



# Full wwPDB X-ray Structure Validation Report ⓘ

Feb 15, 2024 – 02:57 PM EST

PDB ID : 8UD6  
Title : Crystal structure of the wild-type *Thermus thermophilus* 70S ribosome in complex with cresomycin, mRNA, deacylated A-site tRNA<sup>phe</sup>, aminoacylated P-site fMet-tRNA<sup>met</sup>, and deacylated E-site tRNA<sup>phe</sup> at 2.70Å resolution  
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Deposited on : 2023-09-28  
Resolution : 2.70 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  
buster-report : 1.1.7 (2018)  
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)

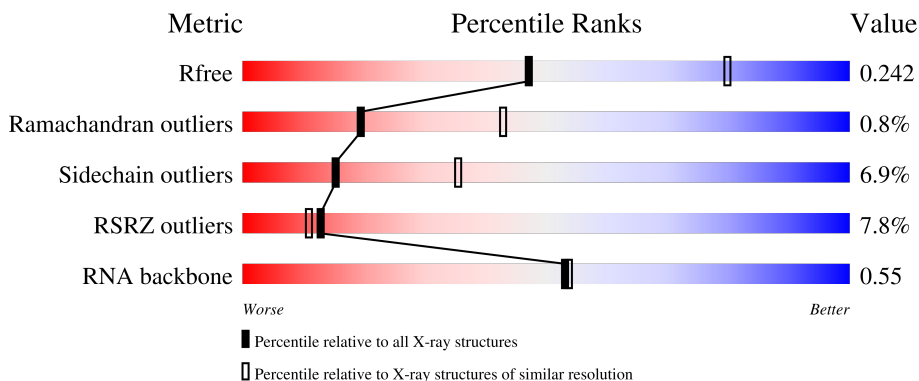
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*


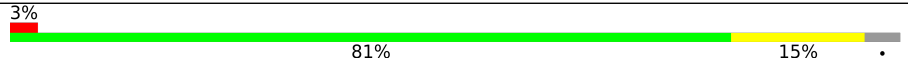
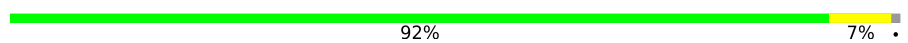
The reported resolution of this entry is 2.70 Å.

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	2808 (2.70-2.70)
Ramachandran outliers	138981	3069 (2.70-2.70)
Sidechain outliers	138945	3069 (2.70-2.70)
RSRZ outliers	127900	2737 (2.70-2.70)
RNA backbone	3102	1159 (3.00-2.40)

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	 3% 83% 15% .
1	2A	2915	 3% 81% 15% .
2	1B	121	 92% 7% .

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Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.36

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Mol	Chain	Length	Quality of chain
2	2B	121	2% 78% 21%
3	1D	276	2% 96%
3	2D	276	6% 95%
4	1E	206	% 94% 5%
4	2E	206	9% 96%
5	1F	210	90% 6%
5	2F	210	% 93%
6	1G	182	2% 93% 7%
6	2G	182	12% 84% 15%
7	1H	180	% 93%
7	2H	180	41% 88% 8%
8	1I	148	% 88% 11%
8	2I	148	8% 90% 9%
9	1N	140	% 96%
9	2N	140	16% 94% 6%
10	1O	122	% 100%
10	2O	122	8% 98%
11	1P	150	% 95% 5%
11	2P	150	6% 93% 7%
12	1Q	141	2% 96%
12	2Q	141	18% 98%
13	1R	118	98%
13	2R	118	3% 97%
14	1S	112	92% 6%
14	2S	112	9% 89% 9%

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Mol	Chain	Length	Quality of chain
15	1T	146	3% 85% 5% 10%
15	2T	146	3% 87% • 10%
16	1U	118	% 93% 5% •
16	2U	118	5% 95% • •
17	1V	101	93% 6% •
17	2V	101	5% 92% 7% •
18	1W	113	3% 95% • •
18	2W	113	4% 94% 5% •
19	1X	96	% 95% • •
19	2X	96	5% 98% • •
20	1Y	110	% 91% 6% •
20	2Y	110	13% 86% 11% •
21	1Z	206	2% 68% 6% 25%
21	2Z	206	11% 70% 7% 22%
22	10	85	8% 96% • •
22	20	85	13% 94% • •
23	11	98	4% 98% • •
23	21	98	7% 94% 5% •
24	12	72	96% • •
24	22	72	6% 92% 6% •
25	13	60	93% 5% •
25	23	60	25% 95% • •
26	14	71	8% 80% 14% • •
26	24	71	21% 80% 17% •
27	15	60	2% 93% 5% •

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Mol	Chain	Length	Quality of chain
27	25	60	95%
28	16	54	93%
28	26	54	94%
29	17	49	94%
29	27	49	90%
30	18	65	94%
30	28	65	94%
31	19	37	97%
31	29	37	97%
32	1a	1521	83%
32	2a	1521	80%
33	1b	256	80%
33	2b	256	77%
34	1c	239	84%
34	2c	239	82%
35	1d	209	92%
35	2d	209	93%
36	1e	162	87%
36	2e	162	81%
37	1f	101	94%
37	2f	101	93%
38	1g	156	90%
38	2g	156	92%
39	1h	138	93%
39	2h	138	93%

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Mol	Chain	Length	Quality of chain
40	1i	128	21% 91% 8%
40	2i	128	43% 93% 6%
41	1j	105	6% 89% 8%
41	2j	105	35% 82% 9% 9%
42	1k	129	6% 81% 8% 12%
42	2k	129	2% 85% 12%
43	1l	132	7% 89% 8%
43	2l	132	30% 86% 7% 8%
44	1m	126	9% 90% 7%
44	2m	126	27% 90% 6%
45	1n	61	16% 87% 11%
45	2n	61	80% 90% 8%
46	1o	89	6% 93% 6%
46	2o	89	8% 94% ..
47	1p	88	35% 85% 8% 7%
47	2p	88	7% 85% 8% 7%
48	1q	105	11% 89% 6% 6%
48	2q	105	32% 92% 6%
49	1r	88	% 72% 6% 23%
49	2r	88	2% 70% 7% 23%
50	1s	93	2% 87% 11%
50	2s	93	37% 80% 10% 11%
51	1t	106	29% 84% 7% 9%
51	2t	106	26% 87% 9%
52	1u	27	26% 81% 15%

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Mol	Chain	Length	Quality of chain
52	2u	27	
53	1v	24	
53	2v	24	
54	1w	76	
54	1y	76	
54	2w	76	
54	2y	76	
55	1x	77	
55	2x	77	

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	1A	3088	-	-	-	X
56	MG	1A	3122	-	-	-	X
56	MG	1A	3130	-	-	-	X
56	MG	1A	3208	-	-	-	X
56	MG	1A	3246	-	-	-	X
56	MG	1A	3254	-	-	-	X
56	MG	1A	3319	-	-	-	X
56	MG	1A	3355	-	-	-	X
56	MG	1A	3360	-	-	-	X
56	MG	1A	3382	-	-	-	X
56	MG	1A	3398	-	-	-	X
56	MG	1A	3421	-	-	-	X
56	MG	1A	3428	-	-	-	X
56	MG	1A	3472	-	-	-	X
56	MG	1A	3542	-	-	-	X
56	MG	1A	4006	-	-	-	X
56	MG	1A	4060	-	-	-	X
56	MG	1O	201	-	-	-	X
56	MG	1T	202	-	-	-	X
56	MG	1a	1803	-	-	-	X
56	MG	2A	3121	-	-	-	X
56	MG	2A	3125	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	2A	3165	-	-	-	X
56	MG	2A	3204	-	-	-	X
56	MG	2A	3210	-	-	-	X
56	MG	2A	3237	-	-	-	X
56	MG	2A	3252	-	-	-	X
56	MG	2A	3273	-	-	-	X
56	MG	2A	3280	-	-	-	X
56	MG	2A	3284	-	-	-	X
56	MG	2A	3342	-	-	-	X
56	MG	2A	3405	-	-	-	X
56	MG	2A	3659	-	-	-	X
56	MG	2A	3676	-	-	-	X
56	MG	2a	1639	-	-	-	X



## 2 Entry composition [i](#)

There are 61 unique types of molecules in this entry. The entry contains 298872 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	2871	Total	C	N	O	P	0	0	0
			61852	27531	11572	19878	2871			
1	2A	2800	Total	C	N	O	P	0	0	0
			60322	26848	11284	19390	2800			

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

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

- Molecule 3 is a protein called 50S ribosomal protein L2.

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

- Molecule 4 is a protein called 50S ribosomal protein L3.

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	1G	181	Total	C	N	O	S	0	0	0
			1423	913	253	253	4			
6	2G	181	Total	C	N	O	S	0	0	0
			1428	913	258	253	4			

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- Molecule 24 is a protein called 50S ribosomal protein L29.

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

- Molecule 25 is a protein called 50S ribosomal protein L30.

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

- Molecule 26 is a protein called 50S ribosomal protein L31.

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

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

- Molecule 27 is a protein called 50S ribosomal protein L32.

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

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

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

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

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

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

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

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

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

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

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

- Molecule 33 is a protein called 30S ribosomal protein S2.

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

- Molecule 34 is a protein called 30S ribosomal protein S3.

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

- Molecule 35 is a protein called 30S ribosomal protein S4.

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

- Molecule 36 is a protein called 30S ribosomal protein S5.

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

- Molecule 37 is a protein called 30S ribosomal protein S6.

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

- Molecule 38 is a protein called 30S ribosomal protein S7.

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

- Molecule 39 is a protein called 30S ribosomal protein S8.

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

- Molecule 40 is a protein called 30S ribosomal protein S9.

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

- Molecule 41 is a protein called 30S ribosomal protein S10.

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

- Molecule 42 is a protein called 30S ribosomal protein S11.

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

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

- Molecule 43 is a protein called 30S ribosomal protein S12.

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

- Molecule 44 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
44	1m	123	958	592	198	166	2	0	0	0
44	2m	122	950	586	197	165	2	0	0	0

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

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

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

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

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

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

- Molecule 48 is a protein called 30S ribosomal protein S17.

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

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

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

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

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

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

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

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

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

- Molecule 53 is a RNA chain called MF-mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	1v	13	Total	C	N	O	P	0	0	0
			277	125	51	88	13			
53	2v	13	Total	C	N	O	P	0	0	0
			277	125	51	88	13			

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

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
54	1w	72	Total	C	N	O	P	S	0	0	0
			1550	694	277	505	72	2			
54	1y	74	Total	C	N	O	P	S	0	0	0
			1585	707	285	518	74	1			
54	2w	70	Total	C	N	O	P	S	0	0	0
			1502	671	270	489	70	2			
54	2y	73	Total	C	N	O	P	S	0	0	0
			1565	698	283	510	73	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace	
55	1x	76	Total	C	N	O	P	S	0	0	0
			1635	731	296	530	76	2			
55	2x	76	Total	C	N	O	P	S	0	0	0
			1635	731	296	530	76	2			

- Molecule 56 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	1A	1059	Total	Mg	0	0
			1059	1059		
56	1B	34	Total	Mg	0	0
			34	34		
56	1D	12	Total	Mg	0	0
			12	12		
56	1E	17	Total	Mg	0	0
			17	17		
56	1F	12	Total	Mg	0	0
			12	12		
56	1G	5	Total	Mg	0	0
			5	5		
56	1I	1	Total	Mg	0	0
			1	1		

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<b>Mol</b>	<b>Chain</b>	<b>Residues</b>	<b>Atoms</b>		<b>ZeroOcc</b>	<b>AltConf</b>
56	1N	5	Total 5	Mg 5	0	0
56	1O	6	Total 6	Mg 6	0	0
56	1P	6	Total 6	Mg 6	0	0
56	1Q	6	Total 6	Mg 6	0	0
56	1R	6	Total 6	Mg 6	0	0
56	1S	2	Total 2	Mg 2	0	0
56	1T	3	Total 3	Mg 3	0	0
56	1U	10	Total 10	Mg 10	0	0
56	1V	6	Total 6	Mg 6	0	0
56	1W	7	Total 7	Mg 7	0	0
56	1X	6	Total 6	Mg 6	0	0
56	1Y	2	Total 2	Mg 2	0	0
56	1Z	2	Total 2	Mg 2	0	0
56	10	9	Total 9	Mg 9	0	0
56	11	5	Total 5	Mg 5	0	0
56	12	2	Total 2	Mg 2	0	0
56	13	4	Total 4	Mg 4	0	0
56	14	1	Total 1	Mg 1	0	0
56	15	7	Total 7	Mg 7	0	0
56	16	1	Total 1	Mg 1	0	0
56	17	5	Total 5	Mg 5	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	18	6	Total Mg 6 6	0	0
56	19	1	Total Mg 1 1	0	0
56	1a	208	Total Mg 208 208	0	0
56	1b	1	Total Mg 1 1	0	0
56	1d	1	Total Mg 1 1	0	0
56	1e	2	Total Mg 2 2	0	0
56	1f	1	Total Mg 1 1	0	0
56	1k	1	Total Mg 1 1	0	0
56	1l	2	Total Mg 2 2	0	0
56	1m	2	Total Mg 2 2	0	0
56	1n	1	Total Mg 1 1	0	0
56	1p	1	Total Mg 1 1	0	0
56	1r	1	Total Mg 1 1	0	0
56	1t	1	Total Mg 1 1	0	0
56	1w	3	Total Mg 3 3	0	0
56	1x	14	Total Mg 14 14	0	0
56	2A	771	Total Mg 771 771	0	0
56	2B	20	Total Mg 20 20	0	0
56	2D	8	Total Mg 8 8	0	0
56	2E	10	Total Mg 10 10	0	0
56	2F	5	Total Mg 5 5	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	2G	1	Total Mg 1 1	0	0
56	2N	1	Total Mg 1 1	0	0
56	2O	1	Total Mg 1 1	0	0
56	2P	2	Total Mg 2 2	0	0
56	2Q	3	Total Mg 3 3	0	0
56	2R	2	Total Mg 2 2	0	0
56	2T	2	Total Mg 2 2	0	0
56	2U	1	Total Mg 1 1	0	0
56	2V	2	Total Mg 2 2	0	0
56	2W	2	Total Mg 2 2	0	0
56	2X	2	Total Mg 2 2	0	0
56	20	2	Total Mg 2 2	0	0
56	21	3	Total Mg 3 3	0	0
56	23	2	Total Mg 2 2	0	0
56	25	1	Total Mg 1 1	0	0
56	27	1	Total Mg 1 1	0	0
56	28	2	Total Mg 2 2	0	0
56	2a	214	Total Mg 214 214	0	0
56	2d	1	Total Mg 1 1	0	0
56	2e	1	Total Mg 1 1	0	0
56	2f	1	Total Mg 1 1	0	0

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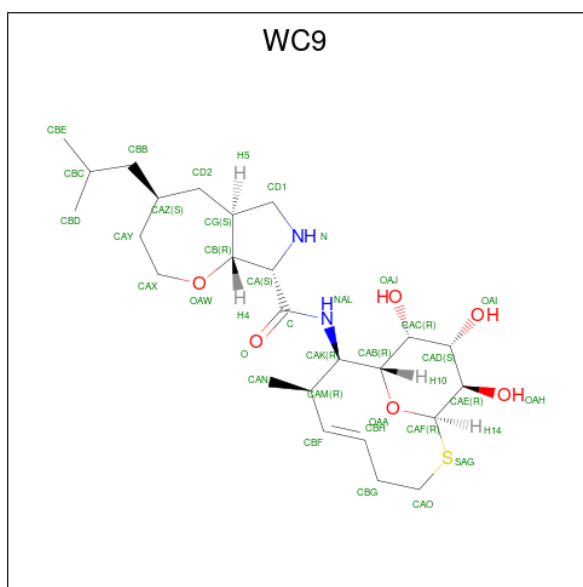
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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	2g	1	Total Mg 1 1	0	0
56	2i	2	Total Mg 2 2	0	0
56	2j	1	Total Mg 1 1	0	0
56	2k	1	Total Mg 1 1	0	0
56	2l	3	Total Mg 3 3	0	0
56	2q	3	Total Mg 3 3	0	0
56	2r	2	Total Mg 2 2	0	0
56	2t	1	Total Mg 1 1	0	0
56	2v	1	Total Mg 1 1	0	0
56	2w	1	Total Mg 1 1	0	0
56	2x	5	Total Mg 5 5	0	0
56	2y	2	Total Mg 2 2	0	0

- Molecule 57 is POTASSIUM ION (three-letter code: K) (formula: K).

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

- Molecule 58 is (4S,5aS,8S,8aR)-4-(2-methylpropyl)-N-[(1R,5Z,7R,8R,9R,10R,11S,12R)-10,11,12-trihydroxy-7-methyl-13-oxa-2-thiabicyclo[7.3.1]tridec-5-en-8-yl]octahydro-2H-oxepino[2,3-c]pyrrole-8-carboxamide (non-preferred name) (three-letter code: WC9) (formula: C<sub>25</sub>H<sub>42</sub>N<sub>2</sub>O<sub>6</sub>S) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
58	1A	1	Total	C	N	O	S	0	0
			34	25	2	6	1		
58	2A	1	Total	C	N	O	S	0	0
			34	25	2	6	1		

- Molecule 59 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	1Y	1	Total	Zn	0	0
			1	1		
59	14	1	Total	Zn	0	0
			1	1		
59	15	1	Total	Zn	0	0
			1	1		
59	16	1	Total	Zn	0	0
			1	1		
59	19	1	Total	Zn	0	0
			1	1		
59	1n	1	Total	Zn	0	0
			1	1		
59	2Y	1	Total	Zn	0	0
			1	1		
59	24	1	Total	Zn	0	0
			1	1		
59	25	1	Total	Zn	0	0
			1	1		
59	26	1	Total	Zn	0	0
			1	1		

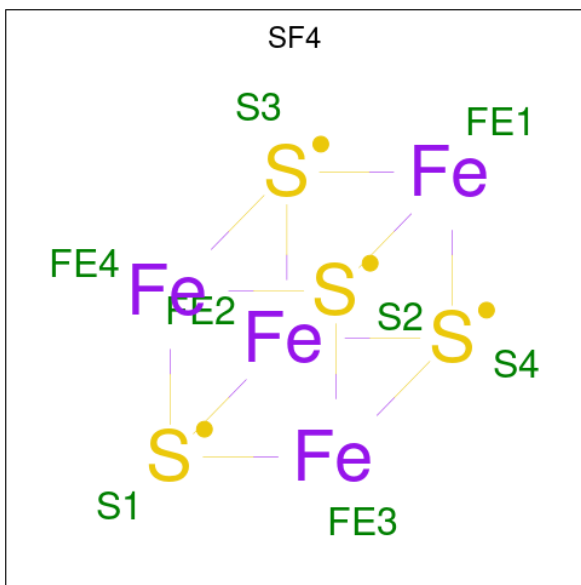
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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	29	1	Total Zn 1 1	0	0
59	2n	1	Total Zn 1 1	0	0

- Molecule 60 is IRON/SULFUR CLUSTER (three-letter code: SF4) (formula: Fe<sub>4</sub>S<sub>4</sub>).



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

- Molecule 61 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
61	1A	1685	Total O 1685 1685	0	0
61	1B	54	Total O 54 54	0	0
61	1D	26	Total O 26 26	0	0
61	1E	25	Total O 25 25	0	0
61	1F	15	Total O 15 15	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
61	1G	3	Total 3	O 3	0	0
61	1H	1	Total 1	O 1	0	0
61	1N	3	Total 3	O 3	0	0
61	1O	5	Total 5	O 5	0	0
61	1P	17	Total 17	O 17	0	0
61	1Q	6	Total 6	O 6	0	0
61	1R	9	Total 9	O 9	0	0
61	1S	2	Total 2	O 2	0	0
61	1T	7	Total 7	O 7	0	0
61	1U	11	Total 11	O 11	0	0
61	1V	5	Total 5	O 5	0	0
61	1W	7	Total 7	O 7	0	0
61	1X	3	Total 3	O 3	0	0
61	1Y	1	Total 1	O 1	0	0
61	10	12	Total 12	O 12	0	0
61	11	8	Total 8	O 8	0	0
61	12	2	Total 2	O 2	0	0
61	13	3	Total 3	O 3	0	0
61	14	1	Total 1	O 1	0	0
61	15	6	Total 6	O 6	0	0
61	16	1	Total 1	O 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
61	17	8	Total O 8 8	0	0
61	18	11	Total O 11 11	0	0
61	1a	213	Total O 213 213	0	0
61	1b	1	Total O 1 1	0	0
61	1f	2	Total O 2 2	0	0
61	1g	1	Total O 1 1	0	0
61	1i	1	Total O 1 1	0	0
61	1j	1	Total O 1 1	0	0
61	1l	2	Total O 2 2	0	0
61	1q	1	Total O 1 1	0	0
61	1v	2	Total O 2 2	0	0
61	1w	4	Total O 4 4	0	0
61	1x	9	Total O 9 9	0	0
61	2A	848	Total O 848 848	0	0
61	2B	16	Total O 16 16	0	0
61	2D	16	Total O 16 16	0	0
61	2E	10	Total O 10 10	0	0
61	2F	11	Total O 11 11	0	0
61	2I	1	Total O 1 1	0	0
61	2O	3	Total O 3 3	0	0
61	2P	6	Total O 6 6	0	0

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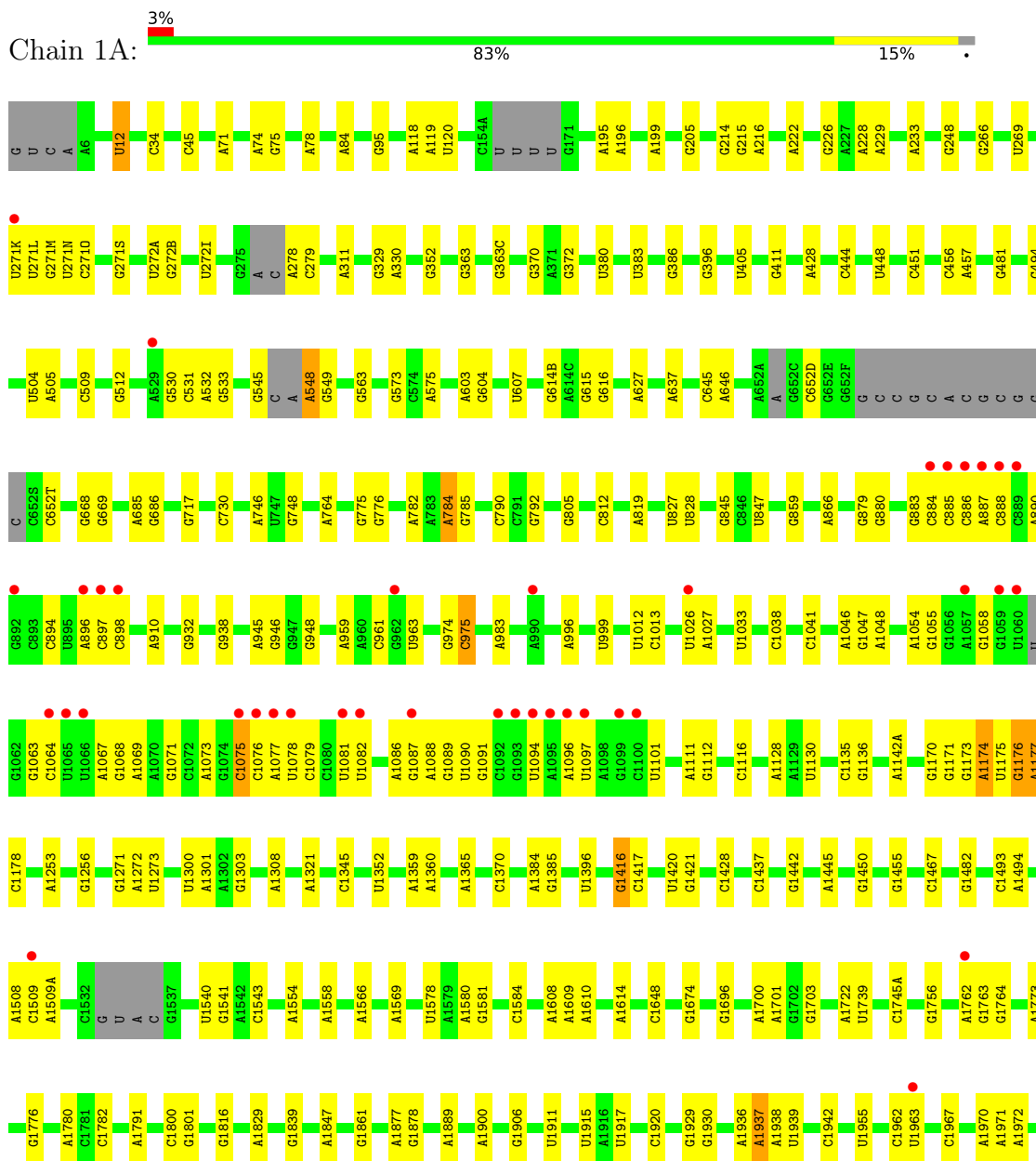
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
61	2Q	1	Total 1	O 1	0	0
61	2R	2	Total 2	O 2	0	0
61	2T	4	Total 4	O 4	0	0
61	2U	3	Total 3	O 3	0	0
61	2V	1	Total 1	O 1	0	0
61	2W	2	Total 2	O 2	0	0
61	2X	1	Total 1	O 1	0	0
61	2Y	1	Total 1	O 1	0	0
61	20	1	Total 1	O 1	0	0
61	21	7	Total 7	O 7	0	0
61	27	4	Total 4	O 4	0	0
61	28	5	Total 5	O 5	0	0
61	29	1	Total 1	O 1	0	0
61	2a	145	Total 145	O 145	0	0
61	2d	3	Total 3	O 3	0	0
61	2j	3	Total 3	O 3	0	0
61	2l	3	Total 3	O 3	0	0
61	2r	1	Total 1	O 1	0	0
61	2t	1	Total 1	O 1	0	0
61	2x	4	Total 4	O 4	0	0
61	2y	4	Total 4	O 4	0	0

### 3 Residue-property plots i

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

#### • Molecule 1: 23S Ribosomal RNA

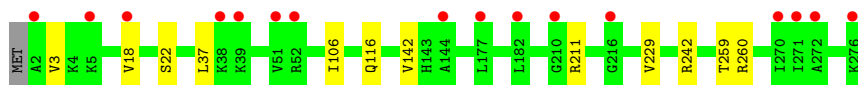








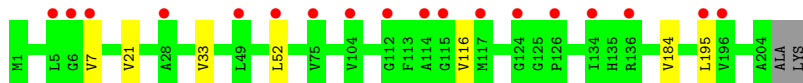
- Molecule 3: 50S ribosomal protein L2



- Molecule 4: 50S ribosomal protein L3



- Molecule 4: 50S ribosomal protein L3



- Molecule 5: 50S ribosomal protein L4



- Molecule 5: 50S ribosomal protein L4

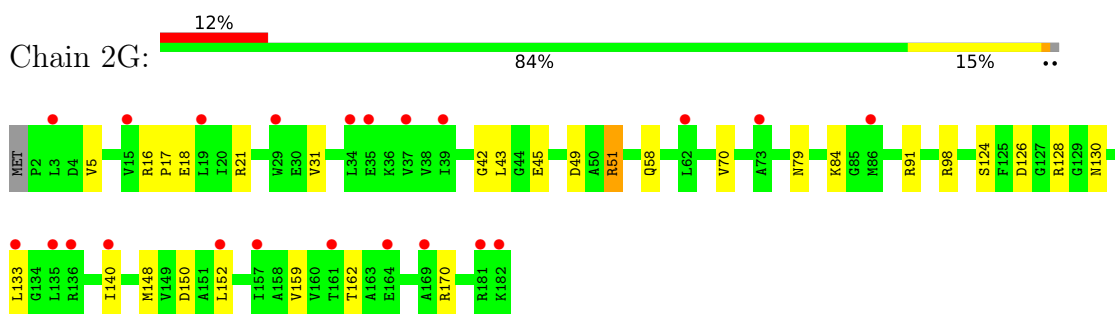


- Molecule 6: 50S ribosomal protein L5

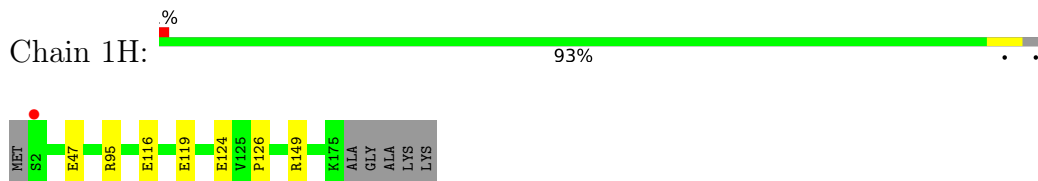


- Molecule 6: 50S ribosomal protein L5

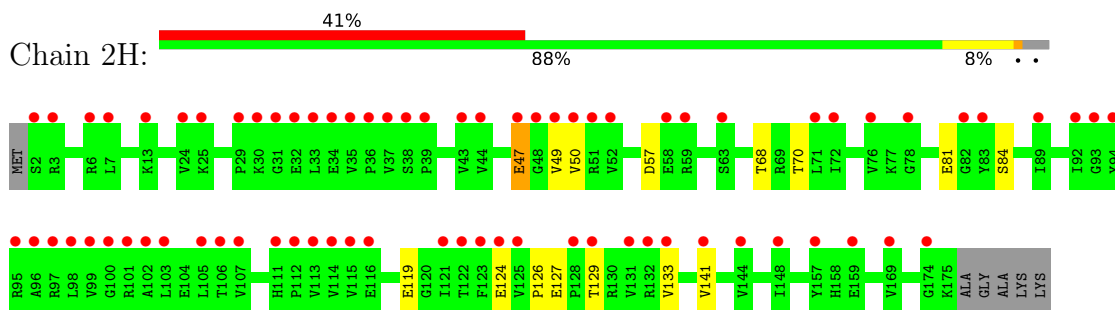




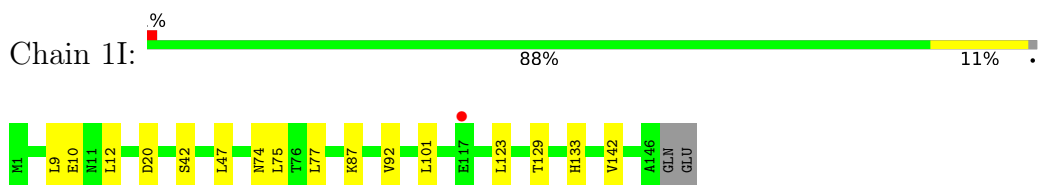
- Molecule 7: 50S ribosomal protein L6



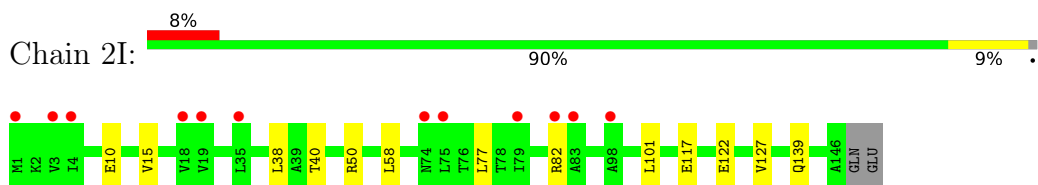
- Molecule 7: 50S ribosomal protein L6



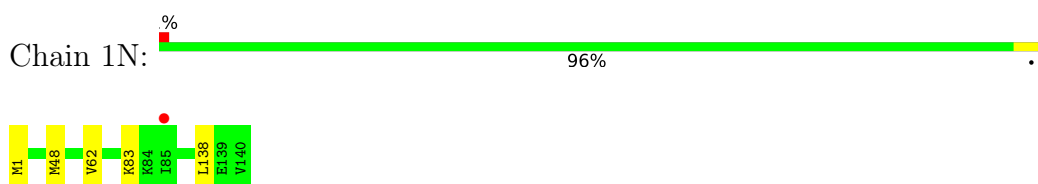
- Molecule 8: 50S ribosomal protein L9



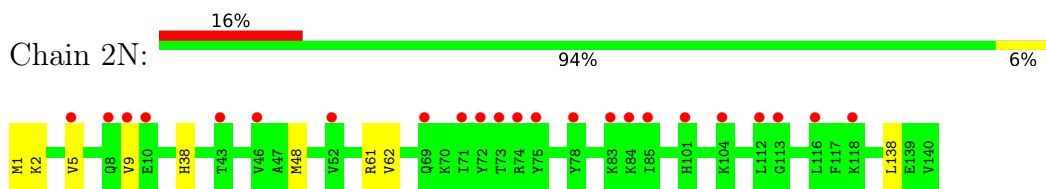
- Molecule 8: 50S ribosomal protein L9



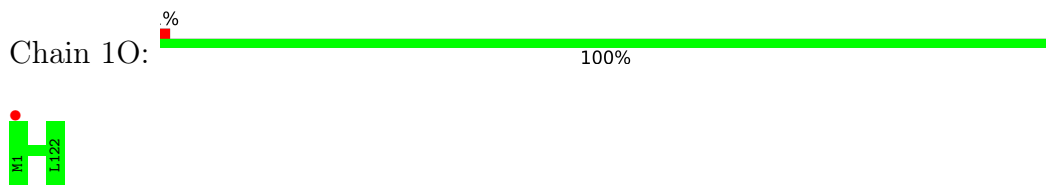
- Molecule 9: 50S ribosomal protein L13



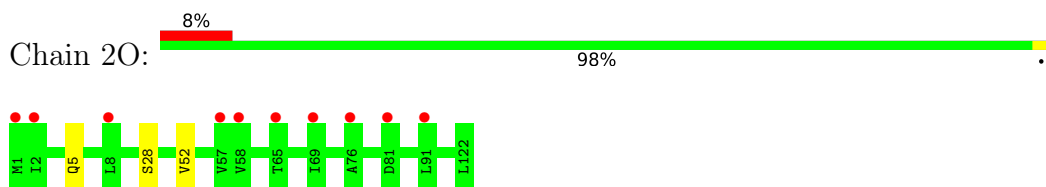
- Molecule 9: 50S ribosomal protein L13



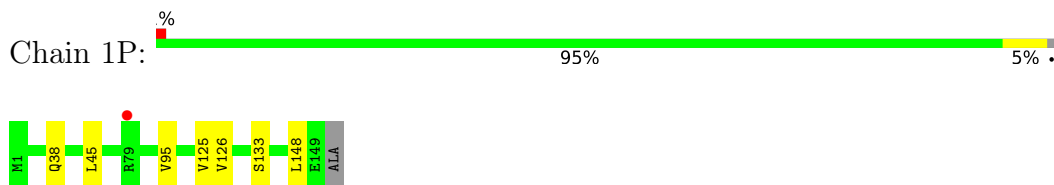
- Molecule 10: 50S ribosomal protein L14



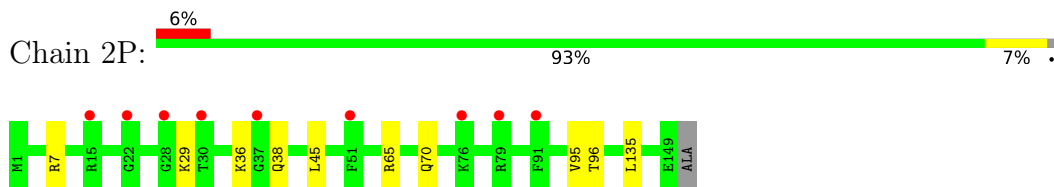
- Molecule 10: 50S ribosomal protein L14



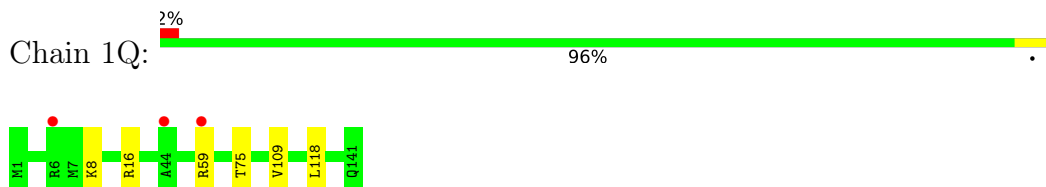
- Molecule 11: 50S ribosomal protein L15



- Molecule 11: 50S ribosomal protein L15

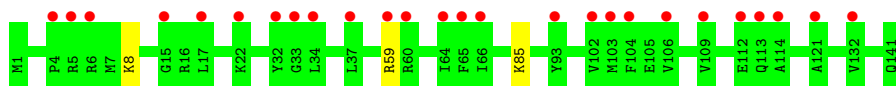


- Molecule 12: 50S ribosomal protein L16



- Molecule 12: 50S ribosomal protein L16

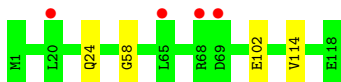




- Molecule 13: 50S ribosomal protein L17



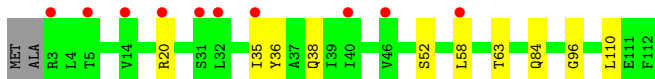
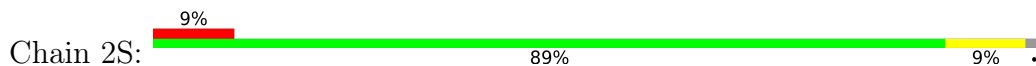
- Molecule 13: 50S ribosomal protein L17



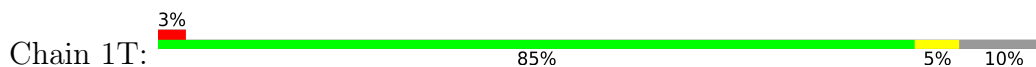
- Molecule 14: 50S ribosomal protein L18



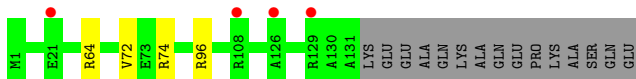
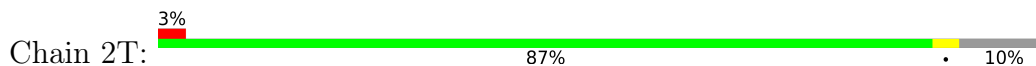
- Molecule 14: 50S ribosomal protein L18



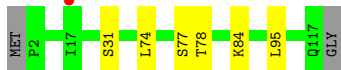
- Molecule 15: 50S ribosomal protein L19



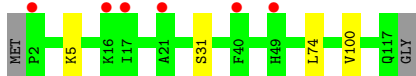
- Molecule 15: 50S ribosomal protein L19



- Molecule 16: 50S ribosomal protein L20



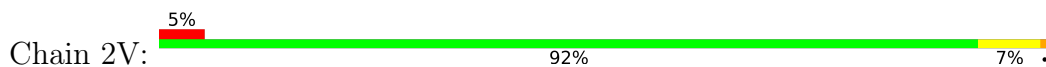
- Molecule 16: 50S ribosomal protein L20



- Molecule 17: 50S ribosomal protein L21



- Molecule 17: 50S ribosomal protein L21



- Molecule 18: 50S ribosomal protein L22



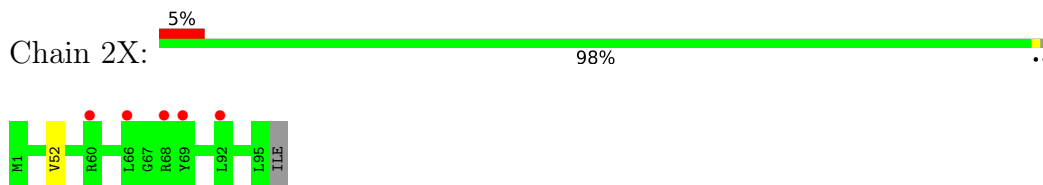
- Molecule 18: 50S ribosomal protein L22



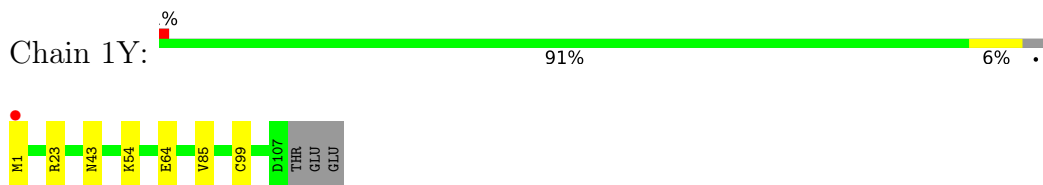
- Molecule 19: 50S ribosomal protein L23



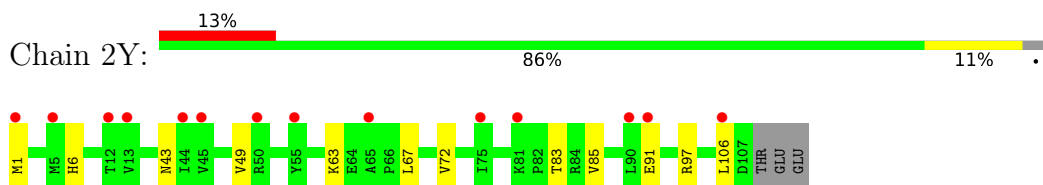
- Molecule 19: 50S ribosomal protein L23



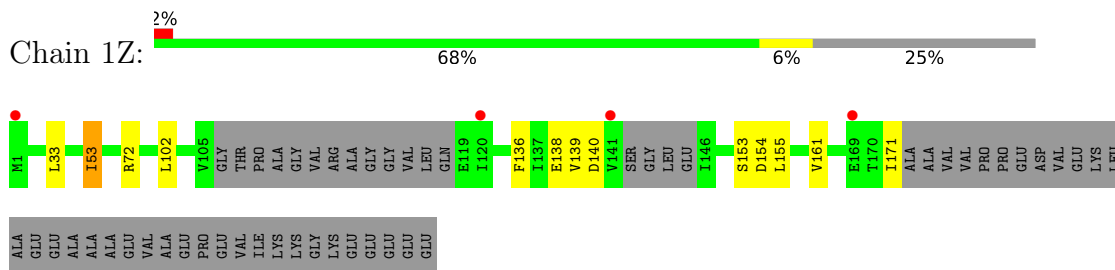
- Molecule 20: 50S ribosomal protein L24



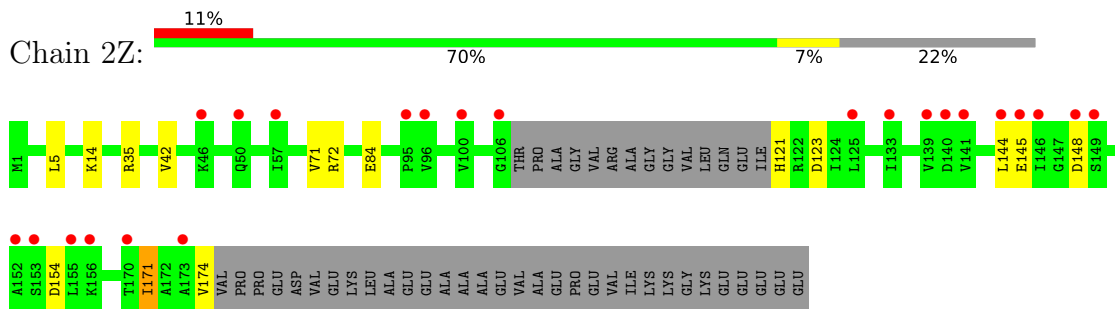
- Molecule 20: 50S ribosomal protein L24



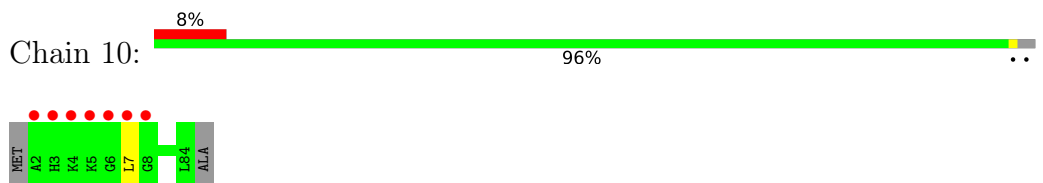
- Molecule 21: 50S ribosomal protein L25



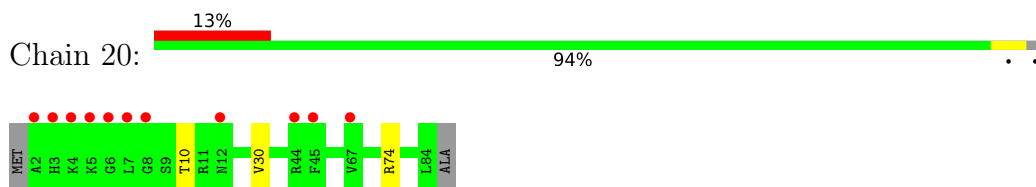
- Molecule 21: 50S ribosomal protein L25



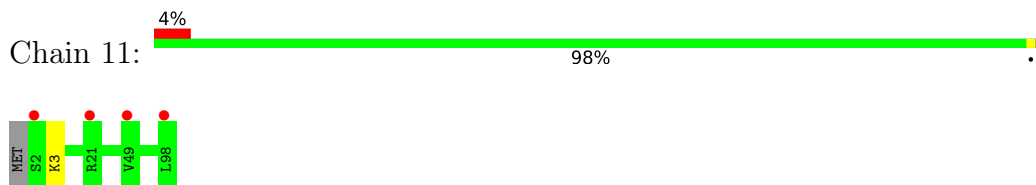
- Molecule 22: 50S ribosomal protein L27



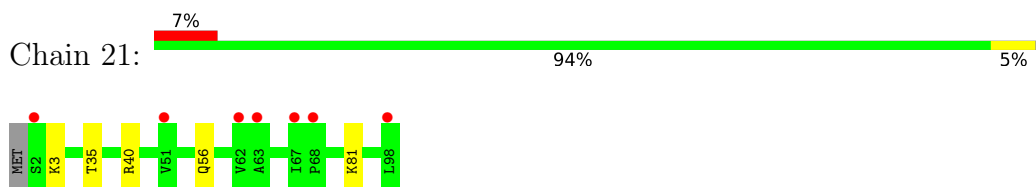
- Molecule 22: 50S ribosomal protein L27



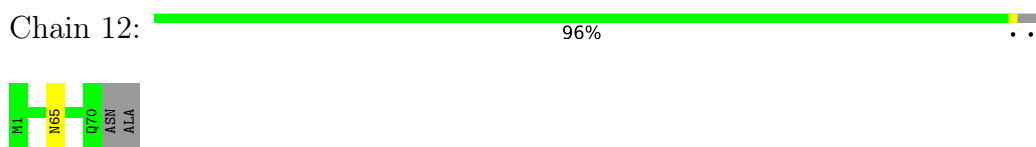
- Molecule 23: 50S ribosomal protein L28



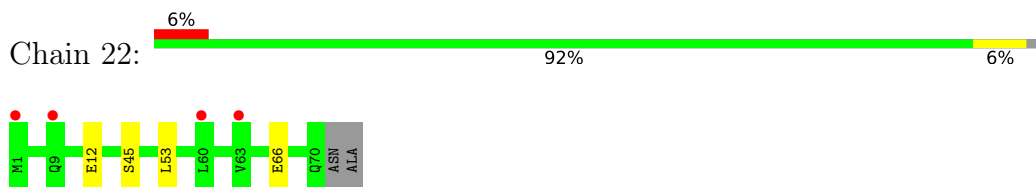
- Molecule 23: 50S ribosomal protein L28



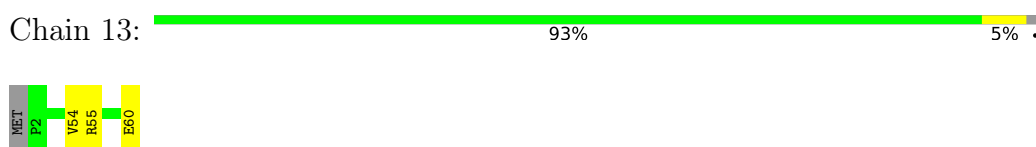
- Molecule 24: 50S ribosomal protein L29



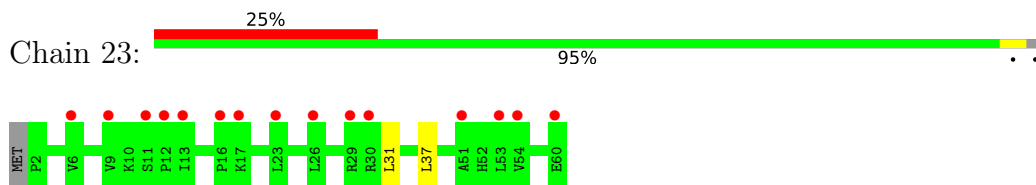
- Molecule 24: 50S ribosomal protein L29



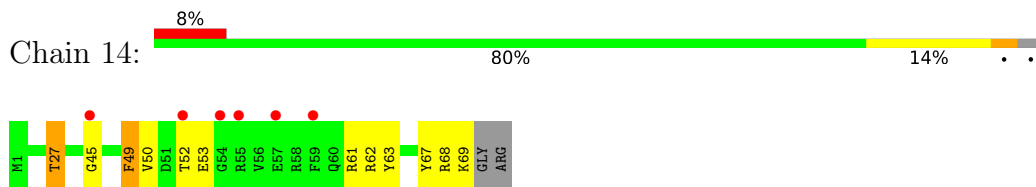
- Molecule 25: 50S ribosomal protein L30



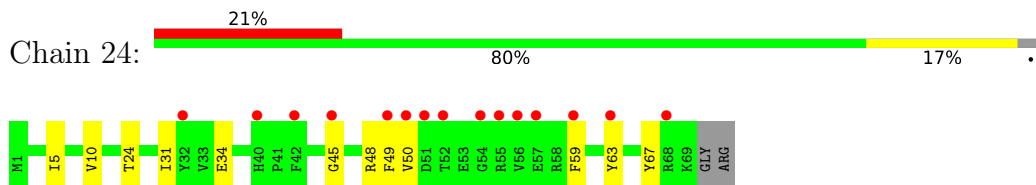
- Molecule 25: 50S ribosomal protein L30



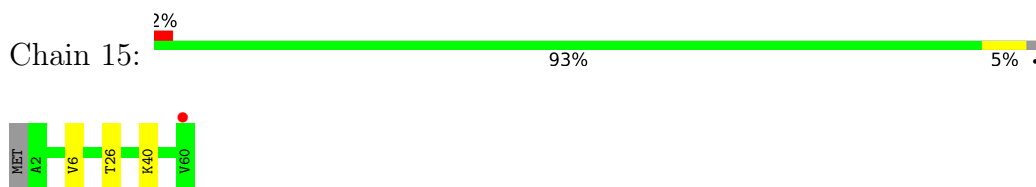
- Molecule 26: 50S ribosomal protein L31



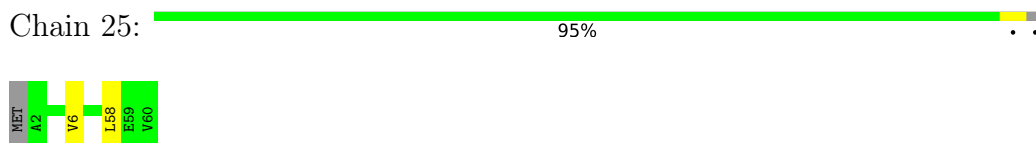
- Molecule 26: 50S ribosomal protein L31



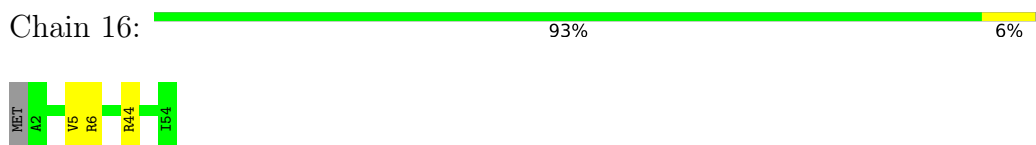
- Molecule 27: 50S ribosomal protein L32



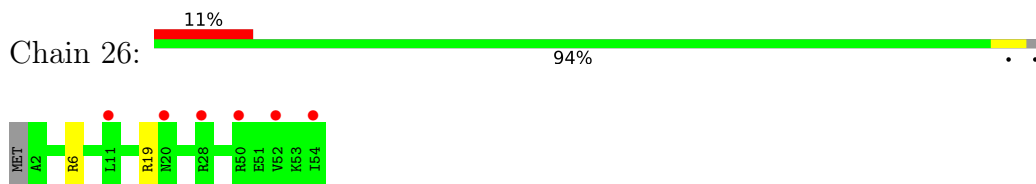
- Molecule 27: 50S ribosomal protein L32



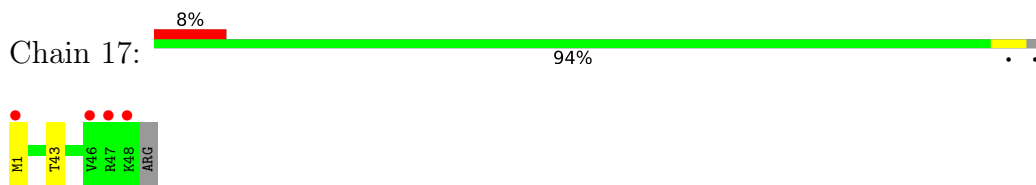
- Molecule 28: 50S ribosomal protein L33



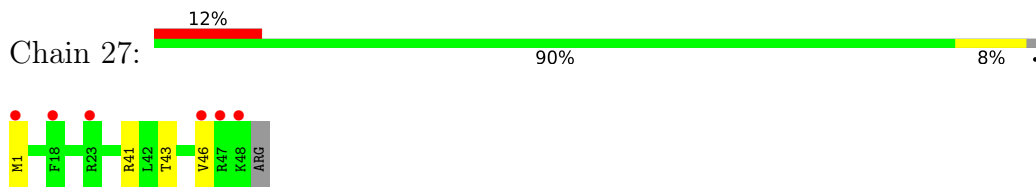
- Molecule 28: 50S ribosomal protein L33



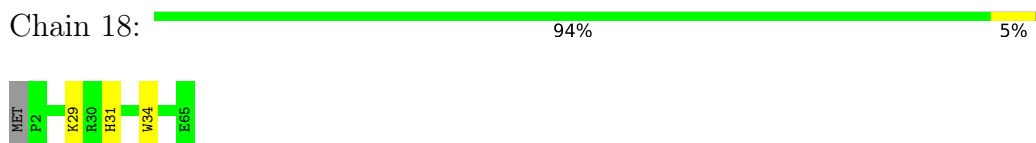
- Molecule 29: 50S ribosomal protein L34



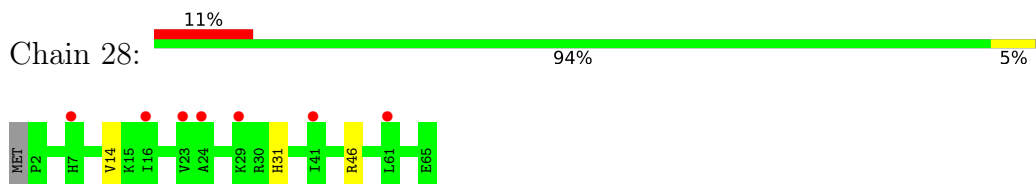
- Molecule 29: 50S ribosomal protein L34



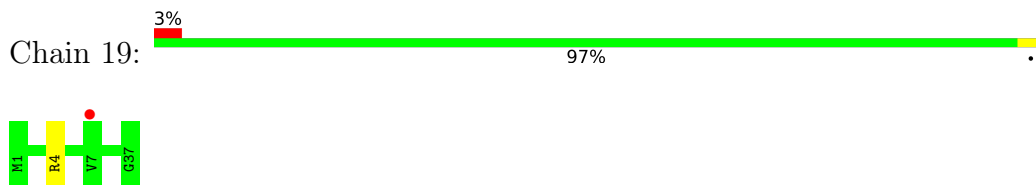
- Molecule 30: 50S ribosomal protein L35



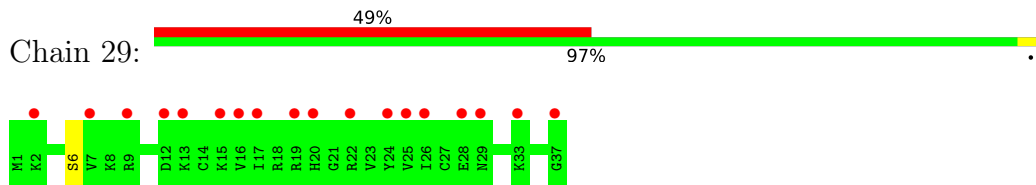
- Molecule 30: 50S ribosomal protein L35



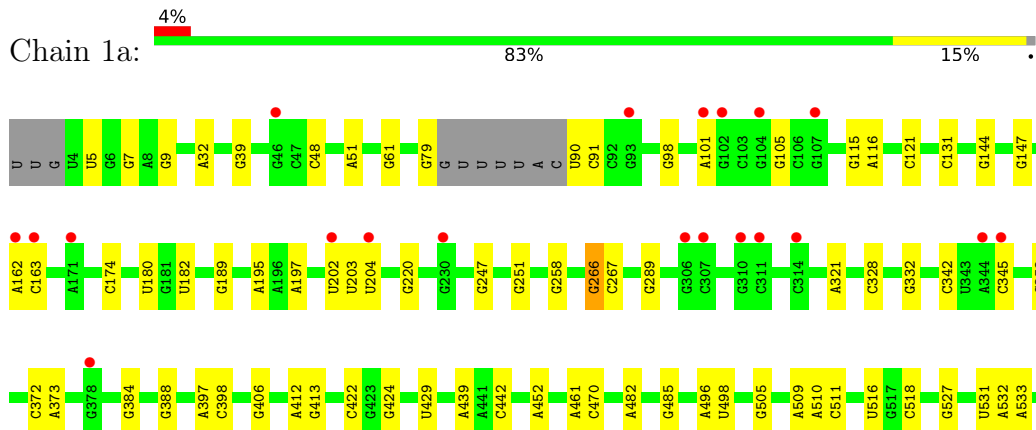
- Molecule 31: 50S ribosomal protein L36



- Molecule 31: 50S ribosomal protein L36

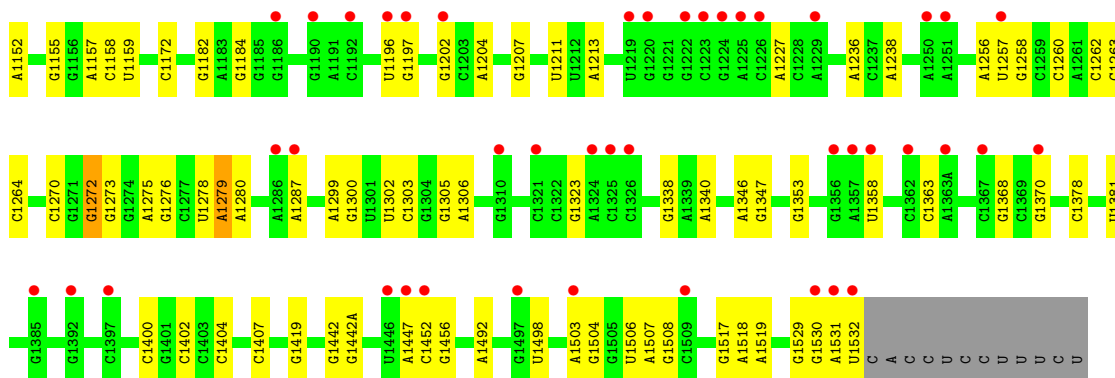


- Molecule 32: 16S Ribosomal RNA

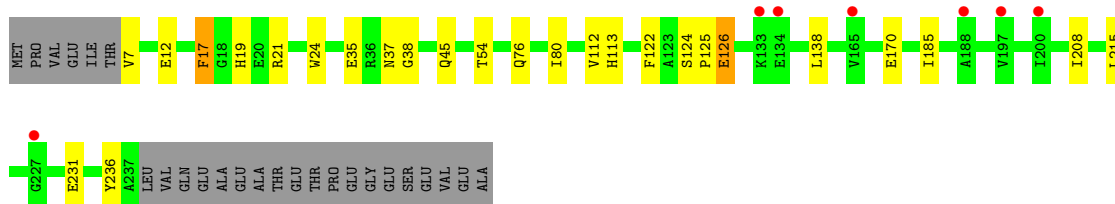
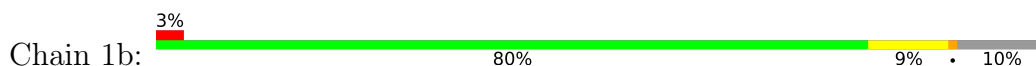




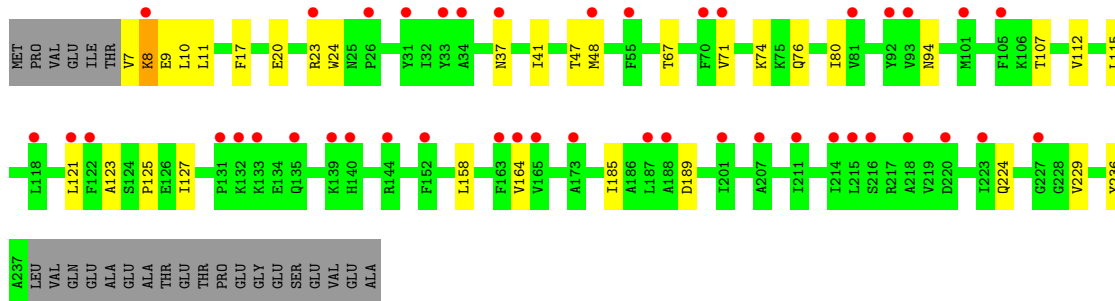
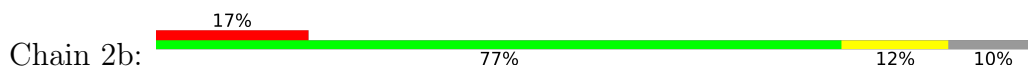




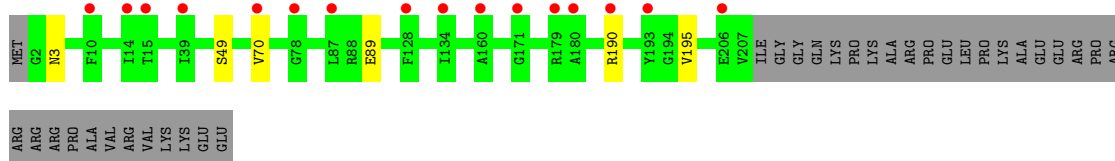
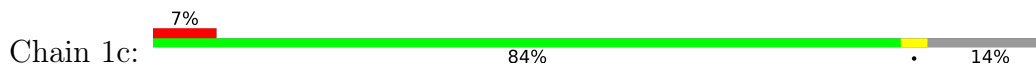
- Molecule 33: 30S ribosomal protein S2



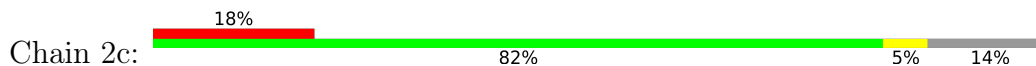
- Molecule 33: 30S ribosomal protein S2

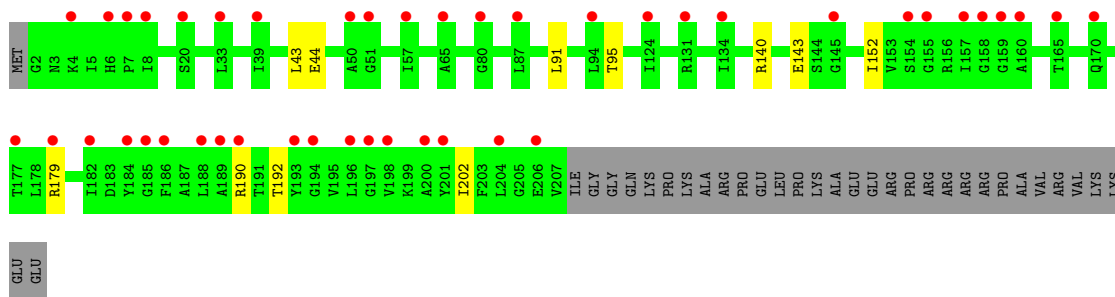


- Molecule 34: 30S ribosomal protein S3

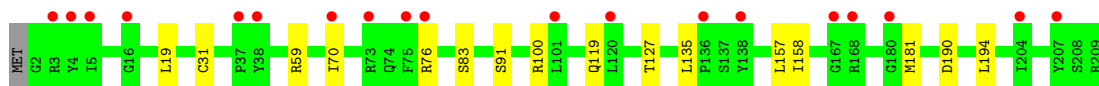
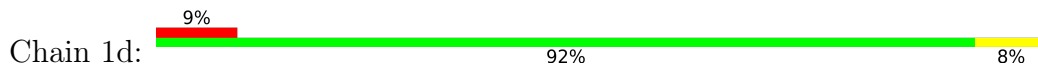


- Molecule 34: 30S ribosomal protein S3

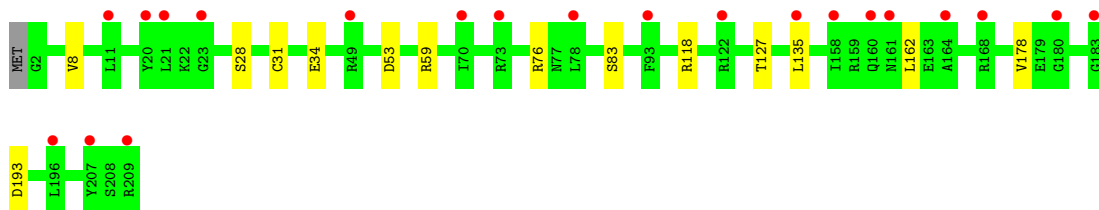




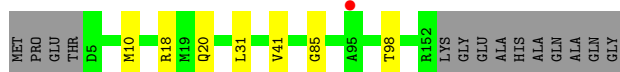
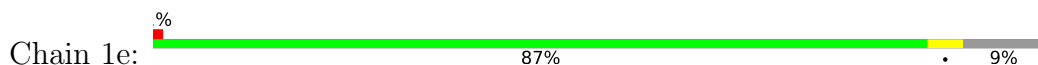
• Molecule 35: 30S ribosomal protein S4



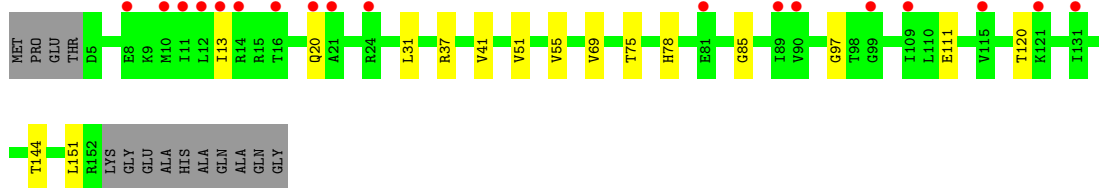
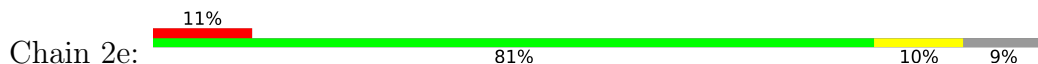
• Molecule 35: 30S ribosomal protein S4



• Molecule 36: 30S ribosomal protein S5



• Molecule 36: 30S ribosomal protein S5



• Molecule 37: 30S ribosomal protein S6

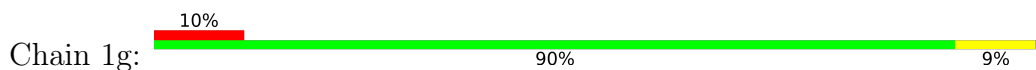




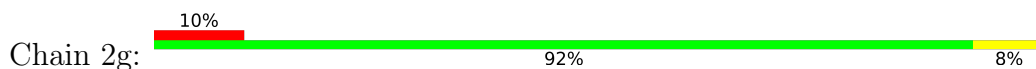
- Molecule 37: 30S ribosomal protein S6



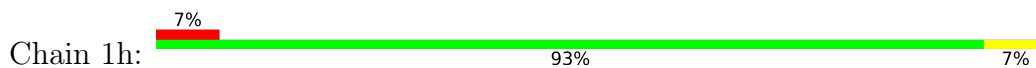
- Molecule 38: 30S ribosomal protein S7



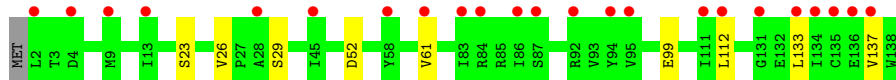
- Molecule 38: 30S ribosomal protein S7



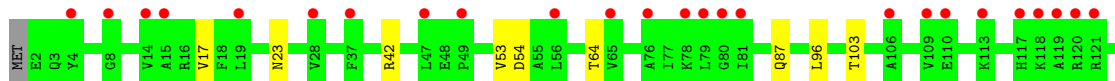
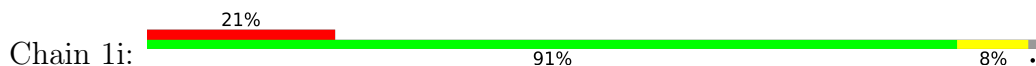
- Molecule 39: 30S ribosomal protein S8



- Molecule 39: 30S ribosomal protein S8

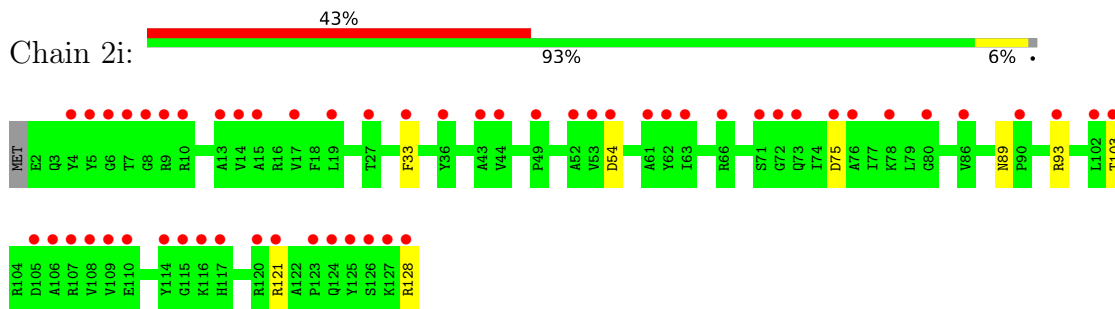


- Molecule 40: 30S ribosomal protein S9

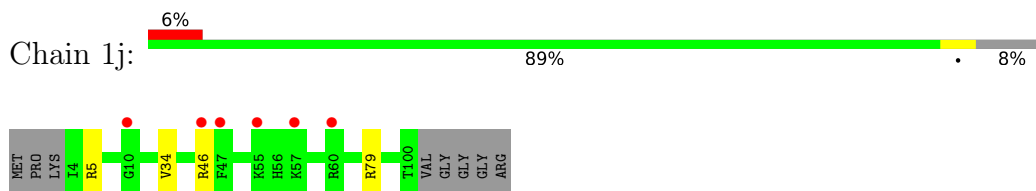




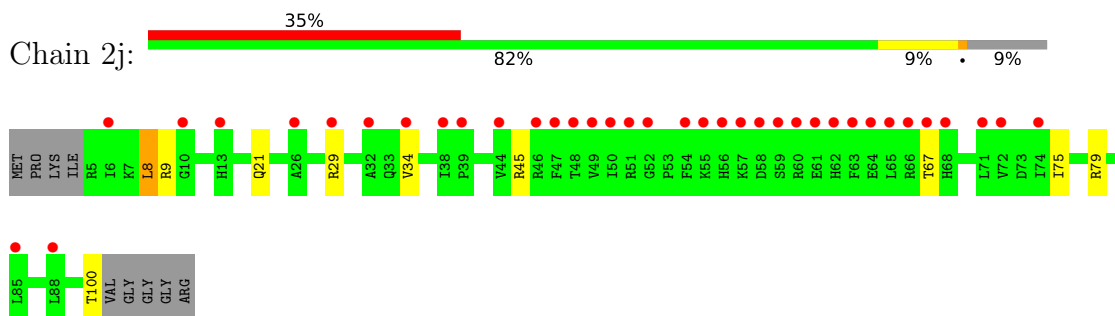
- Molecule 40: 30S ribosomal protein S9



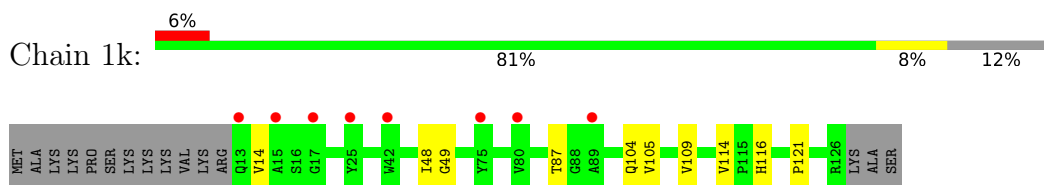
- Molecule 41: 30S ribosomal protein S10



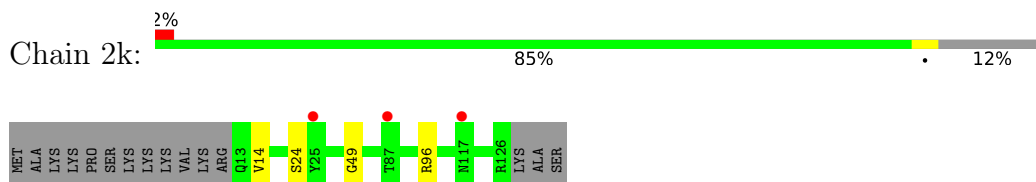
- Molecule 41: 30S ribosomal protein S10



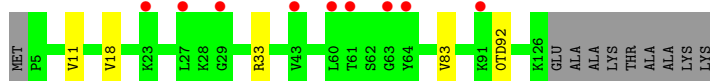
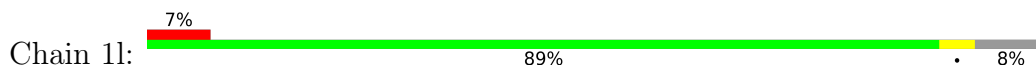
- Molecule 42: 30S ribosomal protein S11



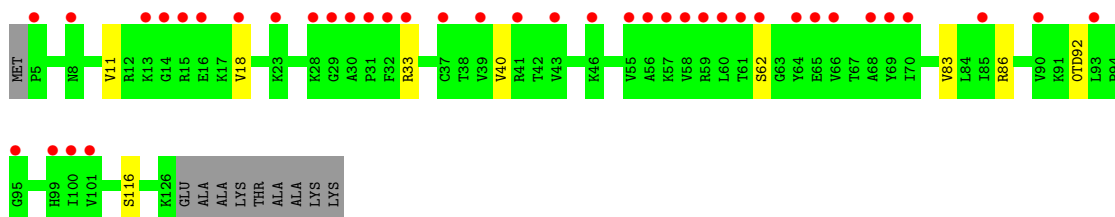
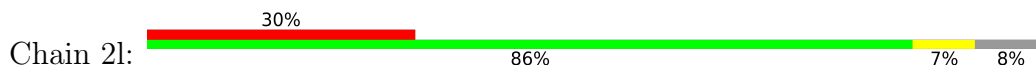
- Molecule 42: 30S ribosomal protein S11



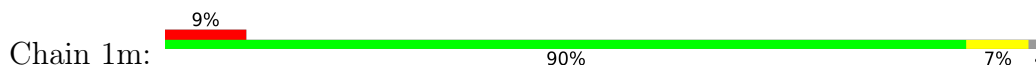
- Molecule 43: 30S ribosomal protein S12



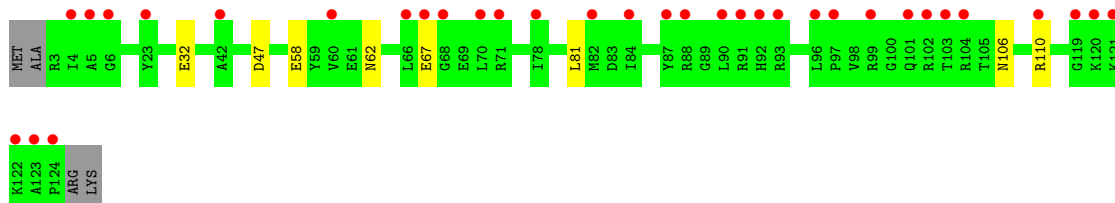
- Molecule 43: 30S ribosomal protein S12



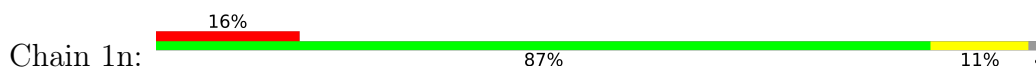
- Molecule 44: 30S ribosomal protein S13



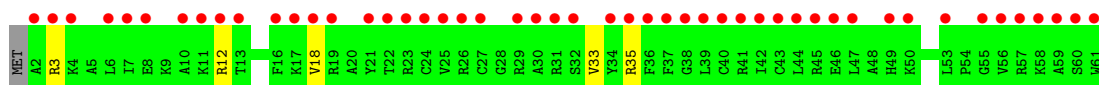
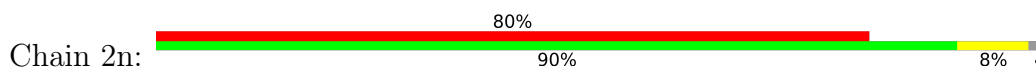
- Molecule 44: 30S ribosomal protein S13



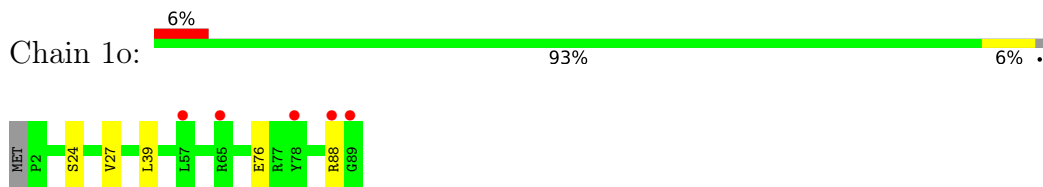
- Molecule 45: 30S ribosomal protein S14 type Z



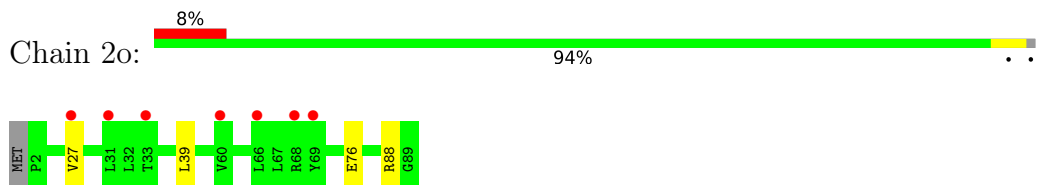
- Molecule 45: 30S ribosomal protein S14 type Z



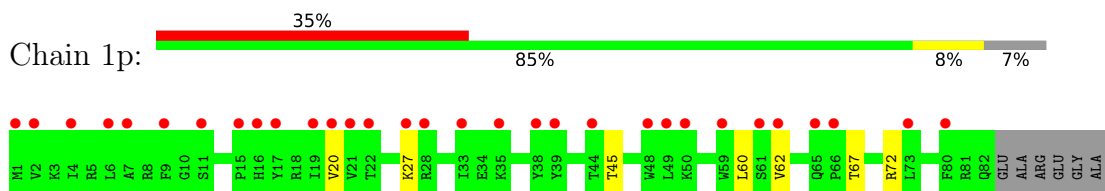
- Molecule 46: 30S ribosomal protein S15



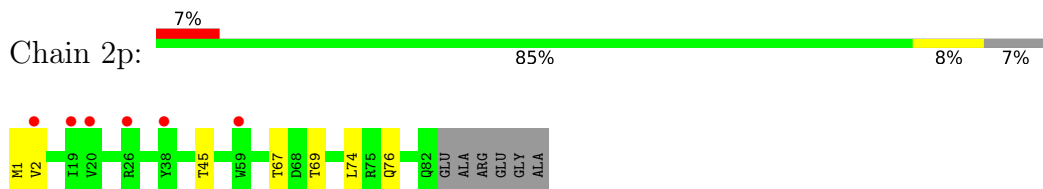
- Molecule 46: 30S ribosomal protein S15



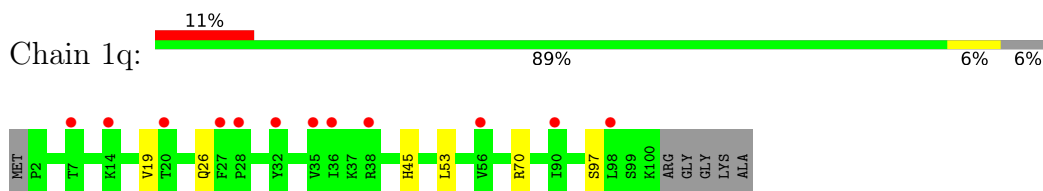
- Molecule 47: 30S ribosomal protein S16



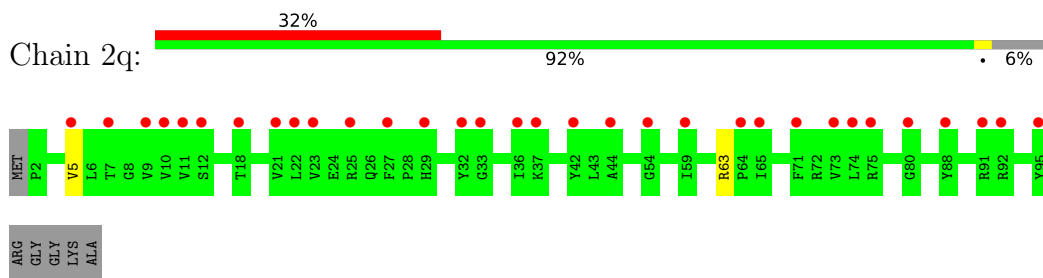
- Molecule 47: 30S ribosomal protein S16



- Molecule 48: 30S ribosomal protein S17



- Molecule 48: 30S ribosomal protein S17

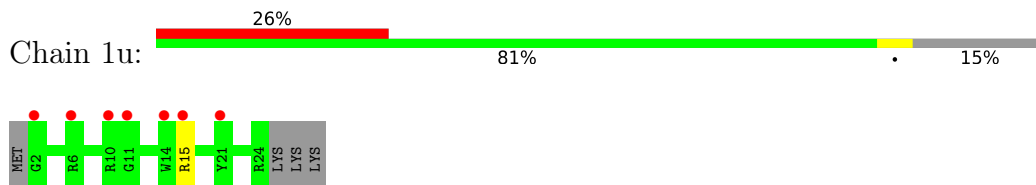


- Molecule 49: 30S ribosomal protein S18

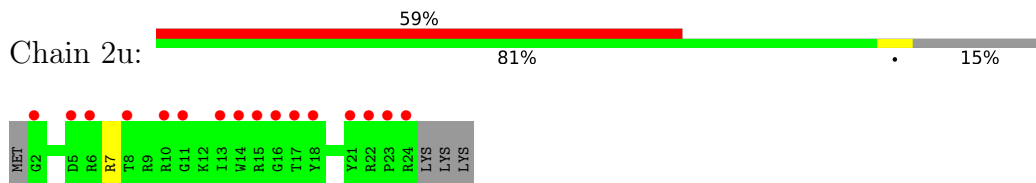




- Molecule 52: 30S ribosomal protein Thx



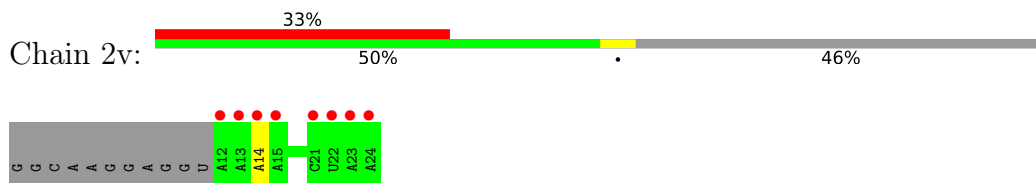
- Molecule 52: 30S ribosomal protein Thx



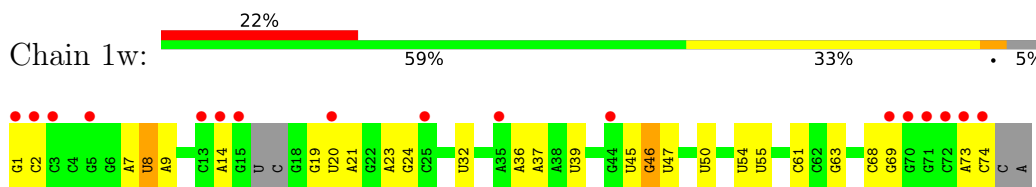
- Molecule 53: MF-mRNA



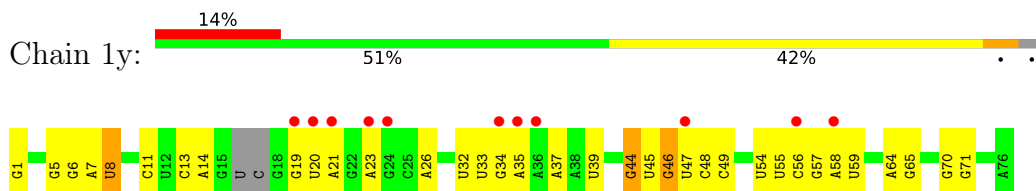
- Molecule 53: MF-mRNA



- Molecule 54: A- and E-site Deacylated tRNAphe



- Molecule 54: A- and E-site Deacylated tRNAphe

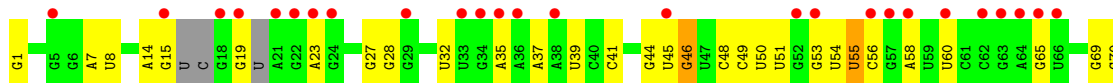


- Molecule 54: A- and E-site Deacylated tRNAphe

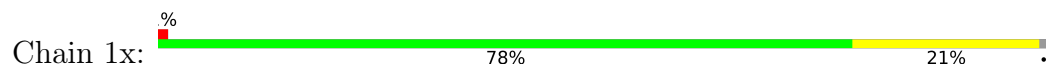




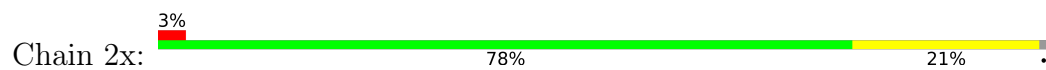
- Molecule 54: A- and E-site Deacylated tRNA<sup>phe</sup>



- Molecule 55: P-site Aminoacyl-tRNA<sup>fMet</sup>-tRNA<sup>met</sup>



- Molecule 55: P-site Aminoacyl-tRNA<sup>fMet</sup>-tRNA<sup>met</sup>



## 4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	210.00Å 449.39Å 623.27Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	182.26 – 2.70 199.01 – 2.70	Depositor EDS
% Data completeness (in resolution range)	99.4 (182.26-2.70) 99.4 (199.01-2.70)	Depositor EDS
$R_{merge}$	0.15	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	1.25 (at 2.69Å)	Xtrriage
Refinement program	PHENIX 1.8.2	Depositor
R, $R_{free}$	0.201 , 0.241 0.201 , 0.242	Depositor DCC
$R_{free}$ test set	79417 reflections (5.02%)	wwPDB-VP
Wilson B-factor (Å <sup>2</sup> )	60.0	Xtrriage
Anisotropy	0.064	Xtrriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.29 , 55.1	EDS
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.46$ , $\langle L^2 \rangle = 0.29$	Xtrriage
Estimated twinning fraction	No twinning to report.	Xtrriage
$F_o, F_c$ correlation	0.91	EDS
Total number of atoms	298872	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	65.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.59% 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: 2MA, MG, M2G, 5MC, G7M, 2MG, MIA, OMC, OMG, ZN, K, SF4, UR3, PSU, 31H, MA6, 4OC, 0TD, 4SU, OMU, WC9, 5MU

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	0.47	0/69011	0.91	50/107720 (0.0%)
1	2A	0.37	0/67295	0.83	22/105042 (0.0%)
2	1B	0.41	1/2882 (0.0%)	0.80	0/4494
2	2B	0.38	1/2879 (0.0%)	0.81	2/4487 (0.0%)
3	1D	0.36	0/2186	0.54	0/2944
3	2D	0.32	0/2186	0.51	0/2944
4	1E	0.33	0/1592	0.53	0/2149
4	2E	0.30	0/1592	0.51	0/2149
5	1F	0.33	0/1619	0.53	0/2193
5	2F	0.30	0/1615	0.48	0/2188
6	1G	0.29	0/1448	0.48	0/1957
6	2G	0.29	0/1453	0.46	0/1963
7	1H	0.31	0/1356	0.50	0/1834
7	2H	0.28	0/1356	0.45	0/1834
8	1I	0.29	0/1112	0.47	0/1514
8	2I	0.28	0/1079	0.50	0/1475
9	1N	0.33	0/1144	0.51	0/1543
9	2N	0.28	0/1144	0.44	0/1543
10	1O	0.33	0/943	0.53	0/1269
10	2O	0.31	0/943	0.51	0/1269
11	1P	0.32	0/1152	0.56	0/1533
11	2P	0.30	0/1152	0.53	0/1533
12	1Q	0.34	0/1143	0.51	0/1527
12	2Q	0.30	0/1143	0.47	0/1527
13	1R	0.32	0/982	0.52	0/1312
13	2R	0.27	0/982	0.47	0/1312
14	1S	0.30	0/883	0.50	0/1176
14	2S	0.30	0/880	0.48	0/1172
15	1T	0.31	0/1105	0.49	0/1477
15	2T	0.30	0/1097	0.48	0/1468
16	1U	0.34	0/977	0.50	0/1301

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
16	2U	0.29	0/977	0.41	0/1301
17	1V	0.35	0/782	0.53	0/1049
17	2V	0.29	0/782	0.49	0/1049
18	1W	0.34	0/897	0.50	0/1205
18	2W	0.30	0/897	0.48	0/1205
19	1X	0.35	0/764	0.55	0/1025
19	2X	0.30	0/764	0.54	0/1025
20	1Y	0.34	0/819	0.53	0/1095
20	2Y	0.31	0/819	0.51	0/1095
21	1Z	0.29	0/1267	0.48	0/1717
21	2Z	0.30	0/1299	0.49	0/1763
22	10	0.33	0/662	0.51	0/881
22	20	0.30	0/662	0.49	0/881
23	11	0.35	0/762	0.52	0/1014
23	21	0.31	0/762	0.50	0/1014
24	12	0.31	0/590	0.44	0/781
24	22	0.29	0/590	0.40	0/781
25	13	0.31	0/474	0.51	0/635
25	23	0.28	0/469	0.45	0/630
26	14	0.32	0/565	0.59	1/761 (0.1%)
26	24	0.31	0/545	0.49	0/737
27	15	0.32	0/469	0.51	0/635
27	25	0.29	0/469	0.48	0/635
28	16	0.31	0/460	0.51	0/613
28	26	0.30	0/456	0.49	0/608
29	17	0.32	0/426	0.51	0/561
29	27	0.30	0/426	0.49	0/561
30	18	0.34	0/525	0.54	0/691
30	28	0.28	0/525	0.49	0/691
31	19	0.35	0/310	0.52	0/407
31	29	0.29	0/310	0.52	0/407
32	1a	0.35	0/35795	0.84	26/55864 (0.0%)
32	2a	0.34	3/35886 (0.0%)	0.86	31/56005 (0.1%)
33	1b	0.30	0/1881	0.47	0/2542
33	2b	0.31	0/1860	0.49	0/2518
34	1c	0.28	0/1572	0.45	0/2126
34	2c	0.30	0/1566	0.47	0/2119
35	1d	0.29	0/1685	0.46	0/2262
35	2d	0.28	0/1704	0.45	0/2284
36	1e	0.29	0/1145	0.51	0/1543
36	2e	0.30	0/1149	0.49	0/1548
37	1f	0.28	0/823	0.48	0/1115
37	2f	0.30	0/829	0.49	0/1123

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
38	1g	0.27	0/1250	0.43	0/1679
38	2g	0.28	0/1254	0.42	0/1683
39	1h	0.29	0/1108	0.49	1/1494 (0.1%)
39	2h	0.28	0/1108	0.47	0/1494
40	1i	0.29	0/1002	0.50	0/1346
40	2i	0.30	0/997	0.48	0/1343
41	1j	0.27	0/722	0.49	0/982
41	2j	0.28	0/727	0.53	1/988 (0.1%)
42	1k	0.27	0/844	0.49	0/1145
42	2k	0.28	0/848	0.47	0/1149
43	1l	0.30	0/937	0.49	0/1260
43	2l	0.27	0/937	0.49	0/1260
44	1m	0.28	0/969	0.46	0/1302
44	2m	0.28	0/961	0.49	0/1291
45	1n	0.28	0/501	0.44	0/664
45	2n	0.30	0/501	0.44	0/664
46	1o	0.28	0/739	0.43	0/985
46	2o	0.27	0/739	0.44	0/985
47	1p	0.28	0/697	0.52	0/939
47	2p	0.28	0/693	0.50	0/935
48	1q	0.28	0/836	0.47	0/1117
48	2q	0.29	0/836	0.47	0/1117
49	1r	0.28	0/560	0.47	0/746
49	2r	0.27	0/560	0.46	0/746
50	1s	0.27	0/667	0.50	0/900
50	2s	0.33	0/661	0.56	0/893
51	1t	0.28	0/730	0.44	0/965
51	2t	0.28	0/729	0.41	0/965
52	1u	0.24	0/203	0.45	0/266
52	2u	0.28	0/203	0.47	0/266
53	1v	0.35	0/310	0.81	0/480
53	2v	0.35	0/310	0.82	0/480
54	1w	0.46	1/1559 (0.1%)	0.91	0/2424
54	1y	0.49	1/1606 (0.1%)	1.02	6/2497 (0.2%)
54	2w	0.44	0/1509	0.94	0/2345
54	2y	0.49	1/1583 (0.1%)	0.97	0/2459
55	1x	0.54	4/1700 (0.2%)	1.12	20/2650 (0.8%)
55	2x	0.46	1/1700 (0.1%)	1.06	15/2650 (0.6%)
All	All	0.38	13/316546 (0.0%)	0.79	175/473905 (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
5	2F	0	1

All (13) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	1B	1	U	OP3-P	-10.15	1.49	1.61
54	2y	1	G	OP3-P	-10.14	1.49	1.61
54	1y	1	G	OP3-P	-10.11	1.49	1.61
2	2B	1	U	OP3-P	-10.01	1.49	1.61
54	1w	1	G	OP3-P	-9.98	1.49	1.61
32	2a	1272	G	N1-C2	-9.14	1.30	1.37
32	2a	1272	G	C6-N1	-8.01	1.33	1.39
55	1x	22	G	N7-C5	5.92	1.42	1.39
55	1x	14	A	N7-C5	-5.79	1.35	1.39
55	1x	22	G	C8-N7	5.66	1.34	1.30
32	2a	1263	C	N3-C4	-5.54	1.30	1.33
55	1x	14	A	C8-N7	-5.19	1.27	1.31
55	2x	22	G	N7-C5	5.14	1.42	1.39

All (175) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	2a	1263	C	N1-C2-O2	26.67	134.90	118.90
32	2a	1272	G	N3-C2-N2	21.84	135.19	119.90
32	2a	1272	G	C5-C6-O6	19.95	140.57	128.60
32	2a	1272	G	N1-C2-N2	-17.96	100.04	116.20
32	2a	1263	C	C2-N3-C4	15.40	127.60	119.90
32	2a	1263	C	N3-C2-O2	-14.73	111.59	121.90
32	2a	1272	G	C6-N1-C2	13.91	133.45	125.10
32	2a	1263	C	C5-C6-N1	13.10	127.55	121.00
55	1x	46	G	C6-N1-C2	-12.14	117.81	125.10
55	2x	46	G	C6-N1-C2	-11.52	118.19	125.10
32	2a	1272	G	C5-C6-N1	-11.46	105.77	111.50
1	1A	1075	C	N1-C2-O2	11.06	125.54	118.90
1	1A	1086	A	N1-C6-N6	-10.65	112.21	118.60
32	2a	1272	G	N1-C6-O6	-10.47	113.62	119.90
55	1x	14	A	C4-C5-C6	10.11	122.06	117.00
55	1x	14	A	C5-N7-C8	10.04	108.92	103.90
32	1a	1025	U	N1-C2-O2	10.03	129.82	122.80
55	1x	22	G	C5-N7-C8	-9.89	99.36	104.30
32	2a	1263	C	C4-C5-C6	-9.80	112.50	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	2a	1263	C	C2-N1-C1'	9.64	129.40	118.80
1	1A	2554	U	O5'-P-OP1	-9.22	97.40	105.70
1	1A	512	G	O4'-C1'-N9	9.22	115.58	108.20
1	1A	1614	A	O5'-P-OP1	-9.12	97.49	105.70
1	1A	1075	C	C2-N3-C4	9.04	124.42	119.90
32	2a	1263	C	C6-N1-C2	-8.80	116.78	120.30
32	2a	1272	G	C2-N3-C4	-8.79	107.50	111.90
55	2x	22	G	C5-N7-C8	-8.78	99.91	104.30
1	1A	1063	G	C5-C6-O6	8.77	133.86	128.60
1	1A	2167	U	C2-N1-C1'	8.34	127.70	117.70
55	2x	46	G	N3-C2-N2	-8.30	114.09	119.90
32	2a	1263	C	N1-C2-N3	-8.16	113.49	119.20
32	1a	1030	C	C2-N3-C4	8.05	123.93	119.90
32	1a	1034	G	C6-N1-C2	7.98	129.89	125.10
1	2A	2136	C	N1-C2-O2	7.97	123.68	118.90
32	1a	1030	C	N1-C2-O2	7.88	123.63	118.90
55	2x	14	A	C5-N7-C8	7.79	107.79	103.90
55	1x	46	G	C5-C6-N1	7.76	115.38	111.50
2	2B	80	U	O4'-C1'-N1	7.71	114.37	108.20
1	1A	2167	U	N3-C2-O2	-7.70	116.81	122.20
54	1y	33	U	C2-N1-C1'	7.62	126.85	117.70
1	1A	1063	G	C6-N1-C2	7.50	129.60	125.10
55	2x	14	A	C4-C5-C6	7.45	120.73	117.00
1	1A	2682	U	O5'-P-OP2	-7.39	99.05	105.70
1	1A	2167	U	N1-C2-O2	7.27	127.89	122.80
55	1x	22	G	C4-C5-C6	-7.20	114.48	118.80
32	2a	1263	C	N3-C4-N4	-7.03	113.08	118.00
55	1x	22	G	N7-C8-N9	7.00	116.60	113.10
55	1x	14	A	C5-C6-N1	-7.00	114.20	117.70
1	1A	1992	G	P-O3'-C3'	6.97	128.06	119.70
32	2a	1263	C	C5-C4-N4	6.97	125.08	120.20
54	1y	33	U	N1-C2-O2	6.95	127.67	122.80
32	1a	1030	C	C5-C4-N4	6.91	125.03	120.20
55	2x	46	G	N1-C2-N3	6.79	127.97	123.90
1	1A	548	A	P-O3'-C3'	6.75	127.80	119.70
32	1a	1025	U	C2-N1-C1'	6.62	125.64	117.70
55	2x	22	G	C4-C5-C6	-6.60	114.84	118.80
1	1A	1075	C	N3-C2-O2	-6.57	117.30	121.90
1	1A	226	G	O4'-C1'-N9	6.55	113.44	108.20
1	1A	2848	G	O4'-C1'-N9	6.55	113.44	108.20
55	2x	22	G	N1-C6-O6	-6.53	115.98	119.90
1	2A	2129	C	N1-C2-O2	6.48	122.79	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2A	801	G	O5'-P-OP2	-6.40	99.94	105.70
55	2x	46	G	C5-C6-N1	6.38	114.69	111.50
1	1A	1082	U	N3-C4-O4	-6.36	114.95	119.40
32	1a	1025	U	N3-C2-O2	-6.35	117.75	122.20
1	2A	847	U	C2-N1-C1'	6.35	125.32	117.70
1	1A	948	G	O5'-P-OP1	-6.25	100.07	105.70
55	1x	22	G	N3-C4-N9	-6.25	122.25	126.00
55	1x	14	A	C8-N9-C1'	-6.23	116.49	127.70
32	2a	1272	G	C8-N9-C1'	-6.22	118.91	127.00
55	2x	22	G	N7-C8-N9	6.21	116.20	113.10
55	1x	14	A	C4-N9-C1'	6.20	137.46	126.30
1	1A	999	U	O5'-P-OP2	-6.16	100.15	105.70
32	1a	1442	G	C2-N3-C4	6.16	114.98	111.90
32	2a	1272	G	C4-N9-C1'	6.14	134.48	126.50
32	1a	1034	G	C5-C6-O6	6.10	132.26	128.60
1	1A	1063	G	N3-C2-N2	6.09	124.16	119.90
1	2A	205	G	C8-N9-C4	6.03	108.81	106.40
1	2A	1992	G	P-O3'-C3'	6.02	126.92	119.70
55	1x	46	G	C5-C6-O6	-6.01	125.00	128.60
32	2a	1263	C	C6-N1-C1'	-5.96	113.64	120.80
32	1a	90	U	N3-C2-O2	-5.92	118.05	122.20
1	1A	1776	G	O5'-P-OP2	-5.90	100.39	105.70
1	1A	12	U	C2-N1-C1'	5.89	124.77	117.70
1	2A	141	A	N7-C8-N9	5.89	116.75	113.80
55	1x	22	G	N1-C6-O6	-5.86	116.39	119.90
32	2a	266	G	P-O3'-C3'	5.85	126.72	119.70
1	1A	784	A	O4'-C1'-N9	5.84	112.87	108.20
1	2A	1313	U	C2-N1-C1'	5.82	124.68	117.70
32	1a	266	G	P-O3'-C3'	5.81	126.67	119.70
1	2A	383	U	O4'-C1'-N1	5.80	112.84	108.20
55	2x	46	G	N9-C4-C5	5.80	107.72	105.40
1	1A	1177	A	O5'-P-OP1	-5.80	100.48	105.70
32	1a	1025	U	C6-N1-C1'	-5.76	113.13	121.20
54	1y	33	U	N3-C2-O2	-5.76	118.17	122.20
55	1x	46	G	N1-C2-N3	5.71	127.33	123.90
55	2x	14	A	C5-C6-N1	-5.67	114.86	117.70
32	2a	1158	C	C2-N1-C1'	5.67	125.03	118.80
55	1x	22	G	C8-N9-C1'	5.66	134.35	127.00
2	2B	1	U	C2-N1-C1'	5.65	124.48	117.70
1	1A	2059	A	O4'-C1'-N9	5.65	112.72	108.20
39	1h	74	PRO	C-N-CA	-5.64	107.59	121.70
55	1x	46	G	N3-C2-N2	-5.64	115.95	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2A	141	A	C8-N9-C4	-5.64	103.55	105.80
1	1A	548	A	OP1-P-O3'	5.63	117.59	105.20
1	1A	2789	C	O4'-C1'-N1	5.63	112.70	108.20
32	2a	687	A	P-O3'-C3'	5.59	126.41	119.70
32	1a	1006	C	N1-C2-O2	5.58	122.25	118.90
32	1a	1442	G	N3-C4-C5	-5.58	125.81	128.60
1	1A	847	U	C2-N1-C1'	5.57	124.38	117.70
1	1A	372	G	O4'-C1'-N9	5.57	112.65	108.20
32	1a	1067	A	P-O3'-C3'	5.56	126.37	119.70
1	1A	2319	G	O4'-C1'-N9	5.54	112.63	108.20
55	1x	14	A	C4-C5-N7	-5.53	107.93	110.70
55	1x	46	G	N3-C4-C5	-5.53	125.84	128.60
32	2a	1029	C	N1-C2-O2	5.51	122.20	118.90
1	2A	2136	C	N3-C2-O2	-5.49	118.05	121.90
1	1A	1174	A	P-O3'-C3'	5.49	126.29	119.70
1	1A	668	G	OP2-P-O3'	5.49	117.28	105.20
1	2A	2218	U	N3-C2-O2	-5.48	118.36	122.20
1	1A	383	U	O4'-C1'-N1	5.46	112.57	108.20
54	1y	44	G	C5-C6-O6	-5.46	125.32	128.60
1	1A	1937	A	O4'-C1'-N9	5.46	112.57	108.20
55	2x	46	G	C4-C5-N7	-5.45	108.62	110.80
1	1A	1936	A	O4'-C1'-N9	5.44	112.55	108.20
32	1a	90	U	N1-C2-O2	5.44	126.61	122.80
1	1A	845	G	O4'-C1'-N9	5.43	112.55	108.20
32	1a	115	G	P-O3'-C3'	5.43	126.22	119.70
32	1a	1158	C	C2-N1-C1'	5.43	124.78	118.80
55	1x	22	G	C5-C6-N1	5.42	114.21	111.50
1	2A	1614	A	O5'-P-OP1	-5.41	100.83	105.70
1	1A	1176	G	OP1-P-O3'	5.39	117.05	105.20
1	1A	2789	C	C2-N1-C1'	-5.36	112.91	118.80
32	1a	687	A	P-O3'-C3'	5.34	126.11	119.70
1	1A	383	U	C2-N1-C1'	-5.33	111.30	117.70
1	1A	2167	U	C6-N1-C2	-5.32	117.81	121.00
1	2A	2218	U	N1-C2-O2	5.31	126.52	122.80
32	2a	1279	A	P-O3'-C3'	5.30	126.07	119.70
41	2j	8	LEU	CA-CB-CG	5.30	127.49	115.30
1	1A	195	A	P-O3'-C3'	5.30	126.06	119.70
1	1A	1416	G	O4'-C1'-N9	5.29	112.44	108.20
32	1a	1034	G	N3-C2-N2	5.29	123.60	119.90
1	2A	512	G	O4'-C1'-N9	5.28	112.42	108.20
55	2x	22	G	C5-C6-N1	5.28	114.14	111.50
32	2a	754	C	C2-N1-C1'	5.26	124.59	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1A	1063	G	N1-C6-O6	-5.25	116.75	119.90
1	2A	265	A	O4'-C1'-N9	5.23	112.38	108.20
32	2a	1279	A	OP1-P-O3'	5.19	116.61	105.20
1	2A	746	A	O4'-C1'-N9	5.17	112.34	108.20
32	1a	748	C	P-O3'-C3'	5.17	125.90	119.70
32	1a	90	U	C2-N1-C1'	5.16	123.89	117.70
54	1y	33	U	C6-N1-C1'	-5.16	113.98	121.20
32	1a	913	A	P-O3'-C3'	5.16	125.89	119.70
1	2A	752	A	P-O3'-C3'	5.15	125.88	119.70
1	2A	1204	A	O4'-C1'-N9	5.14	112.31	108.20
1	1A	1075	C	C5-C6-N1	5.13	123.56	121.00
32	2a	1029	C	N3-C2-O2	-5.12	118.31	121.90
32	1a	1030	C	N3-C4-C5	-5.12	119.85	121.90
54	1y	44	G	N1-C6-O6	5.12	122.97	119.90
32	2a	1065	U	P-O3'-C3'	5.09	125.81	119.70
55	2x	22	G	C8-N9-C1'	5.09	133.61	127.00
1	2A	2689	U	P-O3'-C3'	5.08	125.80	119.70
32	1a	1030	C	N3-C2-O2	-5.07	118.35	121.90
1	1A	748	G	C8-N9-C1'	5.07	133.59	127.00
32	2a	913	A	P-O3'-C3'	5.07	125.78	119.70
1	2A	528	A	P-O3'-C3'	5.07	125.78	119.70
1	1A	1086	A	C5-C6-N6	5.06	127.75	123.70
55	1x	46	G	N9-C4-C5	5.06	107.42	105.40
26	14	27	THR	C-N-CA	5.05	134.32	121.70
1	2A	228	A	P-O3'-C3'	5.03	125.74	119.70
1	1A	975	C	N1-C2-O2	-5.02	115.89	118.90
1	1A	2319	G	C5-N7-C8	-5.02	101.79	104.30
32	1a	1363	C	N1-C2-O2	-5.02	115.89	118.90
1	1A	2581	G	O4'-C1'-N9	5.01	112.21	108.20
32	2a	1158	C	N1-C2-O2	5.00	121.90	118.90

There are no chirality outliers.

All (1) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
5	2F	20	LEU	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

### 5.3.1 Protein backbone

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	1D	273/276 (99%)	263 (96%)	10 (4%)	0	100	100
3	2D	273/276 (99%)	263 (96%)	10 (4%)	0	100	100
4	1E	202/206 (98%)	192 (95%)	9 (4%)	1 (0%)	29	54
4	2E	202/206 (98%)	194 (96%)	7 (4%)	1 (0%)	29	54
5	1F	201/210 (96%)	197 (98%)	3 (2%)	1 (0%)	29	54
5	2F	201/210 (96%)	193 (96%)	7 (4%)	1 (0%)	29	54
6	1G	179/182 (98%)	165 (92%)	14 (8%)	0	100	100
6	2G	179/182 (98%)	154 (86%)	21 (12%)	4 (2%)	6	17
7	1H	172/180 (96%)	162 (94%)	9 (5%)	1 (1%)	25	50
7	2H	172/180 (96%)	156 (91%)	14 (8%)	2 (1%)	13	32
8	1I	144/148 (97%)	129 (90%)	15 (10%)	0	100	100
8	2I	144/148 (97%)	125 (87%)	18 (12%)	1 (1%)	22	46
9	1N	138/140 (99%)	134 (97%)	4 (3%)	0	100	100
9	2N	138/140 (99%)	133 (96%)	4 (3%)	1 (1%)	22	46
10	1O	120/122 (98%)	114 (95%)	6 (5%)	0	100	100
10	2O	120/122 (98%)	114 (95%)	5 (4%)	1 (1%)	19	43
11	1P	147/150 (98%)	135 (92%)	10 (7%)	2 (1%)	11	28
11	2P	147/150 (98%)	130 (88%)	13 (9%)	4 (3%)	5	12
12	1Q	139/141 (99%)	133 (96%)	6 (4%)	0	100	100
12	2Q	139/141 (99%)	131 (94%)	8 (6%)	0	100	100
13	1R	116/118 (98%)	112 (97%)	4 (3%)	0	100	100
13	2R	116/118 (98%)	111 (96%)	4 (3%)	1 (1%)	17	40
14	1S	108/112 (96%)	104 (96%)	4 (4%)	0	100	100
14	2S	108/112 (96%)	97 (90%)	8 (7%)	3 (3%)	5	11
15	1T	129/146 (88%)	123 (95%)	5 (4%)	1 (1%)	19	43

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
15	2T	129/146 (88%)	122 (95%)	7 (5%)	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%)	94 (95%)	3 (3%)	2 (2%)	7	19
17	2V	99/101 (98%)	92 (93%)	6 (6%)	1 (1%)	15	37
18	1W	110/113 (97%)	109 (99%)	1 (1%)	0	100	100
18	2W	110/113 (97%)	110 (100%)	0	0	100	100
19	1X	93/96 (97%)	89 (96%)	2 (2%)	2 (2%)	6	17
19	2X	93/96 (97%)	90 (97%)	3 (3%)	0	100	100
20	1Y	105/110 (96%)	98 (93%)	6 (6%)	1 (1%)	15	37
20	2Y	105/110 (96%)	95 (90%)	10 (10%)	0	100	100
21	1Z	148/206 (72%)	137 (93%)	10 (7%)	1 (1%)	22	46
21	2Z	156/206 (76%)	125 (80%)	28 (18%)	3 (2%)	8	20
22	10	81/85 (95%)	79 (98%)	2 (2%)	0	100	100
22	20	81/85 (95%)	76 (94%)	5 (6%)	0	100	100
23	11	95/98 (97%)	92 (97%)	2 (2%)	1 (1%)	14	34
23	21	95/98 (97%)	93 (98%)	1 (1%)	1 (1%)	14	34
24	12	68/72 (94%)	67 (98%)	1 (2%)	0	100	100
24	22	68/72 (94%)	66 (97%)	2 (3%)	0	100	100
25	13	57/60 (95%)	55 (96%)	2 (4%)	0	100	100
25	23	57/60 (95%)	54 (95%)	3 (5%)	0	100	100
26	14	67/71 (94%)	50 (75%)	13 (19%)	4 (6%)	1	2
26	24	67/71 (94%)	52 (78%)	13 (19%)	2 (3%)	4	10
27	15	57/60 (95%)	54 (95%)	3 (5%)	0	100	100
27	25	57/60 (95%)	55 (96%)	2 (4%)	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%)	59 (95%)	3 (5%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
31	19	35/37 (95%)	34 (97%)	1 (3%)	0	100	100
31	29	35/37 (95%)	34 (97%)	1 (3%)	0	100	100
33	1b	229/256 (90%)	198 (86%)	24 (10%)	7 (3%)	4	9
33	2b	229/256 (90%)	192 (84%)	29 (13%)	8 (4%)	3	8
34	1c	204/239 (85%)	190 (93%)	14 (7%)	0	100	100
34	2c	204/239 (85%)	169 (83%)	33 (16%)	2 (1%)	15	37
35	1d	206/209 (99%)	195 (95%)	11 (5%)	0	100	100
35	2d	206/209 (99%)	190 (92%)	16 (8%)	0	100	100
36	1e	146/162 (90%)	138 (94%)	7 (5%)	1 (1%)	22	46
36	2e	146/162 (90%)	129 (88%)	13 (9%)	4 (3%)	5	12
37	1f	98/101 (97%)	92 (94%)	5 (5%)	1 (1%)	15	37
37	2f	98/101 (97%)	95 (97%)	3 (3%)	0	100	100
38	1g	153/156 (98%)	147 (96%)	5 (3%)	1 (1%)	22	46
38	2g	153/156 (98%)	138 (90%)	13 (8%)	2 (1%)	12	30
39	1h	135/138 (98%)	127 (94%)	8 (6%)	0	100	100
39	2h	135/138 (98%)	124 (92%)	11 (8%)	0	100	100
40	1i	125/128 (98%)	109 (87%)	15 (12%)	1 (1%)	19	43
40	2i	125/128 (98%)	111 (89%)	13 (10%)	1 (1%)	19	43
41	1j	95/105 (90%)	79 (83%)	15 (16%)	1 (1%)	14	34
41	2j	94/105 (90%)	78 (83%)	14 (15%)	2 (2%)	7	18
42	1k	112/129 (87%)	101 (90%)	9 (8%)	2 (2%)	8	21
42	2k	112/129 (87%)	103 (92%)	8 (7%)	1 (1%)	17	40
43	1l	119/132 (90%)	113 (95%)	6 (5%)	0	100	100
43	2l	119/132 (90%)	110 (92%)	9 (8%)	0	100	100
44	1m	121/126 (96%)	109 (90%)	11 (9%)	1 (1%)	19	43
44	2m	120/126 (95%)	103 (86%)	15 (12%)	2 (2%)	9	23
45	1n	58/61 (95%)	55 (95%)	3 (5%)	0	100	100
45	2n	58/61 (95%)	51 (88%)	7 (12%)	0	100	100
46	1o	86/89 (97%)	82 (95%)	4 (5%)	0	100	100
46	2o	86/89 (97%)	84 (98%)	1 (1%)	1 (1%)	13	32
47	1p	80/88 (91%)	74 (92%)	6 (8%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
47	2p	80/88 (91%)	77 (96%)	3 (4%)	0	100	100
48	1q	97/105 (92%)	91 (94%)	6 (6%)	0	100	100
48	2q	97/105 (92%)	93 (96%)	4 (4%)	0	100	100
49	1r	66/88 (75%)	63 (96%)	3 (4%)	0	100	100
49	2r	66/88 (75%)	63 (96%)	3 (4%)	0	100	100
50	1s	81/93 (87%)	74 (91%)	6 (7%)	1 (1%)	13	32
50	2s	81/93 (87%)	70 (86%)	9 (11%)	2 (2%)	5	14
51	1t	94/106 (89%)	85 (90%)	6 (6%)	3 (3%)	4	9
51	2t	94/106 (89%)	83 (88%)	9 (10%)	2 (2%)	7	18
52	1u	21/27 (78%)	19 (90%)	2 (10%)	0	100	100
52	2u	21/27 (78%)	19 (90%)	1 (5%)	1 (5%)	2	4
All	All	11370/12128 (94%)	10547 (93%)	733 (6%)	90 (1%)	19	43

All (90) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
5	1F	130	ALA
17	1V	79	VAL
21	1Z	53	ILE
33	1b	17	PHE
33	1b	126	GLU
40	1i	54	ASP
41	1j	79	ARG
44	1m	67	GLU
5	2F	130	ALA
6	2G	84	LYS
8	2I	10	GLU
11	2P	36	LYS
21	2Z	144	LEU
33	2b	8	LYS
33	2b	17	PHE
38	2g	80	VAL
44	2m	67	GLU
7	1H	126	PRO
20	1Y	54	LYS
23	11	3	LYS
26	14	49	PHE
26	14	62	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
26	14	68	ARG
36	1e	85	GLY
42	1k	49	GLY
6	2G	42	GLY
7	2H	47	GLU
7	2H	126	PRO
10	2O	5	GLN
17	2V	79	VAL
21	2Z	145	GLU
26	24	45	GLY
33	2b	74	LYS
41	2j	75	ILE
41	2j	79	ARG
42	2k	49	GLY
50	2s	9	VAL
4	1E	52	LEU
11	1P	38	GLN
19	1X	93	GLU
33	1b	38	GLY
51	1t	47	GLY
51	1t	100	ILE
6	2G	51	ARG
11	2P	29	LYS
11	2P	38	GLN
14	2S	84	GLN
23	21	3	LYS
33	2b	20	GLU
33	2b	125	PRO
34	2c	179	ARG
36	2e	37	ARG
36	2e	85	GLY
36	2e	97	GLY
40	2i	121	ARG
51	2t	47	GLY
17	1V	43	GLU
26	14	45	GLY
33	1b	124	SER
4	2E	52	LEU
9	2N	2	LYS
14	2S	20	ARG
14	2S	96	GLY
26	24	49	PHE

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Mol	Chain	Res	Type
33	2b	10	LEU
33	2b	121	LEU
33	2b	123	ALA
44	2m	58	GLU
51	2t	95	ALA
15	1T	37	GLY
33	1b	37	ASN
33	1b	231	GLU
38	1g	54	THR
6	2G	124	SER
46	2o	88	ARG
52	2u	7	ARG
11	1P	45	LEU
19	1X	2	LYS
37	1f	40	VAL
42	1k	105	VAL
50	1s	27	GLU
51	1t	102	GLY
11	2P	45	LEU
34	2c	95	THR
21	2Z	171	ILE
36	2e	69	VAL
38	2g	55	GLY
50	2s	76	PRO
33	1b	125	PRO
13	2R	58	GLY

### 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	215/218 (99%)	205 (95%)	10 (5%)	26	54
3	2D	215/218 (99%)	203 (94%)	12 (6%)	21	45
4	1E	164/166 (99%)	155 (94%)	9 (6%)	21	46
4	2E	164/166 (99%)	158 (96%)	6 (4%)	34	63

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
5	1F	160/166 (96%)	148 (92%)	12 (8%)	13	31
5	2F	159/166 (96%)	153 (96%)	6 (4%)	33	62
6	1G	143/156 (92%)	131 (92%)	12 (8%)	11	25
6	2G	143/156 (92%)	117 (82%)	26 (18%)	1	4
7	1H	144/148 (97%)	138 (96%)	6 (4%)	30	58
7	2H	144/148 (97%)	130 (90%)	14 (10%)	8	19
8	1I	113/124 (91%)	97 (86%)	16 (14%)	3	8
8	2I	105/124 (85%)	93 (89%)	12 (11%)	5	13
9	1N	118/119 (99%)	113 (96%)	5 (4%)	30	58
9	2N	118/119 (99%)	110 (93%)	8 (7%)	16	36
10	1O	100/100 (100%)	100 (100%)	0	100	100
10	2O	100/100 (100%)	98 (98%)	2 (2%)	55	81
11	1P	115/116 (99%)	110 (96%)	5 (4%)	29	57
11	2P	115/116 (99%)	109 (95%)	6 (5%)	23	49
12	1Q	111/111 (100%)	105 (95%)	6 (5%)	22	47
12	2Q	111/111 (100%)	108 (97%)	3 (3%)	44	74
13	1R	101/101 (100%)	99 (98%)	2 (2%)	55	81
13	2R	101/101 (100%)	98 (97%)	3 (3%)	41	70
14	1S	86/88 (98%)	79 (92%)	7 (8%)	11	27
14	2S	85/88 (97%)	78 (92%)	7 (8%)	11	26
15	1T	115/127 (91%)	109 (95%)	6 (5%)	23	49
15	2T	113/127 (89%)	109 (96%)	4 (4%)	36	65
16	1U	93/94 (99%)	87 (94%)	6 (6%)	17	38
16	2U	93/94 (99%)	89 (96%)	4 (4%)	29	57
17	1V	80/82 (98%)	74 (92%)	6 (8%)	13	31
17	2V	80/82 (98%)	72 (90%)	8 (10%)	7	18
18	1W	90/92 (98%)	85 (94%)	5 (6%)	21	45
18	2W	90/92 (98%)	84 (93%)	6 (7%)	16	37
19	1X	77/78 (99%)	75 (97%)	2 (3%)	46	75
19	2X	77/78 (99%)	76 (99%)	1 (1%)	69	87
20	1Y	85/91 (93%)	79 (93%)	6 (7%)	14	34

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
20	2Y	85/91 (93%)	73 (86%)	12 (14%)	3	8
21	1Z	135/179 (75%)	122 (90%)	13 (10%)	8	19
21	2Z	137/179 (76%)	124 (90%)	13 (10%)	8	20
22	10	65/67 (97%)	64 (98%)	1 (2%)	65	86
22	20	65/67 (97%)	62 (95%)	3 (5%)	27	54
23	11	80/83 (96%)	80 (100%)	0	100	100
23	21	80/83 (96%)	76 (95%)	4 (5%)	24	51
24	12	65/67 (97%)	64 (98%)	1 (2%)	65	86
24	22	65/67 (97%)	61 (94%)	4 (6%)	18	40
25	13	51/52 (98%)	48 (94%)	3 (6%)	19	43
25	23	50/52 (96%)	48 (96%)	2 (4%)	31	60
26	14	59/63 (94%)	50 (85%)	9 (15%)	2	7
26	24	53/63 (84%)	43 (81%)	10 (19%)	1	4
27	15	50/52 (96%)	47 (94%)	3 (6%)	19	42
27	25	50/52 (96%)	48 (96%)	2 (4%)	31	60
28	16	51/52 (98%)	48 (94%)	3 (6%)	19	43
28	26	50/52 (96%)	48 (96%)	2 (4%)	31	60
29	17	41/42 (98%)	39 (95%)	2 (5%)	25	52
29	27	41/42 (98%)	37 (90%)	4 (10%)	8	18
30	18	54/55 (98%)	51 (94%)	3 (6%)	21	45
30	28	54/55 (98%)	51 (94%)	3 (6%)	21	45
31	19	34/34 (100%)	33 (97%)	1 (3%)	42	71
31	29	34/34 (100%)	33 (97%)	1 (3%)	42	71
33	1b	192/220 (87%)	171 (89%)	21 (11%)	6	14
33	2b	187/220 (85%)	161 (86%)	26 (14%)	3	8
34	1c	142/188 (76%)	136 (96%)	6 (4%)	30	58
34	2c	140/188 (74%)	131 (94%)	9 (6%)	17	39
35	1d	169/181 (93%)	153 (90%)	16 (10%)	8	20
35	2d	173/181 (96%)	159 (92%)	14 (8%)	11	27
36	1e	113/123 (92%)	107 (95%)	6 (5%)	22	48
36	2e	114/123 (93%)	101 (89%)	13 (11%)	5	13

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
37	1f	84/90 (93%)	80 (95%)	4 (5%)	25	53
37	2f	85/90 (94%)	79 (93%)	6 (7%)	14	34
38	1g	119/127 (94%)	106 (89%)	13 (11%)	6	14
38	2g	120/127 (94%)	110 (92%)	10 (8%)	11	25
39	1h	114/119 (96%)	106 (93%)	8 (7%)	15	35
39	2h	114/119 (96%)	105 (92%)	9 (8%)	12	28
40	1i	90/99 (91%)	81 (90%)	9 (10%)	7	18
40	2i	89/99 (90%)	82 (92%)	7 (8%)	12	28
41	1j	66/92 (72%)	63 (96%)	3 (4%)	27	55
41	2j	69/92 (75%)	61 (88%)	8 (12%)	5	12
42	1k	82/99 (83%)	74 (90%)	8 (10%)	8	18
42	2k	83/99 (84%)	80 (96%)	3 (4%)	35	64
43	1l	96/108 (89%)	92 (96%)	4 (4%)	30	58
43	2l	96/108 (89%)	88 (92%)	8 (8%)	11	25
44	1m	93/101 (92%)	85 (91%)	8 (9%)	10	24
44	2m	92/101 (91%)	86 (94%)	6 (6%)	17	38
45	1n	49/50 (98%)	42 (86%)	7 (14%)	3	8
45	2n	49/50 (98%)	44 (90%)	5 (10%)	7	17
46	1o	78/80 (98%)	73 (94%)	5 (6%)	17	39
46	2o	78/80 (98%)	75 (96%)	3 (4%)	33	62
47	1p	69/74 (93%)	62 (90%)	7 (10%)	7	17
47	2p	68/74 (92%)	61 (90%)	7 (10%)	7	16
48	1q	94/97 (97%)	88 (94%)	6 (6%)	17	39
48	2q	94/97 (97%)	92 (98%)	2 (2%)	53	80
49	1r	59/77 (77%)	54 (92%)	5 (8%)	10	24
49	2r	59/77 (77%)	53 (90%)	6 (10%)	7	17
50	1s	69/80 (86%)	68 (99%)	1 (1%)	67	86
50	2s	67/80 (84%)	60 (90%)	7 (10%)	7	16
51	1t	70/82 (85%)	66 (94%)	4 (6%)	20	44
51	2t	70/82 (85%)	68 (97%)	2 (3%)	42	71
52	1u	18/22 (82%)	17 (94%)	1 (6%)	21	45

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
52	2u	18/22 (82%)	18 (100%)	0	100	100
All	All	9303/10064 (92%)	8662 (93%)	641 (7%)	15	35

All (641) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	1D	3	VAL
3	1D	38	LYS
3	1D	71	ASP
3	1D	99	ASP
3	1D	106	ILE
3	1D	142	VAL
3	1D	211	ARG
3	1D	229	VAL
3	1D	242	ARG
3	1D	273	ARG
4	1E	9	VAL
4	1E	21	VAL
4	1E	59	VAL
4	1E	89	ASP
4	1E	93	VAL
4	1E	113	PHE
4	1E	116	VAL
4	1E	184	VAL
4	1E	195	LEU
5	1F	53	THR
5	1F	57	VAL
5	1F	72	ARG
5	1F	74	ARG
5	1F	132	VAL
5	1F	140	LEU
5	1F	144	LYS
5	1F	145	GLU
5	1F	162	LEU
5	1F	168	ARG
5	1F	183	VAL
5	1F	192	LEU
6	1G	3	LEU
6	1G	7	LEU
6	1G	21	ARG
6	1G	22	ARG
6	1G	28	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
6	1G	31	VAL
6	1G	82	LEU
6	1G	91	ARG
6	1G	133	LEU
6	1G	148	MET
6	1G	150	ASP
6	1G	161	THR
7	1H	47	GLU
7	1H	95	ARG
7	1H	116	GLU
7	1H	119	GLU
7	1H	124	GLU
7	1H	149	ARG
8	1I	9	LEU
8	1I	10	GLU
8	1I	12	LEU
8	1I	20	ASP
8	1I	42	SER
8	1I	47	LEU
8	1I	74	ASN
8	1I	75	LEU
8	1I	77	LEU
8	1I	87	LYS
8	1I	92	VAL
8	1I	101	LEU
8	1I	123	LEU
8	1I	129	THR
8	1I	133	HIS
8	1I	142	VAL
9	1N	1	MET
9	1N	48	MET
9	1N	62	VAL
9	1N	83	LYS
9	1N	138	LEU
11	1P	95	VAL
11	1P	125	VAL
11	1P	126	VAL
11	1P	133	SER
11	1P	148	LEU
12	1Q	8	LYS
12	1Q	16	ARG
12	1Q	59	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
12	1Q	75	THR
12	1Q	109	VAL
12	1Q	118	LEU
13	1R	36	THR
13	1R	114	VAL
14	1S	17	ARG
14	1S	25	ARG
14	1S	36	TYR
14	1S	46	VAL
14	1S	48	LEU
14	1S	69	VAL
14	1S	85	VAL
15	1T	28	VAL
15	1T	38	ASN
15	1T	67	SER
15	1T	96	ARG
15	1T	108	ARG
15	1T	128	GLU
16	1U	31	SER
16	1U	74	LEU
16	1U	77	SER
16	1U	78	THR
16	1U	84	LYS
16	1U	95	LEU
17	1V	28	GLU
17	1V	32	THR
17	1V	56	SER
17	1V	61	VAL
17	1V	73	SER
17	1V	79	VAL
18	1W	4	LYS
18	1W	11	ARG
18	1W	15	ARG
18	1W	17	VAL
18	1W	92	ARG
19	1X	38	GLU
19	1X	88	LYS
20	1Y	1	MET
20	1Y	23	ARG
20	1Y	43	ASN
20	1Y	64	GLU
20	1Y	85	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
20	1Y	99	CYS
21	1Z	33	LEU
21	1Z	53	ILE
21	1Z	72	ARG
21	1Z	102	LEU
21	1Z	136	PHE
21	1Z	138	GLU
21	1Z	139	VAL
21	1Z	140	ASP
21	1Z	153	SER
21	1Z	154	ASP
21	1Z	155	LEU
21	1Z	161	VAL
21	1Z	171	ILE
22	10	7	LEU
24	12	65	ASN
25	13	54	VAL
25	13	55	ARG
25	13	60	GLU
26	14	27	THR
26	14	49	PHE
26	14	50	VAL
26	14	52	THR
26	14	53	GLU
26	14	61	ARG
26	14	63	TYR
26	14	67	TYR
26	14	69	LYS
27	15	6	VAL
27	15	26	THR
27	15	40	LYS
28	16	5	VAL
28	16	6	ARG
28	16	44	ARG
29	17	1	MET
29	17	43	THR
30	18	29	LYS
30	18	31	HIS
30	18	34	TRP
31	19	4	ARG
33	1b	7	VAL
33	1b	12	GLU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
33	1b	17	PHE
33	1b	19	HIS
33	1b	21	ARG
33	1b	24	TRP
33	1b	35	GLU
33	1b	45	GLN
33	1b	54	THR
33	1b	76	GLN
33	1b	80	ILE
33	1b	112	VAL
33	1b	113	HIS
33	1b	122	PHE
33	1b	126	GLU
33	1b	138	LEU
33	1b	170	GLU
33	1b	185	ILE
33	1b	208	ILE
33	1b	215	LEU
33	1b	236	TYR
34	1c	3	ASN
34	1c	49	SER
34	1c	70	VAL
34	1c	89	GLU
34	1c	190	ARG
34	1c	195	VAL
35	1d	19	LEU
35	1d	31	CYS
35	1d	59	ARG
35	1d	70	ILE
35	1d	76	ARG
35	1d	83	SER
35	1d	91	SER
35	1d	100	ARG
35	1d	119	GLN
35	1d	127	THR
35	1d	135	LEU
35	1d	157	LEU
35	1d	158	ILE
35	1d	181	MET
35	1d	190	ASP
35	1d	194	LEU
36	1e	10	MET

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
36	1e	18	ARG
36	1e	20	GLN
36	1e	31	LEU
36	1e	41	VAL
36	1e	98	THR
37	1f	45	LEU
37	1f	55	ASP
37	1f	75	LEU
37	1f	93	SER
38	1g	12	LEU
38	1g	16	LEU
38	1g	23	VAL
38	1g	50	ILE
38	1g	59	LEU
38	1g	61	VAL
38	1g	78	ARG
38	1g	79	ARG
38	1g	94	ARG
38	1g	98	SER
38	1g	104	LEU
38	1g	113	GLU
38	1g	115	ARG
39	1h	29	SER
39	1h	37	ARG
39	1h	39	LEU
39	1h	51	VAL
39	1h	52	ASP
39	1h	54	ASP
39	1h	122	ARG
39	1h	133	LEU
40	1i	17	VAL
40	1i	23	ASN
40	1i	42	ARG
40	1i	53	VAL
40	1i	64	THR
40	1i	87	GLN
40	1i	96	LEU
40	1i	103	THR
40	1i	128	ARG
41	1j	5	ARG
41	1j	34	VAL
41	1j	46	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
42	1k	14	VAL
42	1k	48	ILE
42	1k	87	THR
42	1k	104	GLN
42	1k	109	VAL
42	1k	114	VAL
42	1k	116	HIS
42	1k	121	PRO
43	1l	11	VAL
43	1l	18	VAL
43	1l	33	ARG
43	1l	83	VAL
44	1m	4	ILE
44	1m	15	VAL
44	1m	19	LEU
44	1m	43	THR
44	1m	49	THR
44	1m	70	LEU
44	1m	109	THR
44	1m	114	ARG
45	1n	3	ARG
45	1n	12	ARG
45	1n	13	THR
45	1n	18	VAL
45	1n	22	THR
45	1n	32	SER
45	1n	33	VAL
46	1o	24	SER
46	1o	27	VAL
46	1o	39	LEU
46	1o	76	GLU
46	1o	88	ARG
47	1p	20	VAL
47	1p	27	LYS
47	1p	45	THR
47	1p	60	LEU
47	1p	62	VAL
47	1p	67	THR
47	1p	72	ARG
48	1q	19	VAL
48	1q	26	GLN
48	1q	45	HIS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
48	1q	53	LEU
48	1q	70	ARG
48	1q	97	SER
49	1r	31	LEU
49	1r	35	ARG
49	1r	46	GLU
49	1r	54	ARG
49	1r	76	LEU
50	1s	12	ASP
51	1t	10	LEU
51	1t	24	LEU
51	1t	74	LYS
51	1t	84	LEU
52	1u	15	ARG
3	2D	3	VAL
3	2D	18	VAL
3	2D	22	SER
3	2D	37	LEU
3	2D	106	ILE
3	2D	116	GLN
3	2D	142	VAL
3	2D	211	ARG
3	2D	229	VAL
3	2D	242	ARG
3	2D	259	THR
3	2D	260	ARG
4	2E	7	VAL
4	2E	21	VAL
4	2E	33	VAL
4	2E	116	VAL
4	2E	184	VAL
4	2E	195	LEU
5	2F	20	LEU
5	2F	33	LEU
5	2F	70	THR
5	2F	74	ARG
5	2F	192	LEU
5	2F	197	ASP
6	2G	5	VAL
6	2G	16	ARG
6	2G	17	PRO
6	2G	18	GLU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
6	2G	21	ARG
6	2G	31	VAL
6	2G	43	LEU
6	2G	45	GLU
6	2G	49	ASP
6	2G	51	ARG
6	2G	58	GLN
6	2G	70	VAL
6	2G	79	ASN
6	2G	91	ARG
6	2G	98	ARG
6	2G	126	ASP
6	2G	128	ARG
6	2G	130	ASN
6	2G	133	LEU
6	2G	140	ILE
6	2G	148	MET
6	2G	150	ASP
6	2G	152	LEU
6	2G	159	VAL
6	2G	162	THR
6	2G	170	ARG
7	2H	47	GLU
7	2H	49	VAL
7	2H	50	VAL
7	2H	57	ASP
7	2H	68	THR
7	2H	70	THR
7	2H	81	GLU
7	2H	84	SER
7	2H	119	GLU
7	2H	124	GLU
7	2H	127	GLU
7	2H	129	THR
7	2H	133	VAL
7	2H	141	VAL
8	2I	15	VAL
8	2I	38	LEU
8	2I	40	THR
8	2I	50	ARG
8	2I	58	LEU
8	2I	77	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
8	2I	82	ARG
8	2I	101	LEU
8	2I	117	GLU
8	2I	122	GLU
8	2I	127	VAL
8	2I	139	GLN
9	2N	1	MET
9	2N	5	VAL
9	2N	9	VAL
9	2N	38	HIS
9	2N	48	MET
9	2N	61	ARG
9	2N	62	VAL
9	2N	138	LEU
10	2O	28	SER
10	2O	52	VAL
11	2P	7	ARG
11	2P	65	ARG
11	2P	70	GLN
11	2P	95	VAL
11	2P	96	THR
11	2P	135	LEU
12	2Q	8	LYS
12	2Q	59	ARG
12	2Q	85	LYS
13	2R	24	GLN
13	2R	102	GLU
13	2R	114	VAL
14	2S	35	ILE
14	2S	36	TYR
14	2S	38	GLN
14	2S	52	SER
14	2S	58	LEU
14	2S	63	THR
14	2S	110	LEU
15	2T	64	ARG
15	2T	72	VAL
15	2T	74	ARG
15	2T	96	ARG
16	2U	5	LYS
16	2U	31	SER
16	2U	74	LEU

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
16	2U	100	VAL
17	2V	1	MET
17	2V	7	THR
17	2V	28	GLU
17	2V	32	THR
17	2V	45	THR
17	2V	56	SER
17	2V	61	VAL
17	2V	79	VAL
18	2W	11	ARG
18	2W	15	ARG
18	2W	17	VAL
18	2W	60	ASN
18	2W	67	ASP
18	2W	78	GLU
19	2X	52	VAL
20	2Y	1	MET
20	2Y	6	HIS
20	2Y	43	ASN
20	2Y	49	VAL
20	2Y	63	LYS
20	2Y	67	LEU
20	2Y	72	VAL
20	2Y	83	THR
20	2Y	85	VAL
20	2Y	91	GLU
20	2Y	97	ARG
20	2Y	106	LEU
21	2Z	5	LEU
21	2Z	14	LYS
21	2Z	35	ARG
21	2Z	42	VAL
21	2Z	71	VAL
21	2Z	72	ARG
21	2Z	84	GLU
21	2Z	121	HIS
21	2Z	123	ASP
21	2Z	148	ASP
21	2Z	154	ASP
21	2Z	171	ILE
21	2Z	174	VAL
22	20	10	THR

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
22	20	30	VAL
22	20	74	ARG
23	21	35	THR
23	21	40	ARG
23	21	56	GLN
23	21	81	LYS
24	22	12	GLU
24	22	45	SER
24	22	53	LEU
24	22	66	GLU
25	23	31	LEU
25	23	37	LEU
26	24	5	ILE
26	24	10	VAL
26	24	24	THR
26	24	31	ILE
26	24	34	GLU
26	24	48	ARG
26	24	50	VAL
26	24	59	PHE
26	24	63	TYR
26	24	67	TYR
27	25	6	VAL
27	25	58	LEU
28	26	6	ARG
28	26	19	ARG
29	27	1	MET
29	27	41	ARG
29	27	43	THR
29	27	46	VAL
30	28	14	VAL
30	28	31	HIS
30	28	46	ARG
31	29	6	SER
33	2b	7	VAL
33	2b	8	LYS
33	2b	9	GLU
33	2b	11	LEU
33	2b	23	ARG
33	2b	24	TRP
33	2b	37	ASN
33	2b	41	ILE

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
33	2b	47	THR
33	2b	48	MET
33	2b	67	THR
33	2b	71	VAL
33	2b	76	GLN
33	2b	80	ILE
33	2b	94	ASN
33	2b	107	THR
33	2b	112	VAL
33	2b	115	LEU
33	2b	127	ILE
33	2b	158	LEU
33	2b	164	VAL
33	2b	185	ILE
33	2b	189	ASP
33	2b	224	GLN
33	2b	229	VAL
33	2b	236	TYR
34	2c	43	LEU
34	2c	44	GLU
34	2c	91	LEU
34	2c	140	ARG
34	2c	143	GLU
34	2c	152	ILE
34	2c	190	ARG
34	2c	192	THR
34	2c	202	ILE
35	2d	8	VAL
35	2d	28	SER
35	2d	31	CYS
35	2d	34	GLU
35	2d	53	ASP
35	2d	59	ARG
35	2d	76	ARG
35	2d	83	SER
35	2d	118	ARG
35	2d	127	THR
35	2d	135	LEU
35	2d	162	LEU
35	2d	178	VAL
35	2d	193	ASP
36	2e	13	ILE

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
36	2e	20	GLN
36	2e	31	LEU
36	2e	41	VAL
36	2e	51	VAL
36	2e	55	VAL
36	2e	75	THR
36	2e	78	HIS
36	2e	111	GLU
36	2e	120	THR
36	2e	136	MET
36	2e	144	THR
36	2e	151	LEU
37	2f	21	LEU
37	2f	37	VAL
37	2f	63	TYR
37	2f	70	ASP
37	2f	81	ILE
37	2f	93	SER
38	2g	6	ARG
38	2g	15	ASP
38	2g	24	THR
38	2g	45	ASP
38	2g	52	GLU
38	2g	78	ARG
38	2g	79	ARG
38	2g	98	SER
38	2g	115	ARG
38	2g	151	TYR
39	2h	23	SER
39	2h	26	VAL
39	2h	29	SER
39	2h	52	ASP
39	2h	61	VAL
39	2h	99	GLU
39	2h	112	LEU
39	2h	133	LEU
39	2h	137	VAL
40	2i	33	PHE
40	2i	54	ASP
40	2i	75	ASP
40	2i	89	ASN
40	2i	93	ARG

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
40	2i	103	THR
40	2i	128	ARG
41	2j	8	LEU
41	2j	9	ARG
41	2j	21	GLN
41	2j	29	ARG
41	2j	34	VAL
41	2j	45	ARG
41	2j	67	THR
41	2j	100	THR
42	2k	14	VAL
42	2k	24	SER
42	2k	96	ARG
43	2l	11	VAL
43	2l	18	VAL
43	2l	33	ARG
43	2l	40	VAL
43	2l	62	SER
43	2l	83	VAL
43	2l	86	ARG
43	2l	116	SER
44	2m	32	GLU
44	2m	47	ASP
44	2m	62	ASN
44	2m	81	LEU
44	2m	106	ASN
44	2m	110	ARG
45	2n	3	ARG
45	2n	12	ARG
45	2n	18	VAL
45	2n	33	VAL
45	2n	35	ARG
46	2o	27	VAL
46	2o	39	LEU
46	2o	76	GLU
47	2p	1	MET
47	2p	2	VAL
47	2p	45	THR
47	2p	67	THR
47	2p	69	THR
47	2p	74	LEU
47	2p	76	GLN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
48	2q	5	VAL
48	2q	63	ARG
49	2r	31	LEU
49	2r	35	ARG
49	2r	37	VAL
49	2r	54	ARG
49	2r	76	LEU
49	2r	82	THR
50	2s	12	ASP
50	2s	27	GLU
50	2s	37	ARG
50	2s	45	VAL
50	2s	47	HIS
50	2s	65	ASN
50	2s	67	VAL
51	2t	15	ARG
51	2t	72	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (105) such sidechains are listed below:

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
3	1D	116	GLN
4	1E	48	GLN
5	1F	8	GLN
5	1F	69	HIS
5	1F	203	GLN
6	1G	26	GLN
6	1G	108	ASN
8	1I	133	HIS
10	1O	3	GLN
12	1Q	12	GLN
13	1R	71	GLN
14	1S	68	GLN
14	1S	95	HIS
15	1T	58	ASN
16	1U	81	HIS
19	1X	31	HIS
19	1X	82	GLN
21	1Z	73	GLN
23	11	56	GLN
24	12	38	GLN
24	12	43	GLN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
25	13	32	GLN
26	14	46	GLN
34	1c	6	HIS
34	1c	110	ASN
34	1c	118	GLN
34	1c	162	GLN
35	1d	42	GLN
35	1d	116	GLN
36	1e	20	GLN
36	1e	78	HIS
37	1f	73	ASN
37	1f	100	ASN
38	1g	13	GLN
38	1g	28	ASN
38	1g	110	GLN
40	1i	3	GLN
40	1i	23	ASN
40	1i	31	GLN
40	1i	89	ASN
40	1i	124	GLN
41	1j	56	HIS
41	1j	69	ASN
43	1l	99	HIS
46	1o	13	GLN
49	1r	63	GLN
50	1s	23	ASN
50	1s	83	HIS
51	1t	16	HIS
3	2D	87	ASN
4	2E	48	GLN
5	2F	69	HIS
7	2H	74	ASN
7	2H	139	GLN
8	2I	133	HIS
10	2O	3	GLN
10	2O	5	GLN
12	2Q	12	GLN
12	2Q	13	GLN
12	2Q	123	HIS
14	2S	38	GLN
15	2T	58	ASN
16	2U	94	ASN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
19	2X	31	HIS
20	2Y	43	ASN
21	2Z	73	GLN
21	2Z	151	HIS
23	21	56	GLN
26	24	40	HIS
33	2b	94	ASN
33	2b	135	GLN
33	2b	224	GLN
34	2c	98	ASN
34	2c	162	GLN
34	2c	170	GLN
35	2d	42	GLN
35	2d	77	ASN
35	2d	116	GLN
35	2d	119	GLN
35	2d	123	HIS
35	2d	125	HIS
35	2d	160	GLN
36	2e	72	GLN
36	2e	73	ASN
37	2f	73	ASN
38	2g	28	ASN
38	2g	68	ASN
40	2i	3	GLN
40	2i	31	GLN
40	2i	58	HIS
40	2i	73	GLN
40	2i	89	ASN
41	2j	33	GLN
41	2j	69	ASN
42	2k	117	ASN
43	2l	99	HIS
44	2m	62	ASN
44	2m	77	ASN
49	2r	63	GLN
50	2s	47	HIS
50	2s	65	ASN
50	2s	69	HIS
50	2s	83	HIS
51	2t	75	ASN
51	2t	90	GLN

## 5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	1A	2863/2915 (98%)	400 (13%)	26 (0%)
1	2A	2790/2915 (95%)	424 (15%)	25 (0%)
2	1B	119/121 (98%)	8 (6%)	0
2	2B	118/121 (97%)	24 (20%)	0
32	1a	1494/1521 (98%)	220 (14%)	0
32	2a	1498/1521 (98%)	276 (18%)	0
53	1v	12/24 (50%)	0	0
53	2v	12/24 (50%)	1 (8%)	0
54	1w	69/76 (90%)	21 (30%)	0
54	1y	71/76 (93%)	28 (39%)	0
54	2w	66/76 (86%)	15 (22%)	0
54	2y	69/76 (90%)	24 (34%)	0
55	1x	74/77 (96%)	8 (10%)	0
55	2x	74/77 (96%)	8 (10%)	0
All	All	9329/9620 (96%)	1457 (15%)	51 (0%)

All (1457) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	1A	12	U
1	1A	34	C
1	1A	45	C
1	1A	71	A
1	1A	74	A
1	1A	75	G
1	1A	78	A
1	1A	84	A
1	1A	95	G
1	1A	118	A
1	1A	119	A
1	1A	120	U
1	1A	196	A
1	1A	199	A
1	1A	205	G
1	1A	214	G
1	1A	215	G
1	1A	216	A
1	1A	222	A
1	1A	228	A
1	1A	229	A
1	1A	233	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	1A	248	G
1	1A	269	U
1	1A	271(K)	U
1	1A	271(L)	U
1	1A	271(M)	G
1	1A	271(N)	U
1	1A	271(O)	C
1	1A	271(S)	G
1	1A	272(A)	U
1	1A	272(B)	G
1	1A	272(I)	U
1	1A	279	C
1	1A	311	A
1	1A	329	G
1	1A	330	A
1	1A	352	G
1	1A	363	G
1	1A	363(C)	G
1	1A	370	G
1	1A	380	U
1	1A	386	G
1	1A	396	G
1	1A	405	U
1	1A	411	G
1	1A	428	A
1	1A	444	C
1	1A	448	U
1	1A	451	C
1	1A	456	C
1	1A	457	A
1	1A	481	G
1	1A	494	G
1	1A	504	U
1	1A	505	A
1	1A	509	C
1	1A	530	G
1	1A	531	C
1	1A	532	A
1	1A	533	G
1	1A	545	G
1	1A	549	G
1	1A	563	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	1A	573	G
1	1A	575	A
1	1A	603	A
1	1A	604	G
1	1A	607	U
1	1A	614(B)	G
1	1A	615	G
1	1A	616	G
1	1A	627	A
1	1A	637	A
1	1A	645	C
1	1A	646	A
1	1A	652(D)	C
1	1A	652(T)	C
1	1A	669	G
1	1A	686	G
1	1A	717	G
1	1A	730	C
1	1A	775	G
1	1A	776	G
1	1A	782	A
1	1A	784	A
1	1A	785	G
1	1A	790	C
1	1A	792	G
1	1A	805	G
1	1A	812	C
1	1A	819	A
1	1A	827	U
1	1A	828	U
1	1A	859	G
1	1A	866	A
1	1A	879	G
1	1A	880	G
1	1A	883	G
1	1A	884	C
1	1A	885	C
1	1A	886	C
1	1A	887	A
1	1A	888	C
1	1A	890	A
1	1A	894	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	1A	896	A
1	1A	897	C
1	1A	898	C
1	1A	910	A
1	1A	932	G
1	1A	938	G
1	1A	945	A
1	1A	946	G
1	1A	959	A
1	1A	961	C
1	1A	963	U
1	1A	974	G
1	1A	975	C
1	1A	983	A
1	1A	996	A
1	1A	1012	U
1	1A	1013	C
1	1A	1026	U
1	1A	1027	A
1	1A	1033	U
1	1A	1038	C
1	1A	1041	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	1064	C
1	1A	1068	G
1	1A	1069	A
1	1A	1071	G
1	1A	1073	A
1	1A	1075	C
1	1A	1076	C
1	1A	1077	A
1	1A	1078	U
1	1A	1079	C
1	1A	1081	U
1	1A	1087	G
1	1A	1088	A
1	1A	1089	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	1A	1090	U
1	1A	1091	G
1	1A	1094	U
1	1A	1096	A
1	1A	1097	U
1	1A	1101	U
1	1A	1111	A
1	1A	1112	G
1	1A	1116	C
1	1A	1128	A
1	1A	1130	U
1	1A	1135	C
1	1A	1136	G
1	1A	1170	G
1	1A	1171	G
1	1A	1173	G
1	1A	1174	A
1	1A	1175	U
1	1A	1176	G
1	1A	1177	A
1	1A	1178	C
1	1A	1253	A
1	1A	1256	G
1	1A	1271	G
1	1A	1272	A
1	1A	1273	U
1	1A	1300	U
1	1A	1301	A
1	1A	1303	G
1	1A	1308	A
1	1A	1321	A
1	1A	1345	C
1	1A	1352	U
1	1A	1359	A
1	1A	1360	A
1	1A	1365	A
1	1A	1370	C
1	1A	1384	A
1	1A	1385	G
1	1A	1396	U
1	1A	1416	G
1	1A	1417	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	1A	1420	U
1	1A	1421	G
1	1A	1428	C
1	1A	1437	C
1	1A	1445	A
1	1A	1450	G
1	1A	1455	G
1	1A	1467	C
1	1A	1482	G
1	1A	1493	C
1	1A	1494	A
1	1A	1508	A
1	1A	1509	C
1	1A	1509(A)	A
1	1A	1540	U
1	1A	1541	G
1	1A	1543	C
1	1A	1554	A
1	1A	1558	A
1	1A	1566	A
1	1A	1569	A
1	1A	1578	U
1	1A	1580	A
1	1A	1581	G
1	1A	1584	C
1	1A	1608	A
1	1A	1609	A
1	1A	1610	A
1	1A	1648	C
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	1745(A)	C
1	1A	1756	G
1	1A	1762	A
1	1A	1763	G
1	1A	1764	G
1	1A	1773	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	1A	1780	A
1	1A	1782	C
1	1A	1791	A
1	1A	1800	C
1	1A	1801	G
1	1A	1816	G
1	1A	1829	A
1	1A	1839	G
1	1A	1847	A
1	1A	1861	G
1	1A	1877	A
1	1A	1878	G
1	1A	1889	A
1	1A	1900	A
1	1A	1906	G
1	1A	1929	G
1	1A	1930	G
1	1A	1937	A
1	1A	1938	A
1	1A	1955	U
1	1A	1963	U
1	1A	1967	C
1	1A	1970	A
1	1A	1971	A
1	1A	1972	A
1	1A	1992	G
1	1A	1993	U
1	1A	1997	G
1	1A	2023	G
1	1A	2031	A
1	1A	2032	G
1	1A	2033	A
1	1A	2034	U
1	1A	2039	C
1	1A	2043	C
1	1A	2055	C
1	1A	2056	G
1	1A	2060	A
1	1A	2061	G
1	1A	2062	A
1	1A	2069	G
1	1A	2099	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	1A	2108	C
1	1A	2110	G
1	1A	2113	U
1	1A	2114	A
1	1A	2116	G
1	1A	2121	G
1	1A	2122	U
1	1A	2127	G
1	1A	2130	U
1	1A	2131	G
1	1A	2132	U
1	1A	2133	G
1	1A	2134	A
1	1A	2135	A
1	1A	2136	C
1	1A	2140	C
1	1A	2141	G
1	1A	2142	C
1	1A	2143	C
1	1A	2144	U
1	1A	2146	C
1	1A	2149	G
1	1A	2150	U
1	1A	2151	G
1	1A	2155	G
1	1A	2156	G
1	1A	2157	G
1	1A	2158	A
1	1A	2159	G
1	1A	2164	C
1	1A	2165	G
1	1A	2166	G
1	1A	2168	G
1	1A	2171	A
1	1A	2172	U
1	1A	2173	A
1	1A	2174	C
1	1A	2181	G
1	1A	2182	G
1	1A	2184	G
1	1A	2192	G
1	1A	2198	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	1A	2206	G
1	1A	2207	G
1	1A	2219	G
1	1A	2225	A
1	1A	2238	G
1	1A	2239	G
1	1A	2268	A
1	1A	2269	A
1	1A	2278	A
1	1A	2280	G
1	1A	2283	C
1	1A	2286	A
1	1A	2287	A
1	1A	2305	A
1	1A	2308	G
1	1A	2312	U
1	1A	2320	A
1	1A	2325	G
1	1A	2334	G
1	1A	2347	C
1	1A	2350	C
1	1A	2383	G
1	1A	2385	C
1	1A	2406	U
1	1A	2422	A
1	1A	2423	U
1	1A	2424	C
1	1A	2425	A
1	1A	2429	G
1	1A	2430	A
1	1A	2431	U
1	1A	2435	A
1	1A	2439	A
1	1A	2441	C
1	1A	2448	A
1	1A	2476	A
1	1A	2477	C
1	1A	2478	A
1	1A	2502	G
1	1A	2504	U
1	1A	2505	G
1	1A	2518	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	1A	2520	C
1	1A	2529	G
1	1A	2535	G
1	1A	2549	G
1	1A	2554	U
1	1A	2555	U
1	1A	2566	A
1	1A	2567	G
1	1A	2573	C
1	1A	2602	A
1	1A	2609	U
1	1A	2611	U
1	1A	2612	C
1	1A	2629	A
1	1A	2630	G
1	1A	2654	A
1	1A	2689	U
1	1A	2703	C
1	1A	2712(A)	A
1	1A	2713	A
1	1A	2714	G
1	1A	2726	U
1	1A	2733	A
1	1A	2758	A
1	1A	2764	A
1	1A	2765	A
1	1A	2778	A
1	1A	2790	A
1	1A	2791	C
1	1A	2793	G
1	1A	2802	G
1	1A	2805	G
1	1A	2820	A
1	1A	2821	A
1	1A	2833	G
1	1A	2835	A
1	1A	2839	G
1	1A	2872	G
1	1A	2879	C
1	1A	2880	C
1	1A	2894	G
1	1A	2895	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	1B	2	C
2	1B	13	A
2	1B	25	A
2	1B	52	A
2	1B	56	G
2	1B	73	A
2	1B	106	G
2	1B	110	G
32	1a	5	U
32	1a	7	G
32	1a	9	G
32	1a	32	A
32	1a	39	G
32	1a	48	C
32	1a	51	A
32	1a	61	G
32	1a	79	G
32	1a	91	C
32	1a	98	G
32	1a	101	A
32	1a	105	G
32	1a	116	A
32	1a	121	C
32	1a	131	C
32	1a	144	G
32	1a	147	G
32	1a	162	A
32	1a	163	C
32	1a	174	C
32	1a	180	U
32	1a	182	U
32	1a	189	G
32	1a	195	A
32	1a	197	A
32	1a	202	U
32	1a	203	U
32	1a	204	U
32	1a	220	G
32	1a	247	G
32	1a	251	G
32	1a	258	G
32	1a	266	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
32	1a	267	C
32	1a	289	G
32	1a	321	A
32	1a	328	C
32	1a	332	G
32	1a	342	C
32	1a	345	C
32	1a	352	C
32	1a	353	A
32	1a	354	G
32	1a	367	U
32	1a	372	C
32	1a	373	A
32	1a	384	G
32	1a	388	G
32	1a	397	A
32	1a	398	C
32	1a	406	G
32	1a	412	A
32	1a	413	G
32	1a	422	C
32	1a	424	G
32	1a	429	U
32	1a	439	A
32	1a	442	C
32	1a	452	A
32	1a	461	A
32	1a	470	C
32	1a	482	A
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	531	U
32	1a	532	A
32	1a	533	A
32	1a	547	A
32	1a	559	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
32	1a	561	U
32	1a	568	G
32	1a	572	A
32	1a	573	A
32	1a	576	G
32	1a	577	G
32	1a	596	C
32	1a	630	G
32	1a	631	G
32	1a	653	A
32	1a	661	G
32	1a	665	A
32	1a	673	G
32	1a	687	A
32	1a	688	G
32	1a	695	A
32	1a	723	U
32	1a	724	G
32	1a	731	G
32	1a	734	G
32	1a	749	C
32	1a	755	G
32	1a	777	A
32	1a	792	A
32	1a	793	U
32	1a	794	A
32	1a	815	A
32	1a	816	A
32	1a	817	C
32	1a	821	G
32	1a	828	A
32	1a	840	C
32	1a	841	U
32	1a	851	G
32	1a	885	G
32	1a	902	G
32	1a	913	A
32	1a	914	A
32	1a	926	G
32	1a	927	G
32	1a	934	C
32	1a	935	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
32	1a	942	G
32	1a	960	U
32	1a	961	U
32	1a	968	A
32	1a	969	A
32	1a	971	G
32	1a	974	A
32	1a	975	A
32	1a	976	G
32	1a	977	A
32	1a	992	U
32	1a	993	G
32	1a	997	U
32	1a	1000	U
32	1a	1003	G
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	1026	G
32	1a	1027	C
32	1a	1028	C
32	1a	1029	C
32	1a	1030	C
32	1a	1030(A)	G
32	1a	1030(C)	G
32	1a	1031	G
32	1a	1033	G
32	1a	1039	C
32	1a	1044	A
32	1a	1046	A
32	1a	1053	G
32	1a	1068	G
32	1a	1081	G
32	1a	1094	G
32	1a	1095	U
32	1a	1101	A
32	1a	1108	G
32	1a	1124	G
32	1a	1125	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
32	1a	1131	G
32	1a	1132	C
32	1a	1134	G
32	1a	1135	U
32	1a	1137	C
32	1a	1138	G
32	1a	1139	G
32	1a	1146	A
32	1a	1152	A
32	1a	1159	U
32	1a	1160	G
32	1a	1184	G
32	1a	1196	U
32	1a	1197	G
32	1a	1202	G
32	1a	1213	A
32	1a	1222	G
32	1a	1227	A
32	1a	1236	A
32	1a	1238	A
32	1a	1256	A
32	1a	1257	U
32	1a	1258	G
32	1a	1260	C
32	1a	1270	C
32	1a	1275	A
32	1a	1278	U
32	1a	1280	A
32	1a	1286	A
32	1a	1287	A
32	1a	1299	A
32	1a	1300	G
32	1a	1302	U
32	1a	1312	G
32	1a	1320	C
32	1a	1338	G
32	1a	1340	A
32	1a	1346	A
32	1a	1347	G
32	1a	1353	G
32	1a	1363	C
32	1a	1370	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
32	1a	1381	U
32	1a	1419	G
32	1a	1442	G
32	1a	1442(A)	G
32	1a	1442(B)	A
32	1a	1446	U
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	1503	A
32	1a	1504	G
32	1a	1506	U
32	1a	1517	G
32	1a	1529	G
32	1a	1530	G
54	1w	2	C
54	1w	7	A
54	1w	8	4SU
54	1w	9	A
54	1w	14	A
54	1w	19	G
54	1w	20	U
54	1w	21	A
54	1w	23	A
54	1w	24	G
54	1w	36	A
54	1w	45	U
54	1w	46	G7M
54	1w	47	U
54	1w	50	U
54	1w	61	C
54	1w	63	G
54	1w	68	C
54	1w	69	G
54	1w	73	A
54	1w	74	C
55	1x	6	G
55	1x	9	G
55	1x	13	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
55	1x	19	G
55	1x	20	U
55	1x	47	U
55	1x	61	C
55	1x	63	G
54	1y	5	G
54	1y	6	G
54	1y	7	A
54	1y	8	4SU
54	1y	11	C
54	1y	13	C
54	1y	14	A
54	1y	19	G
54	1y	20	U
54	1y	21	A
54	1y	23	A
54	1y	26	A
54	1y	34	G
54	1y	35	A
54	1y	44	G
54	1y	45	U
54	1y	46	G7M
54	1y	47	U
54	1y	48	C
54	1y	49	C
54	1y	56	C
54	1y	57	G
54	1y	58	A
54	1y	59	U
54	1y	64	A
54	1y	65	G
54	1y	70	G
54	1y	71	G
1	2A	34	C
1	2A	35	G
1	2A	45	C
1	2A	71	A
1	2A	74	A
1	2A	75	G
1	2A	84	A
1	2A	90	U
1	2A	94	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	2A	95	G
1	2A	100	G
1	2A	102	G
1	2A	118	A
1	2A	119	A
1	2A	120	U
1	2A	125	G
1	2A	141	A
1	2A	154(A)	C
1	2A	157	U
1	2A	173	G
1	2A	181	A
1	2A	196	A
1	2A	199	A
1	2A	205	G
1	2A	214	G
1	2A	215	G
1	2A	216	A
1	2A	222	A
1	2A	228	A
1	2A	229	A
1	2A	230	U
1	2A	233	A
1	2A	248	G
1	2A	266	G
1	2A	271(J)	C
1	2A	271(K)	U
1	2A	271(L)	U
1	2A	271(M)	G
1	2A	271(N)	U
1	2A	272(B)	G
1	2A	277	C
1	2A	278	A
1	2A	283	A
1	2A	311	A
1	2A	317	G
1	2A	324	A
1	2A	327	G
1	2A	329	G
1	2A	330	A
1	2A	352	G
1	2A	363	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	2A	363(B)	G
1	2A	380	U
1	2A	386	G
1	2A	396	G
1	2A	405	U
1	2A	411	G
1	2A	412	A
1	2A	435	C
1	2A	443	A
1	2A	444	C
1	2A	454	A
1	2A	455	C
1	2A	456	C
1	2A	457	A
1	2A	481	G
1	2A	504	U
1	2A	505	A
1	2A	508	G
1	2A	509	C
1	2A	529	A
1	2A	530	G
1	2A	531	C
1	2A	532	A
1	2A	533	G
1	2A	545	G
1	2A	563	G
1	2A	568	U
1	2A	573	G
1	2A	575	A
1	2A	586	A
1	2A	588	U
1	2A	599	G
1	2A	603	A
1	2A	604	G
1	2A	607	U
1	2A	614(B)	G
1	2A	615	G
1	2A	616	G
1	2A	627	A
1	2A	634	C
1	2A	637	A
1	2A	645	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	2A	652(B)	A
1	2A	652(C)	G
1	2A	652(U)	G
1	2A	653	A
1	2A	669	G
1	2A	686	G
1	2A	717	G
1	2A	726	G
1	2A	730	C
1	2A	752	A
1	2A	753	C
1	2A	771	G
1	2A	775	G
1	2A	776	G
1	2A	782	A
1	2A	784	A
1	2A	785	G
1	2A	792	G
1	2A	805	G
1	2A	812	C
1	2A	819	A
1	2A	827	U
1	2A	832	G
1	2A	857	C
1	2A	859	G
1	2A	866	A
1	2A	874	G
1	2A	875	G
1	2A	878	A
1	2A	879	G
1	2A	880	G
1	2A	886	C
1	2A	887	A
1	2A	888	C
1	2A	889	C
1	2A	892	G
1	2A	893	C
1	2A	894	C
1	2A	896	A
1	2A	900	A
1	2A	901	A
1	2A	910	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	2A	917	A
1	2A	932	G
1	2A	941	A
1	2A	945	A
1	2A	946	G
1	2A	953	A
1	2A	959	A
1	2A	961	C
1	2A	974	G
1	2A	975	C
1	2A	983	A
1	2A	996	A
1	2A	1005	C
1	2A	1012	U
1	2A	1013	C
1	2A	1017	G
1	2A	1020	A
1	2A	1022	G
1	2A	1025	G
1	2A	1033	U
1	2A	1038	C
1	2A	1039	G
1	2A	1041	C
1	2A	1042	G
1	2A	1043	C
1	2A	1114	G
1	2A	1117	G
1	2A	1129	A
1	2A	1130	U
1	2A	1135	C
1	2A	1136	G
1	2A	1139	G
1	2A	1170	G
1	2A	1171	G
1	2A	1206	G
1	2A	1210	A
1	2A	1211	U
1	2A	1220	A
1	2A	1236	G
1	2A	1247	A
1	2A	1253	A
1	2A	1256	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	2A	1271	G
1	2A	1272	A
1	2A	1273	U
1	2A	1284	A
1	2A	1287	A
1	2A	1300	U
1	2A	1301	A
1	2A	1314	C
1	2A	1321	A
1	2A	1345	C
1	2A	1352	U
1	2A	1359	A
1	2A	1360	A
1	2A	1365	A
1	2A	1368	G
1	2A	1370	C
1	2A	1379	A
1	2A	1384	A
1	2A	1385	G
1	2A	1386	C
1	2A	1395	A
1	2A	1416	G
1	2A	1417	C
1	2A	1420	U
1	2A	1421	G
1	2A	1427	A
1	2A	1428	C
1	2A	1435	G
1	2A	1437	C
1	2A	1445	A
1	2A	1449	A
1	2A	1450	G
1	2A	1460	A
1	2A	1467	C
1	2A	1471	A
1	2A	1478	G
1	2A	1482	G
1	2A	1490	A
1	2A	1493	C
1	2A	1497	U
1	2A	1508	A
1	2A	1509	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	2A	1509(A)	A
1	2A	1531	C
1	2A	1532	C
1	2A	1533	G
1	2A	1543	C
1	2A	1545	A
1	2A	1547	C
1	2A	1558	A
1	2A	1566	A
1	2A	1569	A
1	2A	1578	U
1	2A	1583	A
1	2A	1584	C
1	2A	1608	A
1	2A	1609	A
1	2A	1610	A
1	2A	1616	A
1	2A	1640	C
1	2A	1648	C
1	2A	1654	A
1	2A	1664	A
1	2A	1674	G
1	2A	1696	G
1	2A	1700	A
1	2A	1701	A
1	2A	1703	G
1	2A	1721	G
1	2A	1722	A
1	2A	1740	G
1	2A	1756	G
1	2A	1762	A
1	2A	1763	G
1	2A	1764	G
1	2A	1773	A
1	2A	1780	A
1	2A	1782	C
1	2A	1791	A
1	2A	1800	C
1	2A	1801	G
1	2A	1816	G
1	2A	1829	A
1	2A	1835	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	2A	1847	A
1	2A	1848	A
1	2A	1877	A
1	2A	1878	G
1	2A	1900	A
1	2A	1906	G
1	2A	1913	A
1	2A	1914	C
1	2A	1929	G
1	2A	1930	G
1	2A	1936	A
1	2A	1938	A
1	2A	1955	U
1	2A	1963	U
1	2A	1967	C
1	2A	1970	A
1	2A	1971	A
1	2A	1972	A
1	2A	1984	G
1	2A	1992	G
1	2A	1993	U
1	2A	1997	G
1	2A	2020	A
1	2A	2023	G
1	2A	2031	A
1	2A	2032	G
1	2A	2033	A
1	2A	2036	C
1	2A	2043	C
1	2A	2055	C
1	2A	2056	G
1	2A	2060	A
1	2A	2061	G
1	2A	2062	A
1	2A	2069	G
1	2A	2099	U
1	2A	2108	C
1	2A	2111	C
1	2A	2112	G
1	2A	2114	A
1	2A	2116	G
1	2A	2117	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	2A	2119	A
1	2A	2120	G
1	2A	2122	U
1	2A	2124	G
1	2A	2126	A
1	2A	2127	G
1	2A	2131	G
1	2A	2132	U
1	2A	2133	G
1	2A	2134	A
1	2A	2135	A
1	2A	2137	C
1	2A	2138	C
1	2A	2139	C
1	2A	2140	C
1	2A	2142	C
1	2A	2145	C
1	2A	2146	C
1	2A	2150	U
1	2A	2151	G
1	2A	2157	G
1	2A	2158	A
1	2A	2159	G
1	2A	2161	C
1	2A	2165	G
1	2A	2166	G
1	2A	2167	U
1	2A	2168	G
1	2A	2172	U
1	2A	2174	C
1	2A	2176	A
1	2A	2178	C
1	2A	2182	G
1	2A	2185	C
1	2A	2189	U
1	2A	2192	G
1	2A	2198	A
1	2A	2206	G
1	2A	2207	G
1	2A	2208	A
1	2A	2225	A
1	2A	2238	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	2A	2239	G
1	2A	2275	C
1	2A	2278	A
1	2A	2283	C
1	2A	2287	A
1	2A	2305	A
1	2A	2308	G
1	2A	2312	U
1	2A	2319	G
1	2A	2320	A
1	2A	2325	G
1	2A	2336	A
1	2A	2347	C
1	2A	2350	C
1	2A	2376	A
1	2A	2383	G
1	2A	2385	C
1	2A	2406	U
1	2A	2425	A
1	2A	2429	G
1	2A	2430	A
1	2A	2435	A
1	2A	2439	A
1	2A	2441	C
1	2A	2445	G
1	2A	2448	A
1	2A	2465	C
1	2A	2468	G
1	2A	2469	A
1	2A	2476	A
1	2A	2490	G
1	2A	2502	G
1	2A	2505	G
1	2A	2518	A
1	2A	2520	C
1	2A	2525	G
1	2A	2529	G
1	2A	2554	U
1	2A	2566	A
1	2A	2567	G
1	2A	2573	C
1	2A	2602	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	2A	2609	U
1	2A	2611	U
1	2A	2612	C
1	2A	2630	G
1	2A	2634	G
1	2A	2654	A
1	2A	2669	G
1	2A	2689	U
1	2A	2690	C
1	2A	2691	C
1	2A	2703	C
1	2A	2712(A)	A
1	2A	2713	A
1	2A	2714	G
1	2A	2726	U
1	2A	2733	A
1	2A	2751	G
1	2A	2752	C
1	2A	2758	A
1	2A	2764	A
1	2A	2765	A
1	2A	2766	G
1	2A	2778	A
1	2A	2793	G
1	2A	2794	C
1	2A	2802	G
1	2A	2820	A
1	2A	2821	A
1	2A	2833	G
1	2A	2835	A
1	2A	2836	U
1	2A	2872	G
1	2A	2873	A
1	2A	2880	C
1	2A	2892	A
1	2A	2894	G
1	2A	2897	U
2	2B	2	C
2	2B	8	U
2	2B	13	A
2	2B	17	C
2	2B	32	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	2B	34	U
2	2B	41	U
2	2B	42	C
2	2B	53	A
2	2B	56	G
2	2B	69	G
2	2B	73	A
2	2B	74	U
2	2B	75	G
2	2B	85	G
2	2B	88	C
2	2B	94	C
2	2B	106	G
2	2B	108	U
2	2B	110	G
2	2B	111	G
2	2B	116	G
2	2B	119	G
2	2B	120	A
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	65	U
32	2a	66	G
32	2a	73	G
32	2a	89	C
32	2a	101	A
32	2a	105	G
32	2a	116	A
32	2a	117	G
32	2a	121	C
32	2a	129(A)	G
32	2a	131	C
32	2a	142	G
32	2a	144	G
32	2a	146	G
32	2a	156	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
32	2a	159	G
32	2a	163	C
32	2a	182	U
32	2a	189(A)	C
32	2a	189(E)	U
32	2a	189(F)	U
32	2a	195	A
32	2a	197	A
32	2a	201	C
32	2a	202	U
32	2a	203	U
32	2a	204	U
32	2a	216	G
32	2a	231	G
32	2a	247	G
32	2a	251	G
32	2a	266	G
32	2a	267	C
32	2a	281	G
32	2a	289	G
32	2a	301	G
32	2a	306	G
32	2a	318	G
32	2a	321	A
32	2a	328	C
32	2a	332	G
32	2a	339	C
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	384	G
32	2a	397	A
32	2a	398	C
32	2a	406	G
32	2a	412	A
32	2a	413	G
32	2a	421	U
32	2a	424	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
32	2a	429	U
32	2a	438	G
32	2a	439	A
32	2a	442	C
32	2a	452	A
32	2a	457	C
32	2a	470	C
32	2a	484	G
32	2a	485	G
32	2a	496	A
32	2a	498	U
32	2a	505	G
32	2a	509	A
32	2a	510	A
32	2a	511	C
32	2a	517	G
32	2a	518	C
32	2a	521	G
32	2a	527	G7M
32	2a	531	U
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	574	A
32	2a	576	G
32	2a	596	C
32	2a	607	A
32	2a	630	G
32	2a	653	A
32	2a	657	G
32	2a	665	A
32	2a	666	G
32	2a	687	A
32	2a	688	G
32	2a	693	G
32	2a	695	A
32	2a	723	U
32	2a	731	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
32	2a	749	C
32	2a	755	G
32	2a	760	G
32	2a	774	G
32	2a	777	A
32	2a	792	A
32	2a	793	U
32	2a	794	A
32	2a	815	A
32	2a	816	A
32	2a	817	C
32	2a	821	G
32	2a	828	A
32	2a	840	C
32	2a	841	U
32	2a	851	G
32	2a	853	G
32	2a	859	A
32	2a	870	U
32	2a	873	A
32	2a	874	G
32	2a	902	G
32	2a	914	A
32	2a	926	G
32	2a	927	G
32	2a	934	C
32	2a	935	A
32	2a	942	G
32	2a	958	A
32	2a	960	U
32	2a	961	U
32	2a	963	G
32	2a	968	A
32	2a	969	A
32	2a	971	G
32	2a	974	A
32	2a	975	A
32	2a	976	G
32	2a	977	A
32	2a	984	C
32	2a	991	U
32	2a	992	U

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
32	2a	993	G
32	2a	995	C
32	2a	996	A
32	2a	997	U
32	2a	998	G
32	2a	999	C
32	2a	1002	G
32	2a	1003	G
32	2a	1005	A
32	2a	1006	C
32	2a	1009	G
32	2a	1011	G
32	2a	1021	G
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	C
32	2a	1030(A)	G
32	2a	1031	G
32	2a	1032	G
32	2a	1035	A
32	2a	1037	C
32	2a	1038	C
32	2a	1039	C
32	2a	1040	U
32	2a	1044	A
32	2a	1050	G
32	2a	1051	C
32	2a	1053	G
32	2a	1065	U
32	2a	1066	C
32	2a	1068	G
32	2a	1077	G
32	2a	1081	G
32	2a	1086	U
32	2a	1091	U
32	2a	1092	A
32	2a	1093	A
32	2a	1094	G

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
32	2a	1095	U
32	2a	1101	A
32	2a	1108	G
32	2a	1109	C
32	2a	1113	C
32	2a	1117	G
32	2a	1122	U
32	2a	1125	U
32	2a	1126	U
32	2a	1129	C
32	2a	1130	A
32	2a	1132	C
32	2a	1133	G
32	2a	1136	U
32	2a	1137	C
32	2a	1138	G
32	2a	1139	G
32	2a	1140	C
32	2a	1146	A
32	2a	1152	A
32	2a	1155	G
32	2a	1157	A
32	2a	1159	U
32	2a	1172	C
32	2a	1182	G
32	2a	1184	G
32	2a	1196	U
32	2a	1197	G
32	2a	1202	G
32	2a	1204	A
32	2a	1211	U
32	2a	1213	A
32	2a	1227	A
32	2a	1236	A
32	2a	1238	A
32	2a	1256	A
32	2a	1257	U
32	2a	1258	G
32	2a	1260	C
32	2a	1262	C
32	2a	1264	C
32	2a	1270	C

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
32	2a	1272	G
32	2a	1273	G
32	2a	1275	A
32	2a	1276	G
32	2a	1278	U
32	2a	1279	A
32	2a	1280	A
32	2a	1287	A
32	2a	1299	A
32	2a	1300	G
32	2a	1302	U
32	2a	1303	C
32	2a	1305	G
32	2a	1306	A
32	2a	1323	G
32	2a	1338	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	1368	G
32	2a	1370	G
32	2a	1378	C
32	2a	1381	U
32	2a	1419	G
32	2a	1442	G
32	2a	1442(A)	G
32	2a	1447	A
32	2a	1452	C
32	2a	1456	G
32	2a	1492	A
32	2a	1503	A
32	2a	1504	G
32	2a	1506	U
32	2a	1507	A
32	2a	1508	G
32	2a	1517	G
32	2a	1529	G
32	2a	1530	G
32	2a	1531	A

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
32	2a	1532	U
53	2v	14	A
54	2w	4	C
54	2w	5	G
54	2w	6	G
54	2w	11	C
54	2w	14	A
54	2w	19	G
54	2w	22	G
54	2w	27	G
54	2w	46	G7M
54	2w	47	U
54	2w	48	C
54	2w	63	G
54	2w	70	G
54	2w	71	G
54	2w	74	C
55	2x	9	G
55	2x	13	C
55	2x	16	C
55	2x	19	G
55	2x	21	A
55	2x	47	U
55	2x	48	C
55	2x	52	G
54	2y	7	A
54	2y	14	A
54	2y	15	G
54	2y	19	G
54	2y	23	A
54	2y	27	G
54	2y	28	G
54	2y	35	A
54	2y	41	C
54	2y	44	G
54	2y	45	U
54	2y	46	G7M
54	2y	48	C
54	2y	49	C
54	2y	50	U
54	2y	51	U
54	2y	53	G

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Mol	Chain	Res	Type
54	2y	55	PSU
54	2y	56	C
54	2y	58	A
54	2y	60	U
54	2y	65	G
54	2y	69	G
54	2y	70	G

All (51) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	1A	196	A
1	1A	199	A
1	1A	266	G
1	1A	278	A
1	1A	548	A
1	1A	685	A
1	1A	746	A
1	1A	764	A
1	1A	827	U
1	1A	974	G
1	1A	1047	G
1	1A	1067	A
1	1A	1142(A)	A
1	1A	1174	A
1	1A	1176	G
1	1A	1442	G
1	1A	1508	A
1	1A	1608	A
1	1A	1992	G
1	1A	2134	A
1	1A	2181	G
1	1A	2183	C
1	1A	2406	U
1	1A	2422	A
1	1A	2430	A
1	1A	2439	A
1	2A	196	A
1	2A	228	A
1	2A	249	C
1	2A	266	G
1	2A	271(M)	G

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Mol	Chain	Res	Type
1	2A	277	C
1	2A	310	A
1	2A	528	A
1	2A	752	A
1	2A	774	A
1	2A	827	U
1	2A	856	C
1	2A	900	A
1	2A	1210	A
1	2A	1420	U
1	2A	1442	G
1	2A	1530	C
1	2A	1608	A
1	2A	1913	A
1	2A	1992	G
1	2A	2119	A
1	2A	2126	A
1	2A	2406	U
1	2A	2439	A
1	2A	2689	U

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

86 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$
54	5MU	2y	54	54	19,22,23	1.45	4 (21%)	28,32,35	1.98	6 (21%)
54	4SU	1w	8	54	18,21,22	1.72	4 (22%)	26,30,33	1.94	5 (19%)
1	5MC	1A	1962	1	18,22,23	0.95	2 (11%)	26,32,35	1.23	3 (11%)
1	2MA	2A	2503	56,1	17,25,26	1.12	2 (11%)	17,37,40	0.92	2 (11%)
32	G7M	1a	527	56,32	20,26,27	1.22	1 (5%)	17,39,42	0.64	0
1	OMU	2A	2552	56,1	19,22,23	1.22	2 (10%)	26,31,34	1.65	5 (19%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
32	UR3	2a	1498	56,32	19,22,23	1.01	2 (10%)	26,32,35	1.43	2 (7%)
54	G7M	2w	46	54	20,26,27	1.21	1 (5%)	17,39,42	0.69	0
55	31H	2x	76	56,55,57	28,34,35	1.06	3 (10%)	23,47,50	1.38	1 (4%)
32	PSU	1a	516	32	18,21,22	1.34	3 (16%)	22,30,33	1.91	5 (22%)
1	PSU	2A	1917	1	18,21,22	1.32	2 (11%)	22,30,33	1.78	3 (13%)
54	MIA	2y	37	54	18,24,32	1.17	2 (11%)	18,35,47	1.21	2 (11%)
32	5MC	1a	1404	32	18,22,23	1.01	2 (11%)	26,32,35	1.18	3 (11%)
1	PSU	2A	1911	1	18,21,22	1.33	2 (11%)	22,30,33	1.85	3 (13%)
32	MA6	1a	1519	32	19,26,27	0.82	0	18,38,41	1.44	2 (11%)
1	5MC	2A	1962	56,1	18,22,23	0.94	2 (11%)	26,32,35	1.18	2 (7%)
54	MIA	2w	37	54,53	20,27,32	1.90	2 (10%)	22,39,47	2.02	7 (31%)
1	5MU	1A	1939	56,1	19,22,23	1.43	4 (21%)	28,32,35	2.21	6 (21%)
32	5MC	1a	967	32	18,22,23	0.96	2 (11%)	26,32,35	1.10	2 (7%)
32	2MG	2a	1207	32	18,26,27	0.95	1 (5%)	16,38,41	1.06	2 (12%)
1	2MA	1A	2503	56,1	17,25,26	1.00	0	17,37,40	1.07	2 (11%)
32	MA6	1a	1518	32	19,26,27	0.84	0	18,38,41	1.50	2 (11%)
54	PSU	2w	55	54	18,21,22	1.38	2 (11%)	22,30,33	1.85	3 (13%)
1	PSU	1A	2605	56,1	18,21,22	1.41	4 (22%)	22,30,33	1.84	3 (13%)
54	5MU	1w	54	54	19,22,23	1.37	5 (26%)	28,32,35	1.99	6 (21%)
1	5MU	2A	1939	56,1	19,22,23	1.44	6 (31%)	28,32,35	2.36	6 (21%)
54	G7M	1y	46	54	20,26,27	1.29	2 (10%)	17,39,42	0.52	0
32	5MC	2a	1400	32	18,22,23	0.98	2 (11%)	26,32,35	1.25	3 (11%)
1	OMG	2A	2251	56,1,55	18,26,27	0.91	1 (5%)	19,38,41	1.20	2 (10%)
54	G7M	2y	46	54	20,26,27	1.33	2 (10%)	17,39,42	0.62	0
32	G7M	2a	527	56,32	20,26,27	1.24	2 (10%)	17,39,42	0.54	0
32	M2G	1a	966	32	20,27,28	1.43	3 (15%)	22,40,43	1.01	3 (13%)
54	PSU	1y	32	54	18,21,22	1.31	2 (11%)	22,30,33	1.82	3 (13%)
55	4SU	1x	8	55	18,21,22	2.13	6 (33%)	26,30,33	1.64	6 (23%)
54	PSU	2y	32	54	18,21,22	1.32	2 (11%)	22,30,33	1.79	3 (13%)
32	2MG	1a	1207	32	18,26,27	0.93	1 (5%)	16,38,41	1.08	2 (12%)
32	PSU	2a	516	32	18,21,22	1.33	2 (11%)	22,30,33	1.87	4 (18%)
54	5MU	2w	54	54	19,22,23	1.37	5 (26%)	28,32,35	1.90	7 (25%)
32	5MC	2a	1404	32	18,22,23	1.05	2 (11%)	26,32,35	1.16	3 (11%)
55	4SU	2x	8	55	18,21,22	2.06	6 (33%)	26,30,33	1.27	5 (19%)
54	PSU	1y	39	54	18,21,22	1.37	2 (11%)	22,30,33	1.74	3 (13%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
1	PSU	1A	1911	1	18,21,22	1.37	2 (11%)	22,30,33	1.83	3 (13%)
32	5MC	1a	1400	32	18,22,23	0.96	2 (11%)	26,32,35	1.21	2 (7%)
54	PSU	1w	39	54	18,21,22	1.33	2 (11%)	22,30,33	1.75	3 (13%)
1	PSU	2A	2605	1	18,21,22	1.31	2 (11%)	22,30,33	1.94	3 (13%)
1	5MU	2A	1915	56,1	19,22,23	1.44	5 (26%)	28,32,35	2.13	6 (21%)
32	5MC	2a	1407	56,32	18,22,23	0.99	2 (11%)	26,32,35	1.21	3 (11%)
54	PSU	1y	55	54	18,21,22	1.36	2 (11%)	22,30,33	1.85	3 (13%)
55	PSU	1x	55	55	18,21,22	1.31	2 (11%)	22,30,33	1.90	4 (18%)
1	5MU	1A	1915	1	19,22,23	1.44	5 (26%)	28,32,35	2.16	8 (28%)
1	PSU	1A	1917	1	18,21,22	1.39	2 (11%)	22,30,33	1.87	3 (13%)
55	5MC	2x	32	55	18,22,23	1.00	2 (11%)	26,32,35	1.18	3 (11%)
1	OMC	1A	1920	1	19,22,23	0.84	0	26,31,34	0.91	1 (3%)
32	4OC	2a	1402	32	20,23,24	0.75	0	26,32,35	0.96	1 (3%)
54	5MU	1y	54	54	19,22,23	1.41	5 (26%)	28,32,35	1.82	6 (21%)
55	PSU	2x	55	55	18,21,22	1.32	2 (11%)	22,30,33	1.88	4 (18%)
1	OMG	1A	2251	56,1,55	18,26,27	0.98	1 (5%)	19,38,41	1.14	3 (15%)
1	OMU	1A	2552	56,1	19,22,23	1.20	3 (15%)	26,31,34	1.69	5 (19%)
55	5MU	2x	54	55	19,22,23	1.40	5 (26%)	28,32,35	2.08	6 (21%)
54	PSU	2y	39	54	18,21,22	1.39	2 (11%)	22,30,33	1.54	2 (9%)
1	5MC	2A	1942	1	18,22,23	0.99	2 (11%)	26,32,35	1.13	2 (7%)
54	PSU	1w	32	56,54	18,21,22	1.30	2 (11%)	22,30,33	1.79	3 (13%)
43	0TD	1l	92	43	7,9,10	4.71	1 (14%)	6,11,13	4.97	2 (33%)
54	PSU	1w	55	54	18,21,22	1.35	2 (11%)	22,30,33	1.85	3 (13%)
32	UR3	1a	1498	32	19,22,23	0.97	1 (5%)	26,32,35	1.53	3 (11%)
54	4SU	2w	8	54	18,21,22	1.67	4 (22%)	26,30,33	1.89	4 (15%)
32	5MC	1a	1407	32	18,22,23	0.91	2 (11%)	26,32,35	1.10	2 (7%)
1	OMC	2A	1920	1	19,22,23	0.81	0	26,31,34	0.82	0
55	31H	1x	76	56,55	28,34,35	1.08	3 (10%)	23,47,50	1.47	3 (13%)
54	PSU	2w	32	54	18,21,22	1.32	2 (11%)	22,30,33	1.81	3 (13%)
54	4SU	2y	8	54	18,21,22	1.70	5 (27%)	26,30,33	2.00	5 (19%)
54	PSU	2y	55	54	18,21,22	1.34	2 (11%)	22,30,33	2.00	5 (22%)
32	MA6	2a	1519	32	19,26,27	0.79	0	18,38,41	1.48	2 (11%)
32	4OC	1a	1402	32	20,23,24	0.77	0	26,32,35	1.02	2 (7%)
55	5MC	1x	32	55	18,22,23	0.98	2 (11%)	26,32,35	1.24	2 (7%)
32	MA6	2a	1518	32	19,26,27	0.81	0	18,38,41	1.40	2 (11%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
32	M2G	2a	966	32	20,27,28	1.40	3 (15%)	22,40,43	0.98	2 (9%)
54	G7M	1w	46	54	20,26,27	1.27	2 (10%)	17,39,42	0.58	0
1	5MC	1A	1942	56,1	18,22,23	0.95	2 (11%)	26,32,35	1.11	2 (7%)
54	MIA	1y	37	54	18,24,32	1.21	2 (11%)	18,35,47	1.18	2 (11%)
55	5MU	1x	54	56,55	19,22,23	1.43	6 (31%)	28,32,35	2.01	6 (21%)
54	4SU	1y	8	54	18,21,22	1.75	6 (33%)	26,30,33	1.80	4 (15%)
43	0TD	2l	92	43	7,9,10	4.88	1 (14%)	6,11,13	2.01	3 (50%)
32	5MC	2a	967	32	18,22,23	0.93	2 (11%)	26,32,35	1.13	2 (7%)
54	PSU	2w	39	54	18,21,22	1.37	2 (11%)	22,30,33	1.57	2 (9%)
54	MIA	1w	37	54	24,31,32	2.17	3 (12%)	26,44,47	2.61	9 (34%)

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
54	5MU	2y	54	54	-	1/7/25/26	0/2/2/2
54	4SU	1w	8	54	-	0/7/25/26	0/2/2/2
1	5MC	1A	1962	1	-	0/7/25/26	0/2/2/2
1	2MA	2A	2503	56,1	-	2/3/25/26	0/3/3/3
32	G7M	1a	527	56,32	-	3/3/25/26	0/3/3/3
1	OMU	2A	2552	56,1	-	0/9/27/28	0/2/2/2
32	UR3	2a	1498	56,32	-	0/7/25/26	0/2/2/2
54	G7M	2w	46	54	-	1/3/25/26	0/3/3/3
55	31H	2x	76	56,55,57	-	4/18/40/41	0/3/3/3
32	PSU	1a	516	32	-	0/7/25/26	0/2/2/2
1	PSU	2A	1917	1	-	2/7/25/26	0/2/2/2
54	MIA	2y	37	54	-	0/3/25/34	0/3/3/3
32	5MC	1a	1404	32	-	0/7/25/26	0/2/2/2
1	PSU	2A	1911	1	-	0/7/25/26	0/2/2/2
32	MA6	1a	1519	32	-	3/7/29/30	0/3/3/3
1	5MC	2A	1962	56,1	-	2/7/25/26	0/2/2/2
54	MIA	2w	37	54,53	-	4/7/29/34	0/3/3/3
1	5MU	1A	1939	56,1	-	0/7/25/26	0/2/2/2
32	5MC	1a	967	32	-	0/7/25/26	0/2/2/2
32	2MG	2a	1207	32	-	2/5/27/28	0/3/3/3
1	2MA	1A	2503	56,1	-	1/3/25/26	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
32	MA6	1a	1518	32	-	0/7/29/30	0/3/3/3
54	PSU	2w	55	54	-	0/7/25/26	0/2/2/2
1	PSU	1A	2605	56,1	-	0/7/25/26	0/2/2/2
54	5MU	1w	54	54	-	0/7/25/26	0/2/2/2
1	5MU	2A	1939	56,1	-	0/7/25/26	0/2/2/2
54	G7M	1y	46	54	-	2/3/25/26	0/3/3/3
32	5MC	2a	1400	32	-	2/7/25/26	0/2/2/2
1	OMG	2A	2251	56,1,55	-	0/5/27/28	0/3/3/3
54	G7M	2y	46	54	-	0/3/25/26	0/3/3/3
32	G7M	2a	527	56,32	-	3/3/25/26	0/3/3/3
32	M2G	1a	966	32	-	0/7/29/30	0/3/3/3
54	PSU	1y	32	54	-	0/7/25/26	0/2/2/2
55	4SU	1x	8	55	-	0/7/25/26	0/2/2/2
54	PSU	2y	32	54	-	0/7/25/26	0/2/2/2
32	2MG	1a	1207	32	-	0/5/27/28	0/3/3/3
32	PSU	2a	516	32	-	0/7/25/26	0/2/2/2
54	5MU	2w	54	54	-	0/7/25/26	0/2/2/2
32	5MC	2a	1404	32	-	0/7/25/26	0/2/2/2
55	4SU	2x	8	55	-	0/7/25/26	0/2/2/2
54	PSU	1y	39	54	-	0/7/25/26	0/2/2/2
1	PSU	1A	1911	1	-	0/7/25/26	0/2/2/2
32	5MC	1a	1400	32	-	0/7/25/26	0/2/2/2
54	PSU	1w	39	54	-	0/7/25/26	0/2/2/2
1	PSU	2A	2605	1	-	0/7/25/26	0/2/2/2
1	5MU	2A	1915	56,1	-	0/7/25/26	0/2/2/2
32	5MC	2a	1407	56,32	-	0/7/25/26	0/2/2/2
54	PSU	1y	55	54	-	0/7/25/26	0/2/2/2
55	PSU	1x	55	55	-	0/7/25/26	0/2/2/2
1	5MU	1A	1915	1	-	0/7/25/26	0/2/2/2
1	PSU	1A	1917	1	-	0/7/25/26	0/2/2/2
55	5MC	2x	32	55	-	0/7/25/26	0/2/2/2
1	OMC	1A	1920	1	-	1/9/27/28	0/2/2/2
32	4OC	2a	1402	32	-	2/9/29/30	0/2/2/2
54	5MU	1y	54	54	-	0/7/25/26	0/2/2/2
55	PSU	2x	55	55	-	0/7/25/26	0/2/2/2
1	OMG	1A	2251	56,1,55	-	0/5/27/28	0/3/3/3
1	OMU	1A	2552	56,1	-	0/9/27/28	0/2/2/2
55	5MU	2x	54	55	-	0/7/25/26	0/2/2/2
54	PSU	2y	39	54	-	0/7/25/26	0/2/2/2
1	5MC	2A	1942	1	-	0/7/25/26	0/2/2/2
54	PSU	1w	32	56,54	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
43	0TD	1l	92	43	-	2/7/12/14	-
54	PSU	1w	55	54	-	0/7/25/26	0/2/2/2
32	UR3	1a	1498	32	-	0/7/25/26	0/2/2/2
54	4SU	2w	8	54	-	0/7/25/26	0/2/2/2
32	5MC	1a	1407	32	-	0/7/25/26	0/2/2/2
1	OMC	2A	1920	1	-	0/9/27/28	0/2/2/2
55	31H	1x	76	56,55	-	5/18/40/41	0/3/3/3
54	PSU	2w	32	54	-	0/7/25/26	0/2/2/2
54	4SU	2y	8	54	-	0/7/25/26	0/2/2/2
54	PSU	2y	55	54	-	2/7/25/26	0/2/2/2
32	MA6	2a	1519	32	-	3/7/29/30	0/3/3/3
32	4OC	1a	1402	32	-	2/9/29/30	0/2/2/2
55	5MC	1x	32	55	-	0/7/25/26	0/2/2/2
32	MA6	2a	1518	32	-	0/7/29/30	0/3/3/3
32	M2G	2a	966	32	-	0/7/29/30	0/3/3/3
54	G7M	1w	46	54	-	1/3/25/26	0/3/3/3
1	5MC	1A	1942	56,1	-	0/7/25/26	0/2/2/2
54	MIA	1y	37	54	-	0/3/25/34	0/3/3/3
55	5MU	1x	54	56,55	-	0/7/25/26	0/2/2/2
54	4SU	1y	8	54	-	3/7/25/26	0/2/2/2
43	0TD	2l	92	43	-	2/7/12/14	-
32	5MC	2a	967	32	-	0/7/25/26	0/2/2/2
54	PSU	2w	39	54	-	0/7/25/26	0/2/2/2
54	MIA	1w	37	54	-	2/11/33/34	0/3/3/3

All (203) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	2l	92	0TD	CB-SB	-12.63	1.69	1.82
43	1l	92	0TD	CB-SB	-11.97	1.70	1.82
54	1w	37	MIA	C13-C14	7.27	1.53	1.32
54	2w	37	MIA	C2-S10	-7.19	1.69	1.75
54	1w	37	MIA	C2-S10	-6.20	1.70	1.75
55	1x	8	4SU	C4-N3	-5.36	1.31	1.37
55	2x	8	4SU	C4-N3	-5.26	1.32	1.37
32	1a	966	M2G	C2-N3	4.44	1.36	1.30
32	2a	966	M2G	C2-N3	4.40	1.36	1.30
54	1w	8	4SU	C4-S4	-4.29	1.60	1.68
54	2y	8	4SU	C4-S4	-4.20	1.60	1.68
54	1y	8	4SU	C4-S4	-4.18	1.60	1.68

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
54	2w	8	4SU	C4-S4	-4.16	1.60	1.68
54	2y	46	G7M	C5-C4	4.07	1.47	1.39
54	1y	46	G7M	C5-C4	3.95	1.47	1.39
55	2x	8	4SU	C4-S4	-3.90	1.61	1.68
54	1w	46	G7M	C5-C4	3.86	1.46	1.39
55	1x	8	4SU	C4-S4	-3.84	1.61	1.68
32	1a	527	G7M	C5-C4	3.82	1.46	1.39
54	1w	55	PSU	C6-C5	3.78	1.39	1.35
54	2w	46	G7M	C5-C4	3.74	1.46	1.39
54	2w	55	PSU	C6-C5	3.74	1.39	1.35
32	2a	527	G7M	C5-C4	3.71	1.46	1.39
55	1x	8	4SU	C2-N3	-3.69	1.31	1.38
54	1y	39	PSU	C6-C5	3.65	1.39	1.35
54	1y	55	PSU	C6-C5	3.64	1.39	1.35
54	2w	39	PSU	C6-C5	3.58	1.39	1.35
54	2y	39	PSU	C6-C5	3.58	1.39	1.35
54	1y	8	4SU	C4-N3	-3.57	1.33	1.37
54	2y	32	PSU	C6-C5	3.56	1.39	1.35
1	1A	1917	PSU	C6-C5	3.54	1.39	1.35
54	1y	32	PSU	C6-C5	3.48	1.39	1.35
1	2A	1917	PSU	C6-C5	3.41	1.39	1.35
32	2a	516	PSU	C6-C5	3.40	1.39	1.35
54	2w	32	PSU	C6-C5	3.36	1.39	1.35
55	2x	55	PSU	C6-C5	3.35	1.39	1.35
32	2a	1404	5MC	C6-C5	3.32	1.40	1.34
54	1w	32	PSU	C6-C5	3.29	1.39	1.35
1	1A	1939	5MU	C4-N3	-3.25	1.32	1.38
1	1A	1911	PSU	C6-C5	3.25	1.39	1.35
54	1w	39	PSU	C6-C5	3.23	1.39	1.35
55	2x	8	4SU	C2-N3	-3.23	1.32	1.38
1	2A	2605	PSU	C6-C5	3.21	1.39	1.35
55	1x	8	4SU	C5-C4	-3.21	1.38	1.42
54	2w	8	4SU	C4-N3	-3.20	1.34	1.37
54	2y	8	4SU	C4-N3	-3.17	1.34	1.37
55	1x	55	PSU	C6-C5	3.13	1.39	1.35
1	2A	1911	PSU	C6-C5	3.10	1.38	1.35
32	1a	516	PSU	C6-C5	3.03	1.38	1.35
55	2x	8	4SU	C5-C4	-3.02	1.38	1.42
1	1A	2605	PSU	C4-N3	-3.01	1.33	1.38
1	2A	1942	5MC	C6-C5	2.99	1.39	1.34
54	1w	8	4SU	C4-N3	-2.96	1.34	1.37
55	1x	54	5MU	C6-C5	2.94	1.39	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
54	2y	54	5MU	C6-C5	2.93	1.39	1.34
54	1y	37	MIA	C2-N3	2.92	1.36	1.32
32	1a	966	M2G	C2-N2	2.91	1.40	1.35
55	2x	32	5MC	C6-C5	2.91	1.39	1.34
32	1a	967	5MC	C6-C5	2.89	1.39	1.34
54	1y	37	MIA	C5-C4	2.88	1.48	1.40
1	1A	1939	5MU	C6-C5	2.86	1.39	1.34
54	2y	37	MIA	C5-C4	2.85	1.48	1.40
1	2A	1915	5MU	C6-C5	2.85	1.39	1.34
55	1x	32	5MC	C6-C5	2.84	1.39	1.34
54	2y	39	PSU	C4-N3	-2.82	1.33	1.38
1	2A	1939	5MU	C4-N3	-2.79	1.33	1.38
54	2y	55	PSU	C6-C5	2.78	1.38	1.35
54	2w	37	MIA	C5-C4	2.78	1.48	1.40
54	2y	54	5MU	C2-N1	2.77	1.42	1.38
54	2w	54	5MU	C6-C5	2.76	1.39	1.34
54	2y	55	PSU	C4-N3	-2.76	1.33	1.38
54	1y	54	5MU	C6-C5	2.75	1.39	1.34
55	1x	54	5MU	C4-N3	-2.75	1.33	1.38
32	1a	1404	5MC	C6-C5	2.75	1.39	1.34
55	1x	76	31H	C5-C4	-2.75	1.33	1.40
54	2y	37	MIA	C2-N3	2.74	1.36	1.32
55	2x	76	31H	C5-C4	-2.73	1.33	1.40
54	2w	39	PSU	C4-N3	-2.72	1.33	1.38
1	2A	1939	5MU	C6-C5	2.72	1.39	1.34
54	1w	37	MIA	C5-C4	2.71	1.48	1.40
1	1A	1911	PSU	C4-N3	-2.69	1.33	1.38
1	1A	2251	OMG	C6-N1	-2.69	1.33	1.37
32	1a	1400	5MC	C6-C5	2.68	1.39	1.34
55	2x	54	5MU	C6-C5	2.67	1.39	1.34
54	1w	39	PSU	C4-N3	-2.66	1.33	1.38
32	1a	1407	5MC	C6-C5	2.66	1.39	1.34
1	1A	1942	5MC	C6-C5	2.65	1.39	1.34
32	2a	1407	5MC	C6-C5	2.64	1.38	1.34
1	1A	1915	5MU	C2-N1	2.64	1.42	1.38
1	2A	2552	OMU	C4-N3	-2.64	1.33	1.38
1	1A	1915	5MU	C6-C5	2.63	1.38	1.34
32	1a	516	PSU	C4-N3	-2.63	1.34	1.38
1	1A	1915	5MU	C4-N3	-2.62	1.34	1.38
54	1w	8	4SU	C5-C4	-2.61	1.39	1.42
32	2a	1400	5MC	C6-C5	2.61	1.38	1.34
1	2A	1911	PSU	C4-N3	-2.60	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	1A	2552	OMU	C4-N3	-2.60	1.33	1.38
54	1w	54	5MU	C6-C5	2.58	1.38	1.34
1	2A	1915	5MU	C4-N3	-2.57	1.34	1.38
55	2x	54	5MU	C4-N3	-2.56	1.34	1.38
54	1y	54	5MU	C4-N3	-2.56	1.34	1.38
1	2A	1962	5MC	C6-C5	2.55	1.38	1.34
32	2a	967	5MC	C6-C5	2.55	1.38	1.34
1	2A	2503	2MA	C2-N3	2.54	1.36	1.31
54	1y	39	PSU	C4-N3	-2.54	1.34	1.38
32	1a	1207	2MG	C6-N1	-2.53	1.34	1.37
54	1w	54	5MU	C4-N3	-2.53	1.34	1.38
1	2A	1915	5MU	C2-N1	2.53	1.42	1.38
55	2x	55	PSU	C4-N3	-2.51	1.34	1.38
1	1A	1962	5MC	C6-N1	-2.51	1.33	1.38
55	1x	55	PSU	C4-N3	-2.51	1.34	1.38
1	2A	1915	5MU	C4-C5	2.51	1.48	1.44
54	1y	32	PSU	C4-N3	-2.50	1.34	1.38
1	1A	2605	PSU	C2-N1	-2.50	1.33	1.36
1	1A	1915	5MU	C4-C5	2.49	1.48	1.44
55	1x	76	31H	C6-C5	-2.49	1.34	1.43
54	2y	54	5MU	C4-C5	2.48	1.48	1.44
1	2A	1939	5MU	C6-N1	-2.47	1.33	1.38
54	2y	54	5MU	C4-N3	-2.47	1.34	1.38
1	1A	1939	5MU	C6-N1	-2.46	1.33	1.38
54	2w	55	PSU	C4-N3	-2.46	1.34	1.38
1	1A	1962	5MC	C6-C5	2.44	1.38	1.34
32	1a	966	M2G	C6-N1	-2.44	1.34	1.37
1	2A	1962	5MC	C6-N1	-2.44	1.33	1.38
1	1A	1917	PSU	C4-N3	-2.44	1.34	1.38
55	2x	76	31H	C6-C5	-2.44	1.34	1.43
1	2A	2552	OMU	C2-N3	-2.43	1.33	1.38
54	2y	46	G7M	C6-N1	-2.42	1.34	1.37
54	2w	54	5MU	C4-N3	-2.42	1.34	1.38
32	2a	966	M2G	C2-N2	2.41	1.39	1.35
55	1x	8	4SU	O2-C2	2.41	1.27	1.23
54	2y	32	PSU	C4-N3	-2.41	1.34	1.38
1	2A	2605	PSU	C4-N3	-2.41	1.34	1.38
54	1w	46	G7M	C6-N1	-2.38	1.34	1.37
54	1w	54	5MU	C4-C5	2.37	1.48	1.44
32	2a	516	PSU	C4-N3	-2.37	1.34	1.38
1	2A	2503	2MA	C6-N1	-2.37	1.32	1.38
54	2w	54	5MU	C4-C5	2.37	1.48	1.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
55	2x	54	5MU	C4-C5	2.36	1.48	1.44
54	1w	32	PSU	C4-N3	-2.36	1.34	1.38
54	2w	32	PSU	C4-N3	-2.36	1.34	1.38
1	1A	1939	5MU	C2-N3	-2.36	1.33	1.38
32	1a	1400	5MC	C6-N1	-2.36	1.34	1.38
54	1w	55	PSU	C4-N3	-2.36	1.34	1.38
32	2a	966	M2G	C6-N1	-2.35	1.34	1.37
1	2A	1917	PSU	C4-N3	-2.35	1.34	1.38
54	1y	55	PSU	C4-N3	-2.34	1.34	1.38
32	2a	527	G7M	C6-N1	-2.34	1.34	1.37
54	1y	54	5MU	C2-N1	2.33	1.42	1.38
32	2a	1400	5MC	C6-N1	-2.33	1.34	1.38
55	2x	54	5MU	C2-N1	2.33	1.42	1.38
54	2y	8	4SU	C2-N1	2.33	1.42	1.38
1	2A	2251	OMG	C6-N1	-2.33	1.34	1.37
1	1A	2552	OMU	C2-N3	-2.33	1.33	1.38
32	2a	1407	5MC	C6-N1	-2.33	1.34	1.38
32	1a	1404	5MC	C6-N1	-2.32	1.34	1.38
54	1y	8	4SU	C5-C4	-2.32	1.39	1.42
1	2A	1939	5MU	C4-C5	2.30	1.48	1.44
54	1w	8	4SU	C2-N1	2.29	1.42	1.38
54	2y	8	4SU	C5-C4	-2.29	1.39	1.42
55	1x	32	5MC	C6-N1	-2.29	1.34	1.38
54	2w	8	4SU	C5-C4	-2.28	1.39	1.42
54	1y	54	5MU	C4-C5	2.28	1.48	1.44
55	1x	54	5MU	C2-N1	2.28	1.42	1.38
55	1x	54	5MU	C4-C5	2.27	1.48	1.44
32	2a	1207	2MG	C6-N1	-2.26	1.34	1.37
1	1A	1942	5MC	C6-N1	-2.26	1.34	1.38
55	1x	76	31H	C5-N7	-2.25	1.31	1.39
54	1y	8	4SU	C2-N1	2.22	1.42	1.38
54	1y	46	G7M	C6-N1	-2.21	1.34	1.37
1	1A	2605	PSU	C6-C5	2.20	1.37	1.35
1	1A	2552	OMU	C5-C4	-2.19	1.38	1.43
54	1w	54	5MU	C2-N1	2.19	1.42	1.38
55	2x	32	5MC	C6-N1	-2.18	1.34	1.38
55	2x	76	31H	C5-N7	-2.18	1.31	1.39
55	2x	54	5MU	C6-N1	-2.18	1.34	1.38
54	2y	8	4SU	C2-N3	-2.17	1.34	1.38
54	2w	8	4SU	C2-N3	-2.17	1.34	1.38
1	2A	1942	5MC	C6-N1	-2.17	1.34	1.38
1	1A	1915	5MU	C6-N1	-2.16	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	2a	967	5MC	C6-N1	-2.16	1.34	1.38
1	2A	1939	5MU	C2-N3	-2.16	1.34	1.38
32	2a	1498	UR3	C2-N1	2.13	1.41	1.38
1	1A	2605	PSU	C2-N3	-2.13	1.33	1.37
54	1y	8	4SU	C2-N3	-2.12	1.34	1.38
32	2a	1404	5MC	C6-N1	-2.10	1.34	1.38
54	2w	54	5MU	C2-N1	2.10	1.41	1.38
1	2A	1939	5MU	C2-N1	2.10	1.41	1.38
32	1a	967	5MC	C6-N1	-2.08	1.34	1.38
55	1x	8	4SU	C6-C5	2.08	1.39	1.35
1	2A	1915	5MU	C6-N1	-2.07	1.34	1.38
32	1a	516	PSU	C2-N3	-2.07	1.34	1.37
32	1a	1407	5MC	C6-N1	-2.06	1.34	1.38
55	2x	8	4SU	O2-C2	2.06	1.26	1.23
55	1x	54	5MU	C2-N3	-2.05	1.34	1.38
32	2a	1498	UR3	C6-C5	2.05	1.39	1.35
55	2x	8	4SU	C6-C5	2.03	1.39	1.35
55	1x	54	5MU	C6-N1	-2.02	1.34	1.38
54	1w	54	5MU	C6-N1	-2.02	1.34	1.38
54	1y	8	4SU	C6-C5	2.01	1.39	1.35
54	2w	54	5MU	C6-N1	-2.01	1.34	1.38
54	1y	54	5MU	C6-N1	-2.00	1.34	1.38
32	1a	1498	UR3	C2-N1	2.00	1.41	1.38

All (271) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
43	1l	92	0TD	CSB-SB-CB	-11.53	81.59	102.44
54	1w	37	MIA	C12-C13-C14	-8.24	111.11	127.14
32	1a	1498	UR3	C4-N3-C2	-6.18	118.75	124.56
1	2A	1939	5MU	C4-N3-C2	-6.07	119.49	127.35
1	2A	2605	PSU	N1-C2-N3	6.05	121.98	115.13
32	1a	516	PSU	N1-C2-N3	6.02	121.95	115.13
54	1y	55	PSU	N1-C2-N3	5.96	121.89	115.13
54	2y	55	PSU	N1-C2-N3	5.94	121.86	115.13
55	2x	55	PSU	N1-C2-N3	5.93	121.85	115.13
1	2A	1911	PSU	N1-C2-N3	5.93	121.84	115.13
54	2y	8	4SU	C4-N3-C2	-5.88	121.63	127.34
55	1x	55	PSU	N1-C2-N3	5.83	121.74	115.13
1	1A	2605	PSU	N1-C2-N3	5.83	121.74	115.13
1	1A	1917	PSU	N1-C2-N3	5.83	121.74	115.13
32	2a	516	PSU	N1-C2-N3	5.82	121.72	115.13

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	2w	55	PSU	N1-C2-N3	5.81	121.72	115.13
1	1A	1911	PSU	N1-C2-N3	5.81	121.71	115.13
1	1A	1939	5MU	C5-C4-N3	5.80	120.27	115.31
32	2a	1498	UR3	C4-N3-C2	-5.77	119.13	124.56
54	1w	55	PSU	N1-C2-N3	5.76	121.65	115.13
54	2w	32	PSU	N1-C2-N3	5.69	121.57	115.13
54	1w	32	PSU	N1-C2-N3	5.61	121.48	115.13
1	2A	1939	5MU	C5-C4-N3	5.60	120.09	115.31
55	2x	76	31H	N3-C2-N1	-5.60	119.93	128.68
1	2A	1917	PSU	N1-C2-N3	5.59	121.47	115.13
54	2y	32	PSU	N1-C2-N3	5.56	121.43	115.13
54	2w	8	4SU	C4-N3-C2	-5.55	121.95	127.34
54	1y	39	PSU	N1-C2-N3	5.55	121.42	115.13
55	1x	76	31H	N3-C2-N1	-5.54	120.02	128.68
54	1y	32	PSU	N1-C2-N3	5.50	121.37	115.13
54	1w	39	PSU	N1-C2-N3	5.50	121.36	115.13
1	1A	1915	5MU	C4-N3-C2	-5.40	120.36	127.35
54	1w	8	4SU	C4-N3-C2	-5.39	122.11	127.34
1	2A	1915	5MU	C4-N3-C2	-5.36	120.42	127.35
1	1A	1939	5MU	C4-N3-C2	-5.35	120.42	127.35
54	1w	8	4SU	C5-C4-N3	5.32	119.63	114.69
54	1y	8	4SU	C4-N3-C2	-5.27	122.22	127.34
54	2y	8	4SU	C5-C4-N3	5.21	119.53	114.69
55	2x	54	5MU	C4-N3-C2	-5.19	120.63	127.35
54	2w	37	MIA	C11-S10-C2	-5.18	98.40	102.27
1	1A	1915	5MU	N3-C2-N1	5.17	121.75	114.89
1	2A	1939	5MU	N3-C2-N1	5.12	121.69	114.89
55	1x	54	5MU	N3-C2-N1	5.09	121.65	114.89
55	2x	54	5MU	N3-C2-N1	5.09	121.64	114.89
54	2w	8	4SU	C5-C4-N3	5.08	119.40	114.69
1	2A	1915	5MU	N3-C2-N1	5.02	121.56	114.89
55	1x	54	5MU	C4-N3-C2	-4.96	120.93	127.35
54	2w	39	PSU	N1-C2-N3	4.96	120.75	115.13
54	1w	54	5MU	C4-N3-C2	-4.94	120.96	127.35
54	2y	39	PSU	N1-C2-N3	4.88	120.66	115.13
54	1y	8	4SU	C5-C4-N3	4.85	119.19	114.69
1	2A	1915	5MU	C5-C4-N3	4.82	119.43	115.31
54	1w	54	5MU	N3-C2-N1	4.82	121.28	114.89
54	2y	54	5MU	C4-N3-C2	-4.81	121.13	127.35
1	1A	1939	5MU	C5-C6-N1	-4.79	118.41	123.34
32	2a	1518	MA6	N3-C2-N1	-4.73	121.28	128.68
1	2A	1939	5MU	C5-C6-N1	-4.72	118.49	123.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	2y	54	5MU	N3-C2-N1	4.68	121.10	114.89
1	1A	1915	5MU	C5-C4-N3	4.66	119.29	115.31
32	1a	1518	MA6	N3-C2-N1	-4.64	121.42	128.68
32	2a	1519	MA6	N3-C2-N1	-4.63	121.44	128.68
1	2A	1939	5MU	O4-C4-C5	-4.58	119.60	124.90
32	1a	1519	MA6	N3-C2-N1	-4.57	121.54	128.68
54	2w	54	5MU	C4-N3-C2	-4.51	121.52	127.35
1	1A	1939	5MU	O4-C4-C5	-4.50	119.69	124.90
54	2y	55	PSU	C4-N3-C2	-4.46	119.92	126.34
54	2w	54	5MU	N3-C2-N1	4.43	120.77	114.89
1	1A	2552	OMU	C4-N3-C2	-4.41	120.76	126.58
54	2y	54	5MU	C5-C4-N3	4.35	119.02	115.31
54	1w	54	5MU	C5-C4-N3	4.33	119.00	115.31
55	2x	54	5MU	C5-C4-N3	4.32	119.00	115.31
55	1x	32	5MC	C5-C6-N1	-4.31	118.91	123.34
1	1A	1939	5MU	N3-C2-N1	4.30	120.59	114.89
1	2A	2552	OMU	C4-N3-C2	-4.29	120.92	126.58
1	2A	2552	OMU	N3-C2-N1	4.24	120.51	114.89
1	2A	2605	PSU	C4-N3-C2	-4.20	120.29	126.34
54	1w	37	MIA	C15-C14-C13	-4.16	110.63	122.65
54	1w	37	MIA	C2-N3-C4	4.15	121.05	115.32
55	1x	54	5MU	C5-C4-N3	4.14	118.84	115.31
1	1A	1962	5MC	C5-C6-N1	-4.14	119.08	123.34
55	1x	8	4SU	C6-C5-C4	-4.12	116.38	119.95
54	1y	54	5MU	C4-N3-C2	-4.12	122.02	127.35
54	1w	37	MIA	C12-N6-C6	-4.12	116.45	122.55
55	1x	55	PSU	C4-N3-C2	-4.11	120.42	126.34
32	1a	516	PSU	C4-N3-C2	-4.09	120.44	126.34
54	1y	54	5MU	N3-C2-N1	4.08	120.31	114.89
1	1A	2552	OMU	N3-C2-N1	4.06	120.28	114.89
1	2A	1915	5MU	O4-C4-C5	-4.05	120.21	124.90
55	2x	55	PSU	C4-N3-C2	-4.04	120.52	126.34
55	2x	54	5MU	O4-C4-C5	-4.02	120.24	124.90
54	2y	8	4SU	N3-C2-N1	4.01	120.21	114.89
54	2w	54	5MU	C5-C4-N3	3.98	118.70	115.31
54	2w	37	MIA	C5-C6-N1	-3.95	117.53	120.81
1	2A	1962	5MC	C5-C6-N1	-3.93	119.29	123.34
1	2A	1911	PSU	C4-N3-C2	-3.93	120.68	126.34
54	1y	54	5MU	C5-C4-N3	3.91	118.65	115.31
54	2w	37	MIA	C2-N3-C4	3.89	120.68	115.32
32	1a	1404	5MC	C5-C6-N1	-3.89	119.34	123.34
32	2a	516	PSU	C4-N3-C2	-3.87	120.76	126.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	2y	54	5MU	O4-C4-C5	-3.86	120.43	124.90
54	1w	54	5MU	O4-C4-C5	-3.83	120.46	124.90
54	1y	32	PSU	C4-N3-C2	-3.82	120.84	126.34
32	2a	1404	5MC	C5-C6-N1	-3.81	119.42	123.34
55	1x	54	5MU	O4-C4-C5	-3.80	120.50	124.90
1	1A	1911	PSU	C4-N3-C2	-3.76	120.92	126.34
54	2w	32	PSU	C4-N3-C2	-3.75	120.94	126.34
55	1x	54	5MU	C5-C6-N1	-3.74	119.49	123.34
32	1a	1400	5MC	C5-C6-N1	-3.71	119.52	123.34
54	2y	32	PSU	C4-N3-C2	-3.71	121.00	126.34
54	2w	8	4SU	N3-C2-N1	3.70	119.81	114.89
32	1a	967	5MC	C5-C6-N1	-3.70	119.53	123.34
54	1w	37	MIA	C5-C6-N1	-3.70	117.74	120.81
1	2A	1942	5MC	C5-C6-N1	-3.70	119.53	123.34
1	1A	1915	5MU	O4-C4-C5	-3.70	120.62	124.90
32	2a	1407	5MC	C5-C6-N1	-3.69	119.55	123.34
54	1y	54	5MU	O4-C4-C5	-3.68	120.64	124.90
54	2w	54	5MU	O4-C4-C5	-3.68	120.64	124.90
1	2A	1915	5MU	C5-C6-N1	-3.66	119.57	123.34
54	1w	37	MIA	C16-C14-C13	-3.65	112.08	122.65
1	1A	1917	PSU	C4-N3-C2	-3.65	121.08	126.34
54	1y	8	4SU	N3-C2-N1	3.64	119.72	114.89
1	1A	2552	OMU	C5-C4-N3	3.64	120.28	114.84
54	1w	55	PSU	C4-N3-C2	-3.62	121.12	126.34
54	2w	55	PSU	C4-N3-C2	-3.61	121.14	126.34
54	1y	55	PSU	C4-N3-C2	-3.59	121.17	126.34
54	1w	39	PSU	C4-N3-C2	-3.59	121.17	126.34
54	1w	32	PSU	C4-N3-C2	-3.58	121.18	126.34
55	1x	8	4SU	O2-C2-N1	3.56	127.52	122.79
1	1A	2605	PSU	C4-N3-C2	-3.55	121.22	126.34
55	2x	32	5MC	C5-C6-N1	-3.54	119.70	123.34
54	2y	55	PSU	O2-C2-N1	-3.53	118.91	122.79
1	1A	2605	PSU	O2-C2-N1	-3.52	118.91	122.79
1	2A	1917	PSU	C4-N3-C2	-3.52	121.27	126.34
1	1A	1917	PSU	O2-C2-N1	-3.50	118.94	122.79
54	1y	39	PSU	C4-N3-C2	-3.49	121.31	126.34
32	2a	967	5MC	C5-C6-N1	-3.49	119.75	123.34
32	1a	1407	5MC	C5-C6-N1	-3.48	119.76	123.34
32	2a	1400	5MC	C5-C6-N1	-3.46	119.78	123.34
1	2A	1917	PSU	O2-C2-N1	-3.44	119.00	122.79
54	1w	8	4SU	C5-C4-S4	-3.44	120.03	124.47
54	1w	32	PSU	O2-C2-N1	-3.41	119.04	122.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	1w	8	4SU	N3-C2-N1	3.41	119.41	114.89
55	2x	54	5MU	C5-C6-N1	-3.40	119.84	123.34
32	1a	1518	MA6	C4-C5-N7	-3.34	105.92	109.40
1	1A	1915	5MU	C5-C6-N1	-3.34	119.90	123.34
54	2w	32	PSU	O2-C2-N1	-3.33	119.13	122.79
1	2A	2552	OMU	C5-C4-N3	3.30	119.78	114.84
32	2a	516	PSU	O2-C2-N1	-3.30	119.16	122.79
54	2w	55	PSU	O2-C2-N1	-3.29	119.17	122.79
54	1y	55	PSU	O2-C2-N1	-3.28	119.18	122.79
54	2y	54	5MU	C5-C6-N1	-3.24	120.01	123.34
54	1y	32	PSU	O2-C2-N1	-3.23	119.23	122.79
43	2l	92	0TD	OD2-CG-CB	3.23	120.12	113.15
54	2y	32	PSU	O2-C2-N1	-3.22	119.25	122.79
54	2y	37	MIA	N3-C2-N1	-3.20	123.67	128.68
1	1A	1911	PSU	O2-C2-N1	-3.20	119.27	122.79
54	1w	55	PSU	O2-C2-N1	-3.20	119.27	122.79
54	1y	37	MIA	N3-C2-N1	-3.18	123.71	128.68
54	2w	54	5MU	C5-C6-N1	-3.17	120.08	123.34
32	2a	1519	MA6	C4-C5-N7	-3.15	106.11	109.40
54	1w	54	5MU	C5-C6-N1	-3.14	120.11	123.34
55	1x	55	PSU	O2-C2-N1	-3.09	119.39	122.79
32	1a	516	PSU	O2-C2-N1	-3.08	119.40	122.79
1	2A	2605	PSU	O2-C2-N1	-3.08	119.40	122.79
32	1a	1519	MA6	C4-C5-N7	-3.05	106.22	109.40
55	1x	8	4SU	C4-N3-C2	3.05	130.30	127.34
54	1y	54	5MU	C5-C6-N1	-3.03	120.22	123.34
43	1l	92	0TD	OD2-CG-CB	3.03	119.69	113.15
54	2w	39	PSU	C4-N3-C2	-3.02	121.98	126.34
55	1x	8	4SU	S4-C4-N3	-3.02	117.23	120.21
1	1A	1942	5MC	C5-C4-N3	-3.01	118.43	121.67
54	1w	39	PSU	O2-C2-N1	-3.00	119.48	122.79
1	2A	1911	PSU	O2-C2-N1	-3.00	119.49	122.79
1	1A	2552	OMU	O4-C4-C5	-2.98	119.93	125.16
1	2A	1939	5MU	O2-C2-N1	-2.96	118.85	122.79
54	2w	8	4SU	C5-C4-S4	-2.96	120.66	124.47
54	1w	37	MIA	C2-N1-C6	2.95	122.47	117.19
1	1A	1942	5MC	C5-C6-N1	-2.94	120.31	123.34
54	2y	8	4SU	C5-C4-S4	-2.88	120.76	124.47
54	2y	39	PSU	C4-N3-C2	-2.88	122.19	126.34
55	2x	55	PSU	O2-C2-N1	-2.87	119.64	122.79
32	2a	1518	MA6	C4-C5-N7	-2.77	106.52	109.40
1	1A	2503	2MA	C8-N7-C5	2.75	108.22	102.99

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2A	2251	OMG	C8-N7-C5	2.73	108.19	102.99
55	2x	8	4SU	C6-C5-C4	-2.73	117.59	119.95
32	2a	1404	5MC	C5-C4-N3	-2.70	118.76	121.67
1	1A	2552	OMU	O2-C2-N1	-2.70	119.20	122.79
32	2a	1400	5MC	O2-C2-N3	-2.66	118.01	122.33
32	1a	1207	2MG	C8-N7-C5	2.65	108.03	102.99
54	2w	37	MIA	C4-C5-N7	-2.63	106.66	109.40
55	1x	32	5MC	C5-C4-N3	-2.63	118.83	121.67
32	2a	1407	5MC	C5-C4-N3	-2.63	118.84	121.67
1	2A	1942	5MC	C5-C4-N3	-2.62	118.85	121.67
54	1y	37	MIA	C4-C5-N7	-2.61	106.68	109.40
54	2w	54	5MU	O2-C2-N1	-2.58	119.36	122.79
1	2A	2552	OMU	O2-C2-N1	-2.57	119.37	122.79
54	2w	37	MIA	C12-N6-C6	-2.56	120.66	122.87
55	1x	76	31H	CA-N-CN	-2.55	118.90	122.82
54	1w	54	5MU	O2-C2-N1	-2.54	119.41	122.79
1	1A	2503	2MA	C5-C6-N1	2.53	118.39	114.02
55	2x	8	4SU	C5-C4-N3	2.53	117.04	114.69
1	1A	1915	5MU	C5M-C5-C4	2.52	121.54	118.77
54	2y	37	MIA	C4-C5-N7	-2.52	106.78	109.40
54	1w	8	4SU	C1'-N1-C2	2.50	122.10	117.57
55	2x	32	5MC	C5-C4-N3	-2.49	118.98	121.67
1	2A	1962	5MC	C5-C4-N3	-2.49	118.99	121.67
55	2x	32	5MC	O2-C2-N3	-2.49	118.28	122.33
32	1a	1400	5MC	C5-C4-N3	-2.47	119.01	121.67
1	1A	2251	OMG	C5-C6-N1	2.46	118.29	113.95
1	1A	1939	5MU	O2-C2-N1	-2.45	119.53	122.79
54	1w	37	MIA	C4-C5-N7	-2.44	106.86	109.40
55	2x	8	4SU	S4-C4-N3	-2.43	117.81	120.21
43	2l	92	0TD	CSB-SB-CB	-2.43	98.05	102.44
55	2x	8	4SU	C1'-N1-C2	2.43	121.96	117.57
32	2a	1207	2MG	C8-N7-C5	2.43	107.61	102.99
32	1a	1404	5MC	C5-C4-N3	-2.43	119.06	121.67
32	1a	1407	5MC	C5-C4-N3	-2.42	119.06	121.67
55	2x	54	5MU	O2-C2-N1	-2.40	119.60	122.79
1	1A	2251	OMG	C8-N7-C5	2.39	107.55	102.99
43	2l	92	0TD	OD1-CG-CB	-2.39	117.43	122.44
1	2A	2503	2MA	C8-N7-C5	2.38	107.52	102.99
55	1x	8	4SU	C1'-N1-C2	2.38	121.87	117.57
1	2A	2552	OMU	O4-C4-C5	-2.36	121.00	125.16
32	2a	966	M2G	C8-N7-C5	2.36	107.49	102.99
1	2A	2251	OMG	C5-C6-N1	2.35	118.11	113.95

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	1a	1404	5MC	O2-C2-N3	-2.35	118.50	122.33
54	1y	39	PSU	O2-C2-N1	-2.35	120.21	122.79
55	1x	54	5MU	O2-C2-N1	-2.34	119.68	122.79
1	2A	2503	2MA	C5-C6-N1	2.33	118.05	114.02
1	1A	1962	5MC	CM5-C5-C6	-2.33	119.74	122.85
32	2a	1402	4OC	C6-C5-C4	2.33	119.81	116.96
54	2w	37	MIA	C2-N1-C6	2.31	121.33	117.19
54	1w	37	MIA	N3-C2-N1	-2.30	122.74	126.98
54	1y	8	4SU	C5-C4-S4	-2.30	121.50	124.47
32	1a	1402	4OC	C6-C5-C4	2.28	119.75	116.96
32	2a	516	PSU	O4'-C1'-C2'	2.26	108.33	105.14
55	1x	76	31H	OCN-CN-N	-2.25	119.34	125.27
32	2a	1407	5MC	O2-C2-N3	-2.25	118.67	122.33
54	2w	54	5MU	C5M-C5-C4	2.25	121.24	118.77
1	1A	1962	5MC	C5-C4-N3	-2.24	119.25	121.67
1	1A	1915	5MU	C5M-C5-C6	-2.22	119.89	122.85
32	1a	966	M2G	O6-C6-C5	-2.20	120.07	124.37
32	1a	1207	2MG	C5-C6-N1	2.20	117.84	113.95
32	1a	1498	UR3	C3U-N3-C4	2.20	121.03	117.89
55	2x	8	4SU	O2-C2-N1	2.20	125.71	122.79
54	2y	54	5MU	C1'-N1-C2	2.19	121.54	117.57
1	1A	1915	5MU	O2-C2-N1	-2.19	119.87	122.79
32	1a	966	M2G	C5-C6-N1	2.19	117.81	113.95
55	1x	8	4SU	C5-C4-N3	2.18	116.72	114.69
32	1a	966	M2G	C8-N7-C5	2.18	107.14	102.99
32	2a	1498	UR3	C3U-N3-C4	2.17	120.99	117.89
32	2a	1400	5MC	C5-C4-N3	-2.17	119.33	121.67
1	2A	1915	5MU	O2-C2-N1	-2.16	119.91	122.79
54	1y	54	5MU	C1'-N1-C2	2.15	121.47	117.57
54	2y	8	4SU	C1'-N1-C2	2.15	121.47	117.57
32	2a	967	5MC	C5-C4-N3	-2.15	119.36	121.67
32	1a	516	PSU	C5-C6-N1	-2.13	118.92	122.11
54	2y	55	PSU	O4'-C1'-C2'	2.12	108.13	105.14
1	1A	1920	OMC	O2-C2-N3	-2.11	118.90	122.33
32	1a	516	PSU	O4'-C1'-C2'	2.10	108.11	105.14
1	1A	2251	OMG	O6-C6-C5	-2.10	120.26	124.37
32	2a	966	M2G	C5-C6-N1	2.10	117.67	113.95
32	2a	1404	5MC	O2-C2-N3	-2.10	118.92	122.33
54	2y	55	PSU	C5-C6-N1	-2.10	118.97	122.11
55	1x	55	PSU	C5-C6-N1	-2.10	118.97	122.11
32	1a	967	5MC	C5-C4-N3	-2.09	119.42	121.67
54	2w	37	MIA	N6-C6-N1	2.06	121.08	118.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	2a	1207	2MG	C5-C6-N1	2.04	117.55	113.95
32	1a	1402	4OC	CM4-N4-C4	-2.03	118.48	122.45
32	1a	1498	UR3	C1'-N1-C2	2.03	120.42	116.99
55	2x	55	PSU	C5-C6-N1	-2.02	119.08	122.11

There are no chirality outliers.

All (57) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
32	1a	1519	MA6	O4'-C4'-C5'-O5'
54	1w	37	MIA	C12-C13-C14-C16
55	1x	76	31H	C3'-C4'-C5'-O5'
54	1y	46	G7M	C4'-C5'-O5'-P
32	2a	1207	2MG	N1-C2-N2-CM2
32	2a	1207	2MG	N3-C2-N2-CM2
32	2a	1519	MA6	O4'-C4'-C5'-O5'
43	2l	92	0TD	CG-CB-SB-CSB
54	2w	37	MIA	C5-C6-N6-C12
54	2w	37	MIA	N1-C6-N6-C12
54	2w	37	MIA	N1-C2-S10-C11
54	2w	37	MIA	N3-C2-S10-C11
55	2x	76	31H	C3'-C4'-C5'-O5'
54	2y	55	PSU	C3'-C4'-C5'-O5'
55	2x	76	31H	CB-CG-SD-CE
32	1a	1519	MA6	C3'-C4'-C5'-O5'
54	1y	8	4SU	O4'-C4'-C5'-O5'
1	2A	2503	2MA	O4'-C4'-C5'-O5'
32	2a	527	G7M	C3'-C4'-C5'-O5'
32	2a	1519	MA6	C3'-C4'-C5'-O5'
32	1a	1402	4OC	O4'-C4'-C5'-O5'
54	1y	8	4SU	C3'-C4'-C5'-O5'
55	2x	76	31H	O4'-C4'-C5'-O5'
54	2y	55	PSU	O4'-C4'-C5'-O5'
55	1x	76	31H	O4'-C4'-C5'-O5'
32	1a	527	G7M	C3'-C4'-C5'-O5'
54	1w	37	MIA	C12-C13-C14-C15
32	2a	527	G7M	O4'-C4'-C5'-O5'
1	2A	2503	2MA	C3'-C4'-C5'-O5'
55	1x	76	31H	C4'-C5'-O5'-P
55	2x	76	31H	C4'-C5'-O5'-P
1	2A	1917	PSU	O4'-C4'-C5'-O5'
54	2w	46	G7M	C4'-C5'-O5'-P

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Mol	Chain	Res	Type	Atoms
32	1a	527	G7M	O4'-C4'-C5'-O5'
32	1a	1402	4OC	C3'-C4'-C5'-O5'
54	1y	46	G7M	C3'-C4'-C5'-O5'
54	1w	46	G7M	C4'-C5'-O5'-P
32	2a	1402	4OC	O4'-C4'-C5'-O5'
32	1a	1519	MA6	C4'-C5'-O5'-P
1	1A	2503	2MA	O4'-C4'-C5'-O5'
1	2A	1962	5MC	C2'-C1'-N1-C6
32	2a	1400	5MC	C2'-C1'-N1-C6
43	2l	92	0TD	CA-CB-SB-CSB
32	2a	527	G7M	C4'-C5'-O5'-P
54	2y	54	5MU	O4'-C4'-C5'-O5'
1	2A	1962	5MC	O4'-C1'-N1-C6
32	2a	1400	5MC	O4'-C1'-N1-C6
55	1x	76	31H	CB-CG-SD-CE
43	1l	92	0TD	CG-CB-SB-CSB
54	1y	8	4SU	C4'-C5'-O5'-P
1	2A	1917	PSU	C3'-C4'-C5'-O5'
32	2a	1402	4OC	C3'-C4'-C5'-O5'
43	1l	92	0TD	SB-CB-CG-OD1
55	1x	76	31H	CB-CA-N-CN
1	1A	1920	OMC	C2'-C1'-N1-C2
32	1a	527	G7M	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 [i](#)

There are no monosaccharides in this entry.

## 5.6 Ligand geometry [i](#)

Of 2589 ligands modelled in this entry, 2585 are monoatomic - leaving 4 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the

expected value. A bond length (or angle) with  $|Z| > 2$  is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# $ Z  > 2$	Counts	RMSZ	# $ Z  > 2$
58	WC9	1A	4061	-	34,37,37	1.24	2 (5%)	35,53,53	1.86	4 (11%)
60	SF4	2d	302	35	0,12,12	-	-	-	-	-
58	WC9	2A	3772	-	34,37,37	1.26	2 (5%)	35,53,53	1.57	4 (11%)
60	SF4	1d	302	35	0,12,12	-	-	-	-	-

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
58	WC9	1A	4061	-	-	2/28/71/71	0/3/4/4
60	SF4	2d	302	35	-	-	0/6/5/5
58	WC9	2A	3772	-	-	2/28/71/71	0/3/4/4
60	SF4	1d	302	35	-	-	0/6/5/5

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
58	1A	4061	WC9	CAM-CBF	-4.58	1.39	1.51
58	2A	3772	WC9	CAM-CBF	-4.47	1.39	1.51
58	1A	4061	WC9	CD2-CAZ	-3.00	1.50	1.53
58	2A	3772	WC9	OAW-CB	2.90	1.45	1.42

All (8) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
58	1A	4061	WC9	CBC-CBB-CAZ	-7.96	109.23	116.03
58	2A	3772	WC9	CBC-CBB-CAZ	-6.21	110.73	116.03
58	1A	4061	WC9	CD1-CG-CB	-4.70	97.98	103.80
58	2A	3772	WC9	CD1-CG-CB	-4.67	98.03	103.80
58	1A	4061	WC9	CAF-OAA-CAB	-3.33	109.60	114.12
58	2A	3772	WC9	CAF-OAA-CAB	-2.99	110.06	114.12
58	1A	4061	WC9	CD2-CAZ-CAY	-2.75	109.76	113.89
58	2A	3772	WC9	CD2-CAZ-CAY	-2.24	110.53	113.89

There are no chirality outliers.

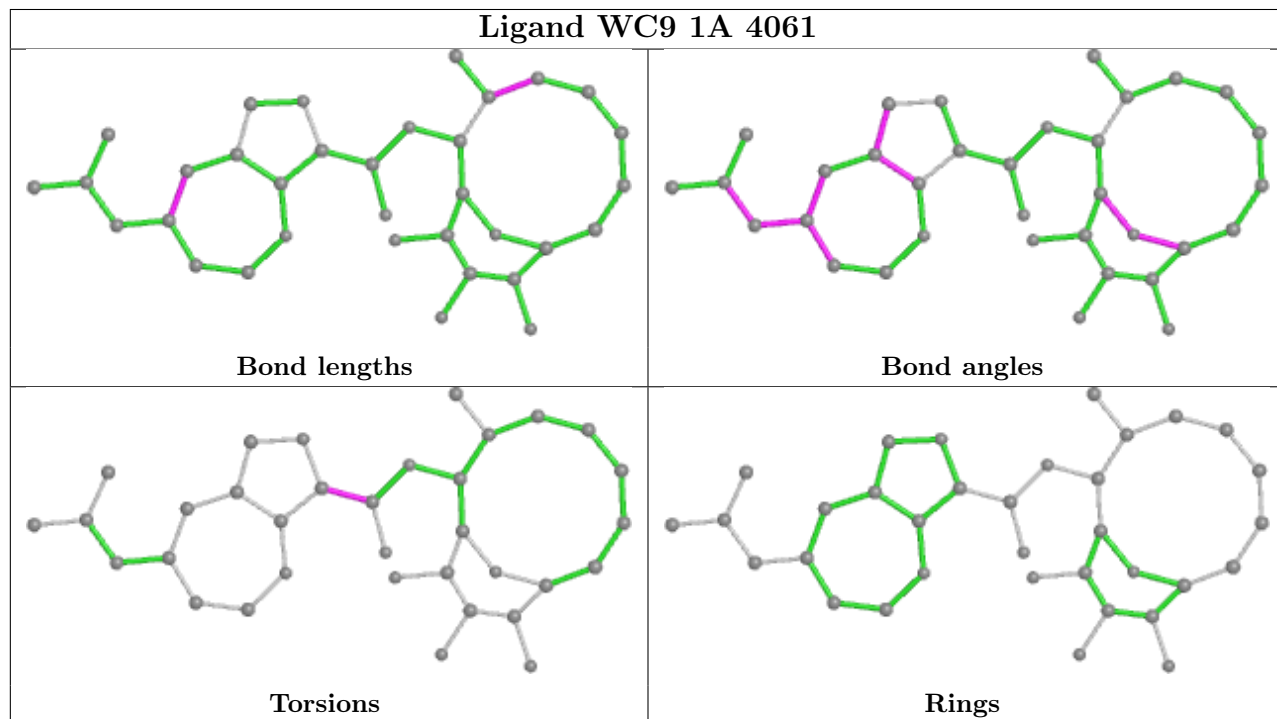
All (4) torsion outliers are listed below:

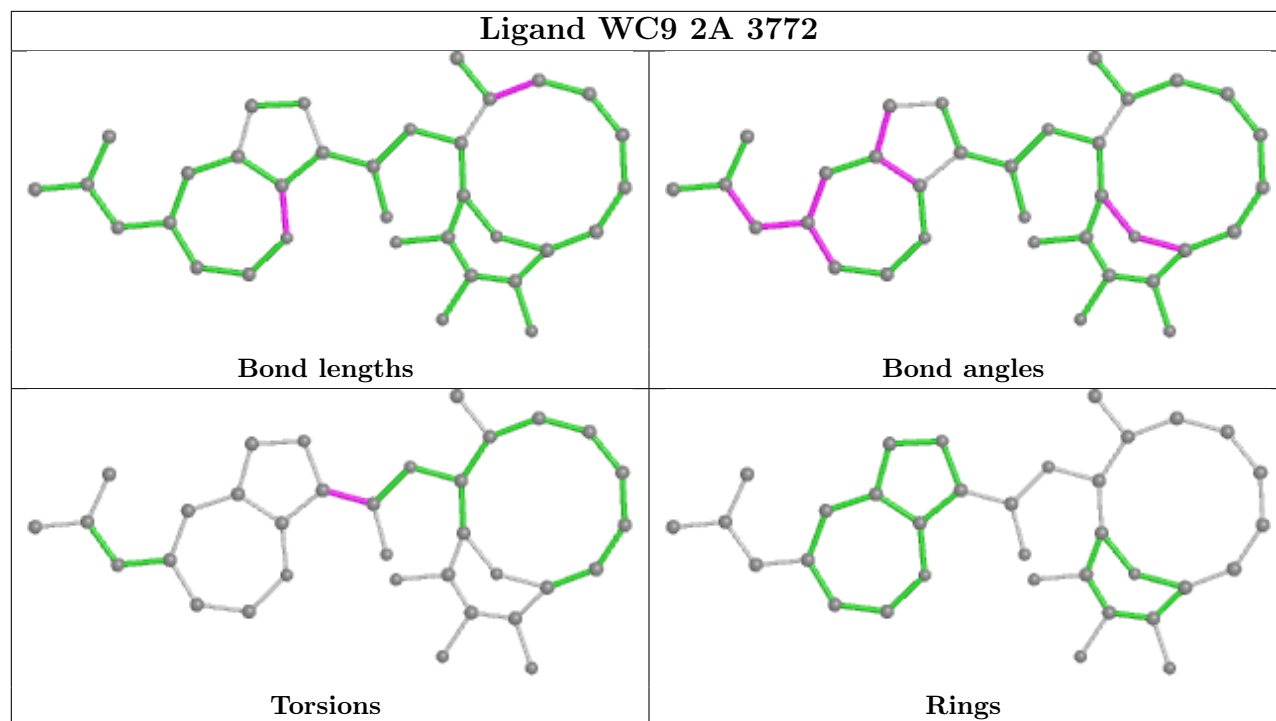
Mol	Chain	Res	Type	Atoms
58	1A	4061	WC9	O-C-CA-CB
58	1A	4061	WC9	NAL-C-CA-CB
58	2A	3772	WC9	O-C-CA-CB
58	2A	3772	WC9	NAL-C-CA-CB

There are no ring outliers.

No monomer is involved in short contacts.

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.





## 5.7 Other polymers [i](#)

There are no such residues in this entry.

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

There are no chain breaks in this entry.



## 6 Fit of model and data 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	2860/2915 (98%)	0.84	77 (2%) 54 55	25, 41, 102, 117	0
1	2A	2789/2915 (95%)	0.68	99 (3%) 44 44	36, 62, 101, 117	0
2	1B	120/121 (99%)	0.45	0 100 100	37, 56, 70, 99	0
2	2B	120/121 (99%)	0.16	2 (1%) 70 72	69, 87, 93, 104	0
3	1D	275/276 (99%)	0.69	5 (1%) 68 70	27, 40, 56, 86	0
3	2D	275/276 (99%)	0.90	16 (5%) 23 22	34, 53, 66, 88	0
4	1E	204/206 (99%)	0.63	2 (0%) 82 83	25, 43, 64, 81	0
4	2E	204/206 (99%)	0.80	18 (8%) 10 8	39, 62, 77, 89	0
5	1F	203/210 (96%)	0.60	0 100 100	24, 47, 73, 94	0
5	2F	203/210 (96%)	0.49	3 (1%) 73 76	39, 73, 87, 94	0
6	1G	181/182 (99%)	0.39	3 (1%) 70 72	46, 66, 82, 96	0
6	2G	181/182 (99%)	0.82	22 (12%) 4 3	76, 87, 94, 103	0
7	1H	174/180 (96%)	0.44	1 (0%) 89 91	45, 59, 72, 81	0
7	2H	174/180 (96%)	2.02	74 (42%) 0 0	76, 90, 98, 103	0
8	1I	146/148 (98%)	0.27	1 (0%) 87 89	47, 79, 89, 93	0
8	2I	146/148 (98%)	0.75	12 (8%) 11 9	56, 79, 89, 93	0
9	1N	140/140 (100%)	0.69	1 (0%) 87 89	31, 43, 69, 82	0
9	2N	140/140 (100%)	1.00	23 (16%) 1 1	52, 69, 83, 93	0
10	1O	122/122 (100%)	0.62	1 (0%) 86 87	35, 45, 63, 67	0
10	2O	122/122 (100%)	0.91	10 (8%) 11 9	49, 60, 75, 80	0
11	1P	149/150 (99%)	0.67	1 (0%) 87 89	27, 50, 74, 84	0
11	2P	149/150 (99%)	0.67	9 (6%) 21 20	43, 74, 91, 99	0
12	1Q	141/141 (100%)	0.69	3 (2%) 63 65	33, 47, 63, 84	0
12	2Q	141/141 (100%)	1.21	26 (18%) 1 1	55, 73, 86, 93	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
13	1R	118/118 (100%)	0.64	0 100 100	30, 39, 58, 66	0
13	2R	118/118 (100%)	0.73	4 (3%) 45 45	43, 56, 68, 78	0
14	1S	110/112 (98%)	0.47	0 100 100	46, 56, 70, 71	0
14	2S	110/112 (98%)	0.58	10 (9%) 9 7	71, 81, 90, 93	0
15	1T	131/146 (89%)	0.57	4 (3%) 49 49	38, 49, 77, 84	0
15	2T	131/146 (89%)	0.70	4 (3%) 49 49	54, 64, 83, 89	0
16	1U	116/118 (98%)	0.89	1 (0%) 84 85	27, 35, 49, 70	0
16	2U	116/118 (98%)	0.80	6 (5%) 27 25	50, 66, 83, 89	0
17	1V	101/101 (100%)	0.60	0 100 100	27, 45, 62, 73	0
17	2V	101/101 (100%)	0.42	5 (4%) 28 27	49, 77, 86, 97	0
18	1W	112/113 (99%)	0.80	3 (2%) 54 55	26, 37, 56, 94	0
18	2W	112/113 (99%)	0.73	4 (3%) 42 42	44, 53, 74, 92	0
19	1X	95/96 (98%)	0.70	1 (1%) 80 82	29, 44, 69, 87	0
19	2X	95/96 (98%)	0.63	5 (5%) 26 25	50, 65, 80, 93	0
20	1Y	107/110 (97%)	0.55	1 (0%) 84 85	42, 55, 76, 83	0
20	2Y	107/110 (97%)	0.96	14 (13%) 3 2	65, 78, 90, 100	0
21	1Z	154/206 (74%)	0.46	4 (2%) 56 57	48, 70, 94, 99	0
21	2Z	160/206 (77%)	0.84	23 (14%) 2 1	72, 89, 102, 106	0
22	10	83/85 (97%)	1.49	7 (8%) 11 9	34, 44, 76, 95	0
22	20	83/85 (97%)	1.49	11 (13%) 3 2	53, 71, 87, 96	0
23	11	97/98 (98%)	0.74	4 (4%) 37 36	34, 49, 76, 81	0
23	21	97/98 (98%)	0.93	7 (7%) 15 13	42, 59, 81, 84	0
24	12	70/72 (97%)	0.65	0 100 100	41, 54, 66, 79	0
24	22	70/72 (97%)	0.42	4 (5%) 23 22	64, 76, 86, 88	0
25	13	59/60 (98%)	0.69	0 100 100	31, 43, 66, 82	0
25	23	59/60 (98%)	1.20	15 (25%) 0 0	62, 71, 85, 94	0
26	14	69/71 (97%)	0.43	6 (8%) 10 8	59, 82, 99, 102	0
26	24	69/71 (97%)	0.73	15 (21%) 0 0	86, 94, 103, 104	0
27	15	59/60 (98%)	0.74	1 (1%) 70 72	24, 37, 60, 66	0
27	25	59/60 (98%)	0.55	0 100 100	40, 56, 72, 88	0
28	16	53/54 (98%)	0.55	0 100 100	39, 47, 62, 67	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
28	26	53/54 (98%)	0.96	6 (11%) 5 4	57, 68, 76, 84	0
29	17	48/49 (97%)	1.09	4 (8%) 11 9	28, 34, 64, 69	0
29	27	48/49 (97%)	1.32	6 (12%) 3 3	38, 44, 71, 78	0
30	18	64/65 (98%)	0.70	0 100 100	31, 38, 47, 57	0
30	28	64/65 (98%)	1.10	7 (10%) 5 4	53, 59, 68, 74	0
31	19	37/37 (100%)	1.01	1 (2%) 54 55	36, 45, 63, 69	0
31	29	37/37 (100%)	2.26	18 (48%) 0 0	66, 73, 83, 89	0
32	1a	1488/1521 (97%)	0.60	57 (3%) 40 39	40, 71, 101, 118	0
32	2a	1491/1521 (98%)	0.68	123 (8%) 11 9	49, 82, 104, 116	0
33	1b	231/256 (90%)	0.28	7 (3%) 50 51	68, 85, 96, 101	0
33	2b	231/256 (90%)	1.04	43 (18%) 1 1	81, 93, 99, 105	0
34	1c	206/239 (86%)	0.70	16 (7%) 13 11	63, 77, 91, 98	0
34	2c	206/239 (86%)	1.20	44 (21%) 0 0	79, 92, 98, 101	0
35	1d	208/209 (99%)	0.76	19 (9%) 9 7	58, 75, 86, 90	0
35	2d	208/209 (99%)	0.96	21 (10%) 7 5	66, 75, 84, 92	0
36	1e	148/162 (91%)	0.57	1 (0%) 87 89	50, 68, 79, 87	0
36	2e	148/162 (91%)	0.87	18 (12%) 4 3	67, 82, 89, 96	0
37	1f	100/101 (99%)	0.22	1 (1%) 82 83	60, 72, 82, 85	0
37	2f	100/101 (99%)	0.30	2 (2%) 65 67	60, 73, 84, 89	0
38	1g	155/156 (99%)	0.67	16 (10%) 6 5	65, 75, 91, 95	0
38	2g	155/156 (99%)	0.68	15 (9%) 7 6	74, 85, 94, 98	0
39	1h	137/138 (99%)	0.62	9 (6%) 18 16	58, 71, 78, 84	0
39	2h	137/138 (99%)	1.01	23 (16%) 1 1	72, 82, 88, 94	0
40	1i	127/128 (99%)	1.15	27 (21%) 0 0	60, 82, 91, 94	0
40	2i	127/128 (99%)	1.89	55 (43%) 0 0	79, 91, 97, 100	0
41	1j	97/105 (92%)	0.52	6 (6%) 20 19	64, 83, 95, 100	0
41	2j	96/105 (91%)	1.81	37 (38%) 0 0	86, 93, 101, 103	0
42	1k	114/129 (88%)	0.87	8 (7%) 16 14	47, 70, 83, 90	0
42	2k	114/129 (88%)	0.58	3 (2%) 56 57	59, 78, 88, 94	0
43	1l	121/132 (91%)	0.81	9 (7%) 14 12	47, 58, 72, 79	0
43	2l	121/132 (91%)	1.58	40 (33%) 0 0	61, 75, 84, 92	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
44	1m	123/126 (97%)	0.83	11 (8%) 9 7	60, 76, 86, 95	0
44	2m	122/126 (96%)	1.58	34 (27%) 0 0	77, 91, 97, 100	0
45	1n	60/61 (98%)	1.17	10 (16%) 1 1	63, 72, 80, 82	0
45	2n	60/61 (98%)	3.86	49 (81%) 0 0	85, 93, 97, 102	0
46	1o	88/89 (98%)	0.70	5 (5%) 23 22	52, 71, 81, 87	0
46	2o	88/89 (98%)	0.63	7 (7%) 12 10	64, 78, 86, 94	0
47	1p	82/88 (93%)	1.60	31 (37%) 0 0	61, 76, 85, 91	0
47	2p	82/88 (93%)	0.88	6 (7%) 15 13	63, 74, 84, 92	0
48	1q	99/105 (94%)	1.12	12 (12%) 4 3	58, 73, 83, 85	0
48	2q	99/105 (94%)	1.54	34 (34%) 0 0	69, 78, 88, 90	0
49	1r	68/88 (77%)	0.49	1 (1%) 73 76	61, 70, 84, 86	0
49	2r	68/88 (77%)	0.45	2 (2%) 51 52	62, 76, 87, 93	0
50	1s	83/93 (89%)	0.44	2 (2%) 59 60	69, 80, 88, 91	0
50	2s	83/93 (89%)	1.86	34 (40%) 0 0	87, 95, 100, 104	0
51	1t	96/106 (90%)	1.36	31 (32%) 0 0	65, 76, 85, 90	0
51	2t	96/106 (90%)	1.54	28 (29%) 0 0	63, 75, 89, 91	0
52	1u	23/27 (85%)	1.56	7 (30%) 0 0	68, 71, 78, 81	0
52	2u	23/27 (85%)	2.57	16 (69%) 0 0	82, 87, 94, 94	0
53	1v	13/24 (54%)	1.89	6 (46%) 0 0	52, 64, 85, 101	0
53	2v	13/24 (54%)	3.04	8 (61%) 0 0	73, 88, 100, 107	0
54	1w	65/76 (85%)	1.55	17 (26%) 0 0	65, 93, 107, 112	0
54	1y	67/76 (88%)	1.03	11 (16%) 1 1	43, 100, 108, 112	0
54	2w	63/76 (82%)	2.33	27 (42%) 0 0	86, 102, 111, 116	0
54	2y	66/76 (86%)	1.69	26 (39%) 0 0	59, 106, 111, 114	0
55	1x	71/77 (92%)	0.52	1 (1%) 75 77	33, 66, 90, 97	0
55	2x	71/77 (92%)	0.43	2 (2%) 53 54	49, 85, 97, 106	0
All	All	20869/21748 (95%)	0.80	1628 (7%) 13 11	24, 68, 97, 118	0

All (1628) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
44	2m	124	PRO	19.8
44	2m	123	ALA	19.7

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Mol	Chain	Res	Type	RSRZ
44	1m	124	PRO	16.0
22	20	2	ALA	14.9
22	10	3	HIS	13.4
44	1m	123	ALA	12.6
22	10	2	ALA	11.7
45	2n	38	GLY	11.1
22	10	6	GLY	9.9
45	2n	39	LEU	9.5
45	2n	34	TYR	9.4
22	10	5	LYS	9.0
22	10	4	LYS	8.8
22	20	3	HIS	8.6
20	2Y	1	MET	8.5
53	2v	24	A	8.5
44	2m	122	LYS	8.5
22	10	7	LEU	8.4
54	2y	36	A	8.0
21	2Z	149	SER	8.0
32	2a	1030(B)	C	8.0
22	20	4	LYS	7.7
1	2A	2154	G	7.6
54	2w	31	A	7.6
54	2w	72	C	7.4
7	2H	35	VAL	7.1
22	20	6	GLY	7.0
33	2b	165	VAL	7.0
45	2n	31	ARG	6.9
50	2s	80	TYR	6.9
23	2l	2	SER	6.9
45	2n	42	ILE	6.8
54	2w	4	C	6.8
38	2g	82	GLY	6.8
45	2n	25	VAL	6.8
54	2w	73	A	6.7
40	2i	115	GLY	6.7
38	2g	81	GLY	6.7
54	2w	71	G	6.6
7	2H	113	VAL	6.6
32	2a	1030(A)	G	6.6
1	2A	2145	C	6.5
34	2c	157	ILE	6.5
7	2H	72	ILE	6.4

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
26	24	51	ASP	6.4
41	2j	47	PHE	6.4
52	2u	16	GLY	6.4
38	2g	80	VAL	6.3
44	2m	6	GLY	6.3
54	2w	74	C	6.3
22	20	7	LEU	6.3
34	2c	8	ILE	6.2
45	2n	29	ARG	6.1
45	2n	50	LYS	6.1
40	2i	125	TYR	6.1
41	2j	55	LYS	6.1
1	2A	2146	C	6.0
45	2n	35	ARG	6.0
32	1a	1532	U	6.0
21	2Z	144	LEU	6.0
44	2m	102	ARG	6.0
53	2v	23	A	6.0
45	2n	37	PHE	6.0
36	2e	12	LEU	5.9
43	2l	64	TYR	5.9
1	1A	2131	G	5.9
44	2m	120	LYS	5.9
32	2a	1532	U	5.8
1	1A	2145	C	5.8
1	2A	2155	G	5.8
54	1y	20	U	5.8
50	2s	13	ASP	5.8
41	2j	63	PHE	5.8
54	2w	3	C	5.8
1	2A	2113	U	5.8
54	1y	36	A	5.7
33	2b	48	MET	5.7
40	2i	7	THR	5.7
54	1w	20	U	5.7
40	2i	114	TYR	5.7
1	1A	1096	A	5.6
40	2i	14	VAL	5.6
38	1g	79	ARG	5.6
7	2H	71	LEU	5.6
3	2D	2	ALA	5.6
33	2b	187	LEU	5.6

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
44	2m	87	TYR	5.5
38	2g	79	ARG	5.5
12	2Q	33	GLY	5.5
31	29	37	GLY	5.5
54	2w	70	G	5.5
40	1i	15	ALA	5.4
45	2n	2	ALA	5.4
1	2A	2156	G	5.4
34	1c	87	LEU	5.4
1	1A	2140	C	5.4
32	2a	1034	G	5.4
32	1a	1257	U	5.4
32	1a	1531	A	5.4
23	11	2	SER	5.4
45	2n	46	GLU	5.3
32	1a	1030(A)	G	5.3
50	2s	82	GLY	5.3
1	2A	888	C	5.3
26	24	50	VAL	5.3
45	2n	58	LYS	5.3
45	2n	6	LEU	5.3
32	1a	1036	G	5.3
38	1g	85	TYR	5.3
32	2a	1033	G	5.3
1	1A	2159	G	5.3
54	1w	73	A	5.2
44	2m	121	LYS	5.2
34	1c	193	TYR	5.2
32	2a	1257	U	5.2
32	1a	1030(B)	C	5.2
45	2n	12	ARG	5.2
34	2c	6	HIS	5.2
26	24	49	PHE	5.1
3	2D	38	LYS	5.1
34	2c	160	ALA	5.1
1	1A	2132	U	5.1
54	1w	71	G	5.1
40	2i	123	PRO	5.1
50	2s	52	TYR	5.1
45	2n	13	THR	5.1
40	2i	128	ARG	5.0
43	1l	64	TYR	5.0

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
22	20	5	LYS	5.0
50	2s	63	THR	5.0
50	2s	79	THR	5.0
1	1A	888	C	5.0
1	2A	2133	G	5.0
41	2j	62	HIS	5.0
45	2n	57	ARG	5.0
40	2i	127	LYS	5.0
1	1A	2151	G	5.0
32	2a	1001(A)	G	5.0
54	2y	21	A	4.9
1	2A	2125	G	4.9
54	2y	34	G	4.9
32	2a	1036	G	4.9
53	2v	12	A	4.9
54	1y	35	A	4.9
43	2l	60	LEU	4.9
1	2A	2138	C	4.8
12	2Q	104	PHE	4.8
29	27	48	LYS	4.8
44	1m	2	ALA	4.8
33	2b	92	TYR	4.8
38	1g	80	VAL	4.8
36	2e	109	ILE	4.8
7	2H	115	VAL	4.8
38	2g	156	TRP	4.8
32	2a	1030	C	4.8
1	1A	885	C	4.7
32	1a	1030(C)	G	4.7
53	1v	24	A	4.7
54	1w	70	G	4.7
45	2n	10	ALA	4.7
12	2Q	109	VAL	4.7
1	2A	896	A	4.7
1	2A	2169	A	4.7
54	2y	35	A	4.7
7	2H	105	LEU	4.6
41	2j	72	VAL	4.6
43	2l	39	VAL	4.6
54	1w	72	C	4.6
1	2A	2147	G	4.6
50	2s	67	VAL	4.6

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Mol	Chain	Res	Type	RSRZ
51	2t	55	ILE	4.6
41	2j	48	THR	4.6
26	14	45	GLY	4.6
1	2A	2139	C	4.6
32	2a	1531	A	4.6
41	2j	59	SER	4.5
48	2q	65	ILE	4.5
40	2i	124	GLN	4.5
40	2i	72	GLY	4.5
44	2m	92	HIS	4.5
45	2n	30	ALA	4.5
54	1w	1	G	4.5
12	2Q	59	ARG	4.5
32	1a	1001(A)	G	4.5
1	2A	885	C	4.5
1	1A	1095	A	4.5
40	2i	109	VAL	4.5
50	2s	69	HIS	4.5
6	2G	39	ILE	4.5
20	2Y	65	ALA	4.5
41	2j	65	LEU	4.5
50	2s	50	ALA	4.5
43	2l	28	LYS	4.5
42	2k	25	TYR	4.5
33	2b	214	ILE	4.4
34	2c	124	ILE	4.4
33	2b	152	PHE	4.4
1	2A	2170	A	4.4
31	29	16	VAL	4.4
41	2j	38	ILE	4.4
1	1A	2141	G	4.4
45	2n	55	GLY	4.4
54	1y	47	U	4.4
1	1A	896	A	4.4
44	2m	104	ARG	4.4
1	2A	2127	G	4.4
32	2a	1219	U	4.4
48	2q	23	VAL	4.3
1	2A	883	G	4.3
32	1a	1030(D)	A	4.3
45	2n	3	ARG	4.3
48	2q	92	ARG	4.3

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Mol	Chain	Res	Type	RSRZ
52	2u	15	ARG	4.3
32	2a	1002	G	4.3
38	2g	83	ALA	4.3
1	1A	2152	G	4.3
1	2A	2132	U	4.3
32	1a	1026	G	4.2
41	2j	10	GLY	4.2
40	2i	36	TYR	4.2
31	29	13	LYS	4.2
45	2n	44	LEU	4.2
21	2Z	153	SER	4.2
44	2m	97	PRO	4.2
1	1A	889	C	4.2
12	2Q	113	GLN	4.2
32	1a	1030	C	4.2
45	2n	41	ARG	4.2
52	2u	6	ARG	4.2
1	2A	884	C	4.2
41	1j	10	GLY	4.2
34	2c	198	VAL	4.2
33	2b	118	LEU	4.2
40	1i	19	LEU	4.2
54	2y	57	G	4.2
1	2A	2144	U	4.2
32	1a	204	U	4.1
7	2H	106	THR	4.1
6	2G	29	TRP	4.1
34	2c	155	GLY	4.1
43	2l	32	PHE	4.1
1	1A	1077	A	4.1
1	2A	2141	G	4.1
44	2m	90	LEU	4.1
1	2A	1026	U	4.1
31	29	15	LYS	4.1
7	2H	101	ARG	4.1
33	2b	70	PHE	4.1
45	2n	11	LYS	4.1
41	2j	60	ARG	4.0
45	2n	61	TRP	4.0
45	2n	22	THR	4.0
48	2q	22	LEU	4.0
7	2H	128	PRO	4.0

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	1A	1509	C	4.0
45	2n	4	LYS	4.0
38	1g	84	ASN	4.0
45	2n	49	HIS	4.0
1	2A	229	A	4.0
32	2a	1035	A	4.0
32	1a	1003	G	4.0
40	2i	17	VAL	4.0
23	11	98	LEU	4.0
48	1q	98	LEU	4.0
50	2s	70	LYS	4.0
1	1A	2139	C	4.0
26	24	54	GLY	4.0
21	2Z	156	LYS	4.0
43	2l	59	ARG	4.0
33	2b	122	PHE	4.0
32	2a	983	A	4.0
35	1d	167	GLY	4.0
1	2A	2115	G	4.0
7	2H	36	PRO	4.0
48	1q	36	ILE	4.0
35	2d	164	ALA	4.0
54	2y	58	A	3.9
32	2a	1224	G	3.9
44	2m	91	ARG	3.9
51	2t	86	ARG	3.9
48	2q	59	ILE	3.9
45	1n	2	ALA	3.9
39	2h	2	LEU	3.9
40	2i	9	ARG	3.9
33	2b	34	ALA	3.9
7	2H	123	PHE	3.9
1	2A	652(B)	A	3.9
7	2H	30	LYS	3.9
40	2i	19	LEU	3.9
43	2l	93	LEU	3.9
54	2w	45	U	3.9
26	24	63	TYR	3.9
45	2n	36	PHE	3.9
31	29	19	ARG	3.9
3	2D	276	LYS	3.9
52	2u	5	ASP	3.9

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
54	2w	38	A	3.9
7	2H	121	ILE	3.9
34	2c	57	ILE	3.9
29	27	47	ARG	3.8
41	2j	66	ARG	3.8
1	2A	2112	G	3.8
39	2h	9	MET	3.8
54	2w	5	G	3.8
33	2b	71	VAL	3.8
47	1p	7	ALA	3.8
54	2y	60	U	3.8
7	2H	24	VAL	3.8
1	2A	2111	C	3.8
1	2A	2128	C	3.8
9	2N	83	LYS	3.8
32	1a	1033	G	3.8
32	2a	1202	G	3.8
1	1A	2158	A	3.8
53	2v	15	A	3.8
38	2g	85	TYR	3.8
34	2c	134	ILE	3.8
51	2t	63	ILE	3.8
32	1a	1031	G	3.8
32	1a	1034	G	3.8
32	2a	1003	G	3.8
32	2a	1061	G	3.8
54	1w	44	G	3.8
54	2y	19	G	3.8
12	2Q	65	PHE	3.8
44	2m	23	TYR	3.8
6	2G	157	ILE	3.8
1	1A	1078	U	3.7
40	2i	66	ARG	3.7
40	2i	117	HIS	3.7
1	2A	2116	G	3.7
54	1w	15	G	3.7
32	1a	163	C	3.7
51	2t	83	ARG	3.7
51	1t	63	ILE	3.7
7	2H	52	VAL	3.7
48	1q	7	THR	3.7
29	27	1	MET	3.7

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
32	2a	965	A	3.7
34	2c	193	TYR	3.7
53	1v	12	A	3.7
16	2U	2	PRO	3.7
31	29	12	ASP	3.7
31	29	20	HIS	3.7
51	1t	18	GLN	3.7
7	2H	95	ARG	3.7
51	1t	22	ARG	3.7
1	2A	2126	A	3.7
32	1a	1503	A	3.7
40	2i	116	LYS	3.7
1	1A	1076	C	3.7
7	2H	78	GLY	3.7
40	2i	90	PRO	3.7
1	1A	887	A	3.7
6	2G	164	GLU	3.7
7	2H	6	ARG	3.7
12	2Q	6	ARG	3.7
1	1A	1057	A	3.6
50	2s	14	HIS	3.6
39	2h	134	ILE	3.6
45	2n	56	VAL	3.6
51	1t	69	GLY	3.6
54	2w	2	C	3.6
12	2Q	5	ARG	3.6
25	23	26	LEU	3.6
32	1a	162	A	3.6
47	1p	59	TRP	3.6
1	1A	886	C	3.6
1	1A	1064	C	3.6
12	2Q	37	LEU	3.6
32	2a	1149	C	3.6
34	2c	158	GLY	3.6
43	2l	16	GLU	3.6
44	2m	88	ARG	3.6
48	2q	32	TYR	3.6
44	1m	122	LYS	3.6
45	2n	8	GLU	3.6
52	1u	2	GLY	3.6
52	2u	11	GLY	3.6
6	2G	140	ILE	3.6

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
7	2H	37	VAL	3.6
29	17	48	LYS	3.6
33	1b	133	LYS	3.6
7	2H	112	PRO	3.6
47	1p	21	VAL	3.6
1	1A	2109	U	3.6
14	2S	32	LEU	3.6
21	2Z	155	LEU	3.6
43	1l	63	GLY	3.6
33	2b	207	ALA	3.6
1	1A	884	C	3.6
43	2l	69	TYR	3.6
21	2Z	106	GLY	3.6
48	2q	33	GLY	3.6
6	2G	182	LYS	3.6
1	2A	2110	G	3.6
1	2A	2153	G	3.6
32	1a	1286	A	3.6
32	2a	1357	A	3.6
50	2s	41	VAL	3.6
53	2v	13	A	3.6
9	2N	74	ARG	3.5
47	1p	1	MET	3.5
1	1A	1060	U	3.5
7	2H	102	ALA	3.5
40	2i	53	VAL	3.5
21	2Z	50	GLN	3.5
52	2u	14	TRP	3.5
31	29	9	ARG	3.5
51	1t	41	ILE	3.5
1	2A	2152	G	3.5
40	1i	117	HIS	3.5
40	2i	110	GLU	3.5
45	2n	40	CYS	3.5
33	2b	211	ILE	3.5
48	2q	11	VAL	3.5
41	2j	39	PRO	3.5
29	17	46	VAL	3.5
1	1A	2146	C	3.5
1	2A	886	C	3.5
1	2A	2167	U	3.5
7	2H	82	GLY	3.5

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Mol	Chain	Res	Type	RSRZ
50	2s	76	PRO	3.5
48	2q	18	THR	3.5
48	2q	98	LEU	3.5
32	1a	1027	C	3.5
34	2c	190	ARG	3.5
25	23	29	ARG	3.5
29	17	47	ARG	3.5
51	1t	72	LEU	3.5
7	2H	93	GLY	3.4
42	1k	25	TYR	3.4
51	2t	9	ASN	3.4
32	2a	1032	G	3.4
44	2m	70	LEU	3.4
7	2H	2	SER	3.4
6	2G	152	LEU	3.4
6	2G	161	THR	3.4
26	24	52	THR	3.4
54	2w	36	A	3.4
20	2Y	5	MET	3.4
40	2i	121	ARG	3.4
43	2l	15	ARG	3.4
21	2Z	139	VAL	3.4
32	2a	1150	U	3.4
3	2D	5	LYS	3.4
38	1g	153	HIS	3.4
54	2w	14	A	3.4
51	1t	76	ALA	3.4
12	2Q	32	TYR	3.4
40	1i	65	VAL	3.4
33	2b	218	ALA	3.4
32	1a	1001	A	3.4
32	2a	1324	A	3.4
7	2H	29	PRO	3.4
1	2A	2319	G	3.4
26	14	54	GLY	3.4
44	2m	119	GLY	3.4
1	1A	2129	C	3.4
1	2A	2140	C	3.4
7	2H	32	GLU	3.4
39	1h	133	LEU	3.4
28	26	50	ARG	3.4
36	2e	90	VAL	3.4

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
38	1g	78	ARG	3.4
44	2m	101	GLN	3.4
32	2a	1024	G	3.3
33	1b	200	ILE	3.3
48	2q	36	ILE	3.3
34	2c	4	LYS	3.3
38	1g	83	ALA	3.3
8	2I	75	LEU	3.3
35	1d	73	ARG	3.3
46	2o	68	ARG	3.3
9	2N	85	ILE	3.3
36	2e	14	ARG	3.3
40	2i	93	ARG	3.3
43	1l	43	VAL	3.3
7	2H	47	GLU	3.3
32	1a	1447	A	3.3
53	1v	13	A	3.3
1	1A	2162	G	3.3
1	2A	2157	G	3.3
1	2A	2802	G	3.3
19	2X	92	LEU	3.3
43	2l	18	VAL	3.3
50	2s	35	SER	3.3
12	2Q	66	ILE	3.3
32	2a	91	C	3.3
32	2a	1223	C	3.3
34	2c	197	GLY	3.3
7	2H	44	VAL	3.3
34	2c	206	GLU	3.3
28	26	28	ARG	3.3
50	2s	36	ARG	3.3
33	2b	139	LYS	3.3
1	2A	6	A	3.3
38	1g	4	ARG	3.3
51	2t	25	ARG	3.3
35	2d	158	ILE	3.3
21	2Z	152	ALA	3.3
38	1g	156	TRP	3.3
20	1Y	1	MET	3.3
54	1w	2	C	3.3
38	2g	4	ARG	3.3
38	2g	32	ARG	3.3

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	2A	2173	A	3.3
41	2j	52	GLY	3.3
3	1D	276	LYS	3.3
12	1Q	59	ARG	3.3
32	2a	1027	C	3.2
7	2H	133	VAL	3.2
1	1A	1963	U	3.2
7	2H	31	GLY	3.2
7	2H	103	LEU	3.2
13	2R	69	ASP	3.2
40	2i	126	SER	3.2
7	2H	107	VAL	3.2
22	10	8	GLY	3.2
29	27	46	VAL	3.2
32	1a	1002	G	3.2
32	2a	1021	G	3.2
44	2m	103	THR	3.2
40	2i	75	ASP	3.2
33	2b	131	PRO	3.2
33	2b	81	VAL	3.2
54	2w	6	G	3.2
1	1A	1081	U	3.2
34	2c	196	LEU	3.2
6	2G	35	GLU	3.2
51	2t	73	HIS	3.2
51	2t	78	ALA	3.2
1	2A	2174	C	3.2
32	2a	962	C	3.2
7	2H	48	GLY	3.2
34	2c	182	ILE	3.2
50	2s	62	ILE	3.2
32	1a	1024	G	3.2
52	2u	22	ARG	3.2
14	2S	35	ILE	3.2
10	2O	1	MET	3.2
50	2s	81	ARG	3.2
54	2y	56	C	3.2
36	2e	8	GLU	3.2
54	2y	52	G	3.2
40	1i	76	ALA	3.2
51	1t	67	ALA	3.2
36	2e	99	GLY	3.2

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
45	2n	53	LEU	3.2
52	2u	23	PRO	3.2
14	2S	20	ARG	3.2
21	2Z	145	GLU	3.1
22	20	45	PHE	3.1
43	2l	55	VAL	3.1
46	2o	60	VAL	3.1
35	1d	180	GLY	3.1
36	1e	95	ALA	3.1
21	1Z	1	MET	3.1
1	1A	2130	U	3.1
7	2H	49	VAL	3.1
51	2t	38	LYS	3.1
35	2d	168	ARG	3.1
38	2g	154	TYR	3.1
47	1p	19	ILE	3.1
41	2j	88	LEU	3.1
51	2t	20	LEU	3.1
32	2a	1220	G	3.1
14	2S	5	THR	3.1
43	1l	61	THR	3.1
52	2u	8	THR	3.1
34	1c	78	GLY	3.1
36	2e	89	ILE	3.1
1	2A	899	A	3.1
7	2H	94	TYR	3.1
1	2A	2142	C	3.1
7	2H	114	VAL	3.1
52	1u	6	ARG	3.1
54	2y	63	G	3.1
36	2e	131	ILE	3.1
41	2j	71	LEU	3.1
32	1a	1037	C	3.1
7	2H	132	ARG	3.1
8	2I	1	MET	3.1
40	1i	14	VAL	3.1
6	1G	139	LEU	3.1
1	2A	2168	G	3.1
34	2c	7	PRO	3.1
47	1p	66	PRO	3.1
43	2l	41	ARG	3.1
32	2a	974	A	3.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
47	1p	27	LYS	3.1
54	1w	74	C	3.1
51	1t	20	LEU	3.1
14	2S	3	ARG	3.1
32	2a	1040	U	3.1
1	2A	882	G	3.1
52	2u	2	GLY	3.1
20	2Y	45	VAL	3.1
32	2a	1287	A	3.1
32	2a	1447	A	3.1
35	1d	3	ARG	3.1
38	2g	6	ARG	3.1
45	2n	24	CYS	3.1
32	1a	1025	U	3.0
1	2A	2160	G	3.0
7	2H	125	VAL	3.0
17	2V	72	VAL	3.0
32	1a	1023	G	3.0
54	1y	34	G	3.0
7	2H	159	GLU	3.0
54	1w	13	C	3.0
53	2v	14	A	3.0
11	2P	28	GLY	3.0
39	1h	93	VAL	3.0
44	2m	60	VAL	3.0
41	2j	61	GLU	3.0
40	1i	106	ALA	3.0
40	2i	102	LEU	3.0
1	1A	2133	G	3.0
1	2A	2123	G	3.0
1	2A	2131	G	3.0
54	1y	19	G	3.0
54	2y	53	G	3.0
1	1A	2161	C	3.0
4	2E	115	GLY	3.0
54	2w	56	C	3.0
34	2c	201	TYR	3.0
32	1a	1035	A	3.0
21	2Z	96	VAL	3.0
50	2s	51	VAL	3.0
30	28	29	LYS	3.0
32	1a	1032	G	3.0

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
41	2j	56	HIS	3.0
43	2l	13	LYS	3.0
51	1t	74	LYS	3.0
43	2l	8	ASN	3.0
1	1A	529	A	3.0
25	23	23	LEU	3.0
32	2a	1014	A	3.0
33	2b	105	PHE	3.0
48	1q	27	PHE	3.0
1	2A	2143	C	3.0
12	2Q	102	VAL	3.0
41	2j	44	VAL	3.0
32	2a	1286	A	3.0
40	1i	80	GLY	3.0
51	2t	26	ASN	3.0
41	2j	54	PHE	3.0
43	2l	61	THR	3.0
47	1p	6	LEU	3.0
51	2t	59	ALA	3.0
1	2A	2162	G	3.0
9	2N	8	GLN	3.0
32	1a	171	A	3.0
32	2a	1225	A	3.0
37	2f	55	ASP	3.0
8	2I	19	VAL	3.0
50	2s	68	GLY	3.0
6	2G	136	ARG	3.0
7	2H	51	ARG	3.0
12	2Q	114	ALA	3.0
43	2l	100	ILE	2.9
32	1a	1446	U	2.9
33	2b	163	PHE	2.9
54	2w	23	A	2.9
7	2H	141	VAL	2.9
25	23	53	LEU	2.9
33	2b	101	MET	2.9
38	1g	82	GLY	2.9
32	1a	311	C	2.9
24	22	60	LEU	2.9
35	2d	122	ARG	2.9
38	2g	78	ARG	2.9
10	2O	58	VAL	2.9

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
34	2c	170	GLN	2.9
7	2H	148	ILE	2.9
41	2j	64	GLU	2.9
45	2n	7	ILE	2.9
45	2n	16	PHE	2.9
31	29	33	LYS	2.9
32	1a	1029	C	2.9
54	2w	47	U	2.9
50	2s	30	LEU	2.9
3	2D	18	VAL	2.9
1	2A	1042	G	2.9
32	2a	973	G	2.9
33	1b	134	GLU	2.9
40	2i	105	ASP	2.9
9	2N	104	LYS	2.9
47	1p	22	THR	2.9
1	1A	2108	C	2.9
7	2H	157	TYR	2.9
37	2f	59	TYR	2.9
54	1w	3	C	2.9
21	2Z	173	ALA	2.9
39	1h	5	PRO	2.9
49	1r	73	ALA	2.9
51	1t	14	LYS	2.9
10	2O	69	ILE	2.9
32	2a	485	G	2.9
36	2e	24	ARG	2.9
14	2S	58	LEU	2.9
40	2i	27	THR	2.9
35	2d	207	TYR	2.9
34	2c	131	ARG	2.9
23	21	67	ILE	2.9
33	2b	135	GLN	2.9
4	1E	195	LEU	2.9
32	2a	570	G	2.9
50	2s	15	LEU	2.9
54	2w	69	G	2.9
9	2N	84	LYS	2.9
1	2A	1113	U	2.9
8	2I	74	ASN	2.9
32	1a	202	U	2.9
33	2b	144	ARG	2.9

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
51	1t	80	ARG	2.9
7	2H	122	THR	2.9
34	2c	179	ARG	2.9
1	2A	887	A	2.8
32	2a	969	A	2.8
54	2y	38	A	2.8
47	1p	48	TRP	2.8
41	2j	50	ILE	2.8
28	26	52	VAL	2.8
48	2q	21	VAL	2.8
34	2c	185	GLY	2.8
32	2a	963	G	2.8
41	2j	13	HIS	2.8
18	2W	6	ILE	2.8
50	2s	40	ILE	2.8
34	1c	179	ARG	2.8
21	2Z	148	ASP	2.8
50	2s	12	ASP	2.8
40	1i	113	LYS	2.8
51	2t	40	ALA	2.8
41	2j	68	HIS	2.8
16	2U	17	ILE	2.8
38	2g	41	ARG	2.8
1	2A	1114	G	2.8
32	2a	994	A	2.8
45	2n	47	LEU	2.8
44	1m	121	LYS	2.8
1	1A	897	C	2.8
7	2H	169	VAL	2.8
30	28	24	ALA	2.8
40	2i	5	TYR	2.8
40	2i	120	ARG	2.8
52	1u	15	ARG	2.8
7	2H	98	LEU	2.8
32	2a	1446	U	2.8
51	1t	75	ASN	2.8
1	2A	2166	G	2.8
30	28	23	VAL	2.8
32	2a	1030(C)	G	2.8
51	2t	28	ALA	2.8
54	1y	24	G	2.8
1	1A	2128	C	2.8

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
39	2h	84	ARG	2.8
40	1i	126	SER	2.8
40	2i	10	ARG	2.8
45	2n	23	ARG	2.8
52	2u	21	TYR	2.8
44	2m	84	ILE	2.8
51	2t	72	LEU	2.8
48	2q	9	VAL	2.8
25	23	17	LYS	2.8
40	1i	125	TYR	2.8
47	1p	17	TYR	2.8
47	1p	38	TYR	2.8
32	1a	307	C	2.8
32	2a	1114	C	2.8
4	2E	52	LEU	2.8
12	2Q	17	LEU	2.8
35	2d	135	LEU	2.8
36	2e	13	ILE	2.8
47	1p	73	LEU	2.8
51	2t	24	LEU	2.8
9	2N	73	THR	2.8
1	1A	1094	U	2.8
43	2l	56	ALA	2.8
47	2p	59	TRP	2.8
6	2G	62	LEU	2.8
32	2a	1392	G	2.8
33	2b	223	ILE	2.8
9	2N	118	LYS	2.8
19	2X	68	ARG	2.8
36	2e	16	THR	2.8
40	2i	73	GLN	2.7
44	2m	82	MET	2.7
39	2h	4	ASP	2.7
35	1d	207	TYR	2.7
38	1g	154	TYR	2.7
6	1G	80	PHE	2.7
44	2m	66	LEU	2.7
41	2j	74	ILE	2.7
7	2H	124	GLU	2.7
54	1y	23	A	2.7
45	2n	27	CYS	2.7
45	2n	43	CYS	2.7

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
54	2y	29	G	2.7
7	2H	144	VAL	2.7
34	2c	87	LEU	2.7
45	2n	21	TYR	2.7
48	1q	38	ARG	2.7
51	1t	13	LEU	2.7
21	1Z	169	GLU	2.7
3	1D	2	ALA	2.7
48	1q	35	VAL	2.7
1	2A	2161	C	2.7
32	2a	999	C	2.7
32	2a	1048	G	2.7
32	2a	1530	G	2.7
1	1A	1065	U	2.7
26	14	55	ARG	2.7
40	2i	80	GLY	2.7
43	2l	85	ILE	2.7
44	2m	78	ILE	2.7
41	2j	49	VAL	2.7
51	2t	76	ALA	2.7
26	24	40	HIS	2.7
12	2Q	60	ARG	2.7
48	2q	91	ARG	2.7
54	1y	21	A	2.7
54	2w	13	C	2.7
30	28	61	LEU	2.7
39	1h	2	LEU	2.7
19	2X	69	TYR	2.7
31	29	2	LYS	2.7
39	2h	83	ILE	2.7
47	1p	4	ILE	2.7
45	2n	59	ALA	2.7
39	2h	133	LEU	2.7
49	2r	85	LEU	2.7
1	2A	2164	C	2.7
1	2A	2119	A	2.7
1	2A	2310	A	2.7
1	1A	1066	U	2.7
1	2A	2150	U	2.7
34	1c	39	ILE	2.7
36	2e	11	ILE	2.7
9	2N	9	VAL	2.7

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
48	2q	10	VAL	2.7
28	26	20	ASN	2.7
39	2h	112	LEU	2.7
39	2h	111	ILE	2.7
44	2m	67	GLU	2.7
32	2a	781	A	2.7
32	2a	961	U	2.7
6	2G	73	ALA	2.7
11	2P	76	LYS	2.7
1	2A	2148	G	2.7
9	2N	101	HIS	2.7
54	2w	15	G	2.7
50	2s	66	MET	2.7
10	2O	81	ASP	2.7
52	1u	21	TYR	2.7
44	1m	103	THR	2.7
45	2n	17	LYS	2.7
32	2a	1358	U	2.6
48	2q	44	ALA	2.6
51	2t	12	ALA	2.6
27	15	60	VAL	2.6
47	1p	62	VAL	2.6
20	2Y	90	LEU	2.6
1	1A	1059	G	2.6
1	2A	2124	G	2.6
1	2A	2792	G	2.6
26	14	59	PHE	2.6
40	1i	118	LYS	2.6
48	2q	100	LYS	2.6
20	2Y	75	ILE	2.6
47	2p	19	ILE	2.6
34	2c	194	GLY	2.6
1	2A	1963	U	2.6
31	29	25	VAL	2.6
29	17	1	MET	2.6
32	2a	980	C	2.6
40	1i	110	GLU	2.6
54	1y	56	C	2.6
48	1q	14	LYS	2.6
45	1n	41	ARG	2.6
41	2j	58	ASP	2.6
30	28	41	ILE	2.6

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
33	1b	227	GLY	2.6
6	2G	37	VAL	2.6
14	2S	46	VAL	2.6
16	2U	49	HIS	2.6
46	1o	65	ARG	2.6
1	1A	2142	C	2.6
1	2A	889	C	2.6
26	24	59	PHE	2.6
32	2a	1045	C	2.6
35	2d	93	PHE	2.6
33	2b	201	ILE	2.6
35	1d	16	GLY	2.6
47	1p	44	THR	2.6
52	2u	13	ILE	2.6
43	1l	91	LYS	2.6
40	1i	121	ARG	2.6
45	1n	56	VAL	2.6
51	1t	79	ARG	2.6
33	2b	215	LEU	2.6
1	1A	2113	U	2.6
1	2A	614(A)	U	2.6
33	2b	220	ASP	2.6
40	1i	37	PHE	2.6
32	2a	1192	C	2.6
40	2i	6	GLY	2.6
43	2l	62	SER	2.6
21	2Z	170	THR	2.6
30	28	16	ILE	2.6
48	2q	95	TYR	2.6
7	2H	43	VAL	2.6
8	2I	3	VAL	2.6
40	2i	86	VAL	2.6
11	2P	51	PHE	2.6
32	2a	1031	G	2.6
34	1c	128	PHE	2.6
32	2a	984	C	2.6
32	2a	1060	C	2.6
35	2d	70	ILE	2.6
40	2i	63	ILE	2.6
34	1c	180	ALA	2.6
6	2G	133	LEU	2.6
23	2I	98	LEU	2.6

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
39	1h	4	ASP	2.6
40	1i	56	LEU	2.6
48	2q	74	LEU	2.6
54	1y	58	A	2.6
32	2a	79	G	2.6
32	2a	204	U	2.6
54	1w	69	G	2.6
54	2y	65	G	2.6
40	2i	103	THR	2.6
33	2b	33	TYR	2.6
3	2D	39	LYS	2.6
36	2e	115	VAL	2.6
8	1I	117	GLU	2.6
46	2o	31	LEU	2.6
51	1t	24	LEU	2.6
34	2c	145	GLY	2.6
43	2l	95	GLY	2.6
32	2a	1250	A	2.6
54	1w	14	A	2.6
8	2I	4	ILE	2.5
21	2Z	46	LYS	2.5
40	2i	15	ALA	2.5
1	1A	2112	G	2.5
1	1A	2160	G	2.5
48	2q	42	TYR	2.5
54	2w	24	G	2.5
8	2I	18	VAL	2.5
41	1j	60	ARG	2.5
46	1o	88	ARG	2.5
40	2i	13	ALA	2.5
40	2i	43	ALA	2.5
52	2u	17	THR	2.5
1	2A	2172	U	2.5
34	2c	51	GLY	2.5
38	1g	141	VAL	2.5
1	1A	2115	G	2.5
32	2a	998	G	2.5
40	2i	107	ARG	2.5
50	2s	78	ARG	2.5
33	2b	8	LYS	2.5
54	2y	62	C	2.5
7	2H	34	GLU	2.5

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
50	2s	53	ASN	2.5
7	2H	96	ALA	2.5
21	2Z	146	ILE	2.5
1	2A	2117	A	2.5
38	2g	22	LEU	2.5
40	2i	44	VAL	2.5
42	1k	75	TYR	2.5
43	2l	66	VAL	2.5
47	1p	39	TYR	2.5
12	2Q	103	MET	2.5
1	2A	2165	G	2.5
31	29	29	ASN	2.5
54	2y	18	G	2.5
34	2c	165	THR	2.5
35	1d	136	PRO	2.5
43	2l	30	ALA	2.5
50	2s	75	ALA	2.5
50	2s	77	THR	2.5
7	2H	13	LYS	2.5
11	2P	79	ARG	2.5
15	2T	108	ARG	2.5
44	2m	71	ARG	2.5
44	2m	110	ARG	2.5
51	1t	23	ARG	2.5
25	23	6	VAL	2.5
41	2j	85	LEU	2.5
55	2x	47	U	2.5
34	2c	186	PHE	2.5
54	2y	23	A	2.5
7	2H	25	LYS	2.5
51	2t	64	ASP	2.5
9	2N	43	THR	2.5
11	2P	15	ARG	2.5
39	2h	92	ARG	2.5
1	2A	2683	C	2.5
32	1a	345	C	2.5
32	1a	1028	C	2.5
54	2w	22	G	2.5
21	2Z	125	LEU	2.5
35	1d	101	LEU	2.5
3	1D	229	VAL	2.5
31	19	7	VAL	2.5

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
48	1q	32	TYR	2.5
54	2y	45	U	2.5
41	1j	55	LYS	2.5
20	2Y	50	ARG	2.5
26	24	45	GLY	2.5
34	2c	159	GLY	2.5
38	1g	81	GLY	2.5
39	2h	13	ILE	2.5
4	2E	195	LEU	2.5
31	29	28	GLU	2.5
1	1A	2138	C	2.5
1	2A	1041	C	2.5
33	1b	197	VAL	2.5
32	2a	1310	G	2.5
48	2q	88	TYR	2.5
26	24	68	ARG	2.5
54	2y	66	U	2.5
25	23	16	PRO	2.5
44	1m	97	PRO	2.5
48	1q	28	PRO	2.5
52	1u	11	GLY	2.5
4	2E	114	ALA	2.5
7	2H	89	ILE	2.5
34	2c	200	ALA	2.5
40	2i	61	ALA	2.5
4	2E	5	LEU	2.5
50	1s	71	LEU	2.5
33	2b	164	VAL	2.5
1	2A	2896	C	2.5
1	2A	2159	G	2.5
54	2w	65	G	2.5
24	22	9	GLN	2.4
3	1D	38	LYS	2.4
40	1i	119	ALA	2.4
45	1n	10	ALA	2.4
48	1q	20	THR	2.4
4	2E	49	LEU	2.4
6	2G	19	LEU	2.4
40	1i	81	ILE	2.4
6	2G	15	VAL	2.4
32	1a	160	A	2.4
32	1a	344	A	2.4

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
32	2a	1030(D)	A	2.4
46	2o	27	VAL	2.4
44	2m	99	ARG	2.4
9	2N	75	TYR	2.4
32	2a	48	C	2.4
32	2a	1452	C	2.4
34	1c	171	GLY	2.4
42	1k	13	GLN	2.4
40	2i	49	PRO	2.4
54	2y	33	U	2.4
10	2O	91	LEU	2.4
19	1X	95	LEU	2.4
34	1c	14	ILE	2.4
48	1q	90	ILE	2.4
45	2n	45	ARG	2.4
9	2N	69	GLN	2.4
41	1j	57	LYS	2.4
32	2a	977	A	2.4
32	2a	1044	A	2.4
1	2A	2137	C	2.4
40	2i	52	ALA	2.4
42	1k	89	ALA	2.4
1	1A	271(K)	U	2.4
3	2D	271	ILE	2.4
16	1U	17	ILE	2.4
1	1A	892	G	2.4
23	2l	62	VAL	2.4
26	24	57	GLU	2.4
47	1p	2	VAL	2.4
51	1t	38	LYS	2.4
40	2i	4	TYR	2.4
32	2a	1503	A	2.4
43	2l	31	PRO	2.4
7	2H	7	LEU	2.4
17	2V	71	LEU	2.4
34	1c	15	THR	2.4
34	2c	33	LEU	2.4
1	1A	2111	C	2.4
17	2V	70	ILE	2.4
31	29	17	ILE	2.4
32	2a	1326	C	2.4
50	2s	49	ILE	2.4

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
50	2s	10	PHE	2.4
1	1A	2110	G	2.4
43	2l	46	LYS	2.4
48	2q	29	HIS	2.4
16	2U	21	ALA	2.4
34	2c	188	LEU	2.4
1	1A	1075	C	2.4
3	2D	210	GLY	2.4
31	29	7	VAL	2.4
32	1a	314	C	2.4
32	2a	1226	C	2.4
35	2d	183	GLY	2.4
40	1i	109	VAL	2.4
48	1q	56	VAL	2.4
15	1T	108	ARG	2.4
25	23	51	ALA	2.4
32	1a	46	G	2.4
32	1a	1368	G	2.4
47	1p	16	HIS	2.4
48	2q	7	THR	2.4
50	2s	48	THR	2.4
51	2t	13	LEU	2.4
54	2y	5	G	2.4
54	2y	15	G	2.4
12	2Q	15	GLY	2.4
26	24	42	PHE	2.4
47	2p	20	VAL	2.4
29	27	23	ARG	2.4
32	2a	1018	C	2.4
32	2a	1116	C	2.4
38	1g	32	ARG	2.4
7	2H	33	LEU	2.4
12	2Q	121	ALA	2.4
17	2V	73	SER	2.4
28	26	11	LEU	2.4
51	2t	77	ALA	2.4
1	2A	11	G	2.4
12	2Q	64	ILE	2.4
32	2a	1064	G	2.4
35	2d	161	ASN	2.4
44	2m	4	ILE	2.4
47	1p	35	LYS	2.4

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
4	2E	136	ARG	2.4
13	2R	68	ARG	2.4
25	23	30	ARG	2.4
32	1a	1196	U	2.3
32	2a	981	U	2.3
1	2A	1043	C	2.3
32	2a	975	A	2.3
32	2a	1028	C	2.3
41	2j	32	ALA	2.3
42	2k	87	THR	2.3
44	2m	96	LEU	2.3
33	2b	37	ASN	2.3
35	2d	180	GLY	2.3
43	2l	29	GLY	2.3
14	2S	40	ILE	2.3
40	1i	120	ARG	2.3
41	2j	51	ARG	2.3
18	2W	17	VAL	2.3
24	22	63	VAL	2.3
43	2l	43	VAL	2.3
1	2A	975(A)	G	2.3
1	2A	1764	G	2.3
32	1a	378	G	2.3
47	1p	65	GLN	2.3
1	2A	2109	U	2.3
4	2E	126	PRO	2.3
32	2a	1196	U	2.3
1	1A	2170	A	2.3
2	2B	90	A	2.3
25	23	60	GLU	2.3
34	1c	206	GLU	2.3
34	2c	177	THR	2.3
53	2v	21	C	2.3
54	2w	68	C	2.3
55	1x	38	A	2.3
35	2d	73	ARG	2.3
51	2t	41	ILE	2.3
21	2Z	141	VAL	2.3
23	21	51	VAL	2.3
25	23	9	VAL	2.3
25	23	12	PRO	2.3
33	2b	31	TYR	2.3

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
35	1d	37	PRO	2.3
40	2i	8	GLY	2.3
41	1j	46	ARG	2.3
42	1k	17	GLY	2.3
44	2m	68	GLY	2.3
51	1t	43	LEU	2.3
51	1t	62	LEU	2.3
20	2Y	44	ILE	2.3
25	23	13	ILE	2.3
32	1a	152	A	2.3
39	2h	86	ILE	2.3
50	1s	40	ILE	2.3
34	1c	190	ARG	2.3
51	1t	16	HIS	2.3
6	2G	135	LEU	2.3
13	2R	65	LEU	2.3
34	2c	204	LEU	2.3
51	2t	79	ARG	2.3
4	2E	28	ALA	2.3
34	2c	65	ALA	2.3
39	2h	58	TYR	2.3
1	1A	1093	G	2.3
1	1A	2154	G	2.3
1	2A	881	G	2.3
1	2A	1112	G	2.3
3	2D	270	ILE	2.3
41	2j	6	ILE	2.3
1	2A	2129	C	2.3
3	2D	51	VAL	2.3
7	2H	99	VAL	2.3
32	2a	1115	C	2.3
47	1p	20	VAL	2.3
48	2q	73	VAL	2.3
1	1A	2062	A	2.3
39	2h	136	GLU	2.3
54	1w	35	A	2.3
7	2H	59	ARG	2.3
13	2R	20	LEU	2.3
45	2n	60	SER	2.3
5	2F	49	ALA	2.3
33	2b	173	ALA	2.3
41	2j	67	THR	2.3

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
51	2t	44	ALA	2.3
39	2h	61	VAL	2.3
48	2q	27	PHE	2.3
1	1A	2153	G	2.3
5	2F	62	ARG	2.3
32	2a	928	G	2.3
6	1G	152	LEU	2.3
19	2X	66	LEU	2.3
33	2b	216	SER	2.3
39	1h	59	LEU	2.3
8	2I	83	ALA	2.3
36	2e	21	ALA	2.3
44	1m	87	TYR	2.3
20	2Y	91	GLU	2.3
7	2H	92	ILE	2.3
41	2j	34	VAL	2.3
43	2l	90	VAL	2.3
45	2n	19	ARG	2.3
41	2j	57	LYS	2.3
1	2A	2685	G	2.3
8	2I	35	LEU	2.3
9	2N	112	LEU	2.3
18	2W	60	ASN	2.3
30	28	7	HIS	2.3
32	2a	1023	G	2.3
32	2a	1370	G	2.3
33	2b	140	HIS	2.3
35	2d	160	GLN	2.3
48	2q	64	PRO	2.3
51	1t	45	GLN	2.3
15	2T	126	ALA	2.3
32	2a	1362	C	2.3
39	2h	28	ALA	2.3
11	2P	30	THR	2.3
32	1a	161	A	2.3
32	2a	60	A	2.3
32	2a	1004	A	2.3
39	2h	135	CYS	2.3
8	2I	82	ARG	2.3
33	2b	55	PHE	2.3
4	2E	7	VAL	2.3
14	2S	14	VAL	2.3

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
4	2E	6	GLY	2.2
43	2l	5	PRO	2.2
52	1u	14	TRP	2.2
6	2G	169	ALA	2.2
33	1b	188	ALA	2.2
34	1c	160	ALA	2.2
44	2m	42	ALA	2.2
1	2A	1656	C	2.2
1	2A	1657	C	2.2
12	1Q	6	ARG	2.2
18	2W	92	ARG	2.2
31	29	24	TYR	2.2
32	2a	377	G	2.2
34	2c	184	TYR	2.2
40	2i	78	LYS	2.2
44	1m	110	ARG	2.2
47	2p	26	ARG	2.2
32	1a	101	A	2.2
45	1n	51	GLY	2.2
33	2b	26	PRO	2.2
35	2d	21	LEU	2.2
39	1h	89	PRO	2.2
4	1E	117	MET	2.2
6	2G	86	MET	2.2
40	2i	76	ALA	2.2
51	1t	71	THR	2.2
1	2A	2724	C	2.2
32	2a	1325	C	2.2
32	1a	93	G	2.2
32	2a	1197	G	2.2
32	2a	1385	G	2.2
39	2h	45	ILE	2.2
7	2H	38	SER	2.2
15	1T	106	SER	2.2
1	2A	2158	A	2.2
20	2Y	81	LYS	2.2
4	2E	117	MET	2.2
34	2c	50	ALA	2.2
26	14	52	THR	2.2
46	2o	33	THR	2.2
4	2E	112	GLY	2.2
11	2P	37	GLY	2.2

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
12	2Q	93	TYR	2.2
51	1t	42	GLN	2.2
10	2O	57	VAL	2.2
45	1n	7	ILE	2.2
22	20	12	ASN	2.2
45	2n	32	SER	2.2
47	1p	11	SER	2.2
32	1a	104	G	2.2
17	2V	77	ALA	2.2
7	2H	129	THR	2.2
32	2a	1092	A	2.2
53	1v	23	A	2.2
18	1W	112	GLY	2.2
49	2r	46	GLU	2.2
35	2d	20	TYR	2.2
43	1l	23	LYS	2.2
46	1o	78	TYR	2.2
52	2u	18	TYR	2.2
4	2E	196	VAL	2.2
7	2H	50	VAL	2.2
7	2H	131	VAL	2.2
20	2Y	13	VAL	2.2
35	1d	5	ILE	2.2
42	1k	80	VAL	2.2
51	1t	55	ILE	2.2
6	2G	181	ARG	2.2
22	20	44	ARG	2.2
1	1A	898	C	2.2
1	2A	897	C	2.2
21	2Z	95	PRO	2.2
32	2a	1039	C	2.2
41	2j	26	ALA	2.2
1	1A	2148	G	2.2
7	2H	116	GLU	2.2
7	2H	174	GLY	2.2
32	1a	306	G	2.2
32	1a	1385	G	2.2
32	2a	90	U	2.2
32	2a	887	G	2.2
51	2t	35	THR	2.2
54	2w	44	G	2.2
16	2U	40	PHE	2.2

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
32	2a	1001	A	2.2
5	2F	82	ILE	2.2
8	2I	79	ILE	2.2
9	2N	52	VAL	2.2
10	2O	2	ILE	2.2
23	11	49	VAL	2.2
51	2t	57	ARG	2.2
3	2D	182	LEU	2.2
12	2Q	4	PRO	2.2
15	2T	21	GLU	2.2
10	2O	65	THR	2.2
32	1a	1452	C	2.2
33	2b	227	GLY	2.2
51	1t	64	ASP	2.2
1	1A	1097	U	2.2
26	24	32	TYR	2.2
32	2a	1186	G	2.2
40	1i	4	TYR	2.2
55	2x	70	G	2.2
7	2H	76	VAL	2.2
9	2N	5	VAL	2.2
21	2Z	57	ILE	2.2
25	23	54	VAL	2.2
34	1c	134	ILE	2.2
34	2c	154	SER	2.2
40	2i	108	VAL	2.2
51	1t	70	SER	2.2
1	2A	2134	A	2.2
32	2a	959	A	2.2
7	2H	111	HIS	2.2
9	2N	116	LEU	2.2
51	2t	62	LEU	2.2
39	2h	131	GLY	2.2
24	22	1	MET	2.2
42	1k	15	ALA	2.2
44	1m	105	THR	2.2
26	24	55	ARG	2.2
35	2d	209	ARG	2.2
48	2q	25	ARG	2.2
41	1j	47	PHE	2.2
54	2w	67	C	2.2
1	1A	2118	U	2.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
46	2o	69	TYR	2.1
7	2H	58	GLU	2.1
35	1d	70	ILE	2.1
6	2G	34	LEU	2.1
51	2t	84	LEU	2.1
2	2B	89	G	2.1
32	1a	107	G	2.1
32	2a	1497	G	2.1
54	1w	5	G	2.1
1	2A	1032	A	2.1
43	2l	14	GLY	2.1
46	1o	89	GLY	2.1
48	2q	54	GLY	2.1
3	2D	52	ARG	2.1
41	2j	46	ARG	2.1
42	1k	42	TRP	2.1
52	2u	10	ARG	2.1
15	1T	109	GLU	2.1
26	14	57	GLU	2.1
34	1c	10	PHE	2.1
1	1A	1092	C	2.1
32	2a	1321	C	2.1
32	2a	1509	C	2.1
34	2c	20	SER	2.1
35	1d	4	TYR	2.1
39	2h	87	SER	2.1
4	2E	75	VAL	2.1
21	2Z	133	ILE	2.1
40	1i	28	VAL	2.1
3	1D	241	PRO	2.1
10	2O	8	LEU	2.1
20	2Y	106	LEU	2.1
40	1i	79	LEU	2.1
43	2l	33	ARG	2.1
44	2m	93	ARG	2.1
52	1u	10	ARG	2.1
3	2D	144	ALA	2.1
12	2Q	22	LYS	2.1
32	2a	951	G	2.1
32	2a	1190	G	2.1
32	2a	1356	G	2.1
54	2y	22	G	2.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
32	2a	553	A	2.1
54	2y	64	A	2.1
14	2S	31	SER	2.1
9	2N	72	TYR	2.1
35	1d	38	TYR	2.1
39	2h	137	VAL	2.1
45	1n	33	VAL	2.1
45	2n	18	VAL	2.1
48	2q	5	VAL	2.1
4	2E	124	GLY	2.1
32	2a	950	U	2.1
32	2a	1066	C	2.1
40	1i	47	LEU	2.1
43	2l	99	HIS	2.1
16	2U	16	LYS	2.1
33	2b	133	LYS	2.1
48	2q	37	LYS	2.1
45	1n	8	GLU	2.1
48	2q	71	PHE	2.1
51	1t	9	ASN	2.1
1	1A	990	A	2.1
1	2A	1117	G	2.1
1	2A	2151	G	2.1
32	2a	506	G	2.1
32	2a	1229	A	2.1
4	2E	134	ILE	2.1
9	2N	113	GLY	2.1
11	2P	22	GLY	2.1
21	1Z	120	ILE	2.1
31	29	26	ILE	2.1
35	2d	23	GLY	2.1
35	2d	49	ARG	2.1
47	2p	38	TYR	2.1
48	2q	80	GLY	2.1
50	2s	31	ILE	2.1
50	2s	71	LEU	2.1
51	1t	84	LEU	2.1
1	1A	1082	U	2.1
1	2A	1509	C	2.1
12	2Q	112	GLU	2.1
32	2a	552	U	2.1
32	2a	1367	C	2.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
54	1w	25	C	2.1
10	1O	1	MET	2.1
36	2e	20	GLN	2.1
7	2H	63	SER	2.1
47	1p	80	PHE	2.1
43	2l	57	LYS	2.1
47	1p	50	LYS	2.1
35	1d	76	ARG	2.1
48	2q	75	ARG	2.1
9	1N	85	ILE	2.1
18	1W	111	HIS	2.1
20	2Y	55	TYR	2.1
40	2i	62	TYR	2.1
46	1o	57	LEU	2.1
32	2a	1068	G	2.1
32	2a	1251	A	2.1
53	1v	14	A	2.1
1	1A	1026	U	2.1
10	2O	76	ALA	2.1
43	2l	68	ALA	2.1
53	2v	22	U	2.1
1	1A	1100	C	2.1
1	1A	2143	C	2.1
31	29	22	ARG	2.1
35	1d	75	PHE	2.1
45	1n	23	ARG	2.1
45	1n	29	ARG	2.1
21	2Z	140	ASP	2.1
43	1l	29	GLY	2.1
4	2E	104	VAL	2.1
9	2N	71	ILE	2.1
12	2Q	132	VAL	2.1
33	1b	165	VAL	2.1
35	1d	120	LEU	2.1
34	2c	39	ILE	2.1
35	1d	204	ILE	2.1
39	2h	95	VAL	2.1
43	1l	27	LEU	2.1
43	1l	60	LEU	2.1
43	2l	101	VAL	2.1
44	1m	90	LEU	2.1
47	1p	49	LEU	2.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
47	1p	33	ILE	2.1
1	2A	2114	A	2.1
32	1a	102	G	2.1
32	2a	1050	G	2.1
32	2a	1222	G	2.1
54	2y	24	G	2.1
7	2H	3	ARG	2.1
7	2H	97	ARG	2.1
15	2T	129	ARG	2.1
33	2b	23	ARG	2.1
36	2e	10	MET	2.1
38	1g	77	SER	2.1
40	2i	71	SER	2.1
7	2H	100	GLY	2.1
9	2N	10	GLU	2.1
40	1i	8	GLY	2.1
43	2l	65	GLU	2.1
12	2Q	106	VAL	2.1
26	24	56	VAL	2.1
35	2d	196	LEU	2.1
28	26	54	ILE	2.1
43	2l	70	ILE	2.1
47	2p	2	VAL	2.1
36	2e	121	LYS	2.1
8	2I	98	ALA	2.1
51	1t	40	ALA	2.1
52	2u	24	ARG	2.1
1	1A	2173	A	2.1
32	2a	389	A	2.1
32	2a	978	A	2.1
34	2c	80	GLY	2.1
40	2i	33	PHE	2.1
47	1p	9	PHE	2.1
33	2b	132	LYS	2.0
35	2d	78	LEU	2.0
21	2Z	100	VAL	2.0
43	2l	58	VAL	2.0
9	2N	78	TYR	2.0
11	1P	79	ARG	2.0
15	1T	111	ARG	2.0
23	21	63	ALA	2.0
39	1h	85	ARG	2.0

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
40	2i	106	ALA	2.0
42	2k	117	ASN	2.0
44	2m	5	ALA	2.0
51	1t	59	ALA	2.0
7	1H	2	SER	2.0
47	1p	61	SER	2.0
29	27	18	PHE	2.0
6	2G	3	LEU	2.0
1	1A	2014	A	2.0
21	1Z	141	VAL	2.0
32	2a	1363(A)	A	2.0
1	1A	962	G	2.0
1	1A	1099	G	2.0
32	1a	230	G	2.0
32	1a	310	G	2.0
32	2a	107	G	2.0
1	1A	2174	C	2.0
18	1W	92	ARG	2.0
19	2X	60	ARG	2.0
35	1d	168	ARG	2.0
7	2H	83	TYR	2.0
39	2h	94	TYR	2.0
3	2D	272	ALA	2.0
33	2b	188	ALA	2.0
3	2D	216	GLY	2.0
20	2Y	12	THR	2.0
37	1f	92	LYS	2.0
43	2l	23	LYS	2.0
50	2s	4	SER	2.0
11	2P	91	PHE	2.0
35	2d	11	LEU	2.0
7	2H	39	PRO	2.0
23	11	21	ARG	2.0
23	21	68	PRO	2.0
34	1c	70	VAL	2.0
40	1i	49	PRO	2.0
47	1p	15	PRO	2.0
47	1p	28	ARG	2.0
38	1g	42	ILE	2.0
39	1h	134	ILE	2.0
1	1A	1762	A	2.0
32	2a	1016	A	2.0

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Mol	Chain	Res	Type	RSRZ
34	2c	189	ALA	2.0
35	1d	138	TYR	2.0
53	1v	15	A	2.0
1	1A	1087	G	2.0
1	1A	2188	C	2.0
1	2A	2175	C	2.0
1	2A	2190	G	2.0
1	2A	2804	C	2.0
12	1Q	44	ALA	2.0
22	20	8	GLY	2.0
32	2a	46	G	2.0
25	23	11	SER	2.0
32	2a	1029	C	2.0
32	2a	1397	C	2.0
40	2i	54	ASP	2.0
48	2q	12	SER	2.0
43	2l	37	CYS	2.0
3	2D	177	LEU	2.0
12	2Q	34	LEU	2.0
33	2b	121	LEU	2.0
34	2c	94	LEU	2.0
36	2e	81	GLU	2.0
38	2g	149	ARG	2.0
41	2j	29	ARG	2.0
45	2n	26	ARG	2.0
46	2o	66	LEU	2.0
9	2N	46	VAL	2.0
22	20	67	VAL	2.0
33	2b	93	VAL	2.0
40	1i	78	LYS	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(Å <sup>2</sup> )	Q<0.9
54	PSU	2y	55	20/21	0.73	0.38	106,112,122,123	0
54	PSU	1y	55	20/21	0.74	0.33	96,104,113,126	0
54	4SU	2y	8	20/21	0.77	0.18	103,107,116,123	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
54	5MU	1y	54	21/22	0.77	0.28	92,98,113,125	0
54	G7M	2y	46	24/25	0.78	0.18	100,107,114,133	0
54	G7M	1w	46	24/25	0.79	0.20	81,92,115,135	0
54	4SU	1y	8	20/21	0.80	0.21	96,103,106,113	0
54	PSU	2y	32	20/21	0.80	0.26	89,97,108,112	0
54	G7M	2w	46	24/25	0.81	0.25	92,104,115,130	0
54	MIA	2y	37	22/30	0.82	0.29	92,101,108,121	0
54	4SU	2w	8	20/21	0.82	0.26	98,101,108,119	0
43	0TD	2l	92	10/11	0.82	0.22	71,74,79,88	0
54	MIA	2w	37	25/30	0.83	0.35	81,90,97,108	0
54	5MU	2y	54	21/22	0.85	0.40	101,106,114,134	0
54	G7M	1y	46	24/25	0.85	0.23	96,105,111,121	0
54	PSU	2y	39	20/21	0.86	0.25	93,95,108,119	0
54	PSU	2w	55	20/21	0.87	0.28	78,99,106,107	0
54	PSU	1y	39	20/21	0.88	0.23	90,93,102,104	0
54	PSU	1w	55	20/21	0.88	0.23	73,88,94,96	0
54	MIA	1y	37	22/30	0.89	0.27	89,94,98,103	0
32	2MG	2a	1207	24/25	0.89	0.20	90,96,99,100	0
32	PSU	2a	516	20/21	0.90	0.20	80,87,91,91	0
32	M2G	2a	966	25/26	0.90	0.29	67,76,90,98	0
54	PSU	1y	32	20/21	0.90	0.27	90,93,105,107	0
54	5MU	2w	54	21/22	0.91	0.20	77,88,94,96	0
32	5MC	2a	967	21/22	0.91	0.24	71,79,91,92	0
54	PSU	2w	32	20/21	0.91	0.38	91,96,106,114	0
55	4SU	2x	8	20/21	0.92	0.18	81,88,93,95	0
55	5MU	2x	54	21/22	0.92	0.25	78,89,92,97	0
55	PSU	2x	55	20/21	0.92	0.17	81,87,92,95	0
32	5MC	2a	1404	21/22	0.92	0.23	56,61,70,74	0
54	MIA	1w	37	29/30	0.92	0.34	54,64,77,101	0
55	PSU	1x	55	20/21	0.93	0.20	68,73,85,86	0
54	PSU	2w	39	20/21	0.93	0.37	79,91,95,96	0
54	4SU	1w	8	20/21	0.93	0.22	87,90,97,99	0
54	PSU	1w	32	20/21	0.94	0.26	73,78,87,88	0
32	G7M	2a	527	24/25	0.94	0.21	66,74,83,86	0
55	5MC	2x	32	21/22	0.94	0.21	76,79,86,89	0
32	MA6	2a	1519	24/25	0.94	0.29	56,68,73,76	0
1	PSU	2A	1911	20/21	0.94	0.20	65,69,75,79	0
1	5MU	2A	1915	21/22	0.94	0.15	75,79,84,87	0
32	2MG	1a	1207	24/25	0.95	0.16	67,76,78,79	0
54	5MU	1w	54	21/22	0.95	0.18	64,76,83,87	0
32	5MC	2a	1400	21/22	0.95	0.28	71,79,82,83	0
32	4OC	2a	1402	22/23	0.95	0.22	60,69,74,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
43	0TD	1l	92	10/11	0.95	0.22	51,56,58,66	0
32	UR3	2a	1498	21/22	0.95	0.21	58,62,68,73	0
55	4SU	1x	8	20/21	0.95	0.19	55,68,73,77	0
55	5MU	1x	54	21/22	0.95	0.15	69,75,81,85	0
1	5MU	1A	1915	21/22	0.95	0.20	53,59,63,68	0
1	PSU	2A	1917	20/21	0.95	0.16	68,74,79,82	0
1	PSU	1A	1917	20/21	0.95	0.23	48,55,60,63	0
32	5MC	1a	967	21/22	0.95	0.23	49,57,67,68	0
54	PSU	1w	39	20/21	0.95	0.27	69,75,83,87	0
32	MA6	2a	1518	24/25	0.96	0.27	55,69,74,76	0
32	PSU	1a	516	20/21	0.96	0.21	58,64,67,69	0
55	5MC	1x	32	21/22	0.96	0.28	56,62,68,74	0
32	5MC	2a	1407	21/22	0.96	0.24	56,60,66,70	0
55	31H	2x	76	32/33	0.96	0.25	42,50,61,65	0
1	OMC	2A	1920	21/22	0.96	0.22	53,67,71,72	0
55	31H	1x	76	32/33	0.97	0.25	22,32,39,45	10
1	5MC	1A	1942	21/22	0.97	0.22	37,42,46,49	0
1	PSU	1A	1911	20/21	0.97	0.21	43,50,53,53	0
32	5MC	1a	1400	21/22	0.97	0.25	46,54,56,59	0
32	G7M	1a	527	24/25	0.97	0.21	44,52,61,64	0
32	M2G	1a	966	25/26	0.97	0.24	50,57,64,72	0
1	5MC	2A	1942	21/22	0.97	0.23	50,60,63,66	0
1	5MC	2A	1962	21/22	0.97	0.22	41,53,59,65	0
32	MA6	1a	1518	24/25	0.98	0.24	36,43,49,51	0
32	MA6	1a	1519	24/25	0.98	0.24	39,46,49,52	0
1	5MC	1A	1962	21/22	0.98	0.20	33,42,49,56	0
1	PSU	1A	2605	20/21	0.98	0.22	27,31,35,38	0
1	5MU	1A	1939	21/22	0.98	0.27	27,33,37,39	0
1	OMC	1A	1920	21/22	0.98	0.21	37,47,51,54	0
1	5MU	2A	1939	21/22	0.98	0.23	35,40,45,54	0
32	4OC	1a	1402	22/23	0.98	0.20	43,46,51,62	0
32	5MC	1a	1404	21/22	0.98	0.22	37,41,46,47	0
1	OMG	2A	2251	24/25	0.98	0.22	41,45,49,51	0
1	2MA	2A	2503	23/24	0.98	0.22	33,42,46,48	0
1	OMU	2A	2552	21/22	0.98	0.22	41,47,50,56	0
1	PSU	2A	2605	20/21	0.98	0.21	37,41,47,50	0
32	5MC	1a	1407	21/22	0.98	0.23	32,42,46,49	0
32	UR3	1a	1498	21/22	0.98	0.27	38,44,50,53	0
1	2MA	1A	2503	23/24	0.99	0.25	24,27,32,33	0
1	OMU	1A	2552	21/22	0.99	0.22	28,32,37,42	0
1	OMG	1A	2251	24/25	0.99	0.24	26,30,34,36	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(Å <sup>2</sup> )	Q<0.9
56	MG	1a	1660	1/1	0.23	0.24	87,87,87,87	0
56	MG	2A	3313	1/1	0.28	0.37	91,91,91,91	0
56	MG	2A	3319	1/1	0.31	0.22	75,75,75,75	0
56	MG	2A	3193	1/1	0.38	0.22	79,79,79,79	0
56	MG	1a	1793	1/1	0.40	0.17	76,76,76,76	0
56	MG	1A	3773	1/1	0.41	0.16	66,66,66,66	0
56	MG	1A	4060	1/1	0.43	1.38	129,129,129,129	0
56	MG	1A	3327	1/1	0.43	0.36	65,65,65,65	0
56	MG	2A	3229	1/1	0.44	0.25	80,80,80,80	0
56	MG	2a	1697	1/1	0.45	0.12	82,82,82,82	0
56	MG	2i	202	1/1	0.45	0.32	88,88,88,88	0
56	MG	2a	1758	1/1	0.46	0.21	83,83,83,83	0
56	MG	2A	3279	1/1	0.47	0.14	89,89,89,89	0
56	MG	2B	216	1/1	0.48	0.26	74,74,74,74	0
56	MG	1A	3721	1/1	0.48	0.24	86,86,86,86	0
56	MG	2a	1615	1/1	0.49	0.20	80,80,80,80	0
56	MG	1A	3260	1/1	0.49	0.18	71,71,71,71	0
56	MG	2B	214	1/1	0.51	0.28	84,84,84,84	0
56	MG	1A	3387	1/1	0.51	0.26	81,81,81,81	0
56	MG	1A	3983	1/1	0.53	0.18	64,64,64,64	0
56	MG	2A	3081	1/1	0.53	0.15	75,75,75,75	0
56	MG	2A	3257	1/1	0.53	0.20	81,81,81,81	0
56	MG	2a	1713	1/1	0.54	0.37	87,87,87,87	0
56	MG	1A	3027	1/1	0.54	0.16	78,78,78,78	0
56	MG	2A	3091	1/1	0.54	0.16	85,85,85,85	0
56	MG	2a	1706	1/1	0.55	0.23	79,79,79,79	0
56	MG	1A	3804	1/1	0.55	0.28	68,68,68,68	0
56	MG	1A	3285	1/1	0.56	0.30	61,61,61,61	0
56	MG	2a	1694	1/1	0.57	0.31	64,64,64,64	0
56	MG	1l	201	1/1	0.57	0.22	82,82,82,82	0
56	MG	2d	301	1/1	0.57	0.10	67,67,67,67	0
56	MG	1A	3398	1/1	0.57	0.41	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
56	MG	2A	3167	1/1	0.58	0.17	61,61,61,61	0
56	MG	2A	3015	1/1	0.58	0.27	85,85,85,85	0
56	MG	2A	3221	1/1	0.58	0.29	66,66,66,66	0
56	MG	2x	103	1/1	0.58	0.21	89,89,89,89	0
56	MG	1B	232	1/1	0.59	0.19	89,89,89,89	0
56	MG	2a	1619	1/1	0.59	0.18	78,78,78,78	0
56	MG	2a	1692	1/1	0.60	0.36	80,80,80,80	0
56	MG	1A	3181	1/1	0.60	0.20	63,63,63,63	0
56	MG	1A	3409	1/1	0.60	0.31	80,80,80,80	0
56	MG	2A	3234	1/1	0.61	0.24	83,83,83,83	0
56	MG	1A	3757	1/1	0.61	0.15	83,83,83,83	0
56	MG	2A	3620	1/1	0.61	0.18	94,94,94,94	0
56	MG	1A	4034	1/1	0.61	0.27	83,83,83,83	0
56	MG	1O	201	1/1	0.62	0.47	68,68,68,68	0
56	MG	2A	3122	1/1	0.62	0.21	73,73,73,73	0
56	MG	2a	1691	1/1	0.62	0.22	80,80,80,80	0
56	MG	2a	1643	1/1	0.63	0.21	79,79,79,79	0
56	MG	2a	1651	1/1	0.63	0.20	77,77,77,77	0
56	MG	2A	3315	1/1	0.63	0.31	84,84,84,84	0
56	MG	2A	3080	1/1	0.63	0.09	83,83,83,83	0
56	MG	1a	1695	1/1	0.63	0.37	64,64,64,64	0
56	MG	2A	3648	1/1	0.63	0.12	72,72,72,72	0
56	MG	2A	3185	1/1	0.64	0.32	61,61,61,61	0
56	MG	1A	3399	1/1	0.65	0.33	70,70,70,70	0
56	MG	2G	201	1/1	0.65	0.14	81,81,81,81	0
56	MG	2A	3143	1/1	0.65	0.20	77,77,77,77	0
56	MG	1A	3454	1/1	0.65	0.25	63,63,63,63	0
56	MG	2a	1737	1/1	0.65	0.23	78,78,78,78	0
56	MG	2A	3429	1/1	0.65	0.40	77,77,77,77	0
56	MG	2A	3047	1/1	0.65	0.20	68,68,68,68	0
56	MG	2A	3121	1/1	0.65	0.62	56,56,56,56	0
56	MG	2A	3290	1/1	0.65	0.39	82,82,82,82	0
56	MG	2A	3044	1/1	0.66	0.16	68,68,68,68	0
56	MG	1A	3402	1/1	0.66	0.40	63,63,63,63	0
56	MG	2a	1728	1/1	0.66	0.20	75,75,75,75	0
56	MG	2A	3676	1/1	0.66	0.61	60,60,60,60	0
56	MG	2A	3244	1/1	0.66	0.28	82,82,82,82	0
56	MG	1A	3291	1/1	0.66	0.31	66,66,66,66	0
56	MG	2A	3321	1/1	0.66	0.19	80,80,80,80	0
56	MG	1a	1701	1/1	0.66	0.15	70,70,70,70	0
56	MG	1A	3378	1/1	0.67	0.29	71,71,71,71	0
56	MG	1A	3812	1/1	0.67	0.11	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	2A	3589	1/1	0.67	0.26	83,83,83,83	0
56	MG	1A	3208	1/1	0.67	0.46	76,76,76,76	0
56	MG	2A	3103	1/1	0.67	0.19	59,59,59,59	0
56	MG	2F	305	1/1	0.68	0.34	78,78,78,78	0
56	MG	2A	3165	1/1	0.68	0.46	70,70,70,70	0
56	MG	1a	1605	1/1	0.68	0.13	67,67,67,67	0
56	MG	2A	3273	1/1	0.68	0.94	68,68,68,68	0
56	MG	1x	108	1/1	0.68	0.25	83,83,83,83	0
56	MG	1A	3443	1/1	0.68	0.35	70,70,70,70	0
56	MG	1A	3317	1/1	0.68	0.29	69,69,69,69	0
56	MG	1A	3315	1/1	0.68	0.30	47,47,47,47	0
56	MG	1A	3355	1/1	0.68	0.48	58,58,58,58	0
56	MG	1A	3142	1/1	0.69	0.30	61,61,61,61	0
56	MG	2a	1606	1/1	0.69	0.14	80,80,80,80	0
56	MG	1A	3172	1/1	0.69	0.24	51,51,51,51	0
56	MG	2A	3161	1/1	0.69	0.23	74,74,74,74	0
56	MG	1B	221	1/1	0.69	0.30	84,84,84,84	0
56	MG	1A	3384	1/1	0.69	0.18	61,61,61,61	0
56	MG	2a	1657	1/1	0.69	0.14	72,72,72,72	0
56	MG	2A	3168	1/1	0.69	0.33	81,81,81,81	0
56	MG	1A	3053	1/1	0.69	0.22	59,59,59,59	0
56	MG	2A	3350	1/1	0.69	0.22	72,72,72,72	0
56	MG	2A	3351	1/1	0.69	0.23	64,64,64,64	0
56	MG	2a	1701	1/1	0.69	0.11	85,85,85,85	0
56	MG	2A	3188	1/1	0.69	0.30	66,66,66,66	0
56	MG	2A	3070	1/1	0.69	0.20	63,63,63,63	0
56	MG	2A	3207	1/1	0.69	0.20	64,64,64,64	0
56	MG	1A	3059	1/1	0.69	0.18	53,53,53,53	0
56	MG	1A	3226	1/1	0.69	0.37	71,71,71,71	0
56	MG	1A	3254	1/1	0.69	0.42	41,41,41,41	0
56	MG	1A	3338	1/1	0.69	0.14	63,63,63,63	0
56	MG	1A	4014	1/1	0.69	0.12	55,55,55,55	0
56	MG	2A	3064	1/1	0.70	0.34	71,71,71,71	0
56	MG	1A	3955	1/1	0.70	0.20	88,88,88,88	0
56	MG	2A	3659	1/1	0.70	0.43	85,85,85,85	0
56	MG	1F	312	1/1	0.70	0.39	67,67,67,67	0
56	MG	1a	1628	1/1	0.70	0.16	63,63,63,63	0
56	MG	2a	1744	1/1	0.70	0.23	82,82,82,82	0
56	MG	2A	3284	1/1	0.70	1.24	60,60,60,60	0
56	MG	2A	3056	1/1	0.70	0.26	68,68,68,68	0
56	MG	2A	3243	1/1	0.70	0.27	80,80,80,80	0
56	MG	2A	3596	1/1	0.70	0.18	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1F	310	1/1	0.71	0.32	55,55,55,55	0
56	MG	2A	3076	1/1	0.71	0.21	63,63,63,63	0
56	MG	2A	3667	1/1	0.71	0.19	60,60,60,60	0
56	MG	1A	3269	1/1	0.71	0.16	51,51,51,51	0
56	MG	1A	3375	1/1	0.71	0.28	69,69,69,69	0
56	MG	2A	3277	1/1	0.71	0.12	94,94,94,94	0
56	MG	1A	4049	1/1	0.71	0.13	72,72,72,72	0
56	MG	2A	3041	1/1	0.72	0.24	63,63,63,63	0
56	MG	2A	3280	1/1	0.72	0.47	68,68,68,68	0
56	MG	1A	4006	1/1	0.72	0.58	50,50,50,50	0
56	MG	1a	1648	1/1	0.72	0.15	76,76,76,76	0
56	MG	2A	3293	1/1	0.72	0.27	76,76,76,76	0
56	MG	2A	3307	1/1	0.72	0.24	79,79,79,79	0
56	MG	1a	1657	1/1	0.72	0.12	81,81,81,81	0
56	MG	1B	229	1/1	0.72	0.12	86,86,86,86	0
56	MG	1A	3488	1/1	0.72	0.26	64,64,64,64	0
56	MG	1a	1696	1/1	0.72	0.26	65,65,65,65	0
56	MG	1A	3442	1/1	0.72	0.33	69,69,69,69	0
56	MG	1A	3130	1/1	0.72	0.42	61,61,61,61	0
56	MG	2A	3400	1/1	0.72	0.24	66,66,66,66	0
56	MG	2A	3416	1/1	0.72	0.21	61,61,61,61	0
56	MG	2A	3231	1/1	0.72	0.37	85,85,85,85	0
56	MG	2A	3550	1/1	0.72	0.26	67,67,67,67	0
56	MG	1a	1803	1/1	0.72	0.44	94,94,94,94	0
56	MG	2a	1724	1/1	0.72	0.16	78,78,78,78	0
56	MG	1A	3095	1/1	0.72	0.20	60,60,60,60	0
56	MG	1x	106	1/1	0.72	0.26	71,71,71,71	0
56	MG	2A	3647	1/1	0.72	0.22	61,61,61,61	0
56	MG	1a	1601	1/1	0.72	0.23	68,68,68,68	0
56	MG	2A	3270	1/1	0.72	0.33	64,64,64,64	0
56	MG	1B	215	1/1	0.72	0.24	68,68,68,68	0
56	MG	2q	202	1/1	0.72	0.16	81,81,81,81	0
56	MG	2A	3029	1/1	0.72	0.14	61,61,61,61	0
56	MG	2A	3084	1/1	0.73	0.20	60,60,60,60	0
56	MG	1A	3094	1/1	0.73	0.22	69,69,69,69	0
56	MG	2A	3587	1/1	0.73	0.14	62,62,62,62	0
56	MG	1A	3935	1/1	0.73	0.30	81,81,81,81	0
56	MG	2T	201	1/1	0.73	0.18	74,74,74,74	0
56	MG	1A	3408	1/1	0.73	0.19	76,76,76,76	0
56	MG	1A	3088	1/1	0.73	0.40	71,71,71,71	0
56	MG	1A	3428	1/1	0.73	0.71	62,62,62,62	0
56	MG	2a	1639	1/1	0.73	0.42	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1a	1713	1/1	0.73	0.33	80,80,80,80	0
56	MG	2A	3036	1/1	0.73	0.31	76,76,76,76	0
56	MG	1a	1649	1/1	0.73	0.14	83,83,83,83	0
56	MG	2A	3240	1/1	0.73	0.39	68,68,68,68	0
56	MG	2B	213	1/1	0.73	0.38	79,79,79,79	0
56	MG	1A	3421	1/1	0.74	0.43	52,52,52,52	0
56	MG	1a	1716	1/1	0.74	0.14	76,76,76,76	0
56	MG	1a	1717	1/1	0.74	0.15	61,61,61,61	0
56	MG	2A	3178	1/1	0.74	0.26	81,81,81,81	0
56	MG	2A	3065	1/1	0.74	0.14	71,71,71,71	0
56	MG	1A	3332	1/1	0.74	0.18	65,65,65,65	0
56	MG	1A	3242	1/1	0.74	0.23	55,55,55,55	0
56	MG	1A	3246	1/1	0.74	0.59	46,46,46,46	0
56	MG	1A	3866	1/1	0.74	0.16	54,54,54,54	0
56	MG	1A	3016	1/1	0.74	0.35	53,53,53,53	0
56	MG	2A	3004	1/1	0.74	0.34	73,73,73,73	0
56	MG	1A	3472	1/1	0.74	0.42	74,74,74,74	0
56	MG	1A	3119	1/1	0.74	0.33	47,47,47,47	0
56	MG	2a	1729	1/1	0.74	0.16	79,79,79,79	0
56	MG	2A	3347	1/1	0.74	0.35	71,71,71,71	0
56	MG	1A	3619	1/1	0.74	0.21	67,67,67,67	0
56	MG	1a	1697	1/1	0.74	0.28	66,66,66,66	0
56	MG	2A	3252	1/1	0.74	0.46	70,70,70,70	0
56	MG	2A	3405	1/1	0.74	0.56	73,73,73,73	0
56	MG	1A	3236	1/1	0.74	0.18	56,56,56,56	0
56	MG	2A	3424	1/1	0.74	0.21	76,76,76,76	0
56	MG	1a	1635	1/1	0.75	0.34	75,75,75,75	0
56	MG	2A	3641	1/1	0.75	0.22	76,76,76,76	0
56	MG	2A	3342	1/1	0.75	0.44	74,74,74,74	0
56	MG	1a	1639	1/1	0.75	0.17	68,68,68,68	0
56	MG	1a	1700	1/1	0.75	0.21	74,74,74,74	0
56	MG	2A	3105	1/1	0.75	0.11	74,74,74,74	0
56	MG	2A	3385	1/1	0.75	0.26	73,73,73,73	0
56	MG	2A	3109	1/1	0.75	0.23	78,78,78,78	0
56	MG	1A	3390	1/1	0.75	0.40	73,73,73,73	0
56	MG	1Z	301	1/1	0.75	0.33	65,65,65,65	0
56	MG	2A	3007	1/1	0.75	0.24	64,64,64,64	0
56	MG	2A	3160	1/1	0.75	0.17	71,71,71,71	0
56	MG	2A	3430	1/1	0.75	0.16	69,69,69,69	0
56	MG	2A	3013	1/1	0.75	0.30	49,49,49,49	0
56	MG	2a	1608	1/1	0.75	0.14	77,77,77,77	0
56	MG	2A	3573	1/1	0.75	0.12	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1A	3100	1/1	0.75	0.30	74,74,74,74	0
56	MG	1A	3782	1/1	0.75	0.23	62,62,62,62	0
56	MG	1A	3474	1/1	0.75	0.25	59,59,59,59	0
56	MG	1A	3322	1/1	0.76	0.30	64,64,64,64	0
56	MG	2A	3224	1/1	0.76	0.18	76,76,76,76	0
56	MG	1A	3639	1/1	0.76	0.19	65,65,65,65	0
56	MG	1A	3700	1/1	0.76	0.22	53,53,53,53	0
56	MG	1G	203	1/1	0.76	0.31	75,75,75,75	0
56	MG	2A	3237	1/1	0.76	0.45	74,74,74,74	0
56	MG	2A	3194	1/1	0.76	0.20	81,81,81,81	0
56	MG	2A	3146	1/1	0.76	0.23	67,67,67,67	0
56	MG	2A	3285	1/1	0.76	0.39	75,75,75,75	0
56	MG	2A	3210	1/1	0.76	0.42	54,54,54,54	0
56	MG	1A	3292	1/1	0.77	0.17	76,76,76,76	0
56	MG	1A	3391	1/1	0.77	0.20	76,76,76,76	0
56	MG	1A	3392	1/1	0.77	0.17	65,65,65,65	0
56	MG	1A	3102	1/1	0.77	0.30	76,76,76,76	0
56	MG	1A	3469	1/1	0.77	0.16	68,68,68,68	0
56	MG	2A	3655	1/1	0.77	0.09	86,86,86,86	0
56	MG	2A	3389	1/1	0.77	0.25	65,65,65,65	0
56	MG	1a	1738	1/1	0.77	0.10	64,64,64,64	0
56	MG	2A	3052	1/1	0.77	0.12	67,67,67,67	0
56	MG	2A	3407	1/1	0.77	0.12	86,86,86,86	0
56	MG	1B	218	1/1	0.77	0.20	50,50,50,50	0
56	MG	1A	3261	1/1	0.77	0.14	66,66,66,66	0
56	MG	2a	1726	1/1	0.77	0.13	70,70,70,70	0
56	MG	1A	3857	1/1	0.77	0.12	52,52,52,52	0
56	MG	1A	3080	1/1	0.77	0.30	45,45,45,45	0
56	MG	2A	3508	1/1	0.77	0.20	86,86,86,86	0
56	MG	20	101	1/1	0.77	0.24	62,62,62,62	0
56	MG	28	102	1/1	0.77	0.37	71,71,71,71	0
56	MG	1A	3382	1/1	0.77	0.41	56,56,56,56	0
56	MG	1A	3225	1/1	0.77	0.37	53,53,53,53	0
56	MG	1A	3410	1/1	0.77	0.18	58,58,58,58	0
56	MG	1A	3127	1/1	0.77	0.17	57,57,57,57	0
56	MG	1A	3298	1/1	0.78	0.24	38,38,38,38	0
56	MG	1A	4003	1/1	0.78	0.21	64,64,64,64	0
56	MG	1E	315	1/1	0.78	0.30	71,71,71,71	0
56	MG	2A	3401	1/1	0.78	0.27	70,70,70,70	0
56	MG	2A	3404	1/1	0.78	0.14	53,53,53,53	0
56	MG	1A	3541	1/1	0.78	0.16	44,44,44,44	0
56	MG	1a	1677	1/1	0.78	0.14	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
56	MG	2A	3125	1/1	0.78	0.64	61,61,61,61	0
56	MG	1A	4009	1/1	0.78	0.21	69,69,69,69	0
56	MG	2a	1629	1/1	0.78	0.27	69,69,69,69	0
56	MG	2A	3017	1/1	0.78	0.16	63,63,63,63	0
56	MG	2a	1642	1/1	0.78	0.16	89,89,89,89	0
56	MG	1A	3542	1/1	0.78	0.55	66,66,66,66	0
56	MG	2A	3474	1/1	0.78	0.13	50,50,50,50	0
56	MG	1A	3247	1/1	0.78	0.17	78,78,78,78	0
56	MG	2a	1686	1/1	0.78	0.21	79,79,79,79	0
56	MG	1S	202	1/1	0.78	0.38	67,67,67,67	0
56	MG	1A	3819	1/1	0.78	0.11	70,70,70,70	0
56	MG	1A	3274	1/1	0.78	0.25	75,75,75,75	0
56	MG	1a	1604	1/1	0.78	0.14	66,66,66,66	0
56	MG	1B	203	1/1	0.78	0.30	59,59,59,59	0
56	MG	1a	1624	1/1	0.78	0.28	60,60,60,60	0
56	MG	1A	3026	1/1	0.78	0.18	64,64,64,64	0
56	MG	2a	1716	1/1	0.78	0.36	57,57,57,57	0
56	MG	1A	3122	1/1	0.78	0.44	44,44,44,44	0
56	MG	1a	1806	1/1	0.78	0.14	64,64,64,64	0
56	MG	1A	3231	1/1	0.78	0.28	71,71,71,71	0
56	MG	2A	3211	1/1	0.78	0.14	65,65,65,65	0
56	MG	1n	101	1/1	0.78	0.13	59,59,59,59	0
56	MG	1p	101	1/1	0.78	0.08	69,69,69,69	0
56	MG	2A	3733	1/1	0.78	0.16	57,57,57,57	0
56	MG	2B	203	1/1	0.78	0.34	86,86,86,86	0
56	MG	1x	101	1/1	0.78	0.24	80,80,80,80	0
56	MG	2A	3100	1/1	0.78	0.33	90,90,90,90	0
56	MG	2A	3363	1/1	0.78	0.19	72,72,72,72	0
56	MG	1A	3969	1/1	0.79	0.29	92,92,92,92	0
56	MG	2A	3181	1/1	0.79	0.33	68,68,68,68	0
56	MG	1A	3002	1/1	0.79	0.20	60,60,60,60	0
56	MG	2A	3046	1/1	0.79	0.23	73,73,73,73	0
56	MG	2A	3189	1/1	0.79	0.21	80,80,80,80	0
56	MG	1A	3134	1/1	0.79	0.17	53,53,53,53	0
56	MG	1A	3206	1/1	0.79	0.28	42,42,42,42	0
56	MG	2W	202	1/1	0.79	0.27	80,80,80,80	0
56	MG	2A	3204	1/1	0.79	0.61	55,55,55,55	0
56	MG	1A	3360	1/1	0.79	0.43	67,67,67,67	0
56	MG	1T	202	1/1	0.79	0.42	65,65,65,65	0
56	MG	1U	209	1/1	0.79	0.20	66,66,66,66	0
56	MG	2A	3212	1/1	0.79	0.13	85,85,85,85	0
56	MG	1A	3463	1/1	0.79	0.31	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	2a	1621	1/1	0.79	0.20	66,66,66,66	0
56	MG	2A	3071	1/1	0.79	0.15	62,62,62,62	0
56	MG	14	101	1/1	0.79	0.20	83,83,83,83	0
56	MG	18	101	1/1	0.79	0.31	67,67,67,67	0
56	MG	2A	3233	1/1	0.79	0.36	84,84,84,84	0
56	MG	1A	3248	1/1	0.79	0.14	53,53,53,53	0
56	MG	1A	3319	1/1	0.79	0.44	64,64,64,64	0
56	MG	2a	1678	1/1	0.79	0.14	84,84,84,84	0
56	MG	1A	3380	1/1	0.79	0.23	47,47,47,47	0
56	MG	1A	3120	1/1	0.79	0.35	41,41,41,41	0
56	MG	1A	3255	1/1	0.79	0.28	48,48,48,48	0
56	MG	2A	3531	1/1	0.79	0.28	74,74,74,74	0
56	MG	1A	3848	1/1	0.79	0.21	56,56,56,56	0
56	MG	1A	3328	1/1	0.79	0.25	67,67,67,67	0
56	MG	1A	3553	1/1	0.79	0.37	63,63,63,63	0
56	MG	1A	3554	1/1	0.79	0.20	49,49,49,49	0
56	MG	1D	310	1/1	0.79	0.24	68,68,68,68	0
56	MG	1A	3564	1/1	0.79	0.23	43,43,43,43	0
56	MG	1a	1661	1/1	0.79	0.11	68,68,68,68	0
56	MG	1a	1668	1/1	0.79	0.18	65,65,65,65	0
56	MG	2A	3022	1/1	0.79	0.14	81,81,81,81	0
56	MG	2A	3287	1/1	0.79	0.25	70,70,70,70	0
56	MG	2A	3027	1/1	0.79	0.21	75,75,75,75	0
56	MG	1a	1670	1/1	0.79	0.19	64,64,64,64	0
56	MG	2A	3304	1/1	0.79	0.27	60,60,60,60	0
56	MG	2A	3688	1/1	0.79	0.19	73,73,73,73	0
56	MG	1F	303	1/1	0.79	0.28	47,47,47,47	0
56	MG	2A	3746	1/1	0.79	0.17	78,78,78,78	0
56	MG	2A	3437	1/1	0.80	0.15	60,60,60,60	0
56	MG	2a	1603	1/1	0.80	0.24	72,72,72,72	0
56	MG	2a	1605	1/1	0.80	0.13	70,70,70,70	0
56	MG	2A	3283	1/1	0.80	0.30	75,75,75,75	0
56	MG	2A	3079	1/1	0.80	0.18	57,57,57,57	0
56	MG	1A	3103	1/1	0.80	0.27	43,43,43,43	0
56	MG	1a	1632	1/1	0.80	0.23	79,79,79,79	0
56	MG	2A	3568	1/1	0.80	0.30	71,71,71,71	0
56	MG	1R	206	1/1	0.80	0.34	44,44,44,44	0
56	MG	1a	1705	1/1	0.80	0.19	59,59,59,59	0
56	MG	1a	1637	1/1	0.80	0.21	65,65,65,65	0
56	MG	1A	3824	1/1	0.80	0.12	48,48,48,48	0
56	MG	2a	1648	1/1	0.80	0.16	90,90,90,90	0
56	MG	1a	1640	1/1	0.80	0.18	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	2A	3213	1/1	0.80	0.40	60,60,60,60	0
56	MG	2a	1672	1/1	0.80	0.21	78,78,78,78	0
56	MG	1A	4005	1/1	0.80	0.30	67,67,67,67	0
56	MG	1a	1789	1/1	0.80	0.15	80,80,80,80	0
56	MG	1A	3358	1/1	0.80	0.44	60,60,60,60	0
56	MG	1W	201	1/1	0.80	0.16	58,58,58,58	0
56	MG	1A	3465	1/1	0.80	0.36	39,39,39,39	0
56	MG	1a	1808	1/1	0.80	0.14	68,68,68,68	0
56	MG	2A	3050	1/1	0.80	0.20	74,74,74,74	0
56	MG	2A	3719	1/1	0.80	0.21	57,57,57,57	0
56	MG	1A	3275	1/1	0.80	0.55	44,44,44,44	0
56	MG	2A	3164	1/1	0.80	0.36	74,74,74,74	0
56	MG	1A	4026	1/1	0.80	0.37	53,53,53,53	0
56	MG	2A	3058	1/1	0.80	0.18	73,73,73,73	0
56	MG	1A	3393	1/1	0.80	0.17	66,66,66,66	0
56	MG	2A	3263	1/1	0.80	0.25	70,70,70,70	0
56	MG	2B	220	1/1	0.80	0.22	77,77,77,77	0
56	MG	1A	3937	1/1	0.80	0.11	55,55,55,55	0
56	MG	1A	3395	1/1	0.80	0.27	69,69,69,69	0
56	MG	2a	1778	1/1	0.80	0.11	77,77,77,77	0
56	MG	2R	201	1/1	0.80	0.29	67,67,67,67	0
56	MG	2g	201	1/1	0.80	0.24	80,80,80,80	0
56	MG	2A	3184	1/1	0.80	0.23	82,82,82,82	0
56	MG	1x	107	1/1	0.80	0.15	86,86,86,86	0
56	MG	1A	3452	1/1	0.80	0.31	68,68,68,68	0
56	MG	2A	3318	1/1	0.81	0.12	77,77,77,77	0
56	MG	1A	3838	1/1	0.81	0.32	62,62,62,62	0
56	MG	1a	1634	1/1	0.81	0.19	78,78,78,78	0
56	MG	2A	3333	1/1	0.81	0.49	68,68,68,68	0
56	MG	1A	3540	1/1	0.81	0.24	42,42,42,42	0
56	MG	2D	305	1/1	0.81	0.95	55,55,55,55	0
56	MG	2F	302	1/1	0.81	0.18	50,50,50,50	0
56	MG	1a	1636	1/1	0.81	0.12	56,56,56,56	0
56	MG	1B	230	1/1	0.81	0.24	77,77,77,77	0
56	MG	1A	3426	1/1	0.81	0.30	81,81,81,81	0
56	MG	2A	3356	1/1	0.81	0.26	54,54,54,54	0
56	MG	2A	3083	1/1	0.81	0.83	55,55,55,55	0
56	MG	1A	3323	1/1	0.81	0.27	45,45,45,45	0
56	MG	2A	3388	1/1	0.81	0.27	60,60,60,60	0
56	MG	1x	102	1/1	0.81	0.20	69,69,69,69	0
56	MG	2A	3096	1/1	0.81	0.15	74,74,74,74	0
56	MG	1A	3868	1/1	0.81	0.18	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1A	3548	1/1	0.81	0.22	73,73,73,73	0
56	MG	2A	3236	1/1	0.81	0.63	91,91,91,91	0
56	MG	1a	1651	1/1	0.81	0.16	51,51,51,51	0
56	MG	1A	3372	1/1	0.81	0.44	55,55,55,55	0
56	MG	2a	1623	1/1	0.81	0.23	75,75,75,75	0
56	MG	1A	3305	1/1	0.81	0.22	61,61,61,61	0
56	MG	2a	1638	1/1	0.81	0.18	75,75,75,75	0
56	MG	1A	3146	1/1	0.81	0.20	40,40,40,40	0
56	MG	2A	3247	1/1	0.81	0.15	72,72,72,72	0
56	MG	1A	3224	1/1	0.81	0.44	64,64,64,64	0
56	MG	2A	3462	1/1	0.81	0.11	69,69,69,69	0
56	MG	1A	3459	1/1	0.81	0.23	65,65,65,65	0
56	MG	2A	3144	1/1	0.81	0.25	69,69,69,69	0
56	MG	2A	3524	1/1	0.81	0.29	70,70,70,70	0
56	MG	2A	3267	1/1	0.81	0.19	68,68,68,68	0
56	MG	1a	1673	1/1	0.81	0.16	48,48,48,48	0
56	MG	2A	3561	1/1	0.81	0.20	58,58,58,58	0
56	MG	1A	3690	1/1	0.81	0.30	77,77,77,77	0
56	MG	1A	3318	1/1	0.81	0.47	74,74,74,74	0
56	MG	2A	3585	1/1	0.81	0.15	71,71,71,71	0
56	MG	1A	3383	1/1	0.81	0.47	54,54,54,54	0
56	MG	1A	3001	1/1	0.81	0.15	48,48,48,48	0
56	MG	1A	3356	1/1	0.81	0.80	58,58,58,58	0
56	MG	2A	3607	1/1	0.81	0.17	71,71,71,71	0
56	MG	11	102	1/1	0.81	0.24	56,56,56,56	0
56	MG	1A	3781	1/1	0.81	0.21	74,74,74,74	0
56	MG	1A	3388	1/1	0.81	0.36	72,72,72,72	0
56	MG	2A	3288	1/1	0.81	0.10	73,73,73,73	0
56	MG	1A	4055	1/1	0.81	0.24	64,64,64,64	0
56	MG	2A	3291	1/1	0.81	0.15	84,84,84,84	0
56	MG	1A	3485	1/1	0.81	0.23	62,62,62,62	0
56	MG	2A	3296	1/1	0.81	0.13	77,77,77,77	0
56	MG	1A	3303	1/1	0.81	0.33	58,58,58,58	0
56	MG	2A	3063	1/1	0.81	0.27	58,58,58,58	0
56	MG	1A	3502	1/1	0.81	0.28	29,29,29,29	0
56	MG	2A	3745	1/1	0.81	0.13	43,43,43,43	0
56	MG	1A	3523	1/1	0.81	0.27	30,30,30,30	0
56	MG	1A	3169	1/1	0.82	0.32	60,60,60,60	0
56	MG	2A	3005	1/1	0.82	0.23	69,69,69,69	0
56	MG	1W	207	1/1	0.82	0.25	35,35,35,35	0
56	MG	1A	3572	1/1	0.82	0.16	73,73,73,73	0
56	MG	2A	3580	1/1	0.82	0.14	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1A	4056	1/1	0.82	0.30	48,48,48,48	0
56	MG	1A	3079	1/1	0.82	0.28	66,66,66,66	0
56	MG	2a	1620	1/1	0.82	0.24	73,73,73,73	0
56	MG	2A	3588	1/1	0.82	0.18	53,53,53,53	0
56	MG	1A	3124	1/1	0.82	0.59	42,42,42,42	0
56	MG	1B	209	1/1	0.82	0.22	55,55,55,55	0
56	MG	2a	1634	1/1	0.82	0.25	83,83,83,83	0
56	MG	2A	3599	1/1	0.82	0.24	61,61,61,61	0
56	MG	1A	3017	1/1	0.82	0.23	69,69,69,69	0
56	MG	2A	3610	1/1	0.82	0.13	63,63,63,63	0
56	MG	2A	3613	1/1	0.82	0.21	75,75,75,75	0
56	MG	1A	3876	1/1	0.82	0.29	49,49,49,49	0
56	MG	1A	3886	1/1	0.82	0.21	51,51,51,51	0
56	MG	1a	1714	1/1	0.82	0.22	76,76,76,76	0
56	MG	2a	1659	1/1	0.82	0.14	57,57,57,57	0
56	MG	1A	3363	1/1	0.82	0.72	48,48,48,48	0
56	MG	1A	3366	1/1	0.82	0.24	54,54,54,54	0
56	MG	1A	3949	1/1	0.82	0.24	37,37,37,37	0
56	MG	1A	3025	1/1	0.82	0.50	40,40,40,40	0
56	MG	1A	3448	1/1	0.82	0.33	55,55,55,55	0
56	MG	1a	1800	1/1	0.82	0.10	80,80,80,80	0
56	MG	1A	3113	1/1	0.82	0.16	46,46,46,46	0
56	MG	1A	3006	1/1	0.82	0.34	67,67,67,67	0
56	MG	2A	3274	1/1	0.82	0.16	60,60,60,60	0
56	MG	2A	3276	1/1	0.82	0.20	93,93,93,93	0
56	MG	2A	3183	1/1	0.82	0.14	66,66,66,66	0
56	MG	2a	1718	1/1	0.82	0.40	73,73,73,73	0
56	MG	2A	3411	1/1	0.82	0.19	49,49,49,49	0
56	MG	1A	3544	1/1	0.82	0.41	71,71,71,71	0
56	MG	1A	3073	1/1	0.82	0.24	59,59,59,59	0
56	MG	1A	3163	1/1	0.82	0.18	73,73,73,73	0
56	MG	1Q	204	1/1	0.82	0.20	59,59,59,59	0
56	MG	2E	304	1/1	0.82	0.10	76,76,76,76	0
56	MG	1A	3823	1/1	0.82	0.69	46,46,46,46	0
56	MG	1A	4020	1/1	0.82	0.14	60,60,60,60	0
56	MG	1A	3312	1/1	0.82	0.38	46,46,46,46	0
56	MG	2A	3499	1/1	0.82	0.28	75,75,75,75	0
56	MG	1a	1667	1/1	0.82	0.17	80,80,80,80	0
56	MG	1A	3833	1/1	0.82	0.14	46,46,46,46	0
56	MG	2A	3085	1/1	0.82	0.20	42,42,42,42	0
59	ZN	24	501	1/1	0.82	0.09	131,131,131,131	0
56	MG	2A	3299	1/1	0.83	0.20	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1A	3491	1/1	0.83	0.47	51,51,51,51	0
56	MG	2a	1611	1/1	0.83	0.16	78,78,78,78	0
56	MG	2a	1612	1/1	0.83	0.13	71,71,71,71	0
56	MG	1A	3154	1/1	0.83	0.23	44,44,44,44	0
56	MG	2A	3048	1/1	0.83	0.14	66,66,66,66	0
56	MG	1A	3627	1/1	0.83	0.18	51,51,51,51	0
56	MG	1a	1664	1/1	0.83	0.22	63,63,63,63	0
56	MG	1A	3508	1/1	0.83	0.38	73,73,73,73	0
56	MG	2A	3238	1/1	0.83	0.16	66,66,66,66	0
56	MG	1A	3141	1/1	0.83	0.18	59,59,59,59	0
56	MG	2A	3242	1/1	0.83	0.22	82,82,82,82	0
56	MG	1A	3045	1/1	0.83	0.24	46,46,46,46	0
56	MG	1A	3708	1/1	0.83	0.22	67,67,67,67	0
56	MG	1A	3334	1/1	0.83	0.21	66,66,66,66	0
56	MG	2A	3250	1/1	0.83	0.16	68,68,68,68	0
56	MG	1A	4021	1/1	0.83	0.14	60,60,60,60	0
56	MG	2A	3383	1/1	0.83	0.33	74,74,74,74	0
56	MG	2A	3170	1/1	0.83	0.16	66,66,66,66	0
56	MG	2a	1667	1/1	0.83	0.28	64,64,64,64	0
56	MG	2A	3259	1/1	0.83	0.65	53,53,53,53	0
56	MG	1A	3029	1/1	0.83	0.18	50,50,50,50	0
56	MG	2A	3264	1/1	0.83	0.52	54,54,54,54	0
56	MG	2A	3180	1/1	0.83	0.21	71,71,71,71	0
56	MG	2A	3723	1/1	0.83	0.11	45,45,45,45	0
56	MG	1A	3249	1/1	0.83	0.24	70,70,70,70	0
56	MG	1N	201	1/1	0.83	0.24	63,63,63,63	0
56	MG	1A	3775	1/1	0.83	0.22	62,62,62,62	0
56	MG	1A	3237	1/1	0.83	0.35	41,41,41,41	0
56	MG	1A	3307	1/1	0.83	0.36	65,65,65,65	0
56	MG	1A	3944	1/1	0.83	0.23	66,66,66,66	0
56	MG	2B	215	1/1	0.83	0.15	74,74,74,74	0
56	MG	1a	1715	1/1	0.83	0.30	79,79,79,79	0
56	MG	2A	3019	1/1	0.83	0.24	68,68,68,68	0
56	MG	1A	3324	1/1	0.83	0.26	67,67,67,67	0
56	MG	1a	1647	1/1	0.83	0.17	64,64,64,64	0
56	MG	2a	1733	1/1	0.83	0.23	80,80,80,80	0
56	MG	1A	3400	1/1	0.83	0.24	55,55,55,55	0
56	MG	2A	3490	1/1	0.83	0.12	66,66,66,66	0
56	MG	1a	1767	1/1	0.83	0.10	73,73,73,73	0
56	MG	2a	1764	1/1	0.83	0.20	53,53,53,53	0
56	MG	2A	3106	1/1	0.83	0.44	78,78,78,78	0
56	MG	2a	1789	1/1	0.83	0.19	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	2A	3108	1/1	0.83	0.31	70,70,70,70	0
56	MG	2A	3292	1/1	0.83	0.15	87,87,87,87	0
56	MG	1V	202	1/1	0.83	0.59	47,47,47,47	0
56	MG	1A	3956	1/1	0.83	0.17	76,76,76,76	0
56	MG	2A	3566	1/1	0.83	0.19	53,53,53,53	0
56	MG	2x	104	1/1	0.83	0.18	74,74,74,74	0
57	K	2x	101	1/1	0.83	0.82	85,85,85,85	0
56	MG	2A	3298	1/1	0.83	0.13	75,75,75,75	0
56	MG	1w	102	1/1	0.84	0.08	73,73,73,73	0
56	MG	1A	3296	1/1	0.84	0.35	51,51,51,51	0
56	MG	1A	3361	1/1	0.84	0.89	63,63,63,63	0
56	MG	1A	3436	1/1	0.84	0.25	75,75,75,75	0
56	MG	1B	226	1/1	0.84	0.23	71,71,71,71	0
56	MG	1A	3362	1/1	0.84	0.39	63,63,63,63	0
56	MG	1A	3330	1/1	0.84	0.30	57,57,57,57	0
56	MG	2A	3431	1/1	0.84	0.31	61,61,61,61	0
56	MG	2A	3134	1/1	0.84	0.27	54,54,54,54	0
56	MG	1A	3240	1/1	0.84	0.78	50,50,50,50	0
56	MG	2A	3006	1/1	0.84	0.12	61,61,61,61	0
56	MG	2A	3485	1/1	0.84	0.20	55,55,55,55	0
56	MG	1A	3450	1/1	0.84	0.54	61,61,61,61	0
56	MG	1A	3063	1/1	0.84	0.23	45,45,45,45	0
56	MG	1A	3453	1/1	0.84	0.31	64,64,64,64	0
56	MG	1A	3397	1/1	0.84	0.18	68,68,68,68	0
56	MG	1A	3909	1/1	0.84	0.23	60,60,60,60	0
56	MG	1A	3574	1/1	0.84	0.14	65,65,65,65	0
56	MG	1A	3586	1/1	0.84	0.24	65,65,65,65	0
56	MG	2A	3028	1/1	0.84	0.19	57,57,57,57	0
56	MG	1A	3612	1/1	0.84	0.21	36,36,36,36	0
56	MG	1Q	203	1/1	0.84	0.25	69,69,69,69	0
56	MG	1A	3288	1/1	0.84	0.26	66,66,66,66	0
56	MG	2a	1641	1/1	0.84	0.13	72,72,72,72	0
56	MG	1A	3339	1/1	0.84	0.26	66,66,66,66	0
56	MG	1A	3349	1/1	0.84	0.30	72,72,72,72	0
56	MG	1A	3674	1/1	0.84	0.36	68,68,68,68	0
56	MG	1A	3352	1/1	0.84	0.20	69,69,69,69	0
56	MG	1A	3407	1/1	0.84	0.65	52,52,52,52	0
56	MG	2a	1658	1/1	0.84	0.14	68,68,68,68	0
56	MG	1A	3707	1/1	0.84	0.24	69,69,69,69	0
56	MG	1a	1710	1/1	0.84	0.15	79,79,79,79	0
56	MG	2a	1669	1/1	0.84	0.25	82,82,82,82	0
56	MG	2A	3198	1/1	0.84	0.36	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1A	3290	1/1	0.84	0.22	52,52,52,52	0
56	MG	2A	3619	1/1	0.84	0.08	89,89,89,89	0
56	MG	2a	1688	1/1	0.84	0.09	76,76,76,76	0
56	MG	1A	3477	1/1	0.84	0.23	59,59,59,59	0
56	MG	1A	3723	1/1	0.84	0.19	47,47,47,47	0
56	MG	2a	1693	1/1	0.84	0.32	80,80,80,80	0
56	MG	1A	3187	1/1	0.84	0.25	47,47,47,47	0
56	MG	1A	3763	1/1	0.84	0.26	78,78,78,78	0
56	MG	2a	1700	1/1	0.84	0.20	78,78,78,78	0
56	MG	1A	3385	1/1	0.84	0.23	50,50,50,50	0
56	MG	1A	3411	1/1	0.84	0.35	65,65,65,65	0
56	MG	1A	3494	1/1	0.84	0.20	69,69,69,69	0
56	MG	1a	1618	1/1	0.84	0.33	61,61,61,61	0
56	MG	1A	3415	1/1	0.84	0.23	69,69,69,69	0
56	MG	2A	3709	1/1	0.84	0.24	70,70,70,70	0
56	MG	2a	1725	1/1	0.84	0.37	71,71,71,71	0
56	MG	1a	1626	1/1	0.84	0.14	63,63,63,63	0
56	MG	2A	3720	1/1	0.84	0.20	46,46,46,46	0
56	MG	2A	3362	1/1	0.84	0.27	60,60,60,60	0
56	MG	2A	3727	1/1	0.84	0.14	69,69,69,69	0
56	MG	1A	3788	1/1	0.84	0.24	49,49,49,49	0
56	MG	2a	1742	1/1	0.84	0.13	100,100,100,100	0
56	MG	2A	3739	1/1	0.84	0.19	65,65,65,65	0
56	MG	2A	3371	1/1	0.84	0.45	79,79,79,79	0
56	MG	2A	3376	1/1	0.84	0.21	72,72,72,72	0
56	MG	2a	1776	1/1	0.84	0.28	82,82,82,82	0
56	MG	2B	202	1/1	0.84	0.23	75,75,75,75	0
56	MG	2a	1782	1/1	0.84	0.24	84,84,84,84	0
56	MG	2a	1787	1/1	0.84	0.14	69,69,69,69	0
56	MG	2A	3378	1/1	0.84	0.30	63,63,63,63	0
56	MG	2a	1790	1/1	0.84	0.12	85,85,85,85	0
56	MG	2a	1795	1/1	0.84	0.18	83,83,83,83	0
56	MG	2a	1796	1/1	0.84	0.18	91,91,91,91	0
56	MG	2a	1801	1/1	0.84	0.21	68,68,68,68	0
56	MG	2a	1812	1/1	0.84	0.12	85,85,85,85	0
56	MG	2B	209	1/1	0.84	0.29	70,70,70,70	0
56	MG	1a	1631	1/1	0.84	0.26	67,67,67,67	0
56	MG	2A	3088	1/1	0.84	0.17	56,56,56,56	0
56	MG	1f	201	1/1	0.84	0.21	53,53,53,53	0
56	MG	2q	203	1/1	0.84	0.12	89,89,89,89	0
56	MG	2x	102	1/1	0.84	0.15	77,77,77,77	0
56	MG	2A	3092	1/1	0.84	0.23	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1A	3504	1/1	0.84	0.39	54,54,54,54	0
56	MG	1A	3218	1/1	0.84	0.69	52,52,52,52	0
56	MG	1A	3510	1/1	0.84	0.14	69,69,69,69	0
59	ZN	2n	501	1/1	0.84	0.07	107,107,107,107	0
56	MG	2a	1613	1/1	0.85	0.23	66,66,66,66	0
56	MG	2a	1614	1/1	0.85	0.09	79,79,79,79	0
56	MG	1A	3457	1/1	0.85	0.19	58,58,58,58	0
56	MG	1A	3184	1/1	0.85	0.08	75,75,75,75	0
56	MG	1A	3809	1/1	0.85	0.17	64,64,64,64	0
56	MG	2A	3552	1/1	0.85	0.22	69,69,69,69	0
56	MG	1a	1730	1/1	0.85	0.24	66,66,66,66	0
56	MG	1A	3347	1/1	0.85	0.28	62,62,62,62	0
56	MG	1a	1739	1/1	0.85	0.12	61,61,61,61	0
56	MG	1a	1740	1/1	0.85	0.13	70,70,70,70	0
56	MG	1A	3243	1/1	0.85	0.44	63,63,63,63	0
56	MG	1A	3273	1/1	0.85	0.29	50,50,50,50	0
56	MG	1F	307	1/1	0.85	0.21	60,60,60,60	0
56	MG	1F	308	1/1	0.85	0.37	52,52,52,52	0
56	MG	1A	3507	1/1	0.85	0.19	73,73,73,73	0
56	MG	1A	3831	1/1	0.85	0.11	48,48,48,48	0
56	MG	1G	201	1/1	0.85	0.19	47,47,47,47	0
56	MG	2A	3205	1/1	0.85	0.20	78,78,78,78	0
56	MG	1e	202	1/1	0.85	0.51	56,56,56,56	0
56	MG	2a	1664	1/1	0.85	0.10	71,71,71,71	0
56	MG	2A	3311	1/1	0.85	0.31	65,65,65,65	0
56	MG	2a	1668	1/1	0.85	0.17	71,71,71,71	0
56	MG	2A	3615	1/1	0.85	0.16	64,64,64,64	0
56	MG	1A	3353	1/1	0.85	0.33	56,56,56,56	0
56	MG	2a	1674	1/1	0.85	0.29	68,68,68,68	0
56	MG	1A	4012	1/1	0.85	0.12	49,49,49,49	0
56	MG	2a	1681	1/1	0.85	0.23	66,66,66,66	0
56	MG	1A	3565	1/1	0.85	0.54	41,41,41,41	0
56	MG	2A	3643	1/1	0.85	0.23	77,77,77,77	0
56	MG	1A	3843	1/1	0.85	0.21	76,76,76,76	0
56	MG	2A	3320	1/1	0.85	0.52	62,62,62,62	0
56	MG	2A	3218	1/1	0.85	0.62	60,60,60,60	0
56	MG	2A	3219	1/1	0.85	0.64	77,77,77,77	0
56	MG	1A	3847	1/1	0.85	0.25	43,43,43,43	0
56	MG	1R	202	1/1	0.85	0.23	67,67,67,67	0
56	MG	1A	3735	1/1	0.85	0.19	24,24,24,24	0
56	MG	1A	3740	1/1	0.85	0.29	33,33,33,33	0
56	MG	2A	3232	1/1	0.85	0.37	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	2A	3357	1/1	0.85	0.19	64,64,64,64	0
56	MG	2A	3095	1/1	0.85	0.10	77,77,77,77	0
56	MG	1A	4039	1/1	0.85	0.18	77,77,77,77	0
56	MG	2A	3364	1/1	0.85	0.25	68,68,68,68	0
56	MG	1A	3755	1/1	0.85	0.32	64,64,64,64	0
56	MG	1A	3509	1/1	0.85	0.36	72,72,72,72	0
56	MG	1A	3869	1/1	0.85	0.24	52,52,52,52	0
56	MG	1A	4058	1/1	0.85	0.21	57,57,57,57	0
56	MG	1a	1693	1/1	0.85	0.15	73,73,73,73	0
56	MG	2B	205	1/1	0.85	0.24	74,74,74,74	0
56	MG	2a	1743	1/1	0.85	0.17	81,81,81,81	0
56	MG	1A	3425	1/1	0.85	0.36	81,81,81,81	0
56	MG	1A	3764	1/1	0.85	0.20	64,64,64,64	0
56	MG	12	101	1/1	0.85	0.22	61,61,61,61	0
56	MG	2A	3248	1/1	0.85	0.20	79,79,79,79	0
56	MG	1B	205	1/1	0.85	0.12	53,53,53,53	0
56	MG	2A	3129	1/1	0.85	0.11	66,66,66,66	0
56	MG	2A	3253	1/1	0.85	0.14	74,74,74,74	0
56	MG	2D	306	1/1	0.85	0.23	71,71,71,71	0
56	MG	2A	3256	1/1	0.85	0.26	83,83,83,83	0
56	MG	2F	301	1/1	0.85	0.34	49,49,49,49	0
56	MG	1A	3903	1/1	0.85	0.21	73,73,73,73	0
56	MG	2a	1798	1/1	0.85	0.23	71,71,71,71	0
56	MG	2A	3258	1/1	0.85	0.21	77,77,77,77	0
56	MG	1a	1703	1/1	0.85	0.19	68,68,68,68	0
56	MG	2A	3262	1/1	0.85	0.25	74,74,74,74	0
56	MG	1A	3517	1/1	0.85	0.35	44,44,44,44	0
56	MG	1A	3326	1/1	0.85	0.43	69,69,69,69	0
56	MG	2A	3450	1/1	0.85	0.18	53,53,53,53	0
56	MG	2A	3031	1/1	0.85	0.16	58,58,58,58	0
56	MG	1A	3539	1/1	0.85	0.66	55,55,55,55	0
56	MG	2A	3162	1/1	0.85	0.09	87,87,87,87	0
56	MG	2A	3037	1/1	0.85	0.19	65,65,65,65	0
56	MG	2A	3040	1/1	0.85	0.21	65,65,65,65	0
56	MG	1A	3189	1/1	0.85	0.76	47,47,47,47	0
56	MG	2A	3511	1/1	0.85	0.23	72,72,72,72	0
56	MG	2A	3104	1/1	0.86	0.31	79,79,79,79	0
56	MG	1A	3416	1/1	0.86	0.15	69,69,69,69	0
56	MG	1A	3468	1/1	0.86	0.32	52,52,52,52	0
56	MG	2A	3439	1/1	0.86	0.18	38,38,38,38	0
56	MG	1A	3927	1/1	0.86	0.34	82,82,82,82	0
56	MG	1A	3262	1/1	0.86	0.34	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	2A	3115	1/1	0.86	0.17	65,65,65,65	0
56	MG	2A	3260	1/1	0.86	0.23	70,70,70,70	0
56	MG	2A	3261	1/1	0.86	0.09	81,81,81,81	0
56	MG	2A	3117	1/1	0.86	0.29	82,82,82,82	0
56	MG	1A	3268	1/1	0.86	0.31	53,53,53,53	0
56	MG	1D	304	1/1	0.86	0.23	42,42,42,42	0
56	MG	1A	3940	1/1	0.86	0.26	37,37,37,37	0
56	MG	1E	310	1/1	0.86	0.23	71,71,71,71	0
56	MG	2a	1630	1/1	0.86	0.31	82,82,82,82	0
56	MG	2A	3133	1/1	0.86	0.20	46,46,46,46	0
56	MG	1A	3040	1/1	0.86	0.26	64,64,64,64	0
56	MG	2A	3135	1/1	0.86	0.35	81,81,81,81	0
56	MG	2A	3136	1/1	0.86	0.34	71,71,71,71	0
56	MG	1a	1641	1/1	0.86	0.24	73,73,73,73	0
56	MG	1A	3945	1/1	0.86	0.21	78,78,78,78	0
56	MG	2a	1646	1/1	0.86	0.07	70,70,70,70	0
56	MG	2A	3003	1/1	0.86	0.31	72,72,72,72	0
56	MG	1A	3379	1/1	0.86	0.70	49,49,49,49	0
56	MG	1A	3557	1/1	0.86	0.18	40,40,40,40	0
56	MG	1A	3431	1/1	0.86	0.22	69,69,69,69	0
56	MG	1a	1652	1/1	0.86	0.11	54,54,54,54	0
56	MG	2A	3595	1/1	0.86	0.39	58,58,58,58	0
56	MG	2a	1666	1/1	0.86	0.12	83,83,83,83	0
56	MG	1A	3957	1/1	0.86	0.23	54,54,54,54	0
56	MG	1A	3117	1/1	0.86	0.40	44,44,44,44	0
56	MG	2A	3603	1/1	0.86	0.11	77,77,77,77	0
56	MG	1A	3783	1/1	0.86	0.18	46,46,46,46	0
56	MG	1A	3568	1/1	0.86	0.49	68,68,68,68	0
56	MG	2A	3174	1/1	0.86	0.23	70,70,70,70	0
56	MG	2a	1679	1/1	0.86	0.09	72,72,72,72	0
56	MG	1N	203	1/1	0.86	0.18	56,56,56,56	0
56	MG	1A	3490	1/1	0.86	0.24	65,65,65,65	0
56	MG	1Q	202	1/1	0.86	0.35	55,55,55,55	0
56	MG	2A	3625	1/1	0.86	0.23	79,79,79,79	0
56	MG	1a	1672	1/1	0.86	0.15	68,68,68,68	0
56	MG	1A	3437	1/1	0.86	0.35	70,70,70,70	0
56	MG	1A	3185	1/1	0.86	0.30	39,39,39,39	0
56	MG	1a	1679	1/1	0.86	0.19	77,77,77,77	0
56	MG	1a	1687	1/1	0.86	0.20	72,72,72,72	0
56	MG	1a	1688	1/1	0.86	0.25	81,81,81,81	0
56	MG	1A	3591	1/1	0.86	0.19	55,55,55,55	0
56	MG	1A	3602	1/1	0.86	0.20	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1A	4016	1/1	0.86	0.18	69,69,69,69	0
56	MG	2a	1717	1/1	0.86	0.28	78,78,78,78	0
56	MG	2A	3340	1/1	0.86	0.53	73,73,73,73	0
56	MG	2A	3710	1/1	0.86	0.20	74,74,74,74	0
56	MG	1A	3035	1/1	0.86	0.19	48,48,48,48	0
56	MG	1U	204	1/1	0.86	0.26	39,39,39,39	0
56	MG	1A	3087	1/1	0.86	0.30	49,49,49,49	0
56	MG	1U	210	1/1	0.86	0.34	55,55,55,55	0
56	MG	1a	1704	1/1	0.86	0.17	77,77,77,77	0
56	MG	2A	3738	1/1	0.86	0.10	66,66,66,66	0
56	MG	2a	1740	1/1	0.86	0.18	78,78,78,78	0
56	MG	1A	3404	1/1	0.86	0.18	46,46,46,46	0
56	MG	2A	3361	1/1	0.86	0.24	75,75,75,75	0
56	MG	1A	3451	1/1	0.86	0.36	48,48,48,48	0
56	MG	2B	201	1/1	0.86	0.20	85,85,85,85	0
56	MG	1A	3196	1/1	0.86	0.39	68,68,68,68	0
56	MG	1X	105	1/1	0.86	0.18	54,54,54,54	0
56	MG	1A	3844	1/1	0.86	0.21	30,30,30,30	0
56	MG	2A	3072	1/1	0.86	0.36	60,60,60,60	0
56	MG	1A	4050	1/1	0.86	0.31	78,78,78,78	0
56	MG	1A	3680	1/1	0.86	0.19	31,31,31,31	0
56	MG	1A	3137	1/1	0.86	0.25	42,42,42,42	0
56	MG	2a	1792	1/1	0.86	0.12	82,82,82,82	0
56	MG	16	101	1/1	0.86	0.29	63,63,63,63	0
56	MG	1A	3516	1/1	0.86	0.35	42,42,42,42	0
56	MG	2A	3393	1/1	0.86	0.14	54,54,54,54	0
56	MG	19	101	1/1	0.86	0.18	56,56,56,56	0
56	MG	2E	301	1/1	0.86	0.15	75,75,75,75	0
56	MG	1a	1745	1/1	0.86	0.19	74,74,74,74	0
56	MG	2E	308	1/1	0.86	0.15	81,81,81,81	0
56	MG	1A	3106	1/1	0.86	0.20	30,30,30,30	0
56	MG	1a	1602	1/1	0.86	0.19	79,79,79,79	0
56	MG	1A	3389	1/1	0.86	0.36	51,51,51,51	0
56	MG	2w	101	1/1	0.86	0.16	78,78,78,78	0
56	MG	1A	3537	1/1	0.86	0.19	48,48,48,48	0
56	MG	1A	3213	1/1	0.86	0.23	54,54,54,54	0
56	MG	2A	3422	1/1	0.86	0.29	57,57,57,57	0
56	MG	2x	105	1/1	0.86	0.25	82,82,82,82	0
56	MG	2y	101	1/1	0.86	0.40	99,99,99,99	0
56	MG	1A	3371	1/1	0.86	0.24	61,61,61,61	0
56	MG	2A	3425	1/1	0.86	0.20	57,57,57,57	0
56	MG	1A	3898	1/1	0.86	0.22	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	2A	3598	1/1	0.87	0.18	77,77,77,77	0
56	MG	2a	1632	1/1	0.87	0.30	71,71,71,71	0
56	MG	2A	3033	1/1	0.87	0.19	49,49,49,49	0
56	MG	2a	1637	1/1	0.87	0.23	75,75,75,75	0
56	MG	1A	3167	1/1	0.87	0.67	47,47,47,47	0
56	MG	1A	3066	1/1	0.87	0.19	36,36,36,36	0
56	MG	2A	3352	1/1	0.87	0.40	66,66,66,66	0
56	MG	2A	3353	1/1	0.87	0.24	67,67,67,67	0
56	MG	1A	3202	1/1	0.87	0.21	48,48,48,48	0
56	MG	1B	224	1/1	0.87	0.29	55,55,55,55	0
56	MG	2A	3359	1/1	0.87	0.18	59,59,59,59	0
56	MG	2a	1649	1/1	0.87	0.17	74,74,74,74	0
56	MG	1W	202	1/1	0.87	0.46	51,51,51,51	0
56	MG	1A	3715	1/1	0.87	0.26	22,22,22,22	0
56	MG	1a	1792	1/1	0.87	0.11	57,57,57,57	0
56	MG	1A	3257	1/1	0.87	0.30	49,49,49,49	0
56	MG	2A	3368	1/1	0.87	0.21	46,46,46,46	0
56	MG	2A	3254	1/1	0.87	0.51	59,59,59,59	0
56	MG	2A	3658	1/1	0.87	0.08	88,88,88,88	0
56	MG	1A	3995	1/1	0.87	0.24	39,39,39,39	0
56	MG	1A	3143	1/1	0.87	0.29	47,47,47,47	0
56	MG	2A	3668	1/1	0.87	0.15	57,57,57,57	0
56	MG	1A	3726	1/1	0.87	0.28	53,53,53,53	0
56	MG	1a	1669	1/1	0.87	0.24	67,67,67,67	0
56	MG	1d	301	1/1	0.87	0.39	67,67,67,67	0
56	MG	1A	3051	1/1	0.87	0.44	63,63,63,63	0
56	MG	2a	1682	1/1	0.87	0.23	80,80,80,80	0
56	MG	1A	3424	1/1	0.87	0.26	54,54,54,54	0
56	MG	2A	3395	1/1	0.87	0.24	62,62,62,62	0
56	MG	2A	3396	1/1	0.87	0.16	45,45,45,45	0
56	MG	1A	3209	1/1	0.87	0.23	45,45,45,45	0
56	MG	1a	1676	1/1	0.87	0.19	77,77,77,77	0
56	MG	18	105	1/1	0.87	0.37	58,58,58,58	0
56	MG	1A	3151	1/1	0.87	0.34	43,43,43,43	0
56	MG	1A	3093	1/1	0.87	0.18	29,29,29,29	0
56	MG	1A	3357	1/1	0.87	0.17	55,55,55,55	0
56	MG	2A	3754	1/1	0.87	0.14	70,70,70,70	0
56	MG	2a	1712	1/1	0.87	0.23	64,64,64,64	0
56	MG	2A	3756	1/1	0.87	0.27	74,74,74,74	0
56	MG	2A	3412	1/1	0.87	0.34	51,51,51,51	0
56	MG	1x	103	1/1	0.87	0.30	72,72,72,72	0
56	MG	2A	3418	1/1	0.87	0.21	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	2B	204	1/1	0.87	0.22	71,71,71,71	0
56	MG	2A	3420	1/1	0.87	0.17	61,61,61,61	0
56	MG	1a	1689	1/1	0.87	0.09	67,67,67,67	0
56	MG	2A	3192	1/1	0.87	0.25	78,78,78,78	0
56	MG	1A	3082	1/1	0.87	0.41	55,55,55,55	0
56	MG	1A	3884	1/1	0.87	0.20	30,30,30,30	0
56	MG	2A	3001	1/1	0.87	0.43	63,63,63,63	0
56	MG	2A	3201	1/1	0.87	0.26	68,68,68,68	0
56	MG	2A	3002	1/1	0.87	0.34	53,53,53,53	0
56	MG	1A	3188	1/1	0.87	0.23	68,68,68,68	0
56	MG	1A	3776	1/1	0.87	0.14	30,30,30,30	0
56	MG	1A	3440	1/1	0.87	0.44	57,57,57,57	0
56	MG	1A	3308	1/1	0.87	0.21	61,61,61,61	0
56	MG	1A	3478	1/1	0.87	0.20	75,75,75,75	0
56	MG	2A	3488	1/1	0.87	0.24	56,56,56,56	0
56	MG	2A	3010	1/1	0.87	0.12	55,55,55,55	0
56	MG	2a	1783	1/1	0.87	0.17	77,77,77,77	0
56	MG	2A	3297	1/1	0.87	0.10	76,76,76,76	0
56	MG	1O	205	1/1	0.87	0.30	73,73,73,73	0
56	MG	2R	202	1/1	0.87	0.20	53,53,53,53	0
56	MG	1A	3310	1/1	0.87	0.19	57,57,57,57	0
56	MG	2A	3521	1/1	0.87	0.20	43,43,43,43	0
56	MG	1A	3793	1/1	0.87	0.17	37,37,37,37	0
56	MG	2a	1797	1/1	0.87	0.11	81,81,81,81	0
56	MG	27	101	1/1	0.87	0.32	67,67,67,67	0
56	MG	1A	3446	1/1	0.87	0.21	47,47,47,47	0
56	MG	2a	1805	1/1	0.87	0.20	81,81,81,81	0
56	MG	2A	3225	1/1	0.87	0.24	64,64,64,64	0
56	MG	1A	3683	1/1	0.87	0.24	58,58,58,58	0
56	MG	2A	3314	1/1	0.87	0.14	71,71,71,71	0
56	MG	2A	3230	1/1	0.87	0.22	68,68,68,68	0
56	MG	2A	3316	1/1	0.87	0.20	71,71,71,71	0
56	MG	2A	3023	1/1	0.87	0.26	70,70,70,70	0
56	MG	2A	3574	1/1	0.87	0.29	74,74,74,74	0
56	MG	1A	3686	1/1	0.87	0.21	62,62,62,62	0
56	MG	1A	3547	1/1	0.87	0.23	56,56,56,56	0
56	MG	2A	3123	1/1	0.87	0.20	83,83,83,83	0
56	MG	1B	210	1/1	0.87	0.20	60,60,60,60	0
56	MG	2A	3128	1/1	0.87	0.31	47,47,47,47	0
56	MG	1B	211	1/1	0.87	0.36	69,69,69,69	0
56	MG	2a	1624	1/1	0.87	0.29	73,73,73,73	0
56	MG	2A	3343	1/1	0.87	0.28	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1A	3905	1/1	0.88	0.20	54,54,54,54	0
56	MG	2A	3097	1/1	0.88	0.10	57,57,57,57	0
56	MG	1A	3609	1/1	0.88	0.17	32,32,32,32	0
56	MG	2A	3228	1/1	0.88	0.20	78,78,78,78	0
56	MG	1a	1671	1/1	0.88	0.10	80,80,80,80	0
56	MG	2A	3348	1/1	0.88	0.22	68,68,68,68	0
56	MG	1A	3456	1/1	0.88	0.24	62,62,62,62	0
56	MG	2A	3600	1/1	0.88	0.23	82,82,82,82	0
56	MG	2a	1635	1/1	0.88	0.11	73,73,73,73	0
56	MG	1A	3929	1/1	0.88	0.18	43,43,43,43	0
56	MG	1B	208	1/1	0.88	0.26	70,70,70,70	0
56	MG	1A	3932	1/1	0.88	0.10	62,62,62,62	0
56	MG	1A	3386	1/1	0.88	0.18	53,53,53,53	0
56	MG	1A	3620	1/1	0.88	0.19	80,80,80,80	0
56	MG	1Z	302	1/1	0.88	0.36	60,60,60,60	0
56	MG	2A	3119	1/1	0.88	0.20	76,76,76,76	0
56	MG	2A	3622	1/1	0.88	0.10	68,68,68,68	0
56	MG	1A	3624	1/1	0.88	0.15	34,34,34,34	0
56	MG	2A	3628	1/1	0.88	0.16	71,71,71,71	0
56	MG	1A	3300	1/1	0.88	0.25	59,59,59,59	0
56	MG	1A	3232	1/1	0.88	0.32	55,55,55,55	0
56	MG	2A	3365	1/1	0.88	0.23	72,72,72,72	0
56	MG	2a	1663	1/1	0.88	0.11	82,82,82,82	0
56	MG	1A	3664	1/1	0.88	0.23	32,32,32,32	0
56	MG	2A	3654	1/1	0.88	0.19	77,77,77,77	0
56	MG	2A	3370	1/1	0.88	0.46	46,46,46,46	0
56	MG	2A	3657	1/1	0.88	0.22	69,69,69,69	0
56	MG	1A	3423	1/1	0.88	0.32	40,40,40,40	0
56	MG	1A	3271	1/1	0.88	0.34	51,51,51,51	0
56	MG	2A	3665	1/1	0.88	0.28	58,58,58,58	0
56	MG	2A	3666	1/1	0.88	0.58	55,55,55,55	0
56	MG	2A	3249	1/1	0.88	0.34	74,74,74,74	0
56	MG	2A	3381	1/1	0.88	0.34	59,59,59,59	0
56	MG	2A	3131	1/1	0.88	0.20	70,70,70,70	0
56	MG	18	106	1/1	0.88	0.48	78,78,78,78	0
56	MG	2A	3703	1/1	0.88	0.23	71,71,71,71	0
56	MG	1A	3233	1/1	0.88	0.31	66,66,66,66	0
56	MG	1B	231	1/1	0.88	0.23	71,71,71,71	0
56	MG	2A	3711	1/1	0.88	0.10	52,52,52,52	0
56	MG	1A	3959	1/1	0.88	0.23	32,32,32,32	0
56	MG	2A	3141	1/1	0.88	0.28	62,62,62,62	0
56	MG	1A	3967	1/1	0.88	0.17	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1A	3822	1/1	0.88	0.31	72,72,72,72	0
56	MG	1a	1608	1/1	0.88	0.30	60,60,60,60	0
56	MG	2A	3155	1/1	0.88	0.22	81,81,81,81	0
56	MG	2A	3159	1/1	0.88	0.14	71,71,71,71	0
56	MG	2a	1714	1/1	0.88	0.09	78,78,78,78	0
56	MG	1A	3109	1/1	0.88	0.17	42,42,42,42	0
56	MG	2A	3408	1/1	0.88	0.14	64,64,64,64	0
56	MG	2A	3410	1/1	0.88	0.13	38,38,38,38	0
56	MG	1A	3364	1/1	0.88	0.23	55,55,55,55	0
56	MG	2A	3768	1/1	0.88	0.12	89,89,89,89	0
56	MG	1A	3252	1/1	0.88	0.38	76,76,76,76	0
56	MG	2A	3415	1/1	0.88	0.28	79,79,79,79	0
56	MG	1A	3168	1/1	0.88	0.28	68,68,68,68	0
56	MG	1A	3238	1/1	0.88	0.15	42,42,42,42	0
56	MG	1A	3711	1/1	0.88	0.32	56,56,56,56	0
56	MG	2B	208	1/1	0.88	0.22	77,77,77,77	0
56	MG	1A	3374	1/1	0.88	0.14	34,34,34,34	0
56	MG	2B	212	1/1	0.88	0.38	89,89,89,89	0
56	MG	1A	3718	1/1	0.88	0.19	33,33,33,33	0
56	MG	2a	1752	1/1	0.88	0.22	68,68,68,68	0
56	MG	1a	1762	1/1	0.88	0.13	82,82,82,82	0
56	MG	1A	3341	1/1	0.88	0.19	42,42,42,42	0
56	MG	2a	1770	1/1	0.88	0.19	88,88,88,88	0
56	MG	2a	1771	1/1	0.88	0.13	73,73,73,73	0
56	MG	1A	3377	1/1	0.88	0.23	63,63,63,63	0
56	MG	1A	3289	1/1	0.88	0.30	32,32,32,32	0
56	MG	2a	1779	1/1	0.88	0.35	77,77,77,77	0
56	MG	1N	205	1/1	0.88	0.38	57,57,57,57	0
56	MG	1A	3162	1/1	0.88	0.17	63,63,63,63	0
56	MG	2a	1784	1/1	0.88	0.21	80,80,80,80	0
56	MG	2A	3449	1/1	0.88	0.17	60,60,60,60	0
56	MG	2A	3067	1/1	0.88	0.57	47,47,47,47	0
56	MG	1O	203	1/1	0.88	0.12	69,69,69,69	0
56	MG	1A	3212	1/1	0.88	0.12	57,57,57,57	0
56	MG	2A	3476	1/1	0.88	0.28	56,56,56,56	0
56	MG	2F	304	1/1	0.88	0.57	50,50,50,50	0
56	MG	1A	3320	1/1	0.88	0.39	64,64,64,64	0
56	MG	1A	4045	1/1	0.88	0.33	75,75,75,75	0
56	MG	2A	3294	1/1	0.88	0.75	62,62,62,62	0
56	MG	2A	3077	1/1	0.88	0.37	60,60,60,60	0
56	MG	2A	3196	1/1	0.88	0.34	52,52,52,52	0
56	MG	1A	3581	1/1	0.88	0.25	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	2A	3199	1/1	0.88	0.16	67,67,67,67	0
56	MG	2A	3200	1/1	0.88	0.17	79,79,79,79	0
56	MG	1a	1653	1/1	0.88	0.17	78,78,78,78	0
56	MG	1A	3227	1/1	0.88	0.35	41,41,41,41	0
56	MG	2A	3082	1/1	0.88	0.52	47,47,47,47	0
56	MG	1A	4052	1/1	0.88	0.20	84,84,84,84	0
56	MG	1A	4054	1/1	0.88	0.25	65,65,65,65	0
56	MG	1A	3244	1/1	0.88	0.23	77,77,77,77	0
56	MG	1a	1665	1/1	0.88	0.10	71,71,71,71	0
56	MG	2x	106	1/1	0.88	0.24	69,69,69,69	0
56	MG	1U	202	1/1	0.88	0.33	41,41,41,41	0
56	MG	1A	3018	1/1	0.88	0.16	43,43,43,43	0
56	MG	2A	3581	1/1	0.88	0.16	72,72,72,72	0
56	MG	1x	105	1/1	0.88	0.25	63,63,63,63	0
56	MG	1A	3266	1/1	0.89	0.47	71,71,71,71	0
56	MG	2a	1609	1/1	0.89	0.17	77,77,77,77	0
56	MG	2A	3516	1/1	0.89	0.20	78,78,78,78	0
56	MG	2A	3518	1/1	0.89	0.22	58,58,58,58	0
56	MG	2A	3186	1/1	0.89	0.28	74,74,74,74	0
56	MG	10	103	1/1	0.89	0.99	59,59,59,59	0
56	MG	2A	3528	1/1	0.89	0.26	72,72,72,72	0
56	MG	2A	3302	1/1	0.89	0.40	67,67,67,67	0
56	MG	10	104	1/1	0.89	0.32	68,68,68,68	0
56	MG	2A	3305	1/1	0.89	0.30	69,69,69,69	0
56	MG	2A	3306	1/1	0.89	0.26	73,73,73,73	0
56	MG	2A	3190	1/1	0.89	0.16	70,70,70,70	0
56	MG	1a	1707	1/1	0.89	0.24	63,63,63,63	0
56	MG	1A	3528	1/1	0.89	0.29	42,42,42,42	0
56	MG	2a	1631	1/1	0.89	0.25	80,80,80,80	0
56	MG	1a	1712	1/1	0.89	0.13	86,86,86,86	0
56	MG	1A	3441	1/1	0.89	0.39	61,61,61,61	0
56	MG	1A	3306	1/1	0.89	0.26	55,55,55,55	0
56	MG	2A	3317	1/1	0.89	0.11	87,87,87,87	0
56	MG	1B	212	1/1	0.89	0.40	77,77,77,77	0
56	MG	1B	213	1/1	0.89	0.22	48,48,48,48	0
56	MG	1A	3638	1/1	0.89	0.24	25,25,25,25	0
56	MG	1A	3024	1/1	0.89	0.37	69,69,69,69	0
56	MG	2A	3324	1/1	0.89	0.29	64,64,64,64	0
56	MG	1a	1732	1/1	0.89	0.08	90,90,90,90	0
56	MG	2A	3334	1/1	0.89	0.22	72,72,72,72	0
56	MG	1A	3786	1/1	0.89	0.17	75,75,75,75	0
56	MG	1A	3653	1/1	0.89	0.16	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
56	MG	2a	1653	1/1	0.89	0.16	66,66,66,66	0
56	MG	1A	3396	1/1	0.89	0.21	51,51,51,51	0
56	MG	2A	3344	1/1	0.89	0.35	79,79,79,79	0
56	MG	2A	3346	1/1	0.89	0.36	57,57,57,57	0
56	MG	1A	3447	1/1	0.89	0.36	62,62,62,62	0
56	MG	1a	1760	1/1	0.89	0.23	68,68,68,68	0
56	MG	1A	3420	1/1	0.89	0.20	46,46,46,46	0
56	MG	1A	3138	1/1	0.89	0.25	49,49,49,49	0
56	MG	2A	3220	1/1	0.89	0.52	77,77,77,77	0
56	MG	1A	3132	1/1	0.89	0.39	46,46,46,46	0
56	MG	1A	3214	1/1	0.89	0.11	56,56,56,56	0
56	MG	1D	306	1/1	0.89	0.43	46,46,46,46	0
56	MG	1a	1799	1/1	0.89	0.13	75,75,75,75	0
56	MG	1A	3964	1/1	0.89	0.17	49,49,49,49	0
56	MG	1D	312	1/1	0.89	0.65	49,49,49,49	0
56	MG	1A	3693	1/1	0.89	0.25	54,54,54,54	0
56	MG	2a	1684	1/1	0.89	0.26	74,74,74,74	0
56	MG	1A	3697	1/1	0.89	0.21	63,63,63,63	0
56	MG	1A	3977	1/1	0.89	0.16	65,65,65,65	0
56	MG	1A	3982	1/1	0.89	0.16	50,50,50,50	0
56	MG	1A	3827	1/1	0.89	0.21	49,49,49,49	0
56	MG	1A	3992	1/1	0.89	0.17	53,53,53,53	0
56	MG	2A	3373	1/1	0.89	0.38	71,71,71,71	0
56	MG	2A	3375	1/1	0.89	0.11	63,63,63,63	0
56	MG	1A	3828	1/1	0.89	0.15	81,81,81,81	0
56	MG	2A	3683	1/1	0.89	0.13	60,60,60,60	0
56	MG	2a	1702	1/1	0.89	0.14	64,64,64,64	0
56	MG	2a	1703	1/1	0.89	0.20	76,76,76,76	0
56	MG	1A	4001	1/1	0.89	0.22	83,83,83,83	0
56	MG	2a	1709	1/1	0.89	0.23	73,73,73,73	0
56	MG	1w	101	1/1	0.89	0.11	57,57,57,57	0
56	MG	2A	3114	1/1	0.89	0.23	68,68,68,68	0
56	MG	1A	3830	1/1	0.89	0.15	52,52,52,52	0
56	MG	1A	3492	1/1	0.89	0.58	41,41,41,41	0
56	MG	1N	202	1/1	0.89	0.47	57,57,57,57	0
56	MG	1A	3313	1/1	0.89	0.55	41,41,41,41	0
56	MG	2A	3394	1/1	0.89	0.26	67,67,67,67	0
56	MG	1A	3498	1/1	0.89	0.35	48,48,48,48	0
56	MG	1A	3373	1/1	0.89	0.38	35,35,35,35	0
56	MG	1a	1654	1/1	0.89	0.20	53,53,53,53	0
56	MG	2A	3126	1/1	0.89	0.14	57,57,57,57	0
56	MG	2a	1731	1/1	0.89	0.40	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	2A	3255	1/1	0.89	0.15	64,64,64,64	0
56	MG	2a	1735	1/1	0.89	0.13	80,80,80,80	0
56	MG	1A	3455	1/1	0.89	0.30	49,49,49,49	0
56	MG	1A	3569	1/1	0.89	0.42	66,66,66,66	0
56	MG	2A	3755	1/1	0.89	0.11	68,68,68,68	0
56	MG	1A	3720	1/1	0.89	0.20	61,61,61,61	0
56	MG	2A	3409	1/1	0.89	0.29	62,62,62,62	0
56	MG	2a	1745	1/1	0.89	0.25	83,83,83,83	0
56	MG	1A	3005	1/1	0.89	0.21	49,49,49,49	0
56	MG	1A	3861	1/1	0.89	0.28	62,62,62,62	0
56	MG	1A	4033	1/1	0.89	0.14	80,80,80,80	0
56	MG	2A	3413	1/1	0.89	0.50	57,57,57,57	0
56	MG	2A	3414	1/1	0.89	0.18	65,65,65,65	0
56	MG	2B	207	1/1	0.89	0.23	70,70,70,70	0
56	MG	1R	205	1/1	0.89	0.23	28,28,28,28	0
56	MG	1A	3221	1/1	0.89	0.47	61,61,61,61	0
56	MG	1A	3575	1/1	0.89	0.32	59,59,59,59	0
56	MG	1A	3434	1/1	0.89	0.42	51,51,51,51	0
56	MG	2A	3014	1/1	0.89	0.40	53,53,53,53	0
56	MG	1A	3251	1/1	0.89	0.22	42,42,42,42	0
56	MG	1A	3877	1/1	0.89	0.26	66,66,66,66	0
56	MG	1U	208	1/1	0.89	0.78	43,43,43,43	0
56	MG	1A	3742	1/1	0.89	0.19	37,37,37,37	0
56	MG	1A	3513	1/1	0.89	0.46	62,62,62,62	0
56	MG	2A	3434	1/1	0.89	0.25	76,76,76,76	0
56	MG	1a	1685	1/1	0.89	0.34	65,65,65,65	0
56	MG	2E	305	1/1	0.89	0.11	48,48,48,48	0
56	MG	1A	3894	1/1	0.89	0.26	40,40,40,40	0
56	MG	2a	1802	1/1	0.89	0.11	76,76,76,76	0
56	MG	2a	1804	1/1	0.89	0.11	71,71,71,71	0
56	MG	2A	3444	1/1	0.89	0.13	32,32,32,32	0
56	MG	1A	3286	1/1	0.89	0.18	58,58,58,58	0
56	MG	1A	3901	1/1	0.89	0.22	38,38,38,38	0
56	MG	2A	3454	1/1	0.89	0.13	55,55,55,55	0
56	MG	2A	3455	1/1	0.89	0.16	71,71,71,71	0
56	MG	2P	201	1/1	0.89	0.22	64,64,64,64	0
56	MG	2Q	201	1/1	0.89	0.11	66,66,66,66	0
56	MG	2r	102	1/1	0.89	0.33	81,81,81,81	0
56	MG	1A	3467	1/1	0.89	0.23	55,55,55,55	0
56	MG	2A	3468	1/1	0.89	0.15	60,60,60,60	0
56	MG	2A	3472	1/1	0.89	0.30	54,54,54,54	0
56	MG	1X	101	1/1	0.89	0.62	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1X	104	1/1	0.89	0.79	53,53,53,53	0
56	MG	1A	3521	1/1	0.89	0.24	55,55,55,55	0
56	MG	1Y	201	1/1	0.89	0.35	62,62,62,62	0
56	MG	2A	3182	1/1	0.89	0.15	58,58,58,58	0
56	MG	1A	3907	1/1	0.89	0.08	80,80,80,80	0
56	MG	1a	1702	1/1	0.89	0.11	52,52,52,52	0
56	MG	2A	3569	1/1	0.90	0.23	68,68,68,68	0
56	MG	2A	3341	1/1	0.90	0.21	71,71,71,71	0
56	MG	1a	1758	1/1	0.90	0.15	73,73,73,73	0
56	MG	1A	3342	1/1	0.90	0.31	57,57,57,57	0
56	MG	1E	305	1/1	0.90	0.44	40,40,40,40	0
56	MG	2A	3215	1/1	0.90	0.81	56,56,56,56	0
56	MG	1A	3974	1/1	0.90	0.17	70,70,70,70	0
56	MG	2a	1627	1/1	0.90	0.20	61,61,61,61	0
56	MG	1A	3682	1/1	0.90	0.21	50,50,50,50	0
56	MG	1A	3101	1/1	0.90	0.21	51,51,51,51	0
56	MG	1A	3210	1/1	0.90	0.26	48,48,48,48	0
56	MG	2A	3223	1/1	0.90	0.13	77,77,77,77	0
56	MG	2a	1633	1/1	0.90	0.29	74,74,74,74	0
56	MG	2A	3597	1/1	0.90	0.15	73,73,73,73	0
56	MG	1A	3987	1/1	0.90	0.19	62,62,62,62	0
56	MG	1A	3394	1/1	0.90	0.30	54,54,54,54	0
56	MG	1a	1802	1/1	0.90	0.16	68,68,68,68	0
56	MG	2A	3602	1/1	0.90	0.12	49,49,49,49	0
56	MG	1A	3558	1/1	0.90	0.37	51,51,51,51	0
56	MG	2A	3360	1/1	0.90	0.19	61,61,61,61	0
56	MG	1A	3559	1/1	0.90	0.37	61,61,61,61	0
56	MG	2a	1644	1/1	0.90	0.37	78,78,78,78	0
56	MG	1A	3560	1/1	0.90	0.21	44,44,44,44	0
56	MG	1A	3562	1/1	0.90	0.31	43,43,43,43	0
56	MG	1a	1643	1/1	0.90	0.17	80,80,80,80	0
56	MG	2A	3099	1/1	0.90	0.16	53,53,53,53	0
56	MG	2A	3367	1/1	0.90	0.32	75,75,75,75	0
56	MG	2a	1655	1/1	0.90	0.17	78,78,78,78	0
56	MG	1A	3350	1/1	0.90	0.25	66,66,66,66	0
56	MG	1A	3500	1/1	0.90	0.21	57,57,57,57	0
56	MG	1m	3002	1/1	0.90	0.25	71,71,71,71	0
56	MG	2a	1662	1/1	0.90	0.08	70,70,70,70	0
56	MG	2A	3239	1/1	0.90	0.19	50,50,50,50	0
56	MG	2A	3644	1/1	0.90	0.17	51,51,51,51	0
56	MG	1A	3021	1/1	0.90	0.28	35,35,35,35	0
56	MG	1A	3089	1/1	0.90	0.37	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	2A	3650	1/1	0.90	0.26	72,72,72,72	0
56	MG	1A	3719	1/1	0.90	0.33	73,73,73,73	0
56	MG	1A	3427	1/1	0.90	0.30	46,46,46,46	0
56	MG	2A	3246	1/1	0.90	0.32	79,79,79,79	0
56	MG	1A	3164	1/1	0.90	0.33	46,46,46,46	0
56	MG	1A	3104	1/1	0.90	0.38	50,50,50,50	0
56	MG	2a	1680	1/1	0.90	0.15	41,41,41,41	0
56	MG	1A	4029	1/1	0.90	0.32	68,68,68,68	0
56	MG	2A	3390	1/1	0.90	0.12	75,75,75,75	0
56	MG	1x	104	1/1	0.90	0.12	75,75,75,75	0
56	MG	1A	3462	1/1	0.90	0.22	53,53,53,53	0
56	MG	2A	3670	1/1	0.90	0.13	65,65,65,65	0
56	MG	2a	1690	1/1	0.90	0.44	81,81,81,81	0
56	MG	1A	3075	1/1	0.90	0.17	35,35,35,35	0
56	MG	1A	4037	1/1	0.90	0.29	50,50,50,50	0
56	MG	2A	3684	1/1	0.90	0.17	62,62,62,62	0
56	MG	1A	3588	1/1	0.90	0.24	54,54,54,54	0
56	MG	2A	3692	1/1	0.90	0.21	91,91,91,91	0
56	MG	2A	3696	1/1	0.90	0.26	65,65,65,65	0
56	MG	1x	112	1/1	0.90	0.22	83,83,83,83	0
56	MG	1x	113	1/1	0.90	0.25	70,70,70,70	0
56	MG	1A	3435	1/1	0.90	0.25	62,62,62,62	0
56	MG	1T	203	1/1	0.90	0.11	61,61,61,61	0
56	MG	1A	3750	1/1	0.90	0.18	46,46,46,46	0
56	MG	1A	3900	1/1	0.90	0.14	25,25,25,25	0
56	MG	1A	3277	1/1	0.90	0.48	50,50,50,50	0
56	MG	1A	3603	1/1	0.90	0.25	62,62,62,62	0
56	MG	2a	1715	1/1	0.90	0.25	73,73,73,73	0
56	MG	2A	3728	1/1	0.90	0.20	56,56,56,56	0
56	MG	1A	3607	1/1	0.90	0.16	37,37,37,37	0
56	MG	2A	3265	1/1	0.90	0.17	64,64,64,64	0
56	MG	2A	3009	1/1	0.90	0.30	66,66,66,66	0
56	MG	1A	3518	1/1	0.90	0.15	62,62,62,62	0
56	MG	1A	3147	1/1	0.90	0.74	45,45,45,45	0
56	MG	2a	1727	1/1	0.90	0.39	73,73,73,73	0
56	MG	2A	3417	1/1	0.90	0.42	75,75,75,75	0
56	MG	2A	3154	1/1	0.90	0.18	53,53,53,53	0
56	MG	1A	4059	1/1	0.90	0.19	58,58,58,58	0
56	MG	2A	3764	1/1	0.90	0.20	79,79,79,79	0
56	MG	2A	3767	1/1	0.90	0.12	51,51,51,51	0
56	MG	1A	3911	1/1	0.90	0.19	58,58,58,58	0
56	MG	2a	1738	1/1	0.90	0.12	86,86,86,86	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
56	MG	1A	3913	1/1	0.90	0.19	70,70,70,70	0
56	MG	1A	3919	1/1	0.90	0.11	27,27,27,27	0
56	MG	1B	207	1/1	0.90	0.17	64,64,64,64	0
56	MG	1A	3921	1/1	0.90	0.11	62,62,62,62	0
56	MG	1A	3438	1/1	0.90	0.30	41,41,41,41	0
56	MG	1A	3928	1/1	0.90	0.12	83,83,83,83	0
56	MG	1a	1698	1/1	0.90	0.17	60,60,60,60	0
56	MG	2a	1760	1/1	0.90	0.14	71,71,71,71	0
56	MG	2A	3169	1/1	0.90	0.27	75,75,75,75	0
56	MG	1A	3471	1/1	0.90	0.21	66,66,66,66	0
56	MG	1A	3258	1/1	0.90	0.28	56,56,56,56	0
56	MG	2a	1773	1/1	0.90	0.20	84,84,84,84	0
56	MG	10	105	1/1	0.90	0.08	63,63,63,63	0
56	MG	2A	3453	1/1	0.90	0.14	74,74,74,74	0
56	MG	1A	3311	1/1	0.90	0.20	67,67,67,67	0
56	MG	2A	3039	1/1	0.90	0.14	59,59,59,59	0
56	MG	11	104	1/1	0.90	0.17	50,50,50,50	0
56	MG	2A	3467	1/1	0.90	0.25	68,68,68,68	0
56	MG	1A	3630	1/1	0.90	0.24	41,41,41,41	0
56	MG	2E	302	1/1	0.90	0.08	71,71,71,71	0
56	MG	2E	303	1/1	0.90	0.30	70,70,70,70	0
56	MG	2A	3470	1/1	0.90	0.19	69,69,69,69	0
56	MG	2A	3042	1/1	0.90	0.13	56,56,56,56	0
56	MG	13	103	1/1	0.90	0.25	61,61,61,61	0
56	MG	1A	3939	1/1	0.90	0.17	45,45,45,45	0
56	MG	1A	3636	1/1	0.90	0.24	33,33,33,33	0
56	MG	1A	3108	1/1	0.90	0.64	42,42,42,42	0
56	MG	1A	3173	1/1	0.90	0.26	43,43,43,43	0
56	MG	1A	3640	1/1	0.90	0.20	50,50,50,50	0
56	MG	2A	3507	1/1	0.90	0.22	72,72,72,72	0
56	MG	2a	1810	1/1	0.90	0.08	78,78,78,78	0
56	MG	2A	3054	1/1	0.90	0.21	73,73,73,73	0
56	MG	2a	1813	1/1	0.90	0.22	71,71,71,71	0
56	MG	2Q	202	1/1	0.90	0.28	56,56,56,56	0
56	MG	1A	3806	1/1	0.90	0.16	44,44,44,44	0
56	MG	2i	201	1/1	0.90	0.34	85,85,85,85	0
56	MG	1A	3651	1/1	0.90	0.23	34,34,34,34	0
56	MG	2A	3197	1/1	0.90	0.16	68,68,68,68	0
56	MG	1A	3480	1/1	0.90	0.36	38,38,38,38	0
56	MG	1A	3180	1/1	0.90	0.61	46,46,46,46	0
56	MG	1A	3264	1/1	0.90	0.28	45,45,45,45	0
56	MG	1a	1606	1/1	0.90	0.30	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
56	MG	2A	3532	1/1	0.90	0.25	74,74,74,74	0
56	MG	2A	3547	1/1	0.90	0.25	67,67,67,67	0
56	MG	2A	3203	1/1	0.90	0.09	74,74,74,74	0
56	MG	2A	3068	1/1	0.90	0.11	52,52,52,52	0
56	MG	1A	3678	1/1	0.90	0.18	65,65,65,65	0
56	MG	2A	3565	1/1	0.90	0.23	41,41,41,41	0
59	ZN	2Y	501	1/1	0.90	0.15	96,96,96,96	0
56	MG	1D	311	1/1	0.90	0.40	53,53,53,53	0
56	MG	1a	1749	1/1	0.90	0.32	82,82,82,82	0
56	MG	1A	3309	1/1	0.91	0.13	65,65,65,65	0
56	MG	2A	3477	1/1	0.91	0.17	51,51,51,51	0
56	MG	2A	3142	1/1	0.91	0.20	64,64,64,64	0
56	MG	1A	4004	1/1	0.91	0.29	49,49,49,49	0
56	MG	1A	3712	1/1	0.91	0.11	56,56,56,56	0
56	MG	25	101	1/1	0.91	0.36	63,63,63,63	0
56	MG	2A	3495	1/1	0.91	0.12	39,39,39,39	0
56	MG	1A	3272	1/1	0.91	0.32	62,62,62,62	0
56	MG	2A	3500	1/1	0.91	0.15	49,49,49,49	0
56	MG	2A	3147	1/1	0.91	0.47	44,44,44,44	0
56	MG	2A	3150	1/1	0.91	0.28	58,58,58,58	0
56	MG	2a	1607	1/1	0.91	0.16	86,86,86,86	0
56	MG	1A	3216	1/1	0.91	0.66	48,48,48,48	0
56	MG	1A	3354	1/1	0.91	0.44	48,48,48,48	0
56	MG	2A	3157	1/1	0.91	0.14	47,47,47,47	0
56	MG	1A	3473	1/1	0.91	0.29	48,48,48,48	0
56	MG	1A	3112	1/1	0.91	0.42	41,41,41,41	0
56	MG	1A	3597	1/1	0.91	0.29	52,52,52,52	0
56	MG	1O	204	1/1	0.91	0.14	59,59,59,59	0
56	MG	2a	1616	1/1	0.91	0.18	68,68,68,68	0
56	MG	1a	1662	1/1	0.91	0.15	72,72,72,72	0
56	MG	2A	3540	1/1	0.91	0.25	58,58,58,58	0
56	MG	1A	3519	1/1	0.91	0.46	59,59,59,59	0
56	MG	2a	1622	1/1	0.91	0.16	77,77,77,77	0
56	MG	2A	3549	1/1	0.91	0.16	40,40,40,40	0
56	MG	1Q	201	1/1	0.91	0.26	42,42,42,42	0
56	MG	2A	3310	1/1	0.91	0.38	68,68,68,68	0
56	MG	2A	3555	1/1	0.91	0.15	41,41,41,41	0
56	MG	1a	1666	1/1	0.91	0.31	69,69,69,69	0
56	MG	1A	3475	1/1	0.91	0.33	45,45,45,45	0
56	MG	1A	3156	1/1	0.91	0.22	44,44,44,44	0
56	MG	1A	4030	1/1	0.91	0.27	54,54,54,54	0
56	MG	1A	4031	1/1	0.91	0.17	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
56	MG	1A	4032	1/1	0.91	0.44	82,82,82,82	0
56	MG	1A	3890	1/1	0.91	0.17	70,70,70,70	0
56	MG	2A	3576	1/1	0.91	0.17	76,76,76,76	0
56	MG	2A	3577	1/1	0.91	0.34	87,87,87,87	0
56	MG	1A	3527	1/1	0.91	0.47	48,48,48,48	0
56	MG	1A	3131	1/1	0.91	0.21	58,58,58,58	0
56	MG	2A	3582	1/1	0.91	0.36	81,81,81,81	0
56	MG	2A	3583	1/1	0.91	0.11	88,88,88,88	0
56	MG	1A	3529	1/1	0.91	0.78	44,44,44,44	0
56	MG	2A	3586	1/1	0.91	0.15	38,38,38,38	0
56	MG	1A	4043	1/1	0.91	0.17	51,51,51,51	0
56	MG	2A	3330	1/1	0.91	0.32	51,51,51,51	0
56	MG	1a	1684	1/1	0.91	0.30	58,58,58,58	0
56	MG	2A	3591	1/1	0.91	0.20	65,65,65,65	0
56	MG	1A	4044	1/1	0.91	0.10	65,65,65,65	0
56	MG	2A	3335	1/1	0.91	0.22	44,44,44,44	0
56	MG	2A	3336	1/1	0.91	0.26	58,58,58,58	0
56	MG	2A	3338	1/1	0.91	0.38	66,66,66,66	0
56	MG	2A	3030	1/1	0.91	0.20	52,52,52,52	0
56	MG	1a	1686	1/1	0.91	0.26	56,56,56,56	0
56	MG	1U	205	1/1	0.91	0.29	47,47,47,47	0
56	MG	2A	3034	1/1	0.91	0.19	57,57,57,57	0
56	MG	2A	3035	1/1	0.91	0.17	38,38,38,38	0
56	MG	2A	3345	1/1	0.91	0.33	66,66,66,66	0
56	MG	2a	1670	1/1	0.91	0.17	83,83,83,83	0
56	MG	1A	3535	1/1	0.91	0.18	42,42,42,42	0
56	MG	2A	3614	1/1	0.91	0.21	62,62,62,62	0
56	MG	1A	4047	1/1	0.91	0.23	65,65,65,65	0
56	MG	1A	3759	1/1	0.91	0.17	43,43,43,43	0
56	MG	1A	3333	1/1	0.91	0.39	60,60,60,60	0
56	MG	1A	3481	1/1	0.91	0.53	51,51,51,51	0
56	MG	1A	3484	1/1	0.91	0.25	64,64,64,64	0
56	MG	1A	3634	1/1	0.91	0.25	50,50,50,50	0
56	MG	2A	3635	1/1	0.91	0.22	53,53,53,53	0
56	MG	2A	3640	1/1	0.91	0.13	74,74,74,74	0
56	MG	1a	1699	1/1	0.91	0.15	71,71,71,71	0
56	MG	1A	3635	1/1	0.91	0.25	35,35,35,35	0
56	MG	2A	3206	1/1	0.91	0.33	52,52,52,52	0
56	MG	1X	102	1/1	0.91	0.36	46,46,46,46	0
56	MG	2A	3209	1/1	0.91	0.95	54,54,54,54	0
56	MG	1A	3779	1/1	0.91	0.16	41,41,41,41	0
56	MG	2a	1698	1/1	0.91	0.07	91,91,91,91	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1A	3381	1/1	0.91	0.45	51,51,51,51	0
56	MG	1A	3926	1/1	0.91	0.34	69,69,69,69	0
56	MG	1B	202	1/1	0.91	0.49	64,64,64,64	0
56	MG	1A	3487	1/1	0.91	0.17	80,80,80,80	0
56	MG	2A	3060	1/1	0.91	0.17	37,37,37,37	0
56	MG	2A	3062	1/1	0.91	0.18	48,48,48,48	0
56	MG	2a	1711	1/1	0.91	0.28	72,72,72,72	0
56	MG	10	101	1/1	0.91	0.24	54,54,54,54	0
56	MG	1A	3359	1/1	0.91	0.23	64,64,64,64	0
56	MG	1A	3301	1/1	0.91	0.19	58,58,58,58	0
56	MG	2A	3669	1/1	0.91	0.15	64,64,64,64	0
56	MG	1A	3645	1/1	0.91	0.23	27,27,27,27	0
56	MG	10	108	1/1	0.91	0.15	72,72,72,72	0
56	MG	2A	3380	1/1	0.91	0.45	49,49,49,49	0
56	MG	2a	1721	1/1	0.91	0.15	69,69,69,69	0
56	MG	2a	1723	1/1	0.91	0.06	65,65,65,65	0
56	MG	2A	3227	1/1	0.91	0.18	62,62,62,62	0
56	MG	10	109	1/1	0.91	0.16	55,55,55,55	0
56	MG	1A	3933	1/1	0.91	0.20	70,70,70,70	0
56	MG	1A	3429	1/1	0.91	0.32	55,55,55,55	0
56	MG	2A	3075	1/1	0.91	0.34	58,58,58,58	0
56	MG	1A	3800	1/1	0.91	0.22	71,71,71,71	0
56	MG	2A	3391	1/1	0.91	0.19	44,44,44,44	0
56	MG	1a	1733	1/1	0.91	0.20	54,54,54,54	0
56	MG	2A	3718	1/1	0.91	0.18	35,35,35,35	0
56	MG	1A	3401	1/1	0.91	0.13	59,59,59,59	0
56	MG	1A	3656	1/1	0.91	0.14	53,53,53,53	0
56	MG	1A	3267	1/1	0.91	0.33	58,58,58,58	0
56	MG	2A	3724	1/1	0.91	0.24	47,47,47,47	0
56	MG	1A	3458	1/1	0.91	0.33	57,57,57,57	0
56	MG	1A	3813	1/1	0.91	0.13	60,60,60,60	0
56	MG	1a	1750	1/1	0.91	0.28	73,73,73,73	0
56	MG	2a	1751	1/1	0.91	0.27	72,72,72,72	0
56	MG	1a	1755	1/1	0.91	0.14	67,67,67,67	0
56	MG	2a	1755	1/1	0.91	0.07	84,84,84,84	0
56	MG	1B	222	1/1	0.91	0.26	69,69,69,69	0
56	MG	1A	3954	1/1	0.91	0.12	74,74,74,74	0
56	MG	1A	3814	1/1	0.91	0.20	60,60,60,60	0
56	MG	2A	3747	1/1	0.91	0.13	61,61,61,61	0
56	MG	2A	3752	1/1	0.91	0.17	62,62,62,62	0
56	MG	1a	1766	1/1	0.91	0.19	71,71,71,71	0
56	MG	2a	1774	1/1	0.91	0.20	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
56	MG	1A	3011	1/1	0.91	0.11	45,45,45,45	0
56	MG	1a	1783	1/1	0.91	0.13	70,70,70,70	0
56	MG	2A	3762	1/1	0.91	0.24	78,78,78,78	0
56	MG	2a	1780	1/1	0.91	0.17	75,75,75,75	0
56	MG	2a	1781	1/1	0.91	0.19	67,67,67,67	0
56	MG	1a	1603	1/1	0.91	0.12	70,70,70,70	0
56	MG	1A	3501	1/1	0.91	0.37	72,72,72,72	0
56	MG	1A	3681	1/1	0.91	0.24	41,41,41,41	0
56	MG	1a	1794	1/1	0.91	0.13	64,64,64,64	0
56	MG	1A	3128	1/1	0.91	0.27	45,45,45,45	0
56	MG	1A	3503	1/1	0.91	0.42	51,51,51,51	0
56	MG	1A	3321	1/1	0.91	0.49	70,70,70,70	0
56	MG	2a	1793	1/1	0.91	0.15	67,67,67,67	0
56	MG	1D	308	1/1	0.91	0.21	60,60,60,60	0
56	MG	1a	1805	1/1	0.91	0.16	61,61,61,61	0
56	MG	1A	3505	1/1	0.91	0.48	76,76,76,76	0
56	MG	2A	3428	1/1	0.91	0.25	67,67,67,67	0
56	MG	1A	3567	1/1	0.91	0.17	52,52,52,52	0
56	MG	1A	3506	1/1	0.91	0.45	56,56,56,56	0
56	MG	2A	3120	1/1	0.91	0.08	56,56,56,56	0
56	MG	1E	303	1/1	0.91	0.46	44,44,44,44	0
56	MG	1E	304	1/1	0.91	0.33	41,41,41,41	0
56	MG	2A	3438	1/1	0.91	0.14	60,60,60,60	0
56	MG	2D	301	1/1	0.91	0.79	54,54,54,54	0
56	MG	1A	3270	1/1	0.91	0.31	60,60,60,60	0
56	MG	2A	3441	1/1	0.91	0.12	77,77,77,77	0
56	MG	2A	3268	1/1	0.91	0.26	61,61,61,61	0
56	MG	1A	3841	1/1	0.91	0.15	37,37,37,37	0
56	MG	2A	3271	1/1	0.91	0.20	73,73,73,73	0
56	MG	2A	3272	1/1	0.91	0.24	73,73,73,73	0
56	MG	1A	3990	1/1	0.91	0.20	52,52,52,52	0
56	MG	1A	3570	1/1	0.91	0.40	52,52,52,52	0
56	MG	2A	3460	1/1	0.91	0.17	43,43,43,43	0
56	MG	1t	201	1/1	0.91	0.18	67,67,67,67	0
56	MG	2F	303	1/1	0.91	0.31	68,68,68,68	0
56	MG	1A	3207	1/1	0.91	0.15	65,65,65,65	0
56	MG	1A	3999	1/1	0.91	0.23	49,49,49,49	0
56	MG	1A	3845	1/1	0.91	0.22	33,33,33,33	0
56	MG	1a	1644	1/1	0.91	0.20	66,66,66,66	0
59	ZN	14	102	1/1	0.91	0.06	123,123,123,123	0
56	MG	2P	202	1/1	0.91	0.19	65,65,65,65	0
56	MG	2A	3473	1/1	0.91	0.18	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1a	1645	1/1	0.91	0.19	64,64,64,64	0
56	MG	1A	3577	1/1	0.92	0.22	59,59,59,59	0
56	MG	1V	203	1/1	0.92	0.68	44,44,44,44	0
56	MG	1A	3578	1/1	0.92	0.10	64,64,64,64	0
56	MG	1A	3217	1/1	0.92	0.28	62,62,62,62	0
56	MG	1A	3696	1/1	0.92	0.24	34,34,34,34	0
56	MG	2A	3187	1/1	0.92	0.30	69,69,69,69	0
56	MG	1A	3943	1/1	0.92	0.21	47,47,47,47	0
56	MG	1A	3091	1/1	0.92	0.24	64,64,64,64	0
56	MG	1a	1694	1/1	0.92	0.17	61,61,61,61	0
56	MG	1X	103	1/1	0.92	0.23	53,53,53,53	0
56	MG	1A	3219	1/1	0.92	0.39	66,66,66,66	0
56	MG	1A	3946	1/1	0.92	0.25	46,46,46,46	0
56	MG	2A	3584	1/1	0.92	0.18	66,66,66,66	0
56	MG	2A	3195	1/1	0.92	0.46	66,66,66,66	0
56	MG	1A	3947	1/1	0.92	0.07	57,57,57,57	0
56	MG	1A	3054	1/1	0.92	0.28	42,42,42,42	0
56	MG	1A	3417	1/1	0.92	0.44	48,48,48,48	0
56	MG	1A	3710	1/1	0.92	0.20	59,59,59,59	0
56	MG	1A	3304	1/1	0.92	0.36	57,57,57,57	0
56	MG	2A	3593	1/1	0.92	0.24	67,67,67,67	0
56	MG	1A	3223	1/1	0.92	0.31	56,56,56,56	0
56	MG	2A	3349	1/1	0.92	0.17	63,63,63,63	0
56	MG	2A	3045	1/1	0.92	0.20	67,67,67,67	0
56	MG	1A	3958	1/1	0.92	0.18	37,37,37,37	0
56	MG	10	107	1/1	0.92	0.08	62,62,62,62	0
56	MG	1a	1706	1/1	0.92	0.33	57,57,57,57	0
56	MG	1A	3713	1/1	0.92	0.18	76,76,76,76	0
56	MG	2A	3208	1/1	0.92	0.43	48,48,48,48	0
56	MG	1a	1709	1/1	0.92	0.13	44,44,44,44	0
56	MG	2A	3608	1/1	0.92	0.15	52,52,52,52	0
56	MG	1A	3606	1/1	0.92	0.10	27,27,27,27	0
56	MG	1A	3835	1/1	0.92	0.27	43,43,43,43	0
56	MG	1A	3048	1/1	0.92	0.23	34,34,34,34	0
56	MG	1A	3166	1/1	0.92	0.21	46,46,46,46	0
56	MG	2a	1650	1/1	0.92	0.12	87,87,87,87	0
56	MG	2A	3616	1/1	0.92	0.28	60,60,60,60	0
56	MG	2A	3618	1/1	0.92	0.21	71,71,71,71	0
56	MG	12	102	1/1	0.92	0.34	50,50,50,50	0
56	MG	1A	3049	1/1	0.92	0.28	35,35,35,35	0
56	MG	2A	3621	1/1	0.92	0.38	90,90,90,90	0
56	MG	1A	3496	1/1	0.92	0.29	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1a	1718	1/1	0.92	0.12	69,69,69,69	0
56	MG	1a	1719	1/1	0.92	0.25	63,63,63,63	0
56	MG	2A	3629	1/1	0.92	0.30	59,59,59,59	0
56	MG	2a	1665	1/1	0.92	0.25	69,69,69,69	0
56	MG	2A	3222	1/1	0.92	0.26	70,70,70,70	0
56	MG	15	106	1/1	0.92	0.41	48,48,48,48	0
56	MG	1A	3253	1/1	0.92	0.22	81,81,81,81	0
56	MG	1A	3984	1/1	0.92	0.09	57,57,57,57	0
56	MG	1A	3985	1/1	0.92	0.14	57,57,57,57	0
56	MG	1A	3335	1/1	0.92	0.36	49,49,49,49	0
56	MG	1D	309	1/1	0.92	0.48	32,32,32,32	0
56	MG	2A	3649	1/1	0.92	0.26	63,63,63,63	0
56	MG	1A	3989	1/1	0.92	0.18	32,32,32,32	0
56	MG	2A	3384	1/1	0.92	0.47	58,58,58,58	0
56	MG	1A	3731	1/1	0.92	0.26	62,62,62,62	0
56	MG	1A	3856	1/1	0.92	0.16	74,74,74,74	0
56	MG	2a	1683	1/1	0.92	0.10	88,88,88,88	0
56	MG	1a	1753	1/1	0.92	0.09	81,81,81,81	0
56	MG	1E	301	1/1	0.92	0.42	47,47,47,47	0
56	MG	2A	3660	1/1	0.92	0.67	93,93,93,93	0
56	MG	1a	1757	1/1	0.92	0.16	78,78,78,78	0
56	MG	2A	3392	1/1	0.92	0.28	81,81,81,81	0
56	MG	1E	302	1/1	0.92	0.20	55,55,55,55	0
56	MG	1a	1759	1/1	0.92	0.24	87,87,87,87	0
56	MG	1A	3994	1/1	0.92	0.30	45,45,45,45	0
56	MG	1A	3549	1/1	0.92	0.08	67,67,67,67	0
56	MG	1a	1614	1/1	0.92	0.11	72,72,72,72	0
56	MG	2A	3679	1/1	0.92	0.17	54,54,54,54	0
56	MG	2A	3681	1/1	0.92	0.07	63,63,63,63	0
56	MG	1A	3629	1/1	0.92	0.06	49,49,49,49	0
56	MG	1a	1769	1/1	0.92	0.10	65,65,65,65	0
56	MG	1a	1782	1/1	0.92	0.11	50,50,50,50	0
56	MG	2a	1708	1/1	0.92	0.21	91,91,91,91	0
56	MG	2A	3691	1/1	0.92	0.23	59,59,59,59	0
56	MG	2a	1710	1/1	0.92	0.28	66,66,66,66	0
56	MG	2A	3406	1/1	0.92	0.09	65,65,65,65	0
56	MG	2A	3693	1/1	0.92	0.10	43,43,43,43	0
56	MG	2A	3694	1/1	0.92	0.19	69,69,69,69	0
56	MG	1a	1619	1/1	0.92	0.10	61,61,61,61	0
56	MG	1A	3367	1/1	0.92	0.36	29,29,29,29	0
56	MG	1a	1791	1/1	0.92	0.20	72,72,72,72	0
56	MG	1a	1625	1/1	0.92	0.14	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1E	311	1/1	0.92	0.23	27,27,27,27	0
56	MG	2a	1719	1/1	0.92	0.31	82,82,82,82	0
56	MG	1a	1627	1/1	0.92	0.19	65,65,65,65	0
56	MG	2a	1722	1/1	0.92	0.41	54,54,54,54	0
56	MG	2A	3107	1/1	0.92	0.14	58,58,58,58	0
56	MG	1a	1797	1/1	0.92	0.20	67,67,67,67	0
56	MG	2A	3721	1/1	0.92	0.12	44,44,44,44	0
56	MG	1A	3744	1/1	0.92	0.22	28,28,28,28	0
56	MG	1F	302	1/1	0.92	0.24	35,35,35,35	0
56	MG	1A	3370	1/1	0.92	0.28	59,59,59,59	0
56	MG	1A	3753	1/1	0.92	0.17	45,45,45,45	0
56	MG	2A	3118	1/1	0.92	0.27	59,59,59,59	0
56	MG	1A	3555	1/1	0.92	0.27	38,38,38,38	0
56	MG	1A	4007	1/1	0.92	0.19	28,28,28,28	0
56	MG	2a	1736	1/1	0.92	0.32	83,83,83,83	0
56	MG	1A	3881	1/1	0.92	0.16	47,47,47,47	0
56	MG	1A	3464	1/1	0.92	0.43	53,53,53,53	0
56	MG	1G	202	1/1	0.92	0.22	62,62,62,62	0
56	MG	2A	3748	1/1	0.92	0.27	54,54,54,54	0
56	MG	2A	3124	1/1	0.92	0.20	48,48,48,48	0
56	MG	1A	3123	1/1	0.92	0.50	42,42,42,42	0
56	MG	2A	3269	1/1	0.92	0.10	74,74,74,74	0
56	MG	2a	1748	1/1	0.92	0.12	71,71,71,71	0
56	MG	2a	1749	1/1	0.92	0.19	84,84,84,84	0
56	MG	1a	1642	1/1	0.92	0.17	64,64,64,64	0
56	MG	2A	3757	1/1	0.92	0.14	71,71,71,71	0
56	MG	1l	202	1/1	0.92	0.18	72,72,72,72	0
56	MG	1G	204	1/1	0.92	0.14	75,75,75,75	0
56	MG	1A	3466	1/1	0.92	0.29	38,38,38,38	0
56	MG	2A	3132	1/1	0.92	0.27	55,55,55,55	0
56	MG	1A	3041	1/1	0.92	0.17	35,35,35,35	0
56	MG	1A	3765	1/1	0.92	0.16	69,69,69,69	0
56	MG	2A	3451	1/1	0.92	0.16	68,68,68,68	0
56	MG	2A	3278	1/1	0.92	0.10	91,91,91,91	0
56	MG	1A	3111	1/1	0.92	0.20	39,39,39,39	0
56	MG	1A	3649	1/1	0.92	0.21	37,37,37,37	0
56	MG	2A	3281	1/1	0.92	0.32	67,67,67,67	0
56	MG	2A	3137	1/1	0.92	0.18	66,66,66,66	0
56	MG	2B	211	1/1	0.92	0.43	84,84,84,84	0
56	MG	2A	3139	1/1	0.92	0.14	41,41,41,41	0
56	MG	1O	202	1/1	0.92	0.38	56,56,56,56	0
56	MG	2A	3286	1/1	0.92	0.35	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	2a	1785	1/1	0.92	0.13	80,80,80,80	0
56	MG	1A	3052	1/1	0.92	0.30	56,56,56,56	0
56	MG	1A	3904	1/1	0.92	0.22	76,76,76,76	0
56	MG	2B	218	1/1	0.92	0.18	80,80,80,80	0
56	MG	2A	3289	1/1	0.92	0.23	71,71,71,71	0
56	MG	1A	3178	1/1	0.92	0.27	28,28,28,28	0
56	MG	1P	202	1/1	0.92	0.44	42,42,42,42	0
56	MG	1a	1659	1/1	0.92	0.36	62,62,62,62	0
56	MG	1A	3015	1/1	0.92	0.29	40,40,40,40	0
56	MG	1A	3659	1/1	0.92	0.09	50,50,50,50	0
56	MG	1A	4036	1/1	0.92	0.39	64,64,64,64	0
56	MG	1a	1663	1/1	0.92	0.26	54,54,54,54	0
56	MG	1A	3114	1/1	0.92	0.30	54,54,54,54	0
56	MG	2A	3501	1/1	0.92	0.19	80,80,80,80	0
56	MG	2A	3503	1/1	0.92	0.16	41,41,41,41	0
56	MG	2a	1811	1/1	0.92	0.11	91,91,91,91	0
56	MG	1A	3351	1/1	0.92	0.29	62,62,62,62	0
56	MG	2A	3300	1/1	0.92	0.10	74,74,74,74	0
56	MG	1A	4042	1/1	0.92	0.29	75,75,75,75	0
56	MG	2A	3303	1/1	0.92	0.19	71,71,71,71	0
56	MG	1A	3115	1/1	0.92	0.51	44,44,44,44	0
56	MG	1A	3791	1/1	0.92	0.10	55,55,55,55	0
56	MG	1A	3923	1/1	0.92	0.16	27,27,27,27	0
56	MG	1A	3924	1/1	0.92	0.23	66,66,66,66	0
56	MG	2A	3309	1/1	0.92	0.23	82,82,82,82	0
56	MG	1A	3476	1/1	0.92	0.18	62,62,62,62	0
56	MG	2A	3533	1/1	0.92	0.23	62,62,62,62	0
56	MG	1A	3798	1/1	0.92	0.17	63,63,63,63	0
56	MG	2V	201	1/1	0.92	0.78	57,57,57,57	0
56	MG	1A	3295	1/1	0.92	0.54	65,65,65,65	0
56	MG	2A	3171	1/1	0.92	0.20	72,72,72,72	0
56	MG	1A	3803	1/1	0.92	0.18	69,69,69,69	0
56	MG	1A	3157	1/1	0.92	0.17	57,57,57,57	0
56	MG	1A	3576	1/1	0.92	0.44	66,66,66,66	0
56	MG	2a	1602	1/1	0.92	0.14	88,88,88,88	0
56	MG	1a	1683	1/1	0.92	0.28	52,52,52,52	0
56	MG	2A	3562	1/1	0.92	0.22	42,42,42,42	0
56	MG	1A	3019	1/1	0.93	0.26	55,55,55,55	0
56	MG	1A	3055	1/1	0.93	0.29	56,56,56,56	0
56	MG	1A	3220	1/1	0.93	0.11	49,49,49,49	0
56	MG	1a	1690	1/1	0.93	0.35	77,77,77,77	0
56	MG	1A	3647	1/1	0.93	0.14	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1A	3022	1/1	0.93	0.17	50,50,50,50	0
56	MG	1A	4046	1/1	0.93	0.24	56,56,56,56	0
56	MG	1A	3770	1/1	0.93	0.20	22,22,22,22	0
56	MG	1V	205	1/1	0.93	0.37	56,56,56,56	0
56	MG	1A	4048	1/1	0.93	0.22	66,66,66,66	0
56	MG	2A	3592	1/1	0.93	0.21	58,58,58,58	0
56	MG	2a	1617	1/1	0.93	0.35	79,79,79,79	0
56	MG	1A	3771	1/1	0.93	0.11	45,45,45,45	0
56	MG	1W	205	1/1	0.93	0.34	47,47,47,47	0
56	MG	1A	3090	1/1	0.93	0.23	60,60,60,60	0
56	MG	1A	4051	1/1	0.93	0.11	71,71,71,71	0
56	MG	1A	3190	1/1	0.93	0.38	38,38,38,38	0
56	MG	1A	4053	1/1	0.93	0.21	66,66,66,66	0
56	MG	2a	1626	1/1	0.93	0.23	72,72,72,72	0
56	MG	1A	3655	1/1	0.93	0.22	60,60,60,60	0
56	MG	1A	3192	1/1	0.93	0.21	58,58,58,58	0
56	MG	2A	3055	1/1	0.93	0.17	78,78,78,78	0
56	MG	2A	3604	1/1	0.93	0.19	63,63,63,63	0
56	MG	1A	3195	1/1	0.93	0.47	42,42,42,42	0
56	MG	1a	1708	1/1	0.93	0.12	52,52,52,52	0
56	MG	1A	3925	1/1	0.93	0.27	66,66,66,66	0
56	MG	2A	3611	1/1	0.93	0.10	80,80,80,80	0
56	MG	1A	3660	1/1	0.93	0.16	35,35,35,35	0
56	MG	1A	3325	1/1	0.93	0.20	62,62,62,62	0
56	MG	1A	3671	1/1	0.93	0.20	32,32,32,32	0
56	MG	1A	3118	1/1	0.93	0.53	55,55,55,55	0
56	MG	2A	3617	1/1	0.93	0.11	77,77,77,77	0
56	MG	2A	3066	1/1	0.93	0.47	55,55,55,55	0
56	MG	1A	3931	1/1	0.93	0.23	69,69,69,69	0
56	MG	1B	206	1/1	0.93	0.40	53,53,53,53	0
56	MG	1A	3676	1/1	0.93	0.15	27,27,27,27	0
56	MG	2A	3379	1/1	0.93	0.96	52,52,52,52	0
56	MG	1A	3229	1/1	0.93	0.69	42,42,42,42	0
56	MG	2A	3626	1/1	0.93	0.18	75,75,75,75	0
56	MG	1A	3230	1/1	0.93	0.20	52,52,52,52	0
56	MG	1A	3936	1/1	0.93	0.13	70,70,70,70	0
56	MG	1A	3329	1/1	0.93	0.23	51,51,51,51	0
56	MG	1A	3201	1/1	0.93	0.23	31,31,31,31	0
56	MG	1A	3331	1/1	0.93	0.16	51,51,51,51	0
56	MG	2a	1660	1/1	0.93	0.18	62,62,62,62	0
56	MG	1B	214	1/1	0.93	0.29	66,66,66,66	0
56	MG	1A	3942	1/1	0.93	0.23	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1A	3684	1/1	0.93	0.13	76,76,76,76	0
56	MG	1A	3369	1/1	0.93	0.30	55,55,55,55	0
56	MG	1A	3811	1/1	0.93	0.09	59,59,59,59	0
56	MG	1a	1752	1/1	0.93	0.16	64,64,64,64	0
56	MG	2A	3651	1/1	0.93	0.18	60,60,60,60	0
56	MG	2A	3086	1/1	0.93	0.21	73,73,73,73	0
56	MG	2A	3087	1/1	0.93	0.19	81,81,81,81	0
56	MG	2A	3656	1/1	0.93	0.14	76,76,76,76	0
56	MG	1A	3444	1/1	0.93	0.37	65,65,65,65	0
56	MG	2A	3090	1/1	0.93	0.15	68,68,68,68	0
56	MG	2A	3402	1/1	0.93	0.11	66,66,66,66	0
56	MG	2A	3403	1/1	0.93	0.18	69,69,69,69	0
56	MG	1A	3589	1/1	0.93	0.20	47,47,47,47	0
56	MG	1B	227	1/1	0.93	0.28	48,48,48,48	0
56	MG	1A	3590	1/1	0.93	0.27	58,58,58,58	0
56	MG	1A	3815	1/1	0.93	0.19	48,48,48,48	0
56	MG	1A	3816	1/1	0.93	0.21	21,21,21,21	0
56	MG	2A	3098	1/1	0.93	0.53	64,64,64,64	0
56	MG	2A	3671	1/1	0.93	0.17	66,66,66,66	0
56	MG	2A	3672	1/1	0.93	0.12	74,74,74,74	0
56	MG	1A	3818	1/1	0.93	0.10	70,70,70,70	0
56	MG	1a	1764	1/1	0.93	0.20	80,80,80,80	0
56	MG	2A	3102	1/1	0.93	0.24	52,52,52,52	0
56	MG	2a	1695	1/1	0.93	0.06	76,76,76,76	0
56	MG	1A	3532	1/1	0.93	0.17	42,42,42,42	0
56	MG	1A	3698	1/1	0.93	0.18	59,59,59,59	0
56	MG	2A	3686	1/1	0.93	0.43	74,74,74,74	0
56	MG	1D	307	1/1	0.93	0.35	50,50,50,50	0
56	MG	1a	1772	1/1	0.93	0.17	55,55,55,55	0
56	MG	1a	1615	1/1	0.93	0.12	50,50,50,50	0
56	MG	2a	1705	1/1	0.93	0.11	63,63,63,63	0
56	MG	1a	1616	1/1	0.93	0.13	62,62,62,62	0
56	MG	1A	3534	1/1	0.93	0.26	76,76,76,76	0
56	MG	2A	3421	1/1	0.93	0.48	65,65,65,65	0
56	MG	2A	3110	1/1	0.93	0.18	45,45,45,45	0
56	MG	2A	3705	1/1	0.93	0.15	83,83,83,83	0
56	MG	2A	3111	1/1	0.93	0.27	53,53,53,53	0
56	MG	1A	3598	1/1	0.93	0.22	34,34,34,34	0
56	MG	1a	1623	1/1	0.93	0.14	59,59,59,59	0
56	MG	2A	3712	1/1	0.93	0.17	56,56,56,56	0
56	MG	1A	3600	1/1	0.93	0.21	35,35,35,35	0
56	MG	1A	3074	1/1	0.93	0.19	35,35,35,35	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1a	1795	1/1	0.93	0.09	55,55,55,55	0
56	MG	1A	3970	1/1	0.93	0.13	72,72,72,72	0
56	MG	2A	3435	1/1	0.93	0.20	45,45,45,45	0
56	MG	1a	1798	1/1	0.93	0.16	72,72,72,72	0
56	MG	1A	3971	1/1	0.93	0.09	62,62,62,62	0
56	MG	1A	3084	1/1	0.93	0.22	42,42,42,42	0
56	MG	1A	3486	1/1	0.93	0.16	78,78,78,78	0
56	MG	1A	3979	1/1	0.93	0.20	52,52,52,52	0
56	MG	1A	3980	1/1	0.93	0.23	42,42,42,42	0
56	MG	1E	307	1/1	0.93	0.24	60,60,60,60	0
56	MG	1A	3981	1/1	0.93	0.24	27,27,27,27	0
56	MG	2a	1730	1/1	0.93	0.32	66,66,66,66	0
56	MG	1A	3235	1/1	0.93	0.35	39,39,39,39	0
56	MG	1E	312	1/1	0.93	0.28	67,67,67,67	0
56	MG	2A	3282	1/1	0.93	0.28	62,62,62,62	0
56	MG	1A	3834	1/1	0.93	0.35	45,45,45,45	0
56	MG	1A	3714	1/1	0.93	0.20	53,53,53,53	0
56	MG	1A	3107	1/1	0.93	0.49	41,41,41,41	0
56	MG	1F	304	1/1	0.93	0.18	49,49,49,49	0
56	MG	2A	3759	1/1	0.93	0.16	66,66,66,66	0
56	MG	2A	3760	1/1	0.93	0.27	64,64,64,64	0
56	MG	2A	3761	1/1	0.93	0.12	78,78,78,78	0
56	MG	1A	3716	1/1	0.93	0.25	36,36,36,36	0
56	MG	1A	3842	1/1	0.93	0.18	50,50,50,50	0
56	MG	1A	3337	1/1	0.93	0.36	47,47,47,47	0
56	MG	2a	1750	1/1	0.93	0.12	69,69,69,69	0
56	MG	1A	3085	1/1	0.93	0.58	37,37,37,37	0
56	MG	2A	3771	1/1	0.93	0.10	75,75,75,75	0
56	MG	1A	3171	1/1	0.93	0.23	54,54,54,54	0
56	MG	1A	3846	1/1	0.93	0.25	31,31,31,31	0
56	MG	2A	3483	1/1	0.93	0.15	46,46,46,46	0
56	MG	2a	1763	1/1	0.93	0.21	52,52,52,52	0
56	MG	1A	3086	1/1	0.93	0.40	38,38,38,38	0
56	MG	2a	1766	1/1	0.93	0.20	81,81,81,81	0
56	MG	1A	3125	1/1	0.93	0.89	46,46,46,46	0
56	MG	1I	201	1/1	0.93	0.08	77,77,77,77	0
56	MG	2a	1772	1/1	0.93	0.19	82,82,82,82	0
56	MG	2A	3494	1/1	0.93	0.21	37,37,37,37	0
56	MG	1a	1656	1/1	0.93	0.24	68,68,68,68	0
56	MG	2a	1775	1/1	0.93	0.29	71,71,71,71	0
56	MG	1A	3850	1/1	0.93	0.21	44,44,44,44	0
56	MG	2a	1777	1/1	0.93	0.19	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1A	3724	1/1	0.93	0.20	67,67,67,67	0
56	MG	1A	3725	1/1	0.93	0.14	46,46,46,46	0
56	MG	2A	3301	1/1	0.93	0.24	43,43,43,43	0
56	MG	1A	3859	1/1	0.93	0.12	61,61,61,61	0
56	MG	1A	3628	1/1	0.93	0.18	46,46,46,46	0
56	MG	1A	3863	1/1	0.93	0.14	46,46,46,46	0
56	MG	2A	3515	1/1	0.93	0.24	55,55,55,55	0
56	MG	2A	3163	1/1	0.93	0.38	68,68,68,68	0
56	MG	1A	3730	1/1	0.93	0.22	61,61,61,61	0
56	MG	1A	3497	1/1	0.93	0.33	62,62,62,62	0
56	MG	2D	308	1/1	0.93	0.25	76,76,76,76	0
56	MG	1A	3344	1/1	0.93	0.19	47,47,47,47	0
56	MG	1O	206	1/1	0.93	0.17	68,68,68,68	0
56	MG	1A	3631	1/1	0.93	0.21	43,43,43,43	0
56	MG	2A	3312	1/1	0.93	0.40	72,72,72,72	0
56	MG	1P	205	1/1	0.93	0.18	65,65,65,65	0
56	MG	2E	307	1/1	0.93	0.14	38,38,38,38	0
56	MG	2A	3536	1/1	0.93	0.16	72,72,72,72	0
56	MG	1A	3741	1/1	0.93	0.25	55,55,55,55	0
56	MG	2A	3542	1/1	0.93	0.28	46,46,46,46	0
56	MG	2A	3546	1/1	0.93	0.19	57,57,57,57	0
56	MG	2a	1807	1/1	0.93	0.19	68,68,68,68	0
56	MG	2A	3172	1/1	0.93	0.14	64,64,64,64	0
56	MG	1A	4022	1/1	0.93	0.21	43,43,43,43	0
56	MG	2A	3176	1/1	0.93	0.09	63,63,63,63	0
56	MG	2A	3177	1/1	0.93	0.16	81,81,81,81	0
56	MG	1A	3149	1/1	0.93	0.72	51,51,51,51	0
56	MG	2f	201	1/1	0.93	0.16	52,52,52,52	0
56	MG	2A	3557	1/1	0.93	0.29	68,68,68,68	0
56	MG	1A	3097	1/1	0.93	0.10	42,42,42,42	0
56	MG	2Q	203	1/1	0.93	0.33	68,68,68,68	0
56	MG	2j	201	1/1	0.93	0.11	81,81,81,81	0
56	MG	2k	201	1/1	0.93	0.11	67,67,67,67	0
56	MG	1a	1675	1/1	0.93	0.19	67,67,67,67	0
56	MG	2A	3322	1/1	0.93	0.25	65,65,65,65	0
56	MG	1A	3746	1/1	0.93	0.19	29,29,29,29	0
56	MG	2v	101	1/1	0.93	0.19	87,87,87,87	0
56	MG	1A	3749	1/1	0.93	0.29	74,74,74,74	0
56	MG	2V	202	1/1	0.93	0.38	72,72,72,72	0
56	MG	1A	3099	1/1	0.93	0.22	44,44,44,44	0
56	MG	1a	1680	1/1	0.93	0.28	69,69,69,69	0
56	MG	2l	103	1/1	0.93	0.23	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	23	102	1/1	0.93	0.23	59,59,59,59	0
56	MG	1A	3895	1/1	0.93	0.26	60,60,60,60	0
56	MG	1A	3896	1/1	0.93	0.21	41,41,41,41	0
56	MG	28	101	1/1	0.93	0.19	67,67,67,67	0
56	MG	1A	3637	1/1	0.93	0.21	26,26,26,26	0
56	MG	2A	3579	1/1	0.93	0.19	77,77,77,77	0
56	MG	1A	3155	1/1	0.93	0.53	47,47,47,47	0
56	MG	1A	3875	1/1	0.94	0.24	47,47,47,47	0
56	MG	2A	3355	1/1	0.94	0.24	61,61,61,61	0
56	MG	1A	3241	1/1	0.94	0.37	58,58,58,58	0
56	MG	1a	1720	1/1	0.94	0.18	74,74,74,74	0
56	MG	2A	3358	1/1	0.94	0.34	65,65,65,65	0
56	MG	2A	3590	1/1	0.94	0.15	49,49,49,49	0
56	MG	1a	1722	1/1	0.94	0.23	65,65,65,65	0
56	MG	1A	3760	1/1	0.94	0.07	45,45,45,45	0
56	MG	2a	1610	1/1	0.94	0.09	75,75,75,75	0
56	MG	1a	1731	1/1	0.94	0.28	52,52,52,52	0
56	MG	1A	3879	1/1	0.94	0.15	73,73,73,73	0
56	MG	1A	3083	1/1	0.94	0.34	48,48,48,48	0
56	MG	2A	3214	1/1	0.94	0.34	53,53,53,53	0
56	MG	1a	1736	1/1	0.94	0.12	68,68,68,68	0
56	MG	2A	3069	1/1	0.94	0.19	38,38,38,38	0
56	MG	1a	1607	1/1	0.94	0.28	59,59,59,59	0
56	MG	1E	313	1/1	0.94	0.17	55,55,55,55	0
56	MG	1a	1609	1/1	0.94	0.12	65,65,65,65	0
56	MG	2A	3074	1/1	0.94	0.66	57,57,57,57	0
56	MG	1a	1611	1/1	0.94	0.12	62,62,62,62	0
56	MG	1a	1748	1/1	0.94	0.18	63,63,63,63	0
56	MG	1A	3883	1/1	0.94	0.10	45,45,45,45	0
56	MG	1A	3211	1/1	0.94	0.66	43,43,43,43	0
56	MG	1A	4008	1/1	0.94	0.16	49,49,49,49	0
56	MG	1A	3365	1/1	0.94	0.35	69,69,69,69	0
56	MG	1A	3769	1/1	0.94	0.21	28,28,28,28	0
56	MG	1A	3280	1/1	0.94	0.69	43,43,43,43	0
56	MG	1A	3669	1/1	0.94	0.24	46,46,46,46	0
56	MG	1A	3013	1/1	0.94	0.31	31,31,31,31	0
56	MG	1A	3897	1/1	0.94	0.22	65,65,65,65	0
56	MG	1A	3673	1/1	0.94	0.31	30,30,30,30	0
56	MG	1A	3245	1/1	0.94	0.35	52,52,52,52	0
56	MG	2A	3089	1/1	0.94	0.45	60,60,60,60	0
56	MG	1a	1629	1/1	0.94	0.16	69,69,69,69	0
56	MG	1a	1630	1/1	0.94	0.31	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
56	MG	1A	4027	1/1	0.94	0.24	61,61,61,61	0
56	MG	2A	3094	1/1	0.94	0.19	66,66,66,66	0
56	MG	2A	3632	1/1	0.94	0.24	45,45,45,45	0
56	MG	2A	3633	1/1	0.94	0.16	59,59,59,59	0
56	MG	1A	3778	1/1	0.94	0.14	44,44,44,44	0
56	MG	2A	3636	1/1	0.94	0.25	65,65,65,65	0
56	MG	2A	3245	1/1	0.94	0.28	72,72,72,72	0
56	MG	1a	1778	1/1	0.94	0.23	65,65,65,65	0
56	MG	2a	1652	1/1	0.94	0.20	54,54,54,54	0
56	MG	1a	1633	1/1	0.94	0.21	27,27,27,27	0
56	MG	1A	3902	1/1	0.94	0.06	74,74,74,74	0
56	MG	2A	3645	1/1	0.94	0.11	72,72,72,72	0
56	MG	1a	1785	1/1	0.94	0.20	76,76,76,76	0
56	MG	1a	1788	1/1	0.94	0.18	63,63,63,63	0
56	MG	2A	3101	1/1	0.94	0.29	70,70,70,70	0
56	MG	2a	1661	1/1	0.94	0.15	58,58,58,58	0
56	MG	1A	3287	1/1	0.94	0.39	56,56,56,56	0
56	MG	1a	1790	1/1	0.94	0.27	61,61,61,61	0
56	MG	1A	3010	1/1	0.94	0.13	38,38,38,38	0
56	MG	1N	204	1/1	0.94	0.17	48,48,48,48	0
56	MG	1A	3177	1/1	0.94	0.22	32,32,32,32	0
56	MG	1A	3587	1/1	0.94	0.25	37,37,37,37	0
56	MG	1A	4035	1/1	0.94	0.29	58,58,58,58	0
56	MG	1A	3785	1/1	0.94	0.16	61,61,61,61	0
56	MG	1A	3144	1/1	0.94	0.29	40,40,40,40	0
56	MG	2a	1671	1/1	0.94	0.16	65,65,65,65	0
56	MG	1A	3121	1/1	0.94	0.23	54,54,54,54	0
56	MG	2A	3112	1/1	0.94	0.12	71,71,71,71	0
56	MG	2a	1677	1/1	0.94	0.27	78,78,78,78	0
56	MG	2A	3419	1/1	0.94	0.13	65,65,65,65	0
56	MG	2A	3113	1/1	0.94	0.20	64,64,64,64	0
56	MG	1A	3915	1/1	0.94	0.28	57,57,57,57	0
56	MG	1P	201	1/1	0.94	0.49	40,40,40,40	0
56	MG	2A	3423	1/1	0.94	0.20	69,69,69,69	0
56	MG	1A	3419	1/1	0.94	0.28	48,48,48,48	0
56	MG	2A	3675	1/1	0.94	0.22	49,49,49,49	0
56	MG	1a	1804	1/1	0.94	0.14	66,66,66,66	0
56	MG	2a	1687	1/1	0.94	0.14	57,57,57,57	0
56	MG	2A	3426	1/1	0.94	0.44	70,70,70,70	0
56	MG	2a	1689	1/1	0.94	0.15	70,70,70,70	0
56	MG	2A	3427	1/1	0.94	0.24	65,65,65,65	0
56	MG	1A	3250	1/1	0.94	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
56	MG	1A	3796	1/1	0.94	0.28	51,51,51,51	0
56	MG	1A	3687	1/1	0.94	0.17	68,68,68,68	0
56	MG	1A	3376	1/1	0.94	0.99	53,53,53,53	0
56	MG	2A	3690	1/1	0.94	0.16	76,76,76,76	0
56	MG	2a	1696	1/1	0.94	0.14	75,75,75,75	0
56	MG	2A	3432	1/1	0.94	0.21	77,77,77,77	0
56	MG	1e	201	1/1	0.94	0.25	76,76,76,76	0
56	MG	2a	1699	1/1	0.94	0.23	69,69,69,69	0
56	MG	1A	3802	1/1	0.94	0.14	58,58,58,58	0
56	MG	1a	1655	1/1	0.94	0.16	60,60,60,60	0
56	MG	2A	3695	1/1	0.94	0.06	87,87,87,87	0
56	MG	1Q	206	1/1	0.94	0.33	43,43,43,43	0
56	MG	2a	1704	1/1	0.94	0.41	80,80,80,80	0
56	MG	2A	3700	1/1	0.94	0.12	54,54,54,54	0
56	MG	2A	3701	1/1	0.94	0.12	78,78,78,78	0
56	MG	2A	3702	1/1	0.94	0.26	74,74,74,74	0
56	MG	1A	3422	1/1	0.94	0.51	43,43,43,43	0
56	MG	1a	1658	1/1	0.94	0.10	61,61,61,61	0
56	MG	2A	3707	1/1	0.94	0.11	77,77,77,77	0
56	MG	2A	3708	1/1	0.94	0.15	53,53,53,53	0
56	MG	1R	203	1/1	0.94	0.25	46,46,46,46	0
56	MG	1A	3294	1/1	0.94	0.25	46,46,46,46	0
56	MG	1A	3067	1/1	0.94	0.18	66,66,66,66	0
56	MG	1A	3044	1/1	0.94	0.18	40,40,40,40	0
56	MG	2A	3716	1/1	0.94	0.22	56,56,56,56	0
56	MG	1T	201	1/1	0.94	0.60	51,51,51,51	0
56	MG	1w	103	1/1	0.94	0.16	79,79,79,79	0
56	MG	1A	3150	1/1	0.94	0.38	44,44,44,44	0
56	MG	2A	3456	1/1	0.94	0.12	37,37,37,37	0
56	MG	1A	3701	1/1	0.94	0.24	63,63,63,63	0
56	MG	1A	3028	1/1	0.94	0.38	36,36,36,36	0
56	MG	2A	3725	1/1	0.94	0.15	68,68,68,68	0
56	MG	1A	3608	1/1	0.94	0.15	25,25,25,25	0
56	MG	1A	3004	1/1	0.94	0.20	37,37,37,37	0
56	MG	2A	3729	1/1	0.94	0.14	75,75,75,75	0
56	MG	2A	3469	1/1	0.94	0.19	51,51,51,51	0
56	MG	2A	3734	1/1	0.94	0.15	47,47,47,47	0
56	MG	2A	3737	1/1	0.94	0.16	74,74,74,74	0
56	MG	2a	1732	1/1	0.94	0.23	66,66,66,66	0
56	MG	1A	3938	1/1	0.94	0.21	26,26,26,26	0
56	MG	2a	1734	1/1	0.94	0.13	71,71,71,71	0
56	MG	2A	3145	1/1	0.94	0.16	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
56	MG	2A	3741	1/1	0.94	0.13	27,27,27,27	0
56	MG	2A	3742	1/1	0.94	0.06	81,81,81,81	0
56	MG	1A	3256	1/1	0.94	0.23	49,49,49,49	0
56	MG	2A	3295	1/1	0.94	0.22	77,77,77,77	0
56	MG	1B	201	1/1	0.94	0.29	68,68,68,68	0
56	MG	1A	3614	1/1	0.94	0.13	52,52,52,52	0
56	MG	2A	3478	1/1	0.94	0.19	37,37,37,37	0
56	MG	2A	3479	1/1	0.94	0.19	57,57,57,57	0
56	MG	2a	1746	1/1	0.94	0.23	59,59,59,59	0
56	MG	1A	3615	1/1	0.94	0.23	41,41,41,41	0
56	MG	1A	3430	1/1	0.94	0.40	65,65,65,65	0
56	MG	1A	3076	1/1	0.94	0.26	51,51,51,51	0
56	MG	1A	3077	1/1	0.94	0.19	45,45,45,45	0
56	MG	1a	1678	1/1	0.94	0.17	69,69,69,69	0
56	MG	2a	1753	1/1	0.94	0.20	83,83,83,83	0
56	MG	1A	3626	1/1	0.94	0.31	63,63,63,63	0
56	MG	2A	3497	1/1	0.94	0.29	47,47,47,47	0
56	MG	2a	1759	1/1	0.94	0.14	76,76,76,76	0
56	MG	2A	3763	1/1	0.94	0.10	72,72,72,72	0
56	MG	2a	1761	1/1	0.94	0.15	64,64,64,64	0
56	MG	2a	1762	1/1	0.94	0.16	59,59,59,59	0
56	MG	1A	3191	1/1	0.94	0.27	41,41,41,41	0
56	MG	1a	1681	1/1	0.94	0.30	54,54,54,54	0
56	MG	2a	1765	1/1	0.94	0.13	67,67,67,67	0
56	MG	1A	3129	1/1	0.94	0.14	78,78,78,78	0
56	MG	2a	1769	1/1	0.94	0.21	54,54,54,54	0
56	MG	2A	3502	1/1	0.94	0.23	55,55,55,55	0
56	MG	1A	3092	1/1	0.94	0.22	59,59,59,59	0
56	MG	2A	3505	1/1	0.94	0.20	43,43,43,43	0
56	MG	2A	3012	1/1	0.94	0.21	55,55,55,55	0
56	MG	1A	3263	1/1	0.94	0.19	65,65,65,65	0
56	MG	1A	3439	1/1	0.94	0.41	46,46,46,46	0
56	MG	2A	3512	1/1	0.94	0.20	55,55,55,55	0
56	MG	1A	3632	1/1	0.94	0.21	56,56,56,56	0
56	MG	1A	3837	1/1	0.94	0.35	42,42,42,42	0
56	MG	1A	3489	1/1	0.94	0.27	52,52,52,52	0
56	MG	2A	3520	1/1	0.94	0.23	38,38,38,38	0
56	MG	1A	3078	1/1	0.94	0.31	35,35,35,35	0
56	MG	2A	3522	1/1	0.94	0.11	74,74,74,74	0
56	MG	1a	1692	1/1	0.94	0.28	69,69,69,69	0
56	MG	2A	3526	1/1	0.94	0.15	48,48,48,48	0
56	MG	2A	3527	1/1	0.94	0.16	86,86,86,86	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	2a	1786	1/1	0.94	0.14	71,71,71,71	0
56	MG	2A	3025	1/1	0.94	0.10	44,44,44,44	0
56	MG	1A	3966	1/1	0.94	0.25	42,42,42,42	0
56	MG	1A	3556	1/1	0.94	0.23	40,40,40,40	0
56	MG	1A	3732	1/1	0.94	0.20	19,19,19,19	0
56	MG	1A	3197	1/1	0.94	0.29	48,48,48,48	0
56	MG	2A	3538	1/1	0.94	0.16	39,39,39,39	0
56	MG	2A	3539	1/1	0.94	0.19	34,34,34,34	0
56	MG	10	106	1/1	0.94	0.12	53,53,53,53	0
56	MG	1A	3736	1/1	0.94	0.15	46,46,46,46	0
56	MG	2A	3545	1/1	0.94	0.07	76,76,76,76	0
56	MG	2E	306	1/1	0.94	0.08	67,67,67,67	0
56	MG	2A	3327	1/1	0.94	0.45	60,60,60,60	0
56	MG	1A	3738	1/1	0.94	0.27	38,38,38,38	0
56	MG	2A	3332	1/1	0.94	0.40	61,61,61,61	0
56	MG	1A	3198	1/1	0.94	0.13	47,47,47,47	0
56	MG	1A	3057	1/1	0.94	0.18	54,54,54,54	0
56	MG	1A	3314	1/1	0.94	0.18	59,59,59,59	0
56	MG	1A	3851	1/1	0.94	0.26	33,33,33,33	0
56	MG	2A	3337	1/1	0.94	0.29	65,65,65,65	0
56	MG	2O	201	1/1	0.94	0.12	67,67,67,67	0
56	MG	1A	3641	1/1	0.94	0.18	40,40,40,40	0
56	MG	2A	3339	1/1	0.94	0.49	69,69,69,69	0
56	MG	13	102	1/1	0.94	0.31	48,48,48,48	0
56	MG	1A	3020	1/1	0.94	0.21	49,49,49,49	0
56	MG	13	104	1/1	0.94	0.23	50,50,50,50	0
56	MG	1A	3081	1/1	0.94	0.30	39,39,39,39	0
56	MG	1A	3860	1/1	0.94	0.18	36,36,36,36	0
56	MG	2A	3575	1/1	0.94	0.26	66,66,66,66	0
56	MG	2t	201	1/1	0.94	0.17	57,57,57,57	0
56	MG	2U	201	1/1	0.94	0.72	60,60,60,60	0
56	MG	1A	3062	1/1	0.94	0.28	53,53,53,53	0
56	MG	1A	3139	1/1	0.94	0.56	46,46,46,46	0
56	MG	2A	3578	1/1	0.94	0.33	61,61,61,61	0
56	MG	2X	102	1/1	0.94	0.24	56,56,56,56	0
56	MG	18	104	1/1	0.94	0.15	57,57,57,57	0
56	MG	20	102	1/1	0.94	0.14	75,75,75,75	0
56	MG	21	102	1/1	0.94	0.09	65,65,65,65	0
56	MG	2y	102	1/1	0.94	0.12	88,88,88,88	0
56	MG	1A	3754	1/1	0.94	0.14	56,56,56,56	0
56	MG	1A	3652	1/1	0.94	0.14	36,36,36,36	0
56	MG	1A	3170	1/1	0.94	0.93	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1A	3870	1/1	0.94	0.38	46,46,46,46	0
56	MG	2A	3057	1/1	0.94	0.23	54,54,54,54	0
56	MG	1a	1620	1/1	0.95	0.21	50,50,50,50	0
56	MG	1A	4023	1/1	0.95	0.15	50,50,50,50	0
56	MG	1A	3259	1/1	0.95	0.32	74,74,74,74	0
56	MG	1A	3412	1/1	0.95	0.62	49,49,49,49	0
56	MG	2A	3235	1/1	0.95	0.32	80,80,80,80	0
56	MG	1A	3414	1/1	0.95	0.30	57,57,57,57	0
56	MG	1A	3914	1/1	0.95	0.32	63,63,63,63	0
56	MG	1A	3571	1/1	0.95	0.35	55,55,55,55	0
56	MG	1A	3445	1/1	0.95	0.35	60,60,60,60	0
56	MG	1a	1761	1/1	0.95	0.26	73,73,73,73	0
56	MG	1A	3817	1/1	0.95	0.22	48,48,48,48	0
56	MG	1a	1763	1/1	0.95	0.16	80,80,80,80	0
56	MG	1A	3922	1/1	0.95	0.30	64,64,64,64	0
56	MG	1a	1765	1/1	0.95	0.25	51,51,51,51	0
56	MG	2A	3634	1/1	0.95	0.28	70,70,70,70	0
56	MG	1A	3728	1/1	0.95	0.12	42,42,42,42	0
56	MG	1A	3729	1/1	0.95	0.21	64,64,64,64	0
56	MG	2A	3637	1/1	0.95	0.17	73,73,73,73	0
56	MG	1A	3821	1/1	0.95	0.33	30,30,30,30	0
56	MG	1A	4038	1/1	0.95	0.16	40,40,40,40	0
56	MG	1a	1774	1/1	0.95	0.25	64,64,64,64	0
56	MG	2a	1636	1/1	0.95	0.16	76,76,76,76	0
56	MG	2A	3251	1/1	0.95	0.29	66,66,66,66	0
56	MG	1a	1775	1/1	0.95	0.15	63,63,63,63	0
56	MG	2A	3646	1/1	0.95	0.19	39,39,39,39	0
56	MG	1A	3479	1/1	0.95	0.39	35,35,35,35	0
56	MG	1A	4040	1/1	0.95	0.17	33,33,33,33	0
56	MG	1a	1638	1/1	0.95	0.08	67,67,67,67	0
56	MG	1A	3203	1/1	0.95	0.15	22,22,22,22	0
56	MG	1a	1787	1/1	0.95	0.20	66,66,66,66	0
56	MG	2a	1647	1/1	0.95	0.23	75,75,75,75	0
56	MG	2A	3653	1/1	0.95	0.10	69,69,69,69	0
56	MG	1A	3648	1/1	0.95	0.12	25,25,25,25	0
56	MG	1A	3825	1/1	0.95	0.18	46,46,46,46	0
56	MG	1P	203	1/1	0.95	0.40	35,35,35,35	0
56	MG	1P	204	1/1	0.95	0.85	39,39,39,39	0
56	MG	1A	3826	1/1	0.95	0.27	50,50,50,50	0
56	MG	1P	206	1/1	0.95	0.14	43,43,43,43	0
56	MG	2a	1656	1/1	0.95	0.16	70,70,70,70	0
56	MG	1A	3522	1/1	0.95	0.51	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	2A	3664	1/1	0.95	0.21	38,38,38,38	0
56	MG	1A	3205	1/1	0.95	0.06	68,68,68,68	0
56	MG	1A	3526	1/1	0.95	0.22	53,53,53,53	0
56	MG	1a	1650	1/1	0.95	0.15	51,51,51,51	0
56	MG	1A	3579	1/1	0.95	0.24	56,56,56,56	0
56	MG	2A	3433	1/1	0.95	0.22	75,75,75,75	0
56	MG	1A	3832	1/1	0.95	0.38	44,44,44,44	0
56	MG	1A	3058	1/1	0.95	0.50	63,63,63,63	0
56	MG	1A	3583	1/1	0.95	0.17	33,33,33,33	0
56	MG	1A	3418	1/1	0.95	0.50	43,43,43,43	0
56	MG	2A	3116	1/1	0.95	0.16	67,67,67,67	0
56	MG	2A	3678	1/1	0.95	0.12	69,69,69,69	0
56	MG	2A	3440	1/1	0.95	0.22	65,65,65,65	0
56	MG	2A	3680	1/1	0.95	0.09	86,86,86,86	0
56	MG	1A	3039	1/1	0.95	0.77	43,43,43,43	0
56	MG	2A	3682	1/1	0.95	0.21	73,73,73,73	0
56	MG	2A	3442	1/1	0.95	0.19	39,39,39,39	0
56	MG	1S	201	1/1	0.95	0.22	58,58,58,58	0
56	MG	2A	3445	1/1	0.95	0.46	65,65,65,65	0
56	MG	2A	3687	1/1	0.95	0.07	87,87,87,87	0
56	MG	2A	3448	1/1	0.95	0.15	69,69,69,69	0
56	MG	1A	3530	1/1	0.95	0.28	53,53,53,53	0
56	MG	1A	3666	1/1	0.95	0.17	29,29,29,29	0
56	MG	1A	4057	1/1	0.95	0.20	61,61,61,61	0
56	MG	1A	3531	1/1	0.95	0.13	42,42,42,42	0
56	MG	1A	3096	1/1	0.95	0.34	44,44,44,44	0
56	MG	1A	3336	1/1	0.95	0.31	44,44,44,44	0
56	MG	1A	3593	1/1	0.95	0.16	40,40,40,40	0
56	MG	2A	3699	1/1	0.95	0.26	57,57,57,57	0
56	MG	2A	3458	1/1	0.95	0.16	37,37,37,37	0
56	MG	2A	3459	1/1	0.95	0.15	47,47,47,47	0
56	MG	1m	3001	1/1	0.95	0.08	65,65,65,65	0
56	MG	1A	3950	1/1	0.95	0.17	25,25,25,25	0
56	MG	2A	3704	1/1	0.95	0.06	89,89,89,89	0
56	MG	2A	3464	1/1	0.95	0.22	73,73,73,73	0
56	MG	2A	3465	1/1	0.95	0.19	56,56,56,56	0
56	MG	1A	3953	1/1	0.95	0.24	41,41,41,41	0
56	MG	1B	204	1/1	0.95	0.38	67,67,67,67	0
56	MG	1r	101	1/1	0.95	0.21	80,80,80,80	0
56	MG	1A	3060	1/1	0.95	0.18	59,59,59,59	0
56	MG	2A	3471	1/1	0.95	0.17	36,36,36,36	0
56	MG	1A	3007	1/1	0.95	0.19	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1A	3761	1/1	0.95	0.15	48,48,48,48	0
56	MG	1A	3849	1/1	0.95	0.14	56,56,56,56	0
56	MG	1A	3316	1/1	0.95	0.29	70,70,70,70	0
56	MG	2a	1707	1/1	0.95	0.13	67,67,67,67	0
56	MG	1W	203	1/1	0.95	0.30	51,51,51,51	0
56	MG	1a	1674	1/1	0.95	0.21	83,83,83,83	0
56	MG	1A	3368	1/1	0.95	0.48	59,59,59,59	0
56	MG	1A	3854	1/1	0.95	0.20	28,28,28,28	0
56	MG	2A	3726	1/1	0.95	0.10	55,55,55,55	0
56	MG	1A	3493	1/1	0.95	0.62	50,50,50,50	0
56	MG	1A	3008	1/1	0.95	0.16	29,29,29,29	0
56	MG	2A	3489	1/1	0.95	0.34	58,58,58,58	0
56	MG	2A	3730	1/1	0.95	0.15	43,43,43,43	0
56	MG	2A	3732	1/1	0.95	0.14	43,43,43,43	0
56	MG	1A	3064	1/1	0.95	0.31	65,65,65,65	0
56	MG	1x	109	1/1	0.95	0.14	72,72,72,72	0
56	MG	2A	3148	1/1	0.95	0.38	60,60,60,60	0
56	MG	1A	3546	1/1	0.95	0.33	61,61,61,61	0
56	MG	2A	3152	1/1	0.95	0.52	75,75,75,75	0
56	MG	1A	3460	1/1	0.95	0.33	45,45,45,45	0
56	MG	1x	114	1/1	0.95	0.16	66,66,66,66	0
56	MG	2A	3744	1/1	0.95	0.14	51,51,51,51	0
56	MG	2A	3308	1/1	0.95	0.14	78,78,78,78	0
56	MG	2A	3156	1/1	0.95	0.30	65,65,65,65	0
56	MG	1a	1682	1/1	0.95	0.28	52,52,52,52	0
56	MG	1X	106	1/1	0.95	0.20	72,72,72,72	0
56	MG	2A	3749	1/1	0.95	0.25	65,65,65,65	0
56	MG	1B	220	1/1	0.95	0.20	39,39,39,39	0
56	MG	2A	3753	1/1	0.95	0.17	60,60,60,60	0
56	MG	2A	3509	1/1	0.95	0.15	36,36,36,36	0
56	MG	2A	3510	1/1	0.95	0.21	63,63,63,63	0
56	MG	1A	3972	1/1	0.95	0.12	69,69,69,69	0
56	MG	1A	3175	1/1	0.95	0.30	37,37,37,37	0
56	MG	1A	3975	1/1	0.95	0.11	68,68,68,68	0
56	MG	10	102	1/1	0.95	0.19	51,51,51,51	0
56	MG	2A	3008	1/1	0.95	0.20	45,45,45,45	0
56	MG	1A	3976	1/1	0.95	0.33	71,71,71,71	0
56	MG	1A	3691	1/1	0.95	0.12	51,51,51,51	0
56	MG	1a	1691	1/1	0.95	0.27	80,80,80,80	0
56	MG	1B	228	1/1	0.95	0.26	80,80,80,80	0
56	MG	2A	3525	1/1	0.95	0.23	68,68,68,68	0
56	MG	2A	3769	1/1	0.95	0.19	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	2A	3770	1/1	0.95	0.25	54,54,54,54	0
56	MG	1A	3867	1/1	0.95	0.21	45,45,45,45	0
56	MG	1A	3692	1/1	0.95	0.29	75,75,75,75	0
56	MG	2A	3326	1/1	0.95	0.31	46,46,46,46	0
56	MG	2A	3529	1/1	0.95	0.23	71,71,71,71	0
56	MG	2A	3016	1/1	0.95	0.24	46,46,46,46	0
56	MG	2A	3328	1/1	0.95	0.29	57,57,57,57	0
56	MG	1A	3346	1/1	0.95	0.22	64,64,64,64	0
56	MG	2A	3018	1/1	0.95	0.40	43,43,43,43	0
56	MG	1A	3780	1/1	0.95	0.39	36,36,36,36	0
56	MG	2B	210	1/1	0.95	0.14	83,83,83,83	0
56	MG	1I	101	1/1	0.95	0.70	41,41,41,41	0
56	MG	1B	234	1/1	0.95	0.24	41,41,41,41	0
56	MG	2A	3541	1/1	0.95	0.19	51,51,51,51	0
56	MG	2a	1768	1/1	0.95	0.15	80,80,80,80	0
56	MG	2A	3024	1/1	0.95	0.57	52,52,52,52	0
56	MG	1D	303	1/1	0.95	0.17	27,27,27,27	0
56	MG	1I	105	1/1	0.95	0.18	62,62,62,62	0
56	MG	1A	3874	1/1	0.95	0.20	24,24,24,24	0
56	MG	1A	3297	1/1	0.95	0.24	38,38,38,38	0
56	MG	1A	3616	1/1	0.95	0.36	65,65,65,65	0
56	MG	2D	303	1/1	0.95	0.17	38,38,38,38	0
56	MG	2A	3551	1/1	0.95	0.10	45,45,45,45	0
56	MG	1A	3159	1/1	0.95	0.50	38,38,38,38	0
56	MG	2A	3553	1/1	0.95	0.31	52,52,52,52	0
56	MG	2A	3032	1/1	0.95	0.23	55,55,55,55	0
56	MG	1A	3784	1/1	0.95	0.36	54,54,54,54	0
56	MG	2A	3191	1/1	0.95	0.23	50,50,50,50	0
56	MG	1A	3299	1/1	0.95	0.28	56,56,56,56	0
56	MG	1A	3215	1/1	0.95	0.36	46,46,46,46	0
56	MG	1A	3625	1/1	0.95	0.22	37,37,37,37	0
56	MG	17	101	1/1	0.95	0.14	34,34,34,34	0
56	MG	17	103	1/1	0.95	0.55	47,47,47,47	0
56	MG	2E	309	1/1	0.95	0.18	50,50,50,50	0
56	MG	2A	3570	1/1	0.95	0.14	70,70,70,70	0
56	MG	1A	3050	1/1	0.95	0.30	44,44,44,44	0
56	MG	1A	3889	1/1	0.95	0.18	18,18,18,18	0
56	MG	1A	3056	1/1	0.95	0.23	29,29,29,29	0
56	MG	2a	1794	1/1	0.95	0.22	83,83,83,83	0
56	MG	2A	3354	1/1	0.95	0.09	69,69,69,69	0
56	MG	1A	3893	1/1	0.95	0.21	42,42,42,42	0
56	MG	1A	3794	1/1	0.95	0.14	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	2A	3202	1/1	0.95	0.19	66,66,66,66	0
56	MG	1A	3795	1/1	0.95	0.12	56,56,56,56	0
56	MG	1A	3199	1/1	0.95	0.28	28,28,28,28	0
56	MG	1A	3797	1/1	0.95	0.35	72,72,72,72	0
56	MG	1A	3071	1/1	0.95	0.41	42,42,42,42	0
56	MG	1A	3036	1/1	0.95	0.30	37,37,37,37	0
56	MG	2a	1809	1/1	0.95	0.07	84,84,84,84	0
56	MG	2A	3053	1/1	0.95	0.15	48,48,48,48	0
56	MG	1a	1724	1/1	0.95	0.21	69,69,69,69	0
56	MG	1a	1725	1/1	0.95	0.15	56,56,56,56	0
56	MG	1a	1726	1/1	0.95	0.18	41,41,41,41	0
56	MG	1a	1729	1/1	0.95	0.11	67,67,67,67	0
56	MG	2W	201	1/1	0.95	0.19	63,63,63,63	0
56	MG	1A	4011	1/1	0.95	0.28	58,58,58,58	0
56	MG	2A	3059	1/1	0.95	0.19	65,65,65,65	0
56	MG	1A	3563	1/1	0.95	0.27	57,57,57,57	0
56	MG	2A	3216	1/1	0.95	0.14	55,55,55,55	0
56	MG	2l	101	1/1	0.95	0.72	50,50,50,50	0
56	MG	2q	201	1/1	0.95	0.11	67,67,67,67	0
56	MG	1A	3281	1/1	0.95	0.78	41,41,41,41	0
56	MG	1A	3633	1/1	0.95	0.17	53,53,53,53	0
56	MG	1a	1610	1/1	0.95	0.19	29,29,29,29	0
56	MG	1F	305	1/1	0.95	0.33	40,40,40,40	0
56	MG	1A	4019	1/1	0.95	0.31	64,64,64,64	0
56	MG	1A	3511	1/1	0.95	0.49	45,45,45,45	0
56	MG	1a	1741	1/1	0.95	0.12	85,85,85,85	0
56	MG	2a	1601	1/1	0.95	0.50	68,68,68,68	0
56	MG	1a	1744	1/1	0.95	0.16	65,65,65,65	0
56	MG	2A	3386	1/1	0.95	0.18	64,64,64,64	0
56	MG	2a	1604	1/1	0.95	0.13	85,85,85,85	0
56	MG	2A	3605	1/1	0.95	0.09	73,73,73,73	0
56	MG	2A	3387	1/1	0.95	0.16	69,69,69,69	0
56	MG	2A	3226	1/1	0.95	0.25	70,70,70,70	0
56	MG	1F	309	1/1	0.95	0.29	36,36,36,36	0
56	MG	1a	1747	1/1	0.95	0.26	49,49,49,49	0
56	MG	1A	3566	1/1	0.95	0.69	39,39,39,39	0
59	ZN	29	501	1/1	0.95	0.09	78,78,78,78	0
56	MG	1A	3512	1/1	0.95	0.39	41,41,41,41	0
56	MG	1A	3777	1/1	0.96	0.24	28,28,28,28	0
56	MG	1A	3978	1/1	0.96	0.16	45,45,45,45	0
56	MG	1x	110	1/1	0.96	0.17	31,31,31,31	0
56	MG	2A	3446	1/1	0.96	0.20	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	2a	1628	1/1	0.96	0.30	61,61,61,61	0
56	MG	2A	3447	1/1	0.96	0.15	43,43,43,43	0
56	MG	2A	3652	1/1	0.96	0.23	44,44,44,44	0
56	MG	1A	3622	1/1	0.96	0.19	41,41,41,41	0
56	MG	1D	301	1/1	0.96	0.29	44,44,44,44	0
56	MG	1D	302	1/1	0.96	0.43	39,39,39,39	0
56	MG	1A	3623	1/1	0.96	0.23	38,38,38,38	0
56	MG	1A	3482	1/1	0.96	0.48	46,46,46,46	0
56	MG	1A	3483	1/1	0.96	0.64	42,42,42,42	0
56	MG	2A	3149	1/1	0.96	0.13	68,68,68,68	0
56	MG	13	101	1/1	0.96	0.26	45,45,45,45	0
56	MG	2A	3661	1/1	0.96	0.16	60,60,60,60	0
56	MG	2a	1640	1/1	0.96	0.29	83,83,83,83	0
56	MG	2A	3662	1/1	0.96	0.24	52,52,52,52	0
56	MG	2A	3151	1/1	0.96	0.39	53,53,53,53	0
56	MG	1A	3695	1/1	0.96	0.31	50,50,50,50	0
56	MG	1A	3034	1/1	0.96	0.34	41,41,41,41	0
56	MG	2a	1645	1/1	0.96	0.27	56,56,56,56	0
56	MG	2A	3461	1/1	0.96	0.53	72,72,72,72	0
56	MG	1A	3283	1/1	0.96	0.37	51,51,51,51	0
56	MG	1A	3986	1/1	0.96	0.13	61,61,61,61	0
56	MG	15	104	1/1	0.96	0.49	59,59,59,59	0
56	MG	2A	3466	1/1	0.96	0.18	53,53,53,53	0
56	MG	2A	3158	1/1	0.96	0.09	71,71,71,71	0
56	MG	2A	3674	1/1	0.96	0.17	55,55,55,55	0
56	MG	1A	3222	1/1	0.96	0.36	45,45,45,45	0
56	MG	1A	3988	1/1	0.96	0.18	46,46,46,46	0
56	MG	1A	3699	1/1	0.96	0.33	67,67,67,67	0
56	MG	1A	3787	1/1	0.96	0.28	76,76,76,76	0
56	MG	17	104	1/1	0.96	0.21	48,48,48,48	0
56	MG	1a	1711	1/1	0.96	0.28	54,54,54,54	0
56	MG	1A	3991	1/1	0.96	0.15	46,46,46,46	0
56	MG	1A	3009	1/1	0.96	0.13	30,30,30,30	0
56	MG	1A	3110	1/1	0.96	0.24	35,35,35,35	0
56	MG	2A	3685	1/1	0.96	0.09	51,51,51,51	0
56	MG	1A	3792	1/1	0.96	0.12	29,29,29,29	0
56	MG	1E	309	1/1	0.96	0.24	64,64,64,64	0
56	MG	2A	3480	1/1	0.96	0.13	38,38,38,38	0
56	MG	2A	3481	1/1	0.96	0.17	39,39,39,39	0
56	MG	2A	3482	1/1	0.96	0.33	58,58,58,58	0
56	MG	1A	3998	1/1	0.96	0.23	50,50,50,50	0
56	MG	1A	3706	1/1	0.96	0.06	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	2A	3486	1/1	0.96	0.18	47,47,47,47	0
56	MG	2A	3487	1/1	0.96	0.19	39,39,39,39	0
56	MG	2A	3173	1/1	0.96	0.18	47,47,47,47	0
56	MG	2a	1675	1/1	0.96	0.09	73,73,73,73	0
56	MG	2a	1676	1/1	0.96	0.18	63,63,63,63	0
56	MG	1A	3888	1/1	0.96	0.18	51,51,51,51	0
56	MG	2A	3175	1/1	0.96	0.32	70,70,70,70	0
56	MG	2A	3491	1/1	0.96	0.20	44,44,44,44	0
56	MG	2A	3492	1/1	0.96	0.19	58,58,58,58	0
56	MG	2A	3493	1/1	0.96	0.19	41,41,41,41	0
56	MG	1A	3014	1/1	0.96	0.23	34,34,34,34	0
56	MG	1A	3174	1/1	0.96	0.60	43,43,43,43	0
56	MG	2A	3706	1/1	0.96	0.20	77,77,77,77	0
56	MG	2a	1685	1/1	0.96	0.15	73,73,73,73	0
56	MG	2A	3496	1/1	0.96	0.18	56,56,56,56	0
56	MG	1a	1723	1/1	0.96	0.16	58,58,58,58	0
56	MG	2A	3323	1/1	0.96	0.24	45,45,45,45	0
56	MG	1E	316	1/1	0.96	0.43	46,46,46,46	0
56	MG	2A	3325	1/1	0.96	0.26	48,48,48,48	0
56	MG	1A	3405	1/1	0.96	0.18	49,49,49,49	0
56	MG	1A	3432	1/1	0.96	0.23	42,42,42,42	0
56	MG	1a	1727	1/1	0.96	0.17	41,41,41,41	0
56	MG	1a	1728	1/1	0.96	0.12	41,41,41,41	0
56	MG	2A	3331	1/1	0.96	0.29	57,57,57,57	0
56	MG	1A	3461	1/1	0.96	0.48	56,56,56,56	0
56	MG	1A	3799	1/1	0.96	0.18	71,71,71,71	0
56	MG	1A	3433	1/1	0.96	0.32	57,57,57,57	0
56	MG	1a	1613	1/1	0.96	0.30	64,64,64,64	0
56	MG	2A	3513	1/1	0.96	0.20	66,66,66,66	0
56	MG	2A	3514	1/1	0.96	0.19	62,62,62,62	0
56	MG	1A	3495	1/1	0.96	0.29	50,50,50,50	0
56	MG	1A	3899	1/1	0.96	0.11	48,48,48,48	0
56	MG	2A	3517	1/1	0.96	0.18	61,61,61,61	0
56	MG	1a	1737	1/1	0.96	0.20	70,70,70,70	0
56	MG	2A	3519	1/1	0.96	0.27	68,68,68,68	0
56	MG	1A	3580	1/1	0.96	0.18	27,27,27,27	0
56	MG	1F	311	1/1	0.96	0.20	47,47,47,47	0
56	MG	1A	3406	1/1	0.96	0.57	52,52,52,52	0
56	MG	1A	4017	1/1	0.96	0.25	49,49,49,49	0
56	MG	2A	3740	1/1	0.96	0.17	70,70,70,70	0
56	MG	1a	1742	1/1	0.96	0.14	49,49,49,49	0
56	MG	2A	3051	1/1	0.96	0.20	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	2A	3743	1/1	0.96	0.11	65,65,65,65	0
56	MG	1a	1622	1/1	0.96	0.17	64,64,64,64	0
56	MG	1A	3805	1/1	0.96	0.20	64,64,64,64	0
56	MG	1A	3538	1/1	0.96	0.35	45,45,45,45	0
56	MG	2A	3530	1/1	0.96	0.20	62,62,62,62	0
56	MG	1A	3807	1/1	0.96	0.29	66,66,66,66	0
56	MG	2a	1720	1/1	0.96	0.27	65,65,65,65	0
56	MG	1A	3808	1/1	0.96	0.11	74,74,74,74	0
56	MG	2A	3751	1/1	0.96	0.12	54,54,54,54	0
56	MG	1A	3585	1/1	0.96	0.15	29,29,29,29	0
56	MG	2A	3535	1/1	0.96	0.23	62,62,62,62	0
56	MG	1a	1751	1/1	0.96	0.20	57,57,57,57	0
56	MG	2A	3537	1/1	0.96	0.23	71,71,71,71	0
56	MG	1A	3908	1/1	0.96	0.13	73,73,73,73	0
56	MG	1A	3810	1/1	0.96	0.14	63,63,63,63	0
56	MG	2A	3061	1/1	0.96	0.32	62,62,62,62	0
56	MG	1A	3642	1/1	0.96	0.21	27,27,27,27	0
56	MG	1A	3912	1/1	0.96	0.12	55,55,55,55	0
56	MG	2A	3544	1/1	0.96	0.17	54,54,54,54	0
56	MG	1A	3643	1/1	0.96	0.14	34,34,34,34	0
56	MG	1A	3046	1/1	0.96	0.24	44,44,44,44	0
56	MG	2A	3765	1/1	0.96	0.21	52,52,52,52	0
56	MG	1A	3646	1/1	0.96	0.15	39,39,39,39	0
56	MG	1A	3918	1/1	0.96	0.20	76,76,76,76	0
56	MG	1A	3228	1/1	0.96	0.34	40,40,40,40	0
56	MG	2a	1739	1/1	0.96	0.20	75,75,75,75	0
56	MG	1A	3499	1/1	0.96	0.41	49,49,49,49	0
56	MG	1A	3193	1/1	0.96	0.70	42,42,42,42	0
56	MG	2A	3217	1/1	0.96	0.56	60,60,60,60	0
56	MG	1A	3293	1/1	0.96	0.09	58,58,58,58	0
56	MG	2A	3556	1/1	0.96	0.17	58,58,58,58	0
56	MG	1A	3545	1/1	0.96	0.42	53,53,53,53	0
56	MG	1A	3820	1/1	0.96	0.16	22,22,22,22	0
56	MG	2A	3369	1/1	0.96	0.19	68,68,68,68	0
56	MG	2A	3564	1/1	0.96	0.21	64,64,64,64	0
56	MG	1a	1768	1/1	0.96	0.14	52,52,52,52	0
56	MG	1A	4041	1/1	0.96	0.16	39,39,39,39	0
56	MG	2A	3567	1/1	0.96	0.31	58,58,58,58	0
56	MG	2a	1754	1/1	0.96	0.13	70,70,70,70	0
56	MG	1a	1771	1/1	0.96	0.12	71,71,71,71	0
56	MG	2A	3078	1/1	0.96	0.11	70,70,70,70	0
56	MG	1A	3592	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
56	MG	2A	3571	1/1	0.96	0.46	53,53,53,53	0
56	MG	1A	3194	1/1	0.96	0.94	37,37,37,37	0
56	MG	1A	3733	1/1	0.96	0.20	54,54,54,54	0
56	MG	1a	1776	1/1	0.96	0.23	55,55,55,55	0
56	MG	1A	3037	1/1	0.96	0.20	28,28,28,28	0
56	MG	2D	302	1/1	0.96	0.39	49,49,49,49	0
56	MG	1a	1779	1/1	0.96	0.14	48,48,48,48	0
56	MG	1a	1780	1/1	0.96	0.20	81,81,81,81	0
56	MG	1a	1781	1/1	0.96	0.17	68,68,68,68	0
56	MG	2D	307	1/1	0.96	0.17	63,63,63,63	0
56	MG	1A	3930	1/1	0.96	0.21	65,65,65,65	0
56	MG	1Q	205	1/1	0.96	0.22	45,45,45,45	0
56	MG	1A	3657	1/1	0.96	0.14	32,32,32,32	0
56	MG	1a	1786	1/1	0.96	0.12	86,86,86,86	0
56	MG	1R	201	1/1	0.96	0.34	48,48,48,48	0
56	MG	1A	3470	1/1	0.96	0.39	79,79,79,79	0
56	MG	2A	3093	1/1	0.96	0.18	40,40,40,40	0
56	MG	1A	3599	1/1	0.96	0.19	32,32,32,32	0
56	MG	2A	3241	1/1	0.96	0.20	56,56,56,56	0
56	MG	1A	3662	1/1	0.96	0.16	28,28,28,28	0
56	MG	1A	3829	1/1	0.96	0.16	29,29,29,29	0
56	MG	2A	3399	1/1	0.96	0.07	75,75,75,75	0
56	MG	1A	3148	1/1	0.96	0.41	39,39,39,39	0
56	MG	1A	3601	1/1	0.96	0.16	42,42,42,42	0
56	MG	2A	3594	1/1	0.96	0.42	71,71,71,71	0
56	MG	1A	3745	1/1	0.96	0.13	68,68,68,68	0
56	MG	1A	3667	1/1	0.96	0.18	75,75,75,75	0
56	MG	1A	3941	1/1	0.96	0.21	32,32,32,32	0
56	MG	1A	3551	1/1	0.96	0.37	66,66,66,66	0
56	MG	2a	1791	1/1	0.96	0.13	78,78,78,78	0
56	MG	1U	203	1/1	0.96	0.46	60,60,60,60	0
56	MG	1A	3038	1/1	0.96	0.59	48,48,48,48	0
56	MG	2A	3601	1/1	0.96	0.18	82,82,82,82	0
56	MG	1a	1801	1/1	0.96	0.12	64,64,64,64	0
56	MG	1A	3672	1/1	0.96	0.20	32,32,32,32	0
56	MG	1A	3023	1/1	0.96	0.15	20,20,20,20	0
56	MG	2T	202	1/1	0.96	0.21	59,59,59,59	0
56	MG	1A	3840	1/1	0.96	0.11	74,74,74,74	0
56	MG	1A	3343	1/1	0.96	0.34	33,33,33,33	0
56	MG	2a	1803	1/1	0.96	0.26	81,81,81,81	0
56	MG	1A	3948	1/1	0.96	0.17	63,63,63,63	0
56	MG	2A	3609	1/1	0.96	0.11	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1A	3182	1/1	0.96	0.24	53,53,53,53	0
56	MG	2a	1808	1/1	0.96	0.23	64,64,64,64	0
56	MG	1b	301	1/1	0.96	0.22	84,84,84,84	0
56	MG	1A	3030	1/1	0.96	0.49	39,39,39,39	0
56	MG	1A	3951	1/1	0.96	0.27	50,50,50,50	0
56	MG	1A	3679	1/1	0.96	0.19	37,37,37,37	0
56	MG	1A	3140	1/1	0.96	0.19	25,25,25,25	0
56	MG	1k	201	1/1	0.96	0.15	57,57,57,57	0
56	MG	1A	3348	1/1	0.96	0.18	44,44,44,44	0
56	MG	2A	3266	1/1	0.96	0.30	70,70,70,70	0
56	MG	1A	3449	1/1	0.96	0.22	44,44,44,44	0
56	MG	1A	3514	1/1	0.96	0.33	42,42,42,42	0
56	MG	1A	3766	1/1	0.96	0.14	55,55,55,55	0
56	MG	2A	3624	1/1	0.96	0.17	40,40,40,40	0
56	MG	2l	201	1/1	0.96	0.21	72,72,72,72	0
56	MG	1A	3617	1/1	0.96	0.21	31,31,31,31	0
56	MG	1A	3960	1/1	0.96	0.12	34,34,34,34	0
56	MG	1A	3685	1/1	0.96	0.39	62,62,62,62	0
56	MG	2r	101	1/1	0.96	0.31	75,75,75,75	0
56	MG	1A	3852	1/1	0.96	0.18	31,31,31,31	0
56	MG	2A	3630	1/1	0.96	0.17	35,35,35,35	0
56	MG	2A	3631	1/1	0.96	0.21	46,46,46,46	0
56	MG	1A	3278	1/1	0.96	0.81	43,43,43,43	0
56	MG	1A	3772	1/1	0.96	0.09	52,52,52,52	0
56	MG	1A	3186	1/1	0.96	0.11	50,50,50,50	0
56	MG	1A	3858	1/1	0.96	0.31	42,42,42,42	0
56	MG	1B	225	1/1	0.96	0.20	61,61,61,61	0
56	MG	1A	3774	1/1	0.96	0.22	51,51,51,51	0
56	MG	2A	3638	1/1	0.96	0.12	58,58,58,58	0
56	MG	2A	3436	1/1	0.96	0.20	60,60,60,60	0
57	K	1A	3520	1/1	0.96	0.56	85,85,85,85	0
56	MG	1A	3973	1/1	0.96	0.27	63,63,63,63	0
58	WC9	2A	3772	34/34	0.96	0.27	36,44,47,52	0
56	MG	2A	3642	1/1	0.96	0.17	46,46,46,46	0
56	MG	1A	3688	1/1	0.96	0.39	60,60,60,60	0
56	MG	1A	3689	1/1	0.96	0.15	22,22,22,22	0
56	MG	1A	3862	1/1	0.96	0.18	54,54,54,54	0
56	MG	2A	3138	1/1	0.96	0.33	43,43,43,43	0
56	MG	1A	3070	1/1	0.97	0.28	39,39,39,39	0
56	MG	1A	3610	1/1	0.97	0.16	20,20,20,20	0
56	MG	2A	3452	1/1	0.97	0.27	46,46,46,46	0
56	MG	1A	3717	1/1	0.97	0.10	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1A	3533	1/1	0.97	0.42	40,40,40,40	0
56	MG	1A	3042	1/1	0.97	0.60	37,37,37,37	0
56	MG	1a	1784	1/1	0.97	0.23	59,59,59,59	0
56	MG	1A	4010	1/1	0.97	0.17	55,55,55,55	0
56	MG	1A	3663	1/1	0.97	0.21	34,34,34,34	0
56	MG	2A	3606	1/1	0.97	0.15	75,75,75,75	0
56	MG	1A	3345	1/1	0.97	0.58	33,33,33,33	0
56	MG	1A	3536	1/1	0.97	0.35	46,46,46,46	0
56	MG	1A	4015	1/1	0.97	0.23	27,27,27,27	0
56	MG	1A	3789	1/1	0.97	0.18	63,63,63,63	0
56	MG	1A	3072	1/1	0.97	0.21	16,16,16,16	0
56	MG	2A	3612	1/1	0.97	0.23	38,38,38,38	0
56	MG	1A	3853	1/1	0.97	0.16	28,28,28,28	0
56	MG	2A	3329	1/1	0.97	0.36	55,55,55,55	0
56	MG	1A	3668	1/1	0.97	0.28	31,31,31,31	0
56	MG	1E	306	1/1	0.97	0.29	42,42,42,42	0
56	MG	1A	3934	1/1	0.97	0.21	67,67,67,67	0
56	MG	1a	1796	1/1	0.97	0.23	61,61,61,61	0
56	MG	1l	103	1/1	0.97	0.18	67,67,67,67	0
56	MG	1A	3855	1/1	0.97	0.22	32,32,32,32	0
56	MG	1A	3618	1/1	0.97	0.17	21,21,21,21	0
56	MG	2A	3475	1/1	0.97	0.15	52,52,52,52	0
56	MG	2A	3623	1/1	0.97	0.11	81,81,81,81	0
56	MG	1A	4024	1/1	0.97	0.36	38,38,38,38	0
56	MG	1A	4025	1/1	0.97	0.24	55,55,55,55	0
56	MG	1A	3573	1/1	0.97	0.26	19,19,19,19	0
56	MG	2A	3627	1/1	0.97	0.33	70,70,70,70	0
56	MG	2B	219	1/1	0.97	0.31	77,77,77,77	0
56	MG	1A	3061	1/1	0.97	0.37	69,69,69,69	0
56	MG	1A	4028	1/1	0.97	0.36	59,59,59,59	0
56	MG	1A	3105	1/1	0.97	0.34	45,45,45,45	0
56	MG	1A	3043	1/1	0.97	0.46	39,39,39,39	0
56	MG	2D	304	1/1	0.97	1.25	48,48,48,48	0
56	MG	15	101	1/1	0.97	0.78	41,41,41,41	0
56	MG	2A	3484	1/1	0.97	0.17	44,44,44,44	0
56	MG	1A	3675	1/1	0.97	0.18	29,29,29,29	0
56	MG	1A	3033	1/1	0.97	0.51	30,30,30,30	0
56	MG	15	107	1/1	0.97	0.13	59,59,59,59	0
56	MG	1F	306	1/1	0.97	0.38	39,39,39,39	0
56	MG	1A	3677	1/1	0.97	0.15	18,18,18,18	0
56	MG	2A	3639	1/1	0.97	0.31	60,60,60,60	0
56	MG	1A	3136	1/1	0.97	0.55	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1A	3152	1/1	0.97	0.14	40,40,40,40	0
56	MG	17	105	1/1	0.97	0.26	62,62,62,62	0
56	MG	1A	3739	1/1	0.97	0.20	26,26,26,26	0
56	MG	18	102	1/1	0.97	0.55	48,48,48,48	0
56	MG	18	103	1/1	0.97	0.34	44,44,44,44	0
56	MG	1A	3403	1/1	0.97	0.33	46,46,46,46	0
56	MG	1A	3153	1/1	0.97	0.69	46,46,46,46	0
56	MG	1A	3872	1/1	0.97	0.18	26,26,26,26	0
56	MG	1A	3873	1/1	0.97	0.17	31,31,31,31	0
56	MG	1A	3582	1/1	0.97	0.22	57,57,57,57	0
56	MG	2N	201	1/1	0.97	0.16	62,62,62,62	0
56	MG	1A	3743	1/1	0.97	0.17	27,27,27,27	0
56	MG	1A	3282	1/1	0.97	0.30	48,48,48,48	0
56	MG	1A	3584	1/1	0.97	0.12	45,45,45,45	0
56	MG	2A	3506	1/1	0.97	0.21	50,50,50,50	0
56	MG	1A	3878	1/1	0.97	0.18	52,52,52,52	0
56	MG	1A	3003	1/1	0.97	0.19	28,28,28,28	0
56	MG	2a	1741	1/1	0.97	0.11	85,85,85,85	0
56	MG	1A	3880	1/1	0.97	0.17	52,52,52,52	0
56	MG	1A	3747	1/1	0.97	0.20	25,25,25,25	0
56	MG	1A	3515	1/1	0.97	0.66	43,43,43,43	0
56	MG	1A	3961	1/1	0.97	0.21	42,42,42,42	0
56	MG	1A	3962	1/1	0.97	0.14	28,28,28,28	0
56	MG	1A	3963	1/1	0.97	0.10	37,37,37,37	0
56	MG	2A	3663	1/1	0.97	0.11	75,75,75,75	0
56	MG	2A	3374	1/1	0.97	0.19	28,28,28,28	0
56	MG	1x	111	1/1	0.97	0.24	71,71,71,71	0
56	MG	1A	3550	1/1	0.97	0.47	71,71,71,71	0
56	MG	2A	3377	1/1	0.97	0.27	63,63,63,63	0
56	MG	1A	3965	1/1	0.97	0.20	46,46,46,46	0
56	MG	1a	1721	1/1	0.97	0.22	60,60,60,60	0
56	MG	2a	1756	1/1	0.97	0.20	76,76,76,76	0
56	MG	2a	1757	1/1	0.97	0.14	65,65,65,65	0
56	MG	1A	3284	1/1	0.97	0.35	47,47,47,47	0
56	MG	1a	1617	1/1	0.97	0.22	47,47,47,47	0
56	MG	23	101	1/1	0.97	0.36	68,68,68,68	0
56	MG	1A	3887	1/1	0.97	0.11	44,44,44,44	0
56	MG	2A	3673	1/1	0.97	0.17	67,67,67,67	0
56	MG	1A	3552	1/1	0.97	0.48	57,57,57,57	0
56	MG	2A	3127	1/1	0.97	0.32	71,71,71,71	0
56	MG	1A	3065	1/1	0.97	0.24	45,45,45,45	0
56	MG	2A	3677	1/1	0.97	0.20	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	2a	1767	1/1	0.97	0.09	72,72,72,72	0
56	MG	1a	1621	1/1	0.97	0.37	64,64,64,64	0
56	MG	2A	3130	1/1	0.97	0.19	44,44,44,44	0
56	MG	1A	3756	1/1	0.97	0.21	26,26,26,26	0
56	MG	1A	3891	1/1	0.97	0.21	59,59,59,59	0
56	MG	1A	3239	1/1	0.97	0.48	32,32,32,32	0
56	MG	1A	3098	1/1	0.97	0.22	27,27,27,27	0
56	MG	2A	3011	1/1	0.97	0.12	48,48,48,48	0
56	MG	1A	3012	1/1	0.97	0.14	30,30,30,30	0
56	MG	1A	3694	1/1	0.97	0.18	55,55,55,55	0
56	MG	1a	1735	1/1	0.97	0.28	45,45,45,45	0
56	MG	1A	3762	1/1	0.97	0.22	25,25,25,25	0
56	MG	2A	3689	1/1	0.97	0.12	43,43,43,43	0
56	MG	2A	3140	1/1	0.97	0.20	71,71,71,71	0
56	MG	1A	3595	1/1	0.97	0.37	38,38,38,38	0
56	MG	1A	3596	1/1	0.97	0.27	37,37,37,37	0
56	MG	2A	3543	1/1	0.97	0.13	40,40,40,40	0
56	MG	1A	3158	1/1	0.97	0.48	40,40,40,40	0
56	MG	1A	3413	1/1	0.97	0.29	58,58,58,58	0
56	MG	2A	3020	1/1	0.97	0.12	29,29,29,29	0
56	MG	2A	3697	1/1	0.97	0.28	68,68,68,68	0
56	MG	2a	1788	1/1	0.97	0.19	71,71,71,71	0
56	MG	2A	3021	1/1	0.97	0.56	46,46,46,46	0
56	MG	2A	3548	1/1	0.97	0.13	37,37,37,37	0
56	MG	2a	1625	1/1	0.97	0.14	97,97,97,97	0
56	MG	1R	204	1/1	0.97	0.51	45,45,45,45	0
56	MG	1A	3767	1/1	0.97	0.19	29,29,29,29	0
56	MG	2A	3275	1/1	0.97	0.23	63,63,63,63	0
56	MG	1a	1743	1/1	0.97	0.24	57,57,57,57	0
56	MG	1A	3525	1/1	0.97	0.46	45,45,45,45	0
56	MG	2A	3554	1/1	0.97	0.21	64,64,64,64	0
56	MG	2A	3026	1/1	0.97	0.73	59,59,59,59	0
56	MG	2a	1799	1/1	0.97	0.19	67,67,67,67	0
56	MG	1A	3047	1/1	0.97	0.28	41,41,41,41	0
56	MG	1a	1746	1/1	0.97	0.17	53,53,53,53	0
56	MG	1A	3561	1/1	0.97	0.26	38,38,38,38	0
56	MG	1A	3906	1/1	0.97	0.11	64,64,64,64	0
56	MG	2A	3563	1/1	0.97	0.16	40,40,40,40	0
56	MG	2A	3713	1/1	0.97	0.14	62,62,62,62	0
56	MG	2A	3714	1/1	0.97	0.27	59,59,59,59	0
56	MG	2A	3715	1/1	0.97	0.26	51,51,51,51	0
56	MG	1A	3702	1/1	0.97	0.20	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1B	216	1/1	0.97	0.19	63,63,63,63	0
56	MG	1U	201	1/1	0.97	0.33	35,35,35,35	0
56	MG	1A	3160	1/1	0.97	0.72	44,44,44,44	0
56	MG	1B	219	1/1	0.97	0.39	59,59,59,59	0
56	MG	2e	201	1/1	0.97	0.07	87,87,87,87	0
56	MG	2A	3722	1/1	0.97	0.16	65,65,65,65	0
56	MG	1a	1754	1/1	0.97	0.23	61,61,61,61	0
56	MG	1A	3650	1/1	0.97	0.20	26,26,26,26	0
56	MG	2A	3038	1/1	0.97	0.45	74,74,74,74	0
56	MG	2A	3572	1/1	0.97	0.26	52,52,52,52	0
56	MG	1a	1756	1/1	0.97	0.35	59,59,59,59	0
56	MG	2A	3166	1/1	0.97	0.21	35,35,35,35	0
56	MG	1A	3183	1/1	0.97	0.26	59,59,59,59	0
56	MG	1U	206	1/1	0.97	0.45	44,44,44,44	0
56	MG	1A	3836	1/1	0.97	0.30	37,37,37,37	0
56	MG	2A	3043	1/1	0.97	0.18	36,36,36,36	0
56	MG	1B	223	1/1	0.97	0.32	71,71,71,71	0
56	MG	2A	3735	1/1	0.97	0.21	46,46,46,46	0
56	MG	1A	3604	1/1	0.97	0.26	26,26,26,26	0
56	MG	1A	3340	1/1	0.97	0.84	40,40,40,40	0
56	MG	1A	3839	1/1	0.97	0.21	38,38,38,38	0
56	MG	1A	3996	1/1	0.97	0.12	41,41,41,41	0
56	MG	1V	206	1/1	0.97	0.41	61,61,61,61	0
56	MG	1A	3997	1/1	0.97	0.21	49,49,49,49	0
56	MG	1A	3917	1/1	0.97	0.17	32,32,32,32	0
56	MG	2A	3179	1/1	0.97	0.28	68,68,68,68	0
56	MG	1A	3654	1/1	0.97	0.14	28,28,28,28	0
56	MG	1W	204	1/1	0.97	0.32	41,41,41,41	0
56	MG	1a	1770	1/1	0.97	0.26	73,73,73,73	0
56	MG	1A	4000	1/1	0.97	0.22	26,26,26,26	0
56	MG	1A	3204	1/1	0.97	0.16	36,36,36,36	0
56	MG	1B	233	1/1	0.97	0.32	70,70,70,70	0
56	MG	1A	4002	1/1	0.97	0.15	22,22,22,22	0
56	MG	1A	3920	1/1	0.97	0.35	61,61,61,61	0
56	MG	1A	3126	1/1	0.97	0.43	44,44,44,44	0
56	MG	1A	3200	1/1	0.98	0.26	34,34,34,34	0
56	MG	1A	3621	1/1	0.98	0.34	31,31,31,31	0
56	MG	1A	3892	1/1	0.98	0.13	34,34,34,34	0
56	MG	2A	3498	1/1	0.98	0.15	70,70,70,70	0
56	MG	1A	3276	1/1	0.98	0.26	30,30,30,30	0
56	MG	1A	3135	1/1	0.98	0.35	31,31,31,31	0
56	MG	1E	317	1/1	0.98	0.22	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	15	102	1/1	0.98	0.39	43,43,43,43	0
56	MG	15	103	1/1	0.98	0.52	46,46,46,46	0
56	MG	2A	3504	1/1	0.98	0.12	43,43,43,43	0
56	MG	1F	301	1/1	0.98	0.50	44,44,44,44	0
56	MG	2X	101	1/1	0.98	0.31	72,72,72,72	0
56	MG	15	105	1/1	0.98	0.32	36,36,36,36	0
56	MG	1A	3665	1/1	0.98	0.20	23,23,23,23	0
56	MG	1A	3543	1/1	0.98	0.37	40,40,40,40	0
56	MG	2A	3366	1/1	0.98	0.45	57,57,57,57	0
56	MG	1a	1646	1/1	0.98	0.10	57,57,57,57	0
56	MG	2A	3750	1/1	0.98	0.12	67,67,67,67	0
56	MG	1A	3748	1/1	0.98	0.12	48,48,48,48	0
56	MG	2A	3049	1/1	0.98	0.10	75,75,75,75	0
56	MG	1B	217	1/1	0.98	0.24	49,49,49,49	0
56	MG	17	102	1/1	0.98	0.30	40,40,40,40	0
56	MG	2A	3372	1/1	0.98	0.47	52,52,52,52	0
56	MG	1A	3644	1/1	0.98	0.17	26,26,26,26	0
56	MG	2A	3443	1/1	0.98	0.26	61,61,61,61	0
56	MG	1A	3605	1/1	0.98	0.13	48,48,48,48	0
56	MG	1U	207	1/1	0.98	0.28	39,39,39,39	0
56	MG	1A	3751	1/1	0.98	0.15	32,32,32,32	0
56	MG	1A	3752	1/1	0.98	0.15	30,30,30,30	0
56	MG	1A	3265	1/1	0.98	0.37	45,45,45,45	0
56	MG	2A	3523	1/1	0.98	0.16	55,55,55,55	0
56	MG	1A	3670	1/1	0.98	0.13	38,38,38,38	0
56	MG	2A	3766	1/1	0.98	0.09	51,51,51,51	0
56	MG	1A	3790	1/1	0.98	0.36	38,38,38,38	0
56	MG	1V	204	1/1	0.98	0.52	39,39,39,39	0
56	MG	2A	3382	1/1	0.98	0.61	47,47,47,47	0
56	MG	1a	1777	1/1	0.98	0.08	64,64,64,64	0
56	MG	1A	3116	1/1	0.98	0.22	34,34,34,34	0
56	MG	1A	3864	1/1	0.98	0.30	38,38,38,38	0
56	MG	1A	3865	1/1	0.98	0.26	66,66,66,66	0
56	MG	2A	3457	1/1	0.98	0.19	60,60,60,60	0
56	MG	2a	1618	1/1	0.98	0.09	80,80,80,80	0
56	MG	1A	3722	1/1	0.98	0.23	38,38,38,38	0
56	MG	1G	205	1/1	0.98	0.26	69,69,69,69	0
56	MG	1A	3068	1/1	0.98	0.30	30,30,30,30	0
56	MG	1A	3910	1/1	0.98	0.47	67,67,67,67	0
56	MG	1A	3758	1/1	0.98	0.18	48,48,48,48	0
56	MG	2A	3463	1/1	0.98	0.13	37,37,37,37	0
56	MG	1A	3234	1/1	0.98	0.64	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1A	3176	1/1	0.98	0.24	36,36,36,36	0
56	MG	2A	3698	1/1	0.98	0.26	50,50,50,50	0
56	MG	1A	3871	1/1	0.98	0.37	41,41,41,41	0
56	MG	2A	3073	1/1	0.98	0.18	73,73,73,73	0
56	MG	1A	3594	1/1	0.98	0.19	14,14,14,14	0
56	MG	2B	217	1/1	0.98	0.26	79,79,79,79	0
56	MG	2A	3397	1/1	0.98	0.54	62,62,62,62	0
56	MG	2A	3398	1/1	0.98	0.24	36,36,36,36	0
56	MG	2a	1814	1/1	0.98	0.27	58,58,58,58	0
56	MG	1A	3916	1/1	0.98	0.18	45,45,45,45	0
56	MG	1A	3613	1/1	0.98	0.16	22,22,22,22	0
56	MG	1A	3133	1/1	0.98	0.18	47,47,47,47	0
56	MG	1D	305	1/1	0.98	0.37	36,36,36,36	0
56	MG	1A	3069	1/1	0.98	0.23	22,22,22,22	0
56	MG	1a	1734	1/1	0.98	0.32	49,49,49,49	0
56	MG	1A	3801	1/1	0.98	0.19	38,38,38,38	0
56	MG	1A	3179	1/1	0.98	0.24	36,36,36,36	0
56	MG	1A	3703	1/1	0.98	0.12	60,60,60,60	0
56	MG	2l	202	1/1	0.98	0.34	81,81,81,81	0
56	MG	2l	203	1/1	0.98	0.09	78,78,78,78	0
56	MG	1A	3704	1/1	0.98	0.24	28,28,28,28	0
56	MG	1A	4013	1/1	0.98	0.20	36,36,36,36	0
56	MG	2A	3558	1/1	0.98	0.22	40,40,40,40	0
56	MG	2A	3559	1/1	0.98	0.20	52,52,52,52	0
56	MG	2A	3717	1/1	0.98	0.19	44,44,44,44	0
56	MG	2A	3560	1/1	0.98	0.14	48,48,48,48	0
56	MG	1A	3734	1/1	0.98	0.18	42,42,42,42	0
56	MG	1A	3705	1/1	0.98	0.22	20,20,20,20	0
56	MG	1A	3882	1/1	0.98	0.11	65,65,65,65	0
56	MG	2E	310	1/1	0.98	0.17	62,62,62,62	0
56	MG	1A	3145	1/1	0.98	0.49	37,37,37,37	0
56	MG	2a	1654	1/1	0.98	0.35	60,60,60,60	0
56	MG	2A	3153	1/1	0.98	0.29	53,53,53,53	0
56	MG	1A	4018	1/1	0.98	0.22	34,34,34,34	0
56	MG	1A	3737	1/1	0.98	0.22	32,32,32,32	0
56	MG	2a	1747	1/1	0.98	0.22	67,67,67,67	0
56	MG	1a	1807	1/1	0.98	0.14	78,78,78,78	0
58	WC9	1A	4061	34/34	0.98	0.25	21,28,31,33	0
56	MG	1A	3524	1/1	0.98	0.38	38,38,38,38	0
59	ZN	1Y	203	1/1	0.98	0.19	67,67,67,67	0
56	MG	1A	3658	1/1	0.98	0.19	30,30,30,30	0
56	MG	1E	308	1/1	0.98	0.15	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1A	3709	1/1	0.98	0.17	59,59,59,59	0
59	ZN	25	102	1/1	0.98	0.20	59,59,59,59	0
59	ZN	26	501	1/1	0.98	0.20	68,68,68,68	0
56	MG	2A	3731	1/1	0.98	0.24	62,62,62,62	0
56	MG	1A	3165	1/1	0.98	0.28	47,47,47,47	0
56	MG	1A	3952	1/1	0.99	0.19	24,24,24,24	0
56	MG	2B	206	1/1	0.99	0.22	82,82,82,82	0
56	MG	2A	3736	1/1	0.99	0.15	78,78,78,78	0
56	MG	2a	1806	1/1	0.99	0.28	58,58,58,58	0
56	MG	1A	3032	1/1	0.99	0.33	36,36,36,36	0
56	MG	2A	3758	1/1	0.99	0.25	69,69,69,69	0
56	MG	1a	1773	1/1	0.99	0.14	52,52,52,52	0
56	MG	1A	3302	1/1	0.99	0.29	36,36,36,36	0
56	MG	1A	3727	1/1	0.99	0.15	28,28,28,28	0
56	MG	1Y	202	1/1	0.99	0.77	56,56,56,56	0
56	MG	2a	1673	1/1	0.99	0.17	61,61,61,61	0
56	MG	1A	3885	1/1	0.99	0.27	44,44,44,44	0
56	MG	1A	3968	1/1	0.99	0.24	60,60,60,60	0
56	MG	2A	3534	1/1	0.99	0.26	60,60,60,60	0
56	MG	1A	3768	1/1	0.99	0.23	24,24,24,24	0
56	MG	1A	3161	1/1	0.99	0.86	39,39,39,39	0
56	MG	1A	3279	1/1	0.99	0.62	38,38,38,38	0
56	MG	1A	3611	1/1	0.99	0.13	66,66,66,66	0
56	MG	1a	1612	1/1	0.99	0.07	76,76,76,76	0
59	ZN	15	108	1/1	0.99	0.21	50,50,50,50	0
59	ZN	16	102	1/1	0.99	0.23	48,48,48,48	0
59	ZN	19	102	1/1	0.99	0.22	52,52,52,52	0
59	ZN	1n	102	1/1	0.99	0.16	65,65,65,65	0
56	MG	1W	206	1/1	0.99	0.21	45,45,45,45	0
56	MG	1A	3031	1/1	0.99	0.32	27,27,27,27	0
56	MG	1A	3661	1/1	0.99	0.16	27,27,27,27	0
56	MG	2a	1800	1/1	0.99	0.20	69,69,69,69	0
56	MG	1E	314	1/1	0.99	0.28	32,32,32,32	0
56	MG	1V	201	1/1	0.99	0.91	34,34,34,34	0
60	SF4	1d	302	8/8	0.99	0.16	62,72,73,73	0
60	SF4	2d	302	8/8	0.99	0.15	70,77,82,85	0
56	MG	1A	3993	1/1	1.00	0.25	30,30,30,30	0

## 6.5 Other polymers i

There are no such residues in this entry.