



wwPDB X-ray Structure Validation Summary Report ⓘ

Dec 17, 2023 – 02:58 PM EST

PDB ID : 4U25
Title : Crystal structure of the E. coli ribosome bound to virginiamycin M1.
Authors : Noeske, J.; Huang, J.; Olivier, N.B.; Giacobbe, R.A.; Zambrowski, M.; Cate, J.H.D.
Deposited on : 2014-07-16
Resolution : 2.90 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 ⓘ 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 ⓘ](#)) were used in the production of this report:

MolProbity : 4.02b-467
Mogul : 1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix) : 1.13
EDS : 2.36
buster-report : 1.1.7 (2018)
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac : 5.8.0158
CCP4 : 7.0.044 (Gargrove)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.36

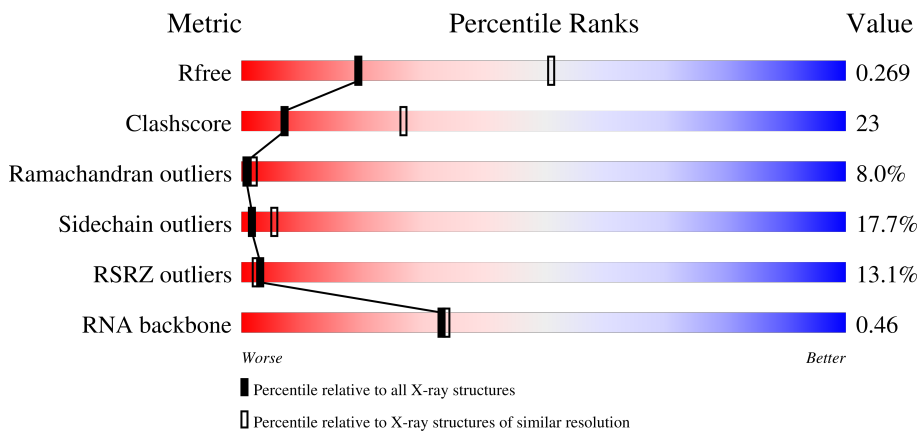
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.90 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	1957 (2.90-2.90)
Clashscore	141614	2172 (2.90-2.90)
Ramachandran outliers	138981	2115 (2.90-2.90)
Sidechain outliers	138945	2117 (2.90-2.90)
RSRZ outliers	127900	1906 (2.90-2.90)
RNA backbone	3102	1007 (3.16-2.64)

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 $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	AA	1539	2% (Poor fit) 32% (0 outliers) 52% (1 outlier) 15% (2 outliers)
1	CA	1539	4% (Poor fit) 33% (0 outliers) 53% (1 outlier) 13% (2 outliers)
2	AB	218	14% (Poor fit) 20% (0 outliers) 50% (1 outlier) 23% (2 outliers) 6% (3 outliers)
2	CB	218	27% (Poor fit) 30% (0 outliers) 51% (1 outlier) 17% (2 outliers) 3% (3 outliers)

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
3	AC	206	5% 49% 36% 12% .
3	CC	206	38% 50% 37% 12% .
4	AD	205	3% 36% 41% 20% .
4	CD	205	3% 41% 44% 13% .
5	AE	150	% 43% 42% 15%
5	CE	150	3% 34% 43% 21% .
6	AF	100	% 36% 37% 22% 5%
6	CF	100	6% 32% 47% 17% .
7	AG	151	10% 48% 40% 12%
7	CG	151	56% 38% 52% 10% .
8	AH	129	% 40% 41% 19% .
8	CH	129	5% 54% 33% 12%
9	AI	127	18% 39% 36% 23% .
9	CI	127	43% 38% 40% 20% .
10	AJ	98	12% 27% 46% 26% .
10	CJ	98	59% 44% 36% 17% .
11	AK	117	9% 44% 40% 12% .
11	CK	117	5% 38% 48% 13% .
12	AL	123	4% 49% 43% 6% .
12	CL	123	4% 36% 49% 12% .
13	AM	114	7% 39% 44% 16% .
13	CM	114	69% 40% 46% 12% .
14	AN	100	14% 35% 45% 15% . .
14	CN	100	52% 36% 45% 14% . .
15	AO	88	3% 50% 38% 13%

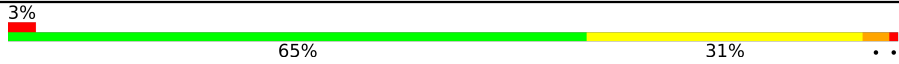

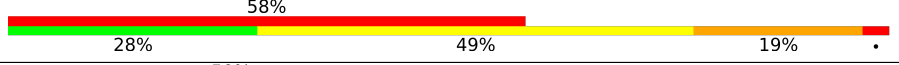



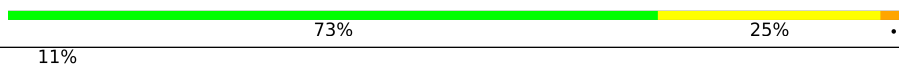
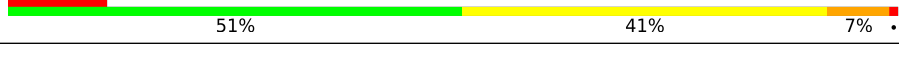



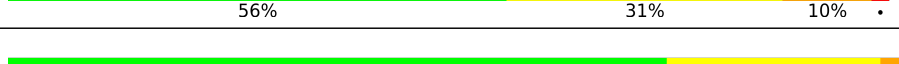
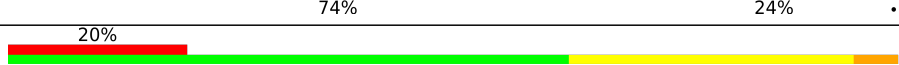
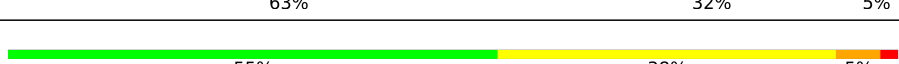
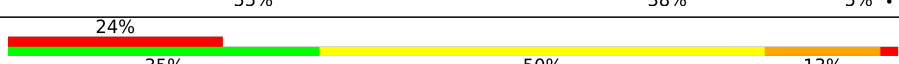
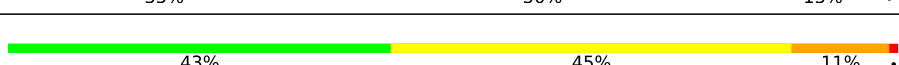
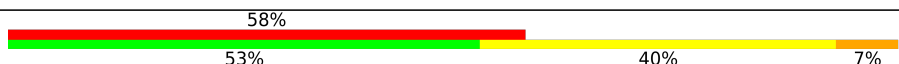
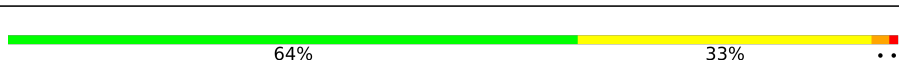
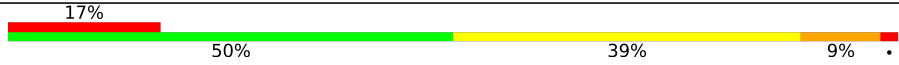


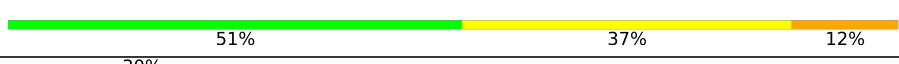



Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
15	CO	88	
16	AP	82	
16	CP	82	
17	AQ	80	
17	CQ	80	
18	AR	55	
18	CR	55	
19	AS	79	
19	CS	79	
20	AT	85	
20	CT	85	
21	AU	51	
21	CU	51	
22	BA	2903	
22	DA	2903	
23	BB	119	
23	DB	119	
24	BC	271	
24	DC	271	
25	BD	209	
25	DD	209	
26	BE	201	
26	DE	201	
27	BF	177	
27	DF	177	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
28	BG	176	
28	DG	176	
29	BH	149	
29	DH	149	
30	BI	141	
30	DI	141	
31	BJ	142	
31	DJ	142	
32	BK	122	
32	DK	122	
33	BL	143	
33	DL	143	
34	BM	136	
34	DM	136	
35	BN	120	
35	DN	120	
36	BO	116	
36	DO	116	
37	BP	114	
37	DP	114	
38	BQ	117	
38	DQ	117	
39	BR	103	
39	DR	103	
40	BS	110	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
40	DS	110	42% 46% 11%
41	BT	93	4% 52% 37% 10%
41	DT	93	53% 35% 45% 15%
42	BU	102	2% 56% 35% 8%
42	DU	102	63% 33% 46% 18%
43	BV	94	61% 34% 5%
43	DV	94	16% 59% 38%
44	BW	76	2% 59% 37%
44	DW	76	36% 75% 18%
45	BX	77	56% 36% 8%
45	DX	77	16% 36% 45% 18%
46	BY	63	5% 38% 44% 16%
46	DY	63	37% 30% 57% 11%
47	BZ	58	69% 29%
47	DZ	58	12% 50% 40% 9%
48	B0	56	43% 52% 2% 1%
48	D0	56	30% 59% 36%
49	B1	50	4% 42% 46% 10%
49	D1	50	26% 56% 32% 12%
50	B2	46	2% 63% 30% 7%
50	D2	46	41% 46% 43% 9%
51	B3	64	61% 34% 5%
51	D3	64	28% 62% 28% 9%
52	B4	38	58% 32% 11%
52	D4	38	47% 55% 42%

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
53	B5	228	<p>81% 50% 24% 9% 16%</p>

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
54	MG	AA	1643	-	-	-	X
54	MG	AA	1657	-	-	-	X
54	MG	AA	1659	-	-	-	X
54	MG	AA	1667	-	-	-	X
54	MG	AA	1671	-	-	-	X
54	MG	BA	3016	-	-	-	X
54	MG	BA	3058	-	-	-	X
54	MG	BA	3077	-	-	-	X
54	MG	CA	1630	-	-	-	X
54	MG	CA	1656	-	-	-	X
54	MG	DA	3008	-	-	-	X
54	MG	DA	3009	-	-	-	X
54	MG	DA	3017	-	-	-	X
54	MG	DA	3027	-	-	-	X
54	MG	DA	3059	-	-	-	X
54	MG	DA	3061	-	-	-	X
54	MG	DA	3062	-	-	-	X
54	MG	DA	3063	-	-	-	X
54	MG	DA	3093	-	-	-	X
54	MG	DA	3094	-	-	-	X
54	MG	DA	3100	-	-	-	X
54	MG	DA	3114	-	-	-	X
54	MG	DA	3120	-	-	-	X
54	MG	DA	3125	-	-	-	X
54	MG	DA	3132	-	-	-	X
54	MG	DA	3134	-	-	-	X
54	MG	DA	3136	-	-	-	X
54	MG	DA	3148	-	-	-	X

2 Entry composition

There are 57 unique types of molecules in this entry. The entry contains 288258 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a RNA chain called 16S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
1	AA	1538	Total 32995	C 14716	N 6050	O 10691	P 1538	0	0	0
1	CA	1539	Total 33015	C 14725	N 6052	O 10699	P 1539	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	AB	218	Total 1705	C 1081	N 305	O 312	S 7	0	0	0
2	CB	218	Total 1705	C 1081	N 305	O 312	S 7	0	0	0

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	AE	150	Total	C	N	O	S	0	0	0
			1106	687	211	202	6			
5	CE	150	Total	C	N	O	S	0	0	0
			1106	687	211	202	6			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	AF	100	Total	C	N	O	S	0	0	0
			818	515	148	149	6			
6	CF	100	Total	C	N	O	S	0	0	0
			818	515	148	149	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	CG	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	CH	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	CI	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	98	Total	C	N	O	S	0	0	0
			787	493	150	143	1			

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	CJ	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	CK	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
			955	590	196	165	4			
12	CL	123	Total	C	N	O	S	0	0	0
			955	590	196	165	4			

- 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	CM	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	96	Total	C	N	O	S	0	0	0
			774	483	160	128	3			
14	CN	96	Total	C	N	O	S	0	0	0
			774	483	160	128	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
			710	437	143	129	1			
15	CO	88	Total	C	N	O	S	0	0	0
			710	437	143	129	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	CP	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	CQ	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	CR	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	CS	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	85	Total	C	N	O	S	0	0	0
			665	411	137	114	3			
20	CT	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	51	Total	C	N	O	S	0	0	0
			426	265	86	74	1			
21	CU	51	Total	C	N	O	S	0	0	0
			426	265	86	74	1			

- Molecule 22 is a RNA chain called 23S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	BA	2897	Total	C	N	O	P	0	0	0
			62195	27745	11446	20107	2897			
22	DA	2897	Total	C	N	O	P	0	0	0
			62195	27745	11446	20107	2897			

- Molecule 23 is a RNA chain called 5S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	BB	119	Total	C	N	O	P	0	0	0
			2549	1135	466	829	119			
23	DB	118	Total	C	N	O	P	0	0	0
			2529	1126	464	821	118			

- Molecule 24 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	BC	271	Total	C	N	O	S	0	0	0
			2083	1288	423	365	7			
24	DC	271	Total	C	N	O	S	0	0	0
			2083	1288	423	365	7			

- Molecule 25 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	BD	209	Total	C	N	O	S	0	0	0
			1565	979	288	294	4			
25	DD	209	Total	C	N	O	S	0	0	0
			1565	979	288	294	4			

- Molecule 26 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	BE	201	Total	C	N	O	S	0	0	0
			1552	974	283	290	5			

Continued on next page...

Continued from previous page...

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

- Molecule 27 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
27	BF	177	1411	899	249	257	6	0	0	0
27	DF	177	1411	899	249	257	6	0	0	0

- Molecule 28 is a protein called 50S ribosomal protein L6.

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

- Molecule 29 is a protein called 50S ribosomal protein L9.

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

- Molecule 30 is a protein called 50S ribosomal protein L11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
30	BI	141	1032	651	179	196	6	0	0	0
30	DI	141	1032	651	179	196	6	0	0	0

- Molecule 31 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
31	BJ	142	1129	714	212	199	4	0	0	0
31	DJ	142	1129	714	212	199	4	0	0	0

- Molecule 32 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	BK	122	Total	C	N	O	S	0	0	0
			939	587	180	166	6			
32	DK	122	Total	C	N	O	S	0	0	0
			939	587	180	166	6			

- Molecule 33 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	BL	143	Total	C	N	O	S	0	0	0
			1045	649	206	189	1			
33	DL	143	Total	C	N	O	S	0	0	0
			1045	649	206	189	1			

- Molecule 34 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	BM	136	Total	C	N	O	S	0	0	0
			1074	686	205	177	6			
34	DM	136	Total	C	N	O	S	0	0	0
			1074	686	205	177	6			

- Molecule 35 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	BN	120	Total	C	N	O	S	0	0	0
			961	593	196	167	5			
35	DN	120	Total	C	N	O	S	0	0	0
			961	593	196	167	5			

- Molecule 36 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
36	BO	116	Total	C	N	O	0	0	0
			892	552	178	162			
36	DO	116	Total	C	N	O	0	0	0
			892	552	178	162			

- Molecule 37 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	BP	114	Total	C	N	O	S	0	0	0
			917	574	179	163	1			
37	DP	114	Total	C	N	O	S	0	0	0
			917	574	179	163	1			

- Molecule 38 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	BQ	117	Total	C	N	O	S	0	0	0
			947	604	192	151				
38	DQ	117	Total	C	N	O	S	0	0	0
			947	604	192	151				

- Molecule 39 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	BR	103	Total	C	N	O	S	0	0	0
			816	516	153	145	2			
39	DR	103	Total	C	N	O	S	0	0	0
			816	516	153	145	2			

- Molecule 40 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	BS	110	Total	C	N	O	S	0	0	0
			857	532	166	156	3			
40	DS	110	Total	C	N	O	S	0	0	0
			857	532	166	156	3			

- Molecule 41 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	BT	93	Total	C	N	O	S	0	0	0
			739	466	139	132	2			
41	DT	93	Total	C	N	O	S	0	0	0
			739	466	139	132	2			

- Molecule 42 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace	
42	BU	102	Total	C	N	O	S	0	0	0
			780	492	146	142				

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
42	DU	102	780	492	146	142	0	0	0

- Molecule 43 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
43	BV	94	753	479	137	134	3	0	0	0
43	DV	94	753	479	137	134	3	0	0	0

- Molecule 44 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
44	BW	76	580	359	117	103	1	0	0	0
44	DW	75	569	353	113	102	1	0	0	0

- Molecule 45 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
45	BX	77	625	388	129	106	2	0	0	0
45	DX	77	625	388	129	106	2	0	0	0

- Molecule 46 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
46	BY	63	509	313	99	95	2	0	0	0
46	DY	63	509	313	99	95	2	0	0	0

- Molecule 47 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
47	BZ	58	449	281	87	79	2	0	0	0
47	DZ	58	449	281	87	79	2	0	0	0

- Molecule 48 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	B0	56	Total	C	N	O	S	0	0	0
			444	269	94	80	1			
48	D0	56	Total	C	N	O	S	0	0	0
			444	269	94	80	1			

- Molecule 49 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
49	B1	50	Total	C	N	O	0	0	0
			410	263	75	72			
49	D1	50	Total	C	N	O	0	0	0
			410	263	75	72			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	B2	46	Total	C	N	O	S	0	0	0
			377	228	90	57	2			
50	D2	46	Total	C	N	O	S	0	0	0
			377	228	90	57	2			

- Molecule 51 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	B3	64	Total	C	N	O	S	0	0	0
			504	323	105	74	2			
51	D3	64	Total	C	N	O	S	0	0	0
			504	323	105	74	2			

- Molecule 52 is a protein called 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	B4	38	Total	C	N	O	S	0	0	0
			302	185	65	48	4			
52	D4	38	Total	C	N	O	S	0	0	0
			302	185	65	48	4			

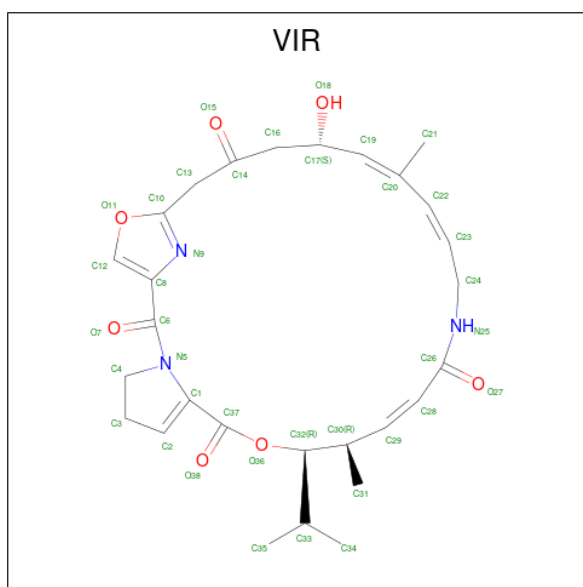
- Molecule 53 is a protein called 50S ribosomal protein L1.

Mol	Chain	Residues	Atoms			ZeroOcc	AltConf	Trace	
			Total	C	N				O
53	B5	191	1142	691	221	230	0	0	1

- Molecule 54 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
54	AA	71	Total 71	Mg 71	0	0
54	AN	1	Total 1	Mg 1	0	0
54	BA	193	Total 193	Mg 193	0	0
54	BB	4	Total 4	Mg 4	0	0
54	BD	1	Total 1	Mg 1	0	0
54	BQ	1	Total 1	Mg 1	0	0
54	CA	56	Total 56	Mg 56	0	0
54	DA	166	Total 166	Mg 166	0	0
54	DB	3	Total 3	Mg 3	0	0
54	DQ	1	Total 1	Mg 1	0	0
54	D2	1	Total 1	Mg 1	0	0

- Molecule 55 is VIRGINIAMYCIN M1 (three-letter code: VIR) (formula: C₂₈H₃₅N₃O₇).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
55	BA	1	Total	C	N	O	0	0
			38	28	3	7		
55	DA	1	Total	C	N	O	0	0
			38	28	3	7		

- Molecule 56 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	B4	1	Total	Zn	0	0
			1	1		
56	D4	1	Total	Zn	0	0
			1	1		

- Molecule 57 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	AA	192	Total	O	0	0
			192	192		
57	AL	2	Total	O	0	0
			2	2		
57	AN	6	Total	O	0	0
			6	6		
57	AT	2	Total	O	0	0
			2	2		
57	AU	1	Total	O	0	0
			1	1		

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	BA	620	Total O 620 620	0	0
57	BB	13	Total O 13 13	0	0
57	BC	7	Total O 7 7	0	0
57	BD	3	Total O 3 3	0	0
57	BE	4	Total O 4 4	0	0
57	BF	1	Total O 1 1	0	0
57	BJ	1	Total O 1 1	0	0
57	BL	5	Total O 5 5	0	0
57	BN	3	Total O 3 3	0	0
57	BQ	1	Total O 1 1	0	0
57	BS	1	Total O 1 1	0	0
57	BT	1	Total O 1 1	0	0
57	BV	1	Total O 1 1	0	0
57	B2	1	Total O 1 1	0	0
57	B3	2	Total O 2 2	0	0
57	B4	2	Total O 2 2	0	0
57	CA	191	Total O 191 191	0	0
57	CL	1	Total O 1 1	0	0
57	CN	2	Total O 2 2	0	0
57	CT	2	Total O 2 2	0	0
57	CU	2	Total O 2 2	0	0

Continued on next page...

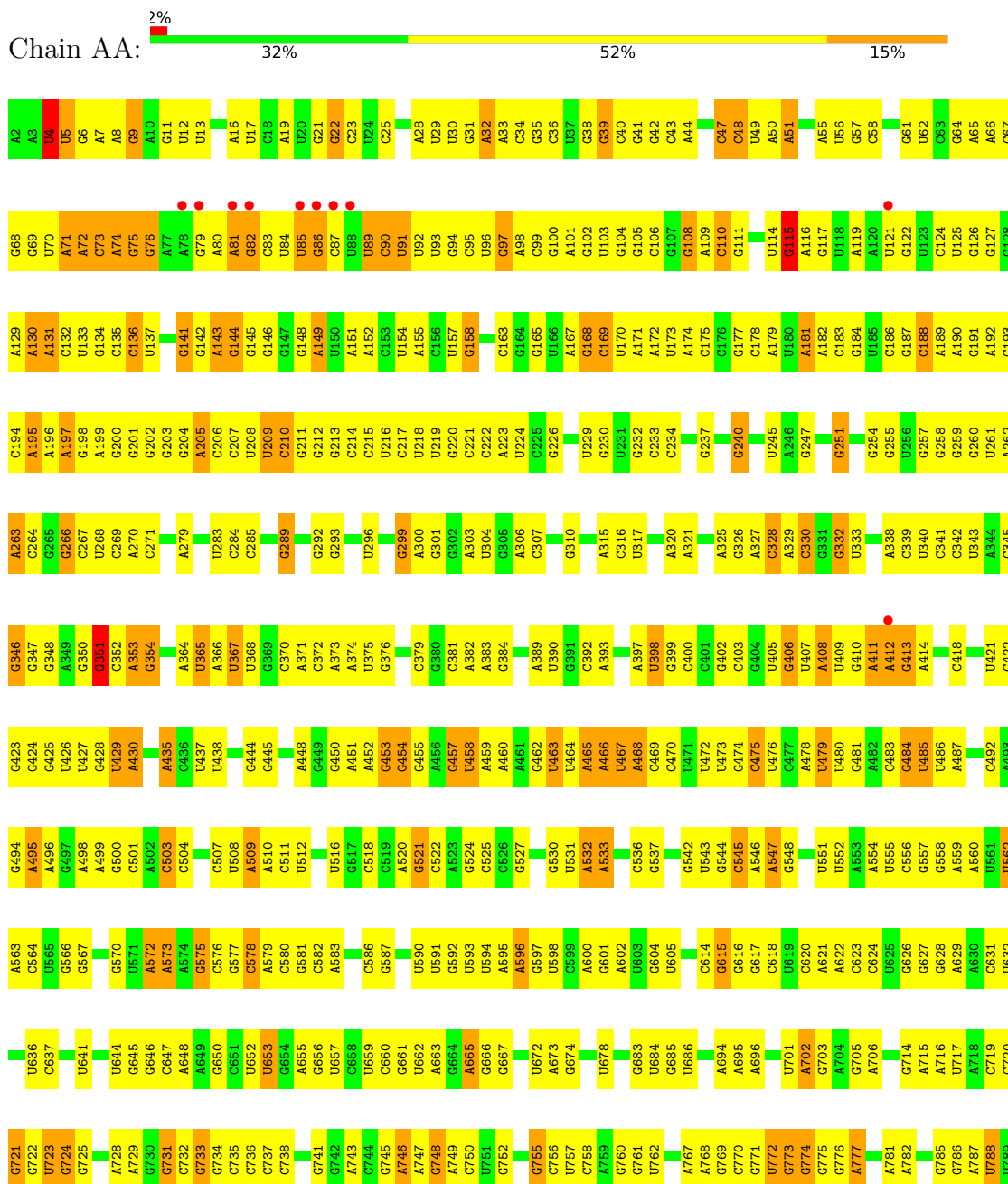
Continued from previous page...

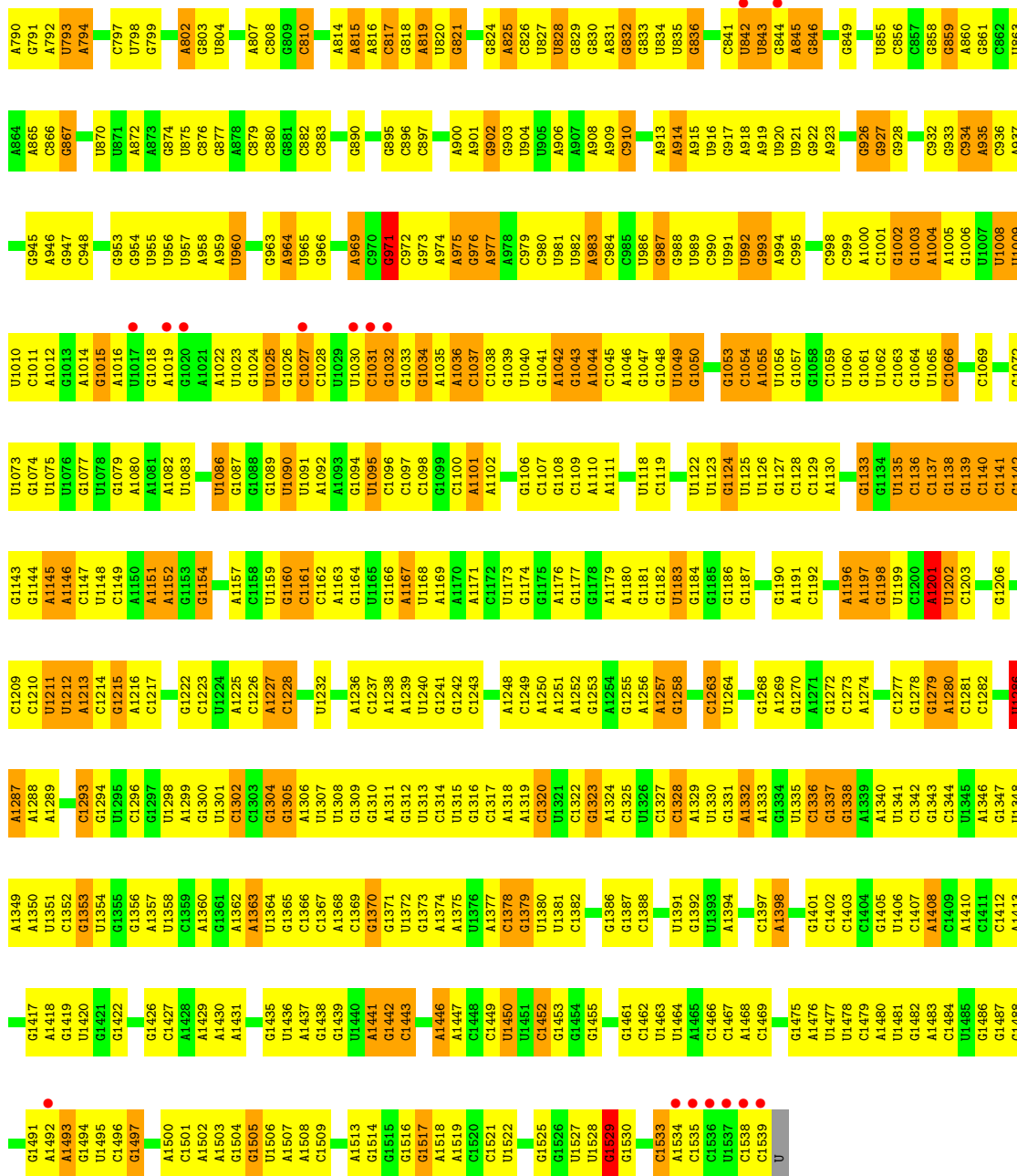
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	DA	607	Total 607	O 607	0	0
57	DB	13	Total 13	O 13	0	0
57	DC	12	Total 12	O 12	0	0
57	DD	4	Total 4	O 4	0	0
57	DE	6	Total 6	O 6	0	0
57	DJ	1	Total 1	O 1	0	0
57	DL	4	Total 4	O 4	0	0
57	DN	2	Total 2	O 2	0	0
57	DT	1	Total 1	O 1	0	0
57	DU	1	Total 1	O 1	0	0
57	DV	1	Total 1	O 1	0	0
57	D2	1	Total 1	O 1	0	0
57	D3	2	Total 2	O 2	0	0
57	D4	1	Total 1	O 1	0	0

3 Residue-property plots

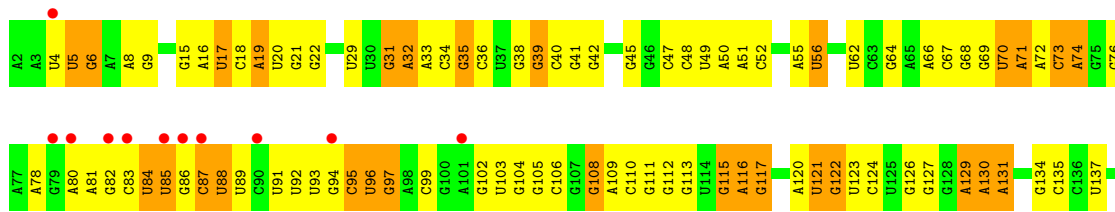
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density.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

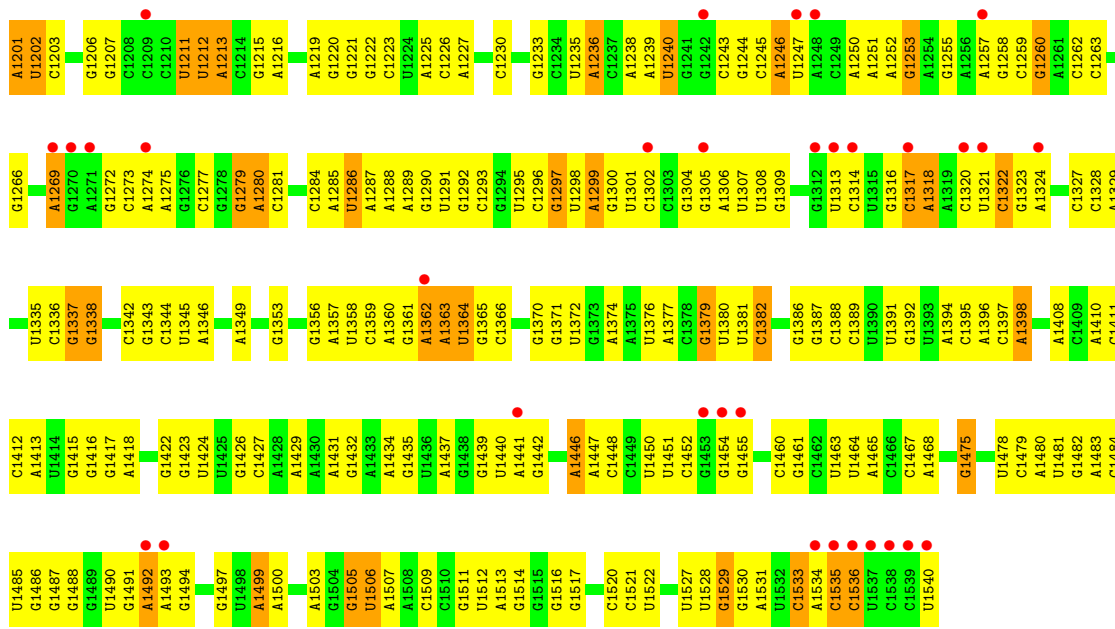
- Molecule 1: 16S rRNA



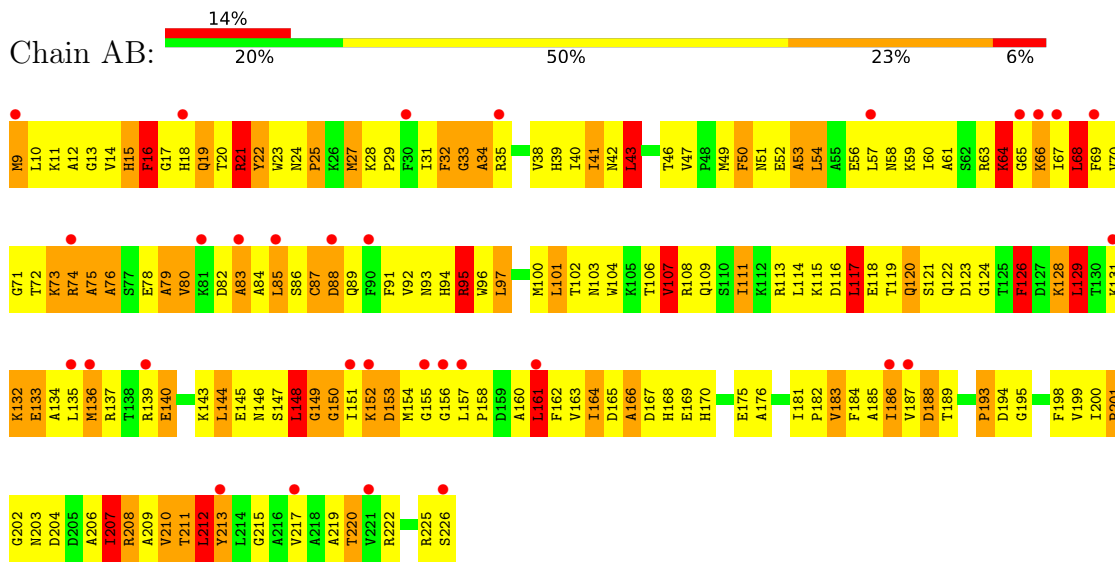


• Molecule 1: 16S rRNA

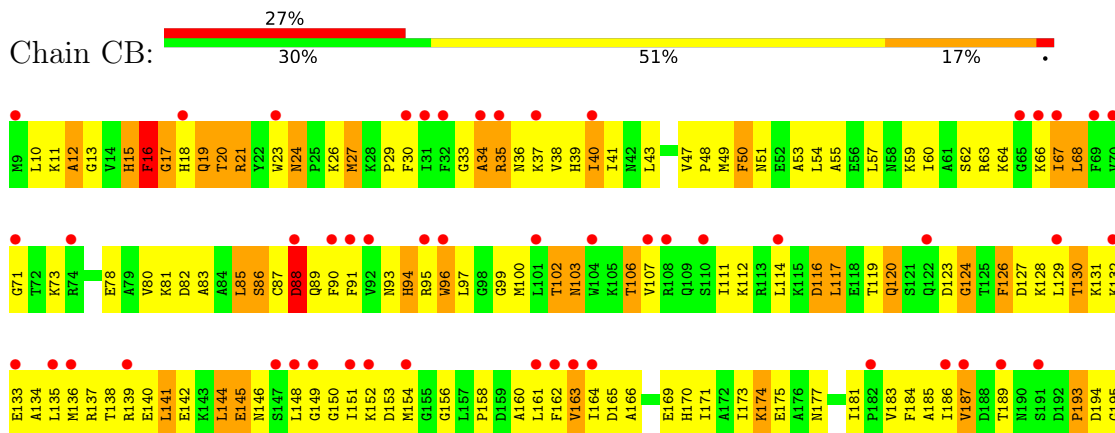


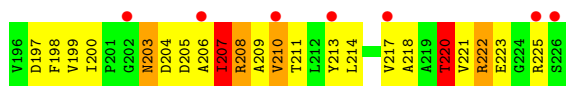


● Molecule 2: 30S ribosomal protein S2

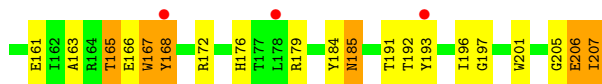
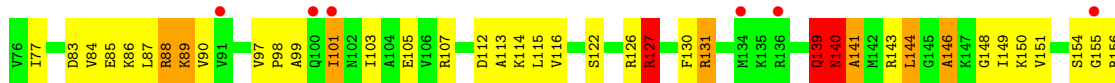
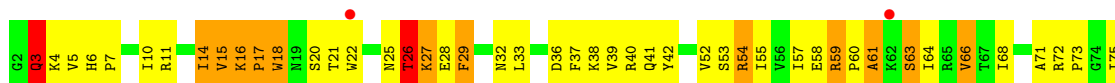


● Molecule 2: 30S ribosomal protein S2

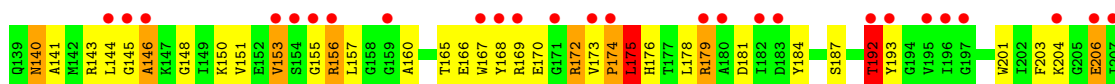
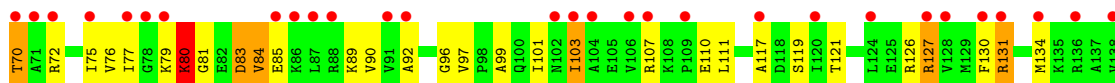
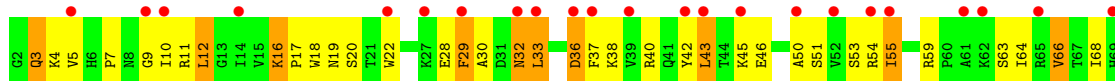
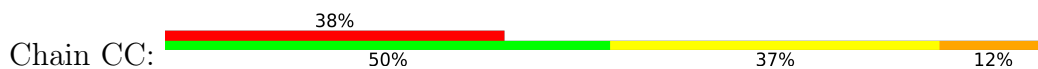




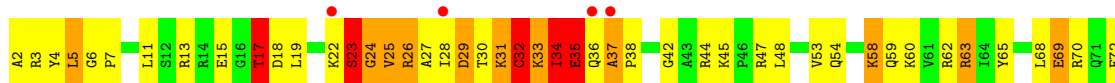
• Molecule 3: 30S ribosomal protein S3



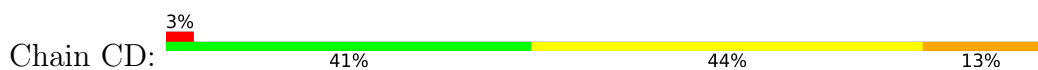
• Molecule 3: 30S ribosomal protein S3

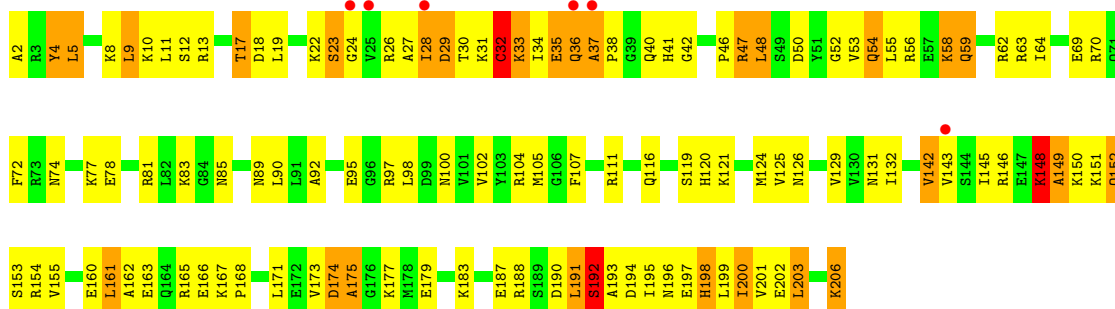


• Molecule 4: 30S ribosomal protein S4

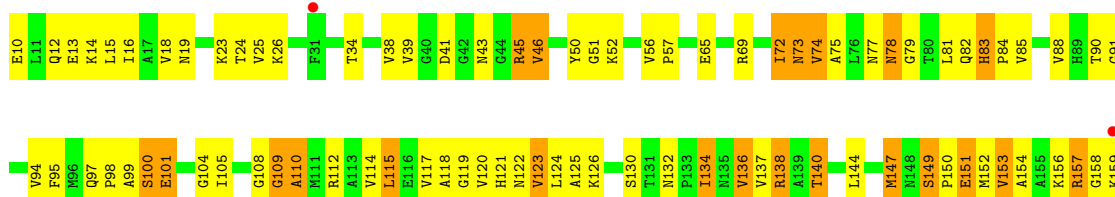
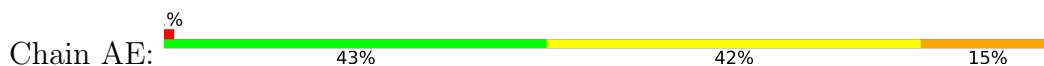


• Molecule 4: 30S ribosomal protein S4

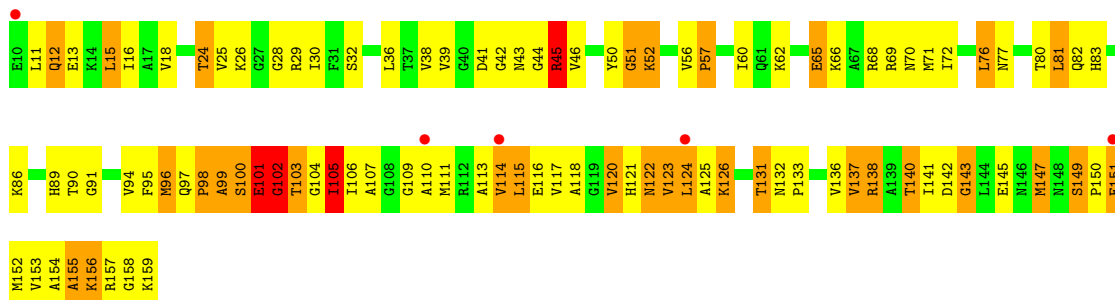




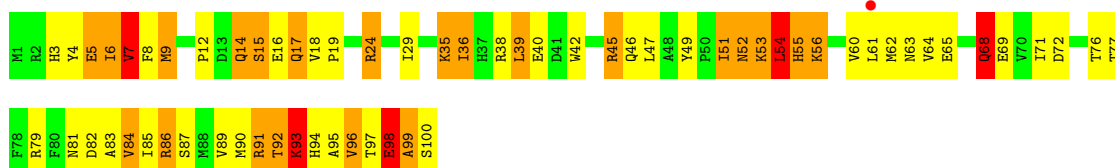
• Molecule 5: 30S ribosomal protein S5



• Molecule 5: 30S ribosomal protein S5

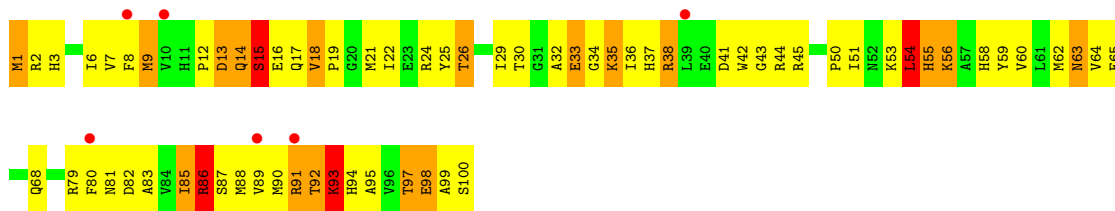


• Molecule 6: 30S ribosomal protein S6

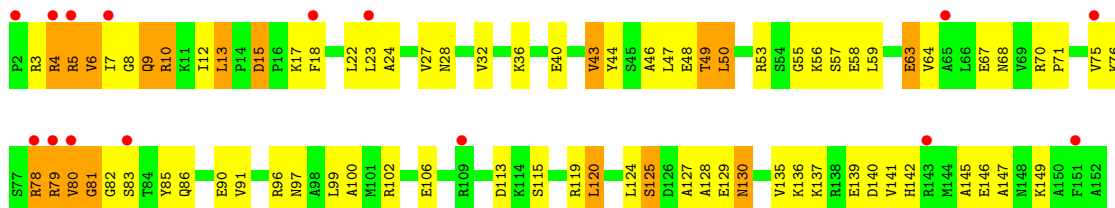


• Molecule 6: 30S ribosomal protein S6

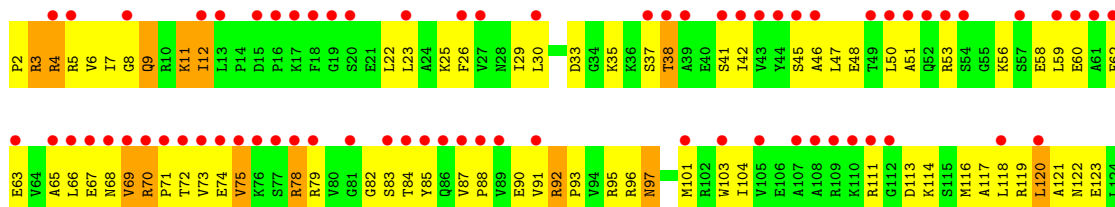
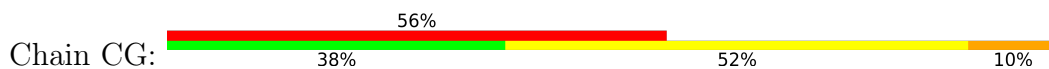




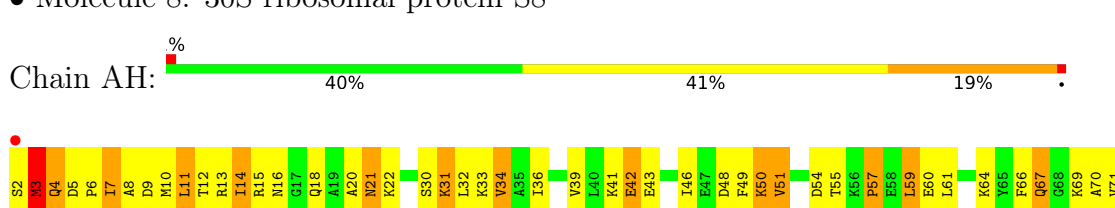
• Molecule 7: 30S ribosomal protein S7



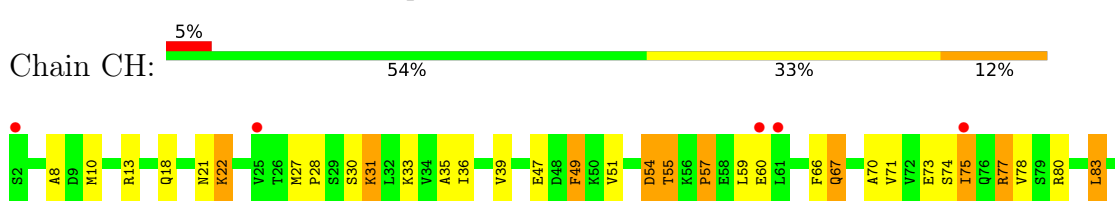
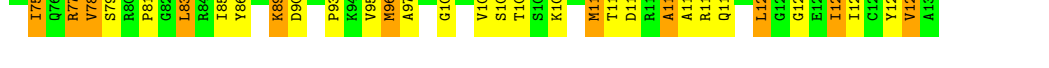
• Molecule 7: 30S ribosomal protein S7

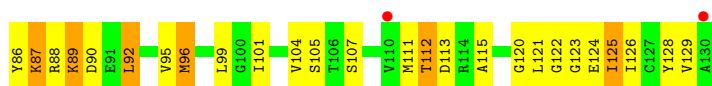


• Molecule 8: 30S ribosomal protein S8

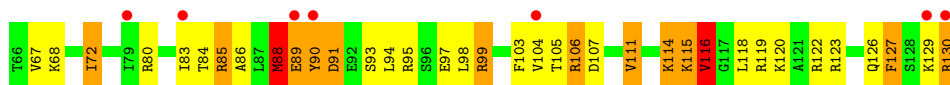
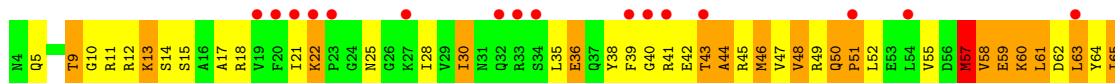


• Molecule 8: 30S ribosomal protein S8

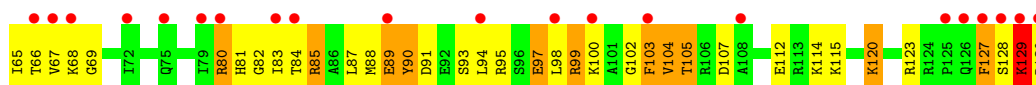
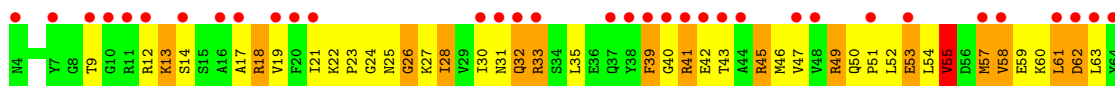
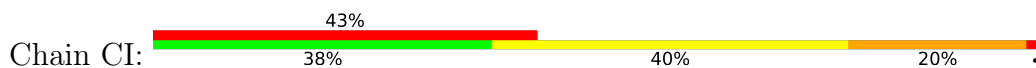




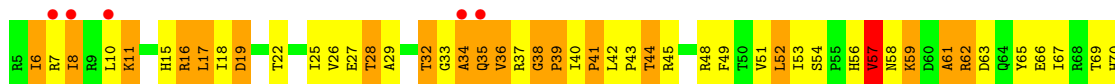
- Molecule 9: 30S ribosomal protein S9



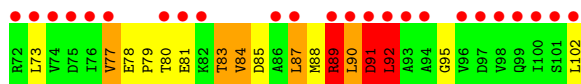
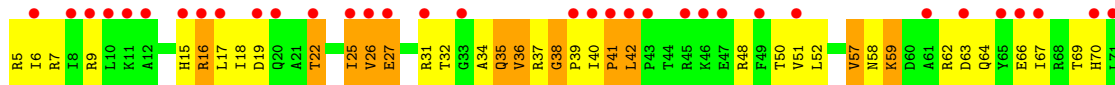
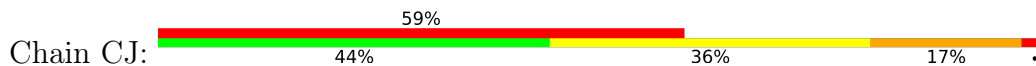
- Molecule 9: 30S ribosomal protein S9



- Molecule 10: 30S ribosomal protein S10

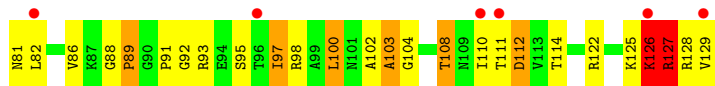
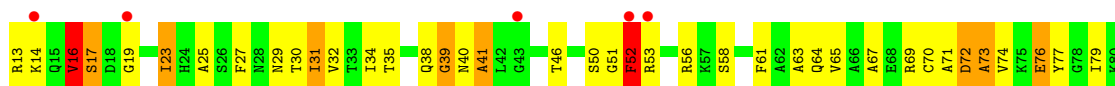


- Molecule 10: 30S ribosomal protein S10

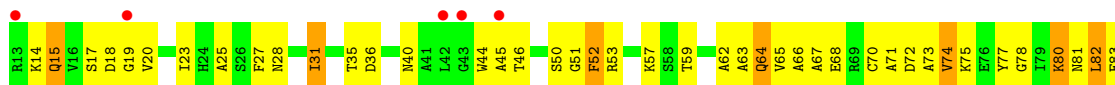


- Molecule 11: 30S ribosomal protein S11

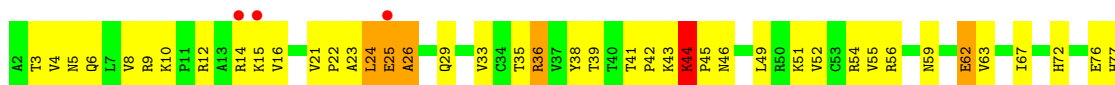




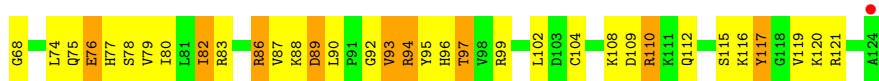
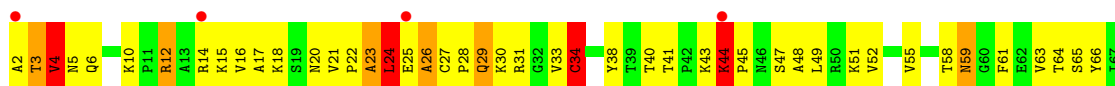
• Molecule 11: 30S ribosomal protein S11



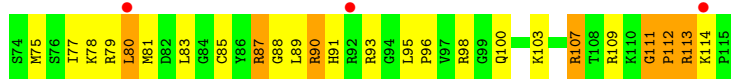
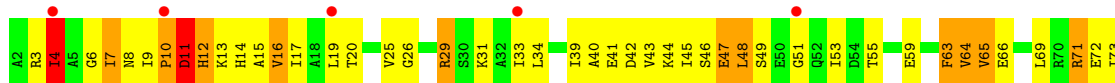
• Molecule 12: 30S ribosomal protein S12



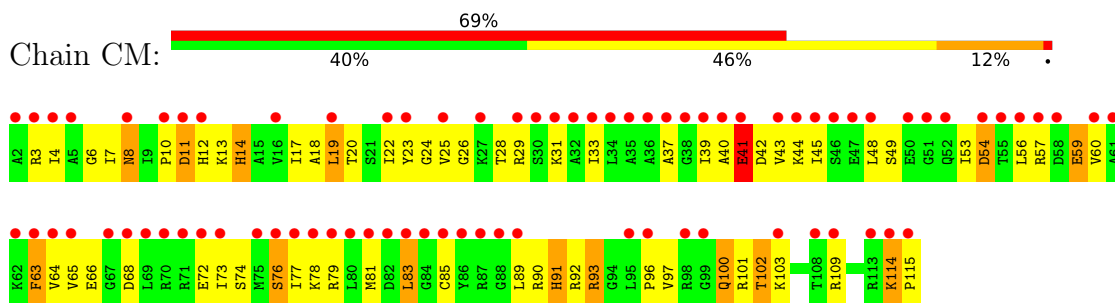
• Molecule 12: 30S ribosomal protein S12



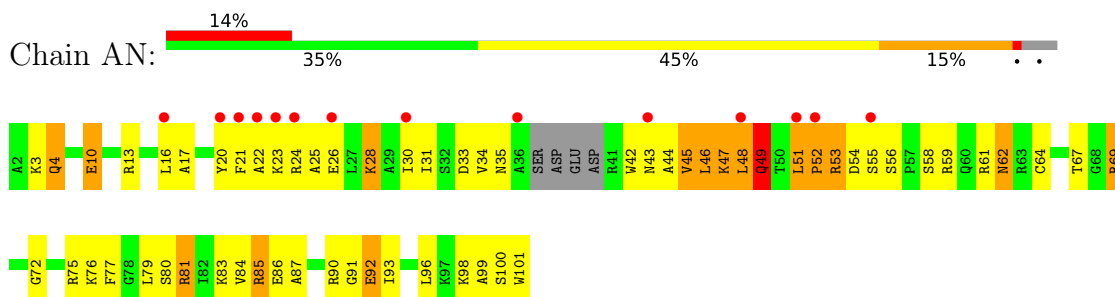
• Molecule 13: 30S ribosomal protein S13



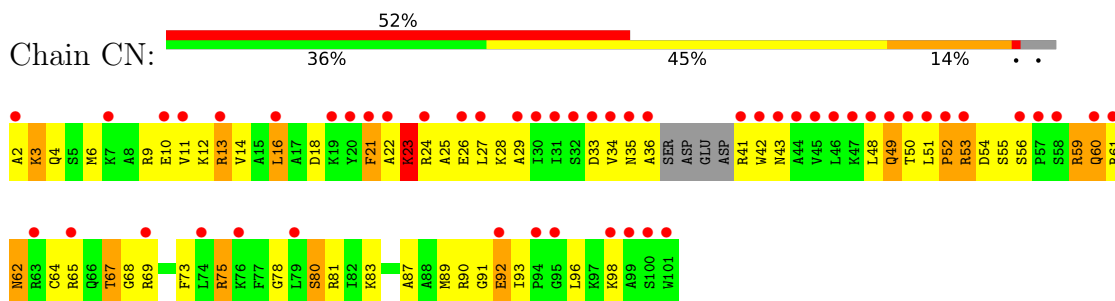
- Molecule 13: 30S ribosomal protein S13



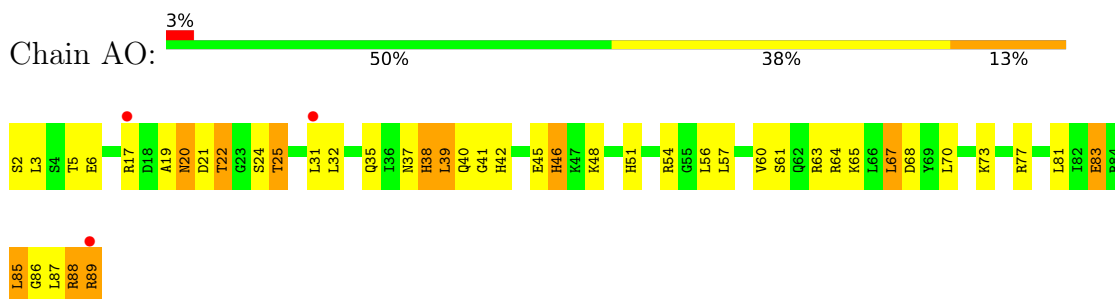
- Molecule 14: 30S ribosomal protein S14



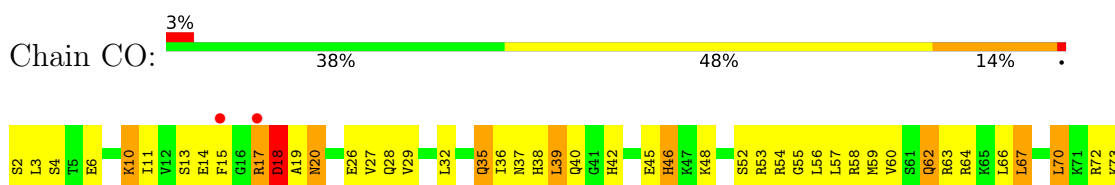
- Molecule 14: 30S ribosomal protein S14



- Molecule 15: 30S ribosomal protein S15



- Molecule 15: 30S ribosomal protein S15

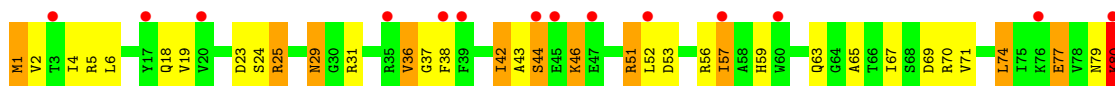




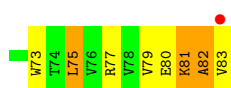
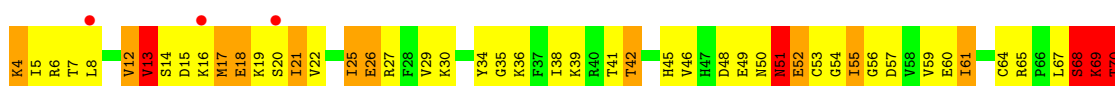
- Molecule 16: 30S ribosomal protein S16



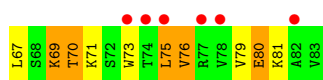
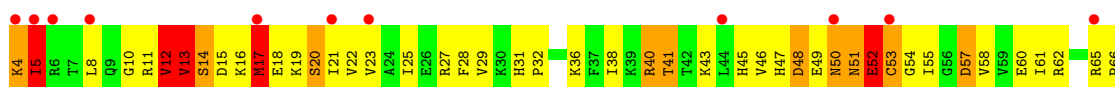
- Molecule 16: 30S ribosomal protein S16



- Molecule 17: 30S ribosomal protein S17

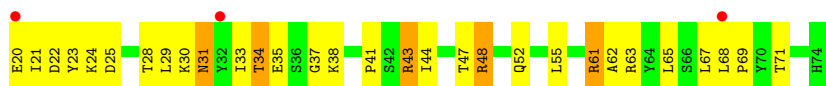


- Molecule 17: 30S ribosomal protein S17

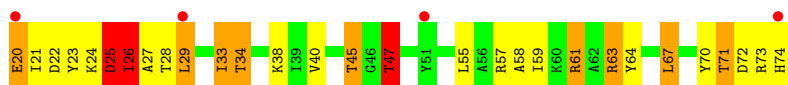


- Molecule 18: 30S ribosomal protein S18

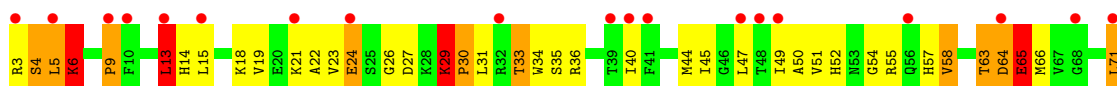
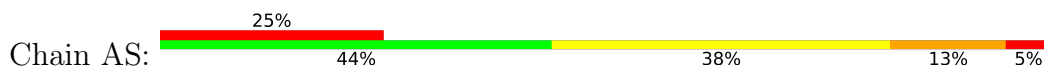




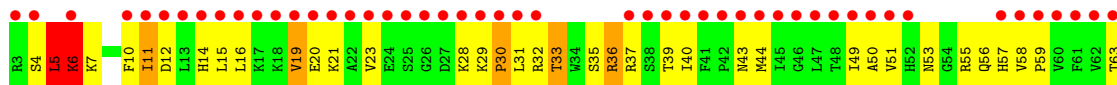
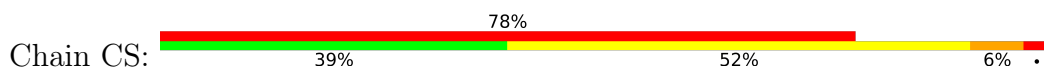
• Molecule 18: 30S ribosomal protein S18



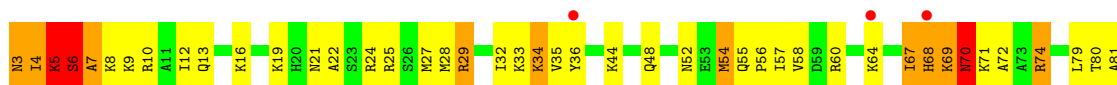
• Molecule 19: 30S ribosomal protein S19



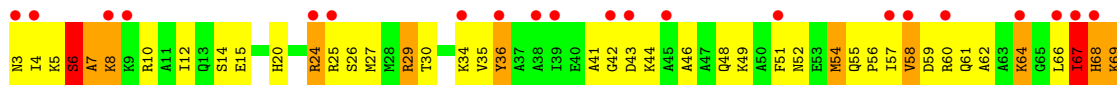
• Molecule 19: 30S ribosomal protein S19

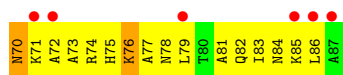


• Molecule 20: 30S ribosomal protein S20

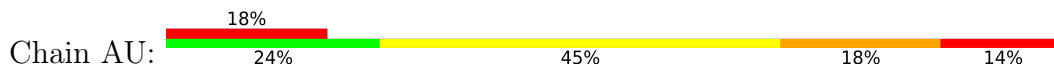


• Molecule 20: 30S ribosomal protein S20

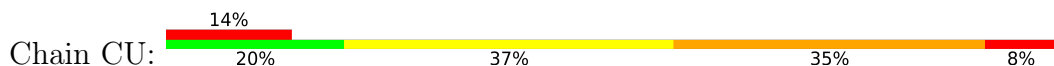




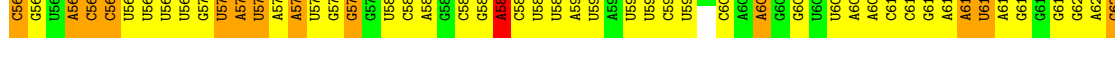
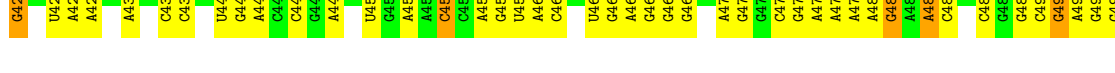
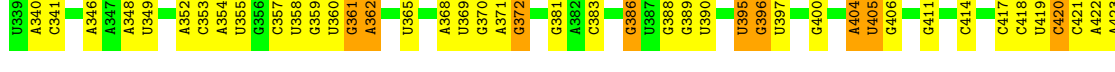
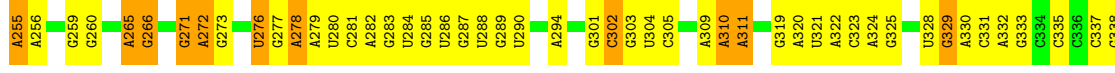
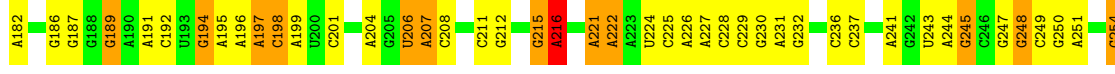
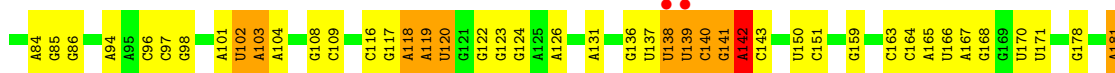
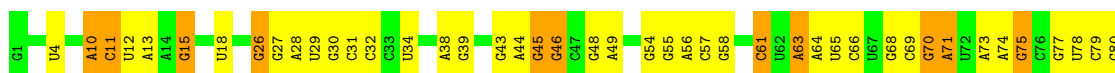
● Molecule 21: 30S ribosomal protein S21

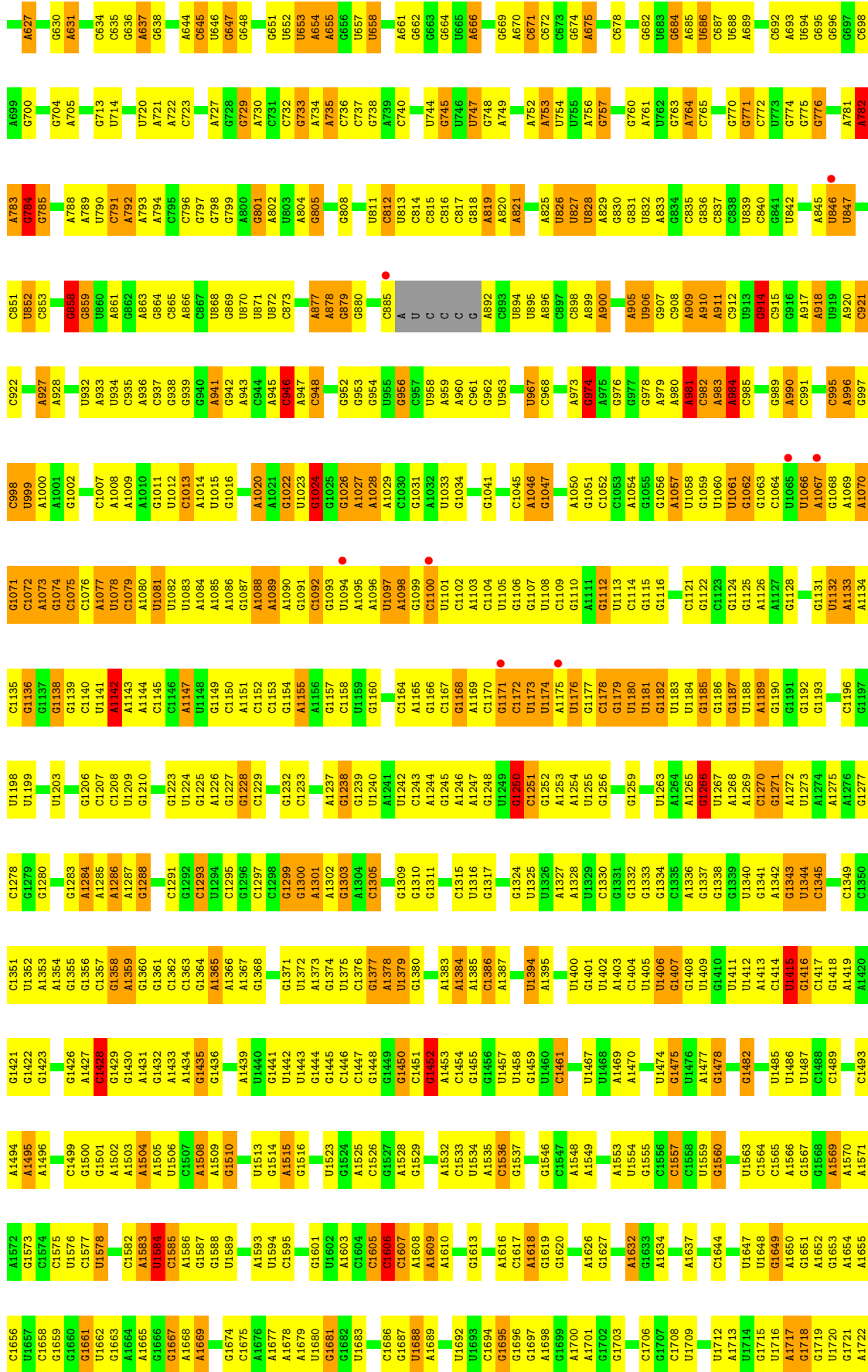


● Molecule 21: 30S ribosomal protein S21

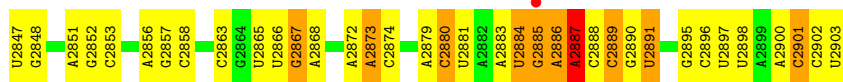


● Molecule 22: 23S rRNA

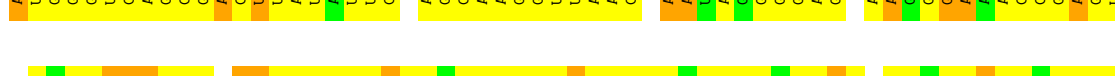
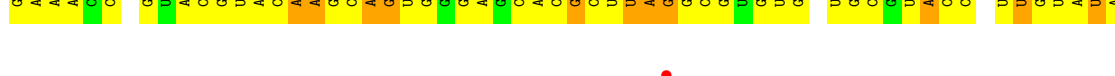
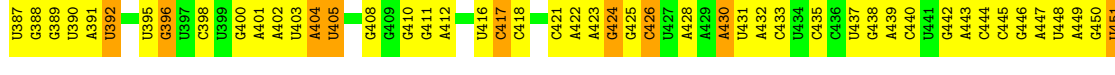
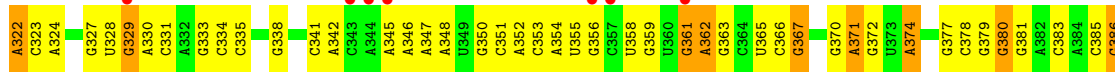
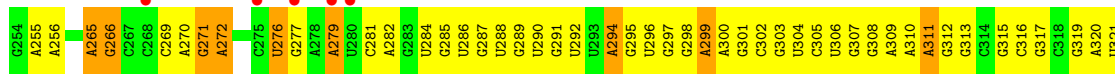
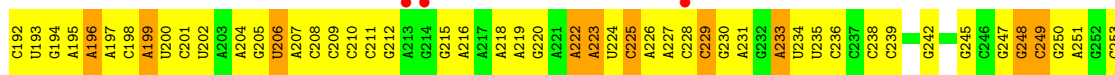
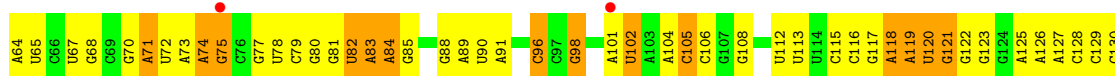


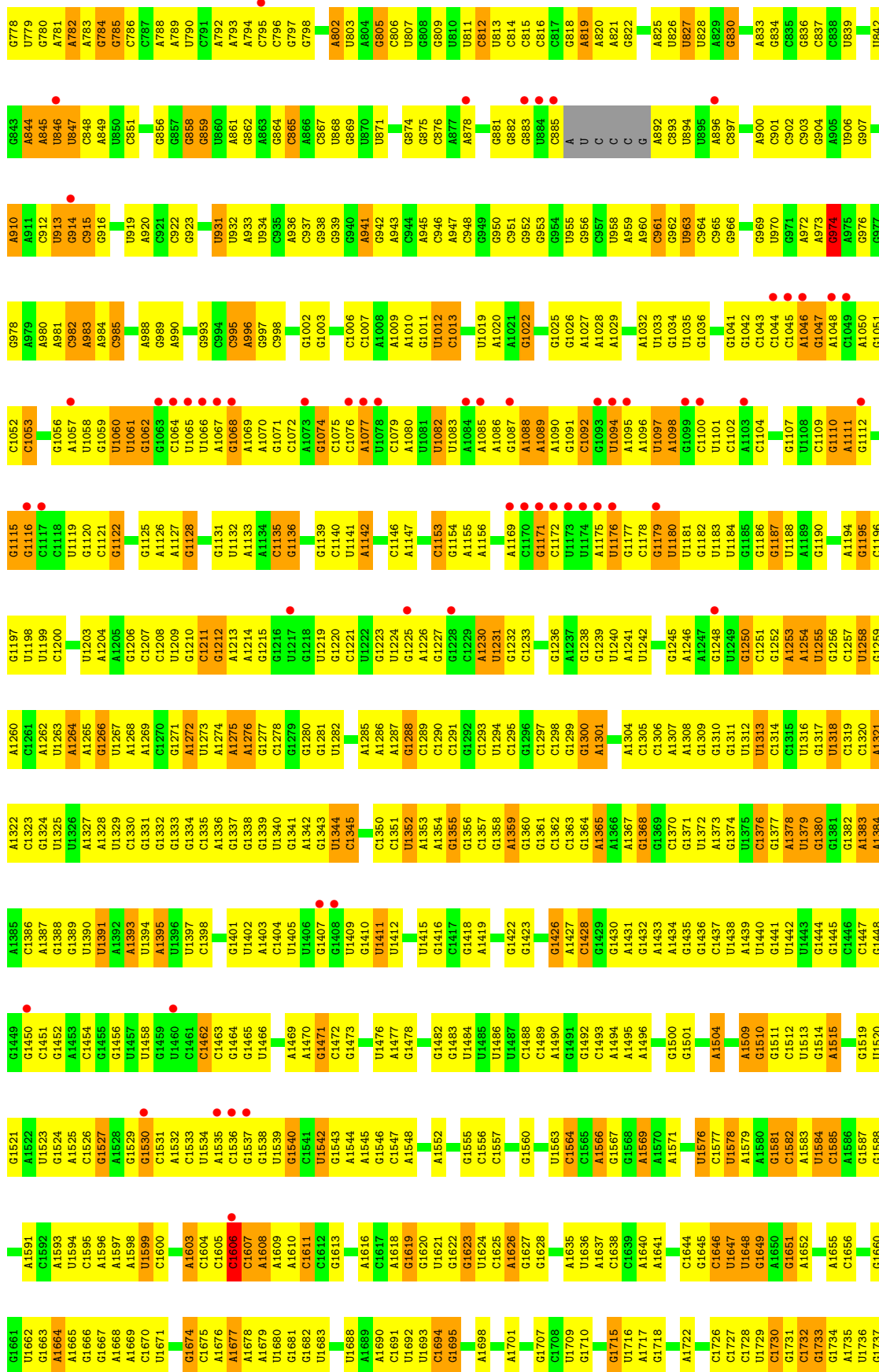


U1729	U1730	U1731	U1732	U1733	U1734	U1735	U1736	U1737	U1738	U1739	A1801	A1802	A1808	A1809	A1810	A1811	C1815	U1820	A1821	A1822	G1823	G1824	U1825	U1826	U1827	G1828	A1829	C1830	C1831	C1832	C1833	U1834	G1835	A1769	C1760	C1836	C1837	U1764	U1765	G1766	U1769	G1770	A1773	C1774	U1775	G1776	U1779	A1780	A1783	A1784	A1785	A1786	A1787	C1788	A1789	C1790	A1791	A1794	U1795	U1796	U1797	U1798	C1874	C1875
A1876	A1877	A1878	C2023	U1880	U1881	U1882	U1883	G1884	A1885	U1886	A1889	A1890	G1891	A1892	A1899	A1900	G1906	A1907	C1908	C1909	C1910	G1911	A1912	A1913	A1914	A1915	A1916	A1917	G1968	G1969	G1989	A2059	A2060	G2061	U1991	G1992	U1993	C1924	C1925	U1926	A1927	U1855	U1856	G1857	U1858	A1859	A1860	U1865	A1866	G1867	C1868	U1939	U1943	U1944	U1945	U1946	C1947							
G1948	G1949	U1950	U1951	A1952	G1954	U1955	A1956	C1957	C1958	C1961	C1962	U1963	U1964	C1965	A1966	C1967	C1968	A1969	A1970	U1971	C1972	G1973	C1974	A1981	G2053	A2054	C2055	G2056	G2057	A2058	A2059	A2060	G2061	U1991	G1992	U1993	C1996	C1997	A1998	C1999	C2000	C2001	C2002	A2005	A2009	G2010	U2011	G2012	A2013	A2014	A2015	U2016	U2017	G2018	A2019									
A2020	C2021	U2022	G2023	G2024	C2025	A2030	A2031	G2032	A2033	U2034	G2035	G2038	U2039	G2040	U2041	A2042	C2043	C2044	A2051	A2052	A2053	A2054	C2055	G2056	G2057	A2058	A2059	A2060	G2061	U1991	G1992	C2064	C2065	C2066	G2067	U2068	G2069	A2070	A2071	C2072	C2073	U2074	U2075	A2076	A2077	U2080	A2081	A2082	U2086	G2087	U2092	G2093												
A2094	A2097	U2098	U2099	G2100	A2101	G2102	C2103	C2104	U2105	U2106	G2107	A2108	U2109	G2110	U2111	G2112	U2113	A2114	G2115	G2116	A2117	U2118	U2119	G2120	G2121	G2122	G2123	G2124	G2125	A2126	G2127	G2128	C2129	U2130	U2131	U2132	G2133	A2134	A2135	G2136	U2137	U2138	U2139	G2140	G2141	A2142	C2143	G2144	C2145	C2146	A2147	G2148	A2080	U2149	C2150	U2151	C2152	G2153	A2154					
U2155	G2156	G2157	A2158	G2159	C2160	C2161	A2162	A2163	C2164	C2165	U2166	U2167	G2168	A2169	A2170	U2171	U2172	A2173	C2174	G2175	A2176	C2177	C2178	C2179	U2180	U2181	A2182	A2183	A2184	U2185	G2186	U2187	U2188	U2189	G2190	U2191	U2192	U2193	U2194	U2195	C2196	U2197	A2198	G2201	U2202	U2203	G2204	A2205	G2209	U2210	G2211	A2212	A2213	C2214	G2215	C2216	G2217							
G2218	U2219	U2220	G2221	G2222	C2223	G2224	A2225	C2226	A2227	G2228	U2229	U2233	G2234	U2235	U2236	G2237	G2238	G2239	U2243	U2244	C2248	U2249	G2250	G2251	G2252	G2253	C2254	C2258	U2259	U2262	A2266	A2267	A2268	G2269	G2270	G2271	U2272	A2273	A2274	C2275	G2276	G2277	G2278	G2279	G2282	C2283	G2284	C2285	G2286	A2287	G2289													
G2290	U2291	G2292	G2293	U2296	A2297	A2298	U2302	G2303	U2304	G2305	C2306	G2307	G2308	A2309	C2310	C2311	G2315	G2316	A2317	G2318	G2319	U2320	U2321	A2322	G2325	A2326	A2327	A2328	U2329	G2330	G2331	G2332	A2333	U2334	A2335	A2336	C2339	G2340	G2341	C2342	U2343	U2344	G2345	A2346	C2347	U2348	G2349	C2350	G2351	A2352	G2353	C2354	G2355	U2356										
G2357	A2358	C2359	G2360	G2361	A2366	A2369	A2378	G2379	C2380	A2381	C2382	G2383	U2384	C2385	U2389	G2390	G2391	C2394	U2402	C2403	A2406	A2407	G2413	G2414	G2415	C2416	U2419	C2420	G2421	G2422	U2423	C2424	A2425	A2426	C2427	G2428	G2429	A2430	U2431	A2434	A2435	U2438	U2439	C2440																				
U2441	C2442	C2443	G2444	G2445	G2446	G2447	A2448	A2450	A2451	C2452	A2453	G2458	C2467	A2468	A2469	U2473	A2476	U2477	U2478	U2479	C2480	G2481	A2482	C2483	U2484	G2485	G2488	U2489	C2490	U2491	U2492	U2493	G2494	G2495	C2496	A2497	C2498	C2499	U2500	C2501	G2502	U2503	U2504	G2505	U2506	U2507	G2508	A2509	A2510	C2511	A2512	A2516												
C2517	A2518	U2519	C2520	C2521	G2525	G2526	G2529	A2530	A2531	G2532	U2535	A2534	U2535	G2536	C2537	C2538	C2539	U2540	A2541	A2542	A2547	U2548	G2549	G2553	U2554	U2555	C2556	U2557	C2558	A2564	A2565	A2566	G2567	A2572	C2573	G2574	C2575	G2578	U2580	G2581	G2582	U2583	U2584	U2585	U2586	A2587	G2588	A2589	C2591	A2592														
U2593	C2594	G2595	A2598	G2599	A2602	G2603	U2604	U2605	C2606	U2609	U2613	A2614	U2615	C2621	G2624	G2625	C2626	U2629	C2636	U2637	C2638	G2642	G2645	G2646	U2647	G2648	C2649	G2655	C2658	C2659	A2660	G2661	A2662	G2663	G2664	C2665	C2666	C2667	U2668	G2669	A2670	U2671	U2672	U2673	G2674	C2678	A2679																	
U2680	C2681	A2682	C2683	U2684	G2685	G2686	U2687	U2688	U2689	C2691	G2694	U2695	U2696	G2697	U2698	C2699	A2700	G2702	C2703	C2704	U2707	C2712	U2713	G2714	C2715	C2716	C2717	G2718	G2719	U2720	C2723	U2724	A2725	A2726	A2727	U2728	C2729	C2730	G2731	G2732	A2733	A2738	U2739	A2740	A2741	G2742	U2743	G2744	U2745	A2746	A2747	A2748	A2749											

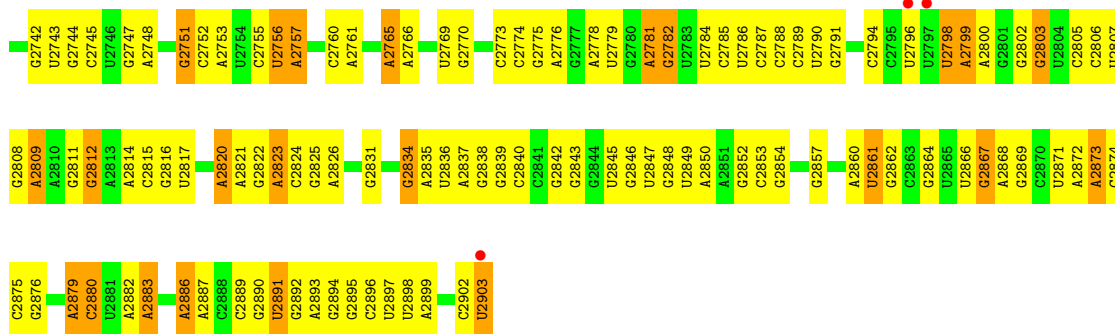


• Molecule 22: 23S rRNA

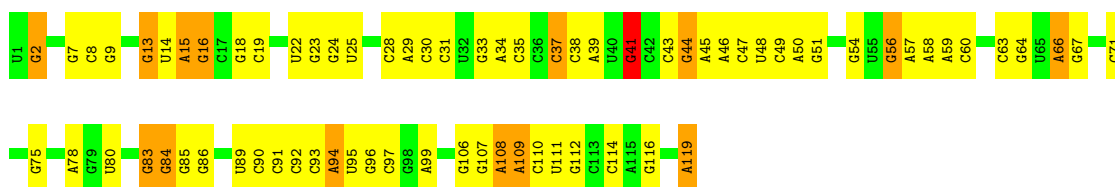




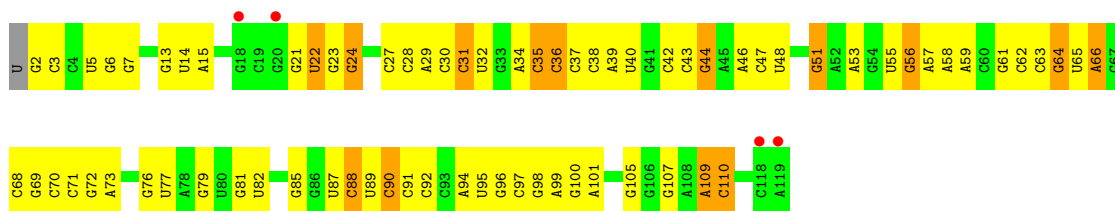
G2664	G2665	G2671	G2672	G2679	G2680	G2681	G2682	G2685	G2686	G2687	G2688	G2689	G2690	G2691	G2692	G2693	G2698	G2700	G2701	C2704	A2705	A2706	U2707	G2708	G2709	G2710	A2711	C2712	G2713	G2714	C2715	C2716	C2717	G2718	G2719	U2720	A2721	C2722	U2650	C2651	G2652	U2653	U2654	G2655	C2656	C2657	U2658	U2571	C2572	G2573	G2574	G2575	G2576	G2577	G2578	G2579	U2580	U2581	A2582	G2583	G2584	U2585	U2586	A2587	G2588	A1809	A1810	G1811	U1812	G1813	U1814	G1815	A1816	G1817	U1818	G1819	U1820	A1821	C1822	G1823	U1824	U1825	G1826	U1827	U1828	A1829	C1830	G1831	C1832	U1833	U1834	G1835	A1836	U1837	U1838	U1839	U1911	A1912	U1913	A1914	U1915	U1916	U1917	U1918	A1919	U1920	U1921	G1922	U1923	C1924	U1925	G1926	A1927	U1928	G1929	U1930	U1931	C1934	G1935	U1936	A1937	A1938	U1943	U1944	G1945	C1968	C1800	C1870	A1801	A1802	A1805	C1806	G1875	C1876	A1877	A1808	A2031	G2032	U2033	A2034	G2037	G2038	U2039	G2040	A2041	A2042	C2043	C2050	A2051	A2052	G2053	A2054	C2055	G2056	G2057	A2058	A2059	G2060	A2061	A2062	C2063	C2066	G2069	A2070	A2071	C2072	C2073	U2074	U2075	U2079	A2080	G2083	C2084	G2087	C2091	U2092	G2093	A2094	A2095	U2096	C2099	G2100	G2101	C2103	C2104	U2105	G2106	A2107	A2108	U2109	G2110	U2111	C2112	U2113	A2114	G2115	U2116	A2117	U2118	A2119	G2120	G2121	U2122	G2123	G2124	U2125	A2126	G2127	G2128	U2129	U2130	U2131	U2132	G2133	A2134	A2135	G2136	U2137	U2138	A2142	C2143	G2144	C2145	C2146	A2147	U2148	U2149	C2150	U2154	U2155	G2156	G2157	A2158	G2159	C2160	C2161	G2162	A2163	C2164	G2165	G2166	U2167	G2168	A2169	A2170	A2171	A2031	G2032	U2033	A2034	G2037	G2038	U2039	G2040	A2041	A2042	C2043	C2050	A2051	A2052	G2053	A2054	C2055	G2056	G2057	A2058	A2059	G2060	A2061	A2062	C2063	C2066	G2069	A2070	A2071	C2072	C2073	U2074	U2075	U2079	A2080	G2083	C2084	G2087	C2091	U2092	G2093	A2094	A2095	U2096	C2099	G2100	G2101	C2103	C2104	U2105	G2106	A2107	A2108	U2109	G2110	U2111	C2112	U2113	A2114	G2115	U2116	A2117	U2118	A2119	G2120	G2121	U2122	G2123	G2124	U2125	A2126	G2127	G2128	U2129	U2130	U2131	U2132	G2133	A2134	A2135	G2136	U2137	U2138	A2142	C2143	G2144	C2145	C2146	A2147	U2148	U2149	C2150	U2154	U2155	G2156	G2157	A2158	G2159	C2160	C2161	G2162	A2163	C2164	G2165	G2166	U2167	G2168	A2169	A2170	A2171	A2031	G2032	U2033	A2034	G2037	G2038	U2039	G2040	A2041	A2042	C2043	C2050	A2051	A2052	G2053	A2054	C2055	G2056	G2057	A2058	A2059	G2060	A2061	A2062	C2063	C2066	G2069	A2070	A2071	C2072	C2073	U2074	U2075	U2079	A2080	G2083	C2084	G2087	C2091	U2092	G2093	A2094	A2095	U2096	C2099	G2100	G2101	C2103	C2104	U2105	G2106	A2107	A2108	U2109	G2110	U2111	C2112	U2113	A2114	G2115	U2116	A2117	U2118	A2119	G2120	G2121	U2122	G2123	G2124	U2125	A2126	G2127	G2128	U2129	U2130	U2131	U2132	G2133	A2134	A2135	G2136	U2137	U2138	A2142	C2143	G2144	C2145	C2146	A2147	U2148	U2149	C2150	U2154	U2155	G2156	G2157	A2158	G2159	C2160	C2161	G2162	A2163	C2164	G2165	G2166	U2167	G2168	A2169	A2170	A2171	A2031	G2032	U2033	A2034	G2037	G2038	U2039	G2040	A2041	A2042	C2043	C2050	A2051	A2052	G2053	A2054	C2055	G2056	G2057	A2058	A2059	G2060	A2061	A2062	C2063	C2066	G2069	A2070	A2071	C2072	C2073	U2074	U2075	U2079	A2080	G2083	C2084	G2087	C2091	U2092	G2093	A2094	A2095	U2096	C2099	G2100	G2101	C2103	C2104	U2105	G2106	A2107	A2108	U2109	G2110	U2111	C2112	U2113	A2114	G2115	U2116	A2117	U2118	A2119	G2120	G2121	U2122	G2123	G2124	U2125	A2126	G2127	G2128	U2129	U2130	U2131	U2132	G2133	A2134	A2135	G2136	U2137	U2138	A2142	C2143	G2144	C2145	C2146	A2147	U2148	U2149	C2150	U2154	U2155	G2156	G2157	A2158	G2159	C2160	C2161	G2162	A2163	C2164	G2165	G2166	U2167	G2168	A2169	A2170	A2171	A2031	G2032	U2033	A2034	G2037	G2038	U2039	G2040	A2041	A2042	C2043	C2050	A2051	A2052	G2053	A2054	C2055	G2056	G2057	A2058	A2059	G2060	A2061	A2062	C2063	C2066	G2069	A2070	A2071	C2072	C2073	U2074	U2075	U2079	A2080	G2083	C2084	G2087	C2091	U2092	G2093	A2094	A2095	U2096	C2099	G2100	G2101	C2103	C2104	U2105	G2106	A2107	A2108	U2109	G2110	U2111	C2112	U2113	A2114	G2115	U2116	A2117	U2118	A2119	G2120	G2121	U2122	G2123	G2124	U2125	A2126	G2127	G2128	U2129	U2130	U2131	U2132	G2133	A2134	A2135	G2136	U2137	U2138	A2142	C2143	G2144	C2145	C2146	A2147	U2148	U2149	C2150	U2154	U2155	G2156	G2157	A2158	G2159	C2160	C2161	G2162	A2163	C2164	G2165	G2166	U2167	G2168	A2169	A2170	A2171
-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------



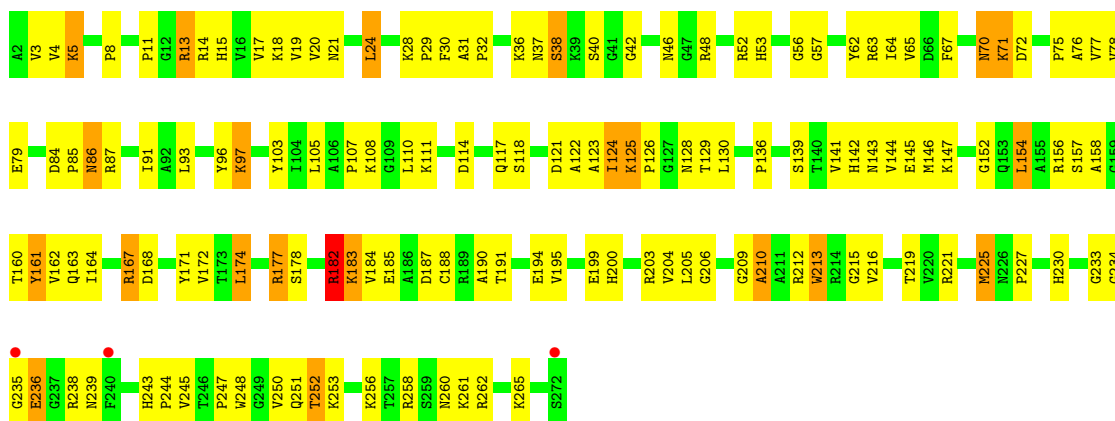
• Molecule 23: 5S rRNA



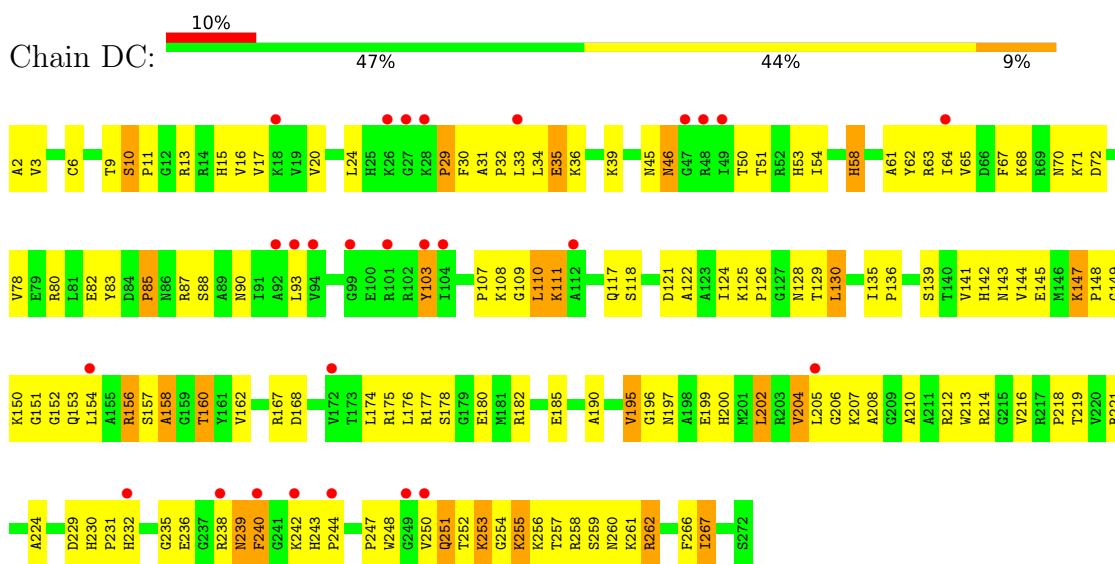
• Molecule 23: 5S rRNA



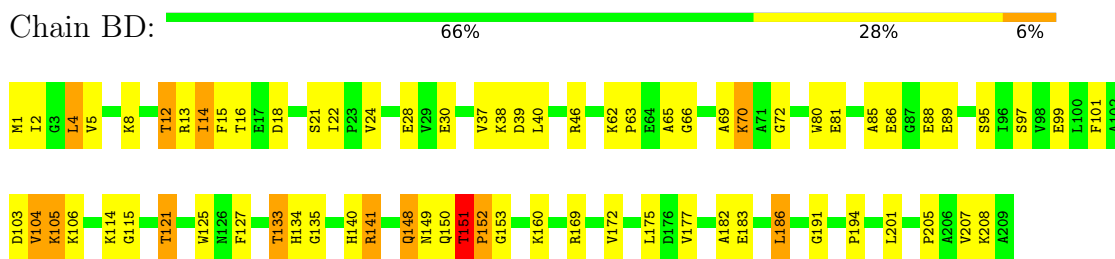
• Molecule 24: 50S ribosomal protein L2



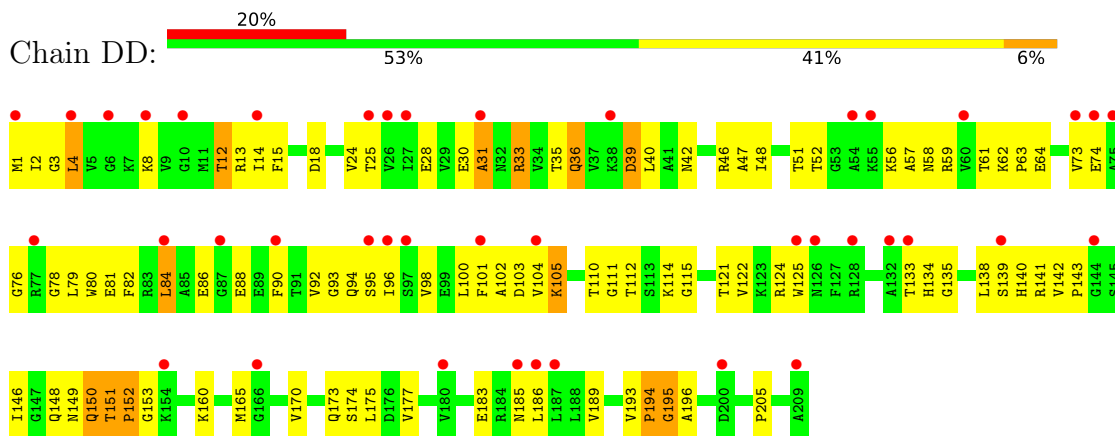
• Molecule 24: 50S ribosomal protein L2



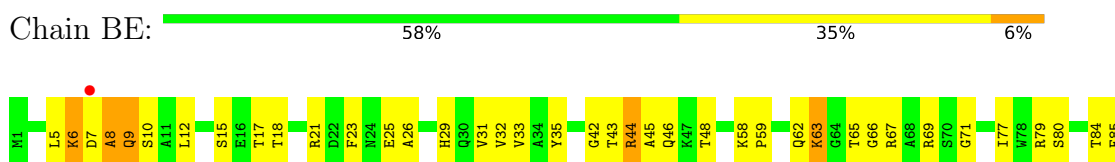
- Molecule 25: 50S ribosomal protein L3

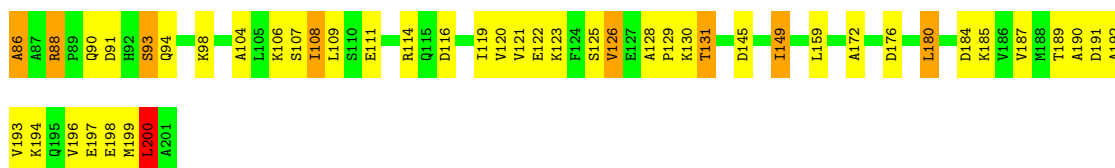


- Molecule 25: 50S ribosomal protein L3

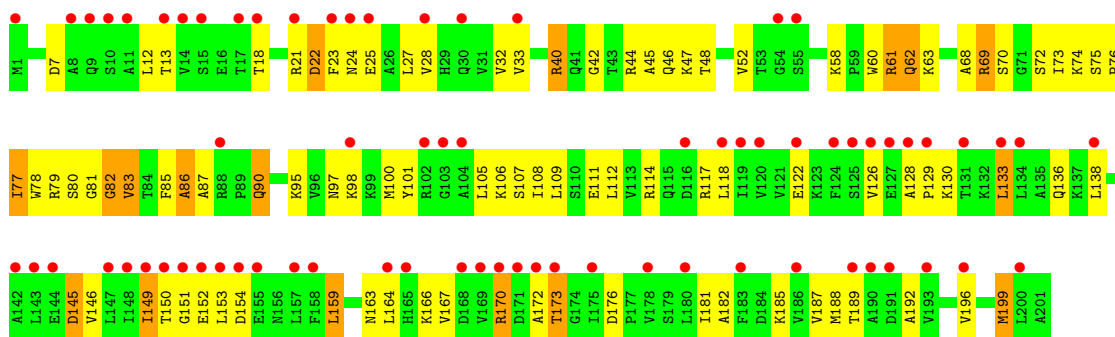
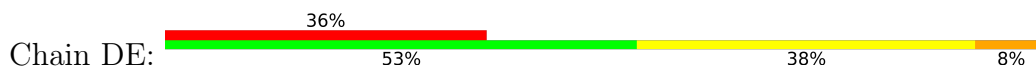


- Molecule 26: 50S ribosomal protein L4

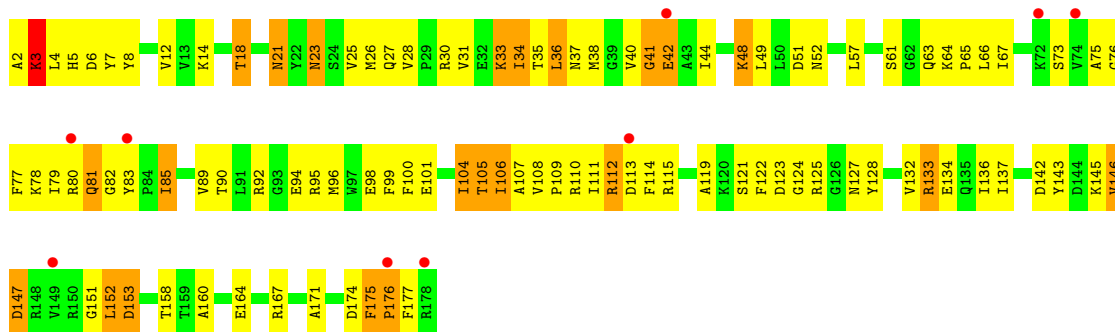
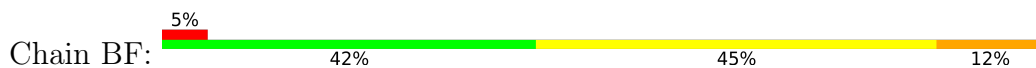




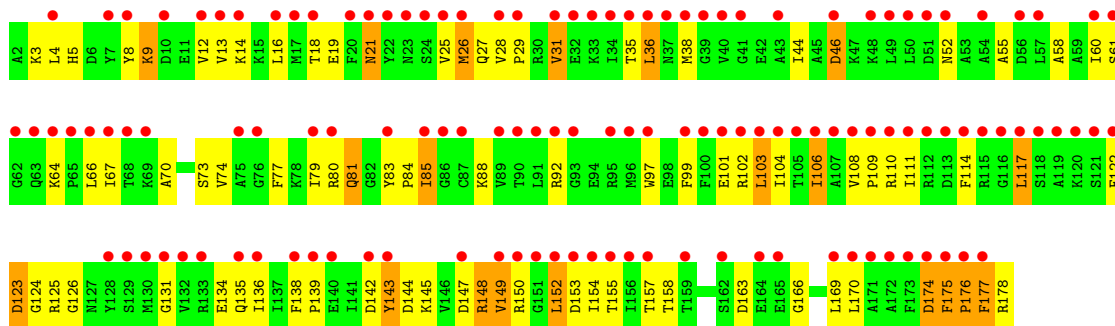
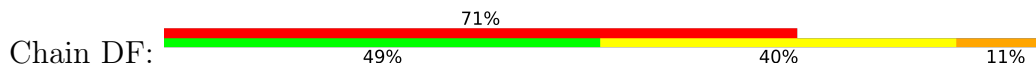
- Molecule 26: 50S ribosomal protein L4



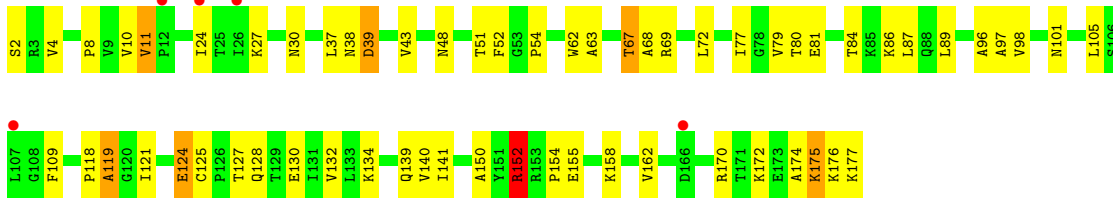
- Molecule 27: 50S ribosomal protein L5



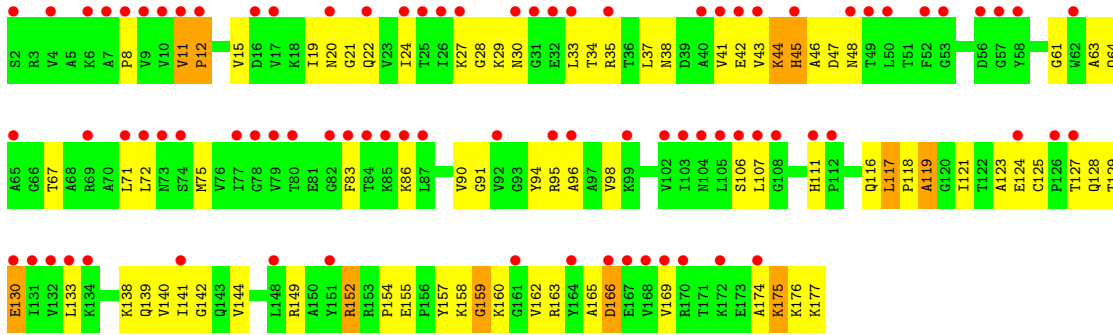
- Molecule 27: 50S ribosomal protein L5



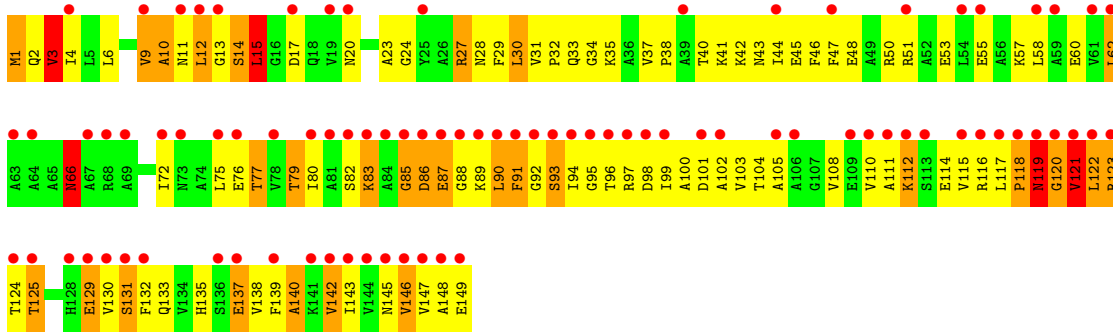
- Molecule 28: 50S ribosomal protein L6



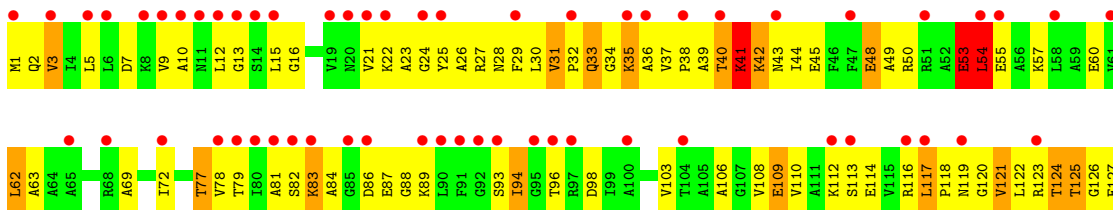
- Molecule 28: 50S ribosomal protein L6

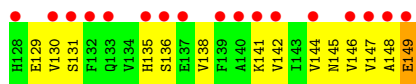


- Molecule 29: 50S ribosomal protein L9

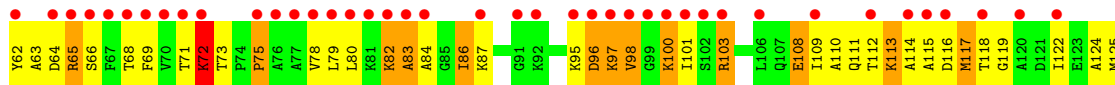
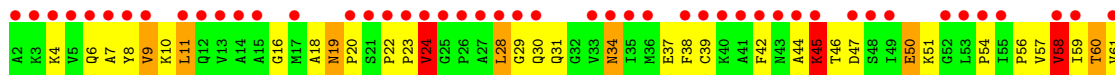
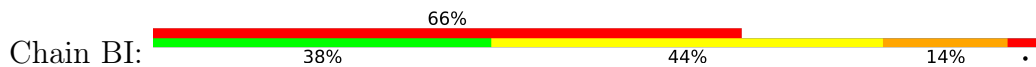


- Molecule 29: 50S ribosomal protein L9

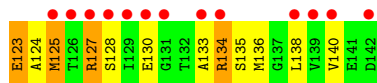
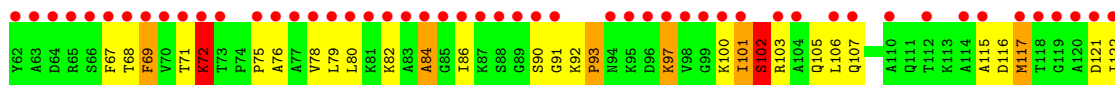
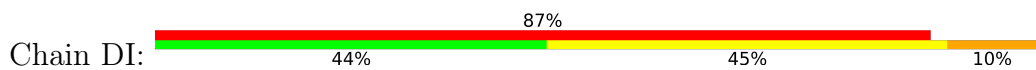




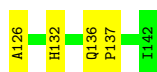
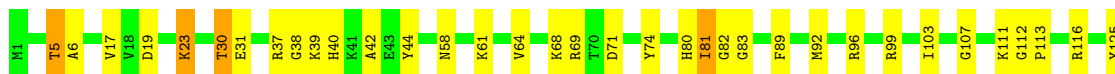
- Molecule 30: 50S ribosomal protein L11



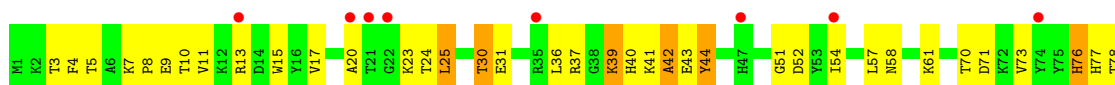
- Molecule 30: 50S ribosomal protein L11



- Molecule 31: 50S ribosomal protein L13

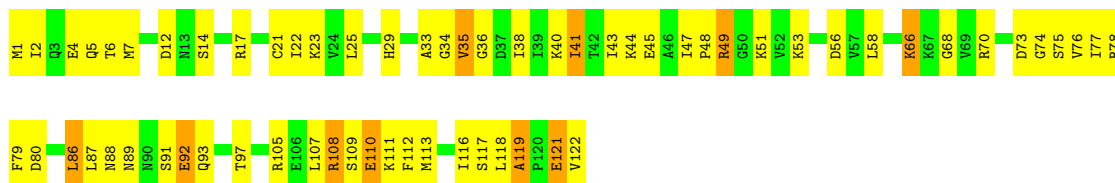


- Molecule 31: 50S ribosomal protein L13

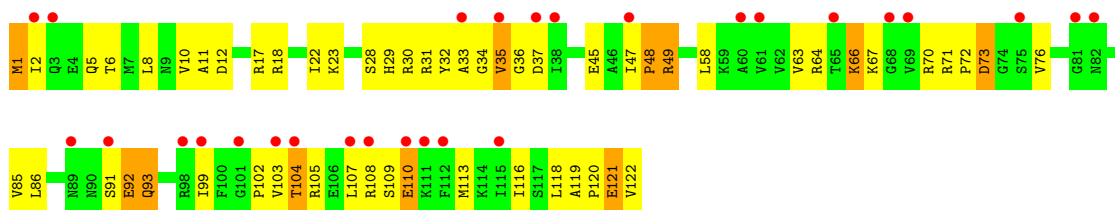




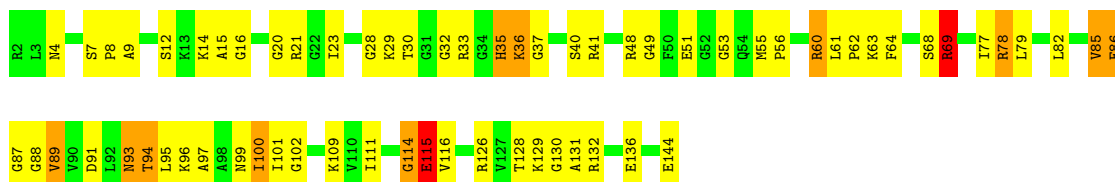
- Molecule 32: 50S ribosomal protein L14



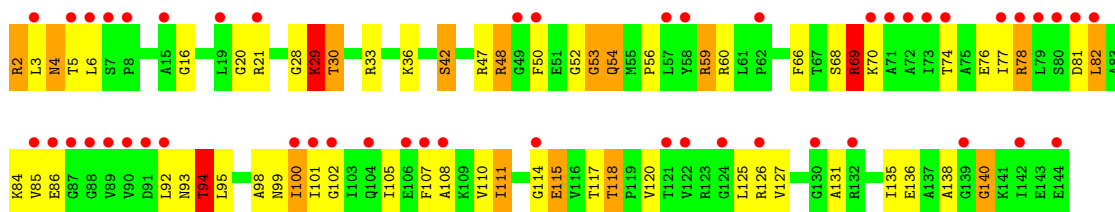
- Molecule 32: 50S ribosomal protein L14



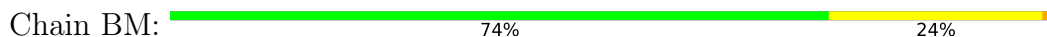
- Molecule 33: 50S ribosomal protein L15

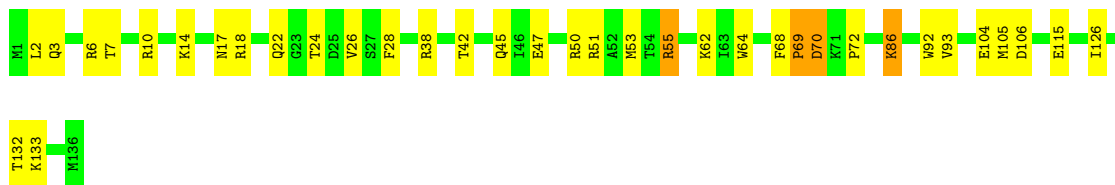


- Molecule 33: 50S ribosomal protein L15

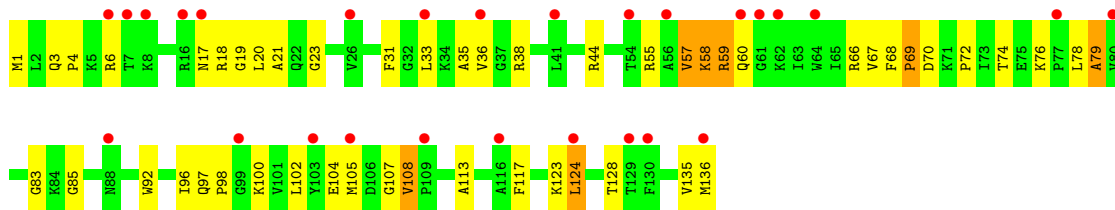


- Molecule 34: 50S ribosomal protein L16

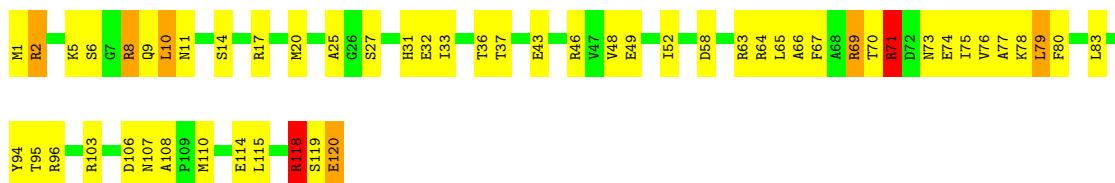




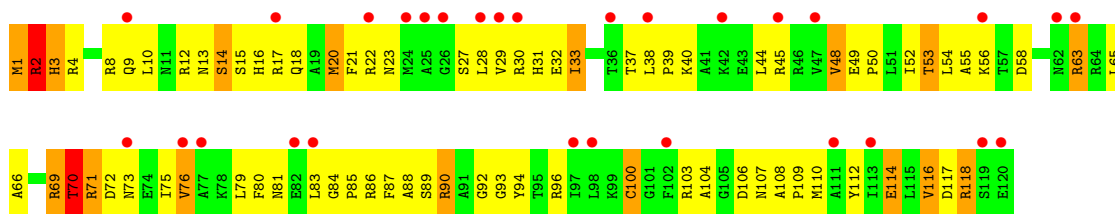
- Molecule 34: 50S ribosomal protein L16



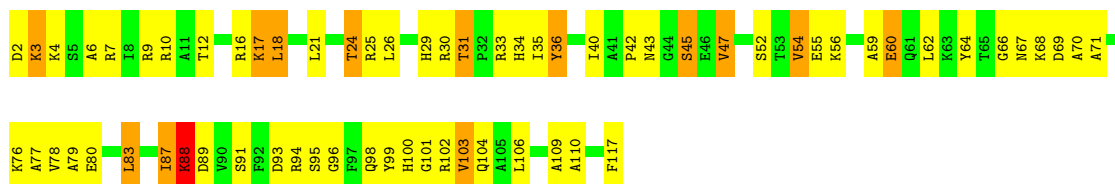
- Molecule 35: 50S ribosomal protein L17



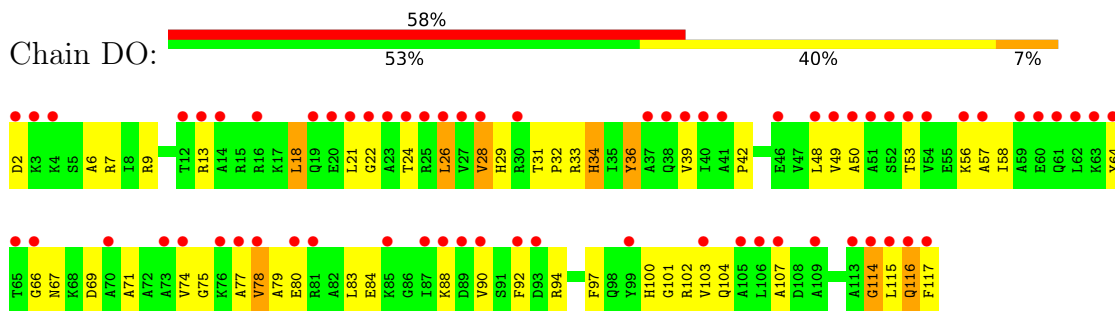
- Molecule 35: 50S ribosomal protein L17



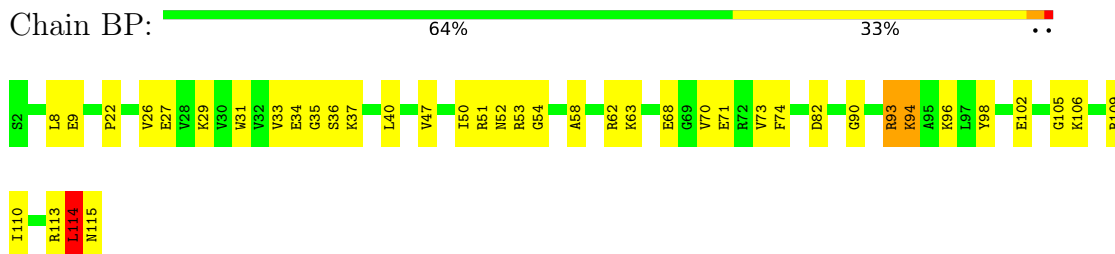
- Molecule 36: 50S ribosomal protein L18



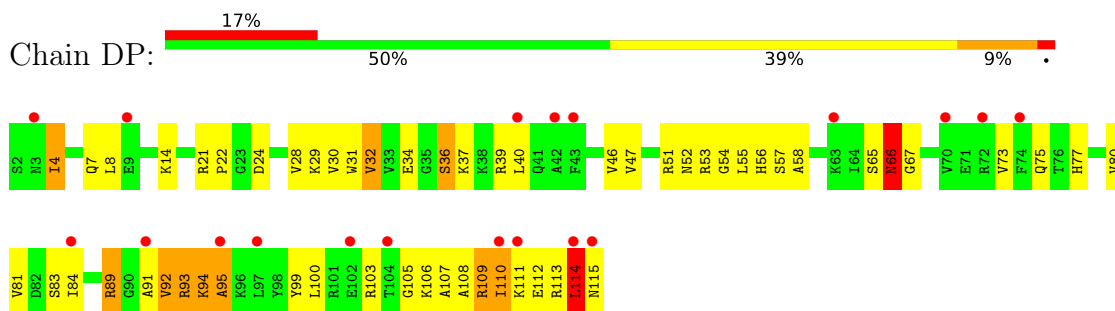
- Molecule 36: 50S ribosomal protein L18



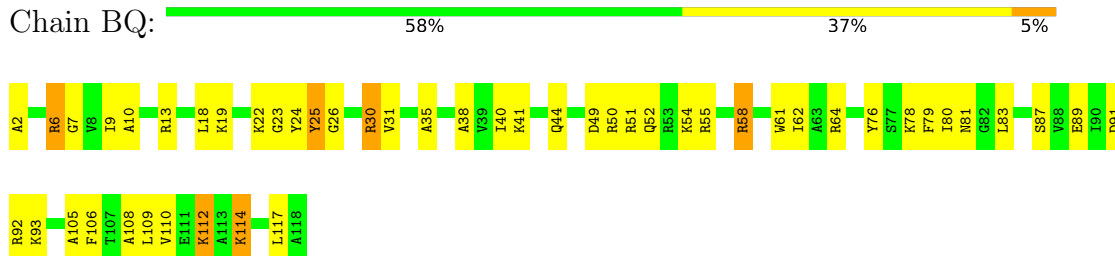
- Molecule 37: 50S ribosomal protein L19



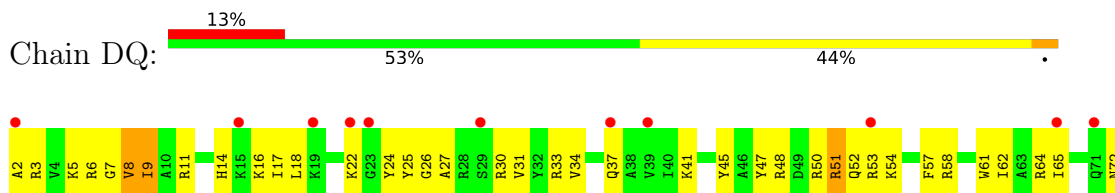
- Molecule 37: 50S ribosomal protein L19

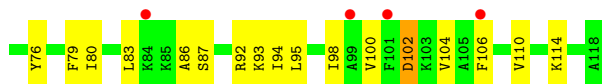


- Molecule 38: 50S ribosomal protein L20

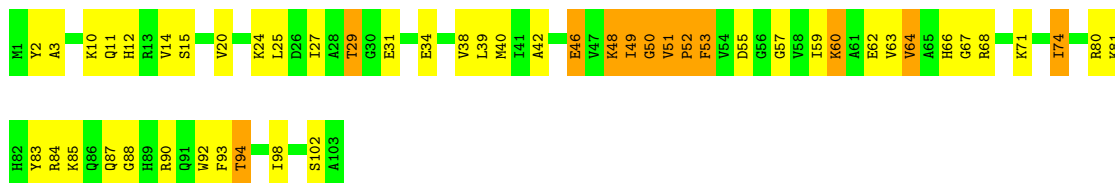


- Molecule 38: 50S ribosomal protein L20

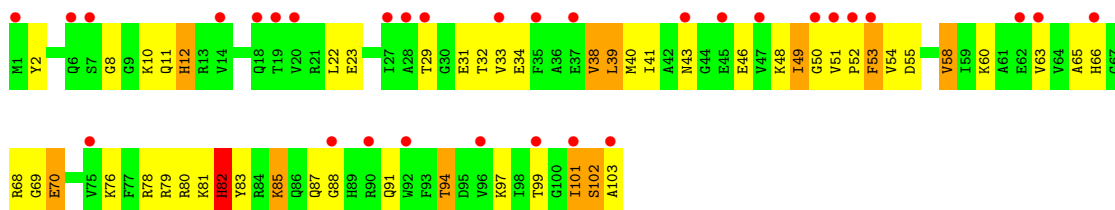




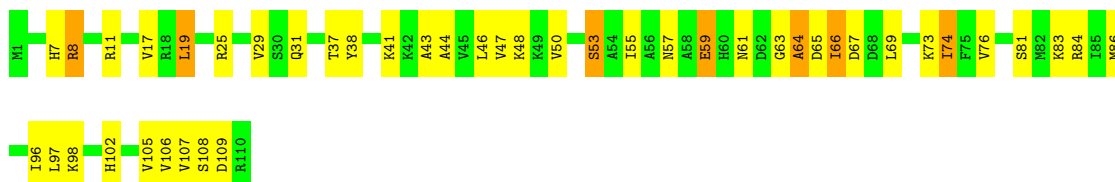
- Molecule 39: 50S ribosomal protein L21



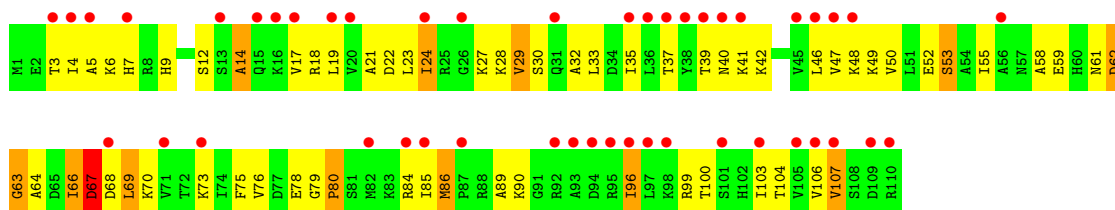
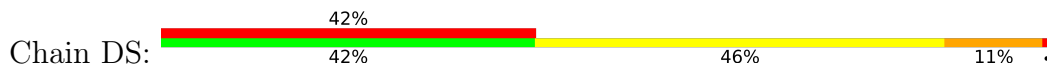
- Molecule 39: 50S ribosomal protein L21



- Molecule 40: 50S ribosomal protein L22

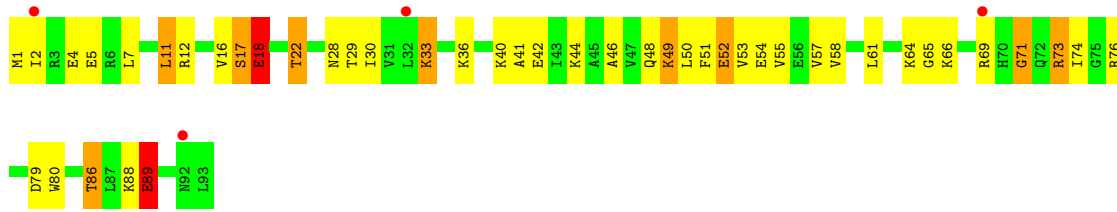


- Molecule 40: 50S ribosomal protein L22

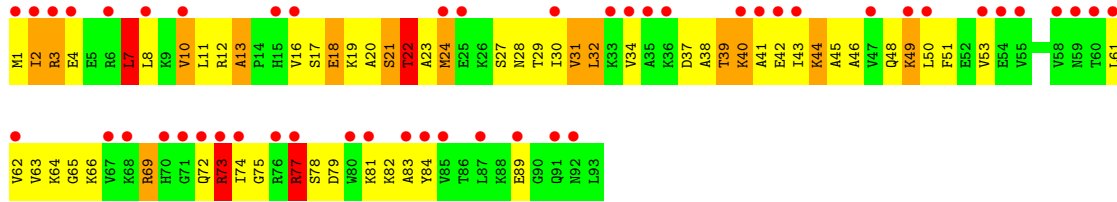


- Molecule 41: 50S ribosomal protein L23

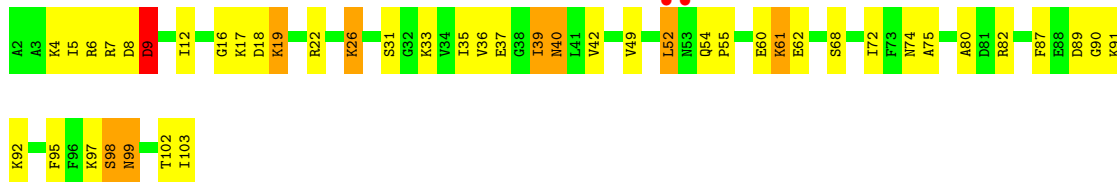




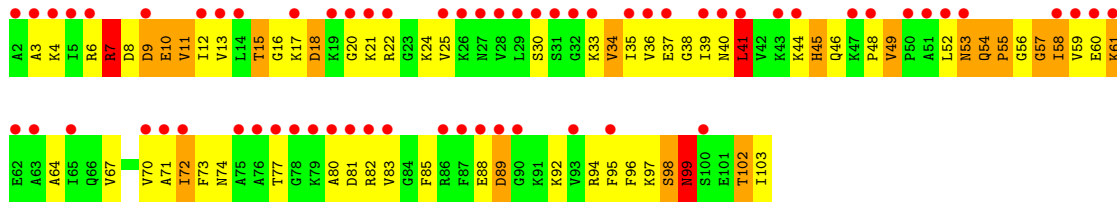
● Molecule 41: 50S ribosomal protein L23



● Molecule 42: 50S ribosomal protein L24



● Molecule 42: 50S ribosomal protein L24

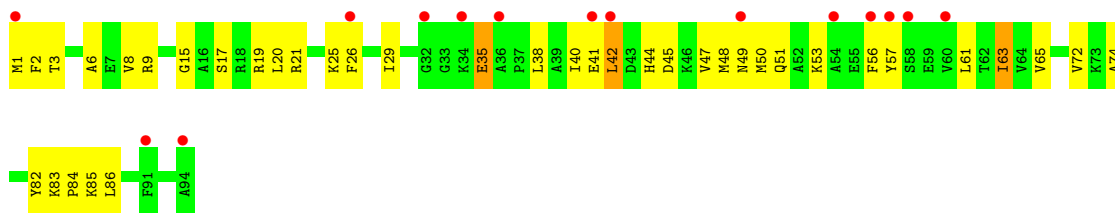


● Molecule 43: 50S ribosomal protein L25



● Molecule 43: 50S ribosomal protein L25

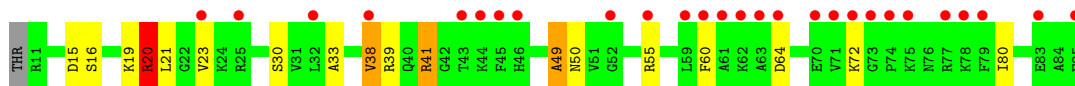
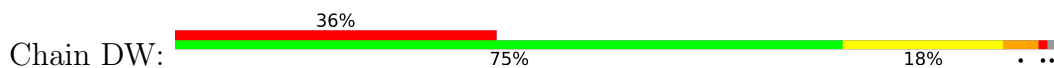




• Molecule 44: 50S ribosomal protein L27



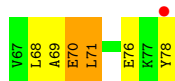
• Molecule 44: 50S ribosomal protein L27



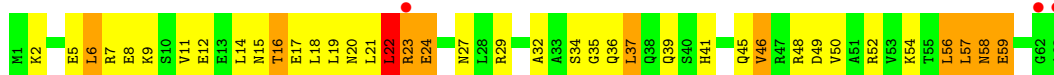
• Molecule 45: 50S ribosomal protein L28



• Molecule 45: 50S ribosomal protein L28

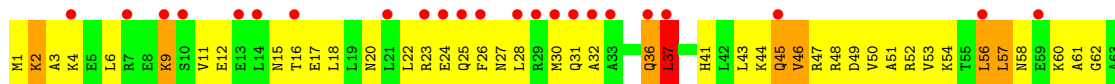


• Molecule 46: 50S ribosomal protein L29

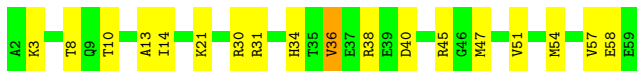


• Molecule 46: 50S ribosomal protein L29

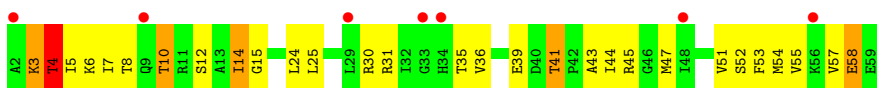




- Molecule 47: 50S ribosomal protein L30



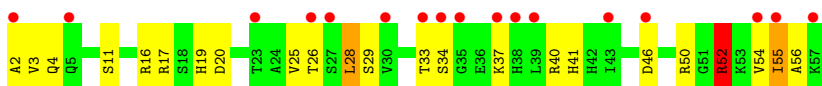
- Molecule 47: 50S ribosomal protein L30



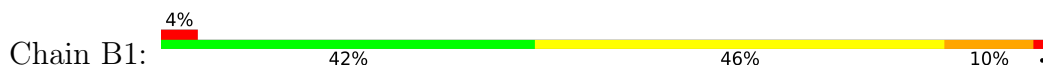
- Molecule 48: 50S ribosomal protein L32



- Molecule 48: 50S ribosomal protein L32



- Molecule 49: 50S ribosomal protein L33



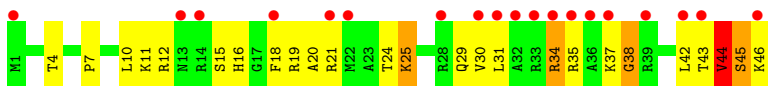
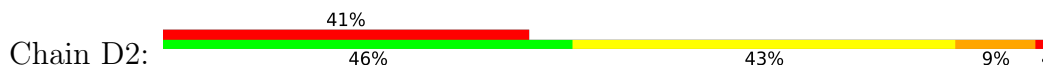
- Molecule 49: 50S ribosomal protein L33



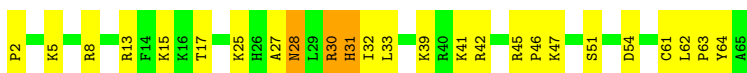
- Molecule 50: 50S ribosomal protein L34



- Molecule 50: 50S ribosomal protein L34



- Molecule 51: 50S ribosomal protein L35



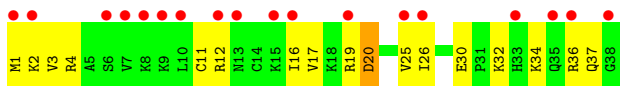
- Molecule 51: 50S ribosomal protein L35



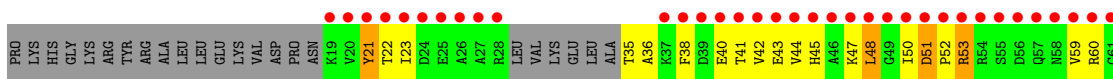
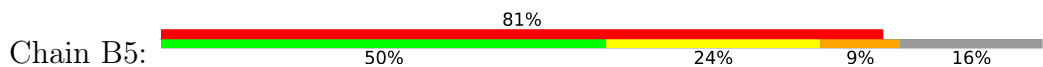
- Molecule 52: 50S ribosomal protein L36

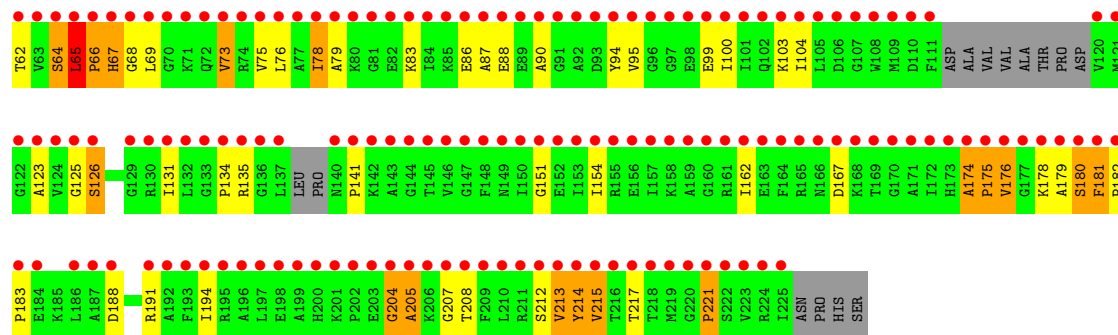


- Molecule 52: 50S ribosomal protein L36



- Molecule 53: 50S ribosomal protein L1





4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	210.64Å 434.61Å 625.01Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	69.41 – 2.90 69.41 – 2.90	Depositor EDS
% Data completeness (in resolution range)	90.0 (69.41-2.90) 90.0 (69.41-2.90)	Depositor EDS
R_{merge}	0.15	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.39 (at 2.91Å)	Xtriage
Refinement program	PHENIX (phenix.refine: 1.8.1_1168)	Depositor
R, R_{free}	0.223 , 0.265 0.229 , 0.269	Depositor DCC
R_{free} test set	4560 reflections (0.40%)	wwPDB-VP
Wilson B-factor (Å ²)	47.2	Xtriage
Anisotropy	0.436	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.27 , 54.1	EDS
L-test for twinning ²	$\langle L \rangle = 0.46$, $\langle L^2 \rangle = 0.28$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.91	EDS
Total number of atoms	288258	wwPDB-VP
Average B, all atoms (Å ²)	61.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.74% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

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

5 Model quality

5.1 Standard geometry

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	AA	0.48	0/36944	0.93	23/57632 (0.0%)
1	CA	0.41	0/36966	0.88	12/57666 (0.0%)
2	AB	0.34	0/1736	0.59	0/2338
2	CB	0.32	0/1736	0.55	0/2338
3	AC	0.35	0/1652	0.58	0/2225
3	CC	0.31	0/1652	0.51	0/2225
4	AD	0.36	0/1665	0.61	0/2227
4	CD	0.40	0/1665	0.63	0/2227
5	AE	0.38	0/1119	0.65	0/1504
5	CE	0.38	0/1119	0.69	0/1504
6	AF	0.40	0/836	0.66	1/1128 (0.1%)
6	CF	0.33	0/836	0.61	1/1128 (0.1%)
7	AG	0.34	0/1196	0.54	0/1602
7	CG	0.32	0/1196	0.51	0/1602
8	AH	0.40	0/989	0.59	0/1326
8	CH	0.31	0/989	0.54	0/1326
9	AI	0.32	0/1034	0.60	0/1375
9	CI	0.31	0/1034	0.56	0/1375
10	AJ	0.36	0/797	0.58	0/1077
10	CJ	0.32	0/797	0.55	0/1077
11	AK	0.33	0/893	0.58	0/1205
11	CK	0.35	0/893	0.60	0/1205
12	AL	0.40	0/969	0.68	0/1300
12	CL	0.37	0/969	0.66	0/1300
13	AM	0.33	0/893	0.61	0/1193
13	CM	0.32	0/893	0.56	0/1193
14	AN	0.37	0/785	0.59	0/1043
14	CN	0.30	0/785	0.49	0/1043
15	AO	0.33	0/718	0.60	0/959
15	CO	0.31	0/718	0.51	0/959
16	AP	0.38	0/659	0.62	0/884
16	CP	0.33	0/659	0.55	0/884

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	AQ	0.38	0/658	0.62	0/881
17	CQ	0.37	0/658	0.57	0/881
18	AR	0.33	0/463	0.54	0/621
18	CR	0.35	0/463	0.58	0/621
19	AS	0.35	0/653	0.60	0/877
19	CS	0.34	0/653	0.53	0/877
20	AT	0.39	0/671	0.60	0/888
20	CT	0.32	0/671	0.55	0/888
21	AU	0.43	0/431	0.65	0/570
21	CU	0.45	0/431	0.63	0/570
22	BA	0.82	19/69659 (0.0%)	1.28	469/108672 (0.4%)
22	DA	0.39	0/69659	0.88	19/108672 (0.0%)
23	BB	0.74	0/2850	1.25	7/4444 (0.2%)
23	DB	0.31	0/2828	0.81	0/4410
24	BC	0.52	0/2122	0.72	1/2852 (0.0%)
24	DC	0.35	0/2122	0.59	0/2852
25	BD	0.58	0/1586	0.75	1/2134 (0.0%)
25	DD	0.33	0/1586	0.55	0/2134
26	BE	0.51	0/1571	0.66	0/2113
26	DE	0.33	0/1571	0.54	0/2113
27	BF	0.41	0/1435	0.63	0/1926
27	DF	0.30	0/1435	0.48	0/1926
28	BG	0.41	0/1343	0.61	0/1816
28	DG	0.30	0/1343	0.48	0/1816
29	BH	0.36	0/1121	0.66	1/1515 (0.1%)
29	DH	0.35	0/1121	0.56	0/1515
30	BI	0.36	0/1046	0.57	0/1410
30	DI	0.36	0/1046	0.53	0/1410
31	BJ	0.61	0/1152	0.73	0/1551
31	DJ	0.32	0/1152	0.55	0/1551
32	BK	0.57	0/948	0.76	1/1268 (0.1%)
32	DK	0.36	0/948	0.55	0/1268
33	BL	0.55	0/1054	0.77	0/1403
33	DL	0.32	0/1054	0.58	0/1403
34	BM	0.58	0/1093	0.75	0/1460
34	DM	0.31	0/1093	0.50	0/1460
35	BN	0.57	0/974	0.77	2/1301 (0.2%)
35	DN	0.33	0/974	0.55	0/1301
36	BO	0.48	0/902	0.67	0/1209
36	DO	0.30	0/902	0.49	0/1209
37	BP	0.54	0/929	0.67	0/1242
37	DP	0.34	0/929	0.55	0/1242
38	BQ	0.67	0/960	0.76	0/1278

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
38	DQ	0.33	0/960	0.51	0/1278
39	BR	0.63	0/829	0.83	0/1107
39	DR	0.32	0/829	0.57	0/1107
40	BS	0.66	0/864	0.83	1/1156 (0.1%)
40	DS	0.33	0/864	0.56	0/1156
41	BT	0.48	0/745	0.65	0/994
41	DT	0.32	0/745	0.56	0/994
42	BU	0.46	0/788	0.68	0/1051
42	DU	0.37	0/788	0.56	0/1051
43	BV	0.51	0/766	0.69	0/1025
43	DV	0.28	0/766	0.45	0/1025
44	BW	0.56	0/587	0.70	0/776
44	DW	0.31	0/576	0.50	0/762
45	BX	0.46	0/635	0.65	0/848
45	DX	0.32	0/635	0.55	0/848
46	BY	0.42	0/510	0.66	0/677
46	DY	0.33	0/510	0.55	0/677
47	BZ	0.63	0/453	0.68	0/605
47	DZ	0.30	0/453	0.53	0/605
48	B0	0.58	0/450	0.72	0/599
48	D0	0.34	0/450	0.57	0/599
49	B1	0.45	0/417	0.62	0/554
49	D1	0.33	0/417	0.52	0/554
50	B2	0.57	0/380	0.80	0/498
50	D2	0.36	0/380	0.60	0/498
51	B3	0.52	0/513	0.70	0/676
51	D3	0.32	0/513	0.52	0/676
52	B4	0.57	0/303	0.74	0/397
52	D4	0.30	0/303	0.54	0/397
53	B5	0.33	0/1145	0.50	0/1556
All	All	0.54	19/310626 (0.0%)	0.94	539/464366 (0.1%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
5	CE	0	1
6	CF	0	1
11	AK	0	1
12	CL	0	1

Continued on next page...

Continued from previous page...

Mol	Chain	#Chirality outliers	#Planarity outliers
21	AU	0	1
21	CU	0	1
25	BD	0	1
All	All	0	7

The worst 5 of 19 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	BA	1142	A	N9-C4	-11.58	1.30	1.37
22	BA	984	A	N9-C4	-11.48	1.30	1.37
22	BA	1936	A	N9-C4	-9.61	1.32	1.37
22	BA	528	A	N7-C5	-6.85	1.35	1.39
22	BA	752	A	N9-C4	-6.64	1.33	1.37

The worst 5 of 539 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	528	A	N1-C6-N6	15.09	127.66	118.60
22	BA	974	G	C4-C5-N7	14.38	116.55	110.80
22	BA	984	A	C2-N3-C4	-13.21	103.99	110.60
22	BA	984	A	N3-C4-C5	12.10	135.27	126.80
22	BA	1936	A	C2-N3-C4	-11.70	104.75	110.60

There are no chirality outliers.

5 of 7 planarity outliers are listed below:

Mol	Chain	Res	Type	Group
11	AK	126	LYS	Peptide
21	AU	39	GLU	Peptide
25	BD	151	THR	Peptide
5	CE	102	GLY	Peptide
6	CF	54	LEU	Peptide

5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AA	32995	0	16607	1123	4
1	CA	33015	0	16617	1084	0
2	AB	1705	0	1732	191	0
2	CB	1705	0	1732	131	0
3	AC	1625	0	1696	83	0
3	CC	1625	0	1696	69	0
4	AD	1643	0	1707	149	0
4	CD	1643	0	1707	119	0
5	AE	1106	0	1148	74	0
5	CE	1106	0	1148	112	0
6	AF	818	0	808	67	0
6	CF	818	0	808	56	0
7	AG	1182	0	1238	55	0
7	CG	1182	0	1238	65	0
8	AH	979	0	1031	68	0
8	CH	979	0	1031	41	0
9	AI	1022	0	1070	79	0
9	CI	1022	0	1070	63	0
10	AJ	787	0	828	80	0
10	CJ	787	0	828	50	0
11	AK	877	0	887	66	0
11	CK	877	0	887	67	0
12	AL	955	0	1016	66	0
12	CL	955	0	1016	77	0
13	AM	884	0	941	66	0
13	CM	884	0	941	47	0
14	AN	774	0	824	65	0
14	CN	774	0	824	48	0
15	AO	710	0	728	31	0
15	CO	710	0	728	42	0
16	AP	649	0	666	61	0
16	CP	649	0	666	28	0
17	AQ	649	0	691	70	0
17	CQ	649	0	691	53	0
18	AR	456	0	478	21	0
18	CR	456	0	478	33	0
19	AS	638	0	665	54	0
19	CS	638	0	665	36	0
20	AT	665	0	714	56	0
20	CT	665	0	714	43	0
21	AU	426	0	449	58	0
21	CU	426	0	449	54	0
22	BA	62195	0	31280	1616	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
22	DA	62195	0	31280	2231	0
23	BB	2549	0	1291	52	0
23	DB	2529	0	1281	62	0
24	BC	2083	0	2154	122	0
24	DC	2083	0	2154	127	0
25	BD	1565	0	1616	66	0
25	DD	1565	0	1616	81	0
26	BE	1552	0	1619	69	0
26	DE	1552	0	1619	78	0
27	BF	1411	0	1444	94	0
27	DF	1411	0	1444	62	0
28	BG	1323	0	1371	50	0
28	DG	1323	0	1371	52	0
29	BH	1110	0	1147	154	0
29	DH	1110	0	1148	120	4
30	BI	1032	0	1085	70	0
30	DI	1032	0	1085	67	0
31	BJ	1129	0	1162	37	0
31	DJ	1129	0	1162	54	0
32	BK	939	0	1012	46	0
32	DK	939	0	1012	50	0
33	BL	1045	0	1117	61	0
33	DL	1045	0	1117	66	0
34	BM	1074	0	1157	27	0
34	DM	1074	0	1157	30	0
35	BN	961	0	1000	44	0
35	DN	961	0	1000	70	0
36	BO	892	0	923	55	0
36	DO	892	0	923	44	0
37	BP	917	0	962	31	0
37	DP	917	0	962	45	0
38	BQ	947	0	1019	49	0
38	DQ	947	0	1019	50	0
39	BR	816	0	839	71	0
39	DR	816	0	839	47	0
40	BS	857	0	922	36	0
40	DS	857	0	922	46	0
41	BT	739	0	807	41	0
41	DT	739	0	807	59	0
42	BU	780	0	831	28	0
42	DU	780	0	831	73	0
43	BV	753	0	780	27	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
43	DV	753	0	780	27	0
44	BW	580	0	594	17	0
44	DW	569	0	581	16	0
45	BX	625	0	652	24	0
45	DX	625	0	652	47	0
46	BY	509	0	543	33	0
46	DY	509	0	543	45	0
47	BZ	449	0	488	10	0
47	DZ	449	0	488	18	0
48	B0	444	0	458	24	0
48	D0	444	0	458	18	0
49	B1	410	0	440	25	0
49	D1	410	0	440	16	0
50	B2	377	0	418	15	0
50	D2	377	0	418	24	0
51	B3	504	0	572	27	0
51	D3	504	0	572	20	0
52	B4	302	0	340	14	0
52	D4	302	0	342	15	0
53	B5	1142	0	865	48	0
54	AA	71	0	0	0	0
54	AN	1	0	0	0	0
54	BA	193	0	0	0	0
54	BB	4	0	0	0	0
54	BD	1	0	0	0	0
54	BQ	1	0	0	0	0
54	CA	56	0	0	0	0
54	D2	1	0	0	0	0
54	DA	166	0	0	0	0
54	DB	3	0	0	0	0
54	DQ	1	0	0	0	0
55	BA	38	0	35	5	0
55	DA	38	0	35	15	0
56	B4	1	0	0	0	0
56	D4	1	0	0	0	0
57	AA	192	0	0	25	0
57	AL	2	0	0	0	0
57	AN	6	0	0	1	0
57	AT	2	0	0	0	0
57	AU	1	0	0	0	0
57	B2	1	0	0	0	0
57	B3	2	0	0	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
57	B4	2	0	0	0	0
57	BA	620	0	0	65	0
57	BB	13	0	0	0	0
57	BC	7	0	0	1	0
57	BD	3	0	0	2	0
57	BE	4	0	0	0	0
57	BF	1	0	0	1	0
57	BJ	1	0	0	0	0
57	BL	5	0	0	0	0
57	BN	3	0	0	0	0
57	BQ	1	0	0	0	0
57	BS	1	0	0	0	0
57	BT	1	0	0	0	0
57	BV	1	0	0	0	0
57	CA	191	0	0	26	0
57	CL	1	0	0	0	0
57	CN	2	0	0	0	0
57	CT	2	0	0	0	0
57	CU	2	0	0	1	0
57	D2	1	0	0	1	0
57	D3	2	0	0	0	0
57	D4	1	0	0	0	0
57	DA	607	0	0	105	0
57	DB	13	0	0	0	0
57	DC	12	0	0	2	0
57	DD	4	0	0	2	0
57	DE	6	0	0	2	0
57	DJ	1	0	0	0	0
57	DL	4	0	0	1	0
57	DN	2	0	0	0	0
57	DT	1	0	0	0	0
57	DU	1	0	0	0	0
57	DV	1	0	0	0	0
All	All	288258	0	192859	10766	4

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 23.

The worst 5 of 10766 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)
22:BA:1153:C:OP2	57:BA:3360:HOH:O	1.56	1.23
22:BA:621:A:OP2	57:BA:3293:HOH:O	1.57	1.23
29:BH:117:LEU:O	29:BH:121:VAL:HG23	1.34	1.22
29:BH:123:ARG:HH22	1:CA:367:U:P	1.69	1.15
29:BH:117:LEU:O	29:BH:121:VAL:CG2	1.95	1.14

All (4) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:368:U:OP1	29:DH:93:SER:OG[4_455]	1.70	0.50
1:AA:367:U:O5'	29:DH:123:ARG:NH2[4_455]	2.02	0.18
1:AA:368:U:O4	29:DH:83:LYS:CE[4_455]	2.03	0.17
1:AA:368:U:O4	29:DH:83:LYS:CB[4_455]	2.13	0.07

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	216/218 (99%)	126 (58%)	40 (18%)	50 (23%)	0	0
2	CB	216/218 (99%)	133 (62%)	52 (24%)	31 (14%)	0	0
3	AC	204/206 (99%)	149 (73%)	38 (19%)	17 (8%)	1	2
3	CC	204/206 (99%)	153 (75%)	40 (20%)	11 (5%)	2	6
4	AD	203/205 (99%)	139 (68%)	33 (16%)	31 (15%)	0	0
4	CD	203/205 (99%)	150 (74%)	31 (15%)	22 (11%)	0	1
5	AE	148/150 (99%)	104 (70%)	31 (21%)	13 (9%)	1	2
5	CE	148/150 (99%)	98 (66%)	28 (19%)	22 (15%)	0	0
6	AF	98/100 (98%)	66 (67%)	19 (19%)	13 (13%)	0	0
6	CF	98/100 (98%)	66 (67%)	16 (16%)	16 (16%)	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
7	AG	149/151 (99%)	111 (74%)	28 (19%)	10 (7%)	1	3
7	CG	149/151 (99%)	121 (81%)	20 (13%)	8 (5%)	2	6
8	AH	127/129 (98%)	91 (72%)	21 (16%)	15 (12%)	0	1
8	CH	127/129 (98%)	95 (75%)	24 (19%)	8 (6%)	1	4
9	AI	125/127 (98%)	91 (73%)	21 (17%)	13 (10%)	0	1
9	CI	125/127 (98%)	86 (69%)	28 (22%)	11 (9%)	1	2
10	AJ	96/98 (98%)	60 (62%)	15 (16%)	21 (22%)	0	0
10	CJ	96/98 (98%)	71 (74%)	13 (14%)	12 (12%)	0	0
11	AK	115/117 (98%)	84 (73%)	19 (16%)	12 (10%)	0	1
11	CK	115/117 (98%)	81 (70%)	24 (21%)	10 (9%)	1	2
12	AL	121/123 (98%)	92 (76%)	22 (18%)	7 (6%)	1	5
12	CL	121/123 (98%)	94 (78%)	12 (10%)	15 (12%)	0	1
13	AM	112/114 (98%)	81 (72%)	20 (18%)	11 (10%)	0	1
13	CM	112/114 (98%)	86 (77%)	17 (15%)	9 (8%)	1	2
14	AN	92/100 (92%)	62 (67%)	18 (20%)	12 (13%)	0	0
14	CN	92/100 (92%)	59 (64%)	18 (20%)	15 (16%)	0	0
15	AO	86/88 (98%)	65 (76%)	16 (19%)	5 (6%)	1	5
15	CO	86/88 (98%)	70 (81%)	12 (14%)	4 (5%)	2	8
16	AP	80/82 (98%)	53 (66%)	15 (19%)	12 (15%)	0	0
16	CP	80/82 (98%)	59 (74%)	16 (20%)	5 (6%)	1	4
17	AQ	78/80 (98%)	54 (69%)	15 (19%)	9 (12%)	0	1
17	CQ	78/80 (98%)	56 (72%)	11 (14%)	11 (14%)	0	0
18	AR	53/55 (96%)	43 (81%)	10 (19%)	0	100	100
18	CR	53/55 (96%)	34 (64%)	13 (24%)	6 (11%)	0	1
19	AS	77/79 (98%)	54 (70%)	12 (16%)	11 (14%)	0	0
19	CS	77/79 (98%)	60 (78%)	12 (16%)	5 (6%)	1	3
20	AT	83/85 (98%)	60 (72%)	15 (18%)	8 (10%)	0	1
20	CT	83/85 (98%)	64 (77%)	12 (14%)	7 (8%)	1	2
21	AU	49/51 (96%)	27 (55%)	9 (18%)	13 (26%)	0	0
21	CU	49/51 (96%)	26 (53%)	12 (24%)	11 (22%)	0	0
24	BC	269/271 (99%)	211 (78%)	47 (18%)	11 (4%)	3	11

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
24	DC	269/271 (99%)	204 (76%)	50 (19%)	15 (6%)	2	5
25	BD	207/209 (99%)	180 (87%)	20 (10%)	7 (3%)	3	15
25	DD	207/209 (99%)	168 (81%)	29 (14%)	10 (5%)	2	8
26	BE	199/201 (99%)	167 (84%)	26 (13%)	6 (3%)	4	17
26	DE	199/201 (99%)	160 (80%)	28 (14%)	11 (6%)	2	5
27	BF	175/177 (99%)	144 (82%)	24 (14%)	7 (4%)	3	11
27	DF	175/177 (99%)	137 (78%)	24 (14%)	14 (8%)	1	2
28	BG	174/176 (99%)	149 (86%)	20 (12%)	5 (3%)	4	18
28	DG	174/176 (99%)	136 (78%)	29 (17%)	9 (5%)	2	6
29	BH	147/149 (99%)	89 (60%)	37 (25%)	21 (14%)	0	0
29	DH	147/149 (99%)	100 (68%)	32 (22%)	15 (10%)	0	1
30	BI	139/141 (99%)	85 (61%)	36 (26%)	18 (13%)	0	0
30	DI	139/141 (99%)	82 (59%)	44 (32%)	13 (9%)	0	1
31	BJ	140/142 (99%)	129 (92%)	10 (7%)	1 (1%)	22	54
31	DJ	140/142 (99%)	118 (84%)	17 (12%)	5 (4%)	3	14
32	BK	120/122 (98%)	99 (82%)	15 (12%)	6 (5%)	2	7
32	DK	120/122 (98%)	100 (83%)	13 (11%)	7 (6%)	1	5
33	BL	141/143 (99%)	112 (79%)	22 (16%)	7 (5%)	2	7
33	DL	141/143 (99%)	99 (70%)	29 (21%)	13 (9%)	1	1
34	BM	134/136 (98%)	123 (92%)	9 (7%)	2 (2%)	10	34
34	DM	134/136 (98%)	111 (83%)	15 (11%)	8 (6%)	1	4
35	BN	118/120 (98%)	104 (88%)	10 (8%)	4 (3%)	3	15
35	DN	118/120 (98%)	94 (80%)	16 (14%)	8 (7%)	1	3
36	BO	114/116 (98%)	87 (76%)	21 (18%)	6 (5%)	2	6
36	DO	114/116 (98%)	85 (75%)	22 (19%)	7 (6%)	1	4
37	BP	112/114 (98%)	99 (88%)	9 (8%)	4 (4%)	3	14
37	DP	112/114 (98%)	84 (75%)	16 (14%)	12 (11%)	0	1
38	BQ	115/117 (98%)	109 (95%)	4 (4%)	2 (2%)	9	31
38	DQ	115/117 (98%)	101 (88%)	13 (11%)	1 (1%)	17	48
39	BR	101/103 (98%)	84 (83%)	9 (9%)	8 (8%)	1	2
39	DR	101/103 (98%)	76 (75%)	18 (18%)	7 (7%)	1	3

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
40	BS	108/110 (98%)	98 (91%)	7 (6%)	3 (3%)	5	19
40	DS	108/110 (98%)	88 (82%)	12 (11%)	8 (7%)	1	2
41	BT	91/93 (98%)	72 (79%)	13 (14%)	6 (7%)	1	3
41	DT	91/93 (98%)	52 (57%)	28 (31%)	11 (12%)	0	1
42	BU	100/102 (98%)	76 (76%)	16 (16%)	8 (8%)	1	2
42	DU	100/102 (98%)	71 (71%)	16 (16%)	13 (13%)	0	0
43	BV	92/94 (98%)	87 (95%)	5 (5%)	0	100	100
43	DV	92/94 (98%)	79 (86%)	12 (13%)	1 (1%)	14	42
44	BW	74/76 (97%)	68 (92%)	5 (7%)	1 (1%)	11	36
44	DW	73/76 (96%)	63 (86%)	8 (11%)	2 (3%)	5	19
45	BX	75/77 (97%)	68 (91%)	6 (8%)	1 (1%)	12	37
45	DX	75/77 (97%)	55 (73%)	12 (16%)	8 (11%)	0	1
46	BY	61/63 (97%)	47 (77%)	7 (12%)	7 (12%)	0	1
46	DY	61/63 (97%)	43 (70%)	13 (21%)	5 (8%)	1	2
47	BZ	56/58 (97%)	53 (95%)	3 (5%)	0	100	100
47	DZ	56/58 (97%)	47 (84%)	6 (11%)	3 (5%)	2	6
48	B0	54/56 (96%)	44 (82%)	8 (15%)	2 (4%)	3	13
48	D0	54/56 (96%)	39 (72%)	13 (24%)	2 (4%)	3	13
49	B1	48/50 (96%)	39 (81%)	5 (10%)	4 (8%)	1	2
49	D1	48/50 (96%)	37 (77%)	8 (17%)	3 (6%)	1	4
50	B2	44/46 (96%)	40 (91%)	3 (7%)	1 (2%)	6	23
50	D2	44/46 (96%)	33 (75%)	8 (18%)	3 (7%)	1	3
51	B3	62/64 (97%)	55 (89%)	6 (10%)	1 (2%)	9	32
51	D3	62/64 (97%)	46 (74%)	13 (21%)	3 (5%)	2	8
52	B4	36/38 (95%)	33 (92%)	3 (8%)	0	100	100
52	D4	36/38 (95%)	33 (92%)	2 (6%)	1 (3%)	5	19
53	B5	183/228 (80%)	97 (53%)	57 (31%)	29 (16%)	0	0
All	All	11418/11672 (98%)	8663 (76%)	1837 (16%)	918 (8%)	1	2

5 of 918 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AB	16	PHE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	AB	21	ARG
2	AB	22	TYR
2	AB	34	ALA
2	AB	64	LYS

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	180/180 (100%)	133 (74%)	47 (26%)	0	1
2	CB	180/180 (100%)	140 (78%)	40 (22%)	1	3
3	AC	170/170 (100%)	134 (79%)	36 (21%)	1	3
3	CC	170/170 (100%)	136 (80%)	34 (20%)	1	4
4	AD	172/172 (100%)	136 (79%)	36 (21%)	1	3
4	CD	172/172 (100%)	145 (84%)	27 (16%)	2	8
5	AE	113/113 (100%)	87 (77%)	26 (23%)	1	2
5	CE	113/113 (100%)	87 (77%)	26 (23%)	1	2
6	AF	87/87 (100%)	61 (70%)	26 (30%)	0	1
6	CF	87/87 (100%)	62 (71%)	25 (29%)	0	1
7	AG	124/124 (100%)	95 (77%)	29 (23%)	1	2
7	CG	124/124 (100%)	89 (72%)	35 (28%)	0	1
8	AH	104/104 (100%)	87 (84%)	17 (16%)	2	7
8	CH	104/104 (100%)	84 (81%)	20 (19%)	1	4
9	AI	105/105 (100%)	71 (68%)	34 (32%)	0	0
9	CI	105/105 (100%)	77 (73%)	28 (27%)	0	1
10	AJ	86/86 (100%)	69 (80%)	17 (20%)	1	4
10	CJ	86/86 (100%)	67 (78%)	19 (22%)	1	3
11	AK	90/90 (100%)	70 (78%)	20 (22%)	1	3
11	CK	90/90 (100%)	68 (76%)	22 (24%)	0	2

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
12	AL	103/103 (100%)	87 (84%)	16 (16%)	2	8
12	CL	103/103 (100%)	83 (81%)	20 (19%)	1	4
13	AM	92/92 (100%)	72 (78%)	20 (22%)	1	3
13	CM	92/92 (100%)	71 (77%)	21 (23%)	1	2
14	AN	79/83 (95%)	64 (81%)	15 (19%)	1	4
14	CN	79/83 (95%)	65 (82%)	14 (18%)	2	5
15	AO	75/76 (99%)	61 (81%)	14 (19%)	1	5
15	CO	75/76 (99%)	58 (77%)	17 (23%)	1	2
16	AP	65/65 (100%)	50 (77%)	15 (23%)	1	2
16	CP	65/65 (100%)	51 (78%)	14 (22%)	1	3
17	AQ	74/74 (100%)	52 (70%)	22 (30%)	0	1
17	CQ	74/74 (100%)	50 (68%)	24 (32%)	0	0
18	AR	48/48 (100%)	37 (77%)	11 (23%)	1	2
18	CR	48/48 (100%)	37 (77%)	11 (23%)	1	2
19	AS	70/70 (100%)	58 (83%)	12 (17%)	2	6
19	CS	70/70 (100%)	59 (84%)	11 (16%)	2	8
20	AT	65/65 (100%)	50 (77%)	15 (23%)	1	2
20	CT	65/65 (100%)	48 (74%)	17 (26%)	0	1
21	AU	44/44 (100%)	26 (59%)	18 (41%)	0	0
21	CU	44/44 (100%)	25 (57%)	19 (43%)	0	0
24	BC	216/216 (100%)	184 (85%)	32 (15%)	3	9
24	DC	216/216 (100%)	185 (86%)	31 (14%)	3	9
25	BD	164/164 (100%)	152 (93%)	12 (7%)	14	38
25	DD	164/164 (100%)	146 (89%)	18 (11%)	6	19
26	BE	165/165 (100%)	142 (86%)	23 (14%)	3	10
26	DE	165/165 (100%)	142 (86%)	23 (14%)	3	10
27	BF	148/148 (100%)	121 (82%)	27 (18%)	1	5
27	DF	148/148 (100%)	124 (84%)	24 (16%)	2	7
28	BG	137/137 (100%)	127 (93%)	10 (7%)	14	38
28	DG	137/137 (100%)	121 (88%)	16 (12%)	5	16
29	BH	114/114 (100%)	88 (77%)	26 (23%)	1	2

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
29	DH	114/114 (100%)	88 (77%)	26 (23%)	1	2
30	BI	109/109 (100%)	80 (73%)	29 (27%)	0	1
30	DI	109/109 (100%)	84 (77%)	25 (23%)	1	2
31	BJ	116/116 (100%)	111 (96%)	5 (4%)	29	62
31	DJ	116/116 (100%)	101 (87%)	15 (13%)	4	13
32	BK	103/103 (100%)	91 (88%)	12 (12%)	5	16
32	DK	103/103 (100%)	96 (93%)	7 (7%)	16	42
33	BL	102/102 (100%)	88 (86%)	14 (14%)	3	11
33	DL	102/102 (100%)	89 (87%)	13 (13%)	4	13
34	BM	109/109 (100%)	102 (94%)	7 (6%)	17	45
34	DM	109/109 (100%)	101 (93%)	8 (7%)	14	38
35	BN	100/100 (100%)	90 (90%)	10 (10%)	7	23
35	DN	100/100 (100%)	80 (80%)	20 (20%)	1	4
36	BO	86/86 (100%)	70 (81%)	16 (19%)	1	5
36	DO	86/86 (100%)	73 (85%)	13 (15%)	3	9
37	BP	99/99 (100%)	91 (92%)	8 (8%)	11	33
37	DP	99/99 (100%)	84 (85%)	15 (15%)	3	8
38	BQ	89/89 (100%)	81 (91%)	8 (9%)	9	29
38	DQ	89/89 (100%)	78 (88%)	11 (12%)	4	14
39	BR	84/84 (100%)	72 (86%)	12 (14%)	3	10
39	DR	84/84 (100%)	68 (81%)	16 (19%)	1	4
40	BS	93/93 (100%)	80 (86%)	13 (14%)	3	10
40	DS	93/93 (100%)	80 (86%)	13 (14%)	3	10
41	BT	80/80 (100%)	68 (85%)	12 (15%)	3	9
41	DT	80/80 (100%)	66 (82%)	14 (18%)	2	6
42	BU	83/83 (100%)	73 (88%)	10 (12%)	5	15
42	DU	83/83 (100%)	66 (80%)	17 (20%)	1	3
43	BV	78/78 (100%)	69 (88%)	9 (12%)	5	17
43	DV	78/78 (100%)	65 (83%)	13 (17%)	2	6
44	BW	57/58 (98%)	50 (88%)	7 (12%)	4	14
44	DW	56/58 (97%)	51 (91%)	5 (9%)	9	29

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
45	BX	67/67 (100%)	56 (84%)	11 (16%)	2	7
45	DX	67/67 (100%)	54 (81%)	13 (19%)	1	4
46	BY	55/55 (100%)	47 (86%)	8 (14%)	3	9
46	DY	55/55 (100%)	45 (82%)	10 (18%)	1	5
47	BZ	48/48 (100%)	44 (92%)	4 (8%)	11	32
47	DZ	48/48 (100%)	37 (77%)	11 (23%)	1	2
48	B0	47/47 (100%)	41 (87%)	6 (13%)	4	13
48	D0	47/47 (100%)	43 (92%)	4 (8%)	10	31
49	B1	45/45 (100%)	38 (84%)	7 (16%)	2	8
49	D1	45/45 (100%)	41 (91%)	4 (9%)	9	29
50	B2	38/38 (100%)	33 (87%)	5 (13%)	4	12
50	D2	38/38 (100%)	31 (82%)	7 (18%)	1	5
51	B3	51/51 (100%)	48 (94%)	3 (6%)	19	49
51	D3	51/51 (100%)	44 (86%)	7 (14%)	3	11
52	B4	34/34 (100%)	28 (82%)	6 (18%)	2	5
52	D4	34/34 (100%)	30 (88%)	4 (12%)	5	16
53	B5	61/180 (34%)	48 (79%)	13 (21%)	1	3
All	All	9386/9518 (99%)	7728 (82%)	1658 (18%)	2	5

5 of 1658 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
5	CE	105	ILE
15	CO	17	ARG
45	DX	4	VAL
6	CF	63	ASN
5	CE	101	GLU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 37 such sidechains are listed below:

Mol	Chain	Res	Type
29	DH	28	ASN
48	D0	19	HIS
29	DH	128	HIS
42	DU	74	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
39	BR	89	HIS

5.3.3 RNA [i](#)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1537/1539 (99%)	321 (20%)	13 (0%)
1	CA	1538/1539 (99%)	312 (20%)	8 (0%)
22	BA	2895/2903 (99%)	513 (17%)	22 (0%)
22	DA	2895/2903 (99%)	635 (21%)	23 (0%)
23	BB	118/119 (99%)	18 (15%)	0
23	DB	117/119 (98%)	22 (18%)	0
All	All	9100/9122 (99%)	1821 (20%)	66 (0%)

5 of 1821 RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	4	U
1	AA	5	U
1	AA	6	G
1	AA	9	G
1	AA	13	U

5 of 66 RNA pucker outliers are listed below:

Mol	Chain	Res	Type
22	DA	2162	G
22	DA	2225	A
22	DA	2873	A
22	BA	1344	U
22	BA	1180	U

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

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

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry

Of 502 ligands modelled in this entry, 500 are monoatomic - leaving 2 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
55	VIR	DA	3001	-	34,40,40	3.42	12 (35%)	36,55,55	3.29	14 (38%)
55	VIR	BA	3001	-	34,40,40	3.45	12 (35%)	36,55,55	3.55	19 (52%)

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
55	VIR	DA	3001	-	-	17/42/58/58	0/2/3/3
55	VIR	BA	3001	-	-	15/42/58/58	0/2/3/3

The worst 5 of 24 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
55	BA	3001	VIR	C28-C29	9.76	1.55	1.32
55	DA	3001	VIR	C28-C29	9.47	1.54	1.32
55	BA	3001	VIR	C22-C23	9.35	1.56	1.32
55	DA	3001	VIR	C22-C23	9.13	1.55	1.32
55	DA	3001	VIR	C26-N25	6.85	1.49	1.34

The worst 5 of 33 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
55	DA	3001	VIR	C23-C22-C20	-9.51	111.52	125.89
55	BA	3001	VIR	C23-C22-C20	-8.91	112.42	125.89
55	BA	3001	VIR	O36-C37-C1	7.69	119.90	110.53
55	BA	3001	VIR	C37-C1-N5	-7.46	113.59	123.15
55	DA	3001	VIR	O36-C37-C1	7.40	119.54	110.53

There are no chirality outliers.

5 of 32 torsion outliers are listed below:

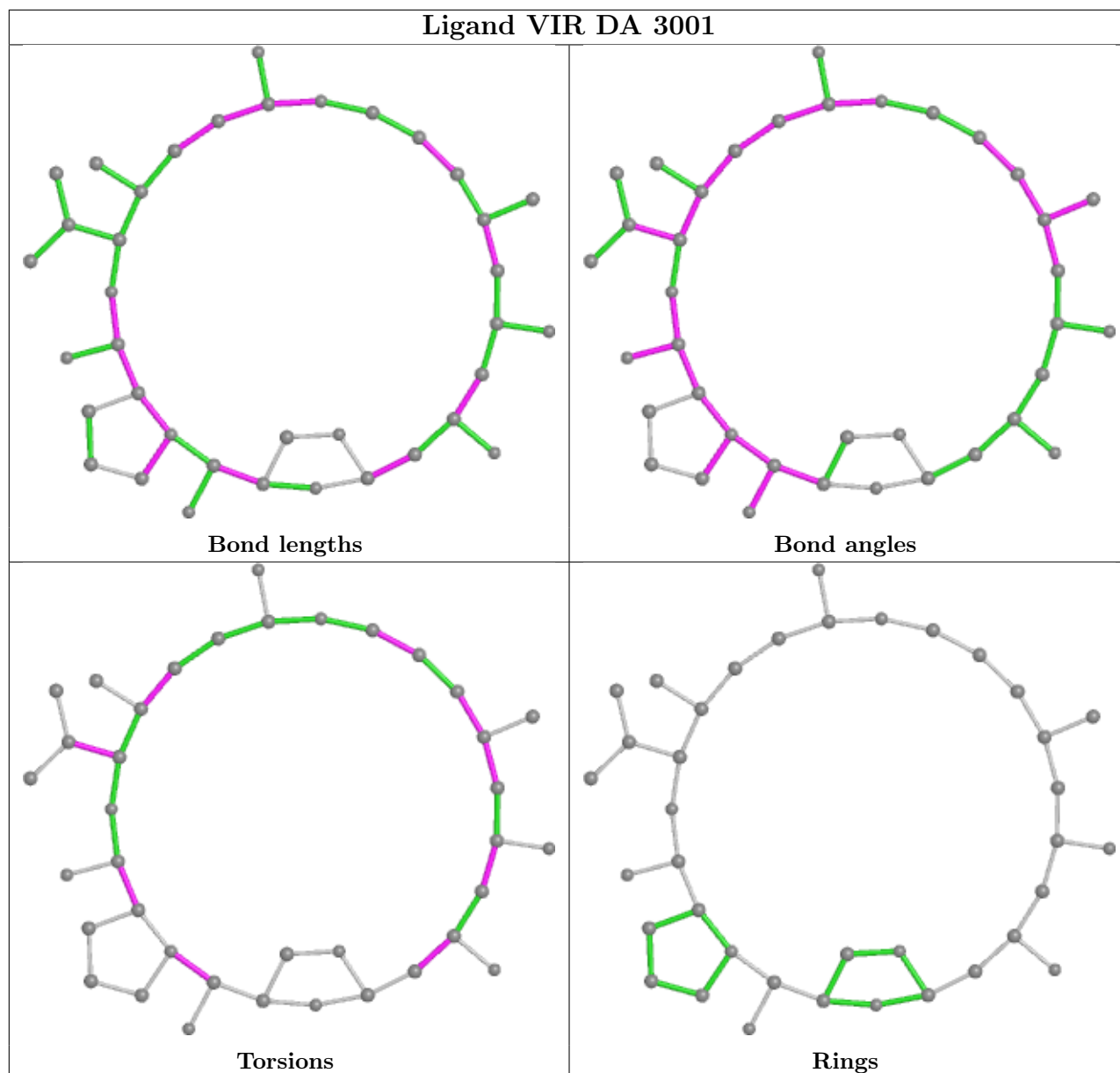
Mol	Chain	Res	Type	Atoms
55	BA	3001	VIR	C2-C1-C37-O36
55	BA	3001	VIR	C17-C19-C20-C21
55	BA	3001	VIR	C20-C22-C23-C24
55	BA	3001	VIR	O7-C6-N5-C4
55	DA	3001	VIR	C17-C19-C20-C21

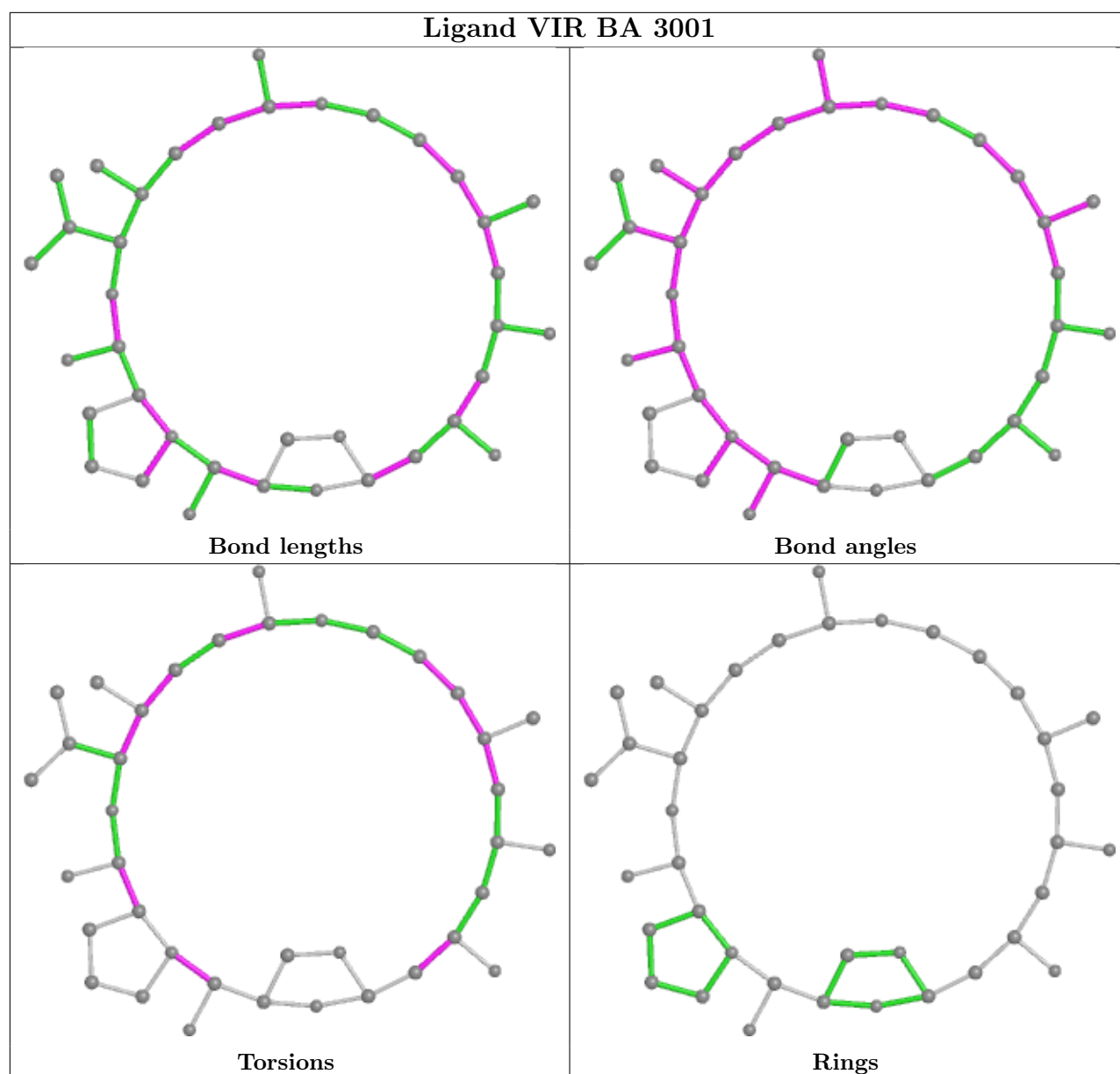
There are no ring outliers.

2 monomers are involved in 20 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
55	DA	3001	VIR	15	0
55	BA	3001	VIR	5	0

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





5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data [i](#)

6.1 Protein, DNA and RNA chains [i](#)

In the following table, the column labelled '#RSRZ > 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95th 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	1538/1539 (99%)	-0.15	26 (1%) 70 69	12, 51, 134, 181	0
1	CA	1539/1539 (100%)	0.17	68 (4%) 34 30	25, 70, 145, 177	0
2	AB	218/218 (100%)	1.00	31 (14%) 2 2	38, 75, 100, 123	0
2	CB	218/218 (100%)	1.22	58 (26%) 0 0	61, 87, 107, 126	0
3	AC	206/206 (100%)	0.25	11 (5%) 26 22	35, 57, 78, 93	0
3	CC	206/206 (100%)	1.62	78 (37%) 0 0	51, 80, 95, 105	0
4	AD	205/205 (100%)	0.32	6 (2%) 51 47	33, 56, 78, 104	0
4	CD	205/205 (100%)	0.02	6 (2%) 51 47	17, 38, 63, 87	0
5	AE	150/150 (100%)	0.08	2 (1%) 77 77	32, 48, 79, 101	0
5	CE	150/150 (100%)	0.25	5 (3%) 46 41	30, 56, 82, 103	0
6	AF	100/100 (100%)	-0.11	1 (1%) 82 82	34, 57, 73, 87	0
6	CF	100/100 (100%)	0.30	6 (6%) 21 18	45, 74, 94, 105	0
7	AG	151/151 (100%)	0.63	15 (9%) 7 5	54, 77, 96, 102	0
7	CG	151/151 (100%)	2.65	85 (56%) 0 0	82, 101, 110, 115	0
8	AH	129/129 (100%)	0.19	1 (0%) 86 86	31, 49, 66, 75	0
8	CH	129/129 (100%)	0.45	7 (5%) 25 22	50, 65, 81, 92	0
9	AI	127/127 (100%)	0.99	23 (18%) 1 1	44, 74, 96, 110	0
9	CI	127/127 (100%)	2.15	55 (43%) 0 0	73, 94, 111, 122	0
10	AJ	98/98 (100%)	0.71	12 (12%) 4 3	39, 66, 92, 122	0
10	CJ	98/98 (100%)	2.91	58 (59%) 0 0	71, 95, 111, 126	0
11	AK	117/117 (100%)	0.62	11 (9%) 8 6	26, 65, 92, 117	0
11	CK	117/117 (100%)	0.43	6 (5%) 28 24	38, 67, 80, 92	0
12	AL	123/123 (100%)	0.18	5 (4%) 37 32	21, 35, 64, 98	0
12	CL	123/123 (100%)	0.42	5 (4%) 37 32	36, 52, 78, 99	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	AM	114/114 (100%)	0.50	8 (7%) 16 12	48, 69, 94, 103	0
13	CM	114/114 (100%)	3.03	79 (69%) 0 0	97, 109, 118, 119	0
14	AN	96/100 (96%)	0.74	14 (14%) 2 1	41, 61, 94, 103	0
14	CN	96/100 (96%)	2.57	52 (54%) 0 0	70, 95, 113, 120	0
15	AO	88/88 (100%)	0.24	3 (3%) 45 40	28, 51, 65, 89	0
15	CO	88/88 (100%)	0.26	3 (3%) 45 40	40, 63, 81, 98	0
16	AP	82/82 (100%)	0.68	7 (8%) 10 8	33, 47, 85, 101	0
16	CP	82/82 (100%)	1.19	16 (19%) 1 0	44, 61, 89, 106	0
17	AQ	80/80 (100%)	0.28	4 (5%) 28 25	28, 52, 77, 122	0
17	CQ	80/80 (100%)	1.10	17 (21%) 0 0	44, 76, 98, 103	0
18	AR	55/55 (100%)	0.12	3 (5%) 25 21	39, 52, 79, 108	0
18	CR	55/55 (100%)	0.35	4 (7%) 15 11	39, 55, 79, 111	0
19	AS	79/79 (100%)	0.99	20 (25%) 0 0	54, 69, 89, 101	0
19	CS	79/79 (100%)	4.42	62 (78%) 0 0	90, 110, 119, 125	0
20	AT	85/85 (100%)	0.56	4 (4%) 31 28	35, 48, 71, 101	0
20	CT	85/85 (100%)	1.60	27 (31%) 0 0	55, 74, 92, 99	0
21	AU	51/51 (100%)	1.05	9 (17%) 1 1	46, 75, 97, 106	0
21	CU	51/51 (100%)	0.67	7 (13%) 3 2	45, 72, 97, 105	0
22	BA	2897/2903 (99%)	0.07	113 (3%) 39 35	1, 15, 131, 195	0
22	DA	2897/2903 (99%)	0.32	127 (4%) 34 30	40, 82, 146, 181	0
23	BB	119/119 (100%)	-0.36	0 100 100	3, 25, 52, 85	0
23	DB	118/119 (99%)	0.14	4 (3%) 45 40	67, 112, 133, 144	0
24	BC	271/271 (100%)	-0.16	3 (1%) 80 80	5, 21, 36, 54	0
24	DC	271/271 (100%)	0.70	27 (9%) 7 5	43, 62, 77, 90	0
25	BD	209/209 (100%)	-0.26	0 100 100	1, 11, 35, 68	0
25	DD	209/209 (100%)	1.00	41 (19%) 1 0	49, 68, 84, 96	0
26	BE	201/201 (100%)	-0.27	1 (0%) 91 91	1, 23, 53, 91	0
26	DE	201/201 (100%)	1.64	72 (35%) 0 0	46, 85, 102, 109	0
27	BF	177/177 (100%)	0.30	9 (5%) 28 24	24, 43, 77, 90	0
27	DF	177/177 (100%)	3.28	126 (71%) 0 0	91, 108, 120, 126	0
28	BG	176/176 (100%)	0.11	5 (2%) 53 49	17, 38, 62, 83	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
28	DG	176/176 (100%)	2.14	85 (48%) 0 0	72, 94, 106, 116	0
29	BH	149/149 (100%)	3.51	86 (57%) 0 0	25, 102, 121, 129	0
29	DH	149/149 (100%)	2.15	75 (50%) 0 0	25, 92, 107, 115	0
30	BI	141/141 (100%)	3.69	93 (65%) 0 0	90, 112, 122, 133	0
30	DI	141/141 (100%)	4.98	123 (87%) 0 0	102, 119, 129, 132	0
31	BJ	142/142 (100%)	-0.36	0 100 100	2, 7, 21, 37	0
31	DJ	142/142 (100%)	0.82	15 (10%) 6 4	50, 66, 79, 94	0
32	BK	122/122 (100%)	-0.36	0 100 100	4, 13, 32, 69	0
32	DK	122/122 (100%)	1.19	28 (22%) 0 0	47, 64, 83, 97	0
33	BL	143/143 (100%)	-0.20	0 100 100	1, 18, 44, 73	0
33	DL	143/143 (100%)	1.76	49 (34%) 0 0	46, 80, 95, 115	0
34	BM	136/136 (100%)	-0.31	0 100 100	2, 11, 31, 83	0
34	DM	136/136 (100%)	1.03	27 (19%) 1 0	42, 69, 82, 101	0
35	BN	120/120 (100%)	-0.34	0 100 100	3, 8, 19, 53	0
35	DN	120/120 (100%)	1.42	29 (24%) 0 0	56, 76, 89, 116	0
36	BO	116/116 (100%)	-0.18	0 100 100	12, 27, 45, 52	0
36	DO	116/116 (100%)	2.47	67 (57%) 0 0	81, 95, 105, 115	0
37	BP	114/114 (100%)	-0.30	0 100 100	7, 18, 43, 66	0
37	DP	114/114 (100%)	0.94	19 (16%) 1 1	58, 70, 85, 93	0
38	BQ	117/117 (100%)	-0.26	0 100 100	1, 4, 15, 30	0
38	DQ	117/117 (100%)	0.95	15 (12%) 3 2	54, 67, 79, 83	0
39	BR	103/103 (100%)	-0.35	0 100 100	1, 13, 33, 67	0
39	DR	103/103 (100%)	1.47	31 (30%) 0 0	52, 78, 88, 99	0
40	BS	110/110 (100%)	-0.29	0 100 100	1, 5, 24, 79	0
40	DS	110/110 (100%)	1.87	46 (41%) 0 0	57, 75, 89, 101	0
41	BT	93/93 (100%)	0.22	4 (4%) 35 31	8, 26, 75, 104	0
41	DT	93/93 (100%)	2.65	49 (52%) 0 0	68, 87, 103, 119	0
42	BU	102/102 (100%)	-0.20	2 (1%) 65 63	14, 29, 63, 92	0
42	DU	102/102 (100%)	3.29	64 (62%) 0 0	75, 92, 111, 120	0
43	BV	94/94 (100%)	-0.22	0 100 100	6, 20, 41, 55	0
43	DV	94/94 (100%)	0.88	15 (15%) 1 1	70, 85, 96, 104	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
44	BW	76/76 (100%)	-0.15	1 (1%) 77 77	7, 13, 29, 53	0
44	DW	75/76 (98%)	1.78	27 (36%) 0 0	61, 80, 90, 104	0
45	BX	77/77 (100%)	-0.27	0 100 100	7, 23, 51, 72	0
45	DX	77/77 (100%)	0.91	12 (15%) 2 1	52, 70, 84, 88	0
46	BY	63/63 (100%)	0.15	3 (4%) 30 27	21, 39, 72, 94	0
46	DY	63/63 (100%)	1.57	23 (36%) 0 0	78, 95, 102, 106	0
47	BZ	58/58 (100%)	-0.21	0 100 100	1, 8, 24, 41	0
47	DZ	58/58 (100%)	0.72	7 (12%) 4 3	58, 71, 82, 95	0
48	B0	56/56 (100%)	-0.30	0 100 100	1, 12, 36, 69	0
48	D0	56/56 (100%)	1.49	17 (30%) 0 0	58, 79, 92, 102	0
49	B1	50/50 (100%)	-0.05	2 (4%) 38 33	18, 29, 48, 76	0
49	D1	50/50 (100%)	1.43	13 (26%) 0 0	70, 86, 94, 105	0
50	B2	46/46 (100%)	-0.20	1 (2%) 62 59	4, 9, 15, 86	0
50	D2	46/46 (100%)	1.96	19 (41%) 0 0	55, 69, 80, 102	0
51	B3	64/64 (100%)	-0.18	0 100 100	5, 10, 20, 33	0
51	D3	64/64 (100%)	1.37	18 (28%) 0 0	58, 71, 79, 82	0
52	B4	38/38 (100%)	-0.05	0 100 100	8, 18, 37, 53	0
52	D4	38/38 (100%)	2.10	18 (47%) 0 0	59, 75, 87, 101	0
53	B5	191/228 (83%)	6.79	184 (96%) 0 0	101, 117, 128, 136	0
All	All	20734/20794 (99%)	0.63	2715 (13%) 3 2	1, 63, 121, 195	0

The worst 5 of 2715 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
30	DI	2	ALA	27.5
53	B5	208	THR	23.4
53	B5	207	GLY	21.7
53	B5	111	PHE	20.1
22	BA	2184	A	17.7

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

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

6.3 Carbohydrates [i](#)

There are no monosaccharides in this entry.

6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 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
54	MG	DA	3134	1/1	-0.06	1.03	105,105,105,105	0
54	MG	DA	3045	1/1	0.12	0.40	102,102,102,102	0
54	MG	DA	3027	1/1	0.24	1.06	98,98,98,98	0
54	MG	DA	3136	1/1	0.25	0.50	90,90,90,90	0
54	MG	CA	1611	1/1	0.26	0.21	85,85,85,85	0
54	MG	DA	3078	1/1	0.30	0.37	89,89,89,89	0
54	MG	CA	1630	1/1	0.32	0.49	111,111,111,111	0
54	MG	AA	1659	1/1	0.33	2.11	77,77,77,77	0
54	MG	DA	3114	1/1	0.34	0.79	85,85,85,85	0
54	MG	DA	3093	1/1	0.36	0.60	108,108,108,108	0
54	MG	CA	1636	1/1	0.36	0.23	118,118,118,118	0
54	MG	DA	3005	1/1	0.38	0.36	96,96,96,96	0
54	MG	AA	1667	1/1	0.39	1.40	66,66,66,66	0
54	MG	DA	3057	1/1	0.41	0.31	87,87,87,87	0
54	MG	CA	1656	1/1	0.43	0.55	55,55,55,55	0
54	MG	CA	1646	1/1	0.43	0.35	66,66,66,66	0
54	MG	AA	1614	1/1	0.47	0.14	66,66,66,66	0
54	MG	DA	3148	1/1	0.47	0.45	58,58,58,58	0
54	MG	DA	3061	1/1	0.48	0.54	85,85,85,85	0
54	MG	DA	3062	1/1	0.49	2.55	110,110,110,110	0
54	MG	DA	3096	1/1	0.51	0.33	86,86,86,86	0
54	MG	BA	3048	1/1	0.55	0.15	50,50,50,50	0
54	MG	DA	3017	1/1	0.57	0.49	90,90,90,90	0
54	MG	DA	3149	1/1	0.57	0.24	63,63,63,63	0
54	MG	DA	3101	1/1	0.58	0.21	81,81,81,81	0
54	MG	BA	3077	1/1	0.59	0.64	74,74,74,74	0
54	MG	CA	1641	1/1	0.59	0.38	69,69,69,69	0
54	MG	DA	3063	1/1	0.62	0.61	95,95,95,95	0
54	MG	DA	3094	1/1	0.63	0.51	101,101,101,101	0
54	MG	CA	1638	1/1	0.65	0.21	83,83,83,83	0
54	MG	CA	1633	1/1	0.65	0.30	81,81,81,81	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
54	MG	DA	3071	1/1	0.66	0.11	97,97,97,97	0
54	MG	DA	3128	1/1	0.67	0.11	67,67,67,67	0
54	MG	DQ	201	1/1	0.67	0.33	53,53,53,53	0
54	MG	CA	1605	1/1	0.68	0.30	91,91,91,91	0
54	MG	DA	3159	1/1	0.68	0.14	68,68,68,68	0
54	MG	DA	3059	1/1	0.68	0.41	79,79,79,79	0
54	MG	DA	3014	1/1	0.69	0.19	80,80,80,80	0
54	MG	DA	3072	1/1	0.70	0.27	81,81,81,81	0
54	MG	CA	1621	1/1	0.70	0.09	69,69,69,69	0
54	MG	DA	3008	1/1	0.71	0.42	104,104,104,104	0
54	MG	DA	3132	1/1	0.71	0.86	93,93,93,93	0
54	MG	CA	1602	1/1	0.71	0.08	79,79,79,79	0
54	MG	CA	1635	1/1	0.71	0.20	123,123,123,123	0
54	MG	DA	3041	1/1	0.72	0.15	89,89,89,89	0
54	MG	CA	1644	1/1	0.72	0.38	54,54,54,54	0
54	MG	AA	1644	1/1	0.72	0.23	50,50,50,50	0
54	MG	DA	3121	1/1	0.72	0.16	83,83,83,83	0
54	MG	BA	3058	1/1	0.73	0.50	50,50,50,50	0
54	MG	AA	1634	1/1	0.73	0.38	74,74,74,74	0
54	MG	AA	1657	1/1	0.74	0.49	68,68,68,68	0
54	MG	AA	1637	1/1	0.74	0.08	79,79,79,79	0
54	MG	CA	1628	1/1	0.74	0.17	99,99,99,99	0
54	MG	DA	3099	1/1	0.74	0.12	62,62,62,62	0
54	MG	CA	1629	1/1	0.74	0.12	85,85,85,85	0
54	MG	DA	3100	1/1	0.75	0.41	83,83,83,83	0
54	MG	DA	3080	1/1	0.75	0.07	99,99,99,99	0
54	MG	DA	3030	1/1	0.75	0.13	70,70,70,70	0
54	MG	BA	3081	1/1	0.75	0.11	19,19,19,19	0
54	MG	DA	3042	1/1	0.75	0.39	64,64,64,64	0
54	MG	CA	1650	1/1	0.75	0.19	46,46,46,46	0
54	MG	DA	3046	1/1	0.76	0.12	78,78,78,78	0
54	MG	CA	1609	1/1	0.76	0.13	82,82,82,82	0
54	MG	AA	1671	1/1	0.76	0.90	56,56,56,56	0
54	MG	CA	1615	1/1	0.76	0.14	57,57,57,57	0
54	MG	DA	3113	1/1	0.76	0.28	74,74,74,74	0
54	MG	DA	3043	1/1	0.76	0.18	84,84,84,84	0
54	MG	DA	3120	1/1	0.76	0.58	102,102,102,102	0
54	MG	DA	3028	1/1	0.76	0.15	87,87,87,87	0
54	MG	DA	3125	1/1	0.77	0.58	92,92,92,92	0
54	MG	DA	3070	1/1	0.77	0.13	82,82,82,82	0
54	MG	DA	3016	1/1	0.77	0.34	75,75,75,75	0
54	MG	DA	3036	1/1	0.77	0.15	78,78,78,78	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
54	MG	DA	3075	1/1	0.77	0.13	64,64,64,64	0
54	MG	BA	3026	1/1	0.77	0.22	35,35,35,35	0
54	MG	DA	3025	1/1	0.77	0.18	54,54,54,54	0
54	MG	BA	3037	1/1	0.77	0.13	26,26,26,26	0
54	MG	CA	1622	1/1	0.77	0.10	50,50,50,50	0
54	MG	BA	3016	1/1	0.78	0.53	65,65,65,65	0
54	MG	DA	3097	1/1	0.78	0.07	62,62,62,62	0
54	MG	DA	3009	1/1	0.78	0.40	82,82,82,82	0
54	MG	CA	1631	1/1	0.78	0.22	97,97,97,97	0
54	MG	DA	3047	1/1	0.78	0.14	78,78,78,78	0
54	MG	DA	3087	1/1	0.78	0.12	70,70,70,70	0
54	MG	DA	3089	1/1	0.78	0.10	77,77,77,77	0
54	MG	DA	3049	1/1	0.78	0.21	108,108,108,108	0
54	MG	AA	1635	1/1	0.78	0.27	53,53,53,53	0
54	MG	AA	1629	1/1	0.79	0.11	65,65,65,65	0
54	MG	DA	3012	1/1	0.79	0.14	74,74,74,74	0
54	MG	DA	3020	1/1	0.79	0.26	87,87,87,87	0
54	MG	DA	3104	1/1	0.79	0.15	67,67,67,67	0
54	MG	DA	3110	1/1	0.79	0.29	46,46,46,46	0
54	MG	AA	1643	1/1	0.79	1.29	61,61,61,61	0
54	MG	DA	3018	1/1	0.80	0.11	59,59,59,59	0
54	MG	DA	3137	1/1	0.80	0.11	88,88,88,88	0
54	MG	DA	3141	1/1	0.80	0.37	40,40,40,40	0
54	MG	DA	3127	1/1	0.80	0.24	81,81,81,81	0
54	MG	BA	3099	1/1	0.80	0.28	55,55,55,55	0
54	MG	DA	3076	1/1	0.80	0.10	65,65,65,65	0
54	MG	AA	1648	1/1	0.80	0.38	49,49,49,49	0
54	MG	D2	101	1/1	0.80	0.22	78,78,78,78	0
54	MG	DA	3029	1/1	0.81	0.37	74,74,74,74	0
54	MG	BA	3085	1/1	0.81	0.21	30,30,30,30	0
54	MG	DA	3158	1/1	0.81	0.25	56,56,56,56	0
54	MG	CA	1637	1/1	0.81	0.15	66,66,66,66	0
54	MG	DB	201	1/1	0.81	0.12	101,101,101,101	0
54	MG	AA	1623	1/1	0.81	0.11	39,39,39,39	0
54	MG	BA	3041	1/1	0.81	0.37	2,2,2,2	0
54	MG	CA	1624	1/1	0.82	0.08	49,49,49,49	0
54	MG	DA	3074	1/1	0.82	0.29	66,66,66,66	0
54	MG	DA	3103	1/1	0.82	0.14	77,77,77,77	0
54	MG	DA	3162	1/1	0.82	0.26	67,67,67,67	0
54	MG	DA	3164	1/1	0.82	0.67	67,67,67,67	0
54	MG	DA	3084	1/1	0.82	0.11	68,68,68,68	0
54	MG	CA	1649	1/1	0.82	0.11	68,68,68,68	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
54	MG	BA	3134	1/1	0.82	0.34	47,47,47,47	0
54	MG	BA	3063	1/1	0.83	0.17	9,9,9,9	0
54	MG	BA	3124	1/1	0.83	0.15	18,18,18,18	0
54	MG	DA	3146	1/1	0.83	0.21	62,62,62,62	0
54	MG	AA	1651	1/1	0.83	0.36	52,52,52,52	0
54	MG	BA	3154	1/1	0.83	0.63	33,33,33,33	0
54	MG	DA	3153	1/1	0.83	0.34	61,61,61,61	0
54	MG	BA	3053	1/1	0.83	0.12	8,8,8,8	0
54	MG	DA	3033	1/1	0.83	0.25	76,76,76,76	0
54	MG	DA	3161	1/1	0.83	0.21	35,35,35,35	0
54	MG	BA	3083	1/1	0.83	0.14	23,23,23,23	0
54	MG	AA	1661	1/1	0.83	0.44	43,43,43,43	0
54	MG	DA	3133	1/1	0.83	0.34	72,72,72,72	0
54	MG	DA	3007	1/1	0.83	0.20	104,104,104,104	0
54	MG	DA	3024	1/1	0.83	0.07	65,65,65,65	0
54	MG	BA	3167	1/1	0.84	0.20	35,35,35,35	0
54	MG	BA	3089	1/1	0.84	0.15	28,28,28,28	0
54	MG	DA	3157	1/1	0.84	0.22	49,49,49,49	0
54	MG	AA	1619	1/1	0.84	0.07	61,61,61,61	0
54	MG	CA	1608	1/1	0.84	0.11	61,61,61,61	0
54	MG	DA	3003	1/1	0.84	0.49	95,95,95,95	0
54	MG	BA	3074	1/1	0.84	0.17	22,22,22,22	0
54	MG	DA	3073	1/1	0.84	0.20	74,74,74,74	0
54	MG	DA	3054	1/1	0.84	0.12	36,36,36,36	0
54	MG	BA	3084	1/1	0.84	0.23	41,41,41,41	0
54	MG	AA	1646	1/1	0.84	0.28	53,53,53,53	0
54	MG	BA	3120	1/1	0.85	0.19	39,39,39,39	0
54	MG	DA	3050	1/1	0.85	0.31	89,89,89,89	0
54	MG	CA	1606	1/1	0.85	0.09	68,68,68,68	0
54	MG	AA	1605	1/1	0.85	0.15	28,28,28,28	0
54	MG	CA	1655	1/1	0.85	0.12	44,44,44,44	0
54	MG	BA	3174	1/1	0.85	0.17	21,21,21,21	0
54	MG	DB	202	1/1	0.85	0.13	61,61,61,61	0
54	MG	AA	1602	1/1	0.85	0.31	55,55,55,55	0
54	MG	DA	3048	1/1	0.85	0.13	61,61,61,61	0
54	MG	CA	1617	1/1	0.86	0.11	36,36,36,36	0
54	MG	CA	1618	1/1	0.86	0.15	38,38,38,38	0
54	MG	DA	3085	1/1	0.86	0.16	83,83,83,83	0
54	MG	CA	1619	1/1	0.86	0.11	41,41,41,41	0
54	MG	BA	3059	1/1	0.86	0.06	17,17,17,17	0
54	MG	DA	3160	1/1	0.86	0.19	44,44,44,44	0
54	MG	DA	3107	1/1	0.86	0.11	51,51,51,51	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
54	MG	DA	3109	1/1	0.86	0.17	48,48,48,48	0
54	MG	BA	3043	1/1	0.86	0.15	2,2,2,2	0
54	MG	DA	3112	1/1	0.86	0.13	73,73,73,73	0
54	MG	BA	3056	1/1	0.86	0.40	53,53,53,53	0
54	MG	AA	1610	1/1	0.86	0.29	69,69,69,69	0
54	MG	BA	3088	1/1	0.86	0.12	35,35,35,35	0
54	MG	DA	3064	1/1	0.87	0.12	47,47,47,47	0
54	MG	AA	1660	1/1	0.87	0.14	51,51,51,51	0
54	MG	DA	3111	1/1	0.87	0.19	41,41,41,41	0
54	MG	DA	3142	1/1	0.87	0.24	41,41,41,41	0
54	MG	BA	3166	1/1	0.87	0.25	40,40,40,40	0
54	MG	DA	3163	1/1	0.87	0.27	59,59,59,59	0
54	MG	DA	3129	1/1	0.87	0.11	81,81,81,81	0
54	MG	CA	1614	1/1	0.87	0.09	48,48,48,48	0
54	MG	BA	3125	1/1	0.87	0.39	36,36,36,36	0
54	MG	DA	3156	1/1	0.87	0.25	64,64,64,64	0
54	MG	BA	3055	1/1	0.87	0.13	13,13,13,13	0
54	MG	AA	1639	1/1	0.88	0.09	53,53,53,53	0
54	MG	BA	3095	1/1	0.88	0.12	30,30,30,30	0
54	MG	BA	3024	1/1	0.88	0.15	1,1,1,1	0
54	MG	DA	3117	1/1	0.88	0.46	73,73,73,73	0
54	MG	DA	3138	1/1	0.88	0.61	46,46,46,46	0
54	MG	AA	1665	1/1	0.88	0.24	37,37,37,37	0
54	MG	DA	3058	1/1	0.88	0.13	75,75,75,75	0
54	MG	DA	3106	1/1	0.88	0.19	73,73,73,73	0
54	MG	DA	3002	1/1	0.88	0.19	64,64,64,64	0
54	MG	AN	201	1/1	0.88	0.18	60,60,60,60	0
54	MG	DA	3004	1/1	0.88	0.09	69,69,69,69	0
54	MG	CA	1627	1/1	0.88	0.18	80,80,80,80	0
54	MG	BA	3114	1/1	0.89	0.17	0,0,0,0	0
54	MG	DA	3006	1/1	0.89	0.07	99,99,99,99	0
54	MG	DA	3037	1/1	0.89	0.14	59,59,59,59	0
54	MG	AA	1631	1/1	0.89	0.12	47,47,47,47	0
54	MG	AA	1666	1/1	0.89	0.27	43,43,43,43	0
54	MG	AA	1652	1/1	0.89	0.15	55,55,55,55	0
54	MG	BA	3080	1/1	0.89	0.13	22,22,22,22	0
54	MG	BA	3150	1/1	0.89	0.22	41,41,41,41	0
54	MG	DA	3150	1/1	0.89	0.23	42,42,42,42	0
54	MG	DA	3152	1/1	0.89	0.27	60,60,60,60	0
54	MG	CA	1642	1/1	0.89	0.20	26,26,26,26	0
54	MG	AA	1620	1/1	0.89	0.07	37,37,37,37	0
54	MG	BA	3160	1/1	0.89	0.19	21,21,21,21	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
54	MG	BA	3045	1/1	0.89	0.12	20,20,20,20	0
54	MG	DA	3086	1/1	0.89	0.18	83,83,83,83	0
54	MG	AA	1618	1/1	0.89	0.40	54,54,54,54	0
54	MG	BA	3015	1/1	0.89	0.08	14,14,14,14	0
54	MG	DA	3091	1/1	0.89	0.08	78,78,78,78	0
54	MG	DA	3092	1/1	0.89	0.09	79,79,79,79	0
54	MG	DA	3026	1/1	0.89	0.20	67,67,67,67	0
54	MG	DA	3167	1/1	0.89	0.14	47,47,47,47	0
54	MG	AA	1601	1/1	0.89	0.14	56,56,56,56	0
54	MG	BA	3017	1/1	0.89	0.18	24,24,24,24	0
54	MG	BA	3020	1/1	0.89	0.21	2,2,2,2	0
54	MG	AA	1638	1/1	0.89	0.08	61,61,61,61	0
54	MG	DA	3135	1/1	0.90	0.12	54,54,54,54	0
54	MG	AA	1640	1/1	0.90	0.14	21,21,21,21	0
54	MG	BA	3003	1/1	0.90	0.09	23,23,23,23	0
54	MG	DA	3034	1/1	0.90	0.06	64,64,64,64	0
54	MG	BA	3060	1/1	0.90	0.13	19,19,19,19	0
54	MG	AA	1632	1/1	0.90	0.10	39,39,39,39	0
54	MG	DA	3145	1/1	0.90	0.09	80,80,80,80	0
54	MG	DA	3039	1/1	0.90	0.12	65,65,65,65	0
54	MG	BA	3187	1/1	0.90	0.11	30,30,30,30	0
54	MG	CA	1639	1/1	0.90	0.11	52,52,52,52	0
54	MG	DA	3011	1/1	0.90	0.13	57,57,57,57	0
54	MG	BA	3189	1/1	0.90	0.26	38,38,38,38	0
54	MG	DA	3079	1/1	0.90	0.07	96,96,96,96	0
54	MG	BA	3190	1/1	0.90	0.21	43,43,43,43	0
54	MG	CA	1623	1/1	0.90	0.14	45,45,45,45	0
54	MG	DA	3116	1/1	0.90	0.20	95,95,95,95	0
54	MG	BA	3032	1/1	0.90	0.09	6,6,6,6	0
54	MG	CA	1626	1/1	0.90	0.11	52,52,52,52	0
54	MG	AA	1670	1/1	0.90	0.39	40,40,40,40	0
54	MG	DA	3124	1/1	0.90	0.11	54,54,54,54	0
54	MG	CA	1651	1/1	0.90	0.38	50,50,50,50	0
54	MG	DA	3055	1/1	0.90	0.10	50,50,50,50	0
54	MG	CA	1654	1/1	0.90	0.15	56,56,56,56	0
54	MG	BA	3136	1/1	0.90	0.13	39,39,39,39	0
54	MG	BA	3092	1/1	0.90	0.06	53,53,53,53	0
54	MG	AA	1626	1/1	0.90	0.28	56,56,56,56	0
54	MG	BA	3159	1/1	0.90	0.15	21,21,21,21	0
54	MG	BA	3171	1/1	0.91	0.14	16,16,16,16	0
54	MG	AA	1668	1/1	0.91	0.07	36,36,36,36	0
54	MG	DA	3139	1/1	0.91	0.42	49,49,49,49	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
54	MG	AA	1669	1/1	0.91	0.20	56,56,56,56	0
54	MG	BA	3062	1/1	0.91	0.55	52,52,52,52	0
54	MG	BA	3004	1/1	0.91	0.13	27,27,27,27	0
54	MG	DA	3013	1/1	0.91	0.13	45,45,45,45	0
54	MG	CA	1645	1/1	0.91	0.16	42,42,42,42	0
54	MG	BA	3191	1/1	0.91	0.25	22,22,22,22	0
54	MG	CA	1648	1/1	0.91	0.20	25,25,25,25	0
54	MG	CA	1625	1/1	0.91	0.14	22,22,22,22	0
54	MG	DA	3082	1/1	0.91	0.09	62,62,62,62	0
54	MG	CA	1601	1/1	0.91	0.12	35,35,35,35	0
54	MG	BA	3005	1/1	0.91	0.06	45,45,45,45	0
54	MG	BA	3145	1/1	0.91	0.61	37,37,37,37	0
54	MG	BA	3008	1/1	0.91	0.11	32,32,32,32	0
54	MG	BA	3079	1/1	0.91	0.05	41,41,41,41	0
54	MG	BA	3157	1/1	0.91	0.20	20,20,20,20	0
54	MG	AA	1616	1/1	0.91	0.12	47,47,47,47	0
54	MG	BA	3103	1/1	0.91	0.11	8,8,8,8	0
54	MG	DA	3032	1/1	0.91	0.12	61,61,61,61	0
54	MG	DA	3165	1/1	0.91	0.21	56,56,56,56	0
54	MG	DA	3095	1/1	0.91	0.26	84,84,84,84	0
54	MG	BA	3104	1/1	0.91	0.09	12,12,12,12	0
54	MG	AA	1604	1/1	0.91	0.05	55,55,55,55	0
54	MG	DA	3065	1/1	0.91	0.19	49,49,49,49	0
54	MG	DA	3066	1/1	0.91	0.10	32,32,32,32	0
54	MG	BA	3141	1/1	0.92	0.13	22,22,22,22	0
54	MG	CA	1604	1/1	0.92	0.12	88,88,88,88	0
54	MG	BA	3168	1/1	0.92	0.22	19,19,19,19	0
54	MG	DA	3115	1/1	0.92	0.11	48,48,48,48	0
54	MG	DA	3038	1/1	0.92	0.04	77,77,77,77	0
54	MG	BA	3116	1/1	0.92	0.15	48,48,48,48	0
54	MG	DA	3118	1/1	0.92	0.07	71,71,71,71	0
54	MG	DA	3119	1/1	0.92	0.07	50,50,50,50	0
54	MG	AA	1663	1/1	0.92	0.25	33,33,33,33	0
54	MG	AA	1664	1/1	0.92	0.15	51,51,51,51	0
54	MG	DA	3060	1/1	0.92	0.12	41,41,41,41	0
54	MG	AA	1628	1/1	0.92	0.12	53,53,53,53	0
54	MG	DA	3044	1/1	0.92	0.08	57,57,57,57	0
54	MG	DA	3102	1/1	0.92	0.07	64,64,64,64	0
54	MG	AA	1607	1/1	0.92	0.07	51,51,51,51	0
54	MG	DA	3131	1/1	0.92	0.13	69,69,69,69	0
54	MG	BA	3028	1/1	0.92	0.11	16,16,16,16	0
54	MG	DA	3105	1/1	0.92	0.07	67,67,67,67	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
54	MG	BB	201	1/1	0.92	0.09	36,36,36,36	0
54	MG	BA	3137	1/1	0.92	0.28	60,60,60,60	0
54	MG	DA	3108	1/1	0.92	0.08	74,74,74,74	0
54	MG	DA	3068	1/1	0.92	0.08	51,51,51,51	0
54	MG	DB	203	1/1	0.92	0.08	79,79,79,79	0
54	MG	DA	3088	1/1	0.92	0.03	61,61,61,61	0
54	MG	DA	3069	1/1	0.92	0.17	53,53,53,53	0
55	VIR	DA	3001	38/38	0.92	0.28	27,39,47,53	0
54	MG	BA	3031	1/1	0.93	0.14	3,3,3,3	0
54	MG	DA	3040	1/1	0.93	0.21	57,57,57,57	0
54	MG	BA	3135	1/1	0.93	0.13	1,1,1,1	0
54	MG	AA	1612	1/1	0.93	0.12	43,43,43,43	0
54	MG	CA	1653	1/1	0.93	0.06	40,40,40,40	0
54	MG	DA	3019	1/1	0.93	0.20	84,84,84,84	0
54	MG	BA	3173	1/1	0.93	0.14	33,33,33,33	0
54	MG	CA	1632	1/1	0.93	0.24	77,77,77,77	0
54	MG	AA	1630	1/1	0.93	0.17	53,53,53,53	0
54	MG	DA	3126	1/1	0.93	0.15	57,57,57,57	0
54	MG	BA	3119	1/1	0.93	0.07	12,12,12,12	0
54	MG	AA	1650	1/1	0.93	0.20	42,42,42,42	0
54	MG	BA	3122	1/1	0.93	0.09	26,26,26,26	0
54	MG	DA	3051	1/1	0.93	0.07	60,60,60,60	0
54	MG	BA	3123	1/1	0.93	0.19	0,0,0,0	0
54	MG	BA	3193	1/1	0.93	0.18	34,34,34,34	0
54	MG	DA	3081	1/1	0.93	0.11	83,83,83,83	0
54	MG	DA	3031	1/1	0.93	0.24	65,65,65,65	0
54	MG	BA	3155	1/1	0.93	0.30	18,18,18,18	0
54	MG	BB	203	1/1	0.93	0.07	11,11,11,11	0
54	MG	AA	1658	1/1	0.93	0.67	65,65,65,65	0
54	MG	BA	3044	1/1	0.93	0.07	21,21,21,21	0
54	MG	BA	3132	1/1	0.93	0.20	44,44,44,44	0
54	MG	BA	3133	1/1	0.93	0.13	27,27,27,27	0
54	MG	BA	3102	1/1	0.94	0.10	9,9,9,9	0
54	MG	BA	3177	1/1	0.94	0.52	37,37,37,37	0
54	MG	BA	3178	1/1	0.94	0.23	12,12,12,12	0
54	MG	BA	3009	1/1	0.94	0.16	3,3,3,3	0
54	MG	BA	3014	1/1	0.94	0.17	0,0,0,0	0
54	MG	BA	3109	1/1	0.94	0.19	1,1,1,1	0
54	MG	DA	3144	1/1	0.94	0.15	63,63,63,63	0
54	MG	BA	3111	1/1	0.94	0.08	24,24,24,24	0
54	MG	DA	3053	1/1	0.94	0.05	53,53,53,53	0
54	MG	DA	3147	1/1	0.94	0.08	51,51,51,51	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
54	MG	AA	1622	1/1	0.94	0.20	51,51,51,51	0
54	MG	DA	3083	1/1	0.94	0.07	54,54,54,54	0
54	MG	BA	3147	1/1	0.94	0.19	42,42,42,42	0
54	MG	DA	3056	1/1	0.94	0.09	61,61,61,61	0
54	MG	BA	3115	1/1	0.94	0.14	21,21,21,21	0
54	MG	DA	3154	1/1	0.94	0.23	42,42,42,42	0
54	MG	BD	301	1/1	0.94	0.11	34,34,34,34	0
54	MG	BA	3151	1/1	0.94	0.27	33,33,33,33	0
54	MG	BA	3047	1/1	0.94	0.13	4,4,4,4	0
54	MG	DA	3090	1/1	0.94	0.31	81,81,81,81	0
54	MG	AA	1609	1/1	0.94	0.07	46,46,46,46	0
54	MG	DA	3122	1/1	0.94	0.10	39,39,39,39	0
54	MG	AA	1649	1/1	0.94	0.13	26,26,26,26	0
54	MG	BA	3075	1/1	0.94	0.09	19,19,19,19	0
54	MG	BA	3076	1/1	0.94	0.14	12,12,12,12	0
54	MG	BA	3093	1/1	0.94	0.08	33,33,33,33	0
54	MG	DA	3010	1/1	0.94	0.09	71,71,71,71	0
54	MG	DA	3067	1/1	0.94	0.07	48,48,48,48	0
54	MG	CA	1610	1/1	0.94	0.10	63,63,63,63	0
54	MG	BA	3018	1/1	0.94	0.12	0,0,0,0	0
54	MG	BA	3127	1/1	0.94	0.16	9,9,9,9	0
54	MG	BA	3002	1/1	0.94	0.06	15,15,15,15	0
54	MG	BA	3100	1/1	0.94	0.08	8,8,8,8	0
54	MG	BA	3086	1/1	0.95	0.14	10,10,10,10	0
54	MG	BA	3182	1/1	0.95	0.15	21,21,21,21	0
54	MG	AA	1625	1/1	0.95	0.16	19,19,19,19	0
54	MG	BA	3188	1/1	0.95	0.12	6,6,6,6	0
54	MG	CA	1640	1/1	0.95	0.11	31,31,31,31	0
54	MG	BA	3101	1/1	0.95	0.10	5,5,5,5	0
54	MG	AA	1655	1/1	0.95	0.15	37,37,37,37	0
54	MG	BA	3162	1/1	0.95	0.12	32,32,32,32	0
54	MG	DA	3015	1/1	0.95	0.08	46,46,46,46	0
54	MG	BA	3163	1/1	0.95	0.16	29,29,29,29	0
54	MG	DA	3155	1/1	0.95	0.12	42,42,42,42	0
54	MG	DA	3098	1/1	0.95	0.19	71,71,71,71	0
54	MG	BA	3164	1/1	0.95	0.29	15,15,15,15	0
54	MG	CA	1647	1/1	0.95	0.10	42,42,42,42	0
54	MG	BB	202	1/1	0.95	0.07	8,8,8,8	0
54	MG	BA	3090	1/1	0.95	0.07	3,3,3,3	0
54	MG	BA	3049	1/1	0.95	0.07	11,11,11,11	0
54	MG	BA	3078	1/1	0.95	0.10	21,21,21,21	0
54	MG	BA	3169	1/1	0.95	0.10	24,24,24,24	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
54	MG	CA	1603	1/1	0.95	0.14	36,36,36,36	0
54	MG	AA	1603	1/1	0.95	0.16	49,49,49,49	0
54	MG	BA	3113	1/1	0.95	0.13	14,14,14,14	0
54	MG	BA	3131	1/1	0.95	0.18	2,2,2,2	0
54	MG	CA	1607	1/1	0.95	0.09	56,56,56,56	0
54	MG	BA	3176	1/1	0.95	0.07	17,17,17,17	0
54	MG	DA	3140	1/1	0.95	0.34	34,34,34,34	0
54	MG	CA	1634	1/1	0.95	0.10	50,50,50,50	0
54	MG	BA	3096	1/1	0.95	0.08	5,5,5,5	0
54	MG	BA	3108	1/1	0.96	0.15	9,9,9,9	0
54	MG	BA	3140	1/1	0.96	0.35	1,1,1,1	0
54	MG	BA	3180	1/1	0.96	0.13	31,31,31,31	0
54	MG	BA	3181	1/1	0.96	0.20	31,31,31,31	0
54	MG	AA	1654	1/1	0.96	0.21	42,42,42,42	0
54	MG	BA	3143	1/1	0.96	0.33	15,15,15,15	0
54	MG	BA	3110	1/1	0.96	0.20	2,2,2,2	0
54	MG	DA	3052	1/1	0.96	0.07	35,35,35,35	0
54	MG	BA	3146	1/1	0.96	0.19	6,6,6,6	0
54	MG	BA	3061	1/1	0.96	0.41	48,48,48,48	0
54	MG	BA	3025	1/1	0.96	0.12	3,3,3,3	0
54	MG	BA	3006	1/1	0.96	0.08	47,47,47,47	0
54	MG	BA	3152	1/1	0.96	0.10	14,14,14,14	0
54	MG	BA	3153	1/1	0.96	0.25	6,6,6,6	0
54	MG	BA	3069	1/1	0.96	0.15	7,7,7,7	0
54	MG	BA	3070	1/1	0.96	0.15	59,59,59,59	0
54	MG	BA	3156	1/1	0.96	0.17	21,21,21,21	0
54	MG	BA	3091	1/1	0.96	0.11	21,21,21,21	0
54	MG	DA	3021	1/1	0.96	0.19	56,56,56,56	0
54	MG	DA	3022	1/1	0.96	0.19	56,56,56,56	0
54	MG	DA	3151	1/1	0.96	0.08	45,45,45,45	0
54	MG	DA	3023	1/1	0.96	0.08	50,50,50,50	0
54	MG	BA	3158	1/1	0.96	0.15	16,16,16,16	0
54	MG	BA	3072	1/1	0.96	0.06	13,13,13,13	0
54	MG	BA	3121	1/1	0.96	0.09	4,4,4,4	0
54	MG	AA	1627	1/1	0.96	0.07	39,39,39,39	0
54	MG	CA	1643	1/1	0.96	0.19	56,56,56,56	0
54	MG	AA	1621	1/1	0.96	0.21	16,16,16,16	0
54	MG	AA	1653	1/1	0.96	0.18	21,21,21,21	0
54	MG	BA	3098	1/1	0.96	0.10	3,3,3,3	0
54	MG	BA	3051	1/1	0.96	0.12	4,4,4,4	0
54	MG	BA	3033	1/1	0.96	0.15	6,6,6,6	0
54	MG	CA	1613	1/1	0.96	0.16	15,15,15,15	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
54	MG	BA	3021	1/1	0.96	0.07	9,9,9,9	0
54	MG	BA	3040	1/1	0.96	0.15	0,0,0,0	0
54	MG	DA	3166	1/1	0.96	0.33	37,37,37,37	0
54	MG	CA	1652	1/1	0.96	0.07	65,65,65,65	0
54	MG	CA	1616	1/1	0.96	0.14	34,34,34,34	0
54	MG	BA	3172	1/1	0.96	0.09	26,26,26,26	0
54	MG	BA	3022	1/1	0.96	0.17	1,1,1,1	0
54	MG	BA	3042	1/1	0.96	0.16	11,11,11,11	0
54	MG	CA	1620	1/1	0.96	0.05	59,59,59,59	0
54	MG	BA	3106	1/1	0.96	0.18	0,0,0,0	0
54	MG	BA	3007	1/1	0.97	0.08	17,17,17,17	0
54	MG	DA	3143	1/1	0.97	0.10	32,32,32,32	0
54	MG	BA	3023	1/1	0.97	0.14	2,2,2,2	0
54	MG	BA	3186	1/1	0.97	0.09	23,23,23,23	0
54	MG	AA	1641	1/1	0.97	0.15	22,22,22,22	0
54	MG	BA	3126	1/1	0.97	0.16	1,1,1,1	0
54	MG	AA	1642	1/1	0.97	0.06	23,23,23,23	0
54	MG	BA	3128	1/1	0.97	0.07	9,9,9,9	0
54	MG	AA	1662	1/1	0.97	0.25	51,51,51,51	0
54	MG	BA	3046	1/1	0.97	0.08	5,5,5,5	0
54	MG	BA	3161	1/1	0.97	0.09	11,11,11,11	0
54	MG	BA	3065	1/1	0.97	0.14	0,0,0,0	0
54	MG	BA	3066	1/1	0.97	0.08	3,3,3,3	0
54	MG	BA	3067	1/1	0.97	0.13	1,1,1,1	0
54	MG	BA	3165	1/1	0.97	0.17	2,2,2,2	0
54	MG	AA	1615	1/1	0.97	0.04	63,63,63,63	0
54	MG	BA	3112	1/1	0.97	0.10	7,7,7,7	0
54	MG	BA	3030	1/1	0.97	0.12	14,14,14,14	0
54	MG	AA	1624	1/1	0.97	0.07	32,32,32,32	0
54	MG	BA	3170	1/1	0.97	0.07	23,23,23,23	0
54	MG	DA	3130	1/1	0.97	0.18	37,37,37,37	0
54	MG	BA	3142	1/1	0.97	0.35	0,0,0,0	0
54	MG	AA	1606	1/1	0.97	0.12	35,35,35,35	0
54	MG	BA	3094	1/1	0.97	0.08	21,21,21,21	0
54	MG	BA	3117	1/1	0.97	0.14	2,2,2,2	0
54	MG	BA	3175	1/1	0.97	0.11	20,20,20,20	0
54	MG	CA	1612	1/1	0.97	0.07	43,43,43,43	0
54	MG	AA	1617	1/1	0.97	0.09	33,33,33,33	0
54	MG	AA	1608	1/1	0.97	0.13	18,18,18,18	0
54	MG	DA	3077	1/1	0.97	0.11	62,62,62,62	0
54	MG	AA	1633	1/1	0.97	0.14	38,38,38,38	0
55	VIR	BA	3001	38/38	0.97	0.23	3,15,28,31	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
54	MG	BA	3057	1/1	0.97	0.12	6,6,6,6	0
54	MG	BA	3139	1/1	0.98	0.41	3,3,3,3	0
54	MG	BQ	201	1/1	0.98	0.17	0,0,0,0	0
54	MG	BA	3035	1/1	0.98	0.34	44,44,44,44	0
54	MG	BA	3097	1/1	0.98	0.12	2,2,2,2	0
54	MG	BA	3118	1/1	0.98	0.10	5,5,5,5	0
54	MG	AA	1645	1/1	0.98	0.19	58,58,58,58	0
54	MG	BA	3050	1/1	0.98	0.18	4,4,4,4	0
54	MG	BA	3082	1/1	0.98	0.17	0,0,0,0	0
54	MG	BA	3039	1/1	0.98	0.15	0,0,0,0	0
54	MG	BA	3148	1/1	0.98	0.48	28,28,28,28	0
54	MG	BA	3149	1/1	0.98	0.11	26,26,26,26	0
54	MG	BA	3027	1/1	0.98	0.10	3,3,3,3	0
54	MG	BA	3068	1/1	0.98	0.21	0,0,0,0	0
54	MG	BA	3054	1/1	0.98	0.12	2,2,2,2	0
54	MG	BA	3179	1/1	0.98	0.10	37,37,37,37	0
54	MG	BA	3087	1/1	0.98	0.17	2,2,2,2	0
54	MG	DA	3123	1/1	0.98	0.17	38,38,38,38	0
54	MG	BA	3107	1/1	0.98	0.23	1,1,1,1	0
54	MG	AA	1613	1/1	0.98	0.06	26,26,26,26	0
54	MG	BA	3183	1/1	0.98	0.18	26,26,26,26	0
54	MG	BA	3184	1/1	0.98	0.21	11,11,11,11	0
54	MG	BA	3129	1/1	0.98	0.16	3,3,3,3	0
54	MG	BA	3130	1/1	0.98	0.14	0,0,0,0	0
54	MG	BA	3029	1/1	0.98	0.16	0,0,0,0	0
54	MG	BA	3073	1/1	0.98	0.12	2,2,2,2	0
54	MG	BA	3010	1/1	0.98	0.10	0,0,0,0	0
54	MG	BA	3012	1/1	0.98	0.09	9,9,9,9	0
54	MG	BA	3013	1/1	0.98	0.16	0,0,0,0	0
54	MG	DA	3035	1/1	0.98	0.06	43,43,43,43	0
54	MG	BA	3194	1/1	0.98	0.06	28,28,28,28	0
54	MG	BA	3019	1/1	0.98	0.11	15,15,15,15	0
54	MG	BA	3034	1/1	0.98	0.20	0,0,0,0	0
54	MG	BA	3138	1/1	0.98	0.43	7,7,7,7	0
54	MG	BB	204	1/1	0.98	0.33	6,6,6,6	0
54	MG	BA	3192	1/1	0.99	0.15	17,17,17,17	0
54	MG	BA	3052	1/1	0.99	0.12	8,8,8,8	0
54	MG	BA	3144	1/1	0.99	0.18	12,12,12,12	0
54	MG	BA	3038	1/1	0.99	0.19	0,0,0,0	0
54	MG	BA	3071	1/1	0.99	0.08	6,6,6,6	0
54	MG	AA	1611	1/1	0.99	0.11	12,12,12,12	0
54	MG	AA	1636	1/1	0.99	0.12	11,11,11,11	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
54	MG	BA	3185	1/1	0.99	0.20	13,13,13,13	0
54	MG	BA	3064	1/1	0.99	0.16	1,1,1,1	0
54	MG	BA	3105	1/1	0.99	0.21	0,0,0,0	0
54	MG	AA	1656	1/1	0.99	0.11	37,37,37,37	0
54	MG	AA	1647	1/1	0.99	0.08	54,54,54,54	0
54	MG	BA	3036	1/1	0.99	0.11	2,2,2,2	0
54	MG	BA	3011	1/1	0.99	0.12	0,0,0,0	0
56	ZN	B4	101	1/1	0.99	0.12	29,29,29,29	0
56	ZN	D4	101	1/1	0.99	0.10	84,84,84,84	0

6.5 Other polymers [i](#)

There are no such residues in this entry.