



# Full wwPDB X-ray Structure Validation Report ⓘ

Nov 7, 2023 – 03:11 PM EST

PDB ID : 8T8C  
Title : Crystal structure of the *Thermus thermophilus* 70S ribosome in complex with protein Y, A-site aminoacyl-tRNA analog ACC-PMN, and P-site formyl-MFI-tripeptidyl-tRNA analog ACCA-IFMf at 2.60Å resolution  
Authors : Thaler, J.; Syroegin, E.A.; Breuker, K.; Polikanov, Y.S.; Micura, R.  
Deposited on : 2023-06-22  
Resolution : 2.60 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.

We welcome your comments at [validation@mail.wwpdb.org](mailto: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>.

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The following versions of software and data (see [references ⓘ](#)) were used in the production of this report:

MolProbity : 4.02b-467  
Mogul : 1.8.5 (274361), CSD as541be (2020)  
Xtriage (Phenix) : 1.13  
EDS : 2.36  
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)  
Refmac : 5.8.0158  
CCP4 : 7.0.044 (Gargrove)  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.36

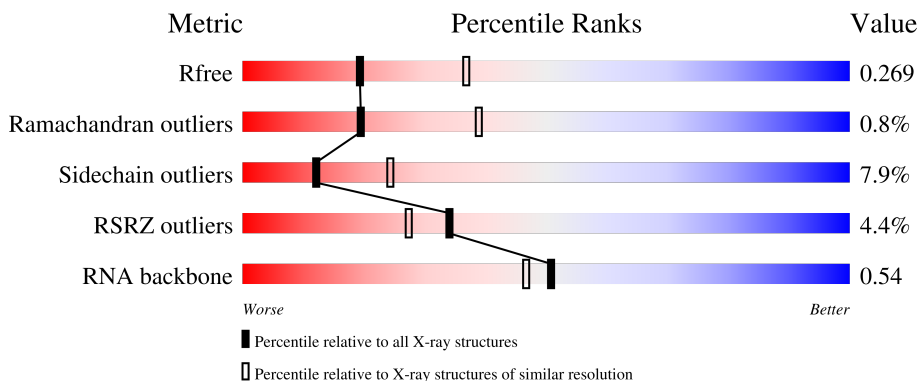
# 1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 2.60 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



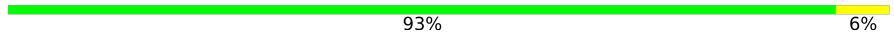
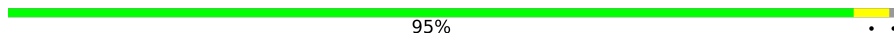
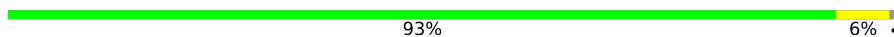


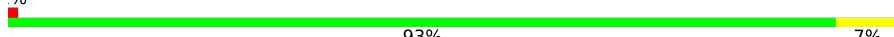




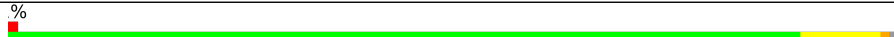


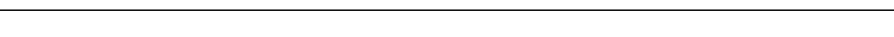
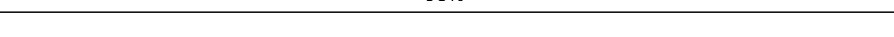
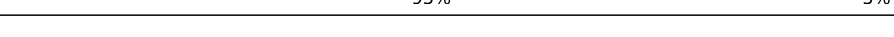
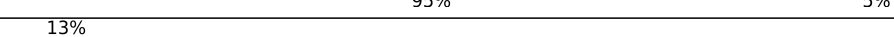
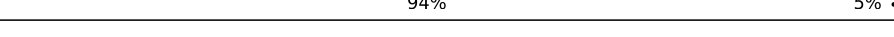
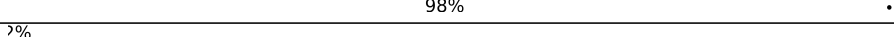
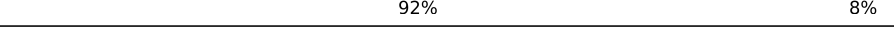
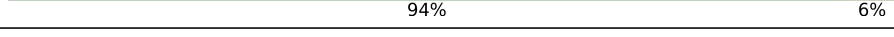
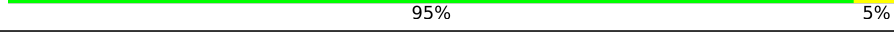
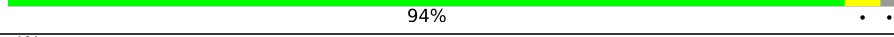


Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
$R_{free}$	130704	3163 (2.60-2.60)
Ramachandran outliers	138981	3455 (2.60-2.60)
Sidechain outliers	138945	3455 (2.60-2.60)
RSRZ outliers	127900	3104 (2.60-2.60)
RNA backbone	3102	1040 (2.90-2.30)

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  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions  $\leq 5\%$ . The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	1A	2915	2% 82% 16% ..
1	2A	2915	4% 81% 17% .
2	1B	121	88% 11% .
2	2B	121	83% 16% .
3	1D	276	94% 5%

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Mol	Chain	Length	Quality of chain
3	2D	276	 93% 6%
4	1E	206	 95%
4	2E	206	 93% 6%
5	1F	210	 88% 9%
5	2F	210	 89% 8%
6	1G	182	 16% 93% 7%
6	2G	182	 16% 89% 10%
7	1H	180	 90% 7%
7	2H	180	 23% 86% 10%
8	1I	148	 89% 11%
8	2I	148	 89% 9%
9	1N	140	 96%
9	2N	140	 94% 6%
10	1O	122	 98%
10	2O	122	 95% 5%
11	1P	150	 95% 5%
11	2P	150	 13% 94% 5%
12	1Q	141	 98%
12	2Q	141	 2% 92% 8%
13	1R	118	 94% 6%
13	2R	118	 95% 5%
14	1S	112	 94%
14	2S	112	 4% 88% 11%
15	1T	146	 84% 5% 10%
15	2T	146	 86% 10%

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Mol	Chain	Length	Quality of chain
16	1U	118	92% 6%
16	2U	118	95% . .
17	1V	101	94% 5%
17	2V	101	90% 9%
18	1W	113	92% 7%
18	2W	113	94% 5%
19	1X	96	96% . .
19	2X	96	92% 7%
20	1Y	110	88% 9%
20	2Y	110	90% 7%
21	1Z	206	92% 7%
21	2Z	206	89% 8%
22	10	85	92% 6%
22	20	85	95% . .
23	11	98	97% . .
23	21	98	93% 6%
24	12	72	94% . .
24	22	72	85% 12%
25	13	60	92% 7%
25	23	60	92% 7%
26	14	71	87% 10%
26	24	71	83% 14%
27	15	60	92% 7%
27	25	60	92% 7%
28	16	54	94% . .

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Mol	Chain	Length	Quality of chain
28	26	54	<p>91% 7% 2%</p>
29	17	49	<p>96%</p>
29	27	49	<p>88% 10%</p>
30	18	65	<p>94% 5%</p>
30	28	65	<p>91% 8% 8%</p>
31	19	37	<p>95% 5%</p>
31	29	37	<p>92% 8% 3%</p>
32	1a	1521	<p>81% 17% 2%</p>
32	2a	1521	<p>80% 19% 4%</p>
33	1b	256	<p>80% 9% 6% 10%</p>
33	2b	256	<p>78% 12% 12% 10%</p>
34	1c	239	<p>81% 5% 3% 14%</p>
34	2c	239	<p>79% 7% 10% 14%</p>
35	1d	209	<p>90% 10% 2%</p>
35	2d	209	<p>89% 10% 2%</p>
36	1e	162	<p>83% 8% 9%</p>
36	2e	162	<p>85% 6% 3% 9%</p>
37	1f	101	<p>93% 6% 0%</p>
37	2f	101	<p>93% 6% 0%</p>
38	1g	156	<p>92% 7% 3%</p>
38	2g	156	<p>89% 10% 13%</p>
39	1h	138	<p>91% 8% 4%</p>
39	2h	138	<p>93% 7% 5%</p>
40	1i	128	<p>91% 8% 12%</p>
40	2i	128	<p>90% 9% 54%</p>

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Mol	Chain	Length	Quality of chain
41	1j	105	14% 85% 7% 8%
41	2j	105	38% 79% 12% 9%
42	1k	129	% 84% 12%
42	2k	129	% 85% 12%
43	1l	132	% 89% 8%
43	2l	132	% 89% 8%
44	1m	126	4% 83% 9% 8%
44	2m	126	16% 83% 6% 10%
45	1n	61	8% 95% . .
45	2n	61	46% 95% . .
46	1o	89	% 92% 7% .
46	2o	89	% 90% 9% .
47	1p	88	13% 85% 8% 7%
47	2p	88	8% 84% 9% 7%
48	1q	105	2% 85% 10% 6%
48	2q	105	2% 89% 6% 6%
49	1r	88	% 70% 7% 23%
49	2r	88	% 72% 6% 23%
50	1s	93	% 82% 8% 11%
50	2s	93	23% 81% 9% 11%
51	1t	106	40% 83% 8% 9%
51	2t	106	17% 88% 5% 8%
52	1u	27	19% 85% 15%
52	2u	27	37% 85% 15%
53	1y	113	2% 80% 6% 14%

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Mol	Chain	Length	Quality of chain
53	2y	113	
54	1w	4	
54	2w	4	
55	1x	4	
55	2x	4	
56	1v	3	
56	2v	3	

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
57	MG	1A	4004	-	-	-	X
57	MG	2A	3167	-	-	-	X
57	MG	2A	3622	-	-	-	X
57	MG	2A	3624	-	-	-	X
57	MG	2a	3024	-	-	-	X
57	MG	2a	3071	-	-	-	X

## 2 Entry composition [i](#)

There are 62 unique types of molecules in this entry. The entry contains 296459 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
			Total	C	N	O	P			
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
			Total	C	N	O	P			
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
			Total	C	N	O	S			
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
			Total	C	N	O	S			
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
			Total	C	N	O	S			
5	1F	203	Total 1584	C 1009	N 298	O 275	S 2	0	0	1
5	2F	203	Total 1580	C 1007	N 297	O 274	S 2	0	0	1

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
6	1G	181	Total 1426	C 916	N 253	O 253	S 4	0	0	0
6	2G	181	Total 1424	C 912	N 259	O 249	S 4	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
7	1H	174	Total 1330	C 845	N 248	O 236	S 1	0	0	0
7	2H	173	Total 1324	C 842	N 247	O 234	S 1	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
8	1I	147	Total 1094	C 699	N 191	O 203	S 1	0	0	0
8	2I	146	Total 1076	C 687	N 186	O 202	S 1	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
9	1N	140	Total 1121	C 722	N 208	O 187	S 4	0	0	0
9	2N	140	Total 1117	C 719	N 207	O 187	S 4	0	0	0

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
17	1V	101	Total 775	C 498	N 141	O 135	S 1	0	0	0
17	2V	101	Total 771	C 495	N 140	O 135	S 1	0	0	0

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
20	1Y	107	Total 810	C 520	N 153	O 131	S 6	0	0	0
20	2Y	107	Total 810	C 519	N 153	O 132	S 6	0	0	0

- 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	83	Total	C	N	O	S	0	0	0
			653	404	139	109	1			
22	20	83	Total	C	N	O	S	0	0	0
			650	401	139	109	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	11	97	Total	C	N	O	S	0	0	0
			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	C	N	O	S	0	0	0
			764	478	144	139	3			
53	2y	96	Total	C	N	O	S	0	0	0
			749	468	141	137	3			

- Molecule 54 is a RNA chain called A-site Aminoacyl-tRNA Analog.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	1w	4	Total	C	N	O	P	0	0	1
			78	40	13	22	3			
54	2w	4	Total	C	N	O	P	0	0	1
			78	40	13	22	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	1x	4	Total	C	N	O	P	0	0	1
			63	28	12	20	3			
55	2x	4	Total	C	N	O	P	0	0	1
			63	28	12	20	3			

- Molecule 56 is a protein called P-site Peptidyl-tRNA Analog Peptide.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
56	1v	3	Total	C	N	O	S	0	0	0
			29	21	3	4	1			
56	2v	3	Total	C	N	O	S	0	0	0
			29	21	3	4	1			

- Molecule 57 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	1A	1029	Total	Mg	0	0
			1029	1029		
57	1B	29	Total	Mg	0	0
			29	29		
57	1D	16	Total	Mg	0	0
			16	16		
57	1E	9	Total	Mg	0	0
			9	9		
57	1F	15	Total	Mg	0	0
			15	15		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	1G	4	Total 4	Mg 4	0	0
57	1H	2	Total 2	Mg 2	0	0
57	1N	4	Total 4	Mg 4	0	0
57	1O	2	Total 2	Mg 2	0	0
57	1P	3	Total 3	Mg 3	0	0
57	1Q	5	Total 5	Mg 5	0	0
57	1R	5	Total 5	Mg 5	0	0
57	1T	5	Total 5	Mg 5	0	0
57	1U	7	Total 7	Mg 7	0	0
57	1V	6	Total 6	Mg 6	0	0
57	1W	4	Total 4	Mg 4	0	0
57	1Y	1	Total 1	Mg 1	0	0
57	1Z	1	Total 1	Mg 1	0	0
57	10	10	Total 10	Mg 10	0	0
57	11	3	Total 3	Mg 3	0	0
57	13	4	Total 4	Mg 4	0	0
57	15	9	Total 9	Mg 9	0	0
57	17	5	Total 5	Mg 5	0	0
57	18	2	Total 2	Mg 2	0	0
57	19	3	Total 3	Mg 3	0	0
57	1a	272	Total 272	Mg 272	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	1b	1	Total Mg 1 1	0	0
57	1d	5	Total Mg 5 5	0	0
57	1e	3	Total Mg 3 3	0	0
57	1f	2	Total Mg 2 2	0	0
57	1g	2	Total Mg 2 2	0	0
57	1h	2	Total Mg 2 2	0	0
57	1i	1	Total Mg 1 1	0	0
57	1l	2	Total Mg 2 2	0	0
57	1m	1	Total Mg 1 1	0	0
57	1n	3	Total Mg 3 3	0	0
57	1o	1	Total Mg 1 1	0	0
57	1t	1	Total Mg 1 1	0	0
57	1u	1	Total Mg 1 1	0	0
57	1y	3	Total Mg 3 3	0	0
57	1w	1	Total Mg 1 1	0	0
57	1x	2	Total Mg 2 2	0	0
57	2A	734	Total Mg 734 734	0	0
57	2B	17	Total Mg 17 17	0	0
57	2D	11	Total Mg 11 11	0	0
57	2E	8	Total Mg 8 8	0	0
57	2F	4	Total Mg 4 4	0	0

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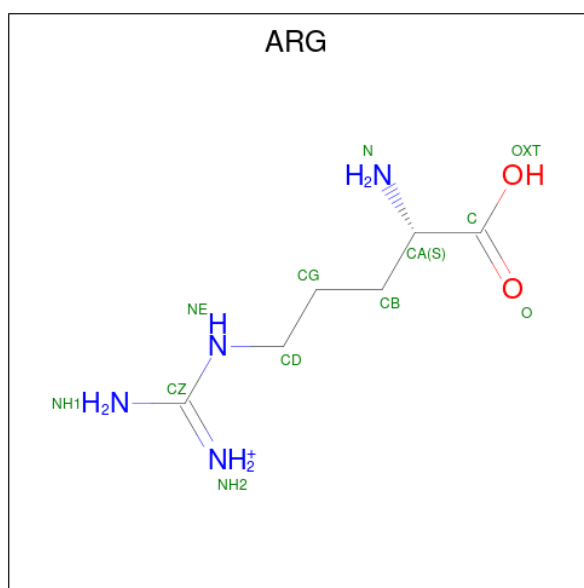
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	2G	2	Total Mg 2 2	0	0
57	2I	1	Total Mg 1 1	0	0
57	2N	1	Total Mg 1 1	0	0
57	2P	2	Total Mg 2 2	0	0
57	2Q	2	Total Mg 2 2	0	0
57	2R	2	Total Mg 2 2	0	0
57	2T	4	Total Mg 4 4	0	0
57	2V	2	Total Mg 2 2	0	0
57	2W	3	Total Mg 3 3	0	0
57	2X	1	Total Mg 1 1	0	0
57	2Y	1	Total Mg 1 1	0	0
57	20	1	Total Mg 1 1	0	0
57	21	4	Total Mg 4 4	0	0
57	23	1	Total Mg 1 1	0	0
57	25	4	Total Mg 4 4	0	0
57	27	1	Total Mg 1 1	0	0
57	28	1	Total Mg 1 1	0	0
57	29	1	Total Mg 1 1	0	0
57	2a	188	Total Mg 188 188	0	0
57	2e	2	Total Mg 2 2	0	0
57	2f	1	Total Mg 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	2j	1	Total Mg 1 1	0	0
57	2n	1	Total Mg 1 1	0	0
57	2p	1	Total Mg 1 1	0	0
57	2t	1	Total Mg 1 1	0	0
57	2x	1	Total Mg 1 1	0	0

- Molecule 58 is ARGinine (three-letter code: ARG) (formula:  $C_6H_{15}N_4O_2$ ).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	1A	1	Total C N O 12 6 4 2	0	0
58	1B	1	Total C N O 12 6 4 2	0	0

- Molecule 59 is (4S)-2-METHYL-2,4-PENTANEDIOL (three-letter code: MPD) (formula:  $C_6H_{14}O_2$ ).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	1A	1	Total C O 8 6 2	0	0
59	18	1	Total C O 8 6 2	0	0
59	1a	1	Total C O 8 6 2	0	0
59	1a	1	Total C O 8 6 2	0	0
59	2A	1	Total C O 8 6 2	0	0
59	2A	1	Total C O 8 6 2	0	0
59	2A	1	Total C O 8 6 2	0	0

- Molecule 60 is ZINC ION (three-letter code: ZN) (formula: Zn).

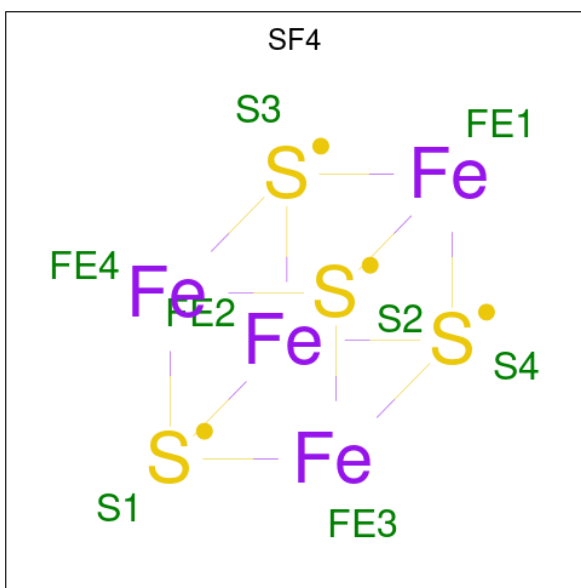
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	1Y	1	Total Zn 1 1	0	0
60	14	1	Total Zn 1 1	0	0
60	15	1	Total Zn 1 1	0	0
60	16	1	Total Zn 1 1	0	0
60	19	1	Total Zn 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	1n	1	Total Zn 1 1	0	0
60	2Y	1	Total Zn 1 1	0	0
60	24	1	Total Zn 1 1	0	0
60	25	1	Total Zn 1 1	0	0
60	26	1	Total Zn 1 1	0	0
60	29	1	Total Zn 1 1	0	0
60	2n	1	Total Zn 1 1	0	0

- Molecule 61 is IRON/SULFUR CLUSTER (three-letter code: SF4) (formula: Fe<sub>4</sub>S<sub>4</sub>).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
61	1d	1	Total Fe S 8 4 4	0	0
61	2d	1	Total Fe S 8 4 4	0	0

- Molecule 62 is water.



Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
62	1A	3560	Total 3560	O 3560	0	0
62	1B	89	Total 89	O 89	0	0
62	1D	98	Total 98	O 98	0	0
62	1E	69	Total 69	O 69	0	0
62	1F	51	Total 51	O 51	0	0
62	1G	15	Total 15	O 15	0	0
62	1H	6	Total 6	O 6	0	0
62	1I	4	Total 4	O 4	0	0
62	1N	43	Total 43	O 43	0	0
62	1O	22	Total 22	O 22	0	0
62	1P	63	Total 63	O 63	0	0
62	1Q	33	Total 33	O 33	0	0
62	1R	30	Total 30	O 30	0	0
62	1S	8	Total 8	O 8	0	0
62	1T	24	Total 24	O 24	0	0
62	1U	45	Total 45	O 45	0	0
62	1V	30	Total 30	O 30	0	0
62	1W	26	Total 26	O 26	0	0
62	1X	23	Total 23	O 23	0	0
62	1Y	12	Total 12	O 12	0	0
62	1Z	9	Total 9	O 9	0	0
62	10	22	Total 22	O 22	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
62	11	24	Total O 24 24	0	0
62	12	10	Total O 10 10	0	0
62	13	19	Total O 19 19	0	0
62	14	2	Total O 2 2	0	0
62	15	24	Total O 24 24	0	0
62	16	15	Total O 15 15	0	0
62	17	14	Total O 14 14	0	0
62	18	21	Total O 21 21	0	0
62	19	7	Total O 7 7	0	0
62	1a	382	Total O 382 382	0	0
62	1d	5	Total O 5 5	0	0
62	1e	3	Total O 3 3	0	0
62	1f	2	Total O 2 2	0	0
62	1h	1	Total O 1 1	0	0
62	1i	1	Total O 1 1	0	0
62	1j	1	Total O 1 1	0	0
62	1l	3	Total O 3 3	0	0
62	1o	3	Total O 3 3	0	0
62	1p	2	Total O 2 2	0	0
62	1u	1	Total O 1 1	0	0
62	1y	3	Total O 3 3	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
62	1w	4	Total O 4 4	0	0
62	1x	4	Total O 4 4	0	0
62	2A	1737	Total O 1737 1737	0	0
62	2B	33	Total O 33 33	0	0
62	2D	32	Total O 32 32	0	0
62	2E	22	Total O 22 22	0	0
62	2F	20	Total O 20 20	0	0
62	2G	2	Total O 2 2	0	0
62	2I	2	Total O 2 2	0	0
62	2N	3	Total O 3 3	0	0
62	2O	11	Total O 11 11	0	0
62	2P	18	Total O 18 18	0	0
62	2Q	7	Total O 7 7	0	0
62	2R	14	Total O 14 14	0	0
62	2S	2	Total O 2 2	0	0
62	2T	6	Total O 6 6	0	0
62	2U	7	Total O 7 7	0	0
62	2V	5	Total O 5 5	0	0
62	2W	7	Total O 7 7	0	0
62	2X	4	Total O 4 4	0	0
62	2Y	2	Total O 2 2	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
62	2Z	9	Total O 9 9	0	0
62	20	7	Total O 7 7	0	0
62	21	17	Total O 17 17	0	0
62	25	7	Total O 7 7	0	0
62	26	1	Total O 1 1	0	0
62	27	4	Total O 4 4	0	0
62	28	12	Total O 12 12	0	0
62	2a	224	Total O 224 224	0	0
62	2d	3	Total O 3 3	0	0
62	2e	2	Total O 2 2	0	0
62	2f	1	Total O 1 1	0	0
62	2j	1	Total O 1 1	0	0
62	2l	3	Total O 3 3	0	0
62	2o	3	Total O 3 3	0	0
62	2p	1	Total O 1 1	0	0
62	2q	1	Total O 1 1	0	0
62	2r	2	Total O 2 2	0	0
62	2t	1	Total O 1 1	0	0
62	2y	1	Total O 1 1	0	0
62	2w	3	Total O 3 3	0	0
62	2x	2	Total O 2 2	0	0

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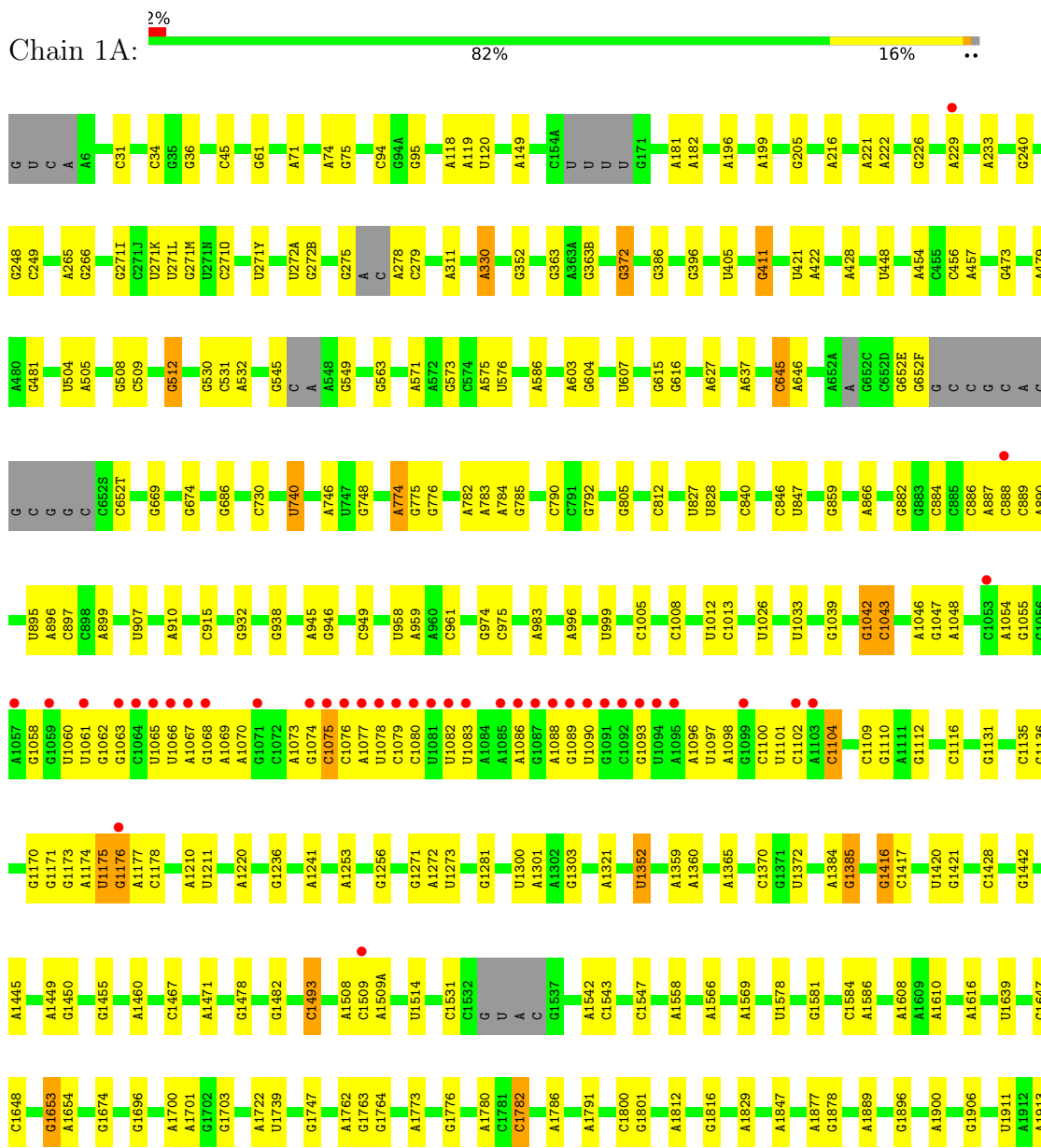
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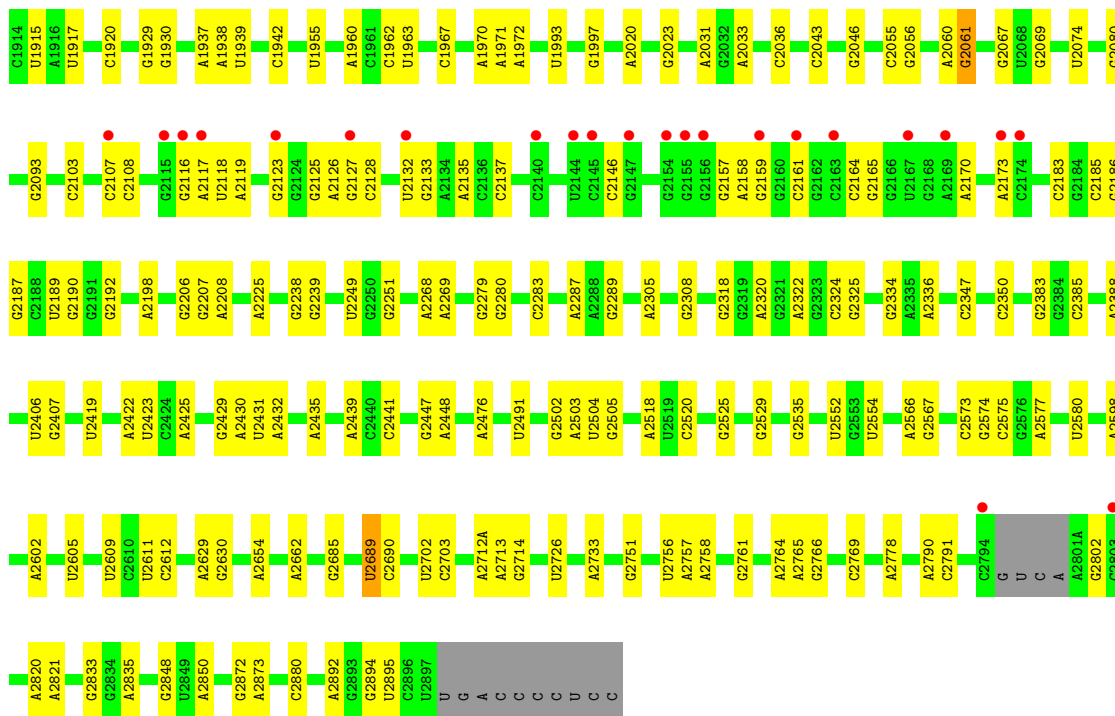
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62	2v	1	Total	O	0	0
			1	1		

### 3 Residue-property plots i

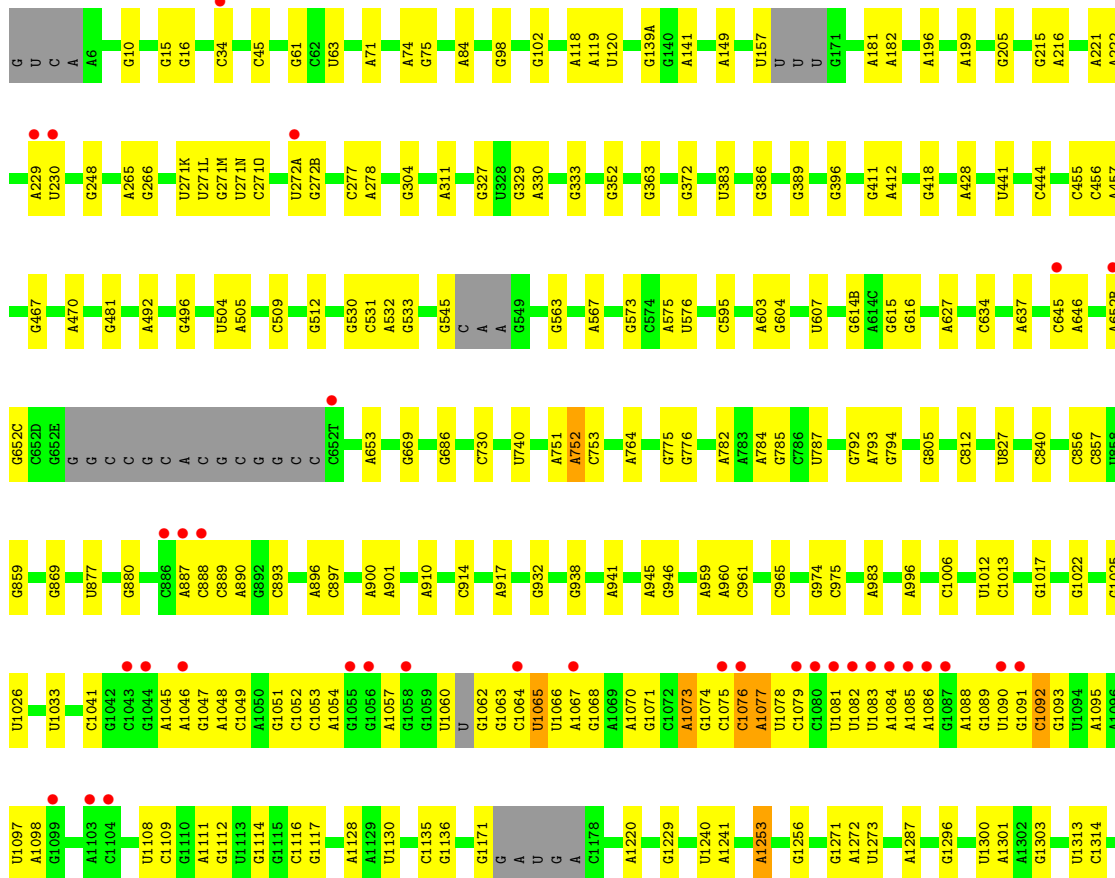
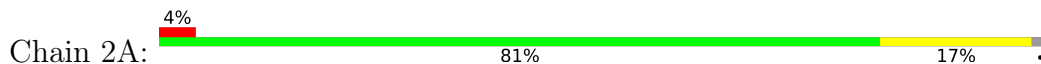
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. 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.

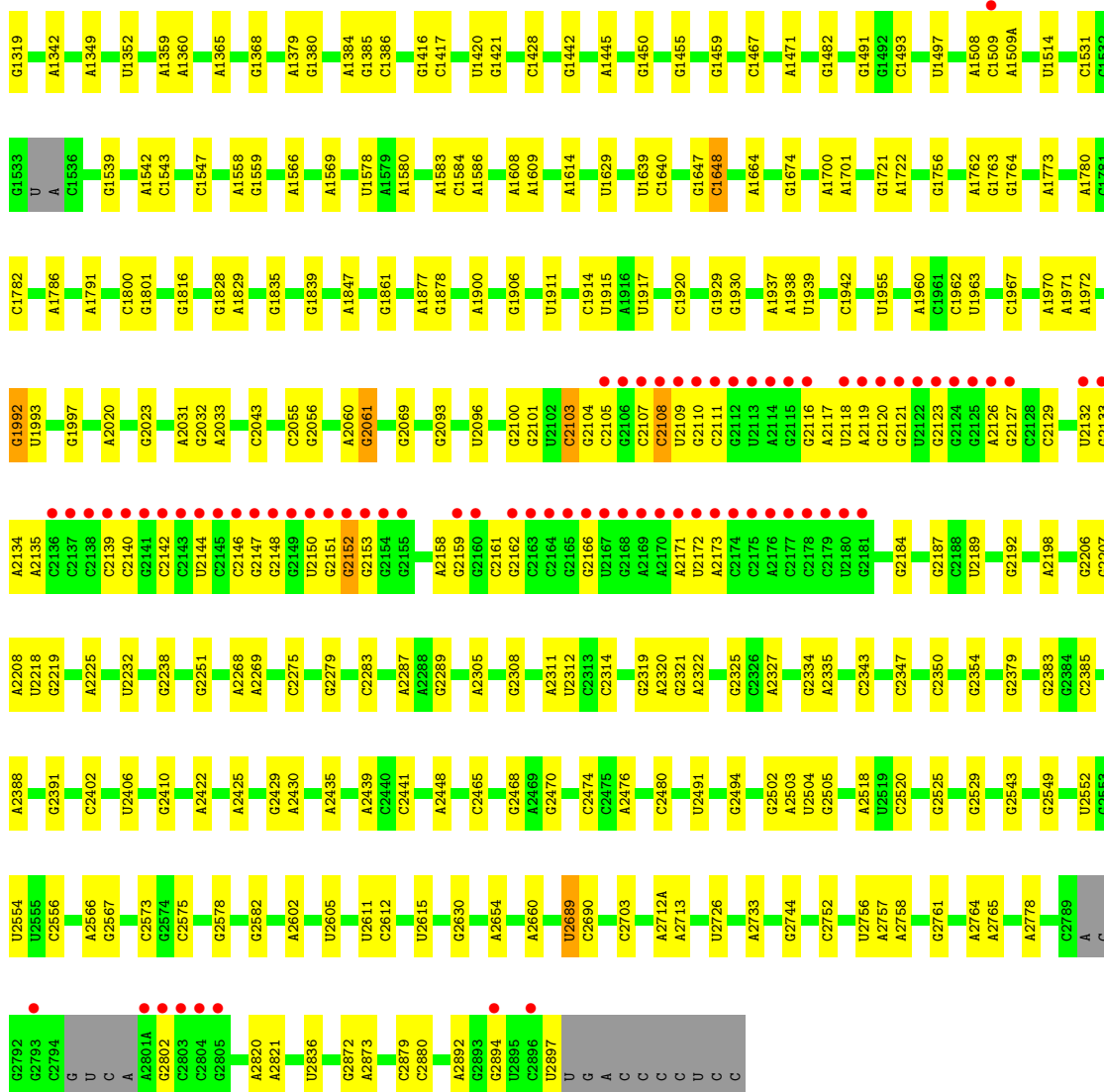
- Molecule 1: 23S Ribosomal RNA



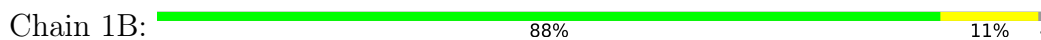


• Molecule 1: 23S Ribosomal RNA

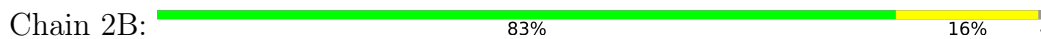




• Molecule 2: 5S Ribosomal RNA



• Molecule 2: 5S Ribosomal RNA



• Molecule 3: 50S ribosomal protein L2



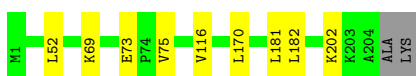




- Molecule 3: 50S ribosomal protein L2



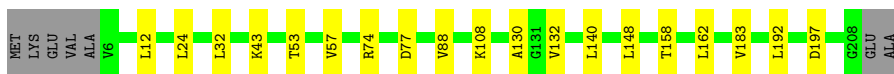
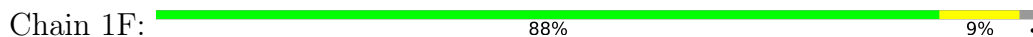
- Molecule 4: 50S ribosomal protein L3



- Molecule 4: 50S ribosomal protein L3



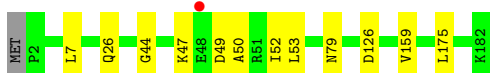
- Molecule 5: 50S ribosomal protein L4



- Molecule 5: 50S ribosomal protein L4

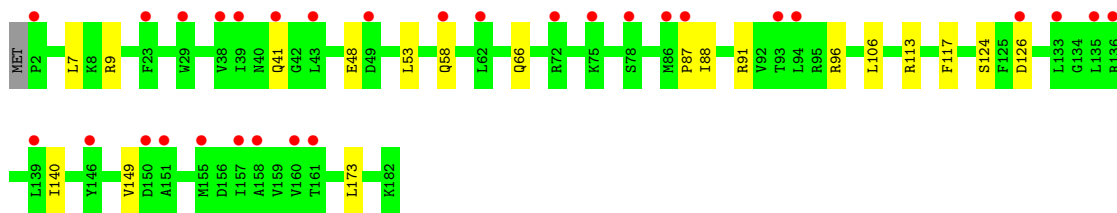


- Molecule 6: 50S ribosomal protein L5

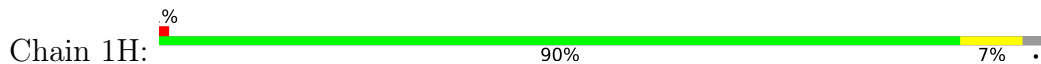


- Molecule 6: 50S ribosomal protein L5

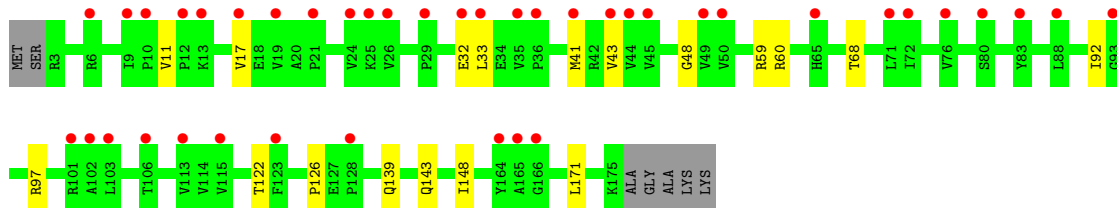
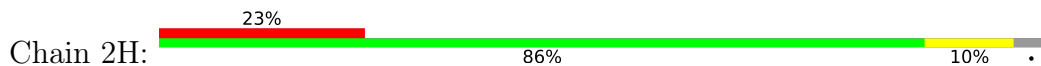




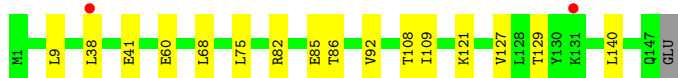
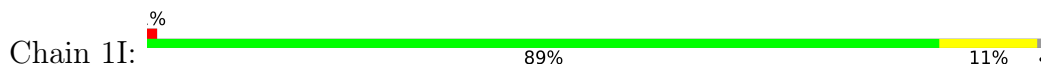
• Molecule 7: 50S ribosomal protein L6



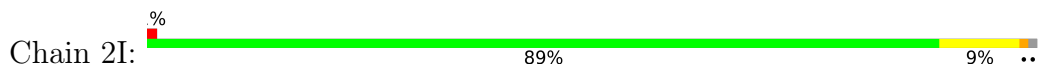
• Molecule 7: 50S ribosomal protein L6



• Molecule 8: 50S ribosomal protein L9



• Molecule 8: 50S ribosomal protein L9



• Molecule 9: 50S ribosomal protein L13



• Molecule 9: 50S ribosomal protein L13





- Molecule 10: 50S ribosomal protein L14



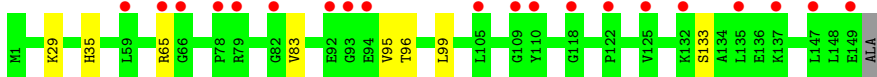
- Molecule 10: 50S ribosomal protein L14



- Molecule 11: 50S ribosomal protein L15



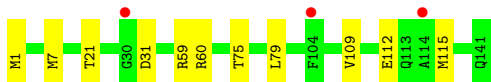
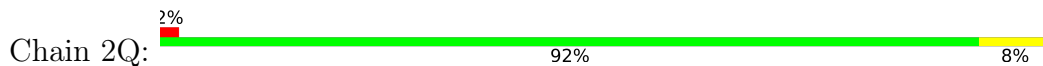
- Molecule 11: 50S ribosomal protein L15



- Molecule 12: 50S ribosomal protein L16



- Molecule 12: 50S ribosomal protein L16



- Molecule 13: 50S ribosomal protein L17





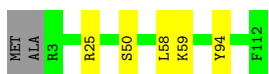
- Molecule 13: 50S ribosomal protein L17

Chain 2R: 95% 5%



- Molecule 14: 50S ribosomal protein L18

Chain 1S: 94%



- Molecule 14: 50S ribosomal protein L18

Chain 2S: 4% 88% 11%



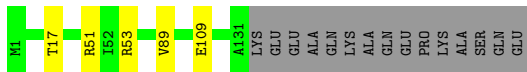
- Molecule 15: 50S ribosomal protein L19

Chain 1T: 84% 5% 10%



- Molecule 15: 50S ribosomal protein L19

Chain 2T: 86% 10%



- Molecule 16: 50S ribosomal protein L20

Chain 1U: 92% 6%

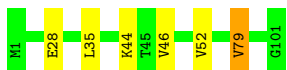


- Molecule 16: 50S ribosomal protein L20

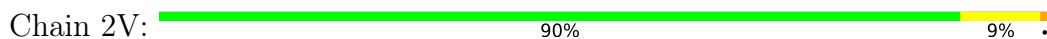
Chain 2U: 95%



- Molecule 17: 50S ribosomal protein L21



- Molecule 17: 50S ribosomal protein L21



- Molecule 18: 50S ribosomal protein L22



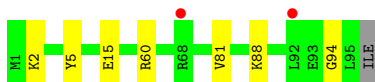
- Molecule 18: 50S ribosomal protein L22



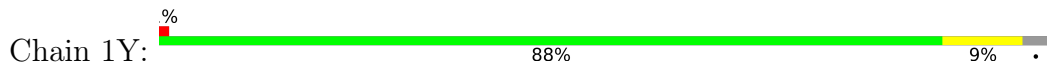
- Molecule 19: 50S ribosomal protein L23

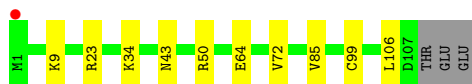


- Molecule 19: 50S ribosomal protein L23

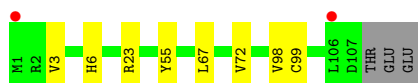


- Molecule 20: 50S ribosomal protein L24





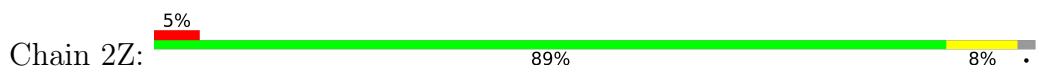
- Molecule 20: 50S ribosomal protein L24



- Molecule 21: 50S ribosomal protein L25



- Molecule 21: 50S ribosomal protein L25



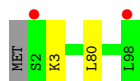
- Molecule 22: 50S ribosomal protein L27



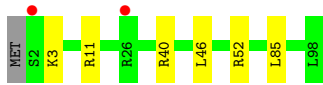
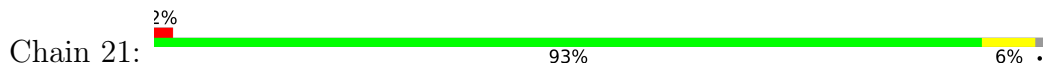
- Molecule 22: 50S ribosomal protein L27



- Molecule 23: 50S ribosomal protein L28



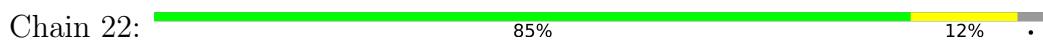
- Molecule 23: 50S ribosomal protein L28



- Molecule 24: 50S ribosomal protein L29



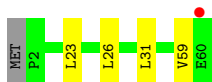
- Molecule 24: 50S ribosomal protein L29



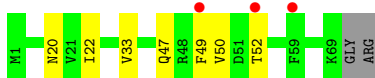
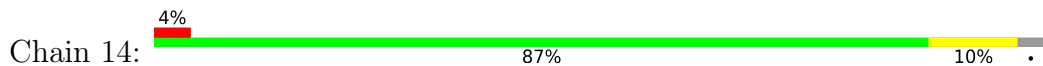
- Molecule 25: 50S ribosomal protein L30



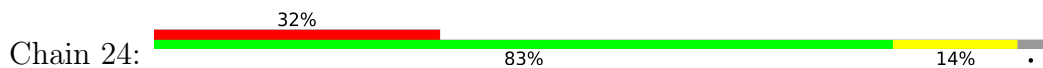
- Molecule 25: 50S ribosomal protein L30



- Molecule 26: 50S ribosomal protein L31



- Molecule 26: 50S ribosomal protein L31



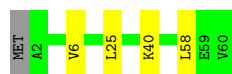
- Molecule 27: 50S ribosomal protein L32

Chain 15:  92% 7%



• Molecule 27: 50S ribosomal protein L32

Chain 25:  92% 7%




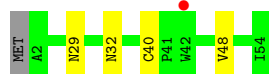
• Molecule 28: 50S ribosomal protein L33

Chain 16:  94%



• Molecule 28: 50S ribosomal protein L33

Chain 26:  2% 91% 7%




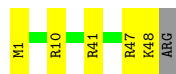
• Molecule 29: 50S ribosomal protein L34

Chain 17:  96%



• Molecule 29: 50S ribosomal protein L34

Chain 27:  88% 10%



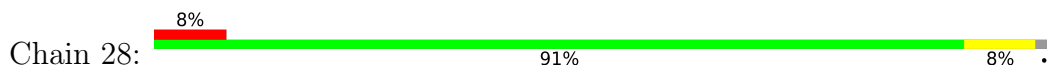
• Molecule 30: 50S ribosomal protein L35

Chain 18:  94% 5%



• Molecule 30: 50S ribosomal protein L35

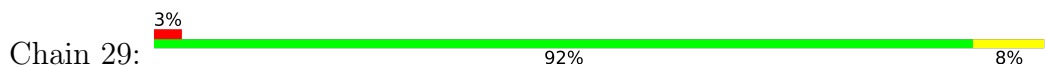




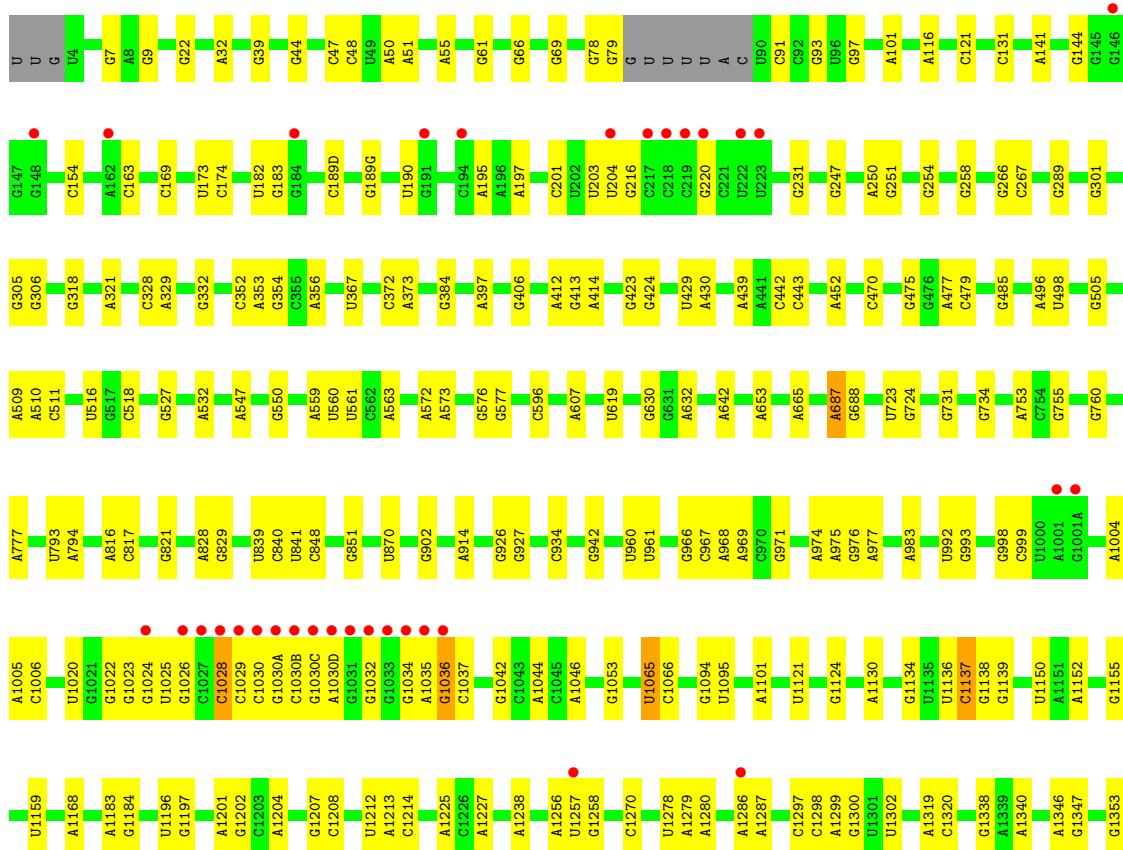
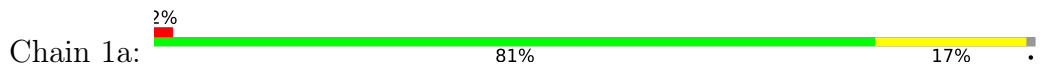
- Molecule 31: 50S ribosomal protein L36



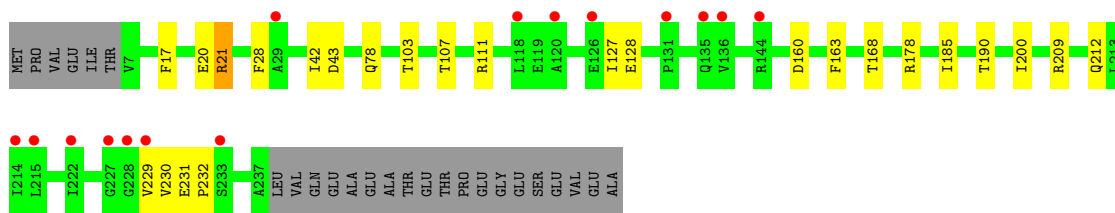
- Molecule 31: 50S ribosomal protein L36



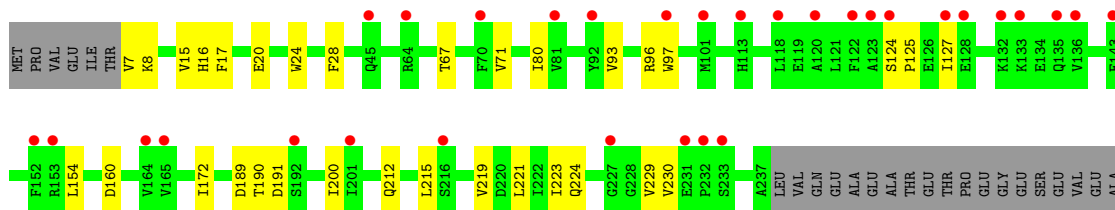
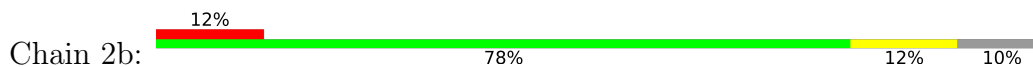
- Molecule 32: 16S Ribosomal RNA



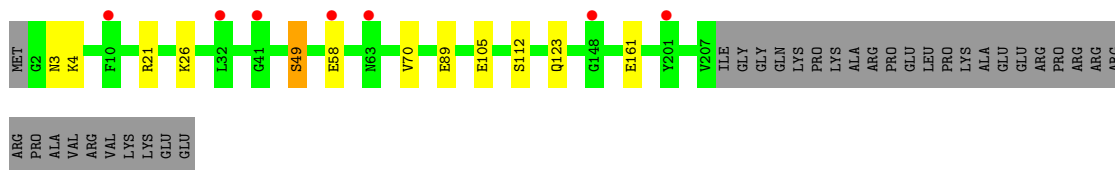
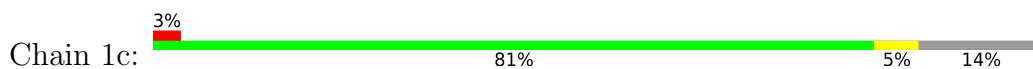




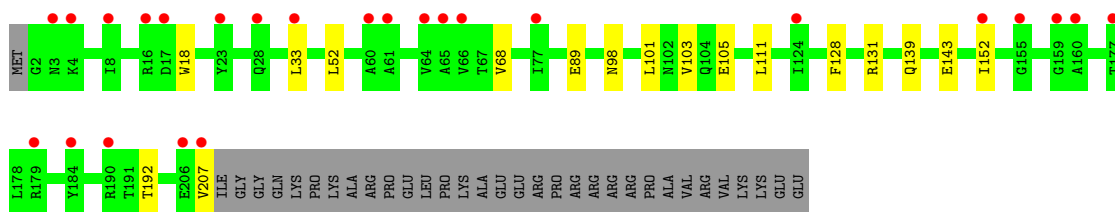
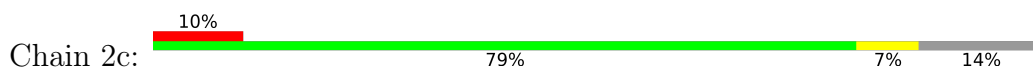
• Molecule 33: 30S ribosomal protein S2



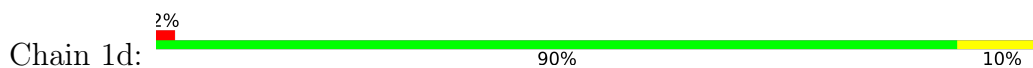
• Molecule 34: 30S ribosomal protein S3



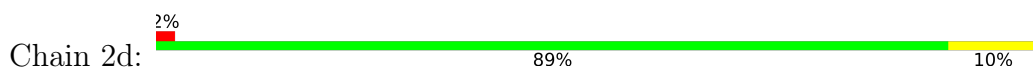
• Molecule 34: 30S ribosomal protein S3



• Molecule 35: 30S ribosomal protein S4

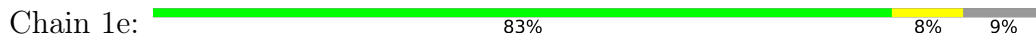


• Molecule 35: 30S ribosomal protein S4

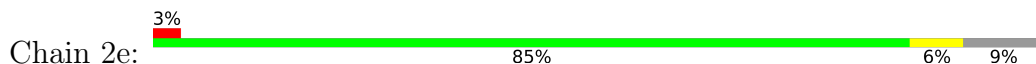




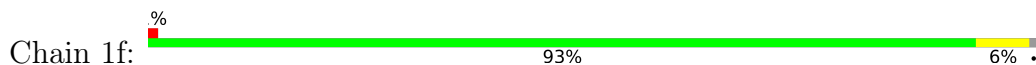
- Molecule 36: 30S ribosomal protein S5



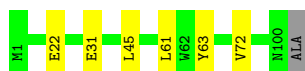
- Molecule 36: 30S ribosomal protein S5



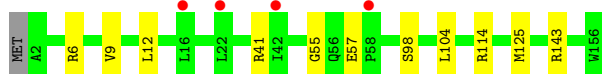
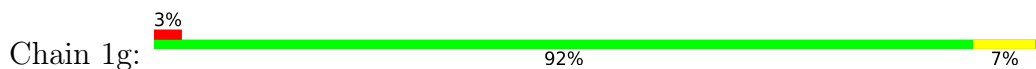
- Molecule 37: 30S ribosomal protein S6



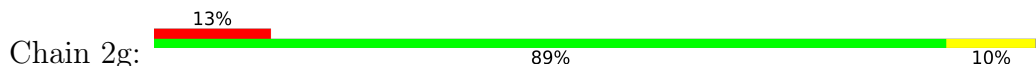
- Molecule 37: 30S ribosomal protein S6



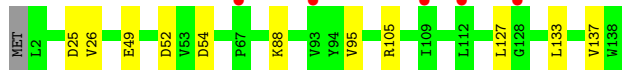
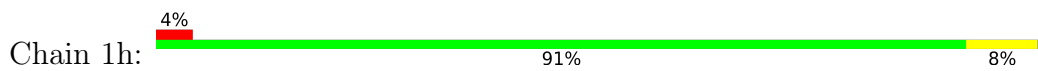
- Molecule 38: 30S ribosomal protein S7



- Molecule 38: 30S ribosomal protein S7



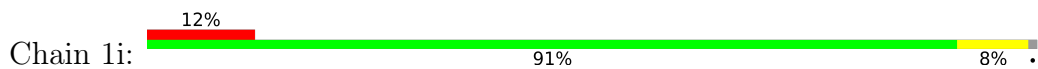
- Molecule 39: 30S ribosomal protein S8



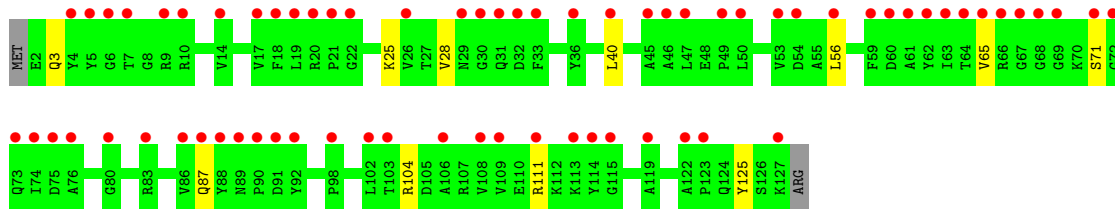
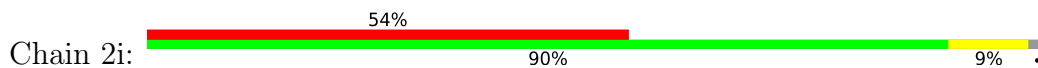
• Molecule 39: 30S ribosomal protein S8



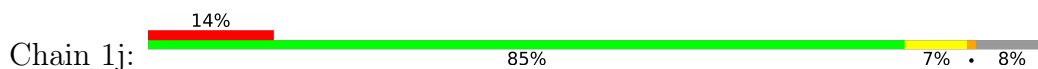
• Molecule 40: 30S ribosomal protein S9



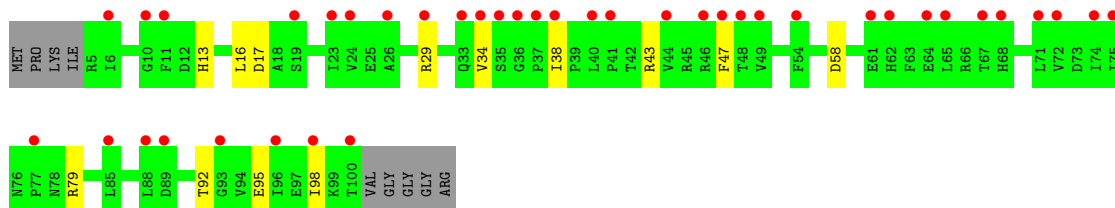
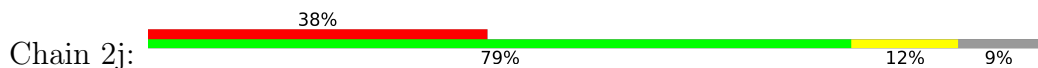
• Molecule 40: 30S ribosomal protein S9



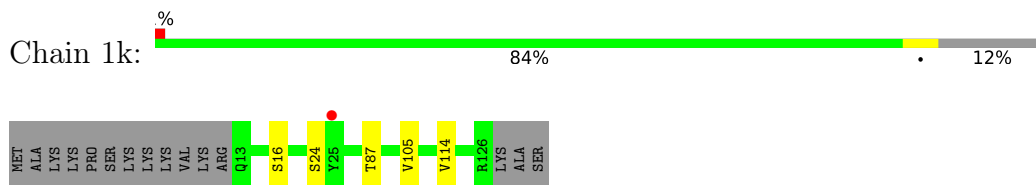
• Molecule 41: 30S ribosomal protein S10



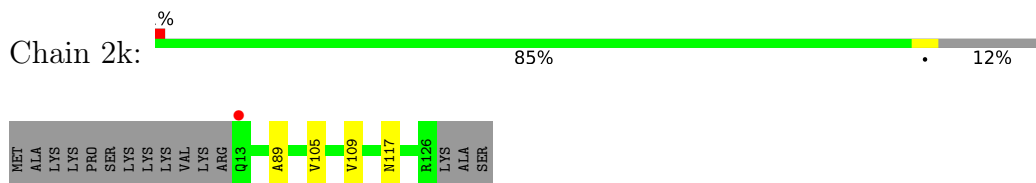
• Molecule 41: 30S ribosomal protein S10



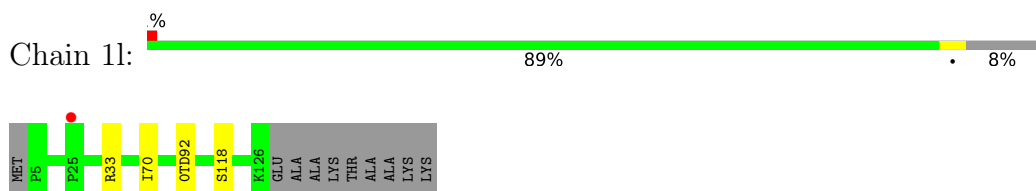
- Molecule 42: 30S ribosomal protein S11



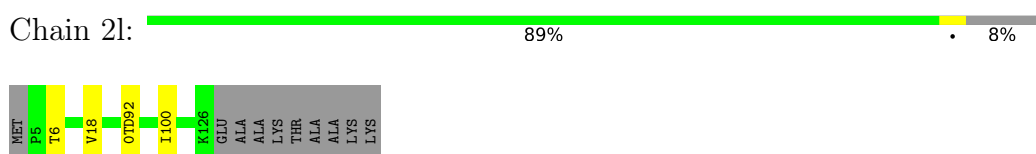
- Molecule 42: 30S ribosomal protein S11



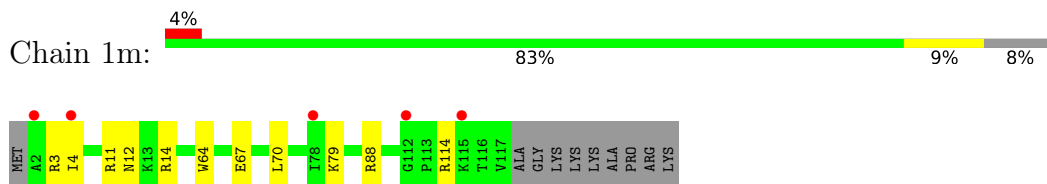
- Molecule 43: 30S ribosomal protein S12



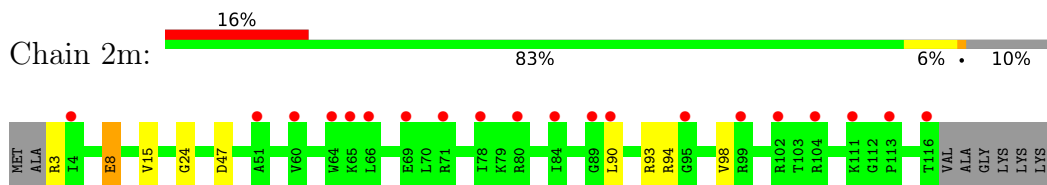
- Molecule 43: 30S ribosomal protein S12



- Molecule 44: 30S ribosomal protein S13

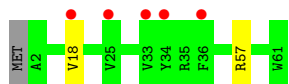


- Molecule 44: 30S ribosomal protein S13

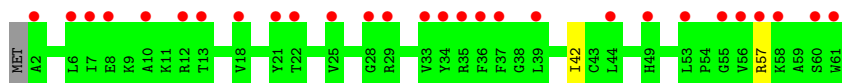


- Molecule 45: 30S ribosomal protein S14 type Z

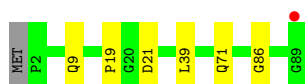
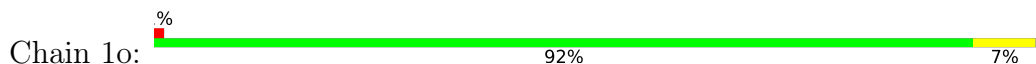




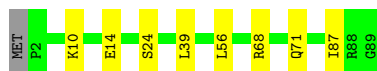
- Molecule 45: 30S ribosomal protein S14 type Z



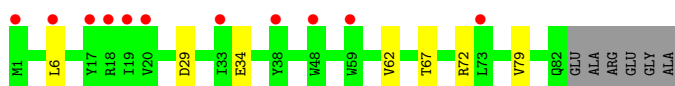
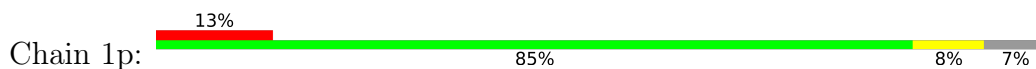
- Molecule 46: 30S ribosomal protein S15



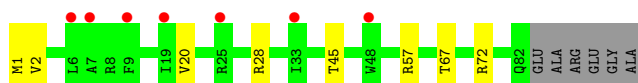
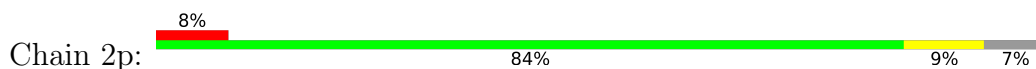
- Molecule 46: 30S ribosomal protein S15



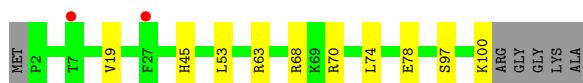
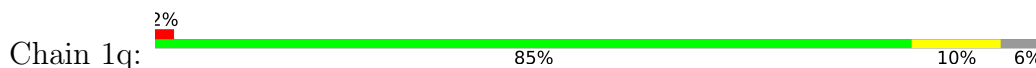
- Molecule 47: 30S ribosomal protein S16



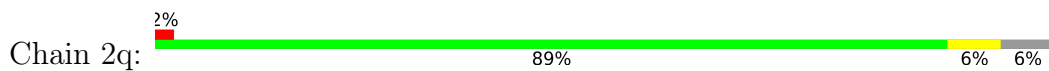
- Molecule 47: 30S ribosomal protein S16



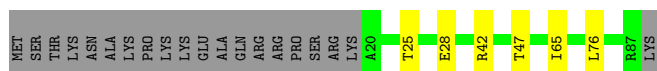
- Molecule 48: 30S ribosomal protein S17



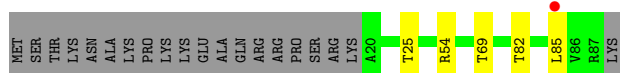
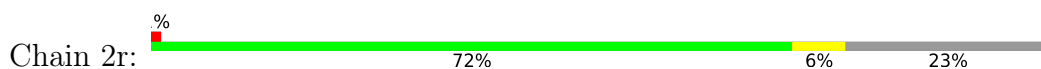
- Molecule 48: 30S ribosomal protein S17



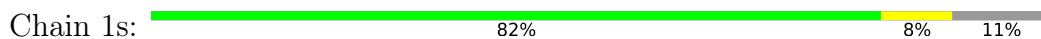
• Molecule 49: 30S ribosomal protein S18



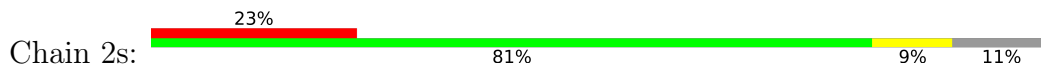
• Molecule 49: 30S ribosomal protein S18



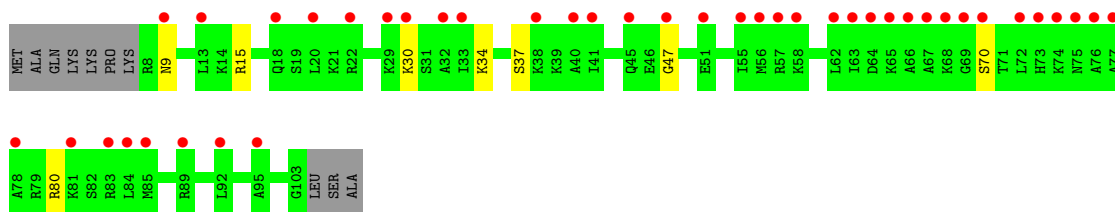
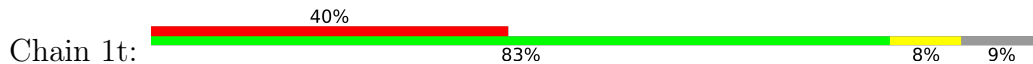
• Molecule 50: 30S ribosomal protein S19



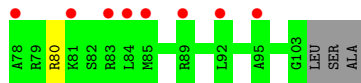
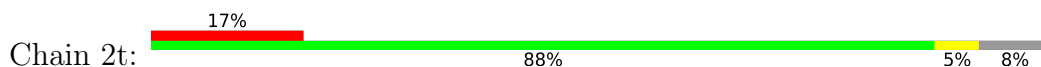
• Molecule 50: 30S ribosomal protein S19



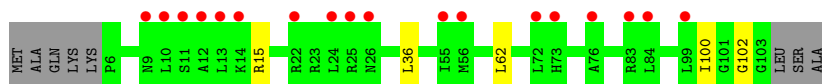
• Molecule 51: 30S ribosomal protein S20



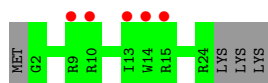
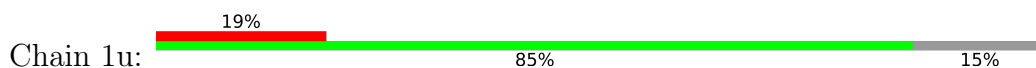
• Molecule 51: 30S ribosomal protein S20



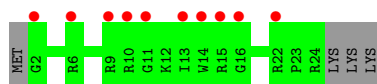
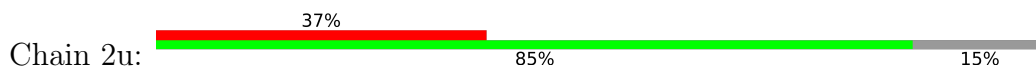




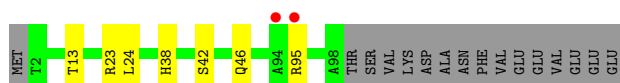
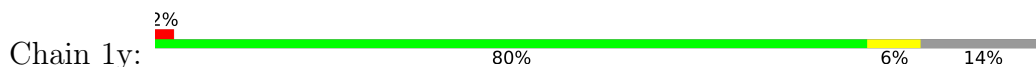
- Molecule 52: 30S ribosomal protein Thx



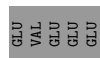
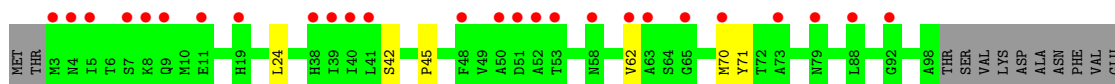
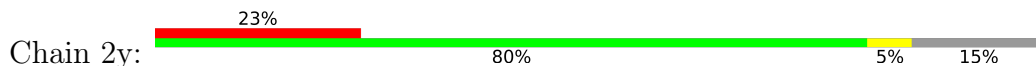
- Molecule 52: 30S ribosomal protein Thx



- Molecule 53: Ribosome-associated inhibitor A



- Molecule 53: Ribosome-associated inhibitor A



- Molecule 54: A-site Aminoacyl-tRNA Analog



- Molecule 54: A-site Aminoacyl-tRNA Analog




- Molecule 55: P-site Peptidyl-tRNA Analog RNA

Chain 1x:  50% 50%



- Molecule 55: P-site Peptidyl-tRNA Analog RNA

Chain 2x:  75% 25%



- Molecule 56: P-site Peptidyl-tRNA Analog Peptide

Chain 1v:  100%

There are no outlier residues recorded for this chain.

- Molecule 56: P-site Peptidyl-tRNA Analog Peptide

Chain 2v:  100%

There are no outlier residues recorded for this chain.

## 4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	209.83Å 450.39Å 621.88Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	122.10 – 2.60 162.25 – 2.60	Depositor EDS
% Data completeness (in resolution range)	99.5 (122.10-2.60) 99.5 (162.25-2.60)	Depositor EDS
$R_{merge}$	0.15	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	1.25 (at 2.62Å)	Xtrriage
Refinement program	PHENIX 1.8.2	Depositor
R, $R_{free}$	0.220 , 0.269 0.221 , 0.269	Depositor DCC
$R_{free}$ test set	88928 reflections (5.02%)	wwPDB-VP
Wilson B-factor (Å <sup>2</sup> )	51.1	Xtrriage
Anisotropy	0.120	Xtrriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.28 , 56.0	EDS
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.38$ , $\langle L^2 \rangle = 0.21$	Xtrriage
Estimated twinning fraction	No twinning to report.	Xtrriage
$F_o, F_c$ correlation	0.91	EDS
Total number of atoms	296459	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	57.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.65% of the height of the origin peak. No significant pseudotranslation is detected.*

<sup>1</sup>Intensities estimated from amplitudes.

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

## 5 Model quality

### 5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: 5MU, ZN, 2MG, M2G, MA6, UR3, FME, PSU, 2MA, 2MU, MG, 4OC, MPD, OMC, OMG, 5MC, 0TD, G7M, SF4, 8AN, PPU

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	0.51	2/69030 (0.0%)	0.98	72/107750 (0.1%)
1	2A	0.40	0/68902	0.88	36/107548 (0.0%)
2	1B	0.43	0/2876	0.92	2/4486 (0.0%)
2	2B	0.36	0/2878	0.86	0/4490
3	1D	0.35	0/2181	0.58	0/2940
3	2D	0.32	0/2186	0.52	0/2944
4	1E	0.32	0/1592	0.53	0/2149
4	2E	0.30	0/1592	0.50	0/2149
5	1F	0.33	0/1619	0.53	0/2193
5	2F	0.30	0/1615	0.51	0/2188
6	1G	0.31	0/1451	0.49	0/1961
6	2G	0.29	0/1449	0.51	1/1957 (0.1%)
7	1H	0.31	0/1356	0.51	0/1834
7	2H	0.29	0/1350	0.47	0/1826
8	1I	0.29	0/1109	0.50	0/1512
8	2I	0.28	0/1091	0.49	0/1490
9	1N	0.34	0/1148	0.53	0/1547
9	2N	0.30	0/1144	0.47	0/1543
10	1O	0.36	0/943	0.56	0/1269
10	2O	0.31	0/943	0.54	0/1269
11	1P	0.34	0/1152	0.53	0/1533
11	2P	0.31	0/1152	0.51	0/1533
12	1Q	0.35	0/1143	0.51	0/1527
12	2Q	0.28	0/1143	0.47	0/1527
13	1R	0.32	0/982	0.55	0/1312
13	2R	0.28	0/982	0.49	0/1312
14	1S	0.31	0/887	0.52	0/1180
14	2S	0.29	0/880	0.50	0/1172
15	1T	0.32	0/1105	0.52	0/1477
15	2T	0.30	0/1097	0.48	0/1468
16	1U	0.34	0/977	0.51	0/1301

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
16	2U	0.29	0/977	0.44	0/1301
17	1V	0.36	0/786	0.54	0/1053
17	2V	0.31	0/782	0.51	0/1049
18	1W	0.34	0/897	0.54	0/1205
18	2W	0.29	0/897	0.47	0/1205
19	1X	0.35	0/764	0.55	0/1025
19	2X	0.30	0/764	0.50	0/1025
20	1Y	0.36	0/823	0.53	0/1099
20	2Y	0.30	0/823	0.50	0/1100
21	1Z	0.35	1/1620 (0.1%)	0.50	0/2200
21	2Z	0.31	0/1590	0.50	0/2162
22	10	0.35	0/662	0.57	0/881
22	20	0.31	0/659	0.51	0/877
23	11	0.33	0/761	0.51	0/1013
23	21	0.31	0/766	0.50	0/1018
24	12	0.29	0/590	0.46	0/781
24	22	0.30	0/594	0.44	0/785
25	13	0.34	0/474	0.55	0/635
25	23	0.28	0/469	0.47	0/630
26	14	0.32	0/559	0.54	0/754
26	24	0.33	0/549	0.52	0/741
27	15	0.36	0/473	0.55	0/639
27	25	0.32	0/469	0.52	0/635
28	16	0.32	0/460	0.50	0/613
28	26	0.29	0/456	0.48	0/608
29	17	0.34	0/426	0.56	0/561
29	27	0.29	0/426	0.52	0/561
30	18	0.32	0/525	0.56	0/691
30	28	0.30	0/525	0.49	0/691
31	19	0.37	0/310	0.51	0/407
31	29	0.31	0/310	0.49	0/407
32	1a	0.36	0/35795	0.87	16/55864 (0.0%)
32	2a	0.35	0/35890	0.87	24/56012 (0.0%)
33	1b	0.30	0/1876	0.49	0/2533
33	2b	0.30	0/1860	0.50	0/2518
34	1c	0.28	0/1582	0.47	0/2137
34	2c	0.29	0/1566	0.49	0/2119
35	1d	0.28	0/1695	0.47	0/2274
35	2d	0.28	0/1698	0.47	0/2277
36	1e	0.29	0/1149	0.50	0/1548
36	2e	0.30	0/1149	0.49	0/1548
37	1f	0.31	0/827	0.46	0/1120
37	2f	0.30	0/829	0.48	0/1123

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
38	1g	0.28	0/1254	0.42	0/1683
38	2g	0.28	0/1248	0.42	0/1676
39	1h	0.29	0/1118	0.46	0/1506
39	2h	0.29	0/1108	0.47	0/1494
40	1i	0.30	0/1005	0.47	0/1351
40	2i	0.30	0/985	0.48	0/1329
41	1j	0.28	0/732	0.49	0/993
41	2j	0.29	0/723	0.49	0/984
42	1k	0.28	0/849	0.50	0/1150
42	2k	0.28	0/848	0.50	0/1149
43	1l	0.30	0/937	0.51	0/1260
43	2l	0.31	0/937	0.51	0/1260
44	1m	0.27	0/924	0.47	0/1242
44	2m	0.30	0/905	0.46	0/1217
45	1n	0.30	0/501	0.47	0/664
45	2n	0.30	0/501	0.47	0/664
46	1o	0.27	0/739	0.43	0/985
46	2o	0.27	0/739	0.43	0/985
47	1p	0.28	0/697	0.51	1/939 (0.1%)
47	2p	0.27	0/693	0.47	0/935
48	1q	0.29	0/836	0.50	0/1117
48	2q	0.29	0/836	0.47	0/1117
49	1r	0.29	0/560	0.48	0/746
49	2r	0.30	0/560	0.46	0/746
50	1s	0.26	0/663	0.49	0/895
50	2s	0.31	0/660	0.47	0/893
51	1t	0.29	0/734	0.41	0/969
51	2t	0.27	0/736	0.43	0/976
52	1u	0.26	0/203	0.49	0/266
52	2u	0.28	0/203	0.46	0/266
53	1y	0.28	0/776	0.46	0/1048
53	2y	0.28	0/761	0.46	0/1030
54	1w	2.29	3/44 (6.8%)	1.29	2/67 (3.0%)
54	2w	1.93	1/44 (2.3%)	0.82	0/67
55	1x	0.77	0/44	1.06	0/67
55	2x	0.47	0/44	0.95	0/67
56	1v	0.36	0/19	0.36	0/24
56	2v	0.25	0/19	0.46	0/24
All	All	0.39	7/310242 (0.0%)	0.82	154/463663 (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
11	1P	0	1
11	2P	0	1
14	1S	0	1
26	24	0	1
All	All	0	4

All (7) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
54	1w	74	C	O3'-P	-7.05	1.52	1.61
54	2w	74	C	O3'-P	-6.80	1.52	1.61
54	1w	75	C	P-OP1	-6.39	1.38	1.49
1	1A	330	A	N9-C4	-5.60	1.34	1.37
54	1w	75	C	P-OP2	-5.55	1.39	1.49
21	1Z	135	GLU	CB-CG	5.36	1.62	1.52
1	1A	2790	A	N9-C4	5.13	1.41	1.37

All (154) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1A	1042	G	OP1-P-O3'	-11.42	80.08	105.20
1	2A	1092	C	C6-N1-C2	-8.78	116.79	120.30
1	2A	1092	C	C2-N1-C1'	8.77	128.45	118.80
1	1A	512	G	O4'-C1'-N9	8.20	114.76	108.20
1	1A	1075	C	N1-C2-O2	8.13	123.78	118.90
1	2A	1092	C	N1-C2-O2	8.13	123.78	118.90
1	1A	1042	G	OP2-P-O3'	-8.08	87.42	105.20
32	2a	754	C	C2-N1-C1'	7.93	127.52	118.80
1	2A	1639	U	O5'-P-OP2	-7.88	98.60	105.70
1	1A	645	C	N1-C2-O2	7.79	123.58	118.90
32	2a	254	G	O5'-P-OP1	-7.75	98.72	105.70
1	2A	1092	C	N3-C2-O2	-7.74	116.48	121.90
1	1A	740	U	O5'-P-OP2	-7.47	98.97	105.70
1	1A	645	C	C2-N1-C1'	7.42	126.96	118.80
1	1A	576	U	O5'-P-OP1	-7.32	99.11	105.70
1	1A	1043	C	OP1-P-OP2	7.14	130.31	119.60
1	1A	2685	G	N1-C6-O6	-7.03	115.69	119.90
1	1A	330	A	C2-N3-C4	-6.96	107.12	110.60
1	1A	1352	U	O5'-P-OP1	-6.87	99.52	105.70
32	2a	1158	C	N1-C2-O2	6.74	122.94	118.90
32	2a	754	C	N1-C2-O2	6.74	122.94	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1A	2848	G	O4'-C1'-N9	6.68	113.54	108.20
32	1a	1397	C	C2-N1-C1'	6.66	126.13	118.80
1	2A	1313	U	C2-N1-C1'	6.62	125.64	117.70
1	1A	1086	A	N1-C6-N6	-6.61	114.63	118.60
32	2a	1158	C	C2-N1-C1'	6.58	126.04	118.80
1	1A	1104	C	N3-C4-N4	-6.53	113.43	118.00
1	2A	1648	C	O5'-P-OP1	-6.53	99.83	105.70
1	1A	999	U	O5'-P-OP2	-6.42	99.92	105.70
1	2A	2108	C	C2-N3-C4	6.27	123.03	119.90
32	2a	1003	G	N3-C4-C5	-6.24	125.48	128.60
1	1A	2036	C	O5'-P-OP1	-6.24	100.08	105.70
32	2a	1004	A	O4'-C1'-N9	6.22	113.18	108.20
1	1A	240	G	C5-C6-O6	-6.22	124.87	128.60
1	1A	847	U	C2-N1-C1'	6.20	125.14	117.70
32	1a	1397	C	N1-C2-O2	6.18	122.61	118.90
1	1A	2249	U	N3-C4-O4	-6.18	115.08	119.40
1	1A	226	G	O4'-C1'-N9	6.07	113.06	108.20
1	1A	774	A	C8-N9-C4	-6.03	103.39	105.80
1	1A	271(Y)	U	O4'-C1'-N1	6.03	113.03	108.20
1	2A	1076	C	OP1-P-O3'	6.01	118.42	105.20
1	2A	2108	C	N1-C2-O2	5.99	122.50	118.90
1	2A	1992	G	P-O3'-C3'	5.94	126.83	119.70
1	2A	1075	C	N1-C2-O2	5.94	122.46	118.90
32	2a	1003	G	C2-N3-C4	5.88	114.84	111.90
1	1A	2577	A	O5'-P-OP1	-5.83	100.45	105.70
1	1A	31	C	O5'-P-OP1	-5.83	100.45	105.70
1	1A	1175	U	P-O3'-C3'	5.83	126.70	119.70
1	2A	1092	C	C5-C6-N1	5.81	123.90	121.00
1	1A	674	G	C5-C6-O6	-5.80	125.12	128.60
1	1A	847	U	N1-C2-O2	5.78	126.85	122.80
1	2A	2575	C	O5'-P-OP2	-5.78	100.50	105.70
54	1w	75	C	C3'-C2'-O2'	-5.77	96.56	113.30
1	1A	645	C	N3-C2-O2	-5.76	117.86	121.90
1	1A	1075	C	C2-N3-C4	5.75	122.78	119.90
1	1A	2598	A	O5'-P-OP1	-5.75	100.52	105.70
1	1A	1416	G	O4'-C1'-N9	5.74	112.80	108.20
1	2A	2161	C	C5-C4-N4	5.74	124.22	120.20
1	2A	2144	U	C2-N1-C1'	5.74	124.59	117.70
32	2a	754	C	C6-N1-C1'	-5.71	113.94	120.80
1	1A	1493	C	C2-N1-C1'	5.71	125.08	118.80
1	1A	2689	U	P-O3'-C3'	5.71	126.55	119.70
32	2a	1397	C	C2-N1-C1'	5.71	125.08	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	2G	66	GLN	C-N-CA	-5.70	107.46	121.70
1	1A	1176	G	OP1-P-O3'	5.69	117.73	105.20
1	1A	1063	G	C5-C6-O6	5.65	131.99	128.60
1	1A	1372	U	C5-C4-O4	-5.64	122.52	125.90
1	2A	752	A	P-O3'-C3'	5.64	126.47	119.70
1	1A	330	A	N1-C2-N3	5.60	132.10	129.30
1	1A	1653	G	C8-N9-C4	-5.58	104.17	106.40
1	1A	2790	A	C2-N3-C4	5.58	113.39	110.60
54	1w	74	C	O5'-P-OP2	-5.56	100.70	105.70
1	2A	2152	G	N3-C4-N9	-5.53	122.68	126.00
1	1A	2249	U	N3-C2-O2	-5.52	118.34	122.20
1	1A	1102	C	N1-C2-O2	5.50	122.20	118.90
1	1A	645	C	C6-N1-C2	-5.50	118.10	120.30
32	2a	1065	U	P-O3'-C3'	5.49	126.29	119.70
1	2A	2061	G	O5'-P-OP2	-5.49	100.76	105.70
1	2A	2103	C	C2-N3-C4	5.49	122.64	119.90
47	1p	6	LEU	CA-CB-CG	5.48	127.90	115.30
32	1a	1442	G	N3-C4-C5	-5.48	125.86	128.60
1	1A	1104	C	C2-N1-C1'	-5.47	112.79	118.80
32	2a	687	A	P-O3'-C3'	5.45	126.25	119.70
32	2a	1366	C	N1-C2-O2	5.45	122.17	118.90
1	2A	1313	U	N3-C2-O2	-5.43	118.40	122.20
32	2a	115	G	P-O3'-C3'	5.42	126.21	119.70
32	1a	1137	C	C6-N1-C2	-5.38	118.15	120.30
32	1a	1028	C	C6-N1-C2	-5.37	118.15	120.30
1	1A	2249	U	N1-C2-O2	5.36	126.55	122.80
32	2a	1158	C	N3-C2-O2	-5.36	118.15	121.90
1	1A	240	G	N1-C6-O6	5.36	123.11	119.90
1	1A	2061	G	O5'-P-OP2	-5.36	100.88	105.70
32	2a	1054	C	N1-C2-O2	5.35	122.11	118.90
1	1A	2580	U	C5-C6-N1	-5.34	120.03	122.70
1	1A	2128	C	C2-N1-C1'	5.34	124.68	118.80
1	1A	2067	G	C8-N9-C4	-5.34	104.26	106.40
32	1a	1028	C	C5-C6-N1	5.33	123.66	121.00
1	1A	1063	G	C6-N1-C2	5.32	128.29	125.10
1	1A	846	C	C6-N1-C2	5.32	122.43	120.30
1	1A	2447	G	N3-C4-N9	-5.32	122.81	126.00
1	2A	1062	G	C4-N9-C1'	5.32	133.41	126.50
32	1a	687	A	P-O3'-C3'	5.31	126.08	119.70
1	1A	748	G	O4'-C1'-N9	5.31	112.45	108.20
1	2A	576	U	O5'-P-OP1	-5.30	100.93	105.70
32	1a	1397	C	N3-C2-O2	-5.30	118.19	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	1a	1442	G	P-O3'-C3'	5.28	126.04	119.70
1	2A	1313	U	N1-C2-O2	5.28	126.50	122.80
1	2A	383	U	O4'-C1'-N1	5.26	112.41	108.20
32	2a	1397	C	N1-C2-O2	5.26	122.06	118.90
2	1B	1	U	C2-N1-C1'	5.26	124.01	117.70
32	1a	563	A	O4'-C1'-N9	5.23	112.39	108.20
1	1A	473	G	N1-C6-O6	-5.23	116.76	119.90
32	2a	1026	G	N3-C4-C5	-5.21	125.99	128.60
1	2A	512	G	O4'-C1'-N9	5.21	112.36	108.20
1	2A	1992	G	C8-N9-C4	-5.20	104.32	106.40
1	2A	1075	C	C2-N1-C1'	5.19	124.51	118.80
32	2a	754	C	N3-C2-O2	-5.19	118.27	121.90
32	2a	65	U	P-O3'-C3'	5.17	125.91	119.70
32	2a	1183	A	P-O3'-C3'	5.17	125.91	119.70
1	1A	645	C	C5-C6-N1	5.17	123.59	121.00
1	1A	1776	G	C4-N9-C1'	5.17	133.22	126.50
1	2A	1077	A	O5'-P-OP1	-5.17	101.05	105.70
1	1A	2046	G	C4-N9-C1'	5.16	133.21	126.50
1	2A	1253	A	C8-N9-C4	5.16	107.86	105.80
1	1A	571	A	C8-N9-C4	5.15	107.86	105.80
1	1A	372	G	O4'-C1'-N9	5.14	112.31	108.20
1	1A	2575	C	O5'-P-OP2	-5.13	101.08	105.70
1	1A	330	A	N3-C4-N9	-5.13	123.30	127.40
1	1A	2419	U	N1-C2-O2	5.12	126.38	122.80
1	2A	1073	A	P-O3'-C3'	5.12	125.84	119.70
1	1A	411	G	O5'-P-OP1	-5.11	101.10	105.70
32	2a	991	U	P-O3'-C3'	5.11	125.83	119.70
1	1A	1176	G	P-O3'-C3'	5.10	125.82	119.70
1	2A	1065	U	P-O3'-C3'	5.10	125.82	119.70
2	1B	41	U	C5-C6-N1	-5.09	120.15	122.70
1	1A	1776	G	C8-N9-C1'	-5.09	120.38	127.00
1	1A	1385	G	O4'-C1'-N9	5.08	112.27	108.20
32	1a	1065	U	P-O3'-C3'	5.08	125.79	119.70
32	2a	1054	C	C6-N1-C2	-5.07	118.27	120.30
32	2a	1058	G	C5-C6-O6	-5.07	125.56	128.60
32	1a	1030(B)	C	C2-N1-C1'	5.07	124.37	118.80
32	1a	1036	G	C4-N9-C1'	5.06	133.08	126.50
1	2A	787	U	O5'-P-OP1	-5.06	101.14	105.70
1	1A	2388	A	O4'-C1'-N9	5.06	112.25	108.20
32	1a	1030(B)	C	N1-C2-O2	5.05	121.93	118.90
1	2A	1092	C	C6-N1-C1'	-5.05	114.74	120.80
1	1A	1372	U	N3-C4-O4	5.05	122.94	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2A	2689	U	N3-C2-O2	-5.05	118.67	122.20
1	2A	1614	A	O5'-P-OP1	-5.04	101.16	105.70
1	1A	1782	C	O5'-P-OP1	-5.03	101.17	105.70
1	1A	1131	G	O4'-C1'-N9	5.03	112.22	108.20
32	1a	1366	C	N1-C2-O2	5.03	121.92	118.90
32	1a	1201	A	P-O3'-C3'	5.02	125.72	119.70
1	1A	2074	U	O5'-P-OP1	-5.00	101.20	105.70

There are no chirality outliers.

All (4) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
11	1P	35	HIS	Peptide
14	1S	58	LEU	Peptide
26	24	18	CYS	Peptide
11	2P	35	HIS	Peptide

## 5.2 Too-close contacts [i](#)

Due to software issues we are unable to calculate clashes - this section is therefore empty.

## 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%)	258 (94%)	15 (6%)	0	100	100
3	2D	273/276 (99%)	257 (94%)	16 (6%)	0	100	100
4	1E	202/206 (98%)	193 (96%)	8 (4%)	1 (0%)	29	52
4	2E	202/206 (98%)	190 (94%)	11 (5%)	1 (0%)	29	52
5	1F	201/210 (96%)	193 (96%)	7 (4%)	1 (0%)	29	52
5	2F	201/210 (96%)	185 (92%)	15 (8%)	1 (0%)	29	52

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
6	1G	179/182 (98%)	159 (89%)	15 (8%)	5 (3%)	5	7
6	2G	179/182 (98%)	146 (82%)	28 (16%)	5 (3%)	5	7
7	1H	172/180 (96%)	162 (94%)	9 (5%)	1 (1%)	25	47
7	2H	171/180 (95%)	146 (85%)	22 (13%)	3 (2%)	8	16
8	1I	145/148 (98%)	122 (84%)	22 (15%)	1 (1%)	22	43
8	2I	144/148 (97%)	124 (86%)	18 (12%)	2 (1%)	11	22
9	1N	138/140 (99%)	128 (93%)	10 (7%)	0	100	100
9	2N	138/140 (99%)	129 (94%)	9 (6%)	0	100	100
10	1O	120/122 (98%)	114 (95%)	6 (5%)	0	100	100
10	2O	120/122 (98%)	113 (94%)	6 (5%)	1 (1%)	19	39
11	1P	147/150 (98%)	136 (92%)	10 (7%)	1 (1%)	22	43
11	2P	147/150 (98%)	136 (92%)	10 (7%)	1 (1%)	22	43
12	1Q	139/141 (99%)	131 (94%)	8 (6%)	0	100	100
12	2Q	139/141 (99%)	133 (96%)	5 (4%)	1 (1%)	22	43
13	1R	116/118 (98%)	112 (97%)	4 (3%)	0	100	100
13	2R	116/118 (98%)	108 (93%)	7 (6%)	1 (1%)	17	35
14	1S	108/112 (96%)	103 (95%)	4 (4%)	1 (1%)	17	35
14	2S	108/112 (96%)	100 (93%)	8 (7%)	0	100	100
15	1T	129/146 (88%)	121 (94%)	7 (5%)	1 (1%)	19	39
15	2T	129/146 (88%)	121 (94%)	8 (6%)	0	100	100
16	1U	114/118 (97%)	114 (100%)	0	0	100	100
16	2U	114/118 (97%)	112 (98%)	2 (2%)	0	100	100
17	1V	99/101 (98%)	96 (97%)	2 (2%)	1 (1%)	15	32
17	2V	99/101 (98%)	91 (92%)	6 (6%)	2 (2%)	7	14
18	1W	110/113 (97%)	107 (97%)	3 (3%)	0	100	100
18	2W	110/113 (97%)	109 (99%)	1 (1%)	0	100	100
19	1X	93/96 (97%)	91 (98%)	1 (1%)	1 (1%)	14	30
19	2X	93/96 (97%)	86 (92%)	6 (6%)	1 (1%)	14	30
20	1Y	105/110 (96%)	96 (91%)	9 (9%)	0	100	100
20	2Y	105/110 (96%)	93 (89%)	12 (11%)	0	100	100
21	1Z	201/206 (98%)	184 (92%)	17 (8%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
21	2Z	199/206 (97%)	172 (86%)	24 (12%)	3 (2%)	10	21
22	10	81/85 (95%)	77 (95%)	4 (5%)	0	100	100
22	20	81/85 (95%)	77 (95%)	3 (4%)	1 (1%)	13	27
23	11	95/98 (97%)	91 (96%)	3 (3%)	1 (1%)	14	30
23	21	95/98 (97%)	92 (97%)	2 (2%)	1 (1%)	14	30
24	12	68/72 (94%)	68 (100%)	0	0	100	100
24	22	68/72 (94%)	65 (96%)	3 (4%)	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%)	16 (24%)	1 (2%)	10	21
26	24	67/71 (94%)	48 (72%)	16 (24%)	3 (4%)	2	3
27	15	57/60 (95%)	54 (95%)	3 (5%)	0	100	100
27	25	57/60 (95%)	53 (93%)	4 (7%)	0	100	100
28	16	51/54 (94%)	50 (98%)	1 (2%)	0	100	100
28	26	51/54 (94%)	49 (96%)	2 (4%)	0	100	100
29	17	46/49 (94%)	46 (100%)	0	0	100	100
29	27	46/49 (94%)	46 (100%)	0	0	100	100
30	18	62/65 (95%)	62 (100%)	0	0	100	100
30	28	62/65 (95%)	61 (98%)	1 (2%)	0	100	100
31	19	35/37 (95%)	35 (100%)	0	0	100	100
31	29	35/37 (95%)	34 (97%)	1 (3%)	0	100	100
33	1b	229/256 (90%)	199 (87%)	24 (10%)	6 (3%)	5	9
33	2b	229/256 (90%)	191 (83%)	32 (14%)	6 (3%)	5	9
34	1c	204/239 (85%)	182 (89%)	21 (10%)	1 (0%)	29	52
34	2c	204/239 (85%)	163 (80%)	38 (19%)	3 (2%)	10	21
35	1d	206/209 (99%)	188 (91%)	17 (8%)	1 (0%)	29	52
35	2d	206/209 (99%)	187 (91%)	18 (9%)	1 (0%)	29	52
36	1e	146/162 (90%)	135 (92%)	9 (6%)	2 (1%)	11	22
36	2e	146/162 (90%)	133 (91%)	13 (9%)	0	100	100
37	1f	98/101 (97%)	91 (93%)	7 (7%)	0	100	100
37	2f	98/101 (97%)	93 (95%)	5 (5%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
38	1g	153/156 (98%)	142 (93%)	10 (6%)	1 (1%)	22	43
38	2g	153/156 (98%)	139 (91%)	12 (8%)	2 (1%)	12	24
39	1h	135/138 (98%)	125 (93%)	10 (7%)	0	100	100
39	2h	135/138 (98%)	124 (92%)	10 (7%)	1 (1%)	22	43
40	1i	125/128 (98%)	107 (86%)	18 (14%)	0	100	100
40	2i	124/128 (97%)	111 (90%)	13 (10%)	0	100	100
41	1j	95/105 (90%)	81 (85%)	9 (10%)	5 (5%)	2	2
41	2j	94/105 (90%)	79 (84%)	13 (14%)	2 (2%)	7	13
42	1k	112/129 (87%)	97 (87%)	14 (12%)	1 (1%)	17	35
42	2k	112/129 (87%)	101 (90%)	10 (9%)	1 (1%)	17	35
43	1l	119/132 (90%)	110 (92%)	9 (8%)	0	100	100
43	2l	119/132 (90%)	113 (95%)	6 (5%)	0	100	100
44	1m	114/126 (90%)	99 (87%)	12 (10%)	3 (3%)	5	9
44	2m	112/126 (89%)	91 (81%)	19 (17%)	2 (2%)	8	16
45	1n	58/61 (95%)	55 (95%)	3 (5%)	0	100	100
45	2n	58/61 (95%)	56 (97%)	2 (3%)	0	100	100
46	1o	86/89 (97%)	80 (93%)	4 (5%)	2 (2%)	6	11
46	2o	86/89 (97%)	79 (92%)	7 (8%)	0	100	100
47	1p	80/88 (91%)	74 (92%)	6 (8%)	0	100	100
47	2p	80/88 (91%)	72 (90%)	8 (10%)	0	100	100
48	1q	97/105 (92%)	88 (91%)	8 (8%)	1 (1%)	15	32
48	2q	97/105 (92%)	92 (95%)	5 (5%)	0	100	100
49	1r	66/88 (75%)	63 (96%)	3 (4%)	0	100	100
49	2r	66/88 (75%)	65 (98%)	1 (2%)	0	100	100
50	1s	81/93 (87%)	73 (90%)	7 (9%)	1 (1%)	13	27
50	2s	81/93 (87%)	66 (82%)	14 (17%)	1 (1%)	13	27
51	1t	94/106 (89%)	85 (90%)	8 (8%)	1 (1%)	14	30
51	2t	96/106 (91%)	88 (92%)	6 (6%)	2 (2%)	7	13
52	1u	21/27 (78%)	20 (95%)	1 (5%)	0	100	100
52	2u	21/27 (78%)	16 (76%)	5 (24%)	0	100	100
53	1y	95/113 (84%)	93 (98%)	2 (2%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
53	2y	94/113 (83%)	86 (92%)	7 (7%)	1 (1%)	14	30
56	1v	1/3 (33%)	1 (100%)	0	0	100	100
56	2v	1/3 (33%)	1 (100%)	0	0	100	100
All	All	11643/12360 (94%)	10671 (92%)	882 (8%)	90 (1%)	19	39

All (90) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
6	1G	44	GLY
7	1H	126	PRO
19	1X	94	GLY
33	1b	17	PHE
33	1b	127	ILE
41	1j	55	LYS
44	1m	67	GLU
8	2I	10	GLU
8	2I	117	GLU
26	24	62	ARG
33	2b	16	HIS
33	2b	125	PRO
5	1F	130	ALA
6	1G	47	LYS
6	1G	50	ALA
33	1b	21	ARG
35	1d	179	GLU
36	1e	96	PRO
36	1e	97	GLY
38	1g	55	GLY
41	1j	79	ARG
42	1k	105	VAL
44	1m	3	ARG
51	1t	47	GLY
5	2F	130	ALA
6	2G	48	GLU
6	2G	96	ARG
6	2G	117	PHE
17	2V	79	VAL
19	2X	94	GLY
21	2Z	168	GLU
33	2b	17	PHE
34	2c	98	ASN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
35	2d	151	LYS
38	2g	55	GLY
42	2k	89	ALA
17	1V	79	VAL
23	11	3	LYS
33	1b	20	GLU
41	1j	77	PRO
48	1q	68	ARG
7	2H	48	GLY
11	2P	29	LYS
21	2Z	52	SER
23	21	3	LYS
26	24	55	ARG
26	24	56	VAL
33	2b	124	SER
33	2b	190	THR
34	2c	18	TRP
41	2j	79	ARG
41	2j	92	THR
50	2s	26	GLY
51	2t	100	ILE
4	1E	52	LEU
6	1G	49	ASP
14	1S	94	TYR
15	1T	127	ALA
50	1s	24	ALA
4	2E	52	LEU
6	2G	124	SER
7	2H	126	PRO
33	2b	20	GLU
11	1P	4	SER
26	14	47	GLN
33	1b	190	THR
34	1c	49	SER
44	1m	12	ASN
10	2O	5	GLN
12	2Q	59	ARG
13	2R	107	ASP
17	2V	100	ARG
21	2Z	167	PRO
22	20	4	LYS
38	2g	109	ASN

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Mol	Chain	Res	Type
44	2m	8	GLU
8	1I	86	THR
53	2y	45	PRO
7	2H	92	ILE
39	2h	83	ILE
33	1b	232	PRO
6	2G	87	PRO
34	2c	68	VAL
6	1G	52	ILE
46	1o	86	GLY
51	2t	102	GLY
41	1j	31	GLY
46	1o	19	PRO
44	2m	24	GLY
41	1j	91	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%)	199 (93%)	15 (7%)	15	30
3	2D	215/218 (99%)	198 (92%)	17 (8%)	12	24
4	1E	164/166 (99%)	156 (95%)	8 (5%)	25	48
4	2E	164/166 (99%)	152 (93%)	12 (7%)	14	28
5	1F	160/166 (96%)	142 (89%)	18 (11%)	6	10
5	2F	159/166 (96%)	143 (90%)	16 (10%)	7	14
6	1G	144/156 (92%)	137 (95%)	7 (5%)	25	48
6	2G	142/156 (91%)	129 (91%)	13 (9%)	9	17
7	1H	144/148 (97%)	133 (92%)	11 (8%)	13	26
7	2H	143/148 (97%)	128 (90%)	15 (10%)	7	13
8	1I	111/124 (90%)	96 (86%)	15 (14%)	4	6
8	2I	108/124 (87%)	95 (88%)	13 (12%)	5	9

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
9	1N	119/119 (100%)	113 (95%)	6 (5%)	24	47
9	2N	118/119 (99%)	110 (93%)	8 (7%)	16	32
10	1O	100/100 (100%)	98 (98%)	2 (2%)	55	78
10	2O	100/100 (100%)	95 (95%)	5 (5%)	24	47
11	1P	115/116 (99%)	110 (96%)	5 (4%)	29	54
11	2P	115/116 (99%)	109 (95%)	6 (5%)	23	46
12	1Q	111/111 (100%)	108 (97%)	3 (3%)	44	71
12	2Q	111/111 (100%)	101 (91%)	10 (9%)	9	18
13	1R	101/101 (100%)	94 (93%)	7 (7%)	15	31
13	2R	101/101 (100%)	96 (95%)	5 (5%)	24	47
14	1S	87/88 (99%)	84 (97%)	3 (3%)	37	63
14	2S	85/88 (97%)	73 (86%)	12 (14%)	3	6
15	1T	115/127 (91%)	108 (94%)	7 (6%)	18	38
15	2T	113/127 (89%)	108 (96%)	5 (4%)	28	53
16	1U	93/94 (99%)	86 (92%)	7 (8%)	13	27
16	2U	93/94 (99%)	89 (96%)	4 (4%)	29	54
17	1V	81/82 (99%)	75 (93%)	6 (7%)	13	28
17	2V	80/82 (98%)	71 (89%)	9 (11%)	6	10
18	1W	90/92 (98%)	82 (91%)	8 (9%)	9	19
18	2W	90/92 (98%)	84 (93%)	6 (7%)	16	33
19	1X	77/78 (99%)	75 (97%)	2 (3%)	46	72
19	2X	77/78 (99%)	71 (92%)	6 (8%)	12	25
20	1Y	86/91 (94%)	76 (88%)	10 (12%)	5	10
20	2Y	86/91 (94%)	78 (91%)	8 (9%)	9	17
21	1Z	169/179 (94%)	156 (92%)	13 (8%)	13	25
21	2Z	165/179 (92%)	151 (92%)	14 (8%)	10	21
22	10	65/67 (97%)	60 (92%)	5 (8%)	13	25
22	20	64/67 (96%)	63 (98%)	1 (2%)	62	82
23	11	79/83 (95%)	78 (99%)	1 (1%)	69	86
23	21	81/83 (98%)	76 (94%)	5 (6%)	18	37
24	12	65/67 (97%)	63 (97%)	2 (3%)	40	66

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
24	22	66/67 (98%)	57 (86%)	9 (14%)	3	6
25	13	51/52 (98%)	47 (92%)	4 (8%)	12	25
25	23	50/52 (96%)	46 (92%)	4 (8%)	12	24
26	14	58/63 (92%)	52 (90%)	6 (10%)	7	13
26	24	54/63 (86%)	48 (89%)	6 (11%)	6	11
27	15	51/52 (98%)	47 (92%)	4 (8%)	12	25
27	25	50/52 (96%)	46 (92%)	4 (8%)	12	24
28	16	51/52 (98%)	49 (96%)	2 (4%)	32	58
28	26	50/52 (96%)	46 (92%)	4 (8%)	12	24
29	17	41/42 (98%)	40 (98%)	1 (2%)	49	74
29	27	41/42 (98%)	36 (88%)	5 (12%)	5	9
30	18	54/55 (98%)	51 (94%)	3 (6%)	21	42
30	28	54/55 (98%)	49 (91%)	5 (9%)	9	17
31	19	34/34 (100%)	32 (94%)	2 (6%)	19	39
31	29	34/34 (100%)	31 (91%)	3 (9%)	10	19
33	1b	191/220 (87%)	171 (90%)	20 (10%)	7	13
33	2b	187/220 (85%)	161 (86%)	26 (14%)	3	6
34	1c	144/188 (77%)	132 (92%)	12 (8%)	11	22
34	2c	140/188 (74%)	126 (90%)	14 (10%)	7	14
35	1d	171/181 (94%)	152 (89%)	19 (11%)	6	11
35	2d	172/181 (95%)	152 (88%)	20 (12%)	5	10
36	1e	114/123 (93%)	103 (90%)	11 (10%)	8	16
36	2e	114/123 (93%)	104 (91%)	10 (9%)	10	19
37	1f	85/90 (94%)	79 (93%)	6 (7%)	14	29
37	2f	85/90 (94%)	79 (93%)	6 (7%)	14	29
38	1g	120/127 (94%)	110 (92%)	10 (8%)	11	22
38	2g	119/127 (94%)	105 (88%)	14 (12%)	5	9
39	1h	116/119 (98%)	105 (90%)	11 (10%)	8	16
39	2h	114/119 (96%)	106 (93%)	8 (7%)	15	30
40	1i	91/99 (92%)	81 (89%)	10 (11%)	6	11
40	2i	88/99 (89%)	77 (88%)	11 (12%)	4	8

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
41	1j	68/92 (74%)	64 (94%)	4 (6%)	19	39
41	2j	68/92 (74%)	57 (84%)	11 (16%)	2	4
42	1k	83/99 (84%)	79 (95%)	4 (5%)	25	49
42	2k	83/99 (84%)	80 (96%)	3 (4%)	35	61
43	1l	96/108 (89%)	93 (97%)	3 (3%)	40	66
43	2l	96/108 (89%)	93 (97%)	3 (3%)	40	66
44	1m	90/101 (89%)	82 (91%)	8 (9%)	9	19
44	2m	87/101 (86%)	79 (91%)	8 (9%)	9	17
45	1n	49/50 (98%)	47 (96%)	2 (4%)	30	56
45	2n	49/50 (98%)	47 (96%)	2 (4%)	30	56
46	1o	78/80 (98%)	74 (95%)	4 (5%)	24	46
46	2o	78/80 (98%)	70 (90%)	8 (10%)	7	13
47	1p	69/74 (93%)	63 (91%)	6 (9%)	10	20
47	2p	68/74 (92%)	60 (88%)	8 (12%)	5	9
48	1q	94/97 (97%)	85 (90%)	9 (10%)	8	16
48	2q	94/97 (97%)	88 (94%)	6 (6%)	17	35
49	1r	59/77 (77%)	53 (90%)	6 (10%)	7	14
49	2r	59/77 (77%)	54 (92%)	5 (8%)	10	21
50	1s	68/80 (85%)	62 (91%)	6 (9%)	10	19
50	2s	67/80 (84%)	60 (90%)	7 (10%)	7	13
51	1t	71/82 (87%)	64 (90%)	7 (10%)	8	15
51	2t	70/82 (85%)	67 (96%)	3 (4%)	29	54
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	21
53	2y	79/98 (81%)	74 (94%)	5 (6%)	18	36
56	1v	2/2 (100%)	2 (100%)	0	100	100
56	2v	2/2 (100%)	2 (100%)	0	100	100
All	All	9535/10264 (93%)	8779 (92%)	756 (8%)	12	24

All (756) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	1D	37	LEU
3	1D	69	ARG
3	1D	88	ARG
3	1D	94	LEU
3	1D	99	ASP
3	1D	103	ARG
3	1D	111	LEU
3	1D	113	VAL
3	1D	140	THR
3	1D	142	VAL
3	1D	183	ARG
3	1D	229	VAL
3	1D	242	ARG
3	1D	259	THR
3	1D	275	LYS
4	1E	69	LYS
4	1E	73	GLU
4	1E	75	VAL
4	1E	116	VAL
4	1E	170	LEU
4	1E	181	LEU
4	1E	182	LEU
4	1E	202	LYS
5	1F	12	LEU
5	1F	24	LEU
5	1F	32	LEU
5	1F	43	LYS
5	1F	53	THR
5	1F	57	VAL
5	1F	74	ARG
5	1F	77	ASP
5	1F	88	VAL
5	1F	108	LYS
5	1F	132	VAL
5	1F	140	LEU
5	1F	148	LEU
5	1F	158	THR
5	1F	162	LEU
5	1F	183	VAL
5	1F	192	LEU
5	1F	197	ASP
6	1G	7	LEU
6	1G	26	GLN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
6	1G	53	LEU
6	1G	79	ASN
6	1G	126	ASP
6	1G	159	VAL
6	1G	175	LEU
7	1H	15	VAL
7	1H	23	ARG
7	1H	52	VAL
7	1H	71	LEU
7	1H	95	ARG
7	1H	107	VAL
7	1H	119	GLU
7	1H	122	THR
7	1H	129	THR
7	1H	134	SER
7	1H	139	GLN
8	1I	9	LEU
8	1I	38	LEU
8	1I	41	GLU
8	1I	60	GLU
8	1I	68	LEU
8	1I	75	LEU
8	1I	82	ARG
8	1I	85	GLU
8	1I	92	VAL
8	1I	108	THR
8	1I	109	ILE
8	1I	121	LYS
8	1I	127	VAL
8	1I	129	THR
8	1I	140	LEU
9	1N	1	MET
9	1N	14	VAL
9	1N	33	LEU
9	1N	61	ARG
9	1N	99	LEU
9	1N	133	GLN
10	1O	108	GLU
10	1O	113	LYS
11	1P	36	LYS
11	1P	57	THR
11	1P	95	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
11	1P	98	GLU
11	1P	135	LEU
12	1Q	60	ARG
12	1Q	75	THR
12	1Q	109	VAL
13	1R	36	THR
13	1R	54	LEU
13	1R	67	LEU
13	1R	75	LEU
13	1R	100	LEU
13	1R	102	GLU
13	1R	114	VAL
14	1S	25	ARG
14	1S	50	SER
14	1S	59	LYS
15	1T	28	VAL
15	1T	36	GLU
15	1T	53	ARG
15	1T	67	SER
15	1T	96	ARG
15	1T	112	ARG
15	1T	118	ARG
16	1U	8	VAL
16	1U	31	SER
16	1U	36	ARG
16	1U	59	ARG
16	1U	74	LEU
16	1U	84	LYS
16	1U	117	GLN
17	1V	28	GLU
17	1V	35	LEU
17	1V	44	LYS
17	1V	46	VAL
17	1V	52	VAL
17	1V	79	VAL
18	1W	4	LYS
18	1W	11	ARG
18	1W	15	ARG
18	1W	17	VAL
18	1W	37	ARG
18	1W	65	LEU
18	1W	67	ASP

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
18	1W	96	ILE
19	1X	45	THR
19	1X	68	ARG
20	1Y	9	LYS
20	1Y	23	ARG
20	1Y	34	LYS
20	1Y	43	ASN
20	1Y	50	ARG
20	1Y	64	GLU
20	1Y	72	VAL
20	1Y	85	VAL
20	1Y	99	CYS
20	1Y	106	LEU
21	1Z	18	LEU
21	1Z	31	ARG
21	1Z	50	GLN
21	1Z	66	SER
21	1Z	81	ARG
21	1Z	86	VAL
21	1Z	93	ASP
21	1Z	98	MET
21	1Z	103	ARG
21	1Z	126	VAL
21	1Z	155	LEU
21	1Z	161	VAL
21	1Z	162	GLU
22	10	44	ARG
22	10	49	LYS
22	10	55	ARG
22	10	59	LEU
22	10	74	ARG
23	11	80	LEU
24	12	45	SER
24	12	53	LEU
25	13	3	ARG
25	13	17	LYS
25	13	38	GLU
25	13	54	VAL
26	14	20	ASN
26	14	22	ILE
26	14	33	VAL
26	14	49	PHE

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	50	VAL
26	14	52	THR
27	15	6	VAL
27	15	40	LYS
27	15	55	ARG
27	15	58	LEU
28	16	13	CYS
28	16	52	VAL
29	17	41	ARG
30	18	14	VAL
30	18	31	HIS
30	18	34	TRP
31	19	13	LYS
31	19	26	ILE
33	1b	21	ARG
33	1b	28	PHE
33	1b	42	ILE
33	1b	43	ASP
33	1b	78	GLN
33	1b	103	THR
33	1b	107	THR
33	1b	111	ARG
33	1b	128	GLU
33	1b	160	ASP
33	1b	163	PHE
33	1b	168	THR
33	1b	178	ARG
33	1b	185	ILE
33	1b	200	ILE
33	1b	209	ARG
33	1b	212	GLN
33	1b	229	VAL
33	1b	230	VAL
33	1b	231	GLU
34	1c	3	ASN
34	1c	4	LYS
34	1c	21	ARG
34	1c	26	LYS
34	1c	49	SER
34	1c	58	GLU
34	1c	70	VAL
34	1c	89	GLU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
34	1c	105	GLU
34	1c	112	SER
34	1c	123	GLN
34	1c	161	GLU
35	1d	8	VAL
35	1d	25	ARG
35	1d	28	SER
35	1d	31	CYS
35	1d	53	ASP
35	1d	59	ARG
35	1d	70	ILE
35	1d	77	ASN
35	1d	83	SER
35	1d	123	HIS
35	1d	127	THR
35	1d	132	ARG
35	1d	137	SER
35	1d	177	ASP
35	1d	187	ARG
35	1d	191	ARG
35	1d	200	GLU
35	1d	204	ILE
35	1d	209	ARG
36	1e	5	ASP
36	1e	11	ILE
36	1e	18	ARG
36	1e	31	LEU
36	1e	41	VAL
36	1e	69	VAL
36	1e	71	LEU
36	1e	75	THR
36	1e	79	GLU
36	1e	92	LYS
36	1e	126	ARG
37	1f	17	SER
37	1f	21	LEU
37	1f	45	LEU
37	1f	63	TYR
37	1f	69	GLU
37	1f	73	ASN
38	1g	6	ARG
38	1g	9	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
38	1g	12	LEU
38	1g	41	ARG
38	1g	57	GLU
38	1g	98	SER
38	1g	104	LEU
38	1g	114	ARG
38	1g	125	MET
38	1g	143	ARG
39	1h	25	ASP
39	1h	26	VAL
39	1h	49	GLU
39	1h	52	ASP
39	1h	54	ASP
39	1h	88	LYS
39	1h	95	VAL
39	1h	105	ARG
39	1h	127	LEU
39	1h	133	LEU
39	1h	137	VAL
40	1i	29	ASN
40	1i	47	LEU
40	1i	50	LEU
40	1i	66	ARG
40	1i	71	SER
40	1i	81	ILE
40	1i	104	ARG
40	1i	108	VAL
40	1i	112	LYS
40	1i	125	TYR
41	1j	42	THR
41	1j	55	LYS
41	1j	84	GLN
41	1j	96	ILE
42	1k	16	SER
42	1k	24	SER
42	1k	87	THR
42	1k	114	VAL
43	1l	33	ARG
43	1l	70	ILE
43	1l	118	SER
44	1m	4	ILE
44	1m	11	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
44	1m	14	ARG
44	1m	64	TRP
44	1m	70	LEU
44	1m	79	LYS
44	1m	88	ARG
44	1m	114	ARG
45	1n	18	VAL
45	1n	57	ARG
46	1o	9	GLN
46	1o	21	ASP
46	1o	39	LEU
46	1o	71	GLN
47	1p	29	ASP
47	1p	34	GLU
47	1p	62	VAL
47	1p	67	THR
47	1p	72	ARG
47	1p	79	VAL
48	1q	19	VAL
48	1q	45	HIS
48	1q	53	LEU
48	1q	63	ARG
48	1q	70	ARG
48	1q	74	LEU
48	1q	78	GLU
48	1q	97	SER
48	1q	100	LYS
49	1r	25	THR
49	1r	28	GLU
49	1r	42	ARG
49	1r	47	THR
49	1r	65	ILE
49	1r	76	LEU
50	1s	28	LYS
50	1s	35	SER
50	1s	37	ARG
50	1s	40	ILE
50	1s	48	THR
50	1s	79	THR
51	1t	9	ASN
51	1t	15	ARG
51	1t	30	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
51	1t	34	LYS
51	1t	37	SER
51	1t	70	SER
51	1t	80	ARG
53	1y	13	THR
53	1y	23	ARG
53	1y	24	LEU
53	1y	38	HIS
53	1y	42	SER
53	1y	46	GLN
53	1y	95	ARG
3	2D	3	VAL
3	2D	4	LYS
3	2D	18	VAL
3	2D	32	SER
3	2D	71	ASP
3	2D	83	GLU
3	2D	99	ASP
3	2D	106	ILE
3	2D	111	LEU
3	2D	116	GLN
3	2D	142	VAL
3	2D	183	ARG
3	2D	211	ARG
3	2D	221	VAL
3	2D	229	VAL
3	2D	242	ARG
3	2D	276	LYS
4	2E	1	MET
4	2E	38	THR
4	2E	69	LYS
4	2E	73	GLU
4	2E	75	VAL
4	2E	116	VAL
4	2E	152	LYS
4	2E	163	GLU
4	2E	170	LEU
4	2E	181	LEU
4	2E	184	VAL
4	2E	195	LEU
5	2F	20	LEU
5	2F	23	ASP

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
5	2F	33	LEU
5	2F	60	SER
5	2F	74	ARG
5	2F	112	MET
5	2F	136	THR
5	2F	158	THR
5	2F	161	GLU
5	2F	168	ARG
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	7	LEU
6	2G	9	ARG
6	2G	41	GLN
6	2G	53	LEU
6	2G	58	GLN
6	2G	88	ILE
6	2G	91	ARG
6	2G	106	LEU
6	2G	113	ARG
6	2G	126	ASP
6	2G	140	ILE
6	2G	149	VAL
6	2G	173	LEU
7	2H	11	VAL
7	2H	17	VAL
7	2H	32	GLU
7	2H	33	LEU
7	2H	41	MET
7	2H	43	VAL
7	2H	59	ARG
7	2H	60	ARG
7	2H	68	THR
7	2H	97	ARG
7	2H	122	THR
7	2H	139	GLN
7	2H	143	GLN
7	2H	148	ILE
7	2H	171	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
8	2I	12	LEU
8	2I	38	LEU
8	2I	40	THR
8	2I	43	ASN
8	2I	51	ILE
8	2I	58	LEU
8	2I	64	GLU
8	2I	68	LEU
8	2I	76	THR
8	2I	87	LYS
8	2I	116	LEU
8	2I	117	GLU
8	2I	142	VAL
9	2N	9	VAL
9	2N	12	ARG
9	2N	15	LEU
9	2N	43	THR
9	2N	48	MET
9	2N	54	VAL
9	2N	60	ILE
9	2N	62	VAL
10	2O	8	LEU
10	2O	21	CYS
10	2O	23	ARG
10	2O	35	VAL
10	2O	94	ARG
11	2P	65	ARG
11	2P	83	VAL
11	2P	95	VAL
11	2P	96	THR
11	2P	99	LEU
11	2P	133	SER
12	2Q	1	MET
12	2Q	7	MET
12	2Q	21	THR
12	2Q	31	ASP
12	2Q	60	ARG
12	2Q	75	THR
12	2Q	79	LEU
12	2Q	109	VAL
12	2Q	112	GLU
12	2Q	115	MET

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
13	2R	36	THR
13	2R	54	LEU
13	2R	75	LEU
13	2R	96	ARG
13	2R	100	LEU
14	2S	12	PHE
14	2S	21	THR
14	2S	25	ARG
14	2S	38	GLN
14	2S	48	LEU
14	2S	52	SER
14	2S	64	GLU
14	2S	73	LEU
14	2S	78	LEU
14	2S	84	GLN
14	2S	85	VAL
14	2S	110	LEU
15	2T	17	THR
15	2T	51	ARG
15	2T	53	ARG
15	2T	89	VAL
15	2T	109	GLU
16	2U	31	SER
16	2U	74	LEU
16	2U	111	GLU
16	2U	117	GLN
17	2V	7	THR
17	2V	13	ARG
17	2V	38	LEU
17	2V	39	LEU
17	2V	40	LEU
17	2V	51	VAL
17	2V	72	VAL
17	2V	79	VAL
17	2V	93	GLU
18	2W	11	ARG
18	2W	15	ARG
18	2W	17	VAL
18	2W	28	SER
18	2W	67	ASP
18	2W	100	THR
19	2X	2	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
19	2X	5	TYR
19	2X	15	GLU
19	2X	60	ARG
19	2X	81	VAL
19	2X	88	LYS
20	2Y	3	VAL
20	2Y	6	HIS
20	2Y	23	ARG
20	2Y	55	TYR
20	2Y	67	LEU
20	2Y	72	VAL
20	2Y	98	VAL
20	2Y	99	CYS
21	2Z	18	LEU
21	2Z	27	VAL
21	2Z	33	LEU
21	2Z	35	ARG
21	2Z	70	LEU
21	2Z	71	VAL
21	2Z	86	VAL
21	2Z	90	VAL
21	2Z	91	LEU
21	2Z	128	VAL
21	2Z	148	ASP
21	2Z	171	ILE
21	2Z	175	VAL
21	2Z	185	GLU
22	20	39	ARG
23	21	11	ARG
23	21	40	ARG
23	21	46	LEU
23	21	52	ARG
23	21	85	LEU
24	22	17	SER
24	22	27	GLU
24	22	31	GLU
24	22	32	LEU
24	22	40	SER
24	22	53	LEU
24	22	60	LEU
24	22	62	THR
24	22	70	GLN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	23	23	LEU
25	23	26	LEU
25	23	31	LEU
25	23	59	VAL
26	24	44	THR
26	24	50	VAL
26	24	52	THR
26	24	53	GLU
26	24	61	ARG
26	24	67	TYR
27	25	6	VAL
27	25	25	LEU
27	25	40	LYS
27	25	58	LEU
28	26	29	ASN
28	26	32	ASN
28	26	40	CYS
28	26	48	VAL
29	27	1	MET
29	27	10	ARG
29	27	41	ARG
29	27	47	ARG
29	27	48	LYS
30	28	14	VAL
30	28	31	HIS
30	28	34	TRP
30	28	37	SER
30	28	50	LEU
31	29	4	ARG
31	29	12	ASP
31	29	26	ILE
33	2b	7	VAL
33	2b	8	LYS
33	2b	15	VAL
33	2b	24	TRP
33	2b	28	PHE
33	2b	67	THR
33	2b	71	VAL
33	2b	80	ILE
33	2b	93	VAL
33	2b	96	ARG
33	2b	97	TRP

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
33	2b	127	ILE
33	2b	154	LEU
33	2b	160	ASP
33	2b	172	ILE
33	2b	189	ASP
33	2b	191	ASP
33	2b	200	ILE
33	2b	212	GLN
33	2b	215	LEU
33	2b	219	VAL
33	2b	221	LEU
33	2b	223	ILE
33	2b	224	GLN
33	2b	229	VAL
33	2b	230	VAL
34	2c	33	LEU
34	2c	52	LEU
34	2c	89	GLU
34	2c	101	LEU
34	2c	103	VAL
34	2c	105	GLU
34	2c	111	LEU
34	2c	128	PHE
34	2c	131	ARG
34	2c	139	GLN
34	2c	143	GLU
34	2c	152	ILE
34	2c	192	THR
34	2c	207	VAL
35	2d	5	ILE
35	2d	8	VAL
35	2d	21	LEU
35	2d	28	SER
35	2d	34	GLU
35	2d	52	SER
35	2d	60	GLU
35	2d	83	SER
35	2d	104	VAL
35	2d	106	TYR
35	2d	107	ARG
35	2d	126	ILE
35	2d	127	THR

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
35	2d	135	LEU
35	2d	141	ARG
35	2d	166	LYS
35	2d	175	SER
35	2d	186	LEU
35	2d	203	VAL
35	2d	209	ARG
36	2e	11	ILE
36	2e	31	LEU
36	2e	41	VAL
36	2e	45	PHE
36	2e	47	LYS
36	2e	64	ARG
36	2e	72	GLN
36	2e	75	THR
36	2e	79	GLU
36	2e	120	THR
37	2f	22	GLU
37	2f	31	GLU
37	2f	45	LEU
37	2f	61	LEU
37	2f	63	TYR
37	2f	72	VAL
38	2g	9	VAL
38	2g	22	LEU
38	2g	32	ARG
38	2g	33	ASP
38	2g	45	ASP
38	2g	50	ILE
38	2g	67	GLU
38	2g	97	GLN
38	2g	104	LEU
38	2g	110	GLN
38	2g	115	ARG
38	2g	135	VAL
38	2g	138	LYS
38	2g	144	MET
39	2h	4	ASP
39	2h	85	ARG
39	2h	91	ARG
39	2h	114	THR
39	2h	119	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
39	2h	122	ARG
39	2h	129	VAL
39	2h	133	LEU
40	2i	3	GLN
40	2i	25	LYS
40	2i	28	VAL
40	2i	40	LEU
40	2i	56	LEU
40	2i	65	VAL
40	2i	71	SER
40	2i	87	GLN
40	2i	104	ARG
40	2i	111	ARG
40	2i	125	TYR
41	2j	13	HIS
41	2j	16	LEU
41	2j	17	ASP
41	2j	29	ARG
41	2j	34	VAL
41	2j	38	ILE
41	2j	43	ARG
41	2j	47	PHE
41	2j	58	ASP
41	2j	95	GLU
41	2j	98	ILE
42	2k	105	VAL
42	2k	109	VAL
42	2k	117	ASN
43	2l	6	THR
43	2l	18	VAL
43	2l	100	ILE
44	2m	3	ARG
44	2m	8	GLU
44	2m	15	VAL
44	2m	47	ASP
44	2m	90	LEU
44	2m	93	ARG
44	2m	94	ARG
44	2m	98	VAL
45	2n	42	ILE
45	2n	57	ARG
46	2o	10	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
46	2o	14	GLU
46	2o	24	SER
46	2o	39	LEU
46	2o	56	LEU
46	2o	68	ARG
46	2o	71	GLN
46	2o	87	ILE
47	2p	1	MET
47	2p	2	VAL
47	2p	20	VAL
47	2p	28	ARG
47	2p	45	THR
47	2p	57	ARG
47	2p	67	THR
47	2p	72	ARG
48	2q	9	VAL
48	2q	48	GLU
48	2q	53	LEU
48	2q	70	ARG
48	2q	78	GLU
48	2q	98	LEU
49	2r	25	THR
49	2r	54	ARG
49	2r	69	THR
49	2r	82	THR
49	2r	85	LEU
50	2s	5	LEU
50	2s	13	ASP
50	2s	38	SER
50	2s	41	VAL
50	2s	48	THR
50	2s	77	THR
50	2s	78	ARG
51	2t	15	ARG
51	2t	36	LEU
51	2t	62	LEU
53	2y	24	LEU
53	2y	42	SER
53	2y	62	VAL
53	2y	70	MET
53	2y	71	TYR

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (121)

such sidechains are listed below:

Mol	Chain	Res	Type
3	1D	87	ASN
3	1D	253	GLN
4	1E	48	GLN
4	1E	143	ASN
5	1F	69	HIS
5	1F	203	GLN
6	1G	26	GLN
7	1H	139	GLN
8	1I	104	GLN
9	1N	133	GLN
10	1O	3	GLN
12	1Q	12	GLN
13	1R	24	GLN
13	1R	50	HIS
15	1T	58	ASN
15	1T	123	GLN
16	1U	117	GLN
19	1X	31	HIS
19	1X	82	GLN
20	1Y	6	HIS
20	1Y	92	ASN
21	1Z	65	GLN
21	1Z	73	GLN
25	13	32	GLN
34	1c	6	HIS
34	1c	37	GLN
34	1c	69	HIS
34	1c	102	ASN
35	1d	77	ASN
35	1d	123	HIS
35	1d	125	HIS
35	1d	129	ASN
35	1d	201	GLN
36	1e	141	GLN
37	1f	64	GLN
37	1f	73	ASN
37	1f	100	ASN
38	1g	28	ASN
38	1g	86	GLN
38	1g	110	GLN
38	1g	148	ASN
39	1h	70	GLN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
40	1i	3	GLN
40	1i	73	GLN
40	1i	87	GLN
41	1j	56	HIS
42	1k	62	GLN
43	1l	80	HIS
43	1l	99	HIS
44	1m	40	ASN
44	1m	92	HIS
46	1o	13	GLN
46	1o	28	GLN
46	1o	71	GLN
47	1p	13	HIS
48	1q	93	GLN
50	1s	47	HIS
50	1s	69	HIS
50	1s	83	HIS
51	1t	16	HIS
51	1t	18	GLN
53	1y	38	HIS
3	2D	166	GLN
3	2D	253	GLN
4	2E	48	GLN
5	2F	69	HIS
5	2F	75	HIS
6	2G	138	GLN
7	2H	143	GLN
8	2I	11	ASN
10	2O	3	GLN
12	2Q	89	ASN
12	2Q	123	HIS
13	2R	13	HIS
15	2T	58	ASN
17	2V	64	HIS
18	2W	60	ASN
19	2X	31	HIS
19	2X	82	GLN
20	2Y	6	HIS
20	2Y	92	ASN
24	22	56	GLN
25	23	32	GLN
28	26	32	ASN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
33	2b	19	HIS
33	2b	95	GLN
33	2b	135	GLN
34	2c	108	ASN
34	2c	139	GLN
35	2d	42	GLN
35	2d	77	ASN
35	2d	116	GLN
35	2d	123	HIS
35	2d	125	HIS
35	2d	160	GLN
36	2e	20	GLN
36	2e	78	HIS
37	2f	64	GLN
37	2f	73	ASN
37	2f	94	GLN
38	2g	13	GLN
38	2g	64	GLN
40	2i	38	GLN
40	2i	73	GLN
40	2i	87	GLN
41	2j	69	ASN
42	2k	26	ASN
43	2l	78	GLN
43	2l	80	HIS
43	2l	99	HIS
44	2m	77	ASN
46	2o	13	GLN
46	2o	28	GLN
46	2o	71	GLN
47	2p	76	GLN
48	2q	93	GLN
50	2s	23	ASN
50	2s	57	HIS
50	2s	83	HIS
51	2t	16	HIS
53	2y	46	GLN

### 5.3.3 RNA

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	1A	2863/2915 (98%)	419 (14%)	28 (0%)
1	2A	2856/2915 (97%)	472 (16%)	30 (1%)
2	1B	119/121 (98%)	11 (9%)	0
2	2B	119/121 (98%)	19 (15%)	0
32	1a	1494/1521 (98%)	254 (17%)	0
32	2a	1498/1521 (98%)	270 (18%)	0
54	1w	2/4 (50%)	0	0
54	2w	2/4 (50%)	1 (50%)	0
55	1x	2/4 (50%)	1 (50%)	0
55	2x	2/4 (50%)	0	0
All	All	8957/9130 (98%)	1447 (16%)	58 (0%)

All (1447) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
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	94	C
1	1A	95	G
1	1A	118	A
1	1A	119	A
1	1A	120	U
1	1A	149	A
1	1A	181	A
1	1A	182	A
1	1A	196	A
1	1A	199	A
1	1A	205	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	265	A
1	1A	266	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	1A	271(I)	G
1	1A	271(K)	U
1	1A	271(L)	U
1	1A	271(M)	G
1	1A	271(O)	C
1	1A	272(A)	U
1	1A	272(B)	G
1	1A	275	G
1	1A	279	C
1	1A	311	A
1	1A	330	A
1	1A	352	G
1	1A	363	G
1	1A	363(B)	G
1	1A	372	G
1	1A	386	G
1	1A	396	G
1	1A	405	U
1	1A	411	G
1	1A	421	U
1	1A	422	A
1	1A	428	A
1	1A	448	U
1	1A	454	A
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	512	G
1	1A	530	G
1	1A	531	C
1	1A	532	A
1	1A	545	G
1	1A	549	G
1	1A	563	G
1	1A	573	G
1	1A	575	A
1	1A	586	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	1A	603	A
1	1A	604	G
1	1A	607	U
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(E)	G
1	1A	652(F)	G
1	1A	652(T)	C
1	1A	669	G
1	1A	686	G
1	1A	730	C
1	1A	740	U
1	1A	775	G
1	1A	776	G
1	1A	782	A
1	1A	783	A
1	1A	784	A
1	1A	785	G
1	1A	790	C
1	1A	792	G
1	1A	805	G
1	1A	812	C
1	1A	827	U
1	1A	828	U
1	1A	859	G
1	1A	866	A
1	1A	882	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	899	A
1	1A	907	U
1	1A	910	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	1A	915	C
1	1A	932	G
1	1A	938	G
1	1A	945	A
1	1A	946	G
1	1A	949	C
1	1A	958	U
1	1A	959	A
1	1A	961	C
1	1A	974	G
1	1A	975	C
1	1A	983	A
1	1A	996	A
1	1A	1005	C
1	1A	1008	C
1	1A	1012	U
1	1A	1013	C
1	1A	1026	U
1	1A	1033	U
1	1A	1039	G
1	1A	1042	G
1	1A	1043	C
1	1A	1046	A
1	1A	1047	G
1	1A	1048	A
1	1A	1054	A
1	1A	1055	G
1	1A	1058	G
1	1A	1060	U
1	1A	1061	U
1	1A	1062	G
1	1A	1065	U
1	1A	1066	U
1	1A	1067	A
1	1A	1068	G
1	1A	1069	A
1	1A	1070	A
1	1A	1073	A
1	1A	1074	G
1	1A	1075	C
1	1A	1076	C
1	1A	1077	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	1A	1078	U
1	1A	1079	C
1	1A	1080	C
1	1A	1082	U
1	1A	1083	U
1	1A	1088	A
1	1A	1089	G
1	1A	1090	U
1	1A	1093	G
1	1A	1096	A
1	1A	1097	U
1	1A	1098	A
1	1A	1100	C
1	1A	1101	U
1	1A	1104	C
1	1A	1109	C
1	1A	1110	G
1	1A	1112	G
1	1A	1116	C
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	1220	A
1	1A	1236	G
1	1A	1241	A
1	1A	1253	A
1	1A	1256	G
1	1A	1271	G
1	1A	1272	A
1	1A	1273	U
1	1A	1281	G
1	1A	1300	U
1	1A	1301	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	1A	1303	G
1	1A	1321	A
1	1A	1352	U
1	1A	1359	A
1	1A	1360	A
1	1A	1365	A
1	1A	1370	C
1	1A	1384	A
1	1A	1385	G
1	1A	1416	G
1	1A	1417	C
1	1A	1420	U
1	1A	1421	G
1	1A	1428	C
1	1A	1445	A
1	1A	1449	A
1	1A	1450	G
1	1A	1455	G
1	1A	1460	A
1	1A	1467	C
1	1A	1471	A
1	1A	1478	G
1	1A	1482	G
1	1A	1493	C
1	1A	1508	A
1	1A	1509	C
1	1A	1509(A)	A
1	1A	1514	U
1	1A	1531	C
1	1A	1542	A
1	1A	1543	C
1	1A	1547	C
1	1A	1558	A
1	1A	1566	A
1	1A	1569	A
1	1A	1578	U
1	1A	1581	G
1	1A	1584	C
1	1A	1586	A
1	1A	1608	A
1	1A	1610	A
1	1A	1616	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	1A	1639	U
1	1A	1647	G
1	1A	1648	C
1	1A	1654	A
1	1A	1674	G
1	1A	1696	G
1	1A	1700	A
1	1A	1701	A
1	1A	1703	G
1	1A	1722	A
1	1A	1739	U
1	1A	1747	G
1	1A	1762	A
1	1A	1763	G
1	1A	1764	G
1	1A	1773	A
1	1A	1780	A
1	1A	1782	C
1	1A	1786	A
1	1A	1791	A
1	1A	1800	C
1	1A	1801	G
1	1A	1812	A
1	1A	1816	G
1	1A	1829	A
1	1A	1847	A
1	1A	1877	A
1	1A	1878	G
1	1A	1889	A
1	1A	1896	G
1	1A	1900	A
1	1A	1906	G
1	1A	1913	A
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	1967	C
1	1A	1970	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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	2033	A
1	1A	2043	C
1	1A	2055	C
1	1A	2056	G
1	1A	2060	A
1	1A	2061	G
1	1A	2069	G
1	1A	2080	G
1	1A	2093	G
1	1A	2103	C
1	1A	2107	C
1	1A	2108	C
1	1A	2116	G
1	1A	2117	A
1	1A	2118	U
1	1A	2119	A
1	1A	2123	G
1	1A	2125	G
1	1A	2126	A
1	1A	2127	G
1	1A	2132	U
1	1A	2133	G
1	1A	2135	A
1	1A	2137	C
1	1A	2146	C
1	1A	2157	G
1	1A	2158	A
1	1A	2159	G
1	1A	2161	C
1	1A	2164	C
1	1A	2165	G
1	1A	2170	A
1	1A	2173	A
1	1A	2183	C
1	1A	2185	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	1A	2186	G
1	1A	2187	G
1	1A	2189	U
1	1A	2190	G
1	1A	2192	G
1	1A	2198	A
1	1A	2206	G
1	1A	2207	G
1	1A	2208	A
1	1A	2225	A
1	1A	2238	G
1	1A	2239	G
1	1A	2268	A
1	1A	2269	A
1	1A	2279	G
1	1A	2280	G
1	1A	2283	C
1	1A	2287	A
1	1A	2289	G
1	1A	2305	A
1	1A	2308	G
1	1A	2318	G
1	1A	2320	A
1	1A	2322	A
1	1A	2324	C
1	1A	2325	G
1	1A	2334	G
1	1A	2336	A
1	1A	2347	C
1	1A	2350	C
1	1A	2383	G
1	1A	2385	C
1	1A	2406	U
1	1A	2407	G
1	1A	2422	A
1	1A	2423	U
1	1A	2425	A
1	1A	2429	G
1	1A	2430	A
1	1A	2431	U
1	1A	2432	A
1	1A	2435	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	1A	2439	A
1	1A	2441	C
1	1A	2448	A
1	1A	2476	A
1	1A	2491	U
1	1A	2502	G
1	1A	2504	U
1	1A	2505	G
1	1A	2518	A
1	1A	2520	C
1	1A	2525	G
1	1A	2529	G
1	1A	2535	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	2609	U
1	1A	2611	U
1	1A	2612	C
1	1A	2629	A
1	1A	2630	G
1	1A	2654	A
1	1A	2662	A
1	1A	2689	U
1	1A	2690	C
1	1A	2702	U
1	1A	2703	C
1	1A	2712(A)	A
1	1A	2713	A
1	1A	2714	G
1	1A	2726	U
1	1A	2733	A
1	1A	2751	G
1	1A	2757	A
1	1A	2758	A
1	1A	2761	G
1	1A	2764	A
1	1A	2765	A
1	1A	2766	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	1A	2769	C
1	1A	2778	A
1	1A	2791	C
1	1A	2802	G
1	1A	2820	A
1	1A	2821	A
1	1A	2833	G
1	1A	2835	A
1	1A	2850	A
1	1A	2872	G
1	1A	2873	A
1	1A	2880	C
1	1A	2892	A
1	1A	2894	G
1	1A	2895	U
2	1B	7	G
2	1B	13	A
2	1B	32	C
2	1B	45	A
2	1B	53	A
2	1B	56	G
2	1B	73	A
2	1B	84	C
2	1B	106	G
2	1B	110	G
2	1B	116	G
32	1a	7	G
32	1a	9	G
32	1a	22	G
32	1a	32	A
32	1a	39	G
32	1a	44	G
32	1a	47	C
32	1a	48	C
32	1a	50	A
32	1a	51	A
32	1a	55	A
32	1a	61	G
32	1a	66	G
32	1a	69	G
32	1a	78	G
32	1a	79	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
32	1a	91	C
32	1a	93	G
32	1a	97	G
32	1a	101	A
32	1a	116	A
32	1a	121	C
32	1a	131	C
32	1a	141	A
32	1a	144	G
32	1a	154	C
32	1a	163	C
32	1a	169	C
32	1a	173	U
32	1a	174	C
32	1a	182	U
32	1a	183	G
32	1a	189(D)	C
32	1a	189(G)	G
32	1a	190	U
32	1a	195	A
32	1a	197	A
32	1a	201	C
32	1a	203	U
32	1a	204	U
32	1a	216	G
32	1a	220	G
32	1a	231	G
32	1a	247	G
32	1a	250	A
32	1a	251	G
32	1a	254	G
32	1a	258	G
32	1a	266	G
32	1a	267	C
32	1a	289	G
32	1a	301	G
32	1a	305	G
32	1a	306	G
32	1a	318	G
32	1a	321	A
32	1a	328	C
32	1a	329	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
32	1a	332	G
32	1a	352	C
32	1a	353	A
32	1a	354	G
32	1a	356	A
32	1a	367	U
32	1a	372	C
32	1a	373	A
32	1a	384	G
32	1a	397	A
32	1a	406	G
32	1a	412	A
32	1a	413	G
32	1a	414	A
32	1a	423	G
32	1a	424	G
32	1a	429	U
32	1a	430	A
32	1a	439	A
32	1a	442	C
32	1a	443	C
32	1a	452	A
32	1a	470	C
32	1a	475	G
32	1a	477	A
32	1a	479	C
32	1a	485	G
32	1a	496	A
32	1a	498	U
32	1a	505	G
32	1a	509	A
32	1a	510	A
32	1a	511	C
32	1a	518	C
32	1a	532	A
32	1a	547	A
32	1a	550	G
32	1a	559	A
32	1a	560	U
32	1a	561	U
32	1a	572	A
32	1a	573	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
32	1a	576	G
32	1a	577	G
32	1a	596	C
32	1a	607	A
32	1a	619	U
32	1a	630	G
32	1a	632	A
32	1a	642	A
32	1a	653	A
32	1a	665	A
32	1a	687	A
32	1a	688	G
32	1a	723	U
32	1a	724	G
32	1a	731	G
32	1a	734	G
32	1a	753	A
32	1a	755	G
32	1a	760	G
32	1a	777	A
32	1a	793	U
32	1a	794	A
32	1a	816	A
32	1a	817	C
32	1a	821	G
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	870	U
32	1a	902	G
32	1a	914	A
32	1a	926	G
32	1a	927	G
32	1a	934	C
32	1a	942	G
32	1a	960	U
32	1a	961	U
32	1a	968	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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	983	A
32	1a	992	U
32	1a	993	G
32	1a	998	G
32	1a	999	C
32	1a	1004	A
32	1a	1005	A
32	1a	1006	C
32	1a	1020	U
32	1a	1022	G
32	1a	1023	G
32	1a	1024	G
32	1a	1025	U
32	1a	1026	G
32	1a	1028	C
32	1a	1029	C
32	1a	1030	C
32	1a	1030(A)	G
32	1a	1030(C)	G
32	1a	1030(D)	A
32	1a	1032	G
32	1a	1034	G
32	1a	1035	A
32	1a	1036	G
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	1094	G
32	1a	1095	U
32	1a	1101	A
32	1a	1121	U
32	1a	1124	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
32	1a	1130	A
32	1a	1134	G
32	1a	1136	U
32	1a	1137	C
32	1a	1138	G
32	1a	1139	G
32	1a	1150	U
32	1a	1152	A
32	1a	1155	G
32	1a	1159	U
32	1a	1168	A
32	1a	1183	A
32	1a	1184	G
32	1a	1196	U
32	1a	1197	G
32	1a	1202	G
32	1a	1204	A
32	1a	1208	C
32	1a	1212	U
32	1a	1213	A
32	1a	1214	C
32	1a	1225	A
32	1a	1227	A
32	1a	1238	A
32	1a	1256	A
32	1a	1257	U
32	1a	1258	G
32	1a	1270	C
32	1a	1278	U
32	1a	1279	A
32	1a	1280	A
32	1a	1286	A
32	1a	1287	A
32	1a	1297	C
32	1a	1298	C
32	1a	1299	A
32	1a	1300	G
32	1a	1302	U
32	1a	1319	A
32	1a	1320	C
32	1a	1338	G
32	1a	1340	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
32	1a	1346	A
32	1a	1347	G
32	1a	1353	G
32	1a	1363	C
32	1a	1364	U
32	1a	1370	G
32	1a	1394	A
32	1a	1397	C
32	1a	1419	G
32	1a	1442	G
32	1a	1442(A)	G
32	1a	1447	A
32	1a	1452	C
32	1a	1456	G
32	1a	1469	G
32	1a	1487	G
32	1a	1492	A
32	1a	1493	A
32	1a	1497	G
32	1a	1503	A
32	1a	1504	G
32	1a	1505	G
32	1a	1506	U
32	1a	1517	G
32	1a	1520	G
32	1a	1529	G
32	1a	1530	G
32	1a	1531	A
55	1x	74	C
1	2A	10	G
1	2A	15	G
1	2A	16	G
1	2A	34	C
1	2A	45	C
1	2A	61	G
1	2A	63	U
1	2A	71	A
1	2A	74	A
1	2A	75	G
1	2A	84	A
1	2A	98	G
1	2A	102	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	2A	118	A
1	2A	119	A
1	2A	120	U
1	2A	139(A)	G
1	2A	141	A
1	2A	149	A
1	2A	157	U
1	2A	181	A
1	2A	182	A
1	2A	196	A
1	2A	199	A
1	2A	205	G
1	2A	215	G
1	2A	216	A
1	2A	221	A
1	2A	222	A
1	2A	229	A
1	2A	230	U
1	2A	248	G
1	2A	265	A
1	2A	266	G
1	2A	271(K)	U
1	2A	271(L)	U
1	2A	271(M)	G
1	2A	271(N)	U
1	2A	271(O)	C
1	2A	272(A)	U
1	2A	272(B)	G
1	2A	277	C
1	2A	278	A
1	2A	304	G
1	2A	311	A
1	2A	327	G
1	2A	329	G
1	2A	330	A
1	2A	333	G
1	2A	352	G
1	2A	363	G
1	2A	372	G
1	2A	386	G
1	2A	389	G
1	2A	396	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	2A	411	G
1	2A	412	A
1	2A	418	G
1	2A	428	A
1	2A	441	U
1	2A	444	C
1	2A	455	C
1	2A	456	C
1	2A	457	A
1	2A	467	G
1	2A	470	A
1	2A	481	G
1	2A	492	A
1	2A	496	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	567	A
1	2A	573	G
1	2A	575	A
1	2A	595	C
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	653	A
1	2A	669	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	2A	686	G
1	2A	730	C
1	2A	740	U
1	2A	751	A
1	2A	752	A
1	2A	753	C
1	2A	775	G
1	2A	776	G
1	2A	782	A
1	2A	784	A
1	2A	785	G
1	2A	792	G
1	2A	793	A
1	2A	794	G
1	2A	805	G
1	2A	812	C
1	2A	827	U
1	2A	857	C
1	2A	859	G
1	2A	869	G
1	2A	877	U
1	2A	880	G
1	2A	887	A
1	2A	888	C
1	2A	889	C
1	2A	890	A
1	2A	893	C
1	2A	896	A
1	2A	897	C
1	2A	900	A
1	2A	901	A
1	2A	910	A
1	2A	914	C
1	2A	917	A
1	2A	932	G
1	2A	938	G
1	2A	941	A
1	2A	945	A
1	2A	946	G
1	2A	959	A
1	2A	961	C
1	2A	965	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	2A	974	G
1	2A	975	C
1	2A	983	A
1	2A	996	A
1	2A	1006	C
1	2A	1012	U
1	2A	1013	C
1	2A	1017	G
1	2A	1022	G
1	2A	1025	G
1	2A	1026	U
1	2A	1033	U
1	2A	1041	C
1	2A	1045	A
1	2A	1046	A
1	2A	1047	G
1	2A	1048	A
1	2A	1049	C
1	2A	1051	G
1	2A	1052	C
1	2A	1053	C
1	2A	1054	A
1	2A	1057	A
1	2A	1060	U
1	2A	1063	G
1	2A	1064	C
1	2A	1065	U
1	2A	1066	U
1	2A	1067	A
1	2A	1068	G
1	2A	1070	A
1	2A	1071	G
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	1081	U
1	2A	1082	U
1	2A	1083	U
1	2A	1084	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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	1095	A
1	2A	1097	U
1	2A	1098	A
1	2A	1109	C
1	2A	1111	A
1	2A	1112	G
1	2A	1114	G
1	2A	1116	C
1	2A	1117	G
1	2A	1128	A
1	2A	1130	U
1	2A	1135	C
1	2A	1136	G
1	2A	1171	G
1	2A	1220	A
1	2A	1229	G
1	2A	1241	A
1	2A	1253	A
1	2A	1256	G
1	2A	1271	G
1	2A	1272	A
1	2A	1273	U
1	2A	1287	A
1	2A	1296	G
1	2A	1300	U
1	2A	1301	A
1	2A	1303	G
1	2A	1314	C
1	2A	1319	G
1	2A	1342	A
1	2A	1349	A
1	2A	1352	U
1	2A	1359	A
1	2A	1360	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	2A	1365	A
1	2A	1368	G
1	2A	1380	G
1	2A	1384	A
1	2A	1385	G
1	2A	1386	C
1	2A	1416	G
1	2A	1417	C
1	2A	1420	U
1	2A	1421	G
1	2A	1428	C
1	2A	1445	A
1	2A	1450	G
1	2A	1455	G
1	2A	1459	G
1	2A	1467	C
1	2A	1471	A
1	2A	1482	G
1	2A	1493	C
1	2A	1497	U
1	2A	1508	A
1	2A	1509	C
1	2A	1509(A)	A
1	2A	1514	U
1	2A	1531	C
1	2A	1539	G
1	2A	1542	A
1	2A	1543	C
1	2A	1547	C
1	2A	1558	A
1	2A	1559	G
1	2A	1566	A
1	2A	1569	A
1	2A	1578	U
1	2A	1580	A
1	2A	1583	A
1	2A	1584	C
1	2A	1586	A
1	2A	1608	A
1	2A	1609	A
1	2A	1629	U
1	2A	1640	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	2A	1647	G
1	2A	1648	C
1	2A	1664	A
1	2A	1674	G
1	2A	1700	A
1	2A	1701	A
1	2A	1721	G
1	2A	1722	A
1	2A	1756	G
1	2A	1762	A
1	2A	1763	G
1	2A	1764	G
1	2A	1773	A
1	2A	1780	A
1	2A	1782	C
1	2A	1786	A
1	2A	1791	A
1	2A	1800	C
1	2A	1801	G
1	2A	1816	G
1	2A	1828	G
1	2A	1829	A
1	2A	1835	G
1	2A	1839	G
1	2A	1847	A
1	2A	1861	G
1	2A	1877	A
1	2A	1878	G
1	2A	1900	A
1	2A	1906	G
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	1960	A
1	2A	1963	U
1	2A	1967	C
1	2A	1970	A
1	2A	1971	A
1	2A	1972	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
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	2069	G
1	2A	2093	G
1	2A	2096	U
1	2A	2100	G
1	2A	2101	G
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	2111	C
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	2132	U
1	2A	2133	G
1	2A	2134	A
1	2A	2135	A
1	2A	2139	C
1	2A	2140	C
1	2A	2142	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	2A	2146	C
1	2A	2147	G
1	2A	2148	G
1	2A	2150	U
1	2A	2151	G
1	2A	2152	G
1	2A	2153	G
1	2A	2158	A
1	2A	2159	G
1	2A	2162	G
1	2A	2166	G
1	2A	2172	U
1	2A	2173	A
1	2A	2184	G
1	2A	2187	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	2219	G
1	2A	2225	A
1	2A	2232	U
1	2A	2238	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
1	2A	2308	G
1	2A	2311	A
1	2A	2312	U
1	2A	2314	C
1	2A	2319	G
1	2A	2320	A
1	2A	2321	G
1	2A	2322	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	2A	2325	G
1	2A	2327	A
1	2A	2334	G
1	2A	2335	A
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	2388	A
1	2A	2391	G
1	2A	2402	C
1	2A	2406	U
1	2A	2410	G
1	2A	2422	A
1	2A	2425	A
1	2A	2429	G
1	2A	2430	A
1	2A	2435	A
1	2A	2439	A
1	2A	2441	C
1	2A	2448	A
1	2A	2465	C
1	2A	2468	G
1	2A	2470	G
1	2A	2474	C
1	2A	2476	A
1	2A	2480	C
1	2A	2491	U
1	2A	2494	G
1	2A	2502	G
1	2A	2504	U
1	2A	2505	G
1	2A	2518	A
1	2A	2520	C
1	2A	2525	G
1	2A	2529	G
1	2A	2543	G
1	2A	2549	G
1	2A	2554	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	2A	2556	C
1	2A	2566	A
1	2A	2567	G
1	2A	2573	C
1	2A	2578	G
1	2A	2582	G
1	2A	2602	A
1	2A	2611	U
1	2A	2612	C
1	2A	2615	U
1	2A	2630	G
1	2A	2654	A
1	2A	2660	A
1	2A	2689	U
1	2A	2690	C
1	2A	2703	C
1	2A	2712(A)	A
1	2A	2713	A
1	2A	2726	U
1	2A	2733	A
1	2A	2744	G
1	2A	2752	C
1	2A	2757	A
1	2A	2758	A
1	2A	2761	G
1	2A	2764	A
1	2A	2765	A
1	2A	2778	A
1	2A	2802	G
1	2A	2820	A
1	2A	2821	A
1	2A	2836	U
1	2A	2872	G
1	2A	2873	A
1	2A	2879	C
1	2A	2880	C
1	2A	2892	A
1	2A	2894	G
1	2A	2897	U
2	2B	2	C
2	2B	7	G
2	2B	9	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	2B	12	C
2	2B	13	A
2	2B	19	G
2	2B	32	C
2	2B	33	G
2	2B	35	U
2	2B	41	U
2	2B	42	C
2	2B	51	G
2	2B	54	G
2	2B	56	G
2	2B	73	A
2	2B	75	G
2	2B	84	C
2	2B	110	G
2	2B	115	G
32	2a	5	U
32	2a	7	G
32	2a	9	G
32	2a	22	G
32	2a	32	A
32	2a	39	G
32	2a	47	C
32	2a	48	C
32	2a	51	A
32	2a	61	G
32	2a	66	G
32	2a	88	A
32	2a	89	C
32	2a	96	U
32	2a	97	G
32	2a	101	A
32	2a	116	A
32	2a	120	A
32	2a	121	C
32	2a	131	C
32	2a	142	G
32	2a	156	G
32	2a	163	C
32	2a	165	C
32	2a	173	U
32	2a	174	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
32	2a	182	U
32	2a	189(E)	U
32	2a	189(F)	U
32	2a	195	A
32	2a	197	A
32	2a	202	U
32	2a	203	U
32	2a	204	U
32	2a	216	G
32	2a	231	G
32	2a	240	C
32	2a	247	G
32	2a	251	G
32	2a	258	G
32	2a	266	G
32	2a	267	C
32	2a	289	G
32	2a	298	A
32	2a	301	G
32	2a	306	G
32	2a	316	G
32	2a	321	A
32	2a	328	C
32	2a	332	G
32	2a	351	G
32	2a	352	C
32	2a	353	A
32	2a	354	G
32	2a	367	U
32	2a	372	C
32	2a	373	A
32	2a	378	G
32	2a	382	A
32	2a	397	A
32	2a	398	C
32	2a	406	G
32	2a	411	A
32	2a	412	A
32	2a	421	U
32	2a	429	U
32	2a	430	A
32	2a	431	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
32	2a	439	A
32	2a	442	C
32	2a	443	C
32	2a	452	A
32	2a	453	A
32	2a	461	A
32	2a	470	C
32	2a	471	G
32	2a	476	G
32	2a	477	A
32	2a	484	G
32	2a	485	G
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	527	G7M
32	2a	532	A
32	2a	533	A
32	2a	547	A
32	2a	559	A
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	630	G
32	2a	632	A
32	2a	633	G
32	2a	652	U
32	2a	653	A
32	2a	661	G
32	2a	665	A
32	2a	666	G
32	2a	687	A
32	2a	688	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
32	2a	695	A
32	2a	723	U
32	2a	724	G
32	2a	731	G
32	2a	734	G
32	2a	748	C
32	2a	749	C
32	2a	753	A
32	2a	755	G
32	2a	773	G
32	2a	774	G
32	2a	777	A
32	2a	793	U
32	2a	794	A
32	2a	798	G
32	2a	815	A
32	2a	816	A
32	2a	817	C
32	2a	821	G
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	872	A
32	2a	873	A
32	2a	889	A
32	2a	902	G
32	2a	914	A
32	2a	916	G
32	2a	926	G
32	2a	927	G
32	2a	931	C
32	2a	933	G
32	2a	934	C
32	2a	935	A
32	2a	939	G
32	2a	942	G
32	2a	954	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
32	2a	960	U
32	2a	961	U
32	2a	968	A
32	2a	969	A
32	2a	971	G
32	2a	972	C
32	2a	974	A
32	2a	975	A
32	2a	976	G
32	2a	977	A
32	2a	985	C
32	2a	989	C
32	2a	992	U
32	2a	993	G
32	2a	994	A
32	2a	997	U
32	2a	1004	A
32	2a	1005	A
32	2a	1006	C
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(A)	G
32	2a	1030(B)	C
32	2a	1031	G
32	2a	1034	G
32	2a	1041	A
32	2a	1043	C
32	2a	1053	G
32	2a	1065	U
32	2a	1066	C
32	2a	1068	G
32	2a	1071	C
32	2a	1081	G
32	2a	1094	G
32	2a	1095	U
32	2a	1101	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
32	2a	1118	C
32	2a	1122	U
32	2a	1124	G
32	2a	1125	U
32	2a	1129	C
32	2a	1130	A
32	2a	1136	U
32	2a	1137	C
32	2a	1138	G
32	2a	1139	G
32	2a	1147	C
32	2a	1148	U
32	2a	1152	A
32	2a	1157	A
32	2a	1159	U
32	2a	1160	G
32	2a	1161	C
32	2a	1183	A
32	2a	1184	G
32	2a	1196	U
32	2a	1197	G
32	2a	1212	U
32	2a	1213	A
32	2a	1214	C
32	2a	1227	A
32	2a	1228	C
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	1270	C
32	2a	1277	C
32	2a	1278	U
32	2a	1279	A
32	2a	1281	U
32	2a	1282	C
32	2a	1285	A
32	2a	1287	A
32	2a	1300	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
32	2a	1302	U
32	2a	1303	C
32	2a	1305	G
32	2a	1306	A
32	2a	1316	G
32	2a	1340	A
32	2a	1346	A
32	2a	1347	G
32	2a	1353	G
32	2a	1358	U
32	2a	1363	C
32	2a	1370	G
32	2a	1397	C
32	2a	1398	A
32	2a	1419	G
32	2a	1442	G
32	2a	1442(A)	G
32	2a	1447	A
32	2a	1456	G
32	2a	1460	A
32	2a	1462	G
32	2a	1487	G
32	2a	1492	A
32	2a	1497	G
32	2a	1503	A
32	2a	1504	G
32	2a	1506	U
32	2a	1507	A
32	2a	1517	G
32	2a	1520	G
32	2a	1525	G
32	2a	1528	U
32	2a	1529	G
32	2a	1530	G
54	2w	74	C

All (58) RNA pucker outliers are listed below:

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	1A	196	A
1	1A	249	C
1	1A	266	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	1A	271(K)	U
1	1A	278	A
1	1A	573	G
1	1A	746	A
1	1A	774	A
1	1A	840	C
1	1A	895	U
1	1A	974	G
1	1A	1047	G
1	1A	1065	U
1	1A	1089	G
1	1A	1175	U
1	1A	1176	G
1	1A	1210	A
1	1A	1301	A
1	1A	1442	G
1	1A	1608	A
1	1A	1653	G
1	1A	2126	A
1	1A	2238	G
1	1A	2422	A
1	1A	2430	A
1	1A	2439	A
1	1A	2689	U
1	1A	2756	U
1	2A	196	A
1	2A	271(M)	G
1	2A	277	C
1	2A	752	A
1	2A	764	A
1	2A	827	U
1	2A	840	C
1	2A	856	C
1	2A	960	A
1	2A	1047	G
1	2A	1053	C
1	2A	1065	U
1	2A	1067	A
1	2A	1073	A
1	2A	1076	C
1	2A	1108	U
1	2A	1240	U

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Mol	Chain	Res	Type
1	2A	1379	A
1	2A	1420	U
1	2A	1442	G
1	2A	1491	G
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	2439	A
1	2A	2689	U
1	2A	2756	U

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

54 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	MA6	1a	1519	32	19,26,27	0.80	0	18,38,41	1.49	2 (11%)
1	PSU	2A	2605	1	18,21,22	1.34	3 (16%)	22,30,33	1.83	3 (13%)
1	2MA	2A	2503	57,1	17,25,26	0.95	1 (5%)	17,37,40	1.07	2 (11%)
32	2MG	2a	1207	32	18,26,27	0.87	1 (5%)	16,38,41	1.10	1 (6%)
32	MA6	1a	1518	32	19,26,27	0.83	0	18,38,41	1.32	2 (11%)
32	PSU	1a	516	57,32	18,21,22	1.37	3 (16%)	22,30,33	1.96	4 (18%)
1	5MU	2A	1915	1	19,22,23	1.47	4 (21%)	28,32,35	2.08	8 (28%)
1	5MU	1A	1939	57,1	19,22,23	1.39	4 (21%)	28,32,35	2.08	6 (21%)
32	G7M	1a	527	57,32	20,26,27	1.25	2 (10%)	17,39,42	0.53	0
1	2MU	2A	2552	57,1	19,22,24	1.26	3 (15%)	26,31,36	1.74	5 (19%)
32	5MC	2a	967	32	18,22,23	1.00	2 (11%)	26,32,35	1.12	2 (7%)
1	5MC	2A	1962	1	18,22,23	1.02	2 (11%)	26,32,35	1.10	2 (7%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
56	FME	2v	1	56	8,9,10	0.91	0	7,9,11	0.72	0
32	5MC	1a	1404	32	18,22,23	0.94	2 (11%)	26,32,35	1.12	3 (11%)
43	0TD	2l	92	43	7,9,10	4.71	1 (14%)	6,11,13	1.75	2 (33%)
32	5MC	1a	1400	32	18,22,23	1.01	2 (11%)	26,32,35	1.20	2 (7%)
1	5MC	2A	1942	1	18,22,23	1.02	2 (11%)	26,32,35	1.30	2 (7%)
54	PPU	2w	76	54,1	32,40,41	2.37	13 (40%)	33,57,60	1.83	7 (21%)
1	5MC	1A	1942	1	18,22,23	1.02	2 (11%)	26,32,35	1.23	3 (11%)
1	PSU	1A	2605	1	18,21,22	1.33	2 (11%)	22,30,33	1.98	4 (18%)
1	PSU	1A	1917	1	18,21,22	1.34	2 (11%)	22,30,33	1.88	3 (13%)
32	5MC	2a	1407	32	18,22,23	1.00	1 (5%)	26,32,35	1.11	3 (11%)
1	2MU	1A	2552	57,1	19,22,24	1.29	3 (15%)	26,31,36	2.00	6 (23%)
1	PSU	2A	1917	1	18,21,22	1.36	2 (11%)	22,30,33	1.87	3 (13%)
1	PSU	1A	1911	1	18,21,22	1.35	2 (11%)	22,30,33	1.88	3 (13%)
32	4OC	2a	1402	32	20,23,24	0.76	0	26,32,35	0.97	1 (3%)
55	8AN	2x	76	55,56,57	19,24,25	1.19	3 (15%)	13,35,38	1.84	2 (15%)
1	2MA	1A	2503	57,1	17,25,26	1.08	2 (11%)	17,37,40	0.98	2 (11%)
32	MA6	2a	1519	32	19,26,27	0.80	0	18,38,41	1.51	2 (11%)
54	PPU	1w	76	54,1	32,40,41	2.82	18 (56%)	33,57,60	1.58	6 (18%)
32	5MC	1a	967	32	18,22,23	0.98	2 (11%)	26,32,35	1.18	2 (7%)
1	OMC	2A	1920	1	19,22,23	0.83	0	26,31,34	1.00	1 (3%)
32	MA6	2a	1518	32	19,26,27	0.79	0	18,38,41	1.37	2 (11%)
32	PSU	2a	516	57,32	18,21,22	1.35	3 (16%)	22,30,33	1.89	5 (22%)
43	0TD	1l	92	43	7,9,10	4.98	1 (14%)	6,11,13	5.34	3 (50%)
1	OMG	1A	2251	55,57,1	18,26,27	1.12	1 (5%)	19,38,41	1.06	2 (10%)
32	UR3	2a	1498	32	19,22,23	0.96	1 (5%)	26,32,35	1.36	1 (3%)
32	G7M	2a	527	32	20,26,27	1.22	2 (10%)	17,39,42	0.56	0
1	OMC	1A	1920	1	19,22,23	0.84	0	26,31,34	1.11	3 (11%)
1	5MC	1A	1962	57,1	18,22,23	0.99	2 (11%)	26,32,35	1.12	3 (11%)
32	UR3	1a	1498	32	19,22,23	0.94	1 (5%)	26,32,35	1.40	1 (3%)
32	M2G	2a	966	32	20,27,28	1.55	3 (15%)	22,40,43	0.86	2 (9%)
32	5MC	2a	1404	32	18,22,23	0.98	1 (5%)	26,32,35	1.19	3 (11%)
32	2MG	1a	1207	57,32	18,26,27	0.93	1 (5%)	16,38,41	1.42	4 (25%)
32	5MC	1a	1407	32	18,22,23	0.99	1 (5%)	26,32,35	1.15	3 (11%)
32	5MC	2a	1400	32	18,22,23	0.99	2 (11%)	26,32,35	1.18	2 (7%)
55	8AN	1x	76	55,56,57	19,24,25	1.14	2 (10%)	13,35,38	1.87	2 (15%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
56	FME	1v	1	56	8,9,10	1.01	0	7,9,11	0.63	0
32	M2G	1a	966	32	20,27,28	1.46	3 (15%)	22,40,43	0.92	2 (9%)
1	PSU	2A	1911	1	18,21,22	1.38	3 (16%)	22,30,33	1.90	3 (13%)
1	5MU	1A	1915	57,1	19,22,23	1.45	5 (26%)	28,32,35	2.34	10 (35%)
1	5MU	2A	1939	57,1	19,22,23	1.46	5 (26%)	28,32,35	2.13	8 (28%)
32	4OC	1a	1402	32	20,23,24	0.75	0	26,32,35	0.89	1 (3%)
1	OMG	2A	2251	55,57,1	18,26,27	0.95	1 (5%)	19,38,41	1.13	3 (15%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
32	MA6	1a	1519	32	-	3/7/29/30	0/3/3/3
1	PSU	2A	2605	1	-	0/7/25/26	0/2/2/2
1	2MA	2A	2503	57,1	-	1/3/25/26	0/3/3/3
32	2MG	2a	1207	32	-	0/5/27/28	0/3/3/3
32	MA6	1a	1518	32	-	0/7/29/30	0/3/3/3
32	PSU	1a	516	57,32	-	0/7/25/26	0/2/2/2
1	5MU	2A	1915	1	-	2/7/25/26	0/2/2/2
1	5MU	1A	1939	57,1	-	0/7/25/26	0/2/2/2
32	G7M	1a	527	57,32	-	0/3/25/26	0/3/3/3
1	2MU	2A	2552	57,1	-	0/9/27/28	0/2/2/2
32	5MC	2a	967	32	-	0/7/25/26	0/2/2/2
1	5MC	2A	1962	1	-	2/7/25/26	0/2/2/2
56	FME	2v	1	56	-	1/7/9/11	-
32	5MC	1a	1404	32	-	0/7/25/26	0/2/2/2
43	0TD	2l	92	43	-	2/7/12/14	-
32	5MC	1a	1400	32	-	0/7/25/26	0/2/2/2
1	5MC	2A	1942	1	-	0/7/25/26	0/2/2/2
54	PPU	2w	76	54,1	-	2/21/43/44	0/4/4/4
1	5MC	1A	1942	1	-	0/7/25/26	0/2/2/2
1	PSU	1A	2605	1	-	0/7/25/26	0/2/2/2
1	PSU	1A	1917	1	-	0/7/25/26	0/2/2/2
32	5MC	2a	1407	32	-	0/7/25/26	0/2/2/2
1	2MU	1A	2552	57,1	-	0/9/27/28	0/2/2/2
1	PSU	2A	1917	1	-	0/7/25/26	0/2/2/2
1	PSU	1A	1911	1	-	0/7/25/26	0/2/2/2
32	4OC	2a	1402	32	-	1/9/29/30	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
55	8AN	2x	76	55,56,57	-	3/3/25/26	0/3/3/3
1	2MA	1A	2503	57,1	-	2/3/25/26	0/3/3/3
32	MA6	2a	1519	32	-	3/7/29/30	0/3/3/3
54	PPU	1w	76	54,1	-	2/21/43/44	0/4/4/4
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
32	MA6	2a	1518	32	-	1/7/29/30	0/3/3/3
32	PSU	2a	516	57,32	-	0/7/25/26	0/2/2/2
43	0TD	1l	92	43	-	2/7/12/14	-
1	OMG	1A	2251	55,57,1	-	0/5/27/28	0/3/3/3
32	UR3	2a	1498	32	-	0/7/25/26	0/2/2/2
32	G7M	2a	527	32	-	3/3/25/26	0/3/3/3
1	OMC	1A	1920	1	-	2/9/27/28	0/2/2/2
1	5MC	1A	1962	57,1	-	0/7/25/26	0/2/2/2
32	UR3	1a	1498	32	-	0/7/25/26	0/2/2/2
32	M2G	2a	966	32	-	0/7/29/30	0/3/3/3
32	5MC	2a	1404	32	-	0/7/25/26	0/2/2/2
32	2MG	1a	1207	57,32	-	0/5/27/28	0/3/3/3
32	5MC	1a	1407	32	-	0/7/25/26	0/2/2/2
32	5MC	2a	1400	32	-	4/7/25/26	0/2/2/2
55	8AN	1x	76	55,56,57	-	1/3/25/26	0/3/3/3
56	FME	1v	1	56	-	5/7/9/11	-
32	M2G	1a	966	32	-	0/7/29/30	0/3/3/3
1	PSU	2A	1911	1	-	0/7/25/26	0/2/2/2
1	5MU	1A	1915	57,1	-	2/7/25/26	0/2/2/2
1	5MU	2A	1939	57,1	-	0/7/25/26	0/2/2/2
32	4OC	1a	1402	32	-	1/9/29/30	0/2/2/2
1	OMG	2A	2251	55,57,1	-	0/5/27/28	0/3/3/3

All (122) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	1l	92	0TD	CB-SB	-12.86	1.69	1.82
43	2l	92	0TD	CB-SB	-12.19	1.69	1.82
54	1w	76	PPU	O-C	-5.27	1.12	1.23
54	1w	76	PPU	C2 <sup>2</sup> -C1'	-5.11	1.46	1.53
32	2a	966	M2G	C2-N3	4.87	1.36	1.30
54	2w	76	PPU	C2 <sup>2</sup> -C1'	-4.67	1.46	1.53
54	2w	76	PPU	C2 <sup>2</sup> -C3'	-4.64	1.45	1.53
54	1w	76	PPU	C4-N3	-4.62	1.29	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
54	1w	76	PPU	O5'-C5'	-4.34	1.34	1.44
32	1a	966	M2G	C2-N3	4.32	1.36	1.30
54	2w	76	PPU	C4-N3	-4.10	1.30	1.35
54	1w	76	PPU	C2-N1	-4.02	1.26	1.33
54	2w	76	PPU	O4'-C4'	-3.86	1.36	1.45
32	1a	527	G7M	C5-C4	3.81	1.46	1.39
54	1w	76	PPU	C8-N7	-3.72	1.28	1.34
54	1w	76	PPU	O4'-C1'	-3.63	1.36	1.41
32	2a	527	G7M	C5-C4	3.60	1.46	1.39
54	1w	76	PPU	O4'-C4'	-3.60	1.37	1.45
54	1w	76	PPU	C2'-C3'	-3.58	1.47	1.53
1	1A	1911	PSU	C6-C5	3.44	1.39	1.35
54	2w	76	PPU	O-C	-3.35	1.16	1.23
32	2a	516	PSU	C6-C5	3.32	1.39	1.35
54	2w	76	PPU	C4'-C3'	-3.31	1.46	1.52
54	1w	76	PPU	C-N3'	-3.29	1.26	1.34
1	2A	1917	PSU	C6-C5	3.26	1.39	1.35
1	1A	1917	PSU	C6-C5	3.26	1.39	1.35
1	1A	2605	PSU	C4-N3	-3.18	1.32	1.38
54	1w	76	PPU	C5-N7	-3.18	1.28	1.39
1	1A	1915	5MU	C2-N1	3.17	1.43	1.38
1	1A	2251	OMG	C6-N1	-3.15	1.33	1.37
54	2w	76	PPU	C5-N7	-3.15	1.28	1.39
1	2A	1962	5MC	C6-C5	3.14	1.39	1.34
32	1a	516	PSU	C6-C5	3.13	1.39	1.35
32	2a	966	M2G	C2-N2	3.10	1.41	1.35
1	2A	1911	PSU	C6-C5	3.06	1.38	1.35
32	1a	1407	5MC	C6-C5	3.06	1.39	1.34
1	2A	1915	5MU	C6-C5	3.05	1.39	1.34
32	2a	1407	5MC	C6-C5	3.01	1.39	1.34
32	2a	967	5MC	C6-C5	3.00	1.39	1.34
32	2a	1404	5MC	C6-C5	3.00	1.39	1.34
1	1A	1942	5MC	C6-C5	3.00	1.39	1.34
1	1A	1939	5MU	C6-C5	2.99	1.39	1.34
32	2a	1400	5MC	C6-C5	2.96	1.39	1.34
1	2A	2605	PSU	C4-N3	-2.94	1.33	1.38
1	2A	1911	PSU	C4-N3	-2.88	1.33	1.38
54	2w	76	PPU	O4'-C1'	-2.87	1.37	1.41
1	2A	1942	5MC	C6-C5	2.85	1.39	1.34
1	1A	2552	2MU	C4-N3	-2.81	1.33	1.38
54	2w	76	PPU	O2'-C2'	-2.78	1.36	1.43
1	2A	1939	5MU	C6-C5	2.77	1.39	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	1a	966	M2G	C2-N2	2.76	1.40	1.35
1	2A	1915	5MU	C2-N1	2.76	1.42	1.38
32	1a	1400	5MC	C6-C5	2.75	1.39	1.34
55	2x	76	8AN	C5-C4	-2.75	1.33	1.40
1	2A	1939	5MU	C4-C5	2.73	1.49	1.44
32	1a	966	M2G	C6-N1	-2.72	1.33	1.37
54	2w	76	PPU	O5'-C5'	-2.72	1.38	1.44
32	1a	1404	5MC	C6-C5	2.71	1.39	1.34
1	2A	1915	5MU	C4-N3	-2.68	1.33	1.38
54	1w	76	PPU	C2-N3	-2.68	1.27	1.32
1	1A	2605	PSU	C6-C5	2.67	1.38	1.35
1	2A	1939	5MU	C4-N3	-2.67	1.33	1.38
32	2a	966	M2G	C6-N1	-2.66	1.33	1.37
32	1a	967	5MC	C6-C5	2.65	1.38	1.34
1	1A	1962	5MC	C6-C5	2.62	1.38	1.34
1	1A	1962	5MC	C6-N1	-2.59	1.33	1.38
55	1x	76	8AN	C6-C5	-2.58	1.33	1.43
32	1a	516	PSU	C4-N3	-2.58	1.34	1.38
1	1A	1939	5MU	C4-N3	-2.56	1.34	1.38
54	1w	76	PPU	CE2-CD2	-2.56	1.34	1.38
1	2A	1917	PSU	C4-N3	-2.55	1.34	1.38
1	1A	1911	PSU	C4-N3	-2.55	1.34	1.38
1	2A	2605	PSU	C6-C5	2.54	1.38	1.35
55	2x	76	8AN	C6-C5	-2.54	1.33	1.43
1	1A	1917	PSU	C4-N3	-2.53	1.34	1.38
55	1x	76	8AN	C5-C4	-2.53	1.34	1.40
1	1A	1939	5MU	C4-C5	2.53	1.49	1.44
1	1A	2503	2MA	C2-N3	2.51	1.36	1.31
1	1A	1915	5MU	C6-C5	2.50	1.38	1.34
1	1A	1915	5MU	C4-C5	2.49	1.48	1.44
1	2A	1939	5MU	C6-N1	-2.49	1.33	1.38
54	2w	76	PPU	C8-N7	-2.47	1.30	1.34
32	1a	1400	5MC	C6-N1	-2.47	1.33	1.38
32	2a	516	PSU	C4-N3	-2.47	1.34	1.38
1	2A	1915	5MU	C4-C5	2.46	1.48	1.44
1	2A	2552	2MU	C4-N3	-2.45	1.34	1.38
1	2A	1942	5MC	C6-N1	-2.45	1.33	1.38
1	2A	2251	OMG	C6-N1	-2.42	1.34	1.37
54	1w	76	PPU	CD2-CG	-2.41	1.33	1.38
54	1w	76	PPU	CE1-CD1	-2.40	1.34	1.38
54	1w	76	PPU	CE1-CZ	-2.38	1.33	1.38
32	1a	967	5MC	C6-N1	-2.38	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	1A	1915	5MU	C4-N3	-2.37	1.34	1.38
1	2A	2552	2MU	C2-N1	2.37	1.42	1.38
54	1w	76	PPU	O2'-C2'	-2.37	1.37	1.43
1	2A	2552	2MU	C5-C4	2.35	1.48	1.43
32	1a	527	G7M	C6-N1	-2.34	1.34	1.37
54	1w	76	PPU	C3'-N3'	-2.30	1.42	1.45
32	1a	1207	2MG	C6-N1	-2.29	1.34	1.37
32	2a	527	G7M	C6-N1	-2.27	1.34	1.37
1	1A	1942	5MC	C6-N1	-2.25	1.34	1.38
32	2a	1400	5MC	C6-N1	-2.24	1.34	1.38
1	2A	2605	PSU	C2-N3	-2.22	1.33	1.37
1	1A	1939	5MU	C2-N3	-2.21	1.34	1.38
1	2A	1911	PSU	C2-N3	-2.20	1.33	1.37
32	2a	516	PSU	O4'-C1'	-2.19	1.40	1.43
32	2a	1498	UR3	C6-C5	2.17	1.40	1.35
54	2w	76	PPU	CE1-CZ	-2.16	1.34	1.38
1	1A	2552	2MU	C2-N3	-2.16	1.34	1.38
54	2w	76	PPU	OC-CZ	-2.13	1.33	1.37
32	1a	1404	5MC	C6-N1	-2.12	1.34	1.38
55	2x	76	8AN	C5-N7	-2.10	1.32	1.39
1	2A	1939	5MU	C2-N3	-2.09	1.34	1.38
1	1A	2503	2MA	C6-N1	-2.08	1.33	1.38
32	2a	1207	2MG	C6-N1	-2.08	1.34	1.37
1	1A	2552	2MU	C5-C4	2.06	1.48	1.43
32	2a	967	5MC	C6-N1	-2.06	1.34	1.38
32	1a	516	PSU	C2-N3	-2.06	1.34	1.37
1	2A	2503	2MA	C2-N3	2.06	1.35	1.31
32	1a	1498	UR3	C6-C5	2.06	1.39	1.35
1	2A	1962	5MC	C6-N1	-2.03	1.34	1.38
1	1A	1915	5MU	C6-N1	-2.01	1.34	1.38

All (157) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
43	1l	92	0TD	CSB-SB-CB	-12.40	80.00	102.44
1	1A	2605	PSU	N1-C2-N3	6.17	122.12	115.13
32	1a	516	PSU	N1-C2-N3	6.00	121.92	115.13
1	1A	1911	PSU	N1-C2-N3	5.95	121.88	115.13
1	2A	1911	PSU	N1-C2-N3	5.95	121.88	115.13
1	2A	1917	PSU	N1-C2-N3	5.95	121.87	115.13
32	1a	1498	UR3	C4-N3-C2	-5.87	119.04	124.56
32	2a	516	PSU	N1-C2-N3	5.83	121.74	115.13

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
55	2x	76	8AN	N3-C2-N1	-5.83	119.56	128.68
1	1A	1917	PSU	N1-C2-N3	5.79	121.69	115.13
55	1x	76	8AN	N3-C2-N1	-5.77	119.66	128.68
32	2a	1498	UR3	C4-N3-C2	-5.72	119.17	124.56
1	2A	2605	PSU	N1-C2-N3	5.60	121.47	115.13
1	2A	1939	5MU	C4-N3-C2	-5.37	120.40	127.35
1	2A	1939	5MU	N3-C2-N1	5.36	122.01	114.89
1	1A	2552	2MU	N3-C2-N1	5.27	121.89	114.89
32	1a	1519	MA6	N3-C2-N1	-5.22	120.52	128.68
1	2A	2552	2MU	N3-C2-N1	5.19	121.78	114.89
1	2A	1915	5MU	N3-C2-N1	5.12	121.68	114.89
1	1A	1939	5MU	C4-N3-C2	-5.06	120.81	127.35
54	2w	76	PPU	N1-C6-N6	5.02	122.34	117.06
1	1A	1915	5MU	C1'-N1-C2	4.82	126.30	117.57
1	1A	1939	5MU	N3-C2-N1	4.77	121.22	114.89
1	1A	1939	5MU	C5-C4-N3	4.76	119.38	115.31
54	1w	76	PPU	N1-C6-N6	4.76	122.06	117.06
32	2a	1519	MA6	N3-C2-N1	-4.75	121.25	128.68
1	1A	1915	5MU	C4-N3-C2	-4.70	121.27	127.35
1	2A	1915	5MU	C4-N3-C2	-4.67	121.31	127.35
54	2w	76	PPU	O2'-C2'-C3'	-4.66	99.76	111.16
1	1A	2552	2MU	C2'-C1'-N1	-4.55	105.40	114.22
1	1A	2552	2MU	C4-N3-C2	-4.48	120.67	126.58
1	1A	1915	5MU	N3-C2-N1	4.45	120.80	114.89
32	2a	1518	MA6	N3-C2-N1	-4.45	121.72	128.68
1	1A	2605	PSU	C4-N3-C2	-4.42	119.97	126.34
1	1A	1915	5MU	C1'-N1-C6	-4.42	113.77	121.12
1	1A	1915	5MU	C5-C4-N3	4.39	119.06	115.31
1	2A	1942	5MC	C5-C6-N1	-4.36	118.86	123.34
32	1a	1518	MA6	N3-C2-N1	-4.27	122.01	128.68
1	2A	2552	2MU	C4-N3-C2	-4.19	121.05	126.58
32	2a	1400	5MC	C5-C6-N1	-4.16	119.06	123.34
1	1A	1915	5MU	O4-C4-C5	-4.13	120.11	124.90
32	2a	1404	5MC	C5-C6-N1	-4.11	119.11	123.34
32	1a	516	PSU	C4-N3-C2	-4.10	120.43	126.34
1	2A	1939	5MU	C5-C4-N3	4.05	118.77	115.31
1	1A	1942	5MC	C5-C6-N1	-4.02	119.20	123.34
1	1A	1917	PSU	O2-C2-N1	-4.01	118.37	122.79
32	1a	1400	5MC	C5-C6-N1	-3.95	119.27	123.34
1	2A	2605	PSU	C4-N3-C2	-3.94	120.66	126.34
54	2w	76	PPU	CA-C-N3'	3.94	121.62	116.15
1	1A	1939	5MU	O4-C4-C5	-3.94	120.33	124.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	2a	516	PSU	C4-N3-C2	-3.94	120.67	126.34
1	1A	1939	5MU	C5-C6-N1	-3.93	119.30	123.34
1	2A	1939	5MU	C5-C6-N1	-3.92	119.30	123.34
1	1A	1911	PSU	C4-N3-C2	-3.89	120.74	126.34
1	2A	1915	5MU	C5-C4-N3	3.88	118.62	115.31
32	2a	967	5MC	C5-C6-N1	-3.86	119.37	123.34
1	2A	1911	PSU	C4-N3-C2	-3.81	120.85	126.34
1	1A	1917	PSU	C4-N3-C2	-3.64	121.09	126.34
1	2A	1917	PSU	O2-C2-N1	-3.63	118.79	122.79
1	2A	1917	PSU	C4-N3-C2	-3.60	121.14	126.34
32	1a	967	5MC	C5-C6-N1	-3.59	119.65	123.34
32	1a	516	PSU	O2-C2-N1	-3.50	118.93	122.79
1	2A	1915	5MU	C1'-N1-C2	3.46	123.83	117.57
1	2A	1962	5MC	C5-C6-N1	-3.45	119.79	123.34
54	1w	76	PPU	C4-C5-N7	-3.45	105.81	109.40
32	2a	1519	MA6	C4-C5-N7	-3.38	105.88	109.40
1	2A	1915	5MU	O4-C4-C5	-3.35	121.02	124.90
1	1A	1911	PSU	O2-C2-N1	-3.28	119.17	122.79
1	2A	1911	PSU	O2-C2-N1	-3.21	119.25	122.79
1	2A	1939	5MU	O4-C4-C5	-3.14	121.26	124.90
43	1l	92	0TD	OD2-CG-CB	3.14	119.93	113.15
1	1A	2605	PSU	O2-C2-N1	-3.14	119.33	122.79
43	2l	92	0TD	OD2-CG-CB	3.11	119.86	113.15
32	1a	1407	5MC	C5-C6-N1	-3.03	120.22	123.34
54	1w	76	PPU	N3-C2-N1	-3.01	123.98	128.68
1	2A	1939	5MU	O2-C2-N1	-2.99	118.82	122.79
54	2w	76	PPU	CB-CA-N	-2.98	99.91	111.46
32	2a	1518	MA6	C4-C5-N7	-2.95	106.33	109.40
32	2a	516	PSU	O2-C2-N1	-2.90	119.60	122.79
32	2a	1407	5MC	C5-C4-N3	-2.90	118.55	121.67
1	1A	1920	OMC	C1'-N1-C2	2.87	124.82	118.42
32	1a	1518	MA6	C4-C5-N7	-2.86	106.42	109.40
1	1A	1962	5MC	C5-C6-N1	-2.85	120.40	123.34
1	1A	1915	5MU	C5M-C5-C4	2.82	121.87	118.77
1	2A	1915	5MU	C5-C6-N1	-2.80	120.46	123.34
32	1a	1404	5MC	C5-C4-N3	-2.80	118.66	121.67
1	2A	2503	2MA	C8-N7-C5	2.71	108.15	102.99
32	1a	1404	5MC	C5-C6-N1	-2.70	120.56	123.34
1	1A	1939	5MU	O2-C2-N1	-2.66	119.25	122.79
1	1A	2552	2MU	O4-C4-C5	-2.65	120.49	125.16
32	1a	1400	5MC	C5-C4-N3	-2.63	118.83	121.67
1	1A	2552	2MU	C5-C4-N3	2.62	118.76	114.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2A	1915	5MU	C1'-N1-C6	-2.60	116.79	121.12
1	2A	2503	2MA	C5-C6-N1	2.60	118.51	114.02
54	1w	76	PPU	CA-C-N3'	2.59	119.74	116.15
1	2A	2552	2MU	C5-C4-N3	2.58	118.70	114.84
32	1a	1407	5MC	C5-C4-N3	-2.57	118.90	121.67
1	2A	2552	2MU	O2-C2-N1	-2.56	119.39	122.79
32	2a	967	5MC	C5-C4-N3	-2.55	118.93	121.67
32	2a	1407	5MC	C5-C6-N1	-2.54	120.72	123.34
54	2w	76	PPU	CM-OC-CZ	2.52	122.97	117.51
54	1w	76	PPU	O2'-C2'-C3'	-2.51	105.01	111.16
1	2A	2251	OMG	O6-C6-C5	-2.51	119.47	124.37
1	2A	1920	OMC	O2-C2-N3	-2.51	118.25	122.33
1	2A	2605	PSU	O2-C2-N1	-2.50	120.04	122.79
1	1A	1915	5MU	C5-C6-N1	-2.49	120.77	123.34
1	1A	1942	5MC	O2-C2-N3	-2.49	118.28	122.33
1	1A	2503	2MA	C5-C6-N1	2.49	118.31	114.02
1	2A	2552	2MU	O4-C4-C5	-2.49	120.78	125.16
54	2w	76	PPU	N3-C2-N1	-2.49	124.79	128.68
43	2l	92	0TD	OD1-CG-CB	-2.48	117.24	122.44
32	1a	1407	5MC	O2-C2-N3	-2.48	118.30	122.33
1	1A	1962	5MC	C5-C4-N3	-2.47	119.01	121.67
32	1a	1519	MA6	C4-C5-N7	-2.47	106.83	109.40
1	1A	1920	OMC	O2-C2-N3	-2.46	118.34	122.33
32	1a	967	5MC	C5-C4-N3	-2.45	119.03	121.67
1	2A	1942	5MC	C5-C4-N3	-2.44	119.04	121.67
1	1A	2251	OMG	C8-N7-C5	2.43	107.62	102.99
54	2w	76	PPU	C4-C5-N7	-2.43	106.87	109.40
1	1A	2605	PSU	C5-C6-N1	-2.42	118.48	122.11
55	2x	76	8AN	O4'-C1'-C2'	-2.41	103.40	106.93
1	1A	2251	OMG	C5-C6-N1	2.37	118.13	113.95
32	1a	1207	2MG	C5-C6-N1	2.35	118.11	113.95
1	2A	1915	5MU	O2-C2-N3	-2.35	117.12	121.50
32	2a	516	PSU	O4'-C1'-C2'	2.33	108.43	105.14
32	1a	1207	2MG	C8-N7-C5	2.33	107.43	102.99
1	1A	2503	2MA	C8-N7-C5	2.33	107.43	102.99
32	1a	1404	5MC	O2-C2-N3	-2.32	118.56	122.33
1	1A	1942	5MC	C5-C4-N3	-2.32	119.17	121.67
32	2a	1407	5MC	O2-C2-N3	-2.31	118.57	122.33
55	1x	76	8AN	O4'-C1'-C2'	-2.31	103.55	106.93
32	2a	1404	5MC	C5-C4-N3	-2.29	119.20	121.67
32	1a	1207	2MG	CM2-N2-C2	-2.28	118.83	123.86
43	1l	92	0TD	OD1-CG-CB	-2.27	117.68	122.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2A	1939	5MU	C5M-C5-C4	2.27	121.27	118.77
32	1a	1402	4OC	C6-C5-C4	2.26	119.72	116.96
32	1a	966	M2G	C8-N7-C5	2.25	107.28	102.99
32	2a	1207	2MG	C8-N7-C5	2.25	107.28	102.99
54	1w	76	PPU	CM-OC-CZ	2.25	122.40	117.51
1	1A	2552	2MU	O2-C2-N1	-2.23	119.82	122.79
1	1A	1915	5MU	O2-C2-N3	-2.22	117.37	121.50
1	2A	1962	5MC	C5-C4-N3	-2.21	119.29	121.67
32	1a	966	M2G	C5-C6-N1	2.21	117.85	113.95
1	2A	1939	5MU	C5M-C5-C6	-2.19	119.92	122.85
1	1A	1915	5MU	C5M-C5-C6	-2.17	119.95	122.85
32	2a	1402	4OC	C6-C5-C4	2.16	119.60	116.96
32	2a	966	M2G	C8-N7-C5	2.15	107.09	102.99
32	1a	1207	2MG	O3'-C3'-C2'	2.14	118.75	111.82
32	2a	966	M2G	C5-C6-N1	2.14	117.72	113.95
32	1a	516	PSU	O4'-C1'-C2'	2.11	108.12	105.14
32	2a	516	PSU	C5-C6-N1	-2.10	118.96	122.11
32	2a	1404	5MC	O2-C2-N3	-2.09	118.93	122.33
1	2A	2251	OMG	C5-C6-N1	2.09	117.64	113.95
32	2a	1400	5MC	C5-C4-N3	-2.07	119.44	121.67
1	1A	1962	5MC	CM5-C5-C6	-2.07	120.09	122.85
1	2A	2251	OMG	C8-N7-C5	2.06	106.91	102.99
1	1A	1920	OMC	C1'-N1-C6	-2.02	116.44	120.84

There are no chirality outliers.

All (45) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
1	1A	1915	5MU	O4'-C1'-N1-C2
1	1A	1915	5MU	O4'-C1'-N1-C6
1	2A	1915	5MU	O4'-C1'-N1-C2
1	2A	1915	5MU	O4'-C1'-N1-C6
32	2a	1519	MA6	O4'-C4'-C5'-O5'
43	2l	92	0TD	O-C-CA-CB
55	1x	76	8AN	C4'-C5'-O5'-P
55	2x	76	8AN	O4'-C4'-C5'-O5'
55	2x	76	8AN	C3'-C4'-C5'-O5'
56	1v	1	FME	O1-CN-N-CA
56	1v	1	FME	O-C-CA-CB
56	1v	1	FME	CA-CB-CG-SD
56	2v	1	FME	O1-CN-N-CA
32	2a	527	G7M	C3'-C4'-C5'-O5'

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Mol	Chain	Res	Type	Atoms
32	2a	1519	MA6	C3'-C4'-C5'-O5'
32	1a	1519	MA6	O4'-C4'-C5'-O5'
32	1a	1519	MA6	C3'-C4'-C5'-O5'
32	2a	527	G7M	O4'-C4'-C5'-O5'
32	2a	1400	5MC	C2'-C1'-N1-C6
54	1w	76	PPU	O-C-N3'-C3'
54	2w	76	PPU	N-CA-CB-CG
56	1v	1	FME	CB-CG-SD-CE
43	1l	92	0TD	CG-CB-SB-CSB
43	2l	92	0TD	CG-CB-SB-CSB
55	2x	76	8AN	C4'-C5'-O5'-P
32	2a	1400	5MC	O4'-C1'-N1-C6
32	2a	1402	4OC	O4'-C4'-C5'-O5'
1	1A	2503	2MA	C4'-C5'-O5'-P
1	2A	2503	2MA	O4'-C4'-C5'-O5'
32	1a	1402	4OC	O4'-C4'-C5'-O5'
1	1A	1920	OMC	C2'-C1'-N1-C6
32	2a	1400	5MC	O4'-C1'-N1-C2
54	2w	76	PPU	C4'-C5'-O5'-P
43	1l	92	0TD	CA-CB-SB-CSB
32	2a	1400	5MC	C2'-C1'-N1-C2
1	2A	1962	5MC	C2'-C1'-N1-C6
1	2A	1962	5MC	O4'-C1'-N1-C6
32	2a	1518	MA6	O4'-C4'-C5'-O5'
1	1A	1920	OMC	C2'-C1'-N1-C2
32	2a	527	G7M	C4'-C5'-O5'-P
1	1A	2503	2MA	O4'-C4'-C5'-O5'
54	1w	76	PPU	CA-C-N3'-C3'
56	1v	1	FME	CB-CA-N-CN
32	1a	1519	MA6	C4'-C5'-O5'-P
32	2a	1519	MA6	C4'-C5'-O5'-P

There are no ring outliers.

No monomer is involved in short contacts.

## 5.5 Carbohydrates

There are no monosaccharides in this entry.

## 5.6 Ligand geometry

Of 2513 ligands modelled in this entry, 2502 are monoatomic - leaving 11 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
59	MPD	2A	3736	-	7,7,7	0.32	0	9,10,10	0.26	0
61	SF4	2d	501	35	0,12,12	-	-	-	-	-
59	MPD	1A	4031	-	7,7,7	0.32	0	9,10,10	0.20	0
59	MPD	1a	1874	-	7,7,7	0.37	0	9,10,10	0.39	0
59	MPD	2A	3735	-	7,7,7	0.30	0	9,10,10	0.31	0
58	ARG	1B	230	57	10,11,11	0.78	1 (10%)	11,13,13	1.30	2 (18%)
61	SF4	1d	306	35	0,12,12	-	-	-	-	-
59	MPD	1a	1873	-	7,7,7	0.27	0	9,10,10	0.35	0
58	ARG	1A	4030	-	10,11,11	0.68	0	11,13,13	1.12	2 (18%)
59	MPD	2A	3737	-	7,7,7	0.31	0	9,10,10	0.26	0
59	MPD	18	103	-	7,7,7	0.34	0	9,10,10	0.72	0

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
59	MPD	2A	3736	-	-	0/5/5/5	-
61	SF4	2d	501	35	-	-	0/6/5/5
59	MPD	1A	4031	-	-	0/5/5/5	-
59	MPD	1a	1874	-	-	2/5/5/5	-
59	MPD	2A	3735	-	-	0/5/5/5	-
58	ARG	1B	230	57	-	3/11/11/11	-
61	SF4	1d	306	35	-	-	0/6/5/5
59	MPD	1a	1873	-	-	2/5/5/5	-
58	ARG	1A	4030	-	-	1/11/11/11	-
59	MPD	2A	3737	-	-	2/5/5/5	-
59	MPD	18	103	-	-	2/5/5/5	-

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
58	1B	230	ARG	OXT-C	-2.29	1.23	1.30

All (4) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
58	1B	230	ARG	OXT-C-O	-3.48	116.18	124.09
58	1A	4030	ARG	OXT-C-O	-2.81	117.72	124.09
58	1B	230	ARG	OXT-C-CA	2.37	121.45	113.38
58	1A	4030	ARG	OXT-C-CA	2.26	121.08	113.38

There are no chirality outliers.

All (12) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
59	18	103	MPD	C2-C3-C4-C5
58	1B	230	ARG	NE-CD-CG-CB
58	1A	4030	ARG	C-CA-CB-CG
59	1a	1874	MPD	C2-C3-C4-C5
59	18	103	MPD	CM-C2-C3-C4
59	2A	3737	MPD	C1-C2-C3-C4
58	1B	230	ARG	CA-CB-CG-CD
59	1a	1874	MPD	O2-C2-C3-C4
58	1B	230	ARG	OXT-C-CA-N
59	1a	1873	MPD	C2-C3-C4-C5
59	2A	3737	MPD	C2-C3-C4-C5
59	1a	1873	MPD	C2-C3-C4-O4

There are no ring outliers.

No monomer is involved in short contacts.

## 5.7 Other polymers [i](#)

There are no such residues in this entry.

## 5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

## 6 Fit of model and data i

### 6.1 Protein, DNA and RNA chains i

In the following table, the column labelled ‘#RSRZ> 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95<sup>th</sup> 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 <sup>2</sup> )	Q<0.9
1	1A	2861/2915 (98%)	0.15	62 (2%) 62 56	17, 35, 88, 103	0
1	2A	2856/2915 (97%)	0.13	109 (3%) 40 33	31, 56, 91, 102	0
2	1B	120/121 (99%)	-0.23	0 100 100	28, 49, 63, 77	0
2	2B	120/121 (99%)	-0.08	0 100 100	58, 78, 87, 92	0
3	1D	275/276 (99%)	0.23	0 100 100	21, 35, 49, 69	0
3	2D	275/276 (99%)	0.31	0 100 100	32, 49, 61, 78	0
4	1E	204/206 (99%)	0.11	0 100 100	20, 41, 58, 75	0
4	2E	204/206 (99%)	-0.00	0 100 100	32, 56, 68, 77	0
5	1F	203/210 (96%)	0.06	0 100 100	19, 41, 66, 77	0
5	2F	203/210 (96%)	0.15	0 100 100	35, 63, 75, 82	0
6	1G	181/182 (99%)	-0.07	1 (0%) 89 88	45, 61, 73, 85	0
6	2G	181/182 (99%)	0.84	30 (16%) 1 1	68, 78, 83, 89	0
7	1H	174/180 (96%)	-0.17	1 (0%) 89 88	38, 52, 63, 71	0
7	2H	173/180 (96%)	1.24	41 (23%) 0 0	65, 76, 81, 86	0
8	1I	147/148 (99%)	-0.04	2 (1%) 75 71	41, 68, 78, 84	0
8	2I	146/148 (98%)	0.14	1 (0%) 87 86	51, 71, 79, 84	0
9	1N	140/140 (100%)	0.09	0 100 100	25, 38, 57, 70	0
9	2N	140/140 (100%)	0.03	0 100 100	44, 62, 73, 76	0
10	1O	122/122 (100%)	0.20	0 100 100	29, 41, 60, 65	0
10	2O	122/122 (100%)	0.01	0 100 100	40, 53, 65, 77	0
11	1P	149/150 (99%)	0.05	0 100 100	20, 45, 66, 77	0
11	2P	149/150 (99%)	0.97	20 (13%) 3 2	38, 62, 77, 86	0
12	1Q	141/141 (100%)	0.06	0 100 100	25, 38, 51, 60	0
12	2Q	141/141 (100%)	0.18	3 (2%) 63 58	42, 62, 70, 76	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
13	1R	118/118 (100%)	0.01	0 100 100	26, 35, 48, 56	0
13	2R	118/118 (100%)	0.12	0 100 100	39, 51, 60, 68	0
14	1S	110/112 (98%)	-0.11	0 100 100	38, 49, 61, 64	0
14	2S	110/112 (98%)	0.50	4 (3%) 42 35	63, 72, 77, 78	0
15	1T	131/146 (89%)	0.11	0 100 100	33, 44, 64, 78	0
15	2T	131/146 (89%)	0.01	0 100 100	48, 56, 74, 77	0
16	1U	116/118 (98%)	0.12	0 100 100	21, 30, 46, 58	0
16	2U	116/118 (98%)	0.07	0 100 100	38, 58, 70, 79	0
17	1V	101/101 (100%)	-0.06	0 100 100	21, 40, 54, 65	0
17	2V	101/101 (100%)	-0.05	0 100 100	44, 67, 74, 78	0
18	1W	112/113 (99%)	0.10	1 (0%) 84 82	23, 31, 50, 78	0
18	2W	112/113 (99%)	0.20	1 (0%) 84 82	38, 49, 65, 81	0
19	1X	95/96 (98%)	0.12	0 100 100	27, 36, 60, 74	0
19	2X	95/96 (98%)	0.25	2 (2%) 63 58	51, 60, 72, 79	0
20	1Y	107/110 (97%)	0.12	1 (0%) 84 82	32, 48, 67, 75	0
20	2Y	107/110 (97%)	0.24	2 (1%) 66 62	56, 68, 76, 81	0
21	1Z	203/206 (98%)	-0.07	0 100 100	39, 55, 69, 77	0
21	2Z	201/206 (97%)	0.37	10 (4%) 28 23	64, 73, 80, 84	0
22	10	83/85 (97%)	0.16	0 100 100	23, 37, 50, 56	0
22	20	83/85 (97%)	0.59	4 (4%) 30 24	48, 62, 70, 75	0
23	11	97/98 (98%)	0.31	2 (2%) 63 58	28, 41, 65, 70	0
23	21	97/98 (98%)	0.20	2 (2%) 63 58	36, 54, 70, 76	0
24	12	70/72 (97%)	0.02	0 100 100	35, 50, 60, 70	0
24	22	70/72 (97%)	-0.07	0 100 100	57, 68, 74, 79	0
25	13	59/60 (98%)	-0.10	0 100 100	27, 36, 60, 66	0
25	23	59/60 (98%)	0.15	1 (1%) 70 66	51, 60, 73, 81	0
26	14	69/71 (97%)	0.05	3 (4%) 35 28	51, 75, 84, 87	0
26	24	69/71 (97%)	1.40	23 (33%) 0 0	75, 83, 90, 92	0
27	15	59/60 (98%)	0.20	0 100 100	20, 31, 47, 61	0
27	25	59/60 (98%)	0.10	0 100 100	37, 49, 63, 70	0
28	16	53/54 (98%)	-0.06	0 100 100	34, 42, 54, 60	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
28	26	53/54 (98%)	0.43	1 (1%) 66 62	52, 59, 65, 71	0
29	17	48/49 (97%)	0.30	0 100 100	20, 28, 54, 64	0
29	27	48/49 (97%)	0.24	0 100 100	33, 43, 58, 70	0
30	18	64/65 (98%)	0.10	0 100 100	25, 34, 41, 55	0
30	28	64/65 (98%)	0.81	5 (7%) 13 9	42, 54, 59, 67	0
31	19	37/37 (100%)	0.13	0 100 100	28, 39, 54, 57	0
31	29	37/37 (100%)	0.59	1 (2%) 54 48	54, 63, 73, 75	0
32	1a	1488/1521 (97%)	0.11	36 (2%) 59 53	35, 67, 88, 100	0
32	2a	1492/1521 (98%)	0.24	64 (4%) 35 28	42, 72, 90, 102	0
33	1b	231/256 (90%)	0.50	15 (6%) 18 14	65, 74, 83, 88	0
33	2b	231/256 (90%)	0.92	31 (13%) 3 2	68, 78, 85, 92	0
34	1c	206/239 (86%)	0.43	7 (3%) 45 38	60, 72, 80, 83	0
34	2c	206/239 (86%)	0.97	25 (12%) 4 2	69, 79, 84, 87	0
35	1d	208/209 (99%)	0.24	4 (1%) 66 62	56, 69, 78, 82	0
35	2d	208/209 (99%)	0.44	4 (1%) 66 62	57, 67, 75, 83	0
36	1e	148/162 (91%)	0.32	0 100 100	46, 63, 73, 85	0
36	2e	148/162 (91%)	0.41	5 (3%) 45 38	59, 68, 76, 85	0
37	1f	100/101 (99%)	-0.02	1 (1%) 82 80	49, 63, 72, 76	0
37	2f	100/101 (99%)	-0.08	0 100 100	55, 65, 75, 79	0
38	1g	155/156 (99%)	0.14	4 (2%) 56 50	59, 68, 76, 82	0
38	2g	155/156 (99%)	0.66	20 (12%) 3 2	67, 76, 82, 87	0
39	1h	137/138 (99%)	0.41	5 (3%) 42 35	55, 65, 72, 77	0
39	2h	137/138 (99%)	0.64	7 (5%) 28 22	60, 69, 75, 77	0
40	1i	127/128 (99%)	0.88	16 (12%) 3 2	57, 75, 81, 83	0
40	2i	126/128 (98%)	2.19	69 (54%) 0 0	69, 81, 86, 91	0
41	1j	97/105 (92%)	1.14	15 (15%) 2 1	61, 75, 83, 87	0
41	2j	96/105 (91%)	1.86	40 (41%) 0 0	73, 81, 86, 89	0
42	1k	114/129 (88%)	0.01	1 (0%) 84 82	40, 61, 72, 75	0
42	2k	114/129 (88%)	0.07	1 (0%) 84 82	57, 69, 77, 79	0
43	1l	121/132 (91%)	0.22	1 (0%) 86 84	48, 59, 67, 73	0
43	2l	121/132 (91%)	0.07	0 100 100	54, 63, 69, 74	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
44	1m	116/126 (92%)	0.27	5 (4%) 35 28	60, 70, 76, 79	0
44	2m	114/126 (90%)	1.10	20 (17%) 1 0	73, 79, 83, 86	0
45	1n	60/61 (98%)	0.88	5 (8%) 11 8	61, 69, 75, 76	0
45	2n	60/61 (98%)	2.09	28 (46%) 0 0	70, 79, 83, 85	0
46	1o	88/89 (98%)	0.19	1 (1%) 80 78	45, 63, 75, 82	0
46	2o	88/89 (98%)	-0.04	0 100 100	54, 67, 75, 81	0
47	1p	82/88 (93%)	1.02	11 (13%) 3 2	60, 70, 78, 83	0
47	2p	82/88 (93%)	0.92	7 (8%) 10 7	59, 66, 76, 81	0
48	1q	99/105 (94%)	0.52	2 (2%) 65 60	53, 65, 73, 77	0
48	2q	99/105 (94%)	0.40	2 (2%) 65 60	55, 66, 74, 75	0
49	1r	68/88 (77%)	0.18	0 100 100	52, 61, 73, 81	0
49	2r	68/88 (77%)	0.03	1 (1%) 73 70	58, 68, 75, 80	0
50	1s	83/93 (89%)	0.15	0 100 100	60, 72, 80, 84	0
50	2s	83/93 (89%)	1.40	21 (25%) 0 0	71, 81, 85, 88	0
51	1t	96/106 (90%)	1.76	42 (43%) 0 0	62, 70, 78, 81	0
51	2t	98/106 (92%)	1.25	18 (18%) 1 0	54, 66, 75, 79	0
52	1u	23/27 (85%)	1.21	5 (21%) 0 0	66, 70, 74, 77	0
52	2u	23/27 (85%)	1.82	10 (43%) 0 0	73, 78, 82, 86	0
53	1y	97/113 (85%)	0.39	2 (2%) 63 58	49, 60, 71, 75	0
53	2y	96/113 (84%)	1.40	26 (27%) 0 0	66, 75, 80, 86	0
54	1w	3/4 (75%)	-0.42	0 100 100	30, 30, 35, 47	0
54	2w	3/4 (75%)	-0.21	0 100 100	44, 44, 45, 52	0
55	1x	3/4 (75%)	0.20	0 100 100	23, 23, 25, 35	0
55	2x	3/4 (75%)	0.53	0 100 100	35, 35, 43, 47	0
56	1v	2/3 (66%)	0.56	0 100 100	27, 27, 27, 30	0
56	2v	2/3 (66%)	0.49	0 100 100	44, 44, 44, 47	0
All	All	20794/21490 (96%)	0.28	910 (4%) 34 27	17, 61, 84, 103	0

All (910) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	1A	1076	C	8.3
1	1A	1087	G	7.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
32	2a	1030(B)	C	6.9
1	2A	2124	G	6.3
26	24	49	PHE	6.1
1	2A	1046	A	5.9
34	2c	159	GLY	5.8
1	1A	1064	C	5.6
34	2c	8	ILE	5.5
1	1A	1077	A	5.5
40	2i	76	ALA	5.5
34	2c	65	ALA	5.5
1	2A	1083	U	5.5
1	2A	1076	C	5.4
41	2j	34	VAL	5.4
1	2A	2125	G	5.4
32	2a	1036	G	5.4
26	24	45	GLY	5.3
40	2i	115	GLY	5.3
6	2G	39	ILE	5.3
1	2A	1079	C	5.2
1	2A	2169	A	5.2
40	2i	18	PHE	5.1
1	1A	1090	U	5.1
6	1G	48	GLU	5.1
26	24	52	THR	5.1
41	2j	96	ILE	5.1
1	1A	1068	G	5.1
33	2b	123	ALA	5.1
52	2u	2	GLY	5.1
1	2A	1085	A	5.1
45	2n	25	VAL	5.0
40	2i	7	THR	5.0
20	2Y	1	MET	5.0
45	2n	2	ALA	5.0
1	2A	229	A	4.9
32	2a	1030(C)	G	4.9
1	2A	2179	C	4.9
34	2c	177	THR	4.9
45	2n	34	TYR	4.8
41	2j	6	ILE	4.8
32	2a	1030(A)	G	4.8
40	2i	36	TYR	4.8
32	1a	1030(B)	C	4.7

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
53	2y	52	ALA	4.7
11	2P	94	GLU	4.7
6	2G	49	ASP	4.7
53	2y	88	LEU	4.7
40	2i	69	GLY	4.7
33	2b	132	LYS	4.6
40	2i	21	PRO	4.6
41	2j	67	THR	4.6
1	1A	1067	A	4.6
1	1A	1092	C	4.6
45	2n	29	ARG	4.6
1	1A	1080	C	4.6
1	2A	2162	G	4.6
40	2i	88	TYR	4.6
1	2A	2174	C	4.6
7	2H	71	LEU	4.6
1	2A	2123	G	4.5
33	2b	231	GLU	4.5
1	2A	2153	G	4.5
45	2n	61	TRP	4.4
1	2A	2173	A	4.4
33	2b	227	GLY	4.4
33	2b	136	VAL	4.4
1	2A	2168	G	4.4
40	2i	63	ILE	4.4
1	1A	1091	G	4.3
51	1t	55	ILE	4.3
38	2g	155	ARG	4.3
51	1t	68	LYS	4.2
1	2A	2159	G	4.2
52	2u	13	ILE	4.2
1	2A	2126	A	4.2
7	2H	25	LYS	4.2
40	2i	59	PHE	4.2
1	1A	1075	C	4.2
40	1i	126	SER	4.2
51	1t	66	ALA	4.2
7	2H	115	VAL	4.2
32	2a	1026	G	4.2
45	2n	55	GLY	4.2
40	2i	109	VAL	4.2
32	1a	1447	A	4.2

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	2A	2138	C	4.1
11	2P	110	TYR	4.1
1	2A	2116	G	4.1
26	24	63	TYR	4.1
32	2a	1033	G	4.1
11	2P	118	GLY	4.1
51	1t	47	GLY	4.1
44	2m	4	ILE	4.1
6	2G	86	MET	4.1
1	2A	2140	C	4.1
1	2A	2170	A	4.1
50	2s	62	ILE	4.1
1	1A	1089	G	4.1
41	1j	10	GLY	4.1
33	2b	113	HIS	4.0
41	2j	65	LEU	4.0
1	1A	1066	U	4.0
26	24	56	VAL	4.0
1	2A	2143	C	4.0
19	2X	92	LEU	4.0
1	2A	2165	G	4.0
1	2A	2141	G	4.0
40	2i	92	TYR	4.0
1	1A	1065	U	4.0
45	2n	57	ARG	4.0
32	1a	1030(C)	G	4.0
1	2A	1067	A	3.9
1	2A	2127	G	3.9
1	2A	2146	C	3.9
7	2H	165	ALA	3.9
44	2m	95	GLY	3.9
47	1p	1	MET	3.9
1	2A	888	C	3.9
40	1i	106	ALA	3.9
32	2a	1030(D)	A	3.9
50	2s	9	VAL	3.9
1	2A	1064	C	3.9
33	1b	228	GLY	3.9
21	2Z	197	ILE	3.9
33	2b	165	VAL	3.9
40	2i	5	TYR	3.8
26	24	40	HIS	3.8

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
51	1t	72	LEU	3.8
21	2Z	191	VAL	3.8
1	1A	1102	C	3.8
32	2a	1031	G	3.8
1	1A	1095	A	3.8
32	2a	1257	U	3.8
1	2A	2176	A	3.8
51	2t	10	LEU	3.7
32	2a	91	C	3.7
41	2j	26	ALA	3.7
40	2i	14	VAL	3.7
51	1t	75	ASN	3.7
25	23	60	GLU	3.7
1	2A	2120	G	3.7
1	2A	2142	C	3.7
34	2c	33	LEU	3.7
1	2A	2110	G	3.7
52	2u	14	TRP	3.7
41	2j	98	ILE	3.7
40	2i	65	VAL	3.7
50	2s	79	THR	3.7
1	1A	1082	U	3.7
7	2H	102	ALA	3.7
1	2A	1509	C	3.7
1	2A	2121	G	3.7
51	1t	45	GLN	3.7
32	2a	1001	A	3.6
32	1a	204	U	3.6
50	2s	41	VAL	3.6
53	2y	92	GLY	3.6
11	2P	149	GLU	3.6
53	2y	41	LEU	3.6
32	2a	1034	G	3.6
7	2H	45	VAL	3.6
32	1a	1257	U	3.6
34	2c	184	TYR	3.6
41	1j	20	ALA	3.6
51	1t	69	GLY	3.6
44	2m	102	ARG	3.6
41	1j	38	ILE	3.6
1	1A	1083	U	3.6
40	2i	91	ASP	3.6

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
38	2g	120	ILE	3.6
51	2t	55	ILE	3.6
41	2j	19	SER	3.6
41	2j	62	HIS	3.5
1	2A	2109	U	3.5
1	2A	2118	U	3.5
53	1y	95	ARG	3.5
50	2s	66	MET	3.5
34	2c	206	GLU	3.5
40	2i	114	TYR	3.5
32	2a	1028	C	3.5
45	2n	10	ALA	3.5
1	2A	2147	G	3.5
7	2H	49	VAL	3.5
40	2i	30	GLY	3.5
41	2j	72	VAL	3.5
1	2A	2106	G	3.5
32	2a	1030	C	3.5
40	2i	17	VAL	3.5
41	2j	38	ILE	3.5
53	2y	4	ASN	3.5
53	2y	48	PHE	3.4
1	2A	2132	U	3.4
1	2A	2139	C	3.4
40	2i	22	GLY	3.4
19	2X	68	ARG	3.4
26	24	57	GLU	3.4
23	11	2	SER	3.4
7	2H	9	ILE	3.4
32	1a	1031	G	3.4
40	2i	72	GLY	3.4
35	2d	146	ILE	3.4
53	2y	40	ILE	3.4
7	2H	35	VAL	3.4
33	2b	118	LEU	3.4
41	2j	77	PRO	3.4
32	2a	80	G	3.4
40	2i	19	LEU	3.4
41	1j	8	LEU	3.4
53	2y	50	ALA	3.4
1	1A	1093	G	3.3
41	1j	85	LEU	3.3

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	1A	1086	A	3.3
33	1b	227	GLY	3.3
32	2a	1027	C	3.3
6	2G	29	TRP	3.3
1	2A	652(B)	A	3.3
53	2y	39	ILE	3.3
7	2H	33	LEU	3.3
45	2n	39	LEU	3.3
39	1h	93	VAL	3.3
41	2j	100	THR	3.3
1	2A	2151	G	3.3
32	1a	1030	C	3.3
44	2m	65	LYS	3.3
1	2A	2164	C	3.2
53	2y	7	SER	3.2
1	1A	2132	U	3.2
47	2p	19	ILE	3.2
33	2b	232	PRO	3.2
50	2s	49	ILE	3.2
41	1j	90	LEU	3.2
7	2H	13	LYS	3.2
47	1p	19	ILE	3.2
1	1A	2116	G	3.2
7	2H	103	LEU	3.2
45	2n	44	LEU	3.2
1	2A	1091	G	3.2
32	1a	1024	G	3.2
26	24	19	GLY	3.2
41	2j	47	PHE	3.2
11	2P	93	GLY	3.2
53	2y	3	MET	3.2
32	1a	1001(A)	G	3.2
33	2b	164	VAL	3.2
40	2i	26	VAL	3.2
1	2A	2136	C	3.2
1	2A	2178	C	3.2
51	1t	63	ILE	3.2
50	2s	71	LEU	3.2
34	2c	64	VAL	3.1
1	1A	2147	G	3.1
32	2a	90	U	3.1
44	2m	111	LYS	3.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
51	1t	74	LYS	3.1
40	2i	102	LEU	3.1
1	2A	2148	G	3.1
1	2A	2805	G	3.1
40	2i	75	ASP	3.1
7	2H	19	VAL	3.1
45	2n	53	LEU	3.1
1	2A	1080	C	3.1
32	2a	1037	C	3.1
32	2a	1001(A)	G	3.1
6	2G	133	LEU	3.1
39	1h	112	LEU	3.1
44	1m	2	ALA	3.1
1	2A	2108	C	3.1
32	1a	1001	A	3.1
50	2s	10	PHE	3.1
7	2H	93	GLY	3.1
38	2g	37	ASN	3.1
33	1b	214	ILE	3.1
41	2j	41	PRO	3.1
32	2a	1157	A	3.1
7	2H	72	ILE	3.1
1	2A	645	C	3.1
51	2t	14	LYS	3.1
32	2a	93	G	3.0
48	2q	10	VAL	3.0
39	2h	2	LEU	3.0
1	2A	2107	C	3.0
1	2A	2804	C	3.0
32	1a	1030(D)	A	3.0
34	2c	16	ARG	3.0
40	2i	10	ARG	3.0
52	2u	10	ARG	3.0
45	2n	13	THR	3.0
45	2n	18	VAL	3.0
40	2i	74	ILE	3.0
1	2A	2149	G	3.0
32	1a	1036	G	3.0
44	1m	115	LYS	3.0
53	2y	38	HIS	3.0
1	1A	2161	C	3.0
32	2a	1452	C	3.0

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
33	1b	29	ALA	3.0
33	1b	222	ILE	3.0
45	2n	35	ARG	3.0
34	2c	17	ASP	3.0
38	2g	9	VAL	3.0
1	2A	1082	U	3.0
1	2A	2119	A	3.0
1	2A	2122	U	3.0
18	1W	111	HIS	3.0
40	2i	62	TYR	3.0
1	2A	1104	C	3.0
7	2H	166	GLY	3.0
1	1A	1057	A	3.0
38	2g	33	ASP	3.0
40	2i	67	GLY	3.0
7	2H	29	PRO	3.0
40	2i	90	PRO	3.0
11	2P	132	LYS	2.9
34	2c	124	ILE	2.9
50	2s	28	LYS	2.9
34	2c	152	ILE	2.9
32	2a	216	G	2.9
50	2s	52	TYR	2.9
50	2s	11	VAL	2.9
1	2A	1103	A	2.9
6	2G	157	ILE	2.9
1	2A	2150	U	2.9
1	2A	887	A	2.9
53	2y	8	LYS	2.9
42	2k	13	GLN	2.9
47	1p	48	TRP	2.9
1	1A	1071	G	2.9
33	2b	153	ARG	2.9
1	1A	1103	A	2.9
6	2G	135	LEU	2.9
38	1g	16	LEU	2.9
7	2H	10	PRO	2.9
36	2e	94	ALA	2.9
53	2y	73	ALA	2.9
1	1A	1079	C	2.9
40	2i	32	ASP	2.9
40	2i	66	ARG	2.9

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	1A	2156	G	2.9
45	1n	25	VAL	2.9
41	2j	40	LEU	2.8
51	1t	13	LEU	2.8
41	2j	44	VAL	2.8
51	1t	40	ALA	2.8
33	2b	133	LYS	2.8
40	2i	6	GLY	2.8
1	1A	1176	G	2.8
38	2g	154	TYR	2.8
40	2i	4	TYR	2.8
40	2i	80	GLY	2.8
33	2b	127	ILE	2.8
1	1A	1074	G	2.8
1	2A	1081	U	2.8
1	1A	2117	A	2.8
1	2A	2181	G	2.8
8	1I	38	LEU	2.8
32	1a	1030(A)	G	2.8
32	2a	1032	G	2.8
51	2t	13	LEU	2.8
11	2P	122	PRO	2.8
52	2u	6	ARG	2.8
33	2b	122	PHE	2.8
45	2n	37	PHE	2.8
6	2G	43	LEU	2.8
34	1c	63	ASN	2.8
1	1A	2173	A	2.8
1	2A	1099	G	2.8
32	2a	1286	A	2.8
1	2A	1075	C	2.8
40	2i	87	GLN	2.8
26	24	17	GLY	2.8
26	24	50	VAL	2.8
40	2i	108	VAL	2.8
41	2j	37	PRO	2.8
41	2j	64	GLU	2.8
53	2y	11	GLU	2.8
32	1a	1028	C	2.8
41	2j	71	LEU	2.8
51	1t	62	LEU	2.8
1	2A	2167	U	2.8

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
32	2a	1150	U	2.8
41	2j	49	VAL	2.8
45	2n	56	VAL	2.8
51	1t	76	ALA	2.8
6	2G	41	GLN	2.8
35	2d	74	GLN	2.8
1	1A	1059	G	2.8
1	2A	1056	G	2.8
1	2A	2166	G	2.8
38	2g	27	ILE	2.8
41	2j	85	LEU	2.8
51	1t	58	LYS	2.8
7	2H	44	VAL	2.7
51	1t	70	SER	2.7
38	1g	42	ILE	2.7
14	2S	20	ARG	2.7
32	1a	194	C	2.7
32	2a	1006	C	2.7
20	1Y	1	MET	2.7
40	2i	54	ASP	2.7
51	1t	92	LEU	2.7
6	2G	161	THR	2.7
26	24	46	GLN	2.7
50	2s	63	THR	2.7
33	1b	233	SER	2.7
51	2t	11	SER	2.7
1	2A	2154	G	2.7
40	2i	61	ALA	2.7
51	2t	56	MET	2.7
23	21	26	ARG	2.7
26	24	55	ARG	2.7
1	2A	2803	C	2.7
32	2a	1447	A	2.7
21	2Z	125	LEU	2.7
33	1b	118	LEU	2.7
1	1A	1094	U	2.7
7	2H	128	PRO	2.7
38	2g	121	ALA	2.7
34	1c	201	TYR	2.7
1	1A	1081	U	2.7
32	1a	1446	U	2.7
40	2i	119	ALA	2.7

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
11	2P	105	LEU	2.7
22	20	75	LEU	2.7
44	1m	78	ILE	2.7
11	2P	82	GLY	2.7
40	1i	14	VAL	2.7
50	2s	53	ASN	2.6
32	1a	1033	G	2.6
51	2t	25	ARG	2.6
45	2n	21	TYR	2.6
6	2G	151	ALA	2.6
34	1c	148	GLY	2.6
1	2A	2180	U	2.6
1	1A	1053	C	2.6
32	1a	1029	C	2.6
6	2G	62	LEU	2.6
11	2P	135	LEU	2.6
41	2j	54	PHE	2.6
40	2i	31	GLN	2.6
50	2s	69	HIS	2.6
51	1t	73	HIS	2.6
41	2j	89	ASP	2.6
26	14	52	THR	2.6
44	2m	84	ILE	2.6
1	2A	1087	G	2.6
32	1a	1456	G	2.6
34	2c	66	VAL	2.6
34	2c	207	VAL	2.6
38	2g	156	TRP	2.6
47	2p	48	TRP	2.6
34	2c	3	ASN	2.6
41	2j	68	HIS	2.6
7	2H	76	VAL	2.6
45	1n	18	VAL	2.6
26	24	65	ASP	2.6
1	2A	2172	U	2.6
1	1A	2107	C	2.6
1	2A	2177	C	2.6
32	2a	1321	C	2.6
39	1h	67	PRO	2.6
50	2s	80	TYR	2.6
40	1i	26	VAL	2.6
41	1j	25	GLU	2.6

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
45	1n	36	PHE	2.6
46	1o	89	GLY	2.6
33	2b	233	SER	2.6
40	2i	71	SER	2.6
45	2n	7	ILE	2.6
41	2j	88	LEU	2.6
45	2n	6	LEU	2.6
12	2Q	30	GLY	2.6
1	2A	2114	A	2.6
32	2a	172	A	2.6
44	2m	80	ARG	2.6
1	1A	2167	U	2.5
1	2A	1090	U	2.5
40	2i	89	ASN	2.5
41	2j	33	GLN	2.5
51	2t	26	ASN	2.5
47	2p	7	ALA	2.5
33	2b	92	TYR	2.5
44	2m	69	GLU	2.5
40	2i	53	VAL	2.5
1	1A	888	C	2.5
6	2G	136	ARG	2.5
1	1A	1085	A	2.5
1	2A	1084	A	2.5
44	2m	51	ALA	2.5
32	2a	204	U	2.5
47	1p	59	TRP	2.5
14	2S	54	LEU	2.5
50	2s	82	GLY	2.5
1	1A	1063	G	2.5
1	2A	2152	G	2.5
32	2a	378	G	2.5
40	2i	20	ARG	2.5
1	1A	1509	C	2.5
32	2a	176	C	2.5
38	2g	24	THR	2.5
40	2i	49	PRO	2.5
48	2q	36	ILE	2.5
51	1t	41	ILE	2.5
31	29	16	VAL	2.5
6	2G	58	GLN	2.5
33	2b	101	MET	2.5

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Mol	Chain	Res	Type	RSRZ
32	2a	78	G	2.5
7	2H	65	HIS	2.5
51	1t	95	ALA	2.5
44	2m	64	TRP	2.5
41	2j	24	VAL	2.5
7	2H	32	GLU	2.5
32	2a	1180	A	2.5
40	2i	123	PRO	2.5
51	1t	64	ASP	2.5
1	1A	2145	C	2.5
1	2A	1044	G	2.5
32	1a	1032	G	2.5
51	1t	67	ALA	2.5
53	2y	53	THR	2.5
39	2h	135	CYS	2.5
40	2i	40	LEU	2.5
50	2s	34	TRP	2.5
52	1u	14	TRP	2.5
40	1i	109	VAL	2.5
32	2a	222	U	2.5
51	1t	83	ARG	2.5
21	2Z	192	ALA	2.5
51	1t	32	ALA	2.5
45	2n	8	GLU	2.5
32	2a	1029	C	2.5
7	1H	2	SER	2.5
51	1t	85	MET	2.5
1	1A	1061	U	2.5
44	2m	71	ARG	2.5
51	1t	57	ARG	2.5
52	2u	9	ARG	2.5
51	1t	18	GLN	2.5
40	2i	113	LYS	2.5
44	2m	90	LEU	2.5
47	1p	20	VAL	2.5
38	2g	32	ARG	2.5
30	28	9	GLY	2.4
32	2a	1148	U	2.4
44	2m	89	GLY	2.4
6	2G	2	PRO	2.4
40	2i	56	LEU	2.4
41	2j	74	ILE	2.4

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Mol	Chain	Res	Type	RSRZ
51	2t	9	ASN	2.4
1	2A	652(T)	C	2.4
26	24	64	GLY	2.4
32	2a	1116	C	2.4
34	2c	28	GLN	2.4
1	2A	2133	G	2.4
32	2a	79	G	2.4
40	2i	45	ALA	2.4
47	1p	6	LEU	2.4
40	2i	111	ARG	2.4
47	1p	17	TYR	2.4
32	2a	1035	A	2.4
32	1a	219	C	2.4
41	1j	27	ALA	2.4
21	2Z	133	ILE	2.4
51	2t	99	LEU	2.4
52	2u	22	ARG	2.4
32	1a	220	G	2.4
34	2c	4	LYS	2.4
33	1b	135	GLN	2.4
33	2b	135	GLN	2.4
40	2i	33	PHE	2.4
7	2H	83	TYR	2.4
45	1n	34	TYR	2.4
40	2i	106	ALA	2.4
40	2i	122	ALA	2.4
33	2b	128	GLU	2.4
8	2I	3	VAL	2.4
11	2P	66	GLY	2.4
52	2u	11	GLY	2.4
38	2g	41	ARG	2.4
34	2c	61	ALA	2.4
38	2g	40	ALA	2.4
51	1t	65	LYS	2.4
51	2t	24	LEU	2.4
23	21	2	SER	2.4
41	2j	23	ILE	2.4
1	2A	2145	C	2.4
7	2H	17	VAL	2.4
30	28	48	PHE	2.4
32	2a	175	C	2.4
34	2c	190	ARG	2.4

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
6	2G	139	LEU	2.4
7	2H	88	LEU	2.4
40	2i	46	ALA	2.4
6	2G	78	SER	2.4
26	24	51	ASP	2.4
44	1m	4	ILE	2.4
39	2h	95	VAL	2.4
1	2A	34	C	2.4
22	20	74	ARG	2.4
32	1a	218	C	2.4
33	2b	45	GLN	2.4
39	2h	119	LEU	2.4
40	1i	19	LEU	2.4
41	2j	35	SER	2.4
1	2A	2160	G	2.4
1	2A	2894	G	2.4
26	24	16	CYS	2.4
7	2H	123	PHE	2.4
22	20	45	PHE	2.4
33	1b	229	VAL	2.4
41	2j	11	PHE	2.4
53	2y	62	VAL	2.4
1	1A	2163	C	2.3
1	1A	2169	A	2.3
41	2j	48	THR	2.3
44	1m	112	GLY	2.3
33	2b	201	ILE	2.3
6	2G	38	VAL	2.3
7	2H	26	VAL	2.3
26	14	59	PHE	2.3
45	1n	33	VAL	2.3
1	2A	272(A)	U	2.3
6	2G	146	TYR	2.3
30	28	15	LYS	2.3
42	1k	25	TYR	2.3
41	2j	93	GLY	2.3
51	1t	89	ARG	2.3
1	1A	2155	G	2.3
1	1A	2159	G	2.3
1	2A	2144	U	2.3
7	2H	106	THR	2.3
32	2a	1446	U	2.3

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
34	2c	60	ALA	2.3
38	2g	6	ARG	2.3
45	2n	12	ARG	2.3
45	2n	28	GLY	2.3
51	2t	76	ALA	2.3
52	2u	15	ARG	2.3
1	1A	2174	C	2.3
1	2A	2105	C	2.3
32	1a	1027	C	2.3
1	1A	1088	A	2.3
26	24	44	THR	2.3
45	2n	58	LYS	2.3
53	2y	9	GLN	2.3
1	2A	2111	C	2.3
7	2H	50	VAL	2.3
21	2Z	96	VAL	2.3
32	2a	221	C	2.3
38	2g	141	VAL	2.3
28	26	42	TRP	2.3
33	2b	143	GLU	2.3
47	2p	25	ARG	2.3
7	2H	80	SER	2.3
38	1g	58	PRO	2.3
11	2P	59	LEU	2.3
40	2i	50	LEU	2.3
21	2Z	51	ALA	2.3
40	1i	77	ILE	2.3
41	1j	98	ILE	2.3
7	2H	113	VAL	2.3
14	2S	29	PHE	2.3
33	2b	70	PHE	2.3
41	2j	61	GLU	2.3
1	1A	2154	G	2.3
1	2A	2112	G	2.3
1	2A	2793	G	2.3
39	1h	128	GLY	2.3
11	2P	78	PRO	2.3
41	1j	68	HIS	2.3
1	1A	229	A	2.3
40	2i	29	ASN	2.3
51	1t	56	MET	2.3
51	1t	84	LEU	2.3

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
34	2c	23	TYR	2.3
40	1i	15	ALA	2.3
50	2s	39	THR	2.3
1	2A	2113	U	2.3
7	2H	101	ARG	2.3
26	24	68	ARG	2.3
40	2i	83	ARG	2.3
41	2j	10	GLY	2.3
32	2a	1156	G	2.3
6	2G	158	ALA	2.3
33	2b	120	ALA	2.3
38	2g	25	ALA	2.3
12	2Q	104	PHE	2.3
51	2t	22	ARG	2.3
6	2G	126	ASP	2.3
40	2i	127	LYS	2.3
26	24	29	PRO	2.2
53	2y	63	ALA	2.2
40	2i	103	THR	2.2
32	2a	92	C	2.2
32	2a	144	G	2.2
39	2h	84	ARG	2.2
41	1j	73	ASP	2.2
32	2a	1111	A	2.2
7	2H	21	PRO	2.2
33	2b	216	SER	2.2
33	1b	215	LEU	2.2
33	2b	97	TRP	2.2
38	1g	22	LEU	2.2
45	2n	49	HIS	2.2
50	2s	15	LEU	2.2
6	2G	155	MET	2.2
12	2Q	114	ALA	2.2
51	2t	12	ALA	2.2
44	2m	116	THR	2.2
33	2b	152	PHE	2.2
1	1A	1099	G	2.2
32	1a	1026	G	2.2
32	2a	147	G	2.2
11	2P	92	GLU	2.2
1	2A	2171	A	2.2
33	1b	144	ARG	2.2

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
51	2t	83	ARG	2.2
51	1t	77	ALA	2.2
51	1t	78	ALA	2.2
53	1y	94	ALA	2.2
48	1q	7	THR	2.2
45	2n	36	PHE	2.2
41	1j	50	ILE	2.2
51	1t	33	ILE	2.2
1	2A	886	C	2.2
1	1A	2115	G	2.2
1	2A	1058	G	2.2
34	1c	32	LEU	2.2
41	1j	29	ARG	2.2
11	2P	109	GLY	2.2
34	1c	41	GLY	2.2
40	2i	73	GLN	2.2
26	24	43	TYR	2.2
11	2P	125	VAL	2.2
30	28	22	VAL	2.2
33	1b	136	VAL	2.2
36	2e	109	ILE	2.2
39	1h	109	ILE	2.2
6	2G	72	ARG	2.2
44	2m	99	ARG	2.2
40	1i	43	ALA	2.2
21	2Z	199	LYS	2.2
32	1a	191	G	2.2
32	1a	223	U	2.2
32	2a	1155	G	2.2
35	1d	2	GLY	2.2
39	2h	131	GLY	2.2
1	2A	2801(A)	A	2.2
32	1a	1035	A	2.2
40	2i	86	VAL	2.2
47	1p	73	LEU	2.2
26	24	39	CYS	2.2
45	2n	22	THR	2.2
1	1A	1078	U	2.2
7	2H	164	TYR	2.2
47	2p	33	ILE	2.2
8	1I	131	LYS	2.2
32	2a	1248	A	2.2

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Mol	Chain	Res	Type	RSRZ
50	2s	42	PRO	2.2
18	2W	112	GLY	2.2
40	1i	10	ARG	2.2
52	1u	10	ARG	2.2
1	1A	2140	C	2.2
47	2p	9	PHE	2.2
36	2e	88	LYS	2.1
51	1t	81	LYS	2.1
7	2H	43	VAL	2.1
21	2Z	142	SER	2.1
38	2g	80	VAL	2.1
44	2m	78	ILE	2.1
49	2r	85	LEU	2.1
1	2A	2115	G	2.1
32	1a	162	A	2.1
38	2g	34	GLY	2.1
53	2y	65	GLY	2.1
51	1t	38	LYS	2.1
33	1b	126	GLU	2.1
1	2A	2163	C	2.1
32	2a	1254	C	2.1
32	2a	1354	C	2.1
45	2n	60	SER	2.1
36	2e	90	VAL	2.1
51	2t	72	LEU	2.1
22	20	76	GLY	2.1
39	2h	125	ARG	2.1
44	2m	104	ARG	2.1
38	2g	116	ALA	2.1
1	2A	2155	G	2.1
32	1a	146	G	2.1
32	1a	1034	G	2.1
51	1t	30	LYS	2.1
26	24	30	GLU	2.1
32	2a	1287	A	2.1
53	2y	79	ASN	2.1
33	2b	81	VAL	2.1
36	2e	13	ILE	2.1
47	1p	38	TYR	2.1
52	1u	13	ILE	2.1
1	2A	1043	C	2.1
1	2A	2175	C	2.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	2A	2896	C	2.1
11	2P	147	LEU	2.1
20	2Y	106	LEU	2.1
7	2H	6	ARG	2.1
11	2P	79	ARG	2.1
34	2c	179	ARG	2.1
41	2j	29	ARG	2.1
47	1p	18	ARG	2.1
6	2G	93	THR	2.1
1	1A	2123	G	2.1
1	2A	2802	G	2.1
32	2a	1151	A	2.1
40	1i	78	LYS	2.1
40	1i	99	LEU	2.1
40	2i	9	ARG	2.1
43	1l	25	PRO	2.1
44	2m	113	PRO	2.1
32	1a	217	C	2.1
51	1t	9	ASN	2.1
26	14	49	PHE	2.1
37	1f	90	VAL	2.1
40	2i	47	LEU	2.1
40	2i	68	GLY	2.1
32	1a	148	G	2.1
32	2a	77	G	2.1
32	2a	976	G	2.1
33	1b	131	PRO	2.1
32	1a	222	U	2.1
7	2H	41	MET	2.1
53	2y	58	ASN	2.1
53	2y	70	MET	2.1
26	24	59	PHE	2.1
33	2b	64	ARG	2.1
40	1i	33	PHE	2.1
35	2d	183	GLY	2.1
40	1i	28	VAL	2.1
41	1j	62	HIS	2.1
51	1t	20	LEU	2.1
40	2i	98	PRO	2.1
1	2A	1055	G	2.1
32	2a	1202	G	2.1
32	2a	1357	A	2.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	1A	2144	U	2.1
33	2b	124	SER	2.1
1	1A	2794	C	2.1
6	2G	160	VAL	2.1
7	2H	24	VAL	2.1
7	2H	36	PRO	2.1
41	2j	75	ILE	2.1
45	2n	33	VAL	2.1
53	2y	5	ILE	2.1
53	2y	19	HIS	2.1
11	2P	137	LYS	2.1
34	2c	160	ALA	2.1
35	1d	209	ARG	2.1
33	2b	192	SER	2.1
34	1c	58	GLU	2.1
51	1t	51	GLU	2.1
1	2A	230	U	2.0
32	1a	184	G	2.0
32	1a	1286	A	2.1
32	2a	202	U	2.0
52	2u	16	GLY	2.1
6	2G	94	LEU	2.0
35	1d	174	LEU	2.0
40	1i	117	HIS	2.0
6	2G	87	PRO	2.0
40	1i	98	PRO	2.0
6	2G	150	ASP	2.0
30	28	25	MET	2.0
53	2y	51	ASP	2.0
6	2G	75	LYS	2.0
44	2m	66	LEU	2.0
1	2A	1086	A	2.0
32	2a	104	G	2.0
32	2a	1220	G	2.0
51	2t	73	HIS	2.0
34	2c	77	ILE	2.0
1	1A	2803	C	2.0
1	2A	2137	C	2.0
11	2P	65	ARG	2.0
32	2a	1114	C	2.0
35	2d	49	ARG	2.0
47	1p	33	ILE	2.0

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Mol	Chain	Res	Type	RSRZ
33	1b	120	ALA	2.0
40	2i	60	ASP	2.0
6	2G	23	PHE	2.0
48	1q	27	PHE	2.0
7	2H	12	PRO	2.0
35	1d	179	GLU	2.0
52	1u	9	ARG	2.0
32	2a	88	A	2.0
38	2g	36	LYS	2.0
51	1t	29	LYS	2.0
1	1A	2127	G	2.0
34	2c	155	GLY	2.0
41	1j	59	SER	2.0
41	2j	36	GLY	2.0
40	2i	64	THR	2.0
34	1c	10	PHE	2.0
14	2S	17	ARG	2.0
23	11	98	LEU	2.0
41	2j	46	ARG	2.0
47	2p	6	LEU	2.0
51	1t	22	ARG	2.0
51	2t	84	LEU	2.0
52	1u	15	ARG	2.0
21	2Z	25	PRO	2.0
44	2m	60	VAL	2.0
50	2s	67	VAL	2.0

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

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
32	M2G	2a	966	25/26	0.89	0.17	61,70,84,98	0
32	2MG	1a	1207	24/25	0.90	0.17	67,75,79,80	0
32	5MC	2a	967	21/22	0.90	0.18	55,73,79,83	0
32	2MG	2a	1207	24/25	0.90	0.17	77,84,88,94	0
1	5MU	1A	1915	21/22	0.91	0.17	67,73,81,92	0
43	0TD	2l	92	10/11	0.91	0.15	62,64,67,72	0
1	PSU	2A	1911	20/21	0.92	0.17	64,73,77,77	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
1	5MU	2A	1915	21/22	0.92	0.13	77,82,87,96	0
56	FME	2v	1	10/11	0.92	0.26	47,57,60,77	0
1	PSU	2A	1917	20/21	0.93	0.15	73,79,99,100	0
1	PSU	1A	1917	20/21	0.93	0.17	56,68,75,79	0
32	PSU	2a	516	20/21	0.94	0.15	68,75,81,84	0
32	4OC	2a	1402	22/23	0.94	0.20	61,65,72,75	0
32	5MC	2a	1404	21/22	0.94	0.18	55,61,63,67	0
32	5MC	1a	967	21/22	0.94	0.18	60,63,71,76	0
56	FME	1v	1	10/11	0.94	0.33	22,37,47,68	0
1	OMC	2A	1920	21/22	0.94	0.16	59,67,72,73	0
43	0TD	1l	92	10/11	0.95	0.20	44,56,60,71	0
1	PSU	1A	1911	20/21	0.95	0.15	53,66,68,68	0
32	PSU	1a	516	20/21	0.95	0.15	61,66,71,75	0
32	G7M	2a	527	24/25	0.95	0.15	57,68,73,78	0
32	5MC	2a	1400	21/22	0.96	0.20	62,69,72,75	0
1	OMC	1A	1920	21/22	0.96	0.20	47,55,59,60	0
32	M2G	1a	966	25/26	0.96	0.16	52,59,70,78	0
32	UR3	2a	1498	21/22	0.96	0.17	58,62,69,71	0
32	MA6	2a	1518	24/25	0.96	0.20	57,63,70,70	0
32	MA6	2a	1519	24/25	0.96	0.23	59,63,70,74	0
32	5MC	1a	1407	21/22	0.96	0.20	47,53,57,62	0
32	UR3	1a	1498	21/22	0.96	0.19	47,51,57,63	0
32	MA6	1a	1518	24/25	0.96	0.21	41,46,48,53	0
1	5MU	2A	1939	21/22	0.97	0.18	36,41,47,48	0
1	5MC	2A	1942	21/22	0.97	0.21	43,56,62,69	0
1	OMG	2A	2251	24/25	0.97	0.20	30,37,44,45	0
1	2MA	2A	2503	23/24	0.97	0.20	31,36,39,39	0
32	5MC	2a	1407	21/22	0.97	0.17	50,62,68,72	0
1	2MU	2A	2552	21/23	0.97	0.21	32,38,42,47	0
1	PSU	2A	2605	20/21	0.97	0.21	30,39,44,50	0
32	5MC	1a	1400	21/22	0.97	0.20	53,58,64,65	0
32	5MC	1a	1404	21/22	0.97	0.18	44,49,52,56	0
54	PPU	2w	76	37/38	0.97	0.20	29,38,42,49	0
32	MA6	1a	1519	24/25	0.97	0.22	38,47,52,53	0
32	G7M	1a	527	24/25	0.97	0.18	45,55,58,65	0
1	5MC	2A	1962	21/22	0.98	0.20	37,44,49,56	0
1	5MC	1A	1942	21/22	0.98	0.18	28,34,41,42	0
1	5MC	1A	1962	21/22	0.98	0.20	30,34,39,44	0
1	2MA	1A	2503	23/24	0.98	0.21	18,22,26,28	0
54	PPU	1w	76	37/38	0.98	0.19	18,23,27,31	0
1	PSU	1A	2605	20/21	0.98	0.21	21,29,32,35	0
55	8AN	1x	76	22/23	0.98	0.19	18,21,26,27	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
55	8AN	2x	76	22/23	0.98	0.20	34,39,42,45	0
1	5MU	1A	1939	21/22	0.98	0.19	22,27,29,30	0
32	4OC	1a	1402	22/23	0.98	0.20	48,53,55,60	0
1	OMG	1A	2251	24/25	0.99	0.22	19,21,24,25	0
1	2MU	1A	2552	21/23	0.99	0.21	21,31,34,35	0

### 6.3 Carbohydrates [i](#)

There are no monosaccharides 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, 95<sup>th</sup> percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	1A	4004	1/1	0.29	0.43	66,66,66,66	0
57	MG	1A	3980	1/1	0.43	0.11	54,54,54,54	0
57	MG	2a	3012	1/1	0.44	0.19	71,71,71,71	0
57	MG	1A	3703	1/1	0.46	0.14	67,67,67,67	0
57	MG	2A	3083	1/1	0.54	0.18	77,77,77,77	0
57	MG	2A	3655	1/1	0.56	0.13	71,71,71,71	0
57	MG	2A	3536	1/1	0.57	0.32	71,71,71,71	0
57	MG	2A	3559	1/1	0.57	0.20	74,74,74,74	0
57	MG	2A	3483	1/1	0.57	0.30	76,76,76,76	0
57	MG	2A	3532	1/1	0.57	0.21	61,61,61,61	0
57	MG	1a	1718	1/1	0.60	0.17	74,74,74,74	0
57	MG	2A	3659	1/1	0.61	0.11	54,54,54,54	0
57	MG	1A	3729	1/1	0.61	0.12	64,64,64,64	0
57	MG	1d	305	1/1	0.63	0.16	85,85,85,85	0
57	MG	1A	3890	1/1	0.64	0.10	47,47,47,47	0
57	MG	2A	3230	1/1	0.64	0.22	65,65,65,65	0
57	MG	1a	1658	1/1	0.64	0.22	65,65,65,65	0
57	MG	1d	302	1/1	0.65	0.25	76,76,76,76	0
57	MG	2a	3171	1/1	0.65	0.12	59,59,59,59	0
57	MG	2A	3291	1/1	0.66	0.27	74,74,74,74	0
57	MG	2a	3059	1/1	0.66	0.16	81,81,81,81	0
57	MG	2A	3724	1/1	0.66	0.21	77,77,77,77	0
57	MG	2A	3697	1/1	0.67	0.11	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	2a	3071	1/1	0.67	0.58	78,78,78,78	0
57	MG	2A	3719	1/1	0.67	0.12	71,71,71,71	0
57	MG	2A	3226	1/1	0.68	0.25	49,49,49,49	0
57	MG	1a	1676	1/1	0.69	0.24	66,66,66,66	0
57	MG	1a	1748	1/1	0.69	0.12	79,79,79,79	0
57	MG	1d	301	1/1	0.69	0.15	79,79,79,79	0
57	MG	2A	3728	1/1	0.69	0.28	78,78,78,78	0
57	MG	1a	1680	1/1	0.70	0.19	76,76,76,76	0
57	MG	2a	3062	1/1	0.70	0.25	65,65,65,65	0
57	MG	2a	3016	1/1	0.71	0.15	64,64,64,64	0
57	MG	2a	3034	1/1	0.71	0.14	61,61,61,61	0
57	MG	2A	3418	1/1	0.71	0.11	50,50,50,50	0
57	MG	1B	205	1/1	0.71	0.14	52,52,52,52	0
57	MG	2A	3044	1/1	0.71	0.34	68,68,68,68	0
57	MG	2a	3080	1/1	0.71	0.28	76,76,76,76	0
57	MG	2a	3097	1/1	0.71	0.25	72,72,72,72	0
57	MG	1A	3938	1/1	0.71	0.11	63,63,63,63	0
57	MG	2B	214	1/1	0.72	0.13	79,79,79,79	0
57	MG	1a	1793	1/1	0.72	0.22	83,83,83,83	0
57	MG	2A	3243	1/1	0.72	0.20	53,53,53,53	0
57	MG	2a	3027	1/1	0.72	0.13	64,64,64,64	0
57	MG	2A	3153	1/1	0.72	0.31	60,60,60,60	0
57	MG	2A	3185	1/1	0.72	0.22	63,63,63,63	0
57	MG	2A	3670	1/1	0.72	0.32	61,61,61,61	0
57	MG	2A	3440	1/1	0.72	0.22	44,44,44,44	0
57	MG	2A	3462	1/1	0.72	0.11	46,46,46,46	0
57	MG	2A	3209	1/1	0.72	0.19	65,65,65,65	0
57	MG	1a	1824	1/1	0.72	0.16	72,72,72,72	0
57	MG	1a	1731	1/1	0.73	0.13	66,66,66,66	0
57	MG	1A	3640	1/1	0.73	0.22	44,44,44,44	0
57	MG	2A	3689	1/1	0.73	0.16	71,71,71,71	0
57	MG	2A	3275	1/1	0.73	0.25	59,59,59,59	0
57	MG	2A	3624	1/1	0.73	0.41	67,67,67,67	0
57	MG	2A	3173	1/1	0.73	0.08	68,68,68,68	0
57	MG	1a	1711	1/1	0.74	0.13	72,72,72,72	0
57	MG	1A	3786	1/1	0.74	0.24	24,24,24,24	0
57	MG	1A	3719	1/1	0.74	0.06	40,40,40,40	0
57	MG	2a	3017	1/1	0.74	0.26	67,67,67,67	0
57	MG	1A	3680	1/1	0.74	0.09	38,38,38,38	0
57	MG	2a	3114	1/1	0.74	0.17	64,64,64,64	0
57	MG	2A	3734	1/1	0.74	0.30	58,58,58,58	0
57	MG	2A	3470	1/1	0.75	0.13	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	2A	3187	1/1	0.75	0.26	65,65,65,65	0
57	MG	1A	3806	1/1	0.75	0.11	78,78,78,78	0
57	MG	1A	3399	1/1	0.75	0.16	66,66,66,66	0
57	MG	1A	3089	1/1	0.75	0.30	44,44,44,44	0
57	MG	1A	3350	1/1	0.75	0.16	50,50,50,50	0
57	MG	2A	3639	1/1	0.75	0.13	54,54,54,54	0
57	MG	1A	3761	1/1	0.75	0.16	28,28,28,28	0
57	MG	1A	3688	1/1	0.75	0.17	55,55,55,55	0
57	MG	2A	3663	1/1	0.75	0.16	58,58,58,58	0
57	MG	2A	3404	1/1	0.75	0.20	53,53,53,53	0
57	MG	1a	1614	1/1	0.75	0.12	63,63,63,63	0
57	MG	2A	3422	1/1	0.75	0.19	58,58,58,58	0
57	MG	1a	1785	1/1	0.75	0.16	84,84,84,84	0
57	MG	1a	1635	1/1	0.75	0.16	50,50,50,50	0
57	MG	2a	3031	1/1	0.76	0.21	65,65,65,65	0
57	MG	1a	1644	1/1	0.76	0.20	63,63,63,63	0
57	MG	1A	3803	1/1	0.76	0.15	63,63,63,63	0
57	MG	2A	3259	1/1	0.76	0.37	67,67,67,67	0
57	MG	2A	3622	1/1	0.76	0.42	54,54,54,54	0
57	MG	1A	3668	1/1	0.76	0.19	47,47,47,47	0
57	MG	1a	1851	1/1	0.76	0.13	52,52,52,52	0
57	MG	2a	3024	1/1	0.76	0.55	65,65,65,65	0
57	MG	1A	3322	1/1	0.76	0.19	64,64,64,64	0
57	MG	2F	303	1/1	0.77	0.21	50,50,50,50	0
57	MG	1A	3971	1/1	0.77	0.22	48,48,48,48	0
57	MG	2A	3627	1/1	0.77	0.16	52,52,52,52	0
57	MG	1A	3454	1/1	0.77	0.20	25,25,25,25	0
57	MG	1A	3992	1/1	0.77	0.18	59,59,59,59	0
57	MG	1a	1753	1/1	0.77	0.17	71,71,71,71	0
57	MG	2A	3466	1/1	0.77	0.13	70,70,70,70	0
57	MG	2A	3022	1/1	0.77	0.18	60,60,60,60	0
57	MG	2a	3048	1/1	0.77	0.17	89,89,89,89	0
57	MG	2a	3049	1/1	0.77	0.17	68,68,68,68	0
57	MG	2A	3041	1/1	0.77	0.16	55,55,55,55	0
57	MG	1A	3531	1/1	0.77	0.15	24,24,24,24	0
57	MG	1A	3606	1/1	0.77	0.16	36,36,36,36	0
57	MG	1a	1810	1/1	0.77	0.28	79,79,79,79	0
57	MG	2A	3573	1/1	0.77	0.13	56,56,56,56	0
57	MG	2A	3579	1/1	0.77	0.15	51,51,51,51	0
57	MG	2a	3167	1/1	0.77	0.14	89,89,89,89	0
57	MG	1A	3386	1/1	0.77	0.17	34,34,34,34	0
57	MG	1a	1660	1/1	0.78	0.23	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	2A	3578	1/1	0.78	0.06	60,60,60,60	0
57	MG	1A	3946	1/1	0.78	0.14	79,79,79,79	0
57	MG	2A	3269	1/1	0.78	0.11	63,63,63,63	0
57	MG	1A	3192	1/1	0.78	0.19	56,56,56,56	0
57	MG	1a	1797	1/1	0.78	0.13	71,71,71,71	0
57	MG	2A	3389	1/1	0.78	0.15	74,74,74,74	0
57	MG	1a	1629	1/1	0.78	0.11	52,52,52,52	0
57	MG	2A	3122	1/1	0.78	0.13	73,73,73,73	0
57	MG	1a	1813	1/1	0.78	0.17	76,76,76,76	0
57	MG	1a	1816	1/1	0.78	0.12	68,68,68,68	0
57	MG	2A	3179	1/1	0.78	0.18	67,67,67,67	0
57	MG	1a	1712	1/1	0.78	0.26	57,57,57,57	0
57	MG	1a	1849	1/1	0.78	0.21	66,66,66,66	0
57	MG	1A	3338	1/1	0.78	0.14	60,60,60,60	0
57	MG	1A	3694	1/1	0.78	0.12	58,58,58,58	0
57	MG	1A	3398	1/1	0.78	0.13	63,63,63,63	0
57	MG	2A	3241	1/1	0.78	0.17	53,53,53,53	0
57	MG	2A	3134	1/1	0.79	0.15	59,59,59,59	0
57	MG	2A	3688	1/1	0.79	0.18	66,66,66,66	0
57	MG	2A	3214	1/1	0.79	0.21	60,60,60,60	0
57	MG	1A	3480	1/1	0.79	0.06	61,61,61,61	0
57	MG	2A	3167	1/1	0.79	0.44	66,66,66,66	0
57	MG	1A	3246	1/1	0.79	0.10	58,58,58,58	0
57	MG	2A	3050	1/1	0.79	0.15	66,66,66,66	0
57	MG	1A	3789	1/1	0.79	0.19	29,29,29,29	0
57	MG	1A	3696	1/1	0.79	0.28	65,65,65,65	0
57	MG	2n	101	1/1	0.79	0.20	76,76,76,76	0
57	MG	1A	3650	1/1	0.80	0.20	57,57,57,57	0
57	MG	2A	3303	1/1	0.80	0.26	61,61,61,61	0
57	MG	2A	3319	1/1	0.80	0.25	52,52,52,52	0
57	MG	2A	3323	1/1	0.80	0.26	69,69,69,69	0
57	MG	1B	206	1/1	0.80	0.33	63,63,63,63	0
57	MG	1a	1754	1/1	0.80	0.11	56,56,56,56	0
57	MG	2A	3412	1/1	0.80	0.10	63,63,63,63	0
57	MG	1a	1784	1/1	0.80	0.13	69,69,69,69	0
57	MG	1A	3383	1/1	0.80	0.12	43,43,43,43	0
57	MG	1A	3273	1/1	0.80	0.24	53,53,53,53	0
57	MG	2D	303	1/1	0.80	0.25	53,53,53,53	0
57	MG	1A	3286	1/1	0.80	0.21	45,45,45,45	0
57	MG	1A	3860	1/1	0.80	0.18	64,64,64,64	0
57	MG	1A	3866	1/1	0.80	0.12	46,46,46,46	0
57	MG	1A	3309	1/1	0.80	0.31	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	2A	3491	1/1	0.80	0.27	72,72,72,72	0
57	MG	2A	3504	1/1	0.80	0.24	72,72,72,72	0
57	MG	1A	3310	1/1	0.80	0.27	35,35,35,35	0
57	MG	2A	3203	1/1	0.80	0.17	50,50,50,50	0
57	MG	1A	3174	1/1	0.80	0.24	44,44,44,44	0
57	MG	1a	1685	1/1	0.80	0.09	71,71,71,71	0
57	MG	2a	3057	1/1	0.80	0.21	74,74,74,74	0
57	MG	1a	1861	1/1	0.80	0.09	79,79,79,79	0
57	MG	1A	3707	1/1	0.80	0.15	47,47,47,47	0
57	MG	2A	3621	1/1	0.80	0.13	80,80,80,80	0
57	MG	1A	3331	1/1	0.80	0.20	40,40,40,40	0
57	MG	1d	303	1/1	0.80	0.24	74,74,74,74	0
57	MG	1A	3224	1/1	0.80	0.14	66,66,66,66	0
57	MG	2a	3143	1/1	0.80	0.12	68,68,68,68	0
57	MG	1a	1720	1/1	0.80	0.12	63,63,63,63	0
57	MG	2A	3271	1/1	0.80	0.17	61,61,61,61	0
57	MG	2a	3175	1/1	0.80	0.20	55,55,55,55	0
57	MG	1A	3188	1/1	0.80	0.26	52,52,52,52	0
57	MG	2A	3119	1/1	0.81	0.26	66,66,66,66	0
57	MG	1a	1828	1/1	0.81	0.13	74,74,74,74	0
57	MG	2A	3129	1/1	0.81	0.26	63,63,63,63	0
57	MG	1A	3468	1/1	0.81	0.19	70,70,70,70	0
57	MG	2A	3148	1/1	0.81	0.07	66,66,66,66	0
57	MG	1A	3953	1/1	0.81	0.17	50,50,50,50	0
57	MG	1a	1859	1/1	0.81	0.16	84,84,84,84	0
57	MG	1A	3853	1/1	0.81	0.14	72,72,72,72	0
57	MG	1a	1868	1/1	0.81	0.14	80,80,80,80	0
57	MG	2a	3054	1/1	0.81	0.09	62,62,62,62	0
57	MG	1a	1871	1/1	0.81	0.27	88,88,88,88	0
57	MG	1a	1696	1/1	0.81	0.11	79,79,79,79	0
57	MG	1a	1698	1/1	0.81	0.11	74,74,74,74	0
57	MG	1A	3339	1/1	0.81	0.17	69,69,69,69	0
57	MG	1A	3512	1/1	0.81	0.12	60,60,60,60	0
57	MG	1a	1809	1/1	0.81	0.23	69,69,69,69	0
57	MG	2A	3040	1/1	0.81	0.38	68,68,68,68	0
57	MG	1a	1715	1/1	0.81	0.38	61,61,61,61	0
57	MG	2a	3166	1/1	0.81	0.20	72,72,72,72	0
57	MG	1a	1653	1/1	0.81	0.17	50,50,50,50	0
57	MG	1A	3360	1/1	0.81	0.10	57,57,57,57	0
57	MG	2A	3076	1/1	0.81	0.16	67,67,67,67	0
57	MG	1A	3389	1/1	0.81	0.18	50,50,50,50	0
58	ARG	1A	4030	12/12	0.81	0.26	45,63,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
59	MPD	2A	3735	8/8	0.81	0.38	38,48,56,61	0
57	MG	1A	3432	1/1	0.82	0.18	37,37,37,37	0
57	MG	2A	3186	1/1	0.82	0.24	55,55,55,55	0
57	MG	1A	3197	1/1	0.82	0.21	55,55,55,55	0
57	MG	2A	3192	1/1	0.82	0.12	51,51,51,51	0
57	MG	1A	3997	1/1	0.82	0.28	67,67,67,67	0
57	MG	1A	3891	1/1	0.82	0.16	54,54,54,54	0
57	MG	2A	3501	1/1	0.82	0.22	56,56,56,56	0
57	MG	1A	4024	1/1	0.82	0.20	69,69,69,69	0
57	MG	2A	3215	1/1	0.82	0.21	61,61,61,61	0
57	MG	2A	3533	1/1	0.82	0.26	65,65,65,65	0
57	MG	1a	1794	1/1	0.82	0.18	77,77,77,77	0
57	MG	2A	3537	1/1	0.82	0.19	55,55,55,55	0
57	MG	1A	4027	1/1	0.82	0.22	62,62,62,62	0
57	MG	1A	3892	1/1	0.82	0.73	62,62,62,62	0
57	MG	1A	3395	1/1	0.82	0.22	55,55,55,55	0
57	MG	1B	224	1/1	0.82	0.12	45,45,45,45	0
57	MG	1a	1704	1/1	0.82	0.26	67,67,67,67	0
57	MG	1E	305	1/1	0.82	0.08	49,49,49,49	0
57	MG	1F	315	1/1	0.82	0.15	55,55,55,55	0
57	MG	2A	3125	1/1	0.82	0.17	62,62,62,62	0
57	MG	1a	1605	1/1	0.82	0.17	67,67,67,67	0
57	MG	1A	3837	1/1	0.82	0.21	48,48,48,48	0
57	MG	2A	3136	1/1	0.82	0.21	66,66,66,66	0
57	MG	2a	3162	1/1	0.82	0.18	63,63,63,63	0
57	MG	2A	3335	1/1	0.82	0.11	60,60,60,60	0
57	MG	1A	3210	1/1	0.82	0.36	55,55,55,55	0
57	MG	2A	3391	1/1	0.82	0.25	60,60,60,60	0
57	MG	1a	1631	1/1	0.82	0.36	66,66,66,66	0
57	MG	1a	1863	1/1	0.82	0.21	71,71,71,71	0
57	MG	1a	1734	1/1	0.82	0.34	60,60,60,60	0
57	MG	1A	3337	1/1	0.82	0.21	54,54,54,54	0
60	ZN	24	501	1/1	0.82	0.20	136,136,136,136	0
57	MG	2A	3450	1/1	0.83	0.15	61,61,61,61	0
57	MG	1a	1701	1/1	0.83	0.08	63,63,63,63	0
57	MG	2A	3465	1/1	0.83	0.12	72,72,72,72	0
57	MG	1A	4008	1/1	0.83	0.24	45,45,45,45	0
57	MG	2A	3468	1/1	0.83	0.21	72,72,72,72	0
57	MG	2A	3240	1/1	0.83	0.15	65,65,65,65	0
57	MG	1a	1708	1/1	0.83	0.13	62,62,62,62	0
57	MG	1A	3088	1/1	0.83	0.17	61,61,61,61	0
57	MG	2F	302	1/1	0.83	0.14	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	2A	3146	1/1	0.83	0.39	60,60,60,60	0
57	MG	2a	3009	1/1	0.83	0.17	50,50,50,50	0
57	MG	1A	3734	1/1	0.83	0.12	34,34,34,34	0
57	MG	2A	3526	1/1	0.83	0.24	48,48,48,48	0
57	MG	1A	3699	1/1	0.83	0.15	68,68,68,68	0
57	MG	1A	3687	1/1	0.83	0.15	44,44,44,44	0
57	MG	2A	3286	1/1	0.83	0.17	56,56,56,56	0
57	MG	1B	220	1/1	0.83	0.15	30,30,30,30	0
57	MG	2A	3538	1/1	0.83	0.10	82,82,82,82	0
57	MG	2a	3038	1/1	0.83	0.12	76,76,76,76	0
57	MG	2A	3297	1/1	0.83	0.15	78,78,78,78	0
57	MG	2A	3568	1/1	0.83	0.22	37,37,37,37	0
57	MG	1A	3872	1/1	0.83	0.12	37,37,37,37	0
57	MG	1a	1827	1/1	0.83	0.12	75,75,75,75	0
57	MG	1A	3478	1/1	0.83	0.17	60,60,60,60	0
57	MG	2A	3594	1/1	0.83	0.14	61,61,61,61	0
57	MG	2A	3597	1/1	0.83	0.12	70,70,70,70	0
57	MG	2A	3327	1/1	0.83	0.16	53,53,53,53	0
57	MG	1a	1836	1/1	0.83	0.18	78,78,78,78	0
57	MG	2A	3343	1/1	0.83	0.32	62,62,62,62	0
57	MG	2A	3190	1/1	0.83	0.20	67,67,67,67	0
57	MG	2a	3154	1/1	0.83	0.07	73,73,73,73	0
57	MG	2a	3156	1/1	0.83	0.07	69,69,69,69	0
57	MG	2A	3060	1/1	0.83	0.16	47,47,47,47	0
57	MG	1A	3995	1/1	0.83	0.19	76,76,76,76	0
57	MG	1A	3037	1/1	0.83	0.12	42,42,42,42	0
57	MG	1A	3721	1/1	0.83	0.11	60,60,60,60	0
57	MG	1a	1617	1/1	0.83	0.08	69,69,69,69	0
57	MG	2f	201	1/1	0.83	0.24	53,53,53,53	0
57	MG	2A	3673	1/1	0.83	0.16	43,43,43,43	0
57	MG	2p	101	1/1	0.83	0.11	70,70,70,70	0
57	MG	2A	3679	1/1	0.83	0.17	67,67,67,67	0
57	MG	2A	3684	1/1	0.83	0.25	65,65,65,65	0
57	MG	2A	3216	1/1	0.83	0.23	52,52,52,52	0
57	MG	2l	102	1/1	0.84	0.25	49,49,49,49	0
57	MG	1A	3277	1/1	0.84	0.20	48,48,48,48	0
57	MG	2A	3570	1/1	0.84	0.16	77,77,77,77	0
57	MG	1a	1684	1/1	0.84	0.14	51,51,51,51	0
57	MG	1A	3126	1/1	0.84	0.20	52,52,52,52	0
57	MG	2a	3022	1/1	0.84	0.14	71,71,71,71	0
57	MG	2A	3100	1/1	0.84	0.29	60,60,60,60	0
57	MG	1a	1759	1/1	0.84	0.17	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	2A	3224	1/1	0.84	0.14	59,59,59,59	0
57	MG	2A	3608	1/1	0.84	0.17	62,62,62,62	0
57	MG	2A	3414	1/1	0.84	0.20	39,39,39,39	0
57	MG	1a	1782	1/1	0.84	0.13	74,74,74,74	0
57	MG	2A	3228	1/1	0.84	0.17	60,60,60,60	0
57	MG	2a	3052	1/1	0.84	0.20	61,61,61,61	0
57	MG	1a	1607	1/1	0.84	0.32	61,61,61,61	0
57	MG	2A	3238	1/1	0.84	0.24	68,68,68,68	0
57	MG	1A	3129	1/1	0.84	0.09	68,68,68,68	0
57	MG	1A	3085	1/1	0.84	0.25	46,46,46,46	0
57	MG	2A	3660	1/1	0.84	0.20	45,45,45,45	0
57	MG	1A	3744	1/1	0.84	0.12	43,43,43,43	0
57	MG	1B	203	1/1	0.84	0.29	62,62,62,62	0
57	MG	2a	3107	1/1	0.84	0.31	64,64,64,64	0
57	MG	1A	3958	1/1	0.84	0.18	70,70,70,70	0
57	MG	2a	3129	1/1	0.84	0.13	72,72,72,72	0
57	MG	2A	3472	1/1	0.84	0.23	68,68,68,68	0
57	MG	2a	3149	1/1	0.84	0.22	68,68,68,68	0
57	MG	1A	3011	1/1	0.84	0.24	44,44,44,44	0
57	MG	1n	102	1/1	0.84	0.09	66,66,66,66	0
57	MG	2A	3002	1/1	0.84	0.12	52,52,52,52	0
57	MG	2A	3008	1/1	0.84	0.23	43,43,43,43	0
57	MG	1A	3772	1/1	0.84	0.21	50,50,50,50	0
57	MG	2A	3530	1/1	0.84	0.45	48,48,48,48	0
57	MG	1A	3780	1/1	0.84	0.17	22,22,22,22	0
57	MG	1A	3075	1/1	0.84	0.16	41,41,41,41	0
57	MG	1a	1669	1/1	0.84	0.21	62,62,62,62	0
57	MG	2A	3325	1/1	0.84	0.18	60,60,60,60	0
57	MG	1F	314	1/1	0.84	0.12	48,48,48,48	0
57	MG	2A	3333	1/1	0.84	0.21	55,55,55,55	0
57	MG	2T	203	1/1	0.84	0.14	71,71,71,71	0
57	MG	1A	3775	1/1	0.85	0.16	54,54,54,54	0
57	MG	2E	305	1/1	0.85	0.18	32,32,32,32	0
57	MG	1A	3881	1/1	0.85	0.10	50,50,50,50	0
57	MG	1A	3682	1/1	0.85	0.18	27,27,27,27	0
57	MG	1A	3625	1/1	0.85	0.16	46,46,46,46	0
57	MG	1A	3637	1/1	0.85	0.14	24,24,24,24	0
57	MG	2a	3008	1/1	0.85	0.12	61,61,61,61	0
57	MG	1A	3900	1/1	0.85	0.14	58,58,58,58	0
57	MG	1a	1870	1/1	0.85	0.14	76,76,76,76	0
57	MG	2A	3306	1/1	0.85	0.33	44,44,44,44	0
57	MG	2A	3307	1/1	0.85	0.12	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	2A	3563	1/1	0.85	0.11	74,74,74,74	0
57	MG	2A	3161	1/1	0.85	0.13	62,62,62,62	0
57	MG	1A	3926	1/1	0.85	0.10	46,46,46,46	0
57	MG	1A	3216	1/1	0.85	0.27	35,35,35,35	0
57	MG	2A	3174	1/1	0.85	0.24	58,58,58,58	0
57	MG	1A	3544	1/1	0.85	0.09	49,49,49,49	0
57	MG	2A	3583	1/1	0.85	0.09	54,54,54,54	0
57	MG	1a	1773	1/1	0.85	0.19	70,70,70,70	0
57	MG	2A	3339	1/1	0.85	0.14	64,64,64,64	0
57	MG	1B	218	1/1	0.85	0.12	48,48,48,48	0
57	MG	2A	3370	1/1	0.85	0.13	38,38,38,38	0
57	MG	1A	3698	1/1	0.85	0.18	59,59,59,59	0
57	MG	1A	3548	1/1	0.85	0.17	61,61,61,61	0
57	MG	1a	1683	1/1	0.85	0.11	55,55,55,55	0
57	MG	1D	313	1/1	0.85	0.42	57,57,57,57	0
57	MG	2a	3094	1/1	0.85	0.46	64,64,64,64	0
57	MG	2A	3645	1/1	0.85	0.23	39,39,39,39	0
57	MG	2a	3105	1/1	0.85	0.28	48,48,48,48	0
57	MG	2A	3029	1/1	0.85	0.21	60,60,60,60	0
57	MG	2a	3112	1/1	0.85	0.14	65,65,65,65	0
57	MG	2A	3417	1/1	0.85	0.15	58,58,58,58	0
57	MG	2a	3117	1/1	0.85	0.09	77,77,77,77	0
57	MG	2a	3121	1/1	0.85	0.33	72,72,72,72	0
57	MG	1D	315	1/1	0.85	0.20	55,55,55,55	0
57	MG	1A	3963	1/1	0.85	0.14	54,54,54,54	0
57	MG	1A	3762	1/1	0.85	0.20	56,56,56,56	0
57	MG	2A	3449	1/1	0.85	0.15	89,89,89,89	0
57	MG	2A	3675	1/1	0.85	0.27	55,55,55,55	0
57	MG	2A	3677	1/1	0.85	0.17	54,54,54,54	0
57	MG	2A	3217	1/1	0.85	0.12	63,63,63,63	0
57	MG	1A	3972	1/1	0.85	0.17	48,48,48,48	0
57	MG	11	101	1/1	0.85	0.22	59,59,59,59	0
57	MG	2a	3172	1/1	0.85	0.15	78,78,78,78	0
57	MG	2A	3062	1/1	0.85	0.13	60,60,60,60	0
57	MG	2a	3177	1/1	0.85	0.14	64,64,64,64	0
57	MG	1a	1706	1/1	0.85	0.12	60,60,60,60	0
57	MG	15	3109	1/1	0.85	0.22	72,72,72,72	0
57	MG	2A	3085	1/1	0.85	0.28	77,77,77,77	0
57	MG	1A	3248	1/1	0.85	0.17	50,50,50,50	0
57	MG	1A	3869	1/1	0.85	0.12	43,43,43,43	0
57	MG	1a	1842	1/1	0.85	0.10	58,58,58,58	0
57	MG	2A	3207	1/1	0.86	0.43	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	1A	3010	1/1	0.86	0.16	51,51,51,51	0
57	MG	2A	3729	1/1	0.86	0.25	59,59,59,59	0
57	MG	2A	3459	1/1	0.86	0.18	55,55,55,55	0
57	MG	1A	3632	1/1	0.86	0.10	43,43,43,43	0
57	MG	1A	3213	1/1	0.86	0.17	47,47,47,47	0
57	MG	2D	311	1/1	0.86	0.42	59,59,59,59	0
57	MG	1A	3449	1/1	0.86	0.18	28,28,28,28	0
57	MG	1A	3641	1/1	0.86	0.12	49,49,49,49	0
57	MG	2A	3038	1/1	0.86	0.18	47,47,47,47	0
57	MG	1A	3311	1/1	0.86	0.17	41,41,41,41	0
57	MG	1A	4001	1/1	0.86	0.11	72,72,72,72	0
57	MG	27	101	1/1	0.86	0.18	46,46,46,46	0
57	MG	1A	3545	1/1	0.86	0.14	37,37,37,37	0
57	MG	2A	3235	1/1	0.86	0.24	66,66,66,66	0
57	MG	1A	3677	1/1	0.86	0.16	31,31,31,31	0
57	MG	1A	3880	1/1	0.86	0.17	27,27,27,27	0
57	MG	1A	4026	1/1	0.86	0.19	49,49,49,49	0
57	MG	1A	3198	1/1	0.86	0.17	47,47,47,47	0
57	MG	2A	3256	1/1	0.86	0.16	62,62,62,62	0
57	MG	2a	3026	1/1	0.86	0.39	59,59,59,59	0
57	MG	1a	1661	1/1	0.86	0.12	65,65,65,65	0
57	MG	1A	3889	1/1	0.86	0.11	45,45,45,45	0
57	MG	2A	3092	1/1	0.86	0.13	60,60,60,60	0
57	MG	2A	3541	1/1	0.86	0.23	60,60,60,60	0
57	MG	1a	1670	1/1	0.86	0.16	59,59,59,59	0
57	MG	1A	3747	1/1	0.86	0.23	52,52,52,52	0
57	MG	2a	3050	1/1	0.86	0.15	63,63,63,63	0
57	MG	1a	1677	1/1	0.86	0.09	70,70,70,70	0
57	MG	1A	3757	1/1	0.86	0.15	63,63,63,63	0
57	MG	1A	3551	1/1	0.86	0.16	47,47,47,47	0
57	MG	1A	3684	1/1	0.86	0.12	51,51,51,51	0
57	MG	2A	3135	1/1	0.86	0.51	54,54,54,54	0
57	MG	2a	3068	1/1	0.86	0.11	61,61,61,61	0
57	MG	1A	3557	1/1	0.86	0.26	49,49,49,49	0
57	MG	2a	3076	1/1	0.86	0.27	74,74,74,74	0
57	MG	1a	1692	1/1	0.86	0.15	63,63,63,63	0
57	MG	2a	3092	1/1	0.86	0.26	58,58,58,58	0
57	MG	2A	3147	1/1	0.86	0.18	45,45,45,45	0
57	MG	2A	3603	1/1	0.86	0.14	44,44,44,44	0
57	MG	1a	1695	1/1	0.86	0.18	61,61,61,61	0
57	MG	2A	3615	1/1	0.86	0.12	67,67,67,67	0
57	MG	2a	3109	1/1	0.86	0.25	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	2a	3111	1/1	0.86	0.12	59,59,59,59	0
57	MG	2A	3150	1/1	0.86	0.25	52,52,52,52	0
57	MG	1A	3937	1/1	0.86	0.20	46,46,46,46	0
57	MG	1A	3572	1/1	0.86	0.13	30,30,30,30	0
57	MG	1A	3692	1/1	0.86	0.14	51,51,51,51	0
57	MG	2A	3353	1/1	0.86	0.18	50,50,50,50	0
57	MG	2a	3134	1/1	0.86	0.29	82,82,82,82	0
57	MG	2A	3355	1/1	0.86	0.18	76,76,76,76	0
57	MG	2a	3144	1/1	0.86	0.11	66,66,66,66	0
57	MG	2A	3651	1/1	0.86	0.11	76,76,76,76	0
57	MG	2A	3366	1/1	0.86	0.15	48,48,48,48	0
57	MG	1F	311	1/1	0.86	0.18	49,49,49,49	0
57	MG	2A	3382	1/1	0.86	0.15	29,29,29,29	0
57	MG	1A	3596	1/1	0.86	0.17	54,54,54,54	0
57	MG	1A	3292	1/1	0.86	0.17	75,75,75,75	0
57	MG	2a	3170	1/1	0.86	0.10	57,57,57,57	0
57	MG	1U	205	1/1	0.86	0.20	37,37,37,37	0
57	MG	2A	3408	1/1	0.86	0.21	59,59,59,59	0
57	MG	10	103	1/1	0.86	0.12	50,50,50,50	0
57	MG	1A	3798	1/1	0.86	0.28	63,63,63,63	0
57	MG	13	103	1/1	0.86	0.15	64,64,64,64	0
57	MG	15	3106	1/1	0.86	0.37	36,36,36,36	0
57	MG	1f	201	1/1	0.86	0.21	63,63,63,63	0
57	MG	2A	3205	1/1	0.86	0.10	67,67,67,67	0
57	MG	2A	3716	1/1	0.86	0.11	74,74,74,74	0
59	MPD	2A	3736	8/8	0.86	0.16	67,72,77,77	0
57	MG	2A	3441	1/1	0.86	0.12	63,63,63,63	0
57	MG	1A	3985	1/1	0.87	0.16	54,54,54,54	0
57	MG	2A	3234	1/1	0.87	0.33	44,44,44,44	0
57	MG	2A	3117	1/1	0.87	0.16	40,40,40,40	0
57	MG	2a	3039	1/1	0.87	0.18	63,63,63,63	0
57	MG	1A	3991	1/1	0.87	0.17	53,53,53,53	0
57	MG	2A	3439	1/1	0.87	0.27	67,67,67,67	0
57	MG	1A	3681	1/1	0.87	0.09	56,56,56,56	0
57	MG	1A	3500	1/1	0.87	0.11	21,21,21,21	0
57	MG	1A	3304	1/1	0.87	0.25	32,32,32,32	0
57	MG	2a	3056	1/1	0.87	0.12	71,71,71,71	0
57	MG	1R	203	1/1	0.87	0.27	59,59,59,59	0
57	MG	1A	3308	1/1	0.87	0.17	40,40,40,40	0
57	MG	1A	3936	1/1	0.87	0.07	50,50,50,50	0
57	MG	1A	3072	1/1	0.87	0.18	45,45,45,45	0
57	MG	2A	3273	1/1	0.87	0.29	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	1d	304	1/1	0.87	0.21	55,55,55,55	0
57	MG	1A	3257	1/1	0.87	0.40	44,44,44,44	0
57	MG	1A	3942	1/1	0.87	0.18	48,48,48,48	0
57	MG	2A	3293	1/1	0.87	0.32	52,52,52,52	0
57	MG	1A	3103	1/1	0.87	0.23	53,53,53,53	0
57	MG	19	102	1/1	0.87	0.18	57,57,57,57	0
57	MG	1A	3200	1/1	0.87	0.23	64,64,64,64	0
57	MG	2A	3505	1/1	0.87	0.24	49,49,49,49	0
57	MG	1A	3954	1/1	0.87	0.18	52,52,52,52	0
57	MG	2A	3023	1/1	0.87	0.17	42,42,42,42	0
57	MG	2A	3726	1/1	0.87	0.14	76,76,76,76	0
57	MG	1A	3666	1/1	0.87	0.09	54,54,54,54	0
57	MG	1B	217	1/1	0.87	0.12	60,60,60,60	0
57	MG	1a	1822	1/1	0.87	0.11	67,67,67,67	0
57	MG	1A	3228	1/1	0.87	0.27	34,34,34,34	0
57	MG	2a	3142	1/1	0.87	0.18	48,48,48,48	0
57	MG	1a	1709	1/1	0.87	0.18	61,61,61,61	0
57	MG	2D	310	1/1	0.87	0.15	54,54,54,54	0
57	MG	2A	3539	1/1	0.87	0.10	59,59,59,59	0
57	MG	2A	3338	1/1	0.87	0.09	71,71,71,71	0
57	MG	1A	3672	1/1	0.87	0.17	51,51,51,51	0
57	MG	2A	3055	1/1	0.87	0.20	58,58,58,58	0
57	MG	1a	1829	1/1	0.87	0.14	55,55,55,55	0
57	MG	1B	222	1/1	0.87	0.10	38,38,38,38	0
57	MG	2A	3070	1/1	0.87	0.19	76,76,76,76	0
57	MG	1A	3131	1/1	0.87	0.19	35,35,35,35	0
57	MG	1B	228	1/1	0.87	0.08	65,65,65,65	0
57	MG	2a	3174	1/1	0.87	0.07	78,78,78,78	0
57	MG	1A	3482	1/1	0.87	0.23	14,14,14,14	0
57	MG	1a	1854	1/1	0.87	0.12	56,56,56,56	0
57	MG	2A	3093	1/1	0.87	0.08	60,60,60,60	0
57	MG	2a	3019	1/1	0.87	0.29	49,49,49,49	0
57	MG	2A	3405	1/1	0.87	0.14	68,68,68,68	0
57	MG	2A	3094	1/1	0.87	0.08	63,63,63,63	0
59	MPD	1a	1873	8/8	0.87	0.23	53,68,74,75	0
57	MG	2A	3097	1/1	0.87	0.08	56,56,56,56	0
57	MG	2A	3618	1/1	0.87	0.17	56,56,56,56	0
59	MPD	2A	3737	8/8	0.87	0.21	56,68,70,73	0
57	MG	2a	3030	1/1	0.87	0.12	64,64,64,64	0
57	MG	1a	1705	1/1	0.88	0.13	73,73,73,73	0
57	MG	2a	3006	1/1	0.88	0.20	55,55,55,55	0
57	MG	2a	3007	1/1	0.88	0.33	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	2A	3300	1/1	0.88	0.17	63,63,63,63	0
57	MG	1A	3230	1/1	0.88	0.16	38,38,38,38	0
57	MG	1A	3492	1/1	0.88	0.15	25,25,25,25	0
57	MG	2a	3014	1/1	0.88	0.19	71,71,71,71	0
57	MG	1A	3642	1/1	0.88	0.23	45,45,45,45	0
57	MG	1A	3328	1/1	0.88	0.27	48,48,48,48	0
57	MG	2A	3320	1/1	0.88	0.12	60,60,60,60	0
57	MG	2A	3151	1/1	0.88	0.09	55,55,55,55	0
57	MG	1A	3873	1/1	0.88	0.11	43,43,43,43	0
57	MG	1A	3118	1/1	0.88	0.16	36,36,36,36	0
57	MG	2A	3328	1/1	0.88	0.20	71,71,71,71	0
57	MG	2A	3162	1/1	0.88	0.16	61,61,61,61	0
57	MG	1A	3736	1/1	0.88	0.17	42,42,42,42	0
57	MG	2A	3589	1/1	0.88	0.17	44,44,44,44	0
57	MG	1A	3215	1/1	0.88	0.21	34,34,34,34	0
57	MG	1A	3746	1/1	0.88	0.07	44,44,44,44	0
57	MG	2a	3046	1/1	0.88	0.29	61,61,61,61	0
57	MG	2A	3601	1/1	0.88	0.14	58,58,58,58	0
57	MG	2A	3175	1/1	0.88	0.15	59,59,59,59	0
57	MG	2A	3607	1/1	0.88	0.11	52,52,52,52	0
57	MG	2A	3351	1/1	0.88	0.11	67,67,67,67	0
57	MG	1a	1733	1/1	0.88	0.11	60,60,60,60	0
57	MG	1a	1624	1/1	0.88	0.12	68,68,68,68	0
57	MG	2A	3620	1/1	0.88	0.07	63,63,63,63	0
57	MG	1A	3539	1/1	0.88	0.16	47,47,47,47	0
57	MG	1a	1752	1/1	0.88	0.18	68,68,68,68	0
57	MG	2a	3066	1/1	0.88	0.10	72,72,72,72	0
57	MG	1A	3749	1/1	0.88	0.19	48,48,48,48	0
57	MG	1A	3057	1/1	0.88	0.19	47,47,47,47	0
57	MG	1A	3903	1/1	0.88	0.14	33,33,33,33	0
57	MG	2A	3644	1/1	0.88	0.30	66,66,66,66	0
57	MG	1a	1645	1/1	0.88	0.27	55,55,55,55	0
57	MG	1B	209	1/1	0.88	0.15	55,55,55,55	0
57	MG	1a	1656	1/1	0.88	0.34	66,66,66,66	0
57	MG	1B	211	1/1	0.88	0.24	63,63,63,63	0
57	MG	1A	3425	1/1	0.88	0.22	21,21,21,21	0
57	MG	1A	3190	1/1	0.88	0.28	31,31,31,31	0
57	MG	1A	3767	1/1	0.88	0.13	34,34,34,34	0
57	MG	2A	3219	1/1	0.88	0.91	72,72,72,72	0
57	MG	1a	1798	1/1	0.88	0.10	49,49,49,49	0
57	MG	2A	3069	1/1	0.88	0.18	51,51,51,51	0
57	MG	1A	3435	1/1	0.88	0.21	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
57	MG	2A	3229	1/1	0.88	0.21	61,61,61,61	0
57	MG	2a	3130	1/1	0.88	0.13	72,72,72,72	0
57	MG	1a	1672	1/1	0.88	0.23	68,68,68,68	0
57	MG	1A	3347	1/1	0.88	0.12	46,46,46,46	0
57	MG	2A	3694	1/1	0.88	0.17	61,61,61,61	0
57	MG	1A	3559	1/1	0.88	0.20	47,47,47,47	0
57	MG	1a	1820	1/1	0.88	0.07	69,69,69,69	0
57	MG	1A	3784	1/1	0.88	0.15	41,41,41,41	0
57	MG	1A	3148	1/1	0.88	0.26	59,59,59,59	0
57	MG	1A	3576	1/1	0.88	0.12	46,46,46,46	0
57	MG	2A	3244	1/1	0.88	0.30	63,63,63,63	0
57	MG	1A	3460	1/1	0.88	0.30	65,65,65,65	0
57	MG	2A	3731	1/1	0.88	0.15	65,65,65,65	0
57	MG	2A	3106	1/1	0.88	0.13	65,65,65,65	0
57	MG	2B	207	1/1	0.88	0.12	83,83,83,83	0
57	MG	2B	211	1/1	0.88	0.17	54,54,54,54	0
57	MG	2A	3500	1/1	0.88	0.16	36,36,36,36	0
57	MG	1a	1688	1/1	0.88	0.09	67,67,67,67	0
57	MG	1A	3282	1/1	0.88	0.25	55,55,55,55	0
57	MG	1A	3475	1/1	0.88	0.15	57,57,57,57	0
57	MG	1G	202	1/1	0.88	0.16	50,50,50,50	0
57	MG	1A	3371	1/1	0.88	0.15	67,67,67,67	0
57	MG	2A	3531	1/1	0.88	0.14	61,61,61,61	0
57	MG	2P	201	1/1	0.88	0.20	61,61,61,61	0
57	MG	1A	3321	1/1	0.88	0.19	59,59,59,59	0
57	MG	1A	3989	1/1	0.88	0.17	37,37,37,37	0
57	MG	23	101	1/1	0.88	0.20	63,63,63,63	0
57	MG	2B	217	1/1	0.89	0.08	69,69,69,69	0
57	MG	1A	3715	1/1	0.89	0.21	68,68,68,68	0
57	MG	1a	1772	1/1	0.89	0.12	65,65,65,65	0
57	MG	2A	3484	1/1	0.89	0.08	71,71,71,71	0
57	MG	1A	3867	1/1	0.89	0.18	41,41,41,41	0
57	MG	1A	3254	1/1	0.89	0.37	34,34,34,34	0
57	MG	2A	3064	1/1	0.89	0.37	55,55,55,55	0
57	MG	2A	3237	1/1	0.89	0.28	47,47,47,47	0
57	MG	1A	3314	1/1	0.89	0.22	35,35,35,35	0
57	MG	1A	3002	1/1	0.89	0.27	58,58,58,58	0
57	MG	2A	3072	1/1	0.89	0.23	63,63,63,63	0
57	MG	1A	3507	1/1	0.89	0.16	22,22,22,22	0
57	MG	28	101	1/1	0.89	0.21	62,62,62,62	0
57	MG	2a	3001	1/1	0.89	0.16	42,42,42,42	0
57	MG	2a	3002	1/1	0.89	0.45	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	2A	3078	1/1	0.89	0.26	57,57,57,57	0
57	MG	2A	3254	1/1	0.89	0.30	43,43,43,43	0
57	MG	1a	1648	1/1	0.89	0.17	50,50,50,50	0
57	MG	1A	3193	1/1	0.89	0.19	71,71,71,71	0
57	MG	2A	3090	1/1	0.89	0.22	79,79,79,79	0
57	MG	1A	3740	1/1	0.89	0.18	50,50,50,50	0
57	MG	1a	1803	1/1	0.89	0.10	74,74,74,74	0
57	MG	2A	3544	1/1	0.89	0.14	53,53,53,53	0
57	MG	1A	3743	1/1	0.89	0.10	46,46,46,46	0
57	MG	2A	3279	1/1	0.89	0.34	73,73,73,73	0
57	MG	2A	3280	1/1	0.89	0.18	48,48,48,48	0
57	MG	1A	3662	1/1	0.89	0.48	67,67,67,67	0
57	MG	2A	3099	1/1	0.89	0.10	64,64,64,64	0
57	MG	1A	3515	1/1	0.89	0.15	35,35,35,35	0
57	MG	2A	3104	1/1	0.89	0.17	52,52,52,52	0
57	MG	2A	3582	1/1	0.89	0.08	51,51,51,51	0
57	MG	1A	3166	1/1	0.89	0.26	58,58,58,58	0
57	MG	1A	3537	1/1	0.89	0.11	47,47,47,47	0
57	MG	1A	3755	1/1	0.89	0.10	55,55,55,55	0
57	MG	2A	3596	1/1	0.89	0.21	37,37,37,37	0
57	MG	1A	3676	1/1	0.89	0.16	54,54,54,54	0
57	MG	1B	227	1/1	0.89	0.09	58,58,58,58	0
57	MG	1A	3417	1/1	0.89	0.19	25,25,25,25	0
57	MG	2a	3053	1/1	0.89	0.23	56,56,56,56	0
57	MG	2A	3130	1/1	0.89	0.14	46,46,46,46	0
57	MG	1B	229	1/1	0.89	0.14	50,50,50,50	0
57	MG	2A	3612	1/1	0.89	0.16	47,47,47,47	0
57	MG	2A	3614	1/1	0.89	0.10	74,74,74,74	0
57	MG	1A	3542	1/1	0.89	0.12	57,57,57,57	0
57	MG	2A	3617	1/1	0.89	0.37	71,71,71,71	0
57	MG	1A	3004	1/1	0.89	0.17	40,40,40,40	0
57	MG	2A	3138	1/1	0.89	0.21	50,50,50,50	0
57	MG	1A	3283	1/1	0.89	0.09	40,40,40,40	0
57	MG	1A	3229	1/1	0.89	0.13	39,39,39,39	0
57	MG	2a	3081	1/1	0.89	0.14	69,69,69,69	0
57	MG	1A	3776	1/1	0.89	0.18	48,48,48,48	0
57	MG	2A	3342	1/1	0.89	0.22	59,59,59,59	0
57	MG	1A	3442	1/1	0.89	0.13	28,28,28,28	0
57	MG	1A	3960	1/1	0.89	0.14	49,49,49,49	0
57	MG	1a	1862	1/1	0.89	0.21	71,71,71,71	0
57	MG	2A	3649	1/1	0.89	0.14	49,49,49,49	0
57	MG	2A	3650	1/1	0.89	0.10	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	1Q	202	1/1	0.89	0.25	53,53,53,53	0
57	MG	1A	3781	1/1	0.89	0.17	39,39,39,39	0
57	MG	2A	3657	1/1	0.89	0.15	43,43,43,43	0
57	MG	2a	3119	1/1	0.89	0.12	64,64,64,64	0
57	MG	1a	1869	1/1	0.89	0.17	55,55,55,55	0
57	MG	2a	3123	1/1	0.89	0.09	67,67,67,67	0
57	MG	2a	3126	1/1	0.89	0.16	75,75,75,75	0
57	MG	2A	3169	1/1	0.89	0.11	46,46,46,46	0
57	MG	1A	3098	1/1	0.89	0.24	54,54,54,54	0
57	MG	1A	3345	1/1	0.89	0.11	37,37,37,37	0
57	MG	1A	3693	1/1	0.89	0.20	47,47,47,47	0
57	MG	1A	3294	1/1	0.89	0.15	72,72,72,72	0
57	MG	2A	3407	1/1	0.89	0.15	36,36,36,36	0
57	MG	2A	3183	1/1	0.89	0.20	71,71,71,71	0
57	MG	1A	3231	1/1	0.89	0.15	35,35,35,35	0
57	MG	15	3107	1/1	0.89	0.24	44,44,44,44	0
57	MG	1A	3469	1/1	0.89	0.17	62,62,62,62	0
57	MG	19	101	1/1	0.89	0.24	51,51,51,51	0
57	MG	1g	201	1/1	0.89	0.22	68,68,68,68	0
57	MG	2a	3168	1/1	0.89	0.06	69,69,69,69	0
57	MG	2A	3709	1/1	0.89	0.29	63,63,63,63	0
57	MG	1m	201	1/1	0.89	0.12	72,72,72,72	0
57	MG	1A	3816	1/1	0.89	0.09	72,72,72,72	0
57	MG	1a	1726	1/1	0.89	0.14	54,54,54,54	0
57	MG	1a	1603	1/1	0.89	0.17	57,57,57,57	0
57	MG	1A	3232	1/1	0.89	0.47	44,44,44,44	0
57	MG	1a	1606	1/1	0.89	0.07	64,64,64,64	0
57	MG	1a	1736	1/1	0.89	0.12	81,81,81,81	0
57	MG	2A	3732	1/1	0.89	0.17	69,69,69,69	0
57	MG	1A	3060	1/1	0.89	0.14	55,55,55,55	0
57	MG	1a	1610	1/1	0.89	0.08	58,58,58,58	0
57	MG	1A	3999	1/1	0.89	0.14	47,47,47,47	0
57	MG	2B	212	1/1	0.89	0.07	81,81,81,81	0
57	MG	1A	3191	1/1	0.89	0.10	44,44,44,44	0
57	MG	2B	215	1/1	0.89	0.15	64,64,64,64	0
57	MG	1A	3327	1/1	0.90	0.16	55,55,55,55	0
57	MG	1A	3456	1/1	0.90	0.10	37,37,37,37	0
57	MG	2A	3157	1/1	0.90	0.23	66,66,66,66	0
57	MG	2A	3160	1/1	0.90	0.15	52,52,52,52	0
57	MG	1A	3300	1/1	0.90	0.28	56,56,56,56	0
57	MG	1D	311	1/1	0.90	0.23	47,47,47,47	0
57	MG	1A	3303	1/1	0.90	0.10	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	1A	3171	1/1	0.90	0.11	32,32,32,32	0
57	MG	1A	3951	1/1	0.90	0.10	50,50,50,50	0
57	MG	2A	3416	1/1	0.90	0.17	63,63,63,63	0
57	MG	1a	1866	1/1	0.90	0.07	69,69,69,69	0
57	MG	1A	3100	1/1	0.90	0.15	43,43,43,43	0
57	MG	1A	3643	1/1	0.90	0.21	20,20,20,20	0
57	MG	2A	3430	1/1	0.90	0.14	40,40,40,40	0
57	MG	1a	1697	1/1	0.90	0.10	53,53,53,53	0
57	MG	1A	3955	1/1	0.90	0.17	54,54,54,54	0
57	MG	1A	3956	1/1	0.90	0.09	54,54,54,54	0
57	MG	2A	3442	1/1	0.90	0.15	59,59,59,59	0
57	MG	1a	1702	1/1	0.90	0.13	68,68,68,68	0
57	MG	1A	3705	1/1	0.90	0.17	57,57,57,57	0
57	MG	2A	3191	1/1	0.90	0.16	72,72,72,72	0
57	MG	2A	3460	1/1	0.90	0.13	43,43,43,43	0
57	MG	1A	3251	1/1	0.90	0.19	55,55,55,55	0
57	MG	2A	3464	1/1	0.90	0.17	63,63,63,63	0
57	MG	2A	3202	1/1	0.90	0.15	60,60,60,60	0
57	MG	1R	205	1/1	0.90	0.19	50,50,50,50	0
57	MG	1A	3714	1/1	0.90	0.17	45,45,45,45	0
57	MG	2A	3469	1/1	0.90	0.14	56,56,56,56	0
57	MG	1A	3661	1/1	0.90	0.26	30,30,30,30	0
57	MG	2a	3005	1/1	0.90	0.18	52,52,52,52	0
57	MG	1a	1710	1/1	0.90	0.35	51,51,51,51	0
57	MG	1A	3405	1/1	0.90	0.21	52,52,52,52	0
57	MG	1A	3977	1/1	0.90	0.19	55,55,55,55	0
57	MG	2A	3007	1/1	0.90	0.24	40,40,40,40	0
57	MG	1A	3095	1/1	0.90	0.17	39,39,39,39	0
57	MG	2A	3021	1/1	0.90	0.22	71,71,71,71	0
57	MG	2A	3503	1/1	0.90	0.10	57,57,57,57	0
57	MG	1a	1717	1/1	0.90	0.37	71,71,71,71	0
57	MG	2A	3225	1/1	0.90	0.25	54,54,54,54	0
57	MG	1A	3724	1/1	0.90	0.14	53,53,53,53	0
57	MG	1A	3988	1/1	0.90	0.39	42,42,42,42	0
57	MG	2a	3025	1/1	0.90	0.38	65,65,65,65	0
57	MG	1A	3667	1/1	0.90	0.25	44,44,44,44	0
57	MG	1A	3107	1/1	0.90	0.17	28,28,28,28	0
57	MG	2A	3232	1/1	0.90	0.43	60,60,60,60	0
57	MG	1A	3863	1/1	0.90	0.16	27,27,27,27	0
57	MG	1A	3865	1/1	0.90	0.14	48,48,48,48	0
57	MG	2a	3036	1/1	0.90	0.11	63,63,63,63	0
57	MG	2A	3236	1/1	0.90	0.23	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	1A	3670	1/1	0.90	0.20	59,59,59,59	0
57	MG	2a	3042	1/1	0.90	0.27	48,48,48,48	0
57	MG	1A	3738	1/1	0.90	0.12	49,49,49,49	0
57	MG	2A	3059	1/1	0.90	0.38	61,61,61,61	0
57	MG	2A	3549	1/1	0.90	0.11	54,54,54,54	0
57	MG	2A	3556	1/1	0.90	0.12	63,63,63,63	0
57	MG	2A	3557	1/1	0.90	0.20	65,65,65,65	0
57	MG	1a	1749	1/1	0.90	0.22	41,41,41,41	0
57	MG	2A	3561	1/1	0.90	0.14	61,61,61,61	0
57	MG	1A	3562	1/1	0.90	0.17	42,42,42,42	0
57	MG	2A	3564	1/1	0.90	0.10	70,70,70,70	0
57	MG	1a	1613	1/1	0.90	0.08	71,71,71,71	0
57	MG	2A	3245	1/1	0.90	0.18	59,59,59,59	0
57	MG	2A	3252	1/1	0.90	0.14	46,46,46,46	0
57	MG	1A	3741	1/1	0.90	0.19	35,35,35,35	0
57	MG	1a	1616	1/1	0.90	0.08	63,63,63,63	0
57	MG	2A	3581	1/1	0.90	0.19	67,67,67,67	0
57	MG	1a	1761	1/1	0.90	0.17	54,54,54,54	0
57	MG	2A	3075	1/1	0.90	0.20	67,67,67,67	0
57	MG	2a	3090	1/1	0.90	0.09	56,56,56,56	0
57	MG	2A	3270	1/1	0.90	0.17	77,77,77,77	0
57	MG	2A	3593	1/1	0.90	0.16	58,58,58,58	0
57	MG	1a	1767	1/1	0.90	0.16	60,60,60,60	0
57	MG	1A	3290	1/1	0.90	0.11	56,56,56,56	0
57	MG	1A	3573	1/1	0.90	0.18	43,43,43,43	0
57	MG	2A	3278	1/1	0.90	0.24	65,65,65,65	0
57	MG	1a	1776	1/1	0.90	0.11	83,83,83,83	0
57	MG	1a	1781	1/1	0.90	0.13	67,67,67,67	0
57	MG	1A	4025	1/1	0.90	0.18	63,63,63,63	0
57	MG	1A	3575	1/1	0.90	0.11	41,41,41,41	0
57	MG	1a	1633	1/1	0.90	0.17	45,45,45,45	0
57	MG	1a	1786	1/1	0.90	0.14	71,71,71,71	0
57	MG	1a	1634	1/1	0.90	0.09	71,71,71,71	0
57	MG	1A	3886	1/1	0.90	0.15	27,27,27,27	0
57	MG	2A	3304	1/1	0.90	0.09	66,66,66,66	0
57	MG	2A	3305	1/1	0.90	0.16	49,49,49,49	0
57	MG	1a	1637	1/1	0.90	0.22	63,63,63,63	0
57	MG	2a	3136	1/1	0.90	0.10	73,73,73,73	0
57	MG	1A	4028	1/1	0.90	0.18	44,44,44,44	0
57	MG	2A	3315	1/1	0.90	0.11	47,47,47,47	0
57	MG	1A	3271	1/1	0.90	0.18	29,29,29,29	0
57	MG	1B	204	1/1	0.90	0.13	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	2A	3321	1/1	0.90	0.22	67,67,67,67	0
57	MG	2A	3646	1/1	0.90	0.20	41,41,41,41	0
57	MG	1a	1650	1/1	0.90	0.12	66,66,66,66	0
57	MG	1A	3582	1/1	0.90	0.09	54,54,54,54	0
57	MG	1A	3683	1/1	0.90	0.11	48,48,48,48	0
57	MG	1A	3272	1/1	0.90	0.15	48,48,48,48	0
57	MG	2A	3330	1/1	0.90	0.28	30,30,30,30	0
57	MG	2A	3131	1/1	0.90	0.27	62,62,62,62	0
57	MG	1A	3896	1/1	0.90	0.16	56,56,56,56	0
57	MG	1a	1823	1/1	0.90	0.09	63,63,63,63	0
57	MG	1A	3601	1/1	0.90	0.27	53,53,53,53	0
57	MG	1A	3378	1/1	0.90	0.19	17,17,17,17	0
57	MG	2A	3139	1/1	0.90	0.17	61,61,61,61	0
57	MG	2A	3348	1/1	0.90	0.14	40,40,40,40	0
57	MG	2A	3144	1/1	0.90	0.17	41,41,41,41	0
57	MG	1A	3904	1/1	0.90	0.05	59,59,59,59	0
57	MG	1A	3922	1/1	0.90	0.17	28,28,28,28	0
57	MG	2A	3361	1/1	0.90	0.19	59,59,59,59	0
57	MG	1a	1673	1/1	0.90	0.11	68,68,68,68	0
57	MG	2A	3368	1/1	0.90	0.16	47,47,47,47	0
57	MG	1A	3764	1/1	0.90	0.19	52,52,52,52	0
57	MG	1A	3652	1/1	0.91	0.16	37,37,37,37	0
57	MG	1A	3341	1/1	0.91	0.24	52,52,52,52	0
57	MG	2A	3388	1/1	0.91	0.18	40,40,40,40	0
57	MG	1a	1833	1/1	0.91	0.18	53,53,53,53	0
57	MG	1a	1668	1/1	0.91	0.35	64,64,64,64	0
57	MG	2A	3392	1/1	0.91	0.15	38,38,38,38	0
57	MG	2A	3703	1/1	0.91	0.06	63,63,63,63	0
57	MG	1A	3041	1/1	0.91	0.14	52,52,52,52	0
57	MG	1a	1844	1/1	0.91	0.08	53,53,53,53	0
57	MG	2A	3163	1/1	0.91	0.27	50,50,50,50	0
57	MG	1a	1846	1/1	0.91	0.09	61,61,61,61	0
57	MG	1B	202	1/1	0.91	0.13	54,54,54,54	0
57	MG	1A	3737	1/1	0.91	0.12	42,42,42,42	0
57	MG	1A	3436	1/1	0.91	0.11	35,35,35,35	0
57	MG	1a	1857	1/1	0.91	0.12	60,60,60,60	0
57	MG	2A	3176	1/1	0.91	0.18	68,68,68,68	0
57	MG	2A	3420	1/1	0.91	0.14	48,48,48,48	0
57	MG	2B	203	1/1	0.91	0.13	74,74,74,74	0
57	MG	1A	3874	1/1	0.91	0.13	38,38,38,38	0
57	MG	1A	3878	1/1	0.91	0.11	46,46,46,46	0
57	MG	2A	3434	1/1	0.91	0.20	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
57	MG	1A	3052	1/1	0.91	0.14	32,32,32,32	0
57	MG	1A	3443	1/1	0.91	0.10	62,62,62,62	0
57	MG	1A	3349	1/1	0.91	0.20	25,25,25,25	0
57	MG	1A	3199	1/1	0.91	0.23	56,56,56,56	0
57	MG	2D	304	1/1	0.91	0.51	43,43,43,43	0
57	MG	2D	306	1/1	0.91	0.32	51,51,51,51	0
57	MG	2A	3444	1/1	0.91	0.19	59,59,59,59	0
57	MG	2A	3445	1/1	0.91	0.15	59,59,59,59	0
57	MG	2E	304	1/1	0.91	0.20	54,54,54,54	0
57	MG	1a	1686	1/1	0.91	0.17	47,47,47,47	0
57	MG	1A	3032	1/1	0.91	0.17	55,55,55,55	0
57	MG	1A	3459	1/1	0.91	0.08	58,58,58,58	0
57	MG	2I	201	1/1	0.91	0.15	76,76,76,76	0
57	MG	1A	3748	1/1	0.91	0.16	28,28,28,28	0
57	MG	1A	3569	1/1	0.91	0.08	67,67,67,67	0
57	MG	1A	3236	1/1	0.91	0.19	57,57,57,57	0
57	MG	1A	3902	1/1	0.91	0.15	21,21,21,21	0
57	MG	2A	3213	1/1	0.91	0.14	50,50,50,50	0
57	MG	1D	305	1/1	0.91	0.14	34,34,34,34	0
57	MG	1D	307	1/1	0.91	0.21	47,47,47,47	0
57	MG	1f	202	1/1	0.91	0.17	46,46,46,46	0
57	MG	2A	3471	1/1	0.91	0.16	49,49,49,49	0
57	MG	1A	3176	1/1	0.91	0.36	45,45,45,45	0
57	MG	2A	3482	1/1	0.91	0.25	59,59,59,59	0
57	MG	1A	3033	1/1	0.91	0.13	39,39,39,39	0
57	MG	1A	3915	1/1	0.91	0.24	26,26,26,26	0
57	MG	2a	3010	1/1	0.91	0.11	52,52,52,52	0
57	MG	1A	3325	1/1	0.91	0.10	69,69,69,69	0
57	MG	1A	3924	1/1	0.91	0.12	56,56,56,56	0
57	MG	1A	3581	1/1	0.91	0.09	57,57,57,57	0
57	MG	1A	3929	1/1	0.91	0.12	53,53,53,53	0
57	MG	2a	3018	1/1	0.91	0.14	47,47,47,47	0
57	MG	1A	3765	1/1	0.91	0.20	55,55,55,55	0
57	MG	1A	3063	1/1	0.91	0.22	52,52,52,52	0
57	MG	2A	3506	1/1	0.91	0.18	47,47,47,47	0
57	MG	2A	3516	1/1	0.91	0.28	74,74,74,74	0
57	MG	2A	3522	1/1	0.91	0.07	63,63,63,63	0
57	MG	2A	3024	1/1	0.91	0.34	52,52,52,52	0
57	MG	1A	3594	1/1	0.91	0.10	62,62,62,62	0
57	MG	1A	3774	1/1	0.91	0.08	34,34,34,34	0
57	MG	1T	202	1/1	0.91	0.11	67,67,67,67	0
57	MG	1A	3253	1/1	0.91	0.16	35,35,35,35	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	1W	204	1/1	0.91	0.21	48,48,48,48	0
57	MG	2A	3046	1/1	0.91	0.12	63,63,63,63	0
57	MG	1A	3330	1/1	0.91	0.15	38,38,38,38	0
57	MG	1A	3065	1/1	0.91	0.13	50,50,50,50	0
57	MG	2A	3058	1/1	0.91	0.19	38,38,38,38	0
57	MG	2A	3542	1/1	0.91	0.23	52,52,52,52	0
57	MG	2A	3543	1/1	0.91	0.12	64,64,64,64	0
57	MG	1A	3615	1/1	0.91	0.10	48,48,48,48	0
57	MG	1A	3494	1/1	0.91	0.23	37,37,37,37	0
57	MG	2A	3550	1/1	0.91	0.22	50,50,50,50	0
57	MG	1A	3402	1/1	0.91	0.12	42,42,42,42	0
57	MG	1a	1751	1/1	0.91	0.14	63,63,63,63	0
57	MG	2A	3262	1/1	0.91	0.30	45,45,45,45	0
57	MG	2A	3263	1/1	0.91	0.24	39,39,39,39	0
57	MG	2a	3063	1/1	0.91	0.31	62,62,62,62	0
57	MG	2a	3064	1/1	0.91	0.10	75,75,75,75	0
57	MG	1A	3957	1/1	0.91	0.13	44,44,44,44	0
57	MG	1A	3636	1/1	0.91	0.06	42,42,42,42	0
57	MG	1A	3791	1/1	0.91	0.57	56,56,56,56	0
57	MG	2a	3073	1/1	0.91	0.20	62,62,62,62	0
57	MG	1A	3792	1/1	0.91	0.16	49,49,49,49	0
57	MG	2a	3078	1/1	0.91	0.10	62,62,62,62	0
57	MG	1a	1604	1/1	0.91	0.14	61,61,61,61	0
57	MG	1a	1763	1/1	0.91	0.15	80,80,80,80	0
57	MG	1A	3794	1/1	0.91	0.06	24,24,24,24	0
57	MG	1A	3302	1/1	0.91	0.19	34,34,34,34	0
57	MG	2A	3285	1/1	0.91	0.23	64,64,64,64	0
57	MG	2A	3087	1/1	0.91	0.21	47,47,47,47	0
57	MG	2A	3588	1/1	0.91	0.22	45,45,45,45	0
57	MG	2A	3290	1/1	0.91	0.18	43,43,43,43	0
57	MG	1A	3976	1/1	0.91	0.12	53,53,53,53	0
57	MG	1A	3799	1/1	0.91	0.12	54,54,54,54	0
57	MG	2A	3296	1/1	0.91	0.30	58,58,58,58	0
57	MG	1A	3979	1/1	0.91	0.14	56,56,56,56	0
57	MG	1A	3710	1/1	0.91	0.21	75,75,75,75	0
57	MG	1A	3410	1/1	0.91	0.10	32,32,32,32	0
57	MG	2A	3606	1/1	0.91	0.15	68,68,68,68	0
57	MG	1A	3815	1/1	0.91	0.46	52,52,52,52	0
57	MG	1A	3513	1/1	0.91	0.21	28,28,28,28	0
57	MG	1a	1787	1/1	0.91	0.08	83,83,83,83	0
57	MG	2A	3105	1/1	0.91	0.16	53,53,53,53	0
57	MG	2a	3131	1/1	0.91	0.11	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	1a	1790	1/1	0.91	0.06	74,74,74,74	0
57	MG	2A	3109	1/1	0.91	0.23	57,57,57,57	0
57	MG	1A	3990	1/1	0.91	0.22	38,38,38,38	0
57	MG	2A	3118	1/1	0.91	0.43	66,66,66,66	0
57	MG	1a	1630	1/1	0.91	0.12	66,66,66,66	0
57	MG	2A	3120	1/1	0.91	0.19	54,54,54,54	0
57	MG	2A	3623	1/1	0.91	0.15	50,50,50,50	0
57	MG	1A	3822	1/1	0.91	0.17	38,38,38,38	0
57	MG	1A	3716	1/1	0.91	0.22	34,34,34,34	0
57	MG	2A	3638	1/1	0.91	0.16	58,58,58,58	0
57	MG	1A	3847	1/1	0.91	0.21	43,43,43,43	0
57	MG	2A	3331	1/1	0.91	0.20	60,60,60,60	0
57	MG	2a	3169	1/1	0.91	0.19	84,84,84,84	0
57	MG	1a	1806	1/1	0.91	0.07	64,64,64,64	0
57	MG	1a	1808	1/1	0.91	0.12	66,66,66,66	0
57	MG	1A	3996	1/1	0.91	0.07	44,44,44,44	0
57	MG	1A	3851	1/1	0.91	0.14	20,20,20,20	0
57	MG	1A	3852	1/1	0.91	0.16	49,49,49,49	0
57	MG	1A	3140	1/1	0.91	0.12	44,44,44,44	0
57	MG	2a	3187	1/1	0.91	0.11	74,74,74,74	0
57	MG	2A	3347	1/1	0.91	0.15	42,42,42,42	0
57	MG	1A	3423	1/1	0.91	0.21	19,19,19,19	0
57	MG	2A	3143	1/1	0.91	0.33	48,48,48,48	0
57	MG	1a	1821	1/1	0.91	0.11	66,66,66,66	0
57	MG	1A	3009	1/1	0.91	0.15	24,24,24,24	0
59	MPD	1a	1874	8/8	0.91	0.23	57,66,70,71	0
57	MG	1A	4019	1/1	0.91	0.12	36,36,36,36	0
57	MG	1A	3864	1/1	0.91	0.10	31,31,31,31	0
57	MG	2A	3676	1/1	0.91	0.10	60,60,60,60	0
57	MG	1A	3726	1/1	0.91	0.15	30,30,30,30	0
57	MG	1A	3175	1/1	0.92	0.21	43,43,43,43	0
57	MG	2A	3712	1/1	0.92	0.49	75,75,75,75	0
57	MG	2A	3419	1/1	0.92	0.14	50,50,50,50	0
57	MG	1a	1716	1/1	0.92	0.12	64,64,64,64	0
57	MG	2A	3722	1/1	0.92	0.15	52,52,52,52	0
57	MG	10	109	1/1	0.92	0.15	50,50,50,50	0
57	MG	2A	3725	1/1	0.92	0.12	66,66,66,66	0
57	MG	1h	202	1/1	0.92	0.18	67,67,67,67	0
57	MG	1i	201	1/1	0.92	0.07	67,67,67,67	0
57	MG	1A	3501	1/1	0.92	0.12	34,34,34,34	0
57	MG	2A	3730	1/1	0.92	0.14	76,76,76,76	0
57	MG	1A	3502	1/1	0.92	0.23	25,25,25,25	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	1u	101	1/1	0.92	0.10	74,74,74,74	0
57	MG	2A	3001	1/1	0.92	0.09	65,65,65,65	0
57	MG	1a	1724	1/1	0.92	0.18	65,65,65,65	0
57	MG	2B	206	1/1	0.92	0.10	61,61,61,61	0
57	MG	1A	3506	1/1	0.92	0.21	27,27,27,27	0
57	MG	1a	1728	1/1	0.92	0.15	52,52,52,52	0
57	MG	2A	3011	1/1	0.92	0.18	55,55,55,55	0
57	MG	1A	3689	1/1	0.92	0.16	61,61,61,61	0
57	MG	1A	3040	1/1	0.92	0.15	38,38,38,38	0
57	MG	1A	3619	1/1	0.92	0.23	34,34,34,34	0
57	MG	1A	3508	1/1	0.92	0.17	46,46,46,46	0
57	MG	1A	3695	1/1	0.92	0.10	52,52,52,52	0
57	MG	2D	305	1/1	0.92	0.20	37,37,37,37	0
57	MG	2A	3032	1/1	0.92	0.10	54,54,54,54	0
57	MG	1A	3885	1/1	0.92	0.15	40,40,40,40	0
57	MG	1A	3374	1/1	0.92	0.17	48,48,48,48	0
57	MG	1A	3887	1/1	0.92	0.12	57,57,57,57	0
57	MG	1A	3441	1/1	0.92	0.13	71,71,71,71	0
57	MG	1a	1608	1/1	0.92	0.17	56,56,56,56	0
57	MG	1A	3145	1/1	0.92	0.12	38,38,38,38	0
57	MG	1A	4010	1/1	0.92	0.10	57,57,57,57	0
57	MG	2A	3056	1/1	0.92	0.13	38,38,38,38	0
57	MG	1A	4017	1/1	0.92	0.15	29,29,29,29	0
57	MG	2V	202	1/1	0.92	0.57	57,57,57,57	0
57	MG	1A	3778	1/1	0.92	0.11	65,65,65,65	0
57	MG	1A	4020	1/1	0.92	0.18	69,69,69,69	0
57	MG	1A	3379	1/1	0.92	0.17	34,34,34,34	0
57	MG	1A	3035	1/1	0.92	0.22	44,44,44,44	0
57	MG	2A	3067	1/1	0.92	0.17	49,49,49,49	0
57	MG	1a	1777	1/1	0.92	0.09	76,76,76,76	0
57	MG	2A	3509	1/1	0.92	0.19	64,64,64,64	0
57	MG	2A	3510	1/1	0.92	0.19	49,49,49,49	0
57	MG	2A	3247	1/1	0.92	0.18	47,47,47,47	0
57	MG	2A	3518	1/1	0.92	0.04	65,65,65,65	0
57	MG	2A	3519	1/1	0.92	0.17	58,58,58,58	0
57	MG	2A	3521	1/1	0.92	0.10	70,70,70,70	0
57	MG	1a	1780	1/1	0.92	0.08	65,65,65,65	0
57	MG	2A	3523	1/1	0.92	0.16	61,61,61,61	0
57	MG	1A	3154	1/1	0.92	0.12	45,45,45,45	0
57	MG	2A	3527	1/1	0.92	0.16	60,60,60,60	0
57	MG	2A	3074	1/1	0.92	0.07	52,52,52,52	0
57	MG	1A	3156	1/1	0.92	0.20	35,35,35,35	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	1A	3645	1/1	0.92	0.15	54,54,54,54	0
57	MG	2a	3023	1/1	0.92	0.14	39,39,39,39	0
57	MG	1A	3261	1/1	0.92	0.24	60,60,60,60	0
57	MG	2A	3266	1/1	0.92	0.24	57,57,57,57	0
57	MG	1A	3651	1/1	0.92	0.16	44,44,44,44	0
57	MG	1A	3920	1/1	0.92	0.19	48,48,48,48	0
57	MG	2a	3029	1/1	0.92	0.11	56,56,56,56	0
57	MG	1A	3160	1/1	0.92	0.18	33,33,33,33	0
57	MG	1A	3923	1/1	0.92	0.12	23,23,23,23	0
57	MG	2A	3091	1/1	0.92	0.11	66,66,66,66	0
57	MG	2A	3276	1/1	0.92	0.12	39,39,39,39	0
57	MG	2A	3277	1/1	0.92	0.44	61,61,61,61	0
57	MG	1A	3658	1/1	0.92	0.14	58,58,58,58	0
57	MG	1A	3464	1/1	0.92	0.11	35,35,35,35	0
57	MG	1a	1651	1/1	0.92	0.10	49,49,49,49	0
57	MG	2a	3047	1/1	0.92	0.14	63,63,63,63	0
57	MG	2A	3282	1/1	0.92	0.17	42,42,42,42	0
57	MG	1B	215	1/1	0.92	0.11	53,53,53,53	0
57	MG	1A	3080	1/1	0.92	0.25	43,43,43,43	0
57	MG	1A	3933	1/1	0.92	0.18	38,38,38,38	0
57	MG	1a	1659	1/1	0.92	0.18	57,57,57,57	0
57	MG	1A	3665	1/1	0.92	0.14	56,56,56,56	0
57	MG	2a	3055	1/1	0.92	0.14	64,64,64,64	0
57	MG	1A	3810	1/1	0.92	0.09	38,38,38,38	0
57	MG	2A	3107	1/1	0.92	0.16	60,60,60,60	0
57	MG	2A	3108	1/1	0.92	0.11	56,56,56,56	0
57	MG	2a	3060	1/1	0.92	0.15	74,74,74,74	0
57	MG	2A	3302	1/1	0.92	0.21	53,53,53,53	0
57	MG	1A	3732	1/1	0.92	0.20	30,30,30,30	0
57	MG	1B	226	1/1	0.92	0.10	69,69,69,69	0
57	MG	1A	3939	1/1	0.92	0.07	49,49,49,49	0
57	MG	2A	3584	1/1	0.92	0.14	52,52,52,52	0
57	MG	2a	3069	1/1	0.92	0.22	71,71,71,71	0
57	MG	2a	3070	1/1	0.92	0.11	61,61,61,61	0
57	MG	1A	3169	1/1	0.92	0.28	43,43,43,43	0
57	MG	1A	3817	1/1	0.92	0.20	26,26,26,26	0
57	MG	2A	3309	1/1	0.92	0.28	59,59,59,59	0
57	MG	2A	3312	1/1	0.92	0.23	38,38,38,38	0
57	MG	2A	3121	1/1	0.92	0.21	39,39,39,39	0
57	MG	1a	1674	1/1	0.92	0.18	48,48,48,48	0
57	MG	2a	3082	1/1	0.92	0.13	64,64,64,64	0
57	MG	2a	3089	1/1	0.92	0.17	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	2A	3123	1/1	0.92	0.17	58,58,58,58	0
57	MG	1a	1825	1/1	0.92	0.15	51,51,51,51	0
57	MG	2A	3604	1/1	0.92	0.13	38,38,38,38	0
57	MG	2A	3126	1/1	0.92	0.10	60,60,60,60	0
57	MG	2a	3098	1/1	0.92	0.21	63,63,63,63	0
57	MG	1D	301	1/1	0.92	0.30	41,41,41,41	0
57	MG	1A	3948	1/1	0.92	0.10	27,27,27,27	0
57	MG	2A	3610	1/1	0.92	0.19	51,51,51,51	0
57	MG	1A	3820	1/1	0.92	0.14	52,52,52,52	0
57	MG	2A	3329	1/1	0.92	0.17	75,75,75,75	0
57	MG	1a	1830	1/1	0.92	0.14	62,62,62,62	0
57	MG	1a	1682	1/1	0.92	0.18	68,68,68,68	0
57	MG	1D	309	1/1	0.92	0.20	38,38,38,38	0
57	MG	2A	3137	1/1	0.92	0.16	38,38,38,38	0
57	MG	2A	3337	1/1	0.92	0.18	44,44,44,44	0
57	MG	1A	3039	1/1	0.92	0.20	39,39,39,39	0
57	MG	2a	3128	1/1	0.92	0.09	62,62,62,62	0
57	MG	1a	1843	1/1	0.92	0.13	48,48,48,48	0
57	MG	1A	3831	1/1	0.92	0.12	48,48,48,48	0
57	MG	1A	3053	1/1	0.92	0.14	29,29,29,29	0
57	MG	1E	301	1/1	0.92	0.23	35,35,35,35	0
57	MG	1E	304	1/1	0.92	0.17	21,21,21,21	0
57	MG	1A	3244	1/1	0.92	0.26	33,33,33,33	0
57	MG	2A	3149	1/1	0.92	0.20	66,66,66,66	0
57	MG	1A	3319	1/1	0.92	0.11	30,30,30,30	0
57	MG	1A	3485	1/1	0.92	0.12	46,46,46,46	0
57	MG	1a	1860	1/1	0.92	0.18	54,54,54,54	0
57	MG	1A	3959	1/1	0.92	0.11	59,59,59,59	0
57	MG	2a	3161	1/1	0.92	0.17	62,62,62,62	0
57	MG	1a	1700	1/1	0.92	0.14	68,68,68,68	0
57	MG	2a	3164	1/1	0.92	0.14	61,61,61,61	0
57	MG	2a	3165	1/1	0.92	0.18	67,67,67,67	0
57	MG	2A	3376	1/1	0.92	0.12	54,54,54,54	0
57	MG	2A	3658	1/1	0.92	0.11	41,41,41,41	0
57	MG	2A	3378	1/1	0.92	0.22	30,30,30,30	0
57	MG	1A	3489	1/1	0.92	0.13	55,55,55,55	0
57	MG	1N	204	1/1	0.92	0.24	57,57,57,57	0
57	MG	1a	1703	1/1	0.92	0.13	70,70,70,70	0
57	MG	2A	3672	1/1	0.92	0.16	55,55,55,55	0
57	MG	2A	3166	1/1	0.92	0.11	55,55,55,55	0
57	MG	1A	3858	1/1	0.92	0.12	37,37,37,37	0
57	MG	2A	3396	1/1	0.92	0.19	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	2a	3180	1/1	0.92	0.26	70,70,70,70	0
57	MG	2A	3168	1/1	0.92	0.28	63,63,63,63	0
57	MG	1A	3859	1/1	0.92	0.20	45,45,45,45	0
57	MG	1A	3678	1/1	0.92	0.13	55,55,55,55	0
57	MG	2A	3685	1/1	0.92	0.09	59,59,59,59	0
57	MG	1T	201	1/1	0.92	0.10	32,32,32,32	0
57	MG	1A	3320	1/1	0.92	0.34	47,47,47,47	0
57	MG	2A	3690	1/1	0.92	0.11	59,59,59,59	0
57	MG	2A	3691	1/1	0.92	0.13	76,76,76,76	0
57	MG	1A	3493	1/1	0.92	0.23	48,48,48,48	0
57	MG	1A	3431	1/1	0.92	0.19	21,21,21,21	0
60	ZN	2Y	202	1/1	0.92	0.12	82,82,82,82	0
57	MG	10	101	1/1	0.92	0.33	40,40,40,40	0
57	MG	1A	3289	1/1	0.93	0.47	46,46,46,46	0
57	MG	1A	3136	1/1	0.93	0.24	43,43,43,43	0
57	MG	1a	1834	1/1	0.93	0.15	45,45,45,45	0
57	MG	1A	3056	1/1	0.93	0.16	42,42,42,42	0
57	MG	1a	1841	1/1	0.93	0.17	59,59,59,59	0
57	MG	1A	3434	1/1	0.93	0.14	25,25,25,25	0
57	MG	2A	3698	1/1	0.93	0.17	61,61,61,61	0
57	MG	2A	3397	1/1	0.93	0.18	38,38,38,38	0
57	MG	2A	3705	1/1	0.93	0.21	42,42,42,42	0
57	MG	2A	3401	1/1	0.93	0.18	59,59,59,59	0
57	MG	1A	3050	1/1	0.93	0.15	34,34,34,34	0
57	MG	1A	3517	1/1	0.93	0.13	52,52,52,52	0
57	MG	1A	3526	1/1	0.93	0.09	43,43,43,43	0
57	MG	1a	1666	1/1	0.93	0.14	75,75,75,75	0
57	MG	2A	3723	1/1	0.93	0.12	69,69,69,69	0
57	MG	1a	1667	1/1	0.93	0.26	65,65,65,65	0
57	MG	1A	3529	1/1	0.93	0.19	53,53,53,53	0
57	MG	1A	3752	1/1	0.93	0.17	54,54,54,54	0
57	MG	1A	3753	1/1	0.93	0.17	41,41,41,41	0
57	MG	1B	207	1/1	0.93	0.35	63,63,63,63	0
57	MG	1A	3299	1/1	0.93	0.13	28,28,28,28	0
57	MG	1A	3532	1/1	0.93	0.17	24,24,24,24	0
57	MG	1A	3899	1/1	0.93	0.14	39,39,39,39	0
57	MG	2A	3733	1/1	0.93	0.20	68,68,68,68	0
57	MG	2A	3426	1/1	0.93	0.18	75,75,75,75	0
57	MG	2B	202	1/1	0.93	0.10	69,69,69,69	0
57	MG	2A	3178	1/1	0.93	0.37	51,51,51,51	0
57	MG	1A	3534	1/1	0.93	0.25	32,32,32,32	0
57	MG	2A	3180	1/1	0.93	0.27	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	1a	1679	1/1	0.93	0.19	60,60,60,60	0
57	MG	2A	3184	1/1	0.93	0.33	54,54,54,54	0
57	MG	1A	3901	1/1	0.93	0.16	37,37,37,37	0
57	MG	1A	3440	1/1	0.93	0.21	24,24,24,24	0
57	MG	2B	216	1/1	0.93	0.10	70,70,70,70	0
57	MG	1A	3538	1/1	0.93	0.05	59,59,59,59	0
57	MG	2A	3447	1/1	0.93	0.17	51,51,51,51	0
57	MG	2A	3448	1/1	0.93	0.32	57,57,57,57	0
57	MG	1B	223	1/1	0.93	0.15	58,58,58,58	0
57	MG	1A	3239	1/1	0.93	0.38	35,35,35,35	0
57	MG	2A	3458	1/1	0.93	0.14	56,56,56,56	0
57	MG	1A	3906	1/1	0.93	0.06	49,49,49,49	0
57	MG	2A	3201	1/1	0.93	0.22	69,69,69,69	0
57	MG	2A	3461	1/1	0.93	0.16	59,59,59,59	0
57	MG	1A	3907	1/1	0.93	0.14	43,43,43,43	0
57	MG	1A	3910	1/1	0.93	0.16	29,29,29,29	0
57	MG	1A	3911	1/1	0.93	0.10	22,22,22,22	0
57	MG	2N	201	1/1	0.93	0.13	72,72,72,72	0
57	MG	1A	3027	1/1	0.93	0.09	58,58,58,58	0
57	MG	2R	202	1/1	0.93	0.17	60,60,60,60	0
57	MG	2T	202	1/1	0.93	0.14	52,52,52,52	0
57	MG	1A	3149	1/1	0.93	0.15	26,26,26,26	0
57	MG	2A	3212	1/1	0.93	0.12	43,43,43,43	0
57	MG	1A	3445	1/1	0.93	0.14	35,35,35,35	0
57	MG	1A	3446	1/1	0.93	0.24	36,36,36,36	0
57	MG	25	103	1/1	0.93	0.14	56,56,56,56	0
57	MG	1l	201	1/1	0.93	0.34	57,57,57,57	0
57	MG	2A	3474	1/1	0.93	0.14	56,56,56,56	0
57	MG	29	101	1/1	0.93	0.20	67,67,67,67	0
57	MG	2A	3475	1/1	0.93	0.11	59,59,59,59	0
57	MG	2A	3476	1/1	0.93	0.32	39,39,39,39	0
57	MG	1A	3151	1/1	0.93	0.17	45,45,45,45	0
57	MG	1A	3552	1/1	0.93	0.22	58,58,58,58	0
57	MG	1A	3927	1/1	0.93	0.09	47,47,47,47	0
57	MG	1y	201	1/1	0.93	0.13	58,58,58,58	0
57	MG	1y	202	1/1	0.93	0.11	60,60,60,60	0
57	MG	1A	3554	1/1	0.93	0.14	40,40,40,40	0
57	MG	2A	3502	1/1	0.93	0.17	49,49,49,49	0
57	MG	1A	3931	1/1	0.93	0.08	53,53,53,53	0
57	MG	2a	3015	1/1	0.93	0.07	54,54,54,54	0
57	MG	2A	3004	1/1	0.93	0.16	57,57,57,57	0
57	MG	1A	3153	1/1	0.93	0.07	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	1E	309	1/1	0.93	0.17	63,63,63,63	0
57	MG	2A	3508	1/1	0.93	0.20	63,63,63,63	0
57	MG	1A	3783	1/1	0.93	0.12	32,32,32,32	0
57	MG	2A	3014	1/1	0.93	0.15	65,65,65,65	0
57	MG	2A	3514	1/1	0.93	0.11	57,57,57,57	0
57	MG	2A	3015	1/1	0.93	0.26	60,60,60,60	0
57	MG	1A	3082	1/1	0.93	0.14	33,33,33,33	0
57	MG	1A	3785	1/1	0.93	0.15	34,34,34,34	0
57	MG	1A	3373	1/1	0.93	0.16	40,40,40,40	0
57	MG	1a	1713	1/1	0.93	0.26	57,57,57,57	0
57	MG	2A	3242	1/1	0.93	0.19	51,51,51,51	0
57	MG	2a	3032	1/1	0.93	0.16	67,67,67,67	0
57	MG	1A	3787	1/1	0.93	0.14	41,41,41,41	0
57	MG	2a	3035	1/1	0.93	0.11	46,46,46,46	0
57	MG	1A	3084	1/1	0.93	0.37	40,40,40,40	0
57	MG	2A	3529	1/1	0.93	0.34	54,54,54,54	0
57	MG	1A	3570	1/1	0.93	0.23	61,61,61,61	0
57	MG	1A	3256	1/1	0.93	0.41	45,45,45,45	0
57	MG	2a	3044	1/1	0.93	0.10	72,72,72,72	0
57	MG	2A	3251	1/1	0.93	0.26	44,44,44,44	0
57	MG	1a	1719	1/1	0.93	0.12	58,58,58,58	0
57	MG	1A	3467	1/1	0.93	0.23	52,52,52,52	0
57	MG	2A	3255	1/1	0.93	0.44	51,51,51,51	0
57	MG	1A	3574	1/1	0.93	0.20	55,55,55,55	0
57	MG	2A	3258	1/1	0.93	0.52	61,61,61,61	0
57	MG	1A	3312	1/1	0.93	0.15	16,16,16,16	0
57	MG	2A	3261	1/1	0.93	0.18	50,50,50,50	0
57	MG	1a	1727	1/1	0.93	0.14	65,65,65,65	0
57	MG	1V	205	1/1	0.93	0.11	63,63,63,63	0
57	MG	1A	3203	1/1	0.93	0.30	40,40,40,40	0
57	MG	2a	3058	1/1	0.93	0.19	64,64,64,64	0
57	MG	1Y	201	1/1	0.93	0.10	61,61,61,61	0
57	MG	1A	3110	1/1	0.93	0.29	67,67,67,67	0
57	MG	10	102	1/1	0.93	0.13	29,29,29,29	0
57	MG	1a	1738	1/1	0.93	0.20	33,33,33,33	0
57	MG	1A	3807	1/1	0.93	0.11	29,29,29,29	0
57	MG	2A	3562	1/1	0.93	0.15	52,52,52,52	0
57	MG	10	104	1/1	0.93	0.19	45,45,45,45	0
57	MG	1A	3388	1/1	0.93	0.16	61,61,61,61	0
57	MG	1A	3811	1/1	0.93	0.14	34,34,34,34	0
57	MG	2A	3569	1/1	0.93	0.17	43,43,43,43	0
57	MG	1A	3586	1/1	0.93	0.34	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	2a	3074	1/1	0.93	0.20	59,59,59,59	0
57	MG	2A	3571	1/1	0.93	0.15	39,39,39,39	0
57	MG	15	3104	1/1	0.93	0.20	38,38,38,38	0
57	MG	2a	3079	1/1	0.93	0.49	59,59,59,59	0
57	MG	2A	3281	1/1	0.93	0.13	53,53,53,53	0
57	MG	1a	1758	1/1	0.93	0.13	66,66,66,66	0
57	MG	15	3105	1/1	0.93	0.17	38,38,38,38	0
57	MG	2a	3085	1/1	0.93	0.11	59,59,59,59	0
57	MG	2a	3087	1/1	0.93	0.08	61,61,61,61	0
57	MG	1A	3965	1/1	0.93	0.14	41,41,41,41	0
57	MG	2A	3288	1/1	0.93	0.33	67,67,67,67	0
57	MG	2a	3091	1/1	0.93	0.34	63,63,63,63	0
57	MG	1A	3589	1/1	0.93	0.17	55,55,55,55	0
57	MG	2A	3086	1/1	0.93	0.34	76,76,76,76	0
57	MG	2a	3096	1/1	0.93	0.28	58,58,58,58	0
57	MG	1a	1765	1/1	0.93	0.12	67,67,67,67	0
57	MG	2A	3592	1/1	0.93	0.08	60,60,60,60	0
57	MG	2a	3102	1/1	0.93	0.43	53,53,53,53	0
57	MG	1A	3591	1/1	0.93	0.14	40,40,40,40	0
57	MG	17	103	1/1	0.93	0.19	37,37,37,37	0
57	MG	2A	3298	1/1	0.93	0.29	61,61,61,61	0
57	MG	2a	3110	1/1	0.93	0.11	65,65,65,65	0
57	MG	1A	3706	1/1	0.93	0.21	41,41,41,41	0
57	MG	1A	3113	1/1	0.93	0.20	40,40,40,40	0
57	MG	1A	3825	1/1	0.93	0.11	58,58,58,58	0
57	MG	2a	3115	1/1	0.93	0.25	54,54,54,54	0
57	MG	2A	3095	1/1	0.93	0.23	56,56,56,56	0
57	MG	2A	3605	1/1	0.93	0.22	52,52,52,52	0
57	MG	1A	3390	1/1	0.93	0.12	32,32,32,32	0
57	MG	1A	3983	1/1	0.93	0.11	68,68,68,68	0
57	MG	2a	3124	1/1	0.93	0.18	60,60,60,60	0
57	MG	1A	3167	1/1	0.93	0.13	47,47,47,47	0
57	MG	2A	3101	1/1	0.93	0.19	37,37,37,37	0
57	MG	1A	3013	1/1	0.93	0.16	20,20,20,20	0
57	MG	2A	3313	1/1	0.93	0.22	76,76,76,76	0
57	MG	1A	3614	1/1	0.93	0.14	31,31,31,31	0
57	MG	1A	3717	1/1	0.93	0.10	54,54,54,54	0
57	MG	1a	1611	1/1	0.93	0.06	58,58,58,58	0
57	MG	1A	3718	1/1	0.93	0.13	33,33,33,33	0
57	MG	1a	1791	1/1	0.93	0.23	75,75,75,75	0
57	MG	2A	3324	1/1	0.93	0.16	73,73,73,73	0
57	MG	2a	3145	1/1	0.93	0.08	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	2A	3110	1/1	0.93	0.21	51,51,51,51	0
57	MG	2a	3150	1/1	0.93	0.08	69,69,69,69	0
57	MG	2a	3151	1/1	0.93	0.15	64,64,64,64	0
57	MG	1A	3856	1/1	0.93	0.10	29,29,29,29	0
57	MG	2a	3155	1/1	0.93	0.09	68,68,68,68	0
57	MG	2A	3626	1/1	0.93	0.07	75,75,75,75	0
57	MG	2a	3157	1/1	0.93	0.10	66,66,66,66	0
57	MG	1A	3993	1/1	0.93	0.56	54,54,54,54	0
57	MG	1a	1796	1/1	0.93	0.05	67,67,67,67	0
57	MG	1A	3323	1/1	0.93	0.30	30,30,30,30	0
57	MG	1a	1618	1/1	0.93	0.14	52,52,52,52	0
57	MG	1a	1619	1/1	0.93	0.10	66,66,66,66	0
57	MG	1a	1804	1/1	0.93	0.25	59,59,59,59	0
57	MG	1A	3618	1/1	0.93	0.15	31,31,31,31	0
57	MG	1a	1626	1/1	0.93	0.17	65,65,65,65	0
57	MG	1A	3054	1/1	0.93	0.26	24,24,24,24	0
57	MG	2A	3341	1/1	0.93	0.27	49,49,49,49	0
57	MG	2A	3656	1/1	0.93	0.11	58,58,58,58	0
57	MG	1A	3998	1/1	0.93	0.13	68,68,68,68	0
57	MG	1A	3326	1/1	0.93	0.30	56,56,56,56	0
57	MG	2a	3176	1/1	0.93	0.15	63,63,63,63	0
57	MG	1A	3630	1/1	0.93	0.20	28,28,28,28	0
57	MG	2a	3179	1/1	0.93	0.14	76,76,76,76	0
57	MG	1A	3730	1/1	0.93	0.37	39,39,39,39	0
57	MG	2a	3182	1/1	0.93	0.20	57,57,57,57	0
57	MG	1A	4006	1/1	0.93	0.12	44,44,44,44	0
57	MG	2A	3665	1/1	0.93	0.09	58,58,58,58	0
57	MG	1A	3067	1/1	0.93	0.23	42,42,42,42	0
57	MG	1a	1642	1/1	0.93	0.13	58,58,58,58	0
57	MG	2A	3359	1/1	0.93	0.11	59,59,59,59	0
57	MG	1A	3633	1/1	0.93	0.20	46,46,46,46	0
57	MG	2A	3140	1/1	0.93	0.28	58,58,58,58	0
57	MG	1A	3130	1/1	0.93	0.09	26,26,26,26	0
57	MG	1a	1647	1/1	0.93	0.13	50,50,50,50	0
57	MG	2A	3680	1/1	0.93	0.18	47,47,47,47	0
57	MG	1A	3421	1/1	0.93	0.16	18,18,18,18	0
57	MG	1A	3092	1/1	0.93	0.16	47,47,47,47	0
57	MG	1A	3819	1/1	0.94	0.16	27,27,27,27	0
57	MG	1A	3026	1/1	0.94	0.16	26,26,26,26	0
57	MG	1A	3332	1/1	0.94	0.12	52,52,52,52	0
57	MG	2A	3265	1/1	0.94	0.20	30,30,30,30	0
57	MG	1l	202	1/1	0.94	0.12	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	2A	3268	1/1	0.94	0.13	71,71,71,71	0
57	MG	1a	1662	1/1	0.94	0.34	74,74,74,74	0
57	MG	2A	3632	1/1	0.94	0.15	38,38,38,38	0
57	MG	2A	3636	1/1	0.94	0.25	59,59,59,59	0
57	MG	1A	3824	1/1	0.94	0.22	49,49,49,49	0
57	MG	1o	3101	1/1	0.94	0.24	51,51,51,51	0
57	MG	1A	3546	1/1	0.94	0.13	23,23,23,23	0
57	MG	2A	3274	1/1	0.94	0.07	61,61,61,61	0
57	MG	1A	3827	1/1	0.94	0.30	34,34,34,34	0
57	MG	1A	4013	1/1	0.94	0.04	55,55,55,55	0
57	MG	1w	101	1/1	0.94	0.20	63,63,63,63	0
57	MG	1A	3438	1/1	0.94	0.16	25,25,25,25	0
57	MG	2A	3652	1/1	0.94	0.25	50,50,50,50	0
57	MG	1A	3334	1/1	0.94	0.27	40,40,40,40	0
57	MG	1A	3844	1/1	0.94	0.15	47,47,47,47	0
57	MG	1A	4021	1/1	0.94	0.19	51,51,51,51	0
57	MG	1a	1675	1/1	0.94	0.23	49,49,49,49	0
57	MG	1A	4022	1/1	0.94	0.23	66,66,66,66	0
57	MG	1A	4023	1/1	0.94	0.13	61,61,61,61	0
57	MG	2A	3661	1/1	0.94	0.20	73,73,73,73	0
57	MG	1a	1678	1/1	0.94	0.10	65,65,65,65	0
57	MG	1A	3691	1/1	0.94	0.18	66,66,66,66	0
57	MG	2A	3667	1/1	0.94	0.28	37,37,37,37	0
57	MG	2A	3669	1/1	0.94	0.17	56,56,56,56	0
57	MG	1A	3335	1/1	0.94	0.20	58,58,58,58	0
57	MG	1A	3217	1/1	0.94	0.27	31,31,31,31	0
57	MG	2A	3295	1/1	0.94	0.17	54,54,54,54	0
57	MG	2A	3674	1/1	0.94	0.14	45,45,45,45	0
57	MG	1A	3555	1/1	0.94	0.17	48,48,48,48	0
57	MG	1A	3219	1/1	0.94	0.29	55,55,55,55	0
57	MG	2A	3031	1/1	0.94	0.18	60,60,60,60	0
57	MG	1A	3444	1/1	0.94	0.22	24,24,24,24	0
57	MG	2A	3036	1/1	0.94	0.13	56,56,56,56	0
57	MG	1A	3012	1/1	0.94	0.19	41,41,41,41	0
57	MG	1A	3225	1/1	0.94	0.19	52,52,52,52	0
57	MG	2A	3686	1/1	0.94	0.45	47,47,47,47	0
57	MG	2A	3687	1/1	0.94	0.06	65,65,65,65	0
57	MG	1A	3448	1/1	0.94	0.19	27,27,27,27	0
57	MG	2A	3043	1/1	0.94	0.24	56,56,56,56	0
57	MG	1a	1693	1/1	0.94	0.17	58,58,58,58	0
57	MG	2A	3045	1/1	0.94	0.07	54,54,54,54	0
57	MG	2A	3311	1/1	0.94	0.27	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	1a	1694	1/1	0.94	0.11	53,53,53,53	0
57	MG	2A	3049	1/1	0.94	0.26	50,50,50,50	0
57	MG	2A	3700	1/1	0.94	0.16	49,49,49,49	0
57	MG	2A	3701	1/1	0.94	0.11	69,69,69,69	0
57	MG	2A	3702	1/1	0.94	0.19	60,60,60,60	0
57	MG	1A	3343	1/1	0.94	0.21	45,45,45,45	0
57	MG	2A	3052	1/1	0.94	0.10	60,60,60,60	0
57	MG	2A	3707	1/1	0.94	0.29	66,66,66,66	0
57	MG	2A	3053	1/1	0.94	0.34	44,44,44,44	0
57	MG	2A	3710	1/1	0.94	0.09	75,75,75,75	0
57	MG	2A	3054	1/1	0.94	0.15	58,58,58,58	0
57	MG	1A	3453	1/1	0.94	0.16	44,44,44,44	0
57	MG	1B	208	1/1	0.94	0.13	46,46,46,46	0
57	MG	2A	3721	1/1	0.94	0.20	56,56,56,56	0
57	MG	2A	3057	1/1	0.94	0.16	69,69,69,69	0
57	MG	1A	3227	1/1	0.94	0.10	40,40,40,40	0
57	MG	1B	210	1/1	0.94	0.14	60,60,60,60	0
57	MG	1A	3291	1/1	0.94	0.29	42,42,42,42	0
57	MG	1A	3711	1/1	0.94	0.19	57,57,57,57	0
57	MG	1A	3712	1/1	0.94	0.17	39,39,39,39	0
57	MG	2A	3332	1/1	0.94	0.18	28,28,28,28	0
57	MG	2A	3065	1/1	0.94	0.17	51,51,51,51	0
57	MG	1A	3348	1/1	0.94	0.19	46,46,46,46	0
57	MG	1A	3579	1/1	0.94	0.14	41,41,41,41	0
57	MG	1A	3875	1/1	0.94	0.12	39,39,39,39	0
57	MG	1a	1707	1/1	0.94	0.07	69,69,69,69	0
57	MG	2B	201	1/1	0.94	0.09	67,67,67,67	0
57	MG	1A	3876	1/1	0.94	0.17	61,61,61,61	0
57	MG	1A	3877	1/1	0.94	0.12	29,29,29,29	0
57	MG	2B	204	1/1	0.94	0.32	61,61,61,61	0
57	MG	2B	205	1/1	0.94	0.29	58,58,58,58	0
57	MG	1A	3181	1/1	0.94	0.20	52,52,52,52	0
57	MG	2A	3077	1/1	0.94	0.24	52,52,52,52	0
57	MG	2B	209	1/1	0.94	0.24	55,55,55,55	0
57	MG	1A	3462	1/1	0.94	0.28	62,62,62,62	0
57	MG	2A	3349	1/1	0.94	0.07	41,41,41,41	0
57	MG	2A	3082	1/1	0.94	0.33	44,44,44,44	0
57	MG	1A	3584	1/1	0.94	0.15	42,42,42,42	0
57	MG	2A	3084	1/1	0.94	0.18	40,40,40,40	0
57	MG	2A	3358	1/1	0.94	0.25	34,34,34,34	0
57	MG	1A	3883	1/1	0.94	0.21	24,24,24,24	0
57	MG	1A	3152	1/1	0.94	0.16	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	2A	3365	1/1	0.94	0.21	29,29,29,29	0
57	MG	1A	3587	1/1	0.94	0.20	13,13,13,13	0
57	MG	2D	307	1/1	0.94	0.18	41,41,41,41	0
57	MG	2A	3088	1/1	0.94	0.13	49,49,49,49	0
57	MG	1A	3359	1/1	0.94	0.17	37,37,37,37	0
57	MG	1A	3295	1/1	0.94	0.15	53,53,53,53	0
57	MG	1A	3362	1/1	0.94	0.09	40,40,40,40	0
57	MG	2E	306	1/1	0.94	0.07	60,60,60,60	0
57	MG	2A	3381	1/1	0.94	0.27	59,59,59,59	0
57	MG	1A	3106	1/1	0.94	0.16	30,30,30,30	0
57	MG	2G	201	1/1	0.94	0.08	70,70,70,70	0
57	MG	2A	3385	1/1	0.94	0.14	38,38,38,38	0
57	MG	1D	314	1/1	0.94	0.09	59,59,59,59	0
57	MG	1A	3599	1/1	0.94	0.26	43,43,43,43	0
57	MG	2Q	202	1/1	0.94	0.43	57,57,57,57	0
57	MG	2R	201	1/1	0.94	0.17	53,53,53,53	0
57	MG	2A	3096	1/1	0.94	0.15	42,42,42,42	0
57	MG	1A	3600	1/1	0.94	0.53	48,48,48,48	0
57	MG	1A	3477	1/1	0.94	0.09	49,49,49,49	0
57	MG	2V	201	1/1	0.94	0.12	63,63,63,63	0
57	MG	1A	3605	1/1	0.94	0.21	44,44,44,44	0
57	MG	2X	101	1/1	0.94	0.14	54,54,54,54	0
57	MG	2Y	201	1/1	0.94	0.24	52,52,52,52	0
57	MG	1A	3372	1/1	0.94	0.18	26,26,26,26	0
57	MG	1F	302	1/1	0.94	0.23	28,28,28,28	0
57	MG	25	102	1/1	0.94	0.33	43,43,43,43	0
57	MG	1F	306	1/1	0.94	0.11	31,31,31,31	0
57	MG	1A	3611	1/1	0.94	0.19	24,24,24,24	0
57	MG	1a	1742	1/1	0.94	0.12	71,71,71,71	0
57	MG	2A	3409	1/1	0.94	0.08	62,62,62,62	0
57	MG	2A	3410	1/1	0.94	0.22	61,61,61,61	0
57	MG	1a	1746	1/1	0.94	0.21	69,69,69,69	0
57	MG	2A	3413	1/1	0.94	0.20	33,33,33,33	0
57	MG	1A	3612	1/1	0.94	0.15	44,44,44,44	0
57	MG	2A	3415	1/1	0.94	0.15	49,49,49,49	0
57	MG	1A	3090	1/1	0.94	0.17	53,53,53,53	0
57	MG	2A	3111	1/1	0.94	0.13	63,63,63,63	0
57	MG	2A	3114	1/1	0.94	0.23	44,44,44,44	0
57	MG	2A	3116	1/1	0.94	0.28	41,41,41,41	0
57	MG	1A	3134	1/1	0.94	0.34	35,35,35,35	0
57	MG	1G	203	1/1	0.94	0.12	49,49,49,49	0
57	MG	1H	201	1/1	0.94	0.20	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	2A	3427	1/1	0.94	0.19	32,32,32,32	0
57	MG	1N	203	1/1	0.94	0.10	62,62,62,62	0
57	MG	2A	3432	1/1	0.94	0.18	35,35,35,35	0
57	MG	1A	3233	1/1	0.94	0.24	37,37,37,37	0
57	MG	2A	3437	1/1	0.94	0.16	39,39,39,39	0
57	MG	1A	3083	1/1	0.94	0.28	51,51,51,51	0
57	MG	1Q	204	1/1	0.94	0.16	31,31,31,31	0
57	MG	1A	3307	1/1	0.94	0.16	71,71,71,71	0
57	MG	1A	3629	1/1	0.94	0.19	35,35,35,35	0
57	MG	1A	3196	1/1	0.94	0.46	44,44,44,44	0
57	MG	1a	1769	1/1	0.94	0.21	53,53,53,53	0
57	MG	1a	1770	1/1	0.94	0.10	55,55,55,55	0
57	MG	1A	3242	1/1	0.94	0.14	34,34,34,34	0
57	MG	1A	3161	1/1	0.94	0.18	34,34,34,34	0
57	MG	1A	3635	1/1	0.94	0.12	57,57,57,57	0
57	MG	2A	3451	1/1	0.94	0.11	56,56,56,56	0
57	MG	2a	3037	1/1	0.94	0.08	69,69,69,69	0
57	MG	2A	3456	1/1	0.94	0.12	56,56,56,56	0
57	MG	1W	202	1/1	0.94	0.22	45,45,45,45	0
57	MG	2a	3040	1/1	0.94	0.24	64,64,64,64	0
57	MG	1A	3758	1/1	0.94	0.22	54,54,54,54	0
57	MG	1A	3164	1/1	0.94	0.26	36,36,36,36	0
57	MG	1A	3928	1/1	0.94	0.14	48,48,48,48	0
57	MG	2A	3142	1/1	0.94	0.19	55,55,55,55	0
57	MG	1a	1783	1/1	0.94	0.13	62,62,62,62	0
57	MG	1A	3247	1/1	0.94	0.24	51,51,51,51	0
57	MG	1A	3763	1/1	0.94	0.17	54,54,54,54	0
57	MG	1A	3638	1/1	0.94	0.17	22,22,22,22	0
57	MG	10	105	1/1	0.94	0.09	46,46,46,46	0
57	MG	10	106	1/1	0.94	0.11	47,47,47,47	0
57	MG	1A	3503	1/1	0.94	0.10	43,43,43,43	0
57	MG	1A	3024	1/1	0.94	0.22	27,27,27,27	0
57	MG	11	102	1/1	0.94	0.15	62,62,62,62	0
57	MG	2A	3155	1/1	0.94	0.22	50,50,50,50	0
57	MG	13	102	1/1	0.94	0.14	36,36,36,36	0
57	MG	2A	3477	1/1	0.94	0.13	57,57,57,57	0
57	MG	2A	3158	1/1	0.94	0.18	63,63,63,63	0
57	MG	1A	3768	1/1	0.94	0.08	53,53,53,53	0
57	MG	1A	3317	1/1	0.94	0.24	35,35,35,35	0
57	MG	1a	1799	1/1	0.94	0.07	66,66,66,66	0
57	MG	2a	3067	1/1	0.94	0.27	54,54,54,54	0
57	MG	2A	3497	1/1	0.94	0.13	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	1a	1801	1/1	0.94	0.18	69,69,69,69	0
57	MG	1A	3941	1/1	0.94	0.11	27,27,27,27	0
57	MG	1A	3773	1/1	0.94	0.16	47,47,47,47	0
57	MG	1a	1805	1/1	0.94	0.15	55,55,55,55	0
57	MG	1A	3943	1/1	0.94	0.19	73,73,73,73	0
57	MG	2A	3170	1/1	0.94	0.43	35,35,35,35	0
57	MG	15	3108	1/1	0.94	0.08	57,57,57,57	0
57	MG	1A	3945	1/1	0.94	0.18	47,47,47,47	0
57	MG	17	102	1/1	0.94	0.17	35,35,35,35	0
57	MG	1a	1811	1/1	0.94	0.12	55,55,55,55	0
57	MG	1a	1812	1/1	0.94	0.08	62,62,62,62	0
57	MG	2a	3084	1/1	0.94	0.12	65,65,65,65	0
57	MG	1A	3401	1/1	0.94	0.17	53,53,53,53	0
57	MG	1a	1815	1/1	0.94	0.14	65,65,65,65	0
57	MG	2A	3181	1/1	0.94	0.31	58,58,58,58	0
57	MG	18	101	1/1	0.94	0.12	39,39,39,39	0
57	MG	18	102	1/1	0.94	0.34	40,40,40,40	0
57	MG	1A	3644	1/1	0.94	0.14	50,50,50,50	0
57	MG	1A	3141	1/1	0.94	0.16	41,41,41,41	0
57	MG	1A	3648	1/1	0.94	0.17	23,23,23,23	0
57	MG	2A	3188	1/1	0.94	0.35	54,54,54,54	0
57	MG	1A	3779	1/1	0.94	0.15	55,55,55,55	0
57	MG	1A	3142	1/1	0.94	0.23	51,51,51,51	0
57	MG	1A	3514	1/1	0.94	0.17	24,24,24,24	0
57	MG	2A	3193	1/1	0.94	0.21	57,57,57,57	0
57	MG	2a	3108	1/1	0.94	0.21	46,46,46,46	0
57	MG	2A	3195	1/1	0.94	0.19	54,54,54,54	0
57	MG	2A	3196	1/1	0.94	0.10	62,62,62,62	0
57	MG	2A	3197	1/1	0.94	0.10	48,48,48,48	0
57	MG	2A	3199	1/1	0.94	0.15	56,56,56,56	0
57	MG	1A	3406	1/1	0.94	0.13	35,35,35,35	0
57	MG	1A	3206	1/1	0.94	0.09	46,46,46,46	0
57	MG	1a	1609	1/1	0.94	0.27	48,48,48,48	0
57	MG	2A	3204	1/1	0.94	0.14	46,46,46,46	0
57	MG	2A	3545	1/1	0.94	0.18	37,37,37,37	0
57	MG	1A	3521	1/1	0.94	0.13	52,52,52,52	0
57	MG	1A	3522	1/1	0.94	0.11	52,52,52,52	0
57	MG	2A	3208	1/1	0.94	0.18	64,64,64,64	0
57	MG	2a	3127	1/1	0.94	0.12	65,65,65,65	0
57	MG	1a	1835	1/1	0.94	0.26	78,78,78,78	0
57	MG	1a	1612	1/1	0.94	0.13	27,27,27,27	0
57	MG	1a	1838	1/1	0.94	0.13	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	1A	3524	1/1	0.94	0.10	44,44,44,44	0
57	MG	2a	3132	1/1	0.94	0.10	57,57,57,57	0
57	MG	1A	3525	1/1	0.94	0.13	39,39,39,39	0
57	MG	1A	3966	1/1	0.94	0.10	42,42,42,42	0
57	MG	2a	3139	1/1	0.94	0.24	67,67,67,67	0
57	MG	2A	3565	1/1	0.94	0.10	59,59,59,59	0
57	MG	2A	3566	1/1	0.94	0.10	60,60,60,60	0
57	MG	1A	3968	1/1	0.94	0.15	37,37,37,37	0
57	MG	2A	3218	1/1	0.94	0.34	55,55,55,55	0
57	MG	1A	3790	1/1	0.94	0.15	47,47,47,47	0
57	MG	2A	3221	1/1	0.94	0.13	50,50,50,50	0
57	MG	2A	3223	1/1	0.94	0.21	60,60,60,60	0
57	MG	2a	3152	1/1	0.94	0.16	66,66,66,66	0
57	MG	1A	3207	1/1	0.94	0.32	45,45,45,45	0
57	MG	1a	1850	1/1	0.94	0.19	50,50,50,50	0
57	MG	1A	3528	1/1	0.94	0.23	75,75,75,75	0
57	MG	1A	3793	1/1	0.94	0.14	33,33,33,33	0
57	MG	1a	1856	1/1	0.94	0.16	35,35,35,35	0
57	MG	1A	3669	1/1	0.94	0.68	48,48,48,48	0
57	MG	2A	3585	1/1	0.94	0.23	53,53,53,53	0
57	MG	2A	3587	1/1	0.94	0.27	53,53,53,53	0
57	MG	1a	1858	1/1	0.94	0.09	60,60,60,60	0
57	MG	1A	3419	1/1	0.94	0.11	40,40,40,40	0
57	MG	2A	3591	1/1	0.94	0.14	59,59,59,59	0
57	MG	1A	3208	1/1	0.94	0.30	42,42,42,42	0
57	MG	1A	3800	1/1	0.94	0.14	47,47,47,47	0
57	MG	1A	3986	1/1	0.94	0.13	45,45,45,45	0
57	MG	1A	3987	1/1	0.94	0.13	21,21,21,21	0
57	MG	1a	1636	1/1	0.94	0.17	68,68,68,68	0
57	MG	2A	3598	1/1	0.94	0.21	33,33,33,33	0
57	MG	2A	3599	1/1	0.94	0.18	45,45,45,45	0
57	MG	2A	3600	1/1	0.94	0.10	38,38,38,38	0
57	MG	1A	3674	1/1	0.94	0.14	37,37,37,37	0
57	MG	1A	3805	1/1	0.94	0.12	55,55,55,55	0
57	MG	1A	3675	1/1	0.94	0.26	25,25,25,25	0
57	MG	2a	3184	1/1	0.94	0.19	63,63,63,63	0
57	MG	1A	3076	1/1	0.94	0.23	34,34,34,34	0
57	MG	1A	3264	1/1	0.94	0.10	39,39,39,39	0
57	MG	2j	201	1/1	0.94	0.11	68,68,68,68	0
57	MG	1A	3428	1/1	0.94	0.19	54,54,54,54	0
57	MG	1a	1649	1/1	0.94	0.15	63,63,63,63	0
57	MG	1A	3994	1/1	0.94	0.23	31,31,31,31	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
59	MPD	1A	4031	8/8	0.94	0.18	50,54,58,60	0
59	MPD	18	103	8/8	0.94	0.29	28,35,38,40	0
57	MG	1A	3813	1/1	0.94	0.14	46,46,46,46	0
57	MG	2A	3613	1/1	0.94	0.18	60,60,60,60	0
57	MG	1A	3212	1/1	0.94	0.41	46,46,46,46	0
57	MG	1A	3172	1/1	0.94	0.24	31,31,31,31	0
57	MG	1A	3120	1/1	0.94	0.09	29,29,29,29	0
60	ZN	14	501	1/1	0.94	0.07	112,112,112,112	0
57	MG	1h	201	1/1	0.94	0.14	56,56,56,56	0
57	MG	2A	3619	1/1	0.94	0.15	73,73,73,73	0
57	MG	1A	3356	1/1	0.95	0.14	30,30,30,30	0
57	MG	1A	4000	1/1	0.95	0.29	50,50,50,50	0
57	MG	2A	3380	1/1	0.95	0.24	61,61,61,61	0
57	MG	1a	1625	1/1	0.95	0.18	51,51,51,51	0
57	MG	1A	3704	1/1	0.95	0.16	52,52,52,52	0
57	MG	1A	3848	1/1	0.95	0.19	29,29,29,29	0
57	MG	2A	3386	1/1	0.95	0.14	63,63,63,63	0
57	MG	1A	3850	1/1	0.95	0.15	53,53,53,53	0
57	MG	2A	3699	1/1	0.95	0.10	37,37,37,37	0
57	MG	1A	3358	1/1	0.95	0.14	34,34,34,34	0
57	MG	1a	1632	1/1	0.95	0.14	35,35,35,35	0
57	MG	1A	3457	1/1	0.95	0.10	58,58,58,58	0
57	MG	2A	3393	1/1	0.95	0.28	39,39,39,39	0
57	MG	2A	3394	1/1	0.95	0.16	46,46,46,46	0
57	MG	2A	3706	1/1	0.95	0.23	50,50,50,50	0
57	MG	1A	3458	1/1	0.95	0.26	40,40,40,40	0
57	MG	1A	3854	1/1	0.95	0.07	42,42,42,42	0
57	MG	1A	3855	1/1	0.95	0.12	41,41,41,41	0
57	MG	2A	3402	1/1	0.95	0.24	41,41,41,41	0
57	MG	1A	3189	1/1	0.95	0.19	35,35,35,35	0
57	MG	2A	3718	1/1	0.95	0.24	64,64,64,64	0
57	MG	1a	1639	1/1	0.95	0.07	53,53,53,53	0
57	MG	1a	1831	1/1	0.95	0.15	54,54,54,54	0
57	MG	1a	1832	1/1	0.95	0.16	54,54,54,54	0
57	MG	1a	1641	1/1	0.95	0.15	52,52,52,52	0
57	MG	2A	3154	1/1	0.95	0.18	48,48,48,48	0
57	MG	2A	3411	1/1	0.95	0.07	59,59,59,59	0
57	MG	1A	3108	1/1	0.95	0.21	34,34,34,34	0
57	MG	1A	3298	1/1	0.95	0.19	45,45,45,45	0
57	MG	1A	3713	1/1	0.95	0.16	36,36,36,36	0
57	MG	2A	3159	1/1	0.95	0.19	84,84,84,84	0
57	MG	1A	3585	1/1	0.95	0.12	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	1A	3363	1/1	0.95	0.14	35,35,35,35	0
57	MG	1A	3367	1/1	0.95	0.16	61,61,61,61	0
57	MG	1A	3368	1/1	0.95	0.28	57,57,57,57	0
57	MG	1A	3590	1/1	0.95	0.17	41,41,41,41	0
57	MG	1A	3019	1/1	0.95	0.21	25,25,25,25	0
57	MG	2A	3424	1/1	0.95	0.14	44,44,44,44	0
57	MG	1a	1848	1/1	0.95	0.15	52,52,52,52	0
57	MG	1a	1655	1/1	0.95	0.14	50,50,50,50	0
57	MG	1A	3871	1/1	0.95	0.18	36,36,36,36	0
57	MG	2A	3171	1/1	0.95	0.35	53,53,53,53	0
57	MG	1a	1657	1/1	0.95	0.14	62,62,62,62	0
57	MG	2A	3435	1/1	0.95	0.19	38,38,38,38	0
57	MG	2A	3436	1/1	0.95	0.17	74,74,74,74	0
57	MG	1a	1852	1/1	0.95	0.29	60,60,60,60	0
57	MG	1A	3474	1/1	0.95	0.18	17,17,17,17	0
57	MG	1A	3595	1/1	0.95	0.17	25,25,25,25	0
57	MG	1A	3725	1/1	0.95	0.16	41,41,41,41	0
57	MG	2D	301	1/1	0.95	0.42	42,42,42,42	0
57	MG	1A	3014	1/1	0.95	0.16	43,43,43,43	0
57	MG	1A	3727	1/1	0.95	0.15	31,31,31,31	0
57	MG	1a	1663	1/1	0.95	0.20	66,66,66,66	0
57	MG	2A	3446	1/1	0.95	0.23	45,45,45,45	0
57	MG	2A	3182	1/1	0.95	0.20	53,53,53,53	0
57	MG	1A	3728	1/1	0.95	0.38	34,34,34,34	0
57	MG	1A	3301	1/1	0.95	0.18	29,29,29,29	0
57	MG	1A	3086	1/1	0.95	0.20	39,39,39,39	0
57	MG	1B	214	1/1	0.95	0.14	33,33,33,33	0
57	MG	2A	3452	1/1	0.95	0.13	47,47,47,47	0
57	MG	2F	301	1/1	0.95	0.18	49,49,49,49	0
57	MG	1A	3375	1/1	0.95	0.17	28,28,28,28	0
57	MG	1a	1671	1/1	0.95	0.16	69,69,69,69	0
57	MG	1A	3481	1/1	0.95	0.19	32,32,32,32	0
57	MG	1A	3234	1/1	0.95	0.27	34,34,34,34	0
57	MG	1a	1872	1/1	0.95	0.13	45,45,45,45	0
57	MG	1A	3610	1/1	0.95	0.11	51,51,51,51	0
57	MG	2Q	201	1/1	0.95	0.23	65,65,65,65	0
57	MG	2A	3194	1/1	0.95	0.21	41,41,41,41	0
57	MG	1A	3483	1/1	0.95	0.18	25,25,25,25	0
57	MG	1A	3888	1/1	0.95	0.06	33,33,33,33	0
57	MG	1A	3195	1/1	0.95	0.21	30,30,30,30	0
57	MG	1A	3613	1/1	0.95	0.22	39,39,39,39	0
57	MG	2A	3200	1/1	0.95	0.11	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	1e	202	1/1	0.95	0.28	50,50,50,50	0
57	MG	2W	201	1/1	0.95	0.33	45,45,45,45	0
57	MG	2W	202	1/1	0.95	0.28	57,57,57,57	0
57	MG	1A	3486	1/1	0.95	0.11	44,44,44,44	0
57	MG	1A	3382	1/1	0.95	0.13	51,51,51,51	0
57	MG	20	101	1/1	0.95	0.24	53,53,53,53	0
57	MG	1A	3237	1/1	0.95	0.18	29,29,29,29	0
57	MG	1g	202	1/1	0.95	0.06	55,55,55,55	0
57	MG	2A	3206	1/1	0.95	0.25	58,58,58,58	0
57	MG	2A	3480	1/1	0.95	0.18	54,54,54,54	0
57	MG	2A	3481	1/1	0.95	0.19	45,45,45,45	0
57	MG	1A	3238	1/1	0.95	0.24	32,32,32,32	0
57	MG	1A	3621	1/1	0.95	0.12	52,52,52,52	0
57	MG	1A	3622	1/1	0.95	0.36	31,31,31,31	0
57	MG	2A	3486	1/1	0.95	0.19	47,47,47,47	0
57	MG	2a	3004	1/1	0.95	0.23	60,60,60,60	0
57	MG	2A	3487	1/1	0.95	0.15	55,55,55,55	0
57	MG	2A	3489	1/1	0.95	0.24	61,61,61,61	0
57	MG	2A	3210	1/1	0.95	0.25	59,59,59,59	0
57	MG	2A	3494	1/1	0.95	0.10	49,49,49,49	0
57	MG	2A	3496	1/1	0.95	0.06	66,66,66,66	0
57	MG	1A	3066	1/1	0.95	0.19	39,39,39,39	0
57	MG	2a	3011	1/1	0.95	0.07	62,62,62,62	0
57	MG	1a	1687	1/1	0.95	0.11	60,60,60,60	0
57	MG	1A	3495	1/1	0.95	0.13	50,50,50,50	0
57	MG	1a	1689	1/1	0.95	0.22	45,45,45,45	0
57	MG	1n	103	1/1	0.95	0.19	70,70,70,70	0
57	MG	1a	1690	1/1	0.95	0.12	67,67,67,67	0
57	MG	1a	1691	1/1	0.95	0.13	60,60,60,60	0
57	MG	1A	3496	1/1	0.95	0.23	22,22,22,22	0
57	MG	2a	3020	1/1	0.95	0.08	80,80,80,80	0
57	MG	2A	3507	1/1	0.95	0.11	44,44,44,44	0
57	MG	1A	3756	1/1	0.95	0.21	59,59,59,59	0
57	MG	2A	3222	1/1	0.95	0.64	49,49,49,49	0
57	MG	1y	203	1/1	0.95	0.14	68,68,68,68	0
57	MG	2A	3511	1/1	0.95	0.13	55,55,55,55	0
57	MG	2A	3512	1/1	0.95	0.08	70,70,70,70	0
57	MG	2a	3028	1/1	0.95	0.17	67,67,67,67	0
57	MG	1A	3240	1/1	0.95	0.19	22,22,22,22	0
57	MG	1x	102	1/1	0.95	0.19	34,34,34,34	0
57	MG	1A	3241	1/1	0.95	0.36	38,38,38,38	0
57	MG	1A	3393	1/1	0.95	0.16	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	2a	3033	1/1	0.95	0.25	65,65,65,65	0
57	MG	1A	3125	1/1	0.95	0.22	47,47,47,47	0
57	MG	1E	307	1/1	0.95	0.13	49,49,49,49	0
57	MG	1A	3047	1/1	0.95	0.22	48,48,48,48	0
57	MG	1A	3127	1/1	0.95	0.17	37,37,37,37	0
57	MG	2A	3012	1/1	0.95	0.14	27,27,27,27	0
57	MG	1F	304	1/1	0.95	0.23	30,30,30,30	0
57	MG	1A	3128	1/1	0.95	0.21	57,57,57,57	0
57	MG	2a	3041	1/1	0.95	0.25	64,64,64,64	0
57	MG	2A	3016	1/1	0.95	0.56	42,42,42,42	0
57	MG	2a	3043	1/1	0.95	0.13	72,72,72,72	0
57	MG	2A	3019	1/1	0.95	0.20	45,45,45,45	0
57	MG	1A	3055	1/1	0.95	0.15	33,33,33,33	0
57	MG	1A	3403	1/1	0.95	0.20	47,47,47,47	0
57	MG	1A	3249	1/1	0.95	0.31	27,27,27,27	0
57	MG	1G	201	1/1	0.95	0.14	67,67,67,67	0
57	MG	2A	3025	1/1	0.95	0.10	34,34,34,34	0
57	MG	2A	3540	1/1	0.95	0.25	54,54,54,54	0
57	MG	2A	3026	1/1	0.95	0.22	58,58,58,58	0
57	MG	2A	3249	1/1	0.95	0.33	52,52,52,52	0
57	MG	1A	3204	1/1	0.95	0.15	50,50,50,50	0
57	MG	2A	3030	1/1	0.95	0.18	52,52,52,52	0
57	MG	1A	3407	1/1	0.95	0.13	40,40,40,40	0
57	MG	2A	3548	1/1	0.95	0.22	26,26,26,26	0
57	MG	1A	3647	1/1	0.95	0.11	31,31,31,31	0
57	MG	1A	3520	1/1	0.95	0.18	48,48,48,48	0
57	MG	2A	3552	1/1	0.95	0.11	63,63,63,63	0
57	MG	2A	3554	1/1	0.95	0.14	71,71,71,71	0
57	MG	2A	3555	1/1	0.95	0.28	59,59,59,59	0
57	MG	2a	3065	1/1	0.95	0.09	64,64,64,64	0
57	MG	1A	3934	1/1	0.95	0.09	32,32,32,32	0
57	MG	1O	201	1/1	0.95	0.10	48,48,48,48	0
57	MG	1A	3777	1/1	0.95	0.12	20,20,20,20	0
57	MG	1A	3162	1/1	0.95	0.22	30,30,30,30	0
57	MG	1Q	205	1/1	0.95	0.18	51,51,51,51	0
57	MG	1A	3414	1/1	0.95	0.20	21,21,21,21	0
57	MG	1A	3523	1/1	0.95	0.17	48,48,48,48	0
57	MG	1A	3416	1/1	0.95	0.19	23,23,23,23	0
57	MG	2a	3075	1/1	0.95	0.16	63,63,63,63	0
57	MG	1A	3782	1/1	0.95	0.16	38,38,38,38	0
57	MG	2a	3077	1/1	0.95	0.23	49,49,49,49	0
57	MG	2A	3051	1/1	0.95	0.14	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	1a	1725	1/1	0.95	0.17	51,51,51,51	0
57	MG	1T	203	1/1	0.95	0.16	63,63,63,63	0
57	MG	1T	204	1/1	0.95	0.09	61,61,61,61	0
57	MG	1U	202	1/1	0.95	0.26	41,41,41,41	0
57	MG	2A	3575	1/1	0.95	0.23	70,70,70,70	0
57	MG	2A	3577	1/1	0.95	0.11	60,60,60,60	0
57	MG	1A	3074	1/1	0.95	0.14	29,29,29,29	0
57	MG	1U	206	1/1	0.95	0.20	37,37,37,37	0
57	MG	1A	3944	1/1	0.95	0.19	35,35,35,35	0
57	MG	1W	201	1/1	0.95	0.32	51,51,51,51	0
57	MG	1A	3165	1/1	0.95	0.20	33,33,33,33	0
57	MG	2A	3061	1/1	0.95	0.14	45,45,45,45	0
57	MG	1a	1739	1/1	0.95	0.14	79,79,79,79	0
57	MG	2A	3586	1/1	0.95	0.17	47,47,47,47	0
57	MG	1A	3664	1/1	0.95	0.17	41,41,41,41	0
57	MG	1a	1745	1/1	0.95	0.09	59,59,59,59	0
57	MG	1A	3209	1/1	0.95	0.21	39,39,39,39	0
57	MG	2A	3289	1/1	0.95	0.34	38,38,38,38	0
57	MG	1Z	301	1/1	0.95	0.28	44,44,44,44	0
57	MG	1A	3950	1/1	0.95	0.14	31,31,31,31	0
57	MG	1A	3258	1/1	0.95	0.41	43,43,43,43	0
57	MG	2A	3073	1/1	0.95	0.16	48,48,48,48	0
57	MG	1A	3329	1/1	0.95	0.24	56,56,56,56	0
57	MG	1A	3427	1/1	0.95	0.07	61,61,61,61	0
57	MG	1A	3048	1/1	0.95	0.14	22,22,22,22	0
57	MG	1A	3211	1/1	0.95	0.18	40,40,40,40	0
57	MG	2A	3301	1/1	0.95	0.17	56,56,56,56	0
57	MG	10	107	1/1	0.95	0.13	48,48,48,48	0
57	MG	2A	3080	1/1	0.95	0.20	35,35,35,35	0
57	MG	1A	3132	1/1	0.95	0.27	46,46,46,46	0
57	MG	10	110	1/1	0.95	0.14	37,37,37,37	0
57	MG	1A	3433	1/1	0.95	0.24	53,53,53,53	0
57	MG	1a	1766	1/1	0.95	0.07	61,61,61,61	0
57	MG	1A	3795	1/1	0.95	0.14	59,59,59,59	0
57	MG	2A	3611	1/1	0.95	0.07	63,63,63,63	0
57	MG	2A	3310	1/1	0.95	0.28	53,53,53,53	0
57	MG	1A	3541	1/1	0.95	0.28	57,57,57,57	0
57	MG	2a	3133	1/1	0.95	0.12	33,33,33,33	0
57	MG	1A	3168	1/1	0.95	0.17	28,28,28,28	0
57	MG	1a	1771	1/1	0.95	0.12	63,63,63,63	0
57	MG	2A	3314	1/1	0.95	0.34	50,50,50,50	0
57	MG	1A	3049	1/1	0.95	0.12	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	1A	3802	1/1	0.95	0.10	43,43,43,43	0
57	MG	1a	1774	1/1	0.95	0.23	58,58,58,58	0
57	MG	1a	1775	1/1	0.95	0.20	61,61,61,61	0
57	MG	2a	3146	1/1	0.95	0.15	70,70,70,70	0
57	MG	1A	3274	1/1	0.95	0.21	36,36,36,36	0
57	MG	1A	3437	1/1	0.95	0.12	35,35,35,35	0
57	MG	1A	3135	1/1	0.95	0.25	33,33,33,33	0
57	MG	2A	3625	1/1	0.95	0.14	58,58,58,58	0
57	MG	2a	3153	1/1	0.95	0.07	57,57,57,57	0
57	MG	2A	3326	1/1	0.95	0.17	54,54,54,54	0
57	MG	2A	3098	1/1	0.95	0.28	60,60,60,60	0
57	MG	2A	3629	1/1	0.95	0.14	54,54,54,54	0
57	MG	1A	3973	1/1	0.95	0.18	18,18,18,18	0
57	MG	2a	3159	1/1	0.95	0.21	61,61,61,61	0
57	MG	1A	3975	1/1	0.95	0.16	64,64,64,64	0
57	MG	1A	3281	1/1	0.95	0.10	58,58,58,58	0
57	MG	2A	3103	1/1	0.95	0.18	53,53,53,53	0
57	MG	1A	3078	1/1	0.95	0.23	33,33,33,33	0
57	MG	1A	3342	1/1	0.95	0.12	58,58,58,58	0
57	MG	1A	3138	1/1	0.95	0.18	26,26,26,26	0
57	MG	2A	3648	1/1	0.95	0.19	27,27,27,27	0
57	MG	1A	3982	1/1	0.95	0.25	46,46,46,46	0
57	MG	19	103	1/1	0.95	0.07	68,68,68,68	0
57	MG	1a	1601	1/1	0.95	0.26	58,58,58,58	0
57	MG	1A	3556	1/1	0.95	0.12	54,54,54,54	0
57	MG	2a	3173	1/1	0.95	0.09	60,60,60,60	0
57	MG	1A	3221	1/1	0.95	0.24	54,54,54,54	0
57	MG	1A	3034	1/1	0.95	0.12	40,40,40,40	0
57	MG	2A	3344	1/1	0.95	0.17	58,58,58,58	0
57	MG	2A	3345	1/1	0.95	0.16	39,39,39,39	0
57	MG	2A	3346	1/1	0.95	0.17	40,40,40,40	0
57	MG	1A	3560	1/1	0.95	0.10	25,25,25,25	0
57	MG	2a	3181	1/1	0.95	0.36	60,60,60,60	0
57	MG	1A	3061	1/1	0.95	0.27	36,36,36,36	0
57	MG	2a	3183	1/1	0.95	0.29	56,56,56,56	0
57	MG	1A	3821	1/1	0.95	0.09	42,42,42,42	0
57	MG	2A	3350	1/1	0.95	0.07	59,59,59,59	0
57	MG	1A	3567	1/1	0.95	0.09	39,39,39,39	0
57	MG	2A	3352	1/1	0.95	0.29	60,60,60,60	0
57	MG	1A	3447	1/1	0.95	0.23	33,33,33,33	0
57	MG	1A	3062	1/1	0.95	0.12	36,36,36,36	0
57	MG	2A	3357	1/1	0.95	0.27	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
58	ARG	1B	230	12/12	0.95	0.18	28,43,53,54	0
57	MG	1A	3143	1/1	0.95	0.23	42,42,42,42	0
57	MG	1A	3828	1/1	0.95	0.13	36,36,36,36	0
57	MG	2A	3360	1/1	0.95	0.20	51,51,51,51	0
57	MG	1a	1807	1/1	0.95	0.12	60,60,60,60	0
57	MG	2A	3678	1/1	0.95	0.24	57,57,57,57	0
57	MG	2A	3363	1/1	0.95	0.19	57,57,57,57	0
57	MG	1A	3355	1/1	0.95	0.18	21,21,21,21	0
57	MG	1A	3833	1/1	0.95	0.53	38,38,38,38	0
57	MG	1A	3702	1/1	0.95	0.20	40,40,40,40	0
57	MG	1A	3841	1/1	0.95	0.19	44,44,44,44	0
60	ZN	29	102	1/1	0.95	0.10	63,63,63,63	0
60	ZN	2n	102	1/1	0.95	0.06	88,88,88,88	0
57	MG	2A	3398	1/1	0.96	0.20	46,46,46,46	0
57	MG	1A	3561	1/1	0.96	0.14	33,33,33,33	0
57	MG	1A	3376	1/1	0.96	0.15	20,20,20,20	0
57	MG	2A	3403	1/1	0.96	0.14	54,54,54,54	0
57	MG	1A	3377	1/1	0.96	0.14	27,27,27,27	0
57	MG	2A	3152	1/1	0.96	0.15	38,38,38,38	0
57	MG	1A	3690	1/1	0.96	0.11	30,30,30,30	0
57	MG	1a	1621	1/1	0.96	0.12	66,66,66,66	0
57	MG	2A	3708	1/1	0.96	0.18	63,63,63,63	0
57	MG	1a	1826	1/1	0.96	0.19	67,67,67,67	0
57	MG	2A	3156	1/1	0.96	0.24	46,46,46,46	0
57	MG	1a	1622	1/1	0.96	0.20	49,49,49,49	0
57	MG	2A	3713	1/1	0.96	0.36	46,46,46,46	0
57	MG	2A	3714	1/1	0.96	0.15	53,53,53,53	0
57	MG	2A	3715	1/1	0.96	0.18	58,58,58,58	0
57	MG	1A	3179	1/1	0.96	0.17	29,29,29,29	0
57	MG	1A	3466	1/1	0.96	0.13	19,19,19,19	0
57	MG	1A	3571	1/1	0.96	0.10	25,25,25,25	0
57	MG	1a	1628	1/1	0.96	0.19	53,53,53,53	0
57	MG	1A	3313	1/1	0.96	0.24	36,36,36,36	0
57	MG	1A	3829	1/1	0.96	0.21	30,30,30,30	0
57	MG	2A	3165	1/1	0.96	0.21	43,43,43,43	0
57	MG	1A	3830	1/1	0.96	0.30	34,34,34,34	0
57	MG	1A	3180	1/1	0.96	0.23	21,21,21,21	0
57	MG	1A	3315	1/1	0.96	0.19	34,34,34,34	0
57	MG	1a	1837	1/1	0.96	0.13	70,70,70,70	0
57	MG	1A	4003	1/1	0.96	0.22	24,24,24,24	0
57	MG	1a	1839	1/1	0.96	0.06	70,70,70,70	0
57	MG	2A	3428	1/1	0.96	0.22	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	2A	3172	1/1	0.96	0.14	60,60,60,60	0
57	MG	1A	3836	1/1	0.96	0.14	41,41,41,41	0
57	MG	2A	3433	1/1	0.96	0.15	63,63,63,63	0
57	MG	1A	3472	1/1	0.96	0.17	44,44,44,44	0
57	MG	1A	3385	1/1	0.96	0.10	45,45,45,45	0
57	MG	1a	1638	1/1	0.96	0.10	69,69,69,69	0
57	MG	1a	1845	1/1	0.96	0.08	64,64,64,64	0
57	MG	2A	3438	1/1	0.96	0.10	34,34,34,34	0
57	MG	1A	3843	1/1	0.96	0.11	33,33,33,33	0
57	MG	1A	3700	1/1	0.96	0.07	32,32,32,32	0
57	MG	1A	4015	1/1	0.96	0.15	37,37,37,37	0
57	MG	1A	4016	1/1	0.96	0.07	40,40,40,40	0
57	MG	2B	213	1/1	0.96	0.15	71,71,71,71	0
57	MG	1A	3701	1/1	0.96	0.10	38,38,38,38	0
57	MG	1A	3577	1/1	0.96	0.19	41,41,41,41	0
57	MG	1A	3016	1/1	0.96	0.21	35,35,35,35	0
57	MG	1A	3580	1/1	0.96	0.16	63,63,63,63	0
57	MG	1A	3259	1/1	0.96	0.15	44,44,44,44	0
57	MG	1A	3182	1/1	0.96	0.17	28,28,28,28	0
57	MG	2A	3189	1/1	0.96	0.24	53,53,53,53	0
57	MG	1a	1652	1/1	0.96	0.13	58,58,58,58	0
57	MG	1A	3583	1/1	0.96	0.16	49,49,49,49	0
57	MG	2A	3453	1/1	0.96	0.16	40,40,40,40	0
57	MG	2A	3454	1/1	0.96	0.22	61,61,61,61	0
57	MG	1a	1654	1/1	0.96	0.09	71,71,71,71	0
57	MG	2E	301	1/1	0.96	0.22	68,68,68,68	0
57	MG	2E	303	1/1	0.96	0.18	47,47,47,47	0
57	MG	1A	3708	1/1	0.96	0.13	34,34,34,34	0
57	MG	1A	3263	1/1	0.96	0.17	27,27,27,27	0
57	MG	1A	3857	1/1	0.96	0.13	38,38,38,38	0
57	MG	2E	308	1/1	0.96	0.23	59,59,59,59	0
57	MG	1A	3392	1/1	0.96	0.12	48,48,48,48	0
57	MG	1A	4029	1/1	0.96	0.12	52,52,52,52	0
57	MG	2A	3463	1/1	0.96	0.10	65,65,65,65	0
57	MG	1A	3185	1/1	0.96	0.13	26,26,26,26	0
57	MG	1A	3394	1/1	0.96	0.22	47,47,47,47	0
57	MG	1A	3484	1/1	0.96	0.23	62,62,62,62	0
57	MG	1b	301	1/1	0.96	0.15	60,60,60,60	0
57	MG	2P	202	1/1	0.96	0.18	55,55,55,55	0
57	MG	1A	3266	1/1	0.96	0.11	67,67,67,67	0
57	MG	1a	1664	1/1	0.96	0.21	52,52,52,52	0
57	MG	1A	3396	1/1	0.96	0.20	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	1A	3592	1/1	0.96	0.07	35,35,35,35	0
57	MG	2T	201	1/1	0.96	0.10	59,59,59,59	0
57	MG	2A	3473	1/1	0.96	0.14	64,64,64,64	0
57	MG	1A	3593	1/1	0.96	0.16	63,63,63,63	0
57	MG	2T	204	1/1	0.96	0.21	50,50,50,50	0
57	MG	1e	201	1/1	0.96	0.24	52,52,52,52	0
57	MG	1A	3487	1/1	0.96	0.14	58,58,58,58	0
57	MG	1A	3720	1/1	0.96	0.30	52,52,52,52	0
57	MG	1A	3397	1/1	0.96	0.13	42,42,42,42	0
57	MG	1B	212	1/1	0.96	0.11	56,56,56,56	0
57	MG	1A	3723	1/1	0.96	0.07	55,55,55,55	0
57	MG	1A	3491	1/1	0.96	0.17	22,22,22,22	0
57	MG	2I	101	1/1	0.96	0.09	53,53,53,53	0
57	MG	1A	3324	1/1	0.96	0.16	53,53,53,53	0
57	MG	2I	104	1/1	0.96	0.18	51,51,51,51	0
57	MG	1A	3267	1/1	0.96	0.24	49,49,49,49	0
57	MG	1A	3400	1/1	0.96	0.19	26,26,26,26	0
57	MG	1A	3603	1/1	0.96	0.08	36,36,36,36	0
57	MG	2A	3490	1/1	0.96	0.17	32,32,32,32	0
57	MG	1A	3604	1/1	0.96	0.21	42,42,42,42	0
57	MG	2A	3493	1/1	0.96	0.15	58,58,58,58	0
57	MG	1A	3269	1/1	0.96	0.14	30,30,30,30	0
57	MG	1a	1681	1/1	0.96	0.11	66,66,66,66	0
57	MG	1B	225	1/1	0.96	0.10	57,57,57,57	0
57	MG	2A	3499	1/1	0.96	0.18	56,56,56,56	0
57	MG	1A	3882	1/1	0.96	0.23	34,34,34,34	0
57	MG	1A	3096	1/1	0.96	0.19	15,15,15,15	0
57	MG	1A	3884	1/1	0.96	0.17	48,48,48,48	0
57	MG	1A	3733	1/1	0.96	0.10	25,25,25,25	0
57	MG	1A	3497	1/1	0.96	0.15	37,37,37,37	0
57	MG	2A	3231	1/1	0.96	0.26	48,48,48,48	0
57	MG	1x	101	1/1	0.96	0.14	39,39,39,39	0
57	MG	1A	3498	1/1	0.96	0.17	18,18,18,18	0
57	MG	1A	3499	1/1	0.96	0.15	29,29,29,29	0
57	MG	1A	3070	1/1	0.96	0.21	26,26,26,26	0
57	MG	1D	310	1/1	0.96	0.22	23,23,23,23	0
57	MG	2A	3005	1/1	0.96	0.17	38,38,38,38	0
57	MG	2A	3239	1/1	0.96	0.20	54,54,54,54	0
57	MG	2A	3513	1/1	0.96	0.15	60,60,60,60	0
57	MG	2a	3021	1/1	0.96	0.15	50,50,50,50	0
57	MG	1A	3226	1/1	0.96	0.30	32,32,32,32	0
57	MG	1A	3005	1/1	0.96	0.18	17,17,17,17	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	2A	3517	1/1	0.96	0.07	44,44,44,44	0
57	MG	1A	3616	1/1	0.96	0.14	36,36,36,36	0
57	MG	1A	3893	1/1	0.96	0.12	54,54,54,54	0
57	MG	2A	3520	1/1	0.96	0.13	75,75,75,75	0
57	MG	2A	3013	1/1	0.96	0.16	48,48,48,48	0
57	MG	1D	316	1/1	0.96	0.18	38,38,38,38	0
57	MG	1A	3894	1/1	0.96	0.17	30,30,30,30	0
57	MG	2A	3248	1/1	0.96	0.18	43,43,43,43	0
57	MG	1A	3617	1/1	0.96	0.08	47,47,47,47	0
57	MG	1a	1699	1/1	0.96	0.20	68,68,68,68	0
57	MG	2A	3020	1/1	0.96	0.27	45,45,45,45	0
57	MG	1A	3745	1/1	0.96	0.15	27,27,27,27	0
57	MG	1A	3276	1/1	0.96	0.16	26,26,26,26	0
57	MG	1A	3155	1/1	0.96	0.28	33,33,33,33	0
57	MG	2A	3535	1/1	0.96	0.27	52,52,52,52	0
57	MG	1A	3333	1/1	0.96	0.20	33,33,33,33	0
57	MG	1A	3278	1/1	0.96	0.22	52,52,52,52	0
57	MG	1A	3623	1/1	0.96	0.29	28,28,28,28	0
57	MG	1F	307	1/1	0.96	0.44	27,27,27,27	0
57	MG	1F	309	1/1	0.96	0.27	47,47,47,47	0
57	MG	1A	3624	1/1	0.96	0.15	55,55,55,55	0
57	MG	2a	3045	1/1	0.96	0.19	58,58,58,58	0
57	MG	1A	3509	1/1	0.96	0.20	18,18,18,18	0
57	MG	2A	3035	1/1	0.96	0.16	45,45,45,45	0
57	MG	1A	3909	1/1	0.96	0.21	21,21,21,21	0
57	MG	2A	3037	1/1	0.96	0.18	52,52,52,52	0
57	MG	1A	3101	1/1	0.96	0.14	35,35,35,35	0
57	MG	2a	3051	1/1	0.96	0.10	66,66,66,66	0
57	MG	1A	3157	1/1	0.96	0.12	55,55,55,55	0
57	MG	1A	3631	1/1	0.96	0.16	30,30,30,30	0
57	MG	1a	1714	1/1	0.96	0.12	56,56,56,56	0
57	MG	2A	3553	1/1	0.96	0.07	52,52,52,52	0
57	MG	1G	204	1/1	0.96	0.12	46,46,46,46	0
57	MG	1A	3917	1/1	0.96	0.11	15,15,15,15	0
57	MG	1H	202	1/1	0.96	0.14	61,61,61,61	0
57	MG	2A	3047	1/1	0.96	0.14	48,48,48,48	0
57	MG	1N	201	1/1	0.96	0.14	44,44,44,44	0
57	MG	2a	3061	1/1	0.96	0.30	63,63,63,63	0
57	MG	1A	3918	1/1	0.96	0.09	44,44,44,44	0
57	MG	1A	3158	1/1	0.96	0.38	40,40,40,40	0
57	MG	2A	3283	1/1	0.96	0.17	53,53,53,53	0
57	MG	1a	1721	1/1	0.96	0.12	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	1a	1722	1/1	0.96	0.21	68,68,68,68	0
57	MG	2A	3287	1/1	0.96	0.22	52,52,52,52	0
57	MG	1A	3921	1/1	0.96	0.17	53,53,53,53	0
57	MG	1O	202	1/1	0.96	0.12	56,56,56,56	0
57	MG	1P	201	1/1	0.96	0.14	26,26,26,26	0
57	MG	1A	3422	1/1	0.96	0.21	20,20,20,20	0
57	MG	2A	3292	1/1	0.96	0.38	62,62,62,62	0
57	MG	1A	3285	1/1	0.96	0.18	37,37,37,37	0
57	MG	2A	3294	1/1	0.96	0.19	54,54,54,54	0
57	MG	1a	1730	1/1	0.96	0.17	39,39,39,39	0
57	MG	1A	3519	1/1	0.96	0.10	64,64,64,64	0
57	MG	2A	3580	1/1	0.96	0.11	53,53,53,53	0
57	MG	1R	202	1/1	0.96	0.16	33,33,33,33	0
57	MG	1A	3925	1/1	0.96	0.09	58,58,58,58	0
57	MG	2A	3063	1/1	0.96	0.19	46,46,46,46	0
57	MG	1A	3340	1/1	0.96	0.31	53,53,53,53	0
57	MG	2a	3083	1/1	0.96	0.25	66,66,66,66	0
57	MG	1A	3766	1/1	0.96	0.15	32,32,32,32	0
57	MG	1A	3426	1/1	0.96	0.23	28,28,28,28	0
57	MG	1a	1740	1/1	0.96	0.23	37,37,37,37	0
57	MG	1a	1741	1/1	0.96	0.12	61,61,61,61	0
57	MG	1A	3159	1/1	0.96	0.90	40,40,40,40	0
57	MG	2A	3590	1/1	0.96	0.14	35,35,35,35	0
57	MG	1a	1744	1/1	0.96	0.15	60,60,60,60	0
57	MG	2A	3308	1/1	0.96	0.26	61,61,61,61	0
57	MG	2a	3095	1/1	0.96	0.36	54,54,54,54	0
57	MG	1A	3770	1/1	0.96	0.19	32,32,32,32	0
57	MG	1A	3932	1/1	0.96	0.12	53,53,53,53	0
57	MG	1U	203	1/1	0.96	0.42	35,35,35,35	0
57	MG	2a	3099	1/1	0.96	0.23	59,59,59,59	0
57	MG	1U	204	1/1	0.96	0.42	27,27,27,27	0
57	MG	1A	3771	1/1	0.96	0.12	44,44,44,44	0
57	MG	1A	3287	1/1	0.96	0.12	27,27,27,27	0
57	MG	2A	3081	1/1	0.96	0.26	45,45,45,45	0
57	MG	2A	3316	1/1	0.96	0.54	45,45,45,45	0
57	MG	2A	3318	1/1	0.96	0.20	51,51,51,51	0
57	MG	1A	3935	1/1	0.96	0.19	41,41,41,41	0
57	MG	1A	3102	1/1	0.96	0.30	27,27,27,27	0
57	MG	2a	3113	1/1	0.96	0.21	47,47,47,47	0
57	MG	1A	3344	1/1	0.96	0.18	25,25,25,25	0
57	MG	1A	3023	1/1	0.96	0.17	28,28,28,28	0
57	MG	1A	3029	1/1	0.96	0.15	27,27,27,27	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	1A	3940	1/1	0.96	0.14	60,60,60,60	0
57	MG	2a	3120	1/1	0.96	0.13	57,57,57,57	0
57	MG	1A	3087	1/1	0.96	0.48	40,40,40,40	0
57	MG	2a	3122	1/1	0.96	0.18	53,53,53,53	0
57	MG	1A	3530	1/1	0.96	0.15	38,38,38,38	0
57	MG	1A	3293	1/1	0.96	0.10	43,43,43,43	0
57	MG	2a	3125	1/1	0.96	0.15	61,61,61,61	0
57	MG	1a	1768	1/1	0.96	0.12	53,53,53,53	0
57	MG	1A	3201	1/1	0.96	0.24	50,50,50,50	0
57	MG	1A	3533	1/1	0.96	0.18	23,23,23,23	0
57	MG	1A	3653	1/1	0.96	0.16	41,41,41,41	0
57	MG	1A	3947	1/1	0.96	0.17	24,24,24,24	0
57	MG	2A	3334	1/1	0.96	0.17	23,23,23,23	0
57	MG	10	108	1/1	0.96	0.12	57,57,57,57	0
57	MG	2A	3336	1/1	0.96	0.19	40,40,40,40	0
57	MG	1A	3654	1/1	0.96	0.29	29,29,29,29	0
57	MG	1A	3351	1/1	0.96	0.23	15,15,15,15	0
57	MG	2a	3137	1/1	0.96	0.11	57,57,57,57	0
57	MG	1A	3659	1/1	0.96	0.21	50,50,50,50	0
57	MG	2a	3140	1/1	0.96	0.14	58,58,58,58	0
57	MG	2a	3141	1/1	0.96	0.19	68,68,68,68	0
57	MG	1A	3660	1/1	0.96	0.17	49,49,49,49	0
57	MG	1a	1779	1/1	0.96	0.15	63,63,63,63	0
57	MG	2A	3628	1/1	0.96	0.11	62,62,62,62	0
57	MG	13	101	1/1	0.96	0.17	27,27,27,27	0
57	MG	1A	3536	1/1	0.96	0.15	15,15,15,15	0
57	MG	2a	3147	1/1	0.96	0.17	51,51,51,51	0
57	MG	1A	3788	1/1	0.96	0.15	39,39,39,39	0
57	MG	1A	3352	1/1	0.96	0.17	20,20,20,20	0
57	MG	1A	3663	1/1	0.96	0.18	29,29,29,29	0
57	MG	2A	3640	1/1	0.96	0.12	56,56,56,56	0
57	MG	1A	3064	1/1	0.96	0.20	28,28,28,28	0
57	MG	1A	3030	1/1	0.96	0.17	25,25,25,25	0
57	MG	1A	3205	1/1	0.96	0.15	46,46,46,46	0
57	MG	1a	1788	1/1	0.96	0.15	62,62,62,62	0
57	MG	2A	3115	1/1	0.96	0.14	45,45,45,45	0
57	MG	1a	1789	1/1	0.96	0.11	64,64,64,64	0
57	MG	1A	3111	1/1	0.96	0.30	24,24,24,24	0
57	MG	2A	3356	1/1	0.96	0.24	61,61,61,61	0
57	MG	2a	3163	1/1	0.96	0.13	58,58,58,58	0
57	MG	2A	3653	1/1	0.96	0.12	34,34,34,34	0
57	MG	2A	3654	1/1	0.96	0.21	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	1A	3243	1/1	0.96	0.36	35,35,35,35	0
57	MG	1a	1792	1/1	0.96	0.11	61,61,61,61	0
57	MG	1A	3796	1/1	0.96	0.10	41,41,41,41	0
57	MG	17	104	1/1	0.96	0.15	51,51,51,51	0
57	MG	1a	1795	1/1	0.96	0.13	48,48,48,48	0
57	MG	1A	3112	1/1	0.96	0.26	28,28,28,28	0
57	MG	2A	3364	1/1	0.96	0.22	55,55,55,55	0
57	MG	1A	3079	1/1	0.96	0.35	49,49,49,49	0
57	MG	2A	3664	1/1	0.96	0.14	41,41,41,41	0
57	MG	1A	3671	1/1	0.96	0.11	48,48,48,48	0
57	MG	2A	3666	1/1	0.96	0.12	62,62,62,62	0
57	MG	2A	3367	1/1	0.96	0.16	55,55,55,55	0
57	MG	2a	3178	1/1	0.96	0.11	74,74,74,74	0
57	MG	1A	3801	1/1	0.96	0.14	31,31,31,31	0
57	MG	2A	3369	1/1	0.96	0.13	58,58,58,58	0
57	MG	2A	3671	1/1	0.96	0.21	47,47,47,47	0
57	MG	1A	3364	1/1	0.96	0.16	27,27,27,27	0
57	MG	2A	3375	1/1	0.96	0.23	44,44,44,44	0
57	MG	1A	3549	1/1	0.96	0.29	56,56,56,56	0
57	MG	2a	3186	1/1	0.96	0.13	77,77,77,77	0
57	MG	1A	3114	1/1	0.96	0.17	36,36,36,36	0
57	MG	1A	3978	1/1	0.96	0.10	44,44,44,44	0
57	MG	1A	3306	1/1	0.96	0.21	43,43,43,43	0
57	MG	1A	3553	1/1	0.96	0.13	28,28,28,28	0
57	MG	2A	3383	1/1	0.96	0.18	37,37,37,37	0
57	MG	2t	201	1/1	0.96	0.08	43,43,43,43	0
57	MG	1A	3981	1/1	0.96	0.10	24,24,24,24	0
57	MG	1A	3116	1/1	0.96	0.15	39,39,39,39	0
57	MG	1A	3455	1/1	0.96	0.21	28,28,28,28	0
57	MG	2A	3141	1/1	0.96	0.22	46,46,46,46	0
57	MG	2A	3390	1/1	0.96	0.18	33,33,33,33	0
57	MG	1A	3091	1/1	0.96	0.16	37,37,37,37	0
57	MG	1A	3031	1/1	0.96	0.19	15,15,15,15	0
57	MG	1A	3124	1/1	0.96	0.17	35,35,35,35	0
57	MG	1A	3214	1/1	0.96	0.50	49,49,49,49	0
57	MG	2A	3693	1/1	0.96	0.16	34,34,34,34	0
57	MG	2A	3395	1/1	0.96	0.22	75,75,75,75	0
57	MG	2A	3696	1/1	0.96	0.21	46,46,46,46	0
57	MG	1A	3818	1/1	0.96	0.12	43,43,43,43	0
57	MG	1a	1615	1/1	0.96	0.10	56,56,56,56	0
57	MG	1A	3045	1/1	0.97	0.18	23,23,23,23	0
57	MG	1A	3679	1/1	0.97	0.18	18,18,18,18	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	2A	3524	1/1	0.97	0.10	63,63,63,63	0
57	MG	2A	3525	1/1	0.97	0.10	64,64,64,64	0
57	MG	1A	3046	1/1	0.97	0.19	10,10,10,10	0
57	MG	1A	3163	1/1	0.97	0.35	28,28,28,28	0
57	MG	1T	205	1/1	0.97	0.10	49,49,49,49	0
57	MG	1U	201	1/1	0.97	0.26	29,29,29,29	0
57	MG	2A	3317	1/1	0.97	0.14	59,59,59,59	0
57	MG	2G	202	1/1	0.97	0.10	76,76,76,76	0
57	MG	1a	1853	1/1	0.97	0.13	50,50,50,50	0
57	MG	2A	3132	1/1	0.97	0.11	50,50,50,50	0
57	MG	2A	3534	1/1	0.97	0.20	63,63,63,63	0
57	MG	1A	3262	1/1	0.97	0.23	48,48,48,48	0
57	MG	1A	3597	1/1	0.97	0.18	23,23,23,23	0
57	MG	1A	3006	1/1	0.97	0.13	31,31,31,31	0
57	MG	1A	3685	1/1	0.97	0.11	44,44,44,44	0
57	MG	1A	3137	1/1	0.97	0.11	39,39,39,39	0
57	MG	1U	207	1/1	0.97	0.11	49,49,49,49	0
57	MG	1V	203	1/1	0.97	0.14	43,43,43,43	0
57	MG	1V	204	1/1	0.97	0.16	32,32,32,32	0
57	MG	1A	3093	1/1	0.97	0.29	32,32,32,32	0
57	MG	1a	1864	1/1	0.97	0.08	68,68,68,68	0
57	MG	1a	1865	1/1	0.97	0.13	60,60,60,60	0
57	MG	2A	3546	1/1	0.97	0.16	55,55,55,55	0
57	MG	2A	3547	1/1	0.97	0.23	38,38,38,38	0
57	MG	2W	203	1/1	0.97	0.15	60,60,60,60	0
57	MG	2A	3145	1/1	0.97	0.07	63,63,63,63	0
57	MG	1A	3602	1/1	0.97	0.10	48,48,48,48	0
57	MG	1a	1867	1/1	0.97	0.09	65,65,65,65	0
57	MG	1A	3346	1/1	0.97	0.18	37,37,37,37	0
57	MG	1A	3094	1/1	0.97	0.15	26,26,26,26	0
57	MG	1A	3115	1/1	0.97	0.18	28,28,28,28	0
57	MG	1A	3461	1/1	0.97	0.13	15,15,15,15	0
57	MG	1A	3608	1/1	0.97	0.11	57,57,57,57	0
57	MG	2A	3340	1/1	0.97	0.26	39,39,39,39	0
57	MG	2A	3558	1/1	0.97	0.19	36,36,36,36	0
57	MG	1A	4002	1/1	0.97	0.15	33,33,33,33	0
57	MG	1A	3609	1/1	0.97	0.11	58,58,58,58	0
57	MG	1A	3270	1/1	0.97	0.17	28,28,28,28	0
57	MG	1A	4005	1/1	0.97	0.14	30,30,30,30	0
57	MG	2a	3003	1/1	0.97	0.44	53,53,53,53	0
57	MG	1A	3202	1/1	0.97	0.18	31,31,31,31	0
57	MG	1A	3007	1/1	0.97	0.22	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	1A	3117	1/1	0.97	0.13	31,31,31,31	0
57	MG	1A	4011	1/1	0.97	0.15	38,38,38,38	0
57	MG	1e	203	1/1	0.97	0.32	68,68,68,68	0
57	MG	1A	4012	1/1	0.97	0.09	32,32,32,32	0
57	MG	1A	3535	1/1	0.97	0.16	36,36,36,36	0
57	MG	2A	3572	1/1	0.97	0.14	47,47,47,47	0
57	MG	2A	3164	1/1	0.97	0.27	43,43,43,43	0
57	MG	2a	3013	1/1	0.97	0.17	48,48,48,48	0
57	MG	1A	4014	1/1	0.97	0.12	40,40,40,40	0
57	MG	11	103	1/1	0.97	0.08	33,33,33,33	0
57	MG	1A	3353	1/1	0.97	0.26	49,49,49,49	0
57	MG	1A	3028	1/1	0.97	0.27	25,25,25,25	0
57	MG	1A	3897	1/1	0.97	0.15	30,30,30,30	0
57	MG	15	3101	1/1	0.97	0.19	26,26,26,26	0
57	MG	15	3102	1/1	0.97	0.15	34,34,34,34	0
57	MG	1A	3898	1/1	0.97	0.18	40,40,40,40	0
57	MG	2A	3362	1/1	0.97	0.15	51,51,51,51	0
57	MG	1A	3471	1/1	0.97	0.15	45,45,45,45	0
57	MG	1A	3146	1/1	0.97	0.12	32,32,32,32	0
57	MG	1A	3540	1/1	0.97	0.16	24,24,24,24	0
57	MG	1t	201	1/1	0.97	0.15	60,60,60,60	0
57	MG	1A	3408	1/1	0.97	0.18	28,28,28,28	0
57	MG	1a	1732	1/1	0.97	0.11	40,40,40,40	0
57	MG	1A	3797	1/1	0.97	0.10	34,34,34,34	0
57	MG	17	101	1/1	0.97	0.15	33,33,33,33	0
57	MG	2A	3372	1/1	0.97	0.14	38,38,38,38	0
57	MG	2A	3373	1/1	0.97	0.19	28,28,28,28	0
57	MG	1a	1735	1/1	0.97	0.08	55,55,55,55	0
57	MG	1A	3119	1/1	0.97	0.25	31,31,31,31	0
57	MG	2A	3377	1/1	0.97	0.17	45,45,45,45	0
57	MG	1a	1737	1/1	0.97	0.13	68,68,68,68	0
57	MG	1A	3411	1/1	0.97	0.16	29,29,29,29	0
57	MG	1A	3412	1/1	0.97	0.18	35,35,35,35	0
57	MG	1A	3479	1/1	0.97	0.08	58,58,58,58	0
57	MG	1A	3547	1/1	0.97	0.21	21,21,21,21	0
57	MG	2A	3006	1/1	0.97	0.15	40,40,40,40	0
57	MG	1B	201	1/1	0.97	0.20	46,46,46,46	0
57	MG	1a	1743	1/1	0.97	0.05	58,58,58,58	0
57	MG	2A	3010	1/1	0.97	0.11	48,48,48,48	0
57	MG	1A	3413	1/1	0.97	0.17	27,27,27,27	0
57	MG	1A	3913	1/1	0.97	0.15	18,18,18,18	0
57	MG	1A	3318	1/1	0.97	0.16	15,15,15,15	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	1a	1602	1/1	0.97	0.10	63,63,63,63	0
57	MG	1A	3415	1/1	0.97	0.16	20,20,20,20	0
57	MG	2A	3198	1/1	0.97	0.45	43,43,43,43	0
57	MG	1a	1750	1/1	0.97	0.26	61,61,61,61	0
57	MG	2A	3018	1/1	0.97	0.18	39,39,39,39	0
57	MG	1A	3097	1/1	0.97	0.11	43,43,43,43	0
57	MG	1A	3919	1/1	0.97	0.40	39,39,39,39	0
57	MG	1A	3808	1/1	0.97	0.20	26,26,26,26	0
57	MG	1A	3809	1/1	0.97	0.09	42,42,42,42	0
57	MG	1A	3634	1/1	0.97	0.11	35,35,35,35	0
57	MG	1A	3280	1/1	0.97	0.37	43,43,43,43	0
57	MG	2A	3406	1/1	0.97	0.08	44,44,44,44	0
57	MG	1a	1760	1/1	0.97	0.09	75,75,75,75	0
57	MG	1A	3123	1/1	0.97	0.16	35,35,35,35	0
57	MG	2A	3027	1/1	0.97	0.11	41,41,41,41	0
57	MG	2A	3028	1/1	0.97	0.15	31,31,31,31	0
57	MG	2A	3630	1/1	0.97	0.15	40,40,40,40	0
57	MG	2A	3631	1/1	0.97	0.21	51,51,51,51	0
57	MG	2A	3211	1/1	0.97	0.08	56,56,56,56	0
57	MG	2A	3633	1/1	0.97	0.17	43,43,43,43	0
57	MG	2A	3634	1/1	0.97	0.08	65,65,65,65	0
57	MG	1B	213	1/1	0.97	0.20	49,49,49,49	0
57	MG	2A	3637	1/1	0.97	0.24	56,56,56,56	0
57	MG	1a	1764	1/1	0.97	0.08	60,60,60,60	0
57	MG	1A	3814	1/1	0.97	0.15	52,52,52,52	0
57	MG	1A	3036	1/1	0.97	0.14	28,28,28,28	0
57	MG	2A	3641	1/1	0.97	0.18	48,48,48,48	0
57	MG	2A	3642	1/1	0.97	0.16	50,50,50,50	0
57	MG	2A	3643	1/1	0.97	0.12	40,40,40,40	0
57	MG	2A	3033	1/1	0.97	0.18	49,49,49,49	0
57	MG	1B	216	1/1	0.97	0.26	44,44,44,44	0
57	MG	1A	3365	1/1	0.97	0.12	39,39,39,39	0
57	MG	1A	3051	1/1	0.97	0.53	46,46,46,46	0
57	MG	2A	3220	1/1	0.97	0.21	40,40,40,40	0
57	MG	2A	3421	1/1	0.97	0.27	34,34,34,34	0
57	MG	1B	219	1/1	0.97	0.15	27,27,27,27	0
57	MG	2A	3423	1/1	0.97	0.17	47,47,47,47	0
57	MG	2a	3086	1/1	0.97	0.14	72,72,72,72	0
57	MG	1A	3020	1/1	0.97	0.37	35,35,35,35	0
57	MG	2a	3088	1/1	0.97	0.15	45,45,45,45	0
57	MG	1A	3369	1/1	0.97	0.19	23,23,23,23	0
57	MG	1a	1620	1/1	0.97	0.12	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	1A	3370	1/1	0.97	0.09	50,50,50,50	0
57	MG	1A	3245	1/1	0.97	0.13	23,23,23,23	0
57	MG	2A	3431	1/1	0.97	0.15	51,51,51,51	0
57	MG	2A	3227	1/1	0.97	0.18	49,49,49,49	0
57	MG	1a	1623	1/1	0.97	0.18	54,54,54,54	0
57	MG	1A	3564	1/1	0.97	0.11	33,33,33,33	0
57	MG	2A	3048	1/1	0.97	0.23	43,43,43,43	0
57	MG	1A	3823	1/1	0.97	0.28	40,40,40,40	0
57	MG	2a	3101	1/1	0.97	0.26	60,60,60,60	0
57	MG	1A	3565	1/1	0.97	0.26	50,50,50,50	0
57	MG	2a	3103	1/1	0.97	0.20	50,50,50,50	0
57	MG	2a	3104	1/1	0.97	0.12	56,56,56,56	0
57	MG	1A	3731	1/1	0.97	0.28	33,33,33,33	0
57	MG	2a	3106	1/1	0.97	0.32	60,60,60,60	0
57	MG	1A	3826	1/1	0.97	0.20	21,21,21,21	0
57	MG	1A	3429	1/1	0.97	0.12	25,25,25,25	0
57	MG	1D	302	1/1	0.97	0.14	39,39,39,39	0
57	MG	1D	304	1/1	0.97	0.14	36,36,36,36	0
57	MG	2A	3443	1/1	0.97	0.12	50,50,50,50	0
57	MG	1A	3568	1/1	0.97	0.20	38,38,38,38	0
57	MG	1A	3183	1/1	0.97	0.11	55,55,55,55	0
57	MG	1D	308	1/1	0.97	0.18	30,30,30,30	0
57	MG	1A	3288	1/1	0.97	0.16	22,22,22,22	0
57	MG	2a	3116	1/1	0.97	0.18	72,72,72,72	0
57	MG	1A	3184	1/1	0.97	0.68	40,40,40,40	0
57	MG	1A	3832	1/1	0.97	0.10	15,15,15,15	0
57	MG	1D	312	1/1	0.97	0.14	36,36,36,36	0
57	MG	1a	1640	1/1	0.97	0.16	63,63,63,63	0
57	MG	2A	3681	1/1	0.97	0.07	53,53,53,53	0
57	MG	2A	3682	1/1	0.97	0.12	60,60,60,60	0
57	MG	1A	3022	1/1	0.97	0.14	43,43,43,43	0
57	MG	1A	3834	1/1	0.97	0.12	31,31,31,31	0
57	MG	2A	3250	1/1	0.97	0.17	29,29,29,29	0
57	MG	2A	3455	1/1	0.97	0.10	53,53,53,53	0
57	MG	2A	3066	1/1	0.97	0.28	38,38,38,38	0
57	MG	2A	3457	1/1	0.97	0.16	38,38,38,38	0
57	MG	1A	3739	1/1	0.97	0.14	31,31,31,31	0
57	MG	2A	3253	1/1	0.97	0.29	32,32,32,32	0
57	MG	2A	3692	1/1	0.97	0.20	53,53,53,53	0
57	MG	1A	3656	1/1	0.97	0.14	33,33,33,33	0
57	MG	1a	1646	1/1	0.97	0.12	51,51,51,51	0
57	MG	2a	3135	1/1	0.97	0.16	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	2A	3071	1/1	0.97	0.19	45,45,45,45	0
57	MG	1A	3949	1/1	0.97	0.20	22,22,22,22	0
57	MG	2a	3138	1/1	0.97	0.25	56,56,56,56	0
57	MG	1a	1800	1/1	0.97	0.07	70,70,70,70	0
57	MG	2A	3260	1/1	0.97	0.49	55,55,55,55	0
57	MG	1A	3839	1/1	0.97	0.12	46,46,46,46	0
57	MG	2A	3467	1/1	0.97	0.15	45,45,45,45	0
57	MG	1a	1802	1/1	0.97	0.14	49,49,49,49	0
57	MG	1A	3840	1/1	0.97	0.19	36,36,36,36	0
57	MG	2A	3704	1/1	0.97	0.14	22,22,22,22	0
57	MG	2A	3264	1/1	0.97	0.41	36,36,36,36	0
57	MG	1A	3657	1/1	0.97	0.12	33,33,33,33	0
57	MG	2a	3148	1/1	0.97	0.09	68,68,68,68	0
57	MG	1A	3842	1/1	0.97	0.14	36,36,36,36	0
57	MG	2A	3079	1/1	0.97	0.15	48,48,48,48	0
57	MG	1F	301	1/1	0.97	0.12	23,23,23,23	0
57	MG	1A	3008	1/1	0.97	0.18	39,39,39,39	0
57	MG	1A	3250	1/1	0.97	0.16	32,32,32,32	0
57	MG	1F	305	1/1	0.97	0.20	37,37,37,37	0
57	MG	2A	3479	1/1	0.97	0.12	57,57,57,57	0
57	MG	1A	3845	1/1	0.97	0.23	52,52,52,52	0
57	MG	1A	3846	1/1	0.97	0.12	30,30,30,30	0
57	MG	2A	3717	1/1	0.97	0.10	52,52,52,52	0
57	MG	1F	308	1/1	0.97	0.18	26,26,26,26	0
57	MG	1A	3015	1/1	0.97	0.25	35,35,35,35	0
57	MG	2A	3720	1/1	0.97	0.23	61,61,61,61	0
57	MG	1F	310	1/1	0.97	0.10	31,31,31,31	0
57	MG	2A	3485	1/1	0.97	0.14	48,48,48,48	0
57	MG	2A	3089	1/1	0.97	0.17	70,70,70,70	0
57	MG	1A	3073	1/1	0.97	0.17	27,27,27,27	0
57	MG	2A	3488	1/1	0.97	0.09	45,45,45,45	0
57	MG	1a	1817	1/1	0.97	0.12	66,66,66,66	0
57	MG	2A	3727	1/1	0.97	0.12	76,76,76,76	0
57	MG	1a	1818	1/1	0.97	0.16	55,55,55,55	0
57	MG	1A	3504	1/1	0.97	0.18	31,31,31,31	0
57	MG	2A	3492	1/1	0.97	0.09	65,65,65,65	0
57	MG	1A	3505	1/1	0.97	0.15	35,35,35,35	0
57	MG	1A	3439	1/1	0.97	0.22	22,22,22,22	0
57	MG	2A	3495	1/1	0.97	0.07	66,66,66,66	0
57	MG	1a	1665	1/1	0.97	0.14	69,69,69,69	0
57	MG	1A	3967	1/1	0.97	0.12	27,27,27,27	0
57	MG	1A	3381	1/1	0.97	0.12	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	1A	3969	1/1	0.97	0.07	51,51,51,51	0
57	MG	1A	3970	1/1	0.97	0.17	37,37,37,37	0
57	MG	1A	3044	1/1	0.97	0.22	31,31,31,31	0
57	MG	1A	3297	1/1	0.97	0.22	17,17,17,17	0
57	MG	1A	3510	1/1	0.97	0.17	25,25,25,25	0
57	MG	2B	208	1/1	0.97	0.10	52,52,52,52	0
57	MG	1A	3384	1/1	0.97	0.12	15,15,15,15	0
57	MG	2e	202	1/1	0.97	0.07	70,70,70,70	0
57	MG	1A	3336	1/1	0.97	0.14	23,23,23,23	0
57	MG	1A	3759	1/1	0.97	0.14	24,24,24,24	0
57	MG	1A	3222	1/1	0.97	0.21	26,26,26,26	0
57	MG	2A	3299	1/1	0.97	0.06	49,49,49,49	0
57	MG	1P	202	1/1	0.97	0.15	25,25,25,25	0
57	MG	1P	203	1/1	0.97	0.11	37,37,37,37	0
57	MG	1A	3588	1/1	0.97	0.15	29,29,29,29	0
57	MG	1Q	203	1/1	0.97	0.15	39,39,39,39	0
57	MG	2D	302	1/1	0.97	0.28	33,33,33,33	0
57	MG	1A	3673	1/1	0.97	0.08	32,32,32,32	0
57	MG	2A	3515	1/1	0.97	0.16	56,56,56,56	0
57	MG	1a	1840	1/1	0.97	0.23	68,68,68,68	0
57	MG	1A	3387	1/1	0.97	0.16	16,16,16,16	0
57	MG	1A	3516	1/1	0.97	0.17	42,42,42,42	0
57	MG	2D	309	1/1	0.97	0.12	33,33,33,33	0
57	MG	1A	3109	1/1	0.97	0.19	32,32,32,32	0
57	MG	1R	204	1/1	0.97	0.13	40,40,40,40	0
57	MG	1A	3518	1/1	0.97	0.21	20,20,20,20	0
57	MG	2E	302	1/1	0.97	0.20	41,41,41,41	0
57	MG	1A	3812	1/1	0.98	0.07	51,51,51,51	0
57	MG	1A	3354	1/1	0.98	0.17	22,22,22,22	0
57	MG	1a	1855	1/1	0.98	0.12	60,60,60,60	0
57	MG	1A	3025	1/1	0.98	0.27	38,38,38,38	0
57	MG	1F	312	1/1	0.98	0.22	34,34,34,34	0
57	MG	1F	313	1/1	0.98	0.23	42,42,42,42	0
57	MG	1A	3150	1/1	0.98	0.34	24,24,24,24	0
57	MG	1A	3173	1/1	0.98	0.16	35,35,35,35	0
57	MG	1a	1627	1/1	0.98	0.11	57,57,57,57	0
57	MG	1A	3255	1/1	0.98	0.20	28,28,28,28	0
57	MG	1A	3742	1/1	0.98	0.12	36,36,36,36	0
57	MG	2A	3683	1/1	0.98	0.13	56,56,56,56	0
57	MG	1A	3550	1/1	0.98	0.13	23,23,23,23	0
57	MG	1A	3069	1/1	0.98	0.26	43,43,43,43	0
57	MG	1A	3905	1/1	0.98	0.05	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	1A	3361	1/1	0.98	0.21	28,28,28,28	0
57	MG	1A	3058	1/1	0.98	0.13	22,22,22,22	0
57	MG	2A	3374	1/1	0.98	0.20	31,31,31,31	0
57	MG	1a	1747	1/1	0.98	0.14	65,65,65,65	0
57	MG	1A	3071	1/1	0.98	0.20	31,31,31,31	0
57	MG	1A	3178	1/1	0.98	0.15	36,36,36,36	0
57	MG	2A	3233	1/1	0.98	0.39	44,44,44,44	0
57	MG	2A	3379	1/1	0.98	0.20	37,37,37,37	0
57	MG	2A	3695	1/1	0.98	0.20	41,41,41,41	0
57	MG	1A	3404	1/1	0.98	0.14	40,40,40,40	0
57	MG	1A	3912	1/1	0.98	0.10	26,26,26,26	0
57	MG	1A	3750	1/1	0.98	0.14	16,16,16,16	0
57	MG	1A	4007	1/1	0.98	0.57	43,43,43,43	0
57	MG	2A	3384	1/1	0.98	0.15	36,36,36,36	0
57	MG	2A	3102	1/1	0.98	0.14	54,54,54,54	0
57	MG	1A	3914	1/1	0.98	0.10	33,33,33,33	0
57	MG	2A	3387	1/1	0.98	0.11	48,48,48,48	0
57	MG	1a	1755	1/1	0.98	0.17	54,54,54,54	0
57	MG	1a	1757	1/1	0.98	0.10	61,61,61,61	0
57	MG	1Q	201	1/1	0.98	0.13	28,28,28,28	0
57	MG	1a	1643	1/1	0.98	0.29	49,49,49,49	0
57	MG	1A	4009	1/1	0.98	0.06	50,50,50,50	0
57	MG	1A	3751	1/1	0.98	0.15	39,39,39,39	0
57	MG	1a	1762	1/1	0.98	0.10	55,55,55,55	0
57	MG	2a	3072	1/1	0.98	0.36	40,40,40,40	0
57	MG	2A	3711	1/1	0.98	0.31	46,46,46,46	0
57	MG	1A	3260	1/1	0.98	0.12	46,46,46,46	0
57	MG	2A	3112	1/1	0.98	0.09	47,47,47,47	0
57	MG	2A	3113	1/1	0.98	0.19	48,48,48,48	0
57	MG	1A	3558	1/1	0.98	0.16	22,22,22,22	0
57	MG	2A	3551	1/1	0.98	0.06	67,67,67,67	0
57	MG	2A	3399	1/1	0.98	0.17	30,30,30,30	0
57	MG	1A	3754	1/1	0.98	0.16	45,45,45,45	0
57	MG	1A	3452	1/1	0.98	0.11	29,29,29,29	0
57	MG	1A	3366	1/1	0.98	0.10	37,37,37,37	0
57	MG	1A	3099	1/1	0.98	0.09	28,28,28,28	0
57	MG	1A	3620	1/1	0.98	0.17	51,51,51,51	0
57	MG	2A	3257	1/1	0.98	0.23	22,22,22,22	0
57	MG	1A	4018	1/1	0.98	0.25	47,47,47,47	0
57	MG	2A	3560	1/1	0.98	0.21	22,22,22,22	0
57	MG	1n	101	1/1	0.98	0.13	55,55,55,55	0
57	MG	1A	3835	1/1	0.98	0.08	23,23,23,23	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	1A	3133	1/1	0.98	0.49	32,32,32,32	0
57	MG	2A	3124	1/1	0.98	0.23	65,65,65,65	0
57	MG	1A	3760	1/1	0.98	0.19	31,31,31,31	0
57	MG	2a	3093	1/1	0.98	0.23	45,45,45,45	0
57	MG	1A	3838	1/1	0.98	0.09	47,47,47,47	0
57	MG	2A	3567	1/1	0.98	0.14	58,58,58,58	0
57	MG	2A	3127	1/1	0.98	0.30	60,60,60,60	0
57	MG	2A	3128	1/1	0.98	0.20	29,29,29,29	0
57	MG	2A	3267	1/1	0.98	0.23	54,54,54,54	0
57	MG	1A	3563	1/1	0.98	0.11	24,24,24,24	0
57	MG	2a	3100	1/1	0.98	0.18	68,68,68,68	0
57	MG	1A	3409	1/1	0.98	0.16	25,25,25,25	0
57	MG	1A	3930	1/1	0.98	0.12	25,25,25,25	0
57	MG	2A	3574	1/1	0.98	0.23	30,30,30,30	0
57	MG	1a	1778	1/1	0.98	0.15	46,46,46,46	0
57	MG	2A	3576	1/1	0.98	0.23	54,54,54,54	0
57	MG	2A	3272	1/1	0.98	0.19	38,38,38,38	0
57	MG	2A	3133	1/1	0.98	0.18	63,63,63,63	0
57	MG	2B	210	1/1	0.98	0.19	69,69,69,69	0
57	MG	1A	3296	1/1	0.98	0.20	21,21,21,21	0
57	MG	1A	3566	1/1	0.98	0.13	30,30,30,30	0
57	MG	2A	3425	1/1	0.98	0.17	61,61,61,61	0
57	MG	1A	3626	1/1	0.98	0.19	28,28,28,28	0
57	MG	1V	201	1/1	0.98	0.21	21,21,21,21	0
57	MG	1V	202	1/1	0.98	0.32	29,29,29,29	0
57	MG	2A	3429	1/1	0.98	0.24	50,50,50,50	0
57	MG	1A	3628	1/1	0.98	0.20	30,30,30,30	0
57	MG	1A	3059	1/1	0.98	0.14	50,50,50,50	0
57	MG	2a	3118	1/1	0.98	0.28	53,53,53,53	0
57	MG	1A	3235	1/1	0.98	0.21	28,28,28,28	0
57	MG	1V	206	1/1	0.98	0.14	56,56,56,56	0
57	MG	1A	3265	1/1	0.98	0.23	30,30,30,30	0
57	MG	2A	3284	1/1	0.98	0.33	44,44,44,44	0
57	MG	2A	3009	1/1	0.98	0.16	66,66,66,66	0
57	MG	2D	308	1/1	0.98	0.17	48,48,48,48	0
57	MG	1A	3697	1/1	0.98	0.13	52,52,52,52	0
57	MG	1A	3849	1/1	0.98	0.13	43,43,43,43	0
57	MG	2A	3595	1/1	0.98	0.16	48,48,48,48	0
57	MG	1A	3042	1/1	0.98	0.12	30,30,30,30	0
57	MG	1A	3043	1/1	0.98	0.17	19,19,19,19	0
57	MG	1A	3268	1/1	0.98	0.12	40,40,40,40	0
57	MG	1A	3465	1/1	0.98	0.14	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
57	MG	1A	3021	1/1	0.98	0.14	35,35,35,35	0
57	MG	2A	3017	1/1	0.98	0.26	54,54,54,54	0
57	MG	2A	3602	1/1	0.98	0.12	55,55,55,55	0
57	MG	1A	3418	1/1	0.98	0.09	37,37,37,37	0
57	MG	1A	3104	1/1	0.98	0.20	20,20,20,20	0
57	MG	1A	3639	1/1	0.98	0.20	28,28,28,28	0
57	MG	2F	304	1/1	0.98	0.18	47,47,47,47	0
57	MG	1A	3420	1/1	0.98	0.18	14,14,14,14	0
57	MG	1A	3578	1/1	0.98	0.10	50,50,50,50	0
57	MG	1A	3470	1/1	0.98	0.14	52,52,52,52	0
57	MG	1A	3861	1/1	0.98	0.09	43,43,43,43	0
57	MG	1A	3952	1/1	0.98	0.09	38,38,38,38	0
57	MG	1A	3862	1/1	0.98	0.15	33,33,33,33	0
57	MG	1A	3709	1/1	0.98	0.25	48,48,48,48	0
57	MG	1B	221	1/1	0.98	0.12	48,48,48,48	0
57	MG	1A	3187	1/1	0.98	0.43	37,37,37,37	0
57	MG	2A	3616	1/1	0.98	0.26	39,39,39,39	0
57	MG	1A	3139	1/1	0.98	0.35	28,28,28,28	0
57	MG	13	104	1/1	0.98	0.17	37,37,37,37	0
57	MG	1A	3473	1/1	0.98	0.16	20,20,20,20	0
57	MG	1A	3646	1/1	0.98	0.16	22,22,22,22	0
57	MG	2A	3034	1/1	0.98	0.05	64,64,64,64	0
57	MG	15	3103	1/1	0.98	0.19	30,30,30,30	0
57	MG	1A	3868	1/1	0.98	0.10	41,41,41,41	0
57	MG	1a	1814	1/1	0.98	0.14	64,64,64,64	0
57	MG	1A	3121	1/1	0.98	0.20	18,18,18,18	0
57	MG	2a	3158	1/1	0.98	0.19	40,40,40,40	0
57	MG	2A	3039	1/1	0.98	0.17	27,27,27,27	0
57	MG	2a	3160	1/1	0.98	0.15	51,51,51,51	0
57	MG	1A	3961	1/1	0.98	0.24	53,53,53,53	0
57	MG	1A	3962	1/1	0.98	0.10	41,41,41,41	0
57	MG	2A	3177	1/1	0.98	0.14	61,61,61,61	0
57	MG	1A	3527	1/1	0.98	0.15	24,24,24,24	0
57	MG	21	103	1/1	0.98	0.19	55,55,55,55	0
57	MG	1a	1819	1/1	0.98	0.07	48,48,48,48	0
57	MG	1A	3964	1/1	0.98	0.13	34,34,34,34	0
57	MG	25	101	1/1	0.98	0.50	46,46,46,46	0
57	MG	1A	3649	1/1	0.98	0.17	56,56,56,56	0
57	MG	1A	3424	1/1	0.98	0.16	19,19,19,19	0
57	MG	25	104	1/1	0.98	0.13	57,57,57,57	0
57	MG	2A	3635	1/1	0.98	0.20	54,54,54,54	0
57	MG	1A	3476	1/1	0.98	0.10	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	1A	3122	1/1	0.98	0.16	26,26,26,26	0
57	MG	17	105	1/1	0.98	0.17	40,40,40,40	0
57	MG	2A	3478	1/1	0.98	0.22	33,33,33,33	0
57	MG	1A	3275	1/1	0.98	0.19	30,30,30,30	0
57	MG	1A	3017	1/1	0.98	0.24	29,29,29,29	0
57	MG	1A	3722	1/1	0.98	0.17	24,24,24,24	0
57	MG	1A	3655	1/1	0.98	0.17	23,23,23,23	0
57	MG	1A	3038	1/1	0.98	0.26	48,48,48,48	0
57	MG	1A	3218	1/1	0.98	0.56	38,38,38,38	0
57	MG	1A	3430	1/1	0.98	0.11	54,54,54,54	0
57	MG	1A	3144	1/1	0.98	0.20	22,22,22,22	0
57	MG	2a	3185	1/1	0.98	0.07	57,57,57,57	0
57	MG	1A	3003	1/1	0.98	0.19	26,26,26,26	0
57	MG	1E	303	1/1	0.98	0.16	26,26,26,26	0
57	MG	2a	3188	1/1	0.98	0.29	47,47,47,47	0
57	MG	2e	201	1/1	0.98	0.10	65,65,65,65	0
57	MG	1A	3316	1/1	0.98	0.17	16,16,16,16	0
57	MG	1A	3804	1/1	0.98	0.20	49,49,49,49	0
57	MG	1E	306	1/1	0.98	0.15	29,29,29,29	0
57	MG	1A	3001	1/1	0.98	0.08	31,31,31,31	0
57	MG	1E	308	1/1	0.98	0.14	35,35,35,35	0
57	MG	1A	3391	1/1	0.98	0.19	22,22,22,22	0
57	MG	2x	101	1/1	0.98	0.26	47,47,47,47	0
57	MG	1A	3598	1/1	0.98	0.17	33,33,33,33	0
57	MG	2A	3068	1/1	0.98	0.20	22,22,22,22	0
57	MG	1a	1723	1/1	0.98	0.22	56,56,56,56	0
57	MG	1A	3984	1/1	0.98	0.11	38,38,38,38	0
57	MG	1F	303	1/1	0.98	0.28	30,30,30,30	0
57	MG	1A	3081	1/1	0.98	0.16	34,34,34,34	0
57	MG	1a	1847	1/1	0.98	0.13	67,67,67,67	0
57	MG	1A	3490	1/1	0.98	0.15	36,36,36,36	0
57	MG	1A	3735	1/1	0.98	0.13	43,43,43,43	0
60	ZN	1Y	202	1/1	0.98	0.14	59,59,59,59	0
57	MG	1a	1729	1/1	0.98	0.18	42,42,42,42	0
60	ZN	1n	104	1/1	0.98	0.11	66,66,66,66	0
57	MG	2A	3668	1/1	0.98	0.22	42,42,42,42	0
57	MG	2A	3354	1/1	0.98	0.14	31,31,31,31	0
57	MG	1A	3284	1/1	0.98	0.22	32,32,32,32	0
57	MG	1A	3895	1/1	0.98	0.23	28,28,28,28	0
61	SF4	2d	501	8/8	0.98	0.11	58,70,76,78	0
57	MG	1A	3305	1/1	0.99	0.19	31,31,31,31	0
57	MG	1A	3607	1/1	0.99	0.09	29,29,29,29	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	1N	202	1/1	0.99	0.11	37,37,37,37	0
57	MG	2A	3400	1/1	0.99	0.10	42,42,42,42	0
57	MG	1A	3916	1/1	0.99	0.12	40,40,40,40	0
57	MG	1W	203	1/1	0.99	0.21	25,25,25,25	0
57	MG	1A	3279	1/1	0.99	0.20	47,47,47,47	0
57	MG	1A	3105	1/1	0.99	0.30	25,25,25,25	0
57	MG	1A	3543	1/1	0.99	0.20	18,18,18,18	0
57	MG	1E	302	1/1	0.99	0.46	38,38,38,38	0
57	MG	1A	3380	1/1	0.99	0.07	25,25,25,25	0
57	MG	2A	3322	1/1	0.99	0.24	57,57,57,57	0
57	MG	1A	3463	1/1	0.99	0.14	40,40,40,40	0
57	MG	2A	3498	1/1	0.99	0.20	35,35,35,35	0
57	MG	1A	3194	1/1	0.99	0.13	27,27,27,27	0
57	MG	2A	3042	1/1	0.99	0.13	61,61,61,61	0
57	MG	2A	3003	1/1	0.99	0.18	40,40,40,40	0
57	MG	1A	3686	1/1	0.99	0.20	40,40,40,40	0
57	MG	1A	3223	1/1	0.99	0.17	29,29,29,29	0
57	MG	2A	3371	1/1	0.99	0.13	41,41,41,41	0
57	MG	2A	3246	1/1	0.99	0.26	38,38,38,38	0
57	MG	1a	1756	1/1	0.99	0.12	58,58,58,58	0
57	MG	1A	3186	1/1	0.99	0.21	32,32,32,32	0
57	MG	2A	3647	1/1	0.99	0.12	37,37,37,37	0
57	MG	1A	3018	1/1	0.99	0.20	26,26,26,26	0
57	MG	1R	201	1/1	0.99	0.13	32,32,32,32	0
57	MG	1A	3147	1/1	0.99	0.19	31,31,31,31	0
57	MG	1A	3870	1/1	0.99	0.12	54,54,54,54	0
57	MG	1A	3488	1/1	0.99	0.14	40,40,40,40	0
57	MG	1A	3450	1/1	0.99	0.19	21,21,21,21	0
57	MG	1A	3451	1/1	0.99	0.14	17,17,17,17	0
57	MG	1A	3769	1/1	0.99	0.14	40,40,40,40	0
57	MG	1A	3511	1/1	0.99	0.08	35,35,35,35	0
57	MG	2A	3609	1/1	0.99	0.16	29,29,29,29	0
57	MG	1A	3068	1/1	0.99	0.16	32,32,32,32	0
57	MG	1A	3077	1/1	0.99	0.24	31,31,31,31	0
57	MG	1A	3357	1/1	0.99	0.16	15,15,15,15	0
57	MG	1A	3879	1/1	0.99	0.17	26,26,26,26	0
57	MG	2A	3662	1/1	0.99	0.09	38,38,38,38	0
57	MG	1D	303	1/1	0.99	0.16	33,33,33,33	0
57	MG	1A	3908	1/1	0.99	0.11	15,15,15,15	0
57	MG	1A	3170	1/1	0.99	0.15	29,29,29,29	0
57	MG	1D	306	1/1	0.99	0.15	16,16,16,16	0
57	MG	1A	3252	1/1	0.99	0.22	28,28,28,28	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
60	ZN	19	104	1/1	0.99	0.20	42,42,42,42	0
57	MG	1A	3627	1/1	0.99	0.19	30,30,30,30	0
57	MG	1A	3177	1/1	0.99	0.12	29,29,29,29	0
57	MG	2A	3528	1/1	0.99	0.10	39,39,39,39	0
60	ZN	25	105	1/1	0.99	0.17	53,53,53,53	0
60	ZN	26	501	1/1	0.99	0.11	56,56,56,56	0
57	MG	2E	307	1/1	0.99	0.18	33,33,33,33	0
57	MG	1A	3220	1/1	0.99	0.24	26,26,26,26	0
61	SF4	1d	306	8/8	0.99	0.15	55,64,73,75	0
57	MG	1A	3974	1/1	0.99	0.12	25,25,25,25	0
60	ZN	15	3110	1/1	1.00	0.19	40,40,40,40	0
60	ZN	16	501	1/1	1.00	0.20	41,41,41,41	0

## 6.5 Other polymers [i](#)

There are no such residues in this entry.