O	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:2n:12:ARG:NH1	45:2n:14:PRO:HA	2.28	0.48
1:1A:1082:U:C4	1:1A:1086:A:N1	2.79	0.48
1:1A:2375:G:O2'	1:1A:2377:A:N7	2.38	0.48
32:1a:61:G:H2'	32:1a:62:U:O4'	2.12	0.48
55:1x:58:A:H4'	55:1x:59:A:OP1	2.13	0.48
1:2A:647:G:H8	1:2A:647:G:O5'	1.96	0.48
1:2A:754:C:H2'	1:2A:755:C:C6	2.47	0.48
1:2A:927:G:H2'	1:2A:928:G:O4'	2.12	0.48
1:2A:1406:U:H2'	1:2A:1407:C:C6	2.48	0.48
1:2A:1514:U:H2'	1:2A:1515:G:H8	1.77	0.48
2:2B:55:U:O2'	6:2G:27:ASN:ND2	2.45	0.48
18:2W:46:PHE:O	18:2W:50:VAL:HG23	2.13	0.48
26:24:47:GLN:C	26:24:49:PHE:H	2.20	0.48
32:2a:1004:A:C8	32:2a:1005:A:H4'	2.45	0.48
32:2a:1005:A:H2	32:2a:1026:G:C8	2.30	0.48
32:2a:1292:U:H2'	32:2a:1293:G:C8	2.48	0.48
32:2a:1304:G:C6	32:2a:1305:G:N1	2.81	0.48
33:2b:48:MET:HG3	33:2b:49:GLU:H	1.77	0.48
33:2b:134:GLU:HA	33:2b:137:ARG:NE	2.28	0.48
45:2n:4:LYS:HA	45:2n:7:ILE:HG22	1.95	0.48
54:2y:30:G:H2'	54:2y:31:A:H8	1.77	0.48
54:2y:52:G:O6	54:2y:62:C:N3	2.45	0.48
1:1A:250:G:OP2	30:18:13:ARG:NH2	2.46	0.48
1:1A:1091:G:C6	1:1A:1101:U:C2	3.01	0.48
1:1A:2243:U:H2'	1:1A:2244:U:C6	2.48	0.48
20:1Y:7:VAL:HG21	20:1Y:72:VAL:HG12	1.93	0.48
32:1a:193:C:H2'	32:1a:194:C:H6	1.77	0.48
32:1a:1241:G:H2'	32:1a:1242:C:C6	2.49	0.48
32:1a:1356:G:H2'	32:1a:1357:A:C8	2.48	0.48
1:2A:9:U:OP1	9:2N:115:ARG:NH2	2.45	0.48
1:2A:1502:C:H2'	1:2A:1503:U:H6	1.78	0.48
1:2A:2137:C:H2'	1:2A:2138:C:C6	2.48	0.48
1:2A:2314:C:H2'	1:2A:2315:G:H8	1.78	0.48
1:2A:2345:G:N3	1:2A:2381:C:H2'	2.28	0.48
1:2A:2649:U:H2'	1:2A:2650:U:C6	2.49	0.48
2:2B:105:A:OP1	21:2Z:72:ARG:NH1	2.47	0.48
7:2H:73:ALA:O	7:2H:76:VAL:HG22	2.13	0.48
12:2Q:112:GLU:HG3	12:2Q:113:GLN:N	2.29	0.48
32:2a:952:U:H4'	32:2a:964:A:N1	2.28	0.48
32:2a:1006:C:H2'	32:2a:1007:C:C6	2.47	0.48
1:1A:1363:C:OP1	23:11:61:ARG:NH2	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2773:C:H2'	1:1A:2774:C:H6	1.78	0.48
6:1G:109:VAL:C	6:1G:112:PRO:HD2	2.38	0.48
26:14:33:VAL:HG12	26:14:35:VAL:H	1.78	0.48
32:1a:791:G:N2	32:1a:1497:G:O3'	2.47	0.48
33:1b:16:HIS:CG	33:1b:17:PHE:N	2.81	0.48
33:1b:20:GLU:HG2	33:1b:23:ARG:HH21	1.78	0.48
42:1k:18:ARG:HB2	42:1k:33:THR:OG1	2.14	0.48
1:2A:995:C:O2	9:2N:3:THR:OG1	2.19	0.48
1:2A:2655:G:O2'	1:2A:2664:G:O6	2.21	0.48
1:2A:2756:U:H1'	1:2A:2757:A:H5''	1.95	0.48
4:2E:9:VAL:HB	15:2T:3:ARG:HG2	1.96	0.48
20:2Y:38:ILE:HD11	20:2Y:66:PRO:HG3	1.94	0.48
32:2a:976:G:OP1	45:2n:32:SER:N	2.38	0.48
34:2c:6:HIS:HD2	34:2c:8:ILE:H	1.59	0.48
34:2c:151:VAL:HG22	34:2c:200:ALA:HA	1.95	0.48
39:2h:20:TYR:HA	39:2h:65:TYR:CZ	2.49	0.48
44:2m:92:HIS:CE1	44:2m:98:VAL:HG21	2.48	0.48
55:2x:16:C:H5'	55:2x:59:A:N1	2.28	0.48
1:1A:1028:A:N6	1:1A:1125:G:H2'	2.28	0.48
1:1A:1178:C:H2'	1:1A:1179:C:H6	1.77	0.48
1:1A:1512:U:H2'	1:1A:1513:C:C6	2.48	0.48
1:1A:2273:A:H2'	1:1A:2274:A:C8	2.48	0.48
1:1A:2504:U:OP2	62:1A:4059:HOH:O	2.20	0.48
2:1B:91:C:H5'	12:1Q:18:LYS:HA	1.95	0.48
6:1G:126:ASP:HB3	6:1G:128:ARG:H	1.78	0.48
6:1G:131:TYR:HB3	6:1G:159:VAL:HG13	1.95	0.48
32:1a:130:A:O2'	32:1a:131:C:O5'	2.27	0.48
32:1a:555:C:H2'	32:1a:556:C:C6	2.49	0.48
32:1a:935:A:O2'	32:1a:1383:C:N3	2.44	0.48
37:1f:19:LEU:HD11	37:1f:59:TYR:CG	2.49	0.48
1:2A:1794:U:H2'	1:2A:1795:C:H6	1.78	0.48
1:2A:1818:U:O2'	3:2D:154:LYS:O	2.24	0.48
1:2A:1971:A:OP1	62:2A:3756:HOH:O	2.20	0.48
1:2A:2156:G:H2'	1:2A:2157:G:C2	2.48	0.48
1:2A:2820:A:C5	13:2R:4:LEU:HD11	2.49	0.48
2:2B:30:C:H2'	2:2B:31:C:H5'	1.95	0.48
2:2B:75:G:H1	21:2Z:73:GLN:NE2	2.11	0.48
7:2H:149:ARG:HH12	7:2H:163:TYR:HA	1.78	0.48
19:2X:20:GLY:O	19:2X:25:LYS:N	2.37	0.48
21:2Z:105:VAL:N	21:2Z:139:VAL:O	2.45	0.48
33:2b:118:LEU:HD13	33:2b:142:LEU:HB2	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2c:58:GLU:HB3	41:2j:92:THR:HG21	1.96	0.48
35:2d:22:LYS:HB2	35:2d:26:CYS:SG	2.53	0.48
36:2e:69:VAL:HG22	36:2e:71:LEU:HD12	1.96	0.48
1:1A:1518:U:H2'	1:1A:1519:G:O4'	2.13	0.48
1:1A:1580:A:OP2	1:1A:1580:A:H8	1.97	0.48
14:1S:27:SER:HA	14:1S:88:ASP:HB3	1.95	0.48
18:1W:7:ALA:HB2	18:1W:50:VAL:HG22	1.95	0.48
32:1a:1159:U:O4'	32:1a:1182:G:N2	2.47	0.48
33:1b:67:THR:HA	33:1b:90:MET:HE1	1.95	0.48
39:1h:6:ILE:HB	39:1h:85:ARG:NH1	2.28	0.48
51:1t:13:LEU:HD12	51:1t:14:LYS:N	2.29	0.48
54:1w:44:G:H2'	54:1w:45:U:O4'	2.14	0.48
1:2A:195:A:OP1	11:2P:46:LYS:NZ	2.46	0.48
1:2A:1371:G:H2'	1:2A:1372:U:H5	1.77	0.48
1:2A:1388:G:H2'	1:2A:1389:G:H8	1.79	0.48
1:2A:1721:G:H2'	1:2A:1740:G:O6	2.14	0.48
1:2A:2191:G:H2'	1:2A:2192:G:O4'	2.13	0.48
1:2A:2639:A:OP2	62:2A:3753:HOH:O	2.20	0.48
2:2B:13:A:O2'	2:2B:14:U:H3'	2.13	0.48
16:2U:65:ILE:CD1	16:2U:95:LEU:HB3	2.44	0.48
32:2a:524:G:H2'	32:2a:525:C:C6	2.49	0.48
32:2a:586:C:N3	32:2a:755:G:N1	2.49	0.48
32:2a:1040:U:H2'	32:2a:1041:A:C8	2.47	0.48
32:2a:1152:A:H5'	41:2j:13:HIS:HB2	1.95	0.48
34:2c:6:HIS:HB3	45:2n:49:HIS:ND1	2.29	0.48
1:1A:1003:G:O2'	1:1A:1010:A:N1	2.45	0.48
1:1A:1641:A:H2'	1:1A:1642:G:O4'	2.14	0.48
1:1A:1846:G:H5''	1:1A:1847:A:OP2	2.13	0.48
1:1A:2408:U:H2'	1:1A:2409:G:C8	2.48	0.48
15:1T:24:PRO:HA	15:1T:49:VAL:HG23	1.96	0.48
19:1X:94:GLY:HA3	19:1X:95:LEU:HB2	1.94	0.48
21:1Z:149:SER:OG	21:1Z:150:LEU:N	2.36	0.48
26:14:50:VAL:HG11	44:1m:64:TRP:C	2.39	0.48
26:14:53:GLU:HB2	26:14:55:ARG:O	2.14	0.48
32:1a:1005:A:H1'	32:1a:1036:G:H22	1.78	0.48
35:1d:129:ASN:OD1	35:1d:145:GLU:N	2.42	0.48
37:1f:48:LEU:HD22	49:1r:77:GLY:HA3	1.94	0.48
37:1f:70:ASP:OD1	37:1f:70:ASP:N	2.45	0.48
41:1j:63:PHE:HE1	45:1n:58:LYS:HG2	1.77	0.48
1:2A:361:G:N2	1:2A:362:U:H3	2.11	0.48
1:2A:415:A:H2'	1:2A:416:C:O4'	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:709:U:H2'	1:2A:710:G:C8	2.49	0.48
1:2A:911:A:H2'	12:2Q:9:TYR:OH	2.14	0.48
1:2A:1027:A:C6	1:2A:1126:A:C4	3.02	0.48
7:2H:88:LEU:HD11	7:2H:165:ALA:HA	1.96	0.48
28:26:44:ARG:HG2	28:26:44:ARG:HH11	1.78	0.48
34:2c:120:VAL:HG11	34:2c:134:ILE:HD13	1.96	0.48
36:2e:100:VAL:HG22	36:2e:118:ILE:HG22	1.96	0.48
39:2h:81:HIS:N	39:2h:138:TRP:O	2.47	0.48
44:2m:54:VAL:HA	44:2m:57:ARG:HB3	1.94	0.48
54:2w:73:A:C5	54:2w:74:C:H1'	2.48	0.48
1:1A:2512:C:H2'	1:1A:2513:G:O4'	2.14	0.48
1:1A:2846:G:H2'	1:1A:2847:U:O4'	2.14	0.48
11:1P:42:SER:O	62:1P:301:HOH:O	2.20	0.48
32:1a:78:G:C2	32:1a:91:C:C4	3.02	0.48
32:1a:110:C:H2'	32:1a:111:G:O4'	2.13	0.48
32:1a:902:G:H2'	32:1a:903:G:H8	1.78	0.48
32:1a:1126:U:O2	32:1a:1280:A:H2'	2.14	0.48
40:1i:55:ALA:HA	40:1i:58:HIS:CD2	2.49	0.48
47:1p:58:TYR:O	47:1p:62:VAL:HG23	2.13	0.48
54:1y:61:C:H2'	54:1y:62:C:C6	2.48	0.48
1:2A:526:A:OP1	62:2A:3755:HOH:O	2.20	0.48
1:2A:923:C:H2'	1:2A:924:C:H6	1.79	0.48
2:2B:113:G:N2	14:2S:45:GLY:O	2.21	0.48
3:2D:275:LYS:HE3	3:2D:276:LYS:HA	1.96	0.48
10:2O:104:ARG:NH2	15:2T:36:GLU:OE2	2.42	0.48
14:2S:53:SER:O	14:2S:57:LYS:N	2.46	0.48
26:24:46:GLN:C	26:24:48:ARG:H	2.21	0.48
32:2a:165:C:H2'	32:2a:166:G:C8	2.48	0.48
32:2a:200:G:O6	32:2a:217:C:N4	2.45	0.48
32:2a:540:G:H2'	32:2a:541:G:O4'	2.13	0.48
32:2a:707:C:H2'	32:2a:708:C:H6	1.78	0.48
32:2a:833:U:H2'	32:2a:834:C:C6	2.49	0.48
32:2a:1016:A:H2'	32:2a:1017:G:O4'	2.14	0.48
40:2i:19:LEU:HD11	40:2i:81:ILE:HG23	1.95	0.48
1:1A:107:C:H2'	1:1A:108:U:H6	1.76	0.48
1:1A:535:C:O3'	16:1U:53:ARG:NH1	2.45	0.48
1:1A:1072:C:H3'	1:1A:1094:U:O4	2.13	0.48
1:1A:2340:G:H2'	1:1A:2341:G:H8	1.79	0.48
1:1A:2687:U:H2'	1:1A:2688:U:O4'	2.12	0.48
3:1D:37:LEU:HD22	3:1D:87:ASN:ND2	2.29	0.48
9:1N:114:ARG:HD2	62:1N:3102:HOH:O	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:1P:98:GLU:O	11:1P:102:ARG:HG3	2.14	0.48
19:1X:60:ARG:HH22	29:17:47:ARG:HH12	1.61	0.48
32:1a:1469:G:H2'	32:1a:1470:G:H8	1.78	0.48
43:1l:40:VAL:HG11	43:1l:77:LEU:O	2.13	0.48
51:1t:60:GLU:HG3	51:1t:81:LYS:HD2	1.95	0.48
1:2A:521:G:H2'	1:2A:522:G:H8	1.79	0.48
1:2A:948:G:H21	1:2A:985:C:P	2.36	0.48
1:2A:1024:G:C6	1:2A:1025:G:C6	3.01	0.48
1:2A:1562:A:H2'	1:2A:1563:G:H8	1.79	0.48
1:2A:2167:U:H2'	1:2A:2168:G:N3	2.29	0.48
16:2U:28:ARG:NH1	16:2U:38:THR:OG1	2.47	0.48
26:24:53:GLU:H	26:24:53:GLU:CD	2.22	0.48
32:2a:769:G:H4'	32:2a:1513:A:H4'	1.96	0.48
32:2a:1145:C:H4'	32:2a:1146:A:H5'	1.94	0.48
32:2a:1305:G:H22	32:2a:1331:G:H1'	1.77	0.48
32:2a:1313:U:OP1	50:2s:5:LEU:HB2	2.14	0.48
32:2a:1379:G:N7	38:2g:2:ALA:HB3	2.28	0.48
32:2a:1498:UR3:O2	32:2a:1499:A:N6	2.39	0.48
34:2c:181:ASN:N	34:2c:205:GLY:O	2.46	0.48
55:2x:29:G:N7	62:2x:202:HOH:O	2.35	0.48
28:16:12:GLU:OE1	28:16:52:VAL:HG21	2.13	0.48
32:1a:194:C:H2'	32:1a:195:A:H5''	1.96	0.48
32:1a:240:C:H2'	32:1a:241:C:H6	1.79	0.48
32:1a:297:G:H4'	32:1a:557:G:H4'	1.96	0.48
32:1a:1442:G:H2'	32:1a:1442:G:N3	2.28	0.48
35:1d:61:LYS:HD3	35:1d:206:PHE:CE2	2.49	0.48
38:1g:111:ARG:HG3	38:1g:112:PRO:HD2	1.96	0.48
50:1s:28:LYS:HE2	50:1s:46:GLY:C	2.39	0.48
1:2A:94:C:H2'	1:2A:94(A):G:O4'	2.13	0.48
1:2A:614(A):U:H4'	1:2A:614(B):G:H5'	1.96	0.48
1:2A:848:G:N3	1:2A:933:A:H1'	2.29	0.48
1:2A:2049:G:N7	62:2A:3846:HOH:O	2.35	0.48
1:2A:2224:G:H4'	1:2A:2226:C:C2	2.49	0.48
2:2B:90:A:C5	2:2B:91:C:H1'	2.49	0.48
2:2B:115:G:H2'	2:2B:116:G:O4'	2.14	0.48
11:2P:97:PRO:HD3	11:2P:126:VAL:O	2.13	0.48
20:2Y:13:VAL:HG12	20:2Y:74:PRO:HA	1.96	0.48
32:2a:89:C:H2'	32:2a:90:U:O4'	2.14	0.48
32:2a:811:C:N4	62:2a:3235:HOH:O	2.47	0.48
32:2a:1015:A:H2'	32:2a:1016:A:C8	2.49	0.48
32:2a:1132:C:N4	32:2a:1142:G:H1	2.11	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1376:U:O4	38:2g:10:ARG:NH1	2.46	0.48
37:2f:22:GLU:OE2	37:2f:82:ARG:HG2	2.14	0.48
38:2g:79:ARG:HG3	38:2g:80:VAL:H	1.79	0.48
47:2p:2:VAL:HG13	47:2p:64:ALA:HA	1.96	0.48
52:2u:5:ASP:O	52:2u:11:GLY:HA3	2.13	0.48
1:1A:947:G:H2'	1:1A:948:G:C8	2.49	0.47
1:1A:1068:G:O2'	1:1A:1070:A:N7	2.47	0.47
14:1S:14:VAL:O	14:1S:18:ILE:HG12	2.13	0.47
20:1Y:9:LYS:HA	20:1Y:10:GLY:HA2	1.59	0.47
32:1a:22:G:H4'	32:1a:885:G:C8	2.49	0.47
32:1a:964:A:N3	32:1a:969:A:O2'	2.45	0.47
34:1c:131:ARG:NH2	34:1c:135:LYS:HE3	2.29	0.47
36:1e:100:VAL:HG22	36:1e:118:ILE:HG22	1.96	0.47
39:1h:14:ARG:NH2	39:1h:83:ILE:O	2.20	0.47
40:1i:127:LYS:O	40:1i:128:ARG:HG2	2.14	0.47
1:2A:118:A:N3	1:2A:178:G:H1'	2.29	0.47
1:2A:890:A:H2'	1:2A:892:G:C8	2.46	0.47
1:2A:1352:U:OP2	62:2A:3754:HOH:O	2.20	0.47
1:2A:2645:G:N2	1:2A:2767:C:OP2	2.46	0.47
1:2A:2815:C:H2'	1:2A:2816:C:C6	2.49	0.47
2:2B:32:C:H42	2:2B:50:G:H1	1.61	0.47
6:2G:16:ARG:HB2	6:2G:17:PRO:HD3	1.95	0.47
32:2a:737:A:H2'	32:2a:738:C:C6	2.49	0.47
32:2a:840:C:H4'	32:2a:841:U:OP1	2.14	0.47
32:2a:1029:C:N4	32:2a:1032:G:C6	2.82	0.47
32:2a:1509:C:H2'	32:2a:1510:U:O4'	2.14	0.47
33:2b:28:PHE:CD2	33:2b:190:THR:HA	2.49	0.47
34:2c:65:ALA:HA	34:2c:100:ALA:HB3	1.94	0.47
36:2e:78:HIS:CE1	36:2e:143:ARG:H	2.26	0.47
39:2h:2:LEU:HD11	39:2h:8:ASP:HB2	1.95	0.47
40:2i:37:PHE:HD1	40:2i:40:LEU:HD12	1.79	0.47
1:1A:218:A:C2	1:1A:235:U:H4'	2.49	0.47
1:1A:299:A:N1	1:1A:322:A:O2'	2.44	0.47
1:1A:918:A:N3	2:1B:80:U:O2'	2.42	0.47
1:1A:1047:G:H2'	1:1A:1110:G:N2	2.29	0.47
1:1A:1421:G:N2	1:1A:1495:A:N1	2.58	0.47
20:1Y:6:HIS:HE1	20:1Y:72:VAL:O	1.97	0.47
20:1Y:13:VAL:HG12	20:1Y:74:PRO:HA	1.96	0.47
32:1a:974:A:OP2	45:1n:29:ARG:NH2	2.47	0.47
33:1b:24:TRP:H	33:1b:24:TRP:HD1	1.61	0.47
33:1b:95:GLN:HB2	33:1b:148:TYR:CD1	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:1m:73:GLU:HG2	44:1m:77:ASN:ND2	2.29	0.47
1:2A:614(C):A:C4	5:2F:180:GLY:HA2	2.49	0.47
1:2A:674:G:O2'	5:2F:74:ARG:HD3	2.15	0.47
1:2A:1199:U:H2'	1:2A:1200:C:C6	2.49	0.47
1:2A:1518:U:H2'	1:2A:1519:G:O4'	2.14	0.47
1:2A:1608:A:H1'	1:2A:1610:A:OP2	2.13	0.47
1:2A:1824:G:N3	3:2D:254:THR:OG1	2.46	0.47
1:2A:2065:C:H2'	1:2A:2066:C:H6	1.79	0.47
1:2A:2134:A:H2'	1:2A:2134:A:N3	2.29	0.47
1:2A:2321:G:N3	1:2A:2321:G:H2'	2.28	0.47
3:2D:145:VAL:HG13	3:2D:191:ALA:HB2	1.96	0.47
3:2D:260:ARG:NH2	3:2D:266:SER:OG	2.46	0.47
9:2N:123:TYR:CZ	9:2N:129:PRO:HD2	2.49	0.47
10:2O:4:PRO:O	10:2O:5:GLN:HB2	2.14	0.47
12:2Q:39:PRO:HD3	12:2Q:99:PRO:HG3	1.96	0.47
20:2Y:9:LYS:HA	20:2Y:10:GLY:HA2	1.59	0.47
32:2a:671:G:H5'	37:2f:77:ARG:HH12	1.79	0.47
32:2a:1352:C:H2'	32:2a:1353:G:C8	2.49	0.47
34:2c:12:LEU:HA	34:2c:16:ARG:O	2.14	0.47
34:2c:164:ARG:NH2	34:2c:166:GLU:OE1	2.48	0.47
36:2e:31:LEU:HD21	36:2e:43:LEU:HD11	1.94	0.47
38:2g:94:ARG:O	38:2g:97:GLN:HB3	2.14	0.47
51:2t:9:ASN:O	51:2t:10:LEU:HB2	2.12	0.47
1:1A:226:G:H21	1:1A:228:A:H62	1.60	0.47
1:1A:784:A:C6	3:1D:229:VAL:HG11	2.49	0.47
1:1A:1138:G:N3	9:1N:106:MET:HE2	2.29	0.47
4:1E:7:VAL:CG1	4:1E:27:LEU:HB3	2.44	0.47
14:1S:34:HIS:ND1	14:1S:53:SER:OG	2.42	0.47
21:1Z:105:VAL:O	21:1Z:141:VAL:HG22	2.15	0.47
32:1a:45:U:H2'	32:1a:46:G:H8	1.78	0.47
32:1a:673:G:H2'	32:1a:674:G:C8	2.48	0.47
32:1a:1003:G:C2	32:1a:1004:A:H2	2.31	0.47
32:1a:1027:C:C4	32:1a:1034:G:O6	2.67	0.47
32:1a:1327:C:H2'	32:1a:1328:C:C6	2.49	0.47
44:1m:67:GLU:HG3	44:1m:71:ARG:NH2	2.29	0.47
54:1w:46:7MG:H3'	54:1w:47:U:H5''	1.95	0.47
1:2A:531:C:H4'	1:2A:532:A:H5''	1.96	0.47
1:2A:576:U:H2'	1:2A:577:G:C8	2.50	0.47
1:2A:2136:C:H1'	1:2A:2137:C:H5'	1.96	0.47
1:2A:2238:G:H2'	1:2A:2238:G:N3	2.29	0.47
31:29:3:VAL:HG22	31:29:35:ARG:HD3	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:308:C:OP1	62:2a:3212:HOH:O	2.20	0.47
32:2a:1095:U:C4	32:2a:1096:C:C4	3.02	0.47
32:2a:1165:C:H42	32:2a:1171:G:H1	1.61	0.47
32:2a:1376:U:H2'	32:2a:1377:A:H8	1.77	0.47
32:2a:1500:A:H5''	32:2a:1508:G:H5''	1.96	0.47
40:2i:53:VAL:C	40:2i:55:ALA:H	2.21	0.47
40:2i:63:ILE:HD13	40:2i:77:ILE:HG23	1.96	0.47
45:2n:27:CYS:SG	45:2n:29:ARG:HG3	2.54	0.47
45:2n:47:LEU:O	45:2n:51:GLY:N	2.45	0.47
54:2w:68:C:N4	54:2w:69:G:O6	2.48	0.47
1:1A:360:G:H3'	1:1A:361:G:H8	1.80	0.47
1:1A:1371:G:N7	62:1A:4156:HOH:O	2.35	0.47
1:1A:1688:U:O2	1:1A:1700:A:H5'	2.13	0.47
1:1A:1899:G:N3	1:1A:1899:G:H2'	2.29	0.47
1:1A:1919:A:O2'	32:1a:1517:G:N3	2.36	0.47
1:1A:2108:C:H2'	1:1A:2109:U:H6	1.79	0.47
1:1A:2139:C:N3	1:1A:2152:G:C2	2.82	0.47
1:1A:2364:C:H2'	1:1A:2365:G:O4'	2.15	0.47
1:1A:2804:C:H2'	1:1A:2805:G:C8	2.49	0.47
3:1D:19:ALA:HB3	3:1D:21:PHE:CE1	2.50	0.47
3:1D:233:HIS:CE1	3:1D:242:ARG:HG2	2.49	0.47
4:1E:119:ARG:HH11	4:1E:119:ARG:HG3	1.79	0.47
7:1H:3:ARG:HH22	7:1H:66:GLY:N	2.12	0.47
32:1a:741:G:H2'	32:1a:742:G:O4'	2.14	0.47
32:1a:1125:U:H4'	41:1j:5:ARG:NH2	2.29	0.47
54:1y:49:C:H42	54:1y:65:G:H1	1.62	0.47
1:2A:952:G:H5''	1:2A:953:A:OP2	2.15	0.47
1:2A:1268:A:H2'	1:2A:1269:A:O4'	2.13	0.47
1:2A:1490:A:O2'	3:2D:99:ASP:OD1	2.31	0.47
1:2A:2062:A:N6	58:2A:3652:HGR:O6	2.43	0.47
5:2F:32:LEU:O	5:2F:36:VAL:HG23	2.14	0.47
6:2G:33:ARG:O	6:2G:161:THR:HG23	2.14	0.47
8:2I:5:LEU:HD11	8:2I:19:VAL:HG22	1.96	0.47
13:2R:18:LEU:HD21	13:2R:22:ARG:CZ	2.44	0.47
13:2R:57:ARG:HH21	13:2R:62:ALA:HB2	1.80	0.47
17:2V:37:VAL:O	17:2V:52:VAL:HG22	2.13	0.47
26:24:62:ARG:HD3	26:24:62:ARG:HA	1.61	0.47
32:2a:201:C:N4	32:2a:216:G:H1	2.03	0.47
32:2a:229:U:H5''	47:2p:33:ILE:HD13	1.96	0.47
32:2a:375:U:OP1	47:2p:69:THR:HG21	2.15	0.47
32:2a:640:A:N6	32:2a:641:U:O4	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1013:G:H2'	32:2a:1015:A:OP2	2.13	0.47
33:2b:74:LYS:HB3	33:2b:169:LYS:HG2	1.96	0.47
33:2b:90:MET:SD	33:2b:222:ILE:HD12	2.55	0.47
1:1A:272:G:N7	1:1A:421:U:H2'	2.30	0.47
1:1A:657:U:H2'	1:1A:658:C:C6	2.49	0.47
1:1A:1300:U:H4'	1:1A:1301:A:H5''	1.95	0.47
1:1A:1338:G:N7	19:1X:62:LYS:NZ	2.49	0.47
1:1A:2690:C:OP1	13:1R:17:ARG:NH1	2.30	0.47
16:1U:108:GLU:O	16:1U:112:ARG:HG2	2.13	0.47
32:1a:1027:C:C2	32:1a:1034:G:C6	3.02	0.47
40:1i:16:ARG:HB2	40:1i:64:THR:HB	1.96	0.47
1:2A:228:A:O2'	1:2A:229:A:H4'	2.14	0.47
1:2A:1169:G:H8	1:2A:1169:G:O5'	1.98	0.47
3:2D:125:ILE:HB	37:2f:81:ILE:HD11	1.95	0.47
12:2Q:16:ARG:HD3	12:2Q:17:LEU:H	1.79	0.47
21:2Z:69:THR:HG22	21:2Z:90:VAL:HA	1.96	0.47
32:2a:850:U:H2'	32:2a:851:G:H5''	1.97	0.47
32:2a:1064:G:H4'	32:2a:1065:U:O5'	2.15	0.47
32:2a:1194:U:H4'	36:2e:22:GLY:HA2	1.96	0.47
32:2a:1324:A:O4'	32:2a:1362:C:H4'	2.15	0.47
33:2b:188:ALA:HB1	33:2b:192:SER:OG	2.14	0.47
47:2p:8:ARG:HB3	47:2p:28:ARG:NH1	2.30	0.47
50:2s:20:LEU:HA	50:2s:23:ASN:ND2	2.29	0.47
1:1A:614:U:H5'	1:1A:614(C):A:N6	2.29	0.47
1:1A:721:C:H2'	1:1A:722:A:C8	2.49	0.47
1:1A:1466:G:H2'	1:1A:1547:C:N4	2.30	0.47
1:1A:2121:G:H1	1:1A:2177:C:H42	1.62	0.47
1:1A:2252:G:N7	22:10:4:LYS:NZ	2.63	0.47
4:1E:52:LEU:HD12	4:1E:77:ILE:HD11	1.97	0.47
11:1P:15:ARG:HD3	62:1P:313:HOH:O	2.14	0.47
20:1Y:92:ASN:CG	20:1Y:94:LYS:HG2	2.40	0.47
32:1a:652:U:O4	32:1a:752:G:O2'	2.28	0.47
32:1a:1028:C:N3	32:1a:1029:C:H1'	2.29	0.47
41:1j:55:LYS:HE3	41:1j:56:HIS:CE1	2.49	0.47
1:2A:656:G:H2'	1:2A:657:U:O4'	2.15	0.47
1:2A:1803:A:HO2'	3:2D:259:THR:HG21	1.78	0.47
1:2A:2161:C:H2'	1:2A:2162:G:C8	2.49	0.47
1:2A:2273:A:H2'	1:2A:2274:A:C8	2.50	0.47
1:2A:2705:A:H2'	1:2A:2706:G:O4'	2.14	0.47
1:2A:2771:C:H5''	4:2E:202:LYS:HD3	1.95	0.47
6:2G:5:VAL:HG13	6:2G:8:LYS:HZ1	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:2G:125:PHE:HD1	6:2G:131:TYR:HD1	1.62	0.47
12:2Q:36:ALA:HB2	12:2Q:103:MET:SD	2.54	0.47
32:2a:865:A:H2	32:2a:918:A:H4'	1.80	0.47
1:1A:919:G:N2	1:1A:2269:A:OP2	2.48	0.47
1:1A:1028:A:H61	1:1A:1125:G:H2'	1.80	0.47
1:1A:1709:U:H2'	1:1A:1710:C:C6	2.50	0.47
1:1A:2206:G:OP2	1:1A:2206:G:H4'	2.12	0.47
1:1A:2712:U:H1'	1:1A:2712(A):A:C8	2.50	0.47
2:1B:78:A:H2'	2:1B:79:C:O4'	2.15	0.47
5:1F:135:LYS:HB2	5:1F:138:GLU:CD	2.40	0.47
6:1G:62:LEU:HA	26:14:27:THR:HG21	1.97	0.47
7:1H:56:SER:OG	7:1H:57:ASP:N	2.46	0.47
20:1Y:87:LYS:HB3	20:1Y:95:LYS:HD2	1.96	0.47
32:1a:8:A:N6	35:1d:205:GLU:O	2.46	0.47
32:1a:890:G:O2'	32:1a:906:G:O6	2.31	0.47
32:1a:1027:C:C4	32:1a:1034:G:C6	3.03	0.47
35:1d:155:LEU:HB3	35:1d:158:ILE:HG12	1.96	0.47
39:1h:86:ILE:HB	39:1h:133:LEU:O	2.15	0.47
44:1m:87:TYR:O	44:1m:91:ARG:HG2	2.14	0.47
54:1y:44:G:O2'	54:1y:45:U:OP1	2.26	0.47
54:1y:67:C:H2'	54:1y:68:C:C6	2.50	0.47
1:2A:272:G:H4'	1:2A:272(A):U:H5''	1.96	0.47
1:2A:536:A:H2'	1:2A:537:C:C6	2.50	0.47
1:2A:824:A:H1'	1:2A:2358:G:N7	2.29	0.47
1:2A:893:C:H2'	1:2A:894:C:C6	2.49	0.47
1:2A:1607:C:H5''	1:2A:1608:A:H5'	1.97	0.47
1:2A:2206:G:H5''	1:2A:2207:G:N1	2.29	0.47
1:2A:2312:U:H5'	6:2G:88:ILE:HD11	1.96	0.47
1:2A:2356:C:H2'	1:2A:2357:U:O4'	2.15	0.47
1:2A:2512:C:H2'	1:2A:2513:G:O4'	2.13	0.47
1:2A:2530:A:H62	7:2H:172:LYS:HZ3	1.62	0.47
1:2A:2747:G:O6	1:2A:2755:C:H5''	2.15	0.47
2:2B:45:A:O4'	6:2G:95:ARG:NH1	2.47	0.47
2:2B:75:G:N3	21:2Z:85:HIS:CE1	2.83	0.47
3:2D:167:GLY:O	3:2D:174:ILE:N	2.44	0.47
4:2E:9:VAL:HG22	4:2E:25:VAL:HB	1.96	0.47
11:2P:84:ASN:O	11:2P:88:LEU:HG	2.14	0.47
11:2P:121:LYS:HG2	11:2P:122:PRO:HD2	1.95	0.47
17:2V:52:VAL:CG2	17:2V:55:ALA:HB3	2.44	0.47
21:2Z:126:VAL:HG13	21:2Z:161:VAL:HG23	1.97	0.47
32:2a:91:C:H2'	32:2a:92:C:C6	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:617:G:H4'	47:2p:44:THR:O	2.15	0.47
32:2a:892:A:O2'	32:2a:1415:G:H4'	2.14	0.47
32:2a:1005:A:N6	32:2a:1024:G:H1'	2.30	0.47
32:2a:1172:C:H2'	32:2a:1173:G:H8	1.80	0.47
32:2a:1288:A:N1	32:2a:1371:G:H1'	2.30	0.47
32:2a:1325:C:OP1	52:2u:15:ARG:HD2	2.14	0.47
37:2f:69:GLU:CD	37:2f:69:GLU:H	2.23	0.47
40:2i:77:ILE:O	40:2i:81:ILE:HD12	2.14	0.47
44:2m:15:VAL:HG22	44:2m:48:LEU:HD11	1.97	0.47
44:2m:23:TYR:HB3	44:2m:67:GLU:HA	1.96	0.47
45:2n:24:CYS:O	45:2n:28:GLY:N	2.46	0.47
49:2r:51:LEU:HB3	49:2r:55:ARG:HB2	1.96	0.47
53:2v:23:A:H4'	53:2v:24:A:O4'	2.14	0.47
54:2y:64:A:H2'	54:2y:65:G:H8	1.80	0.47
1:1A:143:G:H2'	1:1A:143(A):C:C6	2.49	0.47
1:1A:686:G:N2	1:1A:788:A:H61	2.13	0.47
1:1A:1431:U:H2'	1:1A:1432:C:C6	2.50	0.47
1:1A:1833:U:O2'	1:1A:1969:A:N1	2.42	0.47
1:1A:1876:A:H2'	1:1A:1877:A:C8	2.49	0.47
2:1B:31:C:H4'	6:1G:29:TRP:CH2	2.49	0.47
8:1I:47:LEU:HD23	8:1I:47:LEU:HA	1.77	0.47
16:1U:76:TYR:CZ	16:1U:80:ILE:HG13	2.50	0.47
32:1a:1376:U:OP1	38:1g:98:SER:OG	2.26	0.47
33:1b:192:SER:O	33:1b:194:PRO:HD3	2.14	0.47
48:1q:62:SER:HB3	48:1q:72:ARG:NH1	2.29	0.47
1:2A:817:C:H2'	1:2A:818:G:O4'	2.15	0.47
1:2A:946:G:N2	1:2A:972:G:H1'	2.29	0.47
1:2A:1226:A:OP1	17:2V:84:LYS:HE2	2.14	0.47
1:2A:2129:C:N3	1:2A:2159:G:N2	2.63	0.47
3:2D:132:PRO:HG2	3:2D:135:PHE:CD2	2.50	0.47
3:2D:242:ARG:HG3	3:2D:242:ARG:NH1	2.19	0.47
8:2I:102:SER:OG	8:2I:103:ARG:N	2.48	0.47
11:2P:95:VAL:HA	11:2P:99:LEU:HD21	1.97	0.47
32:2a:520:A:N1	32:2a:536:C:H1'	2.29	0.47
49:2r:73:ALA:HB1	49:2r:78:LEU:HB2	1.97	0.47
54:2y:22:G:N7	54:2y:46:7MG:C2	2.83	0.47
1:1A:883:G:H22	1:1A:893:C:N4	2.12	0.47
1:1A:1223:G:N2	1:1A:1226:A:OP2	2.37	0.47
1:1A:1268:A:C2	1:1A:2013:A:C4	3.03	0.47
1:1A:1797:C:H4'	3:1D:257:LEU:O	2.15	0.47
1:1A:2127:G:H2'	1:1A:2128:C:C6	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2747:G:O6	1:1A:2755:C:H5''	2.15	0.47
62:1A:5109:HOH:O	4:1E:145:LYS:HE2	2.15	0.47
11:1P:88:LEU:HD22	11:1P:95:VAL:HG21	1.96	0.47
24:12:52:ASP:O	24:12:56:GLN:HG3	2.14	0.47
29:17:12:ARG:NH2	29:17:44:PRO:HB3	2.29	0.47
32:1a:617:G:H4'	47:1p:44:THR:O	2.15	0.47
32:1a:833:U:H2'	32:1a:834:C:H6	1.80	0.47
32:1a:1506:U:OP1	62:1a:3317:HOH:O	2.20	0.47
34:1c:124:ILE:HD12	34:1c:196:LEU:HD12	1.96	0.47
35:1d:19:LEU:O	35:1d:21:LEU:N	2.48	0.47
1:2A:29:U:H2'	1:2A:30:G:C8	2.50	0.47
1:2A:212:G:H2'	1:2A:213:A:O4'	2.14	0.47
1:2A:309:G:N3	1:2A:329:G:O2'	2.45	0.47
1:2A:730:C:H3'	62:2A:3790:HOH:O	2.14	0.47
1:2A:1339:G:O3'	19:2X:16:LYS:NZ	2.45	0.47
1:2A:1653:G:O3'	13:2R:2:ARG:HB2	2.15	0.47
1:2A:2291:U:OP1	1:2A:2380:C:O2'	2.33	0.47
6:2G:76:SER:N	6:2G:84:LYS:HB2	2.30	0.47
6:2G:107:LEU:HA	6:2G:111:LEU:HD13	1.97	0.47
6:2G:110:ALA:O	6:2G:140:ILE:HG23	2.15	0.47
13:2R:33:ARG:HB2	13:2R:115:GLU:CB	2.44	0.47
26:24:40:HIS:HB3	26:24:43:TYR:HB2	1.97	0.47
32:2a:9:G:H2'	32:2a:10:A:C8	2.50	0.47
32:2a:302:G:O2'	32:2a:556:C:H5''	2.15	0.47
32:2a:448:A:P	32:2a:485:G:H22	2.37	0.47
32:2a:542:G:OP1	35:2d:10:ARG:NH2	2.46	0.47
32:2a:840:C:H5''	32:2a:841:U:H5	1.80	0.47
32:2a:1298:C:OP2	38:2g:114:ARG:NH2	2.48	0.47
32:2a:1323:G:H4'	32:2a:1363:C:N3	2.30	0.47
33:2b:69:LEU:HB3	33:2b:162:ILE:HG22	1.95	0.47
33:2b:211:ILE:O	33:2b:215:LEU:HB2	2.14	0.47
38:2g:70:LYS:O	38:2g:138:LYS:HD2	2.15	0.47
44:2m:14:ARG:HE	44:2m:42:ALA:HA	1.80	0.47
55:2x:17:C:OP1	55:2x:61:C:H5'	2.15	0.47
55:2x:47:U:H3'	55:2x:48:C:H5'	1.97	0.47
1:1A:2149:G:H2'	1:1A:2150:U:O4'	2.14	0.47
2:1B:95:C:H2'	2:1B:96:U:C6	2.50	0.47
3:1D:150:LYS:HA	3:1D:150:LYS:HD3	1.81	0.47
5:1F:56:GLU:OE1	5:1F:93:LYS:NZ	2.47	0.47
7:1H:17:VAL:HG13	7:1H:26:VAL:HG22	1.96	0.47
32:1a:279:A:C8	48:1q:98:LEU:HD23	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:973:G:H3'	32:1a:974:A:H5''	1.96	0.47
38:1g:72:ARG:HH12	38:1g:138:LYS:HZ3	1.63	0.47
1:2A:699:A:H2'	1:2A:700:G:O4'	2.14	0.47
1:2A:940:G:H2'	1:2A:941:A:O4'	2.15	0.47
1:2A:1777:U:H2'	1:2A:1778:U:H6	1.78	0.47
1:2A:1894:C:H2'	1:2A:1895:C:H6	1.79	0.47
1:2A:2378:A:O5'	1:2A:2378:A:H8	1.98	0.47
3:2D:218:ARG:HB3	3:2D:219:PRO:HD2	1.96	0.47
12:2Q:37:LEU:HD21	12:2Q:130:LYS:HE2	1.97	0.47
32:2a:596:C:H2'	32:2a:597:G:H8	1.80	0.47
32:2a:735:C:H2'	32:2a:736:C:C6	2.50	0.47
33:2b:134:GLU:HA	33:2b:137:ARG:HE	1.80	0.47
33:2b:144:ARG:HD2	33:2b:144:ARG:HA	1.70	0.47
34:2c:181:ASN:ND2	34:2c:204:LEU:HD12	2.30	0.47
35:2d:162:LEU:HD11	35:2d:181:MET:HG2	1.97	0.47
40:2i:19:LEU:HD12	40:2i:84:ALA:HB3	1.97	0.47
41:2j:16:LEU:HD23	41:2j:94:VAL:HG13	1.97	0.47
44:2m:108:ARG:HA	44:2m:108:ARG:HD3	1.76	0.47
1:1A:687:C:H2'	1:1A:688:U:O4'	2.14	0.46
1:1A:882:G:H4'	54:1w:19:G:C6	2.50	0.46
1:1A:1188:U:H4'	17:1V:79:VAL:HG22	1.97	0.46
1:1A:1815:A:H8	1:1A:1815:A:OP1	1.98	0.46
1:1A:2572:A:C8	4:1E:144:ARG:HD2	2.50	0.46
1:1A:2667:C:H2'	1:1A:2668:G:O4'	2.14	0.46
32:1a:401:C:OP2	35:1d:73:ARG:NH2	2.47	0.46
32:1a:501:C:H2'	32:1a:502:G:H8	1.80	0.46
32:1a:1002:G:H3'	32:1a:1003:G:C4'	2.44	0.46
32:1a:1072:G:H2'	32:1a:1073:U:C6	2.50	0.46
50:1s:41:VAL:O	50:1s:44:MET:N	2.42	0.46
1:2A:493:G:H2'	1:2A:494:G:O4'	2.16	0.46
1:2A:563:G:H21	16:2U:37:GLU:CD	2.22	0.46
1:2A:1019:U:O2'	1:2A:1021:A:H2	1.98	0.46
1:2A:1394:U:OP1	62:2A:3757:HOH:O	2.20	0.46
1:2A:2530:A:H62	7:2H:172:LYS:NZ	2.13	0.46
1:2A:2615:U:C2	27:25:7:PRO:HA	2.50	0.46
1:2A:2821:A:H2'	1:2A:2822:G:C8	2.50	0.46
2:2B:43:C:H5'	26:24:1:MET:HE3	1.96	0.46
8:2I:124:GLY:H	8:2I:144:VAL:HG23	1.80	0.46
10:2O:90:GLN:O	10:2O:92:GLU:HG3	2.16	0.46
10:2O:92:GLU:HG2	10:2O:113:LYS:HD2	1.97	0.46
14:2S:110:LEU:HD12	14:2S:110:LEU:HA	1.82	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:973:G:H3'	32:2a:974:A:H5''	1.97	0.46
32:2a:1149:C:H2'	32:2a:1150:U:O4'	2.14	0.46
37:2f:67:MET:HE1	37:2f:75:LEU:HD22	1.96	0.46
39:2h:51:VAL:HG21	39:2h:60:ARG:HG3	1.97	0.46
40:2i:24:GLY:HA2	40:2i:59:PHE:O	2.15	0.46
1:1A:2791:C:H2'	1:1A:2792:G:C8	2.48	0.46
2:1B:1:U:O2'	2:1B:2:C:H6	1.98	0.46
2:1B:74:U:H2'	2:1B:75:G:O4'	2.15	0.46
8:1I:72:LEU:C	8:1I:74:ASN:N	2.72	0.46
12:1Q:35:VAL:HG13	12:1Q:130:LYS:HB3	1.97	0.46
13:1R:33:ARG:NH2	27:15:57:VAL:HG12	2.29	0.46
17:1V:5:VAL:HG21	17:1V:35:LEU:HD23	1.97	0.46
21:1Z:163:LEU:HD23	21:1Z:167:PRO:HG3	1.96	0.46
32:1a:911:U:OP2	43:1l:97:ARG:NH2	2.48	0.46
32:1a:1006:C:N4	32:1a:1023:G:H1	2.10	0.46
32:1a:1429:C:H2'	32:1a:1430:C:H6	1.80	0.46
42:1k:48:ILE:HD12	42:1k:63:LEU:HB2	1.97	0.46
54:1w:23:A:H2'	54:1w:24:G:C8	2.50	0.46
1:2A:18:C:H4'	16:2U:23:GLY:O	2.15	0.46
1:2A:121:G:H4'	1:2A:149:A:H5'	1.97	0.46
1:2A:300:A:N3	1:2A:319:C:H1'	2.31	0.46
1:2A:500:G:N1	1:2A:503:A:OP2	2.46	0.46
1:2A:1203:G:O6	62:2A:3747:HOH:O	2.19	0.46
1:2A:2351:G:H8	1:2A:2351:G:O5'	1.98	0.46
6:2G:111:LEU:HD23	6:2G:117:PHE:CZ	2.49	0.46
15:2T:11:GLU:O	15:2T:15:VAL:HG23	2.15	0.46
26:24:59:PHE:N	26:24:60:GLN:HB2	2.30	0.46
32:2a:21:G:H2'	32:2a:22:G:C8	2.50	0.46
32:2a:684:A:H1'	42:2k:39:PRO:HD2	1.97	0.46
32:2a:814:A:H2'	32:2a:816:A:H5''	1.97	0.46
1:1A:2319:G:H22	14:1S:3:ARG:CD	2.28	0.46
7:1H:13:LYS:HA	7:1H:14:GLY:HA2	1.67	0.46
7:1H:20:ALA:HB1	7:1H:21:PRO:HD2	1.97	0.46
32:1a:731:G:H5'	32:1a:766:A:H4'	1.98	0.46
32:1a:833:U:H2'	32:1a:834:C:C6	2.51	0.46
54:1y:20:U:H3'	54:1y:20:U:OP2	2.14	0.46
1:2A:142:A:N1	1:2A:1595:G:O2'	2.44	0.46
1:2A:528:A:C2	1:2A:2043:C:H4'	2.51	0.46
1:2A:858:U:O2	1:2A:2268:A:H2'	2.15	0.46
1:2A:887:A:H4'	1:2A:888:C:C5	2.50	0.46
1:2A:1475:G:C2	1:2A:1517:G:C2	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1539:G:H2'	1:2A:1540:U:O4'	2.16	0.46
1:2A:1810:A:H2'	1:2A:1811:G:O4'	2.15	0.46
1:2A:2206:G:H3'	1:2A:2207:G:C5	2.51	0.46
1:2A:2820:A:O2'	1:2A:2821:A:OP1	2.32	0.46
3:2D:118:VAL:HG22	3:2D:119:ALA:H	1.80	0.46
6:2G:46:ALA:HB2	6:2G:53:LEU:HG	1.97	0.46
17:2V:31:ALA:O	17:2V:61:VAL:HG12	2.15	0.46
32:2a:411:A:OP2	35:2d:25:ARG:NH2	2.48	0.46
32:2a:537:G:H2'	32:2a:538:G:C8	2.50	0.46
32:2a:839:U:H4'	32:2a:840:C:OP2	2.14	0.46
32:2a:1490:C:H2'	32:2a:1491:G:O4'	2.16	0.46
33:2b:95:GLN:HB2	33:2b:148:TYR:CD1	2.51	0.46
35:2d:92:VAL:O	35:2d:96:LEU:HD13	2.16	0.46
35:2d:155:LEU:HD23	35:2d:155:LEU:HA	1.75	0.46
54:2y:9:A:N6	54:2y:23:A:OP2	2.38	0.46
54:2y:58:A:H1'	54:2y:60:U:H3	1.80	0.46
1:1A:363:G:H2'	1:1A:363(A):A:C8	2.48	0.46
1:1A:1178:C:O5'	1:1A:1178:C:H6	1.98	0.46
1:1A:1794:U:H2'	1:1A:1795:C:H6	1.80	0.46
1:1A:2105:C:H2'	1:1A:2106:G:H8	1.77	0.46
7:1H:3:ARG:HE	7:1H:54:ARG:NH1	2.13	0.46
12:1Q:31:ASP:OD1	12:1Q:134:ARG:NH1	2.43	0.46
16:1U:58:ARG:HA	16:1U:61:TRP:CE3	2.51	0.46
18:1W:67:ASP:N	18:1W:67:ASP:OD1	2.48	0.46
32:1a:624:C:O3'	47:1p:10:GLY:HA2	2.16	0.46
32:1a:1240:U:N3	38:1g:30:ILE:O	2.35	0.46
33:1b:24:TRP:CZ3	33:1b:26:PRO:HA	2.51	0.46
34:1c:35:GLU:CD	34:1c:59:ARG:HH22	2.23	0.46
38:1g:79:ARG:CG	38:1g:80:VAL:H	2.29	0.46
39:1h:49:GLU:HG2	39:1h:62:TYR:HE2	1.81	0.46
46:1o:61:GLY:O	46:1o:65:ARG:HG3	2.16	0.46
54:1w:5:G:N2	54:1w:68:C:N3	2.53	0.46
54:1y:9:A:H5'	54:1y:46:7MG:HN22	1.81	0.46
1:2A:407:G:H2'	1:2A:408:G:C8	2.51	0.46
1:2A:1015:G:H2'	1:2A:1016:G:C8	2.46	0.46
1:2A:2818:G:OP2	13:2R:42:LYS:NZ	2.48	0.46
2:2B:119:G:H2'	2:2B:120:A:C8	2.51	0.46
3:2D:69:ARG:NH2	3:2D:128:GLY:O	2.48	0.46
10:2O:102:VAL:HB	10:2O:106:LEU:HD12	1.98	0.46
11:2P:17:LYS:HE3	11:2P:27:HIS:CE1	2.50	0.46
32:2a:1424:C:H2'	32:2a:1425:U:O4'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2d:155:LEU:O	35:2d:159:ARG:HG3	2.16	0.46
37:2f:12:PRO:HG2	37:2f:13:ASN:ND2	2.30	0.46
39:2h:26:VAL:HG22	39:2h:59:LEU:HB2	1.95	0.46
42:2k:48:ILE:O	42:2k:50:TYR:N	2.42	0.46
55:2x:58:A:H4'	55:2x:59:A:OP1	2.15	0.46
1:1A:414:C:H2'	1:1A:415:A:H8	1.79	0.46
1:1A:639:U:H2'	1:1A:640:C:C6	2.51	0.46
1:1A:686:G:H8	29:17:6:GLN:O	1.98	0.46
1:1A:1441:G:H2'	1:1A:1442:G:H8	1.80	0.46
1:1A:2119:A:C2	1:1A:2170:A:H2'	2.51	0.46
5:1F:64:ILE:HG21	5:1F:78:ILE:HG23	1.97	0.46
12:1Q:34:LEU:HB2	12:1Q:118:LEU:HD22	1.98	0.46
32:1a:1298:C:OP2	38:1g:114:ARG:NH2	2.49	0.46
32:1a:1363(A):A:H4'	32:1a:1364:U:H2'	1.96	0.46
34:1c:5:ILE:HD11	45:1n:49:HIS:HE1	1.81	0.46
34:1c:172:ARG:HH22	34:1c:206:GLU:CD	2.24	0.46
52:1u:5:ASP:O	52:1u:11:GLY:HA3	2.15	0.46
1:2A:18:C:O2'	1:2A:554:U:OP1	2.32	0.46
1:2A:384:U:H2'	1:2A:385:C:C6	2.49	0.46
1:2A:631:A:H1'	11:2P:66:GLY:HA2	1.97	0.46
1:2A:857:C:H4'	22:20:23:VAL:HG21	1.97	0.46
1:2A:953:A:OP2	12:2Q:16:ARG:NH2	2.48	0.46
1:2A:1404:C:H2'	1:2A:1405:U:H6	1.81	0.46
1:2A:2393:A:H2'	1:2A:2394:C:O4'	2.16	0.46
1:2A:2745:C:H2'	1:2A:2746:U:O4'	2.16	0.46
1:2A:2891:G:O5'	1:2A:2891:G:H8	1.98	0.46
6:2G:145:THR:HG23	6:2G:148:MET:HE3	1.96	0.46
7:2H:90:LYS:HD3	7:2H:159:GLU:HG3	1.98	0.46
10:2O:15:GLY:O	10:2O:47:ILE:HG12	2.15	0.46
32:2a:1028:C:C2	32:2a:1033:G:C6	3.03	0.46
32:2a:1057:G:H2'	32:2a:1058:G:O4'	2.16	0.46
32:2a:1517:G:N7	32:2a:1518:MA6:H103	2.30	0.46
44:2m:3:ARG:N	44:2m:7:VAL:O	2.49	0.46
45:2n:48:ALA:HB2	45:2n:53:LEU:HD12	1.98	0.46
1:1A:1043:C:O2	1:1A:1112:G:N2	2.32	0.46
1:1A:1258:C:H2'	1:1A:1259:G:O4'	2.16	0.46
1:1A:2118:U:OP1	1:1A:2148:G:O2'	2.20	0.46
1:1A:2641:G:H5'	9:1N:83:LYS:HE2	1.97	0.46
9:1N:48:MET:HG2	9:1N:48:MET:O	2.15	0.46
32:1a:1080:A:H5'	36:1e:16:THR:HG21	1.97	0.46
33:1b:98:LEU:HB2	33:1b:101:MET:HE3	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:1l:34:ARG:HG3	43:1l:105:TYR:CE2	2.51	0.46
45:1n:10:ALA:CB	45:1n:23:ARG:HG3	2.46	0.46
54:1y:63:G:H2'	54:1y:64:A:O4'	2.15	0.46
54:1y:69:G:H2'	54:1y:70:G:O4'	2.16	0.46
1:2A:236:C:H2'	1:2A:237:C:H6	1.79	0.46
1:2A:389:G:N1	11:2P:70:GLN:HG3	2.31	0.46
1:2A:831:G:N2	11:2P:53:GLY:O	2.49	0.46
1:2A:1031:G:O2'	31:29:7:VAL:O	2.23	0.46
1:2A:1777:U:O2'	1:2A:1778:U:H5'	2.16	0.46
1:2A:1913:A:N6	54:2w:38:A:H5'	2.31	0.46
4:2E:32:PRO:HB2	4:2E:72:VAL:HG21	1.96	0.46
9:2N:62:VAL:HG11	9:2N:66:LYS:HB2	1.97	0.46
14:2S:26:LEU:HD22	14:2S:87:PHE:CD1	2.50	0.46
16:2U:104:GLN:NE2	16:2U:105:VAL:HG23	2.30	0.46
17:2V:24:LYS:HA	17:2V:92:THR:OG1	2.16	0.46
18:2W:25:ARG:NH2	18:2W:74:ALA:O	2.48	0.46
24:22:32:LEU:HD21	24:22:54:LYS:HG2	1.98	0.46
32:2a:765:G:N1	32:2a:812:C:O2'	2.42	0.46
32:2a:803:G:OP1	62:2a:3213:HOH:O	2.21	0.46
32:2a:1201:A:H4'	32:2a:1202:G:O5'	2.15	0.46
32:2a:1286:A:H2'	32:2a:1287:A:H4'	1.98	0.46
32:2a:1351:U:H3	32:2a:1371:G:H1	1.63	0.46
32:2a:1411:C:H2'	32:2a:1412:C:C6	2.49	0.46
34:2c:155:GLY:HA3	34:2c:196:LEU:HD22	1.98	0.46
39:2h:12:ARG:HD3	39:2h:25:ASP:O	2.16	0.46
42:2k:27:ASN:OD1	42:2k:28:THR:N	2.47	0.46
1:1A:1794:U:H2'	1:1A:1795:C:C6	2.50	0.46
1:1A:2051:A:H4'	4:1E:141:ILE:HG12	1.98	0.46
1:1A:2822:G:N7	62:1A:4163:HOH:O	2.36	0.46
26:14:57:GLU:HB3	26:14:58:ARG:HG2	1.97	0.46
32:1a:313:A:H2'	32:1a:314:C:C6	2.50	0.46
32:1a:1343:G:H2'	32:1a:1344:C:C6	2.51	0.46
40:1i:50:LEU:HB3	40:1i:85:LEU:HD11	1.98	0.46
55:1x:33:U:O2'	55:1x:35:A:N7	2.46	0.46
1:2A:79:G:H2'	1:2A:80:G:H8	1.81	0.46
1:2A:330:A:H2	1:2A:1210:A:H2'	1.81	0.46
1:2A:1197:G:H2'	1:2A:1198:U:C6	2.51	0.46
1:2A:1252:G:N1	16:2U:37:GLU:OE2	2.47	0.46
1:2A:1482:G:H2'	1:2A:1484:G:C8	2.51	0.46
1:2A:1778:U:H2'	1:2A:1784:A:N6	2.31	0.46
1:2A:2892:A:C2'	1:2A:2893:G:H5'	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:2E:135:HIS:NE2	62:2E:401:HOH:O	2.36	0.46
6:2G:161:THR:HG22	6:2G:163:ALA:H	1.81	0.46
11:2P:50:ARG:HD3	30:28:7:HIS:CD2	2.51	0.46
32:2a:789:U:O2'	32:2a:791:G:N7	2.46	0.46
32:2a:1030:C:H42	32:2a:1031:G:H1	1.62	0.46
32:2a:1118:C:N3	32:2a:1156:G:N2	2.64	0.46
34:2c:109:PRO:C	34:2c:111:LEU:H	2.23	0.46
34:2c:191:THR:OG1	34:2c:194:GLY:O	2.33	0.46
54:2w:51:U:H2'	54:2w:52:G:H8	1.78	0.46
54:2y:7:A:N1	54:2y:66:U:O2	2.49	0.46
1:1A:893:C:H2'	1:1A:894:C:C6	2.51	0.46
1:1A:1364:G:N7	23:11:3:LYS:HD2	2.30	0.46
1:1A:1710:C:O2'	1:1A:2858:C:N3	2.45	0.46
1:1A:2629:A:HO2'	1:1A:2630:G:P	2.38	0.46
7:1H:149:ARG:HH12	7:1H:167:GLU:CD	2.24	0.46
13:1R:18:LEU:HD21	13:1R:22:ARG:NH1	2.30	0.46
32:1a:629:G:H2'	32:1a:630:G:O4'	2.16	0.46
32:1a:1100:C:OP2	33:1b:96:ARG:HD2	2.16	0.46
33:1b:188:ALA:HB1	33:1b:192:SER:OG	2.16	0.46
37:1f:67:MET:HE1	37:1f:75:LEU:HD22	1.97	0.46
41:1j:61:GLU:OE1	45:1n:45:ARG:NE	2.46	0.46
44:1m:108:ARG:HD3	44:1m:108:ARG:HA	1.79	0.46
48:1q:87:LYS:HA	48:1q:87:LYS:HD2	1.72	0.46
50:1s:41:VAL:O	50:1s:43:GLU:N	2.49	0.46
51:1t:42:GLN:O	51:1t:46:GLU:HG2	2.15	0.46
54:1w:51:U:H2'	54:1w:52:G:C8	2.51	0.46
1:2A:200:U:O4	1:2A:250:G:N2	2.48	0.46
1:2A:250:G:C6	1:2A:251:A:C6	3.04	0.46
1:2A:322:A:OP1	5:2F:168:ARG:HD2	2.15	0.46
1:2A:597:U:H2'	1:2A:598:G:H8	1.81	0.46
1:2A:646:A:H2'	1:2A:647:G:O4'	2.14	0.46
1:2A:1773:A:O2'	1:2A:1978:A:N1	2.48	0.46
1:2A:2168:G:H8	1:2A:2170:A:N7	2.13	0.46
1:2A:2298:A:N3	1:2A:2321:G:N2	2.64	0.46
1:2A:2313:C:H5''	6:2G:91:ARG:HD3	1.97	0.46
9:2N:103:VAL:O	9:2N:107:LEU:HG	2.16	0.46
17:2V:15:GLU:O	17:2V:18:LEU:HB2	2.16	0.46
32:2a:193:C:H2'	32:2a:194:C:H6	1.80	0.46
32:2a:834:C:H2'	32:2a:835:U:H6	1.81	0.46
32:2a:977:A:O2'	32:2a:981:U:N3	2.48	0.46
32:2a:1157:A:H5'	32:2a:1158:C:N1	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1318:A:H5''	50:2s:3:ARG:NH2	2.31	0.46
38:2g:90:GLU:OE1	38:2g:90:GLU:N	2.40	0.46
41:2j:33:GLN:HG3	41:2j:34:VAL:N	2.30	0.46
44:2m:80:ARG:O	44:2m:84:ILE:HG12	2.16	0.46
48:2q:53:LEU:HD23	48:2q:82:MET:HE1	1.98	0.46
1:1A:528:A:O2'	1:1A:529:A:H5'	2.16	0.46
1:1A:996:A:H4'	16:1U:91:ASP:OD2	2.16	0.46
1:1A:1041:C:N4	1:1A:1114:G:H1	2.07	0.46
1:1A:1815:A:P	3:1D:54:ARG:HH22	2.39	0.46
1:1A:2238:G:N3	1:1A:2238:G:H2'	2.30	0.46
1:1A:2287:A:O2'	1:1A:2289:G:N7	2.37	0.46
1:1A:2394:C:N3	54:1y:76:A:O2'	2.48	0.46
10:1O:64:ARG:HD2	10:1O:79:PHE:CD1	2.51	0.46
13:1R:18:LEU:HD21	13:1R:22:ARG:CZ	2.46	0.46
14:1S:39:ILE:HB	14:1S:49:VAL:HG13	1.98	0.46
26:14:49:PHE:HB3	26:14:50:VAL:H	1.41	0.46
32:1a:674:G:N2	32:1a:717:C:O2	2.49	0.46
32:1a:727:G:N2	32:1a:730:G:OP2	2.43	0.46
32:1a:909:A:H2'	32:1a:910:C:O4'	2.16	0.46
32:1a:1049:U:O4	45:1n:3:ARG:NH1	2.43	0.46
32:1a:1084:G:C5	32:1a:1085:U:C4	3.04	0.46
32:1a:1250:A:H4'	40:1i:68:GLY:N	2.30	0.46
37:1f:100:ASN:C	49:1r:28:GLU:HG2	2.41	0.46
46:1o:82:ILE:HD12	46:1o:88:ARG:HB2	1.98	0.46
51:1t:47:GLY:HA2	51:1t:48:LYS:C	2.41	0.46
1:2A:323:G:C8	5:2F:171:PRO:HG3	2.51	0.46
1:2A:398:G:OP1	1:2A:2090:G:O2'	2.27	0.46
1:2A:852:G:H2'	1:2A:853:G:C8	2.51	0.46
1:2A:924:C:H2'	1:2A:925:C:C6	2.51	0.46
1:2A:1469:A:H2'	1:2A:1470:G:O4'	2.16	0.46
1:2A:1857:G:C6	1:2A:1858:G:N1	2.84	0.46
1:2A:2239:G:OP2	62:2A:3758:HOH:O	2.21	0.46
1:2A:2683:C:OP1	15:2T:53:ARG:NH2	2.45	0.46
13:2R:33:ARG:NH2	27:25:57:VAL:O	2.44	0.46
15:2T:49:VAL:HG12	15:2T:63:VAL:HG22	1.96	0.46
21:2Z:121:HIS:HB3	21:2Z:123:ASP:O	2.16	0.46
32:2a:719:C:N4	49:2r:71:LYS:HE2	2.31	0.46
32:2a:1028:C:O2	32:2a:1033:G:C2	2.69	0.46
32:2a:1038:C:O2'	32:2a:1039:C:H5'	2.15	0.46
36:2e:113:ALA:HB3	36:2e:115:VAL:HG23	1.98	0.46
43:2l:78:GLN:NE2	62:2l:301:HOH:O	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:2w:9:A:H5'	54:2w:46:7MG:N3	2.31	0.46
54:2y:64:A:H2'	54:2y:65:G:C8	2.51	0.46
1:1A:1057:A:H3'	1:1A:1058:G:H5''	1.98	0.46
1:1A:2722:G:H5''	1:1A:2820:A:N7	2.31	0.46
3:1D:3:VAL:HG22	3:1D:17:THR:HB	1.98	0.46
4:1E:28:ALA:HB3	4:1E:93:VAL:HG12	1.97	0.46
10:1O:78:ARG:HD2	62:1O:303:HOH:O	2.16	0.46
21:1Z:8:TYR:HB2	21:1Z:38:TYR:CE2	2.51	0.46
26:14:62:ARG:HA	26:14:62:ARG:HD3	1.78	0.46
32:1a:1123:A:O3'	41:1j:36:GLY:HA3	2.15	0.46
32:1a:1414:U:H3	32:1a:1486:G:H1	1.64	0.46
34:1c:177:THR:HG22	34:1c:180:ALA:H	1.81	0.46
35:1d:53:ASP:O	35:1d:57:ARG:HG3	2.16	0.46
37:1f:99:ALA:O	49:1r:28:GLU:HA	2.16	0.46
1:2A:195:A:H5''	1:2A:196:A:O5'	2.15	0.46
1:2A:241:A:H8	1:2A:241:A:OP1	1.98	0.46
1:2A:1121:C:H2'	1:2A:1122:G:O4'	2.16	0.46
1:2A:1937:A:H1'	1:2A:1939:5MU:H71	1.97	0.46
1:2A:2180:U:H2'	1:2A:2181:G:O4'	2.16	0.46
1:2A:2349:G:OP1	62:2A:3759:HOH:O	2.21	0.46
7:2H:38:SER:HB3	7:2H:41:MET:HG2	1.97	0.46
7:2H:154:PRO:HB3	7:2H:163:TYR:CE1	2.50	0.46
11:2P:96:THR:O	11:2P:99:LEU:HG	2.15	0.46
25:23:52:HIS:CD2	25:23:53:LEU:HG	2.51	0.46
32:2a:1372:U:H2'	32:2a:1373:G:O4'	2.16	0.46
32:2a:1499:A:H1'	32:2a:1520:G:H5'	1.96	0.46
1:1A:196:A:H2'	1:1A:196:A:N3	2.31	0.45
1:1A:1026:U:H4'	1:1A:1027:A:OP1	2.15	0.45
1:1A:1153:C:H2'	1:1A:1154:G:O4'	2.16	0.45
1:1A:2127:G:H21	1:1A:2173:A:H1'	1.80	0.45
1:1A:2163:C:N4	1:1A:2164:C:O2	2.49	0.45
5:1F:178:PRO:HB2	5:1F:201:VAL:CG2	2.46	0.45
25:13:7:LYS:HB2	25:13:34:GLU:HG3	1.98	0.45
28:16:40:CYS:HA	28:16:41:PRO:HD3	1.80	0.45
32:1a:34:C:H2'	32:1a:35:G:H8	1.79	0.45
32:1a:46:G:O2'	32:1a:365:U:H1'	2.16	0.45
32:1a:381:C:H2'	32:1a:382:A:O4'	2.15	0.45
36:1e:72:GLN:O	36:1e:75:THR:HG22	2.15	0.45
38:1g:45:ASP:O	38:1g:49:ILE:HG13	2.16	0.45
39:1h:96:GLY:H	39:1h:99:GLU:CD	2.24	0.45
40:1i:4:TYR:CE1	40:1i:88:TYR:HA	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:1m:19:LEU:HD21	44:1m:56:LEU:HD21	1.98	0.45
49:1r:38:GLU:HA	49:1r:41:LYS:HE3	1.98	0.45
1:2A:150:C:H2'	1:2A:151:C:C6	2.52	0.45
1:2A:581:C:H2'	1:2A:582:G:C8	2.51	0.45
1:2A:1301:A:H2	1:2A:1626:G:N3	2.14	0.45
1:2A:1354:A:H4'	3:2D:38:LYS:HE2	1.97	0.45
1:2A:1379:A:O5'	1:2A:1379:A:H8	1.99	0.45
1:2A:1582:C:H2'	1:2A:1583:A:H8	1.80	0.45
7:2H:97:ARG:O	7:2H:103:LEU:HD12	2.16	0.45
20:2Y:43:ASN:HB3	20:2Y:65:ALA:HB3	1.97	0.45
21:2Z:154:ASP:OD1	21:2Z:154:ASP:N	2.49	0.45
32:2a:255:G:C6	32:2a:256:U:C4	3.03	0.45
32:2a:995:C:O2	45:2n:4:LYS:NZ	2.29	0.45
33:2b:144:ARG:NH2	33:2b:148:TYR:OH	2.49	0.45
51:2t:59:ALA:O	51:2t:63:ILE:HG13	2.16	0.45
1:1A:107:C:H2'	1:1A:108:U:C6	2.50	0.45
1:1A:721:C:H2'	1:1A:722:A:H8	1.81	0.45
1:1A:1066:U:H2'	1:1A:1068:G:OP2	2.16	0.45
1:1A:1267:U:OP2	1:1A:2012:G:N1	2.30	0.45
1:1A:1745(A):C:H5'	1:1A:1746:G:OP2	2.16	0.45
3:1D:242:ARG:HG3	3:1D:242:ARG:NH1	2.16	0.45
5:1F:64:ILE:HD11	5:1F:75:HIS:HB2	1.98	0.45
9:1N:66:LYS:HB3	9:1N:70:LYS:HB2	1.96	0.45
12:1Q:81:VAL:HB	22:10:7:LEU:HD21	1.99	0.45
15:1T:51:ARG:HG3	15:1T:98:LYS:HD2	1.98	0.45
26:14:56:VAL:HB	26:14:57:GLU:H	1.53	0.45
32:1a:1118:C:H1'	32:1a:1179:A:C5	2.51	0.45
33:1b:208:ILE:H	33:1b:208:ILE:HD12	1.81	0.45
33:1b:212:GLN:NE2	33:1b:234:PRO:O	2.49	0.45
42:1k:16:SER:O	42:1k:35:PRO:HD3	2.16	0.45
54:1y:21:A:O2'	54:1y:22:G:OP1	2.33	0.45
1:2A:143:G:H2'	1:2A:143(A):C:C6	2.51	0.45
1:2A:407:G:H2'	1:2A:408:G:H8	1.81	0.45
1:2A:1803:A:H4'	3:2D:259:THR:HG23	1.97	0.45
1:2A:2065:C:H2'	1:2A:2066:C:C6	2.51	0.45
1:2A:2184:G:H2'	1:2A:2185:C:C6	2.52	0.45
2:2B:27:C:H5''	14:2S:54:LEU:HD21	1.98	0.45
32:2a:1004:A:C8	32:2a:1038:C:H1'	2.51	0.45
32:2a:1007:C:N3	32:2a:1022:G:C6	2.84	0.45
32:2a:1053:G:N7	32:2a:1200:C:H5''	2.31	0.45
32:2a:1410:G:H2'	32:2a:1411:C:C6	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2c:36:ASP:O	34:2c:39:ILE:HB	2.16	0.45
43:2l:83:VAL:HG23	43:2l:107:ALA:HB2	1.98	0.45
51:2t:50:GLU:O	51:2t:100:ILE:HD11	2.15	0.45
1:1A:303:U:H2'	1:1A:304:G:C8	2.51	0.45
1:1A:1099:G:H2'	1:1A:1100:C:C6	2.51	0.45
1:1A:1386:C:H2'	1:1A:1387:C:C6	2.52	0.45
1:1A:1394:U:H2'	1:1A:1395:A:O4'	2.17	0.45
1:1A:2142:C:O2	1:1A:2149:G:N1	2.38	0.45
1:1A:2529:G:H5''	1:1A:2530:A:H5''	1.97	0.45
6:1G:179:PRO:HG3	26:14:43:TYR:OH	2.16	0.45
18:1W:68:ARG:HH11	18:1W:111:HIS:HA	1.81	0.45
21:1Z:126:VAL:HG13	21:1Z:161:VAL:HG23	1.98	0.45
24:12:70:GLN:O	24:12:70:GLN:HG3	2.16	0.45
32:1a:200:G:H1	32:1a:217:C:H42	1.64	0.45
32:1a:413:G:O2'	32:1a:428:G:N2	2.50	0.45
32:1a:576:G:O6	32:1a:880:C:O2'	2.24	0.45
32:1a:976:G:OP2	32:1a:1358:U:O2'	2.27	0.45
32:1a:1142:G:H2'	32:1a:1143:G:O4'	2.16	0.45
33:1b:15:VAL:HB	33:1b:209:ARG:HB3	1.99	0.45
34:1c:41:GLY:O	34:1c:45:LYS:HG2	2.16	0.45
35:1d:18:LYS:HD2	35:1d:20:TYR:CZ	2.51	0.45
38:1g:47:CYS:O	38:1g:50:ILE:HG22	2.17	0.45
1:2A:58:G:O2'	1:2A:73:A:N1	2.40	0.45
1:2A:370:G:OP2	1:2A:370:G:H8	2.00	0.45
1:2A:534:U:O2'	16:2U:49:HIS:ND1	2.41	0.45
1:2A:928:G:H8	1:2A:928:G:O5'	1.99	0.45
1:2A:999:U:O2'	1:2A:1000:A:H5'	2.16	0.45
1:2A:1171:G:H22	1:2A:1178:C:N4	2.14	0.45
1:2A:1366:A:H2'	1:2A:1367:A:O4'	2.17	0.45
1:2A:1379:A:H4'	1:2A:1380:G:OP2	2.12	0.45
1:2A:2251:OMG:C8	1:2A:2450:A:H4'	2.51	0.45
2:2B:6:C:H42	2:2B:115:G:H1	1.63	0.45
2:2B:17:C:N4	2:2B:109:C:N3	2.64	0.45
3:2D:150:LYS:HD2	3:2D:150:LYS:N	2.30	0.45
6:2G:111:LEU:HD23	6:2G:117:PHE:CE1	2.51	0.45
6:2G:142:PRO:HG2	6:2G:143:GLU:OE2	2.17	0.45
7:2H:85:LYS:HD3	7:2H:164:TYR:CE1	2.52	0.45
8:2I:93:THR:HG22	8:2I:119:PRO:HB3	1.97	0.45
10:2O:2:ILE:HB	10:2O:33:ALA:HB3	1.98	0.45
12:2Q:19:GLY:O	12:2Q:99:PRO:HD2	2.16	0.45
12:2Q:54:MET:HE2	12:2Q:118:LEU:HD23	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:243:A:H4'	32:2a:244:U:H5''	1.99	0.45
32:2a:560:U:H5'	32:2a:566:G:N2	2.30	0.45
32:2a:818:G:N2	32:2a:873:A:OP1	2.46	0.45
32:2a:1073:U:H2'	32:2a:1074:G:H8	1.81	0.45
32:2a:1262:C:H2'	32:2a:1263:C:H6	1.81	0.45
32:2a:1492:A:H2'	32:2a:1493:A:C8	2.51	0.45
32:2a:1508:G:H2'	32:2a:1509:C:C6	2.52	0.45
33:2b:163:PHE:HD1	33:2b:185:ILE:HG13	1.81	0.45
34:2c:47:LEU:HD22	34:2c:50:ALA:HB3	1.98	0.45
37:2f:100:ASN:HD21	49:2r:23:LYS:HG2	1.81	0.45
42:2k:59:TYR:CZ	42:2k:63:LEU:HD11	2.52	0.45
43:2l:7:ILE:O	43:2l:11:VAL:N	2.47	0.45
44:2m:108:ARG:NE	44:2m:114:ARG:HG2	2.31	0.45
54:2w:9:A:H8	54:2w:11:C:H41	1.63	0.45
54:2w:21:A:O2'	54:2w:22:G:OP1	2.33	0.45
1:1A:620:G:N3	1:1A:620:G:H5'	2.32	0.45
1:1A:694:U:OP1	3:1D:59:LYS:NZ	2.41	0.45
1:1A:2334:G:H5'	14:1S:9:ARG:HG2	1.99	0.45
2:1B:92:C:OP1	21:1Z:79:ARG:NH1	2.49	0.45
2:1B:106:G:H5'	21:1Z:31:ARG:HG2	1.98	0.45
8:1I:12:LEU:HD23	8:1I:12:LEU:HA	1.79	0.45
10:1O:79:PHE:CD1	15:1T:72:VAL:HG22	2.51	0.45
17:1V:74:LYS:HB2	17:1V:83:ARG:HB2	1.99	0.45
18:1W:71:VAL:HA	18:1W:107:LEU:HD12	1.98	0.45
32:1a:93:G:O2'	32:1a:96:U:H5'	2.17	0.45
32:1a:1270:C:OP2	52:1u:24:ARG:NH2	2.48	0.45
32:1a:1338:G:H2'	32:1a:1339:A:C8	2.50	0.45
35:1d:140:VAL:HG11	35:1d:146:ILE:HD11	1.97	0.45
1:2A:776:G:H4'	1:2A:777:A:O5'	2.16	0.45
1:2A:1266:G:O5'	18:2W:15:ARG:NH2	2.49	0.45
1:2A:2683:C:OP1	15:2T:55:ASN:ND2	2.49	0.45
4:2E:144:ARG:HB3	4:2E:145:LYS:H	1.52	0.45
5:2F:40:GLN:HE22	5:2F:184:TYR:H	1.63	0.45
6:2G:142:PRO:HB2	26:24:31:ILE:HG21	1.98	0.45
8:2I:80:PRO:HA	8:2I:145:VAL:HG23	1.98	0.45
21:2Z:35:ARG:HA	21:2Z:35:ARG:HD2	1.79	0.45
27:25:16:ARG:HG3	27:25:17:ASP:N	2.31	0.45
32:2a:18:C:H4'	32:2a:1078:U:O2	2.17	0.45
32:2a:198:G:H2'	32:2a:199:G:H8	1.81	0.45
32:2a:1002:G:H1	32:2a:1038:C:N4	2.13	0.45
32:2a:1250:A:N3	32:2a:1370:G:O2'	2.39	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:2i:54:ASP:C	40:2i:56:LEU:H	2.24	0.45
50:2s:17:GLU:O	50:2s:21:GLU:HG3	2.16	0.45
50:2s:40:ILE:HB	50:2s:67:VAL:O	2.17	0.45
1:1A:956:G:H2'	1:1A:957:A:H2'	1.99	0.45
1:1A:1083:U:H2'	1:1A:1085:A:OP2	2.16	0.45
1:1A:1802:A:H2'	1:1A:1803:A:C8	2.51	0.45
7:1H:41:MET:HE1	7:1H:54:ARG:HB3	1.99	0.45
7:1H:71:LEU:HD12	7:1H:71:LEU:HA	1.81	0.45
13:1R:33:ARG:HH21	13:1R:113:LEU:HD22	1.82	0.45
21:1Z:156:LYS:HE3	21:1Z:158:PRO:HD3	1.98	0.45
31:19:32:HIS:O	31:19:34:GLN:HG3	2.16	0.45
32:1a:434:U:H2'	32:1a:435:C:O4'	2.16	0.45
32:1a:501:C:H2'	32:1a:502:G:C8	2.52	0.45
32:1a:1168:A:H2'	32:1a:1169:A:C8	2.51	0.45
32:1a:1262:C:H2'	32:1a:1263:C:C6	2.52	0.45
32:1a:1458:G:OP1	51:1t:35:THR:OG1	2.17	0.45
33:1b:189:ASP:OD1	33:1b:189:ASP:N	2.38	0.45
34:1c:6:HIS:HA	34:1c:7:PRO:HD3	1.85	0.45
39:1h:112:LEU:HB3	39:1h:133:LEU:HA	1.98	0.45
1:2A:84:A:H5''	20:2Y:8:LYS:HE3	1.98	0.45
1:2A:438:G:H2'	1:2A:440:G:C8	2.51	0.45
1:2A:484:C:H2'	1:2A:485:C:H6	1.82	0.45
1:2A:686:G:H21	1:2A:788:A:H61	1.64	0.45
1:2A:2144:U:H1'	1:2A:2148:G:N2	2.31	0.45
1:2A:2315:G:H2'	1:2A:2316:C:C6	2.52	0.45
62:2A:4140:HOH:O	5:2F:68:LYS:HE2	2.17	0.45
2:2B:14:U:OP2	2:2B:70:C:O2'	2.22	0.45
2:2B:55:U:H2'	2:2B:56:G:O4'	2.16	0.45
11:2P:6:LEU:HD23	11:2P:6:LEU:HA	1.75	0.45
21:2Z:92:SER:O	21:2Z:130:PRO:HG3	2.16	0.45
32:2a:123:C:OP1	32:2a:311:C:O2'	2.32	0.45
32:2a:271:C:H2'	32:2a:272:C:C6	2.52	0.45
33:2b:50:GLU:HB3	33:2b:200:ILE:O	2.16	0.45
35:2d:173:TRP:NE1	35:2d:189:PRO:HG3	2.32	0.45
40:2i:128:ARG:NH2	55:2x:33:U:OP2	2.49	0.45
1:1A:1218:C:H42	1:1A:1231:G:H1	1.63	0.45
1:1A:2525:G:C2	1:1A:2539:C:C2	3.05	0.45
5:1F:200:GLU:O	5:1F:204:ASN:ND2	2.47	0.45
9:1N:4:TYR:CD2	16:1U:100:VAL:HG11	2.51	0.45
11:1P:116:GLY:O	11:1P:137:LYS:NZ	2.28	0.45
15:1T:117:ASP:O	15:1T:121:ILE:HG13	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:90:U:O2'	32:1a:91:C:O5'	2.17	0.45
32:1a:958:A:C2	50:1s:55:LYS:HB2	2.51	0.45
32:1a:1064:G:H1'	32:1a:1190:G:H21	1.80	0.45
32:1a:1316:G:H22	32:1a:1319:A:H5''	1.81	0.45
33:1b:71:VAL:HA	33:1b:93:VAL:HG22	1.98	0.45
44:1m:29:ARG:HD3	44:1m:64:TRP:CE2	2.51	0.45
1:2A:863:A:H2'	1:2A:864:G:C8	2.52	0.45
1:2A:974:G:C4	1:2A:989:G:C2	3.05	0.45
1:2A:1009:A:H5''	16:2U:63:VAL:CG2	2.46	0.45
1:2A:1637:A:H4'	1:2A:2711:A:O2'	2.17	0.45
1:2A:1790:C:H5''	1:2A:1791:A:OP1	2.17	0.45
1:2A:2123:G:H2'	1:2A:2124:G:C8	2.52	0.45
1:2A:2506:U:O2	58:2A:3652:HGR:H23	2.16	0.45
3:2D:69:ARG:NE	3:2D:130:ALA:HB2	2.29	0.45
3:2D:168:ARG:HA	3:2D:173:VAL:HA	1.99	0.45
7:2H:3:ARG:HH11	7:2H:4:ILE:H	1.64	0.45
17:2V:27:ALA:O	17:2V:64:HIS:HE1	2.00	0.45
29:27:12:ARG:HG2	29:27:46:VAL:HB	1.98	0.45
32:2a:194:C:H2'	32:2a:195:A:H5''	1.97	0.45
32:2a:671:G:H1	32:2a:735:C:H42	1.64	0.45
32:2a:1123:A:H4'	41:2j:37:PRO:HD2	1.99	0.45
32:2a:1323:G:H2'	32:2a:1324:A:C8	2.51	0.45
32:2a:1338:G:N3	55:2x:41:C:O2'	2.44	0.45
32:2a:1469:G:H2'	32:2a:1470:G:H8	1.82	0.45
33:2b:75:LYS:O	33:2b:78:GLN:HB2	2.16	0.45
33:2b:219:VAL:HA	33:2b:222:ILE:HG12	1.97	0.45
35:2d:112:VAL:H	35:2d:116:GLN:NE2	2.14	0.45
35:2d:173:TRP:CZ3	35:2d:193:ASP:HB3	2.52	0.45
1:1A:412:A:H8	1:1A:412:A:O5'	2.00	0.45
1:1A:2156:G:H2'	1:1A:2157:G:C4	2.52	0.45
1:1A:2590:A:O3'	3:1D:239:ARG:NH2	2.50	0.45
21:1Z:125:LEU:C	21:1Z:164:ALA:HB3	2.42	0.45
32:1a:676:A:H1'	42:1k:115:PRO:HB3	1.98	0.45
32:1a:1191:A:OP2	34:1c:3:ASN:ND2	2.50	0.45
32:1a:1245:A:N6	32:1a:1292:U:H3	2.11	0.45
32:1a:1456:G:N2	51:1t:43:LEU:HD11	2.31	0.45
1:2A:52:A:OP2	1:2A:117:G:N1	2.39	0.45
1:2A:746:A:H2'	1:2A:2612:C:H5''	1.99	0.45
1:2A:1235:G:C6	1:2A:1236:G:N1	2.85	0.45
1:2A:1272:A:H3'	1:2A:1273:U:H5''	1.99	0.45
1:2A:1651:G:H2'	1:2A:1652:A:O4'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2080:G:OP1	23:21:35:THR:OG1	2.27	0.45
1:2A:2112:G:H2'	1:2A:2113:U:O4'	2.16	0.45
1:2A:2807:G:C2	1:2A:2808:U:H1'	2.51	0.45
15:2T:127:ALA:C	15:2T:129:ARG:N	2.70	0.45
32:2a:109:A:C6	32:2a:326:G:C6	3.05	0.45
32:2a:1256:A:H61	32:2a:1278:U:C1'	2.29	0.45
32:2a:1347:G:N2	32:2a:1373:G:H2'	2.30	0.45
32:2a:1401:G:OP1	53:2v:18:G:O2'	2.33	0.45
34:2c:122:GLU:HA	34:2c:125:GLU:CD	2.42	0.45
34:2c:164:ARG:HG2	34:2c:165:THR:H	1.82	0.45
1:1A:272(A):U:HO2'	1:1A:272(B):G:P	2.38	0.45
1:1A:839:U:H2'	1:1A:840:C:C6	2.52	0.45
1:1A:1271:G:OP2	62:1A:4012:HOH:O	2.21	0.45
1:1A:2143:C:C2	1:1A:2149:G:C2	3.05	0.45
23:11:52:ARG:HD2	23:11:55:GLY:C	2.42	0.45
32:1a:12:U:H4'	32:1a:526:C:H4'	1.98	0.45
32:1a:90:U:HO2'	32:1a:91:C:C5'	2.24	0.45
32:1a:390:C:H2'	32:1a:391:G:C8	2.51	0.45
32:1a:814:A:H2'	32:1a:816:A:H5''	1.97	0.45
32:1a:841:U:OP1	32:1a:841:U:H6	2.00	0.45
32:1a:982:U:H5''	45:1n:6:LEU:HD21	1.99	0.45
32:1a:986:A:H2'	32:1a:987:G:O4'	2.17	0.45
32:1a:1112:C:H1'	34:1c:179:ARG:HD3	1.99	0.45
32:1a:1216:G:OP1	45:1n:2:ALA:HA	2.17	0.45
32:1a:1286:A:H2'	32:1a:1287:A:H4'	1.97	0.45
33:1b:178:ARG:NH1	33:1b:196:LEU:O	2.50	0.45
43:1l:53:ARG:CB	43:1l:93:LEU:HD11	2.47	0.45
43:1l:60:LEU:HB2	43:1l:64:TYR:O	2.17	0.45
1:2A:661:C:H2'	1:2A:662:G:C8	2.51	0.45
1:2A:855:G:H2'	1:2A:856:C:C6	2.51	0.45
1:2A:1814:G:H2'	1:2A:1815:A:C8	2.52	0.45
1:2A:2749:A:H3'	1:2A:2750:A:H2'	1.98	0.45
20:2Y:97:ARG:H	20:2Y:97:ARG:HG3	1.63	0.45
32:2a:34:C:H2'	32:2a:35:G:H8	1.80	0.45
32:2a:58:C:O2'	32:2a:388:G:N7	2.34	0.45
32:2a:1305:G:OP1	52:2u:2:GLY:HA3	2.16	0.45
32:2a:1315:U:O2'	32:2a:1360:A:N3	2.44	0.45
34:2c:34:LEU:HD21	34:2c:38:ARG:HH22	1.80	0.45
46:2o:39:LEU:HD23	46:2o:39:LEU:HA	1.81	0.45
54:2y:18:G:C2	54:2y:57:G:N7	2.85	0.45
54:2y:33:U:H2'	54:2y:35:A:OP2	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1448:G:H1'	1:1A:1528:A:N1	2.31	0.45
1:1A:2660:A:H2'	1:1A:2661:G:O4'	2.16	0.45
1:1A:2712:U:OP1	1:1A:2714:G:H4'	2.16	0.45
3:1D:83:GLU:OE1	3:1D:104:TYR:OH	2.25	0.45
13:1R:36:THR:HG22	13:1R:37:THR:H	1.81	0.45
32:1a:461:A:O2'	32:1a:471:G:N7	2.48	0.45
32:1a:649:G:H2'	32:1a:650:G:C8	2.45	0.45
32:1a:1030(A):G:H2'	32:1a:1030(C):G:OP2	2.16	0.45
35:1d:109:GLY:HA3	35:1d:165:MET:HG3	1.98	0.45
36:1e:42:GLY:HA2	36:1e:65:ASN:O	2.17	0.45
1:2A:1455:G:C8	13:2R:60:LEU:HD11	2.52	0.45
1:2A:1592:C:H2'	1:2A:1593:G:C8	2.45	0.45
1:2A:1782:C:O2'	1:2A:2609:U:H5''	2.17	0.45
1:2A:2019:A:N7	27:25:9:LYS:HE2	2.32	0.45
1:2A:2865:U:C4	1:2A:2866:U:C4	3.05	0.45
7:2H:20:ALA:HB3	7:2H:23:ARG:HG3	1.98	0.45
11:2P:121:LYS:HD2	11:2P:123:LEU:HD11	1.98	0.45
14:2S:11:LYS:HG3	14:2S:91:PRO:HD3	1.99	0.45
16:2U:92:ARG:HA	16:2U:95:LEU:HB2	1.98	0.45
19:2X:11:PRO:HB3	19:2X:92:LEU:HD11	1.99	0.45
32:2a:299:G:H2'	32:2a:300:A:C8	2.52	0.45
32:2a:319:G:H2'	32:2a:320:C:O4'	2.17	0.45
32:2a:417:C:H2'	32:2a:418:C:C6	2.52	0.45
32:2a:918:A:H2'	32:2a:919:A:O4'	2.16	0.45
33:2b:127:ILE:HG12	33:2b:128:GLU:N	2.32	0.45
37:2f:97:PHE:HB2	49:2r:32:ARG:HD2	1.99	0.45
40:2i:18:PHE:N	40:2i:62:TYR:O	2.48	0.45
40:2i:99:LEU:HB3	40:2i:101:PHE:CE2	2.52	0.45
54:2w:58:A:O2'	54:2w:60:U:OP2	2.24	0.45
55:2x:19:G:C4	55:2x:57:A:C2	3.05	0.45
1:1A:238:C:H2'	1:1A:239:U:O4'	2.17	0.45
1:1A:465:G:C6	1:1A:466:A:N6	2.85	0.45
1:1A:515:A:H2	1:1A:1260:G:N3	2.14	0.45
1:1A:1053:C:N3	1:1A:1106:G:N2	2.57	0.45
1:1A:1759:A:H1'	1:1A:2711:A:C2	2.51	0.45
1:1A:2386:C:H2'	1:1A:2387:U:C6	2.52	0.45
1:1A:2445:G:OP1	5:1F:74:ARG:NH2	2.41	0.45
3:1D:159:ALA:HB1	3:1D:198:ASN:O	2.16	0.45
5:1F:184:TYR:CE2	5:1F:188:ARG:HD2	2.52	0.45
20:1Y:1:MET:SD	20:1Y:2:ARG:N	2.85	0.45
32:1a:78:G:O2'	32:1a:79:G:O4'	2.35	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:690:G:C6	32:1a:691:G:C6	3.05	0.45
32:1a:839:U:H4'	32:1a:840:C:OP2	2.16	0.45
32:1a:1299:A:H2'	32:1a:1299:A:N3	2.31	0.45
34:1c:59:ARG:HG2	34:1c:64:VAL:HG23	1.98	0.45
35:1d:107:ARG:NH2	35:1d:194:LEU:HD21	2.32	0.45
36:1e:90:VAL:O	36:1e:120:THR:HA	2.17	0.45
38:1g:108:ALA:O	38:1g:111:ARG:HB3	2.17	0.45
39:1h:9:MET:HG3	39:1h:26:VAL:HG11	1.98	0.45
42:1k:34:ASP:OD2	42:1k:38:ASN:HB2	2.17	0.45
44:1m:84:ILE:HD12	50:1s:74:PHE:CZ	2.52	0.45
45:1n:26:ARG:HD3	45:1n:43:CYS:SG	2.57	0.45
54:1w:22:G:O2'	54:1w:23:A:OP1	2.34	0.45
1:2A:606:U:H4'	1:2A:658:C:H4'	1.99	0.45
1:2A:1131:G:H4'	9:2N:82:LEU:HB2	1.99	0.45
1:2A:1922:G:H2'	1:2A:1923:U:O4'	2.17	0.45
1:2A:2080:G:H2'	1:2A:2081:C:H6	1.81	0.45
1:2A:2846:G:H2'	1:2A:2847:U:O4'	2.17	0.45
3:2D:108:PRO:HG2	3:2D:111:LEU:HB2	1.98	0.45
6:2G:16:ARG:NE	6:2G:31:VAL:HG11	2.32	0.45
26:24:48:ARG:HD3	26:24:48:ARG:HA	1.77	0.45
32:2a:882:C:N4	43:2l:5:PRO:HB3	2.32	0.45
32:2a:1011:G:H1	32:2a:1018:C:H42	1.64	0.45
32:2a:1328:C:OP1	52:2u:21:TYR:OH	2.16	0.45
32:2a:1405:G:H2'	32:2a:1406:U:C6	2.52	0.45
32:2a:1469:G:H2'	32:2a:1470:G:C8	2.52	0.45
32:2a:1510:U:H2'	32:2a:1511:G:C8	2.51	0.45
44:2m:3:ARG:HH22	44:2m:11:ARG:CZ	2.30	0.45
54:2y:3:C:N3	54:2y:70:G:O6	2.50	0.45
1:1A:658:C:H2'	1:1A:659:C:C6	2.52	0.44
1:1A:1032:A:H2	1:1A:1122:G:H22	1.63	0.44
1:1A:1971:A:OP1	62:1A:4064:HOH:O	2.21	0.44
1:1A:2561:A:H2'	1:1A:2562:U:O4'	2.17	0.44
3:1D:232:PRO:HB3	3:1D:244:ARG:CZ	2.47	0.44
4:1E:3:GLY:HA3	4:1E:81:ILE:HD12	1.98	0.44
16:1U:104:GLN:NE2	16:1U:105:VAL:HG23	2.32	0.44
20:1Y:35:TYR:CE2	20:1Y:69:ALA:HB3	2.52	0.44
21:1Z:9:TYR:OH	21:1Z:61:LEU:HD23	2.17	0.44
25:13:59:VAL:O	25:13:60:GLU:HG2	2.17	0.44
32:1a:222:U:H2'	32:1a:223:U:C6	2.52	0.44
32:1a:1444:C:H42	32:1a:1458:G:H1	1.64	0.44
1:2A:116:C:H2'	1:2A:117:G:O4'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:315:G:H2'	1:2A:316:C:C6	2.52	0.44
1:2A:320:A:N6	5:2F:140:LEU:HD21	2.32	0.44
1:2A:797:C:H2'	1:2A:798:G:O4'	2.17	0.44
1:2A:897:C:H1'	54:2w:56:C:H5	1.81	0.44
1:2A:946:G:H22	1:2A:972:G:H1'	1.82	0.44
1:2A:2164:C:H5''	1:2A:2165:G:OP2	2.16	0.44
1:2A:2370:G:C6	1:2A:2371:G:C6	3.05	0.44
1:2A:2484:G:C2	1:2A:2485:G:C8	3.04	0.44
1:2A:2886:G:H2'	1:2A:2887:U:C6	2.52	0.44
2:2B:50:G:OP2	14:2S:62:LYS:HB2	2.17	0.44
4:2E:2:LYS:NZ	4:2E:95:ILE:O	2.49	0.44
4:2E:52:LEU:O	4:2E:76:ARG:N	2.39	0.44
5:2F:31:HIS:HB2	11:2P:9:ASN:OD1	2.17	0.44
10:2O:68:GLU:OE1	10:2O:78:ARG:NH1	2.45	0.44
15:2T:23:ARG:NH1	15:2T:120:ARG:HD3	2.32	0.44
15:2T:117:ASP:O	15:2T:121:ILE:HG13	2.17	0.44
32:2a:684:A:O2'	42:2k:39:PRO:O	2.33	0.44
32:2a:1029:C:C4	32:2a:1032:G:C2	3.05	0.44
32:2a:1136:U:H5''	32:2a:1137:C:C5	2.52	0.44
32:2a:1256:A:N1	32:2a:1278:U:H1'	2.32	0.44
32:2a:1260:C:O5'	32:2a:1284:C:H4'	2.17	0.44
33:2b:8:LYS:HG3	33:2b:9:GLU:H	1.82	0.44
33:2b:95:GLN:HG3	33:2b:147:LYS:HE3	1.99	0.44
35:2d:104:VAL:HG21	35:2d:140:VAL:HG21	1.98	0.44
39:2h:36:LEU:HD23	39:2h:39:LEU:HD12	1.99	0.44
40:2i:105:ASP:HB2	40:2i:107:ARG:HG3	1.99	0.44
41:2j:7:LYS:HG2	41:2j:71:LEU:HD13	1.99	0.44
54:2w:27:G:N2	54:2w:43:C:C2	2.85	0.44
54:2y:67:C:H2'	54:2y:68:C:C6	2.52	0.44
1:1A:862:G:H2'	1:1A:863:A:O4'	2.17	0.44
1:1A:2120:G:O2'	1:1A:2121:G:H5'	2.18	0.44
2:1B:19:G:H2'	2:1B:20:C:O4'	2.17	0.44
8:1I:102:SER:OG	8:1I:103:ARG:N	2.49	0.44
11:1P:141:ALA:HA	25:23:38:GLU:CG	2.47	0.44
32:1a:404:U:H2'	32:1a:405:U:C6	2.52	0.44
32:1a:613:C:H2'	32:1a:614:A:C8	2.53	0.44
32:1a:1164:G:H2'	32:1a:1165:C:C6	2.53	0.44
34:1c:150:LYS:HD3	34:1c:152:ILE:HD11	2.00	0.44
42:1k:43:SER:HA	42:1k:47:VAL:HG21	1.98	0.44
1:2A:298:G:H5''	1:2A:299:A:OP1	2.18	0.44
1:2A:375:C:H2'	1:2A:376:C:C6	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1853:A:N1	1:2A:2087:G:H1'	2.33	0.44
5:2F:110:LEU:HD22	5:2F:205:ARG:HD2	1.98	0.44
11:2P:62:LEU:O	30:28:13:ARG:NH1	2.49	0.44
15:2T:26:ASP:O	15:2T:49:VAL:HG22	2.17	0.44
26:24:34:GLU:HA	44:2m:57:ARG:NH1	2.32	0.44
32:2a:278:G:OP2	48:2q:41:LYS:NZ	2.30	0.44
32:2a:723:U:O2'	32:2a:724:G:H5'	2.18	0.44
32:2a:1004:A:H62	32:2a:1037:C:H2'	1.82	0.44
32:2a:1030(C):G:N7	32:2a:1031:G:N2	2.65	0.44
32:2a:1122:U:N3	32:2a:1123:A:N7	2.65	0.44
32:2a:1134:G:H2'	32:2a:1134:G:N3	2.31	0.44
33:2b:7:VAL:HG12	33:2b:8:LYS:HG2	1.99	0.44
33:2b:80:ILE:HG12	33:2b:215:LEU:HD12	2.00	0.44
33:2b:118:LEU:HD23	33:2b:118:LEU:HA	1.76	0.44
38:2g:26:PHE:O	38:2g:30:ILE:HG13	2.18	0.44
44:2m:37:THR:HG21	44:2m:56:LEU:HA	2.00	0.44
46:2o:74:ASP:OD1	46:2o:76:GLU:HB3	2.17	0.44
1:1A:1035:U:OP1	7:1H:59:ARG:NH1	2.51	0.44
1:1A:1072:C:H2'	1:1A:1093:G:O6	2.17	0.44
1:1A:1337:G:H2'	1:1A:1338:G:O4'	2.16	0.44
1:1A:1697:G:OP2	1:1A:1698:A:O2'	2.23	0.44
1:1A:1717:G:H2'	1:1A:1718:G:H8	1.82	0.44
1:1A:1825:A:OP1	3:1D:249:PRO:HD3	2.18	0.44
1:1A:2489:G:O6	1:1A:2490:G:N1	2.51	0.44
20:1Y:54:LYS:HA	20:1Y:56:PRO:HD3	1.99	0.44
21:1Z:72:ARG:NH2	21:1Z:97:GLU:O	2.50	0.44
31:19:25:VAL:HB	31:19:34:GLN:HB2	2.00	0.44
32:1a:262:A:H4'	51:1t:75:ASN:HB2	2.00	0.44
32:1a:418:C:H1'	32:1a:540:G:O2'	2.18	0.44
32:1a:1469:G:H2'	32:1a:1470:G:C8	2.52	0.44
1:2A:793:A:OP2	1:2A:2071:A:O2'	2.33	0.44
1:2A:1042:G:C4	1:2A:1043:C:H5	2.34	0.44
1:2A:1131:G:C8	1:2A:2025:C:H4'	2.51	0.44
1:2A:1131:G:O6	1:2A:2040:C:H1'	2.17	0.44
1:2A:1200:C:H1'	16:2U:2:PRO:HG3	1.98	0.44
1:2A:1319:G:C6	1:2A:1320:C:N4	2.85	0.44
1:2A:1448:G:H4'	1:2A:1542:A:OP1	2.18	0.44
1:2A:1450:G:H1	1:2A:1462:C:H42	1.64	0.44
1:2A:1611:C:OP1	62:2A:3760:HOH:O	2.21	0.44
1:2A:1662:C:O2'	1:2A:2687:U:OP1	2.33	0.44
1:2A:2365:G:O6	30:28:39:LYS:HE3	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:2O:120:GLU:HG3	32:2a:346:G:OP2	2.16	0.44
11:2P:59:LEU:HD23	30:28:13:ARG:HD2	2.00	0.44
14:2S:8:GLU:H	14:2S:8:GLU:HG2	1.48	0.44
21:2Z:159:PRO:HA	21:2Z:161:VAL:HG12	1.99	0.44
32:2a:1030(A):G:N2	32:2a:1030(C):G:H3'	2.33	0.44
32:2a:1240:U:OP2	38:2g:116:ALA:N	2.48	0.44
38:2g:51:GLN:O	38:2g:55:GLY:HA2	2.18	0.44
42:2k:43:SER:HB3	42:2k:68:ALA:HB2	2.00	0.44
43:2l:110:VAL:HG23	43:2l:120:TYR:HB3	1.99	0.44
48:2q:74:LEU:HD23	48:2q:75:ARG:HB3	1.99	0.44
48:2q:92:ARG:HH11	48:2q:95:TYR:HE2	1.64	0.44
55:2x:27:U:O2	55:2x:44:A:H2	2.00	0.44
1:1A:250:G:C6	1:1A:251:A:C6	3.06	0.44
1:1A:389:G:N1	11:1P:70:GLN:HG3	2.32	0.44
1:1A:667:U:O2	30:18:2:PRO:HD2	2.16	0.44
1:1A:1011:G:OP2	16:1U:66:ASN:ND2	2.45	0.44
1:1A:2461:C:H2'	1:1A:2462:U:C6	2.52	0.44
2:1B:7:G:H5'	14:1S:29:PHE:CE2	2.52	0.44
5:1F:183:VAL:O	5:1F:187:VAL:HG23	2.17	0.44
21:1Z:130:PRO:HA	21:1Z:133:ILE:HG13	1.99	0.44
22:10:29:GLN:O	22:10:67:VAL:HG23	2.17	0.44
32:1a:441:A:H8	32:1a:441:A:OP2	1.99	0.44
32:1a:1104:G:H4'	33:1b:111:ARG:NH2	2.33	0.44
32:1a:1179:A:H2'	32:1a:1180:A:O4'	2.17	0.44
33:1b:47:THR:O	33:1b:51:LEU:N	2.48	0.44
33:1b:54:THR:HG23	33:1b:199:TYR:HB3	2.00	0.44
46:1o:74:ASP:HB3	46:1o:77:ARG:HB2	1.98	0.44
50:1s:80:TYR:O	50:1s:82:GLY:N	2.47	0.44
1:2A:271(P):C:H2'	1:2A:271(Q):G:H8	1.82	0.44
1:2A:387:U:P	23:21:20:ARG:HH12	2.40	0.44
1:2A:468:G:H5''	5:2F:60:SER:HB2	2.00	0.44
1:2A:856:C:HO2'	1:2A:857:C:P	2.40	0.44
1:2A:1011:G:H5''	16:2U:77:SER:OG	2.17	0.44
1:2A:1231:G:H2'	1:2A:1232:G:C8	2.53	0.44
1:2A:2249:U:N3	1:2A:2253:G:OP2	2.48	0.44
13:2R:18:LEU:HD21	13:2R:22:ARG:NH1	2.32	0.44
32:2a:384:G:H2'	32:2a:385:C:C6	2.52	0.44
32:2a:404:U:H2'	32:2a:405:U:C6	2.52	0.44
32:2a:913:A:OP1	43:2l:46:LYS:NZ	2.45	0.44
32:2a:1084:G:C5	32:2a:1085:U:C4	3.05	0.44
33:2b:69:LEU:HD11	33:2b:93:VAL:HG13	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:221:LEU:HA	33:2b:224:GLN:HG2	1.99	0.44
46:2o:54:ARG:HG2	46:2o:58:MET:HE2	1.99	0.44
47:2p:4:ILE:HB	47:2p:66:PRO:HA	1.99	0.44
48:2q:6:LEU:HD23	48:2q:23:VAL:HG21	1.98	0.44
48:2q:70:ARG:O	48:2q:71:PHE:HD1	2.00	0.44
50:2s:66:MET:HB2	50:2s:74:PHE:HZ	1.82	0.44
54:2y:69:G:H2'	54:2y:70:G:O4'	2.16	0.44
1:1A:476:G:H4'	1:1A:502:A:N1	2.32	0.44
1:1A:994:C:OP1	16:1U:53:ARG:NH2	2.51	0.44
1:1A:1653:G:O3'	13:1R:2:ARG:HB2	2.17	0.44
1:1A:1930:G:O2'	1:1A:1968:G:O6	2.30	0.44
1:1A:1939:5MU:OP1	1:1A:2604:U:O2'	2.34	0.44
1:1A:2028:U:H2'	1:1A:2029:G:O4'	2.17	0.44
1:1A:2233:U:H2'	1:1A:2234:G:C8	2.53	0.44
1:1A:2308:G:O2'	1:1A:2310:A:N7	2.43	0.44
1:1A:2753:A:N3	31:19:15:LYS:NZ	2.59	0.44
5:1F:109:GLY:HA2	5:1F:112:MET:HE3	1.98	0.44
32:1a:257:G:C6	32:1a:258:G:C5	3.05	0.44
32:1a:688:G:H5'	42:1k:46:GLY:C	2.42	0.44
32:1a:1013:G:N2	32:1a:1016:A:OP2	2.44	0.44
32:1a:1262:C:H2'	32:1a:1263:C:H6	1.82	0.44
32:1a:1284:C:H3'	32:1a:1285:A:C8	2.52	0.44
32:1a:1342:C:H2'	32:1a:1343:G:C8	2.52	0.44
45:1n:2:ALA:HB1	45:1n:6:LEU:HD22	2.00	0.44
1:2A:392:C:H5''	1:2A:409:C:H5''	2.00	0.44
1:2A:728:G:H5''	3:2D:13:ARG:NH2	2.33	0.44
1:2A:1037:G:H2'	1:2A:1038:C:O4'	2.17	0.44
1:2A:1225:G:C6	1:2A:1226:A:C6	3.06	0.44
1:2A:1430:C:H2'	1:2A:1431:U:C6	2.53	0.44
1:2A:2010:G:H5''	18:2W:42:ARG:HB2	1.99	0.44
1:2A:2275:C:H6	1:2A:2275:C:H5'	1.82	0.44
1:2A:2543:G:C2	1:2A:2765:A:H2'	2.53	0.44
1:2A:2870:C:H5''	13:2R:65:LEU:HD21	1.99	0.44
15:2T:39:ARG:HH12	15:2T:41:ARG:HB3	1.82	0.44
21:2Z:105:VAL:O	21:2Z:140:ASP:HA	2.16	0.44
32:2a:528:C:H5'	32:2a:529:G:OP2	2.17	0.44
32:2a:1118:C:H1'	32:2a:1179:A:C4	2.52	0.44
33:2b:31:TYR:HB3	33:2b:202:PRO:HB3	2.00	0.44
33:2b:133:LYS:O	33:2b:137:ARG:HG3	2.18	0.44
38:2g:78:ARG:HG2	38:2g:79:ARG:N	2.32	0.44
46:2o:48:LYS:HD3	46:2o:48:LYS:HA	1.54	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:2q:3:LYS:HD3	48:2q:61:GLU:O	2.18	0.44
1:1A:8:A:H2'	1:1A:9:U:H6	1.83	0.44
1:1A:301:G:H1'	1:1A:302:C:C6	2.52	0.44
1:1A:303:U:H2'	1:1A:304:G:H8	1.83	0.44
1:1A:396:G:H1'	23:11:42:GLN:HB3	2.00	0.44
1:1A:1065:U:H5''	1:1A:1066:U:OP2	2.18	0.44
1:1A:1430:C:H2'	1:1A:1431:U:C6	2.52	0.44
1:1A:1693:U:O2	3:1D:14:ARG:NH1	2.50	0.44
1:1A:1769:G:O2'	1:1A:1958:C:OP1	2.26	0.44
1:1A:2497:A:H5''	62:1A:4274:HOH:O	2.16	0.44
1:1A:2881:C:H2'	1:1A:2882:A:O4'	2.17	0.44
4:1E:31:CYS:HA	4:1E:32:PRO:HD2	1.83	0.44
5:1F:28:ILE:O	5:1F:30:PRO:HD3	2.18	0.44
8:1I:109:ILE:HG23	8:1I:130:TYR:CZ	2.52	0.44
15:1T:108:ARG:HG3	15:1T:109:GLU:N	2.31	0.44
26:14:61:ARG:HH21	50:1s:9:VAL:HG21	1.81	0.44
32:1a:255:G:H1'	48:1q:16:GLN:OE1	2.18	0.44
32:1a:657:G:H4'	46:1o:28:GLN:HG2	1.98	0.44
32:1a:971:G:N1	32:1a:1363(A):A:OP2	2.48	0.44
32:1a:1412:C:H2'	32:1a:1413:A:C8	2.53	0.44
38:1g:77:SER:HA	38:1g:85:TYR:O	2.17	0.44
48:1q:45:HIS:CD2	48:1q:47:PRO:HG3	2.53	0.44
1:2A:336:C:P	20:2Y:84:ARG:HG2	2.58	0.44
1:2A:340:A:H2'	1:2A:341:G:O4'	2.18	0.44
1:2A:1221(A):C:C2	1:2A:1229:G:C2	3.06	0.44
1:2A:2046:G:O5'	27:25:19:ARG:HA	2.17	0.44
1:2A:2125:G:N1	1:2A:2172:U:OP1	2.39	0.44
1:2A:2420:C:H5'	28:26:54:ILE:HD11	2.00	0.44
2:2B:66:A:H61	2:2B:109:C:H5''	1.83	0.44
4:2E:72:VAL:HA	4:2E:73:GLU:CB	2.48	0.44
10:2O:36:GLY:HA3	10:2O:109:LYS:HG3	2.00	0.44
32:2a:46:G:O2'	32:2a:365:U:H1'	2.17	0.44
32:2a:165:C:H2'	32:2a:166:G:H8	1.81	0.44
32:2a:865:A:H5'	32:2a:1078:U:C5	2.53	0.44
32:2a:1151:A:N3	41:2j:39:PRO:HG3	2.33	0.44
32:2a:1321:C:OP2	32:2a:1322:C:O2'	2.29	0.44
32:2a:1502:A:C8	32:2a:1505:G:N2	2.86	0.44
33:2b:28:PHE:CE2	33:2b:31:TYR:HB2	2.52	0.44
44:2m:108:ARG:CZ	44:2m:114:ARG:HG2	2.47	0.44
1:1A:223:A:O4'	1:1A:422:A:H5'	2.18	0.44
1:1A:271(P):C:O3'	8:1I:42:SER:OG	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:446:G:OP1	16:1U:3:ARG:NH1	2.48	0.44
1:1A:1105:U:C2	1:1A:1106:G:N7	2.86	0.44
1:1A:1557:C:H5''	1:1A:1558:A:OP2	2.18	0.44
1:1A:2359:C:H2'	1:1A:2360:A:O4'	2.17	0.44
2:1B:51:G:N7	14:1S:62:LYS:NZ	2.57	0.44
3:1D:242:ARG:HD2	3:1D:246:PRO:HG3	1.98	0.44
24:12:23:LYS:O	24:12:27:GLU:HG3	2.18	0.44
32:1a:116:A:H61	32:1a:313:A:H1'	1.82	0.44
32:1a:1065:U:H4'	32:1a:1066:C:O5'	2.16	0.44
32:1a:1315:U:H2'	32:1a:1316:G:O4'	2.18	0.44
33:1b:195:ASP:O	39:1h:68:ARG:NH2	2.45	0.44
35:1d:178:VAL:O	35:1d:179:GLU:HB2	2.18	0.44
39:1h:81:HIS:HB2	39:1h:138:TRP:CD1	2.52	0.44
41:1j:40:LEU:HB2	41:1j:69:ASN:CB	2.43	0.44
45:1n:3:ARG:HA	45:1n:3:ARG:HD3	1.77	0.44
54:1y:18:G:N2	54:1y:58:A:O4'	2.50	0.44
1:2A:774:A:H2'	1:2A:774:A:N3	2.32	0.44
1:2A:1311:G:H2'	29:27:47:ARG:HH22	1.82	0.44
2:2B:13:A:H4'	2:2B:15:A:C5	2.52	0.44
2:2B:73:A:C4	2:2B:105:A:C2	3.05	0.44
3:2D:2:ALA:O	3:2D:3:VAL:HB	2.16	0.44
10:2O:73:ASP:OD2	15:2T:32:TYR:OH	2.24	0.44
11:2P:62:LEU:HD11	30:28:50:LEU:HD11	2.00	0.44
12:2Q:22:LYS:O	21:2Z:78:LYS:HE3	2.17	0.44
16:2U:66:ASN:HD21	16:2U:70:ARG:HH21	1.64	0.44
16:2U:98:LEU:HD22	16:2U:105:VAL:HG11	1.99	0.44
19:2X:5:TYR:CZ	24:22:30:ARG:HD2	2.53	0.44
21:2Z:28:MET:HE1	21:2Z:61:LEU:HD21	2.00	0.44
32:2a:131:C:H2'	32:2a:132:C:C6	2.52	0.44
32:2a:405:U:H5''	32:2a:495:A:C2	2.52	0.44
32:2a:537:G:H2'	32:2a:538:G:H8	1.82	0.44
32:2a:619:U:N3	35:2d:134:ASP:OD1	2.44	0.44
32:2a:1074:G:H1	32:2a:1083:U:H3	1.66	0.44
32:2a:1256:A:H61	32:2a:1278:U:H1'	1.82	0.44
32:2a:1289:A:N1	32:2a:1371:G:O2'	2.46	0.44
32:2a:1333:A:H3'	32:2a:1334:G:H8	1.83	0.44
33:2b:28:PHE:CD1	33:2b:194:PRO:HG3	2.53	0.44
33:2b:31:TYR:O	33:2b:42:ILE:HG23	2.18	0.44
33:2b:112:VAL:HG22	33:2b:149:LEU:HD13	2.00	0.44
35:2d:163:GLU:O	35:2d:166:LYS:HG2	2.17	0.44
37:2f:2:ARG:HD3	37:2f:92:LYS:NZ	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:2w:66:U:H2'	54:2w:67:C:O4'	2.18	0.44
1:1A:557:U:H2'	1:1A:558:G:C8	2.53	0.44
1:1A:642:G:N2	1:1A:645:C:OP2	2.48	0.44
1:1A:848:G:O6	1:1A:928:G:H2'	2.18	0.44
1:1A:1024:G:C6	1:1A:1025:G:C6	3.06	0.44
1:1A:1149:G:H2'	1:1A:1150:C:C6	2.53	0.44
32:1a:942:G:C2	32:1a:1342:C:C2	3.06	0.44
32:1a:952:U:H2'	32:1a:953:G:C8	2.53	0.44
40:1i:19:LEU:HD12	40:1i:84:ALA:HB3	1.98	0.44
49:1r:65:ILE:O	49:1r:69:THR:HG23	2.17	0.44
1:2A:492:A:H2'	1:2A:493:G:O4'	2.17	0.44
1:2A:918:A:O2'	2:2B:97:G:N2	2.46	0.44
1:2A:1201:C:H2'	1:2A:1202:C:C6	2.53	0.44
1:2A:1231:G:H2'	1:2A:1232:G:H8	1.83	0.44
1:2A:2274:A:C5	1:2A:2276:G:C8	3.05	0.44
1:2A:2351:G:HO2'	1:2A:2352:A:H8	1.64	0.44
6:2G:36:LYS:HD3	6:2G:95:ARG:NH1	2.33	0.44
7:2H:8:PRO:O	7:2H:10:PRO:HD3	2.17	0.44
12:2Q:19:GLY:O	12:2Q:98:LYS:HE3	2.17	0.44
21:2Z:50:GLN:OE1	21:2Z:50:GLN:N	2.51	0.44
27:25:8:LYS:O	27:25:9:LYS:HD2	2.18	0.44
32:2a:108:G:OP1	32:2a:326:G:N2	2.43	0.44
32:2a:1320:C:H2'	32:2a:1321:C:O4'	2.18	0.44
34:2c:36:ASP:HA	34:2c:39:ILE:HD12	2.00	0.44
34:2c:108:ASN:HA	34:2c:109:PRO:HD2	1.91	0.44
39:2h:103:VAL:HG21	39:2h:109:ILE:C	2.43	0.44
41:2j:6:ILE:O	41:2j:71:LEU:HD12	2.18	0.44
41:2j:42:THR:HG21	41:2j:66:ARG:HB3	1.99	0.44
49:2r:66:LEU:O	49:2r:70:ILE:HG13	2.18	0.44
1:1A:210:C:H2'	1:1A:211:A:C8	2.52	0.44
1:1A:288:C:H2'	1:1A:289:A:C8	2.51	0.44
1:1A:548:A:H1'	1:1A:549:G:OP1	2.17	0.44
1:1A:828:U:H4'	1:1A:831:G:N1	2.32	0.44
1:1A:1766:U:H2'	1:1A:1767:C:H6	1.83	0.44
1:1A:1790:C:H2'	1:1A:1791:A:C5	2.53	0.44
1:1A:2695:C:H2'	1:1A:2696:U:C6	2.53	0.44
3:1D:127:VAL:HA	3:1D:193:VAL:HG22	1.99	0.44
4:1E:51:PHE:O	4:1E:77:ILE:HD12	2.17	0.44
5:1F:184:TYR:O	5:1F:188:ARG:HG3	2.17	0.44
7:1H:13:LYS:HE2	7:1H:13:LYS:HB3	1.82	0.44
8:1I:5:LEU:HD11	8:1I:19:VAL:HG22	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:1Z:54:HIS:ND1	21:1Z:101:PRO:HG3	2.33	0.44
30:18:26:LYS:HG2	30:18:46:ARG:O	2.18	0.44
32:1a:44:G:C2	32:1a:45:U:H1'	2.53	0.44
32:1a:240:C:H2'	32:1a:241:C:C6	2.52	0.44
32:1a:410:G:OP1	35:1d:30:LYS:NZ	2.39	0.44
32:1a:1360:A:H8	32:1a:1360:A:OP1	2.01	0.44
33:1b:124:SER:HA	33:1b:125:PRO:HA	1.56	0.44
40:1i:3:GLN:HE21	40:1i:20:ARG:NH2	2.15	0.44
1:2A:571:A:H5'	1:2A:2030:A:N7	2.33	0.44
1:2A:1037:G:H1	1:2A:1118:C:H42	1.65	0.44
1:2A:1232:G:H2'	1:2A:1233:C:C6	2.53	0.44
1:2A:2141:G:H2'	1:2A:2142:C:O4'	2.18	0.44
1:2A:2526:G:O3'	31:29:33:LYS:NZ	2.49	0.44
1:2A:2785:C:O2'	4:2E:66:HIS:ND1	2.50	0.44
9:2N:108:PRO:O	9:2N:113:GLY:HA3	2.18	0.44
10:2O:78:ARG:HH22	15:2T:75:ILE:HD11	1.82	0.44
12:2Q:16:ARG:HG2	12:2Q:18:LYS:HZ3	1.82	0.44
14:2S:68:GLN:HA	14:2S:71:ARG:HD3	2.00	0.44
19:2X:55:ASN:O	19:2X:79:ALA:HA	2.18	0.44
32:2a:93:G:C6	32:2a:96:U:C4	3.06	0.44
33:2b:97:TRP:HH2	33:2b:176:GLU:CD	2.26	0.44
36:2e:152:ARG:HG2	39:2h:42:GLU:O	2.17	0.44
39:2h:121:ASP:N	39:2h:121:ASP:OD1	2.51	0.44
50:2s:41:VAL:O	50:2s:44:MET:N	2.44	0.44
1:1A:478:A:OP1	62:1A:4066:HOH:O	2.21	0.43
1:1A:2074:U:H2'	1:1A:2075:U:C6	2.53	0.43
1:1A:2107:C:N4	1:1A:2182:G:H1	2.16	0.43
1:1A:2691:C:O3'	1:1A:2871:C:H4'	2.18	0.43
1:1A:2729:G:O2'	4:1E:186:GLY:HA3	2.18	0.43
11:1P:59:LEU:HD21	30:18:10:ALA:HA	2.00	0.43
13:1R:65:LEU:HA	13:1R:65:LEU:HD12	1.64	0.43
21:1Z:14:LYS:HA	21:1Z:15:PRO:HD3	1.86	0.43
32:1a:575:G:O2'	32:1a:821:G:H5'	2.18	0.43
33:1b:74:LYS:NZ	33:1b:205:ASP:O	2.41	0.43
33:1b:209:ARG:O	33:1b:213:LEU:N	2.46	0.43
41:1j:11:PHE:HE1	41:1j:67:THR:HG22	1.82	0.43
46:1o:8:LYS:O	46:1o:12:ILE:HG13	2.18	0.43
46:1o:39:LEU:HD23	46:1o:39:LEU:C	2.43	0.43
46:1o:53:HIS:O	46:1o:56:LEU:HB3	2.18	0.43
49:1r:31:LEU:HD12	49:1r:65:ILE:HB	2.00	0.43
1:2A:100:G:H3'	1:2A:102:G:C5'	2.47	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:510:C:H2'	1:2A:511:U:O4'	2.18	0.43
1:2A:864:G:N2	1:2A:913:U:C2	2.86	0.43
1:2A:2030:A:H4'	1:2A:2031:A:C8	2.53	0.43
1:2A:2685:G:OP1	15:2T:51:ARG:NH1	2.42	0.43
1:2A:2747:G:OP1	7:2H:74:ASN:ND2	2.51	0.43
1:2A:2752:C:H2'	1:2A:2753:A:O4'	2.18	0.43
2:2B:110:G:C6	2:2B:111:G:N7	2.85	0.43
5:2F:129:PHE:CD2	5:2F:163:VAL:HG21	2.53	0.43
15:2T:91:ARG:HD2	15:2T:120:ARG:NH1	2.33	0.43
29:27:12:ARG:NH2	29:27:44:PRO:HB3	2.32	0.43
32:2a:8:A:N6	35:2d:209:ARG:HB2	2.33	0.43
32:2a:881:G:H2'	32:2a:882:C:O4'	2.18	0.43
32:2a:1097:C:H1'	32:2a:1170:A:H1'	2.00	0.43
32:2a:1343:G:H1'	40:2i:121:ARG:NH1	2.26	0.43
32:2a:1359:C:O2'	32:2a:1362:C:N4	2.51	0.43
33:2b:20:GLU:HB2	33:2b:190:THR:OG1	2.18	0.43
33:2b:87:ARG:NH2	33:2b:231:GLU:O	2.48	0.43
37:2f:37:VAL:HA	37:2f:65:VAL:HG12	2.00	0.43
53:2v:14:A:C2	54:2y:34:G:C2	3.06	0.43
1:1A:1173:G:OP2	1:1A:1173:G:H2'	2.19	0.43
1:1A:1331:A:H2'	1:1A:1333:C:C5	2.53	0.43
1:1A:1608:A:H1'	1:1A:1610:A:OP2	2.18	0.43
1:1A:1766:U:H2'	1:1A:1767:C:C6	2.52	0.43
1:1A:2279:G:O6	22:10:14:ARG:HG3	2.18	0.43
1:1A:2722:G:H2'	1:1A:2723:C:C6	2.54	0.43
9:1N:60:ILE:HD13	9:1N:99:LEU:HD12	1.99	0.43
12:1Q:35:VAL:HG12	12:1Q:130:LYS:O	2.18	0.43
27:15:8:LYS:O	27:15:9:LYS:HD2	2.17	0.43
32:1a:123:C:OP1	32:1a:311:C:O2'	2.33	0.43
32:1a:271:C:H2'	32:1a:272:C:C6	2.53	0.43
32:1a:288:A:H2'	32:1a:289:G:H4'	2.00	0.43
32:1a:750:G:O2'	46:1o:21:ASP:HB2	2.18	0.43
32:1a:948:C:OP1	44:1m:109:THR:OG1	2.33	0.43
32:1a:993:G:O6	32:1a:1045:C:N4	2.45	0.43
32:1a:1004:A:C6	32:1a:1037:C:N3	2.86	0.43
32:1a:1114:C:H42	32:1a:1186:G:H1	1.66	0.43
51:1t:9:ASN:O	51:1t:10:LEU:HB2	2.17	0.43
1:2A:894:C:N4	1:2A:895:U:O4	2.52	0.43
1:2A:1153:C:OP1	16:2U:92:ARG:NH2	2.51	0.43
1:2A:2049:G:C2'	1:2A:2050:C:H5'	2.48	0.43
1:2A:2689:U:OP2	1:2A:2719:G:N2	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2B:78:A:H2'	2:2B:79:C:O4'	2.18	0.43
7:2H:54:ARG:HB3	7:2H:65:HIS:CG	2.53	0.43
10:2O:17:ARG:HA	10:2O:17:ARG:HD3	1.79	0.43
19:2X:61:GLY:HA3	19:2X:73:ARG:O	2.18	0.43
32:2a:376:G:C5'	47:2p:5:ARG:HD3	2.48	0.43
32:2a:812:C:N3	62:2a:3235:HOH:O	2.36	0.43
32:2a:901:A:C5	32:2a:902:G:H1'	2.53	0.43
34:2c:34:LEU:HG	34:2c:38:ARG:NH1	2.31	0.43
38:2g:50:ILE:HG22	38:2g:125:MET:HG3	2.00	0.43
41:2j:16:LEU:HD23	41:2j:16:LEU:HA	1.81	0.43
51:2t:60:GLU:HG3	51:2t:81:LYS:HD2	2.01	0.43
54:2y:59:U:O5'	54:2y:59:U:H6	2.01	0.43
1:1A:256:A:H2'	1:1A:257:A:C8	2.52	0.43
1:1A:878:A:H3'	1:1A:879:G:C8	2.53	0.43
1:1A:1906:G:H5''	1:1A:1929:G:O2'	2.18	0.43
1:1A:2267:A:H5''	1:1A:2268:A:H5'	1.99	0.43
5:1F:172:TRP:CD1	5:1F:172:TRP:H	2.37	0.43
8:1I:4:ILE:HD11	8:1I:44:LEU:HD12	2.00	0.43
10:1O:104:ARG:NH2	15:1T:36:GLU:OE2	2.39	0.43
19:1X:50:LYS:HB3	19:1X:84:ALA:HB2	2.00	0.43
20:1Y:20:TYR:HB3	20:1Y:23:ARG:HG3	2.00	0.43
21:1Z:28:MET:HE1	21:1Z:61:LEU:HD21	2.00	0.43
32:1a:616:G:O2'	32:1a:617:G:H5'	2.18	0.43
32:1a:1086:U:H3	32:1a:1099:G:H22	1.64	0.43
33:1b:30:ARG:HH21	33:1b:194:PRO:HB2	1.83	0.43
33:1b:153:ARG:HE	33:1b:153:ARG:HB3	1.57	0.43
48:1q:67:LYS:O	48:1q:68:ARG:HB2	2.18	0.43
49:1r:21:LYS:NZ	49:1r:54:ARG:O	2.51	0.43
54:1w:45:U:H5''	54:1w:46:7MG:OP2	2.19	0.43
55:1x:46:G:H5''	55:1x:47:U:OP2	2.18	0.43
1:2A:68:G:H2'	1:2A:69:C:O4'	2.18	0.43
1:2A:620:G:H8	1:2A:622:G:O6	2.02	0.43
1:2A:1541:G:OP2	1:2A:1542:A:O2'	2.27	0.43
1:2A:1946:U:H2'	1:2A:1947:C:C6	2.53	0.43
1:2A:2243:U:H2'	1:2A:2244:U:C6	2.53	0.43
1:2A:2369:A:H2'	1:2A:2370:G:C8	2.54	0.43
2:2B:28:C:H2'	2:2B:29:A:O4'	2.17	0.43
5:2F:197:ASP:O	5:2F:200:GLU:HB2	2.18	0.43
21:2Z:102:LEU:HD23	21:2Z:139:VAL:HG21	2.01	0.43
32:2a:64:G:C4'	32:2a:65:U:H3'	2.39	0.43
32:2a:1002:G:C2	32:2a:1003:G:H1'	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1002:G:N3	32:2a:1003:G:H1'	2.33	0.43
32:2a:1120:G:C6	32:2a:1121:U:C4	3.06	0.43
32:2a:1441:G:H8	32:2a:1441:G:O5'	2.01	0.43
33:2b:107:THR:O	33:2b:110:GLN:HB3	2.19	0.43
33:2b:149:LEU:HD22	33:2b:152:PHE:HD2	1.84	0.43
34:2c:78:GLY:HA3	34:2c:83:ARG:H	1.83	0.43
35:2d:110:PHE:N	35:2d:110:PHE:CD1	2.86	0.43
37:2f:95:GLU:HA	37:2f:96:PRO:HD3	1.89	0.43
38:2g:149:ARG:HB3	42:2k:59:TYR:CE2	2.53	0.43
41:2j:35:SER:HB3	41:2j:73:ASP:HB2	2.00	0.43
50:2s:50:ALA:HB1	50:2s:57:HIS:HB3	1.99	0.43
1:1A:604:G:C6	1:1A:605:C:C4	3.06	0.43
1:1A:1022:G:N7	9:1N:66:LYS:HE2	2.33	0.43
1:1A:1056:G:H5''	1:1A:1057:A:O4'	2.18	0.43
1:1A:1542:A:H8	1:1A:1542:A:OP1	2.02	0.43
1:1A:1889:A:N1	1:1A:2234:G:H1'	2.33	0.43
1:1A:2098:U:H3	1:1A:2191:G:H1	1.65	0.43
1:1A:2489:G:C6	1:1A:2490:G:N1	2.87	0.43
1:1A:2685:G:H5'	10:1O:68:GLU:OE2	2.18	0.43
1:1A:2790:A:H5'	1:1A:2893:G:H21	1.83	0.43
9:1N:28:THR:HG22	9:1N:29:LYS:N	2.33	0.43
18:1W:11:ARG:HA	18:1W:100:THR:HG22	2.01	0.43
32:1a:60:A:H4'	32:1a:61:G:H5'	2.00	0.43
32:1a:540:G:H2'	32:1a:541:G:O4'	2.18	0.43
32:1a:1047:G:H5''	45:1n:4:LYS:CD	2.48	0.43
37:1f:62:TRP:CH2	37:1f:64:GLN:HB2	2.54	0.43
39:1h:39:LEU:HB3	39:1h:45:ILE:HG12	2.00	0.43
1:2A:431:U:O5'	1:2A:431:U:H6	2.01	0.43
1:2A:588:U:H2'	1:2A:589:C:C6	2.53	0.43
1:2A:910:A:C5	12:2Q:13:GLN:HG3	2.54	0.43
1:2A:1283:G:O2'	1:2A:1285:G:N7	2.47	0.43
1:2A:1359:A:C2	1:2A:1360:A:C8	3.06	0.43
1:2A:1434:A:N6	1:2A:1558:A:H62	2.08	0.43
1:2A:1466:G:O2'	1:2A:1546:C:O2'	2.24	0.43
1:2A:2120:G:H2'	1:2A:2121:G:C8	2.52	0.43
1:2A:2694:G:C6	1:2A:2695:C:C4	3.06	0.43
6:2G:106:LEU:HG	6:2G:111:LEU:CD1	2.48	0.43
13:2R:26:LYS:HE2	13:2R:70:LEU:O	2.18	0.43
13:2R:97:VAL:HG22	13:2R:114:VAL:HG22	2.01	0.43
19:2X:65:ARG:HB3	19:2X:70:LEU:HD23	1.99	0.43
22:20:45:PHE:HE1	22:20:77:ARG:NE	2.15	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:22:35:LEU:HD12	24:22:53:LEU:HD12	2.01	0.43
32:2a:153:C:H2'	32:2a:154:C:C6	2.53	0.43
32:2a:254:G:OP1	48:2q:66:SER:OG	2.25	0.43
32:2a:926:G:H22	53:2v:15:A:H3'	1.82	0.43
32:2a:1524:C:H2'	32:2a:1525:G:C8	2.53	0.43
33:2b:114:ARG:NH1	33:2b:117:GLU:HG2	2.33	0.43
33:2b:127:ILE:HG12	33:2b:128:GLU:H	1.82	0.43
34:2c:199:LYS:HB3	34:2c:201:TYR:HE2	1.83	0.43
38:2g:49:ILE:HA	38:2g:52:GLU:OE1	2.18	0.43
48:2q:62:SER:OG	48:2q:72:ARG:HG2	2.18	0.43
1:1A:1177:A:O2'	1:1A:1178:C:O4'	2.35	0.43
1:1A:1197:G:H2'	1:1A:1198:U:C6	2.53	0.43
1:1A:2108:C:H2'	1:1A:2109:U:C6	2.53	0.43
1:1A:2584:U:O4	62:1A:4062:HOH:O	2.21	0.43
7:1H:126:PRO:HB2	7:1H:127:GLU:H	1.61	0.43
20:1Y:92:ASN:HB3	20:1Y:94:LYS:N	2.18	0.43
25:13:3:ARG:HD3	25:13:60:GLU:CD	2.43	0.43
32:1a:1033:G:H2'	32:1a:1034:G:H8	1.84	0.43
33:1b:60:ASP:O	33:1b:64:ARG:HG2	2.18	0.43
35:1d:194:LEU:HD12	35:1d:195:ALA:H	1.82	0.43
44:1m:73:GLU:O	44:1m:77:ASN:ND2	2.49	0.43
55:1x:7:G:H1	55:1x:66:C:H42	1.64	0.43
1:2A:236:C:H2'	1:2A:237:C:C6	2.53	0.43
1:2A:312:G:H4'	1:2A:331:A:N3	2.34	0.43
1:2A:483:A:O2'	20:2Y:49:VAL:O	2.21	0.43
1:2A:812:C:H2'	1:2A:813:U:C6	2.50	0.43
1:2A:1314:C:OP1	1:2A:1332:G:H5''	2.18	0.43
1:2A:1817:G:C6	1:2A:1818:U:C4	3.06	0.43
1:2A:2252:G:H2'	1:2A:2253:G:O4'	2.19	0.43
1:2A:2324:C:H1'	1:2A:2337:G:H5'	2.00	0.43
1:2A:2397:G:N2	1:2A:2420:C:H1'	2.34	0.43
1:2A:2542:A:H4'	1:2A:2543:G:H8	1.82	0.43
7:2H:96:ALA:HB1	7:2H:103:LEU:HD11	1.99	0.43
7:2H:101:ARG:HB3	7:2H:117:PRO:HG2	2.00	0.43
11:2P:107:LYS:O	11:2P:110:TYR:HB2	2.19	0.43
14:2S:85:VAL:HG11	14:2S:110:LEU:HG	2.00	0.43
32:2a:69:G:H2'	32:2a:70:G:H8	1.84	0.43
32:2a:838:G:H1	32:2a:848:C:N4	2.15	0.43
35:2d:150:GLU:OE1	35:2d:150:GLU:N	2.50	0.43
37:2f:69:GLU:O	37:2f:72:VAL:HG12	2.18	0.43
1:1A:922:U:H2'	1:1A:923:C:C6	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1138:G:O2'	9:1N:102:ALA:O	2.36	0.43
1:1A:1357:U:H2'	1:1A:1358:G:O4'	2.19	0.43
1:1A:1638:C:H2'	1:1A:1639:U:O4'	2.18	0.43
1:1A:2131:G:H5''	1:1A:2132:U:H3'	2.00	0.43
1:1A:2314:C:H5''	6:1G:38:VAL:HG21	1.99	0.43
13:1R:26:LYS:HE2	13:1R:70:LEU:O	2.18	0.43
14:1S:110:LEU:HD12	14:1S:110:LEU:HA	1.84	0.43
32:1a:21:G:H2'	32:1a:22:G:C8	2.53	0.43
32:1a:625:G:H4'	47:1p:16:HIS:CD2	2.54	0.43
32:1a:911:U:OP1	43:1l:95:GLY:HA2	2.18	0.43
32:1a:1371:G:OP1	40:1i:12:GLU:HB2	2.19	0.43
33:1b:230:VAL:HG22	33:1b:231:GLU:H	1.84	0.43
35:1d:155:LEU:O	35:1d:158:ILE:HG13	2.18	0.43
38:1g:16:LEU:HD21	40:1i:45:ALA:HB2	2.01	0.43
1:2A:320:A:H2'	5:2F:136:THR:OG1	2.17	0.43
1:2A:441:U:H2'	1:2A:442:G:C8	2.54	0.43
1:2A:718:A:H3'	1:2A:719:C:H6	1.84	0.43
1:2A:811:U:H2'	11:2P:21:ARG:HA	2.01	0.43
1:2A:1420:U:O2'	1:2A:1421:G:OP1	2.32	0.43
1:2A:2078:C:H2'	1:2A:2079:U:O4'	2.19	0.43
1:2A:2114:A:N6	1:2A:2115:G:H21	2.17	0.43
2:2B:31:C:C2'	2:2B:32:C:H5'	2.49	0.43
5:2F:40:GLN:NE2	5:2F:182:ASN:OD1	2.51	0.43
5:2F:150:GLY:HA2	5:2F:172:TRP:CE3	2.54	0.43
9:2N:33:LEU:HA	9:2N:38:HIS:CD2	2.51	0.43
15:2T:59:THR:HG23	15:2T:78:LEU:HB3	2.00	0.43
16:2U:8:VAL:O	16:2U:12:ARG:HG3	2.19	0.43
32:2a:29:G:H5'	32:2a:296:U:OP1	2.18	0.43
32:2a:406:G:N3	35:2d:119:GLN:NE2	2.59	0.43
32:2a:719:C:H42	49:2r:71:LYS:HE2	1.82	0.43
32:2a:936:C:H2'	32:2a:937:A:O4'	2.18	0.43
32:2a:946:A:C6	32:2a:947:G:C6	3.06	0.43
33:2b:112:VAL:HG13	33:2b:115:LEU:HD22	2.01	0.43
33:2b:233:SER:HB2	33:2b:234:PRO:HD2	2.00	0.43
34:2c:9:GLY:N	45:2n:49:HIS:O	2.52	0.43
35:2d:19:LEU:O	35:2d:21:LEU:HG	2.19	0.43
35:2d:140:VAL:HG11	35:2d:146:ILE:HD11	1.99	0.43
38:2g:59:LEU:HG	38:2g:63:LYS:HE2	2.00	0.43
51:2t:13:LEU:O	51:2t:17:ARG:HG3	2.19	0.43
1:1A:228:A:OP1	11:1P:76:LYS:HE3	2.19	0.43
1:1A:671:C:H2'	1:1A:672:C:H6	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1065:U:H1'	1:1A:1074:G:N1	2.34	0.43
1:1A:1946:U:H2'	1:1A:1947:C:C6	2.54	0.43
1:1A:2175:C:H2'	1:1A:2176:A:O4'	2.19	0.43
1:1A:2441:C:OP1	62:1A:4063:HOH:O	2.21	0.43
1:1A:2576:G:OP1	1:1A:2576:G:N2	2.51	0.43
1:1A:2864:G:OP1	15:1T:119:LYS:HD2	2.19	0.43
3:1D:43:ARG:HA	3:1D:48:ARG:O	2.18	0.43
3:1D:211:ARG:HG3	3:1D:214:TRP:CE3	2.53	0.43
9:1N:30:ILE:HG23	9:1N:52:VAL:HG11	2.00	0.43
10:1O:10:VAL:HG11	10:1O:16:ALA:HB1	2.01	0.43
16:1U:34:LYS:HA	16:1U:34:LYS:HD3	1.68	0.43
32:1a:35:G:O2'	43:1l:118:SER:O	2.26	0.43
32:1a:167:G:H2'	32:1a:168:G:H8	1.82	0.43
32:1a:373:A:H2'	32:1a:374:A:H8	1.83	0.43
32:1a:1077:G:N2	32:1a:1080:A:OP2	2.43	0.43
32:1a:1226:C:H2'	44:1m:103:THR:HB	2.01	0.43
32:1a:1366:C:H2'	32:1a:1367:C:C6	2.53	0.43
33:1b:172:ILE:H	33:1b:172:ILE:HG13	1.58	0.43
37:1f:69:GLU:H	37:1f:69:GLU:CD	2.26	0.43
39:1h:29:SER:HB3	39:1h:32:LYS:HG3	2.00	0.43
40:1i:29:ASN:OD1	40:1i:64:THR:HA	2.19	0.43
42:1k:62:GLN:O	42:1k:66:LEU:HG	2.19	0.43
54:1w:46:7MG:H81	54:1w:46:7MG:H2'	1.80	0.43
1:2A:271(D):G:H2'	1:2A:271(E):U:C6	2.54	0.43
1:2A:868:U:N3	1:2A:869:G:N7	2.67	0.43
1:2A:902:C:H2'	1:2A:903:C:C6	2.51	0.43
1:2A:910:A:C6	1:2A:911:A:C6	3.07	0.43
1:2A:1021:A:H3'	1:2A:1021:A:C8	2.53	0.43
1:2A:1584:C:O2'	1:2A:1586:A:H5'	2.19	0.43
1:2A:1711:C:H2'	1:2A:1712:C:C6	2.54	0.43
1:2A:1882:C:H5''	23:21:26:ARG:NH1	2.34	0.43
1:2A:2050:C:N4	1:2A:2051:A:N1	2.67	0.43
2:2B:24:G:N7	2:2B:56:G:H2'	2.33	0.43
2:2B:64:C:H2'	2:2B:65:C:C6	2.54	0.43
3:2D:37:LEU:HD22	3:2D:87:ASN:HD21	1.84	0.43
16:2U:27:LEU:HB3	16:2U:31:SER:HB3	1.99	0.43
20:2Y:73:ARG:HH21	20:2Y:83:THR:C	2.27	0.43
32:2a:116:A:H61	32:2a:313:A:H1'	1.82	0.43
32:2a:237:C:H5''	48:2q:25:ARG:NE	2.34	0.43
32:2a:565:U:OP2	32:2a:566:G:O2'	2.27	0.43
32:2a:1179:A:H2'	32:2a:1180:A:O4'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1318:A:H5''	50:2s:3:ARG:HH22	1.83	0.43
32:2a:1333:A:H2'	32:2a:1334:G:O4'	2.18	0.43
32:2a:1405:G:H2'	32:2a:1406:U:H6	1.83	0.43
32:2a:1530:G:OP1	32:2a:1530:G:H4'	2.18	0.43
33:2b:15:VAL:HG12	33:2b:16:HIS:H	1.84	0.43
45:2n:23:ARG:NH1	45:2n:30:ALA:HB2	2.33	0.43
47:2p:23:ASP:OD1	47:2p:24:ALA:N	2.51	0.43
1:1A:271(X):G:C2	1:1A:271(Y):U:O4	2.71	0.43
1:1A:281:G:H1'	1:1A:360:G:N2	2.32	0.43
1:1A:531:C:H4'	1:1A:532:A:H5''	2.01	0.43
1:1A:1851:U:H2'	1:1A:1852:C:O4'	2.18	0.43
1:1A:1908:C:O2	55:1x:12:G:H4'	2.18	0.43
1:1A:2031:A:C6	1:1A:2498:C:H1'	2.54	0.43
1:1A:2116:G:H2'	1:1A:2117:A:C5	2.53	0.43
1:1A:2849:U:H4'	1:1A:2868:A:C2	2.53	0.43
1:1A:2887:U:H2'	1:1A:2888:C:H6	1.83	0.43
2:1B:45:A:O4'	6:1G:95:ARG:NH1	2.52	0.43
8:1I:62:LYS:O	8:1I:66:GLU:HG2	2.18	0.43
20:1Y:20:TYR:CE2	20:1Y:43:ASN:HA	2.54	0.43
32:1a:405:U:H5''	32:1a:495:A:H2	1.84	0.43
32:1a:606:G:N2	32:1a:631:G:N7	2.67	0.43
52:1u:3:LYS:HB3	52:1u:14:TRP:CD1	2.53	0.43
54:1w:56:C:H2'	54:1w:57:G:O4'	2.19	0.43
1:2A:108:U:H2'	1:2A:109:G:C8	2.53	0.43
1:2A:223:A:N1	1:2A:407:G:O2'	2.44	0.43
1:2A:571:A:C5'	1:2A:2030:A:H62	2.32	0.43
1:2A:657:U:H2'	1:2A:658:C:C6	2.54	0.43
1:2A:724:U:H2'	1:2A:725:G:O4'	2.19	0.43
1:2A:1359:A:C2	1:2A:1372:U:O4	2.72	0.43
1:2A:1932:A:H2'	1:2A:1933:G:O4'	2.19	0.43
1:2A:2051:A:H5'	1:2A:2578:G:O4'	2.18	0.43
1:2A:2552:2MU:H6	1:2A:2552:2MU:O5'	2.19	0.43
1:2A:2579:C:H4'	4:2E:134:ILE:HG12	2.01	0.43
1:2A:2685:G:P	15:2T:51:ARG:HH12	2.42	0.43
6:2G:173:LEU:HB3	6:2G:178:PHE:CG	2.53	0.43
19:2X:26:TYR:HB3	19:2X:92:LEU:HD22	2.01	0.43
26:24:50:VAL:HG11	44:2m:64:TRP:C	2.44	0.43
32:2a:292:G:N7	32:2a:293:G:H1'	2.33	0.43
32:2a:663:A:O3'	49:2r:64:ARG:NH2	2.45	0.43
32:2a:790:A:C6	32:2a:791:G:C6	3.07	0.43
32:2a:828:A:N6	32:2a:858:G:O2'	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1092:A:H5''	38:2g:4:ARG:CZ	2.48	0.43
32:2a:1343:G:H2'	32:2a:1344:C:C6	2.53	0.43
33:2b:73:THR:HB	33:2b:95:GLN:O	2.19	0.43
38:2g:99:LEU:HD22	38:2g:103:TRP:CZ2	2.54	0.43
42:2k:15:ALA:HA	42:2k:76:GLY:O	2.19	0.43
51:2t:9:ASN:OD1	51:2t:9:ASN:N	2.51	0.43
1:1A:606:U:H4'	1:1A:658:C:H4'	2.01	0.43
1:1A:684:G:OP1	29:17:16:HIS:ND1	2.46	0.43
4:1E:9:VAL:HB	15:1T:3:ARG:HG2	2.00	0.43
13:1R:38:VAL:HG12	13:1R:42:LYS:HE3	2.01	0.43
32:1a:453:A:O2'	47:1p:68:ASP:O	2.36	0.43
32:1a:454:C:H3'	32:1a:455:C:C6	2.53	0.43
32:1a:620:C:H2'	32:1a:621:A:O4'	2.19	0.43
32:1a:673:G:O3'	37:1f:87:ARG:NH2	2.52	0.43
32:1a:1261:A:H3'	32:1a:1262:C:C6	2.54	0.43
34:1c:131:ARG:HH21	36:1e:50:GLU:HG3	1.83	0.43
37:1f:30:LEU:HD11	37:1f:63:TYR:CD2	2.54	0.43
1:2A:65:C:O2'	1:2A:456:C:N3	2.50	0.43
1:2A:271(H):G:O2'	1:2A:271(I):G:H8	2.00	0.43
1:2A:531:C:H5'	62:2A:4395:HOH:O	2.17	0.43
1:2A:724:U:C4	1:2A:725:G:C6	3.07	0.43
1:2A:1450(A):C:N4	1:2A:1451:C:H41	2.16	0.43
1:2A:1847:A:H3'	1:2A:1848:A:H5'	2.00	0.43
1:2A:2110:G:H3'	1:2A:2111:C:H5'	2.01	0.43
1:2A:2633:G:H5''	1:2A:2812:G:H5'	2.01	0.43
2:2B:38:C:O4'	14:2S:95:HIS:NE2	2.52	0.43
6:2G:119:GLY:HA3	6:2G:181:ARG:HB3	2.00	0.43
12:2Q:1:MET:HE1	54:2w:63:G:H4'	1.99	0.43
14:2S:15:ARG:HB3	14:2S:19:LYS:HE3	2.00	0.43
14:2S:36:TYR:CD1	14:2S:52:SER:HB3	2.53	0.43
21:2Z:128:VAL:HG13	21:2Z:133:ILE:HG12	2.00	0.43
24:22:1:MET:HE3	24:22:5:GLU:HB3	2.01	0.43
32:2a:78:G:H2'	32:2a:79:G:C8	2.54	0.43
32:2a:193:C:H2'	32:2a:194:C:C6	2.54	0.43
32:2a:988:G:H1	32:2a:1217:C:H42	1.65	0.43
32:2a:1327:C:H2'	32:2a:1328:C:H6	1.82	0.43
32:2a:1347:G:H5''	40:2i:107:ARG:HB3	2.01	0.43
33:2b:73:THR:O	33:2b:78:GLN:NE2	2.50	0.43
34:2c:152:ILE:HG22	34:2c:167:TRP:HB2	2.01	0.43
37:2f:94:GLN:HE22	49:2r:72:ARG:HH12	1.66	0.43
1:1A:141:A:C6	1:1A:142:A:N1	2.87	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:191:A:H2'	1:1A:192:C:C6	2.53	0.43
1:1A:329:G:H8	1:1A:329:G:OP1	2.02	0.43
1:1A:578:A:H5'	1:1A:1254:A:OP1	2.19	0.43
1:1A:784:A:N6	3:1D:229:VAL:HG11	2.34	0.43
1:1A:1059:G:N1	1:1A:1079:C:N4	2.42	0.43
1:1A:2340:G:H2'	1:1A:2341:G:C8	2.53	0.43
1:1A:2352:A:N6	1:1A:2365:G:O2'	2.52	0.43
1:1A:2552:2MU:O5'	1:1A:2552:2MU:H6	2.18	0.43
1:1A:2751:G:H4'	7:1H:4:ILE:HD11	2.00	0.43
3:1D:11:PRO:O	3:1D:14:ARG:HB3	2.19	0.43
4:1E:143:ASN:HD22	4:1E:147:PRO:CD	2.32	0.43
5:1F:8:GLN:HE22	5:1F:21:ALA:HB2	1.83	0.43
7:1H:3:ARG:NH2	7:1H:65:HIS:HB3	2.32	0.43
9:1N:12:ARG:HD2	9:1N:136:GLU:OE1	2.19	0.43
11:1P:47:ASP:OD2	11:1P:49:ARG:NH2	2.48	0.43
12:1Q:60:ARG:HH21	54:1w:53:G:P	2.41	0.43
15:1T:108:ARG:HA	15:1T:111:ARG:NH1	2.34	0.43
17:1V:76:LYS:HB2	17:1V:81:TYR:HB3	2.01	0.43
25:13:26:LEU:O	25:13:35:ARG:NE	2.52	0.43
27:15:55:ARG:NH1	27:15:57:VAL:HG22	2.34	0.43
32:1a:840:C:H4'	32:1a:841:U:OP1	2.19	0.43
32:1a:1250:A:H61	32:1a:1354:C:H1'	1.84	0.43
33:1b:17:PHE:HA	33:1b:44:LEU:HD11	2.01	0.43
44:1m:88:ARG:HG3	44:1m:98:VAL:HG13	2.00	0.43
54:1y:36:A:H2'	54:1y:37:MIA:O4'	2.19	0.43
1:2A:357:A:H2'	1:2A:358:U:C6	2.54	0.43
1:2A:592:G:O2'	30:28:4:MET:HG3	2.19	0.43
1:2A:1455:G:H8	13:2R:60:LEU:HD11	1.84	0.43
7:2H:118:PRO:HG2	7:2H:121:ILE:HG13	2.01	0.43
9:2N:97:ARG:HA	9:2N:100:GLU:HB3	2.01	0.43
18:2W:23:LEU:HD11	27:25:25:LEU:HB2	2.01	0.43
32:2a:302:G:N3	32:2a:556:C:H4'	2.33	0.43
32:2a:1049:U:C5	32:2a:1201:A:H5'	2.54	0.43
32:2a:1189:C:HO2'	34:2c:176:HIS:CE1	2.30	0.43
33:2b:95:GLN:HB2	33:2b:148:TYR:CE1	2.54	0.43
44:2m:78:ILE:HD13	44:2m:92:HIS:CD2	2.54	0.43
45:2n:47:LEU:HD23	45:2n:47:LEU:HA	1.87	0.43
48:2q:6:LEU:O	48:2q:58:GLU:HA	2.17	0.43
49:2r:31:LEU:HD22	49:2r:66:LEU:HB2	2.01	0.43
50:2s:41:VAL:HG12	50:2s:43:GLU:OE1	2.18	0.43
54:2y:19:G:H1	54:2y:56:C:N4	2.14	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:370:G:H8	1:1A:370:G:OP2	2.01	0.42
1:1A:782:A:H5'	1:1A:783:A:N7	2.34	0.42
1:1A:945:A:C4	1:1A:2448:A:C2	3.07	0.42
1:1A:1059:G:OP2	1:1A:1060:U:H3'	2.19	0.42
1:1A:2375:G:N2	1:1A:2378:A:OP2	2.48	0.42
5:1F:37:VAL:O	5:1F:41:LEU:HG	2.19	0.42
21:1Z:129:SER:HA	21:1Z:130:PRO:HD3	1.88	0.42
32:1a:619:U:C2	35:1d:135:LEU:HD22	2.54	0.42
32:1a:1277:C:H1'	32:1a:1282:C:C2	2.54	0.42
32:1a:1352:C:H2'	32:1a:1353:G:C8	2.53	0.42
38:1g:66:VAL:HG12	38:1g:70:LYS:HE3	2.02	0.42
47:1p:3:LYS:HE3	47:1p:3:LYS:HB3	1.85	0.42
48:1q:53:LEU:HD23	48:1q:82:MET:HE1	2.01	0.42
55:1x:8:4SU:O5'	55:1x:8:4SU:H6	2.19	0.42
54:1y:26:A:N1	54:1y:44:G:N2	2.63	0.42
1:2A:79:G:H2'	1:2A:80:G:C8	2.54	0.42
1:2A:186:G:H2'	1:2A:187:G:C8	2.54	0.42
1:2A:590:A:H2'	1:2A:591:C:O4'	2.19	0.42
1:2A:674:G:H1'	5:2F:74:ARG:HD3	2.01	0.42
1:2A:1166:C:H2'	1:2A:1167:U:C6	2.53	0.42
1:2A:1501:C:O4'	3:2D:100:GLY:HA2	2.18	0.42
1:2A:1641:A:H2'	1:2A:1642:G:O4'	2.19	0.42
1:2A:2275:C:H5'	1:2A:2275:C:C6	2.54	0.42
1:2A:2406:U:C2	11:2P:72:PRO:HG2	2.53	0.42
2:2B:80:U:H2'	2:2B:81:G:N7	2.33	0.42
4:2E:150:VAL:HG13	4:2E:154:LYS:HD2	2.00	0.42
5:2F:116:ASP:OD1	5:2F:119:ARG:NH2	2.52	0.42
14:2S:26:LEU:HD22	14:2S:87:PHE:HD1	1.84	0.42
14:2S:84:GLN:HA	14:2S:111:GLU:O	2.19	0.42
32:2a:258:G:H2'	32:2a:259:G:H8	1.84	0.42
32:2a:690:G:C6	32:2a:691:G:C6	3.07	0.42
33:2b:16:HIS:CG	33:2b:17:PHE:N	2.87	0.42
33:2b:58:ILE:HD13	33:2b:58:ILE:HA	1.87	0.42
35:2d:191:ARG:HD2	35:2d:191:ARG:HA	1.78	0.42
48:2q:61:GLU:HA	48:2q:71:PHE:CD1	2.54	0.42
1:1A:1051:G:H4'	1:1A:2752:C:H4'	2.01	0.42
1:1A:1637:A:H4'	1:1A:2711:A:O2'	2.19	0.42
1:1A:1810:A:H2'	1:1A:1811:G:O4'	2.19	0.42
1:1A:2141:G:C4	1:1A:2142:C:H1'	2.54	0.42
3:1D:145:VAL:HG11	3:1D:175:LEU:HD11	2.00	0.42
8:1I:92:VAL:HG11	8:1I:144:VAL:HG11	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:13:3:ARG:HD3	25:13:60:GLU:OE2	2.19	0.42
32:1a:101:A:N7	62:1a:3339:HOH:O	2.37	0.42
32:1a:375:U:O3'	47:1p:6:LEU:HB2	2.19	0.42
32:1a:386:C:H2'	32:1a:387:U:O4'	2.19	0.42
32:1a:738:C:H2'	32:1a:739:C:C6	2.54	0.42
32:1a:1016:A:H2'	32:1a:1017:G:O4'	2.20	0.42
32:1a:1323:G:H2'	32:1a:1324:A:C8	2.54	0.42
34:1c:20:SER:OG	34:1c:40:ARG:NH2	2.48	0.42
35:1d:112:VAL:HG23	35:1d:116:GLN:HE22	1.84	0.42
35:1d:173:TRP:CE2	35:1d:189:PRO:HG3	2.55	0.42
38:1g:22:LEU:HD21	38:1g:66:VAL:HG21	2.01	0.42
40:1i:128:ARG:NH1	55:1x:35:A:OP2	2.52	0.42
1:2A:117:G:C6	1:2A:119:A:C6	3.07	0.42
1:2A:1433:U:H1'	1:2A:1561:G:N2	2.34	0.42
1:2A:1921:G:O2'	1:2A:1922:G:H5'	2.19	0.42
1:2A:2097:C:H2'	1:2A:2098:U:O4'	2.19	0.42
1:2A:2233:U:H2'	1:2A:2234:G:C8	2.54	0.42
1:2A:2576:G:OP1	1:2A:2576:G:H3'	2.20	0.42
5:2F:9:ILE:HB	5:2F:20:LEU:HB3	2.02	0.42
6:2G:125:PHE:HB3	6:2G:166:ASP:OD1	2.19	0.42
7:2H:3:ARG:HE	7:2H:54:ARG:HH12	1.67	0.42
12:2Q:12:GLN:HE21	12:2Q:72:LYS:HZ3	1.66	0.42
13:2R:33:ARG:NH1	13:2R:115:GLU:OE1	2.41	0.42
13:2R:118:GLU:CD	13:2R:118:GLU:H	2.27	0.42
14:2S:62:LYS:HB3	14:2S:97:ARG:NE	2.34	0.42
18:2W:12:ILE:O	18:2W:101:SER:OG	2.24	0.42
21:2Z:130:PRO:HA	21:2Z:133:ILE:HG13	2.01	0.42
26:24:17:GLY:N	26:24:33:VAL:O	2.52	0.42
32:2a:444:C:H2'	32:2a:445:G:H8	1.83	0.42
32:2a:615:C:H2'	32:2a:616:G:O4'	2.20	0.42
32:2a:660:G:H1	32:2a:745:C:H42	1.66	0.42
32:2a:954:G:H2'	32:2a:955:U:O4'	2.19	0.42
32:2a:988:G:C4'	32:2a:1014:A:H61	2.32	0.42
32:2a:1003:G:H2'	32:2a:1004:A:O4'	2.18	0.42
32:2a:1004:A:H5''	32:2a:1025:U:H5	1.83	0.42
32:2a:1051:C:C4	32:2a:1052:U:C4	3.08	0.42
35:2d:176:LEU:HD12	35:2d:182:LYS:O	2.19	0.42
1:1A:881:G:H3'	1:1A:882:G:H8	1.83	0.42
1:1A:973:A:H5'	1:1A:1188:U:H1'	2.01	0.42
1:1A:1094:U:O2	1:1A:1097:U:H6	2.02	0.42
1:1A:2615:U:H2'	1:1A:2616:C:H6	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:1D:264:LYS:HA	3:1D:265:PRO:HD3	1.93	0.42
6:1G:47:LYS:HE3	6:1G:47:LYS:HB2	1.77	0.42
7:1H:124:GLU:HB2	7:1H:132:ARG:HB3	2.01	0.42
8:1I:27:ARG:HD3	23:11:71:TYR:CE2	2.54	0.42
12:1Q:42:ILE:HD13	12:1Q:97:VAL:HB	2.00	0.42
32:1a:509:A:C8	32:1a:509:A:H3'	2.54	0.42
32:1a:1028:C:H2'	32:1a:1029:C:H4'	2.00	0.42
32:1a:1149:C:P	40:1i:9:ARG:HH21	2.43	0.42
32:1a:1316:G:N1	32:1a:1319:A:OP2	2.50	0.42
33:1b:122:PHE:C	33:1b:124:SER:N	2.74	0.42
35:1d:61:LYS:HD2	35:1d:207:TYR:OH	2.19	0.42
36:1e:131:ILE:HA	36:1e:131:ILE:HD13	1.76	0.42
37:1f:76:ALA:O	37:1f:80:ARG:HG3	2.19	0.42
37:1f:99:ALA:HB1	49:1r:23:LYS:NZ	2.34	0.42
38:1g:26:PHE:O	38:1g:30:ILE:HG13	2.19	0.42
55:1x:47:U:H4'	55:1x:48:C:O5'	2.18	0.42
1:2A:517:C:OP1	27:25:16:ARG:NH2	2.51	0.42
1:2A:589:C:H2'	1:2A:590:A:C8	2.54	0.42
1:2A:1160:G:C6	1:2A:1161:C:N3	2.87	0.42
1:2A:1512:U:H2'	1:2A:1513:C:C6	2.54	0.42
1:2A:1588:C:H2'	1:2A:1589:C:C6	2.53	0.42
1:2A:1773:A:H5''	62:2A:4260:HOH:O	2.19	0.42
1:2A:2096:U:H2'	1:2A:2097:C:C6	2.54	0.42
1:2A:2350:C:H5''	30:28:42:ARG:HD3	2.01	0.42
2:2B:94:C:H2'	2:2B:95:C:C6	2.55	0.42
6:2G:11:TYR:CE2	6:2G:16:ARG:HD3	2.54	0.42
7:2H:109:PHE:CE2	7:2H:152:ARG:HG2	2.54	0.42
9:2N:32:THR:HG22	9:2N:37:LYS:HB2	2.01	0.42
20:2Y:28:LYS:HB3	20:2Y:28:LYS:HE3	1.88	0.42
32:2a:1004:A:H62	32:2a:1037:C:C2'	2.32	0.42
32:2a:1009:G:C2	32:2a:1021:G:N3	2.87	0.42
32:2a:1055:A:C6	32:2a:1206:G:C5	3.07	0.42
32:2a:1516:G:H2'	32:2a:1518:MA6:OP2	2.19	0.42
34:2c:36:ASP:HB3	34:2c:40:ARG:NH1	2.35	0.42
39:2h:8:ASP:O	39:2h:12:ARG:N	2.40	0.42
41:2j:38:ILE:O	41:2j:38:ILE:HG13	2.19	0.42
41:2j:74:ILE:HG22	62:2j:8101:HOH:O	2.19	0.42
49:2r:47:THR:O	49:2r:47:THR:OG1	2.35	0.42
50:2s:6:LYS:HB2	50:2s:6:LYS:HE3	1.86	0.42
1:1A:27:G:N2	1:1A:512:G:H1'	2.35	0.42
1:1A:84:A:H5''	20:1Y:8:LYS:HG2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:251:A:C5	1:1A:252:G:H1'	2.55	0.42
1:1A:1317:A:H2'	1:1A:1318:C:O4'	2.18	0.42
1:1A:1799:G:O3'	3:1D:183:ARG:NH1	2.52	0.42
1:1A:2787:C:H1'	4:1E:62:PRO:HG3	2.00	0.42
4:1E:101:ARG:HD2	4:1E:169:ASN:C	2.45	0.42
6:1G:5:VAL:HG21	6:1G:100:TRP:HB3	2.02	0.42
6:1G:37:VAL:O	6:1G:94:LEU:N	2.47	0.42
8:1I:135:GLU:C	8:1I:137:PRO:HD3	2.45	0.42
9:1N:20:GLY:HA2	9:1N:61:ARG:HG2	2.00	0.42
16:1U:17:ILE:HG23	16:1U:39:LEU:HD12	2.01	0.42
32:1a:112:G:OP1	47:1p:27:LYS:HD2	2.20	0.42
32:1a:868:C:H2'	32:1a:869:G:O4'	2.20	0.42
32:1a:881:G:H2'	32:1a:882:C:O4'	2.20	0.42
32:1a:958:A:C4	50:1s:55:LYS:HD2	2.55	0.42
32:1a:1233:G:H2'	32:1a:1234:C:C6	2.53	0.42
35:1d:188:LEU:HA	35:1d:189:PRO:HD3	1.82	0.42
37:1f:8:ILE:HB	37:1f:61:LEU:HB2	2.02	0.42
39:1h:107:LEU:HA	39:1h:107:LEU:HD23	1.83	0.42
45:1n:50:LYS:HE3	45:1n:52:GLN:NE2	2.34	0.42
1:2A:859:G:N2	1:2A:917:A:OP2	2.41	0.42
1:2A:952:G:C6	1:2A:966:G:C6	3.07	0.42
1:2A:1252:G:N2	16:2U:37:GLU:OE2	2.50	0.42
1:2A:2127:G:C6	1:2A:2161:C:N3	2.87	0.42
2:2B:75:G:H1	21:2Z:73:GLN:HE22	1.66	0.42
3:2D:275:LYS:HD2	3:2D:275:LYS:HA	1.88	0.42
6:2G:5:VAL:HG22	6:2G:8:LYS:CB	2.48	0.42
11:2P:47:ASP:OD2	11:2P:49:ARG:NH2	2.50	0.42
11:2P:84:ASN:OD1	11:2P:117:GLU:HB2	2.19	0.42
13:2R:13:HIS:CE1	13:2R:16:HIS:HB2	2.55	0.42
27:25:33:CYS:HB2	27:25:40:LYS:HD3	2.00	0.42
32:2a:6:G:H4'	32:2a:298:A:H4'	2.01	0.42
32:2a:174:C:H2'	32:2a:175:C:H6	1.85	0.42
32:2a:376:G:H4'	47:2p:5:ARG:HD3	2.01	0.42
32:2a:1002:G:C5	32:2a:1003:G:H8	2.37	0.42
32:2a:1438:G:H2'	32:2a:1439:C:C6	2.54	0.42
33:2b:166:ASP:HB3	33:2b:169:LYS:HB3	2.01	0.42
37:2f:50:TYR:OH	49:2r:74:ARG:O	2.34	0.42
39:2h:36:LEU:HA	39:2h:39:LEU:HD12	2.00	0.42
39:2h:37:ARG:HH21	39:2h:38:ILE:HD11	1.84	0.42
40:2i:7:THR:O	40:2i:83:ARG:HD2	2.20	0.42
46:2o:38:ARG:HD3	46:2o:38:ARG:HA	1.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1027:A:N3	62:1A:4164:HOH:O	2.36	0.42
1:1A:1107:G:C2'	1:1A:1108:U:H5'	2.49	0.42
1:1A:2053:G:OP1	4:1E:144:ARG:HG2	2.19	0.42
1:1A:2160:G:C6	1:1A:2161:C:N4	2.87	0.42
1:1A:2836:U:H2'	1:1A:2837:G:C8	2.55	0.42
6:1G:16:ARG:HE	6:1G:31:VAL:HG11	1.84	0.42
10:1O:23:ARG:HH11	10:1O:23:ARG:HD2	1.72	0.42
13:1R:96:ARG:HH22	13:1R:118:GLU:CD	2.28	0.42
13:1R:97:VAL:HG22	13:1R:114:VAL:HG13	2.02	0.42
20:1Y:6:HIS:H	20:1Y:6:HIS:CD2	2.37	0.42
30:18:6:THR:HG22	30:18:63:PRO:HD2	2.02	0.42
32:1a:667:G:H4'	46:1o:51:HIS:ND1	2.35	0.42
32:1a:924:C:H2'	32:1a:925:G:C8	2.54	0.42
32:1a:954:G:H2'	32:1a:955:U:O4'	2.20	0.42
33:1b:10:LEU:H	33:1b:10:LEU:HD12	1.83	0.42
34:1c:69:HIS:HA	34:1c:104:GLN:HB3	2.01	0.42
35:1d:176:LEU:HD12	35:1d:182:LYS:O	2.20	0.42
41:1j:38:ILE:HD11	41:1j:71:LEU:HB3	2.01	0.42
1:2A:322:A:C5	1:2A:340:A:C2	3.08	0.42
1:2A:373:U:O2'	1:2A:423:A:N3	2.52	0.42
1:2A:613:G:O2'	1:2A:614(C):A:N1	2.44	0.42
1:2A:990:A:N6	1:2A:1186:G:H1'	2.35	0.42
1:2A:997:G:OP2	16:2U:58:ARG:NH1	2.53	0.42
1:2A:1204:A:H5'	1:2A:1206:G:H1'	2.01	0.42
1:2A:1583:A:H5''	1:2A:1584:C:OP1	2.19	0.42
1:2A:1987:G:H2'	1:2A:1988:C:C6	2.53	0.42
1:2A:2377:A:O2'	14:2S:112:PHE:O	2.29	0.42
1:2A:2793:G:N2	1:2A:2804:C:H1'	2.33	0.42
58:2A:3652:HGR:H3	58:2A:3652:HGR:C16	2.49	0.42
6:2G:12:TYR:HA	6:2G:16:ARG:HG2	2.00	0.42
6:2G:53:LEU:HD23	6:2G:53:LEU:HA	1.87	0.42
6:2G:167:GLU:H	6:2G:167:GLU:CD	2.26	0.42
9:2N:28:THR:HG22	9:2N:29:LYS:N	2.34	0.42
12:2Q:101:ARG:HA	12:2Q:101:ARG:HD2	1.86	0.42
32:2a:129(A):G:C6	32:2a:189(E):U:H4'	2.54	0.42
32:2a:391:G:C6	32:2a:392:G:C5	3.07	0.42
32:2a:560:U:H4'	32:2a:561:U:O5'	2.17	0.42
32:2a:745:C:H1'	32:2a:836:G:O2'	2.20	0.42
32:2a:1228:C:H2'	32:2a:1229:A:H8	1.85	0.42
33:2b:27:LYS:O	33:2b:194:PRO:HG2	2.20	0.42
34:2c:127:ARG:NH2	34:2c:192:THR:OG1	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2d:200:GLU:O	35:2d:204:ILE:HG12	2.19	0.42
43:2l:124:LYS:HA	43:2l:125:PRO:HD3	1.72	0.42
46:2o:70:LEU:HD11	46:2o:77:ARG:HB2	2.00	0.42
48:2q:70:ARG:C	48:2q:71:PHE:HD1	2.28	0.42
54:2w:39:PSU:H2'	54:2w:40:C:C6	2.55	0.42
1:1A:278:A:H2'	1:1A:279:C:H6	1.82	0.42
1:1A:957:A:N1	1:1A:2458:G:H4'	2.35	0.42
1:1A:2615:U:H2'	1:1A:2616:C:C6	2.54	0.42
1:1A:2635:C:O2'	4:1E:80:GLU:OE2	2.25	0.42
5:1F:150:GLY:HA2	5:1F:172:TRP:CD2	2.54	0.42
11:1P:85:LEU:HG	11:1P:115:LEU:O	2.20	0.42
22:10:11:ARG:O	22:10:14:ARG:NH2	2.44	0.42
32:1a:93:G:H2'	32:1a:96:U:O4'	2.19	0.42
32:1a:978:A:OP1	32:1a:1361:G:N2	2.38	0.42
34:1c:22:TRP:CD1	34:1c:59:ARG:HD2	2.54	0.42
45:1n:24:CYS:HB2	45:1n:33:VAL:HG12	2.01	0.42
54:1y:66:U:O4	54:1y:67:C:N4	2.53	0.42
1:2A:257:A:H2'	1:2A:258:G:O4'	2.19	0.42
1:2A:471:A:H2'	1:2A:472:A:O4'	2.20	0.42
1:2A:483:A:H5''	20:2Y:50:ARG:HD3	2.01	0.42
1:2A:2540:C:H2'	1:2A:2541:A:O4'	2.19	0.42
1:2A:2699:C:H2'	1:2A:2700:C:O4'	2.20	0.42
1:2A:2733:A:H2	4:2E:204:ALA:H	1.68	0.42
2:2B:93:G:P	21:2Z:79:ARG:HH22	2.39	0.42
5:2F:126:VAL:HG11	5:2F:142:TRP:CZ2	2.55	0.42
16:2U:36:ARG:HG2	16:2U:40:PHE:CZ	2.55	0.42
30:28:34:TRP:CG	30:28:35:GLN:N	2.88	0.42
32:2a:1028:C:C4	32:2a:1033:G:O6	2.72	0.42
32:2a:1338:G:H2'	32:2a:1339:A:C8	2.55	0.42
32:2a:1504:G:OP1	32:2a:1507:A:H4'	2.19	0.42
33:2b:187:LEU:HD12	33:2b:214:ILE:HG21	2.01	0.42
33:2b:208:ILE:HA	33:2b:211:ILE:HD12	2.00	0.42
34:2c:142:MET:HG3	34:2c:170:GLN:HB3	2.01	0.42
36:2e:40:ARG:HD3	36:2e:67:VAL:O	2.20	0.42
36:2e:102:ALA:HB3	36:2e:107:ARG:HB2	2.02	0.42
1:1A:558:G:OP1	9:1N:111:PRO:HD2	2.18	0.42
1:1A:754:C:H2'	1:1A:755:C:C6	2.54	0.42
1:1A:1062:G:H5''	1:1A:1070:A:H1'	2.02	0.42
1:1A:1913:A:N7	32:1a:1494:G:H4'	2.35	0.42
1:1A:2141:G:C5	1:1A:2142:C:H1'	2.55	0.42
1:1A:2619:C:H4'	4:1E:151:TYR:O	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:15:20:ARG:C	27:15:22:HIS:H	2.28	0.42
32:1a:714:G:H2'	32:1a:715:A:C8	2.54	0.42
32:1a:782:A:H4'	32:1a:1514:C:O2'	2.20	0.42
32:1a:1079:G:O3'	36:1e:14:ARG:NH2	2.52	0.42
32:1a:1182:G:C4'	32:1a:1183:A:H5'	2.40	0.42
32:1a:1194:U:H2'	32:1a:1195:C:C6	2.54	0.42
32:1a:1317:C:OP2	45:1n:17:LYS:HE3	2.19	0.42
35:1d:196:LEU:HD12	35:1d:196:LEU:H	1.84	0.42
38:1g:23:VAL:O	38:1g:27:ILE:HG12	2.20	0.42
39:1h:12:ARG:HD3	39:1h:25:ASP:O	2.19	0.42
1:2A:521:G:H2'	1:2A:522:G:C8	2.54	0.42
1:2A:820:A:N3	1:2A:943:U:H4'	2.34	0.42
1:2A:1131:G:C2	1:2A:1132:A:C4	3.08	0.42
1:2A:1653:G:N1	13:2R:11:ASN:OD1	2.51	0.42
1:2A:1696:G:N7	62:2A:3855:HOH:O	2.37	0.42
1:2A:2136:C:C4	1:2A:2155:G:N1	2.83	0.42
1:2A:2371:G:O6	62:2A:3744:HOH:O	2.19	0.42
1:2A:2432:A:H5''	62:2A:4215:HOH:O	2.19	0.42
7:2H:4:ILE:O	7:2H:69:ARG:HD2	2.19	0.42
7:2H:149:ARG:NH1	7:2H:163:TYR:HA	2.34	0.42
29:27:12:ARG:CZ	29:27:44:PRO:HB3	2.49	0.42
32:2a:19:C:H5''	36:2e:86:ALA:HB3	2.00	0.42
32:2a:731:G:OP1	32:2a:766:A:H1'	2.19	0.42
32:2a:923:A:N6	32:2a:1392:G:O6	2.52	0.42
32:2a:1003:G:C5	32:2a:1004:A:C2	3.08	0.42
32:2a:1151:A:O4'	41:2j:39:PRO:HB2	2.19	0.42
32:2a:1227:A:OP2	44:2m:111:LYS:HE2	2.18	0.42
32:2a:1318:A:O2'	50:2s:37:ARG:HB2	2.20	0.42
34:2c:17:ASP:HB3	34:2c:21:ARG:HE	1.84	0.42
35:2d:57:ARG:NE	35:2d:205:GLU:OE1	2.52	0.42
43:2l:84:LEU:HG	43:2l:85:ILE:N	2.34	0.42
51:2t:43:LEU:HD12	51:2t:55:ILE:HG13	2.02	0.42
1:1A:271(H):G:H4'	23:11:81:LYS:HG2	2.01	0.42
1:1A:401:A:H2'	1:1A:402:A:O4'	2.20	0.42
1:1A:1678:G:OP2	1:1A:1678:G:N2	2.49	0.42
1:1A:1849:G:H2'	1:1A:1850:G:H8	1.85	0.42
1:1A:2353:G:H1'	22:10:34:GLY:HA3	2.02	0.42
2:1B:2:C:H2'	2:1B:3:C:H6	1.85	0.42
4:1E:144:ARG:HB3	4:1E:145:LYS:H	1.49	0.42
6:1G:34:LEU:HD23	6:1G:161:THR:HG22	2.02	0.42
6:1G:82:LEU:HD23	6:1G:82:LEU:HA	1.92	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:1I:58:LEU:O	8:1I:61:ARG:HB3	2.20	0.42
12:1Q:101:ARG:HD2	12:1Q:101:ARG:HA	1.76	0.42
18:1W:58:ALA:HB1	18:1W:64:MET:HB2	2.02	0.42
25:13:31:LEU:HA	25:13:31:LEU:HD23	1.77	0.42
31:19:15:LYS:HB3	31:19:26:ILE:HG13	2.02	0.42
32:1a:374:A:C6	32:1a:375:U:C4	3.07	0.42
32:1a:625:G:H2'	32:1a:626:U:H6	1.85	0.42
32:1a:1004:A:C5'	32:1a:1024:G:H1	2.33	0.42
32:1a:1008:C:H42	32:1a:1021:G:H1	1.68	0.42
32:1a:1346:A:C2'	38:1g:10:ARG:HH22	2.31	0.42
33:1b:178:ARG:HH22	39:1h:74:PRO:HB3	1.85	0.42
34:1c:5:ILE:HD11	45:1n:49:HIS:CE1	2.55	0.42
35:1d:178:VAL:C	35:1d:180:GLY:H	2.27	0.42
40:1i:43:ALA:HA	40:1i:74:ILE:HD13	2.01	0.42
44:1m:4:ILE:HG22	44:1m:57:ARG:HE	1.83	0.42
50:1s:63:THR:OG1	50:1s:66:MET:HE3	2.19	0.42
54:1w:26:A:N6	54:1w:44:G:H1	2.17	0.42
1:2A:247:G:H4'	1:2A:386:G:C4	2.55	0.42
1:2A:530:G:N3	1:2A:530:G:O4'	2.52	0.42
1:2A:569:U:H1'	1:2A:947:G:O4'	2.19	0.42
1:2A:1181:C:H2'	1:2A:1182:A:C8	2.54	0.42
1:2A:1394:U:H4'	1:2A:1603:A:H4'	2.01	0.42
9:2N:34:LEU:HD12	9:2N:34:LEU:HA	1.88	0.42
14:2S:35:ILE:HG21	14:2S:66:ALA:HA	2.01	0.42
16:2U:81:HIS:O	16:2U:84:LYS:HB3	2.19	0.42
19:2X:31:HIS:HA	19:2X:32:PRO:HD3	1.85	0.42
19:2X:43:VAL:HG21	19:2X:81:VAL:HG11	2.01	0.42
22:20:10:THR:HG22	22:20:12:ASN:N	2.20	0.42
25:23:5:LYS:HE3	25:23:34:GLU:OE2	2.19	0.42
28:26:23:THR:OG1	28:26:24:GLU:N	2.51	0.42
32:2a:620:C:H2'	32:2a:621:A:O4'	2.19	0.42
32:2a:735:C:H2'	32:2a:736:C:H6	1.84	0.42
32:2a:837:G:H2'	32:2a:838:G:C8	2.55	0.42
32:2a:859:A:OP2	32:2a:869:G:N2	2.53	0.42
32:2a:1129:C:N3	32:2a:1143:G:N2	2.56	0.42
32:2a:1279:A:O2'	32:2a:1281:U:OP2	2.25	0.42
33:2b:82:ARG:HG3	33:2b:92:TYR:OH	2.19	0.42
33:2b:175:ARG:O	33:2b:179:LYS:HB2	2.19	0.42
34:2c:47:LEU:O	34:2c:51:GLY:N	2.53	0.42
34:2c:85:ARG:O	34:2c:89:GLU:N	2.53	0.42
41:2j:31:GLY:O	41:2j:81:THR:OG1	2.38	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:2o:43:LEU:HD12	46:2o:56:LEU:HD22	2.02	0.42
51:2t:40:ALA:HB2	51:2t:55:ILE:HG22	2.01	0.42
1:1A:780:G:OP1	3:1D:218:ARG:NH2	2.44	0.42
1:1A:1035:U:H2'	1:1A:1036:G:C8	2.54	0.42
1:1A:1108:U:H2'	1:1A:1109:C:O4'	2.20	0.42
1:1A:1448:G:O2'	1:1A:1528(A):A:N1	2.46	0.42
1:1A:1478:G:H1'	1:1A:1557:C:O2'	2.20	0.42
1:1A:1952:A:C6	1:1A:1953:A:N1	2.87	0.42
1:1A:2023:G:H5'	1:1A:2617:C:H4'	2.02	0.42
1:1A:2100:G:H2'	1:1A:2101:G:C8	2.54	0.42
1:1A:2206:G:H5''	1:1A:2207:G:C5	2.55	0.42
1:1A:2353:G:H2'	1:1A:2354:G:O4'	2.20	0.42
1:1A:2773:C:H2'	1:1A:2774:C:C6	2.54	0.42
3:1D:70:TRP:HB3	3:1D:190:TYR:CE2	2.54	0.42
6:1G:44:GLY:O	6:1G:47:LYS:HB2	2.20	0.42
7:1H:83:TYR:CZ	7:1H:138:LYS:HD2	2.54	0.42
16:1U:86:ALA:O	17:1V:49:THR:HG23	2.20	0.42
32:1a:106:C:O2'	32:1a:379:C:H5''	2.19	0.42
32:1a:1107:C:OP1	34:1c:173:VAL:N	2.51	0.42
33:1b:8:LYS:HG2	33:1b:55:PHE:HE2	1.84	0.42
33:1b:84:GLU:OE1	33:1b:87:ARG:NH1	2.53	0.42
37:1f:35:ALA:HA	37:1f:67:MET:HB3	2.00	0.42
37:1f:37:VAL:HA	37:1f:65:VAL:HG12	2.02	0.42
41:1j:37:PRO:HA	41:1j:72:VAL:HG12	2.01	0.42
48:1q:53:LEU:HB3	48:1q:82:MET:HE1	2.02	0.42
54:1y:9:A:O3'	54:1y:45:U:O2'	2.25	0.42
1:2A:747:U:O2	1:2A:2014:A:H1'	2.20	0.42
1:2A:868:U:C2	1:2A:869:G:C8	3.08	0.42
1:2A:1313:U:H4'	1:2A:1332:G:H4'	2.02	0.42
1:2A:2188:C:H2'	1:2A:2189:U:O4'	2.20	0.42
1:2A:2207:G:H3'	1:2A:2208:A:H5''	2.02	0.42
1:2A:2514:U:H2'	1:2A:2515:C:C6	2.54	0.42
1:2A:2556:C:H2'	1:2A:2557:G:O4'	2.20	0.42
1:2A:2723:C:OP2	4:2E:109:LYS:NZ	2.53	0.42
1:2A:2870:C:H2'	1:2A:2871:C:O4'	2.19	0.42
3:2D:4:LYS:HB3	3:2D:18:VAL:HG22	2.01	0.42
7:2H:103:LEU:HB3	7:2H:115:VAL:HB	2.01	0.42
7:2H:164:TYR:HB2	7:2H:167:GLU:HB2	2.01	0.42
19:2X:1:MET:HE1	24:22:26:ARG:HH21	1.85	0.42
29:27:26:GLY:O	29:27:30:VAL:HG23	2.20	0.42
32:2a:66:G:H8	32:2a:66:G:OP1	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:607:A:H2'	32:2a:608:A:O4'	2.20	0.42
32:2a:1512:U:H2'	32:2a:1513:A:C8	2.55	0.42
33:2b:117:GLU:OE2	33:2b:121:LEU:HB2	2.19	0.42
33:2b:133:LYS:O	33:2b:137:ARG:N	2.42	0.42
51:2t:47:GLY:HA2	51:2t:48:LYS:C	2.44	0.42
52:2u:9:ARG:NH2	52:2u:10:ARG:HH21	2.12	0.42
54:2w:29:G:C2	54:2w:30:G:C4	3.07	0.42
1:1A:256:A:H2'	1:1A:257:A:H8	1.85	0.42
1:1A:483:A:O2'	20:1Y:49:VAL:O	2.32	0.42
1:1A:592:G:O2'	30:18:4:MET:HG3	2.20	0.42
1:1A:717:G:H2'	1:1A:718:A:O4'	2.19	0.42
1:1A:818:G:H4'	1:1A:838:C:O3'	2.20	0.42
1:1A:1062:G:H2'	1:1A:1063:G:H8	1.85	0.42
1:1A:1175:U:O2'	1:1A:1176:G:O5'	2.35	0.42
1:1A:1197:G:H2'	1:1A:1198:U:H6	1.85	0.42
1:1A:1253:A:OP1	62:1A:4068:HOH:O	2.22	0.42
5:1F:14:PRO:HD2	5:1F:127:GLU:OE1	2.20	0.42
5:1F:130:ALA:H	5:1F:142:TRP:CD1	2.38	0.42
12:1Q:85:LYS:HG2	22:10:7:LEU:HB3	2.01	0.42
21:1Z:10:ARG:HD3	21:1Z:38:TYR:HB3	2.01	0.42
27:15:41:PRO:HA	27:15:42:PRO:HD2	1.90	0.42
32:1a:9:G:C6	32:1a:26:A:N6	2.88	0.42
32:1a:583:A:H2'	32:1a:584:G:O4'	2.20	0.42
32:1a:626:U:C2	32:1a:627:G:C8	3.08	0.42
32:1a:679:C:H2'	32:1a:680:C:C6	2.54	0.42
32:1a:925:G:H1'	32:1a:1502:A:C4	2.55	0.42
32:1a:1025:U:C2	32:1a:1036:G:O6	2.73	0.42
32:1a:1304:G:C6	32:1a:1305:G:N1	2.88	0.42
34:1c:36:ASP:OD1	34:1c:57:ILE:HG21	2.20	0.42
42:1k:20:TYR:CZ	42:1k:83:ILE:HD12	2.55	0.42
55:1x:50:U:H2'	55:1x:51:C:C6	2.55	0.42
54:1y:30:G:H2'	54:1y:31:A:H8	1.85	0.42
1:2A:7:G:H2'	1:2A:8:A:O4'	2.20	0.42
1:2A:875:G:N2	1:2A:903:C:H1'	2.34	0.42
1:2A:1149:G:H2'	1:2A:1150:C:C6	2.55	0.42
1:2A:1344:G:O2'	1:2A:1385:G:H2'	2.19	0.42
1:2A:1486:A:H2'	1:2A:1487:G:H8	1.85	0.42
1:2A:1702:G:H2'	1:2A:1703:G:O4'	2.20	0.42
1:2A:2239:G:P	3:2D:244:ARG:HH12	2.43	0.42
1:2A:2695:C:H2'	1:2A:2696:U:C6	2.54	0.42
1:2A:2712:U:H2'	1:2A:2714:G:H5''	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:2O:66:LYS:O	10:2O:78:ARG:HG2	2.19	0.42
11:2P:45:LEU:HD23	11:2P:45:LEU:HA	1.80	0.42
19:2X:5:TYR:OH	24:22:30:ARG:NH1	2.51	0.42
32:2a:667:G:O2'	46:2o:49:ASP:OD1	2.28	0.42
32:2a:909:A:H2'	32:2a:910:C:O4'	2.20	0.42
32:2a:1129:C:H1'	32:2a:1130:A:N7	2.35	0.42
33:2b:16:HIS:CB	33:2b:204:ASN:HB3	2.50	0.42
33:2b:54:THR:HG21	33:2b:201:ILE:HD11	2.02	0.42
48:2q:53:LEU:HB3	48:2q:82:MET:SD	2.60	0.42
54:2y:49:C:N3	54:2y:65:G:N2	2.56	0.42
1:1A:500:G:N2	1:1A:502:A:H3'	2.34	0.41
1:1A:601:C:O2'	1:1A:605:C:H5''	2.19	0.41
1:1A:1082:U:N3	1:1A:1086:A:N6	2.20	0.41
1:1A:1226:A:OP1	17:1V:84:LYS:HE2	2.20	0.41
1:1A:1239:G:H2'	1:1A:1240:U:O4'	2.20	0.41
1:1A:1252:G:OP1	16:1U:36:ARG:NH1	2.52	0.41
1:1A:1297:C:OP2	62:1A:4065:HOH:O	2.21	0.41
1:1A:2018:G:N3	16:1U:34:LYS:NZ	2.67	0.41
1:1A:2126:A:N3	1:1A:2127:G:H1'	2.35	0.41
1:1A:2131:G:H4'	1:1A:2132:U:OP2	2.20	0.41
62:1A:4092:HOH:O	19:1X:68:ARG:NH2	2.53	0.41
5:1F:53:THR:HG23	5:1F:55:GLY:H	1.85	0.41
5:1F:135:LYS:HB2	5:1F:138:GLU:CG	2.50	0.41
6:1G:53:LEU:HA	6:1G:53:LEU:HD23	1.71	0.41
6:1G:106:LEU:HA	6:1G:110:ALA:HB3	2.01	0.41
20:1Y:98:VAL:HG12	20:1Y:105:ALA:HA	2.01	0.41
21:1Z:26:GLY:HA3	21:1Z:86:VAL:HG23	2.02	0.41
32:1a:660:G:OP1	46:1o:5:LYS:HD3	2.20	0.41
32:1a:815:A:N7	32:1a:1509:C:O2'	2.48	0.41
32:1a:1127:G:H5'	32:1a:1280:A:O2'	2.19	0.41
35:1d:88:VAL:HG22	36:1e:97:GLY:HA2	2.02	0.41
47:1p:14:ASN:N	47:1p:15:PRO:HD3	2.35	0.41
50:1s:40:ILE:HB	50:1s:67:VAL:O	2.19	0.41
54:1y:40:C:H2'	54:1y:41:C:C6	2.55	0.41
1:2A:557:U:H2'	1:2A:558:G:H8	1.85	0.41
1:2A:729:G:O2'	1:2A:763:G:H4'	2.19	0.41
1:2A:784:A:OP1	1:2A:2588:G:H5''	2.20	0.41
1:2A:1479:G:H1'	1:2A:1558:A:OP1	2.19	0.41
3:2D:80:ALA:HB3	3:2D:94:LEU:HB3	2.01	0.41
4:2E:31:CYS:HA	4:2E:32:PRO:HD2	1.96	0.41
6:2G:3:LEU:HD13	26:24:25:TYR:HE2	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:2U:24:TYR:HB2	16:2U:29:SER:HB3	2.02	0.41
32:2a:7:G:H5'	32:2a:298:A:O4'	2.19	0.41
32:2a:1000:U:O4	32:2a:1001:A:N6	2.52	0.41
32:2a:1014:A:H1'	50:2s:34:TRP:HB2	2.02	0.41
33:2b:130:ARG:HA	33:2b:131:PRO:HD3	1.85	0.41
33:2b:185:ILE:CG2	33:2b:199:TYR:HB2	2.50	0.41
34:2c:159:GLY:HA2	34:2c:193:TYR:CD1	2.55	0.41
36:2e:105:VAL:HB	36:2e:106:PRO:HD3	2.02	0.41
46:2o:17:ARG:HD3	46:2o:26:GLU:HG3	2.02	0.41
47:2p:14:ASN:OD1	47:2p:42:ARG:NH2	2.52	0.41
49:2r:53:ARG:HA	49:2r:56:THR:OG1	2.19	0.41
54:2w:72:C:H3'	54:2w:73:A:O4'	2.21	0.41
1:1A:41:C:H2'	1:1A:42:G:O4'	2.20	0.41
1:1A:744:G:OP1	4:1E:132:HIS:ND1	2.44	0.41
1:1A:775:G:O5'	1:1A:777:A:H1'	2.20	0.41
1:1A:784:A:H5'	1:1A:785:G:OP1	2.20	0.41
1:1A:897:C:C2	1:1A:898:C:C5	3.09	0.41
1:1A:1024:G:O2'	1:1A:1144:G:O2'	2.36	0.41
1:1A:1185:C:H5''	1:1A:1186:G:OP1	2.20	0.41
1:1A:1419:A:C8	1:1A:1421:G:C6	3.09	0.41
1:1A:2478:A:OP2	31:19:2:LYS:NZ	2.45	0.41
1:1A:2695:C:H2'	1:1A:2696:U:H6	1.85	0.41
1:1A:2719:G:N2	1:1A:2872:G:H1	2.18	0.41
13:1R:28:LEU:HD12	13:1R:48:VAL:HG21	2.02	0.41
26:14:14:ILE:HA	26:14:31:ILE:O	2.19	0.41
32:1a:67:C:O2'	32:1a:171:A:N3	2.51	0.41
32:1a:684:A:H1'	42:1k:39:PRO:HD2	2.01	0.41
32:1a:881:G:P	43:1l:12:ARG:HH22	2.43	0.41
32:1a:1174:G:H2'	32:1a:1175:G:H8	1.85	0.41
32:1a:1304:G:OP2	62:1a:3319:HOH:O	2.21	0.41
35:1d:112:VAL:HG23	35:1d:116:GLN:NE2	2.34	0.41
1:2A:195:A:H2'	1:2A:198:C:N4	2.35	0.41
1:2A:244:A:C2	1:2A:255:A:C4	3.08	0.41
1:2A:483:A:H1'	20:2Y:59:GLY:O	2.20	0.41
1:2A:570:G:H5''	62:2A:4337:HOH:O	2.20	0.41
1:2A:593:G:H4'	30:28:4:MET:HE2	2.03	0.41
1:2A:672:C:H2'	1:2A:673:C:C6	2.55	0.41
1:2A:807:U:OP2	11:2P:41:ARG:NH2	2.53	0.41
1:2A:1042:G:N3	1:2A:1042:G:H2'	2.35	0.41
1:2A:1161:C:H2'	1:2A:1162:G:C8	2.55	0.41
1:2A:1515:G:H2'	1:2A:1516:C:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1999:C:H2'	1:2A:2000:G:O4'	2.20	0.41
1:2A:2006:C:H6	1:2A:2006:C:O5'	2.04	0.41
1:2A:2529:G:O6	31:29:31:LYS:NZ	2.53	0.41
1:2A:2728:U:H2'	1:2A:2729:G:C8	2.55	0.41
1:2A:2748:A:H5'	7:2H:4:ILE:HD12	2.01	0.41
6:2G:25:TYR:HB3	6:2G:30:GLU:HB2	2.02	0.41
6:2G:44:GLY:O	6:2G:47:LYS:HB3	2.20	0.41
11:2P:38:GLN:C	11:2P:40:SER:H	2.28	0.41
15:2T:73:GLU:OE2	15:2T:103:ARG:NE	2.48	0.41
19:2X:59:VAL:HB	19:2X:76:ARG:HB2	2.01	0.41
32:2a:406:G:O2'	35:2d:3:ARG:NH2	2.52	0.41
32:2a:453:A:C5	32:2a:454:C:C4	3.08	0.41
32:2a:689:C:P	42:2k:46:GLY:HA3	2.60	0.41
32:2a:1072:G:C5	32:2a:1073:U:C4	3.08	0.41
32:2a:1241:G:H2'	32:2a:1242:C:C6	2.56	0.41
33:2b:18:GLY:HA3	33:2b:42:ILE:H	1.85	0.41
33:2b:102:LEU:HD23	33:2b:182:ILE:HD12	2.01	0.41
35:2d:61:LYS:HD2	35:2d:207:TYR:OH	2.20	0.41
35:2d:146:ILE:HD12	35:2d:146:ILE:H	1.85	0.41
35:2d:196:LEU:H	35:2d:196:LEU:HD12	1.84	0.41
36:2e:57:LYS:HG2	36:2e:61:TYR:HE2	1.84	0.41
36:2e:122:GLU:HB2	36:2e:126:ARG:NH1	2.33	0.41
54:2y:40:C:H2'	54:2y:41:C:C6	2.56	0.41
1:1A:35:G:H2'	1:1A:36:G:O4'	2.21	0.41
1:1A:38:A:H2'	1:1A:39:C:C6	2.55	0.41
1:1A:783:A:O2'	1:1A:785:G:OP1	2.29	0.41
1:1A:859:G:O2'	1:1A:916:G:O6	2.33	0.41
1:1A:1095:A:C8	1:1A:1096:A:N7	2.88	0.41
1:1A:1328:G:H2'	1:1A:1330:C:C5	2.55	0.41
1:1A:1668:A:N1	1:1A:1675:C:N4	2.66	0.41
1:1A:2322:A:H2'	1:1A:2323:G:O4'	2.20	0.41
6:1G:104:GLU:HG3	62:1G:5002:HOH:O	2.20	0.41
17:1V:62:LEU:HD11	17:1V:95:LEU:HB2	2.03	0.41
19:1X:11:PRO:HB3	19:1X:92:LEU:HD11	2.02	0.41
32:1a:50:A:H1'	32:1a:52:G:C8	2.56	0.41
32:1a:375:U:C4	32:1a:376:G:N7	2.87	0.41
32:1a:453:A:C5	32:1a:454:C:C4	3.08	0.41
32:1a:577:G:OP2	62:1a:3320:HOH:O	2.22	0.41
32:1a:684:A:O2'	42:1k:39:PRO:O	2.38	0.41
32:1a:841:U:H6	32:1a:841:U:P	2.43	0.41
32:1a:947:G:H4'	44:1m:109:THR:HG23	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1005:A:H5''	32:1a:1006:C:C5	2.55	0.41
34:1c:129:ALA:HB3	34:1c:132:ARG:HB3	2.02	0.41
55:1x:64:G:H2'	55:1x:65:C:C6	2.55	0.41
1:2A:108:U:H2'	1:2A:109:G:H8	1.86	0.41
1:2A:361:G:O2'	1:2A:362:U:H5'	2.20	0.41
1:2A:729:G:O5'	3:2D:208:LYS:NZ	2.52	0.41
1:2A:1287:A:C5	1:2A:1288:U:C4	3.08	0.41
1:2A:1530:C:H1'	1:2A:1531:C:OP1	2.20	0.41
1:2A:2114:A:O2'	1:2A:2167:U:H1'	2.20	0.41
1:2A:2139:C:N4	1:2A:2153:G:C6	2.88	0.41
1:2A:2185:C:H2'	1:2A:2186:G:O4'	2.20	0.41
1:2A:2360:A:H8	1:2A:2360:A:O5'	2.04	0.41
1:2A:2639:A:C2	1:2A:2778:A:C8	3.08	0.41
1:2A:2679:A:C2	1:2A:2729:G:C2	3.08	0.41
2:2B:43:C:C5'	26:24:1:MET:HE3	2.50	0.41
2:2B:68:C:H2'	2:2B:69:G:H8	1.85	0.41
10:2O:86:ILE:HG22	10:2O:94:ARG:HD3	2.02	0.41
13:2R:56:LYS:NZ	13:2R:90:ARG:O	2.53	0.41
19:2X:94:GLY:H	19:2X:95:LEU:HA	1.85	0.41
21:2Z:100:VAL:HA	21:2Z:101:PRO:HD3	1.90	0.41
31:29:10:ILE:HD12	31:29:32:HIS:HA	2.01	0.41
32:2a:67:C:H2'	32:2a:68:G:H8	1.84	0.41
32:2a:544:G:OP2	35:2d:66:ARG:NH2	2.54	0.41
32:2a:756:C:H2'	32:2a:757:U:O4'	2.21	0.41
32:2a:1004:A:N7	32:2a:1037:C:H2'	2.35	0.41
32:2a:1072:G:C6	32:2a:1073:U:C4	3.07	0.41
32:2a:1097:C:H2'	32:2a:1098:C:C6	2.55	0.41
32:2a:1176:A:H2'	32:2a:1177:G:C8	2.55	0.41
32:2a:1320:C:C2	50:2s:72:GLY:HA3	2.56	0.41
33:2b:158:LEU:HA	33:2b:159:PRO:HD3	1.90	0.41
50:2s:27:GLU:H	50:2s:27:GLU:HG3	1.43	0.41
1:1A:26:G:C6	1:1A:27:G:C6	3.08	0.41
1:1A:566:U:H5''	11:1P:29:LYS:HE3	2.01	0.41
1:1A:684:G:H2'	1:1A:774:A:N6	2.35	0.41
1:1A:780:G:H1'	1:1A:785:G:C2	2.56	0.41
4:1E:59:VAL:HG21	4:1E:74:PRO:HB3	2.03	0.41
6:1G:101:ILE:HG22	6:1G:105:LYS:HE2	2.03	0.41
16:1U:76:TYR:CE2	16:1U:80:ILE:HG13	2.56	0.41
23:11:23:LYS:HB3	23:11:29:GLY:HA3	2.02	0.41
32:1a:15:G:H4'	36:1e:24:ARG:HE	1.85	0.41
32:1a:438:G:H4'	35:1d:123:HIS:ND1	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:487:A:H2'	32:1a:488:C:O4'	2.19	0.41
32:1a:648:A:H2'	32:1a:649:G:C8	2.56	0.41
32:1a:724:G:C2	32:1a:725:G:C8	3.09	0.41
32:1a:971:G:N2	32:1a:1363(A):A:OP2	2.45	0.41
32:1a:1053:G:N7	32:1a:1200:C:H5''	2.35	0.41
32:1a:1207:2MG:C6	32:1a:1208:C:C4	3.08	0.41
35:1d:22:LYS:HD2	35:1d:25:ARG:HD2	2.01	0.41
35:1d:63:LYS:O	35:1d:67:ILE:HG13	2.20	0.41
35:1d:111:ALA:HA	35:1d:116:GLN:HE21	1.86	0.41
55:1x:15:G:H2'	55:1x:59:A:N1	2.35	0.41
55:1x:23:C:H2'	55:1x:24:U:H6	1.83	0.41
1:2A:1485:G:O6	62:2A:3761:HOH:O	2.22	0.41
1:2A:1814:G:C6	1:2A:1815:A:C6	3.08	0.41
1:2A:1952:A:OP1	10:2O:42:SER:OG	2.37	0.41
1:2A:2155:G:H5'	1:2A:2155:G:H8	1.84	0.41
1:2A:2302:G:H2'	1:2A:2303:G:H8	1.85	0.41
1:2A:2722:G:H2'	1:2A:2723:C:C6	2.55	0.41
5:2F:170:LEU:HG	5:2F:172:TRP:NE1	2.35	0.41
6:2G:5:VAL:HG22	6:2G:8:LYS:HE2	2.02	0.41
9:2N:34:LEU:O	9:2N:49:GLY:HA3	2.20	0.41
10:2O:7:TYR:HE2	10:2O:20:MET:HE3	1.84	0.41
21:2Z:33:LEU:HD21	21:2Z:90:VAL:HG21	2.01	0.41
24:22:27:GLU:O	24:22:30:ARG:HB3	2.20	0.41
29:27:30:VAL:HG22	29:27:33:ARG:HH21	1.85	0.41
32:2a:73:G:C6	32:2a:97:G:C6	3.08	0.41
32:2a:176:C:H2'	32:2a:177:C:C6	2.55	0.41
32:2a:421:U:O2'	32:2a:423:G:N7	2.54	0.41
32:2a:828:A:H5''	32:2a:859:A:C2	2.55	0.41
32:2a:1359:C:H5''	62:2a:3340:HOH:O	2.19	0.41
32:2a:1401:G:C2	32:2a:1402:4OC:H1'	2.55	0.41
33:2b:13:ALA:C	33:2b:15:VAL:H	2.28	0.41
34:2c:199:LYS:HB3	34:2c:201:TYR:CE2	2.56	0.41
40:2i:3:GLN:HE21	40:2i:20:ARG:HH21	1.67	0.41
40:2i:3:GLN:HG3	40:2i:20:ARG:HH21	1.85	0.41
40:2i:64:THR:HG21	40:2i:66:ARG:HH12	1.84	0.41
42:2k:38:ASN:HA	42:2k:39:PRO:HD3	1.92	0.41
43:2l:70:ILE:HD13	43:2l:77:LEU:HD12	2.01	0.41
50:2s:49:ILE:O	50:2s:60:VAL:N	2.49	0.41
1:1A:376:C:H2'	1:1A:377:C:C6	2.56	0.41
1:1A:875:G:H2'	1:1A:876:C:O4'	2.20	0.41
1:1A:980:A:C4	1:1A:1136:G:O4'	2.73	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1010:A:N3	1:1A:1153:C:H1'	2.34	0.41
1:1A:1067:A:H3'	1:1A:1067:A:N3	2.35	0.41
1:1A:1268:A:H2'	1:1A:1269:A:O4'	2.21	0.41
1:1A:1645:G:H5''	1:1A:1646:C:O5'	2.19	0.41
1:1A:1881:C:H2'	1:1A:1882:C:H6	1.86	0.41
1:1A:2018:G:O2'	16:1U:34:LYS:HE3	2.20	0.41
1:1A:2059:A:H2'	1:1A:2503:2MA:HM23	2.02	0.41
1:1A:2124:G:N2	1:1A:2174:C:N3	2.59	0.41
1:1A:2220:G:H2'	1:1A:2221:G:H8	1.85	0.41
12:1Q:31:ASP:HA	12:1Q:134:ARG:HH11	1.84	0.41
14:1S:106:ARG:HE	14:1S:112:PHE:C	2.27	0.41
19:1X:88:LYS:HE3	19:1X:93:GLU:HG3	2.03	0.41
32:1a:826:C:H2'	32:1a:827:U:C6	2.56	0.41
32:1a:1410:G:H2'	32:1a:1411:C:C6	2.54	0.41
34:1c:150:LYS:HG3	34:1c:169:ALA:HB2	2.02	0.41
35:1d:146:ILE:H	35:1d:146:ILE:HD12	1.85	0.41
37:1f:82:ARG:HG3	37:1f:84:ASN:H	1.86	0.41
41:1j:17:ASP:OD1	41:1j:70:ARG:NE	2.43	0.41
1:2A:77:C:OP1	24:22:59:ARG:HD3	2.20	0.41
1:2A:271(H):G:N3	1:2A:271(I):G:C8	2.88	0.41
1:2A:329:G:H8	1:2A:329:G:OP1	2.04	0.41
1:2A:565:C:H2'	1:2A:566:U:O4'	2.20	0.41
1:2A:1169:G:N2	1:2A:1181:C:C2	2.89	0.41
1:2A:1496:A:OP2	1:2A:1496:A:H8	2.03	0.41
1:2A:2228:G:C6	1:2A:2229:C:C4	3.08	0.41
1:2A:2600:A:OP2	62:2A:3762:HOH:O	2.22	0.41
1:2A:2687:U:H2'	1:2A:2688:U:O4'	2.21	0.41
1:2A:2731:G:C6	1:2A:2732:G:C6	3.09	0.41
2:2B:42:C:N4	6:2G:91:ARG:HH12	2.13	0.41
4:2E:111:ARG:HD2	4:2E:160:TYR:CE2	2.55	0.41
12:2Q:133:ARG:O	21:2Z:81:ARG:NH1	2.54	0.41
26:24:47:GLN:C	26:24:49:PHE:N	2.79	0.41
32:2a:973:G:OP1	41:2j:57:LYS:NZ	2.29	0.41
32:2a:976:G:P	45:2n:32:SER:H	2.44	0.41
32:2a:1080:A:H5''	32:2a:1081:G:OP2	2.20	0.41
32:2a:1107:C:O2	32:2a:1191:A:O2'	2.39	0.41
32:2a:1178:G:N2	32:2a:1181:G:OP2	2.32	0.41
32:2a:1194:U:H4'	36:2e:22:GLY:CA	2.50	0.41
33:2b:80:ILE:HD11	33:2b:212:GLN:HA	2.03	0.41
34:2c:6:HIS:HA	34:2c:7:PRO:HD3	1.76	0.41
35:2d:18:LYS:NZ	35:2d:34:GLU:HG3	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:2t:64:ASP:CG	51:2t:81:LYS:HZ3	2.23	0.41
1:1A:45:C:OP2	1:1A:215:G:H2'	2.21	0.41
1:1A:324:A:N6	1:1A:338:G:O2'	2.49	0.41
1:1A:1086:A:H4'	1:1A:1103:A:H2	1.86	0.41
1:1A:1128:A:N7	1:1A:2489:G:O2'	2.54	0.41
1:1A:1161:C:O2'	17:1V:8:GLY:HA2	2.20	0.41
1:1A:1668:A:H4'	1:1A:1669:A:O5'	2.21	0.41
1:1A:1750:G:O2'	1:1A:2860:A:N1	2.45	0.41
1:1A:2470:G:O6	1:1A:2476:A:O2'	2.23	0.41
1:1A:2629:A:O2'	1:1A:2630:G:P	2.78	0.41
1:1A:2735:G:H2'	1:1A:2736:G:C8	2.55	0.41
3:1D:9:TYR:CD1	3:1D:10:THR:HG23	2.55	0.41
14:1S:11:LYS:O	14:1S:15:ARG:HG3	2.20	0.41
19:1X:27:THR:OG1	19:1X:80:ILE:HG12	2.21	0.41
32:1a:16:A:N3	32:1a:1080:A:O2'	2.42	0.41
32:1a:93:G:C2'	32:1a:96:U:H5'	2.51	0.41
32:1a:319:G:H2'	32:1a:320:C:O4'	2.21	0.41
32:1a:333:G:H4'	51:1t:16:HIS:CE1	2.56	0.41
32:1a:627:G:H2'	32:1a:628:G:C8	2.56	0.41
32:1a:926:G:C6	32:1a:1505:G:C6	3.08	0.41
32:1a:1134:G:C2	32:1a:1141:C:C2	3.09	0.41
43:1l:33:ARG:HD3	43:1l:33:ARG:HA	1.93	0.41
1:2A:480:A:OP2	20:2Y:47:LYS:HE3	2.20	0.41
1:2A:627:A:H4'	1:2A:628:G:H5'	2.02	0.41
1:2A:654:A:H2	1:2A:655:A:C2	2.38	0.41
1:2A:1453:U:O4	13:2R:67:LEU:HD21	2.20	0.41
1:2A:1589:C:H2'	1:2A:1590:U:C6	2.56	0.41
1:2A:2432:A:C6	1:2A:2433:A:C6	3.09	0.41
1:2A:2519:U:C6	1:2A:2542:A:N6	2.88	0.41
1:2A:2611:U:H3'	1:2A:2611:U:OP2	2.21	0.41
1:2A:2758:A:C2	1:2A:2759:G:H1'	2.55	0.41
1:2A:2838:G:C6	1:2A:2839:G:C5	3.08	0.41
5:2F:126:VAL:HG21	5:2F:129:PHE:CE1	2.55	0.41
7:2H:90:LYS:HD2	7:2H:163:TYR:CD2	2.56	0.41
8:2I:79:ILE:O	8:2I:144:VAL:HA	2.20	0.41
12:2Q:42:ILE:HG23	12:2Q:46:GLN:HB2	2.02	0.41
13:2R:12:ARG:HG2	13:2R:16:HIS:ND1	2.35	0.41
32:2a:530:G:N3	54:2w:35:A:O2'	2.50	0.41
32:2a:1387:G:H2'	32:2a:1388:C:H6	1.85	0.41
48:2q:94:ASN:O	48:2q:98:LEU:HD13	2.20	0.41
54:2y:9:A:H5''	54:2y:46:7MG:H1'	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:444:C:H4'	5:1F:49:ALA:HB2	2.03	0.41
1:1A:518:G:H4'	18:1W:18:ARG:NE	2.35	0.41
1:1A:637:A:H2'	11:1P:117:GLU:OE1	2.20	0.41
1:1A:652(U):G:H2'	1:1A:652(V):C:C6	2.55	0.41
1:1A:743:G:O2'	1:1A:1659:U:OP1	2.30	0.41
1:1A:754:C:H2'	1:1A:755:C:H6	1.85	0.41
1:1A:1176:G:H1'	1:1A:1177:A:C5'	2.49	0.41
1:1A:1292:U:H2'	1:1A:1293:C:H6	1.85	0.41
1:1A:1426:G:N7	3:1D:31:LYS:NZ	2.68	0.41
1:1A:1920:4OC:HM22	1:1A:1921:G:O4'	2.20	0.41
1:1A:2319:G:N2	14:1S:3:ARG:HA	2.35	0.41
4:1E:195:LEU:HD23	62:1E:417:HOH:O	2.20	0.41
5:1F:140:LEU:CD1	5:1F:170:LEU:HD21	2.51	0.41
10:1O:23:ARG:HD3	10:1O:24:VAL:H	1.84	0.41
17:1V:43:GLU:OE1	17:1V:43:GLU:N	2.53	0.41
18:1W:84:ARG:O	18:1W:96:ILE:N	2.53	0.41
19:1X:92:LEU:O	19:1X:94:GLY:N	2.54	0.41
21:1Z:19:ARG:NH1	21:1Z:84:GLU:O	2.54	0.41
21:1Z:35:ARG:HD2	21:1Z:35:ARG:HA	1.71	0.41
32:1a:9:G:H2'	32:1a:10:A:H8	1.86	0.41
32:1a:259:G:H2'	32:1a:260:G:O4'	2.21	0.41
32:1a:445:G:H2'	32:1a:446:G:C8	2.56	0.41
32:1a:1446:U:O2'	32:1a:1447:A:C8	2.74	0.41
32:1a:1457:G:H5''	51:1t:35:THR:HG21	2.02	0.41
32:1a:1518:MA6:H93	32:1a:1519:MA6:H92	2.01	0.41
33:1b:211:ILE:O	33:1b:215:LEU:HB2	2.21	0.41
39:1h:121:ASP:OD1	39:1h:121:ASP:N	2.54	0.41
42:1k:43:SER:HB3	42:1k:68:ALA:HB2	2.02	0.41
44:1m:11:ARG:HA	44:1m:45:VAL:HB	2.03	0.41
51:1t:67:ALA:HB1	51:1t:74:LYS:HD2	2.02	0.41
1:2A:438:G:H2'	1:2A:440:G:H8	1.86	0.41
1:2A:923:C:H2'	1:2A:924:C:C6	2.56	0.41
1:2A:2330:G:H21	22:20:42:GLY:N	2.18	0.41
1:2A:2740:A:C6	1:2A:2741:A:C6	3.07	0.41
2:2B:76:G:H2'	2:2B:77:U:O4'	2.21	0.41
9:2N:43:THR:HB	9:2N:46:VAL:HG22	2.02	0.41
12:2Q:75:THR:HG21	12:2Q:87:LYS:NZ	2.35	0.41
19:2X:52:VAL:HG12	19:2X:82:GLN:O	2.21	0.41
20:2Y:28:LYS:HG3	20:2Y:40:GLU:HB2	2.02	0.41
25:23:26:LEU:O	25:23:35:ARG:NE	2.53	0.41
32:2a:338:A:H2	32:2a:351:G:H22	1.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:584:G:H5'	48:2q:91:ARG:HH22	1.85	0.41
32:2a:715:A:H2'	32:2a:716:A:C8	2.55	0.41
33:2b:31:TYR:OH	33:2b:200:ILE:HD13	2.20	0.41
36:2e:93:PRO:HG2	39:2h:105:ARG:CZ	2.50	0.41
38:2g:16:LEU:HD22	40:2i:41:VAL:O	2.21	0.41
44:2m:3:ARG:N	44:2m:8:GLU:HA	2.35	0.41
44:2m:4:ILE:HG23	44:2m:5:ALA:N	2.34	0.41
44:2m:47:ASP:O	44:2m:48:LEU:HD23	2.20	0.41
44:2m:65:LYS:O	44:2m:70:LEU:HD12	2.21	0.41
45:2n:32:SER:O	45:2n:40:CYS:HA	2.21	0.41
55:2x:10:G:N2	55:2x:26:G:H1'	2.36	0.41
55:2x:61:C:H2'	55:2x:62:C:H6	1.86	0.41
1:1A:207:A:H2'	1:1A:208:C:O4'	2.20	0.41
1:1A:236:C:H2'	1:1A:237:C:C6	2.56	0.41
1:1A:285:C:H2'	1:1A:286:C:C6	2.56	0.41
1:1A:340:A:H2'	1:1A:341:G:O4'	2.21	0.41
1:1A:537:C:H2'	1:1A:538:G:C8	2.55	0.41
1:1A:1287:A:N1	1:1A:1648:C:O2'	2.53	0.41
1:1A:1584:C:H5'	56:1A:3130:MG:MG	1.46	0.41
1:1A:1853:A:H2'	1:1A:1854:A:C8	2.55	0.41
1:1A:2134:A:N3	1:1A:2159:G:O2'	2.39	0.41
1:1A:2576:G:H1'	62:1A:4543:HOH:O	2.21	0.41
1:1A:2740:A:H2'	1:1A:2741:A:C8	2.56	0.41
2:1B:101:G:H2'	2:1B:102:A:O4'	2.21	0.41
11:1P:43:GLY:HA3	62:1P:301:HOH:O	2.20	0.41
11:1P:58:THR:HG21	30:18:54:GLU:HG3	2.02	0.41
12:1Q:1:MET:HE2	12:1Q:1:MET:HB3	1.93	0.41
15:1T:39:ARG:NH2	32:1a:345:C:H5''	2.29	0.41
20:1Y:26:LYS:HA	20:1Y:26:LYS:HD2	1.74	0.41
21:1Z:152:ALA:H	21:1Z:171:ILE:CG2	2.33	0.41
23:11:72:GLU:O	23:11:76:ARG:HG3	2.21	0.41
26:14:47:GLN:C	26:14:49:PHE:H	2.29	0.41
32:1a:69:G:H2'	32:1a:70:G:C8	2.56	0.41
32:1a:134:A:H61	47:1p:25:ARG:NH1	2.10	0.41
32:1a:539:A:H2'	32:1a:540:G:C8	2.55	0.41
32:1a:829:G:C6	32:1a:858:G:N2	2.88	0.41
32:1a:1429:C:H2'	32:1a:1430:C:C6	2.55	0.41
32:1a:1513:A:H2'	32:1a:1514:C:C6	2.55	0.41
33:1b:71:VAL:HB	33:1b:164:VAL:HA	2.03	0.41
33:1b:107:THR:O	33:1b:110:GLN:HB3	2.21	0.41
35:1d:194:LEU:HG	35:1d:196:LEU:HD12	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:1f:22:GLU:CD	37:1f:82:ARG:HG2	2.45	0.41
45:1n:33:VAL:HA	45:1n:40:CYS:HA	2.01	0.41
51:1t:43:LEU:O	51:1t:47:GLY:N	2.54	0.41
54:1w:22:G:H2'	54:1w:23:A:C8	2.55	0.41
1:2A:186:G:H2'	1:2A:187:G:H8	1.86	0.41
1:2A:389:G:C6	11:2P:70:GLN:HG3	2.56	0.41
1:2A:489:G:H2'	1:2A:491:G:O4'	2.21	0.41
1:2A:1203:G:OP2	1:2A:1204:A:O2'	2.26	0.41
1:2A:1207:C:H2'	1:2A:1208:C:C6	2.56	0.41
1:2A:1308:A:H2'	1:2A:1309:G:O4'	2.21	0.41
1:2A:1512:U:H2'	1:2A:1513:C:H6	1.86	0.41
1:2A:1625:C:H2'	1:2A:1626:G:O4'	2.21	0.41
1:2A:2001:A:H2'	1:2A:2002:G:C8	2.56	0.41
1:2A:2406:U:OP1	62:2A:3763:HOH:O	2.22	0.41
3:2D:5:LYS:HE3	3:2D:5:LYS:HB3	1.96	0.41
4:2E:11:MET:HG2	4:2E:24:THR:HB	2.02	0.41
8:2I:77:LEU:HD13	8:2I:101:LEU:HD13	2.02	0.41
11:2P:91:PHE:O	11:2P:121:LYS:NZ	2.49	0.41
11:2P:120:ALA:HB2	11:2P:137:LYS:HB3	2.02	0.41
14:2S:10:ARG:O	14:2S:14:VAL:HG13	2.21	0.41
23:21:83:GLU:HA	23:21:84:GLY:HA2	1.69	0.41
31:29:29:ASN:HB3	31:29:32:HIS:ND1	2.35	0.41
31:29:32:HIS:O	31:29:34:GLN:HG3	2.21	0.41
32:2a:264:U:O2	48:2q:64:PRO:HG2	2.21	0.41
32:2a:1085:U:H3'	32:2a:1086:U:C6	2.56	0.41
32:2a:1092:A:H2'	32:2a:1093:A:C8	2.56	0.41
32:2a:1378:C:N3	32:2a:1379:G:H1'	2.36	0.41
33:2b:155:LEU:HD21	33:2b:159:PRO:HD3	2.03	0.41
33:2b:163:PHE:CD1	33:2b:185:ILE:HG13	2.55	0.41
35:2d:64:LEU:HB2	35:2d:198:VAL:HG21	2.03	0.41
43:2l:33:ARG:O	43:2l:85:ILE:HG12	2.21	0.41
44:2m:84:ILE:HG13	44:2m:85:GLY:N	2.35	0.41
48:2q:3:LYS:HD2	48:2q:60:ILE:HD11	2.03	0.41
1:1A:105:C:H2'	1:1A:106:C:C6	2.56	0.41
1:1A:882:G:H4'	54:1w:19:G:C5	2.56	0.41
1:1A:1064:C:H2'	1:1A:1065:U:H5'	2.03	0.41
1:1A:1115:G:H2'	1:1A:1116:C:O4'	2.21	0.41
1:1A:1400:G:H2'	1:1A:1401:G:C8	2.56	0.41
1:1A:1823:G:OP1	3:1D:54:ARG:NH1	2.54	0.41
1:1A:2093:G:C6	1:1A:2225:A:C8	3.09	0.41
1:1A:2667:C:H1'	7:1H:109:PHE:CD1	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2853:C:H2'	1:1A:2854:G:C8	2.55	0.41
2:1B:14:U:O2	2:1B:108:U:H4'	2.20	0.41
3:1D:35:LYS:HB2	3:1D:36:PRO:HD2	2.02	0.41
4:1E:47:VAL:HG12	4:1E:49:LEU:HD12	2.02	0.41
4:1E:174:ASP:OD1	4:1E:175:VAL:N	2.53	0.41
7:1H:24:VAL:HG21	7:1H:72:ILE:HG12	2.03	0.41
7:1H:98:LEU:HD13	7:1H:125:VAL:HG23	2.02	0.41
11:1P:120:ALA:HB1	11:1P:138:LEU:HA	2.02	0.41
11:1P:128:HIS:NE2	11:1P:148:LEU:HD11	2.36	0.41
11:1P:135:LEU:HA	11:1P:135:LEU:HD23	1.83	0.41
12:1Q:30:GLY:CA	12:1Q:107:ALA:HB2	2.49	0.41
26:14:16:CYS:HB3	26:14:20:ASN:HB3	2.02	0.41
26:14:50:VAL:HG11	44:1m:65:LYS:N	2.36	0.41
32:1a:90:U:HO2'	32:1a:91:C:P	2.39	0.41
32:1a:243:A:H4'	32:1a:244:U:H5''	2.02	0.41
32:1a:723:U:O2'	32:1a:724:G:H5'	2.19	0.41
32:1a:812:C:OP1	32:1a:903:G:H1'	2.20	0.41
32:1a:926:G:O2'	53:1v:13:A:H1'	2.21	0.41
32:1a:1079:G:C6	32:1a:1080:A:N6	2.89	0.41
32:1a:1330:U:H2'	32:1a:1331:G:H5'	2.02	0.41
33:1b:8:LYS:HB2	33:1b:9:GLU:H	1.52	0.41
33:1b:92:TYR:CZ	33:1b:151:GLY:HA3	2.55	0.41
33:1b:174:VAL:O	33:1b:178:ARG:HG2	2.21	0.41
38:1g:14:PRO:HG3	38:1g:21:VAL:HG13	2.03	0.41
39:1h:86:ILE:HG12	39:1h:135:CYS:HA	2.02	0.41
41:1j:11:PHE:CE1	41:1j:67:THR:HG22	2.56	0.41
1:2A:65:C:H5'	19:2X:71:GLY:HA3	2.02	0.41
1:2A:83:G:N2	1:2A:103:A:OP2	2.52	0.41
1:2A:277:C:O2	1:2A:277:C:H2'	2.19	0.41
1:2A:300:A:P	20:2Y:86:ARG:HH21	2.42	0.41
1:2A:661:C:H2'	1:2A:662:G:H8	1.86	0.41
1:2A:729:G:C4	1:2A:1775:U:C2	3.09	0.41
1:2A:829:A:N7	1:2A:2247:A:O2'	2.50	0.41
1:2A:839:U:H1'	1:2A:1191:G:H1'	2.03	0.41
1:2A:859:G:O2'	1:2A:916:G:O6	2.26	0.41
1:2A:947:G:N3	1:2A:984:A:H2	2.19	0.41
1:2A:947:G:H2'	1:2A:948:G:C8	2.56	0.41
1:2A:1197:G:H2'	1:2A:1198:U:H6	1.86	0.41
1:2A:1445:A:H8	1:2A:1460:A:C8	2.39	0.41
1:2A:1509(A):A:H3'	1:2A:1509(B):A:H8	1.86	0.41
1:2A:1996:C:H4'	1:2A:1997:G:OP1	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2187:G:C6	1:2A:2188:C:C4	3.08	0.41
1:2A:2206:G:H3'	1:2A:2207:G:N7	2.36	0.41
1:2A:2206:G:H3'	1:2A:2207:G:C8	2.56	0.41
1:2A:2328:A:H2'	1:2A:2329:G:C8	2.56	0.41
1:2A:2508:G:O3'	1:2A:2555:U:H5'	2.20	0.41
1:2A:2510:C:C4	1:2A:2511:U:C4	3.08	0.41
1:2A:2564:A:C6	1:2A:2565:A:C6	3.08	0.41
1:2A:2612:C:OP2	27:25:2:ALA:N	2.54	0.41
2:2B:115:G:O4'	14:2S:47:THR:HB	2.20	0.41
3:2D:129:ASN:O	3:2D:192:THR:HA	2.21	0.41
4:2E:52:LEU:HA	4:2E:53:PRO:HD2	1.97	0.41
4:2E:112:GLY:O	4:2E:159:HIS:HA	2.21	0.41
5:2F:114:VAL:HG21	5:2F:202:PHE:CZ	2.56	0.41
6:2G:64:THR:OG1	6:2G:66:GLN:O	2.39	0.41
7:2H:148:ILE:O	7:2H:162:ILE:HD13	2.20	0.41
8:2I:123:LEU:HA	8:2I:144:VAL:CG2	2.51	0.41
9:2N:96:GLU:CD	9:2N:96:GLU:H	2.28	0.41
13:2R:87:TYR:OH	13:2R:116:LEU:HB3	2.21	0.41
14:2S:36:TYR:HD1	14:2S:52:SER:HB3	1.86	0.41
14:2S:95:HIS:CG	14:2S:96:GLY:N	2.89	0.41
16:2U:108:GLU:O	16:2U:112:ARG:HG2	2.19	0.41
18:2W:11:ARG:NH1	18:2W:99:ARG:O	2.53	0.41
23:21:78:LYS:HD2	23:21:78:LYS:HA	1.81	0.41
23:21:88:LYS:O	23:21:92:LYS:HG3	2.20	0.41
28:26:40:CYS:HA	28:26:41:PRO:HD3	1.87	0.41
32:2a:34:C:H2'	32:2a:35:G:C8	2.55	0.41
32:2a:596:C:H2'	32:2a:597:G:C8	2.55	0.41
32:2a:670:G:H2'	32:2a:671:G:O4'	2.21	0.41
32:2a:794:A:C5	32:2a:795:C:C4	3.09	0.41
32:2a:826:C:H42	32:2a:874:G:H1	1.68	0.41
32:2a:922:G:C6	32:2a:923:A:C6	3.09	0.41
32:2a:1009:G:N2	32:2a:1021:G:H1'	2.36	0.41
32:2a:1151:A:O2'	32:2a:1152:A:H8	2.04	0.41
32:2a:1206:G:C6	32:2a:1207:2MG:C5	3.08	0.41
32:2a:1528:U:C2	32:2a:1530:G:C8	3.09	0.41
33:2b:92:TYR:N	33:2b:151:GLY:O	2.44	0.41
33:2b:146:GLN:O	33:2b:150:SER:HB3	2.20	0.41
36:2e:143:ARG:HE	39:2h:77:GLU:CD	2.29	0.41
38:2g:115:ARG:O	38:2g:119:ARG:HG3	2.20	0.41
42:2k:43:SER:CB	42:2k:68:ALA:HB2	2.50	0.41
42:2k:122:LYS:O	42:2k:126:ARG:HG3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:2y:7:A:N6	54:2y:66:U:N3	2.34	0.41
1:1A:1045:A:O2'	1:1A:1047:G:C4	2.70	0.41
1:1A:1045:A:H1'	1:1A:1047:G:N3	2.35	0.41
1:1A:2097:C:H2'	1:1A:2098:U:O4'	2.21	0.41
1:1A:2206:G:H5''	1:1A:2207:G:N7	2.36	0.41
1:1A:2315:G:H2'	1:1A:2316:C:C6	2.56	0.41
1:1A:2328:A:H2'	1:1A:2329:G:H8	1.81	0.41
3:1D:71:ASP:OD2	3:1D:103:ARG:NH2	2.48	0.41
5:1F:89:VAL:HG12	5:1F:90:PHE:CD2	2.55	0.41
13:1R:33:ARG:NH2	27:15:57:VAL:O	2.51	0.41
15:1T:65:LYS:HE3	15:1T:67:SER:HB2	2.03	0.41
23:11:2:SER:HB3	23:11:46:LEU:HD12	2.03	0.41
24:12:31:GLU:O	24:12:35:LEU:HG	2.21	0.41
32:1a:22:G:H2'	32:1a:23:C:C6	2.56	0.41
32:1a:79:G:C2	32:1a:90:U:O2	2.74	0.41
32:1a:182:U:C4	32:1a:183:G:H1'	2.56	0.41
32:1a:1401:G:C2	32:1a:1402:4OC:H1'	2.56	0.41
38:1g:146:GLU:O	38:1g:149:ARG:HB2	2.20	0.41
54:1y:23:A:H2'	54:1y:24:G:C8	2.56	0.41
1:2A:42:G:H2'	1:2A:43:A:O4'	2.21	0.41
1:2A:869:G:C4	1:2A:870:A:C8	3.09	0.41
1:2A:1500:G:O2'	3:2D:100:GLY:O	2.27	0.41
1:2A:1899:G:O2'	1:2A:1900:A:OP2	2.31	0.41
1:2A:2151:G:C2	1:2A:2152:G:C5	3.09	0.41
1:2A:2313:C:C4'	6:2G:91:ARG:HD3	2.51	0.41
1:2A:2561:A:H2'	1:2A:2562:U:O4'	2.20	0.41
1:2A:2575:C:OP1	4:2E:144:ARG:HD2	2.21	0.41
1:2A:2712:U:OP1	1:2A:2714:G:H4'	2.21	0.41
1:2A:2742:C:H2'	1:2A:2743:C:C6	2.56	0.41
62:2A:4040:HOH:O	27:25:8:LYS:HB3	2.21	0.41
6:2G:111:LEU:HB3	6:2G:117:PHE:CE1	2.56	0.41
6:2G:146:TYR:CG	44:2m:8:GLU:HG2	2.56	0.41
10:2O:80:ASP:OD1	15:2T:64:ARG:NH2	2.53	0.41
12:2Q:12:GLN:HE21	12:2Q:72:LYS:HZ2	1.67	0.41
16:2U:66:ASN:OD1	16:2U:70:ARG:NE	2.50	0.41
19:2X:84:ALA:HB3	19:2X:87:GLN:NE2	2.36	0.41
20:2Y:42:VAL:HG11	20:2Y:67:LEU:HD11	2.03	0.41
21:2Z:82:ARG:HA	21:2Z:83:PRO:HD2	1.87	0.41
32:2a:200:G:H1	32:2a:217:C:H42	1.67	0.41
32:2a:430:A:OP1	35:2d:9:CYS:HB2	2.20	0.41
35:2d:108:LEU:HB3	35:2d:110:PHE:CE1	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2d:114:ARG:O	35:2d:118:ARG:N	2.45	0.41
37:2f:100:ASN:ND2	49:2r:23:LYS:HE3	2.36	0.41
39:2h:20:TYR:OH	39:2h:78:GLN:NE2	2.54	0.41
42:2k:34:ASP:HB3	42:2k:40:ILE:HD11	2.03	0.41
1:1A:380:U:H5'	23:11:16:ASN:O	2.21	0.40
1:1A:1042:G:C6	1:1A:1043:C:C4	3.09	0.40
1:1A:2141:G:C5	1:1A:2151:G:C2	3.09	0.40
1:1A:2298:A:H2'	1:1A:2299:G:O4'	2.21	0.40
1:1A:2441:C:OP2	1:1A:2586:C:O2'	2.35	0.40
1:1A:2561:A:H2	10:1O:23:ARG:NH2	2.19	0.40
2:1B:77:U:OP1	21:1Z:19:ARG:NH2	2.53	0.40
6:1G:56:ALA:O	6:1G:59:GLU:HG2	2.20	0.40
13:1R:13:HIS:CE1	13:1R:16:HIS:HB2	2.56	0.40
20:1Y:14:LEU:HB2	20:1Y:75:ILE:HD11	2.02	0.40
21:1Z:1:MET:HA	21:1Z:2:GLU:HA	1.72	0.40
32:1a:11:G:N2	32:1a:525:C:O2'	2.37	0.40
32:1a:107:G:H2'	32:1a:108:G:O4'	2.21	0.40
32:1a:756:C:H2'	32:1a:757:U:O4'	2.21	0.40
33:1b:92:TYR:CE2	33:1b:151:GLY:HA3	2.56	0.40
33:1b:187:LEU:HA	33:1b:201:ILE:HB	2.02	0.40
34:1c:71:ALA:HB2	34:1c:115:LEU:HD21	2.02	0.40
35:1d:50:ARG:HA	35:1d:51:PRO:HD3	1.89	0.40
38:1g:74:GLU:OE2	38:1g:95:ARG:NE	2.48	0.40
46:1o:85:LEU:HB3	46:1o:87:ILE:HG13	2.02	0.40
48:1q:4:LYS:HG3	48:1q:6:LEU:CD1	2.51	0.40
50:1s:22:LEU:O	50:1s:27:GLU:N	2.55	0.40
54:1y:40:C:H2'	54:1y:41:C:H6	1.86	0.40
1:2A:56:A:H2'	1:2A:57:C:O4'	2.21	0.40
1:2A:303:U:H2'	1:2A:304:G:H8	1.86	0.40
1:2A:566:U:H2'	1:2A:567:A:O4'	2.21	0.40
1:2A:566:U:O2'	1:2A:809:G:OP2	2.33	0.40
1:2A:755:C:H2'	1:2A:756:C:C6	2.56	0.40
1:2A:840:C:H2'	1:2A:841:A:C8	2.56	0.40
1:2A:1451:C:H42	1:2A:1459:G:H1	1.69	0.40
1:2A:1479:G:H5''	1:2A:1560:G:H4'	2.02	0.40
1:2A:1628:G:H2'	1:2A:1629:U:C6	2.56	0.40
1:2A:2255:G:O2'	55:2x:3:C:H5'	2.21	0.40
1:2A:2525:G:C2	1:2A:2539:C:C2	3.09	0.40
1:2A:2823:A:OP1	4:2E:113:PHE:HB2	2.21	0.40
1:2A:2881:C:HO2'	13:2R:96:ARG:HA	1.85	0.40
8:2I:110:ASP:HA	8:2I:111:PRO:HD2	1.87	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:2Q:42:ILE:HD13	12:2Q:97:VAL:HG21	2.03	0.40
20:2Y:13:VAL:HB	20:2Y:72:VAL:HG13	2.04	0.40
21:2Z:144:LEU:HG	21:2Z:149:SER:HA	2.03	0.40
22:20:82:ARG:HA	22:20:83:PRO:HD3	1.73	0.40
25:23:6:VAL:HG22	25:23:56:VAL:HG22	2.03	0.40
32:2a:504:C:H1'	32:2a:510:A:C4	2.56	0.40
32:2a:1074:G:C6	32:2a:1075:C:C4	3.09	0.40
32:2a:1216:G:OP1	45:2n:2:ALA:HA	2.21	0.40
38:2g:65:ALA:O	38:2g:69:VAL:HG23	2.21	0.40
40:2i:111:ARG:HD2	45:2n:61:TRP:CD1	2.57	0.40
1:1A:1063:G:C6	1:1A:1064:C:N4	2.89	0.40
1:1A:1266:G:O5'	18:1W:15:ARG:NH2	2.55	0.40
1:1A:2698:U:H2'	1:1A:2699:C:C6	2.57	0.40
6:1G:11:TYR:HA	6:1G:15:VAL:HB	2.03	0.40
11:1P:101:VAL:HG23	11:1P:106:LEU:O	2.21	0.40
18:1W:46:PHE:O	18:1W:50:VAL:HG23	2.21	0.40
21:1Z:124:ILE:HD12	21:1Z:124:ILE:HA	1.95	0.40
32:1a:194:C:C2'	32:1a:195:A:H5''	2.51	0.40
32:1a:946:A:C6	32:1a:947:G:C6	3.10	0.40
32:1a:1342:C:H2'	32:1a:1343:G:H8	1.86	0.40
32:1a:1376:U:H2'	32:1a:1377:A:C8	2.56	0.40
38:1g:15:ASP:OD1	38:1g:19:GLY:N	2.54	0.40
40:1i:5:TYR:N	40:1i:87:GLN:OE1	2.53	0.40
54:1y:21:A:O2'	54:1y:22:G:O4'	2.26	0.40
1:2A:82:G:N1	1:2A:103:A:OP2	2.42	0.40
1:2A:195:A:H61	1:2A:198:C:H3'	1.86	0.40
1:2A:229:A:O5'	1:2A:230:U:H5'	2.22	0.40
1:2A:557:U:H2'	1:2A:558:G:C8	2.57	0.40
1:2A:664:C:H2'	1:2A:665:C:H6	1.86	0.40
1:2A:784:A:C8	1:2A:792:G:C5	3.10	0.40
1:2A:834:C:H2'	1:2A:835:A:C8	2.56	0.40
1:2A:1653:G:C4	13:2R:9:LYS:HD2	2.56	0.40
1:2A:2526:G:C6	1:2A:2527:C:C4	3.10	0.40
1:2A:2836:U:H6	1:2A:2836:U:O5'	2.04	0.40
7:2H:15:VAL:HB	7:2H:29:PRO:HD3	2.02	0.40
8:2I:12:LEU:HD23	8:2I:12:LEU:HA	1.93	0.40
9:2N:138:LEU:HD23	9:2N:138:LEU:HA	1.88	0.40
32:2a:790:A:H61	32:2a:1498:UR3:P	2.44	0.40
32:2a:812:C:OP1	32:2a:903:G:H1'	2.21	0.40
32:2a:1009:G:H22	32:2a:1021:G:H1'	1.85	0.40
32:2a:1022:G:C6	32:2a:1023:G:C6	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1072:G:C6	32:2a:1104:G:C6	3.09	0.40
32:2a:1081:G:N7	36:2e:27:ARG:NH1	2.70	0.40
32:2a:1097:C:O2'	32:2a:1169:A:N3	2.47	0.40
36:2e:60:TYR:CD2	36:2e:60:TYR:C	2.99	0.40
45:2n:10:ALA:CB	45:2n:23:ARG:HG3	2.51	0.40
46:2o:88:ARG:HE	46:2o:88:ARG:HB3	1.60	0.40
47:2p:5:ARG:HH11	47:2p:28:ARG:HA	1.85	0.40
49:2r:76:LEU:HD12	49:2r:76:LEU:HA	1.80	0.40
54:2y:61:C:H2'	54:2y:62:C:C6	2.56	0.40
1:1A:844:C:C2'	1:1A:845:G:H5'	2.51	0.40
1:1A:1095:A:C8	1:1A:1096:A:C8	3.10	0.40
1:1A:1170:G:H2'	1:1A:1171:G:O4'	2.21	0.40
1:1A:1204:A:H61	1:1A:1240:U:H2'	1.86	0.40
1:1A:1432:C:H2'	1:1A:1433:U:O4'	2.22	0.40
1:1A:1526:G:C6	1:1A:1527:G:C2	3.09	0.40
1:1A:2837:G:H21	13:1R:45:ARG:HH12	1.67	0.40
5:1F:140:LEU:HD11	5:1F:170:LEU:HD11	2.02	0.40
7:1H:83:TYR:CE2	7:1H:138:LYS:HB2	2.57	0.40
7:1H:167:GLU:HA	7:1H:168:PRO:HD3	1.86	0.40
31:19:7:VAL:HG12	31:19:34:GLN:HB3	2.02	0.40
32:1a:60:A:N1	32:1a:107:G:O2'	2.38	0.40
32:1a:664:G:N2	32:1a:741:G:H1	2.06	0.40
32:1a:811:C:O2'	32:1a:901:A:N1	2.43	0.40
32:1a:1027:C:H3'	32:1a:1028:C:C6	2.57	0.40
32:1a:1080:A:OP1	36:1e:47:LYS:HD3	2.22	0.40
32:1a:1366:C:H2'	32:1a:1367:C:H6	1.86	0.40
32:1a:1502:A:H5'	32:1a:1504:G:N7	2.37	0.40
34:1c:180:ALA:HB1	34:1c:203:PHE:HE1	1.85	0.40
1:2A:827:U:H1'	1:2A:2246:G:O2'	2.21	0.40
1:2A:892:G:H2'	1:2A:893:C:H4'	2.02	0.40
1:2A:1219:G:H1	1:2A:1230:C:H42	1.70	0.40
1:2A:1430:C:H2'	1:2A:1431:U:H6	1.85	0.40
1:2A:1713:U:H2'	1:2A:1714:G:C8	2.51	0.40
1:2A:1827:C:OP2	3:2D:222:ARG:HD2	2.21	0.40
1:2A:1894:C:H2'	1:2A:1895:C:C6	2.56	0.40
1:2A:2006:C:O2'	1:2A:2823:A:N3	2.53	0.40
1:2A:2493:U:H2'	1:2A:2494:G:O4'	2.21	0.40
1:2A:2684:U:H1'	10:2O:70:LYS:HD2	2.04	0.40
2:2B:59:A:H2'	2:2B:60:C:O4'	2.21	0.40
2:2B:72:G:O2'	2:2B:73:A:O4'	2.34	0.40
8:2I:23:PRO:O	8:2I:27:ARG:HG3	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:2Q:120:ILE:O	12:2Q:123:HIS:HB2	2.21	0.40
16:2U:58:ARG:HA	16:2U:61:TRP:CE3	2.56	0.40
32:2a:113:G:O4'	32:2a:354:G:H4'	2.21	0.40
32:2a:512:U:H2'	32:2a:513:C:C6	2.56	0.40
32:2a:1169:A:H2'	32:2a:1170:A:O4'	2.21	0.40
32:2a:1359:C:H3'	45:2n:35:ARG:NH2	2.36	0.40
35:2d:58:LEU:O	35:2d:62:GLN:HG2	2.21	0.40
42:2k:45:GLY:O	42:2k:50:TYR:HB2	2.22	0.40
1:1A:1791:A:OP2	1:1A:1791:A:H8	2.05	0.40
1:1A:1914:C:H2'	1:1A:1915:5MU:O4'	2.21	0.40
1:1A:2735:G:H2'	1:1A:2736:G:H8	1.86	0.40
4:1E:101:ARG:HD2	4:1E:169:ASN:O	2.21	0.40
6:1G:67:LYS:HD3	26:14:5:ILE:HB	2.02	0.40
8:1I:57:ARG:HE	8:1I:57:ARG:HB3	1.72	0.40
12:1Q:31:ASP:HA	12:1Q:134:ARG:NH1	2.36	0.40
26:14:28:LYS:HA	26:14:29:PRO:HD3	1.95	0.40
31:19:10:ILE:HD11	31:19:34:GLN:HE21	1.86	0.40
32:1a:129:U:H5'	48:1q:3:LYS:NZ	2.33	0.40
32:1a:192:U:H2'	32:1a:193:C:C6	2.56	0.40
32:1a:271:C:H2'	32:1a:272:C:H6	1.87	0.40
32:1a:584:G:H5'	48:1q:91:ARG:NH2	2.37	0.40
32:1a:627:G:H2'	32:1a:628:G:H8	1.87	0.40
34:1c:191:THR:OG1	34:1c:194:GLY:O	2.37	0.40
42:1k:70:LYS:HE2	42:1k:70:LYS:HB2	1.75	0.40
54:1y:24:G:H2'	54:1y:25:C:O4'	2.21	0.40
54:1y:39:PSU:H5''	54:1y:40:C:OP2	2.21	0.40
1:2A:262:A:H2'	1:2A:263:C:O4'	2.21	0.40
1:2A:271(S):G:C6	1:2A:271(T):C:C4	3.10	0.40
1:2A:466:A:N1	1:2A:795:C:O2'	2.49	0.40
1:2A:522:G:C2	1:2A:523:C:C2	3.08	0.40
1:2A:602:G:N1	1:2A:655:A:OP2	2.48	0.40
1:2A:676:A:H2	1:2A:2069:G:N3	2.19	0.40
1:2A:829:A:N7	1:2A:2248:C:H5'	2.36	0.40
1:2A:921:G:C6	1:2A:922:U:C4	3.10	0.40
1:2A:1188:U:C4'	17:2V:79:VAL:HG22	2.51	0.40
1:2A:1224:C:O2'	17:2V:85:LYS:HA	2.22	0.40
1:2A:1256:G:H1'	5:2F:82:ILE:HD11	2.03	0.40
1:2A:1400:G:H2'	1:2A:1401:G:C8	2.56	0.40
1:2A:2263:C:H2'	1:2A:2264:C:O4'	2.21	0.40
1:2A:2518:A:OP2	62:2A:3765:HOH:O	2.22	0.40
1:2A:2577:A:OP2	27:25:3:LYS:NZ	2.48	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2583:G:H2'	1:2A:2584:U:C6	2.56	0.40
1:2A:2645:G:H4'	1:2A:2732:G:O3'	2.21	0.40
1:2A:2748:A:H2'	1:2A:2749:A:O4'	2.21	0.40
1:2A:2773:C:OP1	4:2E:166:THR:OG1	2.32	0.40
2:2B:43:C:O4'	6:2G:66:GLN:NE2	2.54	0.40
7:2H:13:LYS:HA	7:2H:14:GLY:HA2	1.60	0.40
8:2I:62:LYS:HE2	8:2I:133:HIS:HE1	1.87	0.40
10:2O:26:LYS:O	10:2O:30:ALA:HB2	2.22	0.40
10:2O:77:ILE:HB	15:2T:74:ARG:HD3	2.04	0.40
11:2P:52:GLU:O	11:2P:55:ARG:HG2	2.22	0.40
17:2V:52:VAL:HG21	17:2V:55:ALA:HB3	2.02	0.40
32:2a:114:U:O2'	32:2a:115:G:H5'	2.21	0.40
32:2a:134:A:H61	47:2p:25:ARG:HH12	1.67	0.40
32:2a:373:A:H2'	32:2a:374:A:H8	1.87	0.40
32:2a:1095:U:P	32:2a:1108:G:H1	2.44	0.40
32:2a:1148:U:H2'	32:2a:1149:C:O4'	2.20	0.40
32:2a:1174:G:H2'	32:2a:1175:G:H8	1.87	0.40
32:2a:1359:C:H3'	45:2n:35:ARG:HH21	1.86	0.40
34:2c:19:GLU:HG2	34:2c:55:VAL:O	2.21	0.40
35:2d:53:ASP:HB3	35:2d:57:ARG:NH1	2.36	0.40
35:2d:88:VAL:HA	36:2e:97:GLY:CA	2.52	0.40
36:2e:41:VAL:O	36:2e:66:MET:HA	2.20	0.40
38:2g:15:ASP:OD1	38:2g:20:ASP:N	2.36	0.40
38:2g:47:CYS:O	38:2g:50:ILE:HG12	2.22	0.40
38:2g:149:ARG:HD2	42:2k:59:TYR:CZ	2.56	0.40
39:2h:6:ILE:O	39:2h:10:LEU:HG	2.20	0.40
39:2h:10:LEU:HD22	39:2h:83:ILE:HD11	2.03	0.40
40:2i:4:TYR:HB2	40:2i:19:LEU:O	2.21	0.40
55:2x:14:A:H3'	55:2x:15:G:H8	1.87	0.40
1:1A:588:U:H1'	5:1F:90:PHE:CG	2.56	0.40
1:1A:1125:G:H5'	31:19:37:GLY:HA2	2.04	0.40
1:1A:1175:U:H1'	1:1A:1176:G:OP1	2.21	0.40
1:1A:2412:A:H2'	1:1A:2413:G:O4'	2.22	0.40
58:1A:3915:HGR:C16	58:1A:3915:HGR:H3	2.52	0.40
5:1F:133:ASN:N	5:1F:138:GLU:OE1	2.49	0.40
8:1I:124:GLY:H	8:1I:144:VAL:HG23	1.86	0.40
13:1R:29:LEU:HD12	13:1R:29:LEU:HA	1.87	0.40
21:1Z:152:ALA:H	21:1Z:171:ILE:HG21	1.86	0.40
32:1a:568:G:O2'	32:1a:574:A:N1	2.38	0.40
32:1a:863:U:O2'	32:1a:865:A:N7	2.48	0.40
32:1a:978:A:O2'	32:1a:1322:C:N3	2.42	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:990:C:N4	32:1a:991:U:O4	2.55	0.40
33:1b:102:LEU:HB3	33:1b:180:LEU:HD12	2.03	0.40
34:1c:22:TRP:NE1	34:1c:36:ASP:OD2	2.52	0.40
34:1c:43:LEU:O	34:1c:47:LEU:HB2	2.21	0.40
1:2A:265:A:C8	1:2A:266:G:H1'	2.57	0.40
1:2A:390:A:N6	62:2A:3962:HOH:O	2.51	0.40
1:2A:839:U:H2'	1:2A:840:C:H6	1.86	0.40
1:2A:1208:C:H2'	1:2A:1209:G:H5'	2.03	0.40
1:2A:1581:G:C6	1:2A:1582:C:C4	3.09	0.40
1:2A:2112:G:C8	54:2y:19:G:C6	3.09	0.40
1:2A:2184:G:O2'	1:2A:2185:C:H5'	2.22	0.40
1:2A:2261:C:O2'	1:2A:2262:U:H5'	2.22	0.40
1:2A:2494:G:C4	1:2A:2495:G:C8	3.10	0.40
1:2A:2666:C:N4	7:2H:108:GLY:O	2.47	0.40
3:2D:13:ARG:HA	3:2D:13:ARG:HD3	1.93	0.40
4:2E:101:ARG:HD2	4:2E:169:ASN:C	2.47	0.40
5:2F:148:LEU:HD22	5:2F:154:VAL:HG21	2.04	0.40
6:2G:173:LEU:O	6:2G:178:PHE:N	2.48	0.40
8:2I:25:TYR:O	8:2I:29:TYR:HB3	2.21	0.40
11:2P:38:GLN:HG2	11:2P:45:LEU:H	1.87	0.40
16:2U:19:LYS:HA	16:2U:22:LYS:HG3	2.03	0.40
31:29:17:ILE:HD12	31:29:17:ILE:HA	1.92	0.40
32:2a:130:A:C8	48:2q:63:ARG:HB2	2.56	0.40
32:2a:411:A:H2'	32:2a:412:A:H4'	2.03	0.40
32:2a:544:G:C6	32:2a:545:C:C4	3.10	0.40
32:2a:737:A:H1'	37:2f:73:ASN:ND2	2.31	0.40
32:2a:743:U:H2'	32:2a:744:C:C6	2.56	0.40
32:2a:758:G:H4'	32:2a:880:C:H4'	2.03	0.40
32:2a:841:U:P	32:2a:841:U:H6	2.44	0.40
32:2a:938:A:C6	32:2a:939:G:C5	3.09	0.40
32:2a:1072:G:H2'	32:2a:1073:U:C6	2.57	0.40
32:2a:1074:G:O2'	32:2a:1101:A:N1	2.38	0.40
32:2a:1122:U:C4	32:2a:1123:A:N7	2.90	0.40
32:2a:1269:A:H2	32:2a:1312:G:N3	2.19	0.40
32:2a:1403:C:H1'	32:2a:1500:A:N1	2.37	0.40
34:2c:52:LEU:HD23	34:2c:53:ALA:N	2.36	0.40
35:2d:93:PHE:CZ	35:2d:97:LEU:HD11	2.57	0.40
35:2d:208:SER:HB2	36:2e:101:ILE:HD12	2.04	0.40
41:2j:90:LEU:HA	41:2j:91:PRO:HD3	1.73	0.40
55:2x:37:A:H2'	55:2x:38:A:O4'	2.21	0.40
54:2y:38:A:H2'	54:2y:39:PSU:O4'	2.21	0.40

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

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:358:U:OP1	8:2I:121:LYS:NZ[2_655]	2.11	0.09

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	1D	273/276 (99%)	259 (95%)	13 (5%)	1 (0%)	30	51
3	2D	273/276 (99%)	261 (96%)	11 (4%)	1 (0%)	30	51
4	1E	202/206 (98%)	194 (96%)	7 (4%)	1 (0%)	24	46
4	2E	202/206 (98%)	194 (96%)	6 (3%)	2 (1%)	12	28
5	1F	201/210 (96%)	195 (97%)	5 (2%)	1 (0%)	24	46
5	2F	201/210 (96%)	195 (97%)	4 (2%)	2 (1%)	12	28
6	1G	179/182 (98%)	167 (93%)	10 (6%)	2 (1%)	11	25
6	2G	179/182 (98%)	165 (92%)	12 (7%)	2 (1%)	11	25
7	1H	172/180 (96%)	162 (94%)	9 (5%)	1 (1%)	21	42
7	2H	172/180 (96%)	160 (93%)	11 (6%)	1 (1%)	21	42
8	1I	144/148 (97%)	126 (88%)	13 (9%)	5 (4%)	3	4
8	2I	144/148 (97%)	129 (90%)	14 (10%)	1 (1%)	18	38
9	1N	138/140 (99%)	130 (94%)	8 (6%)	0	100	100
9	2N	138/140 (99%)	128 (93%)	10 (7%)	0	100	100
10	1O	120/122 (98%)	112 (93%)	7 (6%)	1 (1%)	16	34
10	2O	120/122 (98%)	112 (93%)	8 (7%)	0	100	100
11	1P	147/150 (98%)	139 (95%)	7 (5%)	1 (1%)	18	38
11	2P	147/150 (98%)	135 (92%)	10 (7%)	2 (1%)	9	19
12	1Q	139/141 (99%)	130 (94%)	9 (6%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
12	2Q	139/141 (99%)	131 (94%)	7 (5%)	1 (1%)	18	38
13	1R	116/118 (98%)	109 (94%)	7 (6%)	0	100	100
13	2R	116/118 (98%)	109 (94%)	7 (6%)	0	100	100
14	1S	108/112 (96%)	106 (98%)	2 (2%)	0	100	100
14	2S	108/112 (96%)	104 (96%)	3 (3%)	1 (1%)	14	30
15	1T	129/146 (88%)	119 (92%)	9 (7%)	1 (1%)	16	34
15	2T	129/146 (88%)	121 (94%)	8 (6%)	0	100	100
16	1U	114/118 (97%)	114 (100%)	0	0	100	100
16	2U	114/118 (97%)	114 (100%)	0	0	100	100
17	1V	99/101 (98%)	94 (95%)	4 (4%)	1 (1%)	12	28
17	2V	99/101 (98%)	96 (97%)	2 (2%)	1 (1%)	12	28
18	1W	110/113 (97%)	109 (99%)	1 (1%)	0	100	100
18	2W	110/113 (97%)	110 (100%)	0	0	100	100
19	1X	93/96 (97%)	89 (96%)	4 (4%)	0	100	100
19	2X	93/96 (97%)	88 (95%)	4 (4%)	1 (1%)	11	25
20	1Y	105/110 (96%)	97 (92%)	6 (6%)	2 (2%)	6	13
20	2Y	105/110 (96%)	99 (94%)	5 (5%)	1 (1%)	12	28
21	1Z	148/206 (72%)	128 (86%)	16 (11%)	4 (3%)	4	7
21	2Z	156/206 (76%)	131 (84%)	22 (14%)	3 (2%)	6	13
22	10	81/85 (95%)	78 (96%)	3 (4%)	0	100	100
22	20	81/85 (95%)	76 (94%)	3 (4%)	2 (2%)	4	8
23	11	95/98 (97%)	92 (97%)	2 (2%)	1 (1%)	11	25
23	21	95/98 (97%)	91 (96%)	3 (3%)	1 (1%)	11	25
24	12	68/72 (94%)	67 (98%)	1 (2%)	0	100	100
24	22	68/72 (94%)	66 (97%)	2 (3%)	0	100	100
25	13	57/60 (95%)	56 (98%)	1 (2%)	0	100	100
25	23	57/60 (95%)	55 (96%)	2 (4%)	0	100	100
26	14	67/71 (94%)	53 (79%)	8 (12%)	6 (9%)	0	0
26	24	67/71 (94%)	52 (78%)	8 (12%)	7 (10%)	0	0
27	15	57/60 (95%)	55 (96%)	2 (4%)	0	100	100
27	25	57/60 (95%)	56 (98%)	1 (2%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
28	16	51/54 (94%)	49 (96%)	2 (4%)	0	100	100
28	26	51/54 (94%)	50 (98%)	1 (2%)	0	100	100
29	17	46/49 (94%)	44 (96%)	2 (4%)	0	100	100
29	27	46/49 (94%)	44 (96%)	1 (2%)	1 (2%)	5	10
30	18	62/65 (95%)	61 (98%)	1 (2%)	0	100	100
30	28	62/65 (95%)	60 (97%)	2 (3%)	0	100	100
31	19	35/37 (95%)	35 (100%)	0	0	100	100
31	29	35/37 (95%)	35 (100%)	0	0	100	100
33	1b	229/256 (90%)	197 (86%)	27 (12%)	5 (2%)	5	10
33	2b	229/256 (90%)	199 (87%)	21 (9%)	9 (4%)	2	3
34	1c	204/239 (85%)	183 (90%)	19 (9%)	2 (1%)	12	28
34	2c	204/239 (85%)	181 (89%)	20 (10%)	3 (2%)	8	18
35	1d	206/209 (99%)	191 (93%)	15 (7%)	0	100	100
35	2d	206/209 (99%)	191 (93%)	15 (7%)	0	100	100
36	1e	146/162 (90%)	142 (97%)	2 (1%)	2 (1%)	9	19
36	2e	146/162 (90%)	141 (97%)	5 (3%)	0	100	100
37	1f	98/101 (97%)	95 (97%)	3 (3%)	0	100	100
37	2f	98/101 (97%)	95 (97%)	3 (3%)	0	100	100
38	1g	153/156 (98%)	142 (93%)	9 (6%)	2 (1%)	9	21
38	2g	153/156 (98%)	140 (92%)	11 (7%)	2 (1%)	9	21
39	1h	135/138 (98%)	131 (97%)	4 (3%)	0	100	100
39	2h	135/138 (98%)	128 (95%)	6 (4%)	1 (1%)	18	38
40	1i	125/128 (98%)	108 (86%)	17 (14%)	0	100	100
40	2i	125/128 (98%)	107 (86%)	17 (14%)	1 (1%)	16	34
41	1j	95/105 (90%)	81 (85%)	8 (8%)	6 (6%)	1	1
41	2j	94/105 (90%)	80 (85%)	9 (10%)	5 (5%)	1	1
42	1k	112/129 (87%)	105 (94%)	7 (6%)	0	100	100
42	2k	112/129 (87%)	105 (94%)	7 (6%)	0	100	100
43	1l	119/132 (90%)	113 (95%)	6 (5%)	0	100	100
43	2l	119/132 (90%)	112 (94%)	7 (6%)	0	100	100
44	1m	121/126 (96%)	113 (93%)	6 (5%)	2 (2%)	7	15

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
44	2m	120/126 (95%)	110 (92%)	7 (6%)	3 (2%)	4	8
45	1n	58/61 (95%)	54 (93%)	4 (7%)	0	100	100
45	2n	58/61 (95%)	54 (93%)	4 (7%)	0	100	100
46	1o	86/89 (97%)	85 (99%)	1 (1%)	0	100	100
46	2o	86/89 (97%)	80 (93%)	4 (5%)	2 (2%)	5	9
47	1p	80/88 (91%)	75 (94%)	4 (5%)	1 (1%)	9	21
47	2p	80/88 (91%)	74 (92%)	5 (6%)	1 (1%)	9	21
48	1q	97/105 (92%)	90 (93%)	6 (6%)	1 (1%)	12	28
48	2q	97/105 (92%)	91 (94%)	6 (6%)	0	100	100
49	1r	66/88 (75%)	63 (96%)	3 (4%)	0	100	100
49	2r	66/88 (75%)	64 (97%)	2 (3%)	0	100	100
50	1s	81/93 (87%)	73 (90%)	6 (7%)	2 (2%)	4	8
50	2s	81/93 (87%)	72 (89%)	7 (9%)	2 (2%)	4	8
51	1t	94/106 (89%)	87 (93%)	2 (2%)	5 (5%)	1	1
51	2t	94/106 (89%)	87 (93%)	1 (1%)	6 (6%)	1	1
52	1u	21/27 (78%)	19 (90%)	2 (10%)	0	100	100
52	2u	21/27 (78%)	19 (90%)	2 (10%)	0	100	100
All	All	11370/12128 (94%)	10613 (93%)	636 (6%)	121 (1%)	11	25

All (121) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	1D	275	LYS
5	1F	130	ALA
6	1G	47	LYS
6	1G	51	ARG
7	1H	126	PRO
17	1V	79	VAL
21	1Z	159	PRO
23	11	3	LYS
26	14	53	GLU
33	1b	17	PHE
38	1g	79	ARG
38	1g	80	VAL
41	1j	55	LYS
44	1m	3	ARG

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Mol	Chain	Res	Type
47	1p	53	VAL
48	1q	68	ARG
51	1t	95	ALA
3	2D	3	VAL
5	2F	21	ALA
5	2F	130	ALA
7	2H	126	PRO
8	2I	10	GLU
12	2Q	28	ALA
17	2V	79	VAL
26	24	53	GLU
26	24	55	ARG
29	27	46	VAL
33	2b	16	HIS
33	2b	17	PHE
33	2b	123	ALA
33	2b	126	GLU
41	2j	29	ARG
47	2p	53	VAL
51	2t	95	ALA
8	1I	106	GLY
26	14	45	GLY
26	14	47	GLN
26	14	56	VAL
33	1b	165	VAL
34	1c	66	VAL
41	1j	29	ARG
41	1j	75	ILE
50	1s	42	PRO
51	1t	47	GLY
14	2S	84	GLN
22	20	4	LYS
22	20	13	GLY
26	24	45	GLY
26	24	48	ARG
26	24	62	ARG
33	2b	165	VAL
34	2c	107	GLN
38	2g	80	VAL
41	2j	75	ILE
44	2m	4	ILE
50	2s	29	ARG

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Mol	Chain	Res	Type
50	2s	42	PRO
51	2t	10	LEU
51	2t	47	GLY
4	1E	52	LEU
8	1I	10	GLU
8	1I	105	HIS
21	1Z	134	PRO
21	1Z	152	ALA
33	1b	10	LEU
33	1b	231	GLU
36	1e	86	ALA
41	1j	78	ASN
51	1t	100	ILE
6	2G	48	GLU
6	2G	51	ARG
23	2I	3	LYS
33	2b	125	PRO
33	2b	231	GLU
38	2g	7	ALA
40	2i	54	ASP
41	2j	55	LYS
41	2j	78	ASN
51	2t	102	GLY
8	1I	107	VAL
26	14	44	THR
36	1e	85	GLY
41	1j	77	PRO
44	1m	67	GLU
4	2E	52	LEU
4	2E	73	GLU
11	2P	38	GLN
19	2X	2	LYS
21	2Z	134	PRO
21	2Z	171	ILE
26	24	46	GLN
26	24	49	PHE
34	2c	3	ASN
34	2c	108	ASN
44	2m	67	GLU
51	2t	9	ASN
15	1T	128	GLU
20	1Y	54	LYS

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Mol	Chain	Res	Type
26	14	62	ARG
34	1c	3	ASN
11	2P	45	LEU
39	2h	73	ASP
41	2j	77	PRO
46	2o	88	ARG
8	1I	11	ASN
10	1O	29	ASN
21	1Z	163	LEU
50	1s	81	ARG
51	1t	10	LEU
33	2b	10	LEU
46	2o	23	GLY
51	2t	100	ILE
44	2m	6	GLY
33	1b	124	SER
11	1P	122	PRO
51	1t	102	GLY
21	2Z	146	ILE
20	1Y	103	GLY
41	1j	91	PRO
20	2Y	103	GLY
33	2b	234	PRO

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%)	206 (96%)	9 (4%)	26	52
3	2D	215/218 (99%)	206 (96%)	9 (4%)	26	52
4	1E	164/166 (99%)	151 (92%)	13 (8%)	11	26
4	2E	164/166 (99%)	150 (92%)	14 (8%)	10	22
5	1F	160/166 (96%)	144 (90%)	16 (10%)	7	16
5	2F	159/166 (96%)	146 (92%)	13 (8%)	10	24

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
6	1G	144/156 (92%)	134 (93%)	10 (7%)	14	32
6	2G	143/156 (92%)	132 (92%)	11 (8%)	12	27
7	1H	144/148 (97%)	140 (97%)	4 (3%)	38	66
7	2H	144/148 (97%)	137 (95%)	7 (5%)	22	47
8	1I	113/124 (91%)	107 (95%)	6 (5%)	20	43
8	2I	105/124 (85%)	97 (92%)	8 (8%)	12	27
9	1N	118/119 (99%)	112 (95%)	6 (5%)	21	45
9	2N	118/119 (99%)	113 (96%)	5 (4%)	26	52
10	1O	100/100 (100%)	97 (97%)	3 (3%)	36	64
10	2O	100/100 (100%)	97 (97%)	3 (3%)	36	64
11	1P	115/116 (99%)	110 (96%)	5 (4%)	26	51
11	2P	115/116 (99%)	111 (96%)	4 (4%)	32	59
12	1Q	111/111 (100%)	109 (98%)	2 (2%)	51	76
12	2Q	111/111 (100%)	110 (99%)	1 (1%)	70	87
13	1R	101/101 (100%)	90 (89%)	11 (11%)	6	13
13	2R	101/101 (100%)	91 (90%)	10 (10%)	7	16
14	1S	86/88 (98%)	83 (96%)	3 (4%)	32	59
14	2S	85/88 (97%)	82 (96%)	3 (4%)	32	59
15	1T	115/127 (91%)	113 (98%)	2 (2%)	53	78
15	2T	113/127 (89%)	111 (98%)	2 (2%)	51	76
16	1U	93/94 (99%)	90 (97%)	3 (3%)	34	62
16	2U	93/94 (99%)	91 (98%)	2 (2%)	45	72
17	1V	80/82 (98%)	74 (92%)	6 (8%)	12	28
17	2V	80/82 (98%)	75 (94%)	5 (6%)	16	36
18	1W	90/92 (98%)	83 (92%)	7 (8%)	11	26
18	2W	90/92 (98%)	85 (94%)	5 (6%)	19	40
19	1X	77/78 (99%)	74 (96%)	3 (4%)	28	55
19	2X	77/78 (99%)	75 (97%)	2 (3%)	40	68
20	1Y	85/91 (93%)	81 (95%)	4 (5%)	23	48
20	2Y	85/91 (93%)	83 (98%)	2 (2%)	43	70
21	1Z	135/179 (75%)	129 (96%)	6 (4%)	25	50

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
21	2Z	137/179 (76%)	132 (96%)	5 (4%)	31	58
22	10	65/67 (97%)	63 (97%)	2 (3%)	35	63
22	20	65/67 (97%)	64 (98%)	1 (2%)	57	80
23	11	80/83 (96%)	79 (99%)	1 (1%)	61	82
23	21	80/83 (96%)	79 (99%)	1 (1%)	61	82
24	12	65/67 (97%)	63 (97%)	2 (3%)	35	63
24	22	65/67 (97%)	62 (95%)	3 (5%)	24	49
25	13	51/52 (98%)	49 (96%)	2 (4%)	28	55
25	23	50/52 (96%)	46 (92%)	4 (8%)	11	25
26	14	59/63 (94%)	53 (90%)	6 (10%)	7	15
26	24	53/63 (84%)	49 (92%)	4 (8%)	12	28
27	15	50/52 (96%)	47 (94%)	3 (6%)	17	37
27	25	50/52 (96%)	47 (94%)	3 (6%)	17	37
28	16	51/52 (98%)	49 (96%)	2 (4%)	28	55
28	26	50/52 (96%)	48 (96%)	2 (4%)	28	55
29	17	41/42 (98%)	39 (95%)	2 (5%)	22	47
29	27	41/42 (98%)	40 (98%)	1 (2%)	43	70
30	18	54/55 (98%)	51 (94%)	3 (6%)	19	40
30	28	54/55 (98%)	51 (94%)	3 (6%)	19	40
31	19	34/34 (100%)	34 (100%)	0	100	100
31	29	34/34 (100%)	33 (97%)	1 (3%)	37	65
33	1b	192/220 (87%)	182 (95%)	10 (5%)	21	44
33	2b	187/220 (85%)	179 (96%)	8 (4%)	26	51
34	1c	142/188 (76%)	138 (97%)	4 (3%)	38	66
34	2c	140/188 (74%)	138 (99%)	2 (1%)	59	81
35	1d	169/181 (93%)	166 (98%)	3 (2%)	51	76
35	2d	173/181 (96%)	170 (98%)	3 (2%)	53	78
36	1e	113/123 (92%)	108 (96%)	5 (4%)	25	50
36	2e	114/123 (93%)	112 (98%)	2 (2%)	51	76
37	1f	84/90 (93%)	83 (99%)	1 (1%)	63	83
37	2f	85/90 (94%)	84 (99%)	1 (1%)	63	83

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
38	1g	119/127 (94%)	119 (100%)	0	100	100
38	2g	120/127 (94%)	118 (98%)	2 (2%)	53	78
39	1h	114/119 (96%)	111 (97%)	3 (3%)	40	68
39	2h	114/119 (96%)	111 (97%)	3 (3%)	40	68
40	1i	90/99 (91%)	85 (94%)	5 (6%)	19	40
40	2i	89/99 (90%)	82 (92%)	7 (8%)	11	26
41	1j	66/92 (72%)	65 (98%)	1 (2%)	57	80
41	2j	69/92 (75%)	68 (99%)	1 (1%)	59	81
42	1k	82/99 (83%)	79 (96%)	3 (4%)	30	57
42	2k	83/99 (84%)	81 (98%)	2 (2%)	43	70
43	1l	96/108 (89%)	92 (96%)	4 (4%)	26	52
43	2l	96/108 (89%)	93 (97%)	3 (3%)	35	63
44	1m	93/101 (92%)	89 (96%)	4 (4%)	26	51
44	2m	92/101 (91%)	88 (96%)	4 (4%)	26	51
45	1n	49/50 (98%)	46 (94%)	3 (6%)	17	37
45	2n	49/50 (98%)	46 (94%)	3 (6%)	17	37
46	1o	78/80 (98%)	77 (99%)	1 (1%)	61	82
46	2o	78/80 (98%)	74 (95%)	4 (5%)	21	45
47	1p	69/74 (93%)	62 (90%)	7 (10%)	7	15
47	2p	68/74 (92%)	62 (91%)	6 (9%)	9	21
48	1q	94/97 (97%)	93 (99%)	1 (1%)	65	84
48	2q	94/97 (97%)	92 (98%)	2 (2%)	47	73
49	1r	59/77 (77%)	55 (93%)	4 (7%)	14	32
49	2r	59/77 (77%)	56 (95%)	3 (5%)	21	45
50	1s	69/80 (86%)	68 (99%)	1 (1%)	59	81
50	2s	67/80 (84%)	65 (97%)	2 (3%)	36	64
51	1t	70/82 (85%)	67 (96%)	3 (4%)	26	51
51	2t	70/82 (85%)	68 (97%)	2 (3%)	37	65
52	1u	18/22 (82%)	18 (100%)	0	100	100
52	2u	18/22 (82%)	18 (100%)	0	100	100
All	All	9304/10064 (92%)	8905 (96%)	399 (4%)	26	51

All (399) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	1D	94	LEU
3	1D	142	VAL
3	1D	173	VAL
3	1D	193	VAL
3	1D	211	ARG
3	1D	221	VAL
3	1D	229	VAL
3	1D	242	ARG
3	1D	257	LEU
4	1E	9	VAL
4	1E	12	THR
4	1E	21	VAL
4	1E	24	THR
4	1E	34	VAL
4	1E	75	VAL
4	1E	77	ILE
4	1E	116	VAL
4	1E	144	ARG
4	1E	170	LEU
4	1E	181	LEU
4	1E	184	VAL
4	1E	195	LEU
5	1F	24	LEU
5	1F	28	ILE
5	1F	33	LEU
5	1F	53	THR
5	1F	57	VAL
5	1F	88	VAL
5	1F	106	ARG
5	1F	125	LEU
5	1F	132	VAL
5	1F	140	LEU
5	1F	158	THR
5	1F	170	LEU
5	1F	183	VAL
5	1F	192	LEU
5	1F	197	ASP
5	1F	201	VAL
6	1G	3	LEU
6	1G	5	VAL
6	1G	7	LEU
6	1G	43	LEU

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Mol	Chain	Res	Type
6	1G	82	LEU
6	1G	109	VAL
6	1G	133	LEU
6	1G	140	ILE
6	1G	150	ASP
6	1G	159	VAL
7	1H	15	VAL
7	1H	44	VAL
7	1H	84	SER
7	1H	129	THR
8	1I	9	LEU
8	1I	47	LEU
8	1I	57	ARG
8	1I	92	VAL
8	1I	123	LEU
8	1I	127	VAL
9	1N	14	VAL
9	1N	28	THR
9	1N	32	THR
9	1N	33	LEU
9	1N	34	LEU
9	1N	48	MET
10	1O	10	VAL
10	1O	24	VAL
10	1O	98	VAL
11	1P	83	VAL
11	1P	95	VAL
11	1P	106	LEU
11	1P	125	VAL
11	1P	148	LEU
12	1Q	75	THR
12	1Q	109	VAL
13	1R	24	GLN
13	1R	28	LEU
13	1R	29	LEU
13	1R	33	ARG
13	1R	36	THR
13	1R	44	LEU
13	1R	54	LEU
13	1R	65	LEU
13	1R	100	LEU
13	1R	111	LEU

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Mol	Chain	Res	Type
13	1R	114	VAL
14	1S	14	VAL
14	1S	49	VAL
14	1S	52	SER
15	1T	28	VAL
15	1T	89	VAL
16	1U	8	VAL
16	1U	31	SER
16	1U	95	LEU
17	1V	18	LEU
17	1V	46	VAL
17	1V	51	VAL
17	1V	61	VAL
17	1V	72	VAL
17	1V	79	VAL
18	1W	11	ARG
18	1W	17	VAL
18	1W	19	LEU
18	1W	23	LEU
18	1W	67	ASP
18	1W	96	ILE
18	1W	107	LEU
19	1X	35	THR
19	1X	52	VAL
19	1X	76	ARG
20	1Y	1	MET
20	1Y	43	ASN
20	1Y	72	VAL
20	1Y	97	ARG
21	1Z	20	ARG
21	1Z	86	VAL
21	1Z	91	LEU
21	1Z	154	ASP
21	1Z	161	VAL
21	1Z	171	ILE
22	10	7	LEU
22	10	67	VAL
23	11	59	THR
24	12	19	VAL
24	12	25	VAL
25	13	8	LEU
25	13	54	VAL

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Mol	Chain	Res	Type
26	14	34	GLU
26	14	46	GLN
26	14	50	VAL
26	14	56	VAL
26	14	58	ARG
26	14	63	TYR
27	15	6	VAL
27	15	16	ARG
27	15	29	THR
28	16	48	VAL
28	16	52	VAL
29	17	24	THR
29	17	43	THR
30	18	14	VAL
30	18	23	VAL
30	18	32	LEU
33	1b	7	VAL
33	1b	8	LYS
33	1b	21	ARG
33	1b	35	GLU
33	1b	81	VAL
33	1b	112	VAL
33	1b	172	ILE
33	1b	189	ASP
33	1b	196	LEU
33	1b	200	ILE
34	1c	28	GLN
34	1c	70	VAL
34	1c	115	LEU
34	1c	182	ILE
35	1d	135	LEU
35	1d	158	ILE
35	1d	200	GLU
36	1e	12	LEU
36	1e	31	LEU
36	1e	41	VAL
36	1e	51	VAL
36	1e	131	ILE
37	1f	40	VAL
39	1h	26	VAL
39	1h	51	VAL
39	1h	112	LEU

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Mol	Chain	Res	Type
40	1i	42	ARG
40	1i	50	LEU
40	1i	64	THR
40	1i	65	VAL
40	1i	108	VAL
41	1j	92	THR
42	1k	31	THR
42	1k	109	VAL
42	1k	114	VAL
43	1l	27	LEU
43	1l	70	ILE
43	1l	83	VAL
43	1l	84	LEU
44	1m	4	ILE
44	1m	15	VAL
44	1m	19	LEU
44	1m	109	THR
45	1n	6	LEU
45	1n	18	VAL
45	1n	22	THR
46	1o	83	GLU
47	1p	2	VAL
47	1p	19	ILE
47	1p	20	VAL
47	1p	21	VAL
47	1p	42	ARG
47	1p	54	GLU
47	1p	67	THR
48	1q	78	GLU
49	1r	26	LEU
49	1r	31	LEU
49	1r	47	THR
49	1r	76	LEU
50	1s	5	LEU
51	1t	10	LEU
51	1t	13	LEU
51	1t	62	LEU
3	2D	3	VAL
3	2D	94	LEU
3	2D	103	ARG
3	2D	142	VAL
3	2D	173	VAL

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Mol	Chain	Res	Type
3	2D	193	VAL
3	2D	211	ARG
3	2D	229	VAL
3	2D	242	ARG
4	2E	9	VAL
4	2E	12	THR
4	2E	21	VAL
4	2E	34	VAL
4	2E	47	VAL
4	2E	52	LEU
4	2E	75	VAL
4	2E	77	ILE
4	2E	116	VAL
4	2E	170	LEU
4	2E	175	VAL
4	2E	181	LEU
4	2E	184	VAL
4	2E	195	LEU
5	2F	24	LEU
5	2F	33	LEU
5	2F	53	THR
5	2F	70	THR
5	2F	88	VAL
5	2F	93	LYS
5	2F	106	ARG
5	2F	140	LEU
5	2F	158	THR
5	2F	170	LEU
5	2F	183	VAL
5	2F	192	LEU
5	2F	201	VAL
6	2G	3	LEU
6	2G	5	VAL
6	2G	21	ARG
6	2G	31	VAL
6	2G	43	LEU
6	2G	49	ASP
6	2G	60	LEU
6	2G	79	ASN
6	2G	133	LEU
6	2G	140	ILE
6	2G	159	VAL

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Mol	Chain	Res	Type
7	2H	15	VAL
7	2H	44	VAL
7	2H	63	SER
7	2H	76	VAL
7	2H	125	VAL
7	2H	136	ILE
7	2H	152	ARG
8	2I	9	LEU
8	2I	15	VAL
8	2I	20	ASP
8	2I	47	LEU
8	2I	76	THR
8	2I	92	VAL
8	2I	123	LEU
8	2I	127	VAL
9	2N	14	VAL
9	2N	28	THR
9	2N	32	THR
9	2N	33	LEU
9	2N	34	LEU
10	2O	10	VAL
10	2O	24	VAL
10	2O	98	VAL
11	2P	83	VAL
11	2P	95	VAL
11	2P	125	VAL
11	2P	148	LEU
12	2Q	109	VAL
13	2R	24	GLN
13	2R	29	LEU
13	2R	33	ARG
13	2R	44	LEU
13	2R	54	LEU
13	2R	60	LEU
13	2R	65	LEU
13	2R	79	LEU
13	2R	100	LEU
13	2R	111	LEU
14	2S	8	GLU
14	2S	14	VAL
14	2S	52	SER
15	2T	28	VAL

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Mol	Chain	Res	Type
15	2T	89	VAL
16	2U	31	SER
16	2U	95	LEU
17	2V	18	LEU
17	2V	46	VAL
17	2V	61	VAL
17	2V	72	VAL
17	2V	79	VAL
18	2W	17	VAL
18	2W	23	LEU
18	2W	67	ASP
18	2W	96	ILE
18	2W	107	LEU
19	2X	35	THR
19	2X	65	ARG
20	2Y	43	ASN
20	2Y	72	VAL
21	2Z	33	LEU
21	2Z	94	GLU
21	2Z	142	SER
21	2Z	154	ASP
21	2Z	161	VAL
22	20	7	LEU
23	21	4	VAL
24	22	19	VAL
24	22	52	ASP
24	22	66	GLU
25	23	3	ARG
25	23	8	LEU
25	23	30	ARG
25	23	54	VAL
26	24	34	GLU
26	24	48	ARG
26	24	50	VAL
26	24	56	VAL
27	25	6	VAL
27	25	29	THR
27	25	35	GLU
28	26	48	VAL
28	26	52	VAL
29	27	43	THR
30	28	14	VAL

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Mol	Chain	Res	Type
30	28	23	VAL
30	28	32	LEU
31	29	7	VAL
33	2b	7	VAL
33	2b	15	VAL
33	2b	35	GLU
33	2b	127	ILE
33	2b	128	GLU
33	2b	189	ASP
33	2b	196	LEU
33	2b	215	LEU
34	2c	70	VAL
34	2c	115	LEU
35	2d	135	LEU
35	2d	170	VAL
35	2d	194	LEU
36	2e	12	LEU
36	2e	41	VAL
37	2f	40	VAL
38	2g	79	ARG
38	2g	104	LEU
39	2h	26	VAL
39	2h	51	VAL
39	2h	83	ILE
40	2i	50	LEU
40	2i	64	THR
40	2i	65	VAL
40	2i	81	ILE
40	2i	89	ASN
40	2i	102	LEU
40	2i	108	VAL
41	2j	89	ASP
42	2k	14	VAL
42	2k	114	VAL
43	2l	6	THR
43	2l	27	LEU
43	2l	84	LEU
44	2m	15	VAL
44	2m	19	LEU
44	2m	39	ILE
44	2m	117	VAL
45	2n	6	LEU

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Mol	Chain	Res	Type
45	2n	18	VAL
45	2n	22	THR
46	2o	7	GLU
46	2o	21	ASP
46	2o	39	LEU
46	2o	83	GLU
47	2p	2	VAL
47	2p	4	ILE
47	2p	20	VAL
47	2p	21	VAL
47	2p	42	ARG
47	2p	62	VAL
48	2q	9	VAL
48	2q	63	ARG
49	2r	26	LEU
49	2r	47	THR
49	2r	76	LEU
50	2s	27	GLU
50	2s	49	ILE
51	2t	10	LEU
51	2t	62	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (124) such sidechains are listed below:

Mol	Chain	Res	Type
3	1D	87	ASN
3	1D	126	GLN
3	1D	166	GLN
3	1D	201	HIS
4	1E	48	GLN
5	1F	8	GLN
5	1F	69	HIS
6	1G	26	GLN
6	1G	41	GLN
6	1G	58	GLN
6	1G	79	ASN
9	1N	94	HIS
13	1R	50	HIS
15	1T	58	ASN
15	1T	123	GLN
16	1U	72	HIS
16	1U	81	HIS

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Mol	Chain	Res	Type
19	1X	31	HIS
19	1X	82	GLN
20	1Y	43	ASN
21	1Z	65	GLN
21	1Z	73	GLN
21	1Z	75	ASN
21	1Z	151	HIS
22	10	3	HIS
24	12	9	GLN
24	12	65	ASN
25	13	32	GLN
30	18	35	GLN
33	1b	140	HIS
34	1c	6	HIS
34	1c	104	GLN
34	1c	136	GLN
34	1c	162	GLN
34	1c	176	HIS
35	1d	42	GLN
35	1d	77	ASN
35	1d	116	GLN
35	1d	123	HIS
37	1f	100	ASN
38	1g	28	ASN
38	1g	86	GLN
40	1i	3	GLN
40	1i	31	GLN
40	1i	34	ASN
40	1i	58	HIS
41	1j	21	GLN
41	1j	56	HIS
42	1k	93	GLN
43	1l	99	HIS
44	1m	77	ASN
45	1n	49	HIS
47	1p	13	HIS
50	1s	23	ASN
50	1s	47	HIS
50	1s	69	HIS
50	1s	83	HIS
51	1t	42	GLN
51	1t	75	ASN

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Mol	Chain	Res	Type
3	2D	87	ASN
3	2D	116	GLN
4	2E	48	GLN
5	2F	69	HIS
5	2F	133	ASN
5	2F	203	GLN
6	2G	40	ASN
6	2G	41	GLN
8	2I	104	GLN
8	2I	105	HIS
9	2N	38	HIS
9	2N	69	GLN
9	2N	131	GLN
9	2N	133	GLN
10	2O	3	GLN
12	2Q	12	GLN
13	2R	50	HIS
13	2R	71	GLN
14	2S	38	GLN
15	2T	58	ASN
15	2T	123	GLN
16	2U	94	ASN
19	2X	31	HIS
19	2X	82	GLN
20	2Y	43	ASN
21	2Z	55	HIS
21	2Z	73	GLN
23	21	56	GLN
24	22	70	GLN
26	24	46	GLN
31	29	20	HIS
33	2b	19	HIS
33	2b	40	HIS
33	2b	95	GLN
34	2c	6	HIS
34	2c	139	GLN
34	2c	162	GLN
34	2c	181	ASN
35	2d	77	ASN
35	2d	116	GLN
35	2d	123	HIS
35	2d	125	HIS

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Mol	Chain	Res	Type
35	2d	161	ASN
35	2d	201	GLN
36	2e	20	GLN
36	2e	78	HIS
36	2e	141	GLN
37	2f	13	ASN
37	2f	73	ASN
37	2f	100	ASN
38	2g	28	ASN
39	2h	78	GLN
40	2i	3	GLN
40	2i	31	GLN
40	2i	58	HIS
40	2i	89	ASN
42	2k	22	HIS
42	2k	104	GLN
44	2m	77	ASN
44	2m	106	ASN
46	2o	28	GLN
47	2p	13	HIS
50	2s	83	HIS
51	2t	45	GLN
51	2t	75	ASN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	1A	2864/2915 (98%)	443 (15%)	33 (1%)
1	2A	2791/2915 (95%)	515 (18%)	30 (1%)
2	1B	120/121 (99%)	8 (6%)	1 (0%)
2	2B	118/121 (97%)	36 (30%)	0
32	1a	1497/1521 (98%)	228 (15%)	0
32	2a	1501/1521 (98%)	242 (16%)	0
53	1v	12/27 (44%)	3 (25%)	0
53	2v	12/27 (44%)	3 (25%)	0
54	1w	70/76 (92%)	17 (24%)	0
54	1y	72/76 (94%)	23 (31%)	0
54	2w	69/76 (90%)	19 (27%)	0
54	2y	70/76 (92%)	18 (25%)	0
55	1x	75/77 (97%)	10 (13%)	0
55	2x	75/77 (97%)	9 (12%)	0

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
All	All	9346/9626 (97%)	1574 (16%)	64 (0%)

All (1574) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	1A	10	G
1	1A	12	U
1	1A	13	A
1	1A	34	C
1	1A	45	C
1	1A	55	G
1	1A	58	G
1	1A	71	A
1	1A	74	A
1	1A	75	G
1	1A	83	G
1	1A	84	A
1	1A	95	G
1	1A	118	A
1	1A	119	A
1	1A	120	U
1	1A	182	A
1	1A	196	A
1	1A	199	A
1	1A	205	G
1	1A	214	G
1	1A	215	G
1	1A	216	A
1	1A	222	A
1	1A	223	A
1	1A	229	A
1	1A	232	G
1	1A	233	A
1	1A	248	G
1	1A	250	G
1	1A	267	C
1	1A	269	U
1	1A	271(E)	U
1	1A	271(L)	U
1	1A	271(M)	G
1	1A	271(S)	G
1	1A	272(B)	G

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Mol	Chain	Res	Type
1	1A	272(J)	C
1	1A	275	G
1	1A	279	C
1	1A	282	A
1	1A	311	A
1	1A	329	G
1	1A	330	A
1	1A	352	G
1	1A	360	G
1	1A	362	U
1	1A	363	G
1	1A	363(B)	G
1	1A	370	G
1	1A	372	G
1	1A	380	U
1	1A	386	G
1	1A	390	A
1	1A	396	G
1	1A	405	U
1	1A	411	G
1	1A	428	A
1	1A	444	C
1	1A	448	U
1	1A	451	C
1	1A	455	C
1	1A	456	C
1	1A	457	A
1	1A	481	G
1	1A	504	U
1	1A	505	A
1	1A	508	G
1	1A	509	C
1	1A	512	G
1	1A	530	G
1	1A	531	C
1	1A	532	A
1	1A	533	G
1	1A	545	G
1	1A	549	G
1	1A	563	G
1	1A	573	G
1	1A	575	A

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Mol	Chain	Res	Type
1	1A	586	A
1	1A	603	A
1	1A	604	G
1	1A	607	U
1	1A	614(B)	G
1	1A	615	G
1	1A	616	G
1	1A	627	A
1	1A	637	A
1	1A	645	C
1	1A	646	A
1	1A	669	G
1	1A	686	G
1	1A	717	G
1	1A	730	C
1	1A	746	A
1	1A	747	U
1	1A	764	A
1	1A	776	G
1	1A	782	A
1	1A	784	A
1	1A	785	G
1	1A	792	G
1	1A	805	G
1	1A	812	C
1	1A	819	A
1	1A	827	U
1	1A	828	U
1	1A	830	G
1	1A	859	G
1	1A	866	A
1	1A	879	G
1	1A	880	G
1	1A	884	C
1	1A	885	C
1	1A	886	C
1	1A	887	A
1	1A	888	C
1	1A	889	C
1	1A	890	A
1	1A	892	G
1	1A	895	U

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Mol	Chain	Res	Type
1	1A	896	A
1	1A	897	C
1	1A	899	A
1	1A	907	U
1	1A	910	A
1	1A	932	G
1	1A	938	G
1	1A	941	A
1	1A	945	A
1	1A	946	G
1	1A	953	A
1	1A	959	A
1	1A	961	C
1	1A	974	G
1	1A	975	C
1	1A	983	A
1	1A	996	A
1	1A	1005	C
1	1A	1008	C
1	1A	1012	U
1	1A	1013	C
1	1A	1022	G
1	1A	1026	U
1	1A	1033	U
1	1A	1041	C
1	1A	1045	A
1	1A	1046	A
1	1A	1047	G
1	1A	1048	A
1	1A	1051	G
1	1A	1054	A
1	1A	1055	G
1	1A	1058	G
1	1A	1067	A
1	1A	1068	G
1	1A	1071	G
1	1A	1073	A
1	1A	1074	G
1	1A	1075	C
1	1A	1076	C
1	1A	1077	A
1	1A	1078	U

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Mol	Chain	Res	Type
1	1A	1079	C
1	1A	1080	C
1	1A	1085	A
1	1A	1086	A
1	1A	1088	A
1	1A	1089	G
1	1A	1090	U
1	1A	1091	G
1	1A	1094	U
1	1A	1097	U
1	1A	1098	A
1	1A	1100	C
1	1A	1101	U
1	1A	1105	U
1	1A	1107	G
1	1A	1108	U
1	1A	1109	C
1	1A	1110	G
1	1A	1111	A
1	1A	1112	G
1	1A	1116	C
1	1A	1128	A
1	1A	1129	A
1	1A	1130	U
1	1A	1135	C
1	1A	1136	G
1	1A	1149	G
1	1A	1155	A
1	1A	1170	G
1	1A	1171	G
1	1A	1173	G
1	1A	1174	A
1	1A	1175	U
1	1A	1176	G
1	1A	1177	A
1	1A	1210	A
1	1A	1211	U
1	1A	1220	A
1	1A	1241	A
1	1A	1244	G
1	1A	1253	A
1	1A	1256	G

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Mol	Chain	Res	Type
1	1A	1271	G
1	1A	1272	A
1	1A	1273	U
1	1A	1276	A
1	1A	1300	U
1	1A	1301	A
1	1A	1303	G
1	1A	1306	C
1	1A	1313	U
1	1A	1318	C
1	1A	1320	C
1	1A	1352	U
1	1A	1359	A
1	1A	1360	A
1	1A	1365	A
1	1A	1380	G
1	1A	1384	A
1	1A	1385	G
1	1A	1386	C
1	1A	1395	A
1	1A	1403	C
1	1A	1416	G
1	1A	1417	C
1	1A	1420	U
1	1A	1421	G
1	1A	1428	C
1	1A	1445	A
1	1A	1450	G
1	1A	1455	G
1	1A	1461	G
1	1A	1467	C
1	1A	1471	A
1	1A	1482	G
1	1A	1484	G
1	1A	1493	C
1	1A	1508	A
1	1A	1509	C
1	1A	1509(A)	A
1	1A	1509(B)	A
1	1A	1513	C
1	1A	1514	U
1	1A	1531	C

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Mol	Chain	Res	Type
1	1A	1554	A
1	1A	1558	A
1	1A	1566	A
1	1A	1569	A
1	1A	1578	U
1	1A	1580	A
1	1A	1581	G
1	1A	1584	C
1	1A	1586	A
1	1A	1608	A
1	1A	1609	A
1	1A	1610	A
1	1A	1646	C
1	1A	1647	G
1	1A	1648	C
1	1A	1654	A
1	1A	1674	G
1	1A	1696	G
1	1A	1700	A
1	1A	1701	A
1	1A	1703	G
1	1A	1722	A
1	1A	1739	U
1	1A	1746	G
1	1A	1756	G
1	1A	1762	A
1	1A	1763	G
1	1A	1764	G
1	1A	1773	A
1	1A	1780	A
1	1A	1782	C
1	1A	1791	A
1	1A	1800	C
1	1A	1801	G
1	1A	1816	G
1	1A	1817	G
1	1A	1828	G
1	1A	1829	A
1	1A	1847	A
1	1A	1861	G
1	1A	1877	A
1	1A	1878	G

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Mol	Chain	Res	Type
1	1A	1900	A
1	1A	1906	G
1	1A	1929	G
1	1A	1930	G
1	1A	1937	A
1	1A	1938	A
1	1A	1955	U
1	1A	1963	U
1	1A	1967	C
1	1A	1970	A
1	1A	1971	A
1	1A	1972	A
1	1A	1993	U
1	1A	1997	G
1	1A	2023	G
1	1A	2031	A
1	1A	2032	G
1	1A	2033	A
1	1A	2043	C
1	1A	2055	C
1	1A	2056	G
1	1A	2060	A
1	1A	2061	G
1	1A	2069	G
1	1A	2093	G
1	1A	2096	U
1	1A	2098	U
1	1A	2101	G
1	1A	2110	G
1	1A	2113	U
1	1A	2116	G
1	1A	2119	A
1	1A	2121	G
1	1A	2122	U
1	1A	2126	A
1	1A	2127	G
1	1A	2131	G
1	1A	2132	U
1	1A	2133	G
1	1A	2134	A
1	1A	2135	A
1	1A	2139	C

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Mol	Chain	Res	Type
1	1A	2140	C
1	1A	2142	C
1	1A	2146	C
1	1A	2147	G
1	1A	2151	G
1	1A	2156	G
1	1A	2157	G
1	1A	2159	G
1	1A	2165	G
1	1A	2166	G
1	1A	2171	A
1	1A	2172	U
1	1A	2173	A
1	1A	2178	C
1	1A	2181	G
1	1A	2182	G
1	1A	2184	G
1	1A	2188	C
1	1A	2192	G
1	1A	2198	A
1	1A	2206	G
1	1A	2207	G
1	1A	2225	A
1	1A	2238	G
1	1A	2239	G
1	1A	2268	A
1	1A	2269	A
1	1A	2273	A
1	1A	2283	C
1	1A	2287	A
1	1A	2289	G
1	1A	2305	A
1	1A	2307	G
1	1A	2308	G
1	1A	2314	C
1	1A	2320	A
1	1A	2325	G
1	1A	2334	G
1	1A	2336	A
1	1A	2347	C
1	1A	2350	C
1	1A	2361	A

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Mol	Chain	Res	Type
1	1A	2372	G
1	1A	2383	G
1	1A	2385	C
1	1A	2406	U
1	1A	2410	G
1	1A	2414	G
1	1A	2425	A
1	1A	2429	G
1	1A	2430	A
1	1A	2431	U
1	1A	2435	A
1	1A	2439	A
1	1A	2441	C
1	1A	2448	A
1	1A	2468	G
1	1A	2476	A
1	1A	2487	G
1	1A	2491	U
1	1A	2498	C
1	1A	2502	G
1	1A	2505	G
1	1A	2506	U
1	1A	2518	A
1	1A	2529	G
1	1A	2554	U
1	1A	2566	A
1	1A	2567	G
1	1A	2572	A
1	1A	2573	C
1	1A	2602	A
1	1A	2609	U
1	1A	2611	U
1	1A	2612	C
1	1A	2629	A
1	1A	2630	G
1	1A	2637	U
1	1A	2654	A
1	1A	2686	G
1	1A	2689	U
1	1A	2690	C
1	1A	2691	C
1	1A	2703	C

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Mol	Chain	Res	Type
1	1A	2712(A)	A
1	1A	2713	A
1	1A	2714	G
1	1A	2721	A
1	1A	2726	U
1	1A	2733	A
1	1A	2757	A
1	1A	2758	A
1	1A	2761	G
1	1A	2765	A
1	1A	2766	G
1	1A	2778	A
1	1A	2780	G
1	1A	2790	A
1	1A	2791	C
1	1A	2793	G
1	1A	2794	C
1	1A	2802	G
1	1A	2805	G
1	1A	2808	U
1	1A	2820	A
1	1A	2821	A
1	1A	2834	G
1	1A	2835	A
1	1A	2872	G
1	1A	2880	C
1	1A	2892	A
1	1A	2894	G
2	1B	2	C
2	1B	25	A
2	1B	35	U
2	1B	45	A
2	1B	56	G
2	1B	67	G
2	1B	73	A
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

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Mol	Chain	Res	Type
32	1a	51	A
32	1a	54	C
32	1a	61	G
32	1a	78	G
32	1a	91	C
32	1a	96	U
32	1a	98	G
32	1a	101	A
32	1a	115	G
32	1a	116	A
32	1a	121	C
32	1a	131	C
32	1a	146	G
32	1a	159	G
32	1a	163	C
32	1a	174	C
32	1a	180	U
32	1a	182	U
32	1a	195	A
32	1a	197	A
32	1a	202	U
32	1a	203	U
32	1a	204	U
32	1a	216	G
32	1a	217	C
32	1a	243	A
32	1a	247	G
32	1a	251	G
32	1a	258	G
32	1a	266	G
32	1a	267	C
32	1a	289	G
32	1a	321	A
32	1a	328	C
32	1a	332	G
32	1a	344	A
32	1a	352	C
32	1a	353	A
32	1a	354	G
32	1a	367	U
32	1a	372	C
32	1a	373	A

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Mol	Chain	Res	Type
32	1a	384	G
32	1a	397	A
32	1a	398	C
32	1a	406	G
32	1a	412	A
32	1a	424	G
32	1a	429	U
32	1a	441	A
32	1a	442	C
32	1a	452	A
32	1a	461	A
32	1a	470	C
32	1a	485	G
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	527	7MG
32	1a	531	U
32	1a	532	A
32	1a	533	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	577	G
32	1a	596	C
32	1a	630	G
32	1a	653	A
32	1a	665	A
32	1a	673	G
32	1a	687	A
32	1a	688	G
32	1a	695	A

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Mol	Chain	Res	Type
32	1a	702	A
32	1a	723	U
32	1a	731	G
32	1a	749	C
32	1a	755	G
32	1a	759	A
32	1a	773	G
32	1a	777	A
32	1a	792	A
32	1a	793	U
32	1a	794	A
32	1a	815	A
32	1a	816	A
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	902	G
32	1a	914	A
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	1001	A
32	1a	1001(A)	G

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Mol	Chain	Res	Type
32	1a	1003	G
32	1a	1005	A
32	1a	1006	C
32	1a	1009	G
32	1a	1020	U
32	1a	1021	G
32	1a	1022	G
32	1a	1023	G
32	1a	1025	U
32	1a	1026	G
32	1a	1027	C
32	1a	1028	C
32	1a	1029	C
32	1a	1030	C
32	1a	1030(A)	G
32	1a	1030(C)	G
32	1a	1031	G
32	1a	1032	G
32	1a	1033	G
32	1a	1039	C
32	1a	1043	C
32	1a	1054	C
32	1a	1065	U
32	1a	1066	C
32	1a	1068	G
32	1a	1081	G
32	1a	1087	G
32	1a	1094	G
32	1a	1095	U
32	1a	1101	A
32	1a	1104	G
32	1a	1108	G
32	1a	1123	A
32	1a	1125	U
32	1a	1134	G
32	1a	1135	U
32	1a	1136	U
32	1a	1137	C
32	1a	1138	G
32	1a	1139	G
32	1a	1140	C
32	1a	1141	C

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Mol	Chain	Res	Type
32	1a	1146	A
32	1a	1152	A
32	1a	1157	A
32	1a	1159	U
32	1a	1183	A
32	1a	1184	G
32	1a	1196	U
32	1a	1197	G
32	1a	1202	G
32	1a	1212	U
32	1a	1213	A
32	1a	1222	G
32	1a	1227	A
32	1a	1236	A
32	1a	1238	A
32	1a	1240	U
32	1a	1241	G
32	1a	1256	A
32	1a	1257	U
32	1a	1258	G
32	1a	1260	C
32	1a	1269	A
32	1a	1270	C
32	1a	1278	U
32	1a	1279	A
32	1a	1280	A
32	1a	1286	A
32	1a	1287	A
32	1a	1299	A
32	1a	1300	G
32	1a	1302	U
32	1a	1305	G
32	1a	1320	C
32	1a	1338	G
32	1a	1346	A
32	1a	1347	G
32	1a	1363	C
32	1a	1370	G
32	1a	1419	G
32	1a	1442	G
32	1a	1442(A)	G
32	1a	1446	U

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Mol	Chain	Res	Type
32	1a	1447	A
32	1a	1452	C
32	1a	1487	G
32	1a	1492	A
32	1a	1494	G
32	1a	1503	A
32	1a	1504	G
32	1a	1506	U
32	1a	1517	G
32	1a	1529	G
32	1a	1530	G
32	1a	1532	U
53	1v	13	A
53	1v	14	A
53	1v	24	A
54	1w	3	C
54	1w	7	A
54	1w	10	G
54	1w	19	G
54	1w	22	G
54	1w	23	A
54	1w	24	G
54	1w	46	7MG
54	1w	47	U
54	1w	48	C
54	1w	59	U
54	1w	62	C
54	1w	68	C
54	1w	72	C
54	1w	73	A
54	1w	75	C
54	1w	76	A
55	1x	6	G
55	1x	9	G
55	1x	19	G
55	1x	20	U
55	1x	21	A
55	1x	34	C
55	1x	42	G
55	1x	48	C
55	1x	67	C
55	1x	76	A

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Mol	Chain	Res	Type
54	1y	2	C
54	1y	5	G
54	1y	9	A
54	1y	11	C
54	1y	13	C
54	1y	19	G
54	1y	20	U
54	1y	21	A
54	1y	22	G
54	1y	26	A
54	1y	33	U
54	1y	34	G
54	1y	39	PSU
54	1y	44	G
54	1y	45	U
54	1y	46	7MG
54	1y	47	U
54	1y	48	C
54	1y	56	C
54	1y	57	G
54	1y	58	A
54	1y	65	G
54	1y	70	G
1	2A	12	U
1	2A	15	G
1	2A	35	G
1	2A	45	C
1	2A	55	G
1	2A	71	A
1	2A	74	A
1	2A	75	G
1	2A	79	G
1	2A	84	A
1	2A	90	U
1	2A	95	G
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	131	G

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Mol	Chain	Res	Type
1	2A	154(A)	C
1	2A	157	U
1	2A	181	A
1	2A	196	A
1	2A	198	C
1	2A	199	A
1	2A	205	G
1	2A	214	G
1	2A	215	G
1	2A	216	A
1	2A	219	G
1	2A	221	A
1	2A	222	A
1	2A	227	A
1	2A	228	A
1	2A	229	A
1	2A	232	G
1	2A	233	A
1	2A	248	G
1	2A	266	G
1	2A	271(A)	A
1	2A	271(E)	U
1	2A	271(F)	C
1	2A	271(I)	G
1	2A	271(K)	U
1	2A	271(L)	U
1	2A	271(M)	G
1	2A	271(N)	U
1	2A	272(B)	G
1	2A	277	C
1	2A	278	A
1	2A	294	A
1	2A	311	A
1	2A	327	G
1	2A	328	U
1	2A	329	G
1	2A	330	A
1	2A	333	G
1	2A	338	G
1	2A	342	G
1	2A	348	G
1	2A	352	G

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Mol	Chain	Res	Type
1	2A	354	G
1	2A	362	U
1	2A	363	G
1	2A	363(B)	G
1	2A	370	G
1	2A	386	G
1	2A	396	G
1	2A	402	A
1	2A	405	U
1	2A	411	G
1	2A	412	A
1	2A	422	A
1	2A	435	C
1	2A	442	G
1	2A	443	A
1	2A	444	C
1	2A	454	A
1	2A	455	C
1	2A	457	A
1	2A	470	A
1	2A	481	G
1	2A	505	A
1	2A	508	G
1	2A	509	C
1	2A	517	C
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	562	U
1	2A	563	G
1	2A	573	G
1	2A	574	C
1	2A	575	A
1	2A	587	C
1	2A	588	U
1	2A	592	G
1	2A	599	G
1	2A	603	A
1	2A	604	G

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Mol	Chain	Res	Type
1	2A	607	U
1	2A	614(B)	G
1	2A	614(C)	A
1	2A	615	G
1	2A	616	G
1	2A	627	A
1	2A	634	C
1	2A	637	A
1	2A	645	C
1	2A	646	A
1	2A	647	G
1	2A	652(B)	A
1	2A	652(C)	G
1	2A	653	A
1	2A	661	C
1	2A	669	G
1	2A	686	G
1	2A	717	G
1	2A	722	A
1	2A	726	G
1	2A	730	C
1	2A	752	A
1	2A	753	C
1	2A	771	G
1	2A	775	G
1	2A	776	G
1	2A	782	A
1	2A	784	A
1	2A	785	G
1	2A	790	C
1	2A	792	G
1	2A	794	G
1	2A	805	G
1	2A	811	U
1	2A	812	C
1	2A	819	A
1	2A	827	U
1	2A	828	U
1	2A	847	U
1	2A	848	G
1	2A	857	C
1	2A	859	G

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Mol	Chain	Res	Type
1	2A	864	G
1	2A	866	A
1	2A	867	C
1	2A	869	G
1	2A	874	G
1	2A	875	G
1	2A	878	A
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	893	C
1	2A	894	C
1	2A	896	A
1	2A	897	C
1	2A	900	A
1	2A	901	A
1	2A	910	A
1	2A	917	A
1	2A	923	C
1	2A	932	G
1	2A	933	A
1	2A	941	A
1	2A	943	U
1	2A	945	A
1	2A	946	G
1	2A	951	C
1	2A	952	G
1	2A	953	A
1	2A	957	A
1	2A	961	C
1	2A	974	G
1	2A	975	C
1	2A	983	A
1	2A	996	A
1	2A	1005	C
1	2A	1012	U
1	2A	1013	C
1	2A	1017	G

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Mol	Chain	Res	Type
1	2A	1022	G
1	2A	1026	U
1	2A	1027	A
1	2A	1033	U
1	2A	1036	G
1	2A	1038	C
1	2A	1039	G
1	2A	1043	C
1	2A	1114	G
1	2A	1116	C
1	2A	1118	C
1	2A	1126	A
1	2A	1130	U
1	2A	1133	U
1	2A	1135	C
1	2A	1136	G
1	2A	1137	G
1	2A	1139	G
1	2A	1144	G
1	2A	1155	A
1	2A	1166	C
1	2A	1171	G
1	2A	1183	G
1	2A	1198	U
1	2A	1205	U
1	2A	1210	A
1	2A	1211	U
1	2A	1212	G
1	2A	1220	A
1	2A	1227	G
1	2A	1229	G
1	2A	1237	A
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

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Mol	Chain	Res	Type
1	2A	1306	C
1	2A	1314	C
1	2A	1318	C
1	2A	1332	G
1	2A	1342	A
1	2A	1345	C
1	2A	1359	A
1	2A	1360	A
1	2A	1365	A
1	2A	1368	G
1	2A	1370	C
1	2A	1373	A
1	2A	1380	G
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	1429	G
1	2A	1437	C
1	2A	1445	A
1	2A	1449	A
1	2A	1450	G
1	2A	1455	G
1	2A	1460	A
1	2A	1467	C
1	2A	1471	A
1	2A	1479	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

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Mol	Chain	Res	Type
1	2A	1516	C
1	2A	1525	G
1	2A	1531	C
1	2A	1532	C
1	2A	1533	G
1	2A	1541	G
1	2A	1545	A
1	2A	1547	C
1	2A	1558	A
1	2A	1566	A
1	2A	1569	A
1	2A	1578	U
1	2A	1583	A
1	2A	1584	C
1	2A	1592	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	1648	C
1	2A	1650	G
1	2A	1654	A
1	2A	1664	A
1	2A	1674	G
1	2A	1675	C
1	2A	1696	G
1	2A	1700	A
1	2A	1701	A
1	2A	1721	G
1	2A	1722	A
1	2A	1741	A
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	1777	U
1	2A	1780	A

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Mol	Chain	Res	Type
1	2A	1786	A
1	2A	1791	A
1	2A	1800	C
1	2A	1801	G
1	2A	1812	A
1	2A	1816	G
1	2A	1829	A
1	2A	1835	G
1	2A	1847	A
1	2A	1848	A
1	2A	1858	G
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	1931	U
1	2A	1936	A
1	2A	1937	A
1	2A	1938	A
1	2A	1955	U
1	2A	1963	U
1	2A	1967	C
1	2A	1970	A
1	2A	1971	A
1	2A	1972	A
1	2A	1992	G
1	2A	1993	U
1	2A	1997	G
1	2A	2020	A
1	2A	2023	G
1	2A	2031	A
1	2A	2032	G
1	2A	2033	A
1	2A	2043	C
1	2A	2050	C
1	2A	2055	C
1	2A	2056	G
1	2A	2060	A

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Mol	Chain	Res	Type
1	2A	2061	G
1	2A	2062	A
1	2A	2069	G
1	2A	2093	G
1	2A	2105	C
1	2A	2108	C
1	2A	2110	G
1	2A	2111	C
1	2A	2112	G
1	2A	2116	G
1	2A	2119	A
1	2A	2122	U
1	2A	2124	G
1	2A	2126	A
1	2A	2127	G
1	2A	2129	C
1	2A	2131	G
1	2A	2132	U
1	2A	2133	G
1	2A	2134	A
1	2A	2135	A
1	2A	2136	C
1	2A	2137	C
1	2A	2139	C
1	2A	2141	G
1	2A	2142	C
1	2A	2146	C
1	2A	2150	U
1	2A	2153	G
1	2A	2155	G
1	2A	2157	G
1	2A	2158	A
1	2A	2163	C
1	2A	2165	G
1	2A	2166	G
1	2A	2167	U
1	2A	2168	G
1	2A	2171	A
1	2A	2172	U
1	2A	2173	A
1	2A	2174	C
1	2A	2178	C

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Mol	Chain	Res	Type
1	2A	2181	G
1	2A	2185	C
1	2A	2192	G
1	2A	2198	A
1	2A	2200	C
1	2A	2206	G
1	2A	2207	G
1	2A	2208	A
1	2A	2218	U
1	2A	2225	A
1	2A	2239	G
1	2A	2248	C
1	2A	2267	A
1	2A	2268	A
1	2A	2272	U
1	2A	2275	C
1	2A	2279	G
1	2A	2282	G
1	2A	2283	C
1	2A	2287	A
1	2A	2305	A
1	2A	2308	G
1	2A	2310	A
1	2A	2311	A
1	2A	2312	U
1	2A	2319	G
1	2A	2320	A
1	2A	2325	G
1	2A	2327	A
1	2A	2334	G
1	2A	2336	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	2388	A
1	2A	2400	G
1	2A	2402	C
1	2A	2403	C

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Mol	Chain	Res	Type
1	2A	2406	U
1	2A	2425	A
1	2A	2429	G
1	2A	2430	A
1	2A	2435	A
1	2A	2439	A
1	2A	2441	C
1	2A	2448	A
1	2A	2465	C
1	2A	2469	A
1	2A	2474	C
1	2A	2476	A
1	2A	2484	G
1	2A	2487	G
1	2A	2489	G
1	2A	2490	G
1	2A	2491	U
1	2A	2494	G
1	2A	2502	G
1	2A	2505	G
1	2A	2506	U
1	2A	2518	A
1	2A	2520	C
1	2A	2525	G
1	2A	2528	U
1	2A	2532	G
1	2A	2554	U
1	2A	2566	A
1	2A	2567	G
1	2A	2573	C
1	2A	2602	A
1	2A	2611	U
1	2A	2612	C
1	2A	2615	U
1	2A	2629	A
1	2A	2630	G
1	2A	2661	G
1	2A	2663	G
1	2A	2669	G
1	2A	2673	G
1	2A	2674	G
1	2A	2689	U

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Mol	Chain	Res	Type
1	2A	2690	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	2745	C
1	2A	2751	G
1	2A	2757	A
1	2A	2759	G
1	2A	2761	G
1	2A	2764	A
1	2A	2765	A
1	2A	2778	A
1	2A	2779	U
1	2A	2793	G
1	2A	2794	C
1	2A	2804	C
1	2A	2808	U
1	2A	2818	G
1	2A	2820	A
1	2A	2821	A
1	2A	2833	G
1	2A	2835	A
1	2A	2849	U
1	2A	2872	G
1	2A	2875	C
1	2A	2879	C
1	2A	2880	C
1	2A	2893	G
1	2A	2894	G
1	2A	2895	U
1	2A	2897	U
2	2B	2	C
2	2B	7	G
2	2B	8	U
2	2B	9	G
2	2B	13	A
2	2B	17	C
2	2B	20	C
2	2B	24	G

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Mol	Chain	Res	Type
2	2B	25	A
2	2B	30	C
2	2B	32	C
2	2B	34	U
2	2B	35	U
2	2B	42	C
2	2B	45	A
2	2B	46	A
2	2B	52	A
2	2B	53	A
2	2B	56	G
2	2B	57	A
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	83	G
2	2B	85	G
2	2B	88	C
2	2B	91	C
2	2B	94	C
2	2B	101	G
2	2B	106	G
2	2B	108	U
2	2B	110	G
2	2B	116	G
32	2a	7	G
32	2a	9	G
32	2a	32	A
32	2a	39	G
32	2a	47	C
32	2a	48	C
32	2a	51	A
32	2a	52	G
32	2a	66	G
32	2a	78	G
32	2a	80	G
32	2a	88	A
32	2a	89	C
32	2a	90	U

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Mol	Chain	Res	Type
32	2a	96	U
32	2a	98	G
32	2a	101	A
32	2a	116	A
32	2a	121	C
32	2a	131	C
32	2a	146	G
32	2a	159	G
32	2a	163	C
32	2a	174	C
32	2a	180	U
32	2a	182	U
32	2a	195	A
32	2a	197	A
32	2a	201	C
32	2a	203	U
32	2a	204	U
32	2a	216	G
32	2a	217	C
32	2a	243	A
32	2a	247	G
32	2a	251	G
32	2a	258	G
32	2a	266	G
32	2a	267	C
32	2a	289	G
32	2a	321	A
32	2a	328	C
32	2a	332	G
32	2a	344	A
32	2a	352	C
32	2a	353	A
32	2a	354	G
32	2a	367	U
32	2a	372	C
32	2a	373	A
32	2a	384	G
32	2a	397	A
32	2a	398	C
32	2a	406	G
32	2a	412	A
32	2a	424	G

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Mol	Chain	Res	Type
32	2a	429	U
32	2a	441	A
32	2a	442	C
32	2a	452	A
32	2a	461	A
32	2a	470	C
32	2a	474	G
32	2a	485	G
32	2a	496	A
32	2a	498	U
32	2a	505	G
32	2a	509	A
32	2a	510	A
32	2a	511	C
32	2a	518	C
32	2a	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	562	C
32	2a	568	G
32	2a	572	A
32	2a	573	A
32	2a	576	G
32	2a	577	G
32	2a	596	C
32	2a	630	G
32	2a	653	A
32	2a	665	A
32	2a	673	G
32	2a	687	A
32	2a	688	G
32	2a	695	A
32	2a	702	A
32	2a	723	U
32	2a	731	G
32	2a	749	C
32	2a	755	G
32	2a	759	A

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Mol	Chain	Res	Type
32	2a	773	G
32	2a	777	A
32	2a	792	A
32	2a	793	U
32	2a	794	A
32	2a	815	A
32	2a	816	A
32	2a	817	C
32	2a	821	G
32	2a	828	A
32	2a	840	C
32	2a	841	U
32	2a	851	G
32	2a	859	A
32	2a	870	U
32	2a	885	G
32	2a	902	G
32	2a	914	A
32	2a	916	G
32	2a	926	G
32	2a	927	G
32	2a	931	C
32	2a	934	C
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	992	U
32	2a	993	G
32	2a	1000	U
32	2a	1001	A
32	2a	1001(A)	G
32	2a	1002	G
32	2a	1004	A
32	2a	1005	A
32	2a	1006	C

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Mol	Chain	Res	Type
32	2a	1009	G
32	2a	1020	U
32	2a	1021	G
32	2a	1022	G
32	2a	1023	G
32	2a	1025	U
32	2a	1026	G
32	2a	1027	C
32	2a	1030	C
32	2a	1030(A)	G
32	2a	1030(B)	C
32	2a	1030(C)	G
32	2a	1031	G
32	2a	1032	G
32	2a	1033	G
32	2a	1039	C
32	2a	1043	C
32	2a	1054	C
32	2a	1065	U
32	2a	1066	C
32	2a	1068	G
32	2a	1077	G
32	2a	1081	G
32	2a	1087	G
32	2a	1094	G
32	2a	1095	U
32	2a	1101	A
32	2a	1104	G
32	2a	1108	G
32	2a	1117	G
32	2a	1125	U
32	2a	1129	C
32	2a	1130	A
32	2a	1135	U
32	2a	1136	U
32	2a	1137	C
32	2a	1138	G
32	2a	1139	G
32	2a	1140	C
32	2a	1141	C
32	2a	1146	A
32	2a	1147	C

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Mol	Chain	Res	Type
32	2a	1152	A
32	2a	1157	A
32	2a	1159	U
32	2a	1182	G
32	2a	1183	A
32	2a	1184	G
32	2a	1196	U
32	2a	1197	G
32	2a	1202	G
32	2a	1211	U
32	2a	1212	U
32	2a	1213	A
32	2a	1222	G
32	2a	1227	A
32	2a	1236	A
32	2a	1238	A
32	2a	1240	U
32	2a	1241	G
32	2a	1256	A
32	2a	1257	U
32	2a	1258	G
32	2a	1260	C
32	2a	1269	A
32	2a	1270	C
32	2a	1278	U
32	2a	1279	A
32	2a	1280	A
32	2a	1287	A
32	2a	1300	G
32	2a	1305	G
32	2a	1320	C
32	2a	1338	G
32	2a	1346	A
32	2a	1347	G
32	2a	1363	C
32	2a	1368	G
32	2a	1370	G
32	2a	1400	5MC
32	2a	1401	G
32	2a	1402	4OC
32	2a	1419	G
32	2a	1442	G

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Mol	Chain	Res	Type
32	2a	1442(A)	G
32	2a	1446	U
32	2a	1447	A
32	2a	1452	C
32	2a	1456	G
32	2a	1487	G
32	2a	1492	A
32	2a	1494	G
32	2a	1503	A
32	2a	1504	G
32	2a	1506	U
32	2a	1517	G
32	2a	1519	MA6
32	2a	1520	G
32	2a	1529	G
32	2a	1530	G
32	2a	1531	A
32	2a	1532	U
53	2v	13	A
53	2v	14	A
53	2v	24	A
54	2w	3	C
54	2w	4	C
54	2w	7	A
54	2w	8	4SU
54	2w	9	A
54	2w	10	G
54	2w	19	G
54	2w	22	G
54	2w	24	G
54	2w	46	7MG
54	2w	48	C
54	2w	59	U
54	2w	62	C
54	2w	68	C
54	2w	71	G
54	2w	72	C
54	2w	73	A
54	2w	75	C
54	2w	76	A
55	2x	19	G
55	2x	21	A

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Mol	Chain	Res	Type
55	2x	42	G
55	2x	47	U
55	2x	48	C
55	2x	56	C
55	2x	67	C
55	2x	68	C
55	2x	76	A
54	2y	2	C
54	2y	9	A
54	2y	13	C
54	2y	19	G
54	2y	22	G
54	2y	33	U
54	2y	34	G
54	2y	37	MIA
54	2y	39	PSU
54	2y	44	G
54	2y	46	7MG
54	2y	47	U
54	2y	52	G
54	2y	56	C
54	2y	57	G
54	2y	58	A
54	2y	65	G
54	2y	70	G

All (64) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	1A	90	U
1	1A	196	A
1	1A	266	G
1	1A	271(K)	U
1	1A	278	A
1	1A	548	A
1	1A	746	A
1	1A	764	A
1	1A	839	U
1	1A	896	A
1	1A	974	G
1	1A	1047	G
1	1A	1065	U

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Mol	Chain	Res	Type
1	1A	1067	A
1	1A	1089	G
1	1A	1174	A
1	1A	1175	U
1	1A	1176	G
1	1A	1210	A
1	1A	1275	A
1	1A	1379	A
1	1A	1442	G
1	1A	1508	A
1	1A	1608	A
1	1A	1653	G
1	1A	1992	G
1	1A	2131	G
1	1A	2181	G
1	1A	2183	C
1	1A	2430	A
1	1A	2629	A
1	1A	2689	U
1	1A	2756	U
2	1B	1	U
1	2A	196	A
1	2A	228	A
1	2A	266	G
1	2A	271(K)	U
1	2A	271(M)	G
1	2A	277	C
1	2A	528	A
1	2A	530	G
1	2A	587	C
1	2A	752	A
1	2A	839	U
1	2A	856	C
1	2A	893	C
1	2A	900	A
1	2A	1026	U
1	2A	1210	A
1	2A	1300	U
1	2A	1379	A
1	2A	1420	U
1	2A	1442	G
1	2A	1493	C

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Mol	Chain	Res	Type
1	2A	1530	C
1	2A	1653	G
1	2A	1913	A
1	2A	1992	G
1	2A	2126	A
1	2A	2156	G
1	2A	2406	U
1	2A	2689	U
1	2A	2756	U

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

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
32	5MC	2a	1407	32	19,22,23	1.62	3 (15%)	26,32,35	1.22	3 (11%)
32	PSU	2a	516	32	18,21,22	1.36	2 (11%)	21,30,33	1.97	4 (19%)
1	5MC	2A	1942	1	19,22,23	1.65	3 (15%)	26,32,35	1.15	2 (7%)
32	2MG	1a	1207	32	23,26,27	1.26	2 (8%)	33,38,41	2.11	7 (21%)
32	MA6	2a	1519	32	23,26,27	1.59	4 (17%)	33,38,41	2.30	11 (33%)
54	MIA	1w	37	54	28,31,32	2.32	6 (21%)	38,44,47	2.70	12 (31%)
55	5MU	2x	54	55	19,22,23	1.38	4 (21%)	27,32,35	2.21	6 (22%)
1	PSU	1A	1911	1	18,21,22	1.39	3 (16%)	21,30,33	2.02	4 (19%)
54	7MG	1y	46	54	23,26,27	1.34	5 (21%)	27,39,42	2.62	6 (22%)
54	PSU	2y	32	54	18,21,22	1.36	2 (11%)	21,30,33	1.90	3 (14%)
1	4OC	2A	1920	1	19,22,24	0.78	0	25,31,35	0.78	0
1	PSU	2A	1917	1	18,21,22	1.35	2 (11%)	21,30,33	1.90	4 (19%)
1	5MC	1A	1962	1	19,22,23	1.69	3 (15%)	26,32,35	1.12	3 (11%)
54	PSU	2w	39	54	18,21,22	1.45	2 (11%)	21,30,33	1.68	4 (19%)
55	4SU	2x	8	55	18,21,22	2.00	6 (33%)	25,30,33	1.61	7 (28%)
32	PSU	1a	516	32,56	18,21,22	1.41	2 (11%)	21,30,33	2.06	4 (19%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
32	M2G	1a	966	32	24,27,28	1.30	4 (16%)	33,40,43	1.78	5 (15%)
32	5MC	2a	967	32,56	19,22,23	1.68	3 (15%)	26,32,35	1.11	2 (7%)
32	5MC	1a	1400	32	19,22,23	1.82	3 (15%)	26,32,35	1.10	2 (7%)
54	PSU	2y	39	54	18,21,22	1.36	1 (5%)	21,30,33	2.41	3 (14%)
55	5MU	1x	54	56,55	19,22,23	1.41	6 (31%)	27,32,35	1.84	6 (22%)
54	5MU	2w	54	54	19,22,23	1.39	6 (31%)	27,32,35	1.81	6 (22%)
1	2MU	1A	2552	1,56	19,22,24	1.26	3 (15%)	25,31,36	1.96	5 (20%)
55	4SU	1x	8	55	18,21,22	2.09	5 (27%)	25,30,33	1.48	6 (24%)
1	5MC	1A	1942	1	19,22,23	1.41	3 (15%)	26,32,35	1.10	2 (7%)
32	7MG	1a	527	32,56	23,26,27	1.39	4 (17%)	27,39,42	2.61	7 (25%)
54	4SU	1y	8	54	18,21,22	1.91	4 (22%)	25,30,33	2.02	4 (16%)
43	0TD	1l	92	43	8,9,10	4.71	1 (12%)	6,11,13	8.27	3 (50%)
54	5MU	2y	54	54	19,22,23	1.45	4 (21%)	27,32,35	1.98	7 (25%)
54	PSU	1w	32	54	18,21,22	1.36	2 (11%)	21,30,33	1.97	3 (14%)
1	2MA	2A	2503	1,56	22,25,26	1.44	5 (22%)	32,37,40	2.25	9 (28%)
1	5MU	2A	1915	1	19,22,23	1.50	6 (31%)	27,32,35	2.08	6 (22%)
1	PSU	2A	2605	1	18,21,22	1.24	2 (11%)	21,30,33	2.31	5 (23%)
32	2MG	2a	1207	32	23,26,27	1.22	3 (13%)	33,38,41	2.12	7 (21%)
1	5MU	1A	1939	1,56	19,22,23	1.33	3 (15%)	27,32,35	2.31	6 (22%)
1	2MU	2A	2552	1,56	19,22,24	1.38	4 (21%)	25,31,36	1.78	5 (20%)
32	UR3	1a	1498	32	19,22,23	1.06	1 (5%)	26,32,35	1.87	5 (19%)
1	PSU	2A	1911	1	18,21,22	1.33	2 (11%)	21,30,33	1.98	3 (14%)
32	M2G	2a	966	32	24,27,28	1.29	3 (12%)	33,40,43	1.88	6 (18%)
54	PSU	1w	55	54	18,21,22	1.41	2 (11%)	21,30,33	2.08	4 (19%)
54	7MG	1w	46	54	23,26,27	1.43	3 (13%)	27,39,42	2.55	7 (25%)
1	PSU	1A	2605	1	18,21,22	1.42	3 (16%)	21,30,33	2.02	5 (23%)
1	OMG	1A	2251	1,56,55	23,26,27	1.25	3 (13%)	32,38,41	2.00	6 (18%)
32	5MC	1a	1404	32	19,22,23	1.69	3 (15%)	26,32,35	1.20	3 (11%)
32	5MC	2a	1404	32	19,22,23	1.72	3 (15%)	26,32,35	1.13	3 (11%)
1	5MC	2A	1962	1,56	19,22,23	1.55	3 (15%)	26,32,35	1.18	3 (11%)
54	4SU	1w	8	54	18,21,22	1.71	4 (22%)	25,30,33	2.14	5 (20%)
54	PSU	1w	39	54	18,21,22	1.40	2 (11%)	21,30,33	1.95	3 (14%)
1	5MU	2A	1939	1,56	19,22,23	1.37	6 (31%)	27,32,35	2.34	6 (22%)
32	MA6	1a	1518	32	23,26,27	1.53	4 (17%)	33,38,41	2.30	14 (42%)
54	MIA	1y	37	54	21,24,32	1.60	3 (14%)	30,35,47	2.06	8 (26%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
32	MA6	1a	1519	32	23,26,27	1.56	4 (17%)	33,38,41	2.30	11 (33%)
54	PSU	2w	55	54	18,21,22	1.39	2 (11%)	21,30,33	2.01	3 (14%)
54	5MU	1w	54	54	19,22,23	1.35	5 (26%)	27,32,35	1.96	6 (22%)
54	PSU	1y	39	54	18,21,22	1.50	3 (16%)	21,30,33	2.09	4 (19%)
1	PSU	1A	1917	1	18,21,22	1.41	3 (16%)	21,30,33	2.03	4 (19%)
54	PSU	2w	32	54	18,21,22	1.34	2 (11%)	21,30,33	1.96	4 (19%)
32	MA6	2a	1518	32	23,26,27	1.56	5 (21%)	33,38,41	2.28	12 (36%)
54	7MG	2w	46	54	23,26,27	1.35	4 (17%)	27,39,42	2.59	7 (25%)
1	OMG	2A	2251	1,56,55	23,26,27	1.24	3 (13%)	32,38,41	1.99	7 (21%)
1	5MU	1A	1915	1	19,22,23	1.39	6 (31%)	27,32,35	2.15	7 (25%)
55	PSU	2x	55	55	18,21,22	1.37	2 (11%)	21,30,33	1.92	3 (14%)
54	7MG	2y	46	54	23,26,27	1.34	4 (17%)	27,39,42	2.67	9 (33%)
54	5MU	1y	54	54	19,22,23	1.44	5 (26%)	27,32,35	1.55	6 (22%)
1	2MA	1A	2503	1,56	22,25,26	1.47	4 (18%)	32,37,40	2.37	8 (25%)
32	5MC	2a	1400	32	19,22,23	1.53	3 (15%)	26,32,35	1.27	5 (19%)
54	PSU	1y	55	54	18,21,22	1.36	2 (11%)	21,30,33	2.03	4 (19%)
54	MIA	2w	37	54	21,24,32	1.59	4 (19%)	30,35,47	2.00	7 (23%)
1	4OC	1A	1920	1	19,22,24	0.80	0	25,31,35	1.05	2 (8%)
54	PSU	2y	55	54	18,21,22	1.37	2 (11%)	21,30,33	1.98	3 (14%)
55	5MC	1x	32	55	19,22,23	1.71	3 (15%)	26,32,35	1.22	3 (11%)
32	5MC	1a	1407	32	19,22,23	1.53	3 (15%)	26,32,35	1.05	2 (7%)
32	7MG	2a	527	32,56	23,26,27	1.35	4 (17%)	27,39,42	2.60	7 (25%)
32	4OC	2a	1402	32	20,23,24	0.76	1 (5%)	25,32,35	1.05	1 (4%)
32	UR3	2a	1498	32	19,22,23	0.99	1 (5%)	26,32,35	1.73	3 (11%)
54	MIA	2y	37	54	21,24,32	1.65	4 (19%)	30,35,47	2.07	7 (23%)
43	0TD	2l	92	43	8,9,10	4.73	1 (12%)	6,11,13	5.50	3 (50%)
55	PSU	1x	55	55	18,21,22	1.36	2 (11%)	21,30,33	1.98	4 (19%)
54	PSU	1y	32	54	18,21,22	1.38	2 (11%)	21,30,33	1.92	3 (14%)
55	5MC	2x	32	55	19,22,23	1.59	3 (15%)	26,32,35	1.25	4 (15%)
32	4OC	1a	1402	32	20,23,24	0.73	0	25,32,35	0.92	1 (4%)
54	4SU	2w	8	54,56	18,21,22	1.75	5 (27%)	25,30,33	1.94	4 (16%)
32	5MC	1a	967	32	19,22,23	1.69	3 (15%)	26,32,35	1.11	2 (7%)
54	4SU	2y	8	54	18,21,22	1.85	4 (22%)	25,30,33	2.35	6 (24%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
32	5MC	2a	1407	32	-	0/7/25/26	0/2/2/2
32	PSU	2a	516	32	-	0/7/25/26	0/2/2/2
1	5MC	2A	1942	1	-	0/7/25/26	0/2/2/2
32	2MG	1a	1207	32	-	2/9/27/28	0/3/3/3
32	MA6	2a	1519	32	-	6/11/29/30	0/3/3/3
54	MIA	1w	37	54	-	3/15/33/34	0/3/3/3
55	5MU	2x	54	55	-	0/7/25/26	0/2/2/2
1	PSU	1A	1911	1	-	0/7/25/26	0/2/2/2
54	7MG	1y	46	54	-	5/7/37/38	0/3/3/3
54	PSU	2y	32	54	-	0/7/25/26	0/2/2/2
1	4OC	2A	1920	1	-	0/9/27/30	0/2/2/2
1	PSU	2A	1917	1	-	0/7/25/26	0/2/2/2
1	5MC	1A	1962	1	-	0/7/25/26	0/2/2/2
54	PSU	2w	39	54	-	0/7/25/26	0/2/2/2
55	4SU	2x	8	55	-	1/7/25/26	0/2/2/2
32	PSU	1a	516	32,56	-	0/7/25/26	0/2/2/2
32	M2G	1a	966	32	-	0/11/29/30	0/3/3/3
32	5MC	2a	967	32,56	-	2/7/25/26	0/2/2/2
32	5MC	1a	1400	32	-	1/7/25/26	0/2/2/2
54	PSU	2y	39	54	-	2/7/25/26	0/2/2/2
55	5MU	1x	54	56,55	-	0/7/25/26	0/2/2/2
54	5MU	2w	54	54	-	0/7/25/26	0/2/2/2
1	2MU	1A	2552	1,56	-	0/9/27/28	0/2/2/2
55	4SU	1x	8	55	-	0/7/25/26	0/2/2/2
1	5MC	1A	1942	1	-	0/7/25/26	0/2/2/2
32	7MG	1a	527	32,56	-	3/7/37/38	0/3/3/3
54	4SU	1y	8	54	-	0/7/25/26	0/2/2/2
43	0TD	1l	92	43	-	2/7/12/14	-
54	5MU	2y	54	54	-	0/7/25/26	0/2/2/2
54	PSU	1w	32	54	-	0/7/25/26	0/2/2/2
1	2MA	2A	2503	1,56	-	0/7/25/26	0/3/3/3
1	5MU	2A	1915	1	-	0/7/25/26	0/2/2/2
1	PSU	2A	2605	1	-	0/7/25/26	0/2/2/2
32	2MG	2a	1207	32	-	0/9/27/28	0/3/3/3
1	5MU	1A	1939	1,56	-	0/7/25/26	0/2/2/2
1	2MU	2A	2552	1,56	-	0/9/27/28	0/2/2/2
32	UR3	1a	1498	32	-	0/7/25/26	0/2/2/2
1	PSU	2A	1911	1	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
32	M2G	2a	966	32	-	0/11/29/30	0/3/3/3
54	PSU	1w	55	54	-	0/7/25/26	0/2/2/2
54	7MG	1w	46	54	-	1/7/37/38	0/3/3/3
1	PSU	1A	2605	1	-	0/7/25/26	0/2/2/2
1	OMG	1A	2251	1,56,55	-	0/9/27/28	0/3/3/3
32	5MC	1a	1404	32	-	0/7/25/26	0/2/2/2
32	5MC	2a	1404	32	-	0/7/25/26	0/2/2/2
1	5MC	2A	1962	1,56	-	0/7/25/26	0/2/2/2
54	4SU	1w	8	54	-	0/7/25/26	0/2/2/2
54	PSU	1w	39	54	-	0/7/25/26	0/2/2/2
1	5MU	2A	1939	1,56	-	0/7/25/26	0/2/2/2
32	MA6	1a	1518	32	-	1/11/29/30	0/3/3/3
54	MIA	1y	37	54	-	0/7/25/34	0/3/3/3
32	MA6	1a	1519	32	-	4/11/29/30	0/3/3/3
54	PSU	2w	55	54	-	0/7/25/26	0/2/2/2
54	5MU	1w	54	54	-	0/7/25/26	0/2/2/2
54	PSU	1y	39	54	-	2/7/25/26	0/2/2/2
1	PSU	1A	1917	1	-	0/7/25/26	0/2/2/2
54	PSU	2w	32	54	-	0/7/25/26	0/2/2/2
32	MA6	2a	1518	32	-	2/11/29/30	0/3/3/3
54	7MG	2w	46	54	-	1/7/37/38	0/3/3/3
1	OMG	2A	2251	1,56,55	-	1/9/27/28	0/3/3/3
1	5MU	1A	1915	1	-	1/7/25/26	0/2/2/2
55	PSU	2x	55	55	-	0/7/25/26	0/2/2/2
54	7MG	2y	46	54	-	4/7/37/38	0/3/3/3
54	5MU	1y	54	54	-	0/7/25/26	0/2/2/2
1	2MA	1A	2503	1,56	-	1/7/25/26	0/3/3/3
32	5MC	2a	1400	32	-	1/7/25/26	0/2/2/2
54	PSU	1y	55	54	-	1/7/25/26	0/2/2/2
54	MIA	2w	37	54	-	0/7/25/34	0/3/3/3
1	4OC	1A	1920	1	-	1/9/27/30	0/2/2/2
54	PSU	2y	55	54	-	3/7/25/26	0/2/2/2
55	5MC	1x	32	55	-	0/7/25/26	0/2/2/2
32	5MC	1a	1407	32	-	0/7/25/26	0/2/2/2
32	7MG	2a	527	32,56	-	1/7/37/38	0/3/3/3
32	4OC	2a	1402	32	-	2/9/29/30	0/2/2/2
32	UR3	2a	1498	32	-	0/7/25/26	0/2/2/2
54	MIA	2y	37	54	-	2/7/25/34	0/3/3/3
43	0TD	2l	92	43	-	3/7/12/14	-
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	1y	32	54	-	0/7/25/26	0/2/2/2
55	5MC	2x	32	55	-	0/7/25/26	0/2/2/2
32	4OC	1a	1402	32	-	2/9/29/30	0/2/2/2
54	4SU	2w	8	54,56	-	0/7/25/26	0/2/2/2
32	5MC	1a	967	32	-	0/7/25/26	0/2/2/2
54	4SU	2y	8	54	-	0/7/25/26	0/2/2/2

All (265) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	2l	92	0TD	CB-SB	-13.01	1.69	1.82
43	1l	92	0TD	CB-SB	-12.93	1.69	1.82
54	1w	37	MIA	C2-S10	-6.93	1.70	1.75
54	1w	37	MIA	C13-C14	6.88	1.53	1.32
32	1a	1400	5MC	C5-C4	6.84	1.49	1.44
32	2a	1404	5MC	C5-C4	6.35	1.48	1.44
1	1A	1962	5MC	C5-C4	6.29	1.48	1.44
55	1x	32	5MC	C5-C4	6.20	1.48	1.44
32	1a	967	5MC	C5-C4	6.18	1.48	1.44
32	2a	967	5MC	C5-C4	6.08	1.48	1.44
32	1a	1404	5MC	C5-C4	6.00	1.48	1.44
1	2A	1942	5MC	C5-C4	5.86	1.48	1.44
32	2a	1407	5MC	C5-C4	5.71	1.48	1.44
55	2x	32	5MC	C5-C4	5.60	1.48	1.44
32	1a	1407	5MC	C5-C4	5.43	1.48	1.44
32	2a	1400	5MC	C5-C4	5.42	1.48	1.44
1	2A	1962	5MC	C5-C4	5.40	1.48	1.44
54	2y	37	MIA	C5-C4	5.21	1.48	1.39
54	1y	8	4SU	C4-S4	-5.08	1.59	1.68
54	1y	37	MIA	C5-C4	5.00	1.48	1.39
54	2w	37	MIA	C5-C4	4.99	1.48	1.39
32	2a	1519	MA6	C5-C4	4.91	1.47	1.39
54	2y	8	4SU	C4-S4	-4.86	1.60	1.68
1	1A	1942	5MC	C5-C4	4.81	1.47	1.44
32	2a	1518	MA6	C5-C4	4.78	1.47	1.39
54	1w	37	MIA	C5-C4	4.69	1.47	1.39
55	1x	8	4SU	C4-N3	-4.65	1.32	1.37
54	1w	8	4SU	C4-S4	-4.59	1.60	1.68
32	1a	1518	MA6	C5-C4	4.59	1.47	1.39
32	1a	1519	MA6	C5-C4	4.55	1.47	1.39
54	2w	8	4SU	C4-S4	-4.48	1.60	1.68
55	1x	8	4SU	C4-S4	-4.45	1.60	1.68

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
55	2x	8	4SU	C4-N3	-4.40	1.33	1.37
55	2x	8	4SU	C4-S4	-4.33	1.61	1.68
54	1w	46	7MG	C4-N9	-4.28	1.32	1.37
1	1A	2503	2MA	C5-C4	4.28	1.46	1.39
1	2A	2503	2MA	C5-C4	4.23	1.46	1.39
54	2w	55	PSU	C6-C5	4.13	1.39	1.35
54	1w	55	PSU	C6-C5	4.13	1.39	1.35
54	1y	39	PSU	C6-C5	4.11	1.39	1.35
54	2w	39	PSU	C6-C5	4.01	1.39	1.35
54	2y	32	PSU	C6-C5	3.90	1.39	1.35
55	1x	8	4SU	C2-N3	-3.83	1.31	1.38
32	2a	516	PSU	C6-C5	3.81	1.39	1.35
55	2x	55	PSU	C6-C5	3.75	1.39	1.35
54	1y	32	PSU	C6-C5	3.74	1.39	1.35
54	2w	46	7MG	C4-N9	-3.71	1.33	1.37
54	1y	8	4SU	C4-N3	-3.69	1.33	1.37
54	1y	55	PSU	C6-C5	3.66	1.39	1.35
32	1a	516	PSU	C6-C5	3.58	1.39	1.35
54	1w	39	PSU	C6-C5	3.55	1.39	1.35
1	2A	1911	PSU	C6-C5	3.51	1.39	1.35
54	1y	46	7MG	C5-C4	3.47	1.48	1.37
54	2w	32	PSU	C6-C5	3.46	1.39	1.35
1	2A	1917	PSU	C6-C5	3.46	1.39	1.35
54	1w	32	PSU	C6-C5	3.45	1.39	1.35
1	1A	1917	PSU	C6-C5	3.42	1.39	1.35
32	1a	527	7MG	C5-C4	3.42	1.48	1.37
1	2A	2605	PSU	C6-C5	3.41	1.39	1.35
32	2a	527	7MG	C5-C4	3.33	1.47	1.37
54	2y	39	PSU	C6-C5	3.31	1.39	1.35
54	2y	46	7MG	C5-C4	3.26	1.47	1.37
54	2y	46	7MG	C4-N9	-3.25	1.33	1.37
55	1x	55	PSU	C6-C5	3.25	1.38	1.35
54	1w	46	7MG	C5-C4	3.23	1.47	1.37
32	2a	966	M2G	C5-C4	3.22	1.47	1.38
54	2y	8	4SU	C2-N1	3.22	1.43	1.38
32	2a	1519	MA6	C5-C6	3.20	1.49	1.41
1	2A	2251	OMG	C5-C4	3.20	1.47	1.38
32	1a	966	M2G	C5-C4	3.18	1.47	1.38
1	1A	2251	OMG	C5-C4	3.16	1.47	1.38
54	2w	46	7MG	C5-C4	3.16	1.47	1.37
1	1A	2605	PSU	C6-C5	3.14	1.38	1.35
54	2y	55	PSU	C6-C5	3.13	1.38	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	1A	1911	PSU	C6-C5	3.12	1.38	1.35
32	1a	527	7MG	C4-N9	-3.12	1.34	1.37
32	2a	1518	MA6	C5-C6	3.12	1.49	1.41
32	2a	1207	2MG	C5-C4	3.12	1.47	1.38
1	1A	2605	PSU	C4-N3	-3.07	1.33	1.38
55	1x	8	4SU	C5-C4	-3.07	1.38	1.42
32	1a	1207	2MG	C5-C4	3.05	1.47	1.38
54	2w	8	4SU	C4-N3	-3.03	1.34	1.37
1	2A	1942	5MC	C6-C5	3.03	1.39	1.34
32	1a	1518	MA6	C5-C6	3.02	1.49	1.41
32	1a	1404	5MC	C6-C5	3.01	1.39	1.34
54	1y	37	MIA	C5-C6	2.98	1.49	1.41
54	2y	37	MIA	C5-C6	2.91	1.49	1.41
32	2a	527	7MG	C4-N9	-2.90	1.34	1.37
1	1A	2552	2MU	C4-N3	-2.89	1.33	1.38
55	2x	8	4SU	C5-C4	-2.89	1.39	1.42
1	1A	1911	PSU	C4-N3	-2.88	1.33	1.38
54	2y	54	5MU	C2-N1	2.88	1.43	1.38
32	2a	1404	5MC	C6-C5	2.88	1.39	1.34
32	2a	966	M2G	C2-N2	2.88	1.40	1.35
1	2A	1915	5MU	C6-C5	2.87	1.39	1.34
1	2A	1915	5MU	C2-N1	2.86	1.42	1.38
54	1y	54	5MU	C6-C5	2.86	1.39	1.34
32	2a	967	5MC	C6-C5	2.84	1.39	1.34
32	1a	967	5MC	C6-C5	2.84	1.39	1.34
54	2y	54	5MU	C6-C5	2.83	1.39	1.34
32	1a	1400	5MC	C6-C5	2.82	1.39	1.34
54	1w	8	4SU	C5-C4	-2.82	1.39	1.42
54	1y	8	4SU	C5-C4	-2.82	1.39	1.42
32	1a	1519	MA6	C5-C6	2.81	1.48	1.41
54	1y	54	5MU	C4-N3	-2.81	1.33	1.38
55	2x	8	4SU	C2-N3	-2.81	1.33	1.38
54	2w	37	MIA	C5-C6	2.79	1.48	1.41
54	1w	37	MIA	C5-C6	2.79	1.48	1.41
55	2x	32	5MC	C6-C5	2.79	1.39	1.34
1	1A	2251	OMG	C6-N1	-2.78	1.33	1.38
54	2y	8	4SU	C5-C4	-2.78	1.39	1.42
55	2x	54	5MU	C6-C5	2.77	1.39	1.34
1	1A	1939	5MU	C6-C5	2.77	1.39	1.34
1	2A	2552	2MU	C5-C4	2.76	1.49	1.43
55	1x	54	5MU	C6-C5	2.75	1.39	1.34
1	1A	1917	PSU	C4-N3	-2.75	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	2a	1407	5MC	C6-C5	2.75	1.39	1.34
1	2A	2552	2MU	C4-N3	-2.74	1.33	1.38
1	1A	2503	2MA	C5-N7	-2.72	1.34	1.39
54	2y	55	PSU	C4-N3	-2.71	1.33	1.38
55	1x	54	5MU	C4-N3	-2.71	1.33	1.38
1	1A	1939	5MU	C4-N3	-2.71	1.33	1.38
32	1a	1407	5MC	C6-C5	2.70	1.39	1.34
1	2A	1939	5MU	C4-N3	-2.69	1.33	1.38
54	1w	54	5MU	C6-C5	2.69	1.39	1.34
55	1x	32	5MC	C6-C5	2.65	1.38	1.34
1	2A	1915	5MU	C4-N3	-2.65	1.33	1.38
54	1w	39	PSU	C4-N3	-2.65	1.33	1.38
54	2w	39	PSU	C4-N3	-2.64	1.33	1.38
54	2y	8	4SU	C4-N3	-2.64	1.34	1.37
1	2A	1939	5MU	C6-C5	2.63	1.38	1.34
32	1a	966	M2G	C6-N1	-2.63	1.33	1.38
1	1A	1942	5MC	C6-C5	2.62	1.38	1.34
54	1w	54	5MU	C4-N3	-2.62	1.33	1.38
54	2w	54	5MU	C6-C5	2.62	1.38	1.34
32	1a	1207	2MG	C6-N1	-2.61	1.34	1.38
54	1w	8	4SU	C4-N3	-2.60	1.34	1.37
32	1a	516	PSU	C4-N3	-2.58	1.34	1.38
54	1w	32	PSU	C4-N3	-2.58	1.34	1.38
1	1A	1915	5MU	C6-C5	2.57	1.38	1.34
1	2A	2251	OMG	C6-N1	-2.57	1.34	1.38
55	1x	32	5MC	C6-N1	-2.56	1.33	1.38
32	1a	966	M2G	C2-N2	2.55	1.39	1.35
55	2x	8	4SU	C2-N1	2.54	1.42	1.38
1	2A	1962	5MC	C6-N1	-2.54	1.33	1.38
32	1a	1498	UR3	C2-N1	2.53	1.42	1.38
32	1a	1519	MA6	C8-N7	2.50	1.36	1.31
1	2A	2552	2MU	C2-N1	2.50	1.42	1.38
1	1A	1962	5MC	C6-N1	-2.49	1.33	1.38
1	1A	1915	5MU	C4-N3	-2.49	1.34	1.38
1	1A	1939	5MU	C6-N1	-2.48	1.33	1.38
54	2w	8	4SU	C2-N1	2.48	1.42	1.38
32	2a	1207	2MG	C6-N1	-2.48	1.34	1.38
54	2y	37	MIA	C8-N7	2.47	1.36	1.31
1	2A	1915	5MU	C4-C5	2.47	1.48	1.44
1	1A	2503	2MA	C5-C6	2.45	1.47	1.41
54	2w	8	4SU	C5-C4	-2.44	1.39	1.42
1	2A	1917	PSU	C4-N3	-2.44	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	1A	1915	5MU	C4-C5	2.44	1.48	1.44
1	1A	2605	PSU	C2-N3	-2.43	1.33	1.37
54	2w	54	5MU	C2-N1	2.42	1.42	1.38
55	2x	54	5MU	C4-C5	2.42	1.48	1.44
1	2A	1962	5MC	C6-C5	2.41	1.38	1.34
1	1A	1915	5MU	C2-N1	2.39	1.42	1.38
54	1w	46	7MG	C6-N1	-2.39	1.34	1.38
55	2x	55	PSU	C4-N3	-2.38	1.34	1.38
54	1w	37	MIA	C8-N7	2.38	1.36	1.31
55	1x	55	PSU	C4-N3	-2.38	1.34	1.38
1	2A	1911	PSU	C4-N3	-2.38	1.34	1.38
54	2w	32	PSU	C4-N3	-2.37	1.34	1.38
32	2a	1400	5MC	C6-C5	2.37	1.38	1.34
55	2x	54	5MU	C2-N1	2.37	1.42	1.38
1	2A	2503	2MA	C5-C6	2.37	1.47	1.41
54	2y	54	5MU	C4-C5	2.37	1.48	1.44
55	2x	54	5MU	C4-N3	-2.36	1.34	1.38
54	1y	39	PSU	C4-N3	-2.36	1.34	1.38
54	2w	54	5MU	C4-N3	-2.35	1.34	1.38
32	2a	516	PSU	C4-N3	-2.34	1.34	1.38
1	1A	2552	2MU	C2-N3	-2.33	1.33	1.38
54	2y	54	5MU	C4-N3	-2.33	1.34	1.38
54	1y	54	5MU	C2-N1	2.33	1.42	1.38
54	1y	55	PSU	C4-N3	-2.32	1.34	1.38
55	1x	54	5MU	C4-C5	2.32	1.48	1.44
1	1A	1962	5MC	C6-C5	2.32	1.38	1.34
32	1a	1519	MA6	C5-N7	-2.31	1.34	1.39
54	1y	37	MIA	C8-N7	2.31	1.36	1.31
32	1a	1404	5MC	C6-N1	-2.31	1.34	1.38
54	2w	37	MIA	C8-N7	2.31	1.36	1.31
54	1y	46	7MG	C4-N9	-2.31	1.35	1.37
54	1w	8	4SU	C2-N1	2.29	1.42	1.38
54	1y	46	7MG	C6-N1	-2.29	1.34	1.38
54	1y	8	4SU	C2-N3	-2.29	1.34	1.38
54	2w	55	PSU	C4-N3	-2.28	1.34	1.38
1	2A	2503	2MA	C5-N7	-2.28	1.34	1.39
1	2A	2503	2MA	C4-N9	-2.28	1.33	1.37
54	1y	32	PSU	C4-N3	-2.27	1.34	1.38
32	1a	967	5MC	C6-N1	-2.27	1.34	1.38
54	1y	46	7MG	C8-N9	2.26	1.47	1.45
54	2w	54	5MU	C4-C5	2.26	1.48	1.44
54	1w	37	MIA	C5-N7	-2.26	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	2a	1519	MA6	C5-N7	-2.26	1.35	1.39
1	2A	1915	5MU	C6-N1	-2.25	1.34	1.38
32	2a	1519	MA6	C8-N7	2.25	1.36	1.31
32	2a	1407	5MC	C6-N1	-2.25	1.34	1.38
55	2x	8	4SU	O2-C2	2.25	1.27	1.23
1	2A	2503	2MA	C8-N7	2.25	1.36	1.31
32	1a	527	7MG	C6-N1	-2.25	1.34	1.38
1	2A	1939	5MU	C2-N3	-2.25	1.34	1.38
32	2a	1518	MA6	C8-N7	2.25	1.36	1.31
32	2a	527	7MG	C6-N1	-2.24	1.34	1.38
1	2A	2251	OMG	C5-N7	-2.24	1.34	1.39
32	1a	1518	MA6	C8-N7	2.23	1.36	1.31
32	2a	1400	5MC	C6-N1	-2.22	1.34	1.38
32	1a	1518	MA6	C5-N7	-2.22	1.35	1.39
55	2x	32	5MC	C6-N1	-2.21	1.34	1.38
1	2A	1939	5MU	C4-C5	2.20	1.48	1.44
54	1y	54	5MU	C4-C5	2.20	1.48	1.44
54	1w	54	5MU	C2-N3	-2.19	1.34	1.38
54	2y	32	PSU	C4-N3	-2.19	1.34	1.38
54	1y	39	PSU	O4'-C1'	-2.19	1.40	1.43
32	2a	1518	MA6	C4-N9	-2.19	1.33	1.37
54	1w	54	5MU	C6-N1	-2.18	1.34	1.38
1	2A	1939	5MU	C6-N1	-2.18	1.34	1.38
32	2a	1207	2MG	C4-N9	-2.17	1.32	1.38
54	2w	37	MIA	C5-N7	-2.17	1.35	1.39
1	1A	1942	5MC	C6-N1	-2.17	1.34	1.38
54	1w	55	PSU	C4-N3	-2.16	1.34	1.38
1	2A	1915	5MU	C2-N3	-2.16	1.34	1.38
54	2w	46	7MG	C8-N9	2.16	1.47	1.45
1	1A	2552	2MU	C5-C4	2.16	1.48	1.43
1	1A	1915	5MU	C6-N1	-2.16	1.34	1.38
1	1A	1917	PSU	C2-N3	-2.15	1.33	1.37
1	2A	2605	PSU	C4-N3	-2.15	1.34	1.38
1	1A	2251	OMG	C5-N7	-2.14	1.34	1.39
32	2a	527	7MG	C8-N9	2.14	1.47	1.45
32	2a	967	5MC	C6-N1	-2.13	1.34	1.38
54	2y	46	7MG	C8-N9	2.13	1.47	1.45
32	2a	966	M2G	C6-N1	-2.13	1.34	1.38
54	2w	54	5MU	C2-N3	-2.12	1.34	1.38
1	2A	1942	5MC	C6-N1	-2.12	1.34	1.38
32	1a	1400	5MC	C6-N1	-2.11	1.34	1.38
54	1w	54	5MU	C4-C5	2.10	1.48	1.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
54	2w	8	4SU	C2-N3	-2.09	1.34	1.38
32	1a	966	M2G	C5-N7	-2.09	1.34	1.39
1	1A	2503	2MA	C4-N9	-2.09	1.33	1.37
55	1x	54	5MU	C2-N3	-2.09	1.34	1.38
32	2a	1518	MA6	C5-N7	-2.08	1.35	1.39
32	1a	1407	5MC	C6-N1	-2.07	1.34	1.38
32	2a	1404	5MC	C6-N1	-2.07	1.34	1.38
54	2y	37	MIA	C5-N7	-2.06	1.35	1.39
55	1x	54	5MU	C2-N1	2.06	1.41	1.38
32	1a	527	7MG	C8-N9	2.06	1.47	1.45
54	2y	46	7MG	C6-N1	-2.06	1.35	1.38
54	2w	54	5MU	C6-N1	-2.05	1.34	1.38
1	1A	1911	PSU	C2-N3	-2.05	1.34	1.37
55	1x	8	4SU	C6-C5	2.05	1.39	1.35
1	2A	1939	5MU	C2-N1	2.04	1.41	1.38
32	2a	1402	4OC	C6-C5	2.03	1.39	1.35
32	2a	1498	UR3	C6-C5	2.03	1.39	1.35
1	1A	1915	5MU	C2-N3	-2.03	1.34	1.38
54	2w	46	7MG	C5-C6	2.02	1.48	1.43
1	2A	2552	2MU	C2-N3	-2.02	1.34	1.38
55	1x	54	5MU	C6-N1	-2.01	1.34	1.38
54	1y	46	7MG	C5-C6	2.01	1.48	1.43
54	1y	54	5MU	C6-N1	-2.01	1.34	1.38

All (422) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
43	1l	92	0TD	CSB-SB-CB	19.86	138.07	102.36
43	2l	92	0TD	CSB-SB-CB	-12.59	79.73	102.36
32	1a	527	7MG	N9-C4-N3	9.12	138.82	125.46
54	1y	46	7MG	N9-C4-N3	9.08	138.76	125.46
32	2a	527	7MG	N9-C4-N3	8.70	138.21	125.46
54	1w	46	7MG	N9-C4-N3	8.56	138.00	125.46
54	1w	37	MIA	C12-C13-C14	-8.52	111.71	127.01
54	2y	46	7MG	N9-C4-N3	8.29	137.60	125.46
1	1A	2503	2MA	C5-C4-N3	-8.26	118.48	127.18
54	1w	37	MIA	C5-C4-N3	-8.08	118.67	127.18
54	2w	46	7MG	N9-C4-N3	7.86	136.98	125.46
1	2A	2503	2MA	C5-C4-N3	-7.28	119.51	127.18
54	2y	39	PSU	N1-C2-N3	7.06	122.62	115.17
32	2a	1498	UR3	C4-N3-C2	-7.03	118.92	124.58
1	1A	2503	2MA	N3-C4-N9	6.92	135.78	126.99

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	1a	1498	UR3	C4-N3-C2	-6.86	119.06	124.58
32	1a	1207	2MG	C2-N3-C4	6.75	120.44	112.00
1	2A	2605	PSU	N1-C2-N3	6.68	122.21	115.17
54	1y	39	PSU	N1-C2-N3	6.46	121.98	115.17
32	1a	516	PSU	N1-C2-N3	6.42	121.94	115.17
1	1A	2605	PSU	N1-C2-N3	6.37	121.89	115.17
1	2A	2251	OMG	C5-C4-N3	-6.31	118.34	128.39
1	1A	1911	PSU	N1-C2-N3	6.25	121.76	115.17
1	1A	1917	PSU	N1-C2-N3	6.25	121.76	115.17
55	1x	55	PSU	N1-C2-N3	6.22	121.73	115.17
54	2y	8	4SU	C4-N3-C2	-6.20	121.37	127.31
32	2a	1207	2MG	C2-N3-C4	6.20	119.76	112.00
54	1w	32	PSU	N1-C2-N3	6.18	121.69	115.17
54	1w	55	PSU	N1-C2-N3	6.12	121.62	115.17
54	2w	32	PSU	N1-C2-N3	6.11	121.62	115.17
54	1w	37	MIA	N3-C4-N9	6.11	134.74	126.99
1	2A	1911	PSU	N1-C2-N3	6.11	121.61	115.17
32	2a	516	PSU	N1-C2-N3	6.09	121.60	115.17
54	1w	39	PSU	N1-C2-N3	6.09	121.60	115.17
54	2y	55	PSU	N1-C2-N3	6.08	121.58	115.17
55	2x	55	PSU	N1-C2-N3	6.08	121.58	115.17
1	1A	2251	OMG	C5-C4-N3	-6.04	118.78	128.39
32	2a	966	M2G	C5-C4-N3	-6.03	118.80	128.39
1	2A	2503	2MA	N3-C4-N9	6.01	134.62	126.99
54	2w	55	PSU	N1-C2-N3	5.99	121.48	115.17
54	1y	32	PSU	N1-C2-N3	5.96	121.45	115.17
1	2A	1917	PSU	N1-C2-N3	5.95	121.44	115.17
54	2y	37	MIA	C5-C4-N3	-5.94	118.54	126.72
54	1y	55	PSU	N1-C2-N3	5.94	121.43	115.17
1	2A	1939	5MU	C4-N3-C2	-5.92	119.58	127.34
54	1y	37	MIA	C5-C4-N3	-5.86	118.64	126.72
54	1w	46	7MG	N9-C8-N7	-5.85	95.09	103.37
54	2y	8	4SU	C5-C4-N3	5.84	120.18	114.75
32	1a	966	M2G	C5-C4-N3	-5.84	119.10	128.39
54	1y	8	4SU	C4-N3-C2	-5.82	121.74	127.31
54	1w	8	4SU	C4-N3-C2	-5.78	121.78	127.31
54	2w	37	MIA	C5-C4-N3	-5.75	118.80	126.72
54	2y	32	PSU	N1-C2-N3	5.74	121.23	115.17
1	1A	2552	2MU	N3-C2-N1	5.71	122.32	114.89
32	2a	1519	MA6	C5-C4-N3	-5.70	118.86	126.72
54	2y	46	7MG	N9-C8-N7	-5.69	95.32	103.37
54	1y	8	4SU	C5-C4-N3	5.67	120.03	114.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	2w	46	7MG	N9-C8-N7	-5.62	95.41	103.37
54	2y	39	PSU	O2-C2-N1	-5.61	117.00	122.79
54	1y	46	7MG	C5-C4-N3	-5.60	117.61	128.13
32	1a	527	7MG	C5-C4-N3	-5.53	117.75	128.13
32	1a	1207	2MG	C5-C4-N3	-5.49	119.65	128.39
54	2w	8	4SU	C4-N3-C2	-5.49	122.05	127.31
1	1A	1939	5MU	O4-C4-C5	-5.45	118.68	124.92
1	2A	1939	5MU	N3-C2-N1	5.45	121.98	114.89
32	2a	527	7MG	N9-C8-N7	-5.42	95.70	103.37
32	1a	1519	MA6	C5-C4-N3	-5.36	119.34	126.72
32	2a	1207	2MG	C5-C4-N3	-5.35	119.88	128.39
1	2A	2552	2MU	N3-C2-N1	5.34	121.84	114.89
54	1w	8	4SU	C5-C4-N3	5.33	119.71	114.75
55	2x	54	5MU	C4-N3-C2	-5.31	120.37	127.34
1	1A	1939	5MU	C4-N3-C2	-5.31	120.38	127.34
1	2A	2605	PSU	C4-N3-C2	-5.27	119.12	126.37
54	2w	39	PSU	N1-C2-N3	5.24	120.70	115.17
32	1a	1518	MA6	C5-C4-N3	-5.22	119.53	126.72
55	2x	54	5MU	N3-C2-N1	5.20	121.66	114.89
32	2a	527	7MG	C5-C4-N3	-5.20	118.37	128.13
1	1A	2251	OMG	C2-N3-C4	5.18	121.22	112.30
1	1A	1915	5MU	C4-N3-C2	-5.17	120.56	127.34
1	2A	1915	5MU	C4-N3-C2	-5.09	120.67	127.34
1	1A	1939	5MU	C5-C4-N3	5.08	119.74	115.32
1	2A	1915	5MU	N3-C2-N1	5.06	121.48	114.89
1	2A	2251	OMG	N9-C4-N3	5.03	136.01	125.95
54	2w	46	7MG	C5-C4-N3	-5.01	118.73	128.13
32	2a	1518	MA6	C5-C4-N3	-5.00	119.83	126.72
1	2A	1939	5MU	C5-C4-N3	4.98	119.65	115.32
54	1w	54	5MU	N3-C2-N1	4.98	121.37	114.89
54	2w	8	4SU	C5-C4-N3	4.95	119.36	114.75
54	2y	39	PSU	C4-N3-C2	-4.94	119.56	126.37
1	1A	2552	2MU	C4-N3-C2	-4.93	120.49	126.61
32	1a	527	7MG	N9-C8-N7	-4.91	96.42	103.37
1	2A	2251	OMG	C2-N3-C4	4.90	120.74	112.30
54	1y	46	7MG	N9-C8-N7	-4.90	96.44	103.37
1	1A	1915	5MU	C5-C4-N3	4.88	119.56	115.32
54	2y	37	MIA	N3-C4-N9	4.86	135.44	127.17
1	1A	1915	5MU	N3-C2-N1	4.82	121.17	114.89
1	2A	2552	2MU	C4-N3-C2	-4.78	120.67	126.61
32	2a	1518	MA6	C9-N6-C6	-4.75	108.44	120.52
54	2y	46	7MG	C5-C4-N3	-4.75	119.22	128.13

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	2y	46	7MG	C2-N3-C4	4.71	120.42	112.30
54	2y	8	4SU	C5-C4-S4	-4.67	118.97	124.31
1	2A	1939	5MU	C5-C6-N1	-4.66	118.25	123.31
54	1y	46	7MG	C2-N3-C4	4.65	120.31	112.30
54	1w	54	5MU	C4-N3-C2	-4.65	121.24	127.34
32	2a	1518	MA6	C2-N1-C6	4.65	123.19	111.83
54	1y	37	MIA	N3-C4-N9	4.65	135.07	127.17
54	2w	37	MIA	N3-C4-N9	4.64	135.06	127.17
54	2y	54	5MU	O4-C4-C5	-4.55	119.71	124.92
32	2a	966	M2G	C2-N3-C4	4.55	120.92	112.51
55	2x	54	5MU	O4-C4-C5	-4.52	119.75	124.92
32	1a	1518	MA6	C2-N1-C6	4.50	122.83	111.83
54	1y	39	PSU	O2-C2-N1	-4.50	118.15	122.79
54	1w	8	4SU	C5-C4-S4	-4.49	119.17	124.31
54	2w	46	7MG	C2-N3-C4	4.49	120.03	112.30
55	2x	54	5MU	C5-C4-N3	4.48	119.22	115.32
1	1A	1939	5MU	N3-C2-N1	4.45	120.68	114.89
32	2a	966	M2G	N9-C4-N3	4.44	134.84	125.95
32	2a	1519	MA6	C2-N1-C6	4.44	122.68	111.83
32	1a	1519	MA6	C2-N1-C6	4.43	122.64	111.83
54	1w	46	7MG	C5-C4-N3	-4.39	119.89	128.13
54	1w	55	PSU	O2-C2-N1	-4.36	118.29	122.79
1	2A	1915	5MU	C5-C4-N3	4.35	119.11	115.32
1	2A	1939	5MU	O4-C4-C5	-4.34	119.95	124.92
32	2a	1518	MA6	C4-C5-N7	-4.33	105.63	110.58
55	2x	8	4SU	C1'-N1-C2	4.33	125.36	117.59
1	1A	2251	OMG	N9-C4-N3	4.33	134.60	125.95
32	2a	1519	MA6	C4-C5-N7	-4.32	105.64	110.58
1	1A	1915	5MU	O4-C4-C5	-4.31	119.99	124.92
32	2a	1519	MA6	C9-N6-C6	-4.30	109.57	120.52
32	1a	966	M2G	N9-C4-N3	4.28	134.51	125.95
55	1x	54	5MU	C4-N3-C2	-4.27	121.74	127.34
54	2y	54	5MU	C5-C4-N3	4.27	119.03	115.32
55	1x	54	5MU	N3-C2-N1	4.26	120.44	114.89
32	1a	527	7MG	C2-N3-C4	4.24	119.61	112.30
32	2a	527	7MG	C2-N3-C4	4.24	119.60	112.30
54	2y	54	5MU	C4-N3-C2	-4.22	121.81	127.34
32	2a	1519	MA6	N3-C4-N9	4.20	134.31	127.17
32	1a	1519	MA6	C9-N6-C6	-4.19	109.87	120.52
1	1A	1917	PSU	C4-N3-C2	-4.15	120.66	126.37
1	1A	1939	5MU	C5-C6-N1	-4.13	118.83	123.31
1	1A	2605	PSU	C4-N3-C2	-4.09	120.74	126.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	1a	1519	MA6	C4-C5-N7	-4.08	105.91	110.58
54	2y	55	PSU	C4-N3-C2	-4.08	120.76	126.37
54	2w	32	PSU	C4-N3-C2	-4.06	120.78	126.37
32	1a	516	PSU	C4-N3-C2	-4.06	120.78	126.37
54	1y	55	PSU	O2-C2-N1	-4.03	118.63	122.79
55	1x	54	5MU	C5-C4-N3	4.03	118.82	115.32
32	1a	966	M2G	C2-N3-C4	4.02	119.95	112.51
54	1w	37	MIA	C15-C14-C13	-4.01	110.62	122.66
32	1a	1518	MA6	N3-C4-N9	4.01	133.99	127.17
32	2a	516	PSU	C4-N3-C2	-4.00	120.86	126.37
1	1A	1911	PSU	C4-N3-C2	-4.00	120.86	126.37
1	1A	1939	5MU	O2-C2-N1	-3.99	117.60	122.80
32	1a	1519	MA6	N3-C4-N9	3.98	133.94	127.17
54	2y	54	5MU	N3-C2-N1	3.93	120.00	114.89
55	2x	55	PSU	C4-N3-C2	-3.92	120.97	126.37
32	1a	1518	MA6	C4-C5-N7	-3.92	106.10	110.58
32	1a	1518	MA6	C9-N6-C6	-3.91	110.56	120.52
1	2A	1917	PSU	C4-N3-C2	-3.90	121.00	126.37
54	2w	55	PSU	O2-C2-N1	-3.90	118.77	122.79
32	2a	1207	2MG	C6-C5-N7	3.89	137.37	130.29
54	2w	54	5MU	C4-N3-C2	-3.88	122.25	127.34
54	2w	54	5MU	C5-C4-N3	3.88	118.70	115.32
1	2A	1911	PSU	O2-C2-N1	-3.88	118.79	122.79
54	1w	32	PSU	C4-N3-C2	-3.87	121.03	126.37
54	2w	54	5MU	O4-C4-C5	-3.87	120.49	124.92
54	2w	55	PSU	C4-N3-C2	-3.83	121.09	126.37
54	2w	54	5MU	N3-C2-N1	3.83	119.88	114.89
55	1x	32	5MC	C5-C6-N1	-3.83	119.15	123.31
32	1a	1207	2MG	N9-C4-N3	3.82	133.60	125.95
55	1x	55	PSU	C4-N3-C2	-3.82	121.11	126.37
32	1a	1207	2MG	C6-C5-N7	3.81	137.23	130.29
54	1w	39	PSU	C4-N3-C2	-3.80	121.14	126.37
1	2A	1911	PSU	C4-N3-C2	-3.78	121.16	126.37
54	1w	54	5MU	O4-C4-C5	-3.78	120.60	124.92
54	1y	37	MIA	C2-N3-C4	3.77	121.04	111.83
1	1A	2552	2MU	O2-C2-N1	-3.76	117.90	122.80
1	1A	1911	PSU	O2-C2-N1	-3.74	118.93	122.79
54	1w	46	7MG	C2-N3-C4	3.74	118.74	112.30
54	1w	54	5MU	C5-C4-N3	3.73	118.57	115.32
54	1y	32	PSU	C4-N3-C2	-3.73	121.23	126.37
54	1w	37	MIA	C16-C14-C13	-3.72	111.49	122.66
1	2A	1915	5MU	O4-C4-C5	-3.71	120.68	124.92

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	2w	8	4SU	N3-C2-N1	3.70	119.71	114.89
54	1y	37	MIA	C4-C5-N7	-3.69	106.36	110.58
32	1a	1518	MA6	N1-C2-N3	-3.68	123.01	128.58
55	1x	8	4SU	C5-C4-N3	3.68	118.17	114.75
32	1a	1518	MA6	C2-N3-C4	3.67	120.80	111.83
54	2y	32	PSU	C4-N3-C2	-3.67	121.32	126.37
1	1A	2251	OMG	C6-C5-N7	3.67	136.96	130.29
54	2y	37	MIA	C2-N3-C4	3.66	120.78	111.83
54	1w	55	PSU	C4-N3-C2	-3.66	121.33	126.37
32	2a	1519	MA6	C2-N3-C4	3.66	120.77	111.83
1	2A	2503	2MA	C4-N9-C8	3.66	109.58	105.74
32	1a	1519	MA6	C2-N3-C4	3.65	120.76	111.83
54	2y	55	PSU	O2-C2-N1	-3.65	119.03	122.79
1	2A	1915	5MU	C5-C6-N1	-3.64	119.36	123.31
54	1y	55	PSU	C4-N3-C2	-3.64	121.36	126.37
55	1x	55	PSU	O2-C2-N1	-3.63	119.05	122.79
43	2l	92	0TD	OD2-CG-CB	3.62	120.96	113.15
1	1A	2503	2MA	N6-C6-N1	3.61	121.90	117.03
32	1a	1519	MA6	N1-C2-N3	-3.61	123.12	128.58
54	2w	37	MIA	C2-N3-C4	3.60	120.63	111.83
54	2y	8	4SU	C1'-N1-C2	3.60	124.05	117.59
54	1y	39	PSU	C4-N3-C2	-3.59	121.42	126.37
32	2a	1518	MA6	N3-C4-N9	3.59	133.27	127.17
54	1w	8	4SU	N3-C2-N1	3.59	119.56	114.89
54	2y	8	4SU	N3-C2-N1	3.57	119.54	114.89
32	2a	1518	MA6	N1-C2-N3	-3.56	123.19	128.58
32	2a	967	5MC	C5-C6-N1	-3.56	119.44	123.31
32	1a	516	PSU	O2-C2-N1	-3.55	119.12	122.79
54	1y	8	4SU	N3-C2-N1	3.55	119.51	114.89
54	1w	32	PSU	O2-C2-N1	-3.55	119.13	122.79
32	2a	1518	MA6	C2-N3-C4	3.54	120.48	111.83
54	1w	37	MIA	C4-C5-N7	-3.51	106.56	110.58
54	1y	37	MIA	N3-C2-N1	-3.51	123.27	128.58
54	2y	37	MIA	C4-C5-N7	-3.50	106.58	110.58
1	2A	1942	5MC	C5-C6-N1	-3.49	119.53	123.31
55	1x	54	5MU	O4-C4-C5	-3.47	120.94	124.92
54	1y	32	PSU	O2-C2-N1	-3.47	119.21	122.79
32	2a	1407	5MC	C5-C4-N3	-3.46	118.21	121.75
54	1y	54	5MU	N3-C2-N1	3.45	119.38	114.89
54	1w	37	MIA	C2-N3-C4	3.45	121.32	112.29
54	2w	37	MIA	C4-C5-N7	-3.45	106.64	110.58
54	2y	32	PSU	O2-C2-N1	-3.44	119.24	122.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	2y	37	MIA	N3-C2-N1	-3.41	123.42	128.58
54	2w	37	MIA	N3-C2-N1	-3.40	123.43	128.58
54	2w	8	4SU	C5-C4-S4	-3.38	120.44	124.31
32	1a	967	5MC	C5-C6-N1	-3.36	119.66	123.31
32	2a	1404	5MC	C5-C6-N1	-3.34	119.68	123.31
32	1a	1498	UR3	C5-C4-N3	3.34	119.44	115.04
54	1w	39	PSU	O2-C2-N1	-3.33	119.35	122.79
55	2x	54	5MU	C5-C6-N1	-3.33	119.69	123.31
1	2A	2503	2MA	C4-C5-N7	-3.33	106.77	110.58
1	1A	1917	PSU	O2-C2-N1	-3.32	119.36	122.79
32	2a	1207	2MG	N9-C4-N3	3.32	132.59	125.95
32	1a	1400	5MC	C5-C6-N1	-3.31	119.72	123.31
54	1w	46	7MG	C5-C4-N9	-3.30	102.11	106.33
55	1x	54	5MU	C5-C6-N1	-3.29	119.74	123.31
54	1w	37	MIA	C6-C5-N7	3.29	136.01	132.43
55	2x	8	4SU	C5-C4-N3	3.28	117.80	114.75
32	2a	1519	MA6	N1-C2-N3	-3.27	123.63	128.58
32	2a	1498	UR3	C5-C4-N3	3.27	119.34	115.04
32	1a	1404	5MC	C5-C4-N3	-3.25	118.42	121.75
32	2a	966	M2G	C6-C5-N7	3.24	136.19	130.29
1	2A	2605	PSU	O2-C2-N1	-3.24	119.44	122.79
1	2A	1962	5MC	C5-C6-N1	-3.23	119.81	123.31
32	2a	1207	2MG	N2-C2-N3	-3.20	116.43	120.51
32	1a	1404	5MC	C5-C6-N1	-3.19	119.85	123.31
54	1w	54	5MU	C5-C6-N1	-3.19	119.85	123.31
1	1A	1962	5MC	C5-C6-N1	-3.18	119.86	123.31
54	1y	8	4SU	C5-C4-S4	-3.17	120.69	124.31
54	1y	54	5MU	O4-C4-C5	-3.15	121.32	124.92
32	1a	966	M2G	C6-C5-N7	3.13	135.98	130.29
55	1x	8	4SU	C6-C5-C4	-3.13	117.24	119.95
54	1y	54	5MU	C5-C4-N3	3.12	118.03	115.32
1	2A	1917	PSU	O2-C2-N1	-3.08	119.61	122.79
1	1A	1942	5MC	C5-C6-N1	-3.08	119.97	123.31
55	2x	54	5MU	O2-C2-N1	-3.08	118.79	122.80
54	1y	54	5MU	C4-N3-C2	-3.07	123.31	127.34
32	2a	1207	2MG	C4-C5-N7	-3.07	105.80	110.67
1	1A	1915	5MU	C5-C6-N1	-3.06	119.99	123.31
32	2a	516	PSU	O2-C2-N1	-3.05	119.64	122.79
32	2a	1519	MA6	C5-N7-C8	3.03	108.20	103.45
54	2w	32	PSU	O2-C2-N1	-3.01	119.68	122.79
54	2y	54	5MU	C5-C6-N1	-3.01	120.04	123.31
54	2w	46	7MG	C5-C6-N1	3.01	116.23	110.94

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2A	1942	5MC	C5-C4-N3	-3.00	118.68	121.75
1	1A	2503	2MA	C4-C5-N7	-3.00	107.15	110.58
55	2x	55	PSU	O2-C2-N1	-3.00	119.70	122.79
55	2x	32	5MC	C5-C6-N1	-2.99	120.07	123.31
55	1x	32	5MC	C5-C4-N3	-2.97	118.71	121.75
32	1a	1407	5MC	C5-C6-N1	-2.96	120.09	123.31
1	1A	1942	5MC	C5-C4-N3	-2.96	118.72	121.75
32	2a	1518	MA6	C5-N7-C8	2.94	108.08	103.45
43	1l	92	0TD	OD2-CG-CB	2.94	119.50	113.15
32	1a	1207	2MG	C4-C5-N7	-2.94	106.02	110.67
32	2a	1207	2MG	N1-C2-N2	2.93	119.55	116.56
32	1a	1518	MA6	C5-N7-C8	2.92	108.04	103.45
54	1w	54	5MU	O2-C2-N1	-2.92	119.00	122.80
32	1a	1518	MA6	C4-N9-C8	2.92	108.80	105.74
54	2w	39	PSU	C4-N3-C2	-2.91	122.36	126.37
32	1a	1519	MA6	C5-N7-C8	2.90	108.01	103.45
32	2a	527	7MG	C5-C6-N1	2.90	116.04	110.94
1	2A	1939	5MU	O2-C2-N1	-2.90	119.03	122.80
55	2x	32	5MC	O2-C2-N3	-2.89	117.77	122.33
1	2A	2503	2MA	N6-C6-N1	2.88	120.91	117.03
1	1A	2251	OMG	C4-C5-N7	-2.88	106.11	110.67
1	1A	2503	2MA	C4-N9-C8	2.88	108.76	105.74
1	2A	2251	OMG	C6-C5-N7	2.86	135.49	130.29
32	1a	1519	MA6	C4-N9-C8	2.86	108.74	105.74
32	2a	1400	5MC	C5-C4-N3	-2.86	118.83	121.75
1	2A	2552	2MU	C5-C4-N3	2.82	118.75	114.80
55	1x	8	4SU	O2-C2-N1	2.82	126.47	122.80
43	2l	92	0TD	OD1-CG-CB	-2.81	116.56	122.44
54	2y	46	7MG	C5-C6-N1	2.79	115.85	110.94
32	1a	1400	5MC	C5-C4-N3	-2.79	118.90	121.75
32	1a	967	5MC	C5-C4-N3	-2.78	118.91	121.75
32	2a	1518	MA6	C4-N9-C8	2.77	108.64	105.74
1	1A	2552	2MU	C5-C4-N3	2.76	118.66	114.80
54	1y	46	7MG	C5-C6-N1	2.75	115.79	110.94
54	1w	8	4SU	C1'-N1-C2	2.73	122.50	117.59
55	2x	8	4SU	O2-C2-N1	2.72	126.34	122.80
1	2A	2503	2MA	N9-C8-N7	-2.71	110.09	113.94
55	2x	32	5MC	C5-C4-N3	-2.71	118.97	121.75
32	1a	527	7MG	C5-C6-N1	2.70	115.70	110.94
32	2a	1400	5MC	C1'-N1-C6	-2.70	116.70	121.15
54	1y	37	MIA	C5-N7-C8	2.70	107.69	103.45
54	2y	37	MIA	C4-N9-C8	2.68	108.56	105.74

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2A	2503	2MA	C5-N7-C8	2.68	107.67	103.45
1	2A	2503	2MA	C2-N1-C6	2.68	122.23	118.10
54	2y	37	MIA	C5-N7-C8	2.65	107.62	103.45
32	2a	1404	5MC	C5-C4-N3	-2.65	119.04	121.75
32	1a	1498	UR3	C3U-N3-C4	2.64	121.53	117.87
32	2a	1518	MA6	C6-C5-N7	2.63	137.63	133.43
32	2a	967	5MC	C5-C4-N3	-2.62	119.06	121.75
54	1y	37	MIA	C4-N9-C8	2.62	108.49	105.74
32	1a	966	M2G	C4-C5-N7	-2.60	106.54	110.67
32	2a	966	M2G	C4-C5-N7	-2.60	106.55	110.67
54	2w	37	MIA	C4-N9-C8	2.60	108.46	105.74
1	2A	2605	PSU	C5-C6-N1	-2.59	118.54	122.14
54	2w	37	MIA	C5-N7-C8	2.56	107.48	103.45
54	2w	54	5MU	C5-C6-N1	-2.56	120.53	123.31
1	1A	2503	2MA	C2-N1-C6	2.55	122.02	118.10
1	1A	2552	2MU	O4-C4-C5	-2.55	120.77	125.16
54	2w	54	5MU	C5M-C5-C4	2.54	121.49	118.78
32	1a	1407	5MC	C5-C4-N3	-2.54	119.15	121.75
1	1A	1962	5MC	C5-C4-N3	-2.53	119.16	121.75
54	1y	55	PSU	C6-C5-C4	-2.53	116.47	118.17
32	2a	1407	5MC	C5-C6-N1	-2.53	120.57	123.31
32	1a	1518	MA6	C10-N6-C6	-2.53	114.09	120.52
32	1a	1498	UR3	C1'-N1-C2	2.52	121.17	117.04
1	1A	1915	5MU	C5M-C5-C4	2.52	121.47	118.78
32	2a	1518	MA6	C10-N6-C9	-2.51	108.11	116.18
1	1A	2605	PSU	C5-C6-N1	-2.50	118.66	122.14
54	1w	37	MIA	C5-N7-C8	2.49	107.37	103.45
54	2y	46	7MG	C5-C4-N9	-2.48	103.16	106.33
55	1x	8	4SU	O2-C2-N3	-2.48	116.92	121.49
55	2x	8	4SU	O2-C2-N3	-2.47	116.93	121.49
54	2w	46	7MG	O6-C6-C5	-2.47	121.57	127.62
54	2y	54	5MU	C1'-N1-C6	-2.46	117.11	121.15
1	1A	2503	2MA	C5-N7-C8	2.44	107.28	103.45
32	1a	1519	MA6	C6-C5-N7	2.43	137.31	133.43
32	2a	1402	4OC	O2-C2-N3	-2.43	118.51	122.33
54	2y	54	5MU	C1'-N1-C2	2.40	121.90	117.59
54	1w	37	MIA	N3-C2-N1	-2.40	122.62	127.00
32	1a	1518	MA6	N9-C8-N7	-2.37	110.57	113.94
32	1a	1518	MA6	N1-C6-N6	2.37	119.74	116.86
32	1a	1519	MA6	N9-C8-N7	-2.36	110.58	113.94
32	2a	1519	MA6	C4-N9-C8	2.36	108.22	105.74
54	1w	37	MIA	C2-N1-C6	2.36	122.02	117.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1A	2605	PSU	O2-C2-N3	-2.33	117.72	121.86
32	2a	1498	UR3	C3U-N3-C4	2.33	121.10	117.87
32	1a	1498	UR3	C6-N1-C2	-2.33	119.89	121.80
1	1A	2605	PSU	O2-C2-N1	-2.33	120.39	122.79
55	1x	8	4SU	C1'-N1-C2	2.32	121.77	117.59
32	1a	1404	5MC	O2-C2-N3	-2.32	118.67	122.33
1	2A	1962	5MC	C5-C4-N3	-2.32	119.38	121.75
54	2y	46	7MG	C6-C5-C4	-2.31	118.33	122.40
1	1A	1915	5MU	O2-C2-N1	-2.31	119.79	122.80
1	2A	2605	PSU	O4-C4-C5	-2.31	118.27	124.01
32	2a	1407	5MC	O2-C2-N3	-2.30	118.70	122.33
32	1a	1518	MA6	C6-C5-N7	2.30	137.10	133.43
32	1a	1207	2MG	N1-C2-N2	2.30	118.91	116.56
55	2x	8	4SU	C6-C5-C4	-2.29	117.96	119.95
32	2a	527	7MG	C5-C4-N9	-2.29	103.40	106.33
54	1w	55	PSU	C6-C5-C4	-2.29	116.63	118.17
32	1a	527	7MG	C5-C4-N9	-2.28	103.41	106.33
32	2a	1519	MA6	C10-N6-C6	-2.27	114.73	120.52
1	2A	2251	OMG	O6-C6-C5	-2.27	120.53	126.53
32	1a	527	7MG	O6-C6-C5	-2.27	122.05	127.62
1	1A	1920	4OC	O2-C2-N3	-2.27	118.75	122.33
54	1w	37	MIA	C4-N9-C8	2.26	108.12	105.74
54	2w	32	PSU	C5-C6-N1	-2.25	119.01	122.14
1	2A	2503	2MA	C6-C5-N7	2.25	136.43	132.09
32	1a	516	PSU	O4'-C1'-C2'	2.25	108.26	105.15
32	2a	1518	MA6	N9-C8-N7	-2.25	110.75	113.94
32	2a	516	PSU	O4'-C1'-C2'	2.25	108.26	105.15
32	2a	1519	MA6	C6-C5-N7	2.25	137.02	133.43
54	2w	46	7MG	N2-C2-N3	-2.24	115.30	119.67
1	2A	2251	OMG	C4-C5-N7	-2.23	107.13	110.67
43	1l	92	0TD	OD1-CG-CB	-2.23	117.77	122.44
1	2A	1917	PSU	C5-C6-N1	-2.22	119.06	122.14
32	1a	1402	4OC	C6-C5-C4	2.21	119.66	117.00
32	1a	1518	MA6	C10-N6-C9	-2.19	109.13	116.18
1	1A	1920	4OC	CM2-O2'-C2'	-2.19	108.84	114.47
32	2a	527	7MG	O6-C6-C5	-2.19	122.25	127.62
55	1x	54	5MU	O2-C2-N1	-2.19	119.95	122.80
54	1y	54	5MU	C5-C6-N1	-2.19	120.94	123.31
1	2A	1915	5MU	O2-C2-N3	-2.19	117.46	121.49
32	2a	1400	5MC	C5-C6-N1	-2.18	120.95	123.31
1	1A	1962	5MC	CM5-C5-C6	-2.17	119.92	122.85
54	1y	37	MIA	C6-C5-N7	2.17	136.27	132.09

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	2a	1404	5MC	O2-C2-N3	-2.16	118.93	122.33
54	1w	46	7MG	C5-C6-N1	2.15	114.73	110.94
55	2x	8	4SU	C1'-N1-C6	-2.15	116.18	120.78
55	1x	32	5MC	CM5-C5-C6	-2.14	119.95	122.85
1	2A	2552	2MU	O2-C2-N1	-2.14	120.02	122.80
32	2a	966	M2G	O6-C6-C5	-2.12	120.93	126.53
54	1y	54	5MU	C1'-N1-C2	2.12	121.40	117.59
54	1y	46	7MG	C5-C4-N9	-2.12	103.62	106.33
54	2y	46	7MG	O6-C6-C5	-2.11	122.44	127.62
32	2a	1400	5MC	O2-C2-N3	-2.10	119.01	122.33
1	2A	1962	5MC	C1'-N1-C6	-2.10	117.69	121.15
1	1A	1911	PSU	C5-C6-N1	-2.10	119.23	122.14
55	2x	8	4SU	C6-N1-C2	-2.09	118.45	121.00
55	1x	8	4SU	S4-C4-N3	-2.09	118.02	120.20
32	2a	1400	5MC	C1'-N1-C2	2.08	123.04	118.44
55	2x	32	5MC	C1'-N1-C6	-2.08	117.73	121.15
32	1a	1207	2MG	C8-N7-C5	2.08	107.96	104.26
54	1y	39	PSU	C6-C5-C4	-2.06	116.78	118.17
54	2w	39	PSU	C6-C5-C4	-2.06	116.78	118.17
1	1A	2251	OMG	C8-N7-C5	2.06	107.93	104.26
54	2y	46	7MG	O4'-C1'-N9	-2.06	106.49	109.30
54	2w	39	PSU	O2-C2-N1	-2.05	120.67	122.79
54	2y	8	4SU	O2-C2-N3	-2.04	117.72	121.49
55	1x	55	PSU	C5-C6-N1	-2.03	119.32	122.14
1	2A	2552	2MU	O4-C4-C5	-2.03	121.66	125.16
1	1A	2503	2MA	N9-C8-N7	-2.02	111.07	113.94
1	1A	1917	PSU	C5-C6-N1	-2.02	119.34	122.14
1	2A	2251	OMG	C5-C6-N1	2.01	118.37	113.25
54	1w	46	7MG	O6-C6-C5	-2.01	122.69	127.62

There are no chirality outliers.

All (61) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
32	1a	1207	2MG	N1-C2-N2-CM2
32	1a	1207	2MG	N3-C2-N2-CM2
32	2a	1400	5MC	C4'-C5'-O5'-P
32	2a	1518	MA6	C5-C6-N6-C9
32	2a	1519	MA6	O4'-C4'-C5'-O5'
43	1l	92	0TD	CG-CB-SB-CSB
43	2l	92	0TD	O-C-CA-CB
43	2l	92	0TD	CG-CB-SB-CSB

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Mol	Chain	Res	Type	Atoms
54	1w	37	MIA	C12-C13-C14-C16
54	1w	46	7MG	C4'-C5'-O5'-P
54	1y	46	7MG	C4'-C5'-O5'-P
54	2y	55	PSU	C2'-C1'-C5-C4
32	2a	1402	4OC	O4'-C4'-C5'-O5'
32	1a	1519	MA6	O4'-C4'-C5'-O5'
32	2a	1519	MA6	C3'-C4'-C5'-O5'
54	1y	39	PSU	C3'-C4'-C5'-O5'
54	2y	39	PSU	C3'-C4'-C5'-O5'
54	2y	46	7MG	O4'-C4'-C5'-O5'
32	1a	527	7MG	C3'-C4'-C5'-O5'
32	2a	967	5MC	O4'-C4'-C5'-O5'
32	1a	1402	4OC	O4'-C4'-C5'-O5'
54	1y	39	PSU	O4'-C4'-C5'-O5'
54	2y	39	PSU	O4'-C4'-C5'-O5'
32	2a	1518	MA6	N1-C6-N6-C9
54	2y	37	MIA	C3'-C4'-C5'-O5'
32	2a	1402	4OC	C3'-C4'-C5'-O5'
54	1y	46	7MG	C3'-C4'-C5'-O5'
32	1a	527	7MG	O4'-C4'-C5'-O5'
54	2y	46	7MG	C3'-C4'-C5'-O5'
32	1a	1518	MA6	C5-C6-N6-C10
32	2a	1519	MA6	C5-C6-N6-C9
54	2w	46	7MG	C2'-C1'-N9-C8
54	2y	37	MIA	O4'-C4'-C5'-O5'
54	1y	46	7MG	C2'-C1'-N9-C8
32	1a	1519	MA6	C3'-C4'-C5'-O5'
32	1a	1402	4OC	C3'-C4'-C5'-O5'
54	1w	37	MIA	N1-C2-S10-C11
32	1a	1519	MA6	C5-C6-N6-C10
54	2y	46	7MG	C2'-C1'-N9-C8
1	1A	1915	5MU	O4'-C4'-C5'-O5'
54	2y	55	PSU	C3'-C4'-C5'-O5'
32	2a	1519	MA6	C4'-C5'-O5'-P
54	1y	55	PSU	O4'-C1'-C5-C4
54	2y	55	PSU	O4'-C1'-C5-C4
54	1w	37	MIA	N3-C2-S10-C11
32	2a	527	7MG	C4'-C5'-O5'-P
32	2a	1519	MA6	C5-C6-N6-C10
32	2a	1519	MA6	N1-C6-N6-C9
32	1a	1400	5MC	O4'-C4'-C5'-O5'
54	2y	46	7MG	O4'-C1'-N9-C8

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Mol	Chain	Res	Type	Atoms
32	1a	527	7MG	C4'-C5'-O5'-P
43	1l	92	0TD	CA-CB-SB-CSB
43	2l	92	0TD	CA-CB-SB-CSB
32	2a	967	5MC	C3'-C4'-C5'-O5'
54	1y	46	7MG	O4'-C1'-N9-C8
32	1a	1519	MA6	C4'-C5'-O5'-P
1	2A	2251	OMG	C4'-C5'-O5'-P
1	1A	2503	2MA	C4'-C5'-O5'-P
54	1y	46	7MG	O4'-C4'-C5'-O5'
55	2x	8	4SU	C2'-C1'-N1-C2
1	1A	1920	4OC	C2'-C1'-N1-C2

There are no ring outliers.

44 monomers are involved in 65 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
32	1a	1207	2MG	1	0
32	2a	1519	MA6	2	0
54	1y	46	7MG	1	0
54	2w	39	PSU	1	0
55	2x	8	4SU	1	0
32	1a	966	M2G	1	0
32	2a	967	5MC	1	0
54	2y	39	PSU	1	0
1	1A	2552	2MU	1	0
55	1x	8	4SU	2	0
54	1y	8	4SU	1	0
43	1l	92	0TD	1	0
1	2A	2503	2MA	1	0
32	2a	1207	2MG	3	0
1	1A	1939	5MU	2	0
1	2A	2552	2MU	2	0
32	1a	1498	UR3	1	0
32	2a	966	M2G	1	0
54	1w	46	7MG	3	0
32	2a	1404	5MC	1	0
1	2A	1939	5MU	1	0
32	1a	1518	MA6	2	0
54	1y	37	MIA	1	0
32	1a	1519	MA6	2	0
54	1w	54	5MU	1	0
54	1y	39	PSU	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
32	2a	1518	MA6	4	0
54	2w	46	7MG	1	0
1	2A	2251	OMG	1	0
1	1A	1915	5MU	1	0
54	2y	46	7MG	3	0
54	1y	54	5MU	2	0
1	1A	2503	2MA	1	0
32	2a	1400	5MC	2	0
54	1y	55	PSU	1	0
1	1A	1920	4OC	1	0
54	2y	55	PSU	3	0
32	2a	1402	4OC	2	0
32	2a	1498	UR3	2	0
54	2y	37	MIA	2	0
55	2x	32	5MC	1	0
32	1a	1402	4OC	2	0
54	2w	8	4SU	1	0
54	2y	8	4SU	1	0

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 2321 ligands modelled in this entry, 2315 are monoatomic - leaving 6 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	$\# Z > 2$
60	SF4	1d	501	35	0,12,12	-	-	-		
61	FME	2x	103	55	8,9,10	0.45	0	8,9,11	1.24	1 (12%)
58	HGR	2A	3652	-	39,39,39	2.38	8 (20%)	48,58,58	1.72	13 (27%)
58	HGR	1A	3915	56	39,39,39	2.39	7 (17%)	48,58,58	1.79	13 (27%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
61	FME	1x	3011	55	8,9,10	0.35	0	8,9,11	1.26	2 (25%)
60	SF4	2d	301	35	0,12,12	-	-	-		

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
60	SF4	1d	501	35	-	-	0/6/5/5
61	FME	2x	103	55	-	5/7/9/11	-
58	HGR	2A	3652	-	-	7/20/79/79	0/4/4/4
58	HGR	1A	3915	56	-	7/20/79/79	0/4/4/4
61	FME	1x	3011	55	-	5/7/9/11	-
60	SF4	2d	301	35	-	-	0/6/5/5

All (15) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
58	2A	3652	HGR	C12-C14	9.21	1.55	1.33
58	1A	3915	HGR	C12-C14	8.76	1.54	1.33
58	2A	3652	HGR	C5-C4	-5.59	1.39	1.49
58	1A	3915	HGR	C5-C4	-5.50	1.39	1.49
58	1A	3915	HGR	C5-C6	-5.29	1.39	1.50
58	2A	3652	HGR	C5-C6	-5.22	1.39	1.50
58	1A	3915	HGR	C3-C2	-4.82	1.39	1.48
58	2A	3652	HGR	C3-C2	-4.80	1.39	1.48
58	1A	3915	HGR	O4-C2	4.62	1.36	1.24
58	2A	3652	HGR	O4-C2	4.33	1.36	1.24
58	1A	3915	HGR	O8-C23	2.50	1.45	1.41
58	2A	3652	HGR	O8-C23	2.24	1.45	1.41
58	1A	3915	HGR	C1-C2	-2.11	1.39	1.44
58	2A	3652	HGR	O9-C23	2.08	1.44	1.41
58	2A	3652	HGR	C1-C2	-2.06	1.39	1.44

All (29) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
58	2A	3652	HGR	C10-C9-C8	-4.65	96.50	102.29
58	2A	3652	HGR	C4-C5-C6	4.37	121.68	112.35
58	1A	3915	HGR	C23-O9-C22	-4.22	99.88	106.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
58	1A	3915	HGR	C12-C6-C1	-3.93	114.97	119.35
58	1A	3915	HGR	C4-C5-C6	3.88	120.63	112.35
58	1A	3915	HGR	O8-C18-C22	-3.77	98.05	106.03
58	1A	3915	HGR	C10-C9-C8	-3.69	97.70	102.29
58	1A	3915	HGR	O9-C22-C18	-3.48	98.67	106.03
58	1A	3915	HGR	C4-C3-C2	-3.35	118.92	121.81
58	2A	3652	HGR	O9-C22-C18	-3.20	99.26	106.03
58	2A	3652	HGR	C9-C8-C7	-3.15	97.96	101.69
58	2A	3652	HGR	O4-C2-C3	-3.00	116.77	121.28
58	2A	3652	HGR	O8-C18-C22	-2.90	99.89	106.03
58	2A	3652	HGR	C12-C6-C1	-2.84	116.18	119.35
58	2A	3652	HGR	C23-O9-C22	-2.81	102.03	106.31
58	1A	3915	HGR	O1-C10-C9	-2.52	101.77	104.98
58	2A	3652	HGR	C4-C3-C2	-2.47	119.68	121.81
58	2A	3652	HGR	C1-C2-C3	2.37	120.52	116.06
58	1A	3915	HGR	O3-C3-C2	2.37	116.82	112.51
58	1A	3915	HGR	O4-C2-C3	-2.37	117.72	121.28
58	2A	3652	HGR	C19-C17-N1	2.25	114.76	110.62
58	1A	3915	HGR	C1-C2-C3	2.24	120.28	116.06
58	2A	3652	HGR	O3-C3-C2	2.21	116.53	112.51
58	1A	3915	HGR	C9-C8-C7	-2.14	99.16	101.69
61	1x	3011	FME	CA-N-CN	-2.12	119.56	122.82
58	1A	3915	HGR	O3-C10-C9	2.10	110.09	106.69
61	2x	103	FME	CA-N-CN	-2.08	119.63	122.82
61	1x	3011	FME	O1-CN-N	-2.02	120.11	125.32
58	2A	3652	HGR	O1-C10-C9	-2.00	102.43	104.98

There are no chirality outliers.

All (24) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
58	1A	3915	HGR	C14-C12-C6-C1
61	1x	3011	FME	O1-CN-N-CA
61	1x	3011	FME	N-CA-CB-CG
61	1x	3011	FME	C-CA-CB-CG
61	1x	3011	FME	O-C-CA-CB
61	2x	103	FME	O1-CN-N-CA
61	2x	103	FME	C-CA-CB-CG
61	2x	103	FME	O-C-CA-CB
61	1x	3011	FME	CA-CB-CG-SD
61	2x	103	FME	CA-CB-CG-SD
61	2x	103	FME	N-CA-CB-CG

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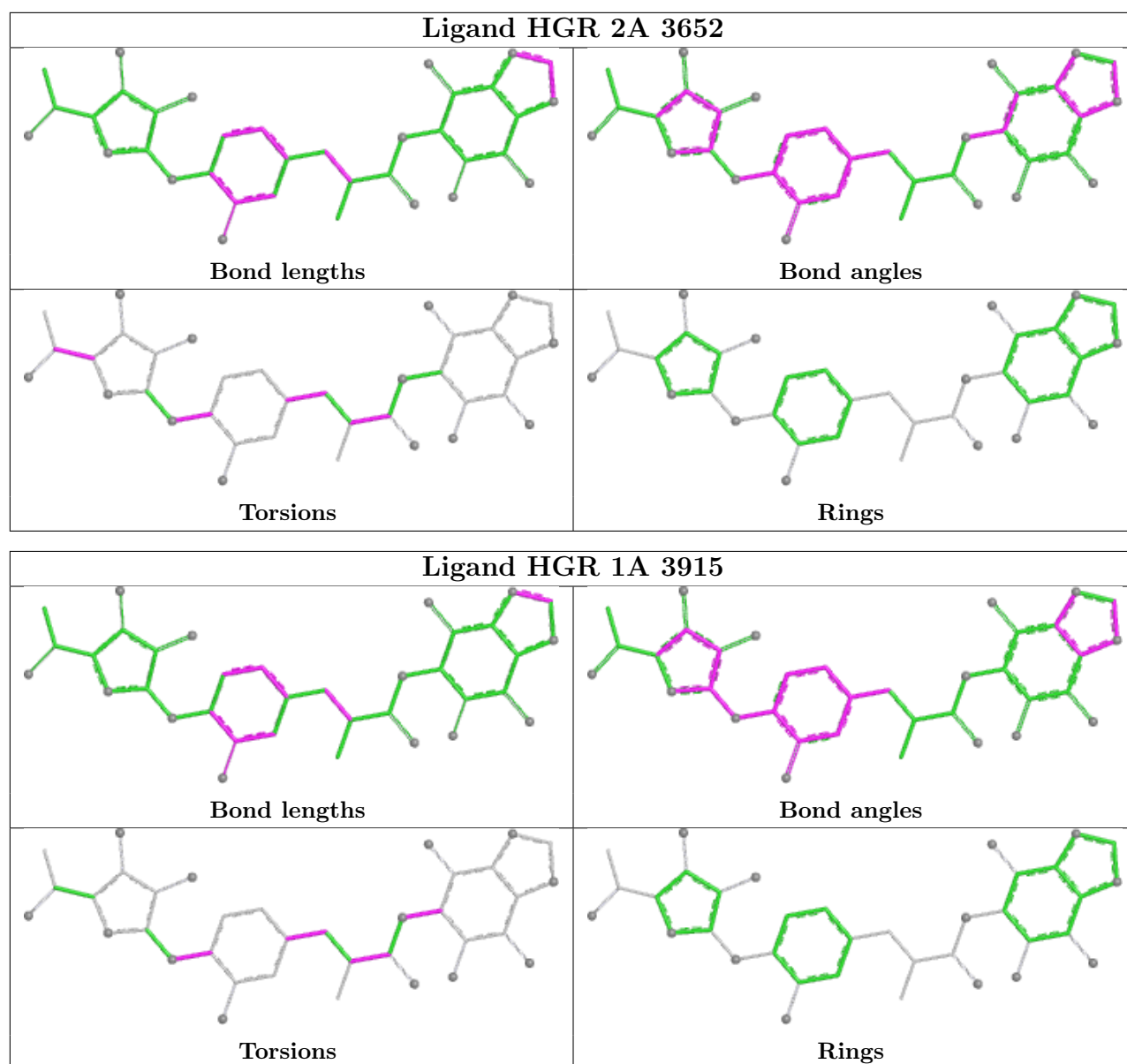
Mol	Chain	Res	Type	Atoms
58	2A	3652	HGR	C14-C12-C6-C1
58	1A	3915	HGR	C12-C14-C15-O7
58	1A	3915	HGR	C12-C14-C15-N1
58	2A	3652	HGR	C12-C14-C15-O7
58	2A	3652	HGR	C12-C14-C15-N1
58	1A	3915	HGR	C2-C3-O3-C10
58	2A	3652	HGR	C2-C3-O3-C10
58	1A	3915	HGR	C16-C14-C15-O7
58	2A	3652	HGR	C16-C14-C15-O7
58	1A	3915	HGR	C16-C14-C15-N1
58	2A	3652	HGR	C16-C14-C15-N1
58	1A	3915	HGR	C19-C17-N1-C15
58	2A	3652	HGR	O6-C11-C7-O1

There are no ring outliers.

3 monomers are involved in 9 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
60	1d	501	SF4	2	0
58	2A	3652	HGR	5	0
58	1A	3915	HGR	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%)	-0.16	84 (2%)	53	48	22, 42, 90, 106	0
1	2A	2789/2915 (95%)	-0.07	57 (2%)	65	60	26, 45, 87, 104	0
2	1B	120/121 (99%)	0.25	0	100	100	37, 58, 69, 86	0
2	2B	120/121 (99%)	0.86	5 (4%)	40	35	44, 65, 74, 87	0
3	1D	275/276 (99%)	0.10	3 (1%)	78	74	21, 41, 58, 73	0
3	2D	275/276 (99%)	0.13	3 (1%)	78	74	25, 42, 61, 72	0
4	1E	204/206 (99%)	0.23	1 (0%)	87	85	22, 46, 65, 78	0
4	2E	204/206 (99%)	0.39	4 (1%)	65	60	25, 49, 66, 79	0
5	1F	203/210 (96%)	0.43	4 (1%)	65	60	21, 50, 72, 83	0
5	2F	203/210 (96%)	0.49	6 (2%)	52	47	24, 54, 74, 85	0
6	1G	181/182 (99%)	1.01	19 (10%)	11	9	49, 66, 77, 91	0
6	2G	181/182 (99%)	1.32	31 (17%)	4	3	53, 69, 80, 93	0
7	1H	174/180 (96%)	0.95	8 (4%)	37	32	47, 63, 73, 81	0
7	2H	174/180 (96%)	1.07	17 (9%)	13	10	53, 67, 76, 82	0
8	1I	146/148 (98%)	0.84	6 (4%)	41	36	44, 72, 81, 85	0
8	2I	146/148 (98%)	1.01	10 (6%)	23	19	47, 72, 81, 84	0
9	1N	140/140 (100%)	-0.03	1 (0%)	84	82	23, 37, 59, 69	0
9	2N	140/140 (100%)	0.80	6 (4%)	40	34	37, 64, 76, 84	0
10	1O	122/122 (100%)	-0.02	1 (0%)	82	80	26, 39, 58, 66	0
10	2O	122/122 (100%)	0.47	0	100	100	39, 56, 68, 78	0
11	1P	149/150 (99%)	0.35	4 (2%)	56	50	22, 52, 71, 81	0
11	2P	149/150 (99%)	0.79	10 (6%)	24	19	27, 55, 77, 82	0
12	1Q	141/141 (100%)	0.44	1 (0%)	84	82	32, 49, 63, 76	0
12	2Q	141/141 (100%)	0.72	6 (4%)	40	34	36, 53, 66, 77	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	1R	118/118 (100%)	0.15	0 100 100	28, 39, 54, 64	0
13	2R	118/118 (100%)	0.13	0 100 100	31, 41, 57, 64	0
14	1S	110/112 (98%)	0.71	5 (4%) 38 32	46, 58, 70, 74	0
14	2S	110/112 (98%)	1.19	16 (14%) 6 4	51, 61, 73, 77	0
15	1T	131/146 (89%)	0.60	8 (6%) 27 22	39, 51, 69, 75	0
15	2T	131/146 (89%)	0.48	3 (2%) 61 55	41, 53, 70, 74	0
16	1U	116/118 (98%)	0.27	2 (1%) 69 64	26, 39, 57, 71	0
16	2U	116/118 (98%)	0.28	0 100 100	29, 44, 63, 72	0
17	1V	101/101 (100%)	0.53	2 (1%) 65 60	26, 49, 66, 70	0
17	2V	101/101 (100%)	0.53	2 (1%) 65 60	30, 54, 69, 73	0
18	1W	112/113 (99%)	0.07	1 (0%) 81 78	26, 36, 55, 83	0
18	2W	112/113 (99%)	0.06	1 (0%) 81 78	29, 39, 59, 86	0
19	1X	95/96 (98%)	0.35	3 (3%) 50 44	30, 43, 63, 80	0
19	2X	95/96 (98%)	0.46	5 (5%) 32 26	34, 47, 65, 80	0
20	1Y	107/110 (97%)	0.90	6 (5%) 30 24	44, 55, 71, 79	0
20	2Y	107/110 (97%)	1.10	17 (15%) 5 4	49, 59, 73, 81	0
21	1Z	154/206 (74%)	0.71	12 (7%) 19 15	37, 61, 82, 94	0
21	2Z	160/206 (77%)	1.63	43 (26%) 1 1	65, 80, 91, 97	0
22	10	83/85 (97%)	0.17	7 (8%) 17 13	24, 36, 65, 88	0
22	20	83/85 (97%)	1.44	14 (16%) 4 3	48, 64, 80, 89	0
23	11	97/98 (98%)	0.36	1 (1%) 79 76	23, 43, 67, 74	0
23	21	97/98 (98%)	0.75	6 (6%) 26 21	35, 55, 72, 76	0
24	12	70/72 (97%)	0.64	4 (5%) 29 24	41, 56, 65, 68	0
24	22	70/72 (97%)	0.68	1 (1%) 73 69	45, 59, 68, 78	0
25	13	59/60 (98%)	0.26	0 100 100	28, 44, 65, 72	0
25	23	59/60 (98%)	0.42	1 (1%) 69 64	36, 49, 69, 76	0
26	14	69/71 (97%)	0.88	7 (10%) 12 9	49, 71, 85, 89	0
26	24	69/71 (97%)	1.76	26 (37%) 1 0	72, 83, 93, 97	0
27	15	59/60 (98%)	-0.32	1 (1%) 69 64	17, 28, 46, 72	0
27	25	59/60 (98%)	0.24	0 100 100	32, 49, 63, 72	0
28	16	53/54 (98%)	0.30	2 (3%) 44 38	33, 47, 60, 64	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
28	26	53/54 (98%)	0.58	1 (1%) 66 61	35, 51, 61, 67	0
29	17	48/49 (97%)	-0.20	2 (4%) 40 35	16, 25, 49, 72	0
29	27	48/49 (97%)	0.07	1 (2%) 63 58	31, 38, 63, 69	0
30	18	64/65 (98%)	0.23	1 (1%) 70 66	32, 40, 49, 60	0
30	28	64/65 (98%)	0.35	0 100 100	36, 44, 52, 61	0
31	19	37/37 (100%)	0.25	1 (2%) 56 50	36, 47, 61, 70	0
31	29	37/37 (100%)	0.53	0 100 100	42, 52, 64, 74	0
32	1a	1488/1521 (97%)	0.65	52 (3%) 47 41	39, 70, 90, 105	0
32	2a	1491/1521 (98%)	0.80	116 (7%) 19 15	42, 72, 91, 104	0
33	1b	231/256 (90%)	1.49	62 (26%) 1 1	67, 79, 88, 92	0
33	2b	231/256 (90%)	1.85	90 (38%) 1 0	67, 81, 88, 93	0
34	1c	206/239 (86%)	1.20	24 (11%) 9 7	66, 76, 83, 92	0
34	2c	206/239 (86%)	1.76	75 (36%) 1 0	69, 78, 85, 92	0
35	1d	208/209 (99%)	1.14	25 (12%) 9 7	57, 71, 79, 84	0
35	2d	208/209 (99%)	1.04	14 (6%) 24 19	58, 71, 79, 84	0
36	1e	148/162 (91%)	0.76	4 (2%) 56 50	48, 63, 73, 83	0
36	2e	148/162 (91%)	1.42	22 (14%) 5 4	67, 78, 85, 90	0
37	1f	100/101 (99%)	0.62	2 (2%) 65 60	46, 65, 74, 76	0
37	2f	100/101 (99%)	0.82	2 (2%) 65 60	55, 70, 79, 87	0
38	1g	155/156 (99%)	1.25	25 (16%) 4 3	61, 72, 81, 88	0
38	2g	155/156 (99%)	1.24	22 (14%) 6 5	64, 74, 82, 87	0
39	1h	137/138 (99%)	0.78	5 (3%) 46 40	52, 64, 73, 86	0
39	2h	137/138 (99%)	1.40	27 (19%) 3 2	60, 77, 84, 89	0
40	1i	127/128 (99%)	1.70	40 (31%) 1 1	59, 77, 85, 88	0
40	2i	127/128 (99%)	2.00	60 (47%) 0 0	64, 79, 86, 89	0
41	1j	97/105 (92%)	1.42	20 (20%) 2 2	56, 75, 85, 92	0
41	2j	96/105 (91%)	2.33	59 (61%) 0 0	68, 85, 92, 94	0
42	1k	114/129 (88%)	0.48	1 (0%) 81 78	37, 64, 73, 77	0
42	2k	114/129 (88%)	0.91	9 (7%) 18 14	44, 73, 81, 85	0
43	1l	121/132 (91%)	0.36	6 (4%) 34 28	41, 55, 68, 75	0
43	2l	121/132 (91%)	1.23	16 (13%) 7 5	50, 70, 79, 83	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
44	1m	123/126 (97%)	1.29	22 (17%) 3 3	58, 73, 81, 84	0
44	2m	122/126 (96%)	1.78	37 (30%) 1 1	63, 76, 82, 85	0
45	1n	60/61 (98%)	0.89	2 (3%) 49 43	55, 64, 74, 80	0
45	2n	60/61 (98%)	2.60	41 (68%) 0 0	73, 85, 90, 94	0
46	1o	88/89 (98%)	1.20	14 (15%) 5 4	52, 66, 76, 83	0
46	2o	88/89 (98%)	0.84	2 (2%) 61 55	56, 68, 78, 85	0
47	1p	82/88 (93%)	1.34	14 (17%) 4 3	56, 68, 76, 81	0
47	2p	82/88 (93%)	1.16	9 (10%) 10 8	58, 68, 76, 82	0
48	1q	99/105 (94%)	1.12	10 (10%) 12 9	59, 68, 76, 78	0
48	2q	99/105 (94%)	1.11	11 (11%) 10 8	60, 69, 77, 80	0
49	1r	68/88 (77%)	0.76	5 (7%) 20 16	57, 67, 76, 82	0
49	2r	68/88 (77%)	0.78	6 (8%) 15 12	57, 68, 77, 83	0
50	1s	83/93 (89%)	1.30	12 (14%) 6 4	64, 76, 84, 91	0
50	2s	83/93 (89%)	2.03	43 (51%) 0 0	67, 79, 86, 93	0
51	1t	96/106 (90%)	1.07	12 (12%) 8 6	56, 67, 77, 81	0
51	2t	96/106 (90%)	1.22	9 (9%) 14 11	56, 68, 78, 80	0
52	1u	23/27 (85%)	1.39	5 (21%) 2 2	62, 70, 74, 75	0
52	2u	23/27 (85%)	2.01	11 (47%) 0 0	65, 72, 76, 76	0
53	1v	14/27 (51%)	1.04	3 (21%) 2 2	55, 73, 97, 105	0
53	2v	13/27 (48%)	1.76	5 (38%) 1 0	60, 75, 89, 98	0
54	1w	68/76 (89%)	0.95	7 (10%) 12 9	67, 86, 97, 105	0
54	1y	67/76 (88%)	0.77	3 (4%) 38 32	40, 91, 97, 99	0
54	2w	67/76 (88%)	1.06	6 (8%) 15 11	73, 88, 97, 99	0
54	2y	66/76 (86%)	1.21	11 (16%) 4 3	43, 93, 97, 99	0
55	1x	72/77 (93%)	0.16	1 (1%) 73 69	27, 56, 81, 85	0
55	2x	72/77 (93%)	0.44	1 (1%) 73 69	44, 77, 88, 94	0
All	All	20879/21754 (95%)	0.57	1569 (7%) 20 16	16, 61, 86, 106	0

All (1569) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
22	10	6	GLY	9.1
44	2m	123	ALA	8.1

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Mol	Chain	Res	Type	RSRZ
1	1A	888	C	7.0
38	1g	82	GLY	6.5
22	20	2	ALA	6.5
45	2n	38	GLY	6.2
23	21	2	SER	6.0
38	1g	80	VAL	6.0
45	1n	2	ALA	5.8
22	20	6	GLY	5.6
22	20	7	LEU	5.6
45	2n	7	ILE	5.5
1	1A	885	C	5.4
38	2g	82	GLY	5.4
32	1a	1531	A	5.4
45	2n	39	LEU	5.4
33	2b	187	LEU	5.3
22	20	13	GLY	5.3
22	10	7	LEU	5.3
50	1s	81	ARG	5.3
32	1a	345	C	5.2
32	1a	344	A	5.2
40	2i	102	LEU	5.2
44	2m	124	PRO	5.1
38	1g	79	ARG	5.1
33	2b	237	ALA	5.0
45	2n	2	ALA	5.0
41	2j	85	LEU	5.0
1	1A	887	A	5.0
41	2j	47	PHE	5.0
22	10	3	HIS	4.9
22	10	8	GLY	4.9
32	2a	1034	G	4.9
23	11	2	SER	4.9
44	1m	2	ALA	4.9
38	1g	83	ALA	4.9
27	15	60	VAL	4.8
44	2m	60	VAL	4.8
41	2j	40	LEU	4.8
32	1a	1036	G	4.8
38	2g	152	ALA	4.7
38	1g	84	ASN	4.7
22	20	5	LYS	4.6
32	2a	1017	G	4.6

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Mol	Chain	Res	Type	RSRZ
34	2c	158	GLY	4.6
38	2g	81	GLY	4.6
6	1G	80	PHE	4.6
1	1A	1176	G	4.5
21	2Z	144	LEU	4.5
1	1A	1064	C	4.5
54	2w	75	C	4.5
34	1c	207	VAL	4.4
45	2n	25	VAL	4.4
21	1Z	1	MET	4.4
45	2n	34	TYR	4.4
41	2j	55	LYS	4.3
38	1g	86	GLN	4.3
34	2c	33	LEU	4.3
41	2j	78	ASN	4.3
1	1A	1097	U	4.3
22	20	11	ARG	4.3
6	2G	2	PRO	4.3
44	1m	123	ALA	4.3
1	1A	889	C	4.3
15	1T	89	VAL	4.3
22	20	3	HIS	4.2
44	2m	5	ALA	4.2
33	2b	165	VAL	4.2
22	20	4	LYS	4.2
1	1A	2141	G	4.2
40	2i	126	SER	4.2
40	1i	2	GLU	4.2
38	1g	85	TYR	4.2
46	1o	87	ILE	4.2
53	2v	24	A	4.2
15	1T	130	ALA	4.1
15	1T	131	ALA	4.1
32	1a	1257	U	4.1
34	2c	12	LEU	4.1
6	1G	182	LYS	4.1
40	2i	10	ARG	4.1
1	1A	1095	A	4.1
32	2a	1030(B)	C	4.1
54	2w	74	C	4.1
50	1s	84	GLY	4.1
32	2a	1036	G	4.1

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Mol	Chain	Res	Type	RSRZ
22	10	4	LYS	4.1
51	1t	103	GLY	4.1
1	1A	886	C	4.1
33	1b	11	LEU	4.0
32	1a	1503	A	4.0
32	2a	1219	U	4.0
40	1i	126	SER	4.0
1	2A	1536	C	4.0
7	1H	2	SER	3.9
1	2A	1171	G	3.9
34	2c	8	ILE	3.9
52	2u	16	GLY	3.9
1	2A	1026	U	3.9
44	2m	102	ARG	3.9
32	1a	1034	G	3.9
38	1g	81	GLY	3.9
1	1A	1096	A	3.9
49	1r	78	LEU	3.9
50	2s	31	ILE	3.9
41	2j	54	PHE	3.9
32	1a	160	A	3.9
40	2i	71	SER	3.9
38	1g	153	HIS	3.9
33	1b	237	ALA	3.9
49	1r	79	LEU	3.8
26	24	49	PHE	3.8
32	1a	1532	U	3.8
33	2b	234	PRO	3.8
33	2b	236	TYR	3.8
50	1s	80	TYR	3.8
33	1b	17	PHE	3.8
1	1A	2138	C	3.8
44	2m	90	LEU	3.8
3	2D	2	ALA	3.8
6	1G	42	GLY	3.8
44	2m	6	GLY	3.8
34	1c	128	PHE	3.8
50	2s	9	VAL	3.8
54	1w	76	A	3.8
36	2e	22	GLY	3.8
1	1A	548	A	3.7
1	1A	1068	G	3.7

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Mol	Chain	Res	Type	RSRZ
40	2i	52	ALA	3.7
39	2h	30	ARG	3.7
44	1m	122	LYS	3.7
50	2s	11	VAL	3.7
33	2b	83	MET	3.7
41	2j	65	LEU	3.7
44	1m	96	LEU	3.7
21	1Z	146	ILE	3.7
21	2Z	146	ILE	3.7
41	2j	59	SER	3.7
45	2n	33	VAL	3.7
32	2a	1112	C	3.7
16	1U	117	GLN	3.7
33	2b	203	GLY	3.7
54	2w	76	A	3.7
40	2i	14	VAL	3.7
40	2i	49	PRO	3.7
44	1m	124	PRO	3.7
32	2a	1220	G	3.7
40	2i	64	THR	3.7
34	2c	182	ILE	3.7
17	1V	101	GLY	3.7
26	24	66	SER	3.7
22	10	5	LYS	3.6
40	1i	10	ARG	3.6
44	2m	18	ALA	3.6
34	2c	157	ILE	3.6
35	2d	71	SER	3.6
50	2s	10	PHE	3.6
20	2Y	45	VAL	3.6
51	2t	24	LEU	3.6
34	2c	124	ILE	3.6
51	2t	9	ASN	3.6
33	2b	225	ALA	3.6
40	2i	92	TYR	3.6
26	24	57	GLU	3.6
33	2b	44	LEU	3.6
50	1s	5	LEU	3.6
34	1c	124	ILE	3.6
45	2n	22	THR	3.6
21	2Z	140	ASP	3.6
45	2n	10	ALA	3.6

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Mol	Chain	Res	Type	RSRZ
41	2j	77	PRO	3.6
6	2G	35	GLU	3.6
35	1d	204	ILE	3.5
45	2n	31	ARG	3.5
41	2j	42	THR	3.5
45	2n	13	THR	3.5
21	2Z	138	GLU	3.5
40	1i	113	LYS	3.5
33	2b	162	ILE	3.5
15	2T	69	GLY	3.5
34	2c	13	GLY	3.5
34	2c	129	ALA	3.5
33	2b	221	LEU	3.5
36	2e	33	VAL	3.5
48	2q	98	LEU	3.5
32	1a	1030(B)	C	3.5
45	2n	21	TYR	3.5
32	2a	973	G	3.5
32	2a	1222	G	3.5
41	2j	76	ASN	3.5
33	2b	161	ALA	3.5
51	2t	103	GLY	3.5
33	2b	152	PHE	3.5
43	2l	64	TYR	3.4
54	1w	74	C	3.4
26	24	51	ASP	3.4
32	2a	1033	G	3.4
34	2c	149	ALA	3.4
7	2H	45	VAL	3.4
26	24	50	VAL	3.4
32	2a	1016	A	3.4
32	2a	1035	A	3.4
45	2n	3	ARG	3.4
45	2n	29	ARG	3.4
48	2q	99	SER	3.4
35	2d	23	GLY	3.4
45	2n	30	ALA	3.4
33	1b	187	LEU	3.4
38	1g	78	ARG	3.4
20	2Y	44	ILE	3.4
32	1a	346	G	3.4
32	1a	1447	A	3.4

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Mol	Chain	Res	Type	RSRZ
21	2Z	173	ALA	3.4
40	2i	39	GLY	3.4
40	2i	91	ASP	3.4
54	1w	17	C	3.4
20	2Y	63	LYS	3.4
11	2P	109	GLY	3.4
41	1j	33	GLN	3.4
33	2b	200	ILE	3.3
8	1I	117	GLU	3.3
44	2m	66	LEU	3.3
44	2m	100	GLY	3.3
45	2n	14	PRO	3.3
34	2c	155	GLY	3.3
49	1r	73	ALA	3.3
41	2j	98	ILE	3.3
32	1a	1030(A)	G	3.3
34	1c	193	TYR	3.3
40	2i	79	LEU	3.3
46	1o	19	PRO	3.3
35	1d	201	GLN	3.3
41	2j	52	GLY	3.3
44	2m	72	ALA	3.3
46	2o	60	VAL	3.3
33	2b	211	ILE	3.3
32	1a	1001(A)	G	3.3
34	2c	91	LEU	3.3
41	2j	100	THR	3.3
39	2h	94	TYR	3.3
4	2E	71	GLY	3.3
41	2j	44	VAL	3.3
44	1m	94	ARG	3.2
32	1a	1030(D)	A	3.2
34	1c	87	LEU	3.2
50	1s	83	HIS	3.2
50	2s	79	THR	3.2
50	2s	35	SER	3.2
6	2G	160	VAL	3.2
32	2a	1038	C	3.2
33	1b	126	GLU	3.2
41	2j	86	MET	3.2
33	2b	16	HIS	3.2
5	1F	208	GLY	3.2

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Mol	Chain	Res	Type	RSRZ
5	2F	208	GLY	3.2
34	2c	2	GLY	3.2
41	2j	19	SER	3.2
1	1A	1098	A	3.2
32	1a	1035	A	3.2
44	1m	117	VAL	3.2
45	2n	18	VAL	3.2
1	1A	883	G	3.2
32	2a	1196	U	3.2
39	2h	135	CYS	3.2
19	1X	95	LEU	3.2
33	2b	118	LEU	3.2
35	1d	150	GLU	3.2
50	2s	2	PRO	3.2
6	2G	159	VAL	3.2
33	2b	70	PHE	3.2
33	2b	122	PHE	3.2
40	2i	41	VAL	3.2
38	2g	84	ASN	3.2
36	2e	31	LEU	3.2
40	1i	19	LEU	3.2
33	2b	91	PRO	3.2
1	1A	1065	U	3.2
1	1A	1066	U	3.2
1	2A	171	G	3.2
52	2u	14	TRP	3.2
43	1l	63	GLY	3.2
15	2T	131	ALA	3.2
16	1U	4	ALA	3.2
33	2b	216	SER	3.2
41	1j	4	ILE	3.2
44	1m	87	TYR	3.2
32	1a	1030	C	3.1
32	2a	1149	C	3.1
33	1b	37	ASN	3.1
36	2e	27	ARG	3.1
41	2j	48	THR	3.1
33	2b	201	ILE	3.1
33	2b	214	ILE	3.1
36	2e	109	ILE	3.1
21	1Z	141	VAL	3.1
32	2a	1030(A)	G	3.1

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Mol	Chain	Res	Type	RSRZ
33	2b	220	ASP	3.1
1	2A	2896	C	3.1
33	2b	11	LEU	3.1
38	2g	16	LEU	3.1
23	21	28	GLY	3.1
50	2s	82	GLY	3.1
38	2g	7	ALA	3.1
6	2G	28	VAL	3.1
33	1b	229	VAL	3.1
1	1A	1081	U	3.1
6	2G	74	LYS	3.1
26	14	63	TYR	3.1
1	2A	883	G	3.1
32	1a	1031	G	3.1
8	1I	146	ALA	3.1
34	1c	39	ILE	3.1
34	2c	60	ALA	3.1
41	2j	6	ILE	3.1
47	2p	48	TRP	3.1
40	2i	127	LYS	3.1
43	1l	126	LYS	3.1
33	1b	7	VAL	3.1
34	1c	127	ARG	3.1
26	24	63	TYR	3.1
38	2g	154	TYR	3.1
51	1t	9	ASN	3.1
33	1b	41	ILE	3.1
44	2m	121	LYS	3.1
44	2m	122	LYS	3.1
32	1a	1028	C	3.1
40	2i	17	VAL	3.1
1	1A	896	A	3.0
1	1A	1077	A	3.0
1	2A	229	A	3.0
6	1G	53	LEU	3.0
33	2b	196	LEU	3.0
41	2j	90	LEU	3.0
8	2I	135	GLU	3.0
40	1i	91	ASP	3.0
50	1s	13	ASP	3.0
1	1A	1094	U	3.0
21	2Z	156	LYS	3.0

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Mol	Chain	Res	Type	RSRZ
33	1b	132	LYS	3.0
7	2H	166	GLY	3.0
41	2j	96	ILE	3.0
33	1b	207	ALA	3.0
33	2b	188	ALA	3.0
39	2h	16	ALA	3.0
40	1i	111	ARG	3.0
41	1j	32	ALA	3.0
21	2Z	42	VAL	3.0
34	2c	195	VAL	3.0
54	2y	1	G	3.0
21	2Z	33	LEU	3.0
33	2b	231	GLU	3.0
45	2n	49	HIS	3.0
48	2q	32	TYR	3.0
32	2a	965	A	3.0
1	1A	1078	U	3.0
1	2A	362	U	3.0
21	2Z	170	THR	3.0
22	20	43	THR	3.0
33	2b	185	ILE	3.0
36	2e	10	MET	3.0
40	1i	106	ALA	3.0
40	2i	82	ALA	3.0
33	1b	165	VAL	3.0
33	1b	33	TYR	3.0
1	1A	1093	G	3.0
32	2a	1019	C	3.0
54	1w	75	C	3.0
32	1a	161	A	3.0
50	2s	49	ILE	3.0
38	1g	141	VAL	3.0
41	2j	63	PHE	3.0
43	2l	39	VAL	3.0
45	2n	37	PHE	3.0
33	2b	121	LEU	3.0
48	1q	98	LEU	3.0
29	17	48	LYS	3.0
33	2b	31	TYR	3.0
21	2Z	154	ASP	3.0
33	1b	127	ILE	3.0
33	2b	223	ILE	3.0

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Mol	Chain	Res	Type	RSRZ
41	2j	38	ILE	3.0
52	1u	16	GLY	3.0
1	1A	892	G	3.0
1	1A	884	C	3.0
1	1A	2140	C	3.0
33	1b	120	ALA	3.0
39	2h	124	ALA	3.0
54	1w	1	G	3.0
54	1y	18	G	3.0
54	2y	34	G	3.0
54	2w	2	C	3.0
32	2a	983	A	3.0
34	2c	106	VAL	3.0
34	2c	128	PHE	3.0
37	1f	21	LEU	2.9
38	2g	156	TRP	2.9
40	2i	95	LYS	2.9
50	2s	53	ASN	2.9
6	2G	146	TYR	2.9
33	2b	92	TYR	2.9
26	24	65	ASP	2.9
41	1j	86	MET	2.9
44	1m	91	ARG	2.9
44	1m	93	ARG	2.9
44	2m	78	ILE	2.9
6	1G	50	ALA	2.9
6	2G	163	ALA	2.9
21	2Z	164	ALA	2.9
36	2e	104	ALA	2.9
35	1d	170	VAL	2.9
1	1A	2142	C	2.9
32	1a	163	C	2.9
32	2a	189(I)	G	2.9
32	2a	1116	C	2.9
32	2a	1202	G	2.9
45	2n	17	LYS	2.9
53	2v	12	A	2.9
47	2p	82	GLN	2.9
47	1p	19	ILE	2.9
35	2d	183	GLY	2.9
34	2c	180	ALA	2.9
50	1s	9	VAL	2.9

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Mol	Chain	Res	Type	RSRZ
38	2g	12	LEU	2.9
40	1i	112	LYS	2.9
41	2j	41	PRO	2.9
6	2G	29	TRP	2.9
1	1A	2137	C	2.9
1	2A	34	C	2.9
52	2u	6	ARG	2.9
32	2a	1221	G	2.9
6	1G	49	ASP	2.9
20	1Y	107	ASP	2.9
4	2E	142	GLY	2.9
12	2Q	61	GLY	2.9
33	1b	29	ALA	2.9
40	1i	15	ALA	2.9
41	2j	32	ALA	2.9
21	2Z	141	VAL	2.9
33	2b	112	VAL	2.9
26	14	69	LYS	2.9
33	2b	163	PHE	2.9
40	2i	99	LEU	2.9
45	2n	16	PHE	2.9
45	2n	58	LYS	2.9
50	2s	16	LEU	2.9
8	2I	85	GLU	2.9
25	23	2	PRO	2.9
26	24	7	PRO	2.9
38	1g	73	MET	2.9
35	1d	50	ARG	2.9
52	1u	24	ARG	2.9
7	2H	2	SER	2.9
50	2s	38	SER	2.9
41	2j	75	ILE	2.9
1	1A	1080	C	2.9
19	2X	94	GLY	2.9
21	2Z	147	GLY	2.9
32	1a	1001	A	2.9
32	2a	1001	A	2.9
32	2a	1223	C	2.9
32	2a	1363(A)	A	2.9
40	2i	5	TYR	2.9
44	2m	95	GLY	2.9
44	1m	103	THR	2.9

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Mol	Chain	Res	Type	RSRZ
1	1A	1099	G	2.9
32	2a	1001(A)	G	2.9
34	2c	141	VAL	2.9
35	1d	140	VAL	2.9
43	1l	60	LEU	2.9
22	20	69	PHE	2.9
33	1b	12	GLU	2.8
41	1j	77	PRO	2.8
40	2i	20	ARG	2.8
21	1Z	154	ASP	2.8
42	2k	124	LYS	2.8
34	2c	137	ALA	2.8
34	2c	68	VAL	2.8
34	2c	138	VAL	2.8
41	1j	24	VAL	2.8
43	1l	18	VAL	2.8
1	1A	1054	A	2.8
11	1P	149	GLU	2.8
33	1b	134	GLU	2.8
54	1y	35	A	2.8
50	2s	66	MET	2.8
3	1D	275	LYS	2.8
6	2G	147	ASP	2.8
46	1o	89	GLY	2.8
20	2Y	55	TYR	2.8
33	2b	10	LEU	2.8
34	2c	15	THR	2.8
38	1g	154	TYR	2.8
39	2h	39	LEU	2.8
44	2m	105	THR	2.8
21	2Z	165	VAL	2.8
40	2i	28	VAL	2.8
41	2j	49	VAL	2.8
6	1G	48	GLU	2.8
46	1o	88	ARG	2.8
48	2q	30	PRO	2.8
1	1A	1070	A	2.8
1	2A	2175	C	2.8
26	24	5	ILE	2.8
41	2j	50	ILE	2.8
41	2j	74	ILE	2.8
1	1A	1059	G	2.8

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Mol	Chain	Res	Type	RSRZ
1	1A	2152	G	2.8
1	2A	2156	G	2.8
32	2a	1021	G	2.8
32	2a	1224	G	2.8
22	20	84	LEU	2.8
33	2b	154	LEU	2.8
45	2n	44	LEU	2.8
14	2S	34	HIS	2.8
33	1b	186	ALA	2.8
33	2b	230	VAL	2.8
20	1Y	1	MET	2.8
41	2j	7	LYS	2.8
1	2A	899	A	2.8
39	2h	83	ILE	2.8
54	2w	73	A	2.8
1	1A	1100	C	2.8
34	1c	158	GLY	2.8
34	2c	52	LEU	2.8
44	2m	119	GLY	2.8
21	2Z	27	VAL	2.8
1	1A	2151	G	2.8
1	2A	2112	G	2.8
28	16	28	ARG	2.8
32	2a	1127	G	2.8
33	1b	236	TYR	2.8
40	1i	125	TYR	2.8
45	2n	23	ARG	2.8
11	1P	70	GLN	2.7
49	2r	85	LEU	2.7
32	2a	1225	A	2.7
52	2u	2	GLY	2.7
22	20	10	THR	2.7
40	2i	9	ARG	2.7
41	2j	34	VAL	2.7
41	2j	89	ASP	2.7
42	2k	36	ASP	2.7
32	1a	1029	C	2.7
32	1a	1527	C	2.7
32	2a	979	C	2.7
32	2a	1030	C	2.7
44	2m	103	THR	2.7
26	24	32	TYR	2.7

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Mol	Chain	Res	Type	RSRZ
39	2h	67	PRO	2.7
40	1i	114	TYR	2.7
29	27	48	LYS	2.7
48	2q	100	LYS	2.7
1	2A	2159	G	2.7
2	2B	23	G	2.7
32	2a	630	G	2.7
14	2S	32	LEU	2.7
46	1o	57	LEU	2.7
33	2b	228	GLY	2.7
34	2c	145	GLY	2.7
32	2a	1205	U	2.7
7	1H	19	VAL	2.7
33	2b	123	ALA	2.7
39	1h	4	ASP	2.7
41	1j	87	THR	2.7
42	2k	89	ALA	2.7
47	1p	68	ASP	2.7
49	2r	87	ARG	2.7
50	2s	24	ALA	2.7
14	2S	12	PHE	2.7
54	2y	36	A	2.7
44	1m	27	LYS	2.7
47	1p	82	GLN	2.7
1	1A	1092	C	2.7
32	2a	962	C	2.7
32	2a	1114	C	2.7
8	2I	88	ILE	2.7
19	2X	92	LEU	2.7
34	2c	32	LEU	2.7
36	1e	10	MET	2.7
1	1A	1058	G	2.7
32	2a	1048	G	2.7
32	2a	1050	G	2.7
39	2h	128	GLY	2.7
14	2S	20	ARG	2.7
24	12	7	ARG	2.7
40	2i	83	ARG	2.7
50	1s	78	ARG	2.7
52	2u	15	ARG	2.7
34	2c	120	VAL	2.7
38	2g	80	VAL	2.7

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Mol	Chain	Res	Type	RSRZ
43	2l	56	ALA	2.7
47	2p	2	VAL	2.7
50	2s	74	PHE	2.7
21	2Z	158	PRO	2.7
55	1x	47	U	2.7
19	2X	18	TYR	2.7
40	2i	125	TYR	2.7
1	1A	2135	A	2.7
32	2a	1280	A	2.7
32	2a	1045	C	2.7
41	2j	68	HIS	2.7
45	2n	12	ARG	2.7
41	2j	35	SER	2.7
33	2b	15	VAL	2.7
34	2c	189	ALA	2.7
34	2c	207	VAL	2.7
44	2m	53	VAL	2.7
44	1m	105	THR	2.7
1	1A	545	G	2.6
1	2A	1042	G	2.6
32	2a	1148	U	2.6
47	2p	38	TYR	2.6
48	2q	95	TYR	2.6
43	2l	100	ILE	2.6
32	1a	1286	A	2.6
32	2a	1030(D)	A	2.6
32	2a	1183	A	2.6
34	2c	43	LEU	2.6
45	2n	6	LEU	2.6
48	2q	74	LEU	2.6
50	2s	71	LEU	2.6
40	1i	117	HIS	2.6
5	1F	27	GLU	2.6
11	2P	118	GLY	2.6
41	2j	10	GLY	2.6
43	2l	63	GLY	2.6
1	1A	1509	C	2.6
1	2A	886	C	2.6
21	2Z	172	ALA	2.6
22	10	2	ALA	2.6
33	1b	122	PHE	2.6
33	2b	88	ALA	2.6

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Mol	Chain	Res	Type	RSRZ
40	2i	26	VAL	2.6
40	2i	94	ALA	2.6
45	2n	56	VAL	2.6
46	1o	62	GLN	2.6
33	2b	32	ILE	2.6
34	2c	202	ILE	2.6
47	1p	38	TYR	2.6
50	2s	40	ILE	2.6
1	1A	1026	U	2.6
1	1A	1060	U	2.6
1	1A	1101	U	2.6
1	2A	2155	G	2.6
32	2a	1125	U	2.6
6	2G	19	LEU	2.6
33	2b	142	LEU	2.6
34	2c	87	LEU	2.6
40	2i	56	LEU	2.6
41	2j	88	LEU	2.6
33	1b	30	ARG	2.6
41	2j	79	ARG	2.6
44	2m	104	ARG	2.6
50	2s	29	ARG	2.6
51	1t	80	ARG	2.6
40	1i	69	GLY	2.6
40	2i	67	GLY	2.6
1	1A	890	A	2.6
1	2A	896	A	2.6
32	1a	1183	A	2.6
6	2G	57	ALA	2.6
21	2Z	166	SER	2.6
33	1b	28	PHE	2.6
33	2b	93	VAL	2.6
33	2b	97	TRP	2.6
33	2b	120	ALA	2.6
41	1j	76	ASN	2.6
49	2r	60	ALA	2.6
34	2c	17	ASP	2.6
33	2b	222	ILE	2.6
33	2b	145	LEU	2.6
41	2j	16	LEU	2.6
39	2h	91	ARG	2.6
1	2A	2897	U	2.6

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Mol	Chain	Res	Type	RSRZ
11	2P	20	GLY	2.6
21	1Z	147	GLY	2.6
41	2j	36	GLY	2.6
42	2k	90	GLY	2.6
1	2A	2115	G	2.6
32	1a	1023	G	2.6
54	2y	18	G	2.6
14	2S	46	VAL	2.6
15	2T	130	ALA	2.6
33	2b	7	VAL	2.6
33	2b	207	ALA	2.6
36	2e	6	PHE	2.6
20	2Y	57	GLN	2.6
21	2Z	153	SER	2.6
34	2c	37	GLN	2.6
36	2e	98	THR	2.6
6	1G	88	ILE	2.6
6	2G	20	ILE	2.6
51	1t	55	ILE	2.6
1	1A	34	C	2.6
1	2A	2803	C	2.6
33	1b	10	LEU	2.6
50	2s	30	LEU	2.6
19	2X	69	TYR	2.6
29	17	23	ARG	2.6
35	1d	54	TYR	2.6
40	2i	114	TYR	2.6
43	2l	69	TYR	2.6
44	1m	102	ARG	2.6
46	1o	69	TYR	2.6
43	1l	16	GLU	2.6
1	1A	2189	U	2.6
38	2g	83	ALA	2.6
44	2m	15	VAL	2.6
52	2u	23	PRO	2.6
33	2b	17	PHE	2.6
47	1p	80	PHE	2.6
44	2m	64	TRP	2.5
1	2A	1115	G	2.5
1	2A	2153	G	2.5
6	2G	166	ASP	2.5
54	2y	15	G	2.5

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Mol	Chain	Res	Type	RSRZ
34	2c	39	ILE	2.5
35	1d	5	ILE	2.5
32	2a	974	A	2.5
33	1b	221	LEU	2.5
35	2d	162	LEU	2.5
38	2g	38	LEU	2.5
40	1i	47	LEU	2.5
49	1r	76	LEU	2.5
53	1v	12	A	2.5
9	2N	104	LYS	2.5
38	1g	155	ARG	2.5
36	2e	81	GLU	2.5
38	1g	90	GLU	2.5
1	2A	884	C	2.5
32	2a	1028	C	2.5
32	2a	1217	C	2.5
32	2a	1322	C	2.5
21	2Z	12	GLY	2.5
34	2c	171	GLY	2.5
21	2Z	25	PRO	2.5
38	2g	21	VAL	2.5
40	1i	28	VAL	2.5
40	2i	86	VAL	2.5
34	1c	189	ALA	2.5
40	1i	33	PHE	2.5
40	2i	13	ALA	2.5
35	2d	154	ASN	2.5
50	2s	63	THR	2.5
1	1A	2130	U	2.5
32	1a	204	U	2.5
47	1p	1	MET	2.5
41	2j	73	ASP	2.5
26	24	15	ILE	2.5
6	1G	133	LEU	2.5
35	1d	78	LEU	2.5
39	2h	64	LYS	2.5
44	1m	92	HIS	2.5
32	1a	763	G	2.5
32	2a	1024	G	2.5
32	2a	1117	G	2.5
1	1A	1067	A	2.5
54	2y	35	A	2.5

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Mol	Chain	Res	Type	RSRZ
21	2Z	159	PRO	2.5
33	1b	77	ALA	2.5
40	2i	15	ALA	2.5
32	2a	1018	C	2.5
32	2a	1066	C	2.5
7	2H	106	THR	2.5
45	2n	32	SER	2.5
34	2c	18	TRP	2.5
40	2i	11	LYS	2.5
34	1c	126	ARG	2.5
40	2i	63	ILE	2.5
50	2s	34	TRP	2.5
32	2a	1358	U	2.5
33	2b	21	ARG	2.5
33	2b	155	LEU	2.5
34	1c	196	LEU	2.5
40	1i	102	LEU	2.5
40	2i	19	LEU	2.5
42	2k	126	ARG	2.5
49	1r	31	LEU	2.5
50	2s	78	ARG	2.5
41	2j	56	HIS	2.5
15	1T	46	GLU	2.5
6	1G	146	TYR	2.5
18	2W	112	GLY	2.5
19	2X	67	GLY	2.5
50	2s	72	GLY	2.5
33	1b	131	PRO	2.5
1	2A	882	G	2.5
32	1a	1033	G	2.5
32	2a	143	A	2.5
50	2s	75	ALA	2.5
51	1t	18	GLN	2.5
40	2i	103	THR	2.5
44	1m	106	ASN	2.5
6	1G	51	ARG	2.5
26	24	9	LEU	2.5
33	2b	175	ARG	2.5
39	2h	2	LEU	2.5
41	1j	85	LEU	2.5
46	1o	82	ILE	2.5
48	2q	76	LEU	2.5

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Mol	Chain	Res	Type	RSRZ
1	2A	2794	C	2.5
20	2Y	107	ASP	2.5
32	2a	1325	C	2.5
50	2s	13	ASP	2.5
1	1A	2132	U	2.5
32	1a	343	U	2.5
32	2a	1000	U	2.5
5	1F	147	GLY	2.5
6	2G	11	TYR	2.5
7	1H	166	GLY	2.5
34	1c	81	GLY	2.5
35	1d	38	TYR	2.5
41	1j	31	GLY	2.5
42	2k	102	GLY	2.5
43	2l	31	PRO	2.5
44	2m	21	TYR	2.5
45	2n	28	GLY	2.5
48	1q	95	TYR	2.5
52	2u	11	GLY	2.5
7	1H	21	PRO	2.5
7	2H	79	VAL	2.5
8	2I	19	VAL	2.5
21	2Z	139	VAL	2.5
36	2e	90	VAL	2.5
6	2G	50	ALA	2.5
21	1Z	104	PHE	2.5
43	2l	32	PHE	2.5
20	1Y	63	LYS	2.4
43	2l	28	LYS	2.4
44	2m	120	LYS	2.4
33	2b	67	THR	2.4
14	1S	3	ARG	2.4
40	1i	104	ARG	2.4
41	2j	28	ARG	2.4
53	2v	14	A	2.4
53	2v	23	A	2.4
21	2Z	171	ILE	2.4
26	24	31	ILE	2.4
33	2b	172	ILE	2.4
33	2b	215	LEU	2.4
41	1j	40	LEU	2.4
41	1j	90	LEU	2.4

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Mol	Chain	Res	Type	RSRZ
48	2q	90	ILE	2.4
1	1A	2133	G	2.4
1	2A	2151	G	2.4
2	2B	54	G	2.4
32	1a	1002	G	2.4
32	2a	189(J)	G	2.4
32	2a	631	G	2.4
45	2n	61	TRP	2.4
32	2a	1054	C	2.4
32	2a	1397	C	2.4
18	1W	112	GLY	2.4
21	2Z	167	PRO	2.4
39	2h	131	GLY	2.4
44	1m	95	GLY	2.4
7	2H	26	VAL	2.4
14	2S	69	VAL	2.4
34	2c	162	GLN	2.4
34	2c	198	VAL	2.4
40	1i	70	LYS	2.4
41	2j	72	VAL	2.4
51	2t	42	GLN	2.4
20	1Y	78	ALA	2.4
21	1Z	136	PHE	2.4
33	1b	13	ALA	2.4
33	1b	34	ALA	2.4
40	1i	13	ALA	2.4
40	2i	106	ALA	2.4
47	2p	9	PHE	2.4
26	24	55	ARG	2.4
33	2b	226	ARG	2.4
40	2i	27	THR	2.4
52	2u	17	THR	2.4
4	2E	143	ASN	2.4
14	2S	80	LEU	2.4
33	2b	94	ASN	2.4
35	1d	154	ASN	2.4
39	1h	112	LEU	2.4
50	2s	15	LEU	2.4
51	2t	55	ILE	2.4
1	1A	229	A	2.4
2	2B	53	A	2.4
31	19	12	ASP	2.4

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Mol	Chain	Res	Type	RSRZ
35	1d	173	TRP	2.4
21	1Z	168	GLU	2.4
33	2b	126	GLU	2.4
1	1A	2159	G	2.4
1	2A	2319	G	2.4
32	2a	181	G	2.4
32	2a	1002	G	2.4
32	2a	1032	G	2.4
7	1H	168	PRO	2.4
21	2Z	143	GLY	2.4
33	2b	159	PRO	2.4
3	2D	275	LYS	2.4
11	2P	76	LYS	2.4
33	1b	27	LYS	2.4
44	2m	31	LYS	2.4
1	1A	2188	C	2.4
1	2A	897	C	2.4
24	12	38	GLN	2.4
26	14	56	VAL	2.4
32	1a	1037	C	2.4
33	2b	71	VAL	2.4
33	2b	197	VAL	2.4
35	1d	207	TYR	2.4
8	2I	65	ALA	2.4
34	2c	160	ALA	2.4
34	2c	190	ARG	2.4
35	1d	195	ALA	2.4
41	2j	26	ALA	2.4
45	2n	36	PHE	2.4
8	2I	86	THR	2.4
39	2h	134	ILE	2.4
41	2j	15	THR	2.4
26	24	26	SER	2.4
38	1g	8	GLU	2.4
1	1A	1084	A	2.4
32	2a	1004	A	2.4
39	2h	72	PRO	2.4
40	2i	100	GLY	2.4
11	2P	70	GLN	2.4
26	14	50	VAL	2.4
26	24	10	VAL	2.4
48	1q	35	VAL	2.4

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Mol	Chain	Res	Type	RSRZ
1	1A	2190	G	2.4
1	2A	2154	G	2.4
14	1S	37	ALA	2.4
20	2Y	2	ARG	2.4
32	2a	145	G	2.4
34	2c	23	TYR	2.4
38	1g	7	ALA	2.4
40	1i	121	ARG	2.4
40	2i	122	ALA	2.4
52	1u	9	ARG	2.4
54	1w	44	G	2.4
6	2G	133	LEU	2.4
35	1d	194	LEU	2.4
41	2j	8	LEU	2.4
45	1n	7	ILE	2.4
48	2q	43	LEU	2.4
1	1A	614(A)	U	2.4
1	2A	271(L)	U	2.4
1	2A	614(A)	U	2.4
32	2a	952	U	2.4
32	2a	1203	C	2.4
32	2a	1226	C	2.4
44	2m	67	GLU	2.4
50	2s	42	PRO	2.4
52	1u	2	GLY	2.4
8	2I	145	VAL	2.4
15	1T	125	ARG	2.4
21	2Z	79	ARG	2.4
33	2b	136	VAL	2.4
38	1g	149	ARG	2.4
40	1i	9	ARG	2.4
41	2j	5	ARG	2.4
42	2k	14	VAL	2.4
1	1A	1045	A	2.4
2	2B	120	A	2.4
40	2i	18	PHE	2.4
40	2i	61	ALA	2.4
8	1I	75	LEU	2.3
8	2I	68	LEU	2.3
21	2Z	150	LEU	2.3
26	24	25	TYR	2.3
33	2b	213	LEU	2.3

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Mol	Chain	Res	Type	RSRZ
1	1A	1087	G	2.3
1	1A	2131	G	2.3
32	1a	1024	G	2.3
32	2a	80	G	2.3
32	2a	1257	U	2.3
54	2y	57	G	2.3
33	1b	83	MET	2.3
47	2p	1	MET	2.3
14	2S	33	LYS	2.3
32	2a	999	C	2.3
32	2a	1029	C	2.3
32	2a	1218	C	2.3
33	2b	22	LYS	2.3
35	1d	102	ASP	2.3
19	1X	94	GLY	2.3
34	1c	80	GLY	2.3
44	1m	119	GLY	2.3
24	12	69	ARG	2.3
38	1g	3	ARG	2.3
41	2j	43	ARG	2.3
43	2l	19	ARG	2.3
47	2p	26	ARG	2.3
34	2c	53	ALA	2.3
37	2f	21	LEU	2.3
40	1i	119	ALA	2.3
45	2n	48	ALA	2.3
49	2r	31	LEU	2.3
51	1t	13	LEU	2.3
6	2G	101	ILE	2.3
34	1c	182	ILE	2.3
34	2c	77	ILE	2.3
44	2m	84	ILE	2.3
52	2u	13	ILE	2.3
6	2G	12	TYR	2.3
34	2c	193	TYR	2.3
50	2s	61	TYR	2.3
1	2A	652(B)	A	2.3
32	2a	969	A	2.3
53	1v	24	A	2.3
5	2F	161	GLU	2.3
7	1H	175	LYS	2.3
21	2Z	168	GLU	2.3

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Mol	Chain	Res	Type	RSRZ
34	2c	4	LYS	2.3
44	1m	111	LYS	2.3
39	2h	4	ASP	2.3
8	2I	132	PRO	2.3
33	1b	24	TRP	2.3
1	1A	1075	C	2.3
1	2A	2146	C	2.3
22	20	14	ARG	2.3
23	21	29	GLY	2.3
33	1b	18	GLY	2.3
43	2l	14	GLY	2.3
43	2l	95	GLY	2.3
44	2m	94	ARG	2.3
14	1S	46	VAL	2.3
17	2V	52	VAL	2.3
40	1i	14	VAL	2.3
41	1j	34	VAL	2.3
20	2Y	31	LEU	2.3
21	2Z	157	LEU	2.3
24	12	37	PHE	2.3
40	2i	101	PHE	2.3
36	2e	94	ALA	2.3
51	1t	24	LEU	2.3
34	2c	69	HIS	2.3
50	2s	14	HIS	2.3
21	2Z	69	THR	2.3
34	1c	184	TYR	2.3
34	2c	201	TYR	2.3
50	2s	52	TYR	2.3
3	1D	38	LYS	2.3
32	2a	532	A	2.3
54	2y	14	A	2.3
43	2l	62	SER	2.3
21	1Z	103	ARG	2.3
36	2e	70	PRO	2.3
41	2j	66	ARG	2.3
45	2n	54	PRO	2.3
12	2Q	24	GLY	2.3
35	1d	90	GLY	2.3
50	2s	8	GLY	2.3
32	2a	1040	U	2.3
54	2y	33	U	2.3

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Mol	Chain	Res	Type	RSRZ
22	20	30	VAL	2.3
35	1d	121	VAL	2.3
50	2s	41	VAL	2.3
6	1G	152	LEU	2.3
10	1O	91	LEU	2.3
26	24	59	PHE	2.3
34	2c	94	LEU	2.3
5	2F	166	ALA	2.3
33	1b	188	ALA	2.3
34	2c	65	ALA	2.3
38	1g	2	ALA	2.3
38	2g	150	ALA	2.3
39	1h	6	ILE	2.3
41	2j	18	ALA	2.3
1	1A	898	C	2.3
1	1A	1056	G	2.3
1	1A	1074	G	2.3
1	2A	1533	G	2.3
1	2A	2318	G	2.3
48	1q	90	ILE	2.3
33	1b	19	HIS	2.3
6	2G	105	LYS	2.3
33	1b	22	LYS	2.3
48	1q	100	LYS	2.3
52	2u	3	LYS	2.3
40	2i	62	TYR	2.3
21	2Z	97	GLU	2.3
46	1o	41	GLU	2.3
33	1b	36	ARG	2.3
34	1c	174	PRO	2.3
39	2h	29	SER	2.3
43	2l	89	ARG	2.3
1	2A	2117	A	2.3
26	14	54	GLY	2.3
32	2a	1110	A	2.3
33	1b	38	GLY	2.3
7	2H	44	VAL	2.3
20	2Y	42	VAL	2.3
26	24	35	VAL	2.3
34	2c	178	LEU	2.3
35	1d	19	LEU	2.3
35	2d	157	LEU	2.3

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Mol	Chain	Res	Type	RSRZ
40	1i	99	LEU	2.3
50	1s	20	LEU	2.3
6	2G	102	PHE	2.3
33	1b	152	PHE	2.3
33	2b	55	PHE	2.3
4	2E	204	ALA	2.2
7	2H	145	ALA	2.2
32	1a	1446	U	2.2
32	2a	1020	U	2.2
36	2e	17	ALA	2.2
37	1f	81	ILE	2.2
39	2h	6	ILE	2.2
40	2i	81	ILE	2.2
41	2j	13	HIS	2.2
9	2N	73	THR	2.2
6	2G	30	GLU	2.2
33	2b	86	GLU	2.2
6	2G	25	TYR	2.2
40	2i	4	TYR	2.2
1	1A	897	C	2.2
1	1A	2139	C	2.2
32	1a	578	C	2.2
32	1a	1145	C	2.2
32	2a	1320	C	2.2
1	1A	2308	G	2.2
1	2A	2793	G	2.2
32	1a	117	G	2.2
32	1a	1032	G	2.2
32	2a	1216	G	2.2
6	1G	136	ARG	2.2
41	2j	37	PRO	2.2
33	1b	124	SER	2.2
40	1i	105	ASP	2.2
48	1q	93	GLN	2.2
36	1e	74	GLY	2.2
47	1p	78	GLY	2.2
5	2F	6	VAL	2.2
9	2N	116	LEU	2.2
21	2Z	105	VAL	2.2
35	2d	112	VAL	2.2
41	1j	88	LEU	2.2
45	2n	53	LEU	2.2

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Mol	Chain	Res	Type	RSRZ
1	2A	2119	A	2.2
1	2A	2126	A	2.2
1	2A	2602	A	2.2
2	2B	90	A	2.2
3	1D	276	LYS	2.2
14	2S	35	ILE	2.2
32	2a	185	A	2.2
32	2a	1447	A	2.2
34	2c	5	ILE	2.2
44	2m	92	HIS	2.2
45	2n	11	LYS	2.2
45	2n	15	LYS	2.2
45	2n	59	ALA	2.2
53	2v	13	A	2.2
38	2g	73	MET	2.2
1	1A	1175	U	2.2
1	2A	2144	U	2.2
28	26	4	GLU	2.2
32	1a	1025	U	2.2
41	2j	87	THR	2.2
50	2s	33	THR	2.2
50	2s	77	THR	2.2
21	2Z	99	TYR	2.2
35	2d	20	TYR	2.2
38	1g	151	TYR	2.2
39	2h	48	TYR	2.2
42	2k	25	TYR	2.2
43	1l	64	TYR	2.2
7	2H	59	ARG	2.2
15	1T	129	ARG	2.2
34	2c	59	ARG	2.2
38	1g	5	ARG	2.2
38	2g	32	ARG	2.2
38	2g	76	ARG	2.2
4	1E	56	PRO	2.2
32	2a	1115	C	2.2
50	1s	56	GLN	2.2
1	1A	1063	G	2.2
1	2A	879	G	2.2
1	2A	2157	G	2.2
32	2a	1131	G	2.2
33	1b	228	GLY	2.2

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Mol	Chain	Res	Type	RSRZ
34	2c	9	GLY	2.2
34	2c	36	ASP	2.2
50	2s	54	GLY	2.2
40	2i	40	LEU	2.2
44	2m	70	LEU	2.2
20	1Y	45	VAL	2.2
21	1Z	100	VAL	2.2
26	24	56	VAL	2.2
44	1m	74	VAL	2.2
47	1p	20	VAL	2.2
50	2s	58	VAL	2.2
20	2Y	5	MET	2.2
21	2Z	136	PHE	2.2
33	1b	48	MET	2.2
40	2i	59	PHE	2.2
41	2j	62	HIS	2.2
44	2m	4	ILE	2.2
34	2c	61	ALA	2.2
40	2i	76	ALA	2.2
20	1Y	62	GLU	2.2
28	16	4	GLU	2.2
34	2c	58	GLU	2.2
32	2a	1201	A	2.2
53	1v	14	A	2.2
9	2N	115	ARG	2.2
32	1a	960	U	2.2
33	2b	209	ARG	2.2
47	1p	75	ARG	2.2
51	1t	8	ARG	2.2
21	1Z	99	TYR	2.2
40	1i	88	TYR	2.2
41	1j	78	ASN	2.2
26	24	29	PRO	2.2
34	2c	7	PRO	2.2
8	1I	38	LEU	2.2
11	2P	37	GLY	2.2
20	2Y	90	LEU	2.2
26	14	64	GLY	2.2
26	24	54	GLY	2.2
33	1b	14	GLY	2.2
33	1b	203	GLY	2.2
34	1c	12	LEU	2.2

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Mol	Chain	Res	Type	RSRZ
35	2d	19	LEU	2.2
36	2e	35	GLY	2.2
40	2i	96	LEU	2.2
43	2l	50	SER	2.2
44	1m	81	LEU	2.2
45	2n	55	GLY	2.2
50	2s	22	LEU	2.2
51	1t	19	SER	2.2
7	2H	49	VAL	2.2
33	1b	164	VAL	2.2
50	2s	67	VAL	2.2
1	2A	1041	C	2.2
32	2a	1321	C	2.2
33	2b	39	ILE	2.2
39	1h	134	ILE	2.2
40	1i	18	PHE	2.2
33	2b	173	ALA	2.2
40	2i	55	ALA	2.2
1	1A	2125	G	2.2
1	2A	363	G	2.2
6	1G	164	GLU	2.2
32	1a	1529	G	2.2
34	1c	90	GLU	2.2
44	2m	35	GLU	2.2
33	1b	175	ARG	2.2
38	2g	3	ARG	2.2
40	1i	66	ARG	2.2
45	2n	40	CYS	2.2
1	1A	2158	A	2.2
14	2S	7	TYR	2.2
19	1X	69	TYR	2.2
32	1a	607	A	2.2
36	2e	133	TYR	2.2
40	2i	90	PRO	2.2
40	2i	123	PRO	2.2
50	2s	80	TYR	2.2
32	2a	1052	U	2.2
32	2a	1281	U	2.2
33	2b	135	GLN	2.2
40	1i	38	GLN	2.2
20	2Y	47	LYS	2.2
54	2y	51	U	2.2

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Mol	Chain	Res	Type	RSRZ
5	1F	196	LEU	2.2
6	1G	82	LEU	2.2
6	2G	53	LEU	2.2
7	2H	48	GLY	2.2
14	2S	104	GLY	2.2
26	24	17	GLY	2.2
33	1b	51	LEU	2.2
35	1d	167	GLY	2.2
35	1d	202	LEU	2.2
44	2m	48	LEU	2.2
40	2i	32	ASP	2.2
7	1H	35	VAL	2.2
7	2H	148	ILE	2.2
12	2Q	106	VAL	2.2
33	2b	229	VAL	2.2
47	1p	2	VAL	2.2
33	1b	55	PHE	2.2
33	1b	70	PHE	2.2
6	2G	73	ALA	2.1
34	1c	71	ALA	2.1
34	2c	206	GLU	2.1
1	1A	1052	C	2.1
11	1P	15	ARG	2.1
32	1a	1027	C	2.1
32	1a	1119	C	2.1
32	2a	1119	C	2.1
36	2e	107	ARG	2.1
39	2h	3	THR	2.1
40	1i	120	ARG	2.1
33	1b	194	PRO	2.1
15	1T	38	ASN	2.1
9	2N	75	TYR	2.1
38	2g	56	GLN	2.1
40	1i	116	LYS	2.1
40	2i	36	TYR	2.1
21	2Z	41	LEU	2.1
35	2d	188	LEU	2.1
39	2h	112	LEU	2.1
1	1A	529	A	2.1
6	2G	127	GLY	2.1
26	24	45	GLY	2.1
32	1a	1227	A	2.1

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Mol	Chain	Res	Type	RSRZ
32	2a	179	A	2.1
32	2a	1044	A	2.1
34	1c	155	GLY	2.1
36	2e	99	GLY	2.1
40	1i	8	GLY	2.1
15	1T	107	ASP	2.1
33	1b	206	ASP	2.1
34	2c	62	ASP	2.1
34	2c	20	SER	2.1
34	2c	66	VAL	2.1
34	2c	152	ILE	2.1
34	2c	176	HIS	2.1
47	1p	61	SER	2.1
48	1q	97	SER	2.1
50	1s	40	ILE	2.1
34	2c	169	ALA	2.1
41	1j	27	ALA	2.1
41	1j	83	GLU	2.1
6	1G	170	ARG	2.1
33	2b	114	ARG	2.1
34	2c	179	ARG	2.1
35	2d	118	ARG	2.1
23	2l	78	LYS	2.1
33	2b	125	PRO	2.1
35	1d	84	LYS	2.1
35	2d	37	PRO	2.1
40	1i	90	PRO	2.1
46	2o	75	PRO	2.1
1	2A	885	C	2.1
1	2A	2163	C	2.1
32	2a	1007	C	2.1
32	2a	1354	C	2.1
41	2j	69	ASN	2.1
21	2Z	3	TYR	2.1
41	2j	71	LEU	2.1
46	1o	78	TYR	2.1
6	2G	129	GLY	2.1
20	2Y	10	GLY	2.1
20	2Y	104	GLY	2.1
33	1b	72	GLY	2.1
33	2b	66	GLY	2.1
36	1e	85	GLY	2.1

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Mol	Chain	Res	Type	RSRZ
34	1c	64	VAL	2.1
34	2c	64	VAL	2.1
36	2e	11	ILE	2.1
46	1o	53	HIS	2.1
1	1A	1089	G	2.1
1	1A	2154	G	2.1
21	2Z	90	VAL	2.1
33	1b	71	VAL	2.1
39	2h	61	VAL	2.1
40	2i	53	VAL	2.1
41	1j	72	VAL	2.1
44	2m	7	VAL	2.1
49	2r	86	VAL	2.1
14	2S	29	PHE	2.1
40	1i	37	PHE	2.1
1	2A	272(A)	U	2.1
5	2F	146	ALA	2.1
6	1G	73	ALA	2.1
32	1a	143	A	2.1
32	1a	152	A	2.1
32	1a	956	U	2.1
32	2a	196	A	2.1
32	2a	982	U	2.1
32	2a	1126	U	2.1
32	2a	1357	A	2.1
32	2a	1493	A	2.1
51	1t	76	ALA	2.1
6	1G	137	GLU	2.1
12	2Q	139	GLU	2.1
33	1b	9	GLU	2.1
48	1q	24	GLU	2.1
7	1H	3	ARG	2.1
14	2S	3	ARG	2.1
44	2m	71	ARG	2.1
6	2G	161	THR	2.1
14	2S	5	THR	2.1
34	2c	192	THR	2.1
50	1s	79	THR	2.1
30	18	52	LYS	2.1
34	2c	174	PRO	2.1
20	2Y	1	MET	2.1
40	1i	87	GLN	2.1

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Mol	Chain	Res	Type	RSRZ
34	2c	175	LEU	2.1
39	2h	59	LEU	2.1
40	2i	50	LEU	2.1
46	1o	81	LEU	2.1
48	1q	76	LEU	2.1
51	1t	10	LEU	2.1
14	2S	95	HIS	2.1
20	2Y	103	GLY	2.1
34	2c	148	GLY	2.1
35	1d	16	GLY	2.1
40	2i	6	GLY	2.1
6	2G	39	ILE	2.1
7	2H	43	VAL	2.1
7	2H	50	VAL	2.1
9	2N	85	ILE	2.1
32	1a	840	C	2.1
32	2a	948	C	2.1
32	2a	1208	C	2.1
32	2a	1359	C	2.1
33	1b	136	VAL	2.1
33	1b	230	VAL	2.1
33	2b	42	ILE	2.1
33	2b	208	ILE	2.1
35	2d	148	VAL	2.1
38	1g	87	VAL	2.1
47	1p	53	VAL	2.1
51	2t	100	ILE	2.1
54	2y	48	C	2.1
34	2c	56	ASP	2.1
35	1d	110	PHE	2.1
40	1i	75	ASP	2.1
50	2s	12	ASP	2.1
6	2G	76	SER	2.1
33	2b	130	ARG	2.1
51	1t	15	ARG	2.1
52	1u	15	ARG	2.1
1	1A	1055	G	2.1
1	2A	11	G	2.1
1	2A	271(M)	G	2.1
1	2A	2133	G	2.1
1	1A	228	A	2.1
1	1A	1073	A	2.1

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Mol	Chain	Res	Type	RSRZ
3	2D	38	LYS	2.1
11	2P	108	LYS	2.1
32	1a	1003	G	2.1
32	2a	941	G	2.1
32	2a	1013	G	2.1
32	2a	1138	G	2.1
38	1g	156	TRP	2.1
32	2a	88	A	2.1
32	2a	180	U	2.1
32	2a	1150	U	2.1
32	2a	1179	A	2.1
32	2a	1286	A	2.1
54	1w	73	A	2.1
33	1b	202	PRO	2.1
7	2H	41	MET	2.1
6	1G	26	GLN	2.1
11	2P	68	GLN	2.1
40	2i	124	GLN	2.1
8	1I	140	LEU	2.1
21	1Z	102	LEU	2.1
21	2Z	5	LEU	2.1
36	2e	112	LEU	2.1
44	2m	81	LEU	2.1
49	2r	66	LEU	2.1
21	2Z	106	GLY	2.1
21	2Z	121	HIS	2.1
33	2b	99	GLY	2.1
39	2h	90	GLY	2.1
40	2i	80	GLY	2.1
42	2k	118	GLY	2.1
45	2n	27	CYS	2.1
50	2s	47	HIS	2.1
50	2s	68	GLY	2.1
14	2S	98	VAL	2.1
33	1b	93	VAL	2.1
33	2b	184	VAL	2.1
40	1i	109	VAL	2.1
48	1q	27	PHE	2.1
11	1P	79	ARG	2.0
11	2P	149	GLU	2.0
12	1Q	139	GLU	2.0
17	1V	53	GLU	2.0

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Mol	Chain	Res	Type	RSRZ
26	24	53	GLU	2.0
38	2g	5	ARG	2.0
46	1o	68	ARG	2.0
50	2s	3	ARG	2.0
37	2f	93	SER	2.0
39	1h	16	ALA	2.0
42	1k	97	ALA	2.0
1	1A	1076	C	2.0
1	2A	888	C	2.0
32	2a	972	C	2.0
51	2t	74	LYS	2.0
33	1b	234	PRO	2.0
33	2b	202	PRO	2.0
44	1m	97	PRO	2.0
6	2G	176	LEU	2.0
7	2H	64	LEU	2.0
32	2a	1049	U	2.0
32	2a	1532	U	2.0
33	1b	215	LEU	2.0
33	2b	69	LEU	2.0
33	2b	95	GLN	2.0
33	2b	98	LEU	2.0
34	2c	101	LEU	2.0
35	2d	120	LEU	2.0
43	2l	9	GLN	2.0
46	1o	56	LEU	2.0
48	2q	26	GLN	2.0
51	2t	45	GLN	2.0
1	1A	1057	A	2.0
32	1a	306	G	2.0
32	2a	1057	G	2.0
54	1y	15	G	2.0
54	2w	34	G	2.0
55	2x	70	G	2.0
21	2Z	26	GLY	2.0
39	2h	86	ILE	2.0
9	1N	140	VAL	2.0
14	1S	14	VAL	2.0
23	21	30	VAL	2.0
26	24	33	VAL	2.0
36	2e	82	VAL	2.0
41	2j	94	VAL	2.0

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Mol	Chain	Res	Type	RSRZ
33	2b	217	ARG	2.0
34	1c	172	ARG	2.0
41	2j	60	ARG	2.0
11	2P	5	ASP	2.0
24	22	66	GLU	2.0
20	2Y	48	ALA	2.0
33	1b	62	ALA	2.0
33	2b	34	ALA	2.0
34	1c	60	ALA	2.0
34	2c	45	LYS	2.0
34	2c	163	ALA	2.0
35	1d	164	ALA	2.0
39	2h	32	LYS	2.0
45	2n	20	ALA	2.0
47	2p	3	LYS	2.0
51	2t	76	ALA	2.0
5	2F	15	SER	2.0
8	2I	1	MET	2.0
38	1g	103	TRP	2.0
21	2Z	68	PRO	2.0
41	1j	39	PRO	2.0
47	1p	67	THR	2.0
47	2p	69	THR	2.0
52	2u	8	THR	2.0
1	1A	652(S)	C	2.0
1	1A	1584	C	2.0
1	2A	271(J)	C	2.0
1	2A	2140	C	2.0
8	1I	44	LEU	2.0
12	2Q	79	LEU	2.0
17	2V	62	LEU	2.0
33	1b	45	GLN	2.0
33	2b	138	LEU	2.0
33	2b	158	LEU	2.0
34	1c	188	LEU	2.0
40	1i	79	LEU	2.0
32	2a	65	U	2.0
32	2a	84	U	2.0
14	1S	22	GLY	2.0
36	1e	118	ILE	2.0
38	2g	37	ASN	2.0
41	2j	23	ILE	2.0

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Mol	Chain	Res	Type	RSRZ
1	1A	2602	A	2.0
1	2A	2171	A	2.0
1	2A	2173	A	2.0
7	2H	24	VAL	2.0
23	2I	62	VAL	2.0
36	2e	148	VAL	2.0
41	1j	60	ARG	2.0
44	2m	54	VAL	2.0
12	2Q	26	TYR	2.0
26	14	67	TYR	2.0
38	2g	151	TYR	2.0
39	2h	58	TYR	2.0
47	1p	58	TYR	2.0

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

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	7MG	2y	46	24/25	0.43	0.18	84,98,104,130	0
54	7MG	1y	46	24/25	0.56	0.13	81,96,103,124	0
54	4SU	2y	8	20/21	0.61	0.16	80,97,107,114	0
54	PSU	2y	55	20/21	0.63	0.16	80,96,106,120	0
54	7MG	1w	46	24/25	0.66	0.14	66,84,103,123	0
54	7MG	2w	46	24/25	0.66	0.12	73,93,103,114	0
54	5MU	2y	54	21/22	0.70	0.14	81,94,101,117	0
54	PSU	1y	55	20/21	0.73	0.12	80,96,105,117	0
54	MIA	2y	37	22/30	0.74	0.14	68,84,93,122	0
54	4SU	2w	8	20/21	0.77	0.12	68,89,101,117	0
54	PSU	2y	32	20/21	0.77	0.13	74,85,99,103	0
54	5MU	1y	54	21/22	0.78	0.12	70,86,99,113	0
54	PSU	2y	39	20/21	0.79	0.13	75,83,94,99	0
54	PSU	2w	55	20/21	0.80	0.12	63,84,92,92	0
54	5MU	2w	54	21/22	0.80	0.14	55,78,91,98	0
54	PSU	1y	32	20/21	0.82	0.13	72,86,96,100	0
54	4SU	1y	8	20/21	0.84	0.10	79,87,95,95	0
54	PSU	2w	32	20/21	0.85	0.13	69,80,91,97	0
32	2MG	2a	1207	24/25	0.85	0.14	69,80,93,94	0
54	MIA	1y	37	22/30	0.85	0.11	64,78,83,86	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	PSU	1w	55	20/21	0.86	0.11	61,81,88,95	0
55	4SU	2x	8	20/21	0.86	0.12	65,81,88,92	0
55	5MU	2x	54	21/22	0.86	0.11	68,79,84,102	0
55	PSU	2x	55	20/21	0.86	0.11	63,74,87,92	0
54	PSU	1y	39	20/21	0.87	0.12	73,83,89,90	0
32	M2G	2a	966	25/26	0.87	0.17	52,72,85,96	0
54	MIA	2w	37	22/30	0.88	0.12	60,78,83,89	0
1	5MU	2A	1915	21/22	0.88	0.12	59,69,77,91	0
54	PSU	1w	32	20/21	0.90	0.10	67,79,90,93	0
43	0TD	1l	92	10/11	0.90	0.10	48,55,61,77	0
54	PSU	2w	39	20/21	0.90	0.10	68,76,83,83	0
32	PSU	2a	516	20/21	0.91	0.10	56,70,76,84	0
43	0TD	2l	92	10/11	0.91	0.12	62,70,72,90	0
54	4SU	1w	8	20/21	0.91	0.10	63,75,89,89	0
32	5MC	2a	1400	21/22	0.91	0.15	61,73,83,87	0
32	4OC	2a	1402	22/23	0.91	0.13	48,64,76,83	0
32	5MC	2a	1404	21/22	0.91	0.12	50,61,68,76	0
1	PSU	2A	1917	20/21	0.92	0.10	48,61,71,72	0
32	5MC	2a	967	21/22	0.92	0.12	61,67,75,87	0
55	PSU	1x	55	20/21	0.92	0.09	48,55,72,72	0
1	PSU	2A	1911	20/21	0.92	0.10	40,58,64,67	0
54	5MU	1w	54	21/22	0.93	0.08	48,66,72,87	0
55	5MC	2x	32	21/22	0.93	0.12	63,73,82,83	0
55	5MU	1x	54	21/22	0.93	0.09	40,62,68,69	0
32	7MG	2a	527	24/25	0.93	0.11	54,66,75,89	0
32	PSU	1a	516	20/21	0.93	0.10	58,67,74,78	0
1	4OC	2A	1920	21/23	0.93	0.11	46,54,60,72	0
54	MIA	1w	37	29/30	0.94	0.12	41,59,74,84	0
55	4SU	1x	8	20/21	0.94	0.10	41,59,76,88	0
1	5MU	1A	1915	21/22	0.94	0.11	54,67,70,77	0
32	2MG	1a	1207	24/25	0.94	0.10	49,69,77,81	0
32	UR3	2a	1498	21/22	0.95	0.12	36,56,67,69	0
32	MA6	2a	1519	24/25	0.95	0.14	48,62,68,73	0
1	PSU	1A	1917	20/21	0.95	0.11	44,58,66,67	0
1	5MC	1A	1942	21/22	0.95	0.12	37,49,54,58	0
32	7MG	1a	527	24/25	0.95	0.08	35,51,55,62	0
1	5MC	2A	1942	21/22	0.95	0.09	41,51,58,67	0
32	M2G	1a	966	25/26	0.95	0.10	39,49,58,74	0
54	PSU	1w	39	20/21	0.95	0.09	65,73,79,81	0
1	5MC	2A	1962	21/22	0.95	0.08	27,40,49,52	0
32	5MC	2a	1407	21/22	0.95	0.10	38,51,59,70	0
32	5MC	1a	1400	21/22	0.96	0.10	36,52,62,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
1	5MU	2A	1939	21/22	0.96	0.08	25,32,39,43	0
32	MA6	2a	1518	24/25	0.96	0.11	44,63,70,76	0
32	MA6	1a	1519	24/25	0.96	0.11	24,42,50,65	0
1	PSU	1A	1911	20/21	0.96	0.11	41,51,62,64	0
1	OMG	2A	2251	24/25	0.96	0.09	28,33,40,42	0
1	PSU	2A	2605	20/21	0.97	0.06	20,31,35,36	0
32	5MC	1a	1404	21/22	0.97	0.09	30,40,45,48	0
32	5MC	1a	967	21/22	0.97	0.09	42,52,66,70	0
32	5MC	1a	1407	21/22	0.97	0.09	32,46,51,62	0
1	5MU	1A	1939	21/22	0.97	0.08	24,31,38,39	0
32	UR3	1a	1498	21/22	0.97	0.10	35,43,51,52	0
1	4OC	1A	1920	21/23	0.97	0.11	37,52,60,63	0
55	5MC	1x	32	21/22	0.97	0.10	44,53,60,62	0
32	MA6	1a	1518	24/25	0.97	0.10	28,42,50,51	0
1	2MA	2A	2503	23/24	0.97	0.08	21,28,35,40	0
1	2MU	1A	2552	21/23	0.97	0.07	24,30,37,41	0
1	2MU	2A	2552	21/23	0.97	0.07	26,32,38,49	0
32	4OC	1a	1402	22/23	0.97	0.09	35,45,57,62	0
1	PSU	1A	2605	20/21	0.98	0.06	19,24,34,35	0
1	OMG	1A	2251	24/25	0.98	0.07	25,29,37,40	0
1	5MC	1A	1962	21/22	0.98	0.08	25,36,43,50	0
1	2MA	1A	2503	23/24	0.98	0.07	18,26,31,35	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	2O	8002	1/1	0.53	0.19	112,112,112,112	0
56	MG	2a	1740	1/1	0.57	0.27	82,82,82,82	0
56	MG	1A	3720	1/1	0.60	0.28	71,71,71,71	0
56	MG	2B	3001	1/1	0.62	0.33	69,69,69,69	0
56	MG	2A	3585	1/1	0.63	0.17	44,44,44,44	0
56	MG	1A	3770	1/1	0.66	0.26	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1a	1717	1/1	0.66	0.25	80,80,80,80	0
56	MG	2a	1767	1/1	0.68	0.22	74,74,74,74	0
56	MG	1a	1761	1/1	0.69	0.33	72,72,72,72	0
56	MG	2a	1730	1/1	0.70	0.19	71,71,71,71	0
56	MG	1A	3891	1/1	0.70	0.36	76,76,76,76	0
56	MG	2a	1667	1/1	0.70	0.24	73,73,73,73	0
56	MG	1A	3932	1/1	0.71	0.20	56,56,56,56	0
56	MG	2A	3438	1/1	0.71	0.12	44,44,44,44	0
56	MG	1A	3836	1/1	0.71	0.22	54,54,54,54	0
56	MG	1a	1807	1/1	0.72	0.19	84,84,84,84	0
56	MG	1A	3429	1/1	0.73	0.23	53,53,53,53	0
56	MG	1a	1746	1/1	0.73	0.16	85,85,85,85	0
56	MG	1A	3649	1/1	0.74	0.18	58,58,58,58	0
56	MG	2A	3636	1/1	0.74	0.23	55,55,55,55	0
56	MG	1a	1826	1/1	0.74	0.28	72,72,72,72	0
56	MG	1a	1799	1/1	0.74	0.17	85,85,85,85	0
56	MG	2a	1783	1/1	0.74	0.16	60,60,60,60	0
56	MG	1A	3592	1/1	0.75	0.11	32,32,32,32	0
56	MG	2A	3341	1/1	0.75	0.15	45,45,45,45	0
56	MG	2a	1774	1/1	0.75	0.24	72,72,72,72	0
56	MG	1A	3779	1/1	0.75	0.17	44,44,44,44	0
56	MG	1a	1808	1/1	0.76	0.17	67,67,67,67	0
56	MG	1a	1795	1/1	0.76	0.13	64,64,64,64	0
56	MG	2A	3538	1/1	0.76	0.17	53,53,53,53	0
56	MG	2A	3550	1/1	0.76	0.19	52,52,52,52	0
56	MG	2A	3578	1/1	0.76	0.20	65,65,65,65	0
56	MG	1a	1691	1/1	0.77	0.26	66,66,66,66	0
56	MG	1a	1798	1/1	0.77	0.14	71,71,71,71	0
56	MG	2a	1779	1/1	0.77	0.19	74,74,74,74	0
56	MG	2a	1782	1/1	0.77	0.20	71,71,71,71	0
56	MG	1A	3334	1/1	0.77	0.24	54,54,54,54	0
56	MG	2Z	8001	1/1	0.78	0.13	70,70,70,70	0
56	MG	1A	3784	1/1	0.78	0.17	63,63,63,63	0
56	MG	2a	1680	1/1	0.78	0.16	73,73,73,73	0
56	MG	1A	3815	1/1	0.78	0.19	60,60,60,60	0
56	MG	1A	3705	1/1	0.78	0.19	52,52,52,52	0
56	MG	1A	3874	1/1	0.79	0.27	63,63,63,63	0
56	MG	1A	3503	1/1	0.79	0.14	33,33,33,33	0
56	MG	1a	1815	1/1	0.79	0.15	76,76,76,76	0
56	MG	2A	3579	1/1	0.79	0.19	65,65,65,65	0
56	MG	2a	1621	1/1	0.79	0.16	74,74,74,74	0
56	MG	2a	1625	1/1	0.79	0.24	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2a	1647	1/1	0.79	0.16	64,64,64,64	0
56	MG	2A	3530	1/1	0.79	0.14	52,52,52,52	0
56	MG	2A	3587	1/1	0.80	0.22	48,48,48,48	0
56	MG	2a	1734	1/1	0.80	0.23	70,70,70,70	0
56	MG	1B	3012	1/1	0.80	0.20	66,66,66,66	0
56	MG	2A	3399	1/1	0.80	0.19	47,47,47,47	0
56	MG	2B	3009	1/1	0.80	0.26	62,62,62,62	0
56	MG	2a	1661	1/1	0.80	0.26	65,65,65,65	0
56	MG	2F	303	1/1	0.80	0.15	58,58,58,58	0
56	MG	2A	3328	1/1	0.80	0.13	39,39,39,39	0
56	MG	2a	1788	1/1	0.80	0.18	68,68,68,68	0
56	MG	2a	1649	1/1	0.81	0.26	71,71,71,71	0
56	MG	1A	3183	1/1	0.81	0.20	50,50,50,50	0
56	MG	1A	3960	1/1	0.81	0.11	38,38,38,38	0
56	MG	1B	3010	1/1	0.81	0.18	68,68,68,68	0
56	MG	1A	3257	1/1	0.81	0.24	65,65,65,65	0
56	MG	2a	1731	1/1	0.81	0.14	65,65,65,65	0
56	MG	2B	3016	1/1	0.81	0.38	66,66,66,66	0
56	MG	1a	1624	1/1	0.81	0.22	65,65,65,65	0
56	MG	1A	3761	1/1	0.81	0.12	56,56,56,56	0
56	MG	1A	3271	1/1	0.81	0.22	71,71,71,71	0
56	MG	28	101	1/1	0.81	0.22	57,57,57,57	0
56	MG	1A	3023	1/1	0.81	0.13	57,57,57,57	0
56	MG	1a	1828	1/1	0.81	0.16	62,62,62,62	0
56	MG	2A	3218	1/1	0.81	0.26	49,49,49,49	0
56	MG	1A	3660	1/1	0.82	0.18	50,50,50,50	0
56	MG	2A	3577	1/1	0.82	0.13	61,61,61,61	0
56	MG	1B	3014	1/1	0.82	0.14	63,63,63,63	0
56	MG	1a	1616	1/1	0.82	0.12	62,62,62,62	0
56	MG	1A	3819	1/1	0.82	0.10	51,51,51,51	0
56	MG	1A	3512	1/1	0.82	0.16	53,53,53,53	0
56	MG	2a	1706	1/1	0.82	0.12	75,75,75,75	0
56	MG	2A	3632	1/1	0.82	0.24	58,58,58,58	0
56	MG	1A	3844	1/1	0.82	0.18	64,64,64,64	0
56	MG	2A	3241	1/1	0.82	0.10	42,42,42,42	0
56	MG	1A	3558	1/1	0.82	0.12	51,51,51,51	0
56	MG	1A	3570	1/1	0.82	0.15	43,43,43,43	0
56	MG	2a	1771	1/1	0.82	0.22	63,63,63,63	0
56	MG	1a	1776	1/1	0.82	0.16	63,63,63,63	0
56	MG	1A	3462	1/1	0.82	0.13	53,53,53,53	0
56	MG	2A	3497	1/1	0.82	0.17	56,56,56,56	0
56	MG	1A	3608	1/1	0.82	0.13	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3095	1/1	0.82	0.22	54,54,54,54	0
56	MG	1a	1809	1/1	0.83	0.38	83,83,83,83	0
56	MG	1a	1811	1/1	0.83	0.15	57,57,57,57	0
56	MG	2A	3504	1/1	0.83	0.12	45,45,45,45	0
56	MG	2A	3509	1/1	0.83	0.19	50,50,50,50	0
56	MG	2a	1628	1/1	0.83	0.20	65,65,65,65	0
56	MG	1A	3755	1/1	0.83	0.14	55,55,55,55	0
56	MG	1A	3904	1/1	0.83	0.11	55,55,55,55	0
56	MG	2a	1659	1/1	0.83	0.20	66,66,66,66	0
56	MG	1A	3780	1/1	0.83	0.12	26,26,26,26	0
56	MG	2A	3570	1/1	0.83	0.15	57,57,57,57	0
56	MG	2A	3097	1/1	0.83	0.19	57,57,57,57	0
56	MG	1A	3697	1/1	0.83	0.18	57,57,57,57	0
56	MG	2A	3222	1/1	0.83	0.08	47,47,47,47	0
56	MG	1a	1676	1/1	0.83	0.25	64,64,64,64	0
56	MG	2A	3242	1/1	0.83	0.11	54,54,54,54	0
56	MG	2A	3627	1/1	0.83	0.18	56,56,56,56	0
56	MG	2a	1745	1/1	0.83	0.29	78,78,78,78	0
56	MG	2A	3298	1/1	0.83	0.11	39,39,39,39	0
56	MG	1B	3004	1/1	0.83	0.29	68,68,68,68	0
56	MG	1A	3723	1/1	0.83	0.19	62,62,62,62	0
56	MG	2a	1775	1/1	0.83	0.25	71,71,71,71	0
56	MG	2A	3373	1/1	0.83	0.10	27,27,27,27	0
56	MG	2a	1781	1/1	0.83	0.12	66,66,66,66	0
56	MG	2A	3389	1/1	0.83	0.18	52,52,52,52	0
56	MG	1a	1721	1/1	0.83	0.13	66,66,66,66	0
56	MG	2A	3402	1/1	0.83	0.16	53,53,53,53	0
56	MG	2l	202	1/1	0.83	0.09	62,62,62,62	0
56	MG	2a	1633	1/1	0.84	0.26	61,61,61,61	0
56	MG	1w	3003	1/1	0.84	0.10	78,78,78,78	0
56	MG	2A	3025	1/1	0.84	0.20	61,61,61,61	0
56	MG	2A	3391	1/1	0.84	0.20	53,53,53,53	0
56	MG	1A	3597	1/1	0.84	0.16	50,50,50,50	0
56	MG	2a	1664	1/1	0.84	0.23	71,71,71,71	0
56	MG	1A	3674	1/1	0.84	0.09	53,53,53,53	0
56	MG	2a	1673	1/1	0.84	0.26	60,60,60,60	0
56	MG	2A	3607	1/1	0.84	0.16	60,60,60,60	0
56	MG	2a	1683	1/1	0.84	0.23	57,57,57,57	0
56	MG	2A	3610	1/1	0.84	0.12	32,32,32,32	0
56	MG	2A	3625	1/1	0.84	0.13	56,56,56,56	0
56	MG	1A	3888	1/1	0.84	0.11	89,89,89,89	0
56	MG	2A	3458	1/1	0.84	0.15	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3490	1/1	0.84	0.15	48,48,48,48	0
56	MG	2A	3675	1/1	0.84	0.12	55,55,55,55	0
56	MG	2A	3230	1/1	0.84	0.22	57,57,57,57	0
56	MG	1A	3098	1/1	0.84	0.15	56,56,56,56	0
56	MG	1a	1821	1/1	0.84	0.15	68,68,68,68	0
56	MG	2A	3520	1/1	0.84	0.13	51,51,51,51	0
56	MG	2A	3528	1/1	0.84	0.09	55,55,55,55	0
56	MG	2A	3529	1/1	0.84	0.12	57,57,57,57	0
56	MG	1A	3644	1/1	0.84	0.10	57,57,57,57	0
56	MG	1A	3210	1/1	0.84	0.11	55,55,55,55	0
56	MG	1w	3002	1/1	0.84	0.10	56,56,56,56	0
56	MG	2A	3347	1/1	0.84	0.12	45,45,45,45	0
56	MG	2A	3547	1/1	0.85	0.13	37,37,37,37	0
56	MG	2A	3549	1/1	0.85	0.11	45,45,45,45	0
56	MG	1A	3587	1/1	0.85	0.12	25,25,25,25	0
56	MG	1A	3214	1/1	0.85	0.10	59,59,59,59	0
56	MG	2A	3370	1/1	0.85	0.08	42,42,42,42	0
56	MG	2a	1657	1/1	0.85	0.14	54,54,54,54	0
56	MG	1A	3726	1/1	0.85	0.11	62,62,62,62	0
56	MG	1l	203	1/1	0.85	0.12	58,58,58,58	0
56	MG	1a	1759	1/1	0.85	0.18	57,57,57,57	0
56	MG	1A	3522	1/1	0.85	0.16	38,38,38,38	0
56	MG	2A	3592	1/1	0.85	0.16	57,57,57,57	0
56	MG	2A	3603	1/1	0.85	0.18	65,65,65,65	0
56	MG	1A	3675	1/1	0.85	0.20	56,56,56,56	0
56	MG	2A	3074	1/1	0.85	0.16	54,54,54,54	0
56	MG	1A	3851	1/1	0.85	0.18	45,45,45,45	0
56	MG	2A	3474	1/1	0.85	0.09	44,44,44,44	0
56	MG	2A	3122	1/1	0.85	0.18	60,60,60,60	0
56	MG	2a	1736	1/1	0.85	0.12	68,68,68,68	0
56	MG	2a	1738	1/1	0.85	0.13	76,76,76,76	0
56	MG	2A	3127	1/1	0.85	0.12	50,50,50,50	0
56	MG	2A	3669	1/1	0.85	0.20	44,44,44,44	0
56	MG	1A	3762	1/1	0.85	0.17	31,31,31,31	0
56	MG	2A	3506	1/1	0.85	0.20	50,50,50,50	0
56	MG	2B	3004	1/1	0.85	0.23	62,62,62,62	0
56	MG	1A	3683	1/1	0.85	0.12	50,50,50,50	0
56	MG	2A	3514	1/1	0.85	0.20	59,59,59,59	0
56	MG	2a	1780	1/1	0.85	0.19	64,64,64,64	0
56	MG	1a	1657	1/1	0.85	0.23	56,56,56,56	0
56	MG	1a	1661	1/1	0.85	0.12	56,56,56,56	0
56	MG	1A	3259	1/1	0.85	0.18	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2a	1786	1/1	0.85	0.18	59,59,59,59	0
56	MG	1A	3352	1/1	0.85	0.31	58,58,58,58	0
56	MG	1a	1709	1/1	0.85	0.20	60,60,60,60	0
56	MG	2w	3003	1/1	0.85	0.11	70,70,70,70	0
56	MG	2A	3201	1/1	0.86	0.21	61,61,61,61	0
56	MG	1a	1618	1/1	0.86	0.12	64,64,64,64	0
56	MG	1A	3879	1/1	0.86	0.15	54,54,54,54	0
56	MG	1A	3373	1/1	0.86	0.16	53,53,53,53	0
56	MG	2a	1637	1/1	0.86	0.16	60,60,60,60	0
56	MG	1A	3605	1/1	0.86	0.09	74,74,74,74	0
56	MG	1A	3403	1/1	0.86	0.15	52,52,52,52	0
56	MG	2A	3243	1/1	0.86	0.13	53,53,53,53	0
56	MG	2A	3285	1/1	0.86	0.13	64,64,64,64	0
56	MG	2A	3555	1/1	0.86	0.12	53,53,53,53	0
56	MG	1a	1810	1/1	0.86	0.11	90,90,90,90	0
56	MG	1a	1683	1/1	0.86	0.22	64,64,64,64	0
56	MG	2a	1672	1/1	0.86	0.28	72,72,72,72	0
56	MG	1a	1813	1/1	0.86	0.15	72,72,72,72	0
56	MG	2A	3345	1/1	0.86	0.13	40,40,40,40	0
56	MG	1A	3816	1/1	0.86	0.21	62,62,62,62	0
56	MG	1a	1694	1/1	0.86	0.29	66,66,66,66	0
56	MG	2a	1726	1/1	0.86	0.17	64,64,64,64	0
56	MG	1a	1702	1/1	0.86	0.21	60,60,60,60	0
56	MG	2A	3382	1/1	0.86	0.09	48,48,48,48	0
56	MG	1A	3640	1/1	0.86	0.11	21,21,21,21	0
56	MG	1b	3002	1/1	0.86	0.26	74,74,74,74	0
56	MG	1A	3831	1/1	0.86	0.17	62,62,62,62	0
56	MG	1A	3479	1/1	0.86	0.14	48,48,48,48	0
56	MG	2A	3424	1/1	0.86	0.16	43,43,43,43	0
56	MG	2a	1750	1/1	0.86	0.18	72,72,72,72	0
56	MG	1A	3532	1/1	0.86	0.13	59,59,59,59	0
56	MG	2A	3667	1/1	0.86	0.14	53,53,53,53	0
56	MG	2a	1773	1/1	0.86	0.14	66,66,66,66	0
56	MG	1A	3709	1/1	0.86	0.12	43,43,43,43	0
56	MG	2A	3469	1/1	0.86	0.15	46,46,46,46	0
56	MG	2A	3051	1/1	0.86	0.20	61,61,61,61	0
56	MG	1F	307	1/1	0.86	0.18	57,57,57,57	0
56	MG	2A	3491	1/1	0.86	0.15	49,49,49,49	0
56	MG	2A	3078	1/1	0.86	0.13	47,47,47,47	0
56	MG	1N	3006	1/1	0.86	0.22	50,50,50,50	0
56	MG	2A	3120	1/1	0.86	0.11	53,53,53,53	0
56	MG	1a	1778	1/1	0.86	0.22	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	1A	3718	1/1	0.86	0.14	69,69,69,69	0
56	MG	2a	1605	1/1	0.86	0.26	81,81,81,81	0
56	MG	1A	3439	1/1	0.87	0.12	43,43,43,43	0
56	MG	2a	1611	1/1	0.87	0.15	62,62,62,62	0
56	MG	2a	1617	1/1	0.87	0.18	52,52,52,52	0
56	MG	1A	3264	1/1	0.87	0.19	64,64,64,64	0
56	MG	1a	1696	1/1	0.87	0.18	66,66,66,66	0
56	MG	1A	3883	1/1	0.87	0.20	60,60,60,60	0
56	MG	1A	3747	1/1	0.87	0.14	49,49,49,49	0
56	MG	2a	1634	1/1	0.87	0.21	53,53,53,53	0
56	MG	1A	3200	1/1	0.87	0.13	49,49,49,49	0
56	MG	1A	3638	1/1	0.87	0.17	27,27,27,27	0
56	MG	2A	3125	1/1	0.87	0.10	56,56,56,56	0
56	MG	1A	3486	1/1	0.87	0.16	46,46,46,46	0
56	MG	2A	3128	1/1	0.87	0.14	49,49,49,49	0
56	MG	1a	1752	1/1	0.87	0.13	59,59,59,59	0
56	MG	2A	3208	1/1	0.87	0.08	45,45,45,45	0
56	MG	1A	3498	1/1	0.87	0.09	50,50,50,50	0
56	MG	1A	3124	1/1	0.87	0.17	51,51,51,51	0
56	MG	1A	3212	1/1	0.87	0.20	67,67,67,67	0
56	MG	1A	3143	1/1	0.87	0.11	30,30,30,30	0
56	MG	1a	1782	1/1	0.87	0.09	44,44,44,44	0
56	MG	2a	1689	1/1	0.87	0.24	61,61,61,61	0
56	MG	1a	1794	1/1	0.87	0.10	45,45,45,45	0
56	MG	2a	1710	1/1	0.87	0.22	61,61,61,61	0
56	MG	2a	1715	1/1	0.87	0.19	53,53,53,53	0
56	MG	2a	1722	1/1	0.87	0.20	57,57,57,57	0
56	MG	2a	1724	1/1	0.87	0.12	83,83,83,83	0
56	MG	2A	3245	1/1	0.87	0.13	42,42,42,42	0
56	MG	2a	1729	1/1	0.87	0.16	65,65,65,65	0
56	MG	1A	3798	1/1	0.87	0.11	43,43,43,43	0
56	MG	1A	3381	1/1	0.87	0.12	57,57,57,57	0
56	MG	2A	3305	1/1	0.87	0.10	37,37,37,37	0
56	MG	1A	3384	1/1	0.87	0.18	52,52,52,52	0
56	MG	2A	3330	1/1	0.87	0.12	44,44,44,44	0
56	MG	1O	204	1/1	0.87	0.14	52,52,52,52	0
56	MG	1R	203	1/1	0.87	0.14	44,44,44,44	0
56	MG	1a	1602	1/1	0.87	0.21	68,68,68,68	0
56	MG	2a	1756	1/1	0.87	0.13	49,49,49,49	0
56	MG	1A	3817	1/1	0.87	0.13	45,45,45,45	0
56	MG	1A	3057	1/1	0.87	0.09	44,44,44,44	0
56	MG	1A	3584	1/1	0.87	0.12	19,19,19,19	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3416	1/1	0.87	0.12	54,54,54,54	0
56	MG	1a	1660	1/1	0.87	0.08	47,47,47,47	0
56	MG	2a	1776	1/1	0.87	0.22	66,66,66,66	0
56	MG	2A	3398	1/1	0.87	0.09	47,47,47,47	0
56	MG	1A	3187	1/1	0.87	0.14	60,60,60,60	0
56	MG	1a	1665	1/1	0.87	0.13	56,56,56,56	0
56	MG	1a	1668	1/1	0.87	0.18	52,52,52,52	0
56	MG	1A	3847	1/1	0.87	0.13	74,74,74,74	0
56	MG	2A	3441	1/1	0.87	0.12	33,33,33,33	0
56	MG	1a	1682	1/1	0.87	0.17	57,57,57,57	0
56	MG	2a	1796	1/1	0.87	0.20	60,60,60,60	0
56	MG	1A	3593	1/1	0.87	0.10	29,29,29,29	0
56	MG	1w	3004	1/1	0.87	0.14	51,51,51,51	0
56	MG	1A	3722	1/1	0.88	0.28	48,48,48,48	0
56	MG	1a	1645	1/1	0.88	0.10	56,56,56,56	0
56	MG	2A	3368	1/1	0.88	0.09	38,38,38,38	0
56	MG	1a	1649	1/1	0.88	0.16	56,56,56,56	0
56	MG	1a	1651	1/1	0.88	0.22	62,62,62,62	0
56	MG	1a	1652	1/1	0.88	0.10	51,51,51,51	0
56	MG	1A	3524	1/1	0.88	0.14	50,50,50,50	0
56	MG	2Q	201	1/1	0.88	0.43	61,61,61,61	0
56	MG	1a	1820	1/1	0.88	0.18	62,62,62,62	0
56	MG	1A	3639	1/1	0.88	0.10	39,39,39,39	0
56	MG	1A	3732	1/1	0.88	0.10	60,60,60,60	0
56	MG	1A	3866	1/1	0.88	0.10	44,44,44,44	0
56	MG	2A	3414	1/1	0.88	0.10	40,40,40,40	0
56	MG	2A	3416	1/1	0.88	0.17	44,44,44,44	0
56	MG	2a	1623	1/1	0.88	0.21	65,65,65,65	0
56	MG	1A	3742	1/1	0.88	0.15	37,37,37,37	0
56	MG	1A	3876	1/1	0.88	0.18	55,55,55,55	0
56	MG	1A	3529	1/1	0.88	0.16	54,54,54,54	0
56	MG	1A	3643	1/1	0.88	0.14	30,30,30,30	0
56	MG	2A	3461	1/1	0.88	0.11	39,39,39,39	0
56	MG	2A	3463	1/1	0.88	0.13	45,45,45,45	0
56	MG	1A	3062	1/1	0.88	0.14	50,50,50,50	0
56	MG	1a	1692	1/1	0.88	0.14	60,60,60,60	0
56	MG	1a	1693	1/1	0.88	0.24	60,60,60,60	0
56	MG	1A	3386	1/1	0.88	0.12	42,42,42,42	0
56	MG	2A	3495	1/1	0.88	0.25	61,61,61,61	0
56	MG	2a	1665	1/1	0.88	0.11	55,55,55,55	0
56	MG	1A	3128	1/1	0.88	0.15	49,49,49,49	0
56	MG	2A	3499	1/1	0.88	0.11	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3481	1/1	0.88	0.12	26,26,26,26	0
56	MG	2a	1677	1/1	0.88	0.16	51,51,51,51	0
56	MG	2a	1678	1/1	0.88	0.21	64,64,64,64	0
56	MG	1A	3121	1/1	0.88	0.15	55,55,55,55	0
56	MG	1A	3783	1/1	0.88	0.10	27,27,27,27	0
56	MG	1a	1718	1/1	0.88	0.16	54,54,54,54	0
56	MG	1A	3419	1/1	0.88	0.12	43,43,43,43	0
56	MG	2A	3523	1/1	0.88	0.15	54,54,54,54	0
56	MG	2A	3527	1/1	0.88	0.17	53,53,53,53	0
56	MG	1a	1730	1/1	0.88	0.11	71,71,71,71	0
56	MG	2A	3138	1/1	0.88	0.15	47,47,47,47	0
56	MG	2A	3150	1/1	0.88	0.14	35,35,35,35	0
56	MG	2A	3534	1/1	0.88	0.11	62,62,62,62	0
56	MG	2A	3172	1/1	0.88	0.15	59,59,59,59	0
56	MG	2A	3179	1/1	0.88	0.09	45,45,45,45	0
56	MG	2A	3197	1/1	0.88	0.10	50,50,50,50	0
56	MG	1a	1735	1/1	0.88	0.12	58,58,58,58	0
56	MG	1A	3788	1/1	0.88	0.12	24,24,24,24	0
56	MG	2A	3557	1/1	0.88	0.11	49,49,49,49	0
56	MG	2a	1742	1/1	0.88	0.22	62,62,62,62	0
56	MG	2A	3559	1/1	0.88	0.17	59,59,59,59	0
56	MG	1A	3426	1/1	0.88	0.14	51,51,51,51	0
56	MG	1B	3020	1/1	0.88	0.10	48,48,48,48	0
56	MG	2a	1761	1/1	0.88	0.17	82,82,82,82	0
56	MG	2A	3225	1/1	0.88	0.25	53,53,53,53	0
56	MG	2a	1768	1/1	0.88	0.13	54,54,54,54	0
56	MG	1A	3806	1/1	0.88	0.12	73,73,73,73	0
56	MG	1A	3810	1/1	0.88	0.08	36,36,36,36	0
56	MG	1A	3221	1/1	0.88	0.11	48,48,48,48	0
56	MG	1A	3602	1/1	0.88	0.11	22,22,22,22	0
56	MG	1a	1787	1/1	0.88	0.12	48,48,48,48	0
56	MG	2A	3259	1/1	0.88	0.12	43,43,43,43	0
56	MG	2A	3281	1/1	0.88	0.13	40,40,40,40	0
56	MG	1Z	3003	1/1	0.88	0.07	61,61,61,61	0
56	MG	1A	3717	1/1	0.88	0.12	60,60,60,60	0
56	MG	2A	3628	1/1	0.88	0.12	46,46,46,46	0
56	MG	2A	3629	1/1	0.88	0.10	56,56,56,56	0
56	MG	1a	1612	1/1	0.88	0.18	63,63,63,63	0
56	MG	1A	3521	1/1	0.88	0.08	35,35,35,35	0
56	MG	1a	1806	1/1	0.88	0.14	68,68,68,68	0
56	MG	2t	3001	1/1	0.88	0.22	48,48,48,48	0
56	MG	1A	3437	1/1	0.88	0.09	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	1644	1/1	0.89	0.26	56,56,56,56	0
56	MG	1A	3687	1/1	0.89	0.16	39,39,39,39	0
56	MG	2A	3371	1/1	0.89	0.09	49,49,49,49	0
56	MG	1A	3371	1/1	0.89	0.27	56,56,56,56	0
56	MG	1A	3568	1/1	0.89	0.19	53,53,53,53	0
56	MG	2A	3386	1/1	0.89	0.09	50,50,50,50	0
56	MG	1A	3041	1/1	0.89	0.10	35,35,35,35	0
56	MG	2B	3017	1/1	0.89	0.38	63,63,63,63	0
56	MG	1A	3207	1/1	0.89	0.09	52,52,52,52	0
56	MG	2F	304	1/1	0.89	0.17	54,54,54,54	0
56	MG	2A	3393	1/1	0.89	0.08	21,21,21,21	0
56	MG	1A	3484	1/1	0.89	0.12	30,30,30,30	0
56	MG	1A	3044	1/1	0.89	0.07	23,23,23,23	0
56	MG	1A	3491	1/1	0.89	0.14	53,53,53,53	0
56	MG	1a	1667	1/1	0.89	0.22	68,68,68,68	0
56	MG	1A	3497	1/1	0.89	0.07	29,29,29,29	0
56	MG	2a	1614	1/1	0.89	0.25	71,71,71,71	0
56	MG	1A	3074	1/1	0.89	0.11	45,45,45,45	0
56	MG	2a	1618	1/1	0.89	0.24	67,67,67,67	0
56	MG	1y	102	1/1	0.89	0.11	63,63,63,63	0
56	MG	1A	3871	1/1	0.89	0.09	18,18,18,18	0
56	MG	2A	3447	1/1	0.89	0.10	46,46,46,46	0
56	MG	2A	3039	1/1	0.89	0.13	46,46,46,46	0
56	MG	2a	1629	1/1	0.89	0.16	55,55,55,55	0
56	MG	1A	3280	1/1	0.89	0.10	50,50,50,50	0
56	MG	1A	3738	1/1	0.89	0.26	44,44,44,44	0
56	MG	2A	3467	1/1	0.89	0.09	65,65,65,65	0
56	MG	2a	1642	1/1	0.89	0.21	66,66,66,66	0
56	MG	1A	3505	1/1	0.89	0.09	28,28,28,28	0
56	MG	2A	3470	1/1	0.89	0.09	30,30,30,30	0
56	MG	2a	1651	1/1	0.89	0.27	70,70,70,70	0
56	MG	1A	3745	1/1	0.89	0.15	61,61,61,61	0
56	MG	2A	3483	1/1	0.89	0.13	61,61,61,61	0
56	MG	2A	3487	1/1	0.89	0.12	56,56,56,56	0
56	MG	1A	3630	1/1	0.89	0.12	35,35,35,35	0
56	MG	1A	3750	1/1	0.89	0.10	53,53,53,53	0
56	MG	2A	3124	1/1	0.89	0.07	50,50,50,50	0
56	MG	2A	3496	1/1	0.89	0.14	53,53,53,53	0
56	MG	1A	3900	1/1	0.89	0.16	28,28,28,28	0
56	MG	1a	1706	1/1	0.89	0.28	66,66,66,66	0
56	MG	1A	3903	1/1	0.89	0.13	51,51,51,51	0
56	MG	1A	3308	1/1	0.89	0.21	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2a	1681	1/1	0.89	0.24	47,47,47,47	0
56	MG	1A	3910	1/1	0.89	0.15	40,40,40,40	0
56	MG	1A	3757	1/1	0.89	0.09	44,44,44,44	0
56	MG	1A	3938	1/1	0.89	0.23	43,43,43,43	0
56	MG	2A	3521	1/1	0.89	0.17	63,63,63,63	0
56	MG	2A	3522	1/1	0.89	0.08	53,53,53,53	0
56	MG	1A	3515	1/1	0.89	0.09	37,37,37,37	0
56	MG	2A	3198	1/1	0.89	0.08	42,42,42,42	0
56	MG	1a	1740	1/1	0.89	0.09	45,45,45,45	0
56	MG	1A	3322	1/1	0.89	0.15	55,55,55,55	0
56	MG	1A	3084	1/1	0.89	0.12	42,42,42,42	0
56	MG	1A	3774	1/1	0.89	0.12	42,42,42,42	0
56	MG	1A	3341	1/1	0.89	0.17	60,60,60,60	0
56	MG	2A	3229	1/1	0.89	0.18	53,53,53,53	0
56	MG	1A	3347	1/1	0.89	0.26	54,54,54,54	0
56	MG	2A	3234	1/1	0.89	0.13	54,54,54,54	0
56	MG	2A	3551	1/1	0.89	0.13	51,51,51,51	0
56	MG	1A	3531	1/1	0.89	0.08	53,53,53,53	0
56	MG	1a	1781	1/1	0.89	0.21	63,63,63,63	0
56	MG	2a	1751	1/1	0.89	0.16	65,65,65,65	0
56	MG	1A	3667	1/1	0.89	0.09	45,45,45,45	0
56	MG	1A	3673	1/1	0.89	0.15	59,59,59,59	0
56	MG	2A	3251	1/1	0.89	0.09	27,27,27,27	0
56	MG	1R	201	1/1	0.89	0.07	34,34,34,34	0
56	MG	2A	3263	1/1	0.89	0.10	45,45,45,45	0
56	MG	2A	3264	1/1	0.89	0.19	40,40,40,40	0
56	MG	1A	3197	1/1	0.89	0.19	51,51,51,51	0
56	MG	2A	3588	1/1	0.89	0.19	60,60,60,60	0
56	MG	1A	3800	1/1	0.89	0.10	54,54,54,54	0
56	MG	2A	3296	1/1	0.89	0.12	47,47,47,47	0
56	MG	2A	3604	1/1	0.89	0.12	45,45,45,45	0
56	MG	1A	3805	1/1	0.89	0.14	64,64,64,64	0
56	MG	2A	3302	1/1	0.89	0.13	38,38,38,38	0
56	MG	2A	3612	1/1	0.89	0.15	57,57,57,57	0
56	MG	1a	1803	1/1	0.89	0.12	64,64,64,64	0
56	MG	1A	3548	1/1	0.89	0.17	47,47,47,47	0
56	MG	2a	1791	1/1	0.89	0.22	63,63,63,63	0
56	MG	1A	3809	1/1	0.89	0.09	42,42,42,42	0
56	MG	2d	302	1/1	0.89	0.10	67,67,67,67	0
56	MG	2j	8001	1/1	0.89	0.18	69,69,69,69	0
56	MG	2j	8002	1/1	0.89	0.08	66,66,66,66	0
56	MG	1A	3555	1/1	0.89	0.10	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2p	3001	1/1	0.89	0.10	52,52,52,52	0
56	MG	2r	101	1/1	0.89	0.19	66,66,66,66	0
56	MG	1A	3811	1/1	0.89	0.17	64,64,64,64	0
56	MG	1a	1642	1/1	0.89	0.09	42,42,42,42	0
56	MG	2A	3250	1/1	0.90	0.11	43,43,43,43	0
56	MG	1O	205	1/1	0.90	0.13	55,55,55,55	0
56	MG	1P	201	1/1	0.90	0.09	50,50,50,50	0
56	MG	1P	204	1/1	0.90	0.18	42,42,42,42	0
56	MG	1Q	206	1/1	0.90	0.21	54,54,54,54	0
56	MG	1A	3350	1/1	0.90	0.14	44,44,44,44	0
56	MG	2A	3631	1/1	0.90	0.13	51,51,51,51	0
56	MG	1a	1788	1/1	0.90	0.17	64,64,64,64	0
56	MG	1a	1791	1/1	0.90	0.19	62,62,62,62	0
56	MG	2A	3651	1/1	0.90	0.15	55,55,55,55	0
56	MG	1a	1792	1/1	0.90	0.11	75,75,75,75	0
56	MG	1A	3421	1/1	0.90	0.15	60,60,60,60	0
56	MG	1A	3594	1/1	0.90	0.09	35,35,35,35	0
56	MG	2A	3315	1/1	0.90	0.12	40,40,40,40	0
56	MG	1Z	3004	1/1	0.90	0.15	52,52,52,52	0
56	MG	10	103	1/1	0.90	0.15	60,60,60,60	0
56	MG	2A	3339	1/1	0.90	0.10	38,38,38,38	0
56	MG	13	102	1/1	0.90	0.16	52,52,52,52	0
56	MG	1A	3273	1/1	0.90	0.10	42,42,42,42	0
56	MG	1a	1611	1/1	0.90	0.10	57,57,57,57	0
56	MG	1A	3600	1/1	0.90	0.10	41,41,41,41	0
56	MG	1A	3719	1/1	0.90	0.12	41,41,41,41	0
56	MG	1A	3366	1/1	0.90	0.30	61,61,61,61	0
56	MG	20	101	1/1	0.90	0.15	57,57,57,57	0
56	MG	20	102	1/1	0.90	0.15	57,57,57,57	0
56	MG	1a	1623	1/1	0.90	0.32	59,59,59,59	0
56	MG	1A	3604	1/1	0.90	0.15	29,29,29,29	0
56	MG	2a	1608	1/1	0.90	0.18	65,65,65,65	0
56	MG	1A	3275	1/1	0.90	0.08	39,39,39,39	0
56	MG	1A	3253	1/1	0.90	0.08	51,51,51,51	0
56	MG	1A	3618	1/1	0.90	0.07	70,70,70,70	0
56	MG	1A	3620	1/1	0.90	0.09	32,32,32,32	0
56	MG	1A	3440	1/1	0.90	0.14	72,72,72,72	0
56	MG	1A	3859	1/1	0.90	0.13	53,53,53,53	0
56	MG	1a	1655	1/1	0.90	0.31	63,63,63,63	0
56	MG	2A	3407	1/1	0.90	0.11	44,44,44,44	0
56	MG	2A	3408	1/1	0.90	0.07	50,50,50,50	0
56	MG	1a	1656	1/1	0.90	0.15	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	3441	1/1	0.90	0.14	48,48,48,48	0
56	MG	2A	3420	1/1	0.90	0.11	43,43,43,43	0
56	MG	1A	3528	1/1	0.90	0.11	64,64,64,64	0
56	MG	2A	3425	1/1	0.90	0.08	38,38,38,38	0
56	MG	2A	3434	1/1	0.90	0.11	39,39,39,39	0
56	MG	1A	3457	1/1	0.90	0.11	30,30,30,30	0
56	MG	2a	1656	1/1	0.90	0.13	62,62,62,62	0
56	MG	1A	3374	1/1	0.90	0.10	47,47,47,47	0
56	MG	1A	3473	1/1	0.90	0.08	26,26,26,26	0
56	MG	2A	3041	1/1	0.90	0.16	59,59,59,59	0
56	MG	2A	3048	1/1	0.90	0.29	44,44,44,44	0
56	MG	1A	3758	1/1	0.90	0.11	40,40,40,40	0
56	MG	2A	3058	1/1	0.90	0.11	47,47,47,47	0
56	MG	2A	3062	1/1	0.90	0.10	42,42,42,42	0
56	MG	2A	3067	1/1	0.90	0.07	32,32,32,32	0
56	MG	1a	1673	1/1	0.90	0.13	65,65,65,65	0
56	MG	2A	3481	1/1	0.90	0.13	58,58,58,58	0
56	MG	1A	3534	1/1	0.90	0.09	47,47,47,47	0
56	MG	2A	3083	1/1	0.90	0.10	48,48,48,48	0
56	MG	2a	1682	1/1	0.90	0.28	64,64,64,64	0
56	MG	2A	3084	1/1	0.90	0.08	40,40,40,40	0
56	MG	1A	3053	1/1	0.90	0.16	52,52,52,52	0
56	MG	2a	1694	1/1	0.90	0.24	62,62,62,62	0
56	MG	2A	3493	1/1	0.90	0.10	62,62,62,62	0
56	MG	2A	3113	1/1	0.90	0.22	51,51,51,51	0
56	MG	1A	3662	1/1	0.90	0.22	55,55,55,55	0
56	MG	2a	1720	1/1	0.90	0.08	53,53,53,53	0
56	MG	1A	3901	1/1	0.90	0.15	46,46,46,46	0
56	MG	2A	3498	1/1	0.90	0.07	37,37,37,37	0
56	MG	1A	3773	1/1	0.90	0.15	41,41,41,41	0
56	MG	1A	3665	1/1	0.90	0.12	53,53,53,53	0
56	MG	1A	3775	1/1	0.90	0.09	47,47,47,47	0
56	MG	1A	3776	1/1	0.90	0.14	45,45,45,45	0
56	MG	1a	1697	1/1	0.90	0.14	63,63,63,63	0
56	MG	1a	1701	1/1	0.90	0.18	52,52,52,52	0
56	MG	2A	3169	1/1	0.90	0.10	41,41,41,41	0
56	MG	2a	1739	1/1	0.90	0.18	74,74,74,74	0
56	MG	1A	3050	1/1	0.90	0.10	46,46,46,46	0
56	MG	2A	3176	1/1	0.90	0.27	52,52,52,52	0
56	MG	1a	1704	1/1	0.90	0.39	73,73,73,73	0
56	MG	2a	1747	1/1	0.90	0.20	72,72,72,72	0
56	MG	2a	1748	1/1	0.90	0.16	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3190	1/1	0.90	0.10	44,44,44,44	0
56	MG	1A	3958	1/1	0.90	0.29	49,49,49,49	0
56	MG	2a	1752	1/1	0.90	0.12	68,68,68,68	0
56	MG	1a	1707	1/1	0.90	0.19	62,62,62,62	0
56	MG	1A	3670	1/1	0.90	0.21	58,58,58,58	0
56	MG	2a	1765	1/1	0.90	0.15	53,53,53,53	0
56	MG	2A	3536	1/1	0.90	0.12	46,46,46,46	0
56	MG	2A	3204	1/1	0.90	0.15	47,47,47,47	0
56	MG	1A	3237	1/1	0.90	0.08	44,44,44,44	0
56	MG	2A	3212	1/1	0.90	0.21	55,55,55,55	0
56	MG	2A	3213	1/1	0.90	0.10	45,45,45,45	0
56	MG	1A	3397	1/1	0.90	0.14	56,56,56,56	0
56	MG	1A	3266	1/1	0.90	0.15	61,61,61,61	0
56	MG	1A	3679	1/1	0.90	0.11	52,52,52,52	0
56	MG	2A	3227	1/1	0.90	0.12	48,48,48,48	0
56	MG	2A	3228	1/1	0.90	0.07	43,43,43,43	0
56	MG	2A	3572	1/1	0.90	0.12	43,43,43,43	0
56	MG	2A	3574	1/1	0.90	0.16	43,43,43,43	0
56	MG	2A	3576	1/1	0.90	0.07	59,59,59,59	0
56	MG	1A	3494	1/1	0.90	0.09	47,47,47,47	0
56	MG	1B	3021	1/1	0.90	0.08	48,48,48,48	0
56	MG	2a	1795	1/1	0.90	0.14	55,55,55,55	0
56	MG	2A	3231	1/1	0.90	0.11	49,49,49,49	0
56	MG	1A	3802	1/1	0.90	0.17	60,60,60,60	0
56	MG	2A	3240	1/1	0.90	0.09	46,46,46,46	0
56	MG	1G	203	1/1	0.90	0.07	71,71,71,71	0
56	MG	1a	1758	1/1	0.90	0.10	55,55,55,55	0
56	MG	1A	3803	1/1	0.90	0.18	60,60,60,60	0
56	MG	1A	3239	1/1	0.90	0.13	56,56,56,56	0
56	MG	2A	3605	1/1	0.90	0.14	45,45,45,45	0
56	MG	2A	3246	1/1	0.90	0.16	56,56,56,56	0
59	ZN	24	501	1/1	0.90	0.10	143,143,143,143	0
61	FME	2x	103	10/11	0.90	0.21	36,58,64,90	10
56	MG	16	502	1/1	0.91	0.24	51,51,51,51	0
56	MG	17	101	1/1	0.91	0.11	48,48,48,48	0
56	MG	2A	3274	1/1	0.91	0.12	48,48,48,48	0
56	MG	2A	3613	1/1	0.91	0.19	64,64,64,64	0
56	MG	2A	3617	1/1	0.91	0.09	54,54,54,54	0
56	MG	17	102	1/1	0.91	0.08	50,50,50,50	0
56	MG	2A	3626	1/1	0.91	0.09	49,49,49,49	0
56	MG	1A	3846	1/1	0.91	0.08	51,51,51,51	0
56	MG	2A	3287	1/1	0.91	0.13	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	2A	3289	1/1	0.91	0.23	60,60,60,60	0
56	MG	2A	3292	1/1	0.91	0.12	45,45,45,45	0
56	MG	1a	1603	1/1	0.91	0.14	66,66,66,66	0
56	MG	2A	3297	1/1	0.91	0.08	32,32,32,32	0
56	MG	2A	3643	1/1	0.91	0.09	38,38,38,38	0
56	MG	1A	3116	1/1	0.91	0.19	47,47,47,47	0
56	MG	1A	3848	1/1	0.91	0.10	29,29,29,29	0
56	MG	1a	1613	1/1	0.91	0.15	62,62,62,62	0
56	MG	2A	3311	1/1	0.91	0.15	45,45,45,45	0
56	MG	2A	3312	1/1	0.91	0.10	48,48,48,48	0
56	MG	1A	3581	1/1	0.91	0.12	50,50,50,50	0
56	MG	1A	3323	1/1	0.91	0.18	50,50,50,50	0
56	MG	1A	3409	1/1	0.91	0.06	34,34,34,34	0
56	MG	1A	3868	1/1	0.91	0.07	48,48,48,48	0
56	MG	2F	301	1/1	0.91	0.11	37,37,37,37	0
56	MG	1a	1634	1/1	0.91	0.28	61,61,61,61	0
56	MG	2A	3343	1/1	0.91	0.07	33,33,33,33	0
56	MG	2O	8001	1/1	0.91	0.10	52,52,52,52	0
56	MG	1a	1637	1/1	0.91	0.08	47,47,47,47	0
56	MG	1a	1641	1/1	0.91	0.09	50,50,50,50	0
56	MG	2A	3357	1/1	0.91	0.13	49,49,49,49	0
56	MG	1a	1837	1/1	0.91	0.14	60,60,60,60	0
56	MG	1A	3766	1/1	0.91	0.12	57,57,57,57	0
56	MG	1d	502	1/1	0.91	0.23	51,51,51,51	0
56	MG	1d	503	1/1	0.91	0.10	66,66,66,66	0
56	MG	1A	3262	1/1	0.91	0.17	48,48,48,48	0
56	MG	1A	3335	1/1	0.91	0.18	47,47,47,47	0
56	MG	1A	3018	1/1	0.91	0.20	52,52,52,52	0
56	MG	2a	1615	1/1	0.91	0.18	63,63,63,63	0
56	MG	1A	3880	1/1	0.91	0.09	37,37,37,37	0
56	MG	2A	3392	1/1	0.91	0.15	55,55,55,55	0
56	MG	1w	3006	1/1	0.91	0.09	67,67,67,67	0
56	MG	1x	3005	1/1	0.91	0.18	66,66,66,66	0
56	MG	2a	1624	1/1	0.91	0.18	54,54,54,54	0
56	MG	1x	3007	1/1	0.91	0.26	51,51,51,51	0
56	MG	1x	3010	1/1	0.91	0.10	74,74,74,74	0
56	MG	2A	3404	1/1	0.91	0.10	37,37,37,37	0
56	MG	2a	1631	1/1	0.91	0.23	58,58,58,58	0
56	MG	1A	3236	1/1	0.91	0.19	52,52,52,52	0
56	MG	2A	3006	1/1	0.91	0.15	53,53,53,53	0
56	MG	2A	3008	1/1	0.91	0.09	39,39,39,39	0
56	MG	2a	1638	1/1	0.91	0.08	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	1A	3887	1/1	0.91	0.09	49,49,49,49	0
56	MG	2a	1644	1/1	0.91	0.09	66,66,66,66	0
56	MG	2a	1646	1/1	0.91	0.18	55,55,55,55	0
56	MG	1A	3148	1/1	0.91	0.24	31,31,31,31	0
56	MG	1A	3777	1/1	0.91	0.10	42,42,42,42	0
56	MG	1A	3171	1/1	0.91	0.11	43,43,43,43	0
56	MG	2a	1652	1/1	0.91	0.16	62,62,62,62	0
56	MG	2a	1655	1/1	0.91	0.19	64,64,64,64	0
56	MG	1A	3689	1/1	0.91	0.10	35,35,35,35	0
56	MG	1A	3782	1/1	0.91	0.10	34,34,34,34	0
56	MG	2a	1658	1/1	0.91	0.16	69,69,69,69	0
56	MG	1A	3274	1/1	0.91	0.17	66,66,66,66	0
56	MG	2A	3444	1/1	0.91	0.08	50,50,50,50	0
56	MG	2A	3065	1/1	0.91	0.11	43,43,43,43	0
56	MG	2A	3452	1/1	0.91	0.29	54,54,54,54	0
56	MG	2A	3066	1/1	0.91	0.09	46,46,46,46	0
56	MG	2a	1671	1/1	0.91	0.11	54,54,54,54	0
56	MG	1A	3702	1/1	0.91	0.07	45,45,45,45	0
56	MG	1A	3914	1/1	0.91	0.11	38,38,38,38	0
56	MG	1A	3370	1/1	0.91	0.12	42,42,42,42	0
56	MG	2A	3082	1/1	0.91	0.09	45,45,45,45	0
56	MG	1A	3790	1/1	0.91	0.07	49,49,49,49	0
56	MG	1A	3793	1/1	0.91	0.09	28,28,28,28	0
56	MG	2A	3476	1/1	0.91	0.16	47,47,47,47	0
56	MG	2A	3087	1/1	0.91	0.13	55,55,55,55	0
56	MG	2a	1686	1/1	0.91	0.30	66,66,66,66	0
56	MG	2a	1688	1/1	0.91	0.18	56,56,56,56	0
56	MG	2A	3090	1/1	0.91	0.16	53,53,53,53	0
56	MG	2A	3093	1/1	0.91	0.08	51,51,51,51	0
56	MG	2a	1702	1/1	0.91	0.12	60,60,60,60	0
56	MG	2a	1705	1/1	0.91	0.13	60,60,60,60	0
56	MG	2A	3488	1/1	0.91	0.11	52,52,52,52	0
56	MG	1A	3796	1/1	0.91	0.13	47,47,47,47	0
56	MG	2A	3102	1/1	0.91	0.08	49,49,49,49	0
56	MG	2A	3103	1/1	0.91	0.18	49,49,49,49	0
56	MG	1A	3963	1/1	0.91	0.11	34,34,34,34	0
56	MG	1B	3002	1/1	0.91	0.13	48,48,48,48	0
56	MG	1A	3180	1/1	0.91	0.17	56,56,56,56	0
56	MG	2a	1727	1/1	0.91	0.11	62,62,62,62	0
56	MG	2a	1728	1/1	0.91	0.15	52,52,52,52	0
56	MG	1B	3007	1/1	0.91	0.12	53,53,53,53	0
56	MG	1A	3799	1/1	0.91	0.10	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3501	1/1	0.91	0.08	46,46,46,46	0
56	MG	1A	3279	1/1	0.91	0.14	52,52,52,52	0
56	MG	1A	3801	1/1	0.91	0.13	45,45,45,45	0
56	MG	1A	3461	1/1	0.91	0.09	27,27,27,27	0
56	MG	1A	3624	1/1	0.91	0.11	57,57,57,57	0
56	MG	2A	3518	1/1	0.91	0.09	50,50,50,50	0
56	MG	2a	1741	1/1	0.91	0.21	48,48,48,48	0
56	MG	1B	3022	1/1	0.91	0.13	53,53,53,53	0
56	MG	1B	3023	1/1	0.91	0.16	51,51,51,51	0
56	MG	2a	1746	1/1	0.91	0.15	59,59,59,59	0
56	MG	1a	1710	1/1	0.91	0.22	61,61,61,61	0
56	MG	2A	3178	1/1	0.91	0.16	43,43,43,43	0
56	MG	1a	1711	1/1	0.91	0.16	49,49,49,49	0
56	MG	1B	3024	1/1	0.91	0.11	63,63,63,63	0
56	MG	1B	3025	1/1	0.91	0.08	49,49,49,49	0
56	MG	1a	1720	1/1	0.91	0.26	64,64,64,64	0
56	MG	2A	3533	1/1	0.91	0.12	26,26,26,26	0
56	MG	1B	3026	1/1	0.91	0.10	62,62,62,62	0
56	MG	1a	1722	1/1	0.91	0.12	50,50,50,50	0
56	MG	2A	3537	1/1	0.91	0.12	57,57,57,57	0
56	MG	1a	1723	1/1	0.91	0.16	62,62,62,62	0
56	MG	2a	1772	1/1	0.91	0.08	52,52,52,52	0
56	MG	1D	304	1/1	0.91	0.14	44,44,44,44	0
56	MG	1A	3628	1/1	0.91	0.19	47,47,47,47	0
56	MG	1A	3629	1/1	0.91	0.10	42,42,42,42	0
56	MG	1N	3002	1/1	0.91	0.07	49,49,49,49	0
56	MG	1A	3254	1/1	0.91	0.12	58,58,58,58	0
56	MG	1O	202	1/1	0.91	0.09	63,63,63,63	0
56	MG	2A	3558	1/1	0.91	0.10	54,54,54,54	0
56	MG	1A	3632	1/1	0.91	0.18	57,57,57,57	0
56	MG	1A	3464	1/1	0.91	0.11	35,35,35,35	0
56	MG	2a	1785	1/1	0.91	0.15	66,66,66,66	0
56	MG	1a	1766	1/1	0.91	0.17	59,59,59,59	0
56	MG	2a	1787	1/1	0.91	0.14	51,51,51,51	0
56	MG	1a	1772	1/1	0.91	0.09	60,60,60,60	0
56	MG	2a	1790	1/1	0.91	0.30	66,66,66,66	0
56	MG	1A	3737	1/1	0.91	0.15	50,50,50,50	0
56	MG	1A	3465	1/1	0.91	0.08	32,32,32,32	0
56	MG	1A	3468	1/1	0.91	0.09	44,44,44,44	0
56	MG	1A	3470	1/1	0.91	0.12	27,27,27,27	0
56	MG	2A	3582	1/1	0.91	0.15	47,47,47,47	0
56	MG	1R	202	1/1	0.91	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	1A	3823	1/1	0.91	0.08	67,67,67,67	0
56	MG	1A	3282	1/1	0.91	0.10	53,53,53,53	0
56	MG	1A	3835	1/1	0.91	0.12	30,30,30,30	0
56	MG	2A	3598	1/1	0.91	0.16	45,45,45,45	0
56	MG	1A	3056	1/1	0.91	0.20	48,48,48,48	0
57	K	1A	3321	1/1	0.91	0.17	84,84,84,84	0
56	MG	1A	3313	1/1	0.91	0.21	41,41,41,41	0
56	MG	2A	3260	1/1	0.91	0.10	52,52,52,52	0
56	MG	2a	1601	1/1	0.92	0.10	45,45,45,45	0
56	MG	2a	1602	1/1	0.92	0.10	60,60,60,60	0
56	MG	2a	1604	1/1	0.92	0.08	60,60,60,60	0
56	MG	1A	3884	1/1	0.92	0.10	52,52,52,52	0
56	MG	2A	3480	1/1	0.92	0.14	72,72,72,72	0
56	MG	2a	1609	1/1	0.92	0.11	60,60,60,60	0
56	MG	2a	1610	1/1	0.92	0.27	52,52,52,52	0
56	MG	1a	1829	1/1	0.92	0.27	57,57,57,57	0
56	MG	1A	3380	1/1	0.92	0.12	30,30,30,30	0
56	MG	1A	3518	1/1	0.92	0.14	40,40,40,40	0
56	MG	1A	3049	1/1	0.92	0.24	60,60,60,60	0
56	MG	1a	1699	1/1	0.92	0.08	46,46,46,46	0
56	MG	1f	3002	1/1	0.92	0.13	54,54,54,54	0
56	MG	2A	3233	1/1	0.92	0.14	44,44,44,44	0
56	MG	1A	3892	1/1	0.92	0.10	41,41,41,41	0
56	MG	2A	3236	1/1	0.92	0.15	55,55,55,55	0
56	MG	2a	1626	1/1	0.92	0.19	50,50,50,50	0
56	MG	1A	3181	1/1	0.92	0.19	48,48,48,48	0
56	MG	1Z	3002	1/1	0.92	0.11	56,56,56,56	0
56	MG	1a	1705	1/1	0.92	0.17	56,56,56,56	0
56	MG	2a	1632	1/1	0.92	0.13	59,59,59,59	0
56	MG	1A	3333	1/1	0.92	0.16	51,51,51,51	0
56	MG	1x	3004	1/1	0.92	0.15	47,47,47,47	0
56	MG	2A	3505	1/1	0.92	0.08	48,48,48,48	0
56	MG	1A	3671	1/1	0.92	0.10	38,38,38,38	0
56	MG	1A	3603	1/1	0.92	0.10	31,31,31,31	0
56	MG	1A	3182	1/1	0.92	0.23	65,65,65,65	0
56	MG	1A	3099	1/1	0.92	0.11	51,51,51,51	0
56	MG	1a	1713	1/1	0.92	0.24	53,53,53,53	0
56	MG	1A	3112	1/1	0.92	0.16	43,43,43,43	0
56	MG	1A	3765	1/1	0.92	0.23	46,46,46,46	0
56	MG	2A	3033	1/1	0.92	0.06	29,29,29,29	0
56	MG	2a	1654	1/1	0.92	0.14	64,64,64,64	0
56	MG	2A	3524	1/1	0.92	0.08	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	3525	1/1	0.92	0.11	52,52,52,52	0
56	MG	2A	3275	1/1	0.92	0.12	46,46,46,46	0
56	MG	19	101	1/1	0.92	0.08	41,41,41,41	0
56	MG	1A	3943	1/1	0.92	0.07	42,42,42,42	0
56	MG	1A	3344	1/1	0.92	0.12	48,48,48,48	0
56	MG	2a	1663	1/1	0.92	0.21	62,62,62,62	0
56	MG	2A	3049	1/1	0.92	0.07	42,42,42,42	0
56	MG	2A	3050	1/1	0.92	0.10	43,43,43,43	0
56	MG	1A	3959	1/1	0.92	0.18	53,53,53,53	0
56	MG	2a	1668	1/1	0.92	0.19	64,64,64,64	0
56	MG	2A	3055	1/1	0.92	0.13	54,54,54,54	0
56	MG	2A	3056	1/1	0.92	0.16	54,54,54,54	0
56	MG	2A	3544	1/1	0.92	0.10	53,53,53,53	0
56	MG	2A	3545	1/1	0.92	0.16	47,47,47,47	0
56	MG	1a	1725	1/1	0.92	0.10	54,54,54,54	0
56	MG	1A	3769	1/1	0.92	0.28	39,39,39,39	0
56	MG	2A	3064	1/1	0.92	0.14	58,58,58,58	0
56	MG	1A	3225	1/1	0.92	0.15	55,55,55,55	0
56	MG	1A	3830	1/1	0.92	0.10	53,53,53,53	0
56	MG	2A	3556	1/1	0.92	0.08	49,49,49,49	0
56	MG	2A	3321	1/1	0.92	0.10	53,53,53,53	0
56	MG	1B	3003	1/1	0.92	0.34	62,62,62,62	0
56	MG	2a	1691	1/1	0.92	0.20	57,57,57,57	0
56	MG	2A	3071	1/1	0.92	0.25	34,34,34,34	0
56	MG	2a	1698	1/1	0.92	0.14	57,57,57,57	0
56	MG	2A	3561	1/1	0.92	0.07	71,71,71,71	0
56	MG	2A	3569	1/1	0.92	0.11	51,51,51,51	0
56	MG	2A	3334	1/1	0.92	0.07	44,44,44,44	0
56	MG	1a	1621	1/1	0.92	0.06	49,49,49,49	0
56	MG	2a	1711	1/1	0.92	0.14	57,57,57,57	0
56	MG	1A	3544	1/1	0.92	0.06	54,54,54,54	0
56	MG	2a	1718	1/1	0.92	0.06	51,51,51,51	0
56	MG	1B	3006	1/1	0.92	0.11	44,44,44,44	0
56	MG	2a	1721	1/1	0.92	0.14	61,61,61,61	0
56	MG	1A	3281	1/1	0.92	0.09	48,48,48,48	0
56	MG	2a	1723	1/1	0.92	0.11	54,54,54,54	0
56	MG	1a	1636	1/1	0.92	0.10	53,53,53,53	0
56	MG	1a	1768	1/1	0.92	0.08	56,56,56,56	0
56	MG	2A	3580	1/1	0.92	0.13	38,38,38,38	0
56	MG	2A	3581	1/1	0.92	0.17	66,66,66,66	0
56	MG	2A	3358	1/1	0.92	0.08	52,52,52,52	0
56	MG	2A	3367	1/1	0.92	0.14	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	1A	3025	1/1	0.92	0.12	44,44,44,44	0
56	MG	1A	3842	1/1	0.92	0.14	39,39,39,39	0
56	MG	2A	3096	1/1	0.92	0.19	56,56,56,56	0
56	MG	1A	3287	1/1	0.92	0.09	47,47,47,47	0
56	MG	2A	3599	1/1	0.92	0.12	54,54,54,54	0
56	MG	2A	3379	1/1	0.92	0.09	42,42,42,42	0
56	MG	1A	3434	1/1	0.92	0.07	39,39,39,39	0
56	MG	2A	3385	1/1	0.92	0.07	43,43,43,43	0
56	MG	1A	3635	1/1	0.92	0.07	49,49,49,49	0
56	MG	2A	3111	1/1	0.92	0.10	43,43,43,43	0
56	MG	2A	3390	1/1	0.92	0.08	30,30,30,30	0
56	MG	1A	3306	1/1	0.92	0.09	55,55,55,55	0
56	MG	2A	3614	1/1	0.92	0.10	54,54,54,54	0
56	MG	1A	3850	1/1	0.92	0.12	60,60,60,60	0
56	MG	2A	3618	1/1	0.92	0.07	44,44,44,44	0
56	MG	2a	1755	1/1	0.92	0.12	61,61,61,61	0
56	MG	2A	3622	1/1	0.92	0.17	41,41,41,41	0
56	MG	2a	1760	1/1	0.92	0.12	54,54,54,54	0
56	MG	1a	1789	1/1	0.92	0.12	45,45,45,45	0
56	MG	2a	1764	1/1	0.92	0.13	53,53,53,53	0
56	MG	2A	3397	1/1	0.92	0.10	36,36,36,36	0
56	MG	1A	3265	1/1	0.92	0.11	40,40,40,40	0
56	MG	1A	3852	1/1	0.92	0.07	38,38,38,38	0
56	MG	1A	3582	1/1	0.92	0.10	45,45,45,45	0
56	MG	1D	302	1/1	0.92	0.08	21,21,21,21	0
56	MG	2A	3406	1/1	0.92	0.10	47,47,47,47	0
56	MG	2A	3137	1/1	0.92	0.13	42,42,42,42	0
56	MG	2A	3637	1/1	0.92	0.10	41,41,41,41	0
56	MG	1a	1659	1/1	0.92	0.21	55,55,55,55	0
56	MG	1A	3641	1/1	0.92	0.17	35,35,35,35	0
56	MG	2A	3161	1/1	0.92	0.23	49,49,49,49	0
56	MG	1E	302	1/1	0.92	0.16	43,43,43,43	0
56	MG	2A	3673	1/1	0.92	0.09	33,33,33,33	0
56	MG	1a	1664	1/1	0.92	0.15	57,57,57,57	0
56	MG	1F	302	1/1	0.92	0.11	54,54,54,54	0
56	MG	1A	3036	1/1	0.92	0.15	49,49,49,49	0
56	MG	1A	3318	1/1	0.92	0.22	53,53,53,53	0
56	MG	2A	3185	1/1	0.92	0.12	55,55,55,55	0
56	MG	2A	3443	1/1	0.92	0.07	36,36,36,36	0
56	MG	2A	3188	1/1	0.92	0.09	50,50,50,50	0
56	MG	1A	3376	1/1	0.92	0.09	42,42,42,42	0
56	MG	1A	3733	1/1	0.92	0.07	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	2G	3001	1/1	0.92	0.18	54,54,54,54	0
56	MG	1A	3797	1/1	0.92	0.11	57,57,57,57	0
56	MG	1a	1814	1/1	0.92	0.14	57,57,57,57	0
56	MG	1A	3734	1/1	0.92	0.17	48,48,48,48	0
56	MG	2Q	204	1/1	0.92	0.16	44,44,44,44	0
56	MG	1a	1689	1/1	0.92	0.19	63,63,63,63	0
56	MG	1A	3659	1/1	0.92	0.10	64,64,64,64	0
56	MG	1O	206	1/1	0.92	0.11	62,62,62,62	0
56	MG	20	103	1/1	0.92	0.08	49,49,49,49	0
56	MG	26	502	1/1	0.92	0.14	45,45,45,45	0
56	MG	1a	1827	1/1	0.92	0.14	55,55,55,55	0
56	MG	1A	3339	1/1	0.93	0.20	46,46,46,46	0
56	MG	1A	3861	1/1	0.93	0.08	26,26,26,26	0
56	MG	2A	3665	1/1	0.93	0.09	57,57,57,57	0
56	MG	1A	3340	1/1	0.93	0.16	51,51,51,51	0
56	MG	1A	3215	1/1	0.93	0.11	56,56,56,56	0
56	MG	1a	1627	1/1	0.93	0.25	58,58,58,58	0
56	MG	1a	1632	1/1	0.93	0.12	54,54,54,54	0
56	MG	2A	3348	1/1	0.93	0.13	55,55,55,55	0
56	MG	2B	3002	1/1	0.93	0.12	55,55,55,55	0
56	MG	2A	3352	1/1	0.93	0.17	55,55,55,55	0
56	MG	2B	3005	1/1	0.93	0.16	54,54,54,54	0
56	MG	2A	3355	1/1	0.93	0.12	49,49,49,49	0
56	MG	1A	3588	1/1	0.93	0.20	39,39,39,39	0
56	MG	1A	3731	1/1	0.93	0.09	58,58,58,58	0
56	MG	2D	301	1/1	0.93	0.35	39,39,39,39	0
56	MG	2E	301	1/1	0.93	0.08	36,36,36,36	0
56	MG	2A	3366	1/1	0.93	0.13	41,41,41,41	0
56	MG	1A	3217	1/1	0.93	0.08	42,42,42,42	0
56	MG	1x	3009	1/1	0.93	0.11	58,58,58,58	0
56	MG	1A	3452	1/1	0.93	0.07	43,43,43,43	0
56	MG	1y	101	1/1	0.93	0.17	38,38,38,38	0
56	MG	1A	3117	1/1	0.93	0.16	38,38,38,38	0
56	MG	2P	201	1/1	0.93	0.08	47,47,47,47	0
56	MG	1A	3736	1/1	0.93	0.15	38,38,38,38	0
56	MG	1A	3595	1/1	0.93	0.13	26,26,26,26	0
56	MG	2R	201	1/1	0.93	0.11	48,48,48,48	0
56	MG	1a	1648	1/1	0.93	0.15	43,43,43,43	0
56	MG	2A	3027	1/1	0.93	0.07	44,44,44,44	0
56	MG	1A	3348	1/1	0.93	0.12	54,54,54,54	0
56	MG	1A	3739	1/1	0.93	0.09	48,48,48,48	0
56	MG	1A	3741	1/1	0.93	0.11	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3043	1/1	0.93	0.20	39,39,39,39	0
56	MG	1A	3349	1/1	0.93	0.11	38,38,38,38	0
56	MG	1A	3893	1/1	0.93	0.07	47,47,47,47	0
56	MG	1A	3894	1/1	0.93	0.11	47,47,47,47	0
56	MG	1A	3899	1/1	0.93	0.07	14,14,14,14	0
56	MG	1A	3601	1/1	0.93	0.17	45,45,45,45	0
56	MG	1A	3746	1/1	0.93	0.09	45,45,45,45	0
56	MG	1A	3085	1/1	0.93	0.14	51,51,51,51	0
56	MG	2A	3060	1/1	0.93	0.14	42,42,42,42	0
56	MG	1A	3749	1/1	0.93	0.10	52,52,52,52	0
56	MG	1A	3278	1/1	0.93	0.19	60,60,60,60	0
56	MG	1A	3754	1/1	0.93	0.08	53,53,53,53	0
56	MG	1A	3931	1/1	0.93	0.18	57,57,57,57	0
56	MG	2A	3421	1/1	0.93	0.17	52,52,52,52	0
56	MG	2a	1622	1/1	0.93	0.13	44,44,44,44	0
56	MG	1A	3354	1/1	0.93	0.12	45,45,45,45	0
56	MG	2A	3068	1/1	0.93	0.09	39,39,39,39	0
56	MG	1A	3363	1/1	0.93	0.18	58,58,58,58	0
56	MG	1A	3939	1/1	0.93	0.17	42,42,42,42	0
56	MG	2A	3440	1/1	0.93	0.12	42,42,42,42	0
56	MG	1A	3940	1/1	0.93	0.15	33,33,33,33	0
56	MG	2A	3081	1/1	0.93	0.13	39,39,39,39	0
56	MG	1A	3235	1/1	0.93	0.22	32,32,32,32	0
56	MG	1A	3952	1/1	0.93	0.15	33,33,33,33	0
56	MG	2A	3449	1/1	0.93	0.07	42,42,42,42	0
56	MG	1A	3760	1/1	0.93	0.08	57,57,57,57	0
56	MG	1A	3614	1/1	0.93	0.10	42,42,42,42	0
56	MG	2A	3459	1/1	0.93	0.14	49,49,49,49	0
56	MG	2a	1643	1/1	0.93	0.14	58,58,58,58	0
56	MG	1A	3367	1/1	0.93	0.22	55,55,55,55	0
56	MG	1A	3369	1/1	0.93	0.06	40,40,40,40	0
56	MG	2A	3464	1/1	0.93	0.07	41,41,41,41	0
56	MG	2A	3465	1/1	0.93	0.07	39,39,39,39	0
56	MG	1A	3964	1/1	0.93	0.07	26,26,26,26	0
56	MG	1A	3622	1/1	0.93	0.11	52,52,52,52	0
56	MG	1A	3091	1/1	0.93	0.12	48,48,48,48	0
56	MG	1A	3063	1/1	0.93	0.19	36,36,36,36	0
56	MG	2A	3105	1/1	0.93	0.16	49,49,49,49	0
56	MG	1A	3372	1/1	0.93	0.16	52,52,52,52	0
56	MG	2A	3112	1/1	0.93	0.24	49,49,49,49	0
56	MG	1A	3192	1/1	0.93	0.16	39,39,39,39	0
56	MG	2A	3116	1/1	0.93	0.20	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	1B	3008	1/1	0.93	0.14	57,57,57,57	0
56	MG	2A	3489	1/1	0.93	0.12	57,57,57,57	0
56	MG	1A	3631	1/1	0.93	0.11	67,67,67,67	0
56	MG	1A	3015	1/1	0.93	0.13	43,43,43,43	0
56	MG	2A	3492	1/1	0.93	0.07	50,50,50,50	0
56	MG	1A	3633	1/1	0.93	0.11	40,40,40,40	0
56	MG	1A	3375	1/1	0.93	0.10	32,32,32,32	0
56	MG	1a	1716	1/1	0.93	0.11	62,62,62,62	0
56	MG	2a	1676	1/1	0.93	0.21	40,40,40,40	0
56	MG	1A	3502	1/1	0.93	0.12	23,23,23,23	0
56	MG	1A	3288	1/1	0.93	0.05	36,36,36,36	0
56	MG	2a	1679	1/1	0.93	0.19	64,64,64,64	0
56	MG	1A	3305	1/1	0.93	0.12	42,42,42,42	0
56	MG	1A	3507	1/1	0.93	0.12	34,34,34,34	0
56	MG	2A	3503	1/1	0.93	0.08	47,47,47,47	0
56	MG	2A	3166	1/1	0.93	0.10	43,43,43,43	0
56	MG	1A	3511	1/1	0.93	0.09	49,49,49,49	0
56	MG	1A	3080	1/1	0.93	0.19	31,31,31,31	0
56	MG	2A	3173	1/1	0.93	0.12	45,45,45,45	0
56	MG	1A	3383	1/1	0.93	0.12	33,33,33,33	0
56	MG	1a	1727	1/1	0.93	0.07	65,65,65,65	0
56	MG	2a	1695	1/1	0.93	0.16	54,54,54,54	0
56	MG	1a	1728	1/1	0.93	0.09	49,49,49,49	0
56	MG	2a	1699	1/1	0.93	0.07	38,38,38,38	0
56	MG	2A	3182	1/1	0.93	0.09	53,53,53,53	0
56	MG	1a	1729	1/1	0.93	0.10	53,53,53,53	0
56	MG	1A	3307	1/1	0.93	0.16	55,55,55,55	0
56	MG	1A	3157	1/1	0.93	0.09	39,39,39,39	0
56	MG	2A	3194	1/1	0.93	0.15	40,40,40,40	0
56	MG	1a	1739	1/1	0.93	0.09	51,51,51,51	0
56	MG	1E	304	1/1	0.93	0.09	57,57,57,57	0
56	MG	2a	1719	1/1	0.93	0.14	44,44,44,44	0
56	MG	1a	1743	1/1	0.93	0.27	63,63,63,63	0
56	MG	1E	306	1/1	0.93	0.12	56,56,56,56	0
56	MG	2A	3531	1/1	0.93	0.10	45,45,45,45	0
56	MG	2A	3532	1/1	0.93	0.11	69,69,69,69	0
56	MG	2A	3206	1/1	0.93	0.11	38,38,38,38	0
56	MG	1A	3661	1/1	0.93	0.09	45,45,45,45	0
56	MG	2A	3535	1/1	0.93	0.07	62,62,62,62	0
56	MG	1F	303	1/1	0.93	0.07	34,34,34,34	0
56	MG	1F	305	1/1	0.93	0.11	46,46,46,46	0
56	MG	1A	3388	1/1	0.93	0.10	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	2A	3542	1/1	0.93	0.17	37,37,37,37	0
56	MG	1A	3389	1/1	0.93	0.12	50,50,50,50	0
56	MG	2A	3224	1/1	0.93	0.07	46,46,46,46	0
56	MG	2a	1737	1/1	0.93	0.13	51,51,51,51	0
56	MG	1A	3666	1/1	0.93	0.24	44,44,44,44	0
56	MG	1A	3208	1/1	0.93	0.14	24,24,24,24	0
56	MG	1a	1774	1/1	0.93	0.08	48,48,48,48	0
56	MG	1A	3170	1/1	0.93	0.07	39,39,39,39	0
56	MG	1A	3320	1/1	0.93	0.27	59,59,59,59	0
56	MG	1A	3672	1/1	0.93	0.07	57,57,57,57	0
56	MG	1A	3412	1/1	0.93	0.07	35,35,35,35	0
56	MG	1a	1784	1/1	0.93	0.11	58,58,58,58	0
56	MG	1A	3414	1/1	0.93	0.08	31,31,31,31	0
56	MG	1A	3537	1/1	0.93	0.07	40,40,40,40	0
56	MG	1Q	205	1/1	0.93	0.27	58,58,58,58	0
56	MG	1A	3676	1/1	0.93	0.24	50,50,50,50	0
56	MG	2a	1753	1/1	0.93	0.07	80,80,80,80	0
56	MG	2a	1754	1/1	0.93	0.13	67,67,67,67	0
56	MG	1A	3539	1/1	0.93	0.19	51,51,51,51	0
56	MG	2A	3573	1/1	0.93	0.14	54,54,54,54	0
56	MG	2A	3244	1/1	0.93	0.08	43,43,43,43	0
56	MG	1A	3543	1/1	0.93	0.10	55,55,55,55	0
56	MG	2a	1762	1/1	0.93	0.12	55,55,55,55	0
56	MG	1A	3684	1/1	0.93	0.08	29,29,29,29	0
56	MG	2A	3248	1/1	0.93	0.11	52,52,52,52	0
56	MG	1Z	3001	1/1	0.93	0.08	50,50,50,50	0
56	MG	1A	3263	1/1	0.93	0.17	41,41,41,41	0
56	MG	1a	1801	1/1	0.93	0.12	54,54,54,54	0
56	MG	1A	3081	1/1	0.93	0.14	43,43,43,43	0
56	MG	1A	3690	1/1	0.93	0.10	48,48,48,48	0
56	MG	1Z	3005	1/1	0.93	0.20	56,56,56,56	0
56	MG	2A	3266	1/1	0.93	0.10	34,34,34,34	0
56	MG	2A	3589	1/1	0.93	0.08	41,41,41,41	0
56	MG	2A	3273	1/1	0.93	0.11	35,35,35,35	0
56	MG	2A	3593	1/1	0.93	0.11	56,56,56,56	0
56	MG	10	101	1/1	0.93	0.13	59,59,59,59	0
56	MG	10	102	1/1	0.93	0.09	62,62,62,62	0
56	MG	1A	3331	1/1	0.93	0.24	53,53,53,53	0
56	MG	12	3001	1/1	0.93	0.15	53,53,53,53	0
56	MG	1A	3698	1/1	0.93	0.10	43,43,43,43	0
56	MG	1A	3841	1/1	0.93	0.08	22,22,22,22	0
56	MG	1A	3699	1/1	0.93	0.10	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	2a	1789	1/1	0.93	0.11	58,58,58,58	0
56	MG	2A	3293	1/1	0.93	0.06	33,33,33,33	0
56	MG	1A	3843	1/1	0.93	0.08	33,33,33,33	0
56	MG	1A	3213	1/1	0.93	0.17	42,42,42,42	0
56	MG	1A	3561	1/1	0.93	0.08	54,54,54,54	0
56	MG	1A	3706	1/1	0.93	0.10	51,51,51,51	0
56	MG	2f	3002	1/1	0.93	0.20	61,61,61,61	0
56	MG	2A	3304	1/1	0.93	0.22	53,53,53,53	0
56	MG	1a	1605	1/1	0.93	0.09	50,50,50,50	0
56	MG	1a	1606	1/1	0.93	0.12	54,54,54,54	0
56	MG	1a	1835	1/1	0.93	0.16	57,57,57,57	0
56	MG	1A	3051	1/1	0.93	0.07	38,38,38,38	0
56	MG	2A	3318	1/1	0.93	0.15	38,38,38,38	0
56	MG	2w	3001	1/1	0.93	0.08	67,67,67,67	0
56	MG	1A	3430	1/1	0.93	0.06	21,21,21,21	0
56	MG	2x	102	1/1	0.93	0.07	58,58,58,58	0
56	MG	2A	3326	1/1	0.93	0.06	42,42,42,42	0
56	MG	1A	3572	1/1	0.93	0.08	33,33,33,33	0
61	FME	1x	3011	10/11	0.93	0.18	37,40,51,79	10
56	MG	1A	3267	1/1	0.93	0.08	53,53,53,53	0
56	MG	2A	3584	1/1	0.94	0.11	58,58,58,58	0
56	MG	1A	3270	1/1	0.94	0.11	57,57,57,57	0
56	MG	1a	1760	1/1	0.94	0.10	36,36,36,36	0
56	MG	1A	3431	1/1	0.94	0.10	45,45,45,45	0
56	MG	1A	3818	1/1	0.94	0.07	30,30,30,30	0
56	MG	1A	3686	1/1	0.94	0.09	29,29,29,29	0
56	MG	1A	3820	1/1	0.94	0.08	45,45,45,45	0
56	MG	2A	3595	1/1	0.94	0.07	57,57,57,57	0
56	MG	2A	3597	1/1	0.94	0.10	46,46,46,46	0
56	MG	1A	3556	1/1	0.94	0.08	43,43,43,43	0
56	MG	1A	3827	1/1	0.94	0.11	51,51,51,51	0
56	MG	2A	3602	1/1	0.94	0.08	50,50,50,50	0
56	MG	2A	3238	1/1	0.94	0.07	42,42,42,42	0
56	MG	1A	3829	1/1	0.94	0.19	59,59,59,59	0
56	MG	1A	3158	1/1	0.94	0.07	49,49,49,49	0
56	MG	1V	201	1/1	0.94	0.18	52,52,52,52	0
56	MG	1a	1783	1/1	0.94	0.13	63,63,63,63	0
56	MG	2A	3611	1/1	0.94	0.09	60,60,60,60	0
56	MG	1X	3004	1/1	0.94	0.08	64,64,64,64	0
56	MG	1A	3436	1/1	0.94	0.07	31,31,31,31	0
56	MG	1A	3691	1/1	0.94	0.09	41,41,41,41	0
56	MG	1A	3693	1/1	0.94	0.13	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	3564	1/1	0.94	0.12	24,24,24,24	0
56	MG	2A	3619	1/1	0.94	0.07	55,55,55,55	0
56	MG	1A	3164	1/1	0.94	0.08	51,51,51,51	0
56	MG	2A	3253	1/1	0.94	0.11	47,47,47,47	0
56	MG	2A	3255	1/1	0.94	0.10	43,43,43,43	0
56	MG	1A	3165	1/1	0.94	0.12	38,38,38,38	0
56	MG	1A	3168	1/1	0.94	0.12	47,47,47,47	0
56	MG	1A	3575	1/1	0.94	0.11	38,38,38,38	0
56	MG	1A	3169	1/1	0.94	0.10	44,44,44,44	0
56	MG	2A	3265	1/1	0.94	0.08	51,51,51,51	0
56	MG	2A	3634	1/1	0.94	0.10	38,38,38,38	0
56	MG	1a	1800	1/1	0.94	0.07	50,50,50,50	0
56	MG	1A	3451	1/1	0.94	0.07	40,40,40,40	0
56	MG	2A	3638	1/1	0.94	0.12	55,55,55,55	0
56	MG	2A	3640	1/1	0.94	0.07	45,45,45,45	0
56	MG	1a	1802	1/1	0.94	0.10	50,50,50,50	0
56	MG	13	103	1/1	0.94	0.13	50,50,50,50	0
56	MG	2A	3656	1/1	0.94	0.27	44,44,44,44	0
56	MG	2A	3659	1/1	0.94	0.25	43,43,43,43	0
56	MG	2A	3276	1/1	0.94	0.09	48,48,48,48	0
56	MG	2A	3278	1/1	0.94	0.08	31,31,31,31	0
56	MG	15	103	1/1	0.94	0.11	53,53,53,53	0
56	MG	2A	3282	1/1	0.94	0.09	33,33,33,33	0
56	MG	2A	3284	1/1	0.94	0.09	49,49,49,49	0
56	MG	1A	3583	1/1	0.94	0.15	57,57,57,57	0
56	MG	1A	3101	1/1	0.94	0.22	47,47,47,47	0
56	MG	2B	3003	1/1	0.94	0.10	48,48,48,48	0
56	MG	1A	3357	1/1	0.94	0.19	52,52,52,52	0
56	MG	2A	3290	1/1	0.94	0.07	40,40,40,40	0
56	MG	2B	3007	1/1	0.94	0.11	46,46,46,46	0
56	MG	1A	3458	1/1	0.94	0.08	42,42,42,42	0
56	MG	2B	3014	1/1	0.94	0.32	65,65,65,65	0
56	MG	19	102	1/1	0.94	0.09	50,50,50,50	0
56	MG	1a	1812	1/1	0.94	0.10	51,51,51,51	0
56	MG	2B	3018	1/1	0.94	0.06	57,57,57,57	0
56	MG	1A	3460	1/1	0.94	0.09	37,37,37,37	0
56	MG	1A	3864	1/1	0.94	0.08	38,38,38,38	0
56	MG	1A	3360	1/1	0.94	0.19	50,50,50,50	0
56	MG	2A	3303	1/1	0.94	0.23	60,60,60,60	0
56	MG	1A	3223	1/1	0.94	0.15	42,42,42,42	0
56	MG	1a	1607	1/1	0.94	0.22	68,68,68,68	0
56	MG	1a	1824	1/1	0.94	0.10	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	1608	1/1	0.94	0.16	57,57,57,57	0
56	MG	1a	1609	1/1	0.94	0.11	54,54,54,54	0
56	MG	1A	3364	1/1	0.94	0.18	55,55,55,55	0
56	MG	1A	3872	1/1	0.94	0.09	50,50,50,50	0
56	MG	1A	3102	1/1	0.94	0.09	44,44,44,44	0
56	MG	2U	204	1/1	0.94	0.13	45,45,45,45	0
56	MG	1A	3231	1/1	0.94	0.26	53,53,53,53	0
56	MG	1A	3234	1/1	0.94	0.16	34,34,34,34	0
56	MG	2A	3332	1/1	0.94	0.06	37,37,37,37	0
56	MG	2A	3333	1/1	0.94	0.15	35,35,35,35	0
56	MG	23	3001	1/1	0.94	0.20	54,54,54,54	0
56	MG	1A	3471	1/1	0.94	0.06	26,26,26,26	0
56	MG	2A	3335	1/1	0.94	0.07	25,25,25,25	0
56	MG	1A	3882	1/1	0.94	0.10	52,52,52,52	0
56	MG	1e	201	1/1	0.94	0.08	60,60,60,60	0
56	MG	1A	3177	1/1	0.94	0.10	44,44,44,44	0
56	MG	1A	3475	1/1	0.94	0.08	37,37,37,37	0
56	MG	1v	3001	1/1	0.94	0.08	56,56,56,56	0
56	MG	1a	1630	1/1	0.94	0.14	57,57,57,57	0
56	MG	2A	3349	1/1	0.94	0.07	18,18,18,18	0
56	MG	1a	1631	1/1	0.94	0.09	59,59,59,59	0
56	MG	1A	3886	1/1	0.94	0.10	50,50,50,50	0
56	MG	1w	3005	1/1	0.94	0.09	82,82,82,82	0
56	MG	1a	1633	1/1	0.94	0.21	52,52,52,52	0
56	MG	2A	3361	1/1	0.94	0.06	58,58,58,58	0
56	MG	1x	3002	1/1	0.94	0.14	56,56,56,56	0
56	MG	1A	3290	1/1	0.94	0.20	33,33,33,33	0
56	MG	1A	3292	1/1	0.94	0.08	49,49,49,49	0
56	MG	1x	3006	1/1	0.94	0.11	51,51,51,51	0
56	MG	1A	3483	1/1	0.94	0.09	29,29,29,29	0
56	MG	1a	1638	1/1	0.94	0.21	42,42,42,42	0
56	MG	1a	1639	1/1	0.94	0.14	45,45,45,45	0
56	MG	2A	3381	1/1	0.94	0.15	46,46,46,46	0
56	MG	1A	3295	1/1	0.94	0.07	43,43,43,43	0
56	MG	1A	3619	1/1	0.94	0.11	53,53,53,53	0
56	MG	2A	3002	1/1	0.94	0.26	53,53,53,53	0
56	MG	2A	3388	1/1	0.94	0.07	52,52,52,52	0
56	MG	2a	1635	1/1	0.94	0.18	49,49,49,49	0
56	MG	1A	3485	1/1	0.94	0.13	38,38,38,38	0
56	MG	1A	3897	1/1	0.94	0.20	38,38,38,38	0
56	MG	2A	3019	1/1	0.94	0.14	52,52,52,52	0
56	MG	2A	3023	1/1	0.94	0.28	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	2A	3024	1/1	0.94	0.09	33,33,33,33	0
56	MG	2A	3394	1/1	0.94	0.11	45,45,45,45	0
56	MG	1a	1647	1/1	0.94	0.17	60,60,60,60	0
56	MG	2a	1648	1/1	0.94	0.12	61,61,61,61	0
56	MG	1A	3898	1/1	0.94	0.09	25,25,25,25	0
56	MG	2A	3028	1/1	0.94	0.07	43,43,43,43	0
56	MG	2A	3031	1/1	0.94	0.05	24,24,24,24	0
56	MG	2A	3403	1/1	0.94	0.11	37,37,37,37	0
56	MG	2A	3032	1/1	0.94	0.07	35,35,35,35	0
56	MG	2A	3405	1/1	0.94	0.15	49,49,49,49	0
56	MG	1A	3748	1/1	0.94	0.06	29,29,29,29	0
56	MG	1a	1650	1/1	0.94	0.18	55,55,55,55	0
56	MG	2A	3040	1/1	0.94	0.09	43,43,43,43	0
56	MG	2A	3411	1/1	0.94	0.18	50,50,50,50	0
56	MG	2A	3412	1/1	0.94	0.11	40,40,40,40	0
56	MG	1A	3296	1/1	0.94	0.17	40,40,40,40	0
56	MG	1A	3623	1/1	0.94	0.18	53,53,53,53	0
56	MG	2A	3047	1/1	0.94	0.05	22,22,22,22	0
56	MG	1a	1653	1/1	0.94	0.19	59,59,59,59	0
56	MG	1A	3002	1/1	0.94	0.09	61,61,61,61	0
56	MG	1A	3006	1/1	0.94	0.09	53,53,53,53	0
56	MG	1A	3088	1/1	0.94	0.18	54,54,54,54	0
56	MG	2a	1674	1/1	0.94	0.14	58,58,58,58	0
56	MG	2a	1675	1/1	0.94	0.10	66,66,66,66	0
56	MG	2A	3054	1/1	0.94	0.10	41,41,41,41	0
56	MG	1A	3031	1/1	0.94	0.07	31,31,31,31	0
56	MG	1A	3311	1/1	0.94	0.17	50,50,50,50	0
56	MG	2A	3057	1/1	0.94	0.21	57,57,57,57	0
56	MG	1A	3185	1/1	0.94	0.10	50,50,50,50	0
56	MG	1A	3316	1/1	0.94	0.08	44,44,44,44	0
56	MG	2A	3061	1/1	0.94	0.09	43,43,43,43	0
56	MG	1A	3764	1/1	0.94	0.08	40,40,40,40	0
56	MG	2A	3453	1/1	0.94	0.07	37,37,37,37	0
56	MG	2A	3455	1/1	0.94	0.15	44,44,44,44	0
56	MG	1A	3634	1/1	0.94	0.12	56,56,56,56	0
56	MG	1A	3387	1/1	0.94	0.09	38,38,38,38	0
56	MG	1a	1669	1/1	0.94	0.21	58,58,58,58	0
56	MG	1A	3948	1/1	0.94	0.10	34,34,34,34	0
56	MG	1A	3768	1/1	0.94	0.20	50,50,50,50	0
56	MG	1a	1680	1/1	0.94	0.20	56,56,56,56	0
56	MG	2A	3073	1/1	0.94	0.09	46,46,46,46	0
56	MG	1a	1681	1/1	0.94	0.32	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	3255	1/1	0.94	0.16	50,50,50,50	0
56	MG	2A	3471	1/1	0.94	0.07	47,47,47,47	0
56	MG	2A	3473	1/1	0.94	0.10	51,51,51,51	0
56	MG	2A	3079	1/1	0.94	0.11	49,49,49,49	0
56	MG	2A	3475	1/1	0.94	0.08	52,52,52,52	0
56	MG	2A	3080	1/1	0.94	0.17	50,50,50,50	0
56	MG	1A	3094	1/1	0.94	0.19	58,58,58,58	0
56	MG	1a	1684	1/1	0.94	0.11	54,54,54,54	0
56	MG	1a	1686	1/1	0.94	0.11	47,47,47,47	0
56	MG	1a	1688	1/1	0.94	0.07	44,44,44,44	0
56	MG	1A	3771	1/1	0.94	0.13	39,39,39,39	0
56	MG	1A	3961	1/1	0.94	0.17	45,45,45,45	0
56	MG	1A	3772	1/1	0.94	0.17	29,29,29,29	0
56	MG	1A	3513	1/1	0.94	0.13	29,29,29,29	0
56	MG	1A	3514	1/1	0.94	0.07	40,40,40,40	0
56	MG	1A	3642	1/1	0.94	0.06	39,39,39,39	0
56	MG	1A	3396	1/1	0.94	0.18	45,45,45,45	0
56	MG	1A	3258	1/1	0.94	0.08	32,32,32,32	0
56	MG	2A	3110	1/1	0.94	0.14	46,46,46,46	0
56	MG	1A	3778	1/1	0.94	0.14	48,48,48,48	0
56	MG	1A	3646	1/1	0.94	0.17	36,36,36,36	0
56	MG	1a	1703	1/1	0.94	0.14	50,50,50,50	0
56	MG	1B	3009	1/1	0.94	0.07	42,42,42,42	0
56	MG	1A	3648	1/1	0.94	0.09	46,46,46,46	0
56	MG	2A	3121	1/1	0.94	0.15	41,41,41,41	0
56	MG	2a	1743	1/1	0.94	0.11	54,54,54,54	0
56	MG	1A	3519	1/1	0.94	0.08	41,41,41,41	0
56	MG	2A	3123	1/1	0.94	0.14	47,47,47,47	0
56	MG	2A	3512	1/1	0.94	0.10	52,52,52,52	0
56	MG	1A	3655	1/1	0.94	0.09	52,52,52,52	0
56	MG	2A	3516	1/1	0.94	0.10	46,46,46,46	0
56	MG	1A	3658	1/1	0.94	0.20	35,35,35,35	0
56	MG	1A	3021	1/1	0.94	0.21	50,50,50,50	0
56	MG	1A	3326	1/1	0.94	0.18	43,43,43,43	0
56	MG	2A	3130	1/1	0.94	0.14	54,54,54,54	0
56	MG	2A	3131	1/1	0.94	0.18	49,49,49,49	0
56	MG	2A	3132	1/1	0.94	0.14	44,44,44,44	0
56	MG	2a	1759	1/1	0.94	0.13	76,76,76,76	0
56	MG	2A	3134	1/1	0.94	0.07	44,44,44,44	0
56	MG	1a	1712	1/1	0.94	0.19	49,49,49,49	0
56	MG	1A	3523	1/1	0.94	0.10	57,57,57,57	0
56	MG	1a	1714	1/1	0.94	0.20	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	3155	1/1	0.94	0.11	43,43,43,43	0
56	MG	2A	3159	1/1	0.94	0.16	41,41,41,41	0
56	MG	1a	1715	1/1	0.94	0.17	51,51,51,51	0
56	MG	2a	1769	1/1	0.94	0.10	73,73,73,73	0
56	MG	1A	3411	1/1	0.94	0.11	51,51,51,51	0
56	MG	1A	3664	1/1	0.94	0.10	39,39,39,39	0
56	MG	2A	3170	1/1	0.94	0.14	58,58,58,58	0
56	MG	2A	3171	1/1	0.94	0.09	43,43,43,43	0
56	MG	1A	3525	1/1	0.94	0.09	53,53,53,53	0
56	MG	1A	3526	1/1	0.94	0.08	49,49,49,49	0
56	MG	2a	1777	1/1	0.94	0.13	77,77,77,77	0
56	MG	1A	3135	1/1	0.94	0.18	49,49,49,49	0
56	MG	2A	3177	1/1	0.94	0.05	37,37,37,37	0
56	MG	1E	301	1/1	0.94	0.10	27,27,27,27	0
56	MG	2A	3546	1/1	0.94	0.10	33,33,33,33	0
56	MG	1A	3669	1/1	0.94	0.08	34,34,34,34	0
56	MG	2A	3548	1/1	0.94	0.08	35,35,35,35	0
56	MG	2A	3181	1/1	0.94	0.09	44,44,44,44	0
56	MG	1A	3413	1/1	0.94	0.10	30,30,30,30	0
56	MG	1A	3058	1/1	0.94	0.12	44,44,44,44	0
56	MG	2A	3186	1/1	0.94	0.15	43,43,43,43	0
56	MG	1A	3203	1/1	0.94	0.07	44,44,44,44	0
56	MG	1A	3147	1/1	0.94	0.07	34,34,34,34	0
56	MG	2A	3191	1/1	0.94	0.18	58,58,58,58	0
56	MG	1A	3082	1/1	0.94	0.07	41,41,41,41	0
56	MG	1a	1733	1/1	0.94	0.06	33,33,33,33	0
56	MG	2A	3564	1/1	0.94	0.10	45,45,45,45	0
56	MG	2g	8001	1/1	0.94	0.10	57,57,57,57	0
56	MG	2A	3567	1/1	0.94	0.22	58,58,58,58	0
56	MG	1A	3422	1/1	0.94	0.12	45,45,45,45	0
56	MG	1A	3100	1/1	0.94	0.08	57,57,57,57	0
56	MG	1A	3812	1/1	0.94	0.09	41,41,41,41	0
56	MG	1a	1742	1/1	0.94	0.09	68,68,68,68	0
56	MG	1N	3004	1/1	0.94	0.12	56,56,56,56	0
56	MG	2A	3209	1/1	0.94	0.07	41,41,41,41	0
56	MG	2w	3002	1/1	0.94	0.09	63,63,63,63	0
56	MG	1A	3813	1/1	0.94	0.11	40,40,40,40	0
56	MG	2x	101	1/1	0.94	0.09	56,56,56,56	0
56	MG	1a	1749	1/1	0.94	0.08	56,56,56,56	0
56	MG	1A	3814	1/1	0.94	0.20	16,16,16,16	0
57	K	2A	3207	1/1	0.94	0.16	75,75,75,75	0
56	MG	1a	1753	1/1	0.94	0.10	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1a	1755	1/1	0.94	0.11	57,57,57,57	0
56	MG	1A	3269	1/1	0.94	0.11	30,30,30,30	0
56	MG	1A	3232	1/1	0.95	0.05	49,49,49,49	0
56	MG	1A	3233	1/1	0.95	0.21	35,35,35,35	0
56	MG	1A	3908	1/1	0.95	0.14	38,38,38,38	0
56	MG	1A	3090	1/1	0.95	0.13	39,39,39,39	0
56	MG	1A	3504	1/1	0.95	0.10	50,50,50,50	0
56	MG	2A	3280	1/1	0.95	0.14	42,42,42,42	0
56	MG	1x	3001	1/1	0.95	0.09	44,44,44,44	0
56	MG	1A	3922	1/1	0.95	0.05	41,41,41,41	0
56	MG	2A	3283	1/1	0.95	0.11	51,51,51,51	0
56	MG	1A	3925	1/1	0.95	0.05	59,59,59,59	0
56	MG	1A	3928	1/1	0.95	0.06	24,24,24,24	0
56	MG	2A	3616	1/1	0.95	0.10	55,55,55,55	0
56	MG	2A	3286	1/1	0.95	0.13	55,55,55,55	0
56	MG	1A	3929	1/1	0.95	0.15	45,45,45,45	0
56	MG	1A	3390	1/1	0.95	0.07	42,42,42,42	0
56	MG	2A	3620	1/1	0.95	0.07	39,39,39,39	0
56	MG	2A	3621	1/1	0.95	0.09	57,57,57,57	0
56	MG	1x	3008	1/1	0.95	0.25	61,61,61,61	0
56	MG	1A	3506	1/1	0.95	0.08	62,62,62,62	0
56	MG	1A	3934	1/1	0.95	0.18	30,30,30,30	0
56	MG	2A	3295	1/1	0.95	0.06	39,39,39,39	0
56	MG	1a	1654	1/1	0.95	0.06	54,54,54,54	0
56	MG	1A	3394	1/1	0.95	0.12	12,12,12,12	0
56	MG	2A	3630	1/1	0.95	0.13	41,41,41,41	0
56	MG	1A	3039	1/1	0.95	0.10	50,50,50,50	0
56	MG	2A	3300	1/1	0.95	0.07	29,29,29,29	0
56	MG	2A	3633	1/1	0.95	0.07	49,49,49,49	0
56	MG	2A	3301	1/1	0.95	0.07	35,35,35,35	0
56	MG	2A	3635	1/1	0.95	0.06	38,38,38,38	0
56	MG	1A	3175	1/1	0.95	0.08	31,31,31,31	0
56	MG	1A	3941	1/1	0.95	0.06	43,43,43,43	0
56	MG	2A	3011	1/1	0.95	0.11	41,41,41,41	0
56	MG	2A	3639	1/1	0.95	0.10	52,52,52,52	0
56	MG	2A	3014	1/1	0.95	0.06	38,38,38,38	0
56	MG	2A	3641	1/1	0.95	0.08	46,46,46,46	0
56	MG	2A	3642	1/1	0.95	0.08	32,32,32,32	0
56	MG	2A	3306	1/1	0.95	0.06	33,33,33,33	0
56	MG	2A	3648	1/1	0.95	0.22	47,47,47,47	0
56	MG	2A	3015	1/1	0.95	0.06	36,36,36,36	0
56	MG	2A	3655	1/1	0.95	0.05	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	3401	1/1	0.95	0.11	38,38,38,38	0
56	MG	2A	3314	1/1	0.95	0.10	40,40,40,40	0
56	MG	2A	3662	1/1	0.95	0.17	29,29,29,29	0
56	MG	1A	3119	1/1	0.95	0.19	36,36,36,36	0
56	MG	1A	3179	1/1	0.95	0.12	31,31,31,31	0
56	MG	1A	3953	1/1	0.95	0.07	48,48,48,48	0
56	MG	1A	3516	1/1	0.95	0.09	25,25,25,25	0
56	MG	1A	3093	1/1	0.95	0.07	43,43,43,43	0
56	MG	1A	3076	1/1	0.95	0.08	43,43,43,43	0
56	MG	2A	3331	1/1	0.95	0.08	39,39,39,39	0
56	MG	1a	1671	1/1	0.95	0.10	42,42,42,42	0
56	MG	1A	3048	1/1	0.95	0.16	32,32,32,32	0
56	MG	2A	3034	1/1	0.95	0.08	40,40,40,40	0
56	MG	2A	3037	1/1	0.95	0.14	42,42,42,42	0
56	MG	2B	3008	1/1	0.95	0.07	55,55,55,55	0
56	MG	1A	3327	1/1	0.95	0.11	44,44,44,44	0
56	MG	1A	3329	1/1	0.95	0.13	38,38,38,38	0
56	MG	1A	3965	1/1	0.95	0.24	38,38,38,38	0
56	MG	1A	3256	1/1	0.95	0.15	49,49,49,49	0
56	MG	2A	3045	1/1	0.95	0.10	36,36,36,36	0
56	MG	1A	3420	1/1	0.95	0.10	59,59,59,59	0
56	MG	1A	3130	1/1	0.95	0.05	50,50,50,50	0
56	MG	2E	304	1/1	0.95	0.06	47,47,47,47	0
56	MG	1A	3663	1/1	0.95	0.10	46,46,46,46	0
56	MG	2A	3353	1/1	0.95	0.11	49,49,49,49	0
56	MG	2A	3354	1/1	0.95	0.10	43,43,43,43	0
56	MG	1A	3131	1/1	0.95	0.09	44,44,44,44	0
56	MG	1A	3786	1/1	0.95	0.08	36,36,36,36	0
56	MG	2A	3052	1/1	0.95	0.07	50,50,50,50	0
56	MG	2A	3053	1/1	0.95	0.09	44,44,44,44	0
56	MG	2A	3363	1/1	0.95	0.05	30,30,30,30	0
56	MG	2Q	202	1/1	0.95	0.05	46,46,46,46	0
56	MG	1A	3132	1/1	0.95	0.06	37,37,37,37	0
56	MG	1A	3789	1/1	0.95	0.07	33,33,33,33	0
56	MG	1A	3427	1/1	0.95	0.08	39,39,39,39	0
56	MG	2V	201	1/1	0.95	0.08	44,44,44,44	0
56	MG	2X	101	1/1	0.95	0.09	37,37,37,37	0
56	MG	1B	3013	1/1	0.95	0.07	53,53,53,53	0
56	MG	1a	1695	1/1	0.95	0.05	55,55,55,55	0
56	MG	2A	3059	1/1	0.95	0.11	46,46,46,46	0
56	MG	2A	3374	1/1	0.95	0.15	54,54,54,54	0
56	MG	2A	3375	1/1	0.95	0.08	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	3791	1/1	0.95	0.11	43,43,43,43	0
56	MG	1B	3016	1/1	0.95	0.21	61,61,61,61	0
56	MG	1a	1698	1/1	0.95	0.20	51,51,51,51	0
56	MG	1A	3428	1/1	0.95	0.08	43,43,43,43	0
56	MG	1A	3794	1/1	0.95	0.08	21,21,21,21	0
56	MG	1A	3336	1/1	0.95	0.13	40,40,40,40	0
56	MG	1A	3190	1/1	0.95	0.09	43,43,43,43	0
56	MG	1A	3052	1/1	0.95	0.14	39,39,39,39	0
56	MG	1A	3433	1/1	0.95	0.13	42,42,42,42	0
56	MG	1A	3196	1/1	0.95	0.13	52,52,52,52	0
56	MG	2a	1612	1/1	0.95	0.10	54,54,54,54	0
56	MG	2a	1613	1/1	0.95	0.09	58,58,58,58	0
56	MG	1B	3027	1/1	0.95	0.12	48,48,48,48	0
56	MG	2A	3075	1/1	0.95	0.13	41,41,41,41	0
56	MG	2a	1616	1/1	0.95	0.14	52,52,52,52	0
56	MG	2A	3395	1/1	0.95	0.08	46,46,46,46	0
56	MG	2A	3077	1/1	0.95	0.07	43,43,43,43	0
56	MG	1D	301	1/1	0.95	0.13	46,46,46,46	0
56	MG	1A	3140	1/1	0.95	0.14	41,41,41,41	0
56	MG	2A	3400	1/1	0.95	0.08	49,49,49,49	0
56	MG	1A	3198	1/1	0.95	0.17	34,34,34,34	0
56	MG	1A	3199	1/1	0.95	0.20	35,35,35,35	0
56	MG	1A	3677	1/1	0.95	0.08	57,57,57,57	0
56	MG	1A	3059	1/1	0.95	0.17	50,50,50,50	0
56	MG	1A	3681	1/1	0.95	0.06	32,32,32,32	0
56	MG	2a	1630	1/1	0.95	0.20	55,55,55,55	0
56	MG	2A	3086	1/1	0.95	0.09	43,43,43,43	0
56	MG	1A	3560	1/1	0.95	0.06	49,49,49,49	0
56	MG	1A	3144	1/1	0.95	0.07	40,40,40,40	0
56	MG	1A	3563	1/1	0.95	0.07	33,33,33,33	0
56	MG	1A	3446	1/1	0.95	0.07	48,48,48,48	0
56	MG	1A	3566	1/1	0.95	0.12	55,55,55,55	0
56	MG	2A	3417	1/1	0.95	0.07	43,43,43,43	0
56	MG	2A	3099	1/1	0.95	0.07	24,24,24,24	0
56	MG	2A	3101	1/1	0.95	0.20	53,53,53,53	0
56	MG	1I	3001	1/1	0.95	0.08	58,58,58,58	0
56	MG	1N	3001	1/1	0.95	0.23	38,38,38,38	0
56	MG	2A	3429	1/1	0.95	0.06	29,29,29,29	0
56	MG	2A	3433	1/1	0.95	0.09	41,41,41,41	0
56	MG	1A	3449	1/1	0.95	0.11	37,37,37,37	0
56	MG	2A	3435	1/1	0.95	0.10	43,43,43,43	0
56	MG	1A	3351	1/1	0.95	0.12	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	3692	1/1	0.95	0.13	44,44,44,44	0
56	MG	1A	3146	1/1	0.95	0.07	31,31,31,31	0
56	MG	1O	203	1/1	0.95	0.06	52,52,52,52	0
56	MG	1a	1731	1/1	0.95	0.09	61,61,61,61	0
56	MG	2A	3446	1/1	0.95	0.06	43,43,43,43	0
56	MG	2A	3117	1/1	0.95	0.08	43,43,43,43	0
56	MG	2A	3448	1/1	0.95	0.08	47,47,47,47	0
56	MG	1A	3694	1/1	0.95	0.16	47,47,47,47	0
56	MG	2A	3451	1/1	0.95	0.14	36,36,36,36	0
56	MG	1A	3455	1/1	0.95	0.12	45,45,45,45	0
56	MG	1A	3821	1/1	0.95	0.09	47,47,47,47	0
56	MG	1A	3577	1/1	0.95	0.09	47,47,47,47	0
56	MG	2a	1670	1/1	0.95	0.17	53,53,53,53	0
56	MG	2A	3456	1/1	0.95	0.08	39,39,39,39	0
56	MG	1A	3826	1/1	0.95	0.10	37,37,37,37	0
56	MG	1A	3272	1/1	0.95	0.12	38,38,38,38	0
56	MG	1a	1744	1/1	0.95	0.09	53,53,53,53	0
56	MG	2A	3462	1/1	0.95	0.09	57,57,57,57	0
56	MG	1a	1745	1/1	0.95	0.07	43,43,43,43	0
56	MG	1A	3701	1/1	0.95	0.10	47,47,47,47	0
56	MG	1a	1747	1/1	0.95	0.12	55,55,55,55	0
56	MG	1A	3083	1/1	0.95	0.09	27,27,27,27	0
56	MG	1a	1751	1/1	0.95	0.14	45,45,45,45	0
56	MG	1A	3703	1/1	0.95	0.08	50,50,50,50	0
56	MG	1A	3704	1/1	0.95	0.09	43,43,43,43	0
56	MG	2A	3141	1/1	0.95	0.09	29,29,29,29	0
56	MG	2a	1685	1/1	0.95	0.16	53,53,53,53	0
56	MG	2A	3143	1/1	0.95	0.09	47,47,47,47	0
56	MG	2A	3144	1/1	0.95	0.10	43,43,43,43	0
56	MG	2A	3148	1/1	0.95	0.19	43,43,43,43	0
56	MG	2a	1690	1/1	0.95	0.22	50,50,50,50	0
56	MG	2A	3478	1/1	0.95	0.12	56,56,56,56	0
56	MG	1S	3001	1/1	0.95	0.19	52,52,52,52	0
56	MG	1S	3002	1/1	0.95	0.06	53,53,53,53	0
56	MG	2a	1696	1/1	0.95	0.17	50,50,50,50	0
56	MG	2A	3482	1/1	0.95	0.14	46,46,46,46	0
56	MG	2A	3158	1/1	0.95	0.09	49,49,49,49	0
56	MG	2A	3486	1/1	0.95	0.10	54,54,54,54	0
56	MG	2a	1704	1/1	0.95	0.07	40,40,40,40	0
56	MG	1T	201	1/1	0.95	0.12	43,43,43,43	0
56	MG	2A	3160	1/1	0.95	0.08	47,47,47,47	0
56	MG	2a	1708	1/1	0.95	0.09	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	1T	203	1/1	0.95	0.06	42,42,42,42	0
56	MG	2A	3165	1/1	0.95	0.12	36,36,36,36	0
56	MG	2a	1714	1/1	0.95	0.07	55,55,55,55	0
56	MG	1A	3004	1/1	0.95	0.07	28,28,28,28	0
56	MG	2a	1717	1/1	0.95	0.10	59,59,59,59	0
56	MG	2A	3168	1/1	0.95	0.09	46,46,46,46	0
56	MG	1a	1765	1/1	0.95	0.23	69,69,69,69	0
56	MG	2A	3494	1/1	0.95	0.09	45,45,45,45	0
56	MG	1W	3001	1/1	0.95	0.14	43,43,43,43	0
56	MG	1a	1767	1/1	0.95	0.11	67,67,67,67	0
56	MG	1X	3002	1/1	0.95	0.06	45,45,45,45	0
56	MG	1a	1769	1/1	0.95	0.08	69,69,69,69	0
56	MG	2a	1725	1/1	0.95	0.07	69,69,69,69	0
56	MG	1A	3839	1/1	0.95	0.09	70,70,70,70	0
56	MG	1Y	502	1/1	0.95	0.12	50,50,50,50	0
56	MG	1A	3211	1/1	0.95	0.08	38,38,38,38	0
56	MG	1A	3152	1/1	0.95	0.08	37,37,37,37	0
56	MG	1A	3710	1/1	0.95	0.06	43,43,43,43	0
56	MG	1A	3713	1/1	0.95	0.08	36,36,36,36	0
56	MG	2a	1732	1/1	0.95	0.06	45,45,45,45	0
56	MG	2a	1733	1/1	0.95	0.21	61,61,61,61	0
56	MG	1A	3845	1/1	0.95	0.22	47,47,47,47	0
56	MG	1A	3463	1/1	0.95	0.06	25,25,25,25	0
56	MG	1A	3589	1/1	0.95	0.08	29,29,29,29	0
56	MG	1A	3155	1/1	0.95	0.10	48,48,48,48	0
56	MG	1l	103	1/1	0.95	0.09	45,45,45,45	0
56	MG	2A	3519	1/1	0.95	0.07	43,43,43,43	0
56	MG	1A	3055	1/1	0.95	0.09	50,50,50,50	0
56	MG	1A	3721	1/1	0.95	0.10	50,50,50,50	0
56	MG	1A	3466	1/1	0.95	0.09	50,50,50,50	0
56	MG	2A	3199	1/1	0.95	0.14	43,43,43,43	0
56	MG	15	102	1/1	0.95	0.07	37,37,37,37	0
56	MG	1a	1796	1/1	0.95	0.11	40,40,40,40	0
56	MG	1a	1797	1/1	0.95	0.13	52,52,52,52	0
56	MG	1A	3857	1/1	0.95	0.07	39,39,39,39	0
56	MG	1A	3103	1/1	0.95	0.10	36,36,36,36	0
56	MG	2A	3210	1/1	0.95	0.10	40,40,40,40	0
56	MG	2A	3211	1/1	0.95	0.12	43,43,43,43	0
56	MG	1A	3105	1/1	0.95	0.09	31,31,31,31	0
56	MG	1A	3730	1/1	0.95	0.07	47,47,47,47	0
56	MG	2A	3217	1/1	0.95	0.28	60,60,60,60	0
56	MG	1A	3865	1/1	0.95	0.07	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	3221	1/1	0.95	0.19	43,43,43,43	0
56	MG	1A	3286	1/1	0.95	0.13	41,41,41,41	0
56	MG	2A	3223	1/1	0.95	0.13	51,51,51,51	0
56	MG	2A	3540	1/1	0.95	0.08	43,43,43,43	0
56	MG	2A	3541	1/1	0.95	0.13	51,51,51,51	0
56	MG	1a	1804	1/1	0.95	0.15	65,65,65,65	0
56	MG	1A	3220	1/1	0.95	0.07	48,48,48,48	0
56	MG	2A	3226	1/1	0.95	0.24	42,42,42,42	0
56	MG	1A	3108	1/1	0.95	0.11	39,39,39,39	0
56	MG	1A	3222	1/1	0.95	0.18	37,37,37,37	0
56	MG	1A	3480	1/1	0.95	0.06	26,26,26,26	0
56	MG	1A	3167	1/1	0.95	0.19	42,42,42,42	0
56	MG	1A	3606	1/1	0.95	0.09	19,19,19,19	0
56	MG	2A	3232	1/1	0.95	0.07	41,41,41,41	0
56	MG	2A	3552	1/1	0.95	0.12	57,57,57,57	0
56	MG	2A	3554	1/1	0.95	0.06	45,45,45,45	0
56	MG	1A	3068	1/1	0.95	0.07	43,43,43,43	0
56	MG	1A	3611	1/1	0.95	0.07	46,46,46,46	0
56	MG	1A	3379	1/1	0.95	0.13	52,52,52,52	0
56	MG	2A	3237	1/1	0.95	0.18	57,57,57,57	0
56	MG	1A	3227	1/1	0.95	0.08	42,42,42,42	0
56	MG	1A	3885	1/1	0.95	0.10	44,44,44,44	0
56	MG	1a	1617	1/1	0.95	0.14	47,47,47,47	0
56	MG	2A	3566	1/1	0.95	0.06	38,38,38,38	0
56	MG	1a	1822	1/1	0.95	0.10	62,62,62,62	0
56	MG	2A	3568	1/1	0.95	0.05	54,54,54,54	0
56	MG	1A	3300	1/1	0.95	0.13	31,31,31,31	0
56	MG	1A	3488	1/1	0.95	0.06	28,28,28,28	0
56	MG	1a	1622	1/1	0.95	0.11	49,49,49,49	0
56	MG	1A	3489	1/1	0.95	0.13	40,40,40,40	0
56	MG	2A	3247	1/1	0.95	0.07	51,51,51,51	0
56	MG	1A	3490	1/1	0.95	0.08	53,53,53,53	0
56	MG	1A	3303	1/1	0.95	0.10	34,34,34,34	0
56	MG	1A	3751	1/1	0.95	0.08	63,63,63,63	0
56	MG	1a	1838	1/1	0.95	0.06	51,51,51,51	0
56	MG	2A	3254	1/1	0.95	0.08	38,38,38,38	0
56	MG	2q	3001	1/1	0.95	0.05	66,66,66,66	0
56	MG	2q	3002	1/1	0.95	0.15	63,63,63,63	0
56	MG	1A	3752	1/1	0.95	0.08	37,37,37,37	0
56	MG	2A	3257	1/1	0.95	0.11	47,47,47,47	0
56	MG	2v	3001	1/1	0.95	0.22	56,56,56,56	0
56	MG	1A	3896	1/1	0.95	0.09	13,13,13,13	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3753	1/1	0.95	0.07	49,49,49,49	0
56	MG	2A	3261	1/1	0.95	0.12	34,34,34,34	0
56	MG	2A	3262	1/1	0.95	0.10	41,41,41,41	0
56	MG	1A	3229	1/1	0.95	0.07	40,40,40,40	0
56	MG	1A	3495	1/1	0.95	0.12	43,43,43,43	0
56	MG	1A	3756	1/1	0.95	0.07	39,39,39,39	0
58	HGR	2A	3652	36/36	0.95	0.10	21,36,48,50	0
56	MG	1A	3113	1/1	0.95	0.08	40,40,40,40	0
56	MG	2A	3271	1/1	0.95	0.06	34,34,34,34	0
56	MG	2A	3272	1/1	0.95	0.10	42,42,42,42	0
56	MG	1A	3912	1/1	0.96	0.06	35,35,35,35	0
56	MG	1A	3285	1/1	0.96	0.23	49,49,49,49	0
56	MG	1A	3918	1/1	0.96	0.09	35,35,35,35	0
56	MG	1A	3920	1/1	0.96	0.13	33,33,33,33	0
56	MG	2A	3606	1/1	0.96	0.06	51,51,51,51	0
56	MG	1A	3134	1/1	0.96	0.09	35,35,35,35	0
56	MG	2A	3608	1/1	0.96	0.07	27,27,27,27	0
56	MG	1a	1643	1/1	0.96	0.35	51,51,51,51	0
56	MG	1A	3224	1/1	0.96	0.14	51,51,51,51	0
56	MG	1A	3109	1/1	0.96	0.20	34,34,34,34	0
56	MG	2A	3001	1/1	0.96	0.14	28,28,28,28	0
56	MG	1A	3625	1/1	0.96	0.08	51,51,51,51	0
56	MG	2A	3003	1/1	0.96	0.06	43,43,43,43	0
56	MG	2A	3005	1/1	0.96	0.17	50,50,50,50	0
56	MG	1A	3930	1/1	0.96	0.29	36,36,36,36	0
56	MG	2A	3007	1/1	0.96	0.06	38,38,38,38	0
56	MG	1A	3378	1/1	0.96	0.11	43,43,43,43	0
56	MG	1A	3763	1/1	0.96	0.09	39,39,39,39	0
56	MG	1A	3178	1/1	0.96	0.19	36,36,36,36	0
56	MG	1A	3138	1/1	0.96	0.19	32,32,32,32	0
56	MG	1A	3047	1/1	0.96	0.13	35,35,35,35	0
56	MG	2A	3022	1/1	0.96	0.24	43,43,43,43	0
56	MG	1A	3492	1/1	0.96	0.06	49,49,49,49	0
56	MG	1A	3382	1/1	0.96	0.12	47,47,47,47	0
56	MG	1A	3142	1/1	0.96	0.10	17,17,17,17	0
56	MG	1A	3944	1/1	0.96	0.10	33,33,33,33	0
56	MG	2A	3307	1/1	0.96	0.06	31,31,31,31	0
56	MG	2A	3308	1/1	0.96	0.05	45,45,45,45	0
56	MG	2A	3309	1/1	0.96	0.12	31,31,31,31	0
56	MG	2A	3310	1/1	0.96	0.13	34,34,34,34	0
56	MG	1A	3945	1/1	0.96	0.10	39,39,39,39	0
56	MG	2A	3029	1/1	0.96	0.12	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	3313	1/1	0.96	0.06	37,37,37,37	0
56	MG	1A	3946	1/1	0.96	0.07	38,38,38,38	0
56	MG	1A	3947	1/1	0.96	0.06	49,49,49,49	0
56	MG	2A	3316	1/1	0.96	0.07	25,25,25,25	0
56	MG	2A	3317	1/1	0.96	0.10	38,38,38,38	0
56	MG	1a	1662	1/1	0.96	0.18	51,51,51,51	0
56	MG	2A	3319	1/1	0.96	0.09	29,29,29,29	0
56	MG	2A	3649	1/1	0.96	0.09	30,30,30,30	0
56	MG	1A	3496	1/1	0.96	0.05	28,28,28,28	0
56	MG	2A	3323	1/1	0.96	0.06	47,47,47,47	0
56	MG	2A	3324	1/1	0.96	0.10	50,50,50,50	0
56	MG	2A	3036	1/1	0.96	0.13	43,43,43,43	0
56	MG	2A	3660	1/1	0.96	0.06	42,42,42,42	0
56	MG	2A	3661	1/1	0.96	0.07	41,41,41,41	0
56	MG	1A	3949	1/1	0.96	0.23	28,28,28,28	0
56	MG	2A	3664	1/1	0.96	0.30	46,46,46,46	0
56	MG	1A	3096	1/1	0.96	0.09	22,22,22,22	0
56	MG	1A	3385	1/1	0.96	0.06	42,42,42,42	0
56	MG	2A	3668	1/1	0.96	0.44	48,48,48,48	0
56	MG	1A	3954	1/1	0.96	0.07	28,28,28,28	0
56	MG	1a	1670	1/1	0.96	0.06	40,40,40,40	0
56	MG	2A	3674	1/1	0.96	0.10	47,47,47,47	0
56	MG	2A	3044	1/1	0.96	0.06	36,36,36,36	0
56	MG	1A	3955	1/1	0.96	0.11	29,29,29,29	0
56	MG	1A	3957	1/1	0.96	0.07	37,37,37,37	0
56	MG	2A	3340	1/1	0.96	0.05	27,27,27,27	0
56	MG	1A	3501	1/1	0.96	0.08	32,32,32,32	0
56	MG	1a	1677	1/1	0.96	0.07	56,56,56,56	0
56	MG	2B	3006	1/1	0.96	0.06	51,51,51,51	0
56	MG	1a	1679	1/1	0.96	0.13	48,48,48,48	0
56	MG	1A	3114	1/1	0.96	0.20	32,32,32,32	0
56	MG	1A	3304	1/1	0.96	0.06	48,48,48,48	0
56	MG	2B	3012	1/1	0.96	0.09	51,51,51,51	0
56	MG	2B	3013	1/1	0.96	0.09	45,45,45,45	0
56	MG	1A	3145	1/1	0.96	0.18	36,36,36,36	0
56	MG	2A	3350	1/1	0.96	0.06	38,38,38,38	0
56	MG	1A	3962	1/1	0.96	0.12	35,35,35,35	0
56	MG	1A	3115	1/1	0.96	0.08	37,37,37,37	0
56	MG	1A	3054	1/1	0.96	0.20	54,54,54,54	0
56	MG	1a	1687	1/1	0.96	0.08	55,55,55,55	0
56	MG	2E	303	1/1	0.96	0.07	42,42,42,42	0
56	MG	1A	3392	1/1	0.96	0.07	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3510	1/1	0.96	0.08	25,25,25,25	0
56	MG	2A	3360	1/1	0.96	0.06	35,35,35,35	0
56	MG	1A	3653	1/1	0.96	0.07	47,47,47,47	0
56	MG	2A	3362	1/1	0.96	0.12	44,44,44,44	0
56	MG	1A	3238	1/1	0.96	0.10	28,28,28,28	0
56	MG	1B	3005	1/1	0.96	0.08	58,58,58,58	0
56	MG	1A	3309	1/1	0.96	0.11	36,36,36,36	0
56	MG	1A	3026	1/1	0.96	0.08	29,29,29,29	0
56	MG	2A	3369	1/1	0.96	0.09	50,50,50,50	0
56	MG	1A	3398	1/1	0.96	0.07	27,27,27,27	0
56	MG	1A	3240	1/1	0.96	0.16	40,40,40,40	0
56	MG	2U	203	1/1	0.96	0.10	42,42,42,42	0
56	MG	1A	3314	1/1	0.96	0.20	42,42,42,42	0
56	MG	2A	3069	1/1	0.96	0.04	30,30,30,30	0
56	MG	1A	3404	1/1	0.96	0.06	44,44,44,44	0
56	MG	2A	3378	1/1	0.96	0.08	48,48,48,48	0
56	MG	1A	3407	1/1	0.96	0.04	34,34,34,34	0
56	MG	2A	3380	1/1	0.96	0.06	35,35,35,35	0
56	MG	1A	3520	1/1	0.96	0.07	47,47,47,47	0
56	MG	1A	3242	1/1	0.96	0.08	47,47,47,47	0
56	MG	1B	3018	1/1	0.96	0.12	41,41,41,41	0
56	MG	1A	3410	1/1	0.96	0.10	42,42,42,42	0
56	MG	2A	3387	1/1	0.96	0.21	50,50,50,50	0
56	MG	1A	3668	1/1	0.96	0.08	35,35,35,35	0
56	MG	2a	1603	1/1	0.96	0.18	65,65,65,65	0
56	MG	1A	3317	1/1	0.96	0.21	39,39,39,39	0
56	MG	1A	3244	1/1	0.96	0.18	39,39,39,39	0
56	MG	2a	1606	1/1	0.96	0.08	61,61,61,61	0
56	MG	2a	1607	1/1	0.96	0.16	48,48,48,48	0
56	MG	1A	3319	1/1	0.96	0.29	28,28,28,28	0
56	MG	1A	3246	1/1	0.96	0.07	48,48,48,48	0
56	MG	1A	3527	1/1	0.96	0.08	41,41,41,41	0
56	MG	1A	3248	1/1	0.96	0.06	32,32,32,32	0
56	MG	1A	3808	1/1	0.96	0.08	41,41,41,41	0
56	MG	2A	3396	1/1	0.96	0.08	36,36,36,36	0
56	MG	2A	3088	1/1	0.96	0.19	53,53,53,53	0
56	MG	2A	3089	1/1	0.96	0.06	27,27,27,27	0
56	MG	1A	3252	1/1	0.96	0.05	41,41,41,41	0
56	MG	2A	3091	1/1	0.96	0.05	29,29,29,29	0
56	MG	2A	3401	1/1	0.96	0.08	45,45,45,45	0
56	MG	2a	1619	1/1	0.96	0.07	46,46,46,46	0
56	MG	2a	1620	1/1	0.96	0.17	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3092	1/1	0.96	0.07	38,38,38,38	0
56	MG	1A	3530	1/1	0.96	0.04	14,14,14,14	0
56	MG	1A	3325	1/1	0.96	0.06	38,38,38,38	0
56	MG	1A	3193	1/1	0.96	0.08	33,33,33,33	0
56	MG	1a	1719	1/1	0.96	0.09	45,45,45,45	0
56	MG	2A	3100	1/1	0.96	0.06	52,52,52,52	0
56	MG	1A	3680	1/1	0.96	0.28	36,36,36,36	0
56	MG	1E	305	1/1	0.96	0.09	37,37,37,37	0
56	MG	1A	3195	1/1	0.96	0.07	39,39,39,39	0
56	MG	1F	301	1/1	0.96	0.10	51,51,51,51	0
56	MG	2A	3107	1/1	0.96	0.08	47,47,47,47	0
56	MG	2A	3108	1/1	0.96	0.07	30,30,30,30	0
56	MG	2A	3418	1/1	0.96	0.07	44,44,44,44	0
56	MG	2A	3109	1/1	0.96	0.05	49,49,49,49	0
56	MG	2a	1636	1/1	0.96	0.12	60,60,60,60	0
56	MG	1a	1724	1/1	0.96	0.16	52,52,52,52	0
56	MG	1A	3536	1/1	0.96	0.07	48,48,48,48	0
56	MG	2a	1641	1/1	0.96	0.10	65,65,65,65	0
56	MG	1A	3423	1/1	0.96	0.07	42,42,42,42	0
56	MG	2A	3427	1/1	0.96	0.08	42,42,42,42	0
56	MG	2A	3428	1/1	0.96	0.06	27,27,27,27	0
56	MG	1A	3685	1/1	0.96	0.05	26,26,26,26	0
56	MG	2A	3430	1/1	0.96	0.07	56,56,56,56	0
56	MG	2A	3432	1/1	0.96	0.06	36,36,36,36	0
56	MG	2A	3114	1/1	0.96	0.24	51,51,51,51	0
56	MG	2a	1650	1/1	0.96	0.11	47,47,47,47	0
56	MG	1A	3425	1/1	0.96	0.07	36,36,36,36	0
56	MG	1G	202	1/1	0.96	0.12	45,45,45,45	0
56	MG	2a	1653	1/1	0.96	0.14	51,51,51,51	0
56	MG	2A	3436	1/1	0.96	0.12	39,39,39,39	0
56	MG	2A	3119	1/1	0.96	0.07	37,37,37,37	0
56	MG	1A	3540	1/1	0.96	0.07	33,33,33,33	0
56	MG	1A	3688	1/1	0.96	0.07	41,41,41,41	0
56	MG	1A	3541	1/1	0.96	0.05	42,42,42,42	0
56	MG	1A	3822	1/1	0.96	0.06	52,52,52,52	0
56	MG	2a	1660	1/1	0.96	0.06	61,61,61,61	0
56	MG	2A	3445	1/1	0.96	0.07	39,39,39,39	0
56	MG	1A	3542	1/1	0.96	0.09	52,52,52,52	0
56	MG	1A	3149	1/1	0.96	0.21	30,30,30,30	0
56	MG	1A	3330	1/1	0.96	0.10	42,42,42,42	0
56	MG	1A	3546	1/1	0.96	0.07	45,45,45,45	0
56	MG	2A	3129	1/1	0.96	0.19	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	1A	3150	1/1	0.96	0.22	41,41,41,41	0
56	MG	1A	3695	1/1	0.96	0.16	42,42,42,42	0
56	MG	1A	3832	1/1	0.96	0.11	57,57,57,57	0
56	MG	1a	1748	1/1	0.96	0.05	58,58,58,58	0
56	MG	1A	3833	1/1	0.96	0.09	54,54,54,54	0
56	MG	1P	202	1/1	0.96	0.13	33,33,33,33	0
56	MG	2A	3140	1/1	0.96	0.04	50,50,50,50	0
56	MG	1A	3834	1/1	0.96	0.12	46,46,46,46	0
56	MG	1Q	203	1/1	0.96	0.10	33,33,33,33	0
56	MG	1a	1754	1/1	0.96	0.06	45,45,45,45	0
56	MG	1Q	204	1/1	0.96	0.12	55,55,55,55	0
56	MG	2A	3466	1/1	0.96	0.12	50,50,50,50	0
56	MG	2A	3149	1/1	0.96	0.16	49,49,49,49	0
56	MG	1a	1757	1/1	0.96	0.07	39,39,39,39	0
56	MG	2a	1684	1/1	0.96	0.23	48,48,48,48	0
56	MG	1A	3332	1/1	0.96	0.07	31,31,31,31	0
56	MG	1A	3073	1/1	0.96	0.11	29,29,29,29	0
56	MG	2A	3472	1/1	0.96	0.08	55,55,55,55	0
56	MG	1A	3153	1/1	0.96	0.16	31,31,31,31	0
56	MG	1A	3700	1/1	0.96	0.11	40,40,40,40	0
56	MG	1a	1762	1/1	0.96	0.14	42,42,42,42	0
56	MG	2A	3163	1/1	0.96	0.12	32,32,32,32	0
56	MG	2A	3164	1/1	0.96	0.08	47,47,47,47	0
56	MG	2A	3479	1/1	0.96	0.07	39,39,39,39	0
56	MG	1a	1763	1/1	0.96	0.06	56,56,56,56	0
56	MG	1A	3154	1/1	0.96	0.18	36,36,36,36	0
56	MG	2a	1700	1/1	0.96	0.06	60,60,60,60	0
56	MG	2a	1701	1/1	0.96	0.18	62,62,62,62	0
56	MG	2A	3167	1/1	0.96	0.13	39,39,39,39	0
56	MG	1A	3260	1/1	0.96	0.08	40,40,40,40	0
56	MG	2A	3484	1/1	0.96	0.05	53,53,53,53	0
56	MG	1A	3435	1/1	0.96	0.08	35,35,35,35	0
56	MG	1A	3337	1/1	0.96	0.07	39,39,39,39	0
56	MG	2a	1709	1/1	0.96	0.07	68,68,68,68	0
56	MG	1A	3338	1/1	0.96	0.05	36,36,36,36	0
56	MG	1a	1770	1/1	0.96	0.10	44,44,44,44	0
56	MG	2a	1712	1/1	0.96	0.18	58,58,58,58	0
56	MG	1U	201	1/1	0.96	0.07	33,33,33,33	0
56	MG	2A	3174	1/1	0.96	0.05	42,42,42,42	0
56	MG	1A	3567	1/1	0.96	0.05	15,15,15,15	0
56	MG	1A	3708	1/1	0.96	0.10	47,47,47,47	0
56	MG	1W	3002	1/1	0.96	0.15	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	1W	3004	1/1	0.96	0.09	33,33,33,33	0
56	MG	2A	3180	1/1	0.96	0.14	39,39,39,39	0
56	MG	1W	3006	1/1	0.96	0.10	46,46,46,46	0
56	MG	1A	3849	1/1	0.96	0.08	29,29,29,29	0
56	MG	2A	3184	1/1	0.96	0.15	46,46,46,46	0
56	MG	1A	3261	1/1	0.96	0.17	51,51,51,51	0
56	MG	1a	1785	1/1	0.96	0.14	41,41,41,41	0
56	MG	1a	1786	1/1	0.96	0.10	56,56,56,56	0
56	MG	1A	3201	1/1	0.96	0.07	39,39,39,39	0
56	MG	1A	3712	1/1	0.96	0.08	50,50,50,50	0
56	MG	2A	3507	1/1	0.96	0.04	19,19,19,19	0
56	MG	1A	3120	1/1	0.96	0.07	38,38,38,38	0
56	MG	2A	3510	1/1	0.96	0.04	31,31,31,31	0
56	MG	2A	3511	1/1	0.96	0.05	68,68,68,68	0
56	MG	2A	3195	1/1	0.96	0.07	47,47,47,47	0
56	MG	2a	1735	1/1	0.96	0.18	42,42,42,42	0
56	MG	1A	3714	1/1	0.96	0.08	48,48,48,48	0
56	MG	1A	3574	1/1	0.96	0.10	47,47,47,47	0
56	MG	1a	1793	1/1	0.96	0.06	45,45,45,45	0
56	MG	1A	3206	1/1	0.96	0.06	36,36,36,36	0
56	MG	1A	3447	1/1	0.96	0.08	36,36,36,36	0
56	MG	1A	3345	1/1	0.96	0.07	35,35,35,35	0
56	MG	1A	3346	1/1	0.96	0.15	41,41,41,41	0
56	MG	1A	3037	1/1	0.96	0.06	38,38,38,38	0
56	MG	2a	1744	1/1	0.96	0.09	47,47,47,47	0
56	MG	1A	3122	1/1	0.96	0.18	40,40,40,40	0
56	MG	13	101	1/1	0.96	0.08	50,50,50,50	0
56	MG	1A	3209	1/1	0.96	0.07	35,35,35,35	0
56	MG	1A	3875	1/1	0.96	0.07	32,32,32,32	0
56	MG	2A	3214	1/1	0.96	0.13	41,41,41,41	0
56	MG	2A	3216	1/1	0.96	0.08	43,43,43,43	0
56	MG	1A	3728	1/1	0.96	0.18	50,50,50,50	0
56	MG	1A	3878	1/1	0.96	0.08	40,40,40,40	0
56	MG	2A	3220	1/1	0.96	0.13	55,55,55,55	0
56	MG	1A	3162	1/1	0.96	0.42	33,33,33,33	0
56	MG	1A	3459	1/1	0.96	0.10	40,40,40,40	0
56	MG	2a	1758	1/1	0.96	0.11	46,46,46,46	0
56	MG	1A	3163	1/1	0.96	0.07	41,41,41,41	0
56	MG	1A	3028	1/1	0.96	0.06	20,20,20,20	0
56	MG	1A	3127	1/1	0.96	0.17	47,47,47,47	0
56	MG	1a	1601	1/1	0.96	0.11	53,53,53,53	0
56	MG	1A	3077	1/1	0.96	0.10	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	1A	3129	1/1	0.96	0.14	38,38,38,38	0
56	MG	2a	1766	1/1	0.96	0.10	56,56,56,56	0
56	MG	1a	1604	1/1	0.96	0.06	47,47,47,47	0
56	MG	1A	3599	1/1	0.96	0.14	28,28,28,28	0
56	MG	1a	1816	1/1	0.96	0.11	49,49,49,49	0
56	MG	1a	1817	1/1	0.96	0.12	48,48,48,48	0
56	MG	1a	1818	1/1	0.96	0.07	55,55,55,55	0
56	MG	1a	1819	1/1	0.96	0.09	61,61,61,61	0
56	MG	2A	3235	1/1	0.96	0.08	49,49,49,49	0
56	MG	1A	3362	1/1	0.96	0.20	36,36,36,36	0
56	MG	1A	3889	1/1	0.96	0.09	36,36,36,36	0
56	MG	1A	3016	1/1	0.96	0.10	34,34,34,34	0
56	MG	1A	3277	1/1	0.96	0.26	57,57,57,57	0
56	MG	1a	1825	1/1	0.96	0.07	46,46,46,46	0
56	MG	1A	3744	1/1	0.96	0.12	50,50,50,50	0
56	MG	1A	3218	1/1	0.96	0.08	51,51,51,51	0
56	MG	1A	3895	1/1	0.96	0.08	40,40,40,40	0
56	MG	1a	1614	1/1	0.96	0.10	37,37,37,37	0
56	MG	1a	1830	1/1	0.96	0.09	44,44,44,44	0
56	MG	2A	3565	1/1	0.96	0.10	50,50,50,50	0
56	MG	1a	1832	1/1	0.96	0.12	47,47,47,47	0
56	MG	1a	1615	1/1	0.96	0.08	65,65,65,65	0
56	MG	2A	3249	1/1	0.96	0.09	30,30,30,30	0
56	MG	1A	3219	1/1	0.96	0.11	40,40,40,40	0
56	MG	2a	1794	1/1	0.96	0.10	51,51,51,51	0
56	MG	1A	3368	1/1	0.96	0.06	41,41,41,41	0
56	MG	1A	3106	1/1	0.96	0.08	37,37,37,37	0
56	MG	1a	1619	1/1	0.96	0.08	56,56,56,56	0
56	MG	2e	3001	1/1	0.96	0.05	53,53,53,53	0
56	MG	1A	3477	1/1	0.96	0.12	23,23,23,23	0
56	MG	1A	3610	1/1	0.96	0.06	56,56,56,56	0
56	MG	1f	3001	1/1	0.96	0.09	38,38,38,38	0
56	MG	1A	3478	1/1	0.96	0.06	20,20,20,20	0
56	MG	2l	201	1/1	0.96	0.07	61,61,61,61	0
56	MG	1A	3902	1/1	0.96	0.12	28,28,28,28	0
56	MG	1t	3001	1/1	0.96	0.17	47,47,47,47	0
56	MG	1a	1625	1/1	0.96	0.20	53,53,53,53	0
56	MG	1w	3001	1/1	0.96	0.06	44,44,44,44	0
56	MG	1a	1626	1/1	0.96	0.20	45,45,45,45	0
56	MG	1A	3613	1/1	0.96	0.06	36,36,36,36	0
56	MG	2A	3586	1/1	0.96	0.09	44,44,44,44	0
56	MG	2A	3267	1/1	0.96	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	2A	3269	1/1	0.96	0.08	38,38,38,38	0
56	MG	2A	3270	1/1	0.96	0.06	38,38,38,38	0
56	MG	1A	3032	1/1	0.96	0.08	41,41,41,41	0
56	MG	1A	3905	1/1	0.96	0.12	35,35,35,35	0
56	MG	2A	3594	1/1	0.96	0.09	48,48,48,48	0
56	MG	1A	3906	1/1	0.96	0.10	42,42,42,42	0
58	HGR	1A	3915	36/36	0.96	0.08	15,30,37,44	0
56	MG	1A	3173	1/1	0.96	0.11	36,36,36,36	0
56	MG	1A	3283	1/1	0.96	0.05	37,37,37,37	0
59	ZN	2n	501	1/1	0.96	0.06	108,108,108,108	0
56	MG	1A	3911	1/1	0.96	0.08	53,53,53,53	0
56	MG	2A	3600	1/1	0.96	0.07	42,42,42,42	0
56	MG	1b	3001	1/1	0.97	0.05	75,75,75,75	0
56	MG	2A	3183	1/1	0.97	0.06	44,44,44,44	0
56	MG	1A	3358	1/1	0.97	0.05	33,33,33,33	0
56	MG	2B	3010	1/1	0.97	0.05	50,50,50,50	0
56	MG	2B	3011	1/1	0.97	0.15	55,55,55,55	0
56	MG	1A	3359	1/1	0.97	0.06	44,44,44,44	0
56	MG	2A	3422	1/1	0.97	0.07	43,43,43,43	0
56	MG	2A	3423	1/1	0.97	0.15	47,47,47,47	0
56	MG	2B	3015	1/1	0.97	0.11	48,48,48,48	0
56	MG	1a	1663	1/1	0.97	0.13	59,59,59,59	0
56	MG	2A	3187	1/1	0.97	0.23	60,60,60,60	0
56	MG	2A	3426	1/1	0.97	0.09	38,38,38,38	0
56	MG	1D	303	1/1	0.97	0.19	25,25,25,25	0
56	MG	2D	304	1/1	0.97	0.12	42,42,42,42	0
56	MG	1A	3299	1/1	0.97	0.17	40,40,40,40	0
56	MG	2E	302	1/1	0.97	0.06	39,39,39,39	0
56	MG	1D	305	1/1	0.97	0.17	31,31,31,31	0
56	MG	2A	3192	1/1	0.97	0.15	51,51,51,51	0
56	MG	2A	3431	1/1	0.97	0.16	52,52,52,52	0
56	MG	2F	302	1/1	0.97	0.15	50,50,50,50	0
56	MG	2A	3193	1/1	0.97	0.07	40,40,40,40	0
56	MG	1l	201	1/1	0.97	0.10	34,34,34,34	0
56	MG	1A	3856	1/1	0.97	0.06	29,29,29,29	0
56	MG	1A	3740	1/1	0.97	0.08	39,39,39,39	0
56	MG	1E	303	1/1	0.97	0.05	26,26,26,26	0
56	MG	1A	3858	1/1	0.97	0.07	36,36,36,36	0
56	MG	2A	3200	1/1	0.97	0.06	46,46,46,46	0
56	MG	1a	1672	1/1	0.97	0.12	55,55,55,55	0
56	MG	2Q	203	1/1	0.97	0.05	37,37,37,37	0
56	MG	2A	3203	1/1	0.97	0.07	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	3361	1/1	0.97	0.08	33,33,33,33	0
56	MG	2T	3001	1/1	0.97	0.11	50,50,50,50	0
56	MG	2U	202	1/1	0.97	0.03	35,35,35,35	0
56	MG	1a	1675	1/1	0.97	0.04	40,40,40,40	0
56	MG	1A	3860	1/1	0.97	0.05	38,38,38,38	0
56	MG	1A	3030	1/1	0.97	0.23	33,33,33,33	0
56	MG	1A	3862	1/1	0.97	0.06	19,19,19,19	0
56	MG	1A	3743	1/1	0.97	0.11	38,38,38,38	0
56	MG	1x	3003	1/1	0.97	0.05	53,53,53,53	0
56	MG	1A	3301	1/1	0.97	0.32	38,38,38,38	0
56	MG	1F	306	1/1	0.97	0.09	46,46,46,46	0
56	MG	2A	3215	1/1	0.97	0.12	50,50,50,50	0
56	MG	1A	3636	1/1	0.97	0.06	53,53,53,53	0
56	MG	1G	201	1/1	0.97	0.05	37,37,37,37	0
56	MG	1a	1685	1/1	0.97	0.16	66,66,66,66	0
56	MG	2A	3460	1/1	0.97	0.11	40,40,40,40	0
56	MG	2A	3219	1/1	0.97	0.14	45,45,45,45	0
56	MG	1A	3867	1/1	0.97	0.09	31,31,31,31	0
56	MG	1A	3438	1/1	0.97	0.04	30,30,30,30	0
56	MG	1G	204	1/1	0.97	0.05	48,48,48,48	0
56	MG	1A	3869	1/1	0.97	0.16	52,52,52,52	0
56	MG	1a	1690	1/1	0.97	0.07	47,47,47,47	0
56	MG	1A	3870	1/1	0.97	0.09	44,44,44,44	0
56	MG	1A	3302	1/1	0.97	0.20	30,30,30,30	0
56	MG	2A	3004	1/1	0.97	0.05	36,36,36,36	0
56	MG	1A	3365	1/1	0.97	0.20	48,48,48,48	0
56	MG	1A	3873	1/1	0.97	0.05	39,39,39,39	0
56	MG	1O	201	1/1	0.97	0.03	39,39,39,39	0
56	MG	1A	3133	1/1	0.97	0.08	44,44,44,44	0
56	MG	1A	3442	1/1	0.97	0.06	36,36,36,36	0
56	MG	2A	3013	1/1	0.97	0.07	36,36,36,36	0
56	MG	1A	3086	1/1	0.97	0.07	41,41,41,41	0
56	MG	1A	3877	1/1	0.97	0.07	49,49,49,49	0
56	MG	2A	3018	1/1	0.97	0.09	52,52,52,52	0
56	MG	1a	1700	1/1	0.97	0.19	51,51,51,51	0
56	MG	2A	3020	1/1	0.97	0.07	43,43,43,43	0
56	MG	2A	3021	1/1	0.97	0.12	38,38,38,38	0
56	MG	1A	3535	1/1	0.97	0.07	45,45,45,45	0
56	MG	2A	3485	1/1	0.97	0.10	59,59,59,59	0
56	MG	1A	3087	1/1	0.97	0.06	20,20,20,20	0
56	MG	1A	3137	1/1	0.97	0.19	32,32,32,32	0
56	MG	1P	203	1/1	0.97	0.16	27,27,27,27	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	1A	3538	1/1	0.97	0.09	40,40,40,40	0
56	MG	1Q	201	1/1	0.97	0.10	30,30,30,30	0
56	MG	1Q	202	1/1	0.97	0.17	41,41,41,41	0
56	MG	1A	3651	1/1	0.97	0.10	41,41,41,41	0
56	MG	1A	3652	1/1	0.97	0.08	25,25,25,25	0
56	MG	1A	3111	1/1	0.97	0.07	40,40,40,40	0
56	MG	1A	3759	1/1	0.97	0.09	45,45,45,45	0
56	MG	2A	3035	1/1	0.97	0.08	41,41,41,41	0
56	MG	1A	3174	1/1	0.97	0.07	34,34,34,34	0
56	MG	2a	1639	1/1	0.97	0.08	52,52,52,52	0
56	MG	2a	1640	1/1	0.97	0.14	56,56,56,56	0
56	MG	1A	3656	1/1	0.97	0.11	48,48,48,48	0
56	MG	2A	3038	1/1	0.97	0.15	48,48,48,48	0
56	MG	2A	3258	1/1	0.97	0.05	35,35,35,35	0
56	MG	1A	3453	1/1	0.97	0.06	31,31,31,31	0
56	MG	1A	3139	1/1	0.97	0.06	33,33,33,33	0
56	MG	1A	3310	1/1	0.97	0.14	54,54,54,54	0
56	MG	1A	3216	1/1	0.97	0.28	36,36,36,36	0
56	MG	1T	202	1/1	0.97	0.09	46,46,46,46	0
56	MG	2A	3508	1/1	0.97	0.05	38,38,38,38	0
56	MG	1A	3545	1/1	0.97	0.05	57,57,57,57	0
56	MG	1A	3312	1/1	0.97	0.10	41,41,41,41	0
56	MG	1U	204	1/1	0.97	0.09	44,44,44,44	0
56	MG	1A	3176	1/1	0.97	0.06	27,27,27,27	0
56	MG	2A	3513	1/1	0.97	0.06	50,50,50,50	0
56	MG	2A	3268	1/1	0.97	0.05	37,37,37,37	0
56	MG	1V	202	1/1	0.97	0.07	59,59,59,59	0
56	MG	2A	3517	1/1	0.97	0.07	54,54,54,54	0
56	MG	1A	3550	1/1	0.97	0.06	40,40,40,40	0
56	MG	1A	3377	1/1	0.97	0.11	36,36,36,36	0
56	MG	1A	3066	1/1	0.97	0.29	31,31,31,31	0
56	MG	2a	1662	1/1	0.97	0.19	42,42,42,42	0
56	MG	1W	3005	1/1	0.97	0.06	30,30,30,30	0
56	MG	1A	3315	1/1	0.97	0.13	37,37,37,37	0
56	MG	1A	3559	1/1	0.97	0.04	41,41,41,41	0
56	MG	2a	1666	1/1	0.97	0.15	49,49,49,49	0
56	MG	1a	1732	1/1	0.97	0.16	42,42,42,42	0
56	MG	2A	3277	1/1	0.97	0.07	35,35,35,35	0
56	MG	1X	3003	1/1	0.97	0.10	32,32,32,32	0
56	MG	2A	3279	1/1	0.97	0.07	43,43,43,43	0
56	MG	1a	1734	1/1	0.97	0.06	30,30,30,30	0
56	MG	1A	3067	1/1	0.97	0.08	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	1A	3042	1/1	0.97	0.04	27,27,27,27	0
56	MG	1A	3069	1/1	0.97	0.04	27,27,27,27	0
56	MG	2A	3063	1/1	0.97	0.06	43,43,43,43	0
56	MG	1A	3467	1/1	0.97	0.06	43,43,43,43	0
56	MG	1A	3001	1/1	0.97	0.04	33,33,33,33	0
56	MG	1A	3045	1/1	0.97	0.08	19,19,19,19	0
56	MG	2A	3288	1/1	0.97	0.07	44,44,44,44	0
56	MG	1A	3118	1/1	0.97	0.07	30,30,30,30	0
56	MG	2A	3539	1/1	0.97	0.05	51,51,51,51	0
56	MG	1A	3569	1/1	0.97	0.06	50,50,50,50	0
56	MG	1A	3075	1/1	0.97	0.17	43,43,43,43	0
56	MG	1A	3186	1/1	0.97	0.23	56,56,56,56	0
56	MG	2A	3072	1/1	0.97	0.08	40,40,40,40	0
56	MG	2a	1687	1/1	0.97	0.15	52,52,52,52	0
56	MG	10	104	1/1	0.97	0.04	55,55,55,55	0
56	MG	11	101	1/1	0.97	0.05	41,41,41,41	0
56	MG	1A	3917	1/1	0.97	0.31	40,40,40,40	0
56	MG	2A	3076	1/1	0.97	0.11	31,31,31,31	0
56	MG	2a	1693	1/1	0.97	0.15	47,47,47,47	0
56	MG	1A	3228	1/1	0.97	0.08	39,39,39,39	0
56	MG	1A	3682	1/1	0.97	0.10	50,50,50,50	0
56	MG	1A	3097	1/1	0.97	0.09	16,16,16,16	0
56	MG	2a	1697	1/1	0.97	0.05	37,37,37,37	0
56	MG	1a	1756	1/1	0.97	0.04	65,65,65,65	0
56	MG	1A	3230	1/1	0.97	0.10	39,39,39,39	0
56	MG	1A	3927	1/1	0.97	0.07	40,40,40,40	0
56	MG	1A	3580	1/1	0.97	0.04	32,32,32,32	0
56	MG	1A	3391	1/1	0.97	0.07	18,18,18,18	0
56	MG	2a	1703	1/1	0.97	0.10	61,61,61,61	0
56	MG	2A	3085	1/1	0.97	0.05	37,37,37,37	0
56	MG	1A	3795	1/1	0.97	0.08	20,20,20,20	0
56	MG	1A	3003	1/1	0.97	0.05	32,32,32,32	0
56	MG	2a	1707	1/1	0.97	0.06	60,60,60,60	0
56	MG	2A	3562	1/1	0.97	0.09	42,42,42,42	0
56	MG	18	101	1/1	0.97	0.09	45,45,45,45	0
56	MG	18	102	1/1	0.97	0.09	33,33,33,33	0
56	MG	1A	3276	1/1	0.97	0.23	51,51,51,51	0
56	MG	1A	3191	1/1	0.97	0.04	38,38,38,38	0
56	MG	2a	1713	1/1	0.97	0.06	49,49,49,49	0
56	MG	1A	3937	1/1	0.97	0.10	39,39,39,39	0
56	MG	1A	3585	1/1	0.97	0.06	49,49,49,49	0
56	MG	2a	1716	1/1	0.97	0.06	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	3094	1/1	0.97	0.06	43,43,43,43	0
56	MG	2A	3571	1/1	0.97	0.06	47,47,47,47	0
56	MG	1A	3151	1/1	0.97	0.07	34,34,34,34	0
56	MG	1a	1771	1/1	0.97	0.09	54,54,54,54	0
56	MG	2A	3322	1/1	0.97	0.06	49,49,49,49	0
56	MG	2A	3098	1/1	0.97	0.03	37,37,37,37	0
56	MG	1A	3034	1/1	0.97	0.17	35,35,35,35	0
56	MG	1a	1773	1/1	0.97	0.07	64,64,64,64	0
56	MG	1A	3399	1/1	0.97	0.13	42,42,42,42	0
56	MG	2A	3329	1/1	0.97	0.04	43,43,43,43	0
56	MG	1A	3590	1/1	0.97	0.07	24,24,24,24	0
56	MG	1a	1777	1/1	0.97	0.05	47,47,47,47	0
56	MG	2A	3583	1/1	0.97	0.07	41,41,41,41	0
56	MG	1A	3123	1/1	0.97	0.09	43,43,43,43	0
56	MG	1a	1779	1/1	0.97	0.10	36,36,36,36	0
56	MG	1A	3696	1/1	0.97	0.17	38,38,38,38	0
56	MG	1A	3807	1/1	0.97	0.12	49,49,49,49	0
56	MG	2A	3336	1/1	0.97	0.07	47,47,47,47	0
56	MG	2A	3337	1/1	0.97	0.06	42,42,42,42	0
56	MG	2A	3590	1/1	0.97	0.07	41,41,41,41	0
56	MG	2A	3591	1/1	0.97	0.08	45,45,45,45	0
56	MG	2A	3338	1/1	0.97	0.07	42,42,42,42	0
56	MG	1A	3402	1/1	0.97	0.09	38,38,38,38	0
56	MG	1A	3017	1/1	0.97	0.14	31,31,31,31	0
56	MG	1A	3125	1/1	0.97	0.23	36,36,36,36	0
56	MG	2A	3596	1/1	0.97	0.06	42,42,42,42	0
56	MG	2A	3342	1/1	0.97	0.09	31,31,31,31	0
56	MG	1A	3950	1/1	0.97	0.12	35,35,35,35	0
56	MG	1A	3951	1/1	0.97	0.13	33,33,33,33	0
56	MG	2A	3346	1/1	0.97	0.04	36,36,36,36	0
56	MG	2A	3601	1/1	0.97	0.06	49,49,49,49	0
56	MG	1A	3406	1/1	0.97	0.07	23,23,23,23	0
56	MG	1A	3598	1/1	0.97	0.13	42,42,42,42	0
56	MG	1A	3126	1/1	0.97	0.20	39,39,39,39	0
56	MG	1A	3408	1/1	0.97	0.04	43,43,43,43	0
56	MG	2A	3351	1/1	0.97	0.09	46,46,46,46	0
56	MG	1a	1620	1/1	0.97	0.10	50,50,50,50	0
56	MG	1A	3956	1/1	0.97	0.08	35,35,35,35	0
56	MG	1A	3011	1/1	0.97	0.15	41,41,41,41	0
56	MG	2a	1757	1/1	0.97	0.08	70,70,70,70	0
56	MG	1A	3060	1/1	0.97	0.05	31,31,31,31	0
56	MG	1A	3061	1/1	0.97	0.08	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	3126	1/1	0.97	0.18	53,53,53,53	0
56	MG	1A	3707	1/1	0.97	0.12	54,54,54,54	0
56	MG	1A	3342	1/1	0.97	0.07	33,33,33,33	0
56	MG	2a	1763	1/1	0.97	0.11	46,46,46,46	0
56	MG	1A	3243	1/1	0.97	0.08	56,56,56,56	0
56	MG	1a	1629	1/1	0.97	0.07	58,58,58,58	0
56	MG	1A	3289	1/1	0.97	0.11	29,29,29,29	0
56	MG	1A	3711	1/1	0.97	0.08	41,41,41,41	0
56	MG	2A	3133	1/1	0.97	0.07	49,49,49,49	0
56	MG	1A	3607	1/1	0.97	0.10	30,30,30,30	0
56	MG	2a	1770	1/1	0.97	0.15	41,41,41,41	0
56	MG	2A	3623	1/1	0.97	0.12	46,46,46,46	0
56	MG	2A	3136	1/1	0.97	0.14	45,45,45,45	0
56	MG	1A	3825	1/1	0.97	0.06	47,47,47,47	0
56	MG	1A	3415	1/1	0.97	0.07	28,28,28,28	0
56	MG	1a	1635	1/1	0.97	0.21	50,50,50,50	0
56	MG	1A	3104	1/1	0.97	0.18	33,33,33,33	0
56	MG	2A	3376	1/1	0.97	0.05	41,41,41,41	0
56	MG	1A	3828	1/1	0.97	0.07	58,58,58,58	0
56	MG	1A	3716	1/1	0.97	0.14	59,59,59,59	0
56	MG	2A	3145	1/1	0.97	0.05	35,35,35,35	0
56	MG	1A	3417	1/1	0.97	0.14	32,32,32,32	0
56	MG	1a	1640	1/1	0.97	0.11	41,41,41,41	0
56	MG	2a	1784	1/1	0.97	0.12	56,56,56,56	0
56	MG	2A	3384	1/1	0.97	0.06	39,39,39,39	0
56	MG	1A	3291	1/1	0.97	0.23	28,28,28,28	0
56	MG	2A	3153	1/1	0.97	0.07	42,42,42,42	0
56	MG	1A	3245	1/1	0.97	0.17	29,29,29,29	0
56	MG	2A	3156	1/1	0.97	0.13	31,31,31,31	0
56	MG	1A	3617	1/1	0.97	0.10	26,26,26,26	0
56	MG	1B	3011	1/1	0.97	0.13	54,54,54,54	0
56	MG	2a	1792	1/1	0.97	0.08	50,50,50,50	0
56	MG	1A	3293	1/1	0.97	0.20	26,26,26,26	0
56	MG	2A	3644	1/1	0.97	0.12	42,42,42,42	0
56	MG	2A	3645	1/1	0.97	0.07	41,41,41,41	0
56	MG	2A	3647	1/1	0.97	0.13	41,41,41,41	0
56	MG	1a	1646	1/1	0.97	0.07	25,25,25,25	0
56	MG	2A	3162	1/1	0.97	0.04	45,45,45,45	0
56	MG	2A	3650	1/1	0.97	0.05	37,37,37,37	0
56	MG	1A	3294	1/1	0.97	0.05	32,32,32,32	0
56	MG	2A	3653	1/1	0.97	0.08	36,36,36,36	0
56	MG	1A	3020	1/1	0.97	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	1A	3166	1/1	0.97	0.08	44,44,44,44	0
56	MG	1B	3017	1/1	0.97	0.04	44,44,44,44	0
56	MG	1A	3727	1/1	0.97	0.10	45,45,45,45	0
56	MG	1A	3353	1/1	0.97	0.07	36,36,36,36	0
56	MG	1A	3729	1/1	0.97	0.11	39,39,39,39	0
56	MG	2A	3663	1/1	0.97	0.16	42,42,42,42	0
56	MG	1A	3297	1/1	0.97	0.19	19,19,19,19	0
56	MG	1A	3355	1/1	0.97	0.17	46,46,46,46	0
56	MG	1A	3626	1/1	0.97	0.07	56,56,56,56	0
56	MG	1a	1831	1/1	0.97	0.07	58,58,58,58	0
56	MG	1A	3627	1/1	0.97	0.04	44,44,44,44	0
56	MG	2A	3175	1/1	0.97	0.23	54,54,54,54	0
56	MG	1a	1833	1/1	0.97	0.26	52,52,52,52	0
56	MG	1a	1658	1/1	0.97	0.21	51,51,51,51	0
56	MG	2A	3409	1/1	0.97	0.15	42,42,42,42	0
56	MG	1a	1836	1/1	0.97	0.19	60,60,60,60	0
59	ZN	14	501	1/1	0.97	0.04	97,97,97,97	0
56	MG	1A	3356	1/1	0.97	0.06	35,35,35,35	0
56	MG	2A	3413	1/1	0.97	0.11	50,50,50,50	0
60	SF4	1d	501	8/8	0.97	0.06	55,66,73,80	0
56	MG	1A	3298	1/1	0.97	0.18	33,33,33,33	0
56	MG	1a	1839	1/1	0.97	0.05	37,37,37,37	0
56	MG	1a	1823	1/1	0.98	0.07	58,58,58,58	0
56	MG	1A	3863	1/1	0.98	0.04	31,31,31,31	0
56	MG	1A	3089	1/1	0.98	0.04	40,40,40,40	0
56	MG	1A	3107	1/1	0.98	0.04	26,26,26,26	0
56	MG	1l	102	1/1	0.98	0.08	38,38,38,38	0
56	MG	1B	3001	1/1	0.98	0.15	39,39,39,39	0
56	MG	1A	3448	1/1	0.98	0.07	57,57,57,57	0
56	MG	1A	3010	1/1	0.98	0.05	29,29,29,29	0
56	MG	1A	3637	1/1	0.98	0.11	39,39,39,39	0
56	MG	2A	3410	1/1	0.98	0.04	43,43,43,43	0
56	MG	2a	1645	1/1	0.98	0.08	50,50,50,50	0
56	MG	1A	3450	1/1	0.98	0.06	42,42,42,42	0
56	MG	1A	3785	1/1	0.98	0.06	37,37,37,37	0
56	MG	1A	3005	1/1	0.98	0.06	43,43,43,43	0
56	MG	2A	3252	1/1	0.98	0.04	58,58,58,58	0
56	MG	2A	3415	1/1	0.98	0.07	30,30,30,30	0
56	MG	1A	3787	1/1	0.98	0.03	34,34,34,34	0
56	MG	1A	3226	1/1	0.98	0.17	35,35,35,35	0
56	MG	1A	3571	1/1	0.98	0.12	39,39,39,39	0
56	MG	2A	3419	1/1	0.98	0.07	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	2A	3256	1/1	0.98	0.04	33,33,33,33	0
56	MG	2A	3104	1/1	0.98	0.17	46,46,46,46	0
56	MG	1A	3508	1/1	0.98	0.06	38,38,38,38	0
56	MG	2A	3106	1/1	0.98	0.06	28,28,28,28	0
56	MG	1A	3715	1/1	0.98	0.04	50,50,50,50	0
56	MG	1A	3792	1/1	0.98	0.04	17,17,17,17	0
56	MG	1A	3509	1/1	0.98	0.05	31,31,31,31	0
56	MG	1A	3172	1/1	0.98	0.05	32,32,32,32	0
56	MG	1A	3576	1/1	0.98	0.04	41,41,41,41	0
56	MG	1A	3881	1/1	0.98	0.09	48,48,48,48	0
56	MG	1A	3092	1/1	0.98	0.06	41,41,41,41	0
56	MG	1A	3578	1/1	0.98	0.04	39,39,39,39	0
56	MG	2A	3115	1/1	0.98	0.08	38,38,38,38	0
56	MG	2A	3609	1/1	0.98	0.05	36,36,36,36	0
56	MG	2a	1669	1/1	0.98	0.07	44,44,44,44	0
56	MG	1l	202	1/1	0.98	0.12	52,52,52,52	0
56	MG	1A	3650	1/1	0.98	0.04	31,31,31,31	0
56	MG	1A	3456	1/1	0.98	0.04	28,28,28,28	0
56	MG	1A	3038	1/1	0.98	0.09	36,36,36,36	0
56	MG	2A	3437	1/1	0.98	0.09	34,34,34,34	0
56	MG	2A	3615	1/1	0.98	0.10	46,46,46,46	0
56	MG	1A	3724	1/1	0.98	0.07	23,23,23,23	0
56	MG	1a	1726	1/1	0.98	0.04	57,57,57,57	0
56	MG	1a	1610	1/1	0.98	0.04	22,22,22,22	0
56	MG	2A	3442	1/1	0.98	0.05	46,46,46,46	0
56	MG	1A	3725	1/1	0.98	0.04	28,28,28,28	0
56	MG	1A	3027	1/1	0.98	0.19	33,33,33,33	0
56	MG	1B	3028	1/1	0.98	0.04	39,39,39,39	0
56	MG	1B	3029	1/1	0.98	0.03	28,28,28,28	0
56	MG	2A	3624	1/1	0.98	0.06	44,44,44,44	0
56	MG	1A	3804	1/1	0.98	0.03	26,26,26,26	0
56	MG	1A	3202	1/1	0.98	0.21	31,31,31,31	0
56	MG	1A	3078	1/1	0.98	0.08	38,38,38,38	0
56	MG	1A	3204	1/1	0.98	0.10	24,24,24,24	0
56	MG	1a	1737	1/1	0.98	0.04	33,33,33,33	0
56	MG	1A	3079	1/1	0.98	0.14	30,30,30,30	0
56	MG	1A	3268	1/1	0.98	0.08	33,33,33,33	0
56	MG	2A	3135	1/1	0.98	0.03	33,33,33,33	0
56	MG	2A	3457	1/1	0.98	0.04	48,48,48,48	0
56	MG	1a	1741	1/1	0.98	0.05	47,47,47,47	0
56	MG	1A	3019	1/1	0.98	0.06	27,27,27,27	0
56	MG	1A	3064	1/1	0.98	0.12	35,35,35,35	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3291	1/1	0.98	0.10	49,49,49,49	0
56	MG	2A	3139	1/1	0.98	0.12	38,38,38,38	0
56	MG	1A	3591	1/1	0.98	0.09	49,49,49,49	0
56	MG	2A	3294	1/1	0.98	0.04	38,38,38,38	0
56	MG	1A	3735	1/1	0.98	0.08	25,25,25,25	0
56	MG	2A	3142	1/1	0.98	0.11	37,37,37,37	0
56	MG	1A	3136	1/1	0.98	0.05	39,39,39,39	0
56	MG	2A	3468	1/1	0.98	0.07	38,38,38,38	0
56	MG	1A	3343	1/1	0.98	0.15	54,54,54,54	0
56	MG	2A	3646	1/1	0.98	0.04	39,39,39,39	0
56	MG	2A	3299	1/1	0.98	0.04	36,36,36,36	0
56	MG	1A	3013	1/1	0.98	0.15	24,24,24,24	0
56	MG	2A	3146	1/1	0.98	0.04	33,33,33,33	0
56	MG	2A	3147	1/1	0.98	0.08	38,38,38,38	0
56	MG	1A	3160	1/1	0.98	0.07	26,26,26,26	0
56	MG	1a	1750	1/1	0.98	0.04	41,41,41,41	0
56	MG	2A	3654	1/1	0.98	0.07	34,34,34,34	0
56	MG	1F	304	1/1	0.98	0.10	37,37,37,37	0
56	MG	2A	3477	1/1	0.98	0.05	44,44,44,44	0
56	MG	2A	3657	1/1	0.98	0.04	36,36,36,36	0
56	MG	2A	3658	1/1	0.98	0.04	39,39,39,39	0
56	MG	2A	3151	1/1	0.98	0.08	31,31,31,31	0
56	MG	1A	3161	1/1	0.98	0.05	41,41,41,41	0
56	MG	2A	3154	1/1	0.98	0.11	41,41,41,41	0
56	MG	2A	3009	1/1	0.98	0.12	41,41,41,41	0
56	MG	2A	3010	1/1	0.98	0.09	30,30,30,30	0
56	MG	2A	3157	1/1	0.98	0.03	29,29,29,29	0
56	MG	1A	3472	1/1	0.98	0.07	32,32,32,32	0
56	MG	2A	3666	1/1	0.98	0.08	48,48,48,48	0
56	MG	1A	3907	1/1	0.98	0.06	40,40,40,40	0
56	MG	1A	3241	1/1	0.98	0.08	51,51,51,51	0
56	MG	1A	3909	1/1	0.98	0.05	36,36,36,36	0
56	MG	2A	3670	1/1	0.98	0.15	57,57,57,57	0
56	MG	2A	3671	1/1	0.98	0.05	51,51,51,51	0
56	MG	2A	3672	1/1	0.98	0.15	41,41,41,41	0
56	MG	2A	3016	1/1	0.98	0.06	41,41,41,41	0
56	MG	2A	3017	1/1	0.98	0.04	26,26,26,26	0
56	MG	1A	3474	1/1	0.98	0.13	29,29,29,29	0
56	MG	1A	3184	1/1	0.98	0.06	34,34,34,34	0
56	MG	2A	3320	1/1	0.98	0.05	42,42,42,42	0
56	MG	1A	3008	1/1	0.98	0.09	26,26,26,26	0
56	MG	1A	3913	1/1	0.98	0.11	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	1A	3824	1/1	0.98	0.06	36,36,36,36	0
56	MG	1N	3003	1/1	0.98	0.03	36,36,36,36	0
56	MG	1A	3916	1/1	0.98	0.15	34,34,34,34	0
56	MG	1a	1764	1/1	0.98	0.05	38,38,38,38	0
56	MG	2A	3026	1/1	0.98	0.06	35,35,35,35	0
56	MG	2A	3500	1/1	0.98	0.04	38,38,38,38	0
56	MG	1N	3005	1/1	0.98	0.10	51,51,51,51	0
56	MG	2A	3502	1/1	0.98	0.07	35,35,35,35	0
56	MG	1A	3533	1/1	0.98	0.04	28,28,28,28	0
56	MG	2a	1749	1/1	0.98	0.16	58,58,58,58	0
56	MG	1N	3007	1/1	0.98	0.04	25,25,25,25	0
56	MG	2A	3030	1/1	0.98	0.04	28,28,28,28	0
56	MG	1A	3022	1/1	0.98	0.05	27,27,27,27	0
56	MG	1A	3919	1/1	0.98	0.25	33,33,33,33	0
56	MG	1A	3009	1/1	0.98	0.06	30,30,30,30	0
56	MG	1A	3921	1/1	0.98	0.09	40,40,40,40	0
56	MG	2D	303	1/1	0.98	0.25	45,45,45,45	0
56	MG	1A	3188	1/1	0.98	0.05	39,39,39,39	0
56	MG	1A	3923	1/1	0.98	0.09	39,39,39,39	0
56	MG	1A	3924	1/1	0.98	0.17	28,28,28,28	0
56	MG	1A	3678	1/1	0.98	0.05	36,36,36,36	0
56	MG	1A	3189	1/1	0.98	0.05	32,32,32,32	0
56	MG	2E	305	1/1	0.98	0.04	39,39,39,39	0
56	MG	1A	3432	1/1	0.98	0.13	22,22,22,22	0
56	MG	2A	3344	1/1	0.98	0.06	30,30,30,30	0
56	MG	1A	3609	1/1	0.98	0.04	43,43,43,43	0
56	MG	2A	3042	1/1	0.98	0.06	37,37,37,37	0
56	MG	1a	1780	1/1	0.98	0.07	47,47,47,47	0
56	MG	1A	3249	1/1	0.98	0.12	29,29,29,29	0
56	MG	1A	3250	1/1	0.98	0.14	30,30,30,30	0
56	MG	2A	3046	1/1	0.98	0.05	38,38,38,38	0
56	MG	1A	3612	1/1	0.98	0.06	30,30,30,30	0
56	MG	1A	3933	1/1	0.98	0.12	28,28,28,28	0
56	MG	2A	3526	1/1	0.98	0.14	49,49,49,49	0
56	MG	1A	3284	1/1	0.98	0.11	42,42,42,42	0
56	MG	1A	3935	1/1	0.98	0.06	48,48,48,48	0
56	MG	1A	3936	1/1	0.98	0.12	29,29,29,29	0
56	MG	2U	201	1/1	0.98	0.10	39,39,39,39	0
56	MG	2a	1778	1/1	0.98	0.05	51,51,51,51	0
56	MG	1A	3837	1/1	0.98	0.05	21,21,21,21	0
56	MG	1A	3838	1/1	0.98	0.06	38,38,38,38	0
56	MG	2A	3359	1/1	0.98	0.04	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	2A	3202	1/1	0.98	0.12	44,44,44,44	0
56	MG	1a	1790	1/1	0.98	0.04	46,46,46,46	0
56	MG	1a	1666	1/1	0.98	0.12	36,36,36,36	0
56	MG	2A	3205	1/1	0.98	0.10	53,53,53,53	0
56	MG	2A	3364	1/1	0.98	0.04	31,31,31,31	0
56	MG	1A	3487	1/1	0.98	0.04	24,24,24,24	0
56	MG	1A	3840	1/1	0.98	0.14	36,36,36,36	0
56	MG	1A	3615	1/1	0.98	0.06	45,45,45,45	0
56	MG	1A	3942	1/1	0.98	0.04	32,32,32,32	0
56	MG	1A	3616	1/1	0.98	0.06	55,55,55,55	0
56	MG	1U	202	1/1	0.98	0.07	31,31,31,31	0
56	MG	2a	1793	1/1	0.98	0.05	41,41,41,41	0
56	MG	2A	3372	1/1	0.98	0.12	41,41,41,41	0
56	MG	1U	203	1/1	0.98	0.13	27,27,27,27	0
56	MG	1A	3393	1/1	0.98	0.06	35,35,35,35	0
56	MG	1U	205	1/1	0.98	0.08	29,29,29,29	0
56	MG	1A	3251	1/1	0.98	0.24	25,25,25,25	0
56	MG	2f	3001	1/1	0.98	0.09	39,39,39,39	0
56	MG	2A	3377	1/1	0.98	0.03	43,43,43,43	0
56	MG	1a	1678	1/1	0.98	0.10	57,57,57,57	0
56	MG	1A	3071	1/1	0.98	0.09	47,47,47,47	0
56	MG	2A	3553	1/1	0.98	0.10	53,53,53,53	0
56	MG	1A	3072	1/1	0.98	0.05	40,40,40,40	0
56	MG	1a	1805	1/1	0.98	0.09	49,49,49,49	0
56	MG	2A	3070	1/1	0.98	0.04	28,28,28,28	0
56	MG	1A	3621	1/1	0.98	0.08	48,48,48,48	0
56	MG	1W	3003	1/1	0.98	0.06	25,25,25,25	0
56	MG	1A	3035	1/1	0.98	0.13	32,32,32,32	0
56	MG	2A	3560	1/1	0.98	0.14	51,51,51,51	0
56	MG	1A	3767	1/1	0.98	0.06	39,39,39,39	0
56	MG	1A	3324	1/1	0.98	0.05	43,43,43,43	0
56	MG	1X	3001	1/1	0.98	0.04	33,33,33,33	0
56	MG	1A	3554	1/1	0.98	0.08	32,32,32,32	0
56	MG	1A	3400	1/1	0.98	0.06	28,28,28,28	0
56	MG	1A	3853	1/1	0.98	0.05	41,41,41,41	0
56	MG	1A	3854	1/1	0.98	0.10	33,33,33,33	0
56	MG	1A	3443	1/1	0.98	0.06	26,26,26,26	0
56	MG	2a	1627	1/1	0.98	0.03	46,46,46,46	0
56	MG	1A	3557	1/1	0.98	0.05	44,44,44,44	0
56	MG	1A	3444	1/1	0.98	0.04	37,37,37,37	0
56	MG	1A	3445	1/1	0.98	0.05	53,53,53,53	0
59	ZN	29	501	1/1	0.98	0.04	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	1A	3499	1/1	0.98	0.06	34,34,34,34	0
56	MG	1A	3500	1/1	0.98	0.04	26,26,26,26	0
60	SF4	2d	301	8/8	0.98	0.05	51,72,83,98	0
56	MG	2A	3575	1/1	0.98	0.04	57,57,57,57	0
56	MG	1A	3562	1/1	0.98	0.04	42,42,42,42	0
56	MG	2A	3543	1/1	0.99	0.03	28,28,28,28	0
56	MG	2A	3012	1/1	0.99	0.10	40,40,40,40	0
56	MG	2A	3118	1/1	0.99	0.03	37,37,37,37	0
56	MG	2a	1692	1/1	0.99	0.12	54,54,54,54	0
56	MG	1A	3418	1/1	0.99	0.08	34,34,34,34	0
56	MG	1A	3573	1/1	0.99	0.04	34,34,34,34	0
56	MG	1A	3065	1/1	0.99	0.06	14,14,14,14	0
56	MG	1A	3040	1/1	0.99	0.04	32,32,32,32	0
56	MG	1a	1834	1/1	0.99	0.12	44,44,44,44	0
56	MG	1A	3328	1/1	0.99	0.06	27,27,27,27	0
56	MG	2A	3356	1/1	0.99	0.03	29,29,29,29	0
56	MG	1A	3194	1/1	0.99	0.09	38,38,38,38	0
56	MG	2A	3239	1/1	0.99	0.03	43,43,43,43	0
56	MG	1A	3654	1/1	0.99	0.03	40,40,40,40	0
56	MG	1a	1736	1/1	0.99	0.04	58,58,58,58	0
56	MG	1A	3517	1/1	0.99	0.03	9,9,9,9	0
56	MG	2D	302	1/1	0.99	0.03	27,27,27,27	0
56	MG	1A	3579	1/1	0.99	0.09	21,21,21,21	0
56	MG	1A	3657	1/1	0.99	0.03	29,29,29,29	0
56	MG	1A	3781	1/1	0.99	0.03	23,23,23,23	0
56	MG	2A	3365	1/1	0.99	0.03	29,29,29,29	0
56	MG	1A	3024	1/1	0.99	0.05	27,27,27,27	0
56	MG	2A	3563	1/1	0.99	0.04	36,36,36,36	0
56	MG	1A	3424	1/1	0.99	0.04	14,14,14,14	0
56	MG	2A	3189	1/1	0.99	0.04	31,31,31,31	0
56	MG	1A	3547	1/1	0.99	0.04	36,36,36,36	0
56	MG	1A	3493	1/1	0.99	0.08	21,21,21,21	0
56	MG	1A	3549	1/1	0.99	0.09	41,41,41,41	0
56	MG	1A	3141	1/1	0.99	0.14	27,27,27,27	0
56	MG	1A	3586	1/1	0.99	0.09	41,41,41,41	0
56	MG	1A	3551	1/1	0.99	0.09	26,26,26,26	0
56	MG	2A	3196	1/1	0.99	0.04	35,35,35,35	0
56	MG	2A	3439	1/1	0.99	0.04	36,36,36,36	0
56	MG	1A	3552	1/1	0.99	0.06	22,22,22,22	0
56	MG	1A	3553	1/1	0.99	0.06	28,28,28,28	0
56	MG	1A	3469	1/1	0.99	0.06	33,33,33,33	0
56	MG	1A	3405	1/1	0.99	0.05	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	3029	1/1	0.99	0.14	28,28,28,28	0
56	MG	1A	3043	1/1	0.99	0.09	27,27,27,27	0
56	MG	1A	3247	1/1	0.99	0.17	27,27,27,27	0
56	MG	2A	3383	1/1	0.99	0.04	46,46,46,46	0
56	MG	1A	3156	1/1	0.99	0.06	34,34,34,34	0
56	MG	2A	3515	1/1	0.99	0.06	35,35,35,35	0
56	MG	1a	1708	1/1	0.99	0.12	34,34,34,34	0
56	MG	2A	3095	1/1	0.99	0.04	47,47,47,47	0
56	MG	1A	3596	1/1	0.99	0.06	32,32,32,32	0
56	MG	2A	3325	1/1	0.99	0.03	25,25,25,25	0
56	MG	2A	3454	1/1	0.99	0.03	36,36,36,36	0
56	MG	1A	3110	1/1	0.99	0.07	29,29,29,29	0
56	MG	2A	3327	1/1	0.99	0.04	33,33,33,33	0
56	MG	2A	3152	1/1	0.99	0.04	32,32,32,32	0
56	MG	1A	3476	1/1	0.99	0.03	31,31,31,31	0
56	MG	1A	3070	1/1	0.99	0.05	33,33,33,33	0
56	MG	1A	3454	1/1	0.99	0.09	35,35,35,35	0
56	MG	1A	3159	1/1	0.99	0.19	34,34,34,34	0
56	MG	1A	3565	1/1	0.99	0.09	28,28,28,28	0
56	MG	1A	3890	1/1	0.99	0.05	38,38,38,38	0
56	MG	1A	3012	1/1	0.99	0.03	28,28,28,28	0
56	MG	1B	3015	1/1	0.99	0.04	31,31,31,31	0
56	MG	1A	3007	1/1	0.99	0.07	29,29,29,29	0
56	MG	1A	3482	1/1	0.99	0.03	27,27,27,27	0
56	MG	1A	3205	1/1	0.99	0.04	33,33,33,33	0
59	ZN	1Y	501	1/1	0.99	0.03	67,67,67,67	0
56	MG	1a	1674	1/1	0.99	0.07	42,42,42,42	0
59	ZN	19	103	1/1	0.99	0.11	61,61,61,61	0
59	ZN	1n	501	1/1	0.99	0.03	58,58,58,58	0
59	ZN	2Y	501	1/1	0.99	0.03	83,83,83,83	0
56	MG	1a	1628	1/1	0.99	0.04	43,43,43,43	0
59	ZN	25	101	1/1	0.99	0.04	64,64,64,64	0
56	MG	1B	3019	1/1	0.99	0.03	22,22,22,22	0
56	MG	1a	1775	1/1	0.99	0.03	52,52,52,52	0
56	MG	1A	3014	1/1	0.99	0.04	32,32,32,32	0
56	MG	1A	3645	1/1	0.99	0.03	23,23,23,23	0
56	MG	1A	3033	1/1	0.99	0.12	22,22,22,22	0
56	MG	1A	3647	1/1	0.99	0.04	45,45,45,45	0
56	MG	2A	3450	1/1	1.00	0.03	24,24,24,24	0
56	MG	1a	1738	1/1	1.00	0.02	43,43,43,43	0
59	ZN	26	501	1/1	1.00	0.03	54,54,54,54	0
56	MG	1A	3855	1/1	1.00	0.05	23,23,23,23	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
59	ZN	15	101	1/1	1.00	0.06	25,25,25,25	0
59	ZN	16	501	1/1	1.00	0.01	35,35,35,35	0
56	MG	1A	3926	1/1	1.00	0.15	29,29,29,29	0
56	MG	1A	3395	1/1	1.00	0.08	31,31,31,31	0
56	MG	1A	3046	1/1	1.00	0.08	29,29,29,29	0

6.5 Other polymers [i](#)

There are no such residues in this entry.