Full wwPDB X-ray Structure Validation Report

Sep 2, 2026 – 09:05 PM EDT

PDB ID	:	9Q6T / pdb_00009q6t
Title	:	Crystal structure of the wild-type Thermus thermophilus 70S ribosome in complex with tiamulin and protein Y at 2.65A resolution
Authors	:	Killam, B.Y.; Kopec, I.; Breiner, L.M.; Hoernig, M.; LoPresti, M.; Abdelsattar, A.S.; Abouelkhair, A.A.; Briganti, A.J.; Slowinski, R.P.; Vogelaar, N.J.; Seleem, M.N.; Brown, A.M.; Lowell, A.N.; Polikanov, Y.S.
Deposited on	:	2025-08-22
Resolution	:	2.65 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 (1)) were used in the production of this report:

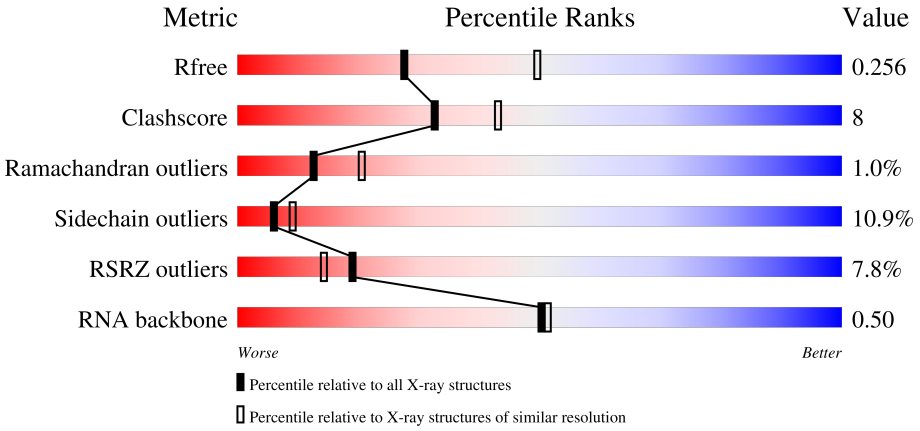
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Buster-report	:	wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.015 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.50

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 2.65 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	1110 (2.66-2.66)
Clashscore	190562	1141 (2.66-2.66)
Ramachandran outliers	187476	1126 (2.66-2.66)
Sidechain outliers	187428	1126 (2.66-2.66)
RSRZ outliers	180081	1110 (2.66-2.66)
RNA backbone	3983	1090 (2.90-2.42)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5% The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	1A	2915	5% 66% 27% 5%
1	2A	2915	6% 62% 30% 7%
2	1B	121	% 73% 24%
2	2B	121	2% 62% 33%

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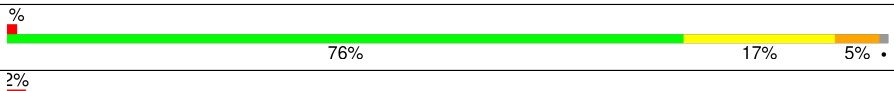
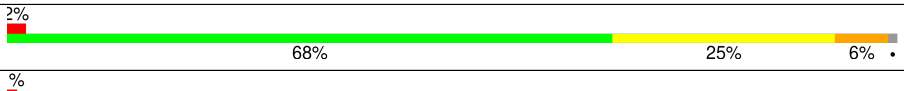
3	2D	276	
4	1E	206	
4	2E	206	
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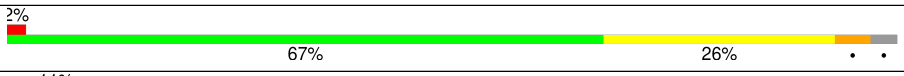
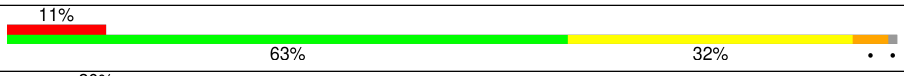
5	2F	210	
6	1G	182	
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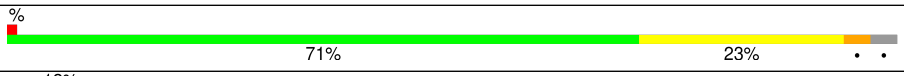
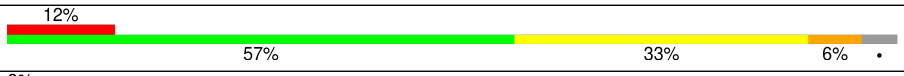
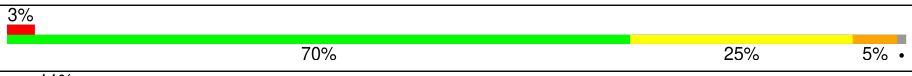
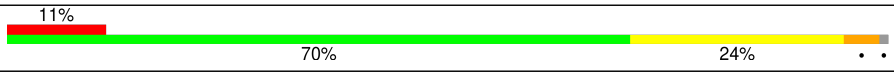
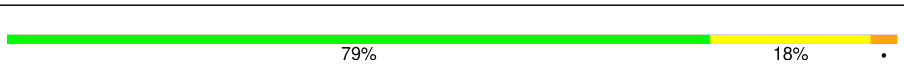
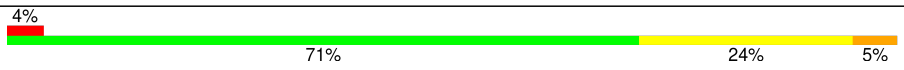
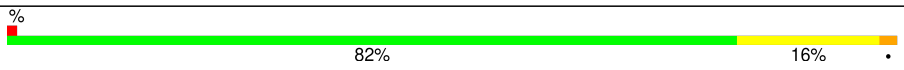
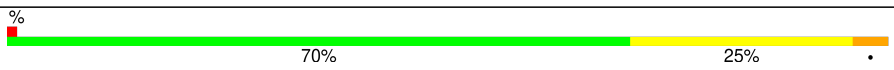
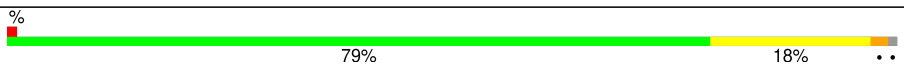
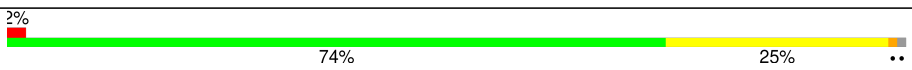
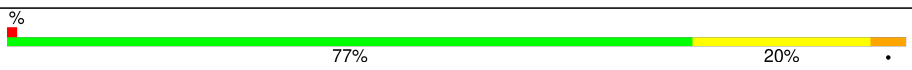
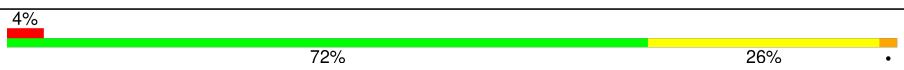
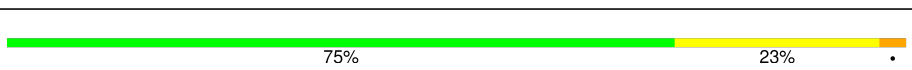
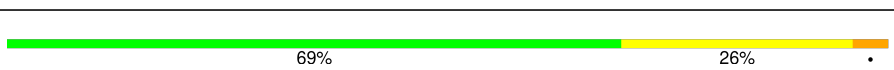
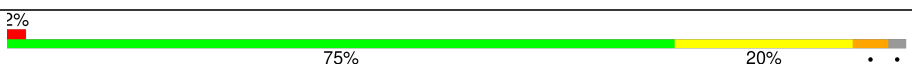
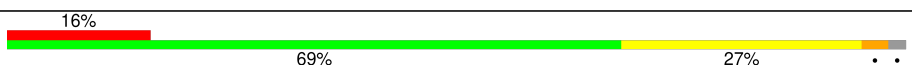
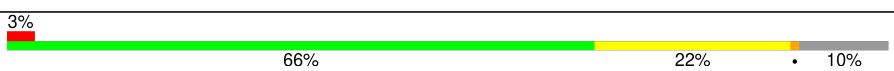
7	1H	180	
7	2H	180	
8	1I	148	
8	2I	148	
9	1N	140	
9	2N	140	
10	1O	122	
10	2O	122	
11	1P	150	
11	2P	150	
12	1Q	141	
12	2Q	141	
13	1R	118	
13	2R	118	
14	1S	112	
14	2S	112	
15	1T	146	

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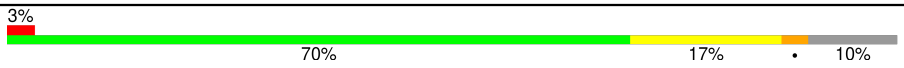
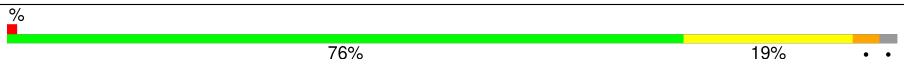
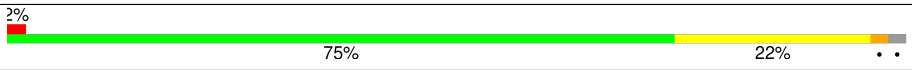
Mol	Chain	Length	Quality of chain
15	2T	146	
16	1U	118	
16	2U	118	
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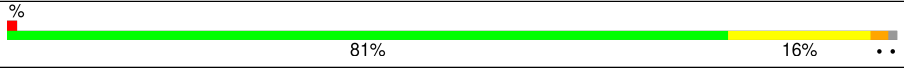
17	2V	101	
18	1W	113	
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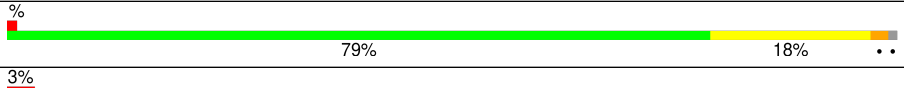
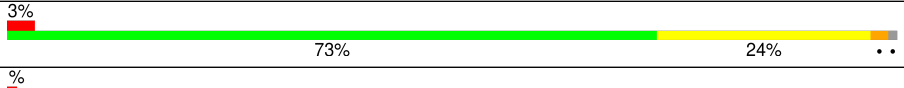
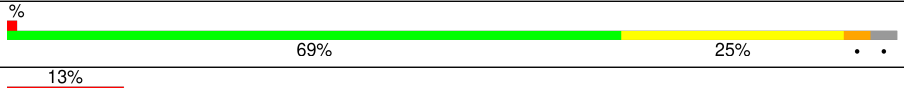
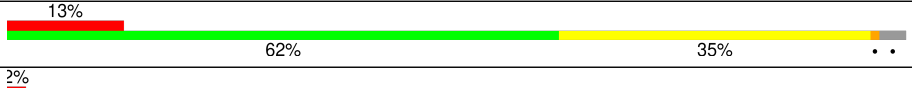
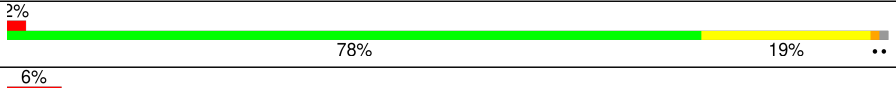
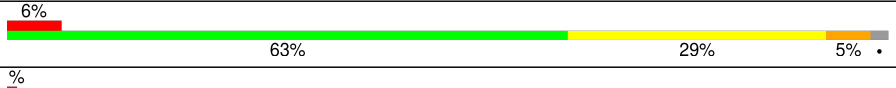
19	1X	96	
19	2X	96	
20	1Y	110	
20	2Y	110	
21	1Z	206	
21	2Z	206	
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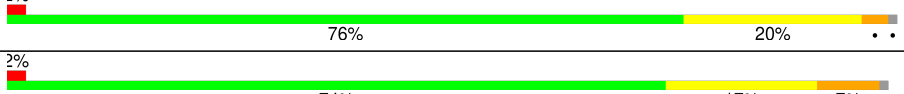
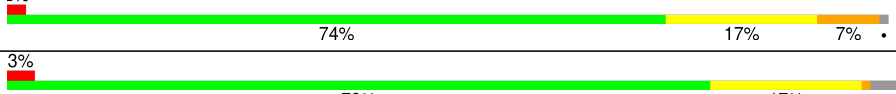
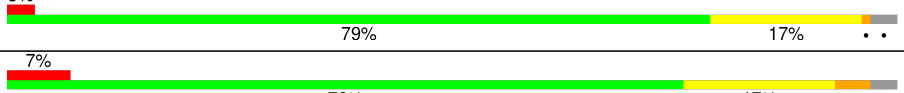
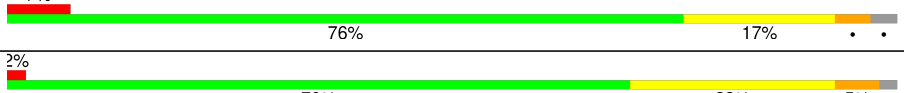
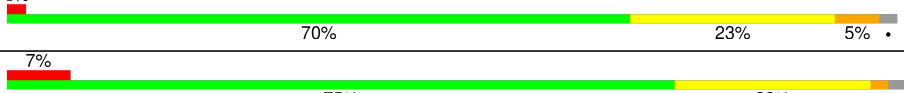
23	11	98	
23	21	98	
24	12	72	
24	22	72	
25	13	60	
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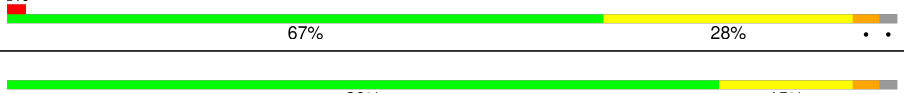
27	15	60	
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Mol	Chain	Length	Quality of chain
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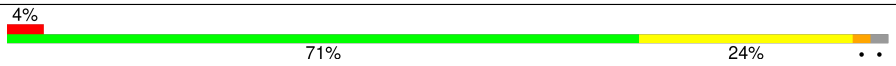
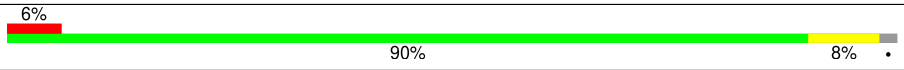
28	26	54	
29	17	49	
29	27	49	
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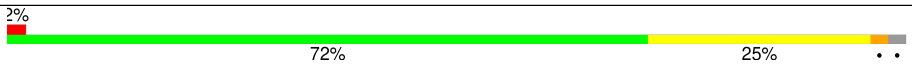
30	28	65	
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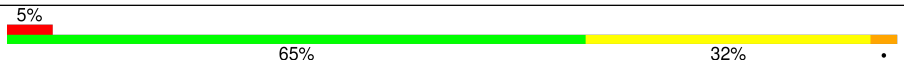
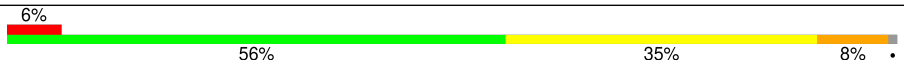
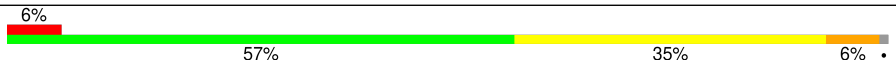
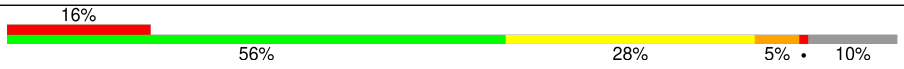
31	29	37	
32	1a	1521	
32	2a	1521	
33	1b	256	
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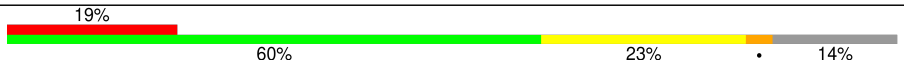
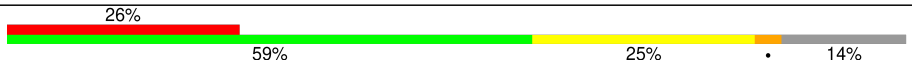
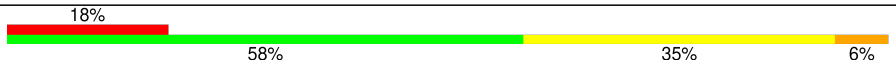
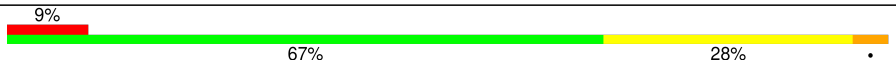
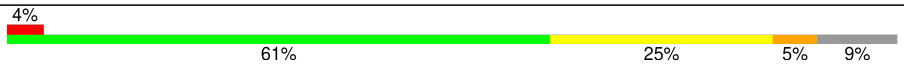
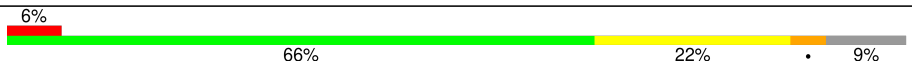
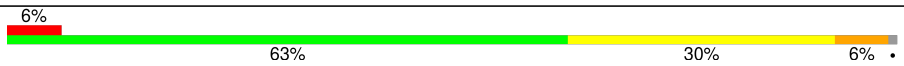
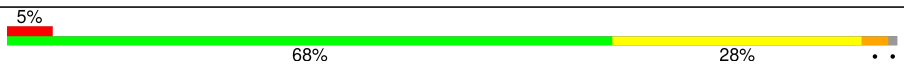
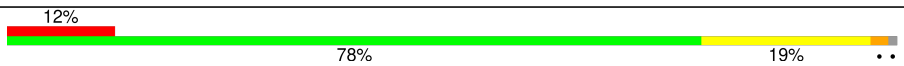
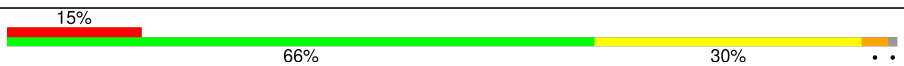
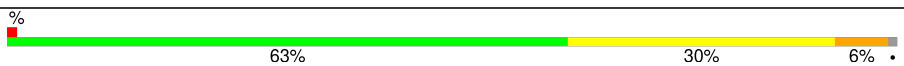
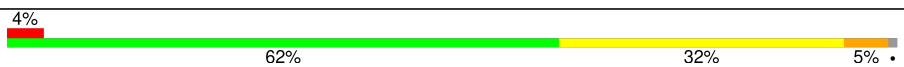
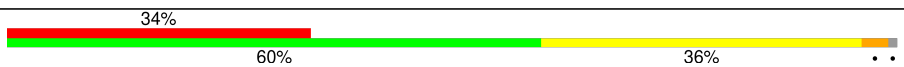
34	1c	239	
34	2c	239	
35	1d	209	
35	2d	209	
36	1e	162	
36	2e	162	
37	1f	101	
37	2f	101	
38	1g	156	
38	2g	156	
39	1h	138	
39	2h	138	
40	1i	128	

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Mol	Chain	Length	Quality of chain
40	2i	128	51% 59% 36%
41	1j	105	35% 61% 28% 8%
41	2j	105	46% 56% 31% 9%
42	1k	129	3% 67% 19% 12%
42	2k	129	13% 63% 23% 12%
43	1l	132	5% 73% 17% 8%
43	2l	132	6% 67% 23% 8%
44	1m	126	21% 59% 29% 5% 8%
44	2m	126	25% 57% 26% 7% 10%
45	1n	61	18% 59% 39%
45	2n	61	38% 66% 31%
46	1o	89	8% 69% 30%
46	2o	89	6% 71% 27%
47	1p	88	19% 49% 42% 7%
47	2p	88	7% 59% 30% 5% 7%
48	1q	105	6% 64% 30% 6%
48	2q	105	5% 68% 22% 5% 6%
49	1r	88	2% 56% 20% 23%
49	2r	88	2% 53% 23% 23%
50	1s	93	25% 58% 29% 11%
50	2s	93	37% 53% 33% 11%
51	1t	106	19% 60% 25% 9%
51	2t	106	7% 66% 23% 8%
52	1u	27	30% 74% 11% 15%
52	2u	27	41% 59% 26% 15%

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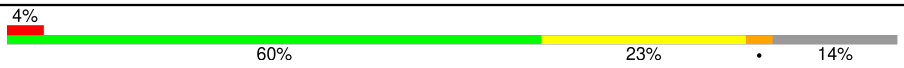
Mol	Chain	Length	Quality of chain
53	1y	113	
53	2y	113	

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
54	MG	1B	206	-	-	-	X
54	MG	1n	101	-	-	-	X

2 Entry composition (i)

There are 60 unique types of molecules in this entry. The entry contains 298432 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	2872	Total	C	N	O	P	0	0	0
			61869	27540	11574	19884	2871			
1	2A	2867	Total	C	N	O	P	0	0	0
			61758	27491	11552	19850	2865			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	1B	120	Total	C	N	O	P	0	0	0
			2572	1145	476	832	119			
2	2B	120	Total	C	N	O	P	0	0	0
			2573	1146	476	832	119			

- 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
			1584	1009	298	275	2			
5	2F	203	Total	C	N	O	S	0	0	1
			1580	1007	297	274	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	1G	181	Total	C	N	O	S	0	0	0
			1426	916	253	253	4			
6	2G	181	Total	C	N	O	S	0	0	0
			1424	912	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
			1094	699	191	203	1			
8	2I	146	Total	C	N	O	S	0	0	0
			1076	687	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
			933	588	171	170	4			

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

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
14	1S	110	Total 877	C 553	N 175	O 149	0	0	0
14	2S	110	Total 870	C 549	N 173	O 148	0	0	0

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

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

- 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
			608	375	129	103	1			
22	20	77	Total	C	N	O	S	0	0	0
			608	375	129	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
			754	475	148	130	1			
23	21	97	Total	C	N	O	S	0	0	0
			759	478	149	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
			459	288	90	76	5			
27	25	59	Total	C	N	O	S	0	0	0
			455	285	89	76	5			

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

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

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	1a	1500	Total	C	N	O	P	0	0	0
			32246	14358	5975	10413	1500			
32	2a	1504	Total	C	N	O	P	0	0	0
			32331	14396	5990	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
			986	625	193	168			
40	2i	126	Total	C	N	O	0	0	0
			966	613	186	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 S17.

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	1s	83	Total	C	N	O	S	0	0	0
			648	415	120	111	2			
50	2s	83	Total	C	N	O	S	0	0	0
			645	410	118	115	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	1t	96	Total	C	N	O	S	0	0	0
			732	449	157	124	2			
51	2t	98	Total	C	N	O	S	0	0	0
			733	451	154	126	2			

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

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

- Molecule 53 is a protein called Ribosome-associated inhibitor A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	1y	97	Total 764	C 478	N 144	O 139	S 3	0	0	0
53	2y	96	Total 749	C 468	N 141	O 137	S 3	0	0	0

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

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
54	1A	1053	Total 1053	Mg 1053	0	0
54	1B	31	Total 31	Mg 31	0	0
54	1D	15	Total 15	Mg 15	0	0
54	1E	10	Total 10	Mg 10	0	0
54	1F	17	Total 17	Mg 17	0	0
54	1G	4	Total 4	Mg 4	0	0
54	1H	3	Total 3	Mg 3	0	0
54	1N	4	Total 4	Mg 4	0	0
54	1O	2	Total 2	Mg 2	0	0
54	1P	7	Total 7	Mg 7	0	0
54	1Q	8	Total 8	Mg 8	0	0
54	1R	6	Total 6	Mg 6	0	0
54	1S	1	Total 1	Mg 1	0	0
54	1T	6	Total 6	Mg 6	0	0
54	1U	7	Total 7	Mg 7	0	0
54	1V	6	Total 6	Mg 6	0	0
54	1W	3	Total 3	Mg 3	0	0
54	1X	4	Total 4	Mg 4	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
54	1Y	2	Total Mg 2 2	0	0
54	1Z	1	Total Mg 1 1	0	0
54	10	8	Total Mg 8 8	0	0
54	11	3	Total Mg 3 3	0	0
54	13	4	Total Mg 4 4	0	0
54	14	1	Total Mg 1 1	0	0
54	15	5	Total Mg 5 5	0	0
54	17	5	Total Mg 5 5	0	0
54	18	2	Total Mg 2 2	0	0
54	19	3	Total Mg 3 3	0	0
54	1a	272	Total Mg 272 272	0	0
54	1b	1	Total Mg 1 1	0	0
54	1d	4	Total Mg 4 4	0	0
54	1e	5	Total Mg 5 5	0	0
54	1f	1	Total Mg 1 1	0	0
54	1g	3	Total Mg 3 3	0	0
54	1h	1	Total Mg 1 1	0	0
54	1k	1	Total Mg 1 1	0	0
54	1l	2	Total Mg 2 2	0	0
54	1m	2	Total Mg 2 2	0	0
54	1n	2	Total Mg 2 2	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
54	1o	2	Total Mg 2 2	0	0
54	1p	1	Total Mg 1 1	0	0
54	1q	1	Total Mg 1 1	0	0
54	1r	1	Total Mg 1 1	0	0
54	1t	3	Total Mg 3 3	0	0
54	1y	5	Total Mg 5 5	0	0
54	2A	770	Total Mg 770 770	0	0
54	2B	20	Total Mg 20 20	0	0
54	2D	10	Total Mg 10 10	0	0
54	2E	8	Total Mg 8 8	0	0
54	2F	5	Total Mg 5 5	0	0
54	2G	3	Total Mg 3 3	0	0
54	2I	1	Total Mg 1 1	0	0
54	2N	1	Total Mg 1 1	0	0
54	2O	3	Total Mg 3 3	0	0
54	2P	3	Total Mg 3 3	0	0
54	2Q	4	Total Mg 4 4	0	0
54	2R	2	Total Mg 2 2	0	0
54	2T	3	Total Mg 3 3	0	0
54	2V	4	Total Mg 4 4	0	0
54	2W	2	Total Mg 2 2	0	0

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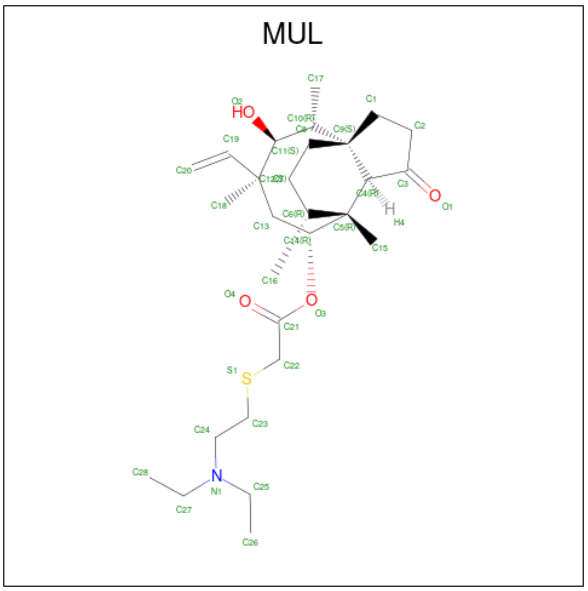
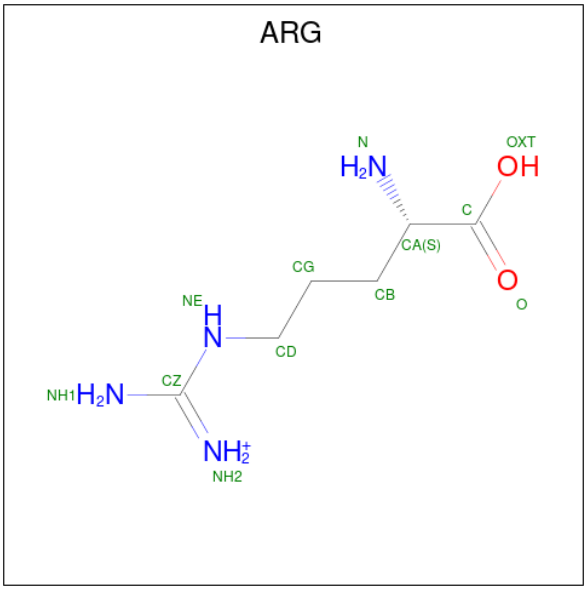
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
54	2X	2	Total Mg 2 2	0	0
54	2Y	1	Total Mg 1 1	0	0
54	20	1	Total Mg 1 1	0	0
54	21	1	Total Mg 1 1	0	0
54	23	1	Total Mg 1 1	0	0
54	25	3	Total Mg 3 3	0	0
54	26	1	Total Mg 1 1	0	0
54	28	1	Total Mg 1 1	0	0
54	2a	199	Total Mg 199 199	0	0
54	2e	1	Total Mg 1 1	0	0
54	2f	1	Total Mg 1 1	0	0
54	2j	1	Total Mg 1 1	0	0
54	2k	1	Total Mg 1 1	0	0
54	2o	1	Total Mg 1 1	0	0
54	2t	1	Total Mg 1 1	0	0

- Molecule 55 is TIAMULIN (CCD ID: MUL) (formula: $C_{28}H_{47}NO_4S$) (labeled as "Ligand of Interest" by depositor).



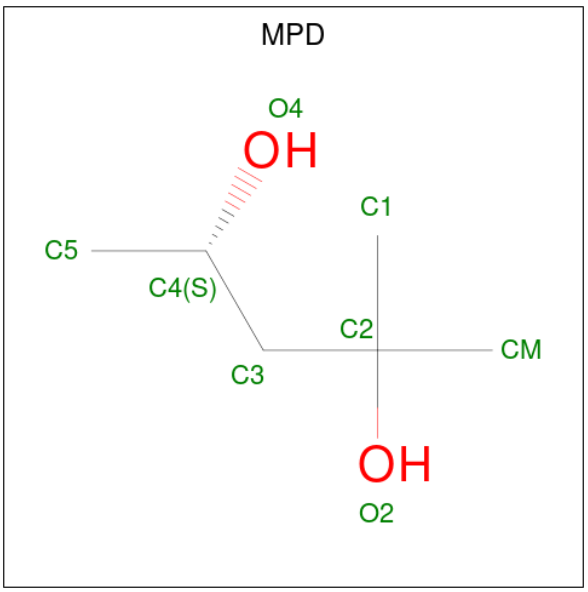
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
55	1A	1	Total	C	N	O	S	0	0
			34	28	1	4	1		
55	2A	1	Total	C	N	O	S	0	0
			34	28	1	4	1		

- Molecule 56 is ARGININE (CCD ID: ARG) (formula: $C_6H_{15}N_4O_2$).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
56	1A	1	Total	C	N	O	0	0
			12	6	4	2		
56	1B	1	Total	C	N	O	0	0
			12	6	4	2		

- Molecule 57 is (4S)-2-METHYL-2,4-PENTANEDIOL (CCD ID: MPD) (formula: $C_6H_{14}O_2$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	1A	1	Total C O 8 6 2	0	0
57	18	1	Total C O 8 6 2	0	0
57	1a	1	Total C O 8 6 2	0	0
57	1a	1	Total C O 8 6 2	0	0
57	2A	1	Total C O 8 6 2	0	0
57	2A	1	Total C O 8 6 2	0	0
57	2B	1	Total C O 8 6 2	0	0

- Molecule 58 is ZINC ION (CCD ID: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	1Y	1	Total Zn 1 1	0	0
58	14	1	Total Zn 1 1	0	0
58	15	1	Total Zn 1 1	0	0
58	16	1	Total Zn 1 1	0	0

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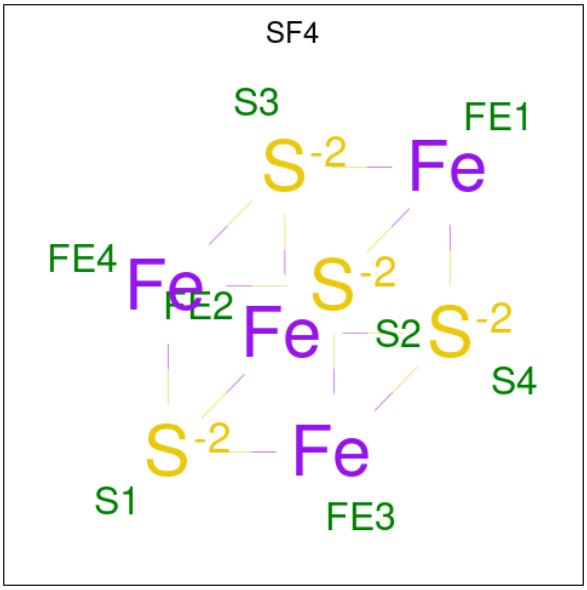
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	19	1	Total Zn 1 1	0	0
58	1n	1	Total Zn 1 1	0	0
58	2Y	1	Total Zn 1 1	0	0
58	24	1	Total Zn 1 1	0	0
58	25	1	Total Zn 1 1	0	0
58	26	1	Total Zn 1 1	0	0
58	29	1	Total Zn 1 1	0	0
58	2n	1	Total Zn 1 1	0	0

- Molecule 59 is IRON/SULFUR CLUSTER (CCD ID: SF4) (formula: Fe_4S_4).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	1d	1	Total Fe S 8 4 4	0	0
59	2d	1	Total Fe S 8 4 4	0	0

- Molecule 60 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	1A	4116	Total O 4116 4116	0	0
60	1B	105	Total O 105 105	0	0
60	1D	116	Total O 116 116	0	0
60	1E	82	Total O 82 82	0	0
60	1F	69	Total O 69 69	0	0
60	1G	21	Total O 21 21	0	0
60	1H	15	Total O 15 15	0	0
60	1I	6	Total O 6 6	0	0
60	1N	57	Total O 57 57	0	0
60	1O	27	Total O 27 27	0	0
60	1P	66	Total O 66 66	0	0
60	1Q	45	Total O 45 45	0	0
60	1R	35	Total O 35 35	0	0
60	1S	12	Total O 12 12	0	0
60	1T	36	Total O 36 36	0	0
60	1U	44	Total O 44 44	0	0
60	1V	40	Total O 40 40	0	0
60	1W	30	Total O 30 30	0	0
60	1X	26	Total O 26 26	0	0
60	1Y	17	Total O 17 17	0	0
60	1Z	12	Total O 12 12	0	0
60	10	23	Total O 23 23	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	11	27	Total O 27 27	0	0
60	12	11	Total O 11 11	0	0
60	13	26	Total O 26 26	0	0
60	14	3	Total O 3 3	0	0
60	15	27	Total O 27 27	0	0
60	16	17	Total O 17 17	0	0
60	17	15	Total O 15 15	0	0
60	18	33	Total O 33 33	0	0
60	19	11	Total O 11 11	0	0
60	1a	574	Total O 574 574	0	0
60	1c	1	Total O 1 1	0	0
60	1d	8	Total O 8 8	0	0
60	1e	12	Total O 12 12	0	0
60	1f	3	Total O 3 3	0	0
60	1g	1	Total O 1 1	0	0
60	1h	1	Total O 1 1	0	0
60	1j	1	Total O 1 1	0	0
60	1l	4	Total O 4 4	0	0
60	1m	2	Total O 2 2	0	0
60	1n	1	Total O 1 1	0	0
60	1o	7	Total O 7 7	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	1p	4	Total O 4 4	0	0
60	1t	2	Total O 2 2	0	0
60	1y	4	Total O 4 4	0	0
60	2A	2550	Total O 2550 2550	0	0
60	2B	61	Total O 61 61	0	0
60	2D	65	Total O 65 65	0	0
60	2E	37	Total O 37 37	0	0
60	2F	20	Total O 20 20	0	0
60	2G	7	Total O 7 7	0	0
60	2H	4	Total O 4 4	0	0
60	2I	3	Total O 3 3	0	0
60	2N	7	Total O 7 7	0	0
60	2O	20	Total O 20 20	0	0
60	2P	34	Total O 34 34	0	0
60	2Q	25	Total O 25 25	0	0
60	2R	14	Total O 14 14	0	0
60	2S	4	Total O 4 4	0	0
60	2T	13	Total O 13 13	0	0
60	2U	16	Total O 16 16	0	0
60	2V	6	Total O 6 6	0	0
60	2W	25	Total O 25 25	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	2X	10	Total O 10 10	0	0
60	2Y	5	Total O 5 5	0	0
60	2Z	11	Total O 11 11	0	0
60	20	15	Total O 15 15	0	0
60	21	21	Total O 21 21	0	0
60	22	4	Total O 4 4	0	0
60	23	5	Total O 5 5	0	0
60	25	7	Total O 7 7	0	0
60	26	5	Total O 5 5	0	0
60	27	13	Total O 13 13	0	0
60	28	16	Total O 16 16	0	0
60	29	2	Total O 2 2	0	0
60	2a	457	Total O 457 457	0	0
60	2d	7	Total O 7 7	0	0
60	2e	2	Total O 2 2	0	0
60	2f	1	Total O 1 1	0	0
60	2j	2	Total O 2 2	0	0
60	2l	3	Total O 3 3	0	0
60	2o	4	Total O 4 4	0	0
60	2p	4	Total O 4 4	0	0
60	2q	1	Total O 1 1	0	0

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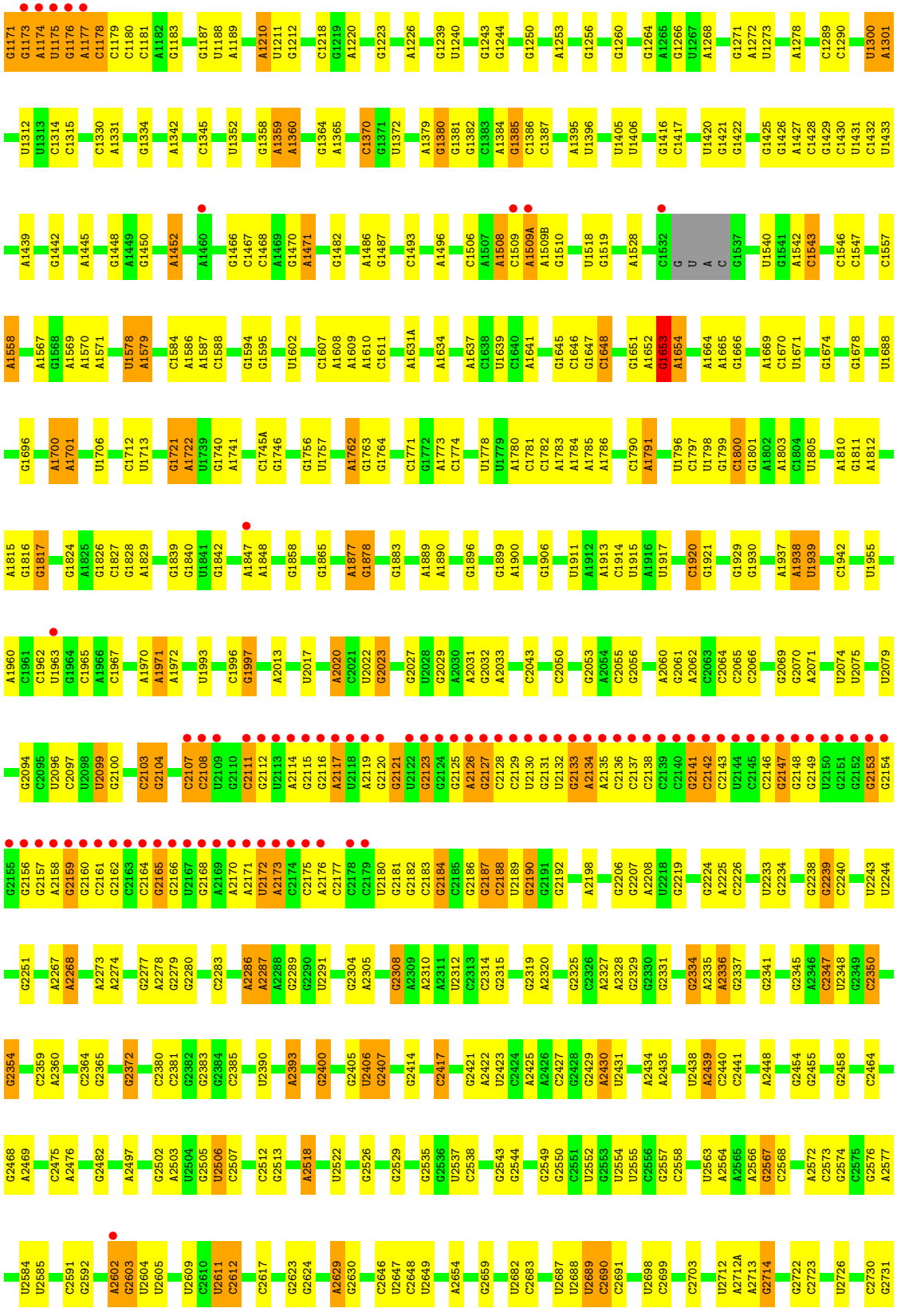
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	2r	5	Total O 5 5	0	0
60	2t	2	Total O 2 2	0	0
60	2u	1	Total O 1 1	0	0
60	2y	3	Total O 3 3	0	0

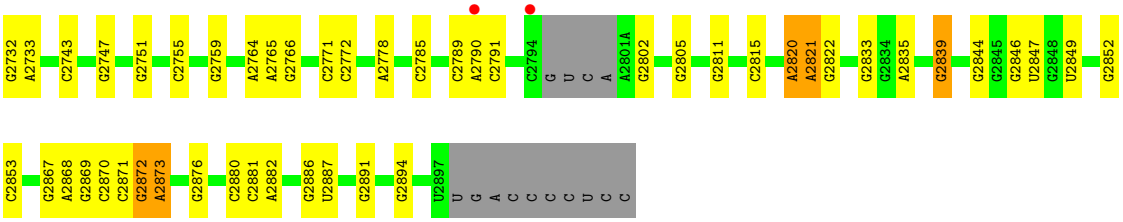
3 Residue-property plots (i)

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

- Molecule 1: 23S Ribosomal RNA

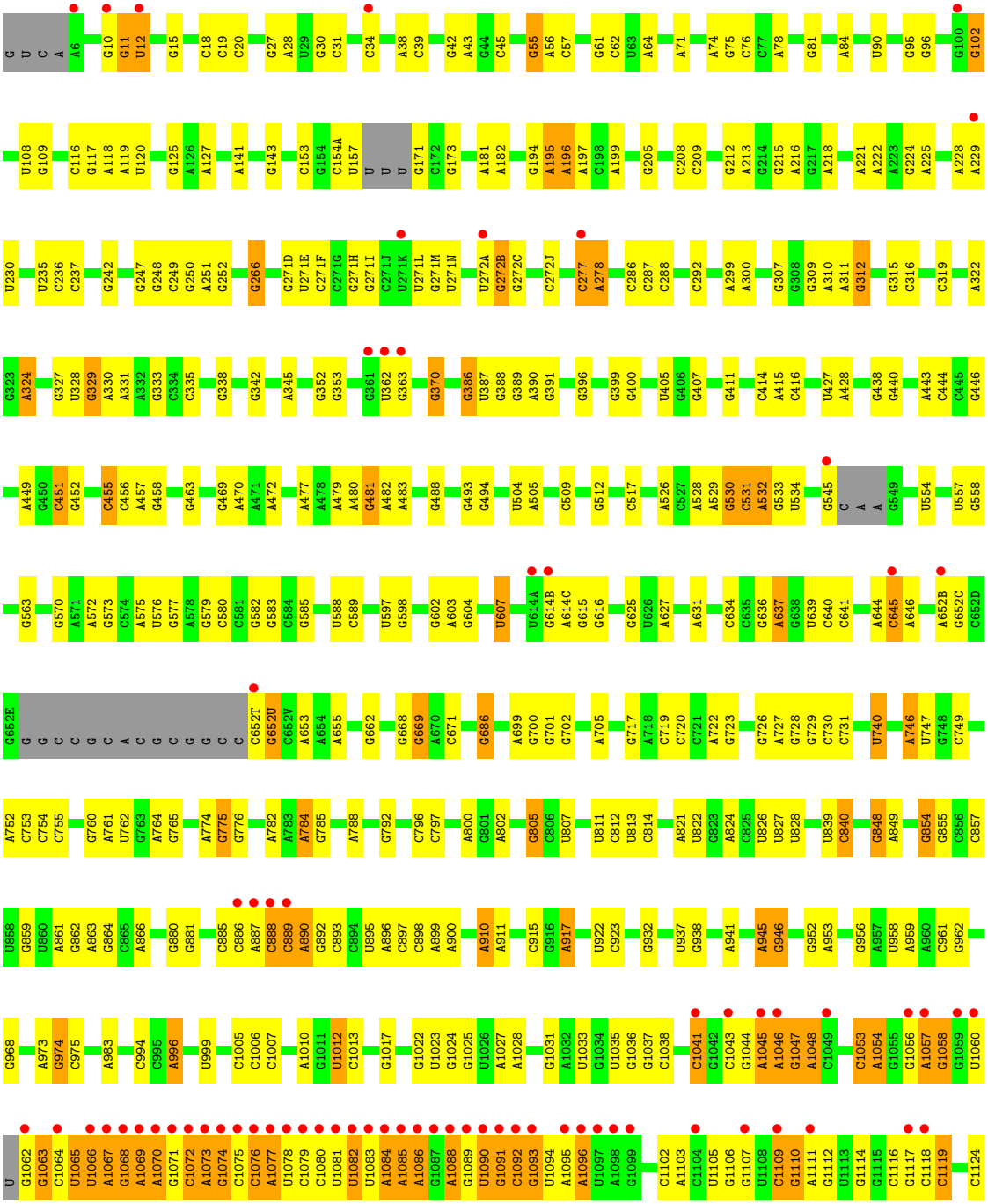
Chain 1A:

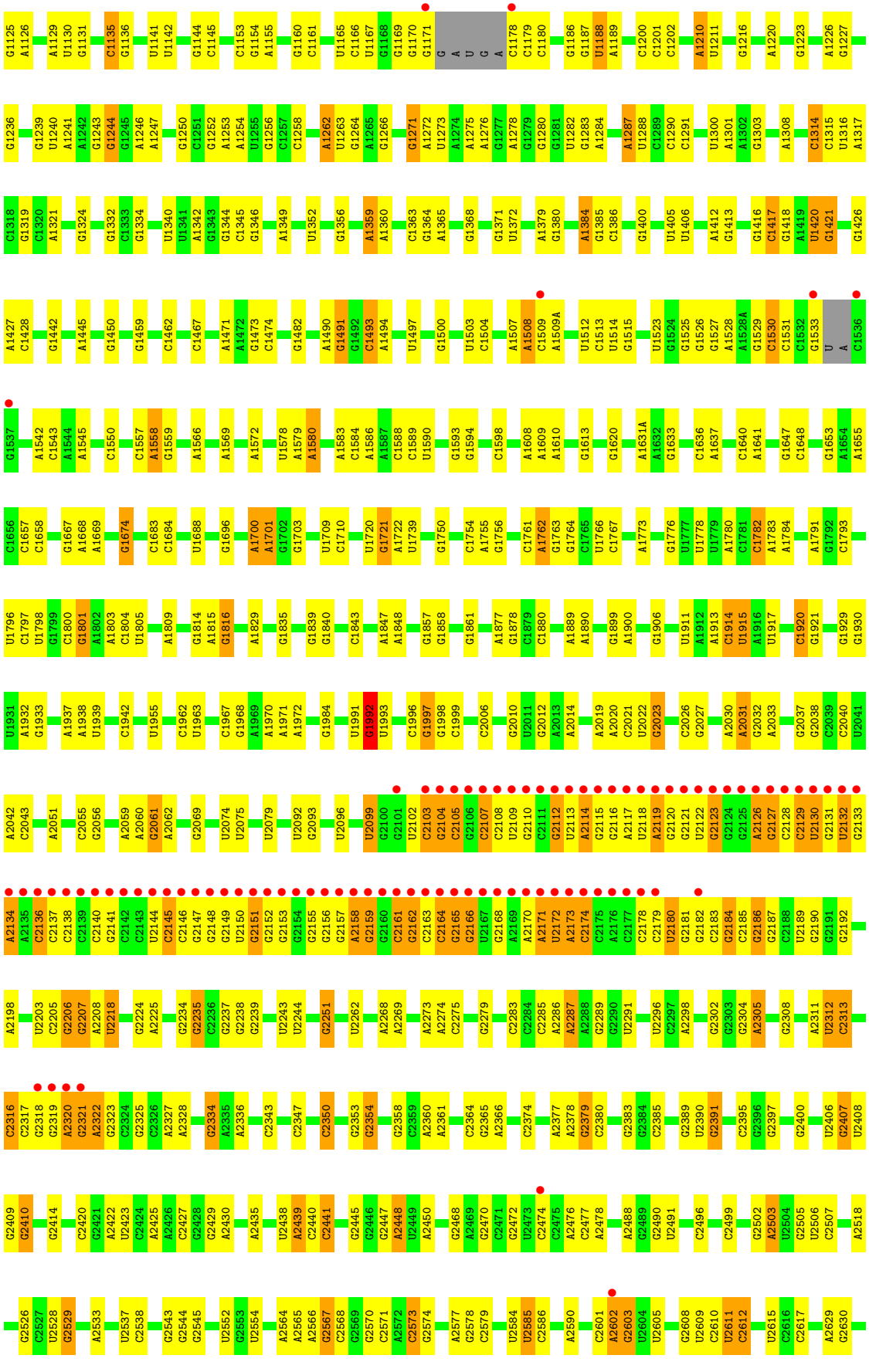

G1171 G1173 A1174 U1175 G1176 A1177 C1178 C1179 C1180 C1181 A1182 G1183 G1187 U1188 A1189 A1210 U1211 G1212 C1218 G1219 A1220 G1223 A1226 G1239 U1240 G1243 G1244 G1250 A1253 G1256 G1260 G1264 A1265 G1266 U1267 A1268 G1271 A1272 U1273 A1278 C1289 C1290 U1300 A1301
U1312 U1313 C1314 C1315 C1330 A1331 G1334 A1342 C1345 U1352 G1358 A1359 A1360 G1364 A1365 C1370 G1371 U1372 A1379 G1380 G1381 G1382 C1383 A1384 G1385 C1386 C1387 A1395 U1396 U1405 U1406 G1416 C1417 U1420 G1421 G1422 G1425 G1426 A1427 C1428 G1429 C1430 U1431 C1432 U1433
A1439 G1442 A1445 G1448 A1449 G1450 A1452 A1460 G1466 C1467 C1468 A1469 G1470 A1471 G1482 A1486 G1487 C1493 A1496 C1506 A1507 A1508 C1509 A1509A A1509B G1510 U1518 G1519 A1528 C1532 G U A C G1537 U1540 G1541 A1542 C1543 C1546 C1547 C1557
A1558 A1567 G1568 A1569 A1570 A1571 U1578 A1579 C1584 A1586 A1587 C1588 G1594 G1595 U1602 C1607 A1608 A1609 A1610 C1611 A1631A A1634 A1637 C1638 U1639 C1640 A1641 G1645 C1646 G1647 C1648 G1651 A1652 G1653 A1654 A1664 A1665 G1666 A1669 C1670 U1671 G1674 G1678 U1688
G1696 A1700 A1701 U1706 C1712 U1713 G1721 A1722 U1739 G1740 A1741 C1745A G1746 G1756 U1757 A1762 G1763 G1764 C1771 G1772 A1773 C1774 U1778 U1779 A1780 C1781 C1782 A1783 A1784 A1785 A1786 C1790 A1791 U1796 C1797 U1798 G1799 C1800 G1801 A1802 A1803 C1804 U1805 A1810 G1811 A1812
A1815 G1816 G1817 G1824 A1825 G1826 C1827 G1828 A1829 G1839 G1840 U1841 G1842 A1847 A1848 G1858 G1865 A1877 G1878 G1883 A1889 A1890 G1896 G1899 A1900 G1906 U1911 A1912 A1913 C1914 U1915 A1916 U1917 C1920 G1921 G1929 G1930 A1937 A1938 U1939 C1942 U1965
A1960 C1961 C1962 U1963 G1964 C1965 A1966 C1967 A1970 A1971 A1972 U1993 C1996 G1997 A2013 U2017 A2020 C2021 U2022 G2023 G2027 U2028 G2029 A2030 A2031 G2032 A2033 C2043 C2050 G2053 A2054 C2055 G2056 A2060 G2061 A2062 C2063 C2064 C2065 C2066 G2069 G2070 A2071 U2074 U2075 U2079
G2094 C2095 U2096 C2097 U2098 U2099 G2100 C2103 G2104 C2107 C2108 U2109 G2110 C2111 G2112 U2113 A2114 G2115 G2116 A2117 U2118 A2119 G2120 G2121 U2122 G2123 G2124 G2125 A2126 G2127 C2128 C2129 U2130 G2131 U2132 G2133 A2134 A2135 C2136 C2137 C2138 C2139 C2140 G2141 C2142 C2143 U2144 C2145 C2146 G2147 G2148 G2149 U2150 G2151 G2152 G2153 G2154
G2155 G2156 G2157 A2158 G2159 G2160 C2161 G2162 C2163 C2164 G2165 G2166 U2167 G2168 A2169 A2170 A2171 U2172 A2173 C2174 C2175 A2176 C2177 C2178 C2179 U2180 G2181 G2182 C2183 G2184 C2185 G2186 G2187 C2188 U2189 G2190 G2191 G2192 A2198 G2206 G2207 A2208 U2218 G2219 G2224 A2225 C2226 U2233 G2234 G2238 G2239 C2240 U2243 U2244
G2251 A2267 A2268 A2273 A2274 G2277 A2278 G2279 G2280 C2283 A2286 A2287 A2288 G2289 G2290 U2291 G2304 A2305 G2308 A2309 A2310 A2311 U2312 C2313 C2314 G2315 G2319 A2320 G2325 C2326 A2327 A2328 G2329 G2330 G2331 G2334 A2335 A2336 G2337 G2341 G2345 A2346 C2347 U2348 G2349 C2350
G2354 C2359 A2360 C2364 G2365 G2372 C2380 C2381 G2382 G2383 G2384 C2385 U2390 A2393 G2400 G2405 U2406 G2407 G2414 C2417 G2421 A2422 U2423 C2424 A2425 A2426 C2427 G2428 G2429 A2430 U2431 A2434 A2435 U2438 A2439 C2440 C2441 A2448 G2454 G2455 G2458 C2464
G2468 A2469 C2475 A2476 G2482 A2497 G2502 A2503 U2504 G2505 U2506 C2507 C2512 G2513 A2518 U2522 G2526 G2529 G2535 G2536 U2537 C2538 G2543 G2544 G2549 G2550 C2551 U2552 G2553 U2554 U2555 C2556 G2557 C2558 U2563 A2564 A2565 A2566 G2567 C2568 A2572 C2573 G2574 C2575 G2576 A2577
U2584 U2585 C2591 G2592 A2602 G2603 U2604 U2605 U2609 C2610 U2611 C2612 C2617 G2623 G2624 A2629 G2630 C2646 U2647 C2648 U2649 A2654 G2659 U2682 C2683 U2687 U2688 U2689 C2690 C2691 U2698 C2699 C2703 U2712 A2712A A2713 G2714 G2722 C2723 U2726 C2730 G2731

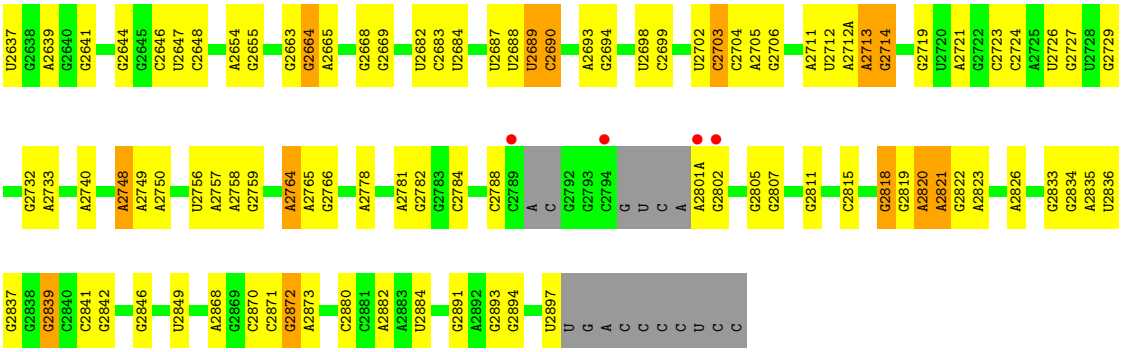


• Molecule 1: 23S Ribosomal RNA

Chain 2A:

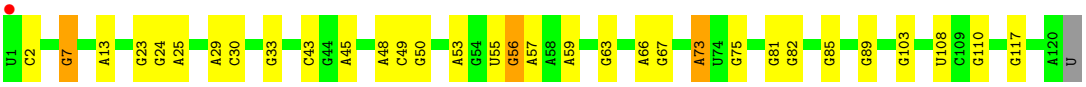






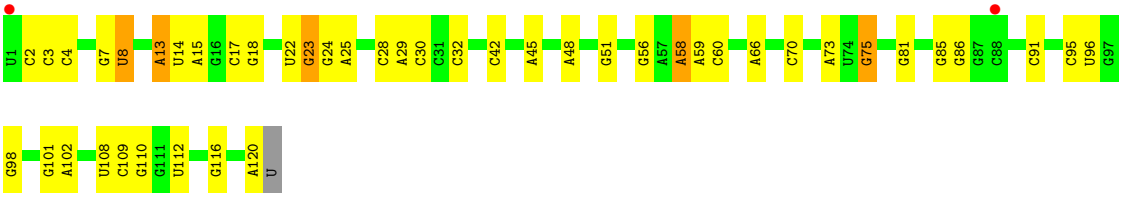
• Molecule 2: 5S Ribosomal RNA

Chain 1B:



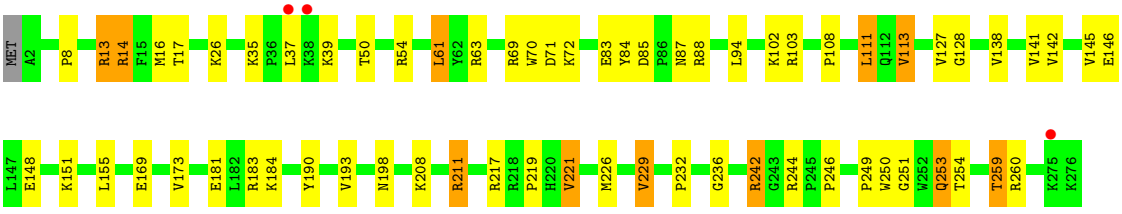
• Molecule 2: 5S Ribosomal RNA

Chain 2B:



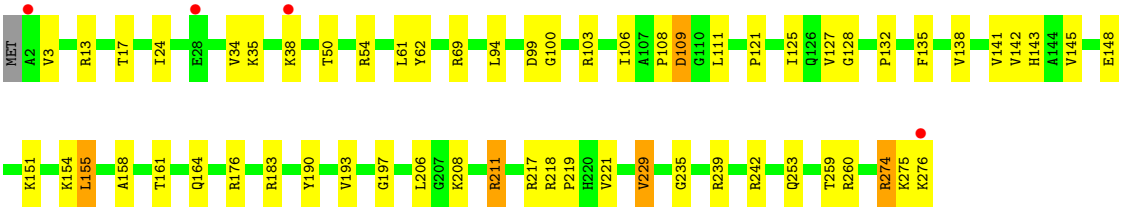
• Molecule 3: 50S ribosomal protein L2

Chain 1D:



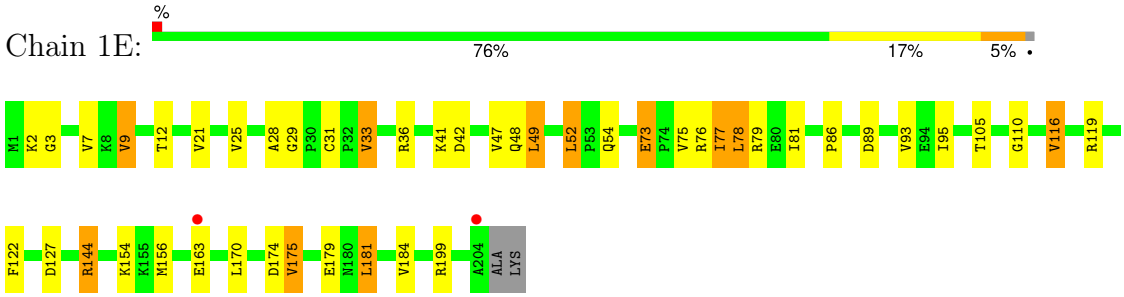
• Molecule 3: 50S ribosomal protein L2

Chain 2D:



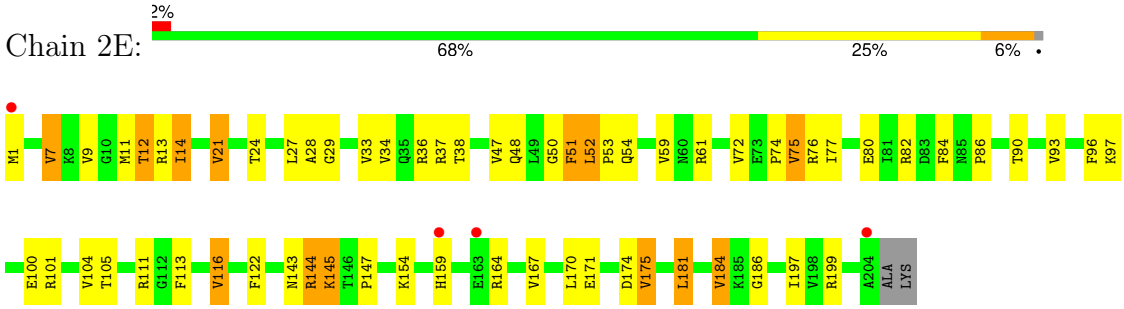
• Molecule 4: 50S ribosomal protein L3

Chain 1E:



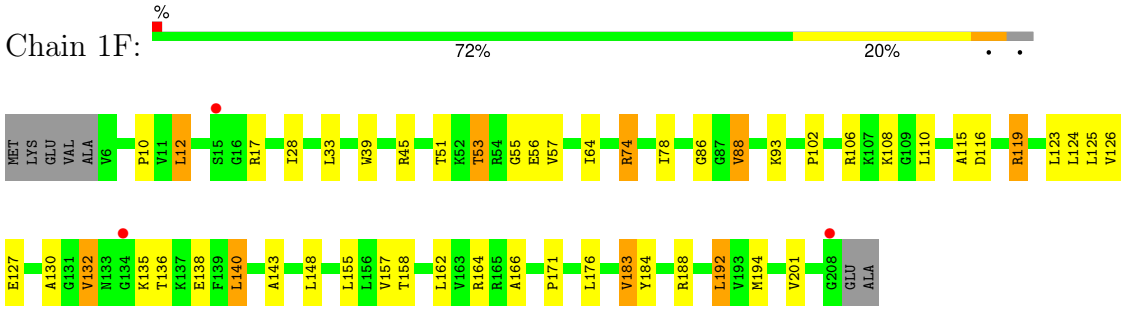
• Molecule 4: 50S ribosomal protein L3

Chain 2E:



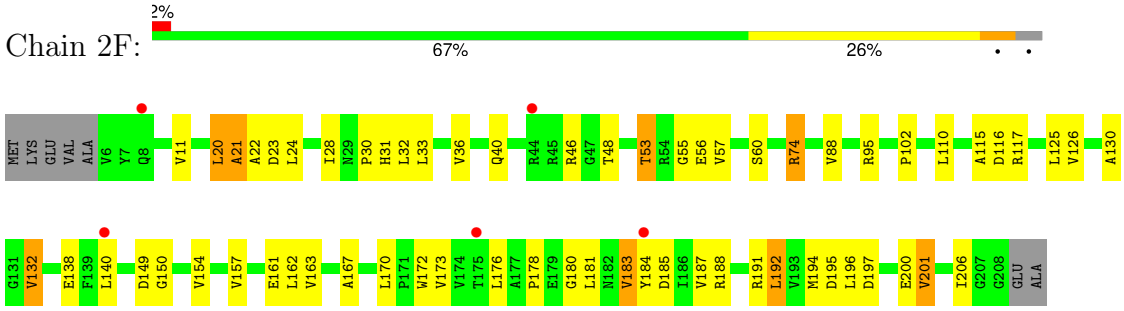
• Molecule 5: 50S ribosomal protein L4

Chain 1F:



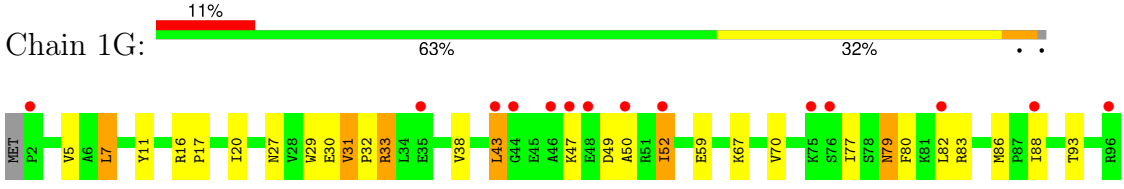
• Molecule 5: 50S ribosomal protein L4

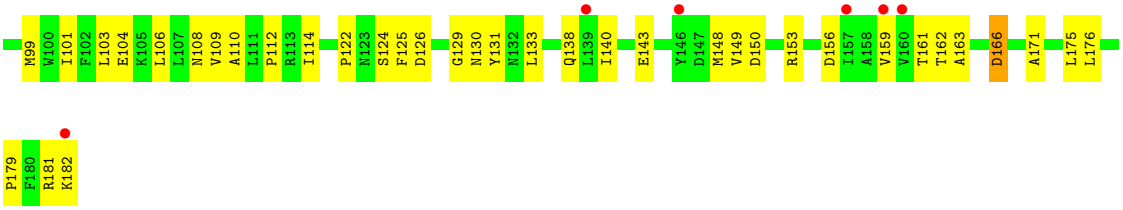
Chain 2F:



• Molecule 6: 50S ribosomal protein L5

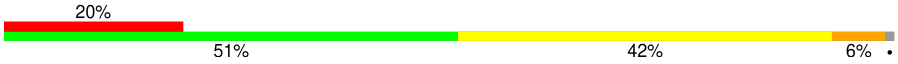
Chain 1G:

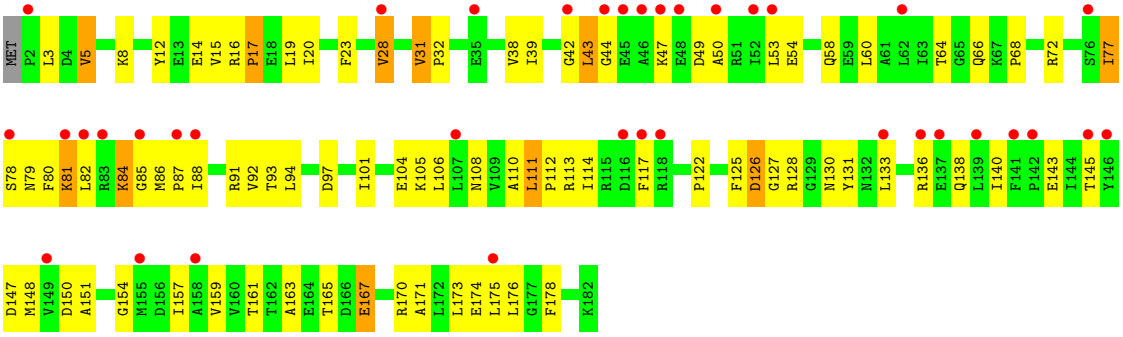




• Molecule 6: 50S ribosomal protein L5

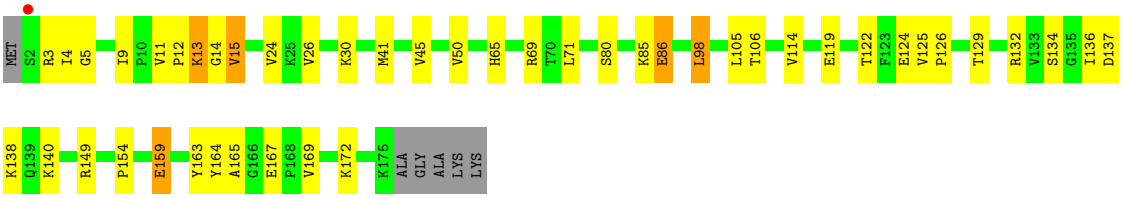
Chain 2G:





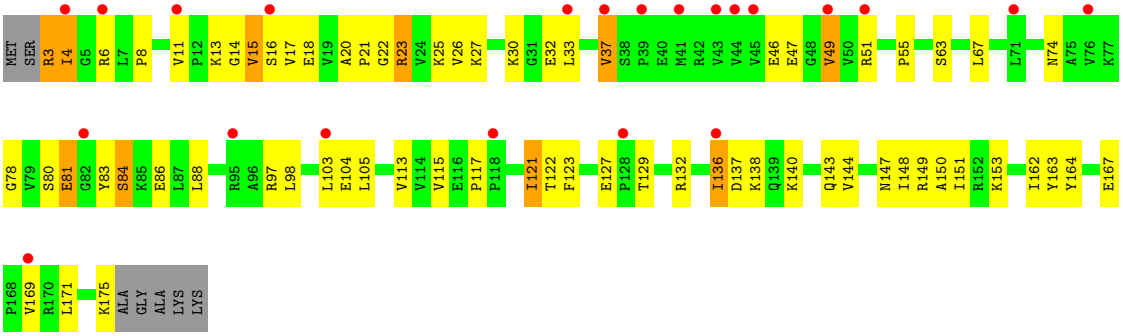
• Molecule 7: 50S ribosomal protein L6

Chain 1H:



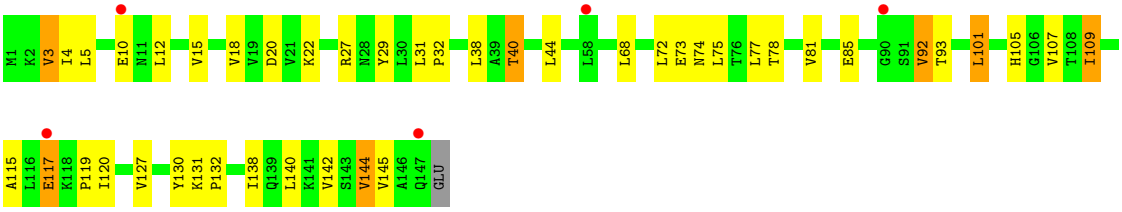
• Molecule 7: 50S ribosomal protein L6

Chain 2H:



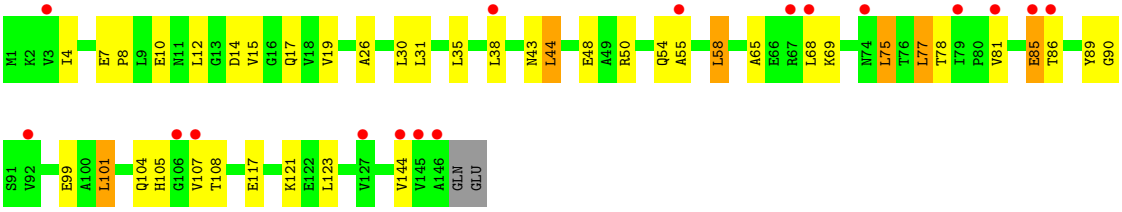
• Molecule 8: 50S ribosomal protein L9

Chain 1I:



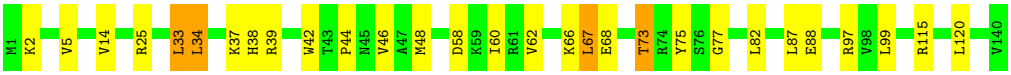
• Molecule 8: 50S ribosomal protein L9

Chain 2I:



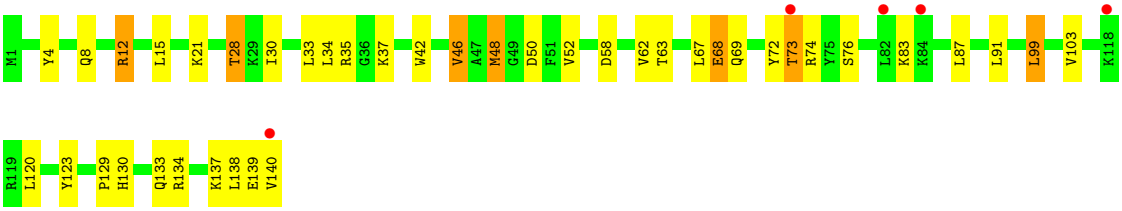
• Molecule 9: 50S ribosomal protein L13

Chain 1N:



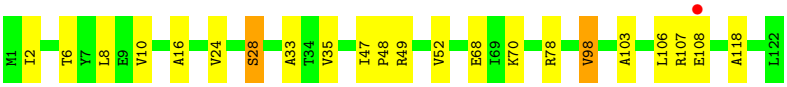
• Molecule 9: 50S ribosomal protein L13

Chain 2N:



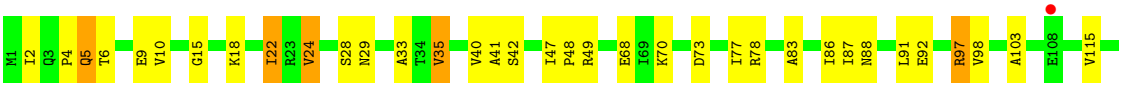
• Molecule 10: 50S ribosomal protein L14

Chain 1O:



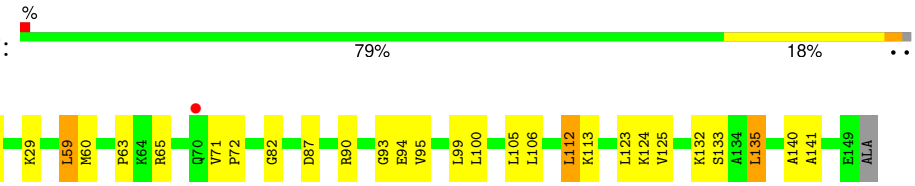
• Molecule 10: 50S ribosomal protein L14

Chain 2O:



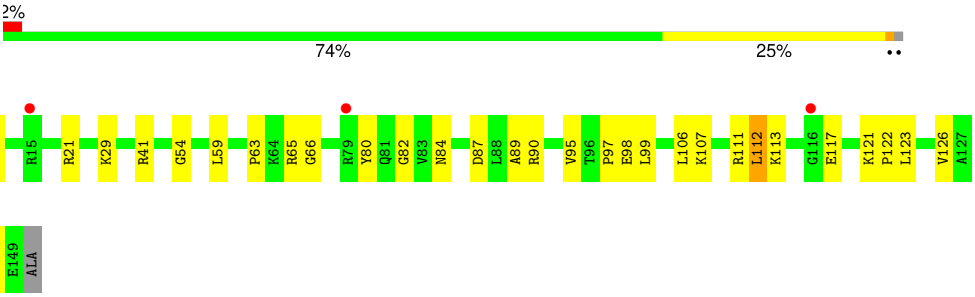
• Molecule 11: 50S ribosomal protein L15

Chain 1P:



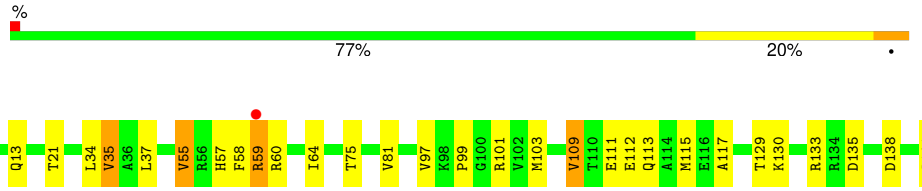
• Molecule 11: 50S ribosomal protein L15

Chain 2P:



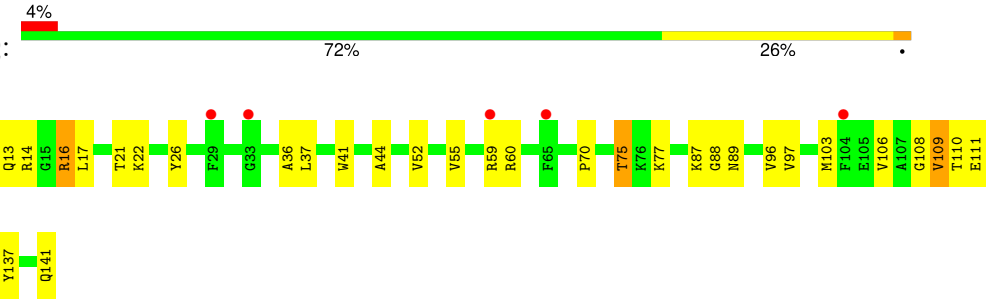
• Molecule 12: 50S ribosomal protein L16

Chain 1Q:



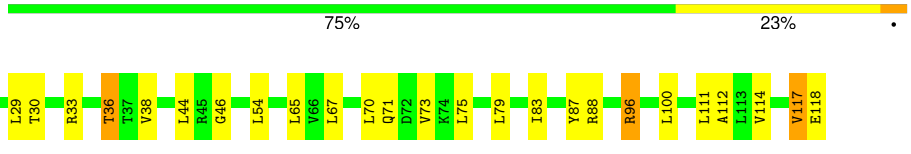
• Molecule 12: 50S ribosomal protein L16

Chain 2Q:



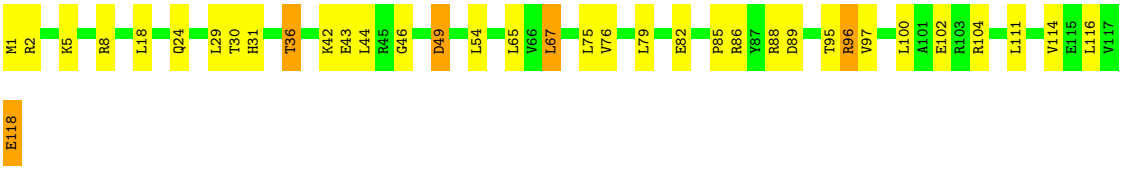
• Molecule 13: 50S ribosomal protein L17

Chain 1R:



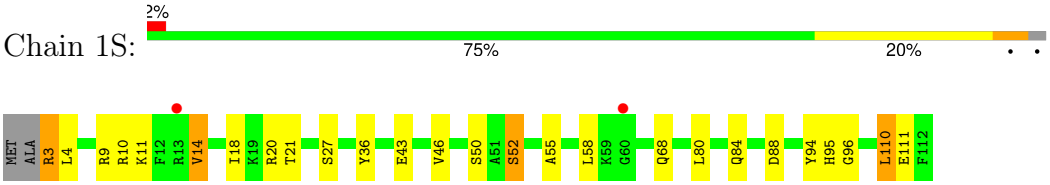
• Molecule 13: 50S ribosomal protein L17

Chain 2R:



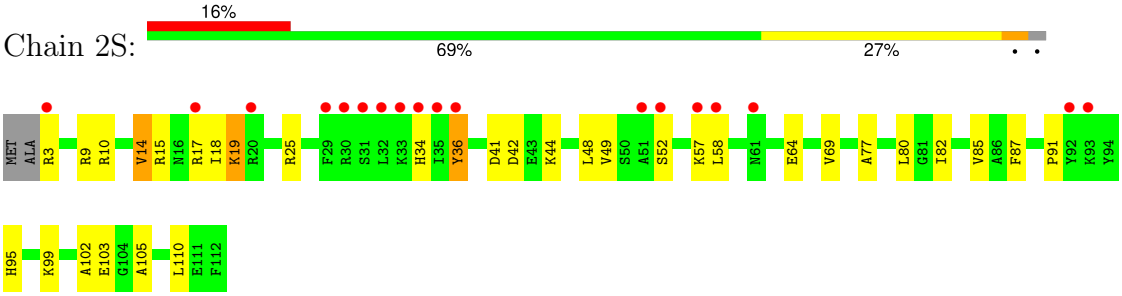
• Molecule 14: 50S ribosomal protein L18

Chain 1S:



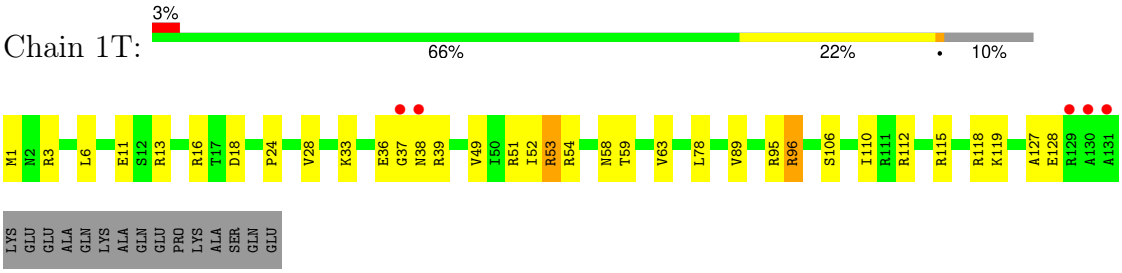
• Molecule 14: 50S ribosomal protein L18

Chain 2S:



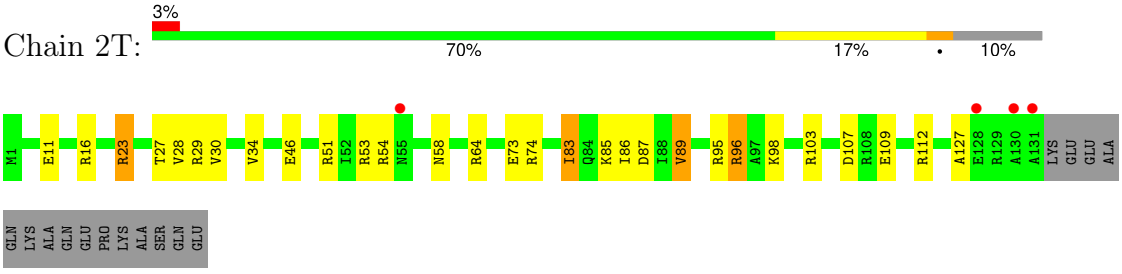
• Molecule 15: 50S ribosomal protein L19

Chain 1T:



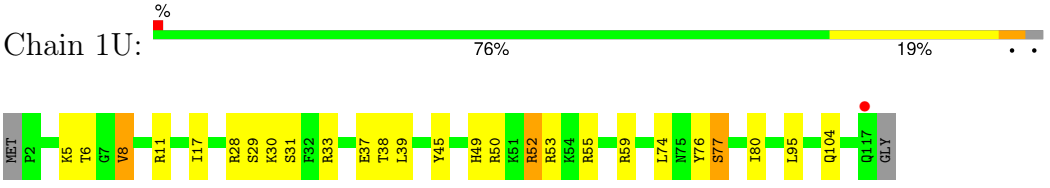
• Molecule 15: 50S ribosomal protein L19

Chain 2T:



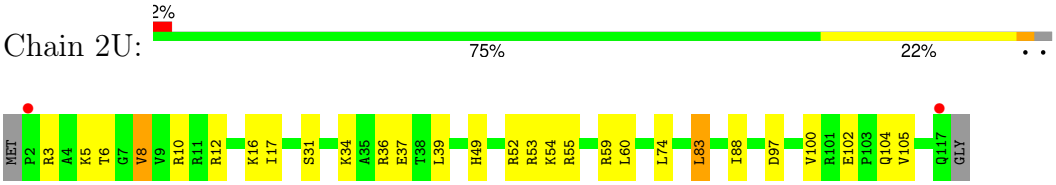
• Molecule 16: 50S ribosomal protein L20

Chain 1U:



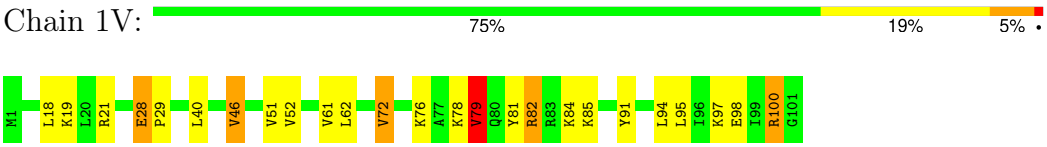
• Molecule 16: 50S ribosomal protein L20

Chain 2U:



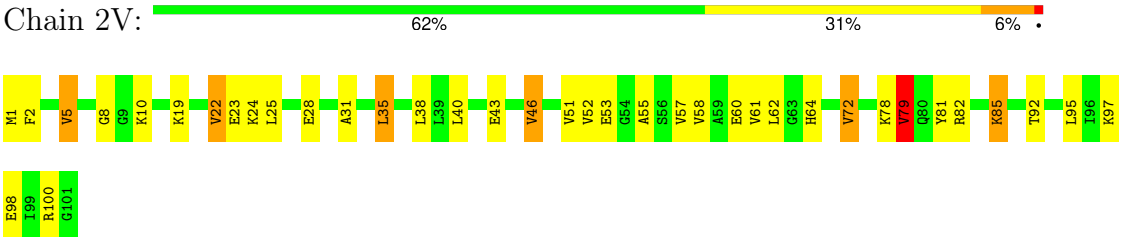
• Molecule 17: 50S ribosomal protein L21

Chain 1V:



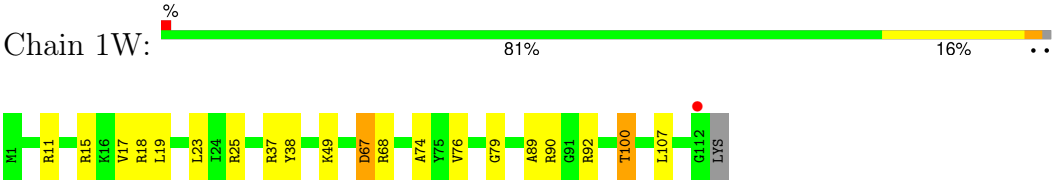
• Molecule 17: 50S ribosomal protein L21

Chain 2V:



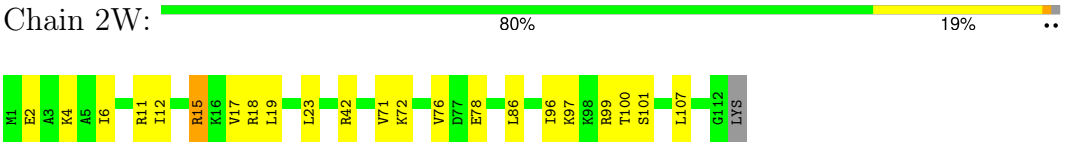
• Molecule 18: 50S ribosomal protein L22

Chain 1W:



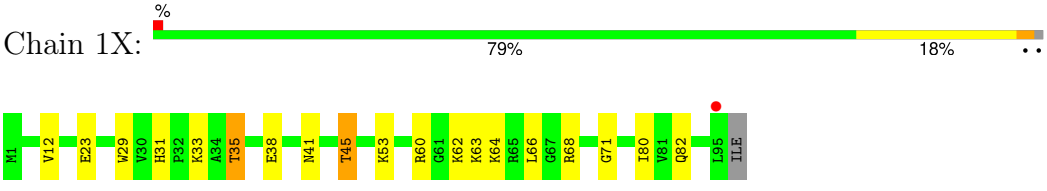
• Molecule 18: 50S ribosomal protein L22

Chain 2W:



• Molecule 19: 50S ribosomal protein L23

Chain 1X:

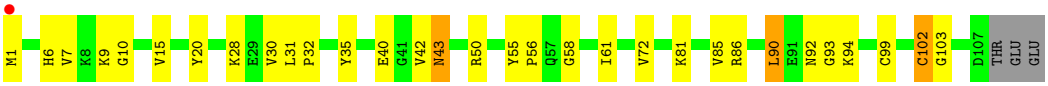


• Molecule 19: 50S ribosomal protein L23

Chain 2X:

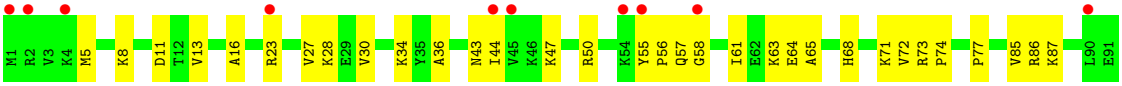
• Molecule 20: 50S ribosomal protein L24

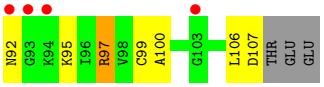
Chain 1Y:



• Molecule 20: 50S ribosomal protein L24

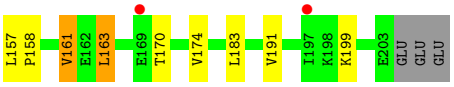
Chain 2Y:





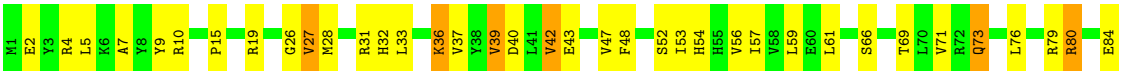
• Molecule 21: 50S ribosomal protein L25

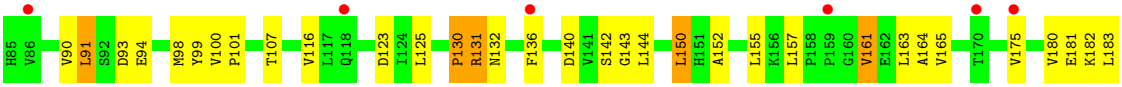
Chain 1Z:

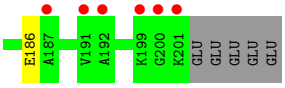


• Molecule 21: 50S ribosomal protein L25

Chain 2Z:

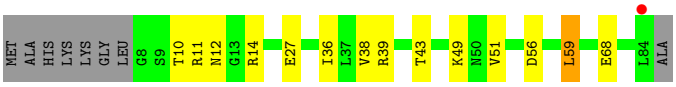




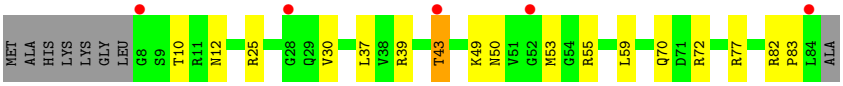


• Molecule 22: 50S ribosomal protein L27

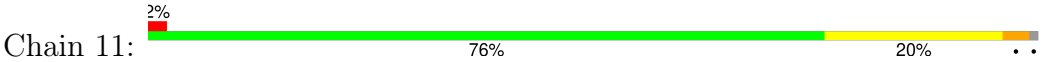
Chain 10:

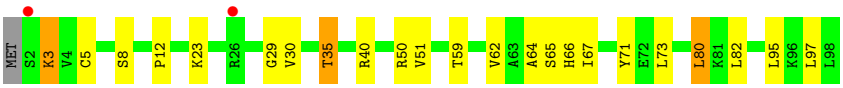


• Molecule 22: 50S ribosomal protein L27



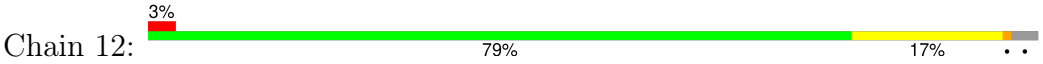
• Molecule 23: 50S ribosomal protein L28

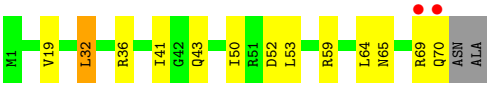




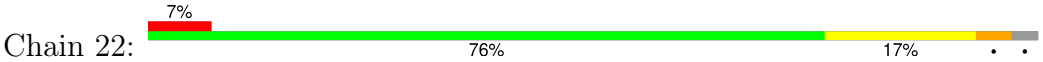
• Molecule 23: 50S ribosomal protein L28

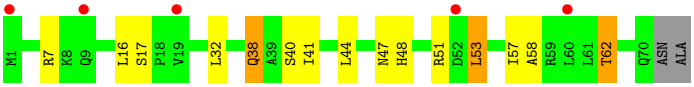
• Molecule 24: 50S ribosomal protein L29



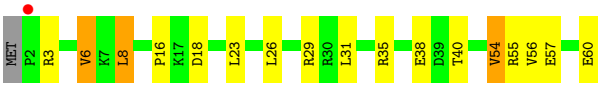


• Molecule 24: 50S ribosomal protein L29



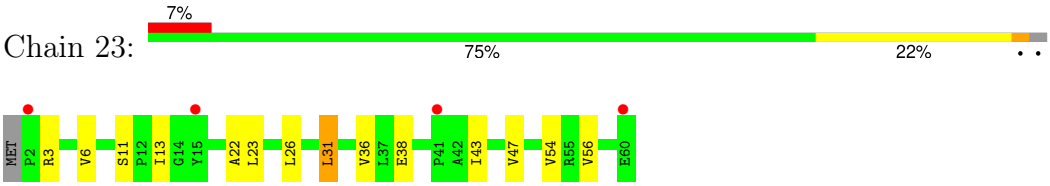


• Molecule 25: 50S ribosomal protein L30



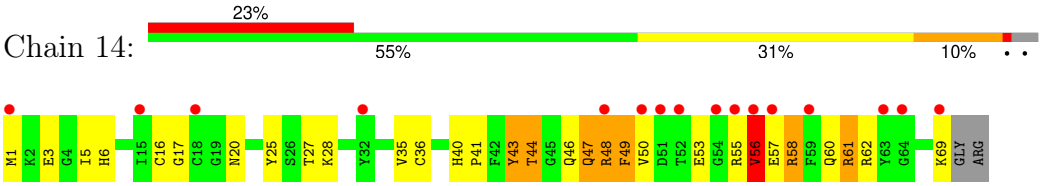
• Molecule 25: 50S ribosomal protein L30

Chain 23:



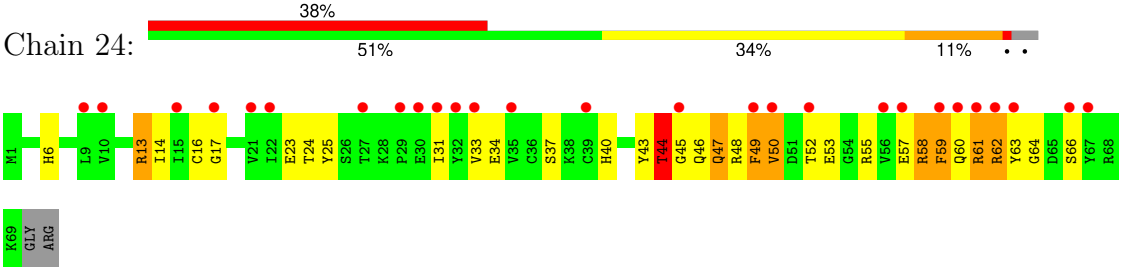
• Molecule 26: 50S ribosomal protein L31

Chain 14:



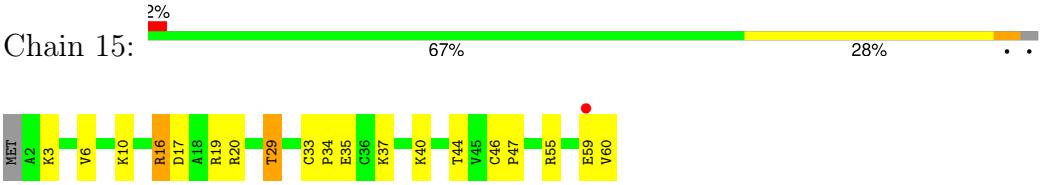
• Molecule 26: 50S ribosomal protein L31

Chain 24:



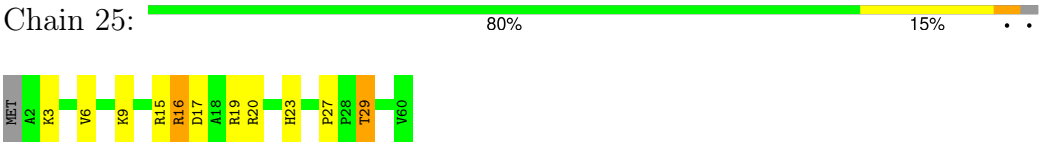
• Molecule 27: 50S ribosomal protein L32

Chain 15:



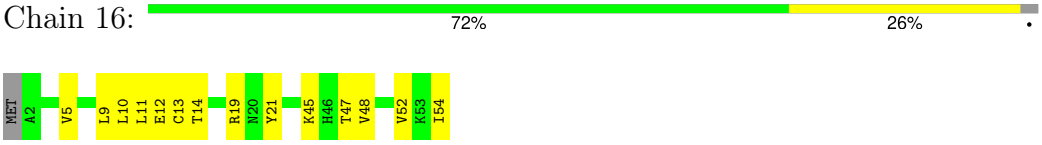
• Molecule 27: 50S ribosomal protein L32

Chain 25:



• Molecule 28: 50S ribosomal protein L33

Chain 16:

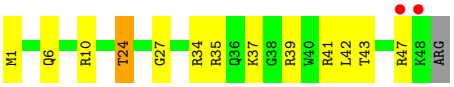


• Molecule 28: 50S ribosomal protein L33

Chain 26:

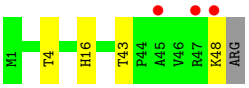
• Molecule 29: 50S ribosomal protein L34

Chain 17:



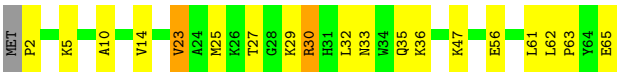
• Molecule 29: 50S ribosomal protein L34

Chain 27:



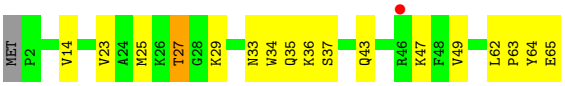
• Molecule 30: 50S ribosomal protein L35

Chain 18:



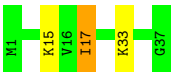
• Molecule 30: 50S ribosomal protein L35

Chain 28:



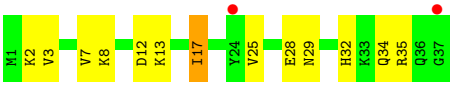
• Molecule 31: 50S ribosomal protein L36

Chain 19:



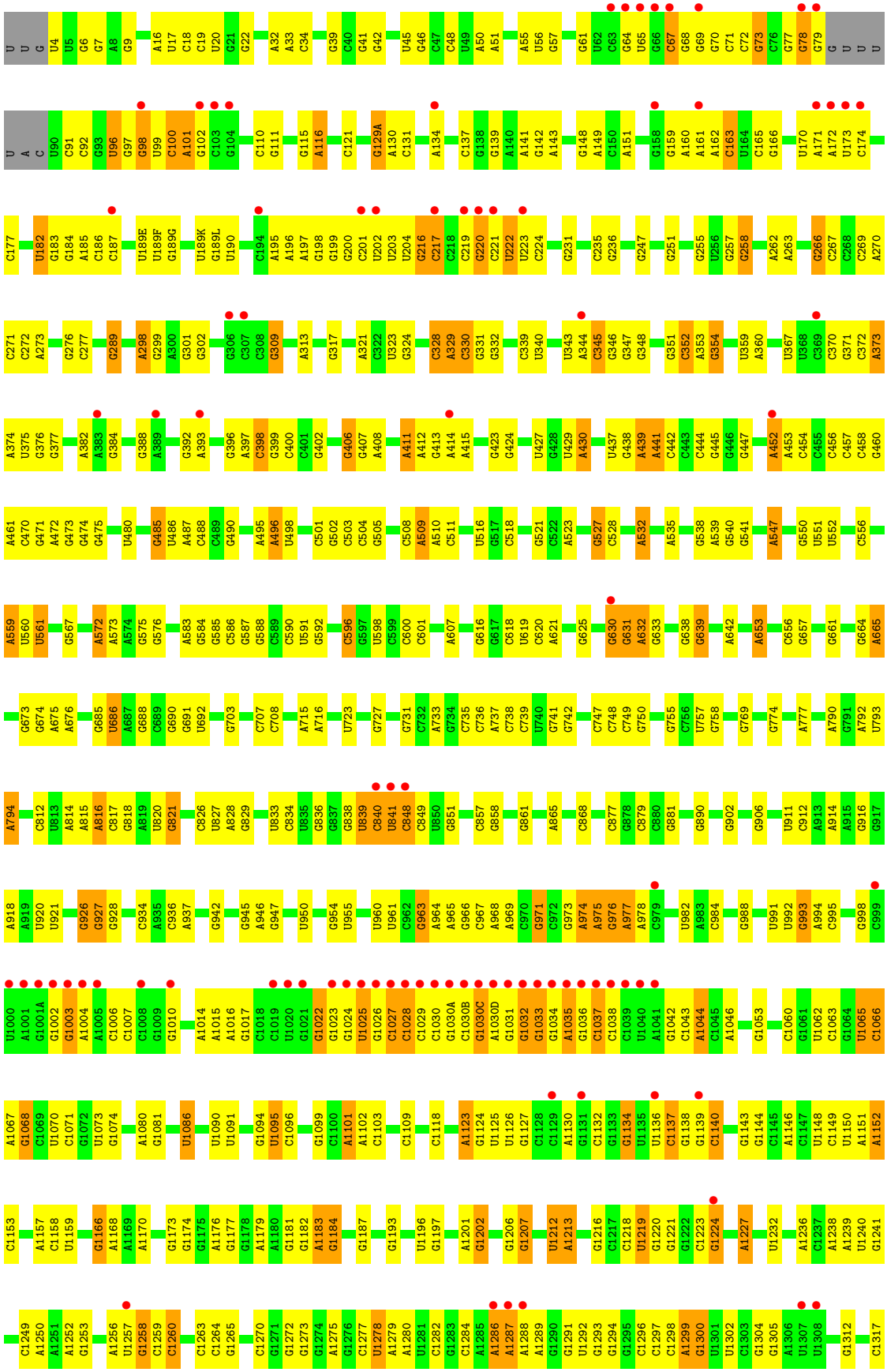
• Molecule 31: 50S ribosomal protein L36

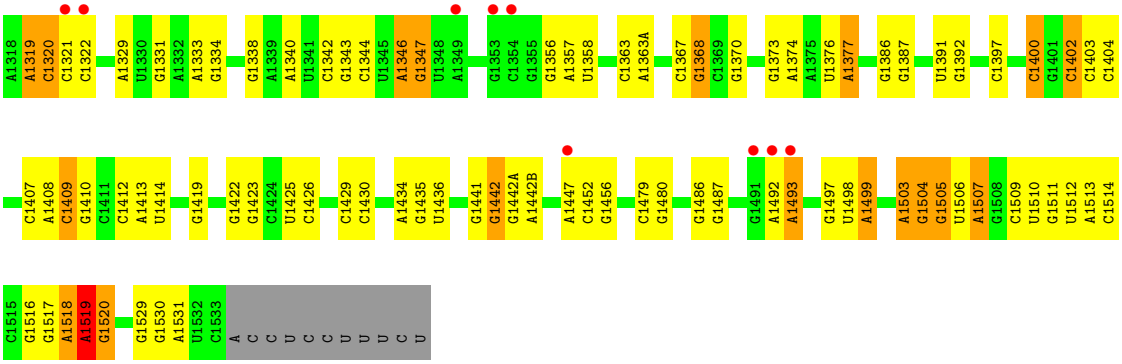
Chain 29:



• Molecule 32: 16S Ribosomal RNA

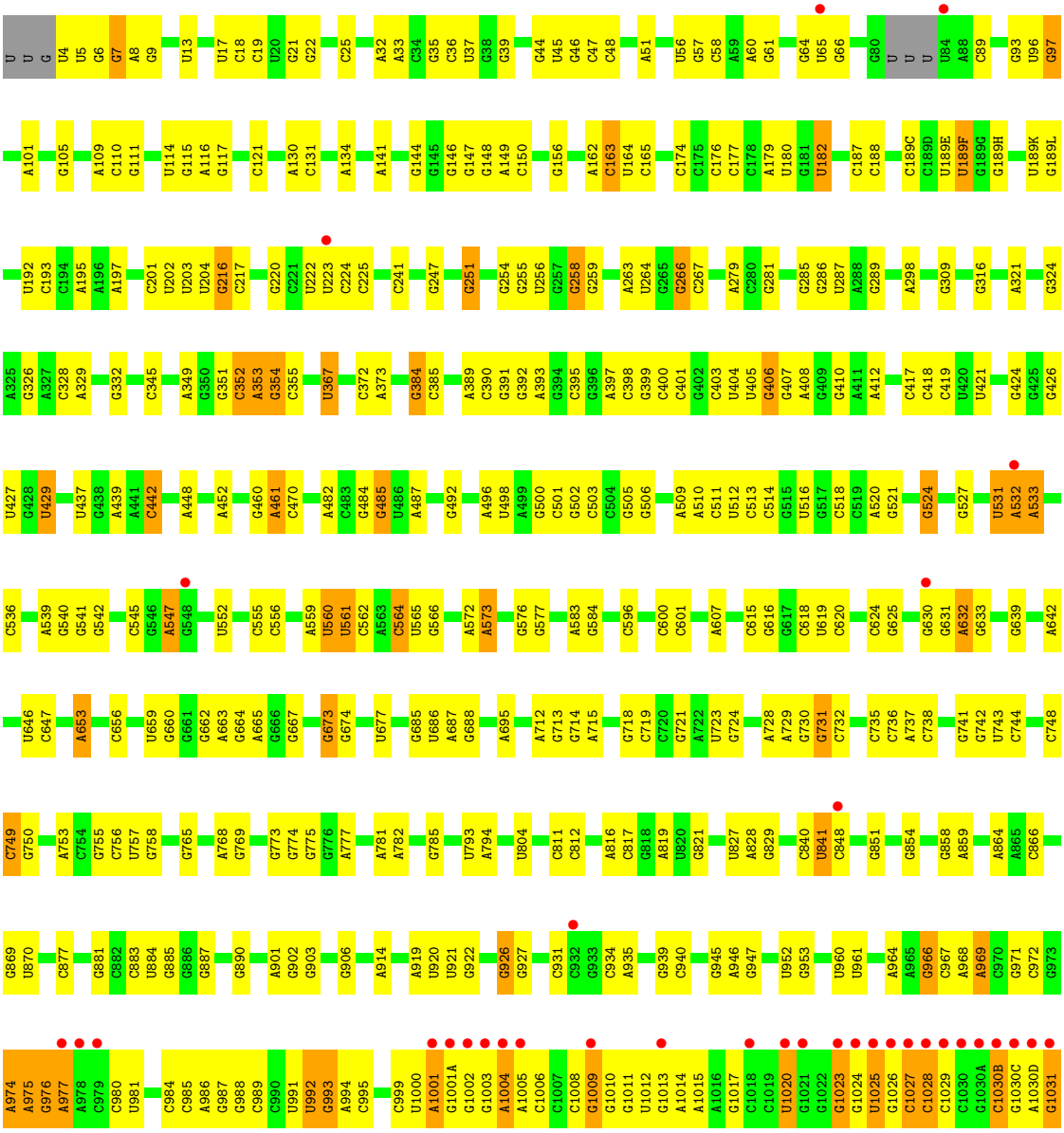
Chain 1a:

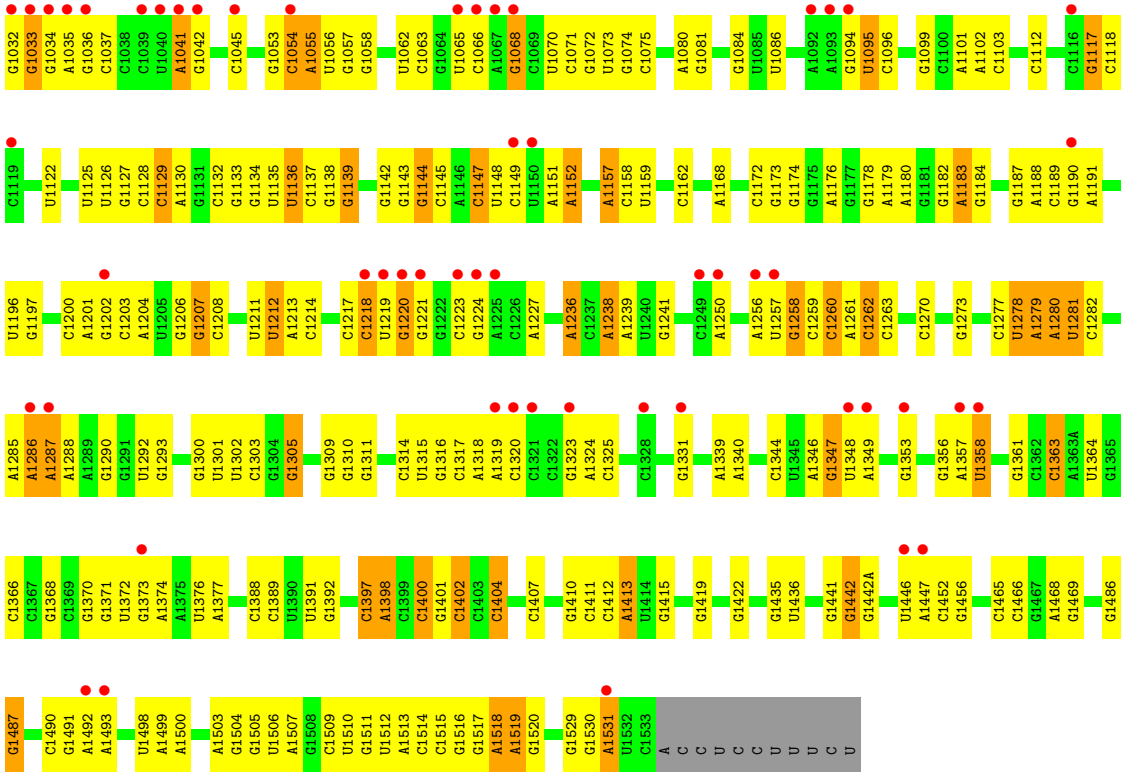




• Molecule 32: 16S Ribosomal RNA

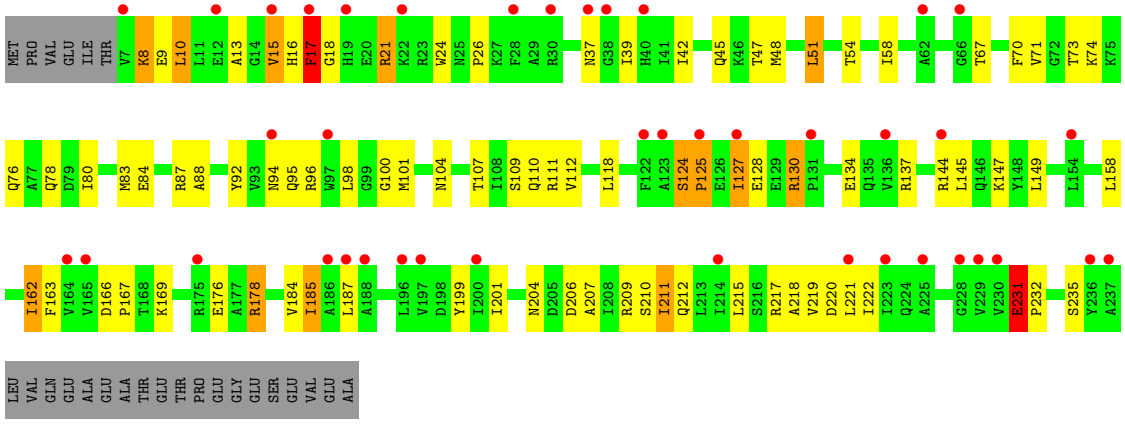
Chain 2a:





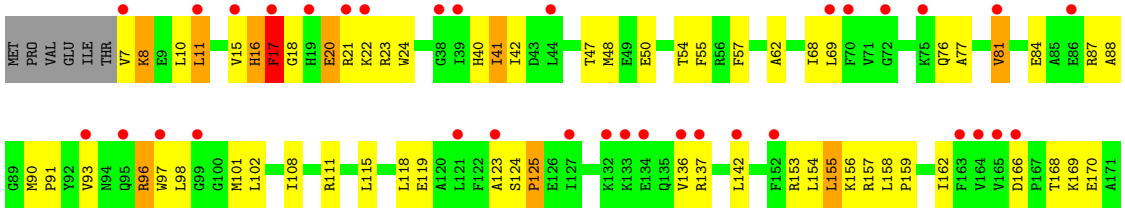
• Molecule 33: 30S ribosomal protein S2

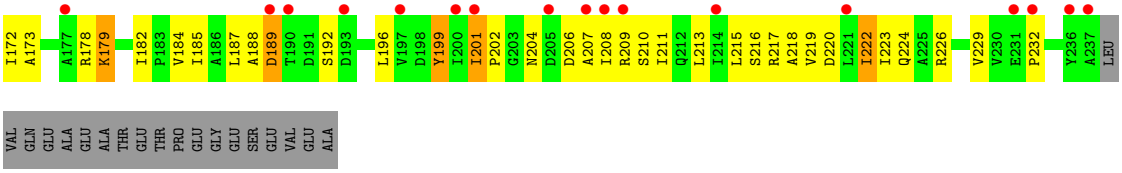
Chain 1b:



• Molecule 33: 30S ribosomal protein S2

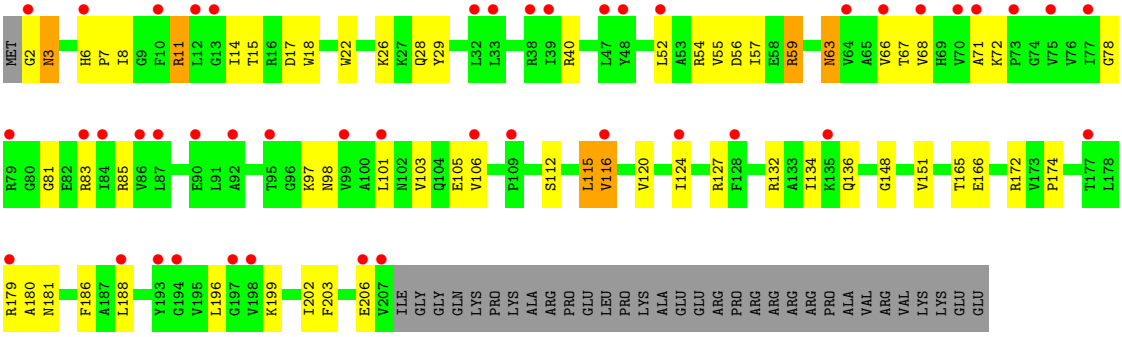
Chain 2b:





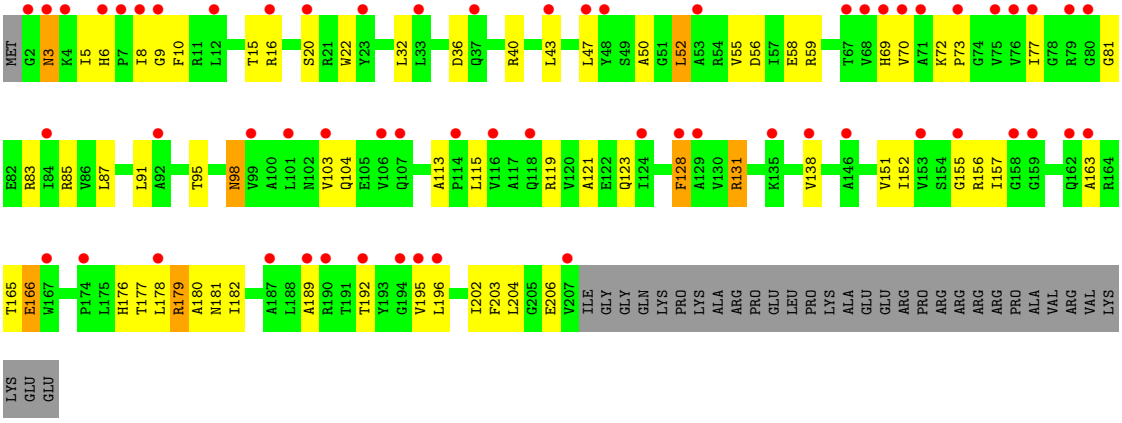
• Molecule 34: 30S ribosomal protein S3

Chain 1c:



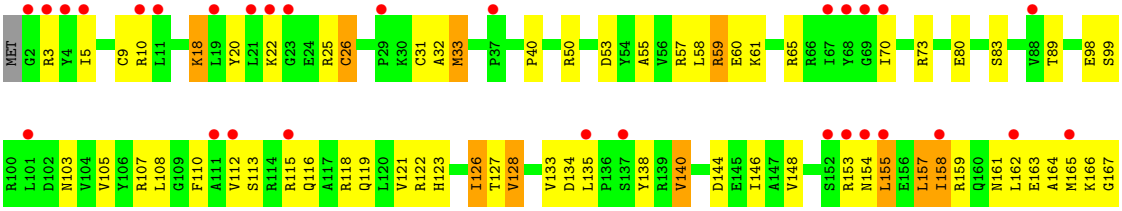
• Molecule 34: 30S ribosomal protein S3

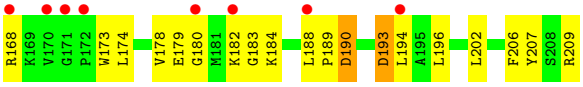
Chain 2c:



• Molecule 35: 30S ribosomal protein S4

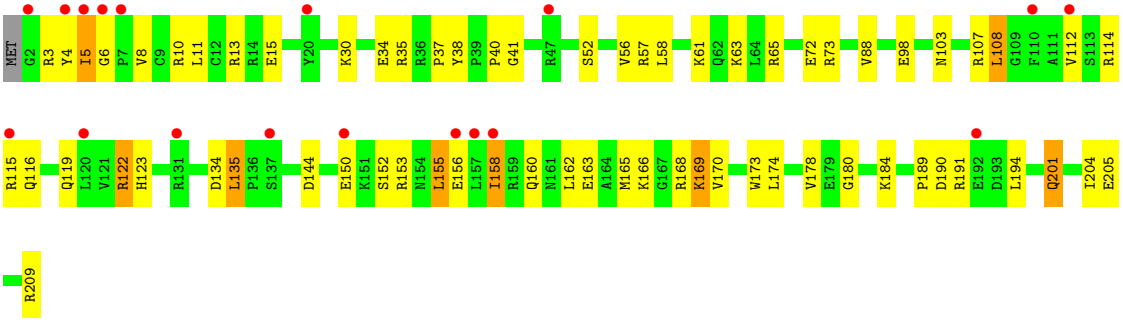
Chain 1d:





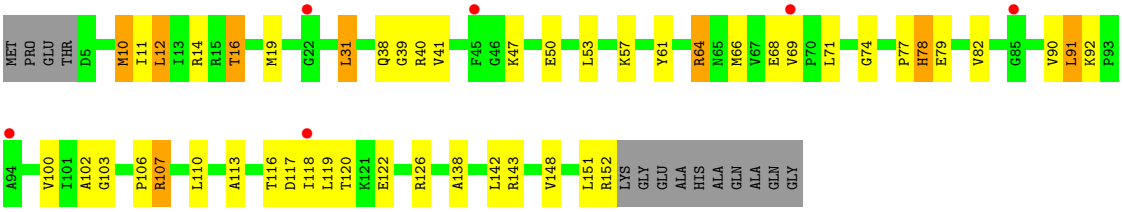
• Molecule 35: 30S ribosomal protein S4

Chain 2d:



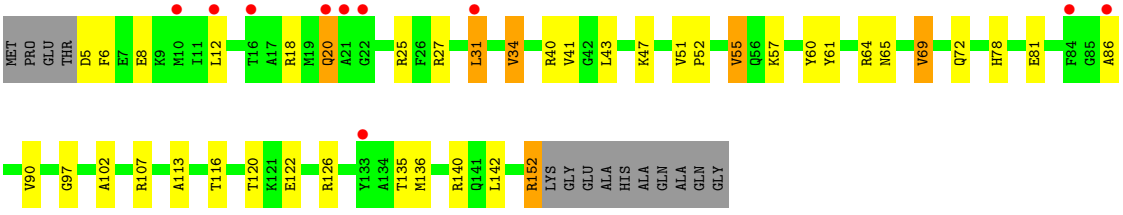
• Molecule 36: 30S ribosomal protein S5

Chain 1e:



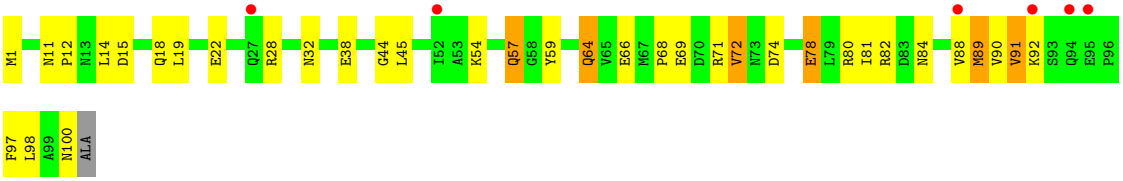
• Molecule 36: 30S ribosomal protein S5

Chain 2e:



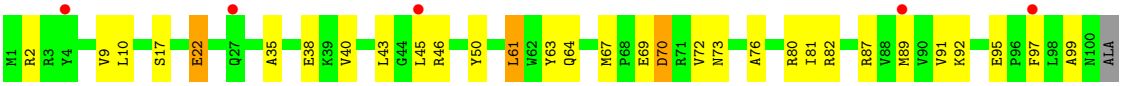
• Molecule 37: 30S ribosomal protein S6

Chain 1f:



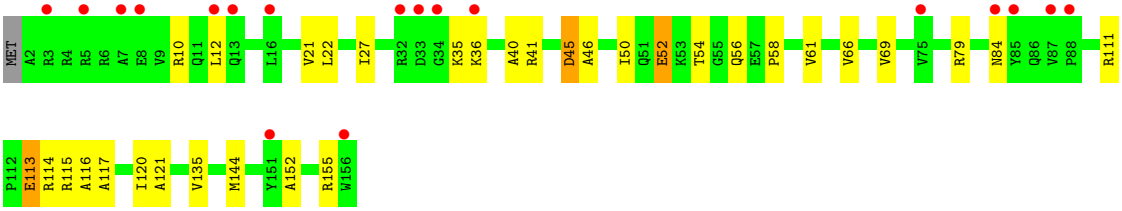
• Molecule 37: 30S ribosomal protein S6

Chain 2f:



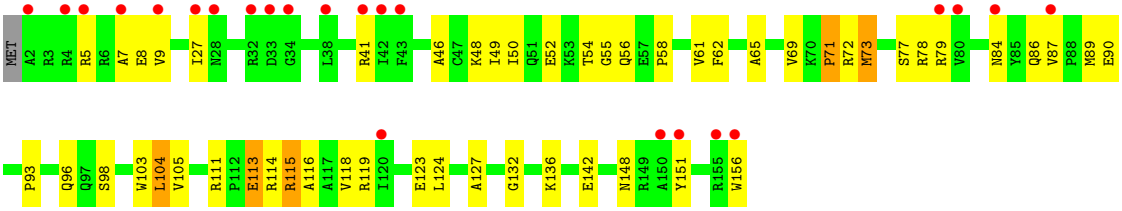
• Molecule 38: 30S ribosomal protein S7

Chain 1g:



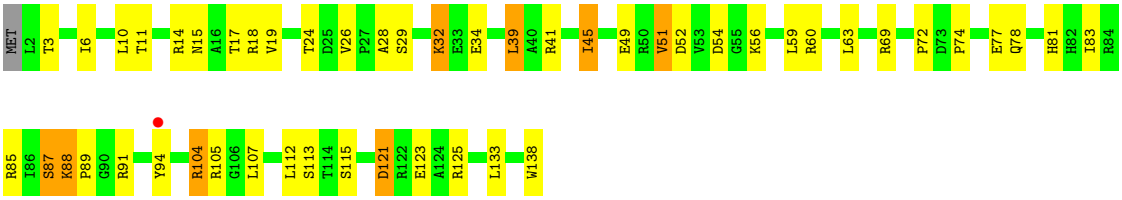
• Molecule 38: 30S ribosomal protein S7

Chain 2g:



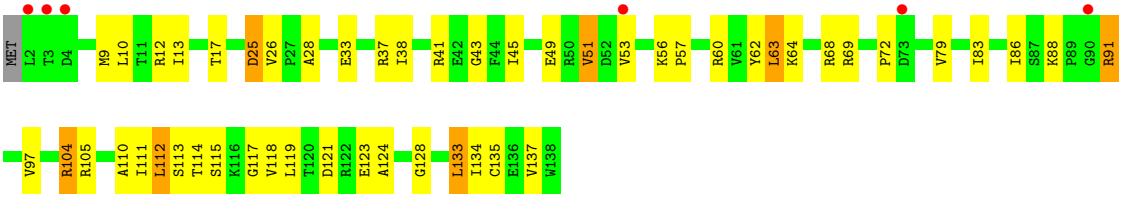
• Molecule 39: 30S ribosomal protein S8

Chain 1h:



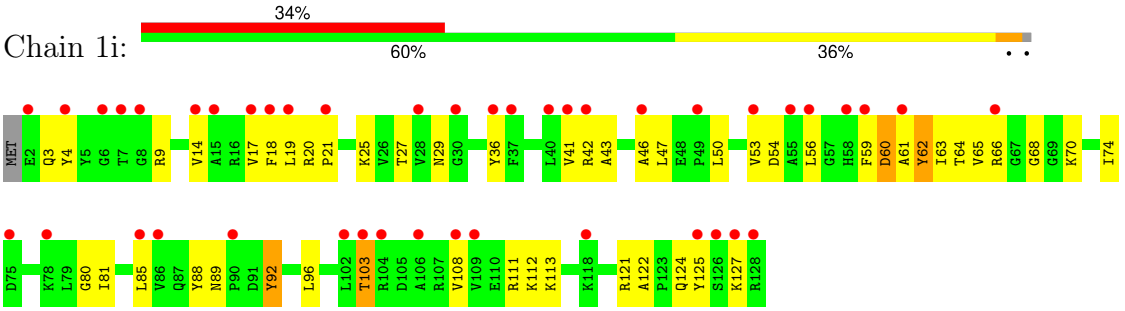
• Molecule 39: 30S ribosomal protein S8

Chain 2h:



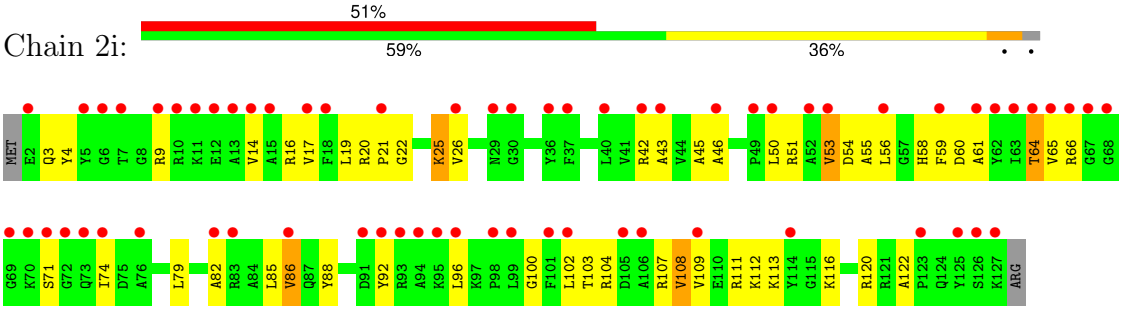
• Molecule 40: 30S ribosomal protein S9

Chain 1i:



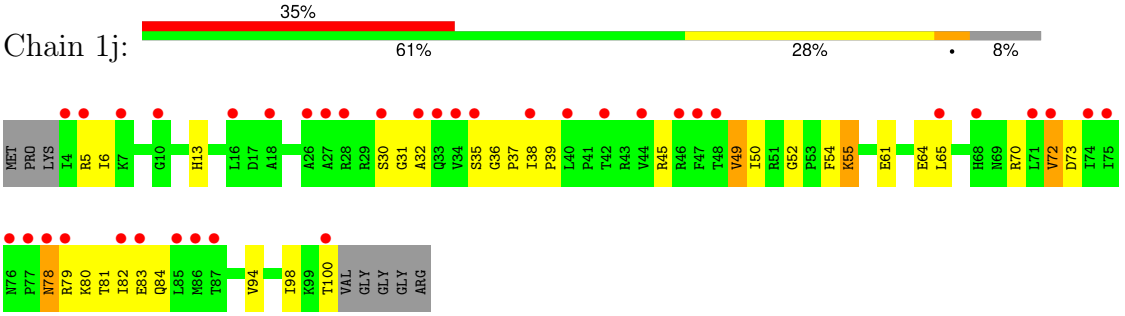
• Molecule 40: 30S ribosomal protein S9

Chain 2i:



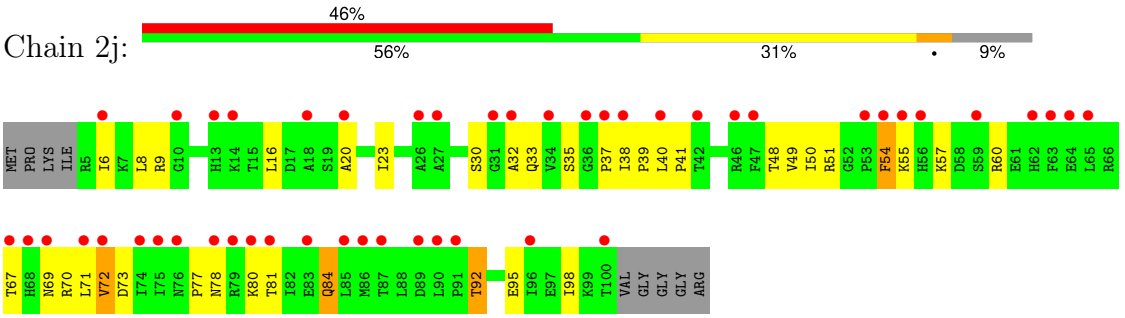
• Molecule 41: 30S ribosomal protein S10

Chain 1j:



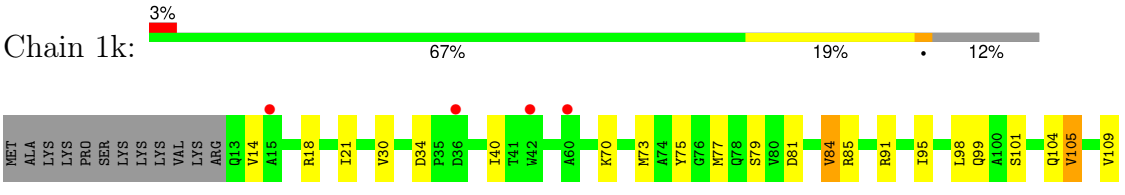
• Molecule 41: 30S ribosomal protein S10

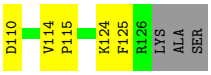
Chain 2j:



• Molecule 42: 30S ribosomal protein S11

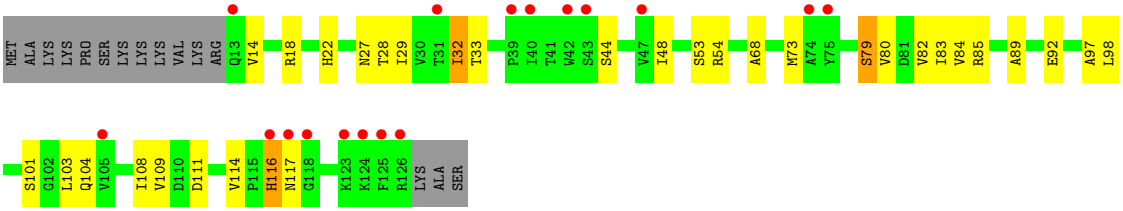
Chain 1k:





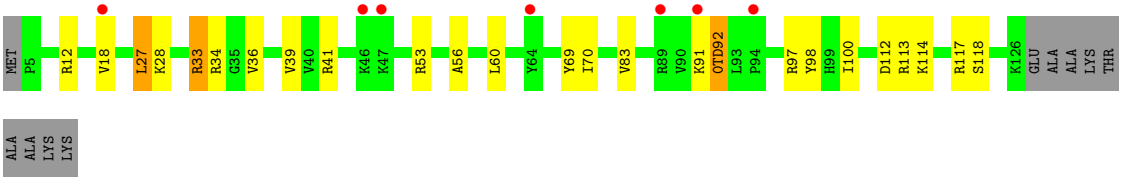
• Molecule 42: 30S ribosomal protein S11

Chain 2k:



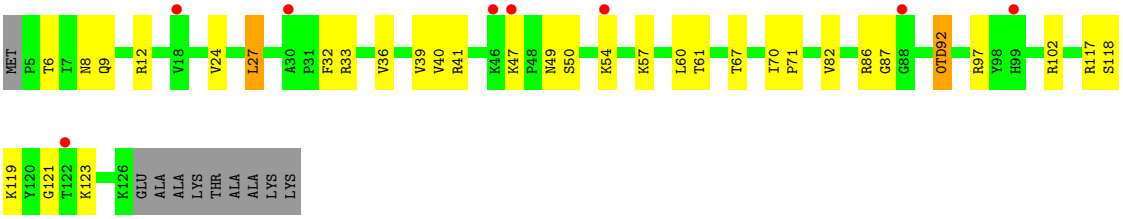
• Molecule 43: 30S ribosomal protein S12

Chain 1l:



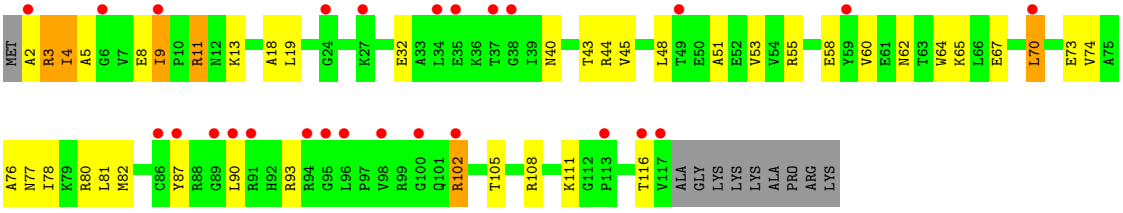
• Molecule 43: 30S ribosomal protein S12

Chain 2l:



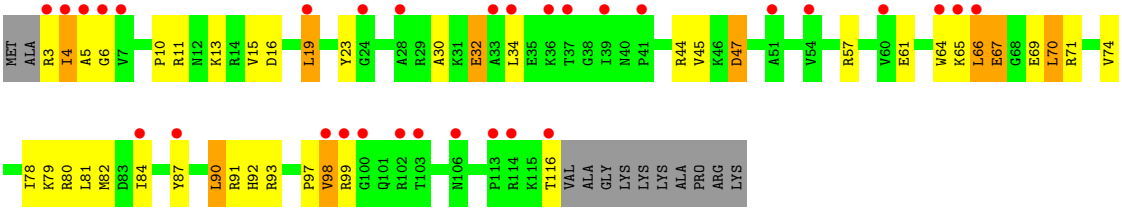
• Molecule 44: 30S ribosomal protein S13

Chain 1m:



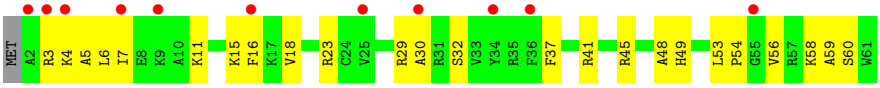
• Molecule 44: 30S ribosomal protein S13

Chain 2m:



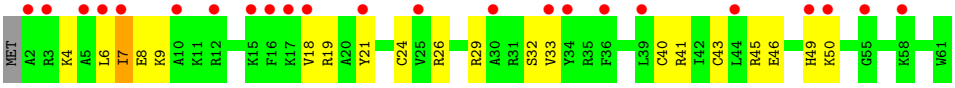
• Molecule 45: 30S ribosomal protein S14 type Z

Chain 1n:



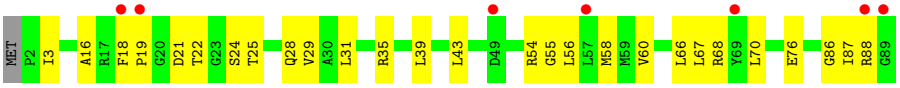
• Molecule 45: 30S ribosomal protein S14 type Z

Chain 2n:



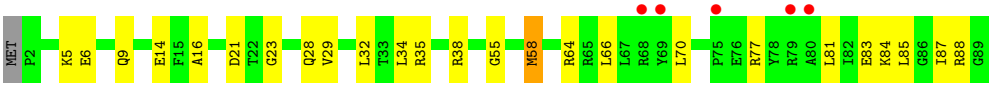
• Molecule 46: 30S ribosomal protein S15

Chain 1o:



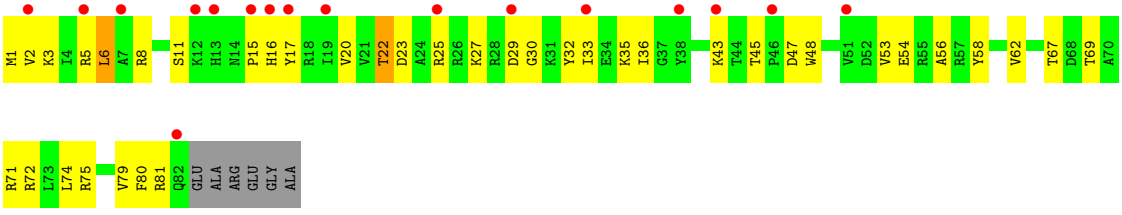
• Molecule 46: 30S ribosomal protein S15

Chain 2o:



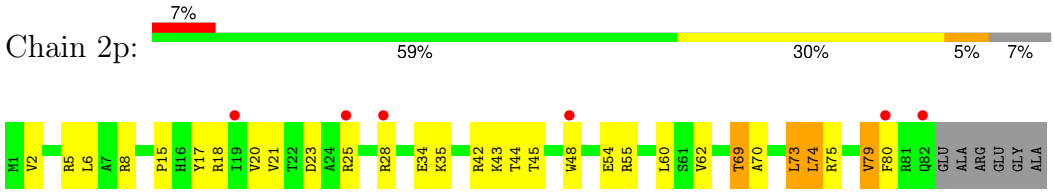
• Molecule 47: 30S ribosomal protein S16

Chain 1p:



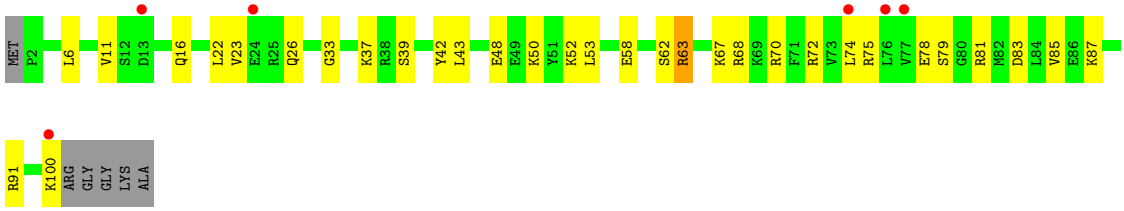
• Molecule 47: 30S ribosomal protein S16

Chain 2p:



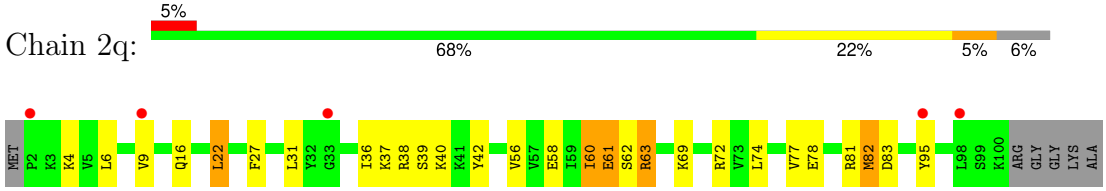
• Molecule 48: 30S ribosomal protein S17

Chain 1q:



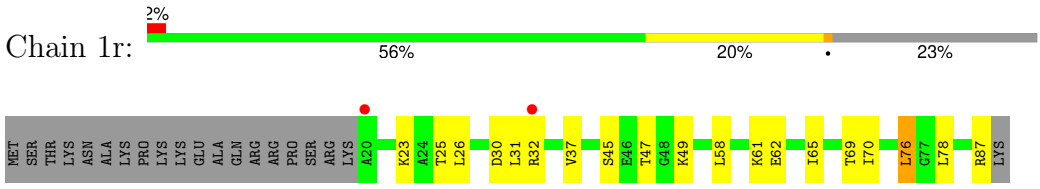
• Molecule 48: 30S ribosomal protein S17

Chain 2q:



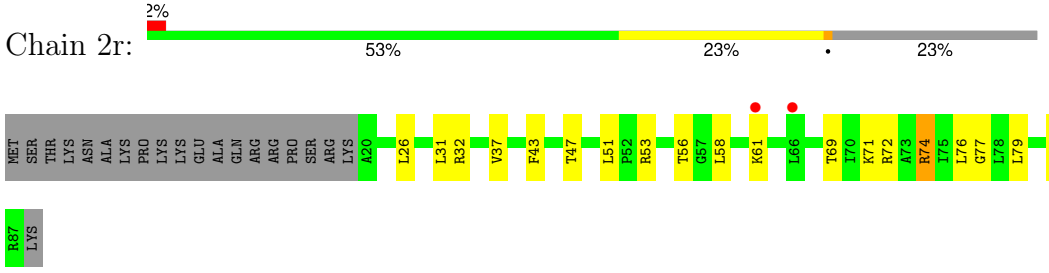
• Molecule 49: 30S ribosomal protein S18

Chain 1r:



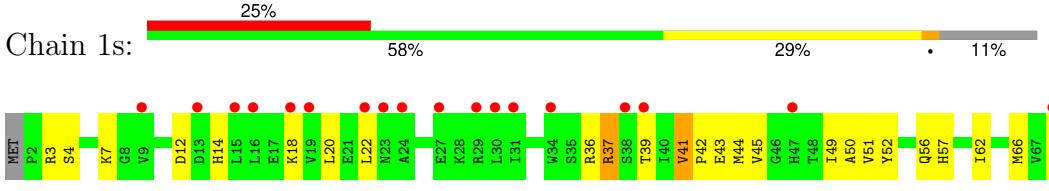
• Molecule 49: 30S ribosomal protein S18

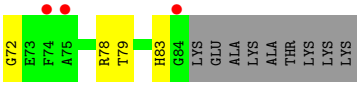
Chain 2r:



• Molecule 50: 30S ribosomal protein S19

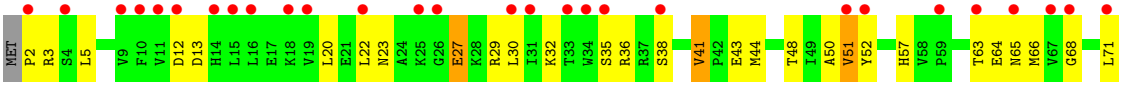
Chain 1s:

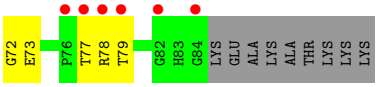




• Molecule 50: 30S ribosomal protein S19

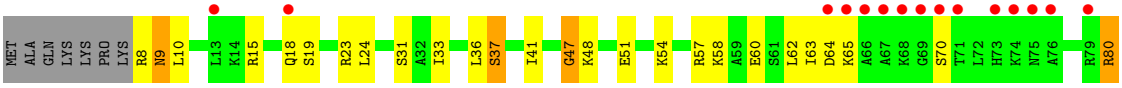
Chain 2s:





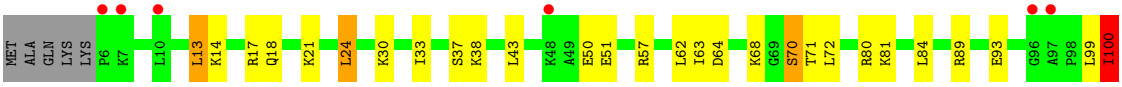
• Molecule 51: 30S ribosomal protein S20

Chain 1t:



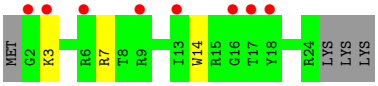
• Molecule 51: 30S ribosomal protein S20

Chain 2t:



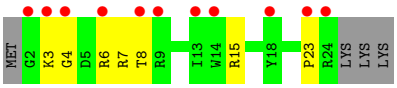
• Molecule 52: 30S ribosomal protein Thx

Chain 1u:



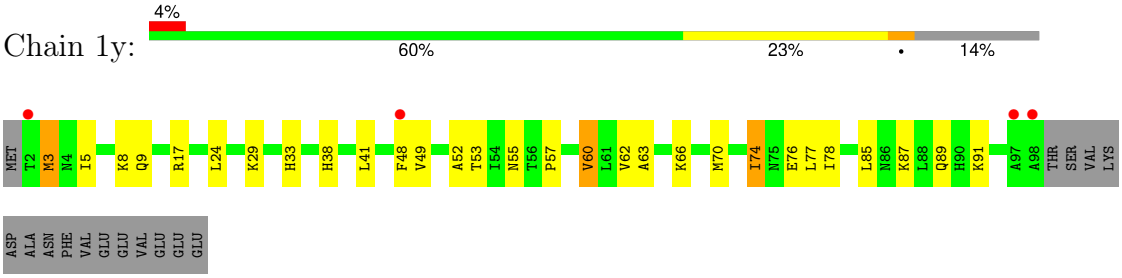
• Molecule 52: 30S ribosomal protein Thx

Chain 2u:



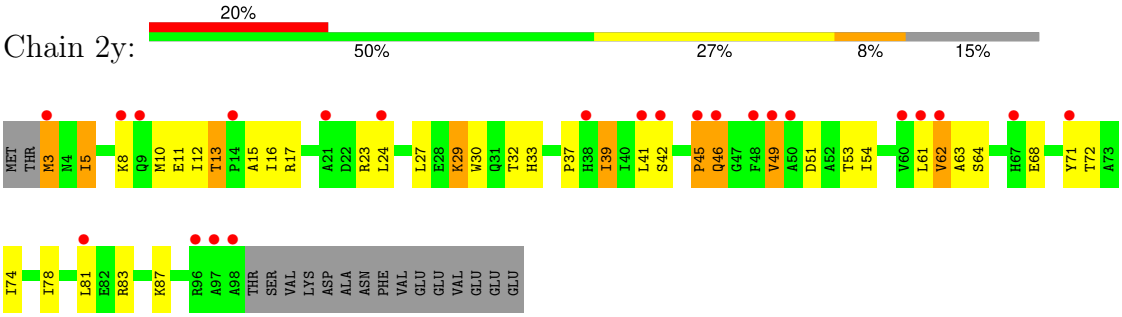
• Molecule 53: Ribosome-associated inhibitor A

Chain 1y:



• Molecule 53: Ribosome-associated inhibitor A

Chain 2y:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	210.78Å 451.71Å 625.93Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	257.25 – 2.65 257.25 – 2.65	Depositor EDS
% Data completeness (in resolution range)	99.5 (257.25-2.65) 99.7 (257.25-2.65)	Depositor EDS
R_{merge}	0.35	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.25 (at 2.65Å)	Xtriage
Refinement program	PHENIX 1.17.1	Depositor
R, R_{free}	0.212 , 0.260 0.210 , 0.256	Depositor DCC
R_{free} test set	85370 reflections (5.01%)	wwPDB-VP
Wilson B-factor (Å^2)	50.4	Xtriage
Anisotropy	0.083	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.41 , 133.9	EDS
L-test for twinning[2]	$< \|L\| > = 0.42$, $< L^2 > = 0.24$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.87	EDS
Total number of atoms	298432	wwPDB-VP
Average B, all atoms (Å^2)	56.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.61% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

[2] Theoretical values of $< |L| >$, $< L^2 >$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality

5.1 Standard geometry

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

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	1A	0.30	1/69031 (0.0%)	0.48	1/107754 (0.0%)
1	2A	0.24	1/68903 (0.0%)	0.42	2/107552 (0.0%)
2	1B	0.23	0/2876	0.42	0/4486
2	2B	0.20	0/2878	0.37	0/4490
3	1D	0.27	0/2181	0.52	0/2940
3	2D	0.24	0/2186	0.47	0/2944
4	1E	0.28	0/1592	0.53	0/2149
4	2E	0.23	0/1592	0.50	0/2149
5	1F	0.28	0/1619	0.51	0/2193
5	2F	0.22	0/1615	0.50	2/2188 (0.1%)
6	1G	0.24	0/1451	0.46	0/1961
6	2G	0.21	0/1449	0.43	0/1957
7	1H	0.23	0/1356	0.44	0/1834
7	2H	0.21	0/1350	0.41	0/1826
8	1I	0.23	0/1109	0.47	0/1512
8	2I	0.21	0/1091	0.44	0/1490
9	1N	0.28	0/1148	0.48	0/1547
9	2N	0.21	0/1144	0.43	0/1543
10	1O	0.28	0/943	0.51	0/1269
10	2O	0.24	0/943	0.49	0/1269
11	1P	0.28	0/1152	0.51	0/1533
11	2P	0.23	0/1152	0.46	0/1533
12	1Q	0.27	0/1143	0.47	0/1527
12	2Q	0.22	0/1143	0.44	0/1527
13	1R	0.30	0/982	0.51	0/1312
13	2R	0.24	0/982	0.49	0/1312
14	1S	0.22	0/887	0.45	0/1180
14	2S	0.22	0/880	0.42	0/1172
15	1T	0.28	0/1105	0.52	0/1477
15	2T	0.24	0/1097	0.46	0/1468
16	1U	0.31	0/977	0.53	0/1301

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
16	2U	0.22	0/977	0.44	0/1301
17	1V	0.28	0/786	0.49	0/1053
17	2V	0.20	0/782	0.42	0/1049
18	1W	0.30	0/897	0.48	0/1205
18	2W	0.24	0/897	0.46	0/1205
19	1X	0.26	0/764	0.48	0/1025
19	2X	0.22	0/764	0.45	0/1025
20	1Y	0.25	0/823	0.53	0/1099
20	2Y	0.22	0/823	0.45	0/1100
21	1Z	0.24	0/1620	0.44	0/2200
21	2Z	0.21	0/1590	0.43	0/2162
22	10	0.28	0/616	0.51	0/821
22	20	0.23	0/616	0.47	0/821
23	11	0.28	0/761	0.50	0/1013
23	21	0.25	0/766	0.45	0/1018
24	12	0.25	0/590	0.45	0/781
24	22	0.20	0/594	0.40	0/785
25	13	0.29	0/474	0.48	0/635
25	23	0.21	0/469	0.42	0/630
26	14	0.28	0/559	0.55	0/754
26	24	0.29	0/549	0.67	2/741 (0.3%)
27	15	0.27	0/473	0.48	0/639
27	25	0.24	0/469	0.44	0/635
28	16	0.23	0/460	0.45	0/613
28	26	0.21	0/456	0.44	0/608
29	17	0.32	0/426	0.54	0/561
29	27	0.26	0/426	0.48	0/561
30	18	0.29	0/525	0.50	0/691
30	28	0.23	0/525	0.41	0/691
31	19	0.26	0/310	0.45	0/407
31	29	0.20	0/310	0.41	0/407
32	1a	0.22	0/35795	0.40	0/55864
32	2a	0.21	1/35890 (0.0%)	0.39	1/56012 (0.0%)
33	1b	0.25	0/1876	0.51	0/2533
33	2b	0.23	0/1860	0.45	0/2518
34	1c	0.21	0/1582	0.46	0/2137
34	2c	0.22	0/1566	0.42	0/2119
35	1d	0.21	0/1695	0.48	0/2274
35	2d	0.24	0/1698	0.45	0/2277
36	1e	0.22	0/1149	0.46	0/1548
36	2e	0.21	0/1149	0.46	0/1548
37	1f	0.20	0/827	0.41	0/1120
37	2f	0.22	0/829	0.44	0/1123

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
38	1g	0.20	0/1254	0.41	0/1683
38	2g	0.21	0/1248	0.40	0/1676
39	1h	0.20	0/1118	0.43	0/1506
39	2h	0.20	0/1108	0.40	0/1494
40	1i	0.21	0/1005	0.45	0/1351
40	2i	0.25	0/985	0.48	0/1329
41	1j	0.22	0/732	0.41	0/993
41	2j	0.22	0/723	0.44	0/984
42	1k	0.21	0/849	0.40	0/1150
42	2k	0.21	0/848	0.47	0/1149
43	1l	0.21	0/937	0.43	0/1260
43	2l	0.22	0/937	0.46	0/1260
44	1m	0.22	0/924	0.47	0/1242
44	2m	0.29	1/905 (0.1%)	0.47	0/1217
45	1n	0.23	0/501	0.44	0/664
45	2n	0.23	0/501	0.43	0/664
46	1o	0.21	0/739	0.42	0/985
46	2o	0.18	0/739	0.38	0/985
47	1p	0.22	0/697	0.50	0/939
47	2p	0.22	0/693	0.46	0/935
48	1q	0.22	0/836	0.45	0/1117
48	2q	0.20	0/836	0.41	0/1117
49	1r	0.22	0/560	0.45	0/746
49	2r	0.23	0/560	0.46	0/746
50	1s	0.21	0/663	0.44	0/895
50	2s	0.20	0/660	0.42	0/893
51	1t	0.23	0/734	0.49	0/969
51	2t	0.20	0/736	0.41	0/976
52	1u	0.21	0/203	0.41	0/266
52	2u	0.26	0/203	0.49	0/266
53	1y	0.20	0/776	0.36	0/1048
53	2y	0.23	0/761	0.36	0/1030
All	All	0.25	4/309941 (0.0%)	0.44	8/463239 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
3	2D	0	1
14	1S	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
33	1b	0	1
33	2b	0	1
43	2l	0	1
All	All	0	5

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2A	2552	OMU	O3'-P	5.42	1.61	1.56
32	2a	527	G7M	O3'-P	5.29	1.61	1.56
44	2m	66	LEU	CA-C	-5.23	1.49	1.52
1	1A	2552	OMU	O3'-P	5.09	1.61	1.56

All (8) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	2A	1992	G	C2'-C3'-O3'	6.43	119.15	109.50
5	2F	21	ALA	CA-C-N	5.25	131.14	121.70
5	2F	21	ALA	C-N-CA	5.25	131.14	121.70
1	1A	1653	G	C2'-C3'-O3'	5.24	117.37	109.50
1	2A	1210	A	C4'-C3'-O3'	5.09	117.03	109.40
32	2a	266	G	C2'-C3'-O3'	5.06	117.09	109.50
26	24	59	PHE	CA-C-N	5.05	130.80	121.70
26	24	59	PHE	C-N-CA	5.05	130.80	121.70

There are no chirality outliers.

All (5) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
14	1S	58	LEU	Peptide
33	1b	231	GLU	Peptide
3	2D	274	ARG	Peptide
33	2b	199	TYR	Peptide
43	2l	86	ARG	Peptide

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	1A	61869	0	31204	543	0
1	2A	61758	0	31152	624	0
2	1B	2572	0	1305	19	0
2	2B	2573	0	1306	21	0
3	1D	2131	0	2207	47	0
3	2D	2136	0	2218	34	0
4	1E	1559	0	1618	31	0
4	2E	1559	0	1618	43	0
5	1F	1584	0	1625	33	0
5	2F	1580	0	1619	39	0
6	1G	1426	0	1445	44	0
6	2G	1424	0	1441	59	0
7	1H	1330	0	1407	18	0
7	2H	1324	0	1402	37	0
8	1I	1094	0	1127	24	0
8	2I	1076	0	1094	20	0
9	1N	1121	0	1194	13	0
9	2N	1117	0	1184	20	0
10	1O	933	0	996	15	0
10	2O	933	0	996	25	0
11	1P	1135	0	1212	21	0
11	2P	1135	0	1212	25	0
12	1Q	1122	0	1179	20	0
12	2Q	1122	0	1179	27	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	24	0
15	1T	1091	0	1151	22	0
15	2T	1083	0	1136	21	0
16	1U	959	0	1019	17	0
16	2U	959	0	1019	20	0
17	1V	775	0	841	18	0
17	2V	771	0	830	22	0
18	1W	886	0	940	11	0
18	2W	886	0	940	11	0
19	1X	750	0	814	13	0
19	2X	750	0	814	15	0
20	1Y	810	0	892	18	0
20	2Y	810	0	887	24	0
21	1Z	1587	0	1598	19	0
21	2Z	1557	0	1564	44	0
22	10	608	0	622	13	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
22	20	608	0	622	11	0
23	11	754	0	823	14	0
23	21	759	0	837	15	0
24	12	588	0	643	7	0
24	22	592	0	654	8	0
25	13	469	0	518	10	0
25	23	464	0	514	8	0
26	14	546	0	522	25	0
26	24	536	0	514	27	0
27	15	459	0	476	15	0
27	25	455	0	465	12	0
28	16	453	0	473	4	0
28	26	449	0	469	7	0
29	17	418	0	467	12	0
29	27	418	0	467	2	0
30	18	517	0	582	17	0
30	28	517	0	582	11	0
31	19	307	0	335	3	0
31	29	307	0	335	7	0
32	1a	32246	0	16294	414	0
32	2a	32331	0	16338	396	0
33	1b	1842	0	1862	51	0
33	2b	1825	0	1828	71	0
34	1c	1558	0	1557	35	0
34	2c	1542	0	1517	40	0
35	1d	1665	0	1687	66	0
35	2d	1668	0	1703	50	0
36	1e	1133	0	1191	32	0
36	2e	1133	0	1191	25	0
37	1f	814	0	808	20	0
37	2f	816	0	808	20	0
38	1g	1235	0	1249	19	0
38	2g	1229	0	1238	31	0
39	1h	1098	0	1143	32	0
39	2h	1088	0	1126	35	0
40	1i	986	0	990	32	0
40	2i	966	0	953	42	0
41	1j	719	0	672	21	0
41	2j	710	0	661	27	0
42	1k	834	0	838	17	0
42	2k	833	0	836	12	0
43	1l	932	0	981	12	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
43	2l	932	0	981	13	0
44	1m	914	0	954	24	0
44	2m	895	0	920	28	0
45	1n	492	0	529	16	0
45	2n	492	0	529	15	0
46	1o	728	0	760	12	0
46	2o	728	0	760	18	0
47	1p	681	0	697	28	0
47	2p	677	0	686	18	0
48	1q	823	0	891	19	0
48	2q	823	0	891	20	0
49	1r	555	0	618	8	0
49	2r	555	0	618	13	0
50	1s	648	0	658	20	0
50	2s	645	0	635	23	0
51	1t	732	0	809	13	0
51	2t	733	0	795	17	0
52	1u	199	0	208	2	0
52	2u	199	0	208	6	0
53	1y	764	0	786	22	0
53	2y	749	0	757	25	0
54	10	8	0	0	0	0
54	11	3	0	0	0	0
54	13	4	0	0	0	0
54	14	1	0	0	0	0
54	15	5	0	0	0	0
54	17	5	0	0	0	0
54	18	2	0	0	0	0
54	19	3	0	0	0	0
54	1A	1053	0	0	0	0
54	1B	31	0	0	0	0
54	1D	15	0	0	0	0
54	1E	10	0	0	0	0
54	1F	17	0	0	0	0
54	1G	4	0	0	0	0
54	1H	3	0	0	0	0
54	1N	4	0	0	0	0
54	1O	2	0	0	0	0
54	1P	7	0	0	0	0
54	1Q	8	0	0	0	0
54	1R	6	0	0	0	0
54	1S	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
54	1T	6	0	0	0	0
54	1U	7	0	0	0	0
54	1V	6	0	0	0	0
54	1W	3	0	0	0	0
54	1X	4	0	0	0	0
54	1Y	2	0	0	0	0
54	1Z	1	0	0	0	0
54	1a	272	0	0	0	0
54	1b	1	0	0	0	0
54	1d	4	0	0	0	0
54	1e	5	0	0	0	0
54	1f	1	0	0	0	0
54	1g	3	0	0	0	0
54	1h	1	0	0	0	0
54	1k	1	0	0	0	0
54	1l	2	0	0	0	0
54	1m	2	0	0	0	0
54	1n	2	0	0	0	0
54	1o	2	0	0	0	0
54	1p	1	0	0	0	0
54	1q	1	0	0	0	0
54	1r	1	0	0	0	0
54	1t	3	0	0	0	0
54	1y	5	0	0	0	0
54	20	1	0	0	0	0
54	21	1	0	0	0	0
54	23	1	0	0	0	0
54	25	3	0	0	0	0
54	26	1	0	0	0	0
54	28	1	0	0	0	0
54	2A	770	0	0	0	0
54	2B	20	0	0	0	0
54	2D	10	0	0	0	0
54	2E	8	0	0	0	0
54	2F	5	0	0	0	0
54	2G	3	0	0	0	0
54	2I	1	0	0	0	0
54	2N	1	0	0	0	0
54	2O	3	0	0	0	0
54	2P	3	0	0	0	0
54	2Q	4	0	0	0	0
54	2R	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
54	2T	3	0	0	0	0
54	2V	4	0	0	0	0
54	2W	2	0	0	0	0
54	2X	2	0	0	0	0
54	2Y	1	0	0	0	0
54	2a	199	0	0	0	0
54	2e	1	0	0	0	0
54	2f	1	0	0	0	0
54	2j	1	0	0	0	0
54	2k	1	0	0	0	0
54	2o	1	0	0	0	0
54	2t	1	0	0	0	0
55	1A	34	0	47	4	0
55	2A	34	0	47	4	0
56	1A	12	0	12	4	0
56	1B	12	0	12	1	0
57	18	8	0	14	3	0
57	1A	8	0	14	1	0
57	1a	16	0	25	2	0
57	2A	16	0	28	2	0
57	2B	8	0	14	0	0
58	14	1	0	0	0	0
58	15	1	0	0	0	0
58	16	1	0	0	0	0
58	19	1	0	0	0	0
58	1Y	1	0	0	0	0
58	1n	1	0	0	0	0
58	24	1	0	0	0	0
58	25	1	0	0	0	0
58	26	1	0	0	0	0
58	29	1	0	0	0	0
58	2Y	1	0	0	0	0
58	2n	1	0	0	0	0
59	1d	8	0	0	1	0
59	2d	8	0	0	0	0
60	10	23	0	0	2	0
60	11	27	0	0	1	0
60	12	11	0	0	1	0
60	13	26	0	0	1	0
60	14	3	0	0	0	0
60	15	27	0	0	2	0
60	16	17	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
60	17	15	0	0	2	0
60	18	33	0	0	1	0
60	19	11	0	0	1	0
60	1A	4116	0	0	124	0
60	1B	105	0	0	7	0
60	1D	116	0	0	6	0
60	1E	82	0	0	3	0
60	1F	69	0	0	4	0
60	1G	21	0	0	1	0
60	1H	15	0	0	0	0
60	1I	6	0	0	0	0
60	1N	57	0	0	1	0
60	1O	27	0	0	0	0
60	1P	66	0	0	0	0
60	1Q	45	0	0	0	0
60	1R	35	0	0	2	0
60	1S	12	0	0	0	0
60	1T	36	0	0	3	0
60	1U	44	0	0	3	0
60	1V	40	0	0	2	0
60	1W	30	0	0	0	0
60	1X	26	0	0	2	0
60	1Y	17	0	0	2	0
60	1Z	12	0	0	1	0
60	1a	574	0	0	27	0
60	1c	1	0	0	0	0
60	1d	8	0	0	2	0
60	1e	12	0	0	0	0
60	1f	3	0	0	0	0
60	1g	1	0	0	0	0
60	1h	1	0	0	0	0
60	1j	1	0	0	0	0
60	1l	4	0	0	0	0
60	1m	2	0	0	0	0
60	1n	1	0	0	0	0
60	1o	7	0	0	0	0
60	1p	4	0	0	0	0
60	1t	2	0	0	0	0
60	1y	4	0	0	1	0
60	20	15	0	0	0	0
60	21	21	0	0	1	0
60	22	4	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
60	23	5	0	0	1	0
60	25	7	0	0	1	0
60	26	5	0	0	0	0
60	27	13	0	0	0	0
60	28	16	0	0	2	0
60	29	2	0	0	0	0
60	2A	2550	0	0	110	0
60	2B	61	0	0	6	0
60	2D	65	0	0	1	0
60	2E	37	0	0	2	0
60	2F	20	0	0	0	0
60	2G	7	0	0	1	0
60	2H	4	0	0	0	0
60	2I	3	0	0	2	0
60	2N	7	0	0	1	0
60	2O	20	0	0	2	0
60	2P	34	0	0	1	0
60	2Q	25	0	0	2	0
60	2R	14	0	0	1	0
60	2S	4	0	0	0	0
60	2T	13	0	0	1	0
60	2U	16	0	0	4	0
60	2V	6	0	0	0	0
60	2W	25	0	0	1	0
60	2X	10	0	0	0	0
60	2Y	5	0	0	1	0
60	2Z	11	0	0	1	0
60	2a	457	0	0	33	0
60	2d	7	0	0	0	0
60	2e	2	0	0	0	0
60	2f	1	0	0	0	0
60	2j	2	0	0	0	0
60	2l	3	0	0	0	0
60	2o	4	0	0	0	0
60	2p	4	0	0	1	0
60	2q	1	0	0	0	0
60	2r	5	0	0	0	0
60	2t	2	0	0	1	0
60	2u	1	0	0	0	0
60	2y	3	0	0	0	0
All	All	298432	0	194606	3728	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 8.

All (3728) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1082:U:H3	1:1A:1086:A:N6	1.46	1.12
1:1A:1082:U:O4	1:1A:1086:A:N1	1.99	0.95
32:1a:1158:C:H5	32:1a:1181:G:H1	1.11	0.95
1:1A:1082:U:H3	1:1A:1086:A:H61	0.95	0.94
1:2A:2319:G:H22	14:2S:3:ARG:HD3	1.32	0.94
29:17:24:THR:HG22	29:17:27:GLY:H	1.34	0.93
32:2a:1003:G:H2'	32:2a:1004:A:H4'	1.49	0.92
22:20:10:THR:HG22	22:20:12:ASN:H	1.36	0.90
1:1A:2134:A:H62	1:1A:2157:G:H4'	1.35	0.88
33:1b:231:GLU:HB3	33:1b:232:PRO:HD3	1.55	0.87
1:1A:517:C:OP1	27:15:16:ARG:NH2	2.08	0.87
10:2O:48:PRO:HB3	32:2a:1422:G:H5"	1.58	0.86
1:1A:1798:U:H5'	3:1D:259:THR:HG22	1.56	0.86
39:2h:37:ARG:HH12	39:2h:41:ARG:HH21	1.24	0.86
1:1A:2127:G:H21	1:1A:2173:A:H1'	1.41	0.86
32:2a:975:A:H4'	32:2a:976:G:H5"	1.57	0.85
1:2A:2499:C:OP1	60:2A:3805:HOH:O	1.93	0.85
26:24:16:CYS:SG	26:24:17:GLY:N	2.48	0.85
1:1A:2020:A:OP2	60:1A:4102:HOH:O	1.95	0.85
6:1G:161:THR:HG22	6:1G:163:ALA:H	1.42	0.84
1:2A:2602:A:H1'	1:2A:2603:G:H5"	1.60	0.84
36:1e:57:LYS:HG2	36:1e:61:TYR:HE2	1.42	0.84
8:2I:77:LEU:HD13	8:2I:101:LEU:HD23	1.60	0.83
1:2A:2427:C:OP1	60:2A:3806:HOH:O	1.95	0.83
4:1E:48:GLN:HE21	4:1E:78:LEU:HG	1.45	0.82
32:1a:975:A:H4'	32:1a:976:G:H5"	1.61	0.81
32:1a:78:G:H1	32:1a:91:C:H42	1.25	0.81
5:2F:185:ASP:HA	5:2F:188:ARG:HD3	1.61	0.81
35:2d:122:ARG:NH1	35:2d:134:ASP:O	2.14	0.81
1:1A:2821:A:OP2	60:1A:4104:HOH:O	1.98	0.81
33:2b:178:ARG:HH12	39:2h:68:ARG:HH22	1.29	0.80
1:2A:805:G:OP1	60:2A:3807:HOH:O	1.99	0.80
32:1a:1441:G:H5"	32:1a:1442:G:H5'	1.63	0.80
1:1A:2822:G:OP2	60:1A:4104:HOH:O	1.99	0.80
32:2a:564:C:O2'	39:2h:91:ARG:NH2	2.15	0.80
1:1A:2319:G:H22	14:1S:3:ARG:HH11	1.27	0.80
1:1A:2458:G:OP2	60:1A:4105:HOH:O	1.99	0.80
1:2A:1315:C:OP2	60:2A:3808:HOH:O	2.00	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:21:50:ARG:HG2	23:21:59:THR:HG22	1.63	0.79
32:1a:664:G:H22	32:1a:741:G:H1	1.29	0.79
1:1A:1315:C:OP2	60:1A:4106:HOH:O	2.00	0.79
17:1V:40:LEU:HB2	17:1V:46:VAL:HG13	1.64	0.79
34:2c:70:VAL:HG22	34:2c:72:LYS:H	1.46	0.79
32:2a:1071:C:OP1	36:2e:27:ARG:NH2	2.15	0.79
35:1d:107:ARG:HH21	35:1d:194:LEU:HD21	1.47	0.78
1:2A:1798:U:H5'	3:2D:259:THR:HG22	1.65	0.78
1:2A:2821:A:OP2	60:2R:301:HOH:O	2.02	0.78
32:2a:1285:A:H4'	32:2a:1286:A:H5'	1.66	0.78
33:2b:119:GLU:HG3	33:2b:153:ARG:HH22	1.49	0.78
1:2A:2285:C:OP2	28:26:6:ARG:NH1	2.17	0.78
32:1a:1402:4OC:HM22	32:1a:1403:C:H5'	1.66	0.77
1:2A:2152:G:H2'	1:2A:2153:G:H8	1.48	0.77
40:2i:3:GLN:HE21	40:2i:20:ARG:HE	1.30	0.77
25:13:55:ARG:NH1	25:13:57:GLU:OE1	2.17	0.77
1:2A:1271:G:OP2	60:2A:3810:HOH:O	2.02	0.77
14:1S:20:ARG:NH2	22:10:51:VAL:O	2.18	0.77
21:2Z:28:MET:HE3	21:2Z:37:VAL:HG11	1.65	0.77
1:2A:2644:G:O6	60:2A:3811:HOH:O	2.03	0.77
46:2o:16:ALA:HB1	46:2o:21:ASP:HB3	1.66	0.77
3:1D:69:ARG:NH2	3:1D:128:GLY:O	2.18	0.76
32:2a:1500:A:OP1	60:2a:3306:HOH:O	2.02	0.76
1:1A:1382:G:O6	60:1A:4107:HOH:O	2.02	0.76
1:2A:102:G:OP1	24:22:7:ARG:NH2	2.18	0.76
1:2A:740:U:OP2	60:2A:3809:HOH:O	2.01	0.76
22:10:11:ARG:O	22:10:14:ARG:NH2	2.17	0.76
19:1X:31:HIS:HD2	19:1X:33:LYS:H	1.34	0.76
1:2A:1264:G:OP1	27:25:19:ARG:NH2	2.19	0.76
32:2a:656:C:O2'	46:2o:28:GLN:NE2	2.18	0.76
32:2a:1086:U:H3	32:2a:1099:G:H22	1.33	0.76
1:1A:631:A:OP1	11:1P:65:ARG:NH1	2.18	0.75
1:1A:668:G:N7	60:1A:4178:HOH:O	2.20	0.75
1:1A:741:G:OP2	60:1A:4110:HOH:O	2.04	0.75
1:1A:1064:C:H3'	1:1A:1065:U:H5"	1.68	0.75
1:1A:1359:A:H61	1:1A:1372:U:H3	1.30	0.75
3:2D:235:GLY:O	60:2D:401:HOH:O	2.03	0.75
1:1A:217:G:OP2	60:1A:4108:HOH:O	2.04	0.75
1:2A:2130:U:H2'	1:2A:2158:A:H61	1.52	0.75
32:2a:533:A:OP2	60:2a:3307:HOH:O	2.03	0.75
1:1A:2319:G:H22	14:1S:3:ARG:HD2	1.52	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2006:C:OP2	60:2A:3813:HOH:O	2.05	0.75
32:1a:559:A:OP1	36:1e:126:ARG:NH2	2.19	0.75
36:2e:122:GLU:O	36:2e:126:ARG:NH1	2.20	0.75
51:2t:50:GLU:HG3	51:2t:100:ILE:HD11	1.68	0.75
32:1a:317:G:OP2	60:1a:1903:HOH:O	2.05	0.75
10:1O:35:VAL:HG11	10:1O:103:ALA:HB3	1.69	0.74
32:1a:794:A:OP2	60:1a:1905:HOH:O	2.05	0.74
32:1a:472:A:H5"	47:1p:80:PHE:HB3	1.69	0.74
1:2A:1057:A:H2'	1:2A:1058:G:H8	1.52	0.74
1:1A:1669:A:OP2	60:1A:4111:HOH:O	2.04	0.74
1:2A:387:U:OP1	60:2A:3817:HOH:O	2.06	0.74
1:2A:1189:A:OP2	60:2A:3814:HOH:O	2.05	0.74
1:2A:2131:G:H5"	1:2A:2132:U:H5'	1.69	0.74
7:2H:27:LYS:NZ	7:2H:32:GLU:OE1	2.20	0.74
4:1E:105:THR:OG1	4:1E:199:ARG:NH2	2.21	0.74
32:2a:1129:C:H2'	32:2a:1139:G:N7	2.03	0.74
44:2m:82:MET:HE2	44:2m:92:HIS:HB3	1.70	0.74
1:1A:1024:G:OP2	60:1A:4109:HOH:O	2.04	0.74
1:1A:1648:C:OP1	60:1A:4114:HOH:O	2.06	0.74
21:1Z:19:ARG:NH1	21:1Z:84:GLU:O	2.21	0.74
32:1a:102:G:O6	60:1a:1904:HOH:O	2.05	0.74
32:2a:1103:C:OP1	33:2b:96:ARG:NH2	2.20	0.74
1:1A:762:U:OP1	60:1A:4112:HOH:O	2.04	0.74
1:2A:2079:U:O4	60:2A:3812:HOH:O	2.04	0.73
1:2A:2448:A:OP1	60:2A:3805:HOH:O	2.06	0.73
1:2A:2579:C:OP1	60:2A:3818:HOH:O	2.06	0.73
36:1e:100:VAL:O	36:1e:107:ARG:NH2	2.22	0.73
22:10:56:ASP:O	60:10:201:HOH:O	2.06	0.73
2:2B:58:A:OP2	60:2B:302:HOH:O	2.06	0.73
21:1Z:199:LYS:NZ	60:1Z:401:HOH:O	2.21	0.73
1:2A:1814:G:OP1	60:2A:3815:HOH:O	2.05	0.73
1:2A:2683:C:OP1	15:2T:53:ARG:NH2	2.22	0.73
32:2a:547:A:OP1	60:2a:3309:HOH:O	2.07	0.73
32:2a:1000:U:H3	32:2a:1041:A:H61	1.37	0.73
56:1A:4055:ARG:HH12	5:1F:164:ARG:HE	1.37	0.73
1:2A:1153:C:OP2	60:2A:3816:HOH:O	2.06	0.73
7:2H:164:TYR:HB2	7:2H:167:GLU:HB2	1.71	0.73
32:2a:1441:G:H5"	32:2a:1442:G:H5'	1.70	0.73
34:2c:121:ALA:HB1	34:2c:189:ALA:HB2	1.70	0.73
1:1A:1757:U:OP1	60:1A:4113:HOH:O	2.06	0.72
32:1a:406:G:H5'	35:1d:5:ILE:HD11	1.71	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2136:C:C2	1:2A:2155:G:N2	2.56	0.72
34:2c:40:ARG:NH1	34:2c:55:VAL:O	2.20	0.72
32:1a:1086:U:H3	32:1a:1099:G:H22	1.37	0.72
1:2A:143:G:H4'	19:2X:35:THR:HG21	1.71	0.72
1:1A:2623:G:OP1	60:1A:4117:HOH:O	2.08	0.72
20:1Y:92:ASN:HB2	20:1Y:94:LYS:H	1.54	0.72
32:1a:547:A:OP1	60:1a:1907:HOH:O	2.07	0.72
33:1b:166:ASP:HB3	33:1b:169:LYS:HB3	1.71	0.72
1:2A:1314:C:OP1	60:2A:3808:HOH:O	2.07	0.72
32:2a:1500:A:OP2	60:2a:3308:HOH:O	2.05	0.72
1:2A:2610:C:O2'	60:2A:3819:HOH:O	2.07	0.72
32:2a:1518:MA6:H93	32:2a:1519:MA6:H102	1.70	0.72
1:2A:1075:C:H2'	1:2A:1076:C:H5'	1.72	0.72
12:2Q:109:VAL:O	60:2Q:301:HOH:O	2.08	0.72
5:1F:155:LEU:HD11	5:1F:176:LEU:HD12	1.72	0.72
32:1a:812:C:N3	60:1a:1925:HOH:O	2.23	0.72
11:2P:89:ALA:O	11:2P:121:LYS:NZ	2.23	0.72
1:1A:826:U:OP1	60:1A:4115:HOH:O	2.06	0.72
35:1d:83:SER:O	60:1d:401:HOH:O	2.07	0.72
41:1j:45:ARG:HB3	41:1j:65:LEU:HB3	1.71	0.72
1:1A:2111:C:H42	1:1A:2147:G:H22	1.37	0.71
5:2F:110:LEU:HD11	5:2F:181:LEU:HG	1.73	0.71
1:1A:1427:A:OP1	60:1A:4118:HOH:O	2.09	0.71
32:1a:598:U:O4	60:1a:1906:HOH:O	2.06	0.71
18:2W:2:GLU:OE2	18:2W:72:LYS:NZ	2.21	0.71
23:21:75:GLU:HA	23:21:78:LYS:HE2	1.71	0.71
1:1A:847:U:OP2	60:1A:4116:HOH:O	2.07	0.71
33:1b:185:ILE:HG22	33:1b:199:TYR:HB2	1.71	0.71
39:1h:14:ARG:NH1	39:1h:83:ILE:O	2.23	0.71
33:2b:7:VAL:O	33:2b:217:ARG:NH1	2.23	0.71
32:1a:78:G:H1	32:1a:91:C:N4	1.88	0.71
1:1A:2683:C:O2	10:1O:70:LYS:NZ	2.17	0.71
11:1P:59:LEU:HD11	30:18:10:ALA:HB2	1.71	0.71
32:2a:999:C:H42	32:2a:1042:G:H1	1.39	0.71
32:1a:407:G:H5"	35:1d:115:ARG:HG2	1.71	0.71
40:2i:9:ARG:HG2	40:2i:14:VAL:HG12	1.72	0.71
32:2a:750:G:N3	46:2o:23:GLY:HA3	2.05	0.71
33:2b:178:ARG:HH22	39:2h:68:ARG:HH12	1.36	0.71
1:1A:2304:G:H22	1:1A:2312:U:H3	1.39	0.71
32:1a:964:A:OP2	53:1y:9:GLN:NE2	2.23	0.71
1:2A:2237:G:OP1	60:2A:3820:HOH:O	2.08	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:13:8:LEU:HD13	25:13:31:LEU:HD23	1.71	0.70
28:26:14:THR:OG1	28:26:48:VAL:O	2.08	0.70
40:2i:53:VAL:O	40:2i:55:ALA:N	2.24	0.70
49:2r:32:ARG:HA	49:2r:69:THR:HG21	1.71	0.70
35:1d:60:GLU:HG3	35:1d:202:LEU:HD12	1.71	0.70
1:1A:2029:G:N7	60:1A:4206:HOH:O	2.24	0.70
32:2a:201:C:OP2	60:2a:3310:HOH:O	2.08	0.70
47:1p:20:VAL:HG23	47:1p:35:LYS:HA	1.72	0.70
3:1D:236:GLY:O	60:1D:401:HOH:O	2.09	0.70
32:1a:330:C:OP2	60:1a:1908:HOH:O	2.09	0.70
1:2A:2646:C:OP2	1:2A:2732:G:O2'	2.10	0.70
26:24:59:PHE:HA	26:24:60:GLN:C	2.17	0.70
1:1A:2507:C:OP1	60:1A:4121:HOH:O	2.10	0.70
1:2A:1010:A:OP2	60:2A:3821:HOH:O	2.08	0.70
1:2A:1041:C:H42	1:2A:1114:G:H1	1.40	0.70
1:1A:1664:A:OP1	60:1A:4119:HOH:O	2.09	0.69
1:2A:1890:A:OP2	60:2A:3826:HOH:O	2.10	0.69
15:2T:109:GLU:HG2	15:2T:112:ARG:HH22	1.57	0.69
26:14:53:GLU:HG3	26:14:55:ARG:H	1.56	0.69
1:1A:2526:G:N2	60:1A:4220:HOH:O	2.25	0.69
22:10:10:THR:HG22	22:10:12:ASN:H	1.57	0.69
1:2A:962:G:OP1	60:2A:3824:HOH:O	2.10	0.69
5:2F:116:ASP:OD2	11:2P:1:MET:N	2.21	0.69
21:2Z:10:ARG:NH1	21:2Z:26:GLY:O	2.25	0.69
41:2j:49:VAL:HG23	45:2n:41:ARG:HB2	1.74	0.69
1:2A:488:G:OP2	60:2A:3823:HOH:O	2.10	0.69
1:2A:1065:U:H3	1:2A:1073:A:H61	1.40	0.69
1:2A:2316:C:O2'	6:2G:128:ARG:NH2	2.25	0.69
32:2a:255:G:OP1	48:2q:69:LYS:NZ	2.25	0.69
32:2a:864:A:OP2	60:2a:3311:HOH:O	2.09	0.69
32:2a:1278:U:H5"	32:2a:1279:A:H5'	1.73	0.69
33:2b:16:HIS:HB2	33:2b:204:ASN:HB3	1.72	0.69
46:1o:54:ARG:HG2	46:1o:58:MET:HE2	1.73	0.69
21:2Z:2:GLU:HG2	21:2Z:56:VAL:HB	1.74	0.69
32:2a:407:G:H5"	35:2d:115:ARG:HG2	1.73	0.69
39:2h:64:LYS:HG2	39:2h:79:VAL:HG21	1.73	0.69
4:1E:47:VAL:HG21	4:1E:86:PRO:HD2	1.73	0.69
1:2A:956:G:H5"	12:2Q:77:LYS:HD2	1.75	0.69
4:2E:47:VAL:HG11	4:2E:86:PRO:HD2	1.73	0.69
12:2Q:26:TYR:O	60:2Q:302:HOH:O	2.11	0.69
16:2U:5:LYS:NZ	60:2U:201:HOH:O	2.18	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1187:G:H5"	17:1V:81:TYR:CE1	2.28	0.69
1:2A:1332:G:OP1	60:2A:3808:HOH:O	2.10	0.69
8:2I:55:ALA:HA	8:2I:58:LEU:HD23	1.74	0.69
4:1E:78:LEU:O	4:1E:79:ARG:NH1	2.26	0.68
8:1I:92:VAL:HG13	8:1I:120:ILE:HB	1.75	0.68
3:2D:69:ARG:NH2	3:2D:128:GLY:O	2.24	0.68
26:24:59:PHE:CE2	50:2s:64:GLU:HB2	2.28	0.68
33:2b:88:ALA:HB2	33:2b:219:VAL:HG13	1.73	0.68
1:1A:699:A:OP2	60:1A:4122:HOH:O	2.10	0.68
1:1A:2372:G:O6	60:1A:4123:HOH:O	2.11	0.68
6:2G:15:VAL:HG21	6:2G:176:LEU:HG	1.75	0.68
1:1A:380:U:OP1	60:1A:4126:HOH:O	2.12	0.68
1:1A:1468:C:OP1	60:1A:4125:HOH:O	2.12	0.68
1:1A:2114:A:H3'	1:1A:2115:G:H8	1.58	0.68
1:1A:2497:A:N7	60:1A:4228:HOH:O	2.26	0.68
32:1a:572:A:OP2	60:1a:1909:HOH:O	2.10	0.68
1:2A:2235:G:O6	60:2A:3822:HOH:O	2.08	0.68
32:2a:887:G:N7	60:2a:3339:HOH:O	2.26	0.68
33:2b:93:VAL:HG21	33:2b:97:TRP:HD1	1.59	0.68
4:1E:127:ASP:OD2	60:1E:402:HOH:O	2.12	0.68
4:1E:179:GLU:O	60:1E:403:HOH:O	2.12	0.68
32:1a:116:A:OP1	60:1a:1910:HOH:O	2.11	0.68
1:2A:1062:G:C5	1:2A:1070:A:H1'	2.29	0.68
1:2A:1266:G:O5'	18:2W:15:ARG:NH2	2.26	0.68
3:2D:148:GLU:HB2	3:2D:151:LYS:HD2	1.74	0.68
10:2O:24:VAL:HG13	10:2O:33:ALA:HB2	1.74	0.68
1:1A:1651:G:OP2	60:1A:4128:HOH:O	2.12	0.68
1:2A:1031:G:H5"	31:29:8:LYS:HE3	1.75	0.68
1:1A:330:A:H2	1:1A:1210:A:HO2'	1.42	0.68
42:2k:79:SER:HB2	42:2k:104:GLN:HB3	1.76	0.68
1:1A:1078:U:H4'	1:1A:1079:C:H5'	1.75	0.68
1:2A:1280:G:N7	60:2A:3910:HOH:O	2.25	0.68
1:1A:1381:G:N7	60:1A:4225:HOH:O	2.26	0.68
1:2A:762:U:OP1	60:2A:3828:HOH:O	2.12	0.68
1:2A:826:U:OP1	60:2A:3806:HOH:O	2.12	0.68
1:2A:1762:A:N1	60:2A:3919:HOH:O	2.26	0.68
1:2A:2161:C:O2'	1:2A:2173:A:O2'	2.12	0.68
36:2e:12:LEU:HB3	36:2e:31:LEU:HB2	1.74	0.68
2:1B:55:U:OP2	60:1B:301:HOH:O	2.12	0.67
3:1D:242:ARG:HG3	3:1D:242:ARG:HH11	1.59	0.67
20:1Y:92:ASN:N	20:1Y:93:GLY:HA2	2.09	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:61:ARG:HG3	26:14:62:ARG:H	1.58	0.67
30:18:62:LEU:HB3	30:18:65:GLU:HG3	1.77	0.67
34:1c:63:ASN:HB3	34:1c:98:ASN:HB2	1.75	0.67
1:2A:1023:U:OP2	60:2A:3835:HOH:O	2.13	0.67
38:1g:79:ARG:HA	38:1g:84:ASN:HA	1.75	0.67
1:2A:449:A:OP2	60:2A:3831:HOH:O	2.12	0.67
1:2A:2206:G:H3'	1:2A:2207:G:C8	2.29	0.67
1:2A:2807:G:N1	1:2A:2893:G:O6	2.19	0.67
6:2G:125:PHE:O	6:2G:127:GLY:N	2.25	0.67
1:1A:2121:G:H1	1:1A:2177:C:H42	1.43	0.67
26:14:40:HIS:HB3	26:14:43:TYR:HD2	1.57	0.67
47:1p:53:VAL:HG13	47:1p:79:VAL:HG12	1.76	0.67
1:2A:802:A:OP1	60:2A:3830:HOH:O	2.12	0.67
1:2A:1057:A:H2'	1:2A:1058:G:C8	2.30	0.67
1:2A:2836:U:H2'	1:2A:2837:G:C8	2.29	0.67
21:2Z:69:THR:HG22	21:2Z:90:VAL:HA	1.76	0.67
1:1A:457:A:OP2	60:1A:4130:HOH:O	2.12	0.67
1:1A:1815:A:OP2	3:1D:54:ARG:NH2	2.28	0.67
5:1F:64:ILE:HG21	5:1F:78:ILE:HG23	1.76	0.67
32:1a:984:C:H42	32:1a:1221:G:H1	1.42	0.67
1:2A:451:C:OP2	60:2A:3827:HOH:O	2.12	0.67
1:2A:1371:G:O6	60:2A:3825:HOH:O	2.10	0.67
1:2A:2477:C:N3	60:2A:3938:HOH:O	2.28	0.67
1:2A:2639:A:OP2	60:2A:3834:HOH:O	2.13	0.67
32:2a:134:A:N6	47:2p:25:ARG:HH22	1.92	0.67
1:1A:1634:A:OP2	60:1A:4124:HOH:O	2.11	0.67
1:2A:2115:G:H21	1:2A:2171:A:H61	1.42	0.67
32:2a:117:G:OP2	60:2a:3312:HOH:O	2.12	0.67
48:2q:81:ARG:NH1	48:2q:83:ASP:OD1	2.27	0.67
1:1A:784:A:H5'	1:1A:785:G:OP1	1.95	0.67
1:2A:662:G:OP1	60:2A:3833:HOH:O	2.12	0.67
46:2o:87:ILE:HG22	46:2o:88:ARG:H	1.59	0.67
1:1A:1085:A:O2'	1:1A:1104:C:O2'	2.11	0.67
34:2c:179:ARG:NH1	34:2c:206:GLU:OE1	2.26	0.67
26:14:16:CYS:SG	26:14:17:GLY:N	2.68	0.67
1:2A:1045:A:H5"	1:2A:1046:A:H5'	1.76	0.67
1:2A:2366:A:OP1	60:2A:3836:HOH:O	2.13	0.67
4:2E:11:MET:HG2	4:2E:24:THR:HG22	1.77	0.67
6:2G:106:LEU:HA	6:2G:110:ALA:HB3	1.77	0.67
32:2a:1218:C:OP2	45:2n:9:LYS:NZ	2.28	0.67
47:2p:18:ARG:HD3	47:2p:35:LYS:HD2	1.77	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:1P:87:ASP:O	11:1P:90:ARG:NH1	2.28	0.66
1:1A:521:G:O6	60:1A:4132:HOH:O	2.12	0.66
3:1D:13:ARG:NH1	3:1D:16:MET:SD	2.67	0.66
21:2Z:10:ARG:HB2	21:2Z:36:LYS:HB2	1.77	0.66
21:2Z:144:LEU:HD11	21:2Z:150:LEU:HD22	1.77	0.66
1:1A:83:G:OP1	60:1A:4129:HOH:O	2.12	0.66
1:2A:194:G:OP2	60:2A:3832:HOH:O	2.12	0.66
1:2A:483:A:H5"	20:2Y:50:ARG:HD3	1.76	0.66
1:2A:731:C:OP1	60:2A:3840:HOH:O	2.14	0.66
17:2V:60:GLU:HB2	17:2V:97:LYS:HE2	1.77	0.66
1:1A:312:G:OP2	60:1A:4134:HOH:O	2.13	0.66
1:1A:2066:C:OP1	60:1A:4137:HOH:O	2.13	0.66
1:1A:2646:C:OP2	1:1A:2732:G:O2'	2.11	0.66
1:2A:400:G:N7	60:2A:3927:HOH:O	2.27	0.66
1:2A:958:U:OP2	12:2Q:14:ARG:NH1	2.28	0.66
1:2A:2706:G:N7	60:2A:3949:HOH:O	2.29	0.66
1:2A:2784:C:H1'	4:2E:37:ARG:HH12	1.60	0.66
7:2H:97:ARG:HG2	7:2H:104:GLU:HB3	1.76	0.66
10:1O:48:PRO:HB3	32:1a:1422:G:H5"	1.78	0.66
1:2A:2104:G:O6	1:2A:2185:C:C4	2.48	0.66
26:24:24:THR:OG1	26:24:25:TYR:N	2.28	0.66
53:2y:61:LEU:HB3	53:2y:81:LEU:HD22	1.77	0.66
1:1A:679:C:OP1	60:1A:4131:HOH:O	2.12	0.66
1:1A:2319:G:N2	14:1S:3:ARG:HH11	1.93	0.66
60:1A:4104:HOH:O	13:1R:3:HIS:NE2	2.28	0.66
38:1g:152:ALA:O	38:1g:155:ARG:NH1	2.22	0.66
10:2O:2:ILE:HB	10:2O:33:ALA:HB3	1.77	0.66
40:2i:42:ARG:NH1	40:2i:71:SER:OG	2.28	0.66
22:10:27:GLU:HG3	22:10:68:GLU:HA	1.76	0.66
7:2H:3:ARG:HG3	7:2H:6:ARG:HB2	1.78	0.66
32:2a:1200:C:OP1	60:2a:3315:HOH:O	2.13	0.66
1:1A:2743:C:OP1	31:19:33:LYS:NZ	2.27	0.66
1:2A:2826:A:OP2	60:2A:3838:HOH:O	2.13	0.66
25:23:13:ILE:O	60:23:201:HOH:O	2.13	0.66
1:1A:1314:C:OP1	60:1A:4106:HOH:O	2.13	0.66
19:1X:31:HIS:CD2	19:1X:33:LYS:H	2.13	0.66
1:2A:1968:G:O6	60:2A:3829:HOH:O	2.12	0.66
1:2A:2155:G:H3'	1:2A:2156:G:H8	1.61	0.66
5:2F:21:ALA:HB3	5:2F:22:ALA:HA	1.77	0.66
11:2P:54:GLY:O	60:2P:301:HOH:O	2.14	0.66
1:1A:2417:C:OP1	11:1P:65:ARG:NH2	2.28	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2454:G:OP1	60:1A:4142:HOH:O	2.14	0.66
27:15:17:ASP:OD2	60:15:202:HOH:O	2.13	0.66
32:1a:255:G:H1'	48:1q:16:GLN:HE21	1.61	0.66
32:1a:1123:A:O2'	41:1j:37:PRO:O	2.12	0.66
1:2A:2042:A:OP1	60:2A:3837:HOH:O	2.13	0.66
10:2O:86:ILE:O	60:2O:301:HOH:O	2.12	0.66
32:2a:21:G:OP1	60:2a:3314:HOH:O	2.13	0.66
32:2a:742:G:OP2	46:2o:35:ARG:NH2	2.29	0.66
39:2h:10:LEU:HD22	39:2h:83:ILE:HD11	1.76	0.66
40:2i:116:LYS:HD2	40:2i:122:ALA:HA	1.78	0.66
1:1A:438:G:N7	60:1A:4261:HOH:O	2.30	0.65
1:1A:1173:G:OP2	60:1A:4133:HOH:O	2.12	0.65
1:1A:2687:U:OP2	60:1A:4138:HOH:O	2.13	0.65
32:1a:177:C:OP1	51:1t:65:LYS:NZ	2.22	0.65
44:1m:58:GLU:O	44:1m:62:ASN:ND2	2.29	0.65
34:2c:180:ALA:HB1	34:2c:203:PHE:HE1	1.61	0.65
1:1A:1637:A:OP1	60:1A:4139:HOH:O	2.14	0.65
32:1a:1286:A:H2'	32:1a:1287:A:H4'	1.76	0.65
35:1d:89:THR:OG1	60:1d:402:HOH:O	2.14	0.65
1:2A:1017:G:N7	60:2A:3946:HOH:O	2.29	0.65
32:2a:1505:G:OP1	60:2a:3306:HOH:O	2.14	0.65
1:1A:1671:U:O4	60:1A:4111:HOH:O	2.09	0.65
1:2A:1216:G:OP1	60:2A:3843:HOH:O	2.15	0.65
34:2c:180:ALA:HA	34:2c:206:GLU:HA	1.78	0.65
1:1A:2624:G:O6	60:1A:4127:HOH:O	2.12	0.65
12:1Q:97:VAL:HG11	12:1Q:103:MET:HE3	1.78	0.65
29:17:34:ARG:NH1	29:17:41:ARG:O	2.30	0.65
1:2A:1246:A:N3	60:2A:3932:HOH:O	2.28	0.65
1:2A:2145:C:O2'	1:2A:2147:G:N2	2.30	0.65
3:2D:206:LEU:HD22	3:2D:211:ARG:HG2	1.77	0.65
17:2V:43:GLU:OE1	17:2V:43:GLU:N	2.28	0.65
32:1a:1435:G:H2'	32:1a:1436:U:C6	2.32	0.65
34:1c:180:ALA:HA	34:1c:206:GLU:HA	1.78	0.65
8:2I:65:ALA:O	8:2I:69:LYS:N	2.30	0.65
32:2a:624:C:H2'	32:2a:625:G:H8	1.62	0.65
50:2s:38:SER:HB2	50:2s:71:LEU:HD22	1.79	0.65
39:1h:121:ASP:OD1	39:1h:121:ASP:N	2.29	0.65
32:1a:67:C:H2'	32:1a:68:G:C8	2.31	0.65
32:1a:1374:A:OP1	38:1g:36:LYS:NZ	2.29	0.65
32:1a:1003:G:H2'	32:1a:1004:A:H4'	1.78	0.65
46:1o:16:ALA:HB1	46:1o:21:ASP:HB3	1.77	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:391:G:N7	60:2a:3342:HOH:O	2.29	0.65
41:2j:50:ILE:HD11	41:2j:57:LYS:HD2	1.78	0.65
1:1A:400:G:O6	60:1A:4136:HOH:O	2.13	0.65
1:1A:2839:G:H5'	13:1R:46:GLY:HA2	1.76	0.65
32:1a:289:G:OP2	60:1a:1910:HOH:O	2.14	0.65
32:1a:1300:G:N7	60:1a:1944:HOH:O	2.30	0.65
1:2A:2602:A:H1'	1:2A:2603:G:C5'	2.27	0.65
5:2F:154:VAL:HG22	5:2F:191:ARG:HB2	1.79	0.65
32:2a:976:G:H5'	32:2a:1358:U:O2'	1.97	0.65
33:2b:166:ASP:HB3	33:2b:169:LYS:HB3	1.78	0.65
34:1c:179:ARG:NH1	34:1c:206:GLU:OE1	2.30	0.64
1:1A:11:G:H2'	1:1A:12:U:H5"	1.80	0.64
1:1A:1047:G:H2'	1:1A:1110:G:H22	1.62	0.64
1:1A:1290:C:OP2	60:1A:4141:HOH:O	2.14	0.64
1:1A:1452:A:OP2	60:1A:4145:HOH:O	2.15	0.64
1:1A:2291:U:OP1	1:1A:2380:C:O2'	2.14	0.64
5:2F:132:VAL:HG21	5:2F:163:VAL:HG22	1.79	0.64
17:2V:98:GLU:OE2	17:2V:100:ARG:NH1	2.31	0.64
53:2y:53:THR:HG22	53:2y:62:VAL:HG12	1.79	0.64
1:1A:2427:C:OP1	60:1A:4115:HOH:O	2.14	0.64
6:1G:27:ASN:HB3	6:1G:30:GLU:HG3	1.79	0.64
1:2A:1058:G:H1	1:2A:1080:C:H42	1.44	0.64
50:2s:32:LYS:HA	50:2s:50:ALA:HB3	1.78	0.64
1:1A:110:G:OP2	60:1A:4146:HOH:O	2.15	0.64
34:1c:180:ALA:HB1	34:1c:203:PHE:HE1	1.63	0.64
36:1e:74:GLY:HA3	36:1e:116:THR:HG22	1.78	0.64
32:2a:426:G:OP1	35:2d:38:TYR:OH	2.15	0.64
40:2i:43:ALA:O	40:2i:45:ALA:N	2.29	0.64
27:15:55:ARG:NH2	60:15:204:HOH:O	2.30	0.64
32:1a:437:U:H5'	35:1d:155:LEU:HD21	1.78	0.64
1:2A:1761:C:N3	60:2A:3968:HOH:O	2.30	0.64
60:2G:301:HOH:O	26:24:6:HIS:ND1	2.25	0.64
40:2i:4:TYR:O	40:2i:19:LEU:N	2.26	0.64
1:1A:2407:G:OP1	60:1A:4140:HOH:O	2.14	0.64
32:1a:988:G:H1'	32:1a:1014:A:H61	1.62	0.64
1:2A:1090:U:H2'	1:2A:1091:G:H8	1.62	0.64
1:1A:1543:C:OP2	60:1A:4150:HOH:O	2.15	0.64
1:2A:2353:G:N7	60:2A:3962:HOH:O	2.30	0.64
32:2a:1503:A:OP1	32:2a:1531:A:O2'	2.16	0.64
1:1A:1595:G:O6	60:1A:4135:HOH:O	2.13	0.64
20:1Y:102:CYS:SG	20:1Y:103:GLY:N	2.71	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:142:G:H2'	32:1a:143:A:H8	1.63	0.64
32:1a:1518:MA6:H93	32:1a:1519:MA6:H92	1.79	0.64
44:1m:87:TYR:HA	44:1m:90:LEU:HD12	1.80	0.64
1:2A:125:G:O2'	29:27:48:LYS:NZ	2.26	0.64
1:2A:1024:G:OP2	60:2A:3835:HOH:O	2.14	0.64
41:2j:6:ILE:HG12	41:2j:98:ILE:HG12	1.78	0.64
1:1A:1842:G:O2'	3:1D:253:GLN:NE2	2.31	0.63
35:1d:122:ARG:NH1	35:1d:134:ASP:OD2	2.30	0.63
1:2A:2296:U:OP2	14:2S:9:ARG:NH2	2.31	0.63
1:2A:2748:A:H5'	7:2H:4:ILE:HD12	1.80	0.63
21:2Z:157:LEU:HD13	21:2Z:161:VAL:HG12	1.80	0.63
32:2a:922:G:H4'	36:2e:20:GLN:HA	1.79	0.63
32:2a:1318:A:H5"	50:2s:3:ARG:HH22	1.63	0.63
38:2g:50:ILE:HD11	38:2g:58:PRO:HA	1.80	0.63
1:2A:2884:U:OP2	60:2A:3844:HOH:O	2.15	0.63
51:2t:70:SER:O	60:2t:301:HOH:O	2.15	0.63
20:1Y:35:TYR:OH	60:1Y:301:HOH:O	2.13	0.63
35:1d:53:ASP:HB3	35:1d:57:ARG:HH12	1.63	0.63
1:2A:1776:G:OP1	60:2A:3842:HOH:O	2.14	0.63
1:1A:639:U:H2'	1:1A:640:C:C6	2.34	0.63
1:1A:1701:A:OP2	60:1A:4147:HOH:O	2.15	0.63
32:1a:1182:G:H4'	32:1a:1183:A:H5'	1.80	0.63
37:1f:14:LEU:HD13	37:1f:18:GLN:HB3	1.81	0.63
32:2a:64:G:H4'	32:2a:65:U:H3'	1.80	0.63
32:2a:718:G:C8	42:2k:116:HIS:HB3	2.33	0.63
1:1A:1840:G:N7	60:1A:4268:HOH:O	2.30	0.63
1:1A:2350:C:OP2	60:1A:4151:HOH:O	2.15	0.63
50:1s:12:ASP:OD1	50:1s:37:ARG:NH1	2.32	0.63
51:1t:57:ARG:HH12	51:1t:100:ILE:HD12	1.62	0.63
1:2A:2140:C:H2'	1:2A:2141:G:H8	1.63	0.63
5:2F:24:LEU:HD23	5:2F:115:ALA:HA	1.80	0.63
5:2F:157:VAL:HB	5:2F:194:MET:HG2	1.81	0.63
32:2a:1314:C:N4	50:2s:2:PRO:O	2.31	0.63
32:2a:1505:G:OP2	60:2a:3308:HOH:O	2.15	0.63
4:1E:29:GLY:HA3	60:1E:406:HOH:O	1.98	0.63
6:1G:104:GLU:O	6:1G:108:ASN:ND2	2.32	0.63
7:2H:8:PRO:HB3	7:2H:51:ARG:HG2	1.80	0.63
37:1f:80:ARG:NH1	37:1f:88:VAL:O	2.32	0.63
1:2A:2206:G:H3'	1:2A:2207:G:H8	1.64	0.63
3:2D:164:GLN:OE1	3:2D:176:ARG:NH2	2.32	0.63
1:2A:1843:C:H5'	3:2D:253:GLN:NE2	2.14	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:662:G:H2'	32:2a:663:A:C8	2.32	0.63
32:1a:64:G:H4'	32:1a:65:U:H3'	1.81	0.63
1:2A:641:C:O2'	1:2A:2350:C:OP1	2.15	0.63
31:29:29:ASN:HD22	31:29:32:HIS:CE1	2.17	0.63
32:2a:986:A:N3	50:2s:52:TYR:OH	2.29	0.63
40:1i:29:ASN:ND2	40:1i:65:VAL:O	2.30	0.62
1:1A:1509(A):A:H2'	1:1A:1509(B):A:O4'	1.98	0.62
17:1V:21:ARG:HD3	17:1V:91:TYR:CD1	2.34	0.62
32:1a:619:U:N3	35:1d:134:ASP:OD1	2.32	0.62
6:2G:161:THR:HG22	6:2G:163:ALA:H	1.65	0.62
27:25:16:ARG:NH1	27:25:17:ASP:OD1	2.32	0.62
13:1R:71:GLN:NE2	60:1R:301:HOH:O	2.32	0.62
36:1e:102:ALA:HB1	36:1e:106:PRO:HG2	1.81	0.62
50:1s:41:VAL:HG13	50:1s:43:GLU:H	1.64	0.62
33:2b:162:ILE:HD11	33:2b:184:VAL:HG22	1.80	0.62
1:1A:1243:G:O2'	11:1P:7:ARG:NH2	2.32	0.62
1:1A:2334:G:H5'	14:1S:9:ARG:HG2	1.81	0.62
39:2h:17:THR:HG22	39:2h:63:LEU:HG	1.82	0.62
1:1A:389:G:OP2	60:1A:4155:HOH:O	2.16	0.62
1:2A:2104:G:O6	1:2A:2185:C:N3	2.33	0.62
5:2F:178:PRO:HB2	5:2F:201:VAL:HG21	1.82	0.62
32:2a:390:C:O3'	47:2p:28:ARG:NH2	2.33	0.62
3:1D:8:PRO:HB3	3:1D:14:ARG:HB2	1.82	0.62
6:1G:150:ASP:OD1	6:1G:153:ARG:NH1	2.31	0.62
32:1a:324:G:N7	60:1a:1947:HOH:O	2.30	0.62
1:2A:11:G:H2'	1:2A:12:U:H5'	1.82	0.62
1:2A:2302:G:O2'	6:2G:126:ASP:O	2.15	0.62
18:2W:78:GLU:OE2	18:2W:99:ARG:NH1	2.28	0.62
53:2y:42:SER:HB3	53:2y:49:VAL:HG12	1.81	0.62
16:1U:33:ARG:NH1	60:1U:304:HOH:O	2.32	0.62
18:1W:25:ARG:NH2	18:1W:74:ALA:O	2.30	0.62
32:1a:757:U:O2'	32:1a:879:C:O2	2.17	0.62
1:2A:2805:G:H2'	1:2A:2807:G:C8	2.35	0.62
32:2a:287:U:O4	60:2a:3313:HOH:O	2.12	0.62
32:1a:976:G:H5'	32:1a:1358:U:O2'	1.99	0.62
6:2G:131:TYR:HE2	6:2G:133:LEU:HD23	1.65	0.62
1:1A:1266:G:O5'	18:1W:15:ARG:NH2	2.33	0.62
13:1R:96:ARG:NH2	13:1R:118:GLU:OE2	2.33	0.62
28:16:12:GLU:OE1	28:16:19:ARG:NH1	2.33	0.62
4:2E:14:ILE:HG13	4:2E:21:VAL:HG13	1.81	0.62
6:2G:112:PRO:HG3	26:24:43:TYR:HE2	1.64	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:768:A:N7	60:2a:3345:HOH:O	2.31	0.62
1:1A:1364:G:OP2	23:11:3:LYS:HD3	1.99	0.62
32:1a:757:U:H2'	32:1a:758:G:O4'	2.00	0.62
33:2b:179:LYS:HA	39:2h:72:PRO:HG3	1.80	0.62
37:2f:91:VAL:HG11	49:2r:72:ARG:NH1	2.15	0.62
14:1S:14:VAL:O	14:1S:18:ILE:HG12	1.99	0.61
32:1a:1003:G:N2	32:1a:1004:A:N3	2.48	0.61
33:1b:16:HIS:HB2	33:1b:204:ASN:HB3	1.80	0.61
33:1b:80:ILE:HD13	33:1b:211:ILE:HB	1.81	0.61
50:1s:3:ARG:HH21	50:1s:7:LYS:HB3	1.65	0.61
2:2B:48:A:H4'	14:2S:95:HIS:HD2	1.65	0.61
1:2A:1076:C:H4'	1:2A:1077:A:OP1	1.98	0.61
4:2E:52:LEU:H	4:2E:76:ARG:HB2	1.65	0.61
32:2a:1187:G:H5'	40:2i:113:LYS:HE2	1.82	0.61
7:1H:3:ARG:NH1	7:1H:5:GLY:H	1.98	0.61
32:1a:486:U:H2'	32:1a:487:A:H8	1.64	0.61
33:1b:163:PHE:HD1	33:1b:185:ILE:HG13	1.65	0.61
1:2A:242:G:OP1	60:2A:3848:HOH:O	2.16	0.61
1:2A:1037:G:O6	60:2A:3841:HOH:O	2.14	0.61
1:2A:2748:A:N3	7:2H:63:SER:OG	2.33	0.61
1:1A:308:G:O2'	60:1A:4152:HOH:O	2.16	0.61
8:1I:72:LEU:C	8:1I:74:ASN:H	2.08	0.61
32:1a:276:G:O6	60:1a:1912:HOH:O	2.14	0.61
13:2R:95:THR:HG22	13:2R:116:LEU:HD23	1.82	0.61
19:2X:35:THR:HG22	19:2X:37:THR:H	1.64	0.61
51:2t:50:GLU:HB2	51:2t:99:LEU:HD22	1.82	0.61
1:1A:2023:G:H5'	1:1A:2617:C:H4'	1.81	0.61
1:2A:2126:A:H4'	1:2A:2127:G:O5'	2.00	0.61
6:2G:38:VAL:HG22	6:2G:93:THR:HG23	1.82	0.61
32:2a:1376:U:H2'	32:2a:1377:A:C8	2.35	0.61
34:1c:124:ILE:HD12	34:1c:196:LEU:HD12	1.80	0.61
36:1e:12:LEU:HB3	36:1e:31:LEU:HB2	1.82	0.61
40:1i:46:ALA:HB2	40:1i:74:ILE:HG23	1.83	0.61
1:2A:407:G:OP2	60:2A:3846:HOH:O	2.15	0.61
1:1A:993:G:OP1	16:1U:50:ARG:NH2	2.33	0.61
14:1S:3:ARG:NH2	14:1S:4:LEU:O	2.33	0.61
32:1a:600:C:H2'	32:1a:601:C:H6	1.66	0.61
33:1b:95:GLN:HG3	33:1b:147:LYS:HG2	1.81	0.61
44:2m:91:ARG:NE	44:2m:97:PRO:O	2.33	0.61
19:1X:53:LYS:HB3	19:1X:82:GLN:HB3	1.83	0.61
32:1a:976:G:OP2	32:1a:1358:U:O2'	2.13	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:1k:21:ILE:HG12	42:1k:30:VAL:HG22	1.83	0.61
1:2A:1316:U:H2'	1:2A:1317:A:H8	1.65	0.61
6:2G:60:LEU:HD23	6:2G:68:PRO:HG3	1.83	0.61
7:2H:86:GLU:OE2	7:2H:132:ARG:NH2	2.34	0.61
32:2a:1305:G:H5'	52:2u:4:GLY:C	2.26	0.61
6:1G:32:PRO:HB3	6:1G:163:ALA:HB2	1.82	0.61
32:1a:673:G:H2'	32:1a:674:G:C8	2.35	0.61
40:1i:50:LEU:HD13	40:1i:56:LEU:HA	1.83	0.61
44:1m:9:ILE:HB	44:1m:18:ALA:HB1	1.83	0.61
6:2G:108:ASN:HA	26:24:37:SER:HB3	1.82	0.61
34:2c:6:HIS:HD2	34:2c:8:ILE:H	1.47	0.61
1:1A:1405:U:H2'	1:1A:1406:U:C6	2.36	0.61
38:2g:113:GLU:HB2	38:2g:119:ARG:HG2	1.82	0.61
21:1Z:158:PRO:HG2	21:1Z:161:VAL:HG11	1.82	0.60
32:1a:100:C:H2'	32:1a:101:A:C8	2.36	0.60
32:1a:262:A:H2'	32:1a:263:A:C8	2.35	0.60
32:2a:673:G:H2'	32:2a:674:G:C8	2.36	0.60
53:2y:68:GLU:N	53:2y:68:GLU:OE1	2.34	0.60
4:1E:36:ARG:HG2	4:1E:47:VAL:HG22	1.83	0.60
32:1a:1003:G:C2'	32:1a:1004:A:H4'	2.32	0.60
34:1c:66:VAL:HB	34:1c:101:LEU:HD12	1.83	0.60
35:1d:98:GLU:OE1	35:1d:103:ASN:ND2	2.26	0.60
1:2A:1500:G:O2'	3:2D:100:GLY:O	2.19	0.60
1:2A:1633:G:OP2	60:2A:3847:HOH:O	2.16	0.60
5:2F:53:THR:HG23	5:2F:55:GLY:H	1.66	0.60
32:2a:768:A:OP2	60:2a:3316:HOH:O	2.16	0.60
32:2a:1004:A:H5'	32:2a:1025:U:H5	1.66	0.60
1:1A:1631(A):A:OP1	60:1A:4156:HOH:O	2.16	0.60
33:1b:231:GLU:HB3	33:1b:232:PRO:CD	2.29	0.60
37:2f:35:ALA:HA	37:2f:67:MET:HB3	1.82	0.60
37:2f:89:MET:HE1	49:2r:72:ARG:HB3	1.81	0.60
1:1A:530:G:N1	1:1A:2023:G:OP1	2.30	0.60
3:1D:71:ASP:HB3	3:1D:103:ARG:HH22	1.66	0.60
29:17:34:ARG:NH2	60:17:201:HOH:O	2.32	0.60
1:2A:61:G:OP1	24:22:51:ARG:NH2	2.35	0.60
1:2A:1250:G:H5"	60:2A:4735:HOH:O	2.01	0.60
1:2A:2180:U:H2'	1:2A:2181:G:C8	2.36	0.60
4:2E:174:ASP:OD1	4:2E:175:VAL:N	2.34	0.60
32:2a:1442:G:H2'	32:2a:1442:G:N3	2.15	0.60
33:2b:185:ILE:HG13	33:2b:199:TYR:HB2	1.82	0.60
23:11:64:ALA:HA	23:11:67:ILE:HG13	1.81	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:868:C:OP2	60:1a:1913:HOH:O	2.16	0.60
32:1a:1296:C:OP1	44:1m:44:ARG:NH2	2.34	0.60
1:2A:1359:A:H61	1:2A:1372:U:H3	1.49	0.60
8:2I:101:LEU:HD13	8:2I:107:VAL:HB	1.84	0.60
1:1A:7:G:H2'	1:1A:8:A:C8	2.35	0.60
5:1F:116:ASP:OD1	5:1F:119:ARG:NH2	2.34	0.60
1:2A:1840:G:OP2	60:2A:3845:HOH:O	2.15	0.60
32:2a:401:C:OP2	35:2d:73:ARG:NH2	2.31	0.60
32:2a:1323:G:H2'	32:2a:1324:A:C8	2.36	0.60
32:1a:1356:G:H2'	32:1a:1357:A:C8	2.37	0.60
40:1i:4:TYR:HB2	40:1i:19:LEU:HB2	1.82	0.60
1:2A:2023:G:H5'	1:2A:2617:C:H4'	1.84	0.60
8:2I:26:ALA:HA	8:2I:30:LEU:HB2	1.81	0.60
2:1B:103:G:H21	21:1Z:73:GLN:HE22	1.48	0.60
1:2A:2150:U:H2'	1:2A:2151:G:C8	2.36	0.60
15:2T:30:VAL:HG22	15:2T:86:ILE:HG12	1.83	0.60
32:2a:1292:U:P	38:2g:41:ARG:HH22	2.25	0.60
38:2g:77:SER:OG	38:2g:86:GLN:NE2	2.35	0.60
26:14:20:ASN:ND2	26:14:36:CYS:SG	2.74	0.60
1:2A:1334:G:OP2	60:2A:3850:HOH:O	2.16	0.60
32:2a:35:G:O2'	43:2l:118:SER:O	2.19	0.60
1:1A:1466:G:O2'	1:1A:1546:C:O2'	2.19	0.60
1:2A:2105:C:H42	1:2A:2184:G:H1	1.50	0.60
1:2A:2781:A:H5"	1:2A:2782:G:H5'	1.84	0.60
1:1A:220:G:O6	60:1A:4154:HOH:O	2.16	0.59
1:2A:1024:G:HO2'	1:2A:1144:G:HO2'	1.48	0.59
1:2A:1420:U:O2'	1:2A:1421:G:OP1	2.17	0.59
1:2A:2206:G:H5"	1:2A:2207:G:N7	2.17	0.59
2:2B:86:G:O6	60:2B:303:HOH:O	2.17	0.59
14:2S:34:HIS:HB2	14:2S:36:TYR:HE1	1.67	0.59
1:1A:988:A:OP1	60:1A:4153:HOH:O	2.16	0.59
6:1G:67:LYS:H	26:14:6:HIS:CE1	2.20	0.59
32:1a:1329:A:N7	52:1u:7:ARG:NH2	2.49	0.59
32:2a:1056:U:H5'	34:2c:163:ALA:HB2	1.83	0.59
33:2b:178:ARG:HH12	39:2h:68:ARG:NH2	2.00	0.59
34:1c:134:ILE:HG23	34:1c:151:VAL:HB	1.85	0.59
39:1h:41:ARG:NH2	39:1h:123:GLU:OE2	2.34	0.59
1:2A:1064:C:H3'	1:2A:1065:U:C5'	2.32	0.59
1:2A:2144:U:HO2'	1:2A:2147:G:H1	1.47	0.59
5:2F:195:ASP:OD1	5:2F:196:LEU:N	2.35	0.59
10:2O:2:ILE:HD12	10:2O:6:THR:HG21	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:21:50:ARG:NH1	23:21:57:GLU:OE2	2.33	0.59
51:2t:43:LEU:HD13	51:2t:51:GLU:HB3	1.83	0.59
1:1A:2849:U:OP2	15:1T:95:ARG:NH1	2.35	0.59
1:2A:1816:G:O6	3:2D:35:LYS:NZ	2.35	0.59
26:24:59:PHE:HA	26:24:61:ARG:N	2.17	0.59
19:1X:80:ILE:O	60:1X:201:HOH:O	2.17	0.59
32:1a:1260:C:H4'	32:1a:1284:C:H5'	1.84	0.59
38:1g:46:ALA:HB1	38:1g:121:ALA:HB2	1.83	0.59
40:1i:3:GLN:HE21	40:1i:20:ARG:HE	1.50	0.59
53:1y:8:LYS:HG2	53:1y:9:GLN:HG2	1.84	0.59
1:2A:452:G:OP2	60:2A:3851:HOH:O	2.17	0.59
1:2A:1025:G:C4	1:2A:1135:C:H1'	2.38	0.59
13:2R:67:LEU:HD13	13:2R:76:VAL:HG21	1.84	0.59
21:2Z:93:ASP:HB2	21:2Z:131:ARG:HH22	1.68	0.59
32:2a:1031:G:H2'	32:2a:1032:G:C8	2.37	0.59
1:2A:2114:A:H3'	1:2A:2115:G:H8	1.66	0.59
1:2A:2140:C:H2'	1:2A:2141:G:C8	2.36	0.59
32:2a:407:G:OP1	35:2d:115:ARG:NH2	2.35	0.59
32:2a:1024:G:H2'	32:2a:1025:U:H5"	1.83	0.59
1:1A:1143:A:OP1	9:1N:25:ARG:NH2	2.35	0.59
1:1A:2125:G:O2'	1:1A:2173:A:N6	2.35	0.59
1:1A:2455:G:OP1	60:1A:4157:HOH:O	2.16	0.59
13:1R:87:TYR:OH	13:1R:117:VAL:O	2.21	0.59
47:1p:43:LYS:HG2	47:1p:48:TRP:CE2	2.37	0.59
1:2A:2157:G:H5"	1:2A:2158:A:H5'	1.85	0.59
1:2A:2602:A:H4'	1:2A:2603:G:OP1	2.02	0.59
32:2a:1191:A:OP2	34:2c:3:ASN:ND2	2.36	0.59
47:2p:23:ASP:OD1	47:2p:25:ARG:HG2	2.02	0.59
1:1A:2114:A:H3'	1:1A:2115:G:C8	2.36	0.59
1:1A:2121:G:O6	1:1A:2176:A:N6	2.35	0.59
1:1A:2126:A:H4'	1:1A:2127:G:O5'	2.03	0.59
1:1A:2243:U:OP2	60:1A:4149:HOH:O	2.15	0.59
15:2T:16:ARG:NH2	15:2T:83:ILE:O	2.36	0.59
21:2Z:99:TYR:HB3	21:2Z:123:ASP:HB2	1.85	0.59
32:2a:653:A:OP1	39:2h:56:LYS:NZ	2.34	0.59
41:2j:38:ILE:HG13	41:2j:71:LEU:HB3	1.84	0.59
1:2A:1316:U:H2'	1:2A:1317:A:C8	2.38	0.59
12:2Q:111:GLU:O	12:2Q:115:MET:HG2	2.03	0.59
3:1D:17:THR:O	3:1D:211:ARG:NH2	2.36	0.59
3:1D:113:VAL:HG12	60:1D:483:HOH:O	2.03	0.59
19:1X:35:THR:HG22	19:1X:38:GLU:H	1.68	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1c:3:ASN:OD1	34:1c:3:ASN:N	2.33	0.59
1:2A:1084:A:N6	1:2A:1086:A:N7	2.51	0.59
12:2Q:60:ARG:NH2	21:2Z:181:GLU:OE2	2.36	0.59
32:2a:427:U:OP1	35:2d:13:ARG:NH2	2.35	0.59
32:2a:991:U:H2'	32:2a:1212:U:C4	2.38	0.59
1:1A:2584:U:H2'	1:1A:2585:U:H2'	1.85	0.58
45:1n:4:LYS:HA	45:1n:7:ILE:HG12	1.83	0.58
1:2A:668:G:H5'	1:2A:669:G:OP2	2.02	0.58
1:2A:1069:A:H2'	1:2A:1073:A:N7	2.18	0.58
2:2B:8:U:O3'	14:2S:25:ARG:NH2	2.36	0.58
32:2a:620:C:C2	35:2d:135:LEU:HG	2.38	0.58
35:2d:88:VAL:HG13	36:2e:97:GLY:HA2	1.84	0.58
1:1A:181:A:OP1	60:1A:4160:HOH:O	2.17	0.58
1:1A:2183:C:H2'	1:1A:2184:G:C8	2.38	0.58
32:1a:331:G:OP2	60:1a:1914:HOH:O	2.17	0.58
32:1a:587:G:N7	60:1a:1951:HOH:O	2.32	0.58
1:2A:2298:A:H62	1:2A:2318:G:H8	1.50	0.58
19:2X:72:LYS:NZ	19:2X:75:ASP:OD1	2.31	0.58
32:2a:677:U:H3	32:2a:713:G:H22	1.49	0.58
36:2e:152:ARG:HB2	39:2h:43:GLY:O	2.03	0.58
1:1A:1176:G:H1'	1:1A:1177:A:H5'	1.84	0.58
1:1A:2099:U:H3	1:1A:2190:G:H1	1.51	0.58
1:1A:2111:C:H42	1:1A:2147:G:N2	2.01	0.58
32:1a:376:G:H5"	47:1p:5:ARG:HD2	1.84	0.58
1:1A:1858:G:O6	60:1A:4148:HOH:O	2.15	0.58
33:1b:178:ARG:HG2	39:1h:72:PRO:HA	1.85	0.58
7:2H:84:SER:OG	7:2H:132:ARG:NH1	2.36	0.58
26:24:58:ARG:HH21	50:2s:68:GLY:H	1.49	0.58
1:1A:1264:G:OP1	27:15:19:ARG:NH2	2.22	0.58
1:1A:2815:C:H5'	27:15:29:THR:HG21	1.85	0.58
4:1E:3:GLY:HA3	4:1E:81:ILE:HD12	1.84	0.58
32:2a:448:A:P	32:2a:485:G:H22	2.25	0.58
32:1a:560:U:O2'	32:1a:561:U:OP2	2.20	0.58
1:2A:994:C:OP1	16:2U:53:ARG:NH2	2.36	0.58
20:2Y:5:MET:HE2	20:2Y:30:VAL:HG13	1.86	0.58
32:2a:130:A:H5'	48:2q:63:ARG:HE	1.68	0.58
32:2a:881:G:P	43:2l:12:ARG:HH22	2.26	0.58
32:2a:993:G:H1	32:2a:1045:C:H42	1.52	0.58
1:2A:821:A:H2'	1:2A:946:G:H5"	1.85	0.58
6:2G:105:LYS:NZ	6:2G:143:GLU:OE2	2.37	0.58
26:24:59:PHE:HE2	50:2s:64:GLU:HB2	1.67	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:2g:114:ARG:HB2	38:2g:115:ARG:NH2	2.17	0.58
1:1A:422:A:OP2	60:1A:4159:HOH:O	2.17	0.58
8:1I:77:LEU:HB3	8:1I:142:VAL:HG22	1.84	0.58
32:1a:1212:U:H5'	32:1a:1213:A:H5'	1.85	0.58
41:1j:50:ILE:HG22	41:1j:52:GLY:H	1.68	0.58
49:1r:32:ARG:HA	49:1r:69:THR:HG21	1.85	0.58
26:24:46:GLN:O	26:24:48:ARG:N	2.28	0.58
26:24:48:ARG:HG3	26:24:52:THR:HG23	1.85	0.58
47:2p:5:ARG:HH21	47:2p:28:ARG:HA	1.69	0.58
1:1A:2143:C:N3	1:1A:2148:G:O6	2.37	0.58
6:1G:38:VAL:HG22	6:1G:93:THR:HG23	1.85	0.58
7:1H:11:VAL:HG21	7:1H:50:VAL:HG23	1.86	0.58
1:2A:1783:A:OP2	60:2A:3852:HOH:O	2.17	0.58
32:2a:773:G:OP1	60:2a:3317:HOH:O	2.17	0.58
35:2d:173:TRP:CD1	35:2d:189:PRO:HG3	2.39	0.58
1:1A:1645:G:H5"	1:1A:1646:C:H5'	1.85	0.58
1:1A:1781:C:O2'	60:1A:4163:HOH:O	2.17	0.58
4:2E:52:LEU:HB3	4:2E:53:PRO:HD2	1.86	0.58
1:1A:1470:G:H5"	1:1A:1471:A:OP1	2.04	0.57
20:1Y:50:ARG:NH1	60:1Y:302:HOH:O	2.37	0.57
6:2G:114:ILE:HA	6:2G:140:ILE:HD12	1.86	0.57
7:2H:46:GLU:HB2	7:2H:49:VAL:HG12	1.86	0.57
8:2I:85:GLU:CD	8:2I:86:THR:H	2.11	0.57
23:21:80:LEU:O	60:21:201:HOH:O	2.16	0.57
1:1A:2142:C:C2	1:1A:2149:G:N1	2.72	0.57
32:1a:653:A:OP1	39:1h:56:LYS:NZ	2.31	0.57
32:1a:1043:C:H2'	32:1a:1044:A:O4'	2.04	0.57
37:1f:1:MET:HE3	37:1f:66:GLU:HG2	1.85	0.57
41:1j:81:THR:C	41:1j:83:GLU:H	2.12	0.57
1:2A:999:U:OP2	60:2A:3816:HOH:O	2.17	0.57
1:2A:2128:C:H1'	1:2A:2173:A:H2	1.69	0.57
32:2a:619:U:N3	35:2d:134:ASP:OD1	2.31	0.57
50:2s:20:LEU:HA	50:2s:23:ASN:HB2	1.86	0.57
1:1A:2233:U:H2'	1:1A:2234:G:C8	2.39	0.57
1:1A:2572:A:N7	4:1E:144:ARG:HD2	2.19	0.57
3:1D:148:GLU:HB2	3:1D:151:LYS:HD2	1.85	0.57
5:1F:53:THR:CG2	5:1F:55:GLY:H	2.16	0.57
1:2A:1062:G:H1	1:2A:1088:A:H8	1.53	0.57
4:2E:116:VAL:HG13	4:2E:122:PHE:HB2	1.86	0.57
21:2Z:125:LEU:HG	21:2Z:164:ALA:HB3	1.87	0.57
1:1A:597:U:O4	60:1A:4144:HOH:O	2.14	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:601:C:OP1	5:1F:108:LYS:NZ	2.31	0.57
1:1A:1300:U:H4'	1:1A:1301:A:H5"	1.86	0.57
56:1A:4055:ARG:HH12	5:1F:164:ARG:NE	2.01	0.57
32:1a:890:G:O2'	32:1a:906:G:O6	2.18	0.57
32:1a:1124:G:OP1	41:1j:36:GLY:N	2.37	0.57
46:1o:56:LEU:O	46:1o:60:VAL:HG23	2.04	0.57
26:24:16:CYS:HA	26:24:33:VAL:HG23	1.86	0.57
1:1A:1023:U:OP2	60:1A:4161:HOH:O	2.17	0.57
1:2A:1007:C:OP1	9:2N:35:ARG:NH1	2.37	0.57
1:2A:1803:A:O2'	3:2D:259:THR:HG21	2.04	0.57
32:2a:1118:C:H1'	32:2a:1179:A:C4	2.40	0.57
33:2b:101:MET:HA	33:2b:108:ILE:HG13	1.87	0.57
1:1A:1175:U:O2'	1:1A:1176:G:O5'	2.21	0.57
1:1A:1817:G:OP1	3:1D:88:ARG:NH2	2.37	0.57
25:13:3:ARG:NH1	25:13:60:GLU:OE2	2.32	0.57
32:1a:836:G:OP1	49:1r:61:LYS:NZ	2.30	0.57
32:1a:974:A:H8	32:1a:974:A:OP1	1.88	0.57
46:1o:25:THR:HG21	46:1o:70:LEU:HB2	1.85	0.57
1:2A:1688:U:O2	1:2A:1700:A:H5'	2.04	0.57
13:2R:8:ARG:HE	13:2R:43:GLU:HG2	1.69	0.57
19:2X:26:TYR:HB3	19:2X:92:LEU:HD22	1.85	0.57
31:29:25:VAL:HB	31:29:34:GLN:HB2	1.87	0.57
33:2b:93:VAL:HG21	33:2b:97:TRP:CD1	2.38	0.57
33:2b:98:LEU:HB2	33:2b:101:MET:HG3	1.87	0.57
34:2c:3:ASN:N	34:2c:3:ASN:OD1	2.38	0.57
34:2c:181:ASN:ND2	34:2c:204:LEU:HD12	2.19	0.57
1:1A:733:G:OP1	60:1A:4158:HOH:O	2.16	0.57
1:1A:2328:A:H2'	1:1A:2329:G:C8	2.40	0.57
8:1I:77:LEU:HD22	8:1I:101:LEU:HG	1.86	0.57
32:1a:189(K):U:H2'	32:1a:189(L):G:H8	1.69	0.57
35:1d:122:ARG:NH1	35:1d:134:ASP:O	2.36	0.57
1:2A:625:G:N7	11:2P:107:LYS:NZ	2.44	0.57
3:2D:17:THR:O	3:2D:211:ARG:NH2	2.35	0.57
21:2Z:52:SER:OG	21:2Z:53:ILE:N	2.36	0.57
25:23:3:ARG:HD2	25:23:36:VAL:HG12	1.86	0.57
35:2d:13:ARG:HB2	35:2d:40:PRO:HD3	1.86	0.57
1:1A:2240:C:OP1	60:1A:4166:HOH:O	2.18	0.57
32:1a:222:U:H2'	32:1a:223:U:C6	2.40	0.57
37:1f:38:GLU:HB2	37:1f:64:GLN:HG2	1.87	0.57
41:1j:78:ASN:O	41:1j:80:LYS:N	2.38	0.57
32:2a:254:G:H21	48:2q:16:GLN:NE2	2.02	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2c:87:LEU:O	34:2c:91:LEU:N	2.36	0.57
3:1D:242:ARG:HD2	3:1D:246:PRO:HG3	1.85	0.57
11:1P:93:GLY:H	11:1P:123:LEU:HD22	1.70	0.57
32:1a:1216:G:H5"	45:1n:5:ALA:HB2	1.85	0.57
19:2X:57:LEU:HD13	19:2X:78:LYS:HB3	1.86	0.57
32:2a:192:U:H2'	32:2a:193:C:H6	1.69	0.57
32:2a:500:G:H2'	32:2a:501:C:C6	2.40	0.57
32:1a:583:A:OP2	60:1a:1916:HOH:O	2.18	0.57
32:1a:1239:A:H62	32:1a:1299:A:N6	2.03	0.57
6:2G:145:THR:HG23	6:2G:147:ASP:H	1.70	0.57
8:1I:40:THR:O	8:1I:44:LEU:HB2	2.05	0.56
8:1I:109:ILE:HG13	8:1I:130:TYR:CZ	2.40	0.56
32:1a:323:U:H5'	51:1t:23:ARG:HB2	1.87	0.56
36:1e:82:VAL:HG21	36:1e:138:ALA:HA	1.85	0.56
41:1j:6:ILE:HA	41:1j:98:ILE:HG12	1.86	0.56
23:21:3:LYS:HB2	23:21:61:ARG:HH22	1.69	0.56
32:2a:890:G:O2'	32:2a:906:G:O6	2.16	0.56
33:2b:189:ASP:OD1	33:2b:189:ASP:N	2.27	0.56
1:1A:1173:G:O2'	1:1A:1174:A:O5'	2.23	0.56
32:1a:769:G:H4'	32:1a:1513:A:H4'	1.87	0.56
32:1a:1305:G:N2	32:1a:1331:G:H1'	2.20	0.56
1:2A:2805:G:H2'	1:2A:2807:G:H8	1.69	0.56
32:2a:222:U:H2'	32:2a:223:U:C6	2.40	0.56
38:2g:132:GLY:O	38:2g:136:LYS:HG2	2.05	0.56
40:2i:50:LEU:HB2	40:2i:56:LEU:HD23	1.86	0.56
1:1A:58:G:OP2	60:1A:4165:HOH:O	2.18	0.56
1:1A:1023:U:OP2	60:1A:4109:HOH:O	2.18	0.56
15:1T:24:PRO:HA	15:1T:49:VAL:HG23	1.87	0.56
15:1T:53:ARG:HB3	15:1T:53:ARG:HH11	1.69	0.56
32:1a:148:G:H2'	32:1a:149:A:C8	2.40	0.56
32:1a:375:U:OP1	47:1p:69:THR:HG21	2.05	0.56
32:1a:407:G:OP1	35:1d:115:ARG:NH2	2.38	0.56
1:2A:1067:A:H4'	1:2A:1068:G:OP2	2.04	0.56
33:2b:84:GLU:HB3	33:2b:219:VAL:HG21	1.86	0.56
48:2q:4:LYS:H	48:2q:61:GLU:HG2	1.70	0.56
3:1D:26:LYS:HB3	3:1D:83:GLU:HG2	1.86	0.56
32:1a:184:G:H2'	32:1a:185:A:H8	1.70	0.56
33:1b:70:PHE:O	33:1b:92:TYR:HA	2.04	0.56
1:2A:212:G:H2'	1:2A:213:A:O4'	2.05	0.56
1:2A:2788:C:OP1	4:2E:61:ARG:NH2	2.38	0.56
5:2F:192:LEU:HD13	5:2F:194:MET:HE2	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:45:U:H2'	32:2a:46:G:C8	2.40	0.56
1:1A:1174:A:H1'	1:1A:1175:U:H5'	1.88	0.56
1:1A:2134:A:N6	1:1A:2157:G:H4'	2.15	0.56
2:2B:98:G:OP2	60:2B:304:HOH:O	2.18	0.56
7:2H:80:SER:OG	7:2H:81:GLU:N	2.37	0.56
26:24:48:ARG:HD2	26:24:52:THR:HA	1.86	0.56
32:2a:285:G:N7	60:2a:3350:HOH:O	2.32	0.56
32:2a:1132:C:H2'	32:2a:1133:G:C8	2.40	0.56
40:2i:25:LYS:H	40:2i:60:ASP:HB3	1.70	0.56
1:1A:1796:U:H2'	1:1A:1797:C:C6	2.40	0.56
15:1T:96:ARG:NH2	60:1T:301:HOH:O	2.38	0.56
35:1d:50:ARG:HH22	36:1e:10:MET:HE3	1.71	0.56
1:2A:438:G:H2'	1:2A:440:G:C8	2.41	0.56
1:2A:2407:G:OP1	60:2A:3853:HOH:O	2.18	0.56
1:2A:2445:G:OP1	5:2F:74:ARG:NH2	2.37	0.56
6:2G:110:ALA:HB1	6:2G:140:ILE:HG22	1.87	0.56
32:2a:1030(B):C:H41	32:2a:1030(C):G:N2	2.03	0.56
15:1T:127:ALA:O	15:1T:128:GLU:HB3	2.05	0.56
32:1a:456:C:H2'	32:1a:457:C:H6	1.71	0.56
32:1a:1067:A:O3'	60:1a:1915:HOH:O	2.18	0.56
33:1b:10:LEU:HA	33:1b:48:MET:HE3	1.88	0.56
1:2A:1796:U:H2'	1:2A:1797:C:C6	2.40	0.56
6:2G:114:ILE:HB	6:2G:117:PHE:HD1	1.69	0.56
5:1F:10:PRO:HB3	5:1F:17:ARG:HE	1.70	0.56
32:1a:946:A:H2'	32:1a:947:G:C8	2.41	0.56
32:1a:1292:U:H2'	32:1a:1293:G:C8	2.41	0.56
53:1y:89:GLN:OE1	60:1y:301:HOH:O	2.18	0.56
1:2A:652(T):C:H2'	1:2A:652(U):G:C8	2.41	0.56
1:2A:1090:U:H2'	1:2A:1091:G:C8	2.39	0.56
1:2A:1324:G:N7	60:2A:3988:HOH:O	2.33	0.56
1:2A:2313:C:H5"	6:2G:91:ARG:HD3	1.88	0.56
6:2G:28:VAL:O	6:2G:31:VAL:HG13	2.06	0.56
1:1A:279:C:H42	1:1A:361:G:H1	1.53	0.56
1:1A:1670:C:OP1	60:1A:4170:HOH:O	2.18	0.56
1:1A:1778:U:H2'	1:1A:1784:A:N6	2.20	0.56
1:1A:2134:A:N7	1:1A:2157:G:O2'	2.36	0.56
21:1Z:44:PHE:CZ	21:1Z:86:VAL:HG11	2.40	0.56
24:12:32:LEU:HD22	24:12:36:ARG:HH11	1.71	0.56
32:1a:1504:G:OP1	32:1a:1507:A:H4'	2.06	0.56
38:1g:50:ILE:HG23	38:1g:121:ALA:HB1	1.88	0.56
1:2A:2099:U:H3	1:2A:2190:G:H1	1.53	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:20:53:MET:HG3	22:20:59:LEU:HD23	1.88	0.56
33:2b:97:TRP:HZ3	33:2b:172:ILE:HG22	1.71	0.56
41:2j:51:ARG:O	45:2n:45:ARG:NH1	2.39	0.56
32:1a:1272:G:H2'	32:1a:1273:G:O4'	2.06	0.56
34:1c:7:PRO:O	34:1c:11:ARG:NH1	2.39	0.56
39:1h:10:LEU:HD22	39:1h:83:ILE:HD11	1.87	0.56
1:2A:2136:C:N4	1:2A:2155:G:H1	2.04	0.56
32:2a:667:G:OP1	32:2a:732:C:O2'	2.16	0.56
32:2a:1376:U:OP1	38:2g:98:SER:OG	2.20	0.56
50:2s:22:LEU:HB3	50:2s:27:GLU:HA	1.87	0.56
1:1A:1762:A:H2'	60:1A:6914:HOH:O	2.05	0.55
1:1A:2171:A:N3	1:1A:2172:U:N3	2.52	0.55
1:1A:2876:G:OP1	60:1A:4173:HOH:O	2.18	0.55
26:14:46:GLN:O	26:14:48:ARG:N	2.38	0.55
32:1a:160:A:H2'	32:1a:161:A:O4'	2.06	0.55
35:1d:3:ARG:HH12	35:1d:5:ILE:HG13	1.71	0.55
35:1d:167:GLY:H	35:1d:168:ARG:NH1	2.04	0.55
1:2A:1155:A:H5"	16:2U:55:ARG:HD3	1.88	0.55
1:2A:2354:G:N7	60:2A:3991:HOH:O	2.33	0.55
10:2O:49:ARG:NH1	32:2a:1422:G:O3'	2.38	0.55
32:2a:748:C:H4'	32:2a:749:C:O5'	2.07	0.55
51:2t:33:ILE:O	51:2t:37:SER:OG	2.20	0.55
1:1A:674:G:H1'	5:1F:74:ARG:HD2	1.89	0.55
1:1A:1570:A:H2'	1:1A:1571:A:C8	2.41	0.55
1:1A:1865:G:OP1	60:1A:4168:HOH:O	2.18	0.55
1:1A:2137:C:H42	1:1A:2154:G:H1	1.54	0.55
32:1a:56:U:H2'	32:1a:57:G:C8	2.41	0.55
32:1a:184:G:H2'	32:1a:185:A:C8	2.42	0.55
1:2A:572:A:OP2	17:2V:78:LYS:NZ	2.39	0.55
1:2A:2115:G:N2	1:2A:2171:A:H61	2.05	0.55
1:2A:2206:G:H5"	1:2A:2207:G:C8	2.42	0.55
6:2G:5:VAL:HG22	6:2G:8:LYS:H	1.71	0.55
21:2Z:4:ARG:NH2	21:2Z:66:SER:OG	2.39	0.55
32:2a:565:U:H3'	32:2a:566:G:H2'	1.88	0.55
37:2f:91:VAL:HG11	49:2r:72:ARG:HH12	1.71	0.55
1:1A:184:C:H2'	1:1A:185:U:C6	2.41	0.55
32:1a:255:G:H1'	48:1q:16:GLN:NE2	2.21	0.55
32:1a:600:C:H2'	32:1a:601:C:C6	2.40	0.55
32:1a:737:A:H2'	32:1a:738:C:C6	2.42	0.55
34:1c:180:ALA:HB1	34:1c:203:PHE:CE1	2.42	0.55
13:2R:30:THR:HG22	13:2R:31:HIS:CD2	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1190:G:H5'	34:2c:176:HIS:CE1	2.42	0.55
33:2b:223:ILE:HA	33:2b:226:ARG:HB3	1.89	0.55
1:1A:1670:C:OP2	60:1A:4111:HOH:O	2.18	0.55
1:1A:2506:U:OP1	4:1E:144:ARG:NH2	2.40	0.55
32:1a:692:U:OP1	42:1k:124:LYS:NZ	2.38	0.55
1:2A:2379:G:O2'	14:2S:17:ARG:NH1	2.33	0.55
35:2d:165:MET:SD	35:2d:168:ARG:NH1	2.70	0.55
36:2e:81:GLU:HG2	36:2e:90:VAL:HG13	1.89	0.55
1:1A:2187:G:H3'	1:1A:2188:C:H6	1.70	0.55
32:1a:7:G:H5'	32:1a:298:A:O4'	2.07	0.55
32:1a:1260:C:H5'	32:1a:1284:C:H4'	1.88	0.55
1:2A:1187:G:H5'	17:2V:81:TYR:CE1	2.42	0.55
8:2I:8:PRO:O	60:2I:301:HOH:O	2.18	0.55
9:2N:12:ARG:NH1	9:2N:50:ASP:OD2	2.40	0.55
32:2a:134:A:H61	47:2p:25:ARG:HH22	1.54	0.55
39:2h:49:GLU:OE2	39:2h:62:TYR:OH	2.15	0.55
17:1V:85:LYS:NZ	60:1V:305:HOH:O	2.39	0.55
32:1a:1412:C:H2'	32:1a:1413:A:C8	2.41	0.55
44:1m:3:ARG:HG2	44:1m:8:GLU:HG3	1.88	0.55
1:2A:1843:C:H5'	3:2D:253:GLN:HE22	1.70	0.55
1:2A:1996:C:H4'	1:2A:1997:G:OP1	2.06	0.55
3:2D:125:ILE:HB	37:2f:81:ILE:HD11	1.89	0.55
28:26:35:GLU:OE2	28:26:50:ARG:NH1	2.40	0.55
35:2d:189:PRO:HB2	35:2d:194:LEU:HD11	1.89	0.55
44:2m:32:GLU:HG2	44:2m:64:TRP:HH2	1.72	0.55
51:2t:64:ASP:CG	51:2t:81:LYS:HZ3	2.15	0.55
1:1A:1178:C:H2'	1:1A:1179:C:C6	2.42	0.55
32:1a:1183:A:O2'	32:1a:1184:G:OP1	2.25	0.55
45:1n:48:ALA:HB2	45:1n:53:LEU:HD12	1.87	0.55
2:2B:3:C:H2'	2:2B:4:C:C6	2.42	0.55
6:2G:126:ASP:HB2	6:2G:130:ASN:O	2.07	0.55
19:2X:50:LYS:HB3	19:2X:84:ALA:HB2	1.88	0.55
35:2d:163:GLU:HA	35:2d:166:LYS:HD3	1.89	0.55
1:1A:579:G:H2'	1:1A:580:C:C6	2.42	0.55
32:1a:148:G:H2'	32:1a:149:A:H8	1.71	0.55
32:1a:1202:G:O4'	45:1n:29:ARG:NH1	2.35	0.55
37:1f:38:GLU:OE1	37:1f:64:GLN:NE2	2.36	0.55
46:1o:55:GLY:HA2	46:1o:58:MET:HE3	1.89	0.55
1:2A:636:G:OP1	11:2P:132:LYS:NZ	2.38	0.55
1:2A:1631(A):A:N6	60:2A:3960:HOH:O	2.30	0.55
1:2A:2693:A:H2'	1:2A:2694:G:H8	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:258:G:H2'	32:2a:259:G:H8	1.72	0.55
32:2a:646:U:H2'	32:2a:647:C:C6	2.41	0.55
27:15:16:ARG:O	27:15:20:ARG:HG3	2.06	0.55
37:1f:22:GLU:OE2	37:1f:82:ARG:NH2	2.40	0.55
39:1h:14:ARG:O	39:1h:18:ARG:HG2	2.06	0.55
1:2A:2115:G:H22	1:2A:2119:A:H5'	1.71	0.55
11:2P:87:ASP:O	11:2P:90:ARG:NH1	2.40	0.55
17:2V:52:VAL:HG23	17:2V:55:ALA:HB3	1.89	0.55
32:2a:920:U:H2'	32:2a:921:U:C6	2.41	0.55
38:2g:65:ALA:HB1	38:2g:127:ALA:HB3	1.87	0.55
47:2p:34:GLU:OE1	47:2p:55:ARG:NH2	2.37	0.55
1:1A:1278:A:OP1	13:1R:36:THR:HG23	2.07	0.55
19:1X:62:LYS:NZ	60:1X:202:HOH:O	2.38	0.55
32:1a:1103:C:OP1	33:1b:96:ARG:NH2	2.40	0.55
50:1s:41:VAL:HG12	50:1s:44:MET:HG3	1.88	0.55
1:2A:1550:C:OP1	1:2A:1720:U:O2'	2.25	0.55
1:2A:1889:A:H2'	1:2A:1890:A:C8	2.42	0.55
23:11:23:LYS:HB3	23:11:29:GLY:HA3	1.88	0.54
32:1a:656:C:O2'	46:1o:28:GLN:NE2	2.37	0.54
33:1b:84:GLU:HB3	33:1b:219:VAL:HG21	1.89	0.54
1:2A:854:G:H2'	1:2A:855:G:C8	2.42	0.54
3:2D:108:PRO:HB3	3:2D:143:HIS:CE1	2.41	0.54
32:2a:501:C:H2'	32:2a:502:G:C8	2.42	0.54
41:2j:20:ALA:HB1	41:2j:37:PRO:HB3	1.89	0.54
1:1A:1783:A:OP1	60:1A:4171:HOH:O	2.18	0.54
1:1A:2682:U:O2'	15:1T:58:ASN:ND2	2.40	0.54
33:1b:13:ALA:C	33:1b:15:VAL:H	2.14	0.54
35:1d:3:ARG:HG2	35:1d:118:ARG:CZ	2.37	0.54
39:1h:29:SER:HB3	39:1h:32:LYS:HD2	1.89	0.54
53:1y:3:MET:HE1	53:1y:5:ILE:HD11	1.88	0.54
53:1y:74:ILE:O	53:1y:78:ILE:HG12	2.07	0.54
1:2A:1593:G:H2'	1:2A:1594:G:C8	2.42	0.54
6:2G:170:ARG:NH2	6:2G:174:GLU:OE2	2.40	0.54
16:2U:83:LEU:HD12	16:2U:88:ILE:HD12	1.88	0.54
34:2c:73:PRO:HB3	34:2c:103:VAL:HG11	1.88	0.54
44:2m:32:GLU:HG2	44:2m:64:TRP:CH2	2.42	0.54
1:1A:1075:C:OP2	12:1Q:59:ARG:NE	2.32	0.54
14:1S:3:ARG:HH22	14:1S:9:ARG:HH12	1.54	0.54
17:2V:5:VAL:HG11	17:2V:57:VAL:HG21	1.88	0.54
32:2a:536:C:OP2	60:2a:3319:HOH:O	2.18	0.54
35:2d:103:ASN:OD1	35:2d:114:ARG:NE	2.31	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:483:A:H5"	20:1Y:50:ARG:HH11	1.70	0.54
1:1A:1113:U:H2'	1:1A:1114:G:C8	2.42	0.54
1:1A:2611:U:C4	27:15:3:LYS:HG3	2.42	0.54
2:1B:66:A:H61	2:1B:108:U:H2'	1.72	0.54
10:1O:2:ILE:HD12	10:1O:6:THR:HG21	1.89	0.54
32:1a:1391:U:H2'	32:1a:1392:G:C8	2.42	0.54
40:1i:9:ARG:HG2	40:1i:14:VAL:HG13	1.88	0.54
41:1j:49:VAL:HG23	45:1n:41:ARG:HB2	1.90	0.54
1:2A:2327:A:H2'	1:2A:2328:A:C8	2.42	0.54
40:2i:4:TYR:N	40:2i:19:LEU:O	2.40	0.54
40:2i:16:ARG:HD3	40:2i:64:THR:HG21	1.89	0.54
1:1A:1379:A:H4'	1:1A:1380:G:OP2	2.07	0.54
32:1a:77:G:H2'	32:1a:78:G:H5'	1.90	0.54
32:1a:96:U:H2'	32:1a:97:G:C8	2.43	0.54
33:1b:8:LYS:O	33:1b:217:ARG:NH2	2.41	0.54
1:2A:1278:A:OP1	13:2R:36:THR:HG23	2.08	0.54
35:2d:4:TYR:O	35:2d:6:GLY:N	2.38	0.54
39:2h:51:VAL:HG11	39:2h:60:ARG:HD2	1.89	0.54
1:1A:747:U:OP1	60:1A:4172:HOH:O	2.18	0.54
1:1A:1165:U:H2'	1:1A:1166:C:C6	2.42	0.54
1:2A:446:G:OP1	16:2U:3:ARG:NH1	2.41	0.54
1:2A:644:A:H4'	1:2A:645:C:H5	1.72	0.54
1:2A:1507:A:O2'	1:2A:1508:A:O5'	2.23	0.54
21:2Z:163:LEU:HG	21:2Z:165:VAL:HG22	1.90	0.54
32:2a:1347:G:N2	32:2a:1373:G:H2'	2.22	0.54
1:1A:1041:C:H5'	1:1A:1042:G:OP2	2.07	0.54
32:1a:269:C:H2'	32:1a:270:A:C8	2.43	0.54
32:1a:841:U:C5	32:1a:848:C:H1'	2.42	0.54
32:1a:1277:C:O2'	32:1a:1279:A:H1'	2.08	0.54
41:1j:81:THR:O	41:1j:83:GLU:N	2.38	0.54
1:2A:1064:C:H3'	1:2A:1065:U:H5'	1.89	0.54
7:2H:113:VAL:HG11	7:2H:151:ILE:HD13	1.89	0.54
7:2H:127:GLU:C	7:2H:129:THR:H	2.15	0.54
32:2a:1319:A:H61	32:2a:1361:G:H21	1.55	0.54
1:1A:1166:C:H2'	1:1A:1167:U:C6	2.43	0.54
12:1Q:37:LEU:HD11	12:1Q:130:LYS:HE3	1.89	0.54
25:13:6:VAL:HG12	25:13:54:VAL:HG21	1.89	0.54
29:17:35:ARG:NH1	60:17:202:HOH:O	2.40	0.54
32:1a:438:G:H5'	35:1d:123:HIS:HD2	1.72	0.54
39:1h:112:LEU:HD22	39:1h:133:LEU:HA	1.90	0.54
40:1i:20:ARG:O	40:1i:60:ASP:N	2.24	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:1j:39:PRO:HA	41:1j:70:ARG:HD3	1.90	0.54
1:2A:1405:U:H2'	1:2A:1406:U:C6	2.43	0.54
17:2V:35:LEU:HB2	17:2V:57:VAL:HG23	1.89	0.54
32:2a:926:G:C6	53:2y:87:LYS:HG3	2.43	0.54
32:2a:1070:U:OP1	36:2e:18:ARG:NH2	2.36	0.54
32:2a:1151:A:O2'	32:2a:1152:A:H8	1.91	0.54
48:2q:62:SER:OG	48:2q:72:ARG:NH1	2.41	0.54
1:1A:330:A:H2	1:1A:1210:A:O2'	1.91	0.54
1:1A:747:U:O2'	18:1W:92:ARG:NH2	2.41	0.54
1:1A:1155:A:OP1	16:1U:55:ARG:HD3	2.07	0.54
11:1P:63:PRO:HD3	30:18:27:THR:HG22	1.88	0.54
33:1b:16:HIS:HB3	33:1b:210:SER:HB2	1.89	0.54
47:1p:43:LYS:HG2	47:1p:48:TRP:CD2	2.42	0.54
33:2b:216:SER:O	33:2b:220:ASP:N	2.38	0.54
38:2g:69:VAL:HG21	38:2g:104:LEU:HD11	1.88	0.54
40:2i:53:VAL:C	40:2i:55:ALA:H	2.16	0.54
1:1A:1721:G:H8	1:1A:1741:A:H62	1.56	0.54
3:1D:198:ASN:OD1	60:1D:402:HOH:O	2.19	0.54
33:1b:13:ALA:HB1	33:1b:17:PHE:HD2	1.73	0.54
36:1e:103:GLY:O	36:1e:107:ARG:HB3	2.08	0.54
1:2A:1056:G:H5"	1:2A:1057:A:H5'	1.90	0.54
2:2B:15:A:OP1	60:2B:305:HOH:O	2.18	0.54
4:2E:50:GLY:O	4:2E:51:PHE:HB2	2.08	0.54
34:2c:20:SER:OG	34:2c:22:TRP:NE1	2.39	0.54
1:1A:857:C:N4	1:1A:858:U:O4	2.41	0.53
1:1A:2870:C:H2'	1:1A:2871:C:O4'	2.08	0.53
4:1E:9:VAL:HB	15:1T:3:ARG:HG2	1.88	0.53
16:1U:37:GLU:O	60:1U:301:HOH:O	2.18	0.53
32:1a:881:G:P	43:1l:12:ARG:HH22	2.32	0.53
36:1e:110:LEU:HD13	36:1e:118:ILE:HG21	1.89	0.53
44:1m:60:VAL:HG22	44:1m:64:TRP:HZ3	1.72	0.53
1:2A:952:G:OP1	12:2Q:16:ARG:NH2	2.41	0.53
1:2A:2164:C:H3'	1:2A:2165:G:H8	1.74	0.53
32:2a:164:U:H2'	32:2a:165:C:C6	2.43	0.53
35:2d:153:ARG:NH1	35:2d:180:GLY:O	2.37	0.53
40:2i:19:LEU:HD23	40:2i:61:ALA:HB2	1.90	0.53
1:1A:588:U:H2'	1:1A:589:C:C6	2.43	0.53
19:1X:41:ASN:O	19:1X:45:THR:HG23	2.08	0.53
32:1a:266:G:H2'	32:1a:266:G:N3	2.23	0.53
32:1a:374:A:OP1	60:1a:1919:HOH:O	2.19	0.53
32:1a:790:A:C2	53:1y:29:LYS:HD3	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1224:G:OP2	60:1a:1917:HOH:O	2.18	0.53
33:1b:74:LYS:NZ	33:1b:206:ASP:OD1	2.41	0.53
32:2a:406:G:H21	35:2d:119:GLN:HE22	1.55	0.53
32:2a:1128:C:H1'	32:2a:1147:C:H42	1.73	0.53
35:2d:122:ARG:HH11	35:2d:122:ARG:HA	1.72	0.53
1:1A:1011:G:OP1	16:1U:77:SER:OG	2.23	0.53
1:1A:1173:G:O2'	1:1A:1174:A:O4'	2.26	0.53
1:1A:2867:G:OP2	15:1T:119:LYS:NZ	2.34	0.53
1:2A:1057:A:N7	1:2A:1086:A:H2'	2.24	0.53
36:2e:8:GLU:HB3	36:2e:34:VAL:HG23	1.90	0.53
39:2h:12:ARG:HD3	39:2h:26:VAL:HG12	1.91	0.53
39:2h:124:ALA:O	39:2h:128:GLY:N	2.40	0.53
1:1A:1175:U:H1'	1:1A:1176:G:OP1	2.09	0.53
1:1A:2430:A:N3	1:1A:2430:A:H2'	2.22	0.53
26:14:57:GLU:HB2	26:14:58:ARG:HA	1.91	0.53
32:1a:406:G:H21	35:1d:119:GLN:NE2	2.06	0.53
43:1l:53:ARG:HB3	43:1l:69:TYR:HE1	1.72	0.53
1:2A:637:A:H8	11:2P:117:GLU:HG3	1.73	0.53
1:2A:1064:C:H42	1:2A:1074:G:H1	1.56	0.53
1:2A:2712:U:H2'	1:2A:2714:G:H5"	1.90	0.53
21:2Z:79:ARG:HD2	21:2Z:80:ARG:NH2	2.22	0.53
32:2a:442:C:H42	32:2a:492:G:H1	1.56	0.53
32:2a:632:A:H5'	32:2a:633:G:OP2	2.09	0.53
32:2a:1023:G:H3'	32:2a:1024:G:H8	1.74	0.53
37:2f:50:TYR:CE2	49:2r:77:GLY:HA2	2.43	0.53
39:2h:86:ILE:HG21	39:2h:133:LEU:HD13	1.90	0.53
1:1A:1429:G:H2'	1:1A:1430:C:C6	2.42	0.53
1:1A:2722:G:H2'	1:1A:2723:C:C6	2.44	0.53
32:1a:1124:G:N2	32:1a:1125:U:O4	2.42	0.53
32:1a:1166:G:N2	32:1a:1170:A:OP2	2.34	0.53
44:1m:3:ARG:HG3	44:1m:4:ILE:H	1.74	0.53
1:2A:517:C:OP1	27:25:16:ARG:NH2	2.41	0.53
21:2Z:33:LEU:HD11	21:2Z:90:VAL:HG21	1.90	0.53
51:2t:57:ARG:HH22	51:2t:100:ILE:HD12	1.73	0.53
1:1A:1359:A:N1	1:1A:1372:U:O4	2.41	0.53
1:1A:2165:G:H2'	1:1A:2166:G:C8	2.43	0.53
5:1F:123:LEU:HD13	5:1F:192:LEU:HD13	1.89	0.53
5:1F:143:ALA:HB1	5:1F:148:LEU:HB2	1.90	0.53
32:1a:17:U:H2'	32:1a:18:C:C6	2.44	0.53
1:2A:438:G:H2'	1:2A:440:G:H8	1.74	0.53
13:2R:88:ARG:NH2	13:2R:89:ASP:OD1	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:2Z:152:ALA:HB1	21:2Z:163:LEU:HD21	1.89	0.53
32:2a:1262:C:H2'	32:2a:1263:C:H6	1.72	0.53
32:1a:921:U:O2	36:1e:19:MET:HB2	2.09	0.53
32:1a:1007:C:N3	32:1a:1022:G:O6	2.42	0.53
33:1b:15:VAL:HG13	33:1b:209:ARG:HB3	1.91	0.53
47:1p:1:MET:HG3	47:1p:3:LYS:HG3	1.90	0.53
1:2A:796:C:H2'	1:2A:797:C:C6	2.44	0.53
1:2A:822:U:OP2	60:2A:3861:HOH:O	2.19	0.53
1:2A:2112:G:H2'	1:2A:2113:U:C6	2.43	0.53
1:2A:2336:A:H61	22:20:43:THR:HG21	1.73	0.53
24:22:53:LEU:O	24:22:57:ILE:HD12	2.09	0.53
32:2a:812:C:N3	60:2a:3357:HOH:O	2.34	0.53
42:2k:98:LEU:O	42:2k:101:SER:OG	2.20	0.53
60:1A:6232:HOH:O	4:1E:144:ARG:HD3	2.09	0.53
32:1a:1409:C:H2'	32:1a:1410:G:H8	1.73	0.53
34:1c:17:ASP:OD1	34:1c:18:TRP:N	2.41	0.53
36:1e:11:ILE:HB	36:1e:31:LEU:HD12	1.91	0.53
1:2A:2704:C:H2'	1:2A:2705:A:O4'	2.09	0.53
1:2A:2815:C:H5'	27:25:29:THR:HG21	1.90	0.53
1:2A:2839:G:H5'	13:2R:46:GLY:HA2	1.90	0.53
10:2O:115:VAL:HG13	10:2O:121:VAL:HG21	1.89	0.53
18:2W:18:ARG:HG2	18:2W:76:VAL:HB	1.91	0.53
33:2b:178:ARG:NH1	39:2h:68:ARG:HH22	2.01	0.53
38:2g:114:ARG:HB2	38:2g:115:ARG:HH22	1.74	0.53
40:2i:9:ARG:HB2	40:2i:104:ARG:HE	1.73	0.53
1:1A:1044:G:H5'	1:1A:1045:A:OP2	2.09	0.53
1:1A:1173:G:C2	1:1A:1175:U:H4'	2.44	0.53
1:1A:1578:U:H2'	1:1A:1579:A:H5'	1.89	0.53
7:1H:124:GLU:OE2	7:1H:132:ARG:HD2	2.09	0.53
32:1a:963:G:H5"	53:1y:9:GLN:HE22	1.74	0.53
32:1a:1278:U:H5'	32:1a:1279:A:O4'	2.08	0.53
49:1r:58:LEU:HD23	49:1r:62:GLU:HB3	1.90	0.53
1:2A:247:G:H4'	1:2A:386:G:C5	2.44	0.53
1:2A:443:A:H1'	1:2A:1201:C:O4'	2.09	0.53
1:2A:1801:G:OP2	3:2D:154:LYS:NZ	2.35	0.53
8:2I:86:THR:HA	8:2I:123:LEU:HD23	1.90	0.53
25:23:11:SER:HA	25:23:31:LEU:HD21	1.89	0.53
32:2a:96:U:H2'	32:2a:97:G:C8	2.44	0.53
32:2a:992:U:H4'	32:2a:993:G:O5'	2.09	0.53
45:2n:4:LYS:O	45:2n:7:ILE:HG12	2.09	0.53
1:1A:752:A:H3'	29:17:1:MET:HE1	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:796:C:H2'	1:1A:797:C:C6	2.44	0.53
1:1A:2286:A:H4'	1:1A:2287:A:O4'	2.08	0.53
1:1A:2844:G:O6	60:1A:4175:HOH:O	2.19	0.53
5:1F:86:GLY:O	60:1F:402:HOH:O	2.19	0.53
32:1a:742:G:OP2	46:1o:35:ARG:NH2	2.41	0.53
32:1a:1442:G:H2'	32:1a:1442:G:N3	2.24	0.53
34:1c:6:HIS:HD2	34:1c:8:ILE:H	1.56	0.53
35:1d:18:LYS:HG3	35:1d:33:MET:HB2	1.91	0.53
41:1j:35:SER:HB3	41:1j:73:ASP:HB2	1.90	0.53
48:1q:48:GLU:HB2	48:1q:50:LYS:HG2	1.91	0.53
51:1t:33:ILE:O	51:1t:37:SER:OG	2.21	0.53
5:2F:187:VAL:HG12	11:2P:3:LEU:HD12	1.91	0.53
18:2W:86:LEU:HD22	18:2W:96:ILE:HD11	1.89	0.53
20:2Y:68:HIS:HB3	20:2Y:71:LYS:HD3	1.91	0.53
26:24:48:ARG:O	26:24:50:VAL:N	2.41	0.53
32:2a:1301:U:O2'	32:2a:1302:U:H5'	2.09	0.53
44:2m:92:HIS:CE1	44:2m:98:VAL:HG11	2.44	0.53
50:2s:30:LEU:HD11	50:2s:50:ALA:HB2	1.90	0.53
1:1A:323:G:C8	5:1F:171:PRO:HG3	2.44	0.52
11:1P:141:ALA:HA	25:23:38:GLU:HG2	1.92	0.52
34:1c:81:GLY:O	34:1c:85:ARG:NH1	2.42	0.52
39:1h:91:ARG:HE	48:1q:33:GLY:HA3	1.74	0.52
1:2A:775:G:OP1	60:2A:3862:HOH:O	2.19	0.52
6:2G:111:LEU:HD22	6:2G:117:PHE:HE1	1.73	0.52
39:2h:112:LEU:HA	39:2h:134:ILE:HG12	1.91	0.52
40:2i:9:ARG:H	40:2i:79:LEU:HD23	1.74	0.52
1:1A:748:G:O6	18:1W:90:ARG:NH1	2.42	0.52
1:1A:2522:U:O2'	1:1A:2647:U:OP1	2.24	0.52
1:1A:2584:U:O4	60:1A:4164:HOH:O	2.17	0.52
2:1B:59:A:N6	60:1B:302:HOH:O	2.21	0.52
6:1G:11:TYR:CZ	6:1G:16:ARG:HD3	2.45	0.52
32:1a:456:C:H2'	32:1a:457:C:C6	2.44	0.52
33:1b:54:THR:HG21	33:1b:201:ILE:HD11	1.91	0.52
47:1p:27:LYS:HG3	47:1p:30:GLY:HA3	1.91	0.52
1:2A:588:U:H2'	1:2A:589:C:C6	2.43	0.52
1:2A:2166:G:H22	1:2A:2172:U:H5	1.57	0.52
4:2E:48:GLN:HB2	4:2E:80:GLU:HG2	1.91	0.52
6:2G:77:ILE:HG21	6:2G:80:PHE:CD2	2.44	0.52
32:2a:56:U:H2'	32:2a:57:G:C8	2.44	0.52
32:2a:188:C:O4'	51:2t:89:ARG:NH2	2.42	0.52
32:2a:769:G:H4'	32:2a:1513:A:H4'	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1004:A:H5'	32:2a:1025:U:C5	2.44	0.52
1:1A:1188:U:H4'	17:1V:79:VAL:HG22	1.91	0.52
1:1A:1800:C:OP1	3:1D:260:ARG:NH2	2.43	0.52
21:1Z:145:GLU:O	21:1Z:148:ASP:N	2.34	0.52
23:11:8:SER:HB3	23:11:66:HIS:CD2	2.44	0.52
53:1y:52:ALA:HB2	53:1y:77:LEU:HD21	1.89	0.52
1:2A:922:U:H2'	1:2A:923:C:C6	2.44	0.52
1:2A:1066:U:O2'	1:2A:1068:G:OP2	2.26	0.52
30:28:63:PRO:HG2	30:28:64:TYR:CE2	2.45	0.52
32:1a:45:U:H2'	32:1a:46:G:C8	2.44	0.52
38:1g:116:ALA:O	38:1g:120:ILE:HG12	2.10	0.52
1:2A:1072:C:N4	1:2A:1093:G:H1	2.07	0.52
1:2A:1118:C:H2'	1:2A:1119:C:O4'	2.09	0.52
1:2A:1188:U:H5"	17:2V:79:VAL:HG13	1.90	0.52
4:2E:143:ASN:HD22	4:2E:147:PRO:HD3	1.74	0.52
19:2X:54:VAL:HG22	19:2X:81:VAL:HG12	1.91	0.52
32:2a:642:A:N3	39:2h:113:SER:OG	2.37	0.52
36:2e:43:LEU:O	36:2e:65:ASN:ND2	2.42	0.52
43:2l:71:PRO:O	43:2l:102:ARG:NH1	2.42	0.52
20:1Y:28:LYS:HG3	20:1Y:40:GLU:HG2	1.92	0.52
32:1a:567:G:N3	60:1a:1962:HOH:O	2.34	0.52
34:1c:22:TRP:CD1	34:1c:59:ARG:HD2	2.44	0.52
39:1h:17:THR:HB	39:1h:78:GLN:OE1	2.10	0.52
1:2A:602:G:O2'	1:2A:655:A:N6	2.43	0.52
1:2A:854:G:H2'	1:2A:855:G:H8	1.74	0.52
1:2A:2334:G:H5'	14:2S:9:ARG:HG2	1.91	0.52
16:2U:49:HIS:HA	16:2U:52:ARG:HB3	1.91	0.52
28:26:9:LEU:HD13	28:26:51:GLU:HG3	1.92	0.52
32:2a:1279:A:H2'	32:2a:1279:A:N3	2.23	0.52
40:2i:3:GLN:HE21	40:2i:20:ARG:NE	2.04	0.52
46:2o:5:LYS:O	46:2o:9:GLN:HG2	2.09	0.52
35:1d:18:LYS:HG2	59:1d:305:SF4:S1	2.49	0.52
1:2A:2203:U:H2'	1:2A:2205:C:C6	2.45	0.52
32:2a:17:U:H2'	32:2a:18:C:C6	2.45	0.52
32:2a:395:C:N4	60:2a:3378:HOH:O	2.43	0.52
53:2y:23:ARG:HG3	53:2y:78:ILE:HG13	1.92	0.52
1:1A:253:C:OP2	30:18:5:LYS:NZ	2.36	0.52
3:1D:71:ASP:HB3	3:1D:103:ARG:NH2	2.24	0.52
1:2A:800:A:H8	1:2A:800:A:OP1	1.93	0.52
6:2G:150:ASP:OD1	6:2G:151:ALA:N	2.38	0.52
7:2H:17:VAL:HG22	7:2H:26:VAL:HG22	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:384:G:H2'	32:2a:385:C:C6	2.45	0.52
32:2a:512:U:H2'	32:2a:513:C:C6	2.45	0.52
32:2a:1010:G:H2'	32:2a:1011:G:C8	2.45	0.52
8:1I:27:ARG:HD2	23:11:71:TYR:CE2	2.45	0.52
15:1T:51:ARG:NH1	60:1T:303:HOH:O	2.43	0.52
1:2A:370:G:OP2	1:2A:370:G:H8	1.92	0.52
1:2A:1932:A:H2'	1:2A:1933:G:O4'	2.10	0.52
1:2A:2171:A:H4'	1:2A:2172:U:OP1	2.10	0.52
1:2A:2317:C:H2'	1:2A:2318:G:H5'	1.91	0.52
1:2A:2364:C:OP1	22:20:55:ARG:NH1	2.43	0.52
9:2N:72:TYR:OH	60:2N:301:HOH:O	2.19	0.52
32:2a:564:C:HO2'	39:2h:91:ARG:NH2	2.05	0.52
34:2c:5:ILE:HD11	45:2n:49:HIS:HE1	1.75	0.52
44:2m:65:LYS:HG3	44:2m:69:GLU:HB3	1.91	0.52
8:1I:115:ALA:HB2	8:1I:131:LYS:HE2	1.92	0.52
20:1Y:15:VAL:HG21	20:1Y:42:VAL:HG11	1.92	0.52
32:1a:975:A:N6	32:1a:1367:C:O4'	2.43	0.52
32:1a:1513:A:H2'	32:1a:1514:C:C6	2.45	0.52
33:1b:88:ALA:HB2	33:1b:219:VAL:HG13	1.92	0.52
1:2A:1069:A:C5	1:2A:1095:A:H4'	2.45	0.52
1:2A:1418:G:OP2	60:2A:3858:HOH:O	2.19	0.52
1:2A:2601:C:OP2	60:2A:3854:HOH:O	2.18	0.52
4:2E:12:THR:HG21	15:2T:11:GLU:HG2	1.92	0.52
32:2a:728:A:H2'	32:2a:729:A:C8	2.45	0.52
32:2a:1030(B):C:H41	32:2a:1030(C):G:H21	1.58	0.52
32:2a:1126:U:O4'	32:2a:1281:U:H1'	2.10	0.52
33:2b:170:GLU:HB3	33:2b:173:ALA:HB3	1.91	0.52
1:1A:1439:A:OP1	60:1A:4125:HOH:O	2.19	0.52
1:1A:1803:A:O2'	3:1D:259:THR:HG21	2.10	0.52
32:1a:950:U:OP2	44:1m:102:ARG:HD3	2.10	0.52
32:1a:1060:C:C5	34:1c:2:GLY:HA3	2.45	0.52
34:1c:52:LEU:HD13	34:1c:68:VAL:HG13	1.92	0.52
1:2A:2698:U:H2'	1:2A:2699:C:C6	2.46	0.52
32:2a:437:U:H5'	35:2d:155:LEU:HD21	1.92	0.52
32:2a:999:C:N4	32:2a:1042:G:H1	2.05	0.52
32:2a:1054:C:H41	53:2y:46:GLN:HB2	1.73	0.52
34:2c:155:GLY:HA3	34:2c:196:LEU:HD22	1.91	0.52
1:1A:131:G:OP1	60:1A:4176:HOH:O	2.19	0.51
1:1A:1815:A:N1	60:1A:4302:HOH:O	2.33	0.51
1:1A:2602:A:H4'	1:1A:2603:G:OP1	2.10	0.51
2:1B:43:C:H5"	26:14:1:MET:HG2	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:1O:98:VAL:HG22	10:1O:118:ALA:HA	1.92	0.51
14:1S:52:SER:HB2	14:1S:55:ALA:H	1.75	0.51
1:2A:1141:U:OP2	9:2N:63:THR:OG1	2.20	0.51
20:2Y:28:LYS:NZ	20:2Y:64:GLU:OE1	2.35	0.51
32:2a:1258:G:H2'	32:2a:1259:C:C6	2.45	0.51
1:1A:226:G:H21	1:1A:228:A:H62	1.58	0.51
1:1A:2181:G:H2'	1:1A:2182:G:C8	2.46	0.51
1:1A:2712:U:OP1	1:1A:2714:G:H4'	2.09	0.51
45:1n:15:LYS:HG2	45:1n:16:PHE:CE2	2.45	0.51
1:2A:27:G:N2	1:2A:512:G:H1'	2.25	0.51
1:2A:108:U:H2'	1:2A:109:G:C8	2.45	0.51
8:2I:14:ASP:OD1	8:2I:15:VAL:N	2.37	0.51
15:2T:27:THR:HB	15:2T:89:VAL:HG22	1.92	0.51
32:2a:952:U:H2'	32:2a:953:G:H8	1.76	0.51
34:2c:43:LEU:HD21	34:2c:91:LEU:HD13	1.93	0.51
1:1A:247:G:H4'	1:1A:386:G:C5	2.45	0.51
1:1A:1082:U:N3	1:1A:1086:A:N6	2.25	0.51
1:1A:2659:G:O6	60:1A:4120:HOH:O	2.10	0.51
7:1H:98:LEU:HD13	7:1H:125:VAL:HG23	1.92	0.51
19:1X:12:VAL:HG22	19:1X:29:TRP:CE2	2.45	0.51
32:1a:539:A:H2'	32:1a:540:G:C8	2.45	0.51
32:1a:727:G:OP2	60:1a:1918:HOH:O	2.18	0.51
35:1d:108:LEU:HD11	35:1d:174:LEU:HD22	1.93	0.51
45:1n:23:ARG:NH1	45:1n:30:ALA:HB2	2.25	0.51
32:2a:93:G:H2'	32:2a:96:U:O4'	2.10	0.51
33:2b:155:LEU:HD21	33:2b:159:PRO:HG3	1.92	0.51
39:2h:9:MET:HG3	39:2h:26:VAL:HG11	1.92	0.51
1:1A:234:C:H2'	1:1A:235:U:H6	1.75	0.51
5:1F:74:ARG:NH1	60:1F:407:HOH:O	2.43	0.51
1:2A:1701:A:OP2	60:2A:3860:HOH:O	2.19	0.51
1:2A:2107:C:H42	1:2A:2182:G:H1	1.57	0.51
2:2B:24:G:H4'	2:2B:25:A:N7	2.26	0.51
8:2I:4:ILE:HD11	8:2I:44:LEU:HD13	1.93	0.51
30:28:49:VAL:O	60:28:3901:HOH:O	2.18	0.51
32:2a:1010:G:C2	32:2a:1020:U:H1'	2.46	0.51
32:2a:1034:G:H2'	32:2a:1035:A:O4'	2.10	0.51
1:1A:1364:G:N7	23:11:3:LYS:HE2	2.26	0.51
11:1P:94:GLU:HG3	11:1P:124:LYS:HD3	1.92	0.51
32:1a:96:U:H2'	32:1a:97:G:H8	1.73	0.51
32:1a:736:C:H2'	32:1a:737:A:C8	2.45	0.51
32:1a:814:A:N7	32:1a:816:A:C4	2.78	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:971:G:H22	32:1a:1363(A):A:P	2.33	0.51
42:1k:98:LEU:O	42:1k:101:SER:OG	2.23	0.51
1:2A:910:A:C5	12:2Q:13:GLN:HG3	2.45	0.51
1:2A:2499:C:N3	60:2A:4005:HOH:O	2.35	0.51
12:2Q:97:VAL:HG21	12:2Q:103:MET:HE3	1.92	0.51
16:2U:5:LYS:HE3	60:2U:203:HOH:O	2.10	0.51
32:2a:1035:A:O2'	32:2a:1036:G:H8	1.93	0.51
32:2a:1372:U:H5"	40:2i:71:SER:HB3	1.92	0.51
34:2c:47:LEU:HB2	34:2c:52:LEU:HD12	1.93	0.51
40:2i:85:LEU:HB3	40:2i:92:TYR:HD2	1.75	0.51
40:2i:92:TYR:O	40:2i:96:LEU:HB2	2.11	0.51
1:1A:2314:C:H2'	1:1A:2315:G:H8	1.75	0.51
1:1A:2611:U:OP2	60:1A:4177:HOH:O	2.19	0.51
32:1a:165:C:H2'	32:1a:166:G:C8	2.45	0.51
32:1a:221:C:H2'	32:1a:222:U:H6	1.76	0.51
32:1a:473:G:H2'	32:1a:474:G:H8	1.75	0.51
33:1b:87:ARG:NH2	33:1b:220:ASP:OD1	2.44	0.51
34:1c:29:TYR:OH	45:1n:54:PRO:O	2.29	0.51
1:2A:1754:C:OP1	15:2T:96:ARG:NH1	2.42	0.51
1:2A:2584:U:H2'	1:2A:2585:U:H2'	1.93	0.51
21:2Z:28:MET:HE1	21:2Z:61:LEU:HD11	1.91	0.51
33:2b:15:VAL:O	33:2b:17:PHE:N	2.33	0.51
48:2q:22:LEU:HD11	48:2q:39:SER:HB2	1.92	0.51
1:1A:526:A:H2'	60:1A:5126:HOH:O	2.11	0.51
1:1A:721:C:H2'	1:1A:722:A:C8	2.45	0.51
30:18:47:LYS:NZ	57:18:103:MPD:H51	2.25	0.51
32:1a:1137:C:H4'	32:1a:1138:G:C2	2.45	0.51
32:1a:1212:U:H4'	32:1a:1213:A:C8	2.46	0.51
1:2A:774:A:H2'	1:2A:774:A:N3	2.26	0.51
8:2I:12:LEU:HD22	8:2I:19:VAL:HG21	1.92	0.51
32:2a:730:G:C5	32:2a:731:G:H1'	2.46	0.51
32:2a:1309:G:N7	44:2m:99:ARG:NH2	2.56	0.51
1:1A:614(B):G:OP1	56:1A:4055:ARG:N	2.44	0.51
1:1A:1060:U:H4'	1:1A:1061:U:H5'	1.93	0.51
1:1A:1171:G:H3'	1:1A:1173:G:H5'	1.93	0.51
5:1F:28:ILE:HD11	5:1F:115:ALA:HB3	1.93	0.51
5:1F:53:THR:HG22	5:1F:55:GLY:H	1.76	0.51
6:1G:122:PRO:HD3	6:1G:181:ARG:HG2	1.93	0.51
1:2A:1045:A:H5'	1:2A:1047:G:P	2.50	0.51
23:21:4:VAL:HG11	23:21:11:ARG:HH21	1.75	0.51
33:2b:96:ARG:HG3	33:2b:97:TRP:N	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:2o:70:LEU:HD11	46:2o:77:ARG:HB2	1.93	0.51
1:1A:581:C:OP1	16:1U:33:ARG:HG3	2.11	0.51
10:1O:2:ILE:HB	10:1O:33:ALA:HB3	1.93	0.51
32:1a:171:A:H2'	32:1a:172:A:C8	2.46	0.51
36:1e:61:TYR:HA	36:1e:64:ARG:HB2	1.93	0.51
42:1k:91:ARG:NH1	42:1k:110:ASP:OD2	2.44	0.51
1:2A:477:A:OP2	60:2A:3857:HOH:O	2.19	0.51
1:2A:1247:A:OP1	5:2F:95:ARG:NH2	2.44	0.51
9:2N:46:VAL:HG22	9:2N:48:MET:HG2	1.93	0.51
32:2a:1149:C:O2'	32:2a:1280:A:N1	2.30	0.51
32:2a:1435:G:H2'	32:2a:1436:U:C6	2.45	0.51
33:2b:18:GLY:HA2	33:2b:42:ILE:HG13	1.93	0.51
53:2y:29:LYS:HE3	53:2y:30:TRP:CZ3	2.46	0.51
1:1A:1025:G:C4	1:1A:1135:C:H1'	2.46	0.51
1:1A:2550:G:OP1	60:1A:4111:HOH:O	2.19	0.51
32:1a:134:A:H61	47:1p:25:ARG:NH1	2.08	0.51
32:1a:346:G:H5"	57:1a:1874:MPD:H4	1.91	0.51
1:2A:1223:G:N2	1:2A:1226:A:OP2	2.38	0.51
60:2A:4486:HOH:O	5:2F:53:THR:HG21	2.10	0.51
6:2G:72:ARG:HG2	6:2G:87:PRO:HA	1.93	0.51
12:2Q:11:LYS:HD3	12:2Q:87:LYS:HG2	1.93	0.51
12:2Q:37:LEU:HD12	12:2Q:128:LYS:HB3	1.93	0.51
19:2X:11:PRO:HG2	19:2X:13:LEU:HD21	1.93	0.51
19:2X:57:LEU:HD21	19:2X:78:LYS:HE2	1.93	0.51
35:2d:61:LYS:NZ	35:2d:72:GLU:OE1	2.40	0.51
1:1A:889:C:O2'	1:1A:890:A:O5'	2.25	0.50
1:1A:1183:G:O2'	25:13:29:ARG:NH1	2.44	0.50
20:1Y:6:HIS:H	20:1Y:6:HIS:CD2	2.28	0.50
32:1a:1032:G:H2'	32:1a:1033:G:O4'	2.11	0.50
1:2A:807:U:OP2	11:2P:41:ARG:NH2	2.44	0.50
1:2A:2447:G:N2	1:2A:2450:A:OP2	2.44	0.50
32:2a:1009:G:H1	32:2a:1020:U:H3	1.59	0.50
32:2a:1212:U:H4'	32:2a:1213:A:C8	2.47	0.50
43:2l:24:VAL:HB	43:2l:27:LEU:HD22	1.93	0.50
44:2m:78:ILE:HA	44:2m:81:LEU:HD12	1.92	0.50
45:2n:26:ARG:HD3	45:2n:43:CYS:HB3	1.91	0.50
51:2t:13:LEU:O	51:2t:17:ARG:HG3	2.11	0.50
1:1A:1920:OMC:HM22	1:1A:1921:G:O4'	2.12	0.50
4:1E:47:VAL:HG12	4:1E:49:LEU:HD13	1.93	0.50
32:1a:532:A:N6	32:1a:1206:G:O2'	2.44	0.50
33:1b:78:GLN:NE2	33:1b:94:ASN:O	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:1k:99:GLN:HG2	42:1k:105:VAL:HG21	1.92	0.50
1:2A:1580:A:H8	1:2A:1580:A:OP2	1.94	0.50
3:2D:145:VAL:HB	3:2D:155:LEU:HB2	1.92	0.50
12:2Q:87:LYS:HG3	12:2Q:88:GLY:N	2.26	0.50
34:2c:98:ASN:OD1	34:2c:98:ASN:N	2.43	0.50
1:1A:576:U:H2'	1:1A:577:G:C8	2.47	0.50
1:1A:1567:A:OP2	3:1D:84:TYR:OH	2.24	0.50
2:1B:75:G:N2	60:1B:311:HOH:O	2.43	0.50
6:1G:79:ASN:OD1	6:1G:79:ASN:N	2.40	0.50
7:1H:124:GLU:HG3	7:1H:132:ARG:HB3	1.93	0.50
1:2A:2849:U:O4	15:2T:23:ARG:NH2	2.26	0.50
20:2Y:8:LYS:HD3	20:2Y:97:ARG:NH2	2.26	0.50
32:2a:1003:G:H22	32:2a:1035:A:H61	1.59	0.50
1:1A:922:U:H2'	1:1A:923:C:C6	2.46	0.50
1:1A:1078:U:C6	1:1A:1088:A:H5"	2.46	0.50
8:1I:31:LEU:HD21	8:1I:38:LEU:HD13	1.94	0.50
17:1V:28:GLU:HG3	17:1V:29:PRO:HD2	1.92	0.50
30:18:61:LEU:O	30:18:63:PRO:HD3	2.12	0.50
32:1a:1218:C:H2'	32:1a:1219:U:C6	2.47	0.50
34:1c:15:THR:HG21	34:1c:181:ASN:HA	1.93	0.50
34:1c:78:GLY:HA3	34:1c:83:ARG:H	1.75	0.50
35:1d:108:LEU:HD23	35:1d:183:GLY:HA3	1.93	0.50
42:1k:34:ASP:HB3	42:1k:40:ILE:HD11	1.93	0.50
53:1y:55:ASN:HA	53:1y:60:VAL:HA	1.92	0.50
4:2E:54:GLN:HB2	4:2E:76:ARG:HG2	1.91	0.50
15:2T:29:ARG:HB3	15:2T:87:ASP:HB2	1.94	0.50
1:1A:1858:G:N2	1:1A:1883:G:H2'	2.25	0.50
1:1A:2103:C:H2'	1:1A:2104:G:H5'	1.94	0.50
1:1A:2785:C:OP1	4:1E:41:LYS:NZ	2.43	0.50
11:1P:100:LEU:HD12	11:1P:112:LEU:HD11	1.92	0.50
28:16:13:CYS:SG	28:16:47:THR:HG21	2.52	0.50
49:1r:47:THR:HG23	49:1r:49:LYS:HG3	1.94	0.50
1:2A:2721:A:H5"	60:2A:4222:HOH:O	2.10	0.50
10:2O:68:GLU:OE1	10:2O:78:ARG:NH1	2.44	0.50
20:2Y:87:LYS:HB3	20:2Y:95:LYS:HD2	1.93	0.50
32:2a:1030(C):G:H2'	32:2a:1030(D):A:C8	2.46	0.50
33:2b:16:HIS:HB3	33:2b:210:SER:HB3	1.94	0.50
1:1A:942:G:O6	60:1A:4169:HOH:O	2.18	0.50
32:1a:198:G:H2'	32:1a:199:G:H8	1.77	0.50
32:1a:911:U:H2'	32:1a:912:C:C6	2.47	0.50
32:1a:1138:G:H2'	32:1a:1140:C:H5'	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1e:122:GLU:O	36:1e:126:ARG:NH1	2.44	0.50
1:2A:1076:C:H1'	1:2A:1077:A:H5'	1.93	0.50
6:2G:131:TYR:CE2	6:2G:133:LEU:HD23	2.46	0.50
12:2Q:1:MET:HG3	12:2Q:44:ALA:HB1	1.94	0.50
32:2a:7:G:O2'	36:2e:120:THR:O	2.29	0.50
32:2a:1002:G:C2	32:2a:1003:G:C8	3.00	0.50
32:2a:1286:A:C8	32:2a:1287:A:H4'	2.46	0.50
38:2g:87:VAL:HG22	38:2g:151:TYR:HB3	1.93	0.50
30:18:23:VAL:HG13	30:18:47:LYS:HB3	1.93	0.50
1:2A:974:G:OP1	1:2A:1187:G:O2'	2.20	0.50
1:2A:1035:U:H2'	1:2A:1036:G:C8	2.46	0.50
1:2A:1349:A:OP1	60:2A:3859:HOH:O	2.19	0.50
1:2A:1709:U:H2'	1:2A:1710:C:C6	2.46	0.50
32:2a:419:C:OP1	32:2a:513:C:O2'	2.27	0.50
32:2a:1054:C:H5	53:2y:45:PRO:HB2	1.77	0.50
42:2k:32:ILE:HD11	42:2k:68:ALA:HB1	1.94	0.50
45:2n:24:CYS:HB3	45:2n:29:ARG:H	1.75	0.50
48:2q:4:LYS:N	48:2q:61:GLU:HG2	2.26	0.50
1:1A:1971:A:OP1	60:1A:4167:HOH:O	2.18	0.50
32:1a:41:G:H2'	32:1a:42:G:C8	2.47	0.50
32:1a:984:C:N4	32:1a:1221:G:H1	2.09	0.50
32:1a:1062:U:H2'	32:1a:1063:C:C6	2.47	0.50
32:1a:1221:G:OP1	32:1a:1320:C:N4	2.44	0.50
1:2A:1266:G:O2'	1:2A:2012:G:O6	2.30	0.50
1:2A:1588:C:H2'	1:2A:1589:C:C6	2.47	0.50
7:2H:11:VAL:HG13	7:2H:15:VAL:HG22	1.93	0.50
32:2a:736:C:H2'	32:2a:737:A:C8	2.47	0.50
32:2a:1318:A:OP1	50:2s:3:ARG:NH1	2.45	0.50
33:2b:50:GLU:O	33:2b:54:THR:OG1	2.24	0.50
36:2e:69:VAL:HG11	36:2e:113:ALA:HB1	1.94	0.50
41:2j:30:SER:OG	41:2j:81:THR:HG22	2.12	0.50
48:2q:37:LYS:O	48:2q:38:ARG:NH2	2.44	0.50
1:1A:1334:G:N7	60:1A:4327:HOH:O	2.35	0.50
1:1A:2121:G:H1	1:1A:2177:C:N4	2.09	0.50
25:13:35:ARG:NH2	60:13:204:HOH:O	2.44	0.50
32:1a:411:A:OP2	35:1d:25:ARG:NH2	2.44	0.50
32:1a:820:U:OP1	60:1a:1921:HOH:O	2.19	0.50
32:1a:1510:U:H2'	32:1a:1511:G:C8	2.47	0.50
34:1c:6:HIS:HB3	45:1n:49:HIS:ND1	2.27	0.50
34:1c:40:ARG:HG2	34:1c:55:VAL:HG11	1.94	0.50
12:2Q:59:ARG:NH2	12:2Q:60:ARG:HH21	2.08	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:417:C:H2'	32:2a:418:C:H6	1.77	0.50
33:2b:81:VAL:HG23	33:2b:215:LEU:HD11	1.93	0.50
1:1A:1518:U:H2'	1:1A:1519:G:O4'	2.12	0.49
27:15:16:ARG:HG3	27:15:17:ASP:N	2.26	0.49
32:1a:447:G:O6	32:1a:485:G:O2'	2.29	0.49
33:1b:112:VAL:HG12	33:1b:149:LEU:HD13	1.94	0.49
42:1k:84:VAL:HG11	42:1k:91:ARG:HD2	1.93	0.49
1:2A:76:C:O2'	24:22:62:THR:OG1	2.28	0.49
1:2A:2079:U:O3'	23:21:35:THR:OG1	2.30	0.49
1:2A:2291:U:O2'	1:2A:2374:C:O2	2.28	0.49
1:2A:2682:U:O2'	15:2T:58:ASN:ND2	2.45	0.49
3:2D:158:ALA:O	3:2D:161:THR:OG1	2.27	0.49
7:2H:104:GLU:HG3	7:2H:105:LEU:H	1.76	0.49
9:2N:4:TYR:CD2	16:2U:100:VAL:HG11	2.47	0.49
32:2a:1368:G:OP1	40:2i:111:ARG:NH2	2.45	0.49
37:2f:97:PHE:CZ	49:2r:61:LYS:HE3	2.47	0.49
1:1A:7:G:H2'	1:1A:8:A:H8	1.77	0.49
1:1A:1587:A:H2'	1:1A:1588:C:C6	2.47	0.49
32:1a:1037:C:H2'	32:1a:1038:C:C6	2.47	0.49
32:1a:1368:G:OP2	40:1i:112:LYS:HG3	2.12	0.49
44:1m:2:ALA:HA	44:1m:8:GLU:HB2	1.94	0.49
1:2A:973:A:H8	1:2A:973:A:OP1	1.95	0.49
1:2A:1667:G:O2'	1:2A:1991:U:O4	2.29	0.49
1:2A:2390:U:P	30:28:35:GLN:HE22	2.35	0.49
32:2a:903:G:OP1	60:2a:3322:HOH:O	2.20	0.49
32:2a:984:C:H42	32:2a:1221:G:H1	1.59	0.49
33:2b:21:ARG:O	33:2b:23:ARG:N	2.44	0.49
44:2m:16:ASP:HB3	44:2m:34:LEU:HD11	1.93	0.49
1:1A:1799:G:O2'	3:1D:181:GLU:OE2	2.23	0.49
1:1A:2279:G:O6	22:10:14:ARG:HG3	2.12	0.49
1:1A:2577:A:O4'	27:15:3:LYS:HB2	2.12	0.49
14:1S:84:GLN:HA	14:1S:111:GLU:HB2	1.93	0.49
32:1a:1297:C:O2	38:1g:114:ARG:NH1	2.45	0.49
33:1b:47:THR:O	33:1b:51:LEU:HB2	2.12	0.49
35:1d:153:ARG:O	35:1d:159:ARG:NH1	2.45	0.49
47:1p:22:THR:HA	47:1p:33:ILE:HG13	1.93	0.49
1:2A:530:G:H4'	1:2A:531:C:OP1	2.11	0.49
1:2A:2360:A:H2'	1:2A:2361:A:O4'	2.12	0.49
14:2S:14:VAL:O	14:2S:18:ILE:HG12	2.12	0.49
32:2a:1223:C:P	50:2s:78:ARG:HH21	2.35	0.49
32:2a:1320:C:C2	50:2s:72:GLY:HA3	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:54:THR:HG23	33:2b:199:TYR:HB3	1.94	0.49
35:2d:57:ARG:NH2	35:2d:205:GLU:OE1	2.45	0.49
49:2r:56:THR:HB	49:2r:58:LEU:HD13	1.93	0.49
1:1A:1877:A:H5'	1:1A:1878:G:OP2	2.12	0.49
55:1A:4054:MUL:C21	55:1A:4054:MUL:H163	2.42	0.49
5:1F:39:TRP:CH2	5:1F:106:ARG:HD3	2.47	0.49
5:1F:56:GLU:OE1	5:1F:93:LYS:NZ	2.44	0.49
8:1I:72:LEU:HD12	8:1I:138:ILE:HG21	1.94	0.49
32:1a:596:C:OP2	60:1a:1906:HOH:O	2.20	0.49
32:1a:1386:G:H2'	32:1a:1387:G:H8	1.77	0.49
36:1e:57:LYS:HG2	36:1e:61:TYR:CE2	2.33	0.49
40:1i:21:PRO:HA	40:1i:59:PHE:HA	1.94	0.49
1:2A:482:A:OP1	20:2Y:50:ARG:NH2	2.42	0.49
1:2A:848:G:H2'	1:2A:849:A:C8	2.47	0.49
1:2A:1653:G:H3'	13:2R:2:ARG:HB2	1.94	0.49
30:28:29:LYS:O	60:28:3902:HOH:O	2.19	0.49
32:2a:600:C:H2'	32:2a:601:C:C6	2.47	0.49
32:2a:972:C:O3'	41:2j:57:LYS:HD3	2.13	0.49
1:1A:1045:A:OP1	1:1A:1045:A:H4'	2.12	0.49
1:1A:2308:G:O2'	1:1A:2310:A:N7	2.44	0.49
1:1A:2327:A:H2'	1:1A:2328:A:C8	2.47	0.49
1:1A:2820:A:OP2	13:1R:2:ARG:NH2	2.46	0.49
12:1Q:109:VAL:HG22	12:1Q:113:GLN:CD	2.38	0.49
33:1b:109:SER:O	33:1b:112:VAL:HG22	2.13	0.49
44:1m:11:ARG:HA	44:1m:45:VAL:HB	1.94	0.49
1:2A:2019:A:N7	27:25:9:LYS:HE2	2.28	0.49
1:2A:2224:G:OP2	60:2A:3863:HOH:O	2.19	0.49
4:2E:59:VAL:HG21	4:2E:74:PRO:HB3	1.94	0.49
14:2S:36:TYR:N	14:2S:36:TYR:CD1	2.81	0.49
14:2S:77:ALA:HB1	14:2S:82:ILE:HB	1.94	0.49
17:2V:72:VAL:HG13	17:2V:85:LYS:HB3	1.95	0.49
20:2Y:57:GLN:NE2	60:2Y:301:HOH:O	2.30	0.49
30:28:23:VAL:HG11	30:28:47:LYS:HD3	1.94	0.49
32:2a:1179:A:H2'	32:2a:1180:A:O4'	2.13	0.49
44:2m:84:ILE:HB	50:2s:66:MET:HE2	1.95	0.49
47:2p:69:THR:OG1	47:2p:69:THR:O	2.29	0.49
5:1F:183:VAL:HG13	60:1F:425:HOH:O	2.11	0.49
32:1a:4:U:O4	39:1h:105:ARG:HD3	2.12	0.49
32:1a:309:G:O2'	32:1a:607:A:N1	2.41	0.49
32:1a:833:U:H2'	32:1a:834:C:C6	2.47	0.49
32:1a:977:A:H2'	32:1a:978:A:H5"	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:272(B):G:H2'	1:2A:272(C):G:H8	1.78	0.49
1:2A:2144:U:H5"	1:2A:2145:C:C5	2.48	0.49
1:2A:2749:A:H3'	1:2A:2750:A:H2'	1.93	0.49
11:2P:106:LEU:HD22	11:2P:112:LEU:HG	1.94	0.49
30:28:62:LEU:HB3	30:28:65:GLU:HG2	1.95	0.49
32:2a:1012:U:H2'	32:2a:1013:G:C8	2.47	0.49
1:1A:194:G:N3	60:1A:4333:HOH:O	2.35	0.49
1:1A:721:C:H2'	1:1A:722:A:H8	1.77	0.49
1:1A:1176:G:N2	1:1A:1178:C:OP2	2.46	0.49
4:1E:52:LEU:HD12	4:1E:77:ILE:HD11	1.94	0.49
26:14:58:ARG:HH11	50:1s:68:GLY:H	1.59	0.49
27:15:47:PRO:O	27:15:60:VAL:HG21	2.13	0.49
32:1a:474:G:H2'	32:1a:475:G:H8	1.78	0.49
35:1d:59:ARG:HA	35:1d:59:ARG:HH11	1.76	0.49
41:1j:61:GLU:OE2	45:1n:58:LYS:NZ	2.31	0.49
1:2A:1287:A:H8	13:2R:104:ARG:HD3	1.78	0.49
8:2I:26:ALA:HB1	8:2I:31:LEU:HD13	1.94	0.49
9:2N:30:ILE:HG23	9:2N:52:VAL:HG11	1.95	0.49
34:2c:6:HIS:CD2	34:2c:8:ILE:H	2.29	0.49
36:2e:57:LYS:HG2	36:2e:61:TYR:HE2	1.77	0.49
1:1A:456:C:H4'	60:1A:6506:HOH:O	2.11	0.49
1:1A:1508:A:H4'	1:1A:1509(A):A:C4	2.48	0.49
5:1F:157:VAL:HB	5:1F:194:MET:HG2	1.95	0.49
37:1f:12:PRO:HG3	37:1f:57:GLN:O	2.13	0.49
1:2A:451:C:H5'	60:2A:3827:HOH:O	2.11	0.49
1:2A:528:A:O2'	1:2A:529:A:H5'	2.12	0.49
1:2A:2059:A:H2'	1:2A:2503:2MA:HM23	1.94	0.49
3:2D:108:PRO:HB3	3:2D:143:HIS:HE1	1.76	0.49
12:2Q:75:THR:HG21	12:2Q:87:LYS:HE3	1.94	0.49
32:2a:1003:G:H3'	32:2a:1003:G:N3	2.27	0.49
37:2f:76:ALA:HB1	37:2f:80:ARG:NH2	2.28	0.49
38:2g:79:ARG:HA	38:2g:84:ASN:HA	1.94	0.49
1:1A:2646:C:H2'	1:1A:2647:U:O4'	2.13	0.49
21:1Z:146:ILE:HA	21:1Z:147:GLY:HA2	1.57	0.49
32:1a:965:A:OP2	53:1y:8:LYS:NZ	2.45	0.49
32:1a:1414:U:H3	32:1a:1486:G:H1	1.60	0.49
40:1i:41:VAL:C	40:1i:43:ALA:H	2.21	0.49
1:2A:108:U:H2'	1:2A:109:G:H8	1.78	0.49
1:2A:1012:U:H5	9:2N:28:THR:HG21	1.78	0.49
1:2A:1166:C:H2'	1:2A:1167:U:C6	2.48	0.49
1:2A:1657:C:H2'	1:2A:1658:C:H6	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1991:U:H2'	1:2A:1992:G:H5"	1.94	0.49
32:2a:390:C:H2'	32:2a:391:G:C8	2.48	0.49
32:2a:545:C:OP1	35:2d:61:LYS:NZ	2.44	0.49
32:2a:1348:U:H2'	32:2a:1349:A:H8	1.78	0.49
32:2a:1366:C:O2'	41:2j:60:ARG:NH2	2.31	0.49
34:2c:177:THR:HG22	34:2c:180:ALA:H	1.77	0.49
40:2i:51:ARG:HG2	40:2i:56:LEU:HD21	1.94	0.49
48:2q:60:ILE:HB	48:2q:74:LEU:HG	1.94	0.49
1:1A:1178:C:H2'	1:1A:1179:C:H6	1.77	0.49
1:1A:2567:G:H2'	1:1A:2568:C:C6	2.48	0.49
17:1V:98:GLU:OE2	17:1V:100:ARG:NH1	2.46	0.49
32:1a:454:C:OP1	47:1p:75:ARG:NH2	2.46	0.49
32:1a:1343:G:H2'	32:1a:1344:C:C6	2.47	0.49
36:1e:39:GLY:O	36:1e:68:GLU:HA	2.13	0.49
12:2Q:2:LEU:O	12:2Q:70:PRO:HG2	2.12	0.49
32:2a:1182:G:H4'	32:2a:1183:A:H3'	1.93	0.49
33:2b:97:TRP:CH2	33:2b:173:ALA:HA	2.48	0.49
38:2g:113:GLU:HG3	38:2g:119:ARG:HA	1.94	0.49
40:2i:82:ALA:O	40:2i:86:VAL:HG23	2.13	0.49
47:2p:43:LYS:HG2	47:2p:48:TRP:CD2	2.48	0.49
6:1G:16:ARG:O	6:1G:20:ILE:HG13	2.13	0.48
12:1Q:34:LEU:HD11	12:1Q:129:THR:HB	1.96	0.48
32:1a:598:U:H4'	39:1h:94:TYR:CD2	2.47	0.48
32:1a:911:U:OP2	43:1l:97:ARG:NH2	2.35	0.48
35:1d:99:SER:O	35:1d:140:VAL:HG23	2.13	0.48
39:1h:87:SER:HB2	39:1h:133:LEU:O	2.13	0.48
44:1m:51:ALA:O	44:1m:55:ARG:HG3	2.12	0.48
44:1m:78:ILE:HG22	44:1m:82:MET:HE2	1.95	0.48
1:2A:271(E):U:H2'	1:2A:271(F):C:C6	2.48	0.48
1:2A:576:U:H2'	1:2A:577:G:C8	2.48	0.48
1:2A:1363:C:O2'	1:2A:1809:A:N3	2.42	0.48
5:2F:167:ALA:HB1	5:2F:173:VAL:HG11	1.95	0.48
32:2a:141:A:H1'	32:2a:182:U:O2	2.13	0.48
32:2a:547:A:H5'	60:2a:3309:HOH:O	2.13	0.48
47:2p:43:LYS:HG2	47:2p:48:TRP:CG	2.48	0.48
1:1A:1430:C:H2'	1:1A:1431:U:C6	2.48	0.48
4:1E:116:VAL:HG13	4:1E:122:PHE:HB2	1.94	0.48
5:1F:51:THR:HB	5:1F:88:VAL:HG11	1.94	0.48
6:1G:83:ARG:H	6:1G:86:MET:HE3	1.78	0.48
13:1R:24:GLN:NE2	60:1R:306:HOH:O	2.46	0.48
32:1a:266:G:O3'	48:1q:67:LYS:HB2	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:472:A:H4'	47:1p:80:PHE:O	2.13	0.48
32:1a:1074:G:O2'	32:1a:1101:A:N1	2.41	0.48
33:1b:18:GLY:HA3	33:1b:42:ILE:HG13	1.96	0.48
33:1b:45:GLN:HA	33:1b:48:MET:HB2	1.94	0.48
35:1d:61:LYS:HD2	35:1d:207:TYR:OH	2.13	0.48
40:1i:121:ARG:NH1	40:1i:122:ALA:O	2.46	0.48
48:1q:22:LEU:HD11	48:1q:39:SER:HB2	1.94	0.48
1:2A:1647:G:H3'	1:2A:1647:G:OP2	2.12	0.48
1:2A:1793:C:OP1	60:2a:3317:HOH:O	2.20	0.48
1:2A:2022:U:O2'	1:2A:2617:C:H5'	2.13	0.48
7:2H:103:LEU:HB3	7:2H:115:VAL:HB	1.96	0.48
32:2a:1008:C:H2'	32:2a:1009:G:C8	2.48	0.48
32:2a:1346:A:H5"	40:2i:120:ARG:HH12	1.78	0.48
32:2a:1388:C:H2'	32:2a:1389:C:C6	2.48	0.48
46:2o:81:LEU:O	46:2o:85:LEU:HD12	2.14	0.48
47:2p:75:ARG:HG3	47:2p:80:PHE:HB2	1.95	0.48
1:1A:330:A:HO2'	1:1A:331:A:H8	1.56	0.48
1:1A:572:A:OP2	17:1V:78:LYS:NZ	2.37	0.48
1:1A:1312:U:OP2	19:1X:63:LYS:NZ	2.40	0.48
1:1A:1899:G:N3	1:1A:1899:G:H2'	2.27	0.48
1:1A:2747:G:O6	1:1A:2755:C:H5"	2.13	0.48
17:1V:76:LYS:HD2	17:1V:81:TYR:CD2	2.49	0.48
23:11:65:SER:HA	60:11:217:HOH:O	2.13	0.48
1:2A:62:C:OP1	60:2A:3864:HOH:O	2.20	0.48
1:2A:2400:G:H4'	28:26:18:ARG:HG2	1.95	0.48
1:2A:2818:G:OP2	13:2R:42:LYS:NZ	2.44	0.48
60:2A:3912:HOH:O	28:26:8:LYS:NZ	2.44	0.48
3:2D:132:PRO:HG3	3:2D:190:TYR:CE2	2.48	0.48
4:2E:11:MET:CG	4:2E:24:THR:HG22	2.42	0.48
5:2F:20:LEU:HD23	5:2F:21:ALA:H	1.78	0.48
5:2F:184:TYR:CE2	5:2F:188:ARG:HD2	2.48	0.48
7:2H:18:GLU:HB3	7:2H:25:LYS:HB2	1.95	0.48
7:2H:150:ALA:HA	7:2H:153:LYS:HG3	1.95	0.48
26:24:40:HIS:HB3	26:24:43:TYR:CD2	2.49	0.48
32:2a:1127:G:H5'	32:2a:1280:A:O2'	2.13	0.48
36:2e:78:HIS:CD2	36:2e:142:LEU:HD23	2.48	0.48
44:2m:10:PRO:HG2	44:2m:13:LYS:HD2	1.95	0.48
1:1A:1045:A:O2'	1:1A:1047:G:C4	2.67	0.48
1:1A:1250:G:H5"	60:1U:331:HOH:O	2.13	0.48
1:1A:1996:C:H4'	1:1A:1997:G:OP1	2.13	0.48
32:1a:583:A:H2'	32:1a:584:G:O4'	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:975:A:H4'	32:1a:976:G:C5'	2.40	0.48
1:2A:729:G:C6	3:2D:208:LYS:HB2	2.47	0.48
1:2A:1364:G:OP2	23:21:3:LYS:HG3	2.14	0.48
3:2D:218:ARG:HB3	3:2D:219:PRO:HD2	1.93	0.48
4:2E:144:ARG:HB3	4:2E:145:LYS:H	1.52	0.48
17:2V:24:LYS:HG3	17:2V:64:HIS:CD2	2.49	0.48
32:2a:406:G:H21	35:2d:119:GLN:NE2	2.11	0.48
32:2a:513:C:H2'	32:2a:514:C:C6	2.48	0.48
32:2a:1001:A:H2'	32:2a:1001(A):G:C8	2.49	0.48
33:2b:62:ALA:HB2	33:2b:222:ILE:HG22	1.95	0.48
1:1A:30:G:OP1	60:1A:4181:HOH:O	2.20	0.48
1:1A:2759:G:N7	60:1A:4339:HOH:O	2.35	0.48
9:1N:2:LYS:O	60:1N:3401:HOH:O	2.20	0.48
10:1O:103:ALA:O	10:1O:106:LEU:HD12	2.13	0.48
32:1a:16:A:O2'	36:1e:16:THR:HB	2.13	0.48
53:1y:55:ASN:OD1	53:1y:60:VAL:HG12	2.13	0.48
15:2T:29:ARG:HG3	15:2T:46:GLU:HB2	1.94	0.48
32:2a:1014:A:H2	32:2a:1219:U:H1'	1.78	0.48
35:2d:112:VAL:HG22	35:2d:116:GLN:NE2	2.28	0.48
38:2g:116:ALA:HA	38:2g:119:ARG:HG3	1.95	0.48
40:2i:3:GLN:HA	40:2i:20:ARG:HG3	1.94	0.48
1:1A:1105:U:H2'	1:1A:1106:G:H8	1.78	0.48
1:1A:2094:G:P	8:1I:22:LYS:HD2	2.54	0.48
19:1X:63:LYS:O	19:1X:64:LYS:HD3	2.14	0.48
21:1Z:157:LEU:HD11	21:1Z:163:LEU:HD13	1.96	0.48
32:1a:1347:G:N2	32:1a:1373:G:H2'	2.29	0.48
36:1e:40:ARG:HG2	36:1e:68:GLU:OE1	2.14	0.48
36:1e:69:VAL:O	36:1e:71:LEU:N	2.46	0.48
36:1e:116:THR:HG23	36:1e:117:ASP:OD2	2.14	0.48
1:2A:607:U:OP1	5:2F:102:PRO:HA	2.13	0.48
1:2A:2611:U:C4	27:25:3:LYS:HG2	2.48	0.48
2:2B:116:G:O6	60:2B:306:HOH:O	2.19	0.48
5:2F:132:VAL:HA	5:2F:138:GLU:HB3	1.94	0.48
7:2H:136:ILE:H	7:2H:136:ILE:HG13	1.39	0.48
20:2Y:11:ASP:O	20:2Y:27:VAL:HG23	2.14	0.48
23:21:2:SER:HB3	23:21:46:LEU:HD12	1.96	0.48
32:2a:1014:A:C2	32:2a:1219:U:H1'	2.49	0.48
32:2a:1189:C:OP1	41:2j:51:ARG:NH2	2.47	0.48
48:2q:62:SER:OG	48:2q:72:ARG:HG3	2.13	0.48
1:1A:234:C:H2'	1:1A:235:U:C6	2.48	0.48
1:1A:1790:C:H5"	1:1A:1791:A:OP1	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2096:U:H2'	1:1A:2097:C:C6	2.49	0.48
1:1A:2142:C:O2	1:1A:2149:G:N1	2.46	0.48
15:1T:49:VAL:HG12	15:1T:63:VAL:HG22	1.95	0.48
32:1a:501:C:H2'	32:1a:502:G:C8	2.49	0.48
32:1a:674:G:H2'	32:1a:675:A:H8	1.77	0.48
32:1a:1030(C):G:H2'	32:1a:1030(D):A:C8	2.49	0.48
33:1b:207:ALA:O	33:1b:211:ILE:HG13	2.14	0.48
41:1j:31:GLY:HA2	41:1j:32:ALA:HA	1.64	0.48
1:2A:854:G:O6	60:2A:3856:HOH:O	2.18	0.48
1:2A:2408:U:OP2	60:2A:3870:HOH:O	2.20	0.48
55:2A:3771:MUL:H131	55:2A:3771:MUL:H4	1.70	0.48
7:2H:137:ASP:HB3	7:2H:140:LYS:HB3	1.96	0.48
11:2P:82:GLY:HA2	11:2P:113:LYS:O	2.14	0.48
32:2a:841:U:OP1	32:2a:841:U:H6	1.96	0.48
32:2a:1112:C:O2	34:2c:179:ARG:N	2.44	0.48
41:2j:6:ILE:HB	41:2j:72:VAL:HG23	1.95	0.48
53:2y:51:ASP:OD1	53:2y:64:SER:OG	2.20	0.48
1:1A:668:G:H5'	1:1A:669:G:OP2	2.14	0.48
1:1A:2712:U:H2'	1:1A:2714:G:H5"	1.96	0.48
16:1U:76:TYR:CZ	16:1U:80:ILE:HG13	2.49	0.48
32:1a:69:G:H2'	32:1a:70:G:C8	2.48	0.48
32:1a:708:C:OP1	42:1k:85:ARG:NH2	2.42	0.48
32:1a:1033:G:H2'	32:1a:1034:G:C8	2.49	0.48
32:1a:1223:C:OP2	50:1s:78:ARG:NH2	2.45	0.48
32:1a:1320:C:H2'	32:1a:1321:C:O4'	2.14	0.48
33:1b:24:TRP:CZ3	33:1b:26:PRO:HA	2.49	0.48
34:1c:186:PHE:HD1	34:1c:199:LYS:HG2	1.78	0.48
35:1d:20:TYR:HA	35:1d:26:CYS:SG	2.54	0.48
1:2A:251:A:C5	1:2A:252:G:H1'	2.49	0.48
1:2A:1062:G:O2'	1:2A:1063:G:H5'	2.13	0.48
1:2A:1092:C:H2'	1:2A:1092:C:O2	2.14	0.48
1:2A:2051:A:H5'	1:2A:2578:G:O4'	2.13	0.48
21:2Z:5:LEU:O	21:2Z:59:LEU:HA	2.13	0.48
21:2Z:19:ARG:NH1	21:2Z:84:GLU:O	2.41	0.48
32:2a:399:G:H2'	32:2a:400:C:C6	2.49	0.48
39:2h:28:ALA:HB3	39:2h:57:PRO:HB2	1.96	0.48
1:1A:839:U:H2'	1:1A:840:C:C6	2.49	0.48
1:1A:994:C:OP1	16:1U:53:ARG:NH2	2.47	0.48
1:1A:1805:U:O2	3:1D:50:THR:HB	2.14	0.48
5:1F:184:TYR:CE2	5:1F:188:ARG:HD2	2.49	0.48
32:1a:277:C:H5"	48:1q:68:ARG:HH21	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:584:G:H5'	48:1q:91:ARG:HH21	1.78	0.48
49:1r:45:SER:OG	49:1r:47:THR:HG22	2.14	0.48
1:2A:196:A:N3	1:2A:196:A:H2'	2.29	0.48
1:2A:272(B):G:H2'	1:2A:272(C):G:C8	2.48	0.48
1:2A:1783:A:H5'	1:2A:2608:G:H4'	1.96	0.48
5:2F:23:ASP:O	5:2F:24:LEU:HD12	2.13	0.48
10:2O:22:ILE:HG23	10:2O:41:ALA:HA	1.96	0.48
16:2U:104:GLN:HE21	16:2U:105:VAL:HG23	1.79	0.48
21:2Z:53:ILE:HD12	21:2Z:99:TYR:HB2	1.95	0.48
32:2a:406:G:H5'	35:2d:5:ILE:HD11	1.96	0.48
32:2a:1391:U:H2'	32:2a:1392:G:C8	2.48	0.48
34:2c:22:TRP:HB3	34:2c:59:ARG:HB2	1.96	0.48
44:2m:6:GLY:HA3	44:2m:67:GLU:HB2	1.96	0.48
1:1A:2512:C:H2'	1:1A:2513:G:O4'	2.14	0.48
4:1E:31:CYS:HB3	4:1E:49:LEU:HG	1.96	0.48
6:1G:114:ILE:HG12	6:1G:140:ILE:HG12	1.96	0.48
15:1T:37:GLY:HA2	15:1T:38:ASN:HA	1.58	0.48
20:1Y:92:ASN:HB2	20:1Y:94:LYS:N	2.25	0.48
32:1a:632:A:H5'	32:1a:633:G:OP2	2.14	0.48
1:2A:55:G:O2'	1:2A:127:A:N1	2.41	0.48
1:2A:1028:A:N6	1:2A:1125:G:H2'	2.29	0.48
1:2A:1657:C:H2'	1:2A:1658:C:C6	2.49	0.48
6:2G:50:ALA:O	6:2G:53:LEU:HG	2.14	0.48
32:2a:309:G:O2'	32:2a:607:A:N1	2.42	0.48
32:2a:811:C:O2'	32:2a:901:A:N1	2.42	0.48
32:2a:1036:G:H3'	32:2a:1037:C:H6	1.79	0.48
32:2a:1305:G:O2'	32:2a:1331:G:N2	2.47	0.48
35:2d:13:ARG:HD2	35:2d:38:TYR:O	2.13	0.48
41:2j:38:ILE:HD11	41:2j:71:LEU:HD22	1.95	0.48
44:2m:66:LEU:O	44:2m:70:LEU:HB2	2.14	0.48
1:1A:236:C:H2'	1:1A:237:C:C6	2.49	0.47
1:1A:1083:U:H1'	1:1A:1086:A:N6	2.28	0.47
1:1A:1939:5MU:OP1	1:1A:2604:U:O2'	2.29	0.47
15:1T:112:ARG:HG3	15:1T:115:ARG:HH21	1.79	0.47
24:12:32:LEU:HD22	24:12:36:ARG:NH1	2.29	0.47
30:18:47:LYS:HE2	57:18:103:MPD:H51	1.96	0.47
32:1a:1014:A:H4'	50:1s:14:HIS:CE1	2.49	0.47
46:1o:24:SER:O	46:1o:28:GLN:HG3	2.14	0.47
1:2A:116:C:H2'	1:2A:117:G:O4'	2.14	0.47
1:2A:2849:U:OP2	15:2T:95:ARG:NH1	2.47	0.47
14:2S:36:TYR:N	14:2S:36:TYR:HD1	2.10	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:149:A:H2'	32:2a:150:C:C6	2.48	0.47
32:2a:539:A:H2'	32:2a:540:G:C8	2.49	0.47
32:2a:1000:U:H3	32:2a:1041:A:N6	2.08	0.47
32:2a:1062:U:H2'	32:2a:1063:C:C6	2.49	0.47
32:2a:1503:A:H5'	32:2a:1531:A:H1'	1.95	0.47
33:2b:17:PHE:HD1	33:2b:18:GLY:H	1.62	0.47
1:1A:2331:G:O2'	1:1A:2336:A:N1	2.46	0.47
1:1A:2564:A:C2	1:1A:2647:U:H4'	2.49	0.47
2:1B:7:G:H5"	2:1B:7:G:H8	1.78	0.47
4:1E:2:LYS:HB2	4:1E:95:ILE:HD12	1.96	0.47
12:1Q:21:THR:HG21	12:1Q:101:ARG:N	2.29	0.47
32:1a:414:A:H2'	32:1a:415:A:H8	1.79	0.47
32:1a:936:C:H2'	32:1a:937:A:O4'	2.14	0.47
32:1a:1003:G:O2'	32:1a:1004:A:H4'	2.15	0.47
1:2A:415:A:H2'	1:2A:416:C:O4'	2.15	0.47
1:2A:1803:A:H4'	3:2D:259:THR:HG23	1.96	0.47
1:2A:2602:A:H8	60:2A:5469:HOH:O	1.96	0.47
10:2O:15:GLY:O	10:2O:47:ILE:HG13	2.14	0.47
20:2Y:44:ILE:HA	20:2Y:63:LYS:O	2.13	0.47
26:24:64:GLY:C	26:24:66:SER:H	2.22	0.47
32:2a:189(F):U:C4	48:2q:72:ARG:NH1	2.82	0.47
39:2h:86:ILE:HG12	39:2h:135:CYS:HA	1.96	0.47
44:2m:3:ARG:NH2	44:2m:45:VAL:HG12	2.29	0.47
1:1A:1386:C:H2'	1:1A:1387:C:C6	2.49	0.47
1:1A:2507:C:OP2	60:1A:4179:HOH:O	2.20	0.47
30:18:23:VAL:HG11	30:18:47:LYS:HD3	1.94	0.47
32:1a:78:G:N2	32:1a:91:C:N3	2.59	0.47
34:1c:56:ASP:O	34:1c:57:ILE:HG13	2.15	0.47
37:1f:19:LEU:HD11	37:1f:59:TYR:CE1	2.50	0.47
1:2A:1068:G:H3'	1:2A:1096:A:OP2	2.14	0.47
1:2A:2637:U:OP1	4:2E:82:ARG:NH1	2.46	0.47
6:2G:84:LYS:HG3	6:2G:85:GLY:N	2.29	0.47
6:2G:165:THR:OG1	6:2G:167:GLU:HG2	2.13	0.47
21:2Z:40:ASP:OD2	21:2Z:42:VAL:HG13	2.14	0.47
33:2b:154:LEU:O	33:2b:156:LYS:N	2.47	0.47
36:2e:6:PHE:HB3	36:2e:34:VAL:HG22	1.96	0.47
1:1A:771:G:OP1	29:17:10:ARG:NH1	2.47	0.47
1:1A:1174:A:C1'	1:1A:1175:U:H5'	2.45	0.47
21:1Z:146:ILE:HG12	21:1Z:174:VAL:HG12	1.94	0.47
24:12:36:ARG:HD3	60:12:107:HOH:O	2.13	0.47
26:14:50:VAL:HG11	44:1m:65:LYS:HA	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:954:G:H5'	53:1y:17:ARG:NH2	2.29	0.47
32:1a:1080:A:H5'	36:1e:14:ARG:HH21	1.80	0.47
32:1a:1148:U:H2'	32:1a:1149:C:O4'	2.15	0.47
34:1c:6:HIS:CD2	34:1c:8:ILE:H	2.33	0.47
39:1h:28:ALA:HA	39:1h:59:LEU:HG	1.96	0.47
1:2A:1282:U:H2'	1:2A:1283:G:O4'	2.14	0.47
1:2A:2801(A):A:H5"	1:2A:2802:G:C8	2.50	0.47
1:2A:2820:A:P	13:2R:2:ARG:HH22	2.38	0.47
17:2V:24:LYS:HA	17:2V:92:THR:OG1	2.14	0.47
32:2a:492:G:O6	60:2a:3320:HOH:O	2.19	0.47
32:2a:737:A:H2'	32:2a:738:C:C6	2.48	0.47
32:2a:1221:G:OP1	32:2a:1320:C:N4	2.47	0.47
41:2j:30:SER:OG	41:2j:84:GLN:OE1	2.25	0.47
47:2p:42:ARG:HB3	47:2p:44:THR:HG23	1.95	0.47
1:1A:2364:C:H2'	1:1A:2365:G:O4'	2.14	0.47
4:1E:28:ALA:HB3	4:1E:93:VAL:HG12	1.97	0.47
10:1O:49:ARG:NH2	32:1a:1423:G:OP1	2.47	0.47
32:1a:486:U:H2'	32:1a:487:A:C8	2.49	0.47
32:1a:676:A:H1'	42:1k:115:PRO:HB3	1.97	0.47
1:2A:2364:C:H2'	1:2A:2365:G:O4'	2.14	0.47
6:2G:171:ALA:O	6:2G:175:LEU:N	2.43	0.47
32:2a:1142:G:H3'	32:2a:1143:G:H8	1.80	0.47
39:2h:121:ASP:N	39:2h:121:ASP:OD1	2.48	0.47
1:1A:636:G:OP1	11:1P:132:LYS:HE2	2.15	0.47
32:1a:116:A:H61	32:1a:313:A:H1'	1.79	0.47
32:1a:219:C:H2'	32:1a:220:G:O4'	2.14	0.47
32:1a:690:G:C6	32:1a:691:G:C6	3.03	0.47
32:1a:750:G:O2'	46:1o:22:THR:O	2.13	0.47
35:1d:128:VAL:HG13	35:1d:146:ILE:HG13	1.97	0.47
35:1d:173:TRP:CD2	35:1d:189:PRO:HG3	2.50	0.47
50:1s:12:ASP:HB3	50:1s:14:HIS:CD2	2.50	0.47
1:2A:479:A:N3	1:2A:481:G:H5"	2.30	0.47
1:2A:2170:A:H8	1:2A:2170:A:O5'	1.98	0.47
32:2a:437:U:O2'	35:2d:123:HIS:HD2	1.97	0.47
32:2a:1490:C:H2'	32:2a:1491:G:C8	2.50	0.47
43:2l:57:LYS:HG3	43:2l:67:THR:HG22	1.96	0.47
1:1A:278:A:O2'	1:1A:279:C:OP1	2.30	0.47
1:1A:299:A:N1	1:1A:322:A:O2'	2.40	0.47
1:1A:307:G:H21	1:1A:330:A:H62	1.63	0.47
1:1A:602:G:O2'	1:1A:655:A:N6	2.48	0.47
1:1A:1055:G:O2'	1:1A:1085:A:N1	2.42	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1706:U:OP1	60:1A:4184:HOH:O	2.20	0.47
3:1D:61:LEU:O	3:1D:63:ARG:NH1	2.48	0.47
3:1D:169:GLU:OE2	3:1D:184:LYS:NZ	2.48	0.47
24:12:65:ASN:O	24:12:69:ARG:HB2	2.14	0.47
32:1a:452:A:H4'	47:1p:72:ARG:NH1	2.30	0.47
32:1a:707:C:OP1	42:1k:85:ARG:NH1	2.47	0.47
39:1h:81:HIS:ND1	39:1h:138:TRP:OXT	2.48	0.47
47:1p:20:VAL:HG21	47:1p:32:TYR:CG	2.49	0.47
47:1p:22:THR:OG1	47:1p:23:ASP:N	2.48	0.47
1:2A:534:U:O2'	16:2U:49:HIS:ND1	2.43	0.47
1:2A:728:G:H5"	3:2D:13:ARG:HH21	1.79	0.47
1:2A:910:A:N7	12:2Q:13:GLN:HG3	2.29	0.47
1:2A:945:A:O3'	60:2A:3867:HOH:O	2.20	0.47
1:2A:1778:U:H2'	1:2A:1784:A:N6	2.30	0.47
1:2A:2490:G:O6	60:2A:3866:HOH:O	2.20	0.47
1:2A:2507:C:OP1	60:2A:3865:HOH:O	2.20	0.47
1:2A:2526:G:O6	60:2A:3849:HOH:O	2.16	0.47
2:2B:95:C:H2'	2:2B:96:U:C6	2.49	0.47
4:2E:52:LEU:O	4:2E:76:ARG:N	2.43	0.47
4:2E:101:ARG:CZ	4:2E:171:GLU:HB2	2.45	0.47
6:2G:42:GLY:O	6:2G:44:GLY:N	2.47	0.47
12:2Q:52:VAL:HG13	21:2Z:183:LEU:HD13	1.96	0.47
30:28:33:ASN:HA	30:28:36:LYS:HD2	1.96	0.47
32:2a:13:U:OP1	60:2a:3321:HOH:O	2.20	0.47
32:2a:114:U:H2'	32:2a:115:G:C8	2.50	0.47
32:2a:1036:G:H3'	32:2a:1037:C:C6	2.50	0.47
32:2a:1292:U:C2	32:2a:1293:G:C8	3.03	0.47
33:2b:204:ASN:HD21	33:2b:207:ALA:H	1.63	0.47
34:2c:81:GLY:O	34:2c:85:ARG:NH1	2.48	0.47
34:2c:113:ALA:HB2	34:2c:202:ILE:HG13	1.95	0.47
35:2d:169:LYS:HE3	35:2d:169:LYS:HB3	1.66	0.47
42:2k:73:MET:HG2	42:2k:103:LEU:HD11	1.95	0.47
1:1A:848:G:H2'	1:1A:849:A:C8	2.49	0.47
1:1A:911:A:H2'	12:1Q:9:TYR:OH	2.15	0.47
1:1A:1359:A:N6	1:1A:1372:U:H3	2.05	0.47
1:1A:1466:G:H2'	1:1A:1547:C:H41	1.79	0.47
4:1E:12:THR:HG21	15:1T:11:GLU:OE2	2.15	0.47
26:14:41:PRO:HB3	26:14:47:GLN:O	2.15	0.47
32:1a:586:C:O3'	39:1h:89:PRO:HB3	2.15	0.47
32:1a:978:A:O2'	32:1a:1322:C:N3	2.44	0.47
32:1a:1030(C):G:H8	32:1a:1030(D):A:N7	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1425:U:H2'	32:1a:1426:C:C6	2.50	0.47
35:1d:190:ASP:N	35:1d:190:ASP:OD1	2.47	0.47
39:1h:51:VAL:HG21	39:1h:60:ARG:HH11	1.80	0.47
1:2A:56:A:H2'	1:2A:57:C:O4'	2.15	0.47
1:2A:388:G:O2'	1:2A:389:G:N7	2.44	0.47
1:2A:1525:G:H2'	1:2A:1526:G:C8	2.50	0.47
1:2A:2134:A:H5"	1:2A:2156:G:N2	2.29	0.47
1:2A:2361:A:OP1	30:28:27:THR:HG23	2.15	0.47
6:2G:54:GLU:O	6:2G:58:GLN:N	2.45	0.47
26:24:62:ARG:H	26:24:62:ARG:HD3	1.79	0.47
35:2d:52:SER:O	35:2d:56:VAL:HG23	2.15	0.47
1:1A:774:A:N3	1:1A:774:A:H2'	2.29	0.47
1:1A:1786:A:H1'	1:1A:1938:A:N6	2.29	0.47
1:1A:2079:U:O3'	23:11:35:THR:OG1	2.32	0.47
5:1F:136:THR:HA	5:1F:166:ALA:O	2.14	0.47
8:1I:29:TYR:C	8:1I:32:PRO:HD2	2.40	0.47
8:1I:75:LEU:HD22	8:1I:105:HIS:ND1	2.30	0.47
11:1P:106:LEU:HD22	11:1P:112:LEU:HG	1.96	0.47
43:1l:28:LYS:HB2	43:1l:33:ARG:NH2	2.30	0.47
50:1s:36:ARG:NH1	50:1s:52:TYR:O	2.45	0.47
51:1t:63:ILE:HD13	51:1t:80:ARG:HB3	1.96	0.47
1:2A:236:C:H2'	1:2A:237:C:H6	1.79	0.47
1:2A:300:A:OP1	20:2Y:86:ARG:NH2	2.48	0.47
1:2A:885:C:H1'	1:2A:892:G:H22	1.78	0.47
1:2A:1503:U:H2'	1:2A:1504:C:C6	2.50	0.47
4:2E:28:ALA:HB3	4:2E:93:VAL:HG12	1.97	0.47
6:2G:15:VAL:HG13	6:2G:175:LEU:HB3	1.96	0.47
7:2H:13:LYS:HA	7:2H:14:GLY:HA2	1.59	0.47
16:2U:10:ARG:NH2	60:2U:204:HOH:O	2.48	0.47
32:2a:57:G:H2'	32:2a:58:C:C6	2.50	0.47
32:2a:1493:A:H4'	53:2y:72:THR:HG23	1.96	0.47
1:1A:624:C:O2'	1:1A:657:U:OP1	2.27	0.47
1:1A:2127:G:H1	1:1A:2161:C:H42	1.61	0.47
1:1A:2543:G:H2'	1:1A:2544:G:C8	2.49	0.47
1:1A:2886:G:H2'	1:1A:2887:U:H6	1.79	0.47
14:1S:10:ARG:O	14:1S:14:VAL:HG13	2.14	0.47
23:11:5:CYS:HG	23:11:8:SER:HG	1.63	0.47
32:1a:1027:C:H2'	32:1a:1028:C:C6	2.49	0.47
33:1b:211:ILE:O	33:1b:215:LEU:HB2	2.14	0.47
52:1u:3:LYS:HB3	52:1u:14:TRP:CD1	2.50	0.47
1:2A:271(H):G:H2'	1:2A:271(I):G:C8	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:577:G:O2'	1:2A:1254:A:OP1	2.33	0.47
1:2A:2390:U:O2'	1:2A:2391:G:H5'	2.15	0.47
1:2A:2439:A:OP1	60:2A:3871:HOH:O	2.20	0.47
1:2A:2545:G:N3	1:2A:2565:A:H2	2.14	0.47
1:2A:2841:C:H2'	1:2A:2842:G:C8	2.51	0.47
10:2O:68:GLU:HB3	10:2O:78:ARG:HH11	1.80	0.47
13:2R:97:VAL:HG22	13:2R:114:VAL:HG22	1.95	0.47
20:2Y:97:ARG:HH21	20:2Y:107:ASP:C	2.23	0.47
32:2a:1118:C:OP1	40:2i:9:ARG:NH1	2.47	0.47
37:2f:10:LEU:HD11	37:2f:61:LEU:HD22	1.95	0.47
38:2g:111:ARG:NH1	38:2g:113:GLU:OE2	2.42	0.47
40:2i:108:VAL:HG12	40:2i:109:VAL:H	1.80	0.47
1:1A:222:A:H3'	1:1A:421:U:H5'	1.97	0.46
1:1A:251:A:C5	1:1A:252:G:H1'	2.50	0.46
1:1A:2345:G:N3	1:1A:2381:C:H2'	2.30	0.46
32:1a:98:G:H2'	32:1a:99:U:O4'	2.15	0.46
32:1a:130:A:N7	48:1q:63:ARG:HB2	2.31	0.46
32:1a:134:A:H61	47:1p:25:ARG:HH12	1.63	0.46
32:1a:262:A:C6	32:1a:263:A:C6	3.02	0.46
32:1a:437:U:H4'	35:1d:155:LEU:HD11	1.96	0.46
32:1a:575:G:O2'	32:1a:821:G:H5'	2.14	0.46
32:1a:1027:C:H2'	32:1a:1028:C:C5	2.50	0.46
1:2A:526:A:OP1	60:2A:3874:HOH:O	2.21	0.46
1:2A:1045:A:H5'	1:2A:1047:G:O5'	2.15	0.46
1:2A:2243:U:H2'	1:2A:2244:U:C6	2.50	0.46
1:2A:2577:A:H5'	27:25:3:LYS:HD2	1.96	0.46
1:2A:2729:G:O2'	4:2E:186:GLY:HA3	2.15	0.46
1:2A:2870:C:H2'	1:2A:2871:C:O4'	2.15	0.46
15:2T:96:ARG:NH2	60:2T:302:HOH:O	2.48	0.46
32:2a:189(K):U:H2'	32:2a:189(L):G:C8	2.50	0.46
32:2a:775:G:N2	32:2a:804:U:O4	2.48	0.46
33:2b:16:HIS:O	33:2b:18:GLY:N	2.48	0.46
34:2c:9:GLY:HA3	45:2n:49:HIS:HA	1.97	0.46
1:1A:2064:C:H2'	1:1A:2065:C:C6	2.50	0.46
1:1A:2555:U:OP1	60:1A:4183:HOH:O	2.20	0.46
21:1Z:28:MET:HG3	21:1Z:37:VAL:HG11	1.98	0.46
28:16:10:LEU:HG	28:16:54:ILE:HG13	1.96	0.46
40:1i:61:ALA:HB1	40:1i:63:ILE:HD11	1.97	0.46
1:2A:307:G:N1	1:2A:310:A:OP2	2.47	0.46
1:2A:1073:A:H2'	1:2A:1074:G:C8	2.50	0.46
7:2H:3:ARG:HA	7:2H:3:ARG:HD2	1.66	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:2O:4:PRO:O	10:2O:5:GLN:HB2	2.15	0.46
10:2O:73:ASP:O	60:2O:302:HOH:O	2.20	0.46
32:2a:502:G:H2'	32:2a:503:C:O4'	2.16	0.46
32:2a:1032:G:H2'	32:2a:1033:G:H5'	1.97	0.46
32:2a:1117:G:H4'	40:2i:104:ARG:NH1	2.30	0.46
33:2b:76:GLN:HG3	33:2b:206:ASP:O	2.15	0.46
35:2d:144:ASP:O	35:2d:184:LYS:HG2	2.15	0.46
36:2e:102:ALA:O	36:2e:107:ARG:NH1	2.49	0.46
38:2g:72:ARG:NH1	38:2g:142:GLU:OE2	2.48	0.46
40:2i:46:ALA:HB2	40:2i:74:ILE:HG23	1.97	0.46
41:2j:35:SER:HB3	41:2j:73:ASP:HB2	1.96	0.46
1:1A:2187:G:H3'	1:1A:2188:C:C6	2.50	0.46
55:1A:4054:MUL:H19	55:1A:4054:MUL:H10	1.79	0.46
56:1A:4055:ARG:NH2	60:1A:4559:HOH:O	2.47	0.46
4:1E:9:VAL:HG13	4:1E:25:VAL:O	2.16	0.46
21:1Z:141:VAL:HB	21:1Z:144:LEU:HD12	1.97	0.46
30:18:47:LYS:CE	57:18:103:MPD:H51	2.45	0.46
32:1a:344:A:O5'	32:1a:345:C:H5	1.98	0.46
32:1a:347:G:C8	57:1a:1874:MPD:H53	2.50	0.46
32:1a:501:C:OP1	43:1l:117:ARG:NH2	2.47	0.46
32:1a:1486:G:H2'	32:1a:1487:G:O4'	2.15	0.46
33:1b:178:ARG:HH21	39:1h:74:PRO:HG3	1.80	0.46
34:1c:71:ALA:HB2	34:1c:115:LEU:HD21	1.96	0.46
35:1d:163:GLU:O	35:1d:165:MET:N	2.49	0.46
42:1k:84:VAL:HG21	42:1k:95:ILE:HD11	1.98	0.46
44:1m:40:ASN:O	44:1m:43:THR:OG1	2.32	0.46
1:2A:754:C:H2'	1:2A:755:C:C6	2.50	0.46
1:2A:2183:C:H2'	1:2A:2184:G:C8	2.50	0.46
1:2A:2291:U:OP1	1:2A:2380:C:O2'	2.30	0.46
1:2A:2313:C:H4'	6:2G:91:ARG:HD3	1.96	0.46
1:2A:2365:G:O6	30:28:43:GLN:NE2	2.48	0.46
1:2A:2543:G:H2'	1:2A:2544:G:C8	2.50	0.46
2:2B:14:U:OP2	2:2B:70:C:O2'	2.33	0.46
6:2G:101:ILE:HD13	26:24:25:TYR:HB2	1.98	0.46
14:2S:10:ARG:NE	14:2S:91:PRO:O	2.48	0.46
20:2Y:99:CYS:SG	20:2Y:100:ALA:N	2.88	0.46
21:2Z:31:ARG:HG3	21:2Z:32:HIS:CD2	2.50	0.46
32:2a:1510:U:H2'	32:2a:1511:G:C8	2.49	0.46
36:2e:57:LYS:HG2	36:2e:61:TYR:CE2	2.50	0.46
45:2n:46:GLU:O	45:2n:50:LYS:HG2	2.15	0.46
1:1A:9:U:H3	1:1A:2629:A:H2	1.64	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:284:U:H2'	1:1A:285:C:H6	1.80	0.46
1:1A:414:C:H2'	1:1A:415:A:C8	2.51	0.46
1:1A:2849:U:H4'	1:1A:2868:A:C2	2.51	0.46
18:1W:79:GLY:HA3	18:1W:100:THR:HG22	1.96	0.46
32:1a:1376:U:H2'	32:1a:1377:A:C8	2.51	0.46
34:1c:132:ARG:HG2	34:1c:136:GLN:HE21	1.80	0.46
1:2A:760:G:H2'	1:2A:761:A:O4'	2.15	0.46
1:2A:1640:C:H5'	1:2A:1641:A:OP2	2.16	0.46
1:2A:2172:U:H1'	1:2A:2173:A:OP1	2.15	0.46
1:2A:2184:G:H2'	1:2A:2185:C:O4'	2.15	0.46
1:2A:2641:G:P	9:2N:74:ARG:HH21	2.38	0.46
4:2E:199:ARG:NH1	60:2E:406:HOH:O	2.48	0.46
5:2F:172:TRP:H	5:2F:172:TRP:CD1	2.33	0.46
11:2P:121:LYS:O	11:2P:123:LEU:N	2.48	0.46
16:2U:34:LYS:HA	16:2U:34:LYS:HD3	1.56	0.46
32:2a:1080:A:OP1	36:2e:47:LYS:HD3	2.14	0.46
33:2b:211:ILE:O	33:2b:215:LEU:HB2	2.14	0.46
50:2s:52:TYR:HB2	50:2s:57:HIS:CE1	2.50	0.46
1:1A:1082:U:C4	1:1A:1086:A:N1	2.80	0.46
15:1T:24:PRO:HD3	15:1T:52:ILE:HD12	1.98	0.46
21:1Z:19:ARG:NH1	21:1Z:84:GLU:HB2	2.30	0.46
32:1a:749:C:H2'	32:1a:750:G:H8	1.81	0.46
32:1a:877:C:OP1	39:1h:88:LYS:NZ	2.42	0.46
32:1a:1187:G:H5'	40:1i:113:LYS:HE3	1.96	0.46
36:1e:92:LYS:HB3	36:1e:119:LEU:HB2	1.97	0.46
1:2A:324:A:N6	1:2A:338:G:O2'	2.48	0.46
1:2A:1202:C:H42	1:2A:1243:G:H1	1.62	0.46
1:2A:1899:G:H2'	1:2A:1899:G:N3	2.31	0.46
4:2E:50:GLY:HA3	4:2E:75:VAL:HG11	1.96	0.46
5:2F:117:ARG:HH21	5:2F:187:VAL:HA	1.81	0.46
6:2G:122:PRO:HB3	6:2G:170:ARG:NH1	2.31	0.46
32:2a:192:U:H2'	32:2a:193:C:C6	2.49	0.46
32:2a:975:A:N1	41:2j:48:THR:HB	2.30	0.46
32:2a:1178:G:N2	32:2a:1180:A:H3'	2.31	0.46
36:2e:20:GLN:HE22	36:2e:25:ARG:CZ	2.28	0.46
39:2h:13:ILE:O	39:2h:17:THR:HG23	2.15	0.46
4:1E:73:GLU:H	4:1E:73:GLU:CD	2.23	0.46
7:1H:9:ILE:HD11	7:1H:69:ARG:HG2	1.97	0.46
7:1H:13:LYS:HA	7:1H:14:GLY:HA2	1.55	0.46
9:1N:42:TRP:CH2	9:1N:44:PRO:HB3	2.51	0.46
1:2A:686:G:H1	29:27:16:HIS:CD2	2.33	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2141:G:H22	1:2A:2149:G:H22	1.62	0.46
1:2A:2162:G:H4'	1:2A:2172:U:O2'	2.15	0.46
7:2H:20:ALA:HB3	7:2H:23:ARG:HB3	1.97	0.46
15:2T:64:ARG:HB2	15:2T:73:GLU:HG2	1.96	0.46
15:2T:73:GLU:OE2	15:2T:103:ARG:NE	2.48	0.46
32:2a:1347:G:H5"	40:2i:107:ARG:HB2	1.97	0.46
33:2b:102:LEU:HD23	33:2b:182:ILE:HD12	1.98	0.46
34:2c:69:HIS:CD2	34:2c:104:GLN:HG2	2.51	0.46
49:2r:43:PHE:C	49:2r:51:LEU:HD12	2.41	0.46
53:2y:71:TYR:HA	53:2y:74:ILE:HD12	1.97	0.46
1:1A:764:A:H2	3:1D:219:PRO:HG3	1.79	0.46
1:1A:1050:A:H2'	1:1A:1051:G:O4'	2.16	0.46
1:1A:1268:A:C2	1:1A:2013:A:C4	3.04	0.46
1:1A:1370:C:OP2	60:1A:4185:HOH:O	2.21	0.46
3:1D:37:LEU:HD13	3:1D:87:ASN:ND2	2.31	0.46
7:1H:30:LYS:HE2	7:1H:80:SER:O	2.15	0.46
32:1a:142:G:H2'	32:1a:143:A:C8	2.48	0.46
32:1a:352:C:O2'	32:1a:354:G:OP1	2.32	0.46
32:1a:861:G:O6	60:1a:1920:HOH:O	2.19	0.46
32:1a:1342:C:H2'	32:1a:1343:G:C8	2.51	0.46
36:1e:143:ARG:HD3	36:1e:143:ARG:HA	1.77	0.46
41:1j:37:PRO:HB3	41:1j:72:VAL:HG12	1.96	0.46
2:2B:101:G:H2'	2:2B:102:A:O4'	2.15	0.46
6:2G:32:PRO:HB3	6:2G:163:ALA:HB2	1.98	0.46
6:2G:64:THR:HB	6:2G:94:LEU:HD11	1.97	0.46
8:2I:75:LEU:HD11	8:2I:105:HIS:ND1	2.31	0.46
11:2P:126:VAL:HG12	11:2P:148:LEU:HD23	1.98	0.46
30:28:34:TRP:CG	30:28:35:GLN:N	2.84	0.46
32:2a:664:G:H22	32:2a:741:G:H1	1.63	0.46
32:2a:1172:C:H2'	32:2a:1173:G:C8	2.51	0.46
38:2g:54:THR:O	38:2g:56:GLN:N	2.45	0.46
46:2o:83:GLU:HG3	46:2o:84:LYS:N	2.30	0.46
53:2y:12:ILE:HG22	53:2y:17:ARG:HG3	1.98	0.46
1:1A:143:G:H4'	19:1X:35:THR:HG21	1.98	0.46
1:1A:154(A):C:H3'	60:1A:7953:HOH:O	2.15	0.46
1:1A:749:C:OP2	60:1A:4182:HOH:O	2.20	0.46
1:1A:886:C:H2'	1:1A:887:A:H5"	1.98	0.46
1:1A:1048:A:OP2	1:1A:1109:C:N4	2.49	0.46
1:1A:2187:G:H5'	1:1A:2188:C:OP2	2.16	0.46
1:1A:2464:C:O2'	60:1A:4103:HOH:O	1.98	0.46
1:1A:2846:G:H2'	1:1A:2847:U:O4'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:1D:72:LYS:HD2	3:1D:103:ARG:NH1	2.31	0.46
12:1Q:58:PHE:O	12:1Q:60:ARG:N	2.48	0.46
23:11:3:LYS:O	23:11:12:PRO:HD3	2.16	0.46
26:14:16:CYS:HB3	26:14:20:ASN:HB3	1.97	0.46
32:1a:141:A:H1'	32:1a:182:U:O2	2.16	0.46
32:1a:377:G:OP1	47:1p:3:LYS:HD3	2.15	0.46
32:1a:551:U:H2'	32:1a:552:U:C6	2.51	0.46
32:1a:1025:U:C2	32:1a:1036:G:O6	2.69	0.46
32:1a:1492:A:H4'	32:1a:1493:A:N1	2.31	0.46
37:1f:15:ASP:O	37:1f:19:LEU:HB2	2.16	0.46
1:2A:154(A):C:H42	1:2A:171:G:H1	1.63	0.46
1:2A:224:G:H2'	1:2A:225:A:O4'	2.16	0.46
1:2A:898:C:H2'	1:2A:899:A:O4'	2.16	0.46
1:2A:1065:U:H3	1:2A:1073:A:N6	2.10	0.46
1:2A:1588:C:H2'	1:2A:1589:C:H6	1.81	0.46
1:2A:2074:U:H2'	1:2A:2075:U:C6	2.51	0.46
1:2A:2319:G:N2	14:2S:3:ARG:HD3	2.15	0.46
1:2A:2395:C:O2'	23:21:30:VAL:HG13	2.16	0.46
5:2F:150:GLY:HA2	5:2F:172:TRP:CD2	2.50	0.46
32:2a:985:C:H2'	32:2a:986:A:C8	2.51	0.46
34:2c:73:PRO:O	34:2c:77:ILE:HG12	2.15	0.46
48:2q:82:MET:HE2	48:2q:82:MET:HB3	1.90	0.46
1:1A:244:A:C2	1:1A:255:A:C4	3.04	0.46
1:1A:1020:A:N1	1:1A:1141:U:O2'	2.47	0.46
7:1H:41:MET:HE2	7:1H:65:HIS:HA	1.98	0.46
18:1W:18:ARG:HG3	18:1W:76:VAL:HB	1.98	0.46
32:1a:67:C:H2'	32:1a:68:G:H8	1.81	0.46
32:1a:198:G:H2'	32:1a:199:G:C8	2.51	0.46
32:1a:370:C:H2'	32:1a:371:G:H8	1.81	0.46
32:1a:583:A:N6	32:1a:758:G:O2'	2.49	0.46
32:1a:1158:C:H5	32:1a:1181:G:N1	1.95	0.46
37:1f:78:GLU:O	37:1f:81:ILE:HG22	2.16	0.46
1:2A:532:A:N7	1:2A:2021:C:O2'	2.45	0.46
1:2A:671:C:N4	60:2A:4220:HOH:O	2.49	0.46
1:2A:1007:C:H5"	9:2N:35:ARG:NH1	2.31	0.46
1:2A:1105:U:H2'	1:2A:1106:G:H8	1.81	0.46
1:2A:2819:G:H2'	1:2A:2821:A:N7	2.30	0.46
1:2A:2839:G:O2'	13:2R:49:ASP:OD2	2.23	0.46
4:2E:28:ALA:HB3	4:2E:93:VAL:CG1	2.46	0.46
4:2E:29:GLY:HA3	60:2E:415:HOH:O	2.15	0.46
9:2N:68:GLU:HG2	9:2N:69:GLN:HG2	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:8:A:N6	35:2d:209:ARG:HB2	2.31	0.46
37:2f:45:LEU:HD12	37:2f:45:LEU:H	1.80	0.46
41:2j:6:ILE:HD12	41:2j:23:ILE:HG21	1.98	0.46
1:1A:26:G:C6	1:1A:27:G:N1	2.84	0.46
1:1A:954:G:H5"	12:1Q:13:GLN:HB3	1.97	0.46
1:1A:1040:C:H2'	1:1A:1041:C:O4'	2.16	0.46
16:1U:29:SER:C	16:1U:30:LYS:HD2	2.41	0.46
23:11:35:THR:OG1	23:11:35:THR:O	2.32	0.46
32:1a:927:G:O2'	32:1a:1503:A:N7	2.47	0.46
32:1a:1016:A:OP1	45:1n:15:LYS:NZ	2.48	0.46
32:1a:1101:A:H4'	32:1a:1102:A:O5'	2.16	0.46
32:1a:1409:C:H2'	32:1a:1410:G:C8	2.51	0.46
1:2A:631:A:H1'	11:2P:66:GLY:HA2	1.98	0.46
1:2A:722:A:H2'	1:2A:723:G:C8	2.51	0.46
1:2A:861:A:C2	1:2A:917:A:C4	3.03	0.46
1:2A:1359:A:N3	1:2A:1359:A:H5'	2.31	0.46
1:2A:1589:C:H2'	1:2A:1590:U:C6	2.51	0.46
1:2A:2179:C:C4	1:2A:2180:U:C4	3.03	0.46
1:2A:2823:A:OP1	4:2E:159:HIS:NE2	2.44	0.46
32:2a:403:C:N4	60:2a:3309:HOH:O	2.41	0.46
32:2a:600:C:H2'	32:2a:601:C:H6	1.80	0.46
32:2a:1258:G:H2'	32:2a:1259:C:H6	1.79	0.46
33:2b:91:PRO:HG3	33:2b:155:LEU:HD13	1.98	0.46
34:2c:58:GLU:HB3	41:2j:92:THR:HG21	1.97	0.46
35:2d:108:LEU:HD13	35:2d:174:LEU:HD13	1.96	0.46
36:2e:5:ASP:OD1	36:2e:5:ASP:N	2.49	0.46
38:2g:71:PRO:HG3	38:2g:103:TRP:CZ3	2.51	0.46
40:2i:3:GLN:HG3	40:2i:20:ARG:HE	1.81	0.46
1:1A:607:U:OP1	5:1F:102:PRO:HA	2.17	0.45
1:1A:1083:U:H1'	1:1A:1086:A:H61	1.81	0.45
6:1G:67:LYS:HD3	26:14:5:ILE:HD12	1.97	0.45
6:1G:125:PHE:HB3	6:1G:166:ASP:OD1	2.17	0.45
6:1G:126:ASP:OD2	6:1G:130:ASN:HB2	2.16	0.45
9:1N:75:TYR:CE2	9:1N:77:GLY:HA2	2.51	0.45
16:1U:28:ARG:NH1	16:1U:38:THR:OG1	2.47	0.45
36:1e:69:VAL:HG21	36:1e:113:ALA:HB1	1.97	0.45
39:1h:6:ILE:HB	39:1h:85:ARG:NH1	2.31	0.45
42:1k:79:SER:HA	42:1k:104:GLN:HB3	1.98	0.45
46:1o:29:VAL:HG11	46:1o:67:LEU:HD21	1.98	0.45
51:1t:9:ASN:O	51:1t:10:LEU:HD23	2.17	0.45
1:2A:1491:G:O4'	3:2D:99:ASP:HB3	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2185:C:N4	1:2A:2186:G:N7	2.64	0.45
1:2A:2320:A:N3	1:2A:2320:A:H2'	2.31	0.45
1:2A:2821:A:H2'	1:2A:2822:G:C8	2.51	0.45
3:2D:121:PRO:HB3	3:2D:135:PHE:CE2	2.51	0.45
5:2F:28:ILE:O	5:2F:30:PRO:HD3	2.16	0.45
7:2H:163:TYR:CE1	7:2H:169:VAL:HG22	2.51	0.45
21:2Z:98:MET:HE2	21:2Z:100:VAL:HG22	1.97	0.45
22:20:25:ARG:HB2	22:20:37:LEU:HD22	1.99	0.45
32:2a:1004:A:N7	32:2a:1037:C:H2'	2.31	0.45
32:2a:1053:G:H4'	32:2a:1054:C:H3'	1.98	0.45
32:2a:1190:G:O2'	34:2c:3:ASN:HB2	2.15	0.45
37:2f:70:ASP:OD1	37:2f:70:ASP:N	2.33	0.45
1:1A:106:C:H1'	20:1Y:1:MET:HG3	1.97	0.45
1:1A:2165:G:H2'	1:1A:2166:G:H8	1.81	0.45
1:1A:2691:C:O3'	1:1A:2871:C:H4'	2.16	0.45
6:1G:99:MET:HE2	6:1G:99:MET:HB3	1.69	0.45
6:1G:106:LEU:HA	6:1G:110:ALA:HB3	1.98	0.45
31:19:15:LYS:HE2	31:19:17:ILE:HD11	1.97	0.45
32:1a:373:A:H2'	32:1a:374:A:H8	1.82	0.45
53:1y:49:VAL:HG22	53:1y:66:LYS:HG2	1.97	0.45
1:2A:749:C:OP2	60:2A:3877:HOH:O	2.21	0.45
1:2A:863:A:H2'	1:2A:864:G:C8	2.51	0.45
1:2A:1081:U:H2'	1:2A:1082:U:H5"	1.97	0.45
1:2A:1356:G:OP1	60:2A:3879:HOH:O	2.21	0.45
1:2A:1579:A:H2'	1:2A:1580:A:C8	2.51	0.45
1:2A:1636:C:H2'	1:2A:1637:A:C8	2.51	0.45
14:2S:25:ARG:HD3	14:2S:42:ASP:OD2	2.17	0.45
32:2a:673:G:N2	32:2a:674:G:C2	2.84	0.45
47:2p:6:LEU:HD23	47:2p:17:TYR:CG	2.51	0.45
4:1E:33:VAL:HG13	4:1E:89:ASP:C	2.40	0.45
32:1a:20:U:H1'	32:1a:916:G:N2	2.32	0.45
35:1d:158:ILE:HB	35:1d:162:LEU:HD12	1.97	0.45
1:2A:639:U:H2'	1:2A:640:C:C6	2.51	0.45
1:2A:881:G:H1	1:2A:895:U:H3	1.64	0.45
1:2A:1258:C:OP2	60:2A:3868:HOH:O	2.20	0.45
1:2A:1493:C:N4	1:2A:2206:G:O2'	2.49	0.45
1:2A:1798:U:H5'	3:2D:259:THR:CG2	2.42	0.45
1:2A:2321:G:HO2'	1:2A:2322:A:P	2.37	0.45
3:2D:109:ASP:HB2	3:2D:197:GLY:HA2	1.97	0.45
4:2E:96:PHE:O	4:2E:175:VAL:HG11	2.16	0.45
11:2P:84:ASN:OD1	11:2P:117:GLU:HB2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:2X:44:GLU:HG2	19:2X:49:VAL:O	2.16	0.45
32:2a:531:U:O3'	32:2a:532:A:H4'	2.16	0.45
32:2a:974:A:H8	32:2a:974:A:OP1	1.99	0.45
32:2a:1135:U:H4'	32:2a:1136:U:H5	1.81	0.45
43:2l:6:THR:HG23	43:2l:9:GLN:OE1	2.16	0.45
1:1A:858:U:O2	1:1A:2268:A:H2'	2.17	0.45
1:1A:2142:C:N3	1:1A:2149:G:O6	2.49	0.45
2:1B:29:A:H2'	2:1B:30:C:O4'	2.16	0.45
2:1B:82:G:OP2	60:1B:303:HOH:O	2.20	0.45
3:1D:246:PRO:O	3:1D:254:THR:HG22	2.16	0.45
12:1Q:141:GLN:NE2	21:1Z:74:VAL:O	2.45	0.45
32:1a:339:C:H2'	32:1a:340:U:C6	2.52	0.45
32:1a:1068:G:H8	32:1a:1068:G:OP2	1.99	0.45
32:1a:1149:C:OP1	40:1i:9:ARG:NE	2.46	0.45
35:1d:163:GLU:C	35:1d:165:MET:H	2.24	0.45
41:1j:5:ARG:NE	41:1j:73:ASP:OD2	2.45	0.45
50:1s:3:ARG:HG3	50:1s:4:SER:N	2.31	0.45
1:2A:1105:U:H2'	1:2A:1106:G:C8	2.51	0.45
1:2A:2336:A:H61	22:20:43:THR:CG2	2.30	0.45
1:2A:2573:C:OP1	1:2A:2574:G:H5"	2.17	0.45
11:2P:6:LEU:HD23	11:2P:6:LEU:HA	1.86	0.45
32:2a:1376:U:H2'	32:2a:1377:A:H8	1.79	0.45
32:2a:1412:C:H2'	32:2a:1413:A:C8	2.51	0.45
33:2b:8:LYS:HD2	33:2b:48:MET:HG2	1.96	0.45
40:2i:22:GLY:HA3	40:2i:60:ASP:OD2	2.16	0.45
1:1A:1065:U:O2	1:1A:1066:U:N3	2.49	0.45
8:1I:4:ILE:HD11	8:1I:44:LEU:HD13	1.97	0.45
32:1a:270:A:H2'	32:1a:271:C:C6	2.52	0.45
32:1a:993:G:O2'	32:1a:995:C:N4	2.24	0.45
32:1a:1239:A:H62	32:1a:1299:A:H61	1.63	0.45
34:1c:97:LYS:HE2	34:1c:97:LYS:HB3	1.80	0.45
38:1g:45:ASP:HB3	38:1g:117:ALA:HB1	1.99	0.45
42:1k:99:GLN:HG3	42:1k:105:VAL:HG11	1.97	0.45
48:1q:74:LEU:HG	48:1q:75:ARG:HG2	1.99	0.45
1:2A:1805:U:O2	3:2D:50:THR:HB	2.16	0.45
1:2A:2128:C:H5'	1:2A:2129:C:OP2	2.17	0.45
1:2A:2846:G:P	15:2T:54:ARG:HB2	2.56	0.45
1:2A:2882:A:H5'	13:2R:96:ARG:HB2	1.98	0.45
8:2I:7:GLU:HB3	60:2I:301:HOH:O	2.16	0.45
16:2U:17:ILE:HG23	16:2U:39:LEU:HD12	1.99	0.45
32:2a:1189:C:O2	60:2a:3318:HOH:O	2.18	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:2f:9:VAL:HB	37:2f:87:ARG:HB2	1.97	0.45
43:2l:54:LYS:HB3	43:2l:70:ILE:HD12	1.98	0.45
44:2m:44:ARG:HB2	44:2m:47:ASP:OD2	2.15	0.45
2:1B:89:G:H8	2:1B:89:G:OP2	2.00	0.45
3:1D:13:ARG:HA	3:1D:13:ARG:HD2	1.77	0.45
5:1F:12:LEU:HB2	5:1F:126:VAL:HG12	1.99	0.45
32:1a:509:A:H5"	35:1d:55:ALA:HB2	1.99	0.45
32:1a:674:G:H2'	32:1a:675:A:C8	2.52	0.45
32:1a:1343:G:O2'	40:1i:121:ARG:HD2	2.17	0.45
32:1a:1400:5MC:N3	53:1y:63:ALA:HA	2.32	0.45
51:1t:47:GLY:HA2	51:1t:48:LYS:C	2.42	0.45
1:2A:747:U:O2	1:2A:2014:A:H1'	2.16	0.45
1:2A:2564:A:C2	1:2A:2647:U:H4'	2.52	0.45
5:2F:184:TYR:CD2	5:2F:188:ARG:HD2	2.52	0.45
32:2a:1095:U:H2'	32:2a:1096:C:C6	2.51	0.45
41:2j:78:ASN:O	41:2j:81:THR:N	2.34	0.45
42:2k:97:ALA:O	42:2k:101:SER:HB3	2.16	0.45
1:1A:1175:U:O3'	1:1A:1176:G:H4'	2.16	0.45
1:1A:2224:G:H4'	1:1A:2226:C:C2	2.52	0.45
1:1A:2359:C:H2'	1:1A:2360:A:O4'	2.16	0.45
6:1G:16:ARG:HB2	6:1G:17:PRO:HD3	1.97	0.45
10:1O:70:LYS:HB3	10:1O:70:LYS:HE2	1.81	0.45
14:1S:27:SER:HA	14:1S:88:ASP:HB3	1.99	0.45
24:12:41:ILE:HG13	24:12:43:GLN:HG3	1.97	0.45
26:14:44:THR:O	26:14:44:THR:OG1	2.24	0.45
32:1a:370:C:H2'	32:1a:371:G:C8	2.51	0.45
32:1a:1153:C:OP1	41:1j:13:HIS:HE1	2.00	0.45
1:2A:271(H):G:H2'	1:2A:271(I):G:H8	1.81	0.45
1:2A:811:U:H2'	11:2P:21:ARG:HA	1.97	0.45
1:2A:1252:G:N1	16:2U:37:GLU:OE2	2.43	0.45
10:2O:70:LYS:HB3	10:2O:70:LYS:HE2	1.78	0.45
16:2U:8:VAL:HG13	16:2U:12:ARG:HE	1.80	0.45
32:2a:25:C:H5'	32:2a:524:G:H1'	1.99	0.45
32:2a:279:A:OP2	48:2q:95:TYR:OH	2.28	0.45
32:2a:1315:U:H2'	32:2a:1316:G:O4'	2.17	0.45
32:2a:1401:G:C2	32:2a:1402:4OC:H1'	2.51	0.45
32:2a:1465:C:H2'	32:2a:1466:C:O4'	2.17	0.45
47:2p:15:PRO:HD2	47:2p:42:ARG:HD2	1.98	0.45
6:1G:109:VAL:C	6:1G:112:PRO:HD2	2.41	0.45
22:10:10:THR:HG22	22:10:12:ASN:N	2.30	0.45
27:15:40:LYS:HE2	27:15:44:THR:O	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1065:U:H1'	32:1a:1066:C:OP2	2.17	0.45
32:1a:1291:G:P	38:1g:41:ARG:HH21	2.40	0.45
35:1d:178:VAL:HG12	35:1d:179:GLU:H	1.81	0.45
35:1d:194:LEU:HD12	35:1d:194:LEU:HA	1.68	0.45
44:1m:76:ALA:O	44:1m:80:ARG:HG2	2.17	0.45
1:2A:1803:A:H2'	1:2A:1804:C:O4'	2.17	0.45
1:2A:2122:U:H2'	1:2A:2123:G:H8	1.81	0.45
1:2A:2164:C:H3'	1:2A:2165:G:C8	2.51	0.45
32:2a:176:C:H2'	32:2a:177:C:C6	2.52	0.45
32:2a:540:G:H2'	32:2a:541:G:O4'	2.16	0.45
33:2b:77:ALA:HB2	33:2b:211:ILE:HD13	1.97	0.45
34:2c:22:TRP:CD1	34:2c:59:ARG:HG3	2.51	0.45
48:2q:74:LEU:HD23	48:2q:74:LEU:HA	1.81	0.45
1:1A:639:U:H2'	1:1A:640:C:H6	1.81	0.45
1:1A:897:C:H2'	1:1A:898:C:C6	2.52	0.45
1:1A:2820:A:P	13:1R:2:ARG:HH22	2.40	0.45
4:1E:54:GLN:NE2	4:1E:76:ARG:HG2	2.32	0.45
17:1V:95:LEU:HD22	17:1V:97:LYS:HE3	1.99	0.45
20:1Y:20:TYR:CE2	20:1Y:43:ASN:HA	2.51	0.45
25:13:38:GLU:HB3	25:13:40:THR:HG23	1.99	0.45
32:1a:632:A:H3'	32:1a:633:G:H8	1.82	0.45
32:1a:1016:A:H2'	32:1a:1017:G:O4'	2.17	0.45
35:1d:158:ILE:H	35:1d:158:ILE:HG13	1.64	0.45
35:1d:173:TRP:CZ3	35:1d:174:LEU:HD11	2.52	0.45
36:1e:50:GLU:HB2	36:1e:53:LEU:HD13	1.98	0.45
1:2A:570:G:O6	60:2A:3805:HOH:O	2.17	0.45
1:2A:585:G:OP2	60:2A:3873:HOH:O	2.20	0.45
1:2A:994:C:O2'	1:2A:996:A:OP1	2.33	0.45
1:2A:1027:A:N6	1:2A:1126:A:C4	2.85	0.45
1:2A:2206:G:H8	1:2A:2207:G:N7	2.15	0.45
1:2A:2590:A:O3'	3:2D:239:ARG:NH2	2.50	0.45
1:2A:2822:G:OP2	60:2A:3876:HOH:O	2.21	0.45
2:2B:13:A:H5"	2:2B:15:A:C6	2.51	0.45
2:2B:81:G:N7	60:2B:311:HOH:O	2.36	0.45
6:2G:16:ARG:O	6:2G:20:ILE:HG13	2.17	0.45
6:2G:19:LEU:HD22	6:2G:23:PHE:HE2	1.81	0.45
20:2Y:56:PRO:C	20:2Y:58:GLY:H	2.25	0.45
32:2a:539:A:H2'	32:2a:540:G:H8	1.82	0.45
32:2a:939:G:H2'	32:2a:940:C:C6	2.52	0.45
32:2a:1490:C:H2'	32:2a:1491:G:H8	1.81	0.45
33:2b:16:HIS:CB	33:2b:210:SER:HB3	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:219:VAL:HA	33:2b:222:ILE:HD11	1.98	0.45
38:2g:73:MET:HE2	38:2g:90:GLU:HG3	1.98	0.45
40:2i:16:ARG:HB2	40:2i:64:THR:HB	1.99	0.45
50:2s:63:THR:HB	50:2s:65:ASN:HD22	1.81	0.45
51:2t:24:LEU:HD12	51:2t:24:LEU:HA	1.87	0.45
1:1A:365:C:H5"	60:1A:5477:HOH:O	2.17	0.45
1:1A:446:G:H5"	60:1A:5068:HOH:O	2.17	0.45
1:1A:652(E):G:H3'	1:1A:652(F):G:H8	1.81	0.45
1:1A:1069:A:H5"	1:1A:1070:A:H2	1.82	0.45
1:1A:1174:A:H4'	1:1A:1175:U:OP1	2.16	0.45
1:1A:2123:G:H1	1:1A:2175:C:H42	1.65	0.45
1:1A:2747:G:OP1	7:1H:138:LYS:NZ	2.44	0.45
3:1D:145:VAL:HG12	3:1D:146:GLU:O	2.17	0.45
15:1T:78:LEU:N	60:1T:302:HOH:O	2.49	0.45
32:1a:328:C:H4'	32:1a:329:A:H5"	1.97	0.45
32:1a:453:A:H4'	47:1p:72:ARG:HD3	1.99	0.45
32:1a:487:A:H2'	32:1a:488:C:O4'	2.17	0.45
33:1b:218:ALA:O	33:1b:222:ILE:HG13	2.17	0.45
34:1c:63:ASN:N	34:1c:63:ASN:OD1	2.49	0.45
40:1i:29:ASN:N	40:1i:63:ILE:O	2.37	0.45
1:2A:81:G:N7	60:2A:4015:HOH:O	2.36	0.45
1:2A:1062:G:N7	1:2A:1070:A:H1'	2.32	0.45
1:2A:1178:C:H2'	1:2A:1179:C:C6	2.52	0.45
1:2A:2092:U:H4'	1:2A:2093:G:O5'	2.17	0.45
1:2A:2849:U:H4'	1:2A:2868:A:C2	2.52	0.45
6:2G:122:PRO:HB3	6:2G:170:ARG:HH12	1.81	0.45
9:2N:137:LYS:NZ	9:2N:139:GLU:OE2	2.48	0.45
10:2O:22:ILE:HG12	10:2O:40:VAL:O	2.17	0.45
11:2P:128:HIS:NE2	11:2P:148:LEU:HD11	2.31	0.45
14:2S:105:ALA:O	14:2S:110:LEU:HB2	2.17	0.45
32:2a:685:G:C2	32:2a:686:U:C4	3.05	0.45
32:2a:981:U:H5'	45:2n:21:TYR:CE2	2.52	0.45
32:2a:987:G:H2'	32:2a:988:G:H8	1.81	0.45
32:2a:1028:C:C2	32:2a:1033:G:N2	2.77	0.45
33:2b:187:LEU:HA	33:2b:201:ILE:HB	1.99	0.45
42:2k:85:ARG:HG2	42:2k:111:ASP:O	2.17	0.45
46:2o:55:GLY:HA2	46:2o:58:MET:HE2	1.98	0.45
53:2y:3:MET:HE3	53:2y:3:MET:HB2	1.75	0.45
1:1A:1796:U:H2'	1:1A:1797:C:H6	1.80	0.44
1:1A:2130:U:O2'	1:1A:2133:G:O2'	2.35	0.44
1:1A:2239:G:H5'	3:1D:251:GLY:HA3	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:1D:221:VAL:HG22	3:1D:226:MET:HE2	1.99	0.44
5:1F:53:THR:HG23	5:1F:55:GLY:H	1.82	0.44
6:1G:59:GLU:OE1	6:1G:153:ARG:NH2	2.50	0.44
6:1G:104:GLU:HG3	6:1G:108:ASN:ND2	2.32	0.44
8:1I:81:VAL:HG22	8:1I:145:VAL:O	2.17	0.44
10:1O:16:ALA:HB2	10:1O:52:VAL:HG21	1.99	0.44
32:1a:165:C:H2'	32:1a:166:G:H8	1.81	0.44
32:1a:1402:4OC:O5'	32:1a:1402:4OC:H6	2.16	0.44
40:1i:18:PHE:HB2	40:1i:62:TYR:O	2.18	0.44
41:1j:30:SER:O	41:1j:30:SER:OG	2.26	0.44
42:1k:124:LYS:HE3	42:1k:125:PHE:CE2	2.52	0.44
50:1s:12:ASP:C	50:1s:14:HIS:H	2.25	0.44
1:2A:705:A:C2	1:2A:727:A:H1'	2.52	0.44
1:2A:889:C:HO2'	1:2A:890:A:H8	1.63	0.44
1:2A:2570:G:H2'	1:2A:2571:C:O4'	2.17	0.44
7:2H:121:ILE:HD13	7:2H:121:ILE:HA	1.88	0.44
10:2O:35:VAL:HG11	10:2O:103:ALA:HB3	1.98	0.44
32:2a:21:G:H2'	32:2a:22:G:C8	2.52	0.44
32:2a:866:C:H4'	32:2a:919:A:H5'	2.00	0.44
43:2l:47:LYS:HB2	43:2l:47:LYS:HE3	1.72	0.44
1:1A:9:U:OP1	9:1N:115:ARG:NH2	2.51	0.44
1:1A:185:U:H4'	1:1A:218:A:H4'	1.99	0.44
1:1A:1210:A:H5"	1:1A:1212:G:O4'	2.18	0.44
1:1A:1330:C:O2'	1:1A:1331:A:H5'	2.17	0.44
1:1A:2134:A:H2'	1:1A:2134:A:N3	2.33	0.44
60:1A:4104:HOH:O	4:1E:110:GLY:O	2.21	0.44
8:1I:93:THR:HG22	8:1I:119:PRO:HB3	1.98	0.44
23:1I:80:LEU:HB3	23:1I:82:LEU:HG	1.97	0.44
32:1a:503:C:H2'	32:1a:504:C:H6	1.83	0.44
38:1g:41:ARG:O	38:1g:45:ASP:HB2	2.17	0.44
40:1i:53:VAL:HG21	40:1i:85:LEU:HD13	1.98	0.44
43:1l:112:ASP:C	43:1l:114:LYS:HZ3	2.25	0.44
1:2A:994:C:OP2	16:2U:54:LYS:NZ	2.50	0.44
1:2A:1815:A:OP2	3:2D:54:ARG:NH2	2.50	0.44
1:2A:2377:A:H2'	1:2A:2378:A:C8	2.51	0.44
60:2A:4030:HOH:O	16:2U:5:LYS:HG2	2.17	0.44
4:2E:105:THR:HG21	4:2E:164:ARG:NH1	2.32	0.44
6:2G:80:PHE:O	6:2G:82:LEU:N	2.50	0.44
7:2H:117:PRO:HG3	7:2H:123:PHE:CE2	2.53	0.44
9:2N:91:LEU:HA	9:2N:91:LEU:HD23	1.75	0.44
9:2N:99:LEU:HD22	9:2N:103:VAL:HG23	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:2O:29:ASN:N	10:2O:29:ASN:OD1	2.49	0.44
11:2P:1:MET:HG2	11:2P:5:ASP:HB2	1.99	0.44
14:2S:25:ARG:NH1	14:2S:42:ASP:OD1	2.51	0.44
21:2Z:27:VAL:HG23	21:2Z:36:LYS:HA	1.99	0.44
32:2a:176:C:H2'	32:2a:177:C:H6	1.83	0.44
32:2a:324:G:N7	60:2a:3361:HOH:O	2.36	0.44
33:2b:69:LEU:HB3	33:2b:162:ILE:HG22	1.97	0.44
41:2j:9:ARG:O	41:2j:16:LEU:HD21	2.16	0.44
1:1A:878:A:H2'	1:1A:879:G:H5'	1.99	0.44
1:1A:2273:A:H2'	1:1A:2274:A:C8	2.52	0.44
1:1A:2563:U:O2'	10:1O:28:SER:HB2	2.18	0.44
3:1D:242:ARG:HG3	3:1D:242:ARG:NH1	2.30	0.44
6:1G:7:LEU:HD23	6:1G:7:LEU:HA	1.84	0.44
11:1P:135:LEU:HD23	11:1P:135:LEU:HA	1.73	0.44
32:1a:396:G:O2'	32:1a:398:C:OP1	2.24	0.44
33:1b:219:VAL:C	33:1b:221:LEU:H	2.26	0.44
38:1g:50:ILE:HD11	38:1g:58:PRO:HA	1.99	0.44
40:1i:92:TYR:HB3	40:1i:96:LEU:HD12	1.99	0.44
1:2A:1290:C:H2'	1:2A:1291:C:H6	1.83	0.44
1:2A:2286:A:H4'	1:2A:2287:A:O4'	2.18	0.44
1:2A:2689:U:P	1:2A:2719:G:H22	2.40	0.44
4:2E:7:VAL:HG13	4:2E:27:LEU:HB3	1.99	0.44
7:2H:140:LYS:HB2	7:2H:140:LYS:HE3	1.79	0.44
17:2V:19:LYS:HB2	17:2V:19:LYS:HE3	1.83	0.44
24:22:58:ALA:O	24:22:62:THR:OG1	2.34	0.44
32:2a:60:A:H4'	32:2a:61:G:O5'	2.17	0.44
32:2a:216:G:H2'	32:2a:217:C:C6	2.53	0.44
32:2a:573:A:N3	32:2a:883:C:O2'	2.49	0.44
32:2a:1277:C:H4'	32:2a:1281:U:H5	1.82	0.44
32:2a:1515:C:H2'	32:2a:1516:G:H8	1.81	0.44
35:2d:156:GLU:HB3	35:2d:160:GLN:HE21	1.81	0.44
39:2h:110:ALA:HB1	39:2h:133:LEU:HD21	1.99	0.44
45:2n:32:SER:O	45:2n:40:CYS:HA	2.16	0.44
48:2q:40:LYS:HD3	48:2q:42:TYR:CZ	2.53	0.44
50:2s:41:VAL:HG13	50:2s:43:GLU:H	1.82	0.44
51:2t:33:ILE:HG12	51:2t:62:LEU:HB3	1.98	0.44
1:1A:548:A:H61	17:1V:19:LYS:H	1.65	0.44
1:1A:1824:G:O3'	3:1D:249:PRO:HD3	2.16	0.44
1:1A:2017:U:O2	27:15:10:LYS:HB2	2.18	0.44
1:1A:2127:G:C6	1:1A:2128:C:C4	3.06	0.44
1:1A:2267:A:H5"	1:1A:2268:A:H5'	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2405:G:O2'	1:1A:2406:U:OP1	2.26	0.44
1:1A:2406:U:H2'	1:1A:2406:U:OP2	2.17	0.44
7:1H:154:PRO:HB3	7:1H:163:TYR:CZ	2.52	0.44
8:1I:92:VAL:HG11	8:1I:144:VAL:HG11	1.99	0.44
9:1N:58:ASP:OD1	9:1N:58:ASP:N	2.50	0.44
11:1P:63:PRO:HG2	30:18:25:MET:HB2	1.99	0.44
32:1a:620:C:H2'	32:1a:621:A:O4'	2.18	0.44
32:1a:1151:A:O2'	32:1a:1152:A:H8	2.01	0.44
39:1h:77:GLU:OE2	39:1h:81:HIS:NE2	2.36	0.44
1:2A:27:G:O2'	1:2A:28:A:OP2	2.32	0.44
1:2A:911:A:H2'	12:2Q:9:TYR:OH	2.17	0.44
5:2F:46:ARG:HB3	5:2F:48:THR:HG23	1.98	0.44
7:2H:74:ASN:O	7:2H:78:GLY:N	2.51	0.44
20:2Y:13:VAL:HG12	20:2Y:74:PRO:HA	1.98	0.44
21:2Z:43:GLU:O	21:2Z:47:VAL:HG23	2.17	0.44
26:24:58:ARG:HA	26:24:58:ARG:HD2	1.67	0.44
32:2a:1486:G:H2'	32:2a:1487:G:O4'	2.18	0.44
41:2j:8:LEU:HB2	41:2j:70:ARG:HB2	2.00	0.44
42:2k:27:ASN:OD1	42:2k:28:THR:N	2.45	0.44
47:2p:70:ALA:HA	47:2p:73:LEU:HD12	1.98	0.44
1:1A:784:A:N6	3:1D:229:VAL:HG11	2.33	0.44
1:1A:1007:C:OP1	9:1N:37:LYS:NZ	2.43	0.44
1:1A:1712:C:H2'	1:1A:1713:U:O4'	2.17	0.44
1:1A:1784:A:H4'	1:1A:1785:A:O5'	2.18	0.44
2:1B:48:A:H2'	2:1B:49:C:C6	2.53	0.44
8:1I:3:VAL:HG12	8:1I:38:LEU:HA	1.99	0.44
10:1O:68:GLU:HB3	10:1O:78:ARG:HB2	1.99	0.44
15:1T:106:SER:O	15:1T:110:ILE:HG13	2.17	0.44
32:1a:201:C:H42	32:1a:216:G:H1	1.65	0.44
32:1a:508:C:OP1	35:1d:209:ARG:NH2	2.51	0.44
32:1a:1232:U:H5"	40:1i:124:GLN:O	2.17	0.44
32:1a:1277:C:H1'	32:1a:1282:C:O2	2.17	0.44
36:1e:148:VAL:HG21	39:1h:107:LEU:HB3	1.98	0.44
1:2A:784:A:C5	3:2D:229:VAL:HG21	2.52	0.44
1:2A:1124:C:OP1	60:2A:3880:HOH:O	2.21	0.44
1:2A:1412:A:H2'	1:2A:1413:G:C8	2.53	0.44
1:2A:1417:C:H2'	1:2A:1418:G:O4'	2.18	0.44
1:2A:1914:C:H2'	1:2A:1915:5MU:O4'	2.17	0.44
10:2O:9:GLU:O	10:2O:83:ALA:HA	2.17	0.44
32:2a:552:U:H4'	43:2l:87:GLY:HA2	1.99	0.44
32:2a:1346:A:N1	32:2a:1374:A:H5"	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:2g:56:GLN:HE21	38:2g:61:VAL:HG21	1.82	0.44
40:2i:53:VAL:HG21	40:2i:92:TYR:CZ	2.52	0.44
44:2m:13:LYS:O	44:2m:45:VAL:HG23	2.17	0.44
1:1A:489:G:N7	18:1W:49:LYS:NZ	2.66	0.44
1:1A:548:A:N6	17:1V:19:LYS:H	2.16	0.44
1:1A:678:C:H5"	60:1A:4608:HOH:O	2.18	0.44
1:1A:1652:A:O2'	1:1A:1653:G:H5'	2.18	0.44
1:1A:1771:C:OP1	60:1A:4186:HOH:O	2.21	0.44
1:1A:2421:G:OP2	60:1A:4190:HOH:O	2.21	0.44
11:1P:93:GLY:N	11:1P:123:LEU:HD22	2.32	0.44
14:1S:43:GLU:OE2	22:10:49:LYS:HE3	2.17	0.44
18:1W:18:ARG:NH1	18:1W:76:VAL:O	2.50	0.44
32:1a:269:C:H2'	32:1a:270:A:H8	1.81	0.44
32:1a:630:G:H2'	32:1a:631:G:O4'	2.17	0.44
1:2A:315:G:H2'	1:2A:316:C:C6	2.53	0.44
1:2A:390:A:H4'	1:2A:391:G:H5'	2.00	0.44
1:2A:1027:A:C6	1:2A:1126:A:C4	3.06	0.44
1:2A:1557:C:H5"	1:2A:1558:A:OP2	2.17	0.44
1:2A:2820:A:O2'	1:2A:2821:A:OP1	2.30	0.44
4:2E:181:LEU:HD12	4:2E:181:LEU:HA	1.65	0.44
20:2Y:34:LYS:HD3	20:2Y:36:ALA:HB2	2.00	0.44
21:2Z:182:LYS:HD2	60:2Z:306:HOH:O	2.17	0.44
26:24:40:HIS:O	26:24:44:THR:HG22	2.18	0.44
32:2a:110:C:H2'	32:2a:111:G:O4'	2.18	0.44
32:2a:1055:A:C6	32:2a:1206:G:C5	3.06	0.44
32:2a:1281:U:H5"	32:2a:1282:C:H5	1.82	0.44
37:2f:38:GLU:OE1	37:2f:64:GLN:NE2	2.43	0.44
40:2i:79:LEU:HD22	40:2i:104:ARG:HB2	1.98	0.44
53:2y:10:MET:HG2	53:2y:12:ILE:HD11	2.00	0.44
1:1A:1226:A:OP1	17:1V:84:LYS:NZ	2.44	0.44
1:1A:1289:C:H2'	1:1A:1290:C:C6	2.53	0.44
6:1G:124:SER:HB2	6:1G:131:TYR:CE1	2.52	0.44
10:1O:68:GLU:H	10:1O:68:GLU:CD	2.24	0.44
18:1W:67:ASP:OD1	18:1W:67:ASP:N	2.45	0.44
19:1X:60:ARG:NH1	29:17:47:ARG:HH12	2.16	0.44
27:15:33:CYS:HB2	27:15:40:LYS:HD3	2.00	0.44
32:1a:69:G:H2'	32:1a:70:G:H8	1.83	0.44
1:2A:480:A:OP2	20:2Y:47:LYS:HD3	2.18	0.44
1:2A:1668:A:O2'	1:2A:1674:G:N7	2.45	0.44
1:2A:2438:U:O2'	1:2A:2440:C:OP1	2.27	0.44
1:2A:2687:U:H2'	1:2A:2688:U:O4'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2B:28:C:H2'	2:2B:29:A:O4'	2.18	0.44
7:2H:30:LYS:HG3	7:2H:80:SER:O	2.17	0.44
14:2S:41:ASP:OD2	14:2S:44:LYS:HB2	2.18	0.44
17:2V:40:LEU:HB2	17:2V:46:VAL:HG13	1.99	0.44
32:2a:437:U:H5"	35:2d:155:LEU:HD11	1.99	0.44
32:2a:964:A:N3	32:2a:969:A:O2'	2.40	0.44
32:2a:1015:A:H1'	32:2a:1219:U:H5'	1.99	0.44
32:2a:1073:U:H2'	32:2a:1074:G:H8	1.82	0.44
34:2c:20:SER:HB2	34:2c:40:ARG:HH21	1.82	0.44
37:2f:22:GLU:OE2	37:2f:82:ARG:NE	2.50	0.44
38:2g:78:ARG:HB2	38:2g:156:TRP:HZ3	1.83	0.44
38:2g:115:ARG:HG2	38:2g:118:VAL:HB	1.99	0.44
1:1A:1075:C:O2'	1:1A:1076:C:H2'	2.17	0.44
1:1A:1086:A:H3'	1:1A:1086:A:N3	2.32	0.44
7:1H:164:TYR:HB2	7:1H:167:GLU:HB2	2.00	0.44
9:1N:67:LEU:O	9:1N:88:GLU:HG3	2.17	0.44
27:15:34:PRO:O	27:15:37:LYS:NZ	2.51	0.44
33:1b:162:ILE:O	33:1b:185:ILE:HG12	2.18	0.44
36:1e:90:VAL:O	36:1e:120:THR:HA	2.18	0.44
44:1m:32:GLU:HG2	44:1m:64:TRP:HZ2	1.83	0.44
45:1n:37:PHE:HZ	45:1n:56:VAL:HG21	1.82	0.44
1:2A:686:G:N2	1:2A:788:A:H61	2.16	0.44
1:2A:813:U:H2'	1:2A:814:C:C6	2.53	0.44
1:2A:1529:G:C2'	1:2A:1530:C:H5'	2.48	0.44
1:2A:2104:G:N7	1:2A:2186:G:N3	2.66	0.44
60:2A:4163:HOH:O	27:25:15:ARG:HG2	2.18	0.44
5:2F:31:HIS:HB2	11:2P:9:ASN:OD1	2.18	0.44
10:2O:77:ILE:HB	15:2T:74:ARG:HD3	1.99	0.44
17:2V:95:LEU:HD22	17:2V:97:LYS:HD3	2.00	0.44
21:2Z:180:VAL:HG13	21:2Z:183:LEU:HD12	2.00	0.44
32:2a:946:A:H2'	32:2a:947:G:C8	2.53	0.44
32:2a:1411:C:H2'	32:2a:1412:C:C6	2.53	0.44
33:2b:115:LEU:O	33:2b:119:GLU:N	2.37	0.44
39:2h:38:ILE:HD12	39:2h:111:ILE:HG23	2.00	0.44
1:1A:869:G:OP2	60:1A:4187:HOH:O	2.21	0.44
1:1A:2689:U:H4'	1:1A:2690:C:H5'	1.99	0.44
3:1D:242:ARG:NH1	60:1D:413:HOH:O	2.46	0.44
32:1a:189(K):U:H2'	32:1a:189(L):G:C8	2.51	0.44
33:1b:100:GLY:N	33:1b:176:GLU:OE2	2.41	0.44
33:1b:163:PHE:CD1	33:1b:185:ILE:HG13	2.50	0.44
34:1c:105:GLU:HG2	34:1c:106:VAL:N	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1c:116:VAL:HG21	34:1c:202:ILE:HD11	1.99	0.44
40:1i:17:VAL:HA	40:1i:63:ILE:HG13	1.99	0.44
42:1k:40:ILE:HG22	42:1k:75:TYR:HD2	1.83	0.44
1:2A:38:A:H2'	1:2A:39:C:C6	2.53	0.44
1:2A:266:G:N2	1:2A:427:U:H1'	2.33	0.44
1:2A:614(C):A:C4	5:2F:180:GLY:HA2	2.52	0.44
4:2E:24:THR:HG23	4:2E:186:GLY:O	2.17	0.44
9:2N:103:VAL:HG11	9:2N:120:LEU:HD22	1.99	0.44
19:2X:35:THR:HG22	19:2X:37:THR:N	2.32	0.44
20:2Y:16:ALA:HB2	20:2Y:73:ARG:HD3	2.00	0.44
26:24:57:GLU:HA	26:24:58:ARG:HA	1.69	0.44
32:2a:542:G:H5'	35:2d:41:GLY:HA3	2.00	0.44
32:2a:977:A:O3'	32:2a:980:C:N4	2.51	0.44
32:2a:987:G:H2'	32:2a:988:G:C8	2.53	0.44
32:2a:1117:G:H5'	32:2a:1118:C:OP2	2.17	0.44
32:2a:1206:G:C6	32:2a:1207:2MG:C6	3.06	0.44
32:2a:1415:G:OP2	60:2a:3325:HOH:O	2.21	0.44
34:2c:123:GLN:O	34:2c:128:PHE:HB2	2.18	0.44
52:2u:6:ARG:HE	52:2u:15:ARG:HH12	1.64	0.44
1:1A:729:G:C6	3:1D:208:LYS:HB2	2.53	0.43
1:1A:868:U:C4	1:1A:869:G:N7	2.86	0.43
1:1A:1721:G:H1'	1:1A:1741:A:H61	1.83	0.43
1:1A:2869:G:H2'	1:1A:2870:C:O4'	2.18	0.43
3:1D:102:LYS:C	3:1D:103:ARG:HG2	2.42	0.43
12:1Q:57:HIS:HD2	12:1Q:117:ALA:HB2	1.83	0.43
22:10:38:VAL:HB	22:10:59:LEU:HB2	2.00	0.43
23:11:73:LEU:HD22	23:11:97:LEU:HB2	2.00	0.43
30:18:56:GLU:HG2	60:18:225:HOH:O	2.18	0.43
32:1a:1212:U:C5'	32:1a:1213:A:H5'	2.46	0.43
37:1f:28:ARG:O	37:1f:32:ASN:HB2	2.18	0.43
47:1p:36:ILE:HD12	47:1p:56:ALA:HB2	2.00	0.43
1:2A:42:G:H2'	1:2A:43:A:O4'	2.17	0.43
1:2A:277:C:H1'	1:2A:278:A:P	2.58	0.43
1:2A:1047:G:H21	1:2A:1111:A:H62	1.65	0.43
1:2A:1065:U:H4'	1:2A:1066:U:H5'	2.00	0.43
1:2A:2155:G:C2	1:2A:2156:G:H1'	2.53	0.43
1:2A:2173:A:OP2	1:2A:2174:C:H5	2.01	0.43
1:2A:2758:A:H2'	1:2A:2759:G:O4'	2.18	0.43
2:2B:75:G:H22	21:2Z:73:GLN:HE22	1.65	0.43
7:2H:20:ALA:HB1	7:2H:21:PRO:HD2	1.99	0.43
11:2P:97:PRO:HD3	11:2P:126:VAL:O	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:392:G:H2'	32:2a:393:A:C8	2.53	0.43
32:2a:1126:U:H3	41:2j:40:LEU:HD13	1.83	0.43
32:2a:1400:5MC:N3	53:2y:63:ALA:HA	2.32	0.43
33:2b:57:PHE:CE2	33:2b:185:ILE:HD11	2.53	0.43
36:2e:43:LEU:HB2	36:2e:136:MET:SD	2.58	0.43
37:2f:2:ARG:NE	37:2f:69:GLU:HG2	2.33	0.43
1:1A:542:C:O2'	1:1A:543:C:H5'	2.17	0.43
1:1A:2114:A:O2'	1:1A:2168:G:H5'	2.17	0.43
3:1D:108:PRO:HD2	3:1D:111:LEU:HG	2.00	0.43
3:1D:242:ARG:HG3	60:1D:413:HOH:O	2.18	0.43
6:1G:110:ALA:O	6:1G:140:ILE:HG23	2.17	0.43
15:1T:1:MET:HE2	15:1T:3:ARG:HG3	1.99	0.43
22:10:10:THR:HA	60:10:216:HOH:O	2.17	0.43
27:15:40:LYS:HD2	27:15:46:CYS:HA	2.00	0.43
32:1a:73:G:H1	32:1a:96:U:H3	1.66	0.43
32:1a:625:G:H4'	47:1p:16:HIS:CD2	2.54	0.43
32:1a:1227:A:OP2	44:1m:111:LYS:NZ	2.34	0.43
32:1a:1236:A:H4'	32:1a:1304:G:H4'	1.99	0.43
38:1g:52:GLU:H	38:1g:52:GLU:HG2	1.39	0.43
50:1s:42:PRO:HA	50:1s:45:VAL:HG23	2.00	0.43
50:1s:62:ILE:HA	50:1s:66:MET:SD	2.58	0.43
1:2A:195:A:H5"	1:2A:196:A:O5'	2.17	0.43
1:2A:1160:G:C6	1:2A:1161:C:C4	3.06	0.43
1:2A:1655:A:OP1	60:2A:3881:HOH:O	2.21	0.43
1:2A:2472:G:N1	1:2A:2477:C:OP1	2.43	0.43
1:2A:2533:A:OP1	1:2A:2665:A:O2'	2.27	0.43
57:2A:3772:MPD:O2	60:2A:3872:HOH:O	2.20	0.43
2:2B:22:U:H2'	2:2B:23:G:C8	2.53	0.43
6:2G:136:ARG:HA	6:2G:154:GLY:HA3	2.00	0.43
6:2G:173:LEU:C	6:2G:178:PHE:HB2	2.43	0.43
7:2H:83:TYR:CE2	7:2H:138:LYS:HB2	2.52	0.43
14:2S:87:PHE:CZ	14:2S:102:ALA:HB2	2.53	0.43
17:2V:31:ALA:O	17:2V:61:VAL:HG22	2.18	0.43
32:2a:1075:C:H5"	33:2b:179:LYS:HE2	2.00	0.43
38:2g:49:ILE:HA	38:2g:52:GLU:HG2	1.99	0.43
50:2s:50:ALA:HB1	50:2s:57:HIS:HB3	2.00	0.43
1:1A:813:U:H2'	1:1A:814:C:C6	2.53	0.43
1:1A:2050:C:H1'	4:1E:156:MET:HE2	1.99	0.43
1:1A:2053:G:OP1	4:1E:144:ARG:HG2	2.18	0.43
2:1B:30:C:OP1	60:1B:304:HOH:O	2.21	0.43
6:1G:138:GLN:HB3	6:1G:153:ARG:O	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:1Q:35:VAL:HG13	12:1Q:130:LYS:HB3	2.00	0.43
32:1a:19:C:H2'	32:1a:20:U:C6	2.53	0.43
32:1a:588:G:OP2	60:1a:1922:HOH:O	2.21	0.43
32:1a:839:U:O2'	32:1a:840:C:H5'	2.18	0.43
32:1a:926:G:C6	32:1a:1505:G:C6	3.06	0.43
32:1a:1036:G:H2'	32:1a:1036:G:N3	2.33	0.43
32:1a:1492:A:H4'	32:1a:1493:A:C6	2.53	0.43
43:1l:27:LEU:HD12	43:1l:27:LEU:HA	1.78	0.43
47:1p:74:LEU:HD23	47:1p:79:VAL:HG11	2.00	0.43
53:1y:3:MET:HE3	53:1y:3:MET:HB3	1.71	0.43
1:2A:236:C:H2'	1:2A:237:C:C6	2.53	0.43
1:2A:1102:C:H2'	1:2A:1103:A:H8	1.84	0.43
1:2A:2051:A:OP2	60:2A:3884:HOH:O	2.21	0.43
1:2A:2173:A:H2'	1:2A:2174:C:H5'	2.01	0.43
1:2A:2693:A:H2'	1:2A:2694:G:C8	2.50	0.43
5:2F:53:THR:HG22	5:2F:56:GLU:H	1.83	0.43
5:2F:183:VAL:O	5:2F:187:VAL:HG23	2.18	0.43
16:2U:102:GLU:HG3	17:2V:2:PHE:CZ	2.53	0.43
17:2V:40:LEU:HB2	17:2V:46:VAL:CG1	2.48	0.43
21:2Z:130:PRO:C	21:2Z:132:ASN:H	2.26	0.43
32:2a:1325:C:OP1	52:2u:15:ARG:HD2	2.18	0.43
33:2b:87:ARG:HB3	33:2b:219:VAL:HG11	2.00	0.43
40:2i:100:GLY:O	40:2i:103:THR:HG22	2.17	0.43
47:2p:8:ARG:HB3	47:2p:28:ARG:NH1	2.33	0.43
47:2p:74:LEU:HG	47:2p:79:VAL:HG21	2.00	0.43
51:2t:30:LYS:HE3	51:2t:30:LYS:HB2	1.83	0.43
1:1A:41:C:H2'	1:1A:42:G:O4'	2.19	0.43
1:1A:65:C:H5'	19:1X:71:GLY:HA3	2.00	0.43
1:1A:492:A:H2'	1:1A:493:G:O4'	2.18	0.43
1:1A:515:A:H2	1:1A:1260:G:N3	2.16	0.43
1:1A:548:A:O2'	1:1A:549:G:OP1	2.32	0.43
1:1A:1385:G:O2'	1:1A:1396:U:O2	2.30	0.43
12:1Q:21:THR:HG23	12:1Q:99:PRO:O	2.18	0.43
16:1U:50:ARG:HB2	16:1U:53:ARG:NH2	2.33	0.43
32:1a:1157:A:H4'	32:1a:1158:C:O4'	2.18	0.43
47:1p:15:PRO:O	47:1p:16:HIS:ND1	2.52	0.43
51:1t:37:SER:O	51:1t:41:ILE:HG13	2.18	0.43
1:2A:1005:C:H2'	1:2A:1006:C:C6	2.53	0.43
1:2A:1263:U:C4	1:2A:1264:G:C6	3.06	0.43
1:2A:2537:U:H2'	1:2A:2538:C:C6	2.53	0.43
4:2E:1:MET:O	4:2E:84:PHE:HB2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:2H:144:VAL:O	7:2H:148:ILE:HG12	2.18	0.43
32:2a:353:A:H5'	32:2a:353:A:H8	1.84	0.43
35:2d:108:LEU:HD12	35:2d:108:LEU:HA	1.78	0.43
35:2d:158:ILE:HG23	35:2d:162:LEU:HD12	1.99	0.43
40:2i:53:VAL:C	40:2i:55:ALA:N	2.76	0.43
40:2i:55:ALA:HA	40:2i:58:HIS:CD2	2.54	0.43
1:1A:1022:G:N7	9:1N:66:LYS:HE2	2.34	0.43
1:1A:1176:G:H1'	1:1A:1177:A:C5'	2.47	0.43
2:1B:81:G:N7	56:1B:232:ARG:NH2	2.48	0.43
5:1F:140:LEU:HD12	5:1F:140:LEU:HA	1.85	0.43
7:1H:86:GLU:HB3	7:1H:165:ALA:HB2	2.01	0.43
32:1a:129(A):G:C6	32:1a:189(E):U:H4'	2.53	0.43
32:1a:838:G:N2	32:1a:849:C:C2	2.86	0.43
32:1a:1034:G:H2'	32:1a:1035:A:O4'	2.18	0.43
32:1a:1070:U:H2'	32:1a:1071:C:C6	2.54	0.43
32:1a:1317:C:O2	50:1s:37:ARG:NH2	2.43	0.43
32:1a:1408:A:C2'	32:1a:1409:C:H5'	2.49	0.43
33:1b:215:LEU:O	33:1b:219:VAL:HG23	2.19	0.43
38:1g:27:ILE:HD12	38:1g:40:ALA:HA	2.00	0.43
1:2A:1053:C:H4'	1:2A:1054:A:OP1	2.18	0.43
1:2A:1262:A:OP2	18:2W:97:LYS:NZ	2.50	0.43
1:2A:1359:A:N6	1:2A:1372:U:H3	2.13	0.43
1:2A:1359:A:N1	1:2A:1372:U:O4	2.52	0.43
1:2A:1514:U:H2'	1:2A:1515:G:H8	1.84	0.43
32:2a:1310:G:H2'	32:2a:1311:G:C8	2.53	0.43
33:2b:10:LEU:HG	33:2b:48:MET:HE1	1.99	0.43
33:2b:158:LEU:HD23	33:2b:182:ILE:HD11	2.00	0.43
37:2f:61:LEU:HB3	37:2f:63:TYR:HE2	1.83	0.43
46:2o:28:GLN:HE21	46:2o:66:LEU:HD21	1.83	0.43
51:2t:63:ILE:HD13	51:2t:80:ARG:HB3	1.99	0.43
1:1A:493:G:H2'	1:1A:494:G:O4'	2.19	0.43
1:1A:686:G:H8	29:17:6:GLN:O	2.01	0.43
1:1A:1678:G:H5"	1:1A:1678:G:N3	2.34	0.43
1:1A:1810:A:H2'	1:1A:1811:G:O4'	2.19	0.43
1:1A:2027:G:OP2	60:1A:4191:HOH:O	2.21	0.43
5:1F:12:LEU:HD13	5:1F:124:LEU:HD11	2.00	0.43
6:1G:181:ARG:HG3	6:1G:182:LYS:N	2.33	0.43
8:1I:101:LEU:HD23	8:1I:101:LEU:HA	1.87	0.43
20:1Y:9:LYS:HA	20:1Y:10:GLY:HA2	1.60	0.43
23:11:5:CYS:SG	23:11:62:VAL:HG23	2.59	0.43
32:1a:41:G:H2'	32:1a:42:G:H8	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:458:C:H2'	32:1a:460:G:O4'	2.19	0.43
32:1a:495:A:H4'	32:1a:496:A:OP1	2.18	0.43
32:1a:1002:G:H2'	32:1a:1003:G:O4'	2.18	0.43
32:1a:1173:G:H2'	32:1a:1174:G:H8	1.83	0.43
34:1c:52:LEU:CD1	34:1c:68:VAL:HG13	2.48	0.43
35:1d:193:ASP:N	35:1d:193:ASP:OD1	2.50	0.43
38:1g:54:THR:CB	38:1g:56:GLN:HE22	2.32	0.43
1:2A:824:A:H1'	1:2A:2358:G:N7	2.33	0.43
1:2A:888:C:P	44:2m:93:ARG:HD2	2.58	0.43
1:2A:1796:U:H2'	1:2A:1797:C:H6	1.81	0.43
55:2A:3771:MUL:C21	55:2A:3771:MUL:H163	2.48	0.43
2:2B:42:C:O2'	6:2G:66:GLN:HG2	2.18	0.43
20:2Y:77:PRO:HD2	20:2Y:106:LEU:HD23	2.01	0.43
26:24:45:GLY:C	26:24:47:GLN:H	2.26	0.43
32:2a:324:G:O6	60:2a:3324:HOH:O	2.21	0.43
32:2a:392:G:H2'	32:2a:393:A:H8	1.82	0.43
32:2a:520:A:C2	32:2a:536:C:H1'	2.53	0.43
32:2a:1151:A:N3	41:2j:39:PRO:HG3	2.33	0.43
32:2a:1400:5MC:C2	53:2y:63:ALA:HA	2.53	0.43
32:2a:1468:A:H2'	32:2a:1469:G:O4'	2.19	0.43
41:2j:54:PHE:HD1	41:2j:54:PHE:HA	1.73	0.43
48:2q:78:GLU:OE2	48:2q:81:ARG:HD3	2.19	0.43
1:1A:212:G:H2'	1:1A:213:A:O4'	2.19	0.43
1:1A:1654:A:OP1	13:1R:1:MET:N	2.45	0.43
1:1A:2180:U:H2'	1:1A:2181:G:O4'	2.19	0.43
1:1A:2882:A:OP1	13:1R:96:ARG:HD3	2.19	0.43
6:1G:103:LEU:HD23	6:1G:106:LEU:HD23	2.01	0.43
6:1G:179:PRO:HG3	26:14:43:TYR:OH	2.19	0.43
11:1P:140:ALA:O	25:23:38:GLU:HG2	2.19	0.43
32:1a:196:A:N3	32:1a:222:U:H1'	2.33	0.43
32:1a:540:G:H2'	32:1a:541:G:O4'	2.18	0.43
32:1a:814:A:H2'	32:1a:816:A:H5"	2.01	0.43
32:1a:1173:G:H2'	32:1a:1174:G:C8	2.54	0.43
35:1d:31:CYS:SG	35:1d:32:ALA:N	2.92	0.43
35:1d:112:VAL:HG22	35:1d:116:GLN:OE1	2.19	0.43
40:1i:17:VAL:HG11	40:1i:80:GLY:C	2.43	0.43
44:1m:48:LEU:HB3	44:1m:53:VAL:HG23	2.01	0.43
1:2A:309:G:N3	1:2A:329:G:O2'	2.50	0.43
1:2A:2012:G:OP1	18:2W:11:ARG:NH2	2.50	0.43
1:2A:2273:A:H2'	1:2A:2274:A:C8	2.53	0.43
1:2A:2823:A:OP1	4:2E:113:PHE:HB2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:2V:22:VAL:HG23	17:2V:23:GLU:O	2.18	0.43
21:2Z:48:PHE:CE1	21:2Z:52:SER:HA	2.54	0.43
32:2a:19:C:H5"	36:2e:86:ALA:CB	2.48	0.43
32:2a:258:G:H2'	32:2a:259:G:C8	2.52	0.43
32:2a:1068:G:H8	32:2a:1068:G:OP2	2.02	0.43
32:2a:1515:C:H2'	32:2a:1516:G:C8	2.54	0.43
1:1A:748:G:C8	18:1W:89:ALA:HB1	2.54	0.43
1:1A:888:C:H6	1:1A:888:C:H2'	1.40	0.43
1:1A:2390:U:P	30:18:35:GLN:HE22	2.42	0.43
1:1A:2771:C:H2'	1:1A:2772:C:C6	2.54	0.43
2:1B:24:G:N7	2:1B:56:G:H2'	2.34	0.43
32:1a:406:G:H5'	35:1d:5:ILE:CD1	2.47	0.43
32:1a:815:A:N7	32:1a:1509:C:O2'	2.48	0.43
32:1a:1125:U:O2'	32:1a:1127:G:N7	2.46	0.43
32:1a:1400:5MC:C2	53:1y:63:ALA:HA	2.54	0.43
39:1h:104:ARG:HD3	39:1h:104:ARG:HA	1.71	0.43
40:1i:89:ASN:O	40:1i:92:TYR:HB2	2.19	0.43
1:2A:1091:G:H2'	1:2A:1091:G:N3	2.34	0.43
1:2A:2684:U:H1'	10:2O:70:LYS:HD2	1.99	0.43
14:2S:49:VAL:HG22	14:2S:80:LEU:HD22	2.00	0.43
16:2U:97:ASP:HB3	60:2U:205:HOH:O	2.18	0.43
21:2Z:9:TYR:OH	21:2Z:61:LEU:HD23	2.19	0.43
32:2a:389:A:C5	32:2a:390:C:H1'	2.54	0.43
32:2a:743:U:H2'	32:2a:744:C:C6	2.54	0.43
32:2a:757:U:H2'	32:2a:758:G:O4'	2.19	0.43
32:2a:1071:C:H2'	32:2a:1072:G:H8	1.83	0.43
33:2b:215:LEU:HD23	33:2b:215:LEU:HA	1.91	0.43
34:2c:50:ALA:HB1	34:2c:72:LYS:HB2	2.00	0.43
36:2e:52:PRO:HA	36:2e:55:VAL:HG23	2.00	0.43
38:2g:62:PHE:HA	38:2g:124:LEU:HD22	2.01	0.43
48:2q:27:PHE:CZ	48:2q:36:ILE:HD11	2.53	0.43
1:1A:1239:G:H2'	1:1A:1240:U:O4'	2.19	0.43
1:1A:1452:A:H5"	60:1A:6494:HOH:O	2.19	0.43
1:1A:2341:G:N7	60:1A:4345:HOH:O	2.36	0.43
30:18:33:ASN:HA	30:18:36:LYS:HD2	2.01	0.43
32:1a:343:U:H1'	32:1a:347:G:N2	2.34	0.43
32:1a:444:C:H2'	32:1a:445:G:H8	1.84	0.43
32:1a:590:C:H2'	32:1a:591:U:C6	2.53	0.43
32:1a:973:G:H3'	32:1a:974:A:H5"	2.01	0.43
32:1a:1030(C):G:N7	32:1a:1031:G:N2	2.66	0.43
36:1e:78:HIS:CE1	36:1e:142:LEU:HD23	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:1q:81:ARG:HD2	48:1q:83:ASP:OD1	2.19	0.43
1:2A:1086:A:H4'	1:2A:1103:A:H2	1.84	0.43
1:2A:1144:G:C6	1:2A:1145:C:C4	3.06	0.43
1:2A:1239:G:H2'	1:2A:1240:U:O4'	2.19	0.43
1:2A:1683:C:H2'	1:2A:1684:C:C6	2.54	0.43
1:2A:2319:G:N1	14:2S:3:ARG:HA	2.33	0.43
4:2E:167:VAL:HG22	4:2E:170:LEU:HD11	2.00	0.43
5:2F:11:VAL:HG22	5:2F:125:LEU:HB2	2.00	0.43
9:2N:123:TYR:OH	9:2N:130:HIS:NE2	2.43	0.43
18:2W:4:LYS:HE2	18:2W:6:ILE:HD11	2.01	0.43
20:2Y:55:TYR:CZ	20:2Y:61:ILE:HG21	2.54	0.43
32:2a:179:A:H2'	32:2a:180:U:C6	2.54	0.43
32:2a:1262:C:H42	32:2a:1273:G:H1	1.66	0.43
47:2p:25:ARG:HD3	60:2p:103:HOH:O	2.19	0.43
51:2t:14:LYS:O	51:2t:18:GLN:HG3	2.19	0.43
1:1A:271(H):G:HO2'	1:1A:271(I):G:H8	1.61	0.43
1:1A:1175:U:HO2'	1:1A:1176:G:P	2.42	0.43
1:1A:2133:G:C2	1:1A:2157:G:H2'	2.54	0.43
14:1S:110:LEU:HD12	14:1S:110:LEU:HA	1.80	0.43
32:1a:414:A:H2'	32:1a:415:A:C8	2.53	0.43
32:1a:474:G:H2'	32:1a:475:G:C8	2.53	0.43
32:1a:1095:U:H5"	32:1a:1109:C:O2	2.19	0.43
32:1a:1492:A:H4'	32:1a:1493:A:C2	2.54	0.43
37:1f:72:VAL:HG23	37:1f:90:VAL:HG11	2.00	0.43
38:1g:111:ARG:HD3	38:1g:113:GLU:OE2	2.18	0.43
39:1h:51:VAL:HG12	39:1h:52:ASP:H	1.84	0.43
41:1j:64:GLU:HB3	45:1n:59:ALA:HB2	2.01	0.43
53:1y:48:PHE:CD2	53:1y:70:MET:HB2	2.54	0.43
1:2A:493:G:H2'	1:2A:494:G:O4'	2.18	0.43
1:2A:2061:G:H5"	1:2A:2503:2MA:C2	2.48	0.43
1:2A:2157:G:H8	1:2A:2157:G:O5'	2.02	0.43
1:2A:2758:A:C2	1:2A:2759:G:H1'	2.54	0.43
5:2F:117:ARG:NH2	5:2F:187:VAL:HA	2.34	0.43
6:2G:78:SER:OG	6:2G:79:ASN:N	2.52	0.43
14:2S:99:LYS:O	14:2S:103:GLU:HG3	2.19	0.43
18:2W:12:ILE:O	18:2W:101:SER:OG	2.33	0.43
32:2a:405:U:H5"	32:2a:406:G:O4'	2.19	0.43
32:2a:1236:A:OP2	52:2u:3:LYS:HE2	2.18	0.43
33:2b:168:THR:OG1	33:2b:192:SER:HA	2.19	0.43
34:2c:138:VAL:HG22	34:2c:151:VAL:HG23	2.00	0.43
1:1A:1359:A:H2'	1:1A:1360:A:H5'	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2127:G:N2	1:1A:2173:A:H1'	2.22	0.42
1:1A:2153:G:H5"	1:1A:2154:G:OP2	2.18	0.42
1:1A:2872:G:O2'	1:1A:2873:A:H5'	2.18	0.42
5:1F:53:THR:HB	5:1F:56:GLU:OE1	2.19	0.42
17:1V:21:ARG:HD3	17:1V:91:TYR:CE1	2.54	0.42
20:1Y:55:TYR:CE1	20:1Y:61:ILE:HG21	2.54	0.42
32:1a:590:C:H2'	32:1a:591:U:H6	1.83	0.42
32:1a:685:G:O2'	32:1a:686:U:H5'	2.19	0.42
32:1a:955:U:O2'	50:1s:83:HIS:HD2	2.02	0.42
34:1c:18:TRP:H	34:1c:18:TRP:HE3	1.65	0.42
39:1h:11:THR:HG22	39:1h:15:ASN:ND2	2.34	0.42
1:2A:299:A:N1	1:2A:322:A:O2'	2.39	0.42
1:2A:1243:G:H2'	1:2A:1244:G:O4'	2.19	0.42
1:2A:1462:C:H4'	1:2A:2703:C:H5'	2.01	0.42
1:2A:2114:A:H3'	1:2A:2115:G:C8	2.50	0.42
2:2B:17:C:H2'	2:2B:18:G:O4'	2.19	0.42
5:2F:176:LEU:HD23	5:2F:176:LEU:HA	1.86	0.42
14:2S:15:ARG:HB3	14:2S:19:LYS:HE2	2.00	0.42
17:2V:8:GLY:O	17:2V:10:LYS:NZ	2.49	0.42
24:22:38:GLN:HB3	24:22:44:LEU:HB2	2.00	0.42
32:2a:719:C:N4	49:2r:71:LYS:HE2	2.33	0.42
32:2a:1162:C:H42	32:2a:1174:G:H1	1.67	0.42
33:2b:20:GLU:HG3	33:2b:189:ASP:HB2	2.01	0.42
33:2b:111:ARG:HA	33:2b:111:ARG:HD3	1.81	0.42
40:2i:21:PRO:HA	40:2i:59:PHE:CD1	2.54	0.42
42:2k:22:HIS:HB3	42:2k:29:ILE:HB	2.01	0.42
46:2o:6:GLU:OE1	46:2o:6:GLU:N	2.52	0.42
46:2o:58:MET:HE2	46:2o:58:MET:HB2	1.69	0.42
53:2y:3:MET:HA	53:2y:37:PRO:HD2	1.99	0.42
1:1A:2100:G:H1	1:1A:2189:U:H3	1.67	0.42
1:1A:2141:G:C2'	1:1A:2142:C:H5'	2.49	0.42
1:1A:2563:U:H4'	10:1O:28:SER:HA	2.00	0.42
32:1a:1035:A:H2	32:1a:1036:G:N7	2.16	0.42
32:1a:1346:A:H2'	38:1g:10:ARG:HH22	1.83	0.42
36:1e:91:LEU:HG	36:1e:118:ILE:HD11	2.00	0.42
37:1f:19:LEU:HD21	37:1f:59:TYR:CZ	2.54	0.42
41:1j:61:GLU:OE1	45:1n:45:ARG:NE	2.46	0.42
44:1m:90:LEU:HD23	44:1m:93:ARG:HH21	1.84	0.42
1:2A:271(D):G:H2'	1:2A:271(E):U:C6	2.54	0.42
1:2A:1027:A:C2	1:2A:2488:A:H5'	2.54	0.42
1:2A:1186:G:H2'	1:2A:1187:G:O4'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2026:C:H2'	1:2A:2027:G:O4'	2.19	0.42
1:2A:2105:C:N4	1:2A:2184:G:H1	2.15	0.42
1:2A:2113:U:H2'	1:2A:2114:A:O4'	2.19	0.42
5:2F:149:ASP:OD1	5:2F:149:ASP:N	2.41	0.42
7:2H:22:GLY:C	7:2H:37:VAL:HG12	2.45	0.42
15:2T:95:ARG:HG2	15:2T:95:ARG:HH11	1.85	0.42
32:2a:109:A:C6	32:2a:326:G:C6	3.07	0.42
32:2a:352:C:H4'	32:2a:354:G:OP1	2.18	0.42
32:2a:542:G:OP1	35:2d:10:ARG:NH1	2.43	0.42
32:2a:583:A:H2'	32:2a:584:G:O4'	2.19	0.42
32:2a:1117:G:N2	32:2a:1180:A:O2'	2.52	0.42
34:2c:131:ARG:HD3	34:2c:166:GLU:HG2	2.01	0.42
44:2m:16:ASP:HA	44:2m:19:LEU:HD22	2.01	0.42
51:2t:89:ARG:O	51:2t:93:GLU:HG2	2.19	0.42
1:1A:207:A:H2'	1:1A:208:C:O4'	2.19	0.42
1:1A:1425:G:H2'	1:1A:1426:G:C8	2.55	0.42
1:1A:2127:G:O2'	1:1A:2173:A:H2	2.01	0.42
1:1A:2439:A:H5'	1:1A:2439:A:C8	2.54	0.42
3:1D:85:ASP:OD2	3:1D:88:ARG:NH1	2.48	0.42
8:1I:72:LEU:C	8:1I:74:ASN:N	2.75	0.42
32:1a:820:U:H4'	32:1a:821:G:OP2	2.19	0.42
32:1a:1118:C:H1'	32:1a:1179:A:C4	2.55	0.42
1:2A:1999:C:H4'	1:2A:2723:C:O2	2.19	0.42
1:2A:2147:G:C8	1:2A:2147:G:H3'	2.55	0.42
1:2A:2155:G:H3'	1:2A:2156:G:C8	2.47	0.42
4:2E:13:ARG:HG2	15:2T:58:ASN:HD21	1.84	0.42
4:2E:143:ASN:HD22	4:2E:147:PRO:CD	2.32	0.42
8:2I:89:TYR:O	8:2I:121:LYS:NZ	2.52	0.42
11:2P:63:PRO:HG2	30:28:25:MET:HB2	2.00	0.42
24:22:44:LEU:HD23	24:22:47:ASN:HA	2.00	0.42
32:2a:939:G:H1	32:2a:1344:C:H42	1.67	0.42
1:1A:987:G:O2'	1:1A:1000:A:N3	2.41	0.42
8:1I:72:LEU:O	8:1I:74:ASN:N	2.52	0.42
26:14:56:VAL:HG23	26:14:57:GLU:H	1.85	0.42
32:1a:735:C:H2'	32:1a:736:C:H6	1.85	0.42
32:1a:1179:A:O3'	40:1i:103:THR:HB	2.20	0.42
34:1c:116:VAL:O	34:1c:120:VAL:HG23	2.19	0.42
35:1d:105:VAL:HG13	35:1d:110:PHE:HB2	2.01	0.42
45:1n:7:ILE:O	45:1n:11:LYS:HE3	2.20	0.42
53:1y:38:HIS:O	53:1y:52:ALA:HA	2.20	0.42
1:2A:19:C:H2'	1:2A:20:C:H6	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:218:A:C2	1:2A:235:U:H4'	2.54	0.42
1:2A:937:U:H2'	1:2A:938:G:O4'	2.19	0.42
1:2A:1200:C:H5'	60:2A:3869:HOH:O	2.19	0.42
1:2A:1527:G:H5"	1:2A:1528:A:OP1	2.20	0.42
1:2A:1782:C:H1'	1:2A:2609:U:H5"	2.01	0.42
1:2A:2012:G:P	18:2W:11:ARG:HH22	2.42	0.42
1:2A:2647:U:H2'	1:2A:2648:C:C6	2.54	0.42
4:2E:111:ARG:HA	13:2R:1:MET:SD	2.60	0.42
7:2H:143:GLN:NE2	7:2H:147:ASN:OD1	2.50	0.42
28:26:38:LYS:HE3	28:26:38:LYS:HB3	1.85	0.42
32:2a:408:A:H4'	35:2d:112:VAL:HG21	2.02	0.42
32:2a:1151:A:H5"	41:2j:41:PRO:HA	2.02	0.42
33:2b:41:ILE:HD13	33:2b:41:ILE:HA	1.87	0.42
33:2b:118:LEU:HB3	33:2b:142:LEU:HD12	2.01	0.42
1:1A:645:C:H5'	1:1A:646:A:OP2	2.19	0.42
1:1A:1688:U:O2	1:1A:1700:A:H5'	2.20	0.42
1:1A:2129:C:N3	1:1A:2159:G:O6	2.52	0.42
1:1A:2347:C:H2'	1:1A:2348:U:C6	2.55	0.42
1:1A:2400:G:O6	60:1A:4188:HOH:O	2.21	0.42
6:1G:50:ALA:C	6:1G:52:ILE:H	2.26	0.42
6:1G:67:LYS:HD3	26:14:5:ILE:HB	2.02	0.42
7:1H:12:PRO:O	7:1H:15:VAL:HG13	2.20	0.42
12:1Q:55:VAL:HG12	12:1Q:64:ILE:HD12	2.01	0.42
20:1Y:81:LYS:HE2	20:1Y:81:LYS:HB3	1.87	0.42
32:1a:447:G:H2'	32:1a:485:G:N2	2.34	0.42
32:1a:738:C:H2'	32:1a:739:C:H6	1.84	0.42
32:1a:1137:C:H4'	32:1a:1138:G:N3	2.34	0.42
39:1h:29:SER:HB3	39:1h:32:LYS:HG3	2.01	0.42
40:1i:111:ARG:O	40:1i:113:LYS:NZ	2.52	0.42
43:1l:97:ARG:HB2	43:1l:98:TYR:CE2	2.54	0.42
44:1m:4:ILE:HA	44:1m:5:ALA:HA	1.74	0.42
1:2A:2251:OMG:H5'	60:2A:5327:HOH:O	2.18	0.42
1:2A:2740:A:C6	1:2A:2764:A:C8	3.08	0.42
10:2O:88:ASN:OD1	10:2O:92:GLU:N	2.44	0.42
21:2Z:57:ILE:HD12	21:2Z:71:VAL:HG23	2.01	0.42
32:2a:540:G:C6	32:2a:541:G:C5	3.08	0.42
32:2a:1288:A:N1	32:2a:1371:G:H1'	2.35	0.42
1:1A:1071:G:H1'	1:1A:1089:G:C8	2.54	0.42
1:1A:1180:C:H2'	1:1A:1181:C:C6	2.54	0.42
1:1A:2393:A:O2'	11:1P:60:MET:O	2.27	0.42
1:1A:2557:G:H2'	1:1A:2558:C:C6	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:1A:4056:MPD:HM2	57:1A:4056:MPD:H4	1.75	0.42
2:1B:23:G:O6	60:1B:302:HOH:O	2.20	0.42
5:1F:132:VAL:HA	5:1F:138:GLU:HB3	2.02	0.42
16:1U:17:ILE:HG23	16:1U:39:LEU:HD12	2.02	0.42
30:18:23:VAL:CG1	30:18:47:LYS:HD3	2.50	0.42
32:1a:977:A:H1'	32:1a:982:U:O4	2.19	0.42
32:1a:1073:U:O2'	33:1b:104:ASN:OD1	2.33	0.42
32:1a:1516:G:H2'	32:1a:1518:MA6:OP2	2.20	0.42
32:1a:1519:MA6:H8	32:1a:1519:MA6:O5'	2.19	0.42
35:1d:33:MET:HE3	35:1d:33:MET:HB3	1.74	0.42
35:1d:163:GLU:O	35:1d:166:LYS:HG2	2.18	0.42
38:1g:69:VAL:HG22	38:1g:135:VAL:HG22	2.01	0.42
44:1m:108:ARG:HA	44:1m:108:ARG:HD3	1.87	0.42
50:1s:50:ALA:HB1	50:1s:57:HIS:HB3	2.01	0.42
1:2A:30:G:H2'	1:2A:31:C:C6	2.54	0.42
1:2A:286:C:H2'	1:2A:287:C:C6	2.54	0.42
1:2A:455:C:N3	1:2A:472:A:H2'	2.34	0.42
1:2A:857:C:OP1	22:20:77:ARG:NH2	2.52	0.42
1:2A:2397:G:N2	1:2A:2420:C:H1'	2.34	0.42
1:2A:2441:C:OP2	1:2A:2586:C:O2'	2.37	0.42
10:2O:97:ARG:HE	10:2O:97:ARG:HB2	1.63	0.42
13:2R:118:GLU:CD	13:2R:118:GLU:H	2.26	0.42
23:21:67:ILE:N	23:21:68:PRO:HD2	2.34	0.42
32:2a:756:C:H2'	32:2a:757:U:O4'	2.20	0.42
32:2a:877:C:H5"	39:2h:88:LYS:HG2	2.01	0.42
32:2a:1323:G:H2'	32:2a:1324:A:H8	1.81	0.42
37:2f:91:VAL:HG12	37:2f:92:LYS:O	2.19	0.42
39:2h:114:THR:OG1	39:2h:117:GLY:O	2.35	0.42
43:2l:119:LYS:C	43:2l:121:GLY:H	2.28	0.42
48:2q:6:LEU:O	48:2q:58:GLU:HA	2.20	0.42
51:2t:72:LEU:HD23	51:2t:72:LEU:HA	1.91	0.42
1:1A:220:G:O2'	1:1A:233:A:N3	2.45	0.42
1:1A:458:G:O2'	29:17:39:ARG:HD3	2.19	0.42
1:1A:2065:C:H2'	1:1A:2066:C:C6	2.54	0.42
1:1A:2074:U:H2'	1:1A:2075:U:C6	2.54	0.42
10:1O:107:ARG:NH2	15:1T:36:GLU:OE2	2.53	0.42
13:1R:38:VAL:HG22	13:1R:112:ALA:HB2	2.02	0.42
32:1a:110:C:H2'	32:1a:111:G:O4'	2.19	0.42
32:1a:430:A:OP1	35:1d:9:CYS:HB2	2.20	0.42
33:1b:127:ILE:HD12	33:1b:130:ARG:NH1	2.34	0.42
35:1d:121:VAL:HG22	35:1d:126:ILE:HG13	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:1t:9:ASN:N	51:1t:9:ASN:OD1	2.53	0.42
53:1y:85:LEU:O	53:1y:89:GLN:HG2	2.19	0.42
1:2A:839:U:OP1	60:2A:3887:HOH:O	2.22	0.42
1:2A:1364:G:P	23:21:3:LYS:HG3	2.60	0.42
1:2A:1426:G:O2'	1:2A:1572:A:N6	2.51	0.42
1:2A:2304:G:H22	1:2A:2312:U:H3	1.67	0.42
4:2E:36:ARG:HG2	4:2E:47:VAL:HG12	2.01	0.42
6:2G:97:ASP:O	6:2G:101:ILE:HG13	2.19	0.42
9:2N:73:THR:HA	9:2N:83:LYS:O	2.20	0.42
20:2Y:8:LYS:HG2	20:2Y:97:ARG:HH12	1.85	0.42
21:2Z:7:ALA:HB3	21:2Z:61:LEU:HD12	2.02	0.42
21:2Z:54:HIS:CD2	21:2Z:101:PRO:HG3	2.55	0.42
31:29:13:LYS:HG2	31:29:28:GLU:CD	2.44	0.42
32:2a:22:G:H4'	32:2a:885:G:C8	2.55	0.42
32:2a:404:U:H2'	32:2a:405:U:C6	2.55	0.42
32:2a:560:U:H4'	32:2a:561:U:O5'	2.20	0.42
32:2a:1368:G:H5'	40:2i:112:LYS:O	2.20	0.42
33:2b:15:VAL:HB	33:2b:209:ARG:HB3	2.02	0.42
49:2r:53:ARG:HA	49:2r:56:THR:OG1	2.20	0.42
1:1A:784:A:C5	3:1D:229:VAL:HG21	2.55	0.42
1:1A:1611:C:OP1	60:1A:4195:HOH:O	2.22	0.42
1:1A:2354:G:H21	22:10:36:ILE:HD11	1.84	0.42
1:1A:2612:C:H5'	60:1A:4172:HOH:O	2.18	0.42
20:1Y:90:LEU:HD12	20:1Y:90:LEU:HA	1.67	0.42
21:1Z:130:PRO:C	21:1Z:132:ASN:H	2.28	0.42
21:1Z:183:LEU:HA	21:1Z:183:LEU:HD23	1.81	0.42
32:1a:408:A:OP1	35:1d:113:SER:OG	2.32	0.42
32:1a:453:A:C6	32:1a:454:C:C4	3.08	0.42
32:1a:1206:G:H2'	32:1a:1207:2MG:O4'	2.20	0.42
32:1a:1252:A:H2'	32:1a:1253:G:O4'	2.20	0.42
33:1b:158:LEU:HA	33:1b:158:LEU:HD12	1.83	0.42
48:1q:78:GLU:HG2	48:1q:79:SER:H	1.85	0.42
1:2A:328:U:H4'	20:2Y:68:HIS:CE1	2.54	0.42
1:2A:775:G:O3'	60:2A:3875:HOH:O	2.21	0.42
3:2D:275:LYS:HE3	3:2D:275:LYS:HB3	1.83	0.42
8:2I:104:GLN:HG2	8:2I:105:HIS:CD2	2.54	0.42
12:2Q:108:GLY:HA3	21:2Z:116:VAL:HG13	2.02	0.42
23:21:83:GLU:OE1	23:21:83:GLU:N	2.43	0.42
25:23:22:ALA:O	25:23:26:LEU:HG	2.19	0.42
32:2a:1032:G:C2'	32:2a:1033:G:H5'	2.50	0.42
32:2a:1397:C:O2	32:2a:1397:C:H2'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2b:24:TRP:HB3	33:2b:40:HIS:CE1	2.54	0.42
1:1A:271(H):G:O2'	1:1A:271(I):G:H8	2.02	0.42
1:1A:885:C:H2'	1:1A:886:C:O4'	2.19	0.42
1:1A:1223:G:OP2	60:1A:4194:HOH:O	2.22	0.42
1:1A:2022:U:O2'	1:1A:2617:C:H5'	2.19	0.42
1:1A:2336:A:H61	22:10:43:THR:CG2	2.32	0.42
1:1A:2811:G:N2	1:1A:2891:G:H1'	2.34	0.42
12:1Q:35:VAL:HA	12:1Q:101:ARG:O	2.19	0.42
18:1W:37:ARG:HG2	18:1W:38:TYR:CE2	2.55	0.42
32:1a:299:G:O5'	32:1a:299:G:H8	2.03	0.42
32:1a:591:U:H2'	32:1a:592:G:C8	2.55	0.42
32:1a:826:C:H2'	32:1a:827:U:C6	2.54	0.42
32:1a:988:G:C1'	32:1a:1014:A:H61	2.30	0.42
33:1b:76:GLN:HG2	33:1b:206:ASP:O	2.19	0.42
35:1d:65:ARG:NH1	35:1d:70:ILE:O	2.52	0.42
37:1f:11:ASN:HB3	37:1f:14:LEU:HG	2.01	0.42
1:2A:1287:A:C8	13:2R:104:ARG:HD3	2.55	0.42
1:2A:1514:U:H2'	1:2A:1515:G:C8	2.55	0.42
1:2A:1637:A:H4'	1:2A:2711:A:O2'	2.20	0.42
1:2A:2037:G:H2'	1:2A:2038:G:C8	2.55	0.42
1:2A:2104:G:O6	1:2A:2186:G:C5	2.73	0.42
1:2A:2389:G:H5"	1:2A:2390:U:O4'	2.20	0.42
6:2G:47:LYS:HB2	6:2G:81:LYS:O	2.20	0.42
7:2H:98:LEU:HD12	7:2H:98:LEU:HA	1.88	0.42
12:2Q:41:TRP:CD1	12:2Q:96:VAL:HG22	2.55	0.42
21:2Z:130:PRO:O	21:2Z:132:ASN:N	2.48	0.42
22:20:49:LYS:HG3	22:20:50:ASN:ND2	2.35	0.42
32:2a:130:A:N3	32:2a:263:A:O2'	2.51	0.42
32:2a:555:C:H2'	32:2a:556:C:C6	2.55	0.42
32:2a:985:C:H2'	32:2a:986:A:H8	1.84	0.42
32:2a:1024:G:C2'	32:2a:1025:U:H5"	2.49	0.42
33:2b:188:ALA:HB1	33:2b:192:SER:HB2	2.01	0.42
37:2f:99:ALA:HB2	49:2r:31:LEU:HD11	2.01	0.42
53:2y:45:PRO:HB2	53:2y:46:GLN:H	1.66	0.42
1:1A:218:A:C2	1:1A:235:U:H4'	2.55	0.42
1:1A:1432:C:H2'	1:1A:1433:U:O4'	2.20	0.42
1:1A:1745(A):C:H2'	1:1A:1746:G:O4'	2.19	0.42
1:1A:2115:G:H2'	1:1A:2117:A:H62	1.85	0.42
1:1A:2243:U:H2'	1:1A:2244:U:C6	2.55	0.42
1:1A:2698:U:H2'	1:1A:2699:C:C6	2.55	0.42
1:1A:2881:C:H2'	1:1A:2882:A:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:1A:4054:MUL:H152	55:1A:4054:MUL:O1	2.20	0.42
60:1A:4313:HOH:O	16:1U:52:ARG:HD2	2.20	0.42
6:1G:77:ILE:HG21	6:1G:80:PHE:CD2	2.55	0.42
15:1T:16:ARG:HG3	15:1T:18:ASP:OD1	2.19	0.42
15:1T:54:ARG:HA	15:1T:59:THR:OG1	2.20	0.42
20:1Y:56:PRO:C	20:1Y:58:GLY:H	2.28	0.42
26:14:69:LYS:HG3	50:1s:20:LEU:HD13	2.02	0.42
30:18:30:ARG:HD2	30:18:30:ARG:HA	1.93	0.42
32:1a:833:U:H2'	32:1a:834:C:H6	1.85	0.42
32:1a:1264:C:H2'	32:1a:1265:G:C8	2.54	0.42
32:1a:1479:C:H2'	32:1a:1480:G:H8	1.85	0.42
36:1e:78:HIS:CG	39:1h:104:ARG:HD2	2.55	0.42
39:1h:121:ASP:HB2	39:1h:125:ARG:NH2	2.35	0.42
1:2A:1048:A:OP2	1:2A:1109:C:N4	2.53	0.42
1:2A:1889:A:N1	1:2A:2234:G:H1'	2.34	0.42
1:2A:2102:U:H2'	1:2A:2103:C:C6	2.55	0.42
4:2E:97:LYS:N	4:2E:100:GLU:OE1	2.42	0.42
21:2Z:91:LEU:HA	21:2Z:91:LEU:HD12	1.82	0.42
27:25:16:ARG:HD2	27:25:20:ARG:NH1	2.35	0.42
32:2a:56:U:H2'	32:2a:57:G:H8	1.85	0.42
32:2a:367:U:O4	60:2a:3323:HOH:O	2.21	0.42
32:2a:659:U:H2'	32:2a:660:G:H8	1.85	0.42
32:2a:735:C:H2'	32:2a:736:C:C6	2.55	0.42
32:2a:1217:C:H2'	32:2a:1218:C:O4'	2.19	0.42
35:2d:191:ARG:HD2	35:2d:191:ARG:HA	1.72	0.42
39:2h:41:ARG:NH1	39:2h:123:GLU:OE2	2.44	0.42
1:1A:247:G:H4'	1:1A:386:G:C6	2.55	0.41
1:1A:1064:C:H3'	1:1A:1065:U:C5'	2.45	0.41
1:1A:1069:A:H5"	1:1A:1070:A:C2	2.55	0.41
1:1A:1688:U:H1'	1:1A:1701:A:C6	2.55	0.41
1:1A:2107:C:H5'	1:1A:2108:C:OP2	2.20	0.41
1:1A:2751:G:H4'	7:1H:4:ILE:HD11	2.02	0.41
16:1U:45:TYR:O	16:1U:49:HIS:N	2.48	0.41
28:16:11:LEU:HB2	28:16:21:TYR:HB2	2.02	0.41
32:1a:272:C:H2'	32:1a:273:A:H8	1.84	0.41
32:1a:438:G:H5'	35:1d:123:HIS:CD2	2.54	0.41
32:1a:741:G:H2'	32:1a:742:G:O4'	2.20	0.41
35:1d:108:LEU:HB3	35:1d:110:PHE:HE1	1.85	0.41
35:1d:157:LEU:HD23	35:1d:161:ASN:HD21	1.85	0.41
37:1f:44:GLY:HA2	37:1f:59:TYR:CZ	2.55	0.41
44:1m:70:LEU:O	44:1m:74:VAL:HG23	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:1y:33:HIS:O	53:1y:57:PRO:HD3	2.20	0.41
1:2A:414:C:H2'	1:2A:415:A:C8	2.55	0.41
1:2A:746:A:H2'	1:2A:2612:C:H5"	2.01	0.41
1:2A:1072:C:H5"	1:2A:1073:A:O5'	2.20	0.41
1:2A:1153:C:H2'	1:2A:1154:G:O4'	2.20	0.41
1:2A:1754:C:H2'	1:2A:1755:A:O4'	2.20	0.41
1:2A:2262:U:H4'	1:2A:2328:A:C2	2.55	0.41
1:2A:2655:G:O2'	1:2A:2664:G:O6	2.31	0.41
13:2R:2:ARG:NH1	13:2R:5:LYS:O	2.53	0.41
20:2Y:43:ASN:CG	20:2Y:65:ALA:HB3	2.45	0.41
22:20:82:ARG:HA	22:20:83:PRO:HD3	1.94	0.41
32:2a:858:G:O6	32:2a:869:G:H3'	2.20	0.41
32:2a:1128:C:H4'	32:2a:1148:U:O2	2.20	0.41
32:2a:1238:A:H2	32:2a:1241:G:N3	2.18	0.41
33:2b:16:HIS:CG	33:2b:210:SER:HB3	2.54	0.41
34:2c:77:ILE:O	34:2c:83:ARG:N	2.53	0.41
44:2m:70:LEU:HD22	44:2m:74:VAL:HG23	2.02	0.41
50:2s:51:VAL:O	50:2s:57:HIS:HA	2.20	0.41
1:1A:819:A:C4	1:1A:1189:A:C2	3.07	0.41
1:1A:1509(B):A:H2'	1:1A:1510:G:O4'	2.20	0.41
1:1A:1639:U:H4'	1:1A:2699:C:H4'	2.02	0.41
1:1A:2103:C:C2'	1:1A:2104:G:H5'	2.49	0.41
1:1A:2304:G:O2'	6:1G:156:ASP:OD1	2.37	0.41
3:1D:35:LYS:HE3	60:1D:510:HOH:O	2.19	0.41
6:1G:16:ARG:HE	6:1G:31:VAL:HG21	1.86	0.41
6:1G:50:ALA:HB1	6:1G:52:ILE:HG13	2.02	0.41
7:1H:137:ASP:HB3	7:1H:140:LYS:HB3	2.01	0.41
11:1P:71:VAL:HG22	11:1P:72:PRO:HA	2.01	0.41
11:1P:100:LEU:HD22	11:1P:105:LEU:HD12	2.02	0.41
13:1R:79:LEU:HD12	13:1R:83:ILE:HB	2.01	0.41
32:1a:33:A:H2'	32:1a:34:C:C6	2.56	0.41
32:1a:162:A:C8	32:1a:163:C:H1'	2.55	0.41
32:1a:257:G:C6	32:1a:258:G:C5	3.09	0.41
32:1a:638:G:H2'	32:1a:639:G:O4'	2.20	0.41
32:1a:841:U:H5	32:1a:848:C:H1'	1.85	0.41
32:1a:1201:A:H4'	32:1a:1202:G:O5'	2.19	0.41
32:1a:1367:C:H2'	32:1a:1368:G:O4'	2.20	0.41
39:1h:39:LEU:HB3	39:1h:45:ILE:HG12	2.02	0.41
44:1m:73:GLU:HG2	44:1m:77:ASN:ND2	2.35	0.41
48:1q:87:LYS:HD3	48:1q:87:LYS:HA	1.81	0.41
1:2A:286:C:H2'	1:2A:287:C:H6	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1766:U:H2'	1:2A:1767:C:C6	2.55	0.41
13:2R:82:GLU:O	13:2R:85:PRO:HD2	2.19	0.41
19:2X:94:GLY:HA3	19:2X:95:LEU:C	2.44	0.41
21:2Z:5:LEU:HD11	21:2Z:39:VAL:HB	2.02	0.41
21:2Z:93:ASP:CB	21:2Z:131:ARG:HH22	2.33	0.41
25:23:43:ILE:O	25:23:47:VAL:HG23	2.20	0.41
31:29:3:VAL:HA	31:29:35:ARG:O	2.19	0.41
32:2a:1202:G:H1'	45:2n:29:ARG:HD2	2.02	0.41
32:2a:1220:G:H2'	32:2a:1221:G:O4'	2.19	0.41
32:2a:1259:C:C4	32:2a:1260:C:H1'	2.56	0.41
33:2b:76:GLN:HB2	33:2b:208:ILE:HG12	2.02	0.41
42:2k:82:VAL:HB	42:2k:108:ILE:HG12	2.02	0.41
50:2s:36:ARG:HD2	50:2s:52:TYR:O	2.20	0.41
1:1A:244:A:H2'	1:1A:245:G:O4'	2.20	0.41
1:1A:2506:U:H5"	1:1A:2576:G:O6	2.20	0.41
60:1B:387:HOH:O	25:13:16:PRO:HG2	2.20	0.41
8:1I:130:TYR:CE2	8:1I:132:PRO:HB3	2.55	0.41
16:1U:8:VAL:HG23	16:1U:11:ARG:NH2	2.35	0.41
21:1Z:69:THR:HG22	21:1Z:90:VAL:HA	2.02	0.41
32:1a:439:A:C5	32:1a:441:A:H1'	2.56	0.41
32:1a:523:A:N1	43:1l:92:0TD:H6	2.35	0.41
32:1a:642:A:N3	39:1h:113:SER:OG	2.44	0.41
32:1a:1090:U:H2'	32:1a:1091:U:C6	2.56	0.41
32:1a:1134:G:N3	32:1a:1134:G:H2'	2.36	0.41
33:1b:134:GLU:HG3	33:1b:137:ARG:HH21	1.85	0.41
35:1d:61:LYS:HD3	35:1d:206:PHE:CD2	2.56	0.41
42:1k:77:MET:HE2	42:1k:77:MET:HB2	1.96	0.41
47:1p:74:LEU:HB3	47:1p:79:VAL:HG21	2.02	0.41
48:1q:58:GLU:O	48:1q:74:LEU:N	2.52	0.41
1:2A:719:C:H2'	1:2A:720:C:C6	2.55	0.41
1:2A:1053:C:H2'	1:2A:1054:A:C8	2.56	0.41
1:2A:1241:A:OP2	60:2A:3888:HOH:O	2.22	0.41
1:2A:2104:G:O6	1:2A:2185:C:C2	2.73	0.41
1:2A:2130:U:H3	1:2A:2159:G:H1	1.69	0.41
3:2D:34:VAL:HA	3:2D:62:TYR:O	2.19	0.41
7:2H:149:ARG:HG3	7:2H:162:ILE:O	2.20	0.41
12:2Q:1:MET:HB3	12:2Q:1:MET:HE2	1.86	0.41
60:2W:310:HOH:O	27:25:27:PRO:HG3	2.20	0.41
26:24:13:ARG:NH2	26:24:23:GLU:HG2	2.35	0.41
35:2d:98:GLU:HG3	35:2d:194:LEU:HD21	2.02	0.41
37:2f:97:PHE:HB2	49:2r:32:ARG:NH1	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:2g:46:ALA:O	38:2g:50:ILE:HG23	2.20	0.41
44:2m:30:ALA:O	44:2m:34:LEU:HG	2.21	0.41
44:2m:90:LEU:HB3	44:2m:93:ARG:HH21	1.84	0.41
1:1A:286:C:H2'	1:1A:287:C:C6	2.56	0.41
1:1A:469:G:O6	29:17:37:LYS:HE2	2.20	0.41
1:1A:862:G:H2'	1:1A:863:A:O4'	2.19	0.41
1:1A:1358:G:O2'	1:1A:1359:A:H5"	2.21	0.41
1:1A:1405:U:H2'	1:1A:1406:U:H6	1.82	0.41
1:1A:1665:A:H2'	1:1A:1666:G:O4'	2.20	0.41
4:1E:174:ASP:OD1	4:1E:175:VAL:N	2.53	0.41
9:1N:34:LEU:HD12	9:1N:34:LEU:HA	1.86	0.41
12:1Q:135:ASP:N	12:1Q:138:ASP:OD2	2.38	0.41
32:1a:920:U:H2'	32:1a:921:U:C6	2.55	0.41
33:1b:185:ILE:CG2	33:1b:199:TYR:HB2	2.45	0.41
34:1c:148:GLY:HA3	34:1c:172:ARG:O	2.20	0.41
35:1d:22:LYS:O	35:1d:113:SER:HB3	2.20	0.41
35:1d:107:ARG:NH2	35:1d:194:LEU:HD11	2.35	0.41
37:1f:14:LEU:HD11	37:1f:84:ASN:ND2	2.35	0.41
40:1i:111:ARG:HG2	40:1i:112:LYS:N	2.35	0.41
51:1t:87:LYS:O	51:1t:91:LEU:HG	2.21	0.41
1:2A:702:G:C2	1:2A:731:C:C2	3.08	0.41
1:2A:839:U:H2'	1:2A:840:C:C6	2.54	0.41
1:2A:1131:G:O6	1:2A:2040:C:H1'	2.20	0.41
1:2A:1589:C:H2'	1:2A:1590:U:H6	1.86	0.41
1:2A:2184:G:C2	1:2A:2185:C:H1'	2.55	0.41
6:2G:5:VAL:HG23	6:2G:104:GLU:OE1	2.20	0.41
15:2T:53:ARG:HB3	15:2T:53:ARG:CZ	2.50	0.41
27:25:20:ARG:HG2	27:25:23:HIS:ND1	2.36	0.41
32:2a:36:C:H2'	32:2a:37:U:O4'	2.19	0.41
32:2a:255:G:H2'	32:2a:256:U:C6	2.55	0.41
32:2a:619:U:C2	35:2d:135:LEU:HD21	2.56	0.41
32:2a:1203:C:H2'	32:2a:1204:A:O4'	2.20	0.41
33:2b:47:THR:HA	33:2b:202:PRO:HG2	2.03	0.41
44:2m:15:VAL:HG12	44:2m:45:VAL:HG22	2.01	0.41
44:2m:57:ARG:HG3	44:2m:61:GLU:OE2	2.20	0.41
46:2o:34:LEU:HD12	46:2o:34:LEU:HA	1.72	0.41
46:2o:38:ARG:HD3	46:2o:38:ARG:HA	1.89	0.41
1:1A:422:A:H2'	1:1A:423:A:C8	2.55	0.41
1:1A:584:C:OP2	16:1U:6:THR:OG1	2.32	0.41
1:1A:1021:A:H3'	1:1A:1021:A:N3	2.35	0.41
1:1A:1080:C:H2'	1:1A:1081:U:H6	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1721:G:H5'	1:1A:1722:A:OP2	2.19	0.41
1:1A:1826:G:H2'	1:1A:1827:C:O4'	2.20	0.41
1:1A:2687:U:H2'	1:1A:2688:U:O4'	2.19	0.41
7:1H:149:ARG:NH1	7:1H:167:GLU:OE2	2.47	0.41
14:1S:95:HIS:CG	14:1S:96:GLY:N	2.88	0.41
26:14:56:VAL:O	26:14:60:GLN:HB2	2.21	0.41
32:1a:200:G:H1	32:1a:217:C:H42	1.68	0.41
32:1a:1143:G:H2'	32:1a:1144:G:H8	1.85	0.41
32:1a:1258:G:H2'	32:1a:1259:C:H6	1.85	0.41
32:1a:1479:C:H2'	32:1a:1480:G:C8	2.55	0.41
35:1d:178:VAL:C	35:1d:180:GLY:H	2.28	0.41
40:1i:36:TYR:CZ	40:1i:70:LYS:HE2	2.55	0.41
41:1j:81:THR:C	41:1j:83:GLU:N	2.79	0.41
47:1p:58:TYR:CD2	47:1p:58:TYR:C	2.99	0.41
1:2A:582:G:H2'	1:2A:583:G:C8	2.55	0.41
1:2A:700:G:H2'	1:2A:701:G:O4'	2.21	0.41
1:2A:2872:G:O2'	1:2A:2873:A:H5'	2.20	0.41
55:2A:3771:MUL:H4	55:2A:3771:MUL:H11	1.77	0.41
6:2G:145:THR:HG22	6:2G:148:MET:SD	2.60	0.41
8:2I:123:LEU:HD12	8:2I:144:VAL:O	2.20	0.41
12:2Q:137:TYR:O	12:2Q:141:GLN:HG2	2.20	0.41
17:2V:28:GLU:O	17:2V:61:VAL:HG21	2.20	0.41
32:2a:8:A:C6	35:2d:209:ARG:HB2	2.56	0.41
32:2a:33:A:N3	43:2l:32:PHE:HE2	2.19	0.41
32:2a:922:G:N3	32:2a:1398:A:H2	2.18	0.41
32:2a:1512:U:H2'	32:2a:1513:A:C8	2.56	0.41
35:2d:150:GLU:HA	35:2d:153:ARG:HE	1.85	0.41
38:2g:93:PRO:HA	38:2g:96:GLN:HB2	2.02	0.41
38:2g:113:GLU:O	38:2g:119:ARG:NH1	2.52	0.41
39:2h:25:ASP:OD1	39:2h:60:ARG:HG3	2.21	0.41
40:2i:59:PHE:HZ	40:2i:88:TYR:CE1	2.39	0.41
53:2y:29:LYS:HG2	53:2y:30:TRP:CE3	2.56	0.41
1:1A:226:G:N2	1:1A:228:A:H62	2.19	0.41
1:1A:1098:A:H2'	1:1A:1099:G:O4'	2.21	0.41
1:1A:1815:A:P	3:1D:54:ARG:HH22	2.42	0.41
1:1A:2314:C:H2'	1:1A:2315:G:C8	2.54	0.41
60:1A:4587:HOH:O	16:1U:50:ARG:HG3	2.20	0.41
5:1F:135:LYS:HB2	5:1F:138:GLU:CD	2.45	0.41
17:1V:82:ARG:NH2	60:1V:308:HOH:O	2.54	0.41
25:13:26:LEU:O	25:13:35:ARG:NE	2.49	0.41
26:14:56:VAL:HA	26:14:60:GLN:NE2	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:538:G:H5”	43:1l:114:LYS:HB2	2.02	0.41
32:1a:1249:C:O4’	40:1i:70:LYS:HE3	2.21	0.41
32:1a:1342:C:H2’	32:1a:1343:G:H8	1.86	0.41
32:1a:1518:MA6:C9	32:1a:1519:MA6:H92	2.49	0.41
33:1b:124:SER:HA	33:1b:125:PRO:HA	1.76	0.41
35:1d:53:ASP:HB3	35:1d:57:ARG:NH1	2.34	0.41
42:1k:70:LYS:HA	42:1k:73:MET:HE2	2.02	0.41
51:1t:15:ARG:HA	51:1t:18:GLN:HG3	2.01	0.41
1:2A:729:G:C5	3:2D:208:LYS:HB2	2.55	0.41
1:2A:962:G:H4’	1:2A:2496:C:O2’	2.20	0.41
1:2A:1024:G:O2’	1:2A:1144:G:O2’	2.26	0.41
1:2A:1290:C:H2’	1:2A:1291:C:C6	2.56	0.41
1:2A:1344:G:H5’	1:2A:1384:A:C6	2.55	0.41
1:2A:2727:G:O2’	10:2O:70:LYS:NZ	2.47	0.41
60:2A:5311:HOH:O	17:2V:23:GLU:HB2	2.19	0.41
12:2Q:16:ARG:HG3	12:2Q:17:LEU:H	1.86	0.41
21:2Z:15:PRO:O	21:2Z:19:ARG:HG3	2.21	0.41
21:2Z:182:LYS:HD3	21:2Z:186:GLU:OE2	2.21	0.41
26:24:50:VAL:HG11	44:2m:64:TRP:C	2.45	0.41
32:2a:147:G:H2’	32:2a:148:G:H8	1.86	0.41
32:2a:980:C:H1’	45:2n:19:ARG:HA	2.02	0.41
32:2a:1084:G:H5’	32:2a:1102:A:OP2	2.20	0.41
32:2a:1277:C:O2’	32:2a:1279:A:C8	2.69	0.41
32:2a:1339:A:O2’	53:2y:33:HIS:HD2	2.03	0.41
32:2a:1513:A:H2’	32:2a:1514:C:C6	2.56	0.41
33:2b:11:LEU:HD12	33:2b:213:LEU:HD11	2.02	0.41
35:2d:201:GLN:NE2	36:2e:116:THR:OG1	2.52	0.41
39:2h:104:ARG:HD3	39:2h:104:ARG:HA	1.73	0.41
44:2m:80:ARG:O	44:2m:84:ILE:HG23	2.21	0.41
1:1A:2164:C:H5	1:1A:2165:G:C5	2.39	0.41
1:1A:2336:A:H61	22:10:43:THR:HG22	1.84	0.41
1:1A:2518:A:N3	1:1A:2518:A:H2’	2.35	0.41
6:1G:101:ILE:HD13	26:14:25:TYR:HB2	2.03	0.41
15:1T:53:ARG:HB3	15:1T:53:ARG:NH1	2.36	0.41
17:1V:19:LYS:HA	17:1V:94:LEU:O	2.20	0.41
32:1a:1319:A:OP2	50:1s:3:ARG:HD2	2.20	0.41
33:1b:98:LEU:HB2	33:1b:101:MET:HE3	2.03	0.41
34:1c:17:ASP:O	34:1c:54:ARG:NH2	2.52	0.41
35:1d:154:ASN:HA	35:1d:159:ARG:HH12	1.86	0.41
44:1m:11:ARG:C	44:1m:13:LYS:H	2.28	0.41
46:1o:18:PHE:HB2	46:1o:19:PRO:HD3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:1o:76:GLU:H	46:1o:76:GLU:HG2	1.65	0.41
1:2A:96:G:H4'	24:22:48:HIS:CD2	2.56	0.41
1:2A:300:A:H1'	1:2A:319:C:H1'	2.01	0.41
1:2A:335:C:H4'	20:2Y:73:ARG:NH1	2.35	0.41
1:2A:458:G:O2'	1:2A:469:G:O6	2.36	0.41
1:2A:1275:A:N3	1:2A:1276:A:H1'	2.35	0.41
1:2A:2186:G:C2	1:2A:2187:G:C5	3.09	0.41
1:2A:2478:A:OP2	31:29:2:LYS:NZ	2.37	0.41
1:2A:2528:U:O2'	1:2A:2529:G:H3'	2.20	0.41
8:2I:14:ASP:N	8:2I:17:GLN:OE1	2.46	0.41
9:2N:37:LYS:HG3	9:2N:42:TRP:NE1	2.35	0.41
11:2P:97:PRO:HG3	11:2P:112:LEU:HD12	2.01	0.41
22:20:70:GLN:HE21	22:20:72:ARG:CG	2.33	0.41
26:24:46:GLN:HB3	26:24:48:ARG:CZ	2.51	0.41
32:2a:765:G:N1	32:2a:812:C:O2'	2.48	0.41
32:2a:976:G:N2	32:2a:1363:C:OP2	2.44	0.41
32:2a:1144:G:O6	32:2a:1145:C:N4	2.53	0.41
32:2a:1168:A:H8	32:2a:1168:A:OP1	2.04	0.41
32:2a:1305:G:H5'	52:2u:4:GLY:O	2.21	0.41
32:2a:1509:C:H2'	32:2a:1510:U:O4'	2.21	0.41
34:2c:10:PHE:CE2	34:2c:178:LEU:HD11	2.56	0.41
35:2d:30:LYS:HA	35:2d:35:ARG:HE	1.86	0.41
38:2g:48:LYS:O	38:2g:52:GLU:HG2	2.21	0.41
40:2i:26:VAL:HG13	40:2i:61:ALA:HB3	2.03	0.41
44:2m:65:LYS:HE2	44:2m:65:LYS:HB3	1.78	0.41
46:2o:87:ILE:HG22	46:2o:88:ARG:N	2.31	0.41
48:2q:56:VAL:O	48:2q:77:VAL:HB	2.20	0.41
53:2y:5:ILE:HG23	53:2y:39:ILE:HB	2.03	0.41
1:1A:229:A:H3'	1:1A:230:U:H5'	2.01	0.41
1:1A:1422:G:H1'	1:1A:1496:A:N1	2.36	0.41
1:1A:2142:C:H2'	1:1A:2143:C:C6	2.55	0.41
2:1B:73:A:N1	21:1Z:34:ASN:ND2	2.69	0.41
14:1S:3:ARG:NH2	14:1S:9:ARG:HH12	2.17	0.41
31:19:33:LYS:HD3	60:19:206:HOH:O	2.20	0.41
32:1a:857:C:H2'	32:1a:858:G:O4'	2.20	0.41
32:1a:1241:G:OP1	38:1g:35:LYS:NZ	2.52	0.41
32:1a:1511:G:H2'	32:1a:1512:U:O4'	2.21	0.41
33:1b:13:ALA:C	33:1b:15:VAL:N	2.78	0.41
33:1b:24:TRP:H	33:1b:24:TRP:CD1	2.38	0.41
35:1d:59:ARG:HA	35:1d:59:ARG:NH1	2.36	0.41
38:1g:69:VAL:O	38:1g:69:VAL:HG12	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:1q:58:GLU:OE2	48:1q:75:ARG:NH2	2.54	0.41
1:2A:208:C:H2'	1:2A:209:C:H6	1.85	0.41
1:2A:463:G:OP1	60:2A:3886:HOH:O	2.22	0.41
1:2A:579:G:H2'	1:2A:580:C:C6	2.55	0.41
1:2A:699:A:H2'	1:2A:700:G:O4'	2.21	0.41
1:2A:1755:A:N6	1:2A:2694:G:O2'	2.54	0.41
55:2A:3771:MUL:H241	55:2A:3771:MUL:H282	1.84	0.41
4:2E:101:ARG:NH2	4:2E:171:GLU:HB2	2.36	0.41
4:2E:170:LEU:HD23	4:2E:184:VAL:HG11	2.03	0.41
6:2G:12:TYR:HA	6:2G:16:ARG:HG3	2.01	0.41
6:2G:138:GLN:NE2	6:2G:151:ALA:O	2.54	0.41
19:2X:72:LYS:HG2	19:2X:73:ARG:O	2.20	0.41
32:2a:163:C:H2'	32:2a:164:U:O4'	2.20	0.41
32:2a:417:C:H2'	32:2a:418:C:C6	2.55	0.41
32:2a:999:C:N3	32:2a:1042:G:N2	2.63	0.41
32:2a:1010:G:H2'	32:2a:1011:G:H8	1.84	0.41
32:2a:1057:G:H2'	32:2a:1058:G:O4'	2.20	0.41
32:2a:1402:4OC:HM43	53:2y:83:ARG:CZ	2.50	0.41
32:2a:1404:5MC:O2	32:2a:1519:MA6:O2'	2.33	0.41
33:2b:124:SER:HB2	33:2b:125:PRO:HD3	2.03	0.41
35:2d:15:GLU:HB3	35:2d:63:LYS:HG3	2.02	0.41
45:2n:6:LEU:O	45:2n:9:LYS:HG2	2.21	0.41
49:2r:74:ARG:HA	49:2r:79:LEU:O	2.21	0.41
1:1A:77:C:OP1	24:12:59:ARG:HD3	2.20	0.41
1:1A:271(X):G:C2	1:1A:271(Y):U:O4	2.74	0.41
1:1A:1028:A:N6	1:1A:1125:G:H2'	2.36	0.41
1:1A:1509(A):A:H2'	1:1A:1509(B):A:C8	2.56	0.41
1:1A:2164:C:H5	1:1A:2165:G:C6	2.38	0.41
1:1A:2335:A:C8	1:1A:2337:G:C5	3.09	0.41
1:1A:2852:G:C6	1:1A:2853:C:C4	3.09	0.41
55:1A:4054:MUL:H131	55:1A:4054:MUL:H4	1.58	0.41
2:1B:29:A:H2'	2:1B:30:C:C6	2.56	0.41
3:1D:70:TRP:HB3	3:1D:190:TYR:CZ	2.56	0.41
4:1E:49:LEU:HD12	4:1E:49:LEU:HA	1.79	0.41
7:1H:159:GLU:HG3	7:1H:169:VAL:HG11	2.02	0.41
9:1N:34:LEU:HD21	9:1N:120:LEU:HB2	2.02	0.41
9:1N:73:THR:OG1	9:1N:82:LEU:HD11	2.21	0.41
12:1Q:111:GLU:O	12:1Q:115:MET:HG2	2.21	0.41
13:1R:26:LYS:HE2	13:1R:70:LEU:O	2.20	0.41
32:1a:392:G:H2'	32:1a:393:A:H8	1.86	0.41
32:1a:821:G:H5"	60:1a:2303:HOH:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:865:A:H2	32:1a:918:A:H4'	1.86	0.41
32:1a:1304:G:C6	32:1a:1305:G:N1	2.89	0.41
32:1a:1499:A:O2'	32:1a:1520:G:H5'	2.20	0.41
37:1f:68:PRO:HG2	37:1f:71:ARG:HD2	2.02	0.41
40:1i:127:LYS:HE2	40:1i:127:LYS:HB3	1.83	0.41
47:1p:71:ARG:O	47:1p:75:ARG:N	2.48	0.41
49:1r:76:LEU:HD12	49:1r:76:LEU:HA	1.78	0.41
50:1s:18:LYS:O	50:1s:22:LEU:HG	2.21	0.41
51:1t:51:GLU:HA	51:1t:54:LYS:HE2	2.02	0.41
1:2A:208:C:H2'	1:2A:209:C:C6	2.56	0.41
1:2A:287:C:H2'	1:2A:288:C:C6	2.55	0.41
1:2A:557:U:H2'	1:2A:558:G:C8	2.56	0.41
1:2A:1053:C:H2'	1:2A:1054:A:H8	1.86	0.41
1:2A:1165:U:H2'	1:2A:1166:C:C6	2.56	0.41
1:2A:1340:U:OP1	19:2X:16:LYS:NZ	2.53	0.41
1:2A:1857:G:C6	1:2A:1858:G:C6	3.09	0.41
1:2A:2030:A:H4'	1:2A:2031:A:C8	2.56	0.41
1:2A:2134:A:H8	1:2A:2156:G:H21	1.68	0.41
1:2A:2168:G:N2	1:2A:2171:A:O5'	2.47	0.41
1:2A:2186:G:N1	1:2A:2187:G:C6	2.89	0.41
1:2A:2409:G:H2'	1:2A:2410:G:O4'	2.20	0.41
57:2A:3772:MPD:H12	57:2A:3772:MPD:H4	1.96	0.41
2:2B:59:A:H2'	2:2B:60:C:O4'	2.21	0.41
2:2B:66:A:N6	2:2B:108:U:H3'	2.36	0.41
5:2F:36:VAL:O	5:2F:40:GLN:HG3	2.20	0.41
6:2G:53:LEU:HD23	6:2G:53:LEU:HA	1.78	0.41
6:2G:126:ASP:CG	6:2G:130:ASN:HD22	2.29	0.41
6:2G:133:LEU:HD12	6:2G:157:ILE:HB	2.02	0.41
9:2N:21:LYS:NZ	9:2N:140:VAL:OXT	2.51	0.41
11:2P:80:TYR:CD1	11:2P:111:ARG:HB2	2.56	0.41
11:2P:98:GLU:H	11:2P:98:GLU:CD	2.29	0.41
22:20:43:THR:O	22:20:43:THR:OG1	2.38	0.41
26:24:62:ARG:O	26:24:64:GLY:N	2.54	0.41
32:2a:4:U:H3	39:2h:105:ARG:HD3	1.85	0.41
32:2a:406:G:N2	35:2d:119:GLN:HE22	2.19	0.41
32:2a:460:G:H2'	32:2a:461:A:H2'	2.02	0.41
32:2a:615:C:H2'	32:2a:616:G:O4'	2.21	0.41
32:2a:1000:U:H2'	32:2a:1001:A:C8	2.56	0.41
32:2a:1027:C:C4	32:2a:1034:G:O6	2.74	0.41
32:2a:1411:C:H2'	32:2a:1412:C:H6	1.86	0.41
36:2e:60:TYR:CZ	36:2e:64:ARG:HD3	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:2f:61:LEU:HB3	37:2f:63:TYR:CE2	2.56	0.41
38:2g:148:ASN:ND2	42:2k:54:ARG:HH22	2.18	0.41
41:2j:49:VAL:HG22	41:2j:50:ILE:O	2.21	0.41
41:2j:78:ASN:O	41:2j:80:LYS:N	2.53	0.41
42:2k:29:ILE:HG12	42:2k:44:SER:HB3	2.02	0.41
46:2o:28:GLN:NE2	46:2o:66:LEU:HD21	2.36	0.41
53:2y:13:THR:C	53:2y:15:ALA:H	2.29	0.41
1:1A:363(A):A:H2'	1:1A:363(B):G:C8	2.56	0.41
1:1A:898:C:H2'	1:1A:899:A:O4'	2.20	0.41
1:1A:1557:C:H5"	1:1A:1558:A:OP2	2.21	0.41
1:1A:2096:U:H2'	1:1A:2097:C:H6	1.85	0.41
4:1E:181:LEU:HD12	4:1E:181:LEU:HA	1.72	0.41
8:1I:72:LEU:HD21	8:1I:107:VAL:HG11	2.03	0.41
15:1T:128:GLU:HG2	15:1T:128:GLU:O	2.19	0.41
29:17:1:MET:HE2	29:17:1:MET:HB3	1.86	0.41
32:1a:159:G:N2	32:1a:161:A:H3'	2.36	0.41
32:1a:235:C:H5'	48:1q:70:ARG:HG3	2.02	0.41
32:1a:1176:A:H2'	32:1a:1177:G:C8	2.55	0.41
35:1d:133:VAL:HG11	35:1d:138:TYR:CD1	2.56	0.41
36:1e:110:LEU:HD13	36:1e:118:ILE:HD13	2.02	0.41
40:1i:4:TYR:CE1	40:1i:88:TYR:HA	2.56	0.41
48:1q:6:LEU:HD23	48:1q:23:VAL:HG21	2.03	0.41
48:1q:26:GLN:HG2	48:1q:37:LYS:HG2	2.01	0.41
51:1t:36:LEU:HD13	51:1t:58:LYS:HG3	2.03	0.41
1:2A:18:C:O2'	1:2A:554:U:OP1	2.37	0.41
1:2A:1473:G:C2	1:2A:1474:C:C2	3.10	0.41
1:2A:1512:U:H2'	1:2A:1513:C:C6	2.56	0.41
1:2A:2010:G:H5"	18:2W:42:ARG:HB2	2.03	0.41
1:2A:2322:A:H2'	1:2A:2323:G:O4'	2.21	0.41
1:2A:2690:C:N4	1:2A:2713:A:H1'	2.36	0.41
23:21:8:SER:HB3	23:21:66:HIS:CD2	2.56	0.41
31:29:17:ILE:HA	31:29:17:ILE:HD13	1.83	0.41
32:2a:560:U:H5'	32:2a:566:G:N2	2.36	0.41
32:2a:881:G:OP2	43:2l:12:ARG:NH2	2.54	0.41
32:2a:1239:A:O2'	38:2g:114:ARG:O	2.26	0.41
33:2b:55:PHE:HD1	33:2b:55:PHE:HA	1.81	0.41
1:1A:662:G:H5"	11:1P:16:ARG:HG3	2.02	0.40
1:1A:667:U:O2	30:18:2:PRO:HD2	2.20	0.40
1:1A:910:A:N1	1:1A:2277:G:H1'	2.36	0.40
1:1A:1448:G:H1'	1:1A:1528:A:N1	2.36	0.40
1:1A:1774:C:H6	1:1A:1774:C:O5'	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:1F:45:ARG:NH1	60:1F:406:HOH:O	2.42	0.40
9:1N:33:LEU:HD12	9:1N:38:HIS:CE1	2.56	0.40
21:1Z:152:ALA:HB1	21:1Z:163:LEU:HD21	2.03	0.40
25:13:18:ASP:OD1	25:13:18:ASP:N	2.54	0.40
32:1a:665:A:H1'	32:1a:733:A:O4'	2.21	0.40
32:1a:715:A:H2'	32:1a:716:A:C8	2.56	0.40
32:1a:1015:A:H2'	32:1a:1016:A:O4'	2.22	0.40
32:1a:1288:A:C6	32:1a:1289:A:C6	3.08	0.40
32:1a:1293:G:H2'	32:1a:1294:G:C8	2.56	0.40
32:1a:1434:A:H2'	32:1a:1435:G:O4'	2.21	0.40
33:1b:167:PRO:HD3	33:1b:187:LEU:O	2.20	0.40
37:1f:100:ASN:ND2	49:1r:23:LYS:HE2	2.36	0.40
47:1p:74:LEU:HB3	47:1p:79:VAL:CG2	2.51	0.40
1:2A:312:G:H4'	1:2A:331:A:N3	2.36	0.40
1:2A:863:A:P	12:2Q:22:LYS:HG3	2.62	0.40
1:2A:1598:C:O3'	19:2X:35:THR:HG23	2.21	0.40
1:2A:2641:G:H5"	9:2N:76:SER:HB3	2.02	0.40
8:2I:54:GLN:O	8:2I:58:LEU:HB3	2.21	0.40
16:2U:5:LYS:O	16:2U:6:THR:C	2.64	0.40
21:2Z:157:LEU:HD11	21:2Z:163:LEU:HB2	2.02	0.40
32:2a:224:C:H2'	32:2a:225:C:H6	1.87	0.40
32:2a:263:A:H2'	32:2a:264:U:C6	2.56	0.40
32:2a:410:G:C2	32:2a:429:U:C2	3.09	0.40
32:2a:1157:A:H61	32:2a:1178:G:H21	1.68	0.40
33:2b:213:LEU:O	33:2b:217:ARG:HG2	2.21	0.40
53:2y:74:ILE:O	53:2y:78:ILE:HG12	2.21	0.40
1:1A:174:C:H2'	1:1A:175:G:O4'	2.21	0.40
1:1A:191:A:H2'	1:1A:192:C:C6	2.56	0.40
1:1A:1486:A:H2'	1:1A:1487:G:C8	2.56	0.40
1:1A:1602:U:H5"	60:1A:6264:HOH:O	2.20	0.40
1:1A:2537:U:H2'	1:1A:2538:C:C6	2.56	0.40
1:1A:2730:C:O2'	1:1A:2731:G:H5'	2.21	0.40
6:1G:110:ALA:HB1	6:1G:140:ILE:HG22	2.02	0.40
12:1Q:7:MET:HE3	12:1Q:7:MET:HB2	1.84	0.40
13:1R:96:ARG:HH22	13:1R:118:GLU:CD	2.28	0.40
20:1Y:30:VAL:O	20:1Y:32:PRO:HD3	2.21	0.40
21:1Z:75:ASN:O	21:1Z:84:GLU:HG2	2.20	0.40
29:17:35:ARG:HG3	29:17:42:LEU:HD11	2.03	0.40
32:1a:186:C:H2'	32:1a:187:C:C6	2.56	0.40
32:1a:189(L):G:H2'	32:1a:190:U:C6	2.56	0.40
32:1a:399:G:H2'	32:1a:400:C:C6	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:585:G:N3	32:1a:879:C:H4'	2.36	0.40
32:1a:747:C:H3'	32:1a:748:C:C6	2.56	0.40
32:1a:994:A:N7	32:1a:1216:G:H4'	2.36	0.40
36:1e:40:ARG:HE	36:1e:66:MET:HE2	1.87	0.40
37:1f:97:PHE:N	49:1r:30:ASP:OD1	2.40	0.40
39:1h:11:THR:HG23	39:1h:14:ARG:HH21	1.87	0.40
43:1l:39:VAL:HG12	43:1l:41:ARG:HG2	2.03	0.40
1:2A:2567:G:H2'	1:2A:2568:C:C6	2.56	0.40
4:2E:104:VAL:HA	4:2E:197:ILE:O	2.20	0.40
6:2G:14:GLU:O	6:2G:17:PRO:HD2	2.22	0.40
6:2G:86:MET:HA	6:2G:87:PRO:HD3	1.94	0.40
10:2O:68:GLU:HB3	10:2O:78:ARG:NH1	2.36	0.40
12:2Q:75:THR:HA	12:2Q:89:ASN:O	2.21	0.40
15:2T:51:ARG:HG3	15:2T:98:LYS:HD3	2.03	0.40
25:23:6:VAL:HG13	25:23:56:VAL:HG22	2.03	0.40
27:25:15:ARG:NH1	60:25:201:HOH:O	2.24	0.40
32:2a:187:C:H2'	32:2a:188:C:H6	1.85	0.40
32:2a:945:G:C2	32:2a:946:A:C8	3.10	0.40
33:2b:218:ALA:O	33:2b:222:ILE:HG12	2.20	0.40
41:2j:32:ALA:HB1	41:2j:33:GLN:HA	2.02	0.40
44:2m:23:TYR:HB2	44:2m:71:ARG:NH2	2.36	0.40
51:2t:57:ARG:HH22	51:2t:100:ILE:CD1	2.34	0.40
1:1A:211:A:H2'	1:1A:212:G:O4'	2.21	0.40
1:1A:453:C:O2	1:1A:457:A:O2'	2.39	0.40
1:1A:743:G:H2'	1:1A:744:G:O4'	2.22	0.40
1:1A:1466:G:H2'	1:1A:1547:C:N4	2.36	0.40
1:1A:1594:G:H2'	1:1A:1595:G:O4'	2.21	0.40
1:1A:2070:G:H2'	1:1A:2071:A:O4'	2.22	0.40
2:1B:57:A:H1'	6:1G:29:TRP:HB2	2.03	0.40
3:1D:249:PRO:HD2	3:1D:250:TRP:CZ3	2.56	0.40
6:1G:31:VAL:HG13	60:1G:303:HOH:O	2.21	0.40
11:1P:82:GLY:HA2	11:1P:113:LYS:O	2.21	0.40
17:1V:97:LYS:HA	17:1V:97:LYS:HD3	1.97	0.40
26:14:40:HIS:HA	26:14:41:PRO:HD3	1.98	0.40
26:14:56:VAL:HA	26:14:60:GLN:HE21	1.87	0.40
32:1a:183:G:O2'	32:1a:224:C:O2'	2.38	0.40
32:1a:302:G:O2'	32:1a:556:C:H5"	2.22	0.40
32:1a:945:G:C2	32:1a:946:A:C8	3.09	0.40
32:1a:1206:G:C6	32:1a:1207:2MG:C5	3.09	0.40
32:1a:1429:C:H2'	32:1a:1430:C:H6	1.86	0.40
33:1b:37:ASN:O	33:1b:39:ILE:HG12	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:1d:10:ARG:HB2	35:1d:40:PRO:HG3	2.02	0.40
35:1d:61:LYS:HD3	35:1d:206:PHE:CE2	2.56	0.40
50:1s:36:ARG:HB3	50:1s:72:GLY:HA3	2.02	0.40
1:2A:597:U:H2'	1:2A:598:G:C8	2.57	0.40
1:2A:862:G:H2'	1:2A:863:A:O4'	2.21	0.40
1:2A:1047:G:H2'	1:2A:1110:G:H22	1.86	0.40
1:2A:1169:G:H1	1:2A:1180:C:H42	1.68	0.40
1:2A:1920:OMC:HM22	1:2A:1921:G:H5'	2.02	0.40
1:2A:1998:G:O2'	1:2A:2724:C:O2'	2.31	0.40
1:2A:2218:U:O4'	23:21:52:ARG:NH2	2.54	0.40
1:2A:2305:A:N6	6:2G:154:GLY:H	2.19	0.40
5:2F:74:ARG:H	5:2F:74:ARG:HG3	1.51	0.40
32:2a:241:C:C2	32:2a:286:G:C2	3.09	0.40
32:2a:952:U:H2'	32:2a:953:G:C8	2.55	0.40
32:2a:1201:A:H4'	32:2a:1202:G:H5"	2.04	0.40
35:2d:4:TYR:C	35:2d:6:GLY:H	2.26	0.40
39:2h:69:ARG:H	39:2h:69:ARG:HG2	1.54	0.40
46:2o:32:LEU:HD23	46:2o:32:LEU:HA	1.91	0.40
50:2s:20:LEU:HA	50:2s:20:LEU:HD23	1.81	0.40
1:1A:61:G:H5'	24:12:50:ILE:HG21	2.02	0.40
1:1A:1641:A:OP2	60:1A:4198:HOH:O	2.22	0.40
1:1A:1647:G:OP1	60:1A:4114:HOH:O	2.22	0.40
1:1A:2438:U:O2'	1:1A:2440:C:OP1	2.35	0.40
1:1A:2648:C:H2'	1:1A:2649:U:C6	2.56	0.40
6:1G:7:LEU:HD22	6:1G:176:LEU:HD22	2.03	0.40
8:1I:29:TYR:O	8:1I:32:PRO:HD2	2.20	0.40
12:1Q:55:VAL:HG12	12:1Q:64:ILE:CD1	2.51	0.40
17:1V:72:VAL:HG13	17:1V:85:LYS:HB3	2.04	0.40
32:1a:359:U:H2'	32:1a:360:A:C8	2.56	0.40
32:1a:1149:C:H2'	32:1a:1150:U:C6	2.56	0.40
37:1f:89:MET:HE2	37:1f:91:VAL:HG22	2.03	0.40
40:1i:64:THR:HG21	40:1i:66:ARG:HH12	1.85	0.40
53:1y:60:VAL:HG23	53:1y:62:VAL:HG23	2.03	0.40
53:1y:87:LYS:O	53:1y:91:LYS:HB2	2.20	0.40
1:2A:1668:A:H4'	1:2A:1669:A:O5'	2.22	0.40
6:2G:12:TYR:HA	6:2G:16:ARG:CG	2.52	0.40
8:2I:26:ALA:O	8:2I:31:LEU:HB2	2.22	0.40
10:2O:87:ILE:HD12	10:2O:91:LEU:HA	2.04	0.40
12:2Q:36:ALA:HB1	12:2Q:127:ILE:HD12	2.02	0.40
32:2a:149:A:H2'	32:2a:150:C:H6	1.86	0.40
32:2a:251:G:N7	60:2a:3363:HOH:O	2.37	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1410:G:C6	32:2a:1411:C:C4	3.09	0.40
38:2g:111:ARG:HE	38:2g:123:GLU:HB2	1.87	0.40
39:2h:38:ILE:HD11	39:2h:118:VAL:O	2.21	0.40
44:2m:87:TYR:N	50:2s:73:GLU:O	2.54	0.40
45:2n:32:SER:O	45:2n:32:SER:OG	2.36	0.40
52:2u:6:ARG:C	52:2u:8:THR:H	2.29	0.40
1:1A:614:U:H2'	1:1A:614(A):U:O4'	2.22	0.40
1:1A:1164:G:H2'	1:1A:1165:U:C6	2.56	0.40
1:1A:2591:C:H2'	1:1A:2592:G:C8	2.56	0.40
2:1B:33:G:C2	2:1B:50:G:C2	3.09	0.40
3:1D:232:PRO:HB3	3:1D:244:ARG:CZ	2.51	0.40
5:1F:102:PRO:O	5:1F:106:ARG:HG3	2.22	0.40
6:1G:33:ARG:O	6:1G:161:THR:HG23	2.22	0.40
6:1G:129:GLY:O	6:1G:161:THR:HB	2.22	0.40
6:1G:143:GLU:HB3	26:14:28:LYS:NZ	2.37	0.40
6:1G:171:ALA:O	6:1G:175:LEU:HD13	2.22	0.40
12:1Q:58:PHE:CE1	12:1Q:109:VAL:HG21	2.56	0.40
32:1a:162:A:N7	32:1a:163:C:H1'	2.36	0.40
32:1a:236:G:H5"	48:1q:42:TYR:OH	2.21	0.40
32:1a:527:G7M:O2'	32:1a:535:A:N1	2.44	0.40
32:1a:1250:A:H4'	40:1i:68:GLY:N	2.36	0.40
32:1a:1333:A:H2'	32:1a:1334:G:O4'	2.22	0.40
33:1b:109:SER:C	33:1b:111:ARG:H	2.30	0.40
41:1j:78:ASN:C	41:1j:80:LYS:H	2.29	0.40
43:1l:56:ALA:HB3	43:1l:100:ILE:HD11	2.03	0.40
45:1n:4:LYS:HB3	45:1n:4:LYS:HE2	1.87	0.40
47:1p:6:LEU:HB3	47:1p:17:TYR:HB3	2.02	0.40
1:2A:1084:A:H3'	1:2A:1085:A:H4'	2.02	0.40
1:2A:1721:G:N1	1:2A:1739:U:OP2	2.55	0.40
1:2A:2379:G:HO2'	14:2S:17:ARG:HH12	1.63	0.40
5:2F:32:LEU:O	5:2F:36:VAL:HG23	2.22	0.40
14:2S:105:ALA:HB1	14:2S:110:LEU:HD23	2.04	0.40
32:2a:162:A:C5	32:2a:163:C:H1'	2.57	0.40
32:2a:714:G:H2'	32:2a:715:A:C8	2.56	0.40
32:2a:781:A:H5'	32:2a:782:A:OP2	2.21	0.40
32:2a:1023:G:H3'	32:2a:1024:G:C8	2.55	0.40
32:2a:1162:C:N4	32:2a:1174:G:H1	2.20	0.40
32:2a:1188:A:H2'	32:2a:1189:C:O4'	2.20	0.40
32:2a:1356:G:H2'	32:2a:1357:A:C8	2.57	0.40
34:2c:32:LEU:O	34:2c:36:ASP:HB2	2.21	0.40
43:2l:49:ASN:ND2	43:2l:92:0TD:SB	2.95	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
3	1D	273/276 (99%)	260 (95%)	13 (5%)	0	100 100
3	2D	273/276 (99%)	257 (94%)	16 (6%)	0	100 100
4	1E	202/206 (98%)	194 (96%)	7 (4%)	1 (0%)	24 39
4	2E	202/206 (98%)	194 (96%)	7 (4%)	1 (0%)	24 39
5	1F	201/210 (96%)	191 (95%)	9 (4%)	1 (0%)	24 39
5	2F	201/210 (96%)	188 (94%)	11 (6%)	2 (1%)	12 20
6	1G	179/182 (98%)	161 (90%)	15 (8%)	3 (2%)	7 12
6	2G	179/182 (98%)	155 (87%)	20 (11%)	4 (2%)	5 9
7	1H	172/180 (96%)	164 (95%)	6 (4%)	2 (1%)	10 17
7	2H	171/180 (95%)	151 (88%)	19 (11%)	1 (1%)	21 34
8	1I	145/148 (98%)	125 (86%)	16 (11%)	4 (3%)	4 6
8	2I	144/148 (97%)	126 (88%)	14 (10%)	4 (3%)	4 6
9	1N	138/140 (99%)	135 (98%)	3 (2%)	0	100 100
9	2N	138/140 (99%)	132 (96%)	5 (4%)	1 (1%)	18 30
10	1O	120/122 (98%)	113 (94%)	7 (6%)	0	100 100
10	2O	120/122 (98%)	112 (93%)	7 (6%)	1 (1%)	16 27
11	1P	147/150 (98%)	141 (96%)	5 (3%)	1 (1%)	18 30
11	2P	147/150 (98%)	137 (93%)	8 (5%)	2 (1%)	9 14
12	1Q	139/141 (99%)	132 (95%)	6 (4%)	1 (1%)	18 30
12	2Q	139/141 (99%)	131 (94%)	8 (6%)	0	100 100
13	1R	116/118 (98%)	114 (98%)	2 (2%)	0	100 100
13	2R	116/118 (98%)	110 (95%)	6 (5%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
14	1S	108/112 (96%)	98 (91%)	9 (8%)	1 (1%)	14 24
14	2S	108/112 (96%)	99 (92%)	9 (8%)	0	100 100
15	1T	129/146 (88%)	122 (95%)	7 (5%)	0	100 100
15	2T	129/146 (88%)	119 (92%)	9 (7%)	1 (1%)	16 27
16	1U	114/118 (97%)	114 (100%)	0	0	100 100
16	2U	114/118 (97%)	112 (98%)	2 (2%)	0	100 100
17	1V	99/101 (98%)	95 (96%)	3 (3%)	1 (1%)	12 20
17	2V	99/101 (98%)	93 (94%)	5 (5%)	1 (1%)	12 20
18	1W	110/113 (97%)	109 (99%)	1 (1%)	0	100 100
18	2W	110/113 (97%)	106 (96%)	4 (4%)	0	100 100
19	1X	93/96 (97%)	91 (98%)	2 (2%)	0	100 100
19	2X	93/96 (97%)	89 (96%)	3 (3%)	1 (1%)	11 19
20	1Y	105/110 (96%)	93 (89%)	11 (10%)	1 (1%)	12 20
20	2Y	105/110 (96%)	96 (91%)	9 (9%)	0	100 100
21	1Z	201/206 (98%)	185 (92%)	16 (8%)	0	100 100
21	2Z	199/206 (97%)	172 (86%)	24 (12%)	3 (2%)	8 13
22	10	75/85 (88%)	72 (96%)	3 (4%)	0	100 100
22	20	75/85 (88%)	70 (93%)	5 (7%)	0	100 100
23	11	95/98 (97%)	92 (97%)	2 (2%)	1 (1%)	11 19
23	21	95/98 (97%)	92 (97%)	2 (2%)	1 (1%)	11 19
24	12	68/72 (94%)	68 (100%)	0	0	100 100
24	22	68/72 (94%)	66 (97%)	2 (3%)	0	100 100
25	13	57/60 (95%)	54 (95%)	3 (5%)	0	100 100
25	23	57/60 (95%)	54 (95%)	3 (5%)	0	100 100
26	14	67/71 (94%)	50 (75%)	10 (15%)	7 (10%)	0 0
26	24	67/71 (94%)	46 (69%)	15 (22%)	6 (9%)	0 0
27	15	57/60 (95%)	57 (100%)	0	0	100 100
27	25	57/60 (95%)	54 (95%)	3 (5%)	0	100 100
28	16	51/54 (94%)	48 (94%)	3 (6%)	0	100 100
28	26	51/54 (94%)	46 (90%)	5 (10%)	0	100 100
29	17	46/49 (94%)	46 (100%)	0	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
29	27	46/49 (94%)	45 (98%)	1 (2%)	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
31	19	35/37 (95%)	35 (100%)	0	0	100	100
31	29	35/37 (95%)	35 (100%)	0	0	100	100
33	1b	229/256 (90%)	187 (82%)	32 (14%)	10 (4%)	2	2
33	2b	229/256 (90%)	195 (85%)	25 (11%)	9 (4%)	2	3
34	1c	204/239 (85%)	172 (84%)	30 (15%)	2 (1%)	12	20
34	2c	204/239 (85%)	182 (89%)	20 (10%)	2 (1%)	12	20
35	1d	206/209 (99%)	187 (91%)	18 (9%)	1 (0%)	24	39
35	2d	206/209 (99%)	187 (91%)	16 (8%)	3 (2%)	8	13
36	1e	146/162 (90%)	131 (90%)	14 (10%)	1 (1%)	18	30
36	2e	146/162 (90%)	136 (93%)	10 (7%)	0	100	100
37	1f	98/101 (97%)	92 (94%)	6 (6%)	0	100	100
37	2f	98/101 (97%)	94 (96%)	4 (4%)	0	100	100
38	1g	153/156 (98%)	149 (97%)	4 (3%)	0	100	100
38	2g	153/156 (98%)	142 (93%)	7 (5%)	4 (3%)	4	6
39	1h	135/138 (98%)	127 (94%)	8 (6%)	0	100	100
39	2h	135/138 (98%)	127 (94%)	7 (5%)	1 (1%)	18	30
40	1i	125/128 (98%)	106 (85%)	18 (14%)	1 (1%)	16	27
40	2i	124/128 (97%)	100 (81%)	23 (18%)	1 (1%)	16	27
41	1j	95/105 (90%)	75 (79%)	15 (16%)	5 (5%)	1	2
41	2j	94/105 (90%)	80 (85%)	12 (13%)	2 (2%)	5	9
42	1k	112/129 (87%)	100 (89%)	11 (10%)	1 (1%)	14	24
42	2k	112/129 (87%)	100 (89%)	11 (10%)	1 (1%)	14	24
43	1l	119/132 (90%)	111 (93%)	7 (6%)	1 (1%)	16	27
43	2l	119/132 (90%)	108 (91%)	11 (9%)	0	100	100
44	1m	114/126 (90%)	105 (92%)	7 (6%)	2 (2%)	6	11
44	2m	112/126 (89%)	104 (93%)	5 (4%)	3 (3%)	4	6
45	1n	58/61 (95%)	56 (97%)	2 (3%)	0	100	100
45	2n	58/61 (95%)	52 (90%)	6 (10%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
46	1o	86/89 (97%)	81 (94%)	4 (5%)	1 (1%)	10 17
46	2o	86/89 (97%)	84 (98%)	2 (2%)	0	100 100
47	1p	80/88 (91%)	70 (88%)	9 (11%)	1 (1%)	9 16
47	2p	80/88 (91%)	70 (88%)	10 (12%)	0	100 100
48	1q	97/105 (92%)	89 (92%)	8 (8%)	0	100 100
48	2q	97/105 (92%)	90 (93%)	7 (7%)	0	100 100
49	1r	66/88 (75%)	62 (94%)	3 (4%)	1 (2%)	8 13
49	2r	66/88 (75%)	63 (96%)	3 (4%)	0	100 100
50	1s	81/93 (87%)	74 (91%)	7 (9%)	0	100 100
50	2s	81/93 (87%)	68 (84%)	12 (15%)	1 (1%)	10 17
51	1t	94/106 (89%)	90 (96%)	1 (1%)	3 (3%)	3 4
51	2t	96/106 (91%)	90 (94%)	4 (4%)	2 (2%)	5 9
52	1u	21/27 (78%)	20 (95%)	1 (5%)	0	100 100
52	2u	21/27 (78%)	18 (86%)	1 (5%)	2 (10%)	0 0
53	1y	95/113 (84%)	92 (97%)	3 (3%)	0	100 100
53	2y	94/113 (83%)	87 (93%)	6 (6%)	1 (1%)	11 19
All	All	11629/12354 (94%)	10717 (92%)	797 (7%)	115 (1%)	12 20

All (115) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
5	1F	130	ALA
6	1G	47	LYS
17	1V	79	VAL
26	14	49	PHE
26	14	56	VAL
33	1b	8	LYS
33	1b	17	PHE
33	1b	125	PRO
41	1j	82	ILE
4	2E	51	PHE
5	2F	130	ALA
6	2G	126	ASP
8	2I	10	GLU
8	2I	85	GLU
26	24	62	ARG

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Mol	Chain	Res	Type
33	2b	8	LYS
33	2b	17	PHE
34	2c	95	THR
35	2d	5	ILE
40	2i	54	ASP
41	2j	55	LYS
44	2m	67	GLU
53	2y	45	PRO
7	1H	159	GLU
8	1I	85	GLU
26	14	44	THR
26	14	47	GLN
33	1b	9	GLU
33	1b	127	ILE
35	1d	164	ALA
41	1j	55	LYS
41	1j	79	ARG
44	1m	3	ARG
51	1t	47	GLY
6	2G	43	LEU
9	2N	129	PRO
11	2P	29	LYS
17	2V	79	VAL
19	2X	94	GLY
26	24	63	TYR
33	2b	16	HIS
33	2b	22	LYS
33	2b	125	PRO
33	2b	155	LEU
34	2c	156	ARG
38	2g	7	ALA
7	1H	126	PRO
8	1I	73	GLU
12	1Q	59	ARG
23	11	3	LYS
33	1b	10	LEU
33	1b	231	GLU
34	1c	26	LYS
44	1m	67	GLU
46	1o	86	GLY
51	1t	95	ALA
51	1t	100	ILE

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Mol	Chain	Res	Type
7	2H	55	PRO
10	2O	5	GLN
15	2T	127	ALA
21	2Z	142	SER
23	21	3	LYS
26	24	44	THR
33	2b	20	GLU
35	2d	37	PRO
38	2g	55	GLY
44	2m	5	ALA
51	2t	100	ILE
4	1E	52	LEU
6	1G	49	ASP
8	1I	40	THR
11	1P	29	LYS
26	14	48	ARG
26	14	61	ARG
33	1b	83	MET
43	1l	91	LYS
47	1p	81	ARG
49	1r	25	THR
8	2I	117	GLU
26	24	47	GLN
26	24	49	PHE
33	2b	123	ALA
33	2b	232	PRO
38	2g	5	ARG
50	2s	29	ARG
52	2u	7	ARG
6	1G	43	LEU
8	1I	117	GLU
14	1S	94	TYR
33	1b	21	ARG
33	1b	124	SER
40	1i	42	ARG
41	1j	54	PHE
41	1j	78	ASN
42	1k	105	VAL
6	2G	81	LYS
26	24	55	ARG
41	2j	77	PRO
42	2k	89	ALA

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Mol	Chain	Res	Type
20	1Y	102	CYS
26	14	43	TYR
35	2d	3	ARG
51	2t	68	LYS
39	2h	51	VAL
36	1e	77	PRO
44	2m	4	ILE
5	2F	206	ILE
6	2G	17	PRO
8	2I	90	GLY
11	2P	122	PRO
21	2Z	130	PRO
21	2Z	143	GLY
38	2g	71	PRO
52	2u	23	PRO
34	1c	174	PRO

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
3	1D	214/218 (98%)	192 (90%)	22 (10%)	7 10
3	2D	215/218 (99%)	191 (89%)	24 (11%)	6 8
4	1E	164/166 (99%)	145 (88%)	19 (12%)	5 8
4	2E	164/166 (99%)	144 (88%)	20 (12%)	5 7
5	1F	160/166 (96%)	143 (89%)	17 (11%)	6 10
5	2F	159/166 (96%)	141 (89%)	18 (11%)	5 8
6	1G	144/156 (92%)	128 (89%)	16 (11%)	6 9
6	2G	142/156 (91%)	127 (89%)	15 (11%)	6 10
7	1H	144/148 (97%)	126 (88%)	18 (12%)	4 6
7	2H	143/148 (97%)	125 (87%)	18 (13%)	4 6
8	1I	111/124 (90%)	95 (86%)	16 (14%)	3 4

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
8	2I	108/124 (87%)	93 (86%)	15 (14%)	3 5
9	1N	119/119 (100%)	104 (87%)	15 (13%)	4 6
9	2N	118/119 (99%)	100 (85%)	18 (15%)	3 4
10	1O	100/100 (100%)	93 (93%)	7 (7%)	14 24
10	2O	100/100 (100%)	91 (91%)	9 (9%)	9 14
11	1P	115/116 (99%)	107 (93%)	8 (7%)	14 24
11	2P	115/116 (99%)	108 (94%)	7 (6%)	17 30
12	1Q	111/111 (100%)	101 (91%)	10 (9%)	9 14
12	2Q	111/111 (100%)	103 (93%)	8 (7%)	13 22
13	1R	101/101 (100%)	85 (84%)	16 (16%)	2 3
13	2R	101/101 (100%)	84 (83%)	17 (17%)	2 2
14	1S	87/88 (99%)	76 (87%)	11 (13%)	4 6
14	2S	85/88 (97%)	75 (88%)	10 (12%)	5 7
15	1T	115/127 (91%)	106 (92%)	9 (8%)	11 20
15	2T	113/127 (89%)	105 (93%)	8 (7%)	13 23
16	1U	93/94 (99%)	84 (90%)	9 (10%)	8 12
16	2U	93/94 (99%)	85 (91%)	8 (9%)	10 16
17	1V	81/82 (99%)	70 (86%)	11 (14%)	3 5
17	2V	80/82 (98%)	65 (81%)	15 (19%)	1 2
18	1W	90/92 (98%)	82 (91%)	8 (9%)	9 15
18	2W	90/92 (98%)	83 (92%)	7 (8%)	11 20
19	1X	77/78 (99%)	72 (94%)	5 (6%)	15 27
19	2X	77/78 (99%)	71 (92%)	6 (8%)	11 20
20	1Y	86/91 (94%)	78 (91%)	8 (9%)	8 13
20	2Y	86/91 (94%)	81 (94%)	5 (6%)	18 31
21	1Z	169/179 (94%)	151 (89%)	18 (11%)	6 9
21	2Z	165/179 (92%)	148 (90%)	17 (10%)	7 10
22	10	61/67 (91%)	59 (97%)	2 (3%)	33 55
22	20	61/67 (91%)	58 (95%)	3 (5%)	22 38
23	11	79/83 (95%)	71 (90%)	8 (10%)	7 11
23	21	81/83 (98%)	71 (88%)	10 (12%)	4 7

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
24	12	65/67 (97%)	59 (91%)	6 (9%)	8 14
24	22	66/67 (98%)	58 (88%)	8 (12%)	5 7
25	13	51/52 (98%)	46 (90%)	5 (10%)	7 11
25	23	50/52 (96%)	47 (94%)	3 (6%)	17 30
26	14	58/63 (92%)	52 (90%)	6 (10%)	7 10
26	24	54/63 (86%)	44 (82%)	10 (18%)	1 2
27	15	51/52 (98%)	46 (90%)	5 (10%)	7 11
27	25	50/52 (96%)	47 (94%)	3 (6%)	17 30
28	16	51/52 (98%)	45 (88%)	6 (12%)	5 7
28	26	50/52 (96%)	43 (86%)	7 (14%)	3 5
29	17	41/42 (98%)	39 (95%)	2 (5%)	22 38
29	27	41/42 (98%)	39 (95%)	2 (5%)	22 38
30	18	54/55 (98%)	49 (91%)	5 (9%)	8 13
30	28	54/55 (98%)	51 (94%)	3 (6%)	19 32
31	19	34/34 (100%)	33 (97%)	1 (3%)	37 58
31	29	34/34 (100%)	31 (91%)	3 (9%)	9 15
33	1b	191/220 (87%)	169 (88%)	22 (12%)	5 8
33	2b	187/220 (85%)	170 (91%)	17 (9%)	9 14
34	1c	144/188 (77%)	128 (89%)	16 (11%)	6 9
34	2c	140/188 (74%)	122 (87%)	18 (13%)	4 6
35	1d	171/181 (94%)	148 (86%)	23 (14%)	4 5
35	2d	172/181 (95%)	154 (90%)	18 (10%)	6 10
36	1e	114/123 (93%)	100 (88%)	14 (12%)	4 7
36	2e	114/123 (93%)	102 (90%)	12 (10%)	6 10
37	1f	85/90 (94%)	73 (86%)	12 (14%)	3 5
37	2f	85/90 (94%)	75 (88%)	10 (12%)	5 7
38	1g	120/127 (94%)	110 (92%)	10 (8%)	10 18
38	2g	119/127 (94%)	110 (92%)	9 (8%)	12 21
39	1h	116/119 (98%)	98 (84%)	18 (16%)	2 3
39	2h	114/119 (96%)	101 (89%)	13 (11%)	5 8
40	1i	91/99 (92%)	80 (88%)	11 (12%)	5 7

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
40	2i	88/99 (89%)	79 (90%)	9 (10%)	7 10
41	1j	68/92 (74%)	61 (90%)	7 (10%)	7 10
41	2j	68/92 (74%)	61 (90%)	7 (10%)	7 10
42	1k	83/99 (84%)	77 (93%)	6 (7%)	13 22
42	2k	83/99 (84%)	68 (82%)	15 (18%)	2 2
43	1l	96/108 (89%)	86 (90%)	10 (10%)	7 10
43	2l	96/108 (89%)	82 (85%)	14 (15%)	3 4
44	1m	90/101 (89%)	81 (90%)	9 (10%)	7 11
44	2m	87/101 (86%)	77 (88%)	10 (12%)	5 8
45	1n	49/50 (98%)	44 (90%)	5 (10%)	7 10
45	2n	49/50 (98%)	45 (92%)	4 (8%)	10 18
46	1o	78/80 (98%)	70 (90%)	8 (10%)	7 10
46	2o	78/80 (98%)	74 (95%)	4 (5%)	21 36
47	1p	69/74 (93%)	58 (84%)	11 (16%)	2 3
47	2p	68/74 (92%)	57 (84%)	11 (16%)	2 3
48	1q	94/97 (97%)	85 (90%)	9 (10%)	8 12
48	2q	94/97 (97%)	87 (93%)	7 (7%)	13 21
49	1r	59/77 (77%)	51 (86%)	8 (14%)	3 5
49	2r	59/77 (77%)	51 (86%)	8 (14%)	3 5
50	1s	68/80 (85%)	61 (90%)	7 (10%)	7 10
50	2s	67/80 (84%)	56 (84%)	11 (16%)	2 3
51	1t	71/82 (87%)	57 (80%)	14 (20%)	1 1
51	2t	70/82 (85%)	62 (89%)	8 (11%)	5 8
52	1u	18/22 (82%)	18 (100%)	0	100 100
52	2u	18/22 (82%)	18 (100%)	0	100 100
53	1y	82/98 (84%)	75 (92%)	7 (8%)	10 17
53	2y	79/98 (81%)	63 (80%)	16 (20%)	1 1
All	All	9524/10260 (93%)	8490 (89%)	1034 (11%)	6 9

All (1034) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	1D	13	ARG

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Mol	Chain	Res	Type
3	1D	14	ARG
3	1D	39	LYS
3	1D	61	LEU
3	1D	94	LEU
3	1D	111	LEU
3	1D	113	VAL
3	1D	127	VAL
3	1D	138	VAL
3	1D	141	VAL
3	1D	142	VAL
3	1D	155	LEU
3	1D	173	VAL
3	1D	183	ARG
3	1D	193	VAL
3	1D	211	ARG
3	1D	217	ARG
3	1D	221	VAL
3	1D	229	VAL
3	1D	242	ARG
3	1D	253	GLN
3	1D	259	THR
4	1E	7	VAL
4	1E	9	VAL
4	1E	21	VAL
4	1E	33	VAL
4	1E	42	ASP
4	1E	49	LEU
4	1E	73	GLU
4	1E	75	VAL
4	1E	77	ILE
4	1E	78	LEU
4	1E	116	VAL
4	1E	119	ARG
4	1E	144	ARG
4	1E	154	LYS
4	1E	163	GLU
4	1E	170	LEU
4	1E	175	VAL
4	1E	181	LEU
4	1E	184	VAL
5	1F	12	LEU
5	1F	33	LEU

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Mol	Chain	Res	Type
5	1F	53	THR
5	1F	57	VAL
5	1F	74	ARG
5	1F	88	VAL
5	1F	110	LEU
5	1F	119	ARG
5	1F	125	LEU
5	1F	127	GLU
5	1F	132	VAL
5	1F	140	LEU
5	1F	158	THR
5	1F	162	LEU
5	1F	183	VAL
5	1F	192	LEU
5	1F	201	VAL
6	1G	5	VAL
6	1G	7	LEU
6	1G	31	VAL
6	1G	33	ARG
6	1G	43	LEU
6	1G	52	ILE
6	1G	70	VAL
6	1G	79	ASN
6	1G	82	LEU
6	1G	88	ILE
6	1G	133	LEU
6	1G	148	MET
6	1G	149	VAL
6	1G	159	VAL
6	1G	162	THR
6	1G	166	ASP
7	1H	13	LYS
7	1H	15	VAL
7	1H	24	VAL
7	1H	26	VAL
7	1H	45	VAL
7	1H	71	LEU
7	1H	85	LYS
7	1H	86	GLU
7	1H	98	LEU
7	1H	105	LEU
7	1H	106	THR

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Mol	Chain	Res	Type
7	1H	114	VAL
7	1H	119	GLU
7	1H	122	THR
7	1H	129	THR
7	1H	134	SER
7	1H	136	ILE
7	1H	172	LYS
8	1I	3	VAL
8	1I	5	LEU
8	1I	10	GLU
8	1I	12	LEU
8	1I	15	VAL
8	1I	18	VAL
8	1I	20	ASP
8	1I	68	LEU
8	1I	78	THR
8	1I	92	VAL
8	1I	101	LEU
8	1I	109	ILE
8	1I	117	GLU
8	1I	127	VAL
8	1I	140	LEU
8	1I	144	VAL
9	1N	5	VAL
9	1N	14	VAL
9	1N	33	LEU
9	1N	34	LEU
9	1N	39	ARG
9	1N	46	VAL
9	1N	48	MET
9	1N	60	ILE
9	1N	62	VAL
9	1N	67	LEU
9	1N	68	GLU
9	1N	73	THR
9	1N	87	LEU
9	1N	97	ARG
9	1N	99	LEU
10	1O	8	LEU
10	1O	10	VAL
10	1O	24	VAL
10	1O	28	SER

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Mol	Chain	Res	Type
10	1O	47	ILE
10	1O	98	VAL
10	1O	108	GLU
11	1P	3	LEU
11	1P	59	LEU
11	1P	95	VAL
11	1P	99	LEU
11	1P	112	LEU
11	1P	125	VAL
11	1P	133	SER
11	1P	135	LEU
12	1Q	2	LEU
12	1Q	6	ARG
12	1Q	7	MET
12	1Q	35	VAL
12	1Q	55	VAL
12	1Q	75	THR
12	1Q	81	VAL
12	1Q	109	VAL
12	1Q	112	GLU
12	1Q	133	ARG
13	1R	29	LEU
13	1R	30	THR
13	1R	33	ARG
13	1R	36	THR
13	1R	44	LEU
13	1R	54	LEU
13	1R	65	LEU
13	1R	67	LEU
13	1R	73	VAL
13	1R	75	LEU
13	1R	88	ARG
13	1R	96	ARG
13	1R	100	LEU
13	1R	111	LEU
13	1R	114	VAL
13	1R	117	VAL
14	1S	3	ARG
14	1S	11	LYS
14	1S	14	VAL
14	1S	21	THR
14	1S	36	TYR

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Mol	Chain	Res	Type
14	1S	46	VAL
14	1S	50	SER
14	1S	52	SER
14	1S	68	GLN
14	1S	80	LEU
14	1S	110	LEU
15	1T	6	LEU
15	1T	13	ARG
15	1T	28	VAL
15	1T	33	LYS
15	1T	39	ARG
15	1T	53	ARG
15	1T	89	VAL
15	1T	96	ARG
15	1T	118	ARG
16	1U	5	LYS
16	1U	8	VAL
16	1U	31	SER
16	1U	52	ARG
16	1U	59	ARG
16	1U	74	LEU
16	1U	77	SER
16	1U	95	LEU
16	1U	104	GLN
17	1V	18	LEU
17	1V	28	GLU
17	1V	46	VAL
17	1V	51	VAL
17	1V	52	VAL
17	1V	61	VAL
17	1V	62	LEU
17	1V	72	VAL
17	1V	79	VAL
17	1V	82	ARG
17	1V	100	ARG
18	1W	11	ARG
18	1W	17	VAL
18	1W	19	LEU
18	1W	23	LEU
18	1W	67	ASP
18	1W	68	ARG
18	1W	100	THR

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Mol	Chain	Res	Type
18	1W	107	LEU
19	1X	23	GLU
19	1X	35	THR
19	1X	45	THR
19	1X	66	LEU
19	1X	68	ARG
20	1Y	7	VAL
20	1Y	31	LEU
20	1Y	43	ASN
20	1Y	72	VAL
20	1Y	85	VAL
20	1Y	86	ARG
20	1Y	90	LEU
20	1Y	99	CYS
21	1Z	18	LEU
21	1Z	33	LEU
21	1Z	37	VAL
21	1Z	41	LEU
21	1Z	42	VAL
21	1Z	61	LEU
21	1Z	76	LEU
21	1Z	78	LYS
21	1Z	91	LEU
21	1Z	119	GLU
21	1Z	126	VAL
21	1Z	139	VAL
21	1Z	150	LEU
21	1Z	155	LEU
21	1Z	161	VAL
21	1Z	163	LEU
21	1Z	170	THR
21	1Z	191	VAL
22	10	39	ARG
22	10	59	LEU
23	11	30	VAL
23	11	35	THR
23	11	40	ARG
23	11	50	ARG
23	11	51	VAL
23	11	59	THR
23	11	80	LEU
23	11	95	LEU

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Mol	Chain	Res	Type
24	12	19	VAL
24	12	32	LEU
24	12	52	ASP
24	12	53	LEU
24	12	64	LEU
24	12	70	GLN
25	13	6	VAL
25	13	8	LEU
25	13	23	LEU
25	13	54	VAL
25	13	56	VAL
26	14	3	GLU
26	14	27	THR
26	14	35	VAL
26	14	49	PHE
26	14	56	VAL
26	14	58	ARG
27	15	6	VAL
27	15	16	ARG
27	15	29	THR
27	15	35	GLU
27	15	59	GLU
28	16	5	VAL
28	16	9	LEU
28	16	14	THR
28	16	45	LYS
28	16	48	VAL
28	16	52	VAL
29	17	24	THR
29	17	43	THR
30	18	14	VAL
30	18	23	VAL
30	18	29	LYS
30	18	30	ARG
30	18	32	LEU
31	19	17	ILE
33	1b	15	VAL
33	1b	17	PHE
33	1b	21	ARG
33	1b	51	LEU
33	1b	58	ILE
33	1b	67	THR

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Mol	Chain	Res	Type
33	1b	71	VAL
33	1b	73	THR
33	1b	107	THR
33	1b	110	GLN
33	1b	118	LEU
33	1b	128	GLU
33	1b	130	ARG
33	1b	144	ARG
33	1b	145	LEU
33	1b	162	ILE
33	1b	178	ARG
33	1b	184	VAL
33	1b	185	ILE
33	1b	211	ILE
33	1b	212	GLN
33	1b	235	SER
34	1c	3	ASN
34	1c	11	ARG
34	1c	14	ILE
34	1c	28	GLN
34	1c	59	ARG
34	1c	63	ASN
34	1c	67	THR
34	1c	72	LYS
34	1c	103	VAL
34	1c	112	SER
34	1c	115	LEU
34	1c	116	VAL
34	1c	127	ARG
34	1c	165	THR
34	1c	166	GLU
34	1c	188	LEU
35	1d	18	LYS
35	1d	26	CYS
35	1d	33	MET
35	1d	58	LEU
35	1d	59	ARG
35	1d	73	ARG
35	1d	80	GLU
35	1d	126	ILE
35	1d	127	THR
35	1d	128	VAL

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Mol	Chain	Res	Type
35	1d	135	LEU
35	1d	140	VAL
35	1d	144	ASP
35	1d	148	VAL
35	1d	155	LEU
35	1d	157	LEU
35	1d	158	ILE
35	1d	182	LYS
35	1d	184	LYS
35	1d	188	LEU
35	1d	190	ASP
35	1d	193	ASP
35	1d	196	LEU
36	1e	10	MET
36	1e	12	LEU
36	1e	16	THR
36	1e	31	LEU
36	1e	38	GLN
36	1e	41	VAL
36	1e	47	LYS
36	1e	64	ARG
36	1e	78	HIS
36	1e	79	GLU
36	1e	91	LEU
36	1e	107	ARG
36	1e	151	LEU
36	1e	152	ARG
37	1f	45	LEU
37	1f	54	LYS
37	1f	57	GLN
37	1f	64	GLN
37	1f	69	GLU
37	1f	72	VAL
37	1f	74	ASP
37	1f	78	GLU
37	1f	89	MET
37	1f	91	VAL
37	1f	92	LYS
37	1f	98	LEU
38	1g	12	LEU
38	1g	21	VAL
38	1g	22	LEU

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Mol	Chain	Res	Type
38	1g	45	ASP
38	1g	52	GLU
38	1g	61	VAL
38	1g	66	VAL
38	1g	113	GLU
38	1g	115	ARG
38	1g	144	MET
39	1h	3	THR
39	1h	19	VAL
39	1h	24	THR
39	1h	26	VAL
39	1h	32	LYS
39	1h	34	GLU
39	1h	39	LEU
39	1h	45	ILE
39	1h	49	GLU
39	1h	51	VAL
39	1h	54	ASP
39	1h	63	LEU
39	1h	69	ARG
39	1h	87	SER
39	1h	88	LYS
39	1h	104	ARG
39	1h	115	SER
39	1h	121	ASP
40	1i	25	LYS
40	1i	27	THR
40	1i	47	LEU
40	1i	54	ASP
40	1i	60	ASP
40	1i	62	TYR
40	1i	81	ILE
40	1i	92	TYR
40	1i	103	THR
40	1i	108	VAL
40	1i	125	TYR
41	1j	38	ILE
41	1j	49	VAL
41	1j	55	LYS
41	1j	72	VAL
41	1j	84	GLN
41	1j	94	VAL

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Mol	Chain	Res	Type
41	1j	100	THR
42	1k	14	VAL
42	1k	18	ARG
42	1k	81	ASP
42	1k	84	VAL
42	1k	109	VAL
42	1k	114	VAL
43	1l	18	VAL
43	1l	27	LEU
43	1l	33	ARG
43	1l	34	ARG
43	1l	36	VAL
43	1l	60	LEU
43	1l	70	ILE
43	1l	83	VAL
43	1l	113	ARG
43	1l	118	SER
44	1m	4	ILE
44	1m	9	ILE
44	1m	11	ARG
44	1m	19	LEU
44	1m	70	LEU
44	1m	81	LEU
44	1m	102	ARG
44	1m	105	THR
44	1m	116	THR
45	1n	3	ARG
45	1n	6	LEU
45	1n	18	VAL
45	1n	32	SER
45	1n	60	SER
46	1o	3	ILE
46	1o	31	LEU
46	1o	39	LEU
46	1o	43	LEU
46	1o	66	LEU
46	1o	68	ARG
46	1o	87	ILE
46	1o	88	ARG
47	1p	2	VAL
47	1p	6	LEU
47	1p	8	ARG

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Mol	Chain	Res	Type
47	1p	11	SER
47	1p	22	THR
47	1p	29	ASP
47	1p	45	THR
47	1p	47	ASP
47	1p	54	GLU
47	1p	62	VAL
47	1p	67	THR
48	1q	11	VAL
48	1q	43	LEU
48	1q	52	LYS
48	1q	53	LEU
48	1q	62	SER
48	1q	63	ARG
48	1q	72	ARG
48	1q	85	VAL
48	1q	100	LYS
49	1r	26	LEU
49	1r	31	LEU
49	1r	37	VAL
49	1r	65	ILE
49	1r	70	ILE
49	1r	76	LEU
49	1r	78	LEU
49	1r	87	ARG
50	1s	37	ARG
50	1s	39	THR
50	1s	41	VAL
50	1s	49	ILE
50	1s	51	VAL
50	1s	56	GLN
50	1s	79	THR
51	1t	8	ARG
51	1t	9	ASN
51	1t	19	SER
51	1t	24	LEU
51	1t	31	SER
51	1t	37	SER
51	1t	60	GLU
51	1t	62	LEU
51	1t	64	ASP
51	1t	70	SER

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Mol	Chain	Res	Type
51	1t	80	ARG
51	1t	84	LEU
51	1t	90	GLN
51	1t	100	ILE
53	1y	3	MET
53	1y	24	LEU
53	1y	41	LEU
53	1y	53	THR
53	1y	60	VAL
53	1y	74	ILE
53	1y	76	GLU
3	2D	3	VAL
3	2D	24	ILE
3	2D	38	LYS
3	2D	61	LEU
3	2D	94	LEU
3	2D	103	ARG
3	2D	106	ILE
3	2D	109	ASP
3	2D	111	LEU
3	2D	127	VAL
3	2D	138	VAL
3	2D	141	VAL
3	2D	142	VAL
3	2D	155	LEU
3	2D	183	ARG
3	2D	193	VAL
3	2D	211	ARG
3	2D	217	ARG
3	2D	221	VAL
3	2D	229	VAL
3	2D	242	ARG
3	2D	260	ARG
3	2D	274	ARG
3	2D	276	LYS
4	2E	7	VAL
4	2E	9	VAL
4	2E	12	THR
4	2E	14	ILE
4	2E	21	VAL
4	2E	33	VAL
4	2E	34	VAL

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Mol	Chain	Res	Type
4	2E	38	THR
4	2E	52	LEU
4	2E	72	VAL
4	2E	75	VAL
4	2E	77	ILE
4	2E	90	THR
4	2E	116	VAL
4	2E	144	ARG
4	2E	145	LYS
4	2E	154	LYS
4	2E	175	VAL
4	2E	181	LEU
4	2E	184	VAL
5	2F	20	LEU
5	2F	33	LEU
5	2F	53	THR
5	2F	57	VAL
5	2F	60	SER
5	2F	74	ARG
5	2F	88	VAL
5	2F	126	VAL
5	2F	132	VAL
5	2F	140	LEU
5	2F	161	GLU
5	2F	162	LEU
5	2F	170	LEU
5	2F	183	VAL
5	2F	192	LEU
5	2F	197	ASP
5	2F	200	GLU
5	2F	201	VAL
6	2G	3	LEU
6	2G	5	VAL
6	2G	28	VAL
6	2G	31	VAL
6	2G	39	ILE
6	2G	43	LEU
6	2G	49	ASP
6	2G	77	ILE
6	2G	84	LYS
6	2G	88	ILE
6	2G	92	VAL

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Mol	Chain	Res	Type
6	2G	111	LEU
6	2G	113	ARG
6	2G	159	VAL
6	2G	167	GLU
7	2H	3	ARG
7	2H	4	ILE
7	2H	15	VAL
7	2H	16	SER
7	2H	23	ARG
7	2H	33	LEU
7	2H	37	VAL
7	2H	47	GLU
7	2H	49	VAL
7	2H	67	LEU
7	2H	81	GLU
7	2H	84	SER
7	2H	88	LEU
7	2H	121	ILE
7	2H	122	THR
7	2H	136	ILE
7	2H	171	LEU
7	2H	175	LYS
8	2I	35	LEU
8	2I	38	LEU
8	2I	43	ASN
8	2I	44	LEU
8	2I	48	GLU
8	2I	50	ARG
8	2I	58	LEU
8	2I	68	LEU
8	2I	75	LEU
8	2I	77	LEU
8	2I	78	THR
8	2I	81	VAL
8	2I	99	GLU
8	2I	101	LEU
8	2I	108	THR
9	2N	8	GLN
9	2N	12	ARG
9	2N	15	LEU
9	2N	28	THR
9	2N	33	LEU

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Mol	Chain	Res	Type
9	2N	34	LEU
9	2N	46	VAL
9	2N	48	MET
9	2N	58	ASP
9	2N	62	VAL
9	2N	67	LEU
9	2N	68	GLU
9	2N	73	THR
9	2N	87	LEU
9	2N	99	LEU
9	2N	133	GLN
9	2N	134	ARG
9	2N	138	LEU
10	2O	10	VAL
10	2O	18	LYS
10	2O	22	ILE
10	2O	24	VAL
10	2O	28	SER
10	2O	35	VAL
10	2O	42	SER
10	2O	97	ARG
10	2O	98	VAL
11	2P	59	LEU
11	2P	65	ARG
11	2P	95	VAL
11	2P	99	LEU
11	2P	112	LEU
11	2P	133	SER
11	2P	135	LEU
12	2Q	16	ARG
12	2Q	21	THR
12	2Q	55	VAL
12	2Q	75	THR
12	2Q	106	VAL
12	2Q	109	VAL
12	2Q	110	THR
12	2Q	112	GLU
13	2R	18	LEU
13	2R	24	GLN
13	2R	29	LEU
13	2R	36	THR
13	2R	44	LEU

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Mol	Chain	Res	Type
13	2R	49	ASP
13	2R	54	LEU
13	2R	65	LEU
13	2R	67	LEU
13	2R	75	LEU
13	2R	79	LEU
13	2R	86	ARG
13	2R	96	ARG
13	2R	100	LEU
13	2R	102	GLU
13	2R	111	LEU
13	2R	118	GLU
14	2S	14	VAL
14	2S	19	LYS
14	2S	36	TYR
14	2S	48	LEU
14	2S	52	SER
14	2S	57	LYS
14	2S	58	LEU
14	2S	64	GLU
14	2S	69	VAL
14	2S	85	VAL
15	2T	23	ARG
15	2T	28	VAL
15	2T	34	VAL
15	2T	83	ILE
15	2T	85	LYS
15	2T	89	VAL
15	2T	96	ARG
15	2T	107	ASP
16	2U	8	VAL
16	2U	16	LYS
16	2U	31	SER
16	2U	36	ARG
16	2U	59	ARG
16	2U	60	LEU
16	2U	74	LEU
16	2U	83	LEU
17	2V	1	MET
17	2V	5	VAL
17	2V	22	VAL
17	2V	25	LEU

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Mol	Chain	Res	Type
17	2V	35	LEU
17	2V	38	LEU
17	2V	46	VAL
17	2V	51	VAL
17	2V	53	GLU
17	2V	58	VAL
17	2V	62	LEU
17	2V	72	VAL
17	2V	79	VAL
17	2V	82	ARG
17	2V	85	LYS
18	2W	15	ARG
18	2W	17	VAL
18	2W	19	LEU
18	2W	23	LEU
18	2W	71	VAL
18	2W	100	THR
18	2W	107	LEU
19	2X	1	MET
19	2X	38	GLU
19	2X	39	ILE
19	2X	52	VAL
19	2X	53	LYS
19	2X	57	LEU
20	2Y	23	ARG
20	2Y	72	VAL
20	2Y	85	VAL
20	2Y	92	ASN
20	2Y	97	ARG
21	2Z	27	VAL
21	2Z	36	LYS
21	2Z	39	VAL
21	2Z	42	VAL
21	2Z	73	GLN
21	2Z	76	LEU
21	2Z	80	ARG
21	2Z	91	LEU
21	2Z	94	GLU
21	2Z	107	THR
21	2Z	131	ARG
21	2Z	136	PHE
21	2Z	140	ASP

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Mol	Chain	Res	Type
21	2Z	150	LEU
21	2Z	155	LEU
21	2Z	161	VAL
21	2Z	175	VAL
22	20	30	VAL
22	20	39	ARG
22	20	43	THR
23	21	4	VAL
23	21	11	ARG
23	21	30	VAL
23	21	35	THR
23	21	40	ARG
23	21	51	VAL
23	21	75	GLU
23	21	80	LEU
23	21	85	LEU
23	21	95	LEU
24	22	16	LEU
24	22	17	SER
24	22	32	LEU
24	22	38	GLN
24	22	40	SER
24	22	41	ILE
24	22	53	LEU
24	22	62	THR
25	23	23	LEU
25	23	31	LEU
25	23	54	VAL
26	24	13	ARG
26	24	14	ILE
26	24	31	ILE
26	24	34	GLU
26	24	44	THR
26	24	49	PHE
26	24	50	VAL
26	24	53	GLU
26	24	58	ARG
26	24	61	ARG
27	25	6	VAL
27	25	16	ARG
27	25	29	THR
28	26	6	ARG

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Mol	Chain	Res	Type
28	26	9	LEU
28	26	14	THR
28	26	19	ARG
28	26	37	ARG
28	26	48	VAL
28	26	52	VAL
29	27	4	THR
29	27	43	THR
30	28	14	VAL
30	28	27	THR
30	28	37	SER
31	29	7	VAL
31	29	12	ASP
31	29	17	ILE
33	2b	11	LEU
33	2b	17	PHE
33	2b	41	ILE
33	2b	68	ILE
33	2b	81	VAL
33	2b	90	MET
33	2b	96	ARG
33	2b	136	VAL
33	2b	137	ARG
33	2b	157	ARG
33	2b	179	LYS
33	2b	189	ASP
33	2b	196	LEU
33	2b	201	ILE
33	2b	222	ILE
33	2b	224	GLN
33	2b	229	VAL
34	2c	3	ASN
34	2c	15	THR
34	2c	16	ARG
34	2c	52	LEU
34	2c	56	ASP
34	2c	98	ASN
34	2c	115	LEU
34	2c	119	ARG
34	2c	128	PHE
34	2c	131	ARG
34	2c	152	ILE

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Mol	Chain	Res	Type
34	2c	157	ILE
34	2c	165	THR
34	2c	166	GLU
34	2c	179	ARG
34	2c	182	ILE
34	2c	192	THR
34	2c	195	VAL
35	2d	8	VAL
35	2d	11	LEU
35	2d	34	GLU
35	2d	58	LEU
35	2d	65	ARG
35	2d	107	ARG
35	2d	108	LEU
35	2d	122	ARG
35	2d	135	LEU
35	2d	152	SER
35	2d	155	LEU
35	2d	158	ILE
35	2d	169	LYS
35	2d	170	VAL
35	2d	178	VAL
35	2d	190	ASP
35	2d	201	GLN
35	2d	204	ILE
36	2e	20	GLN
36	2e	31	LEU
36	2e	34	VAL
36	2e	40	ARG
36	2e	41	VAL
36	2e	51	VAL
36	2e	55	VAL
36	2e	69	VAL
36	2e	72	GLN
36	2e	135	THR
36	2e	140	ARG
36	2e	152	ARG
37	2f	17	SER
37	2f	22	GLU
37	2f	40	VAL
37	2f	43	LEU
37	2f	46	ARG

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Mol	Chain	Res	Type
37	2f	61	LEU
37	2f	70	ASP
37	2f	72	VAL
37	2f	73	ASN
37	2f	95	GLU
38	2g	8	GLU
38	2g	9	VAL
38	2g	27	ILE
38	2g	73	MET
38	2g	89	MET
38	2g	104	LEU
38	2g	105	VAL
38	2g	113	GLU
38	2g	115	ARG
39	2h	25	ASP
39	2h	33	GLU
39	2h	45	ILE
39	2h	53	VAL
39	2h	63	LEU
39	2h	91	ARG
39	2h	97	VAL
39	2h	104	ARG
39	2h	112	LEU
39	2h	115	SER
39	2h	119	LEU
39	2h	133	LEU
39	2h	137	VAL
40	2i	17	VAL
40	2i	25	LYS
40	2i	53	VAL
40	2i	64	THR
40	2i	65	VAL
40	2i	66	ARG
40	2i	86	VAL
40	2i	102	LEU
40	2i	108	VAL
41	2j	54	PHE
41	2j	67	THR
41	2j	69	ASN
41	2j	72	VAL
41	2j	84	GLN
41	2j	92	THR

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Mol	Chain	Res	Type
41	2j	95	GLU
42	2k	14	VAL
42	2k	18	ARG
42	2k	32	ILE
42	2k	33	THR
42	2k	48	ILE
42	2k	53	SER
42	2k	79	SER
42	2k	80	VAL
42	2k	83	ILE
42	2k	84	VAL
42	2k	92	GLU
42	2k	109	VAL
42	2k	114	VAL
42	2k	116	HIS
42	2k	117	ASN
43	2l	8	ASN
43	2l	27	LEU
43	2l	33	ARG
43	2l	36	VAL
43	2l	39	VAL
43	2l	40	VAL
43	2l	41	ARG
43	2l	50	SER
43	2l	60	LEU
43	2l	61	THR
43	2l	82	VAL
43	2l	97	ARG
43	2l	117	ARG
43	2l	123	LYS
44	2m	4	ILE
44	2m	11	ARG
44	2m	19	LEU
44	2m	32	GLU
44	2m	47	ASP
44	2m	70	LEU
44	2m	79	LYS
44	2m	90	LEU
44	2m	98	VAL
44	2m	116	THR
45	2n	7	ILE
45	2n	8	GLU

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Mol	Chain	Res	Type
45	2n	18	VAL
45	2n	33	VAL
46	2o	14	GLU
46	2o	29	VAL
46	2o	58	MET
46	2o	64	ARG
47	2p	2	VAL
47	2p	20	VAL
47	2p	21	VAL
47	2p	45	THR
47	2p	54	GLU
47	2p	60	LEU
47	2p	62	VAL
47	2p	69	THR
47	2p	73	LEU
47	2p	74	LEU
47	2p	79	VAL
48	2q	9	VAL
48	2q	22	LEU
48	2q	31	LEU
48	2q	60	ILE
48	2q	61	GLU
48	2q	63	ARG
48	2q	82	MET
49	2r	26	LEU
49	2r	37	VAL
49	2r	47	THR
49	2r	74	ARG
49	2r	76	LEU
49	2r	82	THR
49	2r	85	LEU
49	2r	86	VAL
50	2s	5	LEU
50	2s	12	ASP
50	2s	13	ASP
50	2s	27	GLU
50	2s	35	SER
50	2s	41	VAL
50	2s	44	MET
50	2s	48	THR
50	2s	51	VAL
50	2s	77	THR

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Mol	Chain	Res	Type
50	2s	79	THR
51	2t	13	LEU
51	2t	21	LYS
51	2t	24	LEU
51	2t	38	LYS
51	2t	70	SER
51	2t	71	THR
51	2t	84	LEU
51	2t	100	ILE
53	2y	3	MET
53	2y	5	ILE
53	2y	8	LYS
53	2y	11	GLU
53	2y	13	THR
53	2y	16	ILE
53	2y	24	LEU
53	2y	27	LEU
53	2y	29	LYS
53	2y	32	THR
53	2y	39	ILE
53	2y	41	LEU
53	2y	46	GLN
53	2y	49	VAL
53	2y	54	ILE
53	2y	62	VAL

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (137) such sidechains are listed below:

Mol	Chain	Res	Type
3	1D	87	ASN
3	1D	166	GLN
3	1D	253	GLN
4	1E	48	GLN
4	1E	55	ASN
4	1E	143	ASN
5	1F	133	ASN
5	1F	203	GLN
6	1G	26	GLN
6	1G	108	ASN
8	1I	11	ASN
8	1I	74	ASN
8	1I	104	GLN

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Mol	Chain	Res	Type
9	1N	133	GLN
12	1Q	57	HIS
13	1R	24	GLN
13	1R	50	HIS
15	1T	58	ASN
15	1T	84	GLN
15	1T	123	GLN
19	1X	31	HIS
19	1X	82	GLN
20	1Y	6	HIS
20	1Y	43	ASN
20	1Y	92	ASN
21	1Z	34	ASN
21	1Z	65	GLN
21	1Z	73	GLN
21	1Z	151	HIS
25	13	32	GLN
26	14	60	GLN
33	1b	76	GLN
33	1b	212	GLN
34	1c	136	GLN
35	1d	77	ASN
35	1d	119	GLN
35	1d	123	HIS
35	1d	161	ASN
35	1d	201	GLN
36	1e	20	GLN
36	1e	38	GLN
37	1f	100	ASN
38	1g	13	GLN
38	1g	28	ASN
38	1g	37	ASN
38	1g	56	GLN
38	1g	64	GLN
38	1g	148	ASN
40	1i	3	GLN
40	1i	58	HIS
41	1j	13	HIS
41	1j	56	HIS
42	1k	78	GLN
43	1l	80	HIS
43	1l	99	HIS

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Mol	Chain	Res	Type
46	1o	28	GLN
47	1p	16	HIS
48	1q	16	GLN
50	1s	14	HIS
50	1s	83	HIS
53	1y	9	GLN
53	1y	18	GLN
53	1y	38	HIS
3	2D	126	GLN
3	2D	253	GLN
4	2E	143	ASN
4	2E	169	ASN
4	2E	192	ASN
5	2F	40	GLN
5	2F	69	HIS
5	2F	203	GLN
6	2G	27	ASN
6	2G	130	ASN
7	2H	74	ASN
7	2H	143	GLN
7	2H	147	ASN
8	2I	43	ASN
8	2I	104	GLN
9	2N	56	ASN
9	2N	133	GLN
10	2O	3	GLN
10	2O	5	GLN
11	2P	68	GLN
12	2Q	13	GLN
12	2Q	89	ASN
15	2T	58	ASN
16	2U	94	ASN
16	2U	104	GLN
18	2W	62	HIS
19	2X	31	HIS
19	2X	82	GLN
20	2Y	92	ASN
22	20	29	GLN
22	20	50	ASN
22	20	70	GLN
25	23	32	GLN
25	23	46	ASN

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Mol	Chain	Res	Type
26	24	46	GLN
30	28	35	GLN
33	2b	40	HIS
33	2b	113	HIS
33	2b	212	GLN
34	2c	63	ASN
34	2c	176	HIS
35	2d	77	ASN
35	2d	116	GLN
35	2d	119	GLN
35	2d	123	HIS
35	2d	125	HIS
35	2d	160	GLN
35	2d	201	GLN
36	2e	127	ASN
37	2f	18	GLN
38	2g	64	GLN
38	2g	86	GLN
38	2g	97	GLN
38	2g	148	ASN
39	2h	82	HIS
40	2i	3	GLN
40	2i	31	GLN
40	2i	58	HIS
41	2j	21	GLN
41	2j	69	ASN
42	2k	117	ASN
44	2m	62	ASN
44	2m	77	ASN
46	2o	28	GLN
46	2o	62	GLN
47	2p	16	HIS
48	2q	16	GLN
48	2q	93	GLN
50	2s	65	ASN
50	2s	69	HIS
51	2t	90	GLN
53	2y	33	HIS
53	2y	58	ASN
53	2y	89	GLN

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	1A	2865/2915 (98%)	428 (14%)	30 (1%)
1	2A	2858/2915 (98%)	495 (17%)	35 (1%)
2	1B	119/121 (98%)	13 (10%)	0
2	2B	119/121 (98%)	19 (15%)	0
32	1a	1497/1521 (98%)	274 (18%)	0
32	2a	1501/1521 (98%)	264 (17%)	0
All	All	8959/9114 (98%)	1493 (16%)	65 (0%)

All (1493) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	1A	12	U
1	1A	14	A
1	1A	15	G
1	1A	34	C
1	1A	36	G
1	1A	45	C
1	1A	61	G
1	1A	71	A
1	1A	74	A
1	1A	75	G
1	1A	95	G
1	1A	118	A
1	1A	119	A
1	1A	120	U
1	1A	196	A
1	1A	199	A
1	1A	205	G
1	1A	214	G
1	1A	215	G
1	1A	216	A
1	1A	221	A
1	1A	222	A
1	1A	229	A
1	1A	233	A
1	1A	248	G
1	1A	249	C
1	1A	264	C
1	1A	265	A
1	1A	266	G
1	1A	271(I)	G
1	1A	271(K)	U
1	1A	271(L)	U

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Mol	Chain	Res	Type
1	1A	271(M)	G
1	1A	271(N)	U
1	1A	271(O)	C
1	1A	271(S)	G
1	1A	272(A)	U
1	1A	272(B)	G
1	1A	275	G
1	1A	279	C
1	1A	283	A
1	1A	311	A
1	1A	330	A
1	1A	352	G
1	1A	362	U
1	1A	363	G
1	1A	386	G
1	1A	404	C
1	1A	405	U
1	1A	411	G
1	1A	412	A
1	1A	421	U
1	1A	422	A
1	1A	428	A
1	1A	448	U
1	1A	456	C
1	1A	457	A
1	1A	479	A
1	1A	481	G
1	1A	504	U
1	1A	505	A
1	1A	508	G
1	1A	509	C
1	1A	530	G
1	1A	531	C
1	1A	532	A
1	1A	533	G
1	1A	545	G
1	1A	549	G
1	1A	563	G
1	1A	573	G
1	1A	575	A
1	1A	586	A
1	1A	592	G

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Mol	Chain	Res	Type
1	1A	603	A
1	1A	604	G
1	1A	607	U
1	1A	614(B)	G
1	1A	615	G
1	1A	616	G
1	1A	627	A
1	1A	637	A
1	1A	645	C
1	1A	646	A
1	1A	652(T)	C
1	1A	652(U)	G
1	1A	669	G
1	1A	686	G
1	1A	717	G
1	1A	730	C
1	1A	775	G
1	1A	776	G
1	1A	782	A
1	1A	784	A
1	1A	785	G
1	1A	792	G
1	1A	794	G
1	1A	805	G
1	1A	811	U
1	1A	812	C
1	1A	827	U
1	1A	828	U
1	1A	859	G
1	1A	866	A
1	1A	879	G
1	1A	884	C
1	1A	886	C
1	1A	887	A
1	1A	888	C
1	1A	889	C
1	1A	890	A
1	1A	896	A
1	1A	897	C
1	1A	910	A
1	1A	932	G
1	1A	945	A

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Mol	Chain	Res	Type
1	1A	946	G
1	1A	959	A
1	1A	961	C
1	1A	963	U
1	1A	974	G
1	1A	975	C
1	1A	983	A
1	1A	996	A
1	1A	1005	C
1	1A	1012	U
1	1A	1013	C
1	1A	1026	U
1	1A	1033	U
1	1A	1038	C
1	1A	1039	G
1	1A	1042	G
1	1A	1043	C
1	1A	1044	G
1	1A	1045	A
1	1A	1046	A
1	1A	1047	G
1	1A	1051	G
1	1A	1053	C
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	1079	C
1	1A	1083	U
1	1A	1085	A
1	1A	1087	G
1	1A	1088	A

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Mol	Chain	Res	Type
1	1A	1090	U
1	1A	1096	A
1	1A	1097	U
1	1A	1109	C
1	1A	1110	G
1	1A	1111	A
1	1A	1112	G
1	1A	1128	A
1	1A	1129	A
1	1A	1130	U
1	1A	1135	C
1	1A	1136	G
1	1A	1170	G
1	1A	1171	G
1	1A	1173	G
1	1A	1174	A
1	1A	1175	U
1	1A	1176	G
1	1A	1177	A
1	1A	1178	C
1	1A	1210	A
1	1A	1211	U
1	1A	1218	C
1	1A	1220	A
1	1A	1244	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	1342	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	1380	G
1	1A	1384	A
1	1A	1385	G

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Mol	Chain	Res	Type
1	1A	1395	A
1	1A	1416	G
1	1A	1417	C
1	1A	1420	U
1	1A	1421	G
1	1A	1428	C
1	1A	1445	A
1	1A	1450	G
1	1A	1452	A
1	1A	1467	C
1	1A	1471	A
1	1A	1482	G
1	1A	1493	C
1	1A	1506	C
1	1A	1508	A
1	1A	1509	C
1	1A	1509(A)	A
1	1A	1540	U
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	1584	C
1	1A	1586	A
1	1A	1607	C
1	1A	1608	A
1	1A	1609	A
1	1A	1610	A
1	1A	1648	C
1	1A	1654	A
1	1A	1674	G
1	1A	1696	G
1	1A	1700	A
1	1A	1701	A
1	1A	1721	G
1	1A	1722	A
1	1A	1740	G
1	1A	1756	G
1	1A	1762	A
1	1A	1763	G

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Mol	Chain	Res	Type
1	1A	1764	G
1	1A	1773	A
1	1A	1780	A
1	1A	1782	C
1	1A	1791	A
1	1A	1800	C
1	1A	1801	G
1	1A	1812	A
1	1A	1816	G
1	1A	1817	G
1	1A	1828	G
1	1A	1829	A
1	1A	1839	G
1	1A	1847	A
1	1A	1848	A
1	1A	1877	A
1	1A	1878	G
1	1A	1889	A
1	1A	1890	A
1	1A	1896	G
1	1A	1900	A
1	1A	1906	G
1	1A	1913	A
1	1A	1914	C
1	1A	1929	G
1	1A	1930	G
1	1A	1937	A
1	1A	1938	A
1	1A	1955	U
1	1A	1960	A
1	1A	1963	U
1	1A	1965	C
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	2020	A
1	1A	2023	G
1	1A	2031	A
1	1A	2032	G

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Mol	Chain	Res	Type
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	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	2119	A
1	1A	2120	G
1	1A	2121	G
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	2136	C
1	1A	2138	C
1	1A	2141	G
1	1A	2142	C
1	1A	2146	C
1	1A	2147	G
1	1A	2153	G
1	1A	2156	G
1	1A	2158	A
1	1A	2159	G
1	1A	2160	G
1	1A	2162	G
1	1A	2165	G
1	1A	2170	A
1	1A	2172	U

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Mol	Chain	Res	Type
1	1A	2173	A
1	1A	2184	G
1	1A	2186	G
1	1A	2187	G
1	1A	2188	C
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	2219	G
1	1A	2225	A
1	1A	2238	G
1	1A	2239	G
1	1A	2268	A
1	1A	2278	A
1	1A	2280	G
1	1A	2283	C
1	1A	2286	A
1	1A	2287	A
1	1A	2289	G
1	1A	2305	A
1	1A	2308	G
1	1A	2320	A
1	1A	2325	G
1	1A	2334	G
1	1A	2336	A
1	1A	2347	C
1	1A	2350	C
1	1A	2354	G
1	1A	2372	G
1	1A	2383	G
1	1A	2385	C
1	1A	2393	A
1	1A	2400	G
1	1A	2406	U
1	1A	2407	G
1	1A	2414	G
1	1A	2417	C
1	1A	2422	A
1	1A	2423	U

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Mol	Chain	Res	Type
1	1A	2425	A
1	1A	2429	G
1	1A	2430	A
1	1A	2431	U
1	1A	2434	A
1	1A	2435	A
1	1A	2439	A
1	1A	2441	C
1	1A	2448	A
1	1A	2468	G
1	1A	2469	A
1	1A	2475	C
1	1A	2476	A
1	1A	2482	G
1	1A	2502	G
1	1A	2505	G
1	1A	2506	U
1	1A	2518	A
1	1A	2529	G
1	1A	2535	G
1	1A	2549	G
1	1A	2554	U
1	1A	2566	A
1	1A	2567	G
1	1A	2573	C
1	1A	2574	G
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	2689	U
1	1A	2690	C
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

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Mol	Chain	Res	Type
1	1A	2764	A
1	1A	2765	A
1	1A	2766	G
1	1A	2778	A
1	1A	2789	C
1	1A	2790	A
1	1A	2791	C
1	1A	2802	G
1	1A	2805	G
1	1A	2820	A
1	1A	2821	A
1	1A	2833	G
1	1A	2835	A
1	1A	2839	G
1	1A	2872	G
1	1A	2873	A
1	1A	2880	C
1	1A	2894	G
2	1B	2	C
2	1B	7	G
2	1B	13	A
2	1B	25	A
2	1B	45	A
2	1B	53	A
2	1B	56	G
2	1B	63	G
2	1B	67	G
2	1B	73	A
2	1B	85	G
2	1B	110	G
2	1B	117	G
32	1a	6	G
32	1a	9	G
32	1a	22	G
32	1a	32	A
32	1a	39	G
32	1a	48	C
32	1a	50	A
32	1a	51	A
32	1a	55	A
32	1a	61	G
32	1a	67	C

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Mol	Chain	Res	Type
32	1a	71	C
32	1a	72	C
32	1a	73	G
32	1a	78	G
32	1a	79	G
32	1a	92	C
32	1a	96	U
32	1a	98	G
32	1a	100	C
32	1a	101	A
32	1a	115	G
32	1a	116	A
32	1a	121	C
32	1a	129(A)	G
32	1a	131	C
32	1a	137	C
32	1a	139	G
32	1a	151	A
32	1a	163	C
32	1a	170	U
32	1a	173	U
32	1a	174	C
32	1a	182	U
32	1a	189(F)	U
32	1a	189(G)	G
32	1a	195	A
32	1a	197	A
32	1a	202	U
32	1a	203	U
32	1a	204	U
32	1a	216	G
32	1a	217	C
32	1a	220	G
32	1a	222	U
32	1a	231	G
32	1a	247	G
32	1a	251	G
32	1a	258	G
32	1a	266	G
32	1a	267	C
32	1a	289	G
32	1a	298	A

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Mol	Chain	Res	Type
32	1a	301	G
32	1a	309	G
32	1a	321	A
32	1a	328	C
32	1a	329	A
32	1a	330	C
32	1a	332	G
32	1a	345	C
32	1a	348	G
32	1a	351	G
32	1a	352	C
32	1a	353	A
32	1a	354	G
32	1a	367	U
32	1a	372	C
32	1a	373	A
32	1a	382	A
32	1a	384	G
32	1a	388	G
32	1a	397	A
32	1a	398	C
32	1a	402	G
32	1a	406	G
32	1a	411	A
32	1a	412	A
32	1a	413	G
32	1a	423	G
32	1a	424	G
32	1a	427	U
32	1a	429	U
32	1a	430	A
32	1a	439	A
32	1a	441	A
32	1a	442	C
32	1a	452	A
32	1a	461	A
32	1a	470	C
32	1a	471	G
32	1a	480	U
32	1a	485	G
32	1a	490	G
32	1a	496	A

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Mol	Chain	Res	Type
32	1a	498	U
32	1a	505	G
32	1a	509	A
32	1a	510	A
32	1a	511	C
32	1a	518	C
32	1a	521	G
32	1a	528	C
32	1a	532	A
32	1a	547	A
32	1a	550	G
32	1a	559	A
32	1a	561	U
32	1a	572	A
32	1a	573	A
32	1a	576	G
32	1a	596	C
32	1a	616	G
32	1a	618	C
32	1a	630	G
32	1a	631	G
32	1a	632	A
32	1a	639	G
32	1a	653	A
32	1a	657	G
32	1a	661	G
32	1a	665	A
32	1a	686	U
32	1a	688	G
32	1a	703	G
32	1a	723	U
32	1a	731	G
32	1a	755	G
32	1a	774	G
32	1a	777	A
32	1a	792	A
32	1a	793	U
32	1a	794	A
32	1a	816	A
32	1a	817	C
32	1a	818	G
32	1a	821	G

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Mol	Chain	Res	Type
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
32	1a	902	G
32	1a	914	A
32	1a	926	G
32	1a	927	G
32	1a	928	G
32	1a	934	C
32	1a	942	G
32	1a	960	U
32	1a	961	U
32	1a	963	G
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	991	U
32	1a	992	U
32	1a	993	G
32	1a	998	G
32	1a	1003	G
32	1a	1006	C
32	1a	1010	G
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

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Mol	Chain	Res	Type
32	1a	1030(C)	G
32	1a	1032	G
32	1a	1033	G
32	1a	1035	A
32	1a	1037	C
32	1a	1042	G
32	1a	1044	A
32	1a	1046	A
32	1a	1053	G
32	1a	1065	U
32	1a	1066	C
32	1a	1068	G
32	1a	1081	G
32	1a	1086	U
32	1a	1094	G
32	1a	1095	U
32	1a	1096	C
32	1a	1101	A
32	1a	1123	A
32	1a	1126	U
32	1a	1130	A
32	1a	1132	C
32	1a	1134	G
32	1a	1136	U
32	1a	1137	C
32	1a	1139	G
32	1a	1140	C
32	1a	1146	A
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	1193	G
32	1a	1196	U
32	1a	1197	G
32	1a	1202	G
32	1a	1212	U
32	1a	1213	A
32	1a	1219	U
32	1a	1220	G

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Mol	Chain	Res	Type
32	1a	1224	G
32	1a	1227	A
32	1a	1238	A
32	1a	1240	U
32	1a	1256	A
32	1a	1257	U
32	1a	1258	G
32	1a	1260	C
32	1a	1263	C
32	1a	1270	C
32	1a	1275	A
32	1a	1278	U
32	1a	1280	A
32	1a	1286	A
32	1a	1287	A
32	1a	1298	C
32	1a	1299	A
32	1a	1300	G
32	1a	1302	U
32	1a	1312	G
32	1a	1319	A
32	1a	1320	C
32	1a	1338	G
32	1a	1340	A
32	1a	1346	A
32	1a	1347	G
32	1a	1363	C
32	1a	1368	G
32	1a	1370	G
32	1a	1377	A
32	1a	1397	C
32	1a	1409	C
32	1a	1419	G
32	1a	1442	G
32	1a	1442(A)	G
32	1a	1442(B)	A
32	1a	1447	A
32	1a	1452	C
32	1a	1456	G
32	1a	1493	A
32	1a	1497	G
32	1a	1499	A

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Mol	Chain	Res	Type
32	1a	1503	A
32	1a	1504	G
32	1a	1505	G
32	1a	1506	U
32	1a	1507	A
32	1a	1517	G
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	11	G
1	2A	12	U
1	2A	15	G
1	2A	34	C
1	2A	45	C
1	2A	55	G
1	2A	64	A
1	2A	71	A
1	2A	74	A
1	2A	75	G
1	2A	78	A
1	2A	84	A
1	2A	90	U
1	2A	95	G
1	2A	102	G
1	2A	118	A
1	2A	119	A
1	2A	120	U
1	2A	141	A
1	2A	153	C
1	2A	157	U
1	2A	173	G
1	2A	181	A
1	2A	182	A
1	2A	196	A
1	2A	197	A
1	2A	199	A
1	2A	205	G
1	2A	215	G
1	2A	216	A

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Mol	Chain	Res	Type
1	2A	221	A
1	2A	222	A
1	2A	228	A
1	2A	229	A
1	2A	230	U
1	2A	248	G
1	2A	249	C
1	2A	250	G
1	2A	271(L)	U
1	2A	271(M)	G
1	2A	271(N)	U
1	2A	272(A)	U
1	2A	272(B)	G
1	2A	272(J)	C
1	2A	277	C
1	2A	278	A
1	2A	292	C
1	2A	311	A
1	2A	312	G
1	2A	324	A
1	2A	327	G
1	2A	329	G
1	2A	330	A
1	2A	333	G
1	2A	342	G
1	2A	345	A
1	2A	352	G
1	2A	353	G
1	2A	362	U
1	2A	363	G
1	2A	370	G
1	2A	386	G
1	2A	396	G
1	2A	399	G
1	2A	405	U
1	2A	411	G
1	2A	428	A
1	2A	444	C
1	2A	451	C
1	2A	455	C
1	2A	456	C
1	2A	457	A

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Mol	Chain	Res	Type
1	2A	470	A
1	2A	481	G
1	2A	504	U
1	2A	505	A
1	2A	509	C
1	2A	530	G
1	2A	531	C
1	2A	532	A
1	2A	533	G
1	2A	545	G
1	2A	563	G
1	2A	573	G
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	627	A
1	2A	634	C
1	2A	637	A
1	2A	645	C
1	2A	646	A
1	2A	652(B)	A
1	2A	652(C)	G
1	2A	652(U)	G
1	2A	653	A
1	2A	669	G
1	2A	686	G
1	2A	717	G
1	2A	726	G
1	2A	730	C
1	2A	740	U
1	2A	752	A
1	2A	753	C
1	2A	764	A
1	2A	765	G
1	2A	775	G
1	2A	776	G
1	2A	782	A
1	2A	784	A

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Mol	Chain	Res	Type
1	2A	785	G
1	2A	792	G
1	2A	805	G
1	2A	812	C
1	2A	827	U
1	2A	828	U
1	2A	848	G
1	2A	854	G
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	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	968	G
1	2A	974	G
1	2A	975	C
1	2A	983	A
1	2A	996	A
1	2A	1012	U
1	2A	1013	C
1	2A	1022	G
1	2A	1033	U
1	2A	1038	C
1	2A	1041	C
1	2A	1043	C

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Mol	Chain	Res	Type
1	2A	1044	G
1	2A	1045	A
1	2A	1046	A
1	2A	1047	G
1	2A	1048	A
1	2A	1053	C
1	2A	1054	A
1	2A	1057	A
1	2A	1058	G
1	2A	1060	U
1	2A	1063	G
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	1072	C
1	2A	1073	A
1	2A	1074	G
1	2A	1076	C
1	2A	1077	A
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	1089	G
1	2A	1090	U
1	2A	1091	G
1	2A	1092	C
1	2A	1093	G
1	2A	1094	U
1	2A	1096	A
1	2A	1107	G
1	2A	1109	C
1	2A	1110	G
1	2A	1112	G

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Mol	Chain	Res	Type
1	2A	1116	C
1	2A	1117	G
1	2A	1119	C
1	2A	1129	A
1	2A	1130	U
1	2A	1135	C
1	2A	1136	G
1	2A	1142	U
1	2A	1170	G
1	2A	1171	G
1	2A	1188	U
1	2A	1211	U
1	2A	1220	A
1	2A	1227	G
1	2A	1236	G
1	2A	1244	G
1	2A	1253	A
1	2A	1256	G
1	2A	1262	A
1	2A	1271	G
1	2A	1272	A
1	2A	1273	U
1	2A	1284	A
1	2A	1287	A
1	2A	1288	U
1	2A	1300	U
1	2A	1301	A
1	2A	1303	G
1	2A	1308	A
1	2A	1314	C
1	2A	1319	G
1	2A	1321	A
1	2A	1342	A
1	2A	1345	C
1	2A	1346	G
1	2A	1352	U
1	2A	1359	A
1	2A	1360	A
1	2A	1365	A
1	2A	1368	G
1	2A	1380	G
1	2A	1384	A

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Mol	Chain	Res	Type
1	2A	1385	G
1	2A	1386	C
1	2A	1400	G
1	2A	1416	G
1	2A	1417	C
1	2A	1420	U
1	2A	1421	G
1	2A	1427	A
1	2A	1428	C
1	2A	1445	A
1	2A	1450	G
1	2A	1459	G
1	2A	1467	C
1	2A	1471	A
1	2A	1482	G
1	2A	1490	A
1	2A	1493	C
1	2A	1494	A
1	2A	1497	U
1	2A	1508	A
1	2A	1509	C
1	2A	1509(A)	A
1	2A	1523	U
1	2A	1530	C
1	2A	1531	C
1	2A	1533	G
1	2A	1542	A
1	2A	1543	C
1	2A	1545	A
1	2A	1558	A
1	2A	1559	G
1	2A	1566	A
1	2A	1569	A
1	2A	1578	U
1	2A	1580	A
1	2A	1583	A
1	2A	1584	C
1	2A	1586	A
1	2A	1608	A
1	2A	1609	A
1	2A	1610	A
1	2A	1613	G

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Mol	Chain	Res	Type
1	2A	1620	G
1	2A	1648	C
1	2A	1674	G
1	2A	1696	G
1	2A	1700	A
1	2A	1701	A
1	2A	1703	G
1	2A	1721	G
1	2A	1722	A
1	2A	1750	G
1	2A	1756	G
1	2A	1762	A
1	2A	1763	G
1	2A	1764	G
1	2A	1773	A
1	2A	1780	A
1	2A	1782	C
1	2A	1791	A
1	2A	1800	C
1	2A	1801	G
1	2A	1816	G
1	2A	1829	A
1	2A	1835	G
1	2A	1839	G
1	2A	1847	A
1	2A	1848	A
1	2A	1861	G
1	2A	1877	A
1	2A	1878	G
1	2A	1880	C
1	2A	1900	A
1	2A	1906	G
1	2A	1913	A
1	2A	1914	C
1	2A	1929	G
1	2A	1930	G
1	2A	1937	A
1	2A	1938	A
1	2A	1955	U
1	2A	1963	U
1	2A	1967	C
1	2A	1970	A

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Mol	Chain	Res	Type
1	2A	1971	A
1	2A	1972	A
1	2A	1984	G
1	2A	1992	G
1	2A	1993	U
1	2A	1997	G
1	2A	2020	A
1	2A	2023	G
1	2A	2031	A
1	2A	2032	G
1	2A	2033	A
1	2A	2043	C
1	2A	2055	C
1	2A	2056	G
1	2A	2060	A
1	2A	2061	G
1	2A	2062	A
1	2A	2069	G
1	2A	2096	U
1	2A	2099	U
1	2A	2103	C
1	2A	2104	G
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	2114	A
1	2A	2116	G
1	2A	2117	A
1	2A	2118	U
1	2A	2119	A
1	2A	2120	G
1	2A	2121	G
1	2A	2123	G
1	2A	2126	A
1	2A	2127	G
1	2A	2129	C
1	2A	2130	U
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	2137	C
1	2A	2138	C
1	2A	2145	C
1	2A	2146	C
1	2A	2148	G
1	2A	2151	G
1	2A	2158	A
1	2A	2159	G
1	2A	2161	C
1	2A	2162	G
1	2A	2163	C
1	2A	2164	C
1	2A	2165	G
1	2A	2166	G
1	2A	2172	U
1	2A	2173	A
1	2A	2174	C
1	2A	2178	C
1	2A	2180	U
1	2A	2184	G
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	2235	G
1	2A	2238	G
1	2A	2239	G
1	2A	2268	A
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	2305	A

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Mol	Chain	Res	Type
1	2A	2308	G
1	2A	2311	A
1	2A	2312	U
1	2A	2313	C
1	2A	2316	C
1	2A	2320	A
1	2A	2321	G
1	2A	2322	A
1	2A	2325	G
1	2A	2334	G
1	2A	2343	C
1	2A	2347	C
1	2A	2350	C
1	2A	2354	G
1	2A	2379	G
1	2A	2383	G
1	2A	2385	C
1	2A	2391	G
1	2A	2406	U
1	2A	2407	G
1	2A	2410	G
1	2A	2414	G
1	2A	2422	A
1	2A	2423	U
1	2A	2425	A
1	2A	2429	G
1	2A	2430	A
1	2A	2435	A
1	2A	2439	A
1	2A	2441	C
1	2A	2448	A
1	2A	2468	G
1	2A	2470	G
1	2A	2474	C
1	2A	2476	A
1	2A	2491	U
1	2A	2502	G
1	2A	2505	G
1	2A	2506	U
1	2A	2518	A
1	2A	2529	G
1	2A	2554	U

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Mol	Chain	Res	Type
1	2A	2566	A
1	2A	2567	G
1	2A	2573	C
1	2A	2585	U
1	2A	2602	A
1	2A	2603	G
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	2664	G
1	2A	2668	G
1	2A	2669	G
1	2A	2689	U
1	2A	2690	C
1	2A	2702	U
1	2A	2703	C
1	2A	2712(A)	A
1	2A	2713	A
1	2A	2714	G
1	2A	2726	U
1	2A	2733	A
1	2A	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	2834	G
1	2A	2835	A
1	2A	2839	G
1	2A	2872	G
1	2A	2880	C
1	2A	2891	G

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Mol	Chain	Res	Type
1	2A	2894	G
1	2A	2897	U
2	2B	2	C
2	2B	7	G
2	2B	8	U
2	2B	13	A
2	2B	23	G
2	2B	30	C
2	2B	32	C
2	2B	45	A
2	2B	51	G
2	2B	56	G
2	2B	58	A
2	2B	73	A
2	2B	75	G
2	2B	85	G
2	2B	91	C
2	2B	109	C
2	2B	110	G
2	2B	112	U
2	2B	120	A
32	2a	5	U
32	2a	6	G
32	2a	7	G
32	2a	9	G
32	2a	32	A
32	2a	39	G
32	2a	44	G
32	2a	47	C
32	2a	48	C
32	2a	51	A
32	2a	66	G
32	2a	89	C
32	2a	97	G
32	2a	101	A
32	2a	105	G
32	2a	116	A
32	2a	121	C
32	2a	131	C
32	2a	144	G
32	2a	146	G
32	2a	156	G

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Mol	Chain	Res	Type
32	2a	163	C
32	2a	174	C
32	2a	182	U
32	2a	189(C)	C
32	2a	189(E)	U
32	2a	189(F)	U
32	2a	189(H)	G
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	247	G
32	2a	251	G
32	2a	258	G
32	2a	266	G
32	2a	267	C
32	2a	281	G
32	2a	289	G
32	2a	298	A
32	2a	316	G
32	2a	321	A
32	2a	328	C
32	2a	329	A
32	2a	332	G
32	2a	345	C
32	2a	349	A
32	2a	351	G
32	2a	352	C
32	2a	353	A
32	2a	354	G
32	2a	355	C
32	2a	367	U
32	2a	372	C
32	2a	373	A
32	2a	384	G
32	2a	397	A
32	2a	398	C
32	2a	406	G
32	2a	412	A

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Mol	Chain	Res	Type
32	2a	421	U
32	2a	424	G
32	2a	429	U
32	2a	439	A
32	2a	442	C
32	2a	452	A
32	2a	461	A
32	2a	470	C
32	2a	482	A
32	2a	484	G
32	2a	485	G
32	2a	487	A
32	2a	496	A
32	2a	498	U
32	2a	505	G
32	2a	506	G
32	2a	509	A
32	2a	510	A
32	2a	511	C
32	2a	518	C
32	2a	521	G
32	2a	524	G
32	2a	531	U
32	2a	532	A
32	2a	533	A
32	2a	547	A
32	2a	559	A
32	2a	560	U
32	2a	561	U
32	2a	562	C
32	2a	564	C
32	2a	572	A
32	2a	573	A
32	2a	576	G
32	2a	577	G
32	2a	596	C
32	2a	618	C
32	2a	630	G
32	2a	631	G
32	2a	632	A
32	2a	639	G
32	2a	653	A

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Mol	Chain	Res	Type
32	2a	665	A
32	2a	673	G
32	2a	687	A
32	2a	688	G
32	2a	695	A
32	2a	712	A
32	2a	721	G
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	774	G
32	2a	777	A
32	2a	785	G
32	2a	793	U
32	2a	794	A
32	2a	816	A
32	2a	817	C
32	2a	819	A
32	2a	821	G
32	2a	827	U
32	2a	828	A
32	2a	829	G
32	2a	840	C
32	2a	841	U
32	2a	848	C
32	2a	851	G
32	2a	854	G
32	2a	859	A
32	2a	870	U
32	2a	884	U
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	935	A
32	2a	960	U
32	2a	961	U

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Mol	Chain	Res	Type
32	2a	966	M2G
32	2a	968	A
32	2a	969	A
32	2a	971	G
32	2a	974	A
32	2a	975	A
32	2a	976	G
32	2a	977	A
32	2a	989	C
32	2a	992	U
32	2a	993	G
32	2a	994	A
32	2a	995	C
32	2a	1001	A
32	2a	1004	A
32	2a	1005	A
32	2a	1006	C
32	2a	1009	G
32	2a	1017	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(B)	C
32	2a	1031	G
32	2a	1033	G
32	2a	1041	A
32	2a	1054	C
32	2a	1055	A
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	1117	G
32	2a	1122	U
32	2a	1125	U

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Mol	Chain	Res	Type
32	2a	1129	C
32	2a	1130	A
32	2a	1134	G
32	2a	1136	U
32	2a	1137	C
32	2a	1138	G
32	2a	1139	G
32	2a	1144	G
32	2a	1147	C
32	2a	1152	A
32	2a	1157	A
32	2a	1158	C
32	2a	1159	U
32	2a	1176	A
32	2a	1183	A
32	2a	1184	G
32	2a	1196	U
32	2a	1197	G
32	2a	1208	C
32	2a	1211	U
32	2a	1212	U
32	2a	1214	C
32	2a	1218	C
32	2a	1220	G
32	2a	1224	G
32	2a	1227	A
32	2a	1236	A
32	2a	1238	A
32	2a	1250	A
32	2a	1256	A
32	2a	1257	U
32	2a	1258	G
32	2a	1260	C
32	2a	1261	A
32	2a	1262	C
32	2a	1270	C
32	2a	1278	U
32	2a	1279	A
32	2a	1280	A
32	2a	1281	U
32	2a	1286	A
32	2a	1287	A

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Mol	Chain	Res	Type
32	2a	1290	G
32	2a	1300	G
32	2a	1303	C
32	2a	1305	G
32	2a	1317	C
32	2a	1340	A
32	2a	1347	G
32	2a	1353	G
32	2a	1358	U
32	2a	1363	C
32	2a	1364	U
32	2a	1370	G
32	2a	1397	C
32	2a	1398	A
32	2a	1413	A
32	2a	1419	G
32	2a	1442	G
32	2a	1442(A)	G
32	2a	1446	U
32	2a	1447	A
32	2a	1452	C
32	2a	1456	G
32	2a	1487	G
32	2a	1492	A
32	2a	1499	A
32	2a	1504	G
32	2a	1506	U
32	2a	1507	A
32	2a	1517	G
32	2a	1520	G
32	2a	1529	G
32	2a	1530	G
32	2a	1531	A

All (65) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	1A	195	A
1	1A	196	A
1	1A	199	A
1	1A	266	G
1	1A	271(K)	U

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Mol	Chain	Res	Type
1	1A	278	A
1	1A	746	A
1	1A	764	A
1	1A	774	A
1	1A	827	U
1	1A	839	U
1	1A	840	C
1	1A	888	C
1	1A	895	U
1	1A	974	G
1	1A	1065	U
1	1A	1067	A
1	1A	1175	U
1	1A	1176	G
1	1A	1210	A
1	1A	1442	G
1	1A	1608	A
1	1A	1653	G
1	1A	2111	C
1	1A	2126	A
1	1A	2406	U
1	1A	2422	A
1	1A	2430	A
1	1A	2602	A
1	1A	2689	U
1	2A	195	A
1	2A	196	A
1	2A	249	C
1	2A	266	G
1	2A	271(M)	G
1	2A	277	C
1	2A	746	A
1	2A	752	A
1	2A	764	A
1	2A	827	U
1	2A	840	C
1	2A	974	G
1	2A	1047	G
1	2A	1053	C
1	2A	1057	A
1	2A	1065	U
1	2A	1067	A

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Mol	Chain	Res	Type
1	2A	1073	A
1	2A	1076	C
1	2A	1092	C
1	2A	1210	A
1	2A	1379	A
1	2A	1420	U
1	2A	1442	G
1	2A	1491	G
1	2A	1493	C
1	2A	1992	G
1	2A	2126	A
1	2A	2171	A
1	2A	2172	U
1	2A	2321	G
1	2A	2406	U
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	2a	967	32	19,22,23	1.79	3 (15%)	26,32,35	1.11	2 (7%)
32	5MC	1a	1400	32	19,22,23	1.68	3 (15%)	26,32,35	1.18	2 (7%)
32	M2G	2a	966	32	24,27,28	1.29	4 (16%)	33,40,43	1.81	6 (18%)
32	G7M	2a	527	32	23,26,27	1.46	4 (17%)	34,39,42	1.71	5 (14%)
1	5MU	2A	1915	1	19,22,23	1.44	4 (21%)	27,32,35	2.24	10 (37%)
1	PSU	1A	1911	1	18,21,22	1.39	2 (11%)	21,30,33	2.06	3 (14%)
1	OMU	1A	2552	1,54	19,22,23	1.22	3 (15%)	25,31,34	1.75	4 (16%)
1	2MA	1A	2503	1,54	22,25,26	1.47	4 (18%)	32,37,40	2.30	7 (21%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
32	5MC	1a	967	32	19,22,23	1.64	3 (15%)	26,32,35	1.09	2 (7%)
1	OMC	2A	1920	1	19,22,23	0.80	0	25,31,34	0.87	1 (4%)
1	5MC	2A	1942	1	19,22,23	1.60	3 (15%)	26,32,35	1.13	2 (7%)
32	2MG	2a	1207	32	23,26,27	1.26	4 (17%)	33,38,41	2.06	6 (18%)
32	M2G	1a	966	32	24,27,28	1.27	3 (12%)	33,40,43	1.82	6 (18%)
32	5MC	1a	1404	32	19,22,23	1.83	3 (15%)	26,32,35	1.26	3 (11%)
32	PSU	2a	516	32	18,21,22	1.35	2 (11%)	21,30,33	1.99	5 (23%)
32	5MC	2a	1407	32	19,22,23	1.73	3 (15%)	26,32,35	1.20	3 (11%)
1	PSU	2A	1911	1	18,21,22	1.37	3 (16%)	21,30,33	1.99	5 (23%)
32	UR3	1a	1498	32	19,22,23	0.97	2 (10%)	26,32,35	1.71	5 (19%)
1	5MU	1A	1915	1	19,22,23	1.41	5 (26%)	27,32,35	2.34	9 (33%)
32	MA6	2a	1519	32	23,26,27	0.41	0	33,38,41	2.13	9 (27%)
32	MA6	2a	1518	32	23,26,27	0.42	0	33,38,41	2.02	9 (27%)
32	2MG	1a	1207	32	23,26,27	1.23	2 (8%)	33,38,41	2.30	8 (24%)
1	OMC	1A	1920	1	19,22,23	0.78	0	25,31,34	0.93	1 (4%)
32	4OC	1a	1402	32	20,23,24	0.80	0	25,32,35	0.87	1 (4%)
32	4OC	2a	1402	32	20,23,24	0.76	0	25,32,35	0.98	1 (4%)
1	OMG	1A	2251	1,54	23,26,27	1.30	3 (13%)	32,38,41	2.04	6 (18%)
1	5MC	2A	1962	1,54	19,22,23	1.67	3 (15%)	26,32,35	1.07	2 (7%)
1	OMU	2A	2552	1,54	19,22,23	1.22	2 (10%)	25,31,34	1.85	7 (28%)
32	5MC	2a	1404	32	19,22,23	1.70	3 (15%)	26,32,35	1.19	3 (11%)
1	OMG	2A	2251	1,54	23,26,27	1.20	3 (13%)	32,38,41	2.12	9 (28%)
1	2MA	2A	2503	1,54	22,25,26	1.52	4 (18%)	32,37,40	2.40	8 (25%)
32	G7M	1a	527	32,54	23,26,27	1.53	4 (17%)	34,39,42	1.63	5 (14%)
32	5MC	2a	1400	32	19,22,23	1.69	3 (15%)	26,32,35	1.27	4 (15%)
32	UR3	2a	1498	32	19,22,23	0.92	0	26,32,35	1.85	3 (11%)
43	0TD	1l	92	43	8,9,10	4.41	1 (12%)	6,11,13	3.28	2 (33%)
1	5MU	1A	1939	1,54	19,22,23	1.47	5 (26%)	27,32,35	2.14	6 (22%)
1	PSU	1A	1917	1	18,21,22	1.42	2 (11%)	21,30,33	2.04	3 (14%)
32	MA6	1a	1518	32	23,26,27	0.39	0	33,38,41	2.05	10 (30%)
1	PSU	2A	1917	1	18,21,22	1.39	2 (11%)	21,30,33	1.96	3 (14%)
32	PSU	1a	516	32,54	18,21,22	1.39	2 (11%)	21,30,33	2.02	5 (23%)
32	5MC	1a	1407	32	19,22,23	1.84	2 (10%)	26,32,35	1.12	4 (15%)
32	MA6	1a	1519	32	23,26,27	0.41	0	33,38,41	2.09	9 (27%)
1	5MC	1A	1942	1	19,22,23	1.57	3 (15%)	26,32,35	1.16	2 (7%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
1	5MC	1A	1962	1,54	19,22,23	1.66	3 (15%)	26,32,35	1.14	2 (7%)
1	PSU	1A	2605	1	18,21,22	1.45	3 (16%)	21,30,33	2.00	4 (19%)
1	5MU	2A	1939	1,54	19,22,23	1.41	5 (26%)	27,32,35	2.17	6 (22%)
1	PSU	2A	2605	1	18,21,22	1.41	3 (16%)	21,30,33	2.02	4 (19%)
43	0TD	2l	92	43	8,9,10	4.33	1 (12%)	6,11,13	2.08	3 (50%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
32	5MC	2a	967	32	-	0/7/25/26	0/2/2/2
32	5MC	1a	1400	32	-	2/7/25/26	0/2/2/2
32	M2G	2a	966	32	-	0/11/29/30	0/3/3/3
32	G7M	2a	527	32	-	0/7/25/26	0/3/3/3
1	5MU	2A	1915	1	-	2/7/25/26	0/2/2/2
1	PSU	1A	1911	1	-	0/7/25/26	0/2/2/2
1	OMU	1A	2552	1,54	-	0/9/27/28	0/2/2/2
1	2MA	1A	2503	1,54	-	1/7/25/26	0/3/3/3
32	5MC	1a	967	32	-	0/7/25/26	0/2/2/2
1	OMC	2A	1920	1	-	0/9/27/28	0/2/2/2
1	5MC	2A	1942	1	-	0/7/25/26	0/2/2/2
32	2MG	2a	1207	32	-	0/9/27/28	0/3/3/3
32	M2G	1a	966	32	-	0/11/29/30	0/3/3/3
32	5MC	1a	1404	32	-	0/7/25/26	0/2/2/2
32	PSU	2a	516	32	-	2/7/25/26	0/2/2/2
32	5MC	2a	1407	32	-	0/7/25/26	0/2/2/2
1	PSU	2A	1911	1	-	1/7/25/26	0/2/2/2
32	UR3	1a	1498	32	-	0/7/25/26	0/2/2/2
1	5MU	1A	1915	1	-	2/7/25/26	0/2/2/2
32	MA6	2a	1519	32	-	2/11/29/30	0/3/3/3
32	MA6	2a	1518	32	-	0/11/29/30	0/3/3/3
32	2MG	1a	1207	32	-	0/9/27/28	0/3/3/3
1	OMC	1A	1920	1	-	0/9/27/28	0/2/2/2
32	4OC	1a	1402	32	-	2/9/29/30	0/2/2/2
32	4OC	2a	1402	32	-	2/9/29/30	0/2/2/2
1	OMG	1A	2251	1,54	-	0/9/27/28	0/3/3/3
1	5MC	2A	1962	1,54	-	0/7/25/26	0/2/2/2
1	OMU	2A	2552	1,54	-	0/9/27/28	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
32	5MC	2a	1404	32	-	0/7/25/26	0/2/2/2
1	OMG	2A	2251	1,54	-	0/9/27/28	0/3/3/3
1	2MA	2A	2503	1,54	-	1/7/25/26	0/3/3/3
32	G7M	1a	527	32,54	-	1/7/25/26	0/3/3/3
32	5MC	2a	1400	32	-	0/7/25/26	0/2/2/2
32	UR3	2a	1498	32	-	0/7/25/26	0/2/2/2
43	0TD	1l	92	43	-	3/7/12/14	-
1	5MU	1A	1939	1,54	-	0/7/25/26	0/2/2/2
1	PSU	1A	1917	1	-	1/7/25/26	0/2/2/2
32	MA6	1a	1518	32	-	0/11/29/30	0/3/3/3
1	PSU	2A	1917	1	-	0/7/25/26	0/2/2/2
32	PSU	1a	516	32,54	-	1/7/25/26	0/2/2/2
32	5MC	1a	1407	32	-	0/7/25/26	0/2/2/2
32	MA6	1a	1519	32	-	2/11/29/30	0/3/3/3
1	5MC	1A	1942	1	-	0/7/25/26	0/2/2/2
1	5MC	1A	1962	1,54	-	2/7/25/26	0/2/2/2
1	PSU	1A	2605	1	-	0/7/25/26	0/2/2/2
1	5MU	2A	1939	1,54	-	0/7/25/26	0/2/2/2
1	PSU	2A	2605	1	-	0/7/25/26	0/2/2/2
43	0TD	2l	92	43	-	3/7/12/14	-

All (117) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	1l	92	0TD	CB-SB	-12.03	1.70	1.82
43	2l	92	0TD	CB-SB	-11.94	1.70	1.82
32	1a	1407	5MC	C5-C4	6.98	1.49	1.44
32	1a	1404	5MC	C5-C4	6.85	1.49	1.44
32	2a	967	5MC	C5-C4	6.70	1.49	1.44
32	2a	1407	5MC	C5-C4	6.45	1.49	1.44
32	2a	1400	5MC	C5-C4	6.29	1.48	1.44
32	2a	1404	5MC	C5-C4	6.21	1.48	1.44
32	1a	1400	5MC	C5-C4	6.11	1.48	1.44
1	2A	1962	5MC	C5-C4	6.09	1.48	1.44
32	1a	967	5MC	C5-C4	5.91	1.48	1.44
1	1A	1962	5MC	C5-C4	5.89	1.48	1.44
1	1A	1942	5MC	C5-C4	5.56	1.48	1.44
1	2A	1942	5MC	C5-C4	5.54	1.48	1.44
1	2A	2503	2MA	C5-C4	4.71	1.47	1.39
32	1a	527	G7M	C5-N7	-4.62	1.33	1.39
1	1A	2503	2MA	C5-C4	4.24	1.46	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	2a	527	G7M	C5-N7	-4.04	1.34	1.39
1	1A	1911	PSU	C6-C5	3.66	1.39	1.35
32	1a	516	PSU	C6-C5	3.63	1.39	1.35
1	2A	1917	PSU	C6-C5	3.59	1.39	1.35
1	2A	1911	PSU	C6-C5	3.46	1.39	1.35
1	1A	1917	PSU	C6-C5	3.42	1.39	1.35
1	2A	2605	PSU	C6-C5	3.40	1.39	1.35
32	2a	516	PSU	C6-C5	3.37	1.39	1.35
32	1a	527	G7M	C5-C4	3.33	1.46	1.38
32	2a	1207	2MG	C5-C4	3.27	1.47	1.38
32	2a	527	G7M	C5-C4	3.24	1.46	1.38
1	1A	2251	OMG	C5-C4	3.20	1.47	1.38
32	2a	966	M2G	C5-C4	3.19	1.47	1.38
32	1a	1207	2MG	C5-C4	3.17	1.47	1.38
1	1A	2251	OMG	C6-N1	-3.13	1.33	1.38
1	2A	1915	5MU	C2-N1	3.10	1.43	1.38
32	1a	966	M2G	C5-C4	3.08	1.47	1.38
1	2A	2251	OMG	C5-C4	3.07	1.47	1.38
1	1A	2605	PSU	C4-N3	-2.99	1.33	1.38
1	1A	2605	PSU	C6-C5	2.98	1.38	1.35
1	1A	1915	5MU	C2-N1	2.96	1.43	1.38
1	2A	1942	5MC	C6-C5	2.93	1.39	1.34
32	2a	966	M2G	C2-N2	2.88	1.40	1.35
1	2A	2552	OMU	C4-N3	-2.86	1.33	1.38
1	2A	1962	5MC	C6-C5	2.84	1.39	1.34
1	2A	1915	5MU	C6-C5	2.81	1.39	1.34
1	1A	1939	5MU	C4-N3	-2.80	1.33	1.38
1	1A	1962	5MC	C6-C5	2.79	1.39	1.34
1	1A	2503	2MA	C8-N7	2.78	1.37	1.31
1	1A	1917	PSU	C4-N3	-2.77	1.33	1.38
32	2a	1404	5MC	C6-C5	2.74	1.39	1.34
32	1a	966	M2G	C2-N2	2.73	1.40	1.35
1	1A	1942	5MC	C6-C5	2.73	1.39	1.34
32	1a	1404	5MC	C6-C5	2.72	1.39	1.34
32	1a	967	5MC	C6-C5	2.72	1.39	1.34
1	2A	1939	5MU	C4-N3	-2.71	1.33	1.38
32	1a	1407	5MC	C6-C5	2.70	1.39	1.34
1	2A	2605	PSU	C4-N3	-2.69	1.33	1.38
32	1a	1400	5MC	C6-C5	2.67	1.39	1.34
1	1A	1939	5MU	C6-C5	2.66	1.39	1.34
1	2A	1911	PSU	C4-N3	-2.64	1.33	1.38
1	2A	1939	5MU	C4-C5	2.64	1.49	1.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	2a	1407	5MC	C6-C5	2.62	1.38	1.34
32	2a	967	5MC	C6-C5	2.61	1.38	1.34
32	1a	527	G7M	C6-N1	-2.61	1.34	1.38
1	2A	1939	5MU	C6-C5	2.60	1.38	1.34
1	1A	1915	5MU	C4-N3	-2.59	1.34	1.38
1	2A	1915	5MU	C4-C5	2.59	1.49	1.44
1	2A	2552	OMU	C2-N3	-2.57	1.33	1.38
1	1A	1939	5MU	C6-N1	-2.56	1.33	1.38
1	1A	2503	2MA	C5-N7	-2.56	1.34	1.39
1	2A	2503	2MA	C5-C6	2.56	1.48	1.41
32	1a	516	PSU	C4-N3	-2.51	1.34	1.38
1	1A	1915	5MU	C6-C5	2.49	1.38	1.34
32	2a	516	PSU	C4-N3	-2.49	1.34	1.38
1	1A	1911	PSU	C4-N3	-2.49	1.34	1.38
32	2a	527	G7M	C6-N1	-2.49	1.34	1.38
1	1A	1962	5MC	C6-N1	-2.48	1.33	1.38
1	1A	2552	OMU	C2-N3	-2.47	1.33	1.38
1	2A	2251	OMG	C6-N1	-2.47	1.34	1.38
32	2a	1207	2MG	C6-N1	-2.46	1.34	1.38
1	2A	2503	2MA	C8-N7	2.45	1.36	1.31
32	1a	966	M2G	C6-N1	-2.45	1.34	1.38
1	2A	2503	2MA	C5-N7	-2.44	1.34	1.39
32	1a	1400	5MC	C6-N1	-2.44	1.33	1.38
1	2A	1917	PSU	C4-N3	-2.44	1.34	1.38
32	2a	1404	5MC	C6-N1	-2.44	1.33	1.38
32	2a	966	M2G	C6-N1	-2.43	1.34	1.38
1	1A	1942	5MC	C6-N1	-2.42	1.33	1.38
1	1A	1939	5MU	C2-N1	2.42	1.42	1.38
32	2a	1400	5MC	C6-C5	2.41	1.38	1.34
1	1A	2503	2MA	C5-C6	2.40	1.47	1.41
32	1a	1207	2MG	C6-N1	-2.40	1.34	1.38
1	2A	1939	5MU	C2-N3	-2.35	1.33	1.38
1	2A	1915	5MU	C4-N3	-2.33	1.34	1.38
32	1a	1404	5MC	C6-N1	-2.33	1.34	1.38
32	2a	967	5MC	C6-N1	-2.32	1.34	1.38
1	1A	2552	OMU	C4-N3	-2.31	1.34	1.38
32	2a	1400	5MC	C6-N1	-2.30	1.34	1.38
1	2A	1942	5MC	C6-N1	-2.27	1.34	1.38
32	2a	1207	2MG	C2-N3	2.27	1.36	1.32
1	1A	1915	5MU	C4-C5	2.25	1.48	1.44
32	1a	1498	UR3	C2-N1	2.23	1.41	1.38
1	2A	1939	5MU	C6-N1	-2.23	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2A	2251	OMG	C5-N7	-2.19	1.34	1.39
1	1A	1939	5MU	C2-N3	-2.19	1.34	1.38
1	1A	2552	OMU	C5-C4	-2.19	1.38	1.43
1	1A	2605	PSU	C2-N3	-2.16	1.33	1.37
1	2A	1962	5MC	C6-N1	-2.14	1.34	1.38
32	2a	1407	5MC	C6-N1	-2.13	1.34	1.38
1	2A	2605	PSU	C2-N3	-2.12	1.34	1.37
1	1A	2251	OMG	C5-N7	-2.11	1.34	1.39
32	1a	967	5MC	C6-N1	-2.06	1.34	1.38
32	1a	1498	UR3	C6-C5	2.03	1.39	1.35
1	2A	1911	PSU	C2-N3	-2.03	1.34	1.37
32	2a	1207	2MG	C5-N7	-2.03	1.35	1.39
32	1a	527	G7M	C4-N9	-2.02	1.32	1.38
32	2a	966	M2G	C5-N7	-2.02	1.35	1.39
1	1A	1915	5MU	C6-N1	-2.00	1.34	1.38
32	2a	527	G7M	C5-C6	2.00	1.48	1.43

All (225) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	2A	2503	2MA	C5-C4-N3	-8.83	117.88	127.18
1	1A	2503	2MA	C5-C4-N3	-8.59	118.13	127.18
32	2a	1498	UR3	C4-N3-C2	-7.62	118.44	124.58
43	1l	92	0TD	CSB-SB-CB	-7.44	89.00	102.36
32	1a	1207	2MG	C2-N3-C4	7.35	121.19	112.00
1	2A	2503	2MA	N3-C4-N9	6.84	135.67	126.99
1	2A	2251	OMG	C5-C4-N3	-6.73	117.67	128.39
32	2a	1207	2MG	C2-N3-C4	6.56	120.21	112.00
32	1a	1498	UR3	C4-N3-C2	-6.54	119.31	124.58
1	1A	1911	PSU	N1-C2-N3	6.50	122.02	115.17
1	1A	2251	OMG	C5-C4-N3	-6.37	118.25	128.39
1	1A	1917	PSU	N1-C2-N3	6.29	121.80	115.17
1	1A	2605	PSU	N1-C2-N3	6.20	121.71	115.17
1	2A	2605	PSU	N1-C2-N3	6.14	121.65	115.17
1	2A	1917	PSU	N1-C2-N3	6.13	121.64	115.17
1	2A	1911	PSU	N1-C2-N3	6.07	121.57	115.17
32	1a	516	PSU	N1-C2-N3	5.98	121.47	115.17
32	1a	1207	2MG	C5-C4-N3	-5.96	118.91	128.39
32	2a	1207	2MG	C5-C4-N3	-5.88	119.02	128.39
32	2a	516	PSU	N1-C2-N3	5.86	121.35	115.17
32	2a	966	M2G	C5-C4-N3	-5.83	119.11	128.39
32	1a	966	M2G	C5-C4-N3	-5.78	119.19	128.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	2503	2MA	N3-C4-N9	5.69	134.21	126.99
1	2A	1939	5MU	C4-N3-C2	-5.45	120.20	127.34
1	2A	2251	OMG	C2-N3-C4	5.27	121.38	112.30
32	1a	527	G7M	N9-C4-N3	5.23	136.41	125.95
1	1A	2251	OMG	C2-N3-C4	5.17	121.20	112.30
32	2a	527	G7M	N9-C4-N3	5.13	136.21	125.95
32	2a	527	G7M	C5-C4-N3	-5.12	118.47	128.15
1	2A	1939	5MU	N3-C2-N1	5.10	121.53	114.89
1	1A	1939	5MU	C4-N3-C2	-5.10	120.66	127.34
32	1a	527	G7M	C5-C4-N3	-5.04	118.62	128.15
1	2A	2251	OMG	N9-C4-N3	5.01	135.97	125.95
32	2a	1519	MA6	N1-C2-N3	-4.98	121.05	128.58
1	2A	1939	5MU	C5-C4-N3	4.90	119.58	115.32
1	1A	1939	5MU	O4-C4-C5	-4.87	119.35	124.92
1	2A	2552	OMU	C4-N3-C2	-4.86	120.58	126.61
1	2A	1915	5MU	N3-C2-N1	4.86	121.22	114.89
32	1a	1518	MA6	N1-C2-N3	-4.84	121.26	128.58
1	1A	1915	5MU	C1'-N1-C2	4.79	126.20	117.59
32	2a	527	G7M	C2-N3-C4	4.78	120.54	112.30
1	2A	2552	OMU	N3-C2-N1	4.69	121.00	114.89
1	1A	1939	5MU	C5-C4-N3	4.69	119.40	115.32
32	1a	1519	MA6	N1-C2-N3	-4.67	121.51	128.58
1	2A	1915	5MU	C1'-N1-C2	4.66	125.96	117.59
32	1a	1519	MA6	C5-C4-N3	-4.64	120.33	126.72
1	1A	1939	5MU	N3-C2-N1	4.60	120.88	114.89
1	1A	1915	5MU	N3-C2-N1	4.58	120.86	114.89
1	1A	1915	5MU	C4-N3-C2	-4.58	121.34	127.34
32	2a	1518	MA6	N1-C2-N3	-4.50	121.77	128.58
32	2a	1518	MA6	C5-C4-N3	-4.47	120.56	126.72
1	1A	2251	OMG	N9-C4-N3	4.43	134.81	125.95
32	1a	966	M2G	C2-N3-C4	4.41	120.67	112.51
1	1A	1915	5MU	C5-C4-N3	4.41	119.16	115.32
1	1A	2552	OMU	C4-N3-C2	-4.41	121.14	126.61
32	1a	527	G7M	C2-N3-C4	4.40	119.87	112.30
32	2a	1519	MA6	C5-C4-N3	-4.38	120.68	126.72
1	2A	1915	5MU	C4-N3-C2	-4.38	121.60	127.34
1	1A	1915	5MU	C1'-N1-C6	-4.37	113.96	121.15
32	2a	966	M2G	C2-N3-C4	4.36	120.58	112.51
32	2a	1207	2MG	N9-C4-N3	4.36	134.68	125.95
32	2a	966	M2G	N9-C4-N3	4.28	134.51	125.95
32	1a	1518	MA6	C2-N1-C6	4.18	122.04	111.83
32	2a	516	PSU	C4-N3-C2	-4.17	120.62	126.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	1a	966	M2G	N9-C4-N3	4.16	134.27	125.95
1	2A	1911	PSU	C4-N3-C2	-4.16	120.65	126.37
1	2A	2605	PSU	C4-N3-C2	-4.14	120.67	126.37
32	1a	1207	2MG	C6-C5-N7	4.12	137.79	130.29
32	1a	516	PSU	C4-N3-C2	-4.10	120.72	126.37
32	2a	1519	MA6	C4-C5-N7	-4.09	105.91	110.58
32	1a	1519	MA6	C2-N1-C6	4.08	121.79	111.83
1	1A	2552	OMU	N3-C2-N1	4.07	120.19	114.89
32	1a	1518	MA6	C5-C4-N3	-4.06	121.13	126.72
1	1A	1911	PSU	C4-N3-C2	-4.03	120.82	126.37
32	2a	1519	MA6	C2-N1-C6	4.03	121.67	111.83
1	1A	1917	PSU	O2-C2-N1	-4.03	118.64	122.79
32	1a	1518	MA6	C5-N7-C8	4.01	109.75	103.45
32	2a	1519	MA6	C5-N7-C8	4.01	109.75	103.45
1	1A	2605	PSU	C4-N3-C2	-3.98	120.89	126.37
1	2A	1939	5MU	C5-C6-N1	-3.96	119.01	123.31
32	1a	1404	5MC	C5-C6-N1	-3.95	119.02	123.31
32	2a	1518	MA6	C4-C5-N7	-3.95	106.06	110.58
1	1A	1917	PSU	C4-N3-C2	-3.94	120.94	126.37
32	2a	1518	MA6	C2-N1-C6	3.94	121.45	111.83
32	1a	1519	MA6	C5-N7-C8	3.90	109.58	103.45
1	1A	1939	5MU	C5-C6-N1	-3.89	119.09	123.31
1	2A	1915	5MU	C1'-N1-C6	-3.88	114.76	121.15
32	1a	1207	2MG	N9-C4-N3	3.87	133.68	125.95
32	2a	1518	MA6	C5-N7-C8	3.86	109.51	103.45
1	1A	1915	5MU	O4-C4-C5	-3.85	120.52	124.92
32	1a	1400	5MC	C5-C6-N1	-3.83	119.16	123.31
32	1a	1518	MA6	N9-C8-N7	-3.81	108.53	113.94
1	1A	2251	OMG	C6-C5-N7	3.79	137.18	130.29
32	1a	1519	MA6	C4-C5-N7	-3.78	106.26	110.58
1	2A	1917	PSU	C4-N3-C2	-3.77	121.17	126.37
1	1A	2503	2MA	C4-C5-N7	-3.76	106.28	110.58
1	2A	1915	5MU	O4-C4-C5	-3.73	120.65	124.92
1	1A	1942	5MC	C5-C6-N1	-3.69	119.30	123.31
32	2a	1400	5MC	C5-C6-N1	-3.68	119.32	123.31
1	2A	2503	2MA	C4-C5-N7	-3.64	106.42	110.58
32	1a	1518	MA6	C4-C5-N7	-3.61	106.45	110.58
1	2A	1917	PSU	O2-C2-N1	-3.60	119.08	122.79
32	2a	1404	5MC	C5-C6-N1	-3.60	119.41	123.31
32	2a	967	5MC	C5-C6-N1	-3.57	119.44	123.31
1	2A	1915	5MU	C5-C4-N3	3.56	118.42	115.32
1	2A	1962	5MC	C5-C6-N1	-3.56	119.45	123.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1A	2605	PSU	O2-C2-N1	-3.53	119.15	122.79
1	1A	1911	PSU	O2-C2-N1	-3.51	119.17	122.79
1	1A	1962	5MC	C5-C6-N1	-3.49	119.52	123.31
32	2a	1519	MA6	C2-N3-C4	3.48	120.33	111.83
1	2A	1939	5MU	O4-C4-C5	-3.47	120.95	124.92
1	2A	2552	OMU	C5-C4-N3	3.46	119.65	114.80
32	2a	1498	UR3	C5-C4-N3	3.46	119.59	115.04
32	2a	1519	MA6	N9-C8-N7	-3.45	109.04	113.94
32	1a	966	M2G	C6-C5-N7	3.39	136.45	130.29
1	1A	2552	OMU	C5-C4-N3	3.36	119.51	114.80
32	1a	1519	MA6	N9-C8-N7	-3.34	109.19	113.94
32	2a	1407	5MC	C5-C6-N1	-3.32	119.70	123.31
32	1a	1519	MA6	C2-N3-C4	3.32	119.93	111.83
32	2a	1518	MA6	N9-C8-N7	-3.31	109.24	113.94
32	2a	966	M2G	C6-C5-N7	3.28	136.25	130.29
32	2a	1518	MA6	C2-N3-C4	3.24	119.73	111.83
32	1a	1404	5MC	C5-C4-N3	-3.22	118.46	121.75
32	2a	516	PSU	O2-C2-N1	-3.21	119.47	122.79
32	1a	1518	MA6	C2-N3-C4	3.20	119.66	111.83
32	1a	1207	2MG	C4-C5-N7	-3.20	105.59	110.67
1	2A	1942	5MC	C5-C6-N1	-3.20	119.84	123.31
1	2A	2605	PSU	O2-C2-N1	-3.15	119.54	122.79
1	2A	1911	PSU	O2-C2-N1	-3.14	119.55	122.79
1	1A	2552	OMU	O4-C4-C5	-3.14	119.75	125.16
1	1A	2251	OMG	C4-C5-N7	-3.13	105.71	110.67
32	1a	1519	MA6	C4-C5-C6	3.12	119.14	115.91
32	1a	1207	2MG	N1-C2-N2	3.09	119.72	116.56
1	2A	1942	5MC	C5-C4-N3	-3.06	118.62	121.75
1	2A	2251	OMG	C6-C5-N7	3.03	135.80	130.29
43	2l	92	0TD	OD2-CG-CB	3.02	119.67	113.15
1	2A	2552	OMU	O2-C2-N1	-2.99	118.91	122.80
1	2A	2503	2MA	N6-C6-N1	2.98	121.04	117.03
32	1a	516	PSU	O2-C2-N1	-2.97	119.72	122.79
32	2a	1207	2MG	C6-C5-N7	2.95	135.66	130.29
32	1a	1498	UR3	C5-C4-N3	2.94	118.91	115.04
32	1a	1519	MA6	N3-C4-N9	2.94	132.16	127.17
43	2l	92	0TD	CSB-SB-CB	2.91	107.60	102.36
32	2a	1404	5MC	C5-C4-N3	-2.87	118.81	121.75
1	2A	1939	5MU	O2-C2-N1	-2.87	119.06	122.80
1	1A	1962	5MC	C5-C4-N3	-2.80	118.89	121.75
32	1a	1407	5MC	C5-C4-N3	-2.77	118.91	121.75
32	2a	1407	5MC	C5-C4-N3	-2.77	118.92	121.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	2A	2251	OMG	C4-C5-N7	-2.74	106.33	110.67
32	2a	1518	MA6	C4-C5-C6	2.73	118.74	115.91
32	1a	1518	MA6	N3-C4-N9	2.73	131.81	127.17
1	2A	2503	2MA	C5-N7-C8	2.70	107.70	103.45
32	1a	967	5MC	C5-C4-N3	-2.69	119.00	121.75
32	1a	1498	UR3	C6-N1-C2	-2.64	119.64	121.80
32	2a	1402	4OC	C6-C5-C4	2.61	120.14	117.00
32	2a	1400	5MC	C5-C4-N3	-2.61	119.08	121.75
32	1a	1407	5MC	C5-C6-N1	-2.60	120.49	123.31
32	2a	1518	MA6	N3-C4-N9	2.58	131.56	127.17
1	1A	1915	5MU	C5M-C5-C4	2.56	121.52	118.78
1	1A	2503	2MA	N6-C6-N1	2.56	120.48	117.03
32	2a	966	M2G	C4-C5-N7	-2.55	106.63	110.67
32	1a	1400	5MC	C5-C4-N3	-2.54	119.15	121.75
1	1A	1942	5MC	C5-C4-N3	-2.53	119.16	121.75
1	1A	2503	2MA	C6-C5-N7	2.53	136.97	132.09
32	1a	966	M2G	C4-C5-N7	-2.53	106.67	110.67
1	1A	2503	2MA	C5-N7-C8	2.51	107.39	103.45
32	1a	967	5MC	C5-C6-N1	-2.50	120.59	123.31
1	2A	2503	2MA	C4-N9-C8	2.50	108.36	105.74
1	1A	1915	5MU	O2-C2-N3	-2.47	116.93	121.49
32	2a	1407	5MC	O2-C2-N3	-2.47	118.44	122.33
32	2a	1519	MA6	N3-C4-N9	2.47	131.37	127.17
32	2a	1207	2MG	C4-C5-N7	-2.45	106.79	110.67
32	1a	1207	2MG	N2-C2-N3	-2.45	117.39	120.51
1	2A	1962	5MC	C5-C4-N3	-2.42	119.28	121.75
32	1a	1404	5MC	CM5-C5-C6	-2.41	119.59	122.85
32	1a	516	PSU	O4'-C1'-C2'	2.41	108.49	105.15
43	2l	92	0TD	OD1-CG-CB	-2.41	117.39	122.44
32	2a	527	G7M	C5-C6-N1	2.38	116.75	111.84
1	1A	1920	OMC	O2-C2-N3	-2.37	118.59	122.33
1	1A	1915	5MU	C5-C6-N1	-2.36	120.75	123.31
32	1a	1518	MA6	C4-N9-C8	2.36	108.21	105.74
32	1a	1518	MA6	C4-C5-C6	2.35	118.34	115.91
1	2A	1915	5MU	O2-C2-N3	-2.34	117.18	121.49
32	2a	516	PSU	O4'-C1'-C2'	2.33	108.38	105.15
1	1A	1939	5MU	O2-C2-N1	-2.29	119.81	122.80
32	2a	1400	5MC	O2-C2-N3	-2.29	118.72	122.33
32	1a	1407	5MC	CM5-C5-C6	-2.29	119.75	122.85
32	2a	516	PSU	C5-C6-N1	-2.28	118.97	122.14
43	1l	92	0TD	OD2-CG-CB	2.27	118.06	113.15
32	2a	1400	5MC	CM5-C5-C6	-2.27	119.78	122.85

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	2A	2503	2MA	C2-N1-C6	2.26	121.58	118.10
1	1A	2605	PSU	C5-C6-N1	-2.26	119.01	122.14
1	2A	1915	5MU	C5M-C5-C4	2.26	121.19	118.78
1	1A	2251	OMG	C8-N7-C5	2.25	108.26	104.26
32	2a	527	G7M	O6-C6-C5	-2.25	123.00	128.01
32	2a	967	5MC	C5-C4-N3	-2.24	119.45	121.75
32	1a	1407	5MC	O2-C2-N3	-2.24	118.80	122.33
1	2A	2605	PSU	C5-C6-N1	-2.20	119.08	122.14
1	2A	2251	OMG	O6-C6-C5	-2.20	120.72	126.53
1	2A	2552	OMU	O4-C4-C5	-2.19	121.38	125.16
32	1a	527	G7M	O6-C6-C5	-2.17	123.16	128.01
32	2a	1498	UR3	C3U-N3-C2	2.13	121.04	117.33
1	1A	2503	2MA	CM2-C2-N1	2.13	120.31	117.13
32	2a	1519	MA6	C4-C5-C6	2.12	118.10	115.91
32	1a	516	PSU	C6-C5-C4	-2.12	116.74	118.17
32	2a	1404	5MC	CM5-C5-C6	-2.12	119.98	122.85
1	2A	2251	OMG	C2-N1-C6	-2.12	121.27	125.11
1	2A	2251	OMG	C8-N7-C5	2.12	108.03	104.26
1	2A	2552	OMU	CM2-O2'-C2'	-2.11	109.05	114.47
32	1a	1207	2MG	C8-N7-C5	2.11	108.01	104.26
32	1a	966	M2G	O6-C6-C5	-2.10	121.00	126.53
32	1a	527	G7M	C5-C6-N1	2.10	116.17	111.84
32	1a	1498	UR3	C1'-N1-C2	2.09	120.46	117.04
1	2A	1911	PSU	C5-C6-N1	-2.08	119.25	122.14
1	2A	1920	OMC	O2-C2-N3	-2.08	119.05	122.33
32	2a	1207	2MG	O6-C6-C5	-2.08	121.04	126.53
1	2A	1915	5MU	C5-C6-N1	-2.06	121.07	123.31
1	2A	2251	OMG	C5-C6-N1	2.06	118.50	113.25
1	2A	1915	5MU	C6-N1-C2	-2.06	119.25	121.30
32	1a	1402	4OC	C6-C5-C4	2.05	119.47	117.00
32	2a	966	M2G	O6-C6-C5	-2.04	121.15	126.53
1	2A	2552	OMU	C5-C6-N1	-2.04	118.53	121.84
1	2A	1911	PSU	O4'-C1'-C2'	2.03	107.96	105.15
1	2A	2503	2MA	N9-C8-N7	-2.03	111.06	113.94
32	1a	1498	UR3	C3U-N3-C2	2.03	120.86	117.33

There are no chirality outliers.

All (30) 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

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Mol	Chain	Res	Type	Atoms
1	2A	1915	5MU	O4'-C1'-N1-C2
1	2A	1915	5MU	O4'-C1'-N1-C6
32	1a	1402	4OC	O4'-C4'-C5'-O5'
32	1a	1519	MA6	O4'-C4'-C5'-O5'
32	2a	1402	4OC	O4'-C4'-C5'-O5'
32	1a	1519	MA6	C3'-C4'-C5'-O5'
32	1a	1402	4OC	C3'-C4'-C5'-O5'
32	2a	1519	MA6	O4'-C4'-C5'-O5'
32	1a	1400	5MC	O4'-C4'-C5'-O5'
32	2a	1402	4OC	C3'-C4'-C5'-O5'
43	1l	92	0TD	CG-CB-SB-CSB
43	2l	92	0TD	CG-CB-SB-CSB
1	1A	1917	PSU	O4'-C4'-C5'-O5'
32	1a	527	G7M	C3'-C4'-C5'-O5'
43	1l	92	0TD	SB-CB-CG-OD1
43	2l	92	0TD	SB-CB-CG-OD1
32	1a	516	PSU	O4'-C1'-C5-C4
1	2A	1911	PSU	O4'-C1'-C5-C4
32	2a	516	PSU	O4'-C1'-C5-C4
43	1l	92	0TD	SB-CB-CG-OD2
43	2l	92	0TD	SB-CB-CG-OD2
1	2A	2503	2MA	O4'-C4'-C5'-O5'
32	2a	516	PSU	O4'-C1'-C5-C6
1	1A	2503	2MA	C4'-C5'-O5'-P
1	1A	1962	5MC	C2'-C1'-N1-C6
1	1A	1962	5MC	O4'-C1'-N1-C6
32	1a	1400	5MC	C3'-C4'-C5'-O5'
32	2a	1519	MA6	C3'-C4'-C5'-O5'

There are no ring outliers.

20 monomers are involved in 27 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
32	1a	1400	5MC	2	0
1	2A	1915	5MU	1	0
1	2A	1920	OMC	1	0
32	2a	1207	2MG	1	0
32	2a	1519	MA6	2	0
32	2a	1518	MA6	1	0
32	1a	1207	2MG	2	0
1	1A	1920	OMC	1	0
32	1a	1402	4OC	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
32	2a	1402	4OC	2	0
32	2a	1404	5MC	1	0
1	2A	2251	OMG	1	0
1	2A	2503	2MA	2	0
32	1a	527	G7M	1	0
32	2a	1400	5MC	2	0
43	1l	92	0TD	1	0
1	1A	1939	5MU	1	0
32	1a	1518	MA6	3	0
32	1a	1519	MA6	3	0
43	2l	92	0TD	1	0

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 2608 ligands modelled in this entry, 2595 are monoatomic - leaving 13 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	$\#\|Z\| > 2$
57	MPD	2A	3773	-	7,7,7	0.33	0	9,10,10	0.23	0
59	SF4	2d	501	35	0,12,12	-	-	-		
55	MUL	2A	3771	-	36,36,36	1.27	7 (19%)	55,55,55	2.13	19 (34%)
57	MPD	2A	3772	-	7,7,7	0.30	0	9,10,10	0.37	0
56	ARG	1B	232	54	10,11,11	0.77	1 (10%)	9,13,13	0.95	1 (11%)
57	MPD	1a	1873	-	7,7,7	0.36	0	9,10,10	0.40	0
57	MPD	2B	221	-	7,7,7	0.34	0	9,10,10	0.30	0
57	MPD	18	103	-	7,7,7	0.24	0	9,10,10	0.56	0
57	MPD	1a	1874	32	7,7,7	0.34	0	9,10,10	0.40	0
57	MPD	1A	4056	-	7,7,7	0.40	0	9,10,10	0.20	0
59	SF4	1d	305	35	0,12,12	-	-	-		
56	ARG	1A	4055	-	10,11,11	0.75	1 (10%)	9,13,13	0.94	1 (11%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
55	MUL	1A	4054	-	36,36,36	1.27	5 (13%)	55,55,55	2.06	16 (29%)

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
57	MPD	2A	3773	-	-	2/5/5/5	-
59	SF4	2d	501	35	-	-	0/6/5/5
55	MUL	2A	3771	-	-	2/18/79/79	0/3/3/3
57	MPD	2A	3772	-	-	1/5/5/5	-
56	ARG	1B	232	54	-	3/11/11/11	-
57	MPD	1a	1873	-	-	0/5/5/5	-
57	MPD	2B	221	-	-	1/5/5/5	-
57	MPD	18	103	-	-	5/5/5/5	-
57	MPD	1a	1874	32	-	4/5/5/5	-
57	MPD	1A	4056	-	-	2/5/5/5	-
59	SF4	1d	305	35	-	-	0/6/5/5
56	ARG	1A	4055	-	-	3/11/11/11	-
55	MUL	1A	4054	-	-	1/18/79/79	0/3/3/3

All (14) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
55	1A	4054	MUL	O3-C21	3.74	1.44	1.34
55	2A	3771	MUL	O3-C21	3.63	1.44	1.34
55	2A	3771	MUL	O3-C14	-2.74	1.41	1.46
55	1A	4054	MUL	O3-C14	-2.58	1.42	1.46
55	1A	4054	MUL	C5-C14	-2.46	1.54	1.56
55	2A	3771	MUL	C10-C11	-2.43	1.53	1.56
55	1A	4054	MUL	C22-S1	-2.38	1.75	1.81
55	2A	3771	MUL	C12-C11	-2.35	1.53	1.55
55	1A	4054	MUL	C12-C11	-2.27	1.53	1.55
55	2A	3771	MUL	C5-C14	-2.25	1.54	1.56
56	1A	4055	ARG	OXT-C	-2.18	1.23	1.30
56	1B	232	ARG	OXT-C	-2.16	1.23	1.30
55	2A	3771	MUL	C5-C6	-2.08	1.53	1.56
55	2A	3771	MUL	C22-S1	-2.03	1.76	1.81

All (37) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
55	2A	3771	MUL	O3-C21-C22	5.14	119.01	110.52
55	2A	3771	MUL	C15-C5-C14	-4.88	103.82	108.81
55	1A	4054	MUL	O3-C21-C22	4.85	118.52	110.52
55	1A	4054	MUL	C15-C5-C14	-4.58	104.14	108.81
55	2A	3771	MUL	C2-C3-C4	4.48	113.29	108.53
55	1A	4054	MUL	C13-C14-C5	-4.20	111.77	116.28
55	1A	4054	MUL	C8-C7-C6	-3.94	107.30	112.38
55	1A	4054	MUL	C2-C3-C4	3.92	112.70	108.53
55	2A	3771	MUL	C18-C12-C13	3.91	108.43	105.51
55	2A	3771	MUL	C8-C9-C4	3.82	113.44	106.82
55	2A	3771	MUL	C6-C5-C14	3.62	114.59	112.13
55	2A	3771	MUL	C14-O3-C21	-3.54	111.58	118.03
55	1A	4054	MUL	C8-C9-C4	3.49	112.86	106.82
55	1A	4054	MUL	C14-O3-C21	-3.37	111.90	118.03
55	2A	3771	MUL	C8-C7-C6	-3.29	108.14	112.38
55	2A	3771	MUL	O1-C3-C2	-3.27	120.85	125.52
55	1A	4054	MUL	O1-C3-C2	-3.15	121.01	125.52
55	2A	3771	MUL	C15-C5-C6	-3.08	107.50	110.94
55	1A	4054	MUL	O3-C14-C5	3.08	111.12	106.32
55	1A	4054	MUL	C4-C9-C10	-2.99	111.65	116.08
55	2A	3771	MUL	C13-C14-C5	-2.99	113.07	116.28
55	1A	4054	MUL	C18-C12-C11	2.99	110.20	108.16
55	2A	3771	MUL	C4-C9-C10	-2.98	111.67	116.08
56	1A	4055	ARG	OXT-C-O	-2.72	117.91	124.08
56	1B	232	ARG	OXT-C-O	-2.70	117.95	124.08
55	2A	3771	MUL	C1-C2-C3	-2.52	102.64	105.48
55	2A	3771	MUL	O3-C21-O4	-2.45	117.98	123.70
55	1A	4054	MUL	C23-S1-C22	-2.41	97.75	101.72
55	1A	4054	MUL	C12-C19-C20	-2.36	120.20	128.83
55	2A	3771	MUL	C1-C9-C8	-2.31	104.85	110.13
55	2A	3771	MUL	C12-C19-C20	-2.22	120.72	128.83
55	2A	3771	MUL	O3-C14-C5	2.20	109.75	106.32
55	1A	4054	MUL	C18-C12-C13	2.19	107.15	105.51
55	1A	4054	MUL	C15-C5-C6	-2.14	108.55	110.94
55	2A	3771	MUL	C9-C4-C5	-2.14	115.06	117.94
55	2A	3771	MUL	C18-C12-C19	-2.05	105.71	109.63
55	1A	4054	MUL	C9-C4-C5	-2.03	115.20	117.94

There are no chirality outliers.

All (24) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
57	18	103	MPD	C2-C3-C4-O4
57	18	103	MPD	C2-C3-C4-C5
57	1a	1874	MPD	C2-C3-C4-O4
57	2A	3773	MPD	C2-C3-C4-O4
57	2A	3773	MPD	C2-C3-C4-C5
56	1B	232	ARG	NE-CD-CG-CB
56	1B	232	ARG	CA-CB-CG-CD
56	1A	4055	ARG	O-C-CA-N
55	2A	3771	MUL	C21-C22-S1-C23
57	1a	1874	MPD	C1-C2-C3-C4
57	1a	1874	MPD	C2-C3-C4-C5
57	2B	221	MPD	C2-C3-C4-C5
55	2A	3771	MUL	C28-C27-N1-C24
56	1A	4055	ARG	NE-CD-CG-CB
56	1B	232	ARG	OXT-C-CA-N
56	1A	4055	ARG	OXT-C-CA-N
57	18	103	MPD	O2-C2-C3-C4
57	2A	3772	MPD	C2-C3-C4-O4
57	1A	4056	MPD	C1-C2-C3-C4
57	1A	4056	MPD	CM-C2-C3-C4
57	18	103	MPD	C1-C2-C3-C4
57	18	103	MPD	CM-C2-C3-C4
57	1a	1874	MPD	CM-C2-C3-C4
55	1A	4054	MUL	C21-C22-S1-C23

There are no ring outliers.

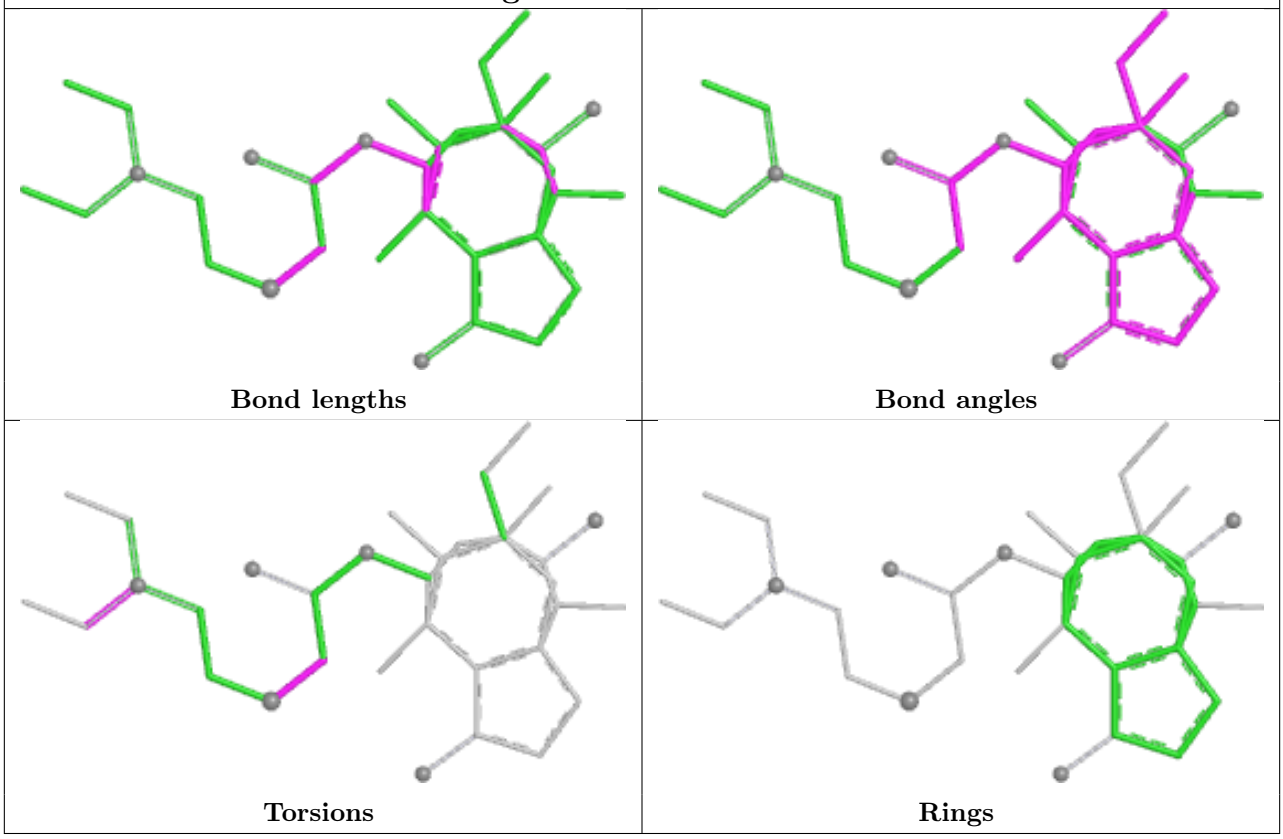
9 monomers are involved in 22 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
55	2A	3771	MUL	4	0
57	2A	3772	MPD	2	0
56	1B	232	ARG	1	0
57	18	103	MPD	3	0
57	1a	1874	MPD	2	0
57	1A	4056	MPD	1	0
59	1d	305	SF4	1	0
56	1A	4055	ARG	4	0
55	1A	4054	MUL	4	0

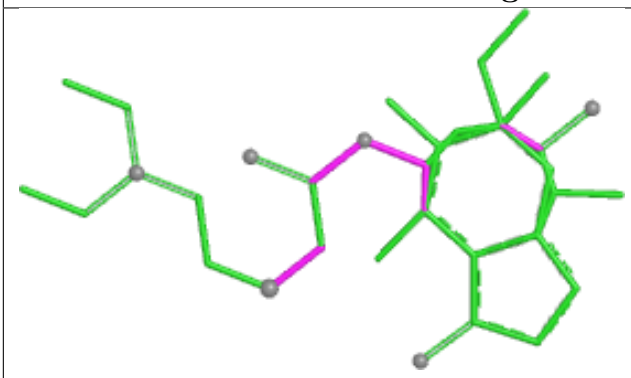
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less then 5% of the Mogul distribution of torsion angles is

within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

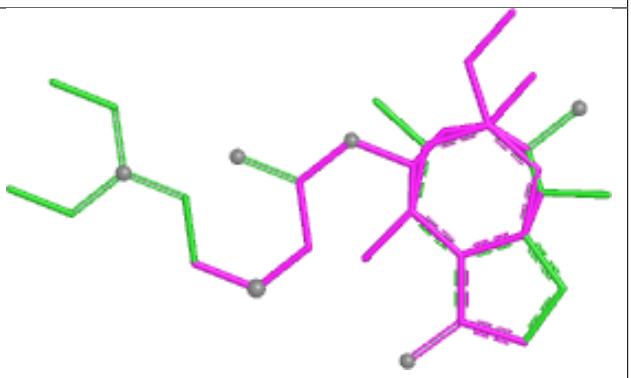
Ligand MUL 2A 3771



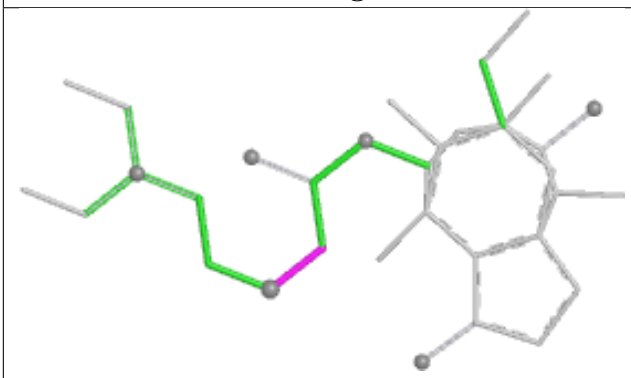
Ligand MUL 1A 4054



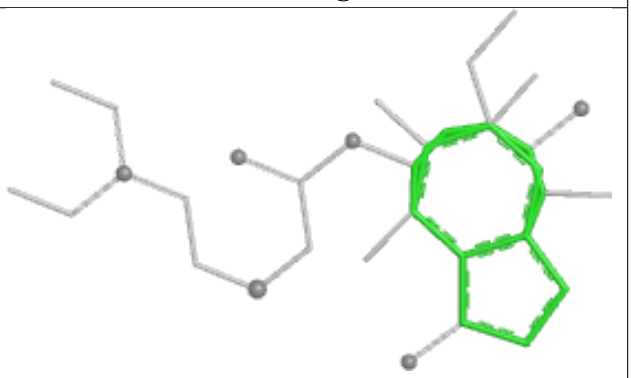
Bond lengths



Bond angles



Torsions



Rings

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, 95^{th} percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q< 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	1A	2861/2915 (98%)	-0.49	147 (5%) 33 26	16, 33, 89, 103	0
1	2A	2856/2915 (97%)	-0.00	167 (5%) 29 22	29, 52, 92, 105	0
2	1B	120/121 (99%)	-0.27	1 (0%) 82 79	30, 51, 64, 78	0
2	2B	120/121 (99%)	0.54	2 (1%) 69 64	56, 73, 81, 86	0
3	1D	275/276 (99%)	-0.25	3 (1%) 78 75	16, 34, 49, 66	0
3	2D	275/276 (99%)	0.14	4 (1%) 72 67	27, 46, 59, 73	0
4	1E	204/206 (99%)	-0.19	2 (0%) 79 76	16, 38, 56, 72	0
4	2E	204/206 (99%)	0.25	4 (1%) 65 59	32, 52, 68, 77	0
5	1F	203/210 (96%)	-0.21	3 (1%) 72 67	15, 37, 64, 83	0
5	2F	203/210 (96%)	0.44	5 (2%) 58 52	32, 59, 73, 86	0
6	1G	181/182 (99%)	0.87	20 (11%) 10 9	47, 65, 79, 87	0
6	2G	181/182 (99%)	1.42	37 (20%) 3 1	69, 78, 87, 90	0
7	1H	174/180 (96%)	0.30	1 (0%) 85 83	35, 52, 62, 69	0
7	2H	173/180 (96%)	1.23	22 (12%) 8 6	64, 76, 86, 90	0
8	1I	147/148 (99%)	0.74	5 (3%) 48 40	39, 67, 76, 82	0
8	2I	146/148 (98%)	1.09	17 (11%) 9 8	47, 73, 84, 88	0
9	1N	140/140 (100%)	-0.16	0 100 100	20, 35, 57, 71	0
9	2N	140/140 (100%)	0.44	5 (3%) 46 38	41, 58, 71, 77	0
10	1O	122/122 (100%)	-0.23	1 (0%) 82 79	25, 38, 56, 64	0
10	2O	122/122 (100%)	0.07	1 (0%) 82 79	39, 49, 62, 71	0
11	1P	149/150 (99%)	-0.12	1 (0%) 84 82	17, 43, 61, 77	0
11	2P	149/150 (99%)	0.44	3 (2%) 65 59	33, 61, 76, 87	0
12	1Q	141/141 (100%)	-0.20	1 (0%) 84 82	21, 37, 50, 70	0
12	2Q	141/141 (100%)	0.53	5 (3%) 47 38	39, 57, 68, 78	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	1R	118/118 (100%)	-0.36	0 100 100	23, 32, 46, 59	0
13	2R	118/118 (100%)	0.05	0 100 100	36, 49, 58, 65	0
14	1S	110/112 (98%)	0.23	2 (1%) 67 63	38, 51, 63, 70	0
14	2S	110/112 (98%)	1.22	18 (16%) 4 3	60, 68, 77, 80	0
15	1T	131/146 (89%)	0.11	5 (3%) 44 36	29, 42, 65, 75	0
15	2T	131/146 (89%)	0.33	4 (3%) 51 43	47, 55, 68, 77	0
16	1U	116/118 (98%)	-0.44	1 (0%) 81 78	20, 28, 43, 62	0
16	2U	116/118 (98%)	0.29	2 (1%) 69 64	36, 54, 68, 76	0
17	1V	101/101 (100%)	-0.32	0 100 100	20, 38, 55, 63	0
17	2V	101/101 (100%)	0.53	0 100 100	37, 63, 71, 77	0
18	1W	112/113 (99%)	-0.27	1 (0%) 81 78	19, 27, 47, 78	0
18	2W	112/113 (99%)	0.10	0 100 100	35, 44, 62, 79	0
19	1X	95/96 (98%)	-0.19	1 (1%) 78 75	23, 35, 56, 63	0
19	2X	95/96 (98%)	0.51	3 (3%) 50 42	41, 55, 68, 77	0
20	1Y	107/110 (97%)	0.26	1 (0%) 81 78	32, 47, 65, 73	0
20	2Y	107/110 (97%)	1.07	14 (13%) 7 6	48, 65, 77, 83	0
21	1Z	203/206 (98%)	0.43	4 (1%) 65 59	34, 56, 70, 77	0
21	2Z	201/206 (97%)	0.92	12 (5%) 27 21	58, 71, 79, 85	0
22	10	77/85 (90%)	-0.08	1 (1%) 75 71	27, 35, 51, 57	0
22	20	77/85 (90%)	0.77	5 (6%) 25 19	48, 58, 65, 70	0
23	11	97/98 (98%)	0.06	2 (2%) 63 57	24, 41, 63, 68	0
23	21	97/98 (98%)	0.45	2 (2%) 63 57	36, 50, 70, 72	0
24	12	70/72 (97%)	0.18	2 (2%) 53 46	31, 44, 55, 72	0
24	22	70/72 (97%)	0.85	5 (7%) 22 16	51, 65, 73, 78	0
25	13	59/60 (98%)	-0.12	1 (1%) 69 64	23, 34, 60, 72	0
25	23	59/60 (98%)	0.48	4 (6%) 23 17	46, 56, 73, 80	0
26	14	69/71 (97%)	1.31	16 (23%) 2 1	59, 80, 90, 94	0
26	24	69/71 (97%)	1.92	27 (39%) 1 0	76, 87, 93, 97	0
27	15	59/60 (98%)	-0.33	1 (1%) 69 64	17, 31, 57, 68	0
27	25	59/60 (98%)	0.22	0 100 100	31, 48, 66, 75	0
28	16	53/54 (98%)	-0.25	0 100 100	32, 42, 55, 60	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
28	26	53/54 (98%)	0.18	0 100 100	51, 57, 65, 68	0
29	17	48/49 (97%)	-0.21	2 (4%) 40 32	18, 24, 61, 66	0
29	27	48/49 (97%)	-0.01	3 (6%) 26 19	30, 39, 64, 73	0
30	18	64/65 (98%)	-0.45	0 100 100	24, 30, 39, 48	0
30	28	64/65 (98%)	0.23	1 (1%) 70 66	41, 49, 58, 65	0
31	19	37/37 (100%)	-0.27	0 100 100	27, 39, 55, 57	0
31	29	37/37 (100%)	0.70	2 (5%) 31 25	52, 61, 70, 74	0
32	1a	1488/1521 (97%)	0.60	98 (6%) 24 18	34, 71, 92, 105	0
32	2a	1492/1521 (98%)	0.63	89 (5%) 27 21	38, 71, 91, 103	0
33	1b	231/256 (90%)	1.35	41 (17%) 4 2	66, 77, 87, 90	0
33	2b	231/256 (90%)	1.39	51 (22%) 2 1	67, 78, 86, 90	0
34	1c	206/239 (86%)	1.44	45 (21%) 2 1	66, 76, 83, 87	0
34	2c	206/239 (86%)	1.68	61 (29%) 1 1	69, 79, 84, 91	0
35	1d	208/209 (99%)	1.36	38 (18%) 3 2	58, 71, 79, 88	0
35	2d	208/209 (99%)	1.03	18 (8%) 16 12	55, 67, 78, 81	0
36	1e	148/162 (91%)	0.81	6 (4%) 41 33	44, 64, 71, 80	0
36	2e	148/162 (91%)	0.95	10 (6%) 23 17	53, 67, 76, 80	0
37	1f	100/101 (99%)	0.85	6 (6%) 27 21	56, 67, 73, 80	0
37	2f	100/101 (99%)	0.69	5 (5%) 34 26	54, 66, 74, 79	0
38	1g	155/156 (99%)	1.01	18 (11%) 9 8	63, 73, 79, 85	0
38	2g	155/156 (99%)	1.19	23 (14%) 5 4	67, 75, 81, 85	0
39	1h	137/138 (99%)	0.63	1 (0%) 84 82	53, 66, 74, 80	0
39	2h	137/138 (99%)	0.75	6 (4%) 39 31	60, 67, 74, 75	0
40	1i	127/128 (99%)	1.77	43 (33%) 1 0	68, 78, 82, 92	0
40	2i	126/128 (98%)	2.09	65 (51%) 0 0	67, 80, 84, 87	0
41	1j	97/105 (92%)	1.82	37 (38%) 1 0	68, 79, 87, 88	0
41	2j	96/105 (91%)	1.96	48 (50%) 0 0	73, 80, 88, 90	0
42	1k	114/129 (88%)	0.56	4 (3%) 47 38	38, 61, 73, 79	0
42	2k	114/129 (88%)	1.02	17 (14%) 5 4	53, 67, 77, 79	0
43	1l	121/132 (91%)	0.56	7 (5%) 29 22	46, 59, 68, 75	0
43	2l	121/132 (91%)	0.86	8 (6%) 24 18	52, 63, 70, 73	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
44	1m	116/126 (92%)	1.33	26 (22%) 2 1	66, 76, 81, 85	0
44	2m	114/126 (90%)	1.54	31 (27%) 1 1	70, 79, 85, 90	0
45	1n	60/61 (98%)	1.31	11 (18%) 3 2	68, 75, 81, 83	0
45	2n	60/61 (98%)	1.88	23 (38%) 1 0	72, 80, 85, 87	0
46	1o	88/89 (98%)	0.64	7 (7%) 18 14	47, 63, 74, 80	0
46	2o	88/89 (98%)	0.64	5 (5%) 29 23	54, 67, 74, 78	0
47	1p	82/88 (93%)	1.47	17 (20%) 2 1	58, 71, 79, 84	0
47	2p	82/88 (93%)	0.94	6 (7%) 21 15	56, 64, 74, 80	0
48	1q	99/105 (94%)	0.88	6 (6%) 27 20	50, 65, 73, 77	0
48	2q	99/105 (94%)	0.70	5 (5%) 33 26	53, 64, 73, 76	0
49	1r	68/88 (77%)	0.71	2 (2%) 53 46	53, 66, 73, 78	0
49	2r	68/88 (77%)	0.65	2 (2%) 53 46	56, 66, 73, 78	0
50	1s	83/93 (89%)	1.59	23 (27%) 1 1	68, 78, 86, 90	0
50	2s	83/93 (89%)	1.92	34 (40%) 0 0	75, 82, 87, 90	0
51	1t	96/106 (90%)	1.33	20 (20%) 2 1	60, 71, 78, 81	0
51	2t	98/106 (92%)	0.96	7 (7%) 22 16	54, 65, 75, 79	0
52	1u	23/27 (85%)	1.66	8 (34%) 1 0	71, 75, 79, 82	0
52	2u	23/27 (85%)	1.92	11 (47%) 0 0	73, 78, 82, 84	0
53	1y	97/113 (85%)	0.67	4 (4%) 41 33	50, 66, 75, 79	0
53	2y	96/113 (84%)	1.43	23 (23%) 2 1	65, 75, 84, 88	0
All	All	20766/21468 (96%)	0.40	1615 (7%) 19 14	15, 60, 85, 105	0

All (1615) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	1A	1072	C	9.1
1	1A	1089	G	8.4
1	1A	1087	G	8.2
1	1A	1093	G	8.0
1	1A	1076	C	7.8
1	1A	2116	G	7.7
1	1A	1092	C	7.6
1	1A	1091	G	7.5
1	1A	1064	C	7.5
1	1A	1071	G	7.3

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Mol	Chain	Res	Type	RSRZ
1	1A	1075	C	7.2
32	2a	1030(B)	C	7.2
1	2A	2602	A	7.1
1	1A	1088	A	6.9
1	1A	1074	G	6.8
51	1t	103	GLY	6.8
1	2A	1076	C	6.8
1	2A	2147	G	6.7
23	11	2	SER	6.5
53	1y	98	ALA	6.4
1	1A	1090	U	6.4
1	1A	1077	A	6.4
1	1A	2117	A	6.2
32	2a	1030(A)	G	6.2
20	2Y	1	MET	6.1
1	1A	2161	C	6.1
45	2n	2	ALA	6.1
1	2A	614(B)	G	6.0
1	1A	1063	G	6.0
1	1A	1078	U	5.7
33	2b	237	ALA	5.6
1	2A	2138	C	5.6
1	2A	2165	G	5.5
1	1A	2147	G	5.5
15	1T	37	GLY	5.5
1	2A	2139	C	5.5
53	2y	98	ALA	5.4
1	2A	2162	G	5.4
1	2A	2125	G	5.4
26	24	49	PHE	5.3
1	2A	2130	U	5.2
1	2A	2136	C	5.2
1	1A	2115	G	5.1
1	2A	2126	A	5.1
35	1d	21	LEU	5.1
40	2i	102	LEU	5.1
6	2G	146	TYR	5.0
26	24	56	VAL	5.0
32	1a	1286	A	5.0
45	1n	2	ALA	5.0
32	1a	1001	A	4.9
1	1A	1062	G	4.9

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Mol	Chain	Res	Type	RSRZ
1	2A	2118	U	4.9
1	1A	1079	C	4.8
1	1A	1066	U	4.8
40	2i	109	VAL	4.8
15	1T	130	ALA	4.8
35	2d	5	ILE	4.8
35	1d	4	TYR	4.8
1	2A	362	U	4.8
47	2p	82	GLN	4.8
1	1A	1073	A	4.8
1	1A	2173	A	4.8
1	1A	2602	A	4.7
1	2A	2167	U	4.7
1	2A	2137	C	4.7
15	1T	131	ALA	4.7
44	2m	102	ARG	4.7
1	2A	2116	G	4.7
50	2s	9	VAL	4.6
1	2A	1095	A	4.6
1	1A	1081	U	4.6
1	2A	1075	C	4.5
1	1A	1070	A	4.5
1	2A	2168	G	4.5
1	2A	2146	C	4.5
1	2A	2174	C	4.5
1	2A	1046	A	4.5
12	2Q	59	ARG	4.4
1	1A	2174	C	4.4
1	2A	2169	A	4.4
1	1A	2166	G	4.4
1	1A	1080	C	4.4
32	1a	1030(B)	C	4.4
1	2A	2173	A	4.3
7	1H	2	SER	4.3
6	1G	160	VAL	4.3
32	2a	1321	C	4.3
44	1m	87	TYR	4.3
1	1A	2150	U	4.3
1	2A	2148	G	4.3
1	2A	2153	G	4.3
6	1G	35	GLU	4.3
32	1a	1003	G	4.3

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Mol	Chain	Res	Type	RSRZ
6	2G	87	PRO	4.2
44	1m	100	GLY	4.2
32	1a	65	U	4.2
1	2A	2124	G	4.2
1	2A	2159	G	4.2
1	2A	2171	A	4.2
40	1i	15	ALA	4.2
1	1A	2168	G	4.2
19	1X	95	LEU	4.2
14	2S	33	LYS	4.2
1	2A	2135	A	4.2
6	2G	53	LEU	4.2
1	1A	2113	U	4.1
1	2A	1536	C	4.1
1	2A	2119	A	4.1
1	1A	2160	G	4.1
32	2a	1001(A)	G	4.1
32	2a	1032	G	4.1
29	17	48	LYS	4.1
36	2e	22	GLY	4.1
1	2A	1070	A	4.1
40	2i	69	GLY	4.1
1	1A	12	U	4.0
1	2A	1088	A	4.0
1	2A	2166	G	4.0
32	2a	1030(C)	G	4.0
14	2S	34	HIS	4.0
1	1A	2114	A	4.0
1	1A	2133	G	4.0
23	21	2	SER	4.0
53	2y	9	GLN	4.0
1	1A	1067	A	4.0
14	2S	32	LEU	4.0
51	2t	103	GLY	4.0
33	1b	236	TYR	4.0
33	2b	97	TRP	4.0
40	2i	36	TYR	4.0
47	1p	12	LYS	4.0
20	1Y	1	MET	4.0
1	2A	2127	G	3.9
44	1m	2	ALA	3.9
1	1A	1057	A	3.9

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Mol	Chain	Res	Type	RSRZ
34	1c	10	PHE	3.9
34	2c	207	VAL	3.9
42	2k	31	THR	3.9
2	2B	1	U	3.9
1	1A	2159	G	3.9
38	2g	2	ALA	3.9
40	2i	99	LEU	3.9
1	2A	1067	A	3.9
26	24	35	VAL	3.9
1	2A	2107	C	3.9
34	2c	163	ALA	3.9
41	2j	75	ILE	3.9
1	2A	2154	G	3.9
34	2c	4	LYS	3.9
1	1A	1509	C	3.9
40	2i	15	ALA	3.9
34	2c	2	GLY	3.9
1	1A	2162	G	3.8
1	2A	2133	G	3.8
29	27	48	LYS	3.8
1	2A	1098	A	3.8
34	2c	92	ALA	3.8
1	1A	2129	C	3.8
26	14	59	PHE	3.8
32	2a	1219	U	3.8
14	2S	3	ARG	3.8
41	2j	37	PRO	3.8
33	1b	237	ALA	3.8
1	1A	2127	G	3.8
1	2A	2117	A	3.8
7	2H	44	VAL	3.8
44	1m	98	VAL	3.8
40	1i	128	ARG	3.8
1	1A	1102	C	3.8
1	1A	2130	U	3.8
1	2A	2172	U	3.8
40	1i	66	ARG	3.8
1	2A	1093	G	3.8
32	1a	1353	G	3.8
51	2t	6	PRO	3.8
1	1A	2172	U	3.8
1	1A	888	C	3.8

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Mol	Chain	Res	Type	RSRZ
51	2t	97	ALA	3.8
6	2G	44	GLY	3.8
40	2i	72	GLY	3.8
45	2n	33	VAL	3.8
47	1p	82	GLN	3.7
26	24	67	TYR	3.7
40	1i	85	LEU	3.7
1	2A	2160	G	3.7
1	2A	2129	C	3.7
1	2A	2140	C	3.7
6	2G	88	ILE	3.7
1	2A	1082	U	3.7
1	2A	1083	U	3.7
19	2X	68	ARG	3.7
23	21	26	ARG	3.7
32	1a	202	U	3.7
1	1A	2123	G	3.7
32	2a	1224	G	3.7
40	1i	56	LEU	3.7
34	1c	13	GLY	3.7
1	2A	2109	U	3.7
34	1c	73	PRO	3.7
35	1d	112	VAL	3.7
1	2A	1071	G	3.7
1	1A	2108	C	3.7
34	2c	124	ILE	3.7
36	2e	21	ALA	3.7
41	2j	91	PRO	3.7
26	24	52	THR	3.6
40	2i	127	LYS	3.6
1	2A	1087	G	3.6
1	2A	2152	G	3.6
32	2a	1094	G	3.6
50	2s	71	LEU	3.6
1	2A	652(B)	A	3.6
42	2k	42	TRP	3.6
6	2G	46	ALA	3.6
20	2Y	58	GLY	3.6
38	2g	34	GLY	3.6
48	2q	33	GLY	3.6
1	1A	2125	G	3.6
41	2j	47	PHE	3.6

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Mol	Chain	Res	Type	RSRZ
3	2D	38	LYS	3.6
50	1s	13	ASP	3.6
1	1A	2144	U	3.6
1	1A	2167	U	3.6
45	2n	25	VAL	3.6
1	1A	2148	G	3.6
32	2a	1031	G	3.6
35	1d	3	ARG	3.6
38	2g	28	ASN	3.6
45	2n	5	ALA	3.6
1	1A	1086	A	3.6
1	1A	2126	A	3.6
7	2H	45	VAL	3.6
35	1d	135	LEU	3.6
40	2i	7	THR	3.5
32	2a	1068	G	3.5
35	1d	2	GLY	3.5
38	2g	150	ALA	3.5
41	2j	32	ALA	3.5
1	1A	1082	U	3.5
20	2Y	90	LEU	3.5
1	1A	548	A	3.5
46	2o	68	ARG	3.5
34	2c	71	ALA	3.5
1	2A	2106	G	3.5
1	2A	2141	G	3.5
34	2c	106	VAL	3.5
38	2g	4	ARG	3.5
1	1A	2119	A	3.5
26	24	45	GLY	3.5
40	2i	82	ALA	3.5
26	14	56	VAL	3.5
40	1i	109	VAL	3.5
41	2j	68	HIS	3.5
1	2A	1064	C	3.5
1	2A	1089	G	3.5
1	2A	2131	G	3.5
32	1a	1002	G	3.5
24	22	52	ASP	3.5
4	2E	204	ALA	3.5
32	2a	1001	A	3.5
41	1j	27	ALA	3.5

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Mol	Chain	Res	Type	RSRZ
24	12	70	GLN	3.5
48	2q	98	LEU	3.5
38	2g	5	ARG	3.5
43	1l	89	ARG	3.5
51	1t	68	LYS	3.4
1	2A	2155	G	3.4
1	2A	1073	A	3.4
1	2A	1085	A	3.4
40	2i	53	VAL	3.4
14	2S	52	SER	3.4
1	1A	1104	C	3.4
32	2a	1027	C	3.4
40	2i	30	GLY	3.4
51	1t	66	ALA	3.4
7	2H	103	LEU	3.4
9	2N	82	LEU	3.4
40	2i	18	PHE	3.4
47	1p	19	ILE	3.4
1	2A	2134	A	3.4
33	1b	22	LYS	3.4
40	2i	64	THR	3.4
40	2i	2	GLU	3.4
52	2u	24	ARG	3.4
26	14	50	VAL	3.4
32	2a	1030	C	3.4
1	1A	271(K)	U	3.4
1	1A	2132	U	3.4
32	2a	1033	G	3.4
32	2a	1373	G	3.4
42	2k	74	ALA	3.4
50	2s	68	GLY	3.4
34	2c	3	ASN	3.4
40	2i	86	VAL	3.4
33	1b	127	ILE	3.3
40	1i	127	LYS	3.3
1	2A	2108	C	3.3
32	1a	1000	U	3.3
32	1a	1030	C	3.3
32	2a	1249	C	3.3
40	2i	66	ARG	3.3
1	1A	2176	A	3.3
32	1a	344	A	3.3

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Mol	Chain	Res	Type	RSRZ
38	2g	33	ASP	3.3
33	2b	7	VAL	3.3
53	2y	42	SER	3.3
1	2A	34	C	3.3
2	2B	88	C	3.3
32	1a	174	C	3.3
32	1a	221	C	3.3
32	1a	1354	C	3.3
34	1c	179	ARG	3.3
21	1Z	118	GLN	3.3
26	14	54	GLY	3.3
33	2b	38	GLY	3.3
1	1A	2156	G	3.3
1	1A	2157	G	3.3
1	2A	2151	G	3.3
32	1a	1026	G	3.3
29	17	47	ARG	3.3
40	2i	9	ARG	3.3
1	1A	1094	U	3.3
44	2m	100	GLY	3.3
1	1A	2136	C	3.3
41	1j	34	VAL	3.3
50	2s	11	VAL	3.3
1	2A	2320	A	3.3
3	1D	37	LEU	3.3
22	20	84	LEU	3.3
32	1a	1036	G	3.3
32	2a	1036	G	3.3
41	2j	31	GLY	3.3
44	2m	24	GLY	3.3
34	2c	153	VAL	3.3
40	2i	14	VAL	3.3
1	2A	2111	C	3.2
1	2A	2179	C	3.2
53	2y	38	HIS	3.2
6	2G	42	GLY	3.2
35	1d	23	GLY	3.2
35	2d	6	GLY	3.2
40	2i	94	ALA	3.2
51	1t	76	ALA	3.2
1	1A	2149	G	3.2
1	2A	2149	G	3.2

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Mol	Chain	Res	Type	RSRZ
32	1a	1023	G	3.2
32	1a	1031	G	3.2
34	2c	68	VAL	3.2
36	1e	118	ILE	3.2
1	1A	1097	U	3.2
1	1A	2142	C	3.2
32	1a	307	C	3.2
36	2e	20	GLN	3.2
40	2i	67	GLY	3.2
51	2t	96	GLY	3.2
32	2a	1030(D)	A	3.2
38	2g	7	ALA	3.2
33	1b	122	PHE	3.2
42	2k	117	ASN	3.2
1	1A	1058	G	3.2
32	1a	630	G	3.2
42	2k	126	ARG	3.2
41	2j	83	GLU	3.2
50	2s	77	THR	3.2
1	2A	2128	C	3.2
1	2A	2164	C	3.2
8	2I	146	ALA	3.2
8	2I	3	VAL	3.2
34	2c	76	VAL	3.2
34	2c	84	ILE	3.2
32	2a	1286	A	3.2
26	14	69	LYS	3.2
32	1a	1001(A)	G	3.2
42	1k	42	TRP	3.2
52	2u	4	GLY	3.2
40	1i	106	ALA	3.2
6	2G	52	ILE	3.2
7	2H	136	ILE	3.2
41	1j	4	ILE	3.2
43	1l	18	VAL	3.2
1	2A	1509	C	3.1
40	2i	91	ASP	3.1
41	2j	79	ARG	3.1
51	1t	73	HIS	3.1
40	2i	73	GLN	3.1
9	2N	73	THR	3.1
50	2s	84	GLY	3.1

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Mol	Chain	Res	Type	RSRZ
33	2b	127	ILE	3.1
40	2i	71	SER	3.1
14	2S	29	PHE	3.1
1	1A	2155	G	3.1
1	2A	2319	G	3.1
32	1a	1030(A)	G	3.1
35	2d	4	TYR	3.1
23	11	26	ARG	3.1
1	1A	2139	C	3.1
50	2s	16	LEU	3.1
42	2k	39	PRO	3.1
1	2A	1096	A	3.1
6	1G	46	ALA	3.1
33	1b	7	VAL	3.1
33	2b	164	VAL	3.1
50	1s	9	VAL	3.1
50	2s	51	VAL	3.1
32	1a	1257	U	3.1
38	1g	32	ARG	3.1
40	1i	104	ARG	3.1
48	1q	100	LYS	3.1
15	1T	38	ASN	3.1
35	1d	162	LEU	3.1
1	2A	2163	C	3.1
1	1A	1103	A	3.1
1	2A	1077	A	3.1
33	1b	97	TRP	3.1
33	2b	201	ILE	3.1
42	2k	123	LYS	3.1
6	2G	28	VAL	3.1
7	2H	37	VAL	3.1
34	1c	193	TYR	3.1
50	1s	71	LEU	3.1
47	1p	13	HIS	3.1
1	2A	2104	G	3.1
1	2A	2157	G	3.1
32	2a	1221	G	3.1
1	2A	2142	C	3.1
1	2A	2145	C	3.1
1	1A	2134	A	3.0
1	2A	229	A	3.0
1	2A	2114	A	3.0

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Mol	Chain	Res	Type	RSRZ
1	2A	2158	A	3.0
35	1d	68	TYR	3.0
42	2k	75	TYR	3.0
41	1j	76	ASN	3.0
40	2i	98	PRO	3.0
46	1o	19	PRO	3.0
1	1A	2109	U	3.0
32	2a	84	U	3.0
41	1j	33	GLN	3.0
50	1s	84	GLY	3.0
50	2s	63	THR	3.0
6	2G	50	ALA	3.0
38	2g	32	ARG	3.0
40	1i	14	VAL	3.0
40	2i	101	PHE	3.0
1	1A	2151	G	3.0
40	2i	126	SER	3.0
1	1A	2128	C	3.0
26	14	57	GLU	3.0
47	1p	46	PRO	3.0
1	2A	1084	A	3.0
43	1l	47	LYS	3.0
33	2b	21	ARG	3.0
34	2c	190	ARG	3.0
40	1i	42	ARG	3.0
41	2j	34	VAL	3.0
34	2c	12	LEU	3.0
1	1A	2131	G	3.0
1	2A	1091	G	3.0
32	2a	1202	G	3.0
1	1A	2137	C	3.0
32	1a	1492	A	3.0
40	2i	42	ARG	3.0
8	1I	90	GLY	3.0
40	1i	7	THR	3.0
40	2i	76	ALA	3.0
1	2A	2150	U	3.0
33	1b	165	VAL	3.0
38	1g	87	VAL	3.0
40	2i	37	PHE	3.0
43	2l	18	VAL	3.0
50	1s	15	LEU	3.0

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Mol	Chain	Res	Type	RSRZ
50	2s	79	THR	3.0
1	1A	2141	G	3.0
1	2A	1074	G	3.0
1	2A	1533	G	3.0
1	2A	1080	C	3.0
1	2A	2789	C	3.0
32	1a	1029	C	3.0
1	2A	2170	A	3.0
32	2a	1447	A	3.0
35	1d	194	LEU	2.9
50	2s	15	LEU	2.9
1	2A	614(A)	U	2.9
50	1s	27	GLU	2.9
6	2G	81	LYS	2.9
40	2i	95	LYS	2.9
38	1g	84	ASN	2.9
41	1j	78	ASN	2.9
35	1d	67	ILE	2.9
50	2s	82	GLY	2.9
26	14	52	THR	2.9
41	1j	16	LEU	2.9
1	1A	1176	G	2.9
1	1A	2153	G	2.9
1	2A	888	C	2.9
32	2a	1035	A	2.9
26	24	29	PRO	2.9
38	1g	88	PRO	2.9
1	1A	1065	U	2.9
1	2A	2132	U	2.9
32	1a	1020	U	2.9
38	2g	41	ARG	2.9
34	2c	77	ILE	2.9
45	1n	7	ILE	2.9
8	2I	106	GLY	2.9
40	1i	30	GLY	2.9
41	1j	42	THR	2.9
44	2m	37	THR	2.9
49	1r	20	ALA	2.9
34	1c	207	VAL	2.9
40	1i	86	VAL	2.9
53	2y	62	VAL	2.9
34	1c	52	LEU	2.9

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Mol	Chain	Res	Type	RSRZ
34	1c	87	LEU	2.9
40	1i	19	LEU	2.9
6	2G	35	GLU	2.9
43	1l	46	LYS	2.9
12	1Q	59	ARG	2.9
32	2a	1029	C	2.9
32	2a	1320	C	2.9
1	2A	1060	U	2.9
26	14	32	TYR	2.9
26	24	32	TYR	2.9
33	1b	214	ILE	2.9
40	2i	5	TYR	2.9
41	1j	38	ILE	2.9
34	1c	95	THR	2.9
33	1b	62	ALA	2.9
7	2H	11	VAL	2.9
8	2I	107	VAL	2.9
8	2I	144	VAL	2.9
34	1c	101	LEU	2.9
34	2c	43	LEU	2.9
37	1f	92	LYS	2.9
34	1c	90	GLU	2.9
52	2u	23	PRO	2.9
20	2Y	2	ARG	2.9
50	1s	38	SER	2.9
50	1s	23	ASN	2.9
7	2H	4	ILE	2.9
38	2g	42	ILE	2.9
1	2A	1078	U	2.9
1	2A	1081	U	2.9
41	2j	36	GLY	2.9
52	1u	16	GLY	2.9
1	1A	2152	G	2.9
33	1b	154	LEU	2.9
40	2i	106	ALA	2.9
41	2j	40	LEU	2.9
33	1b	94	ASN	2.8
33	2b	200	ILE	2.8
34	2c	8	ILE	2.8
45	2n	7	ILE	2.8
3	1D	38	LYS	2.8
18	1W	112	GLY	2.8

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Mol	Chain	Res	Type	RSRZ
41	1j	10	GLY	2.8
44	2m	36	LYS	2.8
34	2c	189	ALA	2.8
53	2y	97	ALA	2.8
12	2Q	104	PHE	2.8
33	2b	163	PHE	2.8
1	1A	278	A	2.8
1	1A	2158	A	2.8
1	1A	2169	A	2.8
1	1A	2143	C	2.8
1	1A	2163	C	2.8
50	2s	2	PRO	2.8
1	1A	2165	G	2.8
32	1a	220	G	2.8
32	2a	1034	G	2.8
6	1G	52	ILE	2.8
33	2b	22	LYS	2.8
40	2i	11	LYS	2.8
43	1l	91	LYS	2.8
26	14	63	TYR	2.8
33	2b	11	LEU	2.8
40	2i	43	ALA	2.8
53	2y	50	ALA	2.8
8	2I	145	VAL	2.8
41	2j	63	PHE	2.8
50	2s	14	HIS	2.8
26	24	57	GLU	2.8
45	1n	3	ARG	2.8
1	2A	1072	C	2.8
1	2A	1079	C	2.8
1	2A	2161	C	2.8
32	2a	1066	C	2.8
6	2G	76	SER	2.8
49	2r	61	LYS	2.8
1	1A	2112	G	2.8
1	2A	1062	G	2.8
33	1b	228	GLY	2.8
41	1j	71	LEU	2.8
50	1s	22	LEU	2.8
39	2h	3	THR	2.8
40	1i	46	ALA	2.8
43	2l	99	HIS	2.8

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Mol	Chain	Res	Type	RSRZ
44	2m	33	ALA	2.8
44	2m	54	VAL	2.8
44	2m	87	TYR	2.8
51	1t	67	ALA	2.8
36	1e	45	PHE	2.8
36	2e	10	MET	2.8
33	1b	131	PRO	2.8
53	2y	45	PRO	2.8
32	2a	1257	U	2.8
6	2G	47	LYS	2.8
1	1A	2135	A	2.8
1	2A	2176	A	2.8
1	2A	1092	C	2.8
32	2a	1223	C	2.8
50	2s	4	SER	2.8
6	2G	62	LEU	2.8
7	2H	82	GLY	2.8
40	1i	102	LEU	2.8
41	2j	85	LEU	2.8
50	1s	16	LEU	2.8
34	1c	66	VAL	2.8
38	2g	9	VAL	2.8
40	2i	52	ALA	2.8
41	1j	32	ALA	2.8
1	1A	1173	G	2.8
1	2A	545	G	2.8
1	2A	2115	G	2.8
32	1a	1224	G	2.8
40	1i	21	PRO	2.7
33	1b	221	LEU	2.7
41	2j	90	LEU	2.7
1	1A	2170	A	2.7
32	1a	1493	A	2.7
51	1t	69	GLY	2.7
1	1A	889	C	2.7
1	1A	2138	C	2.7
1	1A	2145	C	2.7
1	2A	2175	C	2.7
4	1E	204	ALA	2.7
26	24	50	VAL	2.7
32	1a	1019	C	2.7
32	1a	1037	C	2.7

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Mol	Chain	Res	Type	RSRZ
40	2i	61	ALA	2.7
46	1o	18	PHE	2.7
53	1y	2	THR	2.7
53	2y	49	VAL	2.7
6	2G	2	PRO	2.7
33	2b	236	TYR	2.7
44	1m	86	CYS	2.7
1	2A	2110	G	2.7
32	2a	1002	G	2.7
33	2b	208	ILE	2.7
24	22	1	MET	2.7
41	2j	76	ASN	2.7
32	2a	1020	U	2.7
4	2E	163	GLU	2.7
6	2G	158	ALA	2.7
14	2S	20	ARG	2.7
34	1c	116	VAL	2.7
34	2c	75	VAL	2.7
44	2m	5	ALA	2.7
50	2s	67	VAL	2.7
1	2A	2801(A)	A	2.7
40	2i	62	TYR	2.7
50	2s	25	LYS	2.7
1	1A	2107	C	2.7
32	1a	67	C	2.7
32	1a	1027	C	2.7
8	2I	79	ILE	2.7
14	2S	35	ILE	2.7
53	2y	3	MET	2.7
1	2A	2318	G	2.7
32	1a	1030(C)	G	2.7
14	2S	31	SER	2.7
42	2k	118	GLY	2.7
44	1m	89	GLY	2.7
4	1E	163	GLU	2.7
6	2G	83	ARG	2.7
8	1I	10	GLU	2.7
35	2d	115	ARG	2.7
33	2b	207	ALA	2.7
34	1c	71	ALA	2.7
36	2e	16	THR	2.7
1	1A	2118	U	2.7

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Mol	Chain	Res	Type	RSRZ
32	2a	1040	U	2.7
45	2n	17	LYS	2.7
51	2t	48	LYS	2.7
38	1g	13	GLN	2.7
42	2k	13	GLN	2.7
40	1i	36	TYR	2.7
32	1a	1447	A	2.7
33	1b	187	LEU	2.7
35	1d	11	LEU	2.7
40	1i	8	GLY	2.7
47	2p	25	ARG	2.7
15	2T	55	ASN	2.7
33	1b	37	ASN	2.7
34	1c	206	GLU	2.7
50	2s	35	SER	2.7
6	1G	75	LYS	2.7
44	2m	7	VAL	2.7
45	2n	30	ALA	2.7
6	2G	116	ASP	2.7
40	2i	21	PRO	2.7
32	1a	79	G	2.6
32	1a	104	G	2.6
32	1a	1024	G	2.6
32	1a	1034	G	2.6
32	2a	1003	G	2.6
32	2a	1024	G	2.6
37	1f	94	GLN	2.6
35	1d	70	ILE	2.6
47	2p	19	ILE	2.6
1	2A	1057	A	2.6
19	2X	95	LEU	2.6
35	1d	168	ARG	2.6
41	1j	79	ARG	2.6
41	2j	46	ARG	2.6
33	2b	72	GLY	2.6
8	2I	74	ASN	2.6
35	1d	152	SER	2.6
12	2Q	65	PHE	2.6
41	1j	72	VAL	2.6
51	1t	71	THR	2.6
45	1n	34	TYR	2.6
1	1A	1099	G	2.6

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Mol	Chain	Res	Type	RSRZ
1	2A	2156	G	2.6
1	2A	2182	G	2.6
32	1a	1308	U	2.6
6	1G	43	LEU	2.6
34	1c	47	LEU	2.6
40	2i	96	LEU	2.6
44	2m	66	LEU	2.6
33	2b	133	LYS	2.6
34	1c	2	GLY	2.6
1	1A	1069	A	2.6
32	1a	393	A	2.6
32	1a	1005	A	2.6
32	1a	1035	A	2.6
32	1a	1288	A	2.6
33	2b	70	PHE	2.6
33	2b	152	PHE	2.6
37	2f	97	PHE	2.6
38	2g	80	VAL	2.6
50	1s	24	ALA	2.6
1	1A	34	C	2.6
1	1A	154(A)	C	2.6
1	1A	1100	C	2.6
1	1A	1532	C	2.6
26	24	22	ILE	2.6
33	1b	200	ILE	2.6
34	1c	77	ILE	2.6
19	2X	69	TYR	2.6
34	1c	6	HIS	2.6
1	1A	1963	U	2.6
1	2A	1090	U	2.6
32	2a	1065	U	2.6
10	1O	108	GLU	2.6
35	1d	69	GLY	2.6
44	1m	95	GLY	2.6
1	1A	271(M)	G	2.6
1	2A	361	G	2.6
32	1a	64	G	2.6
34	1c	106	VAL	2.6
35	2d	112	VAL	2.6
42	1k	15	ALA	2.6
51	1t	97	ALA	2.6
8	2I	86	THR	2.6

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Mol	Chain	Res	Type	RSRZ
33	2b	190	THR	2.6
35	1d	137	SER	2.6
44	2m	116	THR	2.6
50	2s	34	TRP	2.6
52	2u	14	TRP	2.6
1	1A	1098	A	2.6
1	2A	1086	A	2.6
40	1i	75	ASP	2.6
44	2m	84	ILE	2.6
52	2u	13	ILE	2.6
1	1A	2164	C	2.6
6	2G	82	LEU	2.6
35	2d	157	LEU	2.6
50	2s	22	LEU	2.6
20	2Y	55	TYR	2.6
12	2Q	33	GLY	2.6
38	1g	34	GLY	2.6
51	1t	96	GLY	2.6
2	1B	1	U	2.6
7	2H	39	PRO	2.6
32	1a	1025	U	2.6
33	1b	197	VAL	2.6
38	1g	156	TRP	2.5
1	2A	1099	G	2.5
1	2A	2112	G	2.5
32	2a	630	G	2.5
32	2a	1021	G	2.5
38	1g	33	ASP	2.5
41	1j	86	MET	2.5
33	2b	39	ILE	2.5
50	1s	31	ILE	2.5
1	1A	529	A	2.5
20	2Y	23	ARG	2.5
45	2n	49	HIS	2.5
45	2n	34	TYR	2.5
46	2o	69	TYR	2.5
37	1f	95	GLU	2.5
1	1A	2140	C	2.5
1	2A	645	C	2.5
32	1a	194	C	2.5
21	2Z	86	VAL	2.5
35	1d	29	PRO	2.5

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Mol	Chain	Res	Type	RSRZ
42	2k	47	VAL	2.5
33	2b	177	ALA	2.5
41	2j	42	THR	2.5
52	1u	17	THR	2.5
1	1A	2122	U	2.5
1	2A	1097	U	2.5
40	1i	126	SER	2.5
44	2m	39	ILE	2.5
34	1c	12	LEU	2.5
38	1g	5	ARG	2.5
1	1A	2124	G	2.5
32	1a	1030(D)	A	2.5
32	2a	1093	A	2.5
50	2s	52	TYR	2.5
5	1F	208	GLY	2.5
35	1d	171	GLY	2.5
50	2s	26	GLY	2.5
33	2b	15	VAL	2.5
45	1n	25	VAL	2.5
41	2j	27	ALA	2.5
1	2A	2105	C	2.5
1	2A	2143	C	2.5
32	2a	1018	C	2.5
38	2g	84	ASN	2.5
41	2j	81	THR	2.5
40	2i	63	ILE	2.5
53	2y	8	LYS	2.5
1	2A	12	U	2.5
5	2F	44	ARG	2.5
22	10	84	LEU	2.5
24	22	60	LEU	2.5
32	1a	1136	U	2.5
33	2b	69	LEU	2.5
34	2c	33	LEU	2.5
41	2j	13	HIS	2.5
14	2S	92	TYR	2.5
26	24	63	TYR	2.5
40	2i	125	TYR	2.5
22	20	8	GLY	2.5
22	20	28	GLY	2.5
34	2c	159	GLY	2.5
44	1m	38	GLY	2.5

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Mol	Chain	Res	Type	RSRZ
45	2n	55	GLY	2.5
25	13	2	PRO	2.5
33	1b	125	PRO	2.5
1	1A	275	G	2.5
1	2A	1171	G	2.5
1	2A	2802	G	2.5
21	2Z	191	VAL	2.5
32	1a	158	G	2.5
32	1a	1139	G	2.5
40	2i	65	VAL	2.5
34	2c	129	ALA	2.5
40	1i	55	ALA	2.5
42	1k	60	ALA	2.5
50	1s	75	ALA	2.5
34	2c	67	THR	2.5
40	2i	70	LYS	2.5
43	2l	47	LYS	2.5
6	2G	118	ARG	2.5
33	2b	214	ILE	2.5
34	2c	79	ARG	2.5
35	1d	19	LEU	2.5
35	1d	188	LEU	2.5
39	2h	2	LEU	2.5
44	2m	3	ARG	2.5
44	2m	114	ARG	2.5
52	2u	6	ARG	2.5
46	1o	49	ASP	2.5
47	1p	16	HIS	2.5
25	23	60	GLU	2.5
40	1i	2	GLU	2.5
41	1j	83	GLU	2.5
6	1G	146	TYR	2.5
34	2c	9	GLY	2.5
36	2e	133	TYR	2.5
8	2I	92	VAL	2.5
40	1i	41	VAL	2.5
44	2m	60	VAL	2.5
48	2q	9	VAL	2.5
44	1m	27	LYS	2.4
45	2n	15	LYS	2.4
47	1p	43	LYS	2.4
26	24	27	THR	2.4

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Mol	Chain	Res	Type	RSRZ
34	2c	192	THR	2.4
11	2P	15	ARG	2.4
24	12	69	ARG	2.4
26	14	55	ARG	2.4
46	2o	79	ARG	2.4
52	2u	9	ARG	2.4
5	2F	140	LEU	2.4
8	2I	38	LEU	2.4
33	2b	44	LEU	2.4
34	2c	196	LEU	2.4
41	1j	75	ILE	2.4
44	2m	4	ILE	2.4
52	1u	13	ILE	2.4
1	2A	2123	G	2.4
32	1a	1033	G	2.4
33	1b	40	HIS	2.4
40	2i	105	ASP	2.4
1	1A	2111	C	2.4
32	1a	217	C	2.4
32	1a	999	C	2.4
32	1a	1039	C	2.4
1	1A	1083	U	2.4
1	2A	272(A)	U	2.4
1	2A	2113	U	2.4
26	14	1	MET	2.4
26	14	64	GLY	2.4
31	29	37	GLY	2.4
32	2a	1025	U	2.4
43	1l	94	PRO	2.4
52	1u	2	GLY	2.4
34	2c	48	TYR	2.4
21	2Z	199	LYS	2.4
24	22	19	VAL	2.4
26	24	60	GLN	2.4
33	2b	93	VAL	2.4
33	2b	95	GLN	2.4
34	1c	75	VAL	2.4
34	2c	37	GLN	2.4
38	1g	75	VAL	2.4
51	1t	74	LYS	2.4
21	2Z	187	ALA	2.4
33	1b	123	ALA	2.4

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Mol	Chain	Res	Type	RSRZ
45	2n	10	ALA	2.4
47	1p	7	ALA	2.4
7	2H	6	ARG	2.4
26	14	48	ARG	2.4
33	1b	30	ARG	2.4
35	1d	153	ARG	2.4
35	2d	158	ILE	2.4
46	1o	57	LEU	2.4
50	2s	65	ASN	2.4
40	1i	58	HIS	2.4
1	1A	887	A	2.4
32	1a	171	A	2.4
32	2a	978	A	2.4
33	2b	193	ASP	2.4
34	2c	167	TRP	2.4
32	2a	1323	G	2.4
21	1Z	1	MET	2.4
34	2c	80	GLY	2.4
40	1i	6	GLY	2.4
40	1i	90	PRO	2.4
40	2i	49	PRO	2.4
46	1o	89	GLY	2.4
46	2o	75	PRO	2.4
50	1s	18	LYS	2.4
50	2s	18	LYS	2.4
1	2A	2103	C	2.4
1	2A	2474	C	2.4
1	2A	2794	C	2.4
8	1I	147	GLN	2.4
24	22	9	GLN	2.4
5	2F	184	TYR	2.4
25	23	15	TYR	2.4
32	1a	219	C	2.4
32	2a	979	C	2.4
34	2c	162	GLN	2.4
15	2T	130	ALA	2.4
32	1a	1307	U	2.4
38	1g	151	TYR	2.4
36	2e	86	ALA	2.4
40	1i	37	PHE	2.4
40	2i	93	ARG	2.4
43	2l	30	ALA	2.4

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Mol	Chain	Res	Type	RSRZ
34	1c	84	ILE	2.4
38	2g	120	ILE	2.4
44	1m	49	THR	2.4
48	1q	76	LEU	2.4
33	2b	19	HIS	2.4
50	1s	69	HIS	2.4
26	24	66	SER	2.4
3	2D	28	GLU	2.4
47	1p	29	ASP	2.4
35	1d	165	MET	2.4
1	1A	1174	A	2.4
6	1G	44	GLY	2.4
7	2H	118	PRO	2.4
7	2H	128	PRO	2.4
25	23	2	PRO	2.4
43	2l	88	GLY	2.4
34	2c	107	GLN	2.4
7	2H	76	VAL	2.4
34	1c	64	VAL	2.4
34	2c	99	VAL	2.4
41	2j	72	VAL	2.4
1	1A	2120	G	2.4
1	2A	1059	G	2.4
1	2A	2321	G	2.4
11	2P	79	ARG	2.4
32	1a	102	G	2.4
33	2b	17	PHE	2.4
33	2b	123	ALA	2.4
34	2c	23	TYR	2.4
34	2c	128	PHE	2.4
40	2i	10	ARG	2.4
40	2i	92	TYR	2.4
36	2e	12	LEU	2.4
45	2n	39	LEU	2.4
41	1j	87	THR	2.4
44	1m	116	THR	2.4
50	2s	31	ILE	2.4
1	2A	886	C	2.4
32	1a	1321	C	2.4
32	2a	1119	C	2.4
41	2j	78	ASN	2.4
41	2j	59	SER	2.4

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Mol	Chain	Res	Type	RSRZ
26	14	51	ASP	2.4
6	1G	2	PRO	2.4
41	1j	77	PRO	2.4
6	2G	85	GLY	2.4
22	20	52	GLY	2.4
35	2d	2	GLY	2.4
53	2y	46	GLN	2.4
6	2G	149	VAL	2.4
20	2Y	45	VAL	2.4
30	28	46	ARG	2.4
34	1c	99	VAL	2.4
34	2c	70	VAL	2.4
49	1r	32	ARG	2.4
1	1A	1096	A	2.4
12	2Q	29	PHE	2.4
26	24	59	PHE	2.4
33	1b	188	ALA	2.4
41	2j	20	ALA	2.4
44	2m	51	ALA	2.4
45	1n	36	PHE	2.4
33	2b	121	LEU	2.3
38	1g	12	LEU	2.3
40	1i	125	TYR	2.3
41	2j	65	LEU	2.3
44	1m	96	LEU	2.3
45	2n	44	LEU	2.3
47	1p	38	TYR	2.3
50	2s	30	LEU	2.3
26	24	15	ILE	2.3
50	1s	47	HIS	2.3
20	2Y	92	ASN	2.3
1	1A	614(A)	U	2.3
1	2A	1537	G	2.3
32	1a	1021	G	2.3
32	2a	1026	G	2.3
6	1G	48	GLU	2.3
1	2A	889	C	2.3
1	2A	1178	C	2.3
3	1D	275	LYS	2.3
5	1F	15	SER	2.3
32	2a	848	C	2.3
32	2a	1116	C	2.3

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Mol	Chain	Res	Type	RSRZ
45	2n	50	LYS	2.3
35	1d	37	PRO	2.3
53	2y	14	PRO	2.3
5	2F	8	GLN	2.3
35	1d	180	GLY	2.3
41	2j	10	GLY	2.3
41	1j	5	ARG	2.3
9	2N	140	VAL	2.3
33	1b	136	VAL	2.3
33	2b	81	VAL	2.3
36	1e	69	VAL	2.3
40	1i	53	VAL	2.3
6	2G	117	PHE	2.3
6	2G	139	LEU	2.3
8	1I	58	LEU	2.3
35	2d	120	LEU	2.3
41	2j	71	LEU	2.3
44	2m	19	LEU	2.3
50	1s	30	LEU	2.3
41	1j	82	ILE	2.3
34	1c	48	TYR	2.3
52	1u	18	TYR	2.3
1	2A	1069	A	2.3
41	2j	62	HIS	2.3
6	2G	45	GLU	2.3
9	2N	84	LYS	2.3
51	1t	65	LYS	2.3
32	1a	1040	U	2.3
32	2a	1358	U	2.3
1	2A	363	G	2.3
33	2b	232	PRO	2.3
34	2c	73	PRO	2.3
50	2s	76	PRO	2.3
1	2A	1049	C	2.3
15	1T	129	ARG	2.3
26	24	39	CYS	2.3
32	2a	1039	C	2.3
32	2a	1218	C	2.3
34	1c	194	GLY	2.3
50	1s	29	ARG	2.3
33	1b	229	VAL	2.3
33	2b	197	VAL	2.3

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Mol	Chain	Res	Type	RSRZ
34	1c	68	VAL	2.3
34	2c	116	VAL	2.3
38	2g	87	VAL	2.3
6	2G	107	LEU	2.3
6	2G	133	LEU	2.3
26	24	9	LEU	2.3
34	1c	128	PHE	2.3
34	1c	92	ALA	2.3
35	1d	101	LEU	2.3
51	2t	10	LEU	2.3
53	2y	24	LEU	2.3
53	2y	48	PHE	2.3
41	2j	18	ALA	2.3
44	2m	28	ALA	2.3
46	2o	80	ALA	2.3
6	1G	88	ILE	2.3
21	1Z	197	ILE	2.3
37	1f	52	ILE	2.3
41	2j	38	ILE	2.3
33	1b	19	HIS	2.3
14	2S	36	TYR	2.3
34	1c	177	THR	2.3
4	2E	1	MET	2.3
33	1b	12	GLU	2.3
35	2d	192	GLU	2.3
40	2i	29	ASN	2.3
1	1A	2171	A	2.3
1	1A	2790	A	2.3
32	2a	1005	A	2.3
32	2a	1092	A	2.3
7	2H	16	SER	2.3
6	2G	142	PRO	2.3
34	1c	109	PRO	2.3
39	2h	4	ASP	2.3
42	1k	36	ASP	2.3
35	1d	115	ARG	2.3
38	2g	79	ARG	2.3
47	2p	48	TRP	2.3
50	2s	78	ARG	2.3
52	1u	9	ARG	2.3
20	2Y	93	GLY	2.3
44	2m	6	GLY	2.3

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Mol	Chain	Res	Type	RSRZ
50	1s	68	GLY	2.3
51	1t	101	GLY	2.3
1	2A	271(K)	U	2.3
7	2H	169	VAL	2.3
8	2I	81	VAL	2.3
26	24	10	VAL	2.3
45	2n	18	VAL	2.3
6	1G	82	LEU	2.3
7	2H	71	LEU	2.3
8	2I	68	LEU	2.3
33	2b	221	LEU	2.3
36	2e	31	LEU	2.3
40	1i	18	PHE	2.3
44	2m	34	LEU	2.3
50	1s	74	PHE	2.3
3	2D	2	ALA	2.3
29	27	45	ALA	2.3
34	1c	124	ILE	2.3
40	2i	46	ALA	2.3
1	1A	2146	C	2.3
1	2A	277	C	2.3
32	1a	66	G	2.3
41	1j	74	ILE	2.3
32	1a	1129	C	2.3
32	2a	1045	C	2.3
50	1s	39	THR	2.3
40	2i	12	GLU	2.3
14	2S	30	ARG	2.3
34	1c	79	ARG	2.3
34	2c	7	PRO	2.3
35	1d	10	ARG	2.3
41	1j	28	ARG	2.3
44	1m	102	ARG	2.3
44	2m	99	ARG	2.3
47	1p	15	PRO	2.3
26	24	17	GLY	2.3
32	1a	1004	A	2.3
36	1e	85	GLY	2.3
34	1c	86	VAL	2.3
34	2c	138	VAL	2.3
44	1m	90	LEU	2.3
44	1m	117	VAL	2.3

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Mol	Chain	Res	Type	RSRZ
50	2s	19	VAL	2.3
53	2y	81	LEU	2.3
41	2j	54	PHE	2.3
1	1A	1101	U	2.2
20	2Y	44	ILE	2.2
32	1a	841	U	2.2
45	1n	4	LYS	2.2
45	1n	9	LYS	2.2
41	1j	100	THR	2.2
6	2G	48	GLU	2.2
38	1g	8	GLU	2.2
41	2j	64	GLU	2.2
38	2g	151	TYR	2.2
48	2q	95	TYR	2.2
1	1A	2175	C	2.2
1	2A	1043	C	2.2
1	2A	2178	C	2.2
32	1a	103	C	2.2
32	1a	1008	C	2.2
32	1a	1038	C	2.2
1	1A	1056	G	2.2
6	1G	96	ARG	2.2
6	2G	136	ARG	2.2
34	1c	38	ARG	2.2
45	2n	3	ARG	2.2
35	2d	7	PRO	2.2
34	2c	20	SER	2.2
40	2i	68	GLY	2.2
33	2b	136	VAL	2.2
33	2b	142	LEU	2.2
34	1c	33	LEU	2.2
34	2c	178	LEU	2.2
38	1g	16	LEU	2.2
44	2m	64	TRP	2.2
7	2H	49	VAL	2.2
21	2Z	175	VAL	2.2
40	2i	17	VAL	2.2
48	1q	77	VAL	2.2
1	2A	1111	A	2.2
3	2D	276	LYS	2.2
21	2Z	136	PHE	2.2
8	2I	55	ALA	2.2

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Mol	Chain	Res	Type	RSRZ
20	2Y	94	LYS	2.2
32	1a	134	A	2.2
32	1a	1287	A	2.2
32	1a	1349	A	2.2
33	1b	28	PHE	2.2
34	1c	39	ILE	2.2
36	2e	84	PHE	2.2
34	2c	6	HIS	2.2
35	1d	5	ILE	2.2
35	1d	22	LYS	2.2
38	1g	7	ALA	2.2
26	14	18	CYS	2.2
1	1A	1060	U	2.2
1	2A	2144	U	2.2
5	2F	175	THR	2.2
32	1a	173	U	2.2
32	2a	223	U	2.2
40	2i	114	TYR	2.2
33	2b	137	ARG	2.2
34	1c	83	ARG	2.2
34	2c	16	ARG	2.2
51	1t	75	ASN	2.2
52	1u	6	ARG	2.2
34	2c	114	PRO	2.2
40	1i	49	PRO	2.2
44	2m	41	PRO	2.2
48	2q	2	PRO	2.2
1	1A	2179	C	2.2
32	1a	840	C	2.2
32	1a	848	C	2.2
32	1a	979	C	2.2
14	2S	58	LEU	2.2
32	2a	1220	G	2.2
34	1c	197	GLY	2.2
40	2i	56	LEU	2.2
14	2S	57	LYS	2.2
21	2Z	201	LYS	2.2
33	1b	164	VAL	2.2
34	1c	70	VAL	2.2
34	2c	195	VAL	2.2
38	2g	156	TRP	2.2
39	2h	53	VAL	2.2

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Mol	Chain	Res	Type	RSRZ
40	1i	108	VAL	2.2
7	2H	41	MET	2.2
41	2j	6	ILE	2.2
51	1t	100	ILE	2.2
35	1d	111	ALA	2.2
36	1e	94	ALA	2.2
40	2i	13	ALA	2.2
8	1I	117	GLU	2.2
1	1A	1084	A	2.2
1	1A	1509(A)	A	2.2
32	1a	414	A	2.2
32	1a	452	A	2.2
32	2a	1067	A	2.2
32	2a	1225	A	2.2
32	2a	1357	A	2.2
40	1i	103	THR	2.2
1	1A	1175	U	2.2
1	2A	1066	U	2.2
32	2a	65	U	2.2
35	2d	20	TYR	2.2
11	1P	70	GLN	2.2
34	2c	118	GLN	2.2
37	1f	27	GLN	2.2
5	1F	134	GLY	2.2
35	1d	155	LEU	2.2
36	1e	22	GLY	2.2
39	2h	73	ASP	2.2
40	1i	40	LEU	2.2
41	1j	85	LEU	2.2
41	2j	14	LYS	2.2
41	2j	55	LYS	2.2
41	2j	89	ASP	2.2
7	2H	43	VAL	2.2
33	2b	165	VAL	2.2
1	2A	1104	C	2.2
1	2A	1118	C	2.2
32	1a	63	C	2.2
32	1a	187	C	2.2
32	2a	1028	C	2.2
34	2c	69	HIS	2.2
38	2g	43	PHE	2.2
47	2p	80	PHE	2.2

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Mol	Chain	Res	Type	RSRZ
50	2s	10	PHE	2.2
45	1n	30	ALA	2.2
53	2y	21	ALA	2.2
32	2a	548	G	2.2
32	2a	1009	G	2.2
32	2a	1013	G	2.2
32	2a	1023	G	2.2
33	2b	231	GLU	2.2
41	2j	67	THR	2.2
7	2H	51	ARG	2.2
51	1t	79	ARG	2.2
1	1A	229	A	2.2
1	2A	6	A	2.2
1	2A	1045	A	2.2
16	2U	2	PRO	2.2
25	23	41	PRO	2.2
32	2a	532	A	2.2
32	2a	1041	A	2.2
32	2a	1287	A	2.2
32	2a	1531	A	2.2
35	1d	172	PRO	2.2
37	2f	4	TYR	2.2
44	2m	106	ASN	2.2
52	2u	18	TYR	2.2
9	2N	118	LYS	2.2
32	2a	1150	U	2.2
37	2f	27	GLN	2.2
51	1t	18	GLN	2.2
34	2c	135	LYS	2.2
40	1i	78	LYS	2.2
42	2k	124	LYS	2.2
43	2l	46	LYS	2.2
51	2t	7	LYS	2.2
34	2c	101	LEU	2.2
40	2i	6	GLY	2.2
40	2i	50	LEU	2.2
50	2s	12	ASP	2.2
41	1j	44	VAL	2.2
51	1t	70	SER	2.2
6	1G	157	ILE	2.2
40	2i	74	ILE	2.2
41	2j	96	ILE	2.2

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Mol	Chain	Res	Type	RSRZ
45	1n	16	PHE	2.2
15	2T	131	ALA	2.1
33	1b	186	ALA	2.1
33	1b	225	ALA	2.1
34	2c	53	ALA	2.1
41	1j	26	ALA	2.1
53	1y	97	ALA	2.1
6	2G	137	GLU	2.1
15	2T	128	GLU	2.1
8	2I	67	ARG	2.1
26	24	61	ARG	2.1
41	2j	87	THR	2.1
41	2j	100	THR	2.1
43	2l	122	THR	2.1
1	2A	100	G	2.1
1	2A	2120	G	2.1
1	2A	2121	G	2.1
32	1a	1032	G	2.1
44	2m	113	PRO	2.1
35	1d	182	LYS	2.1
40	1i	118	LYS	2.1
41	2j	69	ASN	2.1
43	1l	64	TYR	2.1
45	2n	21	TYR	2.1
7	2H	33	LEU	2.1
53	2y	41	LEU	2.1
1	2A	887	A	2.1
32	1a	172	A	2.1
32	1a	383	A	2.1
32	2a	977	A	2.1
32	2a	1004	A	2.1
32	2a	1256	A	2.1
32	2a	1319	A	2.1
33	2b	99	GLY	2.1
34	2c	155	GLY	2.1
1	1A	1026	U	2.1
4	2E	159	HIS	2.1
32	1a	223	U	2.1
34	1c	198	VAL	2.1
35	1d	158	ILE	2.1
42	2k	40	ILE	2.1
42	2k	116	HIS	2.1

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Mol	Chain	Res	Type	RSRZ
42	2k	43	SER	2.1
44	1m	9	ILE	2.1
47	1p	33	ILE	2.1
47	1p	51	VAL	2.1
51	1t	64	ASP	2.1
40	1i	59	PHE	2.1
21	2Z	192	ALA	2.1
34	2c	146	ALA	2.1
40	1i	61	ALA	2.1
33	2b	134	GLU	2.1
50	1s	34	TRP	2.1
26	24	62	ARG	2.1
33	1b	144	ARG	2.1
41	1j	46	ARG	2.1
44	1m	94	ARG	2.1
45	2n	12	ARG	2.1
46	1o	88	ARG	2.1
6	2G	145	THR	2.1
22	20	43	THR	2.1
50	2s	33	THR	2.1
20	2Y	4	LYS	2.1
33	2b	132	LYS	2.1
38	1g	36	LYS	2.1
41	1j	7	LYS	2.1
41	2j	53	PRO	2.1
41	2j	80	LYS	2.1
50	2s	59	PRO	2.1
1	1A	2794	C	2.1
1	2A	652(T)	C	2.1
1	2A	2177	C	2.1
32	1a	369	C	2.1
32	1a	1028	C	2.1
14	2S	61	ASN	2.1
38	2g	38	LEU	2.1
39	1h	94	TYR	2.1
44	1m	34	LEU	2.1
44	1m	70	LEU	2.1
47	1p	17	TYR	2.1
53	2y	71	TYR	2.1
33	1b	66	GLY	2.1
1	1A	2154	G	2.1
1	2A	1056	G	2.1

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Mol	Chain	Res	Type	RSRZ
1	2A	1068	G	2.1
1	2A	1117	G	2.1
6	1G	159	VAL	2.1
32	1a	69	G	2.1
32	2a	1331	G	2.1
32	2a	1353	G	2.1
40	2i	26	VAL	2.1
6	1G	76	SER	2.1
41	1j	35	SER	2.1
50	2s	38	SER	2.1
1	1A	6	A	2.1
1	1A	890	A	2.1
1	1A	1095	A	2.1
1	1A	1460	A	2.1
14	2S	51	ALA	2.1
34	2c	187	ALA	2.1
41	2j	26	ALA	2.1
27	15	59	GLU	2.1
33	2b	86	GLU	2.1
35	2d	156	GLU	2.1
14	1S	13	ARG	2.1
29	27	47	ARG	2.1
21	2Z	170	THR	2.1
44	2m	65	LYS	2.1
44	1m	113	PRO	2.1
21	2Z	118	GLN	2.1
37	2f	89	MET	2.1
41	2j	86	MET	2.1
41	1j	40	LEU	2.1
51	1t	13	LEU	2.1
35	1d	154	ASN	2.1
31	29	24	TYR	2.1
39	2h	90	GLY	2.1
41	2j	56	HIS	2.1
1	1A	2178	C	2.1
1	2A	1041	C	2.1
8	2I	127	VAL	2.1
26	24	21	VAL	2.1
26	24	31	ILE	2.1
26	24	33	VAL	2.1
32	1a	1322	C	2.1
32	2a	1054	C	2.1

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Mol	Chain	Res	Type	RSRZ
32	2a	1328	C	2.1
33	1b	230	VAL	2.1
35	1d	88	VAL	2.1
38	2g	27	ILE	2.1
41	2j	74	ILE	2.1
47	1p	2	VAL	2.1
33	1b	17	PHE	2.1
33	2b	205	ASP	2.1
40	2i	59	PHE	2.1
41	1j	47	PHE	2.1
42	2k	125	PHE	2.1
45	2n	16	PHE	2.1
6	1G	50	ALA	2.1
6	2G	78	SER	2.1
41	1j	30	SER	2.1
10	2O	108	GLU	2.1
21	1Z	169	GLU	2.1
40	2i	83	ARG	2.1
47	1p	5	ARG	2.1
47	2p	28	ARG	2.1
48	1q	24	GLU	2.1
1	2A	1107	G	2.1
32	1a	78	G	2.1
32	1a	306	G	2.1
32	2a	1042	G	2.1
32	2a	1190	G	2.1
32	1a	161	A	2.1
32	1a	389	A	2.1
32	1a	1041	A	2.1
32	2a	1349	A	2.1
32	2a	1446	U	2.1
34	2c	174	PRO	2.1
16	1U	117	GLN	2.1
34	1c	32	LEU	2.1
40	2i	40	LEU	2.1
48	1q	74	LEU	2.1
14	1S	60	GLY	2.1
20	2Y	103	GLY	2.1
21	2Z	200	GLY	2.1
34	2c	158	GLY	2.1
33	1b	223	ILE	2.1
44	1m	59	TYR	2.1

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Mol	Chain	Res	Type	RSRZ
46	1o	69	TYR	2.1
35	1d	170	VAL	2.1
40	1i	28	VAL	2.1
33	2b	166	ASP	2.0
48	1q	13	ASP	2.0
53	1y	48	PHE	2.1
7	2H	95	ARG	2.0
33	2b	209	ARG	2.0
35	2d	47	ARG	2.0
35	2d	131	ARG	2.0
38	2g	155	ARG	2.0
44	1m	35	GLU	2.0
44	1m	91	ARG	2.0
53	2y	96	ARG	2.0
35	2d	137	SER	2.0
41	1j	18	ALA	2.0
1	2A	1109	C	2.0
6	1G	47	LYS	2.0
6	1G	182	LYS	2.0
20	2Y	54	LYS	2.0
32	2a	932	C	2.0
34	1c	135	LYS	2.0
43	2l	54	LYS	2.0
45	2n	58	LYS	2.0
52	1u	3	LYS	2.0
41	1j	48	THR	2.0
44	2m	103	THR	2.0
6	2G	155	MET	2.0
21	2Z	159	PRO	2.0
40	2i	123	PRO	2.0
6	1G	139	LEU	2.0
6	2G	175	LEU	2.0
37	2f	45	LEU	2.0
53	2y	61	LEU	2.0
1	1A	545	G	2.0
1	1A	1177	A	2.0
1	1A	1847	A	2.0
1	2A	10	G	2.0
1	2A	2101	G	2.0
32	1a	98	G	2.0
32	1a	1010	G	2.0
32	1a	1131	G	2.0

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Mol	Chain	Res	Type	RSRZ
32	1a	1491	G	2.0
32	2a	1492	A	2.0
32	2a	1493	A	2.0
26	14	15	ILE	2.0
33	1b	38	GLY	2.0
34	2c	194	GLY	2.0
44	1m	6	GLY	2.0
44	1m	24	GLY	2.0
52	2u	2	GLY	2.0
40	1i	4	TYR	2.0
40	1i	17	VAL	2.0
42	2k	105	VAL	2.0
53	2y	60	VAL	2.0
6	2G	141	PHE	2.0
14	2S	17	ARG	2.0
33	1b	175	ARG	2.0
35	2d	110	PHE	2.0
38	1g	3	ARG	2.0
45	2n	36	PHE	2.0
47	1p	25	ARG	2.0
8	2I	85	GLU	2.0
26	24	30	GLU	2.0
33	2b	189	ASP	2.0
35	2d	150	GLU	2.0
14	2S	93	LYS	2.0
33	2b	75	LYS	2.0
52	2u	3	LYS	2.0
44	1m	37	THR	2.0
52	2u	8	THR	2.0
16	2U	117	GLN	2.0
32	1a	201	C	2.0
32	2a	1149	C	2.0
33	1b	196	LEU	2.0
34	1c	188	LEU	2.0
34	2c	47	LEU	2.0
41	1j	65	LEU	2.0
45	2n	6	LEU	2.0
49	2r	66	LEU	2.0
41	1j	68	HIS	2.0
53	2y	67	HIS	2.0
1	2A	2122	U	2.0
32	2a	1348	U	2.0

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Mol	Chain	Res	Type	RSRZ
11	2P	116	GLY	2.0
45	1n	55	GLY	2.0
32	2a	1250	A	2.0
33	1b	15	VAL	2.0
34	2c	103	VAL	2.0
37	1f	88	VAL	2.0
44	2m	98	VAL	2.0
50	1s	19	VAL	2.0
38	1g	85	TYR	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, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
32	2MG	2a	1207	24/25	0.76	0.15	80,85,92,100	0
1	5MU	2A	1915	21/22	0.83	0.12	75,83,88,99	0
1	5MU	1A	1915	21/22	0.86	0.12	73,82,86,91	0
32	PSU	2a	516	20/21	0.88	0.10	76,78,86,86	0
32	M2G	2a	966	25/26	0.88	0.14	60,68,76,79	0
32	2MG	1a	1207	24/25	0.88	0.11	77,82,86,92	0
32	5MC	2a	967	21/22	0.89	0.13	66,70,77,81	0
1	PSU	2A	1911	20/21	0.90	0.10	68,71,83,86	0
32	G7M	2a	527	24/25	0.91	0.12	56,66,70,72	0
1	PSU	1A	1917	20/21	0.91	0.10	58,71,84,85	0
32	5MC	1a	967	21/22	0.92	0.11	58,65,74,74	0
1	PSU	1A	1911	20/21	0.92	0.10	60,65,68,69	0
32	M2G	1a	966	25/26	0.92	0.11	54,61,75,76	0
1	PSU	2A	1917	20/21	0.93	0.08	68,74,79,84	0
32	5MC	1a	1407	21/22	0.93	0.10	35,49,55,59	0
43	0TD	1l	92	10/11	0.93	0.15	55,58,61,67	0
43	0TD	2l	92	10/11	0.93	0.11	62,65,68,80	0
32	5MC	2a	1400	21/22	0.94	0.10	52,65,68,69	0
32	4OC	2a	1402	22/23	0.94	0.10	50,62,64,69	0
32	5MC	2a	1404	21/22	0.94	0.10	47,54,58,63	0
32	PSU	1a	516	20/21	0.94	0.09	54,67,73,77	0
32	5MC	1a	1400	21/22	0.95	0.10	52,58,61,66	0
32	G7M	1a	527	24/25	0.95	0.09	49,57,61,64	0
32	5MC	2a	1407	21/22	0.95	0.12	49,60,63,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
32	UR3	2a	1498	21/22	0.95	0.10	52,57,63,65	0
1	5MC	2A	1942	21/22	0.95	0.08	42,47,53,58	0
1	5MC	2A	1962	21/22	0.96	0.08	35,41,52,61	0
32	4OC	1a	1402	22/23	0.96	0.09	47,53,58,59	0
32	5MC	1a	1404	21/22	0.96	0.09	43,47,52,60	0
1	OMC	1A	1920	21/22	0.96	0.09	47,53,58,60	0
1	OMC	2A	1920	21/22	0.96	0.08	59,66,70,72	0
32	MA6	2a	1518	24/25	0.96	0.12	49,60,63,64	0
32	MA6	2a	1519	24/25	0.96	0.16	53,58,62,67	0
1	5MC	1A	1942	21/22	0.96	0.08	26,32,38,39	0
32	MA6	1a	1519	24/25	0.97	0.08	42,48,52,55	0
32	UR3	1a	1498	21/22	0.97	0.09	41,48,53,67	0
1	OMG	2A	2251	24/25	0.97	0.09	29,35,38,44	0
1	2MA	2A	2503	23/24	0.97	0.09	24,30,36,37	0
1	PSU	2A	2605	20/21	0.97	0.09	29,34,39,40	0
1	5MU	2A	1939	21/22	0.97	0.08	31,34,38,39	0
1	5MC	1A	1962	21/22	0.98	0.06	27,32,35,46	0
1	OMU	2A	2552	21/22	0.98	0.06	30,36,39,41	0
1	OMG	1A	2251	24/25	0.98	0.07	17,21,24,25	0
1	2MA	1A	2503	23/24	0.98	0.07	15,17,21,23	0
32	MA6	1a	1518	24/25	0.98	0.07	40,44,49,50	0
1	OMU	1A	2552	21/22	0.98	0.07	21,26,31,34	0
1	PSU	1A	2605	20/21	0.98	0.07	21,23,30,33	0
1	5MU	1A	1939	21/22	0.98	0.07	21,25,29,31	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(Å^2)	Q<0.9
54	MG	1a	1772	1/1	0.44	0.23	88,88,88,88	0
54	MG	2A	3523	1/1	0.47	0.27	67,67,67,67	0
54	MG	1a	1740	1/1	0.52	0.22	65,65,65,65	0
54	MG	2A	3714	1/1	0.57	0.25	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2A	3536	1/1	0.59	0.17	62,62,62,62	0
54	MG	2A	3755	1/1	0.59	0.19	81,81,81,81	0
54	MG	1a	1760	1/1	0.60	0.26	70,70,70,70	0
54	MG	1a	1732	1/1	0.60	0.25	78,78,78,78	0
54	MG	1a	1790	1/1	0.60	0.22	81,81,81,81	0
54	MG	2A	3160	1/1	0.60	0.38	72,72,72,72	0
54	MG	2T	203	1/1	0.60	0.20	68,68,68,68	0
54	MG	2a	3046	1/1	0.60	0.16	73,73,73,73	0
54	MG	2A	3110	1/1	0.62	0.17	74,74,74,74	0
54	MG	2A	3516	1/1	0.62	0.22	76,76,76,76	0
54	MG	2A	3522	1/1	0.63	0.18	71,71,71,71	0
54	MG	1A	3739	1/1	0.64	0.29	52,52,52,52	0
54	MG	1A	3845	1/1	0.65	0.23	78,78,78,78	0
54	MG	2A	3746	1/1	0.66	0.26	72,72,72,72	0
54	MG	1a	1850	1/1	0.66	0.19	61,61,61,61	0
54	MG	2A	3383	1/1	0.67	0.23	73,73,73,73	0
54	MG	1A	4051	1/1	0.67	0.20	73,73,73,73	0
54	MG	2A	3249	1/1	0.68	0.21	79,79,79,79	0
54	MG	2a	3019	1/1	0.69	0.30	86,86,86,86	0
54	MG	2A	3379	1/1	0.69	0.20	66,66,66,66	0
54	MG	1A	3403	1/1	0.70	0.17	61,61,61,61	0
54	MG	1A	3295	1/1	0.70	0.14	86,86,86,86	0
54	MG	1B	206	1/1	0.70	0.44	82,82,82,82	0
54	MG	2a	3061	1/1	0.70	0.20	81,81,81,81	0
54	MG	1A	3834	1/1	0.71	0.19	63,63,63,63	0
54	MG	1B	213	1/1	0.71	0.15	64,64,64,64	0
54	MG	2a	3181	1/1	0.71	0.26	73,73,73,73	0
54	MG	2A	3210	1/1	0.72	0.24	68,68,68,68	0
54	MG	1a	1609	1/1	0.72	0.20	66,66,66,66	0
54	MG	1a	1601	1/1	0.72	0.26	79,79,79,79	0
54	MG	1a	1816	1/1	0.72	0.17	86,86,86,86	0
54	MG	2D	308	1/1	0.73	0.36	53,53,53,53	0
54	MG	2a	3011	1/1	0.73	0.15	76,76,76,76	0
57	MPD	2B	221	8/8	0.73	0.30	62,72,76,78	0
54	MG	1A	3610	1/1	0.74	0.15	66,66,66,66	0
54	MG	1A	3745	1/1	0.74	0.22	64,64,64,64	0
54	MG	2A	3496	1/1	0.74	0.18	67,67,67,67	0
54	MG	1t	202	1/1	0.75	0.15	80,80,80,80	0
54	MG	2A	3719	1/1	0.75	0.16	51,51,51,51	0
54	MG	1a	1797	1/1	0.75	0.27	76,76,76,76	0
54	MG	1d	303	1/1	0.75	0.17	73,73,73,73	0
54	MG	2A	3519	1/1	0.76	0.17	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2G	202	1/1	0.76	0.25	85,85,85,85	0
54	MG	1D	309	1/1	0.76	0.21	39,39,39,39	0
54	MG	2A	3355	1/1	0.76	0.20	73,73,73,73	0
54	MG	1A	3418	1/1	0.76	0.19	49,49,49,49	0
54	MG	1A	3855	1/1	0.76	0.10	28,28,28,28	0
54	MG	2A	3427	1/1	0.76	0.21	70,70,70,70	0
54	MG	2a	3102	1/1	0.76	0.19	70,70,70,70	0
54	MG	2a	3125	1/1	0.76	0.17	76,76,76,76	0
54	MG	2a	3175	1/1	0.76	0.24	77,77,77,77	0
54	MG	1A	3953	1/1	0.76	0.29	88,88,88,88	0
54	MG	2a	3195	1/1	0.76	0.22	75,75,75,75	0
54	MG	2A	3232	1/1	0.76	0.18	68,68,68,68	0
54	MG	1E	306	1/1	0.77	0.15	46,46,46,46	0
54	MG	2A	3024	1/1	0.77	0.29	67,67,67,67	0
54	MG	2A	3452	1/1	0.77	0.29	68,68,68,68	0
54	MG	2A	3475	1/1	0.77	0.15	71,71,71,71	0
54	MG	2A	3088	1/1	0.77	0.23	71,71,71,71	0
54	MG	1A	3657	1/1	0.77	0.17	60,60,60,60	0
54	MG	1A	3877	1/1	0.77	0.17	57,57,57,57	0
54	MG	1a	1688	1/1	0.77	0.30	70,70,70,70	0
54	MG	2A	3227	1/1	0.77	0.12	55,55,55,55	0
54	MG	1a	1704	1/1	0.77	0.21	72,72,72,72	0
54	MG	2a	3165	1/1	0.77	0.25	87,87,87,87	0
54	MG	2A	3615	1/1	0.77	0.13	56,56,56,56	0
54	MG	1B	228	1/1	0.77	0.12	66,66,66,66	0
54	MG	1A	4053	1/1	0.77	0.20	70,70,70,70	0
54	MG	2j	201	1/1	0.77	0.12	78,78,78,78	0
54	MG	1n	101	1/1	0.77	0.51	78,78,78,78	0
54	MG	1a	1749	1/1	0.78	0.22	84,84,84,84	0
54	MG	1a	1750	1/1	0.78	0.16	73,73,73,73	0
54	MG	2A	3161	1/1	0.78	0.18	68,68,68,68	0
54	MG	1a	1857	1/1	0.78	0.19	71,71,71,71	0
54	MG	1d	301	1/1	0.78	0.27	76,76,76,76	0
54	MG	1a	1756	1/1	0.78	0.22	69,69,69,69	0
54	MG	1T	205	1/1	0.78	0.14	66,66,66,66	0
54	MG	1A	3994	1/1	0.78	0.15	80,80,80,80	0
54	MG	2A	3705	1/1	0.78	0.24	78,78,78,78	0
54	MG	1t	203	1/1	0.78	0.12	74,74,74,74	0
54	MG	1a	1608	1/1	0.78	0.12	77,77,77,77	0
54	MG	2A	3078	1/1	0.78	0.17	76,76,76,76	0
54	MG	2A	3450	1/1	0.78	0.15	58,58,58,58	0
56	ARG	1A	4055	12/12	0.78	0.20	42,68,78,89	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3561	1/1	0.78	0.12	36,36,36,36	0
54	MG	2A	3486	1/1	0.79	0.18	70,70,70,70	0
54	MG	2A	3488	1/1	0.79	0.30	69,69,69,69	0
54	MG	1g	201	1/1	0.79	0.27	71,71,71,71	0
54	MG	2A	3511	1/1	0.79	0.25	72,72,72,72	0
54	MG	1a	1767	1/1	0.79	0.14	76,76,76,76	0
54	MG	1A	3218	1/1	0.79	0.15	42,42,42,42	0
54	MG	1A	3646	1/1	0.79	0.17	71,71,71,71	0
54	MG	1a	1605	1/1	0.79	0.33	70,70,70,70	0
54	MG	2A	3373	1/1	0.79	0.13	45,45,45,45	0
54	MG	2A	3605	1/1	0.79	0.14	45,45,45,45	0
54	MG	1A	4024	1/1	0.79	0.17	41,41,41,41	0
54	MG	1A	3601	1/1	0.79	0.29	72,72,72,72	0
54	MG	2A	3094	1/1	0.79	0.21	66,66,66,66	0
54	MG	2a	3197	1/1	0.79	0.10	70,70,70,70	0
54	MG	1a	1755	1/1	0.79	0.32	86,86,86,86	0
54	MG	1a	1614	1/1	0.79	0.17	73,73,73,73	0
54	MG	1A	3909	1/1	0.79	0.18	35,35,35,35	0
54	MG	1A	3558	1/1	0.80	0.18	65,65,65,65	0
54	MG	2A	3697	1/1	0.80	0.25	70,70,70,70	0
54	MG	1A	3268	1/1	0.80	0.12	65,65,65,65	0
54	MG	2A	3289	1/1	0.80	0.13	61,61,61,61	0
54	MG	1a	1871	1/1	0.80	0.13	79,79,79,79	0
54	MG	1b	301	1/1	0.80	0.24	70,70,70,70	0
54	MG	11	102	1/1	0.80	0.17	60,60,60,60	0
54	MG	2A	3380	1/1	0.80	0.31	72,72,72,72	0
54	MG	1A	3682	1/1	0.80	0.27	70,70,70,70	0
54	MG	2Q	202	1/1	0.80	0.17	54,54,54,54	0
54	MG	1A	3876	1/1	0.80	0.17	46,46,46,46	0
54	MG	1A	3629	1/1	0.80	0.17	54,54,54,54	0
54	MG	1A	3636	1/1	0.80	0.21	84,84,84,84	0
54	MG	1A	3946	1/1	0.80	0.23	82,82,82,82	0
54	MG	1a	1761	1/1	0.80	0.21	76,76,76,76	0
54	MG	2a	3065	1/1	0.80	0.17	68,68,68,68	0
54	MG	2a	3087	1/1	0.80	0.26	71,71,71,71	0
54	MG	1a	1636	1/1	0.80	0.18	75,75,75,75	0
54	MG	1a	1653	1/1	0.80	0.21	80,80,80,80	0
54	MG	2A	3502	1/1	0.80	0.18	33,33,33,33	0
54	MG	1a	1656	1/1	0.80	0.31	70,70,70,70	0
54	MG	1A	3750	1/1	0.80	0.15	51,51,51,51	0
54	MG	1a	1696	1/1	0.80	0.25	79,79,79,79	0
54	MG	1a	1820	1/1	0.80	0.15	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1a	1832	1/1	0.80	0.12	63,63,63,63	0
54	MG	1a	1844	1/1	0.80	0.15	68,68,68,68	0
54	MG	2A	3230	1/1	0.80	0.23	68,68,68,68	0
54	MG	2B	213	1/1	0.81	0.21	69,69,69,69	0
54	MG	1a	1841	1/1	0.81	0.15	67,67,67,67	0
54	MG	1A	3623	1/1	0.81	0.36	31,31,31,31	0
54	MG	1a	1720	1/1	0.81	0.13	81,81,81,81	0
54	MG	2T	201	1/1	0.81	0.11	66,66,66,66	0
54	MG	2A	3307	1/1	0.81	0.14	53,53,53,53	0
54	MG	1A	3990	1/1	0.81	0.13	69,69,69,69	0
54	MG	2A	3085	1/1	0.81	0.21	79,79,79,79	0
54	MG	1a	1863	1/1	0.81	0.16	62,62,62,62	0
54	MG	1a	1865	1/1	0.81	0.15	70,70,70,70	0
54	MG	2a	3062	1/1	0.81	0.38	80,80,80,80	0
54	MG	1B	220	1/1	0.81	0.11	52,52,52,52	0
54	MG	2A	3415	1/1	0.81	0.14	61,61,61,61	0
54	MG	2A	3624	1/1	0.81	0.15	74,74,74,74	0
54	MG	2A	3677	1/1	0.81	0.14	79,79,79,79	0
54	MG	2a	3155	1/1	0.81	0.13	62,62,62,62	0
54	MG	2A	3689	1/1	0.81	0.13	70,70,70,70	0
54	MG	2a	3173	1/1	0.81	0.17	74,74,74,74	0
54	MG	1a	1744	1/1	0.81	0.10	62,62,62,62	0
54	MG	2A	3703	1/1	0.81	0.13	52,52,52,52	0
54	MG	1a	1660	1/1	0.81	0.27	79,79,79,79	0
54	MG	2A	3183	1/1	0.81	0.18	64,64,64,64	0
54	MG	1Z	301	1/1	0.81	0.16	61,61,61,61	0
54	MG	2o	101	1/1	0.81	0.12	57,57,57,57	0
54	MG	1a	1690	1/1	0.81	0.20	62,62,62,62	0
54	MG	1A	3901	1/1	0.81	0.11	41,41,41,41	0
54	MG	2A	3675	1/1	0.82	0.09	53,53,53,53	0
54	MG	2a	3036	1/1	0.82	0.25	79,79,79,79	0
54	MG	1A	3677	1/1	0.82	0.14	66,66,66,66	0
54	MG	1A	4026	1/1	0.82	0.19	72,72,72,72	0
54	MG	1a	1630	1/1	0.82	0.32	74,74,74,74	0
54	MG	1y	203	1/1	0.82	0.22	71,71,71,71	0
54	MG	2a	3066	1/1	0.82	0.15	76,76,76,76	0
54	MG	1D	313	1/1	0.82	0.15	67,67,67,67	0
54	MG	2A	3708	1/1	0.82	0.39	58,58,58,58	0
54	MG	1A	4035	1/1	0.82	0.15	66,66,66,66	0
54	MG	1H	202	1/1	0.82	0.09	56,56,56,56	0
54	MG	2A	3356	1/1	0.82	0.19	56,56,56,56	0
54	MG	1H	203	1/1	0.82	0.11	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2A	3762	1/1	0.82	0.21	71,71,71,71	0
54	MG	1A	4050	1/1	0.82	0.15	64,64,64,64	0
54	MG	2a	3194	1/1	0.82	0.15	72,72,72,72	0
54	MG	1A	3573	1/1	0.82	0.11	56,56,56,56	0
54	MG	1A	3683	1/1	0.82	0.24	56,56,56,56	0
54	MG	2a	3199	1/1	0.82	0.17	79,79,79,79	0
54	MG	2A	3559	1/1	0.82	0.16	48,48,48,48	0
54	MG	1A	3892	1/1	0.82	0.12	36,36,36,36	0
54	MG	1A	3993	1/1	0.82	0.14	44,44,44,44	0
57	MPD	1a	1874	8/8	0.82	0.18	54,72,76,79	0
54	MG	1A	3659	1/1	0.82	0.17	51,51,51,51	0
54	MG	2A	3293	1/1	0.83	0.12	30,30,30,30	0
54	MG	1a	1667	1/1	0.83	0.27	61,61,61,61	0
54	MG	1a	1675	1/1	0.83	0.17	66,66,66,66	0
54	MG	1T	201	1/1	0.83	0.10	43,43,43,43	0
54	MG	1A	3617	1/1	0.83	0.20	32,32,32,32	0
54	MG	2a	3024	1/1	0.83	0.20	68,68,68,68	0
54	MG	2A	3607	1/1	0.83	0.13	37,37,37,37	0
54	MG	1B	205	1/1	0.83	0.12	51,51,51,51	0
54	MG	1A	3860	1/1	0.83	0.14	52,52,52,52	0
54	MG	2A	3654	1/1	0.83	0.18	86,86,86,86	0
54	MG	1A	3863	1/1	0.83	0.24	37,37,37,37	0
54	MG	2A	3399	1/1	0.83	0.24	73,73,73,73	0
54	MG	2a	3077	1/1	0.83	0.18	72,72,72,72	0
54	MG	1A	3865	1/1	0.83	0.22	50,50,50,50	0
54	MG	1B	224	1/1	0.83	0.14	52,52,52,52	0
54	MG	2a	3104	1/1	0.83	0.17	71,71,71,71	0
54	MG	2A	3433	1/1	0.83	0.12	62,62,62,62	0
54	MG	2a	3143	1/1	0.83	0.21	71,71,71,71	0
54	MG	1A	3874	1/1	0.83	0.15	54,54,54,54	0
54	MG	1A	3190	1/1	0.83	0.13	62,62,62,62	0
54	MG	2A	3710	1/1	0.83	0.17	65,65,65,65	0
54	MG	1a	1622	1/1	0.83	0.12	63,63,63,63	0
54	MG	2A	3194	1/1	0.83	0.19	59,59,59,59	0
54	MG	1D	311	1/1	0.83	0.28	36,36,36,36	0
54	MG	2A	3752	1/1	0.83	0.19	61,61,61,61	0
54	MG	1A	3187	1/1	0.83	0.16	63,63,63,63	0
54	MG	1a	1757	1/1	0.83	0.19	68,68,68,68	0
54	MG	1A	3510	1/1	0.83	0.16	57,57,57,57	0
54	MG	2B	214	1/1	0.83	0.16	95,95,95,95	0
54	MG	1A	3344	1/1	0.83	0.27	63,63,63,63	0
54	MG	1A	3853	1/1	0.83	0.09	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
57	MPD	2A	3772	8/8	0.83	0.28	44,49,54,56	0
57	MPD	2A	3773	8/8	0.83	0.23	65,72,77,78	0
54	MG	2G	203	1/1	0.83	0.15	68,68,68,68	0
54	MG	2A	3410	1/1	0.84	0.10	72,72,72,72	0
54	MG	1d	302	1/1	0.84	0.14	60,60,60,60	0
54	MG	2a	3042	1/1	0.84	0.30	75,75,75,75	0
54	MG	1A	3430	1/1	0.84	0.22	61,61,61,61	0
54	MG	2a	3059	1/1	0.84	0.20	76,76,76,76	0
54	MG	2A	3206	1/1	0.84	0.25	67,67,67,67	0
54	MG	1a	1803	1/1	0.84	0.12	96,96,96,96	0
54	MG	2A	3220	1/1	0.84	0.23	70,70,70,70	0
54	MG	1a	1659	1/1	0.84	0.12	69,69,69,69	0
54	MG	1p	101	1/1	0.84	0.21	71,71,71,71	0
54	MG	1A	3686	1/1	0.84	0.28	47,47,47,47	0
54	MG	2a	3101	1/1	0.84	0.13	58,58,58,58	0
54	MG	2A	3233	1/1	0.84	0.13	63,63,63,63	0
54	MG	1A	3976	1/1	0.84	0.18	45,45,45,45	0
54	MG	1a	1672	1/1	0.84	0.16	61,61,61,61	0
54	MG	1B	226	1/1	0.84	0.11	61,61,61,61	0
54	MG	2A	3045	1/1	0.84	0.17	65,65,65,65	0
54	MG	2A	3769	1/1	0.84	0.12	62,62,62,62	0
54	MG	2a	3171	1/1	0.84	0.10	63,63,63,63	0
54	MG	2B	202	1/1	0.84	0.11	72,72,72,72	0
54	MG	2B	206	1/1	0.84	0.23	67,67,67,67	0
54	MG	1a	1684	1/1	0.84	0.22	63,63,63,63	0
54	MG	1A	3858	1/1	0.84	0.09	46,46,46,46	0
54	MG	1A	3806	1/1	0.84	0.16	65,65,65,65	0
54	MG	2A	3377	1/1	0.84	0.14	38,38,38,38	0
54	MG	2A	3578	1/1	0.84	0.13	55,55,55,55	0
54	MG	1a	1633	1/1	0.84	0.20	76,76,76,76	0
54	MG	1A	3700	1/1	0.84	0.33	31,31,31,31	0
54	MG	1A	3618	1/1	0.84	0.18	76,76,76,76	0
54	MG	2A	3387	1/1	0.84	0.13	53,53,53,53	0
54	MG	2a	3016	1/1	0.84	0.26	72,72,72,72	0
54	MG	1a	1724	1/1	0.84	0.19	72,72,72,72	0
54	MG	2a	3021	1/1	0.84	0.25	55,55,55,55	0
54	MG	1A	3196	1/1	0.85	0.12	56,56,56,56	0
54	MG	1a	1679	1/1	0.85	0.19	65,65,65,65	0
54	MG	1A	3565	1/1	0.85	0.25	34,34,34,34	0
54	MG	1T	202	1/1	0.85	0.12	68,68,68,68	0
54	MG	1T	204	1/1	0.85	0.11	74,74,74,74	0
54	MG	1A	3297	1/1	0.85	0.14	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3213	1/1	0.85	0.10	57,57,57,57	0
54	MG	1A	3606	1/1	0.85	0.13	23,23,23,23	0
54	MG	1A	3178	1/1	0.85	0.14	46,46,46,46	0
54	MG	2A	3416	1/1	0.85	0.15	60,60,60,60	0
54	MG	1A	3234	1/1	0.85	0.09	61,61,61,61	0
54	MG	1A	3716	1/1	0.85	0.13	30,30,30,30	0
54	MG	1A	3734	1/1	0.85	0.22	68,68,68,68	0
54	MG	25	102	1/1	0.85	0.28	53,53,53,53	0
54	MG	1A	3422	1/1	0.85	0.19	56,56,56,56	0
54	MG	2A	3462	1/1	0.85	0.19	75,75,75,75	0
54	MG	2A	3470	1/1	0.85	0.17	36,36,36,36	0
54	MG	1a	1620	1/1	0.85	0.11	63,63,63,63	0
54	MG	1A	3740	1/1	0.85	0.13	57,57,57,57	0
54	MG	2A	3052	1/1	0.85	0.18	72,72,72,72	0
54	MG	1a	1627	1/1	0.85	0.23	73,73,73,73	0
54	MG	2a	3043	1/1	0.85	0.19	62,62,62,62	0
54	MG	1A	3249	1/1	0.85	0.10	71,71,71,71	0
54	MG	2a	3056	1/1	0.85	0.24	68,68,68,68	0
54	MG	2A	3508	1/1	0.85	0.20	57,57,57,57	0
54	MG	1A	3478	1/1	0.85	0.12	33,33,33,33	0
54	MG	2A	3093	1/1	0.85	0.23	61,61,61,61	0
54	MG	1A	3757	1/1	0.85	0.12	32,32,32,32	0
54	MG	1a	1637	1/1	0.85	0.27	72,72,72,72	0
54	MG	2a	3067	1/1	0.85	0.15	80,80,80,80	0
54	MG	2a	3073	1/1	0.85	0.14	64,64,64,64	0
54	MG	2a	3075	1/1	0.85	0.16	56,56,56,56	0
54	MG	1a	1641	1/1	0.85	0.18	65,65,65,65	0
54	MG	1a	1773	1/1	0.85	0.14	73,73,73,73	0
54	MG	2a	3097	1/1	0.85	0.22	65,65,65,65	0
54	MG	2a	3099	1/1	0.85	0.19	67,67,67,67	0
54	MG	2A	3162	1/1	0.85	0.17	78,78,78,78	0
54	MG	2A	3569	1/1	0.85	0.19	68,68,68,68	0
54	MG	2A	3164	1/1	0.85	0.13	62,62,62,62	0
54	MG	1a	1774	1/1	0.85	0.12	66,66,66,66	0
54	MG	2A	3193	1/1	0.85	0.19	61,61,61,61	0
54	MG	1a	1778	1/1	0.85	0.14	71,71,71,71	0
54	MG	2A	3622	1/1	0.85	0.11	49,49,49,49	0
54	MG	1a	1782	1/1	0.85	0.20	72,72,72,72	0
54	MG	1a	1643	1/1	0.85	0.25	61,61,61,61	0
54	MG	1a	1648	1/1	0.85	0.12	58,58,58,58	0
54	MG	1a	1798	1/1	0.85	0.23	66,66,66,66	0
54	MG	1A	3192	1/1	0.85	0.23	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3643	1/1	0.85	0.11	30,30,30,30	0
54	MG	2a	3196	1/1	0.85	0.15	69,69,69,69	0
54	MG	1A	3841	1/1	0.85	0.18	73,73,73,73	0
54	MG	1G	201	1/1	0.85	0.18	74,74,74,74	0
54	MG	1a	1662	1/1	0.85	0.21	71,71,71,71	0
54	MG	1a	1843	1/1	0.85	0.14	65,65,65,65	0
54	MG	2A	3294	1/1	0.85	0.13	70,70,70,70	0
57	MPD	1a	1873	8/8	0.85	0.19	65,69,73,76	0
54	MG	1a	1663	1/1	0.85	0.13	70,70,70,70	0
54	MG	1G	202	1/1	0.85	0.19	60,60,60,60	0
54	MG	2A	3749	1/1	0.85	0.15	75,75,75,75	0
54	MG	1A	3293	1/1	0.85	0.17	65,65,65,65	0
58	ZN	14	102	1/1	0.85	0.19	144,144,144,144	0
54	MG	2A	3398	1/1	0.86	0.11	46,46,46,46	0
54	MG	1a	1784	1/1	0.86	0.15	74,74,74,74	0
54	MG	1a	1787	1/1	0.86	0.20	73,73,73,73	0
54	MG	1F	315	1/1	0.86	0.16	54,54,54,54	0
54	MG	1a	1791	1/1	0.86	0.15	75,75,75,75	0
54	MG	2A	3422	1/1	0.86	0.29	36,36,36,36	0
54	MG	2B	216	1/1	0.86	0.10	79,79,79,79	0
54	MG	1A	3699	1/1	0.86	0.12	28,28,28,28	0
54	MG	2G	201	1/1	0.86	0.13	78,78,78,78	0
54	MG	1A	3462	1/1	0.86	0.16	33,33,33,33	0
54	MG	1A	3269	1/1	0.86	0.10	46,46,46,46	0
54	MG	1a	1813	1/1	0.86	0.32	70,70,70,70	0
54	MG	2A	3454	1/1	0.86	0.16	67,67,67,67	0
54	MG	2A	3118	1/1	0.86	0.32	47,47,47,47	0
54	MG	1a	1705	1/1	0.86	0.16	60,60,60,60	0
54	MG	2a	3003	1/1	0.86	0.14	60,60,60,60	0
54	MG	2a	3005	1/1	0.86	0.13	63,63,63,63	0
54	MG	1A	3908	1/1	0.86	0.21	58,58,58,58	0
54	MG	1a	1828	1/1	0.86	0.14	76,76,76,76	0
54	MG	1A	3724	1/1	0.86	0.12	35,35,35,35	0
54	MG	2A	3494	1/1	0.86	0.13	59,59,59,59	0
54	MG	1A	3664	1/1	0.86	0.19	68,68,68,68	0
54	MG	2A	3184	1/1	0.86	0.14	63,63,63,63	0
54	MG	2A	3186	1/1	0.86	0.29	65,65,65,65	0
54	MG	2A	3188	1/1	0.86	0.17	56,56,56,56	0
54	MG	1a	1737	1/1	0.86	0.15	75,75,75,75	0
54	MG	1B	209	1/1	0.86	0.24	71,71,71,71	0
54	MG	1a	1848	1/1	0.86	0.20	68,68,68,68	0
54	MG	1A	3441	1/1	0.86	0.13	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3965	1/1	0.86	0.12	47,47,47,47	0
54	MG	2A	3221	1/1	0.86	0.20	43,43,43,43	0
54	MG	2A	3563	1/1	0.86	0.14	46,46,46,46	0
54	MG	1A	3571	1/1	0.86	0.15	51,51,51,51	0
54	MG	1a	1751	1/1	0.86	0.18	75,75,75,75	0
54	MG	13	102	1/1	0.86	0.13	60,60,60,60	0
54	MG	14	101	1/1	0.86	0.08	62,62,62,62	0
54	MG	2a	3082	1/1	0.86	0.19	54,54,54,54	0
54	MG	2A	3612	1/1	0.86	0.13	38,38,38,38	0
54	MG	2A	3613	1/1	0.86	0.17	37,37,37,37	0
54	MG	15	103	1/1	0.86	0.11	44,44,44,44	0
54	MG	2A	3254	1/1	0.86	0.14	65,65,65,65	0
54	MG	2A	3288	1/1	0.86	0.24	70,70,70,70	0
54	MG	2A	3649	1/1	0.86	0.12	86,86,86,86	0
54	MG	1A	3530	1/1	0.86	0.09	35,35,35,35	0
54	MG	1A	3749	1/1	0.86	0.15	47,47,47,47	0
54	MG	1a	1670	1/1	0.86	0.11	68,68,68,68	0
54	MG	1g	202	1/1	0.86	0.12	72,72,72,72	0
54	MG	2A	3336	1/1	0.86	0.14	62,62,62,62	0
54	MG	2A	3342	1/1	0.86	0.13	73,73,73,73	0
54	MG	1a	1769	1/1	0.86	0.09	83,83,83,83	0
54	MG	2A	3706	1/1	0.86	0.15	54,54,54,54	0
54	MG	2a	3193	1/1	0.86	0.22	69,69,69,69	0
54	MG	1A	3653	1/1	0.86	0.13	68,68,68,68	0
54	MG	2A	3368	1/1	0.86	0.13	27,27,27,27	0
54	MG	1q	3100	1/1	0.86	0.13	58,58,58,58	0
54	MG	1a	1674	1/1	0.86	0.27	65,65,65,65	0
54	MG	2A	3732	1/1	0.86	0.09	43,43,43,43	0
54	MG	2A	3733	1/1	0.86	0.15	64,64,64,64	0
54	MG	2A	3738	1/1	0.86	0.15	74,74,74,74	0
54	MG	2A	3742	1/1	0.86	0.12	49,49,49,49	0
54	MG	1A	4011	1/1	0.86	0.12	58,58,58,58	0
54	MG	1A	3687	1/1	0.86	0.25	39,39,39,39	0
54	MG	2A	3751	1/1	0.86	0.20	63,63,63,63	0
54	MG	2A	3022	1/1	0.86	0.21	75,75,75,75	0
54	MG	2A	3754	1/1	0.86	0.17	63,63,63,63	0
54	MG	1A	3777	1/1	0.86	0.11	56,56,56,56	0
54	MG	1a	1762	1/1	0.87	0.13	65,65,65,65	0
54	MG	1A	3983	1/1	0.87	0.13	40,40,40,40	0
54	MG	2A	3002	1/1	0.87	0.13	56,56,56,56	0
54	MG	2A	3010	1/1	0.87	0.23	57,57,57,57	0
54	MG	1A	3824	1/1	0.87	0.10	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3479	1/1	0.87	0.12	40,40,40,40	0
54	MG	2A	3036	1/1	0.87	0.20	69,69,69,69	0
54	MG	1A	3483	1/1	0.87	0.12	39,39,39,39	0
54	MG	1a	1669	1/1	0.87	0.17	68,68,68,68	0
54	MG	2B	207	1/1	0.87	0.09	81,81,81,81	0
54	MG	1a	1777	1/1	0.87	0.22	68,68,68,68	0
54	MG	2A	3434	1/1	0.87	0.17	65,65,65,65	0
54	MG	2A	3449	1/1	0.87	0.09	66,66,66,66	0
54	MG	1A	3996	1/1	0.87	0.12	47,47,47,47	0
54	MG	1A	4009	1/1	0.87	0.12	49,49,49,49	0
54	MG	1A	3705	1/1	0.87	0.12	30,30,30,30	0
54	MG	1a	1785	1/1	0.87	0.15	66,66,66,66	0
54	MG	2I	201	1/1	0.87	0.11	86,86,86,86	0
54	MG	1a	1786	1/1	0.87	0.18	75,75,75,75	0
54	MG	1A	3280	1/1	0.87	0.11	70,70,70,70	0
54	MG	1A	3723	1/1	0.87	0.11	44,44,44,44	0
54	MG	1a	1681	1/1	0.87	0.30	64,64,64,64	0
54	MG	2a	3002	1/1	0.87	0.21	61,61,61,61	0
54	MG	1A	3609	1/1	0.87	0.15	41,41,41,41	0
54	MG	1A	3440	1/1	0.87	0.14	46,46,46,46	0
54	MG	2a	3008	1/1	0.87	0.16	56,56,56,56	0
54	MG	2A	3178	1/1	0.87	0.15	53,53,53,53	0
54	MG	2A	3503	1/1	0.87	0.10	54,54,54,54	0
54	MG	1a	1689	1/1	0.87	0.18	75,75,75,75	0
54	MG	1A	3537	1/1	0.87	0.11	42,42,42,42	0
54	MG	1A	3668	1/1	0.87	0.11	60,60,60,60	0
54	MG	1a	1700	1/1	0.87	0.16	74,74,74,74	0
54	MG	1a	1821	1/1	0.87	0.19	70,70,70,70	0
54	MG	1a	1822	1/1	0.87	0.23	71,71,71,71	0
54	MG	2A	3203	1/1	0.87	0.23	65,65,65,65	0
54	MG	2A	3539	1/1	0.87	0.15	63,63,63,63	0
54	MG	2A	3551	1/1	0.87	0.11	69,69,69,69	0
54	MG	2A	3554	1/1	0.87	0.09	68,68,68,68	0
54	MG	2A	3556	1/1	0.87	0.15	33,33,33,33	0
54	MG	1a	1702	1/1	0.87	0.16	41,41,41,41	0
54	MG	1A	3872	1/1	0.87	0.15	81,81,81,81	0
54	MG	2A	3217	1/1	0.87	0.15	59,59,59,59	0
54	MG	2a	3068	1/1	0.87	0.32	66,66,66,66	0
54	MG	2a	3072	1/1	0.87	0.28	61,61,61,61	0
54	MG	1a	1834	1/1	0.87	0.12	75,75,75,75	0
54	MG	2A	3590	1/1	0.87	0.09	73,73,73,73	0
54	MG	2A	3592	1/1	0.87	0.12	33,33,33,33	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3105	1/1	0.87	0.14	59,59,59,59	0
54	MG	1a	1711	1/1	0.87	0.13	69,69,69,69	0
54	MG	1B	208	1/1	0.87	0.14	51,51,51,51	0
54	MG	1A	3194	1/1	0.87	0.27	61,61,61,61	0
54	MG	1a	1728	1/1	0.87	0.23	66,66,66,66	0
54	MG	2A	3239	1/1	0.87	0.17	60,60,60,60	0
54	MG	1a	1852	1/1	0.87	0.14	92,92,92,92	0
54	MG	2a	3118	1/1	0.87	0.20	54,54,54,54	0
54	MG	1a	1856	1/1	0.87	0.13	64,64,64,64	0
54	MG	2A	3263	1/1	0.87	0.15	53,53,53,53	0
54	MG	2A	3266	1/1	0.87	0.19	65,65,65,65	0
54	MG	1A	3628	1/1	0.87	0.12	65,65,65,65	0
54	MG	2A	3681	1/1	0.87	0.28	72,72,72,72	0
54	MG	2A	3686	1/1	0.87	0.14	62,62,62,62	0
54	MG	2A	3688	1/1	0.87	0.21	61,61,61,61	0
54	MG	1A	3756	1/1	0.87	0.16	65,65,65,65	0
54	MG	2a	3184	1/1	0.87	0.21	68,68,68,68	0
54	MG	2A	3290	1/1	0.87	0.12	56,56,56,56	0
54	MG	1A	3464	1/1	0.87	0.10	27,27,27,27	0
54	MG	1A	3770	1/1	0.87	0.16	31,31,31,31	0
54	MG	1a	1746	1/1	0.87	0.17	76,76,76,76	0
54	MG	1A	3062	1/1	0.87	0.09	55,55,55,55	0
54	MG	1A	3915	1/1	0.87	0.10	50,50,50,50	0
54	MG	1A	3940	1/1	0.87	0.10	13,13,13,13	0
54	MG	1A	3790	1/1	0.87	0.32	30,30,30,30	0
54	MG	2A	3729	1/1	0.87	0.17	69,69,69,69	0
57	MPD	1A	4056	8/8	0.87	0.27	48,56,61,64	0
54	MG	1A	3800	1/1	0.87	0.16	52,52,52,52	0
54	MG	1A	3693	1/1	0.87	0.11	55,55,55,55	0
54	MG	1a	1758	1/1	0.87	0.25	79,79,79,79	0
54	MG	1A	3818	1/1	0.87	0.12	51,51,51,51	0
54	MG	2A	3744	1/1	0.87	0.15	66,66,66,66	0
54	MG	1A	3982	1/1	0.87	0.12	29,29,29,29	0
54	MG	1P	204	1/1	0.88	0.13	30,30,30,30	0
54	MG	2A	3089	1/1	0.88	0.13	50,50,50,50	0
54	MG	1A	3084	1/1	0.88	0.16	53,53,53,53	0
54	MG	1A	3559	1/1	0.88	0.13	57,57,57,57	0
54	MG	1A	4002	1/1	0.88	0.12	58,58,58,58	0
54	MG	1a	1796	1/1	0.88	0.15	79,79,79,79	0
54	MG	2A	3764	1/1	0.88	0.16	48,48,48,48	0
54	MG	2A	3124	1/1	0.88	0.38	62,62,62,62	0
54	MG	1A	3647	1/1	0.88	0.07	19,19,19,19	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2A	3469	1/1	0.88	0.10	61,61,61,61	0
54	MG	1T	206	1/1	0.88	0.14	65,65,65,65	0
54	MG	1A	3303	1/1	0.88	0.22	55,55,55,55	0
54	MG	1a	1805	1/1	0.88	0.17	62,62,62,62	0
54	MG	10	108	1/1	0.88	0.37	45,45,45,45	0
54	MG	1A	4017	1/1	0.88	0.11	65,65,65,65	0
54	MG	2A	3495	1/1	0.88	0.17	64,64,64,64	0
54	MG	1A	3322	1/1	0.88	0.18	69,69,69,69	0
54	MG	2A	3497	1/1	0.88	0.15	42,42,42,42	0
54	MG	1A	3031	1/1	0.88	0.21	49,49,49,49	0
54	MG	1A	4033	1/1	0.88	0.14	57,57,57,57	0
54	MG	18	102	1/1	0.88	0.28	37,37,37,37	0
54	MG	2A	3510	1/1	0.88	0.09	51,51,51,51	0
54	MG	2W	202	1/1	0.88	0.13	67,67,67,67	0
54	MG	2X	101	1/1	0.88	0.13	58,58,58,58	0
54	MG	1a	1709	1/1	0.88	0.12	60,60,60,60	0
54	MG	25	103	1/1	0.88	0.14	55,55,55,55	0
54	MG	1A	3662	1/1	0.88	0.12	52,52,52,52	0
54	MG	2A	3518	1/1	0.88	0.11	63,63,63,63	0
54	MG	1a	1602	1/1	0.88	0.16	73,73,73,73	0
54	MG	2a	3006	1/1	0.88	0.23	73,73,73,73	0
54	MG	1A	3751	1/1	0.88	0.10	30,30,30,30	0
54	MG	2A	3212	1/1	0.88	0.10	59,59,59,59	0
54	MG	2A	3214	1/1	0.88	0.22	64,64,64,64	0
54	MG	1a	1726	1/1	0.88	0.10	66,66,66,66	0
54	MG	2A	3545	1/1	0.88	0.13	44,44,44,44	0
54	MG	2a	3023	1/1	0.88	0.20	61,61,61,61	0
54	MG	1A	3350	1/1	0.88	0.11	65,65,65,65	0
54	MG	1A	3574	1/1	0.88	0.16	73,73,73,73	0
54	MG	1A	3576	1/1	0.88	0.06	15,15,15,15	0
54	MG	1A	3292	1/1	0.88	0.07	38,38,38,38	0
54	MG	1A	3409	1/1	0.88	0.16	38,38,38,38	0
54	MG	2A	3565	1/1	0.88	0.14	75,75,75,75	0
54	MG	1a	1623	1/1	0.88	0.14	58,58,58,58	0
54	MG	1a	1747	1/1	0.88	0.14	65,65,65,65	0
54	MG	1A	3917	1/1	0.88	0.32	62,62,62,62	0
54	MG	1A	3685	1/1	0.88	0.26	55,55,55,55	0
54	MG	2A	3601	1/1	0.88	0.11	30,30,30,30	0
54	MG	1B	216	1/1	0.88	0.14	64,64,64,64	0
54	MG	1A	3943	1/1	0.88	0.20	40,40,40,40	0
54	MG	1A	3416	1/1	0.88	0.12	32,32,32,32	0
54	MG	1A	3947	1/1	0.88	0.15	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1B	227	1/1	0.88	0.10	75,75,75,75	0
54	MG	2A	3621	1/1	0.88	0.16	64,64,64,64	0
54	MG	2a	3079	1/1	0.88	0.21	65,65,65,65	0
54	MG	2a	3080	1/1	0.88	0.30	73,73,73,73	0
54	MG	1a	1759	1/1	0.88	0.10	73,73,73,73	0
54	MG	1o	102	1/1	0.88	0.16	56,56,56,56	0
54	MG	2a	3089	1/1	0.88	0.16	68,68,68,68	0
54	MG	2a	3092	1/1	0.88	0.26	60,60,60,60	0
54	MG	2A	3643	1/1	0.88	0.14	51,51,51,51	0
54	MG	1a	1644	1/1	0.88	0.19	69,69,69,69	0
54	MG	2A	3335	1/1	0.88	0.10	39,39,39,39	0
54	MG	2A	3663	1/1	0.88	0.26	67,67,67,67	0
54	MG	1A	3950	1/1	0.88	0.12	48,48,48,48	0
54	MG	2a	3112	1/1	0.88	0.10	66,66,66,66	0
54	MG	2a	3114	1/1	0.88	0.24	69,69,69,69	0
54	MG	2A	3337	1/1	0.88	0.11	40,40,40,40	0
54	MG	1t	201	1/1	0.88	0.19	70,70,70,70	0
54	MG	2a	3141	1/1	0.88	0.10	70,70,70,70	0
54	MG	1A	3502	1/1	0.88	0.10	39,39,39,39	0
54	MG	1A	3206	1/1	0.88	0.28	41,41,41,41	0
54	MG	2a	3161	1/1	0.88	0.11	53,53,53,53	0
54	MG	1A	3420	1/1	0.88	0.13	45,45,45,45	0
54	MG	2A	3369	1/1	0.88	0.10	51,51,51,51	0
54	MG	1E	304	1/1	0.88	0.08	20,20,20,20	0
54	MG	1A	3532	1/1	0.88	0.08	58,58,58,58	0
54	MG	2a	3179	1/1	0.88	0.16	85,85,85,85	0
54	MG	2A	3016	1/1	0.88	0.11	48,48,48,48	0
54	MG	1A	3030	1/1	0.88	0.16	45,45,45,45	0
54	MG	1a	1775	1/1	0.88	0.12	66,66,66,66	0
54	MG	2A	3713	1/1	0.88	0.24	60,60,60,60	0
54	MG	2A	3025	1/1	0.88	0.17	52,52,52,52	0
54	MG	2A	3716	1/1	0.88	0.21	65,65,65,65	0
54	MG	2A	3718	1/1	0.88	0.15	59,59,59,59	0
54	MG	2A	3033	1/1	0.88	0.24	65,65,65,65	0
54	MG	2A	3720	1/1	0.88	0.10	76,76,76,76	0
54	MG	1A	3986	1/1	0.88	0.26	46,46,46,46	0
54	MG	2t	201	1/1	0.88	0.11	56,56,56,56	0
54	MG	2A	3407	1/1	0.88	0.17	83,83,83,83	0
54	MG	1A	3988	1/1	0.88	0.18	71,71,71,71	0
54	MG	2A	3735	1/1	0.88	0.19	63,63,63,63	0
54	MG	2A	3737	1/1	0.88	0.10	62,62,62,62	0
54	MG	1A	3549	1/1	0.88	0.11	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3554	1/1	0.88	0.10	51,51,51,51	0
54	MG	2A	3420	1/1	0.88	0.12	51,51,51,51	0
54	MG	1a	1673	1/1	0.88	0.14	57,57,57,57	0
54	MG	2A	3126	1/1	0.89	0.25	60,60,60,60	0
54	MG	2A	3767	1/1	0.89	0.13	58,58,58,58	0
54	MG	1a	1697	1/1	0.89	0.12	56,56,56,56	0
54	MG	1a	1808	1/1	0.89	0.12	64,64,64,64	0
54	MG	2B	203	1/1	0.89	0.15	72,72,72,72	0
54	MG	2B	205	1/1	0.89	0.11	56,56,56,56	0
54	MG	1a	1809	1/1	0.89	0.12	67,67,67,67	0
54	MG	2A	3487	1/1	0.89	0.12	62,62,62,62	0
54	MG	1A	3499	1/1	0.89	0.15	72,72,72,72	0
54	MG	2A	3490	1/1	0.89	0.13	57,57,57,57	0
54	MG	1A	3575	1/1	0.89	0.13	66,66,66,66	0
54	MG	2A	3181	1/1	0.89	0.15	64,64,64,64	0
54	MG	2D	309	1/1	0.89	0.09	31,31,31,31	0
54	MG	1a	1818	1/1	0.89	0.11	73,73,73,73	0
54	MG	1A	3766	1/1	0.89	0.11	23,23,23,23	0
54	MG	2A	3499	1/1	0.89	0.13	53,53,53,53	0
54	MG	1A	3928	1/1	0.89	0.09	57,57,57,57	0
54	MG	2O	202	1/1	0.89	0.18	69,69,69,69	0
54	MG	2P	201	1/1	0.89	0.16	58,58,58,58	0
54	MG	1A	3364	1/1	0.89	0.12	45,45,45,45	0
54	MG	2R	201	1/1	0.89	0.22	56,56,56,56	0
54	MG	2A	3506	1/1	0.89	0.18	52,52,52,52	0
54	MG	1a	1823	1/1	0.89	0.10	76,76,76,76	0
54	MG	1A	3676	1/1	0.89	0.10	60,60,60,60	0
54	MG	2A	3199	1/1	0.89	0.18	58,58,58,58	0
54	MG	1a	1715	1/1	0.89	0.14	75,75,75,75	0
54	MG	1a	1833	1/1	0.89	0.10	67,67,67,67	0
54	MG	26	101	1/1	0.89	0.16	61,61,61,61	0
54	MG	2A	3208	1/1	0.89	0.18	54,54,54,54	0
54	MG	1A	3578	1/1	0.89	0.15	55,55,55,55	0
54	MG	2a	3004	1/1	0.89	0.14	61,61,61,61	0
54	MG	1A	3583	1/1	0.89	0.13	42,42,42,42	0
54	MG	1A	3948	1/1	0.89	0.10	63,63,63,63	0
54	MG	2A	3537	1/1	0.89	0.10	58,58,58,58	0
54	MG	2a	3010	1/1	0.89	0.31	62,62,62,62	0
54	MG	1a	1619	1/1	0.89	0.12	63,63,63,63	0
54	MG	1a	1730	1/1	0.89	0.17	56,56,56,56	0
54	MG	1A	3600	1/1	0.89	0.13	37,37,37,37	0
54	MG	1a	1734	1/1	0.89	0.12	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1B	223	1/1	0.89	0.10	52,52,52,52	0
54	MG	2A	3558	1/1	0.89	0.12	37,37,37,37	0
54	MG	2a	3029	1/1	0.89	0.23	65,65,65,65	0
54	MG	1A	3372	1/1	0.89	0.07	23,23,23,23	0
54	MG	2a	3038	1/1	0.89	0.24	55,55,55,55	0
54	MG	1A	3401	1/1	0.89	0.09	18,18,18,18	0
54	MG	1A	3831	1/1	0.89	0.14	47,47,47,47	0
54	MG	1A	3977	1/1	0.89	0.13	72,72,72,72	0
54	MG	2a	3054	1/1	0.89	0.18	74,74,74,74	0
54	MG	1A	3980	1/1	0.89	0.30	38,38,38,38	0
54	MG	2a	3058	1/1	0.89	0.17	59,59,59,59	0
54	MG	1A	3261	1/1	0.89	0.20	40,40,40,40	0
54	MG	1A	3446	1/1	0.89	0.24	58,58,58,58	0
54	MG	2A	3596	1/1	0.89	0.12	48,48,48,48	0
54	MG	2A	3277	1/1	0.89	0.16	68,68,68,68	0
54	MG	1a	1752	1/1	0.89	0.13	50,50,50,50	0
54	MG	1a	1642	1/1	0.89	0.12	66,66,66,66	0
54	MG	2A	3610	1/1	0.89	0.15	67,67,67,67	0
54	MG	1A	3541	1/1	0.89	0.18	51,51,51,51	0
54	MG	1A	3548	1/1	0.89	0.12	51,51,51,51	0
54	MG	1F	312	1/1	0.89	0.14	48,48,48,48	0
54	MG	2A	3303	1/1	0.89	0.13	59,59,59,59	0
54	MG	1a	1649	1/1	0.89	0.21	61,61,61,61	0
54	MG	2A	3312	1/1	0.89	0.09	34,34,34,34	0
54	MG	2A	3319	1/1	0.89	0.09	41,41,41,41	0
54	MG	2A	3645	1/1	0.89	0.12	91,91,91,91	0
54	MG	1A	3312	1/1	0.89	0.12	65,65,65,65	0
54	MG	1a	1654	1/1	0.89	0.12	80,80,80,80	0
54	MG	1A	3202	1/1	0.89	0.20	56,56,56,56	0
54	MG	2A	3338	1/1	0.89	0.13	56,56,56,56	0
54	MG	2a	3100	1/1	0.89	0.08	66,66,66,66	0
54	MG	1A	3026	1/1	0.89	0.16	58,58,58,58	0
54	MG	2A	3343	1/1	0.89	0.20	50,50,50,50	0
54	MG	2A	3682	1/1	0.89	0.07	71,71,71,71	0
54	MG	1A	3419	1/1	0.89	0.16	51,51,51,51	0
54	MG	2a	3113	1/1	0.89	0.14	72,72,72,72	0
54	MG	1A	3732	1/1	0.89	0.09	60,60,60,60	0
54	MG	1N	3303	1/1	0.89	0.18	63,63,63,63	0
54	MG	2A	3014	1/1	0.89	0.26	78,78,78,78	0
54	MG	2A	3370	1/1	0.89	0.17	69,69,69,69	0
54	MG	1A	3560	1/1	0.89	0.09	16,16,16,16	0
54	MG	2a	3147	1/1	0.89	0.12	87,87,87,87	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2A	3375	1/1	0.89	0.12	42,42,42,42	0
54	MG	1A	3482	1/1	0.89	0.08	67,67,67,67	0
54	MG	2a	3163	1/1	0.89	0.11	61,61,61,61	0
54	MG	2A	3023	1/1	0.89	0.11	60,60,60,60	0
54	MG	1a	1776	1/1	0.89	0.09	83,83,83,83	0
54	MG	1A	4012	1/1	0.89	0.12	79,79,79,79	0
54	MG	2a	3174	1/1	0.89	0.13	68,68,68,68	0
54	MG	1T	203	1/1	0.89	0.12	61,61,61,61	0
54	MG	1A	4015	1/1	0.89	0.13	52,52,52,52	0
54	MG	2A	3041	1/1	0.89	0.09	47,47,47,47	0
54	MG	1A	3144	1/1	0.89	0.23	65,65,65,65	0
54	MG	2a	3187	1/1	0.89	0.18	71,71,71,71	0
54	MG	2a	3188	1/1	0.89	0.10	62,62,62,62	0
54	MG	2A	3051	1/1	0.89	0.17	70,70,70,70	0
54	MG	1A	3652	1/1	0.89	0.17	27,27,27,27	0
54	MG	1V	206	1/1	0.89	0.09	72,72,72,72	0
54	MG	1Y	201	1/1	0.89	0.14	56,56,56,56	0
54	MG	1A	3567	1/1	0.89	0.11	62,62,62,62	0
54	MG	2a	3198	1/1	0.89	0.15	60,60,60,60	0
54	MG	2A	3423	1/1	0.89	0.11	69,69,69,69	0
54	MG	10	103	1/1	0.89	0.15	46,46,46,46	0
54	MG	2A	3091	1/1	0.89	0.15	71,71,71,71	0
54	MG	1a	1795	1/1	0.89	0.12	74,74,74,74	0
54	MG	2A	3441	1/1	0.89	0.28	47,47,47,47	0
54	MG	1A	3489	1/1	0.89	0.09	37,37,37,37	0
54	MG	1A	3493	1/1	0.89	0.10	46,46,46,46	0
54	MG	2A	3116	1/1	0.89	0.17	53,53,53,53	0
54	MG	1a	1691	1/1	0.89	0.16	47,47,47,47	0
54	MG	2A	3756	1/1	0.89	0.12	59,59,59,59	0
54	MG	2A	3759	1/1	0.89	0.13	44,44,44,44	0
54	MG	1A	4044	1/1	0.89	0.15	48,48,48,48	0
54	MG	1A	3949	1/1	0.90	0.14	62,62,62,62	0
54	MG	2A	3021	1/1	0.90	0.22	47,47,47,47	0
54	MG	2A	3743	1/1	0.90	0.09	55,55,55,55	0
54	MG	1A	3397	1/1	0.90	0.14	53,53,53,53	0
54	MG	1A	3797	1/1	0.90	0.30	35,35,35,35	0
54	MG	2A	3393	1/1	0.90	0.11	62,62,62,62	0
54	MG	2A	3394	1/1	0.90	0.14	51,51,51,51	0
54	MG	2A	3397	1/1	0.90	0.43	72,72,72,72	0
54	MG	1a	1768	1/1	0.90	0.11	72,72,72,72	0
54	MG	1A	3954	1/1	0.90	0.14	34,34,34,34	0
54	MG	1a	1770	1/1	0.90	0.14	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2A	3757	1/1	0.90	0.16	59,59,59,59	0
54	MG	2A	3758	1/1	0.90	0.46	40,40,40,40	0
54	MG	2A	3408	1/1	0.90	0.12	53,53,53,53	0
54	MG	1A	3961	1/1	0.90	0.13	62,62,62,62	0
54	MG	2A	3414	1/1	0.90	0.12	59,59,59,59	0
54	MG	1a	1652	1/1	0.90	0.30	66,66,66,66	0
54	MG	1A	3437	1/1	0.90	0.10	45,45,45,45	0
54	MG	2A	3418	1/1	0.90	0.11	37,37,37,37	0
54	MG	2A	3046	1/1	0.90	0.10	49,49,49,49	0
54	MG	2A	3050	1/1	0.90	0.20	56,56,56,56	0
54	MG	1A	3966	1/1	0.90	0.12	49,49,49,49	0
54	MG	2A	3426	1/1	0.90	0.13	66,66,66,66	0
54	MG	2B	210	1/1	0.90	0.20	61,61,61,61	0
54	MG	2B	212	1/1	0.90	0.10	55,55,55,55	0
54	MG	1A	3972	1/1	0.90	0.10	57,57,57,57	0
54	MG	2A	3053	1/1	0.90	0.33	63,63,63,63	0
54	MG	2A	3062	1/1	0.90	0.10	50,50,50,50	0
54	MG	2A	3436	1/1	0.90	0.25	57,57,57,57	0
54	MG	2A	3440	1/1	0.90	0.08	53,53,53,53	0
54	MG	2A	3071	1/1	0.90	0.20	53,53,53,53	0
54	MG	2A	3443	1/1	0.90	0.16	74,74,74,74	0
54	MG	1A	3804	1/1	0.90	0.17	44,44,44,44	0
54	MG	2A	3080	1/1	0.90	0.18	54,54,54,54	0
54	MG	1F	314	1/1	0.90	0.17	41,41,41,41	0
54	MG	1a	1780	1/1	0.90	0.12	65,65,65,65	0
54	MG	2A	3456	1/1	0.90	0.13	68,68,68,68	0
54	MG	1A	3212	1/1	0.90	0.14	62,62,62,62	0
54	MG	1A	3808	1/1	0.90	0.15	32,32,32,32	0
54	MG	1a	1665	1/1	0.90	0.19	70,70,70,70	0
54	MG	2V	203	1/1	0.90	0.25	49,49,49,49	0
54	MG	1A	3620	1/1	0.90	0.16	42,42,42,42	0
54	MG	2A	3481	1/1	0.90	0.15	67,67,67,67	0
54	MG	2A	3483	1/1	0.90	0.13	55,55,55,55	0
54	MG	2A	3108	1/1	0.90	0.14	44,44,44,44	0
54	MG	1a	1668	1/1	0.90	0.23	60,60,60,60	0
54	MG	2A	3112	1/1	0.90	0.09	57,57,57,57	0
54	MG	1A	3310	1/1	0.90	0.19	67,67,67,67	0
54	MG	1A	3985	1/1	0.90	0.14	56,56,56,56	0
54	MG	1A	3516	1/1	0.90	0.08	49,49,49,49	0
54	MG	1O	202	1/1	0.90	0.17	61,61,61,61	0
54	MG	2a	3007	1/1	0.90	0.10	71,71,71,71	0
54	MG	2A	3132	1/1	0.90	0.14	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2A	3148	1/1	0.90	0.10	49,49,49,49	0
54	MG	2A	3153	1/1	0.90	0.07	50,50,50,50	0
54	MG	2a	3013	1/1	0.90	0.11	62,62,62,62	0
54	MG	2a	3015	1/1	0.90	0.20	55,55,55,55	0
54	MG	1A	3408	1/1	0.90	0.11	33,33,33,33	0
54	MG	1A	3171	1/1	0.90	0.18	52,52,52,52	0
54	MG	1A	3992	1/1	0.90	0.24	55,55,55,55	0
54	MG	1a	1804	1/1	0.90	0.09	71,71,71,71	0
54	MG	2A	3165	1/1	0.90	0.15	58,58,58,58	0
54	MG	2A	3174	1/1	0.90	0.17	50,50,50,50	0
54	MG	2a	3030	1/1	0.90	0.16	61,61,61,61	0
54	MG	2a	3031	1/1	0.90	0.17	83,83,83,83	0
54	MG	2a	3032	1/1	0.90	0.14	63,63,63,63	0
54	MG	1A	3844	1/1	0.90	0.12	23,23,23,23	0
54	MG	1A	3708	1/1	0.90	0.08	38,38,38,38	0
54	MG	2a	3039	1/1	0.90	0.17	55,55,55,55	0
54	MG	2a	3041	1/1	0.90	0.17	70,70,70,70	0
54	MG	2A	3521	1/1	0.90	0.11	64,64,64,64	0
54	MG	1A	3712	1/1	0.90	0.14	33,33,33,33	0
54	MG	2a	3044	1/1	0.90	0.14	73,73,73,73	0
54	MG	1A	3079	1/1	0.90	0.14	43,43,43,43	0
54	MG	2A	3526	1/1	0.90	0.10	34,34,34,34	0
54	MG	2A	3533	1/1	0.90	0.09	65,65,65,65	0
54	MG	1V	203	1/1	0.90	0.27	51,51,51,51	0
54	MG	1V	205	1/1	0.90	0.10	50,50,50,50	0
54	MG	2A	3189	1/1	0.90	0.11	55,55,55,55	0
54	MG	1a	1692	1/1	0.90	0.26	58,58,58,58	0
54	MG	1A	4006	1/1	0.90	0.14	62,62,62,62	0
54	MG	1A	4008	1/1	0.90	0.23	37,37,37,37	0
54	MG	1A	3720	1/1	0.90	0.14	59,59,59,59	0
54	MG	1a	1824	1/1	0.90	0.14	63,63,63,63	0
54	MG	1A	3538	1/1	0.90	0.08	44,44,44,44	0
54	MG	10	106	1/1	0.90	0.10	37,37,37,37	0
54	MG	1A	3539	1/1	0.90	0.15	47,47,47,47	0
54	MG	1a	1706	1/1	0.90	0.16	62,62,62,62	0
54	MG	2A	3216	1/1	0.90	0.25	53,53,53,53	0
54	MG	1A	3648	1/1	0.90	0.08	49,49,49,49	0
54	MG	1A	3651	1/1	0.90	0.22	51,51,51,51	0
54	MG	1A	3736	1/1	0.90	0.09	26,26,26,26	0
54	MG	2A	3225	1/1	0.90	0.16	60,60,60,60	0
54	MG	1a	1718	1/1	0.90	0.10	60,60,60,60	0
54	MG	1A	3577	1/1	0.90	0.13	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3183	1/1	0.90	0.26	68,68,68,68	0
54	MG	1a	1854	1/1	0.90	0.12	52,52,52,52	0
54	MG	1A	3542	1/1	0.90	0.12	70,70,70,70	0
54	MG	2A	3614	1/1	0.90	0.12	52,52,52,52	0
54	MG	2A	3246	1/1	0.90	0.12	58,58,58,58	0
54	MG	2a	3111	1/1	0.90	0.13	64,64,64,64	0
54	MG	1a	1727	1/1	0.90	0.16	58,58,58,58	0
54	MG	1a	1858	1/1	0.90	0.11	56,56,56,56	0
54	MG	1A	4042	1/1	0.90	0.07	73,73,73,73	0
54	MG	2a	3115	1/1	0.90	0.24	70,70,70,70	0
54	MG	2a	3117	1/1	0.90	0.16	64,64,64,64	0
54	MG	1A	4043	1/1	0.90	0.13	58,58,58,58	0
54	MG	2A	3267	1/1	0.90	0.10	28,28,28,28	0
54	MG	2A	3276	1/1	0.90	0.19	55,55,55,55	0
54	MG	1a	1869	1/1	0.90	0.09	51,51,51,51	0
54	MG	2A	3280	1/1	0.90	0.09	54,54,54,54	0
54	MG	2A	3664	1/1	0.90	0.10	57,57,57,57	0
54	MG	2a	3156	1/1	0.90	0.09	73,73,73,73	0
54	MG	1A	3590	1/1	0.90	0.15	32,32,32,32	0
54	MG	1A	3593	1/1	0.90	0.16	61,61,61,61	0
54	MG	1a	1613	1/1	0.90	0.18	67,67,67,67	0
54	MG	1A	3141	1/1	0.90	0.13	61,61,61,61	0
54	MG	1a	1618	1/1	0.90	0.13	69,69,69,69	0
54	MG	2A	3687	1/1	0.90	0.11	68,68,68,68	0
54	MG	1e	204	1/1	0.90	0.11	74,74,74,74	0
54	MG	2a	3177	1/1	0.90	0.11	61,61,61,61	0
54	MG	1f	201	1/1	0.90	0.12	47,47,47,47	0
54	MG	2A	3690	1/1	0.90	0.13	63,63,63,63	0
54	MG	2A	3691	1/1	0.90	0.09	58,58,58,58	0
54	MG	2A	3694	1/1	0.90	0.10	49,49,49,49	0
54	MG	1A	3910	1/1	0.90	0.10	43,43,43,43	0
54	MG	2A	3317	1/1	0.90	0.11	62,62,62,62	0
54	MG	1A	3260	1/1	0.90	0.16	54,54,54,54	0
54	MG	1l	202	1/1	0.90	0.15	54,54,54,54	0
54	MG	1a	1748	1/1	0.90	0.13	50,50,50,50	0
54	MG	1A	3672	1/1	0.90	0.10	24,24,24,24	0
54	MG	1A	3760	1/1	0.90	0.10	35,35,35,35	0
54	MG	1A	3602	1/1	0.90	0.25	38,38,38,38	0
54	MG	2e	201	1/1	0.90	0.32	61,61,61,61	0
54	MG	2f	201	1/1	0.90	0.13	48,48,48,48	0
54	MG	1A	3942	1/1	0.90	0.09	39,39,39,39	0
54	MG	1A	3421	1/1	0.90	0.08	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1a	1634	1/1	0.90	0.32	72,72,72,72	0
54	MG	1y	202	1/1	0.90	0.09	63,63,63,63	0
54	MG	2A	3727	1/1	0.90	0.10	58,58,58,58	0
54	MG	1A	3010	1/1	0.90	0.12	29,29,29,29	0
54	MG	1A	3782	1/1	0.90	0.20	62,62,62,62	0
54	MG	1a	1638	1/1	0.90	0.11	64,64,64,64	0
54	MG	2A	3734	1/1	0.90	0.17	65,65,65,65	0
54	MG	1A	3783	1/1	0.90	0.14	55,55,55,55	0
54	MG	2A	3015	1/1	0.90	0.29	47,47,47,47	0
54	MG	1A	3094	1/1	0.91	0.07	47,47,47,47	0
54	MG	1a	1655	1/1	0.91	0.19	45,45,45,45	0
54	MG	2A	3492	1/1	0.91	0.17	66,66,66,66	0
54	MG	1A	3871	1/1	0.91	0.08	25,25,25,25	0
54	MG	1a	1658	1/1	0.91	0.15	66,66,66,66	0
54	MG	2D	302	1/1	0.91	0.43	37,37,37,37	0
54	MG	1A	3564	1/1	0.91	0.09	46,46,46,46	0
54	MG	1n	102	1/1	0.91	0.09	73,73,73,73	0
54	MG	2A	3498	1/1	0.91	0.10	61,61,61,61	0
54	MG	1A	3519	1/1	0.91	0.20	61,61,61,61	0
54	MG	2A	3500	1/1	0.91	0.21	58,58,58,58	0
54	MG	1a	1764	1/1	0.91	0.13	64,64,64,64	0
54	MG	1a	1766	1/1	0.91	0.14	71,71,71,71	0
54	MG	2O	203	1/1	0.91	0.14	64,64,64,64	0
54	MG	1r	101	1/1	0.91	0.11	71,71,71,71	0
54	MG	1A	4000	1/1	0.91	0.11	47,47,47,47	0
54	MG	1A	3522	1/1	0.91	0.10	51,51,51,51	0
54	MG	2A	3240	1/1	0.91	0.18	50,50,50,50	0
54	MG	2A	3241	1/1	0.91	0.14	56,56,56,56	0
54	MG	2A	3244	1/1	0.91	0.10	58,58,58,58	0
54	MG	2W	201	1/1	0.91	0.19	49,49,49,49	0
54	MG	2A	3245	1/1	0.91	0.29	57,57,57,57	0
54	MG	1A	3375	1/1	0.91	0.09	25,25,25,25	0
54	MG	2Y	201	1/1	0.91	0.21	52,52,52,52	0
54	MG	2A	3248	1/1	0.91	0.24	68,68,68,68	0
54	MG	1a	1666	1/1	0.91	0.29	62,62,62,62	0
54	MG	1A	3465	1/1	0.91	0.11	20,20,20,20	0
54	MG	28	3800	1/1	0.91	0.14	57,57,57,57	0
54	MG	1y	204	1/1	0.91	0.15	77,77,77,77	0
54	MG	2A	3265	1/1	0.91	0.21	62,62,62,62	0
54	MG	1A	3894	1/1	0.91	0.07	13,13,13,13	0
54	MG	1A	3898	1/1	0.91	0.10	23,23,23,23	0
54	MG	2A	3543	1/1	0.91	0.10	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2A	3269	1/1	0.91	0.08	29,29,29,29	0
54	MG	1A	3627	1/1	0.91	0.20	31,31,31,31	0
54	MG	1a	1671	1/1	0.91	0.15	61,61,61,61	0
54	MG	1A	3772	1/1	0.91	0.14	47,47,47,47	0
54	MG	2A	3281	1/1	0.91	0.13	41,41,41,41	0
54	MG	1A	3775	1/1	0.91	0.15	47,47,47,47	0
54	MG	1a	1779	1/1	0.91	0.08	62,62,62,62	0
54	MG	1A	3467	1/1	0.91	0.10	31,31,31,31	0
54	MG	2A	3291	1/1	0.91	0.14	49,49,49,49	0
54	MG	1X	104	1/1	0.91	0.15	43,43,43,43	0
54	MG	1A	4025	1/1	0.91	0.09	54,54,54,54	0
54	MG	2A	3298	1/1	0.91	0.10	52,52,52,52	0
54	MG	2A	3302	1/1	0.91	0.11	53,53,53,53	0
54	MG	2A	3599	1/1	0.91	0.13	41,41,41,41	0
54	MG	1A	3692	1/1	0.91	0.10	47,47,47,47	0
54	MG	1A	4030	1/1	0.91	0.08	38,38,38,38	0
54	MG	1a	1686	1/1	0.91	0.17	52,52,52,52	0
54	MG	1A	3380	1/1	0.91	0.09	32,32,32,32	0
54	MG	2a	3040	1/1	0.91	0.16	65,65,65,65	0
54	MG	1A	3788	1/1	0.91	0.13	62,62,62,62	0
54	MG	2A	3328	1/1	0.91	0.21	59,59,59,59	0
54	MG	2A	3330	1/1	0.91	0.10	34,34,34,34	0
54	MG	1A	4038	1/1	0.91	0.15	54,54,54,54	0
54	MG	2a	3045	1/1	0.91	0.33	73,73,73,73	0
54	MG	1A	3932	1/1	0.91	0.16	60,60,60,60	0
54	MG	1A	3935	1/1	0.91	0.11	52,52,52,52	0
54	MG	1a	1695	1/1	0.91	0.15	53,53,53,53	0
54	MG	2a	3057	1/1	0.91	0.11	79,79,79,79	0
54	MG	1A	3939	1/1	0.91	0.17	20,20,20,20	0
54	MG	1A	4048	1/1	0.91	0.09	61,61,61,61	0
54	MG	2a	3060	1/1	0.91	0.26	65,65,65,65	0
54	MG	2A	3346	1/1	0.91	0.18	55,55,55,55	0
54	MG	2A	3077	1/1	0.91	0.11	44,44,44,44	0
54	MG	2A	3656	1/1	0.91	0.11	43,43,43,43	0
54	MG	2A	3657	1/1	0.91	0.12	27,27,27,27	0
54	MG	2A	3658	1/1	0.91	0.13	46,46,46,46	0
54	MG	1A	3633	1/1	0.91	0.09	36,36,36,36	0
54	MG	2A	3357	1/1	0.91	0.24	62,62,62,62	0
54	MG	2A	3362	1/1	0.91	0.09	64,64,64,64	0
54	MG	2a	3074	1/1	0.91	0.08	56,56,56,56	0
54	MG	1A	3941	1/1	0.91	0.09	49,49,49,49	0
54	MG	2A	3084	1/1	0.91	0.10	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1a	1604	1/1	0.91	0.10	74,74,74,74	0
54	MG	2A	3684	1/1	0.91	0.08	34,34,34,34	0
54	MG	2a	3081	1/1	0.91	0.07	49,49,49,49	0
54	MG	2A	3372	1/1	0.91	0.10	42,42,42,42	0
54	MG	1A	3796	1/1	0.91	0.10	73,73,73,73	0
54	MG	1A	3095	1/1	0.91	0.14	64,64,64,64	0
54	MG	1a	1707	1/1	0.91	0.13	70,70,70,70	0
54	MG	1A	3703	1/1	0.91	0.21	23,23,23,23	0
54	MG	1B	207	1/1	0.91	0.10	41,41,41,41	0
54	MG	2A	3102	1/1	0.91	0.15	66,66,66,66	0
54	MG	2A	3384	1/1	0.91	0.23	53,53,53,53	0
54	MG	1a	1714	1/1	0.91	0.11	70,70,70,70	0
54	MG	1A	3146	1/1	0.91	0.19	63,63,63,63	0
54	MG	2a	3107	1/1	0.91	0.19	64,64,64,64	0
54	MG	1a	1617	1/1	0.91	0.09	73,73,73,73	0
54	MG	2A	3707	1/1	0.91	0.19	69,69,69,69	0
54	MG	2A	3114	1/1	0.91	0.16	63,63,63,63	0
54	MG	1a	1827	1/1	0.91	0.08	69,69,69,69	0
54	MG	1A	3644	1/1	0.91	0.06	27,27,27,27	0
54	MG	2a	3116	1/1	0.91	0.16	59,59,59,59	0
54	MG	2A	3120	1/1	0.91	0.12	46,46,46,46	0
54	MG	1a	1721	1/1	0.91	0.17	51,51,51,51	0
54	MG	2a	3120	1/1	0.91	0.13	61,61,61,61	0
54	MG	2A	3717	1/1	0.91	0.08	31,31,31,31	0
54	MG	2a	3128	1/1	0.91	0.15	58,58,58,58	0
54	MG	2a	3140	1/1	0.91	0.13	73,73,73,73	0
54	MG	2A	3409	1/1	0.91	0.16	57,57,57,57	0
54	MG	1A	3159	1/1	0.91	0.16	53,53,53,53	0
54	MG	1A	3813	1/1	0.91	0.08	14,14,14,14	0
54	MG	2A	3722	1/1	0.91	0.14	53,53,53,53	0
54	MG	2A	3136	1/1	0.91	0.19	57,57,57,57	0
54	MG	1A	3814	1/1	0.91	0.13	29,29,29,29	0
54	MG	2A	3151	1/1	0.91	0.17	58,58,58,58	0
54	MG	1A	3581	1/1	0.91	0.07	50,50,50,50	0
54	MG	2a	3169	1/1	0.91	0.09	75,75,75,75	0
54	MG	1A	3958	1/1	0.91	0.08	32,32,32,32	0
54	MG	1a	1846	1/1	0.91	0.13	66,66,66,66	0
54	MG	2A	3736	1/1	0.91	0.12	53,53,53,53	0
54	MG	1B	225	1/1	0.91	0.16	66,66,66,66	0
54	MG	2A	3163	1/1	0.91	0.09	49,49,49,49	0
54	MG	2A	3431	1/1	0.91	0.18	70,70,70,70	0
54	MG	1A	3582	1/1	0.91	0.09	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3825	1/1	0.91	0.09	49,49,49,49	0
54	MG	2A	3171	1/1	0.91	0.18	63,63,63,63	0
54	MG	2A	3439	1/1	0.91	0.10	56,56,56,56	0
54	MG	2a	3191	1/1	0.91	0.09	65,65,65,65	0
54	MG	1a	1738	1/1	0.91	0.10	67,67,67,67	0
54	MG	1a	1739	1/1	0.91	0.14	46,46,46,46	0
54	MG	2A	3753	1/1	0.91	0.12	50,50,50,50	0
54	MG	2A	3179	1/1	0.91	0.08	55,55,55,55	0
54	MG	1A	3544	1/1	0.91	0.10	42,42,42,42	0
54	MG	1A	3359	1/1	0.91	0.10	41,41,41,41	0
54	MG	1A	3063	1/1	0.91	0.12	52,52,52,52	0
54	MG	1A	3599	1/1	0.91	0.24	32,32,32,32	0
54	MG	1A	3497	1/1	0.91	0.08	15,15,15,15	0
54	MG	2A	3761	1/1	0.91	0.18	68,68,68,68	0
54	MG	2A	3459	1/1	0.91	0.08	32,32,32,32	0
54	MG	2A	3763	1/1	0.91	0.14	72,72,72,72	0
54	MG	1A	3738	1/1	0.91	0.08	24,24,24,24	0
54	MG	1A	3410	1/1	0.91	0.13	22,22,22,22	0
54	MG	1A	3856	1/1	0.91	0.15	30,30,30,30	0
54	MG	1A	3367	1/1	0.91	0.09	44,44,44,44	0
54	MG	1A	3665	1/1	0.91	0.08	53,53,53,53	0
54	MG	1e	201	1/1	0.91	0.27	61,61,61,61	0
54	MG	1e	203	1/1	0.91	0.20	60,60,60,60	0
54	MG	1A	3448	1/1	0.91	0.09	27,27,27,27	0
54	MG	1A	4014	1/1	0.92	0.10	53,53,53,53	0
54	MG	1A	3613	1/1	0.92	0.09	50,50,50,50	0
54	MG	1A	3053	1/1	0.92	0.11	37,37,37,37	0
54	MG	1a	1864	1/1	0.92	0.10	50,50,50,50	0
54	MG	2A	3760	1/1	0.92	0.11	57,57,57,57	0
54	MG	1A	3021	1/1	0.92	0.07	37,37,37,37	0
54	MG	2A	3442	1/1	0.92	0.11	68,68,68,68	0
54	MG	1a	1866	1/1	0.92	0.11	57,57,57,57	0
54	MG	2A	3445	1/1	0.92	0.10	67,67,67,67	0
54	MG	2A	3187	1/1	0.92	0.11	48,48,48,48	0
54	MG	1A	3452	1/1	0.92	0.09	39,39,39,39	0
54	MG	1a	1870	1/1	0.92	0.13	64,64,64,64	0
54	MG	2A	3453	1/1	0.92	0.26	63,63,63,63	0
54	MG	2B	204	1/1	0.92	0.09	65,65,65,65	0
54	MG	1A	3728	1/1	0.92	0.08	45,45,45,45	0
54	MG	1A	3731	1/1	0.92	0.13	55,55,55,55	0
54	MG	2A	3457	1/1	0.92	0.13	65,65,65,65	0
54	MG	2A	3197	1/1	0.92	0.07	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	4031	1/1	0.92	0.11	39,39,39,39	0
54	MG	2A	3463	1/1	0.92	0.15	50,50,50,50	0
54	MG	2A	3466	1/1	0.92	0.08	34,34,34,34	0
54	MG	2A	3468	1/1	0.92	0.12	58,58,58,58	0
54	MG	2B	219	1/1	0.92	0.11	72,72,72,72	0
54	MG	1A	3621	1/1	0.92	0.09	43,43,43,43	0
54	MG	2D	304	1/1	0.92	0.25	47,47,47,47	0
54	MG	2D	307	1/1	0.92	0.17	63,63,63,63	0
54	MG	2A	3204	1/1	0.92	0.12	52,52,52,52	0
54	MG	1A	3880	1/1	0.92	0.26	29,29,29,29	0
54	MG	2E	304	1/1	0.92	0.19	57,57,57,57	0
54	MG	2A	3478	1/1	0.92	0.10	58,58,58,58	0
54	MG	2A	3207	1/1	0.92	0.10	59,59,59,59	0
54	MG	1A	3889	1/1	0.92	0.11	64,64,64,64	0
54	MG	1A	3545	1/1	0.92	0.16	52,52,52,52	0
54	MG	1a	1625	1/1	0.92	0.16	62,62,62,62	0
54	MG	1A	3624	1/1	0.92	0.15	51,51,51,51	0
54	MG	2A	3215	1/1	0.92	0.13	67,67,67,67	0
54	MG	1A	3197	1/1	0.92	0.30	44,44,44,44	0
54	MG	1A	3296	1/1	0.92	0.11	35,35,35,35	0
54	MG	2A	3218	1/1	0.92	0.08	51,51,51,51	0
54	MG	1A	3550	1/1	0.92	0.10	43,43,43,43	0
54	MG	1A	3392	1/1	0.92	0.21	59,59,59,59	0
54	MG	2A	3224	1/1	0.92	0.51	51,51,51,51	0
54	MG	1A	3253	1/1	0.92	0.09	76,76,76,76	0
54	MG	1B	201	1/1	0.92	0.14	55,55,55,55	0
54	MG	2A	3228	1/1	0.92	0.25	62,62,62,62	0
54	MG	20	101	1/1	0.92	0.09	57,57,57,57	0
54	MG	25	101	1/1	0.92	0.33	46,46,46,46	0
54	MG	1a	1639	1/1	0.92	0.14	71,71,71,71	0
54	MG	2A	3505	1/1	0.92	0.09	35,35,35,35	0
54	MG	1A	3639	1/1	0.92	0.12	53,53,53,53	0
54	MG	1A	3151	1/1	0.92	0.22	45,45,45,45	0
54	MG	2A	3234	1/1	0.92	0.26	53,53,53,53	0
54	MG	2A	3235	1/1	0.92	0.09	57,57,57,57	0
54	MG	2A	3512	1/1	0.92	0.27	63,63,63,63	0
54	MG	2A	3513	1/1	0.92	0.18	60,60,60,60	0
54	MG	1A	3920	1/1	0.92	0.18	70,70,70,70	0
54	MG	1A	3923	1/1	0.92	0.11	44,44,44,44	0
54	MG	1A	3925	1/1	0.92	0.22	39,39,39,39	0
54	MG	1y	201	1/1	0.92	0.08	74,74,74,74	0
54	MG	1B	210	1/1	0.92	0.07	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3755	1/1	0.92	0.15	60,60,60,60	0
54	MG	2A	3525	1/1	0.92	0.10	53,53,53,53	0
54	MG	1A	3402	1/1	0.92	0.08	18,18,18,18	0
54	MG	2a	3017	1/1	0.92	0.09	52,52,52,52	0
54	MG	1B	219	1/1	0.92	0.11	40,40,40,40	0
54	MG	1A	3934	1/1	0.92	0.12	57,57,57,57	0
54	MG	2A	3260	1/1	0.92	0.16	58,58,58,58	0
54	MG	2A	3538	1/1	0.92	0.12	74,74,74,74	0
54	MG	2a	3025	1/1	0.92	0.31	69,69,69,69	0
54	MG	2a	3026	1/1	0.92	0.24	68,68,68,68	0
54	MG	2a	3027	1/1	0.92	0.19	63,63,63,63	0
54	MG	1A	3309	1/1	0.92	0.19	57,57,57,57	0
54	MG	2A	3541	1/1	0.92	0.32	50,50,50,50	0
54	MG	2A	3264	1/1	0.92	0.08	43,43,43,43	0
54	MG	2A	3544	1/1	0.92	0.10	74,74,74,74	0
54	MG	1A	3404	1/1	0.92	0.08	27,27,27,27	0
54	MG	1A	3039	1/1	0.92	0.07	47,47,47,47	0
54	MG	2A	3017	1/1	0.92	0.21	55,55,55,55	0
54	MG	2A	3555	1/1	0.92	0.11	28,28,28,28	0
54	MG	2A	3268	1/1	0.92	0.15	58,58,58,58	0
54	MG	1A	3769	1/1	0.92	0.07	46,46,46,46	0
54	MG	2A	3275	1/1	0.92	0.09	46,46,46,46	0
54	MG	1A	3566	1/1	0.92	0.19	44,44,44,44	0
54	MG	1A	3264	1/1	0.92	0.24	70,70,70,70	0
54	MG	1D	303	1/1	0.92	0.11	49,49,49,49	0
54	MG	2a	3047	1/1	0.92	0.20	55,55,55,55	0
54	MG	2a	3048	1/1	0.92	0.22	49,49,49,49	0
54	MG	2A	3570	1/1	0.92	0.08	38,38,38,38	0
54	MG	2A	3575	1/1	0.92	0.08	84,84,84,84	0
54	MG	1A	3773	1/1	0.92	0.09	55,55,55,55	0
54	MG	2A	3580	1/1	0.92	0.09	36,36,36,36	0
54	MG	2A	3285	1/1	0.92	0.08	40,40,40,40	0
54	MG	2A	3030	1/1	0.92	0.16	30,30,30,30	0
54	MG	1a	1781	1/1	0.92	0.14	54,54,54,54	0
54	MG	2A	3598	1/1	0.92	0.09	41,41,41,41	0
54	MG	1A	3161	1/1	0.92	0.17	47,47,47,47	0
54	MG	1a	1783	1/1	0.92	0.13	80,80,80,80	0
54	MG	1A	3498	1/1	0.92	0.07	37,37,37,37	0
54	MG	1A	3411	1/1	0.92	0.09	26,26,26,26	0
54	MG	1A	3660	1/1	0.92	0.21	35,35,35,35	0
54	MG	2A	3300	1/1	0.92	0.11	55,55,55,55	0
54	MG	1A	3501	1/1	0.92	0.11	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3339	1/1	0.92	0.07	31,31,31,31	0
54	MG	1A	3507	1/1	0.92	0.14	57,57,57,57	0
54	MG	2A	3617	1/1	0.92	0.08	54,54,54,54	0
54	MG	2A	3310	1/1	0.92	0.10	45,45,45,45	0
54	MG	2A	3055	1/1	0.92	0.09	38,38,38,38	0
54	MG	2A	3623	1/1	0.92	0.32	55,55,55,55	0
54	MG	2A	3056	1/1	0.92	0.12	57,57,57,57	0
54	MG	2A	3632	1/1	0.92	0.14	80,80,80,80	0
54	MG	2A	3318	1/1	0.92	0.12	38,38,38,38	0
54	MG	1A	3960	1/1	0.92	0.20	51,51,51,51	0
54	MG	2a	3098	1/1	0.92	0.14	63,63,63,63	0
54	MG	2A	3322	1/1	0.92	0.10	35,35,35,35	0
54	MG	2A	3324	1/1	0.92	0.13	50,50,50,50	0
54	MG	2A	3063	1/1	0.92	0.09	47,47,47,47	0
54	MG	1A	3340	1/1	0.92	0.10	16,16,16,16	0
54	MG	2A	3333	1/1	0.92	0.07	32,32,32,32	0
54	MG	2a	3106	1/1	0.92	0.09	67,67,67,67	0
54	MG	2A	3075	1/1	0.92	0.07	43,43,43,43	0
54	MG	2a	3110	1/1	0.92	0.15	62,62,62,62	0
54	MG	1H	201	1/1	0.92	0.13	68,68,68,68	0
54	MG	2A	3674	1/1	0.92	0.09	60,60,60,60	0
54	MG	1A	3515	1/1	0.92	0.22	27,27,27,27	0
54	MG	2A	3676	1/1	0.92	0.09	53,53,53,53	0
54	MG	1A	3675	1/1	0.92	0.12	64,64,64,64	0
54	MG	2A	3680	1/1	0.92	0.10	54,54,54,54	0
54	MG	1A	3970	1/1	0.92	0.11	50,50,50,50	0
54	MG	1A	3163	1/1	0.92	0.51	43,43,43,43	0
54	MG	2a	3119	1/1	0.92	0.13	44,44,44,44	0
54	MG	1a	1806	1/1	0.92	0.07	57,57,57,57	0
54	MG	2a	3121	1/1	0.92	0.10	61,61,61,61	0
54	MG	2A	3353	1/1	0.92	0.23	62,62,62,62	0
54	MG	1A	3974	1/1	0.92	0.10	48,48,48,48	0
54	MG	1A	3276	1/1	0.92	0.10	50,50,50,50	0
54	MG	2A	3092	1/1	0.92	0.17	62,62,62,62	0
54	MG	1a	1812	1/1	0.92	0.08	69,69,69,69	0
54	MG	1A	3585	1/1	0.92	0.07	36,36,36,36	0
54	MG	2a	3152	1/1	0.92	0.11	68,68,68,68	0
54	MG	2A	3096	1/1	0.92	0.08	50,50,50,50	0
54	MG	2A	3101	1/1	0.92	0.20	59,59,59,59	0
54	MG	1a	1815	1/1	0.92	0.14	65,65,65,65	0
54	MG	2A	3107	1/1	0.92	0.12	54,54,54,54	0
54	MG	1A	3351	1/1	0.92	0.08	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3591	1/1	0.92	0.31	32,32,32,32	0
54	MG	1A	3353	1/1	0.92	0.09	31,31,31,31	0
54	MG	1A	3531	1/1	0.92	0.15	42,42,42,42	0
54	MG	1A	3828	1/1	0.92	0.08	32,32,32,32	0
54	MG	1A	3356	1/1	0.92	0.14	48,48,48,48	0
54	MG	1A	3534	1/1	0.92	0.21	36,36,36,36	0
54	MG	1a	1825	1/1	0.92	0.09	71,71,71,71	0
54	MG	2A	3125	1/1	0.92	0.26	61,61,61,61	0
54	MG	1A	3991	1/1	0.92	0.21	69,69,69,69	0
54	MG	2a	3186	1/1	0.92	0.13	67,67,67,67	0
54	MG	2A	3130	1/1	0.92	0.09	54,54,54,54	0
54	MG	1A	3836	1/1	0.92	0.09	49,49,49,49	0
54	MG	2a	3190	1/1	0.92	0.08	65,65,65,65	0
54	MG	2A	3726	1/1	0.92	0.13	63,63,63,63	0
54	MG	1A	3694	1/1	0.92	0.08	39,39,39,39	0
54	MG	1A	3697	1/1	0.92	0.16	40,40,40,40	0
54	MG	2A	3149	1/1	0.92	0.18	50,50,50,50	0
54	MG	1A	3217	1/1	0.92	0.10	37,37,37,37	0
54	MG	2A	3411	1/1	0.92	0.11	60,60,60,60	0
54	MG	1A	3998	1/1	0.92	0.14	54,54,54,54	0
54	MG	1A	3848	1/1	0.92	0.09	55,55,55,55	0
54	MG	1A	3851	1/1	0.92	0.09	36,36,36,36	0
54	MG	2A	3417	1/1	0.92	0.23	67,67,67,67	0
54	MG	1A	3604	1/1	0.92	0.10	55,55,55,55	0
54	MG	1A	3361	1/1	0.92	0.11	63,63,63,63	0
54	MG	1A	3284	1/1	0.92	0.22	40,40,40,40	0
54	MG	1a	1725	1/1	0.92	0.17	51,51,51,51	0
54	MG	2A	3747	1/1	0.92	0.15	54,54,54,54	0
54	MG	2A	3167	1/1	0.92	0.08	57,57,57,57	0
54	MG	1A	3540	1/1	0.92	0.07	38,38,38,38	0
54	MG	2A	3428	1/1	0.92	0.09	55,55,55,55	0
54	MG	2A	3429	1/1	0.92	0.06	43,43,43,43	0
54	MG	2A	3172	1/1	0.92	0.06	63,63,63,63	0
54	MG	1A	3612	1/1	0.92	0.10	21,21,21,21	0
54	MG	1A	3979	1/1	0.93	0.06	19,19,19,19	0
54	MG	1A	3394	1/1	0.93	0.09	42,42,42,42	0
54	MG	1A	3981	1/1	0.93	0.09	26,26,26,26	0
54	MG	2A	3182	1/1	0.93	0.14	56,56,56,56	0
54	MG	1P	202	1/1	0.93	0.27	27,27,27,27	0
54	MG	1A	3395	1/1	0.93	0.21	50,50,50,50	0
54	MG	1P	205	1/1	0.93	0.08	74,74,74,74	0
54	MG	1S	201	1/1	0.93	0.10	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3838	1/1	0.93	0.08	28,28,28,28	0
54	MG	2A	3455	1/1	0.93	0.07	44,44,44,44	0
54	MG	1A	3168	1/1	0.93	0.15	48,48,48,48	0
54	MG	2A	3770	1/1	0.93	0.08	48,48,48,48	0
54	MG	1A	3036	1/1	0.93	0.25	48,48,48,48	0
54	MG	1a	1713	1/1	0.93	0.07	56,56,56,56	0
54	MG	2A	3460	1/1	0.93	0.13	60,60,60,60	0
54	MG	1A	3503	1/1	0.93	0.06	17,17,17,17	0
54	MG	1a	1867	1/1	0.93	0.12	71,71,71,71	0
54	MG	2A	3464	1/1	0.93	0.17	58,58,58,58	0
54	MG	2B	208	1/1	0.93	0.13	65,65,65,65	0
54	MG	2A	3201	1/1	0.93	0.20	58,58,58,58	0
54	MG	2A	3202	1/1	0.93	0.15	60,60,60,60	0
54	MG	1A	3177	1/1	0.93	0.53	38,38,38,38	0
54	MG	1A	3302	1/1	0.93	0.21	40,40,40,40	0
54	MG	2A	3472	1/1	0.93	0.13	62,62,62,62	0
54	MG	2A	3205	1/1	0.93	0.17	61,61,61,61	0
54	MG	1A	3511	1/1	0.93	0.17	55,55,55,55	0
54	MG	2A	3479	1/1	0.93	0.09	57,57,57,57	0
54	MG	1a	1872	1/1	0.93	0.10	55,55,55,55	0
54	MG	1A	3715	1/1	0.93	0.10	49,49,49,49	0
54	MG	1a	1723	1/1	0.93	0.10	49,49,49,49	0
54	MG	2D	310	1/1	0.93	0.08	44,44,44,44	0
54	MG	1A	3142	1/1	0.93	0.12	29,29,29,29	0
54	MG	2E	305	1/1	0.93	0.09	34,34,34,34	0
54	MG	2E	308	1/1	0.93	0.15	61,61,61,61	0
54	MG	1A	3405	1/1	0.93	0.07	61,61,61,61	0
54	MG	1A	3307	1/1	0.93	0.07	29,29,29,29	0
54	MG	1e	202	1/1	0.93	0.23	58,58,58,58	0
54	MG	1A	3222	1/1	0.93	0.18	35,35,35,35	0
54	MG	2N	201	1/1	0.93	0.08	69,69,69,69	0
54	MG	1A	3523	1/1	0.93	0.06	19,19,19,19	0
54	MG	1A	3527	1/1	0.93	0.06	25,25,25,25	0
54	MG	10	107	1/1	0.93	0.14	61,61,61,61	0
54	MG	2P	203	1/1	0.93	0.12	52,52,52,52	0
54	MG	2A	3222	1/1	0.93	0.12	61,61,61,61	0
54	MG	2Q	204	1/1	0.93	0.16	62,62,62,62	0
54	MG	1A	4007	1/1	0.93	0.12	36,36,36,36	0
54	MG	1g	203	1/1	0.93	0.12	73,73,73,73	0
54	MG	1h	201	1/1	0.93	0.10	57,57,57,57	0
54	MG	1A	3224	1/1	0.93	0.12	49,49,49,49	0
54	MG	2A	3504	1/1	0.93	0.11	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2A	3229	1/1	0.93	0.12	52,52,52,52	0
54	MG	11	103	1/1	0.93	0.08	41,41,41,41	0
54	MG	1A	3181	1/1	0.93	0.09	49,49,49,49	0
54	MG	2A	3509	1/1	0.93	0.10	44,44,44,44	0
54	MG	21	101	1/1	0.93	0.12	69,69,69,69	0
54	MG	23	101	1/1	0.93	0.30	53,53,53,53	0
54	MG	1A	3235	1/1	0.93	0.14	58,58,58,58	0
54	MG	1a	1742	1/1	0.93	0.18	64,64,64,64	0
54	MG	1a	1743	1/1	0.93	0.10	62,62,62,62	0
54	MG	2A	3238	1/1	0.93	0.10	52,52,52,52	0
54	MG	2A	3515	1/1	0.93	0.12	71,71,71,71	0
54	MG	15	102	1/1	0.93	0.27	36,36,36,36	0
54	MG	2A	3517	1/1	0.93	0.13	59,59,59,59	0
54	MG	1a	1745	1/1	0.93	0.09	55,55,55,55	0
54	MG	1A	3328	1/1	0.93	0.12	39,39,39,39	0
54	MG	2A	3242	1/1	0.93	0.10	59,59,59,59	0
54	MG	1A	3878	1/1	0.93	0.09	48,48,48,48	0
54	MG	1A	3332	1/1	0.93	0.08	40,40,40,40	0
54	MG	1A	4016	1/1	0.93	0.10	63,63,63,63	0
54	MG	1A	3885	1/1	0.93	0.10	52,52,52,52	0
54	MG	1A	3337	1/1	0.93	0.06	27,27,27,27	0
54	MG	1y	205	1/1	0.93	0.09	56,56,56,56	0
54	MG	1A	3182	1/1	0.93	0.10	49,49,49,49	0
54	MG	2A	3262	1/1	0.93	0.12	62,62,62,62	0
54	MG	1a	1753	1/1	0.93	0.12	63,63,63,63	0
54	MG	1A	3746	1/1	0.93	0.07	41,41,41,41	0
54	MG	1a	1610	1/1	0.93	0.12	66,66,66,66	0
54	MG	1a	1612	1/1	0.93	0.17	62,62,62,62	0
54	MG	1A	4029	1/1	0.93	0.14	64,64,64,64	0
54	MG	2A	3020	1/1	0.93	0.11	40,40,40,40	0
54	MG	1A	3056	1/1	0.93	0.08	43,43,43,43	0
54	MG	2A	3273	1/1	0.93	0.17	45,45,45,45	0
54	MG	1a	1615	1/1	0.93	0.10	58,58,58,58	0
54	MG	1A	3429	1/1	0.93	0.09	35,35,35,35	0
54	MG	1A	3906	1/1	0.93	0.38	34,34,34,34	0
54	MG	2a	3033	1/1	0.93	0.28	61,61,61,61	0
54	MG	2a	3034	1/1	0.93	0.11	62,62,62,62	0
54	MG	2A	3561	1/1	0.93	0.08	33,33,33,33	0
54	MG	1A	4034	1/1	0.93	0.12	67,67,67,67	0
54	MG	1a	1765	1/1	0.93	0.07	60,60,60,60	0
54	MG	1A	3099	1/1	0.93	0.13	56,56,56,56	0
54	MG	2A	3035	1/1	0.93	0.10	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3431	1/1	0.93	0.14	50,50,50,50	0
54	MG	2A	3577	1/1	0.93	0.07	66,66,66,66	0
54	MG	2A	3037	1/1	0.93	0.10	56,56,56,56	0
54	MG	1A	4039	1/1	0.93	0.07	49,49,49,49	0
54	MG	2A	3583	1/1	0.93	0.08	54,54,54,54	0
54	MG	2A	3042	1/1	0.93	0.13	59,59,59,59	0
54	MG	2A	3043	1/1	0.93	0.12	59,59,59,59	0
54	MG	2a	3053	1/1	0.93	0.13	66,66,66,66	0
54	MG	2A	3044	1/1	0.93	0.11	57,57,57,57	0
54	MG	2A	3597	1/1	0.93	0.07	40,40,40,40	0
54	MG	1A	4041	1/1	0.93	0.14	50,50,50,50	0
54	MG	1A	3433	1/1	0.93	0.09	36,36,36,36	0
54	MG	1A	3188	1/1	0.93	0.09	49,49,49,49	0
54	MG	2A	3306	1/1	0.93	0.10	26,26,26,26	0
54	MG	2A	3606	1/1	0.93	0.08	63,63,63,63	0
54	MG	1A	3189	1/1	0.93	0.08	47,47,47,47	0
54	MG	2a	3064	1/1	0.93	0.06	54,54,54,54	0
54	MG	2A	3608	1/1	0.93	0.08	56,56,56,56	0
54	MG	1A	4046	1/1	0.93	0.14	36,36,36,36	0
54	MG	1A	3147	1/1	0.93	0.20	43,43,43,43	0
54	MG	1A	4049	1/1	0.93	0.10	44,44,44,44	0
54	MG	2a	3070	1/1	0.93	0.20	60,60,60,60	0
54	MG	1A	3921	1/1	0.93	0.15	42,42,42,42	0
54	MG	2A	3061	1/1	0.93	0.13	52,52,52,52	0
54	MG	1A	3767	1/1	0.93	0.19	44,44,44,44	0
54	MG	2A	3619	1/1	0.93	0.07	82,82,82,82	0
54	MG	1A	3443	1/1	0.93	0.08	36,36,36,36	0
54	MG	2A	3068	1/1	0.93	0.14	47,47,47,47	0
54	MG	1A	3926	1/1	0.93	0.06	49,49,49,49	0
54	MG	2A	3073	1/1	0.93	0.16	53,53,53,53	0
54	MG	2A	3630	1/1	0.93	0.10	51,51,51,51	0
54	MG	1B	204	1/1	0.93	0.28	35,35,35,35	0
54	MG	2A	3633	1/1	0.93	0.09	66,66,66,66	0
54	MG	2a	3090	1/1	0.93	0.13	66,66,66,66	0
54	MG	2a	3091	1/1	0.93	0.11	53,53,53,53	0
54	MG	1A	3556	1/1	0.93	0.08	40,40,40,40	0
54	MG	1A	3444	1/1	0.93	0.09	17,17,17,17	0
54	MG	2A	3646	1/1	0.93	0.09	47,47,47,47	0
54	MG	2A	3079	1/1	0.93	0.09	48,48,48,48	0
54	MG	1A	3355	1/1	0.93	0.10	46,46,46,46	0
54	MG	2A	3081	1/1	0.93	0.14	56,56,56,56	0
54	MG	2A	3344	1/1	0.93	0.13	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2a	3103	1/1	0.93	0.08	64,64,64,64	0
54	MG	2A	3083	1/1	0.93	0.41	46,46,46,46	0
54	MG	1A	3148	1/1	0.93	0.36	33,33,33,33	0
54	MG	1A	3937	1/1	0.93	0.07	22,22,22,22	0
54	MG	1A	3450	1/1	0.93	0.09	46,46,46,46	0
54	MG	1B	212	1/1	0.93	0.07	45,45,45,45	0
54	MG	2A	3360	1/1	0.93	0.16	51,51,51,51	0
54	MG	1A	3780	1/1	0.93	0.14	57,57,57,57	0
54	MG	2A	3679	1/1	0.93	0.09	59,59,59,59	0
54	MG	1a	1794	1/1	0.93	0.09	60,60,60,60	0
54	MG	1a	1657	1/1	0.93	0.25	71,71,71,71	0
54	MG	1A	3781	1/1	0.93	0.07	77,77,77,77	0
54	MG	1B	217	1/1	0.93	0.07	47,47,47,47	0
54	MG	1A	3357	1/1	0.93	0.15	43,43,43,43	0
54	MG	2A	3374	1/1	0.93	0.08	46,46,46,46	0
54	MG	1a	1802	1/1	0.93	0.08	59,59,59,59	0
54	MG	2A	3376	1/1	0.93	0.11	45,45,45,45	0
54	MG	1a	1661	1/1	0.93	0.10	69,69,69,69	0
54	MG	2a	3133	1/1	0.93	0.07	69,69,69,69	0
54	MG	1A	3271	1/1	0.93	0.10	39,39,39,39	0
54	MG	1B	221	1/1	0.93	0.09	62,62,62,62	0
54	MG	2A	3695	1/1	0.93	0.10	69,69,69,69	0
54	MG	2a	3145	1/1	0.93	0.09	79,79,79,79	0
54	MG	2a	3146	1/1	0.93	0.24	88,88,88,88	0
54	MG	2A	3111	1/1	0.93	0.22	68,68,68,68	0
54	MG	2A	3702	1/1	0.93	0.14	66,66,66,66	0
54	MG	1A	3104	1/1	0.93	0.16	38,38,38,38	0
54	MG	1A	3088	1/1	0.93	0.09	41,41,41,41	0
54	MG	2a	3157	1/1	0.93	0.14	66,66,66,66	0
54	MG	1A	3792	1/1	0.93	0.11	58,58,58,58	0
54	MG	1a	1810	1/1	0.93	0.17	65,65,65,65	0
54	MG	1A	3281	1/1	0.93	0.15	54,54,54,54	0
54	MG	2a	3166	1/1	0.93	0.18	57,57,57,57	0
54	MG	2A	3123	1/1	0.93	0.11	57,57,57,57	0
54	MG	1A	3470	1/1	0.93	0.08	21,21,21,21	0
54	MG	2A	3400	1/1	0.93	0.12	61,61,61,61	0
54	MG	2A	3406	1/1	0.93	0.29	50,50,50,50	0
54	MG	1A	3472	1/1	0.93	0.10	25,25,25,25	0
54	MG	1B	229	1/1	0.93	0.13	67,67,67,67	0
54	MG	1A	3801	1/1	0.93	0.10	37,37,37,37	0
54	MG	1A	3475	1/1	0.93	0.07	59,59,59,59	0
54	MG	2a	3183	1/1	0.93	0.08	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3117	1/1	0.93	0.17	30,30,30,30	0
54	MG	2A	3413	1/1	0.93	0.18	57,57,57,57	0
54	MG	2A	3141	1/1	0.93	0.10	50,50,50,50	0
54	MG	2A	3142	1/1	0.93	0.09	52,52,52,52	0
54	MG	2A	3731	1/1	0.93	0.07	71,71,71,71	0
54	MG	1A	3287	1/1	0.93	0.07	38,38,38,38	0
54	MG	2a	3192	1/1	0.93	0.15	60,60,60,60	0
54	MG	1A	3122	1/1	0.93	0.11	61,61,61,61	0
54	MG	1A	3385	1/1	0.93	0.10	22,22,22,22	0
54	MG	1F	308	1/1	0.93	0.12	36,36,36,36	0
54	MG	2A	3421	1/1	0.93	0.08	45,45,45,45	0
54	MG	1a	1685	1/1	0.93	0.14	53,53,53,53	0
54	MG	1A	3968	1/1	0.93	0.07	42,42,42,42	0
54	MG	2A	3741	1/1	0.93	0.12	52,52,52,52	0
54	MG	1A	3389	1/1	0.93	0.12	55,55,55,55	0
54	MG	1A	3390	1/1	0.93	0.14	41,41,41,41	0
54	MG	1A	3973	1/1	0.93	0.10	29,29,29,29	0
54	MG	2A	3745	1/1	0.93	0.09	58,58,58,58	0
54	MG	1a	1839	1/1	0.93	0.06	57,57,57,57	0
54	MG	1A	3691	1/1	0.93	0.25	55,55,55,55	0
54	MG	2A	3748	1/1	0.93	0.12	61,61,61,61	0
54	MG	2A	3170	1/1	0.93	0.14	51,51,51,51	0
54	MG	1A	3165	1/1	0.93	0.08	48,48,48,48	0
54	MG	1A	3587	1/1	0.93	0.24	37,37,37,37	0
54	MG	2A	3437	1/1	0.93	0.10	53,53,53,53	0
54	MG	1a	1845	1/1	0.93	0.13	54,54,54,54	0
54	MG	2A	3177	1/1	0.93	0.13	66,66,66,66	0
54	MG	1A	3879	1/1	0.94	0.20	38,38,38,38	0
54	MG	1a	1754	1/1	0.94	0.10	73,73,73,73	0
54	MG	2A	3476	1/1	0.94	0.06	50,50,50,50	0
54	MG	2A	3223	1/1	0.94	0.48	45,45,45,45	0
54	MG	2A	3008	1/1	0.94	0.07	58,58,58,58	0
54	MG	1A	3004	1/1	0.94	0.16	49,49,49,49	0
54	MG	1A	3272	1/1	0.94	0.27	53,53,53,53	0
54	MG	2B	209	1/1	0.94	0.20	71,71,71,71	0
54	MG	2A	3485	1/1	0.94	0.12	48,48,48,48	0
54	MG	1A	3631	1/1	0.94	0.21	36,36,36,36	0
54	MG	1A	3741	1/1	0.94	0.22	50,50,50,50	0
54	MG	1A	4032	1/1	0.94	0.18	45,45,45,45	0
54	MG	2A	3489	1/1	0.94	0.10	64,64,64,64	0
54	MG	1A	3555	1/1	0.94	0.19	45,45,45,45	0
54	MG	1A	3338	1/1	0.94	0.07	23,23,23,23	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2D	303	1/1	0.94	0.52	38,38,38,38	0
54	MG	1A	3076	1/1	0.94	0.17	32,32,32,32	0
54	MG	1a	1763	1/1	0.94	0.16	57,57,57,57	0
54	MG	2A	3237	1/1	0.94	0.15	48,48,48,48	0
54	MG	1A	3903	1/1	0.94	0.13	46,46,46,46	0
54	MG	1A	3002	1/1	0.94	0.10	51,51,51,51	0
54	MG	2A	3028	1/1	0.94	0.09	46,46,46,46	0
54	MG	1A	3110	1/1	0.94	0.18	40,40,40,40	0
54	MG	1A	3486	1/1	0.94	0.06	42,42,42,42	0
54	MG	2F	302	1/1	0.94	0.10	39,39,39,39	0
54	MG	2A	3243	1/1	0.94	0.14	50,50,50,50	0
54	MG	1A	3156	1/1	0.94	0.37	34,34,34,34	0
54	MG	1A	3911	1/1	0.94	0.07	52,52,52,52	0
54	MG	1A	3286	1/1	0.94	0.13	58,58,58,58	0
54	MG	2A	3038	1/1	0.94	0.18	56,56,56,56	0
54	MG	1A	3649	1/1	0.94	0.11	17,17,17,17	0
54	MG	1A	3919	1/1	0.94	0.18	51,51,51,51	0
54	MG	2A	3256	1/1	0.94	0.20	48,48,48,48	0
54	MG	1a	1635	1/1	0.94	0.06	39,39,39,39	0
54	MG	1A	3762	1/1	0.94	0.08	27,27,27,27	0
54	MG	2A	3514	1/1	0.94	0.07	48,48,48,48	0
54	MG	1A	3764	1/1	0.94	0.11	42,42,42,42	0
54	MG	1A	3496	1/1	0.94	0.09	21,21,21,21	0
54	MG	2A	3048	1/1	0.94	0.10	48,48,48,48	0
54	MG	2V	201	1/1	0.94	0.39	48,48,48,48	0
54	MG	1A	3415	1/1	0.94	0.10	54,54,54,54	0
54	MG	1A	3569	1/1	0.94	0.12	57,57,57,57	0
54	MG	1A	3655	1/1	0.94	0.09	53,53,53,53	0
54	MG	1A	3226	1/1	0.94	0.39	29,29,29,29	0
54	MG	1A	3288	1/1	0.94	0.06	44,44,44,44	0
54	MG	1A	3048	1/1	0.94	0.15	30,30,30,30	0
54	MG	2A	3059	1/1	0.94	0.07	56,56,56,56	0
54	MG	2A	3528	1/1	0.94	0.08	30,30,30,30	0
54	MG	1A	3661	1/1	0.94	0.10	52,52,52,52	0
54	MG	2A	3535	1/1	0.94	0.07	51,51,51,51	0
54	MG	1A	3938	1/1	0.94	0.09	23,23,23,23	0
54	MG	1A	3120	1/1	0.94	0.08	40,40,40,40	0
54	MG	1A	3663	1/1	0.94	0.10	60,60,60,60	0
54	MG	2a	3001	1/1	0.94	0.10	49,49,49,49	0
54	MG	2A	3070	1/1	0.94	0.18	55,55,55,55	0
54	MG	1A	3245	1/1	0.94	0.34	43,43,43,43	0
54	MG	1A	3504	1/1	0.94	0.17	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1B	218	1/1	0.94	0.06	38,38,38,38	0
54	MG	2A	3076	1/1	0.94	0.14	59,59,59,59	0
54	MG	1A	3785	1/1	0.94	0.07	40,40,40,40	0
54	MG	2A	3296	1/1	0.94	0.11	58,58,58,58	0
54	MG	2a	3009	1/1	0.94	0.07	72,72,72,72	0
54	MG	1A	3944	1/1	0.94	0.09	53,53,53,53	0
54	MG	1A	3786	1/1	0.94	0.05	26,26,26,26	0
54	MG	2A	3301	1/1	0.94	0.13	46,46,46,46	0
54	MG	1A	3667	1/1	0.94	0.07	58,58,58,58	0
54	MG	1A	3789	1/1	0.94	0.14	39,39,39,39	0
54	MG	1A	3028	1/1	0.94	0.09	40,40,40,40	0
54	MG	1A	3363	1/1	0.94	0.15	55,55,55,55	0
54	MG	2A	3567	1/1	0.94	0.10	51,51,51,51	0
54	MG	1A	3951	1/1	0.94	0.10	42,42,42,42	0
54	MG	1A	3251	1/1	0.94	0.06	39,39,39,39	0
54	MG	2A	3574	1/1	0.94	0.11	53,53,53,53	0
54	MG	1A	3514	1/1	0.94	0.09	51,51,51,51	0
54	MG	1B	230	1/1	0.94	0.08	50,50,50,50	0
54	MG	1A	3299	1/1	0.94	0.18	40,40,40,40	0
54	MG	1a	1811	1/1	0.94	0.10	62,62,62,62	0
54	MG	1A	3959	1/1	0.94	0.16	61,61,61,61	0
54	MG	2A	3095	1/1	0.94	0.08	61,61,61,61	0
54	MG	1A	3680	1/1	0.94	0.07	39,39,39,39	0
54	MG	2A	3594	1/1	0.94	0.14	66,66,66,66	0
54	MG	2a	3035	1/1	0.94	0.07	63,63,63,63	0
54	MG	2A	3331	1/1	0.94	0.17	67,67,67,67	0
54	MG	2a	3037	1/1	0.94	0.17	57,57,57,57	0
54	MG	2A	3332	1/1	0.94	0.11	42,42,42,42	0
54	MG	1A	3586	1/1	0.94	0.07	34,34,34,34	0
54	MG	2A	3334	1/1	0.94	0.18	71,71,71,71	0
54	MG	1D	314	1/1	0.94	0.16	65,65,65,65	0
54	MG	2A	3103	1/1	0.94	0.21	48,48,48,48	0
54	MG	2A	3105	1/1	0.94	0.09	69,69,69,69	0
54	MG	2A	3106	1/1	0.94	0.23	43,43,43,43	0
54	MG	1D	315	1/1	0.94	0.11	47,47,47,47	0
54	MG	1a	1676	1/1	0.94	0.09	50,50,50,50	0
54	MG	2A	3611	1/1	0.94	0.12	72,72,72,72	0
54	MG	1a	1677	1/1	0.94	0.06	57,57,57,57	0
54	MG	2a	3050	1/1	0.94	0.11	66,66,66,66	0
54	MG	2a	3051	1/1	0.94	0.09	59,59,59,59	0
54	MG	2a	3052	1/1	0.94	0.08	57,57,57,57	0
54	MG	1A	3432	1/1	0.94	0.07	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2A	3347	1/1	0.94	0.08	54,54,54,54	0
54	MG	2A	3348	1/1	0.94	0.14	59,59,59,59	0
54	MG	2A	3351	1/1	0.94	0.12	61,61,61,61	0
54	MG	1a	1680	1/1	0.94	0.19	55,55,55,55	0
54	MG	1A	3589	1/1	0.94	0.07	41,41,41,41	0
54	MG	1E	308	1/1	0.94	0.10	50,50,50,50	0
54	MG	2A	3117	1/1	0.94	0.14	43,43,43,43	0
54	MG	1A	3810	1/1	0.94	0.11	29,29,29,29	0
54	MG	2A	3625	1/1	0.94	0.15	77,77,77,77	0
54	MG	1A	3517	1/1	0.94	0.06	39,39,39,39	0
54	MG	2A	3364	1/1	0.94	0.09	57,57,57,57	0
54	MG	2A	3367	1/1	0.94	0.06	32,32,32,32	0
54	MG	1a	1830	1/1	0.94	0.09	60,60,60,60	0
54	MG	1A	3368	1/1	0.94	0.10	37,37,37,37	0
54	MG	1A	3592	1/1	0.94	0.07	65,65,65,65	0
54	MG	2A	3647	1/1	0.94	0.07	51,51,51,51	0
54	MG	2A	3371	1/1	0.94	0.09	46,46,46,46	0
54	MG	1F	317	1/1	0.94	0.14	43,43,43,43	0
54	MG	2A	3127	1/1	0.94	0.23	58,58,58,58	0
54	MG	2A	3128	1/1	0.94	0.11	48,48,48,48	0
54	MG	1A	3820	1/1	0.94	0.07	47,47,47,47	0
54	MG	2A	3660	1/1	0.94	0.07	25,25,25,25	0
54	MG	1A	3975	1/1	0.94	0.07	54,54,54,54	0
54	MG	2a	3083	1/1	0.94	0.21	44,44,44,44	0
54	MG	2a	3086	1/1	0.94	0.14	83,83,83,83	0
54	MG	2A	3133	1/1	0.94	0.07	41,41,41,41	0
54	MG	2A	3134	1/1	0.94	0.18	62,62,62,62	0
54	MG	1a	1842	1/1	0.94	0.14	51,51,51,51	0
54	MG	2A	3381	1/1	0.94	0.07	38,38,38,38	0
54	MG	1A	3520	1/1	0.94	0.09	57,57,57,57	0
54	MG	2a	3096	1/1	0.94	0.16	59,59,59,59	0
54	MG	2A	3678	1/1	0.94	0.07	64,64,64,64	0
54	MG	1A	3595	1/1	0.94	0.24	34,34,34,34	0
54	MG	2A	3143	1/1	0.94	0.11	49,49,49,49	0
54	MG	2A	3146	1/1	0.94	0.07	44,44,44,44	0
54	MG	1A	3978	1/1	0.94	0.07	40,40,40,40	0
54	MG	2A	3683	1/1	0.94	0.13	72,72,72,72	0
54	MG	1A	3826	1/1	0.94	0.12	41,41,41,41	0
54	MG	2A	3685	1/1	0.94	0.08	39,39,39,39	0
54	MG	2A	3150	1/1	0.94	0.07	35,35,35,35	0
54	MG	1a	1847	1/1	0.94	0.11	70,70,70,70	0
54	MG	2A	3152	1/1	0.94	0.10	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2A	3403	1/1	0.94	0.10	54,54,54,54	0
54	MG	2A	3404	1/1	0.94	0.19	37,37,37,37	0
54	MG	1A	3597	1/1	0.94	0.17	30,30,30,30	0
54	MG	2A	3159	1/1	0.94	0.18	52,52,52,52	0
54	MG	1A	3370	1/1	0.94	0.05	19,19,19,19	0
54	MG	1A	3833	1/1	0.94	0.09	42,42,42,42	0
54	MG	2A	3698	1/1	0.94	0.10	63,63,63,63	0
54	MG	2A	3700	1/1	0.94	0.07	62,62,62,62	0
54	MG	1A	3123	1/1	0.94	0.05	34,34,34,34	0
54	MG	1P	207	1/1	0.94	0.10	34,34,34,34	0
54	MG	1A	3373	1/1	0.94	0.07	35,35,35,35	0
54	MG	2a	3123	1/1	0.94	0.09	76,76,76,76	0
54	MG	1A	3837	1/1	0.94	0.10	28,28,28,28	0
54	MG	2A	3166	1/1	0.94	0.14	39,39,39,39	0
54	MG	1A	3702	1/1	0.94	0.07	66,66,66,66	0
54	MG	2A	3168	1/1	0.94	0.15	49,49,49,49	0
54	MG	1A	3256	1/1	0.94	0.23	35,35,35,35	0
54	MG	2A	3419	1/1	0.94	0.13	54,54,54,54	0
54	MG	2a	3144	1/1	0.94	0.09	60,60,60,60	0
54	MG	2A	3715	1/1	0.94	0.11	48,48,48,48	0
54	MG	1A	3842	1/1	0.94	0.13	55,55,55,55	0
54	MG	1A	3166	1/1	0.94	0.06	31,31,31,31	0
54	MG	2a	3150	1/1	0.94	0.09	49,49,49,49	0
54	MG	2a	3151	1/1	0.94	0.09	75,75,75,75	0
54	MG	1a	1719	1/1	0.94	0.11	54,54,54,54	0
54	MG	2a	3153	1/1	0.94	0.11	56,56,56,56	0
54	MG	1A	3706	1/1	0.94	0.19	24,24,24,24	0
54	MG	2A	3425	1/1	0.94	0.11	60,60,60,60	0
54	MG	1A	3445	1/1	0.94	0.07	34,34,34,34	0
54	MG	2A	3723	1/1	0.94	0.10	42,42,42,42	0
54	MG	2A	3725	1/1	0.94	0.12	62,62,62,62	0
54	MG	1a	1722	1/1	0.94	0.08	54,54,54,54	0
54	MG	1A	3709	1/1	0.94	0.05	21,21,21,21	0
54	MG	1A	3308	1/1	0.94	0.11	32,32,32,32	0
54	MG	2a	3170	1/1	0.94	0.09	69,69,69,69	0
54	MG	1A	3999	1/1	0.94	0.13	48,48,48,48	0
54	MG	1A	3714	1/1	0.94	0.08	37,37,37,37	0
54	MG	2A	3185	1/1	0.94	0.08	48,48,48,48	0
54	MG	2A	3435	1/1	0.94	0.07	59,59,59,59	0
54	MG	2a	3176	1/1	0.94	0.24	65,65,65,65	0
54	MG	1A	3387	1/1	0.94	0.08	24,24,24,24	0
54	MG	2a	3178	1/1	0.94	0.17	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	4004	1/1	0.94	0.10	47,47,47,47	0
54	MG	2A	3438	1/1	0.94	0.09	55,55,55,55	0
54	MG	1a	1729	1/1	0.94	0.10	50,50,50,50	0
54	MG	1A	4005	1/1	0.94	0.08	17,17,17,17	0
54	MG	2A	3192	1/1	0.94	0.07	46,46,46,46	0
54	MG	1A	3857	1/1	0.94	0.09	60,60,60,60	0
54	MG	1A	3133	1/1	0.94	0.07	39,39,39,39	0
54	MG	1a	1735	1/1	0.94	0.08	57,57,57,57	0
54	MG	2A	3446	1/1	0.94	0.07	60,60,60,60	0
54	MG	2A	3448	1/1	0.94	0.09	63,63,63,63	0
54	MG	1a	1736	1/1	0.94	0.09	68,68,68,68	0
54	MG	1A	3011	1/1	0.94	0.17	49,49,49,49	0
54	MG	2A	3451	1/1	0.94	0.09	48,48,48,48	0
54	MG	1A	3455	1/1	0.94	0.06	34,34,34,34	0
54	MG	1A	4010	1/1	0.94	0.20	61,61,61,61	0
54	MG	1A	3311	1/1	0.94	0.09	27,27,27,27	0
54	MG	1a	1741	1/1	0.94	0.06	63,63,63,63	0
54	MG	1A	3463	1/1	0.94	0.06	16,16,16,16	0
54	MG	1A	3265	1/1	0.94	0.18	45,45,45,45	0
54	MG	17	105	1/1	0.94	0.09	47,47,47,47	0
54	MG	2k	201	1/1	0.94	0.15	53,53,53,53	0
54	MG	18	101	1/1	0.94	0.15	44,44,44,44	0
54	MG	1A	3013	1/1	0.94	0.16	46,46,46,46	0
54	MG	19	103	1/1	0.94	0.08	63,63,63,63	0
54	MG	1A	3733	1/1	0.94	0.19	55,55,55,55	0
54	MG	1A	3324	1/1	0.94	0.07	40,40,40,40	0
54	MG	1A	4018	1/1	0.94	0.08	78,78,78,78	0
54	MG	2A	3765	1/1	0.94	0.07	58,58,58,58	0
54	MG	1A	3097	1/1	0.94	0.14	30,30,30,30	0
54	MG	1a	1607	1/1	0.94	0.10	52,52,52,52	0
54	MG	2A	3471	1/1	0.94	0.07	38,38,38,38	0
58	ZN	24	501	1/1	0.94	0.18	149,149,149,149	0
54	MG	1A	3847	1/1	0.95	0.11	44,44,44,44	0
54	MG	1A	3174	1/1	0.95	0.49	39,39,39,39	0
54	MG	2A	3011	1/1	0.95	0.04	21,21,21,21	0
54	MG	2A	3382	1/1	0.95	0.05	40,40,40,40	0
54	MG	1A	3369	1/1	0.95	0.05	23,23,23,23	0
54	MG	1a	1645	1/1	0.95	0.15	55,55,55,55	0
54	MG	2A	3386	1/1	0.95	0.10	50,50,50,50	0
54	MG	1a	1771	1/1	0.95	0.08	69,69,69,69	0
54	MG	2A	3603	1/1	0.95	0.07	45,45,45,45	0
54	MG	2A	3390	1/1	0.95	0.09	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2A	3391	1/1	0.95	0.16	64,64,64,64	0
54	MG	1A	3852	1/1	0.95	0.11	26,26,26,26	0
54	MG	2A	3019	1/1	0.95	0.12	44,44,44,44	0
54	MG	2A	3395	1/1	0.95	0.06	36,36,36,36	0
54	MG	1A	3313	1/1	0.95	0.07	20,20,20,20	0
54	MG	1A	3645	1/1	0.95	0.12	18,18,18,18	0
54	MG	1A	3424	1/1	0.95	0.12	46,46,46,46	0
54	MG	1A	3425	1/1	0.95	0.07	31,31,31,31	0
54	MG	2A	3402	1/1	0.95	0.14	65,65,65,65	0
54	MG	1A	3427	1/1	0.95	0.07	44,44,44,44	0
54	MG	2A	3200	1/1	0.95	0.26	55,55,55,55	0
54	MG	2A	3620	1/1	0.95	0.07	38,38,38,38	0
54	MG	1A	3570	1/1	0.95	0.07	33,33,33,33	0
54	MG	1A	3057	1/1	0.95	0.12	55,55,55,55	0
54	MG	2A	3029	1/1	0.95	0.11	39,39,39,39	0
54	MG	1A	3323	1/1	0.95	0.15	27,27,27,27	0
54	MG	2a	3014	1/1	0.95	0.14	52,52,52,52	0
54	MG	2A	3031	1/1	0.95	0.17	47,47,47,47	0
54	MG	2A	3626	1/1	0.95	0.07	60,60,60,60	0
54	MG	2A	3628	1/1	0.95	0.08	65,65,65,65	0
54	MG	2a	3018	1/1	0.95	0.22	65,65,65,65	0
54	MG	1A	3989	1/1	0.95	0.11	55,55,55,55	0
54	MG	1A	3135	1/1	0.95	0.14	41,41,41,41	0
54	MG	2a	3022	1/1	0.95	0.05	40,40,40,40	0
54	MG	1E	310	1/1	0.95	0.14	54,54,54,54	0
54	MG	2A	3642	1/1	0.95	0.17	76,76,76,76	0
54	MG	1A	3505	1/1	0.95	0.12	51,51,51,51	0
54	MG	1F	310	1/1	0.95	0.26	35,35,35,35	0
54	MG	2A	3039	1/1	0.95	0.09	45,45,45,45	0
54	MG	2A	3040	1/1	0.95	0.05	20,20,20,20	0
54	MG	1F	311	1/1	0.95	0.22	35,35,35,35	0
54	MG	1A	3376	1/1	0.95	0.07	27,27,27,27	0
54	MG	1A	3875	1/1	0.95	0.06	45,45,45,45	0
54	MG	2A	3219	1/1	0.95	0.20	44,44,44,44	0
54	MG	1A	3325	1/1	0.95	0.06	33,33,33,33	0
54	MG	1A	3995	1/1	0.95	0.09	12,12,12,12	0
54	MG	1A	3384	1/1	0.95	0.07	15,15,15,15	0
54	MG	1A	3997	1/1	0.95	0.17	34,34,34,34	0
54	MG	2A	3670	1/1	0.95	0.09	52,52,52,52	0
54	MG	1A	3761	1/1	0.95	0.11	50,50,50,50	0
54	MG	1A	3580	1/1	0.95	0.09	30,30,30,30	0
54	MG	1A	3438	1/1	0.95	0.07	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1N	3302	1/1	0.95	0.12	43,43,43,43	0
54	MG	2A	3054	1/1	0.95	0.19	52,52,52,52	0
54	MG	1A	3180	1/1	0.95	0.13	32,32,32,32	0
54	MG	2A	3231	1/1	0.95	0.07	54,54,54,54	0
54	MG	1A	3136	1/1	0.95	0.05	29,29,29,29	0
54	MG	2A	3057	1/1	0.95	0.09	46,46,46,46	0
54	MG	1A	3336	1/1	0.95	0.09	56,56,56,56	0
54	MG	1A	3289	1/1	0.95	0.07	44,44,44,44	0
54	MG	1A	3207	1/1	0.95	0.30	22,22,22,22	0
54	MG	1A	3900	1/1	0.95	0.09	12,12,12,12	0
54	MG	2A	3066	1/1	0.95	0.11	52,52,52,52	0
54	MG	1Q	201	1/1	0.95	0.25	31,31,31,31	0
54	MG	2a	3055	1/1	0.95	0.10	56,56,56,56	0
54	MG	1A	3588	1/1	0.95	0.07	40,40,40,40	0
54	MG	2A	3447	1/1	0.95	0.07	41,41,41,41	0
54	MG	1A	3521	1/1	0.95	0.33	22,22,22,22	0
54	MG	2A	3072	1/1	0.95	0.24	43,43,43,43	0
54	MG	1A	3208	1/1	0.95	0.33	28,28,28,28	0
54	MG	1A	3779	1/1	0.95	0.10	67,67,67,67	0
54	MG	1A	4013	1/1	0.95	0.09	43,43,43,43	0
54	MG	1A	3211	1/1	0.95	0.14	26,26,26,26	0
54	MG	2A	3701	1/1	0.95	0.09	55,55,55,55	0
54	MG	1A	3118	1/1	0.95	0.21	47,47,47,47	0
54	MG	2A	3250	1/1	0.95	0.25	40,40,40,40	0
54	MG	1U	203	1/1	0.95	0.15	45,45,45,45	0
54	MG	1A	3528	1/1	0.95	0.07	42,42,42,42	0
54	MG	2A	3458	1/1	0.95	0.09	55,55,55,55	0
54	MG	2A	3258	1/1	0.95	0.17	46,46,46,46	0
54	MG	2A	3709	1/1	0.95	0.07	70,70,70,70	0
54	MG	1A	3594	1/1	0.95	0.16	28,28,28,28	0
54	MG	2a	3076	1/1	0.95	0.14	61,61,61,61	0
54	MG	2A	3711	1/1	0.95	0.07	59,59,59,59	0
54	MG	2a	3078	1/1	0.95	0.15	61,61,61,61	0
54	MG	1A	3399	1/1	0.95	0.06	42,42,42,42	0
54	MG	1a	1703	1/1	0.95	0.12	61,61,61,61	0
54	MG	1W	201	1/1	0.95	0.08	45,45,45,45	0
54	MG	2A	3465	1/1	0.95	0.06	59,59,59,59	0
54	MG	2A	3087	1/1	0.95	0.08	63,63,63,63	0
54	MG	1A	3918	1/1	0.95	0.15	37,37,37,37	0
54	MG	1A	3400	1/1	0.95	0.06	19,19,19,19	0
54	MG	1A	3787	1/1	0.95	0.12	50,50,50,50	0
54	MG	1a	1708	1/1	0.95	0.09	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2A	3270	1/1	0.95	0.07	44,44,44,44	0
54	MG	2A	3724	1/1	0.95	0.12	61,61,61,61	0
54	MG	2A	3271	1/1	0.95	0.13	17,17,17,17	0
54	MG	1A	3458	1/1	0.95	0.10	39,39,39,39	0
54	MG	10	104	1/1	0.95	0.06	42,42,42,42	0
54	MG	1A	3533	1/1	0.95	0.24	52,52,52,52	0
54	MG	1A	3924	1/1	0.95	0.07	67,67,67,67	0
54	MG	2A	3099	1/1	0.95	0.11	50,50,50,50	0
54	MG	2A	3100	1/1	0.95	0.35	65,65,65,65	0
54	MG	2A	3282	1/1	0.95	0.07	56,56,56,56	0
54	MG	1A	3345	1/1	0.95	0.07	37,37,37,37	0
54	MG	1a	1716	1/1	0.95	0.08	44,44,44,44	0
54	MG	11	101	1/1	0.95	0.11	36,36,36,36	0
54	MG	2a	3108	1/1	0.95	0.11	60,60,60,60	0
54	MG	1A	3535	1/1	0.95	0.06	24,24,24,24	0
54	MG	1A	3927	1/1	0.95	0.07	54,54,54,54	0
54	MG	1A	3795	1/1	0.95	0.38	47,47,47,47	0
54	MG	13	103	1/1	0.95	0.16	43,43,43,43	0
54	MG	1A	4036	1/1	0.95	0.19	32,32,32,32	0
54	MG	1A	3929	1/1	0.95	0.06	58,58,58,58	0
54	MG	2A	3299	1/1	0.95	0.15	44,44,44,44	0
54	MG	1A	3119	1/1	0.95	0.22	51,51,51,51	0
54	MG	1A	4040	1/1	0.95	0.20	48,48,48,48	0
54	MG	2A	3501	1/1	0.95	0.08	48,48,48,48	0
54	MG	1A	3695	1/1	0.95	0.14	65,65,65,65	0
54	MG	1A	3164	1/1	0.95	0.06	43,43,43,43	0
54	MG	2a	3122	1/1	0.95	0.12	53,53,53,53	0
54	MG	19	101	1/1	0.95	0.09	46,46,46,46	0
54	MG	1A	3698	1/1	0.95	0.06	33,33,33,33	0
54	MG	2a	3126	1/1	0.95	0.07	64,64,64,64	0
54	MG	2a	3127	1/1	0.95	0.08	67,67,67,67	0
54	MG	2A	3308	1/1	0.95	0.06	47,47,47,47	0
54	MG	1A	3300	1/1	0.95	0.14	32,32,32,32	0
54	MG	2a	3137	1/1	0.95	0.07	41,41,41,41	0
54	MG	2A	3311	1/1	0.95	0.08	61,61,61,61	0
54	MG	1a	1868	1/1	0.95	0.07	61,61,61,61	0
54	MG	1A	3805	1/1	0.95	0.10	58,58,58,58	0
54	MG	1A	3077	1/1	0.95	0.13	30,30,30,30	0
54	MG	1A	3469	1/1	0.95	0.06	30,30,30,30	0
54	MG	1a	1606	1/1	0.95	0.15	53,53,53,53	0
54	MG	1A	3407	1/1	0.95	0.07	25,25,25,25	0
54	MG	2A	3327	1/1	0.95	0.07	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2A	3131	1/1	0.95	0.07	65,65,65,65	0
54	MG	1A	3704	1/1	0.95	0.16	35,35,35,35	0
54	MG	1A	4052	1/1	0.95	0.09	62,62,62,62	0
54	MG	1A	3121	1/1	0.95	0.06	44,44,44,44	0
54	MG	2B	201	1/1	0.95	0.08	72,72,72,72	0
54	MG	2A	3135	1/1	0.95	0.10	50,50,50,50	0
54	MG	2a	3160	1/1	0.95	0.07	50,50,50,50	0
54	MG	1A	3816	1/1	0.95	0.06	27,27,27,27	0
54	MG	1B	202	1/1	0.95	0.28	58,58,58,58	0
54	MG	1A	3473	1/1	0.95	0.07	20,20,20,20	0
54	MG	1A	3819	1/1	0.95	0.10	44,44,44,44	0
54	MG	1a	1616	1/1	0.95	0.09	59,59,59,59	0
54	MG	2A	3534	1/1	0.95	0.11	67,67,67,67	0
54	MG	2A	3339	1/1	0.95	0.06	38,38,38,38	0
54	MG	2A	3341	1/1	0.95	0.09	44,44,44,44	0
54	MG	2B	211	1/1	0.95	0.22	67,67,67,67	0
54	MG	1A	3304	1/1	0.95	0.10	47,47,47,47	0
54	MG	1A	3032	1/1	0.95	0.05	48,48,48,48	0
54	MG	1A	3622	1/1	0.95	0.19	40,40,40,40	0
54	MG	2B	215	1/1	0.95	0.08	63,63,63,63	0
54	MG	1A	3360	1/1	0.95	0.08	55,55,55,55	0
54	MG	2B	217	1/1	0.95	0.07	60,60,60,60	0
54	MG	1A	3552	1/1	0.95	0.07	13,13,13,13	0
54	MG	2B	220	1/1	0.95	0.07	67,67,67,67	0
54	MG	1m	202	1/1	0.95	0.10	58,58,58,58	0
54	MG	2A	3154	1/1	0.95	0.17	59,59,59,59	0
54	MG	1A	3830	1/1	0.95	0.13	46,46,46,46	0
54	MG	2a	3189	1/1	0.95	0.11	51,51,51,51	0
54	MG	2A	3553	1/1	0.95	0.12	60,60,60,60	0
54	MG	1a	1624	1/1	0.95	0.06	38,38,38,38	0
54	MG	1o	101	1/1	0.95	0.13	61,61,61,61	0
54	MG	1A	3625	1/1	0.95	0.14	20,20,20,20	0
54	MG	1a	1626	1/1	0.95	0.06	49,49,49,49	0
54	MG	1B	215	1/1	0.95	0.11	65,65,65,65	0
54	MG	1a	1629	1/1	0.95	0.21	50,50,50,50	0
54	MG	1A	3717	1/1	0.95	0.16	55,55,55,55	0
54	MG	2F	303	1/1	0.95	0.12	49,49,49,49	0
54	MG	1A	3480	1/1	0.95	0.11	47,47,47,47	0
54	MG	1A	3019	1/1	0.95	0.31	43,43,43,43	0
54	MG	1A	3278	1/1	0.95	0.10	65,65,65,65	0
54	MG	1A	3727	1/1	0.95	0.06	23,23,23,23	0
54	MG	2A	3571	1/1	0.95	0.12	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2O	201	1/1	0.95	0.12	52,52,52,52	0
54	MG	2A	3573	1/1	0.95	0.07	55,55,55,55	0
55	MUL	2A	3771	34/34	0.95	0.12	32,39,55,61	0
54	MG	1A	3484	1/1	0.95	0.07	33,33,33,33	0
56	ARG	1B	232	12/12	0.95	0.10	29,43,50,55	0
54	MG	1A	3279	1/1	0.95	0.05	28,28,28,28	0
54	MG	1A	3635	1/1	0.95	0.08	51,51,51,51	0
54	MG	1A	3193	1/1	0.95	0.12	28,28,28,28	0
54	MG	2A	3003	1/1	0.95	0.23	60,60,60,60	0
54	MG	2A	3581	1/1	0.95	0.06	55,55,55,55	0
54	MG	2A	3005	1/1	0.95	0.07	48,48,48,48	0
54	MG	2T	202	1/1	0.95	0.06	55,55,55,55	0
54	MG	2A	3589	1/1	0.95	0.07	36,36,36,36	0
58	ZN	2n	501	1/1	0.95	0.08	95,95,95,95	0
54	MG	1A	3037	1/1	0.96	0.05	48,48,48,48	0
54	MG	2B	218	1/1	0.96	0.06	76,76,76,76	0
54	MG	1A	3238	1/1	0.96	0.13	53,53,53,53	0
54	MG	1Y	202	1/1	0.96	0.07	64,64,64,64	0
54	MG	2D	301	1/1	0.96	0.14	47,47,47,47	0
54	MG	1A	3314	1/1	0.96	0.09	23,23,23,23	0
54	MG	10	102	1/1	0.96	0.23	39,39,39,39	0
54	MG	1A	3317	1/1	0.96	0.06	18,18,18,18	0
54	MG	2D	306	1/1	0.96	0.16	48,48,48,48	0
54	MG	1A	3241	1/1	0.96	0.39	31,31,31,31	0
54	MG	2A	3049	1/1	0.96	0.08	38,38,38,38	0
54	MG	1A	3065	1/1	0.96	0.06	32,32,32,32	0
54	MG	1A	3247	1/1	0.96	0.13	31,31,31,31	0
54	MG	1A	3069	1/1	0.96	0.05	31,31,31,31	0
54	MG	2A	3274	1/1	0.96	0.10	42,42,42,42	0
54	MG	1A	4001	1/1	0.96	0.07	39,39,39,39	0
54	MG	1A	3070	1/1	0.96	0.09	32,32,32,32	0
54	MG	1A	4003	1/1	0.96	0.06	56,56,56,56	0
54	MG	2F	305	1/1	0.96	0.06	65,65,65,65	0
54	MG	1A	3329	1/1	0.96	0.11	53,53,53,53	0
54	MG	1A	3331	1/1	0.96	0.06	21,21,21,21	0
54	MG	2A	3058	1/1	0.96	0.15	44,44,44,44	0
54	MG	2A	3524	1/1	0.96	0.07	50,50,50,50	0
54	MG	2A	3284	1/1	0.96	0.07	33,33,33,33	0
54	MG	1A	3071	1/1	0.96	0.14	26,26,26,26	0
54	MG	2A	3286	1/1	0.96	0.07	29,29,29,29	0
54	MG	2A	3529	1/1	0.96	0.10	35,35,35,35	0
54	MG	2A	3530	1/1	0.96	0.07	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2P	202	1/1	0.96	0.05	54,54,54,54	0
54	MG	2A	3287	1/1	0.96	0.10	42,42,42,42	0
54	MG	15	101	1/1	0.96	0.14	37,37,37,37	0
54	MG	1A	3333	1/1	0.96	0.08	46,46,46,46	0
54	MG	1A	3255	1/1	0.96	0.07	40,40,40,40	0
54	MG	2A	3064	1/1	0.96	0.06	52,52,52,52	0
54	MG	2A	3292	1/1	0.96	0.07	37,37,37,37	0
54	MG	15	105	1/1	0.96	0.07	50,50,50,50	0
54	MG	17	101	1/1	0.96	0.14	30,30,30,30	0
54	MG	2A	3295	1/1	0.96	0.13	56,56,56,56	0
54	MG	1A	3073	1/1	0.96	0.23	33,33,33,33	0
54	MG	1A	3722	1/1	0.96	0.16	38,38,38,38	0
54	MG	2A	3550	1/1	0.96	0.07	76,76,76,76	0
54	MG	1A	3257	1/1	0.96	0.10	34,34,34,34	0
54	MG	1A	3259	1/1	0.96	0.07	46,46,46,46	0
54	MG	2A	3074	1/1	0.96	0.14	45,45,45,45	0
54	MG	1A	3861	1/1	0.96	0.05	21,21,21,21	0
54	MG	1A	3075	1/1	0.96	0.14	52,52,52,52	0
54	MG	1A	3614	1/1	0.96	0.08	44,44,44,44	0
54	MG	1A	3867	1/1	0.96	0.05	24,24,24,24	0
54	MG	1A	3869	1/1	0.96	0.11	43,43,43,43	0
54	MG	2A	3562	1/1	0.96	0.06	45,45,45,45	0
54	MG	1A	3729	1/1	0.96	0.16	40,40,40,40	0
54	MG	1A	4020	1/1	0.96	0.09	54,54,54,54	0
54	MG	1A	4021	1/1	0.96	0.11	35,35,35,35	0
54	MG	1A	3730	1/1	0.96	0.12	33,33,33,33	0
54	MG	1A	3873	1/1	0.96	0.07	31,31,31,31	0
54	MG	2A	3086	1/1	0.96	0.06	34,34,34,34	0
54	MG	1a	1611	1/1	0.96	0.15	53,53,53,53	0
54	MG	1A	3616	1/1	0.96	0.06	25,25,25,25	0
54	MG	2A	3325	1/1	0.96	0.06	29,29,29,29	0
54	MG	1A	4027	1/1	0.96	0.12	41,41,41,41	0
54	MG	1A	3524	1/1	0.96	0.05	26,26,26,26	0
54	MG	2a	3012	1/1	0.96	0.06	53,53,53,53	0
54	MG	1A	3343	1/1	0.96	0.12	47,47,47,47	0
54	MG	1a	1789	1/1	0.96	0.08	71,71,71,71	0
54	MG	1A	3124	1/1	0.96	0.08	42,42,42,42	0
54	MG	2A	3587	1/1	0.96	0.06	61,61,61,61	0
54	MG	1A	3529	1/1	0.96	0.07	28,28,28,28	0
54	MG	1A	3132	1/1	0.96	0.18	23,23,23,23	0
54	MG	2A	3591	1/1	0.96	0.05	28,28,28,28	0
54	MG	1A	3348	1/1	0.96	0.06	16,16,16,16	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3017	1/1	0.96	0.28	22,22,22,22	0
54	MG	1A	3040	1/1	0.96	0.07	28,28,28,28	0
54	MG	1A	3890	1/1	0.96	0.10	57,57,57,57	0
54	MG	1A	3744	1/1	0.96	0.07	41,41,41,41	0
54	MG	1A	3041	1/1	0.96	0.11	13,13,13,13	0
54	MG	1A	3895	1/1	0.96	0.09	18,18,18,18	0
54	MG	2a	3028	1/1	0.96	0.08	49,49,49,49	0
54	MG	1A	3896	1/1	0.96	0.06	30,30,30,30	0
54	MG	2A	3604	1/1	0.96	0.06	21,21,21,21	0
54	MG	1A	3270	1/1	0.96	0.26	38,38,38,38	0
54	MG	1a	1807	1/1	0.96	0.17	65,65,65,65	0
54	MG	1A	3536	1/1	0.96	0.14	50,50,50,50	0
54	MG	1a	1631	1/1	0.96	0.09	41,41,41,41	0
54	MG	2A	3609	1/1	0.96	0.12	74,74,74,74	0
54	MG	2A	3113	1/1	0.96	0.08	56,56,56,56	0
54	MG	2A	3352	1/1	0.96	0.14	52,52,52,52	0
54	MG	1a	1632	1/1	0.96	0.06	47,47,47,47	0
54	MG	2A	3115	1/1	0.96	0.06	44,44,44,44	0
54	MG	1A	4045	1/1	0.96	0.25	34,34,34,34	0
54	MG	1A	3630	1/1	0.96	0.09	44,44,44,44	0
54	MG	2A	3616	1/1	0.96	0.06	56,56,56,56	0
54	MG	2A	3359	1/1	0.96	0.09	66,66,66,66	0
54	MG	2A	3618	1/1	0.96	0.05	60,60,60,60	0
54	MG	1A	4047	1/1	0.96	0.06	58,58,58,58	0
54	MG	1A	3902	1/1	0.96	0.13	23,23,23,23	0
54	MG	2A	3363	1/1	0.96	0.06	62,62,62,62	0
54	MG	2A	3122	1/1	0.96	0.28	47,47,47,47	0
54	MG	1A	3138	1/1	0.96	0.04	29,29,29,29	0
54	MG	1a	1817	1/1	0.96	0.09	66,66,66,66	0
54	MG	1A	3752	1/1	0.96	0.08	45,45,45,45	0
54	MG	1a	1819	1/1	0.96	0.08	46,46,46,46	0
54	MG	1A	3753	1/1	0.96	0.07	40,40,40,40	0
54	MG	1A	3632	1/1	0.96	0.10	57,57,57,57	0
54	MG	1A	3045	1/1	0.96	0.21	39,39,39,39	0
54	MG	1A	3275	1/1	0.96	0.26	39,39,39,39	0
54	MG	1A	3759	1/1	0.96	0.06	32,32,32,32	0
54	MG	1B	203	1/1	0.96	0.05	38,38,38,38	0
54	MG	1a	1646	1/1	0.96	0.12	46,46,46,46	0
54	MG	2A	3378	1/1	0.96	0.08	43,43,43,43	0
54	MG	1a	1647	1/1	0.96	0.10	55,55,55,55	0
54	MG	2a	3063	1/1	0.96	0.15	57,57,57,57	0
54	MG	2A	3648	1/1	0.96	0.12	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3047	1/1	0.96	0.12	34,34,34,34	0
54	MG	2A	3650	1/1	0.96	0.07	49,49,49,49	0
54	MG	2A	3652	1/1	0.96	0.07	49,49,49,49	0
54	MG	2A	3653	1/1	0.96	0.05	42,42,42,42	0
54	MG	2A	3140	1/1	0.96	0.08	40,40,40,40	0
54	MG	1A	3638	1/1	0.96	0.06	42,42,42,42	0
54	MG	1a	1650	1/1	0.96	0.09	41,41,41,41	0
54	MG	1A	3447	1/1	0.96	0.08	51,51,51,51	0
54	MG	2A	3659	1/1	0.96	0.07	36,36,36,36	0
54	MG	2A	3385	1/1	0.96	0.04	29,29,29,29	0
54	MG	2A	3662	1/1	0.96	0.09	58,58,58,58	0
54	MG	1A	3641	1/1	0.96	0.13	57,57,57,57	0
54	MG	1A	3277	1/1	0.96	0.12	51,51,51,51	0
54	MG	1A	3922	1/1	0.96	0.10	40,40,40,40	0
54	MG	2A	3672	1/1	0.96	0.07	45,45,45,45	0
54	MG	2A	3673	1/1	0.96	0.05	34,34,34,34	0
54	MG	1A	3449	1/1	0.96	0.07	33,33,33,33	0
54	MG	2a	3085	1/1	0.96	0.09	64,64,64,64	0
54	MG	2A	3392	1/1	0.96	0.08	29,29,29,29	0
54	MG	1A	3768	1/1	0.96	0.09	39,39,39,39	0
54	MG	2a	3088	1/1	0.96	0.07	41,41,41,41	0
54	MG	1A	3143	1/1	0.96	0.13	32,32,32,32	0
54	MG	1A	3547	1/1	0.96	0.08	48,48,48,48	0
54	MG	1A	3089	1/1	0.96	0.16	24,24,24,24	0
54	MG	2A	3156	1/1	0.96	0.29	47,47,47,47	0
54	MG	2a	3093	1/1	0.96	0.07	57,57,57,57	0
54	MG	2a	3095	1/1	0.96	0.14	50,50,50,50	0
54	MG	1A	3365	1/1	0.96	0.11	47,47,47,47	0
54	MG	1A	3774	1/1	0.96	0.08	31,31,31,31	0
54	MG	1A	3457	1/1	0.96	0.07	47,47,47,47	0
54	MG	1a	1853	1/1	0.96	0.10	58,58,58,58	0
54	MG	1A	3933	1/1	0.96	0.05	41,41,41,41	0
54	MG	2A	3405	1/1	0.96	0.10	56,56,56,56	0
54	MG	1a	1855	1/1	0.96	0.08	79,79,79,79	0
54	MG	1A	3776	1/1	0.96	0.07	26,26,26,26	0
54	MG	1A	3007	1/1	0.96	0.05	32,32,32,32	0
54	MG	2a	3105	1/1	0.96	0.14	52,52,52,52	0
54	MG	1A	3459	1/1	0.96	0.06	14,14,14,14	0
54	MG	1a	1861	1/1	0.96	0.11	61,61,61,61	0
54	MG	1A	3461	1/1	0.96	0.05	19,19,19,19	0
54	MG	1A	3198	1/1	0.96	0.13	44,44,44,44	0
54	MG	2A	3696	1/1	0.96	0.11	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3557	1/1	0.96	0.10	35,35,35,35	0
54	MG	1A	3658	1/1	0.96	0.07	31,31,31,31	0
54	MG	2A	3699	1/1	0.96	0.06	43,43,43,43	0
54	MG	2A	3175	1/1	0.96	0.11	51,51,51,51	0
54	MG	1A	3199	1/1	0.96	0.25	46,46,46,46	0
54	MG	1A	3201	1/1	0.96	0.13	39,39,39,39	0
54	MG	1A	3049	1/1	0.96	0.17	30,30,30,30	0
54	MG	1D	305	1/1	0.96	0.12	38,38,38,38	0
54	MG	1A	3945	1/1	0.96	0.07	56,56,56,56	0
54	MG	1a	1678	1/1	0.96	0.18	64,64,64,64	0
54	MG	1D	310	1/1	0.96	0.19	31,31,31,31	0
54	MG	1A	3015	1/1	0.96	0.20	31,31,31,31	0
54	MG	1D	312	1/1	0.96	0.14	53,53,53,53	0
54	MG	1a	1682	1/1	0.96	0.17	60,60,60,60	0
54	MG	1d	304	1/1	0.96	0.11	80,80,80,80	0
54	MG	1a	1683	1/1	0.96	0.07	53,53,53,53	0
54	MG	2a	3131	1/1	0.96	0.07	74,74,74,74	0
54	MG	2A	3190	1/1	0.96	0.20	61,61,61,61	0
54	MG	2a	3136	1/1	0.96	0.06	68,68,68,68	0
54	MG	2A	3432	1/1	0.96	0.07	54,54,54,54	0
54	MG	2A	3191	1/1	0.96	0.10	49,49,49,49	0
54	MG	1A	3563	1/1	0.96	0.09	35,35,35,35	0
54	MG	2a	3142	1/1	0.96	0.06	71,71,71,71	0
54	MG	1A	3054	1/1	0.96	0.16	52,52,52,52	0
54	MG	1A	3152	1/1	0.96	0.37	36,36,36,36	0
54	MG	2A	3196	1/1	0.96	0.19	64,64,64,64	0
54	MG	1A	3154	1/1	0.96	0.15	27,27,27,27	0
54	MG	1E	305	1/1	0.96	0.08	43,43,43,43	0
54	MG	2a	3148	1/1	0.96	0.07	59,59,59,59	0
54	MG	2a	3149	1/1	0.96	0.07	35,35,35,35	0
54	MG	1A	3024	1/1	0.96	0.32	37,37,37,37	0
54	MG	1A	3670	1/1	0.96	0.07	44,44,44,44	0
54	MG	1A	3798	1/1	0.96	0.07	36,36,36,36	0
54	MG	2A	3728	1/1	0.96	0.08	48,48,48,48	0
54	MG	1l	201	1/1	0.96	0.08	49,49,49,49	0
54	MG	1F	302	1/1	0.96	0.15	29,29,29,29	0
54	MG	1F	305	1/1	0.96	0.13	33,33,33,33	0
54	MG	1A	3955	1/1	0.96	0.06	39,39,39,39	0
54	MG	1F	309	1/1	0.96	0.08	28,28,28,28	0
54	MG	1A	3957	1/1	0.96	0.05	27,27,27,27	0
54	MG	1A	3799	1/1	0.96	0.16	29,29,29,29	0
54	MG	1A	3474	1/1	0.96	0.05	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2A	3213	1/1	0.96	0.07	61,61,61,61	0
54	MG	2A	3740	1/1	0.96	0.10	51,51,51,51	0
54	MG	1F	313	1/1	0.96	0.20	46,46,46,46	0
54	MG	1A	3673	1/1	0.96	0.15	37,37,37,37	0
54	MG	1A	3803	1/1	0.96	0.09	54,54,54,54	0
54	MG	1A	3962	1/1	0.96	0.15	48,48,48,48	0
54	MG	1A	3157	1/1	0.96	0.09	34,34,34,34	0
54	MG	1A	3476	1/1	0.96	0.05	34,34,34,34	0
54	MG	1A	3214	1/1	0.96	0.13	24,24,24,24	0
54	MG	1A	3679	1/1	0.96	0.12	47,47,47,47	0
54	MG	1A	3971	1/1	0.96	0.05	46,46,46,46	0
54	MG	1A	3809	1/1	0.96	0.13	37,37,37,37	0
54	MG	1A	3215	1/1	0.96	0.08	40,40,40,40	0
54	MG	2a	3185	1/1	0.96	0.06	60,60,60,60	0
54	MG	1N	3304	1/1	0.96	0.09	56,56,56,56	0
54	MG	2A	3226	1/1	0.96	0.07	59,59,59,59	0
54	MG	1A	3811	1/1	0.96	0.16	31,31,31,31	0
54	MG	1P	201	1/1	0.96	0.21	27,27,27,27	0
54	MG	1A	3812	1/1	0.96	0.12	55,55,55,55	0
54	MG	1A	3033	1/1	0.96	0.06	34,34,34,34	0
54	MG	1A	3108	1/1	0.96	0.13	28,28,28,28	0
54	MG	2A	3474	1/1	0.96	0.06	51,51,51,51	0
54	MG	1A	3016	1/1	0.96	0.07	19,19,19,19	0
54	MG	1A	3817	1/1	0.96	0.07	37,37,37,37	0
54	MG	1Q	207	1/1	0.96	0.07	41,41,41,41	0
54	MG	1R	205	1/1	0.96	0.06	34,34,34,34	0
54	MG	2A	3236	1/1	0.96	0.53	40,40,40,40	0
54	MG	1A	3111	1/1	0.96	0.08	43,43,43,43	0
54	MG	1A	3306	1/1	0.96	0.06	17,17,17,17	0
54	MG	1A	3689	1/1	0.96	0.14	34,34,34,34	0
54	MG	1A	3225	1/1	0.96	0.25	29,29,29,29	0
54	MG	1A	3984	1/1	0.96	0.06	41,41,41,41	0
54	MG	1A	3492	1/1	0.96	0.07	46,46,46,46	0
54	MG	1A	3114	1/1	0.96	0.07	19,19,19,19	0
54	MG	2A	3491	1/1	0.96	0.06	58,58,58,58	0
54	MG	1U	201	1/1	0.96	0.13	20,20,20,20	0
54	MG	1A	3494	1/1	0.96	0.08	18,18,18,18	0
54	MG	1U	206	1/1	0.96	0.37	40,40,40,40	0
57	MPD	18	103	8/8	0.96	0.11	28,32,35,37	0
54	MG	2A	3247	1/1	0.96	0.17	48,48,48,48	0
54	MG	1U	207	1/1	0.96	0.16	37,37,37,37	0
54	MG	1A	3829	1/1	0.96	0.06	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3227	1/1	0.96	0.51	37,37,37,37	0
54	MG	1A	3229	1/1	0.96	0.23	33,33,33,33	0
54	MG	1A	3116	1/1	0.96	0.07	34,34,34,34	0
54	MG	1W	202	1/1	0.96	0.15	28,28,28,28	0
54	MG	1W	203	1/1	0.96	0.09	35,35,35,35	0
54	MG	17	104	1/1	0.97	0.17	46,46,46,46	0
54	MG	1A	3888	1/1	0.97	0.04	29,29,29,29	0
54	MG	1A	3321	1/1	0.97	0.05	27,27,27,27	0
54	MG	1A	3248	1/1	0.97	0.09	51,51,51,51	0
54	MG	1A	3412	1/1	0.97	0.05	22,22,22,22	0
54	MG	2A	3060	1/1	0.97	0.11	32,32,32,32	0
54	MG	1A	3518	1/1	0.97	0.10	51,51,51,51	0
54	MG	1A	3145	1/1	0.97	0.05	33,33,33,33	0
54	MG	2D	305	1/1	0.97	0.12	33,33,33,33	0
54	MG	1A	4037	1/1	0.97	0.09	32,32,32,32	0
54	MG	1A	3005	1/1	0.97	0.04	18,18,18,18	0
54	MG	2A	3065	1/1	0.97	0.12	47,47,47,47	0
54	MG	2A	3520	1/1	0.97	0.12	40,40,40,40	0
54	MG	1A	3417	1/1	0.97	0.07	36,36,36,36	0
54	MG	2A	3067	1/1	0.97	0.12	36,36,36,36	0
54	MG	2A	3283	1/1	0.97	0.04	34,34,34,34	0
54	MG	2E	307	1/1	0.97	0.05	24,24,24,24	0
54	MG	1A	3252	1/1	0.97	0.20	33,33,33,33	0
54	MG	1A	3113	1/1	0.97	0.26	32,32,32,32	0
54	MG	1A	3626	1/1	0.97	0.09	35,35,35,35	0
54	MG	1A	3254	1/1	0.97	0.10	34,34,34,34	0
54	MG	1A	3525	1/1	0.97	0.06	31,31,31,31	0
54	MG	1A	3055	1/1	0.97	0.07	20,20,20,20	0
54	MG	2A	3532	1/1	0.97	0.05	73,73,73,73	0
54	MG	1A	3149	1/1	0.97	0.15	34,34,34,34	0
54	MG	1A	3758	1/1	0.97	0.05	31,31,31,31	0
54	MG	1A	3150	1/1	0.97	0.10	51,51,51,51	0
54	MG	1A	3912	1/1	0.97	0.05	51,51,51,51	0
54	MG	1A	3913	1/1	0.97	0.13	40,40,40,40	0
54	MG	1A	3914	1/1	0.97	0.04	47,47,47,47	0
54	MG	1a	1788	1/1	0.97	0.07	64,64,64,64	0
54	MG	2A	3297	1/1	0.97	0.08	37,37,37,37	0
54	MG	2Q	201	1/1	0.97	0.06	47,47,47,47	0
54	MG	2A	3542	1/1	0.97	0.06	58,58,58,58	0
54	MG	2A	3082	1/1	0.97	0.19	35,35,35,35	0
54	MG	1A	3334	1/1	0.97	0.04	22,22,22,22	0
54	MG	1A	3195	1/1	0.97	0.06	35,35,35,35	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2A	3548	1/1	0.97	0.05	50,50,50,50	0
54	MG	1A	3634	1/1	0.97	0.08	26,26,26,26	0
54	MG	1a	1792	1/1	0.97	0.12	46,46,46,46	0
54	MG	2A	3552	1/1	0.97	0.08	60,60,60,60	0
54	MG	2V	204	1/1	0.97	0.08	54,54,54,54	0
54	MG	1A	3029	1/1	0.97	0.07	32,32,32,32	0
54	MG	2A	3304	1/1	0.97	0.07	31,31,31,31	0
54	MG	1A	3078	1/1	0.97	0.14	33,33,33,33	0
54	MG	1A	3020	1/1	0.97	0.26	33,33,33,33	0
54	MG	2A	3090	1/1	0.97	0.04	43,43,43,43	0
54	MG	2A	3309	1/1	0.97	0.06	34,34,34,34	0
54	MG	1A	3080	1/1	0.97	0.41	34,34,34,34	0
54	MG	1A	3342	1/1	0.97	0.06	20,20,20,20	0
54	MG	1a	1801	1/1	0.97	0.05	67,67,67,67	0
54	MG	2A	3313	1/1	0.97	0.09	41,41,41,41	0
54	MG	2A	3566	1/1	0.97	0.13	64,64,64,64	0
54	MG	2A	3314	1/1	0.97	0.11	32,32,32,32	0
54	MG	2A	3568	1/1	0.97	0.05	41,41,41,41	0
54	MG	1A	3434	1/1	0.97	0.05	37,37,37,37	0
54	MG	1a	1628	1/1	0.97	0.05	42,42,42,42	0
54	MG	1A	3267	1/1	0.97	0.16	47,47,47,47	0
54	MG	2A	3320	1/1	0.97	0.05	45,45,45,45	0
54	MG	2A	3321	1/1	0.97	0.04	29,29,29,29	0
54	MG	2A	3097	1/1	0.97	0.16	47,47,47,47	0
54	MG	2A	3323	1/1	0.97	0.07	43,43,43,43	0
54	MG	1A	3081	1/1	0.97	0.16	32,32,32,32	0
54	MG	1A	3439	1/1	0.97	0.06	39,39,39,39	0
54	MG	1A	3001	1/1	0.97	0.04	32,32,32,32	0
54	MG	1A	3347	1/1	0.97	0.04	34,34,34,34	0
54	MG	2A	3584	1/1	0.97	0.05	60,60,60,60	0
54	MG	2A	3585	1/1	0.97	0.08	62,62,62,62	0
54	MG	1B	214	1/1	0.97	0.13	48,48,48,48	0
54	MG	1A	3930	1/1	0.97	0.05	19,19,19,19	0
54	MG	1A	3543	1/1	0.97	0.08	49,49,49,49	0
54	MG	1A	3650	1/1	0.97	0.05	41,41,41,41	0
54	MG	1A	3203	1/1	0.97	0.17	36,36,36,36	0
54	MG	2A	3109	1/1	0.97	0.05	37,37,37,37	0
54	MG	1A	3204	1/1	0.97	0.36	45,45,45,45	0
54	MG	1a	1640	1/1	0.97	0.15	56,56,56,56	0
54	MG	1A	3160	1/1	0.97	0.05	27,27,27,27	0
54	MG	1A	3654	1/1	0.97	0.05	44,44,44,44	0
54	MG	2A	3600	1/1	0.97	0.08	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3784	1/1	0.97	0.05	82,82,82,82	0
54	MG	1A	3352	1/1	0.97	0.05	30,30,30,30	0
54	MG	1A	3022	1/1	0.97	0.18	25,25,25,25	0
54	MG	1A	3162	1/1	0.97	0.23	27,27,27,27	0
54	MG	1A	3551	1/1	0.97	0.20	35,35,35,35	0
54	MG	2A	3119	1/1	0.97	0.10	38,38,38,38	0
54	MG	1A	3209	1/1	0.97	0.13	41,41,41,41	0
54	MG	1A	3210	1/1	0.97	0.20	31,31,31,31	0
54	MG	1a	1826	1/1	0.97	0.10	50,50,50,50	0
54	MG	1A	3064	1/1	0.97	0.17	35,35,35,35	0
54	MG	2A	3354	1/1	0.97	0.09	52,52,52,52	0
54	MG	1a	1651	1/1	0.97	0.15	49,49,49,49	0
54	MG	1D	301	1/1	0.97	0.07	46,46,46,46	0
54	MG	1A	3793	1/1	0.97	0.08	42,42,42,42	0
54	MG	2A	3358	1/1	0.97	0.04	31,31,31,31	0
54	MG	1D	304	1/1	0.97	0.06	37,37,37,37	0
54	MG	1A	3091	1/1	0.97	0.11	33,33,33,33	0
54	MG	2A	3361	1/1	0.97	0.06	46,46,46,46	0
54	MG	1a	1835	1/1	0.97	0.06	72,72,72,72	0
54	MG	1D	308	1/1	0.97	0.13	31,31,31,31	0
54	MG	1A	3456	1/1	0.97	0.08	55,55,55,55	0
54	MG	2A	3365	1/1	0.97	0.05	60,60,60,60	0
54	MG	2A	3366	1/1	0.97	0.06	40,40,40,40	0
54	MG	1A	3125	1/1	0.97	0.09	40,40,40,40	0
54	MG	1A	3362	1/1	0.97	0.06	25,25,25,25	0
54	MG	1A	3952	1/1	0.97	0.11	46,46,46,46	0
54	MG	2A	3629	1/1	0.97	0.06	68,68,68,68	0
54	MG	2A	3137	1/1	0.97	0.15	46,46,46,46	0
54	MG	1A	3008	1/1	0.97	0.05	38,38,38,38	0
54	MG	1A	3068	1/1	0.97	0.29	23,23,23,23	0
54	MG	2A	3635	1/1	0.97	0.06	64,64,64,64	0
54	MG	2A	3636	1/1	0.97	0.07	80,80,80,80	0
54	MG	2A	3641	1/1	0.97	0.07	46,46,46,46	0
54	MG	1A	3216	1/1	0.97	0.21	40,40,40,40	0
54	MG	1E	301	1/1	0.97	0.11	28,28,28,28	0
54	MG	2A	3145	1/1	0.97	0.10	49,49,49,49	0
54	MG	1A	3956	1/1	0.97	0.22	38,38,38,38	0
54	MG	2A	3147	1/1	0.97	0.07	56,56,56,56	0
54	MG	1A	3169	1/1	0.97	0.15	27,27,27,27	0
54	MG	1A	3170	1/1	0.97	0.22	29,29,29,29	0
54	MG	1A	3291	1/1	0.97	0.12	33,33,33,33	0
54	MG	2a	3069	1/1	0.97	0.21	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2A	3651	1/1	0.97	0.09	48,48,48,48	0
54	MG	1E	309	1/1	0.97	0.05	24,24,24,24	0
54	MG	1A	3219	1/1	0.97	0.07	35,35,35,35	0
54	MG	1F	301	1/1	0.97	0.09	26,26,26,26	0
54	MG	1A	3678	1/1	0.97	0.07	29,29,29,29	0
54	MG	2A	3155	1/1	0.97	0.07	72,72,72,72	0
54	MG	1a	1859	1/1	0.97	0.08	66,66,66,66	0
54	MG	2A	3157	1/1	0.97	0.11	46,46,46,46	0
54	MG	2A	3158	1/1	0.97	0.24	47,47,47,47	0
54	MG	2A	3661	1/1	0.97	0.07	64,64,64,64	0
54	MG	1A	3568	1/1	0.97	0.07	42,42,42,42	0
54	MG	1a	1862	1/1	0.97	0.07	26,26,26,26	0
54	MG	1A	3468	1/1	0.97	0.08	25,25,25,25	0
54	MG	2A	3666	1/1	0.97	0.08	61,61,61,61	0
54	MG	1A	3681	1/1	0.97	0.10	46,46,46,46	0
54	MG	1A	3967	1/1	0.97	0.09	47,47,47,47	0
54	MG	2A	3396	1/1	0.97	0.06	36,36,36,36	0
54	MG	1A	3371	1/1	0.97	0.08	16,16,16,16	0
54	MG	1A	3220	1/1	0.97	0.26	27,27,27,27	0
54	MG	1A	3684	1/1	0.97	0.13	42,42,42,42	0
54	MG	1A	3572	1/1	0.97	0.06	30,30,30,30	0
54	MG	1A	3294	1/1	0.97	0.10	55,55,55,55	0
54	MG	2A	3169	1/1	0.97	0.06	38,38,38,38	0
54	MG	1A	3134	1/1	0.97	0.10	38,38,38,38	0
54	MG	1A	3018	1/1	0.97	0.35	27,27,27,27	0
54	MG	1A	3378	1/1	0.97	0.06	19,19,19,19	0
54	MG	2A	3173	1/1	0.97	0.05	46,46,46,46	0
54	MG	1G	203	1/1	0.97	0.10	57,57,57,57	0
54	MG	1G	204	1/1	0.97	0.08	50,50,50,50	0
54	MG	2A	3176	1/1	0.97	0.06	59,59,59,59	0
54	MG	1A	3379	1/1	0.97	0.07	21,21,21,21	0
54	MG	2A	3412	1/1	0.97	0.05	26,26,26,26	0
54	MG	1A	3175	1/1	0.97	0.14	33,33,33,33	0
54	MG	1A	3579	1/1	0.97	0.04	32,32,32,32	0
54	MG	2A	3180	1/1	0.97	0.21	45,45,45,45	0
54	MG	1A	3051	1/1	0.97	0.15	39,39,39,39	0
54	MG	1a	1693	1/1	0.97	0.09	56,56,56,56	0
54	MG	1a	1694	1/1	0.97	0.11	46,46,46,46	0
54	MG	1A	3696	1/1	0.97	0.07	41,41,41,41	0
54	MG	1A	3100	1/1	0.97	0.14	23,23,23,23	0
54	MG	1A	3301	1/1	0.97	0.19	40,40,40,40	0
54	MG	1A	3140	1/1	0.97	0.07	27,27,27,27	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3584	1/1	0.97	0.24	33,33,33,33	0
54	MG	2A	3424	1/1	0.97	0.04	41,41,41,41	0
54	MG	1A	3230	1/1	0.97	0.20	31,31,31,31	0
54	MG	2A	3704	1/1	0.97	0.09	62,62,62,62	0
54	MG	1A	3987	1/1	0.97	0.13	37,37,37,37	0
54	MG	1m	201	1/1	0.97	0.05	66,66,66,66	0
54	MG	1A	3391	1/1	0.97	0.06	23,23,23,23	0
54	MG	1A	3487	1/1	0.97	0.06	47,47,47,47	0
54	MG	1Q	202	1/1	0.97	0.14	34,34,34,34	0
54	MG	2A	3195	1/1	0.97	0.13	44,44,44,44	0
54	MG	1Q	204	1/1	0.97	0.04	28,28,28,28	0
54	MG	1Q	205	1/1	0.97	0.13	43,43,43,43	0
54	MG	2A	3198	1/1	0.97	0.13	32,32,32,32	0
54	MG	2a	3132	1/1	0.97	0.07	57,57,57,57	0
54	MG	1a	1710	1/1	0.97	0.04	37,37,37,37	0
54	MG	1A	3839	1/1	0.97	0.21	39,39,39,39	0
54	MG	1Q	208	1/1	0.97	0.07	45,45,45,45	0
54	MG	1R	201	1/1	0.97	0.18	29,29,29,29	0
54	MG	1R	202	1/1	0.97	0.14	40,40,40,40	0
54	MG	1R	203	1/1	0.97	0.29	29,29,29,29	0
54	MG	2A	3721	1/1	0.97	0.05	45,45,45,45	0
54	MG	1A	3488	1/1	0.97	0.06	41,41,41,41	0
54	MG	1A	3231	1/1	0.97	0.11	23,23,23,23	0
54	MG	1A	3843	1/1	0.97	0.19	29,29,29,29	0
54	MG	1A	3491	1/1	0.97	0.10	60,60,60,60	0
54	MG	1A	3393	1/1	0.97	0.05	14,14,14,14	0
54	MG	2A	3211	1/1	0.97	0.14	45,45,45,45	0
54	MG	2A	3001	1/1	0.97	0.23	59,59,59,59	0
54	MG	1A	3711	1/1	0.97	0.08	72,72,72,72	0
54	MG	2A	3730	1/1	0.97	0.15	54,54,54,54	0
54	MG	1A	3052	1/1	0.97	0.10	27,27,27,27	0
54	MG	2a	3154	1/1	0.97	0.05	52,52,52,52	0
54	MG	2A	3004	1/1	0.97	0.04	32,32,32,32	0
54	MG	1A	3849	1/1	0.97	0.11	42,42,42,42	0
54	MG	2A	3006	1/1	0.97	0.14	39,39,39,39	0
54	MG	2a	3159	1/1	0.97	0.05	61,61,61,61	0
54	MG	1A	3850	1/1	0.97	0.06	41,41,41,41	0
54	MG	2A	3009	1/1	0.97	0.09	32,32,32,32	0
54	MG	1A	3713	1/1	0.97	0.09	39,39,39,39	0
54	MG	1A	3072	1/1	0.97	0.08	37,37,37,37	0
54	MG	2A	3739	1/1	0.97	0.13	63,63,63,63	0
54	MG	2a	3168	1/1	0.97	0.08	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3396	1/1	0.97	0.06	22,22,22,22	0
54	MG	1A	3854	1/1	0.97	0.06	34,34,34,34	0
54	MG	2A	3461	1/1	0.97	0.08	62,62,62,62	0
54	MG	2a	3172	1/1	0.97	0.08	49,49,49,49	0
54	MG	1V	204	1/1	0.97	0.09	48,48,48,48	0
54	MG	1A	3027	1/1	0.97	0.17	27,27,27,27	0
54	MG	1A	3239	1/1	0.97	0.20	34,34,34,34	0
54	MG	1A	3718	1/1	0.97	0.07	36,36,36,36	0
54	MG	1A	3240	1/1	0.97	0.15	50,50,50,50	0
54	MG	1A	3859	1/1	0.97	0.07	36,36,36,36	0
54	MG	1X	101	1/1	0.97	0.08	61,61,61,61	0
54	MG	2A	3750	1/1	0.97	0.09	58,58,58,58	0
54	MG	2a	3182	1/1	0.97	0.10	49,49,49,49	0
54	MG	1X	102	1/1	0.97	0.08	26,26,26,26	0
54	MG	1X	103	1/1	0.97	0.11	38,38,38,38	0
54	MG	2A	3026	1/1	0.97	0.21	48,48,48,48	0
54	MG	2A	3027	1/1	0.97	0.07	32,32,32,32	0
54	MG	1A	3184	1/1	0.97	0.11	30,30,30,30	0
54	MG	1A	3242	1/1	0.97	0.06	34,34,34,34	0
54	MG	1A	3186	1/1	0.97	0.23	53,53,53,53	0
54	MG	1A	3725	1/1	0.97	0.05	25,25,25,25	0
54	MG	2A	3480	1/1	0.97	0.09	64,64,64,64	0
54	MG	2A	3032	1/1	0.97	0.14	47,47,47,47	0
54	MG	1A	3726	1/1	0.97	0.09	48,48,48,48	0
54	MG	1A	3603	1/1	0.97	0.19	24,24,24,24	0
54	MG	1A	3870	1/1	0.97	0.05	45,45,45,45	0
54	MG	10	105	1/1	0.97	0.05	35,35,35,35	0
54	MG	1A	3246	1/1	0.97	0.20	43,43,43,43	0
54	MG	2A	3766	1/1	0.97	0.07	73,73,73,73	0
54	MG	1A	3605	1/1	0.97	0.09	43,43,43,43	0
54	MG	2A	3768	1/1	0.97	0.13	54,54,54,54	0
54	MG	1A	3315	1/1	0.97	0.06	31,31,31,31	0
54	MG	1A	4019	1/1	0.97	0.07	40,40,40,40	0
54	MG	1A	3607	1/1	0.97	0.04	19,19,19,19	0
54	MG	1A	3506	1/1	0.97	0.10	14,14,14,14	0
54	MG	1A	4023	1/1	0.97	0.06	50,50,50,50	0
55	MUL	1A	4054	34/34	0.97	0.08	19,25,44,59	0
54	MG	2A	3252	1/1	0.97	0.24	48,48,48,48	0
54	MG	2A	3253	1/1	0.97	0.08	42,42,42,42	0
54	MG	1A	3406	1/1	0.97	0.08	26,26,26,26	0
54	MG	1A	3074	1/1	0.97	0.14	33,33,33,33	0
54	MG	1A	3735	1/1	0.97	0.14	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2A	3259	1/1	0.97	0.15	37,37,37,37	0
54	MG	1A	3318	1/1	0.97	0.03	20,20,20,20	0
54	MG	1A	4028	1/1	0.97	0.07	55,55,55,55	0
54	MG	1A	3737	1/1	0.97	0.07	34,34,34,34	0
54	MG	1A	3319	1/1	0.97	0.11	10,10,10,10	0
54	MG	17	102	1/1	0.97	0.07	25,25,25,25	0
54	MG	2A	3507	1/1	0.97	0.15	40,40,40,40	0
54	MG	17	103	1/1	0.97	0.21	37,37,37,37	0
54	MG	1a	1699	1/1	0.98	0.05	33,33,33,33	0
54	MG	1A	3615	1/1	0.98	0.06	27,27,27,27	0
54	MG	2A	3104	1/1	0.98	0.10	24,24,24,24	0
54	MG	1a	1701	1/1	0.98	0.04	48,48,48,48	0
54	MG	2A	3655	1/1	0.98	0.05	42,42,42,42	0
54	MG	1A	3931	1/1	0.98	0.06	35,35,35,35	0
54	MG	1A	3129	1/1	0.98	0.14	35,35,35,35	0
54	MG	1A	3807	1/1	0.98	0.08	21,21,21,21	0
54	MG	1A	3707	1/1	0.98	0.04	13,13,13,13	0
54	MG	1A	3167	1/1	0.98	0.09	28,28,28,28	0
54	MG	1a	1860	1/1	0.98	0.05	62,62,62,62	0
54	MG	2A	3278	1/1	0.98	0.04	34,34,34,34	0
54	MG	1A	3130	1/1	0.98	0.19	27,27,27,27	0
54	MG	1A	3619	1/1	0.98	0.05	33,33,33,33	0
54	MG	2A	3665	1/1	0.98	0.05	62,62,62,62	0
54	MG	10	101	1/1	0.98	0.06	40,40,40,40	0
54	MG	2A	3667	1/1	0.98	0.06	58,58,58,58	0
54	MG	2A	3669	1/1	0.98	0.07	59,59,59,59	0
54	MG	1A	3131	1/1	0.98	0.20	30,30,30,30	0
54	MG	2A	3671	1/1	0.98	0.04	63,63,63,63	0
54	MG	1A	3098	1/1	0.98	0.12	32,32,32,32	0
54	MG	1A	3326	1/1	0.98	0.08	26,26,26,26	0
54	MG	1A	3815	1/1	0.98	0.08	23,23,23,23	0
54	MG	1A	3466	1/1	0.98	0.05	41,41,41,41	0
54	MG	1A	3035	1/1	0.98	0.07	38,38,38,38	0
54	MG	2A	3121	1/1	0.98	0.30	39,39,39,39	0
54	MG	1A	3172	1/1	0.98	0.15	33,33,33,33	0
54	MG	1A	3173	1/1	0.98	0.05	48,48,48,48	0
54	MG	1A	3719	1/1	0.98	0.20	34,34,34,34	0
54	MG	1A	3822	1/1	0.98	0.05	42,42,42,42	0
54	MG	1A	3546	1/1	0.98	0.03	54,54,54,54	0
54	MG	1A	3274	1/1	0.98	0.11	30,30,30,30	0
54	MG	2A	3477	1/1	0.98	0.06	34,34,34,34	0
54	MG	13	104	1/1	0.98	0.05	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2A	3129	1/1	0.98	0.05	35,35,35,35	0
54	MG	1A	3471	1/1	0.98	0.09	59,59,59,59	0
54	MG	1A	3044	1/1	0.98	0.03	25,25,25,25	0
54	MG	1A	3101	1/1	0.98	0.26	26,26,26,26	0
54	MG	1A	3335	1/1	0.98	0.06	29,29,29,29	0
54	MG	15	104	1/1	0.98	0.07	40,40,40,40	0
54	MG	2A	3693	1/1	0.98	0.11	30,30,30,30	0
54	MG	1A	3176	1/1	0.98	0.12	29,29,29,29	0
54	MG	1a	1731	1/1	0.98	0.05	61,61,61,61	0
54	MG	2A	3305	1/1	0.98	0.03	44,44,44,44	0
54	MG	2a	3049	1/1	0.98	0.17	53,53,53,53	0
54	MG	1A	3553	1/1	0.98	0.06	32,32,32,32	0
54	MG	2A	3138	1/1	0.98	0.09	39,39,39,39	0
54	MG	2A	3139	1/1	0.98	0.04	32,32,32,32	0
54	MG	2A	3493	1/1	0.98	0.04	47,47,47,47	0
54	MG	1a	1733	1/1	0.98	0.05	52,52,52,52	0
54	MG	1A	3221	1/1	0.98	0.14	32,32,32,32	0
54	MG	1k	201	1/1	0.98	0.18	48,48,48,48	0
54	MG	1A	3477	1/1	0.98	0.05	18,18,18,18	0
54	MG	2A	3144	1/1	0.98	0.12	47,47,47,47	0
54	MG	1A	3637	1/1	0.98	0.08	33,33,33,33	0
54	MG	1A	3102	1/1	0.98	0.21	34,34,34,34	0
54	MG	1A	3137	1/1	0.98	0.14	20,20,20,20	0
54	MG	1A	3840	1/1	0.98	0.10	40,40,40,40	0
54	MG	1A	3640	1/1	0.98	0.06	46,46,46,46	0
54	MG	19	102	1/1	0.98	0.29	34,34,34,34	0
54	MG	2A	3712	1/1	0.98	0.07	67,67,67,67	0
54	MG	1A	3179	1/1	0.98	0.09	35,35,35,35	0
54	MG	1A	3481	1/1	0.98	0.04	13,13,13,13	0
54	MG	1A	3103	1/1	0.98	0.07	21,21,21,21	0
54	MG	1a	1603	1/1	0.98	0.14	44,44,44,44	0
54	MG	1A	3969	1/1	0.98	0.08	48,48,48,48	0
54	MG	1B	231	1/1	0.98	0.08	51,51,51,51	0
54	MG	1A	3285	1/1	0.98	0.15	27,27,27,27	0
54	MG	1A	3846	1/1	0.98	0.05	28,28,28,28	0
54	MG	1A	3006	1/1	0.98	0.06	24,24,24,24	0
54	MG	1A	3485	1/1	0.98	0.04	46,46,46,46	0
54	MG	1D	307	1/1	0.98	0.04	37,37,37,37	0
54	MG	1A	3228	1/1	0.98	0.18	28,28,28,28	0
54	MG	1A	3742	1/1	0.98	0.05	23,23,23,23	0
54	MG	1A	3743	1/1	0.98	0.06	39,39,39,39	0
54	MG	1A	3066	1/1	0.98	0.25	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3414	1/1	0.98	0.06	31,31,31,31	0
54	MG	2A	3340	1/1	0.98	0.05	32,32,32,32	0
54	MG	1A	3106	1/1	0.98	0.20	26,26,26,26	0
54	MG	1A	3747	1/1	0.98	0.10	43,43,43,43	0
54	MG	2A	3007	1/1	0.98	0.08	47,47,47,47	0
54	MG	1A	3748	1/1	0.98	0.06	48,48,48,48	0
54	MG	1A	3290	1/1	0.98	0.12	39,39,39,39	0
54	MG	1E	302	1/1	0.98	0.24	32,32,32,32	0
54	MG	1A	3107	1/1	0.98	0.04	36,36,36,36	0
54	MG	2A	3349	1/1	0.98	0.05	34,34,34,34	0
54	MG	2A	3531	1/1	0.98	0.06	46,46,46,46	0
54	MG	2a	3094	1/1	0.98	0.05	49,49,49,49	0
54	MG	2A	3012	1/1	0.98	0.10	51,51,51,51	0
54	MG	1A	3185	1/1	0.98	0.16	35,35,35,35	0
54	MG	1A	3067	1/1	0.98	0.25	34,34,34,34	0
54	MG	1E	307	1/1	0.98	0.09	14,14,14,14	0
54	MG	1A	3354	1/1	0.98	0.04	32,32,32,32	0
54	MG	2A	3018	1/1	0.98	0.31	41,41,41,41	0
54	MG	1A	3046	1/1	0.98	0.15	26,26,26,26	0
54	MG	1A	3082	1/1	0.98	0.21	31,31,31,31	0
54	MG	2A	3540	1/1	0.98	0.05	77,77,77,77	0
54	MG	1A	3423	1/1	0.98	0.05	13,13,13,13	0
54	MG	1A	3868	1/1	0.98	0.07	14,14,14,14	0
54	MG	1F	304	1/1	0.98	0.16	29,29,29,29	0
54	MG	1A	3500	1/1	0.98	0.08	18,18,18,18	0
54	MG	1F	306	1/1	0.98	0.08	24,24,24,24	0
54	MG	2a	3109	1/1	0.98	0.07	69,69,69,69	0
54	MG	1F	307	1/1	0.98	0.12	29,29,29,29	0
54	MG	2A	3549	1/1	0.98	0.06	56,56,56,56	0
54	MG	1A	3112	1/1	0.98	0.06	30,30,30,30	0
54	MG	1A	3358	1/1	0.98	0.07	24,24,24,24	0
54	MG	1A	3426	1/1	0.98	0.05	48,48,48,48	0
54	MG	1A	3083	1/1	0.98	0.34	36,36,36,36	0
54	MG	1A	3763	1/1	0.98	0.08	18,18,18,18	0
54	MG	1A	3666	1/1	0.98	0.09	59,59,59,59	0
54	MG	1A	3765	1/1	0.98	0.06	36,36,36,36	0
54	MG	2A	3557	1/1	0.98	0.07	65,65,65,65	0
54	MG	2A	3034	1/1	0.98	0.20	49,49,49,49	0
54	MG	1A	3298	1/1	0.98	0.10	17,17,17,17	0
54	MG	1F	316	1/1	0.98	0.05	38,38,38,38	0
54	MG	1A	3003	1/1	0.98	0.07	20,20,20,20	0
54	MG	1A	3244	1/1	0.98	0.22	25,25,25,25	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3509	1/1	0.98	0.04	20,20,20,20	0
54	MG	1A	3881	1/1	0.98	0.09	40,40,40,40	0
54	MG	1A	3115	1/1	0.98	0.04	28,28,28,28	0
54	MG	2a	3129	1/1	0.98	0.04	57,57,57,57	0
54	MG	2a	3130	1/1	0.98	0.04	78,78,78,78	0
54	MG	1A	3886	1/1	0.98	0.06	45,45,45,45	0
54	MG	1A	3771	1/1	0.98	0.06	31,31,31,31	0
54	MG	1A	3085	1/1	0.98	0.14	32,32,32,32	0
54	MG	1a	1793	1/1	0.98	0.09	79,79,79,79	0
54	MG	2A	3572	1/1	0.98	0.09	40,40,40,40	0
54	MG	2a	3139	1/1	0.98	0.06	64,64,64,64	0
54	MG	1N	3301	1/1	0.98	0.15	44,44,44,44	0
54	MG	2A	3047	1/1	0.98	0.17	50,50,50,50	0
54	MG	2A	3209	1/1	0.98	0.06	47,47,47,47	0
54	MG	1A	3513	1/1	0.98	0.04	35,35,35,35	0
54	MG	2A	3389	1/1	0.98	0.04	51,51,51,51	0
54	MG	2A	3579	1/1	0.98	0.06	38,38,38,38	0
54	MG	1A	3891	1/1	0.98	0.08	57,57,57,57	0
54	MG	1A	3086	1/1	0.98	0.07	35,35,35,35	0
54	MG	1O	201	1/1	0.98	0.03	39,39,39,39	0
54	MG	1A	3893	1/1	0.98	0.15	23,23,23,23	0
54	MG	1A	3366	1/1	0.98	0.08	43,43,43,43	0
54	MG	2A	3586	1/1	0.98	0.06	61,61,61,61	0
54	MG	1A	3153	1/1	0.98	0.05	28,28,28,28	0
54	MG	1P	203	1/1	0.98	0.19	26,26,26,26	0
54	MG	1A	3305	1/1	0.98	0.14	22,22,22,22	0
54	MG	1A	3778	1/1	0.98	0.06	31,31,31,31	0
54	MG	1P	206	1/1	0.98	0.04	36,36,36,36	0
54	MG	1a	1664	1/1	0.98	0.08	61,61,61,61	0
54	MG	2a	3158	1/1	0.98	0.05	65,65,65,65	0
54	MG	1A	3014	1/1	0.98	0.17	25,25,25,25	0
54	MG	1A	3025	1/1	0.98	0.36	29,29,29,29	0
54	MG	1A	3090	1/1	0.98	0.22	25,25,25,25	0
54	MG	2a	3162	1/1	0.98	0.04	78,78,78,78	0
54	MG	1A	3596	1/1	0.98	0.20	28,28,28,28	0
54	MG	2a	3164	1/1	0.98	0.10	53,53,53,53	0
54	MG	1A	3158	1/1	0.98	0.10	25,25,25,25	0
54	MG	1Q	206	1/1	0.98	0.06	40,40,40,40	0
54	MG	2a	3167	1/1	0.98	0.05	58,58,58,58	0
54	MG	1A	3907	1/1	0.98	0.05	46,46,46,46	0
54	MG	2E	301	1/1	0.98	0.04	54,54,54,54	0
54	MG	2E	302	1/1	0.98	0.20	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3598	1/1	0.98	0.07	32,32,32,32	0
54	MG	1A	3058	1/1	0.98	0.13	32,32,32,32	0
54	MG	2E	306	1/1	0.98	0.12	52,52,52,52	0
54	MG	1A	3688	1/1	0.98	0.08	43,43,43,43	0
54	MG	1A	3374	1/1	0.98	0.06	28,28,28,28	0
54	MG	2F	301	1/1	0.98	0.10	33,33,33,33	0
54	MG	1A	3059	1/1	0.98	0.06	35,35,35,35	0
54	MG	1R	206	1/1	0.98	0.08	37,37,37,37	0
54	MG	2F	304	1/1	0.98	0.16	42,42,42,42	0
54	MG	1A	3061	1/1	0.98	0.07	30,30,30,30	0
54	MG	1A	3526	1/1	0.98	0.03	35,35,35,35	0
54	MG	1A	3791	1/1	0.98	0.11	56,56,56,56	0
54	MG	1A	3916	1/1	0.98	0.04	42,42,42,42	0
54	MG	1A	3096	1/1	0.98	0.14	36,36,36,36	0
54	MG	1A	3258	1/1	0.98	0.24	27,27,27,27	0
54	MG	1a	1829	1/1	0.98	0.08	54,54,54,54	0
54	MG	1A	3794	1/1	0.98	0.06	46,46,46,46	0
54	MG	1a	1831	1/1	0.98	0.05	39,39,39,39	0
54	MG	1A	3451	1/1	0.98	0.06	32,32,32,32	0
54	MG	1U	202	1/1	0.98	0.39	25,25,25,25	0
54	MG	1a	1687	1/1	0.98	0.08	52,52,52,52	0
54	MG	1A	3050	1/1	0.98	0.17	30,30,30,30	0
54	MG	1a	1836	1/1	0.98	0.04	44,44,44,44	0
54	MG	1a	1837	1/1	0.98	0.05	64,64,64,64	0
54	MG	2A	3430	1/1	0.98	0.09	56,56,56,56	0
54	MG	2R	202	1/1	0.98	0.07	44,44,44,44	0
54	MG	1a	1838	1/1	0.98	0.06	56,56,56,56	0
54	MG	2A	3627	1/1	0.98	0.05	61,61,61,61	0
54	MG	2A	3251	1/1	0.98	0.05	34,34,34,34	0
54	MG	1U	204	1/1	0.98	0.26	28,28,28,28	0
54	MG	1A	3453	1/1	0.98	0.04	40,40,40,40	0
54	MG	2A	3631	1/1	0.98	0.05	60,60,60,60	0
54	MG	1A	3126	1/1	0.98	0.20	25,25,25,25	0
54	MG	2A	3255	1/1	0.98	0.10	21,21,21,21	0
54	MG	2A	3634	1/1	0.98	0.04	57,57,57,57	0
54	MG	2X	102	1/1	0.98	0.07	55,55,55,55	0
54	MG	1A	3611	1/1	0.98	0.07	39,39,39,39	0
54	MG	1A	3701	1/1	0.98	0.06	39,39,39,39	0
54	MG	1A	3127	1/1	0.98	0.17	27,27,27,27	0
54	MG	1A	3802	1/1	0.98	0.06	29,29,29,29	0
54	MG	2A	3261	1/1	0.98	0.04	67,67,67,67	0
54	MG	2A	3644	1/1	0.98	0.04	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3262	1/1	0.98	0.27	27,27,27,27	0
54	MG	2A	3098	1/1	0.98	0.06	33,33,33,33	0
54	MG	2A	3444	1/1	0.98	0.04	27,27,27,27	0
54	MG	1A	3388	1/1	0.98	0.05	23,23,23,23	0
58	ZN	2Y	202	1/1	0.98	0.04	82,82,82,82	0
54	MG	1a	1849	1/1	0.98	0.05	33,33,33,33	0
54	MG	1a	1698	1/1	0.98	0.04	33,33,33,33	0
59	SF4	2d	501	8/8	0.98	0.05	61,68,83,86	0
54	MG	2a	3084	1/1	0.99	0.05	61,61,61,61	0
54	MG	2A	3546	1/1	0.99	0.03	49,49,49,49	0
54	MG	2E	303	1/1	0.99	0.03	43,43,43,43	0
54	MG	2A	3547	1/1	0.99	0.04	20,20,20,20	0
54	MG	1B	211	1/1	0.99	0.03	48,48,48,48	0
54	MG	1A	3200	1/1	0.99	0.21	31,31,31,31	0
54	MG	2A	3013	1/1	0.99	0.12	35,35,35,35	0
54	MG	1A	3904	1/1	0.99	0.04	13,13,13,13	0
54	MG	1A	3905	1/1	0.99	0.07	41,41,41,41	0
54	MG	1A	3827	1/1	0.99	0.02	28,28,28,28	0
54	MG	1A	3349	1/1	0.99	0.09	13,13,13,13	0
54	MG	2A	3326	1/1	0.99	0.08	35,35,35,35	0
54	MG	1R	204	1/1	0.99	0.03	43,43,43,43	0
54	MG	1A	3236	1/1	0.99	0.21	29,29,29,29	0
54	MG	1A	3316	1/1	0.99	0.03	18,18,18,18	0
54	MG	1A	3642	1/1	0.99	0.19	36,36,36,36	0
54	MG	1A	3832	1/1	0.99	0.03	17,17,17,17	0
54	MG	1A	3435	1/1	0.99	0.03	19,19,19,19	0
54	MG	1B	222	1/1	0.99	0.03	44,44,44,44	0
54	MG	2A	3692	1/1	0.99	0.04	34,34,34,34	0
54	MG	2A	3564	1/1	0.99	0.03	55,55,55,55	0
54	MG	1A	3436	1/1	0.99	0.02	18,18,18,18	0
54	MG	1A	3835	1/1	0.99	0.07	45,45,45,45	0
54	MG	1A	3237	1/1	0.99	0.19	27,27,27,27	0
54	MG	1A	3060	1/1	0.99	0.03	35,35,35,35	0
54	MG	1A	3042	1/1	0.99	0.07	19,19,19,19	0
54	MG	2Q	203	1/1	0.99	0.03	47,47,47,47	0
54	MG	1A	3320	1/1	0.99	0.06	23,23,23,23	0
54	MG	1A	3263	1/1	0.99	0.35	28,28,28,28	0
54	MG	1U	205	1/1	0.99	0.26	26,26,26,26	0
54	MG	1a	1840	1/1	0.99	0.04	61,61,61,61	0
54	MG	1A	3710	1/1	0.99	0.03	33,33,33,33	0
54	MG	1A	3490	1/1	0.99	0.07	16,16,16,16	0
54	MG	2A	3576	1/1	0.99	0.03	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	2V	202	1/1	0.99	0.04	57,57,57,57	0
54	MG	1V	201	1/1	0.99	0.17	21,21,21,21	0
54	MG	1V	202	1/1	0.99	0.15	25,25,25,25	0
54	MG	1A	3442	1/1	0.99	0.05	54,54,54,54	0
54	MG	2A	3350	1/1	0.99	0.03	40,40,40,40	0
54	MG	1D	302	1/1	0.99	0.11	30,30,30,30	0
54	MG	2a	3124	1/1	0.99	0.04	53,53,53,53	0
54	MG	2A	3582	1/1	0.99	0.05	27,27,27,27	0
54	MG	1A	3043	1/1	0.99	0.06	17,17,17,17	0
54	MG	1A	3398	1/1	0.99	0.03	35,35,35,35	0
54	MG	1A	3092	1/1	0.99	0.08	24,24,24,24	0
54	MG	1D	306	1/1	0.99	0.03	12,12,12,12	0
54	MG	1a	1851	1/1	0.99	0.05	57,57,57,57	0
54	MG	2A	3467	1/1	0.99	0.03	32,32,32,32	0
54	MG	1A	3495	1/1	0.99	0.02	12,12,12,12	0
54	MG	1A	3656	1/1	0.99	0.07	43,43,43,43	0
54	MG	2a	3134	1/1	0.99	0.04	74,74,74,74	0
54	MG	2a	3135	1/1	0.99	0.03	51,51,51,51	0
54	MG	1A	3266	1/1	0.99	0.16	31,31,31,31	0
54	MG	2A	3593	1/1	0.99	0.03	48,48,48,48	0
54	MG	2a	3138	1/1	0.99	0.08	38,38,38,38	0
54	MG	1A	3205	1/1	0.99	0.11	28,28,28,28	0
54	MG	2A	3595	1/1	0.99	0.04	60,60,60,60	0
54	MG	1A	3243	1/1	0.99	0.16	33,33,33,33	0
54	MG	2A	3473	1/1	0.99	0.03	42,42,42,42	0
54	MG	1A	3721	1/1	0.99	0.03	39,39,39,39	0
54	MG	1A	3327	1/1	0.99	0.07	42,42,42,42	0
54	MG	1A	3093	1/1	0.99	0.09	13,13,13,13	0
54	MG	1A	3223	1/1	0.99	0.30	32,32,32,32	0
54	MG	1A	3330	1/1	0.99	0.07	48,48,48,48	0
54	MG	2A	3257	1/1	0.99	0.05	21,21,21,21	0
54	MG	1A	3936	1/1	0.99	0.11	61,61,61,61	0
54	MG	1E	303	1/1	0.99	0.21	32,32,32,32	0
54	MG	2A	3482	1/1	0.99	0.05	33,33,33,33	0
54	MG	1A	3608	1/1	0.99	0.05	26,26,26,26	0
54	MG	1A	3191	1/1	0.99	0.26	27,27,27,27	0
54	MG	1A	3454	1/1	0.99	0.08	22,22,22,22	0
54	MG	1A	3038	1/1	0.99	0.12	33,33,33,33	0
54	MG	1A	3273	1/1	0.99	0.08	20,20,20,20	0
54	MG	2a	3020	1/1	0.99	0.10	36,36,36,36	0
54	MG	1A	4022	1/1	0.99	0.12	37,37,37,37	0
54	MG	1A	3862	1/1	0.99	0.04	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	13	101	1/1	0.99	0.19	27,27,27,27	0
54	MG	1A	3669	1/1	0.99	0.03	15,15,15,15	0
54	MG	1A	3139	1/1	0.99	0.07	22,22,22,22	0
54	MG	1F	303	1/1	0.99	0.27	29,29,29,29	0
54	MG	1A	3866	1/1	0.99	0.04	32,32,32,32	0
54	MG	2A	3272	1/1	0.99	0.05	48,48,48,48	0
54	MG	2A	3069	1/1	0.99	0.05	26,26,26,26	0
54	MG	1A	3671	1/1	0.99	0.09	38,38,38,38	0
54	MG	1A	3508	1/1	0.99	0.03	36,36,36,36	0
54	MG	1A	3012	1/1	0.99	0.04	28,28,28,28	0
54	MG	1A	3674	1/1	0.99	0.04	34,34,34,34	0
54	MG	2A	3388	1/1	0.99	0.05	22,22,22,22	0
54	MG	1A	3562	1/1	0.99	0.09	21,21,21,21	0
54	MG	2A	3279	1/1	0.99	0.07	45,45,45,45	0
54	MG	1A	3250	1/1	0.99	0.33	29,29,29,29	0
54	MG	1e	205	1/1	0.99	0.05	61,61,61,61	0
54	MG	1A	3460	1/1	0.99	0.04	40,40,40,40	0
54	MG	1A	3512	1/1	0.99	0.06	21,21,21,21	0
54	MG	1A	3413	1/1	0.99	0.03	9,9,9,9	0
54	MG	1A	3128	1/1	0.99	0.10	33,33,33,33	0
54	MG	2a	3180	1/1	0.99	0.04	61,61,61,61	0
54	MG	1A	3023	1/1	0.99	0.10	20,20,20,20	0
54	MG	1A	3087	1/1	0.99	0.06	28,28,28,28	0
54	MG	2A	3637	1/1	0.99	0.04	50,50,50,50	0
54	MG	2A	3638	1/1	0.99	0.03	40,40,40,40	0
54	MG	2A	3639	1/1	0.99	0.05	36,36,36,36	0
54	MG	2A	3640	1/1	0.99	0.05	64,64,64,64	0
54	MG	1A	3034	1/1	0.99	0.04	31,31,31,31	0
54	MG	1A	3341	1/1	0.99	0.05	19,19,19,19	0
54	MG	2A	3401	1/1	0.99	0.05	48,48,48,48	0
54	MG	1A	3377	1/1	0.99	0.06	12,12,12,12	0
54	MG	1A	3882	1/1	0.99	0.03	25,25,25,25	0
54	MG	1A	3883	1/1	0.99	0.04	37,37,37,37	0
54	MG	1A	3963	1/1	0.99	0.05	18,18,18,18	0
54	MG	1A	3964	1/1	0.99	0.07	17,17,17,17	0
54	MG	1A	3884	1/1	0.99	0.05	34,34,34,34	0
54	MG	1A	3232	1/1	0.99	0.15	26,26,26,26	0
54	MG	1A	3282	1/1	0.99	0.07	20,20,20,20	0
54	MG	1A	3283	1/1	0.99	0.07	14,14,14,14	0
54	MG	1a	1799	1/1	0.99	0.05	80,80,80,80	0
54	MG	1A	3381	1/1	0.99	0.03	34,34,34,34	0
54	MG	2A	3527	1/1	0.99	0.07	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
54	MG	1A	3690	1/1	0.99	0.03	29,29,29,29	0
54	MG	1A	3382	1/1	0.99	0.02	14,14,14,14	0
54	MG	1A	3754	1/1	0.99	0.03	17,17,17,17	0
54	MG	1A	3383	1/1	0.99	0.10	18,18,18,18	0
54	MG	1A	3233	1/1	0.99	0.14	23,23,23,23	0
54	MG	1A	3346	1/1	0.99	0.03	8,8,8,8	0
54	MG	1A	3821	1/1	0.99	0.06	44,44,44,44	0
54	MG	2a	3071	1/1	0.99	0.06	60,60,60,60	0
54	MG	1A	3897	1/1	0.99	0.03	43,43,43,43	0
54	MG	1A	3428	1/1	0.99	0.03	17,17,17,17	0
54	MG	1A	3899	1/1	0.99	0.03	20,20,20,20	0
54	MG	1A	3823	1/1	0.99	0.05	30,30,30,30	0
54	MG	1a	1621	1/1	0.99	0.03	48,48,48,48	0
54	MG	2A	3668	1/1	0.99	0.04	37,37,37,37	0
54	MG	1a	1717	1/1	0.99	0.03	52,52,52,52	0
58	ZN	1Y	203	1/1	0.99	0.03	58,58,58,58	0
54	MG	1Q	203	1/1	0.99	0.03	38,38,38,38	0
58	ZN	15	106	1/1	0.99	0.02	54,54,54,54	0
58	ZN	16	501	1/1	0.99	0.02	37,37,37,37	0
58	ZN	1n	103	1/1	0.99	0.03	75,75,75,75	0
54	MG	2A	3315	1/1	0.99	0.06	29,29,29,29	0
54	MG	2A	3316	1/1	0.99	0.06	24,24,24,24	0
58	ZN	29	501	1/1	0.99	0.04	61,61,61,61	0
54	MG	1A	3386	1/1	0.99	0.03	15,15,15,15	0
59	SF4	1d	305	8/8	0.99	0.04	67,70,78,81	0
54	MG	1A	3109	1/1	0.99	0.15	26,26,26,26	0
54	MG	1a	1712	1/1	1.00	0.05	35,35,35,35	0
54	MG	1A	3864	1/1	1.00	0.03	19,19,19,19	0
54	MG	2A	3484	1/1	1.00	0.06	28,28,28,28	0
54	MG	2A	3588	1/1	1.00	0.07	36,36,36,36	0
54	MG	1A	3009	1/1	1.00	0.03	23,23,23,23	0
54	MG	2A	3602	1/1	1.00	0.06	38,38,38,38	0
58	ZN	19	104	1/1	1.00	0.04	48,48,48,48	0
54	MG	1a	1800	1/1	1.00	0.03	50,50,50,50	0
54	MG	1A	3887	1/1	1.00	0.01	23,23,23,23	0
54	MG	1a	1814	1/1	1.00	0.03	73,73,73,73	0
58	ZN	25	104	1/1	1.00	0.02	65,65,65,65	0
58	ZN	26	102	1/1	1.00	0.03	58,58,58,58	0
54	MG	1A	3155	1/1	1.00	0.16	26,26,26,26	0
54	MG	2A	3560	1/1	1.00	0.05	49,49,49,49	0
54	MG	2A	3345	1/1	1.00	0.04	31,31,31,31	0
54	MG	2A	3329	1/1	1.00	0.02	33,33,33,33	0

6.5 Other polymers (i)

There are no such residues in this entry.