wwPDB X-ray Structure Validation Summary Report (i)

Oct 10, 2023 – 12:21 AM EDT

PDB ID	:	5J91
Title	:	Structure of the Wild-type 70S E coli ribosome bound to Tigecycline
Authors	:	Cocozaki, A.; Ferguson, A.
Deposited on	:	2016-04-08
Resolution	:	2.96 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*
A user guide is available at
https://www.wwpdb.org/validation/2017/XrayValidationReportHelp
with specific help available everywhere you see the (i) symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

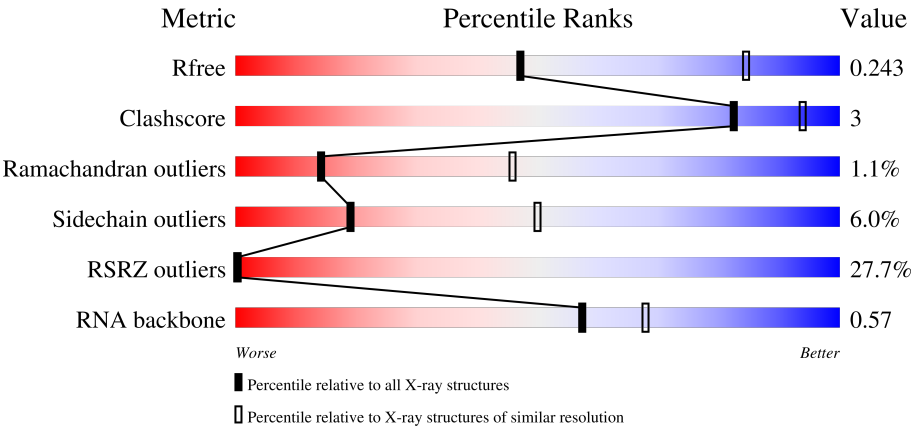
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.35.1
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.35.1

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 2.96 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	3104 (3.00-2.92)
Clashscore	141614	3462 (3.00-2.92)
Ramachandran outliers	138981	3340 (3.00-2.92)
Sidechain outliers	138945	3343 (3.00-2.92)
RSRZ outliers	127900	2986 (3.00-2.92)
RNA backbone	3102	1065 (3.22-2.70)

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

Mol	Chain	Length	Quality of chain
1	AA	1534	7% 78% 20% .
1	BA	1534	26% 77% 20% .
2	AB	224	32% 88% 11% .
2	BB	224	35% 85% 13% .

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Mol	Chain	Length	Quality of chain
3	AC	206	15% 86% 13%
3	BC	206	56% 83% 17%
4	AD	205	9% 88% 10%
4	BD	205	84% 15%
5	AE	155	8% 81% 17%
5	BE	155	21% 63% 29% 5%
6	AF	106	18% 85% 15%
6	BF	106	14% 70% 24% 6%
7	AG	151	42% 87% 12%
7	BG	151	83% 86% 14%
8	AH	129	7% 81% 19%
8	BH	129	19% 85% 15%
9	AI	127	46% 90% 9%
9	BI	127	61% 90% 9%
10	AJ	99	41% 75% 24%
10	BJ	99	79% 73% 23%
11	AK	117	30% 80% 18%
11	BK	117	28% 74% 22%
12	AL	123	3% 85% 13%
12	BL	123	25% 83% 11% 6%
13	AM	114	50% 80% 17%
13	BM	114	91% 78% 19%
14	AN	100	37% 88% 12%
14	BN	100	75% 88% 12%
15	AO	88	11% 92% 8%

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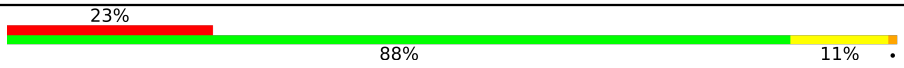
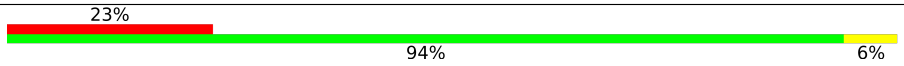
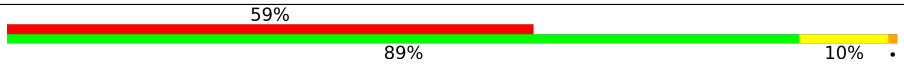
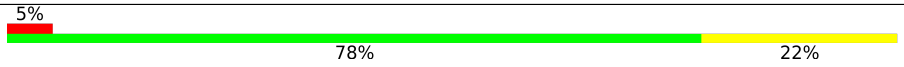
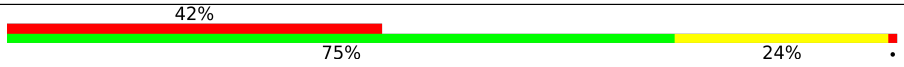
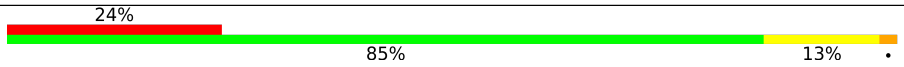
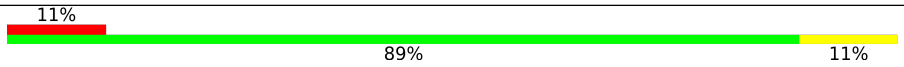
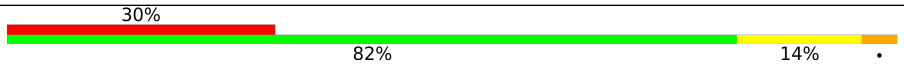
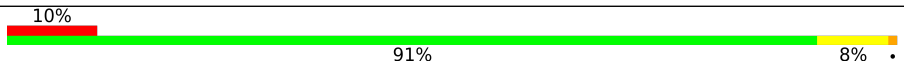
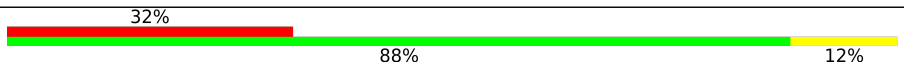
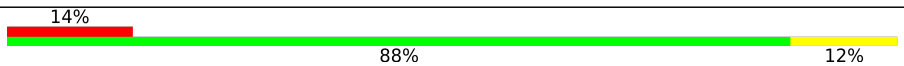
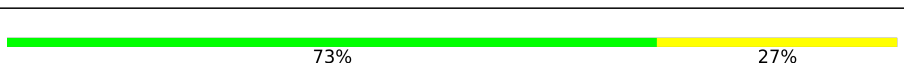
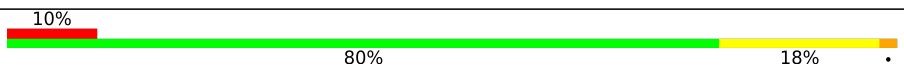
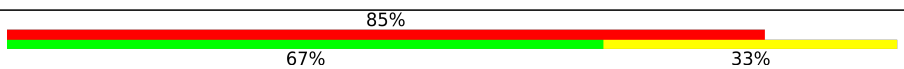
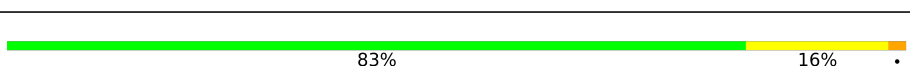
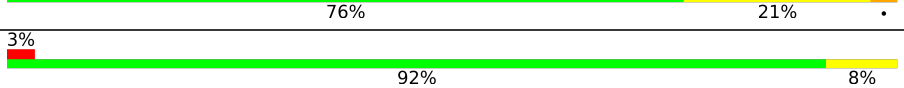
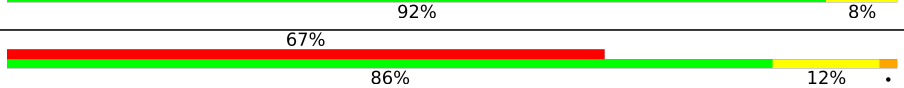
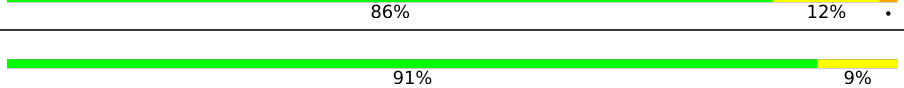
Mol	Chain	Length	Quality of chain
15	BO	88	
16	AP	82	
16	BP	82	
17	AQ	80	
17	BQ	80	
18	AR	55	
18	BR	55	
19	AS	79	
19	BS	79	
20	AT	86	
20	BT	86	
21	AU	56	
21	BU	56	
22	C1	56	
22	D1	56	
23	C2	51	
23	D2	51	
24	C3	46	
24	D3	46	
25	C4	64	
25	D4	64	
26	C5	38	
26	D5	38	
27	C0	58	
27	D0	58	

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Mol	Chain	Length	Quality of chain
28	CB	120	38% 86% 11%
28	DB	120	91% 8%
29	CC	272	32% 84% 14%
29	DC	272	2% 90% 8%
30	CD	209	62% 89% 11%
31	CA	2904	35% 75% 22%
32	DD	209	89% 11%
33	CE	201	70% 87% 11%
33	DE	201	91% 9%
34	CF	178	85% 80% 17%
34	DF	178	9% 82% 17%
35	CG	176	82% 88% 12%
35	DG	176	5% 88% 12%
36	CH	149	54% 80% 19%
36	DH	149	42% 83% 17%
37	CJ	134	95% 90% 9%
37	DJ	134	82% 88% 10%
38	CK	142	51% 89% 8%
38	DK	142	94% 6%
39	CL	123	35% 88% 10%
39	DL	123	90% 8%
40	CM	144	81% 81% 17%
40	DM	144	2% 84% 15%
41	CN	136	26% 90% 10%
41	DN	136	92% 7%

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Mol	Chain	Length	Quality of chain
42	CO	125	58% 86% 9%
42	DO	125	% 93% 7%
43	CP	117	74% 86% 11%
43	DP	117	90% 8%
44	CQ	114	57% 89% 11%
44	DQ	114	3% 90% 10%
45	CR	117	61% 89% 11%
45	DR	117	% 93% 6%
46	CS	103	83% 85% 13%
46	DS	103	% 92% 7%
47	CT	110	56% 78% 20%
47	DT	110	86% 14%
48	CU	93	78% 75% 22%
48	DU	93	5% 90% 10%
49	CV	103	85% 83% 15%
49	DV	103	11% 89% 9%
50	CW	94	56% 89% 11%
50	DW	94	91% 9%
51	CX	76	50% 95%
51	DX	76	% 91% 9%
52	CY	77	42% 82% 18%
52	DY	77	% 90% 10%
53	CZ	62	79% 90% 8%
53	DZ	62	10% 94% 6%
54	DI	135	53% 71% 27%

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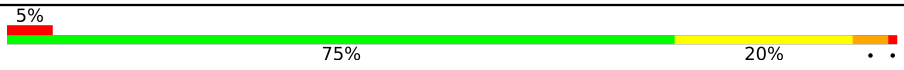
Mol	Chain	Length	Quality of chain
55	DA	2904	

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	AA	1602	-	-	-	X
56	MG	AA	1603	-	-	-	X
56	MG	AA	1604	-	-	-	X
56	MG	AA	1605	-	-	-	X
56	MG	AA	1606	-	-	-	X
56	MG	AA	1608	-	-	-	X
56	MG	AA	1612	-	-	-	X
56	MG	AA	1613	-	-	-	X
56	MG	AA	1615	-	-	-	X
56	MG	AA	1616	-	-	-	X
56	MG	AA	1618	-	-	-	X
56	MG	AA	1620	-	-	-	X
56	MG	AA	1621	-	-	-	X
56	MG	AA	1622	-	-	-	X
56	MG	AA	1624	-	-	-	X
56	MG	AA	1626	-	-	-	X
56	MG	AA	1627	-	-	-	X
56	MG	AA	1628	-	-	-	X
56	MG	AA	1642	-	-	-	X
56	MG	BA	1623	-	-	-	X
56	MG	BA	1629	-	-	-	X
56	MG	BA	1637	-	-	-	X
56	MG	BA	1638	-	-	-	X
56	MG	BA	1639	-	-	-	X
56	MG	BA	1641	-	-	-	X
56	MG	CA	3003	-	-	-	X
56	MG	CA	3005	-	-	-	X
56	MG	CA	3007	-	-	-	X
56	MG	CA	3010	-	-	-	X
56	MG	CA	3026	-	-	-	X
56	MG	CA	3028	-	-	-	X
56	MG	CA	3032	-	-	-	X
56	MG	CA	3047	-	-	-	X
56	MG	CA	3056	-	-	-	X
56	MG	CA	3068	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	CA	3075	-	-	-	X
56	MG	CA	3082	-	-	-	X
56	MG	CA	3090	-	-	-	X
56	MG	CA	3105	-	-	-	X
56	MG	CA	3106	-	-	-	X
56	MG	CA	3108	-	-	-	X
56	MG	CA	3109	-	-	-	X
56	MG	CA	3110	-	-	-	X
56	MG	CA	3111	-	-	-	X
56	MG	CA	3113	-	-	-	X
56	MG	CA	3115	-	-	-	X
56	MG	CA	3121	-	-	-	X
56	MG	CA	3122	-	-	-	X
56	MG	CA	3123	-	-	-	X
56	MG	CA	3124	-	-	-	X
56	MG	CA	3128	-	-	-	X
56	MG	CA	3130	-	-	-	X
56	MG	CA	3131	-	-	-	X
56	MG	CA	3132	-	-	-	X
56	MG	CA	3133	-	-	-	X
56	MG	CA	3134	-	-	-	X
56	MG	CA	3135	-	-	-	X
56	MG	CA	3137	-	-	-	X
56	MG	CA	3139	-	-	-	X
56	MG	CA	3140	-	-	-	X
56	MG	CA	3141	-	-	-	X
56	MG	CA	3142	-	-	-	X
56	MG	CA	3148	-	-	-	X
56	MG	CA	3149	-	-	-	X
56	MG	CA	3154	-	-	-	X
56	MG	DA	3125	-	-	-	X
56	MG	DA	3131	-	-	-	X
56	MG	DA	3143	-	-	-	X
56	MG	DA	3145	-	-	-	X
56	MG	DA	3147	-	-	-	X
56	MG	DA	3155	-	-	-	X
56	MG	DA	3157	-	-	-	X
56	MG	DA	3159	-	-	-	X
56	MG	DA	3161	-	-	-	X
56	MG	DA	3167	-	-	-	X
56	MG	DA	3168	-	-	-	X
56	MG	DA	3171	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	DA	3173	-	-	-	X
56	MG	DA	3178	-	-	-	X
56	MG	DA	3179	-	-	-	X
56	MG	DA	3180	-	-	-	X
56	MG	DA	3182	-	-	-	X
56	MG	DB	206	-	-	-	X
56	MG	DB	207	-	-	-	X
57	PG4	DA	3215	-	-	-	X
58	MPD	DA	3203	-	-	-	X
58	MPD	DA	3206	-	-	-	X
58	MPD	DE	302	-	-	-	X
58	MPD	DT	201	-	-	-	X
58	MPD	DT	202	-	-	-	X
59	PUT	AA	1672	-	-	-	X
59	PUT	AA	1673	-	-	-	X
59	PUT	AA	1674	-	-	-	X
59	PUT	AA	1675	-	-	-	X
59	PUT	DA	3218	-	-	-	X
62	PEG	D1	103	-	-	-	X
62	PEG	D3	102	-	-	-	X
62	PEG	DA	3217	-	-	-	X
62	PEG	DP	201	-	-	-	X
62	PEG	DQ	201	-	-	-	X
63	EDO	DA	3004	-	-	-	X
63	EDO	DA	3208	-	-	-	X
63	EDO	DB	210	-	-	-	X
64	PGE	D1	102	-	-	-	X
64	PGE	D3	101	-	-	-	X
69	TRS	DA	3219	-	-	-	X

2 Entry composition (i)

There are 70 unique types of molecules in this entry. The entry contains 295202 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
1	AA	1534	Total	C	N	O	P	0	0	0
			32930	14694	6041	10661	1534			
1	BA	1533	Total	C	N	O	P	0	0	0
			32908	14684	6036	10655	1533			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	AB	224	Total	C	N	O	S	0	0	0
			1753	1109	315	321	8			
2	BB	224	Total	C	N	O	S	0	0	0
			1753	1109	315	321	8			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	AC	206	Total	C	N	O	S	0	0	0
			1625	1028	305	289	3			
3	BC	206	Total	C	N	O	S	0	0	0
			1625	1028	305	289	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	AD	205	Total	C	N	O	S	0	0	0
			1643	1026	315	298	4			
4	BD	205	Total	C	N	O	S	0	0	0
			1643	1026	315	298	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	AE	155	Total	C	N	O	S	0	0	0
			1144	711	216	211	6			
5	BE	150	Total	C	N	O	S	0	0	0
			1105	687	211	201	6			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	AF	106	Total	C	N	O	S	0	0	0
			862	545	156	154	7			
6	BF	100	Total	C	N	O	S	0	0	0
			817	515	148	148	6			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	AG	151	Total	C	N	O	S	0	0	0
			1182	735	227	216	4			
7	BG	151	Total	C	N	O	S	0	0	0
			1182	735	227	216	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	AH	129	Total	C	N	O	S	0	0	0
			979	616	173	184	6			
8	BH	129	Total	C	N	O	S	0	0	0
			979	616	173	184	6			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	AI	127	Total	C	N	O	S	0	0	0
			1022	634	206	179	3			
9	BI	127	Total	C	N	O	S	0	0	0
			1022	634	206	179	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	AJ	99	Total	C	N	O	S	0	0	0
			796	498	152	145	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	BJ	98	Total	C	N	O	S	0	0	0
			787	493	150	143	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	AK	117	Total	C	N	O	S	0	0	0
			877	540	174	160	3			
11	BK	117	Total	C	N	O	S	0	0	0
			877	540	174	160	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	AL	123	Total	C	N	O	S	0	0	0
			957	591	196	165	5			
12	BL	123	Total	C	N	O	S	0	0	0
			957	591	196	165	5			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	AM	114	Total	C	N	O	S	0	0	0
			884	546	178	157	3			
13	BM	114	Total	C	N	O	S	0	0	0
			884	546	178	157	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	AN	100	Total	C	N	O	S	0	0	0
			805	499	164	139	3			
14	BN	100	Total	C	N	O	S	0	0	0
			805	499	164	139	3			

- 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
			714	439	144	130	1			
15	BO	88	Total	C	N	O	S	0	0	0
			714	439	144	130	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	AP	82	Total	C	N	O	S	0	0	0
			649	406	128	114	1			
16	BP	82	Total	C	N	O	S	0	0	0
			649	406	128	114	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	AQ	80	Total	C	N	O	S	0	0	0
			649	411	121	114	3			
17	BQ	80	Total	C	N	O	S	0	0	0
			649	411	121	114	3			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	AR	55	Total	C	N	O	0	0	0
			456	288	86	82			
18	BR	55	Total	C	N	O	0	0	0
			456	288	86	82			

- 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	0
			638	408	120	108	2			
19	BS	79	Total	C	N	O	S	0	0	0
			638	408	120	108	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	AT	86	Total	C	N	O	S	0	0	0
			670	414	138	115	3			
20	BT	85	Total	C	N	O	S	0	0	0
			665	411	137	114	3			

- Molecule 21 is a protein called 30S ribosomal protein S21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	AU	56	Total	C	N	O	S	0	0	0
			465	290	96	78	1			
21	BU	56	Total	C	N	O	S	0	0	0
			465	290	96	78	1			

- Molecule 22 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	C1	56	Total	C	N	O	S	0	0	0
			444	269	94	80	1			
22	D1	56	Total	C	N	O	S	0	0	0
			444	269	94	80	1			

- Molecule 23 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
23	C2	50	Total	C	N	O	0	0	0
			409	263	75	71			
23	D2	51	Total	C	N	O	0	0	0
			414	266	76	72			

- Molecule 24 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	C3	46	Total	C	N	O	S	0	0	0
			377	228	90	57	2			
24	D3	46	Total	C	N	O	S	0	0	0
			377	228	90	57	2			

- Molecule 25 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	C4	64	Total	C	N	O	S	0	0	0
			504	323	105	74	2			
25	D4	64	Total	C	N	O	S	0	0	0
			504	323	105	74	2			

- Molecule 26 is a protein called 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	C5	38	Total	C	N	O	S	0	0	0
			302	185	65	48	4			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	D5	38	Total	C	N	O	S	0	0	0
			302	185	65	48	4			

- Molecule 27 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	C0	58	Total	C	N	O	S	0	0	0
			449	281	87	79	2			
27	D0	58	Total	C	N	O	S	0	2	0
			463	290	90	81	2			

- Molecule 28 is a RNA chain called 5S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	CB	118	Total	C	N	O	P	0	0	0
			2529	1126	464	821	118			
28	DB	120	Total	C	N	O	P	0	0	0
			2569	1144	468	837	120			

- Molecule 29 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	CC	271	Total	C	N	O	S	0	0	0
			2082	1288	423	364	7			
29	DC	271	Total	C	N	O	S	0	0	0
			2082	1288	423	364	7			

- Molecule 30 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	CD	209	Total	C	N	O	S	0	0	0
			1565	979	288	294	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	CA	2898	Total	C	N	O	P	0	0	0
			62229	27768	11448	20115	2898			

- Molecule 32 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	DD	209	Total	C	N	O	S	0	1	0
			1576	986	290	296	4			

- Molecule 33 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	CE	201	Total	C	N	O	S	0	0	0
			1552	974	283	290	5			
33	DE	201	Total	C	N	O	S	0	0	0
			1552	974	283	290	5			

- Molecule 34 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	CF	177	Total	C	N	O	S	0	0	0
			1410	899	249	256	6			
34	DF	177	Total	C	N	O	S	0	0	0
			1410	899	249	256	6			

- Molecule 35 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	CG	176	Total	C	N	O	S	0	0	0
			1323	832	243	246	2			
35	DG	176	Total	C	N	O	S	0	0	0
			1323	832	243	246	2			

- Molecule 36 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	CH	149	Total	C	N	O	S	0	0	0
			1110	699	197	213	1			
36	DH	149	Total	C	N	O	S	0	0	0
			1110	699	197	213	1			

- Molecule 37 is a protein called 50S ribosomal protein L11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	CJ	134	Total	C	N	O	S	0	0	0
			979	619	169	185	6			
37	DJ	134	Total	C	N	O	S	0	0	0
			979	619	169	185	6			

- Molecule 38 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	CK	142	Total	C	N	O	S	0	0	0
			1129	714	212	199	4			
38	DK	142	Total	C	N	O	S	0	0	0
			1129	714	212	199	4			

- Molecule 39 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	CL	122	Total	C	N	O	S	0	0	0
			938	587	180	165	6			
39	DL	123	Total	C	N	O	S	0	0	0
			946	593	181	166	6			

- Molecule 40 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	CM	144	Total	C	N	O	S	0	0	0
			1053	654	207	190	2			
40	DM	144	Total	C	N	O	S	0	0	0
			1053	654	207	190	2			

- Molecule 41 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	CN	136	Total	C	N	O	S	0	0	0
			1075	686	205	178	6			
41	DN	136	Total	C	N	O	S	0	2	0
			1092	696	211	179	6			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
CN	81	4D4	ARG	conflict	UNP P0ADY7
DN	81	4D4	ARG	conflict	UNP P0ADY7

- Molecule 42 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	CO	120	Total	C	N	O	S	0	0	0
			960	593	196	166	5			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	DO	125	Total	C	N	O	S	0	0	0
			993	613	202	173	5			

- Molecule 43 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	CP	116	Total	C	N	O		0	0	0
			892	552	178	162				
43	DP	117	Total	C	N	O	S	0	0	0
			900	557	179	163	1			

- Molecule 44 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	CQ	114	Total	C	N	O	S	0	0	0
			917	574	179	163	1			
44	DQ	114	Total	C	N	O	S	0	0	0
			917	574	179	163	1			

- Molecule 45 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
45	CR	117	Total	C	N	O	0	0	0
			947	604	192	151			
45	DR	117	Total	C	N	O	0	0	0
			947	604	192	151			

- Molecule 46 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	CS	103	Total	C	N	O	S	0	0	0
			816	516	153	145	2			
46	DS	103	Total	C	N	O	S	0	0	0
			816	516	153	145	2			

- Molecule 47 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	CT	110	Total	C	N	O	S	0	0	0
			857	532	166	156	3			
47	DT	110	Total	C	N	O	S	0	0	0
			857	532	166	156	3			

- Molecule 48 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	CU	93	Total	C	N	O	S	0	0	0
			739	466	139	132	2			
48	DU	93	Total	C	N	O	S	0	0	0
			739	466	139	132	2			

- Molecule 49 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
49	CV	102	Total	C	N	O	0	0	0
			779	492	146	141			
49	DV	102	Total	C	N	O	0	0	0
			779	492	146	141			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	CW	94	Total	C	N	O	S	0	0	0
			753	479	137	134	3			
50	DW	94	Total	C	N	O	S	0	0	0
			753	479	137	134	3			

- Molecule 51 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	CX	75	Total	C	N	O	S	0	0	0
			569	353	113	102	1			
51	DX	76	Total	C	N	O	S	0	1	0
			591	365	121	104	1			

- Molecule 52 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	CY	77	Total	C	N	O	S	0	0	0
			625	388	129	106	2			
52	DY	77	Total	C	N	O	S	0	0	0
			625	388	129	106	2			

- Molecule 53 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	CZ	62	Total	C	N	O	S	0	0	0
			501	308	98	94	1			
53	DZ	62	Total	C	N	O	S	0	0	0
			501	308	98	94	1			

- Molecule 54 is a protein called 50S ribosomal protein L10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	DI	135	Total	C	N	O	S	0	0	0
			1023	649	179	192	3			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
DI	85	VAL	SER	conflict	UNP P0A7J3
DI	86	THR	MET	conflict	UNP P0A7J3

- Molecule 55 is a RNA chain called 23S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	DA	2897	Total	C	N	O	P	0	11	0
			62423	27855	11485	20176	2907			

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

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	AA	71	Total	Mg	0	0
			71	71		
56	BA	43	Total	Mg	0	0
			43	43		
56	CB	3	Total	Mg	0	0
			3	3		
56	CA	156	Total	Mg	0	0
			156	156		
56	DD	2	Total	Mg	0	0
			2	2		
56	DM	1	Total	Mg	0	0
			1	1		
56	DR	2	Total	Mg	0	0
			2	2		
56	DB	9	Total	Mg	0	0
			9	9		

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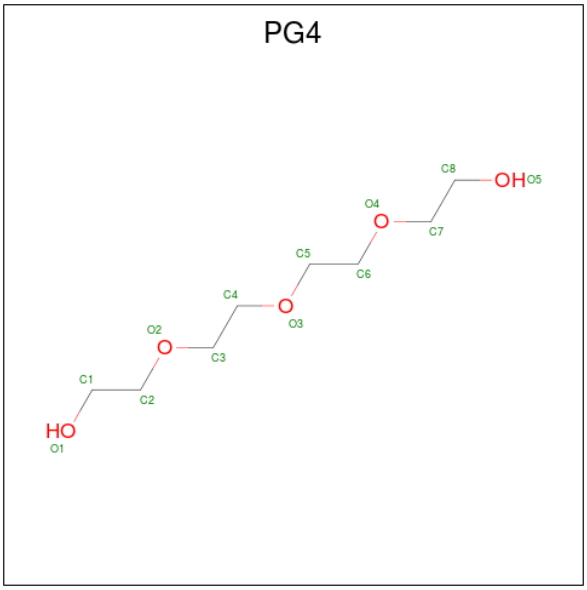
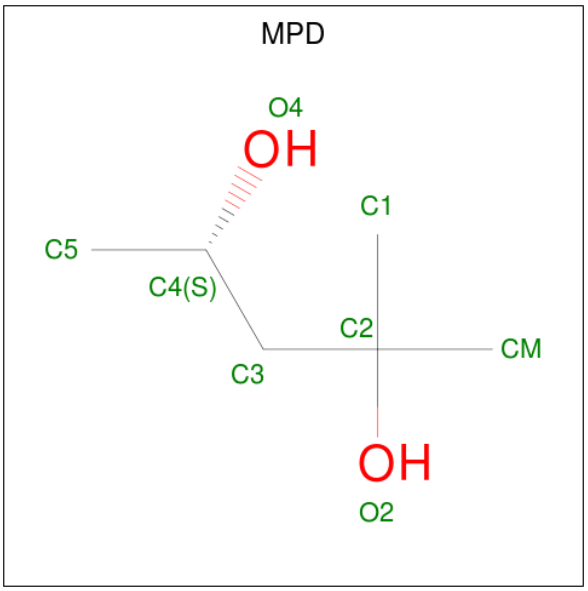
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	DA	182	Total Mg 182 182	0	0

- Molecule 57 is TETRAETHYLENE GLYCOL (three-letter code: PG4) (formula: $C_8H_{18}O_5$).



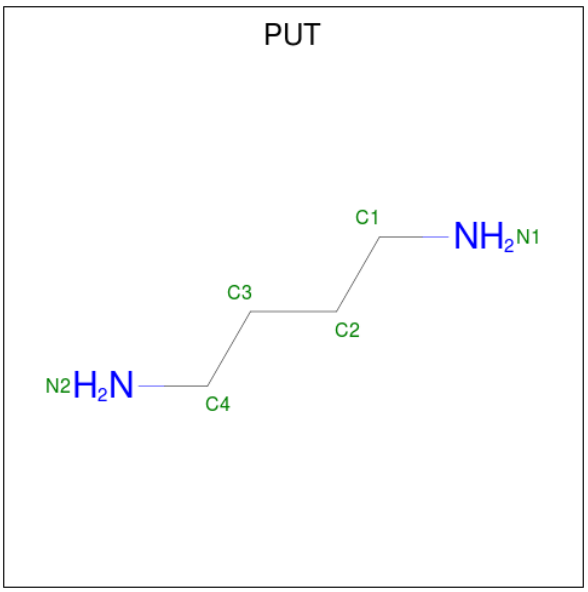
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	AA	1	Total C O 13 8 5	0	0
57	BA	1	Total C O 13 8 5	0	0
57	DQ	1	Total C O 13 8 5	0	0
57	DR	1	Total C O 13 8 5	0	0
57	DS	1	Total C O 13 8 5	0	0
57	DA	1	Total C O 13 8 5	0	0
57	DA	1	Total C O 13 8 5	0	0

- Molecule 58 is (4S)-2-METHYL-2,4-PENTANEDIOL (three-letter code: MPD) (formula: $C_6H_{14}O_2$).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
58	AA	1	Total	C	O		0	0
			8	6	2			
58	AA	1	Total	C	O		0	0
			8	6	2			
58	DE	1	Total	C	O		0	0
			8	6	2			
58	DE	1	Total	C	O		0	0
			8	6	2			
58	DK	1	Total	C	O		0	0
			8	6	2			
58	DN	1	Total	C	O		0	0
			8	6	2			
58	DS	1	Total	C	O		0	0
			8	6	2			
58	DT	1	Total	C	O		0	0
			8	6	2			
58	DT	1	Total	C	O		0	0
			8	6	2			
58	DA	1	Total	C	O		0	0
			8	6	2			
58	DA	1	Total	C	O		0	0
			8	6	2			
58	DA	1	Total	C	O		0	0
			8	6	2			
58	DA	1	Total	C	O		0	0
			8	6	2			
58	DA	1	Total	C	O		0	0
			8	6	2			

- Molecule 59 is 1,4-DIAMINOBUTANE (three-letter code: PUT) (formula: $C_4H_{12}N_2$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	AA	1	Total C N 6 4 2	0	0
59	AA	1	Total C N 6 4 2	0	0
59	AA	1	Total C N 6 4 2	0	0
59	AA	1	Total C N 6 4 2	0	0
59	DA	1	Total C N 6 4 2	0	0
59	DA	1	Total C N 6 4 2	0	0
59	DA	1	Total C N 6 4 2	0	0
59	DA	1	Total C N 6 4 2	0	0
59	DA	1	Total C N 6 4 2	0	0
59	DA	1	Total C N 6 4 2	0	0
59	DA	1	Total C N 6 4 2	0	0
59	DA	1	Total C N 6 4 2	0	0

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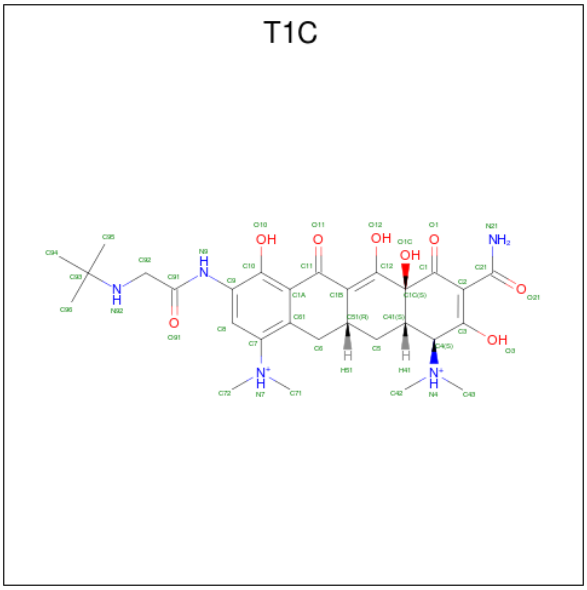
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	DA	1	Total C N 6 4 2	0	0
59	DA	1	Total C N 6 4 2	0	0
59	DA	1	Total C N 6 4 2	0	0

- Molecule 60 is TIGECYCLINE (three-letter code: T1C) (formula: $C_{29}H_{41}N_5O_8$).



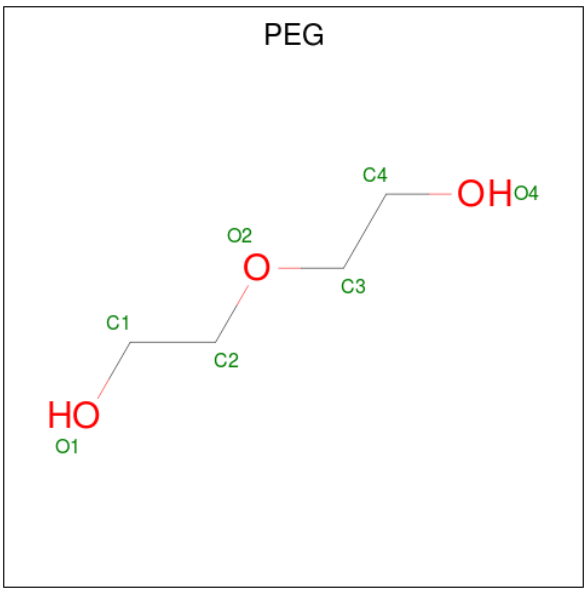
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	AA	1	Total C N O 42 29 5 8	0	0
60	BA	1	Total C N O 42 29 5 8	0	0

- Molecule 61 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
61	AB	1	Total Zn 1 1	0	0
61	C5	1	Total Zn 1 1	0	0
61	D5	1	Total Zn 1 1	0	0

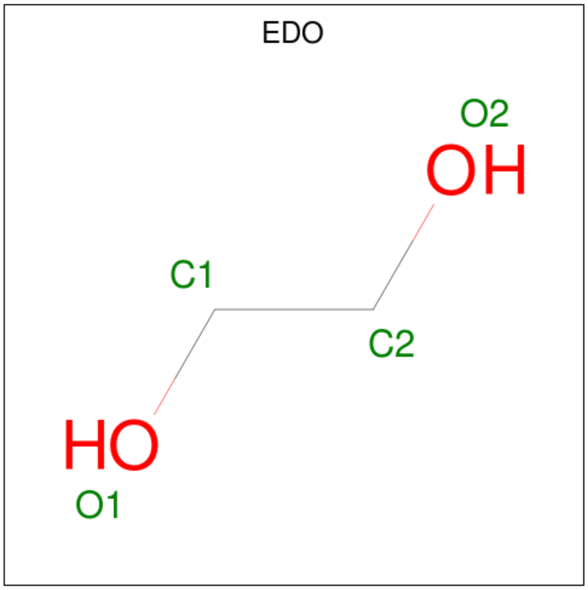
- Molecule 62 is DI(HYDROXYETHYL)ETHER (three-letter code: PEG) (formula:

$C_4H_{10}O_3$).



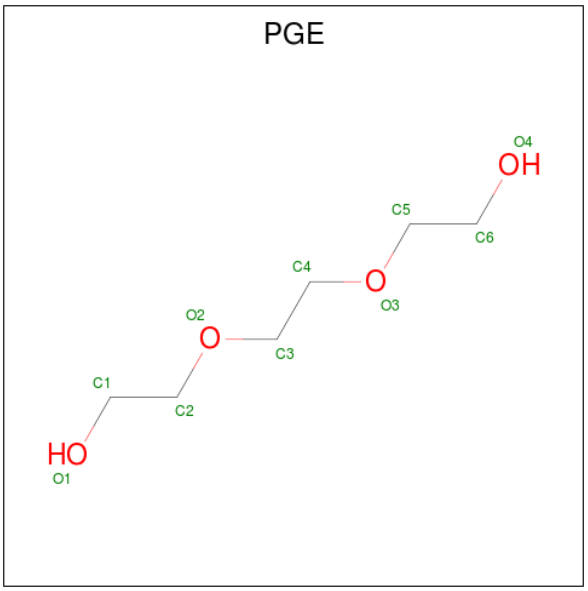
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
62	AL	1	Total C O 7 4 3	0	0
62	D1	1	Total C O 7 4 3	0	0
62	D3	1	Total C O 7 4 3	0	0
62	DL	1	Total C O 7 4 3	0	0
62	DP	1	Total C O 7 4 3	0	0
62	DQ	1	Total C O 7 4 3	0	0
62	DA	1	Total C O 7 4 3	0	0
62	DA	1	Total C O 7 4 3	0	0
62	DA	1	Total C O 7 4 3	0	0
62	DA	1	Total C O 7 4 3	0	0
62	DA	1	Total C O 7 4 3	0	0

- Molecule 63 is 1,2-ETHANEDIOL (three-letter code: EDO) (formula: $C_2H_6O_2$).



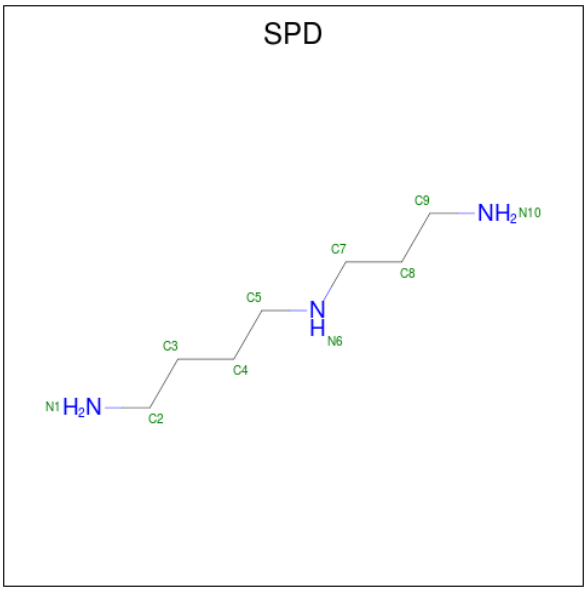
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
63	D1	1	Total C O 4 2 2	0	0
63	DB	1	Total C O 4 2 2	0	0
63	DB	1	Total C O 4 2 2	0	0
63	DA	1	Total C O 4 2 2	0	0
63	DA	1	Total C O 4 2 2	0	0
63	DA	1	Total C O 4 2 2	0	0
63	DA	1	Total C O 4 2 2	0	0
63	DA	1	Total C O 4 2 2	0	0
63	DA	1	Total C O 4 2 2	0	0
63	DA	1	Total C O 4 2 2	0	0
63	DA	1	Total C O 4 2 2	0	0
63	DA	1	Total C O 4 2 2	0	0

- Molecule 64 is TRIETHYLENE GLYCOL (three-letter code: PGE) (formula: $C_6H_{14}O_4$).



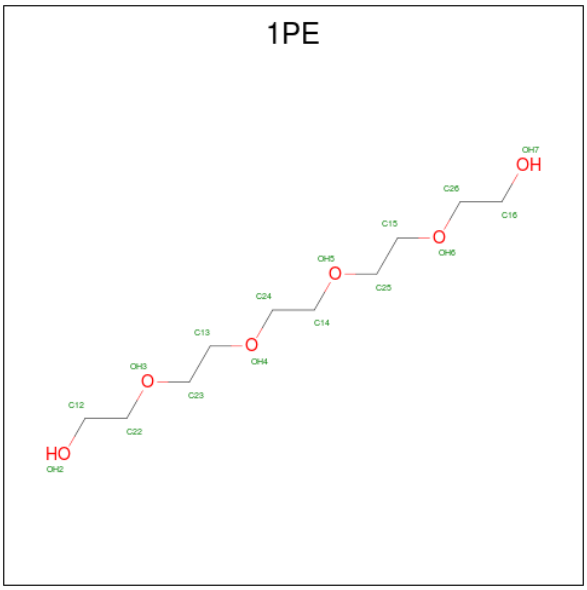
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
64	D1	1	Total C O 10 6 4	0	0
64	D3	1	Total C O 10 6 4	0	0
64	DD	1	Total C O 10 6 4	0	0
64	DS	1	Total C O 10 6 4	0	0
64	DU	1	Total C O 10 6 4	0	0
64	DA	1	Total C O 10 6 4	0	0
64	DA	1	Total C O 10 6 4	0	0
64	DA	1	Total C O 10 6 4	0	0
64	DA	1	Total C O 10 6 4	0	0

- Molecule 65 is SPERMIDINE (three-letter code: SPD) (formula: $C_7H_{19}N_3$).



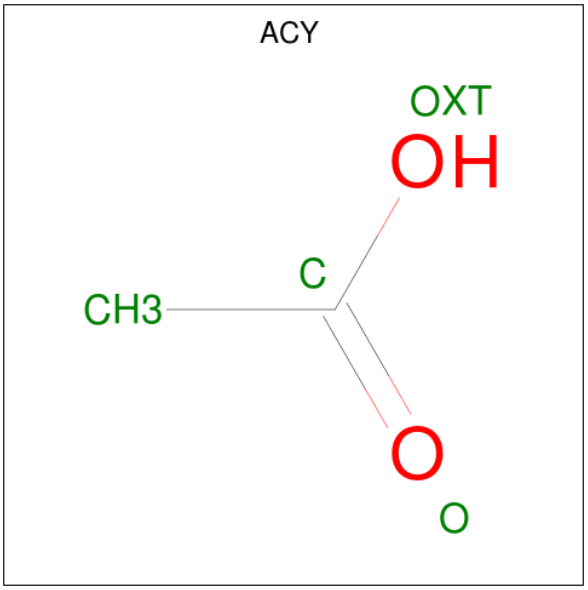
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
65	DA	1	Total C N 10 7 3	0	0
65	DA	1	Total C N 10 7 3	0	0
65	DA	1	Total C N 10 7 3	0	0
65	DA	1	Total C N 10 7 3	0	0

- Molecule 66 is PENTAETHYLENE GLYCOL (three-letter code: 1PE) (formula: $C_{10}H_{22}O_6$).



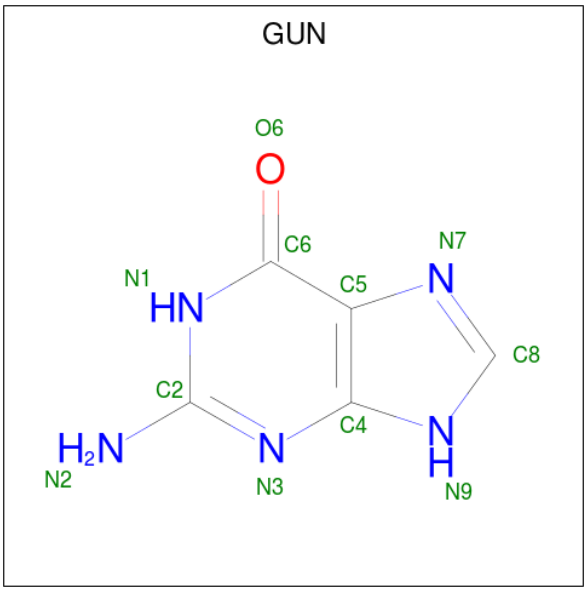
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
66	DA	1	Total C O 16 10 6	0	0
66	DA	1	Total C O 16 10 6	0	0

- Molecule 67 is ACETIC ACID (three-letter code: ACY) (formula: $C_2H_4O_2$).



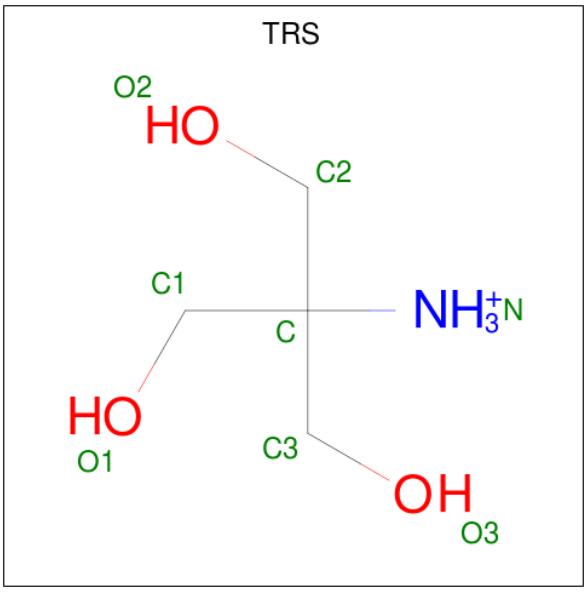
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
67	DA	1	Total C O 4 2 2	0	0
67	DA	1	Total C O 4 2 2	0	0
67	DA	1	Total C O 4 2 2	0	0

- Molecule 68 is GUANINE (three-letter code: GUN) (formula: $C_5H_5N_5O$).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
			Total	C	N	O		
68	DA	1	11	5	5	1	0	0

- Molecule 69 is 2-AMINO-2-HYDROXYMETHYL-PROPANE-1,3-DIOL (three-letter code: TRS) (formula: $C_4H_{12}NO_3$).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
			Total	C	N	O		
69	DA	1	8	4	1	3	0	0

- Molecule 70 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
70	AA	507	Total O 507 507	0	0
70	AC	4	Total O 4 4	0	0
70	AD	2	Total O 2 2	0	0
70	AE	4	Total O 4 4	0	0
70	AF	1	Total O 1 1	0	0
70	AG	1	Total O 1 1	0	0
70	AH	1	Total O 1 1	0	0
70	AJ	2	Total O 2 2	0	0
70	AK	5	Total O 5 5	0	0
70	AL	8	Total O 8 8	0	0
70	AM	4	Total O 4 4	0	0
70	AN	5	Total O 5 5	0	0
70	AO	2	Total O 2 2	0	0
70	AP	2	Total O 2 2	0	0
70	AR	1	Total O 1 1	0	0
70	AS	1	Total O 1 1	0	0
70	AT	2	Total O 2 2	0	0
70	AU	3	Total O 3 3	0	0
70	C3	3	Total O 3 3	0	0
70	C4	1	Total O 1 1	0	0
70	BA	287	Total O 287 287	0	0
70	BD	13	Total O 13 13	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
70	BE	1	Total O 1 1	0	0
70	BF	1	Total O 1 1	0	0
70	BK	1	Total O 1 1	0	0
70	BL	3	Total O 3 3	0	0
70	BN	2	Total O 2 2	0	0
70	BO	1	Total O 1 1	0	0
70	BP	3	Total O 3 3	0	0
70	BR	1	Total O 1 1	0	0
70	BT	4	Total O 4 4	0	0
70	BU	2	Total O 2 2	0	0
70	D1	42	Total O 42 42	0	0
70	D2	7	Total O 7 7	0	0
70	D3	25	Total O 25 25	0	0
70	D4	32	Total O 32 32	0	0
70	D5	13	Total O 13 13	0	0
70	D0	25	Total O 25 25	0	0
70	CB	13	Total O 13 13	0	0
70	CC	10	Total O 10 10	0	0
70	CD	5	Total O 5 5	0	0
70	CA	694	Total O 694 694	0	0
70	DC	102	Total O 102 102	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
70	DD	105	Total O 105 105	0	0
70	CE	6	Total O 6 6	0	0
70	CL	1	Total O 1 1	0	0
70	CM	3	Total O 3 3	0	0
70	CO	1	Total O 1 1	0	0
70	CU	3	Total O 3 3	0	0
70	CV	1	Total O 1 1	0	0
70	CW	1	Total O 1 1	0	0
70	CY	1	Total O 1 1	0	0
70	DE	63	Total O 63 63	0	0
70	DF	14	Total O 14 14	0	0
70	DG	6	Total O 6 6	0	0
70	DH	2	Total O 2 2	0	0
70	DK	58	Total O 58 58	0	0
70	DL	51	Total O 51 51	0	0
70	DM	60	Total O 60 60	0	0
70	DN	71	Total O 71 71	0	0
70	DO	44	Total O 44 44	0	0
70	DP	35	Total O 35 35	0	0
70	DQ	27	Total O 27 27	0	0
70	DR	64	Total O 64 64	0	0

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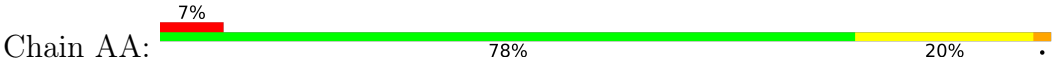
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
70	DS	51	Total O 51 51	0	0
70	DT	70	Total O 70 70	0	0
70	DU	17	Total O 17 17	0	0
70	DV	19	Total O 19 19	0	0
70	DW	31	Total O 31 31	0	0
70	DX	30	Total O 30 30	0	0
70	DY	9	Total O 9 9	0	0
70	DZ	7	Total O 7 7	0	0
70	DB	213	Total O 213 213	0	0
70	DA	4836	Total O 4836 4836	0	0

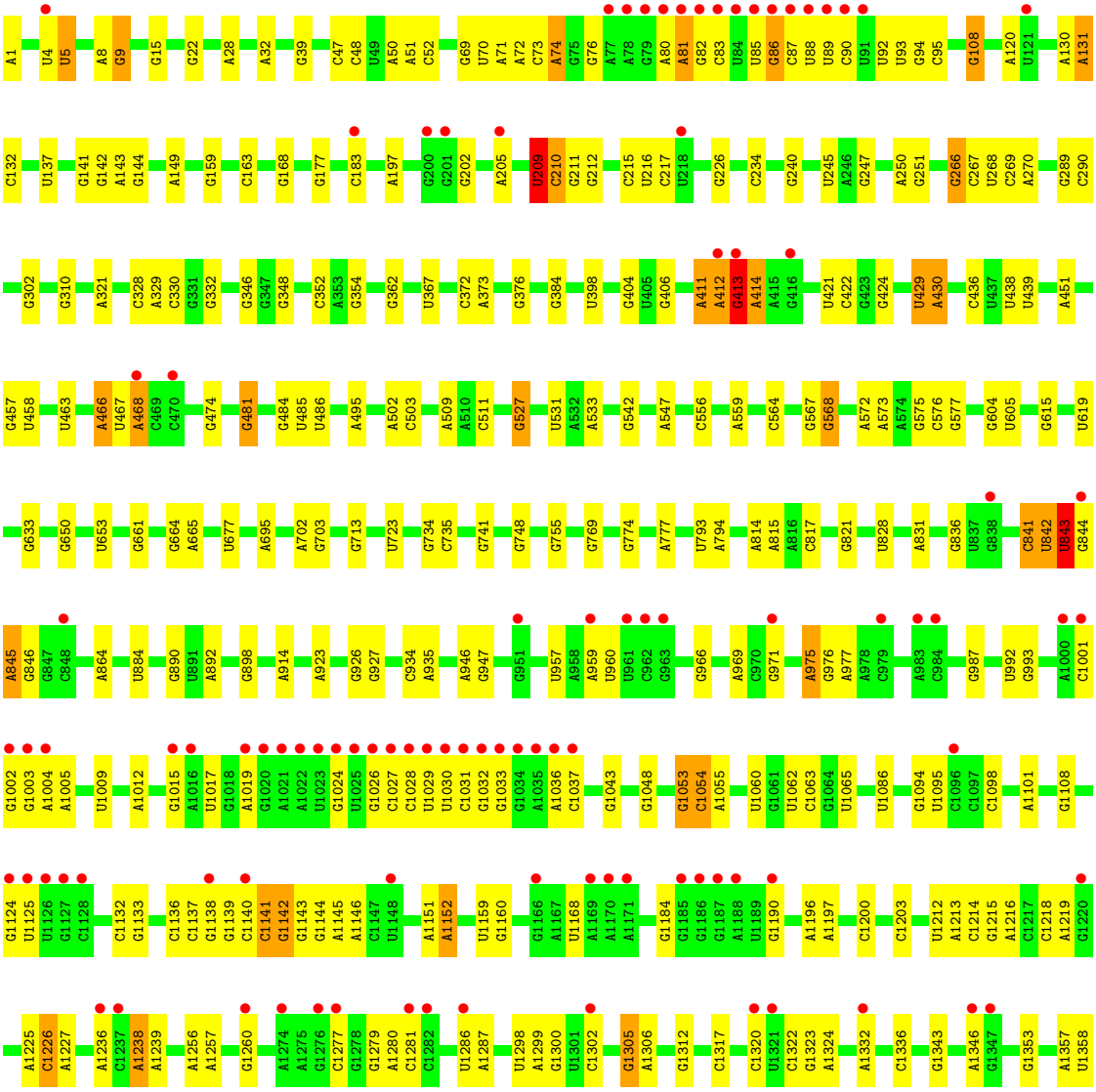
3 Residue-property plots (i)

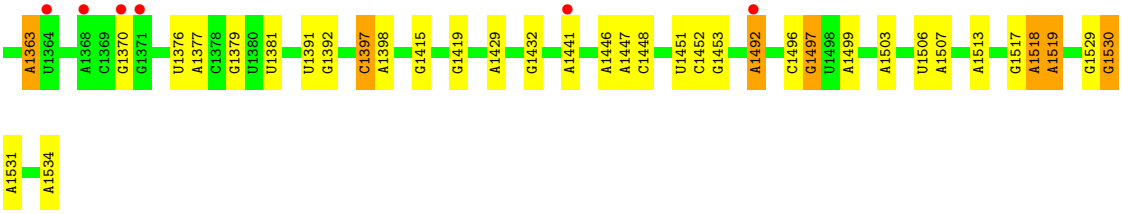
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density.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

- Molecule 1: 16S rRNA

Chain AA:

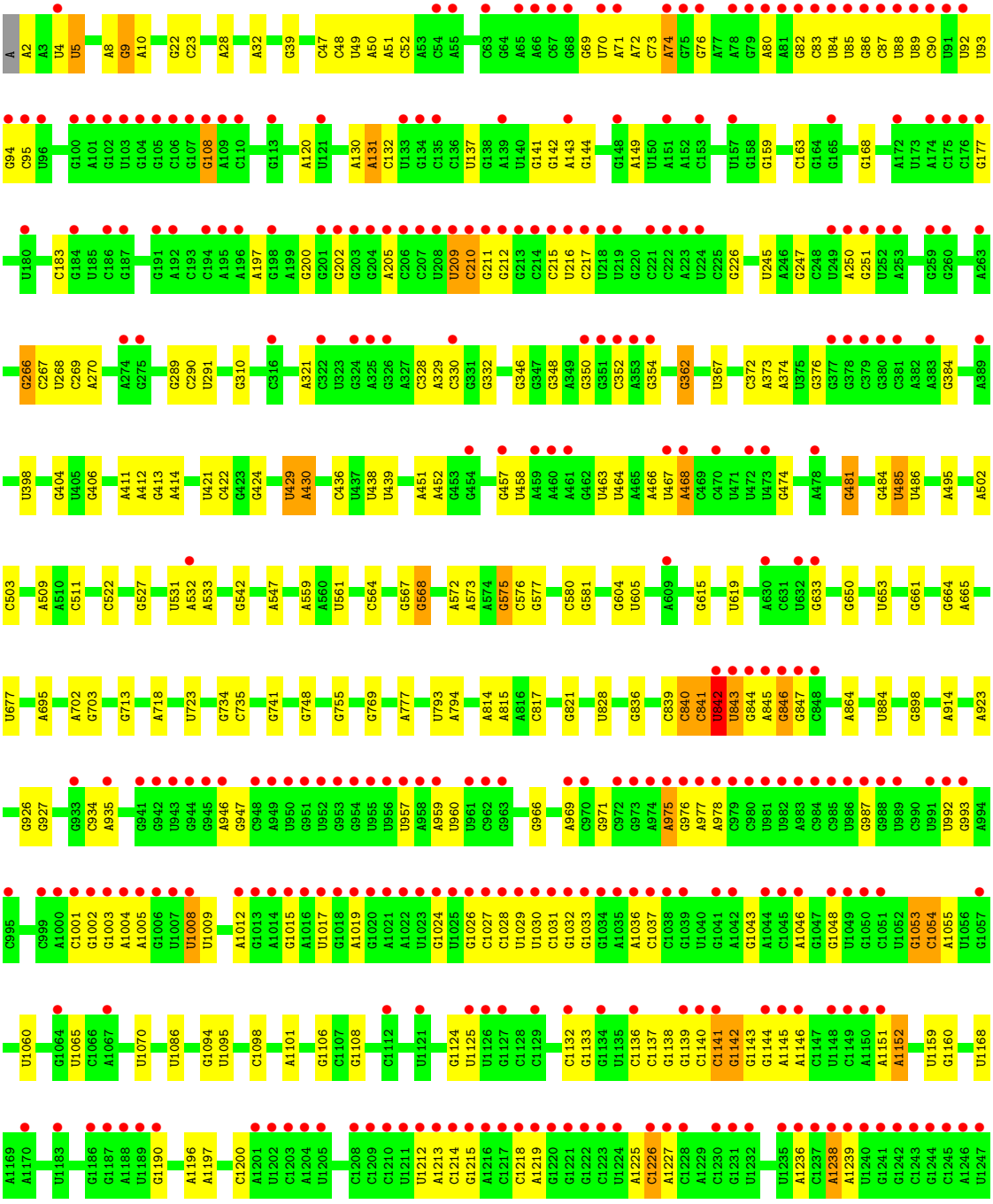


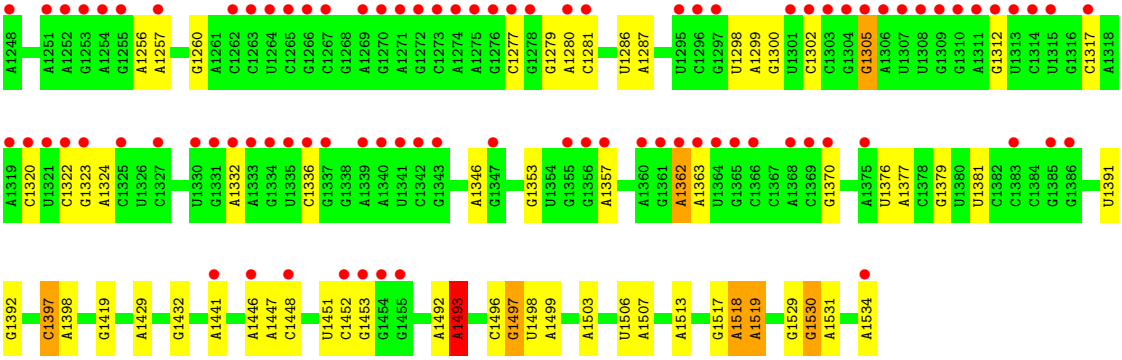




• Molecule 1: 16S rRNA

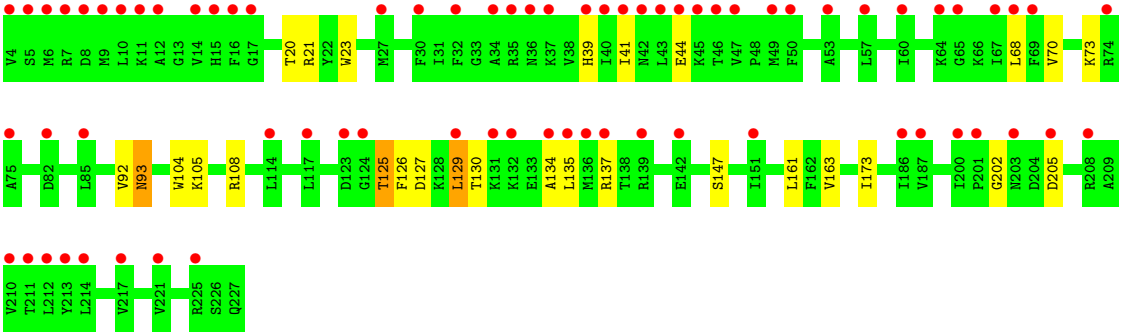
Chain BA:





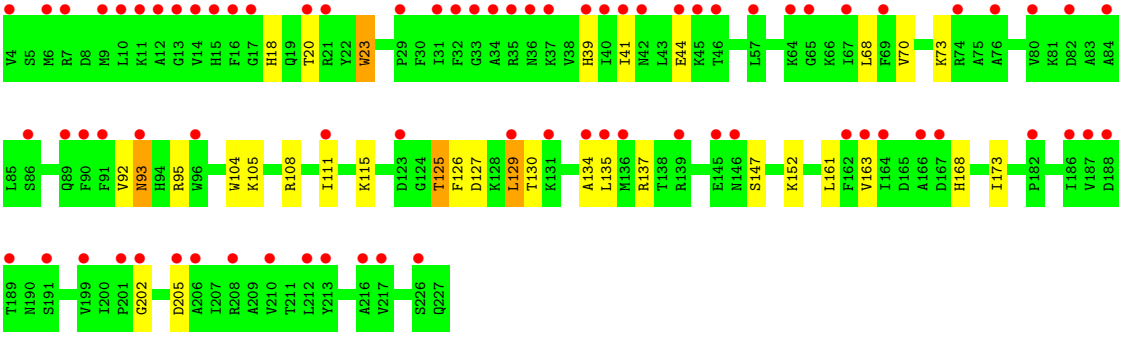
• Molecule 2: 30S ribosomal protein S2

Chain AB:



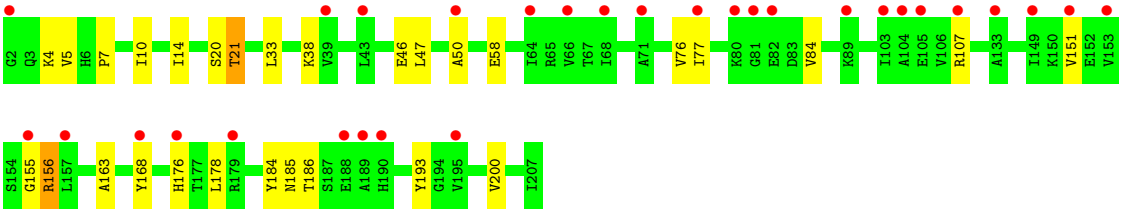
• Molecule 2: 30S ribosomal protein S2

Chain BB:



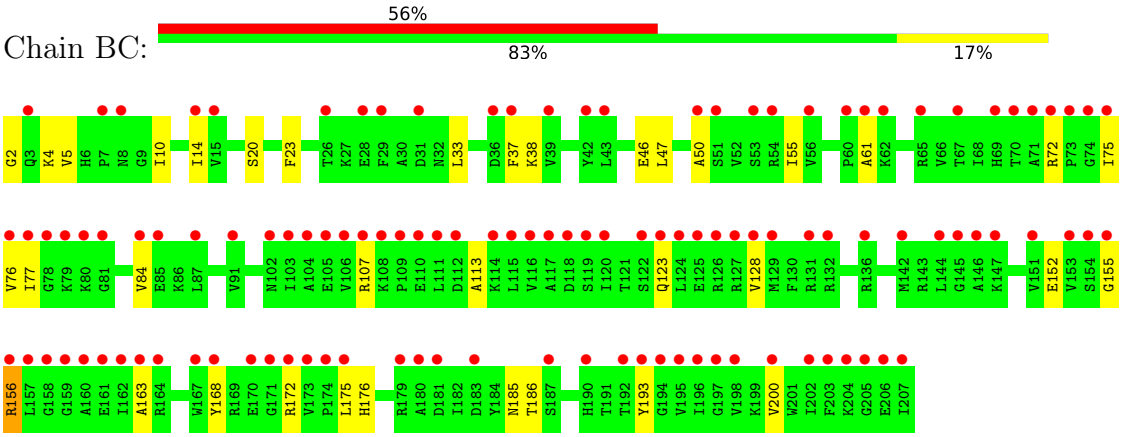
• Molecule 3: 30S ribosomal protein S3

Chain AC:



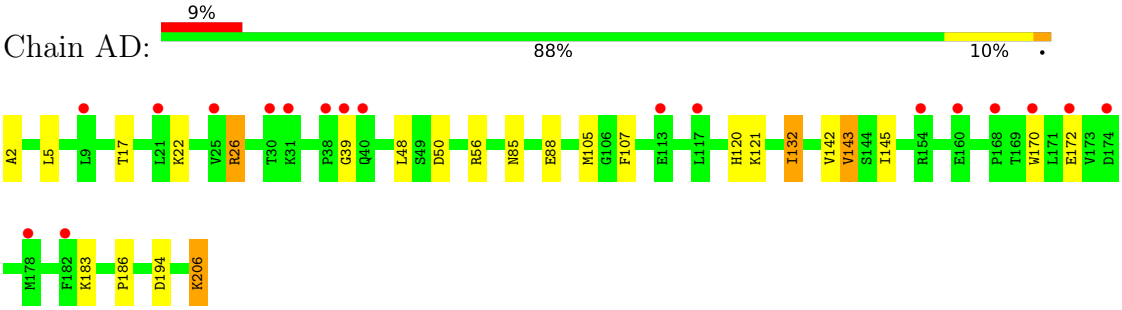
• Molecule 3: 30S ribosomal protein S3

Chain BC:



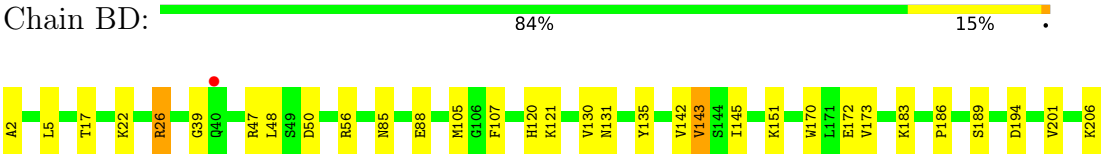
• Molecule 4: 30S ribosomal protein S4

Chain AD:



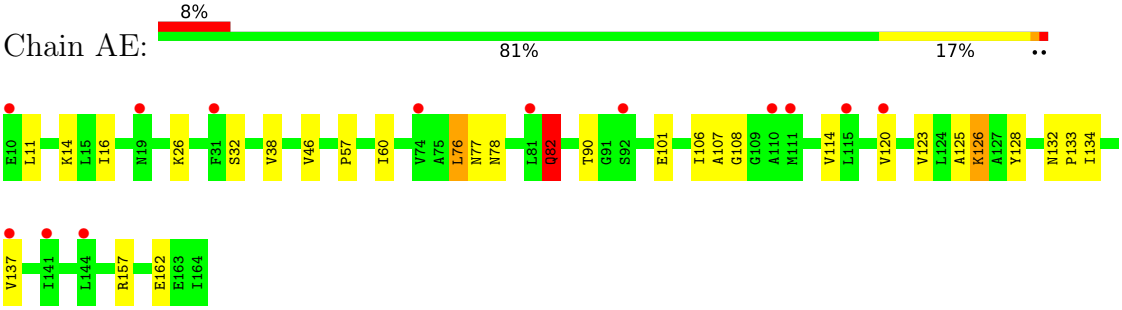
• Molecule 4: 30S ribosomal protein S4

Chain BD:



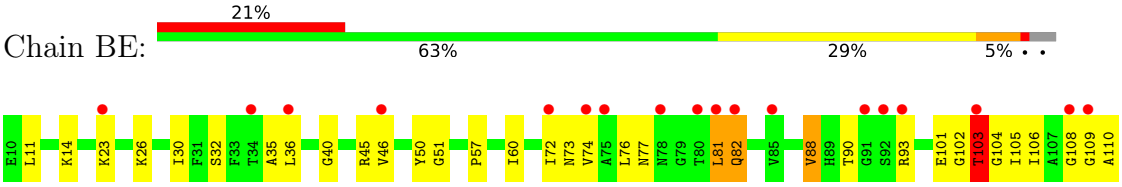
• Molecule 5: 30S ribosomal protein S5

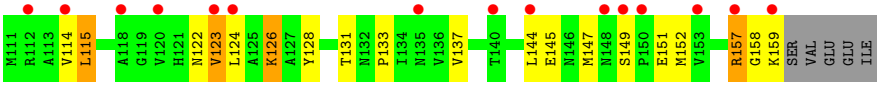
Chain AE:



• Molecule 5: 30S ribosomal protein S5

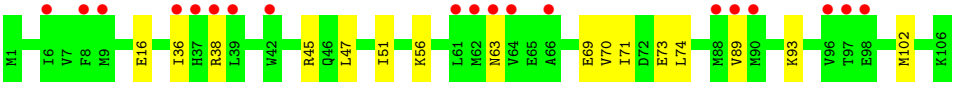
Chain BE:





• Molecule 6: 30S ribosomal protein S6

Chain AF:

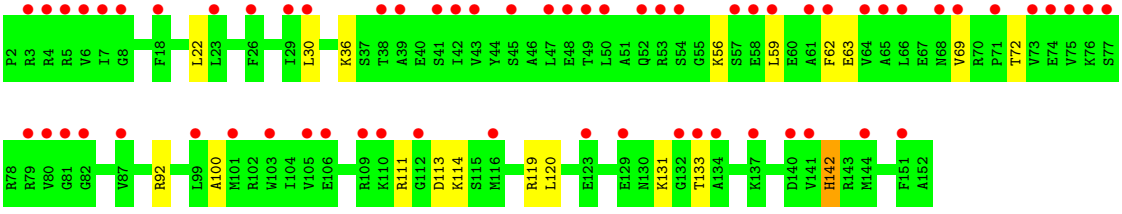


• Molecule 6: 30S ribosomal protein S6

Chain BF:

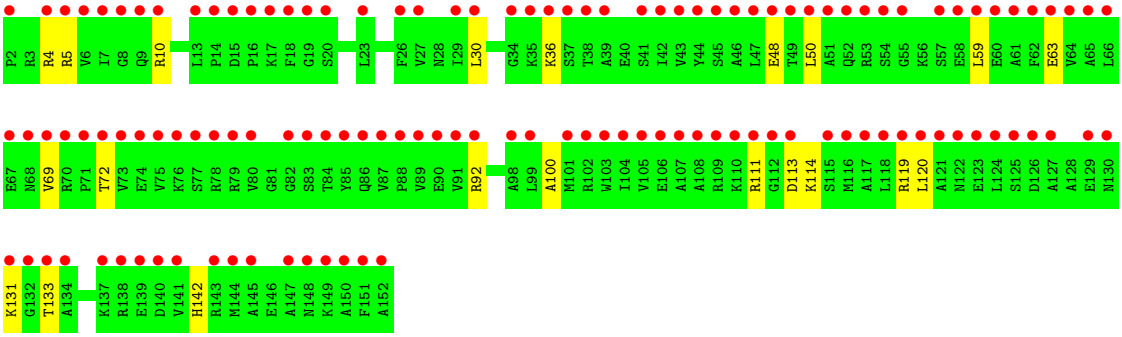
• Molecule 7: 30S ribosomal protein S7

Chain AG:



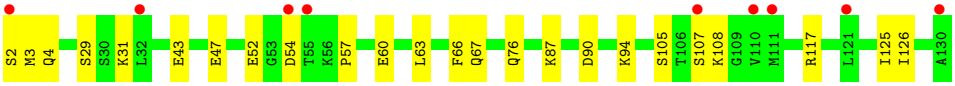
• Molecule 7: 30S ribosomal protein S7

Chain BG:



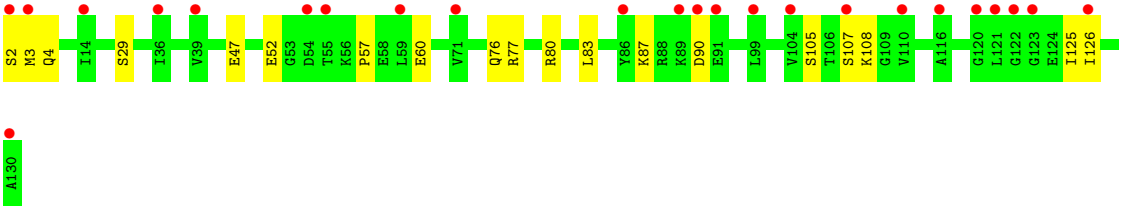
• Molecule 8: 30S ribosomal protein S8

Chain AH:



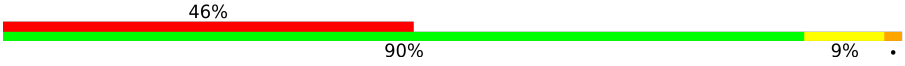
• Molecule 8: 30S ribosomal protein S8

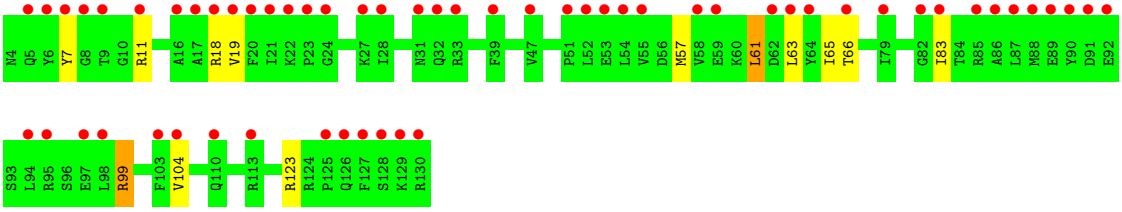
Chain BH:



• Molecule 9: 30S ribosomal protein S9

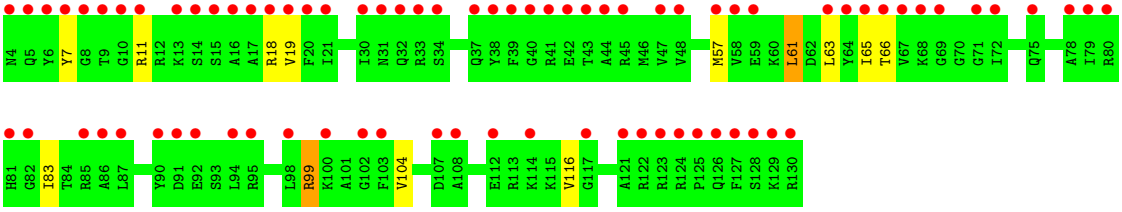
Chain AI:





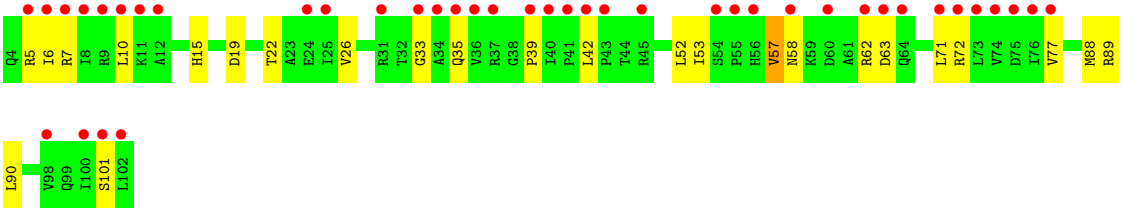
• Molecule 9: 30S ribosomal protein S9

Chain BI:



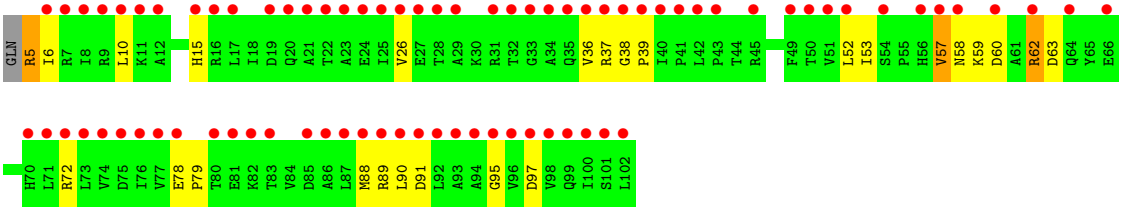
• Molecule 10: 30S ribosomal protein S10

Chain AJ:

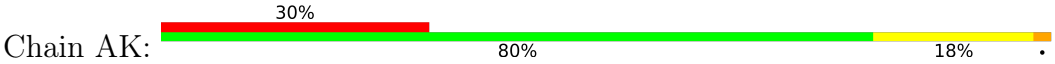


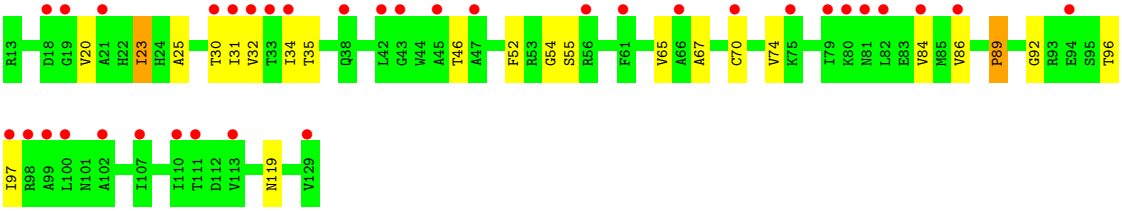
• Molecule 10: 30S ribosomal protein S10

Chain BJ:

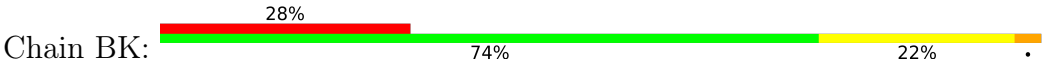


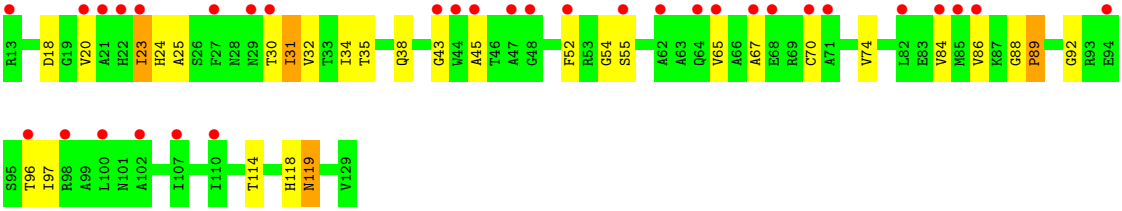
• Molecule 11: 30S ribosomal protein S11



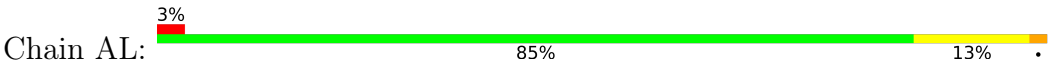


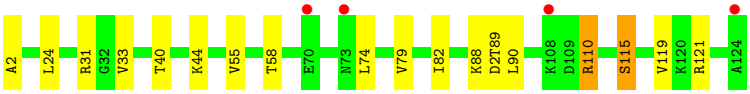
• Molecule 11: 30S ribosomal protein S11



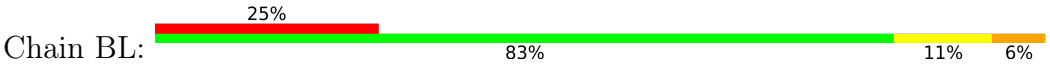


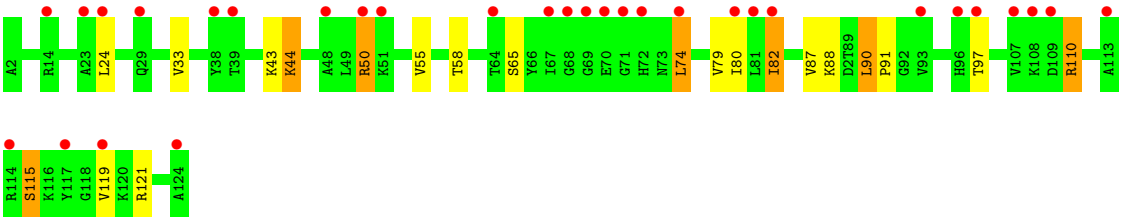
• Molecule 12: 30S ribosomal protein S12





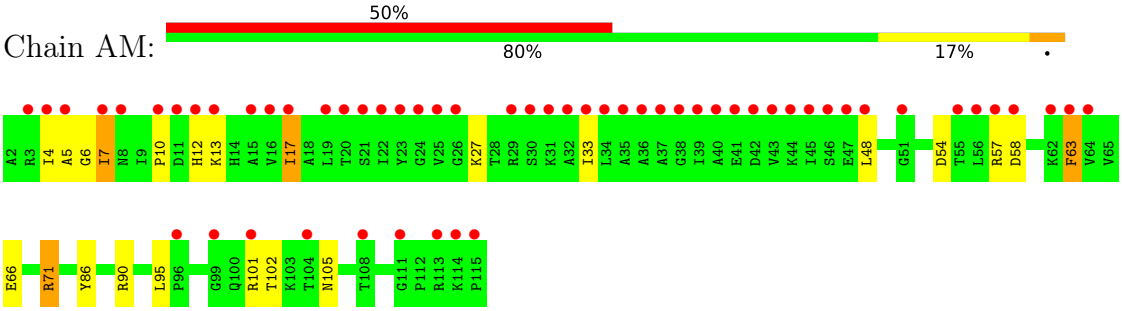
• Molecule 12: 30S ribosomal protein S12





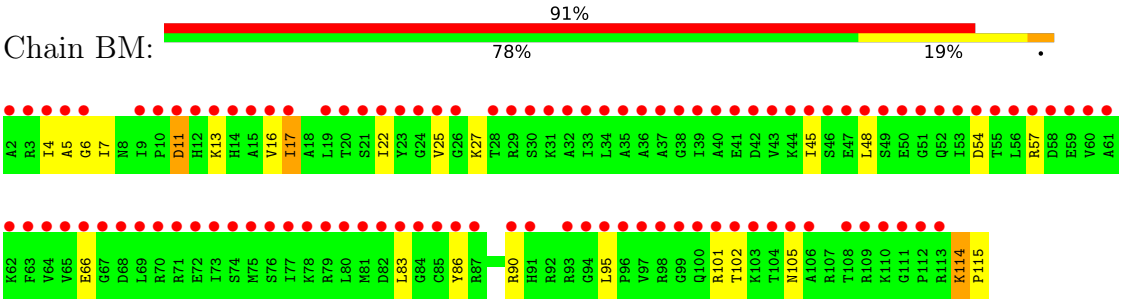
• Molecule 13: 30S ribosomal protein S13

Chain AM:



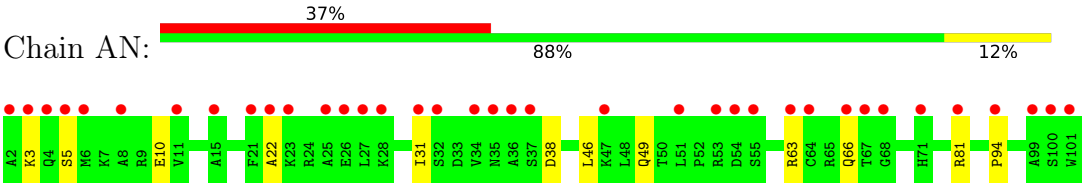
• Molecule 13: 30S ribosomal protein S13

Chain BM:



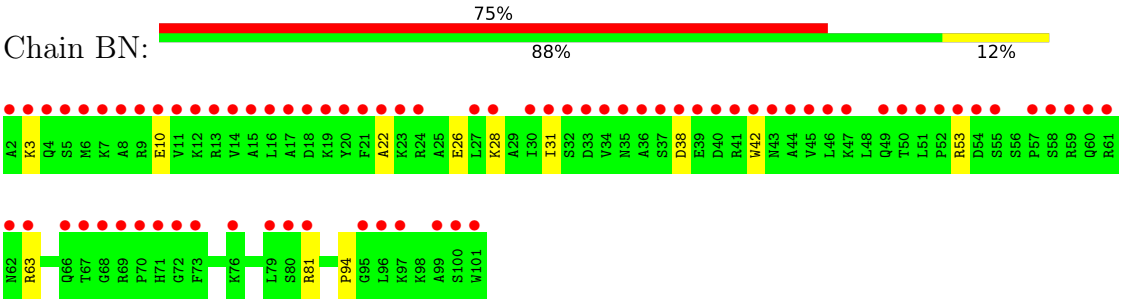
• Molecule 14: 30S ribosomal protein S14

Chain AN:



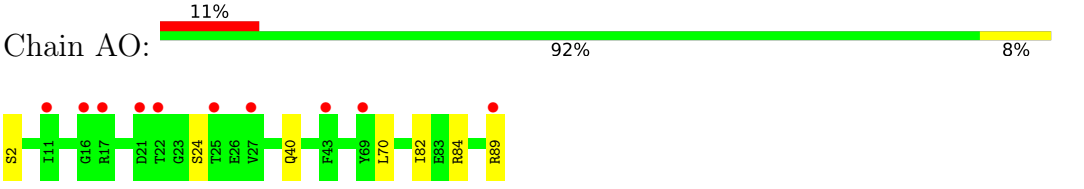
• Molecule 14: 30S ribosomal protein S14

Chain BN:



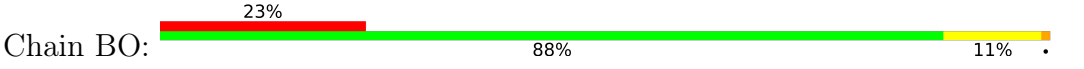
• Molecule 15: 30S ribosomal protein S15

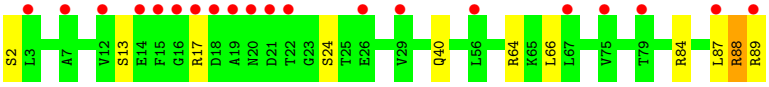
Chain AO:



• Molecule 15: 30S ribosomal protein S15

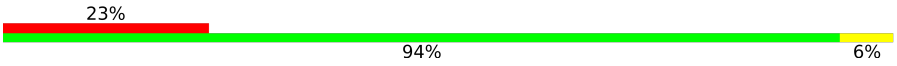
Chain BO:

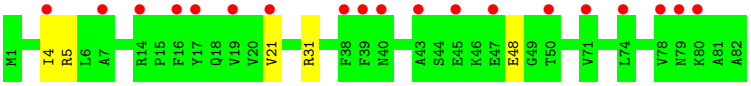




• Molecule 16: 30S ribosomal protein S16

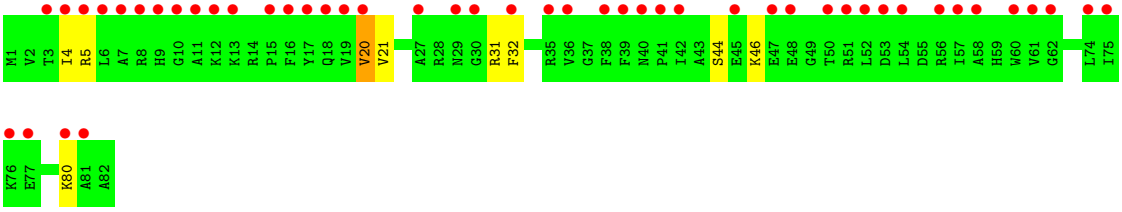
Chain AP:





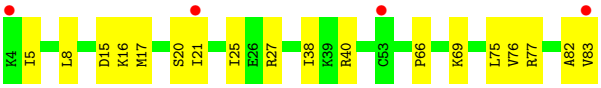
• Molecule 16: 30S ribosomal protein S16

Chain BP:



• Molecule 17: 30S ribosomal protein S17

Chain AQ:



• Molecule 17: 30S ribosomal protein S17

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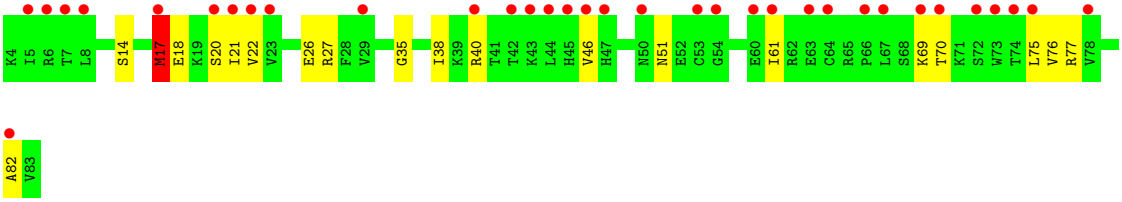
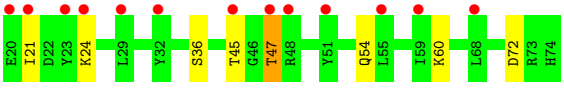


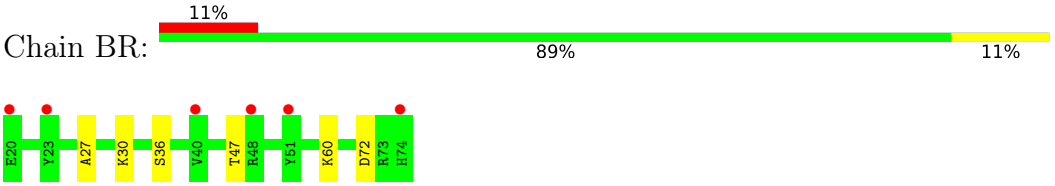
• Molecule 18: 30S ribosomal protein S18

Chain AR:



• Molecule 18: 30S ribosomal protein S18

Chain BR:



• Molecule 19: 30S ribosomal protein S19

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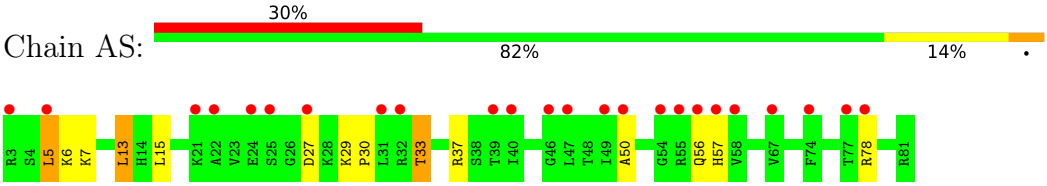

• Molecule 19: 30S ribosomal protein S19

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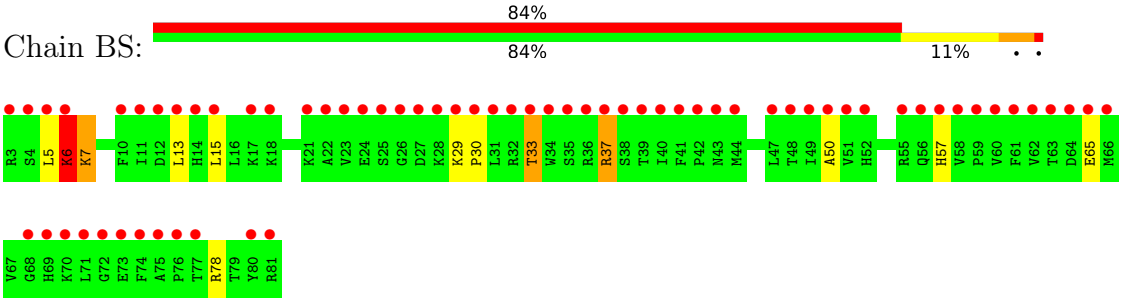
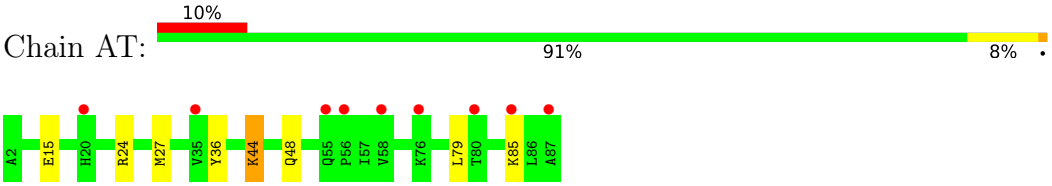


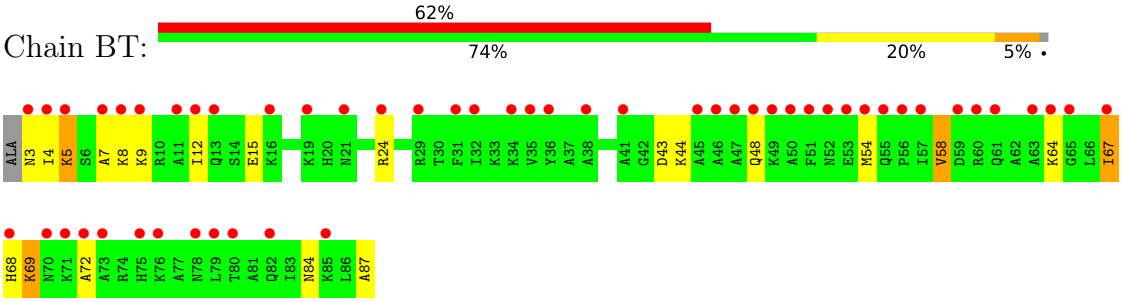
• Molecule 20: 30S ribosomal protein S20

Chain AT:



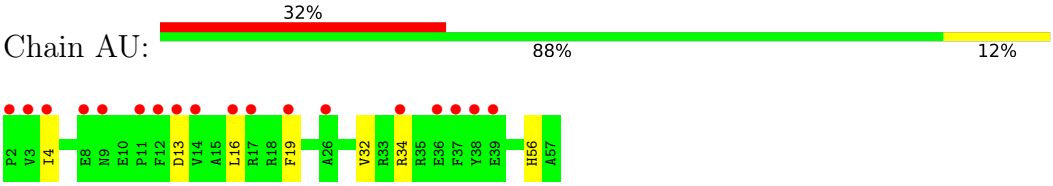
• Molecule 20: 30S ribosomal protein S20

Chain BT:



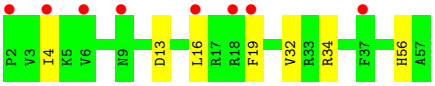
• Molecule 21: 30S ribosomal protein S21

Chain AU:



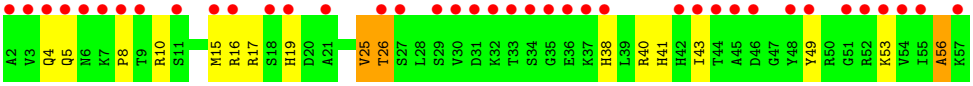
• Molecule 21: 30S ribosomal protein S21

Chain BU:



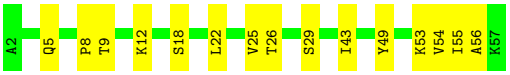
• Molecule 22: 50S ribosomal protein L32

Chain C1:



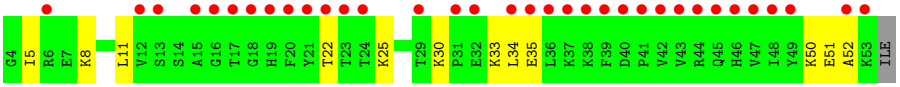
• Molecule 22: 50S ribosomal protein L32

Chain D1:



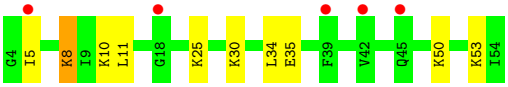
• Molecule 23: 50S ribosomal protein L33

Chain C2:



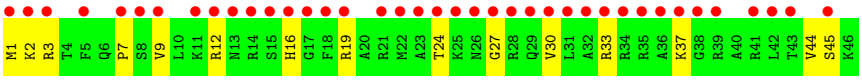
• Molecule 23: 50S ribosomal protein L33

Chain D2:



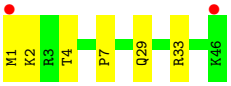
• Molecule 24: 50S ribosomal protein L34

Chain C3:



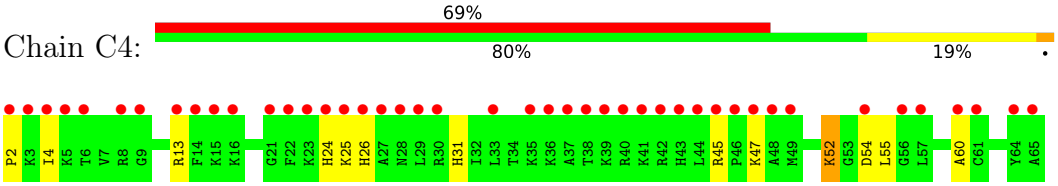
• Molecule 24: 50S ribosomal protein L34

Chain D3:



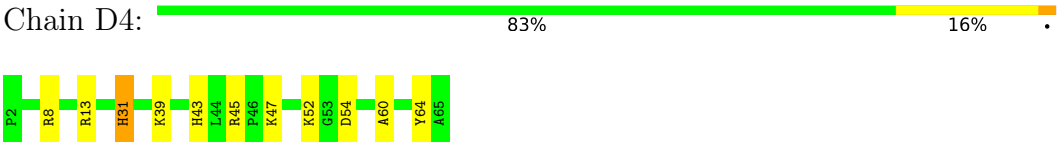
• Molecule 25: 50S ribosomal protein L35

Chain C4:



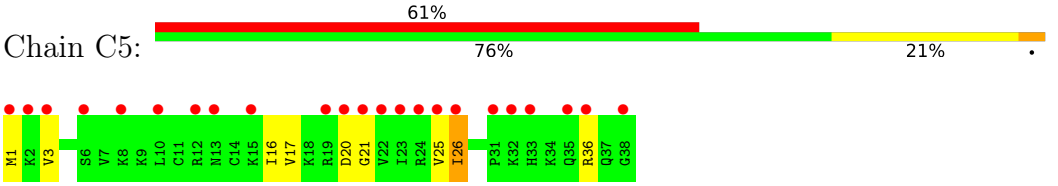
• Molecule 25: 50S ribosomal protein L35

Chain D4:



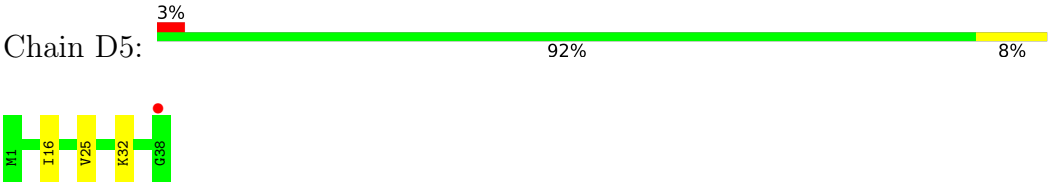
• Molecule 26: 50S ribosomal protein L36

Chain C5:



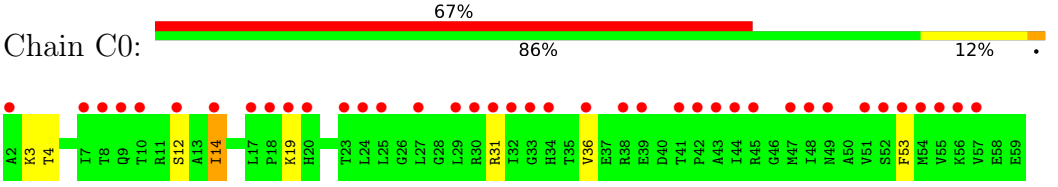
• Molecule 26: 50S ribosomal protein L36

Chain D5:



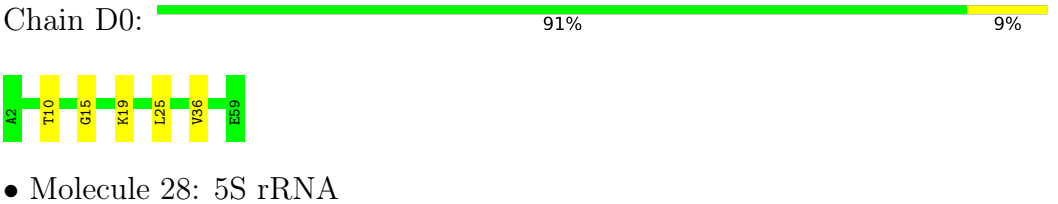
• Molecule 27: 50S ribosomal protein L30

Chain C0:



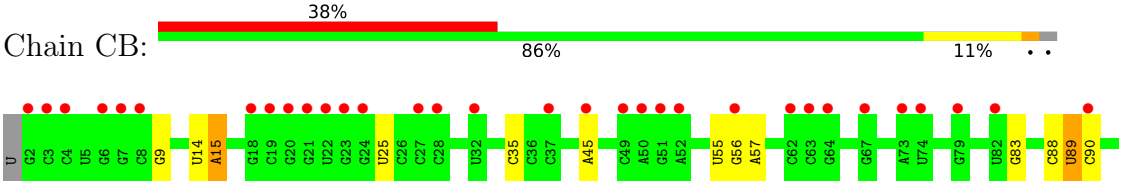
• Molecule 27: 50S ribosomal protein L30

Chain D0:



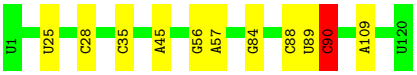
• Molecule 28: 5S rRNA

Chain CB:



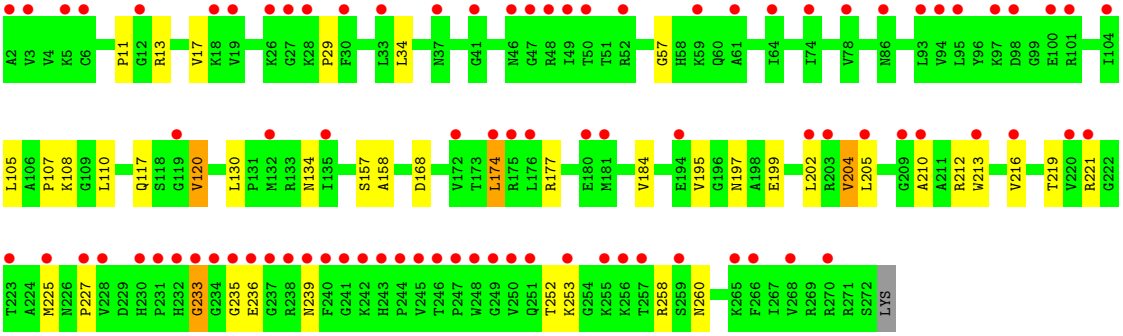
• Molecule 28: 5S rRNA

Chain DB:



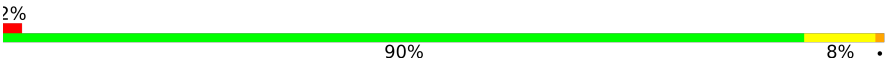
• Molecule 29: 50S ribosomal protein L2

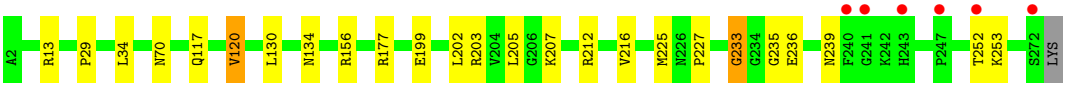
Chain CC:



• Molecule 29: 50S ribosomal protein L2

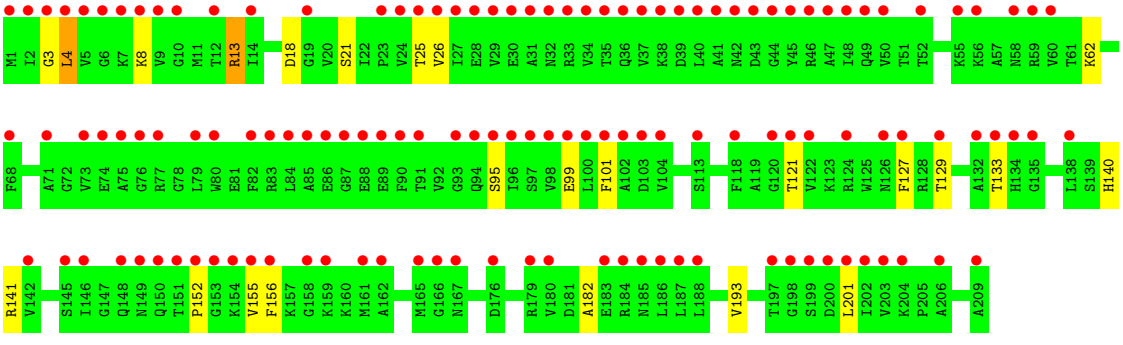
Chain DC:





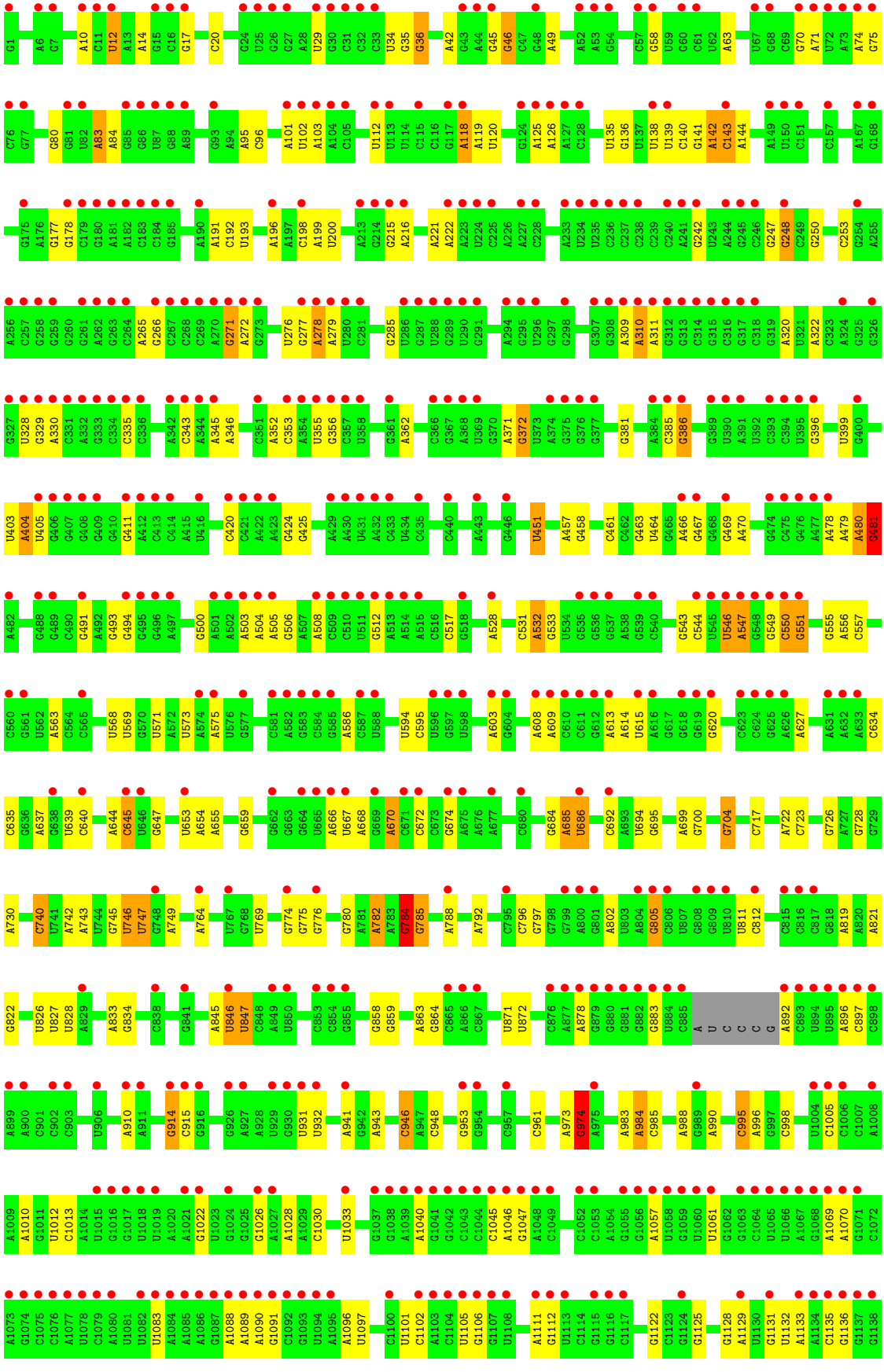
• Molecule 30: 50S ribosomal protein L3

Chain CD:



• Molecule 31: 23S rRNA

Chain CA: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A1009 A1010 G1011 U1012 C1013 A1014 U1015 G1016 G1017 U1018 U1019 A1020 A1021 G1022 U1023 G1024 G1025 G1026 A1027 A1028 A1029 C1030 U1033 G1037 G1038 A1039 A1040 G1041 G1042 C1043 C1044 C1045 A1046 G1047 A1048 C1049 C1052 C1053 A1054 G1055 G1056 A1057 U1058 G1059 U1060 U1061 G1062 G1063 C1064 U1065 U1066 A1067 G1068 A1069 A1070 G1071 C1072
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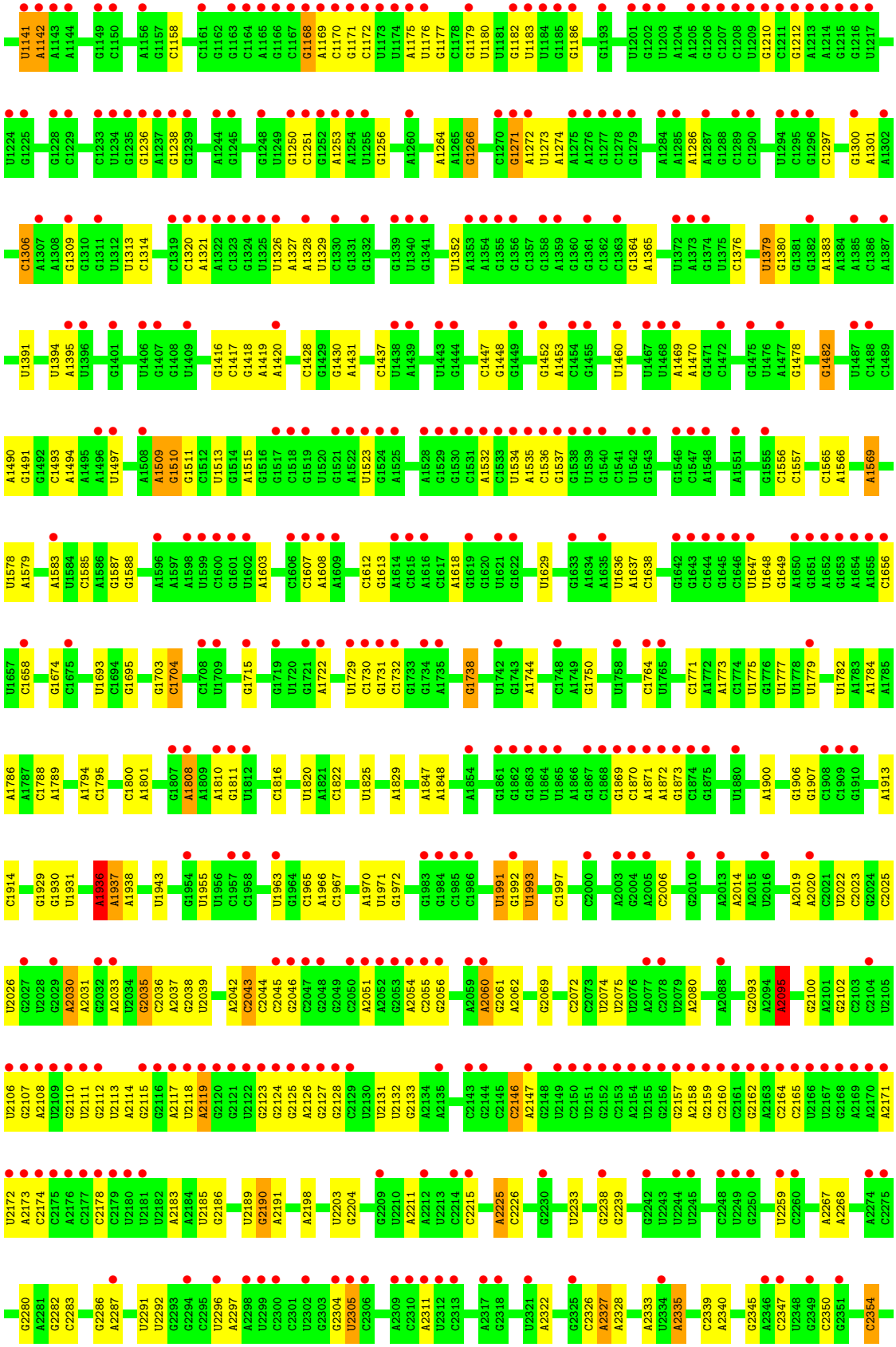
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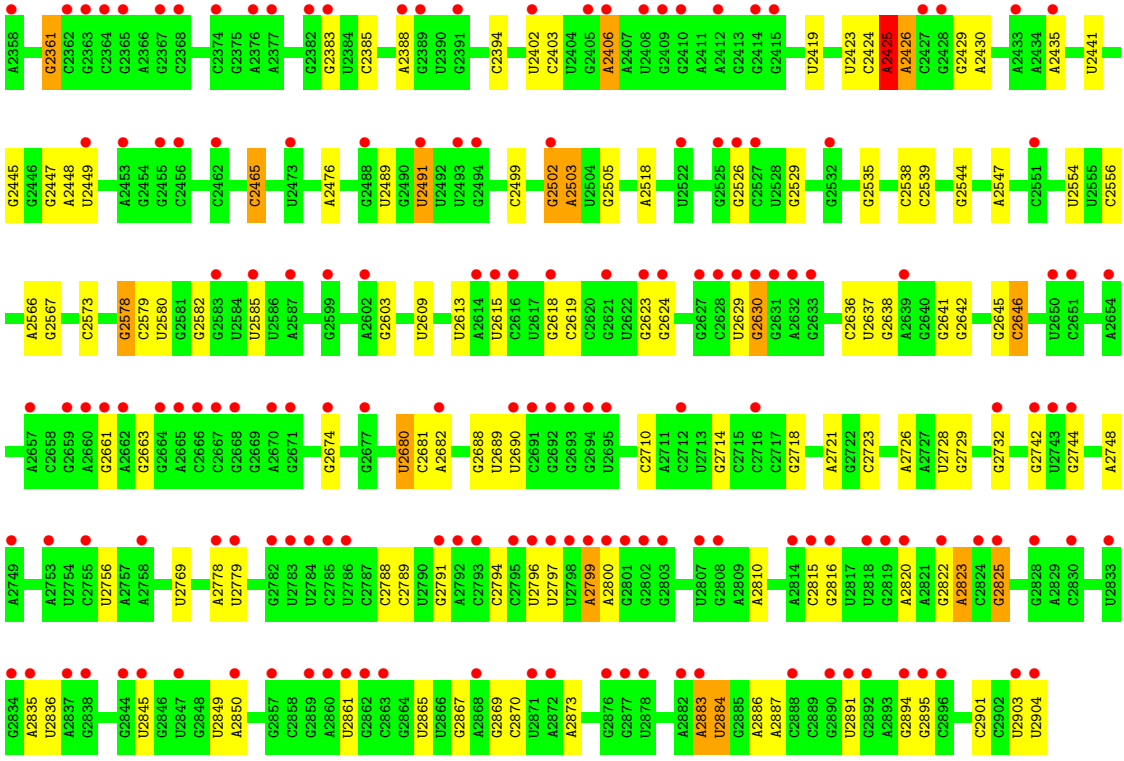
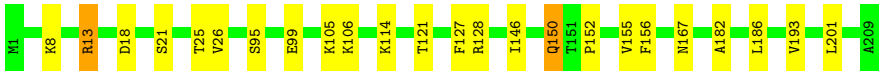


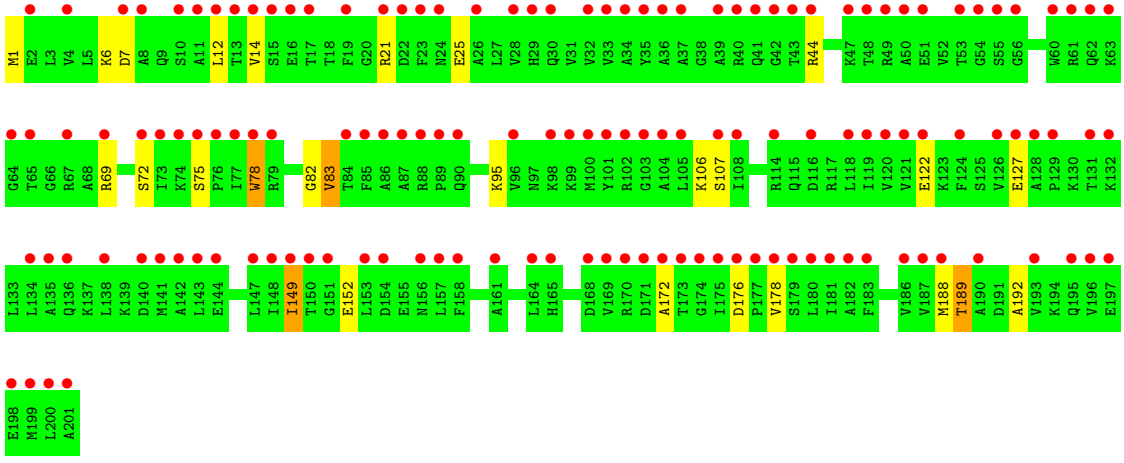
• Molecule 32: 50S ribosomal protein L3

Chain DD:



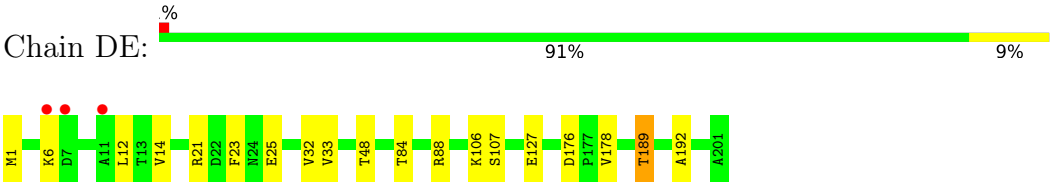
• Molecule 33: 50S ribosomal protein L4

Chain CE:



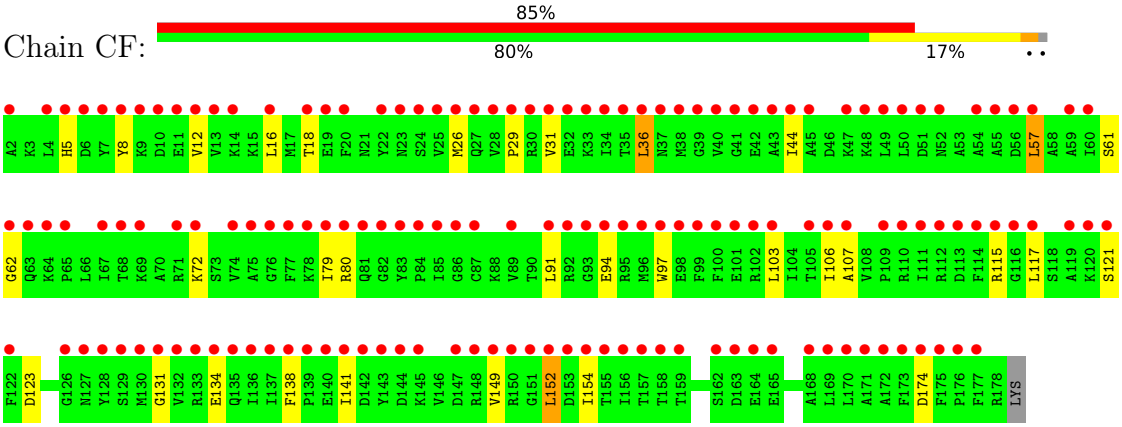
• Molecule 33: 50S ribosomal protein L4

Chain DE:



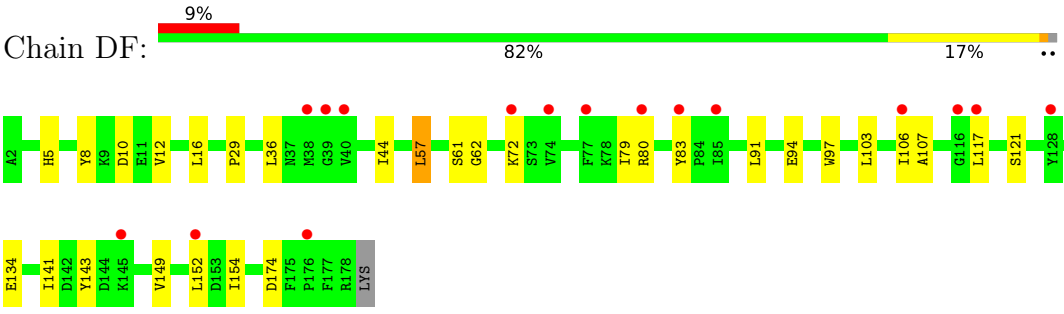
• Molecule 34: 50S ribosomal protein L5

Chain CF:



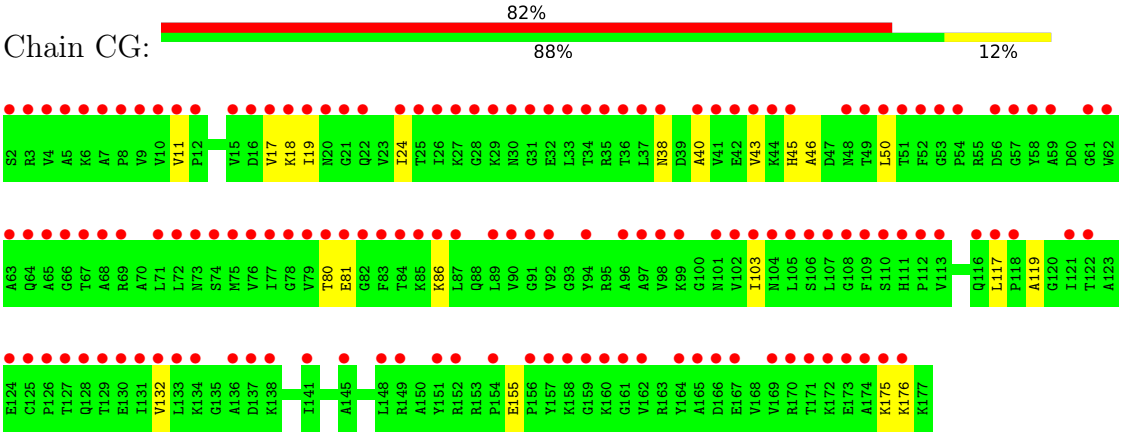
• Molecule 34: 50S ribosomal protein L5

Chain DF:



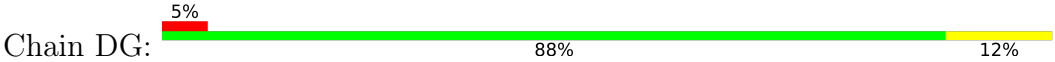
• Molecule 35: 50S ribosomal protein L6

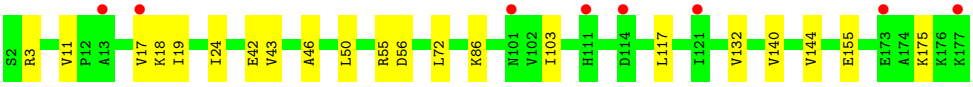
Chain CG:



• Molecule 35: 50S ribosomal protein L6

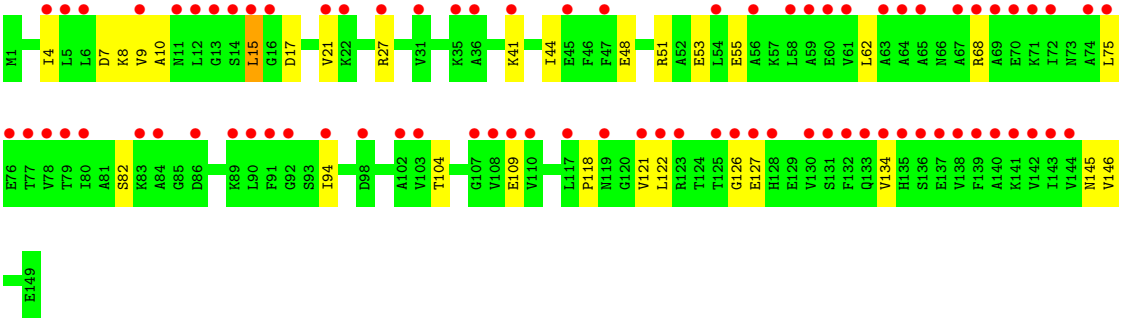
Chain DG:





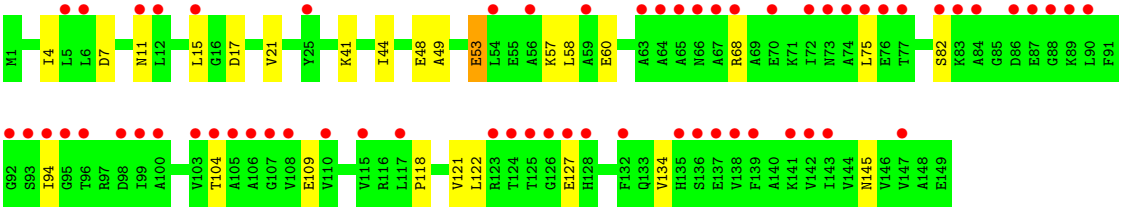
• Molecule 36: 50S ribosomal protein L9

Chain CH:



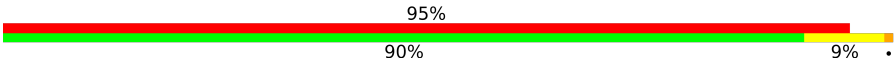
• Molecule 36: 50S ribosomal protein L9

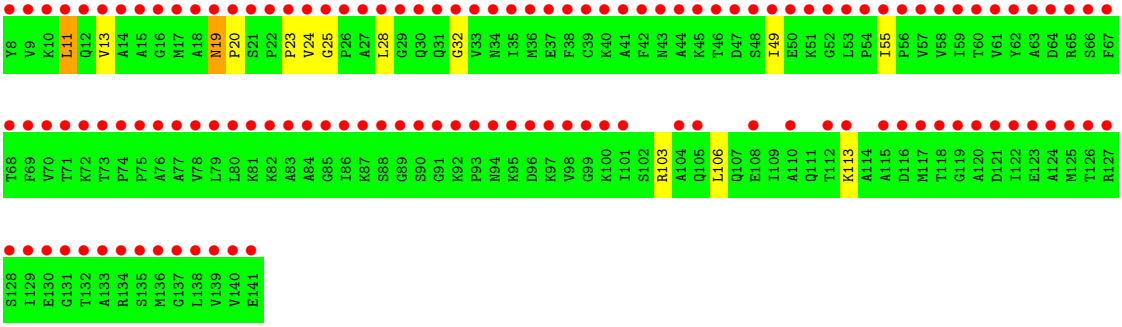
Chain DH:



• Molecule 37: 50S ribosomal protein L11

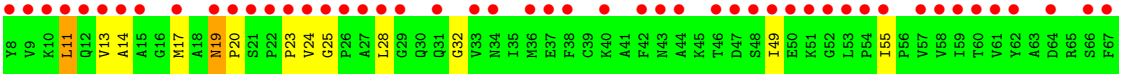
Chain CJ:

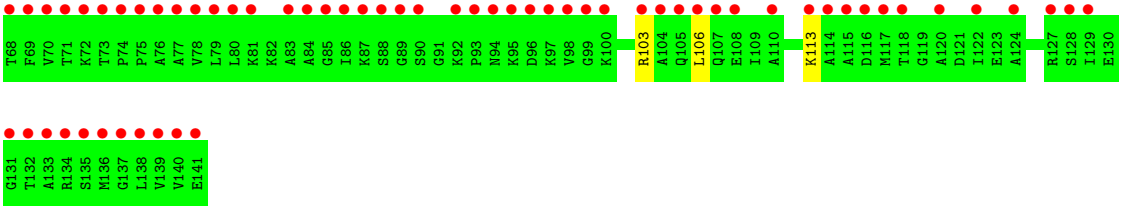




• Molecule 37: 50S ribosomal protein L11

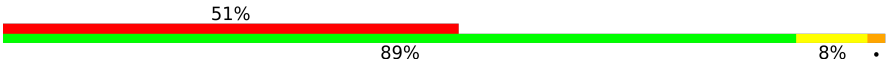
Chain DJ:

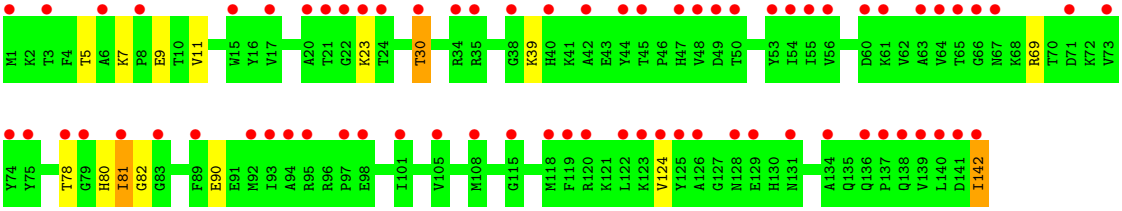




• Molecule 38: 50S ribosomal protein L13

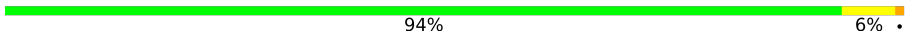
Chain CK:





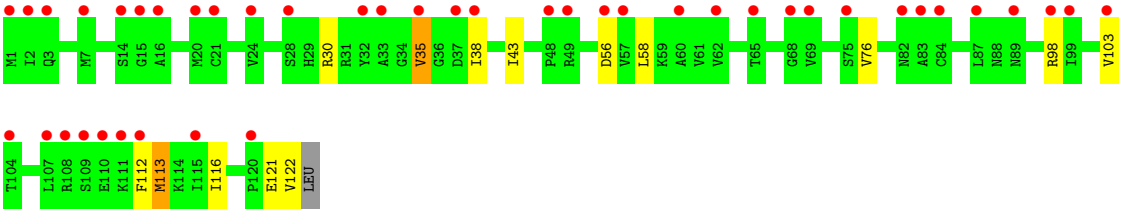
• Molecule 38: 50S ribosomal protein L13

Chain DK:



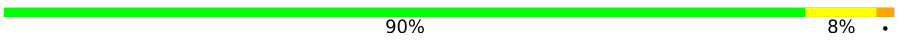
• Molecule 39: 50S ribosomal protein L14

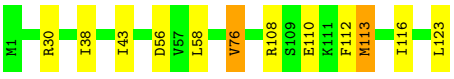
Chain CL:



• Molecule 39: 50S ribosomal protein L14

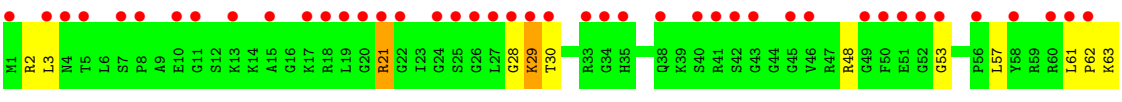
Chain DL:

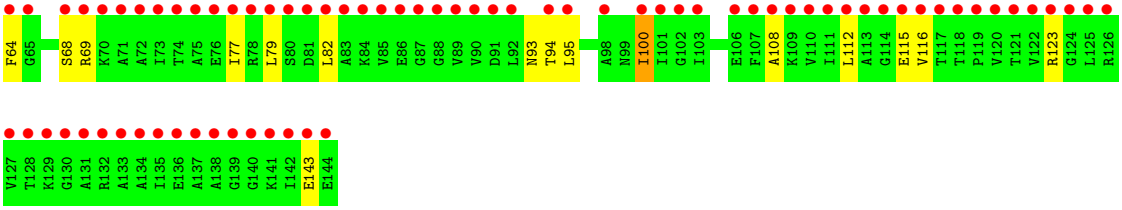




• Molecule 40: 50S ribosomal protein L15

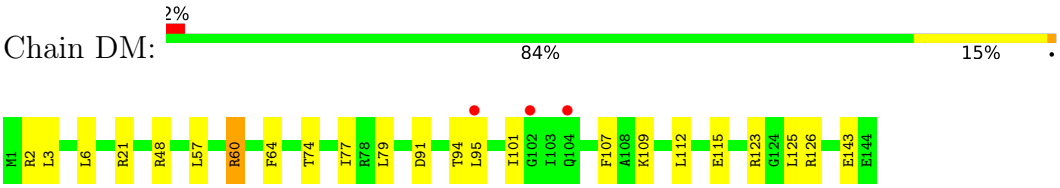
Chain CM:





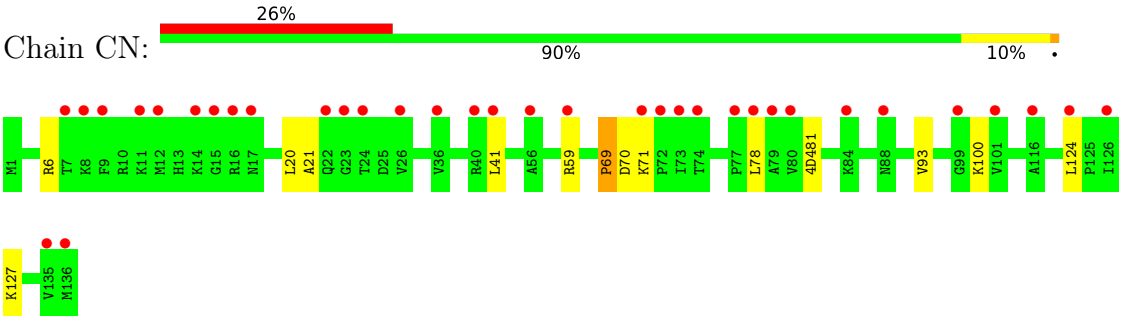
• Molecule 40: 50S ribosomal protein L15

Chain DM:



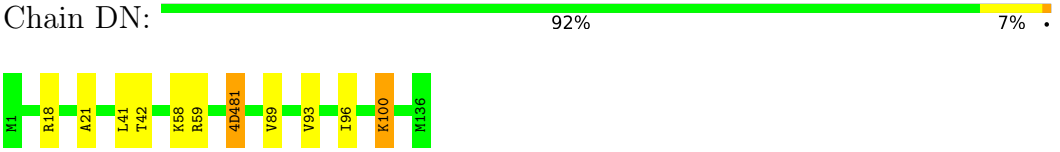
• Molecule 41: 50S ribosomal protein L16

Chain CN:



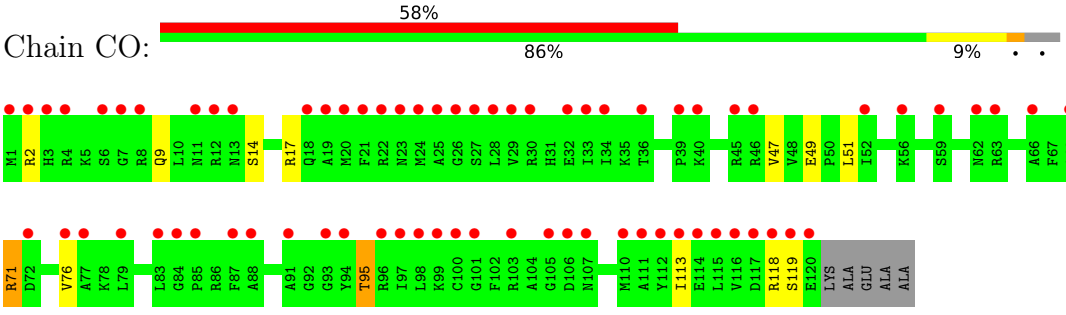
• Molecule 41: 50S ribosomal protein L16

Chain DN:



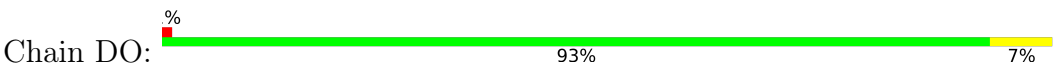
• Molecule 42: 50S ribosomal protein L17

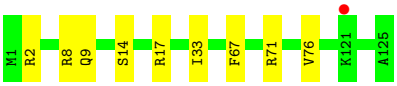
Chain CO:



• Molecule 42: 50S ribosomal protein L17

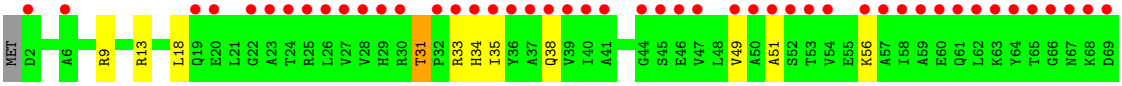
Chain DO:

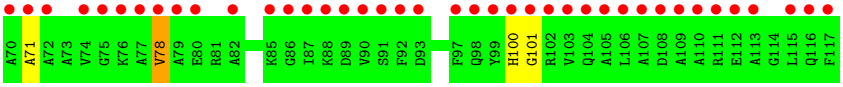




• Molecule 43: 50S ribosomal protein L18

Chain CP:



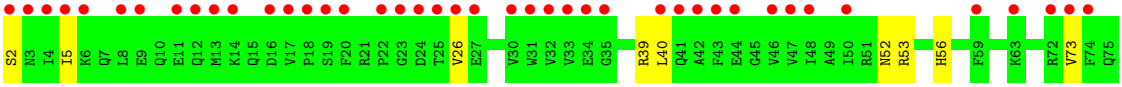


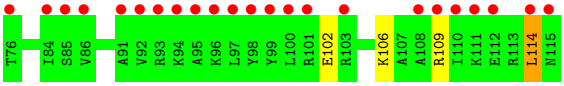
• Molecule 43: 50S ribosomal protein L18

Chain DP:

• Molecule 44: 50S ribosomal protein L19

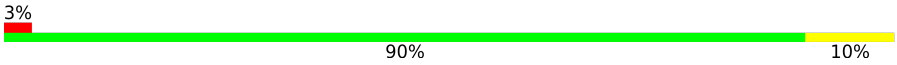
Chain CQ:





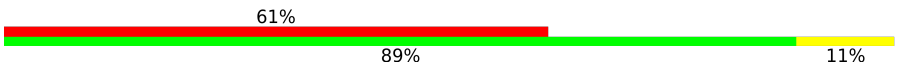
• Molecule 44: 50S ribosomal protein L19

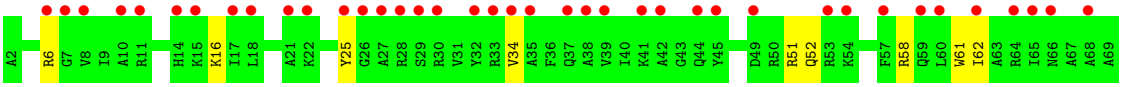
Chain DQ:

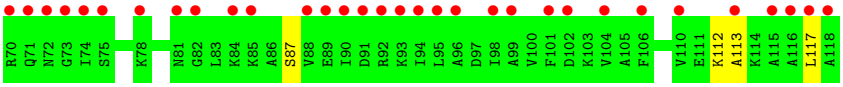


• Molecule 45: 50S ribosomal protein L20

Chain CR:

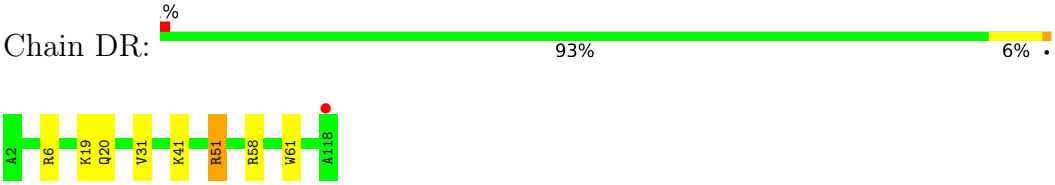






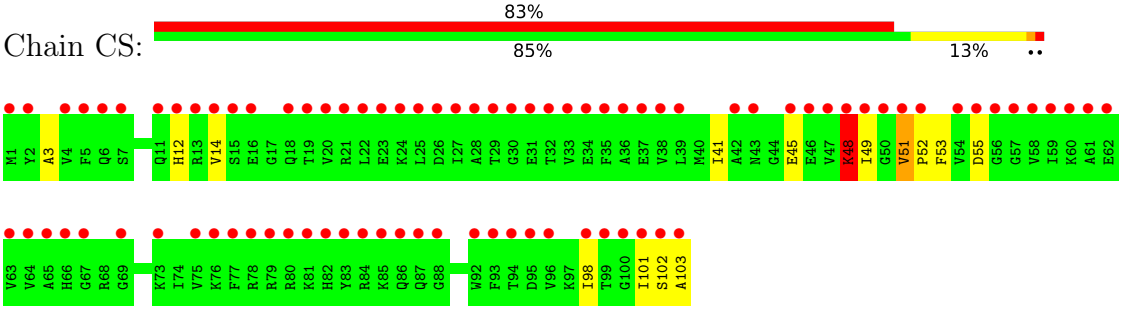
• Molecule 45: 50S ribosomal protein L20

Chain DR:



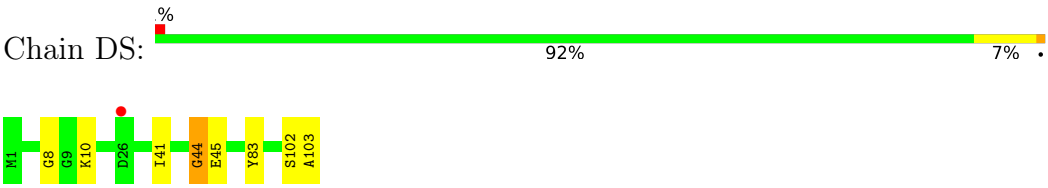
• Molecule 46: 50S ribosomal protein L21

Chain CS:



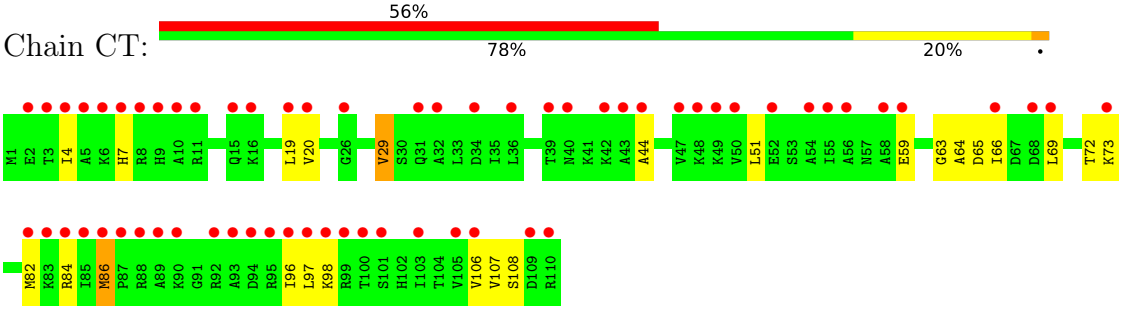
• Molecule 46: 50S ribosomal protein L21

Chain DS:



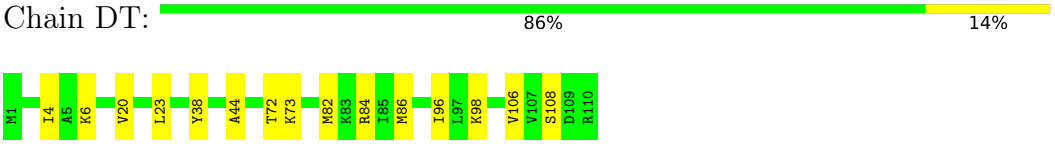
• Molecule 47: 50S ribosomal protein L22

Chain CT:



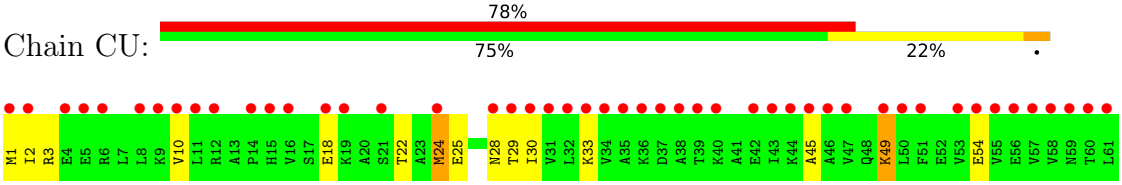
• Molecule 47: 50S ribosomal protein L22

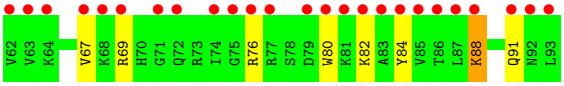
Chain DT:



• Molecule 48: 50S ribosomal protein L23

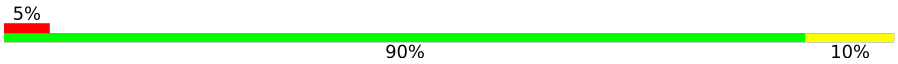
Chain CU:

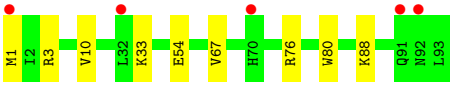




• Molecule 48: 50S ribosomal protein L23

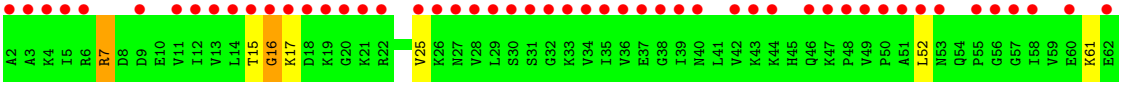
Chain DU:

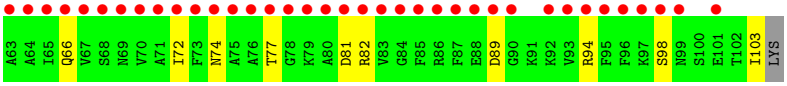




• Molecule 49: 50S ribosomal protein L24

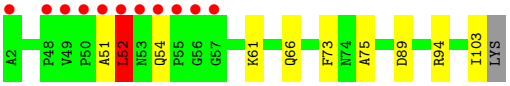
Chain CV:





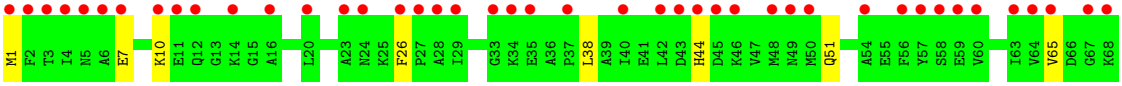
• Molecule 49: 50S ribosomal protein L24

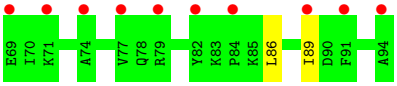
Chain DV:



• Molecule 50: 50S ribosomal protein L25

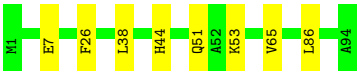
Chain CW:





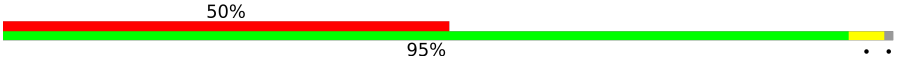
• Molecule 50: 50S ribosomal protein L25

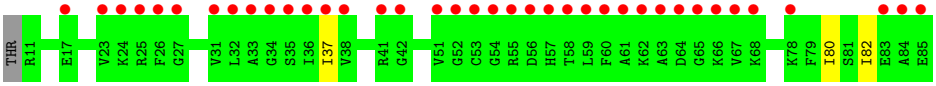
Chain DW:



• Molecule 51: 50S ribosomal protein L27

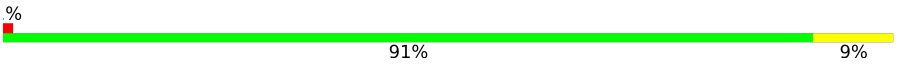
Chain CX:





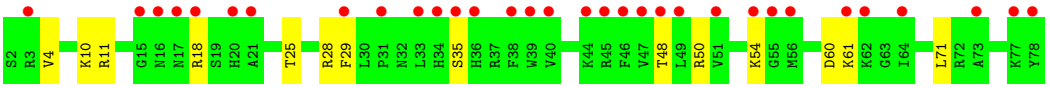
• Molecule 51: 50S ribosomal protein L27

Chain DX:



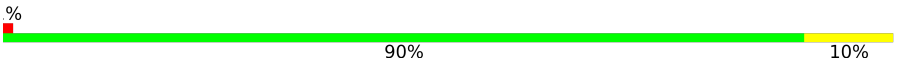
• Molecule 52: 50S ribosomal protein L28

Chain CY:



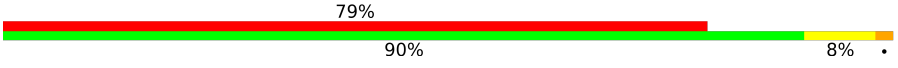
• Molecule 52: 50S ribosomal protein L28

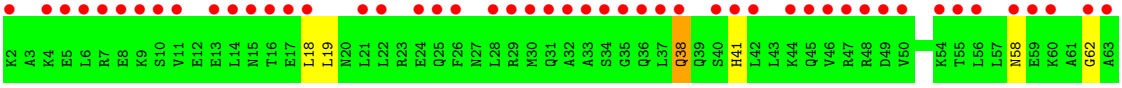
Chain DY:



• Molecule 53: 50S ribosomal protein L29

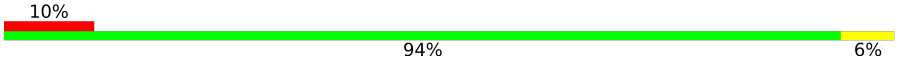
Chain CZ:

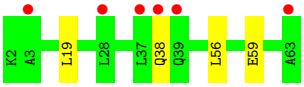




• Molecule 53: 50S ribosomal protein L29

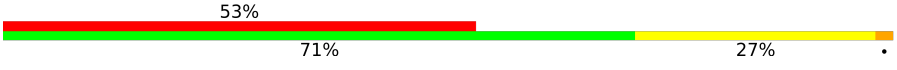
Chain DZ:

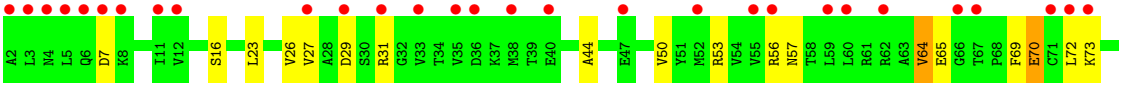


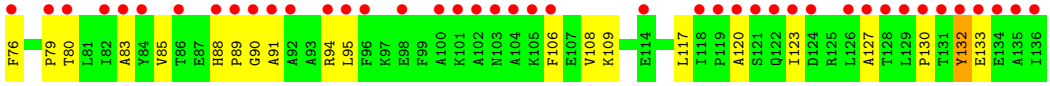


• Molecule 54: 50S ribosomal protein L10

Chain DI:

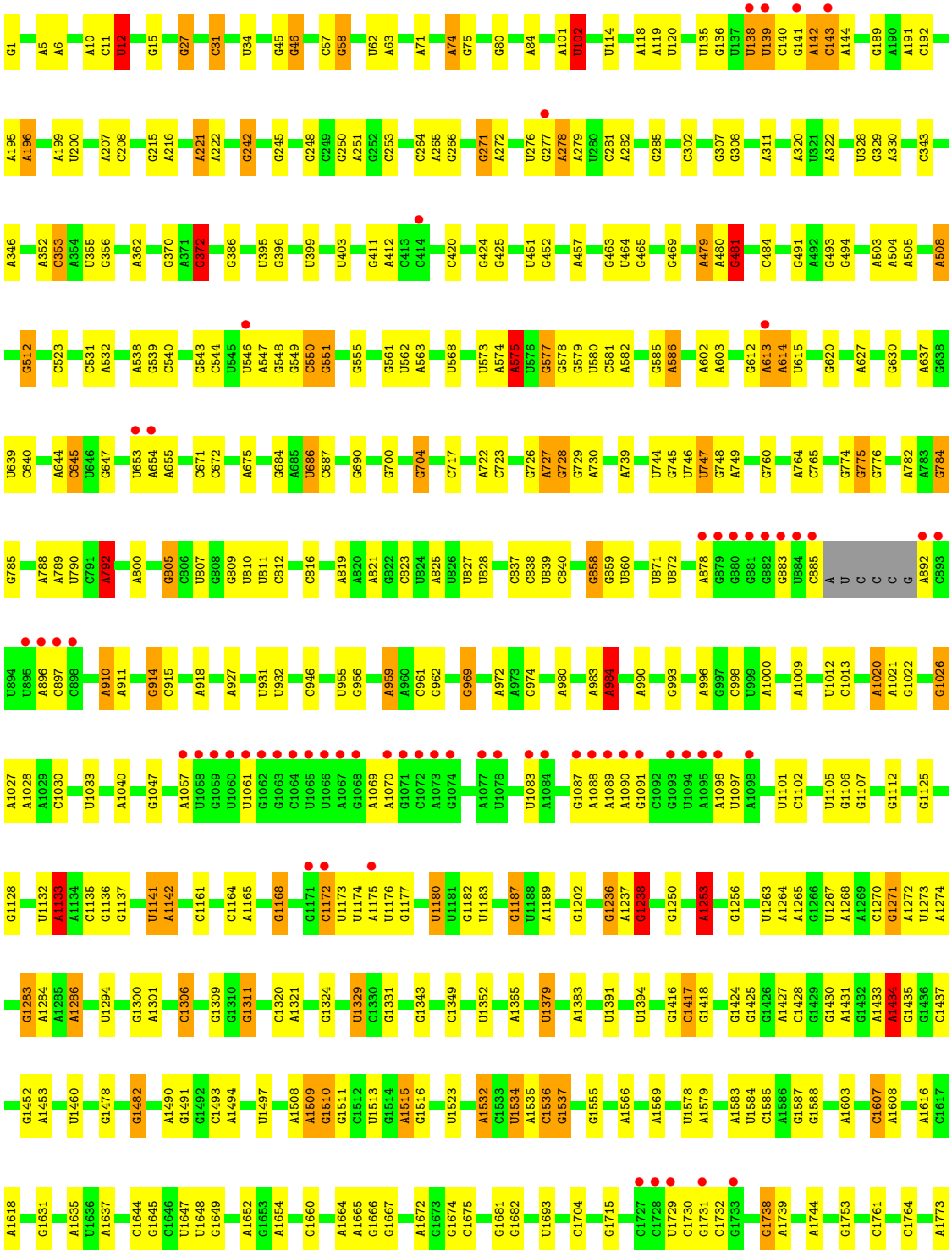


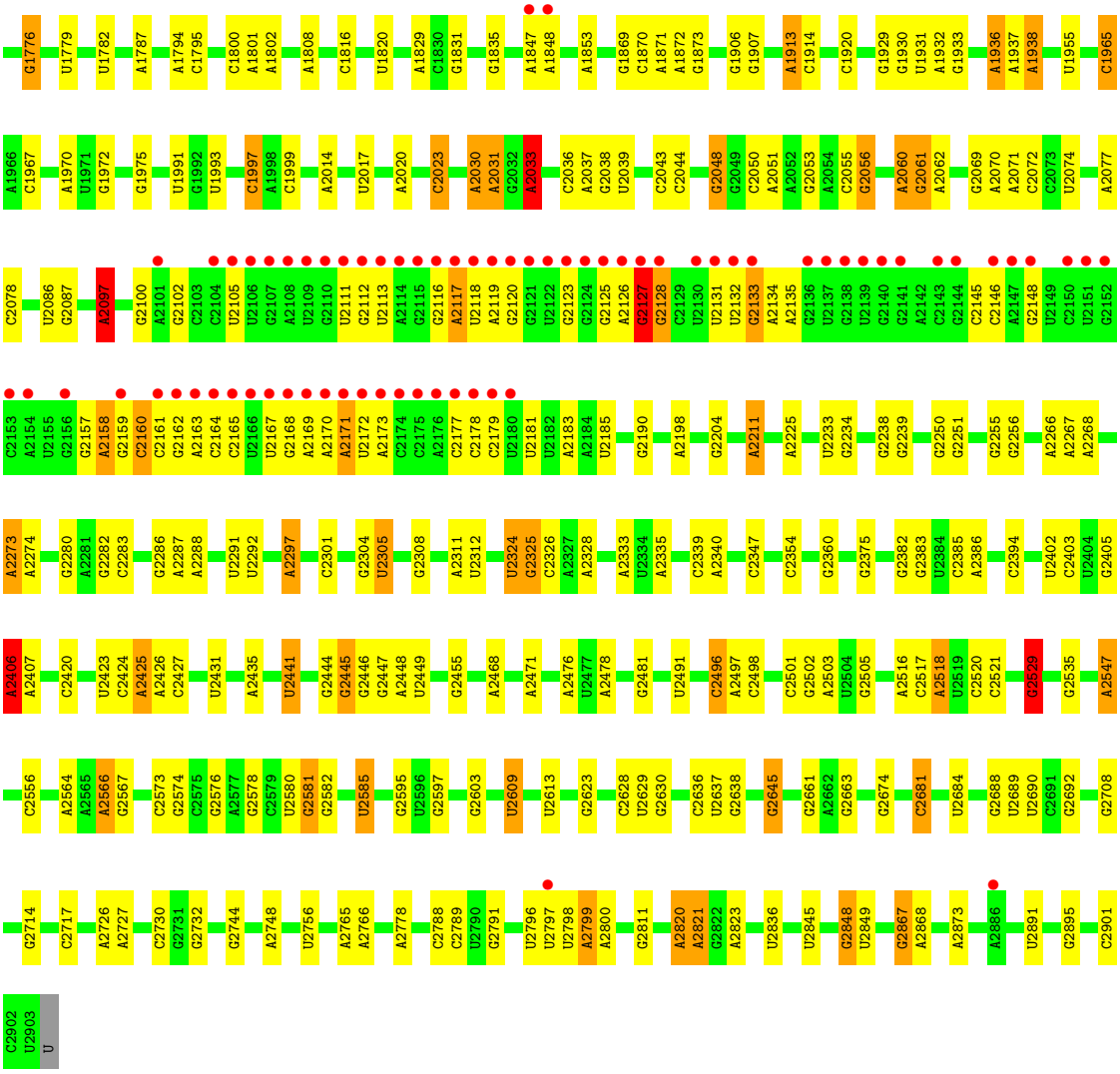




• Molecule 55: 23S rRNA

Chain DA:




G1776 U1779 U1782 A1787 A1794 C1795 C1800 A1801 A1802 A1808 C1816 U1820 A1829 C1830 G1831 G1835 A1847 A1848 A1853 G1869 C1870 A1871 A1872 G1873 G1906 G1907 A1913 C1914 C1920 G1929 G1930 U1931 A1932 G1933 A1936 A1937 A1938 U1955 C1965
A1966 C1967 A1970 U1971 G1972 G1975 U1991 G1992 U1993 C1997 A1998 C1999 A2014 U2017 A2020 C2023 A2030 A2031 G2032 A2033 C2036 A2037 G2038 U2039 C2043 C2044 G2048 G2049 C2050 A2051 A2052 G2053 A2054 C2055 G2056 A2060 G2061 A2062 G2069 A2070 A2071 C2072 C2073 U2074 A2077
C2078 U2086 G2087 A2097 G2100 A2101 G2102 C2103 C2104 U2105 U2106 G2107 A2108 U2109 C2110 U2111 G2112 U2113 A2114 G2115 G2116 A2117 U2118 A2119 G2120 G2121 U2122 G2123 G2124 G2125 A2126 G2127 G2128 C2129 U2130 U2131 U2132 G2133 A2134 A2135 G2136 U2137 G2138 U2139 G2140 G2141 A2142 C2143 G2144 C2145 C2146 A2147 G2148 U2149 C2150 U2151 C2152
C2153 A2154 U2155 G2156 G2157 A2158 G2159 C2160 C2161 G2162 A2163 C2164 C2165 U2166 U2167 G2168 A2169 A2170 A2171 U2172 A2173 C2174 C2175 A2176 C2177 C2178 C2179 U2180 U2181 U2182 A2183 A2184 U2185 G2190 A2198 G2204 A2211 A2225 U2233 G2234 G2238 G2239 G2250 G2251 G2255 G2256 A2266 A2267 A2268
A2273 A2274 G2280 A2281 G2282 C2283 G2286 A2287 A2288 U2291 U2292 A2297 C2301 G2304 U2305 G2308 A2311 U2312 U2324 G2325 C2326 A2327 A2328 A2333 U2334 A2335 C2339 A2340 C2347 C2354 G2360 G2375 G2382 G2383 U2384 C2385 A2386 C2394 U2402 C2403 U2404 G2405
A2406 A2407 C2420 U2423 C2424 A2425 A2426 C2427 U2431 A2435 U2441 G2444 G2445 G2446 G2447 A2448 U2449 G2455 A2468 A2471 A2476 U2477 A2478 G2481 U2491 C2496 A2497 C2498 C2501 G2502 A2503 U2504 G2505 A2516 C2517 A2518 U2519 C2520 C2521 G2529 G2535 A2547
C2556 A2564 A2565 A2566 G2567 C2573 G2574 C2575 G2576 A2577 G2578 C2579 U2580 G2581 G2582 U2585 G2595 U2596 G2597 G2603 U2609 U2613 G2623 C2628 U2629 G2630 C2636 U2637 G2638 G2645 G2661 A2662 G2663 G2674 C2681 U2684 G2688 U2689 U2690 C2691 G2692 G2708
G2714 C2717 A2726 A2727 C2730 G2731 G2732 G2744 A2748 U2756 A2765 A2766 A2778 C2788 C2789 U2790 G2791 U2796 U2797 U2798 A2799 A2800 G2811 A2820 A2821 G2822 A2823 U2836 U2845 G2848 U2849 G2867 A2868 A2873 A2886 U2891 G2895 C2901
C2902 U2903 U

4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	212.18Å 434.82Å 624.26Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	48.51 – 2.96 48.28 – 2.96	Depositor EDS
% Data completeness (in resolution range)	88.6 (48.51-2.96) 88.6 (48.28-2.96)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	21.17 (at 2.96Å)	Xtriage
Refinement program	BUSTER-TNT 2.11.6	Depositor
R, R_{free}	0.208 , 0.221 0.227 , 0.243	Depositor DCC
R_{free} test set	4163 reflections (0.40%)	wwPDB-VP
Wilson B-factor (Å^2)	57.6	Xtriage
Anisotropy	0.403	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.27 , 89.4	EDS
L-test for twinning[2]	$< \|L\| > = 0.45$, $< L^2 > = 0.27$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.90	EDS
Total number of atoms	295202	wwPDB-VP
Average B, all atoms (Å^2)	123.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.37% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

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

5 Model quality (i)

5.1 Standard geometry (i)

Bond lengths and bond angles in the following residue types are not validated in this section: PEG, H2U, GUN, MEQ, PSU, 4D4, MG, MPD, ACY, 1MG, PG4, PGE, TRS, T1C, 4OC, OMC, 2MG, PUT, EDO, 2MA, MA6, 1PE, 6MZ, D2T, OMG, ZN, 3TD, G7M, OMU, 5MU, SPD, 5MC, UR3

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	AA	1.04	9/36593 (0.0%)	0.86	5/57081 (0.0%)
1	BA	1.05	10/36568 (0.0%)	0.86	5/57042 (0.0%)
2	AB	0.48	0/1784	0.65	0/2403
2	BB	0.48	0/1784	0.65	0/2403
3	AC	0.48	0/1652	0.67	0/2225
3	BC	0.47	0/1652	0.67	0/2225
4	AD	0.44	0/1665	0.69	0/2227
4	BD	0.43	0/1665	0.70	0/2227
5	AE	0.48	0/1157	0.77	0/1557
5	BE	0.51	0/1118	0.81	0/1504
6	AF	0.46	0/881	0.69	0/1189
6	BF	0.47	0/835	0.77	0/1128
7	AG	0.45	0/1196	0.61	0/1602
7	BG	0.46	0/1196	0.62	0/1602
8	AH	0.46	0/989	0.71	0/1326
8	BH	0.46	0/989	0.69	0/1326
9	AI	0.44	0/1034	0.66	0/1375
9	BI	0.44	0/1034	0.65	0/1375
10	AJ	0.44	0/806	0.68	0/1089
10	BJ	0.48	0/797	0.71	0/1077
11	AK	0.46	0/893	0.65	0/1205
11	BK	0.45	0/893	0.68	0/1205
12	AL	0.44	0/960	0.74	0/1286
12	BL	0.47	0/960	0.74	0/1286
13	AM	0.51	0/893	0.72	0/1193
13	BM	0.49	0/893	0.72	0/1193
14	AN	0.46	0/817	0.63	0/1088
14	BN	0.44	0/817	0.63	0/1088
15	AO	0.48	0/722	0.60	0/964
15	BO	0.47	0/722	0.63	0/964

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
16	AP	0.48	0/659	0.70	0/884
16	BP	0.50	0/659	0.76	0/884
17	AQ	0.48	0/658	0.73	0/881
17	BQ	0.51	0/658	0.78	0/881
18	AR	0.53	0/463	0.65	0/621
18	BR	0.50	0/463	0.64	0/621
19	AS	0.46	0/653	0.59	0/877
19	BS	0.45	0/653	0.60	0/877
20	AT	0.48	0/676	0.66	0/895
20	BT	0.52	0/671	0.68	0/888
21	AU	0.45	0/472	0.61	0/627
21	BU	0.43	0/472	0.63	0/627
22	C1	0.49	0/450	0.71	0/599
22	D1	0.61	0/450	0.79	0/599
23	C2	0.46	0/416	0.73	0/554
23	D2	0.51	0/421	0.73	0/561
24	C3	0.46	0/380	0.69	0/498
24	D3	0.55	0/380	0.76	0/498
25	C4	0.46	0/513	0.67	0/676
25	D4	0.56	0/513	0.71	0/676
26	C5	0.43	0/303	0.77	0/397
26	D5	0.53	0/303	0.76	0/397
27	C0	0.52	0/453	0.77	0/605
27	D0	0.62	0/467	0.81	0/623
28	CB	0.98	0/2828	0.88	2/4410 (0.0%)
28	DB	1.13	1/2872 (0.0%)	0.90	0/4478
29	CC	0.45	0/2121	0.76	0/2852
29	DC	0.50	0/2121	0.76	1/2852 (0.0%)
30	CD	0.43	0/1586	0.70	0/2134
31	CA	1.07	44/69165 (0.1%)	0.87	17/107896 (0.0%)
32	DD	0.54	0/1576	0.73	0/2119
33	CE	0.45	0/1571	0.72	0/2113
33	DE	0.52	0/1571	0.72	0/2113
34	CF	0.43	0/1434	0.68	0/1926
34	DF	0.46	0/1434	0.70	0/1926
35	CG	0.42	0/1343	0.66	0/1816
35	DG	0.44	0/1343	0.64	0/1816
36	CH	0.48	0/1121	0.68	0/1515
36	DH	0.48	0/1121	0.68	0/1515
37	CJ	0.48	0/993	0.62	0/1341
37	DJ	0.48	0/993	0.61	0/1341
38	CK	0.43	0/1152	0.70	0/1551
38	DK	0.56	0/1152	0.74	0/1551

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
39	CL	0.47	0/947	0.74	0/1268
39	DL	0.54	0/955	0.75	0/1279
40	CM	0.46	0/1062	0.74	1/1413 (0.1%)
40	DM	0.50	0/1062	0.75	1/1413 (0.1%)
41	CN	0.45	0/1081	0.75	1/1443 (0.1%)
41	DN	0.59	0/1092	0.81	0/1457
42	CO	0.46	0/973	0.72	0/1301
42	DO	0.58	0/1006	0.80	0/1345
43	CP	0.43	0/902	0.73	0/1209
43	DP	0.47	0/910	0.73	0/1219
44	CQ	0.41	0/929	0.71	0/1242
44	DQ	0.48	0/929	0.72	0/1242
45	CR	0.48	0/960	0.69	0/1278
45	DR	0.62	0/960	0.76	0/1278
46	CS	0.44	0/829	0.74	0/1107
46	DS	0.55	0/829	0.78	0/1107
47	CT	0.43	0/864	0.74	0/1156
47	DT	0.55	0/864	0.75	0/1156
48	CU	0.44	0/745	0.72	0/994
48	DU	0.48	0/745	0.72	0/994
49	CV	0.44	0/787	0.76	0/1051
49	DV	0.49	0/787	0.77	0/1051
50	CW	0.40	0/766	0.65	0/1025
50	DW	0.50	0/766	0.69	0/1025
51	CX	0.39	0/576	0.65	0/762
51	DX	0.53	0/598	0.73	0/790
52	CY	0.43	0/635	0.73	0/848
52	DY	0.46	0/635	0.72	0/848
53	CZ	0.42	0/502	0.61	0/667
53	DZ	0.43	0/502	0.60	0/667
54	DI	0.51	0/1037	0.74	1/1402 (0.1%)
55	DA	1.27	148/69364 (0.2%)	0.97	26/108207 (0.0%)
All	All	0.98	212/309267 (0.1%)	0.85	60/462210 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	AA	0	3
1	BA	0	4

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Mol	Chain	#Chirality outliers	#Planarity outliers
5	AE	0	1
10	BJ	0	1
31	CA	0	12
55	DA	0	87
All	All	0	108

The worst 5 of 212 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
55	DA	1020	A	N3-C4	9.93	1.40	1.34
31	CA	1936	A	N9-C4	-9.29	1.32	1.37
31	CA	2095	A	O5'-C5'	-9.00	1.28	1.42
55	DA	539	G	N7-C5	7.77	1.44	1.39
55	DA	12	U	C1'-N1	7.58	1.60	1.48

The worst 5 of 60 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
28	CB	15	A	O4'-C1'-N9	10.06	116.25	108.20
55	DA	512	G	O4'-C1'-N9	8.55	115.04	108.20
1	AA	413	G	C1'-O4'-C4'	-8.26	103.29	109.90
55	DA	784	G	P-O3'-C3'	7.86	129.13	119.70
41	CN	69	PRO	C-N-CA	7.39	140.18	121.70

There are no chirality outliers.

5 of 108 planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	AA	1432	G	Sidechain
1	AA	362	G	Sidechain
1	AA	898	G	Sidechain
5	AE	82	GLN	Sidechain
1	BA	362	G	Sidechain

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	32930	0	16591	90	0
1	BA	32908	0	16580	97	0
2	AB	1753	0	1780	10	0
2	BB	1753	0	1780	15	0
3	AC	1625	0	1696	14	0
3	BC	1625	0	1696	18	0
4	AD	1643	0	1707	13	0
4	BD	1643	0	1707	17	0
5	AE	1144	0	1185	15	0
5	BE	1105	0	1148	30	0
6	AF	862	0	864	7	0
6	BF	817	0	808	9	0
7	AG	1182	0	1238	7	0
7	BG	1182	0	1238	4	0
8	AH	979	0	1031	8	0
8	BH	979	0	1031	4	0
9	AI	1022	0	1070	6	0
9	BI	1022	0	1070	6	0
10	AJ	796	0	836	11	0
10	BJ	787	0	828	10	0
11	AK	877	0	887	14	0
11	BK	877	0	887	17	0
12	AL	957	0	1017	7	0
12	BL	957	0	1017	9	0
13	AM	884	0	941	11	0
13	BM	884	0	941	11	0
14	AN	805	0	844	8	0
14	BN	805	0	844	8	0
15	AO	714	0	734	1	0
15	BO	714	0	734	0	0
16	AP	649	0	666	3	0
16	BP	649	0	666	5	0
17	AQ	649	0	691	6	0
17	BQ	649	0	691	5	0
18	AR	456	0	478	5	0
18	BR	456	0	478	3	0
19	AS	638	0	665	7	0
19	BS	638	0	665	8	0
20	AT	670	0	719	2	0
20	BT	665	0	714	8	0
21	AU	465	0	491	2	0
21	BU	465	0	491	2	0
22	C1	444	0	458	18	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
22	D1	444	0	458	13	0
23	C2	409	0	440	5	0
23	D2	414	0	442	5	0
24	C3	377	0	418	17	0
24	D3	377	0	418	6	0
25	C4	504	0	572	13	0
25	D4	504	0	572	12	0
26	C5	302	0	340	9	0
26	D5	302	0	340	2	0
27	C0	449	0	488	4	0
27	D0	463	0	504	1	0
28	CB	2529	0	1281	4	0
28	DB	2569	0	1301	5	0
29	CC	2082	0	2154	17	0
29	DC	2082	0	2154	11	0
30	CD	1565	0	1616	16	0
31	CA	62229	0	31318	236	0
32	DD	1576	0	1627	16	0
33	CE	1552	0	1619	14	0
33	DE	1552	0	1619	11	0
34	CF	1410	0	1444	16	0
34	DF	1410	0	1444	12	0
35	CG	1323	0	1371	9	0
35	DG	1323	0	1371	9	0
36	CH	1110	0	1148	8	0
36	DH	1110	0	1148	6	0
37	CJ	979	0	1028	4	0
37	DJ	979	0	1028	5	0
38	CK	1129	0	1162	9	0
38	DK	1129	0	1162	5	0
39	CL	938	0	1012	8	0
39	DL	946	0	1023	6	0
40	CM	1053	0	1129	19	0
40	DM	1053	0	1129	15	0
41	CN	1075	0	1154	5	0
41	DN	1092	0	1177	7	0
42	CO	960	0	1000	5	0
42	DO	993	0	1034	5	0
43	CP	892	0	923	7	0
43	DP	900	0	935	9	0
44	CQ	917	0	962	7	0
44	DQ	917	0	962	7	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
45	CR	947	0	1019	13	0
45	DR	947	0	1019	9	0
46	CS	816	0	839	8	0
46	DS	816	0	839	5	0
47	CT	857	0	922	12	0
47	DT	857	0	922	10	0
48	CU	739	0	807	10	0
48	DU	739	0	807	4	0
49	CV	779	0	831	8	0
49	DV	779	0	831	5	0
50	CW	753	0	780	5	0
50	DW	753	0	780	3	0
51	CX	569	0	581	1	0
51	DX	591	0	606	5	0
52	CY	625	0	652	8	0
52	DY	625	0	652	4	0
53	CZ	501	0	531	2	0
53	DZ	501	0	531	1	0
54	DI	1023	0	1052	19	0
55	DA	62423	0	31411	173	0
56	AA	71	0	0	0	0
56	BA	43	0	0	0	0
56	CA	156	0	0	0	0
56	CB	3	0	0	0	0
56	DA	182	0	0	0	0
56	DB	9	0	0	0	0
56	DD	2	0	0	0	0
56	DM	1	0	0	0	0
56	DR	2	0	0	0	0
57	AA	13	0	18	1	0
57	BA	13	0	18	0	0
57	DA	26	0	36	2	0
57	DQ	13	0	18	0	0
57	DR	13	0	18	5	0
57	DS	13	0	18	1	0
58	AA	16	0	28	0	0
58	DA	40	0	70	5	0
58	DE	16	0	28	0	0
58	DK	8	0	14	0	0
58	DN	8	0	14	1	0
58	DS	8	0	14	0	0
58	DT	16	0	28	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
59	AA	24	0	48	0	0
59	DA	72	0	144	10	0
60	AA	42	0	38	0	0
60	BA	42	0	38	0	0
61	AB	1	0	0	0	0
61	C5	1	0	0	0	0
61	D5	1	0	0	0	0
62	AL	7	0	10	0	0
62	D1	7	0	10	1	0
62	D3	7	0	10	2	0
62	DA	35	0	50	1	0
62	DL	7	0	10	0	0
62	DP	7	0	10	1	0
62	DQ	7	0	10	0	0
63	D1	4	0	6	0	0
63	DA	36	0	54	2	0
63	DB	8	0	12	1	0
64	D1	10	0	14	2	0
64	D3	10	0	14	0	0
64	DA	40	0	56	5	0
64	DD	10	0	14	2	0
64	DS	10	0	14	0	0
64	DU	10	0	14	1	0
65	DA	40	0	76	4	0
66	DA	32	0	44	0	0
67	DA	12	0	12	0	0
68	DA	11	0	5	0	0
69	DA	8	0	12	1	0
70	AA	507	0	0	0	0
70	AC	4	0	0	0	0
70	AD	2	0	0	0	0
70	AE	4	0	0	0	0
70	AF	1	0	0	0	0
70	AG	1	0	0	0	0
70	AH	1	0	0	0	0
70	AJ	2	0	0	0	0
70	AK	5	0	0	0	0
70	AL	8	0	0	0	0
70	AM	4	0	0	1	0
70	AN	5	0	0	1	0
70	AO	2	0	0	0	0
70	AP	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
70	AR	1	0	0	0	0
70	AS	1	0	0	0	0
70	AT	2	0	0	0	0
70	AU	3	0	0	0	0
70	BA	287	0	0	1	0
70	BD	13	0	0	0	0
70	BE	1	0	0	0	0
70	BF	1	0	0	0	0
70	BK	1	0	0	0	0
70	BL	3	0	0	0	0
70	BN	2	0	0	0	0
70	BO	1	0	0	0	0
70	BP	3	0	0	0	0
70	BR	1	0	0	0	0
70	BT	4	0	0	0	0
70	BU	2	0	0	0	0
70	C3	3	0	0	1	0
70	C4	1	0	0	0	0
70	CA	694	0	0	1	0
70	CB	13	0	0	0	0
70	CC	10	0	0	0	0
70	CD	5	0	0	0	0
70	CE	6	0	0	0	0
70	CL	1	0	0	0	0
70	CM	3	0	0	0	0
70	CO	1	0	0	0	0
70	CU	3	0	0	0	0
70	CV	1	0	0	0	0
70	CW	1	0	0	0	0
70	CY	1	0	0	0	0
70	D0	25	0	0	0	0
70	D1	42	0	0	0	0
70	D2	7	0	0	0	0
70	D3	25	0	0	0	0
70	D4	32	0	0	1	0
70	D5	13	0	0	0	0
70	DA	4836	0	0	8	0
70	DB	213	0	0	0	0
70	DC	102	0	0	0	0
70	DD	105	0	0	1	0
70	DE	63	0	0	0	0
70	DF	14	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
70	DG	6	0	0	0	0
70	DH	2	0	0	0	0
70	DK	58	0	0	0	0
70	DL	51	0	0	0	0
70	DM	60	0	0	0	0
70	DN	71	0	0	0	0
70	DO	44	0	0	0	0
70	DP	35	0	0	0	0
70	DQ	27	0	0	1	0
70	DR	64	0	0	0	0
70	DS	51	0	0	0	0
70	DT	70	0	0	1	0
70	DU	17	0	0	0	0
70	DV	19	0	0	0	0
70	DW	31	0	0	0	0
70	DX	30	0	0	1	0
70	DY	9	0	0	0	0
70	DZ	7	0	0	0	0
All	All	295202	0	194489	1207	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 3.

The worst 5 of 1207 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)
26:C5:3:VAL:HG11	31:CA:2539:C:H5'	1.32	1.05
46:CS:14:VAL:HG21	46:CS:98:ILE:HG13	1.32	1.05
4:BD:85:ASN:HA	5:BE:102:GLY:HA2	1.43	0.99
31:CA:1936:A:H2	31:CA:1943:U:H3	1.01	0.98
48:CU:28:ASN:HD21	48:CU:91:GLN:HB3	1.29	0.96

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
2	AB	222/224 (99%)	210 (95%)	9 (4%)	3 (1%)	11 39
2	BB	222/224 (99%)	211 (95%)	7 (3%)	4 (2%)	8 33
3	AC	204/206 (99%)	192 (94%)	11 (5%)	1 (0%)	29 64
3	BC	204/206 (99%)	194 (95%)	8 (4%)	2 (1%)	15 48
4	AD	203/205 (99%)	198 (98%)	5 (2%)	0	100 100
4	BD	203/205 (99%)	198 (98%)	5 (2%)	0	100 100
5	AE	153/155 (99%)	147 (96%)	5 (3%)	1 (1%)	22 56
5	BE	148/155 (96%)	132 (89%)	12 (8%)	4 (3%)	5 23
6	AF	104/106 (98%)	101 (97%)	3 (3%)	0	100 100
6	BF	98/106 (92%)	91 (93%)	5 (5%)	2 (2%)	7 30
7	AG	149/151 (99%)	137 (92%)	11 (7%)	1 (1%)	22 56
7	BG	149/151 (99%)	140 (94%)	9 (6%)	0	100 100
8	AH	127/129 (98%)	120 (94%)	7 (6%)	0	100 100
8	BH	127/129 (98%)	119 (94%)	8 (6%)	0	100 100
9	AI	125/127 (98%)	110 (88%)	15 (12%)	0	100 100
9	BI	125/127 (98%)	110 (88%)	15 (12%)	0	100 100
10	AJ	97/99 (98%)	88 (91%)	7 (7%)	2 (2%)	7 29
10	BJ	96/99 (97%)	77 (80%)	14 (15%)	5 (5%)	2 9
11	AK	115/117 (98%)	107 (93%)	6 (5%)	2 (2%)	9 34
11	BK	115/117 (98%)	104 (90%)	9 (8%)	2 (2%)	9 34
12	AL	120/123 (98%)	115 (96%)	5 (4%)	0	100 100
12	BL	120/123 (98%)	114 (95%)	5 (4%)	1 (1%)	19 53
13	AM	112/114 (98%)	103 (92%)	6 (5%)	3 (3%)	5 23
13	BM	112/114 (98%)	102 (91%)	5 (4%)	5 (4%)	2 12
14	AN	98/100 (98%)	88 (90%)	8 (8%)	2 (2%)	7 30
14	BN	98/100 (98%)	90 (92%)	6 (6%)	2 (2%)	7 30
15	AO	86/88 (98%)	84 (98%)	2 (2%)	0	100 100
15	BO	86/88 (98%)	83 (96%)	2 (2%)	1 (1%)	13 43
16	AP	80/82 (98%)	74 (92%)	6 (8%)	0	100 100
16	BP	80/82 (98%)	70 (88%)	8 (10%)	2 (2%)	5 25

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
17	AQ	78/80 (98%)	70 (90%)	7 (9%)	1 (1%)	12 41
17	BQ	78/80 (98%)	68 (87%)	5 (6%)	5 (6%)	1 5
18	AR	53/55 (96%)	53 (100%)	0	0	100 100
18	BR	53/55 (96%)	50 (94%)	3 (6%)	0	100 100
19	AS	77/79 (98%)	70 (91%)	6 (8%)	1 (1%)	12 41
19	BS	77/79 (98%)	68 (88%)	7 (9%)	2 (3%)	5 24
20	AT	84/86 (98%)	83 (99%)	1 (1%)	0	100 100
20	BT	83/86 (96%)	79 (95%)	3 (4%)	1 (1%)	13 43
21	AU	54/56 (96%)	53 (98%)	1 (2%)	0	100 100
21	BU	54/56 (96%)	53 (98%)	1 (2%)	0	100 100
22	C1	54/56 (96%)	47 (87%)	4 (7%)	3 (6%)	2 8
22	D1	54/56 (96%)	51 (94%)	3 (6%)	0	100 100
23	C2	48/51 (94%)	44 (92%)	2 (4%)	2 (4%)	3 13
23	D2	49/51 (96%)	48 (98%)	1 (2%)	0	100 100
24	C3	44/46 (96%)	41 (93%)	2 (4%)	1 (2%)	6 27
24	D3	44/46 (96%)	43 (98%)	1 (2%)	0	100 100
25	C4	62/64 (97%)	60 (97%)	2 (3%)	0	100 100
25	D4	62/64 (97%)	60 (97%)	2 (3%)	0	100 100
26	C5	36/38 (95%)	34 (94%)	1 (3%)	1 (3%)	5 22
26	D5	36/38 (95%)	36 (100%)	0	0	100 100
27	C0	56/58 (97%)	54 (96%)	0	2 (4%)	3 16
27	D0	57/58 (98%)	56 (98%)	1 (2%)	0	100 100
29	CC	269/272 (99%)	252 (94%)	12 (4%)	5 (2%)	8 32
29	DC	269/272 (99%)	257 (96%)	10 (4%)	2 (1%)	22 56
30	CD	207/209 (99%)	201 (97%)	6 (3%)	0	100 100
32	DD	206/209 (99%)	202 (98%)	4 (2%)	0	100 100
33	CE	199/201 (99%)	191 (96%)	5 (2%)	3 (2%)	10 38
33	DE	199/201 (99%)	194 (98%)	4 (2%)	1 (0%)	29 64
34	CF	175/178 (98%)	168 (96%)	6 (3%)	1 (1%)	25 60
34	DF	175/178 (98%)	169 (97%)	5 (3%)	1 (1%)	25 60
35	CG	174/176 (99%)	162 (93%)	7 (4%)	5 (3%)	4 21

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
35	DG	174/176 (99%)	165 (95%)	8 (5%)	1 (1%)	25 60
36	CH	147/149 (99%)	136 (92%)	6 (4%)	5 (3%)	3 17
36	DH	147/149 (99%)	138 (94%)	6 (4%)	3 (2%)	7 30
37	CJ	132/134 (98%)	125 (95%)	3 (2%)	4 (3%)	4 20
37	DJ	132/134 (98%)	125 (95%)	3 (2%)	4 (3%)	4 20
38	CK	140/142 (99%)	135 (96%)	4 (3%)	1 (1%)	22 56
38	DK	140/142 (99%)	137 (98%)	2 (1%)	1 (1%)	22 56
39	CL	120/123 (98%)	112 (93%)	7 (6%)	1 (1%)	19 53
39	DL	121/123 (98%)	117 (97%)	3 (2%)	1 (1%)	19 53
40	CM	142/144 (99%)	132 (93%)	7 (5%)	3 (2%)	7 29
40	DM	142/144 (99%)	136 (96%)	6 (4%)	0	100 100
41	CN	133/136 (98%)	125 (94%)	7 (5%)	1 (1%)	19 53
41	DN	134/136 (98%)	129 (96%)	5 (4%)	0	100 100
42	CO	118/125 (94%)	111 (94%)	5 (4%)	2 (2%)	9 34
42	DO	123/125 (98%)	116 (94%)	7 (6%)	0	100 100
43	CP	114/117 (97%)	110 (96%)	4 (4%)	0	100 100
43	DP	115/117 (98%)	112 (97%)	3 (3%)	0	100 100
44	CQ	112/114 (98%)	107 (96%)	5 (4%)	0	100 100
44	DQ	112/114 (98%)	107 (96%)	4 (4%)	1 (1%)	17 51
45	CR	115/117 (98%)	113 (98%)	2 (2%)	0	100 100
45	DR	115/117 (98%)	114 (99%)	1 (1%)	0	100 100
46	CS	101/103 (98%)	93 (92%)	5 (5%)	3 (3%)	4 20
46	DS	101/103 (98%)	98 (97%)	2 (2%)	1 (1%)	15 48
47	CT	108/110 (98%)	101 (94%)	5 (5%)	2 (2%)	8 32
47	DT	108/110 (98%)	106 (98%)	2 (2%)	0	100 100
48	CU	91/93 (98%)	86 (94%)	4 (4%)	1 (1%)	14 46
48	DU	91/93 (98%)	85 (93%)	6 (7%)	0	100 100
49	CV	100/103 (97%)	91 (91%)	4 (4%)	5 (5%)	2 10
49	DV	100/103 (97%)	96 (96%)	2 (2%)	2 (2%)	7 30
50	CW	92/94 (98%)	91 (99%)	1 (1%)	0	100 100
50	DW	92/94 (98%)	91 (99%)	1 (1%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
51	CX	73/76 (96%)	72 (99%)	1 (1%)	0	100 100
51	DX	75/76 (99%)	74 (99%)	1 (1%)	0	100 100
52	CY	75/77 (97%)	74 (99%)	1 (1%)	0	100 100
52	DY	75/77 (97%)	74 (99%)	1 (1%)	0	100 100
53	CZ	60/62 (97%)	58 (97%)	1 (2%)	1 (2%)	9 34
53	DZ	60/62 (97%)	59 (98%)	1 (2%)	0	100 100
54	DI	133/135 (98%)	114 (86%)	13 (10%)	6 (4%)	2 12
All	All	11407/11635 (98%)	10791 (95%)	485 (4%)	131 (1%)	14 46

5 of 131 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AB	126	PHE
3	AC	156	ARG
13	AM	5	ALA
22	C1	25	VAL
2	BB	126	PHE

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	186/186 (100%)	173 (93%)	13 (7%)	15 43
2	BB	186/186 (100%)	173 (93%)	13 (7%)	15 43
3	AC	170/170 (100%)	159 (94%)	11 (6%)	17 46
3	BC	170/170 (100%)	156 (92%)	14 (8%)	11 36
4	AD	172/172 (100%)	162 (94%)	10 (6%)	20 51
4	BD	172/172 (100%)	160 (93%)	12 (7%)	15 43
5	AE	118/118 (100%)	107 (91%)	11 (9%)	9 30
5	BE	113/118 (96%)	95 (84%)	18 (16%)	2 10
6	AF	92/92 (100%)	86 (94%)	6 (6%)	17 46

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
6	BF	87/92 (95%)	77 (88%)	10 (12%)	5 21
7	AG	124/124 (100%)	115 (93%)	9 (7%)	14 41
7	BG	124/124 (100%)	109 (88%)	15 (12%)	5 19
8	AH	104/104 (100%)	93 (89%)	11 (11%)	6 24
8	BH	104/104 (100%)	93 (89%)	11 (11%)	6 24
9	AI	105/105 (100%)	100 (95%)	5 (5%)	25 59
9	BI	105/105 (100%)	100 (95%)	5 (5%)	25 59
10	AJ	87/87 (100%)	81 (93%)	6 (7%)	15 44
10	BJ	86/87 (99%)	78 (91%)	8 (9%)	9 30
11	AK	90/90 (100%)	87 (97%)	3 (3%)	38 70
11	BK	90/90 (100%)	83 (92%)	7 (8%)	12 38
12	AL	102/102 (100%)	92 (90%)	10 (10%)	8 27
12	BL	102/102 (100%)	90 (88%)	12 (12%)	5 20
13	AM	92/92 (100%)	83 (90%)	9 (10%)	8 27
13	BM	92/92 (100%)	85 (92%)	7 (8%)	13 39
14	AN	83/83 (100%)	82 (99%)	1 (1%)	71 88
14	BN	83/83 (100%)	82 (99%)	1 (1%)	71 88
15	AO	76/76 (100%)	71 (93%)	5 (7%)	16 46
15	BO	76/76 (100%)	65 (86%)	11 (14%)	3 13
16	AP	65/65 (100%)	64 (98%)	1 (2%)	65 85
16	BP	65/65 (100%)	63 (97%)	2 (3%)	40 71
17	AQ	74/74 (100%)	67 (90%)	7 (10%)	8 29
17	BQ	74/74 (100%)	66 (89%)	8 (11%)	6 23
18	AR	48/48 (100%)	47 (98%)	1 (2%)	53 80
18	BR	48/48 (100%)	47 (98%)	1 (2%)	53 80
19	AS	70/70 (100%)	63 (90%)	7 (10%)	7 26
19	BS	70/70 (100%)	65 (93%)	5 (7%)	14 43
20	AT	65/65 (100%)	59 (91%)	6 (9%)	9 30
20	BT	65/65 (100%)	55 (85%)	10 (15%)	2 11
21	AU	48/48 (100%)	44 (92%)	4 (8%)	11 35
21	BU	48/48 (100%)	44 (92%)	4 (8%)	11 35

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
22	C1	47/47 (100%)	45 (96%)	2 (4%)	29 62
22	D1	47/47 (100%)	44 (94%)	3 (6%)	17 47
23	C2	45/46 (98%)	44 (98%)	1 (2%)	52 79
23	D2	45/46 (98%)	43 (96%)	2 (4%)	28 62
24	C3	38/38 (100%)	37 (97%)	1 (3%)	46 75
24	D3	38/38 (100%)	37 (97%)	1 (3%)	46 75
25	C4	51/51 (100%)	48 (94%)	3 (6%)	19 50
25	D4	51/51 (100%)	48 (94%)	3 (6%)	19 50
26	C5	34/34 (100%)	32 (94%)	2 (6%)	19 50
26	D5	34/34 (100%)	34 (100%)	0	100 100
27	C0	48/48 (100%)	45 (94%)	3 (6%)	18 48
27	D0	49/48 (102%)	45 (92%)	4 (8%)	11 36
29	CC	216/217 (100%)	202 (94%)	14 (6%)	17 46
29	DC	216/217 (100%)	210 (97%)	6 (3%)	43 74
30	CD	164/164 (100%)	160 (98%)	4 (2%)	49 77
32	DD	163/163 (100%)	160 (98%)	3 (2%)	59 82
33	CE	165/165 (100%)	152 (92%)	13 (8%)	12 37
33	DE	165/165 (100%)	161 (98%)	4 (2%)	49 77
34	CF	148/149 (99%)	133 (90%)	15 (10%)	7 26
34	DF	148/149 (99%)	137 (93%)	11 (7%)	13 41
35	CG	137/137 (100%)	134 (98%)	3 (2%)	52 79
35	DG	137/137 (100%)	132 (96%)	5 (4%)	35 67
36	CH	114/114 (100%)	101 (89%)	13 (11%)	5 21
36	DH	114/114 (100%)	101 (89%)	13 (11%)	5 21
37	CJ	104/104 (100%)	100 (96%)	4 (4%)	33 66
37	DJ	104/104 (100%)	100 (96%)	4 (4%)	33 66
38	CK	116/116 (100%)	110 (95%)	6 (5%)	23 56
38	DK	116/116 (100%)	114 (98%)	2 (2%)	60 83
39	CL	103/104 (99%)	99 (96%)	4 (4%)	32 65
39	DL	104/104 (100%)	99 (95%)	5 (5%)	25 59
40	CM	103/103 (100%)	97 (94%)	6 (6%)	20 51

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
40	DM	103/103 (100%)	99 (96%)	4 (4%)	32 65
41	CN	108/108 (100%)	104 (96%)	4 (4%)	34 66
41	DN	109/108 (101%)	106 (97%)	3 (3%)	43 74
42	CO	100/102 (98%)	95 (95%)	5 (5%)	24 57
42	DO	102/102 (100%)	99 (97%)	3 (3%)	42 73
43	CP	86/87 (99%)	80 (93%)	6 (7%)	15 43
43	DP	87/87 (100%)	84 (97%)	3 (3%)	37 69
44	CQ	99/99 (100%)	93 (94%)	6 (6%)	18 49
44	DQ	99/99 (100%)	97 (98%)	2 (2%)	55 80
45	CR	89/89 (100%)	86 (97%)	3 (3%)	37 69
45	DR	89/89 (100%)	87 (98%)	2 (2%)	52 79
46	CS	84/84 (100%)	79 (94%)	5 (6%)	19 50
46	DS	84/84 (100%)	83 (99%)	1 (1%)	71 88
47	CT	93/93 (100%)	88 (95%)	5 (5%)	22 54
47	DT	93/93 (100%)	92 (99%)	1 (1%)	73 89
48	CU	80/80 (100%)	72 (90%)	8 (10%)	7 26
48	DU	80/80 (100%)	77 (96%)	3 (4%)	33 66
49	CV	83/84 (99%)	79 (95%)	4 (5%)	25 59
49	DV	83/84 (99%)	81 (98%)	2 (2%)	49 77
50	CW	78/78 (100%)	75 (96%)	3 (4%)	33 66
50	DW	78/78 (100%)	76 (97%)	2 (3%)	46 75
51	CX	56/58 (97%)	55 (98%)	1 (2%)	59 82
51	DX	58/58 (100%)	57 (98%)	1 (2%)	60 83
52	CY	67/67 (100%)	63 (94%)	4 (6%)	19 50
52	DY	67/67 (100%)	65 (97%)	2 (3%)	41 72
53	CZ	54/54 (100%)	50 (93%)	4 (7%)	13 41
53	DZ	54/54 (100%)	52 (96%)	2 (4%)	34 66
54	DI	103/103 (100%)	98 (95%)	5 (5%)	25 58
All	All	9461/9484 (100%)	8897 (94%)	564 (6%)	19 50

5 of 564 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
48	CU	10	VAL
52	CY	25	THR
48	CU	3	ARG
37	DJ	113	LYS
5	BE	88	VAL

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 43 such sidechains are listed below:

Mol	Chain	Res	Type
20	BT	3	ASN
38	CK	138	GLN
24	D3	26	ASN
29	DC	142	HIS
48	CU	28	ASN

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1530/1534 (99%)	239 (15%)	27 (1%)
1	BA	1529/1534 (99%)	246 (16%)	28 (1%)
28	CB	117/120 (97%)	11 (9%)	0
28	DB	119/120 (99%)	9 (7%)	0
31	CA	2892/2904 (99%)	426 (14%)	72 (2%)
55	DA	2880/2904 (99%)	367 (12%)	57 (1%)
All	All	9067/9116 (99%)	1298 (14%)	184 (2%)

5 of 1298 RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	4	U
1	AA	5	U
1	AA	9	G
1	AA	22	G
1	AA	32	A

5 of 184 RNA pucker outliers are listed below:

Mol	Chain	Res	Type
31	CA	2286	G
55	DA	1070	A
31	CA	2430	A

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Mol	Chain	Res	Type
55	DA	271	G
55	DA	1175	A

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

75 non-standard protein/DNA/RNA residues are modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
1	2MG	BA	1516	1	18,26,27	0.78	0	16,38,41	0.64	0
55	6MZ	DA	2030	55	18,25,26	0.88	1 (5%)	16,36,39	0.92	1 (6%)
55	5MU	DA	747	55	19,22,23	0.51	0	28,32,35	0.43	0
1	MA6	AA	1518	1	19,26,27	0.86	0	18,38,41	0.93	1 (5%)
31	PSU	CA	746	56,31	18,21,22	0.63	1 (5%)	22,30,33	0.44	0
55	H2U	DA	2449	55	18,21,22	0.47	0	21,30,33	0.50	0
41	4D4	CN	81	41	9,11,12	2.00	2 (22%)	8,13,15	2.39	2 (25%)
31	PSU	CA	2504	31	18,21,22	0.48	0	22,30,33	0.46	0
31	PSU	CA	2580	31	18,21,22	0.47	0	22,30,33	0.68	1 (4%)
1	G7M	AA	527	1	20,26,27	0.85	0	17,39,42	0.86	1 (5%)
55	PSU	DA	1911	55	18,21,22	0.32	0	22,30,33	0.38	0
55	3TD	DA	1915	55	18,22,23	0.50	0	22,32,35	0.52	0
55	PSU	DA	2457	55	18,21,22	0.45	0	22,30,33	0.42	0
31	2MG	CA	2445	31	18,26,27	0.94	0	16,38,41	0.59	0
55	2MG	DA	2445	55	18,26,27	0.88	1 (5%)	16,38,41	0.80	1 (6%)
31	2MA	CA	2503	31	17,25,26	0.79	1 (5%)	17,37,40	0.47	0
1	5MC	AA	967	1	18,22,23	0.30	0	26,32,35	0.37	0
1	UR3	AA	1498	1	19,22,23	0.31	0	26,32,35	0.36	0
32	MEQ	DD	150[A]	32	8,9,10	0.58	0	5,10,12	0.45	0
1	5MC	BA	967	1	18,22,23	0.30	0	26,32,35	0.37	0
55	PSU	DA	746	56,55	18,21,22	1.01	2 (11%)	22,30,33	0.49	0
1	PSU	AA	516	1,56	18,21,22	0.29	0	22,30,33	0.45	0
31	5MU	CA	747	31	19,22,23	0.39	0	28,32,35	0.38	0
31	G7M	CA	2069	31	20,26,27	0.52	0	17,39,42	0.41	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
1	2MG	AA	966	1	18,26,27	0.76	0	16,38,41	0.53	0
1	2MG	BA	966	1	18,26,27	0.76	0	16,38,41	0.50	0
1	4OC	AA	1402	1	20,23,24	0.33	0	26,32,35	0.51	0
1	MA6	BA	1518	1	19,26,27	0.86	0	18,38,41	0.96	1 (5%)
31	PSU	CA	955	31	18,21,22	0.31	0	22,30,33	0.51	0
31	5MC	CA	1962	31	18,22,23	0.28	0	26,32,35	0.35	0
31	PSU	CA	2605	31	18,21,22	0.35	0	22,30,33	0.55	0
55	1MG	DA	745	55	18,26,27	1.09	1 (5%)	19,39,42	0.62	1 (5%)
31	OMG	CA	2251	31	18,26,27	0.77	0	19,38,41	0.58	0
55	PSU	DA	955	55	18,21,22	0.67	1 (5%)	22,30,33	0.62	0
55	OMU	DA	2552	55	19,22,23	0.38	0	26,31,34	0.36	0
1	G7M	BA	527	1	20,26,27	0.87	0	17,39,42	0.75	0
1	PSU	BA	516	1	18,21,22	0.44	0	22,30,33	0.45	0
1	2MG	AA	1516	1	18,26,27	0.84	0	16,38,41	0.63	0
31	PSU	CA	1911	31	18,21,22	0.31	0	22,30,33	0.40	0
55	G7M	DA	2069	55	20,26,27	0.65	0	17,39,42	0.56	0
55	PSU	DA	2504	55	18,21,22	0.71	0	22,30,33	0.44	0
41	4D4	DN	81[B]	-	9,11,12	1.42	1 (11%)	8,13,15	2.41	2 (25%)
1	5MC	AA	1407	1	18,22,23	0.37	0	26,32,35	0.46	0
1	5MC	BA	1407	1	18,22,23	0.36	0	26,32,35	0.44	0
55	2MA	DA	2503	56,55	17,25,26	0.81	1 (5%)	17,37,40	0.51	0
55	2MG	DA	1835	55	18,26,27	0.82	1 (5%)	16,38,41	0.63	0
31	6MZ	CA	1618	31	18,25,26	0.84	0	16,36,39	1.12	2 (12%)
55	OMG	DA	2251	55	18,26,27	0.89	1 (5%)	19,38,41	0.63	0
55	PSU	DA	2604	55	18,21,22	0.61	0	22,30,33	0.63	0
31	OMC	CA	2498	56,31	19,22,23	0.51	0	26,31,34	0.47	0
55	6MZ	DA	1618	55	18,25,26	0.90	0	16,36,39	1.80	2 (12%)
55	PSU	DA	1917	55	18,21,22	0.44	0	22,30,33	0.49	0
31	1MG	CA	745	31	18,26,27	0.81	1 (5%)	19,39,42	0.42	0
1	MA6	BA	1519	1	19,26,27	0.73	0	18,38,41	1.31	1 (5%)
31	OMU	CA	2552	31	19,22,23	0.32	0	26,31,34	0.30	0
55	PSU	DA	2580	55	18,21,22	0.81	1 (5%)	22,30,33	0.68	0
1	4OC	BA	1402	1	20,23,24	0.45	0	26,32,35	0.51	0
1	UR3	BA	1498	1	19,22,23	0.51	0	26,32,35	0.70	1 (3%)
12	D2T	BL	89	12	7,9,10	0.75	0	6,11,13	0.65	0
31	6MZ	CA	2030	31	18,25,26	0.84	0	16,36,39	0.96	2 (12%)
1	MA6	AA	1519	1	19,26,27	0.75	0	18,38,41	1.33	1 (5%)
32	MEQ	DD	150[B]	32	8,9,10	2.22	1 (12%)	5,10,12	1.71	1 (20%)
55	5MU	DA	1939	55	19,22,23	0.37	0	28,32,35	0.40	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
12	D2T	AL	89	12	7,9,10	1.33	1 (14%)	6,11,13	0.67	0
31	3TD	CA	1915	31	18,22,23	0.49	0	22,32,35	0.50	0
31	PSU	CA	2457	31	18,21,22	0.52	0	22,30,33	0.46	0
55	5MC	DA	1962	55	18,22,23	0.50	0	26,32,35	0.46	0
55	PSU	DA	2605	55	18,21,22	0.45	0	22,30,33	0.55	0
31	2MG	CA	1835	31	18,26,27	0.91	0	16,38,41	0.50	0
31	PSU	CA	1917	31	18,21,22	0.35	0	22,30,33	0.44	0
41	4D4	DN	81[A]	-	9,11,12	2.14	2 (22%)	8,13,15	2.19	2 (25%)
1	2MG	BA	1207	1	18,26,27	0.76	0	16,38,41	0.55	0
55	OMC	DA	2498	56,55	19,22,23	0.39	0	26,31,34	0.57	0
31	5MU	CA	1939	31	19,22,23	0.53	0	28,32,35	0.42	0
1	2MG	AA	1207	1	18,26,27	0.77	0	16,38,41	0.58	0

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	2MG	BA	1516	1	-	0/5/27/28	0/3/3/3
55	6MZ	DA	2030	55	-	2/5/27/28	0/3/3/3
55	5MU	DA	747	55	-	0/7/25/26	0/2/2/2
1	MA6	AA	1518	1	-	0/7/29/30	0/3/3/3
31	PSU	CA	746	56,31	-	1/7/25/26	0/2/2/2
55	H2U	DA	2449	55	-	1/7/38/39	0/2/2/2
41	4D4	CN	81	41	-	1/11/12/14	-
31	PSU	CA	2504	31	-	1/7/25/26	0/2/2/2
31	PSU	CA	2580	31	-	0/7/25/26	0/2/2/2
1	G7M	AA	527	1	-	2/3/25/26	0/3/3/3
55	PSU	DA	1911	55	-	0/7/25/26	0/2/2/2
55	3TD	DA	1915	55	-	0/7/25/26	0/2/2/2
55	PSU	DA	2457	55	-	0/7/25/26	0/2/2/2
31	2MG	CA	2445	31	-	0/5/27/28	0/3/3/3
55	2MG	DA	2445	55	-	0/5/27/28	0/3/3/3
31	2MA	CA	2503	31	-	2/3/25/26	0/3/3/3
1	5MC	AA	967	1	-	0/7/25/26	0/2/2/2
1	UR3	AA	1498	1	-	0/7/25/26	0/2/2/2
32	MEQ	DD	150[A]	32	-	3/8/9/11	-
1	5MC	BA	967	1	-	0/7/25/26	0/2/2/2
55	PSU	DA	746	56,55	-	1/7/25/26	0/2/2/2
1	PSU	AA	516	1,56	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
31	5MU	CA	747	31	-	0/7/25/26	0/2/2/2
31	G7M	CA	2069	31	-	2/3/25/26	0/3/3/3
1	2MG	AA	966	1	-	0/5/27/28	0/3/3/3
1	2MG	BA	966	1	-	0/5/27/28	0/3/3/3
1	4OC	AA	1402	1	-	0/9/29/30	0/2/2/2
1	MA6	BA	1518	1	-	0/7/29/30	0/3/3/3
31	PSU	CA	955	31	-	0/7/25/26	0/2/2/2
31	5MC	CA	1962	31	-	0/7/25/26	0/2/2/2
31	PSU	CA	2605	31	-	0/7/25/26	0/2/2/2
55	1MG	DA	745	55	-	0/3/25/26	0/3/3/3
31	OMG	CA	2251	31	-	1/5/27/28	0/3/3/3
55	PSU	DA	955	55	-	0/7/25/26	0/2/2/2
55	OMU	DA	2552	55	-	1/9/27/28	0/2/2/2
1	G7M	BA	527	1	-	2/3/25/26	0/3/3/3
1	PSU	BA	516	1	-	0/7/25/26	0/2/2/2
1	2MG	AA	1516	1	-	0/5/27/28	0/3/3/3
31	PSU	CA	1911	31	-	0/7/25/26	0/2/2/2
55	G7M	DA	2069	55	-	2/3/25/26	0/3/3/3
55	PSU	DA	2504	55	-	1/7/25/26	0/2/2/2
41	4D4	DN	81[B]	-	-	2/11/12/14	-
1	5MC	AA	1407	1	-	0/7/25/26	0/2/2/2
1	5MC	BA	1407	1	-	0/7/25/26	0/2/2/2
55	2MA	DA	2503	56,55	-	2/3/25/26	0/3/3/3
55	2MG	DA	1835	55	-	2/5/27/28	0/3/3/3
31	6MZ	CA	1618	31	-	0/5/27/28	0/3/3/3
55	OMG	DA	2251	55	-	1/5/27/28	0/3/3/3
55	PSU	DA	2604	55	-	0/7/25/26	0/2/2/2
31	OMC	CA	2498	56,31	-	0/9/27/28	0/2/2/2
55	6MZ	DA	1618	55	-	0/5/27/28	0/3/3/3
55	PSU	DA	1917	55	-	0/7/25/26	0/2/2/2
31	1MG	CA	745	31	-	0/3/25/26	0/3/3/3
1	MA6	BA	1519	1	-	1/7/29/30	0/3/3/3
31	OMU	CA	2552	31	-	1/9/27/28	0/2/2/2
55	PSU	DA	2580	55	-	0/7/25/26	0/2/2/2
1	4OC	BA	1402	1	-	0/9/29/30	0/2/2/2
1	UR3	BA	1498	1	-	0/7/25/26	0/2/2/2
12	D2T	BL	89	12	-	4/7/12/14	-
31	6MZ	CA	2030	31	-	1/5/27/28	0/3/3/3
1	MA6	AA	1519	1	-	1/7/29/30	0/3/3/3
32	MEQ	DD	150[B]	32	-	4/8/9/11	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
55	5MU	DA	1939	55	-	0/7/25/26	0/2/2/2
12	D2T	AL	89	12	-	2/7/12/14	-
31	3TD	CA	1915	31	-	0/7/25/26	0/2/2/2
31	PSU	CA	2457	31	-	0/7/25/26	0/2/2/2
55	5MC	DA	1962	55	-	2/7/25/26	0/2/2/2
55	PSU	DA	2605	55	-	0/7/25/26	0/2/2/2
31	2MG	CA	1835	31	-	2/5/27/28	0/3/3/3
31	PSU	CA	1917	31	-	0/7/25/26	0/2/2/2
41	4D4	DN	81[A]	-	-	0/11/12/14	-
1	2MG	BA	1207	1	-	0/5/27/28	0/3/3/3
55	OMC	DA	2498	56,55	-	0/9/27/28	0/2/2/2
31	5MU	CA	1939	31	-	0/7/25/26	0/2/2/2
1	2MG	AA	1207	1	-	0/5/27/28	0/3/3/3

The worst 5 of 20 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	DD	150[B]	MEQ	CB-CA	6.11	1.61	1.53
41	DN	81[A]	4D4	CZ-NE	5.93	1.45	1.33
41	CN	81	4D4	CZ-NE	5.45	1.44	1.33
41	DN	81[B]	4D4	CZ-NE	3.76	1.40	1.33
12	AL	89	D2T	CB-SB	2.80	1.85	1.82

The worst 5 of 23 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
55	DA	1618	6MZ	C9-N6-C6	6.56	128.52	122.87
41	CN	81	4D4	NE-CZ-NH2	5.63	130.60	120.70
41	DN	81[B]	4D4	NE-CZ-NH2	5.50	130.36	120.70
41	DN	81[A]	4D4	NE-CZ-NH2	5.14	129.72	120.70
1	AA	1519	MA6	N1-C6-N6	-4.73	112.08	117.06

There are no chirality outliers.

5 of 48 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
1	AA	527	G7M	O4'-C4'-C5'-O5'
1	AA	527	G7M	C3'-C4'-C5'-O5'
12	AL	89	D2T	SB-CB-CG-OD2
1	BA	527	G7M	O4'-C4'-C5'-O5'
1	BA	527	G7M	C3'-C4'-C5'-O5'

There are no ring outliers.

15 monomers are involved in 13 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
55	DA	2030	6MZ	1	0
55	DA	747	5MU	1	0
1	AA	1518	MA6	1	0
55	DA	2449	H2U	1	0
31	CA	2445	2MG	1	0
55	DA	2445	2MG	1	0
31	CA	2503	2MA	1	0
31	CA	747	5MU	1	0
1	BA	1518	MA6	1	0
41	DN	81[B]	4D4	1	0
1	BA	1519	MA6	1	0
31	CA	2030	6MZ	2	0
1	AA	1519	MA6	1	0
32	DD	150[B]	MEQ	1	0
55	DA	2498	OMC	1	0

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

Of 554 ligands modelled in this entry, 472 are monoatomic - leaving 82 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	$\#\|Z\| > 2$
63	EDO	DA	3003	-	3,3,3	0.77	0	2,2,2	0.11	0
63	EDO	D1	101	-	3,3,3	0.68	0	2,2,2	0.15	0
59	PUT	DA	3002	-	5,5,5	0.19	0	4,4,4	0.09	0
63	EDO	DB	210	-	3,3,3	0.61	0	2,2,2	0.22	0
69	TRS	DA	3219	-	7,7,7	0.29	0	9,9,9	0.29	0
59	PUT	DA	3218	-	5,5,5	0.14	0	4,4,4	0.12	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
58	MPD	DA	3206	-	7,7,7	1.05	1 (14%)	9,10,10	0.54	0
59	PUT	DA	3220	-	5,5,5	0.19	0	4,4,4	0.13	0
58	MPD	AA	1671	-	7,7,7	0.72	0	9,10,10	0.45	0
62	PEG	D3	102	-	6,6,6	0.33	0	5,5,5	0.25	0
62	PEG	DA	3200	-	6,6,6	0.51	0	5,5,5	0.28	0
64	PGE	DS	201	-	9,9,9	0.48	0	8,8,8	0.49	0
63	EDO	DA	3001	-	3,3,3	0.86	0	2,2,2	0.10	0
64	PGE	DA	3216	-	9,9,9	0.13	0	8,8,8	0.25	0
58	MPD	DA	3209	-	7,7,7	0.72	0	9,10,10	0.39	0
65	SPD	DA	3223	-	9,9,9	0.18	0	8,8,8	0.67	0
62	PEG	DA	3226	-	6,6,6	0.42	0	5,5,5	0.28	0
59	PUT	DA	3222	-	5,5,5	0.29	0	4,4,4	0.30	0
58	MPD	AA	1676	-	7,7,7	0.62	0	9,10,10	0.42	0
57	PG4	DQ	202	-	12,12,12	0.15	0	11,11,11	0.16	0
59	PUT	DA	3184	-	5,5,5	0.24	0	4,4,4	0.16	0
63	EDO	DA	3207	-	3,3,3	0.72	0	2,2,2	0.16	0
58	MPD	DA	3190	-	7,7,7	0.49	0	9,10,10	0.47	0
59	PUT	DA	3212	-	5,5,5	0.37	0	4,4,4	0.31	0
59	PUT	DA	3211	-	5,5,5	0.31	0	4,4,4	0.16	0
59	PUT	DA	3188	-	5,5,5	0.43	0	4,4,4	0.27	0
59	PUT	DA	3204	-	5,5,5	0.35	0	4,4,4	0.28	0
63	EDO	DA	3197	-	3,3,3	0.65	0	2,2,2	0.22	0
66	1PE	DA	3185	-	15,15,15	0.16	0	14,14,14	0.16	0
64	PGE	D1	102	-	9,9,9	0.30	0	8,8,8	0.30	0
59	PUT	DA	3195	-	5,5,5	0.32	0	4,4,4	0.51	0
58	MPD	DT	202	-	7,7,7	0.84	0	9,10,10	0.43	0
64	PGE	D3	101	-	9,9,9	0.29	0	8,8,8	0.23	0
62	PEG	AL	201	-	6,6,6	0.25	0	5,5,5	0.13	0
66	1PE	DA	3202	-	15,15,15	0.35	0	14,14,14	0.40	0
60	T1C	BA	1643	56	44,45,45	0.99	3 (6%)	53,72,72	1.41	2 (3%)
67	ACY	DA	3201	-	3,3,3	0.95	0	3,3,3	0.99	0
64	PGE	DD	301	-	9,9,9	0.29	0	8,8,8	0.33	0
62	PEG	D1	103	-	6,6,6	0.42	0	5,5,5	0.15	0
62	PEG	DA	3199	-	6,6,6	0.30	0	5,5,5	0.21	0
57	PG4	DS	202	-	12,12,12	0.47	0	11,11,11	0.43	0
63	EDO	DA	3214	-	3,3,3	0.68	0	2,2,2	0.23	0
58	MPD	DE	301	-	7,7,7	0.87	0	9,10,10	0.78	0
58	MPD	DA	3203	-	7,7,7	0.92	0	9,10,10	0.65	0
64	PGE	DU	101	-	9,9,9	0.25	0	8,8,8	0.38	0
57	PG4	DA	3215	-	12,12,12	0.17	0	11,11,11	0.13	0
57	PG4	BA	1642	-	12,12,12	0.20	0	11,11,11	0.22	0
67	ACY	DA	3196	-	3,3,3	1.39	1 (33%)	3,3,3	0.91	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
67	ACY	DA	3191	-	3,3,3	0.98	0	3,3,3	0.97	0
59	PUT	DA	3189	-	5,5,5	0.47	0	4,4,4	0.42	0
58	MPD	DT	201	-	7,7,7	0.63	0	9,10,10	0.20	0
62	PEG	DP	201	-	6,6,6	0.29	0	5,5,5	0.17	0
57	PG4	DA	3193	-	12,12,12	0.30	0	11,11,11	0.43	0
59	PUT	DA	3221	-	5,5,5	0.45	0	4,4,4	0.62	0
59	PUT	AA	1674	-	5,5,5	0.16	0	4,4,4	0.15	0
63	EDO	DA	3004	-	3,3,3	0.74	0	2,2,2	0.12	0
63	EDO	DB	211	-	3,3,3	0.61	0	2,2,2	0.17	0
64	PGE	DA	3186	-	9,9,9	0.35	0	8,8,8	0.56	0
62	PEG	DL	201	-	6,6,6	0.13	0	5,5,5	0.12	0
64	PGE	DA	3224	-	9,9,9	0.24	0	8,8,8	0.18	0
58	MPD	DS	203	-	7,7,7	0.42	0	9,10,10	0.69	0
65	SPD	DA	3205	-	9,9,9	0.24	0	8,8,8	0.18	0
63	EDO	DA	3198	-	3,3,3	0.68	0	2,2,2	0.38	0
62	PEG	DA	3217	-	6,6,6	0.29	0	5,5,5	0.09	0
58	MPD	DE	302	-	7,7,7	0.93	1 (14%)	9,10,10	0.47	0
62	PEG	DQ	201	-	6,6,6	0.21	0	5,5,5	0.15	0
58	MPD	DN	201	-	7,7,7	1.12	1 (14%)	9,10,10	0.60	0
64	PGE	DA	3213	-	9,9,9	0.16	0	8,8,8	0.18	0
68	GUN	DA	3210	-	7,12,12	0.72	0	8,17,17	0.80	0
63	EDO	DA	3194	-	3,3,3	0.66	0	2,2,2	0.07	0
57	PG4	AA	1670	-	12,12,12	0.27	0	11,11,11	0.41	0
62	PEG	DA	3225	-	6,6,6	0.49	0	5,5,5	0.27	0
59	PUT	AA	1672	-	5,5,5	0.22	0	4,4,4	0.18	0
60	T1C	AA	1677	56	44,45,45	1.01	4 (9%)	53,72,72	1.43	3 (5%)
65	SPD	DA	3187	-	9,9,9	0.17	0	8,8,8	0.42	0
65	SPD	DA	3183	-	9,9,9	0.13	0	8,8,8	0.20	0
63	EDO	DA	3208	-	3,3,3	0.59	0	2,2,2	0.30	0
57	PG4	DR	202	-	12,12,12	0.43	0	11,11,11	0.54	0
58	MPD	DK	201	-	7,7,7	0.76	0	9,10,10	0.26	0
58	MPD	DA	3192	-	7,7,7	0.71	0	9,10,10	0.81	0
59	PUT	AA	1675	-	5,5,5	0.21	0	4,4,4	0.22	0
59	PUT	AA	1673	-	5,5,5	0.16	0	4,4,4	0.15	0

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
63	EDO	DA	3003	-	-	0/1/1/1	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
63	EDO	D1	101	-	-	0/1/1/1	-
59	PUT	DA	3002	-	-	0/3/3/3	-
63	EDO	DB	210	-	-	0/1/1/1	-
69	TRS	DA	3219	-	-	0/9/9/9	-
59	PUT	DA	3218	-	-	0/3/3/3	-
58	MPD	DA	3206	-	-	1/5/5/5	-
59	PUT	DA	3220	-	-	0/3/3/3	-
58	MPD	AA	1671	-	-	1/5/5/5	-
62	PEG	D3	102	-	-	2/4/4/4	-
62	PEG	DA	3200	-	-	3/4/4/4	-
64	PGE	DS	201	-	-	3/7/7/7	-
63	EDO	DA	3001	-	-	1/1/1/1	-
64	PGE	DA	3216	-	-	4/7/7/7	-
58	MPD	DA	3209	-	-	1/5/5/5	-
65	SPD	DA	3223	-	-	4/7/7/7	-
62	PEG	DA	3226	-	-	0/4/4/4	-
59	PUT	DA	3222	-	-	1/3/3/3	-
58	MPD	AA	1676	-	-	2/5/5/5	-
57	PG4	DQ	202	-	-	1/10/10/10	-
59	PUT	DA	3184	-	-	0/3/3/3	-
63	EDO	DA	3207	-	-	0/1/1/1	-
58	MPD	DA	3190	-	-	2/5/5/5	-
59	PUT	DA	3212	-	-	1/3/3/3	-
59	PUT	DA	3211	-	-	0/3/3/3	-
59	PUT	DA	3188	-	-	0/3/3/3	-
59	PUT	DA	3204	-	-	1/3/3/3	-
63	EDO	DA	3197	-	-	0/1/1/1	-
66	1PE	DA	3185	-	-	5/13/13/13	-
64	PGE	D1	102	-	-	4/7/7/7	-
59	PUT	DA	3195	-	-	1/3/3/3	-
58	MPD	DT	202	-	-	2/5/5/5	-
64	PGE	D3	101	-	-	2/7/7/7	-
62	PEG	AL	201	-	-	2/4/4/4	-
66	1PE	DA	3202	-	-	8/13/13/13	-
60	T1C	BA	1643	56	-	11/22/80/80	0/4/4/4
64	PGE	DD	301	-	-	4/7/7/7	-
62	PEG	D1	103	-	-	1/4/4/4	-
62	PEG	DA	3199	-	-	3/4/4/4	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
57	PG4	DS	202	-	-	2/10/10/10	-
63	EDO	DA	3214	-	-	0/1/1/1	-
58	MPD	DE	301	-	-	5/5/5/5	-
58	MPD	DA	3203	-	-	1/5/5/5	-
64	PGE	DU	101	-	-	4/7/7/7	-
57	PG4	DA	3215	-	-	4/10/10/10	-
57	PG4	BA	1642	-	-	0/10/10/10	-
59	PUT	DA	3189	-	-	0/3/3/3	-
58	MPD	DT	201	-	-	2/5/5/5	-
62	PEG	DP	201	-	-	2/4/4/4	-
57	PG4	DA	3193	-	-	8/10/10/10	-
59	PUT	DA	3221	-	-	1/3/3/3	-
59	PUT	AA	1674	-	-	0/3/3/3	-
63	EDO	DA	3004	-	-	0/1/1/1	-
63	EDO	DB	211	-	-	0/1/1/1	-
64	PGE	DA	3186	-	-	4/7/7/7	-
62	PEG	DL	201	-	-	2/4/4/4	-
64	PGE	DA	3224	-	-	4/7/7/7	-
58	MPD	DS	203	-	-	0/5/5/5	-
65	SPD	DA	3205	-	-	5/7/7/7	-
63	EDO	DA	3198	-	-	1/1/1/1	-
62	PEG	DA	3217	-	-	3/4/4/4	-
58	MPD	DE	302	-	-	2/5/5/5	-
62	PEG	DQ	201	-	-	2/4/4/4	-
58	MPD	DN	201	-	-	4/5/5/5	-
64	PGE	DA	3213	-	-	2/7/7/7	-
68	GUN	DA	3210	-	-	-	0/2/2/2
63	EDO	DA	3194	-	-	1/1/1/1	-
57	PG4	AA	1670	-	-	4/10/10/10	-
62	PEG	DA	3225	-	-	2/4/4/4	-
59	PUT	AA	1672	-	-	0/3/3/3	-
60	T1C	AA	1677	56	-	8/22/80/80	0/4/4/4
65	SPD	DA	3187	-	-	0/7/7/7	-
65	SPD	DA	3183	-	-	1/7/7/7	-
63	EDO	DA	3208	-	-	0/1/1/1	-
57	PG4	DR	202	-	-	6/10/10/10	-
58	MPD	DK	201	-	-	2/5/5/5	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
58	MPD	DA	3192	-	-	2/5/5/5	-
59	PUT	AA	1675	-	-	1/3/3/3	-
59	PUT	AA	1673	-	-	0/3/3/3	-

The worst 5 of 11 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
60	BA	1643	T1C	C4-C3	3.26	1.58	1.51
60	AA	1677	T1C	C4-C3	2.87	1.57	1.51
60	BA	1643	T1C	C7-N7	2.61	1.49	1.42
60	AA	1677	T1C	C7-C61	2.58	1.43	1.40
58	DN	201	MPD	C3-C2	2.57	1.60	1.53

All (5) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
60	BA	1643	T1C	C92-N92-C93	6.96	124.57	115.84
60	AA	1677	T1C	C92-N92-C93	6.83	124.40	115.84
60	BA	1643	T1C	C8-C9-C10	-4.64	115.88	120.49
60	AA	1677	T1C	C8-C9-C10	-4.18	116.33	120.49
60	AA	1677	T1C	C6-C61-C1A	2.44	122.38	118.09

There are no chirality outliers.

5 of 156 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
58	AA	1676	MPD	C2-C3-C4-O4
58	DE	301	MPD	C1-C2-C3-C4
58	DE	301	MPD	O2-C2-C3-C4
58	DE	301	MPD	C2-C3-C4-O4
58	DN	201	MPD	CM-C2-C3-C4

There are no ring outliers.

30 monomers are involved in 48 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
69	DA	3219	TRS	1	0
59	DA	3218	PUT	1	0
62	D3	102	PEG	2	0
62	DA	3200	PEG	1	0
64	DA	3216	PGE	1	0

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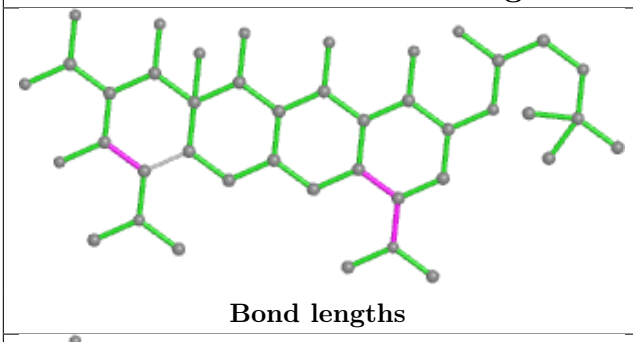
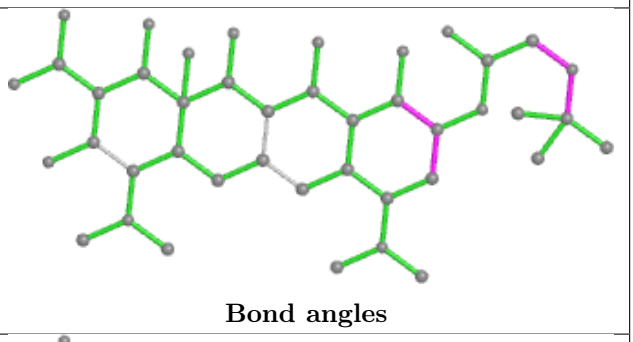
Mol	Chain	Res	Type	Clashes	Symm-Clashes
65	DA	3223	SPD	4	0
59	DA	3222	PUT	1	0
58	DA	3190	MPD	1	0
59	DA	3212	PUT	1	0
63	DA	3197	EDO	1	0
64	D1	102	PGE	2	0
59	DA	3195	PUT	3	0
64	DD	301	PGE	2	0
62	D1	103	PEG	1	0
57	DS	202	PG4	1	0
58	DA	3203	MPD	2	0
64	DU	101	PGE	1	0
57	DA	3215	PG4	1	0
59	DA	3189	PUT	1	0
62	DP	201	PEG	1	0
57	DA	3193	PG4	1	0
59	DA	3221	PUT	3	0
63	DB	211	EDO	1	0
64	DA	3224	PGE	3	0
58	DN	201	MPD	1	0
64	DA	3213	PGE	1	0
63	DA	3194	EDO	1	0
57	AA	1670	PG4	1	0
57	DR	202	PG4	5	0
58	DA	3192	MPD	2	0

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

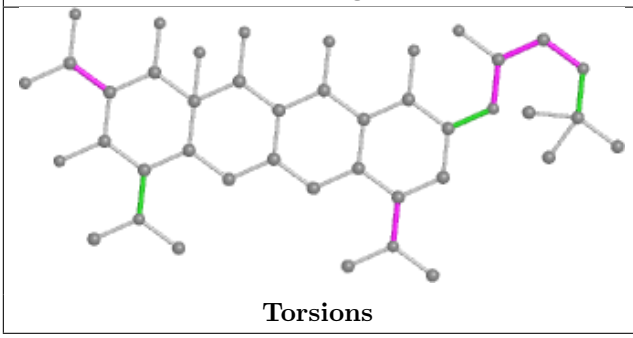
Ligand T1C BA 1643



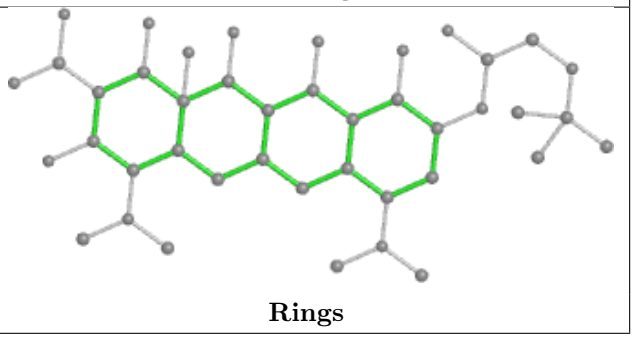
Bond lengths



Bond angles

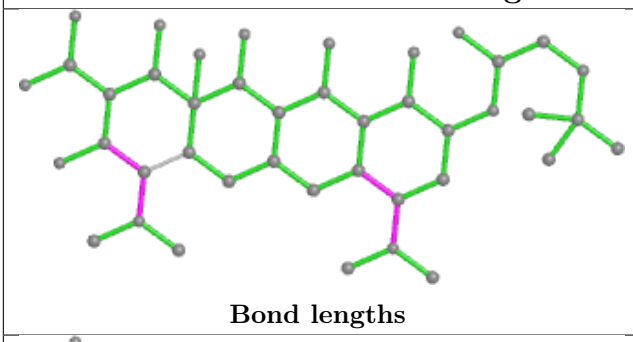


Torsions

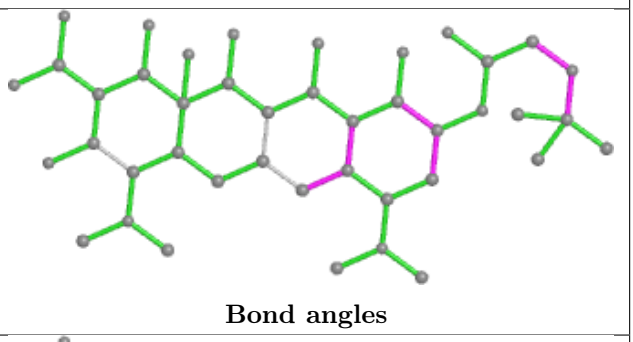


Rings

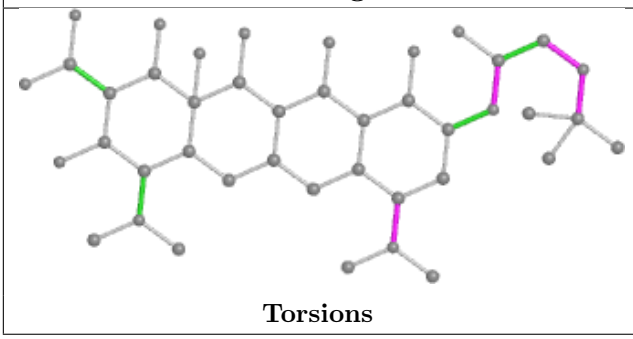
Ligand T1C AA 1677



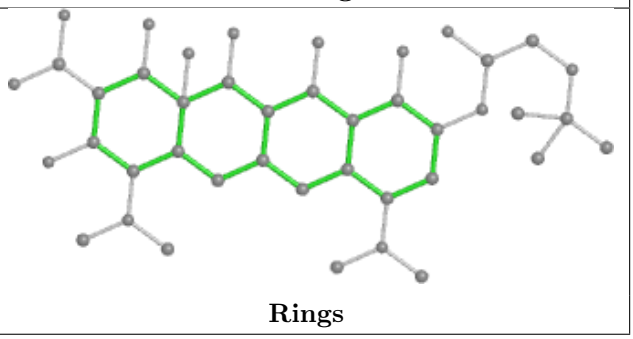
Bond lengths



Bond angles



Torsions



Rings

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

In the following table, the column labelled '#RSRZ> 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95^{th} percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q< 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	AA	1523/1534 (99%)	0.70	105 (6%) 16 10	46, 105, 241, 293	0
1	BA	1522/1534 (99%)	1.53	397 (26%) 0 0	61, 140, 279, 284	0
2	AB	224/224 (100%)	1.62	72 (32%) 0 0	83, 127, 202, 270	0
2	BB	224/224 (100%)	1.76	78 (34%) 0 0	99, 144, 211, 261	0
3	AC	206/206 (100%)	0.82	30 (14%) 2 1	80, 108, 141, 163	0
3	BC	206/206 (100%)	2.64	116 (56%) 0 0	115, 151, 190, 231	0
4	AD	205/205 (100%)	0.62	18 (8%) 10 5	64, 103, 131, 154	0
4	BD	205/205 (100%)	0.20	1 (0%) 91 81	61, 81, 107, 131	0
5	AE	155/155 (100%)	0.77	13 (8%) 11 6	67, 91, 133, 169	0
5	BE	150/155 (96%)	1.17	33 (22%) 0 0	77, 97, 144, 227	0
6	AF	106/106 (100%)	0.83	19 (17%) 1 1	82, 105, 128, 142	0
6	BF	100/106 (94%)	0.97	15 (15%) 2 1	86, 121, 146, 154	0
7	AG	151/151 (100%)	2.15	64 (42%) 0 0	107, 137, 166, 179	0
7	BG	151/151 (100%)	5.30	125 (82%) 0 0	147, 202, 218, 228	0
8	AH	129/129 (100%)	0.64	9 (6%) 16 9	71, 91, 118, 136	0
8	BH	129/129 (100%)	1.02	24 (18%) 1 0	91, 116, 150, 168	0
9	AI	127/127 (100%)	2.31	58 (45%) 0 0	96, 132, 169, 200	0
9	BI	127/127 (100%)	3.78	78 (61%) 0 0	138, 176, 209, 229	0
10	AJ	99/99 (100%)	2.03	41 (41%) 0 0	94, 121, 153, 168	0
10	BJ	98/99 (98%)	4.86	78 (79%) 0 0	141, 171, 197, 207	0
11	AK	117/117 (100%)	1.61	35 (29%) 0 0	68, 112, 147, 163	0
11	BK	117/117 (100%)	1.47	33 (28%) 0 0	83, 116, 148, 168	0
12	AL	122/123 (99%)	0.60	4 (3%) 46 30	55, 72, 104, 132	0
12	BL	122/123 (99%)	1.39	31 (25%) 0 0	79, 97, 118, 142	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	AM	114/114 (100%)	2.48	57 (50%) 0 0	106, 131, 182, 202	0
13	BM	114/114 (100%)	5.54	104 (91%) 0 0	203, 237, 245, 249	0
14	AN	100/100 (100%)	1.81	37 (37%) 0 0	90, 117, 206, 215	0
14	BN	100/100 (100%)	3.85	75 (75%) 0 0	132, 181, 239, 250	0
15	AO	88/88 (100%)	0.69	10 (11%) 5 3	72, 94, 112, 132	0
15	BO	88/88 (100%)	1.25	20 (22%) 0 0	79, 112, 132, 150	0
16	AP	82/82 (100%)	1.27	19 (23%) 0 0	67, 86, 121, 139	0
16	BP	82/82 (100%)	2.79	48 (58%) 0 0	94, 111, 157, 166	0
17	AQ	80/80 (100%)	0.65	4 (5%) 28 18	70, 86, 119, 143	0
17	BQ	80/80 (100%)	2.17	34 (42%) 0 0	100, 128, 151, 156	0
18	AR	55/55 (100%)	1.21	13 (23%) 0 0	79, 99, 135, 164	0
18	BR	55/55 (100%)	1.07	6 (10%) 5 3	80, 96, 129, 157	0
19	AS	79/79 (100%)	1.56	24 (30%) 0 0	103, 119, 156, 164	0
19	BS	79/79 (100%)	5.06	66 (83%) 0 0	215, 232, 243, 251	0
20	AT	86/86 (100%)	1.04	9 (10%) 6 4	70, 85, 120, 133	0
20	BT	85/86 (98%)	3.27	53 (62%) 0 0	108, 128, 165, 179	0
21	AU	56/56 (100%)	1.59	18 (32%) 0 0	83, 123, 159, 172	0
21	BU	56/56 (100%)	1.01	8 (14%) 2 1	80, 106, 149, 160	0
22	C1	56/56 (100%)	3.35	39 (69%) 0 0	110, 150, 178, 195	0
22	D1	56/56 (100%)	0.59	0 100 100	26, 46, 71, 102	0
23	C2	50/51 (98%)	3.69	34 (68%) 0 0	133, 148, 161, 183	0
23	D2	51/51 (100%)	0.72	5 (9%) 7 4	55, 69, 95, 110	0
24	C3	46/46 (100%)	4.62	39 (84%) 0 0	108, 117, 127, 138	0
24	D3	46/46 (100%)	0.61	2 (4%) 35 22	38, 46, 61, 104	0
25	C4	64/64 (100%)	3.11	44 (68%) 0 0	112, 130, 142, 148	0
25	D4	64/64 (100%)	0.57	0 100 100	36, 44, 53, 68	0
26	C5	38/38 (100%)	2.71	23 (60%) 0 0	108, 122, 133, 143	0
26	D5	38/38 (100%)	0.64	1 (2%) 56 39	43, 54, 68, 91	0
27	C0	58/58 (100%)	3.36	39 (67%) 0 0	104, 121, 140, 143	0
27	D0	58/58 (100%)	0.52	0 100 100	33, 40, 60, 72	0
28	CB	118/120 (98%)	1.71	45 (38%) 0 0	140, 195, 250, 254	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
28	DB	120/120 (100%)	0.30	0 100 100	33, 60, 99, 143	0
29	CC	271/272 (99%)	1.49	88 (32%) 0 0	88, 119, 152, 165	0
29	DC	271/272 (99%)	0.30	6 (2%) 62 45	31, 57, 83, 96	0
30	CD	209/209 (100%)	3.00	130 (62%) 0 0	103, 134, 170, 190	0
31	CA	2876/2904 (99%)	1.90	1023 (35%) 0 0	73, 178, 274, 295	0
32	DD	208/209 (99%)	0.16	0 100 100	22, 41, 69, 91	0
33	CE	201/201 (100%)	3.31	140 (69%) 0 0	119, 167, 201, 218	0
33	DE	201/201 (100%)	0.38	3 (1%) 73 57	31, 59, 101, 141	0
34	CF	177/178 (99%)	4.96	152 (85%) 0 0	204, 217, 226, 233	0
34	DF	177/178 (99%)	0.68	16 (9%) 9 5	58, 84, 125, 138	0
35	CG	176/176 (100%)	4.32	144 (81%) 0 0	140, 181, 219, 228	0
35	DG	176/176 (100%)	0.34	8 (4%) 33 21	49, 73, 99, 128	0
36	CH	149/149 (100%)	2.34	80 (53%) 0 0	86, 156, 175, 183	0
36	DH	149/149 (100%)	2.10	63 (42%) 0 0	79, 157, 193, 208	0
37	CJ	134/134 (100%)	7.53	127 (94%) 0 0	236, 253, 264, 272	0
37	DJ	134/134 (100%)	5.79	110 (82%) 0 0	204, 229, 238, 246	0
38	CK	142/142 (100%)	2.31	72 (50%) 0 0	105, 129, 168, 221	0
38	DK	142/142 (100%)	0.11	0 100 100	25, 37, 61, 75	0
39	CL	122/123 (99%)	1.70	43 (35%) 0 0	95, 116, 149, 167	0
39	DL	123/123 (100%)	0.09	0 100 100	30, 46, 71, 109	0
40	CM	144/144 (100%)	4.11	116 (80%) 0 0	113, 163, 214, 236	0
40	DM	144/144 (100%)	0.32	3 (2%) 63 46	21, 58, 88, 117	0
41	CN	135/136 (99%)	1.38	35 (25%) 0 0	98, 119, 150, 189	0
41	DN	135/136 (99%)	-0.02	0 100 100	28, 43, 69, 88	0
42	CO	120/125 (96%)	2.71	72 (60%) 0 0	110, 132, 155, 186	0
42	DO	125/125 (100%)	0.22	1 (0%) 86 73	29, 39, 68, 111	0
43	CP	116/117 (99%)	3.84	87 (75%) 0 0	147, 171, 185, 189	0
43	DP	117/117 (100%)	0.28	0 100 100	47, 60, 87, 97	0
44	CQ	114/114 (100%)	2.53	65 (57%) 0 0	108, 126, 156, 172	0
44	DQ	114/114 (100%)	0.14	3 (2%) 56 39	34, 52, 82, 114	0
45	CR	117/117 (100%)	2.82	71 (60%) 0 0	98, 138, 174, 199	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
45	DR	117/117 (100%)	0.29	1 (0%) 84 71	23, 33, 48, 70	0
46	CS	103/103 (100%)	4.11	85 (82%) 0 0	114, 143, 185, 201	0
46	DS	103/103 (100%)	0.13	1 (0%) 82 68	26, 45, 71, 93	0
47	CT	110/110 (100%)	2.50	62 (56%) 0 0	109, 137, 180, 193	0
47	DT	110/110 (100%)	0.10	0 100 100	21, 36, 60, 118	0
48	CU	93/93 (100%)	3.96	73 (78%) 0 0	131, 156, 184, 194	0
48	DU	93/93 (100%)	0.63	5 (5%) 25 16	37, 60, 114, 130	0
49	CV	102/103 (99%)	5.48	88 (86%) 0 0	119, 167, 203, 213	0
49	DV	102/103 (99%)	0.55	11 (10%) 5 3	47, 64, 112, 144	0
50	CW	94/94 (100%)	2.59	53 (56%) 0 0	125, 145, 165, 170	0
50	DW	94/94 (100%)	0.06	0 100 100	38, 56, 80, 92	0
51	CX	75/76 (98%)	2.94	38 (50%) 0 0	111, 134, 148, 178	0
51	DX	76/76 (100%)	0.09	1 (1%) 77 61	31, 45, 69, 107	0
52	CY	77/77 (100%)	1.91	32 (41%) 0 0	103, 122, 147, 168	0
52	DY	77/77 (100%)	0.30	1 (1%) 77 61	37, 59, 92, 108	0
53	CZ	62/62 (100%)	4.42	49 (79%) 0 0	134, 171, 184, 195	0
53	DZ	62/62 (100%)	0.77	6 (9%) 7 4	52, 75, 111, 132	0
54	DI	135/135 (100%)	2.40	71 (52%) 0 0	82, 158, 202, 211	1 (0%)
55	DA	2873/2904 (98%)	0.64	135 (4%) 31 20	22, 48, 215, 300	0
All	All	20634/20751 (99%)	1.61	5723 (27%) 0 0	21, 116, 247, 300	1 (0%)

The worst 5 of 5723 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
37	DJ	54	PRO	42.4
9	BI	128	SER	22.8
37	CJ	13	VAL	22.8
37	DJ	76	ALA	22.6
37	DJ	55	ILE	21.9

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

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column

labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
1	5MC	BA	967	21/22	0.67	0.39	153,164,167,167	0
1	2MG	BA	966	24/25	0.75	0.36	153,160,171,171	0
1	2MG	BA	1207	24/25	0.80	0.29	158,161,165,168	0
31	PSU	CA	1917	20/21	0.81	0.21	119,125,134,135	0
31	2MA	CA	2503	23/24	0.83	0.26	110,115,118,118	0
31	6MZ	CA	2030	23/24	0.85	0.24	108,114,116,117	0
1	PSU	BA	516	20/21	0.85	0.16	88,99,102,104	0
31	OMU	CA	2552	21/22	0.85	0.45	91,96,100,101	0
31	PSU	CA	1911	20/21	0.86	0.24	123,137,138,139	0
31	3TD	CA	1915	21/22	0.86	0.28	150,155,157,157	0
31	PSU	CA	2504	20/21	0.86	0.25	98,108,110,111	0
31	PSU	CA	955	20/21	0.86	0.26	107,112,115,115	0
31	PSU	CA	746	20/21	0.87	0.25	120,123,126,127	0
31	G7M	CA	2069	24/25	0.87	0.26	109,112,115,116	0
31	2MG	CA	2445	24/25	0.87	0.31	105,110,112,113	0
31	PSU	CA	2580	20/21	0.87	0.22	102,105,109,109	0
31	5MU	CA	747	21/22	0.88	0.28	126,128,130,131	0
1	5MC	AA	967	21/22	0.88	0.20	90,106,107,108	0
1	2MG	BA	1516	24/25	0.89	0.21	82,90,99,100	0
31	OMG	CA	2251	24/25	0.89	0.26	90,95,100,101	0
1	5MC	BA	1407	21/22	0.89	0.21	100,109,114,117	0
31	PSU	CA	2457	20/21	0.89	0.25	106,107,108,109	0
31	1MG	CA	745	24/25	0.90	0.25	106,113,118,121	0
41	4D4	CN	81	12/13	0.90	0.34	112,122,143,143	0
12	D2T	BL	89	10/11	0.91	0.28	86,88,94,95	0
31	6MZ	CA	1618	23/24	0.91	0.30	136,143,148,149	0
1	2MG	AA	966	24/25	0.91	0.19	95,98,107,108	0
1	2MG	AA	1207	24/25	0.91	0.16	114,118,121,124	0
55	PSU	DA	1911	20/21	0.91	0.18	78,88,91,91	0
55	3TD	DA	1915	21/22	0.91	0.22	103,106,112,113	0
12	D2T	AL	89	10/11	0.91	0.27	66,71,78,78	0
31	OMC	CA	2498	21/22	0.92	0.28	97,102,104,106	0
31	PSU	CA	2605	20/21	0.92	0.22	82,84,86,87	0
31	2MG	CA	1835	24/25	0.92	0.18	74,76,78,78	0
1	UR3	BA	1498	21/22	0.92	0.18	89,93,97,98	0
1	MA6	BA	1518	24/25	0.92	0.25	84,88,95,96	0
31	5MU	CA	1939	21/22	0.93	0.19	75,79,81,82	0
31	5MC	CA	1962	21/22	0.93	0.16	72,78,79,82	0
1	4OC	BA	1402	22/23	0.93	0.17	78,81,84,85	0
1	MA6	BA	1519	24/25	0.93	0.26	84,87,91,92	0
55	PSU	DA	1917	20/21	0.94	0.17	74,82,90,90	0
1	PSU	AA	516	20/21	0.94	0.16	88,92,97,97	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
1	UR3	AA	1498	21/22	0.95	0.19	64,68,72,73	0
1	MA6	AA	1519	24/25	0.96	0.19	61,62,70,71	0
32	MEQ	DD	150[A]	10/11	0.96	0.24	14,23,32,32	10
32	MEQ	DD	150[B]	10/11	0.96	0.24	27,32,45,50	10
55	2MG	DA	1835	24/25	0.96	0.23	49,55,56,56	0
1	4OC	AA	1402	22/23	0.96	0.18	61,68,72,73	0
1	G7M	AA	527	24/25	0.96	0.17	63,67,73,74	0
1	G7M	BA	527	24/25	0.96	0.15	75,80,83,84	0
55	5MC	DA	1962	21/22	0.96	0.23	43,46,50,52	0
1	2MG	AA	1516	24/25	0.96	0.17	58,61,62,63	0
41	4D4	DN	81[A]	12/13	0.96	0.24	33,38,53,55	9
41	4D4	DN	81[B]	12/13	0.96	0.24	27,32,34,35	9
1	MA6	AA	1518	24/25	0.97	0.16	60,61,62,64	0
1	5MC	AA	1407	21/22	0.97	0.15	60,61,63,64	0
55	PSU	DA	2604	20/21	0.97	0.19	37,42,54,55	0
55	5MU	DA	1939	21/22	0.98	0.22	35,38,40,43	0
55	PSU	DA	2605	20/21	0.98	0.19	35,41,43,44	0
55	OMG	DA	2251	24/25	0.98	0.21	29,33,35,39	0
55	PSU	DA	2504	20/21	0.98	0.21	33,41,49,52	0
55	OMU	DA	2552	21/22	0.98	0.22	33,37,39,43	0
55	2MG	DA	2445	24/25	0.99	0.21	25,29,33,34	0
55	H2U	DA	2449	20/21	0.99	0.22	27,30,36,39	0
55	PSU	DA	2457	20/21	0.99	0.19	25,29,31,35	0
55	OMC	DA	2498	21/22	0.99	0.21	20,27,31,37	0
55	2MA	DA	2503	23/24	0.99	0.20	33,36,39,43	0
55	5MU	DA	747	21/22	0.99	0.20	28,31,37,38	0
55	PSU	DA	955	20/21	0.99	0.21	27,28,32,35	0
55	PSU	DA	2580	20/21	0.99	0.21	25,30,33,35	0
55	6MZ	DA	1618	23/24	0.99	0.20	25,30,32,35	0
55	1MG	DA	745	24/25	0.99	0.21	28,31,33,38	0
55	6MZ	DA	2030	23/24	0.99	0.22	24,28,32,39	0
55	G7M	DA	2069	24/25	0.99	0.20	26,35,36,37	0
55	PSU	DA	746	20/21	0.99	0.19	28,32,36,38	0

6.3 Carbohydrates (i)

There are no monosaccharides in this entry.

6.4 Ligands (i)

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	CA	3140	1/1	-0.34	0.60	147,147,147,147	0
56	MG	AA	1622	1/1	-0.17	1.84	130,130,130,130	0
56	MG	CA	3033	1/1	-0.13	0.30	200,200,200,200	0
56	MG	CA	3038	1/1	-0.04	0.22	268,268,268,268	0
56	MG	CA	3123	1/1	-0.03	0.99	188,188,188,188	0
56	MG	CA	3077	1/1	0.00	0.48	252,252,252,252	0
56	MG	CA	3142	1/1	0.03	0.56	133,133,133,133	0
56	MG	AA	1626	1/1	0.05	1.41	111,111,111,111	0
56	MG	CA	3156	1/1	0.09	0.18	246,246,246,246	0
56	MG	CA	3149	1/1	0.10	1.20	92,92,92,92	0
56	MG	CA	3104	1/1	0.13	0.32	263,263,263,263	0
56	MG	CA	3028	1/1	0.14	0.73	283,283,283,283	0
56	MG	DA	3180	1/1	0.14	1.27	97,97,97,97	0
56	MG	CA	3130	1/1	0.17	1.11	141,141,141,141	0
56	MG	CA	3139	1/1	0.19	1.21	139,139,139,139	0
56	MG	CA	3061	1/1	0.20	0.21	274,274,274,274	0
56	MG	CA	3141	1/1	0.20	0.60	109,109,109,109	0
56	MG	AA	1603	1/1	0.21	1.09	119,119,119,119	0
56	MG	CA	3146	1/1	0.25	0.38	247,247,247,247	0
56	MG	AA	1604	1/1	0.26	0.85	82,82,82,82	0
56	MG	DA	3168	1/1	0.27	0.48	108,108,108,108	0
56	MG	AA	1642	1/1	0.27	0.51	165,165,165,165	0
56	MG	BA	1630	1/1	0.29	0.14	221,221,221,221	0
56	MG	AA	1628	1/1	0.29	0.95	142,142,142,142	0
56	MG	CA	3113	1/1	0.30	0.78	94,94,94,94	0
56	MG	DA	3131	1/1	0.32	0.76	87,87,87,87	0
56	MG	DA	3138	1/1	0.33	0.39	89,89,89,89	0
56	MG	CA	3110	1/1	0.34	0.83	188,188,188,188	0
56	MG	CA	3003	1/1	0.35	2.62	284,284,284,284	0
56	MG	AA	1614	1/1	0.35	0.20	131,131,131,131	0
56	MG	CA	3056	1/1	0.35	0.72	100,100,100,100	0
56	MG	DA	3179	1/1	0.35	0.48	102,102,102,102	0
56	MG	CA	3124	1/1	0.35	0.53	202,202,202,202	0
56	MG	CA	3002	1/1	0.37	0.31	259,259,259,259	0
56	MG	DA	3145	1/1	0.40	0.76	101,101,101,101	0
56	MG	CA	3005	1/1	0.44	1.15	253,253,253,253	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	CA	3133	1/1	0.45	0.63	140,140,140,140	0
56	MG	AA	1606	1/1	0.46	0.49	120,120,120,120	0
62	PEG	DQ	201	7/7	0.47	1.03	107,109,110,110	0
56	MG	DB	207	1/1	0.48	0.77	105,105,105,105	0
56	MG	CA	3092	1/1	0.50	0.23	202,202,202,202	0
56	MG	DA	3163	1/1	0.50	0.36	84,84,84,84	0
56	MG	AA	1616	1/1	0.51	0.93	88,88,88,88	0
56	MG	CA	3039	1/1	0.52	0.36	153,153,153,153	0
56	MG	BA	1629	1/1	0.52	0.58	157,157,157,157	0
56	MG	CA	3068	1/1	0.53	0.43	253,253,253,253	0
56	MG	DA	3130	1/1	0.53	0.36	87,87,87,87	0
56	MG	CA	3134	1/1	0.54	0.52	204,204,204,204	0
56	MG	CA	3097	1/1	0.54	0.16	125,125,125,125	0
56	MG	DA	3178	1/1	0.55	0.67	101,101,101,101	0
56	MG	DB	206	1/1	0.56	0.47	102,102,102,102	0
56	MG	CA	3075	1/1	0.57	1.37	253,253,253,253	0
56	MG	AA	1605	1/1	0.58	0.71	99,99,99,99	0
56	MG	CA	3154	1/1	0.58	0.45	155,155,155,155	0
56	MG	DA	3182	1/1	0.58	0.54	73,73,73,73	0
56	MG	CA	3047	1/1	0.58	1.53	240,240,240,240	0
56	MG	CA	3090	1/1	0.59	0.57	215,215,215,215	0
56	MG	CA	3131	1/1	0.59	0.57	111,111,111,111	0
56	MG	CA	3054	1/1	0.59	0.21	140,140,140,140	0
56	MG	BA	1638	1/1	0.59	0.93	110,110,110,110	0
56	MG	BA	1641	1/1	0.59	0.97	140,140,140,140	0
56	MG	CA	3126	1/1	0.61	0.38	136,136,136,136	0
56	MG	DA	3147	1/1	0.61	0.42	89,89,89,89	0
56	MG	CA	3122	1/1	0.61	0.77	136,136,136,136	0
56	MG	CA	3034	1/1	0.62	0.17	256,256,256,256	0
56	MG	DA	3134	1/1	0.62	0.37	78,78,78,78	0
56	MG	CA	3132	1/1	0.62	0.75	152,152,152,152	0
56	MG	AA	1627	1/1	0.62	0.56	99,99,99,99	0
56	MG	CA	3071	1/1	0.62	0.20	207,207,207,207	0
56	MG	BA	1639	1/1	0.62	0.63	106,106,106,106	0
56	MG	AA	1661	1/1	0.63	0.33	190,190,190,190	0
56	MG	CA	3027	1/1	0.63	0.31	137,137,137,137	0
56	MG	AA	1624	1/1	0.63	0.80	93,93,93,93	0
56	MG	CA	3115	1/1	0.63	0.46	108,108,108,108	0
56	MG	AA	1632	1/1	0.64	0.08	124,124,124,124	0
59	PUT	AA	1675	6/6	0.64	0.62	90,92,93,93	0
56	MG	AA	1602	1/1	0.64	0.55	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	CA	3135	1/1	0.65	0.54	104,104,104,104	0
56	MG	CA	3018	1/1	0.65	0.16	133,133,133,133	0
56	MG	AA	1612	1/1	0.65	0.73	81,81,81,81	0
56	MG	BA	1637	1/1	0.65	0.59	93,93,93,93	0
56	MG	CA	3079	1/1	0.65	0.16	143,143,143,143	0
56	MG	AA	1621	1/1	0.66	0.45	83,83,83,83	0
56	MG	AA	1608	1/1	0.66	0.50	119,119,119,119	0
56	MG	CA	3007	1/1	0.66	0.46	257,257,257,257	0
56	MG	CA	3031	1/1	0.67	0.23	127,127,127,127	0
56	MG	CA	3078	1/1	0.67	0.19	195,195,195,195	0
56	MG	BA	1623	1/1	0.67	1.44	235,235,235,235	0
56	MG	AA	1615	1/1	0.67	0.55	90,90,90,90	0
56	MG	BA	1624	1/1	0.68	0.26	275,275,275,275	0
56	MG	CA	3108	1/1	0.68	0.52	109,109,109,109	0
56	MG	AA	1617	1/1	0.68	0.36	98,98,98,98	0
56	MG	CA	3105	1/1	0.69	0.41	254,254,254,254	0
56	MG	CA	3129	1/1	0.69	0.23	141,141,141,141	0
56	MG	CA	3076	1/1	0.69	0.21	213,213,213,213	0
56	MG	DA	3157	1/1	0.69	0.53	73,73,73,73	0
56	MG	CB	203	1/1	0.70	0.10	155,155,155,155	0
56	MG	CA	3013	1/1	0.70	0.18	135,135,135,135	0
56	MG	BA	1604	1/1	0.70	0.19	182,182,182,182	0
64	PGE	D1	102	10/10	0.70	0.59	95,96,100,100	0
65	SPD	DA	3205	10/10	0.70	0.38	75,81,84,85	0
56	MG	DA	3125	1/1	0.71	0.42	83,83,83,83	0
62	PEG	DA	3217	7/7	0.71	0.55	89,93,98,99	0
56	MG	BA	1626	1/1	0.71	0.32	111,111,111,111	0
56	MG	AA	1613	1/1	0.71	1.50	85,85,85,85	0
58	MPD	DT	201	8/8	0.72	0.41	73,82,84,86	0
59	PUT	AA	1672	6/6	0.72	0.66	110,112,114,114	0
59	PUT	AA	1674	6/6	0.72	0.72	98,99,100,100	0
56	MG	CA	3137	1/1	0.72	0.59	168,168,168,168	0
56	MG	CA	3014	1/1	0.72	0.18	262,262,262,262	0
56	MG	BA	1606	1/1	0.72	0.21	251,251,251,251	0
56	MG	CA	3099	1/1	0.72	0.28	235,235,235,235	0
56	MG	AA	1611	1/1	0.72	0.25	113,113,113,113	0
56	MG	DA	3161	1/1	0.73	0.43	78,78,78,78	0
58	MPD	DT	202	8/8	0.73	0.41	87,88,89,91	0
56	MG	BA	1608	1/1	0.73	0.13	122,122,122,122	0
56	MG	DA	3167	1/1	0.73	0.40	75,75,75,75	0
56	MG	CA	3032	1/1	0.73	0.53	269,269,269,269	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	CA	3055	1/1	0.73	0.10	195,195,195,195	0
56	MG	CA	3106	1/1	0.73	0.60	103,103,103,103	0
56	MG	DA	3155	1/1	0.73	0.57	74,74,74,74	0
56	MG	CA	3121	1/1	0.73	0.50	101,101,101,101	0
56	MG	CA	3049	1/1	0.74	0.24	100,100,100,100	0
56	MG	AA	1618	1/1	0.74	0.83	91,91,91,91	0
56	MG	CA	3016	1/1	0.74	0.34	148,148,148,148	0
56	MG	CA	3060	1/1	0.75	0.38	242,242,242,242	0
62	PEG	D3	102	7/7	0.75	1.24	72,74,83,84	0
56	MG	BA	1614	1/1	0.75	0.17	147,147,147,147	0
56	MG	DA	3159	1/1	0.75	0.44	80,80,80,80	0
63	EDO	DA	3208	4/4	0.75	0.48	98,99,100,101	0
56	MG	AA	1679	1/1	0.75	0.25	189,189,189,189	0
56	MG	CA	3111	1/1	0.75	1.00	159,159,159,159	0
56	MG	CA	3109	1/1	0.76	0.58	93,93,93,93	0
56	MG	AA	1620	1/1	0.76	0.46	83,83,83,83	0
56	MG	BA	1625	1/1	0.76	0.39	274,274,274,274	0
56	MG	CA	3151	1/1	0.76	0.36	84,84,84,84	0
57	PG4	DA	3215	13/13	0.76	0.43	95,103,104,104	0
58	MPD	DE	302	8/8	0.76	0.57	96,97,98,98	0
62	PEG	DA	3225	7/7	0.76	0.39	62,65,70,70	0
63	EDO	DA	3004	4/4	0.76	0.45	107,107,108,109	0
56	MG	DA	3136	1/1	0.76	0.12	92,92,92,92	0
56	MG	DA	3170	1/1	0.76	0.39	73,73,73,73	0
64	PGE	D3	101	10/10	0.76	0.66	87,88,88,88	0
58	MPD	DA	3203	8/8	0.76	0.75	96,99,102,104	0
69	TRS	DA	3219	8/8	0.76	0.56	98,99,102,104	0
56	MG	CA	3010	1/1	0.77	0.52	231,231,231,231	0
56	MG	AA	1663	1/1	0.77	0.19	110,110,110,110	0
59	PUT	DA	3218	6/6	0.77	0.42	75,77,80,81	0
62	PEG	D1	103	7/7	0.77	0.47	56,60,61,62	0
56	MG	CA	3148	1/1	0.77	0.79	86,86,86,86	1
56	MG	CA	3001	1/1	0.77	0.38	299,299,299,299	0
67	ACY	DA	3196	4/4	0.77	0.32	75,79,79,80	0
68	GUN	DA	3210	11/11	0.77	0.38	71,73,74,74	0
56	MG	CB	201	1/1	0.77	0.10	166,166,166,166	0
56	MG	DA	3126	1/1	0.78	0.37	76,76,76,76	0
59	PUT	AA	1673	6/6	0.78	0.49	125,126,127,128	0
56	MG	CA	3006	1/1	0.78	0.19	227,227,227,227	0
64	PGE	DA	3224	10/10	0.78	0.34	74,81,83,83	0
57	PG4	AA	1670	13/13	0.78	0.30	80,92,101,102	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	CA	3120	1/1	0.78	0.25	195,195,195,195	0
63	EDO	DB	210	4/4	0.78	0.43	85,85,85,86	0
60	T1C	BA	1643	42/42	0.78	0.23	169,175,185,185	0
56	MG	CA	3026	1/1	0.79	1.03	197,197,197,197	0
56	MG	CA	3145	1/1	0.79	0.38	75,75,75,75	0
56	MG	CA	3093	1/1	0.79	0.23	123,123,123,123	0
59	PUT	DA	3211	6/6	0.79	0.34	65,66,72,74	0
56	MG	DA	3171	1/1	0.79	0.57	82,82,82,82	0
56	MG	DA	3173	1/1	0.79	0.56	81,81,81,81	0
56	MG	CA	3082	1/1	0.79	0.45	160,160,160,160	0
56	MG	CA	3128	1/1	0.79	0.42	87,87,87,87	0
62	PEG	DP	201	7/7	0.79	0.53	94,94,99,100	0
58	MPD	DA	3206	8/8	0.79	0.51	89,93,94,94	0
56	MG	CA	3063	1/1	0.79	0.24	207,207,207,207	0
56	MG	CA	3069	1/1	0.80	0.21	115,115,115,115	0
62	PEG	DA	3200	7/7	0.80	0.51	55,58,65,65	0
56	MG	CA	3107	1/1	0.80	0.72	106,106,106,106	0
58	MPD	DE	301	8/8	0.80	0.61	102,104,107,109	0
56	MG	CA	3065	1/1	0.80	0.25	122,122,122,122	0
56	MG	DA	3143	1/1	0.80	0.46	95,95,95,95	0
56	MG	BA	1631	1/1	0.80	0.07	71,71,71,71	0
56	MG	CA	3044	1/1	0.81	0.18	84,84,84,84	0
56	MG	CA	3057	1/1	0.81	0.16	132,132,132,132	0
56	MG	AA	1625	1/1	0.81	0.30	78,78,78,78	0
56	MG	CA	3083	1/1	0.81	0.34	241,241,241,241	0
56	MG	CA	3009	1/1	0.81	0.16	248,248,248,248	0
56	MG	CA	3147	1/1	0.81	0.40	91,91,91,91	1
57	PG4	BA	1642	13/13	0.81	0.42	96,102,107,107	0
56	MG	BA	1603	1/1	0.81	0.70	261,261,261,261	0
56	MG	AA	1655	1/1	0.81	0.16	115,115,115,115	0
59	PUT	DA	3189	6/6	0.81	0.38	47,48,49,49	0
56	MG	AA	1644	1/1	0.82	0.14	94,94,94,94	0
56	MG	DA	3153	1/1	0.82	0.33	100,100,100,100	0
56	MG	CA	3119	1/1	0.82	0.72	134,134,134,134	0
59	PUT	DA	3195	6/6	0.82	0.54	51,53,62,65	0
59	PUT	DA	3204	6/6	0.82	0.43	66,66,70,71	0
58	MPD	DK	201	8/8	0.82	0.27	93,94,95,95	0
56	MG	CA	3008	1/1	0.82	0.10	179,179,179,179	0
56	MG	BA	1618	1/1	0.82	0.19	106,106,106,106	0
61	ZN	C5	101	1/1	0.82	0.06	148,148,148,148	0
56	MG	BA	1622	1/1	0.82	0.12	95,95,95,95	0
56	MG	CA	3023	1/1	0.82	0.14	150,150,150,150	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	CA	3112	1/1	0.82	0.33	110,110,110,110	0
56	MG	CA	3067	1/1	0.82	0.44	289,289,289,289	0
56	MG	DA	3133	1/1	0.83	0.41	78,78,78,78	0
56	MG	DA	3181	1/1	0.83	0.70	91,91,91,91	0
56	MG	CA	3155	1/1	0.83	0.31	204,204,204,204	0
56	MG	CA	3066	1/1	0.83	0.14	125,125,125,125	0
56	MG	CA	3048	1/1	0.83	0.17	107,107,107,107	0
57	PG4	DQ	202	13/13	0.83	0.30	64,66,71,72	0
56	MG	AA	1659	1/1	0.83	0.09	97,97,97,97	0
56	MG	DA	3123	1/1	0.83	0.51	77,77,77,77	0
56	MG	BA	1627	1/1	0.83	0.78	129,129,129,129	0
59	PUT	DA	3212	6/6	0.83	0.45	55,57,64,66	0
56	MG	AA	1654	1/1	0.83	0.49	252,252,252,252	0
58	MPD	DN	201	8/8	0.83	0.41	87,89,92,93	0
56	MG	DA	3176	1/1	0.83	0.32	93,93,93,93	0
56	MG	CA	3072	1/1	0.83	0.88	272,272,272,272	0
56	MG	CA	3022	1/1	0.83	0.70	188,188,188,188	0
56	MG	DA	3151	1/1	0.84	0.10	58,58,58,58	0
56	MG	DA	3124	1/1	0.84	0.38	114,114,114,114	0
63	EDO	DA	3194	4/4	0.84	0.30	51,56,59,60	0
56	MG	BA	1612	1/1	0.84	0.26	137,137,137,137	0
56	MG	AA	1640	1/1	0.84	0.13	62,62,62,62	0
56	MG	DA	3172	1/1	0.84	0.37	89,89,89,89	0
64	PGE	DS	201	10/10	0.84	0.37	56,66,68,69	0
56	MG	CA	3059	1/1	0.84	0.36	147,147,147,147	0
56	MG	DA	3112	1/1	0.84	0.44	293,293,293,293	0
66	1PE	DA	3202	16/16	0.84	0.37	60,63,65,65	0
57	PG4	DR	202	13/13	0.84	0.46	61,63,75,75	0
67	ACY	DA	3201	4/4	0.84	0.33	60,64,64,66	0
56	MG	BA	1610	1/1	0.84	0.08	109,109,109,109	0
63	EDO	D1	101	4/4	0.84	0.34	67,67,68,68	0
62	PEG	AL	201	7/7	0.85	0.39	74,78,85,85	0
56	MG	AA	1657	1/1	0.85	0.47	162,162,162,162	0
56	MG	DA	3169	1/1	0.85	0.33	73,73,73,73	0
56	MG	CA	3080	1/1	0.85	0.35	186,186,186,186	0
56	MG	BA	1601	1/1	0.85	0.17	95,95,95,95	0
56	MG	CA	3058	1/1	0.85	0.41	135,135,135,135	0
58	MPD	DA	3190	8/8	0.85	0.34	91,92,93,94	0
56	MG	AA	1639	1/1	0.85	0.09	132,132,132,132	0
56	MG	DD	303	1/1	0.85	0.36	66,66,66,66	0
56	MG	CA	3125	1/1	0.85	0.27	141,141,141,141	0
56	MG	AA	1665	1/1	0.85	0.43	168,168,168,168	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3007	1/1	0.85	0.12	112,112,112,112	0
56	MG	DA	3063	1/1	0.85	0.13	222,222,222,222	0
63	EDO	DA	3214	4/4	0.85	0.31	77,78,79,79	0
59	PUT	DA	3184	6/6	0.85	0.37	42,48,50,51	0
56	MG	DA	3065	1/1	0.85	0.16	71,71,71,71	0
56	MG	CA	3050	1/1	0.85	0.13	91,91,91,91	0
64	PGE	DA	3213	10/10	0.85	0.48	84,86,90,90	0
56	MG	CA	3051	1/1	0.85	0.12	109,109,109,109	0
65	SPD	DA	3183	10/10	0.85	0.44	57,63,66,66	0
56	MG	CA	3098	1/1	0.85	0.13	110,110,110,110	0
56	MG	CB	202	1/1	0.85	0.12	139,139,139,139	0
57	PG4	DA	3193	13/13	0.85	0.87	63,65,76,77	0
59	PUT	DA	3220	6/6	0.85	0.36	92,92,94,95	0
56	MG	CA	3040	1/1	0.85	0.09	126,126,126,126	0
56	MG	DA	3128	1/1	0.85	0.48	78,78,78,78	0
56	MG	CA	3086	1/1	0.86	0.16	97,97,97,97	0
56	MG	DA	3165	1/1	0.86	0.45	69,69,69,69	0
56	MG	DA	3148	1/1	0.86	0.24	115,115,115,115	0
62	PEG	DA	3226	7/7	0.86	0.33	58,59,65,67	0
56	MG	CA	3064	1/1	0.86	0.57	267,267,267,267	0
56	MG	BA	1607	1/1	0.86	0.38	162,162,162,162	0
56	MG	CA	3012	1/1	0.86	0.27	130,130,130,130	0
56	MG	CA	3094	1/1	0.86	0.26	159,159,159,159	0
56	MG	CA	3096	1/1	0.86	0.13	116,116,116,116	0
56	MG	AA	1609	1/1	0.86	0.38	107,107,107,107	0
56	MG	DA	3174	1/1	0.86	0.30	78,78,78,78	0
56	MG	CA	3053	1/1	0.87	0.22	108,108,108,108	0
56	MG	CA	3062	1/1	0.87	0.19	237,237,237,237	0
63	EDO	DA	3207	4/4	0.87	0.26	58,60,62,63	0
56	MG	CA	3088	1/1	0.87	0.10	88,88,88,88	0
56	MG	CA	3143	1/1	0.87	0.50	107,107,107,107	0
56	MG	DA	3154	1/1	0.87	0.46	59,59,59,59	0
57	PG4	DS	202	13/13	0.87	0.34	43,51,59,61	0
64	PGE	DD	301	10/10	0.87	0.36	63,67,72,73	0
56	MG	CA	3030	1/1	0.87	0.15	124,124,124,124	0
64	PGE	DU	101	10/10	0.87	0.50	64,72,83,83	0
56	MG	CA	3021	1/1	0.87	1.07	278,278,278,278	0
64	PGE	DA	3216	10/10	0.87	0.39	62,64,65,65	0
62	PEG	DA	3199	7/7	0.87	0.44	60,64,69,70	0
56	MG	DA	3175	1/1	0.87	0.50	75,75,75,75	0
56	MG	CA	3004	1/1	0.87	0.23	223,223,223,223	0
56	MG	AA	1664	1/1	0.87	0.35	186,186,186,186	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	CA	3017	1/1	0.87	0.10	106,106,106,106	0
56	MG	AA	1601	1/1	0.87	1.43	104,104,104,104	0
56	MG	CA	3020	1/1	0.87	0.11	103,103,103,103	0
63	EDO	DA	3001	4/4	0.87	0.37	72,73,75,77	0
56	MG	DA	3095	1/1	0.88	0.17	33,33,33,33	0
56	MG	CA	3052	1/1	0.88	0.13	97,97,97,97	0
56	MG	AA	1649	1/1	0.88	0.12	77,77,77,77	0
58	MPD	DA	3209	8/8	0.88	0.31	68,70,70,71	0
56	MG	BA	1636	1/1	0.88	0.64	172,172,172,172	0
56	MG	CA	3036	1/1	0.88	0.33	203,203,203,203	0
56	MG	AA	1660	1/1	0.88	0.30	286,286,286,286	0
63	EDO	DA	3003	4/4	0.88	0.52	64,64,66,67	0
56	MG	BA	1602	1/1	0.88	0.07	100,100,100,100	0
56	MG	DA	3129	1/1	0.88	1.13	60,60,60,60	0
62	PEG	DL	201	7/7	0.88	0.28	65,69,76,78	0
56	MG	AA	1623	1/1	0.88	0.36	85,85,85,85	0
56	MG	CA	3152	1/1	0.88	0.46	215,215,215,215	0
56	MG	CA	3153	1/1	0.88	0.22	90,90,90,90	0
56	MG	DA	3045	1/1	0.89	0.09	85,85,85,85	0
56	MG	AA	1610	1/1	0.89	0.40	99,99,99,99	0
56	MG	BA	1633	1/1	0.89	0.28	235,235,235,235	0
56	MG	DA	3162	1/1	0.89	0.25	64,64,64,64	0
66	1PE	DA	3185	16/16	0.89	0.31	44,53,71,72	0
56	MG	CA	3019	1/1	0.89	0.10	79,79,79,79	0
56	MG	CA	3035	1/1	0.89	0.26	158,158,158,158	0
56	MG	DA	3156	1/1	0.89	0.34	74,74,74,74	0
59	PUT	DA	3221	6/6	0.89	0.33	44,48,50,50	0
58	MPD	DA	3192	8/8	0.89	0.59	79,79,82,83	0
56	MG	CA	3150	1/1	0.90	0.50	82,82,82,82	0
56	MG	DA	3120	1/1	0.90	0.36	55,55,55,55	0
56	MG	DA	3149	1/1	0.90	0.28	77,77,77,77	0
56	MG	AA	1607	1/1	0.90	0.61	92,92,92,92	0
56	MG	AA	1656	1/1	0.90	0.16	149,149,149,149	0
56	MG	AA	1647	1/1	0.90	0.13	202,202,202,202	0
56	MG	CA	3029	1/1	0.90	0.36	177,177,177,177	0
56	MG	AA	1619	1/1	0.90	0.27	92,92,92,92	0
56	MG	AA	1635	1/1	0.90	0.10	100,100,100,100	0
56	MG	CA	3127	1/1	0.90	0.11	85,85,85,85	0
56	MG	CA	3101	1/1	0.90	0.11	149,149,149,149	0
56	MG	CA	3144	1/1	0.90	0.13	83,83,83,83	0
56	MG	BA	1634	1/1	0.90	0.07	116,116,116,116	0
56	MG	CA	3116	1/1	0.90	0.80	89,89,89,89	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3166	1/1	0.90	0.86	90,90,90,90	0
65	SPD	DA	3223	10/10	0.90	0.27	40,44,54,55	0
56	MG	CA	3117	1/1	0.90	0.77	109,109,109,109	0
56	MG	DA	3142	1/1	0.90	0.28	79,79,79,79	0
56	MG	CA	3045	1/1	0.90	0.07	93,93,93,93	0
63	EDO	DB	211	4/4	0.90	0.24	73,73,74,75	0
58	MPD	AA	1676	8/8	0.90	0.57	97,100,100,102	0
56	MG	BA	1617	1/1	0.90	0.14	126,126,126,126	0
56	MG	BA	1644	1/1	0.91	0.12	97,97,97,97	0
56	MG	AA	1634	1/1	0.91	0.19	108,108,108,108	0
56	MG	AA	1630	1/1	0.91	0.15	134,134,134,134	0
56	MG	CA	3095	1/1	0.91	0.18	81,81,81,81	0
56	MG	BA	1632	1/1	0.91	0.12	72,72,72,72	0
56	MG	CA	3136	1/1	0.91	0.34	105,105,105,105	0
56	MG	CA	3084	1/1	0.91	0.34	208,208,208,208	0
56	MG	DA	3103	1/1	0.91	0.12	44,44,44,44	0
56	MG	AA	1636	1/1	0.91	0.28	97,97,97,97	0
63	EDO	DA	3197	4/4	0.91	0.26	68,68,69,69	0
56	MG	BA	1640	1/1	0.91	0.82	156,156,156,156	0
56	MG	CA	3100	1/1	0.91	0.31	110,110,110,110	0
56	MG	CA	3089	1/1	0.91	0.22	95,95,95,95	0
56	MG	CA	3103	1/1	0.91	0.15	120,120,120,120	0
56	MG	BA	1609	1/1	0.91	0.16	194,194,194,194	0
60	T1C	AA	1677	42/42	0.92	0.25	89,96,109,110	0
56	MG	DR	201	1/1	0.92	0.60	44,44,44,44	0
61	ZN	AB	301	1/1	0.92	0.30	209,209,209,209	0
64	PGE	DA	3186	10/10	0.92	0.22	39,46,49,50	0
56	MG	DR	203	1/1	0.92	0.42	111,111,111,111	0
59	PUT	DA	3002	6/6	0.92	0.23	45,52,54,55	0
56	MG	BA	1635	1/1	0.92	0.10	111,111,111,111	0
56	MG	CA	3011	1/1	0.92	0.28	117,117,117,117	0
56	MG	DA	3122	1/1	0.92	0.32	80,80,80,80	0
56	MG	BA	1628	1/1	0.92	0.18	111,111,111,111	0
63	EDO	DA	3198	4/4	0.92	0.35	56,57,58,59	0
56	MG	DA	3016	1/1	0.92	0.11	44,44,44,44	0
58	MPD	AA	1671	8/8	0.92	0.53	101,103,104,106	0
56	MG	CA	3118	1/1	0.92	0.45	90,90,90,90	0
56	MG	CA	3043	1/1	0.92	0.14	101,101,101,101	0
56	MG	BA	1645	1/1	0.92	0.05	98,98,98,98	0
56	MG	CA	3042	1/1	0.93	0.12	91,91,91,91	0
56	MG	DA	3094	1/1	0.93	0.21	35,35,35,35	0
56	MG	CA	3102	1/1	0.93	0.27	114,114,114,114	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	AA	1658	1/1	0.93	0.10	100,100,100,100	0
56	MG	CA	3015	1/1	0.93	0.25	83,83,83,83	0
56	MG	DA	3160	1/1	0.93	0.12	72,72,72,72	0
56	MG	DA	3118	1/1	0.93	0.34	76,76,76,76	0
56	MG	CA	3087	1/1	0.93	0.07	97,97,97,97	0
56	MG	AA	1669	1/1	0.93	0.41	118,118,118,118	0
56	MG	CA	3074	1/1	0.93	0.27	206,206,206,206	0
56	MG	DA	3038	1/1	0.93	0.22	29,29,29,29	0
56	MG	DA	3044	1/1	0.93	0.15	36,36,36,36	0
56	MG	CA	3081	1/1	0.93	0.17	134,134,134,134	0
56	MG	DA	3053	1/1	0.93	0.12	78,78,78,78	0
56	MG	AA	1651	1/1	0.93	0.13	70,70,70,70	0
56	MG	CA	3041	1/1	0.94	0.19	71,71,71,71	0
56	MG	DA	3119	1/1	0.94	0.11	63,63,63,63	0
59	PUT	DA	3188	6/6	0.94	0.22	32,35,40,41	0
56	MG	CA	3138	1/1	0.94	0.16	103,103,103,103	0
56	MG	DA	3121	1/1	0.94	0.37	91,91,91,91	0
56	MG	AA	1643	1/1	0.94	0.14	78,78,78,78	0
56	MG	BA	1615	1/1	0.94	0.08	76,76,76,76	0
56	MG	DA	3005	1/1	0.94	0.10	81,81,81,81	0
56	MG	DA	3164	1/1	0.94	0.32	72,72,72,72	0
56	MG	DA	3080	1/1	0.94	0.10	109,109,109,109	0
56	MG	DA	3229	1/1	0.94	0.13	55,55,55,55	0
65	SPD	DA	3187	10/10	0.94	0.24	38,40,48,50	0
59	PUT	DA	3222	6/6	0.94	0.24	50,54,55,55	0
56	MG	DA	3084	1/1	0.94	0.08	57,57,57,57	0
56	MG	CA	3091	1/1	0.94	0.10	96,96,96,96	0
56	MG	AA	1633	1/1	0.94	0.29	101,101,101,101	0
56	MG	DA	3152	1/1	0.94	0.23	47,47,47,47	0
56	MG	DA	3021	1/1	0.94	0.07	48,48,48,48	0
56	MG	CA	3070	1/1	0.94	0.08	112,112,112,112	0
56	MG	DA	3132	1/1	0.94	0.52	77,77,77,77	0
56	MG	DB	208	1/1	0.95	0.26	64,64,64,64	0
56	MG	DA	3081	1/1	0.95	0.17	94,94,94,94	0
56	MG	DA	3082	1/1	0.95	0.08	55,55,55,55	0
56	MG	CA	3114	1/1	0.95	0.47	62,62,62,62	0
56	MG	AA	1653	1/1	0.95	0.04	75,75,75,75	0
56	MG	DA	3009	1/1	0.95	0.12	102,102,102,102	0
56	MG	DA	3097	1/1	0.95	0.14	45,45,45,45	0
56	MG	DA	3135	1/1	0.95	0.27	72,72,72,72	0
56	MG	BA	1613	1/1	0.95	0.18	78,78,78,78	0
56	MG	DA	3108	1/1	0.95	0.18	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3139	1/1	0.95	0.40	64,64,64,64	1
56	MG	DA	3140	1/1	0.95	0.19	57,57,57,57	0
56	MG	BA	1619	1/1	0.95	0.19	107,107,107,107	0
61	ZN	D5	101	1/1	0.95	0.15	60,60,60,60	0
56	MG	BA	1621	1/1	0.95	0.19	42,42,42,42	0
56	MG	DA	3144	1/1	0.95	0.37	65,65,65,65	0
56	MG	AA	1678	1/1	0.95	0.16	74,74,74,74	0
56	MG	DA	3146	1/1	0.95	0.15	72,72,72,72	0
56	MG	DB	201	1/1	0.95	0.14	64,64,64,64	0
56	MG	DB	205	1/1	0.95	0.17	49,49,49,49	0
56	MG	AA	1650	1/1	0.95	0.09	87,87,87,87	0
56	MG	DA	3177	1/1	0.95	0.18	68,68,68,68	0
56	MG	DA	3150	1/1	0.95	0.18	59,59,59,59	0
56	MG	CA	3085	1/1	0.95	0.12	89,89,89,89	0
67	ACY	DA	3191	4/4	0.95	0.27	56,57,58,59	0
56	MG	DA	3069	1/1	0.95	0.17	44,44,44,44	0
56	MG	DA	3070	1/1	0.95	0.15	61,61,61,61	0
56	MG	DA	3076	1/1	0.95	0.20	38,38,38,38	0
56	MG	DA	3127	1/1	0.95	0.43	62,62,62,62	0
56	MG	DA	3098	1/1	0.96	0.09	29,29,29,29	0
56	MG	DA	3099	1/1	0.96	0.13	78,78,78,78	0
56	MG	AA	1641	1/1	0.96	0.08	92,92,92,92	0
56	MG	DA	3137	1/1	0.96	0.26	47,47,47,47	0
56	MG	DA	3105	1/1	0.96	0.19	39,39,39,39	0
56	MG	DA	3049	1/1	0.96	0.17	33,33,33,33	0
56	MG	DA	3050	1/1	0.96	0.12	43,43,43,43	0
56	MG	DA	3115	1/1	0.96	0.15	49,49,49,49	0
56	MG	DA	3117	1/1	0.96	0.11	41,41,41,41	0
56	MG	DA	3006	1/1	0.96	0.11	68,68,68,68	0
56	MG	CA	3037	1/1	0.96	0.43	235,235,235,235	0
56	MG	DA	3008	1/1	0.96	0.05	82,82,82,82	0
56	MG	AA	1629	1/1	0.96	0.14	83,83,83,83	0
56	MG	DA	3013	1/1	0.96	0.13	71,71,71,71	0
56	MG	AA	1666	1/1	0.96	0.05	67,67,67,67	0
56	MG	DA	3020	1/1	0.96	0.32	33,33,33,33	0
56	MG	DM	201	1/1	0.96	0.06	62,62,62,62	0
56	MG	DA	3022	1/1	0.96	0.15	43,43,43,43	0
56	MG	DA	3029	1/1	0.96	0.14	61,61,61,61	0
56	MG	DA	3088	1/1	0.96	0.17	45,45,45,45	0
56	MG	DA	3090	1/1	0.96	0.18	26,26,26,26	0
56	MG	DA	3091	1/1	0.96	0.23	55,55,55,55	0
56	MG	DA	3227	1/1	0.96	0.14	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	CA	3073	1/1	0.96	0.28	260,260,260,260	0
56	MG	DA	3158	1/1	0.96	0.17	71,71,71,71	0
56	MG	DA	3043	1/1	0.96	0.08	31,31,31,31	0
56	MG	DB	209	1/1	0.96	0.49	80,80,80,80	0
56	MG	AA	1652	1/1	0.97	0.29	57,57,57,57	0
56	MG	DA	3046	1/1	0.97	0.09	47,47,47,47	0
56	MG	AA	1637	1/1	0.97	0.08	57,57,57,57	0
56	MG	BA	1616	1/1	0.97	0.18	149,149,149,149	0
56	MG	DB	202	1/1	0.97	0.13	29,29,29,29	0
56	MG	DA	3100	1/1	0.97	0.14	30,30,30,30	0
56	MG	DA	3102	1/1	0.97	0.14	56,56,56,56	0
56	MG	DB	203	1/1	0.97	0.05	39,39,39,39	0
56	MG	DA	3017	1/1	0.97	0.13	56,56,56,56	0
56	MG	DA	3018	1/1	0.97	0.25	29,29,29,29	0
56	MG	DA	3109	1/1	0.97	0.10	29,29,29,29	0
56	MG	BA	1605	1/1	0.97	0.09	125,125,125,125	0
56	MG	DA	3114	1/1	0.97	0.11	62,62,62,62	0
56	MG	DA	3073	1/1	0.97	0.15	47,47,47,47	0
56	MG	DA	3075	1/1	0.97	0.07	49,49,49,49	0
56	MG	CA	3046	1/1	0.97	0.14	143,143,143,143	0
56	MG	DA	3077	1/1	0.97	0.18	42,42,42,42	0
56	MG	DA	3078	1/1	0.97	0.10	38,38,38,38	0
56	MG	DA	3079	1/1	0.97	0.07	63,63,63,63	0
56	MG	AA	1667	1/1	0.97	0.12	49,49,49,49	0
56	MG	DA	3028	1/1	0.97	0.14	38,38,38,38	0
56	MG	AA	1638	1/1	0.97	0.09	103,103,103,103	0
56	MG	DA	3083	1/1	0.97	0.09	69,69,69,69	0
56	MG	DA	3031	1/1	0.97	0.21	46,46,46,46	0
56	MG	DD	302	1/1	0.97	0.13	48,48,48,48	0
56	MG	BA	1620	1/1	0.97	0.17	97,97,97,97	0
56	MG	CA	3024	1/1	0.97	0.17	141,141,141,141	0
56	MG	DA	3230	1/1	0.97	0.35	45,45,45,45	0
56	MG	AA	1645	1/1	0.98	0.12	61,61,61,61	0
56	MG	DA	3039	1/1	0.98	0.12	20,20,20,20	0
56	MG	DA	3040	1/1	0.98	0.14	26,26,26,26	0
56	MG	DA	3041	1/1	0.98	0.09	58,58,58,58	0
56	MG	AA	1662	1/1	0.98	0.22	110,110,110,110	0
56	MG	AA	1646	1/1	0.98	0.08	65,65,65,65	0
58	MPD	DS	203	8/8	0.98	0.21	37,40,44,47	0
56	MG	AA	1631	1/1	0.98	0.06	56,56,56,56	0
56	MG	DA	3010	1/1	0.98	0.14	34,34,34,34	0
56	MG	DA	3085	1/1	0.98	0.14	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3086	1/1	0.98	0.12	39,39,39,39	0
56	MG	DA	3023	1/1	0.98	0.21	34,34,34,34	0
56	MG	DA	3089	1/1	0.98	0.08	36,36,36,36	0
56	MG	DA	3026	1/1	0.98	0.10	40,40,40,40	0
56	MG	DA	3027	1/1	0.98	0.15	71,71,71,71	0
56	MG	DA	3093	1/1	0.98	0.14	36,36,36,36	0
56	MG	DA	3054	1/1	0.98	0.09	57,57,57,57	0
56	MG	DA	3055	1/1	0.98	0.08	49,49,49,49	0
56	MG	DA	3057	1/1	0.98	0.23	57,57,57,57	0
56	MG	DA	3062	1/1	0.98	0.15	37,37,37,37	0
56	MG	CA	3025	1/1	0.98	0.28	105,105,105,105	0
56	MG	DA	3015	1/1	0.98	0.18	18,18,18,18	0
56	MG	DA	3101	1/1	0.98	0.22	30,30,30,30	0
56	MG	DA	3141	1/1	0.98	0.22	66,66,66,66	0
56	MG	DA	3066	1/1	0.98	0.19	29,29,29,29	0
56	MG	DA	3067	1/1	0.98	0.19	55,55,55,55	0
56	MG	DA	3068	1/1	0.98	0.11	62,62,62,62	0
56	MG	DA	3106	1/1	0.98	0.20	31,31,31,31	0
56	MG	DA	3107	1/1	0.98	0.17	47,47,47,47	0
56	MG	DA	3228	1/1	0.98	0.09	53,53,53,53	0
56	MG	BA	1611	1/1	0.98	0.11	66,66,66,66	0
56	MG	DA	3032	1/1	0.98	0.23	42,42,42,42	0
56	MG	DA	3111	1/1	0.98	0.15	32,32,32,32	0
56	MG	DA	3071	1/1	0.98	0.06	91,91,91,91	0
56	MG	DA	3034	1/1	0.98	0.17	28,28,28,28	0
56	MG	DA	3074	1/1	0.98	0.15	33,33,33,33	0
56	MG	DA	3116	1/1	0.98	0.14	28,28,28,28	0
56	MG	DA	3036	1/1	0.98	0.16	34,34,34,34	0
56	MG	DA	3037	1/1	0.98	0.23	31,31,31,31	0
56	MG	DA	3024	1/1	0.99	0.20	32,32,32,32	0
56	MG	DA	3104	1/1	0.99	0.09	42,42,42,42	0
56	MG	DA	3033	1/1	0.99	0.19	26,26,26,26	0
56	MG	DA	3064	1/1	0.99	0.08	59,59,59,59	0
56	MG	DA	3025	1/1	0.99	0.23	25,25,25,25	0
56	MG	DA	3019	1/1	0.99	0.10	43,43,43,43	0
56	MG	DA	3047	1/1	0.99	0.19	27,27,27,27	0
56	MG	DA	3110	1/1	0.99	0.19	19,19,19,19	0
56	MG	DA	3087	1/1	0.99	0.16	48,48,48,48	0
56	MG	DA	3048	1/1	0.99	0.13	42,42,42,42	0
56	MG	AA	1668	1/1	0.99	0.11	54,54,54,54	0
56	MG	AA	1648	1/1	0.99	0.09	76,76,76,76	0
56	MG	DA	3052	1/1	0.99	0.15	36,36,36,36	0

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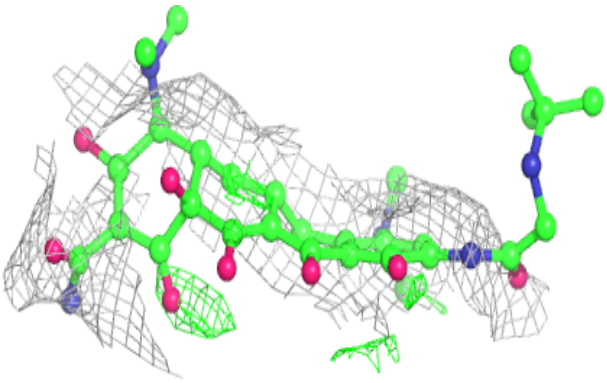
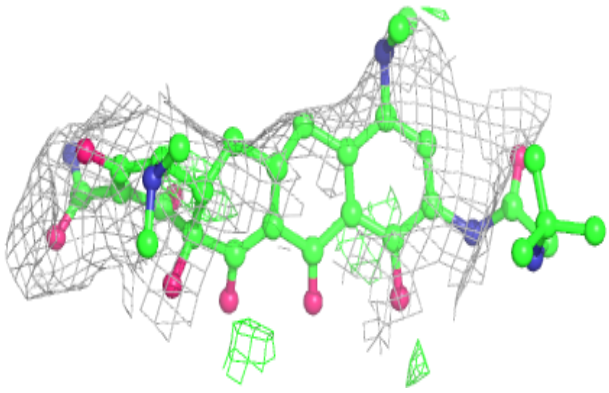
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3092	1/1	0.99	0.17	31,31,31,31	0
56	MG	DA	3072	1/1	0.99	0.09	47,47,47,47	0
56	MG	DB	204	1/1	0.99	0.15	56,56,56,56	0
56	MG	DA	3030	1/1	0.99	0.14	25,25,25,25	0
56	MG	DA	3096	1/1	0.99	0.11	61,61,61,61	0
56	MG	DA	3014	1/1	0.99	0.25	19,19,19,19	0
56	MG	DA	3056	1/1	0.99	0.17	22,22,22,22	0
56	MG	DA	3042	1/1	0.99	0.16	20,20,20,20	0
56	MG	DA	3058	1/1	0.99	0.08	31,31,31,31	0
56	MG	DA	3060	1/1	0.99	0.11	16,16,16,16	0
56	MG	DA	3061	1/1	0.99	0.15	19,19,19,19	0
56	MG	DA	3051	1/1	1.00	0.14	17,17,17,17	0
56	MG	DA	3011	1/1	1.00	0.17	28,28,28,28	0
56	MG	DA	3012	1/1	1.00	0.09	29,29,29,29	0
56	MG	DA	3113	1/1	1.00	0.22	18,18,18,18	0
56	MG	DA	3035	1/1	1.00	0.18	24,24,24,24	0
56	MG	DA	3059	1/1	1.00	0.15	37,37,37,37	0

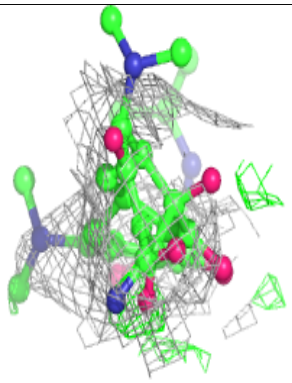
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.

Electron density around T1C BA 1643:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

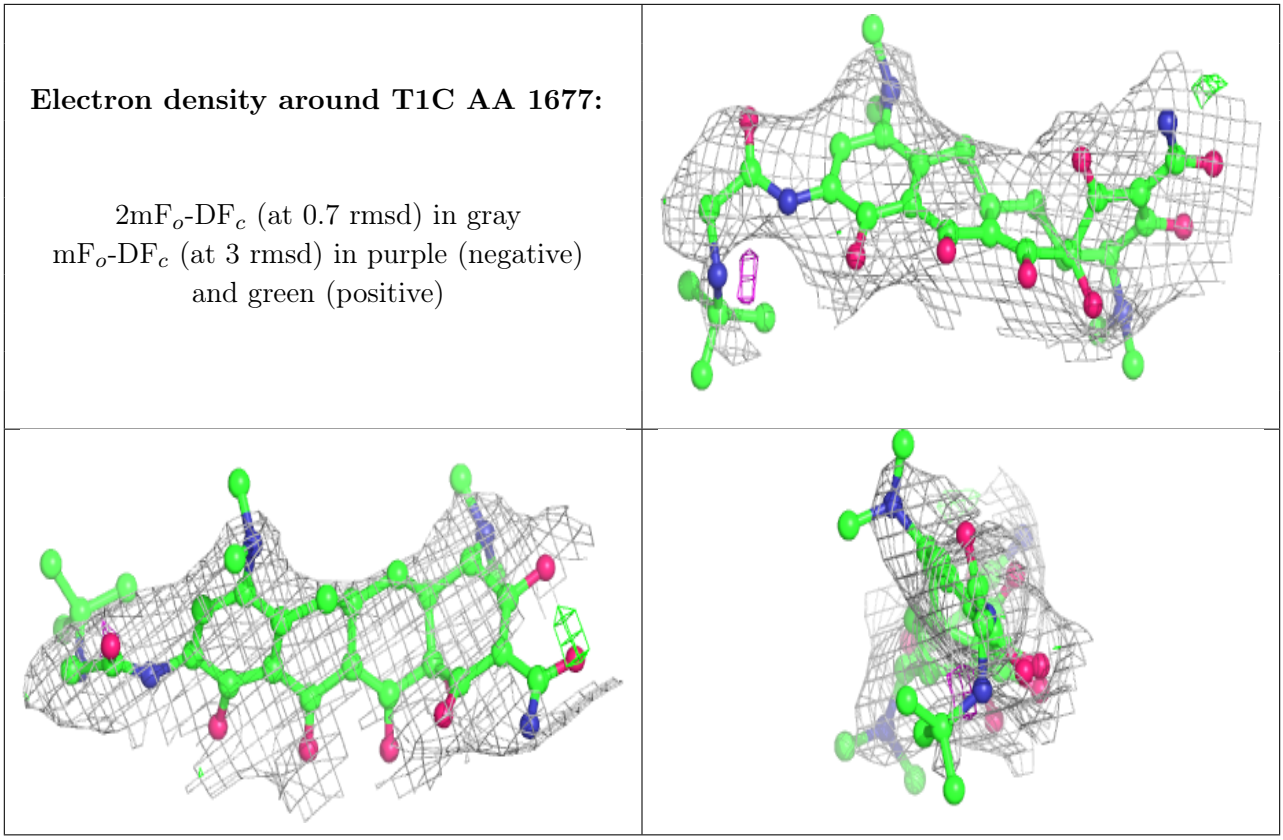






Electron density around T1C AA 1677:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



6.5 Other polymers (i)

There are no such residues in this entry.