



Full wwPDB X-ray Structure Validation Report ⓘ

Aug 4, 2026 – 04:19 AM EDT

PDB ID : 5V8I / pdb_00005v8i
Title : Thermus thermophilus 70S ribosome lacking ribosomal protein uS17
Authors : Gregory, S.T.; Jogl, G.
Deposited on : 2017-03-22
Resolution : 3.25 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:

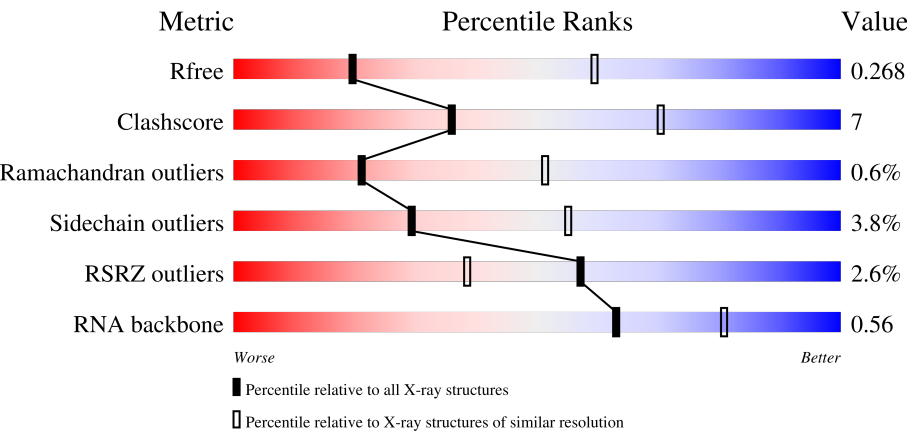
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.015 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.50

1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 3.25 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.



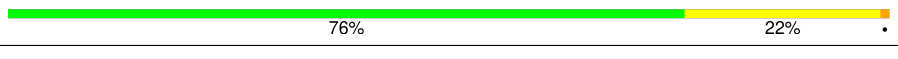
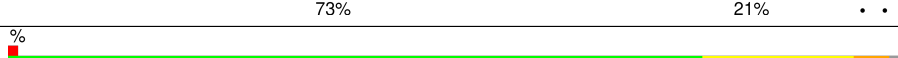
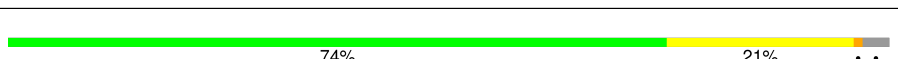
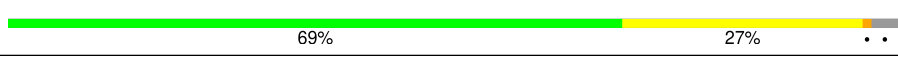
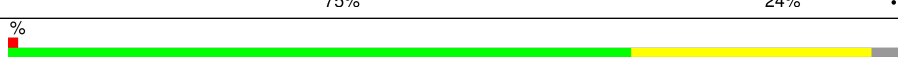
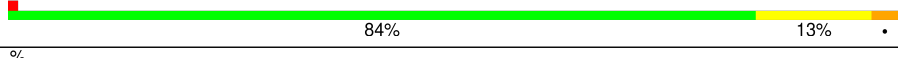
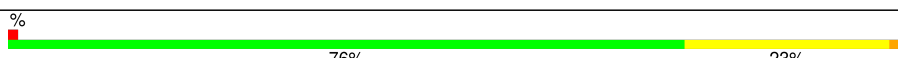
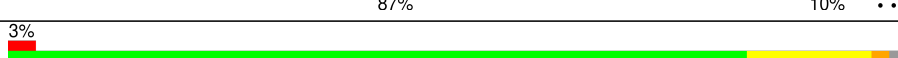
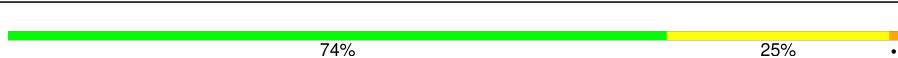
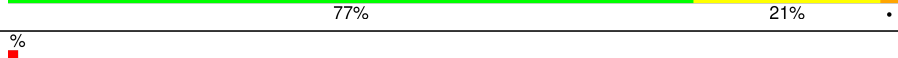
Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R _{free}	180053	1605 (3.30-3.22)
Clashscore	190562	1660 (3.30-3.22)
Ramachandran outliers	187476	1630 (3.30-3.22)
Sidechain outliers	187428	1629 (3.30-3.22)
RSRZ outliers	180081	1605 (3.30-3.22)
RNA backbone	3983	1006 (3.54-2.98)

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	2894	% 65% 29% 5%
1	2A	2894	% 62% 30% 6%
2	1B	120	81% 16%
2	2B	120	% 65% 29%

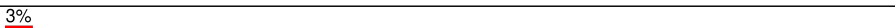
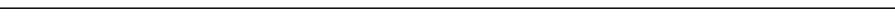
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Mol	Chain	Length	Quality of chain
3	1D	276	
3	2D	276	
4	1E	206	
4	2E	206	
5	1F	210	
5	2F	210	
6	1G	182	
6	2G	182	
7	1H	180	
7	2H	180	
8	1I	148	
8	2I	148	
9	1N	140	
9	2N	140	
10	1O	122	
10	2O	122	
11	1P	150	
11	2P	150	
12	1Q	141	
12	2Q	141	
13	1R	118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

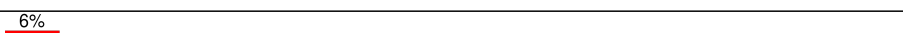
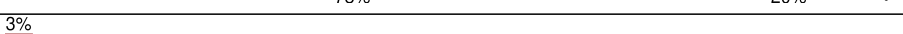
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Mol	Chain	Length	Quality of chain
15	2T	146	
16	1U	118	
16	2U	118	
17	1V	101	
17	2V	101	
18	1W	113	
18	2W	113	
19	1X	96	
19	2X	96	
20	1Y	110	
20	2Y	110	
21	1Z	206	
21	2Z	206	
22	10	85	
22	20	85	
23	11	98	
23	21	98	
24	12	72	
24	22	72	
25	13	60	
25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

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Mol	Chain	Length	Quality of chain
28	16	54	
28	26	54	
29	17	49	
29	27	49	
30	18	65	
30	28	65	
31	19	37	
31	29	37	
32	1a	1522	
32	2a	1522	
33	1b	256	
33	2b	256	
34	1c	239	
34	2c	239	
35	1d	209	
35	2d	209	
36	1e	162	
36	2e	162	
37	1f	101	
37	2f	101	
38	1g	156	
38	2g	156	
39	1h	138	
39	2h	138	
40	1i	128	

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Mol	Chain	Length	Quality of chain
40	2i	128	
41	1j	105	
41	2j	105	
42	1k	129	
42	2k	129	
43	1l	135	
43	2l	135	
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	1r	88	
48	2r	88	
49	1s	93	
49	2s	93	
50	1t	106	
50	2t	106	
51	1u	27	
51	2u	27	
52	1y	113	
52	2y	113	

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
53	MPD	2B	201	-	-	-	X
54	MG	1A	3727	-	-	-	X
54	MG	1a	1670	-	-	-	X
54	MG	1t	202	-	-	-	X
54	MG	2A	3105	-	-	-	X
54	MG	2i	201	-	-	-	X

2 Entry composition

There are 58 unique types of molecules in this entry. The entry contains 290709 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	2862	Total	C	N	O	P	0	0	0
			61654	27444	11530	19819	2861			
1	2A	2858	Total	C	N	O	P	0	0	0
			61564	27404	11511	19793	2856			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	1B	118	Total	C	N	O	P	0	0	0
			2536	1128	471	819	118			
2	2B	118	Total	C	N	O	P	0	0	0
			2536	1128	471	819	118			

- 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
			2131	1346	422	360	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
			1586	1011	298	275	2			
5	2F	203	Total	C	N	O	S	0	0	1
			1582	1009	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
			1427	917	253	253	4			
6	2G	181	Total	C	N	O	S	0	0	0
			1425	913	259	249	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	173	Total	C	N	O	S	0	0	0
			1324	842	247	234	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	1I	147	Total	C	N	O	S	0	0	0
			1095	700	191	203	1			
8	2I	146	Total	C	N	O	S	0	0	0
			1077	688	186	202	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
			1121	722	208	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
			932	587	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
			932	587	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
			1121	715	212	187	7			
12	2Q	141	Total	C	N	O	S	0	0	0
			1121	715	212	187	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
			877	553	175	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	681	225	184	1			
15	2T	131	Total	C	N	O	S	0	0	0
			1083	676	224	182	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
			775	498	141	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
			810	520	153	131	6			
20	2Y	107	Total	C	N	O	S	0	0	0
			810	519	153	132	6			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	1Z	203	Total	C	N	O	S	0	0	0
			1587	1011	282	292	2			
21	2Z	201	Total	C	N	O	S	0	0	0
			1557	995	274	286	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	10	77	Total	C	N	O	S	0	0	0
			606	375	127	103	1			
22	20	77	Total	C	N	O	S	0	0	0
			606	375	127	103	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
			756	475	150	130	1			
23	21	97	Total	C	N	O	S	0	0	0
			761	478	151	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
			592	368	119	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
			546	346	96	99	5			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	24	69	Total	C	N	O	S	0	0	0
			536	342	98	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
			460	290	90	75	5			
27	25	59	Total	C	N	O	S	0	0	0
			456	287	89	75	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
			32249	14359	5977	10413	1500			
32	2a	1504	Total	C	N	O	P	0	0	0
			32334	14397	5992	10441	1504			

- 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
			1842	1175	330	332	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
			1558	979	305	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
			1665	1043	329	286	7			
35	2d	208	Total	C	N	O	S	0	0	0
			1668	1047	330	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
			1133	716	214	199	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
			814	516	144	151	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
			1235	769	244	216	6			
38	2g	155	Total	C	N	O	S	0	0	0
			1229	766	241	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
			1098	694	210	192	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
			987	625	194	168			
40	2i	126	Total	C	N	O	0	0	0
			967	613	187	167			

- 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
			719	446	142	131			
41	2j	96	Total	C	N	O	0	0	0
			710	442	137	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
			834	520	156	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	116	Total	C	N	O	S	0	0	0
			914	564	189	159	2			
44	2m	114	Total	C	N	O	S	0	0	0
			895	550	186	157	2			

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

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

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

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

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

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

- Molecule 48 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
48	1r	68	Total	C	N	O	0	0	0
			555	355	108	92			
48	2r	68	Total	C	N	O	0	0	0
			555	355	108	92			

- Molecule 49 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	1s	83	Total	C	N	O	S	0	0	0
			648	415	120	111	2			
49	2s	83	Total	C	N	O	S	0	0	0
			645	410	118	115	2			

- Molecule 50 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	1t	96	Total	C	N	O	S	0	0	0
			731	448	157	124	2			
50	2t	98	Total	C	N	O	S	0	0	0
			732	450	154	126	2			

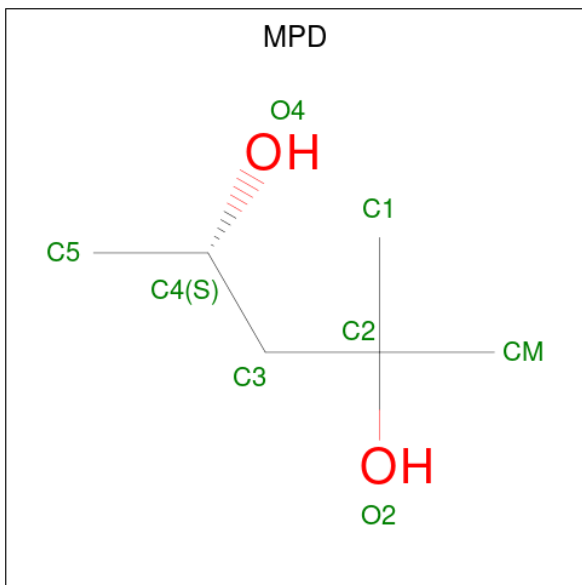
- Molecule 51 is a protein called 30S ribosomal protein Thx.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
51	1u	23	Total	C	N	O	0	0	0
			199	122	48	29			
51	2u	23	Total	C	N	O	0	0	0
			199	122	48	29			

- Molecule 52 is a protein called Ribosome-associated inhibitor A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	1y	97	Total	C	N	O	S	0	0	0
			764	478	144	139	3			
52	2y	96	Total	C	N	O	S	0	0	0
			749	468	141	137	3			

- Molecule 53 is (4S)-2-METHYL-2,4-PENTANEDIOL (CCD ID: MPD) (formula: C₆H₁₄O₂).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
53	1A	1	Total 8	C 6	O 2	0	0
53	1T	1	Total 8	C 6	O 2	0	0
53	18	1	Total 8	C 6	O 2	0	0
53	1a	1	Total 8	C 6	O 2	0	0
53	2A	1	Total 8	C 6	O 2	0	0
53	2A	1	Total 8	C 6	O 2	0	0
53	2B	1	Total 8	C 6	O 2	0	0

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

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
54	1A	900	Total 900	Mg 900	0	0
54	1B	29	Total 29	Mg 29	0	0
54	1D	12	Total 12	Mg 12	0	0
54	1E	5	Total 5	Mg 5	0	0
54	1F	12	Total 12	Mg 12	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
54	1G	4	Total 4	Mg 4	0	0
54	1H	2	Total 2	Mg 2	0	0
54	1N	3	Total 3	Mg 3	0	0
54	1O	1	Total 1	Mg 1	0	0
54	1P	5	Total 5	Mg 5	0	0
54	1Q	3	Total 3	Mg 3	0	0
54	1R	7	Total 7	Mg 7	0	0
54	1T	5	Total 5	Mg 5	0	0
54	1U	3	Total 3	Mg 3	0	0
54	1V	3	Total 3	Mg 3	0	0
54	1W	4	Total 4	Mg 4	0	0
54	1X	2	Total 2	Mg 2	0	0
54	1Z	1	Total 1	Mg 1	0	0
54	10	6	Total 6	Mg 6	0	0
54	11	4	Total 4	Mg 4	0	0
54	13	2	Total 2	Mg 2	0	0
54	15	3	Total 3	Mg 3	0	0
54	16	1	Total 1	Mg 1	0	0
54	17	3	Total 3	Mg 3	0	0
54	19	2	Total 2	Mg 2	0	0
54	1a	257	Total 257	Mg 257	0	0

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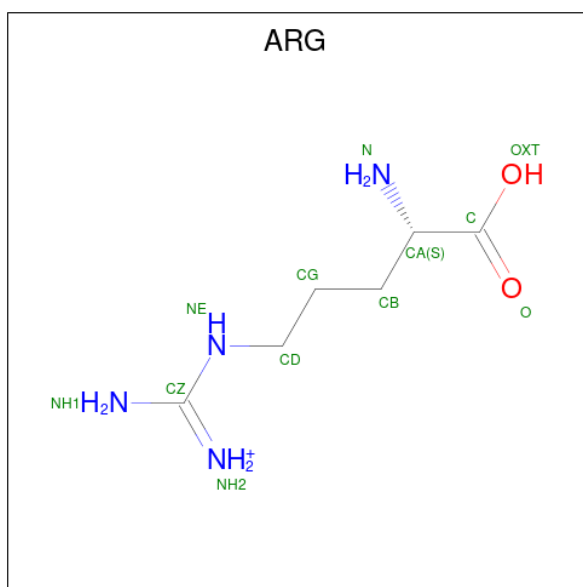
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
54	1b	1	Total 1	Mg 1	0	0
54	1d	6	Total 6	Mg 6	0	0
54	1e	3	Total 3	Mg 3	0	0
54	1f	2	Total 2	Mg 2	0	0
54	1g	3	Total 3	Mg 3	0	0
54	1h	1	Total 1	Mg 1	0	0
54	1l	2	Total 2	Mg 2	0	0
54	1n	2	Total 2	Mg 2	0	0
54	1o	1	Total 1	Mg 1	0	0
54	1t	2	Total 2	Mg 2	0	0
54	1y	4	Total 4	Mg 4	0	0
54	2A	641	Total 641	Mg 641	0	0
54	2B	16	Total 16	Mg 16	0	0
54	2D	6	Total 6	Mg 6	0	0
54	2E	2	Total 2	Mg 2	0	0
54	2F	2	Total 2	Mg 2	0	0
54	2G	3	Total 3	Mg 3	0	0
54	2I	1	Total 1	Mg 1	0	0
54	2O	2	Total 2	Mg 2	0	0
54	2P	2	Total 2	Mg 2	0	0
54	2Q	2	Total 2	Mg 2	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
54	2R	3	Total 3	Mg 3	0	0
54	2T	5	Total 5	Mg 5	0	0
54	2V	1	Total 1	Mg 1	0	0
54	2W	2	Total 2	Mg 2	0	0
54	2X	1	Total 1	Mg 1	0	0
54	2Y	1	Total 1	Mg 1	0	0
54	20	1	Total 1	Mg 1	0	0
54	21	4	Total 4	Mg 4	0	0
54	23	1	Total 1	Mg 1	0	0
54	28	1	Total 1	Mg 1	0	0
54	2a	164	Total 164	Mg 164	0	0
54	2e	1	Total 1	Mg 1	0	0
54	2f	1	Total 1	Mg 1	0	0
54	2i	1	Total 1	Mg 1	0	0
54	2j	1	Total 1	Mg 1	0	0
54	2k	1	Total 1	Mg 1	0	0
54	2l	2	Total 2	Mg 2	0	0
54	2p	1	Total 1	Mg 1	0	0
54	2t	1	Total 1	Mg 1	0	0

- Molecule 55 is ARGinine (CCD ID: ARG) (formula: $C_6H_{15}N_4O_2$).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
55	1B	1	Total	C	N	O	0	0
			12	6	4	2		
55	1F	1	Total	C	N	O	0	0
			12	6	4	2		

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

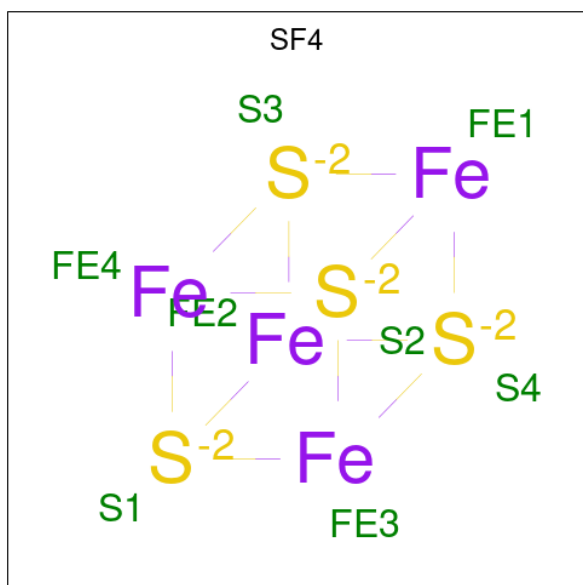
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	1Y	1	Total	Zn	0	0
			1	1		
56	14	1	Total	Zn	0	0
			1	1		
56	15	1	Total	Zn	0	0
			1	1		
56	16	1	Total	Zn	0	0
			1	1		
56	19	1	Total	Zn	0	0
			1	1		
56	1n	1	Total	Zn	0	0
			1	1		
56	2Y	1	Total	Zn	0	0
			1	1		
56	24	1	Total	Zn	0	0
			1	1		
56	25	1	Total	Zn	0	0
			1	1		
56	26	1	Total	Zn	0	0
			1	1		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	29	1	Total	Zn	0	0
			1	1		
56	2n	1	Total	Zn	0	0
			1	1		

- Molecule 57 is IRON/SULFUR CLUSTER (CCD ID: SF4) (formula: Fe_4S_4).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
57	1d	1	Total	Fe	S	0	0
			8	4	4		
57	2d	1	Total	Fe	S	0	0
			8	4	4		

- Molecule 58 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
58	1A	1801	Total	O	0	0
			1801	1801		
58	1B	56	Total	O	0	0
			56	56		
58	1D	14	Total	O	0	0
			14	14		
58	1E	17	Total	O	0	0
			17	17		
58	1F	16	Total	O	0	0
			16	16		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
58	1G	5	Total 5	O 5	0	0
58	1H	5	Total 5	O 5	0	0
58	1N	7	Total 7	O 7	0	0
58	1O	2	Total 2	O 2	0	0
58	1P	17	Total 17	O 17	0	0
58	1Q	5	Total 5	O 5	0	0
58	1R	5	Total 5	O 5	0	0
58	1T	8	Total 8	O 8	0	0
58	1U	6	Total 6	O 6	0	0
58	1V	5	Total 5	O 5	0	0
58	1W	2	Total 2	O 2	0	0
58	1X	6	Total 6	O 6	0	0
58	1Y	1	Total 1	O 1	0	0
58	1Z	1	Total 1	O 1	0	0
58	10	5	Total 5	O 5	0	0
58	11	3	Total 3	O 3	0	0
58	13	6	Total 6	O 6	0	0
58	15	3	Total 3	O 3	0	0
58	16	2	Total 2	O 2	0	0
58	17	1	Total 1	O 1	0	0
58	18	7	Total 7	O 7	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
58	19	3	Total 3	O 3	0	0
58	1a	424	Total 424	O 424	0	0
58	1c	1	Total 1	O 1	0	0
58	1d	8	Total 8	O 8	0	0
58	1e	4	Total 4	O 4	0	0
58	1f	1	Total 1	O 1	0	0
58	1h	1	Total 1	O 1	0	0
58	1j	1	Total 1	O 1	0	0
58	1l	3	Total 3	O 3	0	0
58	1m	1	Total 1	O 1	0	0
58	1o	3	Total 3	O 3	0	0
58	1p	1	Total 1	O 1	0	0
58	1t	2	Total 2	O 2	0	0
58	1y	3	Total 3	O 3	0	0
58	2A	1310	Total 1310	O 1310	0	0
58	2B	32	Total 32	O 32	0	0
58	2D	16	Total 16	O 16	0	0
58	2E	10	Total 10	O 10	0	0
58	2F	6	Total 6	O 6	0	0
58	2G	1	Total 1	O 1	0	0
58	2N	1	Total 1	O 1	0	0

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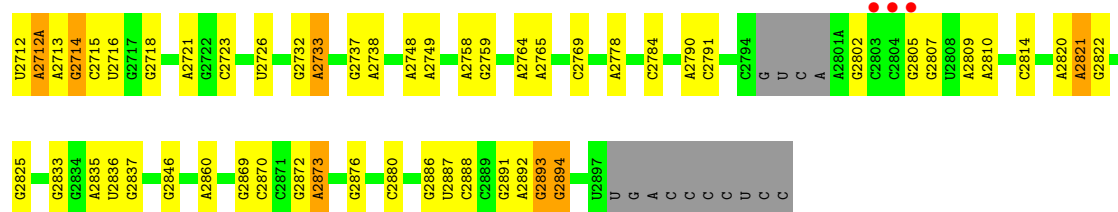
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
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58	2P	14	Total 14	O 14	0	0
58	2Q	5	Total 5	O 5	0	0
58	2R	1	Total 1	O 1	0	0
58	2T	4	Total 4	O 4	0	0
58	2V	2	Total 2	O 2	0	0
58	2W	3	Total 3	O 3	0	0
58	2X	4	Total 4	O 4	0	0
58	2Y	1	Total 1	O 1	0	0
58	20	2	Total 2	O 2	0	0
58	21	1	Total 1	O 1	0	0
58	23	2	Total 2	O 2	0	0
58	25	1	Total 1	O 1	0	0
58	26	1	Total 1	O 1	0	0
58	27	2	Total 2	O 2	0	0
58	28	5	Total 5	O 5	0	0
58	2a	282	Total 282	O 282	0	0
58	2e	1	Total 1	O 1	0	0
58	2j	2	Total 2	O 2	0	0
58	2l	1	Total 1	O 1	0	0
58	2t	2	Total 2	O 2	0	0

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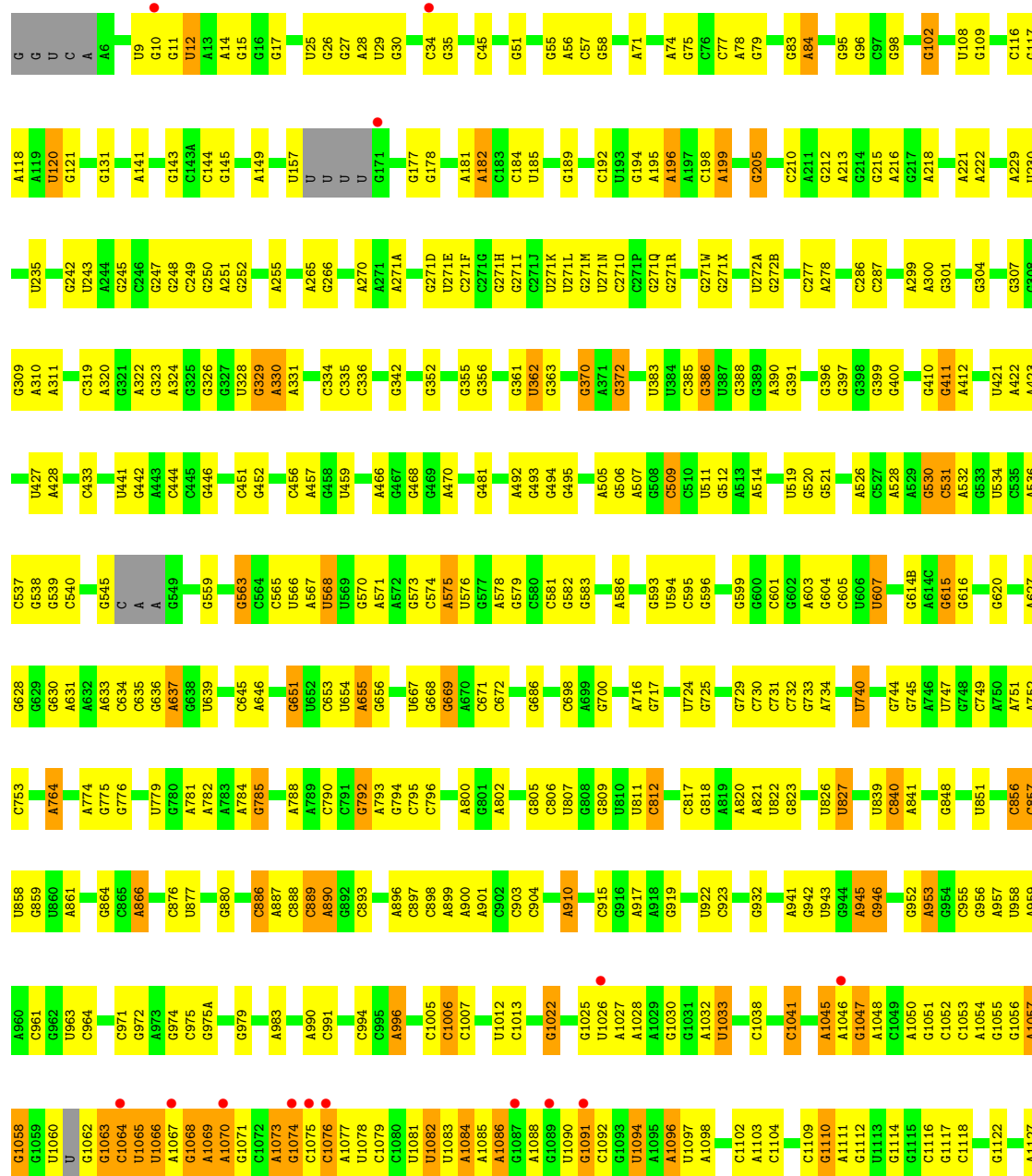
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
58	2y	3	Total	O	0	0
			3	3		

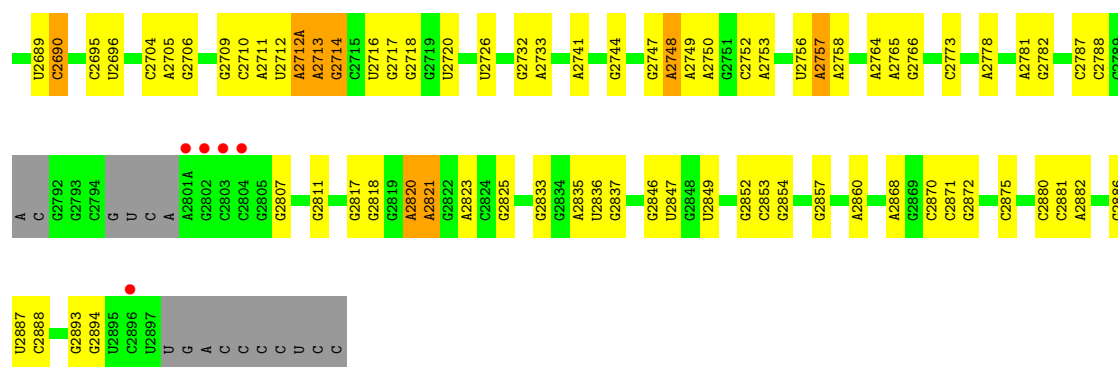




• Molecule 1: 23S Ribosomal RNA



G2578	A2478	C2374	C2283	A2170	G1992	C1866	G1746	G1592	G1491	G1379	G1256	U1130
C2579	C2483	G2375	A2287	A2171	U1993	A1876	G1756	G1593	G1492	A1379	G1264	G1131
G2582	A2377	A2376	A2288	U2172	C1994	A1877	G1757	G1594	C1493	A1384	A1265	G1135
G2583	G2486	A2378	G2289	C2173	G1997	G1878	U1758	C1598	A1494	G1385	U1267	G1136
U2584	G2487	G2379	C2292	C2174	G2000	A1889	A1759	C1599	A1495	C1386	A1268	
U2585	G2488	G2383	C2293	C2175	A2001	A1890		C1607	A1496	C1387	A1269	
C2586	G2490	C2384	C2294	U2180	A2002	G1891	A1762	A1608	U1497	U1396	A1270	A142A
A2590	A2497	C2385	C2295	G2181	G2002	G1892	G1763	A1609	G1500	C1404	A1271	C1147
C2591	G2498	G2391	C2296	G2186	G2010	A1900	G1764	A1610	G1509	C1405	A1272	A1148
C2592	C2499	G2392	C2297	G2187	U2011		G1772	A1614	A1509	U1273	U1273	
C2601	U2398	G2393	A2298	U2189	A2012	G1903	A1773	A1509A	A1509	G1410	G1277	C1153
A2602	G2399	G2394	G2299	G2190	A2013	G1904	U1774	G1510	A1509A	G1411	A1278	G1154
G2603	G2406	C2301	G2302	G2191	A2014	G1906	U1775		G1510		A1279	A1155
U2604	U2406	G2302	G2303	G2192	U2017	U1911		A1632	U1514	G1416	G1296	G1163
U2605	G2410	A2305	A2306	G2193	A2018	A1919	U1779	C1636	U1515	G1417	U1300	G1164
C2606	U2419	G2308	G2309	G2194	A2019	G1920	A1780	A1637	G1520	G1418	A1301	U1165
U2609	C2420	G2312	G2313	A2198	A2020	U1916	A1781	U1639	G1526	U1420	C1171	G
C2610	G2421	C2313	G2314	G2206	A2021	U1917	U1782	U1640	C1530	G1426	U1312	A
U2611	A2422	C2314	G2315	G2207	A2022	U1918	U1783	G1645	C1531	A1427	U1313	U
U2612	U2423	G2316	G2317	A2208	G2023	G1919	U1784	G1646	C1532	G1428	C1315	G
A2614	C2424	G2318	C2319	U2218	A2030	A1920	U1785	G1647	C1533	U1431	U1316	U
U2615	A2425	A2320	C2320	G2219	A2031	G1921	U1786	G1648	U	C1432	A1321	C1178
C2616	A2426	G2321	G2321	G2220	A2032	G1922	U1787	G1649	A	G1436	A1322	G1184
C2617	U2427	A2322	G2322	A2225	A2033	G1923	U1788	G1653	C1536	C1437	G1185	G1186
U2618	G2428	G2323	G2324	G2226	A2034	G1924	U1789	C1656	G1541	G1442	G1382	U1187
G2619	G2429	C2325	G2325	G2227	G2037	G1925	U1790	C1657	A1558	G1443	G1383	U1188
C2620	U2430	C2326	C2326	U2232	G2038	A1937	U1791	C1658	A1559	G1444	U1336	A1189
U2621	A2431	A2327	G2327	U2233	C2039	U1938	G1792	C1659	A1560	G1445	G1337	G1190
C2622	G2432	A2328	G2328	U2234	C2040	U1939	U1793	C1666	A1561	C1446	U1349	G1191
A2629	A2435	G2334	G2334	G2238	C2043	U1940	U1800	G1667	A1562	G1450	U1352	U1199
C2630	U2436	A2335	A2336	C2240	C2044	C1941	A1801	G1668	G1542	U1453	A1210	A1210
C2635	U2438	A2336	A2337	A2241	C2045	C1942	A1802	C1670	A1572	G1455	G1212	G1212
G2638	A2439	C2343	C2343	G2242	G2055	U1946	U1803	G1674	C1573	G1459	A1213	A1213
A2639	C2440	U2344	U2344	U2243	G2056	U1947	U1804	C1686	C1574	G1460	A1214	A1214
G2640	C2441	G2345	G2345	U2244	A2057	C1947	G1817	G1687	C1575	U1359	A1360	A1220
G2643	G2444	A2346	A2346	C2251	A2058	U1955	U1818	C1696	U1578	G1464	G1363	C1224
C2644	G2445	C2347	C2347	G2255	A2060	G2061	U1819	G1697	A1579	G1465	G1364	G1225
G2645	A2448	C2350	C2350	G2256	A2062	U1962	A1821	A1700	A1580	G1466	A1365	A1226
C2646	G2458	G2351	G2351	C2261	U2068	U1963	G1822	A1700	G1581	C1467	A1366	A1226
U2647	A2459	A2352	A2352	G2262	G2069	G1964	U1823	C1711	C1582	C1468	A1367	C1233
A2654	G2467	G2353	G2353	C2264	G2070	C1965	G1824	C1712	A1583	G1469	U1367	U1234
A2655	C2468	G2354	G2354	A2268	A2071	C1967	G1835	G1718	A1584	A1471	G1368	
A2656	A2469	A2355	A2355	A2269	U2074	A1970	G1839	A1722	A1585	G1482	U1372	G1248
C2657	G2468	C2356	C2356	G2270	U2079	A1971	G1842	A1853	U1589	A1486	A1373	A1253
A2658	A2469	A2357	A2357	G2271	G2080	A1972	U1847	A1854	G1591	G1487	C1374	
C2659	G2470	G2358	G2358	U2272	G2081	G1980	A1848	C1982				
G2662	C2471	C2364	C2364	A2273	G2082	A1981	A1849	C1983				
G2663	G2472	G2365	G2365	A2274	G2083	C1982	A1850					
A2672	U2473	C2366	C2366	C2275	G2093	C1983	A1851					
C2673	C2474	A2369	A2369	G2276	U2096	U1991	A1856					
A2674	C2475	G2370	G2370	G2277	U2099							
C2675	U2476	G2371	G2371	G2278								
U2676	C2477	G2372	G2372	G2279								
C2683		G2373	G2373									



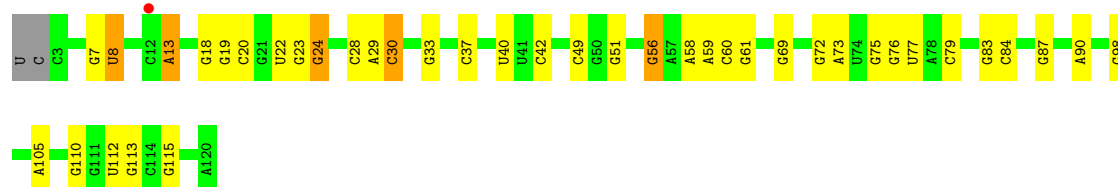
• Molecule 2: 5S Ribosomal RNA

Chain 1B: 81% 16%



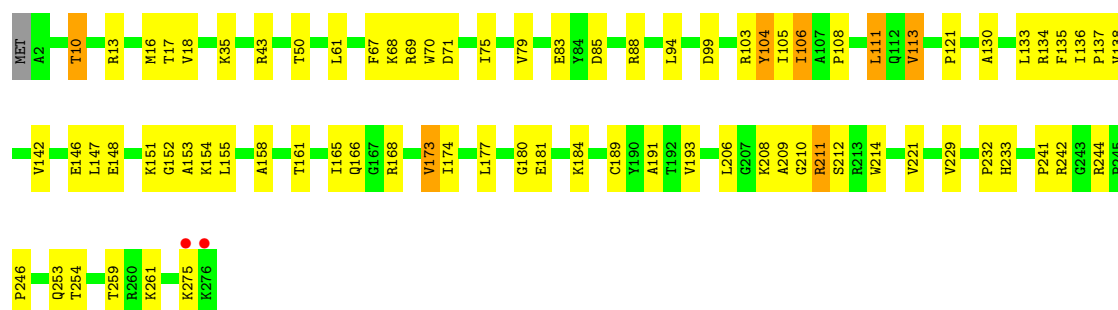
• Molecule 2: 5S Ribosomal RNA

Chain 2B: 65% 29%



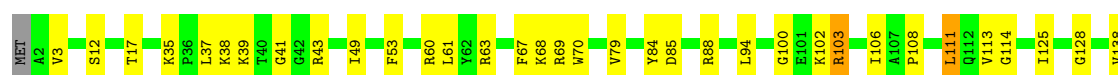
• Molecule 3: 50S ribosomal protein L2

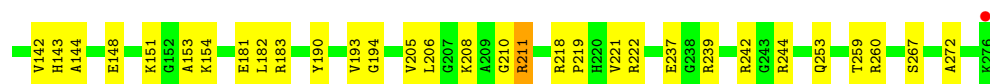
Chain 1D: 71% 26%



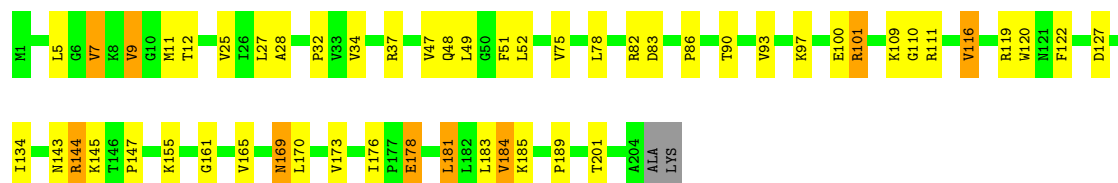
• Molecule 3: 50S ribosomal protein L2

Chain 2D: 76% 22%

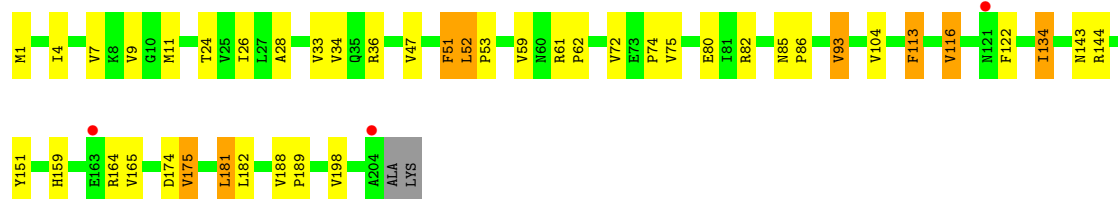
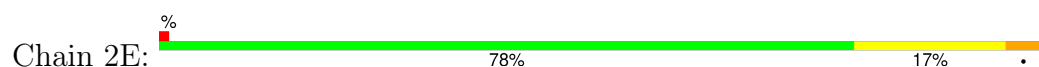




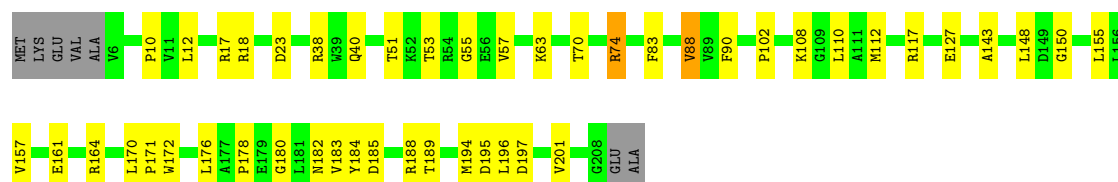
• Molecule 4: 50S ribosomal protein L3



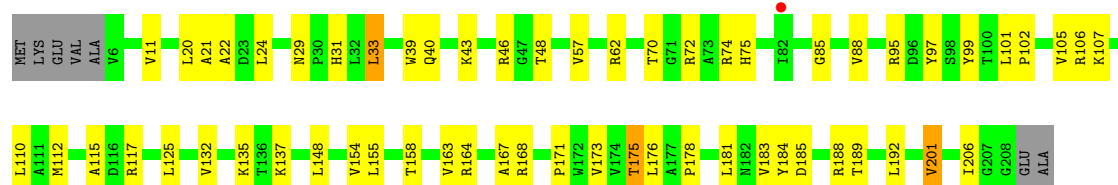
• Molecule 4: 50S ribosomal protein L3



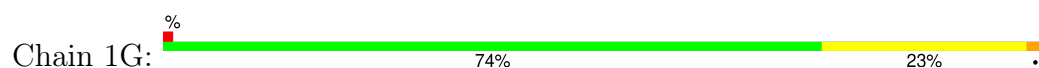
• Molecule 5: 50S ribosomal protein L4



• Molecule 5: 50S ribosomal protein L4

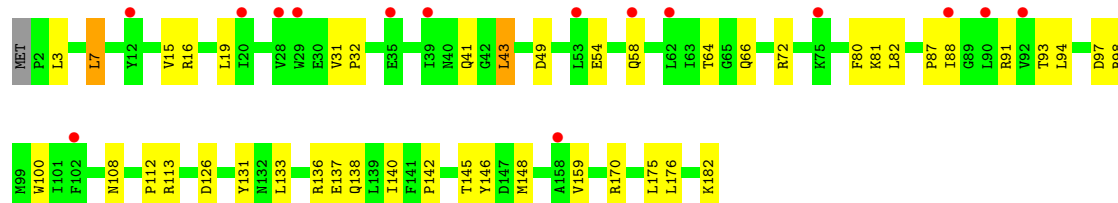
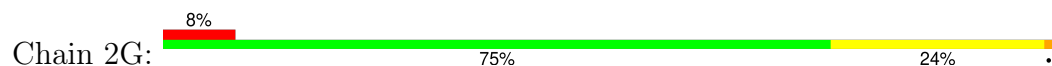


• Molecule 6: 50S ribosomal protein L5

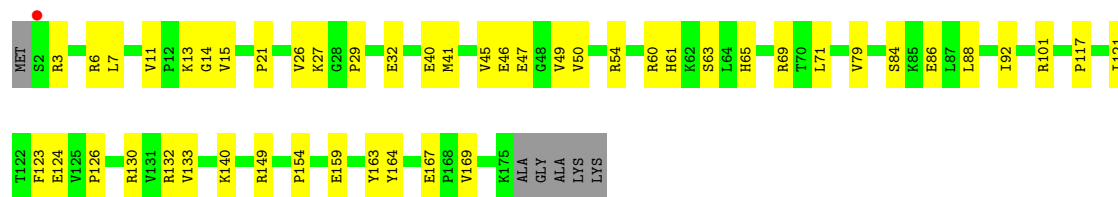




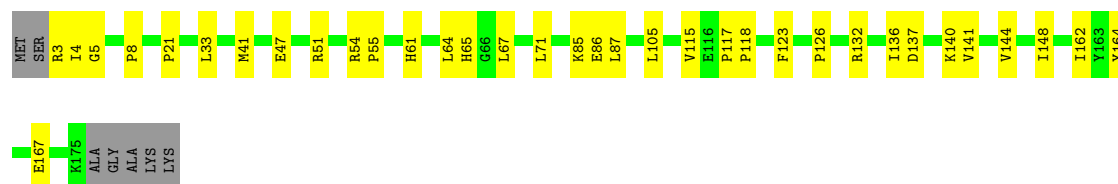
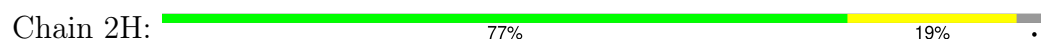
• Molecule 6: 50S ribosomal protein L5



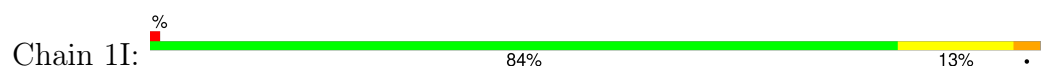
• Molecule 7: 50S ribosomal protein L6



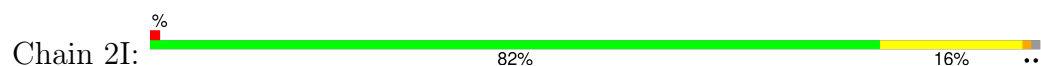
• Molecule 7: 50S ribosomal protein L6



• Molecule 8: 50S ribosomal protein L9

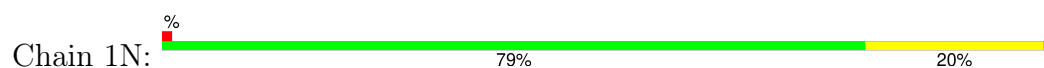


• Molecule 8: 50S ribosomal protein L9

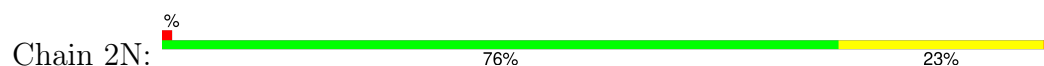




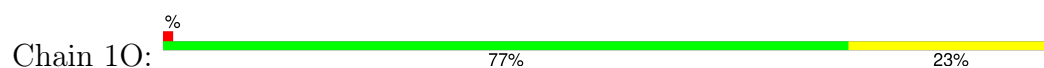
- Molecule 9: 50S ribosomal protein L13



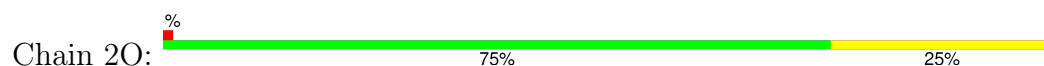
- Molecule 9: 50S ribosomal protein L13



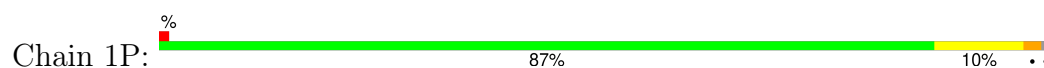
- Molecule 10: 50S ribosomal protein L14



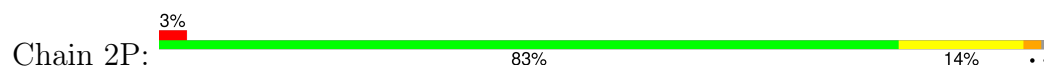
- Molecule 10: 50S ribosomal protein L14



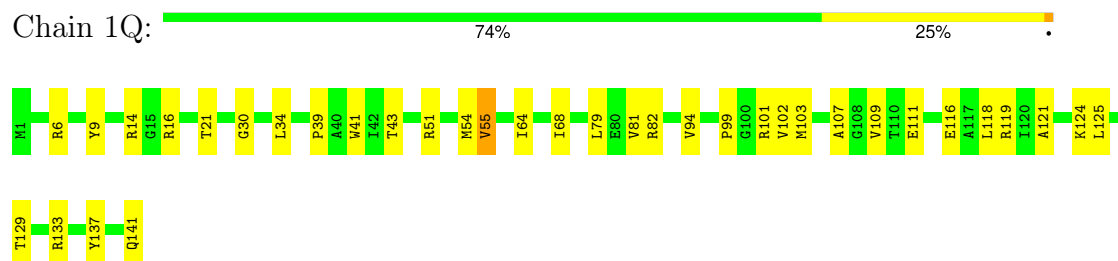
- Molecule 11: 50S ribosomal protein L15



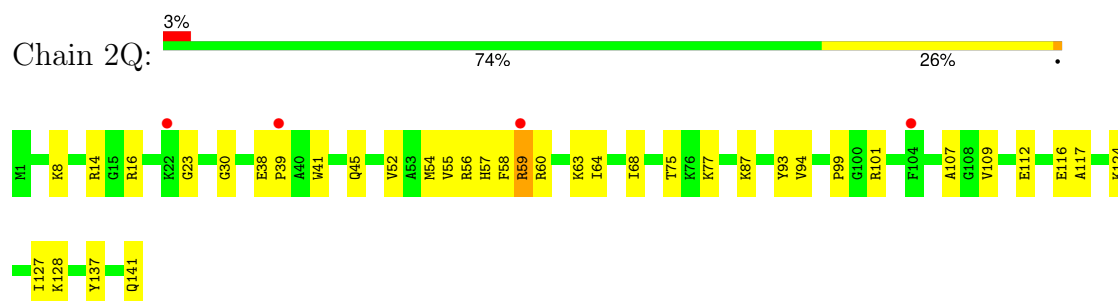
- Molecule 11: 50S ribosomal protein L15



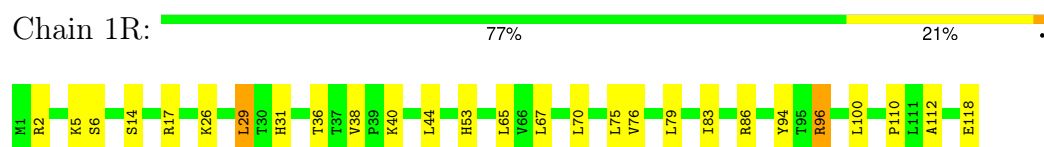
- Molecule 12: 50S ribosomal protein L16



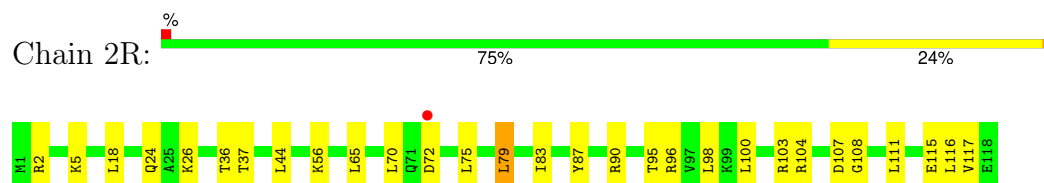
- Molecule 12: 50S ribosomal protein L16



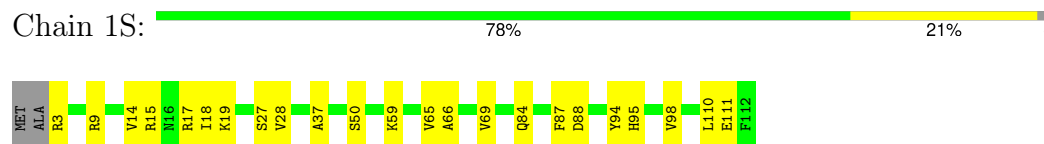
- Molecule 13: 50S ribosomal protein L17



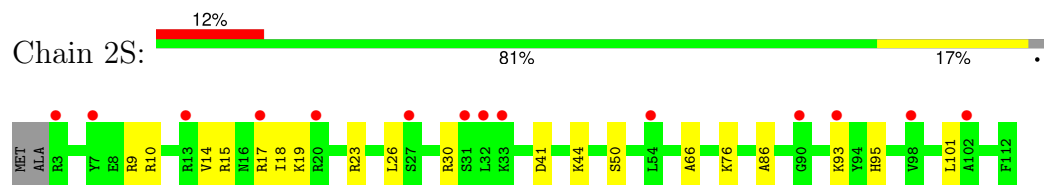
- Molecule 13: 50S ribosomal protein L17



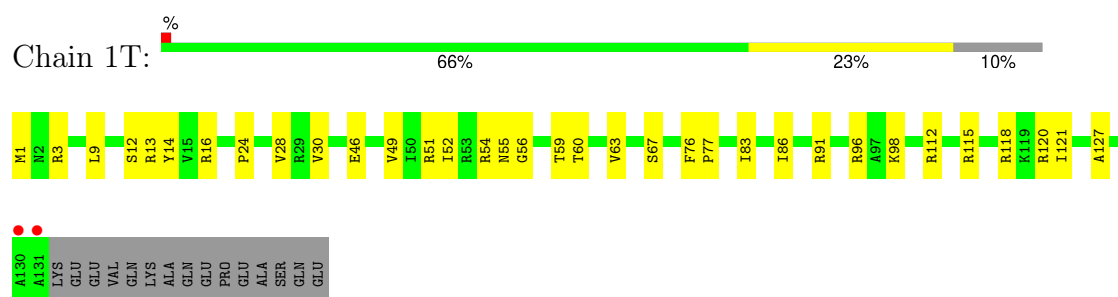
- Molecule 14: 50S ribosomal protein L18



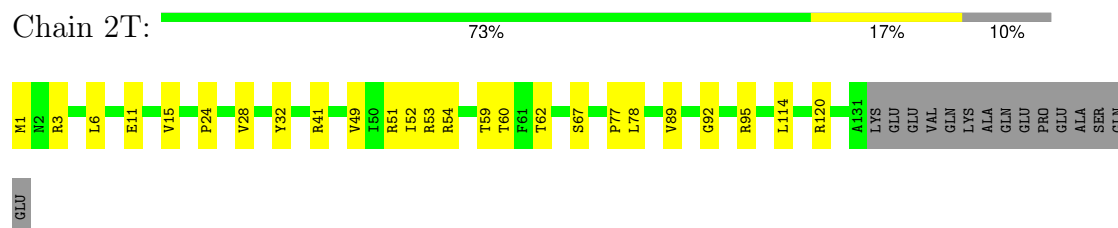
- Molecule 14: 50S ribosomal protein L18



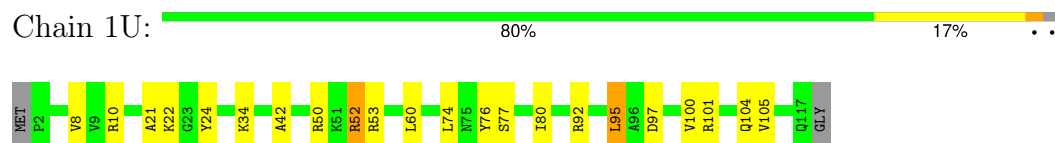
- Molecule 15: 50S ribosomal protein L19



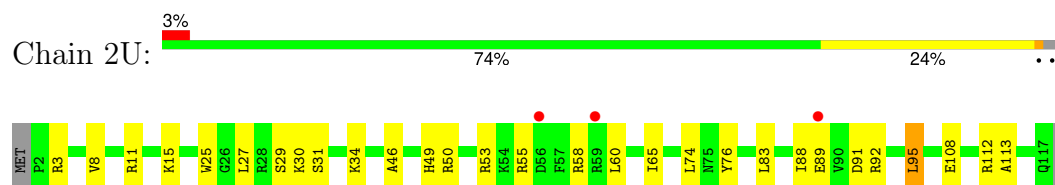
- Molecule 15: 50S ribosomal protein L19



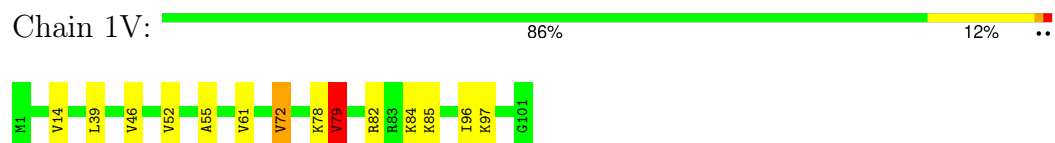
- Molecule 16: 50S ribosomal protein L20



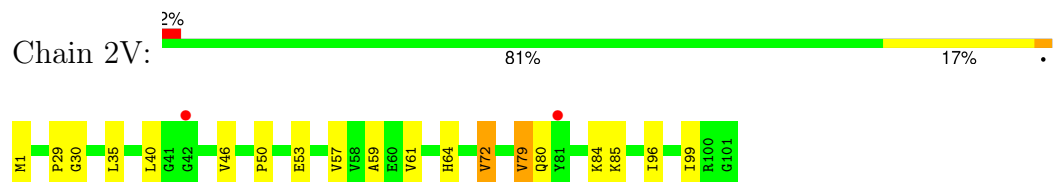
- Molecule 16: 50S ribosomal protein L20



- Molecule 17: 50S ribosomal protein L21



- Molecule 17: 50S ribosomal protein L21

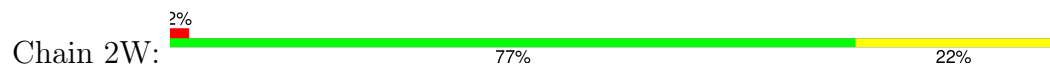


- Molecule 18: 50S ribosomal protein L22

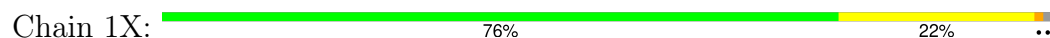




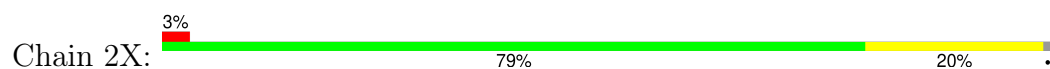
- Molecule 18: 50S ribosomal protein L22



- Molecule 19: 50S ribosomal protein L23



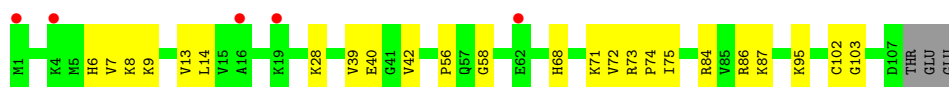
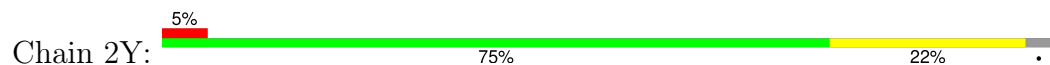
- Molecule 19: 50S ribosomal protein L23



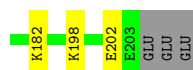
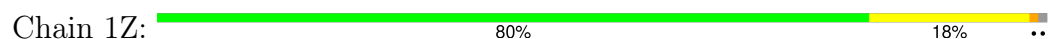
- Molecule 20: 50S ribosomal protein L24



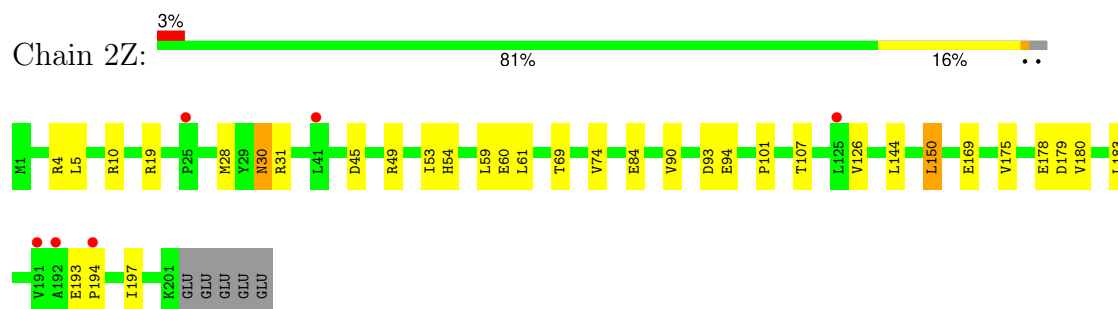
- Molecule 20: 50S ribosomal protein L24



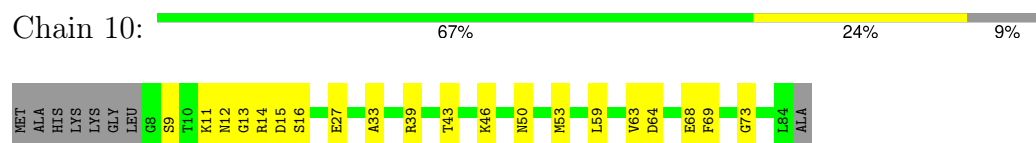
- Molecule 21: 50S ribosomal protein L25



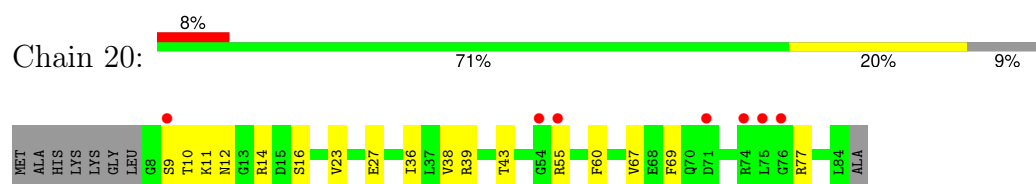
- Molecule 21: 50S ribosomal protein L25



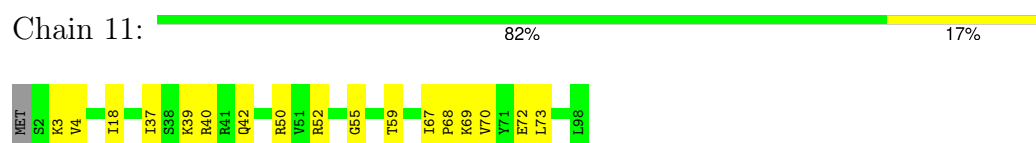
- Molecule 22: 50S ribosomal protein L27



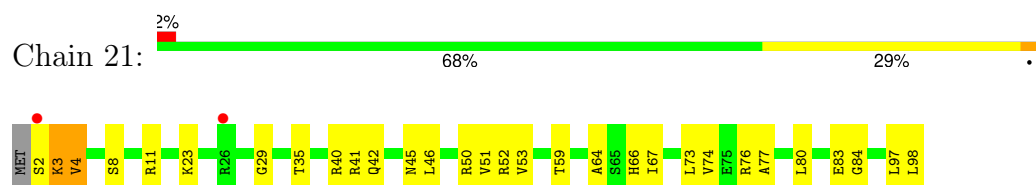
- Molecule 22: 50S ribosomal protein L27



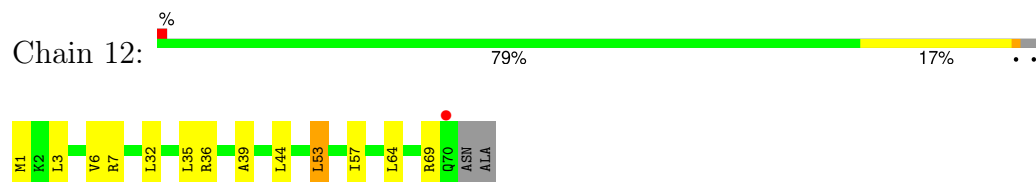
- Molecule 23: 50S ribosomal protein L28



- Molecule 23: 50S ribosomal protein L28



- Molecule 24: 50S ribosomal protein L29



- Molecule 24: 50S ribosomal protein L29

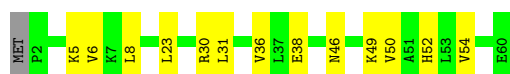
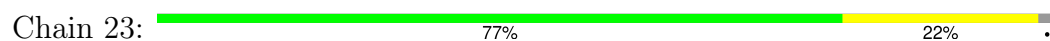




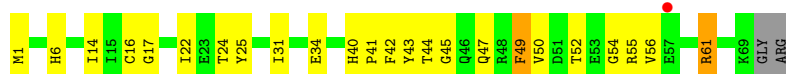
- Molecule 25: 50S ribosomal protein L30



- Molecule 25: 50S ribosomal protein L30



- Molecule 26: 50S ribosomal protein L31



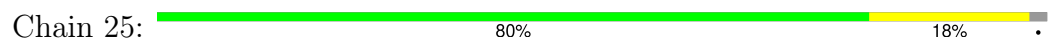
- Molecule 26: 50S ribosomal protein L31



- Molecule 27: 50S ribosomal protein L32



- Molecule 27: 50S ribosomal protein L32



- Molecule 28: 50S ribosomal protein L33





- Molecule 28: 50S ribosomal protein L33

Chain 26: 78% 19%



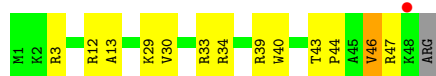
- Molecule 29: 50S ribosomal protein L34

Chain 17: 78% 20%



- Molecule 29: 50S ribosomal protein L34

Chain 27: 71% 24%



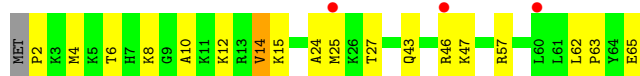
- Molecule 30: 50S ribosomal protein L35

Chain 18: 82% 17%



- Molecule 30: 50S ribosomal protein L35

Chain 28: 71% 26%



- Molecule 31: 50S ribosomal protein L36

Chain 19: 68% 32%

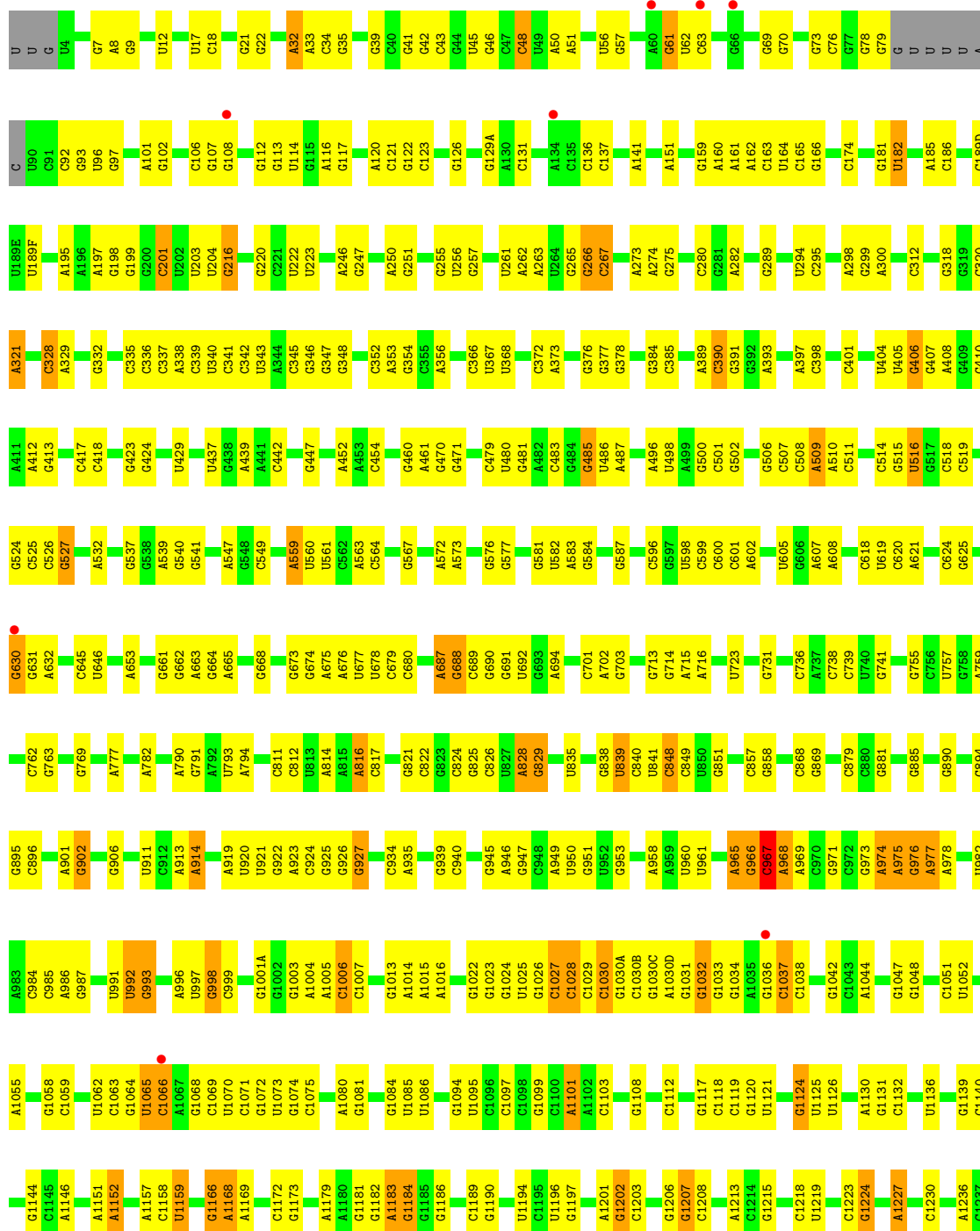


- Molecule 31: 50S ribosomal protein L36

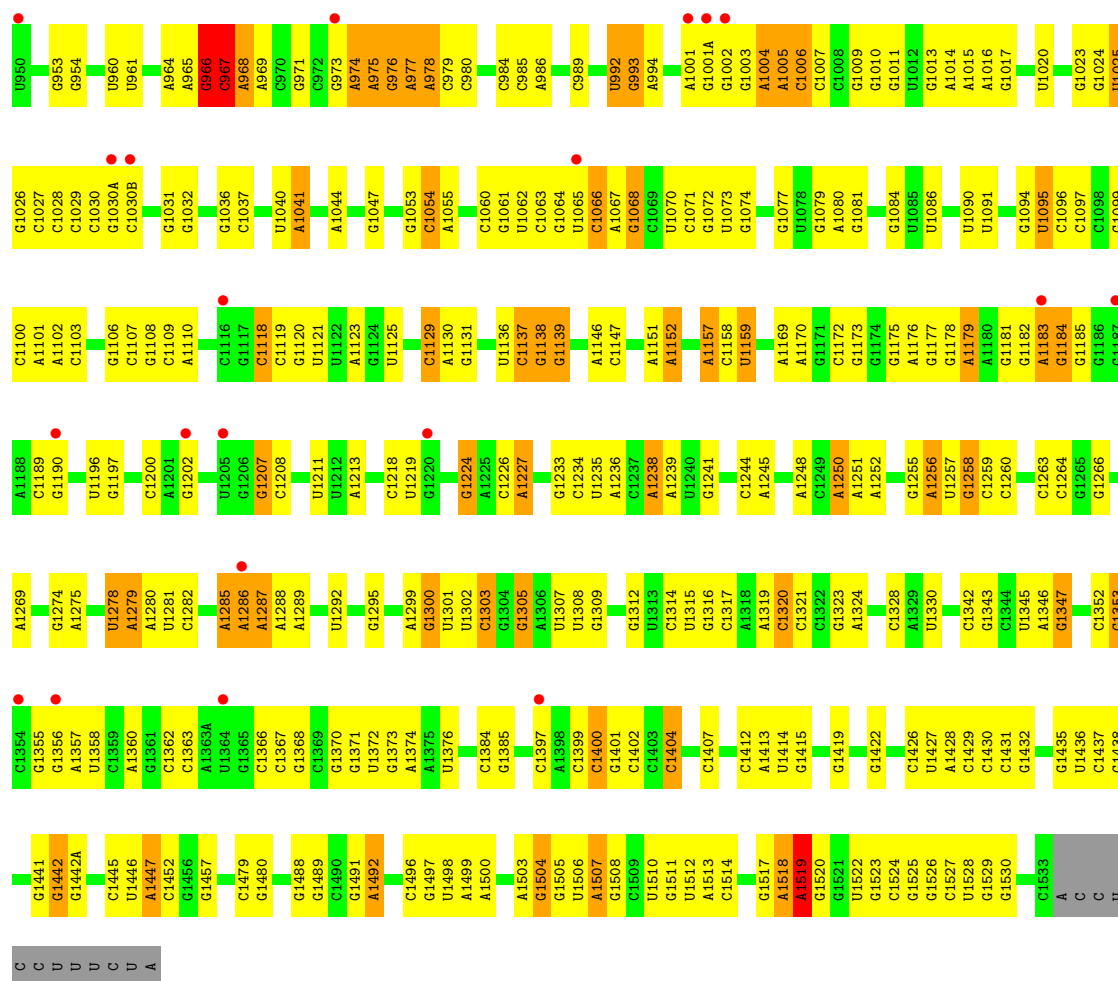
Chain 29: 73% 24%



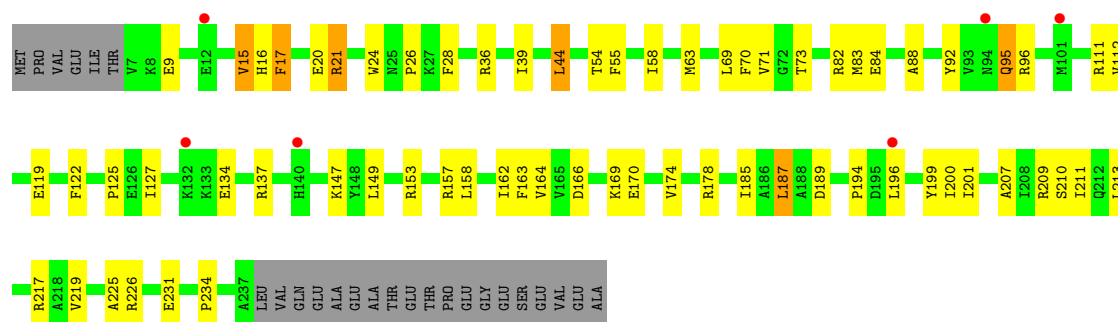
● Molecule 32: 16S Ribosomal RNA



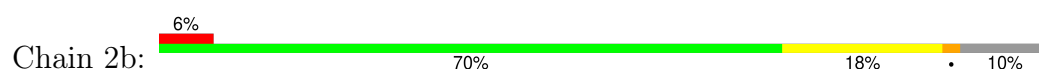


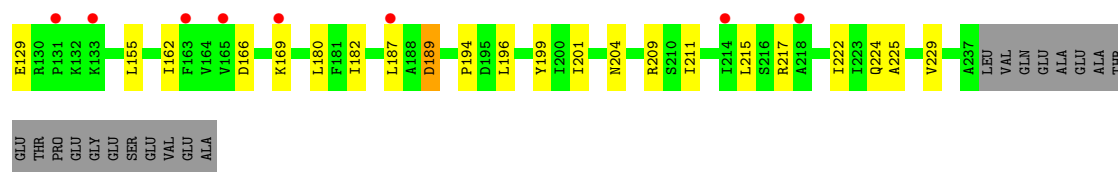


• Molecule 33: 30S ribosomal protein S2

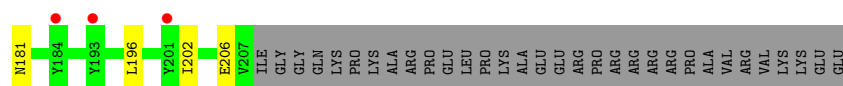


• Molecule 33: 30S ribosomal protein S2

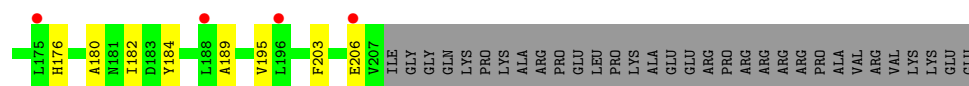




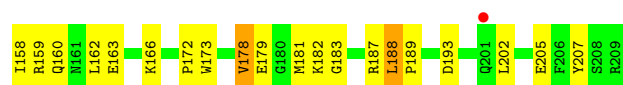
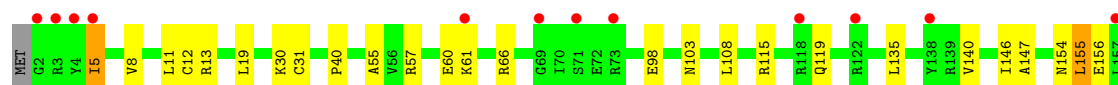
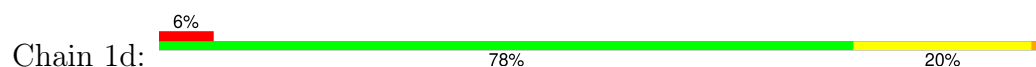
- Molecule 34: 30S ribosomal protein S3



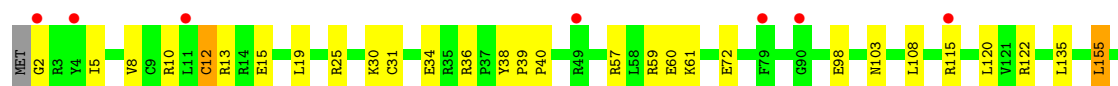
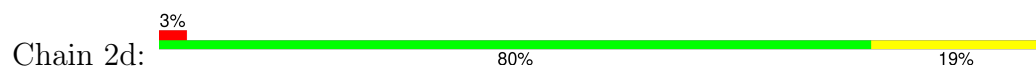
- Molecule 34: 30S ribosomal protein S3



- Molecule 35: 30S ribosomal protein S4

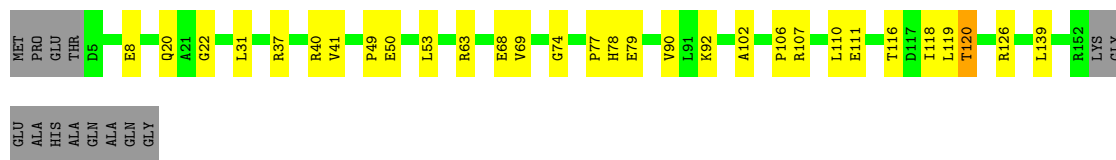


- Molecule 35: 30S ribosomal protein S4



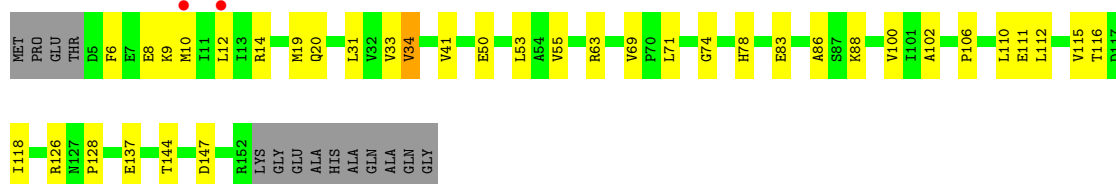
- Molecule 36: 30S ribosomal protein S5

Chain 1e:  73% 18% 9%



- Molecule 36: 30S ribosomal protein S5

Chain 2e:  69% 22% 9%



- Molecule 37: 30S ribosomal protein S6

Chain 1f:  78% 21%



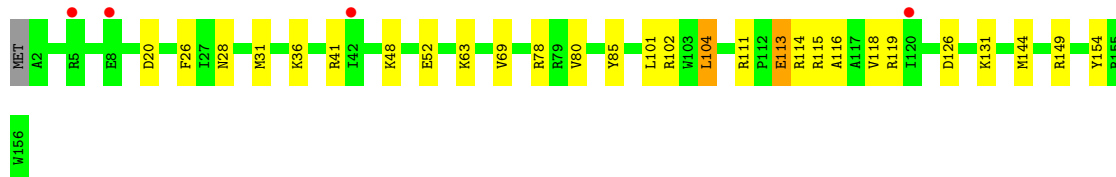
- Molecule 37: 30S ribosomal protein S6

Chain 2f:  73% 25% 2%



- Molecule 38: 30S ribosomal protein S7

Chain 1g:  3% 81% 17%



- Molecule 38: 30S ribosomal protein S7

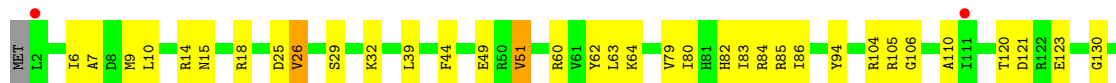
Chain 2g:  3% 81% 17%



W156

- Molecule 39: 30S ribosomal protein S8

Chain 1h:  73% 25% ..

L133
W138

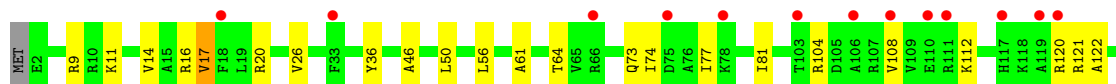
- Molecule 39: 30S ribosomal protein S8

Chain 2h:  3% 79% 18% ..



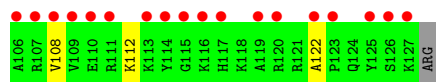
- Molecule 40: 30S ribosomal protein S9

Chain 1i:  12% 80% 18% ..

Y125
S126
K127
R128

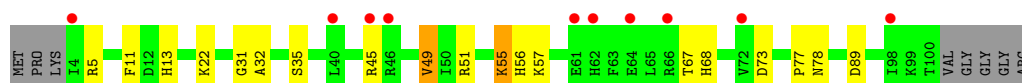
- Molecule 40: 30S ribosomal protein S9

Chain 2i:  21% 74% 24% .

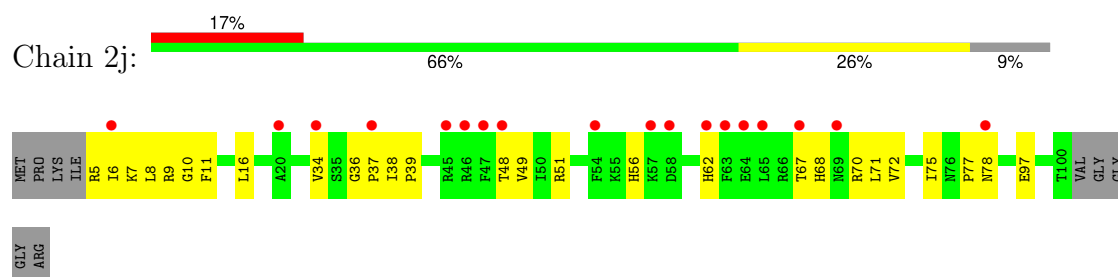


- Molecule 41: 30S ribosomal protein S10

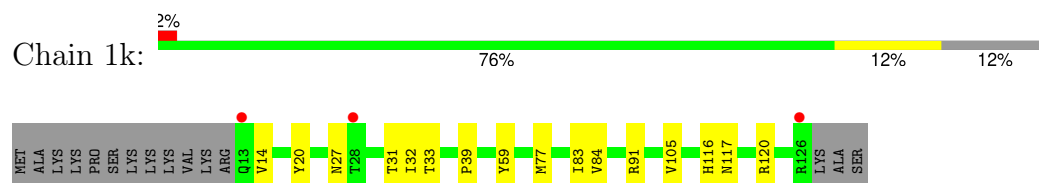
Chain 1j:  10% 74% 16% 8%



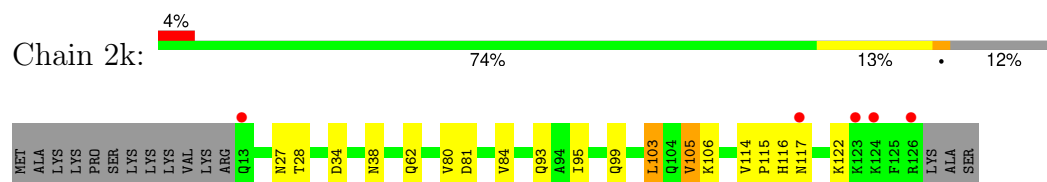
- Molecule 41: 30S ribosomal protein S10



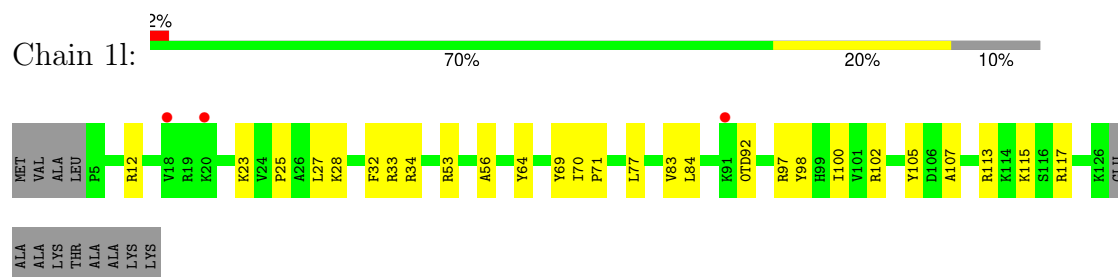
- Molecule 42: 30S ribosomal protein S11



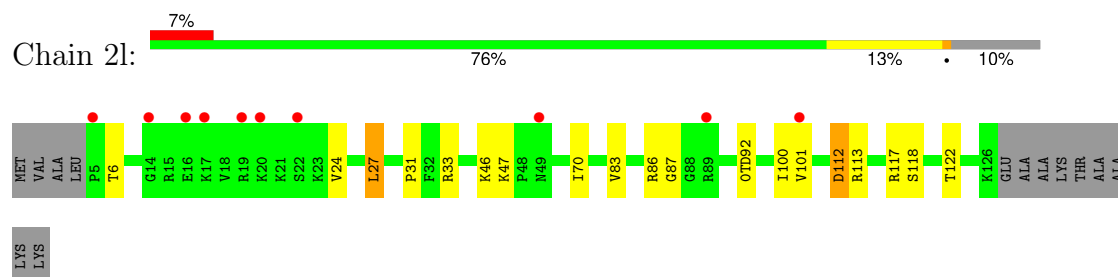
- Molecule 42: 30S ribosomal protein S11



- Molecule 43: 30S ribosomal protein S12

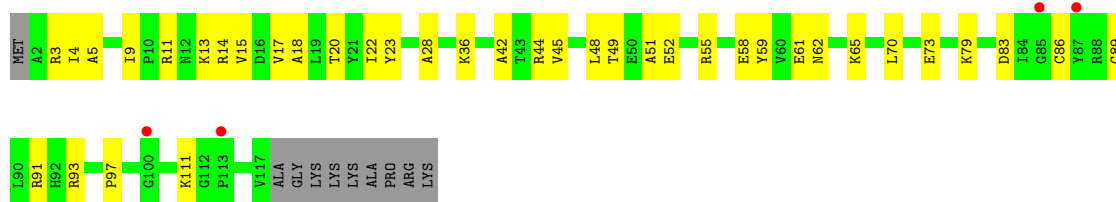


- Molecule 43: 30S ribosomal protein S12

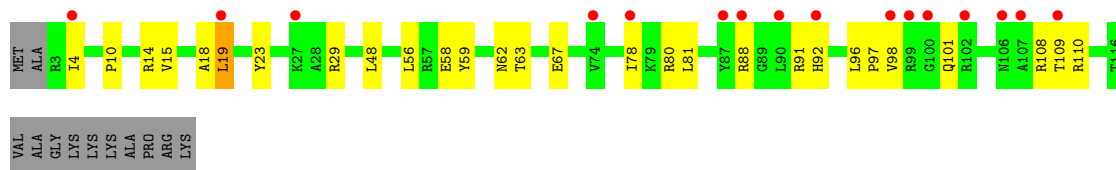


- Molecule 44: 30S ribosomal protein S13

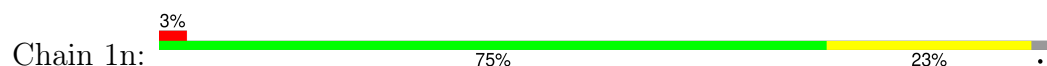




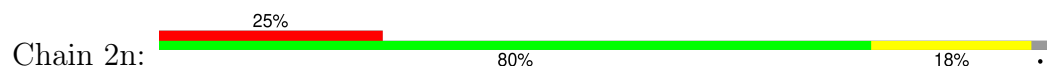
- Molecule 44: 30S ribosomal protein S13



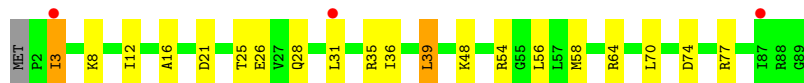
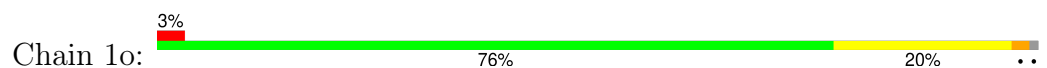
- Molecule 45: 30S ribosomal protein S14 type Z



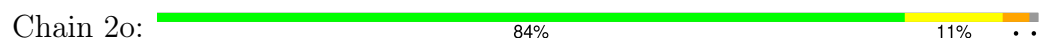
- Molecule 45: 30S ribosomal protein S14 type Z



- Molecule 46: 30S ribosomal protein S15

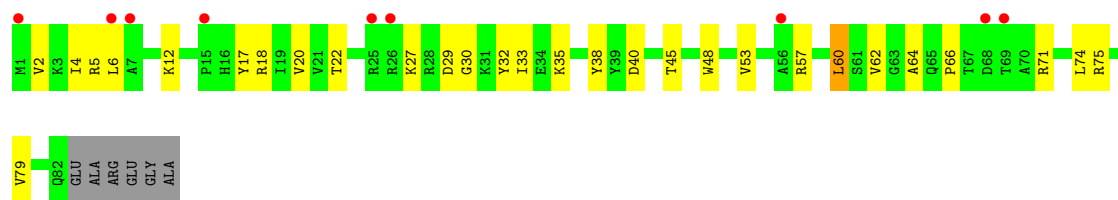


- Molecule 46: 30S ribosomal protein S15



- Molecule 47: 30S ribosomal protein S16





- Molecule 47: 30S ribosomal protein S16



- Molecule 48: 30S ribosomal protein S18



- Molecule 48: 30S ribosomal protein S18



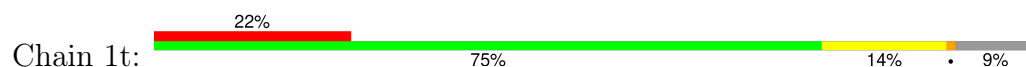
- Molecule 49: 30S ribosomal protein S19



- Molecule 49: 30S ribosomal protein S19

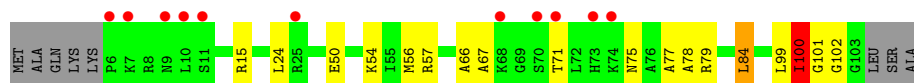
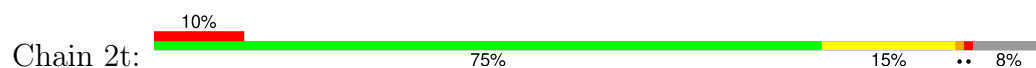


- Molecule 50: 30S ribosomal protein S20

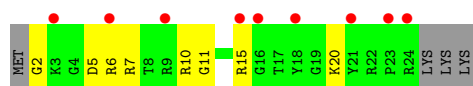




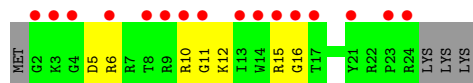
- Molecule 50: 30S ribosomal protein S20



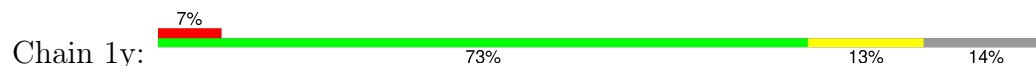
- Molecule 51: 30S ribosomal protein Thx



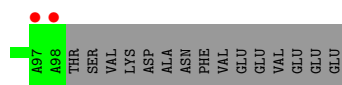
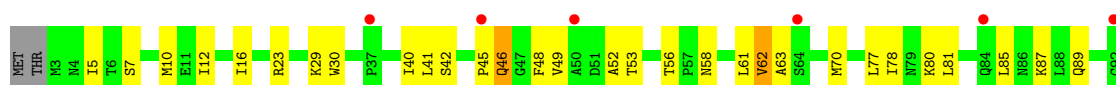
- Molecule 51: 30S ribosomal protein Thx



- Molecule 52: Ribosome-associated inhibitor A



- Molecule 52: Ribosome-associated inhibitor A



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	210.81Å 450.83Å 621.31Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.93 – 3.25 49.93 – 3.25	Depositor EDS
% Data completeness (in resolution range)	100.0 (49.93-3.25) 99.9 (49.93-3.25)	Depositor EDS
R_{merge}	0.47	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.34 (at 3.25Å)	Xtriage
Refinement program	PHENIX dev_2747	Depositor
R, R_{free}	0.226 , 0.270 0.225 , 0.268	Depositor DCC
R_{free} test set	46130 reflections (5.02%)	wwPDB-VP
Wilson B-factor (Å ²)	70.0	Xtriage
Anisotropy	0.627	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.26 , 49.9	EDS
L-test for twinning ²	$\langle L \rangle = 0.37$, $\langle L^2 \rangle = 0.20$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.92	EDS
Total number of atoms	290709	wwPDB-VP
Average B, all atoms (Å ²)	86.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.10% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality ⓘ

5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: MG, 2MG, OMG, 0TD, OMC, G7M, MPD, M2G, 5MC, 4OC, MA6, 2MA, ZN, SF4, 5MU, UR3, OMU, PSU

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	0.17	0/68792	0.31	2/107386 (0.0%)
1	2A	0.14	0/68686	0.28	0/107216
2	1B	0.15	0/2837	0.29	0/4426
2	2B	0.13	0/2837	0.28	0/4426
3	1D	0.18	0/2181	0.40	0/2940
3	2D	0.16	0/2186	0.37	0/2944
4	1E	0.18	0/1592	0.38	0/2149
4	2E	0.15	0/1592	0.36	0/2149
5	1F	0.17	0/1621	0.36	0/2196
5	2F	0.14	0/1617	0.36	0/2191
6	1G	0.15	0/1452	0.39	1/1962 (0.1%)
6	2G	0.12	0/1450	0.31	0/1958
7	1H	0.16	0/1356	0.33	0/1834
7	2H	0.12	0/1350	0.30	0/1826
8	1I	0.14	0/1110	0.33	0/1513
8	2I	0.12	0/1092	0.28	0/1491
9	1N	0.17	0/1148	0.35	0/1547
9	2N	0.13	0/1144	0.31	0/1543
10	1O	0.17	0/942	0.35	0/1268
10	2O	0.14	0/942	0.34	0/1268
11	1P	0.18	0/1152	0.39	0/1533
11	2P	0.15	0/1152	0.37	0/1533
12	1Q	0.17	0/1142	0.37	0/1525
12	2Q	0.14	0/1142	0.32	0/1525
13	1R	0.19	0/982	0.42	0/1312
13	2R	0.15	0/982	0.35	0/1312
14	1S	0.17	0/887	0.39	0/1180
14	2S	0.13	0/880	0.33	0/1172
15	1T	0.17	0/1105	0.39	0/1476
15	2T	0.15	0/1097	0.35	0/1467
16	1U	0.20	0/977	0.39	0/1301

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
16	2U	0.14	0/977	0.32	0/1301
17	1V	0.18	0/786	0.37	0/1053
17	2V	0.13	0/782	0.32	0/1049
18	1W	0.19	0/897	0.38	0/1205
18	2W	0.14	0/897	0.34	0/1205
19	1X	0.17	0/764	0.38	0/1025
19	2X	0.13	0/764	0.33	0/1025
20	1Y	0.16	0/823	0.38	0/1099
20	2Y	0.13	0/823	0.32	0/1100
21	1Z	0.15	0/1620	0.35	0/2200
21	2Z	0.13	0/1590	0.31	0/2162
22	10	0.17	0/614	0.40	0/818
22	20	0.14	0/614	0.35	0/818
23	11	0.18	0/763	0.35	0/1016
23	21	0.15	0/768	0.31	0/1021
24	12	0.17	0/590	0.36	0/781
24	22	0.14	0/594	0.29	0/785
25	13	0.17	0/474	0.37	0/635
25	23	0.12	0/469	0.30	0/630
26	14	0.15	0/559	0.50	0/754
26	24	0.18	0/549	0.48	0/741
27	15	0.18	0/474	0.39	0/640
27	25	0.15	0/470	0.32	0/636
28	16	0.17	0/460	0.39	0/613
28	26	0.15	0/456	0.35	0/608
29	17	0.20	0/426	0.41	0/561
29	27	0.16	0/426	0.38	0/561
30	18	0.18	0/525	0.34	0/691
30	28	0.15	0/525	0.34	0/691
31	19	0.19	0/310	0.41	0/407
31	29	0.14	0/310	0.32	0/407
32	1a	0.14	0/35799	0.29	0/55871
32	2a	0.14	1/35894 (0.0%)	0.31	0/56019
33	1b	0.13	0/1876	0.34	0/2533
33	2b	0.14	0/1860	0.35	0/2518
34	1c	0.12	0/1582	0.30	0/2137
34	2c	0.12	0/1566	0.30	0/2119
35	1d	0.14	0/1695	0.34	0/2274
35	2d	0.14	0/1698	0.33	0/2277
36	1e	0.14	0/1149	0.35	0/1548
36	2e	0.13	0/1149	0.34	0/1548
37	1f	0.13	0/827	0.29	0/1120
37	2f	0.12	0/829	0.29	0/1123

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
38	1g	0.12	0/1254	0.30	0/1683
38	2g	0.12	0/1248	0.30	0/1676
39	1h	0.14	0/1118	0.33	0/1506
39	2h	0.12	0/1108	0.31	0/1494
40	1i	0.13	0/1005	0.33	0/1350
40	2i	0.13	0/985	0.33	0/1328
41	1j	0.13	0/732	0.32	0/993
41	2j	0.13	0/723	0.33	0/984
42	1k	0.14	0/849	0.31	0/1150
42	2k	0.13	0/848	0.34	0/1149
43	1l	0.14	0/937	0.33	0/1260
43	2l	0.14	0/937	0.37	0/1260
44	1m	0.13	0/924	0.36	0/1242
44	2m	0.13	0/905	0.32	0/1217
45	1n	0.13	0/501	0.34	0/664
45	2n	0.12	0/501	0.33	0/664
46	1o	0.13	0/739	0.32	0/985
46	2o	0.12	0/739	0.31	0/985
47	1p	0.13	0/697	0.35	0/939
47	2p	0.13	0/693	0.34	0/935
48	1r	0.14	0/560	0.35	0/746
48	2r	0.12	0/560	0.29	0/746
49	1s	0.11	0/663	0.31	0/895
49	2s	0.11	0/660	0.29	0/893
50	1t	0.14	0/733	0.36	0/968
50	2t	0.14	0/735	0.33	0/975
51	1u	0.13	0/203	0.35	0/266
51	2u	0.14	0/203	0.38	0/266
52	1y	0.12	0/776	0.29	0/1048
52	2y	0.11	0/761	0.28	0/1030
All	All	0.15	1/307745 (0.0%)	0.31	3/460191 (0.0%)

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	2a	527	G7M	O3'-P	5.13	1.61	1.56

All (3) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1A	2552	OMU	O3'-P-O5'	9.99	122.97	104.00
6	1G	96	ARG	CB-CA-C	-5.77	109.94	116.63

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Mol	Chain	Res	Type	Atoms	Z	Observed($^{\circ}$)	Ideal($^{\circ}$)
1	1A	2552	OMU	P-O3'-C3'	-5.25	113.41	119.70

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	1A	61654	0	31088	554	0
1	2A	61564	0	31051	641	0
2	1B	2536	0	1284	14	0
2	2B	2536	0	1284	32	0
3	1D	2131	0	2207	56	0
3	2D	2136	0	2218	45	0
4	1E	1559	0	1618	30	0
4	2E	1559	0	1618	29	0
5	1F	1586	0	1631	30	0
5	2F	1582	0	1626	35	0
6	1G	1427	0	1447	28	0
6	2G	1425	0	1443	25	0
7	1H	1330	0	1407	27	0
7	2H	1324	0	1402	19	0
8	1I	1095	0	1129	14	0
8	2I	1077	0	1096	12	0
9	1N	1121	0	1195	17	0
9	2N	1117	0	1184	16	0
10	1O	932	0	994	21	0
10	2O	932	0	994	20	0
11	1P	1135	0	1212	13	0
11	2P	1135	0	1212	20	0
12	1Q	1121	0	1179	24	0
12	2Q	1121	0	1179	31	0
13	1R	968	0	1033	15	0
13	2R	968	0	1033	19	0
14	1S	877	0	938	16	0
14	2S	870	0	923	16	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
15	1T	1091	0	1156	23	0
15	2T	1083	0	1141	14	0
16	1U	959	0	1019	15	0
16	2U	959	0	1019	22	0
17	1V	775	0	840	8	0
17	2V	771	0	830	12	0
18	1W	886	0	940	20	0
18	2W	886	0	939	18	0
19	1X	750	0	814	15	0
19	2X	750	0	814	11	0
20	1Y	810	0	893	16	0
20	2Y	810	0	888	18	0
21	1Z	1587	0	1598	26	0
21	2Z	1557	0	1564	24	0
22	10	606	0	622	10	0
22	20	606	0	622	11	0
23	11	756	0	823	9	0
23	21	761	0	837	23	0
24	12	588	0	643	8	0
24	22	592	0	654	12	0
25	13	469	0	518	13	0
25	23	464	0	514	7	0
26	14	546	0	523	14	0
26	24	536	0	518	19	0
27	15	460	0	480	10	0
27	25	456	0	469	8	0
28	16	453	0	473	10	0
28	26	449	0	469	6	0
29	17	418	0	467	6	0
29	27	418	0	467	10	0
30	18	517	0	582	9	0
30	28	517	0	582	15	0
31	19	307	0	335	7	0
31	29	307	0	336	8	0
32	1a	32249	0	16293	389	0
32	2a	32334	0	16338	502	0
33	1b	1842	0	1862	39	0
33	2b	1825	0	1828	29	0
34	1c	1558	0	1557	19	0
34	2c	1542	0	1517	21	0
35	1d	1665	0	1691	29	0
35	2d	1668	0	1707	30	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
36	1e	1133	0	1191	20	0
36	2e	1133	0	1191	23	0
37	1f	814	0	808	14	0
37	2f	816	0	808	17	0
38	1g	1235	0	1249	17	0
38	2g	1229	0	1238	18	0
39	1h	1098	0	1143	24	0
39	2h	1088	0	1126	18	0
40	1i	987	0	996	19	0
40	2i	967	0	959	20	0
41	1j	719	0	672	13	0
41	2j	710	0	661	17	0
42	1k	834	0	838	9	0
42	2k	833	0	836	13	0
43	1l	932	0	981	17	0
43	2l	932	0	981	13	0
44	1m	914	0	954	22	0
44	2m	895	0	920	21	0
45	1n	492	0	529	11	0
45	2n	492	0	529	10	0
46	1o	728	0	760	13	0
46	2o	728	0	760	7	0
47	1p	681	0	697	16	0
47	2p	677	0	686	16	0
48	1r	555	0	618	7	0
48	2r	555	0	618	8	0
49	1s	648	0	658	12	0
49	2s	645	0	635	13	0
50	1t	731	0	807	11	0
50	2t	732	0	793	13	0
51	1u	199	0	208	6	0
51	2u	199	0	208	5	0
52	1y	764	0	785	8	0
52	2y	749	0	757	19	0
53	18	8	0	14	1	0
53	1A	8	0	14	0	0
53	1T	8	0	14	0	0
53	1a	8	0	14	1	0
53	2A	16	0	28	1	0
53	2B	8	0	14	2	0
54	10	6	0	0	0	0
54	11	4	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
54	13	2	0	0	0	0
54	15	3	0	0	0	0
54	16	1	0	0	0	0
54	17	3	0	0	0	0
54	19	2	0	0	0	0
54	1A	900	0	0	0	0
54	1B	29	0	0	0	0
54	1D	12	0	0	0	0
54	1E	5	0	0	0	0
54	1F	12	0	0	0	0
54	1G	4	0	0	0	0
54	1H	2	0	0	0	0
54	1N	3	0	0	0	0
54	1O	1	0	0	0	0
54	1P	5	0	0	0	0
54	1Q	3	0	0	0	0
54	1R	7	0	0	0	0
54	1T	5	0	0	0	0
54	1U	3	0	0	0	0
54	1V	3	0	0	0	0
54	1W	4	0	0	0	0
54	1X	2	0	0	0	0
54	1Z	1	0	0	0	0
54	1a	257	0	0	0	0
54	1b	1	0	0	0	0
54	1d	6	0	0	0	0
54	1e	3	0	0	0	0
54	1f	2	0	0	0	0
54	1g	3	0	0	0	0
54	1h	1	0	0	0	0
54	1l	2	0	0	0	0
54	1n	2	0	0	0	0
54	1o	1	0	0	0	0
54	1t	2	0	0	0	0
54	1y	4	0	0	0	0
54	20	1	0	0	0	0
54	21	4	0	0	0	0
54	23	1	0	0	0	0
54	28	1	0	0	0	0
54	2A	641	0	0	0	0
54	2B	16	0	0	0	0
54	2D	6	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
54	2E	2	0	0	0	0
54	2F	2	0	0	0	0
54	2G	3	0	0	0	0
54	2I	1	0	0	0	0
54	2O	2	0	0	0	0
54	2P	2	0	0	0	0
54	2Q	2	0	0	0	0
54	2R	3	0	0	0	0
54	2T	5	0	0	0	0
54	2V	1	0	0	0	0
54	2W	2	0	0	0	0
54	2X	1	0	0	0	0
54	2Y	1	0	0	0	0
54	2a	164	0	0	0	0
54	2e	1	0	0	0	0
54	2f	1	0	0	0	0
54	2i	1	0	0	0	0
54	2j	1	0	0	0	0
54	2k	1	0	0	0	0
54	2l	2	0	0	0	0
54	2p	1	0	0	0	0
54	2t	1	0	0	0	0
55	1B	12	0	12	0	0
55	1F	12	0	12	1	0
56	14	1	0	0	0	0
56	15	1	0	0	0	0
56	16	1	0	0	0	0
56	19	1	0	0	0	0
56	1Y	1	0	0	0	0
56	1n	1	0	0	0	0
56	24	1	0	0	0	0
56	25	1	0	0	0	0
56	26	1	0	0	0	0
56	29	1	0	0	0	0
56	2Y	1	0	0	0	0
56	2n	1	0	0	0	0
57	1d	8	0	0	0	0
57	2d	8	0	0	0	0
58	10	5	0	0	0	0
58	11	3	0	0	0	0
58	13	6	0	0	1	0
58	15	3	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
58	16	2	0	0	0	0
58	17	1	0	0	0	0
58	18	7	0	0	0	0
58	19	3	0	0	0	0
58	1A	1801	0	0	105	0
58	1B	56	0	0	3	0
58	1D	14	0	0	0	0
58	1E	17	0	0	0	0
58	1F	16	0	0	0	0
58	1G	5	0	0	0	0
58	1H	5	0	0	0	0
58	1N	7	0	0	0	0
58	1O	2	0	0	0	0
58	1P	17	0	0	0	0
58	1Q	5	0	0	0	0
58	1R	5	0	0	0	0
58	1T	8	0	0	0	0
58	1U	6	0	0	0	0
58	1V	5	0	0	0	0
58	1W	2	0	0	0	0
58	1X	6	0	0	0	0
58	1Y	1	0	0	0	0
58	1Z	1	0	0	0	0
58	1a	424	0	0	19	0
58	1c	1	0	0	0	0
58	1d	8	0	0	0	0
58	1e	4	0	0	0	0
58	1f	1	0	0	0	0
58	1h	1	0	0	0	0
58	1j	1	0	0	0	0
58	1l	3	0	0	0	0
58	1m	1	0	0	0	0
58	1o	3	0	0	0	0
58	1p	1	0	0	0	0
58	1t	2	0	0	0	0
58	1y	3	0	0	0	0
58	20	2	0	0	0	0
58	21	1	0	0	0	0
58	23	2	0	0	0	0
58	25	1	0	0	0	0
58	26	1	0	0	0	0
58	27	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
58	28	5	0	0	0	0
58	2A	1310	0	0	106	0
58	2B	32	0	0	3	0
58	2D	16	0	0	1	0
58	2E	10	0	0	0	0
58	2F	6	0	0	1	0
58	2G	1	0	0	0	0
58	2N	1	0	0	0	0
58	2O	3	0	0	0	0
58	2P	14	0	0	1	0
58	2Q	5	0	0	0	0
58	2R	1	0	0	0	0
58	2T	4	0	0	0	0
58	2V	2	0	0	0	0
58	2W	3	0	0	0	0
58	2X	4	0	0	1	0
58	2Y	1	0	0	0	0
58	2a	282	0	0	17	0
58	2e	1	0	0	0	0
58	2j	2	0	0	1	0
58	2l	1	0	0	0	0
58	2t	2	0	0	0	0
58	2y	3	0	0	0	0
All	All	290709	0	192529	3328	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 7.

All (3328) 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:2552:OMU:C4'	1:1A:2552:OMU:O4'	1.67	1.18
1:2A:2552:OMU:O4'	1:2A:2552:OMU:C4'	1.67	1.18
1:2A:2131:G:H5''	1:2A:2132:U:H5'	1.53	0.91
1:2A:1920:OMC:HM21	32:2a:1496:C:H4'	1.52	0.91
32:1a:1051:C:N3	32:1a:1207:2MG:N1	2.20	0.88
1:2A:1047:G:H21	1:2A:1111:A:H62	1.23	0.86
2:2B:8:U:H3	2:2B:113:G:H1	1.22	0.85
32:2a:1086:U:H3	32:2a:1099:G:H22	1.22	0.85
32:2a:1003:G:H2'	32:2a:1004:A:H4'	1.59	0.84
10:2O:48:PRO:HB3	32:2a:1422:G:H5''	1.58	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:673:G:H2'	32:2a:674:G:C8	2.15	0.82
10:1O:48:PRO:HB3	32:1a:1422:G:H5''	1.60	0.82
1:1A:198:C:OP2	58:1A:4001:HOH:O	1.98	0.81
1:1A:1085:A:HO2'	1:1A:1104:C:HO2'	1.19	0.81
15:1T:55:ASN:H	15:1T:59:THR:HG22	1.46	0.80
8:1I:92:VAL:HG13	8:1I:120:ILE:HB	1.63	0.80
20:1Y:92:ASN:HB2	20:1Y:94:LYS:H	1.47	0.80
32:1a:1441:G:H5''	32:1a:1442:G:H5'	1.64	0.80
1:1A:195:A:N7	58:1A:4001:HOH:O	2.14	0.80
1:1A:2116:G:OP2	1:1A:2166:G:N2	2.15	0.80
1:1A:2427:C:OP1	58:1A:4002:HOH:O	1.99	0.80
1:1A:1332:G:OP1	58:1A:4003:HOH:O	2.00	0.79
32:1a:975:A:H4'	32:1a:976:G:H5''	1.65	0.79
33:1b:185:ILE:HG22	33:1b:199:TYR:HB2	1.63	0.79
40:1i:17:VAL:HG21	40:1i:81:ILE:HG22	1.64	0.79
32:2a:407:G:H5''	35:2d:115:ARG:HG2	1.63	0.79
1:1A:1315:C:OP2	58:1A:4003:HOH:O	2.02	0.78
32:2a:954:G:H21	32:2a:1227:A:H62	1.31	0.78
1:2A:195:A:N7	58:2A:3705:HOH:O	2.16	0.78
5:2F:29:ASN:H	5:2F:112:MET:HE3	1.48	0.78
1:1A:1060:U:H4'	1:1A:1061:U:H5'	1.66	0.78
49:2s:50:ALA:HB1	49:2s:57:HIS:HB3	1.66	0.78
1:1A:2759:G:N7	58:1A:4040:HOH:O	2.16	0.78
32:2a:1123:A:H4'	41:2j:36:GLY:HA3	1.65	0.77
1:1A:2137:C:O2	1:1A:2154:G:N2	2.18	0.77
1:1A:2430:A:OP1	58:1A:4004:HOH:O	2.03	0.76
1:1A:517:C:OP1	27:15:16:ARG:NH2	2.17	0.76
3:2D:125:ILE:HB	37:2f:81:ILE:HD11	1.68	0.76
32:2a:664:G:H22	32:2a:741:G:H1	1.33	0.76
1:2A:1315:C:OP2	58:2A:3701:HOH:O	2.04	0.76
40:2i:9:ARG:HB2	40:2i:104:ARG:HE	1.50	0.75
1:1A:2690:C:OP1	13:1R:17:ARG:NH2	2.20	0.75
1:2A:1264:G:OP1	27:25:19:ARG:NH2	2.18	0.75
32:2a:559:A:H4'	32:2a:560:U:H3'	1.69	0.75
32:2a:922:G:H4'	36:2e:20:GLN:HA	1.68	0.75
1:1A:1057:A:N6	1:1A:1087:G:OP2	2.20	0.74
1:1A:2622:C:O2'	1:1A:2825:G:N2	2.20	0.74
1:2A:2602:A:N7	58:2A:3763:HOH:O	2.20	0.74
5:2F:21:ALA:HB3	5:2F:22:ALA:HA	1.68	0.74
1:1A:11:G:H2'	1:1A:12:U:H5''	1.69	0.74
1:2A:2483:C:N3	12:2Q:124:LYS:NZ	2.34	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:91:PRO:HG3	33:2b:155:LEU:HD13	1.70	0.74
12:1Q:30:GLY:HA2	12:1Q:107:ALA:HB2	1.70	0.74
32:2a:977:A:N6	32:2a:1224:G:OP1	2.20	0.74
1:1A:1267:U:OP1	58:1A:4005:HOH:O	2.05	0.74
32:1a:1356:G:H2'	32:1a:1357:A:C8	2.23	0.73
1:1A:2499:C:OP1	58:1A:4006:HOH:O	2.06	0.73
1:2A:570:G:O6	58:2A:3702:HOH:O	2.07	0.73
32:1a:1230:C:OP2	58:1a:1901:HOH:O	2.05	0.73
1:1A:1670:C:OP2	58:1A:4008:HOH:O	2.07	0.72
1:2A:198:C:OP2	58:2A:3705:HOH:O	2.07	0.72
1:1A:1010:A:OP2	58:1A:4007:HOH:O	2.07	0.72
1:2A:2602:A:H1'	1:2A:2603:G:H5''	1.70	0.72
32:2a:1404:5MC:HN41	32:2a:1497:G:H1	1.37	0.72
44:2m:19:LEU:HD21	44:2m:56:LEU:HD21	1.72	0.72
14:1S:27:SER:HA	14:1S:88:ASP:HB3	1.70	0.72
32:1a:673:G:H2'	32:1a:674:G:C8	2.24	0.72
2:2B:58:A:OP2	58:2B:301:HOH:O	2.08	0.72
36:2e:50:GLU:HB2	36:2e:53:LEU:HD13	1.70	0.72
1:1A:973:A:OP2	58:1A:4009:HOH:O	2.07	0.72
1:1A:2886:G:N7	58:1A:4081:HOH:O	2.21	0.72
32:1a:677:U:H3	32:1a:713:G:H22	1.38	0.72
1:1A:927:G:N7	58:1A:4095:HOH:O	2.23	0.71
1:1A:2583:G:OP2	58:1A:4010:HOH:O	2.08	0.71
32:2a:56:U:H2'	32:2a:57:G:H8	1.53	0.71
2:1B:60:C:N4	58:1B:1103:HOH:O	2.22	0.71
32:1a:945:G:OP1	58:1a:1902:HOH:O	2.08	0.71
1:2A:2058:A:N7	58:2A:3799:HOH:O	2.24	0.71
1:1A:981:A:OP1	58:1A:4011:HOH:O	2.09	0.71
32:2a:1256:A:H61	32:2a:1278:U:H1'	1.55	0.71
1:1A:265:A:N1	1:1A:427:U:O2'	2.24	0.71
1:2A:1658:C:OP1	58:2A:3706:HOH:O	2.08	0.71
32:1a:911:U:OP2	43:1l:97:ARG:NH2	2.23	0.71
1:2A:1971:A:OP1	58:2A:3704:HOH:O	2.07	0.71
32:1a:1318:A:H5''	49:1s:3:ARG:HH12	1.56	0.71
1:2A:2615:U:OP1	58:2A:3707:HOH:O	2.09	0.71
32:2a:501:C:OP1	43:2l:117:ARG:NH2	2.23	0.71
32:2a:1031:G:H2'	32:2a:1032:G:C8	2.26	0.71
48:2r:26:LEU:HD11	48:2r:42:ARG:HD3	1.73	0.71
32:1a:356:A:N3	32:1a:368:U:O2'	2.24	0.71
1:2A:422:A:OP2	58:2A:3703:HOH:O	2.07	0.71
32:2a:1522:U:H2'	32:2a:1523:G:H8	1.55	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:1G:135:LEU:O	6:1G:154:GLY:HA3	1.91	0.70
1:2A:740:U:OP2	58:2A:3709:HOH:O	2.09	0.70
1:2A:2753:A:N3	31:29:15:LYS:NZ	2.39	0.70
1:1A:1385:G:O2'	1:1A:1396:U:O2	2.08	0.70
32:2a:544:G:OP1	35:2d:59:ARG:NH2	2.23	0.70
1:2A:2296:U:OP2	14:2S:9:ARG:NH2	2.23	0.70
3:1D:85:ASP:OD2	3:1D:88:ARG:NH1	2.22	0.70
3:2D:38:LYS:NZ	3:2D:39:LYS:O	2.25	0.70
18:2W:35:ILE:HG23	27:25:28:PRO:HD2	1.74	0.70
25:13:15:TYR:O	25:13:20:LYS:NZ	2.25	0.70
32:2a:1500:A:OP1	58:2a:1801:HOH:O	2.09	0.70
43:1l:53:ARG:HB3	43:1l:69:TYR:HE1	1.57	0.70
1:1A:400:G:N7	58:1A:4108:HOH:O	2.24	0.70
37:1f:1:MET:HE3	37:1f:66:GLU:HG2	1.74	0.70
1:2A:1332:G:OP1	58:2A:3701:HOH:O	2.10	0.70
7:1H:86:GLU:OE2	7:1H:132:ARG:NH2	2.24	0.70
32:1a:1236:A:H4'	32:1a:1304:G:H4'	1.74	0.70
1:2A:1265:A:OP2	58:2A:3707:HOH:O	2.10	0.69
1:2A:2427:C:OP1	58:2A:3710:HOH:O	2.10	0.69
1:2A:2622:C:O2'	1:2A:2825:G:N2	2.25	0.69
1:2A:2430:A:OP2	58:2A:3708:HOH:O	2.09	0.69
1:1A:520:G:N7	58:1A:4115:HOH:O	2.25	0.69
32:1a:992:U:H4'	32:1a:993:G:H5'	1.75	0.69
4:2E:11:MET:HG2	4:2E:24:THR:HG22	1.73	0.69
47:2p:15:PRO:HD2	47:2p:42:ARG:HD3	1.74	0.69
1:2A:794:G:OP2	58:2A:3711:HOH:O	2.11	0.69
1:2A:1063:G:H1	1:2A:1075:C:H42	1.39	0.69
32:2a:713:G:H2'	32:2a:714:G:C8	2.27	0.69
1:1A:1779:U:OP2	58:1A:4015:HOH:O	2.11	0.69
32:1a:501:C:OP1	43:1l:117:ARG:NH2	2.25	0.69
2:2B:115:G:O2'	14:2S:50:SER:OG	2.09	0.69
32:2a:35:G:O2'	43:2l:118:SER:O	2.10	0.69
1:1A:526:A:O2'	1:1A:2043:C:O2	2.10	0.69
2:1B:106:G:H5'	21:1Z:31:ARG:HB3	1.74	0.69
1:2A:2439:A:N1	58:2A:3814:HOH:O	2.26	0.69
5:2F:135:LYS:HG2	5:2F:137:LYS:HG2	1.75	0.69
10:2O:35:VAL:HG11	10:2O:103:ALA:HB3	1.75	0.69
1:1A:945:A:N7	58:1A:4117:HOH:O	2.26	0.69
32:2a:1077:G:N2	32:2a:1080:A:OP2	2.19	0.69
32:2a:1505:G:OP1	58:2a:1801:HOH:O	2.11	0.69
10:1O:121:VAL:HG23	53:1a:1601:MPD:H13	1.74	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:1S:15:ARG:O	14:1S:19:LYS:HG2	1.93	0.68
34:2c:182:ILE:HG12	34:2c:203:PHE:HA	1.76	0.68
46:2o:39:LEU:HD13	46:2o:56:LEU:HB2	1.75	0.68
1:2A:2448:A:OP1	58:2A:3702:HOH:O	2.11	0.68
1:1A:2432:A:OP2	58:1A:4016:HOH:O	2.11	0.68
32:1a:1158:C:H5	32:1a:1181:G:H1	1.39	0.68
1:2A:1772:G:OP1	58:2A:3712:HOH:O	2.11	0.68
1:2A:2680:C:H5'	4:2E:189:PRO:HA	1.74	0.68
12:2Q:68:ILE:HG22	12:2Q:101:ARG:HE	1.59	0.68
1:1A:811:U:OP1	58:1A:4013:HOH:O	2.10	0.68
1:1A:1798:U:H5'	3:1D:259:THR:HG22	1.75	0.68
1:2A:827:U:OP1	58:2A:3708:HOH:O	2.11	0.68
31:19:25:VAL:HB	31:19:34:GLN:HB2	1.75	0.68
32:1a:881:G:OP2	43:1l:12:ARG:NH2	2.26	0.68
1:2A:963:U:OP2	58:2A:3716:HOH:O	2.12	0.68
1:1A:631:A:OP1	11:1P:65:ARG:NH1	2.27	0.68
10:1O:97:ARG:NH1	32:1a:339:C:OP2	2.27	0.68
1:2A:2575:C:OP2	58:2A:3714:HOH:O	2.12	0.68
6:2G:142:PRO:HB2	26:24:31:ILE:HG21	1.76	0.68
22:20:10:THR:HG22	22:20:12:ASN:H	1.58	0.68
32:1a:1189:C:OP1	41:1j:51:ARG:NH2	2.26	0.68
1:2A:120:U:OP2	58:2A:3717:HOH:O	2.12	0.68
1:2A:731:C:OP2	58:2A:3715:HOH:O	2.12	0.68
32:2a:34:C:H2'	32:2a:35:G:H8	1.57	0.68
1:1A:759:G:N7	58:1A:4125:HOH:O	2.27	0.68
1:1A:271(M):G:H21	8:1I:50:ARG:HD3	1.57	0.67
1:2A:857:C:OP2	22:20:77:ARG:NH2	2.27	0.67
32:2a:1182:G:H4'	32:2a:1183:A:H3'	1.76	0.67
1:1A:993:G:OP1	16:1U:50:ARG:NH2	2.27	0.67
1:2A:195:A:OP1	11:2P:46:LYS:NZ	2.26	0.67
7:1H:3:ARG:HH11	7:1H:3:ARG:HA	1.58	0.67
1:2A:1030:G:OP2	12:2Q:128:LYS:NZ	2.26	0.67
1:2A:1800:C:OP2	3:2D:183:ARG:NH2	2.27	0.67
1:1A:2821:A:OP2	58:1A:4019:HOH:O	2.13	0.67
39:2h:10:LEU:HD22	39:2h:83:ILE:HD11	1.77	0.67
1:2A:785:G:OP2	58:2A:3713:HOH:O	2.11	0.67
1:1A:2292:C:OP1	14:1S:17:ARG:NH2	2.27	0.67
1:1A:2749:A:OP1	7:1H:3:ARG:NH1	2.27	0.67
12:1Q:34:LEU:HB2	12:1Q:118:LEU:HD22	1.77	0.67
32:1a:454:C:OP1	47:1p:75:ARG:NH2	2.28	0.67
1:2A:2712(A):A:OP2	58:2A:3719:HOH:O	2.12	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:811:C:O2'	32:2a:901:A:N1	2.27	0.67
1:1A:1990:C:OP2	58:1A:4017:HOH:O	2.12	0.67
23:21:50:ARG:HG2	23:21:59:THR:HG22	1.76	0.67
41:2j:49:VAL:HG23	45:2n:41:ARG:HB2	1.75	0.67
42:2k:99:GLN:HG2	42:2k:105:VAL:HG21	1.77	0.67
11:1P:63:PRO:HD3	30:18:27:THR:HG22	1.76	0.67
10:1O:35:VAL:HG11	10:1O:103:ALA:HB3	1.77	0.67
21:1Z:77:ASP:OD2	21:1Z:80:ARG:NH1	2.25	0.67
12:2Q:55:VAL:HG23	21:2Z:178:GLU:HB3	1.77	0.67
28:26:14:THR:OG1	28:26:48:VAL:O	2.13	0.67
1:2A:2584:U:H2'	1:2A:2585:U:H2'	1.77	0.66
32:2a:390:C:O3'	47:2p:28:ARG:NH2	2.28	0.66
32:2a:1103:C:OP1	33:2b:96:ARG:NH2	2.28	0.66
32:2a:1360:A:OP2	45:2n:35:ARG:NH2	2.29	0.66
6:1G:142:PRO:HB2	26:14:31:ILE:HG21	1.78	0.66
32:1a:56:U:H2'	32:1a:57:G:H8	1.61	0.66
1:2A:495:G:N3	18:2W:61:ASN:ND2	2.44	0.66
1:2A:1334:G:N7	58:2A:3842:HOH:O	2.28	0.66
25:23:5:LYS:HG3	25:23:36:VAL:HG22	1.77	0.66
32:2a:1286:A:H2'	32:2a:1287:A:H4'	1.76	0.66
1:1A:1023:U:OP2	58:1A:4014:HOH:O	2.11	0.66
21:1Z:144:LEU:HD21	21:1Z:150:LEU:HD13	1.77	0.66
1:2A:194:G:OP2	58:2A:3722:HOH:O	2.13	0.66
1:2A:2111:C:H42	1:2A:2147:G:H22	1.42	0.66
33:2b:16:HIS:O	33:2b:18:GLY:N	2.28	0.66
36:2e:71:LEU:HD21	36:2e:115:VAL:HG22	1.77	0.66
11:1P:59:LEU:HD11	30:18:10:ALA:HB2	1.75	0.66
22:10:27:GLU:HG3	22:10:68:GLU:HA	1.77	0.66
32:1a:812:C:N3	58:1a:1932:HOH:O	2.28	0.66
1:2A:2432:A:OP2	58:2A:3721:HOH:O	2.13	0.66
32:2a:1292:U:OP2	38:2g:41:ARG:NH2	2.29	0.66
1:2A:749:C:OP2	58:2A:3720:HOH:O	2.13	0.66
32:2a:1376:U:O4	38:2g:10:ARG:NH1	2.27	0.66
32:2a:1404:5MC:O2	32:2a:1519:MA6:O2'	2.12	0.66
2:1B:87:G:N2	2:1B:90:A:OP2	2.23	0.66
44:1m:58:GLU:O	44:1m:62:ASN:ND2	2.26	0.66
1:1A:818:G:OP2	58:1A:4025:HOH:O	2.14	0.66
1:1A:1007:C:OP2	58:1A:4022:HOH:O	2.13	0.66
32:1a:117:G:N7	58:1a:1930:HOH:O	2.28	0.66
1:2A:1094:U:OP1	1:2A:1096:A:N6	2.29	0.66
3:2D:106:ILE:HD11	3:2D:144:ALA:HB2	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:24:59:PHE:HA	26:24:60:GLN:C	2.21	0.66
32:2a:1287:A:H2	32:2a:1353:G:H1'	1.60	0.66
1:2A:331:A:N1	58:2A:3835:HOH:O	2.28	0.66
1:2A:2375:G:N2	1:2A:2378:A:OP2	2.28	0.66
1:1A:380:U:OP1	58:1A:4028:HOH:O	2.15	0.65
1:1A:2033:A:OP1	58:1A:4023:HOH:O	2.14	0.65
32:2a:21:G:H2'	32:2a:22:G:C8	2.31	0.65
1:1A:962:G:OP1	58:1A:4018:HOH:O	2.13	0.65
1:1A:2062:A:OP1	58:1A:4024:HOH:O	2.14	0.65
32:1a:1202:G:O4'	45:1n:29:ARG:NH1	2.30	0.65
31:29:27:CYS:SG	31:29:28:GLU:N	2.69	0.65
50:2t:50:GLU:HB2	50:2t:99:LEU:HD22	1.78	0.65
32:1a:437:U:H5'	35:1d:155:LEU:HD21	1.79	0.65
1:2A:249:C:O2	30:28:12:LYS:NZ	2.27	0.65
5:2F:167:ALA:HB1	5:2F:173:VAL:HG11	1.76	0.65
1:1A:1911:PSU:C2	1:1A:1918:A:C5	2.80	0.65
1:2A:309:G:N3	1:2A:329:G:O2'	2.29	0.65
1:2A:2823:A:O2'	58:2A:3718:HOH:O	2.12	0.65
37:2f:67:MET:HE1	37:2f:75:LEU:HD22	1.77	0.65
1:2A:818:G:OP2	58:2A:3726:HOH:O	2.15	0.65
1:2A:2711:A:H5''	1:2A:2712:U:H5''	1.78	0.65
12:2Q:39:PRO:HB3	12:2Q:99:PRO:HD3	1.77	0.65
1:1A:975:C:OP1	58:1A:4030:HOH:O	2.15	0.65
2:1B:56:G:O2'	58:1B:1101:HOH:O	2.15	0.65
20:1Y:92:ASN:N	20:1Y:93:GLY:HA2	2.10	0.65
25:13:6:VAL:HG13	25:13:56:VAL:HG22	1.78	0.65
32:2a:1137:C:O2	32:2a:1138:G:N2	2.29	0.65
32:2a:1189:C:OP1	41:2j:51:ARG:NH2	2.29	0.65
32:1a:201:C:H42	32:1a:216:G:H1	1.45	0.65
38:1g:113:GLU:HG2	38:1g:119:ARG:HG2	1.78	0.65
1:2A:300:A:OP1	20:2Y:86:ARG:NH2	2.30	0.65
1:2A:1314:C:OP1	58:2A:3701:HOH:O	2.14	0.65
32:2a:968:A:C8	32:2a:1062:U:H4'	2.32	0.65
32:2a:1207:2MG:H2'	32:2a:1208:C:C6	2.32	0.65
1:1A:2625:G:O6	58:1A:4021:HOH:O	2.13	0.65
1:2A:511:U:OP2	58:2A:3723:HOH:O	2.14	0.65
1:1A:668:G:H5'	1:1A:669:G:OP2	1.97	0.65
32:1a:567:G:O2'	58:1a:1904:HOH:O	2.14	0.65
5:2F:11:VAL:HG22	5:2F:125:LEU:HB2	1.79	0.65
32:2a:1200:C:OP1	58:2a:1803:HOH:O	2.15	0.65
32:1a:1062:U:H2'	32:1a:1063:C:C6	2.32	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1669:A:OP2	58:2A:3727:HOH:O	2.15	0.64
35:2d:60:GLU:HG3	35:2d:202:LEU:HD12	1.77	0.64
1:1A:1972:A:H2'	1:1A:1973:G:H8	1.62	0.64
17:1V:14:VAL:HB	17:1V:96:ILE:HG13	1.79	0.64
1:2A:2499:C:OP1	58:2A:3702:HOH:O	2.14	0.64
32:2a:737:A:H2'	32:2a:738:C:C6	2.32	0.64
1:1A:1828:G:OP1	58:1A:4026:HOH:O	2.14	0.64
1:2A:102:G:OP1	24:22:7:ARG:NH2	2.30	0.64
1:2A:2292:C:OP1	14:2S:17:ARG:NH2	2.30	0.64
1:2A:2527:C:N4	58:2A:3746:HOH:O	2.26	0.64
32:2a:406:G:H5'	35:2d:5:ILE:HD11	1.79	0.64
32:2a:714:G:H2'	32:2a:715:A:C8	2.32	0.64
1:2A:1666:G:N7	58:2A:3848:HOH:O	2.30	0.64
1:2A:192:C:O2'	1:2A:802:A:N3	2.28	0.64
1:2A:1038:C:H42	1:2A:1117:G:H1	1.44	0.64
32:2a:652:U:O4	32:2a:752:G:O2'	2.16	0.64
1:1A:1300:U:H4'	1:1A:1301:A:H5'	1.78	0.64
1:1A:1352:U:OP1	58:1A:4033:HOH:O	2.15	0.64
1:1A:2337:G:OP2	58:1A:4031:HOH:O	2.15	0.64
32:1a:1086:U:H3	32:1a:1099:G:H22	1.45	0.64
5:2F:164:ARG:HD2	5:2F:175:THR:HG23	1.78	0.64
1:1A:1056:G:N1	1:1A:1102:C:OP2	2.25	0.64
3:1D:136:ILE:O	3:1D:168:ARG:NH2	2.30	0.64
1:2A:910:A:OP1	58:2A:3724:HOH:O	2.14	0.64
1:2A:1352:U:OP2	58:2A:3728:HOH:O	2.15	0.64
35:2d:108:LEU:HD21	35:2d:183:GLY:HA3	1.80	0.64
52:2y:23:ARG:HG3	52:2y:78:ILE:HG13	1.79	0.64
1:1A:526:A:OP1	58:1A:4032:HOH:O	2.15	0.64
1:1A:2305:A:H5''	6:1G:134:GLY:HA3	1.79	0.64
5:1F:143:ALA:HB1	5:1F:148:LEU:HB2	1.79	0.64
1:2A:468:G:N7	29:27:39:ARG:NH2	2.46	0.64
1:1A:1094:U:H1'	1:1A:1097:U:H5	1.62	0.64
6:1G:161:THR:HG22	6:1G:163:ALA:H	1.62	0.64
26:14:40:HIS:HB3	26:14:43:TYR:HD1	1.62	0.64
1:1A:918:A:N3	2:1B:80:U:O2'	2.30	0.63
1:1A:2441:C:OP2	1:1A:2586:C:O2'	2.17	0.63
32:2a:59:A:H5''	32:2a:387:U:H5''	1.80	0.63
1:1A:1997:G:OP2	58:1A:4027:HOH:O	2.14	0.63
34:1c:8:ILE:HG23	34:1c:16:ARG:HD3	1.78	0.63
1:2A:526:A:OP1	58:2A:3725:HOH:O	2.15	0.63
6:2G:112:PRO:HG3	26:24:43:TYR:HE2	1.63	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2445:G:OP1	5:1F:74:ARG:NH2	2.31	0.63
32:1a:407:G:H5''	35:1d:115:ARG:HG2	1.81	0.63
1:1A:1064:C:H3'	1:1A:1065:U:H5''	1.80	0.63
1:1A:1865:G:OP1	58:1A:4029:HOH:O	2.15	0.63
6:1G:41:GLN:HB3	6:1G:43:LEU:HD13	1.80	0.63
7:1H:101:ARG:NH2	7:1H:121:ILE:O	2.31	0.63
32:1a:1030(C):G:N7	32:1a:1031:G:N2	2.47	0.63
32:2a:262:A:H2'	32:2a:263:A:H8	1.62	0.63
52:2y:52:ALA:HB2	52:2y:77:LEU:HD21	1.80	0.63
1:1A:2683:C:O2	10:1O:70:LYS:NZ	2.19	0.63
41:1j:22:LYS:NZ	41:1j:89:ASP:O	2.31	0.63
1:2A:2424:C:O2	1:2A:2429:G:O2'	2.14	0.63
21:2Z:144:LEU:HD21	21:2Z:150:LEU:HD13	1.79	0.63
23:21:51:VAL:HG11	23:21:74:VAL:HG21	1.80	0.63
32:2a:107:G:N7	50:2t:15:ARG:NH2	2.46	0.63
1:1A:1994:C:OP1	58:1A:4035:HOH:O	2.16	0.63
33:1b:69:LEU:HB3	33:1b:162:ILE:HG22	1.81	0.63
18:2W:1:MET:HE2	18:2W:62:HIS:HB3	1.81	0.63
26:24:48:ARG:HG3	26:24:52:THR:HG23	1.80	0.63
21:1Z:19:ARG:NH1	21:1Z:84:GLU:O	2.31	0.63
7:2H:8:PRO:HB3	7:2H:51:ARG:HG2	1.80	0.63
20:2Y:9:LYS:NZ	20:2Y:28:LYS:O	2.31	0.63
32:1a:34:C:H2'	32:1a:35:G:H8	1.63	0.63
35:1d:154:ASN:HA	35:1d:159:ARG:HH21	1.64	0.63
40:1i:9:ARG:HB2	40:1i:104:ARG:HE	1.61	0.63
1:2A:242:G:N2	1:2A:255:A:OP2	2.26	0.63
1:2A:2820:A:OP2	1:2A:2821:A:N6	2.24	0.63
47:2p:20:VAL:HG23	47:2p:35:LYS:HA	1.79	0.63
8:1I:9:LEU:HD23	8:1I:12:LEU:HD13	1.80	0.62
1:1A:588:U:OP2	58:1A:4038:HOH:O	2.16	0.62
1:1A:2503:2MA:O2'	58:1A:4034:HOH:O	2.15	0.62
3:1D:75:ILE:HG21	3:1D:99:ASP:HB2	1.81	0.62
38:1g:111:ARG:NH1	38:1g:113:GLU:OE2	2.31	0.62
32:2a:390:C:H2'	32:2a:391:G:C8	2.34	0.62
32:1a:501:C:H2'	32:1a:502:G:H8	1.62	0.62
32:1a:812:C:O2	58:1a:1903:HOH:O	2.14	0.62
43:1I:71:PRO:O	43:1I:102:ARG:NH1	2.32	0.62
52:1y:26:LYS:HD3	52:1y:78:ILE:HG21	1.79	0.62
32:2a:768:A:H4'	32:2a:1523:G:N2	2.14	0.62
32:2a:975:A:H4'	32:2a:976:G:H5''	1.81	0.62
35:2d:12:CYS:HB3	35:2d:19:LEU:H	1.64	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2641:G:OP2	9:1N:83:LYS:NZ	2.32	0.62
15:1T:49:VAL:HG12	15:1T:63:VAL:HG22	1.82	0.62
32:1a:460:G:N2	32:1a:471:G:N7	2.48	0.62
1:2A:2126:A:H4'	1:2A:2127:G:O5'	1.98	0.62
10:2O:13:ASN:HD21	10:2O:96:THR:HG1	1.44	0.62
38:2g:111:ARG:NH2	38:2g:126:ASP:OD2	2.32	0.62
32:1a:946:A:H2'	32:1a:947:G:C8	2.34	0.62
22:20:11:LYS:O	22:20:14:ARG:NH2	2.30	0.62
32:2a:501:C:H2'	32:2a:502:G:H8	1.63	0.62
1:1A:2646:C:OP2	1:1A:2732:G:O2'	2.15	0.62
3:1D:180:GLY:HA3	3:1D:275:LYS:HG2	1.81	0.62
14:1S:28:VAL:HG11	14:1S:98:VAL:HG13	1.79	0.62
32:1a:1512:U:H2'	32:1a:1513:A:C8	2.35	0.62
1:2A:2353:G:N7	58:2A:3855:HOH:O	2.31	0.62
19:2X:60:ARG:HH22	29:27:47:ARG:HH12	1.48	0.62
32:1a:1227:A:OP2	44:1m:111:LYS:NZ	2.33	0.62
1:2A:1718:G:H1	1:2A:1744:U:H3	1.48	0.62
1:2A:1918:A:O2'	1:2A:1920:OMC:N4	2.33	0.62
11:1P:100:LEU:HD12	11:1P:112:LEU:HD11	1.82	0.62
4:1E:143:ASN:HD22	4:1E:147:PRO:HD3	1.64	0.62
32:1a:1286:A:H2'	32:1a:1287:A:H4'	1.81	0.62
33:1b:134:GLU:HG3	33:1b:137:ARG:HH21	1.64	0.62
1:2A:1779:U:OP2	1:2A:1784:A:N6	2.26	0.62
33:1b:63:MET:HB3	33:1b:225:ALA:HB1	1.82	0.62
6:2G:131:TYR:HE2	6:2G:133:LEU:HD23	1.65	0.62
32:2a:737:A:H1'	37:2f:73:ASN:HD21	1.64	0.62
34:1c:138:VAL:HG13	34:1c:149:ALA:HB3	1.82	0.61
1:2A:1607:C:N4	1:2A:1622:G:OP2	2.30	0.61
32:1a:113:G:H2'	32:1a:114:U:H6	1.65	0.61
1:2A:1817:G:OP1	3:2D:88:ARG:NH2	2.32	0.61
32:2a:17:U:H2'	32:2a:18:C:C6	2.35	0.61
20:2Y:14:LEU:HB2	20:2Y:75:ILE:HD11	1.82	0.61
32:1a:1368:G:OP2	40:1i:112:LYS:NZ	2.33	0.61
32:2a:806:C:H2'	32:2a:807:A:H8	1.64	0.61
32:2a:1010:G:H2'	32:2a:1011:G:H8	1.64	0.61
32:1a:1372:U:OP2	40:1i:11:LYS:NZ	2.31	0.61
1:2A:1127:A:N7	1:2A:2488:A:O2'	2.34	0.61
31:29:12:ASP:OD1	31:29:12:ASP:N	2.33	0.61
32:2a:674:G:H2'	32:2a:675:A:H8	1.66	0.61
1:1A:270:A:OP2	1:1A:271(X):G:N2	2.33	0.61
1:2A:994:C:OP1	16:2U:53:ARG:NH2	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:1Q:43:THR:HG22	12:1Q:94:VAL:HG12	1.82	0.61
32:1a:1292:U:OP2	38:1g:41:ARG:NH2	2.33	0.61
1:2A:1891:G:N7	58:2A:3851:HOH:O	2.31	0.61
23:21:76:ARG:HH22	23:21:97:LEU:HB3	1.66	0.61
39:2h:46:LYS:HG3	39:2h:64:LYS:HB2	1.83	0.61
1:1A:687:C:H5''	29:17:2:LYS:HE2	1.82	0.61
8:1I:41:GLU:HG2	8:1I:45:LYS:HE3	1.82	0.61
33:1b:82:ARG:NH1	33:1b:92:TYR:OH	2.34	0.61
1:2A:1006:C:OP2	58:2A:3733:HOH:O	2.16	0.61
1:2A:1062:G:N7	1:2A:1070:A:H1'	2.15	0.61
1:2A:2012:G:OP1	18:2W:11:ARG:NH2	2.22	0.61
32:2a:1295:G:O2'	44:2m:14:ARG:NH1	2.33	0.61
32:2a:1452:C:H4'	32:2a:1457:G:C8	2.36	0.61
40:2i:9:ARG:HG2	40:2i:14:VAL:HG12	1.83	0.61
1:1A:2126:A:H4'	1:1A:2127:G:O5'	2.00	0.61
32:1a:17:U:H2'	32:1a:18:C:C6	2.34	0.61
4:2E:36:ARG:NH1	4:2E:85:ASN:OD1	2.34	0.61
32:2a:56:U:H2'	32:2a:57:G:C8	2.35	0.61
32:2a:304:U:H2'	32:2a:305:G:C8	2.36	0.61
5:1F:108:LYS:HE2	5:1F:112:MET:HE3	1.83	0.61
35:1d:108:LEU:HD21	35:1d:183:GLY:HA3	1.82	0.61
32:2a:1119:C:H2'	32:2a:1120:G:H8	1.65	0.61
38:2g:111:ARG:NH1	38:2g:113:GLU:OE2	2.31	0.61
18:1W:73:ALA:HB3	18:1W:106:ILE:HB	1.82	0.60
1:2A:1593:G:H2'	1:2A:1594:G:C8	2.36	0.60
52:2y:53:THR:HG22	52:2y:62:VAL:HG12	1.83	0.60
1:1A:729:G:C6	3:1D:208:LYS:HB2	2.36	0.60
18:1W:11:ARG:NH1	18:1W:99:ARG:O	2.32	0.60
1:2A:1530:C:O2'	1:2A:1531:C:O5'	2.17	0.60
1:1A:1105:U:H2'	1:1A:1106:G:H8	1.66	0.60
1:1A:2012:G:P	18:1W:11:ARG:HH22	2.23	0.60
5:1F:185:ASP:OD1	5:1F:188:ARG:NH1	2.34	0.60
9:2N:25:ARG:O	9:2N:29:LYS:NZ	2.31	0.60
32:2a:1279:A:OP2	41:2j:9:ARG:NH1	2.33	0.60
32:1a:559:A:OP1	36:1e:126:ARG:NH2	2.34	0.60
34:1c:179:ARG:NH1	34:1c:206:GLU:OE1	2.34	0.60
36:1e:110:LEU:HD13	36:1e:118:ILE:HD13	1.82	0.60
10:2O:1:MET:HG3	10:2O:67:LYS:HG2	1.81	0.60
32:2a:1014:A:H2	32:2a:1219:U:H1'	1.67	0.60
26:14:24:THR:OG1	26:14:25:TYR:N	2.34	0.60
1:2A:826:U:OP1	58:2A:3710:HOH:O	2.17	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1903:G:O2'	58:2A:3729:HOH:O	2.15	0.60
1:2A:2547:U:O2	10:2O:23:ARG:NH2	2.34	0.60
1:1A:1265:A:OP1	58:1A:4039:HOH:O	2.16	0.60
7:1H:124:GLU:HG3	7:1H:132:ARG:HB3	1.83	0.60
32:1a:673:G:H2'	32:1a:674:G:H8	1.67	0.60
5:2F:117:ARG:NH2	5:2F:189:THR:O	2.33	0.60
1:1A:1173:G:O2'	1:1A:1174:A:O5'	2.19	0.60
32:1a:1510:U:H2'	32:1a:1511:G:C8	2.35	0.60
1:2A:1665:A:OP2	58:2A:3736:HOH:O	2.16	0.60
1:2A:1994:C:OP1	58:2A:3739:HOH:O	2.17	0.60
10:2O:49:ARG:NH1	32:2a:1422:G:O3'	2.34	0.60
1:1A:2316:C:O2'	6:1G:128:ARG:NH2	2.35	0.60
4:1E:47:VAL:HG21	4:1E:86:PRO:HD2	1.83	0.60
12:1Q:21:THR:HG21	12:1Q:101:ARG:HB2	1.84	0.60
25:13:4:LEU:O	25:13:36:VAL:HA	2.01	0.60
32:1a:978:A:OP2	32:1a:1363:C:N4	2.35	0.60
1:2A:979:G:N7	58:2A:3854:HOH:O	2.31	0.60
1:2A:1271:G:OP2	58:2A:3731:HOH:O	2.16	0.60
28:26:5:VAL:HA	28:26:27:LYS:HE2	1.84	0.60
32:1a:1030:C:N4	32:1a:1032:G:O6	2.35	0.60
32:2a:45:U:H2'	32:2a:46:G:C8	2.37	0.60
1:1A:1794:U:H2'	1:1A:1795:C:C6	2.37	0.60
1:2A:1073:A:H2'	1:2A:1074:G:C8	2.37	0.60
32:2a:262:A:H2'	32:2a:263:A:C8	2.36	0.60
32:2a:953:G:O2'	52:2y:5:ILE:O	2.20	0.60
32:2a:1356:G:H2'	32:2a:1357:A:C8	2.36	0.60
39:2h:12:ARG:HD2	39:2h:26:VAL:HG12	1.81	0.60
1:1A:120:U:OP2	58:1A:4036:HOH:O	2.16	0.59
1:1A:1816:G:O6	3:1D:35:LYS:NZ	2.32	0.59
1:1A:2584:U:H2'	1:1A:2585:U:H2'	1.82	0.59
38:1g:20:ASP:OD2	38:1g:63:LYS:NZ	2.35	0.59
1:2A:521:G:O6	58:2A:3732:HOH:O	2.16	0.59
1:2A:1418:G:OP2	58:2A:3738:HOH:O	2.17	0.59
1:2A:2788:C:OP1	4:2E:61:ARG:NH2	2.35	0.59
1:1A:1607:C:N4	1:1A:1622:G:OP2	2.29	0.59
30:18:15:LYS:HB2	53:18:101:MPD:H31	1.83	0.59
49:1s:12:ASP:O	49:1s:14:HIS:N	2.35	0.59
1:2A:2189:U:H2'	1:2A:2190:G:C8	2.36	0.59
7:2H:85:LYS:HD3	7:2H:141:VAL:HG12	1.84	0.59
32:2a:923:A:O2'	32:2a:1399:C:OP2	2.19	0.59
32:1a:1513:A:H2'	32:1a:1514:C:C6	2.38	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2448:A:OP1	58:2A:3735:HOH:O	2.16	0.59
1:1A:958:U:H5''	12:1Q:14:ARG:HD3	1.84	0.59
19:1X:53:LYS:HB3	19:1X:82:GLN:HB3	1.83	0.59
1:2A:785:G:OP2	58:2A:3730:HOH:O	2.16	0.59
1:2A:822:U:H2'	1:2A:823:G:H8	1.67	0.59
1:2A:1816:G:O6	3:2D:35:LYS:NZ	2.30	0.59
1:2A:2538:C:N4	58:2A:3867:HOH:O	2.33	0.59
1:2A:2640:G:O3'	9:2N:74:ARG:NH2	2.27	0.59
32:2a:1055:A:H62	32:2a:1200:C:H42	1.51	0.59
36:2e:9:LYS:NZ	36:2e:111:GLU:OE1	2.35	0.59
1:1A:338:G:OP2	58:1A:4041:HOH:O	2.17	0.59
6:1G:114:ILE:HG12	6:1G:140:ILE:HD13	1.85	0.59
10:1O:115:VAL:HG13	10:1O:121:VAL:HG21	1.83	0.59
39:1h:86:ILE:HG21	39:1h:133:LEU:HD13	1.83	0.59
32:2a:45:U:H2'	32:2a:46:G:H8	1.68	0.59
32:2a:1013:G:N2	32:2a:1016:A:OP2	2.32	0.59
5:1F:185:ASP:HA	5:1F:188:ARG:HD3	1.85	0.59
7:1H:40:GLU:OE2	7:1H:60:ARG:NH1	2.35	0.59
32:1a:45:U:H2'	32:1a:46:G:C8	2.37	0.59
5:2F:33:LEU:HD13	5:2F:112:MET:HE2	1.84	0.59
32:2a:390:C:H2'	32:2a:391:G:H8	1.67	0.59
1:1A:1068:G:HO2'	1:1A:1096:A:HO2'	1.48	0.59
1:1A:2022:U:OP1	58:1A:4045:HOH:O	2.17	0.59
32:1a:976:G:H5'	32:1a:1358:U:O2'	2.02	0.59
32:1a:1182:G:H4'	32:1a:1183:A:H5'	1.82	0.59
1:2A:1495:A:OP2	58:2A:3740:HOH:O	2.17	0.59
26:24:58:ARG:HG3	49:2s:65:ASN:HA	1.84	0.59
32:2a:1031:G:H2'	32:2a:1032:G:H8	1.65	0.59
3:1D:17:THR:O	3:1D:211:ARG:NH2	2.35	0.59
8:1I:109:ILE:HG13	8:1I:130:TYR:CZ	2.38	0.59
1:2A:326:G:N7	58:2A:3865:HOH:O	2.32	0.59
1:2A:637:A:H8	11:2P:117:GLU:HG3	1.67	0.59
1:1A:637:A:OP1	11:1P:133:SER:OG	2.20	0.59
1:1A:2343:C:HO2'	1:1A:2373:G:HO2'	1.51	0.59
35:1d:60:GLU:HG3	35:1d:202:LEU:HD12	1.85	0.59
1:2A:958:U:OP2	12:2Q:14:ARG:NH1	2.36	0.59
32:2a:524:G:H2'	32:2a:525:C:C6	2.38	0.59
41:2j:38:ILE:HD11	41:2j:71:LEU:HD13	1.84	0.59
52:2y:48:PHE:HD2	52:2y:70:MET:HB2	1.68	0.59
1:1A:2239:G:OP2	58:1A:4043:HOH:O	2.17	0.59
1:1A:971:C:OP2	58:1A:4042:HOH:O	2.17	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1349:A:OP1	58:2A:3742:HOH:O	2.17	0.58
5:2F:178:PRO:HB2	5:2F:201:VAL:HG21	1.84	0.58
32:2a:946:A:H2'	32:2a:947:G:C8	2.37	0.58
1:1A:942:G:O2'	1:1A:1189:A:N3	2.36	0.58
1:1A:1024:G:OP2	58:1A:4014:HOH:O	2.17	0.58
1:1A:2893:G:H4'	1:1A:2894:G:O5'	2.02	0.58
32:1a:1427:U:H2'	32:1a:1428:A:C8	2.38	0.58
1:2A:301:G:OP2	20:2Y:84:ARG:NH2	2.35	0.58
1:2A:1356:G:OP2	58:2A:3734:HOH:O	2.16	0.58
1:2A:2255:G:OP2	58:2A:3737:HOH:O	2.17	0.58
21:2Z:69:THR:HG22	21:2Z:90:VAL:HA	1.85	0.58
32:1a:102:G:O2'	32:1a:151:A:N3	2.30	0.58
1:2A:637:A:OP1	11:2P:133:SER:OG	2.18	0.58
1:2A:861:A:N3	2:2B:79:C:O2'	2.36	0.58
32:2a:403:C:H2'	32:2a:404:U:H6	1.68	0.58
38:2g:126:ASP:HB3	38:2g:131:LYS:HB2	1.84	0.58
1:1A:2319:G:H22	14:1S:3:ARG:HD3	1.67	0.58
36:1e:50:GLU:HB2	36:1e:53:LEU:HD13	1.85	0.58
1:2A:631:A:OP2	30:28:47:LYS:NZ	2.29	0.58
1:2A:2360:A:OP2	58:2A:3744:HOH:O	2.17	0.58
32:2a:1435:G:H2'	32:2a:1436:U:C6	2.38	0.58
34:2c:47:LEU:HD13	34:2c:68:VAL:HG11	1.86	0.58
4:2E:181:LEU:HD11	15:2T:6:LEU:HD23	1.85	0.58
1:1A:1068:G:O2'	1:1A:1096:A:O2'	2.18	0.58
1:1A:2010:G:H5''	18:1W:42:ARG:HB2	1.86	0.58
1:1A:2130:U:O2'	1:1A:2133:G:O2'	2.22	0.58
6:1G:179:PRO:HB2	26:14:42:PHE:HE2	1.67	0.58
32:1a:339:C:H2'	32:1a:340:U:H6	1.69	0.58
49:1s:50:ALA:HB1	49:1s:57:HIS:HB3	1.85	0.58
52:1y:62:VAL:O	52:1y:84:GLN:NE2	2.35	0.58
1:2A:514:A:N3	1:2A:581:C:O2'	2.36	0.58
19:2X:65:ARG:HB3	19:2X:70:LEU:HD23	1.86	0.58
32:2a:164:U:H2'	32:2a:165:C:H6	1.68	0.58
1:1A:1345:C:OP2	58:1A:4048:HOH:O	2.17	0.58
1:1A:1856:G:OP2	58:1A:4046:HOH:O	2.17	0.58
1:2A:1385:G:O2'	1:2A:1396:U:O2	2.19	0.58
1:2A:2364:C:OP1	22:20:55:ARG:NH1	2.36	0.58
39:2h:86:ILE:HG21	39:2h:133:LEU:HD13	1.85	0.58
1:1A:307:G:H21	1:1A:330:A:H62	1.49	0.58
1:1A:764:A:H5'	3:1D:210:GLY:HA2	1.85	0.58
1:2A:534:U:O2'	16:2U:49:HIS:ND1	2.35	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1853:A:N3	1:2A:2233:U:O2'	2.33	0.58
2:2B:22:U:H2'	2:2B:23:G:C8	2.39	0.58
11:2P:2:LYS:NZ	11:2P:4:SER:OG	2.31	0.58
22:20:36:ILE:HD13	22:20:60:PHE:HB3	1.86	0.58
32:2a:1513:A:H2'	32:2a:1514:C:C6	2.38	0.58
1:1A:102:G:OP1	24:12:7:ARG:NH2	2.37	0.58
12:1Q:111:GLU:OE2	12:1Q:133:ARG:NH2	2.37	0.58
32:1a:791:G:N1	32:1a:1498:UR3:OP1	2.36	0.58
6:2G:7:LEU:HD23	6:2G:100:TRP:HE3	1.68	0.58
32:2a:123:C:OP1	32:2a:311:C:O2'	2.21	0.58
42:2k:27:ASN:OD1	42:2k:28:THR:N	2.35	0.58
44:2m:58:GLU:O	44:2m:62:ASN:ND2	2.36	0.58
1:1A:2548:G:O6	58:1A:4037:HOH:O	2.16	0.58
32:1a:965:A:OP2	52:1y:8:LYS:NZ	2.36	0.58
32:1a:1003:G:H2'	32:1a:1004:A:H4'	1.84	0.58
26:24:16:CYS:SG	26:24:17:GLY:N	2.77	0.58
1:2A:886:C:O2'	1:2A:889:C:N4	2.36	0.57
36:2e:102:ALA:HB1	36:2e:106:PRO:HG2	1.86	0.57
1:1A:1173:G:O2'	1:1A:1174:A:O4'	2.19	0.57
1:1A:2810:A:N6	1:1A:2891:G:O2'	2.36	0.57
9:1N:89:LYS:O	9:1N:93:THR:OG1	2.18	0.57
10:1O:110:GLY:HA2	10:1O:112:MET:HE2	1.85	0.57
12:1Q:39:PRO:HB3	12:1Q:99:PRO:HD3	1.84	0.57
13:1R:38:VAL:HG22	13:1R:112:ALA:HB2	1.86	0.57
28:16:9:LEU:HD13	28:16:51:GLU:HG3	1.87	0.57
35:1d:12:CYS:SG	35:1d:19:LEU:N	2.66	0.57
35:1d:13:ARG:HB2	35:1d:40:PRO:HD3	1.86	0.57
43:1l:70:ILE:HG12	43:1l:100:ILE:HD12	1.85	0.57
1:2A:864:G:H21	1:2A:866:A:H61	1.49	0.57
1:2A:2206:G:H3'	1:2A:2207:G:C8	2.39	0.57
50:2t:57:ARG:HH12	50:2t:100:ILE:HB	1.69	0.57
39:1h:64:LYS:HG2	39:1h:79:VAL:HG21	1.85	0.57
1:2A:820:A:N3	1:2A:943:U:O2'	2.36	0.57
32:2a:164:U:H2'	32:2a:165:C:C6	2.39	0.57
32:2a:410:G:OP1	35:2d:30:LYS:NZ	2.32	0.57
34:2c:180:ALA:HA	34:2c:206:GLU:HA	1.85	0.57
31:19:27:CYS:SG	31:19:28:GLU:N	2.77	0.57
1:2A:1470:G:N2	1:2A:1520:G:OP2	2.36	0.57
32:2a:976:G:OP2	32:2a:1358:U:O2'	2.23	0.57
32:2a:985:C:H2'	32:2a:986:A:H8	1.69	0.57
32:2a:1510:U:H2'	32:2a:1511:G:C8	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:1H:154:PRO:HB3	7:1H:163:TYR:CZ	2.38	0.57
43:1l:56:ALA:HB2	43:1l:70:ILE:HD11	1.86	0.57
1:2A:452:G:OP2	58:2A:3743:HOH:O	2.17	0.57
32:2a:1047:G:H5'	45:2n:4:LYS:HD3	1.87	0.57
32:2a:1184:G:H2'	32:2a:1185:G:H8	1.68	0.57
1:1A:807:U:OP2	11:1P:41:ARG:NH2	2.37	0.57
32:1a:769:G:H4'	32:1a:1513:A:H4'	1.86	0.57
1:2A:17:G:HO2'	16:2U:25:TRP:CD1	2.22	0.57
1:2A:1267:U:O2'	58:2A:3747:HOH:O	2.18	0.57
1:2A:1426:G:O2'	1:2A:1572:A:N6	2.38	0.57
1:2A:2119:A:H61	1:2A:2168:G:H21	1.51	0.57
1:2A:2572:A:OP1	1:2A:2574:G:O2'	2.18	0.57
32:2a:261:U:OP2	50:2t:79:ARG:NH2	2.38	0.57
32:2a:1002:G:N3	32:2a:1003:G:H8	2.03	0.57
32:2a:1151:A:O2'	32:2a:1152:A:O5'	2.22	0.57
34:1c:47:LEU:HD13	34:1c:68:VAL:HG11	1.87	0.57
47:1p:20:VAL:HG23	47:1p:35:LYS:HA	1.86	0.57
1:2A:601:C:O2'	1:2A:605:C:OP1	2.17	0.57
5:2F:85:GLY:O	58:2F:5901:HOH:O	2.18	0.57
36:2e:144:THR:H	36:2e:147:ASP:HB2	1.70	0.57
6:1G:122:PRO:HD3	6:1G:181:ARG:HG2	1.86	0.57
32:1a:45:U:H2'	32:1a:46:G:H8	1.70	0.57
32:1a:181:G:H4'	32:1a:182:U:H5'	1.87	0.57
34:1c:56:ASP:HB2	34:1c:67:THR:HB	1.86	0.57
19:2X:43:VAL:HG21	19:2X:81:VAL:HG11	1.85	0.57
37:2f:11:ASN:HB3	37:2f:14:LEU:HG	1.86	0.57
1:1A:64:A:C5	19:1X:66:LEU:HD12	2.40	0.57
33:1b:9:GLU:OE2	33:1b:217:ARG:NH1	2.37	0.57
1:2A:330:A:HO2'	1:2A:331:A:H8	1.50	0.57
1:2A:2823:A:OP1	4:2E:159:HIS:NE2	2.35	0.57
14:2S:41:ASP:OD2	14:2S:44:LYS:NZ	2.37	0.57
29:27:13:ALA:HB2	29:27:46:VAL:HG21	1.86	0.57
32:2a:736:C:H2'	32:2a:737:A:C8	2.40	0.57
32:2a:1479:C:H2'	32:2a:1480:G:H8	1.69	0.57
1:1A:1701:A:OP2	58:1A:4050:HOH:O	2.18	0.57
1:1A:2308:G:O2'	1:1A:2310:A:N7	2.38	0.57
32:1a:664:G:H22	32:1a:741:G:H1	1.52	0.57
32:2a:1207:2MG:H2'	32:2a:1208:C:H6	1.69	0.57
32:2a:1342:C:H2'	32:2a:1343:G:C8	2.40	0.57
52:2y:42:SER:HB2	52:2y:49:VAL:HB	1.86	0.57
1:1A:568:U:O2'	58:1A:4012:HOH:O	2.09	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1B:77:U:OP1	21:1Z:19:ARG:NH2	2.38	0.56
32:1a:113:G:H2'	32:1a:114:U:C6	2.39	0.56
32:1a:1013:G:N2	32:1a:1016:A:OP2	2.35	0.56
32:1a:1304:G:OP2	58:1a:1905:HOH:O	2.18	0.56
1:2A:1590:U:H2'	1:2A:1591:G:H8	1.68	0.56
1:2A:2023:G:H5'	1:2A:2617:C:H4'	1.87	0.56
2:2B:98:G:N7	58:2B:303:HOH:O	2.32	0.56
1:1A:2285:C:OP2	28:16:6:ARG:NH1	2.37	0.56
8:1I:77:LEU:HD22	8:1I:101:LEU:HG	1.86	0.56
32:1a:715:A:H2'	32:1a:716:A:C8	2.40	0.56
32:1a:1410:G:H2'	32:1a:1411:C:H6	1.69	0.56
32:1a:1435:G:H2'	32:1a:1436:U:C6	2.41	0.56
1:2A:2536:G:O6	58:2A:3746:HOH:O	2.17	0.56
1:1A:657:U:H2'	1:1A:658:C:C6	2.40	0.56
1:1A:2327:A:H2'	1:1A:2328:A:C8	2.40	0.56
13:1R:96:ARG:NH2	13:1R:118:GLU:OE2	2.39	0.56
15:1T:91:ARG:HB2	15:1T:121:ILE:HG13	1.86	0.56
32:1a:679:C:H2'	32:1a:680:C:H6	1.69	0.56
32:1a:890:G:O2'	32:1a:906:G:O6	2.20	0.56
1:2A:848:G:OP1	58:2A:3749:HOH:O	2.18	0.56
1:2A:1084:A:N6	1:2A:1086:A:N7	2.53	0.56
1:2A:2347:C:O2'	28:26:21:TYR:OH	2.23	0.56
1:2A:2499:C:OP2	58:2A:3750:HOH:O	2.18	0.56
6:2G:113:ARG:HD2	6:2G:140:ILE:HA	1.87	0.56
32:2a:1285:A:H4'	32:2a:1286:A:H5'	1.87	0.56
39:2h:86:ILE:HG13	39:2h:133:LEU:HD22	1.85	0.56
40:2i:16:ARG:HB2	40:2i:64:THR:HG22	1.86	0.56
49:2s:27:GLU:OE1	49:2s:47:HIS:NE2	2.36	0.56
1:1A:751:A:OP1	58:1A:4051:HOH:O	2.18	0.56
32:1a:21:G:H2'	32:1a:22:G:C8	2.39	0.56
32:1a:567:G:N3	58:1a:1947:HOH:O	2.33	0.56
32:1a:1410:G:H2'	32:1a:1411:C:C6	2.40	0.56
5:2F:155:LEU:HD11	5:2F:176:LEU:HD12	1.88	0.56
32:2a:501:C:H2'	32:2a:502:G:C8	2.39	0.56
32:2a:920:U:H2'	32:2a:921:U:C6	2.40	0.56
39:2h:112:LEU:HB3	39:2h:133:LEU:HA	1.86	0.56
32:1a:1097:C:O2'	32:1a:1169:A:N3	2.34	0.56
32:1a:1412:C:H2'	32:1a:1413:A:C8	2.40	0.56
1:2A:751:A:OP1	58:2A:3741:HOH:O	2.17	0.56
1:2A:2206:G:H8	1:2A:2207:G:N7	2.03	0.56
32:2a:737:A:H2'	32:2a:738:C:H6	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1003:G:H2'	32:2a:1004:A:C4'	2.33	0.56
32:2a:1005:A:H5''	32:2a:1006:C:C5	2.41	0.56
1:1A:963:U:H2'	1:1A:964:C:C6	2.40	0.56
1:1A:1968:G:OP1	58:1A:4049:HOH:O	2.17	0.56
32:1a:1525:G:OP1	42:1k:120:ARG:NH2	2.38	0.56
41:1j:35:SER:HB3	41:1j:73:ASP:HB2	1.88	0.56
50:1t:43:LEU:HD13	50:1t:51:GLU:HB3	1.86	0.56
6:2G:15:VAL:HG21	6:2G:176:LEU:HD23	1.86	0.56
32:2a:1314:C:H2'	32:2a:1315:U:H6	1.70	0.56
1:1A:746:A:N7	58:1A:4176:HOH:O	2.33	0.56
8:1I:38:LEU:HB3	8:1I:40:THR:HG23	1.87	0.56
32:1a:668:G:H4'	46:1o:48:LYS:HB2	1.87	0.56
32:1a:674:G:H21	42:1k:116:HIS:HB2	1.71	0.56
52:1y:49:VAL:HG22	52:1y:66:LYS:HG2	1.88	0.56
1:2A:1041:C:H42	1:2A:1114:G:H1	1.52	0.56
1:2A:2347:C:HO2'	28:26:21:TYR:HH	1.51	0.56
6:2G:41:GLN:HB3	6:2G:43:LEU:HD13	1.86	0.56
8:2I:4:ILE:HG12	8:2I:18:VAL:HG22	1.86	0.56
32:2a:728:A:H2'	32:2a:729:A:H8	1.70	0.56
15:1T:28:VAL:O	15:1T:46:GLU:HA	2.05	0.56
1:2A:1300:U:H4'	1:2A:1301:A:H5'	1.87	0.56
1:2A:2836:U:H2'	1:2A:2837:G:C8	2.41	0.56
3:2D:69:ARG:NH2	3:2D:128:GLY:O	2.28	0.56
6:2G:19:LEU:HD13	6:2G:32:PRO:HD2	1.88	0.56
18:2W:11:ARG:NH1	18:2W:99:ARG:O	2.38	0.56
32:1a:1207:2MG:H2'	32:1a:1208:C:C6	2.41	0.56
33:1b:70:PHE:HD1	33:1b:163:PHE:HB3	1.71	0.56
35:1d:173:TRP:CD2	35:1d:189:PRO:HG3	2.40	0.56
1:2A:2156:G:N7	1:2A:2157:G:N2	2.54	0.56
2:2B:49:C:OP2	14:2S:30:ARG:NH1	2.39	0.56
3:2D:17:THR:O	3:2D:211:ARG:NH2	2.37	0.56
32:2a:728:A:H2'	32:2a:729:A:C8	2.41	0.56
32:2a:1343:G:H4'	40:2i:122:ALA:HB3	1.88	0.56
46:2o:23:GLY:O	46:2o:28:GLN:NE2	2.39	0.56
1:1A:848:G:H2'	1:1A:849:A:C8	2.41	0.56
1:1A:1075:C:N4	1:1A:1077:A:N1	2.54	0.56
1:1A:1347:G:H1	1:1A:1599:C:H42	1.54	0.56
1:1A:2022:U:O2'	1:1A:2617:C:H5'	2.06	0.56
1:1A:2031:A:N3	1:1A:2455:G:O2'	2.35	0.56
44:1m:15:VAL:HG11	44:1m:48:LEU:HD21	1.88	0.56
1:2A:811:U:OP1	58:2A:3751:HOH:O	2.18	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:2V:59:ALA:HB2	17:2V:96:ILE:HD13	1.88	0.56
1:1A:582:G:H2'	1:1A:583:G:C8	2.41	0.55
1:1A:2430:A:N3	1:1A:2430:A:H2'	2.21	0.55
6:1G:66:GLN:OE1	6:1G:98:ARG:NE	2.36	0.55
11:1P:141:ALA:HA	25:23:38:GLU:HG2	1.88	0.55
32:1a:673:G:O3'	37:1f:87:ARG:NH2	2.39	0.55
1:2A:615:G:OP2	5:2F:43:LYS:NZ	2.33	0.55
5:2F:95:ARG:HD3	5:2F:97:TYR:CZ	2.41	0.55
32:2a:992:U:H4'	32:2a:993:G:O5'	2.06	0.55
33:2b:189:ASP:OD1	33:2b:189:ASP:N	2.30	0.55
12:1Q:55:VAL:HG12	12:1Q:64:ILE:HD12	1.88	0.55
21:1Z:69:THR:HG22	21:1Z:90:VAL:HA	1.89	0.55
32:1a:601:C:H2'	32:1a:602:A:H8	1.72	0.55
1:2A:1525:G:H2'	1:2A:1526:G:H8	1.72	0.55
3:2D:142:VAL:HG23	3:2D:193:VAL:HA	1.88	0.55
32:2a:426:G:OP1	35:2d:38:TYR:OH	2.18	0.55
32:2a:967:5MC:O2'	32:2a:968:A:OP1	2.18	0.55
32:2a:1001:A:H2'	32:2a:1001(A):G:H8	1.71	0.55
33:2b:77:ALA:HB2	33:2b:211:ILE:HD13	1.86	0.55
1:1A:185:U:H4'	1:1A:218:A:H4'	1.88	0.55
1:1A:1683:C:H2'	1:1A:1684:C:C6	2.41	0.55
10:1O:66:LYS:N	10:1O:82:ASN:OD1	2.31	0.55
1:2A:630:G:OP2	30:28:15:LYS:NZ	2.31	0.55
1:2A:2748:A:H5'	7:2H:4:ILE:HD12	1.88	0.55
7:2H:164:TYR:HB2	7:2H:167:GLU:HB2	1.87	0.55
15:1T:16:ARG:NH1	15:1T:83:ILE:O	2.39	0.55
32:1a:1427:U:H2'	32:1a:1428:A:H8	1.69	0.55
44:1m:11:ARG:HA	44:1m:45:VAL:HB	1.87	0.55
3:2D:41:GLY:O	3:2D:43:ARG:NH1	2.40	0.55
24:22:66:GLU:HG2	24:22:69:ARG:HH22	1.70	0.55
32:2a:135:C:O2	47:2p:1:MET:HB3	2.06	0.55
32:2a:975:A:H61	41:2j:48:THR:HB	1.72	0.55
32:2a:1278:U:H5''	32:2a:1279:A:H5'	1.89	0.55
9:1N:9:VAL:HG21	9:1N:39:ARG:NH2	2.21	0.55
15:1T:24:PRO:HA	15:1T:49:VAL:HG23	1.87	0.55
20:1Y:15:VAL:HG21	20:1Y:42:VAL:HG11	1.88	0.55
22:10:27:GLU:HB2	22:10:69:PHE:HD1	1.72	0.55
32:1a:674:G:H2'	32:1a:675:A:C8	2.41	0.55
1:2A:1799:G:O2'	3:2D:183:ARG:NH1	2.40	0.55
1:1A:458:G:O2'	1:1A:469:G:O6	2.21	0.55
1:1A:1141:U:OP2	9:1N:63:THR:OG1	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1912:A:C5	1:1A:1918:A:H2	2.25	0.55
7:1H:11:VAL:HG21	7:1H:50:VAL:HG23	1.88	0.55
32:1a:17:U:H2'	32:1a:18:C:H6	1.71	0.55
24:22:19:VAL:HG12	24:22:23:LYS:HE3	1.87	0.55
32:2a:552:U:H4'	43:2l:87:GLY:H	1.71	0.55
32:2a:1003:G:H3'	32:2a:1003:G:N3	2.22	0.55
1:1A:2086:U:H2'	1:1A:2087:G:C8	2.41	0.55
28:16:36:LEU:O	28:16:48:VAL:HA	2.06	0.55
32:1a:328:C:H4'	32:1a:329:A:H5'	1.88	0.55
46:1o:36:ILE:HG23	46:1o:56:LEU:HD11	1.89	0.55
1:2A:399:G:OP2	58:2A:3752:HOH:O	2.18	0.55
1:2A:635:C:O2'	1:2A:639:U:OP1	2.23	0.55
32:2a:1314:C:H2'	32:2a:1315:U:C6	2.42	0.55
44:2m:91:ARG:HB2	44:2m:98:VAL:HG22	1.89	0.55
1:1A:323:G:C8	5:1F:171:PRO:HG3	2.42	0.55
1:1A:986:C:HO2'	1:1A:1001:A:HO2'	1.53	0.55
1:1A:2825:G:H8	1:1A:2825:G:O5'	1.89	0.55
9:1N:110:GLY:O	9:1N:114:ARG:HG3	2.06	0.55
32:1a:22:G:H4'	32:1a:885:G:C8	2.42	0.55
32:1a:966:M2G:O2'	40:1i:127:LYS:O	2.25	0.55
32:1a:998:G:H2'	32:1a:999:C:C6	2.42	0.55
1:2A:84:A:N1	1:2A:98:G:O2'	2.37	0.55
3:2D:67:PHE:HD1	3:2D:153:ALA:HB3	1.72	0.55
32:2a:559:A:OP1	36:2e:126:ARG:NH2	2.39	0.55
1:1A:1279:G:H4'	13:1R:31:HIS:CD2	2.42	0.55
32:1a:8:A:N6	35:1d:205:GLU:O	2.39	0.55
32:1a:674:G:H2'	32:1a:675:A:H8	1.71	0.55
1:2A:975(A):G:O2'	1:2A:1156:A:N1	2.39	0.55
3:2D:143:HIS:ND1	3:2D:194:GLY:O	2.32	0.55
32:2a:41:G:H2'	32:2a:42:G:C8	2.42	0.55
32:2a:189(K):U:H2'	32:2a:189(L):G:H8	1.70	0.55
32:2a:1179:A:H4'	40:2i:103:THR:HA	1.88	0.55
32:2a:1445:C:O2'	32:2a:1447:A:N6	2.37	0.55
40:2i:9:ARG:H	40:2i:79:LEU:HD23	1.72	0.55
1:1A:859:G:O2'	1:1A:916:G:O6	2.23	0.55
1:1A:1508:A:H4'	1:1A:1509:A:C4	2.42	0.55
1:1A:1651:G:OP1	13:1R:40:LYS:NZ	2.39	0.55
1:1A:1911:PSU:N3	1:1A:1918:A:C4	2.75	0.55
7:1H:159:GLU:HG2	7:1H:169:VAL:HG11	1.88	0.55
32:1a:1005:A:OP1	32:1a:1006:C:N4	2.39	0.55
39:1h:10:LEU:HD22	39:1h:83:ILE:HD11	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:1h:29:SER:HB3	39:1h:32:LYS:HG3	1.88	0.55
1:2A:2327:A:H2'	1:2A:2328:A:C8	2.42	0.55
1:2A:2561:A:H2	10:2O:23:ARG:HH21	1.54	0.55
32:2a:539:A:H2'	32:2a:540:G:C8	2.42	0.55
32:1a:33:A:H2'	32:1a:34:C:C6	2.42	0.54
36:1e:102:ALA:HB1	36:1e:106:PRO:HG2	1.88	0.54
40:1i:46:ALA:HB2	40:1i:74:ILE:HG23	1.89	0.54
3:2D:85:ASP:OD2	3:2D:88:ARG:NH1	2.38	0.54
32:2a:359:U:H2'	32:2a:360:A:H8	1.72	0.54
32:2a:758:G:O6	58:2a:1804:HOH:O	2.17	0.54
1:2A:628:G:O2'	1:2A:651:G:O2'	2.21	0.54
6:2G:170:ARG:NH2	6:2G:182:LYS:O	2.40	0.54
31:29:2:LYS:HB2	31:29:34:GLN:HG2	1.88	0.54
32:2a:948:C:H2'	32:2a:949:A:H8	1.72	0.54
32:1a:1318:A:H5''	49:1s:3:ARG:NH1	2.21	0.54
32:1a:1356:G:H2'	32:1a:1357:A:H8	1.72	0.54
2:2B:42:C:O2	6:2G:93:THR:N	2.30	0.54
19:2X:53:LYS:HB3	19:2X:82:GLN:HB3	1.87	0.54
39:2h:85:ARG:NH2	39:2h:87:SER:O	2.40	0.54
40:2i:16:ARG:HH11	40:2i:64:THR:HG21	1.73	0.54
1:1A:521:G:O6	58:1A:4047:HOH:O	2.17	0.54
1:1A:577:G:O2'	1:1A:1254:A:OP1	2.26	0.54
1:1A:1266:G:O5'	18:1W:15:ARG:NH2	2.39	0.54
7:1H:164:TYR:HB2	7:1H:167:GLU:HB2	1.89	0.54
32:1a:376:G:H2'	32:1a:377:G:H8	1.73	0.54
34:1c:15:THR:HG21	34:1c:181:ASN:HA	1.89	0.54
1:2A:307:G:N1	1:2A:310:A:OP2	2.41	0.54
1:2A:1063:G:H1	1:2A:1075:C:N4	2.04	0.54
1:2A:2444:G:OP2	58:2A:3745:HOH:O	2.17	0.54
32:2a:945:G:C2	32:2a:946:A:C8	2.96	0.54
42:2k:34:ASP:OD1	42:2k:38:ASN:N	2.40	0.54
32:1a:1314:C:H2'	32:1a:1315:U:C6	2.42	0.54
1:2A:1637:A:OP2	58:2A:3753:HOH:O	2.19	0.54
1:2A:2140:C:H2'	1:2A:2141:G:H8	1.72	0.54
1:1A:1175:U:H5''	1:1A:1177:A:H2	1.72	0.54
12:1Q:39:PRO:HD3	12:1Q:99:PRO:HG3	1.90	0.54
23:11:52:ARG:NH2	23:11:55:GLY:O	2.40	0.54
32:1a:835:U:OP1	48:1r:64:ARG:NH1	2.40	0.54
1:2A:143:G:H4'	19:2X:35:THR:HG21	1.89	0.54
1:2A:1786:A:H1'	1:2A:1938:A:N6	2.21	0.54
1:2A:2206:G:H3'	1:2A:2207:G:H8	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:2e:78:HIS:HA	39:2h:105:ARG:HG3	1.90	0.54
1:1A:885:C:H1'	1:1A:892:G:H22	1.73	0.54
20:1Y:13:VAL:HG12	20:1Y:74:PRO:HA	1.90	0.54
46:1o:25:THR:HG21	46:1o:70:LEU:HB2	1.90	0.54
1:2A:1066:U:O2'	1:2A:1068:G:OP2	2.23	0.54
1:2A:1983:C:H4'	1:2A:2606:C:H4'	1.89	0.54
1:2A:2503:2MA:O2'	1:2A:2505:G:OP2	2.20	0.54
41:2j:5:ARG:N	58:2j:301:HOH:O	2.39	0.54
1:1A:2058:A:N7	58:1A:4183:HOH:O	2.34	0.54
1:1A:2467:C:O2	12:1Q:124:LYS:NZ	2.41	0.54
2:1B:12:C:H2'	22:10:73:GLY:HA3	1.90	0.54
1:2A:212:G:H2'	1:2A:213:A:O4'	2.08	0.54
1:2A:1991:U:H2'	1:2A:1992:G:H5''	1.90	0.54
1:2A:2206:G:H5''	1:2A:2207:G:C8	2.43	0.54
3:2D:108:PRO:HB3	3:2D:143:HIS:CE1	2.42	0.54
26:24:36:CYS:SG	26:24:37:SER:N	2.80	0.54
32:2a:712:A:H2'	32:2a:713:G:C8	2.43	0.54
32:1a:507:C:OP2	32:1a:508:C:O2'	2.20	0.54
1:2A:1446:C:H42	1:2A:1465:G:H1	1.55	0.54
32:2a:1005:A:O2'	32:2a:1036:G:N2	2.41	0.54
1:1A:1048:A:OP2	1:1A:1109:C:N4	2.41	0.54
1:1A:1786:A:H1'	1:1A:1938:A:N6	2.23	0.54
1:1A:2197:U:H1'	1:1A:2198:A:C8	2.43	0.54
1:1A:2612:C:OP1	58:1A:4055:HOH:O	2.19	0.54
3:1D:69:ARG:HH11	3:1D:105:ILE:HG21	1.73	0.54
34:1c:29:TYR:OH	45:1n:54:PRO:O	2.21	0.54
1:2A:2321:G:O2'	1:2A:2322:A:OP1	2.25	0.54
11:2P:95:VAL:HG22	11:2P:125:VAL:HA	1.88	0.54
36:2e:100:VAL:HA	36:2e:118:ILE:HG22	1.89	0.54
26:14:16:CYS:SG	26:14:17:GLY:N	2.81	0.53
32:1a:501:C:O2	32:1a:549:C:O2'	2.26	0.53
1:2A:942:G:O2'	1:2A:1189:A:N3	2.38	0.53
1:2A:1147:C:H2'	1:2A:1148:A:H8	1.72	0.53
2:2B:112:U:H2'	2:2B:113:G:H8	1.72	0.53
32:2a:806:C:H2'	32:2a:807:A:C8	2.42	0.53
32:2a:1202:G:O4'	45:2n:29:ARG:NH1	2.40	0.53
32:2a:1239:A:O2'	38:2g:114:ARG:O	2.18	0.53
18:1W:67:ASP:N	18:1W:67:ASP:OD1	2.40	0.53
34:1c:88:ARG:NH2	34:1c:101:LEU:O	2.41	0.53
1:2A:2551:C:OP2	58:2A:3748:HOH:O	2.18	0.53
1:2A:2646:C:OP2	1:2A:2732:G:O2'	2.19	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2B:40:U:H2'	26:24:2:LYS:HE3	1.90	0.53
32:2a:1010:G:H2'	32:2a:1011:G:C8	2.42	0.53
32:2a:1256:A:OP2	34:2c:26:LYS:NZ	2.39	0.53
32:2a:1289:A:N1	32:2a:1371:G:O2'	2.39	0.53
35:2d:13:ARG:HH22	35:2d:36:ARG:CZ	2.21	0.53
9:1N:35:ARG:HH21	9:1N:42:TRP:HZ2	1.57	0.53
36:1e:8:GLU:OE2	36:1e:63:ARG:NH2	2.41	0.53
36:1e:102:ALA:H	36:1e:107:ARG:HH21	1.55	0.53
1:2A:300:A:H2'	1:2A:334:C:H1'	1.89	0.53
1:2A:1045:A:H8	1:2A:1047:G:N3	2.06	0.53
8:2I:4:ILE:HD11	8:2I:44:LEU:HD12	1.90	0.53
32:2a:34:C:H2'	32:2a:35:G:C8	2.42	0.53
32:2a:41:G:H2'	32:2a:42:G:H8	1.73	0.53
32:2a:768:A:H4'	32:2a:1523:G:H21	1.72	0.53
32:2a:1071:C:H2'	32:2a:1072:G:H8	1.74	0.53
32:2a:1513:A:H2'	32:2a:1514:C:H6	1.73	0.53
35:2d:108:LEU:HD12	35:2d:170:VAL:HG11	1.90	0.53
1:1A:370:G:OP2	58:1A:4054:HOH:O	2.18	0.53
8:1I:40:THR:O	8:1I:44:LEU:HB2	2.09	0.53
28:16:23:THR:OG1	28:16:24:GLU:N	2.41	0.53
32:1a:811:C:O2'	32:1a:901:A:N1	2.42	0.53
32:1a:826:C:H1'	39:1h:15:ASN:HD22	1.74	0.53
33:1b:88:ALA:HB2	33:1b:219:VAL:HG13	1.90	0.53
1:2A:55:G:H2'	1:2A:56:A:H8	1.72	0.53
1:2A:571:A:N6	1:2A:2499:C:O3'	2.40	0.53
1:2A:953:A:OP2	12:2Q:16:ARG:NH2	2.42	0.53
1:2A:1508:A:H4'	1:2A:1509:A:C4	2.43	0.53
32:2a:399:G:H2'	32:2a:400:C:C6	2.43	0.53
32:2a:492:G:OP2	58:2a:1807:HOH:O	2.19	0.53
32:2a:563:A:H2'	32:2a:567:G:C8	2.44	0.53
1:1A:982:C:OP2	58:1A:4053:HOH:O	2.18	0.53
3:1D:173:VAL:O	3:1D:184:LYS:HA	2.09	0.53
32:1a:410:G:OP1	35:1d:30:LYS:NZ	2.25	0.53
32:1a:828:A:H2'	32:1a:829:G:O4'	2.09	0.53
33:1b:189:ASP:OD1	33:1b:189:ASP:N	2.40	0.53
50:1t:63:ILE:HG21	50:1t:81:LYS:HG3	1.89	0.53
1:2A:2128:C:H42	1:2A:2160:G:H1	1.54	0.53
1:2A:2882:A:OP1	13:2R:96:ARG:NH1	2.42	0.53
27:25:41:PRO:O	27:25:44:THR:OG1	2.24	0.53
1:1A:220:G:O2'	1:1A:233:A:N3	2.36	0.53
6:1G:18:GLU:OE2	6:1G:22:ARG:NH2	2.40	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:108:G:N1	50:1t:15:ARG:HG2	2.24	0.53
43:1l:28:LYS:HE2	43:1l:64:TYR:HE1	1.74	0.53
1:2A:1064:C:H3'	1:2A:1065:U:C5'	2.39	0.53
26:24:58:ARG:HH21	49:2s:68:GLY:H	1.56	0.53
30:28:6:THR:HG22	30:28:63:PRO:HD2	1.89	0.53
32:2a:677:U:H3	32:2a:713:G:H22	1.55	0.53
32:2a:1355:G:H2'	32:2a:1356:G:C8	2.44	0.53
10:1O:64:ARG:HB2	10:1O:79:PHE:CD1	2.43	0.53
18:1W:25:ARG:NH2	18:1W:74:ALA:O	2.41	0.53
1:2A:764:A:H5''	3:2D:210:GLY:HA2	1.91	0.53
1:2A:1073:A:H2'	1:2A:1074:G:H8	1.72	0.53
5:2F:184:TYR:CE2	5:2F:188:ARG:HD2	2.44	0.53
19:2X:44:GLU:OE1	58:2X:201:HOH:O	2.18	0.53
33:2b:63:MET:HG2	33:2b:225:ALA:HB1	1.91	0.53
45:2n:24:CYS:HB3	45:2n:29:ARG:H	1.73	0.53
46:2o:87:ILE:HG22	46:2o:88:ARG:H	1.73	0.53
1:1A:573:G:O2'	1:1A:574:C:H3'	2.09	0.53
10:1O:13:ASN:ND2	10:1O:96:THR:OG1	2.39	0.53
32:1a:12:U:H4'	32:1a:526:C:H4'	1.91	0.53
32:1a:1103:C:OP1	33:1b:96:ARG:NH2	2.36	0.53
47:1p:74:LEU:HD23	47:1p:79:VAL:HG21	1.91	0.53
1:2A:1278:A:H2'	1:2A:1279:G:C8	2.43	0.53
1:2A:2343:C:O2'	1:2A:2373:G:O2'	2.15	0.53
6:2G:108:ASN:HA	26:24:37:SER:HB3	1.90	0.53
12:2Q:75:THR:HG21	12:2Q:87:LYS:HG2	1.91	0.53
13:2R:36:THR:HG22	13:2R:37:THR:H	1.74	0.53
32:2a:235:C:H2'	32:2a:236:G:H8	1.74	0.53
32:2a:474:G:H2'	32:2a:475:G:H8	1.74	0.53
32:2a:947:G:O3'	44:2m:109:THR:OG1	2.27	0.53
1:1A:1791:A:H5'	3:1D:206:LEU:HD12	1.90	0.53
1:1A:2668:G:N7	58:1A:4185:HOH:O	2.34	0.53
32:1a:1503:A:OP1	32:1a:1531:A:O2'	2.26	0.53
52:1y:24:LEU:HD11	52:1y:39:ILE:HD11	1.91	0.53
1:2A:792:G:O2'	1:2A:2440:C:N3	2.38	0.53
1:2A:2398:U:H2'	1:2A:2399:G:C8	2.44	0.53
32:2a:768:A:OP2	58:2a:1806:HOH:O	2.18	0.53
38:2g:48:LYS:O	38:2g:52:GLU:HG2	2.09	0.53
8:1I:72:LEU:HD23	8:1I:75:LEU:HD21	1.90	0.53
15:1T:54:ARG:HA	15:1T:59:THR:HG22	1.90	0.53
32:1a:1159:U:O4'	32:1a:1182:G:N2	2.42	0.53
1:2A:247:G:H4'	1:2A:386:G:C5	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1514:U:H2'	1:2A:1515:G:H8	1.74	0.53
21:2Z:19:ARG:NH1	21:2Z:84:GLU:O	2.42	0.53
32:2a:922:G:H2'	32:2a:923:A:C8	2.44	0.53
33:2b:98:LEU:HB2	33:2b:101:MET:HG3	1.91	0.53
1:1A:1045:A:H5'	1:1A:1046:A:H5'	1.91	0.52
1:1A:2314:C:H2'	1:1A:2315:G:H8	1.74	0.52
32:1a:390:C:H2'	32:1a:391:G:C8	2.44	0.52
40:1i:9:ARG:HG2	40:1i:14:VAL:HG22	1.91	0.52
43:1l:28:LYS:HE2	43:1l:64:TYR:CE1	2.43	0.52
1:2A:144:C:H2'	1:2A:145:G:H8	1.74	0.52
1:2A:1086:A:OP1	1:2A:1104:C:O2'	2.27	0.52
53:2B:201:MPD:O2	53:2B:201:MPD:O4	2.27	0.52
32:2a:976:G:H5'	32:2a:1358:U:O2'	2.09	0.52
44:2m:15:VAL:HG11	44:2m:48:LEU:HD21	1.90	0.52
32:1a:920:U:H2'	32:1a:921:U:C6	2.45	0.52
40:1i:26:VAL:HG13	40:1i:61:ALA:HB3	1.91	0.52
13:2R:98:LEU:HD12	27:25:57:VAL:HG11	1.92	0.52
38:2g:114:ARG:HB2	38:2g:115:ARG:NH2	2.24	0.52
1:1A:1142(A):A:O2'	1:1A:1143:A:H3'	2.10	0.52
32:1a:1125:U:H4'	41:1j:5:ARG:NH2	2.24	0.52
1:2A:383:U:H2'	1:2A:385:C:H5	1.75	0.52
1:2A:2574:G:N3	4:2E:143:ASN:ND2	2.57	0.52
35:2d:57:ARG:NH2	35:2d:205:GLU:OE1	2.36	0.52
1:1A:330:A:H2	1:1A:1210:A:O2'	1.92	0.52
1:1A:2061:G:H5''	1:1A:2503:2MA:C2	2.39	0.52
24:12:32:LEU:HD22	24:12:36:ARG:HH11	1.75	0.52
31:19:2:LYS:NZ	31:19:31:LYS:O	2.41	0.52
32:1a:1499:A:OP2	58:1a:1906:HOH:O	2.19	0.52
1:2A:84:A:H5'	20:2Y:8:LYS:HB3	1.91	0.52
12:2Q:63:LYS:HD2	21:2Z:175:VAL:HG21	1.92	0.52
1:1A:1105:U:H2'	1:1A:1106:G:C8	2.43	0.52
15:1T:76:PHE:HB3	15:1T:83:ILE:HD11	1.90	0.52
32:1a:790:A:N6	32:1a:1498:UR3:OP1	2.43	0.52
39:1h:110:ALA:HB3	39:1h:121:ASP:HB3	1.90	0.52
40:1i:16:ARG:HB2	40:1i:64:THR:HG22	1.91	0.52
46:1o:74:ASP:OD2	46:1o:77:ARG:NH1	2.43	0.52
50:1t:57:ARG:HH12	50:1t:100:ILE:HD12	1.75	0.52
8:2I:26:ALA:HA	8:2I:30:LEU:HB2	1.90	0.52
17:2V:30:GLY:H	17:2V:61:VAL:HG23	1.74	0.52
17:2V:57:VAL:HG12	17:2V:99:ILE:HG23	1.91	0.52
32:2a:297:G:N2	32:2a:300:A:OP2	2.41	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:564:C:H4'	39:2h:91:ARG:HH22	1.74	0.52
1:1A:574:C:OP2	58:1A:4057:HOH:O	2.19	0.52
32:1a:924:C:H2'	32:1a:925:G:H8	1.74	0.52
36:1e:37:ARG:HH12	36:1e:111:GLU:HG2	1.73	0.52
37:1f:36:ARG:NH2	37:1f:66:GLU:OE1	2.42	0.52
38:1g:78:ARG:NH1	38:1g:154:TYR:O	2.42	0.52
40:1i:121:ARG:NH1	40:1i:122:ALA:O	2.42	0.52
44:1m:5:ALA:HB1	44:1m:61:GLU:HG2	1.92	0.52
46:1o:54:ARG:HG2	46:1o:58:MET:HE2	1.92	0.52
49:1s:55:LYS:HE2	49:1s:56:GLN:HE21	1.74	0.52
1:2A:1636:C:H2'	1:2A:1637:A:C8	2.45	0.52
6:2G:80:PHE:O	6:2G:82:LEU:N	2.43	0.52
32:2a:48:C:OP2	58:2a:1805:HOH:O	2.18	0.52
32:2a:946:A:H2'	32:2a:947:G:H8	1.75	0.52
32:2a:1250:A:H2'	32:2a:1251:A:C8	2.44	0.52
32:2a:1491:G:O2'	32:2a:1492:A:OP1	2.27	0.52
38:2g:114:ARG:HB2	38:2g:115:ARG:HH22	1.75	0.52
1:1A:581:C:H2'	1:1A:582:G:C8	2.45	0.52
1:1A:826:U:OP1	58:1A:4002:HOH:O	2.18	0.52
1:1A:2448:A:OP1	58:1A:4006:HOH:O	2.19	0.52
32:1a:1074:G:H2'	32:1a:1075:C:H6	1.73	0.52
32:1a:1504:G:OP1	32:1a:1507:A:H4'	2.09	0.52
1:2A:559:G:H22	16:2U:49:HIS:CE1	2.28	0.52
1:2A:1081:U:H2'	1:2A:1082:U:H5''	1.91	0.52
1:2A:1657:C:H2'	1:2A:1658:C:C6	2.44	0.52
32:2a:23:C:OP2	32:2a:561:U:N3	2.34	0.52
32:2a:1175:G:H2'	32:2a:1176:A:H8	1.74	0.52
33:2b:127:ILE:C	33:2b:129:GLU:H	2.17	0.52
1:1A:2349:G:OP2	30:18:42:ARG:NE	2.35	0.52
1:2A:2312:U:H5'	6:2G:88:ILE:HD11	1.92	0.52
1:2A:2749:A:OP1	7:2H:3:ARG:NH1	2.43	0.52
32:2a:684:A:H2'	32:2a:685:G:C8	2.44	0.52
1:1A:1826:G:H4'	3:1D:242:ARG:NH1	2.24	0.52
1:1A:2064:C:H2'	1:1A:2065:C:C6	2.44	0.52
1:1A:2637:U:H5''	4:1E:82:ARG:NH1	2.25	0.52
24:12:39:ALA:HB2	24:12:44:LEU:HD23	1.90	0.52
32:1a:376:G:H5''	47:1p:5:ARG:HB2	1.92	0.52
33:1b:112:VAL:HG12	33:1b:149:LEU:HD13	1.92	0.52
1:2A:964:C:O2'	1:2A:2273:A:N3	2.37	0.52
3:2D:108:PRO:HD2	3:2D:111:LEU:HD12	1.92	0.52
32:2a:642:A:N3	39:2h:113:SER:OG	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:978:A:C2	32:2a:1319:A:C4	2.97	0.52
32:2a:1251:A:H2'	32:2a:1252:A:C8	2.45	0.52
52:2y:29:LYS:HG2	52:2y:30:TRP:CE3	2.45	0.52
1:1A:37:C:H2'	1:1A:38:A:C8	2.45	0.52
5:1F:184:TYR:CE2	5:1F:188:ARG:HD2	2.45	0.52
32:1a:713:G:H2'	32:1a:714:G:C8	2.45	0.52
44:1m:91:ARG:NE	44:1m:97:PRO:O	2.38	0.52
1:2A:2369:A:H2'	1:2A:2370:G:H8	1.75	0.52
3:2D:244:ARG:NH2	58:2D:404:HOH:O	2.41	0.52
32:2a:108:G:N1	50:2t:15:ARG:HG2	2.25	0.52
1:1A:190:A:N3	1:1A:679:C:O2'	2.41	0.51
1:1A:2615:U:OP2	58:1A:4060:HOH:O	2.19	0.51
4:1E:28:ALA:HB3	4:1E:93:VAL:HG12	1.92	0.51
21:1Z:144:LEU:HD11	21:1Z:150:LEU:HD22	1.92	0.51
25:13:35:ARG:HE	25:13:37:LEU:HD21	1.74	0.51
32:1a:679:C:H2'	32:1a:680:C:C6	2.45	0.51
32:2a:149:A:H2'	32:2a:150:C:C6	2.44	0.51
32:2a:857:C:H2'	32:2a:858:G:O4'	2.09	0.51
12:1Q:51:ARG:O	12:1Q:55:VAL:HG13	2.10	0.51
39:1h:9:MET:HG3	39:1h:26:VAL:HG11	1.92	0.51
32:2a:748:C:H4'	32:2a:749:C:O5'	2.09	0.51
32:2a:921:U:O2'	36:2e:19:MET:O	2.26	0.51
32:2a:1060:C:HO2'	41:2j:56:HIS:HD1	1.56	0.51
34:2c:35:GLU:HG3	34:2c:59:ARG:HH22	1.75	0.51
36:2e:12:LEU:HD12	36:2e:128:PRO:HB2	1.91	0.51
43:2l:70:ILE:HG12	43:2l:100:ILE:HD12	1.92	0.51
1:1A:436:C:H2'	1:1A:437:G:H8	1.73	0.51
19:1X:26:TYR:OH	19:1X:93:GLU:OE2	2.24	0.51
33:1b:73:THR:OG1	33:1b:170:GLU:OE2	2.26	0.51
44:1m:49:THR:HG22	44:1m:51:ALA:H	1.76	0.51
1:2A:2817:G:O2'	1:2A:2836:U:O2	2.25	0.51
1:2A:2820:A:O2'	1:2A:2821:A:OP1	2.25	0.51
10:2O:73:ASP:OD2	15:2T:32:TYR:OH	2.24	0.51
17:2V:72:VAL:HG13	17:2V:85:LYS:HB3	1.92	0.51
32:2a:333:G:H2'	32:2a:334:C:H6	1.75	0.51
1:1A:1268:A:H2'	1:1A:1269:A:O4'	2.10	0.51
32:1a:126:G:OP1	32:1a:605:U:O2'	2.21	0.51
32:1a:600:C:H2'	32:1a:601:C:H6	1.74	0.51
32:1a:1241:G:H2'	32:1a:1242:C:C6	2.44	0.51
32:1a:1302:U:OP1	44:1m:13:LYS:NZ	2.36	0.51
1:2A:252:G:OP1	11:2P:50:ARG:NH1	2.35	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2299:G:H2'	1:2A:2300:G:H8	1.74	0.51
1:2A:2584:U:H5''	1:2A:2602:A:C2	2.45	0.51
1:2A:2590:A:H5''	3:2D:239:ARG:HG3	1.92	0.51
27:25:40:LYS:NZ	27:25:44:THR:O	2.42	0.51
32:2a:376:G:H5''	47:2p:5:ARG:HB2	1.92	0.51
32:2a:954:G:H21	32:2a:1227:A:N6	2.03	0.51
35:2d:25:ARG:NH1	35:2d:30:LYS:O	2.43	0.51
40:2i:26:VAL:HB	40:2i:33:PHE:HB2	1.91	0.51
32:2a:337:C:H2'	32:2a:338:A:C8	2.46	0.51
32:2a:980:C:OP2	58:2a:1802:HOH:O	2.19	0.51
36:2e:6:PHE:H	36:2e:63:ARG:HH12	1.59	0.51
1:1A:666:G:H1'	30:18:4:MET:HE3	1.92	0.51
1:1A:876:C:H2'	1:1A:877:U:O4'	2.11	0.51
1:1A:1336:A:H2'	1:1A:1337:G:C8	2.46	0.51
32:1a:339:C:H2'	32:1a:340:U:C6	2.44	0.51
3:2D:182:LEU:HB2	3:2D:272:ALA:H	1.76	0.51
6:2G:94:LEU:HD22	6:2G:98:ARG:HB3	1.93	0.51
28:26:10:LEU:HD23	28:26:22:ALA:HB2	1.93	0.51
32:2a:64:G:H4'	32:2a:65:U:H3'	1.93	0.51
49:2s:38:SER:HB2	49:2s:71:LEU:HD13	1.91	0.51
1:1A:776:G:N7	1:1A:793:A:O2'	2.39	0.51
1:1A:1490:A:O2'	3:1D:99:ASP:OD1	2.29	0.51
1:1A:1952:A:OP1	10:1O:44:LYS:NZ	2.28	0.51
1:1A:2046:G:H5'	27:15:19:ARG:HG3	1.93	0.51
1:2A:904:C:O2'	21:2Z:169:GLU:OE2	2.25	0.51
9:2N:62:VAL:HG11	9:2N:66:LYS:HB2	1.93	0.51
14:2S:50:SER:O	14:2S:76:LYS:NZ	2.34	0.51
32:2a:189(D):C:H2'	32:2a:189(E):U:O4'	2.10	0.51
32:2a:1479:C:H2'	32:2a:1480:G:C8	2.46	0.51
33:2b:7:VAL:O	33:2b:217:ARG:NH1	2.38	0.51
44:2m:10:PRO:HD2	44:2m:18:ALA:HB1	1.91	0.51
1:1A:1165:U:H2'	1:1A:1166:C:C6	2.46	0.51
1:1A:2595:G:N2	1:1A:2598:A:OP2	2.37	0.51
32:1a:1108:G:H5'	34:1c:176:HIS:CD2	2.46	0.51
33:1b:15:VAL:HG22	33:1b:209:ARG:HB3	1.93	0.51
41:1j:11:PHE:HE1	41:1j:67:THR:HG22	1.75	0.51
50:1t:47:GLY:HA2	50:1t:48:LYS:HB2	1.92	0.51
1:2A:1096:A:C8	1:2A:1097:U:H5	2.28	0.51
1:2A:1590:U:H2'	1:2A:1591:G:C8	2.46	0.51
21:2Z:45:ASP:OD1	21:2Z:49:ARG:NE	2.44	0.51
32:2a:715:A:H2'	32:2a:716:A:C8	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:735:C:H2'	32:2a:736:C:H6	1.76	0.51
32:2a:868:C:H2'	32:2a:869:G:O4'	2.10	0.51
32:2a:973:G:H3'	32:2a:974:A:H5''	1.93	0.51
32:1a:922:G:H4'	36:1e:20:GLN:HA	1.92	0.51
1:2A:2299:G:H2'	1:2A:2300:G:C8	2.46	0.51
20:2Y:68:HIS:HB3	20:2Y:71:LYS:HG3	1.92	0.51
32:2a:1287:A:H2'	32:2a:1288:A:C8	2.46	0.51
1:1A:436:C:H2'	1:1A:437:G:C8	2.47	0.51
29:17:12:ARG:NH2	29:17:44:PRO:HB3	2.25	0.51
32:1a:1348:U:H4'	40:1i:120:ARG:HD2	1.92	0.51
33:1b:95:GLN:HG3	33:1b:147:LYS:HG2	1.93	0.51
1:2A:1842:G:O2'	3:2D:253:GLN:OE1	2.26	0.51
32:2a:272:C:H2'	32:2a:273:A:H8	1.73	0.51
32:2a:1129:C:H2'	32:2a:1139:G:N7	2.25	0.51
1:1A:1707:G:O6	58:1A:4044:HOH:O	2.17	0.50
32:1a:516:PSU:O2'	32:1a:519:C:N3	2.44	0.50
39:1h:14:ARG:NH1	39:1h:83:ILE:O	2.44	0.50
1:2A:2010:G:H5''	18:2W:42:ARG:HB2	1.92	0.50
1:2A:2527:C:H5''	31:29:30:PRO:HB3	1.93	0.50
7:2H:87:LEU:HD23	7:2H:164:TYR:HA	1.93	0.50
18:2W:29:LEU:HD22	18:2W:69:LEU:HD12	1.92	0.50
32:2a:545:C:O2'	32:2a:549:C:OP1	2.26	0.50
32:2a:745:C:H2'	32:2a:746:A:H8	1.75	0.50
32:2a:1295:G:O2'	32:2a:1302:U:O4	2.25	0.50
34:2c:8:ILE:HD12	34:2c:16:ARG:HD2	1.92	0.50
1:1A:1300:U:H4'	1:1A:1301:A:C5'	2.40	0.50
1:1A:1817:G:OP1	3:1D:88:ARG:NH2	2.44	0.50
1:1A:1911:PSU:C2	1:1A:1918:A:C4	2.96	0.50
32:1a:1442:G:O2'	32:1a:1442(A):G:O5'	2.27	0.50
32:1a:1519:MA6:H8	32:1a:1519:MA6:O5'	2.11	0.50
33:1b:9:GLU:HG3	33:1b:217:ARG:HH22	1.75	0.50
35:1d:57:ARG:NH2	36:1e:107:ARG:HH11	2.10	0.50
1:2A:817:C:O2'	1:2A:839:U:H5''	2.11	0.50
1:2A:1027:A:C2	1:2A:2488:A:H5'	2.46	0.50
10:2O:36:GLY:HA3	10:2O:109:LYS:HD2	1.92	0.50
12:2Q:54:MET:HG2	12:2Q:117:ALA:HB1	1.93	0.50
32:2a:1014:A:C2	32:2a:1219:U:H1'	2.46	0.50
32:2a:1067:A:O2'	32:2a:1068:G:OP2	2.25	0.50
1:1A:271(Z):C:H1'	1:1A:272(C):G:H1'	1.92	0.50
1:1A:1794:U:H2'	1:1A:1795:C:H6	1.75	0.50
6:1G:179:PRO:HG3	26:14:43:TYR:OH	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:1X:29:TRP:CE3	19:1X:78:LYS:HB3	2.46	0.50
24:12:35:LEU:HD12	24:12:53:LEU:HD12	1.93	0.50
32:1a:1511:G:H2'	32:1a:1512:U:O4'	2.11	0.50
37:1f:100:ASN:ND2	48:1r:26:LEU:O	2.44	0.50
39:1h:6:ILE:HB	39:1h:85:ARG:NH1	2.26	0.50
39:1h:14:ARG:HH11	39:1h:83:ILE:HG23	1.76	0.50
40:1i:16:ARG:HH11	40:1i:64:THR:HG21	1.76	0.50
47:1p:53:VAL:HG13	47:1p:79:VAL:HG12	1.92	0.50
1:2A:530:G:N1	1:2A:2023:G:OP1	2.43	0.50
1:2A:1567:A:OP2	3:2D:84:TYR:OH	2.24	0.50
1:2A:2375:G:O2'	1:2A:2377:A:N7	2.34	0.50
2:2B:37:C:O2	14:2S:95:HIS:NE2	2.44	0.50
9:2N:58:ASP:OD1	9:2N:58:ASP:N	2.44	0.50
13:2R:79:LEU:HA	13:2R:83:ILE:HD12	1.93	0.50
32:2a:921:U:O2	36:2e:19:MET:HB2	2.11	0.50
32:2a:985:C:H2'	32:2a:986:A:C8	2.46	0.50
32:2a:1342:C:H2'	32:2a:1343:G:H8	1.75	0.50
32:2a:1512:U:H2'	32:2a:1513:A:C8	2.46	0.50
44:2m:78:ILE:HA	44:2m:81:LEU:HD12	1.91	0.50
1:1A:1266:G:O2'	1:1A:2012:G:O6	2.21	0.50
32:1a:537:G:H5''	43:1l:113:ARG:NH1	2.26	0.50
32:1a:923:A:H2'	32:1a:924:C:C6	2.46	0.50
32:1a:1206:G:H2'	32:1a:1207:2MG:O4'	2.11	0.50
32:1a:1277:C:O2'	32:1a:1279:A:H1'	2.11	0.50
34:1c:17:ASP:OD1	34:1c:18:TRP:N	2.44	0.50
2:2B:13:A:N1	2:2B:69:G:O2'	2.42	0.50
15:2T:41:ARG:NH2	32:2a:346:G:OP1	2.37	0.50
32:2a:335:C:H2'	32:2a:336:C:H6	1.76	0.50
35:2d:15:GLU:OE2	35:2d:59:ARG:NH1	2.44	0.50
48:2r:58:LEU:HB3	48:2r:62:GLU:HG3	1.94	0.50
1:1A:330:A:H2	1:1A:1210:A:HO2'	1.57	0.50
1:1A:1114:G:H2'	1:1A:1115:G:H8	1.75	0.50
1:1A:1664:A:O2'	10:1O:67:LYS:NZ	2.42	0.50
10:1O:22:ILE:HD11	10:1O:40:VAL:HG12	1.93	0.50
10:1O:105:GLU:OE1	10:1O:105:GLU:N	2.42	0.50
20:1Y:99:CYS:SG	20:1Y:100:ALA:N	2.85	0.50
1:2A:566:U:H5''	11:2P:29:LYS:HE3	1.94	0.50
1:2A:1365:A:O5'	23:21:41:ARG:NH2	2.44	0.50
1:2A:1847:A:H3'	1:2A:1848:A:H5'	1.94	0.50
1:2A:1889:A:H2'	1:2A:1890:A:C8	2.47	0.50
32:2a:325:A:H2'	32:2a:326:G:O4'	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:2h:20:TYR:HA	39:2h:65:TYR:CZ	2.46	0.50
1:1A:1009:A:OP2	9:1N:37:LYS:NZ	2.36	0.50
23:11:3:LYS:HG3	23:11:4:VAL:H	1.76	0.50
32:1a:976:G:OP2	32:1a:1358:U:O2'	2.26	0.50
33:1b:16:HIS:HB3	33:1b:210:SER:HB2	1.94	0.50
1:2A:210:C:H4'	1:2A:1367:A:H1'	1.93	0.50
1:2A:586:A:N1	1:2A:809:G:O2'	2.39	0.50
1:2A:876:C:H2'	1:2A:877:U:O4'	2.12	0.50
13:2R:95:THR:HG22	13:2R:116:LEU:HD23	1.94	0.50
32:2a:189(B):C:H2'	32:2a:189(C):C:C6	2.45	0.50
32:2a:1063:C:OP2	32:2a:1064:G:O2'	2.28	0.50
32:2a:1287:A:C2	32:2a:1353:G:H1'	2.44	0.50
32:2a:1368:G:OP2	40:2i:112:LYS:HG3	2.10	0.50
38:2g:78:ARG:HG2	38:2g:80:VAL:HG23	1.94	0.50
1:1A:189:G:O6	1:1A:205:G:O2'	2.24	0.50
1:1A:1022:G:N7	9:1N:66:LYS:HE2	2.26	0.50
1:1A:2836:U:H2'	1:1A:2837:G:C8	2.47	0.50
6:1G:16:ARG:HB2	6:1G:17:PRO:HD3	1.93	0.50
15:1T:55:ASN:N	15:1T:59:THR:HG22	2.22	0.50
48:1r:32:ARG:HA	48:1r:69:THR:HG21	1.94	0.50
5:2F:46:ARG:HB3	5:2F:48:THR:HG23	1.93	0.50
7:2H:144:VAL:O	7:2H:148:ILE:HG12	2.12	0.50
13:2R:103:ARG:NH1	13:2R:108:GLY:O	2.42	0.50
19:2X:26:TYR:HB3	19:2X:92:LEU:HD22	1.94	0.50
3:1D:108:PRO:HD2	3:1D:111:LEU:HD12	1.94	0.50
8:1I:72:LEU:C	8:1I:74:ASN:H	2.20	0.50
32:1a:48:C:O2	58:1a:1908:HOH:O	2.19	0.50
32:1a:600:C:H2'	32:1a:601:C:C6	2.47	0.50
32:1a:1186:G:H21	45:1n:61:TRP:C	2.20	0.50
32:1a:1391:U:H2'	32:1a:1392:G:C8	2.47	0.50
1:2A:790:C:OP2	58:2A:3761:HOH:O	2.20	0.50
1:2A:1899:G:H2'	1:2A:1899:G:N3	2.27	0.50
15:2T:53:ARG:O	15:2T:59:THR:HG23	2.11	0.50
1:1A:1889:A:H2'	1:1A:1890:A:C8	2.47	0.50
19:1X:44:GLU:HG2	19:1X:51:VAL:HG23	1.93	0.50
32:1a:320:C:H2'	32:1a:321:A:C8	2.47	0.50
32:1a:501:C:H2'	32:1a:502:G:C8	2.46	0.50
33:1b:88:ALA:O	33:1b:226:ARG:NH2	2.45	0.50
1:2A:1025:G:O2'	58:2A:3756:HOH:O	2.20	0.50
1:2A:2502:G:OP2	58:2A:3754:HOH:O	2.19	0.50
5:2F:158:THR:O	5:2F:164:ARG:NH1	2.39	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:28:62:LEU:HB3	30:28:65:GLU:HG3	1.94	0.50
32:2a:1001:A:H2'	32:2a:1001(A):G:C8	2.46	0.50
49:2s:41:VAL:HG13	49:2s:43:GLU:H	1.76	0.50
1:1A:1482:G:H1	1:1A:1506:C:H42	1.60	0.49
2:1B:22:U:H2'	2:1B:23:G:C8	2.46	0.49
4:1E:34:VAL:HG23	4:1E:48:GLN:HE21	1.77	0.49
1:2A:270:A:OP2	1:2A:271(X):G:N1	2.36	0.49
1:2A:668:G:H5'	1:2A:669:G:OP2	2.12	0.49
1:2A:1525:G:H2'	1:2A:1526:G:C8	2.46	0.49
10:2O:34:THR:OG1	10:2O:35:VAL:N	2.45	0.49
21:2Z:28:MET:HE1	21:2Z:61:LEU:HD11	1.94	0.49
32:2a:1431:C:H2'	32:2a:1432:G:O4'	2.12	0.49
1:1A:2023:G:H5'	1:1A:2617:C:H4'	1.95	0.49
1:1A:2227:A:OP2	58:1A:4067:HOH:O	2.20	0.49
1:1A:2784:C:H1'	4:1E:37:ARG:HH12	1.77	0.49
32:1a:337:C:H2'	32:1a:338:A:C8	2.47	0.49
32:1a:1047:G:O2'	32:1a:1215:G:O2'	2.28	0.49
1:2A:1248:G:C5	16:2U:3:ARG:HB2	2.48	0.49
1:2A:1856:G:O6	58:2A:3762:HOH:O	2.20	0.49
32:2a:166:G:H2'	32:2a:167:G:H8	1.76	0.49
32:2a:539:A:H2'	32:2a:540:G:H8	1.77	0.49
32:2a:683:G:H2'	32:2a:684:A:C8	2.47	0.49
39:2h:110:ALA:HB3	39:2h:121:ASP:HB3	1.94	0.49
1:1A:1803:A:O2'	3:1D:259:THR:HG21	2.12	0.49
9:1N:62:VAL:HG22	9:1N:66:LYS:HD2	1.93	0.49
20:1Y:56:PRO:C	20:1Y:58:GLY:H	2.19	0.49
1:2A:1779:U:OP2	58:2A:3760:HOH:O	2.20	0.49
1:2A:2022:U:O2'	1:2A:2617:C:H5'	2.12	0.49
12:2Q:39:PRO:HD3	12:2Q:99:PRO:HG3	1.94	0.49
13:2R:70:LEU:O	13:2R:72:ASP:N	2.44	0.49
32:2a:567:G:N2	58:2a:1843:HOH:O	2.43	0.49
32:2a:610:G:C4	32:2a:611:A:C8	3.00	0.49
32:2a:1442:G:H2'	32:2a:1442:G:N3	2.27	0.49
1:1A:2038:G:O6	58:1A:4056:HOH:O	2.19	0.49
5:1F:164:ARG:HE	55:1F:303:ARG:HH12	1.59	0.49
18:1W:9:TYR:H	18:1W:102:HIS:CE1	2.31	0.49
20:1Y:9:LYS:HA	20:1Y:27:VAL:HB	1.94	0.49
22:10:53:MET:HG3	22:10:59:LEU:HD12	1.95	0.49
24:12:1:MET:HE3	24:12:6:VAL:HG22	1.94	0.49
29:17:24:THR:HG23	29:17:27:GLY:H	1.77	0.49
35:1d:147:ALA:HA	35:1d:182:LYS:HA	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:1j:5:ARG:HE	41:1j:73:ASP:CG	2.19	0.49
52:1y:71:TYR:HA	52:1y:74:ILE:HD12	1.94	0.49
1:2A:441:U:H2'	1:2A:442:G:C8	2.46	0.49
8:2I:77:LEU:HD13	8:2I:101:LEU:HD23	1.94	0.49
11:2P:126:VAL:HG12	11:2P:148:LEU:HD23	1.94	0.49
12:2Q:41:TRP:HB3	12:2Q:94:VAL:HB	1.93	0.49
32:2a:194:C:H2'	32:2a:195:A:H5''	1.94	0.49
1:1A:1912:A:C5	1:1A:1918:A:C2	3.01	0.49
1:1A:2464:C:O2'	58:1A:4062:HOH:O	2.19	0.49
3:1D:130:ALA:HA	3:1D:191:ALA:O	2.12	0.49
6:1G:98:ARG:NH1	26:14:1:MET:SD	2.86	0.49
7:1H:101:ARG:HG2	7:1H:117:PRO:HG2	1.94	0.49
20:1Y:10:GLY:HA2	20:1Y:27:VAL:HB	1.94	0.49
32:1a:1399:C:H4'	32:1a:1400:5MC:H5''	1.94	0.49
1:2A:1911:PSU:N3	1:2A:1918:A:C4	2.81	0.49
1:2A:1916:A:H2'	1:2A:1917:PSU:O4'	2.13	0.49
2:2B:75:G:O3'	21:2Z:10:ARG:NH2	2.45	0.49
5:2F:101:LEU:HD12	5:2F:102:PRO:HD2	1.95	0.49
18:2W:18:ARG:NH1	18:2W:76:VAL:O	2.45	0.49
29:27:30:VAL:HG22	29:27:33:ARG:HH22	1.76	0.49
32:2a:67:C:H2'	32:2a:68:G:C8	2.47	0.49
35:2d:200:GLU:OE1	35:2d:200:GLU:N	2.42	0.49
1:1A:535:C:O3'	16:1U:53:ARG:NH1	2.45	0.49
5:1F:117:ARG:NH2	5:1F:189:THR:O	2.43	0.49
16:1U:97:ASP:O	16:1U:101:ARG:HB2	2.12	0.49
32:1a:345:C:H5'	32:1a:346:G:C5	2.48	0.49
32:1a:501:C:H1'	32:1a:549:C:H1'	1.94	0.49
1:2A:397:G:N7	58:2A:3888:HOH:O	2.35	0.49
1:2A:889:C:O2'	1:2A:890:A:O5'	2.21	0.49
3:2D:260:ARG:NH1	3:2D:267:SER:OG	2.40	0.49
5:2F:24:LEU:HD23	5:2F:115:ALA:HA	1.94	0.49
12:2Q:55:VAL:HG11	21:2Z:183:LEU:HD21	1.95	0.49
18:2W:6:ILE:HG22	18:2W:8:ARG:HG3	1.94	0.49
32:2a:160:A:H2'	32:2a:161:A:C8	2.48	0.49
32:2a:737:A:H5''	37:2f:92:LYS:HG3	1.94	0.49
32:2a:1238:A:H2	32:2a:1241:G:N3	2.11	0.49
41:2j:62:HIS:HB3	45:2n:59:ALA:HB3	1.94	0.49
51:2u:12:LYS:O	51:2u:16:GLY:N	2.42	0.49
1:1A:483:A:O2'	20:1Y:49:VAL:O	2.22	0.49
1:1A:1178:C:H2'	1:1A:1179:C:C6	2.47	0.49
1:1A:1407:C:H2'	1:1A:1408:C:H6	1.76	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2887:U:H2'	1:1A:2888:C:C6	2.48	0.49
2:1B:48:A:H4'	14:1S:95:HIS:HD2	1.77	0.49
3:1D:71:ASP:HB3	3:1D:103:ARG:HH22	1.78	0.49
32:1a:96:U:H2'	32:1a:97:G:H8	1.77	0.49
32:1a:1027:C:H2'	32:1a:1028:C:C5	2.48	0.49
40:1i:50:LEU:HD13	40:1i:56:LEU:HA	1.94	0.49
47:1p:27:LYS:HG3	47:1p:30:GLY:HA3	1.95	0.49
1:2A:299:A:N1	1:2A:322:A:O2'	2.43	0.49
1:2A:2313:C:H5''	6:2G:91:ARG:HD3	1.94	0.49
4:2E:4:ILE:HD13	4:2E:28:ALA:HB1	1.94	0.49
12:2Q:30:GLY:HA2	12:2Q:107:ALA:HB2	1.95	0.49
32:2a:1244:C:H2'	32:2a:1245:A:H8	1.78	0.49
39:2h:20:TYR:HE2	39:2h:75:ARG:HD2	1.78	0.49
1:1A:615:G:OP1	5:1F:40:GLN:NE2	2.43	0.49
6:1G:139:LEU:HD21	6:1G:149:VAL:HG11	1.93	0.49
15:1T:24:PRO:HD3	15:1T:52:ILE:HD12	1.94	0.49
18:1W:46:PHE:O	18:1W:50:VAL:HG23	2.13	0.49
32:1a:299:G:H2'	32:1a:300:A:C8	2.48	0.49
32:1a:714:G:H2'	32:1a:715:A:C8	2.48	0.49
1:2A:1155:A:H5''	16:2U:55:ARG:HD3	1.94	0.49
1:2A:2659:G:N2	1:2A:2662:A:OP2	2.43	0.49
1:2A:2849:U:H4'	1:2A:2868:A:C2	2.48	0.49
18:2W:6:ILE:HG12	18:2W:104:THR:HG23	1.95	0.49
32:2a:222:U:H2'	32:2a:223:U:C6	2.48	0.49
32:2a:574:A:OP2	58:2a:1809:HOH:O	2.20	0.49
34:2c:121:ALA:HB1	34:2c:189:ALA:HB2	1.95	0.49
37:2f:35:ALA:HB2	37:2f:67:MET:HE2	1.95	0.49
41:2j:6:ILE:HB	41:2j:72:VAL:HG23	1.94	0.49
1:1A:271(E):U:H2'	1:1A:271(F):C:C6	2.48	0.49
1:1A:1334:G:OP2	58:1A:4068:HOH:O	2.20	0.49
1:1A:1608:A:H1'	1:1A:1610:A:OP2	2.12	0.49
1:1A:2096:U:H2'	1:1A:2097:C:C6	2.48	0.49
18:1W:57:ASN:O	18:1W:61:ASN:HB2	2.11	0.49
32:1a:506:G:OP1	58:1a:1907:HOH:O	2.19	0.49
41:1j:49:VAL:HG23	45:1n:41:ARG:HB2	1.94	0.49
1:2A:95:G:H4'	24:22:46:GLN:HA	1.93	0.49
1:2A:1939:5MU:OP1	1:2A:2604:U:O2'	2.30	0.49
1:2A:2787:C:H1'	4:2E:62:PRO:HG3	1.95	0.49
5:2F:101:LEU:HD23	5:2F:106:ARG:HG2	1.95	0.49
20:2Y:6:HIS:CD2	20:2Y:7:VAL:HG23	2.48	0.49
32:2a:65:U:H4'	32:2a:66:G:O5'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1060:C:O2'	41:2j:56:HIS:ND1	2.38	0.49
34:2c:11:ARG:HB3	34:2c:15:THR:HB	1.94	0.49
47:2p:42:ARG:HH21	47:2p:44:THR:HG21	1.78	0.49
1:1A:1292:U:H2'	1:1A:1293:C:C6	2.48	0.49
1:1A:1452:A:OP2	58:1A:4063:HOH:O	2.19	0.49
1:1A:2313:C:H5''	6:1G:91:ARG:HD3	1.94	0.49
1:1A:2334:G:H5'	14:1S:9:ARG:HG2	1.95	0.49
4:1E:109:LYS:O	4:1E:111:ARG:NH1	2.45	0.49
8:1I:68:LEU:HD21	8:1I:109:ILE:HD11	1.94	0.49
32:1a:41:G:H2'	32:1a:42:G:H8	1.78	0.49
32:1a:1239:A:O2'	38:1g:114:ARG:O	2.20	0.49
37:1f:26:ILE:O	37:1f:30:LEU:HG	2.13	0.49
1:2A:189:G:H1	1:2A:205:G:HO2'	1.61	0.49
1:2A:2171:A:H4'	1:2A:2172:U:OP1	2.10	0.49
6:2G:72:ARG:HG2	6:2G:87:PRO:HA	1.94	0.49
34:2c:180:ALA:HB1	34:2c:203:PHE:HE1	1.76	0.49
47:2p:1:MET:HG3	47:2p:3:LYS:HG3	1.95	0.49
1:1A:571:A:O2'	17:1V:78:LYS:HE2	2.13	0.48
1:1A:897:C:H2'	1:1A:898:C:C6	2.48	0.48
1:1A:1113:U:H2'	1:1A:1114:G:C8	2.48	0.48
1:1A:2312:U:H5'	6:1G:88:ILE:HD11	1.95	0.48
1:1A:2328:A:H2'	1:1A:2329:G:C8	2.47	0.48
3:1D:10:THR:OG1	3:1D:13:ARG:HG2	2.13	0.48
4:1E:101:ARG:HB3	4:1E:201:THR:HG21	1.95	0.48
7:1H:84:SER:HA	7:1H:133:VAL:O	2.13	0.48
15:1T:9:LEU:O	15:1T:12:SER:OG	2.25	0.48
31:19:15:LYS:HG2	31:19:17:ILE:HD11	1.95	0.48
32:1a:34:C:H2'	32:1a:35:G:C8	2.45	0.48
32:1a:486:U:H2'	32:1a:487:A:H8	1.78	0.48
32:1a:1406:U:O2	32:1a:1517:G:N2	2.43	0.48
1:2A:77:C:H42	1:2A:109:G:H1	1.61	0.48
1:2A:806:C:O2	1:2A:2444:G:O2'	2.29	0.48
1:2A:1827:C:O2'	1:2A:1970:A:N3	2.34	0.48
18:2W:35:ILE:O	18:2W:39:THR:OG1	2.25	0.48
32:2a:189(K):U:H2'	32:2a:189(L):G:C8	2.46	0.48
32:2a:537:G:H5''	43:2l:113:ARG:NH1	2.28	0.48
32:2a:1301:U:O2'	32:2a:1302:U:H5'	2.13	0.48
1:1A:686:G:N2	1:1A:788:A:H61	2.10	0.48
1:1A:1025:G:C4	1:1A:1135:C:H1'	2.48	0.48
1:1A:1203:G:O2'	1:1A:1242:A:N6	2.45	0.48
32:1a:62:U:OP1	32:1a:385:C:O2'	2.30	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:401:C:O2'	32:1a:621:A:N3	2.44	0.48
1:2A:822:U:H2'	1:2A:823:G:C8	2.46	0.48
1:2A:1670:C:OP1	58:2A:3765:HOH:O	2.20	0.48
1:2A:2705:A:N7	58:2A:3877:HOH:O	2.34	0.48
6:2G:145:THR:HG22	6:2G:148:MET:HE3	1.94	0.48
10:2O:115:VAL:HG13	10:2O:121:VAL:HG21	1.95	0.48
32:2a:255:G:H2'	32:2a:256:U:C6	2.46	0.48
1:1A:142:A:N1	1:1A:1595:G:O2'	2.44	0.48
1:1A:833:U:O2	11:1P:55:ARG:NH1	2.46	0.48
1:1A:889:C:O2'	1:1A:890:A:O4'	2.31	0.48
7:1H:3:ARG:HB3	7:1H:6:ARG:HG2	1.95	0.48
7:1H:27:LYS:HG2	7:1H:32:GLU:HG2	1.95	0.48
21:1Z:95:PRO:HA	21:1Z:129:SER:HA	1.95	0.48
32:1a:757:U:O2'	32:1a:879:C:O2	2.31	0.48
32:1a:996:A:H2'	32:1a:997:U:C6	2.48	0.48
1:2A:265:A:N1	1:2A:427:U:O2'	2.40	0.48
1:2A:630:G:N2	1:2A:633:A:OP2	2.33	0.48
8:2I:101:LEU:O	8:2I:106:GLY:N	2.45	0.48
32:2a:384:G:H2'	32:2a:385:C:H6	1.78	0.48
32:2a:1015:A:H2'	32:2a:1016:A:C8	2.48	0.48
1:1A:911:A:H2'	12:1Q:9:TYR:OH	2.13	0.48
1:1A:1981:A:OP1	58:1A:4058:HOH:O	2.19	0.48
1:1A:2445:G:OP2	58:1A:4066:HOH:O	2.20	0.48
3:1D:146:GLU:HG2	3:1D:152:GLY:C	2.38	0.48
5:1F:178:PRO:HB2	5:1F:201:VAL:HG21	1.96	0.48
17:1V:72:VAL:HG13	17:1V:85:LYS:HB3	1.95	0.48
32:1a:21:G:OP1	58:1a:1909:HOH:O	2.20	0.48
32:1a:262:A:H2'	32:1a:263:A:C8	2.48	0.48
32:1a:1373:G:H5''	38:1g:36:LYS:HE2	1.95	0.48
1:2A:78:A:H2'	1:2A:79:G:H8	1.79	0.48
1:2A:1153:C:OP1	16:2U:92:ARG:NH2	2.44	0.48
1:2A:2243:U:OP1	58:2A:3759:HOH:O	2.20	0.48
1:2A:2576:G:O2'	58:2A:3755:HOH:O	2.20	0.48
10:2O:68:GLU:HB3	10:2O:78:ARG:HB2	1.96	0.48
26:24:46:GLN:O	26:24:48:ARG:N	2.40	0.48
33:2b:84:GLU:HG3	33:2b:215:LEU:HB3	1.94	0.48
35:2d:13:ARG:HG2	35:2d:39:PRO:HA	1.94	0.48
1:1A:675:A:OP1	5:1F:63:LYS:NZ	2.45	0.48
1:1A:1022:G:N2	1:1A:1023:U:O4	2.33	0.48
5:1F:157:VAL:HB	5:1F:194:MET:HG2	1.94	0.48
7:1H:117:PRO:HG3	7:1H:123:PHE:CD2	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:1Q:125:LEU:HD12	12:1Q:129:THR:HG21	1.96	0.48
14:1S:65:VAL:O	14:1S:69:VAL:HG13	2.12	0.48
32:1a:376:G:H2'	32:1a:377:G:C8	2.48	0.48
32:1a:1329:A:N7	51:1u:7:ARG:NH2	2.61	0.48
45:1n:24:CYS:HB3	45:1n:28:GLY:H	1.77	0.48
1:2A:1359:A:N3	1:2A:1359:A:H5'	2.28	0.48
1:2A:1818:U:O2'	3:2D:154:LYS:O	2.17	0.48
2:2B:105:A:O2'	21:2Z:30:ASN:O	2.29	0.48
32:2a:926:G:C6	52:2y:87:LYS:HG3	2.48	0.48
1:1A:299:A:N1	1:1A:322:A:O2'	2.33	0.48
1:1A:1750:G:O2'	1:1A:2860:A:N1	2.36	0.48
32:1a:1074:G:O2'	32:1a:1101:A:N1	2.43	0.48
1:2A:563:G:H22	1:2A:578:A:H2	1.62	0.48
1:2A:579:G:O2'	1:2A:2019:A:OP1	2.24	0.48
1:2A:729:G:C5	3:2D:208:LYS:HB2	2.49	0.48
1:2A:2206:G:H5''	1:2A:2207:G:N7	2.29	0.48
1:2A:2552:OMU:H6	1:2A:2552:OMU:O5'	2.13	0.48
4:2E:26:ILE:HD11	4:2E:188:VAL:HG21	1.96	0.48
32:2a:966:M2G:HM22	32:2a:967:5MC:O2	2.14	0.48
1:1A:1996:C:H4'	1:1A:1997:G:OP1	2.14	0.48
1:1A:2377:A:H2'	1:1A:2378:A:C8	2.48	0.48
6:1G:131:TYR:HB3	6:1G:159:VAL:HG13	1.95	0.48
13:1R:67:LEU:HD13	13:1R:76:VAL:HG21	1.96	0.48
32:1a:96:U:H2'	32:1a:97:G:C8	2.49	0.48
32:1a:1048:G:OP1	45:1n:3:ARG:HB3	2.13	0.48
32:1a:1323:G:H2'	32:1a:1324:A:C8	2.48	0.48
32:1a:1376:U:H2'	32:1a:1377:A:C8	2.49	0.48
32:1a:1458:G:OP1	50:1t:35:THR:OG1	2.24	0.48
43:1l:56:ALA:HB3	43:1l:100:ILE:HD11	1.94	0.48
1:2A:903:C:H2'	1:2A:904:C:C6	2.49	0.48
1:2A:1798:U:H5'	3:2D:259:THR:HG22	1.94	0.48
1:2A:2683:C:O2	10:2O:70:LYS:NZ	2.38	0.48
4:2E:34:VAL:HG12	4:2E:72:VAL:HG11	1.95	0.48
32:2a:719:C:O2'	48:2r:49:LYS:HB3	2.13	0.48
32:2a:895:G:H2'	32:2a:896:C:C6	2.47	0.48
32:2a:1172:C:H2'	32:2a:1173:G:H8	1.77	0.48
38:2g:79:ARG:HA	38:2g:84:ASN:HA	1.95	0.48
43:2l:86:ARG:HG2	43:2l:101:VAL:HG22	1.96	0.48
1:1A:483:A:H5''	20:1Y:50:ARG:HD3	1.95	0.48
1:1A:1114:G:H2'	1:1A:1115:G:C8	2.49	0.48
1:1A:2031:A:C6	1:1A:2498:C:H1'	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2712:U:OP1	1:1A:2714:G:H4'	2.13	0.48
3:1D:146:GLU:HB2	3:1D:189:CYS:HB3	1.95	0.48
7:1H:88:LEU:HD23	7:1H:130:ARG:HG3	1.96	0.48
19:1X:57:LEU:HD11	19:1X:78:LYS:HE2	1.96	0.48
32:1a:581:G:N1	32:1a:759:A:OP2	2.38	0.48
32:1a:1492:A:H4'	32:1a:1493:A:C6	2.48	0.48
38:1g:48:LYS:O	38:1g:52:GLU:HG2	2.14	0.48
1:2A:919:G:N2	1:2A:2269:A:OP2	2.46	0.48
1:2A:2128:C:H1'	1:2A:2173:A:H2	1.78	0.48
1:2A:2602:A:C1'	1:2A:2603:G:H5''	2.41	0.48
1:2A:2857:G:N2	1:2A:2860:A:OP2	2.39	0.48
7:2H:55:PRO:HG2	7:2H:61:HIS:ND1	2.28	0.48
26:24:53:GLU:H	26:24:53:GLU:CD	2.21	0.48
32:2a:70:G:H1	32:2a:99:U:H3	1.61	0.48
32:2a:376:G:H5''	47:2p:5:ARG:HD2	1.95	0.48
32:2a:869:G:O2'	32:2a:872:A:N7	2.40	0.48
36:2e:110:LEU:HD13	36:2e:118:ILE:HG21	1.94	0.48
1:1A:709:U:H2'	1:1A:710:G:C8	2.49	0.48
1:1A:747:U:H1'	18:1W:92:ARG:HH22	1.79	0.48
4:1E:34:VAL:HG21	4:1E:78:LEU:HD11	1.96	0.48
5:1F:18:ARG:NH1	5:1F:127:GLU:OE2	2.46	0.48
22:10:33:ALA:N	22:10:64:ASP:OD1	2.46	0.48
32:1a:678:U:H2'	32:1a:679:C:C6	2.48	0.48
32:1a:1499:A:O2'	32:1a:1520:G:H5'	2.14	0.48
33:1b:84:GLU:HB3	33:1b:219:VAL:HG21	1.96	0.48
34:1c:131:ARG:HH11	34:1c:166:GLU:HG3	1.79	0.48
45:1n:4:LYS:HG3	45:1n:7:ILE:HD11	1.96	0.48
45:1n:4:LYS:HA	45:1n:7:ILE:HG12	1.95	0.48
1:2A:1649:G:O2'	13:2R:107:ASP:OD2	2.30	0.48
1:2A:1821:A:H2'	1:2A:1822:G:C8	2.49	0.48
32:2a:458:C:H2'	32:2a:460:G:O4'	2.14	0.48
38:2g:50:ILE:HD11	38:2g:58:PRO:HA	1.96	0.48
1:1A:242:G:C8	30:18:5:LYS:HG2	2.49	0.48
1:1A:1047:G:H2'	1:1A:1110:G:H22	1.78	0.48
1:1A:1972:A:H2'	1:1A:1973:G:C8	2.45	0.48
4:1E:82:ARG:HG3	4:1E:83:ASP:N	2.27	0.48
15:1T:60:THR:HG22	15:1T:77:PRO:HA	1.95	0.48
35:1d:162:LEU:HD13	35:1d:181:MET:HG2	1.95	0.48
36:1e:78:HIS:ND1	36:1e:79:GLU:O	2.31	0.48
52:1y:52:ALA:HB2	52:1y:77:LEU:HD21	1.96	0.48
1:2A:539:G:H2'	1:2A:540:C:C6	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1028:A:N3	1:2A:2486:G:O2'	2.46	0.48
1:2A:1514:U:H2'	1:2A:1515:G:C8	2.49	0.48
32:2a:272:C:H2'	32:2a:273:A:C8	2.49	0.48
32:2a:1120:G:H2'	32:2a:1121:U:C6	2.48	0.48
32:2a:1355:G:H2'	32:2a:1356:G:H8	1.77	0.48
43:2l:117:ARG:HG2	43:2l:122:THR:HB	1.96	0.48
1:1A:1552:G:N7	58:1A:4193:HOH:O	2.35	0.47
1:1A:1773:A:OP2	58:1A:4061:HOH:O	2.19	0.47
1:1A:2119:A:H61	1:1A:2168:G:H21	1.61	0.47
1:1A:2495:G:H5''	12:1Q:82:ARG:HG2	1.96	0.47
1:1A:2575:C:OP2	58:1A:4072:HOH:O	2.20	0.47
3:1D:69:ARG:HE	3:1D:130:ALA:HB2	1.78	0.47
25:13:13:ILE:O	58:13:201:HOH:O	2.20	0.47
36:1e:40:ARG:NH2	36:1e:68:GLU:OE2	2.47	0.47
49:1s:41:VAL:HG13	49:1s:43:GLU:H	1.79	0.47
1:2A:538:G:H2'	1:2A:539:G:H8	1.79	0.47
1:2A:731:C:OP1	58:2A:3766:HOH:O	2.20	0.47
1:2A:1936:A:OP2	1:2A:1962:5MC:N4	2.40	0.47
4:2E:174:ASP:OD1	4:2E:175:VAL:N	2.47	0.47
32:2a:543:C:OP2	35:2d:10:ARG:NH2	2.45	0.47
32:2a:664:G:N2	32:2a:741:G:H1	2.06	0.47
32:2a:757:U:H2'	32:2a:758:G:O4'	2.14	0.47
32:2a:1090:U:H2'	32:2a:1091:U:C6	2.49	0.47
32:2a:1307:U:OP1	44:2m:101:GLN:NE2	2.45	0.47
32:2a:1428:A:H2'	32:2a:1429:C:C6	2.48	0.47
35:2d:173:TRP:CD1	35:2d:174:LEU:HG	2.49	0.47
35:2d:196:LEU:H	35:2d:196:LEU:HD12	1.79	0.47
1:1A:247:G:H4'	1:1A:386:G:C5	2.49	0.47
1:1A:858:U:O2	1:1A:2268:A:H2'	2.13	0.47
1:1A:2086:U:H2'	1:1A:2087:G:H8	1.78	0.47
32:1a:858:G:O6	32:1a:869:G:H3'	2.14	0.47
32:1a:973:G:H3'	32:1a:974:A:H5''	1.95	0.47
32:1a:1005:A:O2'	32:1a:1037:C:O2'	2.27	0.47
34:1c:124:ILE:HD12	34:1c:196:LEU:HD12	1.96	0.47
40:1i:36:TYR:OH	40:1i:73:GLN:NE2	2.44	0.47
1:2A:184:C:H2'	1:2A:185:U:C6	2.48	0.47
1:2A:578:A:OP2	58:2A:3767:HOH:O	2.20	0.47
1:2A:1509(A):A:H2'	1:2A:1510:G:O4'	2.14	0.47
1:2A:2529:G:H5''	1:2A:2530:A:H5''	1.96	0.47
16:2U:108:GLU:O	16:2U:112:ARG:HG2	2.14	0.47
32:2a:134:A:H1'	32:2a:325:A:C5	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1005:A:H1'	32:2a:1025:U:O2	2.14	0.47
39:2h:112:LEU:HA	39:2h:134:ILE:HG12	1.96	0.47
1:1A:151:C:H2'	1:1A:152:G:H8	1.79	0.47
1:1A:800:A:H8	1:1A:800:A:OP1	1.97	0.47
1:1A:1790:C:H5''	1:1A:1791:A:OP1	2.15	0.47
1:1A:2286:A:N6	28:16:23:THR:OG1	2.47	0.47
32:1a:407:G:O4'	35:1d:119:GLN:NE2	2.48	0.47
32:1a:1003:G:C2'	32:1a:1004:A:H4'	2.44	0.47
32:1a:1300:G:N7	58:1a:1954:HOH:O	2.35	0.47
37:1f:69:GLU:O	37:1f:72:VAL:HG12	2.15	0.47
1:2A:840:C:H2'	1:2A:841:A:C8	2.48	0.47
1:2A:942:G:OP2	11:2P:39:LYS:NZ	2.29	0.47
17:2V:1:MET:HE3	17:2V:40:LEU:HB3	1.95	0.47
32:2a:449:C:H2'	32:2a:450:G:O4'	2.14	0.47
32:2a:967:5MC:H2'	32:2a:968:A:C8	2.49	0.47
32:2a:1169:A:H2'	32:2a:1170:A:C8	2.49	0.47
40:2i:51:ARG:HG2	40:2i:56:LEU:HD21	1.96	0.47
43:2l:27:LEU:O	43:2l:33:ARG:NE	2.47	0.47
1:1A:679:C:OP1	58:1A:4059:HOH:O	2.19	0.47
1:1A:2140:C:H2'	1:1A:2141:G:H8	1.78	0.47
19:1X:43:VAL:HG21	19:1X:81:VAL:HG11	1.96	0.47
32:1a:56:U:H2'	32:1a:57:G:C8	2.43	0.47
32:1a:273:A:N7	58:1a:1955:HOH:O	2.36	0.47
32:1a:608:A:H4'	47:1p:32:TYR:OH	2.14	0.47
32:1a:945:G:C2	32:1a:946:A:C8	3.02	0.47
32:1a:1289:A:N1	32:1a:1371:G:O2'	2.41	0.47
1:2A:304:G:O6	58:2A:3758:HOH:O	2.20	0.47
1:2A:1541:G:O6	58:2A:3764:HOH:O	2.20	0.47
9:2N:53:VAL:HG22	9:2N:121:LYS:HB2	1.95	0.47
32:2a:324:G:N2	32:2a:326:G:H3'	2.30	0.47
34:2c:108:ASN:HD21	34:2c:144:SER:HB3	1.79	0.47
44:2m:92:HIS:CE1	44:2m:98:VAL:HG21	2.50	0.47
1:1A:690:G:O2'	3:1D:43:ARG:NH2	2.47	0.47
32:1a:161:A:N1	32:1a:347:G:O2'	2.43	0.47
32:1a:1346:A:OP1	40:1i:120:ARG:NH1	2.38	0.47
33:1b:28:PHE:CD1	33:1b:194:PRO:HG3	2.50	0.47
39:1h:104:ARG:C	39:1h:106:GLY:H	2.23	0.47
50:1t:57:ARG:HH22	50:1t:100:ILE:HD12	1.80	0.47
1:2A:385:C:O2'	1:2A:388:G:N2	2.47	0.47
1:2A:599:G:H4'	5:2F:31:HIS:HD2	1.79	0.47
1:2A:1365:A:O2'	23:21:11:ARG:NH2	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1568:G:P	3:2D:63:ARG:HH12	2.38	0.47
7:2H:137:ASP:HB3	7:2H:140:LYS:HB3	1.97	0.47
32:2a:1347:G:H22	32:2a:1374:A:P	2.37	0.47
44:2m:81:LEU:HD13	44:2m:88:ARG:HD2	1.96	0.47
1:1A:530:G:H4'	1:1A:531:C:OP1	2.14	0.47
1:1A:1171:G:H3'	1:1A:1173:G:H5'	1.96	0.47
1:1A:2008:C:OP2	58:1A:4073:HOH:O	2.21	0.47
16:1U:21:ALA:HA	16:1U:24:TYR:CE2	2.50	0.47
32:1a:690:G:C6	32:1a:691:G:C6	3.02	0.47
37:1f:50:TYR:OH	48:1r:74:ARG:O	2.32	0.47
1:2A:320:A:H4'	1:2A:322:A:N7	2.30	0.47
1:2A:1154:G:P	16:2U:58:ARG:HE	2.37	0.47
1:2A:1410:G:H2'	1:2A:1411:C:C6	2.49	0.47
1:2A:2142:C:H2'	1:2A:2143:C:C6	2.49	0.47
4:2E:52:LEU:HB3	4:2E:53:PRO:HD2	1.96	0.47
32:2a:288:A:H2'	32:2a:289:G:H4'	1.97	0.47
32:2a:1118:C:H1'	32:2a:1179:A:C4	2.49	0.47
33:2b:28:PHE:HD1	33:2b:194:PRO:HG3	1.80	0.47
1:1A:527:C:OP1	58:1A:4032:HOH:O	2.20	0.47
1:1A:579:G:O2'	1:1A:2019:A:OP1	2.25	0.47
1:1A:907:U:O2'	12:1Q:101:ARG:NH2	2.47	0.47
1:1A:1512:U:H2'	1:1A:1513:C:C6	2.50	0.47
1:1A:1779:U:OP2	1:1A:1784:A:N6	2.28	0.47
1:1A:2142:C:H2'	1:1A:2143:C:C6	2.50	0.47
1:1A:2319:G:H22	14:1S:3:ARG:CD	2.27	0.47
3:1D:158:ALA:O	3:1D:161:THR:OG1	2.29	0.47
10:1O:64:ARG:HB2	10:1O:79:PHE:CG	2.50	0.47
22:10:11:LYS:O	22:10:14:ARG:NH2	2.41	0.47
32:1a:73:G:H1	32:1a:96:U:H3	1.62	0.47
32:1a:1074:G:H2'	32:1a:1075:C:C6	2.50	0.47
32:1a:1314:C:H2'	32:1a:1315:U:H6	1.79	0.47
44:1m:17:VAL:O	44:1m:20:THR:OG1	2.26	0.47
1:2A:177:G:H3'	1:2A:178:G:C8	2.49	0.47
1:2A:1278:A:OP1	13:2R:36:THR:HG23	2.14	0.47
1:2A:2110:G:OP1	1:2A:2118:U:N3	2.42	0.47
1:2A:2758:A:C4	7:2H:67:LEU:HD21	2.49	0.47
1:2A:2849:U:OP2	15:2T:95:ARG:NH1	2.48	0.47
8:2I:50:ARG:O	8:2I:54:GLN:HG2	2.15	0.47
12:2Q:23:GLY:O	12:2Q:101:ARG:NH1	2.48	0.47
14:2S:15:ARG:O	14:2S:19:LYS:HG2	2.15	0.47
21:2Z:179:ASP:OD1	21:2Z:180:VAL:N	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:20:23:VAL:HG22	22:20:38:VAL:HG22	1.97	0.47
32:2a:434:U:H2'	32:2a:435:C:C6	2.49	0.47
32:2a:749:C:H2'	32:2a:750:G:H8	1.80	0.47
32:2a:964:A:OP1	58:2a:1808:HOH:O	2.20	0.47
32:2a:1244:C:H2'	32:2a:1245:A:C8	2.50	0.47
32:2a:1266:G:N2	32:2a:1269:A:OP2	2.31	0.47
33:2b:15:VAL:HB	33:2b:209:ARG:HB3	1.97	0.47
48:2r:32:ARG:HA	48:2r:69:THR:HG21	1.97	0.47
49:2s:30:LEU:HD11	49:2s:50:ALA:HB2	1.97	0.47
1:1A:24:G:O2'	18:1W:78:GLU:O	2.28	0.47
1:1A:1468:C:H2'	1:1A:1469:A:C8	2.50	0.47
1:1A:2345:G:N3	1:1A:2381:C:H2'	2.30	0.47
1:1A:2759:G:OP2	58:1A:4065:HOH:O	2.20	0.47
2:1B:22:U:H2'	2:1B:23:G:H8	1.80	0.47
4:1E:110:GLY:HA2	4:1E:161:GLY:HA3	1.97	0.47
4:1E:120:TRP:CD1	4:1E:155:LYS:HB3	2.50	0.47
18:1W:12:ILE:HD13	18:1W:17:VAL:HG13	1.97	0.47
23:11:18:ILE:HG12	23:11:37:ILE:HG12	1.97	0.47
27:15:49:CYS:SG	27:15:51:TYR:HB2	2.54	0.47
1:2A:1022:G:N7	9:2N:66:LYS:HE2	2.29	0.47
1:2A:1076:C:H4'	1:2A:1077:A:OP1	2.15	0.47
1:2A:2251:OMG:HM23	1:2A:2251:OMG:H1'	1.62	0.47
10:2O:120:GLU:OE1	15:2T:67:SER:OG	2.31	0.47
23:21:64:ALA:HA	23:21:67:ILE:HG13	1.97	0.47
32:2a:864:A:H2'	32:2a:865:A:C8	2.50	0.47
32:2a:1218:C:H2'	32:2a:1219:U:C6	2.50	0.47
32:2a:1525:G:H2'	32:2a:1526:G:H8	1.79	0.47
33:2b:16:HIS:HB2	33:2b:204:ASN:HB3	1.96	0.47
34:2c:131:ARG:HD3	34:2c:166:GLU:OE2	2.15	0.47
36:2e:33:VAL:HG13	36:2e:112:LEU:HD12	1.97	0.47
41:2j:7:LYS:HB3	41:2j:97:GLU:HB2	1.96	0.47
52:2y:7:SER:OG	52:2y:10:MET:O	2.28	0.47
1:1A:329:G:O4'	1:1A:477:A:H1'	2.15	0.47
1:1A:1040:C:H2'	1:1A:1041:C:O4'	2.15	0.47
1:1A:1336:A:H2'	1:1A:1337:G:H8	1.80	0.47
1:1A:2119:A:O2'	1:1A:2120:G:H5'	2.15	0.47
32:1a:1118:C:H1'	32:1a:1179:A:C4	2.50	0.47
32:1a:1466:C:H2'	32:1a:1467:G:O4'	2.15	0.47
33:1b:28:PHE:HD1	33:1b:194:PRO:HG3	1.78	0.47
33:1b:119:GLU:HG3	33:1b:153:ARG:HH22	1.79	0.47
1:2A:2115:G:N1	1:2A:2119:A:OP2	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2193:G:H2'	1:2A:2194:G:C8	2.50	0.47
1:2A:2243:U:H2'	1:2A:2244:U:C6	2.50	0.47
4:2E:116:VAL:HG13	4:2E:122:PHE:HB2	1.97	0.47
5:2F:148:LEU:HD13	5:2F:154:VAL:HG21	1.96	0.47
22:20:9:SER:OG	22:20:10:THR:N	2.48	0.47
32:2a:779:C:H2'	32:2a:780:A:O4'	2.14	0.47
32:2a:984:C:H2'	32:2a:985:C:C6	2.50	0.47
32:2a:1239:A:H62	32:2a:1299:A:H62	1.63	0.47
2:1B:25:A:OP2	58:1B:1102:HOH:O	2.21	0.47
3:1D:154:LYS:HB2	3:1D:155:LEU:HD12	1.97	0.47
7:1H:26:VAL:HG12	7:1H:79:VAL:HG21	1.96	0.47
23:11:69:LYS:O	23:11:72:GLU:HB3	2.15	0.47
32:1a:92:C:H2'	32:1a:93:G:C8	2.50	0.47
32:1a:583:A:H2'	32:1a:584:G:O4'	2.14	0.47
32:1a:1518:MA6:O5'	32:1a:1518:MA6:H8	2.15	0.47
1:2A:320:A:H4'	1:2A:322:A:C8	2.50	0.47
1:2A:342:G:O6	58:2A:3757:HOH:O	2.20	0.47
1:2A:779:U:OP1	3:2D:49:ILE:HG13	2.15	0.47
1:2A:2458:G:H21	1:2A:2459:A:N6	2.13	0.47
22:20:27:GLU:HB2	22:20:69:PHE:HD1	1.79	0.47
37:2f:70:ASP:OD1	37:2f:70:ASP:N	2.48	0.47
43:2l:112:ASP:N	43:2l:112:ASP:OD1	2.47	0.47
49:2s:22:LEU:O	49:2s:26:GLY:N	2.45	0.47
1:1A:731:C:OP1	58:1A:4071:HOH:O	2.20	0.46
1:1A:1056:G:H5''	1:1A:1057:A:O4'	2.14	0.46
1:1A:1199:U:H2'	1:1A:1200:C:C6	2.51	0.46
1:1A:1509:A:H2'	1:1A:1509(A):A:C8	2.50	0.46
5:1F:161:GLU:HG2	5:1F:164:ARG:NH2	2.29	0.46
8:1I:38:LEU:HD12	8:1I:38:LEU:HA	1.81	0.46
21:1Z:198:LYS:HD3	21:1Z:202:GLU:HB3	1.97	0.46
32:1a:662:G:H2'	32:1a:663:A:C8	2.49	0.46
32:1a:782:A:O3'	32:1a:1515:C:H4'	2.15	0.46
32:1a:953:G:O2'	52:1y:5:ILE:O	2.32	0.46
33:1b:71:VAL:HB	33:1b:164:VAL:HG22	1.96	0.46
35:1d:173:TRP:CD1	35:1d:173:TRP:H	2.32	0.46
1:2A:851:U:OP1	25:23:49:LYS:NZ	2.38	0.46
1:2A:990:A:N6	1:2A:1186:G:H1'	2.30	0.46
20:2Y:56:PRO:C	20:2Y:58:GLY:H	2.23	0.46
32:2a:174:C:H2'	32:2a:175:C:C6	2.51	0.46
32:2a:555:C:H2'	32:2a:556:C:C6	2.49	0.46
32:2a:714:G:H2'	32:2a:715:A:H8	1.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:926:G:O6	52:2y:87:LYS:NZ	2.41	0.46
1:1A:27:G:O2'	1:1A:28:A:OP2	2.32	0.46
1:1A:190:A:P	1:1A:205:G:H22	2.37	0.46
1:1A:1003:G:O2'	1:1A:1010:A:N1	2.45	0.46
1:1A:1971:A:C4	3:1D:241:PRO:HD3	2.50	0.46
10:1O:36:GLY:HA3	10:1O:109:LYS:HD2	1.97	0.46
19:1X:66:LEU:HD23	19:1X:66:LEU:HA	1.69	0.46
32:1a:377:G:H2'	32:1a:378:G:C8	2.50	0.46
32:1a:924:C:H2'	32:1a:925:G:C8	2.50	0.46
32:1a:1124:G:H5''	41:1j:35:SER:OG	2.15	0.46
39:1h:44:PHE:HD1	39:1h:80:ILE:HG12	1.79	0.46
42:1k:20:TYR:HB2	42:1k:31:THR:HG23	1.97	0.46
1:2A:2189:U:H2'	1:2A:2190:G:H8	1.80	0.46
1:2A:2469:A:H4'	12:2Q:56:ARG:HG2	1.97	0.46
9:2N:42:TRP:HA	9:2N:48:MET:SD	2.56	0.46
10:2O:71:ARG:HH22	10:2O:122:LEU:C	2.23	0.46
32:2a:289:G:OP2	58:2a:1810:HOH:O	2.20	0.46
32:2a:545:C:H5'	35:2d:72:GLU:HB2	1.97	0.46
32:2a:718:G:H5'	42:2k:117:ASN:OD1	2.16	0.46
32:2a:1172:C:H2'	32:2a:1173:G:C8	2.50	0.46
32:2a:1184:G:H2'	32:2a:1185:G:C8	2.49	0.46
32:2a:1496:C:H2'	32:2a:1497:G:C8	2.49	0.46
41:2j:38:ILE:HG12	41:2j:71:LEU:HB3	1.97	0.46
1:1A:972:G:OP2	1:1A:973:A:O2'	2.33	0.46
2:1B:91:C:OP2	12:1Q:16:ARG:NH1	2.49	0.46
3:1D:137:PRO:HG2	37:1f:81:ILE:HD11	1.96	0.46
12:1Q:116:GLU:OE2	12:1Q:119:ARG:NH2	2.43	0.46
19:1X:34:ALA:O	19:1X:77:LYS:NZ	2.48	0.46
21:1Z:91:LEU:HD23	21:1Z:130:PRO:HB3	1.96	0.46
32:1a:159:G:N2	32:1a:162:A:OP2	2.45	0.46
32:1a:922:G:H2'	32:1a:923:A:C8	2.50	0.46
35:1d:11:LEU:HD23	35:1d:66:ARG:HB3	1.98	0.46
1:2A:397:G:H5''	23:21:45:ASN:HB2	1.97	0.46
5:2F:39:TRP:NE1	5:2F:99:TYR:O	2.47	0.46
15:2T:60:THR:HG22	15:2T:77:PRO:HA	1.96	0.46
26:24:40:HIS:O	26:24:44:THR:HG22	2.14	0.46
26:24:41:PRO:HG3	26:24:49:PHE:CE2	2.50	0.46
32:2a:192:U:H2'	32:2a:193:C:C6	2.51	0.46
32:2a:1441:G:H4'	32:2a:1442:G:C2	2.50	0.46
1:1A:27:G:N2	1:1A:512:G:H1'	2.30	0.46
1:1A:251:A:C5	1:1A:252:G:H1'	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:793:A:OP2	1:1A:2071:A:O2'	2.32	0.46
1:1A:1023:U:O2'	1:1A:1122:G:H5'	2.16	0.46
1:1A:1927:A:H2'	1:1A:1928:A:C8	2.51	0.46
1:1A:2814:C:O2'	27:15:29:ILE:HG12	2.15	0.46
16:1U:92:ARG:HA	16:1U:95:LEU:HB2	1.96	0.46
32:1a:563:A:H2'	32:1a:567:G:C8	2.50	0.46
32:1a:1442:G:H2'	32:1a:1442:G:N3	2.30	0.46
39:1h:7:ALA:HB2	39:1h:85:ARG:HG3	1.95	0.46
1:2A:177:G:H3'	1:2A:178:G:H8	1.80	0.46
1:2A:956:G:H2'	1:2A:957:A:H2'	1.97	0.46
1:2A:1509:A:H2'	1:2A:1509(A):A:O4'	2.15	0.46
1:2A:2062:A:OP1	58:2A:3768:HOH:O	2.20	0.46
1:2A:2240:C:H2'	1:2A:2241:A:H8	1.80	0.46
2:2B:60:C:H2'	2:2B:61:G:H8	1.80	0.46
2:2B:83:G:H4'	25:23:52:HIS:CG	2.51	0.46
32:2a:69:G:H2'	32:2a:70:G:H8	1.81	0.46
32:2a:826:C:H2'	32:2a:827:U:C6	2.51	0.46
32:2a:1084:G:H5'	32:2a:1102:A:OP2	2.16	0.46
33:2b:69:LEU:HB3	33:2b:162:ILE:HG22	1.97	0.46
1:1A:1185:C:OP2	58:1A:4074:HOH:O	2.21	0.46
1:1A:1257:C:H4'	5:1F:83:PHE:CD1	2.51	0.46
4:1E:9:VAL:HG22	4:1E:25:VAL:HB	1.97	0.46
15:1T:112:ARG:HG2	15:1T:115:ARG:HH21	1.80	0.46
19:1X:60:ARG:NH1	29:17:47:ARG:HH22	2.14	0.46
21:1Z:30:ASN:C	21:1Z:32:HIS:H	2.23	0.46
21:1Z:54:HIS:ND1	21:1Z:101:PRO:HG3	2.31	0.46
22:10:15:ASP:OD1	22:10:16:SER:N	2.40	0.46
28:16:25:LYS:HE3	28:16:27:LYS:HA	1.96	0.46
32:1a:255:G:H2'	32:1a:256:U:C6	2.50	0.46
32:1a:736:C:O2'	37:1f:90:VAL:O	2.29	0.46
32:1a:1503:A:H5'	32:1a:1531:A:H1'	1.98	0.46
1:2A:595:C:H2'	1:2A:596:G:H8	1.81	0.46
1:2A:1224:C:O2'	17:2V:85:LYS:HA	2.15	0.46
1:2A:1580:A:H3'	1:2A:1581:G:H8	1.80	0.46
15:2T:1:MET:HE2	15:2T:3:ARG:HG2	1.98	0.46
25:23:8:LEU:HG	25:23:31:LEU:HD23	1.98	0.46
26:24:58:ARG:HD3	44:2m:80:ARG:NE	2.31	0.46
32:2a:301:G:H2'	32:2a:302:G:H8	1.81	0.46
32:2a:1320:C:O2	49:2s:36:ARG:NH2	2.48	0.46
32:2a:1412:C:H2'	32:2a:1413:A:C8	2.50	0.46
46:2o:25:THR:HG21	46:2o:70:LEU:HB2	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:2s:22:LEU:HB3	49:2s:27:GLU:HA	1.96	0.46
1:1A:184:C:H2'	1:1A:185:U:C6	2.51	0.46
1:1A:889:C:O2'	1:1A:890:A:O5'	2.33	0.46
1:1A:2241:A:N7	58:1A:4202:HOH:O	2.36	0.46
3:1D:16:MET:HG3	3:1D:206:LEU:O	2.16	0.46
21:1Z:99:TYR:HA	21:1Z:124:ILE:O	2.16	0.46
32:1a:624:C:H2'	32:1a:625:G:C8	2.50	0.46
1:2A:11:G:H2'	1:2A:12:U:H5'	1.98	0.46
1:2A:335:C:H4'	20:2Y:73:ARG:HD2	1.97	0.46
1:2A:1686:C:H2'	1:2A:1687:G:O4'	2.15	0.46
1:2A:2218:U:O2	23:21:52:ARG:NH1	2.49	0.46
1:2A:2752:C:OP2	7:2H:4:ILE:HD11	2.15	0.46
20:2Y:102:CYS:SG	20:2Y:103:GLY:N	2.89	0.46
32:2a:192:U:H2'	32:2a:193:C:H6	1.80	0.46
32:2a:651:C:H2'	32:2a:652:U:C6	2.50	0.46
32:2a:984:C:H2'	32:2a:985:C:H6	1.80	0.46
32:2a:1263:C:H2'	32:2a:1264:C:C6	2.50	0.46
1:1A:1230:C:H2'	1:1A:1231:G:C8	2.50	0.46
1:1A:1406:U:H2'	1:1A:1407:C:C6	2.50	0.46
1:1A:1475:G:O6	58:1A:4069:HOH:O	2.20	0.46
1:1A:2512:C:H2'	1:1A:2513:G:O4'	2.16	0.46
4:1E:178:GLU:H	4:1E:178:GLU:CD	2.22	0.46
18:1W:71:VAL:HA	18:1W:107:LEU:HD12	1.98	0.46
32:1a:919:A:O2'	32:1a:1080:A:N1	2.43	0.46
32:1a:1305:G:N2	32:1a:1331:G:H1'	2.31	0.46
37:1f:3:ARG:HD3	37:1f:64:GLN:HE21	1.79	0.46
38:1g:149:ARG:HD2	42:1k:59:TYR:CZ	2.50	0.46
43:1l:77:LEU:HD21	43:1l:107:ALA:HA	1.97	0.46
1:2A:839:U:O2'	1:2A:1191:G:N3	2.48	0.46
1:2A:971:C:H2'	1:2A:972:G:O4'	2.16	0.46
2:2B:22:U:H2'	2:2B:23:G:H8	1.79	0.46
4:2E:47:VAL:HG11	4:2E:86:PRO:HD2	1.97	0.46
23:21:40:ARG:NH2	23:21:42:GLN:HG2	2.31	0.46
23:21:77:ALA:HA	23:21:80:LEU:HD13	1.98	0.46
32:2a:405:U:O4	35:2d:2:GLY:N	2.48	0.46
32:2a:718:G:H4'	42:2k:117:ASN:HD21	1.81	0.46
32:2a:779:C:H5''	42:2k:122:LYS:HG2	1.97	0.46
32:2a:1226:C:OP2	44:2m:91:ARG:NH1	2.45	0.46
32:2a:1330:U:H4'	44:2m:23:TYR:CE2	2.50	0.46
49:2s:41:VAL:HG12	49:2s:44:MET:HG3	1.98	0.46
1:1A:336:C:O2'	20:1Y:35:TYR:OH	2.32	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1908:C:H2'	1:1A:1909:C:H6	1.81	0.46
21:1Z:33:LEU:HD11	21:1Z:90:VAL:HG21	1.97	0.46
23:11:40:ARG:NH2	23:11:42:GLN:HG2	2.30	0.46
32:1a:689:C:H2'	32:1a:690:G:O4'	2.16	0.46
32:1a:1069:C:OP2	58:1a:1910:HOH:O	2.21	0.46
32:1a:1131:G:OP1	40:1i:20:ARG:NH2	2.47	0.46
32:1a:1437:C:H2'	32:1a:1438:G:H8	1.81	0.46
1:2A:29:U:H2'	1:2A:30:G:C8	2.51	0.46
32:2a:266:G:O2'	32:2a:267:C:OP2	2.29	0.46
32:2a:337:C:H2'	32:2a:338:A:H8	1.80	0.46
32:2a:824:C:H2'	32:2a:825:G:H8	1.80	0.46
32:2a:1159:U:O4'	32:2a:1182:G:N2	2.49	0.46
37:2f:10:LEU:HD13	37:2f:61:LEU:HD13	1.97	0.46
37:2f:46:ARG:HB3	37:2f:60:PHE:CE2	2.51	0.46
47:2p:13:HIS:O	47:2p:42:ARG:NH1	2.49	0.46
1:1A:307:G:H21	1:1A:330:A:N6	2.13	0.46
1:1A:551:G:O2'	1:1A:1220:A:N3	2.42	0.46
1:1A:1357:U:H2'	1:1A:1358:G:O4'	2.16	0.46
3:1D:106:ILE:O	3:1D:108:PRO:HD3	2.16	0.46
3:1D:148:GLU:HB2	3:1D:151:LYS:HD2	1.97	0.46
4:1E:5:LEU:HD12	4:1E:51:PHE:HB2	1.98	0.46
4:1E:7:VAL:HG13	4:1E:27:LEU:HB3	1.97	0.46
8:1I:72:LEU:HD12	8:1I:138:ILE:HG21	1.97	0.46
32:1a:701:C:O2	32:1a:703:G:N1	2.48	0.46
46:1o:3:ILE:H	46:1o:3:ILE:HG13	1.48	0.46
1:2A:2224:G:H4'	1:2A:2226:C:C2	2.51	0.46
5:2F:132:VAL:HG21	5:2F:163:VAL:HG22	1.98	0.46
8:2I:14:ASP:OD1	8:2I:15:VAL:N	2.45	0.46
9:2N:15:LEU:HB2	9:2N:135:PRO:HB2	1.96	0.46
10:2O:9:GLU:O	10:2O:83:ALA:HA	2.15	0.46
18:2W:76:VAL:HG22	18:2W:103:ILE:HG12	1.98	0.46
32:2a:186:C:H5'	50:2t:78:ALA:HB1	1.97	0.46
32:2a:1352:C:H2'	32:2a:1353:G:C8	2.51	0.46
38:2g:105:VAL:O	38:2g:109:ASN:ND2	2.47	0.46
48:2r:53:ARG:NE	48:2r:58:LEU:O	2.47	0.46
1:1A:534:U:H5'	16:1U:42:ALA:HB1	1.98	0.46
28:16:12:GLU:O	28:16:49:HIS:HA	2.16	0.46
32:1a:1194:U:H4'	36:1e:22:GLY:O	2.16	0.46
1:2A:729:G:H2'	1:2A:1775:U:H1'	1.98	0.46
1:2A:856:C:H2'	1:2A:857:C:C6	2.51	0.46
1:2A:1165:U:H2'	1:2A:1166:C:C6	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:2I:130:TYR:CE2	8:2I:132:PRO:HB3	2.51	0.46
16:2U:46:ALA:O	16:2U:50:ARG:HG3	2.16	0.46
24:22:13:ALA:HA	24:22:16:LEU:HD12	1.98	0.46
32:2a:601:C:H2'	32:2a:602:A:H8	1.81	0.46
34:2c:8:ILE:HG12	34:2c:184:TYR:HB3	1.98	0.46
50:2t:56:MET:HG3	50:2t:84:LEU:HD22	1.97	0.46
1:1A:1278:A:H2'	1:1A:1279:G:H8	1.81	0.45
27:15:18:ALA:O	27:15:21:SER:HB3	2.16	0.45
32:1a:69:G:H2'	32:1a:70:G:H8	1.81	0.45
32:1a:181:G:N2	32:1a:182:U:O4	2.32	0.45
32:1a:294:U:H2'	32:1a:295:C:C6	2.51	0.45
32:1a:341:C:H2'	32:1a:342:C:C6	2.52	0.45
32:1a:678:U:H2'	32:1a:679:C:H6	1.81	0.45
32:1a:1120:G:H2'	32:1a:1121:U:H6	1.80	0.45
49:1s:27:GLU:HA	49:1s:28:LYS:HA	1.77	0.45
1:2A:323:G:C8	5:2F:171:PRO:HG3	2.51	0.45
1:2A:2438:U:O2'	1:2A:2440:C:OP1	2.27	0.45
1:2A:2646:C:H2'	1:2A:2647:U:O4'	2.16	0.45
32:2a:404:U:H2'	32:2a:405:U:H6	1.81	0.45
32:2a:894:G:H2'	32:2a:895:G:H8	1.81	0.45
33:2b:51:LEU:HD21	33:2b:201:ILE:HG23	1.98	0.45
36:2e:10:MET:HE2	36:2e:55:VAL:HG11	1.97	0.45
1:1A:973:A:H8	1:1A:973:A:OP1	1.99	0.45
1:1A:1188:U:H4'	17:1V:79:VAL:HG22	1.97	0.45
3:1D:121:PRO:HB3	3:1D:135:PHE:CE2	2.50	0.45
9:1N:24:GLY:O	9:1N:28:THR:HG23	2.17	0.45
15:1T:13:ARG:NH2	15:1T:14:TYR:OH	2.49	0.45
32:1a:32:A:H2'	32:1a:33:A:C8	2.51	0.45
32:1a:1387:G:H2'	32:1a:1388:C:C6	2.51	0.45
1:2A:566:U:P	17:2V:80:GLN:HE21	2.39	0.45
1:2A:744:G:H2'	1:2A:745:G:O4'	2.16	0.45
1:2A:774:A:H2'	1:2A:774:A:N3	2.30	0.45
1:2A:1265:A:H61	1:2A:2013:A:H5''	1.81	0.45
1:2A:2079:U:O3'	23:21:35:THR:OG1	2.34	0.45
2:2B:59:A:N6	58:2B:302:HOH:O	2.42	0.45
32:2a:1060:C:OP1	45:2n:45:ARG:NH2	2.48	0.45
32:2a:1400:5MC:H1'	52:2y:80:LYS:HD3	1.97	0.45
32:2a:1437:C:H2'	32:2a:1438:G:H8	1.81	0.45
40:2i:21:PRO:HA	40:2i:59:PHE:HD1	1.81	0.45
1:1A:1278:A:H2'	1:1A:1279:G:C8	2.51	0.45
1:1A:2233:U:H2'	1:1A:2234:G:C8	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2262:U:OP1	1:1A:2387:U:O2'	2.33	0.45
1:1A:2273:A:H2'	1:1A:2274:A:C8	2.52	0.45
1:1A:2314:C:H2'	1:1A:2315:G:C8	2.50	0.45
1:1A:2784:C:H1'	4:1E:37:ARG:NH1	2.32	0.45
32:1a:261:U:OP2	50:1t:79:ARG:NH2	2.49	0.45
38:1g:115:ARG:HB2	38:1g:118:VAL:HG23	1.97	0.45
1:2A:184:C:H2'	1:2A:185:U:H6	1.82	0.45
1:2A:667:U:O2	30:28:2:PRO:HD2	2.15	0.45
1:2A:671:C:H2'	1:2A:672:C:C6	2.51	0.45
1:2A:1486:A:H2'	1:2A:1487:G:C8	2.51	0.45
32:2a:35:G:H2'	32:2a:36:C:C6	2.51	0.45
32:2a:283:C:C2	32:2a:284:G:C8	3.05	0.45
32:2a:332:G:C2	32:2a:333:G:C8	3.04	0.45
36:2e:74:GLY:HA3	36:2e:116:THR:HG22	1.98	0.45
1:1A:560:C:H4'	16:1U:52:ARG:CZ	2.47	0.45
1:1A:588:U:H2'	1:1A:589:C:C6	2.51	0.45
1:1A:2420:C:H5'	28:16:54:ILE:HD11	1.97	0.45
5:1F:197:ASP:O	5:1F:201:VAL:HG13	2.17	0.45
11:1P:126:VAL:HG22	11:1P:146:VAL:HB	1.99	0.45
1:2A:1047:G:H21	1:2A:1111:A:N6	2.03	0.45
1:2A:1321:A:H2'	1:2A:1322:A:O4'	2.17	0.45
1:2A:2150:U:H2'	1:2A:2151:G:C8	2.51	0.45
1:2A:2364:C:H2'	1:2A:2365:G:O4'	2.17	0.45
12:2Q:38:GLU:HG3	12:2Q:127:ILE:HB	1.99	0.45
12:2Q:93:TYR:OH	21:2Z:194:PRO:HG2	2.16	0.45
32:2a:309:G:H2'	32:2a:310:G:H8	1.81	0.45
32:2a:860:A:H2'	32:2a:861:G:O4'	2.16	0.45
36:2e:8:GLU:HB3	36:2e:34:VAL:HG23	1.98	0.45
1:1A:29:U:H2'	1:1A:30:G:C8	2.51	0.45
1:1A:359:A:H2'	1:1A:360:G:O4'	2.17	0.45
1:1A:840:C:H2'	1:1A:841:A:C8	2.51	0.45
1:1A:1045:A:H1'	1:1A:1047:G:C2	2.52	0.45
13:1R:118:GLU:H	13:1R:118:GLU:CD	2.25	0.45
32:1a:1251:A:H2'	32:1a:1252:A:C8	2.51	0.45
32:1a:1270:C:H2'	32:1a:1271:G:H8	1.82	0.45
33:1b:157:ARG:HG2	33:1b:158:LEU:H	1.82	0.45
1:2A:952:G:P	12:2Q:16:ARG:HH22	2.39	0.45
1:2A:2385:C:OP1	58:2A:3774:HOH:O	2.21	0.45
1:2A:2472:G:H2'	1:2A:2475:C:H42	1.82	0.45
3:2D:70:TRP:HB3	3:2D:190:TYR:CE1	2.52	0.45
9:2N:21:LYS:HE3	9:2N:140:VAL:HG23	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:2T:11:GLU:O	15:2T:15:VAL:HG23	2.16	0.45
23:21:73:LEU:HD21	23:21:98:LEU:HD23	1.99	0.45
32:2a:1016:A:H2'	32:2a:1017:G:O4'	2.16	0.45
1:1A:388:G:O2'	1:1A:389:G:N7	2.45	0.45
1:1A:651:G:OP1	30:18:19:SER:OG	2.23	0.45
1:1A:1762:A:H2'	58:1A:5335:HOH:O	2.15	0.45
3:1D:232:PRO:HB3	3:1D:244:ARG:NH2	2.32	0.45
32:1a:601:C:H2'	32:1a:602:A:C8	2.50	0.45
32:1a:939:G:H5'	38:1g:102:ARG:NH1	2.32	0.45
32:1a:1338:G:H2'	32:1a:1339:A:C8	2.51	0.45
32:1a:1457:G:H5''	50:1t:35:THR:HG21	1.99	0.45
3:2D:12:SER:HB3	3:2D:208:LYS:HB3	1.99	0.45
6:2G:16:ARG:CZ	6:2G:31:VAL:HG21	2.47	0.45
16:2U:11:ARG:O	16:2U:15:LYS:HG3	2.17	0.45
32:2a:79:G:H1	32:2a:90:U:H3	1.64	0.45
32:2a:246:A:C2	32:2a:282:A:C5	3.05	0.45
32:2a:1002:G:H2'	32:2a:1003:G:C8	2.51	0.45
32:2a:1079:G:O3'	36:2e:14:ARG:NH2	2.50	0.45
42:2k:115:PRO:HB2	42:2k:117:ASN:C	2.41	0.45
51:2u:5:ASP:O	51:2u:11:GLY:HA3	2.16	0.45
51:2u:6:ARG:NE	51:2u:15:ARG:HH12	2.14	0.45
1:1A:957:A:N1	1:1A:2458:G:H4'	2.32	0.45
1:1A:994:C:OP1	16:1U:53:ARG:NH2	2.49	0.45
1:1A:2364:C:H2'	1:1A:2365:G:O4'	2.16	0.45
7:1H:41:MET:HE1	7:1H:54:ARG:HB3	1.99	0.45
32:1a:246:A:C2	32:1a:282:A:C5	3.05	0.45
32:1a:1434:A:H2'	32:1a:1435:G:O4'	2.16	0.45
36:1e:69:VAL:HG12	36:1e:139:LEU:HB3	1.98	0.45
36:1e:74:GLY:HA3	36:1e:116:THR:HG22	1.99	0.45
39:1h:44:PHE:HB3	39:1h:80:ILE:HD11	1.97	0.45
44:1m:4:ILE:HA	44:1m:5:ALA:HA	1.61	0.45
1:2A:1333:C:H2'	1:2A:1334:G:H8	1.80	0.45
1:2A:1386:C:H2'	1:2A:1387:C:C6	2.52	0.45
1:2A:1598:C:H2'	1:2A:1599:C:C6	2.52	0.45
1:2A:1647:G:H3'	1:2A:1647:G:OP2	2.15	0.45
1:2A:1911:PSU:H2'	1:2A:1918:A:N1	2.32	0.45
1:2A:2635:C:O2'	4:2E:80:GLU:OE2	2.31	0.45
6:2G:97:ASP:HA	6:2G:100:TRP:HD1	1.81	0.45
11:2P:100:LEU:HD12	11:2P:112:LEU:HD11	1.98	0.45
16:2U:27:LEU:HA	16:2U:30:LYS:HB2	1.98	0.45
32:2a:448:A:OP2	32:2a:485:G:N2	2.38	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:500:G:H2'	32:2a:501:C:C6	2.52	0.45
32:2a:688:G:H2'	32:2a:689:C:H6	1.82	0.45
32:2a:1274:G:N2	32:2a:1275:A:H62	2.14	0.45
32:2a:1328:C:O2'	44:2m:29:ARG:NH2	2.47	0.45
1:1A:186:G:H2'	1:1A:187:G:H8	1.82	0.45
1:1A:530:G:O6	58:1A:4045:HOH:O	2.19	0.45
4:1E:101:ARG:HG3	4:1E:169:ASN:HA	1.97	0.45
13:1R:86:ARG:HH12	13:1R:118:GLU:HA	1.81	0.45
26:14:54:GLY:C	26:14:56:VAL:HA	2.42	0.45
1:2A:571:A:O2'	1:2A:575:A:N6	2.50	0.45
1:2A:1667:G:O2'	1:2A:1991:U:O4	2.26	0.45
7:2H:3:ARG:HE	7:2H:54:ARG:HH12	1.65	0.45
11:2P:54:GLY:O	58:2P:301:HOH:O	2.20	0.45
31:29:25:VAL:HB	31:29:34:GLN:HB2	1.99	0.45
33:2b:122:PHE:HA	33:2b:127:ILE:HG12	1.99	0.45
47:2p:22:THR:HA	47:2p:33:ILE:HG13	1.99	0.45
1:1A:1464:C:H2'	1:1A:1465:G:C8	2.51	0.45
32:1a:165:C:H2'	32:1a:166:G:H8	1.82	0.45
42:1k:20:TYR:CZ	42:1k:83:ILE:HD12	2.51	0.45
1:2A:370:G:OP2	1:2A:370:G:H8	2.00	0.45
1:2A:698:C:O2'	1:2A:734:A:N6	2.50	0.45
1:2A:898:C:H2'	1:2A:899:A:O4'	2.16	0.45
1:2A:1073:A:O2'	1:2A:1074:G:O5'	2.35	0.45
1:2A:1117:G:H2'	1:2A:1118:C:C6	2.51	0.45
1:2A:1186:G:OP1	58:2A:3773:HOH:O	2.21	0.45
3:2D:218:ARG:HB3	3:2D:219:PRO:HD2	1.98	0.45
16:2U:49:HIS:O	16:2U:53:ARG:N	2.43	0.45
32:2a:166:G:H2'	32:2a:167:G:C8	2.52	0.45
32:2a:936:C:C2	32:2a:937:A:C8	3.05	0.45
32:2a:1151:A:O2'	32:2a:1152:A:H8	2.00	0.45
32:2a:1263:C:H2'	32:2a:1264:C:H6	1.81	0.45
38:2g:28:ASN:OD1	38:2g:36:LYS:NZ	2.50	0.45
38:2g:65:ALA:HB1	38:2g:127:ALA:HB3	1.99	0.45
1:1A:199:A:OP1	58:1A:4075:HOH:O	2.21	0.45
1:1A:570:G:OP1	58:1A:4076:HOH:O	2.21	0.45
1:1A:1441:G:H2'	1:1A:1442:G:H8	1.82	0.45
1:1A:2696:U:H2'	1:1A:2697:G:C8	2.52	0.45
1:1A:2712:U:H1'	1:1A:2712(A):A:C8	2.52	0.45
3:1D:134:ARG:HG3	3:1D:135:PHE:CD1	2.51	0.45
6:1G:27:ASN:OD1	6:1G:28:VAL:N	2.50	0.45
16:1U:105:VAL:HG11	17:1V:39:LEU:HD21	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:1W:19:LEU:HD23	27:15:25:LEU:HD21	1.98	0.45
32:1a:73:G:H2'	32:1a:76:C:C6	2.52	0.45
32:1a:222:U:H2'	32:1a:223:U:C6	2.52	0.45
32:1a:814:A:N7	32:1a:816:A:C4	2.85	0.45
32:1a:1071:C:H2'	32:1a:1072:G:H8	1.82	0.45
32:1a:1183:A:H3'	32:1a:1184:G:H5''	1.99	0.45
32:1a:1343:G:O2'	40:1i:121:ARG:HD2	2.17	0.45
32:1a:1437:C:H2'	32:1a:1438:G:C8	2.52	0.45
33:1b:166:ASP:HB3	33:1b:169:LYS:HB3	1.98	0.45
33:1b:187:LEU:HA	33:1b:201:ILE:HB	1.99	0.45
34:1c:26:LYS:HD3	41:1j:45:ARG:HH22	1.82	0.45
35:1d:172:PRO:HB2	35:1d:187:ARG:NH2	2.32	0.45
1:2A:108:U:H2'	1:2A:109:G:H8	1.81	0.45
1:2A:250:G:C6	1:2A:251:A:C6	3.04	0.45
1:2A:671:C:H2'	1:2A:672:C:H6	1.82	0.45
1:2A:1007:C:H5''	9:2N:35:ARG:NH1	2.32	0.45
1:2A:2140:C:H2'	1:2A:2141:G:C8	2.50	0.45
1:2A:2336:A:H61	22:20:43:THR:CG2	2.29	0.45
17:2V:29:PRO:HG3	17:2V:64:HIS:HD2	1.82	0.45
23:21:2:SER:HB3	23:21:46:LEU:HD12	1.99	0.45
26:24:41:PRO:HG3	26:24:49:PHE:HE2	1.82	0.45
32:2a:473:G:H2'	32:2a:474:G:H8	1.81	0.45
32:2a:745:C:H2'	32:2a:746:A:C8	2.52	0.45
32:2a:848:C:H2'	32:2a:849:C:H6	1.82	0.45
32:2a:920:U:H2'	32:2a:921:U:H6	1.82	0.45
32:2a:923:A:H2'	32:2a:924:C:C6	2.52	0.45
34:2c:150:LYS:HG3	34:2c:169:ALA:HB2	1.99	0.45
47:2p:27:LYS:HG3	47:2p:30:GLY:HA3	1.98	0.45
52:2y:58:ASN:ND2	52:2y:89:GLN:OE1	2.46	0.45
1:1A:738:G:C6	1:1A:739:G:C2	3.06	0.44
32:1a:112:G:H4'	32:1a:389:A:H4'	2.00	0.44
32:1a:164:U:H2'	32:1a:165:C:C6	2.52	0.44
33:1b:16:HIS:CG	33:1b:17:PHE:N	2.84	0.44
46:1o:31:LEU:HD23	46:1o:31:LEU:HA	1.87	0.44
1:2A:243:U:OP1	30:28:6:THR:OG1	2.27	0.44
1:2A:2704:C:H2'	1:2A:2705:A:O4'	2.17	0.44
7:2H:115:VAL:HG11	7:2H:148:ILE:HD11	1.99	0.44
16:2U:65:ILE:HD11	16:2U:95:LEU:HB3	1.99	0.44
21:2Z:54:HIS:HB3	21:2Z:101:PRO:HD3	1.99	0.44
24:22:35:LEU:HB3	24:22:50:ILE:HG12	1.98	0.44
32:2a:252:U:C2	32:2a:253:U:C5	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:2h:51:VAL:HG11	39:2h:60:ARG:HH11	1.80	0.44
47:2p:8:ARG:HB3	47:2p:28:ARG:NH1	2.32	0.44
1:1A:1697:G:OP2	1:1A:1698:A:O2'	2.29	0.44
1:1A:2150:U:H2'	1:1A:2151:G:H8	1.82	0.44
1:1A:2522:U:O2'	1:1A:2647:U:OP1	2.32	0.44
1:1A:2869:G:H2'	1:1A:2870:C:O4'	2.17	0.44
4:1E:144:ARG:HB3	4:1E:145:LYS:H	1.56	0.44
6:1G:25:TYR:CZ	6:1G:32:PRO:HD3	2.52	0.44
6:1G:106:LEU:HD12	6:1G:110:ALA:HB3	1.99	0.44
18:1W:13:SER:HB3	18:1W:16:LYS:HD2	1.99	0.44
32:1a:838:G:H2'	32:1a:839:U:H2'	1.99	0.44
32:1a:977:A:H2'	32:1a:978:A:H5''	1.99	0.44
32:1a:984:C:H2'	32:1a:985:C:C6	2.52	0.44
32:1a:1112:C:N4	58:1a:1982:HOH:O	2.49	0.44
32:1a:1327:C:H2'	32:1a:1328:C:C6	2.52	0.44
32:1a:1328:C:OP1	51:1u:20:LYS:NZ	2.37	0.44
33:1b:15:VAL:HG12	33:1b:16:HIS:HD2	1.81	0.44
38:1g:126:ASP:HB3	38:1g:131:LYS:HB2	1.99	0.44
47:1p:60:LEU:HD11	47:1p:66:PRO:HD3	1.99	0.44
1:2A:1656:C:H2'	1:2A:1657:C:C6	2.52	0.44
1:2A:1827:C:OP2	3:2D:222:ARG:NH1	2.51	0.44
1:2A:2716:U:H2'	1:2A:2717:G:C8	2.51	0.44
2:2B:8:U:O4	2:2B:113:G:O6	2.34	0.44
30:28:43:GLN:O	30:28:46:ARG:NE	2.51	0.44
32:2a:601:C:H2'	32:2a:602:A:C8	2.52	0.44
32:2a:908:A:H2'	32:2a:909:A:H8	1.82	0.44
32:2a:1323:G:H2'	32:2a:1324:A:C8	2.53	0.44
37:2f:50:TYR:CE1	48:2r:77:GLY:HA2	2.53	0.44
1:1A:2732:G:H3'	1:1A:2733:A:O4'	2.18	0.44
7:1H:121:ILE:HD11	7:1H:140:LYS:HG2	2.00	0.44
14:1S:84:GLN:HA	14:1S:111:GLU:HB2	1.98	0.44
32:1a:1030(C):G:H2'	32:1a:1030(D):A:C8	2.52	0.44
32:1a:1512:U:H2'	32:1a:1513:A:H8	1.80	0.44
35:1d:8:VAL:HA	35:1d:11:LEU:HD13	1.98	0.44
36:1e:90:VAL:O	36:1e:120:THR:HA	2.17	0.44
37:1f:11:ASN:HB3	37:1f:14:LEU:HG	2.00	0.44
49:1s:36:ARG:NH2	49:1s:72:GLY:O	2.49	0.44
1:2A:245:G:N7	30:28:8:LYS:NZ	2.65	0.44
1:2A:492:A:H2'	1:2A:493:G:O4'	2.17	0.44
1:2A:506:G:O3'	1:2A:507:A:H8	2.00	0.44
1:2A:1404:C:H2'	1:2A:1405:U:H6	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2261:C:C6	22:20:16:SER:HB3	2.53	0.44
9:2N:108:PRO:O	9:2N:113:GLY:HA3	2.17	0.44
32:2a:965:A:O2'	52:2y:40:ILE:HG21	2.18	0.44
32:2a:1427:U:H2'	32:2a:1428:A:C8	2.53	0.44
1:1A:131:G:OP1	58:1A:4080:HOH:O	2.21	0.44
1:1A:278:A:H4'	1:1A:279:C:OP1	2.18	0.44
7:1H:7:LEU:HG	7:1H:69:ARG:HH21	1.82	0.44
7:1H:13:LYS:HA	7:1H:14:GLY:HA2	1.54	0.44
21:1Z:77:ASP:O	21:1Z:81:ARG:N	2.46	0.44
32:1a:256:U:H2'	32:1a:257:G:H8	1.82	0.44
32:1a:946:A:H2'	32:1a:947:G:H8	1.80	0.44
32:1a:1014:A:H4'	49:1s:14:HIS:CE1	2.52	0.44
32:1a:1238:A:H2	32:1a:1241:G:N3	2.16	0.44
32:1a:1241:G:H2'	32:1a:1242:C:H6	1.82	0.44
32:1a:1355:G:H2'	32:1a:1356:G:H8	1.82	0.44
38:1g:80:VAL:HB	38:1g:85:TYR:CE2	2.52	0.44
47:1p:22:THR:HA	47:1p:33:ILE:HG13	1.99	0.44
1:2A:565:C:H2'	1:2A:566:U:O4'	2.16	0.44
1:2A:922:U:H2'	1:2A:923:C:C6	2.53	0.44
1:2A:1199:U:O2'	58:2A:3771:HOH:O	2.20	0.44
1:2A:2541:A:N7	58:2A:3895:HOH:O	2.36	0.44
8:2I:57:ARG:O	8:2I:61:ARG:HG2	2.17	0.44
12:2Q:52:VAL:HA	12:2Q:55:VAL:HG12	1.99	0.44
12:2Q:58:PHE:O	12:2Q:60:ARG:N	2.51	0.44
15:2T:114:LEU:HD23	15:2T:114:LEU:HA	1.82	0.44
32:2a:735:C:H2'	32:2a:736:C:C6	2.52	0.44
32:2a:767:A:C4	32:2a:768:A:C8	3.06	0.44
32:2a:1005:A:OP2	32:2a:1024:G:N2	2.50	0.44
1:1A:314:A:H2'	1:1A:315:G:C8	2.52	0.44
1:1A:428:A:H3'	1:1A:429:A:C8	2.53	0.44
1:1A:774:A:N3	1:1A:774:A:H2'	2.32	0.44
1:1A:2118:U:OP1	1:1A:2147:G:O2'	2.30	0.44
1:1A:2398:U:H2'	1:1A:2399:G:C8	2.52	0.44
7:1H:15:VAL:HG12	7:1H:29:PRO:HD3	2.00	0.44
10:1O:64:ARG:HG2	10:1O:83:ALA:HB3	1.99	0.44
13:1R:79:LEU:HD12	13:1R:83:ILE:HB	2.00	0.44
21:1Z:98:MET:HE3	21:1Z:98:MET:HB2	1.78	0.44
31:19:2:LYS:HD3	31:19:4:ARG:NH2	2.32	0.44
44:1m:52:GLU:HG2	44:1m:55:ARG:HH21	1.82	0.44
1:2A:55:G:H2'	1:2A:56:A:C8	2.52	0.44
1:2A:1069:A:H5'	1:2A:1096:A:H5'	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1759:A:H1'	1:2A:2711:A:C2	2.52	0.44
1:2A:2074:U:OP1	58:2A:3776:HOH:O	2.21	0.44
1:2A:2579:C:H4'	4:2E:134:ILE:HG12	1.99	0.44
2:2B:87:G:N2	2:2B:90:A:OP2	2.37	0.44
5:2F:70:THR:C	5:2F:72:ARG:H	2.26	0.44
6:2G:64:THR:HB	6:2G:94:LEU:HD21	1.99	0.44
7:2H:117:PRO:HA	7:2H:118:PRO:HD3	1.91	0.44
13:2R:96:ARG:HG2	13:2R:115:GLU:HG2	1.98	0.44
14:2S:14:VAL:O	14:2S:18:ILE:HG12	2.18	0.44
32:2a:614:A:H2'	32:2a:615:C:C6	2.51	0.44
32:2a:657:G:C2	32:2a:750:G:C5	3.06	0.44
32:2a:918:A:H2'	32:2a:919:A:C8	2.52	0.44
32:2a:1190:G:H5'	34:2c:176:HIS:CE1	2.53	0.44
32:2a:1250:A:C8	32:2a:1287:A:N7	2.85	0.44
32:2a:1428:A:H2'	32:2a:1429:C:H6	1.82	0.44
37:2f:15:ASP:OD1	37:2f:18:GLN:N	2.28	0.44
37:2f:99:ALA:HB1	48:2r:23:LYS:HE3	2.00	0.44
42:2k:84:VAL:HG21	42:2k:95:ILE:HD11	1.98	0.44
1:1A:1209:G:O2'	1:1A:1237:A:N1	2.46	0.44
1:1A:2065:C:H2'	1:1A:2066:C:C6	2.53	0.44
1:1A:2134:A:O2'	1:1A:2159:G:N3	2.49	0.44
1:1A:2183:C:H2'	1:1A:2184:G:C8	2.53	0.44
7:1H:46:GLU:HB2	7:1H:49:VAL:O	2.18	0.44
7:1H:149:ARG:NH1	7:1H:167:GLU:OE2	2.51	0.44
21:1Z:54:HIS:HB3	21:1Z:101:PRO:HD3	2.00	0.44
26:14:40:HIS:HB3	26:14:43:TYR:CD1	2.49	0.44
32:1a:620:C:OP1	58:1a:1912:HOH:O	2.21	0.44
32:1a:1415:G:H2'	32:1a:1416:G:H8	1.81	0.44
51:1u:6:ARG:CZ	51:1u:15:ARG:HH12	2.31	0.44
1:2A:182:A:N3	1:2A:433:C:O2'	2.45	0.44
1:2A:827:U:O2'	1:2A:2068:U:C2	2.71	0.44
1:2A:1153:C:H2'	1:2A:1154:G:O4'	2.18	0.44
1:2A:1756:G:H4'	1:2A:1758:G:O4'	2.17	0.44
1:2A:2585:U:OP2	1:2A:2602:A:N6	2.50	0.44
16:2U:34:LYS:HA	16:2U:34:LYS:HD3	1.67	0.44
32:2a:374:A:C6	32:2a:375:U:C4	3.05	0.44
32:2a:895:G:H2'	32:2a:896:C:H6	1.81	0.44
32:2a:1030:C:N4	32:2a:1032:G:O6	2.51	0.44
34:2c:26:LYS:HB3	34:2c:26:LYS:HE2	1.73	0.44
44:2m:88:ARG:HG3	44:2m:98:VAL:HG11	2.00	0.44
1:1A:38:A:H2'	1:1A:39:C:C6	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:483:A:O4'	20:1Y:48:ALA:HB1	2.18	0.44
1:1A:730:C:H5'	58:1A:4492:HOH:O	2.17	0.44
1:1A:740:U:H2'	1:1A:741:G:C8	2.52	0.44
1:1A:1824:G:N3	3:1D:254:THR:OG1	2.50	0.44
1:1A:1939:5MU:H3'	1:1A:1940:U:H5'	1.98	0.44
1:1A:2667:C:H2'	1:1A:2668:G:O4'	2.18	0.44
6:1G:47:LYS:HG3	6:1G:48:GLU:H	1.82	0.44
9:1N:4:TYR:CD2	16:1U:100:VAL:HG11	2.53	0.44
32:1a:479:C:H2'	32:1a:480:U:O4'	2.18	0.44
32:1a:1004:A:O2'	32:1a:1038:C:O2	2.33	0.44
32:1a:1278:U:H5'	32:1a:1279:A:O4'	2.18	0.44
33:1b:54:THR:HG21	33:1b:201:ILE:HD11	2.00	0.44
50:1t:89:ARG:O	50:1t:93:GLU:HG2	2.18	0.44
1:2A:1915:5MU:H2'	1:2A:1916:A:O4'	2.18	0.44
1:2A:2467:C:OP1	31:29:6:SER:OG	2.34	0.44
1:2A:2718:G:O2'	1:2A:2847:U:OP1	2.34	0.44
7:2H:117:PRO:HG3	7:2H:123:PHE:CD2	2.53	0.44
32:2a:407:G:H2'	32:2a:408:A:C8	2.53	0.44
32:2a:743:U:H2'	32:2a:744:C:C6	2.53	0.44
32:2a:867:G:O2'	32:2a:873:A:N1	2.46	0.44
32:2a:1090:U:H2'	32:2a:1091:U:H6	1.83	0.44
32:2a:1345:U:OP1	58:2a:1811:HOH:O	2.21	0.44
1:1A:1508:A:H4'	1:1A:1509:A:N9	2.33	0.44
1:1A:1853:A:H2'	1:1A:1854:A:C8	2.52	0.44
1:1A:2805:G:H2'	1:1A:2807:G:H8	1.82	0.44
3:1D:83:GLU:OE1	3:1D:104:TYR:OH	2.22	0.44
14:1S:27:SER:O	14:1S:37:ALA:HA	2.18	0.44
25:13:28:LEU:HD23	25:13:35:ARG:HD3	1.99	0.44
32:1a:404:U:H2'	32:1a:405:U:H6	1.83	0.44
32:1a:481:G:O2'	32:1a:483:C:N4	2.50	0.44
32:1a:675:A:H2'	32:1a:676:A:C8	2.53	0.44
32:1a:978:A:C4	32:1a:1319:A:C2	3.06	0.44
32:1a:1084:G:C5	32:1a:1085:U:C4	3.06	0.44
1:2A:121:G:H4'	1:2A:149:A:H5'	2.00	0.44
1:2A:422:A:H2'	1:2A:423:A:C8	2.53	0.44
1:2A:595:C:H2'	1:2A:596:G:C8	2.52	0.44
1:2A:607:U:OP1	5:2F:102:PRO:HA	2.18	0.44
1:2A:955:C:OP2	12:2Q:14:ARG:HG3	2.18	0.44
1:2A:2870:C:H2'	1:2A:2871:C:O4'	2.17	0.44
5:2F:74:ARG:O	5:2F:75:HIS:ND1	2.50	0.44
12:2Q:57:HIS:CE1	12:2Q:116:GLU:HB3	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:2R:56:LYS:NZ	13:2R:90:ARG:O	2.51	0.44
21:2Z:53:ILE:H	21:2Z:53:ILE:HG13	1.67	0.44
32:2a:401:C:H2'	32:2a:402:G:H8	1.83	0.44
32:2a:437:U:H5''	35:2d:155:LEU:HD11	1.99	0.44
32:2a:762:C:H2'	32:2a:763:G:H8	1.82	0.44
32:2a:1507:A:H2'	32:2a:1508:G:C8	2.51	0.44
35:2d:61:LYS:HD2	35:2d:207:TYR:OH	2.17	0.44
42:2k:62:GLN:HB2	42:2k:93:GLN:HG3	1.99	0.44
43:2l:47:LYS:HB2	43:2l:47:LYS:HE3	1.78	0.44
1:1A:1045:A:H1'	1:1A:1047:G:N3	2.33	0.44
1:1A:1056:G:H4'	1:1A:1086:A:H8	1.82	0.44
1:1A:1299:G:H5'	1:1A:1301:A:O4'	2.18	0.44
1:1A:2272:U:H5''	1:1A:2273:A:OP1	2.17	0.44
1:1A:2721:A:H1'	1:1A:2873:A:O2'	2.18	0.44
21:1Z:182:LYS:HB3	21:1Z:182:LYS:HE2	1.79	0.44
30:18:6:THR:HB	30:18:8:LYS:HE2	2.00	0.44
30:18:62:LEU:HB3	30:18:65:GLU:CG	2.48	0.44
32:1a:165:C:H2'	32:1a:166:G:C8	2.53	0.44
32:1a:587:G:N7	58:1a:1957:HOH:O	2.37	0.44
32:1a:848:C:H2'	32:1a:849:C:C6	2.53	0.44
32:1a:1166:G:H5'	32:1a:1168:A:OP2	2.18	0.44
39:1h:104:ARG:HA	39:1h:104:ARG:HD3	1.72	0.44
47:1p:71:ARG:O	47:1p:75:ARG:N	2.48	0.44
1:2A:300:A:H8	20:2Y:84:ARG:HH12	1.65	0.44
1:2A:568:U:H5'	1:2A:945:A:N6	2.33	0.44
1:2A:2419:U:H2'	1:2A:2420:C:C6	2.53	0.44
20:2Y:13:VAL:HG12	20:2Y:74:PRO:HA	2.00	0.44
25:23:46:ASN:O	25:23:50:VAL:HG22	2.18	0.44
32:2a:32:A:H2'	32:2a:33:A:C8	2.53	0.44
32:2a:360:A:H2'	32:2a:361:G:C8	2.52	0.44
32:2a:593:G:H1	32:2a:646:U:H3	1.66	0.44
32:2a:645:C:H2'	32:2a:646:U:H6	1.83	0.44
32:2a:916:G:OP2	58:2a:1812:HOH:O	2.21	0.44
41:2j:16:LEU:HD12	41:2j:68:HIS:HB2	1.99	0.44
1:1A:1636:C:H2'	1:1A:1637:A:C8	2.53	0.43
25:13:31:LEU:HD23	25:13:31:LEU:HA	1.74	0.43
1:2A:30:G:O2'	1:2A:1214:A:N3	2.41	0.43
1:2A:271(H):G:H2'	1:2A:271(I):G:H8	1.82	0.43
1:2A:1005:C:H2'	1:2A:1006:C:C6	2.53	0.43
1:2A:1032:A:H2	1:2A:1122:G:H22	1.66	0.43
1:2A:1278:A:H2'	1:2A:1279:G:H8	1.81	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1365:A:P	23:21:41:ARG:HH22	2.41	0.43
3:2D:53:PHE:HA	3:2D:218:ARG:HB2	1.99	0.43
13:2R:87:TYR:OH	13:2R:117:VAL:O	2.31	0.43
32:2a:1414:U:H2'	32:2a:1415:G:H8	1.82	0.43
1:1A:586:A:N1	1:1A:809:G:O2'	2.50	0.43
1:1A:796:C:H2'	1:1A:797:C:C6	2.54	0.43
1:1A:1499:C:H2'	1:1A:1500:G:H8	1.83	0.43
1:1A:2500:U:O2'	1:1A:2504:U:OP1	2.34	0.43
15:1T:118:ARG:HG2	32:1a:1442(A):G:C8	2.53	0.43
20:1Y:5:MET:HE2	20:1Y:32:PRO:HA	2.00	0.43
20:1Y:43:ASN:HB3	20:1Y:65:ALA:HB3	1.98	0.43
32:1a:61:G:H2'	32:1a:62:U:C6	2.53	0.43
32:1a:185:A:H2'	32:1a:186:C:C6	2.53	0.43
32:1a:198:G:H2'	32:1a:199:G:H8	1.83	0.43
32:1a:645:C:H2'	32:1a:646:U:C6	2.53	0.43
32:1a:1120:G:H2'	32:1a:1121:U:C6	2.53	0.43
46:1o:8:LYS:O	46:1o:12:ILE:HG13	2.18	0.43
1:2A:57:C:H2'	1:2A:58:G:O4'	2.18	0.43
1:2A:210:C:OP2	29:27:29:LYS:NZ	2.44	0.43
1:2A:1057:A:O2'	1:2A:1058:G:OP1	2.31	0.43
1:2A:2556:C:H2'	1:2A:2557:G:O4'	2.18	0.43
1:2A:2578:G:OP1	58:2A:3778:HOH:O	2.21	0.43
2:2B:76:G:H2'	2:2B:77:U:H6	1.83	0.43
5:2F:110:LEU:HD11	5:2F:181:LEU:HG	2.00	0.43
9:2N:34:LEU:O	9:2N:49:GLY:HA3	2.18	0.43
32:2a:17:U:H2'	32:2a:18:C:H6	1.83	0.43
32:2a:110:C:H2'	32:2a:111:G:O4'	2.19	0.43
32:2a:861:G:O2'	32:2a:874:G:O2'	2.35	0.43
32:2a:925:G:C2	32:2a:927:G:C8	3.07	0.43
32:2a:1106:G:H2'	32:2a:1107:C:C6	2.53	0.43
32:2a:1233:G:H2'	32:2a:1234:C:C6	2.54	0.43
38:2g:113:GLU:CG	38:2g:119:ARG:HG2	2.48	0.43
1:1A:484:C:H2'	1:1A:485:C:C6	2.54	0.43
1:1A:1423:G:H2'	1:1A:1424:G:C8	2.53	0.43
1:1A:2737:G:H2'	1:1A:2738:A:C8	2.53	0.43
4:1E:176:ILE:HB	4:1E:181:LEU:HB2	2.00	0.43
12:1Q:21:THR:HG21	12:1Q:101:ARG:N	2.33	0.43
21:1Z:146:ILE:HA	21:1Z:147:GLY:HA2	1.66	0.43
25:13:26:LEU:HD21	25:13:46:ASN:HB3	2.00	0.43
32:1a:343:U:O2'	32:1a:346:G:O6	2.26	0.43
32:1a:977:A:H1'	32:1a:982:U:O4	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1329:A:P	44:1m:28:ALA:HB3	2.58	0.43
33:1b:24:TRP:CD1	33:1b:24:TRP:H	2.36	0.43
35:1d:155:LEU:HB3	35:1d:158:ILE:HG12	2.00	0.43
36:1e:31:LEU:HA	36:1e:31:LEU:HD23	1.77	0.43
1:2A:83:G:H1	1:2A:102:G:HO2'	1.64	0.43
1:2A:299:A:N3	1:2A:319:C:O2'	2.51	0.43
1:2A:570:G:H2'	1:2A:2030:A:C5	2.52	0.43
1:2A:793:A:OP2	1:2A:2071:A:O2'	2.36	0.43
1:2A:1653:G:H3'	13:2R:2:ARG:HB2	1.99	0.43
1:2A:1711:C:H2'	1:2A:1712:C:C6	2.53	0.43
1:2A:2270:G:H2'	1:2A:2271:G:O4'	2.19	0.43
5:2F:102:PRO:HB2	5:2F:105:VAL:HG23	1.99	0.43
16:2U:83:LEU:HD12	16:2U:113:ALA:HB2	2.00	0.43
17:2V:35:LEU:HB2	17:2V:57:VAL:HG22	2.01	0.43
32:2a:192:U:H5'	50:2t:101:GLY:HA3	2.01	0.43
32:2a:1131:G:OP1	40:2i:20:ARG:NH2	2.51	0.43
32:2a:1426:C:H2'	32:2a:1427:U:C6	2.54	0.43
32:2a:1504:G:OP1	32:2a:1507:A:H4'	2.17	0.43
42:2k:116:HIS:N	42:2k:117:ASN:HA	2.32	0.43
1:1A:1124:C:OP1	58:1A:4070:HOH:O	2.20	0.43
1:1A:1449:A:H2'	1:1A:1450:G:O4'	2.18	0.43
1:1A:2687:U:H2'	1:1A:2688:U:O4'	2.18	0.43
1:1A:2689:U:H4'	1:1A:2690:C:H5'	1.99	0.43
3:1D:166:GLN:HB2	3:1D:174:ILE:HG22	2.01	0.43
11:1P:121:LYS:O	11:1P:123:LEU:N	2.52	0.43
13:1R:53:HIS:HB2	13:1R:94:TYR:HE2	1.82	0.43
19:1X:11:PRO:HB3	19:1X:92:LEU:HD11	1.99	0.43
49:1s:80:TYR:CZ	49:1s:82:GLY:HA2	2.52	0.43
1:2A:521:G:N7	58:2A:3905:HOH:O	2.37	0.43
1:2A:571:A:O5'	1:2A:2030:A:N6	2.48	0.43
1:2A:1266:G:O5'	18:2W:15:ARG:NH2	2.51	0.43
3:2D:79:VAL:HB	3:2D:114:GLY:H	1.83	0.43
15:2T:92:GLY:O	15:2T:120:ARG:NH2	2.51	0.43
21:2Z:93:ASP:OD1	21:2Z:93:ASP:N	2.52	0.43
26:24:59:PHE:CE1	49:2s:64:GLU:HB2	2.53	0.43
32:2a:355:C:C4	32:2a:356:A:N7	2.87	0.43
32:2a:505:G:H2'	32:2a:506:G:H8	1.84	0.43
33:2b:77:ALA:HA	33:2b:80:ILE:HG22	2.00	0.43
1:1A:2157:G:H5''	1:1A:2158:A:OP1	2.19	0.43
3:1D:155:LEU:HD23	3:1D:177:LEU:HD22	1.99	0.43
10:1O:70:LYS:HB3	10:1O:70:LYS:HE2	1.74	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:1Y:9:LYS:HA	20:1Y:10:GLY:HA2	1.48	0.43
27:15:16:ARG:HG3	27:15:17:ASP:N	2.34	0.43
32:1a:500:G:H2'	32:1a:501:C:C6	2.54	0.43
32:1a:762:C:H2'	32:1a:763:G:H8	1.84	0.43
32:1a:1071:C:H5''	36:1e:49:PRO:HG2	1.99	0.43
32:1a:1428:A:H2'	32:1a:1429:C:C6	2.54	0.43
46:1o:39:LEU:HD13	46:1o:56:LEU:HB2	2.00	0.43
1:2A:827:U:O2'	1:2A:2068:U:N3	2.50	0.43
1:2A:2391:G:O6	1:2A:2425:A:H8	2.01	0.43
1:2A:2552:OMU:H2'	1:2A:2554:U:OP2	2.19	0.43
12:2Q:8:LYS:HG2	21:2Z:197:ILE:HD12	1.99	0.43
32:2a:396:G:O2'	32:2a:398:C:OP1	2.36	0.43
32:2a:552:U:H5''	43:2l:87:GLY:HA2	2.00	0.43
32:2a:1510:U:H2'	32:2a:1511:G:H8	1.81	0.43
33:2b:180:LEU:HB2	33:2b:182:ILE:HG13	2.01	0.43
34:2c:54:ARG:HB2	34:2c:69:HIS:HB2	1.99	0.43
38:2g:69:VAL:HG21	38:2g:104:LEU:HD11	1.99	0.43
1:1A:217:G:OP2	58:1A:4077:HOH:O	2.21	0.43
1:1A:2319:G:N1	14:1S:3:ARG:HA	2.34	0.43
1:1A:2679:A:H4'	4:1E:165:VAL:HG11	2.01	0.43
1:1A:2748:A:N3	7:1H:63:SER:HB3	2.34	0.43
2:1B:48:A:H2'	2:1B:49:C:C6	2.53	0.43
6:1G:114:ILE:HB	6:1G:117:PHE:HB2	2.01	0.43
32:1a:824:C:H2'	32:1a:825:G:H8	1.83	0.43
32:1a:967:5MC:H3'	32:1a:967:5MC:C6	2.53	0.43
32:1a:1144:G:N2	32:1a:1146:A:H62	2.16	0.43
32:1a:1203:C:OP1	45:1n:3:ARG:NE	2.49	0.43
33:1b:21:ARG:HB3	33:1b:39:ILE:HD13	2.01	0.43
35:1d:178:VAL:HG12	35:1d:179:GLU:H	1.83	0.43
37:1f:37:VAL:HA	37:1f:65:VAL:HG12	1.99	0.43
1:2A:271(E):U:H2'	1:2A:271(F):C:C6	2.53	0.43
1:2A:1796:U:H2'	1:2A:1797:C:C6	2.54	0.43
1:2A:1889:A:C6	1:2A:1890:A:C6	3.06	0.43
1:2A:2614:A:OP1	58:2A:3779:HOH:O	2.22	0.43
1:2A:2773:C:OP1	4:2E:164:ARG:NE	2.49	0.43
2:2B:19:G:H2'	2:2B:20:C:H6	1.83	0.43
3:2D:205:VAL:O	3:2D:211:ARG:NH2	2.49	0.43
11:2P:48:PRO:O	30:28:57:ARG:NH2	2.52	0.43
21:2Z:180:VAL:HG13	21:2Z:183:LEU:HD12	2.00	0.43
32:2a:1289:A:OP1	51:2u:10:ARG:NH2	2.52	0.43
32:2a:1366:C:H2'	32:2a:1367:C:C6	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:910:A:N1	1:1A:2277:G:H1'	2.34	0.43
1:1A:2243:U:H2'	1:1A:2244:U:C6	2.53	0.43
13:1R:29:LEU:HG	13:1R:79:LEU:HD13	1.99	0.43
28:16:33:LYS:HD3	28:16:33:LYS:HA	1.80	0.43
32:1a:539:A:H2'	32:1a:540:G:C8	2.54	0.43
32:1a:868:C:H2'	32:1a:869:G:O4'	2.19	0.43
32:1a:1359:C:OP1	45:1n:22:THR:OG1	2.37	0.43
35:1d:140:VAL:HG11	35:1d:146:ILE:HD11	1.99	0.43
37:1f:70:ASP:N	37:1f:70:ASP:OD1	2.51	0.43
40:1i:77:ILE:O	40:1i:81:ILE:HG23	2.18	0.43
1:2A:27:G:N2	1:2A:512:G:H1'	2.33	0.43
1:2A:361:G:O2'	1:2A:362:U:H5'	2.19	0.43
1:2A:576:U:OP1	58:2A:3777:HOH:O	2.21	0.43
1:2A:1033:U:O2'	1:2A:2750:A:N6	2.52	0.43
1:2A:1669:A:H5''	1:2A:2550:G:OP1	2.18	0.43
1:2A:1980:G:O2'	1:2A:1982:C:OP2	2.34	0.43
1:2A:2567:G:H2'	1:2A:2568:C:C6	2.53	0.43
1:2A:2807:G:N2	1:2A:2893:G:O6	2.52	0.43
32:2a:115:G:H4'	32:2a:116:A:O5'	2.18	0.43
32:2a:190:U:H2'	32:2a:191:G:H8	1.83	0.43
32:2a:323:U:H2'	32:2a:324:G:O4'	2.18	0.43
32:2a:417:C:H2'	32:2a:418:C:C6	2.52	0.43
32:2a:1004:A:N7	32:2a:1037:C:H2'	2.34	0.43
32:2a:1235:U:O2'	32:2a:1305:G:O5'	2.37	0.43
33:2b:98:LEU:HG	33:2b:101:MET:HE3	2.00	0.43
44:2m:81:LEU:HD22	44:2m:88:ARG:HD2	2.01	0.43
1:1A:753:C:H2'	1:1A:754:C:H6	1.84	0.43
1:1A:1371:G:H2'	1:1A:1372:U:C5	2.54	0.43
1:1A:2096:U:H2'	1:1A:2097:C:H6	1.84	0.43
5:1F:74:ARG:H	5:1F:74:ARG:HG3	1.48	0.43
25:13:39:ASP:OD2	25:13:44:ARG:NH2	2.52	0.43
32:1a:967:5MC:O3'	32:1a:968:A:H2'	2.18	0.43
32:1a:991:U:H1'	32:1a:992:U:OP2	2.19	0.43
32:1a:1295:G:O2'	44:1m:14:ARG:NH1	2.51	0.43
34:1c:20:SER:OG	34:1c:40:ARG:NH2	2.38	0.43
43:1l:97:ARG:HB2	43:1l:98:TYR:CE1	2.54	0.43
44:1m:65:LYS:NZ	44:1m:73:GLU:OE1	2.44	0.43
47:1p:18:ARG:HA	47:1p:38:TYR:HA	2.01	0.43
1:2A:468:G:O2'	5:2F:62:ARG:NH2	2.52	0.43
14:2S:66:ALA:HB1	14:2S:101:LEU:HB2	2.00	0.43
23:21:8:SER:HB3	23:21:66:HIS:CE1	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:28:14:VAL:HG22	30:28:24:ALA:HB2	2.00	0.43
32:2a:132:C:H4'	32:2a:262:A:H1'	2.00	0.43
32:2a:132:C:OP1	50:2t:75:ASN:ND2	2.44	0.43
32:2a:674:G:H2'	32:2a:675:A:C8	2.48	0.43
41:2j:8:LEU:HB2	41:2j:70:ARG:HB2	2.01	0.43
1:1A:36:G:H4'	1:1A:451:C:C2	2.54	0.43
1:1A:492:A:H2'	1:1A:493:G:O4'	2.19	0.43
1:1A:668:G:H2'	1:1A:670:A:H62	1.84	0.43
58:1A:4035:HOH:O	4:1E:127:ASP:OD2	2.22	0.43
12:1Q:14:ARG:HG2	12:1Q:41:TRP:HH2	1.84	0.43
21:1Z:104:PHE:HD1	21:1Z:141:VAL:HG11	1.84	0.43
32:1a:675:A:H2'	32:1a:676:A:H8	1.83	0.43
32:1a:1036:G:H5''	32:1a:1037:C:C6	2.54	0.43
32:1a:1457:G:H2'	32:1a:1458:G:C8	2.54	0.43
38:1g:69:VAL:HG21	38:1g:104:LEU:HD13	2.00	0.43
51:1u:5:ASP:O	51:1u:11:GLY:HA3	2.18	0.43
1:2A:594:U:H2'	1:2A:595:C:C6	2.54	0.43
1:2A:956:G:H5''	12:2Q:77:LYS:HD2	2.00	0.43
1:2A:1102:C:H2'	1:2A:1103:A:C8	2.54	0.43
1:2A:2000:G:OP1	13:2R:5:LYS:NZ	2.52	0.43
5:2F:176:LEU:HD23	5:2F:176:LEU:HA	1.81	0.43
23:21:8:SER:HB3	23:21:66:HIS:ND1	2.34	0.43
32:2a:407:G:H2'	32:2a:408:A:H8	1.84	0.43
32:2a:632:A:H5'	32:2a:633:G:OP2	2.17	0.43
32:2a:736:C:H2'	32:2a:737:A:H8	1.81	0.43
32:2a:1095:U:H2'	32:2a:1096:C:C6	2.54	0.43
37:2f:1:MET:N	37:2f:69:GLU:OE2	2.50	0.43
39:2h:103:VAL:HG21	39:2h:110:ALA:HB2	2.00	0.43
40:2i:28:VAL:HG22	40:2i:63:ILE:HB	2.00	0.43
40:2i:46:ALA:HB2	40:2i:74:ILE:HG23	2.00	0.43
45:2n:4:LYS:HA	45:2n:7:ILE:HG12	2.00	0.43
46:2o:6:GLU:OE1	46:2o:6:GLU:N	2.52	0.43
47:2p:20:VAL:HG21	47:2p:32:TYR:CG	2.54	0.43
50:2t:66:ALA:HB1	50:2t:71:THR:HB	2.01	0.43
1:1A:222:A:H3'	1:1A:421:U:H5''	2.00	0.43
1:1A:286:C:H2'	1:1A:287:C:C6	2.54	0.43
1:1A:1578:U:C2'	1:1A:1579:A:H5'	2.49	0.43
1:1A:1662:C:O2'	1:1A:2687:U:OP1	2.35	0.43
1:1A:1999:C:H4'	1:1A:2723:C:O2	2.19	0.43
1:1A:2654:A:N1	1:1A:2665:A:H5''	2.34	0.43
1:1A:2680:C:H5'	4:1E:189:PRO:HA	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:1D:147:LEU:HD13	3:1D:155:LEU:HD11	2.01	0.43
26:14:43:TYR:O	26:14:45:GLY:N	2.51	0.43
32:1a:973:G:OP1	41:1j:57:LYS:NZ	2.47	0.43
32:1a:1431:C:H2'	32:1a:1432:G:O4'	2.18	0.43
33:1b:17:PHE:HA	33:1b:44:LEU:HD11	2.00	0.43
34:1c:26:LYS:HB3	34:1c:26:LYS:HE2	1.84	0.43
44:1m:14:ARG:NE	44:1m:42:ALA:HA	2.34	0.43
44:1m:20:THR:C	44:1m:22:ILE:H	2.27	0.43
1:2A:218:A:C2	1:2A:235:U:H4'	2.52	0.43
1:2A:1007:C:H5''	9:2N:35:ARG:HH11	1.84	0.43
1:2A:1364:G:OP2	23:21:3:LYS:HG3	2.18	0.43
1:2A:1574:C:H2'	1:2A:1575:C:C6	2.54	0.43
2:2B:72:G:OP2	53:2B:201:MPD:O2	2.29	0.43
3:2D:148:GLU:HB2	3:2D:151:LYS:HD2	2.00	0.43
7:2H:41:MET:HE3	7:2H:64:LEU:HB2	1.99	0.43
7:2H:105:LEU:HD21	7:2H:162:ILE:HD11	2.01	0.43
8:2I:114:LEU:HD11	8:2I:128:LEU:HB3	2.01	0.43
32:2a:301:G:H2'	32:2a:302:G:C8	2.54	0.43
32:2a:643:C:C2	32:2a:644:G:C8	3.07	0.43
32:2a:807:A:H2'	32:2a:808:C:C6	2.54	0.43
32:2a:1120:G:H2'	32:2a:1121:U:H6	1.83	0.43
32:2a:1497:G:H1'	32:2a:1518:MA6:H2	2.01	0.43
34:2c:9:GLY:HA3	45:2n:49:HIS:HA	2.00	0.43
34:2c:130:VAL:HG21	34:2c:157:ILE:HG23	2.00	0.43
1:1A:239:U:H2'	1:1A:240:G:O4'	2.18	0.42
1:1A:464:U:H2'	1:1A:465:G:O4'	2.19	0.42
1:1A:1616:A:H2'	58:1A:4538:HOH:O	2.17	0.42
1:1A:2529:G:H5''	1:1A:2530:A:H5''	2.00	0.42
1:1A:2711:A:OP1	1:1A:2712:U:H3'	2.18	0.42
32:1a:318:G:O6	58:1a:1911:HOH:O	2.21	0.42
32:1a:377:G:H2'	32:1a:378:G:H8	1.84	0.42
32:1a:1117:G:H4'	40:1i:104:ARG:NH1	2.33	0.42
32:1a:1157:A:C2	32:1a:1181:G:C4	3.07	0.42
1:2A:2695:C:H2'	1:2A:2696:U:H6	1.84	0.42
1:2A:2712:U:OP1	1:2A:2714:G:H4'	2.18	0.42
19:2X:35:THR:O	19:2X:39:ILE:N	2.48	0.42
32:2a:73:G:C6	32:2a:97:G:C6	3.07	0.42
32:2a:176:C:H2'	32:2a:177:C:C6	2.54	0.42
32:2a:401:C:H2'	32:2a:402:G:C8	2.54	0.42
32:2a:687:A:H1'	32:2a:688:G:OP2	2.19	0.42
32:2a:802:A:H3'	32:2a:803:G:H8	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:2f:97:PHE:CZ	48:2r:61:LYS:HE3	2.54	0.42
38:2g:27:ILE:HD12	38:2g:40:ALA:HA	2.00	0.42
1:1A:588:U:H1'	5:1F:90:PHE:CG	2.54	0.42
1:1A:1703:G:H2'	1:1A:1704:G:C8	2.54	0.42
1:1A:2012:G:OP1	18:1W:11:ARG:NH2	2.39	0.42
1:1A:2718:G:O3'	15:1T:98:LYS:HG3	2.19	0.42
9:1N:34:LEU:HD21	9:1N:120:LEU:HB2	2.01	0.42
14:1S:66:ALA:HA	14:1S:69:VAL:HG22	2.01	0.42
21:1Z:123:ASP:OD1	21:1Z:123:ASP:N	2.52	0.42
32:1a:913:A:H4'	32:1a:914:A:O5'	2.18	0.42
32:1a:950:U:H2'	32:1a:951:G:C8	2.54	0.42
32:1a:1006:C:H2'	32:1a:1007:C:C6	2.54	0.42
35:1d:163:GLU:O	35:1d:166:LYS:HG2	2.19	0.42
44:1m:3:ARG:HG3	44:1m:4:ILE:H	1.84	0.42
1:2A:77:C:O3'	24:22:14:ARG:NH2	2.52	0.42
1:2A:858:U:O2	1:2A:2268:A:H2'	2.19	0.42
1:2A:996:A:H4'	16:2U:91:ASP:OD2	2.19	0.42
1:2A:1233:C:H2'	1:2A:1234:U:C6	2.54	0.42
1:2A:2679:A:H4'	4:2E:165:VAL:HG11	2.02	0.42
1:2A:2846:G:P	15:2T:54:ARG:HB2	2.58	0.42
1:2A:2853:C:H2'	1:2A:2854:G:H8	1.83	0.42
3:2D:102:LYS:C	3:2D:103:ARG:HG2	2.44	0.42
12:2Q:52:VAL:HG13	21:2Z:183:LEU:HD13	2.01	0.42
18:2W:39:THR:HG22	18:2W:41:LYS:HB2	2.01	0.42
19:2X:44:GLU:HG3	19:2X:51:VAL:HG23	2.01	0.42
26:24:45:GLY:O	26:24:47:GLN:N	2.46	0.42
32:2a:384:G:H2'	32:2a:385:C:C6	2.54	0.42
32:2a:417:C:H2'	32:2a:418:C:H6	1.84	0.42
32:2a:552:U:O2	43:2l:31:PRO:HB3	2.19	0.42
32:2a:979:C:O2	45:2n:19:ARG:NE	2.52	0.42
32:2a:1060:C:H2'	32:2a:1061:G:H8	1.83	0.42
32:2a:1321:C:O2'	49:2s:78:ARG:NH1	2.52	0.42
32:2a:1527:C:H2'	32:2a:1528:U:C6	2.54	0.42
40:2i:4:TYR:HB2	40:2i:19:LEU:HB2	2.01	0.42
1:1A:1186:G:H2'	1:1A:1187:G:O4'	2.18	0.42
1:1A:1226:A:OP1	17:1V:84:LYS:NZ	2.33	0.42
1:1A:1342:A:OP1	19:1X:36:LYS:NZ	2.42	0.42
1:1A:1430:C:H2'	1:1A:1431:U:C6	2.54	0.42
1:1A:1790:C:H4'	3:1D:209:ALA:HB2	2.02	0.42
1:1A:1923:U:H2'	1:1A:1924:C:C6	2.53	0.42
1:1A:2270:G:H2'	1:1A:2271:G:O4'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:1Z:98:MET:O	21:1Z:125:LEU:HD12	2.19	0.42
24:12:32:LEU:HD22	24:12:36:ARG:NH1	2.33	0.42
32:1a:1052:U:O2'	32:1a:1055:A:OP2	2.28	0.42
42:1k:84:VAL:HG11	42:1k:91:ARG:HD2	2.02	0.42
1:2A:700:G:O2'	1:2A:1632:A:N3	2.45	0.42
1:2A:1147:C:H2'	1:2A:1148:A:C8	2.52	0.42
1:2A:1436:G:H2'	1:2A:1437:C:O4'	2.19	0.42
1:2A:1608:A:H1'	1:2A:1610:A:OP2	2.20	0.42
1:2A:2638:G:P	4:2E:82:ARG:HH12	2.40	0.42
14:2S:26:LEU:N	14:2S:86:ALA:O	2.51	0.42
18:2W:9:TYR:H	18:2W:102:HIS:CE1	2.37	0.42
32:2a:142:G:H2'	32:2a:143:A:C8	2.55	0.42
32:2a:662:G:H2'	32:2a:663:A:C8	2.54	0.42
32:2a:1384:C:H2'	32:2a:1385:G:H8	1.83	0.42
36:2e:83:GLU:HG2	36:2e:88:LYS:HB2	2.00	0.42
1:1A:56:A:H2'	1:1A:57:C:O4'	2.19	0.42
1:1A:459:U:H2'	1:1A:460:A:C8	2.55	0.42
1:1A:724:U:H2'	1:1A:725:G:O4'	2.20	0.42
1:1A:811:U:H2'	11:1P:21:ARG:HA	2.01	0.42
1:1A:824:A:H1'	1:1A:2358:G:N7	2.33	0.42
1:1A:1239:G:H2'	1:1A:1240:U:O4'	2.19	0.42
1:1A:1796:U:H2'	1:1A:1797:C:C6	2.54	0.42
1:1A:2001:A:H2'	1:1A:2002:G:C8	2.54	0.42
1:1A:2715:C:H2'	1:1A:2716:U:H6	1.84	0.42
5:1F:150:GLY:HA2	5:1F:172:TRP:CE3	2.54	0.42
15:1T:91:ARG:HD2	15:1T:120:ARG:NH1	2.35	0.42
18:1W:45:TYR:CE2	18:1W:49:LYS:HD2	2.55	0.42
26:14:41:PRO:HB3	26:14:47:GLN:O	2.20	0.42
32:1a:509:A:H5''	35:1d:55:ALA:HB2	2.01	0.42
32:1a:687:A:H4'	32:1a:688:G:O5'	2.19	0.42
32:1a:1239:A:H62	32:1a:1299:A:N6	2.16	0.42
32:1a:1270:C:H2'	32:1a:1271:G:C8	2.55	0.42
32:1a:1353:G:OP1	51:1u:10:ARG:NH1	2.50	0.42
33:1b:24:TRP:CZ3	33:1b:26:PRO:HA	2.54	0.42
39:1h:49:GLU:HG2	39:1h:62:TYR:HE1	1.84	0.42
44:1m:89:GLY:O	44:1m:93:ARG:HG3	2.20	0.42
1:2A:1312:U:H4'	1:2A:1313:U:O5'	2.19	0.42
1:2A:1920:OMC:HM22	1:2A:1920:OMC:H1'	1.74	0.42
1:2A:2591:C:OP1	3:2D:239:ARG:HD2	2.19	0.42
1:2A:2601:C:C3'	1:2A:2602:A:H5''	2.49	0.42
1:2A:2690:C:N4	1:2A:2713:A:H1'	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:2E:59:VAL:HG21	4:2E:74:PRO:HB3	2.00	0.42
18:2W:78:GLU:OE2	18:2W:99:ARG:NH1	2.44	0.42
32:2a:1067:A:H8	32:2a:1067:A:O5'	2.02	0.42
32:2a:1250:A:H2'	32:2a:1251:A:H8	1.85	0.42
32:2a:1258:G:H2'	32:2a:1259:C:C6	2.54	0.42
1:1A:111:A:H4'	24:12:69:ARG:NH1	2.35	0.42
1:1A:270:A:H1'	1:1A:370:G:C2	2.54	0.42
1:1A:272:G:O2'	1:1A:421:U:OP2	2.27	0.42
1:1A:948:G:OP2	58:1A:4079:HOH:O	2.21	0.42
1:1A:1721:G:H8	1:1A:1741:A:H62	1.67	0.42
1:1A:2059:A:H2'	1:1A:2503:2MA:HM23	2.02	0.42
1:1A:2550:G:OP1	58:1A:4008:HOH:O	2.22	0.42
1:1A:2704:C:H2'	1:1A:2705:A:O4'	2.19	0.42
4:1E:32:PRO:HA	4:1E:90:THR:HA	2.02	0.42
7:1H:40:GLU:OE1	7:1H:61:HIS:NE2	2.51	0.42
10:1O:120:GLU:OE1	15:1T:67:SER:OG	2.33	0.42
32:1a:407:G:H2'	32:1a:408:A:C8	2.54	0.42
32:1a:599:C:HO2'	39:1h:130:GLY:H	1.63	0.42
32:1a:692:U:O2'	32:1a:694:A:N7	2.52	0.42
32:1a:1058:G:H2'	32:1a:1059:C:C6	2.55	0.42
41:1j:55:LYS:HE3	41:1j:56:HIS:NE2	2.35	0.42
1:2A:781:A:O2'	1:2A:1788:C:O2	2.38	0.42
1:2A:795:C:H2'	1:2A:796:C:C6	2.55	0.42
1:2A:800:A:H8	1:2A:800:A:OP1	2.03	0.42
1:2A:1102:C:H2'	1:2A:1103:A:H8	1.85	0.42
1:2A:1225:G:H4'	17:2V:84:LYS:HG2	2.02	0.42
1:2A:2712:U:H1'	1:2A:2712(A):A:C8	2.55	0.42
3:2D:206:LEU:HD22	3:2D:211:ARG:HG2	2.00	0.42
5:2F:107:LYS:HG3	5:2F:206:ILE:HA	2.02	0.42
5:2F:164:ARG:O	5:2F:168:ARG:HG3	2.20	0.42
24:22:65:ASN:OD1	24:22:69:ARG:NH1	2.52	0.42
32:2a:359:U:H2'	32:2a:360:A:C8	2.53	0.42
32:2a:560:U:H4'	32:2a:561:U:O5'	2.18	0.42
32:2a:1066:C:H2'	32:2a:1067:A:C8	2.54	0.42
32:2a:1100:C:OP2	33:2b:96:ARG:HD3	2.20	0.42
35:2d:122:ARG:HA	35:2d:122:ARG:HD2	1.86	0.42
41:2j:11:PHE:CE1	41:2j:67:THR:HG22	2.54	0.42
42:2k:80:VAL:HG22	42:2k:103:LEU:HB3	2.02	0.42
42:2k:81:ASP:OD1	42:2k:106:LYS:HB2	2.19	0.42
46:2o:54:ARG:HG2	46:2o:58:MET:HE2	2.02	0.42
1:1A:207:A:H2'	1:1A:208:C:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1065:U:O2'	1:1A:1066:U:O4'	2.30	0.42
1:1A:1309:G:H4'	29:17:7:PRO:HG2	2.00	0.42
1:1A:1557:C:H5''	1:1A:1558:A:OP2	2.20	0.42
1:1A:1799:G:O2'	3:1D:181:GLU:OE2	2.27	0.42
1:1A:2064:C:H2'	1:1A:2065:C:H6	1.85	0.42
3:1D:13:ARG:NH1	3:1D:16:MET:SD	2.92	0.42
3:1D:67:PHE:HD1	3:1D:153:ALA:HB3	1.84	0.42
17:1V:52:VAL:HG23	17:1V:55:ALA:HB3	2.01	0.42
21:1Z:30:ASN:O	21:1Z:32:HIS:N	2.53	0.42
32:1a:393:A:OP2	47:1p:12:LYS:HD3	2.20	0.42
32:1a:540:G:H2'	32:1a:541:G:O4'	2.19	0.42
32:1a:939:G:H2'	32:1a:940:C:C6	2.54	0.42
32:1a:1201:A:H1'	32:1a:1202:G:OP2	2.19	0.42
32:1a:1399:C:O2	32:1a:1502:A:N6	2.52	0.42
43:1l:32:PHE:HB3	43:1l:84:LEU:HD11	2.00	0.42
1:2A:78:A:H2'	1:2A:79:G:C8	2.54	0.42
1:2A:108:U:H2'	1:2A:109:G:C8	2.55	0.42
1:2A:271(D):G:H2'	1:2A:271(E):U:C6	2.53	0.42
1:2A:335:C:H4'	20:2Y:73:ARG:HH11	1.85	0.42
1:2A:391:G:O2'	1:2A:410:G:OP1	2.28	0.42
1:2A:451:C:H5'	58:2A:3743:HOH:O	2.19	0.42
1:2A:1068:G:H3'	1:2A:1096:A:OP2	2.19	0.42
1:2A:1508:A:H4'	1:2A:1509:A:N9	2.35	0.42
1:2A:2321:G:HO2'	1:2A:2322:A:P	2.42	0.42
4:2E:51:PHE:HA	4:2E:52:LEU:HA	1.88	0.42
21:2Z:31:ARG:NH1	21:2Z:94:GLU:OE1	2.53	0.42
29:27:30:VAL:HG22	29:27:33:ARG:NH2	2.35	0.42
32:2a:19:C:H5''	36:2e:86:ALA:HB3	2.01	0.42
32:2a:284:G:H2'	32:2a:285:G:H8	1.84	0.42
32:2a:333:G:H2'	32:2a:334:C:C6	2.54	0.42
32:2a:535:A:H5''	58:2a:1828:HOH:O	2.19	0.42
32:2a:1095:U:P	32:2a:1108:G:H1	2.42	0.42
32:2a:1097:C:O2'	32:2a:1169:A:N3	2.42	0.42
32:2a:1400:5MC:O2	52:2y:63:ALA:HA	2.20	0.42
32:2a:1429:C:H2'	32:2a:1430:C:C6	2.54	0.42
33:2b:55:PHE:HD1	33:2b:55:PHE:HA	1.75	0.42
50:2t:67:ALA:HB2	50:2t:77:ALA:HB2	2.01	0.42
1:1A:36:G:N3	1:1A:450:G:O2'	2.52	0.42
1:1A:581:C:H2'	1:1A:582:G:H8	1.82	0.42
1:1A:987:G:O2'	1:1A:1000:A:N3	2.43	0.42
1:1A:2356:C:H2'	1:1A:2357:U:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:11:67:ILE:N	23:11:68:PRO:HD2	2.35	0.42
32:1a:160:A:H2'	32:1a:161:A:O4'	2.19	0.42
32:1a:299:G:C6	32:1a:300:A:C6	3.08	0.42
32:1a:514:C:H2'	32:1a:515:G:H8	1.84	0.42
32:1a:1003:G:N2	32:1a:1004:A:H1'	2.34	0.42
32:1a:1327:C:H2'	32:1a:1328:C:H6	1.85	0.42
36:1e:78:HIS:ND1	39:1h:104:ARG:HD2	2.34	0.42
42:1k:33:THR:HA	42:1k:39:PRO:HA	2.02	0.42
1:2A:536:A:H2'	1:2A:537:C:C6	2.54	0.42
1:2A:812:C:O2'	1:2A:1226:A:O2'	2.37	0.42
1:2A:1269:A:H2'	1:2A:1270:C:C6	2.55	0.42
1:2A:1486:A:H2'	1:2A:1487:G:H8	1.84	0.42
1:2A:1614:A:P	1:2A:1614:A:H8	2.42	0.42
1:2A:1645:G:H5''	1:2A:1646:C:H5'	2.00	0.42
1:2A:2080:G:H5'	23:21:35:THR:O	2.20	0.42
1:2A:2643:G:H2'	1:2A:2644:G:O4'	2.20	0.42
1:2A:2823:A:OP1	4:2E:113:PHE:HB2	2.19	0.42
1:2A:2886:G:H2'	1:2A:2887:U:H6	1.84	0.42
12:2Q:45:GLN:OE1	12:2Q:45:GLN:N	2.50	0.42
23:21:53:VAL:HG22	23:21:74:VAL:HG13	2.02	0.42
32:2a:151:A:C5	32:2a:152:A:C8	3.08	0.42
32:2a:389:A:H3'	32:2a:390:C:H6	1.84	0.42
32:2a:455:C:H2'	32:2a:456:C:H6	1.85	0.42
32:2a:473:G:H2'	32:2a:474:G:C8	2.54	0.42
32:2a:1070:U:H2'	32:2a:1071:C:C6	2.55	0.42
44:2m:96:LEU:C	44:2m:110:ARG:HG2	2.44	0.42
1:1A:614(C):A:C4	5:1F:180:GLY:HA3	2.54	0.42
1:1A:1447:G:N7	58:1A:4216:HOH:O	2.37	0.42
1:1A:1590:U:H2'	1:1A:1591:G:C8	2.55	0.42
1:1A:1899:G:N3	1:1A:1899:G:H2'	2.34	0.42
1:1A:1919:A:O2'	32:1a:1517:G:N3	2.48	0.42
1:1A:1920:OMC:HM23	1:1A:1920:OMC:H1'	1.74	0.42
32:1a:256:U:H2'	32:1a:257:G:C8	2.55	0.42
32:1a:582:U:OP1	46:1o:64:ARG:NH1	2.53	0.42
32:1a:1481:U:H2'	32:1a:1482:G:C8	2.55	0.42
48:1r:60:ALA:O	48:1r:64:ARG:HG3	2.19	0.42
1:2A:199:A:OP1	58:2A:3775:HOH:O	2.21	0.42
1:2A:807:U:OP2	11:2P:41:ARG:NH2	2.50	0.42
1:2A:1153:C:H5'	16:2U:76:TYR:HE2	1.84	0.42
1:2A:1184:G:OP1	25:23:30:ARG:NH1	2.52	0.42
1:2A:2741:A:H5''	31:29:22:ARG:HH12	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:2O:17:ARG:HD3	10:2O:17:ARG:HA	1.74	0.42
11:2P:39:LYS:HB2	11:2P:45:LEU:HD21	2.01	0.42
19:2X:11:PRO:HA	19:2X:28:PHE:HA	2.02	0.42
32:2a:381:C:H2'	32:2a:382:A:O4'	2.19	0.42
32:2a:401:C:O2'	32:2a:621:A:N3	2.46	0.42
32:2a:614:A:H2'	32:2a:615:C:H6	1.85	0.42
32:2a:1289:A:P	51:2u:10:ARG:HH22	2.42	0.42
32:2a:1488:G:H2'	32:2a:1489:G:H8	1.83	0.42
1:1A:531:C:H4'	1:1A:532:A:H5''	2.01	0.42
1:1A:924:C:H2'	1:1A:925:C:C6	2.54	0.42
1:1A:1509:A:H2'	1:1A:1509(A):A:O4'	2.20	0.42
1:1A:2320:A:H2'	1:1A:2320:A:N3	2.35	0.42
5:1F:10:PRO:HB3	5:1F:17:ARG:NH2	2.35	0.42
25:13:3:ARG:HD3	25:13:60:GLU:CD	2.45	0.42
26:14:1:MET:HE2	26:14:6:HIS:CD2	2.55	0.42
26:14:14:ILE:HB	26:14:22:ILE:HB	2.01	0.42
27:15:55:ARG:NH1	27:15:57:VAL:HG22	2.35	0.42
31:19:4:ARG:O	31:19:36:GLN:HA	2.20	0.42
32:1a:447:G:O6	32:1a:485:G:O2'	2.34	0.42
32:1a:821:G:H2'	32:1a:822:C:C6	2.54	0.42
1:2A:390:A:H4'	1:2A:391:G:H5'	2.02	0.42
1:2A:615:G:OP1	5:2F:40:GLN:NE2	2.53	0.42
1:2A:889:C:HO2'	1:2A:890:A:P	2.40	0.42
1:2A:1050:A:H2'	1:2A:1051:G:C8	2.54	0.42
1:2A:2130:U:H2'	1:2A:2158:A:N1	2.35	0.42
1:2A:2629:A:H1'	1:2A:2630:G:H5''	2.01	0.42
1:2A:2747:G:H21	1:2A:2757:A:H62	1.68	0.42
2:2B:18:G:H2'	2:2B:19:G:H8	1.85	0.42
9:2N:103:VAL:HG11	9:2N:120:LEU:HD22	2.02	0.42
16:2U:29:SER:C	16:2U:30:LYS:HD2	2.44	0.42
20:2Y:39:VAL:HB	20:2Y:42:VAL:HB	2.01	0.42
32:2a:645:C:H2'	32:2a:646:U:C6	2.55	0.42
32:2a:1157:A:C2	32:2a:1181:G:C4	3.07	0.42
33:2b:28:PHE:CD1	33:2b:194:PRO:HG3	2.55	0.42
33:2b:88:ALA:HB1	33:2b:222:ILE:HD11	2.02	0.42
35:2d:108:LEU:HD12	35:2d:108:LEU:HA	1.92	0.42
1:1A:438:G:H2'	1:1A:440:G:C8	2.55	0.42
1:1A:491:G:O6	18:1W:49:LYS:HE2	2.19	0.42
1:1A:729:G:C5	3:1D:208:LYS:HB2	2.54	0.42
1:1A:821:A:H5'	1:1A:822:U:C6	2.55	0.42
1:1A:1805:U:O2	3:1D:50:THR:HB	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2150:U:H2'	1:1A:2151:G:C8	2.55	0.42
1:1A:2183:C:H2'	1:1A:2184:G:H8	1.84	0.42
1:1A:2398:U:H2'	1:1A:2399:G:H8	1.85	0.42
8:1I:101:LEU:HD11	8:1I:140:LEU:HD11	2.02	0.42
32:1a:949:A:H2'	32:1a:950:U:C6	2.55	0.42
32:1a:1064:G:H1'	32:1a:1190:G:H21	1.84	0.42
32:1a:1064:G:H1'	32:1a:1190:G:N2	2.35	0.42
37:1f:21:LEU:O	37:1f:25:ILE:HG12	2.19	0.42
1:2A:116:C:H2'	1:2A:117:G:O4'	2.20	0.42
1:2A:459:U:H5''	29:27:40:TRP:CD2	2.55	0.42
1:2A:1336:A:H2'	1:2A:1337:G:C8	2.55	0.42
1:2A:2023:G:H4'	1:2A:2617:C:O3'	2.20	0.42
1:2A:2358:G:H22	11:2P:55:ARG:NH2	2.17	0.42
1:2A:2716:U:H2'	1:2A:2717:G:H8	1.84	0.42
1:2A:2781:A:H5''	1:2A:2782:G:H5'	2.02	0.42
6:2G:54:GLU:O	6:2G:58:GLN:N	2.52	0.42
10:2O:15:GLY:O	10:2O:47:ILE:HG13	2.19	0.42
16:2U:83:LEU:HG	16:2U:88:ILE:HD12	2.02	0.42
30:28:4:MET:HE2	30:28:4:MET:HB3	1.80	0.42
32:2a:189:G:H2'	32:2a:189(A):C:C6	2.55	0.42
32:2a:678:U:H2'	32:2a:679:C:C6	2.55	0.42
32:2a:1255:G:N1	32:2a:1279:A:N7	2.67	0.42
32:2a:1300:G:H1'	32:2a:1303:C:N4	2.34	0.42
32:2a:1372:U:H2'	32:2a:1373:G:O4'	2.20	0.42
32:2a:1404:5MC:N4	32:2a:1497:G:H1	2.11	0.42
32:2a:1524:C:H2'	32:2a:1525:G:H8	1.85	0.42
1:1A:879:G:H22	1:1A:899:A:H1'	1.85	0.41
1:1A:1056:G:H4'	1:1A:1086:A:C8	2.55	0.41
1:1A:1141:U:OP1	9:1N:25:ARG:NH1	2.53	0.41
1:1A:1272:A:OP2	58:1A:4082:HOH:O	2.22	0.41
1:1A:1578:U:H2'	1:1A:1579:A:H5'	2.01	0.41
1:1A:2100:G:H1	1:1A:2189:U:H3	1.67	0.41
1:1A:2805:G:H2'	1:1A:2807:G:C8	2.55	0.41
12:1Q:54:MET:HG3	12:1Q:121:ALA:HB2	2.01	0.41
13:1R:86:ARG:NH1	13:1R:118:GLU:O	2.53	0.41
19:1X:26:TYR:HB3	19:1X:92:LEU:HD22	2.01	0.41
31:19:12:ASP:OD1	31:19:13:LYS:N	2.53	0.41
32:1a:1172:C:H2'	32:1a:1173:G:C8	2.55	0.41
32:1a:1218:C:H2'	32:1a:1219:U:C6	2.55	0.41
39:1h:14:ARG:O	39:1h:18:ARG:HG2	2.19	0.41
41:1j:31:GLY:HA2	41:1j:32:ALA:HA	1.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:1p:40:ASP:HB3	47:1p:48:TRP:HB2	2.01	0.41
1:2A:196:A:N3	1:2A:196:A:H2'	2.35	0.41
1:2A:2287:A:H61	1:2A:2344:U:H3	1.68	0.41
2:2B:28:C:H2'	2:2B:29:A:C8	2.55	0.41
4:2E:36:ARG:HG2	4:2E:47:VAL:HG12	2.02	0.41
15:2T:51:ARG:HB3	15:2T:62:THR:HB	2.00	0.41
32:2a:848:C:H2'	32:2a:849:C:C6	2.55	0.41
32:2a:1073:U:C2	32:2a:1074:G:C8	3.07	0.41
32:2a:1176:A:H2'	32:2a:1177:G:C8	2.55	0.41
37:2f:9:VAL:HB	37:2f:87:ARG:HB2	2.01	0.41
46:2o:16:ALA:HB1	46:2o:21:ASP:HB3	2.02	0.41
1:1A:840:C:H2'	1:1A:841:A:H8	1.85	0.41
1:1A:970:C:H2'	1:1A:971:C:H6	1.85	0.41
1:1A:1703:G:H2'	1:1A:1704:G:H8	1.85	0.41
4:1E:11:MET:HB3	4:1E:11:MET:HE2	1.73	0.41
4:1E:97:LYS:H	4:1E:100:GLU:CD	2.27	0.41
5:1F:53:THR:HG23	5:1F:55:GLY:H	1.85	0.41
10:1O:68:GLU:H	10:1O:68:GLU:CD	2.28	0.41
12:1Q:137:TYR:O	12:1Q:141:GLN:HG2	2.21	0.41
13:1R:38:VAL:HG23	13:1R:110:PRO:O	2.21	0.41
22:10:43:THR:OG1	22:10:46:LYS:HG2	2.19	0.41
25:13:26:LEU:O	25:13:35:ARG:NE	2.53	0.41
32:1a:73:G:H2'	32:1a:76:C:H6	1.84	0.41
32:1a:198:G:H2'	32:1a:199:G:C8	2.55	0.41
32:1a:406:G:H5'	35:1d:5:ILE:HD11	2.02	0.41
32:1a:816:A:OP2	32:1a:1526:G:O2'	2.33	0.41
32:1a:1015:A:H2'	32:1a:1016:A:C8	2.55	0.41
32:1a:1118:C:H2'	32:1a:1119:C:H6	1.85	0.41
34:1c:18:TRP:O	34:1c:21:ARG:NH1	2.53	0.41
1:2A:421:U:O2'	58:2A:3784:HOH:O	2.22	0.41
1:2A:724:U:H2'	1:2A:725:G:O4'	2.20	0.41
1:2A:1363:C:O2'	1:2A:1809:A:N3	2.52	0.41
1:2A:1468:C:H2'	1:2A:1469:A:C8	2.55	0.41
9:2N:30:ILE:HG23	9:2N:52:VAL:HG11	2.02	0.41
23:21:83:GLU:HA	23:21:84:GLY:HA2	1.57	0.41
32:2a:444:C:H2'	32:2a:445:G:H8	1.86	0.41
32:2a:474:G:H2'	32:2a:475:G:C8	2.54	0.41
32:2a:1512:U:H2'	32:2a:1513:A:H8	1.85	0.41
33:2b:93:VAL:HG11	33:2b:101:MET:SD	2.60	0.41
37:2f:30:LEU:HD23	37:2f:75:LEU:HD11	2.01	0.41
40:2i:51:ARG:HG2	40:2i:56:LEU:HD11	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:465:G:C6	1:1A:466:A:N6	2.88	0.41
1:1A:1246:A:OP1	5:1F:38:ARG:NH1	2.51	0.41
1:1A:1379:A:H4'	1:1A:1380:G:OP2	2.20	0.41
1:1A:2369:A:H2'	1:1A:2370:G:H8	1.85	0.41
4:1E:170:LEU:HB3	4:1E:184:VAL:HG22	2.02	0.41
5:1F:40:GLN:NE2	5:1F:182:ASN:HB2	2.36	0.41
12:1Q:21:THR:HG23	12:1Q:99:PRO:O	2.19	0.41
19:1X:36:LYS:HG2	19:1X:56:THR:HG23	2.02	0.41
27:15:40:LYS:HD3	27:15:46:CYS:HA	2.01	0.41
32:1a:1073:U:C2	32:1a:1074:G:C8	3.09	0.41
41:1j:13:HIS:HB3	41:1j:68:HIS:CD2	2.55	0.41
1:2A:27:G:O2'	1:2A:28:A:OP2	2.34	0.41
1:2A:218:A:H2	1:2A:235:U:H4'	1.85	0.41
1:2A:991:C:H42	1:2A:1163:G:H1	1.66	0.41
1:2A:1581:G:H2'	1:2A:1582:C:O4'	2.19	0.41
1:2A:1656:C:H2'	1:2A:1657:C:H6	1.85	0.41
1:2A:1946:U:H2'	1:2A:1947:C:C6	2.55	0.41
2:2B:19:G:H2'	2:2B:20:C:C6	2.55	0.41
3:2D:181:GLU:HG3	3:2D:272:ALA:O	2.21	0.41
4:2E:28:ALA:HB3	4:2E:93:VAL:HG13	2.02	0.41
32:2a:7:G:H5'	32:2a:298:A:O4'	2.20	0.41
32:2a:178:C:C2	32:2a:179:A:C8	3.08	0.41
32:2a:335:C:C2	32:2a:336:C:C5	3.08	0.41
32:2a:576:G:OP2	32:2a:577:G:H5''	2.20	0.41
32:2a:1001:A:N6	32:2a:1041:A:C6	2.88	0.41
40:2i:24:GLY:H	40:2i:60:ASP:HB3	1.85	0.41
1:1A:376:C:H2'	1:1A:377:C:C6	2.56	0.41
1:1A:607:U:OP1	5:1F:102:PRO:HA	2.20	0.41
1:1A:960:A:C8	1:1A:962:G:C8	3.09	0.41
1:1A:1153:C:H2'	1:1A:1154:G:O4'	2.21	0.41
3:1D:111:LEU:HD23	3:1D:111:LEU:HA	1.80	0.41
3:1D:211:ARG:HG3	3:1D:214:TRP:CE3	2.55	0.41
3:1D:246:PRO:O	3:1D:254:THR:HG22	2.20	0.41
6:1G:16:ARG:NE	6:1G:31:VAL:HG21	2.35	0.41
9:1N:112:LEU:O	9:1N:116:LEU:HG	2.21	0.41
14:1S:18:ILE:HD13	14:1S:18:ILE:HA	1.90	0.41
32:1a:986:A:H2'	32:1a:987:G:C8	2.55	0.41
36:1e:77:PRO:O	39:1h:105:ARG:HG2	2.20	0.41
43:1l:23:LYS:C	43:1l:25:PRO:HD3	2.45	0.41
47:1p:4:ILE:HG13	47:1p:64:ALA:HB1	2.02	0.41
1:2A:336:C:H4'	20:2Y:6:HIS:CE1	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:519:U:H2'	1:2A:520:G:H8	1.84	0.41
1:2A:1500:G:O2'	3:2D:100:GLY:O	2.31	0.41
1:2A:1638:C:OP1	1:2A:2710:C:O2'	2.35	0.41
2:2B:24:G:N7	2:2B:56:G:H2'	2.36	0.41
4:2E:11:MET:HE2	4:2E:11:MET:HB3	1.88	0.41
7:2H:5:GLY:O	7:2H:65:HIS:NE2	2.54	0.41
13:2R:70:LEU:C	13:2R:72:ASP:H	2.28	0.41
23:21:23:LYS:HB3	23:21:29:GLY:HA3	2.02	0.41
32:2a:677:U:H2'	32:2a:678:U:H6	1.85	0.41
34:2c:131:ARG:NH2	36:2e:50:GLU:HG3	2.34	0.41
39:2h:6:ILE:HB	39:2h:85:ARG:NH1	2.34	0.41
47:2p:23:ASP:OD1	47:2p:24:ALA:N	2.53	0.41
1:1A:26:G:H1'	1:1A:515:A:H61	1.85	0.41
1:1A:1405:U:H2'	1:1A:1406:U:C6	2.56	0.41
1:1A:1857:G:C6	1:1A:1858:G:C6	3.08	0.41
1:1A:2019:A:O4'	16:1U:34:LYS:HE3	2.21	0.41
2:1B:115:G:HO2'	14:1S:50:SER:HG	1.59	0.41
3:1D:233:HIS:CE1	3:1D:242:ARG:HG2	2.56	0.41
4:1E:173:VAL:HG22	4:1E:185:LYS:HB2	2.02	0.41
21:1Z:136:PHE:HE1	21:1Z:138:GLU:HG3	1.84	0.41
23:11:70:VAL:O	23:11:73:LEU:HB2	2.20	0.41
32:1a:7:G:H5'	32:1a:298:A:O4'	2.19	0.41
32:1a:1151:A:O2'	32:1a:1152:A:H8	2.03	0.41
32:1a:1342:C:H2'	32:1a:1343:G:H8	1.85	0.41
33:1b:21:ARG:H	33:1b:21:ARG:HG2	1.63	0.41
47:1p:6:LEU:HD23	47:1p:17:TYR:CG	2.55	0.41
49:1s:3:ARG:NE	49:1s:8:GLY:O	2.53	0.41
1:2A:634:C:H2'	1:2A:635:C:C6	2.56	0.41
1:2A:1316:U:H2'	1:2A:1317:A:H8	1.85	0.41
1:2A:1803:A:O2'	3:2D:259:THR:HG21	2.21	0.41
1:2A:2232:U:P	23:21:40:ARG:HH12	2.43	0.41
1:2A:2295:C:OP1	14:2S:10:ARG:NH1	2.53	0.41
1:2A:2320:A:N3	1:2A:2320:A:H2'	2.35	0.41
1:2A:2706:G:N7	58:2A:3906:HOH:O	2.37	0.41
4:2E:104:VAL:HG13	4:2E:198:VAL:HG22	2.01	0.41
19:2X:8:ILE:O	24:22:36:ARG:NH2	2.51	0.41
27:25:49:CYS:SG	27:25:51:TYR:HB2	2.60	0.41
32:2a:109:A:C6	32:2a:326:G:C6	3.09	0.41
32:2a:912:C:OP1	43:2l:46:LYS:NZ	2.50	0.41
32:2a:1429:C:H2'	32:2a:1430:C:H6	1.85	0.41
34:2c:63:ASN:HB2	34:2c:98:ASN:HB2	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2d:10:ARG:HB2	35:2d:40:PRO:HG3	2.01	0.41
1:1A:30:G:H2'	1:1A:31:C:C6	2.56	0.41
1:1A:987:G:H2'	1:1A:988:A:O4'	2.20	0.41
1:1A:1101:U:H2'	1:1A:1102:C:C6	2.56	0.41
1:1A:1439:A:H2'	1:1A:1440:G:O4'	2.21	0.41
1:1A:1448:G:H5''	1:1A:1542:A:OP1	2.21	0.41
1:1A:2046:G:O5'	27:15:19:ARG:HA	2.21	0.41
1:1A:2646:C:H2'	1:1A:2647:U:O4'	2.20	0.41
1:1A:2660:A:H2'	1:1A:2661:G:O4'	2.20	0.41
5:1F:23:ASP:OD1	5:1F:23:ASP:N	2.50	0.41
5:1F:51:THR:HB	5:1F:88:VAL:HG11	2.02	0.41
5:1F:155:LEU:HD11	5:1F:176:LEU:HD12	2.01	0.41
5:1F:196:LEU:HD23	5:1F:196:LEU:HA	1.89	0.41
12:1Q:79:LEU:HD23	12:1Q:79:LEU:HA	1.89	0.41
15:1T:30:VAL:HG22	15:1T:86:ILE:HG12	2.02	0.41
32:1a:335:C:H2'	32:1a:336:C:C6	2.55	0.41
32:1a:524:G:H2'	32:1a:525:C:C6	2.55	0.41
32:1a:958:A:N3	32:1a:985:C:O2'	2.47	0.41
32:1a:1070:U:H2'	32:1a:1071:C:C6	2.55	0.41
33:1b:83:MET:SD	33:1b:234:PRO:HB2	2.60	0.41
34:1c:15:THR:HG22	34:1c:181:ASN:HD22	1.85	0.41
39:1h:120:THR:H	39:1h:123:GLU:HB2	1.85	0.41
48:1r:76:LEU:HD12	48:1r:76:LEU:HA	1.86	0.41
1:2A:195:A:H2'	1:2A:198:C:N4	2.36	0.41
1:2A:328:U:H4'	20:2Y:68:HIS:CD2	2.56	0.41
1:2A:509:C:OP1	58:2A:3780:HOH:O	2.22	0.41
1:2A:582:G:H2'	1:2A:583:G:C8	2.56	0.41
1:2A:747:U:O2	1:2A:2014:A:H1'	2.20	0.41
1:2A:1277:G:O2'	13:2R:24:GLN:HG2	2.20	0.41
1:2A:1453:U:O2'	1:2A:1455:G:N7	2.51	0.41
1:2A:1821:A:H2'	1:2A:1822:G:H8	1.84	0.41
1:2A:1866:C:H2'	1:2A:1876:A:O4'	2.20	0.41
1:2A:2302:G:N2	6:2G:126:ASP:OD2	2.41	0.41
1:2A:2350:C:H2'	1:2A:2351:G:O4'	2.21	0.41
1:2A:2489:G:C6	1:2A:2490:G:C6	3.09	0.41
1:2A:2881:C:HO2'	13:2R:96:ARG:HA	1.84	0.41
2:2B:8:U:OP1	14:2S:15:ARG:NH2	2.49	0.41
3:2D:37:LEU:HD23	3:2D:60:ARG:HB2	2.01	0.41
14:2S:23:ARG:HD2	14:2S:86:ALA:HB2	2.02	0.41
17:2V:29:PRO:HG3	17:2V:64:HIS:CD2	2.55	0.41
21:2Z:5:LEU:O	21:2Z:59:LEU:HA	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:113:G:H2'	32:2a:114:U:H6	1.86	0.41
32:2a:115:G:OP1	58:2a:1805:HOH:O	2.22	0.41
32:2a:360:A:C6	32:2a:361:G:C6	3.08	0.41
32:2a:438:G:O2'	32:2a:494:U:O4	2.29	0.41
32:2a:1118:C:H1'	32:2a:1179:A:C5	2.55	0.41
32:2a:1308:U:H2'	32:2a:1309:G:H8	1.85	0.41
33:2b:97:TRP:HZ2	33:2b:102:LEU:HD13	1.85	0.41
52:2y:61:LEU:HD11	52:2y:85:LEU:HD13	2.03	0.41
1:1A:41:C:H2'	1:1A:42:G:O4'	2.21	0.41
1:1A:438:G:H2'	1:1A:440:G:H8	1.86	0.41
1:1A:1050:A:H2'	1:1A:1051:G:O4'	2.21	0.41
1:1A:1540:U:H2'	1:1A:1541:G:O4'	2.21	0.41
1:1A:2167:U:H2'	1:1A:2168:G:C8	2.55	0.41
1:1A:2552:OMU:H2'	1:1A:2554:U:OP2	2.20	0.41
1:1A:2846:G:P	15:1T:54:ARG:HB2	2.60	0.41
3:1D:18:VAL:HG12	3:1D:211:ARG:HH12	1.86	0.41
3:1D:68:LYS:C	3:1D:70:TRP:H	2.28	0.41
13:1R:2:ARG:NH1	13:1R:5:LYS:O	2.53	0.41
21:1Z:132:ASN:ND2	21:1Z:160:GLY:HA3	2.36	0.41
23:11:50:ARG:HG2	23:11:59:THR:HG22	2.03	0.41
29:17:24:THR:O	29:17:28:ARG:HG3	2.20	0.41
32:1a:738:C:H2'	32:1a:739:C:C6	2.56	0.41
32:1a:857:C:H2'	32:1a:858:G:O4'	2.20	0.41
35:1d:156:GLU:O	35:1d:160:GLN:HG2	2.20	0.41
38:1g:28:ASN:HA	38:1g:31:MET:HE2	2.03	0.41
39:1h:82:HIS:CE1	39:1h:84:ARG:HG2	2.55	0.41
43:1l:113:ARG:NH2	43:1l:115:LYS:O	2.52	0.41
45:1n:26:ARG:NH1	45:1n:43:CYS:SG	2.87	0.41
46:1o:26:GLU:OE2	46:1o:77:ARG:NE	2.48	0.41
48:1r:56:THR:HB	48:1r:58:LEU:HD13	2.02	0.41
1:2A:271(Q):G:H2'	1:2A:271(R):G:H8	1.86	0.41
1:2A:286:C:H2'	1:2A:287:C:C6	2.55	0.41
1:2A:635:C:H2'	1:2A:636:G:O4'	2.21	0.41
1:2A:1057:A:HO2'	1:2A:1058:G:P	2.43	0.41
1:2A:1186:G:H2'	1:2A:1187:G:O4'	2.20	0.41
1:2A:1374:G:H2'	1:2A:1375:C:C6	2.56	0.41
1:2A:2056:G:N2	27:25:4:HIS:O	2.48	0.41
3:2D:68:LYS:O	3:2D:70:TRP:N	2.49	0.41
10:2O:97:ARG:HA	10:2O:117:LEU:HD22	2.03	0.41
11:2P:99:LEU:HD23	11:2P:100:LEU:HD23	2.03	0.41
20:2Y:40:GLU:O	20:2Y:42:VAL:HG23	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:499:A:H4'	32:2a:500:G:OP1	2.21	0.41
32:2a:509:A:H3'	32:2a:509:A:OP2	2.20	0.41
32:2a:1006:C:H2'	32:2a:1007:C:C6	2.56	0.41
32:2a:1109:C:C2	32:2a:1110:A:C8	3.09	0.41
33:2b:54:THR:HG23	33:2b:199:TYR:HB3	2.03	0.41
39:2h:19:VAL:HG23	39:2h:21:LYS:HG2	2.01	0.41
44:2m:97:PRO:N	44:2m:110:ARG:HG2	2.35	0.41
47:2p:69:THR:O	47:2p:73:LEU:HG	2.21	0.41
1:1A:644:A:N6	1:1A:2349:G:H1'	2.35	0.41
1:1A:1371:G:H2'	1:1A:1372:U:H5	1.86	0.41
1:1A:2023:G:H4'	1:1A:2617:C:O3'	2.21	0.41
1:1A:2492:U:H2'	1:1A:2493:U:C6	2.56	0.41
1:1A:2698:U:H2'	1:1A:2699:C:C6	2.56	0.41
6:1G:77:ILE:HG22	6:1G:80:PHE:H	1.86	0.41
9:1N:15:LEU:HB2	9:1N:135:PRO:HB2	2.02	0.41
32:1a:266:G:H2'	32:1a:266:G:N3	2.36	0.41
32:1a:741:G:OP1	46:1o:35:ARG:NH2	2.44	0.41
32:1a:1240:U:OP2	38:1g:116:ALA:N	2.43	0.41
33:1b:55:PHE:CD1	33:1b:58:ILE:HD12	2.56	0.41
33:1b:174:VAL:O	33:1b:178:ARG:HB2	2.21	0.41
39:1h:51:VAL:HG21	39:1h:60:ARG:HH11	1.86	0.41
46:1o:16:ALA:HB1	46:1o:21:ASP:HB3	2.03	0.41
1:2A:271(A):A:N7	1:2A:271(W):G:N2	2.69	0.41
1:2A:355:G:H2'	1:2A:356:G:C8	2.55	0.41
1:2A:530:G:H4'	1:2A:531:C:OP1	2.21	0.41
1:2A:1358:G:N1	1:2A:1372:U:OP2	2.42	0.41
1:2A:2180:U:H2'	1:2A:2181:G:C8	2.56	0.41
1:2A:2336:A:H61	22:20:43:THR:HG21	1.85	0.41
1:2A:2472:G:H22	1:2A:2477:C:H5''	1.86	0.41
1:2A:2820:A:HO2'	1:2A:2821:A:P	2.39	0.41
2:2B:37:C:O2'	14:2S:95:HIS:HE1	2.03	0.41
11:2P:59:LEU:HD21	30:28:10:ALA:HA	2.03	0.41
13:2R:104:ARG:HD2	13:2R:107:ASP:OD1	2.21	0.41
16:2U:89:GLU:HG3	17:2V:50:PRO:HB3	2.03	0.41
23:21:3:LYS:HB3	23:21:4:VAL:H	1.64	0.41
24:22:12:GLU:O	24:22:16:LEU:HG	2.20	0.41
29:27:12:ARG:NH2	29:27:44:PRO:HB3	2.35	0.41
32:2a:547:A:H5'	58:2a:1815:HOH:O	2.20	0.41
32:2a:1040:U:H2'	32:2a:1041:A:O4'	2.20	0.41
32:2a:1315:U:O2'	32:2a:1360:A:N3	2.44	0.41
32:2a:1524:C:H2'	32:2a:1525:G:C8	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2c:131:ARG:HD2	34:2c:131:ARG:HA	1.89	0.41
44:2m:108:ARG:HA	44:2m:108:ARG:HD3	1.86	0.41
1:1A:459:U:H2'	1:1A:460:A:H8	1.86	0.41
1:1A:530:G:N1	1:1A:2023:G:OP1	2.51	0.41
1:1A:998:C:OP1	58:1A:4084:HOH:O	2.22	0.41
1:1A:1423:G:H2'	1:1A:1424:G:H8	1.85	0.41
1:1A:1783:A:H5'	1:1A:2608:G:H4'	2.02	0.41
1:1A:2228:G:OP1	3:1D:261:LYS:NZ	2.41	0.41
1:1A:2359:C:H2'	1:1A:2360:A:O4'	2.21	0.41
1:1A:2516:G:C5	1:1A:2517:C:C4	3.09	0.41
1:1A:2821:A:H2'	1:1A:2822:G:C8	2.56	0.41
3:1D:133:LEU:HD13	3:1D:173:VAL:HG21	2.03	0.41
6:1G:109:VAL:C	6:1G:112:PRO:HD2	2.46	0.41
10:1O:23:ARG:HD3	10:1O:24:VAL:N	2.36	0.41
15:1T:51:ARG:HG3	15:1T:98:LYS:HE3	2.01	0.41
17:1V:97:LYS:HA	17:1V:97:LYS:HD3	1.91	0.41
21:1Z:136:PHE:CE1	21:1Z:138:GLU:HG3	2.56	0.41
22:10:12:ASN:O	22:10:14:ARG:N	2.54	0.41
22:10:50:ASN:HB3	22:10:63:VAL:HG22	2.02	0.41
32:1a:123:C:OP1	32:1a:312:C:H5'	2.20	0.41
32:1a:136:C:H2'	32:1a:137:C:H6	1.86	0.41
32:1a:141:A:H1'	32:1a:182:U:O2	2.21	0.41
32:1a:266:G:H1'	32:1a:267:C:OP2	2.20	0.41
32:1a:894:G:C6	32:1a:895:G:C5	3.09	0.41
32:1a:901:A:C5	32:1a:902:G:H1'	2.56	0.41
32:1a:923:A:H2'	32:1a:924:C:H6	1.84	0.41
32:1a:1172:C:H2'	32:1a:1173:G:H8	1.86	0.41
32:1a:1516:G:H2'	32:1a:1518:MA6:OP2	2.20	0.41
33:1b:207:ALA:O	33:1b:211:ILE:HG13	2.20	0.41
34:1c:116:VAL:HG21	34:1c:202:ILE:HD11	2.01	0.41
35:1d:61:LYS:HD2	35:1d:207:TYR:OH	2.21	0.41
35:1d:98:GLU:OE1	35:1d:103:ASN:ND2	2.47	0.41
35:1d:187:ARG:NH1	35:1d:193:ASP:OD2	2.48	0.41
44:1m:14:ARG:HG3	44:1m:44:ARG:NH1	2.36	0.41
44:1m:79:LYS:NZ	44:1m:83:ASP:OD2	2.42	0.41
47:1p:57:ARG:HH21	47:1p:79:VAL:HA	1.86	0.41
49:1s:43:GLU:OE1	49:1s:43:GLU:N	2.52	0.41
50:1t:9:ASN:OD1	50:1t:9:ASN:N	2.54	0.41
1:2A:17:G:H4'	16:2U:25:TRP:NE1	2.35	0.41
1:2A:25:U:H2'	1:2A:26:G:O4'	2.21	0.41
1:2A:567:A:OP2	11:2P:29:LYS:NZ	2.49	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:732:C:H2'	1:2A:733:G:O4'	2.21	0.41
1:2A:910:A:N3	1:2A:2264:C:O2'	2.46	0.41
1:2A:1050:A:H2'	1:2A:1051:G:H8	1.86	0.41
1:2A:1055:G:H2'	1:2A:1056:G:O4'	2.21	0.41
1:2A:1064:C:H3'	1:2A:1065:U:H5'	2.02	0.41
1:2A:1187:G:N2	1:2A:1188:U:O4	2.54	0.41
1:2A:1266:G:O6	18:2W:13:SER:OG	2.28	0.41
1:2A:1587:A:H2'	1:2A:1588:C:C6	2.56	0.41
1:2A:1803:A:N1	1:2A:1822:G:O2'	2.51	0.41
1:2A:2537:U:H2'	1:2A:2538:C:C6	2.56	0.41
8:2I:104:GLN:HG2	8:2I:105:HIS:CD2	2.55	0.41
12:2Q:137:TYR:O	12:2Q:141:GLN:HG2	2.20	0.41
14:2S:93:LYS:NZ	14:2S:95:HIS:HB2	2.36	0.41
20:2Y:87:LYS:HB3	20:2Y:95:LYS:HD2	2.03	0.41
24:22:1:MET:SD	24:22:56:GLN:NE2	2.94	0.41
32:2a:113:G:H2'	32:2a:114:U:C6	2.55	0.41
32:2a:201:C:H42	32:2a:216:G:H1	1.68	0.41
32:2a:441:A:H3'	32:2a:442:C:H6	1.85	0.41
32:2a:1070:U:OP1	36:2e:20:GLN:NE2	2.38	0.41
32:2a:1315:U:H2'	32:2a:1316:G:O4'	2.20	0.41
32:2a:1435:G:H2'	32:2a:1436:U:H6	1.85	0.41
37:2f:22:GLU:OE2	37:2f:82:ARG:NE	2.47	0.41
40:2i:19:LEU:HD21	40:2i:81:ILE:HG13	2.03	0.41
52:2y:48:PHE:CD2	52:2y:70:MET:HB2	2.52	0.41
1:1A:272(D):G:H1	1:1A:364:C:H42	1.69	0.41
1:1A:305:U:H2'	1:1A:306:U:C6	2.56	0.41
1:1A:630:G:N2	1:1A:633:A:OP2	2.46	0.41
1:1A:1321:A:H2'	1:1A:1322:A:O4'	2.21	0.41
1:1A:1798:U:H5'	3:1D:259:THR:CG2	2.49	0.41
13:1R:26:LYS:HE2	13:1R:70:LEU:O	2.21	0.41
15:1T:1:MET:HE2	15:1T:3:ARG:HG2	2.03	0.41
32:1a:274:A:H1'	32:1a:275:G:C8	2.54	0.41
32:1a:417:C:H2'	32:1a:418:C:H6	1.86	0.41
32:1a:630:G:H2'	32:1a:631:G:O4'	2.21	0.41
32:1a:1440:C:H2'	32:1a:1441:G:O4'	2.20	0.41
33:1b:15:VAL:HG21	33:1b:213:LEU:HD12	2.03	0.41
44:1m:36:LYS:HG3	44:1m:59:TYR:OH	2.21	0.41
1:2A:96:G:H4'	24:22:48:HIS:CD2	2.56	0.41
1:2A:655:A:H2'	1:2A:656:G:O4'	2.20	0.41
1:2A:725:G:H8	1:2A:725:G:O5'	2.04	0.41
1:2A:821:A:H2'	1:2A:946:G:H5''	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1431:U:H2'	1:2A:1432:C:C6	2.56	0.41
1:2A:2014:A:OP2	58:2A:3772:HOH:O	2.21	0.41
1:2A:2109:U:H1'	1:2A:2181:G:N2	2.36	0.41
1:2A:2298:A:H2'	1:2A:2299:G:O4'	2.20	0.41
1:2A:2584:U:H5''	1:2A:2602:A:N1	2.35	0.41
1:2A:2602:A:H4'	1:2A:2603:G:OP1	2.20	0.41
29:27:3:ARG:HA	29:27:3:ARG:HD3	1.79	0.41
32:2a:176:C:H2'	32:2a:177:C:H6	1.85	0.41
32:2a:615:C:C2	32:2a:616:G:C8	3.09	0.41
32:2a:1157:A:H4'	32:2a:1158:C:O5'	2.21	0.41
35:2d:13:ARG:HH22	35:2d:36:ARG:NH2	2.19	0.41
35:2d:98:GLU:OE1	35:2d:103:ASN:ND2	2.46	0.41
40:2i:81:ILE:O	40:2i:85:LEU:HG	2.21	0.41
52:2y:10:MET:HE2	52:2y:12:ILE:HD11	2.02	0.41
1:1A:1486:A:H2'	1:1A:1487:G:C8	2.56	0.40
1:1A:1641:A:H2'	1:1A:1642:G:O4'	2.21	0.40
3:1D:79:VAL:HG12	3:1D:113:VAL:HA	2.04	0.40
7:1H:41:MET:HE2	7:1H:65:HIS:HA	2.02	0.40
16:1U:34:LYS:HD3	16:1U:34:LYS:HA	1.72	0.40
24:12:32:LEU:HD12	24:12:57:ILE:HD12	2.03	0.40
25:13:3:ARG:NH1	25:13:60:GLU:OE2	2.54	0.40
32:1a:598:U:H4'	39:1h:94:TYR:CG	2.56	0.40
32:1a:790:A:H61	32:1a:1498:UR3:P	2.44	0.40
32:1a:1305:G:OP1	51:1u:2:GLY:N	2.54	0.40
36:1e:92:LYS:HB3	36:1e:119:LEU:HB2	2.02	0.40
44:1m:9:ILE:HB	44:1m:18:ALA:HB1	2.03	0.40
1:2A:716:A:C2	1:2A:717:G:H1'	2.56	0.40
1:2A:1464:C:H2'	1:2A:1465:G:C8	2.56	0.40
1:2A:2017:U:O2	27:25:10:LYS:HB2	2.22	0.40
1:2A:2134:A:N6	1:2A:2156:G:O2'	2.43	0.40
1:2A:2152:G:H2'	1:2A:2153:G:C8	2.56	0.40
1:2A:2887:U:H2'	1:2A:2888:C:C6	2.57	0.40
2:2B:29:A:H2'	2:2B:30:C:C6	2.56	0.40
6:2G:145:THR:OG1	6:2G:146:TYR:N	2.45	0.40
28:26:18:ARG:HD2	28:26:42:TRP:CD1	2.56	0.40
32:2a:71:C:H2'	32:2a:72:C:C6	2.56	0.40
32:2a:170:U:H2'	32:2a:171:A:C8	2.56	0.40
32:2a:338:A:H2'	32:2a:339:C:C6	2.55	0.40
32:2a:489:C:H2'	32:2a:490:G:H8	1.87	0.40
35:2d:174:LEU:HD23	35:2d:185:PHE:HA	2.03	0.40
41:2j:10:GLY:H	41:2j:16:LEU:HD11	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:2t:54:LYS:HE2	50:2t:54:LYS:HB3	1.82	0.40
1:1A:1671:U:O4	58:1A:4008:HOH:O	2.22	0.40
1:1A:2189:U:H2'	1:1A:2190:G:H8	1.87	0.40
1:1A:2371:G:H21	28:16:46:HIS:HE1	1.69	0.40
3:1D:134:ARG:HG3	3:1D:135:PHE:CE1	2.56	0.40
4:1E:116:VAL:HG13	4:1E:122:PHE:HB2	2.01	0.40
6:1G:43:LEU:HB3	6:1G:44:GLY:H	1.65	0.40
6:1G:108:ASN:HB3	26:14:22:ILE:HD13	2.03	0.40
12:1Q:68:ILE:HD13	12:1Q:103:MET:HG2	2.03	0.40
15:1T:1:MET:HE3	15:1T:1:MET:HB2	1.88	0.40
25:13:5:LYS:HG3	25:13:36:VAL:HG22	2.02	0.40
32:1a:62:U:H2'	32:1a:63:C:H6	1.85	0.40
32:1a:689:C:OP1	42:1k:27:ASN:ND2	2.52	0.40
33:1b:55:PHE:HD1	33:1b:58:ILE:HD12	1.84	0.40
34:1c:148:GLY:HA3	34:1c:172:ARG:O	2.22	0.40
43:1l:34:ARG:HD3	43:1l:105:TYR:CE2	2.57	0.40
1:2A:372:G:O2'	1:2A:400:G:O6	2.37	0.40
1:2A:1091:G:N3	1:2A:1091:G:H2'	2.37	0.40
1:2A:1296:G:OP1	1:2A:2709:G:O2'	2.28	0.40
1:2A:1772:G:O6	53:2A:3001:MPD:H32	2.20	0.40
1:2A:2001:A:H2'	1:2A:2002:G:C8	2.57	0.40
1:2A:2037:G:C6	1:2A:2038:G:C6	3.10	0.40
1:2A:2619:C:H4'	4:2E:151:TYR:O	2.21	0.40
4:2E:175:VAL:HB	4:2E:182:LEU:HD12	2.02	0.40
5:2F:185:ASP:HA	5:2F:188:ARG:HD3	2.04	0.40
9:2N:67:LEU:O	9:2N:88:GLU:HG3	2.21	0.40
10:2O:70:LYS:HE2	10:2O:70:LYS:HB3	1.78	0.40
11:2P:63:PRO:HD3	30:28:27:THR:HG22	2.03	0.40
12:2Q:59:ARG:HA	21:2Z:180:VAL:HG23	2.03	0.40
15:2T:24:PRO:HD3	15:2T:52:ILE:HD12	2.03	0.40
18:2W:86:LEU:HD22	18:2W:96:ILE:HD11	2.03	0.40
32:2a:181:G:N2	32:2a:182:U:O4	2.49	0.40
32:2a:609:A:C5	32:2a:610:G:C8	3.10	0.40
32:2a:1002:G:C4	32:2a:1003:G:H8	2.40	0.40
32:2a:1175:G:H2'	32:2a:1176:A:C8	2.54	0.40
1:1A:189:G:OP1	23:11:39:LYS:HD3	2.21	0.40
1:1A:583:G:OP2	16:1U:10:ARG:HD2	2.22	0.40
1:1A:1210:A:H5''	1:1A:1212:G:O4'	2.22	0.40
1:1A:1272:A:H3'	1:1A:1273:U:H5''	2.02	0.40
1:1A:2259:G:N7	58:1A:4220:HOH:O	2.37	0.40
1:1A:2432:A:H5''	58:1A:5422:HOH:O	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2809:A:H62	1:1A:2891:G:H2'	1.85	0.40
4:1E:101:ARG:HA	4:1E:101:ARG:HD3	1.58	0.40
9:1N:138:LEU:HD23	9:1N:138:LEU:HA	1.90	0.40
11:1P:71:VAL:HG23	11:1P:72:PRO:HA	2.04	0.40
32:1a:42:G:H2'	32:1a:43:C:C6	2.57	0.40
32:1a:265:G:H2'	32:1a:266:G:H5''	2.03	0.40
32:1a:895:G:H2'	32:1a:896:C:C6	2.56	0.40
32:1a:925:G:C2	32:1a:927:G:C8	3.09	0.40
42:1k:32:ILE:HG22	42:1k:77:MET:HE3	2.02	0.40
1:2A:729:G:C8	3:2D:208:LYS:HD2	2.56	0.40
1:2A:956:G:OP2	12:2Q:14:ARG:NH2	2.54	0.40
1:2A:1131:G:O6	1:2A:2040:C:H1'	2.22	0.40
1:2A:1410:G:H2'	1:2A:1411:C:H6	1.86	0.40
1:2A:2109:U:N3	1:2A:2110:G:O6	2.55	0.40
1:2A:2497:A:H5''	58:2A:4329:HOH:O	2.21	0.40
2:2B:7:G:H3'	2:2B:8:U:H5''	2.03	0.40
32:2a:22:G:H2'	32:2a:23:C:C6	2.57	0.40
32:2a:486:U:H2'	32:2a:487:A:H8	1.86	0.40
32:2a:513:C:H2'	32:2a:514:C:H6	1.86	0.40
32:2a:688:G:H2'	32:2a:689:C:C6	2.55	0.40
32:2a:688:G:C6	32:2a:700:G:C2	3.09	0.40
32:2a:1054:C:H41	52:2y:46:GLN:HG3	1.86	0.40
33:2b:74:LYS:HG3	33:2b:77:ALA:HB3	2.04	0.40
33:2b:124:SER:HB2	33:2b:125:PRO:HD3	2.03	0.40
35:2d:162:LEU:HD13	35:2d:181:MET:HG2	2.03	0.40
1:1A:58:G:O2'	1:1A:73:A:N1	2.46	0.40
1:1A:392:C:H5''	1:1A:409:C:H5''	2.02	0.40
1:1A:875:G:H2'	1:1A:876:C:O4'	2.22	0.40
1:1A:885:C:H1'	1:1A:892:G:N2	2.36	0.40
1:1A:972:G:H3'	1:1A:973:A:H2'	2.03	0.40
1:1A:2405:G:H4'	11:1P:75:ILE:HD13	2.02	0.40
9:1N:73:THR:HA	9:1N:83:LYS:O	2.22	0.40
14:1S:87:PHE:HZ	14:1S:98:VAL:HG12	1.85	0.40
16:1U:76:TYR:CZ	16:1U:80:ILE:HG13	2.56	0.40
18:1W:24:ILE:HA	18:1W:27:LYS:HG3	2.03	0.40
32:1a:62:U:H2'	32:1a:63:C:C6	2.57	0.40
32:1a:69:G:H2'	32:1a:70:G:C8	2.57	0.40
32:1a:106:C:H2'	32:1a:107:G:H8	1.86	0.40
32:1a:1065:U:H1'	32:1a:1066:C:OP2	2.22	0.40
32:1a:1223:C:OP2	32:1a:1224:G:H2'	2.22	0.40
38:1g:26:PHE:HD1	38:1g:101:LEU:HD22	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:411:G:H5''	58:2A:3833:HOH:O	2.21	0.40
1:2A:1047:G:H2'	1:2A:1110:G:H22	1.85	0.40
2:2B:42:C:O2'	6:2G:66:GLN:HG2	2.22	0.40
8:2I:116:LEU:HD23	8:2I:116:LEU:HA	1.87	0.40
13:2R:26:LYS:HE2	13:2R:70:LEU:O	2.21	0.40
26:24:57:GLU:HA	26:24:58:ARG:HA	1.68	0.40
32:2a:673:G:C6	32:2a:734:G:C6	3.09	0.40
32:2a:1177:G:H2'	32:2a:1178:G:O4'	2.21	0.40
33:2b:166:ASP:HB3	33:2b:169:LYS:HB3	2.03	0.40
47:2p:23:ASP:OD2	47:2p:25:ARG:NH1	2.54	0.40
1:1A:557:U:H2'	1:1A:558:G:C8	2.56	0.40
1:1A:1066:U:H3	1:1A:1073:A:N6	2.19	0.40
1:1A:1152:C:H4'	16:1U:77:SER:HA	2.04	0.40
1:1A:1935:G:H1'	1:1A:1964:G:N2	2.36	0.40
19:1X:29:TRP:CZ3	19:1X:78:LYS:HB3	2.57	0.40
20:1Y:102:CYS:SG	20:1Y:103:GLY:N	2.95	0.40
35:1d:188:LEU:HA	35:1d:189:PRO:HD3	1.94	0.40
1:2A:466:A:P	29:27:34:ARG:HH21	2.43	0.40
1:2A:593:G:H2'	1:2A:594:U:C6	2.56	0.40
1:2A:864:G:N2	1:2A:866:A:H61	2.18	0.40
1:2A:1639:U:H2'	1:2A:1640:C:H5''	2.04	0.40
1:2A:2705:A:O2'	1:2A:2852:G:OP1	2.34	0.40
6:2G:136:ARG:HG3	6:2G:137:GLU:HG3	2.03	0.40
7:2H:86:GLU:OE2	7:2H:132:ARG:NH2	2.55	0.40
11:2P:63:PRO:HG2	30:28:25:MET:HB2	2.03	0.40
12:2Q:64:ILE:N	21:2Z:178:GLU:OE2	2.48	0.40
21:2Z:4:ARG:HH21	21:2Z:60:GLU:HG2	1.87	0.40
32:2a:108:G:C6	50:2t:15:ARG:HG2	2.56	0.40
32:2a:476:G:H2'	32:2a:477:A:H8	1.85	0.40
32:2a:683:G:H2'	32:2a:684:A:H8	1.85	0.40
32:2a:689:C:OP1	42:2k:27:ASN:ND2	2.52	0.40
32:2a:1006:C:H2'	32:2a:1007:C:H6	1.87	0.40
32:2a:1146:A:H2'	32:2a:1146:A:N3	2.37	0.40
32:2a:1324:A:O4'	32:2a:1362:C:H4'	2.21	0.40
35:2d:120:LEU:HD23	35:2d:120:LEU:HA	1.96	0.40
40:2i:5:TYR:HE1	40:2i:16:ARG:HB3	1.87	0.40
44:2m:59:TYR:O	44:2m:63:THR:OG1	2.31	0.40
52:2y:61:LEU:HB3	52:2y:81:LEU:HD22	2.03	0.40

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	1D	273/276 (99%)	259 (95%)	14 (5%)	0	100	100
3	2D	273/276 (99%)	257 (94%)	16 (6%)	0	100	100
4	1E	202/206 (98%)	192 (95%)	9 (4%)	1 (0%)	24	55
4	2E	202/206 (98%)	187 (93%)	13 (6%)	2 (1%)	12	40
5	1F	201/210 (96%)	193 (96%)	8 (4%)	0	100	100
5	2F	201/210 (96%)	189 (94%)	12 (6%)	0	100	100
6	1G	179/182 (98%)	164 (92%)	13 (7%)	2 (1%)	11	38
6	2G	179/182 (98%)	162 (90%)	15 (8%)	2 (1%)	11	38
7	1H	172/180 (96%)	161 (94%)	7 (4%)	4 (2%)	5	24
7	2H	171/180 (95%)	156 (91%)	13 (8%)	2 (1%)	10	36
8	1I	145/148 (98%)	134 (92%)	11 (8%)	0	100	100
8	2I	144/148 (97%)	138 (96%)	5 (4%)	1 (1%)	18	48
9	1N	138/140 (99%)	131 (95%)	7 (5%)	0	100	100
9	2N	138/140 (99%)	131 (95%)	7 (5%)	0	100	100
10	1O	120/122 (98%)	109 (91%)	11 (9%)	0	100	100
10	2O	120/122 (98%)	111 (92%)	9 (8%)	0	100	100
11	1P	147/150 (98%)	139 (95%)	8 (5%)	0	100	100
11	2P	147/150 (98%)	137 (93%)	9 (6%)	1 (1%)	18	48
12	1Q	139/141 (99%)	131 (94%)	8 (6%)	0	100	100
12	2Q	139/141 (99%)	133 (96%)	5 (4%)	1 (1%)	18	48
13	1R	116/118 (98%)	108 (93%)	8 (7%)	0	100	100
13	2R	116/118 (98%)	111 (96%)	5 (4%)	0	100	100
14	1S	108/112 (96%)	99 (92%)	7 (6%)	2 (2%)	6	28
14	2S	108/112 (96%)	101 (94%)	7 (6%)	0	100	100
15	1T	129/146 (88%)	115 (89%)	12 (9%)	2 (2%)	7	30

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
15	2T	129/146 (88%)	121 (94%)	8 (6%)	0	100	100
16	1U	114/118 (97%)	110 (96%)	4 (4%)	0	100	100
16	2U	114/118 (97%)	113 (99%)	1 (1%)	0	100	100
17	1V	99/101 (98%)	92 (93%)	6 (6%)	1 (1%)	12	40
17	2V	99/101 (98%)	93 (94%)	4 (4%)	2 (2%)	6	26
18	1W	110/113 (97%)	104 (94%)	6 (6%)	0	100	100
18	2W	110/113 (97%)	105 (96%)	5 (4%)	0	100	100
19	1X	93/96 (97%)	87 (94%)	4 (4%)	2 (2%)	5	25
19	2X	93/96 (97%)	87 (94%)	5 (5%)	1 (1%)	11	38
20	1Y	105/110 (96%)	96 (91%)	9 (9%)	0	100	100
20	2Y	105/110 (96%)	99 (94%)	6 (6%)	0	100	100
21	1Z	201/206 (98%)	191 (95%)	9 (4%)	1 (0%)	24	55
21	2Z	199/206 (97%)	187 (94%)	11 (6%)	1 (0%)	24	55
22	10	75/85 (88%)	71 (95%)	3 (4%)	1 (1%)	9	34
22	20	75/85 (88%)	72 (96%)	3 (4%)	0	100	100
23	11	95/98 (97%)	92 (97%)	3 (3%)	0	100	100
23	21	95/98 (97%)	92 (97%)	2 (2%)	1 (1%)	11	38
24	12	68/72 (94%)	63 (93%)	5 (7%)	0	100	100
24	22	68/72 (94%)	67 (98%)	1 (2%)	0	100	100
25	13	57/60 (95%)	56 (98%)	1 (2%)	0	100	100
25	23	57/60 (95%)	56 (98%)	1 (2%)	0	100	100
26	14	67/71 (94%)	53 (79%)	10 (15%)	4 (6%)	1	8
26	24	67/71 (94%)	52 (78%)	13 (19%)	2 (3%)	3	19
27	15	57/60 (95%)	52 (91%)	5 (9%)	0	100	100
27	25	57/60 (95%)	53 (93%)	4 (7%)	0	100	100
28	16	51/54 (94%)	48 (94%)	3 (6%)	0	100	100
28	26	51/54 (94%)	48 (94%)	3 (6%)	0	100	100
29	17	46/49 (94%)	45 (98%)	1 (2%)	0	100	100
29	27	46/49 (94%)	46 (100%)	0	0	100	100
30	18	62/65 (95%)	59 (95%)	3 (5%)	0	100	100
30	28	62/65 (95%)	59 (95%)	3 (5%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
31	19	35/37 (95%)	31 (89%)	4 (11%)	0	100	100
31	29	35/37 (95%)	34 (97%)	1 (3%)	0	100	100
33	1b	229/256 (90%)	199 (87%)	22 (10%)	8 (4%)	3	17
33	2b	229/256 (90%)	203 (89%)	22 (10%)	4 (2%)	7	29
34	1c	204/239 (85%)	190 (93%)	13 (6%)	1 (0%)	24	55
34	2c	204/239 (85%)	192 (94%)	11 (5%)	1 (0%)	24	55
35	1d	206/209 (99%)	197 (96%)	8 (4%)	1 (0%)	24	55
35	2d	206/209 (99%)	193 (94%)	13 (6%)	0	100	100
36	1e	146/162 (90%)	137 (94%)	9 (6%)	0	100	100
36	2e	146/162 (90%)	141 (97%)	5 (3%)	0	100	100
37	1f	98/101 (97%)	96 (98%)	2 (2%)	0	100	100
37	2f	98/101 (97%)	94 (96%)	4 (4%)	0	100	100
38	1g	153/156 (98%)	148 (97%)	5 (3%)	0	100	100
38	2g	153/156 (98%)	150 (98%)	3 (2%)	0	100	100
39	1h	135/138 (98%)	128 (95%)	7 (5%)	0	100	100
39	2h	135/138 (98%)	128 (95%)	7 (5%)	0	100	100
40	1i	125/128 (98%)	112 (90%)	13 (10%)	0	100	100
40	2i	124/128 (97%)	111 (90%)	12 (10%)	1 (1%)	16	44
41	1j	95/105 (90%)	83 (87%)	9 (10%)	3 (3%)	3	18
41	2j	94/105 (90%)	85 (90%)	4 (4%)	5 (5%)	1	9
42	1k	112/129 (87%)	104 (93%)	7 (6%)	1 (1%)	14	42
42	2k	112/129 (87%)	106 (95%)	5 (4%)	1 (1%)	14	42
43	1l	119/135 (88%)	111 (93%)	8 (7%)	0	100	100
43	2l	119/135 (88%)	109 (92%)	10 (8%)	0	100	100
44	1m	114/126 (90%)	106 (93%)	7 (6%)	1 (1%)	14	42
44	2m	112/126 (89%)	106 (95%)	5 (4%)	1 (1%)	14	42
45	1n	58/61 (95%)	57 (98%)	1 (2%)	0	100	100
45	2n	58/61 (95%)	55 (95%)	3 (5%)	0	100	100
46	1o	86/89 (97%)	84 (98%)	2 (2%)	0	100	100
46	2o	86/89 (97%)	80 (93%)	5 (6%)	1 (1%)	10	36
47	1p	80/88 (91%)	74 (92%)	6 (8%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
47	2p	80/88 (91%)	74 (92%)	5 (6%)	1 (1%)	9	34
48	1r	66/88 (75%)	65 (98%)	1 (2%)	0	100	100
48	2r	66/88 (75%)	65 (98%)	1 (2%)	0	100	100
49	1s	81/93 (87%)	74 (91%)	5 (6%)	2 (2%)	4	22
49	2s	81/93 (87%)	74 (91%)	7 (9%)	0	100	100
50	1t	94/106 (89%)	91 (97%)	2 (2%)	1 (1%)	11	38
50	2t	96/106 (91%)	90 (94%)	4 (4%)	2 (2%)	5	25
51	1u	21/27 (78%)	20 (95%)	1 (5%)	0	100	100
51	2u	21/27 (78%)	20 (95%)	1 (5%)	0	100	100
52	1y	95/113 (84%)	92 (97%)	3 (3%)	0	100	100
52	2y	94/113 (83%)	91 (97%)	2 (2%)	1 (1%)	11	38
All	All	11435/12150 (94%)	10717 (94%)	646 (6%)	72 (1%)	21	51

All (72) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
22	10	13	GLY
26	14	55	ARG
33	1b	125	PRO
41	1j	77	PRO
33	2b	17	PHE
6	1G	52	ILE
7	1H	47	GLU
14	1S	59	LYS
14	1S	94	TYR
15	1T	127	ALA
19	1X	67	GLY
19	1X	94	GLY
26	14	61	ARG
33	1b	36	ARG
41	1j	55	LYS
4	2E	51	PHE
6	2G	81	LYS
12	2Q	59	ARG
17	2V	79	VAL
33	2b	95	GLN
41	2j	75	ILE
44	2m	67	GLU

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Mol	Chain	Res	Type
50	2t	100	ILE
7	1H	92	ILE
26	14	44	THR
26	14	49	PHE
33	1b	17	PHE
33	1b	21	ARG
33	1b	95	GLN
34	1c	3	ASN
41	1j	78	ASN
44	1m	23	TYR
8	2I	85	GLU
17	2V	53	GLU
19	2X	94	GLY
23	21	3	LYS
26	24	55	ARG
33	2b	123	ALA
41	2j	78	ASN
4	1E	52	LEU
6	1G	47	LYS
33	1b	20	GLU
35	1d	5	ILE
50	1t	95	ALA
21	2Z	30	ASN
26	24	44	THR
33	2b	125	PRO
40	2i	44	VAL
46	2o	88	ARG
7	1H	126	PRO
21	1Z	31	ARG
33	1b	127	ILE
33	1b	231	GLU
49	1s	13	ASP
4	2E	113	PHE
6	2G	43	LEU
49	1s	12	ASP
11	2P	29	LYS
34	2c	99	VAL
7	1H	21	PRO
17	1V	79	VAL
42	1k	105	VAL
41	2j	37	PRO
41	2j	39	PRO

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Mol	Chain	Res	Type
41	2j	77	PRO
7	2H	21	PRO
42	2k	105	VAL
47	2p	63	GLY
7	2H	126	PRO
50	2t	102	GLY
52	2y	45	PRO
15	1T	56	GLY

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	214/218 (98%)	197 (92%)	17 (8%)	11	35
3	2D	215/218 (99%)	204 (95%)	11 (5%)	21	49
4	1E	164/166 (99%)	149 (91%)	15 (9%)	9	30
4	2E	164/166 (99%)	152 (93%)	12 (7%)	13	38
5	1F	161/166 (97%)	152 (94%)	9 (6%)	19	46
5	2F	160/166 (96%)	152 (95%)	8 (5%)	22	49
6	1G	144/156 (92%)	139 (96%)	5 (4%)	32	56
6	2G	142/156 (91%)	136 (96%)	6 (4%)	26	53
7	1H	144/148 (97%)	142 (99%)	2 (1%)	59	72
7	2H	143/148 (97%)	139 (97%)	4 (3%)	38	60
8	1I	111/124 (90%)	104 (94%)	7 (6%)	16	43
8	2I	108/124 (87%)	104 (96%)	4 (4%)	30	55
9	1N	119/119 (100%)	112 (94%)	7 (6%)	18	45
9	2N	118/119 (99%)	107 (91%)	11 (9%)	8	29
10	1O	100/100 (100%)	99 (99%)	1 (1%)	68	75
10	2O	100/100 (100%)	98 (98%)	2 (2%)	48	66
11	1P	115/116 (99%)	111 (96%)	4 (4%)	32	56

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
11	2P	115/116 (99%)	111 (96%)	4 (4%)	32	56
12	1Q	111/111 (100%)	106 (96%)	5 (4%)	24	52
12	2Q	111/111 (100%)	109 (98%)	2 (2%)	51	69
13	1R	101/101 (100%)	92 (91%)	9 (9%)	9	30
13	2R	101/101 (100%)	94 (93%)	7 (7%)	14	41
14	1S	87/88 (99%)	85 (98%)	2 (2%)	44	65
14	2S	85/88 (97%)	85 (100%)	0	100	100
15	1T	115/128 (90%)	114 (99%)	1 (1%)	70	76
15	2T	113/128 (88%)	109 (96%)	4 (4%)	32	56
16	1U	93/94 (99%)	86 (92%)	7 (8%)	12	37
16	2U	93/94 (99%)	88 (95%)	5 (5%)	20	47
17	1V	81/82 (99%)	76 (94%)	5 (6%)	16	43
17	2V	80/82 (98%)	77 (96%)	3 (4%)	29	55
18	1W	90/92 (98%)	82 (91%)	8 (9%)	9	30
18	2W	90/92 (98%)	89 (99%)	1 (1%)	65	75
19	1X	77/78 (99%)	75 (97%)	2 (3%)	40	62
19	2X	77/78 (99%)	75 (97%)	2 (3%)	40	62
20	1Y	86/91 (94%)	83 (96%)	3 (4%)	32	56
20	2Y	86/91 (94%)	85 (99%)	1 (1%)	63	74
21	1Z	169/179 (94%)	164 (97%)	5 (3%)	36	59
21	2Z	165/179 (92%)	160 (97%)	5 (3%)	36	59
22	10	61/67 (91%)	59 (97%)	2 (3%)	33	57
22	20	61/67 (91%)	59 (97%)	2 (3%)	33	57
23	11	79/83 (95%)	79 (100%)	0	100	100
23	21	81/83 (98%)	80 (99%)	1 (1%)	63	74
24	12	65/67 (97%)	62 (95%)	3 (5%)	24	51
24	22	66/67 (98%)	63 (96%)	3 (4%)	24	52
25	13	51/52 (98%)	48 (94%)	3 (6%)	18	45
25	23	50/52 (96%)	47 (94%)	3 (6%)	17	44
26	14	58/63 (92%)	53 (91%)	5 (9%)	10	32
26	24	54/63 (86%)	51 (94%)	3 (6%)	19	46

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
27	15	51/52 (98%)	47 (92%)	4 (8%)	11	36
27	25	50/52 (96%)	49 (98%)	1 (2%)	48	66
28	16	51/52 (98%)	49 (96%)	2 (4%)	28	54
28	26	50/52 (96%)	47 (94%)	3 (6%)	17	44
29	17	41/42 (98%)	39 (95%)	2 (5%)	22	50
29	27	41/42 (98%)	39 (95%)	2 (5%)	22	50
30	18	54/55 (98%)	54 (100%)	0	100	100
30	28	54/55 (98%)	53 (98%)	1 (2%)	50	67
31	19	34/34 (100%)	34 (100%)	0	100	100
31	29	34/34 (100%)	33 (97%)	1 (3%)	37	60
33	1b	191/220 (87%)	184 (96%)	7 (4%)	30	55
33	2b	187/220 (85%)	178 (95%)	9 (5%)	23	50
34	1c	144/188 (77%)	142 (99%)	2 (1%)	59	72
34	2c	140/188 (74%)	136 (97%)	4 (3%)	37	60
35	1d	171/181 (94%)	166 (97%)	5 (3%)	37	60
35	2d	172/181 (95%)	166 (96%)	6 (4%)	32	56
36	1e	114/123 (93%)	112 (98%)	2 (2%)	51	69
36	2e	114/123 (93%)	109 (96%)	5 (4%)	25	52
37	1f	85/90 (94%)	85 (100%)	0	100	100
37	2f	85/90 (94%)	83 (98%)	2 (2%)	43	64
38	1g	120/127 (94%)	117 (98%)	3 (2%)	42	63
38	2g	119/127 (94%)	117 (98%)	2 (2%)	53	69
39	1h	116/119 (98%)	111 (96%)	5 (4%)	26	52
39	2h	114/119 (96%)	109 (96%)	5 (4%)	25	52
40	1i	91/99 (92%)	89 (98%)	2 (2%)	45	65
40	2i	88/99 (89%)	85 (97%)	3 (3%)	32	57
41	1j	68/92 (74%)	67 (98%)	1 (2%)	57	71
41	2j	68/92 (74%)	67 (98%)	1 (2%)	57	71
42	1k	83/99 (84%)	81 (98%)	2 (2%)	43	64
42	2k	83/99 (84%)	81 (98%)	2 (2%)	43	64
43	1l	96/110 (87%)	93 (97%)	3 (3%)	35	59

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
43	2l	96/110 (87%)	91 (95%)	5 (5%)	21	48
44	1m	90/101 (89%)	88 (98%)	2 (2%)	45	65
44	2m	87/101 (86%)	85 (98%)	2 (2%)	44	65
45	1n	49/50 (98%)	47 (96%)	2 (4%)	27	53
45	2n	49/50 (98%)	48 (98%)	1 (2%)	48	66
46	1o	78/80 (98%)	75 (96%)	3 (4%)	29	55
46	2o	78/80 (98%)	76 (97%)	2 (3%)	40	62
47	1p	69/74 (93%)	64 (93%)	5 (7%)	13	39
47	2p	68/74 (92%)	64 (94%)	4 (6%)	18	45
48	1r	59/77 (77%)	58 (98%)	1 (2%)	53	69
48	2r	59/77 (77%)	58 (98%)	1 (2%)	53	69
49	1s	68/80 (85%)	66 (97%)	2 (3%)	37	60
49	2s	67/80 (84%)	67 (100%)	0	100	100
50	1t	71/82 (87%)	69 (97%)	2 (3%)	38	60
50	2t	70/82 (85%)	67 (96%)	3 (4%)	26	52
51	1u	18/22 (82%)	18 (100%)	0	100	100
51	2u	18/22 (82%)	18 (100%)	0	100	100
52	1y	82/98 (84%)	81 (99%)	1 (1%)	63	74
52	2y	79/98 (81%)	74 (94%)	5 (6%)	16	43
All	All	9338/10072 (93%)	8979 (96%)	359 (4%)	29	55

All (359) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	1D	10	THR
3	1D	61	LEU
3	1D	94	LEU
3	1D	104	TYR
3	1D	106	ILE
3	1D	111	LEU
3	1D	113	VAL
3	1D	138	VAL
3	1D	142	VAL
3	1D	165	ILE
3	1D	173	VAL

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Mol	Chain	Res	Type
3	1D	193	VAL
3	1D	211	ARG
3	1D	212	SER
3	1D	221	VAL
3	1D	229	VAL
3	1D	253	GLN
4	1E	7	VAL
4	1E	9	VAL
4	1E	12	THR
4	1E	49	LEU
4	1E	75	VAL
4	1E	101	ARG
4	1E	116	VAL
4	1E	119	ARG
4	1E	134	ILE
4	1E	144	ARG
4	1E	169	ASN
4	1E	178	GLU
4	1E	181	LEU
4	1E	183	LEU
4	1E	184	VAL
5	1F	12	LEU
5	1F	57	VAL
5	1F	70	THR
5	1F	74	ARG
5	1F	88	VAL
5	1F	110	LEU
5	1F	170	LEU
5	1F	183	VAL
5	1F	195	ASP
6	1G	7	LEU
6	1G	43	LEU
6	1G	52	ILE
6	1G	82	LEU
6	1G	159	VAL
7	1H	45	VAL
7	1H	71	LEU
8	1I	38	LEU
8	1I	43	ASN
8	1I	47	LEU
8	1I	92	VAL
8	1I	109	ILE

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Mol	Chain	Res	Type
8	1I	127	VAL
8	1I	140	LEU
9	1N	14	VAL
9	1N	33	LEU
9	1N	34	LEU
9	1N	67	LEU
9	1N	73	THR
9	1N	87	LEU
9	1N	99	LEU
10	1O	10	VAL
11	1P	57	THR
11	1P	59	LEU
11	1P	71	VAL
11	1P	112	LEU
12	1Q	6	ARG
12	1Q	55	VAL
12	1Q	81	VAL
12	1Q	102	VAL
12	1Q	109	VAL
13	1R	6	SER
13	1R	14	SER
13	1R	29	LEU
13	1R	36	THR
13	1R	44	LEU
13	1R	65	LEU
13	1R	75	LEU
13	1R	96	ARG
13	1R	100	LEU
14	1S	14	VAL
14	1S	110	LEU
15	1T	96	ARG
16	1U	8	VAL
16	1U	22	LYS
16	1U	52	ARG
16	1U	60	LEU
16	1U	74	LEU
16	1U	95	LEU
16	1U	104	GLN
17	1V	46	VAL
17	1V	61	VAL
17	1V	72	VAL
17	1V	79	VAL

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Mol	Chain	Res	Type
17	1V	82	ARG
18	1W	17	VAL
18	1W	19	LEU
18	1W	67	ASP
18	1W	85	VAL
18	1W	95	ILE
18	1W	96	ILE
18	1W	100	THR
18	1W	107	LEU
19	1X	23	GLU
19	1X	66	LEU
20	1Y	14	LEU
20	1Y	72	VAL
20	1Y	107	ASP
21	1Z	18	LEU
21	1Z	86	VAL
21	1Z	94	GLU
21	1Z	150	LEU
21	1Z	161	VAL
22	10	9	SER
22	10	39	ARG
24	12	3	LEU
24	12	53	LEU
24	12	64	LEU
25	13	6	VAL
25	13	8	LEU
25	13	54	VAL
26	14	34	GLU
26	14	49	PHE
26	14	50	VAL
26	14	52	THR
26	14	61	ARG
27	15	6	VAL
27	15	16	ARG
27	15	21	SER
27	15	60	VAL
28	16	23	THR
28	16	48	VAL
29	17	43	THR
29	17	46	VAL
33	1b	15	VAL
33	1b	44	LEU

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Mol	Chain	Res	Type
33	1b	111	ARG
33	1b	122	PHE
33	1b	187	LEU
33	1b	196	LEU
33	1b	200	ILE
34	1c	36	ASP
34	1c	105	GLU
35	1d	31	CYS
35	1d	135	LEU
35	1d	155	LEU
35	1d	178	VAL
35	1d	188	LEU
36	1e	41	VAL
36	1e	120	THR
38	1g	104	LEU
38	1g	113	GLU
38	1g	144	MET
39	1h	25	ASP
39	1h	26	VAL
39	1h	39	LEU
39	1h	51	VAL
39	1h	63	LEU
40	1i	17	VAL
40	1i	108	VAL
41	1j	49	VAL
42	1k	14	VAL
42	1k	117	ASN
43	1l	27	LEU
43	1l	33	ARG
43	1l	83	VAL
44	1m	70	LEU
44	1m	86	CYS
45	1n	18	VAL
45	1n	33	VAL
46	1o	3	ILE
46	1o	28	GLN
46	1o	39	LEU
47	1p	2	VAL
47	1p	29	ASP
47	1p	45	THR
47	1p	60	LEU
47	1p	62	VAL

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Mol	Chain	Res	Type
48	1r	76	LEU
49	1s	28	LYS
49	1s	41	VAL
50	1t	84	LEU
50	1t	100	ILE
52	1y	42	SER
3	2D	3	VAL
3	2D	61	LEU
3	2D	94	LEU
3	2D	103	ARG
3	2D	111	LEU
3	2D	113	VAL
3	2D	138	VAL
3	2D	211	ARG
3	2D	221	VAL
3	2D	237	GLU
3	2D	242	ARG
4	2E	1	MET
4	2E	7	VAL
4	2E	9	VAL
4	2E	33	VAL
4	2E	52	LEU
4	2E	75	VAL
4	2E	93	VAL
4	2E	116	VAL
4	2E	134	ILE
4	2E	144	ARG
4	2E	175	VAL
4	2E	181	LEU
5	2F	20	LEU
5	2F	33	LEU
5	2F	57	VAL
5	2F	88	VAL
5	2F	175	THR
5	2F	183	VAL
5	2F	192	LEU
5	2F	201	VAL
6	2G	3	LEU
6	2G	7	LEU
6	2G	49	ASP
6	2G	138	GLN
6	2G	159	VAL

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Mol	Chain	Res	Type
6	2G	175	LEU
7	2H	33	LEU
7	2H	47	GLU
7	2H	71	LEU
7	2H	136	ILE
8	2I	19	VAL
8	2I	38	LEU
8	2I	92	VAL
8	2I	116	LEU
9	2N	5	VAL
9	2N	28	THR
9	2N	33	LEU
9	2N	34	LEU
9	2N	43	THR
9	2N	62	VAL
9	2N	68	GLU
9	2N	71	ILE
9	2N	73	THR
9	2N	87	LEU
9	2N	99	LEU
10	2O	10	VAL
10	2O	80	ASP
11	2P	3	LEU
11	2P	56	SER
11	2P	95	VAL
11	2P	112	LEU
12	2Q	109	VAL
12	2Q	112	GLU
13	2R	18	LEU
13	2R	44	LEU
13	2R	65	LEU
13	2R	75	LEU
13	2R	79	LEU
13	2R	100	LEU
13	2R	111	LEU
15	2T	28	VAL
15	2T	49	VAL
15	2T	78	LEU
15	2T	89	VAL
16	2U	8	VAL
16	2U	31	SER
16	2U	60	LEU

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Mol	Chain	Res	Type
16	2U	74	LEU
16	2U	95	LEU
17	2V	46	VAL
17	2V	72	VAL
17	2V	79	VAL
18	2W	23	LEU
19	2X	41	ASN
19	2X	57	LEU
20	2Y	72	VAL
21	2Z	74	VAL
21	2Z	107	THR
21	2Z	126	VAL
21	2Z	150	LEU
21	2Z	193	GLU
22	20	39	ARG
22	20	67	VAL
23	21	4	VAL
24	22	32	LEU
24	22	45	SER
24	22	53	LEU
25	23	6	VAL
25	23	23	LEU
25	23	54	VAL
26	24	36	CYS
26	24	44	THR
26	24	53	GLU
27	25	6	VAL
28	26	9	LEU
28	26	14	THR
28	26	40	CYS
29	27	43	THR
29	27	46	VAL
30	28	14	VAL
31	29	12	ASP
33	2b	16	HIS
33	2b	55	PHE
33	2b	76	GLN
33	2b	127	ILE
33	2b	187	LEU
33	2b	189	ASP
33	2b	196	LEU
33	2b	224	GLN

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Mol	Chain	Res	Type
33	2b	229	VAL
34	2c	52	LEU
34	2c	115	LEU
34	2c	152	ILE
34	2c	195	VAL
35	2d	8	VAL
35	2d	12	CYS
35	2d	31	CYS
35	2d	34	GLU
35	2d	135	LEU
35	2d	155	LEU
36	2e	31	LEU
36	2e	34	VAL
36	2e	41	VAL
36	2e	69	VAL
36	2e	137	GLU
37	2f	22	GLU
37	2f	72	VAL
38	2g	75	VAL
38	2g	113	GLU
39	2h	29	SER
39	2h	63	LEU
39	2h	83	ILE
39	2h	112	LEU
39	2h	133	LEU
40	2i	17	VAL
40	2i	102	LEU
40	2i	108	VAL
41	2j	34	VAL
42	2k	103	LEU
42	2k	114	VAL
43	2l	6	THR
43	2l	24	VAL
43	2l	27	LEU
43	2l	83	VAL
43	2l	112	ASP
44	2m	4	ILE
44	2m	19	LEU
45	2n	18	VAL
46	2o	39	LEU
46	2o	87	ILE
47	2p	20	VAL

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Mol	Chain	Res	Type
47	2p	42	ARG
47	2p	54	GLU
47	2p	62	VAL
48	2r	76	LEU
50	2t	24	LEU
50	2t	84	LEU
50	2t	100	ILE
52	2y	16	ILE
52	2y	41	LEU
52	2y	46	GLN
52	2y	56	THR
52	2y	62	VAL

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (52) such sidechains are listed below:

Mol	Chain	Res	Type
4	1E	35	GLN
4	1E	180	ASN
6	1G	40	ASN
8	1I	105	HIS
9	1N	94	HIS
9	1N	101	HIS
10	1O	89	ASN
11	1P	35	HIS
14	1S	95	HIS
17	1V	80	GLN
18	1W	34	ASN
19	1X	82	GLN
20	1Y	92	ASN
23	1I	16	ASN
24	12	9	GLN
31	19	34	GLN
33	1b	140	HIS
34	1c	31	HIS
34	1c	37	GLN
35	1d	103	ASN
35	1d	199	ASN
36	1e	65	ASN
37	1f	73	ASN
38	1g	148	ASN
49	1s	56	GLN
52	1y	36	ASN

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Mol	Chain	Res	Type
52	1y	46	GLN
3	2D	96	HIS
4	2E	180	ASN
4	2E	192	ASN
6	2G	132	ASN
10	2O	5	GLN
10	2O	90	GLN
12	2Q	12	GLN
13	2R	13	HIS
15	2T	58	ASN
16	2U	72	HIS
17	2V	80	GLN
21	2Z	132	ASN
25	23	46	ASN
28	26	20	ASN
30	28	43	GLN
33	2b	78	GLN
34	2c	37	GLN
34	2c	139	GLN
36	2e	72	GLN
40	2i	3	GLN
41	2j	84	GLN
43	2l	99	HIS
45	2n	52	GLN
48	2r	36	ASN
52	2y	90	HIS

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	1A	2857/2894 (98%)	391 (13%)	17 (0%)
1	2A	2850/2894 (98%)	429 (15%)	25 (0%)
2	1B	117/120 (97%)	8 (6%)	0
2	2B	117/120 (97%)	10 (8%)	0
32	1a	1497/1522 (98%)	215 (14%)	0
32	2a	1501/1522 (98%)	224 (14%)	0
All	All	8939/9072 (98%)	1277 (14%)	42 (0%)

All (1277) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	1A	12	U
1	1A	34	C
1	1A	45	C
1	1A	63	U
1	1A	71	A
1	1A	74	A
1	1A	75	G
1	1A	118	A
1	1A	119	A
1	1A	120	U
1	1A	181	A
1	1A	182	A
1	1A	196	A
1	1A	199	A
1	1A	205	G
1	1A	215	G
1	1A	216	A
1	1A	222	A
1	1A	229	A
1	1A	233	A
1	1A	248	G
1	1A	271(I)	G
1	1A	271(K)	U
1	1A	271(L)	U
1	1A	271(M)	G
1	1A	271(N)	U
1	1A	271(O)	C
1	1A	272(A)	U
1	1A	272(B)	G
1	1A	272(H)	C
1	1A	272(J)	C
1	1A	275	G
1	1A	279	C
1	1A	311	A
1	1A	324	A
1	1A	330	A
1	1A	333	G
1	1A	345	A
1	1A	352	G
1	1A	363	G
1	1A	363(B)	G
1	1A	372	G
1	1A	386	G

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Mol	Chain	Res	Type
1	1A	396	G
1	1A	405	U
1	1A	411	G
1	1A	412	A
1	1A	428	A
1	1A	443	A
1	1A	448	U
1	1A	454	A
1	1A	457	A
1	1A	481	G
1	1A	504	U
1	1A	505	A
1	1A	509	C
1	1A	518	G
1	1A	528	A
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	556	G
1	1A	563	G
1	1A	573	G
1	1A	574	C
1	1A	575	A
1	1A	603	A
1	1A	604	G
1	1A	607	U
1	1A	614(B)	G
1	1A	615	G
1	1A	627	A
1	1A	634	C
1	1A	637	A
1	1A	645	C
1	1A	646	A
1	1A	653	C
1	1A	654	U
1	1A	656	G
1	1A	668	G
1	1A	669	G
1	1A	686	G

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Mol	Chain	Res	Type
1	1A	717	G
1	1A	730	C
1	1A	762	U
1	1A	775	G
1	1A	776	G
1	1A	782	A
1	1A	784	A
1	1A	785	G
1	1A	790	C
1	1A	792	G
1	1A	805	G
1	1A	811	U
1	1A	812	C
1	1A	821	A
1	1A	827	U
1	1A	828	U
1	1A	859	G
1	1A	866	A
1	1A	880	G
1	1A	886	C
1	1A	888	C
1	1A	889	C
1	1A	890	A
1	1A	896	A
1	1A	910	A
1	1A	915	C
1	1A	932	G
1	1A	945	A
1	1A	946	G
1	1A	953	A
1	1A	958	U
1	1A	959	A
1	1A	961	C
1	1A	974	G
1	1A	975	C
1	1A	983	A
1	1A	996	A
1	1A	1012	U
1	1A	1013	C
1	1A	1022	G
1	1A	1025	G
1	1A	1026	U

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Mol	Chain	Res	Type
1	1A	1033	U
1	1A	1039	G
1	1A	1042	G
1	1A	1043	C
1	1A	1046	A
1	1A	1047	G
1	1A	1048	A
1	1A	1054	A
1	1A	1060	U
1	1A	1061	U
1	1A	1062	G
1	1A	1063	G
1	1A	1065	U
1	1A	1068	G
1	1A	1070	A
1	1A	1071	G
1	1A	1073	A
1	1A	1075	C
1	1A	1076	C
1	1A	1077	A
1	1A	1078	U
1	1A	1083	U
1	1A	1088	A
1	1A	1090	U
1	1A	1096	A
1	1A	1097	U
1	1A	1109	C
1	1A	1112	G
1	1A	1130	U
1	1A	1132	A
1	1A	1135	C
1	1A	1136	G
1	1A	1139	G
1	1A	1171	G
1	1A	1173	G
1	1A	1174	A
1	1A	1175	U
1	1A	1176	G
1	1A	1177	A
1	1A	1178	C
1	1A	1187	G
1	1A	1206	G

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Mol	Chain	Res	Type
1	1A	1211	U
1	1A	1220	A
1	1A	1236	G
1	1A	1248	G
1	1A	1253	A
1	1A	1256	G
1	1A	1271	G
1	1A	1272	A
1	1A	1273	U
1	1A	1300	U
1	1A	1301	A
1	1A	1345	C
1	1A	1352	U
1	1A	1359	A
1	1A	1360	A
1	1A	1365	A
1	1A	1370	C
1	1A	1379	A
1	1A	1384	A
1	1A	1385	G
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	1452	A
1	1A	1455	G
1	1A	1467	C
1	1A	1471	A
1	1A	1482	G
1	1A	1493	C
1	1A	1509	A
1	1A	1531	C
1	1A	1542	A
1	1A	1543	C
1	1A	1558	A
1	1A	1569	A
1	1A	1578	U
1	1A	1579	A
1	1A	1581	G
1	1A	1584	C

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Mol	Chain	Res	Type
1	1A	1586	A
1	1A	1608	A
1	1A	1609	A
1	1A	1616	A
1	1A	1639	U
1	1A	1648	C
1	1A	1654	A
1	1A	1664	A
1	1A	1674	G
1	1A	1696	G
1	1A	1700	A
1	1A	1721	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	1828	G
1	1A	1829	A
1	1A	1847	A
1	1A	1848	A
1	1A	1877	A
1	1A	1878	G
1	1A	1889	A
1	1A	1900	A
1	1A	1906	G
1	1A	1913	A
1	1A	1929	G
1	1A	1930	G
1	1A	1936	A
1	1A	1938	A
1	1A	1939	5MU
1	1A	1940	U

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Mol	Chain	Res	Type
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	2033	A
1	1A	2043	C
1	1A	2055	C
1	1A	2056	G
1	1A	2060	A
1	1A	2061	G
1	1A	2062	A
1	1A	2069	G
1	1A	2074	U
1	1A	2093	G
1	1A	2099	U
1	1A	2103	C
1	1A	2104	G
1	1A	2107	C
1	1A	2108	C
1	1A	2112	G
1	1A	2116	G
1	1A	2117	A
1	1A	2118	U
1	1A	2119	A
1	1A	2123	G
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	2142	C
1	1A	2146	C
1	1A	2147	G
1	1A	2153	G

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Mol	Chain	Res	Type
1	1A	2158	A
1	1A	2159	G
1	1A	2173	A
1	1A	2186	G
1	1A	2187	G
1	1A	2190	G
1	1A	2192	G
1	1A	2198	A
1	1A	2206	G
1	1A	2207	G
1	1A	2208	A
1	1A	2225	A
1	1A	2234	G
1	1A	2238	G
1	1A	2239	G
1	1A	2273	A
1	1A	2278	A
1	1A	2279	G
1	1A	2283	C
1	1A	2287	A
1	1A	2289	G
1	1A	2305	A
1	1A	2312	U
1	1A	2320	A
1	1A	2325	G
1	1A	2347	C
1	1A	2350	C
1	1A	2372	G
1	1A	2383	G
1	1A	2385	C
1	1A	2391	G
1	1A	2406	U
1	1A	2422	A
1	1A	2424	C
1	1A	2425	A
1	1A	2428	G
1	1A	2429	G
1	1A	2430	A
1	1A	2435	A
1	1A	2439	A
1	1A	2441	C
1	1A	2448	A

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Mol	Chain	Res	Type
1	1A	2470	G
1	1A	2474	C
1	1A	2476	A
1	1A	2478	A
1	1A	2502	G
1	1A	2503	2MA
1	1A	2504	U
1	1A	2505	G
1	1A	2506	U
1	1A	2518	A
1	1A	2529	G
1	1A	2535	G
1	1A	2554	U
1	1A	2564	A
1	1A	2566	A
1	1A	2567	G
1	1A	2572	A
1	1A	2602	A
1	1A	2603	G
1	1A	2609	U
1	1A	2611	U
1	1A	2612	C
1	1A	2629	A
1	1A	2630	G
1	1A	2654	A
1	1A	2662	A
1	1A	2689	U
1	1A	2690	C
1	1A	2691	C
1	1A	2702	U
1	1A	2703	C
1	1A	2712(A)	A
1	1A	2713	A
1	1A	2714	G
1	1A	2726	U
1	1A	2733	A
1	1A	2758	A
1	1A	2764	A
1	1A	2765	A
1	1A	2769	C
1	1A	2778	A
1	1A	2790	A

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Mol	Chain	Res	Type
1	1A	2791	C
1	1A	2802	G
1	1A	2820	A
1	1A	2821	A
1	1A	2833	G
1	1A	2835	A
1	1A	2872	G
1	1A	2873	A
1	1A	2876	G
1	1A	2880	C
1	1A	2892	A
1	1A	2894	G
2	1B	13	A
2	1B	24	G
2	1B	53	A
2	1B	56	G
2	1B	67	G
2	1B	73	A
2	1B	106	G
2	1B	110	G
32	1a	9	G
32	1a	32	A
32	1a	39	G
32	1a	48	C
32	1a	50	A
32	1a	51	A
32	1a	61	G
32	1a	78	G
32	1a	79	G
32	1a	101	A
32	1a	116	A
32	1a	120	A
32	1a	121	C
32	1a	122	G
32	1a	129(A)	G
32	1a	131	C
32	1a	163	C
32	1a	174	C
32	1a	182	U
32	1a	189(D)	C
32	1a	189(F)	U
32	1a	195	A

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Mol	Chain	Res	Type
32	1a	197	A
32	1a	201	C
32	1a	203	U
32	1a	204	U
32	1a	216	G
32	1a	220	G
32	1a	247	G
32	1a	250	A
32	1a	251	G
32	1a	266	G
32	1a	267	C
32	1a	280	C
32	1a	289	G
32	1a	321	A
32	1a	328	C
32	1a	332	G
32	1a	348	G
32	1a	352	C
32	1a	353	A
32	1a	354	G
32	1a	366	C
32	1a	367	U
32	1a	372	C
32	1a	373	A
32	1a	384	G
32	1a	390	C
32	1a	397	A
32	1a	398	C
32	1a	406	G
32	1a	412	A
32	1a	413	G
32	1a	423	G
32	1a	424	G
32	1a	429	U
32	1a	439	A
32	1a	442	C
32	1a	452	A
32	1a	461	A
32	1a	470	G
32	1a	485	G
32	1a	496	A
32	1a	498	U

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Mol	Chain	Res	Type
32	1a	509	A
32	1a	510	A
32	1a	511	C
32	1a	518	C
32	1a	527	G7M
32	1a	532	A
32	1a	547	A
32	1a	559	A
32	1a	560	U
32	1a	561	U
32	1a	564	C
32	1a	572	A
32	1a	573	A
32	1a	576	G
32	1a	577	G
32	1a	596	C
32	1a	607	A
32	1a	618	C
32	1a	619	U
32	1a	630	G
32	1a	632	A
32	1a	653	A
32	1a	661	G
32	1a	665	A
32	1a	687	A
32	1a	688	G
32	1a	702	A
32	1a	723	U
32	1a	731	G
32	1a	755	G
32	1a	777	A
32	1a	793	U
32	1a	794	A
32	1a	816	A
32	1a	817	C
32	1a	828	A
32	1a	829	G
32	1a	839	U
32	1a	840	C
32	1a	841	U
32	1a	848	C
32	1a	851	G

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Mol	Chain	Res	Type
32	1a	902	G
32	1a	914	A
32	1a	926	G
32	1a	927	G
32	1a	934	C
32	1a	935	A
32	1a	960	U
32	1a	961	U
32	1a	965	A
32	1a	967	5MC
32	1a	968	A
32	1a	969	A
32	1a	971	G
32	1a	974	A
32	1a	975	A
32	1a	976	G
32	1a	977	A
32	1a	992	U
32	1a	993	G
32	1a	998	G
32	1a	1001(A)	G
32	1a	1006	C
32	1a	1022	G
32	1a	1023	G
32	1a	1024	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(B)	C
32	1a	1032	G
32	1a	1033	G
32	1a	1034	G
32	1a	1037	C
32	1a	1042	G
32	1a	1044	A
32	1a	1065	U
32	1a	1066	C
32	1a	1068	G

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Mol	Chain	Res	Type
32	1a	1081	G
32	1a	1094	G
32	1a	1095	U
32	1a	1101	A
32	1a	1124	G
32	1a	1126	U
32	1a	1130	A
32	1a	1132	C
32	1a	1136	U
32	1a	1139	G
32	1a	1140	C
32	1a	1152	A
32	1a	1159	U
32	1a	1166	G
32	1a	1168	A
32	1a	1183	A
32	1a	1184	G
32	1a	1196	U
32	1a	1197	G
32	1a	1202	G
32	1a	1213	A
32	1a	1224	G
32	1a	1227	A
32	1a	1238	A
32	1a	1256	A
32	1a	1257	U
32	1a	1258	G
32	1a	1278	U
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	1340	A
32	1a	1346	A
32	1a	1347	G
32	1a	1353	G
32	1a	1363	C

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Mol	Chain	Res	Type
32	1a	1370	G
32	1a	1397	C
32	1a	1400	5MC
32	1a	1419	G
32	1a	1442	G
32	1a	1442(A)	G
32	1a	1447	A
32	1a	1452	C
32	1a	1456	G
32	1a	1487	G
32	1a	1493	A
32	1a	1497	G
32	1a	1498	UR3
32	1a	1499	A
32	1a	1504	G
32	1a	1505	G
32	1a	1506	U
32	1a	1507	A
32	1a	1517	G
32	1a	1518	MA6
32	1a	1519	MA6
32	1a	1520	G
32	1a	1529	G
32	1a	1530	G
32	1a	1531	A
1	2A	10	G
1	2A	12	U
1	2A	14	A
1	2A	15	G
1	2A	34	C
1	2A	35	G
1	2A	45	C
1	2A	51	G
1	2A	71	A
1	2A	74	A
1	2A	75	G
1	2A	84	A
1	2A	102	G
1	2A	118	A
1	2A	120	U
1	2A	131	G
1	2A	141	A

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Mol	Chain	Res	Type
1	2A	157	U
1	2A	181	A
1	2A	182	A
1	2A	196	A
1	2A	199	A
1	2A	205	G
1	2A	215	G
1	2A	216	A
1	2A	221	A
1	2A	222	A
1	2A	229	A
1	2A	230	U
1	2A	248	G
1	2A	271(K)	U
1	2A	271(L)	U
1	2A	271(M)	G
1	2A	271(N)	U
1	2A	271(O)	C
1	2A	272(A)	U
1	2A	272(B)	G
1	2A	277	C
1	2A	278	A
1	2A	311	A
1	2A	324	A
1	2A	329	G
1	2A	330	A
1	2A	352	G
1	2A	362	U
1	2A	363	G
1	2A	370	G
1	2A	372	G
1	2A	386	G
1	2A	396	G
1	2A	411	G
1	2A	412	A
1	2A	428	A
1	2A	444	C
1	2A	446	G
1	2A	456	C
1	2A	457	A
1	2A	470	A
1	2A	481	G

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Mol	Chain	Res	Type
1	2A	494	G
1	2A	505	A
1	2A	509	C
1	2A	528	A
1	2A	530	G
1	2A	531	C
1	2A	532	A
1	2A	545	G
1	2A	563	G
1	2A	568	U
1	2A	573	G
1	2A	574	C
1	2A	575	A
1	2A	603	A
1	2A	604	G
1	2A	607	U
1	2A	614(B)	G
1	2A	615	G
1	2A	616	G
1	2A	620	G
1	2A	627	A
1	2A	637	A
1	2A	645	C
1	2A	646	A
1	2A	651	G
1	2A	653	C
1	2A	654	U
1	2A	655	A
1	2A	669	G
1	2A	686	G
1	2A	730	C
1	2A	740	U
1	2A	753	C
1	2A	764	A
1	2A	775	G
1	2A	776	G
1	2A	782	A
1	2A	784	A
1	2A	785	G
1	2A	788	A
1	2A	792	G
1	2A	805	G

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Mol	Chain	Res	Type
1	2A	812	C
1	2A	827	U
1	2A	857	C
1	2A	859	G
1	2A	866	A
1	2A	880	G
1	2A	886	C
1	2A	887	A
1	2A	888	C
1	2A	889	C
1	2A	890	A
1	2A	893	C
1	2A	896	A
1	2A	897	C
1	2A	900	A
1	2A	901	A
1	2A	910	A
1	2A	915	C
1	2A	917	A
1	2A	932	G
1	2A	941	A
1	2A	945	A
1	2A	946	G
1	2A	953	A
1	2A	959	A
1	2A	961	C
1	2A	974	G
1	2A	975	C
1	2A	983	A
1	2A	996	A
1	2A	1006	C
1	2A	1012	U
1	2A	1013	C
1	2A	1022	G
1	2A	1026	U
1	2A	1033	U
1	2A	1041	C
1	2A	1045	A
1	2A	1046	A
1	2A	1047	G
1	2A	1048	A
1	2A	1052	C

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Mol	Chain	Res	Type
1	2A	1053	C
1	2A	1054	A
1	2A	1058	G
1	2A	1060	U
1	2A	1063	G
1	2A	1064	C
1	2A	1065	U
1	2A	1066	U
1	2A	1067	A
1	2A	1068	G
1	2A	1069	A
1	2A	1070	A
1	2A	1071	G
1	2A	1073	A
1	2A	1074	G
1	2A	1076	C
1	2A	1078	U
1	2A	1079	C
1	2A	1082	U
1	2A	1083	U
1	2A	1084	A
1	2A	1085	A
1	2A	1086	A
1	2A	1088	A
1	2A	1090	U
1	2A	1091	G
1	2A	1092	C
1	2A	1094	U
1	2A	1096	A
1	2A	1098	A
1	2A	1109	C
1	2A	1110	G
1	2A	1112	G
1	2A	1116	C
1	2A	1130	U
1	2A	1135	C
1	2A	1136	G
1	2A	1142(A)	A
1	2A	1171	G
1	2A	1211	U
1	2A	1212	G
1	2A	1220	A

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Mol	Chain	Res	Type
1	2A	1248	G
1	2A	1253	A
1	2A	1256	G
1	2A	1271	G
1	2A	1272	A
1	2A	1273	U
1	2A	1300	U
1	2A	1301	A
1	2A	1314	C
1	2A	1321	A
1	2A	1352	U
1	2A	1359	A
1	2A	1360	A
1	2A	1365	A
1	2A	1368	G
1	2A	1379	A
1	2A	1384	A
1	2A	1385	G
1	2A	1416	G
1	2A	1417	C
1	2A	1420	U
1	2A	1421	G
1	2A	1428	C
1	2A	1445	A
1	2A	1450	G
1	2A	1455	G
1	2A	1459	G
1	2A	1460	A
1	2A	1467	C
1	2A	1471	A
1	2A	1482	G
1	2A	1493	C
1	2A	1497	U
1	2A	1509	A
1	2A	1531	C
1	2A	1542	A
1	2A	1558	A
1	2A	1566	A
1	2A	1569	A
1	2A	1578	U
1	2A	1580	A
1	2A	1584	C

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Mol	Chain	Res	Type
1	2A	1586	A
1	2A	1608	A
1	2A	1609	A
1	2A	1610	A
1	2A	1639	U
1	2A	1640	C
1	2A	1646	C
1	2A	1648	C
1	2A	1674	G
1	2A	1696	G
1	2A	1700	A
1	2A	1722	A
1	2A	1746	G
1	2A	1756	G
1	2A	1762	A
1	2A	1763	G
1	2A	1764	G
1	2A	1773	A
1	2A	1780	A
1	2A	1791	A
1	2A	1800	C
1	2A	1801	G
1	2A	1816	G
1	2A	1835	G
1	2A	1839	G
1	2A	1847	A
1	2A	1848	A
1	2A	1877	A
1	2A	1878	G
1	2A	1900	A
1	2A	1906	G
1	2A	1914	C
1	2A	1920	OMC
1	2A	1929	G
1	2A	1930	G
1	2A	1936	A
1	2A	1938	A
1	2A	1939	5MU
1	2A	1940	U
1	2A	1955	U
1	2A	1963	U
1	2A	1964	G

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Mol	Chain	Res	Type
1	2A	1965	C
1	2A	1967	C
1	2A	1970	A
1	2A	1971	A
1	2A	1972	A
1	2A	1993	U
1	2A	1997	G
1	2A	2020	A
1	2A	2023	G
1	2A	2030	A
1	2A	2031	A
1	2A	2032	G
1	2A	2033	A
1	2A	2043	C
1	2A	2055	C
1	2A	2056	G
1	2A	2060	A
1	2A	2061	G
1	2A	2062	A
1	2A	2069	G
1	2A	2093	G
1	2A	2096	U
1	2A	2099	U
1	2A	2103	C
1	2A	2105	C
1	2A	2107	C
1	2A	2108	C
1	2A	2109	U
1	2A	2110	G
1	2A	2112	G
1	2A	2115	G
1	2A	2116	G
1	2A	2117	A
1	2A	2119	A
1	2A	2121	G
1	2A	2123	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

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Mol	Chain	Res	Type
1	2A	2134	A
1	2A	2136	C
1	2A	2138	C
1	2A	2145	C
1	2A	2146	C
1	2A	2147	G
1	2A	2148	G
1	2A	2151	G
1	2A	2158	A
1	2A	2159	G
1	2A	2161	C
1	2A	2172	U
1	2A	2173	A
1	2A	2180	U
1	2A	2186	G
1	2A	2189	U
1	2A	2192	G
1	2A	2198	A
1	2A	2206	G
1	2A	2207	G
1	2A	2208	A
1	2A	2218	U
1	2A	2225	A
1	2A	2238	G
1	2A	2239	G
1	2A	2251	OMG
1	2A	2269	A
1	2A	2275	C
1	2A	2279	G
1	2A	2283	C
1	2A	2287	A
1	2A	2289	G
1	2A	2292	C
1	2A	2305	A
1	2A	2308	G
1	2A	2312	U
1	2A	2320	A
1	2A	2321	G
1	2A	2322	A
1	2A	2325	G
1	2A	2334	G
1	2A	2335	A

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Mol	Chain	Res	Type
1	2A	2336	A
1	2A	2343	C
1	2A	2345	G
1	2A	2347	C
1	2A	2350	C
1	2A	2383	G
1	2A	2385	C
1	2A	2391	G
1	2A	2406	U
1	2A	2410	G
1	2A	2422	A
1	2A	2425	A
1	2A	2427	C
1	2A	2429	G
1	2A	2430	A
1	2A	2435	A
1	2A	2439	A
1	2A	2441	C
1	2A	2445	G
1	2A	2448	A
1	2A	2470	G
1	2A	2474	C
1	2A	2476	A
1	2A	2478	A
1	2A	2502	G
1	2A	2505	G
1	2A	2506	U
1	2A	2518	A
1	2A	2520	C
1	2A	2529	G
1	2A	2554	U
1	2A	2564	A
1	2A	2566	A
1	2A	2567	G
1	2A	2576	G
1	2A	2577	A
1	2A	2578	G
1	2A	2582	G
1	2A	2585	U
1	2A	2586	C
1	2A	2602	A
1	2A	2603	G

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Mol	Chain	Res	Type
1	2A	2609	U
1	2A	2611	U
1	2A	2612	C
1	2A	2615	U
1	2A	2629	A
1	2A	2630	G
1	2A	2654	A
1	2A	2663	G
1	2A	2682	U
1	2A	2689	U
1	2A	2690	C
1	2A	2712(A)	A
1	2A	2713	A
1	2A	2714	G
1	2A	2720	U
1	2A	2726	U
1	2A	2733	A
1	2A	2744	G
1	2A	2748	A
1	2A	2757	A
1	2A	2764	A
1	2A	2765	A
1	2A	2766	G
1	2A	2778	A
1	2A	2811	G
1	2A	2818	G
1	2A	2820	A
1	2A	2821	A
1	2A	2833	G
1	2A	2835	A
1	2A	2872	G
1	2A	2875	C
1	2A	2880	C
1	2A	2894	G
2	2B	8	U
2	2B	13	A
2	2B	24	G
2	2B	30	C
2	2B	33	G
2	2B	51	G
2	2B	56	G
2	2B	73	A

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Mol	Chain	Res	Type
2	2B	84	C
2	2B	110	G
32	2a	5	U
32	2a	9	G
32	2a	22	G
32	2a	32	A
32	2a	39	G
32	2a	47	C
32	2a	48	C
32	2a	50	A
32	2a	51	A
32	2a	61	G
32	2a	66	G
32	2a	101	A
32	2a	116	A
32	2a	120	A
32	2a	121	C
32	2a	122	G
32	2a	129(A)	G
32	2a	131	C
32	2a	163	C
32	2a	173	U
32	2a	174	C
32	2a	182	U
32	2a	189(F)	U
32	2a	195	A
32	2a	197	A
32	2a	202	U
32	2a	203	U
32	2a	204	U
32	2a	216	G
32	2a	220	G
32	2a	245	C
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	298	A
32	2a	306	G
32	2a	321	A

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Mol	Chain	Res	Type
32	2a	328	C
32	2a	332	G
32	2a	351	G
32	2a	352	C
32	2a	353	A
32	2a	354	G
32	2a	356	A
32	2a	367	U
32	2a	372	C
32	2a	373	A
32	2a	397	A
32	2a	398	C
32	2a	406	G
32	2a	412	A
32	2a	413	G
32	2a	424	G
32	2a	429	U
32	2a	439	A
32	2a	452	A
32	2a	470	G
32	2a	482	A
32	2a	485	G
32	2a	496	A
32	2a	498	U
32	2a	505	G
32	2a	509	A
32	2a	510	A
32	2a	511	C
32	2a	517	G
32	2a	518	C
32	2a	527	G7M
32	2a	532	A
32	2a	533	A
32	2a	547	A
32	2a	559	A
32	2a	560	U
32	2a	561	U
32	2a	564	C
32	2a	572	A
32	2a	573	A
32	2a	574	A
32	2a	576	G

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Mol	Chain	Res	Type
32	2a	577	G
32	2a	596	C
32	2a	630	G
32	2a	632	A
32	2a	653	A
32	2a	665	A
32	2a	687	A
32	2a	688	G
32	2a	695	A
32	2a	702	A
32	2a	723	U
32	2a	724	G
32	2a	731	G
32	2a	749	C
32	2a	753	A
32	2a	755	G
32	2a	777	A
32	2a	793	U
32	2a	794	A
32	2a	816	A
32	2a	817	C
32	2a	821	G
32	2a	828	A
32	2a	829	G
32	2a	836	G
32	2a	840	C
32	2a	841	U
32	2a	848	C
32	2a	851	G
32	2a	859	A
32	2a	902	G
32	2a	914	A
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	966	M2G
32	2a	967	5MC
32	2a	968	A
32	2a	969	A

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Mol	Chain	Res	Type
32	2a	971	G
32	2a	974	A
32	2a	975	A
32	2a	976	G
32	2a	977	A
32	2a	978	A
32	2a	989	C
32	2a	992	U
32	2a	993	G
32	2a	994	A
32	2a	1004	A
32	2a	1005	A
32	2a	1006	C
32	2a	1009	G
32	2a	1020	U
32	2a	1023	G
32	2a	1025	U
32	2a	1026	G
32	2a	1027	C
32	2a	1028	C
32	2a	1029	C
32	2a	1030(A)	G
32	2a	1030(B)	C
32	2a	1041	A
32	2a	1044	A
32	2a	1053	G
32	2a	1054	C
32	2a	1065	U
32	2a	1066	C
32	2a	1068	G
32	2a	1081	G
32	2a	1094	G
32	2a	1095	U
32	2a	1101	A
32	2a	1118	C
32	2a	1125	U
32	2a	1129	C
32	2a	1130	A
32	2a	1136	U
32	2a	1137	C
32	2a	1138	G
32	2a	1139	G

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Mol	Chain	Res	Type
32	2a	1147	C
32	2a	1152	A
32	2a	1157	A
32	2a	1159	U
32	2a	1179	A
32	2a	1183	A
32	2a	1184	G
32	2a	1196	U
32	2a	1197	G
32	2a	1211	U
32	2a	1213	A
32	2a	1224	G
32	2a	1227	A
32	2a	1236	A
32	2a	1238	A
32	2a	1248	A
32	2a	1250	A
32	2a	1256	A
32	2a	1257	U
32	2a	1258	G
32	2a	1260	C
32	2a	1278	U
32	2a	1279	A
32	2a	1280	A
32	2a	1281	U
32	2a	1282	C
32	2a	1285	A
32	2a	1286	A
32	2a	1287	A
32	2a	1300	G
32	2a	1303	C
32	2a	1305	G
32	2a	1312	G
32	2a	1317	C
32	2a	1320	C
32	2a	1346	A
32	2a	1347	G
32	2a	1353	G
32	2a	1363	C
32	2a	1370	G
32	2a	1397	C
32	2a	1401	G

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Mol	Chain	Res	Type
32	2a	1419	G
32	2a	1442	G
32	2a	1442(A)	G
32	2a	1446	U
32	2a	1447	A
32	2a	1492	A
32	2a	1499	A
32	2a	1503	A
32	2a	1504	G
32	2a	1506	U
32	2a	1507	A
32	2a	1517	G
32	2a	1519	MA6
32	2a	1520	G
32	2a	1529	G
32	2a	1530	G

All (42) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	1A	266	G
1	1A	278	A
1	1A	888	C
1	1A	895	U
1	1A	1047	G
1	1A	1065	U
1	1A	1067	A
1	1A	1176	G
1	1A	1210	A
1	1A	1300	U
1	1A	1442	G
1	1A	1508	A
1	1A	1653	G
1	1A	2126	A
1	1A	2430	A
1	1A	2689	U
1	1A	2893	G
1	2A	9	U
1	2A	266	G
1	2A	271(M)	G
1	2A	277	C
1	2A	752	A

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Mol	Chain	Res	Type
1	2A	840	C
1	2A	856	C
1	2A	900	A
1	2A	1053	C
1	2A	1057	A
1	2A	1065	U
1	2A	1067	A
1	2A	1073	A
1	2A	1210	A
1	2A	1442	G
1	2A	1491	G
1	2A	1939	5MU
1	2A	1992	G
1	2A	2126	A
1	2A	2171	A
1	2A	2172	U
1	2A	2321	G
1	2A	2602	A
1	2A	2689	U
1	2A	2756	U

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

48 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	1a	967	32	19,22,23	2.20	6 (31%)	26,32,35	1.32	2 (7%)
1	PSU	2A	1911	1	18,21,22	2.04	7 (38%)	21,30,33	1.80	5 (23%)
1	OMG	1A	2251	1	23,26,27	1.60	4 (17%)	32,38,41	2.00	9 (28%)
32	G7M	1a	527	32,54	23,26,27	1.57	4 (17%)	34,39,42	1.50	6 (17%)
32	MA6	1a	1519	32	23,26,27	1.51	6 (26%)	33,38,41	2.19	10 (30%)
32	5MC	2a	967	32	19,22,23	2.19	6 (31%)	26,32,35	1.13	2 (7%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
32	M2G	2a	966	32,54	24,27,28	1.62	4 (16%)	33,40,43	1.82	8 (24%)
32	2MG	1a	1207	32,54	23,26,27	1.62	3 (13%)	33,38,41	2.09	7 (21%)
32	UR3	1a	1498	32	19,22,23	1.79	5 (26%)	26,32,35	1.25	2 (7%)
1	5MU	2A	1939	1,54	19,22,23	2.06	8 (42%)	27,32,35	2.26	6 (22%)
1	2MA	1A	2503	1,54	22,25,26	1.08	2 (9%)	32,37,40	2.23	7 (21%)
1	5MC	2A	1942	1	19,22,23	2.14	6 (31%)	26,32,35	1.14	1 (3%)
1	OMG	2A	2251	1,54	23,26,27	1.61	5 (21%)	32,38,41	1.88	6 (18%)
32	5MC	1a	1400	32	19,22,23	2.17	6 (31%)	26,32,35	1.10	2 (7%)
1	OMU	2A	2552	1,54	19,22,23	3.94	11 (57%)	25,31,34	1.92	6 (24%)
1	5MU	2A	1915	1	19,22,23	1.98	7 (36%)	27,32,35	2.31	8 (29%)
32	5MC	2a	1400	32	19,22,23	2.22	6 (31%)	26,32,35	1.07	1 (3%)
32	4OC	2a	1402	32	20,23,24	1.61	4 (20%)	25,32,35	0.93	2 (8%)
1	2MA	2A	2503	1,54	22,25,26	1.09	2 (9%)	32,37,40	2.06	8 (25%)
1	5MC	1A	1962	1,54	19,22,23	2.18	6 (31%)	26,32,35	1.13	1 (3%)
32	MA6	1a	1518	32	23,26,27	1.52	7 (30%)	33,38,41	2.14	10 (30%)
32	4OC	1a	1402	32	20,23,24	1.62	4 (20%)	25,32,35	0.96	1 (4%)
1	PSU	1A	2605	1	18,21,22	2.04	8 (44%)	21,30,33	2.11	4 (19%)
1	5MC	1A	1942	1	19,22,23	2.18	6 (31%)	26,32,35	1.11	2 (7%)
1	OMU	1A	2552	1,54	19,22,23	3.98	11 (57%)	25,31,34	2.01	7 (28%)
32	5MC	2a	1404	32	19,22,23	2.16	6 (31%)	26,32,35	1.06	2 (7%)
1	PSU	2A	1917	1	18,21,22	2.02	8 (44%)	21,30,33	2.10	3 (14%)
1	5MU	1A	1915	1,54	19,22,23	2.00	7 (36%)	27,32,35	2.37	10 (37%)
1	5MC	2A	1962	1,54	19,22,23	2.16	6 (31%)	26,32,35	1.04	1 (3%)
43	0TD	1l	92	43	8,9,10	1.50	0	6,11,13	1.48	1 (16%)
32	5MC	2a	1407	32	19,22,23	2.24	5 (26%)	26,32,35	1.23	2 (7%)
32	5MC	1a	1404	32	19,22,23	2.16	6 (31%)	26,32,35	1.04	1 (3%)
32	UR3	2a	1498	32,54	19,22,23	1.75	5 (26%)	26,32,35	1.24	4 (15%)
32	M2G	1a	966	32	24,27,28	1.62	4 (16%)	33,40,43	1.79	8 (24%)
32	G7M	2a	527	32,54	23,26,27	1.58	5 (21%)	34,39,42	1.54	6 (17%)
32	5MC	1a	1407	32	19,22,23	2.13	6 (31%)	26,32,35	1.16	2 (7%)
32	PSU	1a	516	32	18,21,22	2.10	9 (50%)	21,30,33	2.12	4 (19%)
32	PSU	2a	516	32,54	18,21,22	2.02	9 (50%)	21,30,33	2.15	5 (23%)
1	OMC	2A	1920	1	19,22,23	1.75	5 (26%)	25,31,34	0.99	2 (8%)
1	PSU	1A	1917	1	18,21,22	2.11	8 (44%)	21,30,33	2.23	5 (23%)
1	PSU	1A	1911	1	18,21,22	1.93	6 (33%)	21,30,33	1.69	4 (19%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
32	MA6	2a	1518	32	23,26,27	1.59	8 (34%)	33,38,41	2.16	10 (30%)
32	MA6	2a	1519	32	23,26,27	1.53	7 (30%)	33,38,41	2.26	11 (33%)
32	2MG	2a	1207	32	23,26,27	1.65	5 (21%)	33,38,41	2.23	10 (30%)
1	PSU	2A	2605	1	18,21,22	1.99	8 (44%)	21,30,33	2.08	4 (19%)
1	OMC	1A	1920	1,54	19,22,23	1.75	4 (21%)	25,31,34	1.12	4 (16%)
43	0TD	2l	92	43	8,9,10	1.67	1 (12%)	6,11,13	2.30	2 (33%)
1	5MU	1A	1939	1,54	19,22,23	2.09	8 (42%)	27,32,35	2.53	7 (25%)

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	1a	967	32	-	2/7/25/26	0/2/2/2
1	PSU	2A	1911	1	-	0/7/25/26	0/2/2/2
1	OMG	1A	2251	1	-	1/9/27/28	0/3/3/3
32	G7M	1a	527	32,54	-	3/7/25/26	0/3/3/3
32	MA6	1a	1519	32	-	2/11/29/30	0/3/3/3
32	5MC	2a	967	32	-	1/7/25/26	0/2/2/2
32	M2G	2a	966	32,54	-	6/11/29/30	0/3/3/3
32	2MG	1a	1207	32,54	-	3/9/27/28	0/3/3/3
32	UR3	1a	1498	32	-	2/7/25/26	0/2/2/2
1	5MU	2A	1939	1,54	-	0/7/25/26	0/2/2/2
1	2MA	1A	2503	1,54	-	0/7/25/26	0/3/3/3
1	5MC	2A	1942	1	-	0/7/25/26	0/2/2/2
1	OMG	2A	2251	1,54	-	3/9/27/28	0/3/3/3
32	5MC	1a	1400	32	-	2/7/25/26	0/2/2/2
1	OMU	2A	2552	1,54	-	0/9/27/28	0/2/2/2
1	5MU	2A	1915	1	-	2/7/25/26	0/2/2/2
32	5MC	2a	1400	32	-	0/7/25/26	0/2/2/2
32	4OC	2a	1402	32	-	0/9/29/30	0/2/2/2
1	2MA	2A	2503	1,54	-	0/7/25/26	0/3/3/3
1	5MC	1A	1962	1,54	-	0/7/25/26	0/2/2/2
32	MA6	1a	1518	32	-	2/11/29/30	0/3/3/3
32	4OC	1a	1402	32	-	2/9/29/30	0/2/2/2
1	PSU	1A	2605	1	-	0/7/25/26	0/2/2/2
1	5MC	1A	1942	1	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	OMU	1A	2552	1,54	-	0/9/27/28	0/2/2/2
32	5MC	2a	1404	32	-	0/7/25/26	0/2/2/2
1	PSU	2A	1917	1	-	0/7/25/26	0/2/2/2
1	5MU	1A	1915	1,54	-	2/7/25/26	0/2/2/2
1	5MC	2A	1962	1,54	-	0/7/25/26	0/2/2/2
43	0TD	1l	92	43	-	2/7/12/14	-
32	5MC	2a	1407	32	-	2/7/25/26	0/2/2/2
32	5MC	1a	1404	32	-	0/7/25/26	0/2/2/2
32	UR3	2a	1498	32,54	-	0/7/25/26	0/2/2/2
32	M2G	1a	966	32	-	0/11/29/30	0/3/3/3
32	G7M	2a	527	32,54	-	2/7/25/26	0/3/3/3
32	5MC	1a	1407	32	-	0/7/25/26	0/2/2/2
32	PSU	1a	516	32	-	0/7/25/26	0/2/2/2
32	PSU	2a	516	32,54	-	0/7/25/26	0/2/2/2
1	OMC	2A	1920	1	-	4/9/27/28	0/2/2/2
1	PSU	1A	1917	1	-	0/7/25/26	0/2/2/2
1	PSU	1A	1911	1	-	0/7/25/26	0/2/2/2
32	MA6	2a	1518	32	-	3/11/29/30	0/3/3/3
32	MA6	2a	1519	32	-	6/11/29/30	0/3/3/3
32	2MG	2a	1207	32	-	0/9/27/28	0/3/3/3
1	PSU	2A	2605	1	-	0/7/25/26	0/2/2/2
1	OMC	1A	1920	1,54	-	1/9/27/28	0/2/2/2
43	0TD	2l	92	43	-	1/7/12/14	-
1	5MU	1A	1939	1,54	-	2/7/25/26	0/2/2/2

All (280) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	1A	2552	OMU	O4'-C4'	10.19	1.67	1.45
1	2A	2552	OMU	O4'-C4'	10.14	1.67	1.45
1	1A	2552	OMU	C3'-C4'	-9.74	1.28	1.53
1	2A	2552	OMU	C3'-C4'	-9.61	1.28	1.53
32	2a	966	M2G	C2-N2	6.11	1.46	1.35
32	1a	966	M2G	C2-N2	6.05	1.46	1.35
32	1a	1207	2MG	C2-N2	5.81	1.45	1.33
32	2a	1207	2MG	C2-N2	5.65	1.45	1.33
1	1A	1962	5MC	C4-N4	5.56	1.48	1.34
1	1A	1942	5MC	C4-N4	5.50	1.48	1.34
1	2A	1962	5MC	C4-N4	5.49	1.48	1.34
1	2A	1942	5MC	C4-N4	5.47	1.48	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	1a	1407	5MC	C4-N4	5.44	1.48	1.34
32	1a	1400	5MC	C4-N4	5.44	1.48	1.34
32	1a	967	5MC	C4-N4	5.43	1.48	1.34
32	2a	1407	5MC	C4-N4	5.43	1.48	1.34
1	2A	2552	OMU	O4'-C1'	-5.41	1.29	1.42
32	2a	1404	5MC	C4-N4	5.41	1.47	1.34
32	2a	967	5MC	C4-N4	5.40	1.47	1.34
1	1A	2552	OMU	O4'-C1'	-5.36	1.29	1.42
32	1a	1404	5MC	C4-N4	5.36	1.47	1.34
32	2a	1407	5MC	C5-C4	-5.34	1.40	1.44
32	2a	1400	5MC	C4-N4	5.29	1.47	1.34
32	1a	967	5MC	C5-C4	-5.22	1.40	1.44
1	1A	1920	OMC	C4-N4	5.14	1.46	1.33
1	1A	2251	OMG	C2-N2	5.03	1.46	1.34
32	2a	967	5MC	C5-C4	-5.00	1.40	1.44
1	2A	2251	OMG	C2-N2	4.97	1.45	1.34
32	2a	1400	5MC	C5-C4	-4.95	1.40	1.44
1	2A	1920	OMC	C4-N4	4.78	1.45	1.33
32	1a	527	G7M	C2-N2	4.59	1.44	1.34
32	1a	1402	4OC	C4-N4	4.55	1.45	1.36
32	2a	527	G7M	C2-N2	4.51	1.44	1.34
1	1A	1942	5MC	C5-C4	-4.51	1.40	1.44
32	1a	1404	5MC	C5-C4	-4.47	1.40	1.44
32	2a	1402	4OC	C4-N4	4.46	1.45	1.36
32	2a	1404	5MC	C5-C4	-4.43	1.40	1.44
1	1A	1962	5MC	C5-C4	-4.37	1.40	1.44
32	1a	1407	5MC	C5-C4	-4.36	1.40	1.44
1	2A	1962	5MC	C5-C4	-4.34	1.40	1.44
32	1a	1400	5MC	C5-C4	-4.32	1.40	1.44
32	1a	1498	UR3	C3U-N3	4.17	1.54	1.47
1	2A	1942	5MC	C5-C4	-4.08	1.41	1.44
32	2a	1498	UR3	C3U-N3	4.07	1.54	1.47
1	2A	1911	PSU	C2-N1	-4.05	1.31	1.36
1	1A	1911	PSU	C2-N1	-3.99	1.31	1.36
1	2A	1939	5MU	C6-C5	3.84	1.40	1.34
32	1a	1498	UR3	C2-N3	-3.83	1.31	1.39
1	1A	1939	5MU	C6-C5	3.83	1.40	1.34
1	2A	1915	5MU	C6-C5	3.80	1.40	1.34
32	2a	1407	5MC	C6-C5	3.78	1.40	1.34
32	2a	516	PSU	C2-N1	-3.78	1.31	1.36
1	1A	1917	PSU	C2-N1	-3.72	1.31	1.36
32	1a	516	PSU	C2-N1	-3.69	1.31	1.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2A	1917	PSU	C2-N1	-3.67	1.31	1.36
1	1A	1915	5MU	C6-C5	3.66	1.40	1.34
1	2A	2605	PSU	C2-N1	-3.66	1.31	1.36
1	1A	2605	PSU	C2-N1	-3.57	1.32	1.36
32	1a	1400	5MC	C6-C5	3.54	1.40	1.34
32	1a	527	G7M	C5-N7	-3.51	1.35	1.39
1	1A	1939	5MU	C6-N1	-3.50	1.32	1.38
32	2a	1498	UR3	C2-N3	-3.50	1.32	1.39
1	1A	1939	5MU	C4-N3	-3.50	1.32	1.38
1	2A	1939	5MU	C4-N3	-3.49	1.32	1.38
1	1A	1915	5MU	C4-N3	-3.49	1.32	1.38
1	1A	2251	OMG	C6-N1	-3.48	1.32	1.38
1	1A	1915	5MU	C4-C5	-3.46	1.39	1.44
1	1A	2552	OMU	O2'-C2'	-3.45	1.34	1.42
1	2A	1915	5MU	C4-N3	-3.43	1.32	1.38
32	2a	1402	4OC	C2-N1	-3.41	1.32	1.40
1	1A	1917	PSU	C4-N3	-3.41	1.32	1.38
32	1a	516	PSU	C2-N3	-3.41	1.31	1.37
32	2a	1404	5MC	C6-C5	3.41	1.40	1.34
32	2a	527	G7M	C6-N1	-3.40	1.32	1.38
1	2A	1911	PSU	C2-N3	-3.38	1.31	1.37
32	2a	1400	5MC	C6-C5	3.37	1.40	1.34
1	2A	2552	OMU	O2'-C2'	-3.35	1.34	1.42
1	2A	1942	5MC	C6-C5	3.35	1.40	1.34
1	2A	2251	OMG	C6-N1	-3.34	1.32	1.38
1	1A	2552	OMU	C4-N3	-3.33	1.32	1.38
1	1A	1911	PSU	C4-N3	-3.33	1.32	1.38
1	1A	1915	5MU	O4-C4	-3.33	1.17	1.23
1	2A	1939	5MU	C6-N1	-3.32	1.32	1.38
32	1a	1402	4OC	C2-N1	-3.32	1.33	1.40
1	2A	1915	5MU	C4-C5	-3.31	1.39	1.44
1	1A	1962	5MC	C6-C5	3.31	1.40	1.34
32	1a	1407	5MC	C6-C5	3.30	1.40	1.34
1	2A	1917	PSU	C2-N3	-3.29	1.32	1.37
1	1A	1962	5MC	C6-N1	-3.29	1.32	1.38
32	2a	967	5MC	C6-C5	3.29	1.40	1.34
1	1A	1942	5MC	C6-C5	3.28	1.40	1.34
1	1A	2605	PSU	C4-N3	-3.27	1.32	1.38
1	1A	1939	5MU	O4-C4	-3.27	1.17	1.23
1	1A	2605	PSU	C2-N3	-3.27	1.32	1.37
1	2A	1942	5MC	C6-N1	-3.26	1.32	1.38
1	2A	1962	5MC	C6-N1	-3.25	1.32	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	1a	1404	5MC	C6-C5	3.25	1.39	1.34
1	1A	1942	5MC	C6-N1	-3.25	1.32	1.38
1	2A	1915	5MU	O4-C4	-3.24	1.17	1.23
1	2A	2503	2MA	C8-N9	-3.24	1.32	1.37
32	2a	1518	MA6	C4-N9	-3.22	1.31	1.37
1	2A	1962	5MC	C6-C5	3.21	1.39	1.34
32	2a	527	G7M	C5-N7	-3.20	1.35	1.39
1	1A	1917	PSU	C2-N3	-3.20	1.32	1.37
1	2A	1920	OMC	C2-N1	-3.20	1.33	1.40
1	2A	1917	PSU	C4-N3	-3.19	1.32	1.38
32	2a	1519	MA6	C5-N7	-3.19	1.33	1.39
32	2a	1518	MA6	C5-N7	-3.19	1.33	1.39
1	2A	1939	5MU	O4-C4	-3.18	1.17	1.23
32	1a	1498	UR3	C2-N1	-3.18	1.34	1.38
32	1a	516	PSU	C4-N3	-3.18	1.32	1.38
32	1a	1518	MA6	C4-N9	-3.17	1.31	1.37
1	1A	1917	PSU	O4'-C1'	-3.15	1.39	1.43
1	2A	2605	PSU	C2-N3	-3.14	1.32	1.37
1	1A	2503	2MA	C8-N9	-3.14	1.32	1.37
32	1a	516	PSU	O4-C4	-3.13	1.17	1.23
1	1A	2605	PSU	C6-C5	3.12	1.38	1.35
32	1a	1404	5MC	C6-N1	-3.11	1.32	1.38
1	2A	2605	PSU	C4-N3	-3.11	1.33	1.38
32	1a	527	G7M	C6-N1	-3.10	1.33	1.38
32	1a	1519	MA6	C4-N9	-3.09	1.31	1.37
32	2a	1400	5MC	C6-N1	-3.06	1.32	1.38
1	1A	1939	5MU	O2-C2	-3.06	1.17	1.23
32	1a	1400	5MC	C6-N1	-3.05	1.32	1.38
32	2a	1518	MA6	C6-N1	-3.04	1.28	1.34
1	1A	2605	PSU	O4-C4	-3.03	1.17	1.23
32	2a	1207	2MG	C6-N1	-3.03	1.33	1.38
1	1A	1917	PSU	O4-C4	-3.03	1.17	1.23
1	2A	1911	PSU	C4-N3	-3.02	1.33	1.38
32	1a	1519	MA6	C5-N7	-3.02	1.33	1.39
1	1A	1915	5MU	C6-N1	-3.02	1.32	1.38
32	2a	516	PSU	C2-N3	-3.01	1.32	1.37
32	1a	1518	MA6	C5-N7	-3.01	1.33	1.39
32	2a	1404	5MC	C6-N1	-3.01	1.32	1.38
1	2A	1917	PSU	O4-C4	-3.01	1.17	1.23
1	2A	2552	OMU	C2-N1	-3.01	1.33	1.38
32	2a	516	PSU	O4-C4	-2.98	1.17	1.23
1	1A	1920	OMC	C2-N1	-2.98	1.33	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2A	1939	5MU	O2-C2	-2.97	1.17	1.23
32	2a	516	PSU	C4-N3	-2.96	1.33	1.38
1	2A	1915	5MU	C6-N1	-2.96	1.33	1.38
1	1A	1911	PSU	C6-C5	2.95	1.38	1.35
1	1A	1939	5MU	C4-C5	-2.94	1.40	1.44
1	2A	2552	OMU	C4-N3	-2.92	1.33	1.38
32	1a	1407	5MC	C6-N1	-2.92	1.33	1.38
32	1a	516	PSU	C6-C5	2.90	1.38	1.35
32	1a	967	5MC	C6-C5	2.90	1.39	1.34
1	1A	2552	OMU	C2-N1	-2.90	1.33	1.38
1	2A	1915	5MU	O2-C2	-2.89	1.18	1.23
32	2a	1519	MA6	C6-N1	-2.88	1.29	1.34
1	2A	1939	5MU	C2-N1	-2.88	1.34	1.38
1	2A	1911	PSU	C1'-C5	2.88	1.56	1.50
1	2A	2552	OMU	O3'-C3'	2.87	1.50	1.43
1	2A	2605	PSU	O4-C4	-2.86	1.18	1.23
32	1a	516	PSU	C1'-C5	2.85	1.56	1.50
32	1a	1518	MA6	C6-N1	-2.82	1.29	1.34
1	1A	1911	PSU	C2-N3	-2.82	1.32	1.37
1	2A	1939	5MU	C4-C5	-2.82	1.40	1.44
1	2A	1917	PSU	C6-C5	2.82	1.38	1.35
32	2a	1498	UR3	C2-N1	-2.81	1.34	1.38
32	2a	1519	MA6	C4-N9	-2.80	1.31	1.37
1	1A	1915	5MU	O2-C2	-2.80	1.18	1.23
32	2a	516	PSU	C6-C5	2.80	1.38	1.35
32	1a	1519	MA6	C6-N1	-2.79	1.29	1.34
32	2a	1498	UR3	C4-N3	-2.78	1.35	1.40
1	2A	2605	PSU	C6-C5	2.77	1.38	1.35
32	1a	1207	2MG	C6-N1	-2.76	1.33	1.38
32	2a	516	PSU	C1'-C5	2.76	1.56	1.50
32	1a	1402	4OC	O2-C2	-2.75	1.18	1.23
32	1a	966	M2G	C6-N1	-2.74	1.33	1.38
1	1A	1911	PSU	C1'-C5	2.72	1.56	1.50
43	2l	92	0TD	CB-CA	-2.70	1.53	1.54
32	2a	1400	5MC	C2-N1	-2.70	1.34	1.40
32	1a	1404	5MC	C2-N1	-2.70	1.34	1.40
1	2A	1962	5MC	C2-N1	-2.69	1.34	1.40
32	2a	967	5MC	C6-N1	-2.69	1.33	1.38
32	2a	1402	4OC	O2-C2	-2.69	1.18	1.23
1	1A	2552	OMU	O3'-C3'	2.68	1.49	1.43
32	2a	966	M2G	C6-N1	-2.68	1.33	1.38
32	1a	967	5MC	C6-N1	-2.68	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2A	1911	PSU	C6-C5	2.67	1.38	1.35
1	2A	1917	PSU	C1'-C5	2.67	1.56	1.50
1	1A	1917	PSU	C6-N1	-2.67	1.31	1.36
1	2A	1942	5MC	C2-N1	-2.66	1.34	1.40
1	2A	1911	PSU	O4-C4	-2.66	1.18	1.23
1	1A	1920	OMC	O2-C2	-2.64	1.18	1.23
1	2A	2605	PSU	C1'-C5	2.62	1.56	1.50
1	2A	1911	PSU	C6-N1	-2.62	1.32	1.36
1	1A	1942	5MC	C2-N1	-2.61	1.34	1.40
32	1a	967	5MC	C2-N1	-2.61	1.34	1.40
32	2a	1519	MA6	C9-N6	2.61	1.51	1.45
1	2A	2605	PSU	C6-N1	-2.60	1.32	1.36
32	2a	1407	5MC	C6-N1	-2.59	1.33	1.38
1	1A	1939	5MU	C2-N3	-2.58	1.33	1.38
32	2a	967	5MC	C2-N1	-2.57	1.34	1.40
1	1A	1962	5MC	C2-N1	-2.56	1.34	1.40
1	1A	1911	PSU	C6-N1	-2.55	1.32	1.36
32	1a	1407	5MC	O2-C2	-2.54	1.19	1.23
1	2A	1920	OMC	O2-C2	-2.54	1.19	1.23
1	1A	1962	5MC	O2-C2	-2.54	1.19	1.23
32	2a	1404	5MC	O2-C2	-2.53	1.19	1.23
1	1A	1939	5MU	C2-N1	-2.53	1.34	1.38
32	1a	1400	5MC	O2-C2	-2.52	1.19	1.23
1	1A	2552	OMU	C2-N3	-2.51	1.33	1.38
1	2A	1917	PSU	C6-N1	-2.51	1.32	1.36
32	1a	516	PSU	C6-N1	-2.50	1.32	1.36
1	1A	1942	5MC	O2-C2	-2.50	1.19	1.23
1	1A	2251	OMG	O6-C6	-2.49	1.18	1.23
32	2a	1400	5MC	O2-C2	-2.46	1.19	1.23
32	1a	967	5MC	O2-C2	-2.46	1.19	1.23
32	2a	967	5MC	O2-C2	-2.46	1.19	1.23
32	1a	1404	5MC	O2-C2	-2.46	1.19	1.23
32	1a	1519	MA6	C9-N6	2.46	1.51	1.45
32	2a	516	PSU	C6-N1	-2.45	1.32	1.36
32	1a	1400	5MC	C2-N1	-2.44	1.35	1.40
1	2A	1920	OMC	C6-N1	-2.43	1.32	1.38
32	2a	527	G7M	O6-C6	-2.43	1.19	1.23
1	1A	2605	PSU	C1'-C5	2.43	1.55	1.50
1	2A	2251	OMG	C5-N7	-2.43	1.34	1.39
32	2a	1404	5MC	C2-N1	-2.42	1.35	1.40
32	2a	1518	MA6	C9-N6	2.41	1.51	1.45
1	1A	1917	PSU	C4-C5	-2.40	1.37	1.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2A	2251	OMG	O6-C6	-2.40	1.19	1.23
32	1a	1518	MA6	C9-N6	2.38	1.50	1.45
32	1a	527	G7M	O6-C6	-2.37	1.19	1.23
1	1A	1917	PSU	C6-C5	2.37	1.37	1.35
1	2A	1962	5MC	O2-C2	-2.37	1.19	1.23
1	2A	1939	5MU	C2-N3	-2.37	1.33	1.38
1	2A	2552	OMU	C6-C5	2.36	1.40	1.35
1	1A	2552	OMU	O2-C2	-2.36	1.18	1.23
1	2A	1942	5MC	O2-C2	-2.35	1.19	1.23
32	2a	1207	2MG	O6-C6	-2.35	1.19	1.23
32	1a	1498	UR3	C4-N3	-2.34	1.35	1.40
32	1a	1518	MA6	C8-N9	-2.33	1.33	1.37
32	1a	1207	2MG	C2-N1	-2.33	1.33	1.36
32	2a	1518	MA6	C4-N3	-2.33	1.30	1.34
32	2a	1407	5MC	O2-C2	-2.33	1.19	1.23
1	2A	2552	OMU	O2-C2	-2.32	1.19	1.23
32	1a	966	M2G	O6-C6	-2.30	1.19	1.23
1	1A	1920	OMC	C6-N1	-2.30	1.32	1.38
1	1A	2552	OMU	C6-C5	2.30	1.40	1.35
32	2a	1518	MA6	C8-N9	-2.28	1.33	1.37
1	1A	1915	5MU	C2-N3	-2.27	1.34	1.38
1	2A	2503	2MA	CM2-C2	2.27	1.55	1.49
1	1A	2605	PSU	C6-N1	-2.26	1.32	1.36
1	2A	2251	OMG	C8-N9	-2.24	1.32	1.37
32	2a	1519	MA6	C6-N6	2.23	1.42	1.36
1	2A	2552	OMU	C2-N3	-2.23	1.34	1.38
32	1a	1518	MA6	C6-N6	2.22	1.42	1.36
1	1A	2503	2MA	CM2-C2	2.21	1.55	1.49
32	2a	1518	MA6	C6-N6	2.21	1.42	1.36
32	2a	966	M2G	O6-C6	-2.21	1.19	1.23
1	2A	2552	OMU	C3'-C2'	2.20	1.57	1.53
32	1a	1498	UR3	C6-C5	2.20	1.40	1.35
32	1a	1519	MA6	C6-N6	2.18	1.42	1.36
32	1a	1407	5MC	C2-N1	-2.18	1.35	1.40
32	1a	1519	MA6	C8-N9	-2.18	1.33	1.37
1	1A	2605	PSU	C4-C5	-2.17	1.38	1.44
32	2a	1498	UR3	C6-C5	2.17	1.40	1.35
32	1a	1402	4OC	C6-N1	-2.17	1.32	1.38
32	2a	1402	4OC	C6-N1	-2.15	1.33	1.38
1	1A	2552	OMU	O4-C4	-2.14	1.20	1.24
32	2a	516	PSU	C4-C5	-2.14	1.38	1.44
32	2a	966	M2G	C8-N9	-2.13	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2A	1915	5MU	C2-N3	-2.12	1.34	1.38
32	1a	516	PSU	O4'-C1'	-2.12	1.40	1.43
1	2A	2605	PSU	C4-C5	-2.10	1.38	1.44
32	2a	1207	2MG	C2-N1	-2.10	1.33	1.36
32	2a	1519	MA6	C8-N9	-2.10	1.34	1.37
1	1A	2251	OMG	C8-N9	-2.09	1.32	1.37
1	2A	1917	PSU	C4-C5	-2.08	1.38	1.44
32	1a	1518	MA6	C4-N3	-2.08	1.30	1.34
32	1a	516	PSU	C4-C5	-2.06	1.38	1.44
32	2a	516	PSU	O4'-C1'	-2.04	1.41	1.43
1	2A	1920	OMC	C2-N3	-2.04	1.32	1.36
32	1a	966	M2G	C8-N9	-2.04	1.33	1.37
32	2a	1518	MA6	C2-N3	-2.02	1.30	1.33
32	2a	527	G7M	C2-N1	-2.02	1.32	1.37
32	2a	1519	MA6	C4-N3	-2.01	1.30	1.34
32	2a	1207	2MG	C8-N9	-2.00	1.33	1.37

All (231) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1A	2503	2MA	C5-C4-N3	-7.74	119.03	127.18
32	2a	1207	2MG	C2-N3-C4	7.16	120.96	112.00
1	2A	2503	2MA	C5-C4-N3	-7.12	119.68	127.18
32	1a	1207	2MG	C2-N3-C4	6.84	120.56	112.00
1	1A	1917	PSU	N1-C2-N3	6.35	121.87	115.17
1	1A	2605	PSU	N1-C2-N3	6.32	121.84	115.17
1	1A	1939	5MU	C4-N3-C2	-6.22	119.18	127.34
1	1A	2251	OMG	C5-C4-N3	-6.17	118.56	128.39
1	2A	1917	PSU	N1-C2-N3	6.06	121.56	115.17
1	2A	2605	PSU	N1-C2-N3	6.06	121.56	115.17
32	2a	516	PSU	N1-C2-N3	6.03	121.52	115.17
1	1A	1939	5MU	C5-C4-N3	6.01	120.55	115.32
32	1a	516	PSU	N1-C2-N3	5.99	121.49	115.17
1	2A	2251	OMG	C5-C4-N3	-5.97	118.89	128.39
1	1A	1939	5MU	N3-C2-N1	5.94	122.62	114.89
32	2a	1519	MA6	C5-C4-N3	-5.92	118.56	126.72
32	2a	1207	2MG	C5-C4-N3	-5.74	119.26	128.39
1	2A	1939	5MU	N3-C2-N1	5.62	122.21	114.89
32	1a	966	M2G	C5-C4-N3	-5.61	119.46	128.39
32	2a	966	M2G	C5-C4-N3	-5.59	119.50	128.39
1	2A	1939	5MU	C4-N3-C2	-5.48	120.15	127.34
1	1A	1915	5MU	C5-C4-N3	5.48	120.08	115.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	1a	1519	MA6	C5-C4-N3	-5.44	119.23	126.72
32	1a	1518	MA6	C5-C4-N3	-5.36	119.34	126.72
32	2a	1518	MA6	C5-C4-N3	-5.35	119.34	126.72
1	2A	1911	PSU	N1-C2-N3	5.25	120.70	115.17
1	2A	1915	5MU	C5-C4-N3	5.23	119.87	115.32
1	2A	1939	5MU	C5-C4-N3	5.16	119.81	115.32
1	1A	2552	OMU	C4-N3-C2	-5.15	120.22	126.61
1	1A	2503	2MA	N3-C4-N9	5.13	133.50	126.99
1	1A	1911	PSU	N1-C2-N3	5.11	120.56	115.17
1	1A	2552	OMU	N3-C2-N1	5.04	121.46	114.89
1	2A	1915	5MU	N3-C2-N1	5.03	121.44	114.89
1	1A	1915	5MU	N3-C2-N1	4.96	121.35	114.89
1	1A	2251	OMG	C2-N3-C4	4.96	120.84	112.30
32	2a	1518	MA6	N1-C2-N3	-4.91	121.14	128.58
32	2a	1519	MA6	N1-C2-N3	-4.91	121.15	128.58
32	1a	1519	MA6	N1-C2-N3	-4.89	121.18	128.58
32	1a	1207	2MG	C5-C4-N3	-4.82	120.71	128.39
1	2A	2552	OMU	N3-C2-N1	4.78	121.11	114.89
1	1A	1915	5MU	C4-N3-C2	-4.74	121.12	127.34
32	1a	1518	MA6	N1-C2-N3	-4.70	121.46	128.58
1	2A	2552	OMU	C4-N3-C2	-4.68	120.81	126.61
1	1A	1939	5MU	O4-C4-C5	-4.63	119.62	124.92
32	2a	966	M2G	C2-N3-C4	4.61	121.04	112.51
1	2A	1915	5MU	C4-N3-C2	-4.59	121.32	127.34
1	2A	2251	OMG	C2-N3-C4	4.57	120.18	112.30
32	1a	966	M2G	C2-N3-C4	4.55	120.92	112.51
1	1A	1917	PSU	C4-N3-C2	-4.54	120.12	126.37
1	2A	1917	PSU	C4-N3-C2	-4.52	120.14	126.37
1	1A	1915	5MU	O4-C4-C5	-4.50	119.77	124.92
32	1a	1518	MA6	C4-C5-N7	-4.47	105.48	110.58
1	2A	1915	5MU	O4-C4-C5	-4.41	119.88	124.92
32	1a	516	PSU	C4-N3-C2	-4.39	120.32	126.37
1	2A	2605	PSU	C4-N3-C2	-4.36	120.36	126.37
32	2a	516	PSU	C4-N3-C2	-4.35	120.38	126.37
32	1a	1519	MA6	C4-C5-N7	-4.35	105.61	110.58
32	2a	1518	MA6	C4-C5-N7	-4.35	105.61	110.58
1	1A	2605	PSU	C4-N3-C2	-4.29	120.46	126.37
1	1A	1939	5MU	C5-C6-N1	-4.29	118.66	123.31
43	2l	92	0TD	OD2-CG-CB	4.27	122.38	113.15
1	2A	2251	OMG	N9-C4-N3	4.26	134.48	125.95
1	1A	1915	5MU	C1'-N1-C2	4.15	125.04	117.59
1	2A	1942	5MC	C5-C6-N1	-4.14	118.82	123.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	2a	1519	MA6	C4-C5-N7	-4.13	105.86	110.58
1	2A	2503	2MA	N3-C4-N9	4.12	132.22	126.99
32	2a	516	PSU	O2-C2-N1	-4.12	118.54	122.79
32	2a	1400	5MC	C5-C6-N1	-4.12	118.84	123.31
1	1A	2251	OMG	N9-C4-N3	4.11	134.17	125.95
32	1a	527	G7M	C2-N3-C4	4.07	119.31	112.30
32	2a	1519	MA6	C2-N3-C4	4.07	121.76	111.83
1	2A	1915	5MU	C1'-N1-C2	4.06	124.89	117.59
32	2a	527	G7M	C2-N3-C4	4.05	119.28	112.30
1	2A	1939	5MU	O4-C4-C5	-4.02	120.32	124.92
32	1a	1519	MA6	C2-N3-C4	3.93	121.43	111.83
32	2a	1518	MA6	C2-N3-C4	3.89	121.33	111.83
32	1a	1518	MA6	C2-N3-C4	3.85	121.24	111.83
32	2a	1518	MA6	C2-N1-C6	3.85	121.23	111.83
32	1a	1207	2MG	C6-C5-N7	3.79	137.19	130.29
1	1A	1917	PSU	O2-C2-N1	-3.76	118.91	122.79
1	1A	1942	5MC	C5-C6-N1	-3.75	119.24	123.31
1	2A	2503	2MA	C4-C5-N7	-3.73	106.32	110.58
1	2A	1939	5MU	C5-C6-N1	-3.73	119.27	123.31
32	1a	1519	MA6	C2-N1-C6	3.72	120.92	111.83
32	1a	1404	5MC	C5-C6-N1	-3.68	119.32	123.31
32	2a	1519	MA6	C2-N1-C6	3.67	120.79	111.83
32	1a	1518	MA6	C2-N1-C6	3.67	120.79	111.83
32	1a	527	G7M	C5-C4-N3	-3.66	121.24	128.15
1	2A	1962	5MC	C5-C6-N1	-3.66	119.34	123.31
32	2a	527	G7M	C5-C4-N3	-3.65	121.25	128.15
32	1a	1400	5MC	C5-C6-N1	-3.65	119.35	123.31
1	1A	2552	OMU	C5-C4-N3	3.64	119.89	114.80
1	2A	1917	PSU	O2-C2-N1	-3.63	119.05	122.79
32	2a	1519	MA6	N3-C4-N9	3.61	133.30	127.17
32	1a	1519	MA6	C5-N7-C8	3.58	109.08	103.45
32	2a	1518	MA6	C5-N7-C8	3.51	108.97	103.45
32	1a	1518	MA6	C5-N7-C8	3.51	108.96	103.45
32	2a	1519	MA6	C5-N7-C8	3.50	108.96	103.45
32	2a	1407	5MC	O2-C2-N3	-3.50	116.82	122.33
1	2A	2605	PSU	O2-C2-N1	-3.47	119.21	122.79
32	1a	1407	5MC	C5-C6-N1	-3.45	119.56	123.31
1	2A	1911	PSU	O2-C2-N1	-3.39	119.29	122.79
32	1a	1498	UR3	C4-N3-C2	-3.39	121.85	124.58
32	1a	966	M2G	N9-C4-N3	3.39	132.72	125.95
1	1A	2503	2MA	N6-C6-N1	3.35	121.54	117.03
32	2a	1207	2MG	C2-N1-C6	-3.33	120.53	124.55

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	1a	1207	2MG	N1-C2-N2	3.32	119.95	116.56
1	1A	2605	PSU	O2-C2-N1	-3.31	119.38	122.79
1	1A	2503	2MA	C4-C5-N7	-3.30	106.81	110.58
32	1a	1519	MA6	N3-C4-N9	3.29	132.77	127.17
32	2a	966	M2G	N9-C4-N3	3.29	132.53	125.95
32	2a	527	G7M	C6-C5-N7	3.29	136.29	132.17
1	1A	1915	5MU	C1'-N1-C6	-3.28	115.75	121.15
1	2A	2552	OMU	C5-C4-N3	3.27	119.38	114.80
32	2a	1207	2MG	N9-C4-N3	3.26	132.47	125.95
32	2a	1404	5MC	C5-C6-N1	-3.26	119.78	123.31
32	1a	1207	2MG	C4-C5-N7	-3.24	105.54	110.67
1	2A	1911	PSU	C4-N3-C2	-3.22	121.93	126.37
32	1a	516	PSU	O2-C2-N1	-3.21	119.47	122.79
32	1a	527	G7M	O6-C6-C5	-3.17	120.94	128.01
1	1A	1962	5MC	C5-C6-N1	-3.14	119.90	123.31
1	1A	1911	PSU	C6-N1-C2	-3.12	119.80	122.69
32	2a	1207	2MG	C6-C5-N7	3.11	135.94	130.29
32	1a	1518	MA6	N3-C4-N9	3.08	132.40	127.17
32	2a	527	G7M	C5-C6-N1	3.07	118.19	111.84
32	2a	966	M2G	C6-C5-N7	3.06	135.85	130.29
32	1a	967	5MC	O3'-C3'-C4'	3.05	119.84	111.08
32	2a	1518	MA6	N3-C4-N9	3.04	132.34	127.17
32	2a	1518	MA6	N9-C8-N7	-3.03	109.64	113.94
32	1a	1519	MA6	N9-C8-N7	-3.03	109.64	113.94
32	2a	527	G7M	N9-C4-N3	3.00	131.94	125.95
1	2A	1915	5MU	C1'-N1-C6	-2.99	116.23	121.15
32	2a	1207	2MG	N1-C2-N2	2.98	119.60	116.56
32	1a	527	G7M	C5-C6-N1	2.97	117.98	111.84
1	1A	2251	OMG	C2-N1-C6	-2.93	119.80	125.11
32	2a	1519	MA6	N9-C8-N7	-2.92	109.79	113.94
43	2l	92	0TD	OD1-CG-CB	-2.92	116.33	122.44
1	2A	2552	OMU	O4-C4-C5	-2.92	120.13	125.16
32	1a	1518	MA6	N9-C8-N7	-2.91	109.81	113.94
32	2a	1207	2MG	C4-C5-N7	-2.88	106.11	110.67
32	1a	527	G7M	N9-C4-N3	2.87	131.70	125.95
1	1A	2503	2MA	C5-N7-C8	2.87	107.96	103.45
1	2A	2503	2MA	C5-N7-C8	2.87	107.96	103.45
1	2A	2552	OMU	O2-C2-N1	-2.86	119.07	122.80
32	1a	1407	5MC	O2-C2-N3	-2.85	117.84	122.33
32	2a	527	G7M	O6-C6-C5	-2.83	121.70	128.01
1	2A	1939	5MU	O2-C2-N1	-2.82	119.12	122.80
32	1a	966	M2G	C6-C5-N7	2.81	135.41	130.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2A	1915	5MU	O2-C2-N3	-2.80	116.32	121.49
32	2a	966	M2G	C4-C5-N7	-2.77	106.27	110.67
1	2A	2251	OMG	C2-N1-C6	-2.77	120.09	125.11
32	1a	527	G7M	C6-C5-N7	2.75	135.62	132.17
32	1a	1498	UR3	C5-C4-N3	2.73	118.64	115.04
1	2A	2503	2MA	N6-C6-N1	2.68	120.65	117.03
1	2A	1920	OMC	O2-C2-N3	-2.68	118.10	122.33
1	1A	1911	PSU	O2-C2-N1	-2.68	120.03	122.79
1	1A	1915	5MU	O2-C2-N3	-2.68	116.55	121.49
1	1A	1920	OMC	O2-C2-N3	-2.66	118.13	122.33
1	1A	2552	OMU	O4-C4-C5	-2.66	120.57	125.16
32	2a	1498	UR3	C1'-N1-C2	2.66	121.40	117.04
32	1a	966	M2G	O6-C6-C5	-2.65	119.53	126.53
32	2a	1498	UR3	C4-N3-C2	-2.64	122.45	124.58
43	1l	92	0TD	OD2-CG-CB	2.61	118.80	113.15
32	1a	516	PSU	O4'-C1'-C2'	2.60	108.75	105.15
1	2A	2503	2MA	N9-C8-N7	-2.59	110.27	113.94
32	1a	1400	5MC	O2-C2-N3	-2.58	118.26	122.33
32	1a	966	M2G	C5-C6-N1	2.58	119.82	113.25
1	1A	2251	OMG	C5-C6-N1	2.57	119.81	113.25
1	1A	1939	5MU	O2-C2-N1	-2.55	119.48	122.80
32	2a	1519	MA6	C5-C6-N6	-2.54	121.31	125.33
32	2a	1498	UR3	C6-N1-C2	-2.52	119.74	121.80
1	2A	2251	OMG	O6-C6-C5	-2.51	119.90	126.53
1	1A	2605	PSU	C6-N1-C2	-2.51	120.36	122.69
1	2A	2552	OMU	C2'-C1'-N1	-2.51	109.48	114.24
1	1A	2552	OMU	C2'-C1'-N1	-2.50	109.50	114.24
32	1a	966	M2G	C4-C5-N7	-2.49	106.72	110.67
32	2a	1207	2MG	C5-C6-N1	2.49	119.58	113.25
1	1A	2251	OMG	C4-C5-N7	-2.49	106.73	110.67
32	2a	966	M2G	C5-C6-N1	2.48	119.56	113.25
1	1A	2503	2MA	N3-C2-N1	-2.47	121.41	125.77
1	1A	2251	OMG	C6-C5-N7	2.47	134.78	130.29
32	2a	1407	5MC	C5-C6-N1	-2.46	120.64	123.31
1	2A	1915	5MU	C6-N1-C2	-2.44	118.87	121.30
32	1a	1402	4OC	O2-C2-N3	-2.44	118.49	122.33
32	2a	1404	5MC	O2-C2-N3	-2.43	118.50	122.33
1	2A	2503	2MA	N3-C2-N1	-2.42	121.51	125.77
32	2a	967	5MC	O3'-C3'-C2'	2.40	119.50	111.82
1	2A	2251	OMG	C5-C6-N1	2.40	119.35	113.25
32	2a	1207	2MG	O6-C6-C5	-2.39	120.21	126.53
32	2a	516	PSU	O4'-C1'-C2'	2.36	108.42	105.15

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1A	2503	2MA	N9-C8-N7	-2.35	110.60	113.94
32	2a	1498	UR3	C5-C4-N3	2.34	118.11	115.04
1	1A	2552	OMU	O2-C2-N1	-2.32	119.77	122.80
1	1A	2552	OMU	C5-C6-N1	-2.30	118.09	121.84
32	2a	1518	MA6	C5-C4-N9	2.30	108.31	105.81
1	1A	1911	PSU	C4-N3-C2	-2.30	123.21	126.37
32	1a	1207	2MG	C8-N7-C5	2.29	108.35	104.26
32	2a	516	PSU	C6-N1-C2	-2.29	120.56	122.69
1	1A	2251	OMG	C8-N7-C5	2.29	108.34	104.26
32	2a	966	M2G	O6-C6-C5	-2.28	120.52	126.53
1	1A	1915	5MU	C5M-C5-C4	2.25	121.18	118.78
1	1A	1920	OMC	N4-C4-N3	2.24	121.92	117.91
32	1a	1518	MA6	C5-C4-N9	2.24	108.25	105.81
1	2A	2605	PSU	C6-N1-C2	-2.24	120.61	122.69
32	2a	1207	2MG	C8-N7-C5	2.24	108.25	104.26
32	2a	966	M2G	C8-N7-C5	2.22	108.22	104.26
1	1A	1917	PSU	C6-N1-C2	-2.22	120.63	122.69
1	1A	1920	OMC	C1'-N1-C2	2.21	123.33	118.44
32	1a	1518	MA6	C6-C5-N7	2.19	136.93	133.43
32	1a	1207	2MG	N9-C4-N3	2.18	130.32	125.95
1	2A	1911	PSU	C6-N1-C2	-2.18	120.67	122.69
32	1a	967	5MC	O3'-C3'-C2'	2.17	118.78	111.82
32	1a	1519	MA6	C6-C5-N7	2.16	136.88	133.43
32	2a	967	5MC	C5-C6-N1	-2.16	120.97	123.31
32	2a	1519	MA6	C5-C4-N9	2.14	108.14	105.81
1	1A	1915	5MU	C5-C6-N1	-2.14	120.99	123.31
1	1A	1920	OMC	C1'-N1-C6	-2.12	116.26	120.78
1	1A	2251	OMG	O6-C6-C5	-2.12	120.95	126.53
1	2A	1911	PSU	C6-C5-C4	-2.11	116.75	118.17
1	1A	1939	5MU	C5M-C5-C4	2.11	121.03	118.78
32	2a	1402	4OC	O2-C2-N3	-2.11	119.01	122.33
1	1A	1915	5MU	C6-N1-C2	-2.11	119.20	121.30
1	2A	2503	2MA	C5-C4-N9	2.10	108.10	105.81
32	2a	1519	MA6	C4-C5-C6	2.09	118.08	115.91
1	1A	1942	5MC	O2-C2-N3	-2.08	119.05	122.33
32	2a	1518	MA6	C6-C5-N7	2.05	136.70	133.43
32	2a	1402	4OC	C5-C4-N3	-2.02	119.44	122.60
1	2A	1920	OMC	C5-C6-N1	-2.02	118.56	121.84
32	1a	1519	MA6	C5-C4-N9	2.01	108.00	105.81
32	1a	966	M2G	C8-N7-C5	2.00	107.83	104.26
1	1A	1917	PSU	C5-C6-N1	-2.00	119.36	122.14

There are no chirality outliers.

All (56) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
1	1A	1915	5MU	O4'-C1'-N1-C2
1	1A	1915	5MU	O4'-C1'-N1-C6
1	1A	1939	5MU	C3'-C4'-C5'-O5'
1	1A	1939	5MU	O4'-C4'-C5'-O5'
1	1A	2251	OMG	C1'-C2'-O2'-CM2
32	1a	1207	2MG	N1-C2-N2-CM2
32	1a	1207	2MG	N3-C2-N2-CM2
32	1a	1400	5MC	O4'-C4'-C5'-O5'
32	1a	1400	5MC	C3'-C4'-C5'-O5'
32	1a	1498	UR3	O4'-C4'-C5'-O5'
32	1a	1518	MA6	O4'-C4'-C5'-O5'
32	1a	1519	MA6	O4'-C4'-C5'-O5'
43	1l	92	0TD	O-C-CA-CB
43	1l	92	0TD	CG-CB-SB-CSB
1	2A	1915	5MU	O4'-C1'-N1-C2
1	2A	1915	5MU	O4'-C1'-N1-C6
1	2A	1920	OMC	C1'-C2'-O2'-CM2
1	2A	2251	OMG	C1'-C2'-O2'-CM2
32	2a	527	G7M	C3'-C4'-C5'-O5'
32	2a	966	M2G	N1-C2-N2-CM1
32	2a	966	M2G	N3-C2-N2-CM1
32	2a	966	M2G	N3-C2-N2-CM2
32	2a	1518	MA6	C5-C6-N6-C9
32	2a	1519	MA6	O4'-C4'-C5'-O5'
32	2a	1519	MA6	C5-C6-N6-C10
32	1a	527	G7M	C3'-C4'-C5'-O5'
1	2A	1920	OMC	C3'-C4'-C5'-O5'
1	2A	1920	OMC	O4'-C4'-C5'-O5'
32	2a	966	M2G	O4'-C4'-C5'-O5'
32	1a	967	5MC	C3'-C4'-C5'-O5'
32	2a	527	G7M	O4'-C4'-C5'-O5'
32	2a	1518	MA6	N1-C6-N6-C9
32	2a	1519	MA6	N1-C6-N6-C10
32	1a	1518	MA6	C3'-C4'-C5'-O5'
32	1a	1519	MA6	C3'-C4'-C5'-O5'
32	2a	1519	MA6	C3'-C4'-C5'-O5'
32	1a	1498	UR3	C3'-C4'-C5'-O5'
32	1a	527	G7M	O4'-C4'-C5'-O5'
32	1a	967	5MC	O4'-C4'-C5'-O5'
32	2a	1519	MA6	C5-C6-N6-C9
32	1a	1402	4OC	O4'-C4'-C5'-O5'
1	2A	2251	OMG	O4'-C4'-C5'-O5'

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Mol	Chain	Res	Type	Atoms
32	2a	966	M2G	C3'-C4'-C5'-O5'
32	2a	966	M2G	N1-C2-N2-CM2
1	1A	1920	OMC	C1'-C2'-O2'-CM2
1	2A	2251	OMG	C3'-C4'-C5'-O5'
43	2l	92	0TD	CG-CB-SB-CSB
32	2a	1518	MA6	C5-C6-N6-C10
32	1a	527	G7M	C4'-C5'-O5'-P
32	1a	1207	2MG	O4'-C4'-C5'-O5'
32	2a	967	5MC	C3'-C4'-C5'-O5'
1	2A	1920	OMC	C3'-C2'-O2'-CM2
32	2a	1519	MA6	C4'-C5'-O5'-P
32	1a	1402	4OC	C3'-C4'-C5'-O5'
32	2a	1407	5MC	C2'-C1'-N1-C6
32	2a	1407	5MC	C2'-C1'-N1-C2

There are no ring outliers.

29 monomers are involved in 49 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
32	1a	967	5MC	2	0
1	2A	1911	PSU	2	0
32	1a	1519	MA6	1	0
32	2a	967	5MC	3	0
32	2a	966	M2G	1	0
32	1a	1207	2MG	3	0
32	1a	1498	UR3	3	0
1	2A	1939	5MU	1	0
1	1A	2503	2MA	3	0
1	2A	2251	OMG	1	0
32	1a	1400	5MC	1	0
1	2A	2552	OMU	3	0
1	2A	1915	5MU	1	0
32	2a	1400	5MC	2	0
1	2A	2503	2MA	1	0
32	1a	1518	MA6	2	0
1	1A	2552	OMU	2	0
32	2a	1404	5MC	3	0
1	2A	1917	PSU	1	0
1	2A	1962	5MC	1	0
32	1a	966	M2G	1	0
32	1a	516	PSU	1	0
1	2A	1920	OMC	3	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
1	1A	1911	PSU	3	0
32	2a	1518	MA6	1	0
32	2a	1519	MA6	1	0
32	2a	1207	2MG	2	0
1	1A	1920	OMC	1	0
1	1A	1939	5MU	1	0

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 2199 ligands modelled in this entry, 2188 are monoatomic - leaving 11 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	$\# Z > 2$
55	ARG	1B	1001	-	10,11,11	0.74	1 (10%)	9,13,13	1.06	1 (11%)
53	MPD	2A	3002	-	7,7,7	0.31	0	9,10,10	0.17	0
53	MPD	1T	2001	-	7,7,7	0.31	0	9,10,10	0.29	0
55	ARG	1F	303	-	10,11,11	0.74	1 (10%)	9,13,13	1.03	1 (11%)
53	MPD	1a	1601	-	7,7,7	0.33	0	9,10,10	0.36	0
53	MPD	1A	3001	-	7,7,7	0.31	0	9,10,10	0.22	0
53	MPD	2A	3001	-	7,7,7	0.34	0	9,10,10	0.33	0
53	MPD	2B	201	-	7,7,7	0.29	0	9,10,10	0.15	0
57	SF4	2d	501	-	0,12,12	-	-	-	-	-
57	SF4	1d	501	-	0,12,12	-	-	-	-	-
53	MPD	18	101	-	7,7,7	0.31	0	9,10,10	0.35	0

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
55	ARG	1B	1001	-	-	1/11/11/11	-
53	MPD	2A	3002	-	-	4/5/5/5	-
53	MPD	1T	2001	-	-	0/5/5/5	-
55	ARG	1F	303	-	-	2/11/11/11	-
53	MPD	1a	1601	-	-	1/5/5/5	-
53	MPD	1A	3001	-	-	1/5/5/5	-
53	MPD	2A	3001	-	-	2/5/5/5	-
53	MPD	2B	201	-	-	5/5/5/5	-
57	SF4	2d	501	-	-	-	0/6/5/5
57	SF4	1d	501	-	-	-	0/6/5/5
53	MPD	18	101	-	-	3/5/5/5	-

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
55	1F	303	ARG	OXT-C	-2.19	1.23	1.30
55	1B	1001	ARG	OXT-C	-2.13	1.23	1.30

All (2) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
55	1B	1001	ARG	OXT-C-O	-3.12	117.00	124.08
55	1F	303	ARG	OXT-C-O	-2.98	117.31	124.08

There are no chirality outliers.

All (19) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
55	1B	1001	ARG	NE-CD-CG-CB
55	1F	303	ARG	O-C-CA-N
53	1a	1601	MPD	C2-C3-C4-O4
53	2B	201	MPD	C2-C3-C4-O4
53	18	101	MPD	C1-C2-C3-C4
53	18	101	MPD	CM-C2-C3-C4
53	2A	3002	MPD	C1-C2-C3-C4
53	2B	201	MPD	CM-C2-C3-C4
53	2A	3002	MPD	C2-C3-C4-C5
53	2B	201	MPD	C2-C3-C4-C5
55	1F	303	ARG	OXT-C-CA-N
53	18	101	MPD	O2-C2-C3-C4
53	2A	3001	MPD	O2-C2-C3-C4

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Mol	Chain	Res	Type	Atoms
53	2B	201	MPD	O2-C2-C3-C4
53	2A	3002	MPD	C2-C3-C4-O4
53	1A	3001	MPD	CM-C2-C3-C4
53	2A	3001	MPD	C1-C2-C3-C4
53	2A	3002	MPD	CM-C2-C3-C4
53	2B	201	MPD	C1-C2-C3-C4

There are no ring outliers.

5 monomers are involved in 6 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
55	1F	303	ARG	1	0
53	1a	1601	MPD	1	0
53	2A	3001	MPD	1	0
53	2B	201	MPD	2	0
53	18	101	MPD	1	0

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	2851/2894 (98%)	-0.51	31 (1%) 78 60	26, 52, 150, 184	0
1	2A	2847/2894 (98%)	-0.25	41 (1%) 73 54	46, 77, 156, 186	0
2	1B	118/120 (98%)	-0.47	0 100 100	45, 72, 90, 110	0
2	2B	118/120 (98%)	0.34	1 (0%) 82 68	86, 116, 133, 144	0
3	1D	275/276 (99%)	-0.13	2 (0%) 84 70	29, 47, 64, 93	0
3	2D	275/276 (99%)	0.06	1 (0%) 88 78	43, 67, 83, 106	0
4	1E	204/206 (99%)	-0.07	0 100 100	29, 58, 79, 112	0
4	2E	204/206 (99%)	0.12	3 (1%) 72 53	45, 73, 98, 109	0
5	1F	203/210 (96%)	-0.15	0 100 100	27, 55, 90, 120	0
5	2F	203/210 (96%)	0.18	1 (0%) 87 76	44, 89, 109, 129	0
6	1G	181/182 (99%)	0.16	1 (0%) 85 73	67, 91, 111, 134	0
6	2G	181/182 (99%)	0.78	15 (8%) 17 13	106, 127, 139, 147	0
7	1H	174/180 (96%)	-0.10	1 (0%) 85 73	45, 71, 91, 101	0
7	2H	173/180 (96%)	0.37	0 100 100	81, 113, 130, 142	0
8	1I	147/148 (99%)	0.08	1 (0%) 84 70	61, 104, 121, 131	0
8	2I	146/148 (98%)	0.30	2 (1%) 73 54	70, 109, 126, 136	0
9	1N	140/140 (100%)	-0.04	1 (0%) 84 70	39, 52, 75, 100	0
9	2N	140/140 (100%)	0.45	1 (0%) 84 70	58, 90, 111, 122	0
10	1O	122/122 (100%)	-0.14	1 (0%) 82 68	36, 57, 77, 86	0
10	2O	122/122 (100%)	0.08	1 (0%) 82 68	50, 68, 83, 92	0
11	1P	149/150 (99%)	0.07	1 (0%) 84 70	25, 63, 91, 116	0
11	2P	149/150 (99%)	0.42	4 (2%) 56 38	53, 91, 116, 128	0
12	1Q	141/141 (100%)	0.07	0 100 100	39, 56, 70, 99	0
12	2Q	141/141 (100%)	0.59	4 (2%) 55 36	68, 87, 104, 115	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	1R	118/118 (100%)	0.02	0 100 100	34, 50, 67, 83	0
13	2R	118/118 (100%)	0.25	1 (0%) 82 68	54, 68, 89, 99	0
14	1S	110/112 (98%)	0.06	0 100 100	52, 69, 84, 95	0
14	2S	110/112 (98%)	0.91	14 (12%) 8 6	95, 108, 118, 125	0
15	1T	131/146 (89%)	0.17	2 (1%) 72 53	49, 63, 109, 117	0
15	2T	131/146 (89%)	0.04	0 100 100	53, 74, 104, 123	0
16	1U	116/118 (98%)	-0.09	0 100 100	31, 45, 68, 83	0
16	2U	116/118 (98%)	0.33	3 (2%) 57 38	59, 85, 101, 117	0
17	1V	101/101 (100%)	-0.16	0 100 100	31, 58, 77, 87	0
17	2V	101/101 (100%)	0.26	2 (1%) 65 46	60, 100, 115, 129	0
18	1W	112/113 (99%)	-0.22	0 100 100	35, 48, 71, 91	0
18	2W	112/113 (99%)	0.08	2 (1%) 67 48	48, 66, 96, 140	0
19	1X	95/96 (98%)	-0.08	0 100 100	39, 53, 74, 97	0
19	2X	95/96 (98%)	0.49	3 (3%) 50 34	58, 79, 106, 116	0
20	1Y	107/110 (97%)	0.08	0 100 100	44, 66, 88, 103	0
20	2Y	107/110 (97%)	0.69	5 (4%) 36 24	75, 94, 111, 121	0
21	1Z	203/206 (98%)	0.05	0 100 100	57, 81, 105, 117	0
21	2Z	201/206 (97%)	0.58	6 (2%) 52 35	89, 111, 124, 141	0
22	10	77/85 (90%)	-0.06	0 100 100	40, 52, 66, 79	0
22	20	77/85 (90%)	0.77	7 (9%) 15 11	67, 86, 98, 117	0
23	11	97/98 (98%)	0.04	0 100 100	36, 55, 88, 114	0
23	21	97/98 (98%)	0.36	2 (2%) 63 44	49, 75, 100, 112	0
24	12	70/72 (97%)	0.15	1 (1%) 73 54	47, 66, 80, 108	0
24	22	70/72 (97%)	0.26	0 100 100	80, 93, 103, 105	0
25	13	59/60 (98%)	-0.06	0 100 100	38, 53, 87, 91	0
25	23	59/60 (98%)	0.58	0 100 100	75, 90, 116, 126	0
26	14	69/71 (97%)	0.31	1 (1%) 73 54	83, 113, 141, 146	0
26	24	69/71 (97%)	0.63	1 (1%) 73 54	125, 144, 158, 160	0
27	15	59/60 (98%)	-0.22	0 100 100	34, 44, 79, 89	0
27	25	59/60 (98%)	-0.02	0 100 100	49, 74, 88, 100	0
28	16	53/54 (98%)	-0.16	0 100 100	45, 55, 71, 82	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
28	26	53/54 (98%)	0.10	0 100 100	71, 81, 93, 103	0
29	17	48/49 (97%)	0.06	0 100 100	37, 46, 77, 81	0
29	27	48/49 (97%)	0.25	1 (2%) 63 44	53, 62, 83, 86	0
30	18	64/65 (98%)	0.14	2 (3%) 51 34	39, 49, 61, 83	0
30	28	64/65 (98%)	0.84	3 (4%) 36 24	59, 73, 85, 90	0
31	19	37/37 (100%)	0.11	1 (2%) 56 38	40, 54, 64, 72	0
31	29	37/37 (100%)	1.15	5 (13%) 7 6	80, 89, 100, 105	0
32	1a	1488/1522 (97%)	-0.03	9 (0%) 85 73	50, 99, 152, 187	0
32	2a	1492/1522 (98%)	0.11	22 (1%) 72 53	63, 108, 154, 188	0
33	1b	231/256 (90%)	0.46	6 (2%) 57 38	100, 119, 139, 151	0
33	2b	231/256 (90%)	0.64	15 (6%) 25 17	111, 134, 146, 154	0
34	1c	206/239 (86%)	0.29	8 (3%) 43 29	86, 108, 129, 139	0
34	2c	206/239 (86%)	0.73	15 (7%) 21 15	104, 131, 139, 145	0
35	1d	208/209 (99%)	0.77	13 (6%) 26 18	84, 107, 124, 131	0
35	2d	208/209 (99%)	0.52	7 (3%) 48 32	76, 95, 107, 114	0
36	1e	148/162 (91%)	0.20	0 100 100	71, 91, 106, 126	0
36	2e	148/162 (91%)	0.40	2 (1%) 73 54	87, 104, 117, 144	0
37	1f	100/101 (99%)	0.09	0 100 100	65, 88, 107, 116	0
37	2f	100/101 (99%)	0.24	0 100 100	79, 99, 110, 114	0
38	1g	155/156 (99%)	0.37	4 (2%) 57 38	89, 106, 117, 133	0
38	2g	155/156 (99%)	0.62	5 (3%) 50 34	112, 122, 133, 150	0
39	1h	137/138 (99%)	0.48	2 (1%) 72 53	76, 94, 104, 107	0
39	2h	137/138 (99%)	0.55	4 (2%) 53 36	96, 109, 120, 128	0
40	1i	127/128 (99%)	0.84	16 (12%) 8 7	91, 117, 133, 142	0
40	2i	126/128 (98%)	1.42	27 (21%) 2 2	116, 137, 147, 153	0
41	1j	97/105 (92%)	0.98	10 (10%) 12 10	87, 121, 140, 149	0
41	2j	96/105 (91%)	1.32	18 (18%) 3 3	113, 137, 147, 164	0
42	1k	114/129 (88%)	0.09	3 (2%) 57 38	60, 83, 101, 108	0
42	2k	114/129 (88%)	0.31	5 (4%) 39 25	84, 106, 122, 131	0
43	1l	121/135 (89%)	0.39	3 (2%) 58 39	64, 80, 96, 114	0
43	2l	121/135 (89%)	0.52	10 (8%) 17 13	70, 87, 105, 122	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
44	1m	116/126 (92%)	0.56	4 (3%) 48 32	90, 109, 119, 125	0
44	2m	114/126 (90%)	1.04	16 (14%) 6 5	111, 134, 141, 146	0
45	1n	60/61 (98%)	0.87	2 (3%) 49 33	95, 105, 115, 120	0
45	2n	60/61 (98%)	1.47	15 (25%) 2 1	116, 130, 138, 140	0
46	1o	88/89 (98%)	0.46	3 (3%) 48 32	67, 87, 107, 114	0
46	2o	88/89 (98%)	0.44	0 100 100	78, 101, 120, 127	0
47	1p	82/88 (93%)	1.06	9 (10%) 10 9	83, 111, 127, 138	0
47	2p	82/88 (93%)	0.75	5 (6%) 27 19	77, 92, 110, 120	0
48	1r	68/88 (77%)	0.12	0 100 100	69, 86, 111, 119	0
48	2r	68/88 (77%)	0.31	0 100 100	90, 106, 120, 129	0
49	1s	83/93 (89%)	0.79	8 (9%) 13 11	89, 116, 132, 142	0
49	2s	83/93 (89%)	1.16	12 (14%) 6 5	116, 138, 146, 152	0
50	1t	96/106 (90%)	1.31	23 (23%) 2 2	95, 109, 124, 134	0
50	2t	98/106 (92%)	0.93	11 (11%) 10 9	78, 100, 117, 122	0
51	1u	23/27 (85%)	2.01	9 (39%) 1 1	101, 107, 112, 117	0
51	2u	23/27 (85%)	2.57	16 (69%) 0 0	120, 125, 130, 130	0
52	1y	97/113 (85%)	0.55	8 (8%) 17 14	64, 85, 106, 116	0
52	2y	96/113 (84%)	0.99	8 (8%) 17 13	99, 115, 130, 140	0
All	All	20545/21222 (96%)	0.11	528 (2%) 57 38	25, 86, 140, 188	0

All (528) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	1A	1091	G	8.3
40	2i	109	VAL	7.2
1	1A	1087	G	6.1
35	2d	4	TYR	5.9
1	1A	1076	C	5.9
52	2y	98	ALA	5.6
40	2i	127	LYS	5.4
40	2i	110	GLU	5.3
51	2u	11	GLY	5.3
40	2i	108	VAL	5.2
44	2m	88	ARG	5.0
50	2t	6	PRO	4.8
1	1A	1092	C	4.8

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Mol	Chain	Res	Type	RSRZ
22	20	76	GLY	4.7
40	2i	111	ARG	4.7
50	2t	9	ASN	4.6
31	29	28	GLU	4.6
1	2A	2602	A	4.6
40	2i	115	GLY	4.6
50	1t	10	LEU	4.5
32	2a	1001(A)	G	4.4
51	2u	6	ARG	4.4
23	2l	2	SER	4.4
49	2s	2	PRO	4.4
38	2g	5	ARG	4.3
50	1t	73	HIS	4.3
1	1A	2602	A	4.2
49	2s	9	VAL	4.2
50	2t	70	SER	4.2
40	2i	7	THR	4.2
14	2S	3	ARG	4.1
40	1i	111	ARG	4.1
22	20	74	ARG	4.1
35	1d	2	GLY	4.1
1	1A	1090	U	4.0
40	1i	106	ALA	4.0
40	1i	126	SER	4.0
41	2j	58	ASP	4.0
40	2i	125	TYR	4.0
11	2P	68	GLN	3.9
24	12	70	GLN	3.9
52	2y	92	GLY	3.9
34	1c	201	TYR	3.8
1	1A	2803	C	3.7
1	2A	1076	C	3.7
34	2c	196	LEU	3.7
50	1t	103	GLY	3.7
51	2u	2	GLY	3.7
23	2l	26	ARG	3.7
50	1t	11	SER	3.7
40	2i	102	LEU	3.7
51	2u	14	TRP	3.7
39	2h	131	GLY	3.6
50	1t	9	ASN	3.6
44	2m	98	VAL	3.6

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Mol	Chain	Res	Type	RSRZ
32	1a	1036	G	3.6
50	1t	75	ASN	3.6
41	2j	63	PHE	3.6
6	2G	158	ALA	3.6
20	2Y	1	MET	3.6
46	1o	3	ILE	3.5
44	1m	87	TYR	3.5
44	2m	102	ARG	3.5
38	2g	16	LEU	3.5
40	2i	113	LYS	3.5
50	1t	21	LYS	3.5
40	2i	106	ALA	3.5
4	2E	163	GLU	3.5
34	2c	171	GLY	3.5
1	2A	1067	A	3.5
1	2A	1089	G	3.5
51	2u	16	GLY	3.4
1	2A	1171	G	3.4
34	2c	175	LEU	3.4
44	2m	92	HIS	3.4
41	2j	65	LEU	3.4
40	1i	108	VAL	3.4
6	2G	39	ILE	3.4
33	2b	214	ILE	3.4
51	1u	24	ARG	3.3
6	2G	20	ILE	3.3
49	1s	9	VAL	3.3
44	2m	4	ILE	3.3
43	2l	89	ARG	3.3
1	2A	1536	C	3.3
14	2S	33	LYS	3.3
52	1y	98	ALA	3.3
11	2P	15	ARG	3.2
29	27	48	LYS	3.2
51	2u	4	GLY	3.2
38	1g	8	GLU	3.2
40	2i	11	LYS	3.2
41	1j	98	ILE	3.2
41	2j	6	ILE	3.2
43	2l	19	ARG	3.2
50	1t	13	LEU	3.2
32	2a	1001	A	3.1

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Mol	Chain	Res	Type	RSRZ
43	2l	20	LYS	3.1
43	2l	22	SER	3.1
40	2i	42	ARG	3.1
50	1t	18	GLN	3.1
11	2P	66	GLY	3.1
40	2i	107	ARG	3.1
51	2u	15	ARG	3.1
45	2n	34	TYR	3.1
44	2m	78	ILE	3.1
19	2X	92	LEU	3.1
50	1t	19	SER	3.1
1	2A	2174	C	3.1
40	2i	126	SER	3.0
41	2j	64	GLU	3.0
51	2u	13	ILE	3.0
1	2A	2169	A	3.0
51	2u	10	ARG	3.0
1	1A	1026	U	3.0
49	2s	67	VAL	3.0
1	1A	1102	C	3.0
51	1u	18	TYR	3.0
39	2h	112	LEU	3.0
45	2n	14	PRO	3.0
50	2t	11	SER	3.0
40	2i	120	ARG	2.9
41	1j	61	GLU	2.9
50	1t	25	ARG	2.9
32	2a	1202	G	2.9
41	2j	57	LYS	2.9
1	1A	1103	A	2.9
33	2b	99	GLY	2.9
40	2i	101	PHE	2.9
32	2a	1030(B)	C	2.9
6	2G	90	LEU	2.9
51	2u	9	ARG	2.9
1	1A	1074	G	2.9
22	20	71	ASP	2.9
1	2A	2173	A	2.9
1	1A	1064	C	2.9
40	2i	2	GLU	2.9
52	2y	50	ALA	2.9
41	1j	72	VAL	2.9

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Mol	Chain	Res	Type	RSRZ
34	2c	159	GLY	2.9
1	1A	1089	G	2.9
15	1T	131	ALA	2.9
51	1u	23	PRO	2.9
31	29	37	GLY	2.9
51	1u	6	ARG	2.9
46	1o	87	ILE	2.9
1	2A	2320	A	2.9
41	2j	47	PHE	2.9
42	1k	126	ARG	2.9
50	1t	102	GLY	2.9
33	2b	133	LYS	2.9
40	1i	127	LYS	2.9
49	1s	4	SER	2.8
45	2n	30	ALA	2.8
49	2s	79	THR	2.8
44	2m	99	ARG	2.8
12	2Q	22	LYS	2.8
12	2Q	104	PHE	2.8
47	1p	1	MET	2.8
40	1i	75	ASP	2.8
41	1j	45	ARG	2.8
40	2i	117	HIS	2.8
34	2c	163	ALA	2.8
12	2Q	59	ARG	2.8
40	1i	66	ARG	2.8
33	2b	93	VAL	2.8
38	2g	33	ASP	2.8
41	2j	67	THR	2.8
47	2p	29	ASP	2.8
44	2m	90	LEU	2.8
34	2c	157	ILE	2.8
44	1m	85	GLY	2.8
45	2n	7	ILE	2.8
1	1A	1075	C	2.8
51	1u	21	TYR	2.8
22	20	55	ARG	2.8
14	2S	31	SER	2.8
49	2s	41	VAL	2.8
41	1j	40	LEU	2.8
49	1s	68	GLY	2.8
52	1y	97	ALA	2.8

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Mol	Chain	Res	Type	RSRZ
1	1A	1093	G	2.8
8	2I	117	GLU	2.8
34	2c	10	PHE	2.7
1	2A	2144	U	2.7
39	1h	2	LEU	2.7
33	2b	163	PHE	2.7
32	2a	1190	G	2.7
47	1p	25	ARG	2.7
41	2j	78	ASN	2.7
52	2y	84	GLN	2.7
49	2s	4	SER	2.7
6	2G	29	TRP	2.7
41	1j	66	ARG	2.7
16	2U	56	ASP	2.7
50	1t	64	ASP	2.7
44	2m	87	TYR	2.7
41	2j	20	ALA	2.7
36	2e	10	MET	2.7
35	1d	69	GLY	2.7
38	1g	5	ARG	2.7
1	1A	1077	A	2.7
40	2i	105	ASP	2.7
26	24	56	VAL	2.7
44	2m	106	ASN	2.7
1	2A	34	C	2.7
41	2j	54	PHE	2.7
14	2S	93	LYS	2.7
51	1u	16	GLY	2.7
32	2a	973	G	2.7
31	29	16	VAL	2.7
41	2j	37	PRO	2.6
40	1i	18	PHE	2.6
47	2p	1	MET	2.6
51	1u	15	ARG	2.6
1	1A	2143	C	2.6
40	1i	103	THR	2.6
33	1b	101	MET	2.6
17	2V	42	GLY	2.6
44	2m	100	GLY	2.6
38	2g	8	GLU	2.6
52	1y	68	GLU	2.6
10	2O	57	VAL	2.6

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Mol	Chain	Res	Type	RSRZ
43	2l	101	VAL	2.6
40	2i	114	TYR	2.6
35	1d	73	ARG	2.6
41	2j	62	HIS	2.6
33	2b	70	PHE	2.6
8	2I	85	GLU	2.6
34	2c	188	LEU	2.6
4	2E	204	ALA	2.6
52	2y	97	ALA	2.6
9	1N	115	ARG	2.6
32	1a	60	A	2.6
35	1d	122	ARG	2.6
43	1l	20	LYS	2.6
50	1t	68	LYS	2.6
33	2b	131	PRO	2.6
52	2y	37	PRO	2.6
34	2c	162	GLN	2.6
34	2c	2	GLY	2.6
1	2A	2896	C	2.6
35	1d	3	ARG	2.6
43	2l	17	LYS	2.5
45	2n	18	VAL	2.5
49	2s	53	ASN	2.5
38	2g	7	ALA	2.5
47	1p	56	ALA	2.5
30	18	65	GLU	2.5
42	2k	117	ASN	2.5
32	1a	1286	A	2.5
32	2a	1030(A)	G	2.5
50	2t	73	HIS	2.5
36	2e	12	LEU	2.5
1	2A	2140	C	2.5
14	2S	102	ALA	2.5
26	14	57	GLU	2.5
14	2S	7	TYR	2.5
47	1p	15	PRO	2.5
31	29	22	ARG	2.5
34	1c	184	TYR	2.5
40	2i	116	LYS	2.5
50	1t	14	LYS	2.5
6	2G	28	VAL	2.5
1	2A	1091	G	2.5

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Mol	Chain	Res	Type	RSRZ
32	2a	1220	G	2.5
40	2i	122	ALA	2.5
1	1A	1080	C	2.5
1	1A	1104	C	2.5
1	1A	2804	C	2.5
1	2A	2803	C	2.5
43	2l	16	GLU	2.5
51	2u	17	THR	2.5
51	2u	3	LYS	2.5
52	1y	66	LYS	2.5
34	2c	130	VAL	2.5
41	1j	46	ARG	2.4
47	1p	26	ARG	2.4
51	2u	8	THR	2.4
1	1A	1072	C	2.4
1	2A	10	G	2.4
1	2A	1074	G	2.4
1	2A	2137	C	2.4
1	2A	2146	C	2.4
32	2a	307	C	2.4
32	2a	1354	C	2.4
52	1y	45	PRO	2.4
20	2Y	16	ALA	2.4
19	2X	1	MET	2.4
7	1H	2	SER	2.4
52	2y	64	SER	2.4
42	2k	123	LYS	2.4
50	1t	17	ARG	2.4
1	1A	1057	A	2.4
33	2b	165	VAL	2.4
43	2l	14	GLY	2.4
45	2n	20	ALA	2.4
1	1A	2805	G	2.4
9	2N	7	LYS	2.4
42	2k	124	LYS	2.4
8	1I	117	GLU	2.4
14	2S	17	ARG	2.4
33	2b	187	LEU	2.4
35	2d	11	LEU	2.4
41	2j	48	THR	2.4
45	2n	61	TRP	2.4
52	1y	2	THR	2.4

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Mol	Chain	Res	Type	RSRZ
21	2Z	191	VAL	2.4
34	1c	193	TYR	2.4
47	2p	65	GLN	2.4
52	1y	46	GLN	2.4
51	1u	9	ARG	2.4
32	2a	1116	C	2.4
32	2a	1397	C	2.4
1	2A	2141	G	2.4
1	2A	2802	G	2.4
21	2Z	25	PRO	2.4
33	2b	97	TRP	2.4
43	2l	5	PRO	2.4
45	2n	22	THR	2.4
14	2S	54	LEU	2.4
1	2A	1070	A	2.4
32	2a	1183	A	2.4
35	1d	71	SER	2.4
1	2A	2804	C	2.3
33	2b	101	MET	2.3
14	2S	32	LEU	2.3
47	2p	9	PHE	2.3
6	2G	92	VAL	2.3
41	2j	34	VAL	2.3
44	1m	113	PRO	2.3
1	2A	1046	A	2.3
14	2S	27	SER	2.3
41	2j	46	ARG	2.3
49	2s	77	THR	2.3
21	2Z	192	ALA	2.3
33	2b	108	ILE	2.3
35	1d	118	ARG	2.3
1	1A	1065	U	2.3
32	2a	1065	U	2.3
40	1i	125	TYR	2.3
1	2A	2138	C	2.3
1	2A	2145	C	2.3
21	2Z	125	LEU	2.3
39	2h	2	LEU	2.3
46	1o	31	LEU	2.3
20	2Y	62	GLU	2.3
40	1i	110	GLU	2.3
32	2a	1002	G	2.3

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Mol	Chain	Res	Type	RSRZ
33	1b	132	LYS	2.3
35	1d	61	LYS	2.3
35	2d	90	GLY	2.3
50	1t	101	GLY	2.3
47	1p	7	ALA	2.3
34	1c	161	GLU	2.3
41	1j	64	GLU	2.3
45	2n	3	ARG	2.3
50	1t	8	ARG	2.3
51	2u	24	ARG	2.3
38	1g	120	ILE	2.3
41	1j	4	ILE	2.3
1	2A	2319	G	2.3
45	1n	11	LYS	2.3
14	2S	20	ARG	2.3
32	2a	1286	A	2.3
52	2y	45	PRO	2.3
49	1s	84	GLY	2.3
1	2A	2175	C	2.3
6	2G	62	LEU	2.3
49	2s	71	LEU	2.3
35	1d	138	TYR	2.3
18	2W	92	ARG	2.3
34	1c	162	GLN	2.3
35	2d	115	ARG	2.3
42	1k	13	GLN	2.3
50	1t	22	ARG	2.3
33	1b	12	GLU	2.2
34	2c	206	GLU	2.2
1	2A	1087	G	2.2
15	1T	130	ALA	2.2
45	1n	2	ALA	2.2
40	1i	33	PHE	2.2
41	1j	62	HIS	2.2
22	20	9	SER	2.2
1	1A	2108	C	2.2
1	2A	1064	C	2.2
14	2S	13	ARG	2.2
44	2m	74	VAL	2.2
33	2b	218	ALA	2.2
40	2i	119	ALA	2.2
32	2a	950	U	2.2

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Mol	Chain	Res	Type	RSRZ
43	2l	49	ASN	2.2
31	19	12	ASP	2.2
44	1m	100	GLY	2.2
44	2m	19	LEU	2.2
20	2Y	19	LYS	2.2
50	2t	7	LYS	2.2
45	2n	29	ARG	2.2
47	1p	69	THR	2.2
49	1s	48	THR	2.2
45	2n	25	VAL	2.2
1	1A	1088	A	2.2
1	1A	1537	G	2.2
1	2A	171	G	2.2
32	1a	134	A	2.2
32	2a	1187	G	2.2
47	1p	6	LEU	2.2
45	2n	38	GLY	2.2
50	1t	12	ALA	2.2
39	2h	84	ARG	2.2
1	1A	888	C	2.2
1	1A	2142	C	2.2
32	1a	63	C	2.2
47	2p	69	THR	2.2
50	2t	71	THR	2.2
43	1l	18	VAL	2.2
6	2G	88	ILE	2.2
6	1G	3	LEU	2.2
3	1D	276	LYS	2.2
19	2X	33	LYS	2.2
34	1c	9	GLY	2.2
43	1l	91	LYS	2.2
45	2n	2	ALA	2.2
50	1t	74	LYS	2.2
51	1u	3	LYS	2.2
34	2c	164	ARG	2.2
1	2A	2147	G	2.2
32	2a	1356	G	2.2
33	1b	140	HIS	2.2
40	1i	117	HIS	2.2
1	2A	2295	C	2.1
2	2B	12	C	2.1
6	2G	58	GLN	2.1

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Mol	Chain	Res	Type	RSRZ
3	2D	276	LYS	2.1
11	2P	14	LYS	2.1
49	2s	70	LYS	2.1
10	1O	108	GLU	2.1
18	2W	93	ALA	2.1
34	1c	169	ALA	2.1
34	2c	160	ALA	2.1
30	28	46	ARG	2.1
41	2j	45	ARG	2.1
50	2t	25	ARG	2.1
33	1b	94	ASN	2.1
40	2i	18	PHE	2.1
1	1A	1078	U	2.1
31	29	12	ASP	2.1
35	1d	5	ILE	2.1
39	1h	111	ILE	2.1
20	2Y	4	LYS	2.1
30	18	46	ARG	2.1
32	1a	630	G	2.1
40	1i	120	ARG	2.1
16	2U	89	GLU	2.1
1	2A	2139	C	2.1
12	2Q	39	PRO	2.1
32	1a	1066	C	2.1
40	2i	123	PRO	2.1
13	2R	72	ASP	2.1
6	2G	75	LYS	2.1
33	1b	196	LEU	2.1
40	1i	78	LYS	2.1
49	1s	77	THR	2.1
49	2s	15	LEU	2.1
16	2U	59	ARG	2.1
42	2k	13	GLN	2.1
44	2m	107	ALA	2.1
1	2A	2170	A	2.1
34	1c	2	GLY	2.1
35	2d	2	GLY	2.1
6	2G	102	PHE	2.1
45	2n	17	LYS	2.1
22	20	75	LEU	2.1
30	28	60	LEU	2.1
47	1p	68	ASP	2.1

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Mol	Chain	Res	Type	RSRZ
50	2t	68	LYS	2.1
40	1i	119	ALA	2.1
50	1t	66	ALA	2.1
11	1P	54	GLY	2.1
35	2d	79	PHE	2.1
52	1y	44	GLU	2.1
1	2A	2801(A)	A	2.1
4	2E	121	ASN	2.1
41	2j	69	ASN	2.1
34	2c	152	ILE	2.1
35	1d	157	LEU	2.1
50	2t	10	LEU	2.1
49	1s	13	ASP	2.1
45	2n	21	TYR	2.1
51	2u	21	TYR	2.1
32	1a	66	G	2.1
32	1a	108	G	2.1
6	2G	35	GLU	2.1
1	1A	2585	U	2.0
14	2S	98	VAL	2.0
32	2a	1205	U	2.0
32	2a	1364	U	2.0
33	2b	169	LYS	2.0
50	2t	74	LYS	2.0
49	2s	35	SER	2.0
17	2V	81	TYR	2.0
35	1d	4	TYR	2.0
44	2m	109	THR	2.0
22	20	54	GLY	2.0
35	1d	201	GLN	2.0
49	1s	56	GLN	2.0
1	2A	1075	C	2.0
1	2A	2111	C	2.0
44	2m	27	LYS	2.0
6	2G	53	LEU	2.0
32	2a	265	G	2.0
5	2F	82	ILE	2.0
38	1g	42	ILE	2.0
50	1t	70	SER	2.0
1	2A	1026	U	2.0
30	28	25	MET	2.0
6	2G	12	TYR	2.0

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Mol	Chain	Res	Type	RSRZ
42	1k	28	THR	2.0
14	2S	90	GLY	2.0
33	2b	72	GLY	2.0
3	1D	275	LYS	2.0
21	2Z	194	PRO	2.0
51	2u	23	PRO	2.0
35	2d	49	ARG	2.0
42	2k	126	ARG	2.0
21	2Z	41	LEU	2.0
40	2i	96	LEU	2.0
1	2A	2142	C	2.0

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

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
32	5MC	2a	967	21/22	0.72	0.20	112,121,129,135	0
1	PSU	1A	1911	20/21	0.81	0.11	94,100,105,113	0
1	5MU	2A	1915	21/22	0.82	0.08	114,125,132,139	0
32	2MG	2a	1207	24/25	0.82	0.11	138,142,147,153	0
1	PSU	1A	1917	20/21	0.83	0.09	91,102,109,109	0
1	OMC	2A	1920	21/22	0.83	0.13	91,103,111,113	0
32	2MG	1a	1207	24/25	0.86	0.11	109,112,119,126	0
1	PSU	2A	1911	20/21	0.86	0.08	97,107,115,117	0
1	PSU	2A	1917	20/21	0.87	0.07	106,117,121,124	0
32	PSU	2a	516	20/21	0.88	0.08	97,104,116,117	0
1	5MU	1A	1915	21/22	0.89	0.08	100,108,116,117	0
32	M2G	2a	966	25/26	0.89	0.17	111,117,124,126	0
1	5MC	2A	1942	21/22	0.90	0.09	69,75,78,79	0
32	5MC	1a	967	21/22	0.90	0.11	88,92,101,102	0
32	PSU	1a	516	20/21	0.90	0.08	80,90,97,98	0
32	5MC	1a	1407	21/22	0.90	0.13	71,77,85,86	0
43	0TD	1l	92	10/11	0.90	0.13	85,89,94,102	0
43	0TD	2l	92	10/11	0.90	0.16	80,82,89,105	0
32	5MC	2a	1407	21/22	0.91	0.12	88,96,104,106	0
32	G7M	2a	527	24/25	0.92	0.11	84,91,98,100	0
32	5MC	2a	1400	21/22	0.92	0.12	97,105,110,111	0
32	M2G	1a	966	25/26	0.93	0.11	83,88,97,99	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
32	4OC	2a	1402	22/23	0.93	0.11	81,94,100,103	0
32	5MC	2a	1404	21/22	0.94	0.10	88,94,102,105	0
32	G7M	1a	527	24/25	0.94	0.11	64,79,84,88	0
32	5MC	1a	1404	21/22	0.94	0.10	60,65,71,72	0
32	MA6	1a	1518	24/25	0.95	0.10	61,66,70,74	0
1	PSU	2A	2605	20/21	0.95	0.10	53,63,70,75	0
1	OMC	1A	1920	21/22	0.95	0.09	74,83,97,101	0
32	MA6	2a	1518	24/25	0.95	0.12	78,87,92,95	0
32	UR3	1a	1498	21/22	0.95	0.09	60,68,72,84	0
1	OMU	1A	2552	21/22	0.96	0.08	43,48,52,59	0
32	MA6	1a	1519	24/25	0.96	0.11	57,67,73,75	0
1	PSU	1A	2605	20/21	0.96	0.08	37,41,47,48	0
32	5MC	1a	1400	21/22	0.96	0.09	64,71,76,84	0
32	4OC	1a	1402	22/23	0.96	0.09	61,68,71,73	0
1	5MU	1A	1939	21/22	0.96	0.11	34,46,54,57	0
1	5MC	1A	1942	21/22	0.96	0.07	46,55,61,63	0
1	5MU	2A	1939	21/22	0.96	0.09	53,57,61,62	0
1	OMG	1A	2251	24/25	0.96	0.08	31,36,42,46	0
1	5MC	2A	1962	21/22	0.96	0.07	54,59,69,74	0
32	UR3	2a	1498	21/22	0.96	0.08	83,86,91,94	0
1	OMG	2A	2251	24/25	0.96	0.08	52,60,65,67	0
32	MA6	2a	1519	24/25	0.96	0.12	78,89,96,98	0
1	2MA	2A	2503	23/24	0.96	0.10	44,50,59,61	0
1	5MC	1A	1962	21/22	0.97	0.07	50,56,61,63	0
1	OMU	2A	2552	21/22	0.97	0.07	49,54,59,62	0
1	2MA	1A	2503	23/24	0.98	0.07	21,35,41,44	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
54	MG	1a	1761	1/1	0.02	0.29	114,114,114,114	0
54	MG	2a	1645	1/1	0.13	0.14	120,120,120,120	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2a	1655	1/1	0.13	0.36	114,114,114,114	0
54	MG	2A	3301	1/1	0.24	0.13	103,103,103,103	0
54	MG	2a	1663	1/1	0.24	0.15	110,110,110,110	0
54	MG	2A	3087	1/1	0.30	0.32	99,99,99,99	0
54	MG	1A	3260	1/1	0.33	0.15	141,141,141,141	0
54	MG	2A	3565	1/1	0.34	0.14	155,155,155,155	0
54	MG	1a	1743	1/1	0.36	0.18	103,103,103,103	0
54	MG	1t	201	1/1	0.40	0.18	110,110,110,110	0
54	MG	2i	201	1/1	0.42	0.62	103,103,103,103	0
54	MG	1a	1831	1/1	0.44	0.11	96,96,96,96	0
54	MG	2a	1701	1/1	0.45	0.32	101,101,101,101	0
54	MG	2a	1636	1/1	0.46	0.16	99,99,99,99	0
54	MG	2A	3392	1/1	0.46	0.15	81,81,81,81	0
54	MG	1a	1774	1/1	0.47	0.19	103,103,103,103	0
54	MG	1a	1779	1/1	0.47	0.20	81,81,81,81	0
54	MG	2a	1658	1/1	0.48	0.26	102,102,102,102	0
54	MG	2a	1659	1/1	0.48	0.26	87,87,87,87	0
54	MG	1A	3591	1/1	0.48	0.15	87,87,87,87	0
54	MG	2A	3541	1/1	0.48	0.17	85,85,85,85	0
54	MG	1a	1681	1/1	0.48	0.14	113,113,113,113	0
54	MG	1y	204	1/1	0.50	0.17	99,99,99,99	0
54	MG	2A	3114	1/1	0.52	0.34	68,68,68,68	0
54	MG	2a	1690	1/1	0.52	0.17	94,94,94,94	0
54	MG	1a	1639	1/1	0.53	0.20	97,97,97,97	0
54	MG	1P	205	1/1	0.53	0.10	117,117,117,117	0
54	MG	1a	1820	1/1	0.54	0.17	124,124,124,124	0
54	MG	2a	1664	1/1	0.54	0.32	94,94,94,94	0
54	MG	1A	3600	1/1	0.54	0.39	74,74,74,74	0
54	MG	2B	207	1/1	0.54	0.30	99,99,99,99	0
54	MG	1b	301	1/1	0.54	0.14	116,116,116,116	0
54	MG	2A	3110	1/1	0.55	0.12	107,107,107,107	0
54	MG	2a	1693	1/1	0.55	0.18	84,84,84,84	0
54	MG	1A	3730	1/1	0.55	0.16	75,75,75,75	0
54	MG	2A	3118	1/1	0.55	0.33	81,81,81,81	0
54	MG	2A	3083	1/1	0.56	0.15	87,87,87,87	0
54	MG	2B	204	1/1	0.56	0.14	110,110,110,110	0
54	MG	2a	1709	1/1	0.58	0.16	83,83,83,83	0
54	MG	1A	3818	1/1	0.59	0.17	59,59,59,59	0
54	MG	2A	3209	1/1	0.59	0.21	59,59,59,59	0
54	MG	2A	3257	1/1	0.59	0.22	89,89,89,89	0
54	MG	2a	1635	1/1	0.59	0.24	78,78,78,78	0
53	MPD	2B	201	8/8	0.60	0.45	101,115,117,121	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1a	1828	1/1	0.60	0.15	116,116,116,116	0
54	MG	1a	1784	1/1	0.60	0.36	82,82,82,82	0
54	MG	1a	1819	1/1	0.60	0.13	97,97,97,97	0
54	MG	2A	3244	1/1	0.60	0.17	72,72,72,72	0
54	MG	2A	3461	1/1	0.61	0.17	87,87,87,87	0
54	MG	1a	1839	1/1	0.61	0.22	95,95,95,95	0
54	MG	1a	1760	1/1	0.61	0.10	128,128,128,128	0
54	MG	1A	3834	1/1	0.62	0.16	90,90,90,90	0
54	MG	2A	3005	1/1	0.62	0.19	68,68,68,68	0
54	MG	2A	3105	1/1	0.63	0.42	95,95,95,95	0
54	MG	2A	3149	1/1	0.63	0.17	78,78,78,78	0
54	MG	2O	202	1/1	0.63	0.13	94,94,94,94	0
54	MG	2A	3322	1/1	0.63	0.11	90,90,90,90	0
54	MG	2A	3193	1/1	0.63	0.14	104,104,104,104	0
54	MG	1n	103	1/1	0.63	0.28	100,100,100,100	0
54	MG	2A	3228	1/1	0.63	0.17	99,99,99,99	0
54	MG	1A	3165	1/1	0.63	0.27	78,78,78,78	0
54	MG	2a	1698	1/1	0.64	0.17	95,95,95,95	0
54	MG	1a	1747	1/1	0.64	0.20	109,109,109,109	0
54	MG	1B	1018	1/1	0.64	0.15	84,84,84,84	0
54	MG	1a	1822	1/1	0.64	0.12	101,101,101,101	0
54	MG	2A	3194	1/1	0.65	0.15	60,60,60,60	0
54	MG	1A	3283	1/1	0.65	0.22	64,64,64,64	0
54	MG	1a	1762	1/1	0.65	0.14	108,108,108,108	0
54	MG	1a	1763	1/1	0.65	0.10	96,96,96,96	0
54	MG	1a	1765	1/1	0.65	0.12	103,103,103,103	0
54	MG	1a	1646	1/1	0.65	0.18	102,102,102,102	0
54	MG	2A	3102	1/1	0.65	0.12	95,95,95,95	0
54	MG	1a	1614	1/1	0.66	0.22	94,94,94,94	0
54	MG	2A	3373	1/1	0.66	0.17	87,87,87,87	0
54	MG	1A	3850	1/1	0.66	0.22	54,54,54,54	0
54	MG	2B	206	1/1	0.66	0.19	61,61,61,61	0
54	MG	1a	1696	1/1	0.66	0.18	80,80,80,80	0
54	MG	1a	1735	1/1	0.67	0.15	83,83,83,83	0
54	MG	1A	3173	1/1	0.67	0.28	80,80,80,80	0
54	MG	1a	1796	1/1	0.67	0.18	81,81,81,81	0
54	MG	1a	1806	1/1	0.67	0.28	85,85,85,85	0
54	MG	1a	1832	1/1	0.67	0.20	90,90,90,90	0
54	MG	2I	201	1/1	0.67	0.11	87,87,87,87	0
54	MG	2a	1739	1/1	0.67	0.10	98,98,98,98	0
54	MG	1G	202	1/1	0.67	0.11	79,79,79,79	0
54	MG	2a	1681	1/1	0.68	0.18	94,94,94,94	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3051	1/1	0.68	0.16	78,78,78,78	0
54	MG	1A	3555	1/1	0.68	0.20	79,79,79,79	0
54	MG	2A	3522	1/1	0.68	0.16	96,96,96,96	0
54	MG	2A	3086	1/1	0.68	0.15	94,94,94,94	0
54	MG	1A	3423	1/1	0.68	0.25	81,81,81,81	0
54	MG	2A	3094	1/1	0.68	0.24	74,74,74,74	0
54	MG	2a	1668	1/1	0.68	0.18	90,90,90,90	0
54	MG	2a	1625	1/1	0.69	0.19	94,94,94,94	0
54	MG	2B	203	1/1	0.69	0.12	74,74,74,74	0
54	MG	2A	3225	1/1	0.69	0.38	80,80,80,80	0
54	MG	2a	1657	1/1	0.70	0.27	89,89,89,89	0
54	MG	1a	1625	1/1	0.70	0.33	54,54,54,54	0
54	MG	1V	203	1/1	0.70	0.15	86,86,86,86	0
54	MG	1a	1709	1/1	0.70	0.19	99,99,99,99	0
54	MG	1A	3030	1/1	0.70	0.34	69,69,69,69	0
54	MG	1f	201	1/1	0.70	0.11	68,68,68,68	0
54	MG	2A	3076	1/1	0.70	0.22	76,76,76,76	0
54	MG	2k	201	1/1	0.70	0.13	83,83,83,83	0
54	MG	2A	3463	1/1	0.71	0.11	90,90,90,90	0
54	MG	2a	1667	1/1	0.71	0.30	79,79,79,79	0
54	MG	1a	1811	1/1	0.71	0.19	118,118,118,118	0
54	MG	1A	3241	1/1	0.71	0.13	93,93,93,93	0
54	MG	1A	3317	1/1	0.71	0.22	76,76,76,76	0
54	MG	1a	1856	1/1	0.71	0.15	83,83,83,83	0
54	MG	1A	3384	1/1	0.71	0.13	74,74,74,74	0
54	MG	2a	1656	1/1	0.71	0.20	106,106,106,106	0
54	MG	2B	205	1/1	0.71	0.28	70,70,70,70	0
54	MG	10	106	1/1	0.71	0.18	81,81,81,81	0
54	MG	2A	3219	1/1	0.71	0.13	70,70,70,70	0
54	MG	2A	3080	1/1	0.71	0.14	130,130,130,130	0
54	MG	1A	3562	1/1	0.72	0.15	81,81,81,81	0
54	MG	1a	1634	1/1	0.72	0.16	62,62,62,62	0
54	MG	2A	3333	1/1	0.72	0.20	57,57,57,57	0
54	MG	1A	3703	1/1	0.72	0.13	41,41,41,41	0
54	MG	2A	3377	1/1	0.72	0.25	57,57,57,57	0
54	MG	2B	211	1/1	0.72	0.24	89,89,89,89	0
54	MG	2B	213	1/1	0.72	0.09	97,97,97,97	0
54	MG	1a	1807	1/1	0.72	0.14	87,87,87,87	0
54	MG	2A	3447	1/1	0.72	0.10	69,69,69,69	0
54	MG	2a	1615	1/1	0.72	0.09	77,77,77,77	0
54	MG	2A	3454	1/1	0.72	0.31	66,66,66,66	0
54	MG	1a	1602	1/1	0.72	0.13	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3052	1/1	0.72	0.16	85,85,85,85	0
54	MG	1a	1686	1/1	0.72	0.24	88,88,88,88	0
54	MG	2A	3077	1/1	0.72	0.33	67,67,67,67	0
54	MG	1e	203	1/1	0.72	0.14	89,89,89,89	0
54	MG	2A	3410	1/1	0.73	0.11	75,75,75,75	0
54	MG	1a	1667	1/1	0.73	0.15	85,85,85,85	0
54	MG	2A	3236	1/1	0.73	0.16	70,70,70,70	0
54	MG	1a	1672	1/1	0.73	0.15	85,85,85,85	0
54	MG	2A	3150	1/1	0.73	0.12	135,135,135,135	0
54	MG	2R	202	1/1	0.73	0.28	70,70,70,70	0
54	MG	2A	3508	1/1	0.73	0.16	64,64,64,64	0
54	MG	1A	3426	1/1	0.73	0.13	47,47,47,47	0
54	MG	1A	3518	1/1	0.73	0.16	56,56,56,56	0
54	MG	2A	3206	1/1	0.73	0.19	67,67,67,67	0
54	MG	1a	1687	1/1	0.73	0.26	72,72,72,72	0
54	MG	2a	1654	1/1	0.73	0.19	100,100,100,100	0
53	MPD	1a	1601	8/8	0.73	0.21	97,116,129,130	0
54	MG	2e	201	1/1	0.73	0.19	85,85,85,85	0
54	MG	1A	3672	1/1	0.73	0.22	78,78,78,78	0
54	MG	2j	201	1/1	0.73	0.10	112,112,112,112	0
54	MG	2A	3397	1/1	0.73	0.13	58,58,58,58	0
54	MG	2a	1680	1/1	0.74	0.24	121,121,121,121	0
54	MG	2B	210	1/1	0.74	0.18	84,84,84,84	0
54	MG	1a	1794	1/1	0.74	0.19	78,78,78,78	0
54	MG	1a	1745	1/1	0.74	0.13	78,78,78,78	0
54	MG	2F	301	1/1	0.74	0.09	54,54,54,54	0
54	MG	1a	1680	1/1	0.74	0.18	105,105,105,105	0
54	MG	1a	1628	1/1	0.74	0.25	67,67,67,67	0
54	MG	1A	3432	1/1	0.74	0.11	53,53,53,53	0
54	MG	1A	3828	1/1	0.74	0.15	64,64,64,64	0
54	MG	1t	202	1/1	0.74	0.49	92,92,92,92	0
54	MG	2A	3115	1/1	0.74	0.15	73,73,73,73	0
54	MG	2A	3359	1/1	0.74	0.16	73,73,73,73	0
54	MG	2A	3169	1/1	0.75	0.15	80,80,80,80	0
54	MG	2G	202	1/1	0.75	0.13	108,108,108,108	0
54	MG	1a	1793	1/1	0.75	0.11	89,89,89,89	0
54	MG	2A	3050	1/1	0.75	0.33	70,70,70,70	0
54	MG	2Q	201	1/1	0.75	0.27	83,83,83,83	0
54	MG	2A	3356	1/1	0.75	0.13	91,91,91,91	0
54	MG	2a	1612	1/1	0.75	0.16	96,96,96,96	0
54	MG	2A	3199	1/1	0.75	0.12	64,64,64,64	0
54	MG	2A	3637	1/1	0.75	0.15	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1a	1741	1/1	0.75	0.25	89,89,89,89	0
54	MG	1A	3324	1/1	0.75	0.13	57,57,57,57	0
54	MG	15	104	1/1	0.75	0.09	72,72,72,72	0
54	MG	1a	1780	1/1	0.75	0.17	83,83,83,83	0
54	MG	1A	3872	1/1	0.75	0.20	77,77,77,77	0
54	MG	1y	202	1/1	0.75	0.10	98,98,98,98	0
54	MG	1a	1789	1/1	0.75	0.17	107,107,107,107	0
54	MG	2A	3152	1/1	0.75	0.19	71,71,71,71	0
54	MG	2A	3022	1/1	0.76	0.18	80,80,80,80	0
54	MG	2A	3165	1/1	0.76	0.11	72,72,72,72	0
54	MG	2a	1720	1/1	0.76	0.11	117,117,117,117	0
54	MG	1A	3402	1/1	0.76	0.11	58,58,58,58	0
54	MG	1A	3250	1/1	0.76	0.13	61,61,61,61	0
54	MG	2a	1609	1/1	0.76	0.16	62,62,62,62	0
54	MG	2a	1652	1/1	0.76	0.20	88,88,88,88	0
54	MG	2A	3210	1/1	0.76	0.13	61,61,61,61	0
54	MG	1A	3783	1/1	0.77	0.17	51,51,51,51	0
54	MG	1A	3481	1/1	0.77	0.16	74,74,74,74	0
54	MG	2A	3309	1/1	0.77	0.12	94,94,94,94	0
54	MG	2A	3120	1/1	0.77	0.24	82,82,82,82	0
54	MG	1a	1821	1/1	0.77	0.21	88,88,88,88	0
53	MPD	1T	2001	8/8	0.77	0.28	77,82,86,94	0
54	MG	1A	3548	1/1	0.77	0.17	63,63,63,63	0
54	MG	2a	1660	1/1	0.77	0.20	79,79,79,79	0
54	MG	1A	3319	1/1	0.77	0.25	72,72,72,72	0
54	MG	1a	1713	1/1	0.77	0.12	92,92,92,92	0
54	MG	2A	3385	1/1	0.77	0.10	73,73,73,73	0
54	MG	1A	3709	1/1	0.77	0.12	58,58,58,58	0
54	MG	1a	1849	1/1	0.77	0.14	62,62,62,62	0
54	MG	1a	1739	1/1	0.77	0.34	81,81,81,81	0
54	MG	1B	1004	1/1	0.77	0.17	60,60,60,60	0
54	MG	2a	1692	1/1	0.77	0.21	75,75,75,75	0
54	MG	1d	502	1/1	0.77	0.25	101,101,101,101	0
54	MG	2A	3090	1/1	0.77	0.30	81,81,81,81	0
54	MG	1B	1009	1/1	0.77	0.11	77,77,77,77	0
54	MG	2A	3481	1/1	0.77	0.14	92,92,92,92	0
54	MG	1A	3714	1/1	0.77	0.14	44,44,44,44	0
54	MG	2a	1634	1/1	0.77	0.20	101,101,101,101	0
54	MG	1A	3479	1/1	0.77	0.09	70,70,70,70	0
54	MG	1A	3748	1/1	0.77	0.09	92,92,92,92	0
54	MG	2a	1639	1/1	0.77	0.13	124,124,124,124	0
54	MG	1A	3749	1/1	0.77	0.13	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3418	1/1	0.78	0.14	39,39,39,39	0
54	MG	1a	1754	1/1	0.78	0.14	78,78,78,78	0
54	MG	2A	3261	1/1	0.78	0.14	74,74,74,74	0
54	MG	2A	3451	1/1	0.78	0.14	63,63,63,63	0
54	MG	2A	3272	1/1	0.78	0.14	64,64,64,64	0
54	MG	1a	1670	1/1	0.78	0.50	91,91,91,91	0
54	MG	2A	3060	1/1	0.78	0.13	66,66,66,66	0
54	MG	1A	3137	1/1	0.78	0.19	74,74,74,74	0
54	MG	1A	3143	1/1	0.78	0.17	70,70,70,70	0
54	MG	1B	1006	1/1	0.78	0.10	69,69,69,69	0
54	MG	1A	3530	1/1	0.78	0.09	103,103,103,103	0
54	MG	1A	3191	1/1	0.78	0.15	64,64,64,64	0
54	MG	2a	1741	1/1	0.78	0.17	97,97,97,97	0
54	MG	2a	1757	1/1	0.78	0.17	92,92,92,92	0
54	MG	2T	201	1/1	0.78	0.13	61,61,61,61	0
54	MG	1a	1809	1/1	0.78	0.14	87,87,87,87	0
54	MG	2A	3151	1/1	0.78	0.12	72,72,72,72	0
54	MG	1a	1695	1/1	0.78	0.12	94,94,94,94	0
54	MG	2A	3133	1/1	0.79	0.22	66,66,66,66	0
54	MG	2A	3313	1/1	0.79	0.08	90,90,90,90	0
54	MG	1B	1011	1/1	0.79	0.13	64,64,64,64	0
54	MG	2A	3045	1/1	0.79	0.15	74,74,74,74	0
54	MG	1A	3478	1/1	0.79	0.18	50,50,50,50	0
54	MG	2A	3464	1/1	0.79	0.16	69,69,69,69	0
54	MG	2A	3472	1/1	0.79	0.14	69,69,69,69	0
54	MG	1B	1029	1/1	0.79	0.09	80,80,80,80	0
54	MG	2a	1653	1/1	0.79	0.15	86,86,86,86	0
54	MG	1a	1661	1/1	0.79	0.27	86,86,86,86	0
54	MG	1A	3735	1/1	0.79	0.14	58,58,58,58	0
54	MG	2A	3384	1/1	0.79	0.15	76,76,76,76	0
54	MG	1a	1616	1/1	0.79	0.20	106,106,106,106	0
54	MG	2a	1745	1/1	0.79	0.14	85,85,85,85	0
54	MG	2a	1750	1/1	0.79	0.23	79,79,79,79	0
54	MG	1A	3837	1/1	0.79	0.13	56,56,56,56	0
54	MG	2V	201	1/1	0.79	0.11	101,101,101,101	0
54	MG	2a	1605	1/1	0.79	0.14	91,91,91,91	0
54	MG	1a	1788	1/1	0.79	0.17	106,106,106,106	0
54	MG	1A	3570	1/1	0.79	0.14	81,81,81,81	0
54	MG	1A	3557	1/1	0.80	0.45	41,41,41,41	0
54	MG	1a	1664	1/1	0.80	0.25	80,80,80,80	0
54	MG	1A	3169	1/1	0.80	0.13	56,56,56,56	0
54	MG	2A	3543	1/1	0.80	0.14	89,89,89,89	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3007	1/1	0.80	0.17	63,63,63,63	0
54	MG	1T	2002	1/1	0.80	0.13	54,54,54,54	0
54	MG	2A	3642	1/1	0.80	0.25	87,87,87,87	0
54	MG	2B	202	1/1	0.80	0.14	99,99,99,99	0
54	MG	1A	3244	1/1	0.80	0.16	87,87,87,87	0
54	MG	1A	3724	1/1	0.80	0.20	91,91,91,91	0
54	MG	2A	3332	1/1	0.80	0.16	82,82,82,82	0
54	MG	1A	3727	1/1	0.80	0.46	58,58,58,58	0
54	MG	2A	3346	1/1	0.80	0.08	89,89,89,89	0
54	MG	2A	3052	1/1	0.80	0.21	75,75,75,75	0
54	MG	2A	3161	1/1	0.80	0.20	59,59,59,59	0
54	MG	1A	3439	1/1	0.80	0.15	114,114,114,114	0
54	MG	2a	1671	1/1	0.80	0.27	79,79,79,79	0
54	MG	1A	3732	1/1	0.80	0.35	60,60,60,60	0
54	MG	2G	201	1/1	0.80	0.14	114,114,114,114	0
54	MG	2A	3172	1/1	0.80	0.27	80,80,80,80	0
54	MG	1A	3152	1/1	0.80	0.08	52,52,52,52	0
54	MG	1a	1617	1/1	0.80	0.12	79,79,79,79	0
54	MG	2A	3196	1/1	0.80	0.22	58,58,58,58	0
54	MG	1A	3604	1/1	0.80	0.33	55,55,55,55	0
54	MG	2a	1706	1/1	0.80	0.17	82,82,82,82	0
54	MG	2A	3445	1/1	0.80	0.16	68,68,68,68	0
54	MG	1A	3629	1/1	0.80	0.21	73,73,73,73	0
54	MG	1a	1714	1/1	0.80	0.21	83,83,83,83	0
54	MG	1a	1725	1/1	0.80	0.07	104,104,104,104	0
54	MG	2a	1610	1/1	0.80	0.13	106,106,106,106	0
54	MG	2A	3093	1/1	0.80	0.15	81,81,81,81	0
53	MPD	2A	3001	8/8	0.80	0.34	54,73,76,82	0
54	MG	2a	1759	1/1	0.80	0.18	80,80,80,80	0
54	MG	2a	1762	1/1	0.80	0.12	105,105,105,105	0
54	MG	2a	1618	1/1	0.80	0.14	97,97,97,97	0
54	MG	1a	1636	1/1	0.80	0.15	77,77,77,77	0
54	MG	1A	3796	1/1	0.80	0.13	66,66,66,66	0
54	MG	1B	1030	1/1	0.80	0.11	78,78,78,78	0
54	MG	1a	1675	1/1	0.81	0.10	68,68,68,68	0
54	MG	1A	3253	1/1	0.81	0.08	61,61,61,61	0
54	MG	2A	3297	1/1	0.81	0.13	66,66,66,66	0
54	MG	2A	3135	1/1	0.81	0.12	69,69,69,69	0
54	MG	2A	3139	1/1	0.81	0.25	74,74,74,74	0
54	MG	1A	3445	1/1	0.81	0.17	43,43,43,43	0
54	MG	2A	3317	1/1	0.81	0.21	103,103,103,103	0
54	MG	1A	3641	1/1	0.81	0.14	33,33,33,33	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1a	1858	1/1	0.81	0.20	90,90,90,90	0
54	MG	2A	3074	1/1	0.81	0.13	80,80,80,80	0
54	MG	2A	3334	1/1	0.81	0.14	49,49,49,49	0
54	MG	2A	3342	1/1	0.81	0.17	69,69,69,69	0
54	MG	2A	3154	1/1	0.81	0.28	66,66,66,66	0
54	MG	1a	1641	1/1	0.81	0.14	60,60,60,60	0
54	MG	1a	1802	1/1	0.81	0.08	142,142,142,142	0
54	MG	1d	507	1/1	0.81	0.08	116,116,116,116	0
54	MG	1a	1645	1/1	0.81	0.26	73,73,73,73	0
54	MG	2A	3180	1/1	0.81	0.17	61,61,61,61	0
54	MG	1A	3502	1/1	0.81	0.10	91,91,91,91	0
54	MG	1a	1705	1/1	0.81	0.13	93,93,93,93	0
54	MG	1D	312	1/1	0.81	0.15	62,62,62,62	0
54	MG	2a	1694	1/1	0.81	0.23	95,95,95,95	0
54	MG	2A	3091	1/1	0.81	0.13	67,67,67,67	0
54	MG	1a	1711	1/1	0.81	0.14	82,82,82,82	0
54	MG	23	101	1/1	0.81	0.23	81,81,81,81	0
54	MG	2a	1603	1/1	0.81	0.14	58,58,58,58	0
54	MG	2a	1604	1/1	0.81	0.28	91,91,91,91	0
54	MG	1F	312	1/1	0.81	0.26	52,52,52,52	0
54	MG	2A	3097	1/1	0.81	0.17	71,71,71,71	0
54	MG	1A	3728	1/1	0.81	0.17	60,60,60,60	0
54	MG	1A	3690	1/1	0.81	0.33	51,51,51,51	0
54	MG	1a	1734	1/1	0.81	0.08	130,130,130,130	0
54	MG	2a	1617	1/1	0.81	0.19	73,73,73,73	0
54	MG	2a	1761	1/1	0.81	0.17	90,90,90,90	0
54	MG	2A	3230	1/1	0.81	0.18	58,58,58,58	0
54	MG	2A	3235	1/1	0.81	0.13	84,84,84,84	0
54	MG	2A	3010	1/1	0.81	0.18	62,62,62,62	0
54	MG	1A	3122	1/1	0.81	0.16	59,59,59,59	0
54	MG	2A	3023	1/1	0.81	0.26	50,50,50,50	0
54	MG	1B	1026	1/1	0.82	0.15	94,94,94,94	0
54	MG	1A	3618	1/1	0.82	0.18	68,68,68,68	0
54	MG	2A	3141	1/1	0.82	0.30	78,78,78,78	0
54	MG	1A	3220	1/1	0.82	0.20	54,54,54,54	0
54	MG	1A	3544	1/1	0.82	0.12	69,69,69,69	0
54	MG	1A	3577	1/1	0.82	0.13	72,72,72,72	0
54	MG	1A	3855	1/1	0.82	0.13	54,54,54,54	0
54	MG	2A	3071	1/1	0.82	0.28	51,51,51,51	0
54	MG	1A	3856	1/1	0.82	0.17	53,53,53,53	0
54	MG	1R	203	1/1	0.82	0.11	52,52,52,52	0
54	MG	1A	3858	1/1	0.82	0.18	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1a	1652	1/1	0.82	0.21	74,74,74,74	0
54	MG	1a	1654	1/1	0.82	0.14	80,80,80,80	0
54	MG	2A	3187	1/1	0.82	0.23	70,70,70,70	0
54	MG	1d	503	1/1	0.82	0.26	85,85,85,85	0
54	MG	1a	1716	1/1	0.82	0.12	77,77,77,77	0
54	MG	1a	1656	1/1	0.82	0.18	73,73,73,73	0
54	MG	2a	1675	1/1	0.82	0.18	87,87,87,87	0
54	MG	1A	3588	1/1	0.82	0.12	82,82,82,82	0
54	MG	2A	3386	1/1	0.82	0.20	86,86,86,86	0
54	MG	1g	203	1/1	0.82	0.05	62,62,62,62	0
54	MG	2A	3395	1/1	0.82	0.12	97,97,97,97	0
54	MG	1A	3163	1/1	0.82	0.08	50,50,50,50	0
54	MG	1a	1800	1/1	0.82	0.13	100,100,100,100	0
54	MG	2A	3435	1/1	0.82	0.17	81,81,81,81	0
54	MG	2Y	201	1/1	0.82	0.12	66,66,66,66	0
54	MG	2A	3211	1/1	0.82	0.20	69,69,69,69	0
54	MG	1a	1737	1/1	0.82	0.22	94,94,94,94	0
54	MG	1a	1666	1/1	0.82	0.16	78,78,78,78	0
54	MG	1A	3704	1/1	0.82	0.23	61,61,61,61	0
54	MG	2a	1608	1/1	0.82	0.37	68,68,68,68	0
54	MG	2A	3113	1/1	0.82	0.20	64,64,64,64	0
54	MG	1A	3592	1/1	0.82	0.15	68,68,68,68	0
54	MG	2a	1751	1/1	0.82	0.13	60,60,60,60	0
54	MG	1A	3449	1/1	0.82	0.15	72,72,72,72	0
54	MG	2A	3466	1/1	0.82	0.09	70,70,70,70	0
54	MG	1A	3356	1/1	0.82	0.10	88,88,88,88	0
54	MG	2A	3017	1/1	0.82	0.24	76,76,76,76	0
54	MG	2A	3491	1/1	0.82	0.13	52,52,52,52	0
54	MG	2a	1629	1/1	0.82	0.15	110,110,110,110	0
54	MG	2A	3493	1/1	0.82	0.14	65,65,65,65	0
54	MG	1a	1750	1/1	0.82	0.10	89,89,89,89	0
54	MG	1A	3243	1/1	0.83	0.15	45,45,45,45	0
54	MG	1A	3386	1/1	0.83	0.10	67,67,67,67	0
54	MG	1a	1764	1/1	0.83	0.14	92,92,92,92	0
54	MG	2a	1638	1/1	0.83	0.24	77,77,77,77	0
54	MG	2A	3542	1/1	0.83	0.11	90,90,90,90	0
54	MG	2a	1640	1/1	0.83	0.16	100,100,100,100	0
54	MG	2a	1642	1/1	0.83	0.13	61,61,61,61	0
54	MG	1A	3619	1/1	0.83	0.15	55,55,55,55	0
54	MG	2A	3075	1/1	0.83	0.29	70,70,70,70	0
54	MG	2A	3615	1/1	0.83	0.14	75,75,75,75	0
54	MG	2A	3163	1/1	0.83	0.18	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1a	1770	1/1	0.83	0.09	99,99,99,99	0
54	MG	1a	1700	1/1	0.83	0.13	77,77,77,77	0
54	MG	1A	3621	1/1	0.83	0.11	67,67,67,67	0
54	MG	1A	3392	1/1	0.83	0.09	80,80,80,80	0
54	MG	2A	3186	1/1	0.83	0.10	65,65,65,65	0
54	MG	2A	3372	1/1	0.83	0.10	63,63,63,63	0
54	MG	1d	505	1/1	0.83	0.08	56,56,56,56	0
54	MG	1A	3879	1/1	0.83	0.20	100,100,100,100	0
54	MG	1a	1650	1/1	0.83	0.24	74,74,74,74	0
54	MG	1T	2006	1/1	0.83	0.08	83,83,83,83	0
54	MG	1U	202	1/1	0.83	0.16	37,37,37,37	0
54	MG	1A	3880	1/1	0.83	0.14	50,50,50,50	0
54	MG	2a	1676	1/1	0.83	0.20	93,93,93,93	0
54	MG	2A	3096	1/1	0.83	0.13	57,57,57,57	0
54	MG	1A	3309	1/1	0.83	0.18	59,59,59,59	0
54	MG	2A	3403	1/1	0.83	0.13	74,74,74,74	0
54	MG	1a	1662	1/1	0.83	0.16	69,69,69,69	0
54	MG	2A	3414	1/1	0.83	0.21	74,74,74,74	0
54	MG	2A	3418	1/1	0.83	0.11	71,71,71,71	0
54	MG	2A	3431	1/1	0.83	0.11	46,46,46,46	0
54	MG	1A	3170	1/1	0.83	0.19	62,62,62,62	0
54	MG	2I	104	1/1	0.83	0.09	95,95,95,95	0
54	MG	2A	3444	1/1	0.83	0.09	68,68,68,68	0
54	MG	1A	3227	1/1	0.83	0.14	88,88,88,88	0
54	MG	2a	1737	1/1	0.83	0.15	131,131,131,131	0
54	MG	1a	1605	1/1	0.83	0.31	96,96,96,96	0
54	MG	1a	1669	1/1	0.83	0.15	110,110,110,110	0
54	MG	1A	3322	1/1	0.83	0.15	58,58,58,58	0
54	MG	1A	3589	1/1	0.83	0.15	43,43,43,43	0
54	MG	1A	3528	1/1	0.83	0.16	66,66,66,66	0
54	MG	2a	1754	1/1	0.83	0.11	121,121,121,121	0
54	MG	1a	1751	1/1	0.83	0.26	80,80,80,80	0
54	MG	2A	3041	1/1	0.83	0.20	81,81,81,81	0
54	MG	2A	3263	1/1	0.83	0.10	85,85,85,85	0
54	MG	1a	1622	1/1	0.83	0.09	106,106,106,106	0
54	MG	2a	1620	1/1	0.83	0.17	60,60,60,60	0
54	MG	2a	1621	1/1	0.83	0.23	52,52,52,52	0
54	MG	1A	3211	1/1	0.83	0.17	50,50,50,50	0
54	MG	1A	3242	1/1	0.83	0.12	90,90,90,90	0
54	MG	1a	1748	1/1	0.84	0.12	86,86,86,86	0
54	MG	1A	3687	1/1	0.84	0.14	66,66,66,66	0
54	MG	2A	3214	1/1	0.84	0.12	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1a	1850	1/1	0.84	0.11	129,129,129,129	0
54	MG	2A	3456	1/1	0.84	0.11	71,71,71,71	0
54	MG	1A	3047	1/1	0.84	0.18	73,73,73,73	0
54	MG	1A	3851	1/1	0.84	0.19	75,75,75,75	0
54	MG	1A	3089	1/1	0.84	0.21	45,45,45,45	0
54	MG	2a	1637	1/1	0.84	0.20	65,65,65,65	0
54	MG	1A	3347	1/1	0.84	0.11	82,82,82,82	0
54	MG	1A	3707	1/1	0.84	0.22	91,91,91,91	0
54	MG	2A	3242	1/1	0.84	0.10	77,77,77,77	0
54	MG	1a	1676	1/1	0.84	0.28	85,85,85,85	0
54	MG	2A	3248	1/1	0.84	0.19	48,48,48,48	0
54	MG	2a	1646	1/1	0.84	0.08	69,69,69,69	0
54	MG	1A	3179	1/1	0.84	0.16	49,49,49,49	0
54	MG	1A	3472	1/1	0.84	0.14	43,43,43,43	0
54	MG	1A	3578	1/1	0.84	0.12	62,62,62,62	0
54	MG	1B	1002	1/1	0.84	0.12	57,57,57,57	0
54	MG	2A	3279	1/1	0.84	0.09	74,74,74,74	0
54	MG	1n	101	1/1	0.84	0.26	85,85,85,85	0
54	MG	2A	3597	1/1	0.84	0.10	101,101,101,101	0
54	MG	1a	1778	1/1	0.84	0.10	72,72,72,72	0
54	MG	1A	3474	1/1	0.84	0.12	56,56,56,56	0
54	MG	1A	3359	1/1	0.84	0.14	38,38,38,38	0
54	MG	1B	1008	1/1	0.84	0.21	64,64,64,64	0
54	MG	1a	1785	1/1	0.84	0.15	84,84,84,84	0
54	MG	2A	3328	1/1	0.84	0.11	78,78,78,78	0
54	MG	1A	3150	1/1	0.84	0.10	41,41,41,41	0
54	MG	1A	3199	1/1	0.84	0.25	58,58,58,58	0
54	MG	1a	1635	1/1	0.84	0.09	80,80,80,80	0
54	MG	2A	3336	1/1	0.84	0.11	92,92,92,92	0
54	MG	2A	3338	1/1	0.84	0.18	64,64,64,64	0
54	MG	2a	1685	1/1	0.84	0.34	71,71,71,71	0
54	MG	1B	1017	1/1	0.84	0.19	65,65,65,65	0
54	MG	2B	215	1/1	0.84	0.09	112,112,112,112	0
54	MG	2A	3021	1/1	0.84	0.12	59,59,59,59	0
54	MG	1A	3101	1/1	0.84	0.24	46,46,46,46	0
54	MG	2a	1695	1/1	0.84	0.08	95,95,95,95	0
54	MG	1A	3510	1/1	0.84	0.12	57,57,57,57	0
54	MG	2A	3157	1/1	0.84	0.14	56,56,56,56	0
54	MG	1B	1028	1/1	0.84	0.07	75,75,75,75	0
54	MG	1a	1729	1/1	0.84	0.20	92,92,92,92	0
54	MG	1A	3395	1/1	0.84	0.21	57,57,57,57	0
54	MG	1A	3524	1/1	0.84	0.12	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1D	301	1/1	0.84	0.19	22,22,22,22	0
54	MG	2A	3174	1/1	0.84	0.12	72,72,72,72	0
54	MG	2A	3058	1/1	0.84	0.14	70,70,70,70	0
54	MG	1a	1738	1/1	0.84	0.17	78,78,78,78	0
54	MG	2A	3067	1/1	0.84	0.34	46,46,46,46	0
54	MG	1A	3217	1/1	0.84	0.15	48,48,48,48	0
54	MG	1a	1740	1/1	0.84	0.12	77,77,77,77	0
54	MG	2a	1606	1/1	0.84	0.22	57,57,57,57	0
54	MG	1A	3815	1/1	0.84	0.10	61,61,61,61	0
54	MG	1A	3109	1/1	0.84	0.19	46,46,46,46	0
54	MG	1A	3049	1/1	0.84	0.18	69,69,69,69	0
54	MG	2A	3439	1/1	0.84	0.08	65,65,65,65	0
54	MG	2A	3443	1/1	0.84	0.07	111,111,111,111	0
54	MG	1A	3124	1/1	0.84	0.09	67,67,67,67	0
54	MG	2t	201	1/1	0.84	0.26	71,71,71,71	0
54	MG	2A	3117	1/1	0.85	0.14	45,45,45,45	0
53	MPD	2A	3002	8/8	0.85	0.28	89,92,94,95	0
54	MG	2A	3046	1/1	0.85	0.13	69,69,69,69	0
54	MG	2A	3047	1/1	0.85	0.17	61,61,61,61	0
54	MG	1a	1722	1/1	0.85	0.11	85,85,85,85	0
54	MG	1A	3666	1/1	0.85	0.12	43,43,43,43	0
54	MG	2A	3424	1/1	0.85	0.08	88,88,88,88	0
54	MG	1G	203	1/1	0.85	0.18	91,91,91,91	0
54	MG	1a	1626	1/1	0.85	0.24	70,70,70,70	0
54	MG	1A	3372	1/1	0.85	0.13	59,59,59,59	0
54	MG	2A	3441	1/1	0.85	0.15	88,88,88,88	0
54	MG	2A	3442	1/1	0.85	0.13	74,74,74,74	0
54	MG	1a	1633	1/1	0.85	0.09	85,85,85,85	0
54	MG	1A	3224	1/1	0.85	0.10	45,45,45,45	0
54	MG	1A	3051	1/1	0.85	0.14	77,77,77,77	0
54	MG	1A	3017	1/1	0.85	0.24	57,57,57,57	0
54	MG	1a	1679	1/1	0.85	0.16	57,57,57,57	0
54	MG	2A	3307	1/1	0.85	0.10	75,75,75,75	0
54	MG	2a	1683	1/1	0.85	0.21	83,83,83,83	0
54	MG	1A	3484	1/1	0.85	0.10	64,64,64,64	0
54	MG	2a	1687	1/1	0.85	0.10	70,70,70,70	0
54	MG	2A	3078	1/1	0.85	0.18	58,58,58,58	0
54	MG	1A	3117	1/1	0.85	0.20	26,26,26,26	0
54	MG	1a	1683	1/1	0.85	0.12	73,73,73,73	0
54	MG	1a	1643	1/1	0.85	0.14	87,87,87,87	0
54	MG	2A	3176	1/1	0.85	0.21	54,54,54,54	0
54	MG	2a	1697	1/1	0.85	0.08	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3861	1/1	0.85	0.10	133,133,133,133	0
54	MG	1a	1693	1/1	0.85	0.24	68,68,68,68	0
54	MG	1A	3054	1/1	0.85	0.13	57,57,57,57	0
54	MG	2a	1708	1/1	0.85	0.18	72,72,72,72	0
54	MG	2A	3501	1/1	0.85	0.12	60,60,60,60	0
54	MG	2a	1718	1/1	0.85	0.09	95,95,95,95	0
54	MG	2A	3337	1/1	0.85	0.12	69,69,69,69	0
54	MG	2a	1731	1/1	0.85	0.12	86,86,86,86	0
54	MG	1a	1649	1/1	0.85	0.17	95,95,95,95	0
54	MG	2a	1738	1/1	0.85	0.12	93,93,93,93	0
54	MG	1A	3808	1/1	0.85	0.10	63,63,63,63	0
54	MG	1a	1603	1/1	0.85	0.18	118,118,118,118	0
54	MG	1a	1827	1/1	0.85	0.16	95,95,95,95	0
54	MG	2a	1627	1/1	0.85	0.18	69,69,69,69	0
54	MG	2A	3203	1/1	0.85	0.20	66,66,66,66	0
54	MG	2A	3566	1/1	0.85	0.12	81,81,81,81	0
54	MG	2A	3101	1/1	0.85	0.15	56,56,56,56	0
54	MG	1A	3452	1/1	0.85	0.08	52,52,52,52	0
54	MG	2A	3620	1/1	0.85	0.14	101,101,101,101	0
54	MG	2A	3628	1/1	0.85	0.14	60,60,60,60	0
54	MG	1A	3461	1/1	0.85	0.16	42,42,42,42	0
54	MG	1a	1659	1/1	0.85	0.24	70,70,70,70	0
54	MG	2A	3034	1/1	0.85	0.19	62,62,62,62	0
54	MG	2A	3038	1/1	0.85	0.16	71,71,71,71	0
54	MG	1F	311	1/1	0.85	0.15	90,90,90,90	0
55	ARG	1F	303	12/12	0.85	0.22	56,82,107,107	0
54	MG	2a	1643	1/1	0.86	0.11	51,51,51,51	0
54	MG	2A	3598	1/1	0.86	0.12	64,64,64,64	0
54	MG	1a	1708	1/1	0.86	0.17	64,64,64,64	0
54	MG	2a	1650	1/1	0.86	0.18	59,59,59,59	0
54	MG	1A	3895	1/1	0.86	0.16	56,56,56,56	0
54	MG	2A	3622	1/1	0.86	0.09	97,97,97,97	0
54	MG	1A	3382	1/1	0.86	0.12	63,63,63,63	0
54	MG	1A	3307	1/1	0.86	0.10	41,41,41,41	0
54	MG	2A	3189	1/1	0.86	0.21	83,83,83,83	0
54	MG	1W	204	1/1	0.86	0.17	52,52,52,52	0
54	MG	2A	3088	1/1	0.86	0.18	52,52,52,52	0
54	MG	1A	3757	1/1	0.86	0.12	44,44,44,44	0
54	MG	2A	3197	1/1	0.86	0.20	78,78,78,78	0
54	MG	1a	1719	1/1	0.86	0.17	102,102,102,102	0
54	MG	1a	1657	1/1	0.86	0.12	95,95,95,95	0
54	MG	2B	208	1/1	0.86	0.27	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1a	1790	1/1	0.86	0.13	95,95,95,95	0
54	MG	1A	3013	1/1	0.86	0.18	36,36,36,36	0
54	MG	1A	3665	1/1	0.86	0.12	59,59,59,59	0
54	MG	2A	3004	1/1	0.86	0.16	65,65,65,65	0
54	MG	2A	3413	1/1	0.86	0.09	77,77,77,77	0
54	MG	2F	302	1/1	0.86	0.14	69,69,69,69	0
54	MG	1a	1795	1/1	0.86	0.12	81,81,81,81	0
54	MG	2A	3415	1/1	0.86	0.11	59,59,59,59	0
54	MG	2A	3103	1/1	0.86	0.10	82,82,82,82	0
54	MG	2A	3220	1/1	0.86	0.17	70,70,70,70	0
54	MG	1a	1733	1/1	0.86	0.15	76,76,76,76	0
54	MG	2A	3008	1/1	0.86	0.14	61,61,61,61	0
54	MG	1A	3125	1/1	0.86	0.18	37,37,37,37	0
54	MG	1a	1604	1/1	0.86	0.25	65,65,65,65	0
54	MG	1A	3476	1/1	0.86	0.24	65,65,65,65	0
54	MG	1A	3057	1/1	0.86	0.14	56,56,56,56	0
54	MG	1A	3115	1/1	0.86	0.16	42,42,42,42	0
54	MG	2A	3119	1/1	0.86	0.21	76,76,76,76	0
54	MG	1A	3172	1/1	0.86	0.13	71,71,71,71	0
54	MG	2A	3132	1/1	0.86	0.18	54,54,54,54	0
54	MG	1a	1620	1/1	0.86	0.11	89,89,89,89	0
54	MG	1A	3585	1/1	0.86	0.08	62,62,62,62	0
54	MG	2a	1725	1/1	0.86	0.09	73,73,73,73	0
54	MG	1A	3077	1/1	0.86	0.10	64,64,64,64	0
54	MG	2A	3285	1/1	0.86	0.15	68,68,68,68	0
54	MG	1A	3493	1/1	0.86	0.19	68,68,68,68	0
54	MG	1A	3258	1/1	0.86	0.11	81,81,81,81	0
54	MG	2A	3304	1/1	0.86	0.11	65,65,65,65	0
54	MG	1A	3037	1/1	0.86	0.14	56,56,56,56	0
54	MG	1A	3599	1/1	0.86	0.10	49,49,49,49	0
54	MG	1A	3435	1/1	0.86	0.16	51,51,51,51	0
54	MG	1A	3366	1/1	0.86	0.10	45,45,45,45	0
54	MG	1N	202	1/1	0.86	0.16	66,66,66,66	0
54	MG	1a	1694	1/1	0.86	0.14	73,73,73,73	0
54	MG	1A	3369	1/1	0.86	0.15	37,37,37,37	0
54	MG	1Q	201	1/1	0.86	0.14	51,51,51,51	0
54	MG	1A	3230	1/1	0.86	0.16	49,49,49,49	0
54	MG	2A	3171	1/1	0.86	0.18	84,84,84,84	0
54	MG	1A	3890	1/1	0.86	0.60	45,45,45,45	0
54	MG	2A	3586	1/1	0.86	0.11	104,104,104,104	0
54	MG	2p	101	1/1	0.86	0.17	55,55,55,55	0
54	MG	2A	3593	1/1	0.86	0.09	99,99,99,99	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1a	1772	1/1	0.86	0.12	83,83,83,83	0
54	MG	1a	1629	1/1	0.87	0.22	68,68,68,68	0
54	MG	1A	3701	1/1	0.87	0.14	47,47,47,47	0
54	MG	1A	3605	1/1	0.87	0.12	71,71,71,71	0
54	MG	1a	1797	1/1	0.87	0.18	68,68,68,68	0
54	MG	2a	1672	1/1	0.87	0.38	55,55,55,55	0
54	MG	1A	3351	1/1	0.87	0.10	66,66,66,66	0
54	MG	2A	3482	1/1	0.87	0.10	106,106,106,106	0
54	MG	2A	3124	1/1	0.87	0.12	93,93,93,93	0
54	MG	2A	3345	1/1	0.87	0.16	70,70,70,70	0
54	MG	1a	1756	1/1	0.87	0.10	78,78,78,78	0
54	MG	2A	3213	1/1	0.87	0.11	73,73,73,73	0
54	MG	1a	1759	1/1	0.87	0.15	101,101,101,101	0
54	MG	2A	3538	1/1	0.87	0.14	42,42,42,42	0
54	MG	1A	3527	1/1	0.87	0.11	56,56,56,56	0
54	MG	1A	3799	1/1	0.87	0.18	53,53,53,53	0
54	MG	1a	1673	1/1	0.87	0.16	59,59,59,59	0
54	MG	2A	3380	1/1	0.87	0.12	48,48,48,48	0
54	MG	1a	1640	1/1	0.87	0.19	75,75,75,75	0
54	MG	1A	3807	1/1	0.87	0.13	64,64,64,64	0
54	MG	2a	1699	1/1	0.87	0.09	70,70,70,70	0
54	MG	1A	3383	1/1	0.87	0.07	80,80,80,80	0
54	MG	2A	3391	1/1	0.87	0.14	65,65,65,65	0
54	MG	1A	3234	1/1	0.87	0.14	59,59,59,59	0
54	MG	2A	3153	1/1	0.87	0.17	78,78,78,78	0
54	MG	1a	1608	1/1	0.87	0.16	78,78,78,78	0
54	MG	2A	3246	1/1	0.87	0.18	88,88,88,88	0
54	MG	1a	1613	1/1	0.87	0.12	69,69,69,69	0
54	MG	2A	3412	1/1	0.87	0.11	70,70,70,70	0
54	MG	2A	3638	1/1	0.87	0.12	55,55,55,55	0
54	MG	2A	3256	1/1	0.87	0.12	54,54,54,54	0
54	MG	1a	1830	1/1	0.87	0.07	62,62,62,62	0
54	MG	1A	3265	1/1	0.87	0.13	86,86,86,86	0
54	MG	1A	3185	1/1	0.87	0.16	61,61,61,61	0
54	MG	2A	3264	1/1	0.87	0.13	98,98,98,98	0
54	MG	1A	3506	1/1	0.87	0.09	65,65,65,65	0
54	MG	1a	1843	1/1	0.87	0.14	81,81,81,81	0
54	MG	1A	3729	1/1	0.87	0.10	46,46,46,46	0
54	MG	2A	3100	1/1	0.87	0.14	69,69,69,69	0
54	MG	1A	3507	1/1	0.87	0.14	50,50,50,50	0
54	MG	1a	1851	1/1	0.87	0.09	76,76,76,76	0
54	MG	2A	3184	1/1	0.87	0.10	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3684	1/1	0.87	0.21	74,74,74,74	0
54	MG	1A	3106	1/1	0.87	0.10	48,48,48,48	0
54	MG	2A	3107	1/1	0.87	0.26	85,85,85,85	0
54	MG	1a	1746	1/1	0.87	0.18	91,91,91,91	0
54	MG	2A	3049	1/1	0.87	0.17	65,65,65,65	0
55	ARG	1B	1001	12/12	0.87	0.14	49,55,69,72	0
54	MG	1A	3006	1/1	0.87	0.08	49,49,49,49	0
54	MG	2A	3073	1/1	0.88	0.15	60,60,60,60	0
54	MG	2A	3394	1/1	0.88	0.24	48,48,48,48	0
54	MG	1A	3136	1/1	0.88	0.16	43,43,43,43	0
54	MG	1A	3098	1/1	0.88	0.16	44,44,44,44	0
54	MG	1a	1847	1/1	0.88	0.08	62,62,62,62	0
54	MG	2A	3404	1/1	0.88	0.20	81,81,81,81	0
54	MG	1A	3363	1/1	0.88	0.14	52,52,52,52	0
54	MG	1A	3470	1/1	0.88	0.12	45,45,45,45	0
54	MG	1A	3864	1/1	0.88	0.20	50,50,50,50	0
54	MG	1a	1852	1/1	0.88	0.10	106,106,106,106	0
54	MG	1A	3558	1/1	0.88	0.30	81,81,81,81	0
54	MG	1A	3702	1/1	0.88	0.14	71,71,71,71	0
54	MG	2A	3419	1/1	0.88	0.14	55,55,55,55	0
54	MG	1A	3023	1/1	0.88	0.19	33,33,33,33	0
54	MG	2A	3430	1/1	0.88	0.09	64,64,64,64	0
54	MG	2A	3089	1/1	0.88	0.21	61,61,61,61	0
54	MG	2A	3432	1/1	0.88	0.10	66,66,66,66	0
54	MG	1A	3881	1/1	0.88	0.12	38,38,38,38	0
54	MG	2A	3436	1/1	0.88	0.13	73,73,73,73	0
54	MG	1A	3887	1/1	0.88	0.11	40,40,40,40	0
54	MG	1A	3144	1/1	0.88	0.11	56,56,56,56	0
54	MG	1A	3572	1/1	0.88	0.09	61,61,61,61	0
54	MG	1e	202	1/1	0.88	0.14	78,78,78,78	0
54	MG	2A	3221	1/1	0.88	0.17	65,65,65,65	0
54	MG	1A	3899	1/1	0.88	0.14	54,54,54,54	0
54	MG	2A	3098	1/1	0.88	0.14	58,58,58,58	0
54	MG	1a	1691	1/1	0.88	0.09	68,68,68,68	0
54	MG	2A	3452	1/1	0.88	0.12	70,70,70,70	0
54	MG	1g	202	1/1	0.88	0.18	85,85,85,85	0
54	MG	1A	3028	1/1	0.88	0.17	47,47,47,47	0
54	MG	1A	3206	1/1	0.88	0.32	40,40,40,40	0
54	MG	1A	3720	1/1	0.88	0.25	64,64,64,64	0
54	MG	1A	3584	1/1	0.88	0.10	70,70,70,70	0
54	MG	1A	3207	1/1	0.88	0.17	37,37,37,37	0
54	MG	1a	1701	1/1	0.88	0.18	93,93,93,93	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3267	1/1	0.88	0.10	58,58,58,58	0
54	MG	2A	3003	1/1	0.88	0.22	49,49,49,49	0
54	MG	2A	3486	1/1	0.88	0.12	96,96,96,96	0
54	MG	1A	3270	1/1	0.88	0.25	59,59,59,59	0
53	MPD	1A	3001	8/8	0.88	0.23	58,65,67,67	0
54	MG	1A	3301	1/1	0.88	0.09	51,51,51,51	0
54	MG	2a	1662	1/1	0.88	0.16	64,64,64,64	0
54	MG	2A	3506	1/1	0.88	0.12	64,64,64,64	0
54	MG	2A	3275	1/1	0.88	0.18	75,75,75,75	0
54	MG	1A	3162	1/1	0.88	0.09	43,43,43,43	0
54	MG	2A	3527	1/1	0.88	0.13	55,55,55,55	0
54	MG	2a	1669	1/1	0.88	0.14	61,61,61,61	0
54	MG	2A	3531	1/1	0.88	0.17	74,74,74,74	0
54	MG	2A	3533	1/1	0.88	0.14	61,61,61,61	0
54	MG	2a	1673	1/1	0.88	0.21	69,69,69,69	0
54	MG	1A	3035	1/1	0.88	0.24	57,57,57,57	0
54	MG	2A	3539	1/1	0.88	0.13	74,74,74,74	0
54	MG	2A	3292	1/1	0.88	0.14	74,74,74,74	0
54	MG	2A	3125	1/1	0.88	0.10	73,73,73,73	0
54	MG	2A	3299	1/1	0.88	0.08	53,53,53,53	0
54	MG	2A	3546	1/1	0.88	0.13	69,69,69,69	0
54	MG	2A	3300	1/1	0.88	0.09	51,51,51,51	0
54	MG	2A	3131	1/1	0.88	0.17	64,64,64,64	0
54	MG	2A	3302	1/1	0.88	0.14	59,59,59,59	0
54	MG	1A	3602	1/1	0.88	0.23	54,54,54,54	0
54	MG	1A	3164	1/1	0.88	0.12	49,49,49,49	0
54	MG	1A	3516	1/1	0.88	0.20	73,73,73,73	0
54	MG	2A	3605	1/1	0.88	0.14	65,65,65,65	0
54	MG	1A	3612	1/1	0.88	0.13	45,45,45,45	0
54	MG	2A	3031	1/1	0.88	0.20	75,75,75,75	0
54	MG	1a	1648	1/1	0.88	0.24	56,56,56,56	0
54	MG	2A	3036	1/1	0.88	0.19	64,64,64,64	0
54	MG	2A	3330	1/1	0.88	0.11	82,82,82,82	0
54	MG	1A	3613	1/1	0.88	0.10	32,32,32,32	0
54	MG	2a	1710	1/1	0.88	0.08	98,98,98,98	0
54	MG	1A	3806	1/1	0.88	0.17	85,85,85,85	0
54	MG	2A	3643	1/1	0.88	0.11	62,62,62,62	0
54	MG	1A	3614	1/1	0.88	0.12	57,57,57,57	0
54	MG	1A	3011	1/1	0.88	0.13	55,55,55,55	0
54	MG	2a	1732	1/1	0.88	0.12	91,91,91,91	0
54	MG	2a	1736	1/1	0.88	0.12	100,100,100,100	0
54	MG	2A	3156	1/1	0.88	0.10	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3167	1/1	0.88	0.23	42,42,42,42	0
54	MG	1A	3038	1/1	0.88	0.12	53,53,53,53	0
54	MG	1A	3083	1/1	0.88	0.16	51,51,51,51	0
54	MG	2A	3164	1/1	0.88	0.21	62,62,62,62	0
54	MG	2a	1747	1/1	0.88	0.11	129,129,129,129	0
54	MG	1a	1823	1/1	0.88	0.10	99,99,99,99	0
54	MG	1a	1660	1/1	0.88	0.17	85,85,85,85	0
54	MG	2A	3055	1/1	0.88	0.25	66,66,66,66	0
54	MG	2B	214	1/1	0.88	0.08	101,101,101,101	0
54	MG	1A	3638	1/1	0.88	0.09	68,68,68,68	0
54	MG	2D	306	1/1	0.88	0.12	52,52,52,52	0
54	MG	2A	3374	1/1	0.88	0.10	60,60,60,60	0
54	MG	2a	1764	1/1	0.88	0.15	61,61,61,61	0
54	MG	1A	3018	1/1	0.88	0.20	40,40,40,40	0
54	MG	2f	201	1/1	0.88	0.10	79,79,79,79	0
54	MG	2A	3378	1/1	0.88	0.16	54,54,54,54	0
54	MG	2A	3061	1/1	0.88	0.13	61,61,61,61	0
54	MG	2A	3178	1/1	0.88	0.12	44,44,44,44	0
54	MG	1A	3532	1/1	0.88	0.15	46,46,46,46	0
54	MG	2A	3181	1/1	0.88	0.16	57,57,57,57	0
54	MG	2A	3388	1/1	0.88	0.24	73,73,73,73	0
54	MG	1A	3543	1/1	0.88	0.16	42,42,42,42	0
54	MG	2A	3179	1/1	0.89	0.43	70,70,70,70	0
54	MG	1A	3142	1/1	0.89	0.15	36,36,36,36	0
54	MG	1a	1684	1/1	0.89	0.21	56,56,56,56	0
54	MG	1A	3777	1/1	0.89	0.16	35,35,35,35	0
54	MG	2A	3340	1/1	0.89	0.12	57,57,57,57	0
54	MG	1A	3581	1/1	0.89	0.11	66,66,66,66	0
54	MG	2a	1644	1/1	0.89	0.20	92,92,92,92	0
54	MG	1a	1813	1/1	0.89	0.14	76,76,76,76	0
54	MG	2A	3188	1/1	0.89	0.17	67,67,67,67	0
54	MG	2a	1649	1/1	0.89	0.11	40,40,40,40	0
54	MG	1A	3489	1/1	0.89	0.09	64,64,64,64	0
54	MG	1A	3537	1/1	0.89	0.15	39,39,39,39	0
54	MG	1a	1752	1/1	0.89	0.23	61,61,61,61	0
54	MG	1A	3249	1/1	0.89	0.14	45,45,45,45	0
54	MG	1A	3058	1/1	0.89	0.08	51,51,51,51	0
54	MG	2A	3580	1/1	0.89	0.19	97,97,97,97	0
54	MG	1A	3130	1/1	0.89	0.19	39,39,39,39	0
54	MG	13	101	1/1	0.89	0.18	76,76,76,76	0
54	MG	1A	3809	1/1	0.89	0.09	57,57,57,57	0
54	MG	2A	3207	1/1	0.89	0.16	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3601	1/1	0.89	0.11	75,75,75,75	0
54	MG	2A	3032	1/1	0.89	0.25	61,61,61,61	0
54	MG	2A	3609	1/1	0.89	0.18	80,80,80,80	0
54	MG	1A	3471	1/1	0.89	0.12	62,62,62,62	0
54	MG	1A	3659	1/1	0.89	0.23	62,62,62,62	0
54	MG	2A	3212	1/1	0.89	0.14	58,58,58,58	0
54	MG	1a	1833	1/1	0.89	0.10	122,122,122,122	0
54	MG	2A	3393	1/1	0.89	0.11	77,77,77,77	0
54	MG	2A	3040	1/1	0.89	0.09	65,65,65,65	0
54	MG	2A	3641	1/1	0.89	0.11	88,88,88,88	0
54	MG	1A	3821	1/1	0.89	0.14	51,51,51,51	0
54	MG	2A	3044	1/1	0.89	0.06	71,71,71,71	0
54	MG	1A	3331	1/1	0.89	0.11	40,40,40,40	0
54	MG	2A	3122	1/1	0.89	0.17	74,74,74,74	0
54	MG	2A	3407	1/1	0.89	0.09	66,66,66,66	0
54	MG	1a	1845	1/1	0.89	0.09	63,63,63,63	0
54	MG	1a	1768	1/1	0.89	0.10	81,81,81,81	0
54	MG	2A	3127	1/1	0.89	0.15	49,49,49,49	0
54	MG	1a	1607	1/1	0.89	0.14	108,108,108,108	0
54	MG	1A	3373	1/1	0.89	0.09	67,67,67,67	0
54	MG	1A	3836	1/1	0.89	0.09	35,35,35,35	0
54	MG	2A	3245	1/1	0.89	0.29	71,71,71,71	0
54	MG	2A	3134	1/1	0.89	0.11	71,71,71,71	0
54	MG	1a	1718	1/1	0.89	0.14	86,86,86,86	0
54	MG	2B	217	1/1	0.89	0.09	81,81,81,81	0
54	MG	2a	1705	1/1	0.89	0.13	93,93,93,93	0
54	MG	2A	3250	1/1	0.89	0.12	60,60,60,60	0
54	MG	2A	3136	1/1	0.89	0.15	62,62,62,62	0
54	MG	2A	3137	1/1	0.89	0.16	67,67,67,67	0
54	MG	2A	3138	1/1	0.89	0.31	49,49,49,49	0
54	MG	2A	3438	1/1	0.89	0.09	80,80,80,80	0
54	MG	2A	3053	1/1	0.89	0.23	56,56,56,56	0
54	MG	2A	3440	1/1	0.89	0.21	76,76,76,76	0
54	MG	2A	3140	1/1	0.89	0.10	61,61,61,61	0
54	MG	1A	3254	1/1	0.89	0.19	62,62,62,62	0
54	MG	1A	3847	1/1	0.89	0.09	38,38,38,38	0
54	MG	1A	3848	1/1	0.89	0.13	55,55,55,55	0
54	MG	2A	3280	1/1	0.89	0.10	53,53,53,53	0
54	MG	1a	1618	1/1	0.89	0.12	81,81,81,81	0
54	MG	2A	3450	1/1	0.89	0.15	49,49,49,49	0
54	MG	1a	1732	1/1	0.89	0.15	70,70,70,70	0
54	MG	2a	1746	1/1	0.89	0.09	119,119,119,119	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3677	1/1	0.89	0.17	71,71,71,71	0
54	MG	2a	1748	1/1	0.89	0.11	100,100,100,100	0
54	MG	1A	3010	1/1	0.89	0.13	46,46,46,46	0
54	MG	2A	3455	1/1	0.89	0.14	68,68,68,68	0
54	MG	1A	3354	1/1	0.89	0.14	38,38,38,38	0
54	MG	2A	3457	1/1	0.89	0.16	79,79,79,79	0
54	MG	1A	3743	1/1	0.89	0.11	47,47,47,47	0
54	MG	1A	3744	1/1	0.89	0.11	55,55,55,55	0
54	MG	1g	201	1/1	0.89	0.14	87,87,87,87	0
54	MG	1A	3747	1/1	0.89	0.08	54,54,54,54	0
54	MG	1A	3042	1/1	0.89	0.12	63,63,63,63	0
54	MG	2A	3082	1/1	0.89	0.08	76,76,76,76	0
54	MG	1l	202	1/1	0.89	0.06	51,51,51,51	0
54	MG	1a	1799	1/1	0.89	0.09	96,96,96,96	0
54	MG	2A	3173	1/1	0.89	0.24	63,63,63,63	0
54	MG	1A	3869	1/1	0.89	0.21	58,58,58,58	0
54	MG	2A	3496	1/1	0.89	0.14	69,69,69,69	0
54	MG	1A	3697	1/1	0.89	0.11	72,72,72,72	0
54	MG	1a	1803	1/1	0.89	0.09	93,93,93,93	0
54	MG	2A	3298	1/1	0.90	0.08	82,82,82,82	0
54	MG	1a	1815	1/1	0.90	0.09	81,81,81,81	0
54	MG	1A	3694	1/1	0.90	0.09	61,61,61,61	0
54	MG	1A	3105	1/1	0.90	0.18	52,52,52,52	0
54	MG	1A	3700	1/1	0.90	0.20	58,58,58,58	0
54	MG	1A	3810	1/1	0.90	0.07	59,59,59,59	0
54	MG	2A	3305	1/1	0.90	0.14	58,58,58,58	0
54	MG	1A	3374	1/1	0.90	0.08	73,73,73,73	0
54	MG	2A	3483	1/1	0.90	0.10	53,53,53,53	0
54	MG	1A	3321	1/1	0.90	0.14	61,61,61,61	0
54	MG	2A	3057	1/1	0.90	0.08	55,55,55,55	0
54	MG	1A	3025	1/1	0.90	0.19	38,38,38,38	0
54	MG	1F	304	1/1	0.90	0.18	43,43,43,43	0
54	MG	1F	305	1/1	0.90	0.24	50,50,50,50	0
54	MG	1A	3824	1/1	0.90	0.12	63,63,63,63	0
54	MG	1A	3825	1/1	0.90	0.19	72,72,72,72	0
54	MG	1G	201	1/1	0.90	0.07	92,92,92,92	0
54	MG	1A	3259	1/1	0.90	0.21	79,79,79,79	0
54	MG	1A	3706	1/1	0.90	0.09	50,50,50,50	0
54	MG	2A	3532	1/1	0.90	0.07	89,89,89,89	0
54	MG	1G	204	1/1	0.90	0.12	73,73,73,73	0
54	MG	1H	202	1/1	0.90	0.11	64,64,64,64	0
54	MG	1A	3835	1/1	0.90	0.15	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3329	1/1	0.90	0.07	57,57,57,57	0
54	MG	2A	3343	1/1	0.90	0.11	47,47,47,47	0
54	MG	1A	3389	1/1	0.90	0.14	56,56,56,56	0
54	MG	2A	3544	1/1	0.90	0.07	86,86,86,86	0
54	MG	2A	3183	1/1	0.90	0.29	84,84,84,84	0
54	MG	2A	3553	1/1	0.90	0.09	100,100,100,100	0
54	MG	1a	1854	1/1	0.90	0.12	57,57,57,57	0
54	MG	1A	3839	1/1	0.90	0.11	61,61,61,61	0
54	MG	2A	3575	1/1	0.90	0.10	52,52,52,52	0
54	MG	2A	3363	1/1	0.90	0.24	76,76,76,76	0
54	MG	1a	1665	1/1	0.90	0.12	86,86,86,86	0
54	MG	2A	3589	1/1	0.90	0.10	67,67,67,67	0
54	MG	1A	3027	1/1	0.90	0.14	49,49,49,49	0
54	MG	1A	3715	1/1	0.90	0.10	71,71,71,71	0
54	MG	2A	3375	1/1	0.90	0.11	50,50,50,50	0
54	MG	1a	1668	1/1	0.90	0.23	69,69,69,69	0
54	MG	2a	1674	1/1	0.90	0.22	66,66,66,66	0
54	MG	1A	3341	1/1	0.90	0.14	30,30,30,30	0
54	MG	1A	3086	1/1	0.90	0.10	68,68,68,68	0
54	MG	2A	3381	1/1	0.90	0.12	99,99,99,99	0
54	MG	1A	3033	1/1	0.90	0.09	67,67,67,67	0
54	MG	10	101	1/1	0.90	0.16	82,82,82,82	0
54	MG	2A	3202	1/1	0.90	0.25	73,73,73,73	0
54	MG	2A	3630	1/1	0.90	0.13	58,58,58,58	0
54	MG	10	105	1/1	0.90	0.08	57,57,57,57	0
54	MG	2A	3204	1/1	0.90	0.10	51,51,51,51	0
54	MG	1a	1769	1/1	0.90	0.11	90,90,90,90	0
54	MG	1A	3039	1/1	0.90	0.18	38,38,38,38	0
54	MG	1a	1771	1/1	0.90	0.20	89,89,89,89	0
54	MG	1A	3277	1/1	0.90	0.13	89,89,89,89	0
54	MG	2A	3396	1/1	0.90	0.08	82,82,82,82	0
54	MG	1A	3633	1/1	0.90	0.19	60,60,60,60	0
54	MG	17	103	1/1	0.90	0.10	62,62,62,62	0
54	MG	1A	3495	1/1	0.90	0.12	65,65,65,65	0
54	MG	2A	3405	1/1	0.90	0.12	81,81,81,81	0
54	MG	2a	1707	1/1	0.90	0.11	84,84,84,84	0
54	MG	2A	3108	1/1	0.90	0.09	50,50,50,50	0
54	MG	1A	3639	1/1	0.90	0.07	58,58,58,58	0
54	MG	1a	1782	1/1	0.90	0.10	86,86,86,86	0
54	MG	2a	1715	1/1	0.90	0.10	88,88,88,88	0
54	MG	1A	3497	1/1	0.90	0.11	44,44,44,44	0
54	MG	1A	3874	1/1	0.90	0.11	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3500	1/1	0.90	0.20	73,73,73,73	0
54	MG	2a	1730	1/1	0.90	0.12	97,97,97,97	0
54	MG	1A	3662	1/1	0.90	0.13	43,43,43,43	0
54	MG	1a	1609	1/1	0.90	0.05	120,120,120,120	0
54	MG	2a	1733	1/1	0.90	0.10	86,86,86,86	0
54	MG	2A	3420	1/1	0.90	0.12	51,51,51,51	0
54	MG	1A	3221	1/1	0.90	0.04	100,100,100,100	0
54	MG	1A	3505	1/1	0.90	0.10	49,49,49,49	0
54	MG	1A	3888	1/1	0.90	0.31	80,80,80,80	0
54	MG	2G	203	1/1	0.90	0.12	104,104,104,104	0
54	MG	1A	3433	1/1	0.90	0.09	66,66,66,66	0
54	MG	1A	3759	1/1	0.90	0.12	51,51,51,51	0
54	MG	2A	3130	1/1	0.90	0.11	62,62,62,62	0
54	MG	1A	3763	1/1	0.90	0.15	46,46,46,46	0
54	MG	2A	3028	1/1	0.90	0.17	44,44,44,44	0
54	MG	2T	202	1/1	0.90	0.15	65,65,65,65	0
54	MG	1A	3768	1/1	0.90	0.07	51,51,51,51	0
54	MG	1A	3222	1/1	0.90	0.10	52,52,52,52	0
54	MG	20	101	1/1	0.90	0.18	80,80,80,80	0
54	MG	1A	3682	1/1	0.90	0.10	79,79,79,79	0
54	MG	1a	1804	1/1	0.90	0.27	71,71,71,71	0
54	MG	2a	1601	1/1	0.90	0.12	74,74,74,74	0
54	MG	2A	3269	1/1	0.90	0.10	88,88,88,88	0
54	MG	2A	3271	1/1	0.90	0.09	67,67,67,67	0
54	MG	1A	3071	1/1	0.90	0.17	54,54,54,54	0
54	MG	1A	3798	1/1	0.90	0.24	71,71,71,71	0
54	MG	1a	1631	1/1	0.90	0.13	68,68,68,68	0
54	MG	1a	1810	1/1	0.90	0.07	82,82,82,82	0
54	MG	1A	3251	1/1	0.90	0.08	41,41,41,41	0
54	MG	2A	3148	1/1	0.90	0.11	42,42,42,42	0
54	MG	1A	3225	1/1	0.90	0.17	54,54,54,54	0
54	MG	1a	1632	1/1	0.91	0.11	59,59,59,59	0
54	MG	1A	3274	1/1	0.91	0.13	22,22,22,22	0
54	MG	2X	101	1/1	0.91	0.09	84,84,84,84	0
54	MG	1A	3118	1/1	0.91	0.20	59,59,59,59	0
54	MG	2A	3217	1/1	0.91	0.35	60,60,60,60	0
54	MG	2I	103	1/1	0.91	0.08	60,60,60,60	0
54	MG	2A	3218	1/1	0.91	0.10	73,73,73,73	0
54	MG	1A	3430	1/1	0.91	0.07	82,82,82,82	0
54	MG	28	101	1/1	0.91	0.19	70,70,70,70	0
54	MG	1A	3210	1/1	0.91	0.13	37,37,37,37	0
54	MG	1a	1638	1/1	0.91	0.19	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3095	1/1	0.91	0.24	58,58,58,58	0
54	MG	1D	303	1/1	0.91	0.12	47,47,47,47	0
54	MG	1D	307	1/1	0.91	0.17	36,36,36,36	0
54	MG	2A	3234	1/1	0.91	0.19	65,65,65,65	0
54	MG	1D	308	1/1	0.91	0.20	55,55,55,55	0
54	MG	1A	3299	1/1	0.91	0.17	58,58,58,58	0
54	MG	1A	3138	1/1	0.91	0.16	41,41,41,41	0
54	MG	2a	1614	1/1	0.91	0.10	82,82,82,82	0
54	MG	1A	3593	1/1	0.91	0.06	84,84,84,84	0
54	MG	2a	1616	1/1	0.91	0.08	80,80,80,80	0
54	MG	1A	3705	1/1	0.91	0.09	46,46,46,46	0
54	MG	1a	1749	1/1	0.91	0.17	100,100,100,100	0
54	MG	1A	3831	1/1	0.91	0.16	92,92,92,92	0
54	MG	2A	3449	1/1	0.91	0.13	65,65,65,65	0
54	MG	2a	1622	1/1	0.91	0.07	38,38,38,38	0
54	MG	1e	201	1/1	0.91	0.12	66,66,66,66	0
54	MG	1A	3216	1/1	0.91	0.16	66,66,66,66	0
54	MG	1A	3056	1/1	0.91	0.12	42,42,42,42	0
54	MG	2a	1632	1/1	0.91	0.19	63,63,63,63	0
54	MG	2a	1633	1/1	0.91	0.14	92,92,92,92	0
54	MG	1a	1653	1/1	0.91	0.07	55,55,55,55	0
54	MG	1f	202	1/1	0.91	0.24	93,93,93,93	0
54	MG	1A	3447	1/1	0.91	0.26	70,70,70,70	0
54	MG	2A	3265	1/1	0.91	0.13	61,61,61,61	0
54	MG	2A	3266	1/1	0.91	0.10	59,59,59,59	0
54	MG	1A	3123	1/1	0.91	0.15	49,49,49,49	0
54	MG	1A	3252	1/1	0.91	0.17	45,45,45,45	0
54	MG	2a	1641	1/1	0.91	0.12	71,71,71,71	0
54	MG	2A	3465	1/1	0.91	0.11	69,69,69,69	0
54	MG	1A	3845	1/1	0.91	0.15	50,50,50,50	0
54	MG	1P	201	1/1	0.91	0.11	83,83,83,83	0
54	MG	2A	3477	1/1	0.91	0.13	83,83,83,83	0
54	MG	2A	3478	1/1	0.91	0.07	85,85,85,85	0
54	MG	2a	1647	1/1	0.91	0.20	67,67,67,67	0
54	MG	2a	1648	1/1	0.91	0.36	64,64,64,64	0
54	MG	1A	3718	1/1	0.91	0.09	69,69,69,69	0
54	MG	1A	3608	1/1	0.91	0.19	56,56,56,56	0
54	MG	2A	3281	1/1	0.91	0.10	65,65,65,65	0
54	MG	1R	202	1/1	0.91	0.23	41,41,41,41	0
54	MG	2A	3287	1/1	0.91	0.10	53,53,53,53	0
54	MG	1A	3112	1/1	0.91	0.08	53,53,53,53	0
54	MG	1R	205	1/1	0.91	0.13	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3465	1/1	0.91	0.18	46,46,46,46	0
54	MG	1A	3468	1/1	0.91	0.10	62,62,62,62	0
54	MG	1A	3615	1/1	0.91	0.10	57,57,57,57	0
54	MG	1V	201	1/1	0.91	0.21	56,56,56,56	0
54	MG	1a	1671	1/1	0.91	0.30	71,71,71,71	0
54	MG	2A	3529	1/1	0.91	0.09	73,73,73,73	0
54	MG	2A	3009	1/1	0.91	0.10	63,63,63,63	0
54	MG	2a	1666	1/1	0.91	0.15	79,79,79,79	0
54	MG	1A	3535	1/1	0.91	0.11	53,53,53,53	0
54	MG	2A	3014	1/1	0.91	0.17	66,66,66,66	0
54	MG	2A	3537	1/1	0.91	0.06	97,97,97,97	0
54	MG	1W	202	1/1	0.91	0.23	59,59,59,59	0
54	MG	2A	3310	1/1	0.91	0.26	55,55,55,55	0
54	MG	1A	3148	1/1	0.91	0.09	54,54,54,54	0
54	MG	2A	3143	1/1	0.91	0.12	61,61,61,61	0
54	MG	2A	3145	1/1	0.91	0.12	62,62,62,62	0
54	MG	2A	3326	1/1	0.91	0.08	75,75,75,75	0
54	MG	1A	3540	1/1	0.91	0.10	36,36,36,36	0
54	MG	2A	3329	1/1	0.91	0.09	93,93,93,93	0
54	MG	1A	3624	1/1	0.91	0.11	70,70,70,70	0
54	MG	1A	3113	1/1	0.91	0.10	54,54,54,54	0
54	MG	1A	3745	1/1	0.91	0.10	80,80,80,80	0
54	MG	2A	3576	1/1	0.91	0.10	63,63,63,63	0
54	MG	13	102	1/1	0.91	0.11	55,55,55,55	0
54	MG	15	103	1/1	0.91	0.13	67,67,67,67	0
54	MG	1A	3129	1/1	0.91	0.17	42,42,42,42	0
54	MG	1A	3002	1/1	0.91	0.11	46,46,46,46	0
54	MG	1a	1690	1/1	0.91	0.11	62,62,62,62	0
54	MG	1A	3553	1/1	0.91	0.37	57,57,57,57	0
54	MG	2A	3162	1/1	0.91	0.10	101,101,101,101	0
54	MG	2A	3042	1/1	0.91	0.11	65,65,65,65	0
54	MG	2a	1704	1/1	0.91	0.19	84,84,84,84	0
54	MG	2A	3606	1/1	0.91	0.10	63,63,63,63	0
54	MG	2A	3608	1/1	0.91	0.22	86,86,86,86	0
54	MG	1A	3194	1/1	0.91	0.15	50,50,50,50	0
54	MG	2A	3614	1/1	0.91	0.13	64,64,64,64	0
54	MG	2A	3349	1/1	0.91	0.20	54,54,54,54	0
54	MG	1A	3556	1/1	0.91	0.12	53,53,53,53	0
54	MG	1a	1801	1/1	0.91	0.07	107,107,107,107	0
54	MG	1A	3345	1/1	0.91	0.10	60,60,60,60	0
54	MG	1A	3396	1/1	0.91	0.14	25,25,25,25	0
54	MG	1a	1699	1/1	0.91	0.12	90,90,90,90	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3398	1/1	0.91	0.10	89,89,89,89	0
54	MG	2A	3640	1/1	0.91	0.09	58,58,58,58	0
54	MG	1A	3564	1/1	0.91	0.12	65,65,65,65	0
54	MG	1B	1003	1/1	0.91	0.15	60,60,60,60	0
54	MG	1A	3676	1/1	0.91	0.15	77,77,77,77	0
54	MG	1A	3131	1/1	0.91	0.12	39,39,39,39	0
54	MG	1a	1710	1/1	0.91	0.17	56,56,56,56	0
54	MG	1A	3411	1/1	0.91	0.09	54,54,54,54	0
54	MG	1a	1818	1/1	0.91	0.08	56,56,56,56	0
54	MG	2A	3063	1/1	0.91	0.13	52,52,52,52	0
54	MG	2A	3064	1/1	0.91	0.16	77,77,77,77	0
54	MG	2A	3389	1/1	0.91	0.10	69,69,69,69	0
54	MG	2A	3065	1/1	0.91	0.26	67,67,67,67	0
54	MG	1A	3803	1/1	0.91	0.10	70,70,70,70	0
54	MG	2A	3068	1/1	0.91	0.12	51,51,51,51	0
54	MG	1B	1010	1/1	0.91	0.07	58,58,58,58	0
54	MG	1A	3805	1/1	0.91	0.10	49,49,49,49	0
54	MG	2a	1758	1/1	0.91	0.07	102,102,102,102	0
54	MG	1A	3490	1/1	0.91	0.10	60,60,60,60	0
54	MG	1A	3414	1/1	0.91	0.07	69,69,69,69	0
54	MG	2A	3402	1/1	0.91	0.07	70,70,70,70	0
54	MG	1a	1720	1/1	0.91	0.21	94,94,94,94	0
54	MG	1B	1021	1/1	0.91	0.10	54,54,54,54	0
54	MG	1B	1022	1/1	0.91	0.08	59,59,59,59	0
54	MG	2A	3406	1/1	0.91	0.09	72,72,72,72	0
54	MG	1a	1726	1/1	0.91	0.17	61,61,61,61	0
54	MG	1a	1630	1/1	0.91	0.07	54,54,54,54	0
54	MG	1a	1730	1/1	0.91	0.15	53,53,53,53	0
54	MG	2R	201	1/1	0.91	0.18	58,58,58,58	0
54	MG	1a	1837	1/1	0.91	0.09	64,64,64,64	0
54	MG	1A	3108	1/1	0.91	0.20	57,57,57,57	0
54	MG	19	103	1/1	0.92	0.27	93,93,93,93	0
54	MG	1A	3085	1/1	0.92	0.11	22,22,22,22	0
54	MG	1A	3509	1/1	0.92	0.20	52,52,52,52	0
54	MG	2A	3081	1/1	0.92	0.13	52,52,52,52	0
54	MG	1a	1826	1/1	0.92	0.07	109,109,109,109	0
54	MG	1A	3291	1/1	0.92	0.13	57,57,57,57	0
54	MG	2A	3215	1/1	0.92	0.13	65,65,65,65	0
54	MG	1A	3731	1/1	0.92	0.12	75,75,75,75	0
54	MG	1a	1606	1/1	0.92	0.13	64,64,64,64	0
54	MG	2A	3425	1/1	0.92	0.08	78,78,78,78	0
54	MG	1A	3513	1/1	0.92	0.14	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1a	1712	1/1	0.92	0.12	109,109,109,109	0
54	MG	1A	3053	1/1	0.92	0.11	30,30,30,30	0
54	MG	2A	3222	1/1	0.92	0.13	65,65,65,65	0
54	MG	1A	3517	1/1	0.92	0.09	71,71,71,71	0
54	MG	1A	3441	1/1	0.92	0.10	64,64,64,64	0
54	MG	2a	1607	1/1	0.92	0.07	94,94,94,94	0
54	MG	2A	3229	1/1	0.92	0.17	56,56,56,56	0
54	MG	1A	3063	1/1	0.92	0.21	41,41,41,41	0
54	MG	1A	3746	1/1	0.92	0.09	55,55,55,55	0
54	MG	1A	3525	1/1	0.92	0.08	62,62,62,62	0
54	MG	1A	3306	1/1	0.92	0.06	57,57,57,57	0
54	MG	1A	3213	1/1	0.92	0.12	60,60,60,60	0
54	MG	1A	3755	1/1	0.92	0.10	78,78,78,78	0
54	MG	1a	1623	1/1	0.92	0.10	62,62,62,62	0
54	MG	1a	1624	1/1	0.92	0.12	85,85,85,85	0
54	MG	1A	3451	1/1	0.92	0.13	72,72,72,72	0
54	MG	2A	3104	1/1	0.92	0.11	67,67,67,67	0
54	MG	2A	3251	1/1	0.92	0.14	76,76,76,76	0
54	MG	1A	3375	1/1	0.92	0.06	45,45,45,45	0
54	MG	1A	3622	1/1	0.92	0.10	51,51,51,51	0
54	MG	2A	3259	1/1	0.92	0.14	59,59,59,59	0
54	MG	2A	3260	1/1	0.92	0.06	48,48,48,48	0
54	MG	1A	3533	1/1	0.92	0.35	43,43,43,43	0
54	MG	2A	3462	1/1	0.92	0.08	74,74,74,74	0
54	MG	2A	3109	1/1	0.92	0.30	57,57,57,57	0
54	MG	1A	3453	1/1	0.92	0.14	39,39,39,39	0
54	MG	2A	3111	1/1	0.92	0.13	57,57,57,57	0
54	MG	1B	1019	1/1	0.92	0.08	75,75,75,75	0
54	MG	2A	3471	1/1	0.92	0.15	58,58,58,58	0
54	MG	1A	3454	1/1	0.92	0.14	67,67,67,67	0
54	MG	2A	3476	1/1	0.92	0.09	78,78,78,78	0
54	MG	1A	3377	1/1	0.92	0.14	55,55,55,55	0
54	MG	1A	3145	1/1	0.92	0.23	45,45,45,45	0
54	MG	1B	1027	1/1	0.92	0.07	43,43,43,43	0
54	MG	1A	3069	1/1	0.92	0.10	39,39,39,39	0
54	MG	1A	3650	1/1	0.92	0.10	61,61,61,61	0
54	MG	2A	3121	1/1	0.92	0.14	82,82,82,82	0
54	MG	2A	3490	1/1	0.92	0.10	64,64,64,64	0
54	MG	1A	3545	1/1	0.92	0.09	50,50,50,50	0
54	MG	1A	3219	1/1	0.92	0.14	34,34,34,34	0
54	MG	1A	3663	1/1	0.92	0.11	51,51,51,51	0
54	MG	2A	3500	1/1	0.92	0.13	89,89,89,89	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3550	1/1	0.92	0.13	46,46,46,46	0
54	MG	1A	3552	1/1	0.92	0.14	36,36,36,36	0
54	MG	1D	309	1/1	0.92	0.13	71,71,71,71	0
54	MG	2A	3515	1/1	0.92	0.08	45,45,45,45	0
54	MG	2A	3518	1/1	0.92	0.17	65,65,65,65	0
54	MG	1A	3020	1/1	0.92	0.09	50,50,50,50	0
54	MG	2A	3525	1/1	0.92	0.13	61,61,61,61	0
54	MG	1F	302	1/1	0.92	0.08	57,57,57,57	0
54	MG	1A	3811	1/1	0.92	0.12	58,58,58,58	0
54	MG	1a	1651	1/1	0.92	0.14	54,54,54,54	0
54	MG	2a	1665	1/1	0.92	0.17	37,37,37,37	0
54	MG	1A	3812	1/1	0.92	0.09	55,55,55,55	0
54	MG	1A	3813	1/1	0.92	0.11	75,75,75,75	0
54	MG	1A	3554	1/1	0.92	0.09	70,70,70,70	0
54	MG	1F	313	1/1	0.92	0.09	64,64,64,64	0
54	MG	2a	1670	1/1	0.92	0.10	57,57,57,57	0
54	MG	1A	3026	1/1	0.92	0.08	48,48,48,48	0
54	MG	1A	3160	1/1	0.92	0.12	37,37,37,37	0
54	MG	2A	3321	1/1	0.92	0.08	77,77,77,77	0
54	MG	1A	3325	1/1	0.92	0.10	57,57,57,57	0
54	MG	2A	3144	1/1	0.92	0.13	46,46,46,46	0
54	MG	1A	3161	1/1	0.92	0.13	61,61,61,61	0
54	MG	2A	3147	1/1	0.92	0.22	69,69,69,69	0
54	MG	2A	3557	1/1	0.92	0.07	106,106,106,106	0
54	MG	1A	3560	1/1	0.92	0.08	48,48,48,48	0
54	MG	1A	3829	1/1	0.92	0.14	73,73,73,73	0
54	MG	1N	203	1/1	0.92	0.23	88,88,88,88	0
54	MG	1A	3561	1/1	0.92	0.39	70,70,70,70	0
54	MG	2A	3579	1/1	0.92	0.07	52,52,52,52	0
54	MG	2A	3335	1/1	0.92	0.08	61,61,61,61	0
54	MG	2A	3582	1/1	0.92	0.16	91,91,91,91	0
54	MG	2A	3026	1/1	0.92	0.16	42,42,42,42	0
54	MG	2a	1696	1/1	0.92	0.06	82,82,82,82	0
54	MG	2A	3027	1/1	0.92	0.20	47,47,47,47	0
54	MG	1A	3005	1/1	0.92	0.08	56,56,56,56	0
54	MG	2A	3339	1/1	0.92	0.07	68,68,68,68	0
54	MG	2A	3155	1/1	0.92	0.15	59,59,59,59	0
54	MG	2A	3600	1/1	0.92	0.14	66,66,66,66	0
54	MG	2A	3341	1/1	0.92	0.10	83,83,83,83	0
54	MG	1A	3332	1/1	0.92	0.13	36,36,36,36	0
54	MG	1A	3408	1/1	0.92	0.12	19,19,19,19	0
54	MG	1A	3486	1/1	0.92	0.08	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3119	1/1	0.92	0.26	44,44,44,44	0
54	MG	2A	3348	1/1	0.92	0.09	37,37,37,37	0
54	MG	1A	3840	1/1	0.92	0.12	62,62,62,62	0
54	MG	1T	2005	1/1	0.92	0.11	53,53,53,53	0
54	MG	2A	3358	1/1	0.92	0.09	104,104,104,104	0
54	MG	2a	1721	1/1	0.92	0.07	86,86,86,86	0
54	MG	1A	3413	1/1	0.92	0.10	42,42,42,42	0
54	MG	1a	1792	1/1	0.92	0.13	111,111,111,111	0
54	MG	2A	3635	1/1	0.92	0.14	64,64,64,64	0
54	MG	2A	3365	1/1	0.92	0.26	70,70,70,70	0
54	MG	2A	3370	1/1	0.92	0.12	82,82,82,82	0
54	MG	2A	3043	1/1	0.92	0.12	60,60,60,60	0
54	MG	1A	3492	1/1	0.92	0.12	70,70,70,70	0
54	MG	1a	1677	1/1	0.92	0.13	66,66,66,66	0
54	MG	1a	1678	1/1	0.92	0.28	57,57,57,57	0
54	MG	1A	3263	1/1	0.92	0.13	44,44,44,44	0
54	MG	1A	3415	1/1	0.92	0.09	40,40,40,40	0
54	MG	1A	3708	1/1	0.92	0.22	49,49,49,49	0
54	MG	1A	3854	1/1	0.92	0.15	34,34,34,34	0
54	MG	1A	3587	1/1	0.92	0.07	64,64,64,64	0
54	MG	1a	1685	1/1	0.92	0.12	74,74,74,74	0
54	MG	10	103	1/1	0.92	0.10	56,56,56,56	0
54	MG	10	104	1/1	0.92	0.09	54,54,54,54	0
54	MG	1a	1805	1/1	0.92	0.06	53,53,53,53	0
54	MG	1a	1688	1/1	0.92	0.21	36,36,36,36	0
54	MG	1A	3229	1/1	0.92	0.26	38,38,38,38	0
54	MG	1a	1808	1/1	0.92	0.10	63,63,63,63	0
54	MG	1A	3204	1/1	0.92	0.09	76,76,76,76	0
54	MG	1a	1692	1/1	0.92	0.08	78,78,78,78	0
54	MG	1A	3233	1/1	0.92	0.12	66,66,66,66	0
54	MG	2A	3198	1/1	0.92	0.16	72,72,72,72	0
54	MG	1a	1812	1/1	0.92	0.08	90,90,90,90	0
54	MG	1A	3107	1/1	0.92	0.15	47,47,47,47	0
54	MG	1A	3865	1/1	0.92	0.18	58,58,58,58	0
54	MG	1A	3239	1/1	0.92	0.12	50,50,50,50	0
54	MG	1a	1698	1/1	0.92	0.10	48,48,48,48	0
54	MG	1A	3596	1/1	0.92	0.07	64,64,64,64	0
54	MG	2A	3409	1/1	0.92	0.12	45,45,45,45	0
54	MG	1A	3103	1/1	0.93	0.12	25,25,25,25	0
54	MG	1A	3597	1/1	0.93	0.10	57,57,57,57	0
54	MG	1A	3024	1/1	0.93	0.09	71,71,71,71	0
54	MG	2W	202	1/1	0.93	0.10	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3371	1/1	0.93	0.07	52,52,52,52	0
54	MG	1A	3852	1/1	0.93	0.12	85,85,85,85	0
54	MG	1A	3297	1/1	0.93	0.18	51,51,51,51	0
54	MG	2I	102	1/1	0.93	0.10	63,63,63,63	0
54	MG	1A	3140	1/1	0.93	0.17	46,46,46,46	0
54	MG	1A	3450	1/1	0.93	0.10	61,61,61,61	0
54	MG	1A	3300	1/1	0.93	0.20	75,75,75,75	0
54	MG	1A	3859	1/1	0.93	0.18	74,74,74,74	0
54	MG	1W	201	1/1	0.93	0.16	92,92,92,92	0
54	MG	2a	1602	1/1	0.93	0.12	62,62,62,62	0
54	MG	2A	3126	1/1	0.93	0.21	53,53,53,53	0
54	MG	1A	3073	1/1	0.93	0.14	75,75,75,75	0
54	MG	1a	1783	1/1	0.93	0.10	64,64,64,64	0
54	MG	2A	3267	1/1	0.93	0.09	58,58,58,58	0
54	MG	2A	3011	1/1	0.93	0.17	44,44,44,44	0
54	MG	2A	3270	1/1	0.93	0.11	56,56,56,56	0
54	MG	2A	3012	1/1	0.93	0.13	73,73,73,73	0
54	MG	1A	3304	1/1	0.93	0.09	30,30,30,30	0
54	MG	1A	3531	1/1	0.93	0.09	45,45,45,45	0
54	MG	2A	3459	1/1	0.93	0.07	64,64,64,64	0
54	MG	1A	3168	1/1	0.93	0.27	58,58,58,58	0
54	MG	1A	3740	1/1	0.93	0.09	47,47,47,47	0
54	MG	1A	3456	1/1	0.93	0.07	84,84,84,84	0
54	MG	1A	3534	1/1	0.93	0.18	57,57,57,57	0
54	MG	1I	104	1/1	0.93	0.15	61,61,61,61	0
54	MG	2A	3289	1/1	0.93	0.10	49,49,49,49	0
54	MG	1A	3620	1/1	0.93	0.13	47,47,47,47	0
54	MG	2a	1624	1/1	0.93	0.12	55,55,55,55	0
54	MG	2A	3295	1/1	0.93	0.12	84,84,84,84	0
54	MG	2A	3029	1/1	0.93	0.06	48,48,48,48	0
54	MG	2a	1628	1/1	0.93	0.15	94,94,94,94	0
54	MG	2A	3030	1/1	0.93	0.20	64,64,64,64	0
54	MG	1A	3067	1/1	0.93	0.19	46,46,46,46	0
54	MG	1A	3463	1/1	0.93	0.12	54,54,54,54	0
54	MG	1A	3094	1/1	0.93	0.10	58,58,58,58	0
54	MG	1A	3889	1/1	0.93	0.09	50,50,50,50	0
54	MG	2A	3484	1/1	0.93	0.07	64,64,64,64	0
54	MG	1A	3316	1/1	0.93	0.08	99,99,99,99	0
54	MG	2A	3488	1/1	0.93	0.16	97,97,97,97	0
54	MG	2A	3039	1/1	0.93	0.26	48,48,48,48	0
54	MG	1A	3891	1/1	0.93	0.17	48,48,48,48	0
54	MG	2A	3308	1/1	0.93	0.25	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3218	1/1	0.93	0.11	50,50,50,50	0
54	MG	1A	3896	1/1	0.93	0.24	51,51,51,51	0
54	MG	2A	3311	1/1	0.93	0.14	66,66,66,66	0
54	MG	1A	3636	1/1	0.93	0.06	81,81,81,81	0
54	MG	1A	3900	1/1	0.93	0.14	54,54,54,54	0
54	MG	1A	3097	1/1	0.93	0.19	38,38,38,38	0
54	MG	1A	3111	1/1	0.93	0.07	69,69,69,69	0
54	MG	2A	3159	1/1	0.93	0.10	50,50,50,50	0
54	MG	1A	3175	1/1	0.93	0.17	51,51,51,51	0
54	MG	1a	1612	1/1	0.93	0.05	32,32,32,32	0
54	MG	1A	3773	1/1	0.93	0.11	79,79,79,79	0
54	MG	1A	3775	1/1	0.93	0.08	72,72,72,72	0
54	MG	1A	3776	1/1	0.93	0.07	40,40,40,40	0
54	MG	2A	3168	1/1	0.93	0.09	51,51,51,51	0
54	MG	2A	3536	1/1	0.93	0.12	71,71,71,71	0
54	MG	1A	3177	1/1	0.93	0.16	49,49,49,49	0
54	MG	1A	3654	1/1	0.93	0.07	59,59,59,59	0
54	MG	1a	1816	1/1	0.93	0.06	79,79,79,79	0
54	MG	2a	1661	1/1	0.93	0.10	84,84,84,84	0
54	MG	1a	1817	1/1	0.93	0.10	57,57,57,57	0
54	MG	2A	3059	1/1	0.93	0.08	54,54,54,54	0
54	MG	2A	3175	1/1	0.93	0.10	63,63,63,63	0
54	MG	1A	3785	1/1	0.93	0.13	63,63,63,63	0
54	MG	2A	3545	1/1	0.93	0.06	110,110,110,110	0
54	MG	2A	3177	1/1	0.93	0.23	60,60,60,60	0
54	MG	2A	3549	1/1	0.93	0.17	60,60,60,60	0
54	MG	2A	3550	1/1	0.93	0.13	105,105,105,105	0
54	MG	1a	1621	1/1	0.93	0.08	59,59,59,59	0
54	MG	1A	3794	1/1	0.93	0.19	67,67,67,67	0
54	MG	2A	3561	1/1	0.93	0.08	97,97,97,97	0
54	MG	1A	3400	1/1	0.93	0.09	50,50,50,50	0
54	MG	1A	3080	1/1	0.93	0.21	59,59,59,59	0
54	MG	1A	3407	1/1	0.93	0.13	41,41,41,41	0
54	MG	1a	1825	1/1	0.93	0.16	61,61,61,61	0
54	MG	2A	3069	1/1	0.93	0.08	60,60,60,60	0
54	MG	1A	3482	1/1	0.93	0.07	52,52,52,52	0
54	MG	2A	3581	1/1	0.93	0.12	77,77,77,77	0
54	MG	2A	3362	1/1	0.93	0.20	75,75,75,75	0
54	MG	1A	3099	1/1	0.93	0.22	51,51,51,51	0
54	MG	2a	1689	1/1	0.93	0.16	102,102,102,102	0
54	MG	2A	3587	1/1	0.93	0.09	83,83,83,83	0
54	MG	1A	3158	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
54	MG	2A	3591	1/1	0.93	0.05	85,85,85,85	0
54	MG	2A	3369	1/1	0.93	0.08	53,53,53,53	0
54	MG	2A	3190	1/1	0.93	0.12	76,76,76,76	0
54	MG	2A	3371	1/1	0.93	0.11	48,48,48,48	0
54	MG	2A	3191	1/1	0.93	0.09	40,40,40,40	0
54	MG	1A	3674	1/1	0.93	0.07	57,57,57,57	0
54	MG	1A	3675	1/1	0.93	0.08	53,53,53,53	0
54	MG	1A	3228	1/1	0.93	0.07	62,62,62,62	0
54	MG	2A	3376	1/1	0.93	0.07	64,64,64,64	0
54	MG	1A	3266	1/1	0.93	0.10	46,46,46,46	0
54	MG	2A	3612	1/1	0.93	0.18	72,72,72,72	0
54	MG	2A	3079	1/1	0.93	0.10	67,67,67,67	0
54	MG	1D	305	1/1	0.93	0.11	55,55,55,55	0
54	MG	2A	3617	1/1	0.93	0.11	66,66,66,66	0
54	MG	1A	3678	1/1	0.93	0.11	115,115,115,115	0
54	MG	2a	1711	1/1	0.93	0.07	80,80,80,80	0
54	MG	2A	3621	1/1	0.93	0.09	73,73,73,73	0
54	MG	1a	1841	1/1	0.93	0.23	72,72,72,72	0
54	MG	2a	1719	1/1	0.93	0.06	110,110,110,110	0
54	MG	2A	3626	1/1	0.93	0.13	44,44,44,44	0
54	MG	1A	3344	1/1	0.93	0.07	45,45,45,45	0
54	MG	2A	3084	1/1	0.93	0.10	71,71,71,71	0
54	MG	1a	1637	1/1	0.93	0.37	79,79,79,79	0
54	MG	1A	3048	1/1	0.93	0.23	60,60,60,60	0
54	MG	2A	3390	1/1	0.93	0.10	71,71,71,71	0
54	MG	1A	3420	1/1	0.93	0.07	35,35,35,35	0
54	MG	1E	304	1/1	0.93	0.25	80,80,80,80	0
54	MG	1A	3688	1/1	0.93	0.07	47,47,47,47	0
54	MG	1a	1642	1/1	0.93	0.15	84,84,84,84	0
54	MG	1A	3422	1/1	0.93	0.09	45,45,45,45	0
54	MG	1a	1644	1/1	0.93	0.16	55,55,55,55	0
54	MG	2A	3216	1/1	0.93	0.09	42,42,42,42	0
54	MG	2A	3400	1/1	0.93	0.10	55,55,55,55	0
54	MG	1A	3573	1/1	0.93	0.10	30,30,30,30	0
54	MG	1A	3498	1/1	0.93	0.07	55,55,55,55	0
54	MG	1A	3499	1/1	0.93	0.15	53,53,53,53	0
54	MG	1A	3134	1/1	0.93	0.07	38,38,38,38	0
54	MG	2a	1752	1/1	0.93	0.06	103,103,103,103	0
54	MG	1A	3116	1/1	0.93	0.08	28,28,28,28	0
54	MG	1A	3504	1/1	0.93	0.10	25,25,25,25	0
54	MG	2A	3223	1/1	0.93	0.09	48,48,48,48	0
54	MG	1A	3276	1/1	0.93	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
54	MG	2A	3227	1/1	0.93	0.12	72,72,72,72	0
54	MG	1A	3205	1/1	0.93	0.12	58,58,58,58	0
54	MG	2a	1763	1/1	0.93	0.09	96,96,96,96	0
54	MG	1A	3278	1/1	0.93	0.07	45,45,45,45	0
54	MG	1a	1758	1/1	0.93	0.05	48,48,48,48	0
54	MG	2A	3232	1/1	0.93	0.16	69,69,69,69	0
54	MG	1A	3508	1/1	0.93	0.11	51,51,51,51	0
54	MG	1A	3434	1/1	0.93	0.07	67,67,67,67	0
54	MG	1A	3843	1/1	0.93	0.13	54,54,54,54	0
54	MG	2A	3237	1/1	0.93	0.21	71,71,71,71	0
54	MG	2A	3426	1/1	0.93	0.09	55,55,55,55	0
54	MG	1P	204	1/1	0.93	0.08	50,50,50,50	0
54	MG	1A	3280	1/1	0.93	0.13	46,46,46,46	0
54	MG	1A	3193	1/1	0.94	0.23	61,61,61,61	0
54	MG	1A	3093	1/1	0.94	0.14	43,43,43,43	0
54	MG	1A	3541	1/1	0.94	0.11	66,66,66,66	0
54	MG	2T	204	1/1	0.94	0.07	71,71,71,71	0
54	MG	1X	101	1/1	0.94	0.09	66,66,66,66	0
54	MG	1A	3036	1/1	0.94	0.19	56,56,56,56	0
54	MG	2A	3278	1/1	0.94	0.12	65,65,65,65	0
54	MG	1A	3631	1/1	0.94	0.10	47,47,47,47	0
54	MG	1A	3201	1/1	0.94	0.21	49,49,49,49	0
54	MG	1A	3231	1/1	0.94	0.12	55,55,55,55	0
54	MG	2A	3453	1/1	0.94	0.08	43,43,43,43	0
54	MG	1A	3082	1/1	0.94	0.25	47,47,47,47	0
54	MG	2A	3286	1/1	0.94	0.08	53,53,53,53	0
54	MG	1l	101	1/1	0.94	0.20	66,66,66,66	0
54	MG	2A	3146	1/1	0.94	0.07	70,70,70,70	0
54	MG	2A	3458	1/1	0.94	0.10	59,59,59,59	0
54	MG	2A	3291	1/1	0.94	0.15	64,64,64,64	0
54	MG	1A	3549	1/1	0.94	0.11	59,59,59,59	0
54	MG	1A	3762	1/1	0.94	0.14	49,49,49,49	0
54	MG	2A	3033	1/1	0.94	0.15	76,76,76,76	0
54	MG	1A	3146	1/1	0.94	0.12	46,46,46,46	0
54	MG	15	101	1/1	0.94	0.13	44,44,44,44	0
54	MG	2A	3037	1/1	0.94	0.12	52,52,52,52	0
54	MG	1A	3646	1/1	0.94	0.07	71,71,71,71	0
54	MG	2a	1611	1/1	0.94	0.09	76,76,76,76	0
54	MG	1A	3410	1/1	0.94	0.11	20,20,20,20	0
54	MG	1A	3236	1/1	0.94	0.15	52,52,52,52	0
54	MG	19	101	1/1	0.94	0.13	42,42,42,42	0
54	MG	1a	1689	1/1	0.94	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
54	MG	2A	3158	1/1	0.94	0.08	68,68,68,68	0
54	MG	1A	3483	1/1	0.94	0.11	39,39,39,39	0
54	MG	1A	3237	1/1	0.94	0.06	61,61,61,61	0
54	MG	1A	3780	1/1	0.94	0.10	57,57,57,57	0
54	MG	1A	3781	1/1	0.94	0.11	55,55,55,55	0
54	MG	2A	3487	1/1	0.94	0.07	75,75,75,75	0
54	MG	1A	3782	1/1	0.94	0.08	35,35,35,35	0
54	MG	2A	3319	1/1	0.94	0.13	60,60,60,60	0
54	MG	2A	3320	1/1	0.94	0.07	72,72,72,72	0
54	MG	2A	3492	1/1	0.94	0.09	51,51,51,51	0
54	MG	2a	1630	1/1	0.94	0.21	55,55,55,55	0
54	MG	1A	3485	1/1	0.94	0.07	54,54,54,54	0
54	MG	1A	3279	1/1	0.94	0.10	67,67,67,67	0
54	MG	2A	3324	1/1	0.94	0.07	46,46,46,46	0
54	MG	1a	1697	1/1	0.94	0.20	63,63,63,63	0
54	MG	1A	3790	1/1	0.94	0.13	34,34,34,34	0
54	MG	1A	3021	1/1	0.94	0.06	60,60,60,60	0
54	MG	2A	3054	1/1	0.94	0.14	38,38,38,38	0
54	MG	1a	1611	1/1	0.94	0.07	90,90,90,90	0
54	MG	2A	3520	1/1	0.94	0.17	91,91,91,91	0
54	MG	2A	3521	1/1	0.94	0.07	88,88,88,88	0
54	MG	1A	3667	1/1	0.94	0.07	32,32,32,32	0
54	MG	2A	3524	1/1	0.94	0.12	47,47,47,47	0
54	MG	1a	1704	1/1	0.94	0.07	45,45,45,45	0
54	MG	1B	1012	1/1	0.94	0.06	79,79,79,79	0
54	MG	1A	3669	1/1	0.94	0.13	34,34,34,34	0
54	MG	1A	3416	1/1	0.94	0.14	41,41,41,41	0
54	MG	1A	3352	1/1	0.94	0.12	62,62,62,62	0
54	MG	1A	3353	1/1	0.94	0.09	38,38,38,38	0
54	MG	2A	3534	1/1	0.94	0.10	68,68,68,68	0
54	MG	2a	1651	1/1	0.94	0.15	68,68,68,68	0
54	MG	1A	3034	1/1	0.94	0.14	60,60,60,60	0
54	MG	2A	3066	1/1	0.94	0.07	50,50,50,50	0
54	MG	1A	3565	1/1	0.94	0.21	69,69,69,69	0
54	MG	1A	3287	1/1	0.94	0.10	47,47,47,47	0
54	MG	1A	3680	1/1	0.94	0.12	64,64,64,64	0
54	MG	2A	3070	1/1	0.94	0.20	59,59,59,59	0
54	MG	2A	3347	1/1	0.94	0.07	45,45,45,45	0
54	MG	1A	3171	1/1	0.94	0.11	56,56,56,56	0
54	MG	1A	3360	1/1	0.94	0.09	30,30,30,30	0
54	MG	2A	3353	1/1	0.94	0.12	42,42,42,42	0
54	MG	2A	3192	1/1	0.94	0.07	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1a	1829	1/1	0.94	0.08	76,76,76,76	0
54	MG	1A	3362	1/1	0.94	0.08	48,48,48,48	0
54	MG	2A	3195	1/1	0.94	0.21	66,66,66,66	0
54	MG	1a	1721	1/1	0.94	0.08	53,53,53,53	0
54	MG	2A	3562	1/1	0.94	0.09	64,64,64,64	0
54	MG	2A	3364	1/1	0.94	0.07	55,55,55,55	0
54	MG	1a	1627	1/1	0.94	0.05	72,72,72,72	0
54	MG	2A	3567	1/1	0.94	0.06	63,63,63,63	0
54	MG	2A	3572	1/1	0.94	0.08	57,57,57,57	0
54	MG	2A	3367	1/1	0.94	0.09	93,93,93,93	0
54	MG	2A	3368	1/1	0.94	0.12	57,57,57,57	0
54	MG	2A	3577	1/1	0.94	0.08	54,54,54,54	0
54	MG	1A	3135	1/1	0.94	0.08	72,72,72,72	0
54	MG	1A	3298	1/1	0.94	0.06	55,55,55,55	0
54	MG	2a	1678	1/1	0.94	0.16	53,53,53,53	0
54	MG	2a	1679	1/1	0.94	0.07	68,68,68,68	0
54	MG	1A	3816	1/1	0.94	0.14	34,34,34,34	0
54	MG	1A	3157	1/1	0.94	0.11	42,42,42,42	0
54	MG	1a	1842	1/1	0.94	0.08	73,73,73,73	0
54	MG	2A	3205	1/1	0.94	0.13	53,53,53,53	0
54	MG	1A	3245	1/1	0.94	0.07	56,56,56,56	0
54	MG	1A	3174	1/1	0.94	0.13	53,53,53,53	0
54	MG	2A	3592	1/1	0.94	0.08	63,63,63,63	0
54	MG	1E	303	1/1	0.94	0.13	31,31,31,31	0
54	MG	2A	3595	1/1	0.94	0.08	68,68,68,68	0
54	MG	1A	3442	1/1	0.94	0.08	35,35,35,35	0
54	MG	1A	3827	1/1	0.94	0.05	57,57,57,57	0
54	MG	1A	3444	1/1	0.94	0.06	34,34,34,34	0
54	MG	1A	3120	1/1	0.94	0.25	39,39,39,39	0
54	MG	1F	306	1/1	0.94	0.16	41,41,41,41	0
54	MG	1A	3121	1/1	0.94	0.25	43,43,43,43	0
54	MG	1A	3832	1/1	0.94	0.19	60,60,60,60	0
54	MG	1a	1744	1/1	0.94	0.12	63,63,63,63	0
54	MG	2A	3611	1/1	0.94	0.10	63,63,63,63	0
54	MG	1A	3514	1/1	0.94	0.18	58,58,58,58	0
54	MG	1A	3515	1/1	0.94	0.07	57,57,57,57	0
54	MG	1A	3012	1/1	0.94	0.12	58,58,58,58	0
54	MG	1d	506	1/1	0.94	0.08	98,98,98,98	0
54	MG	1A	3598	1/1	0.94	0.06	82,82,82,82	0
54	MG	1A	3184	1/1	0.94	0.22	65,65,65,65	0
54	MG	2A	3224	1/1	0.94	0.11	51,51,51,51	0
54	MG	2A	3623	1/1	0.94	0.18	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3381	1/1	0.94	0.09	58,58,58,58	0
54	MG	2A	3399	1/1	0.94	0.08	68,68,68,68	0
54	MG	2A	3629	1/1	0.94	0.07	67,67,67,67	0
54	MG	1N	201	1/1	0.94	0.17	49,49,49,49	0
54	MG	1A	3312	1/1	0.94	0.10	62,62,62,62	0
54	MG	1A	3313	1/1	0.94	0.10	31,31,31,31	0
54	MG	1a	1755	1/1	0.94	0.15	57,57,57,57	0
54	MG	1A	3526	1/1	0.94	0.14	83,83,83,83	0
54	MG	2a	1734	1/1	0.94	0.09	62,62,62,62	0
54	MG	2a	1735	1/1	0.94	0.11	76,76,76,76	0
54	MG	1a	1757	1/1	0.94	0.08	62,62,62,62	0
54	MG	1l	201	1/1	0.94	0.12	65,65,65,65	0
54	MG	1A	3723	1/1	0.94	0.11	59,59,59,59	0
54	MG	1A	3102	1/1	0.94	0.11	42,42,42,42	0
54	MG	2A	3411	1/1	0.94	0.06	78,78,78,78	0
54	MG	2a	1742	1/1	0.94	0.07	96,96,96,96	0
54	MG	2A	3240	1/1	0.94	0.09	39,39,39,39	0
54	MG	1a	1655	1/1	0.94	0.15	61,61,61,61	0
54	MG	1A	3609	1/1	0.94	0.15	52,52,52,52	0
54	MG	1R	201	1/1	0.94	0.17	46,46,46,46	0
54	MG	1y	201	1/1	0.94	0.06	91,91,91,91	0
54	MG	1a	1658	1/1	0.94	0.10	55,55,55,55	0
54	MG	1y	203	1/1	0.94	0.10	57,57,57,57	0
54	MG	2A	3423	1/1	0.94	0.10	94,94,94,94	0
54	MG	1A	3611	1/1	0.94	0.14	59,59,59,59	0
54	MG	1A	3385	1/1	0.94	0.08	70,70,70,70	0
54	MG	1A	3457	1/1	0.94	0.07	46,46,46,46	0
54	MG	2D	301	1/1	0.94	0.17	63,63,63,63	0
54	MG	2D	302	1/1	0.94	0.13	56,56,56,56	0
54	MG	2A	3428	1/1	0.94	0.07	61,61,61,61	0
54	MG	2E	302	1/1	0.94	0.17	66,66,66,66	0
54	MG	1A	3187	1/1	0.94	0.04	51,51,51,51	0
54	MG	1A	3189	1/1	0.94	0.12	43,43,43,43	0
54	MG	2A	3128	1/1	0.94	0.27	58,58,58,58	0
54	MG	2A	3262	1/1	0.94	0.04	46,46,46,46	0
54	MG	1A	3064	1/1	0.94	0.14	43,43,43,43	0
54	MG	2l	201	1/1	0.94	0.07	89,89,89,89	0
54	MG	1A	3860	1/1	0.94	0.16	65,65,65,65	0
54	MG	1a	1773	1/1	0.94	0.12	77,77,77,77	0
54	MG	1A	3393	1/1	0.94	0.08	60,60,60,60	0
54	MG	1A	3469	1/1	0.94	0.08	73,73,73,73	0
54	MG	1a	1674	1/1	0.95	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
54	MG	1U	203	1/1	0.95	0.24	58,58,58,58	0
54	MG	1A	3753	1/1	0.95	0.07	43,43,43,43	0
54	MG	2A	3167	1/1	0.95	0.21	56,56,56,56	0
54	MG	1A	3226	1/1	0.95	0.06	53,53,53,53	0
54	MG	1A	3315	1/1	0.95	0.09	48,48,48,48	0
54	MG	1A	3081	1/1	0.95	0.06	61,61,61,61	0
54	MG	2A	3485	1/1	0.95	0.11	66,66,66,66	0
54	MG	1W	203	1/1	0.95	0.13	45,45,45,45	0
54	MG	1A	3875	1/1	0.95	0.11	78,78,78,78	0
54	MG	2A	3325	1/1	0.95	0.08	96,96,96,96	0
54	MG	2A	3489	1/1	0.95	0.08	74,74,74,74	0
54	MG	1a	1682	1/1	0.95	0.06	69,69,69,69	0
54	MG	1A	3761	1/1	0.95	0.10	38,38,38,38	0
54	MG	1Z	301	1/1	0.95	0.04	51,51,51,51	0
54	MG	1A	3446	1/1	0.95	0.08	60,60,60,60	0
54	MG	1A	3566	1/1	0.95	0.12	69,69,69,69	0
54	MG	1A	3883	1/1	0.95	0.21	51,51,51,51	0
54	MG	1A	3885	1/1	0.95	0.10	53,53,53,53	0
54	MG	2a	1613	1/1	0.95	0.14	71,71,71,71	0
54	MG	2A	3502	1/1	0.95	0.09	57,57,57,57	0
54	MG	2A	3504	1/1	0.95	0.08	71,71,71,71	0
54	MG	1A	3886	1/1	0.95	0.17	46,46,46,46	0
54	MG	1A	3569	1/1	0.95	0.07	46,46,46,46	0
54	MG	2A	3511	1/1	0.95	0.07	89,89,89,89	0
54	MG	2A	3512	1/1	0.95	0.06	67,67,67,67	0
54	MG	11	103	1/1	0.95	0.22	48,48,48,48	0
54	MG	2A	3516	1/1	0.95	0.15	85,85,85,85	0
54	MG	2A	3185	1/1	0.95	0.14	39,39,39,39	0
54	MG	2A	3062	1/1	0.95	0.10	51,51,51,51	0
54	MG	2a	1626	1/1	0.95	0.18	57,57,57,57	0
54	MG	1A	3141	1/1	0.95	0.33	45,45,45,45	0
54	MG	1A	3031	1/1	0.95	0.04	31,31,31,31	0
54	MG	1A	3050	1/1	0.95	0.18	22,22,22,22	0
54	MG	1A	3032	1/1	0.95	0.06	45,45,45,45	0
54	MG	2a	1631	1/1	0.95	0.14	60,60,60,60	0
54	MG	2A	3344	1/1	0.95	0.07	55,55,55,55	0
54	MG	1A	3893	1/1	0.95	0.15	44,44,44,44	0
54	MG	1A	3203	1/1	0.95	0.11	60,60,60,60	0
54	MG	17	101	1/1	0.95	0.19	44,44,44,44	0
54	MG	1A	3016	1/1	0.95	0.06	33,33,33,33	0
54	MG	1A	3040	1/1	0.95	0.19	32,32,32,32	0
54	MG	1A	3007	1/1	0.95	0.11	35,35,35,35	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3354	1/1	0.95	0.14	92,92,92,92	0
54	MG	1a	1703	1/1	0.95	0.07	54,54,54,54	0
54	MG	1A	3238	1/1	0.95	0.09	31,31,31,31	0
54	MG	1A	3459	1/1	0.95	0.16	58,58,58,58	0
54	MG	2A	3360	1/1	0.95	0.09	47,47,47,47	0
54	MG	2A	3201	1/1	0.95	0.12	51,51,51,51	0
54	MG	1A	3523	1/1	0.95	0.09	67,67,67,67	0
54	MG	1B	1005	1/1	0.95	0.06	71,71,71,71	0
54	MG	1A	3334	1/1	0.95	0.11	40,40,40,40	0
54	MG	2A	3548	1/1	0.95	0.08	62,62,62,62	0
54	MG	2A	3366	1/1	0.95	0.20	47,47,47,47	0
54	MG	1B	1007	1/1	0.95	0.25	67,67,67,67	0
54	MG	1A	3797	1/1	0.95	0.08	82,82,82,82	0
54	MG	1A	3055	1/1	0.95	0.07	40,40,40,40	0
54	MG	1a	1610	1/1	0.95	0.07	85,85,85,85	0
54	MG	1A	3685	1/1	0.95	0.08	51,51,51,51	0
54	MG	1A	3802	1/1	0.95	0.16	75,75,75,75	0
54	MG	1A	3095	1/1	0.95	0.21	41,41,41,41	0
54	MG	1B	1015	1/1	0.95	0.12	79,79,79,79	0
54	MG	2A	3570	1/1	0.95	0.19	69,69,69,69	0
54	MG	1a	1615	1/1	0.95	0.14	39,39,39,39	0
54	MG	1A	3405	1/1	0.95	0.16	54,54,54,54	0
54	MG	1A	3406	1/1	0.95	0.06	67,67,67,67	0
54	MG	1A	3691	1/1	0.95	0.16	61,61,61,61	0
54	MG	1A	3529	1/1	0.95	0.12	52,52,52,52	0
54	MG	1A	3282	1/1	0.95	0.07	64,64,64,64	0
54	MG	1a	1731	1/1	0.95	0.07	73,73,73,73	0
54	MG	1B	1023	1/1	0.95	0.09	66,66,66,66	0
54	MG	1A	3153	1/1	0.95	0.07	56,56,56,56	0
54	MG	1A	3284	1/1	0.95	0.09	60,60,60,60	0
54	MG	2A	3588	1/1	0.95	0.06	93,93,93,93	0
54	MG	1A	3156	1/1	0.95	0.11	39,39,39,39	0
54	MG	1A	3289	1/1	0.95	0.07	47,47,47,47	0
54	MG	2A	3226	1/1	0.95	0.15	52,52,52,52	0
54	MG	1A	3606	1/1	0.95	0.06	55,55,55,55	0
54	MG	1A	3176	1/1	0.95	0.10	42,42,42,42	0
54	MG	1D	302	1/1	0.95	0.16	55,55,55,55	0
54	MG	1A	3074	1/1	0.95	0.13	47,47,47,47	0
54	MG	1A	3819	1/1	0.95	0.08	71,71,71,71	0
54	MG	2A	3233	1/1	0.95	0.07	57,57,57,57	0
54	MG	2A	3602	1/1	0.95	0.09	99,99,99,99	0
54	MG	2A	3603	1/1	0.95	0.07	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2a	1682	1/1	0.95	0.15	71,71,71,71	0
54	MG	1A	3538	1/1	0.95	0.08	37,37,37,37	0
54	MG	1A	3357	1/1	0.95	0.09	26,26,26,26	0
54	MG	2A	3607	1/1	0.95	0.10	52,52,52,52	0
54	MG	2a	1688	1/1	0.95	0.08	64,64,64,64	0
54	MG	1A	3246	1/1	0.95	0.08	41,41,41,41	0
54	MG	2A	3112	1/1	0.95	0.06	54,54,54,54	0
54	MG	1A	3826	1/1	0.95	0.06	90,90,90,90	0
54	MG	1E	301	1/1	0.95	0.07	25,25,25,25	0
54	MG	1h	201	1/1	0.95	0.17	64,64,64,64	0
54	MG	1A	3713	1/1	0.95	0.15	60,60,60,60	0
54	MG	2A	3408	1/1	0.95	0.14	81,81,81,81	0
54	MG	1A	3075	1/1	0.95	0.17	48,48,48,48	0
54	MG	2A	3247	1/1	0.95	0.13	64,64,64,64	0
54	MG	1E	305	1/1	0.95	0.15	59,59,59,59	0
54	MG	1A	3361	1/1	0.95	0.09	49,49,49,49	0
54	MG	2a	1703	1/1	0.95	0.17	81,81,81,81	0
54	MG	2A	3624	1/1	0.95	0.13	39,39,39,39	0
54	MG	1A	3830	1/1	0.95	0.07	59,59,59,59	0
54	MG	2A	3253	1/1	0.95	0.08	51,51,51,51	0
54	MG	2A	3254	1/1	0.95	0.10	69,69,69,69	0
54	MG	2A	3255	1/1	0.95	0.07	50,50,50,50	0
54	MG	2A	3633	1/1	0.95	0.19	46,46,46,46	0
54	MG	1A	3716	1/1	0.95	0.06	50,50,50,50	0
54	MG	1A	3182	1/1	0.95	0.20	44,44,44,44	0
54	MG	1F	307	1/1	0.95	0.09	38,38,38,38	0
54	MG	2a	1717	1/1	0.95	0.07	83,83,83,83	0
54	MG	2A	3639	1/1	0.95	0.10	67,67,67,67	0
54	MG	1A	3547	1/1	0.95	0.11	60,60,60,60	0
54	MG	1A	3159	1/1	0.95	0.22	46,46,46,46	0
54	MG	1a	1647	1/1	0.95	0.24	62,62,62,62	0
54	MG	2a	1724	1/1	0.95	0.06	108,108,108,108	0
54	MG	1A	3429	1/1	0.95	0.12	41,41,41,41	0
54	MG	1A	3726	1/1	0.95	0.17	52,52,52,52	0
54	MG	1A	3303	1/1	0.95	0.07	60,60,60,60	0
54	MG	1A	3623	1/1	0.95	0.08	65,65,65,65	0
54	MG	1A	3009	1/1	0.95	0.23	59,59,59,59	0
54	MG	1a	1766	1/1	0.95	0.06	83,83,83,83	0
54	MG	1A	3844	1/1	0.95	0.12	63,63,63,63	0
54	MG	1A	3626	1/1	0.95	0.10	58,58,58,58	0
54	MG	2A	3013	1/1	0.95	0.13	59,59,59,59	0
54	MG	2A	3274	1/1	0.95	0.08	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2B	212	1/1	0.95	0.10	111,111,111,111	0
54	MG	1A	3305	1/1	0.95	0.09	23,23,23,23	0
54	MG	1A	3630	1/1	0.95	0.05	50,50,50,50	0
54	MG	2a	1744	1/1	0.95	0.05	73,73,73,73	0
54	MG	2A	3020	1/1	0.95	0.05	60,60,60,60	0
54	MG	2B	216	1/1	0.95	0.05	106,106,106,106	0
54	MG	1A	3849	1/1	0.95	0.08	78,78,78,78	0
54	MG	1P	203	1/1	0.95	0.07	52,52,52,52	0
54	MG	1A	3734	1/1	0.95	0.06	82,82,82,82	0
54	MG	2A	3024	1/1	0.95	0.11	68,68,68,68	0
54	MG	1A	3494	1/1	0.95	0.05	53,53,53,53	0
54	MG	2A	3288	1/1	0.95	0.07	39,39,39,39	0
54	MG	1A	3737	1/1	0.95	0.08	74,74,74,74	0
54	MG	1Q	203	1/1	0.95	0.08	51,51,51,51	0
54	MG	1A	3186	1/1	0.95	0.36	60,60,60,60	0
54	MG	1A	3635	1/1	0.95	0.11	62,62,62,62	0
54	MG	1A	3079	1/1	0.95	0.07	38,38,38,38	0
54	MG	1A	3637	1/1	0.95	0.11	86,86,86,86	0
54	MG	1a	1787	1/1	0.95	0.08	74,74,74,74	0
54	MG	1R	207	1/1	0.95	0.09	35,35,35,35	0
54	MG	1A	3257	1/1	0.95	0.06	47,47,47,47	0
54	MG	1A	3440	1/1	0.95	0.11	59,59,59,59	0
54	MG	1a	1791	1/1	0.95	0.10	70,70,70,70	0
54	MG	2T	203	1/1	0.95	0.11	73,73,73,73	0
53	MPD	18	101	8/8	0.95	0.17	47,49,54,59	0
54	MG	2A	3160	1/1	0.95	0.14	37,37,37,37	0
54	MG	2W	201	1/1	0.95	0.18	65,65,65,65	0
54	MG	1U	201	1/1	0.95	0.05	29,29,29,29	0
54	MG	1A	3643	1/1	0.95	0.08	65,65,65,65	0
56	ZN	24	101	1/1	0.95	0.05	154,154,154,154	0
54	MG	2P	202	1/1	0.96	0.06	90,90,90,90	0
54	MG	1A	3059	1/1	0.96	0.04	24,24,24,24	0
54	MG	1A	3580	1/1	0.96	0.06	48,48,48,48	0
54	MG	1A	3271	1/1	0.96	0.07	39,39,39,39	0
54	MG	1A	3214	1/1	0.96	0.14	40,40,40,40	0
54	MG	1A	3376	1/1	0.96	0.11	30,30,30,30	0
54	MG	2A	3294	1/1	0.96	0.14	60,60,60,60	0
54	MG	2A	3142	1/1	0.96	0.17	28,28,28,28	0
54	MG	1A	3681	1/1	0.96	0.06	99,99,99,99	0
54	MG	1a	1753	1/1	0.96	0.20	84,84,84,84	0
54	MG	1A	3586	1/1	0.96	0.10	81,81,81,81	0
54	MG	2A	3474	1/1	0.96	0.06	84,84,84,84	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3475	1/1	0.96	0.05	88,88,88,88	0
54	MG	1A	3320	1/1	0.96	0.06	52,52,52,52	0
54	MG	1D	306	1/1	0.96	0.08	53,53,53,53	0
54	MG	1A	3100	1/1	0.96	0.17	49,49,49,49	0
54	MG	2A	3479	1/1	0.96	0.10	52,52,52,52	0
54	MG	2A	3480	1/1	0.96	0.08	61,61,61,61	0
54	MG	2A	3303	1/1	0.96	0.12	75,75,75,75	0
54	MG	1A	3110	1/1	0.96	0.05	64,64,64,64	0
54	MG	1A	3155	1/1	0.96	0.17	53,53,53,53	0
54	MG	1D	311	1/1	0.96	0.08	47,47,47,47	0
54	MG	1A	3689	1/1	0.96	0.08	99,99,99,99	0
54	MG	1A	3091	1/1	0.96	0.11	57,57,57,57	0
54	MG	1A	3326	1/1	0.96	0.09	44,44,44,44	0
54	MG	2A	3019	1/1	0.96	0.15	80,80,80,80	0
54	MG	1A	3521	1/1	0.96	0.08	60,60,60,60	0
54	MG	1A	3695	1/1	0.96	0.06	57,57,57,57	0
54	MG	2A	3318	1/1	0.96	0.06	38,38,38,38	0
54	MG	1F	301	1/1	0.96	0.08	43,43,43,43	0
54	MG	1A	3696	1/1	0.96	0.05	30,30,30,30	0
54	MG	1A	3192	1/1	0.96	0.15	65,65,65,65	0
54	MG	1A	3699	1/1	0.96	0.08	39,39,39,39	0
54	MG	2A	3323	1/1	0.96	0.06	65,65,65,65	0
54	MG	1A	3061	1/1	0.96	0.11	48,48,48,48	0
54	MG	2A	3503	1/1	0.96	0.06	69,69,69,69	0
54	MG	1A	3390	1/1	0.96	0.09	65,65,65,65	0
54	MG	2A	3505	1/1	0.96	0.06	73,73,73,73	0
54	MG	1A	3247	1/1	0.96	0.13	27,27,27,27	0
54	MG	2A	3507	1/1	0.96	0.07	50,50,50,50	0
54	MG	2a	1623	1/1	0.96	0.03	60,60,60,60	0
54	MG	1A	3248	1/1	0.96	0.09	42,42,42,42	0
54	MG	2A	3509	1/1	0.96	0.07	65,65,65,65	0
54	MG	1a	1775	1/1	0.96	0.05	98,98,98,98	0
54	MG	1a	1776	1/1	0.96	0.06	91,91,91,91	0
54	MG	1a	1777	1/1	0.96	0.07	99,99,99,99	0
54	MG	1A	3336	1/1	0.96	0.09	44,44,44,44	0
54	MG	2A	3517	1/1	0.96	0.07	57,57,57,57	0
54	MG	2A	3035	1/1	0.96	0.11	68,68,68,68	0
54	MG	2A	3519	1/1	0.96	0.07	64,64,64,64	0
54	MG	1A	3340	1/1	0.96	0.07	31,31,31,31	0
54	MG	1A	3397	1/1	0.96	0.12	67,67,67,67	0
54	MG	1a	1781	1/1	0.96	0.06	83,83,83,83	0
54	MG	1A	3285	1/1	0.96	0.11	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3399	1/1	0.96	0.07	78,78,78,78	0
54	MG	1H	201	1/1	0.96	0.10	64,64,64,64	0
54	MG	1A	3466	1/1	0.96	0.15	95,95,95,95	0
54	MG	2A	3530	1/1	0.96	0.10	62,62,62,62	0
54	MG	1A	3710	1/1	0.96	0.06	61,61,61,61	0
54	MG	1A	3712	1/1	0.96	0.05	46,46,46,46	0
54	MG	1A	3014	1/1	0.96	0.07	31,31,31,31	0
54	MG	1a	1663	1/1	0.96	0.24	68,68,68,68	0
54	MG	2A	3535	1/1	0.96	0.06	88,88,88,88	0
54	MG	1O	201	1/1	0.96	0.06	58,58,58,58	0
54	MG	1A	3195	1/1	0.96	0.10	58,58,58,58	0
54	MG	1A	3197	1/1	0.96	0.09	49,49,49,49	0
54	MG	1A	3349	1/1	0.96	0.11	62,62,62,62	0
54	MG	2A	3540	1/1	0.96	0.05	77,77,77,77	0
54	MG	2A	3350	1/1	0.96	0.08	43,43,43,43	0
54	MG	2A	3352	1/1	0.96	0.10	51,51,51,51	0
54	MG	1A	3617	1/1	0.96	0.10	100,100,100,100	0
54	MG	1A	3350	1/1	0.96	0.08	55,55,55,55	0
54	MG	1A	3721	1/1	0.96	0.04	43,43,43,43	0
54	MG	1A	3198	1/1	0.96	0.13	64,64,64,64	0
54	MG	2A	3056	1/1	0.96	0.11	31,31,31,31	0
54	MG	1A	3542	1/1	0.96	0.13	49,49,49,49	0
54	MG	2A	3361	1/1	0.96	0.12	53,53,53,53	0
54	MG	1A	3853	1/1	0.96	0.06	33,33,33,33	0
54	MG	2A	3556	1/1	0.96	0.05	90,90,90,90	0
54	MG	1R	204	1/1	0.96	0.19	53,53,53,53	0
54	MG	1A	3475	1/1	0.96	0.09	44,44,44,44	0
54	MG	1A	3104	1/1	0.96	0.07	33,33,33,33	0
54	MG	1A	3128	1/1	0.96	0.09	44,44,44,44	0
54	MG	1T	2003	1/1	0.96	0.09	83,83,83,83	0
54	MG	1A	3546	1/1	0.96	0.09	43,43,43,43	0
54	MG	2A	3569	1/1	0.96	0.07	87,87,87,87	0
54	MG	1A	3412	1/1	0.96	0.08	28,28,28,28	0
54	MG	1A	3072	1/1	0.96	0.13	60,60,60,60	0
54	MG	2A	3574	1/1	0.96	0.09	56,56,56,56	0
54	MG	1A	3355	1/1	0.96	0.10	20,20,20,20	0
54	MG	1A	3733	1/1	0.96	0.08	35,35,35,35	0
54	MG	1A	3043	1/1	0.96	0.10	50,50,50,50	0
54	MG	2A	3578	1/1	0.96	0.06	52,52,52,52	0
54	MG	1V	202	1/1	0.96	0.12	67,67,67,67	0
54	MG	2a	1677	1/1	0.96	0.05	98,98,98,98	0
54	MG	1A	3866	1/1	0.96	0.09	102,102,102,102	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3867	1/1	0.96	0.17	46,46,46,46	0
54	MG	1A	3868	1/1	0.96	0.09	34,34,34,34	0
54	MG	2A	3583	1/1	0.96	0.05	96,96,96,96	0
54	MG	1A	3632	1/1	0.96	0.09	57,57,57,57	0
54	MG	1A	3870	1/1	0.96	0.13	55,55,55,55	0
54	MG	2a	1684	1/1	0.96	0.07	73,73,73,73	0
54	MG	1A	3871	1/1	0.96	0.12	83,83,83,83	0
54	MG	2A	3383	1/1	0.96	0.08	81,81,81,81	0
54	MG	1A	3178	1/1	0.96	0.08	50,50,50,50	0
54	MG	1A	3873	1/1	0.96	0.08	56,56,56,56	0
54	MG	10	102	1/1	0.96	0.10	76,76,76,76	0
54	MG	2a	1691	1/1	0.96	0.09	91,91,91,91	0
54	MG	1A	3739	1/1	0.96	0.12	72,72,72,72	0
54	MG	1A	3634	1/1	0.96	0.12	43,43,43,43	0
54	MG	1A	3741	1/1	0.96	0.14	51,51,51,51	0
54	MG	1A	3417	1/1	0.96	0.10	34,34,34,34	0
54	MG	2A	3085	1/1	0.96	0.07	73,73,73,73	0
54	MG	1A	3358	1/1	0.96	0.09	54,54,54,54	0
54	MG	1A	3088	1/1	0.96	0.08	52,52,52,52	0
54	MG	1A	3261	1/1	0.96	0.07	30,30,30,30	0
54	MG	2a	1700	1/1	0.96	0.06	106,106,106,106	0
54	MG	1A	3262	1/1	0.96	0.08	45,45,45,45	0
54	MG	2a	1702	1/1	0.96	0.08	83,83,83,83	0
54	MG	1A	3640	1/1	0.96	0.07	48,48,48,48	0
54	MG	1a	1836	1/1	0.96	0.06	85,85,85,85	0
54	MG	2A	3092	1/1	0.96	0.06	53,53,53,53	0
54	MG	1A	3424	1/1	0.96	0.07	38,38,38,38	0
54	MG	1a	1838	1/1	0.96	0.07	90,90,90,90	0
54	MG	1A	3642	1/1	0.96	0.06	50,50,50,50	0
54	MG	1a	1840	1/1	0.96	0.06	61,61,61,61	0
54	MG	1A	3754	1/1	0.96	0.07	29,29,29,29	0
54	MG	2A	3618	1/1	0.96	0.09	104,104,104,104	0
54	MG	2a	1712	1/1	0.96	0.14	75,75,75,75	0
54	MG	2a	1713	1/1	0.96	0.06	85,85,85,85	0
54	MG	1A	3559	1/1	0.96	0.17	61,61,61,61	0
54	MG	2a	1716	1/1	0.96	0.06	89,89,89,89	0
54	MG	2A	3099	1/1	0.96	0.16	42,42,42,42	0
54	MG	1A	3892	1/1	0.96	0.10	35,35,35,35	0
54	MG	1a	1844	1/1	0.96	0.11	76,76,76,76	0
54	MG	1A	3180	1/1	0.96	0.09	37,37,37,37	0
54	MG	1A	3758	1/1	0.96	0.09	84,84,84,84	0
54	MG	2a	1722	1/1	0.96	0.05	109,109,109,109	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3627	1/1	0.96	0.06	55,55,55,55	0
54	MG	1a	1848	1/1	0.96	0.05	90,90,90,90	0
54	MG	2a	1727	1/1	0.96	0.06	88,88,88,88	0
54	MG	2a	1728	1/1	0.96	0.06	87,87,87,87	0
54	MG	2a	1729	1/1	0.96	0.06	93,93,93,93	0
54	MG	1A	3647	1/1	0.96	0.13	58,58,58,58	0
54	MG	2A	3249	1/1	0.96	0.13	74,74,74,74	0
54	MG	2A	3632	1/1	0.96	0.09	75,75,75,75	0
54	MG	1A	3648	1/1	0.96	0.06	47,47,47,47	0
54	MG	1A	3308	1/1	0.96	0.07	40,40,40,40	0
54	MG	2A	3252	1/1	0.96	0.06	49,49,49,49	0
54	MG	2A	3421	1/1	0.96	0.06	68,68,68,68	0
54	MG	1A	3901	1/1	0.96	0.09	64,64,64,64	0
54	MG	1A	3651	1/1	0.96	0.07	53,53,53,53	0
54	MG	1A	3653	1/1	0.96	0.09	52,52,52,52	0
54	MG	2a	1740	1/1	0.96	0.05	98,98,98,98	0
54	MG	1A	3235	1/1	0.96	0.07	53,53,53,53	0
54	MG	2A	3427	1/1	0.96	0.07	68,68,68,68	0
54	MG	2a	1743	1/1	0.96	0.08	84,84,84,84	0
54	MG	1A	3655	1/1	0.96	0.10	67,67,67,67	0
54	MG	1A	3657	1/1	0.96	0.11	64,64,64,64	0
54	MG	1a	1728	1/1	0.96	0.10	65,65,65,65	0
54	MG	1d	504	1/1	0.96	0.15	70,70,70,70	0
54	MG	2A	3434	1/1	0.96	0.10	47,47,47,47	0
54	MG	1A	3658	1/1	0.96	0.11	69,69,69,69	0
54	MG	1A	3367	1/1	0.96	0.11	46,46,46,46	0
54	MG	1A	3132	1/1	0.96	0.11	39,39,39,39	0
54	MG	2a	1753	1/1	0.96	0.08	73,73,73,73	0
54	MG	1A	3133	1/1	0.96	0.11	49,49,49,49	0
54	MG	1A	3664	1/1	0.96	0.09	32,32,32,32	0
54	MG	1A	3567	1/1	0.96	0.12	71,71,71,71	0
54	MG	1A	3788	1/1	0.96	0.17	58,58,58,58	0
54	MG	2a	1760	1/1	0.96	0.06	102,102,102,102	0
54	MG	1A	3268	1/1	0.96	0.11	42,42,42,42	0
54	MG	1a	1619	1/1	0.96	0.06	102,102,102,102	0
54	MG	1A	3503	1/1	0.96	0.07	66,66,66,66	0
54	MG	2A	3129	1/1	0.96	0.08	37,37,37,37	0
54	MG	2A	3448	1/1	0.96	0.05	69,69,69,69	0
54	MG	1A	3668	1/1	0.96	0.06	41,41,41,41	0
54	MG	2A	3277	1/1	0.96	0.09	58,58,58,58	0
54	MG	1A	3436	1/1	0.96	0.07	68,68,68,68	0
54	MG	1a	1742	1/1	0.96	0.17	95,95,95,95	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3437	1/1	0.96	0.08	53,53,53,53	0
54	MG	2I	202	1/1	0.96	0.06	55,55,55,55	0
54	MG	1A	3438	1/1	0.96	0.08	27,27,27,27	0
54	MG	2A	3282	1/1	0.96	0.11	41,41,41,41	0
54	MG	1B	1025	1/1	0.96	0.13	70,70,70,70	0
54	MG	1A	3801	1/1	0.96	0.10	58,58,58,58	0
54	MG	2P	201	1/1	0.96	0.15	83,83,83,83	0
54	MG	2A	3170	1/1	0.97	0.09	55,55,55,55	0
54	MG	1A	3348	1/1	0.97	0.07	37,37,37,37	0
54	MG	2A	3290	1/1	0.97	0.10	57,57,57,57	0
54	MG	1A	3625	1/1	0.97	0.16	54,54,54,54	0
54	MG	1A	3391	1/1	0.97	0.07	53,53,53,53	0
54	MG	1A	3628	1/1	0.97	0.07	47,47,47,47	0
54	MG	1A	3496	1/1	0.97	0.06	35,35,35,35	0
54	MG	1a	1853	1/1	0.97	0.10	65,65,65,65	0
54	MG	2A	3584	1/1	0.97	0.08	60,60,60,60	0
54	MG	2A	3072	1/1	0.97	0.04	51,51,51,51	0
54	MG	1A	3070	1/1	0.97	0.11	47,47,47,47	0
54	MG	1A	3232	1/1	0.97	0.09	68,68,68,68	0
54	MG	1a	1857	1/1	0.97	0.08	92,92,92,92	0
54	MG	2A	3437	1/1	0.97	0.06	48,48,48,48	0
54	MG	1X	102	1/1	0.97	0.07	62,62,62,62	0
54	MG	2A	3182	1/1	0.97	0.11	53,53,53,53	0
54	MG	1A	3008	1/1	0.97	0.12	39,39,39,39	0
54	MG	1A	3062	1/1	0.97	0.33	41,41,41,41	0
54	MG	1A	3501	1/1	0.97	0.06	32,32,32,32	0
54	MG	1A	3264	1/1	0.97	0.05	47,47,47,47	0
54	MG	1A	3183	1/1	0.97	0.04	28,28,28,28	0
54	MG	1A	3208	1/1	0.97	0.08	40,40,40,40	0
54	MG	1a	1767	1/1	0.97	0.05	46,46,46,46	0
54	MG	2A	3604	1/1	0.97	0.05	66,66,66,66	0
54	MG	1A	3448	1/1	0.97	0.17	24,24,24,24	0
54	MG	1A	3084	1/1	0.97	0.13	40,40,40,40	0
54	MG	1I	102	1/1	0.97	0.06	44,44,44,44	0
54	MG	1A	3401	1/1	0.97	0.04	53,53,53,53	0
54	MG	1A	3147	1/1	0.97	0.09	35,35,35,35	0
54	MG	2A	3610	1/1	0.97	0.08	61,61,61,61	0
54	MG	1A	3568	1/1	0.97	0.19	51,51,51,51	0
54	MG	1A	3166	1/1	0.97	0.14	45,45,45,45	0
54	MG	2A	3613	1/1	0.97	0.07	102,102,102,102	0
54	MG	1B	1024	1/1	0.97	0.06	61,61,61,61	0
54	MG	1A	3240	1/1	0.97	0.08	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3571	1/1	0.97	0.05	42,42,42,42	0
54	MG	2A	3200	1/1	0.97	0.06	41,41,41,41	0
54	MG	1A	3511	1/1	0.97	0.09	52,52,52,52	0
54	MG	2A	3460	1/1	0.97	0.04	73,73,73,73	0
54	MG	1A	3649	1/1	0.97	0.10	52,52,52,52	0
54	MG	1A	3512	1/1	0.97	0.10	63,63,63,63	0
54	MG	2A	3331	1/1	0.97	0.06	98,98,98,98	0
54	MG	1o	101	1/1	0.97	0.08	42,42,42,42	0
54	MG	1A	3576	1/1	0.97	0.07	71,71,71,71	0
54	MG	1A	3652	1/1	0.97	0.05	54,54,54,54	0
54	MG	2A	3468	1/1	0.97	0.11	45,45,45,45	0
54	MG	2A	3470	1/1	0.97	0.05	46,46,46,46	0
54	MG	2A	3631	1/1	0.97	0.08	82,82,82,82	0
54	MG	1A	3045	1/1	0.97	0.11	41,41,41,41	0
54	MG	1A	3841	1/1	0.97	0.05	49,49,49,49	0
54	MG	1D	304	1/1	0.97	0.11	47,47,47,47	0
54	MG	1a	1786	1/1	0.97	0.06	82,82,82,82	0
54	MG	1A	3215	1/1	0.97	0.05	29,29,29,29	0
54	MG	1A	3579	1/1	0.97	0.11	49,49,49,49	0
54	MG	2A	3106	1/1	0.97	0.05	51,51,51,51	0
54	MG	1A	3656	1/1	0.97	0.07	38,38,38,38	0
54	MG	2A	3006	1/1	0.97	0.05	64,64,64,64	0
54	MG	1A	3188	1/1	0.97	0.07	38,38,38,38	0
54	MG	1A	3742	1/1	0.97	0.05	59,59,59,59	0
54	MG	1A	3149	1/1	0.97	0.07	43,43,43,43	0
54	MG	1A	3583	1/1	0.97	0.07	60,60,60,60	0
54	MG	1A	3460	1/1	0.97	0.09	46,46,46,46	0
54	MG	1A	3190	1/1	0.97	0.05	84,84,84,84	0
54	MG	1A	3519	1/1	0.97	0.10	39,39,39,39	0
54	MG	2A	3116	1/1	0.97	0.14	45,45,45,45	0
54	MG	2B	209	1/1	0.97	0.17	64,64,64,64	0
54	MG	1A	3046	1/1	0.97	0.18	46,46,46,46	0
54	MG	2A	3015	1/1	0.97	0.09	53,53,53,53	0
54	MG	2A	3016	1/1	0.97	0.06	71,71,71,71	0
54	MG	2A	3357	1/1	0.97	0.07	53,53,53,53	0
54	MG	1a	1798	1/1	0.97	0.05	107,107,107,107	0
54	MG	2A	3018	1/1	0.97	0.26	45,45,45,45	0
54	MG	2A	3498	1/1	0.97	0.11	67,67,67,67	0
54	MG	1A	3522	1/1	0.97	0.05	59,59,59,59	0
54	MG	2A	3231	1/1	0.97	0.10	72,72,72,72	0
54	MG	2A	3123	1/1	0.97	0.06	47,47,47,47	0
54	MG	2D	304	1/1	0.97	0.15	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3368	1/1	0.97	0.05	54,54,54,54	0
54	MG	1A	3857	1/1	0.97	0.05	81,81,81,81	0
54	MG	1A	3151	1/1	0.97	0.08	46,46,46,46	0
54	MG	1A	3467	1/1	0.97	0.15	67,67,67,67	0
54	MG	2a	1714	1/1	0.97	0.05	84,84,84,84	0
54	MG	1A	3756	1/1	0.97	0.05	67,67,67,67	0
54	MG	2A	3238	1/1	0.97	0.06	46,46,46,46	0
54	MG	2A	3239	1/1	0.97	0.11	38,38,38,38	0
54	MG	2A	3025	1/1	0.97	0.09	50,50,50,50	0
54	MG	1F	310	1/1	0.97	0.06	32,32,32,32	0
54	MG	2A	3243	1/1	0.97	0.05	67,67,67,67	0
54	MG	1A	3065	1/1	0.97	0.07	49,49,49,49	0
54	MG	1A	3066	1/1	0.97	0.13	66,66,66,66	0
54	MG	2a	1723	1/1	0.97	0.05	79,79,79,79	0
54	MG	1A	3327	1/1	0.97	0.06	26,26,26,26	0
54	MG	1A	3223	1/1	0.97	0.08	55,55,55,55	0
54	MG	2R	203	1/1	0.97	0.07	53,53,53,53	0
54	MG	1A	3421	1/1	0.97	0.05	29,29,29,29	0
54	MG	1A	3473	1/1	0.97	0.12	45,45,45,45	0
54	MG	1A	3679	1/1	0.97	0.09	73,73,73,73	0
54	MG	1A	3022	1/1	0.97	0.09	43,43,43,43	0
54	MG	2A	3382	1/1	0.97	0.07	59,59,59,59	0
54	MG	1A	3288	1/1	0.97	0.05	39,39,39,39	0
54	MG	1a	1724	1/1	0.97	0.04	72,72,72,72	0
54	MG	1A	3114	1/1	0.97	0.06	40,40,40,40	0
54	MG	1A	3477	1/1	0.97	0.04	48,48,48,48	0
54	MG	1a	1727	1/1	0.97	0.08	67,67,67,67	0
54	MG	1A	3425	1/1	0.97	0.06	36,36,36,36	0
54	MG	2A	3258	1/1	0.97	0.09	58,58,58,58	0
54	MG	1A	3686	1/1	0.97	0.08	51,51,51,51	0
54	MG	1A	3878	1/1	0.97	0.13	50,50,50,50	0
54	MG	1P	202	1/1	0.97	0.17	34,34,34,34	0
54	MG	1a	1824	1/1	0.97	0.15	82,82,82,82	0
54	MG	1A	3378	1/1	0.97	0.06	71,71,71,71	0
54	MG	1A	3480	1/1	0.97	0.21	50,50,50,50	0
54	MG	1A	3427	1/1	0.97	0.09	46,46,46,46	0
54	MG	2A	3398	1/1	0.97	0.10	78,78,78,78	0
54	MG	1A	3882	1/1	0.97	0.16	42,42,42,42	0
54	MG	1Q	202	1/1	0.97	0.09	48,48,48,48	0
54	MG	1A	3786	1/1	0.97	0.09	45,45,45,45	0
54	MG	1A	3428	1/1	0.97	0.09	67,67,67,67	0
54	MG	2A	3547	1/1	0.97	0.09	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3379	1/1	0.97	0.06	55,55,55,55	0
54	MG	1A	3692	1/1	0.97	0.10	41,41,41,41	0
54	MG	2A	3273	1/1	0.97	0.05	73,73,73,73	0
54	MG	1A	3795	1/1	0.97	0.06	60,60,60,60	0
54	MG	2A	3554	1/1	0.97	0.04	72,72,72,72	0
54	MG	1A	3139	1/1	0.97	0.18	42,42,42,42	0
54	MG	1A	3616	1/1	0.97	0.07	61,61,61,61	0
54	MG	1A	3293	1/1	0.97	0.07	36,36,36,36	0
54	MG	2a	1619	1/1	0.97	0.07	81,81,81,81	0
54	MG	1A	3126	1/1	0.97	0.13	42,42,42,42	0
54	MG	2A	3563	1/1	0.97	0.05	67,67,67,67	0
54	MG	1A	3200	1/1	0.97	0.12	40,40,40,40	0
54	MG	1A	3127	1/1	0.97	0.06	44,44,44,44	0
54	MG	1A	3346	1/1	0.97	0.11	48,48,48,48	0
54	MG	2A	3568	1/1	0.97	0.07	78,78,78,78	0
54	MG	2A	3283	1/1	0.97	0.10	50,50,50,50	0
54	MG	2A	3284	1/1	0.97	0.07	43,43,43,43	0
54	MG	1A	3897	1/1	0.97	0.17	48,48,48,48	0
54	MG	2A	3573	1/1	0.97	0.06	52,52,52,52	0
54	MG	1A	3060	1/1	0.97	0.09	34,34,34,34	0
54	MG	1A	3551	1/1	0.97	0.07	46,46,46,46	0
54	MG	1A	3337	1/1	0.98	0.03	70,70,70,70	0
54	MG	2A	3590	1/1	0.98	0.05	52,52,52,52	0
54	MG	1A	3607	1/1	0.98	0.07	50,50,50,50	0
54	MG	1A	3419	1/1	0.98	0.07	64,64,64,64	0
54	MG	1A	3339	1/1	0.98	0.12	34,34,34,34	0
54	MG	2A	3594	1/1	0.98	0.05	88,88,88,88	0
54	MG	1A	3671	1/1	0.98	0.06	39,39,39,39	0
54	MG	2A	3596	1/1	0.98	0.05	52,52,52,52	0
54	MG	1A	3610	1/1	0.98	0.12	42,42,42,42	0
54	MG	1A	3673	1/1	0.98	0.05	55,55,55,55	0
54	MG	1A	3464	1/1	0.98	0.03	53,53,53,53	0
54	MG	1A	3041	1/1	0.98	0.06	32,32,32,32	0
54	MG	1A	3202	1/1	0.98	0.15	33,33,33,33	0
54	MG	1a	1702	1/1	0.98	0.08	47,47,47,47	0
54	MG	1A	3342	1/1	0.98	0.04	28,28,28,28	0
54	MG	1A	3838	1/1	0.98	0.10	42,42,42,42	0
54	MG	1A	3343	1/1	0.98	0.06	32,32,32,32	0
54	MG	1a	1706	1/1	0.98	0.05	72,72,72,72	0
54	MG	1a	1707	1/1	0.98	0.04	57,57,57,57	0
54	MG	1A	3087	1/1	0.98	0.06	32,32,32,32	0
54	MG	1A	3019	1/1	0.98	0.08	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3469	1/1	0.98	0.07	64,64,64,64	0
54	MG	1A	3181	1/1	0.98	0.15	46,46,46,46	0
54	MG	1A	3750	1/1	0.98	0.11	84,84,84,84	0
54	MG	1D	310	1/1	0.98	0.03	53,53,53,53	0
54	MG	2A	3473	1/1	0.98	0.03	104,104,104,104	0
54	MG	2A	3616	1/1	0.98	0.04	67,67,67,67	0
54	MG	1a	1814	1/1	0.98	0.05	65,65,65,65	0
54	MG	1A	3310	1/1	0.98	0.12	44,44,44,44	0
54	MG	2A	3619	1/1	0.98	0.07	65,65,65,65	0
54	MG	2A	3355	1/1	0.98	0.05	54,54,54,54	0
54	MG	2A	3241	1/1	0.98	0.04	86,86,86,86	0
54	MG	1A	3683	1/1	0.98	0.09	34,34,34,34	0
54	MG	1a	1715	1/1	0.98	0.05	54,54,54,54	0
54	MG	1A	3563	1/1	0.98	0.12	66,66,66,66	0
54	MG	2A	3625	1/1	0.98	0.18	56,56,56,56	0
54	MG	1A	3311	1/1	0.98	0.04	74,74,74,74	0
54	MG	1A	3286	1/1	0.98	0.08	32,32,32,32	0
54	MG	1A	3431	1/1	0.98	0.04	36,36,36,36	0
54	MG	1A	3520	1/1	0.98	0.05	51,51,51,51	0
54	MG	1A	3760	1/1	0.98	0.05	71,71,71,71	0
54	MG	1A	3015	1/1	0.98	0.20	36,36,36,36	0
54	MG	1A	3314	1/1	0.98	0.11	35,35,35,35	0
54	MG	1A	3090	1/1	0.98	0.20	36,36,36,36	0
54	MG	2A	3634	1/1	0.98	0.08	56,56,56,56	0
54	MG	1A	3764	1/1	0.98	0.07	62,62,62,62	0
54	MG	2A	3636	1/1	0.98	0.04	51,51,51,51	0
54	MG	1F	308	1/1	0.98	0.06	32,32,32,32	0
54	MG	1F	309	1/1	0.98	0.06	33,33,33,33	0
54	MG	1A	3766	1/1	0.98	0.06	69,69,69,69	0
54	MG	1A	3767	1/1	0.98	0.04	53,53,53,53	0
54	MG	2A	3494	1/1	0.98	0.04	71,71,71,71	0
54	MG	2A	3495	1/1	0.98	0.06	36,36,36,36	0
54	MG	1A	3044	1/1	0.98	0.07	41,41,41,41	0
54	MG	2a	1686	1/1	0.98	0.07	67,67,67,67	0
54	MG	2A	3497	1/1	0.98	0.04	67,67,67,67	0
54	MG	1A	3771	1/1	0.98	0.06	48,48,48,48	0
54	MG	2A	3499	1/1	0.98	0.04	64,64,64,64	0
54	MG	1a	1834	1/1	0.98	0.08	74,74,74,74	0
54	MG	1A	3863	1/1	0.98	0.09	50,50,50,50	0
54	MG	1A	3693	1/1	0.98	0.24	56,56,56,56	0
54	MG	1A	3290	1/1	0.98	0.03	37,37,37,37	0
54	MG	2A	3379	1/1	0.98	0.10	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3318	1/1	0.98	0.06	32,32,32,32	0
54	MG	1A	3574	1/1	0.98	0.07	69,69,69,69	0
54	MG	1A	3778	1/1	0.98	0.05	44,44,44,44	0
54	MG	1A	3575	1/1	0.98	0.07	41,41,41,41	0
54	MG	1A	3698	1/1	0.98	0.05	69,69,69,69	0
54	MG	1A	3196	1/1	0.98	0.05	37,37,37,37	0
54	MG	2A	3166	1/1	0.98	0.08	52,52,52,52	0
54	MG	2A	3387	1/1	0.98	0.04	63,63,63,63	0
54	MG	1A	3292	1/1	0.98	0.04	45,45,45,45	0
54	MG	1A	3784	1/1	0.98	0.10	35,35,35,35	0
54	MG	2D	303	1/1	0.98	0.07	52,52,52,52	0
54	MG	1A	3092	1/1	0.98	0.05	29,29,29,29	0
54	MG	2D	305	1/1	0.98	0.08	48,48,48,48	0
54	MG	1A	3294	1/1	0.98	0.06	31,31,31,31	0
54	MG	2E	301	1/1	0.98	0.06	39,39,39,39	0
54	MG	1A	3877	1/1	0.98	0.09	46,46,46,46	0
54	MG	1A	3787	1/1	0.98	0.11	82,82,82,82	0
54	MG	1A	3296	1/1	0.98	0.10	38,38,38,38	0
54	MG	1A	3487	1/1	0.98	0.05	56,56,56,56	0
54	MG	1A	3791	1/1	0.98	0.08	48,48,48,48	0
54	MG	2A	3526	1/1	0.98	0.11	77,77,77,77	0
54	MG	1a	1855	1/1	0.98	0.05	74,74,74,74	0
54	MG	2O	201	1/1	0.98	0.05	69,69,69,69	0
54	MG	1A	3792	1/1	0.98	0.05	67,67,67,67	0
54	MG	1A	3793	1/1	0.98	0.07	67,67,67,67	0
54	MG	1A	3582	1/1	0.98	0.16	84,84,84,84	0
54	MG	2A	3401	1/1	0.98	0.06	75,75,75,75	0
54	MG	1A	3212	1/1	0.98	0.08	43,43,43,43	0
54	MG	1A	3403	1/1	0.98	0.07	71,71,71,71	0
54	MG	1R	206	1/1	0.98	0.06	33,33,33,33	0
54	MG	1A	3491	1/1	0.98	0.04	66,66,66,66	0
54	MG	1A	3644	1/1	0.98	0.13	45,45,45,45	0
54	MG	1A	3536	1/1	0.98	0.04	42,42,42,42	0
54	MG	1T	2004	1/1	0.98	0.07	69,69,69,69	0
54	MG	2T	205	1/1	0.98	0.10	43,43,43,43	0
54	MG	1A	3800	1/1	0.98	0.09	61,61,61,61	0
54	MG	1A	3711	1/1	0.98	0.04	72,72,72,72	0
54	MG	2A	3296	1/1	0.98	0.06	47,47,47,47	0
54	MG	1A	3273	1/1	0.98	0.06	52,52,52,52	0
54	MG	1A	3894	1/1	0.98	0.03	46,46,46,46	0
54	MG	1A	3255	1/1	0.98	0.08	42,42,42,42	0
54	MG	2I	101	1/1	0.98	0.05	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3804	1/1	0.98	0.07	81,81,81,81	0
54	MG	2A	3416	1/1	0.98	0.04	48,48,48,48	0
54	MG	2A	3417	1/1	0.98	0.09	60,60,60,60	0
54	MG	1A	3539	1/1	0.98	0.04	26,26,26,26	0
54	MG	1A	3898	1/1	0.98	0.04	34,34,34,34	0
54	MG	2A	3551	1/1	0.98	0.07	86,86,86,86	0
54	MG	2A	3552	1/1	0.98	0.05	66,66,66,66	0
54	MG	1A	3364	1/1	0.98	0.08	24,24,24,24	0
54	MG	1A	3365	1/1	0.98	0.07	22,22,22,22	0
54	MG	2A	3422	1/1	0.98	0.05	65,65,65,65	0
54	MG	1A	3328	1/1	0.98	0.05	35,35,35,35	0
54	MG	2a	1749	1/1	0.98	0.12	79,79,79,79	0
54	MG	2A	3306	1/1	0.98	0.07	34,34,34,34	0
54	MG	1A	3719	1/1	0.98	0.04	51,51,51,51	0
54	MG	1A	3595	1/1	0.98	0.07	50,50,50,50	0
54	MG	1A	3256	1/1	0.98	0.10	48,48,48,48	0
54	MG	1A	3076	1/1	0.98	0.07	46,46,46,46	0
54	MG	2a	1755	1/1	0.98	0.09	79,79,79,79	0
54	MG	2A	3429	1/1	0.98	0.05	81,81,81,81	0
54	MG	1A	3302	1/1	0.98	0.07	43,43,43,43	0
54	MG	2A	3312	1/1	0.98	0.04	62,62,62,62	0
54	MG	1A	3814	1/1	0.98	0.10	51,51,51,51	0
54	MG	2A	3433	1/1	0.98	0.08	43,43,43,43	0
54	MG	2A	3314	1/1	0.98	0.03	81,81,81,81	0
54	MG	1A	3333	1/1	0.98	0.08	21,21,21,21	0
54	MG	1A	3455	1/1	0.98	0.05	38,38,38,38	0
54	MG	1A	3817	1/1	0.98	0.07	32,32,32,32	0
54	MG	1A	3601	1/1	0.98	0.07	39,39,39,39	0
54	MG	1A	3003	1/1	0.98	0.07	58,58,58,58	0
54	MG	1A	3820	1/1	0.98	0.08	59,59,59,59	0
54	MG	1B	1016	1/1	0.98	0.04	55,55,55,55	0
54	MG	1A	3603	1/1	0.98	0.10	51,51,51,51	0
54	MG	1A	3822	1/1	0.98	0.05	65,65,65,65	0
54	MG	1A	3823	1/1	0.98	0.05	82,82,82,82	0
54	MG	2A	3327	1/1	0.98	0.05	77,77,77,77	0
54	MG	1B	1020	1/1	0.98	0.05	50,50,50,50	0
54	MG	1A	3335	1/1	0.98	0.10	38,38,38,38	0
56	ZN	14	101	1/1	0.98	0.04	135,135,135,135	0
54	MG	1A	3078	1/1	0.98	0.10	51,51,51,51	0
56	ZN	2n	101	1/1	0.98	0.04	120,120,120,120	0
57	SF4	1d	501	8/8	0.98	0.05	77,92,105,112	0
57	SF4	2d	501	8/8	0.98	0.05	71,89,97,104	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3269	1/1	0.99	0.16	30,30,30,30	0
54	MG	1A	3789	1/1	0.99	0.05	58,58,58,58	0
54	MG	1A	3209	1/1	0.99	0.07	35,35,35,35	0
54	MG	1A	3752	1/1	0.99	0.03	37,37,37,37	0
54	MG	1B	1013	1/1	0.99	0.05	49,49,49,49	0
54	MG	2A	3523	1/1	0.99	0.07	50,50,50,50	0
54	MG	1A	3323	1/1	0.99	0.12	67,67,67,67	0
54	MG	1A	3660	1/1	0.99	0.03	52,52,52,52	0
54	MG	1A	3661	1/1	0.99	0.07	32,32,32,32	0
54	MG	1a	1717	1/1	0.99	0.06	46,46,46,46	0
54	MG	2A	3528	1/1	0.99	0.05	60,60,60,60	0
54	MG	1A	3833	1/1	0.99	0.08	53,53,53,53	0
54	MG	1A	3876	1/1	0.99	0.04	29,29,29,29	0
54	MG	1A	3154	1/1	0.99	0.04	35,35,35,35	0
54	MG	2A	3467	1/1	0.99	0.03	83,83,83,83	0
54	MG	2A	3293	1/1	0.99	0.04	44,44,44,44	0
54	MG	2A	3351	1/1	0.99	0.09	74,74,74,74	0
54	MG	2Q	202	1/1	0.99	0.10	70,70,70,70	0
54	MG	1A	3338	1/1	0.99	0.10	18,18,18,18	0
54	MG	2a	1726	1/1	0.99	0.04	83,83,83,83	0
54	MG	1A	3281	1/1	0.99	0.05	26,26,26,26	0
54	MG	1a	1723	1/1	0.99	0.12	75,75,75,75	0
54	MG	1A	3725	1/1	0.99	0.10	76,76,76,76	0
54	MG	1A	3272	1/1	0.99	0.04	23,23,23,23	0
54	MG	1A	3458	1/1	0.99	0.05	41,41,41,41	0
54	MG	1A	3590	1/1	0.99	0.04	61,61,61,61	0
54	MG	1A	3884	1/1	0.99	0.04	37,37,37,37	0
54	MG	1A	3029	1/1	0.99	0.04	44,44,44,44	0
54	MG	1A	3404	1/1	0.99	0.06	55,55,55,55	0
54	MG	1A	3765	1/1	0.99	0.05	38,38,38,38	0
54	MG	1A	3670	1/1	0.99	0.13	56,56,56,56	0
54	MG	16	102	1/1	0.99	0.06	54,54,54,54	0
54	MG	1A	3370	1/1	0.99	0.04	25,25,25,25	0
54	MG	2A	3048	1/1	0.99	0.06	80,80,80,80	0
54	MG	17	102	1/1	0.99	0.12	53,53,53,53	0
54	MG	1a	1736	1/1	0.99	0.03	76,76,76,76	0
54	MG	1A	3594	1/1	0.99	0.07	31,31,31,31	0
54	MG	1A	3769	1/1	0.99	0.04	69,69,69,69	0
54	MG	1a	1835	1/1	0.99	0.04	80,80,80,80	0
54	MG	2A	3555	1/1	0.99	0.06	71,71,71,71	0
54	MG	1A	3462	1/1	0.99	0.07	33,33,33,33	0
54	MG	2A	3315	1/1	0.99	0.04	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3558	1/1	0.99	0.05	70,70,70,70	0
54	MG	2A	3559	1/1	0.99	0.10	50,50,50,50	0
54	MG	2A	3316	1/1	0.99	0.03	58,58,58,58	0
54	MG	2A	3208	1/1	0.99	0.07	68,68,68,68	0
54	MG	1A	3772	1/1	0.99	0.09	57,57,57,57	0
54	MG	2A	3564	1/1	0.99	0.04	53,53,53,53	0
54	MG	1A	3645	1/1	0.99	0.04	52,52,52,52	0
54	MG	2a	1756	1/1	0.99	0.03	73,73,73,73	0
54	MG	1A	3774	1/1	0.99	0.06	65,65,65,65	0
54	MG	1A	3068	1/1	0.99	0.06	36,36,36,36	0
54	MG	1A	3738	1/1	0.99	0.10	43,43,43,43	0
54	MG	1A	3443	1/1	0.99	0.04	36,36,36,36	0
54	MG	1A	3295	1/1	0.99	0.04	26,26,26,26	0
54	MG	2A	3571	1/1	0.99	0.04	68,68,68,68	0
54	MG	2A	3268	1/1	0.99	0.08	58,58,58,58	0
54	MG	1A	3779	1/1	0.99	0.06	68,68,68,68	0
54	MG	1E	302	1/1	0.99	0.07	24,24,24,24	0
54	MG	1a	1846	1/1	0.99	0.04	43,43,43,43	0
54	MG	1A	3330	1/1	0.99	0.07	45,45,45,45	0
54	MG	2A	3446	1/1	0.99	0.06	53,53,53,53	0
54	MG	1A	3488	1/1	0.99	0.06	49,49,49,49	0
54	MG	1A	3409	1/1	0.99	0.05	50,50,50,50	0
54	MG	1A	3275	1/1	0.99	0.03	50,50,50,50	0
54	MG	2A	3510	1/1	0.99	0.04	45,45,45,45	0
54	MG	2A	3276	1/1	0.99	0.06	47,47,47,47	0
54	MG	1A	3627	1/1	0.99	0.07	67,67,67,67	0
54	MG	2A	3513	1/1	0.99	0.04	81,81,81,81	0
56	ZN	1Y	201	1/1	0.99	0.03	83,83,83,83	0
54	MG	2A	3585	1/1	0.99	0.07	81,81,81,81	0
56	ZN	1n	102	1/1	0.99	0.02	94,94,94,94	0
56	ZN	2Y	202	1/1	0.99	0.03	95,95,95,95	0
54	MG	2A	3514	1/1	0.99	0.09	69,69,69,69	0
56	ZN	25	101	1/1	0.99	0.02	83,83,83,83	0
56	ZN	26	101	1/1	0.99	0.04	72,72,72,72	0
56	ZN	29	101	1/1	0.99	0.03	101,101,101,101	0
54	MG	1A	3096	1/1	0.99	0.09	47,47,47,47	0
54	MG	1A	3394	1/1	0.99	0.03	78,78,78,78	0
54	MG	1A	3004	1/1	0.99	0.08	48,48,48,48	0
54	MG	1A	3722	1/1	1.00	0.02	35,35,35,35	0
54	MG	1A	3846	1/1	1.00	0.04	43,43,43,43	0
54	MG	1A	3751	1/1	1.00	0.02	47,47,47,47	0
54	MG	1A	3387	1/1	1.00	0.02	33,33,33,33	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1B	1014	1/1	1.00	0.02	50,50,50,50	0
56	ZN	15	102	1/1	1.00	0.02	53,53,53,53	0
56	ZN	16	101	1/1	1.00	0.02	52,52,52,52	0
56	ZN	19	102	1/1	1.00	0.02	50,50,50,50	0
54	MG	1A	3388	1/1	1.00	0.02	23,23,23,23	0
54	MG	1A	3380	1/1	1.00	0.02	23,23,23,23	0
54	MG	2A	3599	1/1	1.00	0.03	48,48,48,48	0
54	MG	2A	3560	1/1	1.00	0.05	51,51,51,51	0
54	MG	1A	3736	1/1	1.00	0.02	37,37,37,37	0
54	MG	1A	3862	1/1	1.00	0.03	35,35,35,35	0
54	MG	1A	3842	1/1	1.00	0.03	35,35,35,35	0
54	MG	1A	3770	1/1	1.00	0.02	37,37,37,37	0
54	MG	1A	3717	1/1	1.00	0.05	44,44,44,44	0

6.5 Other polymers [i](#)

There are no such residues in this entry.