



# wwPDB X-ray Structure Validation Summary Report ⓘ

Oct 30, 2024 – 05:25 AM EDT

PDB ID : 4V7Y  
Title : Structure of the *Thermus thermophilus* 70S ribosome complexed with azithromycin.  
Authors : Bulkley, D.P.; Innis, C.A.; Blaha, G.; Steitz, T.A.  
Deposited on : 2010-08-18  
Resolution : 3.00 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 : 2022.3.0, CSD as543be (2022)  
Xtrriage (Phenix) : 1.20.1  
EDS : 3.0  
buster-report : 1.1.7 (2018)  
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)  
CCP4 : 9.0.003 (Gargrove)  
Density-Fitness : 1.0.11  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.39

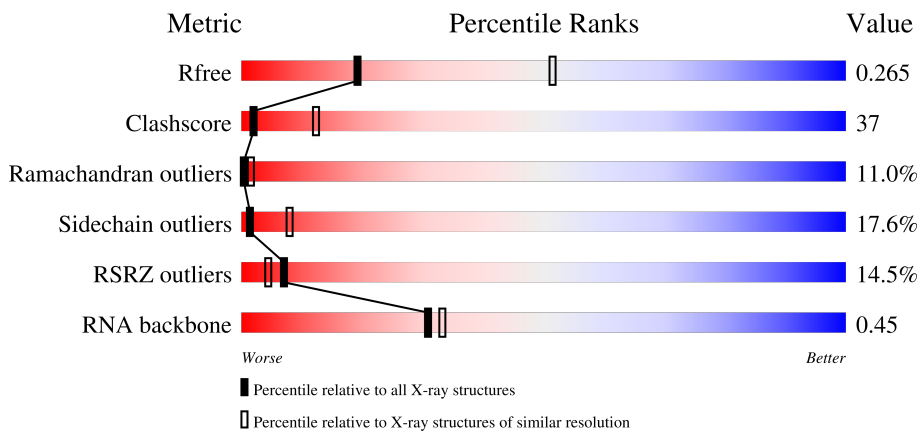
# 1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 3.00 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))
$R_{free}$	164625	2511 (3.00-3.00)
Clashscore	180529	2866 (3.00-3.00)
Ramachandran outliers	177936	2778 (3.00-3.00)
Sidechain outliers	177891	2781 (3.00-3.00)
RSRZ outliers	164620	2523 (3.00-3.00)
RNA backbone	3690	1019 (3.20-2.80)

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	AA	1522	
1	CA	1522	
2	AB	256	
2	CB	256	

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Mol	Chain	Length	Quality of chain
3	AC	239	
3	CC	239	
4	AD	209	
4	CD	209	
5	AE	162	
5	CE	162	
6	AF	101	
6	CF	101	
7	AG	156	
7	CG	156	
8	AH	138	
8	CH	138	
9	AI	128	
9	CI	128	
10	AJ	105	
10	CJ	105	
11	AK	129	
11	CK	129	
12	AL	135	
12	CL	135	
13	AM	126	
13	CM	126	
14	AN	61	
14	CN	61	
15	AO	89	

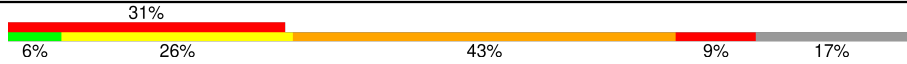

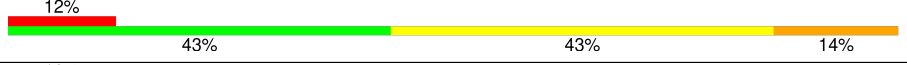
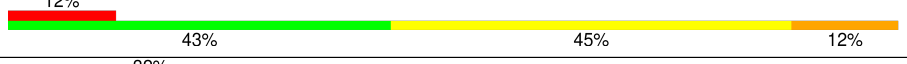
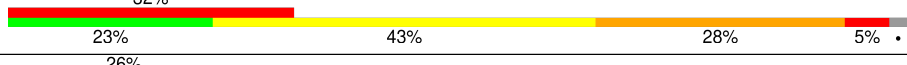
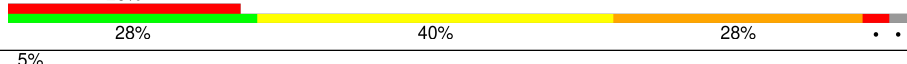
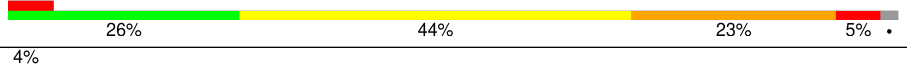
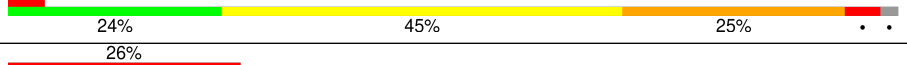
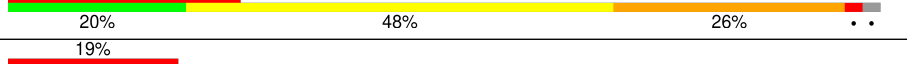
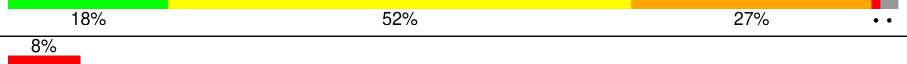
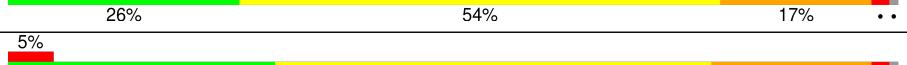
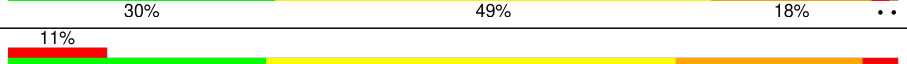
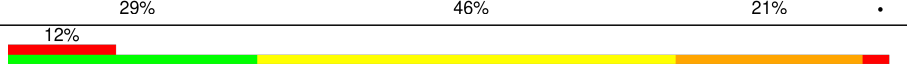
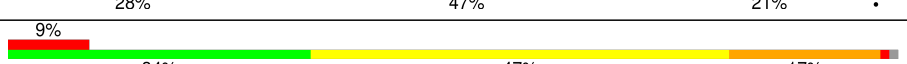
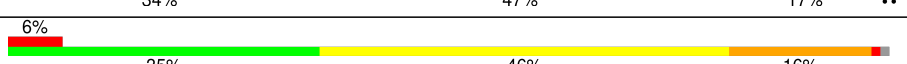
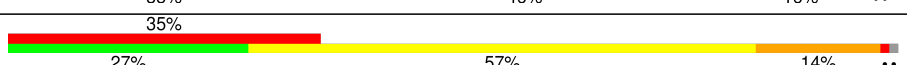
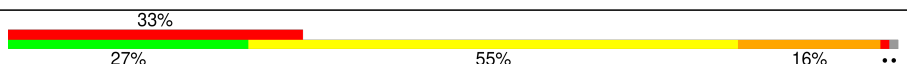
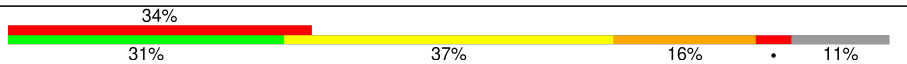
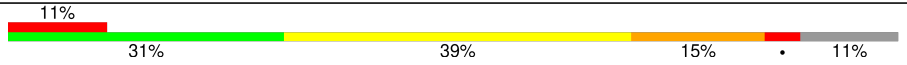
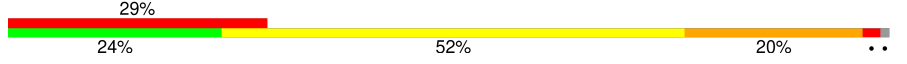
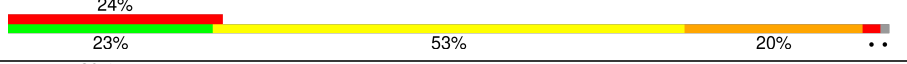
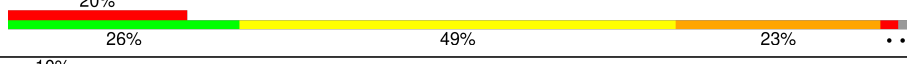
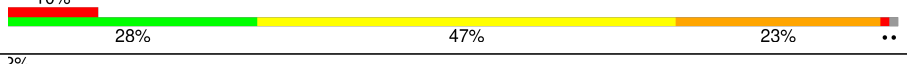
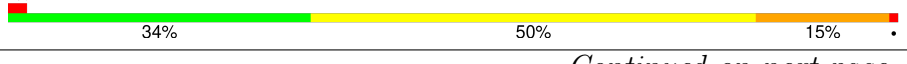

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Mol	Chain	Length	Quality of chain
15	CO	89	
16	AP	88	
16	CP	88	
17	AQ	105	
17	CQ	105	
18	AR	88	
18	CR	88	
19	AS	93	
19	CS	93	
20	AT	106	
20	CT	106	
21	AU	27	
21	CU	27	
22	B0	85	
22	D0	85	
23	B1	98	
23	D1	98	
24	B2	72	
24	D2	72	
25	B3	60	
25	D3	60	
26	B4	71	
26	D4	71	
27	B5	60	
27	D5	60	

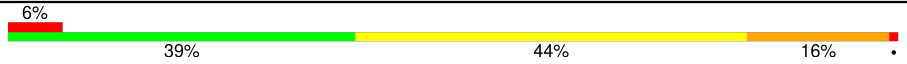


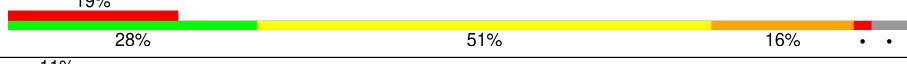
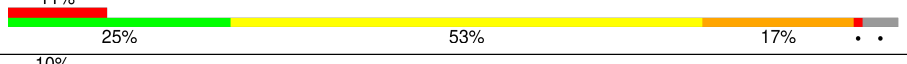
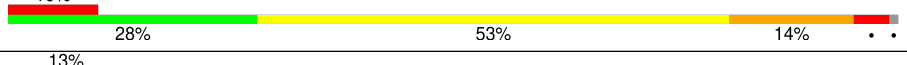
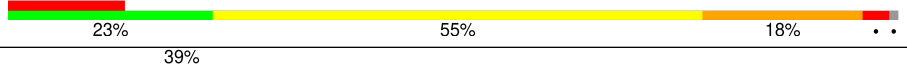
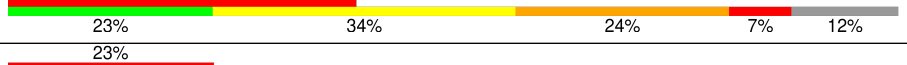
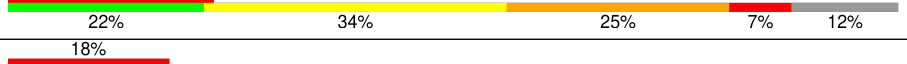
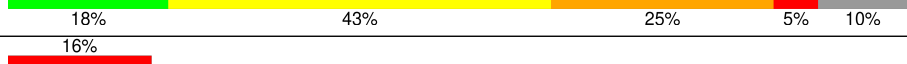

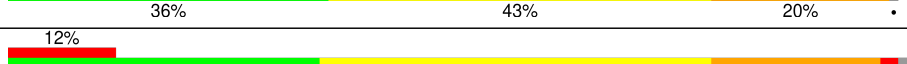

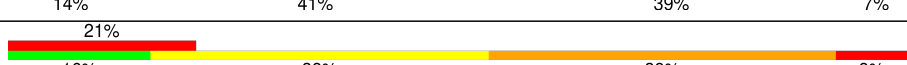
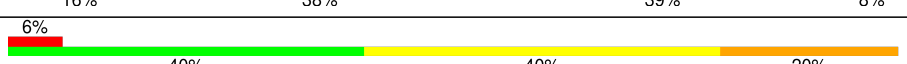
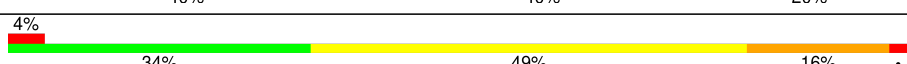
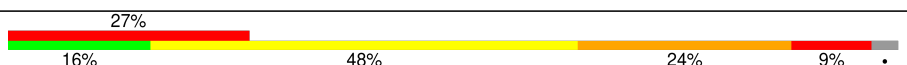
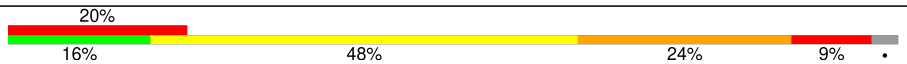
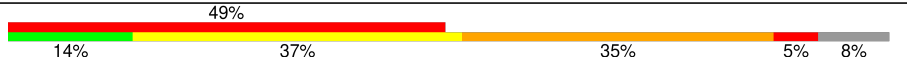

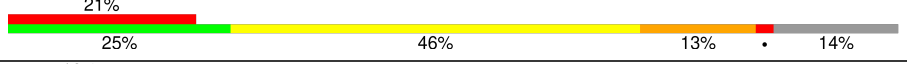
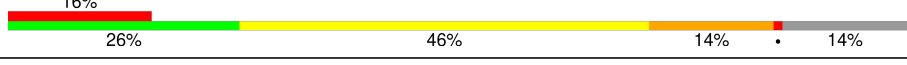
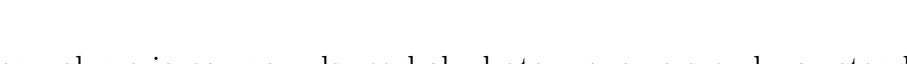
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Mol	Chain	Length	Quality of chain
28	B6	54	
28	D6	54	
29	B7	49	
29	D7	49	
30	B8	65	
30	D8	65	
31	BA	2787	
31	DA	2787	
32	BB	122	
32	DB	122	
33	BD	276	
33	DD	276	
34	BE	206	
34	DE	206	
35	BF	210	
35	DF	210	
36	BG	182	
36	DG	182	
37	BH	180	
37	DH	180	
38	BI	148	
38	DI	148	
39	BN	140	
39	DN	140	
40	BO	122	

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Mol	Chain	Length	Quality of chain
40	DO	122	
41	BP	150	
41	DP	150	
42	BQ	141	
42	DQ	141	
43	BR	118	
43	DR	118	
44	BS	112	
44	DS	112	
45	BT	146	
45	DT	146	
46	BU	118	
46	DU	118	
47	BV	101	
47	DV	101	
48	BW	113	
48	DW	113	
49	BX	96	
49	DX	96	
50	BY	110	
50	DY	110	
51	BZ	206	
51	DZ	206	

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
52	MG	AA	1622	-	-	-	X
52	MG	AA	1646	-	-	-	X
52	MG	BA	3330	-	-	-	X
52	MG	CA	1611	-	-	-	X
52	MG	CA	1633	-	-	-	X
52	MG	CA	1641	-	-	-	X
52	MG	DA	3179	-	-	-	X
52	MG	DA	3216	-	-	-	X
52	MG	DA	3247	-	-	-	X
52	MG	DA	3280	-	-	-	X
52	MG	DA	3289	-	-	-	X
52	MG	DA	3302	-	-	-	X
54	K	DA	3310	-	-	-	X

## 2 Entry composition

There are 55 unique types of molecules in this entry. The entry contains 278000 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 16S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
1	AA	1504	Total 32329	C 14390	N 5992	O 10444	P 1503	0	0	0
1	CA	1504	Total 32329	C 14390	N 5992	O 10444	P 1503	0	0	0

- Molecule 2 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	AB	235	Total 1901	C 1213	N 342	O 341	S 5	0	0	1
2	CB	235	Total 1901	C 1213	N 342	O 341	S 5	0	0	1

- Molecule 3 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
3	AC	207	Total 1613	C 1016	N 315	O 281	S 1	0	0	1
3	CC	207	Total 1613	C 1016	N 315	O 281	S 1	0	0	1

- Molecule 4 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
4	AD	208	Total 1703	C 1066	N 339	O 291	S 7	0	0	0
4	CD	208	Total 1703	C 1066	N 339	O 291	S 7	0	0	0

- Molecule 5 is a protein called 30S ribosomal protein S5.



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	AE	151	Total	C	N	O	S	0	0	1
			1147	724	218	201	4			
5	CE	151	Total	C	N	O	S	0	0	1
			1147	724	218	201	4			

- Molecule 6 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	AF	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			
6	CF	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			

- Molecule 7 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	AG	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			
7	CG	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			

- Molecule 8 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	AH	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			
8	CH	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			

- Molecule 9 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
9	AI	127	Total	C	N	O	0	0	0
			1011	639	198	174			
9	CI	127	Total	C	N	O	0	0	0
			1011	639	198	174			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AI	58	ARG	HIS	conflict	UNP P80374
CI	58	ARG	HIS	conflict	UNP P80374

- Molecule 10 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
10	AJ	99	Total 795	C 499	N 157	O 138	S 1	0	0	1
10	CJ	99	Total 795	C 499	N 157	O 138	S 1	0	0	1

- Molecule 11 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
11	AK	119	Total 885	C 549	N 168	O 165	S 3	0	0	0
11	CK	119	Total 885	C 549	N 168	O 165	S 3	0	0	0

- Molecule 12 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
12	AL	125	Total 971	C 611	N 196	O 163	S 1	0	0	1
12	CL	125	Total 971	C 611	N 196	O 163	S 1	0	0	1

There are 6 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AL	2	VAL	-	insertion	UNP Q5SHN3
AL	3	ALA	-	insertion	UNP Q5SHN3
AL	4	LEU	-	insertion	UNP Q5SHN3
CL	2	VAL	-	insertion	UNP Q5SHN3
CL	3	ALA	-	insertion	UNP Q5SHN3
CL	4	LEU	-	insertion	UNP Q5SHN3

- Molecule 13 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
13	AM	115	Total 921	C 569	N 190	O 160	S 2	0	0	0
13	CM	115	Total 921	C 569	N 190	O 160	S 2	0	0	0

- Molecule 14 is a protein called 30S ribosomal protein S14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	AN	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			
14	CN	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			

- Molecule 15 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	AO	88	Total	C	N	O	S	0	0	0
			734	459	147	126	2			
15	CO	88	Total	C	N	O	S	0	0	0
			734	459	147	126	2			

- Molecule 16 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	AP	84	Total	C	N	O	S	0	0	1
			701	443	140	117	1			
16	CP	84	Total	C	N	O	S	0	0	1
			701	443	140	117	1			

- Molecule 17 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	AQ	100	Total	C	N	O	S	0	0	1
			824	528	152	142	2			
17	CQ	100	Total	C	N	O	S	0	0	1
			824	528	152	142	2			

- Molecule 18 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	AR	70	Total	C	N	O	0	0	0
			574	367	112	95			
18	CR	70	Total	C	N	O	0	0	0
			574	367	112	95			

- Molecule 19 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AS	79	Total	C	N	O	S	0	0	1
			630	403	115	110	2			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
19	CS	79	630	403	115	110	2	0	0	1

- Molecule 20 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
20	AT	99	763	470	162	129	2	0	0	0
20	CT	99	763	470	162	129	2	0	0	0

- Molecule 21 is a protein called 30S ribosomal protein Thx.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
21	AU	25	209	128	51	30	0	0	1
21	CU	25	209	128	51	30	0	0	1

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
22	B0	85	650	401	137	111	1	0	0	0
22	D0	85	650	401	137	111	1	0	0	0

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
23	B1	89	693	435	140	118	0	0	1
23	D1	89	693	435	140	118	0	0	1

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
24	B2	51	421	263	85	72	1	0	0	1
24	D2	51	421	263	85	72	1	0	0	1

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	B3	60	Total	C	N	O	S	0	0	1
			468	298	91	78	1			
25	D3	60	Total	C	N	O	S	0	0	1
			468	298	91	78	1			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
26	B4	32	Total	C	N	O	0	0	0
			157	93	32	32			
26	D4	32	Total	C	N	O	0	0	0
			157	93	32	32			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	B5	59	Total	C	N	O	S	9	0	0
			459	288	90	76	5			
27	D5	59	Total	C	N	O	S	9	0	0
			459	288	90	76	5			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	B6	45	Total	C	N	O	S	0	0	1
			381	235	78	64	4			
28	D6	45	Total	C	N	O	S	0	0	1
			381	235	78	64	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	B7	49	Total	C	N	O	S	0	0	1
			419	257	105	55	2			
29	D7	49	Total	C	N	O	S	0	0	1
			419	257	105	55	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	B8	64	Total	C	N	O	S	0	0	1
			508	326	102	78	2			
30	D8	64	Total	C	N	O	S	0	0	1
			508	326	102	78	2			

- Molecule 31 is a RNA chain called 23S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	BA	2725	Total	C	N	O	P	0	0	0
			58698	26124	10986	18864	2724			
31	DA	2725	Total	C	N	O	P	0	0	0
			58698	26124	10986	18864	2724			

- Molecule 32 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	BB	119	Total	C	N	O	P	0	0	0
			2551	1136	471	826	118			
32	DB	119	Total	C	N	O	P	0	0	0
			2551	1136	471	826	118			

- Molecule 33 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	BD	272	Total	C	N	O	S	0	0	1
			2105	1329	417	356	3			
33	DD	272	Total	C	N	O	S	0	0	1
			2105	1329	417	356	3			

- Molecule 34 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	BE	205	Total	C	N	O	S	0	0	1
			1564	988	300	270	6			
34	DE	205	Total	C	N	O	S	0	0	1
			1564	988	300	270	6			

- Molecule 35 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	BF	208	Total	C	N	O	S	0	0	1
			1624	1035	304	282	3			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
35	DF	208	1624	1035	304	282	3	0	0	1

- Molecule 36 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
36	BG	181	1474	942	268	260	4	0	0	0
36	DG	181	1474	942	268	260	4	0	0	0

- Molecule 37 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
37	BH	160	1223	773	229	220	1	0	0	1
37	DH	160	1223	773	229	220	1	0	0	1

- Molecule 38 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
38	BI	146	1132	723	201	207	1	0	0	1
38	DI	146	1132	723	201	207	1	0	0	1

- Molecule 39 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
39	BN	139	1105	712	207	182	4	0	0	1
39	DN	139	1105	712	207	182	4	0	0	1

- Molecule 40 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
40	BO	122	933	588	171	170	4	0	0	0
40	DO	122	933	588	171	170	4	0	0	0

- Molecule 41 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	BP	146	Total	C	N	O	S	0	0	0
			1114	692	227	193	2			
41	DP	146	Total	C	N	O	S	0	0	0
			1114	692	227	193	2			

- Molecule 42 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	BQ	136	Total	C	N	O	S	0	0	0
			1080	688	204	183	5			
42	DQ	136	Total	C	N	O	S	0	0	0
			1080	688	204	183	5			

- Molecule 43 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
43	BR	117	Total	C	N	O	0	0	0
			960	599	202	159			
43	DR	117	Total	C	N	O	0	0	0
			960	599	202	159			

- Molecule 44 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
44	BS	99	Total	C	N	O	0	0	1
			771	486	155	130			
44	DS	99	Total	C	N	O	0	0	1
			771	486	155	130			

- Molecule 45 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	BT	132	Total	C	N	O	S	0	0	0
			1100	686	227	186	1			
45	DT	132	Total	C	N	O	S	0	0	0
			1100	686	227	186	1			

- Molecule 46 is a protein called 50S ribosomal protein L20.



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	BU	117	Total	C	N	O	S	0	0	0
			958	604	202	151	1			
46	DU	117	Total	C	N	O	S	0	0	0
			958	604	202	151	1			

- Molecule 47 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	BV	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			
47	DV	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			

- Molecule 48 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	BW	113	Total	C	N	O	S	0	0	0
			896	563	176	155	2			
48	DW	113	Total	C	N	O	S	0	0	0
			896	563	176	155	2			

- Molecule 49 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
49	BX	93	Total	C	N	O	0	0	1
			726	471	132	123			
49	DX	93	Total	C	N	O	0	0	1
			726	471	132	123			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	BY	101	Total	C	N	O	S	0	0	1
			776	500	149	123	4			
50	DY	101	Total	C	N	O	S	0	0	1
			776	500	149	123	4			

- Molecule 51 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	BZ	177	Total	C	N	O	S	0	0	1
			1404	897	253	252	2			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
51	DZ	177	1404	897	253	252	2	0	0	1

- Molecule 52 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
52	AA	51	Total	Mg	0	0
			51	51		
52	B0	1	Total	Mg	0	0
			1	1		
52	B1	1	Total	Mg	0	0
			1	1		
52	B5	2	Total	Mg	0	0
			2	2		
52	B7	1	Total	Mg	0	0
			1	1		
52	BA	349	Total	Mg	0	0
			349	349		
52	BB	5	Total	Mg	0	0
			5	5		
52	BD	1	Total	Mg	0	0
			1	1		
52	BE	1	Total	Mg	0	0
			1	1		
52	BF	1	Total	Mg	0	0
			1	1		
52	BP	3	Total	Mg	0	0
			3	3		
52	BQ	2	Total	Mg	0	0
			2	2		
52	BR	1	Total	Mg	0	0
			1	1		
52	BU	1	Total	Mg	0	0
			1	1		
52	BX	1	Total	Mg	0	0
			1	1		
52	CA	48	Total	Mg	0	0
			48	48		
52	D0	1	Total	Mg	0	0
			1	1		
52	D1	1	Total	Mg	0	0
			1	1		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
52	D5	2	Total Mg 2 2	0	0
52	D7	1	Total Mg 1 1	0	0
52	DA	309	Total Mg 309 309	0	0
52	DB	3	Total Mg 3 3	0	0
52	DD	1	Total Mg 1 1	0	0
52	DE	1	Total Mg 1 1	0	0
52	DF	1	Total Mg 1 1	0	0
52	DP	1	Total Mg 1 1	0	0
52	DQ	1	Total Mg 1 1	0	0
52	DR	1	Total Mg 1 1	0	0
52	DU	1	Total Mg 1 1	0	0
52	DX	1	Total Mg 1 1	0	0

- Molecule 53 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
53	AD	1	Total Zn 1 1	0	0
53	AN	1	Total Zn 1 1	0	0
53	CD	1	Total Zn 1 1	0	0
53	CN	1	Total Zn 1 1	0	0

- Molecule 54 is POTASSIUM ION (three-letter code: K) (formula: K).

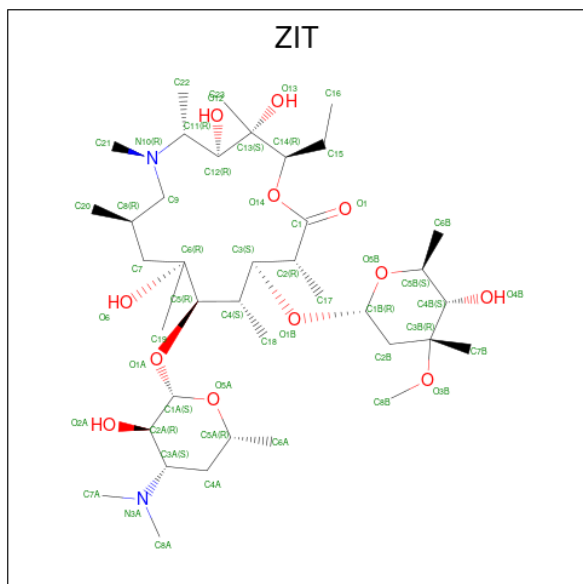
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
54	BA	1	Total K 1 1	0	0

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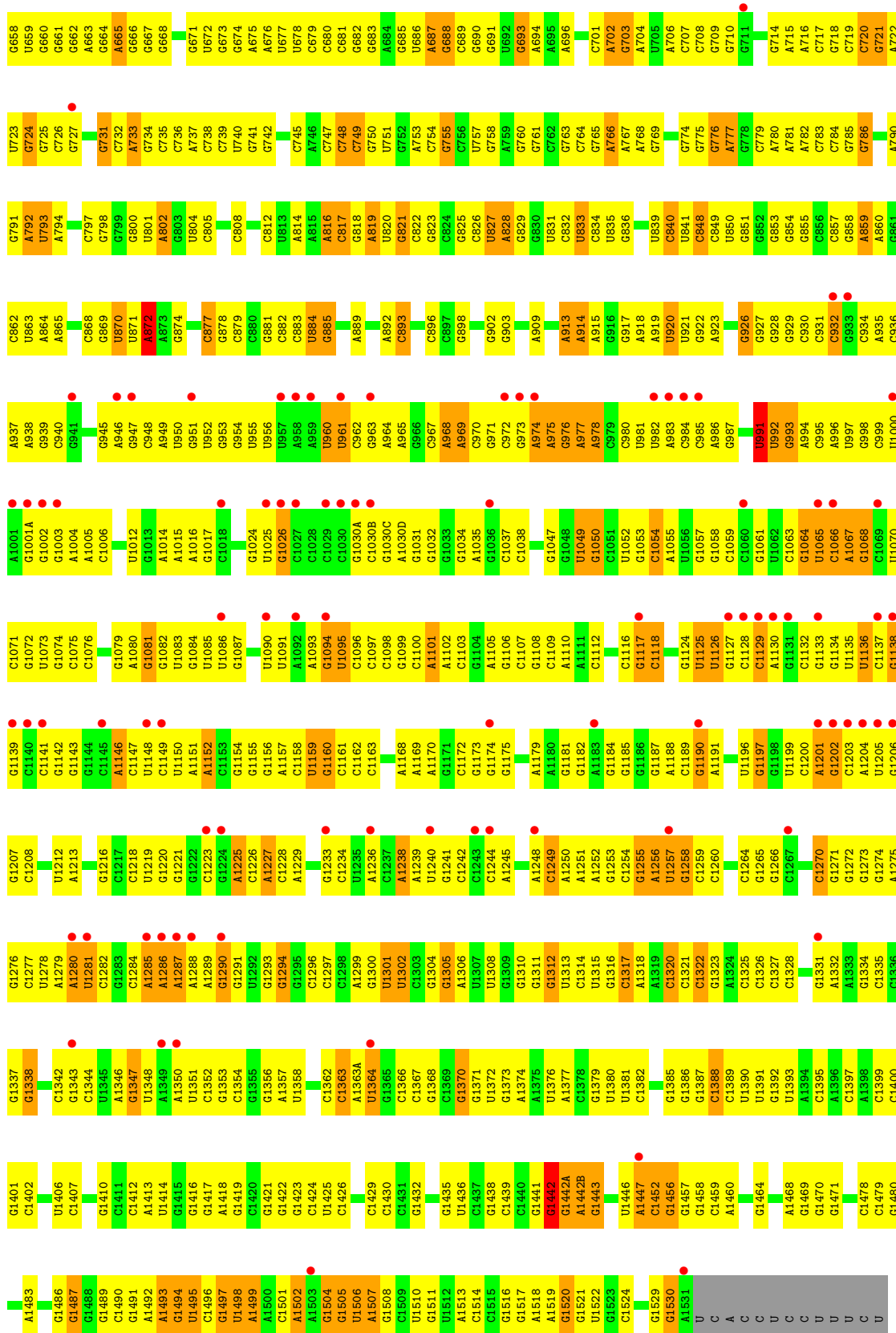
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
54	DA	1	Total 1 1	0	0

- Molecule 55 is AZITHROMYCIN (three-letter code: ZIT) (formula:  $C_{38}H_{72}N_2O_{12}$ ).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	BA	1	Total C N O 52 38 2 12	0	0
55	DA	1	Total C N O 52 38 2 12	0	0





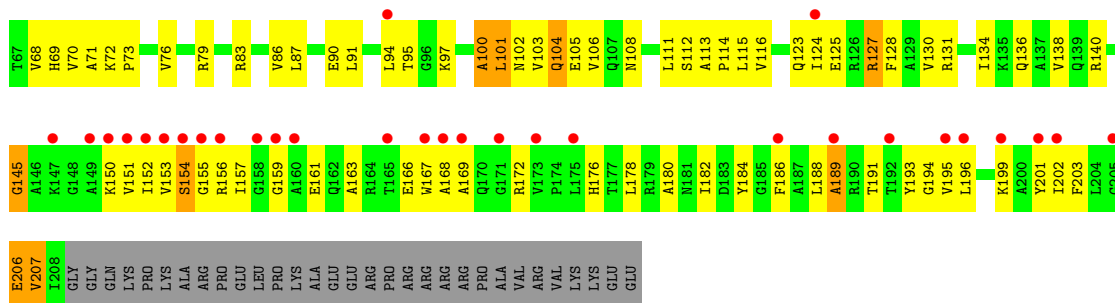
• Molecule 1: 16S rRNA



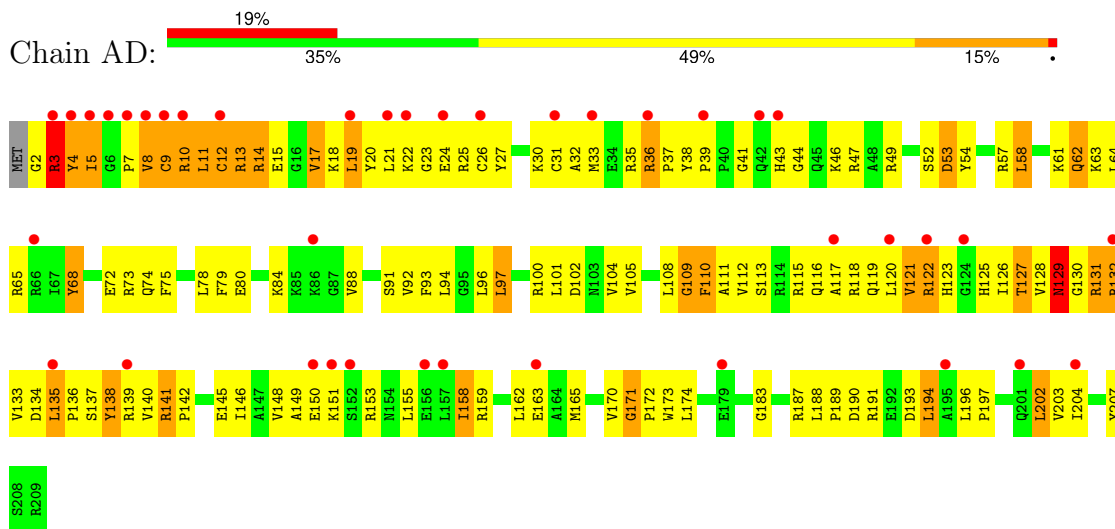




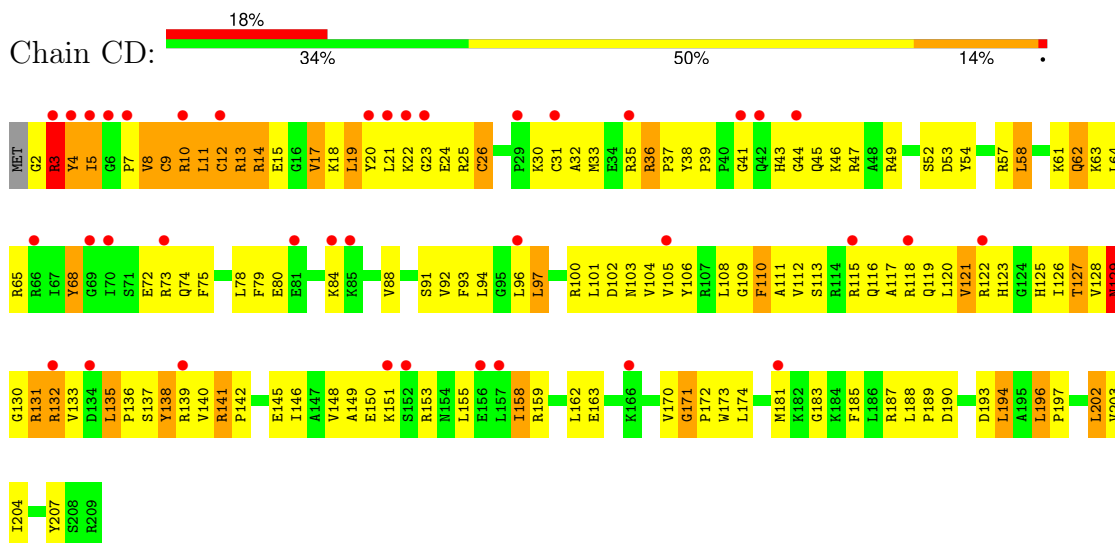




• Molecule 4: 30S ribosomal protein S4

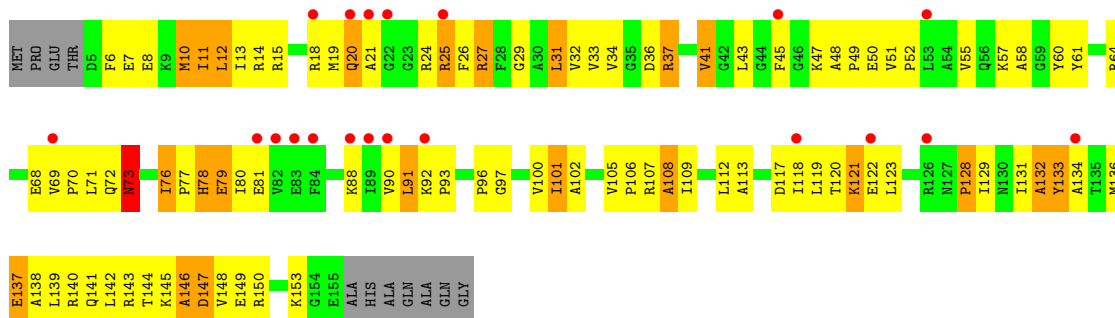


• Molecule 4: 30S ribosomal protein S4

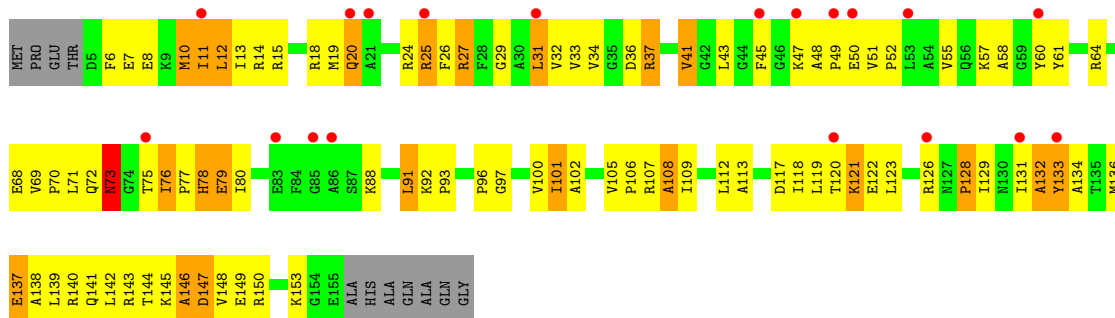


• Molecule 5: 30S ribosomal protein S5

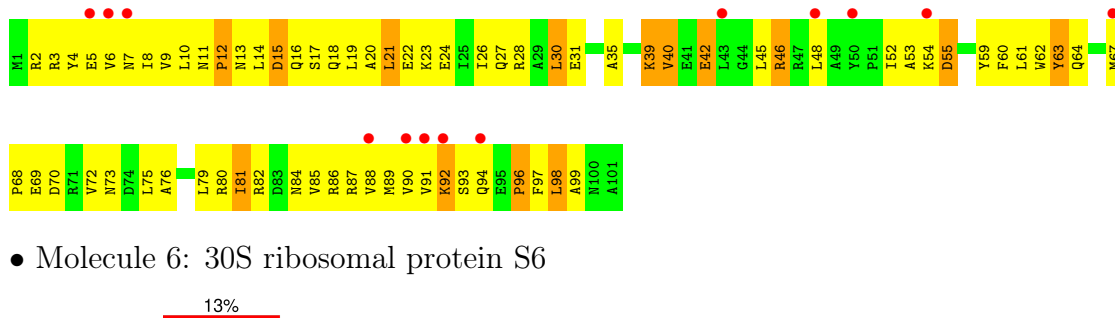
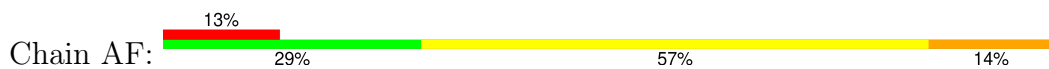




• Molecule 5: 30S ribosomal protein S5



• Molecule 6: 30S ribosomal protein S6

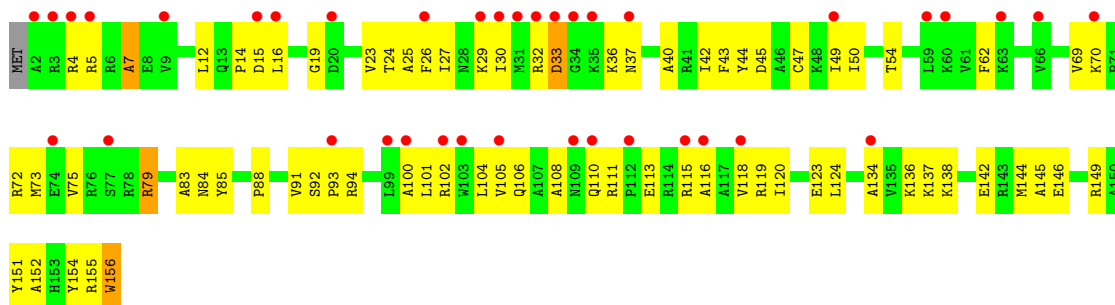


• Molecule 6: 30S ribosomal protein S6

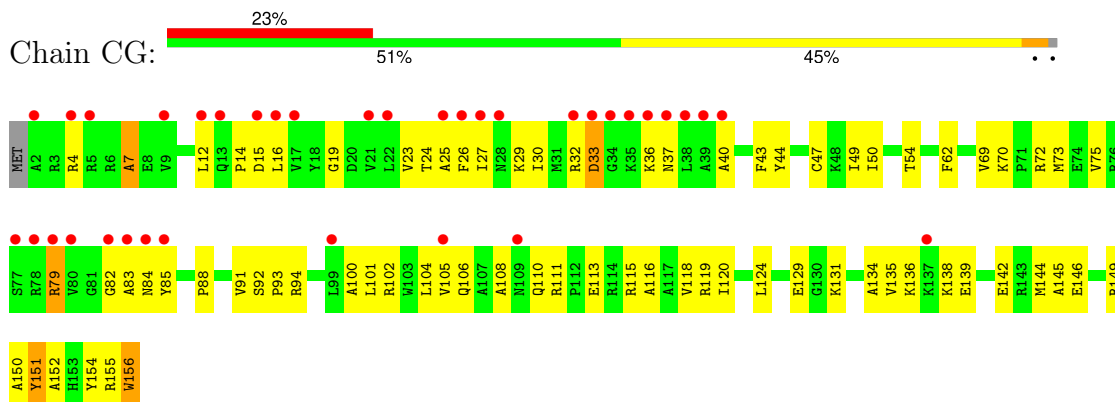


• Molecule 7: 30S ribosomal protein S7

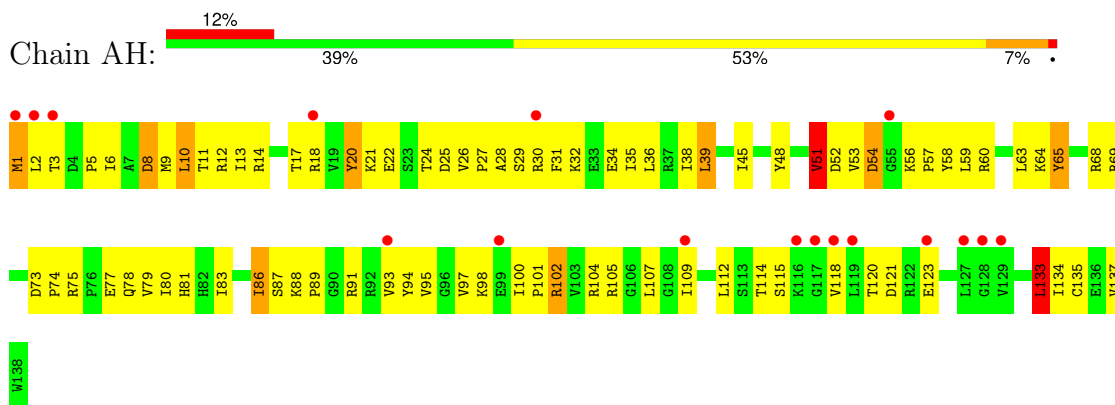




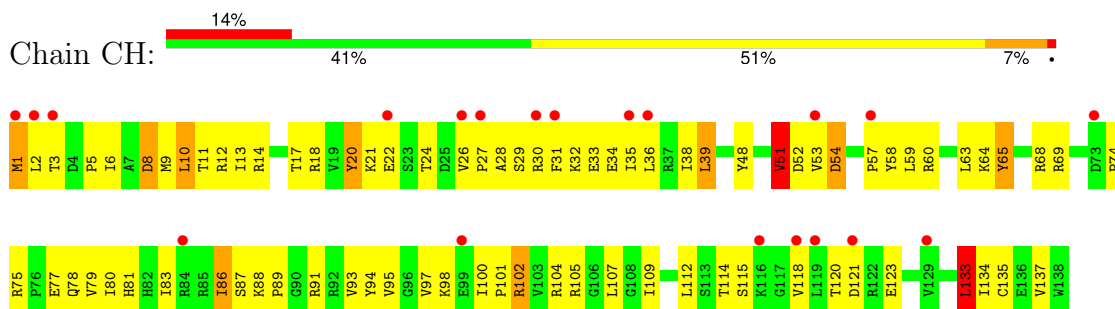
- Molecule 7: 30S ribosomal protein S7



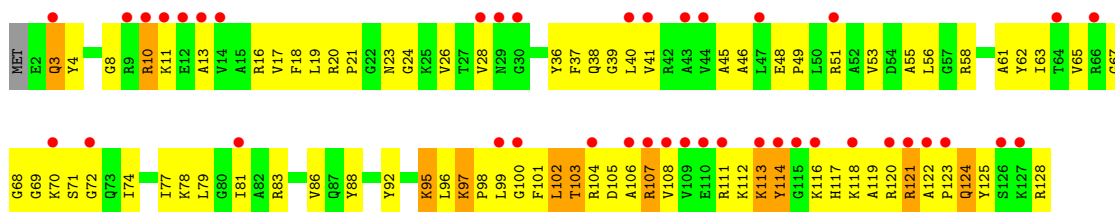
- Molecule 8: 30S ribosomal protein S8



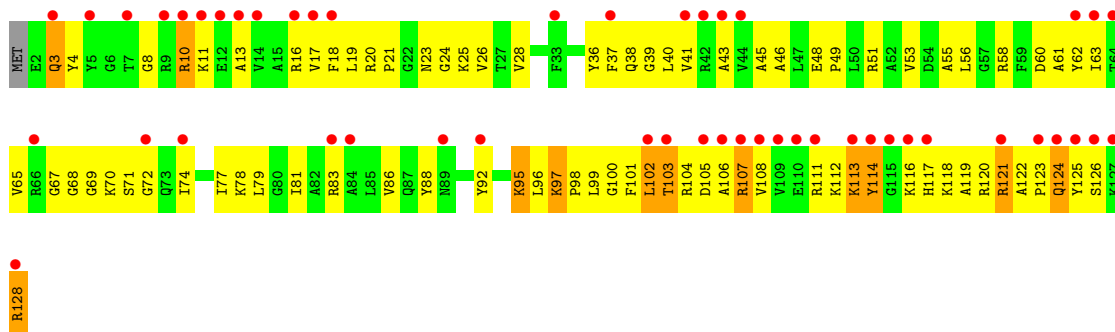
- Molecule 8: 30S ribosomal protein S8



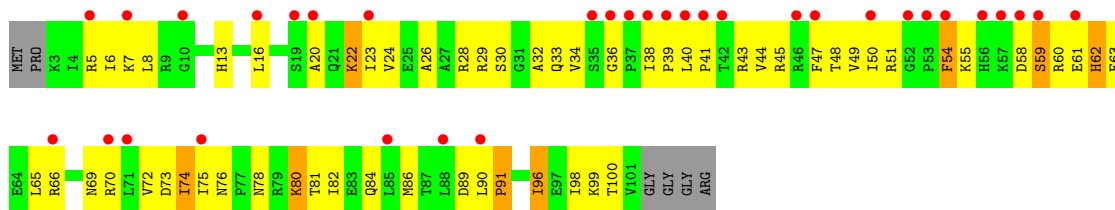
- Molecule 9: 30S ribosomal protein S9



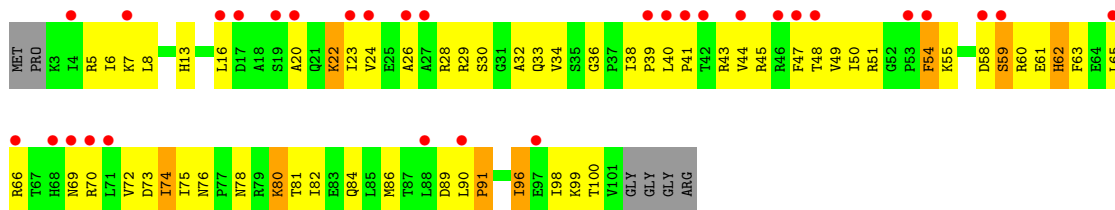
- Molecule 9: 30S ribosomal protein S9



- Molecule 10: 30S ribosomal protein S10

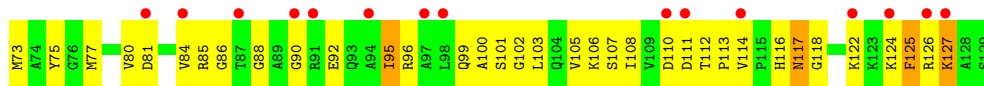
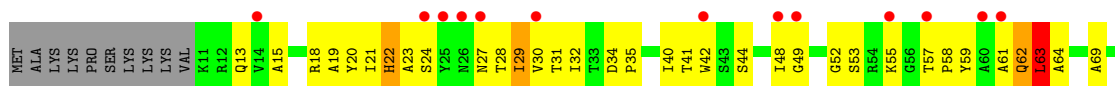


- Molecule 10: 30S ribosomal protein S10

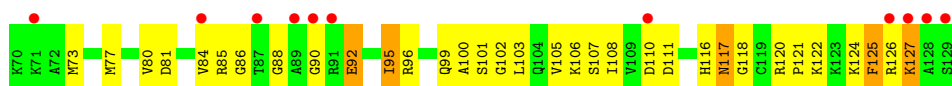
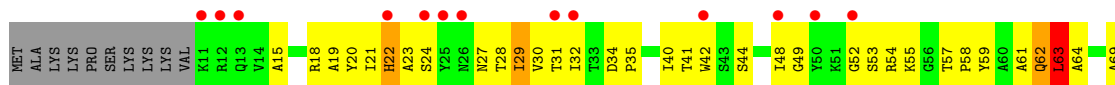


- Molecule 11: 30S ribosomal protein S11

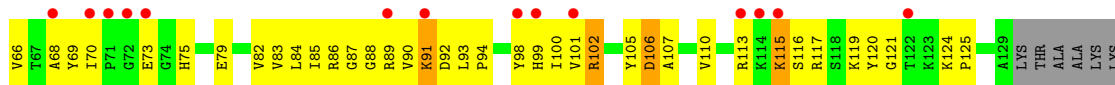
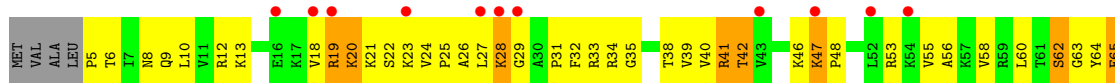




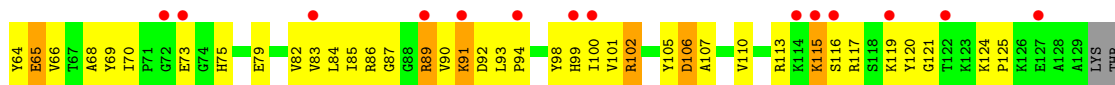
• Molecule 11: 30S ribosomal protein S11



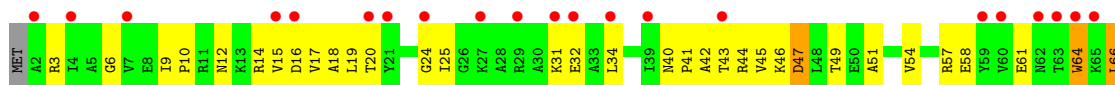
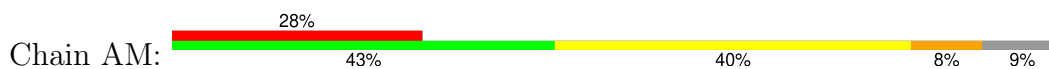
• Molecule 12: 30S ribosomal protein S12



• Molecule 12: 30S ribosomal protein S12

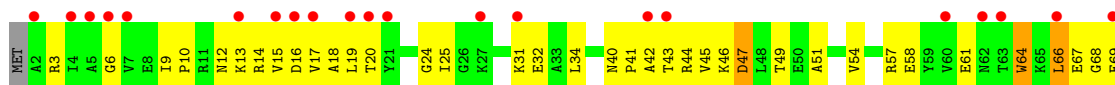


• Molecule 13: 30S ribosomal protein S13





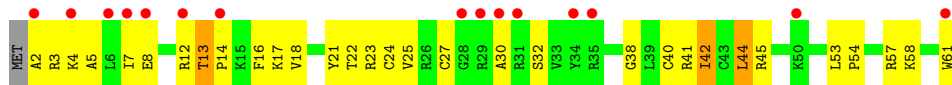
- Molecule 13: 30S ribosomal protein S13



- Molecule 14: 30S ribosomal protein S14



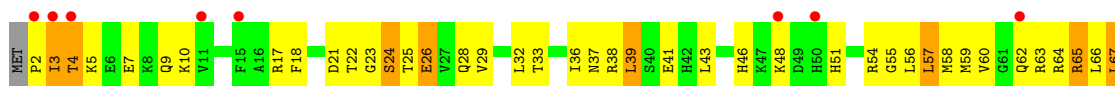
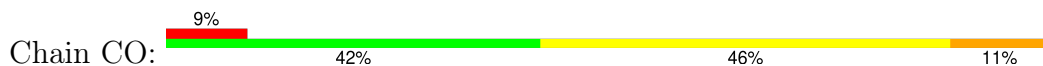
- Molecule 14: 30S ribosomal protein S14



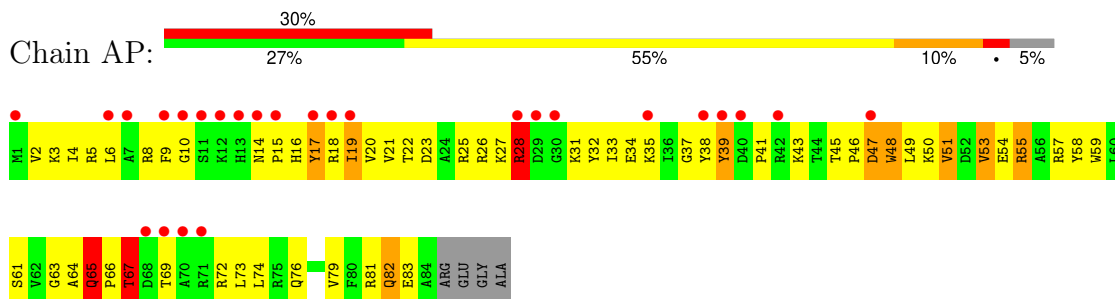
- Molecule 15: 30S ribosomal protein S15



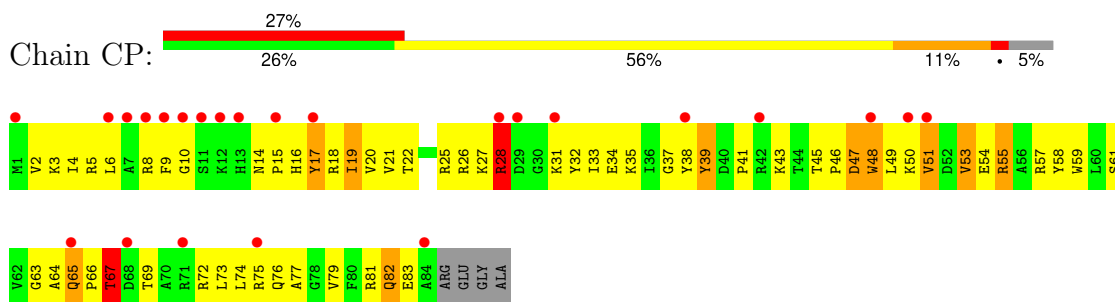
- Molecule 15: 30S ribosomal protein S15



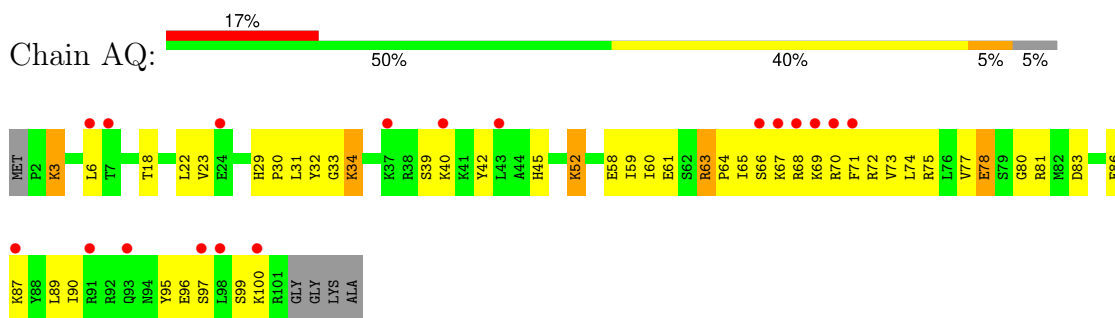
- Molecule 16: 30S ribosomal protein S16



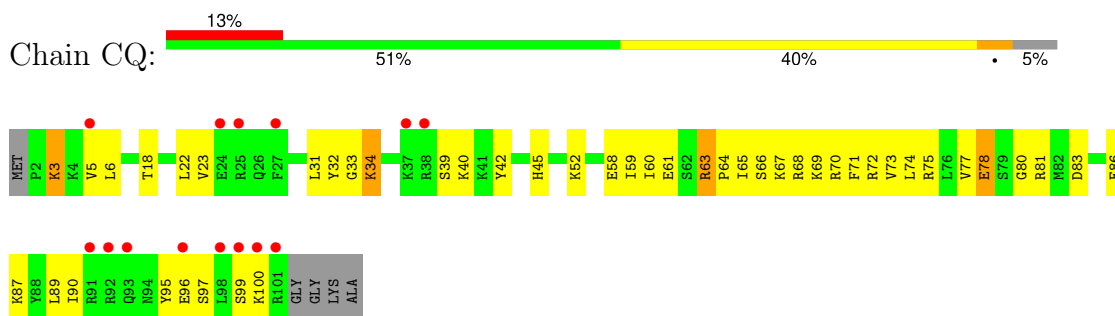
- Molecule 16: 30S ribosomal protein S16



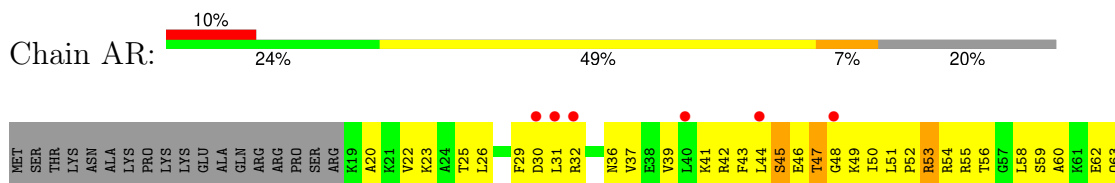
- Molecule 17: 30S ribosomal protein S17



- Molecule 17: 30S ribosomal protein S17



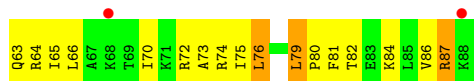
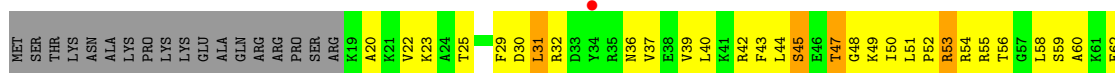
- Molecule 18: 30S ribosomal protein S18



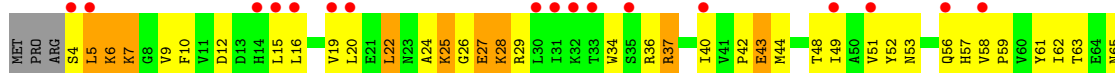




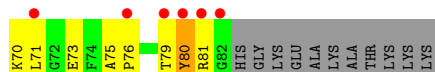
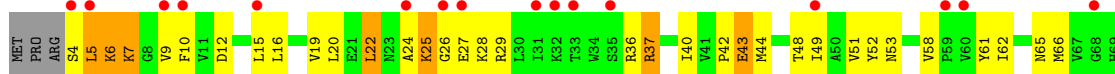
• Molecule 18: 30S ribosomal protein S18



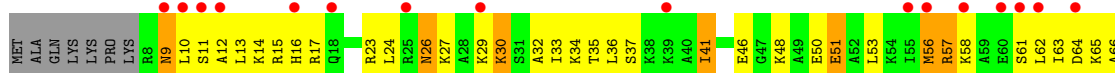
• Molecule 19: 30S ribosomal protein S19



• Molecule 19: 30S ribosomal protein S19

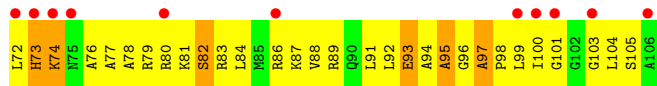
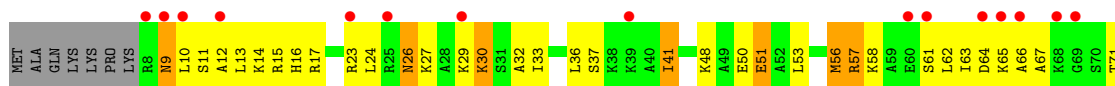


• Molecule 20: 30S ribosomal protein S20

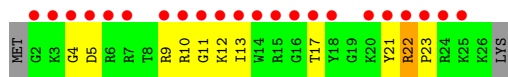
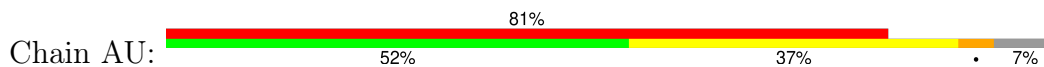


• Molecule 20: 30S ribosomal protein S20

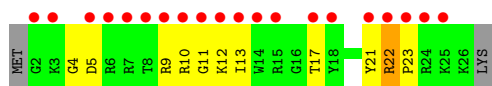
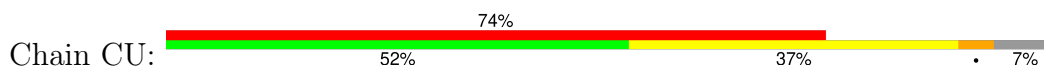




• Molecule 21: 30S ribosomal protein Thx



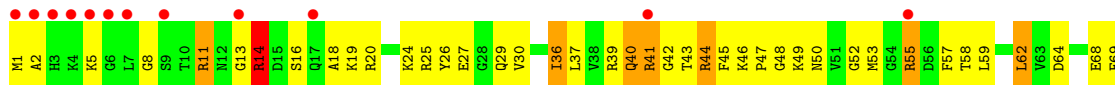
• Molecule 21: 30S ribosomal protein Thx



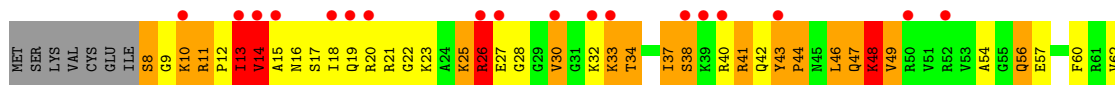
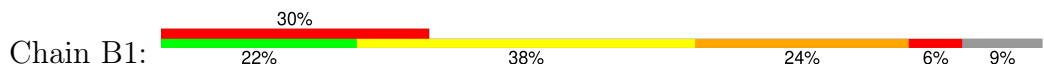
• Molecule 22: 50S ribosomal protein L27

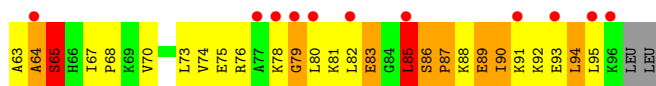


• Molecule 22: 50S ribosomal protein L27

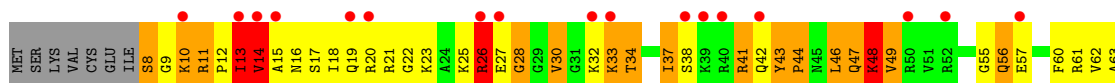
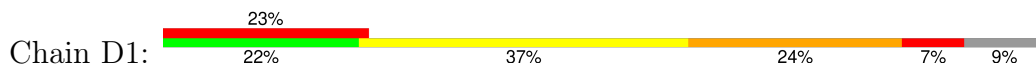


• Molecule 23: 50S ribosomal protein L28

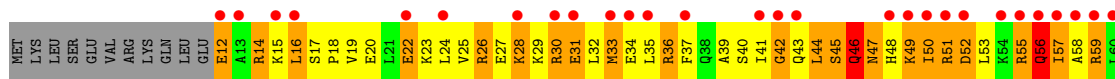
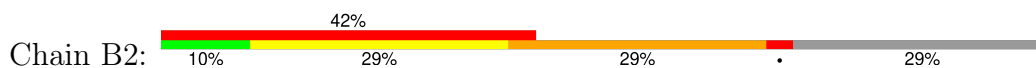




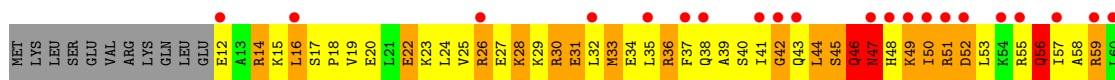
- Molecule 23: 50S ribosomal protein L28



- Molecule 24: 50S ribosomal protein L29



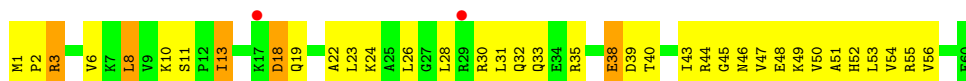
- Molecule 24: 50S ribosomal protein L29



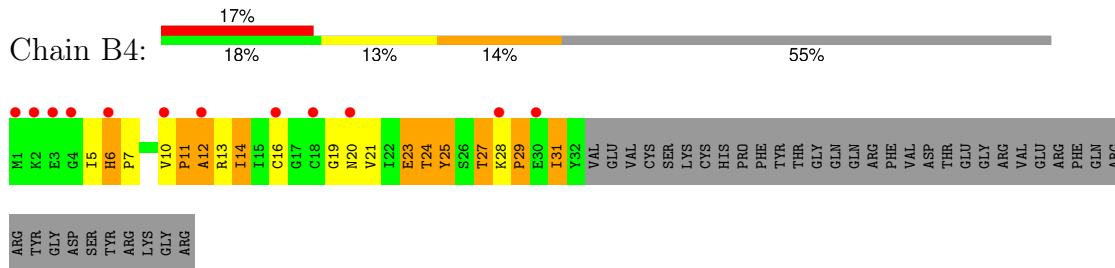
- Molecule 25: 50S ribosomal protein L30



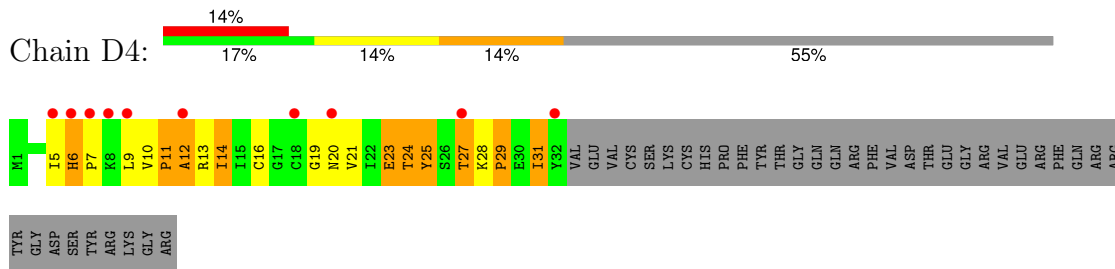
- Molecule 25: 50S ribosomal protein L30



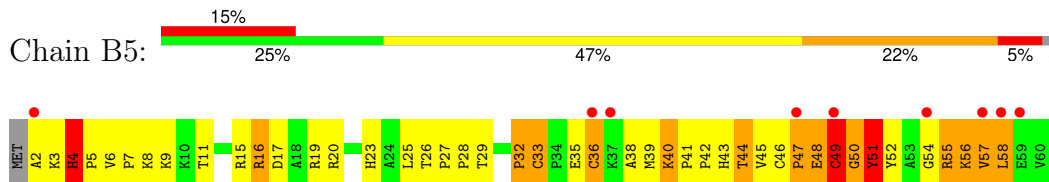
- Molecule 26: 50S ribosomal protein L31



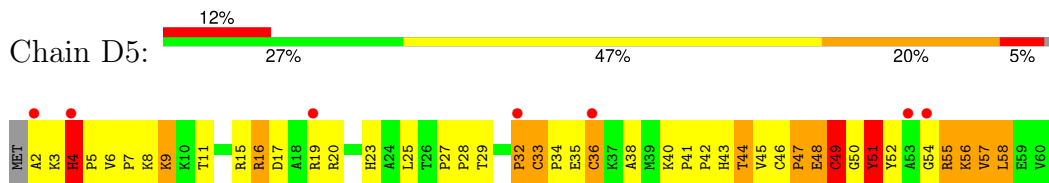
- Molecule 26: 50S ribosomal protein L31



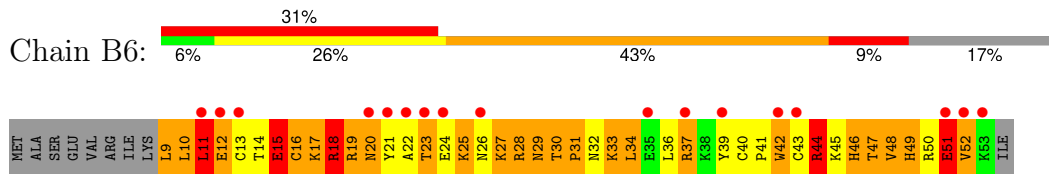
- Molecule 27: 50S ribosomal protein L32



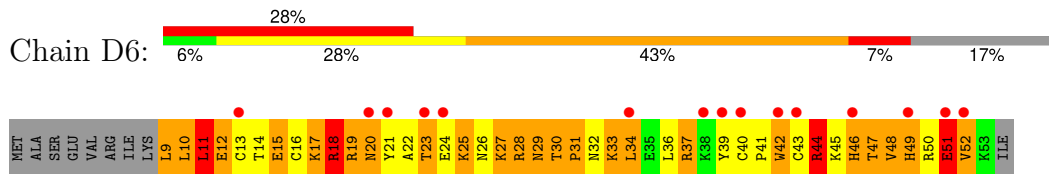
- Molecule 27: 50S ribosomal protein L32



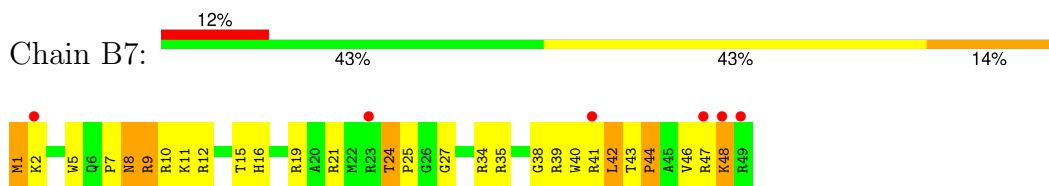
- Molecule 28: 50S ribosomal protein L33



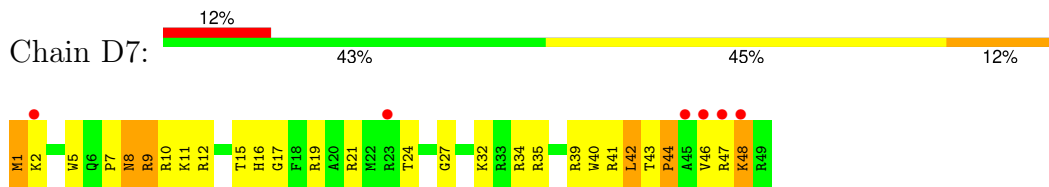
- Molecule 28: 50S ribosomal protein L33



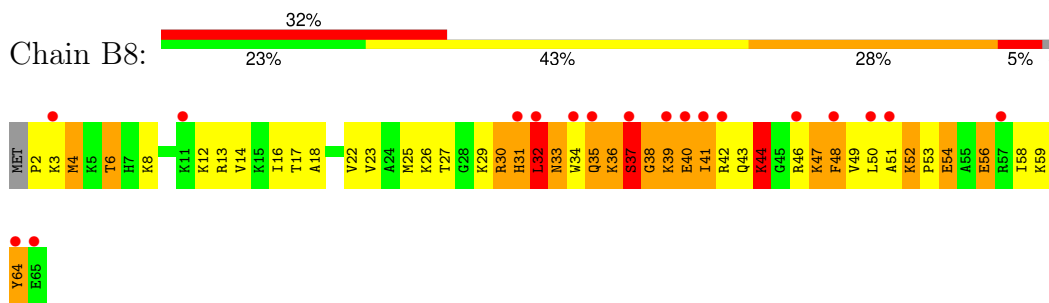
- Molecule 29: 50S ribosomal protein L34



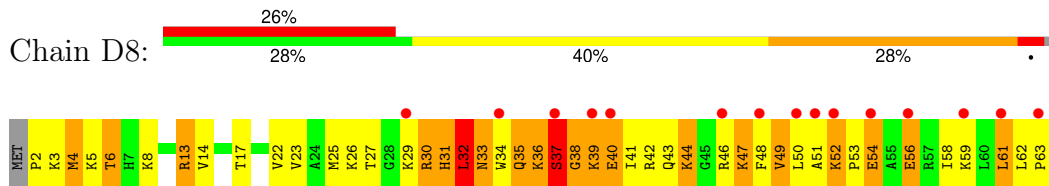
• Molecule 29: 50S ribosomal protein L34



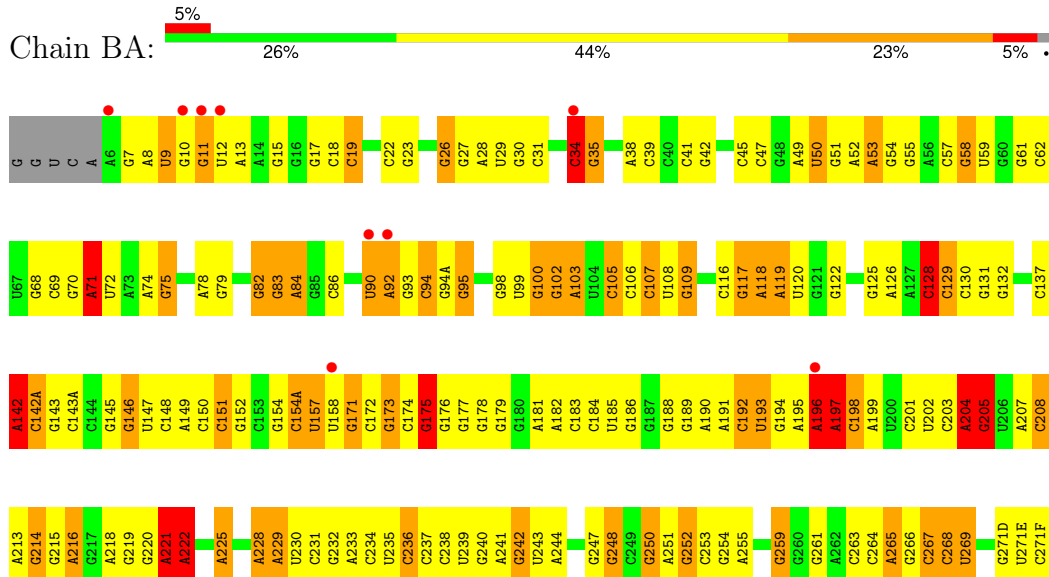
• Molecule 30: 50S ribosomal protein L35

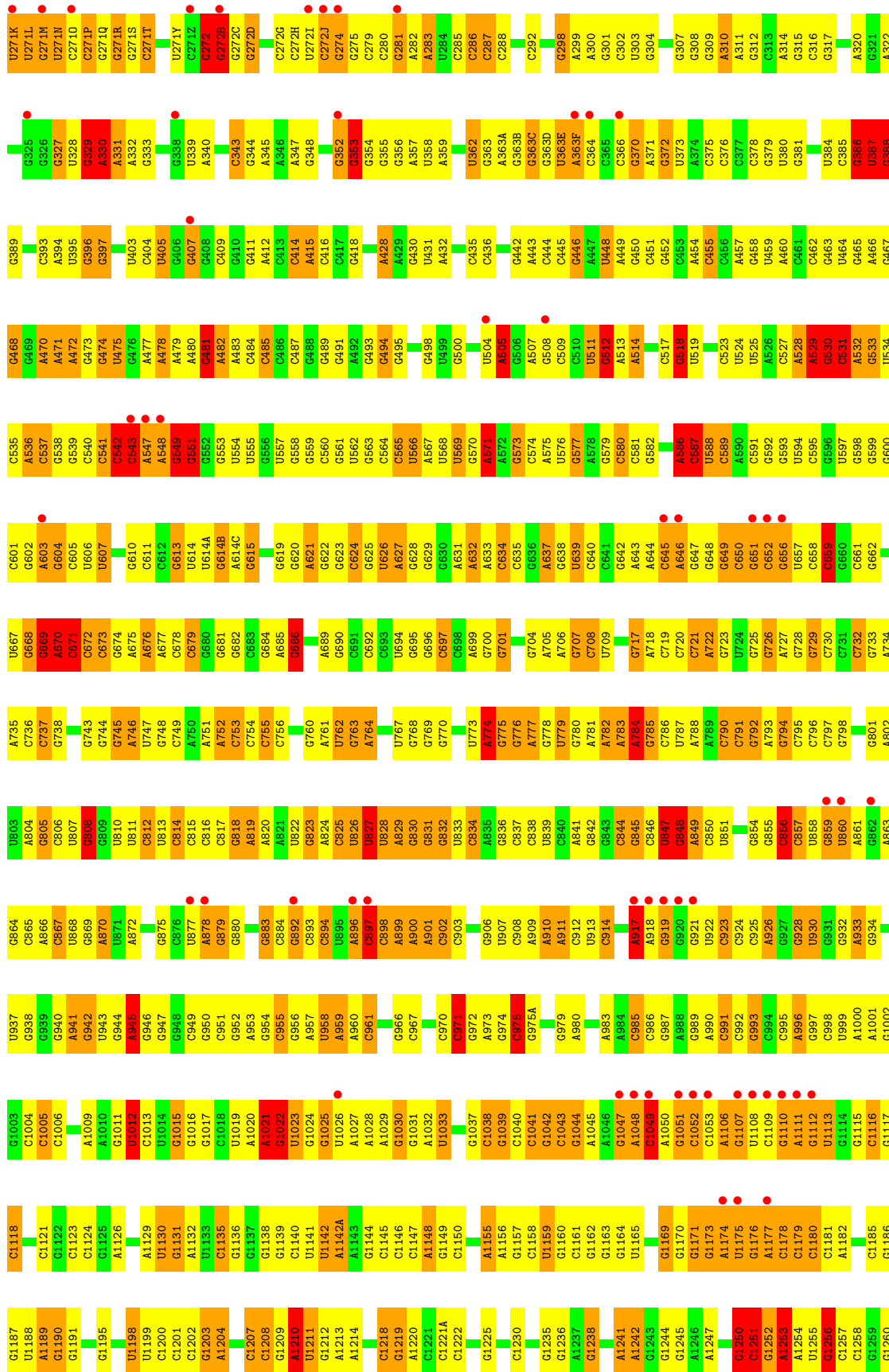


• Molecule 30: 50S ribosomal protein L35



• Molecule 31: 23S ribosomal RNA





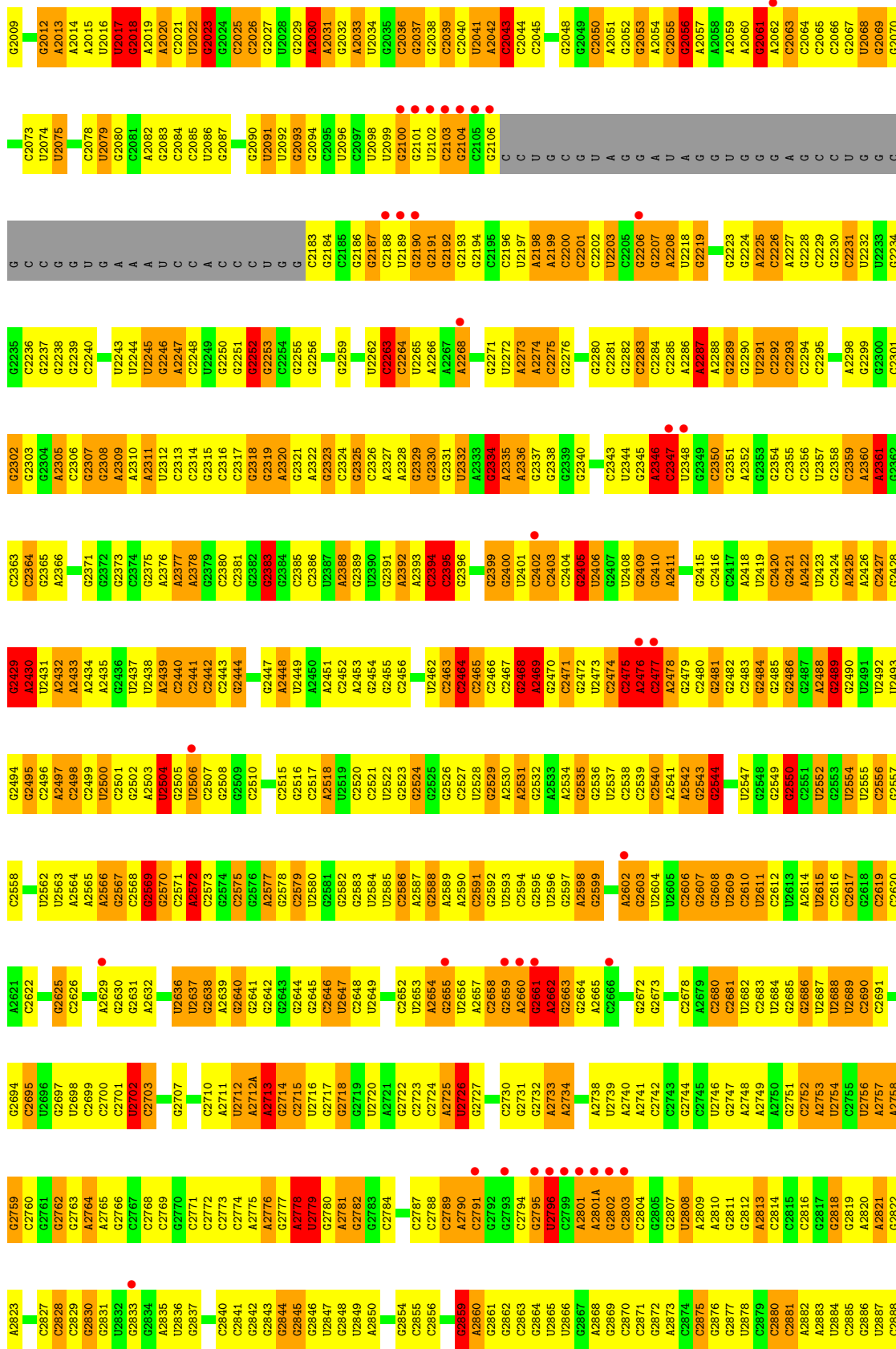
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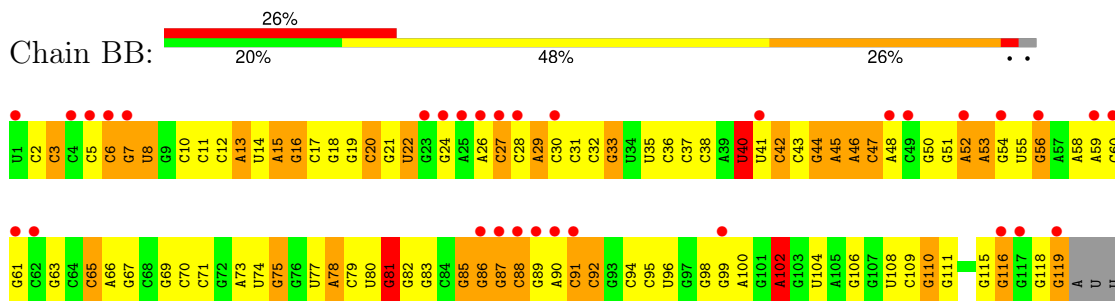


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A1029	A142A	C1208	U1274	U1336	C1403	A1471	C1532	G1606	A1672		G1824	A1967	A1966
G1030	G1143	C1209	A1275	G1338	C1404	A1472	G1533	C1607	U1673	A1762	A1825	A1968	G1967
G1031	G1144	G1210	A1276	C1339	U1405	G1473	C1534	A1608	G1674	G1763	A1826	A1969	U1968
A1032	C1145	A1211	G1277	U1340	U1406	A1474	C1535	A1609	C1675	G1764	C1827	G1970	A1969
U1033	U1146	G1212	A1278	U1341	C1407	G1475	C1536	A1610	U1676	U1765	G1828	A1971	A1970
G1034	C1147	A1213	G1279	A1342	C1408		C1537	C1611	U1678	U1766	A1829	C1905	A1972
U1035	A1148	A1214	U1281	G1343	C1409	G1478	C1538	C1612	U1679	C1767	C1830	G1906	A1973
G1036	G1151	C1218	G1282	C1344	U1410	G1479	C1539	G1613	U1680	U1768	U1831	G1907	C1974
G1037	G1152	G1219	A1284	G1345	C1411	A1480	C1540	A1614	G1681	C1771	G1832	C1908	U1980
C1038	C1153	A1220	G1285	G1348	A1412	U1481	C1541	C1615	G1682	C1772	U1833	C1909	A1981
G1039	U1154	C1221	A1286	A1349	G1413	G1482	C1551	C1617	C1684	A1773	U1834	U1911	C1982
C1040	G1155	C1221A	U1288	C1350	G1416	G1485	C1552	A1618	C1685	C1774	C1836	A1912	C1983
C1041	A1156		U1288	C1351	C1417	A1486	A1554	G1619	C1686	U1775	C1837	A1913	G1984
G1042	G1157	C1224	C1289	U1352	C1418	G1487	C1557	G1622	G1687	U1776	C1838	A1914	G1985
C1043	A1158	G1225	C1290	A1353	A1419	U1488	C1558	G1623	U1688	U1777	G1839	U1915	G1986
G1044	U1159	A1226	C1291	C1354	U1420	U1489	G1559	G1624	A1689	U1778	G1840	A1916	G1987
A1045	G1160	G1228	U1292	G1355	A1421	G1490	G1560	C1625	U1690	U1779	G1843	U1917	C1988
G1046	C1161	G1229	C1293	C1356	G1427	G1491	G1561	G1626	U1691	A1780	C1844	A1918	G1989
A1047	G1162		C1297	U1357	C1428	G1492	G1562	G1627	C1692	C1781	C1844	A1919	C1990
A1048	G1163	U1234	C1298	A1358	G1429	A1494	C1563	G1628	G1693	G1782	C1847	C1920	U1991
C1049	G1164	G1235	U1300	A1360	C1430	A1495	C1564	U1629	C1694	A1783	A1847	G1921	G1992
A1050	U1165	G1236	U1301	G1361	U1431	A1496	C1565	G1632	A1698	A1784	A1848	G1922	U1993
G1051	C1166	A1237	A1302	C1362	C1432	U1487	G1568	A1632	U1699	A1785	U1851	C1925	U1994
C1052	G1169	G1238	A1302	C1363	U1433	U1488	A1569	G1633	A1699	A1786	C1852	C1926	U1995
A1053	U1170	G1239	G1303	G1364	A1433	A1499	A1570	G1634	A1701	G1787	U1853	C1927	U1996
G1107	G1171	U1240	C1304	A1365	A1494	G1500	A1571	U1635	A1702	C1788	A1854	A1928	G1997
U1108	G1173	A1241	C1305	A1366	A1495	C1501	A1572	C1636	G1703	A1789	G1855	A1929	G1998
C1109	A1174	A1242	C1306	A1367	U1436	U1502	C1573	A1637	U1704	G1790	G1856	G1930	G2000
G1110	U1175	G1243	A1307	G1368	U1437	C1503	C1574	C1638	C1708	U1791	G1857	U1931	U1984
A1111	U1176	G1244	A1308	G1369	U1438	U1504	C1575	U1639	U1709	C1793	G1858	A1932	C2006
G1112	A1177	A1245	G1309	C1370	A1440	C1505	U1576	C1640	C1710	G1795	A1859	G1933	C2007
			G1310	G1371	G1441	C1506	C1577	A1641	C1711		G1860	C1934	C2008

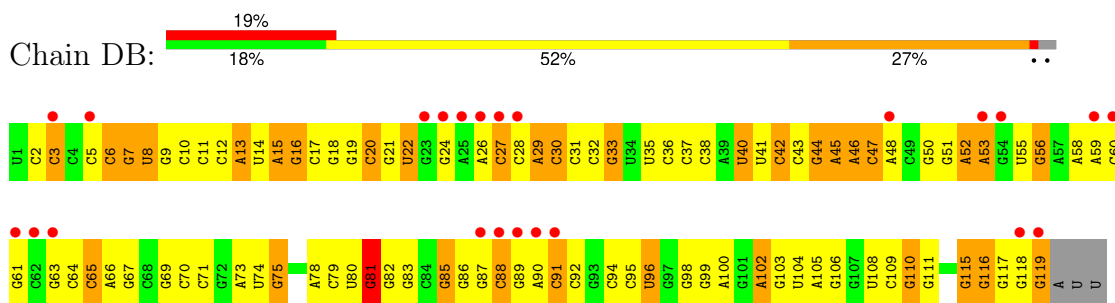




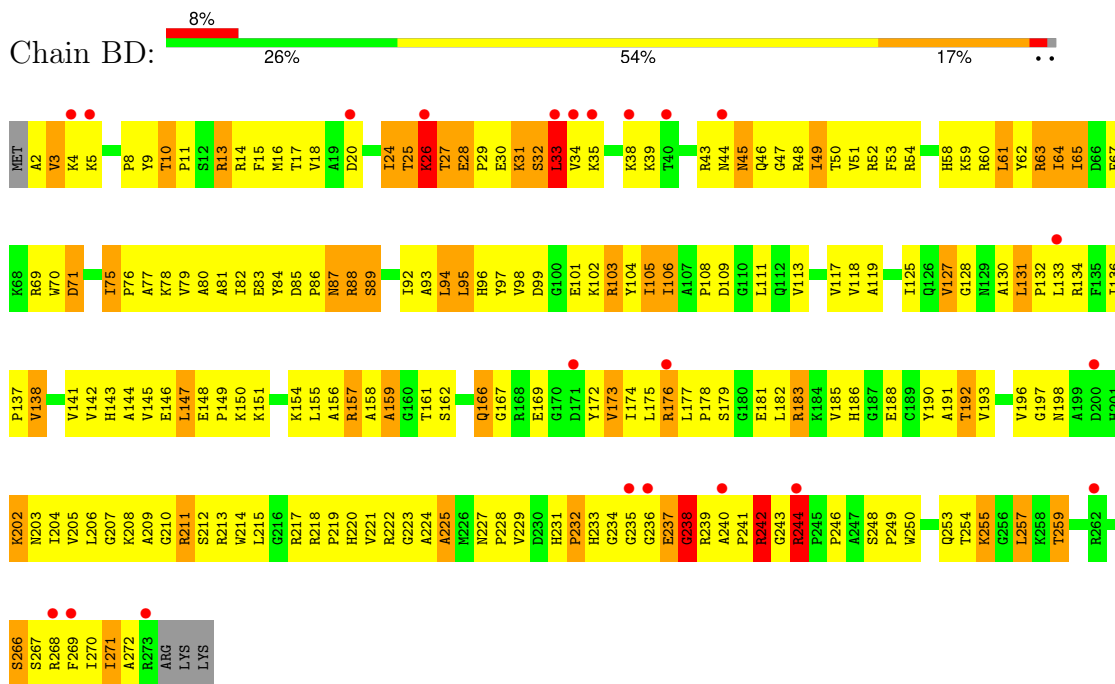
• Molecule 32: 5S ribosomal RNA



• Molecule 32: 5S ribosomal RNA



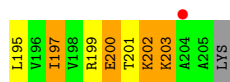
• Molecule 33: 50S ribosomal protein L2



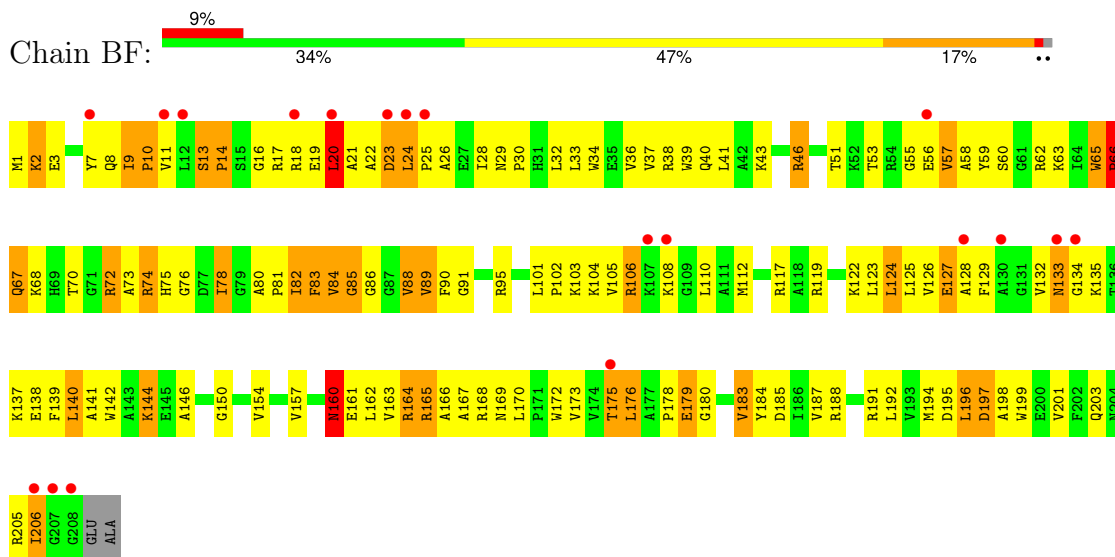
• Molecule 33: 50S ribosomal protein L2



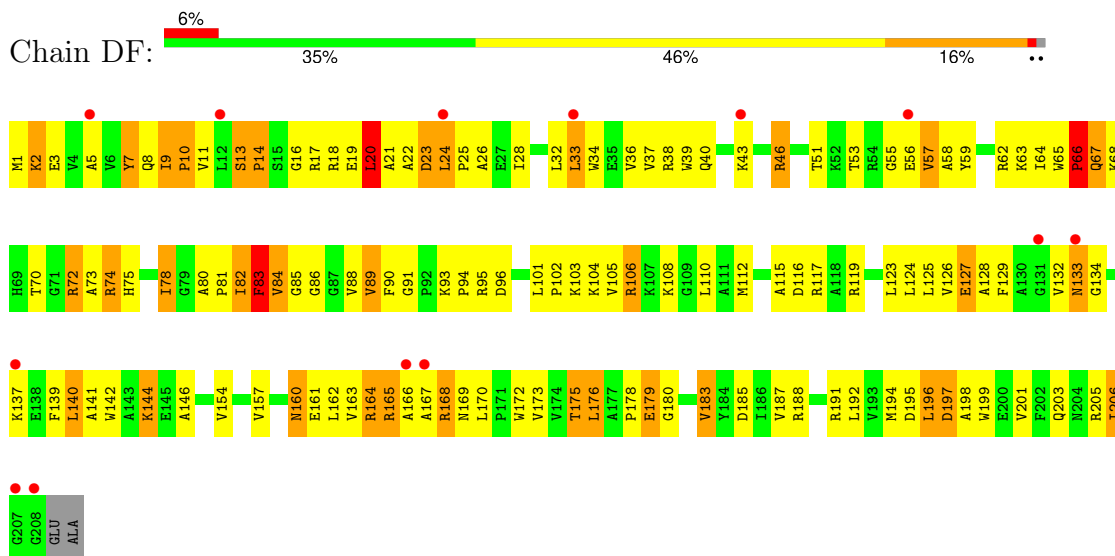




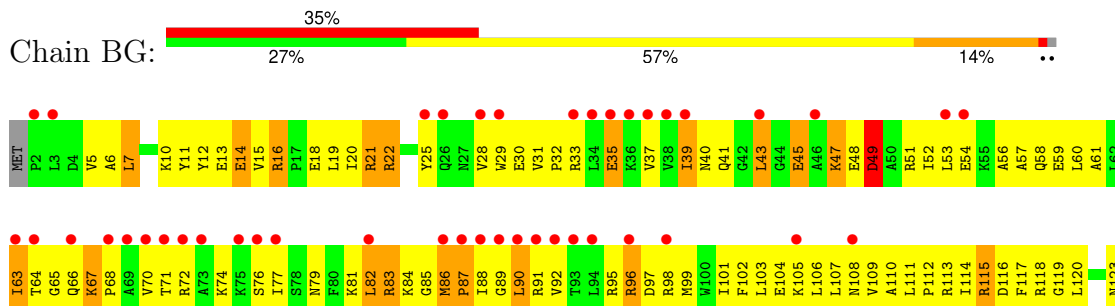
- Molecule 35: 50S ribosomal protein L4

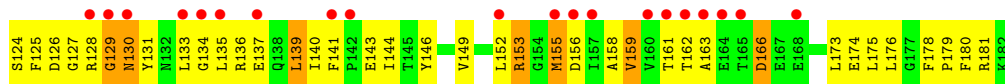


- Molecule 35: 50S ribosomal protein L4

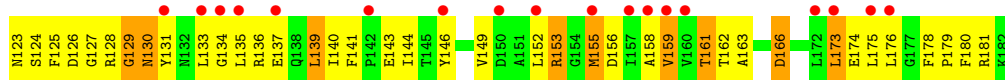
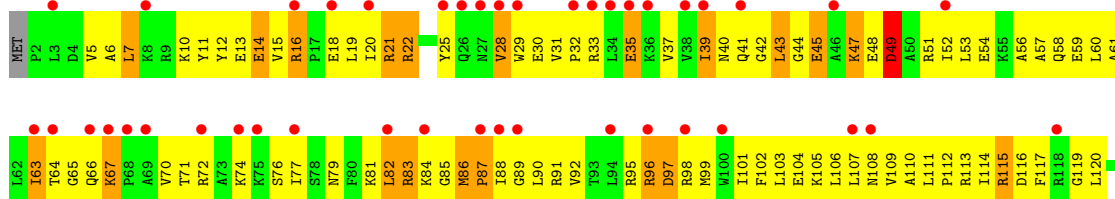


- Molecule 36: 50S ribosomal protein L5

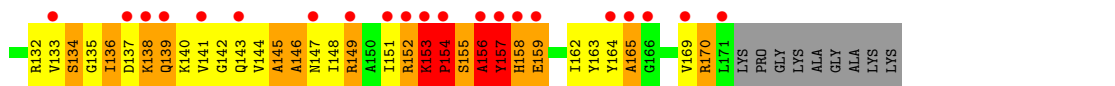
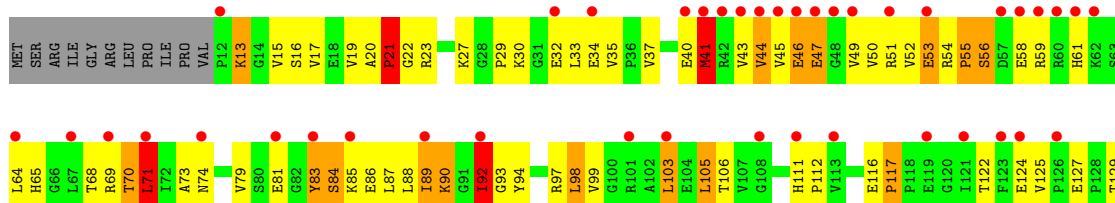




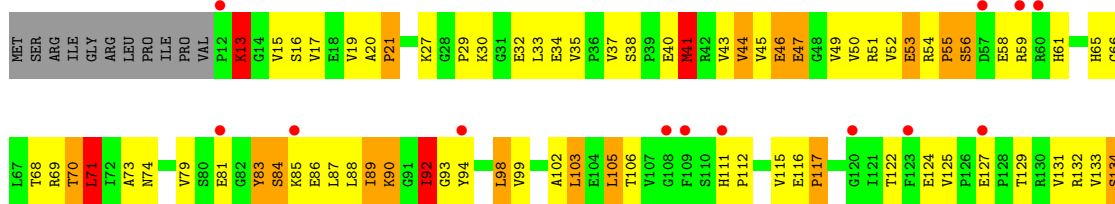
• Molecule 36: 50S ribosomal protein L5



• Molecule 37: 50S ribosomal protein L6

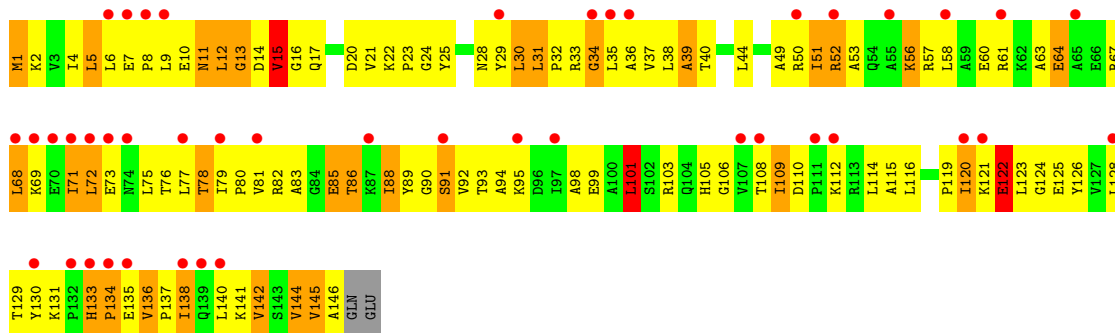


• Molecule 37: 50S ribosomal protein L6

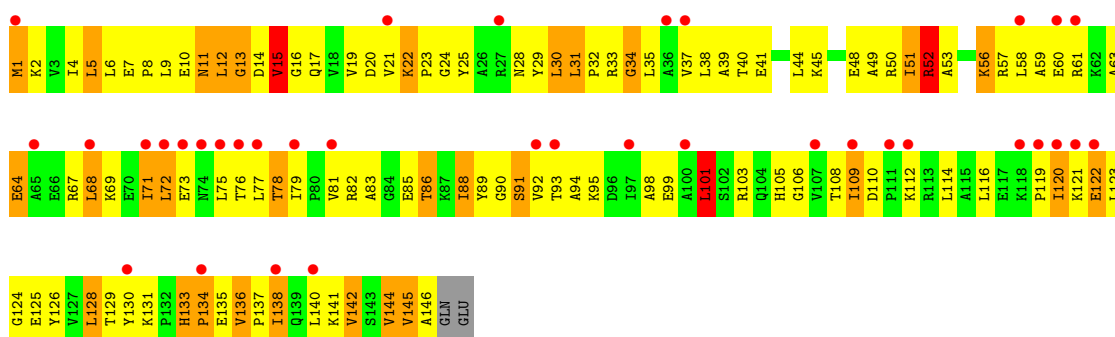


• Molecule 38: 50S ribosomal protein L9

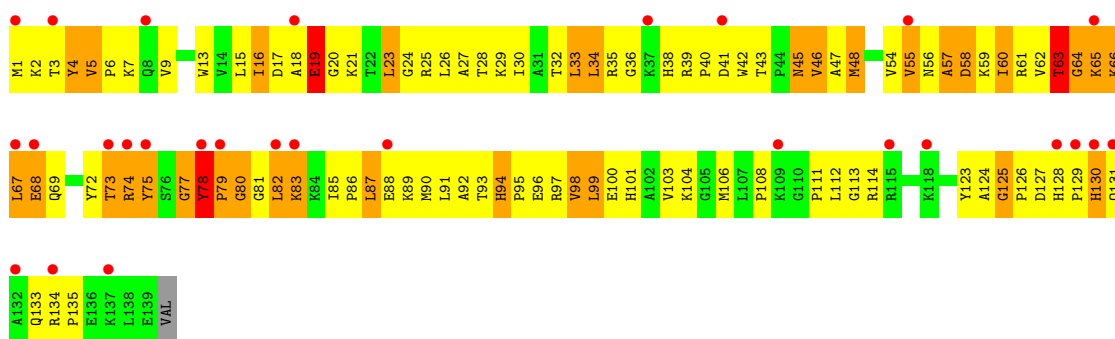




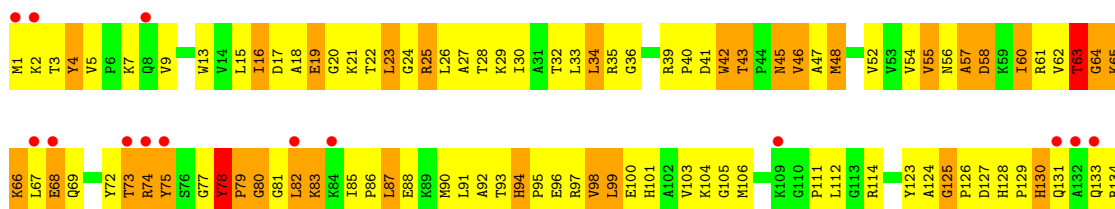
• Molecule 38: 50S ribosomal protein L9



• Molecule 39: 50S ribosomal protein L13



• Molecule 39: 50S ribosomal protein L13

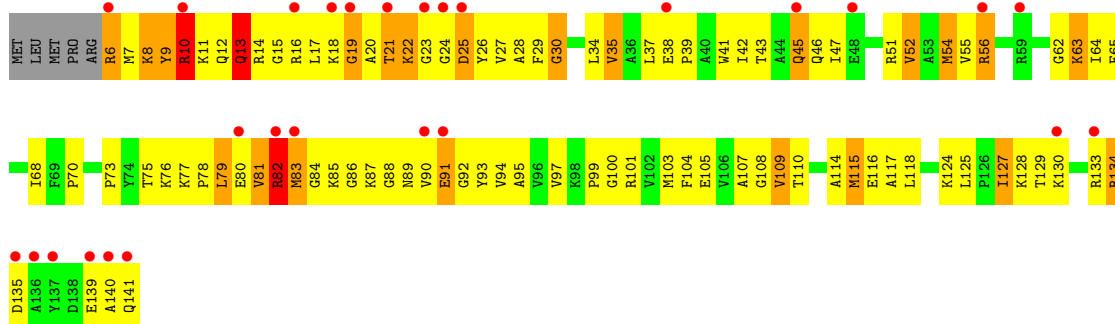








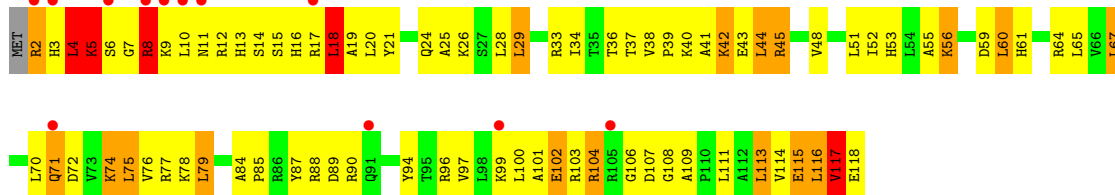
• Molecule 42: 50S ribosomal protein L16



• Molecule 42: 50S ribosomal protein L16



• Molecule 43: 50S ribosomal protein L17

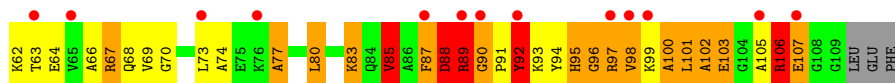
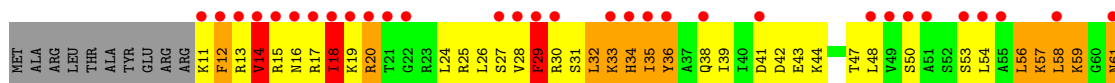
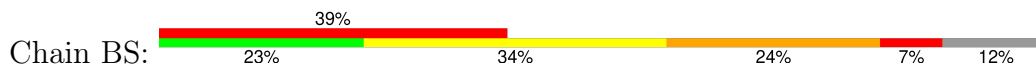


• Molecule 43: 50S ribosomal protein L17

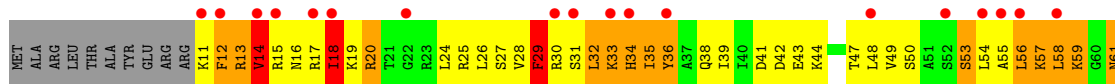
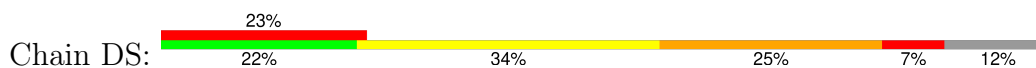




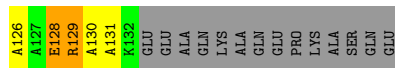
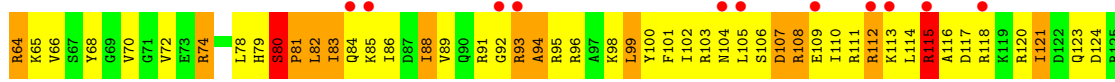
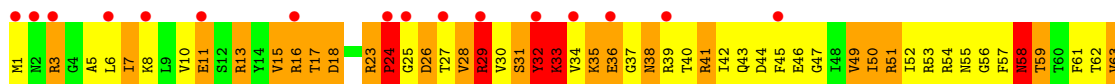
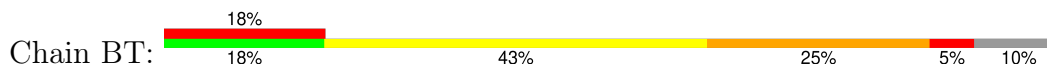
- Molecule 44: 50S ribosomal protein L18



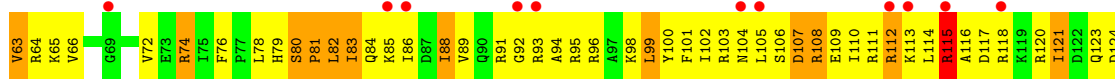
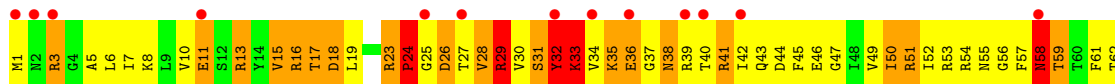
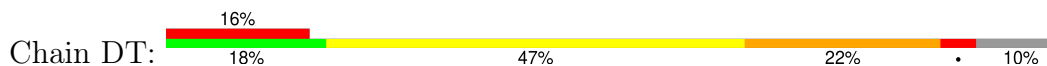
- Molecule 44: 50S ribosomal protein L18

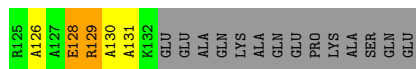


- Molecule 45: 50S ribosomal protein L19

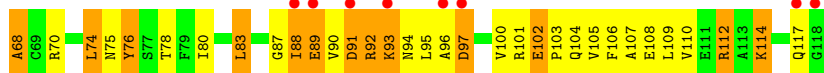


- Molecule 45: 50S ribosomal protein L19

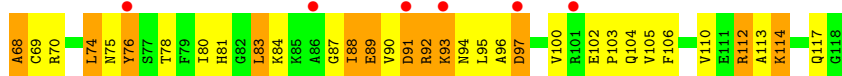
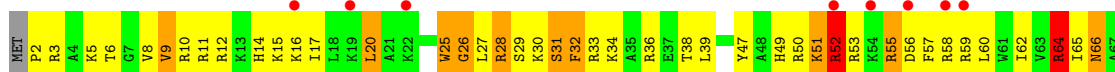




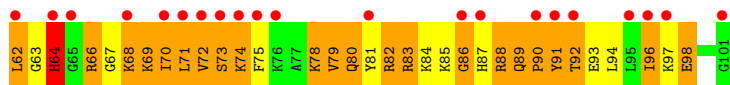
- Molecule 46: 50S ribosomal protein L20



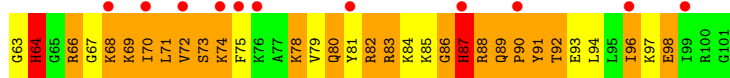
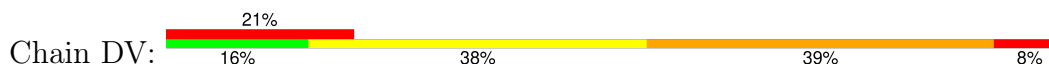
- Molecule 46: 50S ribosomal protein L20



- Molecule 47: 50S ribosomal protein L21

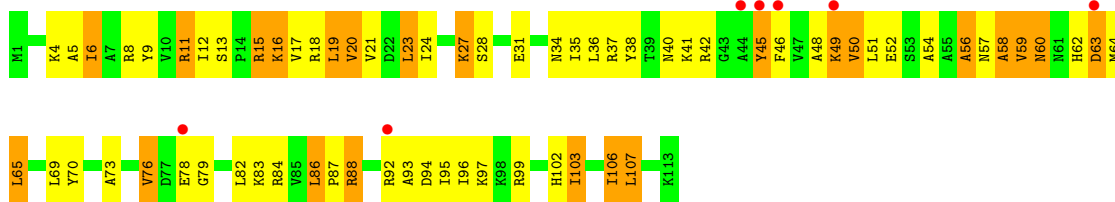


- Molecule 47: 50S ribosomal protein L21



- Molecule 48: 50S ribosomal protein L22

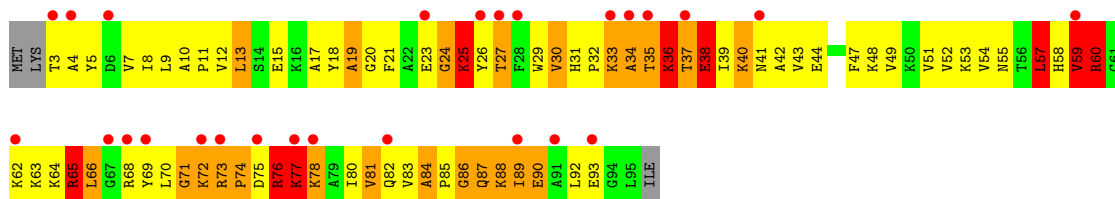
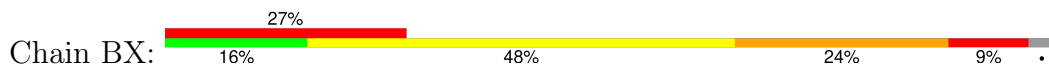




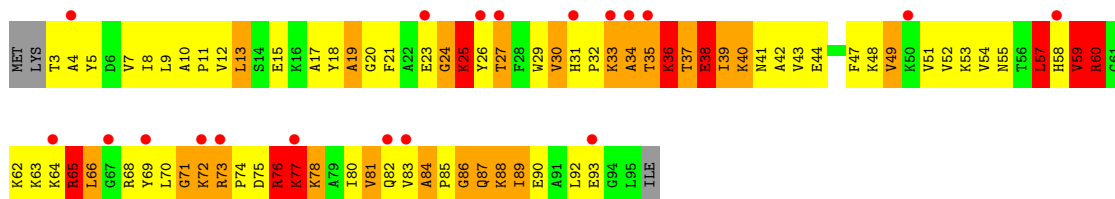
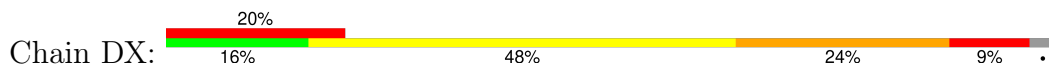
• Molecule 48: 50S ribosomal protein L22



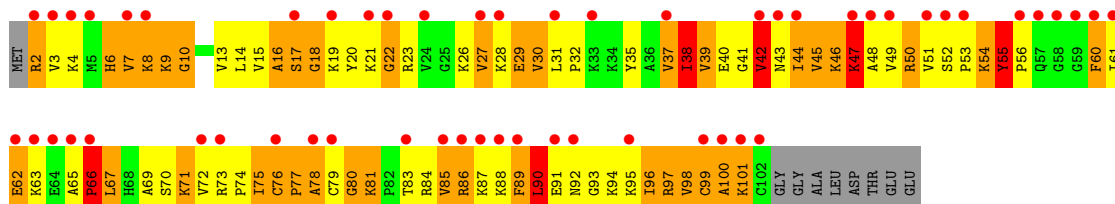
• Molecule 49: 50S ribosomal protein L23



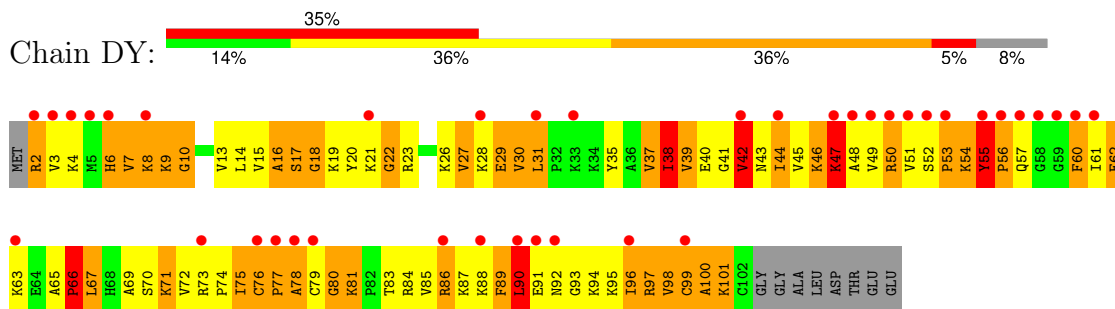
• Molecule 49: 50S ribosomal protein L23



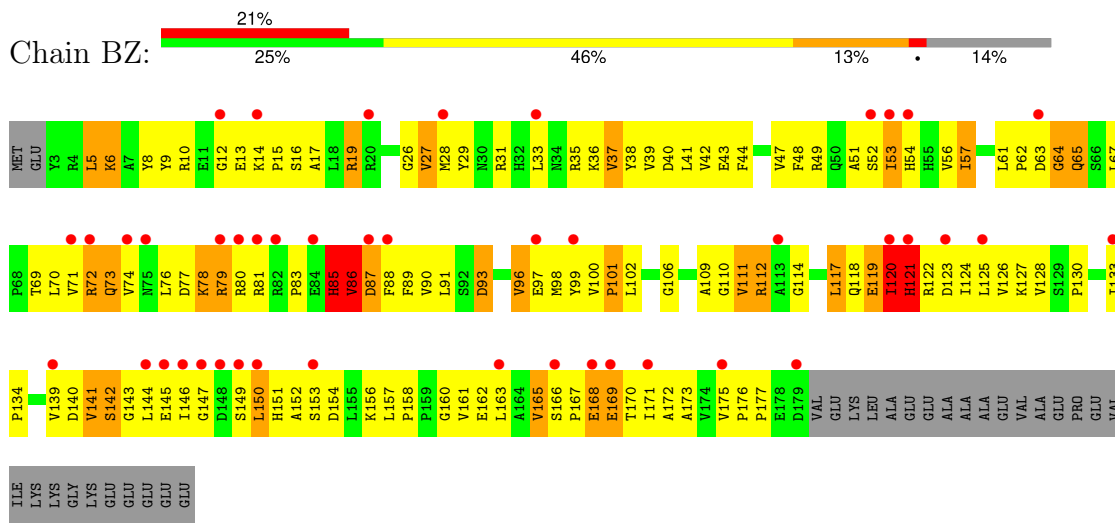
• Molecule 50: 50S ribosomal protein L24



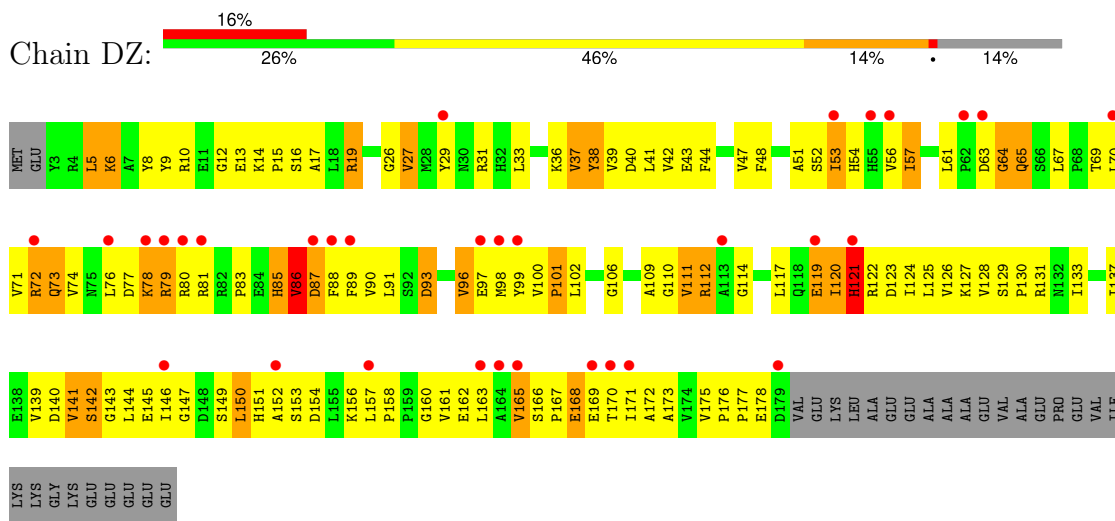
• Molecule 50: 50S ribosomal protein L24



• Molecule 51: 50S ribosomal protein L25



• Molecule 51: 50S ribosomal protein L25



## 4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	210.22Å 450.25Å 623.81Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.80 – 3.00 49.80 – 3.00	Depositor EDS
% Data completeness (in resolution range)	(Not available) (49.80-3.00) 88.7 (49.80-3.00)	Depositor EDS
$R_{merge}$	0.24	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	1.09 (at 3.01Å)	Xtrriage
Refinement program	PHENIX	Depositor
R, $R_{free}$	0.235 , 0.269 0.232 , 0.265	Depositor DCC
$R_{free}$ test set	51892 reflections (5.01%)	wwPDB-VP
Wilson B-factor (Å <sup>2</sup> )	73.9	Xtrriage
Anisotropy	0.352	Xtrriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.28 , 101.0	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	0.90	EDS
Total number of atoms	278000	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	101.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.49% 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 i

### 5.1 Standard geometry i

Bond lengths and bond angles in the following residue types are not validated in this section: K, ZN, MG, ZIT

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	AA	0.51	0/36190	0.87	34/56486 (0.1%)
1	CA	0.50	0/36190	0.88	40/56486 (0.1%)
2	AB	0.29	0/1936	0.51	0/2611
2	CB	0.29	0/1936	0.50	0/2611
3	AC	0.27	0/1637	0.45	0/2207
3	CC	0.27	0/1637	0.45	0/2207
4	AD	0.34	0/1733	0.52	0/2318
4	CD	0.34	0/1733	0.53	0/2318
5	AE	0.34	0/1163	0.55	0/1566
5	CE	0.34	0/1163	0.55	0/1566
6	AF	0.35	0/856	0.54	0/1154
6	CF	0.36	0/856	0.54	0/1154
7	AG	0.25	0/1276	0.44	0/1709
7	CG	0.26	0/1276	0.44	0/1709
8	AH	0.34	0/1136	0.55	0/1527
8	CH	0.33	0/1136	0.54	0/1527
9	AI	0.27	0/1028	0.44	0/1375
9	CI	0.27	0/1028	0.44	0/1375
10	AJ	0.29	0/808	0.48	0/1087
10	CJ	0.29	0/808	0.48	0/1087
11	AK	0.32	0/900	0.52	0/1213
11	CK	0.32	0/900	0.52	0/1213
12	AL	0.38	0/987	0.61	1/1322 (0.1%)
12	CL	0.39	0/987	0.62	0/1322
13	AM	0.26	0/928	0.47	0/1238
13	CM	0.27	0/928	0.47	0/1238
14	AN	0.27	0/501	0.45	0/664
14	CN	0.28	0/501	0.44	0/664
15	AO	0.35	0/745	0.56	0/992
15	CO	0.33	0/745	0.56	0/992
16	AP	0.33	0/717	0.55	0/965
16	CP	0.33	0/717	0.55	0/965



Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
17	AQ	0.33	0/837	0.57	0/1119
17	CQ	0.34	0/837	0.56	0/1119
18	AR	0.35	0/579	0.57	0/768
18	CR	0.37	0/579	0.57	0/768
19	AS	0.28	0/643	0.46	0/867
19	CS	0.28	0/643	0.46	0/867
20	AT	0.34	0/765	0.56	0/1007
20	CT	0.34	0/765	0.55	0/1007
21	AU	0.27	0/213	0.43	0/279
21	CU	0.28	0/213	0.43	0/279
22	B0	0.58	0/658	0.76	1/878 (0.1%)
22	D0	0.52	0/658	0.74	0/878
23	B1	0.74	0/700	0.98	0/931
23	D1	0.65	0/700	0.95	1/931 (0.1%)
24	B2	0.68	0/423	0.92	0/560
24	D2	0.59	0/423	0.89	0/560
25	B3	0.62	0/473	0.71	0/636
25	D3	0.47	0/473	0.69	0/636
26	B4	0.31	0/156	0.59	0/215
26	D4	0.33	0/156	0.57	0/215
27	B5	0.86	1/473 (0.2%)	1.17	2/639 (0.3%)
27	D5	0.74	0/473	1.07	2/639 (0.3%)
28	B6	0.86	1/387 (0.3%)	1.05	2/517 (0.4%)
28	D6	0.70	0/387	0.97	1/517 (0.2%)
29	B7	0.65	0/427	0.79	0/563
29	D7	0.59	0/427	0.78	0/563
30	B8	0.76	0/516	1.08	3/681 (0.4%)
30	D8	0.64	0/516	1.02	3/681 (0.4%)
31	BA	1.11	98/65745 (0.1%)	1.45	1072/102639 (1.0%)
31	DA	0.84	36/65745 (0.1%)	1.38	904/102639 (0.9%)
32	BB	0.87	0/2853	1.26	29/4451 (0.7%)
32	DB	0.69	0/2853	1.18	27/4451 (0.6%)
33	BD	0.61	0/2155	0.82	1/2907 (0.0%)
33	DD	0.56	0/2155	0.80	1/2907 (0.0%)
34	BE	0.64	0/1597	0.82	2/2155 (0.1%)
34	DE	0.57	0/1597	0.80	0/2155
35	BF	0.63	1/1659 (0.1%)	0.77	0/2246
35	DF	0.53	0/1659	0.75	2/2246 (0.1%)
36	BG	0.33	0/1498	0.55	0/2013
36	DG	0.31	0/1498	0.53	0/2013
37	BH	0.64	0/1246	0.77	0/1684
37	DH	0.47	0/1246	0.70	0/1684
38	BI	0.39	0/1147	0.64	0/1553

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
38	DI	0.38	0/1147	0.63	0/1553
39	BN	0.70	0/1132	0.88	1/1527 (0.1%)
39	DN	0.54	0/1132	0.79	0/1527
40	BO	0.57	0/943	0.71	0/1269
40	DO	0.50	0/943	0.69	0/1269
41	BP	0.72	1/1131 (0.1%)	1.03	4/1504 (0.3%)
41	DP	0.63	0/1131	0.95	4/1504 (0.3%)
42	BQ	0.65	0/1100	0.84	1/1470 (0.1%)
42	DQ	0.58	0/1100	0.80	0/1470
43	BR	0.63	0/974	0.91	4/1302 (0.3%)
43	DR	0.56	0/974	0.87	3/1302 (0.2%)
44	BS	0.56	0/779	0.83	0/1038
44	DS	0.49	0/779	0.78	0/1038
45	BT	0.58	0/1114	0.83	1/1488 (0.1%)
45	DT	0.53	0/1114	0.80	0/1488
46	BU	0.71	0/975	0.77	0/1297
46	DU	0.59	0/975	0.71	0/1297
47	BV	0.76	0/789	0.96	1/1054 (0.1%)
47	DV	0.58	0/789	0.89	1/1054 (0.1%)
48	BW	0.67	0/907	0.84	0/1216
48	DW	0.58	0/907	0.79	0/1216
49	BX	0.74	0/740	0.99	3/995 (0.3%)
49	DX	0.64	0/740	0.90	2/995 (0.2%)
50	BY	0.67	1/789 (0.1%)	0.88	1/1053 (0.1%)
50	DY	0.56	0/789	0.82	1/1053 (0.1%)
51	BZ	0.46	0/1436	0.64	2/1951 (0.1%)
51	DZ	0.40	0/1436	0.62	2/1951 (0.1%)
All	All	0.75	139/301000 (0.0%)	1.13	2159/449812 (0.5%)

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
23	B1	0	1
23	D1	0	1
24	B2	0	3
24	D2	0	1
27	B5	0	1
27	D5	0	1
31	BA	21	0

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Mol	Chain	#Chirality outliers	#Planarity outliers
31	DA	21	0
33	BD	0	2
33	DD	0	2
34	BE	0	2
34	DE	0	2
35	BF	0	1
37	BH	0	2
37	DH	0	2
41	BP	0	5
41	DP	0	4
42	BQ	0	1
42	DQ	0	1
43	BR	0	1
43	DR	0	1
44	BS	0	1
44	DS	0	1
45	BT	0	1
45	DT	0	1
47	BV	0	1
47	DV	0	2
49	BX	0	3
49	DX	0	3
All	All	42	47

The worst 5 of 139 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
31	BA	783	A	N9-C4	-12.00	1.30	1.37
31	BA	669	G	C4'-C3'	-11.54	1.40	1.53
31	DA	528	A	N9-C4	-11.40	1.31	1.37
31	BA	2346	A	N3-C4	-10.07	1.28	1.34
31	DA	669	G	C4'-C3'	-9.54	1.42	1.53

The worst 5 of 2159 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	DA	1779	U	C5-C6-N1	-19.83	112.78	122.70
31	DA	2447	G	N1-C6-O6	16.89	130.03	119.90
31	BA	1779	U	C5-C6-N1	-16.70	114.35	122.70
31	DA	2447	G	C5-C6-O6	-16.69	118.58	128.60
31	BA	676	A	C5-N7-C8	-15.75	96.03	103.90

5 of 42 chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
31	BA	100	G	C1'
31	BA	472	A	C3'
31	BA	669	G	C4',C3',C1'
31	BA	945	A	C1'
31	BA	1300	U	C4',C3',C1'

5 of 47 planarity outliers are listed below:

Mol	Chain	Res	Type	Group
23	B1	30	VAL	Peptide
24	B2	55	ARG	Peptide
24	B2	56	GLN	Peptide
24	B2	57	ILE	Peptide
27	B5	51	TYR	Peptide

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

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AA	32329	0	16318	1409	0
1	CA	32329	0	16318	1381	0
2	AB	1901	0	1951	169	0
2	CB	1901	0	1951	167	0
3	AC	1613	0	1677	116	0
3	CC	1613	0	1677	117	0
4	AD	1703	0	1763	158	0
4	CD	1703	0	1763	160	0
5	AE	1147	0	1207	103	0
5	CE	1147	0	1207	107	0
6	AF	843	0	857	80	0
6	CF	843	0	857	86	0
7	AG	1257	0	1296	60	0
7	CG	1257	0	1296	62	0
8	AH	1116	0	1177	83	0
8	CH	1116	0	1177	82	0
9	AI	1011	0	1042	84	0
9	CI	1011	0	1042	85	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
10	AJ	795	0	840	80	0
10	CJ	795	0	840	82	0
11	AK	885	0	904	64	0
11	CK	885	0	904	69	0
12	AL	971	0	1057	104	0
12	CL	971	0	1057	106	0
13	AM	921	0	976	60	0
13	CM	921	0	976	63	0
14	AN	492	0	530	35	0
14	CN	492	0	529	33	0
15	AO	734	0	771	54	0
15	CO	734	0	771	56	0
16	AP	701	0	720	88	0
16	CP	701	0	720	91	0
17	AQ	824	0	891	46	0
17	CQ	824	0	891	49	0
18	AR	574	0	644	63	0
18	CR	574	0	644	64	0
19	AS	630	0	652	40	0
19	CS	630	0	652	34	0
20	AT	763	0	861	78	0
20	CT	763	0	861	75	0
21	AU	209	0	221	11	0
21	CU	209	0	221	11	0
22	B0	650	0	654	67	0
22	D0	650	0	654	64	0
23	B1	693	0	764	143	0
23	D1	693	0	764	144	0
24	B2	421	0	461	119	1
24	D2	421	0	461	125	0
25	B3	468	0	523	37	0
25	D3	468	0	523	56	0
26	B4	157	0	69	12	0
26	D4	157	0	69	12	0
27	B5	459	0	478	82	0
27	D5	459	0	480	85	0
28	B6	381	0	390	96	0
28	D6	381	0	390	92	0
29	B7	419	0	467	37	0
29	D7	419	0	467	38	0
30	B8	508	0	576	156	0
30	D8	508	0	576	144	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
31	BA	58698	0	29590	2392	0
31	DA	58698	0	29591	2578	1
32	BB	2551	0	1295	156	0
32	DB	2551	0	1295	173	0
33	BD	2105	0	2182	336	0
33	DD	2105	0	2182	333	0
34	BE	1564	0	1629	214	0
34	DE	1564	0	1629	213	0
35	BF	1624	0	1677	171	0
35	DF	1624	0	1677	178	0
36	BG	1474	0	1534	149	0
36	DG	1474	0	1534	149	0
37	BH	1223	0	1282	141	0
37	DH	1223	0	1282	129	0
38	BI	1132	0	1218	142	0
38	DI	1132	0	1218	156	0
39	BN	1105	0	1180	184	0
39	DN	1105	0	1180	183	0
40	BO	933	0	996	86	0
40	DO	933	0	996	76	0
41	BP	1114	0	1187	271	0
41	DP	1114	0	1187	260	0
42	BQ	1080	0	1127	157	0
42	DQ	1080	0	1127	162	0
43	BR	960	0	1021	115	0
43	DR	960	0	1021	117	0
44	BS	771	0	832	148	0
44	DS	771	0	832	150	0
45	BT	1100	0	1164	173	0
45	DT	1100	0	1164	166	0
46	BU	958	0	1015	142	0
46	DU	958	0	1015	151	0
47	BV	779	0	851	210	0
47	DV	779	0	851	215	0
48	BW	896	0	953	76	0
48	DW	896	0	953	80	0
49	BX	726	0	778	163	0
49	DX	726	0	778	168	0
50	BY	776	0	870	179	0
50	DY	776	0	870	187	0
51	BZ	1404	0	1432	140	0
51	DZ	1404	0	1432	139	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
52	AA	51	0	0	0	0
52	B0	1	0	0	0	0
52	B1	1	0	0	0	0
52	B5	2	0	0	0	0
52	B7	1	0	0	0	0
52	BA	349	0	0	0	0
52	BB	5	0	0	0	0
52	BD	1	0	0	0	0
52	BE	1	0	0	0	0
52	BF	1	0	0	0	0
52	BP	3	0	0	0	0
52	BQ	2	0	0	0	0
52	BR	1	0	0	0	0
52	BU	1	0	0	0	0
52	BX	1	0	0	0	0
52	CA	48	0	0	0	0
52	D0	1	0	0	0	0
52	D1	1	0	0	0	0
52	D5	2	0	0	0	0
52	D7	1	0	0	0	0
52	DA	309	0	0	0	0
52	DB	3	0	0	0	0
52	DD	1	0	0	0	0
52	DE	1	0	0	0	0
52	DF	1	0	0	0	0
52	DP	1	0	0	0	0
52	DQ	1	0	0	0	0
52	DR	1	0	0	0	0
52	DU	1	0	0	0	0
52	DX	1	0	0	0	0
53	AD	1	0	0	0	0
53	AN	1	0	0	0	0
53	CD	1	0	0	0	0
53	CN	1	0	0	0	0
54	BA	1	0	0	0	0
54	DA	1	0	0	0	0
55	BA	52	0	72	3	0
55	DA	52	0	72	3	0
All	All	278000	0	189246	17418	1

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 37.

The worst 5 of 17418 close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BQ:81:VAL:O	42:BQ:82:ARG:HG2	1.13	1.31
42:DQ:81:VAL:O	42:DQ:82:ARG:HG2	1.25	1.27
41:BP:59:LEU:HA	41:BP:61:ARG:NH1	1.49	1.25
41:DP:59:LEU:HA	41:DP:61:ARG:NH1	1.55	1.20
31:DA:2206:G:N2	31:DA:2207:G:H5'	1.58	1.19

All (1) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:B2:12:GLU:CB	31:DA:306:U:OP1[1_455]	2.15	0.05

## 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	
2	AB	233/256 (91%)	178 (76%)	38 (16%)	17 (7%)	1	4
2	CB	233/256 (91%)	177 (76%)	39 (17%)	17 (7%)	1	4
3	AC	205/239 (86%)	155 (76%)	36 (18%)	14 (7%)	1	5
3	CC	205/239 (86%)	155 (76%)	37 (18%)	13 (6%)	1	6
4	AD	206/209 (99%)	138 (67%)	52 (25%)	16 (8%)	1	4
4	CD	206/209 (99%)	137 (66%)	55 (27%)	14 (7%)	1	5
5	AE	149/162 (92%)	105 (70%)	31 (21%)	13 (9%)	0	3
5	CE	149/162 (92%)	103 (69%)	33 (22%)	13 (9%)	0	3
6	AF	99/101 (98%)	76 (77%)	15 (15%)	8 (8%)	1	3
6	CF	99/101 (98%)	76 (77%)	14 (14%)	9 (9%)	0	2
7	AG	153/156 (98%)	130 (85%)	19 (12%)	4 (3%)	4	23

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
7	CG	153/156 (98%)	131 (86%)	18 (12%)	4 (3%)	4	23
8	AH	136/138 (99%)	98 (72%)	31 (23%)	7 (5%)	1	10
8	CH	136/138 (99%)	98 (72%)	31 (23%)	7 (5%)	1	10
9	AI	123/128 (96%)	92 (75%)	24 (20%)	7 (6%)	1	8
9	CI	123/128 (96%)	94 (76%)	22 (18%)	7 (6%)	1	8
10	AJ	97/105 (92%)	81 (84%)	11 (11%)	5 (5%)	1	9
10	CJ	97/105 (92%)	81 (84%)	11 (11%)	5 (5%)	1	9
11	AK	117/129 (91%)	87 (74%)	26 (22%)	4 (3%)	3	17
11	CK	117/129 (91%)	86 (74%)	27 (23%)	4 (3%)	3	17
12	AL	123/135 (91%)	82 (67%)	31 (25%)	10 (8%)	1	3
12	CL	123/135 (91%)	83 (68%)	29 (24%)	11 (9%)	0	2
13	AM	107/126 (85%)	84 (78%)	17 (16%)	6 (6%)	1	8
13	CM	107/126 (85%)	84 (78%)	17 (16%)	6 (6%)	1	8
14	AN	58/61 (95%)	45 (78%)	11 (19%)	2 (3%)	3	17
14	CN	58/61 (95%)	44 (76%)	12 (21%)	2 (3%)	3	17
15	AO	86/89 (97%)	62 (72%)	19 (22%)	5 (6%)	1	8
15	CO	86/89 (97%)	61 (71%)	21 (24%)	4 (5%)	2	11
16	AP	82/88 (93%)	48 (58%)	27 (33%)	7 (8%)	0	3
16	CP	82/88 (93%)	47 (57%)	29 (35%)	6 (7%)	1	4
17	AQ	98/105 (93%)	74 (76%)	18 (18%)	6 (6%)	1	7
17	CQ	98/105 (93%)	73 (74%)	19 (19%)	6 (6%)	1	7
18	AR	68/88 (77%)	52 (76%)	11 (16%)	5 (7%)	1	4
18	CR	68/88 (77%)	51 (75%)	13 (19%)	4 (6%)	1	7
19	AS	77/93 (83%)	58 (75%)	13 (17%)	6 (8%)	1	4
19	CS	77/93 (83%)	59 (77%)	12 (16%)	6 (8%)	1	4
20	AT	97/106 (92%)	69 (71%)	19 (20%)	9 (9%)	0	2
20	CT	97/106 (92%)	65 (67%)	23 (24%)	9 (9%)	0	2
21	AU	23/27 (85%)	18 (78%)	4 (17%)	1 (4%)	2	13
21	CU	23/27 (85%)	18 (78%)	4 (17%)	1 (4%)	2	13
22	B0	83/85 (98%)	65 (78%)	14 (17%)	4 (5%)	2	11
22	D0	83/85 (98%)	64 (77%)	15 (18%)	4 (5%)	2	11

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
23	B1	87/98 (89%)	48 (55%)	17 (20%)	22 (25%)	0	0
23	D1	87/98 (89%)	45 (52%)	19 (22%)	23 (26%)	0	0
24	B2	49/72 (68%)	23 (47%)	19 (39%)	7 (14%)	0	1
24	D2	49/72 (68%)	23 (47%)	18 (37%)	8 (16%)	0	0
25	B3	58/60 (97%)	52 (90%)	4 (7%)	2 (3%)	3	17
25	D3	58/60 (97%)	51 (88%)	5 (9%)	2 (3%)	3	17
26	B4	30/71 (42%)	5 (17%)	11 (37%)	14 (47%)	0	0
26	D4	30/71 (42%)	5 (17%)	10 (33%)	15 (50%)	0	0
27	B5	57/60 (95%)	38 (67%)	11 (19%)	8 (14%)	0	1
27	D5	57/60 (95%)	36 (63%)	14 (25%)	7 (12%)	0	1
28	B6	41/54 (76%)	21 (51%)	6 (15%)	14 (34%)	0	0
28	D6	41/54 (76%)	19 (46%)	8 (20%)	14 (34%)	0	0
29	B7	47/49 (96%)	41 (87%)	4 (8%)	2 (4%)	2	13
29	D7	47/49 (96%)	40 (85%)	4 (8%)	3 (6%)	1	6
30	B8	62/65 (95%)	42 (68%)	11 (18%)	9 (14%)	0	1
30	D8	62/65 (95%)	41 (66%)	12 (19%)	9 (14%)	0	1
33	BD	270/276 (98%)	208 (77%)	45 (17%)	17 (6%)	1	6
33	DD	270/276 (98%)	207 (77%)	47 (17%)	16 (6%)	1	7
34	BE	203/206 (98%)	138 (68%)	37 (18%)	28 (14%)	0	1
34	DE	203/206 (98%)	138 (68%)	38 (19%)	27 (13%)	0	1
35	BF	206/210 (98%)	160 (78%)	30 (15%)	16 (8%)	1	4
35	DF	206/210 (98%)	156 (76%)	33 (16%)	17 (8%)	0	3
36	BG	177/182 (97%)	128 (72%)	35 (20%)	14 (8%)	1	3
36	DG	177/182 (97%)	127 (72%)	36 (20%)	14 (8%)	1	3
37	BH	158/180 (88%)	92 (58%)	41 (26%)	25 (16%)	0	0
37	DH	158/180 (88%)	93 (59%)	39 (25%)	26 (16%)	0	0
38	BI	144/148 (97%)	88 (61%)	32 (22%)	24 (17%)	0	0
38	DI	144/148 (97%)	87 (60%)	35 (24%)	22 (15%)	0	0
39	BN	137/140 (98%)	87 (64%)	32 (23%)	18 (13%)	0	1
39	DN	137/140 (98%)	88 (64%)	32 (23%)	17 (12%)	0	1
40	BO	120/122 (98%)	101 (84%)	16 (13%)	3 (2%)	4	24

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
40	DO	120/122 (98%)	99 (82%)	17 (14%)	4 (3%)	3	18
41	BP	144/150 (96%)	77 (54%)	17 (12%)	50 (35%)	0	0
41	DP	144/150 (96%)	76 (53%)	18 (12%)	50 (35%)	0	0
42	BQ	134/141 (95%)	92 (69%)	28 (21%)	14 (10%)	0	2
42	DQ	134/141 (95%)	96 (72%)	23 (17%)	15 (11%)	0	1
43	BR	115/118 (98%)	78 (68%)	29 (25%)	8 (7%)	1	4
43	DR	115/118 (98%)	82 (71%)	24 (21%)	9 (8%)	1	4
44	BS	97/112 (87%)	49 (50%)	24 (25%)	24 (25%)	0	0
44	DS	97/112 (87%)	49 (50%)	23 (24%)	25 (26%)	0	0
45	BT	130/146 (89%)	89 (68%)	21 (16%)	20 (15%)	0	0
45	DT	130/146 (89%)	90 (69%)	21 (16%)	19 (15%)	0	1
46	BU	115/118 (98%)	77 (67%)	27 (24%)	11 (10%)	0	2
46	DU	115/118 (98%)	74 (64%)	29 (25%)	12 (10%)	0	2
47	BV	97/101 (96%)	54 (56%)	15 (16%)	28 (29%)	0	0
47	DV	97/101 (96%)	52 (54%)	18 (19%)	27 (28%)	0	0
48	BW	111/113 (98%)	88 (79%)	15 (14%)	8 (7%)	1	4
48	DW	111/113 (98%)	89 (80%)	15 (14%)	7 (6%)	1	6
49	BX	91/96 (95%)	47 (52%)	22 (24%)	22 (24%)	0	0
49	DX	91/96 (95%)	48 (53%)	22 (24%)	21 (23%)	0	0
50	BY	99/110 (90%)	45 (46%)	22 (22%)	32 (32%)	0	0
50	DY	99/110 (90%)	46 (46%)	21 (21%)	32 (32%)	0	0
51	BZ	175/206 (85%)	113 (65%)	43 (25%)	19 (11%)	0	1
51	DZ	175/206 (85%)	113 (65%)	44 (25%)	18 (10%)	0	2
All	All	11148/12060 (92%)	7735 (69%)	2187 (20%)	1226 (11%)	0	1

5 of 1226 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AB	15	VAL
2	AB	24	TRP
2	AB	154	LEU
2	AB	165	VAL
2	AB	194	PRO

### 5.3.2 Protein sidechains [i](#)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	AB	202/220 (92%)	176 (87%)	26 (13%)	3	16
2	CB	202/220 (92%)	176 (87%)	26 (13%)	3	16
3	AC	160/188 (85%)	152 (95%)	8 (5%)	20	53
3	CC	160/188 (85%)	152 (95%)	8 (5%)	20	53
4	AD	180/181 (99%)	157 (87%)	23 (13%)	3	16
4	CD	180/181 (99%)	156 (87%)	24 (13%)	3	15
5	AE	115/123 (94%)	100 (87%)	15 (13%)	3	16
5	CE	115/123 (94%)	100 (87%)	15 (13%)	3	16
6	AF	90/90 (100%)	79 (88%)	11 (12%)	4	18
6	CF	90/90 (100%)	79 (88%)	11 (12%)	4	18
7	AG	126/127 (99%)	121 (96%)	5 (4%)	27	61
7	CG	126/127 (99%)	121 (96%)	5 (4%)	27	61
8	AH	119/119 (100%)	107 (90%)	12 (10%)	6	25
8	CH	119/119 (100%)	107 (90%)	12 (10%)	6	25
9	AI	98/99 (99%)	88 (90%)	10 (10%)	6	24
9	CI	98/99 (99%)	88 (90%)	10 (10%)	6	24
10	AJ	88/92 (96%)	81 (92%)	7 (8%)	10	35
10	CJ	88/92 (96%)	81 (92%)	7 (8%)	10	35
11	AK	90/99 (91%)	79 (88%)	11 (12%)	4	18
11	CK	90/99 (91%)	80 (89%)	10 (11%)	5	21
12	AL	104/111 (94%)	96 (92%)	8 (8%)	10	37
12	CL	104/111 (94%)	96 (92%)	8 (8%)	10	37
13	AM	93/101 (92%)	86 (92%)	7 (8%)	11	38
13	CM	93/101 (92%)	86 (92%)	7 (8%)	11	38
14	AN	49/50 (98%)	46 (94%)	3 (6%)	15	46
14	CN	49/50 (98%)	47 (96%)	2 (4%)	26	60

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
15	AO	79/80 (99%)	69 (87%)	10 (13%)	3	17
15	CO	79/80 (99%)	69 (87%)	10 (13%)	3	17
16	AP	72/74 (97%)	60 (83%)	12 (17%)	2	9
16	CP	72/74 (97%)	60 (83%)	12 (17%)	2	9
17	AQ	94/97 (97%)	91 (97%)	3 (3%)	34	67
17	CQ	94/97 (97%)	91 (97%)	3 (3%)	34	67
18	AR	61/77 (79%)	56 (92%)	5 (8%)	9	34
18	CR	61/77 (79%)	55 (90%)	6 (10%)	6	26
19	AS	69/80 (86%)	62 (90%)	7 (10%)	6	25
19	CS	69/80 (86%)	62 (90%)	7 (10%)	6	25
20	AT	76/82 (93%)	65 (86%)	11 (14%)	2	13
20	CT	76/82 (93%)	66 (87%)	10 (13%)	3	15
21	AU	19/22 (86%)	19 (100%)	0	100	100
21	CU	19/22 (86%)	19 (100%)	0	100	100
22	B0	61/67 (91%)	49 (80%)	12 (20%)	1	6
22	D0	61/67 (91%)	47 (77%)	14 (23%)	0	3
23	B1	73/83 (88%)	55 (75%)	18 (25%)	0	2
23	D1	73/83 (88%)	55 (75%)	18 (25%)	0	2
24	B2	46/67 (69%)	29 (63%)	17 (37%)	0	0
24	D2	46/67 (69%)	30 (65%)	16 (35%)	0	1
25	B3	51/52 (98%)	44 (86%)	7 (14%)	3	14
25	D3	51/52 (98%)	44 (86%)	7 (14%)	3	14
27	B5	51/52 (98%)	38 (74%)	13 (26%)	0	2
27	D5	51/52 (98%)	36 (71%)	15 (29%)	0	1
28	B6	43/52 (83%)	27 (63%)	16 (37%)	0	0
28	D6	43/52 (83%)	27 (63%)	16 (37%)	0	0
29	B7	41/42 (98%)	35 (85%)	6 (15%)	2	12
29	D7	41/42 (98%)	35 (85%)	6 (15%)	2	12
30	B8	53/55 (96%)	38 (72%)	15 (28%)	0	1
30	D8	53/55 (96%)	41 (77%)	12 (23%)	1	3
33	BD	213/218 (98%)	163 (76%)	50 (24%)	0	3

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
33	DD	213/218 (98%)	162 (76%)	51 (24%)	0	3
34	BE	165/166 (99%)	126 (76%)	39 (24%)	0	3
34	DE	165/166 (99%)	126 (76%)	39 (24%)	0	3
35	BF	165/166 (99%)	132 (80%)	33 (20%)	1	5
35	DF	165/166 (99%)	135 (82%)	30 (18%)	1	7
36	BG	155/156 (99%)	132 (85%)	23 (15%)	2	12
36	DG	155/156 (99%)	131 (84%)	24 (16%)	2	11
37	BH	132/148 (89%)	107 (81%)	25 (19%)	1	7
37	DH	132/148 (89%)	108 (82%)	24 (18%)	1	7
38	BI	122/124 (98%)	103 (84%)	19 (16%)	2	11
38	DI	122/124 (98%)	103 (84%)	19 (16%)	2	11
39	BN	117/119 (98%)	93 (80%)	24 (20%)	1	5
39	DN	117/119 (98%)	92 (79%)	25 (21%)	1	4
40	BO	100/100 (100%)	75 (75%)	25 (25%)	0	2
40	DO	100/100 (100%)	74 (74%)	26 (26%)	0	2
41	BP	112/116 (97%)	63 (56%)	49 (44%)	0	0
41	DP	112/116 (97%)	65 (58%)	47 (42%)	0	0
42	BQ	106/111 (96%)	88 (83%)	18 (17%)	1	9
42	DQ	106/111 (96%)	87 (82%)	19 (18%)	1	8
43	BR	100/101 (99%)	76 (76%)	24 (24%)	0	3
43	DR	100/101 (99%)	75 (75%)	25 (25%)	0	2
44	BS	77/88 (88%)	54 (70%)	23 (30%)	0	1
44	DS	77/88 (88%)	54 (70%)	23 (30%)	0	1
45	BT	116/127 (91%)	84 (72%)	32 (28%)	0	1
45	DT	116/127 (91%)	84 (72%)	32 (28%)	0	1
46	BU	92/94 (98%)	75 (82%)	17 (18%)	1	7
46	DU	92/94 (98%)	74 (80%)	18 (20%)	1	6
47	BV	82/82 (100%)	53 (65%)	29 (35%)	0	1
47	DV	82/82 (100%)	52 (63%)	30 (37%)	0	0
48	BW	91/92 (99%)	70 (77%)	21 (23%)	0	3
48	DW	91/92 (99%)	69 (76%)	22 (24%)	0	3

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
49	BX	74/78 (95%)	54 (73%)	20 (27%)	0	2
49	DX	74/78 (95%)	54 (73%)	20 (27%)	0	2
50	BY	84/91 (92%)	58 (69%)	26 (31%)	0	1
50	DY	84/91 (92%)	59 (70%)	25 (30%)	0	1
51	BZ	155/179 (87%)	130 (84%)	25 (16%)	2	10
51	DZ	155/179 (87%)	130 (84%)	25 (16%)	2	10
All	All	9322/9876 (94%)	7681 (82%)	1641 (18%)	1	8

5 of 1641 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
9	CI	102	LEU
33	DD	157	ARG
50	DY	42	VAL
12	CL	85	ILE
9	CI	101	PHE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 272 such sidechains are listed below:

Mol	Chain	Res	Type
40	DO	82	ASN
43	DR	13	HIS
48	DW	34	ASN
41	BP	9	ASN
39	BN	130	HIS

### 5.3.3 RNA [i](#)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1503/1522 (98%)	287 (19%)	31 (2%)
1	CA	1503/1522 (98%)	288 (19%)	31 (2%)
31	BA	2723/2787 (97%)	735 (26%)	71 (2%)
31	DA	2723/2787 (97%)	729 (26%)	70 (2%)
32	BB	118/122 (96%)	35 (29%)	1 (0%)
32	DB	118/122 (96%)	35 (29%)	0
All	All	8688/8862 (98%)	2109 (24%)	204 (2%)

5 of 2109 RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	9	G
1	AA	31	G
1	AA	32	A
1	AA	39	G
1	AA	47	C

5 of 204 RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	CA	499	A
31	DA	387	U
31	DA	2662	A
1	CA	687	A
1	CA	1285	A

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

There are no non-standard protein/DNA/RNA residues in this entry.

#### 5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

#### 5.6 Ligand geometry [i](#)

Of 802 ligands modelled in this entry, 800 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
55	ZIT	BA	3351	-	54,54,54	1.42	7 (12%)	82,83,83	1.10	5 (6%)
55	ZIT	DA	3311	-	54,54,54	1.42	6 (11%)	82,83,83	1.10	5 (6%)

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. '2' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
55	ZIT	BA	3351	-	-	3/72/107/107	0/3/3/3
55	ZIT	DA	3311	-	-	3/72/107/107	0/3/3/3

The worst 5 of 13 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
55	DA	3311	ZIT	C13-C14	3.34	1.60	1.55
55	BA	3351	ZIT	C22-C11	3.34	1.58	1.52
55	DA	3311	ZIT	C22-C11	3.32	1.58	1.52
55	BA	3351	ZIT	C13-C14	3.29	1.60	1.55
55	DA	3311	ZIT	O13-C13	2.73	1.48	1.44

The worst 5 of 10 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
55	BA	3351	ZIT	C9-N10-C11	-3.08	106.95	112.06
55	DA	3311	ZIT	C9-N10-C11	-3.05	106.99	112.06
55	DA	3311	ZIT	C7-C8-C9	2.83	116.09	112.10
55	BA	3351	ZIT	C7-C8-C9	2.82	116.09	112.10
55	DA	3311	ZIT	O6-C6-C7	2.20	113.84	108.34

There are no chirality outliers.

5 of 6 torsion outliers are listed below:

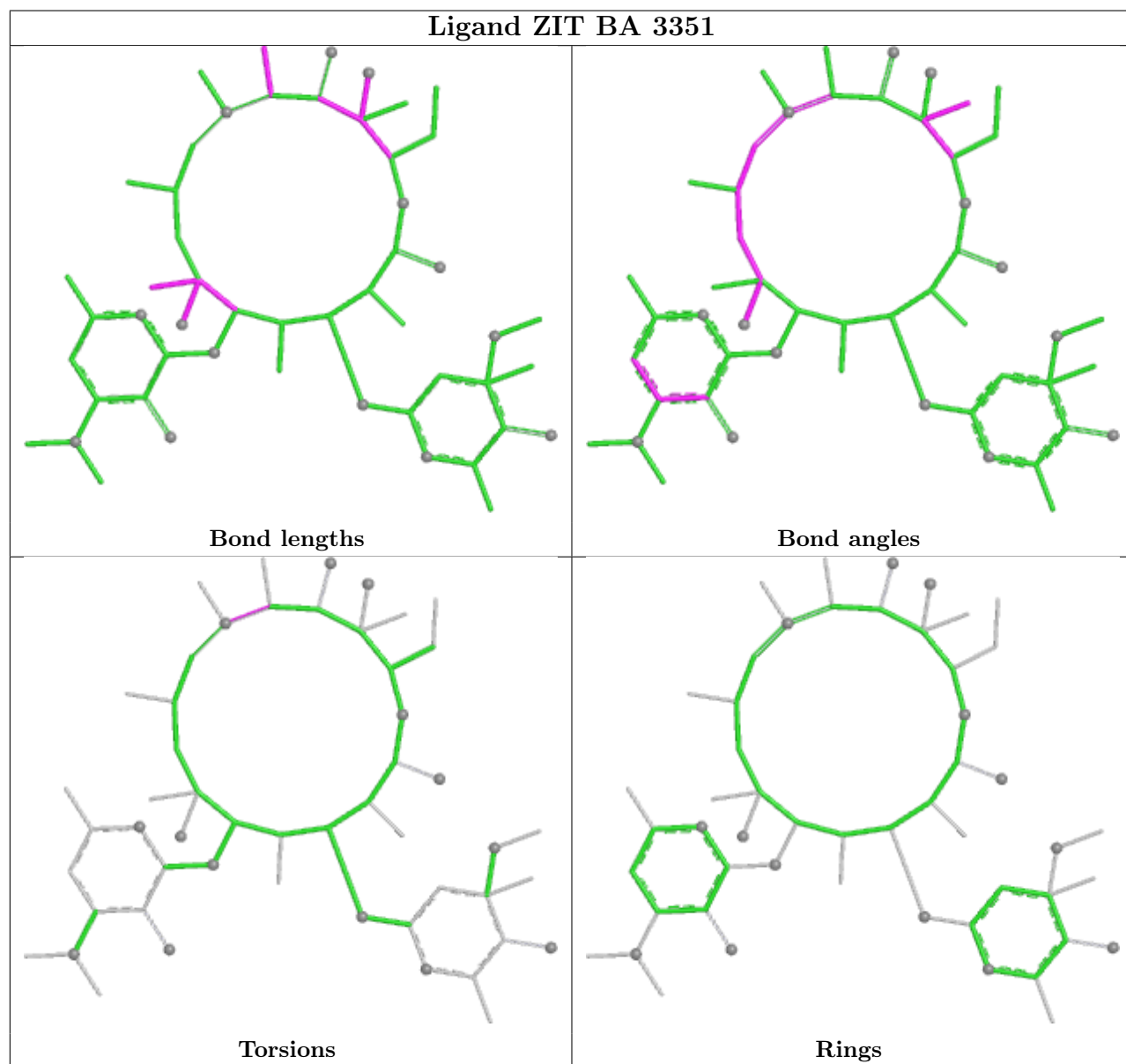
Mol	Chain	Res	Type	Atoms
55	BA	3351	ZIT	C12-C11-N10-C21
55	BA	3351	ZIT	C22-C11-N10-C21
55	DA	3311	ZIT	C12-C11-N10-C21
55	DA	3311	ZIT	C22-C11-N10-C21
55	BA	3351	ZIT	C12-C11-N10-C9

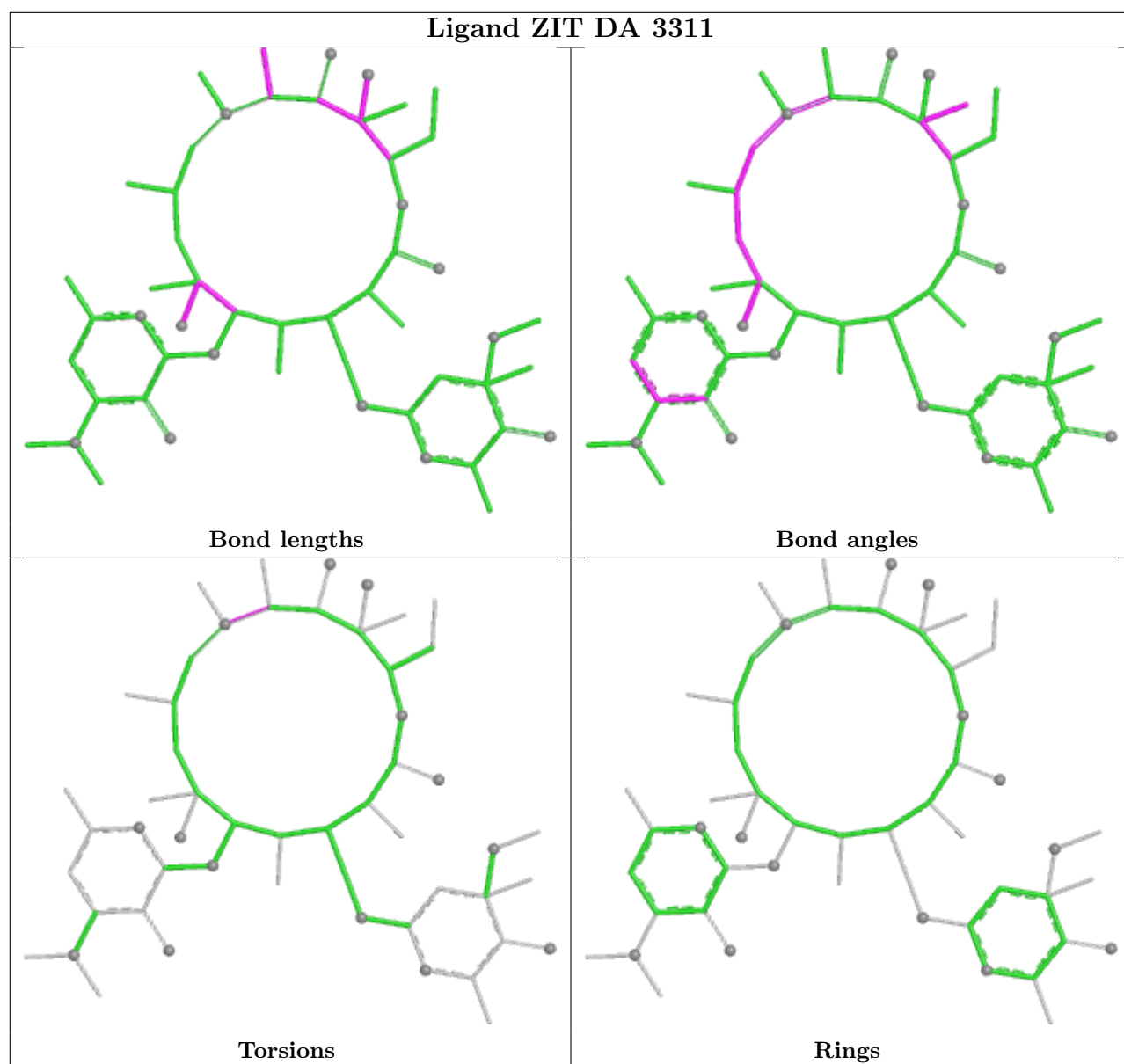
There are no ring outliers.

2 monomers are involved in 6 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
55	BA	3351	ZIT	3	0
55	DA	3311	ZIT	3	0

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





## 5.7 Other polymers [\(i\)](#)

There are no such residues in this entry.

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

The following chains have linkage breaks:

Mol	Chain	Number of breaks
13	CM	3
13	AM	3
36	DG	1

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Mol	Chain	Number of breaks
36	BG	1
28	B6	1
28	D6	1
9	AI	1
9	CI	1
47	BV	1
47	DV	1

The worst 5 of 14 chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	CM	69:GLU	C	70:LEU	N	5.29
1	AM	69:GLU	C	70:LEU	N	5.28
1	DG	112:PRO	C	113:ARG	N	4.77
1	BG	112:PRO	C	113:ARG	N	4.76
1	AM	112:GLY	C	113:PRO	N	4.20

## 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	AA	1504/1522 (98%)	0.74	149 (9%) 14 8	60, 125, 191, 194	0
1	CA	1504/1522 (98%)	0.66	111 (7%) 22 12	61, 125, 191, 194	0
2	AB	235/256 (91%)	1.04	43 (18%) 4 3	107, 156, 184, 191	0
2	CB	235/256 (91%)	1.12	39 (16%) 5 3	107, 158, 185, 191	0
3	AC	207/239 (86%)	0.89	24 (11%) 11 6	115, 163, 184, 189	0
3	CC	207/239 (86%)	1.18	41 (19%) 3 3	119, 166, 184, 191	0
4	AD	208/209 (99%)	1.21	39 (18%) 4 3	83, 131, 170, 181	0
4	CD	208/209 (99%)	1.27	38 (18%) 4 3	82, 131, 168, 182	0
5	AE	151/162 (93%)	0.88	20 (13%) 8 5	83, 116, 160, 188	0
5	CE	151/162 (93%)	0.87	19 (12%) 9 5	84, 117, 162, 189	0
6	AF	101/101 (100%)	0.89	13 (12%) 9 5	85, 132, 164, 180	0
6	CF	101/101 (100%)	1.04	13 (12%) 9 5	86, 132, 165, 182	0
7	AG	155/156 (99%)	1.35	38 (24%) 2 2	140, 171, 188, 191	0
7	CG	155/156 (99%)	1.24	36 (23%) 2 2	140, 171, 188, 190	0
8	AH	138/138 (100%)	0.86	17 (12%) 9 5	85, 121, 155, 164	0
8	CH	138/138 (100%)	0.94	20 (14%) 7 4	85, 123, 156, 162	0
9	AI	127/128 (99%)	1.64	41 (32%) 1 1	142, 182, 190, 192	0
9	CI	127/128 (99%)	1.76	49 (38%) 1 1	143, 183, 190, 191	0
10	AJ	99/105 (94%)	1.76	33 (33%) 1 1	130, 176, 189, 191	0
10	CJ	99/105 (94%)	1.58	31 (31%) 1 1	130, 177, 190, 193	0
11	AK	119/129 (92%)	1.17	28 (23%) 2 2	82, 123, 164, 187	0
11	CK	119/129 (92%)	1.12	24 (20%) 3 2	84, 123, 165, 186	0
12	AL	125/135 (92%)	1.27	25 (20%) 3 2	80, 108, 163, 189	0
12	CL	125/135 (92%)	1.35	31 (24%) 2 2	82, 109, 164, 188	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2		OWAB(Å <sup>2</sup> )	Q<0.9	
13	AM	115/126 (91%)	1.79	35 (30%)	1	1	150, 185, 190, 193	0
13	CM	115/126 (91%)	1.78	42 (36%)	1	1	149, 185, 190, 192	0
14	AN	60/61 (98%)	1.69	21 (35%)	1	1	131, 168, 185, 189	0
14	CN	60/61 (98%)	1.68	15 (25%)	2	2	132, 170, 186, 189	0
15	AO	88/89 (98%)	1.08	18 (20%)	3	2	74, 111, 157, 162	0
15	CO	88/89 (98%)	0.68	8 (9%)	16	9	74, 112, 159, 165	0
16	AP	84/88 (95%)	1.71	26 (30%)	1	1	91, 118, 161, 179	0
16	CP	84/88 (95%)	1.48	24 (28%)	1	2	89, 116, 160, 180	0
17	AQ	100/105 (95%)	1.00	18 (18%)	4	3	80, 109, 153, 163	0
17	CQ	100/105 (95%)	1.14	14 (14%)	7	4	85, 110, 153, 159	0
18	AR	70/88 (79%)	0.98	9 (12%)	9	5	93, 121, 170, 183	0
18	CR	70/88 (79%)	0.64	3 (4%)	40	23	93, 122, 171, 183	0
19	AS	79/93 (84%)	1.59	24 (30%)	1	1	142, 186, 190, 191	0
19	CS	79/93 (84%)	1.49	22 (27%)	2	2	142, 186, 191, 192	0
20	AT	99/106 (93%)	1.54	28 (28%)	1	2	84, 119, 157, 177	0
20	CT	99/106 (93%)	1.26	26 (26%)	2	2	84, 119, 157, 179	0
21	AU	25/27 (92%)	3.60	22 (88%)	0	0	143, 174, 188, 190	0
21	CU	25/27 (92%)	3.67	20 (80%)	0	0	141, 172, 188, 189	0
22	B0	85/85 (100%)	1.00	15 (17%)	4	3	49, 70, 175, 187	0
22	D0	85/85 (100%)	0.69	13 (15%)	6	4	54, 74, 173, 188	0
23	B1	89/98 (90%)	1.78	29 (32%)	1	1	50, 79, 150, 187	0
23	D1	89/98 (90%)	1.41	23 (25%)	2	2	51, 81, 151, 190	0
24	B2	51/72 (70%)	2.67	30 (58%)	0	0	59, 99, 175, 186	0
24	D2	51/72 (70%)	2.17	23 (45%)	1	1	62, 100, 175, 188	0
25	B3	60/60 (100%)	0.78	10 (16%)	5	3	46, 69, 132, 168	0
25	D3	60/60 (100%)	0.29	2 (3%)	49	29	51, 72, 136, 161	0
26	B4	32/71 (45%)	1.81	12 (37%)	1	1	133, 161, 182, 184	0
26	D4	32/71 (45%)	1.55	10 (31%)	1	1	133, 164, 182, 186	0
27	B5	58/60 (96%)	0.85	9 (15%)	6	4	34, 61, 165, 188	0
27	D5	58/60 (96%)	0.66	7 (12%)	10	6	39, 63, 163, 190	0
28	B6	45/54 (83%)	2.15	17 (37%)	1	1	49, 85, 141, 173	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
28	D6	45/54 (83%)	1.64	15 (33%) 1 1	52, 87, 142, 172	0
29	B7	49/49 (100%)	0.35	6 (12%) 10 6	36, 45, 119, 172	0
29	D7	49/49 (100%)	0.36	6 (12%) 10 6	38, 49, 120, 173	0
30	B8	64/65 (98%)	1.66	21 (32%) 1 1	46, 68, 140, 165	0
30	D8	64/65 (98%)	1.35	17 (26%) 2 2	49, 73, 141, 169	0
31	BA	2725/2787 (97%)	0.03	147 (5%) 32 18	33, 59, 153, 194	0
31	DA	2725/2787 (97%)	-0.07	100 (3%) 45 27	38, 64, 157, 194	0
32	BB	119/122 (97%)	1.33	32 (26%) 2 2	50, 101, 149, 184	0
32	DB	119/122 (97%)	1.03	23 (19%) 4 2	59, 105, 157, 184	0
33	BD	272/276 (98%)	0.32	22 (8%) 19 11	37, 62, 120, 168	0
33	DD	272/276 (98%)	0.31	15 (5%) 32 18	40, 65, 122, 165	0
34	BE	205/206 (99%)	0.68	23 (11%) 11 7	36, 65, 153, 181	0
34	DE	205/206 (99%)	0.57	24 (11%) 10 6	40, 69, 154, 182	0
35	BF	208/210 (99%)	0.64	19 (9%) 16 9	35, 77, 175, 189	0
35	DF	208/210 (99%)	0.48	13 (6%) 27 15	39, 79, 176, 188	0
36	BG	181/182 (99%)	1.82	63 (34%) 1 1	100, 152, 186, 192	0
36	DG	181/182 (99%)	1.64	60 (33%) 1 1	106, 159, 189, 191	0
37	BH	160/180 (88%)	2.01	62 (38%) 1 1	69, 111, 151, 182	0
37	DH	160/180 (88%)	1.01	20 (12%) 9 5	74, 114, 157, 185	0
38	BI	146/148 (98%)	1.59	43 (29%) 1 1	67, 152, 187, 190	0
38	DI	146/148 (98%)	1.49	36 (24%) 2 2	69, 156, 189, 191	0
39	BN	139/140 (99%)	1.20	28 (20%) 3 2	45, 75, 143, 182	0
39	DN	139/140 (99%)	0.61	14 (10%) 14 8	49, 78, 143, 183	0
40	BO	122/122 (100%)	0.23	2 (1%) 70 49	45, 67, 123, 147	0
40	DO	122/122 (100%)	0.21	7 (5%) 30 17	48, 69, 125, 149	0
41	BP	146/150 (97%)	1.58	43 (29%) 1 1	29, 93, 149, 190	0
41	DP	146/150 (97%)	1.10	36 (24%) 2 2	38, 95, 152, 188	0
42	BQ	136/141 (96%)	1.52	27 (19%) 3 2	50, 77, 147, 183	0
42	DQ	136/141 (96%)	1.05	15 (11%) 12 7	52, 79, 147, 183	0
43	BR	117/118 (99%)	0.55	12 (10%) 13 8	40, 60, 130, 139	0
43	DR	117/118 (99%)	0.41	15 (12%) 9 5	42, 62, 131, 140	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9	
44	BS	99/112 (88%)	1.99	44 (44%)	1 1	54, 111, 148, 165	0
44	DS	99/112 (88%)	1.55	26 (26%)	2 2	62, 113, 154, 170	0
45	BT	132/146 (90%)	1.15	27 (20%)	3 2	55, 87, 154, 181	0
45	DT	132/146 (90%)	0.90	24 (18%)	4 3	58, 90, 156, 179	0
46	BU	117/118 (99%)	0.88	19 (16%)	5 4	40, 62, 124, 176	0
46	DU	117/118 (99%)	0.78	14 (11%)	10 6	44, 67, 130, 175	0
47	BV	101/101 (100%)	2.07	47 (46%)	0 1	38, 103, 176, 188	0
47	DV	101/101 (100%)	1.08	21 (20%)	3 2	44, 109, 177, 188	0
48	BW	113/113 (100%)	0.16	7 (6%)	28 15	38, 51, 112, 179	0
48	DW	113/113 (100%)	0.02	4 (3%)	47 28	41, 54, 119, 181	0
49	BX	93/96 (96%)	1.46	26 (27%)	2 2	47, 74, 145, 179	0
49	DX	93/96 (96%)	1.24	19 (20%)	3 2	52, 76, 146, 179	0
50	BY	101/110 (91%)	2.40	54 (53%)	0 0	57, 107, 184, 192	0
50	DY	101/110 (91%)	1.87	39 (38%)	1 1	60, 108, 183, 193	0
51	BZ	177/206 (85%)	1.47	44 (24%)	2 2	68, 113, 158, 169	0
51	DZ	177/206 (85%)	1.07	32 (18%)	4 3	74, 117, 161, 168	0
All	All	20062/20922 (95%)	0.76	2910 (14%)	7 4	29, 99, 187, 194	0

The worst 5 of 2910 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
42	BQ	140	ALA	31.5
42	BQ	141	GLN	22.9
39	BN	68	GLU	15.9
42	DQ	24	GLY	15.5
42	BQ	24	GLY	14.9

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

There are no non-standard protein/DNA/RNA residues in this entry.

## 6.3 Carbohydrates [i](#)

There are no monosaccharides in this entry.



## 6.4 Ligands i

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
52	MG	DA	3291	1/1	0.56	0.33	86,86,86,86	0
52	MG	BA	3246	1/1	0.59	0.33	75,75,75,75	0
52	MG	DA	3126	1/1	0.62	0.35	73,73,73,73	0
52	MG	CA	1623	1/1	0.65	0.25	67,67,67,67	0
52	MG	DA	3306	1/1	0.66	0.40	87,87,87,87	0
52	MG	AA	1604	1/1	0.67	0.34	95,95,95,95	0
52	MG	BA	3312	1/1	0.68	0.33	87,87,87,87	0
52	MG	AA	1646	1/1	0.69	0.50	82,82,82,82	0
52	MG	DA	3302	1/1	0.70	0.50	86,86,86,86	0
52	MG	DA	3280	1/1	0.71	0.43	77,77,77,77	0
52	MG	DA	3264	1/1	0.71	0.39	80,80,80,80	0
52	MG	DA	3261	1/1	0.72	0.32	95,95,95,95	0
52	MG	DA	3255	1/1	0.72	0.23	75,75,75,75	0
52	MG	BA	3303	1/1	0.73	0.27	68,68,68,68	0
52	MG	DA	3298	1/1	0.73	0.31	71,71,71,71	0
52	MG	DA	3191	1/1	0.73	0.32	91,91,91,91	0
52	MG	CA	1633	1/1	0.73	0.57	87,87,87,87	0
52	MG	AA	1640	1/1	0.74	0.34	83,83,83,83	0
52	MG	DA	3179	1/1	0.74	0.47	77,77,77,77	0
52	MG	CA	1647	1/1	0.74	0.24	84,84,84,84	0
52	MG	DA	3223	1/1	0.74	0.23	65,65,65,65	0
52	MG	CA	1611	1/1	0.75	0.42	81,81,81,81	0
52	MG	DA	3216	1/1	0.75	0.56	85,85,85,85	0
52	MG	DA	3219	1/1	0.75	0.31	75,75,75,75	0
52	MG	CA	1646	1/1	0.76	0.24	80,80,80,80	0
52	MG	DA	3245	1/1	0.76	0.25	78,78,78,78	0
52	MG	DF	301	1/1	0.76	0.27	92,92,92,92	0
52	MG	AA	1627	1/1	0.77	0.25	66,66,66,66	0
52	MG	AA	1641	1/1	0.77	0.17	69,69,69,69	0
52	MG	DA	3146	1/1	0.77	0.26	69,69,69,69	0
54	K	DA	3310	1/1	0.77	0.40	106,106,106,106	0
52	MG	DA	3105	1/1	0.78	0.36	47,47,47,47	0
52	MG	CA	1641	1/1	0.78	0.61	87,87,87,87	0
52	MG	DA	3240	1/1	0.78	0.25	89,89,89,89	0
52	MG	CA	1632	1/1	0.78	0.34	79,79,79,79	0
52	MG	AA	1622	1/1	0.78	0.46	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
52	MG	DA	3308	1/1	0.78	0.31	81,81,81,81	0
52	MG	DA	3020	1/1	0.78	0.29	64,64,64,64	0
52	MG	DA	3102	1/1	0.78	0.27	80,80,80,80	0
52	MG	DA	3289	1/1	0.79	0.41	92,92,92,92	0
52	MG	AA	1645	1/1	0.79	0.28	81,81,81,81	0
52	MG	CA	1620	1/1	0.79	0.29	66,66,66,66	0
52	MG	DA	3250	1/1	0.79	0.17	75,75,75,75	0
52	MG	AA	1633	1/1	0.79	0.17	81,81,81,81	0
52	MG	BA	3097	1/1	0.79	0.15	70,70,70,70	0
52	MG	BA	3330	1/1	0.79	0.46	71,71,71,71	0
52	MG	CA	1607	1/1	0.79	0.36	82,82,82,82	0
52	MG	CA	1630	1/1	0.80	0.30	77,77,77,77	0
52	MG	DA	3294	1/1	0.80	0.15	67,67,67,67	0
52	MG	DA	3001	1/1	0.80	0.32	76,76,76,76	0
52	MG	DA	3247	1/1	0.80	0.42	87,87,87,87	0
52	MG	CA	1609	1/1	0.81	0.14	94,94,94,94	0
52	MG	BA	3031	1/1	0.81	0.31	77,77,77,77	0
52	MG	CA	1637	1/1	0.81	0.37	80,80,80,80	0
52	MG	CA	1638	1/1	0.81	0.28	71,71,71,71	0
52	MG	BA	3148	1/1	0.81	0.24	58,58,58,58	0
52	MG	BA	3082	1/1	0.81	0.34	49,49,49,49	0
52	MG	BA	3302	1/1	0.81	0.22	72,72,72,72	0
52	MG	BA	3076	1/1	0.82	0.25	43,43,43,43	0
52	MG	DA	3246	1/1	0.82	0.31	87,87,87,87	0
52	MG	DA	3211	1/1	0.82	0.31	79,79,79,79	0
52	MG	DA	3125	1/1	0.82	0.42	58,58,58,58	0
52	MG	BA	3307	1/1	0.82	0.41	76,76,76,76	0
52	MG	DA	3222	1/1	0.82	0.30	67,67,67,67	0
52	MG	AA	1636	1/1	0.82	0.25	63,63,63,63	0
52	MG	DA	3266	1/1	0.82	0.28	75,75,75,75	0
54	K	BA	3350	1/1	0.82	0.34	95,95,95,95	0
52	MG	AA	1619	1/1	0.82	0.31	56,56,56,56	0
52	MG	DA	3111	1/1	0.83	0.38	71,71,71,71	0
52	MG	DA	3124	1/1	0.83	0.41	83,83,83,83	0
52	MG	BA	3341	1/1	0.83	0.23	63,63,63,63	0
52	MG	BA	3092	1/1	0.83	0.50	52,52,52,52	0
52	MG	BA	3195	1/1	0.83	0.48	58,58,58,58	0
52	MG	BA	3214	1/1	0.83	0.42	66,66,66,66	0
52	MG	DA	3037	1/1	0.83	0.25	74,74,74,74	0
52	MG	DA	3207	1/1	0.83	0.38	78,78,78,78	0
52	MG	DA	3062	1/1	0.83	0.33	65,65,65,65	0
52	MG	BA	3332	1/1	0.83	0.26	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
52	MG	BA	3336	1/1	0.83	0.32	65,65,65,65	0
52	MG	BA	3039	1/1	0.84	0.37	60,60,60,60	0
52	MG	DA	3115	1/1	0.84	0.42	72,72,72,72	0
52	MG	AA	1651	1/1	0.84	0.25	75,75,75,75	0
52	MG	BA	3249	1/1	0.84	0.15	40,40,40,40	0
52	MG	BA	3259	1/1	0.84	0.30	46,46,46,46	0
52	MG	CA	1605	1/1	0.84	0.36	61,61,61,61	0
52	MG	DA	3265	1/1	0.84	0.35	79,79,79,79	0
52	MG	BA	3298	1/1	0.84	0.27	61,61,61,61	0
52	MG	DA	3190	1/1	0.84	0.31	63,63,63,63	0
52	MG	DA	3288	1/1	0.84	0.25	72,72,72,72	0
52	MG	AA	1638	1/1	0.84	0.18	82,82,82,82	0
52	MG	BA	3157	1/1	0.84	0.41	74,74,74,74	0
52	MG	DA	3208	1/1	0.84	0.39	62,62,62,62	0
52	MG	BA	3190	1/1	0.84	0.21	53,53,53,53	0
52	MG	DA	3029	1/1	0.84	0.23	87,87,87,87	0
52	MG	BA	3087	1/1	0.84	0.23	58,58,58,58	0
52	MG	CA	1625	1/1	0.84	0.40	74,74,74,74	0
52	MG	DA	3100	1/1	0.84	0.24	50,50,50,50	0
52	MG	CA	1628	1/1	0.84	0.34	75,75,75,75	0
52	MG	BA	3321	1/1	0.84	0.35	75,75,75,75	0
52	MG	DA	3178	1/1	0.85	0.23	65,65,65,65	0
52	MG	AA	1650	1/1	0.85	0.21	68,68,68,68	0
52	MG	DA	3070	1/1	0.85	0.47	74,74,74,74	0
52	MG	BA	3229	1/1	0.85	0.20	50,50,50,50	0
52	MG	CA	1644	1/1	0.85	0.35	74,74,74,74	0
52	MG	DA	3279	1/1	0.85	0.21	64,64,64,64	0
52	MG	BA	3235	1/1	0.85	0.34	72,72,72,72	0
52	MG	DA	3209	1/1	0.85	0.23	59,59,59,59	0
52	MG	BA	3180	1/1	0.85	0.30	64,64,64,64	0
52	MG	BA	3121	1/1	0.85	0.31	57,57,57,57	0
52	MG	DA	3013	1/1	0.85	0.46	77,77,77,77	0
52	MG	BA	3074	1/1	0.85	0.31	36,36,36,36	0
52	MG	BA	3289	1/1	0.85	0.23	55,55,55,55	0
52	MG	CA	1616	1/1	0.85	0.30	73,73,73,73	0
52	MG	DA	3149	1/1	0.85	0.19	55,55,55,55	0
52	MG	DA	3309	1/1	0.85	0.29	84,84,84,84	0
52	MG	DA	3153	1/1	0.85	0.29	59,59,59,59	0
52	MG	DA	3166	1/1	0.85	0.28	46,46,46,46	0
52	MG	DA	3175	1/1	0.85	0.48	67,67,67,67	0
52	MG	DA	3079	1/1	0.86	0.24	59,59,59,59	0
52	MG	DA	3249	1/1	0.86	0.41	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
52	MG	DA	3081	1/1	0.86	0.27	43,43,43,43	0
52	MG	CA	1645	1/1	0.86	0.19	97,97,97,97	0
52	MG	BA	3263	1/1	0.86	0.42	62,62,62,62	0
52	MG	BA	3280	1/1	0.86	0.35	75,75,75,75	0
52	MG	DA	3198	1/1	0.86	0.51	70,70,70,70	0
52	MG	BA	3320	1/1	0.86	0.15	54,54,54,54	0
52	MG	DA	3267	1/1	0.86	0.42	72,72,72,72	0
52	MG	AA	1644	1/1	0.86	0.31	99,99,99,99	0
52	MG	CA	1636	1/1	0.86	0.38	79,79,79,79	0
52	MG	DA	3027	1/1	0.86	0.32	61,61,61,61	0
52	MG	AA	1603	1/1	0.86	0.32	62,62,62,62	0
52	MG	DA	3145	1/1	0.86	0.43	88,88,88,88	0
52	MG	AA	1643	1/1	0.86	0.13	78,78,78,78	0
52	MG	BA	3230	1/1	0.86	0.31	38,38,38,38	0
52	MG	DA	3300	1/1	0.86	0.13	75,75,75,75	0
52	MG	DA	3233	1/1	0.86	0.32	68,68,68,68	0
52	MG	DA	3305	1/1	0.86	0.36	76,76,76,76	0
52	MG	DA	3235	1/1	0.86	0.32	79,79,79,79	0
52	MG	DA	3236	1/1	0.86	0.33	67,67,67,67	0
52	MG	DA	3067	1/1	0.86	0.29	81,81,81,81	0
52	MG	DA	3243	1/1	0.86	0.34	70,70,70,70	0
52	MG	BA	3306	1/1	0.86	0.11	56,56,56,56	0
52	MG	DA	3167	1/1	0.86	0.25	48,48,48,48	0
52	MG	DA	3164	1/1	0.87	0.18	71,71,71,71	0
52	MG	BA	3192	1/1	0.87	0.35	58,58,58,58	0
52	MG	BA	3080	1/1	0.87	0.32	34,34,34,34	0
52	MG	BA	3334	1/1	0.87	0.27	53,53,53,53	0
52	MG	AA	1637	1/1	0.87	0.33	69,69,69,69	0
52	MG	CA	1634	1/1	0.87	0.51	87,87,87,87	0
52	MG	DA	3189	1/1	0.87	0.35	63,63,63,63	0
52	MG	BA	3073	1/1	0.87	0.29	53,53,53,53	0
52	MG	BA	3300	1/1	0.87	0.25	59,59,59,59	0
52	MG	DA	3090	1/1	0.87	0.34	76,76,76,76	0
52	MG	CA	1606	1/1	0.87	0.40	72,72,72,72	0
52	MG	DA	3282	1/1	0.87	0.28	62,62,62,62	0
52	MG	DA	3284	1/1	0.87	0.33	65,65,65,65	0
52	MG	CA	1640	1/1	0.87	0.23	68,68,68,68	0
52	MG	BA	3162	1/1	0.87	0.15	47,47,47,47	0
52	MG	BA	3232	1/1	0.87	0.31	70,70,70,70	0
52	MG	DA	3292	1/1	0.87	0.36	75,75,75,75	0
52	MG	BA	3178	1/1	0.87	0.28	78,78,78,78	0
52	MG	DA	3120	1/1	0.87	0.31	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
52	MG	DA	3299	1/1	0.87	0.20	66,66,66,66	0
52	MG	BA	3238	1/1	0.87	0.19	49,49,49,49	0
52	MG	CA	1618	1/1	0.87	0.27	62,62,62,62	0
52	MG	DA	3303	1/1	0.87	0.32	49,49,49,49	0
52	MG	D5	102	1/1	0.87	0.28	79,79,79,79	0
52	MG	DA	3135	1/1	0.87	0.24	71,71,71,71	0
52	MG	CA	1619	1/1	0.87	0.35	75,75,75,75	0
52	MG	AA	1632	1/1	0.87	0.46	72,72,72,72	0
52	MG	BA	3181	1/1	0.87	0.21	51,51,51,51	0
52	MG	DA	3152	1/1	0.87	0.26	43,43,43,43	0
52	MG	AA	1639	1/1	0.87	0.27	95,95,95,95	0
52	MG	DA	3158	1/1	0.88	0.23	61,61,61,61	0
52	MG	DA	3160	1/1	0.88	0.14	59,59,59,59	0
52	MG	BA	3349	1/1	0.88	0.23	61,61,61,61	0
52	MG	DA	3075	1/1	0.88	0.33	55,55,55,55	0
52	MG	DA	3078	1/1	0.88	0.29	46,46,46,46	0
52	MG	BQ	202	1/1	0.88	0.28	59,59,59,59	0
52	MG	CA	1626	1/1	0.88	0.28	78,78,78,78	0
52	MG	DA	3089	1/1	0.88	0.37	47,47,47,47	0
52	MG	DA	3273	1/1	0.88	0.35	75,75,75,75	0
52	MG	DA	3184	1/1	0.88	0.32	63,63,63,63	0
52	MG	BA	3027	1/1	0.88	0.34	42,42,42,42	0
52	MG	DA	3281	1/1	0.88	0.11	30,30,30,30	0
52	MG	DA	3094	1/1	0.88	0.32	56,56,56,56	0
52	MG	BA	3292	1/1	0.88	0.30	60,60,60,60	0
52	MG	DA	3285	1/1	0.88	0.37	66,66,66,66	0
52	MG	D7	101	1/1	0.88	0.22	62,62,62,62	0
52	MG	BA	3240	1/1	0.88	0.34	60,60,60,60	0
52	MG	DA	3110	1/1	0.88	0.34	73,73,73,73	0
52	MG	AA	1613	1/1	0.88	0.19	70,70,70,70	0
52	MG	DA	3114	1/1	0.88	0.33	65,65,65,65	0
52	MG	BA	3034	1/1	0.88	0.29	62,62,62,62	0
52	MG	DA	3025	1/1	0.88	0.40	50,50,50,50	0
52	MG	CA	1615	1/1	0.88	0.38	67,67,67,67	0
52	MG	BA	3095	1/1	0.88	0.32	38,38,38,38	0
52	MG	AA	1649	1/1	0.88	0.20	86,86,86,86	0
52	MG	DA	3129	1/1	0.88	0.19	87,87,87,87	0
52	MG	DA	3039	1/1	0.88	0.25	43,43,43,43	0
52	MG	DA	3043	1/1	0.88	0.28	35,35,35,35	0
52	MG	DA	3057	1/1	0.88	0.29	40,40,40,40	0
52	MG	BA	3237	1/1	0.88	0.18	61,61,61,61	0
52	MG	DA	3066	1/1	0.88	0.25	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
52	MG	BA	3346	1/1	0.88	0.34	80,80,80,80	0
52	MG	BA	3272	1/1	0.89	0.22	51,51,51,51	0
52	MG	DA	3084	1/1	0.89	0.17	54,54,54,54	0
52	MG	DA	3248	1/1	0.89	0.37	74,74,74,74	0
52	MG	DA	3087	1/1	0.89	0.29	55,55,55,55	0
52	MG	CA	1622	1/1	0.89	0.16	78,78,78,78	0
52	MG	BA	3274	1/1	0.89	0.25	81,81,81,81	0
52	MG	DA	3172	1/1	0.89	0.40	64,64,64,64	0
52	MG	DA	3173	1/1	0.89	0.25	65,65,65,65	0
52	MG	BA	3279	1/1	0.89	0.20	50,50,50,50	0
52	MG	DA	3176	1/1	0.89	0.19	78,78,78,78	0
52	MG	BA	3151	1/1	0.89	0.27	74,74,74,74	0
52	MG	DA	3270	1/1	0.89	0.42	65,65,65,65	0
52	MG	DA	3024	1/1	0.89	0.27	61,61,61,61	0
52	MG	DA	3182	1/1	0.89	0.14	55,55,55,55	0
52	MG	BA	3284	1/1	0.89	0.27	71,71,71,71	0
52	MG	BA	3120	1/1	0.89	0.30	52,52,52,52	0
52	MG	BA	3182	1/1	0.89	0.22	68,68,68,68	0
52	MG	DA	3113	1/1	0.89	0.31	62,62,62,62	0
52	MG	BA	3060	1/1	0.89	0.24	40,40,40,40	0
52	MG	DA	3203	1/1	0.89	0.38	67,67,67,67	0
52	MG	CA	1602	1/1	0.89	0.36	70,70,70,70	0
52	MG	DA	3040	1/1	0.89	0.19	43,43,43,43	0
52	MG	BA	3166	1/1	0.89	0.27	39,39,39,39	0
52	MG	BA	3170	1/1	0.89	0.18	69,69,69,69	0
52	MG	DA	3297	1/1	0.89	0.32	74,74,74,74	0
52	MG	BA	3197	1/1	0.89	0.25	52,52,52,52	0
52	MG	BA	3200	1/1	0.89	0.42	59,59,59,59	0
52	MG	BA	3254	1/1	0.89	0.18	53,53,53,53	0
52	MG	BA	3310	1/1	0.89	0.14	47,47,47,47	0
52	MG	DA	3226	1/1	0.89	0.29	64,64,64,64	0
52	MG	DA	3230	1/1	0.89	0.18	56,56,56,56	0
52	MG	BA	3176	1/1	0.89	0.28	48,48,48,48	0
52	MG	DA	3307	1/1	0.89	0.34	80,80,80,80	0
52	MG	DA	3076	1/1	0.89	0.31	55,55,55,55	0
52	MG	DA	3150	1/1	0.89	0.54	77,77,77,77	0
52	MG	BA	3110	1/1	0.89	0.45	45,45,45,45	0
52	MG	BA	3270	1/1	0.89	0.13	50,50,50,50	0
52	MG	DA	3155	1/1	0.89	0.25	62,62,62,62	0
52	MG	BA	3122	1/1	0.90	0.28	40,40,40,40	0
52	MG	BA	3126	1/1	0.90	0.31	50,50,50,50	0
52	MG	BA	3137	1/1	0.90	0.27	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
52	MG	CA	1601	1/1	0.90	0.29	83,83,83,83	0
52	MG	BA	3275	1/1	0.90	0.27	47,47,47,47	0
52	MG	DA	3117	1/1	0.90	0.08	59,59,59,59	0
52	MG	BA	3196	1/1	0.90	0.25	65,65,65,65	0
52	MG	BA	3138	1/1	0.90	0.18	74,74,74,74	0
52	MG	BA	3140	1/1	0.90	0.23	40,40,40,40	0
52	MG	BA	3288	1/1	0.90	0.24	72,72,72,72	0
52	MG	DA	3127	1/1	0.90	0.29	35,35,35,35	0
52	MG	BA	3209	1/1	0.90	0.31	56,56,56,56	0
52	MG	DA	3134	1/1	0.90	0.26	47,47,47,47	0
52	MG	CA	1614	1/1	0.90	0.33	76,76,76,76	0
52	MG	DA	3141	1/1	0.90	0.36	61,61,61,61	0
52	MG	DA	3143	1/1	0.90	0.28	57,57,57,57	0
52	MG	DA	3031	1/1	0.90	0.22	47,47,47,47	0
52	MG	AA	1611	1/1	0.90	0.21	75,75,75,75	0
52	MG	DA	3251	1/1	0.90	0.38	63,63,63,63	0
52	MG	BA	3295	1/1	0.90	0.24	70,70,70,70	0
52	MG	DA	3257	1/1	0.90	0.35	63,63,63,63	0
52	MG	DA	3260	1/1	0.90	0.42	73,73,73,73	0
52	MG	BA	3093	1/1	0.90	0.36	43,43,43,43	0
52	MG	DA	3262	1/1	0.90	0.26	77,77,77,77	0
52	MG	DA	3042	1/1	0.90	0.23	47,47,47,47	0
52	MG	BA	3058	1/1	0.90	0.28	39,39,39,39	0
52	MG	DA	3154	1/1	0.90	0.39	62,62,62,62	0
52	MG	AA	1634	1/1	0.90	0.30	58,58,58,58	0
52	MG	BA	3103	1/1	0.90	0.16	42,42,42,42	0
52	MG	DA	3159	1/1	0.90	0.24	61,61,61,61	0
52	MG	DA	3275	1/1	0.90	0.26	62,62,62,62	0
52	MG	BA	3104	1/1	0.90	0.28	37,37,37,37	0
52	MG	BA	3171	1/1	0.90	0.32	62,62,62,62	0
52	MG	BA	3081	1/1	0.90	0.16	37,37,37,37	0
52	MG	DA	3074	1/1	0.90	0.24	53,53,53,53	0
52	MG	DA	3168	1/1	0.90	0.09	53,53,53,53	0
52	MG	BA	3245	1/1	0.90	0.30	45,45,45,45	0
52	MG	CA	1629	1/1	0.90	0.16	82,82,82,82	0
52	MG	BA	3319	1/1	0.90	0.17	40,40,40,40	0
52	MG	BA	3114	1/1	0.90	0.27	56,56,56,56	0
52	MG	BA	3179	1/1	0.90	0.26	59,59,59,59	0
52	MG	BA	3252	1/1	0.90	0.22	50,50,50,50	0
52	MG	DA	3085	1/1	0.90	0.26	54,54,54,54	0
52	MG	BA	3253	1/1	0.90	0.19	51,51,51,51	0
52	MG	DA	3188	1/1	0.90	0.17	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
52	MG	BA	3116	1/1	0.90	0.23	51,51,51,51	0
52	MG	BA	3066	1/1	0.90	0.26	43,43,43,43	0
52	MG	BA	3338	1/1	0.90	0.22	73,73,73,73	0
52	MG	DA	3197	1/1	0.90	0.24	75,75,75,75	0
52	MG	DA	3098	1/1	0.90	0.14	49,49,49,49	0
52	MG	DA	3201	1/1	0.90	0.22	59,59,59,59	0
52	MG	AA	1614	1/1	0.90	0.12	77,77,77,77	0
52	MG	DA	3205	1/1	0.90	0.40	54,54,54,54	0
52	MG	DD	301	1/1	0.90	0.08	35,35,35,35	0
52	MG	BA	3343	1/1	0.90	0.25	58,58,58,58	0
52	MG	BA	3345	1/1	0.90	0.28	60,60,60,60	0
52	MG	DA	3109	1/1	0.90	0.46	71,71,71,71	0
52	MG	DA	3142	1/1	0.91	0.34	41,41,41,41	0
52	MG	DA	3231	1/1	0.91	0.25	79,79,79,79	0
52	MG	BA	3158	1/1	0.91	0.20	49,49,49,49	0
52	MG	BA	3159	1/1	0.91	0.26	45,45,45,45	0
52	MG	DA	3072	1/1	0.91	0.23	46,46,46,46	0
52	MG	CA	1603	1/1	0.91	0.35	63,63,63,63	0
52	MG	DA	3242	1/1	0.91	0.14	69,69,69,69	0
52	MG	AA	1618	1/1	0.91	0.43	72,72,72,72	0
52	MG	DA	3244	1/1	0.91	0.23	86,86,86,86	0
52	MG	BA	3009	1/1	0.91	0.34	38,38,38,38	0
52	MG	BA	3198	1/1	0.91	0.24	44,44,44,44	0
52	MG	BA	3101	1/1	0.91	0.24	39,39,39,39	0
52	MG	BA	3315	1/1	0.91	0.33	69,69,69,69	0
52	MG	D5	101	1/1	0.91	0.31	47,47,47,47	0
52	MG	CA	1613	1/1	0.91	0.27	80,80,80,80	0
52	MG	BA	3316	1/1	0.91	0.17	56,56,56,56	0
52	MG	DA	3163	1/1	0.91	0.29	68,68,68,68	0
52	MG	BA	3204	1/1	0.91	0.23	46,46,46,46	0
52	MG	DA	3005	1/1	0.91	0.19	73,73,73,73	0
52	MG	DA	3091	1/1	0.91	0.32	41,41,41,41	0
52	MG	DA	3093	1/1	0.91	0.30	64,64,64,64	0
52	MG	DA	3169	1/1	0.91	0.41	51,51,51,51	0
52	MG	AA	1625	1/1	0.91	0.18	73,73,73,73	0
52	MG	DA	3095	1/1	0.91	0.35	53,53,53,53	0
52	MG	DA	3019	1/1	0.91	0.36	42,42,42,42	0
52	MG	BA	3174	1/1	0.91	0.41	57,57,57,57	0
52	MG	BA	3219	1/1	0.91	0.06	38,38,38,38	0
52	MG	DA	3274	1/1	0.91	0.17	63,63,63,63	0
52	MG	DA	3104	1/1	0.91	0.45	48,48,48,48	0
52	MG	DA	3277	1/1	0.91	0.28	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
52	MG	DA	3278	1/1	0.91	0.31	68,68,68,68	0
52	MG	BA	3067	1/1	0.91	0.29	37,37,37,37	0
52	MG	BA	3071	1/1	0.91	0.32	47,47,47,47	0
52	MG	BA	3112	1/1	0.91	0.16	43,43,43,43	0
52	MG	BA	3049	1/1	0.91	0.37	41,41,41,41	0
52	MG	DA	3036	1/1	0.91	0.32	39,39,39,39	0
52	MG	BA	3149	1/1	0.91	0.17	51,51,51,51	0
52	MG	DA	3287	1/1	0.91	0.09	51,51,51,51	0
52	MG	DA	3195	1/1	0.91	0.29	56,56,56,56	0
52	MG	BA	3057	1/1	0.91	0.22	44,44,44,44	0
52	MG	BA	3344	1/1	0.91	0.29	48,48,48,48	0
52	MG	DA	3041	1/1	0.91	0.15	37,37,37,37	0
52	MG	BA	3186	1/1	0.91	0.16	66,66,66,66	0
52	MG	DA	3295	1/1	0.91	0.19	88,88,88,88	0
52	MG	DA	3296	1/1	0.91	0.13	60,60,60,60	0
52	MG	DA	3204	1/1	0.91	0.29	45,45,45,45	0
52	MG	BA	3189	1/1	0.91	0.27	45,45,45,45	0
52	MG	DA	3048	1/1	0.91	0.18	40,40,40,40	0
52	MG	DA	3056	1/1	0.91	0.28	60,60,60,60	0
52	MG	BA	3119	1/1	0.91	0.23	52,52,52,52	0
52	MG	DA	3132	1/1	0.91	0.30	43,43,43,43	0
52	MG	DA	3212	1/1	0.91	0.26	68,68,68,68	0
52	MG	DA	3133	1/1	0.91	0.36	53,53,53,53	0
52	MG	DA	3061	1/1	0.91	0.28	57,57,57,57	0
52	MG	DA	3221	1/1	0.91	0.23	53,53,53,53	0
52	MG	BB	205	1/1	0.91	0.19	78,78,78,78	0
52	MG	DB	202	1/1	0.91	0.28	63,63,63,63	0
52	MG	DA	3140	1/1	0.91	0.20	49,49,49,49	0
52	MG	DA	3225	1/1	0.91	0.12	54,54,54,54	0
52	MG	DR	201	1/1	0.91	0.09	43,43,43,43	0
52	MG	BA	3301	1/1	0.91	0.24	57,57,57,57	0
52	MG	DA	3227	1/1	0.91	0.24	74,74,74,74	0
52	MG	DA	3254	1/1	0.92	0.12	65,65,65,65	0
52	MG	DA	3185	1/1	0.92	0.26	61,61,61,61	0
52	MG	BA	3293	1/1	0.92	0.26	55,55,55,55	0
52	MG	DA	3259	1/1	0.92	0.39	74,74,74,74	0
52	MG	DA	3069	1/1	0.92	0.36	51,51,51,51	0
52	MG	BA	3202	1/1	0.92	0.19	41,41,41,41	0
52	MG	BA	3132	1/1	0.92	0.27	55,55,55,55	0
52	MG	BA	3339	1/1	0.92	0.21	41,41,41,41	0
52	MG	DA	3196	1/1	0.92	0.19	51,51,51,51	0
52	MG	BA	3160	1/1	0.92	0.27	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
52	MG	CA	1621	1/1	0.92	0.22	68,68,68,68	0
52	MG	DA	3268	1/1	0.92	0.54	81,81,81,81	0
52	MG	DA	3077	1/1	0.92	0.40	49,49,49,49	0
52	MG	DA	3017	1/1	0.92	0.16	47,47,47,47	0
52	MG	BA	3183	1/1	0.92	0.24	72,72,72,72	0
52	MG	BA	3184	1/1	0.92	0.24	50,50,50,50	0
52	MG	DA	3083	1/1	0.92	0.24	47,47,47,47	0
52	MG	CA	1624	1/1	0.92	0.31	65,65,65,65	0
52	MG	BA	3223	1/1	0.92	0.29	36,36,36,36	0
52	MG	DA	3026	1/1	0.92	0.41	43,43,43,43	0
52	MG	DA	3147	1/1	0.92	0.12	63,63,63,63	0
52	MG	BA	3304	1/1	0.92	0.49	86,86,86,86	0
52	MG	DA	3283	1/1	0.92	0.49	72,72,72,72	0
52	MG	DA	3218	1/1	0.92	0.34	78,78,78,78	0
52	MG	BA	3134	1/1	0.92	0.23	46,46,46,46	0
52	MG	AA	1626	1/1	0.92	0.33	76,76,76,76	0
52	MG	DA	3092	1/1	0.92	0.16	61,61,61,61	0
52	MG	DA	3032	1/1	0.92	0.36	69,69,69,69	0
52	MG	BA	3309	1/1	0.92	0.28	61,61,61,61	0
52	MG	AA	1608	1/1	0.92	0.26	54,54,54,54	0
52	MG	BA	3233	1/1	0.92	0.11	63,63,63,63	0
52	MG	DA	3228	1/1	0.92	0.10	60,60,60,60	0
52	MG	DA	3229	1/1	0.92	0.07	45,45,45,45	0
52	MG	BA	3277	1/1	0.92	0.36	62,62,62,62	0
52	MG	DA	3161	1/1	0.92	0.33	72,72,72,72	0
52	MG	CA	1604	1/1	0.92	0.21	86,86,86,86	0
52	MG	AA	1629	1/1	0.92	0.30	67,67,67,67	0
52	MG	BA	3007	1/1	0.92	0.26	48,48,48,48	0
52	MG	DA	3238	1/1	0.92	0.37	73,73,73,73	0
52	MG	DA	3108	1/1	0.92	0.18	48,48,48,48	0
52	MG	BA	3041	1/1	0.92	0.23	29,29,29,29	0
52	MG	BA	3068	1/1	0.92	0.26	54,54,54,54	0
52	MG	CA	1610	1/1	0.92	0.12	61,61,61,61	0
52	MG	DA	3112	1/1	0.92	0.28	68,68,68,68	0
52	MG	DA	3058	1/1	0.92	0.18	58,58,58,58	0
52	MG	DA	3059	1/1	0.92	0.23	53,53,53,53	0
52	MG	BA	3329	1/1	0.92	0.26	68,68,68,68	0
52	MG	DA	3116	1/1	0.92	0.24	41,41,41,41	0
52	MG	DX	101	1/1	0.92	0.12	77,77,77,77	0
52	MG	BA	3085	1/1	0.92	0.21	40,40,40,40	0
52	MG	AA	1616	1/1	0.92	0.19	77,77,77,77	0
52	MG	DA	3014	1/1	0.93	0.26	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
52	MG	BA	3150	1/1	0.93	0.36	50,50,50,50	0
52	MG	AA	1615	1/1	0.93	0.34	76,76,76,76	0
52	MG	DA	3162	1/1	0.93	0.26	69,69,69,69	0
52	MG	BA	3152	1/1	0.93	0.33	61,61,61,61	0
52	MG	DA	3023	1/1	0.93	0.13	47,47,47,47	0
52	MG	CA	1617	1/1	0.93	0.27	61,61,61,61	0
52	MG	BA	3324	1/1	0.93	0.25	59,59,59,59	0
52	MG	BA	3328	1/1	0.93	0.20	65,65,65,65	0
52	MG	B5	102	1/1	0.93	0.20	56,56,56,56	0
52	MG	BA	3187	1/1	0.93	0.28	42,42,42,42	0
52	MG	DA	3096	1/1	0.93	0.19	45,45,45,45	0
52	MG	BA	3282	1/1	0.93	0.18	67,67,67,67	0
52	MG	BA	3283	1/1	0.93	0.14	53,53,53,53	0
52	MG	DA	3035	1/1	0.93	0.38	54,54,54,54	0
52	MG	BA	3234	1/1	0.93	0.26	45,45,45,45	0
52	MG	BA	3285	1/1	0.93	0.31	57,57,57,57	0
52	MG	DA	3106	1/1	0.93	0.32	76,76,76,76	0
52	MG	DA	3038	1/1	0.93	0.25	48,48,48,48	0
52	MG	BA	3005	1/1	0.93	0.22	47,47,47,47	0
52	MG	BA	3096	1/1	0.93	0.21	55,55,55,55	0
52	MG	BA	3047	1/1	0.93	0.23	21,21,21,21	0
52	MG	BA	3129	1/1	0.93	0.07	18,18,18,18	0
52	MG	BA	3244	1/1	0.93	0.21	40,40,40,40	0
52	MG	DA	3045	1/1	0.93	0.31	39,39,39,39	0
52	MG	DA	3047	1/1	0.93	0.29	45,45,45,45	0
52	MG	BA	3296	1/1	0.93	0.41	67,67,67,67	0
52	MG	DA	3052	1/1	0.93	0.28	63,63,63,63	0
52	MG	DA	3119	1/1	0.93	0.11	64,64,64,64	0
52	MG	DA	3054	1/1	0.93	0.19	36,36,36,36	0
52	MG	DA	3122	1/1	0.93	0.20	61,61,61,61	0
52	MG	AA	1606	1/1	0.93	0.36	73,73,73,73	0
52	MG	BA	3008	1/1	0.93	0.30	34,34,34,34	0
52	MG	BP	201	1/1	0.93	0.14	13,13,13,13	0
52	MG	AA	1647	1/1	0.93	0.19	66,66,66,66	0
52	MG	BA	3250	1/1	0.93	0.26	54,54,54,54	0
52	MG	DA	3290	1/1	0.93	0.28	52,52,52,52	0
52	MG	DA	3214	1/1	0.93	0.13	65,65,65,65	0
52	MG	DA	3215	1/1	0.93	0.27	59,59,59,59	0
52	MG	BA	3013	1/1	0.93	0.19	21,21,21,21	0
52	MG	DA	3064	1/1	0.93	0.23	68,68,68,68	0
52	MG	DA	3065	1/1	0.93	0.12	49,49,49,49	0
52	MG	CA	1642	1/1	0.93	0.20	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
52	MG	DA	3138	1/1	0.93	0.21	50,50,50,50	0
52	MG	AA	1605	1/1	0.93	0.23	75,75,75,75	0
52	MG	DA	3068	1/1	0.93	0.30	49,49,49,49	0
52	MG	BA	3305	1/1	0.93	0.26	54,54,54,54	0
52	MG	BA	3142	1/1	0.93	0.37	39,39,39,39	0
52	MG	DA	3071	1/1	0.93	0.22	40,40,40,40	0
52	MG	BA	3257	1/1	0.93	0.19	48,48,48,48	0
52	MG	BA	3258	1/1	0.93	0.22	61,61,61,61	0
52	MG	BA	3205	1/1	0.93	0.21	55,55,55,55	0
52	MG	BA	3144	1/1	0.93	0.21	53,53,53,53	0
52	MG	DA	3234	1/1	0.93	0.22	60,60,60,60	0
52	MG	DB	203	1/1	0.93	0.31	56,56,56,56	0
52	MG	DA	3151	1/1	0.93	0.31	72,72,72,72	0
52	MG	AA	1609	1/1	0.93	0.27	51,51,51,51	0
52	MG	DQ	201	1/1	0.93	0.28	78,78,78,78	0
52	MG	DA	3004	1/1	0.93	0.28	49,49,49,49	0
52	MG	CA	1612	1/1	0.93	0.15	77,77,77,77	0
52	MG	DA	3012	1/1	0.93	0.13	23,23,23,23	0
52	MG	BA	3088	1/1	0.93	0.11	10,10,10,10	0
55	ZIT	DA	3311	52/52	0.93	0.20	100,100,100,100	0
52	MG	BB	203	1/1	0.94	0.21	41,41,41,41	0
52	MG	BA	3023	1/1	0.94	0.20	34,34,34,34	0
52	MG	BF	301	1/1	0.94	0.07	62,62,62,62	0
52	MG	DA	3009	1/1	0.94	0.28	54,54,54,54	0
52	MG	DA	3082	1/1	0.94	0.11	17,17,17,17	0
52	MG	BA	3217	1/1	0.94	0.25	50,50,50,50	0
52	MG	AA	1607	1/1	0.94	0.31	74,74,74,74	0
52	MG	BA	3164	1/1	0.94	0.20	47,47,47,47	0
52	MG	BA	3224	1/1	0.94	0.07	40,40,40,40	0
52	MG	DA	3088	1/1	0.94	0.30	34,34,34,34	0
52	MG	BA	3227	1/1	0.94	0.07	39,39,39,39	0
52	MG	DA	3252	1/1	0.94	0.39	66,66,66,66	0
52	MG	DA	3165	1/1	0.94	0.15	52,52,52,52	0
52	MG	BA	3228	1/1	0.94	0.34	69,69,69,69	0
52	MG	DA	3022	1/1	0.94	0.33	47,47,47,47	0
52	MG	DA	3258	1/1	0.94	0.09	61,61,61,61	0
52	MG	BA	3165	1/1	0.94	0.29	50,50,50,50	0
52	MG	BA	3297	1/1	0.94	0.31	61,61,61,61	0
52	MG	DA	3171	1/1	0.94	0.26	43,43,43,43	0
52	MG	BA	3028	1/1	0.94	0.36	28,28,28,28	0
52	MG	AA	1635	1/1	0.94	0.42	63,63,63,63	0
52	MG	AA	1628	1/1	0.94	0.31	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
52	MG	DA	3097	1/1	0.94	0.18	44,44,44,44	0
52	MG	DA	3177	1/1	0.94	0.37	61,61,61,61	0
52	MG	BA	3125	1/1	0.94	0.17	46,46,46,46	0
52	MG	DA	3269	1/1	0.94	0.09	61,61,61,61	0
52	MG	DA	3099	1/1	0.94	0.34	46,46,46,46	0
52	MG	DA	3272	1/1	0.94	0.22	74,74,74,74	0
52	MG	BA	3038	1/1	0.94	0.32	25,25,25,25	0
52	MG	BA	3236	1/1	0.94	0.49	70,70,70,70	0
52	MG	DA	3034	1/1	0.94	0.29	39,39,39,39	0
52	MG	DA	3276	1/1	0.94	0.16	70,70,70,70	0
52	MG	BA	3128	1/1	0.94	0.30	54,54,54,54	0
52	MG	B7	101	1/1	0.94	0.07	37,37,37,37	0
52	MG	BA	3001	1/1	0.94	0.27	49,49,49,49	0
52	MG	BA	3133	1/1	0.94	0.27	35,35,35,35	0
52	MG	BA	3003	1/1	0.94	0.12	43,43,43,43	0
52	MG	BA	3089	1/1	0.94	0.21	26,26,26,26	0
52	MG	BA	3313	1/1	0.94	0.30	54,54,54,54	0
52	MG	AA	1623	1/1	0.94	0.27	54,54,54,54	0
52	MG	BA	3139	1/1	0.94	0.22	24,24,24,24	0
52	MG	DA	3286	1/1	0.94	0.23	58,58,58,58	0
52	MG	DA	3202	1/1	0.94	0.17	40,40,40,40	0
52	MG	BA	3054	1/1	0.94	0.17	68,68,68,68	0
52	MG	BA	3188	1/1	0.94	0.30	62,62,62,62	0
52	MG	BA	3141	1/1	0.94	0.23	27,27,27,27	0
52	MG	DA	3049	1/1	0.94	0.25	35,35,35,35	0
52	MG	BA	3094	1/1	0.94	0.29	52,52,52,52	0
52	MG	DA	3121	1/1	0.94	0.12	37,37,37,37	0
52	MG	BA	3326	1/1	0.94	0.10	54,54,54,54	0
52	MG	DA	3055	1/1	0.94	0.23	42,42,42,42	0
52	MG	BA	3327	1/1	0.94	0.20	47,47,47,47	0
52	MG	AA	1631	1/1	0.94	0.11	60,60,60,60	0
52	MG	AA	1617	1/1	0.94	0.36	64,64,64,64	0
52	MG	BA	3262	1/1	0.94	0.27	75,75,75,75	0
52	MG	DA	3301	1/1	0.94	0.22	57,57,57,57	0
52	MG	BA	3331	1/1	0.94	0.21	46,46,46,46	0
52	MG	AA	1648	1/1	0.94	0.39	62,62,62,62	0
52	MG	DA	3304	1/1	0.94	0.24	52,52,52,52	0
52	MG	BA	3063	1/1	0.94	0.26	48,48,48,48	0
52	MG	BA	3271	1/1	0.94	0.25	46,46,46,46	0
52	MG	DA	3224	1/1	0.94	0.17	68,68,68,68	0
52	MG	BA	3010	1/1	0.94	0.27	38,38,38,38	0
52	MG	BA	3011	1/1	0.94	0.14	7,7,7,7	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
52	MG	BA	3156	1/1	0.94	0.28	53,53,53,53	0
52	MG	BA	3342	1/1	0.94	0.20	49,49,49,49	0
52	MG	AA	1621	1/1	0.94	0.30	46,46,46,46	0
52	MG	DA	3144	1/1	0.94	0.18	47,47,47,47	0
52	MG	BA	3069	1/1	0.94	0.22	18,18,18,18	0
52	MG	BA	3208	1/1	0.94	0.06	23,23,23,23	0
52	MG	DA	3073	1/1	0.94	0.20	42,42,42,42	0
52	MG	BA	3015	1/1	0.94	0.20	48,48,48,48	0
52	MG	BA	3348	1/1	0.94	0.20	61,61,61,61	0
55	ZIT	BA	3351	52/52	0.94	0.20	100,100,100,100	0
52	MG	BA	3211	1/1	0.94	0.13	39,39,39,39	0
52	MG	BA	3194	1/1	0.95	0.34	44,44,44,44	0
52	MG	BA	3078	1/1	0.95	0.20	34,34,34,34	0
52	MG	AA	1610	1/1	0.95	0.31	65,65,65,65	0
52	MG	BA	3098	1/1	0.95	0.24	46,46,46,46	0
52	MG	BA	3019	1/1	0.95	0.24	24,24,24,24	0
52	MG	BA	3311	1/1	0.95	0.15	46,46,46,46	0
52	MG	BA	3161	1/1	0.95	0.21	42,42,42,42	0
52	MG	DA	3030	1/1	0.95	0.29	42,42,42,42	0
52	MG	BA	3255	1/1	0.95	0.16	45,45,45,45	0
52	MG	BA	3256	1/1	0.95	0.33	63,63,63,63	0
52	MG	DA	3033	1/1	0.95	0.21	44,44,44,44	0
52	MG	BA	3102	1/1	0.95	0.15	24,24,24,24	0
52	MG	DA	3174	1/1	0.95	0.40	63,63,63,63	0
52	MG	DA	3101	1/1	0.95	0.25	43,43,43,43	0
52	MG	BA	3203	1/1	0.95	0.26	35,35,35,35	0
52	MG	BA	3065	1/1	0.95	0.22	32,32,32,32	0
52	MG	AA	1624	1/1	0.95	0.35	56,56,56,56	0
52	MG	BA	3135	1/1	0.95	0.15	8,8,8,8	0
52	MG	DA	3181	1/1	0.95	0.20	50,50,50,50	0
52	MG	BA	3269	1/1	0.95	0.11	55,55,55,55	0
52	MG	BA	3167	1/1	0.95	0.41	52,52,52,52	0
52	MG	BA	3210	1/1	0.95	0.21	37,37,37,37	0
52	MG	DA	3186	1/1	0.95	0.19	63,63,63,63	0
52	MG	DA	3187	1/1	0.95	0.12	52,52,52,52	0
52	MG	BA	3105	1/1	0.95	0.33	46,46,46,46	0
52	MG	BA	3273	1/1	0.95	0.26	58,58,58,58	0
52	MG	BA	3107	1/1	0.95	0.11	34,34,34,34	0
52	MG	CA	1627	1/1	0.95	0.08	66,66,66,66	0
52	MG	DA	3194	1/1	0.95	0.29	60,60,60,60	0
52	MG	BA	3045	1/1	0.95	0.21	26,26,26,26	0
52	MG	BA	3333	1/1	0.95	0.27	80,80,80,80	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
52	MG	BA	3111	1/1	0.95	0.08	19,19,19,19	0
52	MG	DA	3118	1/1	0.95	0.16	66,66,66,66	0
52	MG	DA	3199	1/1	0.95	0.13	47,47,47,47	0
52	MG	DA	3200	1/1	0.95	0.26	50,50,50,50	0
52	MG	BA	3335	1/1	0.95	0.28	52,52,52,52	0
52	MG	BA	3278	1/1	0.95	0.13	41,41,41,41	0
52	MG	BA	3337	1/1	0.95	0.37	58,58,58,58	0
52	MG	CA	1635	1/1	0.95	0.08	86,86,86,86	0
52	MG	BA	3177	1/1	0.95	0.22	52,52,52,52	0
52	MG	AA	1601	1/1	0.95	0.21	58,58,58,58	0
52	MG	BA	3226	1/1	0.95	0.14	32,32,32,32	0
52	MG	BA	3113	1/1	0.95	0.25	26,26,26,26	0
52	MG	BA	3143	1/1	0.95	0.18	30,30,30,30	0
52	MG	B1	101	1/1	0.95	0.14	39,39,39,39	0
52	MG	BA	3287	1/1	0.95	0.33	58,58,58,58	0
52	MG	BA	3145	1/1	0.95	0.24	40,40,40,40	0
52	MG	BA	3347	1/1	0.95	0.21	66,66,66,66	0
52	MG	DA	3217	1/1	0.95	0.34	62,62,62,62	0
52	MG	BA	3146	1/1	0.95	0.23	42,42,42,42	0
52	MG	DA	3139	1/1	0.95	0.21	68,68,68,68	0
52	MG	CA	1648	1/1	0.95	0.21	79,79,79,79	0
52	MG	D0	101	1/1	0.95	0.18	62,62,62,62	0
52	MG	D1	101	1/1	0.95	0.19	50,50,50,50	0
52	MG	BA	3090	1/1	0.95	0.19	38,38,38,38	0
52	MG	BA	3185	1/1	0.95	0.18	14,14,14,14	0
52	MG	BA	3118	1/1	0.95	0.29	59,59,59,59	0
52	MG	BD	301	1/1	0.95	0.14	43,43,43,43	0
52	MG	BA	3050	1/1	0.95	0.24	38,38,38,38	0
52	MG	AA	1612	1/1	0.95	0.24	66,66,66,66	0
52	MG	DA	3006	1/1	0.95	0.28	39,39,39,39	0
52	MG	DB	201	1/1	0.95	0.28	52,52,52,52	0
52	MG	BA	3014	1/1	0.95	0.28	32,32,32,32	0
52	MG	DA	3232	1/1	0.95	0.17	72,72,72,72	0
52	MG	BX	101	1/1	0.95	0.12	61,61,61,61	0
52	MG	BA	3155	1/1	0.95	0.19	41,41,41,41	0
52	MG	DP	201	1/1	0.95	0.10	50,50,50,50	0
52	MG	BA	3241	1/1	0.95	0.24	79,79,79,79	0
52	MG	BA	3242	1/1	0.95	0.17	48,48,48,48	0
52	MG	DA	3237	1/1	0.95	0.12	53,53,53,53	0
52	MG	DA	3157	1/1	0.95	0.41	65,65,65,65	0
52	MG	DA	3086	1/1	0.95	0.24	38,38,38,38	0
52	MG	BA	3191	1/1	0.95	0.33	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
52	MG	BA	3036	1/1	0.95	0.06	0,0,0,0	0
52	MG	DA	3256	1/1	0.96	0.13	57,57,57,57	0
52	MG	BA	3084	1/1	0.96	0.04	14,14,14,14	0
52	MG	DA	3010	1/1	0.96	0.22	31,31,31,31	0
52	MG	DA	3011	1/1	0.96	0.27	50,50,50,50	0
52	MG	BA	3070	1/1	0.96	0.23	35,35,35,35	0
52	MG	DA	3128	1/1	0.96	0.42	51,51,51,51	0
52	MG	BA	3216	1/1	0.96	0.32	43,43,43,43	0
52	MG	DA	3263	1/1	0.96	0.19	67,67,67,67	0
52	MG	DA	3130	1/1	0.96	0.26	43,43,43,43	0
52	MG	BA	3294	1/1	0.96	0.32	65,65,65,65	0
52	MG	BA	3044	1/1	0.96	0.20	26,26,26,26	0
52	MG	DA	3018	1/1	0.96	0.31	32,32,32,32	0
52	MG	BA	3072	1/1	0.96	0.16	24,24,24,24	0
52	MG	DA	3136	1/1	0.96	0.30	59,59,59,59	0
52	MG	DA	3137	1/1	0.96	0.27	38,38,38,38	0
52	MG	BA	3221	1/1	0.96	0.33	40,40,40,40	0
52	MG	AA	1630	1/1	0.96	0.33	59,59,59,59	0
52	MG	BA	3299	1/1	0.96	0.36	58,58,58,58	0
52	MG	DA	3206	1/1	0.96	0.08	48,48,48,48	0
52	MG	DA	3080	1/1	0.96	0.32	40,40,40,40	0
52	MG	BA	3029	1/1	0.96	0.15	26,26,26,26	0
52	MG	BA	3163	1/1	0.96	0.32	47,47,47,47	0
52	MG	DA	3210	1/1	0.96	0.17	63,63,63,63	0
52	MG	BA	3124	1/1	0.96	0.07	42,42,42,42	0
52	MG	BA	3025	1/1	0.96	0.20	54,54,54,54	0
52	MG	DA	3028	1/1	0.96	0.19	39,39,39,39	0
52	MG	BA	3265	1/1	0.96	0.32	63,63,63,63	0
52	MG	BA	3268	1/1	0.96	0.09	40,40,40,40	0
52	MG	BA	3109	1/1	0.96	0.31	34,34,34,34	0
52	MG	BA	3077	1/1	0.96	0.27	28,28,28,28	0
52	MG	CA	1631	1/1	0.96	0.45	70,70,70,70	0
52	MG	BA	3308	1/1	0.96	0.34	64,64,64,64	0
52	MG	BB	201	1/1	0.96	0.28	42,42,42,42	0
52	MG	BB	202	1/1	0.96	0.18	30,30,30,30	0
52	MG	BA	3231	1/1	0.96	0.33	52,52,52,52	0
52	MG	BA	3168	1/1	0.96	0.12	43,43,43,43	0
52	MG	BA	3169	1/1	0.96	0.24	46,46,46,46	0
52	MG	BA	3040	1/1	0.96	0.41	51,51,51,51	0
52	MG	CA	1639	1/1	0.96	0.25	64,64,64,64	0
52	MG	BA	3130	1/1	0.96	0.15	26,26,26,26	0
52	MG	BA	3314	1/1	0.96	0.11	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
52	MG	DA	3044	1/1	0.96	0.24	46,46,46,46	0
52	MG	BU	201	1/1	0.96	0.17	26,26,26,26	0
52	MG	DA	3103	1/1	0.96	0.50	70,70,70,70	0
52	MG	DA	3046	1/1	0.96	0.21	28,28,28,28	0
52	MG	CA	1643	1/1	0.96	0.32	62,62,62,62	0
52	MG	BA	3276	1/1	0.96	0.34	55,55,55,55	0
52	MG	DA	3170	1/1	0.96	0.24	53,53,53,53	0
52	MG	BA	3172	1/1	0.96	0.25	64,64,64,64	0
52	MG	DA	3239	1/1	0.96	0.17	59,59,59,59	0
52	MG	DA	3050	1/1	0.96	0.21	42,42,42,42	0
52	MG	DA	3241	1/1	0.96	0.20	60,60,60,60	0
52	MG	BA	3317	1/1	0.96	0.10	41,41,41,41	0
52	MG	BA	3051	1/1	0.96	0.19	14,14,14,14	0
52	MG	BA	3201	1/1	0.96	0.20	29,29,29,29	0
52	MG	BA	3175	1/1	0.96	0.18	49,49,49,49	0
52	MG	BA	3323	1/1	0.96	0.11	64,64,64,64	0
52	MG	BA	3022	1/1	0.96	0.24	49,49,49,49	0
52	MG	CA	1608	1/1	0.96	0.27	51,51,51,51	0
52	MG	BA	3043	1/1	0.96	0.10	36,36,36,36	0
52	MG	DU	201	1/1	0.96	0.19	60,60,60,60	0
52	MG	BA	3153	1/1	0.96	0.27	25,25,25,25	0
53	ZN	AD	301	1/1	0.96	0.22	108,108,108,108	0
52	MG	BA	3154	1/1	0.96	0.14	32,32,32,32	0
52	MG	BA	3115	1/1	0.96	0.29	49,49,49,49	0
52	MG	BA	3136	1/1	0.96	0.28	32,32,32,32	0
52	MG	DA	3007	1/1	0.96	0.16	39,39,39,39	0
52	MG	BA	3239	1/1	0.97	0.24	48,48,48,48	0
52	MG	BA	3206	1/1	0.97	0.21	29,29,29,29	0
52	MG	BA	3325	1/1	0.97	0.26	43,43,43,43	0
52	MG	BA	3207	1/1	0.97	0.10	23,23,23,23	0
52	MG	AA	1620	1/1	0.97	0.15	73,73,73,73	0
52	MG	DA	3271	1/1	0.97	0.08	46,46,46,46	0
52	MG	DA	3213	1/1	0.97	0.25	36,36,36,36	0
52	MG	DA	3003	1/1	0.97	0.28	56,56,56,56	0
52	MG	BA	3243	1/1	0.97	0.10	58,58,58,58	0
52	MG	BA	3064	1/1	0.97	0.16	28,28,28,28	0
52	MG	DA	3107	1/1	0.97	0.28	38,38,38,38	0
52	MG	BA	3086	1/1	0.97	0.13	18,18,18,18	0
52	MG	BA	3018	1/1	0.97	0.11	26,26,26,26	0
52	MG	DA	3220	1/1	0.97	0.18	62,62,62,62	0
52	MG	BA	3291	1/1	0.97	0.38	54,54,54,54	0
52	MG	BA	3248	1/1	0.97	0.05	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
52	MG	DA	3063	1/1	0.97	0.18	47,47,47,47	0
52	MG	BA	3212	1/1	0.97	0.24	30,30,30,30	0
52	MG	BA	3213	1/1	0.97	0.29	32,32,32,32	0
52	MG	BA	3251	1/1	0.97	0.08	35,35,35,35	0
52	MG	B5	101	1/1	0.97	0.09	27,27,27,27	0
52	MG	DA	3016	1/1	0.97	0.34	56,56,56,56	0
52	MG	BA	3046	1/1	0.97	0.19	37,37,37,37	0
52	MG	BA	3020	1/1	0.97	0.28	38,38,38,38	0
52	MG	BA	3340	1/1	0.97	0.30	62,62,62,62	0
52	MG	BA	3218	1/1	0.97	0.25	33,33,33,33	0
52	MG	BA	3048	1/1	0.97	0.26	30,30,30,30	0
52	MG	DA	3293	1/1	0.97	0.23	53,53,53,53	0
52	MG	DA	3123	1/1	0.97	0.13	61,61,61,61	0
52	MG	BA	3220	1/1	0.97	0.23	27,27,27,27	0
52	MG	BA	3004	1/1	0.97	0.17	23,23,23,23	0
52	MG	BA	3117	1/1	0.97	0.30	39,39,39,39	0
52	MG	BA	3037	1/1	0.97	0.15	14,14,14,14	0
52	MG	BA	3225	1/1	0.97	0.20	33,33,33,33	0
52	MG	DA	3183	1/1	0.97	0.22	44,44,44,44	0
52	MG	BA	3264	1/1	0.97	0.16	35,35,35,35	0
52	MG	AA	1602	1/1	0.97	0.27	37,37,37,37	0
52	MG	DA	3131	1/1	0.97	0.26	47,47,47,47	0
52	MG	BA	3267	1/1	0.97	0.23	38,38,38,38	0
52	MG	BA	3052	1/1	0.97	0.17	15,15,15,15	0
52	MG	BA	3053	1/1	0.97	0.19	15,15,15,15	0
52	MG	BA	3006	1/1	0.97	0.23	29,29,29,29	0
52	MG	BA	3123	1/1	0.97	0.20	22,22,22,22	0
52	MG	DA	3192	1/1	0.97	0.27	55,55,55,55	0
52	MG	DA	3193	1/1	0.97	0.31	50,50,50,50	0
52	MG	BE	301	1/1	0.97	0.22	29,29,29,29	0
52	MG	BA	3100	1/1	0.97	0.15	21,21,21,21	0
52	MG	BA	3173	1/1	0.97	0.21	24,24,24,24	0
52	MG	DE	301	1/1	0.97	0.17	40,40,40,40	0
52	MG	BP	202	1/1	0.97	0.25	58,58,58,58	0
52	MG	BQ	201	1/1	0.97	0.04	32,32,32,32	0
52	MG	BA	3026	1/1	0.97	0.12	49,49,49,49	0
52	MG	BR	201	1/1	0.97	0.10	20,20,20,20	0
52	MG	AA	1642	1/1	0.97	0.24	51,51,51,51	0
52	MG	BA	3127	1/1	0.97	0.10	50,50,50,50	0
52	MG	BA	3059	1/1	0.97	0.24	39,39,39,39	0
53	ZN	AN	101	1/1	0.97	0.05	159,159,159,159	0
53	ZN	CD	301	1/1	0.97	0.17	93,93,93,93	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
53	ZN	CN	101	1/1	0.97	0.06	157,157,157,157	0
52	MG	BA	3042	1/1	0.97	0.18	15,15,15,15	0
52	MG	DA	3148	1/1	0.97	0.21	48,48,48,48	0
52	MG	BA	3062	1/1	0.97	0.32	44,44,44,44	0
52	MG	BA	3322	1/1	0.97	0.13	20,20,20,20	0
52	MG	BA	3033	1/1	0.98	0.06	20,20,20,20	0
52	MG	BA	3290	1/1	0.98	0.24	47,47,47,47	0
52	MG	B0	101	1/1	0.98	0.17	34,34,34,34	0
52	MG	BA	3247	1/1	0.98	0.03	40,40,40,40	0
52	MG	BA	3061	1/1	0.98	0.06	23,23,23,23	0
52	MG	DA	3021	1/1	0.98	0.23	47,47,47,47	0
52	MG	BA	3035	1/1	0.98	0.11	21,21,21,21	0
52	MG	BA	3099	1/1	0.98	0.15	26,26,26,26	0
52	MG	DA	3053	1/1	0.98	0.45	51,51,51,51	0
52	MG	BA	3318	1/1	0.98	0.28	60,60,60,60	0
52	MG	BA	3147	1/1	0.98	0.04	12,12,12,12	0
52	MG	BA	3002	1/1	0.98	0.20	20,20,20,20	0
52	MG	BA	3016	1/1	0.98	0.13	21,21,21,21	0
52	MG	BA	3199	1/1	0.98	0.32	49,49,49,49	0
52	MG	DA	3180	1/1	0.98	0.25	52,52,52,52	0
52	MG	BA	3075	1/1	0.98	0.17	26,26,26,26	0
52	MG	DA	3060	1/1	0.98	0.04	34,34,34,34	0
52	MG	DA	3002	1/1	0.98	0.34	38,38,38,38	0
52	MG	BA	3030	1/1	0.98	0.11	17,17,17,17	0
52	MG	BA	3056	1/1	0.98	0.07	20,20,20,20	0
52	MG	BA	3091	1/1	0.98	0.15	9,9,9,9	0
52	MG	BA	3281	1/1	0.98	0.33	46,46,46,46	0
52	MG	DA	3156	1/1	0.98	0.34	44,44,44,44	0
52	MG	DA	3253	1/1	0.98	0.26	50,50,50,50	0
52	MG	BA	3222	1/1	0.98	0.16	23,23,23,23	0
52	MG	DA	3008	1/1	0.98	0.42	52,52,52,52	0
52	MG	BA	3261	1/1	0.98	0.13	38,38,38,38	0
52	MG	BB	204	1/1	0.98	0.38	56,56,56,56	0
52	MG	BA	3106	1/1	0.98	0.11	12,12,12,12	0
52	MG	BA	3021	1/1	0.98	0.14	16,16,16,16	0
52	MG	BA	3079	1/1	0.98	0.13	0,0,0,0	0
52	MG	BA	3032	1/1	0.98	0.20	15,15,15,15	0
52	MG	DA	3015	1/1	0.98	0.11	23,23,23,23	0
52	MG	BA	3266	1/1	0.99	0.22	35,35,35,35	0
52	MG	BA	3108	1/1	0.99	0.29	56,56,56,56	0
52	MG	BA	3012	1/1	0.99	0.13	22,22,22,22	0
52	MG	BA	3017	1/1	0.99	0.26	32,32,32,32	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
52	MG	BA	3260	1/1	0.99	0.18	42,42,42,42	0
52	MG	BA	3131	1/1	0.99	0.11	45,45,45,45	0
52	MG	BA	3055	1/1	0.99	0.19	19,19,19,19	0
52	MG	BP	203	1/1	0.99	0.09	0,0,0,0	0
52	MG	DA	3051	1/1	0.99	0.20	26,26,26,26	0
52	MG	BA	3193	1/1	0.99	0.20	28,28,28,28	0
52	MG	BA	3215	1/1	0.99	0.18	36,36,36,36	0
52	MG	BA	3083	1/1	0.99	0.07	5,5,5,5	0
52	MG	BA	3286	1/1	0.99	0.03	45,45,45,45	0
52	MG	BA	3024	1/1	1.00	0.04	2,2,2,2	0

## 6.5 Other polymers [i](#)

There are no such residues in this entry.