



# wwPDB X-ray Structure Validation Summary Report

Nov 7, 2023 – 04:20 AM EST

PDB ID : 6N9F  
Title : Crystal structure of the *Thermus thermophilus* 70S ribosome in complex with a short substrate mimic ACCA-DPhe and bound to mRNA and P-site tRNA at 3.7Å resolution  
Authors : Melnikov, S.V.; Khabibullina, N.F.; Mairhofer, E.; Vargas-Rodriguez, O.; Reynolds, N.M.; Micura, R.; Soll, D.; Polikanov, Y.S.  
Deposited on : 2018-12-03  
Resolution : 3.70 Å(reported)

This is a wwPDB X-ray Structure Validation Summary 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)  
Xtrriage (Phenix) : 1.13  
EDS : 2.36  
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)  
Refmac : 5.8.0158  
CCP4 : 7.0.044 (Gargrove)  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.36

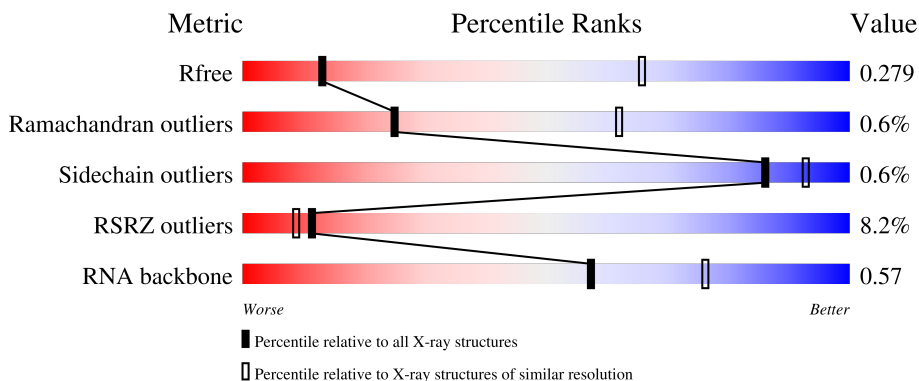
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 3.70 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	1049 (3.88-3.52)
Ramachandran outliers	138981	1069 (3.88-3.52)
Sidechain outliers	138945	1065 (3.88-3.52)
RSRZ outliers	127900	1578 (3.90-3.50)
RNA backbone	3102	1027 (4.40-3.00)

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	
1	2A	2915	
2	1B	121	
2	2B	121	

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Mol	Chain	Length	Quality of chain
3	1D	276	6% 99%
3	2D	276	22% 99%
4	1E	206	13% 98%
4	2E	206	14% 98%
5	1F	210	6% 96%
5	2F	210	15% 96%
6	1G	182	98%
6	2G	182	13% 97%
7	1H	180	% 96%
7	2H	180	7% 96%
8	1I	148	2% 97%
8	2I	148	8% 97%
9	1N	140	7% 100%
9	2N	140	15% 99%
10	1O	122	30% 100%
10	2O	122	16% 99%
11	1P	150	5% 96%
11	2P	150	22% 97%
12	1Q	141	23% 99%
12	2Q	141	11% 100%
13	1R	118	3% 99%
13	2R	118	8% 100%
14	1S	112	98%
14	2S	112	% 97%
15	1T	146	8% 90% 10%

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Mol	Chain	Length	Quality of chain
15	2T	146	14% 90% 10%
16	1U	118	3% 98%
16	2U	118	27% 98%
17	1V	101	% 98%
17	2V	101	11% 97%
18	1W	113	9% 98%
18	2W	113	17% 99%
19	1X	96	8% 99%
19	2X	96	8% 99%
20	1Y	110	3% 95%
20	2Y	110	19% 96%
21	1Z	206	73% 25%
21	2Z	206	76% 22%
22	10	85	15% 96%
22	20	85	21% 98%
23	11	98	22% 96%
23	21	98	39% 98%
24	12	72	97%
24	22	72	% 97%
25	13	60	98%
25	23	60	18% 98%
26	14	71	89% 8%
26	24	71	% 89% 7%
27	15	60	17% 97%
27	25	60	8% 97%

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Mol	Chain	Length	Quality of chain
28	16	54	2% 98%
28	26	54	26% 98%
29	17	49	16% 98%
29	27	49	47% 98%
30	18	65	5% 98%
30	28	65	54% 98%
31	19	37	100%
31	29	37	38% 100%
32	1a	1521	3% 82% 17%
32	2a	1521	2% 82% 17%
33	1b	256	2% 89% 10%
33	2b	256	5% 87% 10%
34	1c	239	21% 85% 14%
34	2c	239	10% 86% 14%
35	1d	209	15% 98%
35	2d	209	8% 99%
36	1e	162	20% 91% 9%
36	2e	162	20% 91% 9%
37	1f	101	2% 99%
37	2f	101	5% 99%
38	1g	156	5% 96% ..
38	2g	156	7% 97% ..
39	1h	138	5% 99% ..
39	2h	138	9% 98% ..
40	1i	128	23% 98% ..




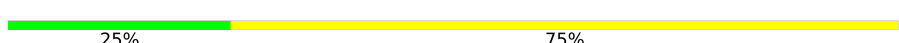
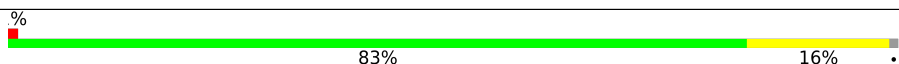
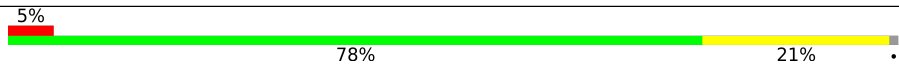
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Mol	Chain	Length	Quality of chain
40	2i	128	25% 98% ..
41	1j	105	21% 91% 8%
41	2j	105	13% 90% 9%
42	1k	129	6% 88% 12%
42	2k	129	20% 87% 12%
43	1l	132	16% 92% 8%
43	2l	132	20% 92% 8%
44	1m	126	8% 97% ..
44	2m	126	17% 97% .
45	1n	61	23% 97% ..
45	2n	61	15% 97% ..
46	1o	89	8% 98% ..
46	2o	89	2% 99% .
47	1p	88	22% 91% 7%
47	2p	88	3% 92% 7%
48	1q	105	5% 94% 6%
48	2q	105	13% 94% 6%
49	1r	88	77% 23%
49	2r	88	7% 77% 23%
50	1s	93	87% 11%
50	2s	93	14% 87% 11%
51	1t	106	15% 88% 9%
51	2t	106	13% 87% 9%
52	1u	27	15% 85% 15%
52	2u	27	7% 85% 15%

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Mol	Chain	Length	Quality of chain
53	1v	24	
53	2v	24	
54	1w	4	
54	2w	4	
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	17	101	-	-	-	X
56	MG	1A	3043	-	-	-	X
56	MG	1A	3058	-	-	-	X
56	MG	1A	3064	-	-	-	X
56	MG	1A	3075	-	-	-	X
56	MG	1A	3090	-	-	-	X
56	MG	1A	3093	-	-	-	X
56	MG	1A	3128	-	-	-	X
56	MG	1A	3130	-	-	-	X
56	MG	1A	3175	-	-	-	X
56	MG	1A	3182	-	-	-	X
56	MG	1A	3188	-	-	-	X
56	MG	1A	3189	-	-	-	X
56	MG	1A	3190	-	-	-	X
56	MG	1A	3191	-	-	-	X
56	MG	1A	3214	-	-	-	X
56	MG	1A	3218	-	-	-	X
56	MG	1A	3245	-	-	-	X
56	MG	1A	3259	-	-	-	X
56	MG	1A	3294	-	-	-	X
56	MG	1A	3299	-	-	-	X
56	MG	1A	3304	-	-	-	X
56	MG	1A	3346	-	-	-	X
56	MG	1A	3373	-	-	-	X
56	MG	1A	3376	-	-	-	X
56	MG	1A	3390	-	-	-	X
56	MG	1A	3409	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	1A	3410	-	-	-	X
56	MG	1A	3414	-	-	-	X
56	MG	1A	3422	-	-	-	X
56	MG	1A	3429	-	-	-	X
56	MG	1A	3431	-	-	-	X
56	MG	1A	3433	-	-	-	X
56	MG	1A	3437	-	-	-	X
56	MG	1A	3440	-	-	-	X
56	MG	1A	3456	-	-	-	X
56	MG	1A	3472	-	-	-	X
56	MG	1A	3474	-	-	-	X
56	MG	1A	3477	-	-	-	X
56	MG	1A	3491	-	-	-	X
56	MG	1A	3501	-	-	-	X
56	MG	1A	3511	-	-	-	X
56	MG	1A	3515	-	-	-	X
56	MG	1B	210	-	-	-	X
56	MG	1B	213	-	-	-	X
56	MG	1B	217	-	-	-	X
56	MG	1D	303	-	-	-	X
56	MG	1E	303	-	-	-	X
56	MG	1F	302	-	-	-	X
56	MG	1P	202	-	-	-	X
56	MG	1Q	202	-	-	-	X
56	MG	1T	202	-	-	-	X
56	MG	1V	202	-	-	-	X
56	MG	1V	203	-	-	-	X
56	MG	1W	201	-	-	-	X
56	MG	1X	101	-	-	-	X
56	MG	1a	1629	-	-	-	X
56	MG	1a	1633	-	-	-	X
56	MG	1a	1652	-	-	-	X
56	MG	1a	1674	-	-	-	X
56	MG	1v	101	-	-	-	X
56	MG	1x	109	-	-	-	X
56	MG	2A	3021	-	-	-	X
56	MG	2A	3022	-	-	-	X
56	MG	2A	3036	-	-	-	X
56	MG	2A	3043	-	-	-	X
56	MG	2A	3046	-	-	-	X
56	MG	2A	3058	-	-	-	X
56	MG	2A	3082	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	2A	3086	-	-	-	X
56	MG	2A	3087	-	-	-	X
56	MG	2A	3088	-	-	-	X
56	MG	2A	3095	-	-	-	X
56	MG	2A	3098	-	-	-	X
56	MG	2A	3101	-	-	-	X
56	MG	2A	3106	-	-	-	X
56	MG	2A	3122	-	-	-	X
56	MG	2A	3144	-	-	-	X
56	MG	2A	3170	-	-	-	X
56	MG	2A	3182	-	-	-	X
56	MG	2A	3191	-	-	-	X
56	MG	2A	3203	-	-	-	X
56	MG	2A	3205	-	-	-	X
56	MG	2A	3220	-	-	-	X
56	MG	2A	3240	-	-	-	X
56	MG	2A	3254	-	-	-	X
56	MG	2A	3306	-	-	-	X
56	MG	2A	3313	-	-	-	X
56	MG	2A	3327	-	-	-	X
56	MG	2A	3355	-	-	-	X
56	MG	2A	3364	-	-	-	X
56	MG	2A	3376	-	-	-	X
56	MG	2A	3381	-	-	-	X
56	MG	2A	3474	-	-	-	X
56	MG	2B	210	-	-	-	X
56	MG	2O	201	-	-	-	X
56	MG	2a	1601	-	-	-	X
56	MG	2a	1602	-	-	-	X
56	MG	2a	1606	-	-	-	X
56	MG	2a	1614	-	-	-	X
56	MG	2a	1630	-	-	-	X
56	MG	2a	1672	-	-	-	X
56	MG	2a	1703	-	-	-	X
56	MG	2l	201	-	-	-	X

## 2 Entry composition [i](#)

There are 59 unique types of molecules in this entry. The entry contains 288175 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 mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	1v	7	Total	C	N	O	P	0	0	0
			153	69	32	45	7			
53	2v	6	Total	C	N	O	P	0	0	0
			113	49	22	36	6			

- Molecule 54 is a RNA chain called ACCA-DPhe.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	1w	4	Total	C	N	O	P	0	0	1
			75	38	13	21	3			
54	2w	4	Total	C	N	O	P	0	0	1
			75	38	13	21	3			

- Molecule 55 is a RNA chain called P-site tRNA, Deacylated Initiator Methionyl-tRNA.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
55	1x	76	Total	C	N	O	P	S	0	0	0
			1625	725	294	529	76	1			
55	2x	76	Total	C	N	O	P	S	0	0	0
			1625	725	294	529	76	1			

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

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	1A	548	Total	Mg	0	0
			548	548		
56	1B	19	Total	Mg	0	0
			19	19		
56	1D	4	Total	Mg	0	0
			4	4		
56	1E	4	Total	Mg	0	0
			4	4		
56	1F	2	Total	Mg	0	0
			2	2		
56	1G	1	Total	Mg	0	0
			1	1		
56	1H	1	Total	Mg	0	0
			1	1		
56	1P	2	Total	Mg	0	0
			2	2		
56	1Q	2	Total	Mg	0	0
			2	2		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	1R	2	Total Mg 2 2	0	0
56	1T	3	Total Mg 3 3	0	0
56	1V	3	Total Mg 3 3	0	0
56	1W	1	Total Mg 1 1	0	0
56	1X	1	Total Mg 1 1	0	0
56	1Y	1	Total Mg 1 1	0	0
56	1Z	1	Total Mg 1 1	0	0
56	10	4	Total Mg 4 4	0	0
56	15	1	Total Mg 1 1	0	0
56	16	1	Total Mg 1 1	0	0
56	17	2	Total Mg 2 2	0	0
56	18	2	Total Mg 2 2	0	0
56	19	1	Total Mg 1 1	0	0
56	1a	89	Total Mg 89 89	0	0
56	1d	1	Total Mg 1 1	0	0
56	1e	1	Total Mg 1 1	0	0
56	1l	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	1v	1	Total Mg 1 1	0	0
56	1x	9	Total Mg 9 9	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	2A	474	Total Mg 474 474	0	0
56	2B	10	Total Mg 10 10	0	0
56	2D	3	Total Mg 3 3	0	0
56	2E	5	Total Mg 5 5	0	0
56	2F	1	Total Mg 1 1	0	0
56	2O	1	Total Mg 1 1	0	0
56	2Q	1	Total Mg 1 1	0	0
56	2R	2	Total Mg 2 2	0	0
56	2W	1	Total Mg 1 1	0	0
56	2Z	1	Total Mg 1 1	0	0
56	20	1	Total Mg 1 1	0	0
56	21	1	Total Mg 1 1	0	0
56	23	1	Total Mg 1 1	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	113	Total Mg 113 113	0	0
56	2c	1	Total Mg 1 1	0	0
56	2d	1	Total Mg 1 1	0	0
56	2f	2	Total Mg 2 2	0	0
56	2l	2	Total Mg 2 2	0	0

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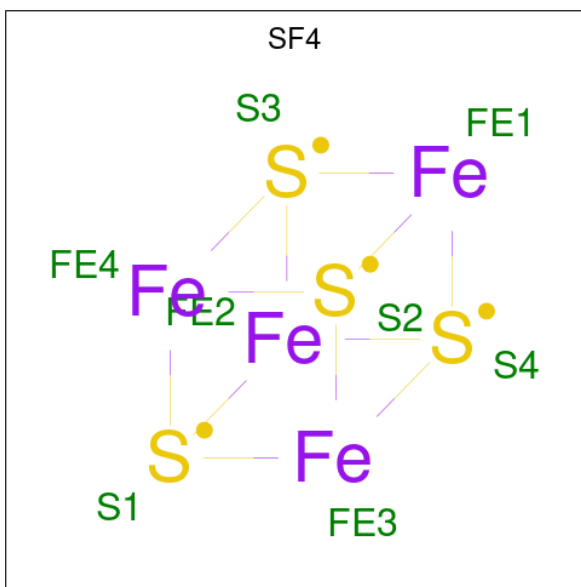
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	2n	1	Total 1	Mg 1	0	0
56	2q	1	Total 1	Mg 1	0	0
56	2r	1	Total 1	Mg 1	0	0
56	2x	1	Total 1	Mg 1	0	0

- Molecule 57 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	1Y	1	Total 1	Zn 1	0	0
57	14	1	Total 1	Zn 1	0	0
57	15	1	Total 1	Zn 1	0	0
57	16	1	Total 1	Zn 1	0	0
57	19	1	Total 1	Zn 1	0	0
57	1n	1	Total 1	Zn 1	0	0
57	2Y	1	Total 1	Zn 1	0	0
57	24	1	Total 1	Zn 1	0	0
57	25	1	Total 1	Zn 1	0	0
57	26	1	Total 1	Zn 1	0	0
57	29	1	Total 1	Zn 1	0	0
57	2n	1	Total 1	Zn 1	0	0

- Molecule 58 is IRON/SULFUR CLUSTER (three-letter code: SF4) (formula: Fe<sub>4</sub>S<sub>4</sub>).



Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
58	1d	1	Total	Fe S	0	0
			8	4 4		
58	2d	1	Total	Fe S	0	0
			8	4 4		

- Molecule 59 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	1A	145	Total	O	0	0
			145	145		
59	1B	6	Total	O	0	0
			6	6		
59	1D	4	Total	O	0	0
			4	4		
59	1F	2	Total	O	0	0
			2	2		
59	1O	1	Total	O	0	0
			1	1		
59	1X	1	Total	O	0	0
			1	1		
59	10	1	Total	O	0	0
			1	1		
59	1a	12	Total	O	0	0
			12	12		
59	2A	44	Total	O	0	0
			44	44		
59	2E	1	Total	O	0	0
			1	1		

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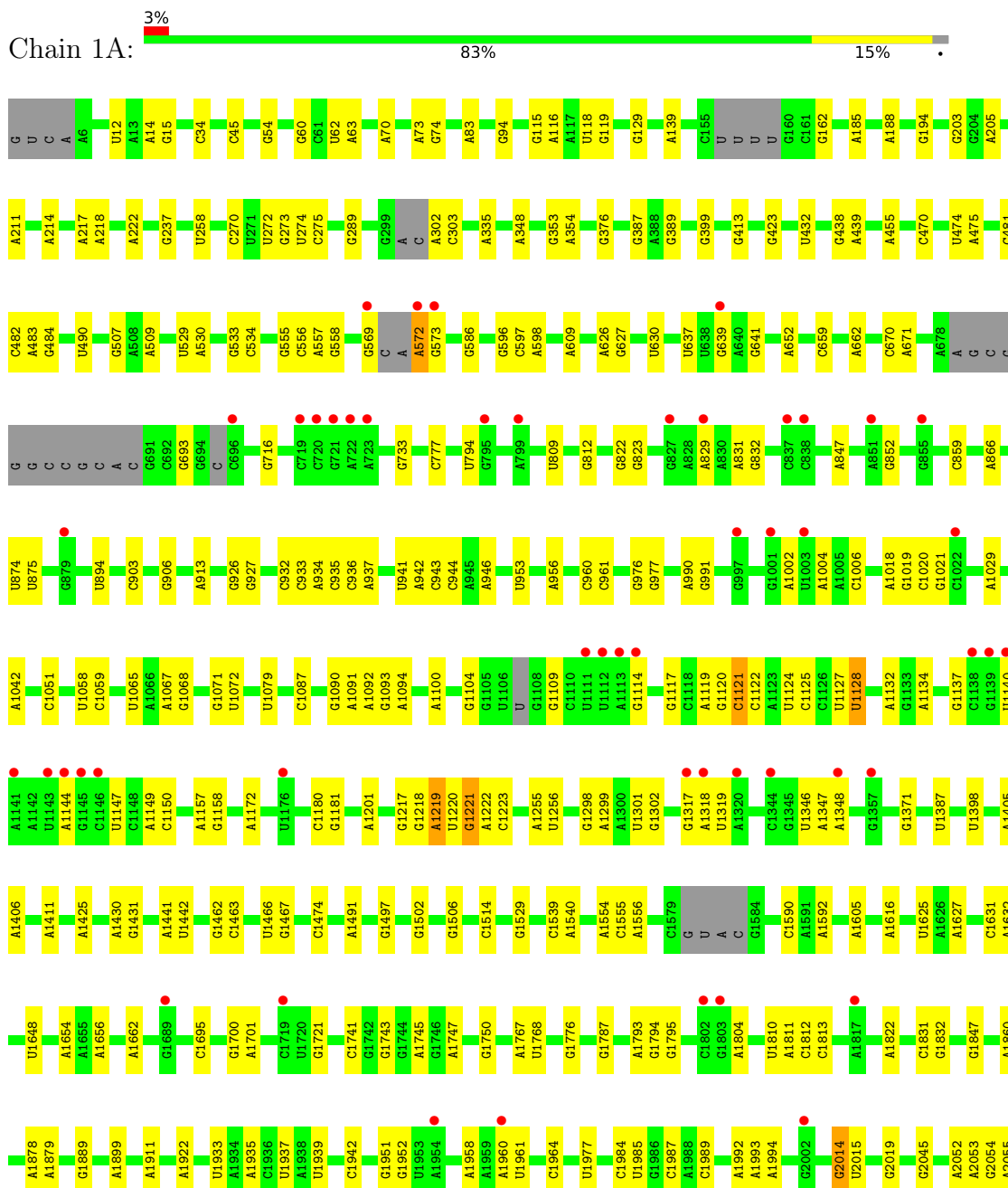
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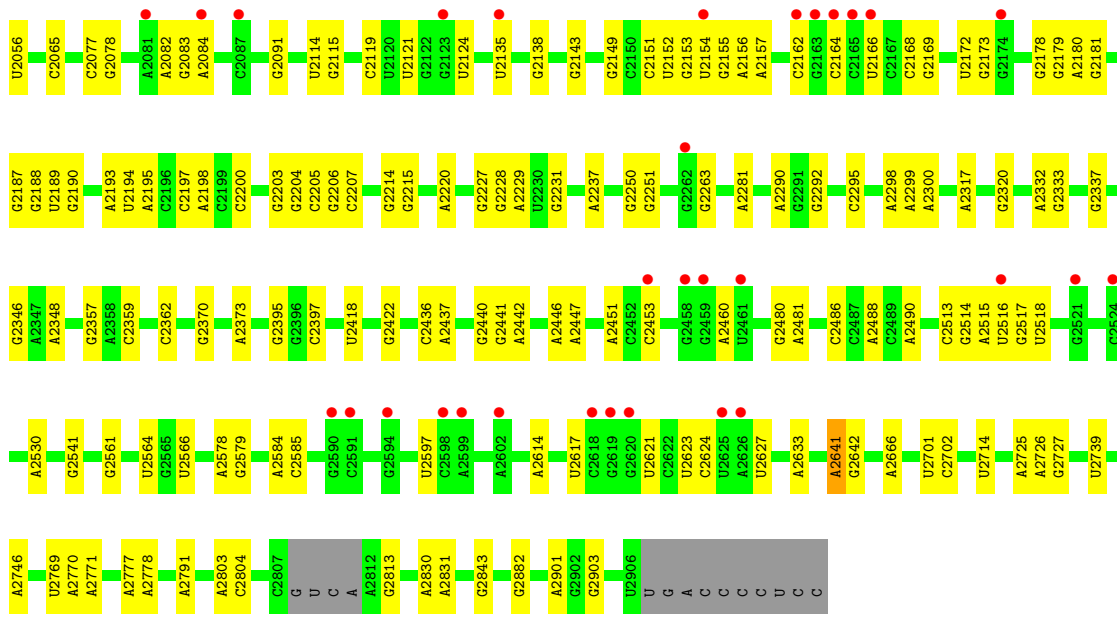
<b>Mol</b>	<b>Chain</b>	<b>Residues</b>	<b>Atoms</b>		<b>ZeroOcc</b>	<b>AltConf</b>
59	2a	30	Total	O	0	0
			30	30		

### 3 Residue-property plots

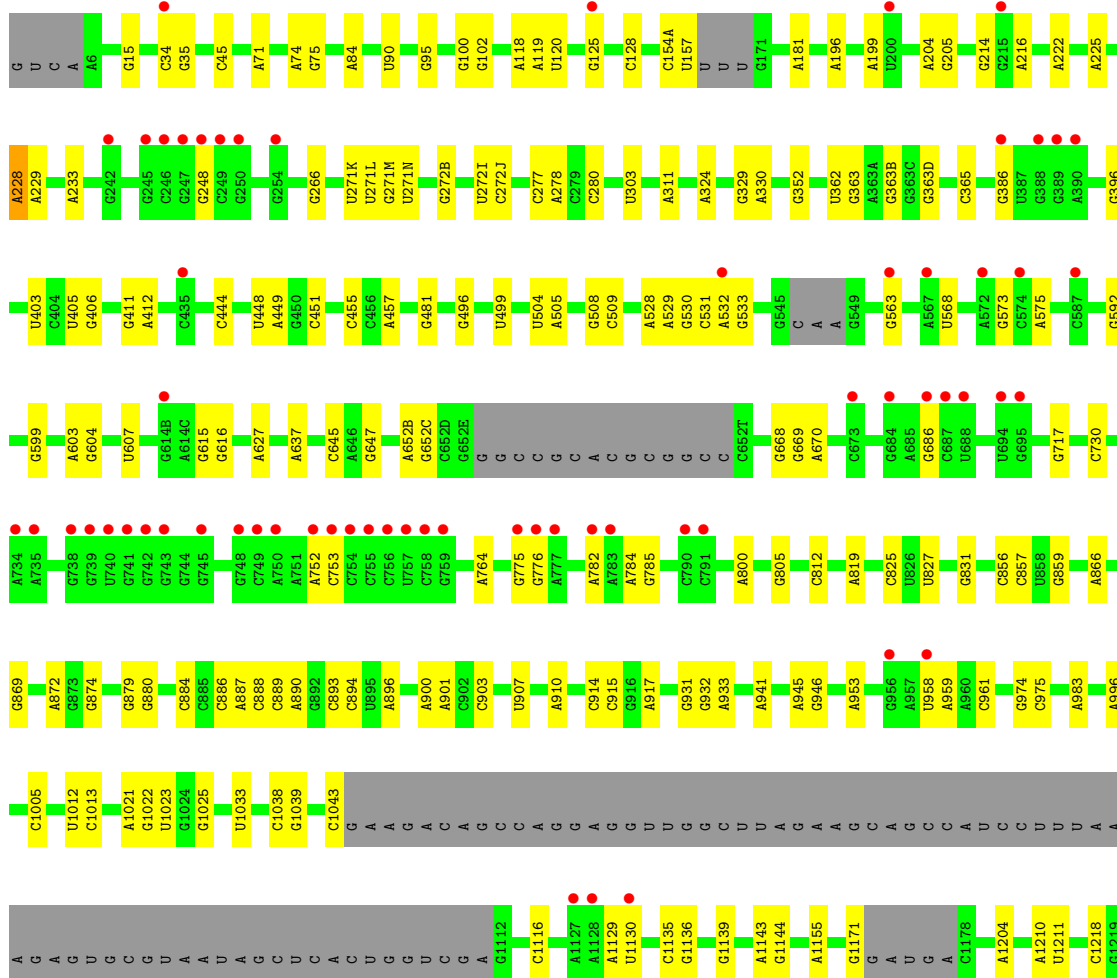
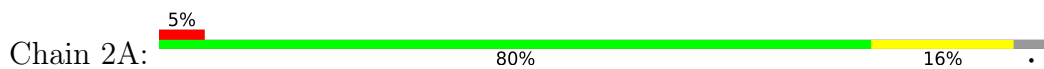
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density.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

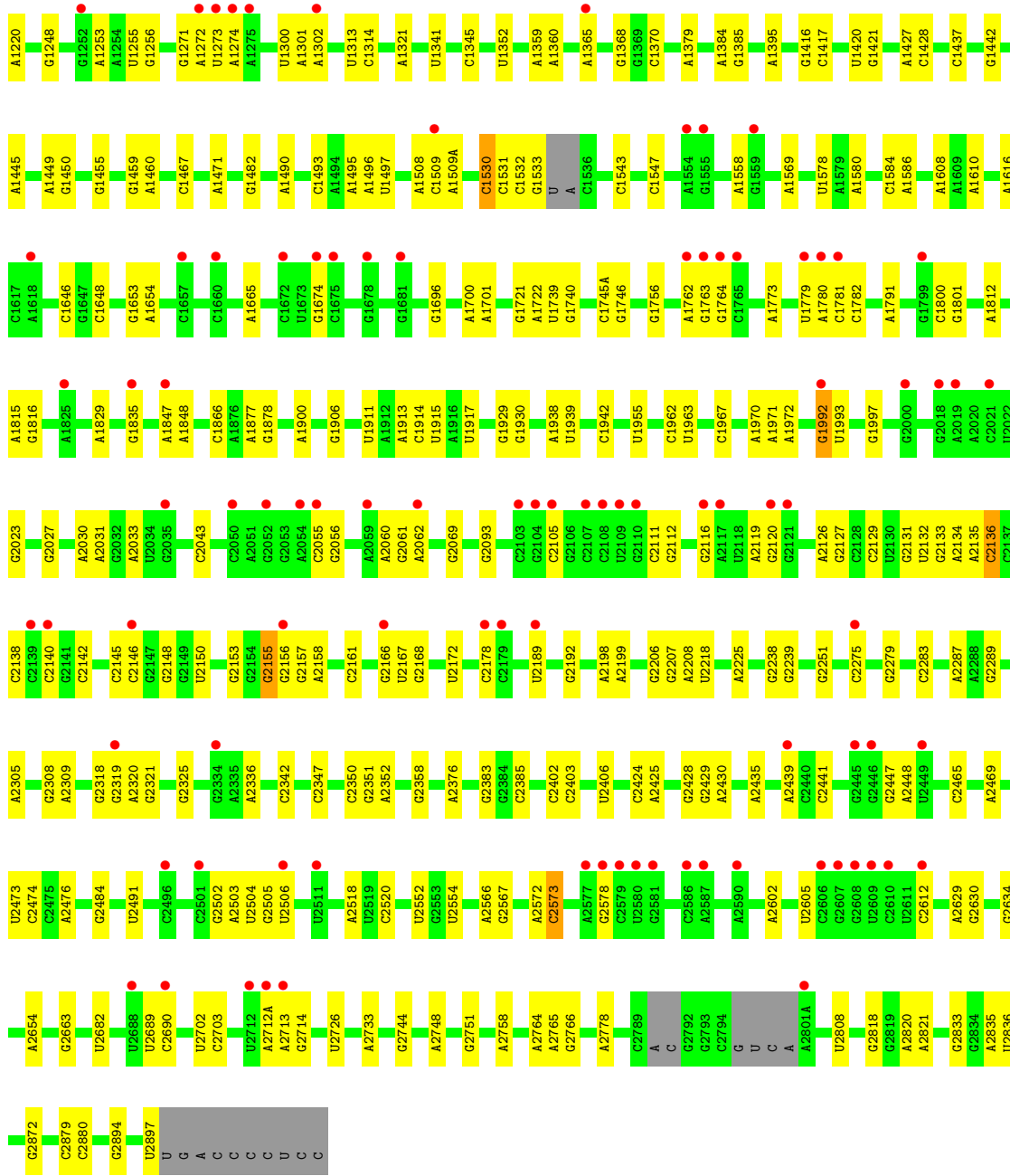
#### • Molecule 1: 23S Ribosomal RNA



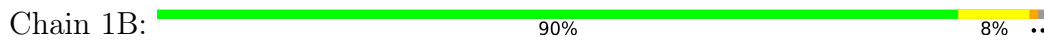


● Molecule 1: 23S Ribosomal RNA

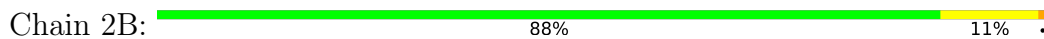




• Molecule 2: 5S Ribosomal RNA

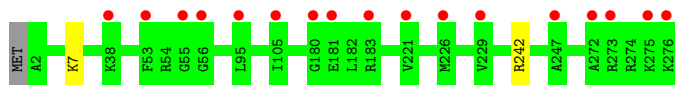


• Molecule 2: 5S Ribosomal RNA

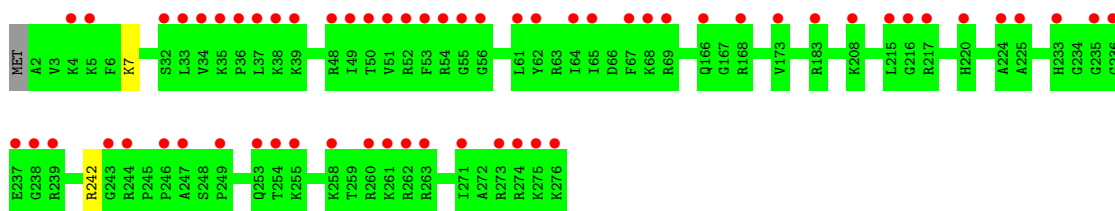




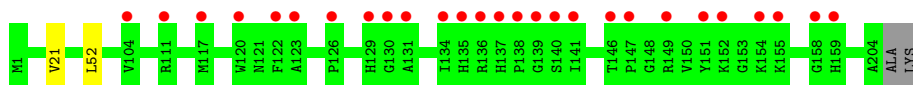
- Molecule 3: 50S Ribosomal Protein L2



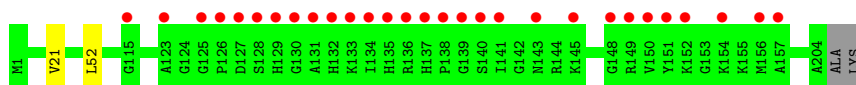
- Molecule 3: 50S Ribosomal Protein L2



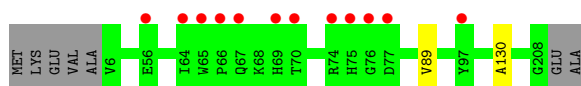
- Molecule 4: 50S Ribosomal Protein L3



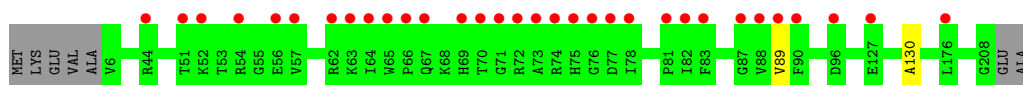
- Molecule 4: 50S Ribosomal Protein L3



- Molecule 5: 50S Ribosomal Protein L4



- Molecule 5: 50S Ribosomal Protein L4



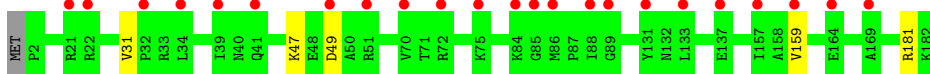
- Molecule 6: 50S Ribosomal Protein L5

Chain 1G:  98%



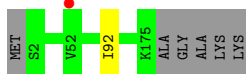
- Molecule 6: 50S Ribosomal Protein L5

Chain 2G:  13% 97%



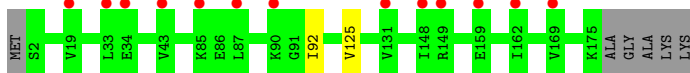
- Molecule 7: 50S Ribosomal Protein L6

Chain 1H:  % 96%



- Molecule 7: 50S Ribosomal Protein L6

Chain 2H:  7% 96%



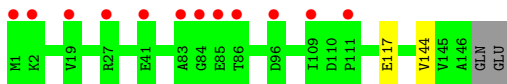
- Molecule 8: 50S Ribosomal Protein L9

Chain 1I:  2% 97%



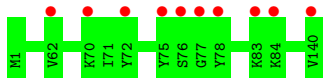
- Molecule 8: 50S Ribosomal Protein L9

Chain 2I:  8% 97%

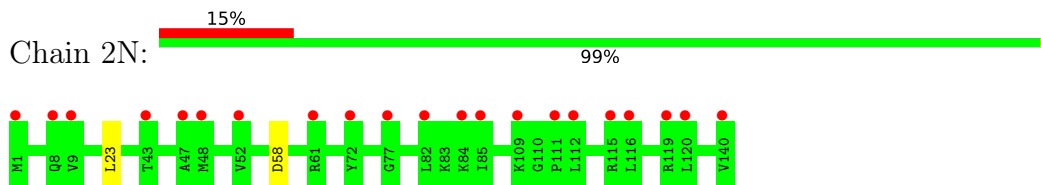


- Molecule 9: 50S Ribosomal Protein L13

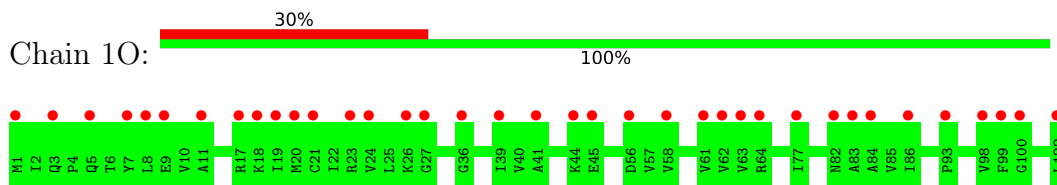
Chain 1N:  7% 100%



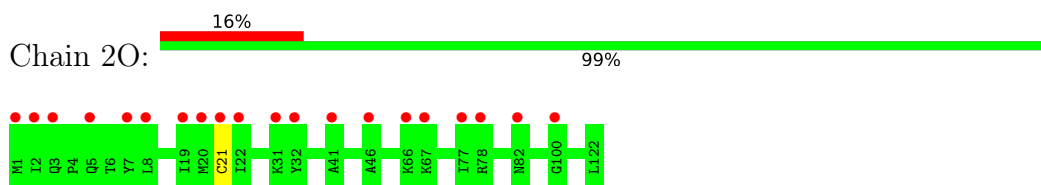
- Molecule 9: 50S Ribosomal Protein L13



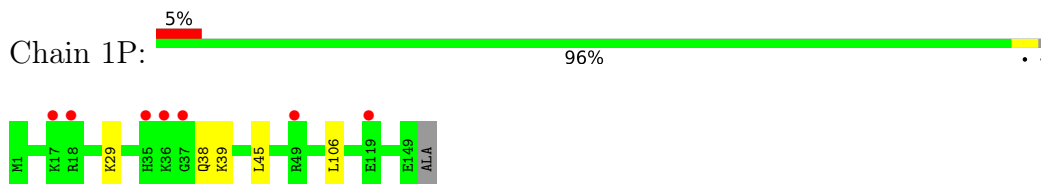
- Molecule 10: 50S Ribosomal Protein L14



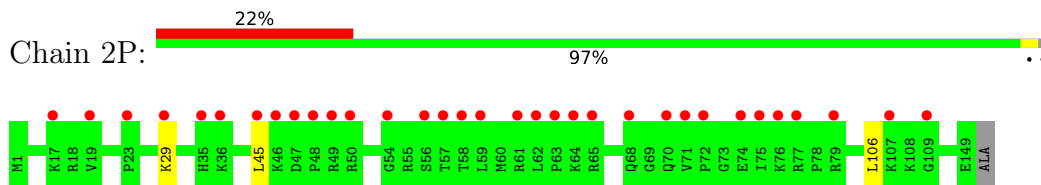
- Molecule 10: 50S Ribosomal Protein L14



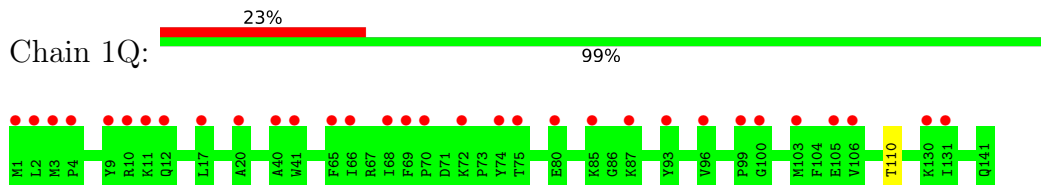
- Molecule 11: 50S Ribosomal Protein L15



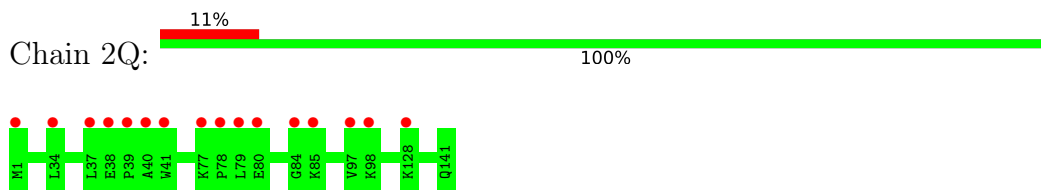
- Molecule 11: 50S Ribosomal Protein L15



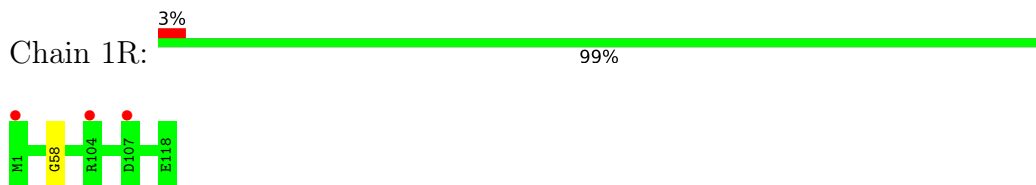
- Molecule 12: 50S Ribosomal Protein L16



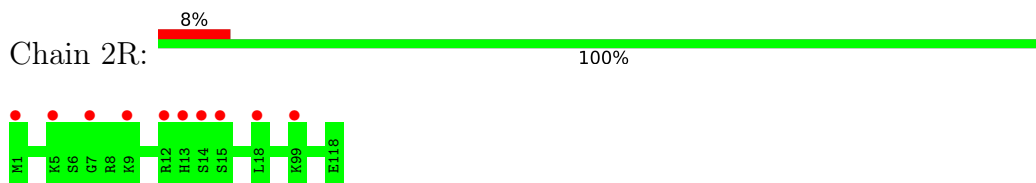
- Molecule 12: 50S Ribosomal Protein L16



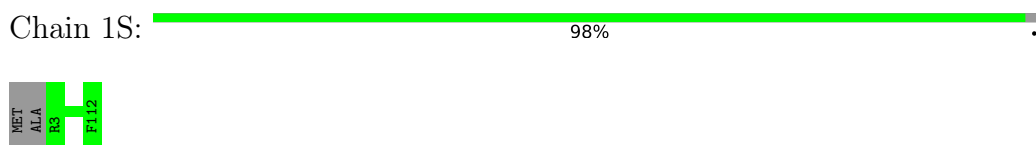
- Molecule 13: 50S Ribosomal Protein L17



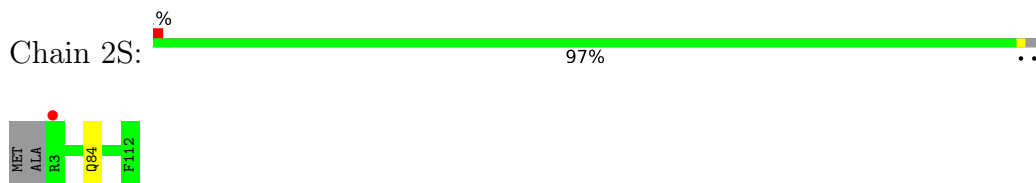
- Molecule 13: 50S Ribosomal Protein L17



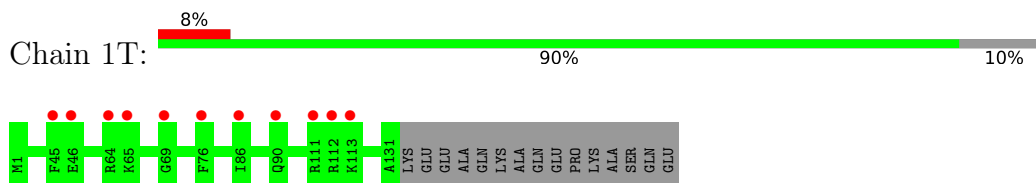
- Molecule 14: 50S Ribosomal Protein L18



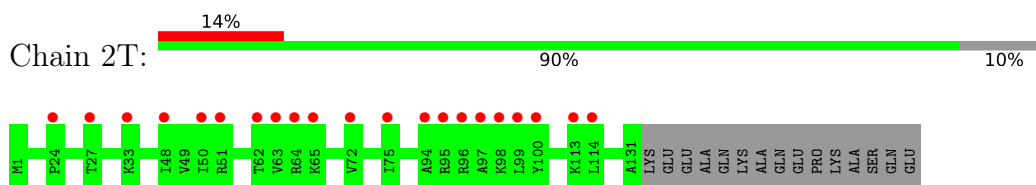
- Molecule 14: 50S Ribosomal Protein L18



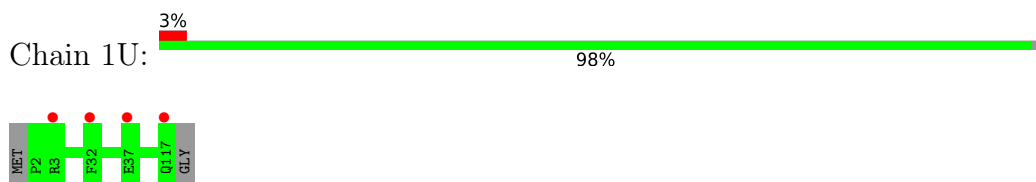
- Molecule 15: 50S Ribosomal Protein L19



- Molecule 15: 50S Ribosomal Protein L19

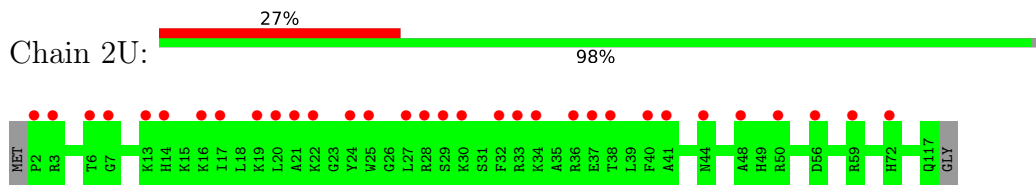


- Molecule 16: 50S Ribosomal Protein L20

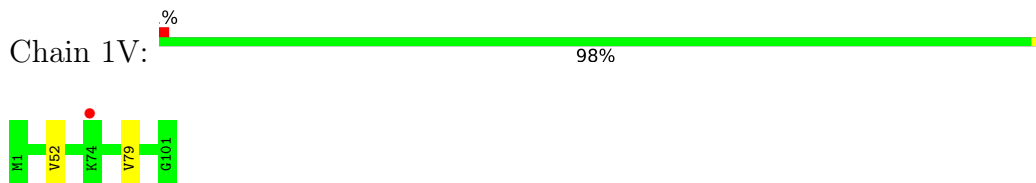




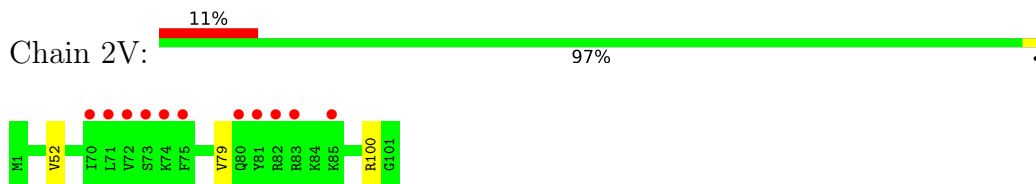
- Molecule 16: 50S Ribosomal Protein L20



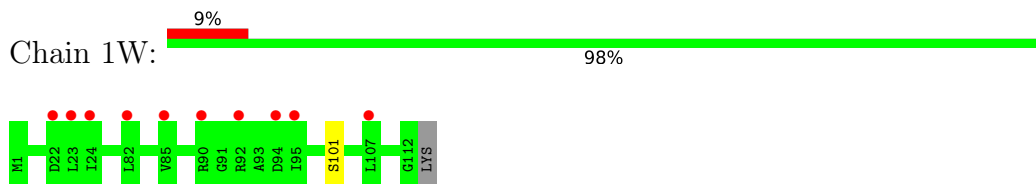
- Molecule 17: 50S Ribosomal Protein L21



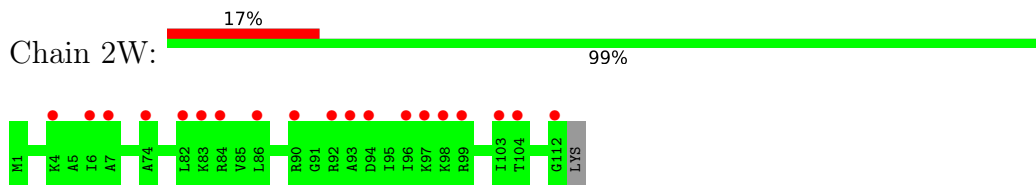
- Molecule 17: 50S Ribosomal Protein L21



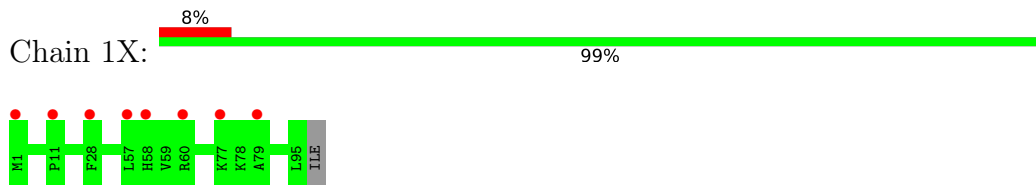
- Molecule 18: 50S Ribosomal Protein L22



- Molecule 18: 50S Ribosomal Protein L22



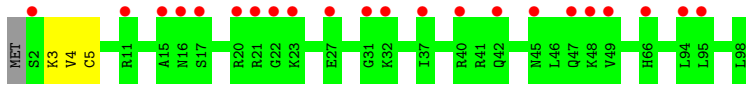
- Molecule 19: 50S Ribosomal Protein L23



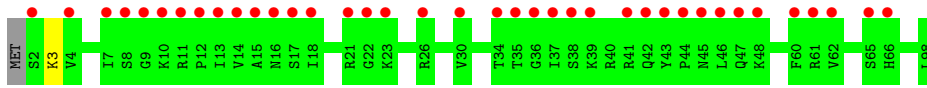
- Molecule 19: 50S Ribosomal Protein L23







- Molecule 23: 50S ribosomal protein L28



- Molecule 24: 50S ribosomal protein L29



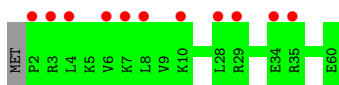
- Molecule 24: 50S ribosomal protein L29



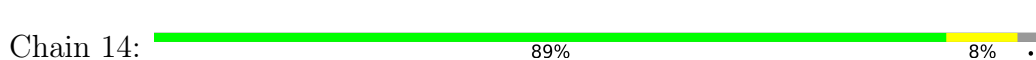
- Molecule 25: 50S ribosomal protein L30



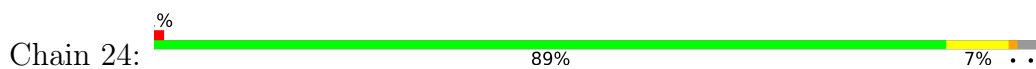
- Molecule 25: 50S ribosomal protein L30

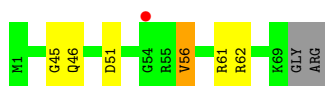


- Molecule 26: 50S ribosomal protein L31



- Molecule 26: 50S ribosomal protein L31

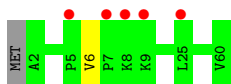




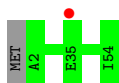
- Molecule 27: 50S ribosomal protein L32



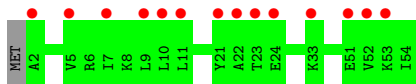
- Molecule 27: 50S ribosomal protein L32



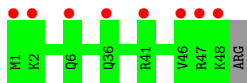
- Molecule 28: 50S ribosomal protein L33



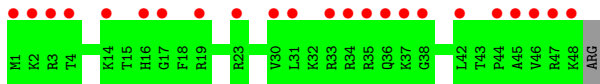
- Molecule 28: 50S ribosomal protein L33



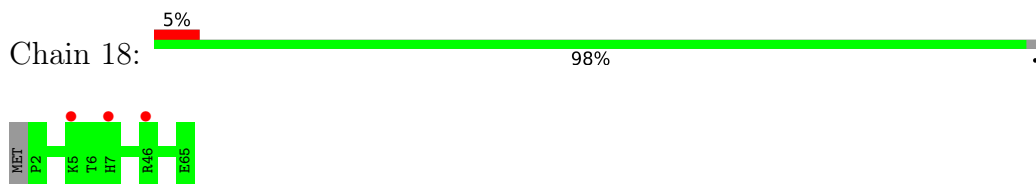
- Molecule 29: 50S ribosomal protein L34



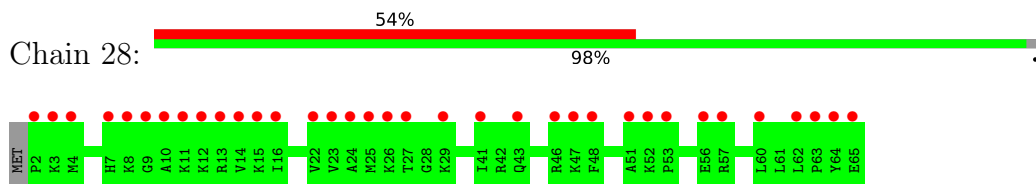
- Molecule 29: 50S ribosomal protein L34



- Molecule 30: 50S Ribosomal Protein L35



- Molecule 30: 50S Ribosomal Protein L35

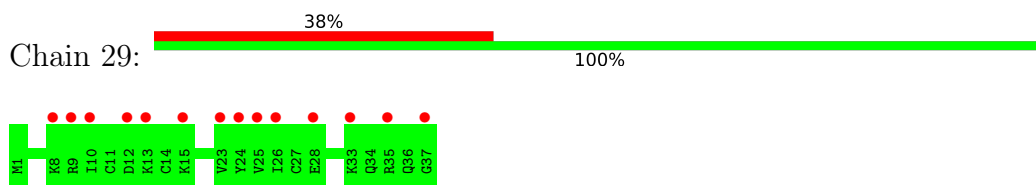


- Molecule 31: 50S Ribosomal Protein L36

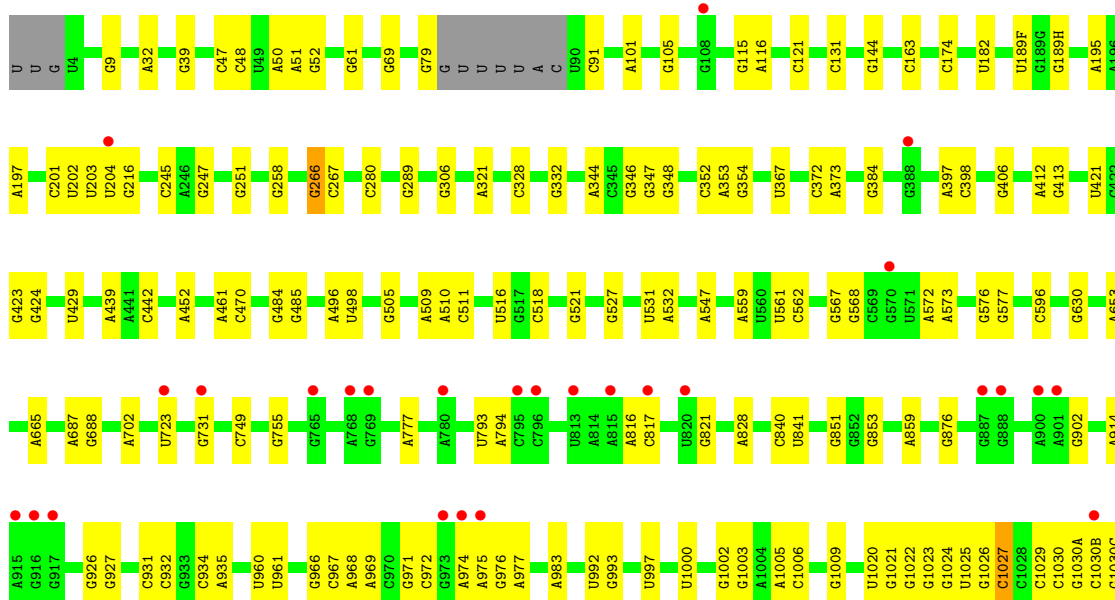
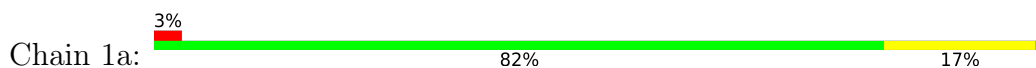


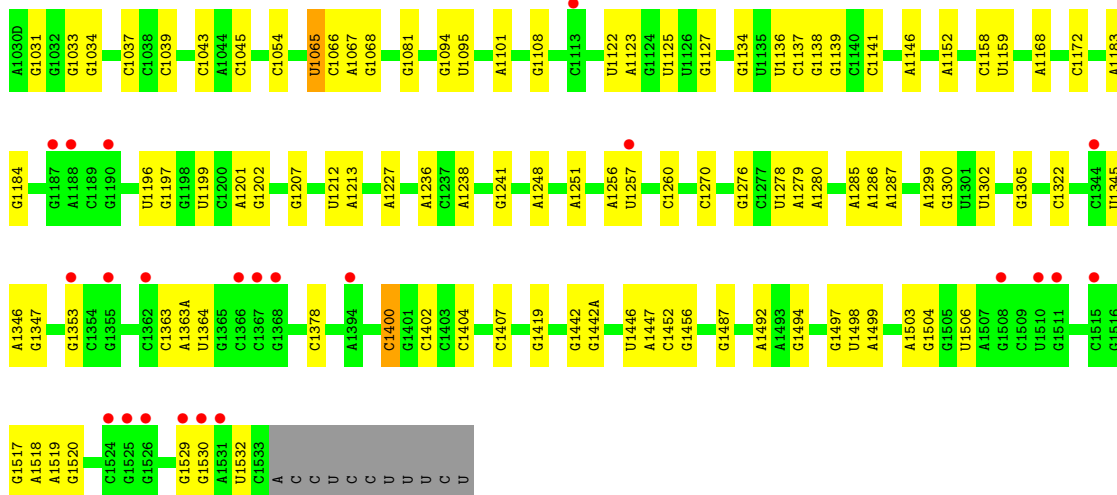
There are no outlier residues recorded for this chain.

- Molecule 31: 50S Ribosomal Protein L36

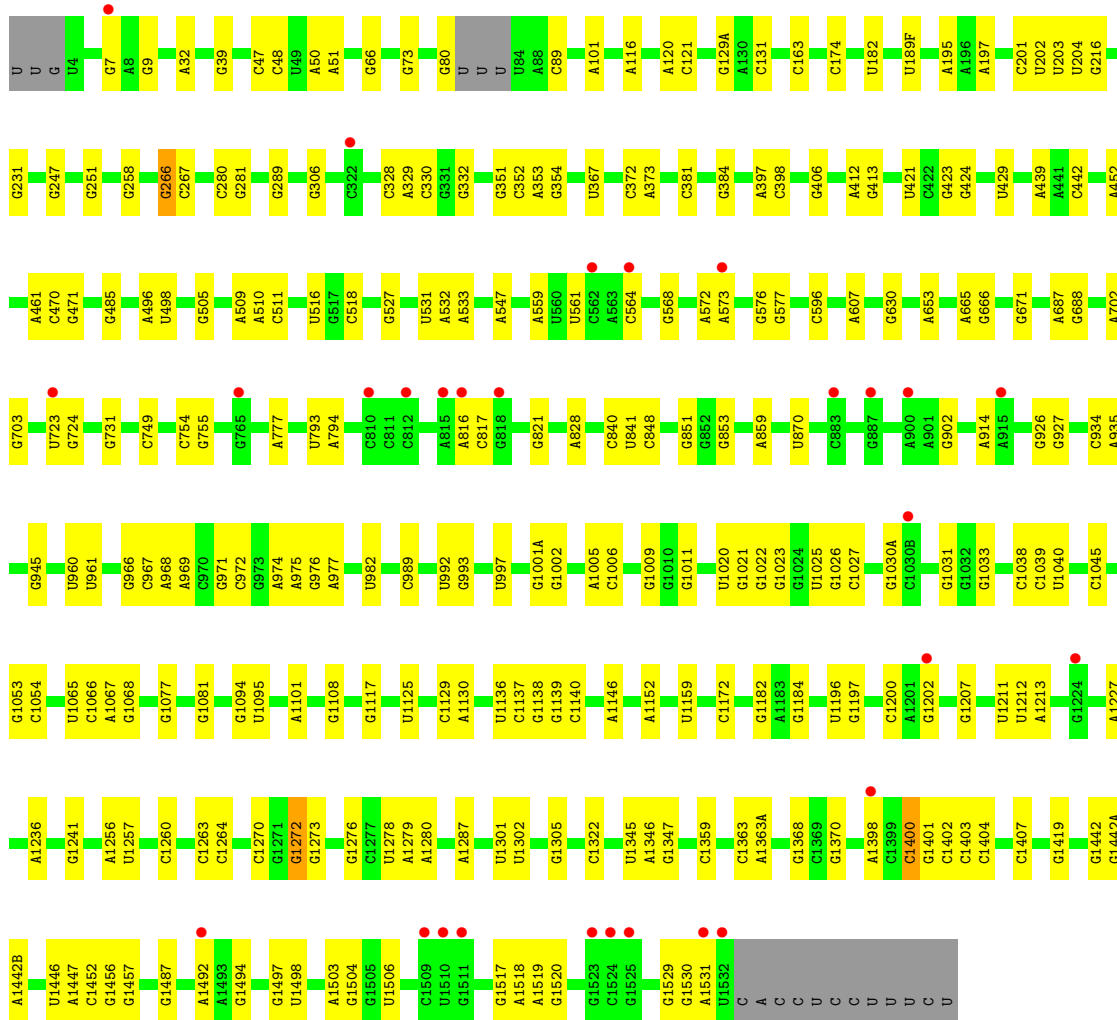
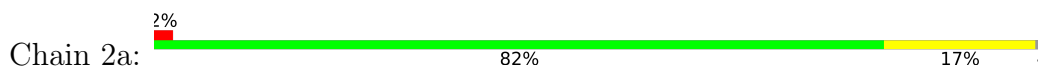


- Molecule 32: 16S Ribosomal RNA

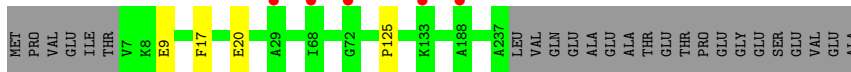
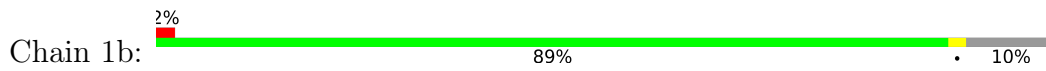




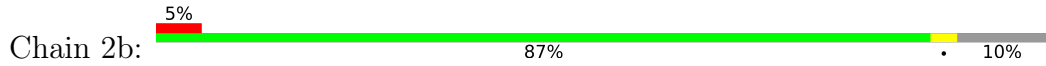
• Molecule 32: 16S Ribosomal RNA



• Molecule 33: 30S Ribosomal Protein S2

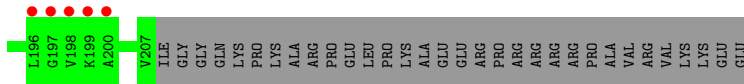
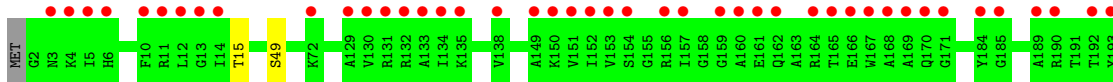
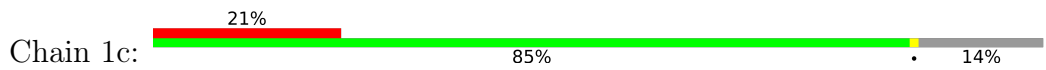


- Molecule 33: 30S Ribosomal Protein S2

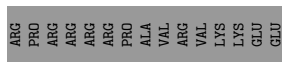
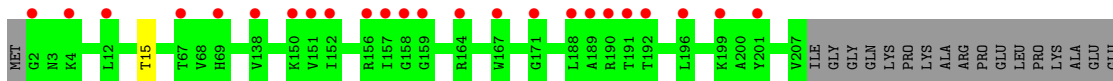
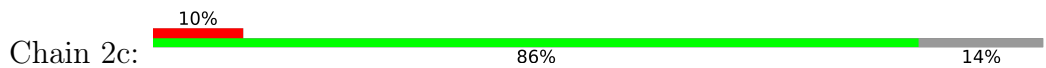


ALA

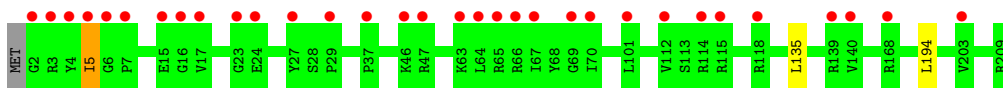
- Molecule 34: 30S Ribosomal Protein S3



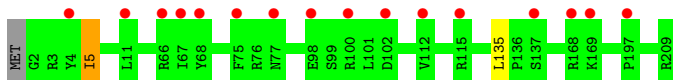
- Molecule 34: 30S Ribosomal Protein S3



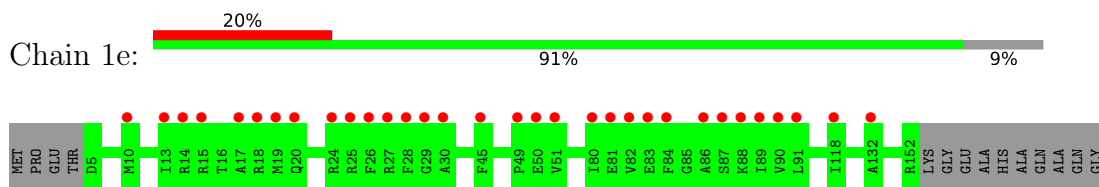
- Molecule 35: 30S Ribosomal Protein S4



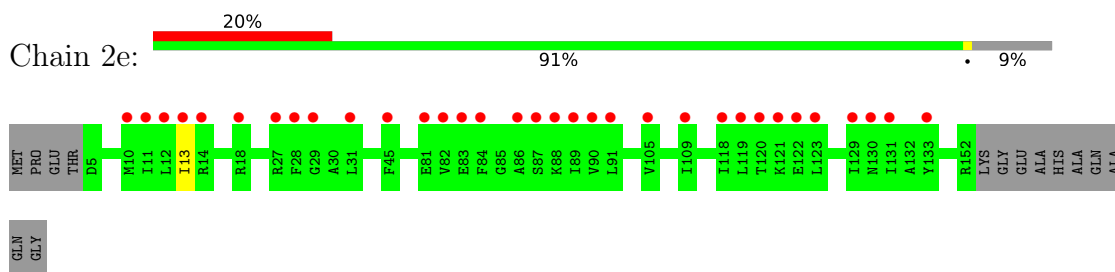
- Molecule 35: 30S Ribosomal Protein S4



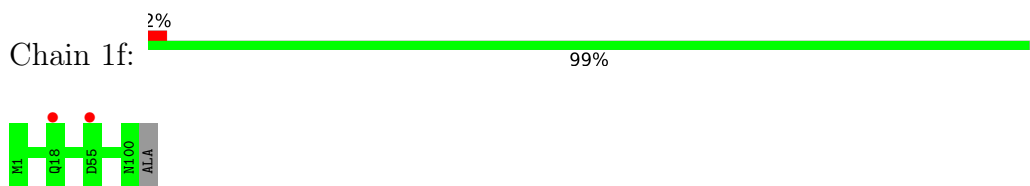
- Molecule 36: 30S Ribosomal Protein S5



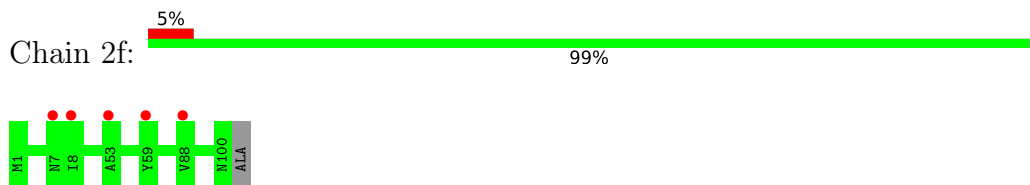
- Molecule 36: 30S Ribosomal Protein S5



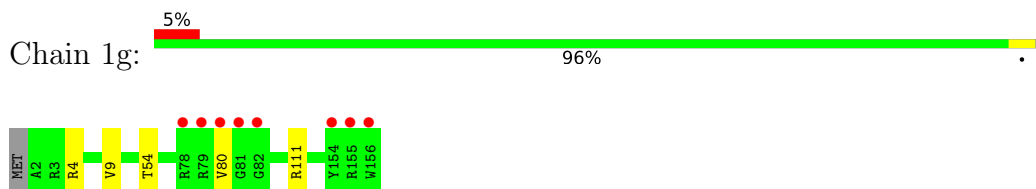
- Molecule 37: 30S Ribosomal Protein S6



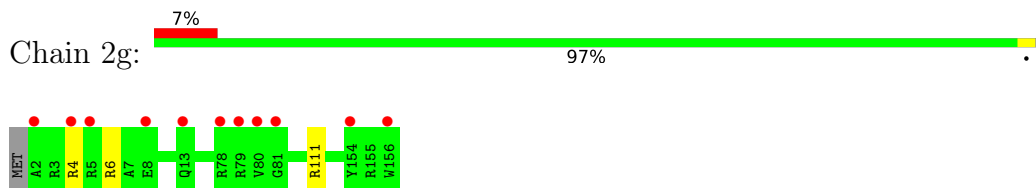
- Molecule 37: 30S Ribosomal Protein S6



- Molecule 38: 30S Ribosomal Protein S7



- Molecule 38: 30S Ribosomal Protein S7



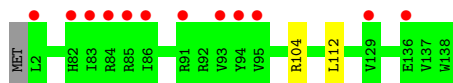
- Molecule 39: 30S Ribosomal Protein S8



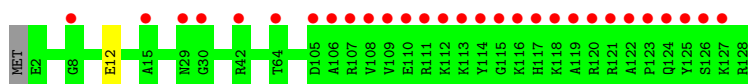




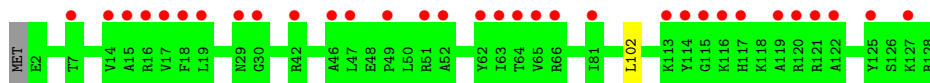
- Molecule 39: 30S Ribosomal Protein S8



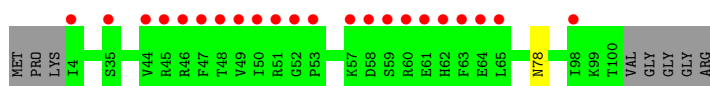
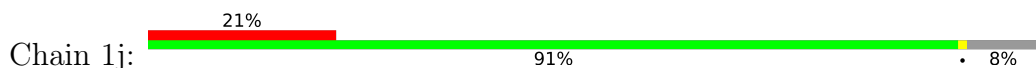
- Molecule 40: 30S ribosomal protein S9



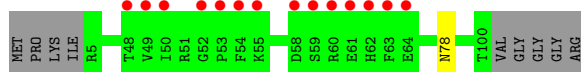
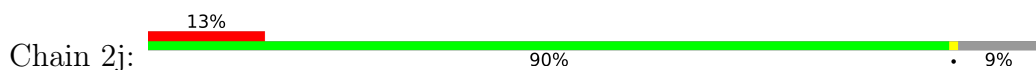
- Molecule 40: 30S ribosomal protein S9



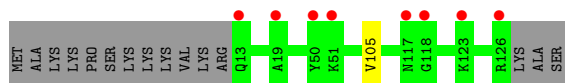
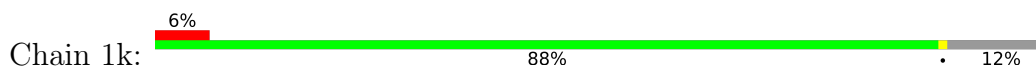
- Molecule 41: 30S ribosomal protein S10



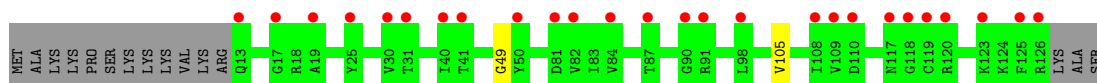
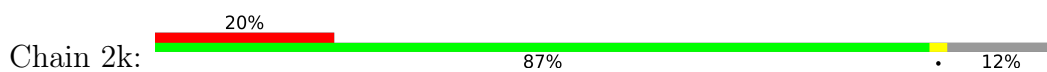
- Molecule 41: 30S ribosomal protein S10



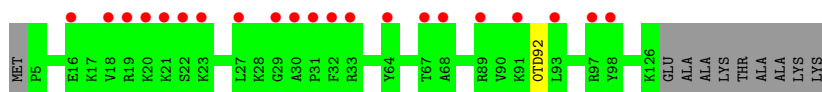
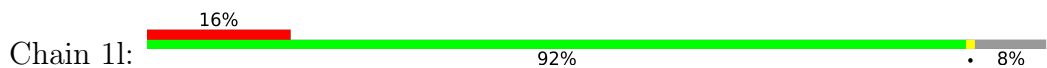
- Molecule 42: 30S ribosomal protein S11



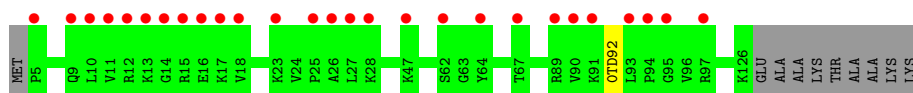
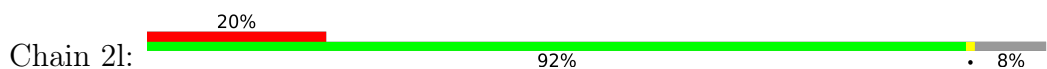
- Molecule 42: 30S ribosomal protein S11



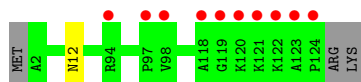
- Molecule 43: 30S ribosomal protein S12



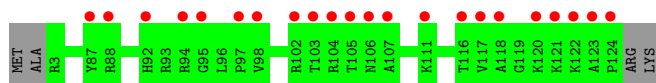
- Molecule 43: 30S ribosomal protein S12



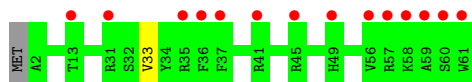
- Molecule 44: 30S ribosomal protein S13



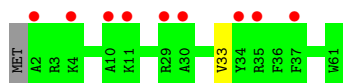
- Molecule 44: 30S ribosomal protein S13



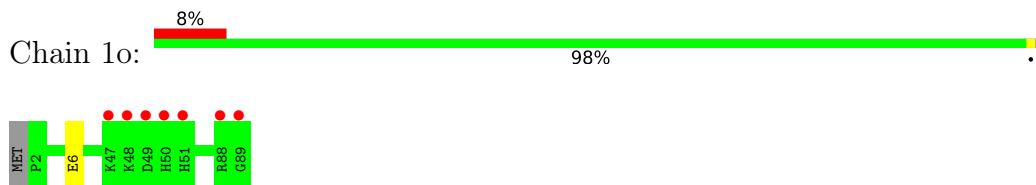
- Molecule 45: 30S ribosomal protein S14 type Z



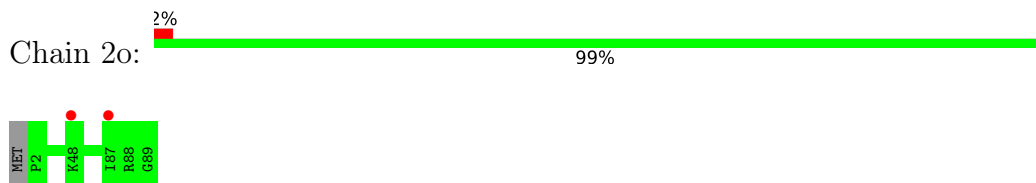
- Molecule 45: 30S ribosomal protein S14 type Z



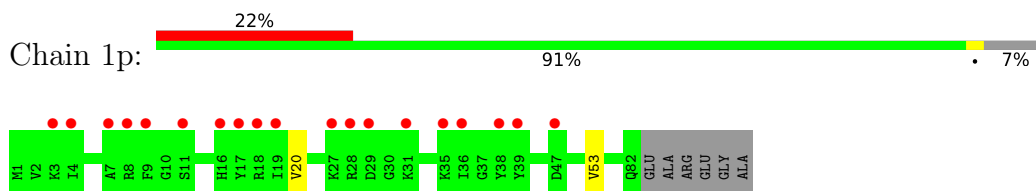
- Molecule 46: 30S ribosomal protein S15



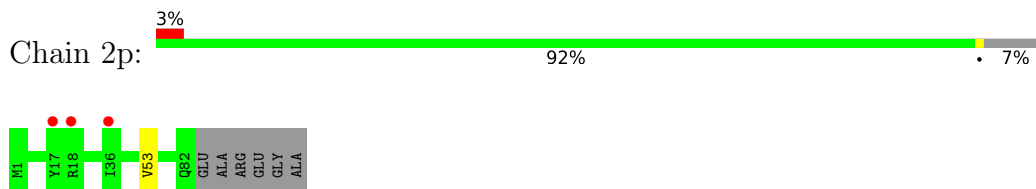
- Molecule 46: 30S ribosomal protein S15



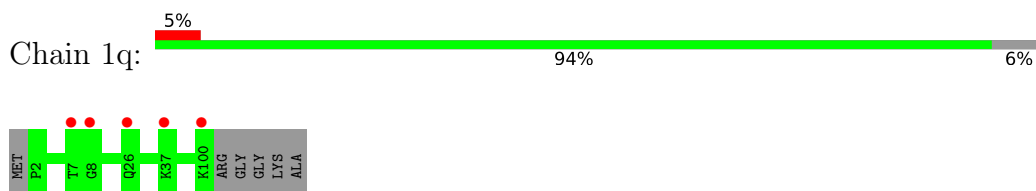
- Molecule 47: 30S ribosomal protein S16



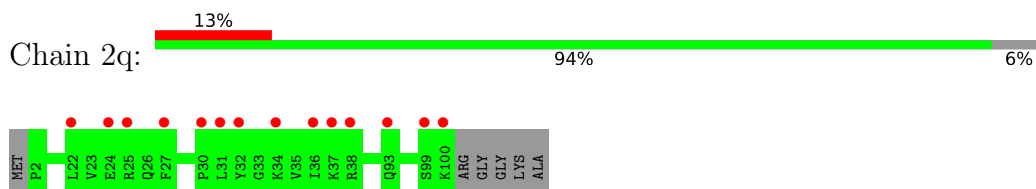
- Molecule 47: 30S ribosomal protein S16



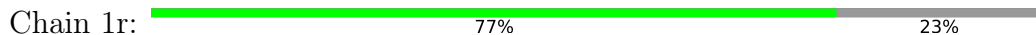
- Molecule 48: 30S ribosomal protein S17

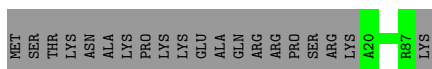


- Molecule 48: 30S ribosomal protein S17

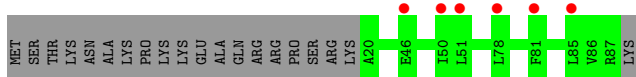
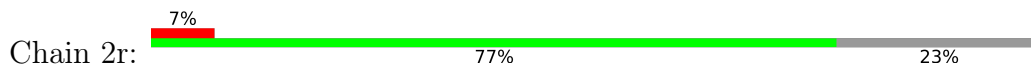


- Molecule 49: 30S ribosomal protein S18

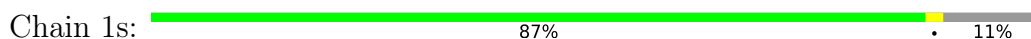




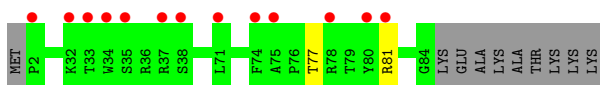
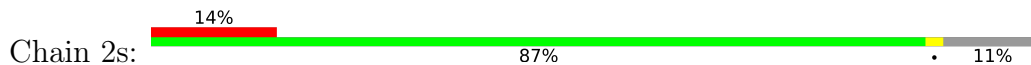
- Molecule 49: 30S ribosomal protein S18



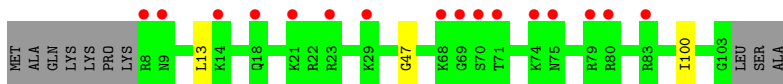
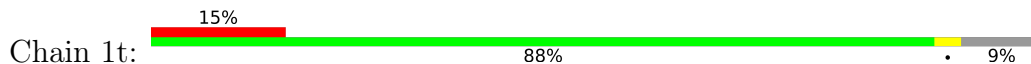
- Molecule 50: 30S Ribosomal Protein S19



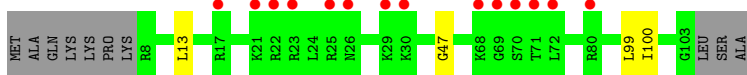
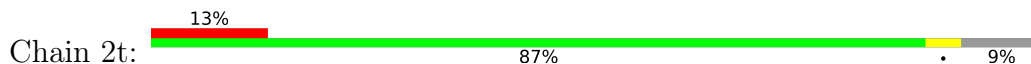
- Molecule 50: 30S Ribosomal Protein S19



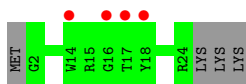
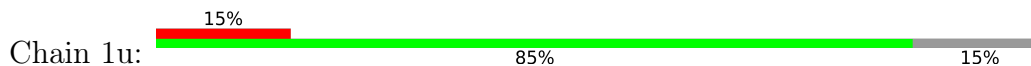
- Molecule 51: 30S Ribosomal Protein S20



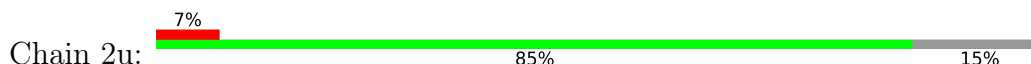
- Molecule 51: 30S Ribosomal Protein S20

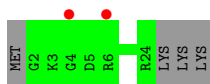


- Molecule 52: 30S ribosomal protein Thx

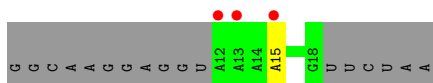


- Molecule 52: 30S ribosomal protein Thx





- Molecule 53: mRNA



- Molecule 53: mRNA



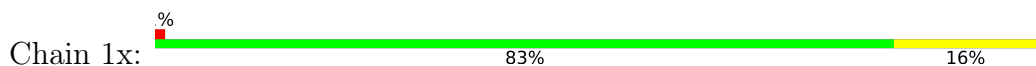
- Molecule 54: ACCA-DPhe



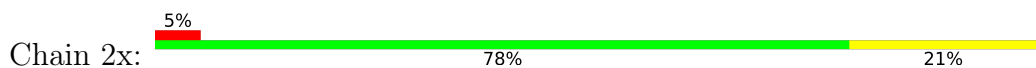
- Molecule 54: ACCA-DPhe



- Molecule 55: P-site tRNA, Deacylated Initiator Methionyl-tRNA



- Molecule 55: P-site tRNA, Deacylated Initiator Methionyl-tRNA



## 4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	211.39Å 452.15Å 617.64Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	255.01 – 3.70 255.01 – 3.70	Depositor EDS
% Data completeness (in resolution range)	98.5 (255.01-3.70) 98.5 (255.01-3.70)	Depositor EDS
$R_{merge}$	0.18	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	1.26 (at 3.68Å)	Xtrriage
Refinement program	PHENIX 1.8.2	Depositor
R, $R_{free}$	0.236 , 0.279 0.236 , 0.279	Depositor DCC
$R_{free}$ test set	30953 reflections (5.03%)	wwPDB-VP
Wilson B-factor (Å <sup>2</sup> )	123.6	Xtrriage
Anisotropy	0.051	Xtrriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.24 , 41.8	EDS
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.43$ , $\langle L^2 \rangle = 0.25$	Xtrriage
Estimated twinning fraction	No twinning to report.	Xtrriage
$F_o, F_c$ correlation	0.85	EDS
Total number of atoms	288175	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	103.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.69% 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: ZN, 0TD, 2MA, MA6, 2MU, M2G, MG, SF4, OMG, 4OC, 4SU, 5MU, PSU, 7MG, KGV, 5MC, 2MG, UR3

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	0.38	0/69009	0.80	18/107712 (0.0%)
1	2A	0.33	0/67293	0.79	12/105034 (0.0%)
2	1B	0.34	1/2882 (0.0%)	0.76	0/4494
2	2B	0.34	1/2879 (0.0%)	0.76	1/4487 (0.0%)
3	1D	0.35	1/2186 (0.0%)	0.49	0/2944
3	2D	0.36	1/2186 (0.0%)	0.48	0/2944
4	1E	0.28	0/1592	0.47	0/2149
4	2E	0.29	0/1592	0.46	0/2149
5	1F	0.30	0/1619	0.46	0/2193
5	2F	0.29	0/1615	0.45	0/2188
6	1G	0.27	0/1448	0.46	0/1957
6	2G	0.28	0/1453	0.46	0/1963
7	1H	0.29	0/1356	0.44	0/1834
7	2H	0.28	0/1356	0.44	0/1834
8	1I	0.27	0/1112	0.44	0/1514
8	2I	0.27	0/1079	0.45	0/1475
9	1N	0.27	0/1144	0.44	0/1543
9	2N	0.27	0/1144	0.43	0/1543
10	1O	0.31	0/943	0.47	0/1269
10	2O	0.32	0/943	0.49	0/1269
11	1P	0.30	0/1152	0.50	0/1533
11	2P	0.29	0/1152	0.51	0/1533
12	1Q	0.30	0/1143	0.46	0/1527
12	2Q	0.27	0/1143	0.45	0/1527
13	1R	0.26	0/982	0.45	0/1312
13	2R	0.26	0/982	0.44	0/1312
14	1S	0.27	0/883	0.43	0/1176
14	2S	0.27	0/880	0.42	0/1172
15	1T	0.27	0/1105	0.44	0/1477
15	2T	0.30	0/1097	0.46	0/1468
16	1U	0.29	0/977	0.41	0/1301

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
16	2U	0.27	0/977	0.39	0/1301
17	1V	0.29	0/782	0.48	0/1049
17	2V	0.27	0/782	0.48	0/1049
18	1W	0.29	0/897	0.44	0/1205
18	2W	0.29	0/897	0.45	0/1205
19	1X	0.29	0/764	0.50	0/1025
19	2X	0.27	0/764	0.47	0/1025
20	1Y	0.31	0/819	0.46	0/1095
20	2Y	0.30	0/819	0.44	0/1095
21	1Z	0.27	0/1267	0.46	0/1717
21	2Z	0.27	0/1299	0.46	0/1763
22	10	0.27	0/662	0.45	0/881
22	20	0.27	0/662	0.45	0/881
23	11	0.31	0/762	0.47	0/1014
23	21	0.29	0/762	0.46	0/1014
24	12	0.29	0/590	0.41	0/781
24	22	0.27	0/590	0.38	0/781
25	13	0.29	0/474	0.45	0/635
25	23	0.26	0/469	0.45	0/630
26	14	0.32	0/565	0.54	0/761
26	24	0.30	0/545	0.48	0/737
27	15	0.31	0/469	0.44	0/635
27	25	0.30	0/469	0.44	0/635
28	16	0.28	0/460	0.46	0/613
28	26	0.28	0/456	0.45	0/608
29	17	0.30	0/426	0.45	0/561
29	27	0.27	0/426	0.44	0/561
30	18	0.29	0/525	0.46	0/691
30	28	0.27	0/525	0.46	0/691
31	19	0.31	0/310	0.50	0/407
31	29	0.32	0/310	0.46	0/407
32	1a	0.32	0/35795	0.82	18/55864 (0.0%)
32	2a	0.32	2/35886 (0.0%)	0.82	15/56005 (0.0%)
33	1b	0.28	0/1881	0.45	0/2542
33	2b	0.29	0/1860	0.44	0/2518
34	1c	0.27	0/1572	0.44	0/2126
34	2c	0.27	0/1566	0.43	0/2119
35	1d	0.27	0/1685	0.44	0/2262
35	2d	0.27	0/1704	0.44	0/2284
36	1e	0.27	0/1145	0.46	0/1543
36	2e	0.28	0/1149	0.47	0/1548
37	1f	0.27	0/823	0.46	0/1115
37	2f	0.26	0/829	0.46	0/1123



Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
38	1g	0.29	0/1250	0.41	0/1679
38	2g	0.28	0/1254	0.40	0/1683
39	1h	0.27	0/1108	0.45	0/1494
39	2h	0.26	0/1108	0.44	0/1494
40	1i	0.30	0/1002	0.45	0/1346
40	2i	0.30	0/997	0.45	0/1343
41	1j	0.25	0/722	0.44	0/982
41	2j	0.26	0/727	0.45	0/988
42	1k	0.27	0/844	0.44	0/1145
42	2k	0.27	0/848	0.44	0/1149
43	1l	0.28	0/937	0.48	0/1260
43	2l	0.27	0/937	0.49	0/1260
44	1m	0.27	0/969	0.47	0/1302
44	2m	0.26	0/961	0.45	0/1291
45	1n	0.28	0/501	0.45	0/664
45	2n	0.27	0/501	0.44	0/664
46	1o	0.26	0/739	0.39	0/985
46	2o	0.27	0/739	0.40	0/985
47	1p	0.26	0/697	0.45	0/939
47	2p	0.29	0/693	0.47	0/935
48	1q	0.27	0/836	0.43	0/1117
48	2q	0.27	0/836	0.43	0/1117
49	1r	0.25	0/560	0.42	0/746
49	2r	0.27	0/560	0.42	0/746
50	1s	0.27	0/667	0.47	0/900
50	2s	0.27	0/661	0.48	0/893
51	1t	0.29	0/730	0.41	0/965
51	2t	0.29	0/729	0.40	0/965
52	1u	0.24	0/203	0.43	0/266
52	2u	0.26	0/203	0.42	0/266
53	1v	0.44	0/172	0.80	0/266
53	2v	0.30	0/126	0.72	0/195
54	1w	0.37	0/45	0.89	0/68
54	2w	0.33	0/45	1.08	0/68
55	1x	0.38	0/1725	0.95	2/2689 (0.1%)
55	2x	0.38	0/1725	0.96	3/2689 (0.1%)
All	All	0.33	6/310103 (0.0%)	0.73	69/463879 (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
21	1Z	0	1
21	2Z	0	1
33	2b	0	1
All	All	0	3

The worst 5 of 6 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	1B	1	U	OP3-P	-10.32	1.48	1.61
2	2B	1	U	OP3-P	-10.23	1.48	1.61
3	2D	7	LYS	C-N	-9.93	1.15	1.34
32	2a	1272	G	C6-N1	-7.41	1.34	1.39
3	1D	7	LYS	C-N	-6.56	1.21	1.34

The worst 5 of 69 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	2a	1272	G	C5-C6-O6	14.81	137.49	128.60
32	2a	1272	G	N3-C2-N2	14.25	129.87	119.90
32	2a	1272	G	N1-C2-N2	-12.32	105.11	116.20
32	2a	1272	G	N1-C6-O6	-11.36	113.09	119.90
32	1a	1030(B)	C	N1-C2-O2	9.18	124.41	118.90

There are no chirality outliers.

All (3) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
21	1Z	159	PRO	Peptide
21	2Z	159	PRO	Peptide
33	2b	8	LYS	Peptide

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

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

## 5.3 Torsion angles [i](#)

### 5.3.1 Protein backbone [i](#)

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

of similar resolution.

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	1D	273/276 (99%)	262 (96%)	11 (4%)	0	100	100
3	2D	273/276 (99%)	265 (97%)	8 (3%)	0	100	100
4	1E	202/206 (98%)	194 (96%)	7 (4%)	1 (0%)	29	66
4	2E	202/206 (98%)	190 (94%)	11 (5%)	1 (0%)	29	66
5	1F	201/210 (96%)	194 (96%)	5 (2%)	2 (1%)	15	51
5	2F	201/210 (96%)	194 (96%)	5 (2%)	2 (1%)	15	51
6	1G	179/182 (98%)	165 (92%)	13 (7%)	1 (1%)	25	62
6	2G	179/182 (98%)	170 (95%)	6 (3%)	3 (2%)	9	42
7	1H	172/180 (96%)	162 (94%)	9 (5%)	1 (1%)	25	62
7	2H	172/180 (96%)	168 (98%)	3 (2%)	1 (1%)	25	62
8	1I	144/148 (97%)	130 (90%)	13 (9%)	1 (1%)	22	59
8	2I	144/148 (97%)	130 (90%)	13 (9%)	1 (1%)	22	59
9	1N	138/140 (99%)	132 (96%)	6 (4%)	0	100	100
9	2N	138/140 (99%)	132 (96%)	5 (4%)	1 (1%)	22	59
10	1O	120/122 (98%)	113 (94%)	7 (6%)	0	100	100
10	2O	120/122 (98%)	112 (93%)	8 (7%)	0	100	100
11	1P	147/150 (98%)	137 (93%)	6 (4%)	4 (3%)	5	33
11	2P	147/150 (98%)	137 (93%)	8 (5%)	2 (1%)	11	45
12	1Q	139/141 (99%)	133 (96%)	6 (4%)	0	100	100
12	2Q	139/141 (99%)	132 (95%)	7 (5%)	0	100	100
13	1R	116/118 (98%)	110 (95%)	5 (4%)	1 (1%)	17	54
13	2R	116/118 (98%)	111 (96%)	5 (4%)	0	100	100
14	1S	108/112 (96%)	103 (95%)	5 (5%)	0	100	100
14	2S	108/112 (96%)	104 (96%)	3 (3%)	1 (1%)	17	54
15	1T	129/146 (88%)	125 (97%)	4 (3%)	0	100	100
15	2T	129/146 (88%)	122 (95%)	7 (5%)	0	100	100
16	1U	114/118 (97%)	112 (98%)	2 (2%)	0	100	100
16	2U	114/118 (97%)	114 (100%)	0	0	100	100
17	1V	99/101 (98%)	91 (92%)	7 (7%)	1 (1%)	15	51

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
17	2V	99/101 (98%)	94 (95%)	3 (3%)	2 (2%)	7	39
18	1W	110/113 (97%)	107 (97%)	3 (3%)	0	100	100
18	2W	110/113 (97%)	107 (97%)	3 (3%)	0	100	100
19	1X	93/96 (97%)	90 (97%)	3 (3%)	0	100	100
19	2X	93/96 (97%)	89 (96%)	4 (4%)	0	100	100
20	1Y	105/110 (96%)	100 (95%)	5 (5%)	0	100	100
20	2Y	105/110 (96%)	99 (94%)	6 (6%)	0	100	100
21	1Z	148/206 (72%)	134 (90%)	13 (9%)	1 (1%)	22	59
21	2Z	156/206 (76%)	142 (91%)	12 (8%)	2 (1%)	12	47
22	10	81/85 (95%)	77 (95%)	3 (4%)	1 (1%)	13	48
22	20	81/85 (95%)	76 (94%)	5 (6%)	0	100	100
23	11	95/98 (97%)	93 (98%)	1 (1%)	1 (1%)	14	50
23	21	95/98 (97%)	93 (98%)	1 (1%)	1 (1%)	14	50
24	12	68/72 (94%)	68 (100%)	0	0	100	100
24	22	68/72 (94%)	68 (100%)	0	0	100	100
25	13	57/60 (95%)	54 (95%)	3 (5%)	0	100	100
25	23	57/60 (95%)	55 (96%)	2 (4%)	0	100	100
26	14	67/71 (94%)	51 (76%)	12 (18%)	4 (6%)	1	18
26	24	67/71 (94%)	51 (76%)	10 (15%)	6 (9%)	1	9
27	15	57/60 (95%)	53 (93%)	4 (7%)	0	100	100
27	25	57/60 (95%)	52 (91%)	5 (9%)	0	100	100
28	16	51/54 (94%)	46 (90%)	5 (10%)	0	100	100
28	26	51/54 (94%)	50 (98%)	1 (2%)	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%)	60 (97%)	2 (3%)	0	100	100
30	28	62/65 (95%)	62 (100%)	0	0	100	100
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%)	204 (89%)	21 (9%)	4 (2%)	9	42
33	2b	229/256 (90%)	207 (90%)	18 (8%)	4 (2%)	9	42

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
34	1c	204/239 (85%)	190 (93%)	14 (7%)	0	100	100
34	2c	204/239 (85%)	189 (93%)	15 (7%)	0	100	100
35	1d	206/209 (99%)	200 (97%)	5 (2%)	1 (0%)	29	66
35	2d	206/209 (99%)	200 (97%)	5 (2%)	1 (0%)	29	66
36	1e	146/162 (90%)	138 (94%)	8 (6%)	0	100	100
36	2e	146/162 (90%)	139 (95%)	7 (5%)	0	100	100
37	1f	98/101 (97%)	95 (97%)	3 (3%)	0	100	100
37	2f	98/101 (97%)	94 (96%)	4 (4%)	0	100	100
38	1g	153/156 (98%)	142 (93%)	8 (5%)	3 (2%)	7	39
38	2g	153/156 (98%)	141 (92%)	10 (6%)	2 (1%)	12	47
39	1h	135/138 (98%)	129 (96%)	6 (4%)	0	100	100
39	2h	135/138 (98%)	131 (97%)	4 (3%)	0	100	100
40	1i	125/128 (98%)	117 (94%)	7 (6%)	1 (1%)	19	56
40	2i	125/128 (98%)	116 (93%)	9 (7%)	0	100	100
41	1j	95/105 (90%)	87 (92%)	7 (7%)	1 (1%)	14	50
41	2j	94/105 (90%)	85 (90%)	8 (8%)	1 (1%)	14	50
42	1k	112/129 (87%)	104 (93%)	7 (6%)	1 (1%)	17	54
42	2k	112/129 (87%)	104 (93%)	6 (5%)	2 (2%)	8	41
43	1l	119/132 (90%)	112 (94%)	7 (6%)	0	100	100
43	2l	119/132 (90%)	112 (94%)	7 (6%)	0	100	100
44	1m	121/126 (96%)	114 (94%)	6 (5%)	1 (1%)	19	56
44	2m	120/126 (95%)	114 (95%)	6 (5%)	0	100	100
45	1n	58/61 (95%)	56 (97%)	2 (3%)	0	100	100
45	2n	58/61 (95%)	58 (100%)	0	0	100	100
46	1o	86/89 (97%)	81 (94%)	4 (5%)	1 (1%)	13	48
46	2o	86/89 (97%)	83 (96%)	3 (4%)	0	100	100
47	1p	80/88 (91%)	72 (90%)	7 (9%)	1 (1%)	12	47
47	2p	80/88 (91%)	74 (92%)	5 (6%)	1 (1%)	12	47
48	1q	97/105 (92%)	94 (97%)	3 (3%)	0	100	100
48	2q	97/105 (92%)	90 (93%)	7 (7%)	0	100	100
49	1r	66/88 (75%)	65 (98%)	1 (2%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
49	2r	66/88 (75%)	65 (98%)	1 (2%)	0	100	100
50	1s	81/93 (87%)	74 (91%)	7 (9%)	0	100	100
50	2s	81/93 (87%)	75 (93%)	5 (6%)	1 (1%)	13	48
51	1t	94/106 (89%)	86 (92%)	6 (6%)	2 (2%)	7	38
51	2t	94/106 (89%)	83 (88%)	8 (8%)	3 (3%)	4	31
52	1u	21/27 (78%)	21 (100%)	0	0	100	100
52	2u	21/27 (78%)	20 (95%)	1 (5%)	0	100	100
All	All	11370/12128 (94%)	10736 (94%)	561 (5%)	73 (1%)	25	62

5 of 73 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
6	1G	47	LYS
21	1Z	2	GLU
23	11	3	LYS
26	14	46	GLN
26	14	57	GLU

### 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%)	214 (100%)	1 (0%)	88	94
3	2D	215/218 (99%)	214 (100%)	1 (0%)	88	94
4	1E	164/166 (99%)	163 (99%)	1 (1%)	86	93
4	2E	164/166 (99%)	163 (99%)	1 (1%)	86	93
5	1F	160/166 (96%)	160 (100%)	0	100	100
5	2F	159/166 (96%)	159 (100%)	0	100	100
6	1G	143/156 (92%)	142 (99%)	1 (1%)	84	91
6	2G	143/156 (92%)	141 (99%)	2 (1%)	67	82
7	1H	144/148 (97%)	144 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
7	2H	144/148 (97%)	143 (99%)	1 (1%)	84	91
8	1I	113/124 (91%)	112 (99%)	1 (1%)	78	88
8	2I	105/124 (85%)	104 (99%)	1 (1%)	76	86
9	1N	118/119 (99%)	118 (100%)	0	100	100
9	2N	118/119 (99%)	117 (99%)	1 (1%)	81	89
10	1O	100/100 (100%)	100 (100%)	0	100	100
10	2O	100/100 (100%)	99 (99%)	1 (1%)	76	86
11	1P	115/116 (99%)	114 (99%)	1 (1%)	78	88
11	2P	115/116 (99%)	114 (99%)	1 (1%)	78	88
12	1Q	111/111 (100%)	110 (99%)	1 (1%)	78	88
12	2Q	111/111 (100%)	111 (100%)	0	100	100
13	1R	101/101 (100%)	101 (100%)	0	100	100
13	2R	101/101 (100%)	101 (100%)	0	100	100
14	1S	86/88 (98%)	86 (100%)	0	100	100
14	2S	85/88 (97%)	85 (100%)	0	100	100
15	1T	115/127 (91%)	115 (100%)	0	100	100
15	2T	113/127 (89%)	113 (100%)	0	100	100
16	1U	93/94 (99%)	93 (100%)	0	100	100
16	2U	93/94 (99%)	93 (100%)	0	100	100
17	1V	80/82 (98%)	79 (99%)	1 (1%)	69	83
17	2V	80/82 (98%)	79 (99%)	1 (1%)	69	83
18	1W	90/92 (98%)	89 (99%)	1 (1%)	73	85
18	2W	90/92 (98%)	90 (100%)	0	100	100
19	1X	77/78 (99%)	77 (100%)	0	100	100
19	2X	77/78 (99%)	77 (100%)	0	100	100
20	1Y	85/91 (93%)	83 (98%)	2 (2%)	49	71
20	2Y	85/91 (93%)	84 (99%)	1 (1%)	71	84
21	1Z	135/179 (75%)	134 (99%)	1 (1%)	84	91
21	2Z	137/179 (76%)	137 (100%)	0	100	100
22	10	65/67 (97%)	65 (100%)	0	100	100
22	20	65/67 (97%)	65 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
23	11	80/83 (96%)	78 (98%)	2 (2%)	47	70
23	21	80/83 (96%)	80 (100%)	0	100	100
24	12	65/67 (97%)	65 (100%)	0	100	100
24	22	65/67 (97%)	65 (100%)	0	100	100
25	13	51/52 (98%)	51 (100%)	0	100	100
25	23	50/52 (96%)	50 (100%)	0	100	100
26	14	59/63 (94%)	57 (97%)	2 (3%)	37	64
26	24	53/63 (84%)	52 (98%)	1 (2%)	57	76
27	15	50/52 (96%)	49 (98%)	1 (2%)	55	74
27	25	50/52 (96%)	49 (98%)	1 (2%)	55	74
28	16	51/52 (98%)	51 (100%)	0	100	100
28	26	50/52 (96%)	50 (100%)	0	100	100
29	17	41/42 (98%)	41 (100%)	0	100	100
29	27	41/42 (98%)	41 (100%)	0	100	100
30	18	54/55 (98%)	54 (100%)	0	100	100
30	28	54/55 (98%)	54 (100%)	0	100	100
31	19	34/34 (100%)	34 (100%)	0	100	100
31	29	34/34 (100%)	34 (100%)	0	100	100
33	1b	192/220 (87%)	192 (100%)	0	100	100
33	2b	187/220 (85%)	183 (98%)	4 (2%)	53	74
34	1c	142/188 (76%)	140 (99%)	2 (1%)	67	82
34	2c	140/188 (74%)	139 (99%)	1 (1%)	84	91
35	1d	169/181 (93%)	166 (98%)	3 (2%)	59	77
35	2d	173/181 (96%)	171 (99%)	2 (1%)	71	84
36	1e	113/123 (92%)	113 (100%)	0	100	100
36	2e	114/123 (93%)	113 (99%)	1 (1%)	78	88
37	1f	84/90 (93%)	84 (100%)	0	100	100
37	2f	85/90 (94%)	85 (100%)	0	100	100
38	1g	119/127 (94%)	117 (98%)	2 (2%)	60	79
38	2g	120/127 (94%)	119 (99%)	1 (1%)	81	89
39	1h	114/119 (96%)	113 (99%)	1 (1%)	78	88

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
39	2h	114/119 (96%)	112 (98%)	2 (2%)	59	77
40	1i	90/99 (91%)	90 (100%)	0	100	100
40	2i	89/99 (90%)	88 (99%)	1 (1%)	73	85
41	1j	66/92 (72%)	66 (100%)	0	100	100
41	2j	69/92 (75%)	69 (100%)	0	100	100
42	1k	82/99 (83%)	82 (100%)	0	100	100
42	2k	83/99 (84%)	83 (100%)	0	100	100
43	1l	96/108 (89%)	96 (100%)	0	100	100
43	2l	96/108 (89%)	96 (100%)	0	100	100
44	1m	93/101 (92%)	93 (100%)	0	100	100
44	2m	92/101 (91%)	92 (100%)	0	100	100
45	1n	49/50 (98%)	48 (98%)	1 (2%)	55	74
45	2n	49/50 (98%)	48 (98%)	1 (2%)	55	74
46	1o	78/80 (98%)	78 (100%)	0	100	100
46	2o	78/80 (98%)	78 (100%)	0	100	100
47	1p	69/74 (93%)	68 (99%)	1 (1%)	67	82
47	2p	68/74 (92%)	68 (100%)	0	100	100
48	1q	94/97 (97%)	94 (100%)	0	100	100
48	2q	94/97 (97%)	94 (100%)	0	100	100
49	1r	59/77 (77%)	59 (100%)	0	100	100
49	2r	59/77 (77%)	59 (100%)	0	100	100
50	1s	69/80 (86%)	67 (97%)	2 (3%)	42	66
50	2s	67/80 (84%)	66 (98%)	1 (2%)	65	81
51	1t	70/82 (85%)	69 (99%)	1 (1%)	67	82
51	2t	70/82 (85%)	69 (99%)	1 (1%)	67	82
52	1u	18/22 (82%)	18 (100%)	0	100	100
52	2u	18/22 (82%)	18 (100%)	0	100	100
All	All	9303/10064 (92%)	9246 (99%)	57 (1%)	86	93

5 of 57 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
51	1t	13	LEU

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Mol	Chain	Res	Type
50	2s	77	THR
9	2N	58	ASP
45	2n	33	VAL
36	2e	13	ILE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 58 such sidechains are listed below:

Mol	Chain	Res	Type
4	2E	137	HIS
50	2s	57	HIS
14	2S	38	GLN
47	2p	13	HIS
37	2f	100	ASN

### 5.3.3 RNA [i](#)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	1A	2861/2915 (98%)	421 (14%)	24 (0%)
1	2A	2788/2915 (95%)	440 (15%)	19 (0%)
2	1B	120/121 (99%)	10 (8%)	1 (0%)
2	2B	119/121 (98%)	12 (10%)	1 (0%)
32	1a	1494/1521 (98%)	240 (16%)	0
32	2a	1498/1521 (98%)	243 (16%)	0
53	1v	6/24 (25%)	1 (16%)	0
53	2v	4/24 (16%)	0	0
54	1w	1/4 (25%)	1 (100%)	0
54	2w	2/4 (50%)	2 (100%)	0
55	1x	75/77 (97%)	6 (8%)	0
55	2x	75/77 (97%)	9 (12%)	0
All	All	9043/9324 (96%)	1385 (15%)	45 (0%)

5 of 1385 RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	1A	12	U
1	1A	14	A
1	1A	15	G
1	1A	34	C
1	1A	45	C

5 of 45 RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	2A	277	C
1	2A	1442	G
1	2A	528	A
1	2A	900	A
1	2A	1653	G

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

58 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
43	0TD	1l	92	43	7,9,10	4.63	1 (14%)	6,11,13	7.99	2 (33%)
1	OMG	1A	2263	55,1	18,26,27	0.96	1 (5%)	19,38,41	1.17	4 (21%)
32	4OC	1a	1402	32	20,23,24	0.76	0	26,32,35	0.87	1 (3%)
55	PSU	2x	55	55	18,21,22	1.33	2 (11%)	22,30,33	1.89	3 (13%)
1	OMG	2A	2251	55,1	18,26,27	1.01	1 (5%)	19,38,41	1.12	3 (15%)
1	4OC	1A	1942	1	19,22,24	0.84	0	26,31,35	0.98	1 (3%)
32	4OC	2a	1402	32	20,23,24	0.80	0	26,32,35	0.93	1 (3%)
32	2MG	1a	1207	32	18,26,27	0.88	1 (5%)	16,38,41	1.07	2 (12%)
55	4SU	2x	8	55	18,21,22	1.90	6 (33%)	26,30,33	1.59	7 (26%)
55	5MU	1x	54	55	19,22,23	1.44	6 (31%)	28,32,35	1.87	8 (28%)
32	UR3	1a	1498	32	19,22,23	1.03	1 (5%)	26,32,35	1.45	2 (7%)
1	5MU	2A	1939	1	19,22,23	1.37	4 (21%)	28,32,35	2.11	6 (21%)
1	5MC	1A	1984	1	18,22,23	0.94	2 (11%)	26,32,35	1.23	4 (15%)
1	5MC	2A	1942	1	18,22,23	0.99	2 (11%)	26,32,35	1.21	3 (11%)
32	M2G	1a	966	32	20,27,28	1.49	3 (15%)	22,40,43	0.92	2 (9%)
32	5MC	1a	1404	32	18,22,23	0.99	2 (11%)	26,32,35	1.14	2 (7%)
1	PSU	1A	1933	1	18,21,22	1.37	2 (11%)	22,30,33	1.81	3 (13%)
32	M2G	2a	966	32	20,27,28	1.46	3 (15%)	22,40,43	0.90	1 (4%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
32	MA6	2a	1519	32	19,26,27	1.02	1 (5%)	18,38,41	1.75	5 (27%)
1	5MU	1A	1961	1	19,22,23	1.41	5 (26%)	28,32,35	2.25	6 (21%)
1	5MC	1A	1964	1	18,22,23	0.98	2 (11%)	26,32,35	1.15	3 (11%)
32	5MC	1a	1400	32	18,22,23	0.96	2 (11%)	26,32,35	1.14	2 (7%)
55	5MC	2x	32	55	18,22,23	1.00	2 (11%)	26,32,35	1.18	3 (11%)
1	5MU	1A	1937	1	19,22,23	1.46	4 (21%)	28,32,35	2.17	7 (25%)
32	PSU	1a	516	32	18,21,22	1.38	2 (11%)	22,30,33	1.78	4 (18%)
55	5MU	2x	54	55	19,22,23	1.44	6 (31%)	28,32,35	2.05	8 (28%)
32	MA6	1a	1519	32	19,26,27	0.98	1 (5%)	18,38,41	1.65	5 (27%)
55	PSU	1x	55	55	18,21,22	1.34	2 (11%)	22,30,33	1.90	4 (18%)
32	5MC	1a	1407	32	18,22,23	0.99	1 (5%)	26,32,35	1.15	3 (11%)
1	5MC	2A	1962	1	18,22,23	0.95	2 (11%)	26,32,35	1.23	2 (7%)
32	7MG	2a	527	32	22,26,27	1.36	3 (13%)	29,39,42	2.52	7 (24%)
32	2MG	2a	1207	32	18,26,27	0.84	0	16,38,41	1.19	4 (25%)
32	5MC	2a	1407	32	18,22,23	1.01	2 (11%)	26,32,35	1.15	2 (7%)
54	KGV	1w	76	54	30,36,37	0.93	1 (3%)	29,51,54	1.16	4 (13%)
54	KGV	2w	76	56,54	30,36,37	0.93	1 (3%)	29,51,54	1.19	4 (13%)
55	5MC	1x	32	55	18,22,23	0.97	2 (11%)	26,32,35	1.20	3 (11%)
1	2MU	2A	2552	1	19,22,24	1.24	3 (15%)	26,31,36	1.86	6 (23%)
1	2MA	2A	2503	1	17,25,26	1.04	1 (5%)	17,37,40	0.94	2 (11%)
1	PSU	1A	2617	1	18,21,22	1.36	2 (11%)	22,30,33	1.84	3 (13%)
32	MA6	2a	1518	32	19,26,27	0.97	1 (5%)	18,38,41	1.78	6 (33%)
1	PSU	2A	1911	1	18,21,22	1.37	2 (11%)	22,30,33	1.92	3 (13%)
32	UR3	2a	1498	32	19,22,23	1.04	2 (10%)	26,32,35	1.40	2 (7%)
1	4OC	2A	1920	1	19,22,24	0.82	0	26,31,35	0.81	0
32	MA6	1a	1518	32	19,26,27	0.94	1 (5%)	18,38,41	1.67	5 (27%)
1	PSU	2A	2605	1	18,21,22	1.34	2 (11%)	22,30,33	1.79	3 (13%)
32	5MC	2a	1404	32	18,22,23	0.95	2 (11%)	26,32,35	1.15	3 (11%)
1	2MU	1A	2564	1	19,22,24	1.28	3 (15%)	26,31,36	1.69	5 (19%)
32	5MC	2a	967	32	18,22,23	0.98	2 (11%)	26,32,35	1.07	2 (7%)
55	4SU	1x	8	55	18,21,22	1.88	5 (27%)	26,30,33	1.80	8 (30%)
32	5MC	2a	1400	32	18,22,23	0.94	2 (11%)	26,32,35	1.14	3 (11%)
43	0TD	2l	92	43	7,9,10	4.67	1 (14%)	6,11,13	6.18	2 (33%)
32	PSU	2a	516	32	18,21,22	1.33	2 (11%)	22,30,33	1.77	3 (13%)
1	5MU	2A	1915	1	19,22,23	1.42	5 (26%)	28,32,35	2.00	6 (21%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
1	PSU	1A	1939	1	18,21,22	1.36	2 (11%)	22,30,33	1.88	3 (13%)
32	7MG	1a	527	32	22,26,27	1.35	3 (13%)	29,39,42	2.48	6 (20%)
32	5MC	1a	967	32	18,22,23	1.01	1 (5%)	26,32,35	1.19	3 (11%)
1	PSU	2A	1917	1	18,21,22	1.37	2 (11%)	22,30,33	1.86	3 (13%)
1	2MA	1A	2515	56,1	17,25,26	1.00	2 (11%)	17,37,40	0.98	2 (11%)

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
43	0TD	1l	92	43	-	2/7/12/14	-
1	OMG	1A	2263	55,1	-	0/5/27/28	0/3/3/3
32	4OC	1a	1402	32	-	2/9/29/30	0/2/2/2
55	PSU	2x	55	55	-	0/7/25/26	0/2/2/2
1	OMG	2A	2251	55,1	-	0/5/27/28	0/3/3/3
1	4OC	1A	1942	1	-	1/9/27/30	0/2/2/2
32	4OC	2a	1402	32	-	2/9/29/30	0/2/2/2
32	2MG	1a	1207	32	-	0/5/27/28	0/3/3/3
55	4SU	2x	8	55	-	0/7/25/26	0/2/2/2
55	5MU	1x	54	55	-	0/7/25/26	0/2/2/2
32	UR3	1a	1498	32	-	0/7/25/26	0/2/2/2
1	5MU	2A	1939	1	-	0/7/25/26	0/2/2/2
1	5MC	1A	1984	1	-	0/7/25/26	0/2/2/2
1	5MC	2A	1942	1	-	0/7/25/26	0/2/2/2
32	M2G	1a	966	32	-	0/7/29/30	0/3/3/3
32	5MC	1a	1404	32	-	0/7/25/26	0/2/2/2
1	PSU	1A	1933	1	-	0/7/25/26	0/2/2/2
32	M2G	2a	966	32	-	3/7/29/30	0/3/3/3
32	MA6	2a	1519	32	-	4/7/29/30	0/3/3/3
1	5MU	1A	1961	1	-	0/7/25/26	0/2/2/2
1	5MC	1A	1964	1	-	0/7/25/26	0/2/2/2
32	5MC	1a	1400	32	-	2/7/25/26	0/2/2/2
55	5MC	2x	32	55	-	0/7/25/26	0/2/2/2
1	5MU	1A	1937	1	-	0/7/25/26	0/2/2/2
32	PSU	1a	516	32	-	2/7/25/26	0/2/2/2
55	5MU	2x	54	55	-	0/7/25/26	0/2/2/2
32	MA6	1a	1519	32	-	4/7/29/30	0/3/3/3
55	PSU	1x	55	55	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
32	5MC	1a	1407	32	-	0/7/25/26	0/2/2/2
1	5MC	2A	1962	1	-	0/7/25/26	0/2/2/2
32	7MG	2a	527	32	-	0/7/37/38	0/3/3/3
32	2MG	2a	1207	32	-	0/5/27/28	0/3/3/3
32	5MC	2a	1407	32	-	0/7/25/26	0/2/2/2
54	KGV	1w	76	54	-	6/15/37/38	0/4/4/4
54	KGV	2w	76	56,54	-	6/15/37/38	0/4/4/4
55	5MC	1x	32	55	-	0/7/25/26	0/2/2/2
1	2MU	2A	2552	1	-	0/9/27/28	0/2/2/2
1	2MA	2A	2503	1	-	1/3/25/26	0/3/3/3
1	PSU	1A	2617	1	-	0/7/25/26	0/2/2/2
32	MA6	2a	1518	32	-	1/7/29/30	0/3/3/3
1	PSU	2A	1911	1	-	0/7/25/26	0/2/2/2
32	UR3	2a	1498	32	-	0/7/25/26	0/2/2/2
1	4OC	2A	1920	1	-	0/9/27/30	0/2/2/2
32	MA6	1a	1518	32	-	2/7/29/30	0/3/3/3
1	PSU	2A	2605	1	-	0/7/25/26	0/2/2/2
32	5MC	2a	1404	32	-	0/7/25/26	0/2/2/2
1	2MU	1A	2564	1	-	0/9/27/28	0/2/2/2
32	5MC	2a	967	32	-	0/7/25/26	0/2/2/2
55	4SU	1x	8	55	-	0/7/25/26	0/2/2/2
32	5MC	2a	1400	32	-	2/7/25/26	0/2/2/2
43	0TD	2l	92	43	-	1/7/12/14	-
32	PSU	2a	516	32	-	0/7/25/26	0/2/2/2
1	5MU	2A	1915	1	-	0/7/25/26	0/2/2/2
1	PSU	1A	1939	1	-	0/7/25/26	0/2/2/2
32	7MG	1a	527	32	-	2/7/37/38	0/3/3/3
32	5MC	1a	967	32	-	2/7/25/26	0/2/2/2
1	PSU	2A	1917	1	-	0/7/25/26	0/2/2/2
1	2MA	1A	2515	56,1	-	1/3/25/26	0/3/3/3

The worst 5 of 122 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	2l	92	0TD	CB-SB	-12.01	1.70	1.82
43	1l	92	0TD	CB-SB	-11.96	1.70	1.82
32	1a	966	M2G	C2-N3	4.85	1.36	1.30
32	2a	966	M2G	C2-N3	4.66	1.36	1.30
55	1x	8	4SU	C4-S4	-4.47	1.59	1.68

The worst 5 of 210 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
43	1l	92	0TD	CSB-SB-CB	-19.27	67.58	102.44
43	2l	92	0TD	CSB-SB-CB	-14.76	75.73	102.44
32	2a	527	7MG	N9-C4-N3	8.82	138.67	125.47
32	1a	527	7MG	N9-C4-N3	8.79	138.62	125.47
1	2A	1911	PSU	N1-C2-N3	6.15	122.10	115.13

There are no chirality outliers.

5 of 46 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
32	1a	516	PSU	C2'-C1'-C5-C4
32	1a	516	PSU	C2'-C1'-C5-C6
32	2a	1400	5MC	O4'-C4'-C5'-O5'
32	1a	1402	4OC	O4'-C4'-C5'-O5'
32	2a	1402	4OC	O4'-C4'-C5'-O5'

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 1353 ligands modelled in this entry, 1351 are monoatomic - leaving 2 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	SF4	1d	302	35	0,12,12	-	-	-		
58	SF4	2d	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	SF4	1d	302	35	-	-	0/6/5/5
58	SF4	2d	302	35	-	-	0/6/5/5

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

## 5.7 Other polymers [i](#)

There are no such residues in this entry.

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

The following chains have linkage breaks:

Mol	Chain	Number of breaks
3	2D	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	2D	7:LYS	C	8:PRO	N	1.15



## 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%)	0.27	81 (2%) 53 40	74, 93, 132, 148	0
1	2A	2789/2915 (95%)	0.26	155 (5%) 24 17	81, 97, 127, 148	0
2	1B	120/121 (99%)	-0.45	0 100 100	93, 111, 121, 125	0
2	2B	120/121 (99%)	-0.56	0 100 100	102, 115, 123, 137	0
3	1D	275/276 (99%)	0.82	17 (6%) 20 14	76, 86, 97, 117	0
3	2D	275/276 (99%)	1.17	61 (22%) 0 0	79, 93, 105, 120	0
4	1E	204/206 (99%)	0.59	27 (13%) 3 3	78, 97, 111, 119	0
4	2E	204/206 (99%)	0.47	29 (14%) 2 2	80, 96, 107, 115	0
5	1F	203/210 (96%)	0.30	12 (5%) 22 15	72, 92, 109, 120	0
5	2F	203/210 (96%)	0.63	32 (15%) 2 1	85, 99, 114, 123	0
6	1G	181/182 (99%)	-0.31	0 100 100	100, 112, 122, 126	0
6	2G	181/182 (99%)	0.65	23 (12%) 3 4	102, 115, 125, 135	0
7	1H	174/180 (96%)	-0.08	1 (0%) 89 83	91, 103, 113, 124	0
7	2H	174/180 (96%)	0.54	13 (7%) 14 10	97, 114, 123, 132	0
8	1I	146/148 (98%)	-0.33	3 (2%) 63 52	89, 105, 115, 125	0
8	2I	146/148 (98%)	0.26	12 (8%) 11 9	97, 118, 130, 135	0
9	1N	140/140 (100%)	0.44	10 (7%) 16 11	85, 96, 109, 118	0
9	2N	140/140 (100%)	0.99	21 (15%) 2 2	91, 102, 115, 122	0
10	1O	122/122 (100%)	1.46	37 (30%) 0 0	83, 96, 109, 117	0
10	2O	122/122 (100%)	0.86	20 (16%) 1 1	82, 93, 101, 112	0
11	1P	149/150 (99%)	0.40	7 (4%) 31 23	80, 98, 116, 126	0
11	2P	149/150 (99%)	0.86	33 (22%) 0 0	86, 103, 115, 124	0
12	1Q	141/141 (100%)	1.06	32 (22%) 0 0	82, 98, 110, 117	0
12	2Q	141/141 (100%)	0.74	16 (11%) 5 4	88, 101, 113, 125	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
13	1R	118/118 (100%)	0.46	3 (2%) 57 45	86, 95, 107, 114	0
13	2R	118/118 (100%)	0.50	10 (8%) 10 8	83, 94, 102, 110	0
14	1S	110/112 (98%)	-0.35	0 100 100	94, 109, 118, 123	0
14	2S	110/112 (98%)	-0.06	1 (0%) 84 76	98, 111, 118, 126	0
15	1T	131/146 (89%)	0.44	11 (8%) 11 8	88, 101, 116, 125	0
15	2T	131/146 (89%)	0.75	21 (16%) 1 1	85, 96, 110, 121	0
16	1U	116/118 (98%)	0.44	4 (3%) 45 34	76, 95, 107, 114	0
16	2U	116/118 (98%)	1.20	32 (27%) 0 0	88, 100, 109, 118	0
17	1V	101/101 (100%)	-0.00	1 (0%) 82 73	79, 97, 110, 115	0
17	2V	101/101 (100%)	0.51	11 (10%) 5 4	87, 103, 116, 122	0
18	1W	112/113 (99%)	0.76	10 (8%) 9 7	81, 91, 109, 124	0
18	2W	112/113 (99%)	1.07	19 (16%) 1 1	81, 93, 107, 119	0
19	1X	95/96 (98%)	0.74	8 (8%) 11 8	82, 91, 106, 117	0
19	2X	95/96 (98%)	0.73	8 (8%) 11 8	86, 98, 113, 121	0
20	1Y	107/110 (97%)	0.38	3 (2%) 53 40	83, 96, 109, 114	0
20	2Y	107/110 (97%)	1.21	21 (19%) 1 1	90, 105, 118, 123	0
21	1Z	154/206 (74%)	-0.29	0 100 100	96, 111, 120, 128	0
21	2Z	160/206 (77%)	-0.14	1 (0%) 89 83	101, 113, 123, 130	0
22	10	83/85 (97%)	0.94	13 (15%) 2 1	90, 101, 110, 116	0
22	20	83/85 (97%)	1.22	18 (21%) 0 0	92, 104, 111, 113	0
23	11	97/98 (98%)	1.26	22 (22%) 0 0	82, 92, 107, 114	0
23	21	97/98 (98%)	1.62	38 (39%) 0 0	86, 98, 110, 119	0
24	12	70/72 (97%)	-0.14	0 100 100	81, 92, 103, 122	0
24	22	70/72 (97%)	0.19	1 (1%) 75 64	93, 106, 116, 121	0
25	13	59/60 (98%)	0.06	0 100 100	78, 97, 116, 134	0
25	23	59/60 (98%)	1.20	11 (18%) 1 1	88, 99, 118, 130	0
26	14	69/71 (97%)	-0.71	0 100 100	107, 122, 134, 137	0
26	24	69/71 (97%)	-0.23	1 (1%) 75 64	106, 118, 131, 135	0
27	15	59/60 (98%)	0.66	10 (16%) 1 1	82, 93, 107, 111	0
27	25	59/60 (98%)	0.35	5 (8%) 10 8	84, 92, 109, 112	0
28	16	53/54 (98%)	0.22	1 (1%) 66 55	86, 98, 110, 122	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	14 (26%) 0 0	94, 104, 115, 123	0
29	17	48/49 (97%)	1.21	8 (16%) 1 1	72, 82, 99, 113	0
29	27	48/49 (97%)	2.19	23 (47%) 0 0	83, 91, 105, 117	0
30	18	64/65 (98%)	0.73	3 (4%) 31 23	82, 90, 99, 112	0
30	28	64/65 (98%)	2.17	35 (54%) 0 0	89, 97, 106, 112	0
31	19	37/37 (100%)	0.17	0 100 100	91, 98, 106, 107	0
31	29	37/37 (100%)	1.66	14 (37%) 0 0	97, 106, 115, 118	0
32	1a	1488/1521 (97%)	-0.08	50 (3%) 45 34	85, 114, 131, 153	0
32	2a	1491/1521 (98%)	-0.11	29 (1%) 66 55	87, 108, 129, 149	0
33	1b	231/256 (90%)	-0.16	5 (2%) 62 50	104, 117, 126, 132	0
33	2b	231/256 (90%)	0.27	12 (5%) 27 20	101, 117, 127, 136	0
34	1c	206/239 (86%)	1.06	49 (23%) 0 0	104, 119, 128, 133	0
34	2c	206/239 (86%)	0.32	24 (11%) 4 4	104, 116, 124, 131	0
35	1d	208/209 (99%)	0.70	32 (15%) 2 1	97, 112, 122, 130	0
35	2d	208/209 (99%)	0.57	16 (7%) 13 10	91, 105, 114, 121	0
36	1e	148/162 (91%)	0.96	32 (21%) 0 0	96, 110, 119, 124	0
36	2e	148/162 (91%)	0.92	33 (22%) 0 0	93, 107, 118, 126	0
37	1f	100/101 (99%)	-0.14	2 (2%) 65 53	86, 105, 115, 117	0
37	2f	100/101 (99%)	-0.07	5 (5%) 28 21	95, 108, 117, 123	0
38	1g	155/156 (99%)	-0.12	8 (5%) 27 20	101, 115, 126, 132	0
38	2g	155/156 (99%)	0.14	11 (7%) 16 11	102, 114, 124, 129	0
39	1h	137/138 (99%)	0.27	7 (5%) 28 21	100, 110, 119, 129	0
39	2h	137/138 (99%)	0.28	12 (8%) 10 7	94, 106, 116, 126	0
40	1i	127/128 (99%)	0.70	29 (22%) 0 0	109, 120, 126, 130	0
40	2i	127/128 (99%)	0.99	32 (25%) 0 0	103, 118, 126, 129	0
41	1j	97/105 (92%)	0.96	22 (22%) 0 0	111, 122, 130, 135	0
41	2j	96/105 (91%)	0.37	14 (14%) 2 2	111, 122, 129, 137	0
42	1k	114/129 (88%)	0.45	8 (7%) 16 11	94, 105, 115, 122	0
42	2k	114/129 (88%)	1.08	26 (22%) 0 0	96, 110, 119, 122	0
43	1l	121/132 (91%)	0.82	21 (17%) 1 1	92, 105, 114, 116	0
43	2l	121/132 (91%)	0.82	27 (22%) 0 0	89, 102, 112, 116	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
44	1m	123/126 (97%)	0.16	10 (8%) 12 9	104, 116, 125, 136	0
44	2m	122/126 (96%)	0.23	22 (18%) 1 1	106, 117, 124, 130	0
45	1n	60/61 (98%)	1.29	14 (23%) 0 0	105, 117, 126, 134	0
45	2n	60/61 (98%)	0.87	9 (15%) 2 2	107, 117, 125, 128	0
46	1o	88/89 (98%)	0.40	7 (7%) 12 9	93, 105, 114, 118	0
46	2o	88/89 (98%)	-0.06	2 (2%) 60 48	89, 106, 115, 123	0
47	1p	82/88 (93%)	1.24	19 (23%) 0 0	106, 114, 122, 129	0
47	2p	82/88 (93%)	0.26	3 (3%) 41 30	85, 100, 109, 114	0
48	1q	99/105 (94%)	0.33	5 (5%) 28 21	92, 107, 116, 122	0
48	2q	99/105 (94%)	0.68	14 (14%) 2 2	92, 104, 113, 120	0
49	1r	68/88 (77%)	-0.06	0 100 100	94, 105, 113, 124	0
49	2r	68/88 (77%)	0.51	6 (8%) 10 7	97, 107, 119, 122	0
50	1s	83/93 (89%)	-0.46	0 100 100	108, 119, 128, 133	0
50	2s	83/93 (89%)	0.55	13 (15%) 2 1	103, 118, 125, 128	0
51	1t	96/106 (90%)	0.61	16 (16%) 1 1	103, 111, 120, 122	0
51	2t	96/106 (90%)	0.58	14 (14%) 2 2	92, 104, 115, 121	0
52	1u	23/27 (85%)	0.92	4 (17%) 1 1	112, 118, 121, 125	0
52	2u	23/27 (85%)	0.44	2 (8%) 10 7	112, 118, 123, 127	0
53	1v	7/24 (29%)	2.46	3 (42%) 0 0	105, 107, 133, 138	0
53	2v	6/24 (25%)	1.40	1 (16%) 1 1	106, 113, 119, 134	0
54	1w	3/4 (75%)	0.47	0 100 100	88, 88, 101, 110	0
54	2w	3/4 (75%)	-0.07	0 100 100	93, 93, 104, 105	0
55	1x	72/77 (93%)	-0.16	1 (1%) 75 64	85, 111, 123, 134	0
55	2x	72/77 (93%)	0.05	4 (5%) 24 17	92, 113, 121, 132	0
All	All	20603/21452 (96%)	0.35	1698 (8%) 11 9	72, 104, 125, 153	0

The worst 5 of 1698 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
3	2D	276	LYS	8.8
44	2m	124	PRO	8.4
41	1j	61	GLU	8.2
34	1c	169	ALA	8.1
32	1a	1030(B)	C	7.8

## 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
55	4SU	2x	8	20/21	0.83	0.15	106,121,131,139	0
55	PSU	2x	55	20/21	0.85	0.26	105,119,134,136	0
32	PSU	1a	516	20/21	0.86	0.15	105,119,129,131	0
1	5MU	1A	1937	21/22	0.88	0.14	102,113,123,145	0
55	4SU	1x	8	20/21	0.89	0.15	106,116,122,129	0
32	4OC	2a	1402	22/23	0.90	0.28	94,104,112,115	0
1	4OC	1A	1942	21/23	0.91	0.20	86,99,108,110	0
32	5MC	1a	1407	21/22	0.91	0.21	96,103,114,123	0
32	7MG	2a	527	24/25	0.91	0.19	97,107,113,115	0
32	2MG	1a	1207	24/25	0.91	0.18	105,114,134,137	0
55	PSU	1x	55	20/21	0.91	0.14	99,110,130,130	0
32	4OC	1a	1402	22/23	0.91	0.29	87,102,109,116	0
32	2MG	2a	1207	24/25	0.92	0.19	102,116,123,129	0
32	PSU	2a	516	20/21	0.92	0.12	93,110,115,116	0
32	5MC	1a	967	21/22	0.92	0.39	108,116,125,130	0
32	7MG	1a	527	24/25	0.92	0.21	100,108,119,126	0
1	5MU	2A	1915	21/22	0.93	0.10	103,108,119,134	0
1	PSU	2A	1917	20/21	0.93	0.15	96,99,107,111	0
43	0TD	2l	92	10/11	0.93	0.58	101,110,117,134	0
1	5MC	1A	1964	21/22	0.93	0.19	81,91,96,98	0
54	KGV	2w	76	33/34	0.93	0.50	75,89,98,102	0
32	M2G	1a	966	25/26	0.93	0.28	102,108,121,122	0
1	2MA	2A	2503	23/24	0.93	0.32	80,86,93,105	0
55	5MU	1x	54	21/22	0.93	0.12	108,113,121,124	0
32	5MC	2a	967	21/22	0.93	0.21	93,101,111,116	0
1	2MU	1A	2564	21/23	0.93	0.40	83,90,99,103	0
32	M2G	2a	966	25/26	0.94	0.29	94,103,117,121	0
32	5MC	1a	1404	21/22	0.94	0.28	89,96,99,110	0
32	5MC	2a	1404	21/22	0.94	0.30	91,98,104,109	0
1	PSU	2A	1911	20/21	0.94	0.14	89,100,112,117	0
1	OMG	2A	2251	24/25	0.94	0.35	77,93,100,104	0
1	4OC	2A	1920	21/23	0.94	0.22	93,100,108,109	0
1	5MU	2A	1939	21/22	0.94	0.27	77,88,97,102	0
55	5MC	2x	32	21/22	0.94	0.21	106,110,114,119	0
32	5MC	1a	1400	21/22	0.94	0.27	96,105,118,123	0
32	5MC	2a	1400	21/22	0.94	0.23	99,109,117,118	0
1	PSU	1A	2617	20/21	0.94	0.39	71,82,92,95	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
32	UR3	2a	1498	21/22	0.95	0.42	92,102,109,111	0
54	KGV	1w	76	33/34	0.95	0.45	80,87,97,101	0
43	0TD	1l	92	10/11	0.95	0.39	102,110,112,117	0
1	2MU	2A	2552	21/23	0.95	0.24	77,85,90,96	0
1	5MC	2A	1942	21/22	0.95	0.18	78,92,102,106	0
55	5MC	1x	32	21/22	0.95	0.21	98,107,111,124	0
1	PSU	1A	1939	20/21	0.95	0.16	86,100,107,115	0
1	PSU	1A	1933	20/21	0.95	0.17	84,98,106,107	0
55	5MU	2x	54	21/22	0.95	0.24	104,110,120,126	0
32	5MC	2a	1407	21/22	0.95	0.25	81,93,102,104	0
32	UR3	1a	1498	21/22	0.95	0.27	86,95,101,105	0
32	MA6	2a	1518	24/25	0.96	0.28	90,100,106,108	0
32	MA6	2a	1519	24/25	0.96	0.34	80,100,106,109	0
1	PSU	2A	2605	20/21	0.96	0.34	70,86,90,91	0
1	5MC	2A	1962	21/22	0.96	0.19	66,90,94,99	0
1	5MU	1A	1961	21/22	0.96	0.33	66,83,90,94	0
32	MA6	1a	1518	24/25	0.96	0.21	87,93,98,101	0
32	MA6	1a	1519	24/25	0.97	0.30	82,94,101,105	0
1	OMG	1A	2263	24/25	0.97	0.37	70,82,95,97	0
1	5MC	1A	1984	21/22	0.97	0.18	80,89,92,99	0
1	2MA	1A	2515	23/24	0.97	0.30	69,78,88,94	0

### 6.3 Carbohydrates [i](#)

There are no monosaccharides in this entry.

### 6.4 Ligands [i](#)

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	2a	1616	1/1	0.28	0.32	87,87,87,87	0
56	MG	1a	1663	1/1	0.31	0.34	97,97,97,97	0
56	MG	2A	3098	1/1	0.33	0.51	81,81,81,81	0
56	MG	1B	213	1/1	0.34	0.42	74,74,74,74	0
56	MG	2A	3377	1/1	0.39	0.24	71,71,71,71	0
56	MG	1A	3182	1/1	0.39	0.85	100,100,100,100	0
56	MG	2a	1632	1/1	0.39	0.28	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	2A	3220	1/1	0.41	0.51	78,78,78,78	0
56	MG	1A	3226	1/1	0.42	0.34	68,68,68,68	0
56	MG	2A	3225	1/1	0.45	0.37	83,83,83,83	0
56	MG	1F	302	1/1	0.45	0.81	68,68,68,68	0
56	MG	2A	3393	1/1	0.47	0.35	84,84,84,84	0
56	MG	2a	1668	1/1	0.48	0.24	79,79,79,79	0
56	MG	2d	301	1/1	0.48	0.28	68,68,68,68	0
56	MG	1x	105	1/1	0.49	0.28	109,109,109,109	0
56	MG	1A	3515	1/1	0.50	0.65	60,60,60,60	0
56	MG	1A	3189	1/1	0.50	0.47	83,83,83,83	0
56	MG	1A	3214	1/1	0.51	0.47	74,74,74,74	0
56	MG	1A	3130	1/1	0.52	0.51	73,73,73,73	0
56	MG	2A	3013	1/1	0.53	0.23	97,97,97,97	0
56	MG	2A	3021	1/1	0.53	0.48	87,87,87,87	0
56	MG	2A	3036	1/1	0.53	0.91	92,92,92,92	0
56	MG	1A	3429	1/1	0.53	0.54	80,80,80,80	0
56	MG	1B	219	1/1	0.54	0.09	116,116,116,116	0
56	MG	1a	1628	1/1	0.55	0.28	82,82,82,82	0
56	MG	2B	203	1/1	0.55	0.32	79,79,79,79	0
56	MG	1A	3433	1/1	0.56	0.42	67,67,67,67	0
56	MG	2A	3467	1/1	0.57	0.22	86,86,86,86	0
56	MG	1A	3299	1/1	0.57	0.81	71,71,71,71	0
56	MG	2E	302	1/1	0.57	0.28	69,69,69,69	0
56	MG	2A	3092	1/1	0.57	0.31	76,76,76,76	0
56	MG	2A	3249	1/1	0.57	0.32	75,75,75,75	0
56	MG	1A	3245	1/1	0.57	0.51	74,74,74,74	0
56	MG	2A	3210	1/1	0.57	0.20	71,71,71,71	0
56	MG	1A	3298	1/1	0.58	0.38	71,71,71,71	0
56	MG	2A	3115	1/1	0.58	0.30	90,90,90,90	0
56	MG	2A	3364	1/1	0.58	1.96	65,65,65,65	0
56	MG	1A	3128	1/1	0.59	0.51	70,70,70,70	0
56	MG	1A	3362	1/1	0.59	0.28	82,82,82,82	0
56	MG	1A	3373	1/1	0.59	0.47	71,71,71,71	0
56	MG	2A	3186	1/1	0.59	0.19	64,64,64,64	0
56	MG	1A	3294	1/1	0.59	0.48	75,75,75,75	0
56	MG	1A	3232	1/1	0.59	0.34	59,59,59,59	0
56	MG	1a	1607	1/1	0.60	0.33	81,81,81,81	0
56	MG	2A	3321	1/1	0.60	0.38	67,67,67,67	0
56	MG	1A	3529	1/1	0.61	0.22	73,73,73,73	0
56	MG	2A	3100	1/1	0.61	0.20	68,68,68,68	0
56	MG	1A	3477	1/1	0.61	0.45	61,61,61,61	0
56	MG	1A	3360	1/1	0.61	0.30	84,84,84,84	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	2A	3208	1/1	0.61	0.20	95,95,95,95	0
56	MG	2A	3200	1/1	0.62	0.37	81,81,81,81	0
56	MG	2A	3356	1/1	0.62	0.22	77,77,77,77	0
56	MG	2a	1703	1/1	0.62	0.51	88,88,88,88	0
56	MG	1A	3422	1/1	0.62	0.64	70,70,70,70	0
56	MG	2a	1634	1/1	0.63	0.28	81,81,81,81	0
56	MG	1A	3093	1/1	0.63	0.77	82,82,82,82	0
56	MG	1A	3440	1/1	0.63	0.45	81,81,81,81	0
56	MG	1A	3199	1/1	0.63	0.34	61,61,61,61	0
56	MG	2A	3218	1/1	0.64	0.19	77,77,77,77	0
56	MG	2a	1602	1/1	0.64	0.87	78,78,78,78	0
56	MG	2A	3087	1/1	0.64	0.51	96,96,96,96	0
56	MG	2A	3122	1/1	0.64	0.52	66,66,66,66	0
56	MG	2A	3140	1/1	0.64	0.24	81,81,81,81	0
56	MG	2A	3461	1/1	0.64	0.28	67,67,67,67	0
56	MG	2A	3308	1/1	0.64	0.28	63,63,63,63	0
56	MG	2A	3151	1/1	0.64	0.22	77,77,77,77	0
56	MG	2A	3201	1/1	0.65	0.25	81,81,81,81	0
56	MG	1W	201	1/1	0.65	1.02	69,69,69,69	0
56	MG	1A	3188	1/1	0.65	0.64	86,86,86,86	0
56	MG	2A	3164	1/1	0.65	0.17	78,78,78,78	0
56	MG	2A	3003	1/1	0.65	0.21	72,72,72,72	0
56	MG	1A	3285	1/1	0.65	0.34	76,76,76,76	0
56	MG	1D	303	1/1	0.66	1.15	70,70,70,70	0
56	MG	1A	3472	1/1	0.66	1.50	70,70,70,70	0
56	MG	2A	3342	1/1	0.66	0.26	61,61,61,61	0
56	MG	2A	3022	1/1	0.66	0.77	87,87,87,87	0
56	MG	1a	1679	1/1	0.66	0.26	76,76,76,76	0
56	MG	2A	3058	1/1	0.66	0.91	77,77,77,77	0
56	MG	2A	3086	1/1	0.66	0.82	79,79,79,79	0
56	MG	1A	3075	1/1	0.66	0.49	83,83,83,83	0
56	MG	1A	3223	1/1	0.66	0.36	84,84,84,84	0
56	MG	1A	3473	1/1	0.67	0.37	68,68,68,68	0
56	MG	2A	3179	1/1	0.67	0.18	75,75,75,75	0
56	MG	2A	3266	1/1	0.67	0.23	59,59,59,59	0
56	MG	2a	1614	1/1	0.67	0.80	76,76,76,76	0
56	MG	2A	3043	1/1	0.67	0.40	78,78,78,78	0
56	MG	2A	3240	1/1	0.68	0.76	75,75,75,75	0
56	MG	2A	3144	1/1	0.68	0.40	88,88,88,88	0
56	MG	2A	3219	1/1	0.68	0.23	90,90,90,90	0
56	MG	2A	3097	1/1	0.68	0.19	77,77,77,77	0
56	MG	2W	201	1/1	0.68	0.27	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
56	MG	2Z	301	1/1	0.68	0.25	54,54,54,54	0
56	MG	1a	1652	1/1	0.68	0.43	68,68,68,68	0
56	MG	1Q	202	1/1	0.69	0.42	56,56,56,56	0
56	MG	1A	3058	1/1	0.69	0.59	71,71,71,71	0
56	MG	1A	3376	1/1	0.69	0.54	92,92,92,92	0
56	MG	2A	3474	1/1	0.69	0.71	84,84,84,84	0
56	MG	1x	108	1/1	0.69	0.21	103,103,103,103	0
56	MG	2a	1639	1/1	0.69	0.30	64,64,64,64	0
56	MG	1A	3395	1/1	0.69	0.18	96,96,96,96	0
56	MG	2a	1676	1/1	0.69	0.24	82,82,82,82	0
56	MG	2A	3371	1/1	0.69	0.22	86,86,86,86	0
56	MG	1A	3190	1/1	0.69	0.48	78,78,78,78	0
56	MG	2A	3327	1/1	0.70	0.51	73,73,73,73	0
56	MG	2A	3039	1/1	0.70	0.23	88,88,88,88	0
56	MG	1a	1633	1/1	0.70	0.56	73,73,73,73	0
56	MG	2A	3357	1/1	0.70	0.30	67,67,67,67	0
56	MG	1A	3449	1/1	0.70	0.28	66,66,66,66	0
56	MG	1a	1660	1/1	0.70	0.24	62,62,62,62	0
56	MG	2A	3234	1/1	0.70	0.30	60,60,60,60	0
56	MG	1E	303	1/1	0.70	0.77	77,77,77,77	0
56	MG	2A	3459	1/1	0.70	0.28	69,69,69,69	0
56	MG	2a	1644	1/1	0.70	0.38	63,63,63,63	0
56	MG	2A	3202	1/1	0.70	0.30	86,86,86,86	0
56	MG	2a	1675	1/1	0.70	0.20	85,85,85,85	0
56	MG	2A	3204	1/1	0.70	0.32	68,68,68,68	0
56	MG	1E	304	1/1	0.70	0.35	69,69,69,69	0
56	MG	1A	3427	1/1	0.70	0.29	56,56,56,56	0
56	MG	2l	201	1/1	0.70	1.61	68,68,68,68	0
56	MG	2A	3376	1/1	0.71	0.48	70,70,70,70	0
56	MG	2A	3203	1/1	0.71	0.83	66,66,66,66	0
56	MG	2A	3384	1/1	0.71	0.26	77,77,77,77	0
56	MG	1A	3259	1/1	0.71	0.48	73,73,73,73	0
56	MG	2A	3442	1/1	0.71	0.21	76,76,76,76	0
56	MG	2A	3023	1/1	0.71	0.24	74,74,74,74	0
56	MG	1A	3096	1/1	0.71	0.24	95,95,95,95	0
56	MG	2a	1664	1/1	0.71	0.25	77,77,77,77	0
56	MG	1A	3012	1/1	0.71	0.30	70,70,70,70	0
56	MG	1A	3183	1/1	0.71	0.38	59,59,59,59	0
56	MG	1a	1683	1/1	0.71	0.15	84,84,84,84	0
56	MG	2A	3065	1/1	0.71	0.38	101,101,101,101	0
56	MG	2A	3077	1/1	0.71	0.26	58,58,58,58	0
56	MG	2A	3138	1/1	0.71	0.30	90,90,90,90	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1a	1623	1/1	0.72	0.26	87,87,87,87	0
56	MG	1a	1627	1/1	0.72	0.32	67,67,67,67	0
56	MG	2a	1603	1/1	0.72	0.26	70,70,70,70	0
56	MG	1A	3511	1/1	0.72	0.50	76,76,76,76	0
56	MG	2A	3191	1/1	0.72	0.58	78,78,78,78	0
56	MG	1A	3390	1/1	0.72	0.48	67,67,67,67	0
56	MG	2A	3399	1/1	0.72	0.17	80,80,80,80	0
56	MG	1A	3386	1/1	0.72	0.36	55,55,55,55	0
56	MG	1A	3474	1/1	0.72	0.63	50,50,50,50	0
56	MG	2a	1657	1/1	0.72	0.23	50,50,50,50	0
56	MG	1A	3410	1/1	0.72	0.43	82,82,82,82	0
56	MG	17	101	1/1	0.72	0.69	77,77,77,77	0
56	MG	2a	1672	1/1	0.72	0.43	89,89,89,89	0
56	MG	17	102	1/1	0.72	0.39	54,54,54,54	0
56	MG	1e	201	1/1	0.72	0.30	80,80,80,80	0
56	MG	2a	1699	1/1	0.72	0.37	61,61,61,61	0
56	MG	1x	104	1/1	0.72	0.13	107,107,107,107	0
56	MG	2O	201	1/1	0.72	1.56	73,73,73,73	0
56	MG	1A	3501	1/1	0.72	0.50	66,66,66,66	0
56	MG	1A	3333	1/1	0.73	0.34	73,73,73,73	0
56	MG	2a	1606	1/1	0.73	0.47	65,65,65,65	0
56	MG	2A	3143	1/1	0.73	0.32	60,60,60,60	0
56	MG	2A	3095	1/1	0.73	0.54	70,70,70,70	0
56	MG	2A	3011	1/1	0.73	0.17	84,84,84,84	0
56	MG	2A	3406	1/1	0.73	0.29	72,72,72,72	0
56	MG	2A	3435	1/1	0.73	0.29	71,71,71,71	0
56	MG	2A	3320	1/1	0.73	0.39	76,76,76,76	0
56	MG	2A	3206	1/1	0.73	0.31	78,78,78,78	0
56	MG	1A	3070	1/1	0.73	0.15	72,72,72,72	0
56	MG	2A	3333	1/1	0.73	0.23	51,51,51,51	0
56	MG	2A	3337	1/1	0.73	0.24	59,59,59,59	0
56	MG	2A	3177	1/1	0.73	0.30	71,71,71,71	0
56	MG	1A	3385	1/1	0.73	0.20	79,79,79,79	0
56	MG	2a	1684	1/1	0.73	0.28	61,61,61,61	0
56	MG	2A	3182	1/1	0.73	0.99	66,66,66,66	0
56	MG	1A	3048	1/1	0.73	0.36	65,65,65,65	0
56	MG	1a	1615	1/1	0.73	0.10	80,80,80,80	0
56	MG	1V	203	1/1	0.73	0.54	75,75,75,75	0
56	MG	1A	3064	1/1	0.74	0.43	77,77,77,77	0
56	MG	2A	3075	1/1	0.74	0.23	75,75,75,75	0
56	MG	1A	3431	1/1	0.74	0.64	61,61,61,61	0
56	MG	2A	3156	1/1	0.74	0.31	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	2a	1630	1/1	0.74	0.48	65,65,65,65	0
56	MG	1x	109	1/1	0.74	0.69	88,88,88,88	0
56	MG	1A	3060	1/1	0.74	0.27	55,55,55,55	0
56	MG	2a	1638	1/1	0.74	0.20	68,68,68,68	0
56	MG	2A	3088	1/1	0.74	0.48	61,61,61,61	0
56	MG	1A	3191	1/1	0.74	1.18	51,51,51,51	0
56	MG	1A	3409	1/1	0.74	0.52	71,71,71,71	0
56	MG	1A	3532	1/1	0.74	0.21	113,113,113,113	0
56	MG	1A	3547	1/1	0.74	0.37	78,78,78,78	0
56	MG	1a	1674	1/1	0.74	0.59	89,89,89,89	0
56	MG	2A	3107	1/1	0.74	0.21	91,91,91,91	0
56	MG	1A	3346	1/1	0.74	0.48	73,73,73,73	0
56	MG	2A	3338	1/1	0.74	0.38	68,68,68,68	0
56	MG	2a	1689	1/1	0.74	0.15	91,91,91,91	0
56	MG	2A	3120	1/1	0.74	0.36	66,66,66,66	0
56	MG	1A	3381	1/1	0.74	0.33	67,67,67,67	0
56	MG	1a	1609	1/1	0.74	0.33	106,106,106,106	0
56	MG	1A	3350	1/1	0.74	0.33	72,72,72,72	0
56	MG	2A	3425	1/1	0.75	0.23	72,72,72,72	0
56	MG	1A	3445	1/1	0.75	0.38	70,70,70,70	0
56	MG	2A	3214	1/1	0.75	0.26	77,77,77,77	0
56	MG	2A	3101	1/1	0.75	1.12	75,75,75,75	0
56	MG	2A	3104	1/1	0.75	0.28	64,64,64,64	0
56	MG	2A	3350	1/1	0.75	0.23	69,69,69,69	0
56	MG	1A	3300	1/1	0.75	0.34	70,70,70,70	0
56	MG	1A	3531	1/1	0.75	0.23	71,71,71,71	0
56	MG	2A	3358	1/1	0.75	0.23	62,62,62,62	0
56	MG	1A	3100	1/1	0.75	0.39	74,74,74,74	0
56	MG	1A	3137	1/1	0.75	0.33	71,71,71,71	0
56	MG	1B	205	1/1	0.75	0.37	73,73,73,73	0
56	MG	27	101	1/1	0.75	0.27	60,60,60,60	0
56	MG	1A	3218	1/1	0.75	0.58	73,73,73,73	0
56	MG	1A	3150	1/1	0.75	0.25	93,93,93,93	0
56	MG	1A	3491	1/1	0.75	0.41	73,73,73,73	0
56	MG	1A	3161	1/1	0.75	0.25	69,69,69,69	0
56	MG	1A	3053	1/1	0.75	0.28	80,80,80,80	0
56	MG	2a	1612	1/1	0.76	0.34	74,74,74,74	0
56	MG	1A	3494	1/1	0.76	0.31	50,50,50,50	0
56	MG	2A	3312	1/1	0.76	0.37	72,72,72,72	0
56	MG	2A	3313	1/1	0.76	0.42	75,75,75,75	0
56	MG	1B	201	1/1	0.76	0.33	67,67,67,67	0
56	MG	1A	3464	1/1	0.76	0.39	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
56	MG	2A	3205	1/1	0.76	0.52	68,68,68,68	0
56	MG	1A	3231	1/1	0.76	0.26	65,65,65,65	0
56	MG	1A	3090	1/1	0.76	0.63	75,75,75,75	0
56	MG	2A	3161	1/1	0.76	0.21	66,66,66,66	0
56	MG	2A	3162	1/1	0.76	0.17	64,64,64,64	0
56	MG	1a	1644	1/1	0.76	0.30	89,89,89,89	0
56	MG	1A	3367	1/1	0.76	0.30	65,65,65,65	0
56	MG	2F	301	1/1	0.76	0.14	79,79,79,79	0
56	MG	1A	3167	1/1	0.76	0.35	61,61,61,61	0
56	MG	1A	3216	1/1	0.76	0.28	69,69,69,69	0
56	MG	1a	1668	1/1	0.76	0.39	63,63,63,63	0
56	MG	2A	3082	1/1	0.76	0.55	71,71,71,71	0
56	MG	1a	1671	1/1	0.76	0.38	71,71,71,71	0
56	MG	2A	3262	1/1	0.76	0.27	50,50,50,50	0
56	MG	2A	3018	1/1	0.76	0.22	60,60,60,60	0
56	MG	2n	101	1/1	0.76	0.39	77,77,77,77	0
56	MG	2A	3345	1/1	0.77	0.31	58,58,58,58	0
56	MG	2A	3290	1/1	0.77	0.18	67,67,67,67	0
56	MG	1T	202	1/1	0.77	0.41	58,58,58,58	0
56	MG	2a	1658	1/1	0.77	0.37	60,60,60,60	0
56	MG	2a	1601	1/1	0.77	0.97	63,63,63,63	0
56	MG	19	101	1/1	0.77	0.37	72,72,72,72	0
56	MG	2A	3160	1/1	0.77	0.26	78,78,78,78	0
56	MG	1A	3175	1/1	0.77	0.45	57,57,57,57	0
56	MG	1a	1635	1/1	0.77	0.22	76,76,76,76	0
56	MG	2A	3472	1/1	0.77	0.13	107,107,107,107	0
56	MG	1A	3414	1/1	0.77	0.60	77,77,77,77	0
56	MG	2a	1696	1/1	0.77	0.23	52,52,52,52	0
56	MG	2a	1629	1/1	0.77	0.31	87,87,87,87	0
56	MG	1a	1647	1/1	0.77	0.20	58,58,58,58	0
56	MG	10	102	1/1	0.77	0.37	84,84,84,84	0
56	MG	1v	101	1/1	0.77	0.88	67,67,67,67	0
56	MG	1A	3085	1/1	0.77	0.33	77,77,77,77	0
56	MG	1A	3086	1/1	0.78	0.34	63,63,63,63	0
56	MG	1A	3456	1/1	0.78	0.44	75,75,75,75	0
56	MG	2A	3381	1/1	0.78	0.43	58,58,58,58	0
56	MG	1V	202	1/1	0.78	0.91	68,68,68,68	0
56	MG	1a	1614	1/1	0.78	0.17	74,74,74,74	0
56	MG	1A	3310	1/1	0.78	0.39	54,54,54,54	0
56	MG	2A	3106	1/1	0.78	0.84	70,70,70,70	0
56	MG	1A	3008	1/1	0.78	0.20	100,100,100,100	0
56	MG	2A	3254	1/1	0.78	0.45	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	2A	3438	1/1	0.78	0.24	64,64,64,64	0
56	MG	2A	3031	1/1	0.78	0.12	89,89,89,89	0
56	MG	2A	3355	1/1	0.78	0.54	69,69,69,69	0
56	MG	1A	3224	1/1	0.78	0.29	81,81,81,81	0
56	MG	2A	3170	1/1	0.78	0.43	58,58,58,58	0
56	MG	1A	3043	1/1	0.78	0.46	79,79,79,79	0
56	MG	2A	3178	1/1	0.78	0.24	76,76,76,76	0
56	MG	2a	1633	1/1	0.78	0.14	74,74,74,74	0
56	MG	1P	202	1/1	0.78	0.70	84,84,84,84	0
56	MG	1A	3114	1/1	0.79	0.29	72,72,72,72	0
56	MG	1A	3171	1/1	0.79	0.25	71,71,71,71	0
56	MG	1A	3437	1/1	0.79	0.64	83,83,83,83	0
56	MG	1X	101	1/1	0.79	1.15	85,85,85,85	0
56	MG	1A	3478	1/1	0.79	0.32	50,50,50,50	0
56	MG	1B	210	1/1	0.79	0.43	69,69,69,69	0
56	MG	1A	3489	1/1	0.79	0.25	85,85,85,85	0
56	MG	1B	217	1/1	0.79	0.49	92,92,92,92	0
56	MG	2A	3103	1/1	0.79	0.36	61,61,61,61	0
56	MG	2a	1649	1/1	0.79	0.29	66,66,66,66	0
56	MG	1A	3083	1/1	0.79	0.34	55,55,55,55	0
56	MG	2B	204	1/1	0.79	0.30	91,91,91,91	0
56	MG	2B	210	1/1	0.79	0.47	80,80,80,80	0
56	MG	2A	3105	1/1	0.79	0.28	75,75,75,75	0
56	MG	1A	3344	1/1	0.79	0.23	57,57,57,57	0
56	MG	1A	3236	1/1	0.79	0.32	61,61,61,61	0
56	MG	1A	3451	1/1	0.79	0.22	52,52,52,52	0
56	MG	2a	1682	1/1	0.79	0.15	56,56,56,56	0
56	MG	2A	3192	1/1	0.79	0.21	50,50,50,50	0
56	MG	1A	3348	1/1	0.79	0.29	74,74,74,74	0
56	MG	2A	3306	1/1	0.79	0.63	56,56,56,56	0
56	MG	1A	3524	1/1	0.79	0.09	93,93,93,93	0
56	MG	1A	3179	1/1	0.79	0.26	69,69,69,69	0
56	MG	1a	1629	1/1	0.79	1.22	85,85,85,85	0
56	MG	1A	3352	1/1	0.79	0.39	50,50,50,50	0
56	MG	2A	3414	1/1	0.79	0.37	76,76,76,76	0
56	MG	1A	3077	1/1	0.80	0.37	72,72,72,72	0
56	MG	2a	1608	1/1	0.80	0.23	58,58,58,58	0
56	MG	2A	3260	1/1	0.80	0.24	62,62,62,62	0
56	MG	1a	1676	1/1	0.80	0.32	67,67,67,67	0
56	MG	1A	3127	1/1	0.80	0.49	73,73,73,73	0
56	MG	2A	3009	1/1	0.80	0.29	67,67,67,67	0
56	MG	1B	214	1/1	0.80	0.30	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
56	MG	2A	3046	1/1	0.80	0.47	74,74,74,74	0
56	MG	2a	1685	1/1	0.80	0.27	67,67,67,67	0
56	MG	1A	3027	1/1	0.80	0.15	81,81,81,81	0
56	MG	1A	3206	1/1	0.80	0.42	59,59,59,59	0
56	MG	2A	3226	1/1	0.80	1.90	82,82,82,82	0
56	MG	2A	3456	1/1	0.80	0.22	52,52,52,52	0
56	MG	2A	3125	1/1	0.80	0.23	67,67,67,67	0
56	MG	1A	3304	1/1	0.80	0.43	63,63,63,63	0
56	MG	1a	1636	1/1	0.80	0.39	55,55,55,55	0
57	ZN	24	501	1/1	0.80	0.05	171,171,171,171	0
56	MG	1a	1675	1/1	0.81	0.28	60,60,60,60	0
56	MG	1A	3460	1/1	0.81	0.38	64,64,64,64	0
56	MG	2A	3117	1/1	0.81	0.23	64,64,64,64	0
56	MG	2a	1619	1/1	0.81	0.28	62,62,62,62	0
56	MG	2A	3431	1/1	0.81	0.24	65,65,65,65	0
56	MG	1A	3026	1/1	0.81	0.93	73,73,73,73	0
56	MG	1A	3467	1/1	0.81	0.47	82,82,82,82	0
56	MG	1a	1626	1/1	0.81	0.10	82,82,82,82	0
56	MG	2A	3451	1/1	0.81	0.24	62,62,62,62	0
56	MG	2a	1637	1/1	0.81	0.18	75,75,75,75	0
56	MG	2A	3072	1/1	0.81	0.25	77,77,77,77	0
56	MG	1A	3103	1/1	0.81	0.20	73,73,73,73	0
56	MG	1A	3309	1/1	0.81	0.36	62,62,62,62	0
56	MG	1A	3548	1/1	0.81	0.83	60,60,60,60	0
56	MG	1a	1632	1/1	0.81	0.19	68,68,68,68	0
56	MG	2A	3215	1/1	0.81	1.06	57,57,57,57	0
56	MG	2A	3155	1/1	0.81	0.15	93,93,93,93	0
56	MG	1A	3374	1/1	0.81	0.36	68,68,68,68	0
56	MG	1A	3237	1/1	0.81	0.80	90,90,90,90	0
56	MG	1A	3028	1/1	0.81	0.27	63,63,63,63	0
56	MG	2E	305	1/1	0.81	0.21	71,71,71,71	0
56	MG	1A	3159	1/1	0.81	0.27	68,68,68,68	0
56	MG	1A	3119	1/1	0.81	0.26	78,78,78,78	0
56	MG	1A	3292	1/1	0.81	0.78	53,53,53,53	0
56	MG	18	101	1/1	0.81	0.24	68,68,68,68	0
56	MG	1A	3121	1/1	0.81	0.46	75,75,75,75	0
56	MG	1A	3094	1/1	0.81	0.40	67,67,67,67	0
56	MG	1A	3037	1/1	0.81	0.59	53,53,53,53	0
56	MG	1a	1612	1/1	0.81	0.32	91,91,91,91	0
56	MG	2A	3394	1/1	0.81	0.23	67,67,67,67	0
56	MG	2a	1607	1/1	0.81	0.34	70,70,70,70	0
56	MG	2q	201	1/1	0.81	0.11	96,96,96,96	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	2A	3038	1/1	0.81	0.11	87,87,87,87	0
56	MG	1A	3072	1/1	0.82	0.27	73,73,73,73	0
56	MG	1R	202	1/1	0.82	0.32	59,59,59,59	0
56	MG	1A	3145	1/1	0.82	0.45	84,84,84,84	0
56	MG	2a	1636	1/1	0.82	0.29	79,79,79,79	0
56	MG	1T	203	1/1	0.82	1.14	78,78,78,78	0
56	MG	2B	206	1/1	0.82	0.18	71,71,71,71	0
56	MG	1A	3404	1/1	0.82	0.59	50,50,50,50	0
56	MG	2D	303	1/1	0.82	0.57	61,61,61,61	0
56	MG	1a	1611	1/1	0.82	0.18	78,78,78,78	0
56	MG	2A	3146	1/1	0.82	0.28	79,79,79,79	0
56	MG	2A	3149	1/1	0.82	0.24	64,64,64,64	0
56	MG	2A	3402	1/1	0.82	0.16	73,73,73,73	0
56	MG	2a	1667	1/1	0.82	0.53	83,83,83,83	0
56	MG	1A	3450	1/1	0.82	1.34	66,66,66,66	0
56	MG	1A	3366	1/1	0.82	0.31	57,57,57,57	0
56	MG	2A	3424	1/1	0.82	0.88	81,81,81,81	0
56	MG	28	102	1/1	0.82	0.29	74,74,74,74	0
56	MG	2A	3252	1/1	0.82	0.19	79,79,79,79	0
56	MG	2A	3347	1/1	0.82	0.54	75,75,75,75	0
56	MG	1a	1685	1/1	0.82	0.34	73,73,73,73	0
56	MG	2A	3080	1/1	0.82	0.49	87,87,87,87	0
56	MG	1A	3078	1/1	0.82	0.37	64,64,64,64	0
56	MG	2a	1698	1/1	0.82	0.21	57,57,57,57	0
56	MG	2A	3450	1/1	0.82	0.25	64,64,64,64	0
56	MG	1A	3124	1/1	0.82	0.41	51,51,51,51	0
56	MG	1x	101	1/1	0.82	0.38	50,50,50,50	0
56	MG	1A	3479	1/1	0.82	0.31	62,62,62,62	0
56	MG	2A	3365	1/1	0.82	0.70	58,58,58,58	0
56	MG	2A	3366	1/1	0.82	0.15	68,68,68,68	0
56	MG	2x	101	1/1	0.82	0.47	56,56,56,56	0
56	MG	2A	3470	1/1	0.82	0.13	83,83,83,83	0
56	MG	1A	3262	1/1	0.83	0.25	59,59,59,59	0
56	MG	1A	3469	1/1	0.83	0.40	61,61,61,61	0
56	MG	2A	3207	1/1	0.83	0.40	63,63,63,63	0
56	MG	2A	3158	1/1	0.83	0.21	68,68,68,68	0
56	MG	2B	207	1/1	0.83	0.31	91,91,91,91	0
56	MG	2A	3315	1/1	0.83	0.21	52,52,52,52	0
56	MG	2D	301	1/1	0.83	1.05	63,63,63,63	0
56	MG	2A	3319	1/1	0.83	0.17	61,61,61,61	0
56	MG	2E	301	1/1	0.83	0.93	69,69,69,69	0
56	MG	1a	1602	1/1	0.83	0.26	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	3134	1/1	0.83	0.25	76,76,76,76	0
56	MG	1A	3286	1/1	0.83	0.29	54,54,54,54	0
56	MG	2A	3410	1/1	0.83	0.19	78,78,78,78	0
56	MG	2R	202	1/1	0.83	0.34	54,54,54,54	0
56	MG	2A	3068	1/1	0.83	0.34	79,79,79,79	0
56	MG	2A	3418	1/1	0.83	0.35	77,77,77,77	0
56	MG	25	101	1/1	0.83	0.27	65,65,65,65	0
56	MG	1a	1654	1/1	0.83	0.20	82,82,82,82	0
56	MG	1A	3050	1/1	0.83	0.52	50,50,50,50	0
56	MG	1A	3011	1/1	0.83	0.62	84,84,84,84	0
56	MG	1A	3173	1/1	0.83	0.17	66,66,66,66	0
56	MG	1A	3359	1/1	0.83	0.31	57,57,57,57	0
56	MG	1A	3146	1/1	0.83	0.28	65,65,65,65	0
56	MG	1B	211	1/1	0.83	0.50	74,74,74,74	0
56	MG	1A	3098	1/1	0.83	0.59	77,77,77,77	0
56	MG	2c	301	1/1	0.83	0.16	94,94,94,94	0
56	MG	1A	3152	1/1	0.83	0.18	100,100,100,100	0
56	MG	1A	3049	1/1	0.83	0.33	60,60,60,60	0
56	MG	2A	3096	1/1	0.83	0.32	63,63,63,63	0
56	MG	1A	3184	1/1	0.83	0.44	54,54,54,54	0
56	MG	1A	3425	1/1	0.83	0.25	73,73,73,73	0
56	MG	2A	3302	1/1	0.83	0.43	81,81,81,81	0
56	MG	2A	3171	1/1	0.84	0.79	77,77,77,77	0
56	MG	2A	3173	1/1	0.84	0.39	70,70,70,70	0
56	MG	1A	3430	1/1	0.84	0.34	108,108,108,108	0
56	MG	1A	3143	1/1	0.84	0.22	76,76,76,76	0
56	MG	2A	3062	1/1	0.84	0.27	72,72,72,72	0
56	MG	2A	3372	1/1	0.84	0.35	73,73,73,73	0
56	MG	2A	3110	1/1	0.84	0.81	70,70,70,70	0
56	MG	1A	3044	1/1	0.84	0.89	59,59,59,59	0
56	MG	1A	3030	1/1	0.84	0.45	84,84,84,84	0
56	MG	2D	302	1/1	0.84	1.20	62,62,62,62	0
56	MG	2a	1650	1/1	0.84	0.22	66,66,66,66	0
56	MG	1B	209	1/1	0.84	0.29	57,57,57,57	0
56	MG	2A	3199	1/1	0.84	0.61	72,72,72,72	0
56	MG	1A	3438	1/1	0.84	0.44	50,50,50,50	0
56	MG	2a	1666	1/1	0.84	0.53	73,73,73,73	0
56	MG	1A	3059	1/1	0.84	0.41	69,69,69,69	0
56	MG	1A	3210	1/1	0.84	0.30	54,54,54,54	0
56	MG	1a	1646	1/1	0.84	0.25	72,72,72,72	0
56	MG	2A	3407	1/1	0.84	0.23	75,75,75,75	0
56	MG	1A	3405	1/1	0.84	0.35	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1A	3023	1/1	0.84	0.43	57,57,57,57	0
56	MG	1A	3254	1/1	0.84	0.26	69,69,69,69	0
56	MG	2A	3423	1/1	0.84	0.24	88,88,88,88	0
56	MG	1A	3507	1/1	0.84	0.37	64,64,64,64	0
56	MG	2A	3093	1/1	0.84	0.34	71,71,71,71	0
56	MG	1A	3113	1/1	0.84	0.22	75,75,75,75	0
56	MG	1A	3320	1/1	0.84	0.44	71,71,71,71	0
56	MG	1A	3461	1/1	0.84	0.33	71,71,71,71	0
56	MG	2A	3216	1/1	0.84	0.22	64,64,64,64	0
56	MG	1A	3528	1/1	0.84	0.13	101,101,101,101	0
56	MG	1A	3020	1/1	0.84	0.21	69,69,69,69	0
56	MG	1a	1620	1/1	0.84	0.19	95,95,95,95	0
56	MG	2A	3224	1/1	0.84	0.31	74,74,74,74	0
56	MG	1A	3163	1/1	0.84	0.44	65,65,65,65	0
56	MG	1A	3079	1/1	0.84	0.63	73,73,73,73	0
56	MG	1A	3455	1/1	0.85	0.27	78,78,78,78	0
56	MG	1A	3213	1/1	0.85	0.47	71,71,71,71	0
56	MG	1A	3139	1/1	0.85	0.41	50,50,50,50	0
56	MG	2A	3090	1/1	0.85	0.40	82,82,82,82	0
56	MG	1A	3508	1/1	0.85	0.40	72,72,72,72	0
56	MG	1A	3019	1/1	0.85	0.39	81,81,81,81	0
56	MG	1A	3003	1/1	0.85	0.27	95,95,95,95	0
56	MG	2a	1640	1/1	0.85	0.43	67,67,67,67	0
56	MG	2a	1643	1/1	0.85	0.19	77,77,77,77	0
56	MG	2A	3382	1/1	0.85	0.16	70,70,70,70	0
56	MG	2A	3153	1/1	0.85	0.17	81,81,81,81	0
56	MG	1A	3194	1/1	0.85	0.45	71,71,71,71	0
56	MG	1A	3195	1/1	0.85	0.29	50,50,50,50	0
56	MG	2A	3314	1/1	0.85	0.24	75,75,75,75	0
56	MG	2a	1661	1/1	0.85	0.24	67,67,67,67	0
56	MG	1A	3015	1/1	0.85	0.63	54,54,54,54	0
56	MG	2A	3040	1/1	0.85	0.24	56,56,56,56	0
56	MG	1a	1640	1/1	0.85	0.32	84,84,84,84	0
56	MG	1A	3402	1/1	0.85	0.27	53,53,53,53	0
56	MG	2A	3411	1/1	0.85	0.18	62,62,62,62	0
56	MG	1x	103	1/1	0.85	0.23	95,95,95,95	0
56	MG	2A	3417	1/1	0.85	0.17	52,52,52,52	0
56	MG	2A	3169	1/1	0.85	0.22	56,56,56,56	0
56	MG	2A	3061	1/1	0.85	0.15	87,87,87,87	0
56	MG	1A	3365	1/1	0.85	0.43	70,70,70,70	0
56	MG	2a	1688	1/1	0.85	0.24	59,59,59,59	0
56	MG	1A	3069	1/1	0.85	0.46	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	2A	3343	1/1	0.85	0.17	67,67,67,67	0
56	MG	1A	3406	1/1	0.85	0.25	59,59,59,59	0
56	MG	1A	3290	1/1	0.85	0.39	50,50,50,50	0
56	MG	2A	3348	1/1	0.85	0.26	53,53,53,53	0
56	MG	2A	3230	1/1	0.85	0.25	56,56,56,56	0
56	MG	2A	3232	1/1	0.85	0.24	81,81,81,81	0
56	MG	1A	3370	1/1	0.85	0.38	52,52,52,52	0
56	MG	2A	3458	1/1	0.85	0.53	67,67,67,67	0
56	MG	2A	3006	1/1	0.85	0.15	86,86,86,86	0
56	MG	1a	1662	1/1	0.85	0.30	89,89,89,89	0
56	MG	1A	3024	1/1	0.85	0.44	75,75,75,75	0
56	MG	2A	3403	1/1	0.86	0.87	81,81,81,81	0
56	MG	1A	3361	1/1	0.86	0.29	70,70,70,70	0
56	MG	2A	3121	1/1	0.86	0.26	54,54,54,54	0
56	MG	2A	3408	1/1	0.86	0.20	65,65,65,65	0
56	MG	2A	3409	1/1	0.86	0.23	69,69,69,69	0
56	MG	2A	3310	1/1	0.86	0.24	50,50,50,50	0
56	MG	1A	3133	1/1	0.86	0.29	74,74,74,74	0
56	MG	1A	3287	1/1	0.86	0.19	51,51,51,51	0
56	MG	2A	3002	1/1	0.86	0.34	61,61,61,61	0
56	MG	1a	1649	1/1	0.86	0.20	66,66,66,66	0
56	MG	2A	3419	1/1	0.86	0.18	72,72,72,72	0
56	MG	1A	3466	1/1	0.86	0.28	79,79,79,79	0
56	MG	1A	3153	1/1	0.86	0.22	61,61,61,61	0
56	MG	1E	301	1/1	0.86	0.52	76,76,76,76	0
56	MG	2A	3089	1/1	0.86	0.68	78,78,78,78	0
56	MG	2A	3432	1/1	0.86	0.39	74,74,74,74	0
56	MG	1A	3435	1/1	0.86	0.31	75,75,75,75	0
56	MG	2A	3091	1/1	0.86	0.35	82,82,82,82	0
56	MG	1A	3203	1/1	0.86	0.54	50,50,50,50	0
56	MG	1A	3368	1/1	0.86	0.22	76,76,76,76	0
56	MG	1A	3250	1/1	0.86	0.41	68,68,68,68	0
56	MG	2A	3159	1/1	0.86	0.15	76,76,76,76	0
56	MG	1A	3372	1/1	0.86	1.00	51,51,51,51	0
56	MG	2a	1653	1/1	0.86	0.47	51,51,51,51	0
56	MG	2A	3223	1/1	0.86	1.12	55,55,55,55	0
56	MG	1A	3148	1/1	0.86	0.29	51,51,51,51	0
56	MG	2A	3353	1/1	0.86	0.25	65,65,65,65	0
56	MG	2A	3354	1/1	0.86	0.32	82,82,82,82	0
56	MG	1A	3172	1/1	0.86	0.23	51,51,51,51	0
56	MG	1A	3481	1/1	0.86	0.48	50,50,50,50	0
56	MG	2A	3229	1/1	0.86	0.99	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	2a	1669	1/1	0.86	0.53	74,74,74,74	0
56	MG	1a	1681	1/1	0.86	0.13	69,69,69,69	0
56	MG	2A	3359	1/1	0.86	0.23	59,59,59,59	0
56	MG	2A	3361	1/1	0.86	0.21	54,54,54,54	0
56	MG	1B	204	1/1	0.86	0.27	70,70,70,70	0
56	MG	1A	3487	1/1	0.86	0.47	69,69,69,69	0
56	MG	1d	301	1/1	0.86	0.11	96,96,96,96	0
56	MG	2A	3369	1/1	0.86	0.21	78,78,78,78	0
56	MG	2A	3241	1/1	0.86	0.31	68,68,68,68	0
56	MG	1B	208	1/1	0.86	0.43	73,73,73,73	0
56	MG	2A	3373	1/1	0.86	0.28	73,73,73,73	0
56	MG	1A	3192	1/1	0.86	0.25	64,64,64,64	0
56	MG	2A	3109	1/1	0.86	1.06	76,76,76,76	0
56	MG	2a	1705	1/1	0.86	0.26	70,70,70,70	0
56	MG	1Y	201	1/1	0.86	0.96	77,77,77,77	0
56	MG	2A	3183	1/1	0.86	0.83	53,53,53,53	0
56	MG	1A	3280	1/1	0.86	0.24	53,53,53,53	0
56	MG	2A	3272	1/1	0.86	0.29	78,78,78,78	0
56	MG	2A	3116	1/1	0.86	0.53	59,59,59,59	0
56	MG	2A	3296	1/1	0.86	0.42	89,89,89,89	0
56	MG	1A	3006	1/1	0.86	0.16	80,80,80,80	0
56	MG	1a	1616	1/1	0.87	0.14	75,75,75,75	0
56	MG	1F	301	1/1	0.87	0.21	65,65,65,65	0
56	MG	1A	3301	1/1	0.87	0.22	57,57,57,57	0
56	MG	1H	201	1/1	0.87	0.27	68,68,68,68	0
56	MG	1A	3009	1/1	0.87	0.10	85,85,85,85	0
56	MG	1A	3066	1/1	0.87	0.43	63,63,63,63	0
56	MG	2A	3217	1/1	0.87	0.34	71,71,71,71	0
56	MG	1R	201	1/1	0.87	0.49	52,52,52,52	0
56	MG	2A	3078	1/1	0.87	0.11	82,82,82,82	0
56	MG	2A	3079	1/1	0.87	0.16	86,86,86,86	0
56	MG	1a	1631	1/1	0.87	0.22	70,70,70,70	0
56	MG	1A	3475	1/1	0.87	0.27	60,60,60,60	0
56	MG	1A	3537	1/1	0.87	0.10	93,93,93,93	0
56	MG	1x	106	1/1	0.87	0.18	79,79,79,79	0
56	MG	1A	3068	1/1	0.87	0.73	67,67,67,67	0
56	MG	1A	3412	1/1	0.87	0.24	75,75,75,75	0
56	MG	1a	1639	1/1	0.87	0.18	92,92,92,92	0
56	MG	1A	3447	1/1	0.87	0.75	72,72,72,72	0
56	MG	2A	3004	1/1	0.87	1.02	67,67,67,67	0
56	MG	2A	3005	1/1	0.87	0.13	68,68,68,68	0
56	MG	1A	3054	1/1	0.87	0.20	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	3484	1/1	0.87	0.24	63,63,63,63	0
56	MG	1A	3486	1/1	0.87	0.27	66,66,66,66	0
56	MG	2A	3255	1/1	0.87	0.16	62,62,62,62	0
56	MG	2A	3375	1/1	0.87	0.18	62,62,62,62	0
56	MG	2A	3175	1/1	0.87	0.42	71,71,71,71	0
56	MG	1A	3416	1/1	0.87	0.35	75,75,75,75	0
56	MG	2A	3265	1/1	0.87	0.26	51,51,51,51	0
56	MG	1A	3420	1/1	0.87	0.29	58,58,58,58	0
56	MG	1A	3057	1/1	0.87	0.25	61,61,61,61	0
56	MG	2A	3102	1/1	0.87	0.15	90,90,90,90	0
56	MG	1A	3493	1/1	0.87	0.35	50,50,50,50	0
56	MG	2R	201	1/1	0.87	0.46	55,55,55,55	0
56	MG	1A	3111	1/1	0.87	0.36	51,51,51,51	0
56	MG	2A	3188	1/1	0.87	0.23	50,50,50,50	0
56	MG	1A	3388	1/1	0.87	0.43	50,50,50,50	0
56	MG	2A	3033	1/1	0.87	0.18	63,63,63,63	0
56	MG	1a	1667	1/1	0.87	0.19	97,97,97,97	0
56	MG	1A	3428	1/1	0.87	0.60	75,75,75,75	0
56	MG	1D	302	1/1	0.87	0.39	78,78,78,78	0
56	MG	1A	3142	1/1	0.87	0.34	67,67,67,67	0
56	MG	1A	3156	1/1	0.87	0.34	51,51,51,51	0
56	MG	1A	3281	1/1	0.87	0.33	50,50,50,50	0
56	MG	2A	3415	1/1	0.87	0.21	74,74,74,74	0
56	MG	2A	3050	1/1	0.87	0.18	87,87,87,87	0
56	MG	1A	3371	1/1	0.87	0.26	55,55,55,55	0
56	MG	1A	3221	1/1	0.88	0.41	50,50,50,50	0
56	MG	1r	101	1/1	0.88	0.32	74,74,74,74	0
56	MG	1A	3108	1/1	0.88	0.30	76,76,76,76	0
56	MG	1B	206	1/1	0.88	0.29	73,73,73,73	0
56	MG	1x	102	1/1	0.88	0.24	71,71,71,71	0
56	MG	1A	3122	1/1	0.88	0.22	60,60,60,60	0
56	MG	1A	3087	1/1	0.88	0.26	56,56,56,56	0
56	MG	1A	3140	1/1	0.88	0.17	67,67,67,67	0
56	MG	1A	3074	1/1	0.88	0.21	71,71,71,71	0
56	MG	1A	3353	1/1	0.88	0.19	72,72,72,72	0
56	MG	2A	3168	1/1	0.88	0.19	82,82,82,82	0
56	MG	2A	3386	1/1	0.88	0.27	66,66,66,66	0
56	MG	2A	3391	1/1	0.88	0.34	70,70,70,70	0
56	MG	1A	3092	1/1	0.88	0.31	66,66,66,66	0
56	MG	2a	1655	1/1	0.88	0.44	70,70,70,70	0
56	MG	2A	3317	1/1	0.88	0.25	57,57,57,57	0
56	MG	1a	1664	1/1	0.88	0.19	92,92,92,92	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1A	3116	1/1	0.88	0.89	65,65,65,65	0
56	MG	1A	3384	1/1	0.88	0.32	55,55,55,55	0
56	MG	1A	3240	1/1	0.88	0.24	60,60,60,60	0
56	MG	1a	1673	1/1	0.88	0.36	75,75,75,75	0
56	MG	1A	3314	1/1	0.88	0.51	59,59,59,59	0
56	MG	10	103	1/1	0.88	0.26	69,69,69,69	0
56	MG	1A	3533	1/1	0.88	0.18	104,104,104,104	0
56	MG	2A	3231	1/1	0.88	0.49	75,75,75,75	0
56	MG	2A	3017	1/1	0.88	0.53	80,80,80,80	0
56	MG	1A	3363	1/1	0.88	0.23	51,51,51,51	0
56	MG	20	101	1/1	0.88	0.18	64,64,64,64	0
56	MG	2A	3235	1/1	0.88	0.23	66,66,66,66	0
56	MG	1A	3317	1/1	0.88	0.37	89,89,89,89	0
56	MG	2A	3190	1/1	0.88	0.43	53,53,53,53	0
56	MG	2a	1690	1/1	0.88	0.09	84,84,84,84	0
56	MG	1a	1682	1/1	0.88	0.25	69,69,69,69	0
56	MG	18	102	1/1	0.88	0.29	56,56,56,56	0
56	MG	2A	3193	1/1	0.88	0.23	56,56,56,56	0
56	MG	2A	3427	1/1	0.88	0.29	102,102,102,102	0
56	MG	1A	3105	1/1	0.88	0.26	65,65,65,65	0
56	MG	2a	1711	1/1	0.88	0.10	87,87,87,87	0
56	MG	1A	3399	1/1	0.88	0.23	62,62,62,62	0
56	MG	2A	3147	1/1	0.88	0.64	61,61,61,61	0
56	MG	2a	1613	1/1	0.88	0.19	90,90,90,90	0
56	MG	2A	3263	1/1	0.88	0.23	54,54,54,54	0
56	MG	2A	3264	1/1	0.88	0.39	76,76,76,76	0
56	MG	2A	3445	1/1	0.88	0.23	51,51,51,51	0
56	MG	2A	3034	1/1	0.88	0.16	102,102,102,102	0
56	MG	1A	3536	1/1	0.89	0.10	67,67,67,67	0
56	MG	2A	3073	1/1	0.89	0.52	50,50,50,50	0
56	MG	2A	3440	1/1	0.89	0.29	50,50,50,50	0
56	MG	2A	3074	1/1	0.89	0.43	63,63,63,63	0
56	MG	1A	3005	1/1	0.89	0.19	91,91,91,91	0
56	MG	1a	1617	1/1	0.89	0.24	87,87,87,87	0
56	MG	1A	3051	1/1	0.89	0.23	73,73,73,73	0
56	MG	2A	3195	1/1	0.89	0.85	65,65,65,65	0
56	MG	2A	3196	1/1	0.89	0.19	50,50,50,50	0
56	MG	2A	3197	1/1	0.89	1.20	87,87,87,87	0
56	MG	1A	3446	1/1	0.89	0.23	75,75,75,75	0
56	MG	2a	1641	1/1	0.89	0.28	63,63,63,63	0
56	MG	1A	3106	1/1	0.89	0.30	90,90,90,90	0
56	MG	2A	3142	1/1	0.89	0.52	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
56	MG	1A	3375	1/1	0.89	0.28	58,58,58,58	0
56	MG	2A	3015	1/1	0.89	0.15	63,63,63,63	0
56	MG	2B	201	1/1	0.89	0.14	70,70,70,70	0
56	MG	2A	3016	1/1	0.89	0.17	70,70,70,70	0
56	MG	1A	3263	1/1	0.89	0.24	64,64,64,64	0
56	MG	1A	3378	1/1	0.89	0.22	71,71,71,71	0
56	MG	1A	3052	1/1	0.89	0.53	71,71,71,71	0
56	MG	1A	3492	1/1	0.89	0.18	66,66,66,66	0
56	MG	1A	3421	1/1	0.89	0.48	67,67,67,67	0
56	MG	2A	3397	1/1	0.89	0.18	73,73,73,73	0
56	MG	1a	1634	1/1	0.89	0.29	86,86,86,86	0
56	MG	2A	3400	1/1	0.89	0.34	55,55,55,55	0
56	MG	2A	3401	1/1	0.89	0.14	87,87,87,87	0
56	MG	1A	3305	1/1	0.89	0.39	50,50,50,50	0
56	MG	1A	3084	1/1	0.89	0.18	77,77,77,77	0
56	MG	1A	3208	1/1	0.89	0.32	50,50,50,50	0
56	MG	1A	3465	1/1	0.89	0.34	63,63,63,63	0
56	MG	1A	3312	1/1	0.89	0.48	62,62,62,62	0
56	MG	1A	3513	1/1	0.89	0.33	63,63,63,63	0
56	MG	2A	3222	1/1	0.89	1.63	72,72,72,72	0
56	MG	2A	3041	1/1	0.89	0.16	76,76,76,76	0
56	MG	2a	1693	1/1	0.89	0.26	67,67,67,67	0
56	MG	2A	3412	1/1	0.89	0.45	68,68,68,68	0
56	MG	1A	3389	1/1	0.89	0.26	60,60,60,60	0
56	MG	1A	3021	1/1	0.89	0.25	81,81,81,81	0
56	MG	1A	3036	1/1	0.89	0.25	96,96,96,96	0
56	MG	1A	3013	1/1	0.89	0.26	70,70,70,70	0
56	MG	2A	3174	1/1	0.89	0.16	52,52,52,52	0
56	MG	1x	107	1/1	0.89	0.29	80,80,80,80	0
56	MG	1A	3149	1/1	0.89	0.55	78,78,78,78	0
56	MG	1A	3118	1/1	0.89	0.21	63,63,63,63	0
56	MG	2A	3111	1/1	0.89	0.55	77,77,77,77	0
56	MG	2A	3428	1/1	0.89	0.23	85,85,85,85	0
56	MG	2A	3113	1/1	0.89	0.17	70,70,70,70	0
56	MG	1A	3296	1/1	0.89	0.49	80,80,80,80	0
56	MG	1Q	201	1/1	0.90	0.11	78,78,78,78	0
56	MG	1A	3526	1/1	0.90	0.16	88,88,88,88	0
56	MG	1a	1638	1/1	0.90	0.22	67,67,67,67	0
56	MG	1A	3031	1/1	0.90	0.25	81,81,81,81	0
56	MG	1A	3383	1/1	0.90	0.24	62,62,62,62	0
56	MG	2a	1620	1/1	0.90	0.14	72,72,72,72	0
56	MG	2a	1625	1/1	0.90	0.21	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	2A	3434	1/1	0.90	0.32	79,79,79,79	0
56	MG	2A	3187	1/1	0.90	0.47	80,80,80,80	0
56	MG	2A	3436	1/1	0.90	0.19	76,76,76,76	0
56	MG	2A	3124	1/1	0.90	0.33	77,77,77,77	0
56	MG	2A	3084	1/1	0.90	0.19	56,56,56,56	0
56	MG	2a	1635	1/1	0.90	0.48	90,90,90,90	0
56	MG	2A	3129	1/1	0.90	0.12	67,67,67,67	0
56	MG	2A	3137	1/1	0.90	0.23	64,64,64,64	0
56	MG	2A	3085	1/1	0.90	0.85	73,73,73,73	0
56	MG	1a	1687	1/1	0.90	0.17	90,90,90,90	0
56	MG	1A	3109	1/1	0.90	0.23	52,52,52,52	0
56	MG	1a	1645	1/1	0.90	0.34	75,75,75,75	0
56	MG	2A	3198	1/1	0.90	0.24	75,75,75,75	0
56	MG	1A	3302	1/1	0.90	0.35	64,64,64,64	0
56	MG	1V	201	1/1	0.90	0.29	55,55,55,55	0
56	MG	1A	3303	1/1	0.90	0.40	53,53,53,53	0
56	MG	1a	1650	1/1	0.90	0.26	62,62,62,62	0
56	MG	2A	3275	1/1	0.90	0.17	61,61,61,61	0
56	MG	2A	3278	1/1	0.90	0.31	50,50,50,50	0
56	MG	2A	3282	1/1	0.90	0.20	71,71,71,71	0
56	MG	1A	3535	1/1	0.90	0.13	91,91,91,91	0
56	MG	2a	1663	1/1	0.90	0.31	50,50,50,50	0
56	MG	2A	3294	1/1	0.90	0.19	67,67,67,67	0
56	MG	2a	1665	1/1	0.90	0.42	54,54,54,54	0
56	MG	1a	1619	1/1	0.90	0.26	63,63,63,63	0
56	MG	1A	3387	1/1	0.90	0.36	65,65,65,65	0
56	MG	2A	3042	1/1	0.90	0.24	72,72,72,72	0
56	MG	1A	3110	1/1	0.90	0.26	75,75,75,75	0
56	MG	1a	1625	1/1	0.90	0.28	87,87,87,87	0
56	MG	2a	1673	1/1	0.90	0.35	53,53,53,53	0
56	MG	1D	304	1/1	0.90	1.02	68,68,68,68	0
56	MG	2A	3212	1/1	0.90	0.63	64,64,64,64	0
56	MG	2a	1678	1/1	0.90	0.37	59,59,59,59	0
56	MG	2A	3053	1/1	0.90	0.60	59,59,59,59	0
56	MG	1A	3506	1/1	0.90	0.30	50,50,50,50	0
56	MG	2A	3163	1/1	0.90	0.14	66,66,66,66	0
56	MG	2Q	201	1/1	0.90	0.32	50,50,50,50	0
56	MG	1A	3081	1/1	0.90	0.25	54,54,54,54	0
56	MG	1a	1669	1/1	0.90	0.17	69,69,69,69	0
56	MG	1A	3120	1/1	0.90	0.15	88,88,88,88	0
56	MG	2a	1695	1/1	0.90	0.28	53,53,53,53	0
56	MG	2A	3325	1/1	0.90	0.43	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	1672	1/1	0.90	0.26	51,51,51,51	0
56	MG	2A	3330	1/1	0.90	0.16	80,80,80,80	0
56	MG	2a	1701	1/1	0.90	0.25	65,65,65,65	0
56	MG	2A	3071	1/1	0.90	0.30	72,72,72,72	0
56	MG	28	101	1/1	0.90	0.27	53,53,53,53	0
56	MG	2a	1709	1/1	0.90	0.10	110,110,110,110	0
56	MG	2A	3335	1/1	0.90	0.18	70,70,70,70	0
56	MG	2a	1712	1/1	0.90	0.12	100,100,100,100	0
56	MG	1A	3417	1/1	0.90	0.40	50,50,50,50	0
56	MG	1A	3463	1/1	0.90	0.47	60,60,60,60	0
56	MG	2A	3341	1/1	0.90	0.22	51,51,51,51	0
56	MG	2l	202	1/1	0.90	0.14	53,53,53,53	0
56	MG	1A	3252	1/1	0.90	0.17	71,71,71,71	0
56	MG	1A	3082	1/1	0.90	0.31	56,56,56,56	0
56	MG	2A	3227	1/1	0.90	0.38	54,54,54,54	0
56	MG	2a	1611	1/1	0.90	0.33	97,97,97,97	0
56	MG	1A	3517	1/1	0.91	0.17	72,72,72,72	0
56	MG	1A	3522	1/1	0.91	0.42	86,86,86,86	0
56	MG	2a	1626	1/1	0.91	0.24	67,67,67,67	0
56	MG	2A	3099	1/1	0.91	0.12	54,54,54,54	0
56	MG	1A	3470	1/1	0.91	0.42	53,53,53,53	0
56	MG	1A	3177	1/1	0.91	0.32	61,61,61,61	0
56	MG	1A	3398	1/1	0.91	0.18	57,57,57,57	0
56	MG	1A	3129	1/1	0.91	0.23	85,85,85,85	0
56	MG	1A	3530	1/1	0.91	0.10	98,98,98,98	0
56	MG	1A	3400	1/1	0.91	0.26	75,75,75,75	0
56	MG	1A	3180	1/1	0.91	0.13	66,66,66,66	0
56	MG	1A	3091	1/1	0.91	0.16	58,58,58,58	0
56	MG	2A	3454	1/1	0.91	0.25	62,62,62,62	0
56	MG	2A	3250	1/1	0.91	0.14	88,88,88,88	0
56	MG	2A	3457	1/1	0.91	0.41	51,51,51,51	0
56	MG	1A	3288	1/1	0.91	0.25	56,56,56,56	0
56	MG	2A	3184	1/1	0.91	0.93	53,53,53,53	0
56	MG	2A	3460	1/1	0.91	0.27	59,59,59,59	0
56	MG	1a	1630	1/1	0.91	0.12	73,73,73,73	0
56	MG	1A	3480	1/1	0.91	0.32	61,61,61,61	0
56	MG	2A	3054	1/1	0.91	0.14	50,50,50,50	0
56	MG	1A	3239	1/1	0.91	0.25	65,65,65,65	0
56	MG	1A	3337	1/1	0.91	0.24	58,58,58,58	0
56	MG	1A	3164	1/1	0.91	0.47	74,74,74,74	0
56	MG	2A	3374	1/1	0.91	0.50	50,50,50,50	0
56	MG	1A	3165	1/1	0.91	0.31	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
56	MG	2A	3194	1/1	0.91	0.67	71,71,71,71	0
56	MG	1B	202	1/1	0.91	0.26	114,114,114,114	0
56	MG	2A	3070	1/1	0.91	0.21	64,64,64,64	0
56	MG	2A	3281	1/1	0.91	0.23	57,57,57,57	0
56	MG	1A	3151	1/1	0.91	0.30	84,84,84,84	0
56	MG	1A	3490	1/1	0.91	0.20	53,53,53,53	0
56	MG	2A	3390	1/1	0.91	0.14	65,65,65,65	0
56	MG	1Z	301	1/1	0.91	0.18	69,69,69,69	0
56	MG	1A	3251	1/1	0.91	0.31	53,53,53,53	0
56	MG	1A	3168	1/1	0.91	0.33	81,81,81,81	0
56	MG	2a	1679	1/1	0.91	0.38	67,67,67,67	0
56	MG	2A	3001	1/1	0.91	0.26	61,61,61,61	0
56	MG	2a	1683	1/1	0.91	0.29	53,53,53,53	0
56	MG	2A	3307	1/1	0.91	0.19	73,73,73,73	0
56	MG	10	104	1/1	0.91	0.17	99,99,99,99	0
56	MG	2a	1687	1/1	0.91	0.21	65,65,65,65	0
56	MG	2A	3309	1/1	0.91	0.30	50,50,50,50	0
56	MG	15	101	1/1	0.91	0.24	53,53,53,53	0
56	MG	16	101	1/1	0.91	0.22	83,83,83,83	0
56	MG	2a	1691	1/1	0.91	0.44	62,62,62,62	0
56	MG	1A	3457	1/1	0.91	0.24	58,58,58,58	0
56	MG	2a	1694	1/1	0.91	0.21	73,73,73,73	0
56	MG	1A	3170	1/1	0.91	0.27	73,73,73,73	0
56	MG	1A	3354	1/1	0.91	0.23	51,51,51,51	0
56	MG	2a	1697	1/1	0.91	0.20	83,83,83,83	0
56	MG	2A	3010	1/1	0.91	0.17	72,72,72,72	0
56	MG	1A	3504	1/1	0.91	0.96	54,54,54,54	0
56	MG	1A	3257	1/1	0.91	0.24	51,51,51,51	0
56	MG	2a	1702	1/1	0.91	0.28	74,74,74,74	0
56	MG	1A	3095	1/1	0.91	0.94	54,54,54,54	0
56	MG	1a	1604	1/1	0.91	0.23	88,88,88,88	0
56	MG	2a	1605	1/1	0.91	0.16	86,86,86,86	0
56	MG	2a	1710	1/1	0.91	0.13	114,114,114,114	0
56	MG	2A	3326	1/1	0.91	0.24	76,76,76,76	0
56	MG	1A	3104	1/1	0.91	0.29	56,56,56,56	0
56	MG	1D	301	1/1	0.91	0.21	72,72,72,72	0
56	MG	1A	3089	1/1	0.91	0.17	53,53,53,53	0
56	MG	2f	202	1/1	0.91	0.11	84,84,84,84	0
56	MG	2A	3094	1/1	0.91	1.14	74,74,74,74	0
56	MG	1A	3265	1/1	0.91	0.13	53,53,53,53	0
56	MG	1A	3018	1/1	0.91	0.35	50,50,50,50	0
56	MG	2a	1615	1/1	0.91	0.21	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	2A	3165	1/1	0.91	0.68	65,65,65,65	0
56	MG	2A	3166	1/1	0.91	0.19	58,58,58,58	0
56	MG	2A	3473	1/1	0.92	0.34	95,95,95,95	0
56	MG	1a	1648	1/1	0.92	0.25	54,54,54,54	0
56	MG	1A	3488	1/1	0.92	0.33	50,50,50,50	0
56	MG	1A	3016	1/1	0.92	0.30	79,79,79,79	0
56	MG	1A	3022	1/1	0.92	0.16	82,82,82,82	0
56	MG	2A	3066	1/1	0.92	0.13	76,76,76,76	0
56	MG	1a	1613	1/1	0.92	0.24	72,72,72,72	0
56	MG	2B	209	1/1	0.92	0.29	75,75,75,75	0
56	MG	1A	3230	1/1	0.92	0.16	73,73,73,73	0
56	MG	2a	1659	1/1	0.92	0.16	53,53,53,53	0
56	MG	1A	3040	1/1	0.92	0.19	68,68,68,68	0
56	MG	2a	1662	1/1	0.92	0.31	52,52,52,52	0
56	MG	2A	3176	1/1	0.92	0.14	75,75,75,75	0
56	MG	1A	3002	1/1	0.92	0.19	67,67,67,67	0
56	MG	1A	3323	1/1	0.92	0.31	54,54,54,54	0
56	MG	1A	3499	1/1	0.92	0.32	52,52,52,52	0
56	MG	2A	3180	1/1	0.92	0.14	79,79,79,79	0
56	MG	1A	3233	1/1	0.92	0.44	50,50,50,50	0
56	MG	2A	3076	1/1	0.92	0.38	67,67,67,67	0
56	MG	1A	3369	1/1	0.92	0.28	51,51,51,51	0
56	MG	2A	3336	1/1	0.92	0.37	55,55,55,55	0
56	MG	2a	1674	1/1	0.92	0.10	67,67,67,67	0
56	MG	2A	3123	1/1	0.92	0.34	83,83,83,83	0
56	MG	1a	1624	1/1	0.92	0.63	68,68,68,68	0
56	MG	1A	3234	1/1	0.92	0.31	52,52,52,52	0
56	MG	2A	3244	1/1	0.92	0.19	74,74,74,74	0
56	MG	2a	1681	1/1	0.92	0.12	71,71,71,71	0
56	MG	2A	3247	1/1	0.92	0.32	50,50,50,50	0
56	MG	1A	3343	1/1	0.92	0.29	68,68,68,68	0
56	MG	2A	3421	1/1	0.92	0.38	83,83,83,83	0
56	MG	2A	3131	1/1	0.92	0.28	51,51,51,51	0
56	MG	1A	3215	1/1	0.92	0.28	65,65,65,65	0
56	MG	1A	3035	1/1	0.92	0.25	55,55,55,55	0
56	MG	2A	3019	1/1	0.92	0.30	102,102,102,102	0
56	MG	1A	3439	1/1	0.92	0.42	70,70,70,70	0
56	MG	2A	3261	1/1	0.92	0.25	50,50,50,50	0
56	MG	2a	1692	1/1	0.92	0.18	59,59,59,59	0
56	MG	1A	3266	1/1	0.92	0.22	59,59,59,59	0
56	MG	1A	3441	1/1	0.92	0.32	57,57,57,57	0
56	MG	1B	218	1/1	0.92	0.45	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	1A	3476	1/1	0.92	0.58	54,54,54,54	0
56	MG	1A	3523	1/1	0.92	0.27	89,89,89,89	0
56	MG	1A	3274	1/1	0.92	0.19	55,55,55,55	0
56	MG	2A	3441	1/1	0.92	0.21	57,57,57,57	0
56	MG	1A	3238	1/1	0.92	0.19	80,80,80,80	0
56	MG	1A	3117	1/1	0.92	0.39	50,50,50,50	0
56	MG	1A	3448	1/1	0.92	0.43	63,63,63,63	0
56	MG	2a	1621	1/1	0.92	0.28	89,89,89,89	0
56	MG	1A	3204	1/1	0.92	0.29	50,50,50,50	0
56	MG	2A	3453	1/1	0.92	0.20	52,52,52,52	0
56	MG	2A	3284	1/1	0.92	0.16	58,58,58,58	0
56	MG	1a	1642	1/1	0.92	0.22	70,70,70,70	0
56	MG	2a	1713	1/1	0.92	0.12	64,64,64,64	0
56	MG	1a	1643	1/1	0.92	0.52	87,87,87,87	0
56	MG	2A	3045	1/1	0.92	1.12	78,78,78,78	0
56	MG	2A	3299	1/1	0.92	0.16	75,75,75,75	0
56	MG	1a	1601	1/1	0.92	0.22	56,56,56,56	0
56	MG	2A	3378	1/1	0.92	0.18	63,63,63,63	0
56	MG	1A	3356	1/1	0.92	0.27	79,79,79,79	0
56	MG	2A	3469	1/1	0.92	0.22	78,78,78,78	0
56	MG	2r	101	1/1	0.92	0.11	84,84,84,84	0
56	MG	1A	3308	1/1	0.92	0.41	82,82,82,82	0
56	MG	1A	3136	1/1	0.92	0.25	63,63,63,63	0
56	MG	1A	3436	1/1	0.93	0.23	75,75,75,75	0
56	MG	1A	3351	1/1	0.93	0.27	50,50,50,50	0
56	MG	2A	3213	1/1	0.93	0.62	83,83,83,83	0
56	MG	1A	3123	1/1	0.93	0.60	72,72,72,72	0
56	MG	2A	3148	1/1	0.93	0.22	70,70,70,70	0
56	MG	1A	3004	1/1	0.93	0.21	75,75,75,75	0
56	MG	2A	3150	1/1	0.93	0.18	79,79,79,79	0
56	MG	1A	3539	1/1	0.93	0.15	77,77,77,77	0
56	MG	1A	3545	1/1	0.93	0.23	99,99,99,99	0
56	MG	1A	3001	1/1	0.93	0.09	79,79,79,79	0
56	MG	1A	3270	1/1	0.93	0.31	53,53,53,53	0
56	MG	2A	3083	1/1	0.93	0.53	57,57,57,57	0
56	MG	1A	3393	1/1	0.93	0.34	50,50,50,50	0
56	MG	1A	3358	1/1	0.93	0.30	60,60,60,60	0
56	MG	1B	203	1/1	0.93	0.35	75,75,75,75	0
56	MG	1A	3045	1/1	0.93	0.08	74,74,74,74	0
56	MG	2a	1647	1/1	0.93	0.27	81,81,81,81	0
56	MG	1A	3279	1/1	0.93	0.13	83,83,83,83	0
56	MG	1A	3307	1/1	0.93	0.29	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1A	3056	1/1	0.93	0.17	82,82,82,82	0
56	MG	1A	3158	1/1	0.93	0.41	69,69,69,69	0
56	MG	2A	3233	1/1	0.93	0.23	54,54,54,54	0
56	MG	1A	3364	1/1	0.93	0.20	77,77,77,77	0
56	MG	1A	3282	1/1	0.93	0.26	94,94,94,94	0
56	MG	1a	1661	1/1	0.93	0.25	74,74,74,74	0
56	MG	1B	212	1/1	0.93	0.37	79,79,79,79	0
56	MG	1A	3311	1/1	0.93	0.55	77,77,77,77	0
56	MG	2A	3468	1/1	0.93	0.23	75,75,75,75	0
56	MG	1A	3505	1/1	0.93	0.33	54,54,54,54	0
56	MG	2A	3248	1/1	0.93	0.23	71,71,71,71	0
56	MG	1a	1665	1/1	0.93	0.20	93,93,93,93	0
56	MG	2A	3362	1/1	0.93	0.10	77,77,77,77	0
56	MG	1a	1666	1/1	0.93	0.25	83,83,83,83	0
56	MG	2A	3251	1/1	0.93	0.12	85,85,85,85	0
56	MG	2A	3029	1/1	0.93	1.26	73,73,73,73	0
56	MG	2A	3368	1/1	0.93	0.21	93,93,93,93	0
56	MG	1A	3242	1/1	0.93	0.29	64,64,64,64	0
56	MG	1A	3112	1/1	0.93	0.24	65,65,65,65	0
56	MG	2a	1677	1/1	0.93	0.26	81,81,81,81	0
56	MG	2B	208	1/1	0.93	0.30	83,83,83,83	0
56	MG	2A	3258	1/1	0.93	0.16	52,52,52,52	0
56	MG	1A	3316	1/1	0.93	0.28	58,58,58,58	0
56	MG	1A	3509	1/1	0.93	0.35	56,56,56,56	0
56	MG	1A	3510	1/1	0.93	0.94	66,66,66,66	0
56	MG	1A	3131	1/1	0.93	0.42	53,53,53,53	0
56	MG	1A	3196	1/1	0.93	0.33	70,70,70,70	0
56	MG	1A	3514	1/1	0.93	0.31	68,68,68,68	0
56	MG	1E	302	1/1	0.93	0.26	50,50,50,50	0
56	MG	1A	3322	1/1	0.93	0.17	71,71,71,71	0
56	MG	1A	3178	1/1	0.93	0.21	57,57,57,57	0
56	MG	2A	3277	1/1	0.93	0.12	72,72,72,72	0
56	MG	1A	3132	1/1	0.93	0.34	59,59,59,59	0
56	MG	1A	3293	1/1	0.93	0.30	71,71,71,71	0
56	MG	2A	3392	1/1	0.93	0.26	73,73,73,73	0
56	MG	2A	3051	1/1	0.93	0.14	73,73,73,73	0
56	MG	1G	201	1/1	0.93	0.09	90,90,90,90	0
56	MG	23	101	1/1	0.93	0.29	65,65,65,65	0
56	MG	1A	3338	1/1	0.93	0.54	58,58,58,58	0
56	MG	1a	1688	1/1	0.93	0.11	93,93,93,93	0
56	MG	2A	3060	1/1	0.93	0.24	71,71,71,71	0
56	MG	2A	3297	1/1	0.93	0.18	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	1P	201	1/1	0.93	0.56	80,80,80,80	0
56	MG	2A	3301	1/1	0.93	0.31	83,83,83,83	0
56	MG	2A	3404	1/1	0.93	0.22	74,74,74,74	0
56	MG	1A	3065	1/1	0.93	0.39	75,75,75,75	0
56	MG	2A	3303	1/1	0.93	0.25	69,69,69,69	0
56	MG	2A	3304	1/1	0.93	0.22	73,73,73,73	0
56	MG	2A	3305	1/1	0.93	0.22	85,85,85,85	0
56	MG	2A	3126	1/1	0.93	0.42	80,80,80,80	0
56	MG	1l	201	1/1	0.93	0.20	64,64,64,64	0
56	MG	1A	3258	1/1	0.93	0.33	68,68,68,68	0
56	MG	1t	201	1/1	0.93	0.53	89,89,89,89	0
56	MG	1A	3382	1/1	0.93	0.14	70,70,70,70	0
56	MG	2A	3311	1/1	0.93	0.31	50,50,50,50	0
56	MG	1A	3297	1/1	0.93	0.20	62,62,62,62	0
56	MG	1A	3047	1/1	0.93	0.18	79,79,79,79	0
56	MG	1A	3166	1/1	0.93	0.14	66,66,66,66	0
57	ZN	1Y	202	1/1	0.93	0.13	138,138,138,138	0
56	MG	2a	1624	1/1	0.93	0.11	74,74,74,74	0
56	MG	1A	3380	1/1	0.94	0.28	55,55,55,55	0
56	MG	2A	3340	1/1	0.94	0.23	53,53,53,53	0
56	MG	1a	1608	1/1	0.94	0.15	78,78,78,78	0
56	MG	2a	1628	1/1	0.94	0.28	75,75,75,75	0
56	MG	1A	3244	1/1	0.94	0.27	50,50,50,50	0
56	MG	2A	3067	1/1	0.94	0.86	84,84,84,84	0
56	MG	1a	1659	1/1	0.94	0.30	68,68,68,68	0
56	MG	2A	3069	1/1	0.94	0.19	82,82,82,82	0
56	MG	1A	3155	1/1	0.94	0.49	66,66,66,66	0
56	MG	2A	3256	1/1	0.94	0.18	52,52,52,52	0
56	MG	1A	3283	1/1	0.94	0.44	76,76,76,76	0
56	MG	2A	3446	1/1	0.94	0.24	59,59,59,59	0
56	MG	2A	3449	1/1	0.94	0.36	50,50,50,50	0
56	MG	1A	3541	1/1	0.94	0.15	116,116,116,116	0
56	MG	1A	3249	1/1	0.94	0.21	50,50,50,50	0
56	MG	2A	3452	1/1	0.94	0.72	103,103,103,103	0
56	MG	1A	3502	1/1	0.94	0.67	79,79,79,79	0
56	MG	1A	3071	1/1	0.94	0.24	54,54,54,54	0
56	MG	2a	1645	1/1	0.94	0.20	66,66,66,66	0
56	MG	2A	3455	1/1	0.94	0.24	61,61,61,61	0
56	MG	2a	1648	1/1	0.94	0.23	69,69,69,69	0
56	MG	1A	3062	1/1	0.94	0.27	56,56,56,56	0
56	MG	1a	1618	1/1	0.94	0.17	70,70,70,70	0
56	MG	2A	3360	1/1	0.94	0.44	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
56	MG	1A	3174	1/1	0.94	0.62	77,77,77,77	0
56	MG	2A	3267	1/1	0.94	0.25	53,53,53,53	0
56	MG	2A	3141	1/1	0.94	0.21	57,57,57,57	0
56	MG	2A	3462	1/1	0.94	0.52	66,66,66,66	0
56	MG	2a	1660	1/1	0.94	0.13	72,72,72,72	0
56	MG	1A	3253	1/1	0.94	0.21	51,51,51,51	0
56	MG	1a	1621	1/1	0.94	0.33	83,83,83,83	0
56	MG	2A	3081	1/1	0.94	0.87	54,54,54,54	0
56	MG	1A	3432	1/1	0.94	0.24	61,61,61,61	0
56	MG	1A	3315	1/1	0.94	0.27	50,50,50,50	0
56	MG	1A	3097	1/1	0.94	0.15	61,61,61,61	0
56	MG	2A	3285	1/1	0.94	0.19	55,55,55,55	0
56	MG	2A	3289	1/1	0.94	0.18	51,51,51,51	0
56	MG	2B	202	1/1	0.94	0.07	89,89,89,89	0
56	MG	2a	1670	1/1	0.94	0.19	62,62,62,62	0
56	MG	1A	3176	1/1	0.94	0.36	63,63,63,63	0
56	MG	1A	3147	1/1	0.94	0.24	50,50,50,50	0
56	MG	2A	3024	1/1	0.94	0.10	84,84,84,84	0
56	MG	2A	3152	1/1	0.94	0.19	74,74,74,74	0
56	MG	2A	3298	1/1	0.94	0.33	56,56,56,56	0
56	MG	1A	3295	1/1	0.94	0.37	59,59,59,59	0
56	MG	2A	3300	1/1	0.94	0.10	60,60,60,60	0
56	MG	1A	3063	1/1	0.94	0.26	71,71,71,71	0
56	MG	2a	1680	1/1	0.94	0.27	53,53,53,53	0
56	MG	1A	3017	1/1	0.94	0.36	77,77,77,77	0
56	MG	1A	3138	1/1	0.94	0.24	68,68,68,68	0
56	MG	1A	3181	1/1	0.94	0.36	50,50,50,50	0
56	MG	1B	215	1/1	0.94	0.36	87,87,87,87	0
56	MG	1B	216	1/1	0.94	0.37	81,81,81,81	0
56	MG	2A	3395	1/1	0.94	0.10	81,81,81,81	0
56	MG	1A	3339	1/1	0.94	0.19	66,66,66,66	0
56	MG	1A	3525	1/1	0.94	0.11	81,81,81,81	0
56	MG	1A	3101	1/1	0.94	0.23	95,95,95,95	0
56	MG	1A	3527	1/1	0.94	0.14	52,52,52,52	0
56	MG	2A	3044	1/1	0.94	0.45	77,77,77,77	0
56	MG	1A	3102	1/1	0.94	0.21	56,56,56,56	0
56	MG	1A	3041	1/1	0.94	0.31	66,66,66,66	0
56	MG	2A	3405	1/1	0.94	1.22	71,71,71,71	0
56	MG	2A	3047	1/1	0.94	0.42	63,63,63,63	0
56	MG	2A	3048	1/1	0.94	0.21	85,85,85,85	0
56	MG	2A	3316	1/1	0.94	0.15	50,50,50,50	0
56	MG	1A	3347	1/1	0.94	0.33	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	2a	1700	1/1	0.94	0.19	50,50,50,50	0
56	MG	2A	3318	1/1	0.94	0.18	50,50,50,50	0
56	MG	1A	3169	1/1	0.94	0.47	64,64,64,64	0
56	MG	1A	3349	1/1	0.94	0.22	65,65,65,65	0
56	MG	1a	1603	1/1	0.94	0.12	110,110,110,110	0
56	MG	2a	1707	1/1	0.94	0.09	114,114,114,114	0
56	MG	2A	3323	1/1	0.94	0.47	64,64,64,64	0
56	MG	2A	3108	1/1	0.94	0.28	107,107,107,107	0
56	MG	2A	3236	1/1	0.94	0.18	55,55,55,55	0
56	MG	2a	1609	1/1	0.94	0.23	74,74,74,74	0
56	MG	2a	1610	1/1	0.94	0.14	82,82,82,82	0
56	MG	1A	3154	1/1	0.94	0.18	58,58,58,58	0
56	MG	2A	3059	1/1	0.94	0.28	62,62,62,62	0
56	MG	2A	3422	1/1	0.94	0.36	51,51,51,51	0
56	MG	2A	3332	1/1	0.94	0.20	50,50,50,50	0
56	MG	1a	1605	1/1	0.94	0.07	117,117,117,117	0
56	MG	2A	3245	1/1	0.94	0.40	50,50,50,50	0
56	MG	2a	1618	1/1	0.94	0.06	89,89,89,89	0
56	MG	2A	3426	1/1	0.94	0.53	88,88,88,88	0
56	MG	2A	3246	1/1	0.94	0.30	69,69,69,69	0
56	MG	1a	1606	1/1	0.94	0.20	81,81,81,81	0
57	ZN	14	501	1/1	0.94	0.10	157,157,157,157	0
56	MG	2a	1623	1/1	0.94	0.37	84,84,84,84	0
56	MG	1A	3444	1/1	0.95	0.22	51,51,51,51	0
56	MG	1a	1678	1/1	0.95	0.15	109,109,109,109	0
56	MG	1A	3408	1/1	0.95	0.32	72,72,72,72	0
56	MG	2a	1646	1/1	0.95	0.22	79,79,79,79	0
56	MG	2A	3389	1/1	0.95	0.13	71,71,71,71	0
56	MG	1A	3209	1/1	0.95	0.20	71,71,71,71	0
56	MG	1A	3538	1/1	0.95	0.36	73,73,73,73	0
56	MG	1T	201	1/1	0.95	0.15	99,99,99,99	0
56	MG	2a	1651	1/1	0.95	0.16	83,83,83,83	0
56	MG	1A	3241	1/1	0.95	0.28	52,52,52,52	0
56	MG	2a	1654	1/1	0.95	0.43	53,53,53,53	0
56	MG	1A	3061	1/1	0.95	0.37	57,57,57,57	0
56	MG	1A	3542	1/1	0.95	0.11	98,98,98,98	0
56	MG	2B	205	1/1	0.95	0.39	50,50,50,50	0
56	MG	1a	1689	1/1	0.95	0.07	109,109,109,109	0
56	MG	2A	3398	1/1	0.95	0.12	66,66,66,66	0
56	MG	1A	3291	1/1	0.95	0.18	50,50,50,50	0
56	MG	1A	3415	1/1	0.95	0.21	71,71,71,71	0
56	MG	1A	3227	1/1	0.95	0.60	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1A	3453	1/1	0.95	0.30	60,60,60,60	0
56	MG	2A	3243	1/1	0.95	0.25	62,62,62,62	0
56	MG	1A	3496	1/1	0.95	0.38	51,51,51,51	0
56	MG	1A	3212	1/1	0.95	0.23	50,50,50,50	0
56	MG	1A	3500	1/1	0.95	0.21	50,50,50,50	0
56	MG	2E	304	1/1	0.95	0.13	61,61,61,61	0
56	MG	2A	3112	1/1	0.95	0.29	84,84,84,84	0
56	MG	1A	3418	1/1	0.95	0.29	57,57,57,57	0
56	MG	1A	3419	1/1	0.95	0.26	62,62,62,62	0
56	MG	1a	1641	1/1	0.95	0.29	67,67,67,67	0
56	MG	2A	3063	1/1	0.95	0.11	61,61,61,61	0
56	MG	2A	3118	1/1	0.95	0.20	66,66,66,66	0
56	MG	2A	3334	1/1	0.95	0.51	71,71,71,71	0
56	MG	2A	3253	1/1	0.95	0.25	54,54,54,54	0
56	MG	2A	3416	1/1	0.95	0.40	100,100,100,100	0
56	MG	1B	207	1/1	0.95	0.38	77,77,77,77	0
56	MG	1A	3459	1/1	0.95	0.28	50,50,50,50	0
56	MG	1A	3269	1/1	0.95	0.30	89,89,89,89	0
56	MG	1A	3246	1/1	0.95	0.41	50,50,50,50	0
56	MG	1A	3272	1/1	0.95	0.33	50,50,50,50	0
56	MG	1A	3273	1/1	0.95	0.17	53,53,53,53	0
56	MG	1A	3014	1/1	0.95	0.25	52,52,52,52	0
56	MG	1A	3277	1/1	0.95	0.27	83,83,83,83	0
56	MG	2a	1604	1/1	0.95	0.12	83,83,83,83	0
56	MG	1A	3327	1/1	0.95	0.14	56,56,56,56	0
56	MG	2A	3136	1/1	0.95	0.26	50,50,50,50	0
56	MG	1a	1651	1/1	0.95	0.19	50,50,50,50	0
56	MG	1A	3468	1/1	0.95	0.27	69,69,69,69	0
56	MG	2A	3268	1/1	0.95	0.41	51,51,51,51	0
56	MG	1A	3332	1/1	0.95	0.18	55,55,55,55	0
56	MG	2A	3274	1/1	0.95	0.20	57,57,57,57	0
56	MG	1a	1658	1/1	0.95	0.21	92,92,92,92	0
56	MG	1A	3067	1/1	0.95	0.27	65,65,65,65	0
56	MG	2A	3439	1/1	0.95	0.25	56,56,56,56	0
56	MG	1A	3336	1/1	0.95	0.41	50,50,50,50	0
56	MG	1A	3519	1/1	0.95	0.16	73,73,73,73	0
56	MG	1A	3520	1/1	0.95	0.21	63,63,63,63	0
56	MG	1A	3073	1/1	0.95	0.55	60,60,60,60	0
56	MG	2a	1704	1/1	0.95	0.23	65,65,65,65	0
56	MG	2A	3209	1/1	0.95	0.97	62,62,62,62	0
56	MG	2A	3286	1/1	0.95	0.54	51,51,51,51	0
56	MG	2a	1708	1/1	0.95	0.24	110,110,110,110	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1A	3434	1/1	0.95	0.26	54,54,54,54	0
56	MG	1A	3007	1/1	0.95	0.20	65,65,65,65	0
56	MG	1A	3032	1/1	0.95	0.11	69,69,69,69	0
56	MG	2A	3370	1/1	0.95	0.23	89,89,89,89	0
56	MG	1A	3341	1/1	0.95	0.23	50,50,50,50	0
56	MG	1A	3219	1/1	0.95	0.33	64,64,64,64	0
56	MG	1A	3160	1/1	0.95	0.23	56,56,56,56	0
56	MG	2f	201	1/1	0.95	0.21	75,75,75,75	0
56	MG	2A	3027	1/1	0.95	0.11	82,82,82,82	0
56	MG	1A	3306	1/1	0.95	0.19	50,50,50,50	0
56	MG	1A	3193	1/1	0.95	0.18	64,64,64,64	0
56	MG	1A	3482	1/1	0.95	0.33	55,55,55,55	0
56	MG	1A	3483	1/1	0.95	0.22	50,50,50,50	0
56	MG	2A	3379	1/1	0.95	0.32	78,78,78,78	0
56	MG	2A	3463	1/1	0.95	0.04	115,115,115,115	0
56	MG	2A	3464	1/1	0.95	0.12	81,81,81,81	0
56	MG	2A	3465	1/1	0.95	0.12	81,81,81,81	0
57	ZN	1n	501	1/1	0.95	0.11	140,140,140,140	0
56	MG	1A	3442	1/1	0.95	0.35	56,56,56,56	0
56	MG	2A	3032	1/1	0.96	0.12	75,75,75,75	0
56	MG	2A	3383	1/1	0.96	0.08	64,64,64,64	0
56	MG	2A	3471	1/1	0.96	0.18	75,75,75,75	0
56	MG	1A	3200	1/1	0.96	0.32	51,51,51,51	0
56	MG	2A	3221	1/1	0.96	0.19	73,73,73,73	0
56	MG	2A	3157	1/1	0.96	0.19	65,65,65,65	0
56	MG	1A	3544	1/1	0.96	0.17	62,62,62,62	0
56	MG	1A	3497	1/1	0.96	0.28	58,58,58,58	0
56	MG	2A	3037	1/1	0.96	0.18	79,79,79,79	0
56	MG	1A	3498	1/1	0.96	0.38	50,50,50,50	0
56	MG	2a	1656	1/1	0.96	0.16	81,81,81,81	0
56	MG	1A	3379	1/1	0.96	0.19	59,59,59,59	0
56	MG	1A	3458	1/1	0.96	0.24	59,59,59,59	0
56	MG	1a	1686	1/1	0.96	0.42	50,50,50,50	0
56	MG	1A	3201	1/1	0.96	0.28	50,50,50,50	0
56	MG	1A	3284	1/1	0.96	0.20	73,73,73,73	0
56	MG	1A	3225	1/1	0.96	0.28	80,80,80,80	0
56	MG	1A	3423	1/1	0.96	0.22	50,50,50,50	0
56	MG	1a	1637	1/1	0.96	0.19	71,71,71,71	0
56	MG	1A	3126	1/1	0.96	0.29	55,55,55,55	0
56	MG	2A	3238	1/1	0.96	0.13	77,77,77,77	0
56	MG	2A	3172	1/1	0.96	0.22	72,72,72,72	0
56	MG	1A	3426	1/1	0.96	0.19	90,90,90,90	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1A	3010	1/1	0.96	0.21	88,88,88,88	0
56	MG	2A	3324	1/1	0.96	0.18	73,73,73,73	0
56	MG	1A	3256	1/1	0.96	0.28	50,50,50,50	0
56	MG	1A	3355	1/1	0.96	0.29	53,53,53,53	0
56	MG	1A	3289	1/1	0.96	0.40	50,50,50,50	0
56	MG	2A	3328	1/1	0.96	0.15	52,52,52,52	0
56	MG	1A	3357	1/1	0.96	0.07	112,112,112,112	0
56	MG	1A	3187	1/1	0.96	0.34	80,80,80,80	0
56	MG	1A	3207	1/1	0.96	0.26	51,51,51,51	0
56	MG	2I	101	1/1	0.96	0.20	56,56,56,56	0
56	MG	2A	3114	1/1	0.96	0.09	77,77,77,77	0
56	MG	1A	3516	1/1	0.96	0.18	79,79,79,79	0
56	MG	1A	3392	1/1	0.96	0.22	54,54,54,54	0
56	MG	2A	3185	1/1	0.96	0.15	72,72,72,72	0
56	MG	1A	3518	1/1	0.96	0.16	71,71,71,71	0
56	MG	1A	3318	1/1	0.96	0.27	50,50,50,50	0
56	MG	2a	1686	1/1	0.96	0.20	70,70,70,70	0
56	MG	1A	3080	1/1	0.96	0.14	76,76,76,76	0
56	MG	1A	3162	1/1	0.96	0.21	55,55,55,55	0
56	MG	1A	3033	1/1	0.96	0.25	84,84,84,84	0
56	MG	2A	3344	1/1	0.96	0.21	64,64,64,64	0
56	MG	1a	1657	1/1	0.96	0.19	72,72,72,72	0
56	MG	1A	3211	1/1	0.96	0.27	50,50,50,50	0
56	MG	1A	3038	1/1	0.96	0.29	80,80,80,80	0
56	MG	1a	1610	1/1	0.96	0.20	68,68,68,68	0
56	MG	2A	3351	1/1	0.96	0.26	73,73,73,73	0
56	MG	2A	3128	1/1	0.96	0.19	88,88,88,88	0
56	MG	2A	3437	1/1	0.96	0.19	51,51,51,51	0
56	MG	1A	3268	1/1	0.96	0.12	50,50,50,50	0
56	MG	1A	3141	1/1	0.96	1.08	89,89,89,89	0
56	MG	2A	3135	1/1	0.96	0.17	92,92,92,92	0
56	MG	2A	3012	1/1	0.96	0.20	72,72,72,72	0
56	MG	2a	1617	1/1	0.96	0.12	81,81,81,81	0
56	MG	1A	3076	1/1	0.96	0.13	75,75,75,75	0
56	MG	2A	3444	1/1	0.96	0.27	50,50,50,50	0
56	MG	1A	3029	1/1	0.96	0.09	94,94,94,94	0
56	MG	2a	1706	1/1	0.96	0.25	62,62,62,62	0
56	MG	1A	3144	1/1	0.96	0.30	84,84,84,84	0
56	MG	1A	3217	1/1	0.96	0.34	98,98,98,98	0
56	MG	1A	3342	1/1	0.96	0.21	58,58,58,58	0
56	MG	1A	3413	1/1	0.96	0.12	79,79,79,79	0
56	MG	2A	3283	1/1	0.96	0.14	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1A	3046	1/1	0.96	0.19	56,56,56,56	0
56	MG	2A	3367	1/1	0.96	0.19	68,68,68,68	0
56	MG	2A	3145	1/1	0.96	0.14	82,82,82,82	0
56	MG	1A	3198	1/1	0.96	0.21	50,50,50,50	0
56	MG	1A	3125	1/1	0.96	0.30	51,51,51,51	0
56	MG	2A	3211	1/1	0.96	0.22	60,60,60,60	0
56	MG	2A	3291	1/1	0.96	0.15	50,50,50,50	0
56	MG	2A	3293	1/1	0.96	0.16	51,51,51,51	0
56	MG	1A	3454	1/1	0.96	0.26	50,50,50,50	0
56	MG	2A	3025	1/1	0.96	0.17	92,92,92,92	0
56	MG	1A	3222	1/1	0.96	0.17	68,68,68,68	0
56	MG	2A	3028	1/1	0.96	0.13	86,86,86,86	0
56	MG	1A	3540	1/1	0.96	0.17	91,91,91,91	0
56	MG	2a	1642	1/1	0.96	0.30	68,68,68,68	0
57	ZN	16	102	1/1	0.96	0.16	91,91,91,91	0
56	MG	1A	3495	1/1	0.96	0.33	50,50,50,50	0
57	ZN	2Y	501	1/1	0.96	0.10	166,166,166,166	0
56	MG	2A	3154	1/1	0.96	0.11	76,76,76,76	0
57	ZN	29	501	1/1	0.96	0.09	96,96,96,96	0
56	MG	1A	3534	1/1	0.97	0.07	89,89,89,89	0
56	MG	2A	3270	1/1	0.97	0.27	66,66,66,66	0
56	MG	2A	3271	1/1	0.97	0.14	58,58,58,58	0
56	MG	1A	3326	1/1	0.97	0.30	54,54,54,54	0
56	MG	2A	3413	1/1	0.97	0.25	50,50,50,50	0
56	MG	2A	3273	1/1	0.97	0.14	56,56,56,56	0
56	MG	2E	303	1/1	0.97	0.14	50,50,50,50	0
56	MG	1A	3275	1/1	0.97	0.29	54,54,54,54	0
56	MG	2A	3064	1/1	0.97	0.10	78,78,78,78	0
56	MG	2A	3276	1/1	0.97	0.15	50,50,50,50	0
56	MG	2A	3346	1/1	0.97	0.15	50,50,50,50	0
56	MG	2A	3014	1/1	0.97	0.19	107,107,107,107	0
56	MG	1A	3328	1/1	0.97	0.28	81,81,81,81	0
56	MG	1A	3443	1/1	0.97	0.12	65,65,65,65	0
56	MG	1A	3330	1/1	0.97	0.29	65,65,65,65	0
56	MG	2A	3352	1/1	0.97	0.29	67,67,67,67	0
56	MG	1a	1680	1/1	0.97	0.18	62,62,62,62	0
56	MG	2A	3167	1/1	0.97	0.14	77,77,77,77	0
56	MG	1A	3331	1/1	0.97	0.19	54,54,54,54	0
56	MG	2A	3020	1/1	0.97	0.09	93,93,93,93	0
56	MG	2A	3429	1/1	0.97	0.20	60,60,60,60	0
56	MG	2A	3430	1/1	0.97	0.34	59,59,59,59	0
56	MG	1A	3088	1/1	0.97	0.28	96,96,96,96	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1A	3278	1/1	0.97	0.23	66,66,66,66	0
56	MG	2A	3433	1/1	0.97	0.22	66,66,66,66	0
56	MG	2A	3119	1/1	0.97	0.13	86,86,86,86	0
56	MG	2A	3292	1/1	0.97	0.16	52,52,52,52	0
56	MG	1a	1684	1/1	0.97	0.16	82,82,82,82	0
56	MG	1A	3543	1/1	0.97	0.20	75,75,75,75	0
56	MG	1A	3334	1/1	0.97	0.13	77,77,77,77	0
56	MG	2A	3228	1/1	0.97	0.13	78,78,78,78	0
56	MG	1A	3055	1/1	0.97	0.27	86,86,86,86	0
56	MG	1A	3546	1/1	0.97	0.17	54,54,54,54	0
56	MG	1A	3512	1/1	0.97	0.27	60,60,60,60	0
56	MG	1A	3247	1/1	0.97	0.19	62,62,62,62	0
56	MG	2A	3127	1/1	0.97	0.19	68,68,68,68	0
56	MG	2A	3181	1/1	0.97	0.20	65,65,65,65	0
56	MG	2A	3447	1/1	0.97	0.16	53,53,53,53	0
56	MG	1A	3186	1/1	0.97	0.34	50,50,50,50	0
56	MG	1A	3264	1/1	0.97	0.19	58,58,58,58	0
56	MG	2A	3130	1/1	0.97	0.14	76,76,76,76	0
56	MG	2A	3239	1/1	0.97	0.12	64,64,64,64	0
56	MG	1A	3391	1/1	0.97	0.18	62,62,62,62	0
56	MG	2A	3133	1/1	0.97	0.12	76,76,76,76	0
56	MG	1A	3485	1/1	0.97	0.32	50,50,50,50	0
56	MG	1A	3313	1/1	0.97	0.33	68,68,68,68	0
56	MG	2A	3189	1/1	0.97	0.81	50,50,50,50	0
56	MG	1a	1653	1/1	0.97	0.30	61,61,61,61	0
56	MG	2a	1627	1/1	0.97	0.31	82,82,82,82	0
56	MG	1A	3157	1/1	0.97	0.16	77,77,77,77	0
56	MG	1A	3394	1/1	0.97	0.40	50,50,50,50	0
56	MG	2A	3385	1/1	0.97	0.16	51,51,51,51	0
56	MG	1A	3039	1/1	0.97	0.12	82,82,82,82	0
56	MG	2A	3387	1/1	0.97	0.21	50,50,50,50	0
56	MG	1A	3197	1/1	0.97	0.21	53,53,53,53	0
56	MG	1A	3228	1/1	0.97	0.17	54,54,54,54	0
56	MG	2A	3466	1/1	0.97	0.21	71,71,71,71	0
56	MG	1a	1622	1/1	0.97	0.09	99,99,99,99	0
56	MG	1A	3115	1/1	0.97	0.56	51,51,51,51	0
56	MG	1A	3462	1/1	0.97	0.42	50,50,50,50	0
56	MG	2A	3322	1/1	0.97	0.17	50,50,50,50	0
56	MG	1A	3319	1/1	0.97	0.31	50,50,50,50	0
56	MG	10	101	1/1	0.97	0.23	51,51,51,51	0
56	MG	2A	3257	1/1	0.97	0.32	50,50,50,50	0
56	MG	1A	3255	1/1	0.97	0.33	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1A	3321	1/1	0.97	0.27	87,87,87,87	0
56	MG	2A	3052	1/1	0.97	0.14	80,80,80,80	0
56	MG	2A	3329	1/1	0.97	0.13	61,61,61,61	0
56	MG	1A	3099	1/1	0.97	0.15	64,64,64,64	0
56	MG	1A	3042	1/1	0.97	0.50	80,80,80,80	0
56	MG	2A	3057	1/1	0.97	0.20	90,90,90,90	0
56	MG	2A	3007	1/1	0.97	0.12	82,82,82,82	0
56	MG	2a	1652	1/1	0.97	0.08	69,69,69,69	0
56	MG	1A	3377	1/1	0.97	0.17	50,50,50,50	0
57	ZN	25	102	1/1	0.97	0.20	81,81,81,81	0
57	ZN	26	501	1/1	0.97	0.13	111,111,111,111	0
56	MG	1A	3325	1/1	0.97	0.27	63,63,63,63	0
57	ZN	2n	102	1/1	0.97	0.13	120,120,120,120	0
58	SF4	1d	302	8/8	0.97	0.15	107,123,153,161	0
56	MG	1a	1656	1/1	0.98	0.21	68,68,68,68	0
56	MG	2A	3134	1/1	0.98	0.15	58,58,58,58	0
56	MG	2A	3331	1/1	0.98	0.14	54,54,54,54	0
56	MG	2a	1631	1/1	0.98	0.13	81,81,81,81	0
56	MG	2A	3287	1/1	0.98	0.27	51,51,51,51	0
56	MG	2A	3288	1/1	0.98	0.26	55,55,55,55	0
56	MG	1A	3107	1/1	0.98	0.17	69,69,69,69	0
56	MG	2A	3035	1/1	0.98	0.27	92,92,92,92	0
56	MG	1A	3329	1/1	0.98	0.49	52,52,52,52	0
56	MG	1A	3401	1/1	0.98	0.35	79,79,79,79	0
56	MG	2A	3139	1/1	0.98	0.13	51,51,51,51	0
56	MG	2A	3388	1/1	0.98	0.24	50,50,50,50	0
56	MG	2A	3339	1/1	0.98	0.15	52,52,52,52	0
56	MG	2A	3008	1/1	0.98	0.25	71,71,71,71	0
56	MG	2A	3295	1/1	0.98	0.25	50,50,50,50	0
56	MG	1A	3503	1/1	0.98	0.12	71,71,71,71	0
56	MG	1A	3267	1/1	0.98	0.28	54,54,54,54	0
56	MG	1A	3403	1/1	0.98	0.50	50,50,50,50	0
56	MG	1A	3424	1/1	0.98	0.26	58,58,58,58	0
56	MG	2A	3396	1/1	0.98	0.05	96,96,96,96	0
56	MG	1A	3202	1/1	0.98	0.35	52,52,52,52	0
56	MG	1A	3345	1/1	0.98	0.25	52,52,52,52	0
56	MG	1A	3260	1/1	0.98	0.30	50,50,50,50	0
56	MG	2A	3349	1/1	0.98	0.19	55,55,55,55	0
56	MG	1A	3261	1/1	0.98	0.17	60,60,60,60	0
56	MG	2A	3259	1/1	0.98	0.14	50,50,50,50	0
56	MG	1A	3248	1/1	0.98	0.43	52,52,52,52	0
56	MG	1A	3335	1/1	0.98	0.14	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	2A	3049	1/1	0.98	0.17	90,90,90,90	0
56	MG	1a	1670	1/1	0.98	0.13	73,73,73,73	0
56	MG	1A	3243	1/1	0.98	0.27	50,50,50,50	0
56	MG	1A	3471	1/1	0.98	0.31	98,98,98,98	0
56	MG	1A	3235	1/1	0.98	0.16	60,60,60,60	0
56	MG	1A	3452	1/1	0.98	0.42	51,51,51,51	0
56	MG	2A	3055	1/1	0.98	0.14	67,67,67,67	0
56	MG	2A	3269	1/1	0.98	0.26	73,73,73,73	0
56	MG	2A	3056	1/1	0.98	0.17	88,88,88,88	0
56	MG	2A	3363	1/1	0.98	0.13	66,66,66,66	0
56	MG	1A	3229	1/1	0.98	0.16	62,62,62,62	0
56	MG	1A	3276	1/1	0.98	0.20	51,51,51,51	0
56	MG	2A	3026	1/1	0.98	0.30	69,69,69,69	0
56	MG	1a	1677	1/1	0.98	0.19	108,108,108,108	0
56	MG	1A	3396	1/1	0.98	0.21	64,64,64,64	0
56	MG	2A	3420	1/1	0.98	0.14	50,50,50,50	0
56	MG	1A	3397	1/1	0.98	0.20	67,67,67,67	0
56	MG	2A	3237	1/1	0.98	0.19	67,67,67,67	0
56	MG	2A	3030	1/1	0.98	0.10	92,92,92,92	0
56	MG	2a	1622	1/1	0.98	0.15	79,79,79,79	0
56	MG	2A	3280	1/1	0.98	0.22	50,50,50,50	0
56	MG	1A	3521	1/1	0.98	0.19	63,63,63,63	0
56	MG	1A	3340	1/1	0.98	0.26	50,50,50,50	0
56	MG	2A	3132	1/1	0.98	0.13	80,80,80,80	0
56	MG	2A	3242	1/1	0.98	0.11	63,63,63,63	0
56	MG	2a	1671	1/1	0.99	0.11	64,64,64,64	0
56	MG	1A	3034	1/1	0.99	0.14	90,90,90,90	0
56	MG	2A	3443	1/1	0.99	0.24	50,50,50,50	0
56	MG	1a	1655	1/1	0.99	0.22	84,84,84,84	0
56	MG	1A	3411	1/1	0.99	0.26	57,57,57,57	0
56	MG	2A	3380	1/1	0.99	0.19	61,61,61,61	0
56	MG	1A	3135	1/1	0.99	0.14	100,100,100,100	0
57	ZN	15	102	1/1	0.99	0.18	91,91,91,91	0
56	MG	2A	3448	1/1	0.99	0.27	59,59,59,59	0
57	ZN	19	102	1/1	0.99	0.20	98,98,98,98	0
56	MG	1A	3025	1/1	0.99	0.20	70,70,70,70	0
56	MG	1A	3324	1/1	0.99	0.24	54,54,54,54	0
56	MG	1A	3220	1/1	0.99	0.24	51,51,51,51	0
56	MG	1A	3205	1/1	0.99	0.19	69,69,69,69	0
56	MG	1A	3407	1/1	0.99	0.32	61,61,61,61	0
56	MG	1A	3185	1/1	0.99	0.20	51,51,51,51	0
56	MG	2A	3279	1/1	0.99	0.14	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
56	MG	1A	3271	1/1	0.99	0.16	78,78,78,78	0
58	SF4	2d	302	8/8	0.99	0.16	90,106,116,116	0

## 6.5 Other polymers [i](#)

There are no such residues in this entry.