



wwPDB X-ray Structure Validation Summary Report ⓘ

Jun 4, 2020 – 05:20 am BST

PDB ID : 4V9O
Title : Control of ribosomal subunit rotation by elongation factor G
Authors : Pulk, A.; Cate, J.H.D.
Deposited on : 2013-05-03
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 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 : 2.11
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) : 2.11

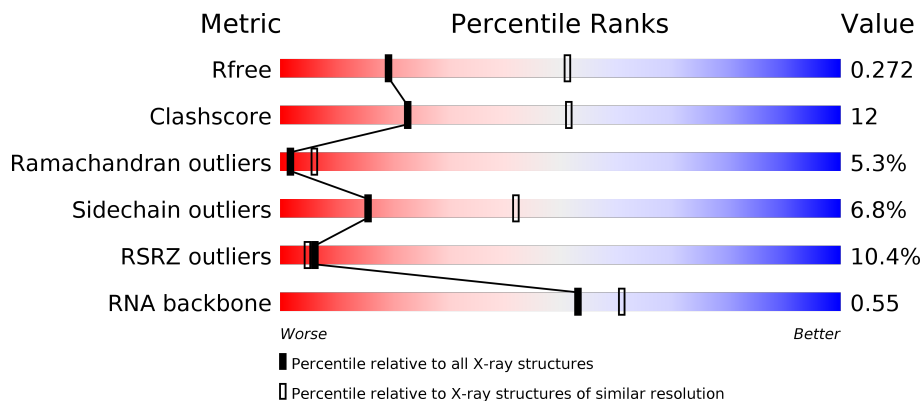
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.90 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.



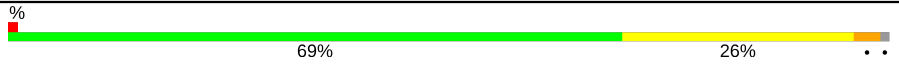
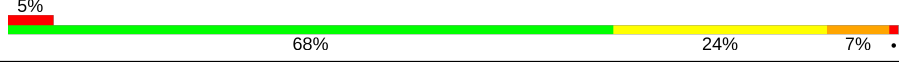



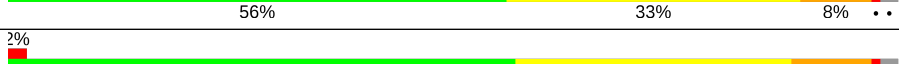

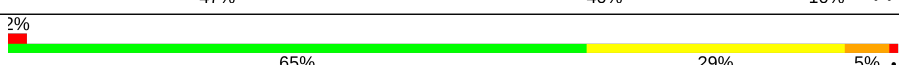
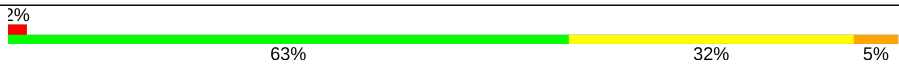


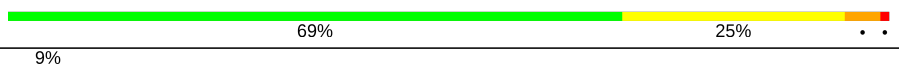

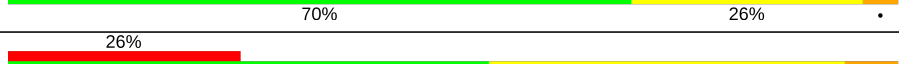
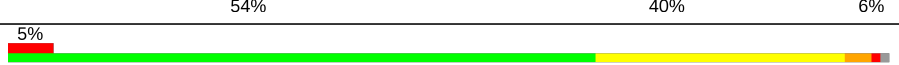










Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	1957 (2.90-2.90)
Clashscore	141614	2172 (2.90-2.90)
Ramachandran outliers	138981	2115 (2.90-2.90)
Sidechain outliers	138945	2117 (2.90-2.90)
RSRZ outliers	127900	1906 (2.90-2.90)
RNA backbone	3102	1007 (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 on 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	AB	120	 66% 26% 7%
1	CB	120	 60% 32% 7%
1	EB	120	 63% 24% 9%
1	GB	120	 36% 51% 10%

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
2	AC	273	
2	CC	273	
2	EC	273	
2	GC	273	
3	AA	2904	
3	CA	2904	
3	EA	2904	
3	GA	2904	
4	AD	209	
4	CD	209	
4	ED	209	
4	GD	209	
5	AE	201	
5	CE	201	
5	EE	201	
5	GE	201	
6	AF	179	
6	CF	179	
6	EF	179	
6	GF	179	
7	AG	177	
7	CG	177	
7	EG	177	
7	GG	177	
8	AH	50	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
8	CH	50	
8	EH	50	
8	GH	50	
9	AI	142	
9	CI	142	
9	EI	142	
9	GI	142	
10	AJ	142	
10	CJ	142	
10	EJ	142	
10	GJ	142	
11	AK	123	
11	CK	123	
11	EK	123	
11	GK	123	
12	AL	144	
12	CL	144	
12	EL	144	
12	GL	144	
13	AM	136	
13	CM	136	
13	EM	136	
13	GM	136	
14	AN	127	
14	CN	127	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
14	EN	127	
14	GN	127	
15	AO	117	
15	CO	117	
15	EO	117	
15	GO	117	
16	AP	115	
16	CP	115	
16	EP	115	
16	GP	115	
17	AQ	118	
17	CQ	118	
17	EQ	118	
17	GQ	118	
18	AR	103	
18	CR	103	
18	ER	103	
18	GR	103	
19	AS	110	
19	CS	110	
19	ES	110	
19	GS	110	
20	AT	100	
20	CT	100	
20	ET	100	

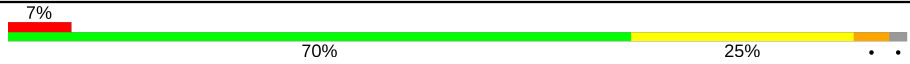



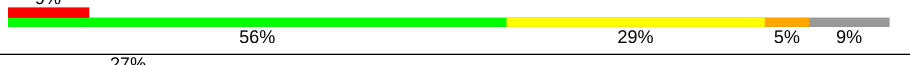
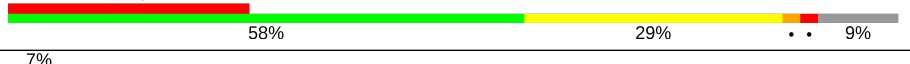
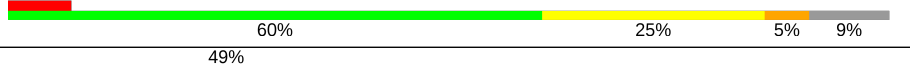

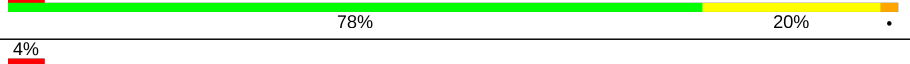


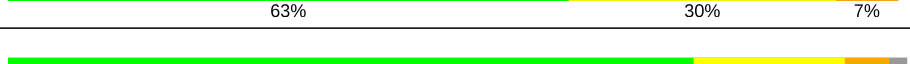

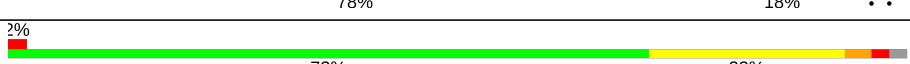

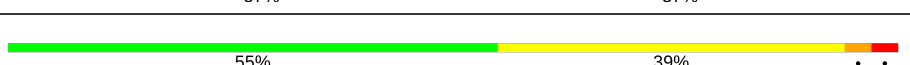
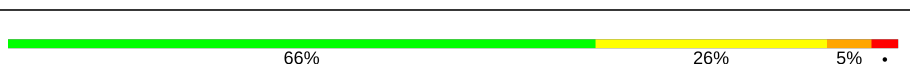
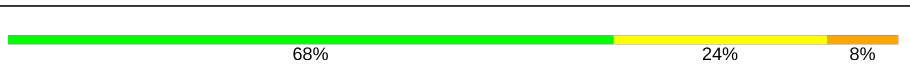
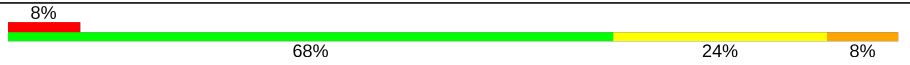

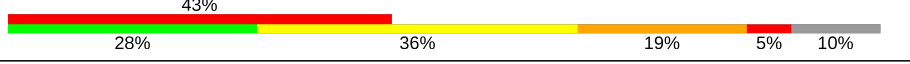




Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
20	GT	100	
21	AU	104	
21	CU	104	
21	EU	104	
21	GU	104	
22	AV	94	
22	CV	94	
22	EV	94	
22	GV	94	
23	AW	85	
23	CW	85	
23	EW	85	
23	GW	85	
24	AX	78	
24	CX	78	
24	EX	78	
24	GX	78	
25	AY	63	
25	CY	63	
25	EY	63	
25	GY	63	
26	AZ	59	
26	CZ	59	
26	EZ	59	
26	GZ	59	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
27	A0	57	
27	C0	57	
27	E0	57	
27	G0	57	
28	A1	55	
28	C1	55	
28	E1	55	
28	G1	55	
29	A2	46	
29	C2	46	
29	E2	46	
29	G2	46	
30	A3	65	
30	C3	65	
30	E3	65	
30	G3	65	
31	A4	38	
31	C4	38	
31	E4	38	
31	G4	38	
32	A5	165	
32	C5	165	
32	E5	165	
33	A6	121	
34	BB	241	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
34	DB	241	
34	FB	241	
34	HB	241	
35	BA	1542	
35	DA	1542	
35	FA	1542	
35	HA	1542	
36	BC	233	
36	DC	233	
36	FC	233	
36	HC	233	
37	BD	206	
37	DD	206	
37	FD	206	
37	HD	206	
38	BE	167	
38	DE	167	
38	FE	167	
38	HE	167	
39	BF	135	
39	DF	135	
39	FF	135	
39	HF	135	
40	BG	179	
40	DG	179	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
40	FG	179	
40	HG	179	
41	BH	130	
41	DH	130	
41	FH	130	
41	HH	130	
42	BI	130	
42	DI	130	
42	FI	130	
42	HI	130	
43	BJ	103	
43	DJ	103	
43	FJ	103	
43	HJ	103	
44	BK	129	
44	DK	129	
44	FK	129	
44	HK	129	
45	BL	124	
45	DL	124	
45	FL	124	
45	HL	124	
46	BM	118	
46	DM	118	
46	FM	118	

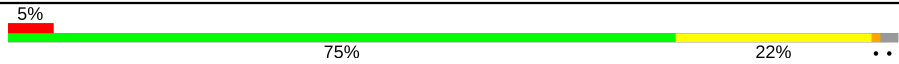
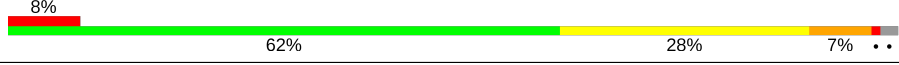
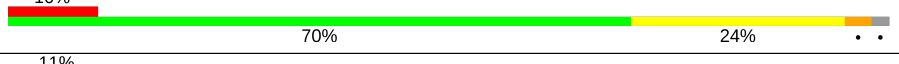

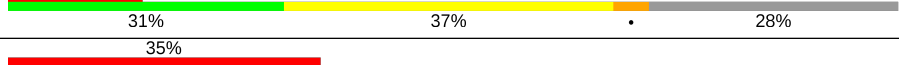
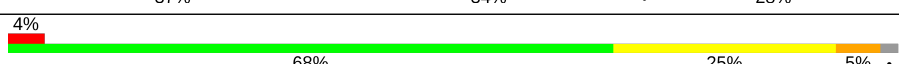
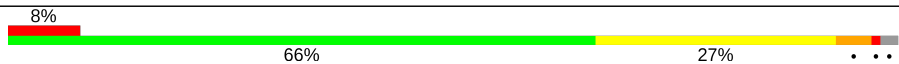


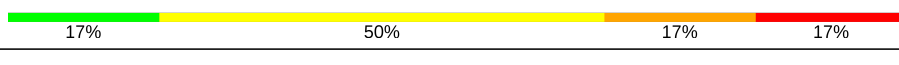
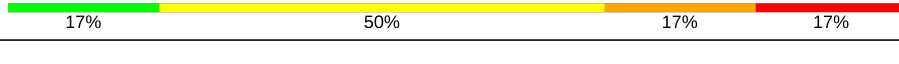
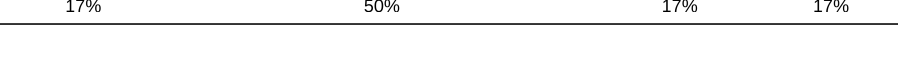
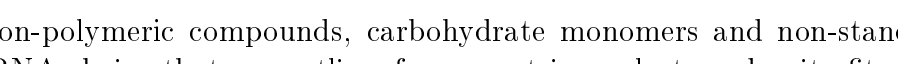
Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
46	HM	118	75% 55% 38% . .
47	BN	101	4% 57% 33% 5% 5%
47	DN	101	12% 67% 28% 5%
47	FN	101	7% 57% 35% . . 5%
47	HN	101	46% 60% 35% 5%
48	BO	89	79% 19% . .
48	DO	89	20% 76% 22% .
48	FO	89	8% 75% 21% . .
48	HO	89	25% 74% 24% . .
49	BP	82	6% 72% 26% .
49	DP	82	12% 65% 30% 5%
49	FP	82	23% 72% 27% .
49	HP	82	21% 73% 27%
50	BQ	84	4% 65% 27% . 5%
50	DQ	84	7% 51% 38% 5% 5%
50	FQ	84	7% 63% 30% . 5%
50	HQ	84	21% 51% 32% 12% 5%
51	BR	75	3% 53% 20% 27%
51	DR	75	28% 59% 15% 27%
51	FR	75	3% 64% 9% 27%
51	HR	75	51% 53% 19% . 27%
52	BS	92	4% 62% 18% 5% 14%
52	DS	92	25% 64% 21% . 14%
52	FS	92	3% 51% 29% 5% 14%
52	HS	92	70% 49% 37% 14%

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
53	BT	87	
53	DT	87	
53	FT	87	
53	HT	87	
54	BU	71	
54	DU	71	
54	FU	71	
54	HU	71	
55	BV	704	
55	DV	704	
55	FV	704	
55	HV	704	
56	BW	6	
56	DW	6	
56	FW	6	
56	HW	6	

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
57	MG	AA	3097	-	-	-	X
57	MG	EA	3083	-	-	-	X
57	MG	FA	1627	-	-	-	X
57	MG	GA	3079	-	-	-	X

2 Entry composition [i](#)

There are 60 unique types of molecules in this entry. The entry contains 592086 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 5S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
1	AB	118	Total	C	N	O	P	0	0	0
			2529	1126	464	821	118			
1	CB	118	Total	C	N	O	P	0	0	0
			2529	1126	464	821	118			
1	EB	118	Total	C	N	O	P	0	0	0
			2529	1126	464	821	118			
1	GB	118	Total	C	N	O	P	0	0	0
			2529	1126	464	821	118			

- Molecule 2 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	AC	271	Total	C	N	O	S	0	0	0
			2082	1288	423	364	7			
2	CC	271	Total	C	N	O	S	0	0	0
			2082	1288	423	364	7			
2	EC	271	Total	C	N	O	S	0	0	0
			2082	1288	423	364	7			
2	GC	271	Total	C	N	O	S	0	0	0
			2082	1288	423	364	7			

- Molecule 3 is a RNA chain called 23S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
3	AA	2854	Total	C	N	O	P	0	0	0
			61274	27334	11279	19807	2854			
3	CA	2854	Total	C	N	O	P	0	0	0
			61274	27334	11279	19807	2854			
3	EA	2854	Total	C	N	O	P	0	0	0
			61274	27334	11279	19807	2854			
3	GA	2854	Total	C	N	O	P	0	0	0
			61274	27334	11279	19807	2854			

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

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

- Molecule 5 is a protein called 50S ribosomal protein L4.

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

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

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

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

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

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	GG	176	Total	C	N	O	S	0	0	0
			1323	832	243	246	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	AH	50	Total	C	N	O	S	0	0	0
			384	247	68	68	1			
8	CH	50	Total	C	N	O	S	0	0	0
			384	247	68	68	1			
8	EH	50	Total	C	N	O	S	0	0	0
			384	247	68	68	1			
8	GH	50	Total	C	N	O	S	0	0	0
			384	247	68	68	1			

- Molecule 9 is a protein called 50S ribosomal protein L11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	AI	141	Total	C	N	O	S	0	0	0
			1032	651	179	196	6			
9	CI	141	Total	C	N	O	S	0	0	0
			1032	651	179	196	6			
9	EI	141	Total	C	N	O	S	0	0	0
			1032	651	179	196	6			
9	GI	141	Total	C	N	O	S	0	0	0
			1032	651	179	196	6			

- Molecule 10 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	AJ	142	Total	C	N	O	S	0	0	0
			1129	714	212	199	4			
10	CJ	142	Total	C	N	O	S	0	0	0
			1129	714	212	199	4			
10	EJ	142	Total	C	N	O	S	0	0	0
			1129	714	212	199	4			
10	GJ	142	Total	C	N	O	S	0	0	0
			1129	714	212	199	4			

- Molecule 11 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	AK	122	Total	C	N	O	S	0	0	0
			938	587	180	165	6			
11	CK	122	Total	C	N	O	S	0	0	0
			938	587	180	165	6			
11	EK	122	Total	C	N	O	S	0	0	0
			938	587	180	165	6			
11	GK	122	Total	C	N	O	S	0	0	0
			938	587	180	165	6			

- Molecule 12 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	AL	143	Total	C	N	O	S	0	0	0
			1045	649	206	189	1			
12	CL	143	Total	C	N	O	S	0	0	0
			1045	649	206	189	1			
12	EL	143	Total	C	N	O	S	0	0	0
			1045	649	206	189	1			
12	GL	143	Total	C	N	O	S	0	0	0
			1045	649	206	189	1			

- Molecule 13 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	AM	136	Total	C	N	O	S	0	0	0
			1074	686	205	177	6			
13	CM	136	Total	C	N	O	S	0	0	0
			1074	686	205	177	6			
13	EM	136	Total	C	N	O	S	0	0	0
			1074	686	205	177	6			
13	GM	136	Total	C	N	O	S	0	0	0
			1074	686	205	177	6			

- Molecule 14 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	AN	120	Total	C	N	O	S	0	0	0
			960	593	196	166	5			
14	CN	120	Total	C	N	O	S	0	0	0
			960	593	196	166	5			
14	EN	120	Total	C	N	O	S	0	0	0
			960	593	196	166	5			

Continued on next page...

Continued from previous page...

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

- Molecule 15 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O				
15	AO	116	892	552	178	162		0	0	0
15	CO	116	892	552	178	162		0	0	0
15	EO	116	892	552	178	162		0	0	0
15	GO	116	892	552	178	162		0	0	0

- Molecule 16 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
16	AP	114	917	574	179	163	1	0	0	0
16	CP	114	917	574	179	163	1	0	0	0
16	EP	114	917	574	179	163	1	0	0	0
16	GP	114	917	574	179	163	1	0	0	0

- Molecule 17 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O				
17	AQ	117	947	604	192	151		0	0	0
17	CQ	117	947	604	192	151		0	0	0
17	EQ	117	947	604	192	151		0	0	0
17	GQ	117	947	604	192	151		0	0	0

- Molecule 18 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
18	AR	103	Total	C	N	O	S	0	0	0
			816	516	153	145	2			
18	CR	103	Total	C	N	O	S	0	0	0
			816	516	153	145	2			
18	ER	103	Total	C	N	O	S	0	0	0
			816	516	153	145	2			
18	GR	103	Total	C	N	O	S	0	0	0
			816	516	153	145	2			

- Molecule 19 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AS	110	Total	C	N	O	S	0	0	0
			857	532	166	156	3			
19	CS	110	Total	C	N	O	S	0	0	0
			857	532	166	156	3			
19	ES	110	Total	C	N	O	S	0	0	0
			857	532	166	156	3			
19	GS	110	Total	C	N	O	S	0	0	0
			857	532	166	156	3			

- Molecule 20 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	AT	93	Total	C	N	O	S	0	0	0
			738	466	139	131	2			
20	CT	93	Total	C	N	O	S	0	0	0
			738	466	139	131	2			
20	ET	93	Total	C	N	O	S	0	0	0
			738	466	139	131	2			
20	GT	93	Total	C	N	O	S	0	0	0
			738	466	139	131	2			

- Molecule 21 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
21	AU	102	Total	C	N	O	0	0	0
			779	492	146	141			
21	CU	102	Total	C	N	O	0	0	0
			779	492	146	141			
21	EU	102	Total	C	N	O	0	0	0
			779	492	146	141			

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
21	GU	102	779	492	146	141	0	0	0

- Molecule 22 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
22	AV	94	753	479	137	134	3	0	0	0
22	CV	94	753	479	137	134	3	0	0	0
22	EV	94	753	479	137	134	3	0	0	0
22	GV	94	753	479	137	134	3	0	0	0

- Molecule 23 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
23	AW	79	596	367	120	108	1	0	0	0
23	CW	79	596	367	120	108	1	0	0	0
23	EW	79	596	367	120	108	1	0	0	0
23	GW	79	596	367	120	108	1	0	0	0

- Molecule 24 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
24	AX	77	625	388	129	106	2	0	0	0
24	CX	77	625	388	129	106	2	0	0	0
24	EX	77	625	388	129	106	2	0	0	0
24	GX	77	625	388	129	106	2	0	0	0

- Molecule 25 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	AY	63	Total	C	N	O	S	0	0	0
			509	313	99	95	2			
25	CY	63	Total	C	N	O	S	0	0	0
			509	313	99	95	2			
25	EY	63	Total	C	N	O	S	0	0	0
			509	313	99	95	2			
25	GY	63	Total	C	N	O	S	0	0	0
			509	313	99	95	2			

- Molecule 26 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	AZ	58	Total	C	N	O	S	0	0	0
			449	281	87	79	2			
26	CZ	58	Total	C	N	O	S	0	0	0
			449	281	87	79	2			
26	EZ	58	Total	C	N	O	S	0	0	0
			449	281	87	79	2			
26	GZ	58	Total	C	N	O	S	0	0	0
			449	281	87	79	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	A0	56	Total	C	N	O	S	0	0	0
			444	269	94	80	1			
27	C0	56	Total	C	N	O	S	0	0	0
			444	269	94	80	1			
27	E0	56	Total	C	N	O	S	0	0	0
			444	269	94	80	1			
27	G0	56	Total	C	N	O	S	0	0	0
			444	269	94	80	1			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
28	A1	50	Total	C	N	O	0	0	0
			409	263	75	71			
28	C1	50	Total	C	N	O	0	0	0
			409	263	75	71			
28	E1	50	Total	C	N	O	0	0	0
			409	263	75	71			

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
28	G1	50	409	263	75	71	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
29	A2	46	377	228	90	57	2	0	0	0
29	C2	46	377	228	90	57	2	0	0	0
29	E2	46	377	228	90	57	2	0	0	0
29	G2	46	377	228	90	57	2	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
30	A3	64	504	323	105	74	2	0	0	0
30	C3	64	504	323	105	74	2	0	0	0
30	E3	64	504	323	105	74	2	0	0	0
30	G3	64	504	323	105	74	2	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
31	A4	38	302	185	65	48	4	0	0	0
31	C4	38	302	185	65	48	4	0	0	0
31	E4	38	302	185	65	48	4	0	0	0
31	G4	38	302	185	65	48	4	0	0	0

- Molecule 32 is a protein called 50S ribosomal protein L10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	A5	148	Total	C	N	O	S	0	0	0
			1117	705	196	209	7			
32	C5	148	Total	C	N	O	S	0	0	0
			1117	705	196	209	7			
32	E5	145	Total	C	N	O	S	0	0	0
			1101	696	193	205	7			

- Molecule 33 is a protein called 50S ribosomal protein L7/L12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	A6	30	Total	C	N	O	S	0	0	0
			227	144	33	47	3			

- Molecule 34 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	BB	218	Total	C	N	O	S	0	0	0
			1704	1081	305	311	7			
34	DB	218	Total	C	N	O	S	0	0	0
			1704	1081	305	311	7			
34	FB	218	Total	C	N	O	S	0	0	0
			1704	1081	305	311	7			
34	HB	218	Total	C	N	O	S	0	0	0
			1704	1081	305	311	7			

- Molecule 35 is a RNA chain called 16S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	BA	1533	Total	C	N	O	P	0	0	0
			32895	14671	6036	10655	1533			
35	DA	1533	Total	C	N	O	P	0	0	0
			32895	14671	6036	10655	1533			
35	FA	1533	Total	C	N	O	P	0	0	0
			32895	14671	6036	10655	1533			
35	HA	1533	Total	C	N	O	P	0	0	0
			32895	14671	6036	10655	1533			

- Molecule 36 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	BC	206	Total	C	N	O	S	0	0	0
			1624	1028	305	288	3			

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
36	DC	206	Total	C	N	O	S	0	0	0
			1624	1028	305	288	3			
36	FC	206	Total	C	N	O	S	0	0	0
			1624	1028	305	288	3			
36	HC	206	Total	C	N	O	S	0	0	0
			1624	1028	305	288	3			

- Molecule 37 is a protein called 30S ribosomal protein S4.

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

- Molecule 38 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
38	BE	150	Total	C	N	O	S	0	0	0
			1105	687	211	201	6			
38	DE	150	Total	C	N	O	S	0	0	0
			1105	687	211	201	6			
38	FE	150	Total	C	N	O	S	0	0	0
			1105	687	211	201	6			
38	HE	150	Total	C	N	O	S	0	0	0
			1105	687	211	201	6			

- Molecule 39 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
39	BF	102	Total	C	N	O	S	0	0	0
			832	525	150	150	7			
39	DF	100	Total	C	N	O	S	0	0	0
			817	515	148	148	6			
39	FF	100	Total	C	N	O	S	0	0	0
			817	515	148	148	6			
39	HF	100	Total	C	N	O	S	0	0	0
			817	515	148	148	6			

- Molecule 40 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
40	BG	151	Total 1181	C 735	N 227	O 215	S 4	0	0	0
40	DG	151	Total 1181	C 735	N 227	O 215	S 4	0	0	0
40	FG	151	Total 1181	C 735	N 227	O 215	S 4	0	0	0
40	HG	151	Total 1181	C 735	N 227	O 215	S 4	0	0	0

- Molecule 41 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
41	BH	129	Total 979	C 616	N 173	O 184	S 6	0	0	0
41	DH	129	Total 979	C 616	N 173	O 184	S 6	0	0	0
41	FH	129	Total 979	C 616	N 173	O 184	S 6	0	0	0
41	HH	129	Total 979	C 616	N 173	O 184	S 6	0	0	0

- Molecule 42 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
42	BI	127	Total 1022	C 634	N 206	O 179	S 3	0	0	0
42	DI	127	Total 1022	C 634	N 206	O 179	S 3	0	0	0
42	FI	127	Total 1022	C 634	N 206	O 179	S 3	0	0	0
42	HI	127	Total 1022	C 634	N 206	O 179	S 3	0	0	0

- Molecule 43 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
43	BJ	98	Total 786	C 493	N 150	O 142	S 1	0	0	0
43	DJ	98	Total 786	C 493	N 150	O 142	S 1	0	0	0
43	FJ	98	Total 786	C 493	N 150	O 142	S 1	0	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
43	HJ	98	786	493	150	142	1	0	0	0

- Molecule 44 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
44	BK	117	877	540	174	160	3	0	0	0
44	DK	117	877	540	174	160	3	0	0	0
44	FK	117	877	540	174	160	3	0	0	0
44	HK	117	877	540	174	160	3	0	0	0

- Molecule 45 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
45	BL	123	955	590	196	165	4	0	0	0
45	DL	123	955	590	196	165	4	0	0	0
45	FL	123	955	590	196	165	4	0	0	0
45	HL	123	955	590	196	165	4	0	0	0

- Molecule 46 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
46	BM	114	883	546	178	156	3	0	0	0
46	DM	114	883	546	178	156	3	0	0	0
46	FM	114	883	546	178	156	3	0	0	0
46	HM	114	883	546	178	156	3	0	0	0

- Molecule 47 is a protein called 30S ribosomal protein S14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	BN	96	Total	C	N	O	S	0	0	0
			774	483	160	128	3			
47	DN	96	Total	C	N	O	S	0	0	0
			774	483	160	128	3			
47	FN	96	Total	C	N	O	S	0	0	0
			774	483	160	128	3			
47	HN	96	Total	C	N	O	S	0	0	0
			774	483	160	128	3			

- Molecule 48 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	BO	88	Total	C	N	O	S	0	0	0
			714	439	144	130	1			
48	DO	88	Total	C	N	O	S	0	0	0
			714	439	144	130	1			
48	FO	88	Total	C	N	O	S	0	0	0
			714	439	144	130	1			
48	HO	88	Total	C	N	O	S	0	0	0
			714	439	144	130	1			

- Molecule 49 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	BP	82	Total	C	N	O	S	0	0	0
			649	406	128	114	1			
49	DP	82	Total	C	N	O	S	0	0	0
			649	406	128	114	1			
49	FP	82	Total	C	N	O	S	0	0	0
			649	406	128	114	1			
49	HP	82	Total	C	N	O	S	0	0	0
			649	406	128	114	1			

- Molecule 50 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	BQ	80	Total	C	N	O	S	0	0	0
			648	411	121	113	3			
50	DQ	80	Total	C	N	O	S	0	0	0
			648	411	121	113	3			
50	FQ	80	Total	C	N	O	S	0	0	0
			648	411	121	113	3			

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
50	HQ	80	648	411	121	113	3	0	0	0

- Molecule 51 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
51	BR	55	455	288	86	81	0	0	0
51	DR	55	455	288	86	81	0	0	0
51	FR	55	455	288	86	81	0	0	0
51	HR	55	455	288	86	81	0	0	0

- Molecule 52 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
52	BS	79	637	408	120	107	2	0	0	0
52	DS	79	637	408	120	107	2	0	0	0
52	FS	79	637	408	120	107	2	0	0	0
52	HS	79	637	408	120	107	2	0	0	0

- Molecule 53 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
53	BT	85	665	411	137	114	3	0	0	0
53	DT	85	665	411	137	114	3	0	0	0
53	FT	85	665	411	137	114	3	0	0	0
53	HT	85	665	411	137	114	3	0	0	0

- Molecule 54 is a protein called 30S ribosomal protein S21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	BU	51	Total	C	N	O	S	0	0	0
			425	265	86	73	1			
54	DU	51	Total	C	N	O	S	0	0	0
			425	265	86	73	1			
54	FU	51	Total	C	N	O	S	0	0	0
			425	265	86	73	1			
54	HU	51	Total	C	N	O	S	0	0	0
			425	265	86	73	1			

- Molecule 55 is a protein called Elongation factor G.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	BV	690	Total	C	N	O	S	0	0	0
			5345	3369	920	1031	25			
55	DV	689	Total	C	N	O	S	0	0	0
			5340	3366	919	1030	25			
55	FV	689	Total	C	N	O	S	0	0	0
			5340	3366	919	1030	25			
55	HV	689	Total	C	N	O	S	0	0	0
			5340	3366	919	1030	25			

- Molecule 56 is a protein called Viomycin.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
56	BW	6	Total	C	N	O	0	0	0
			48	25	13	10			
56	DW	6	Total	C	N	O	0	0	0
			48	25	13	10			
56	FW	6	Total	C	N	O	0	0	0
			48	25	13	10			
56	HW	6	Total	C	N	O	0	0	0
			48	25	13	10			

- Molecule 57 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	FA	39	Total	Mg	0	0
			39	39		
57	BA	40	Total	Mg	0	0
			40	40		
57	CA	136	Total	Mg	0	0
			136	136		

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	HE	1	Total Mg 1 1	0	0
57	AB	4	Total Mg 4 4	0	0
57	BE	1	Total Mg 1 1	0	0
57	GA	136	Total Mg 136 136	0	0
57	HA	41	Total Mg 41 41	0	0
57	EB	4	Total Mg 4 4	0	0
57	FU	1	Total Mg 1 1	0	0
57	FV	1	Total Mg 1 1	0	0
57	C4	1	Total Mg 1 1	0	0
57	AE	1	Total Mg 1 1	0	0
57	AA	136	Total Mg 136 136	0	0
57	FE	1	Total Mg 1 1	0	0
57	DV	1	Total Mg 1 1	0	0
57	EA	137	Total Mg 137 137	0	0
57	BU	1	Total Mg 1 1	0	0
57	HK	1	Total Mg 1 1	0	0
57	CN	1	Total Mg 1 1	0	0
57	BN	1	Total Mg 1 1	0	0
57	EE	1	Total Mg 1 1	0	0
57	GL	1	Total Mg 1 1	0	0
57	A4	1	Total Mg 1 1	0	0

Continued on next page...

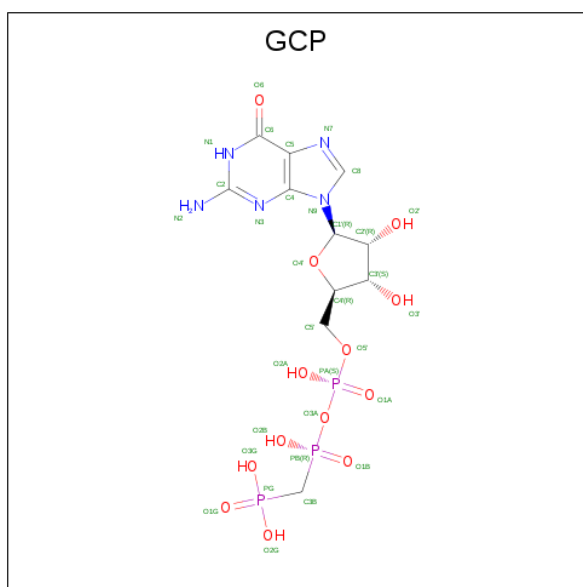
Continued from previous page...

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	DA	43	Total Mg 43 43	0	0
57	GC	2	Total Mg 2 2	0	0
57	BV	1	Total Mg 1 1	0	0
57	CB	4	Total Mg 4 4	0	0
57	FN	2	Total Mg 2 2	0	0
57	AC	1	Total Mg 1 1	0	0
57	ED	1	Total Mg 1 1	0	0
57	GB	4	Total Mg 4 4	0	0
57	CE	1	Total Mg 1 1	0	0
57	HV	1	Total Mg 1 1	0	0

- Molecule 58 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	E4	1	Total Zn 1 1	0	0
58	G4	1	Total Zn 1 1	0	0
58	A4	1	Total Zn 1 1	0	0
58	C4	1	Total Zn 1 1	0	0

- Molecule 59 is PHOSPHOMETHYLPHOSPHONIC ACID GUANYLATE ESTER (three-letter code: GCP) (formula: C₁₁H₁₈N₅O₁₃P₃).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
			Total	C	N	O	P		
59	BV	1	Total 32	C 11	N 5	O 13	P 3	0	0
59	DV	1	Total 32	C 11	N 5	O 13	P 3	0	0
59	FV	1	Total 32	C 11	N 5	O 13	P 3	0	0
59	HV	1	Total 32	C 11	N 5	O 13	P 3	0	0

- Molecule 60 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
60	AB	18	Total 18	O 18	0	0
60	AC	6	Total 6	O 6	0	0
60	AA	614	Total 614	O 614	0	0
60	AD	4	Total 4	O 4	0	0
60	AE	1	Total 1	O 1	0	0
60	AF	1	Total 1	O 1	0	0
60	AJ	1	Total 1	O 1	0	0
60	AL	5	Total 5	O 5	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	AN	2	Total O 2 2	0	0
60	AP	1	Total O 1 1	0	0
60	AQ	2	Total O 2 2	0	0
60	AS	1	Total O 1 1	0	0
60	A0	2	Total O 2 2	0	0
60	A2	1	Total O 1 1	0	0
60	A3	1	Total O 1 1	0	0
60	A4	1	Total O 1 1	0	0
60	BA	202	Total O 202 202	0	0
60	BL	1	Total O 1 1	0	0
60	BN	2	Total O 2 2	0	0
60	BT	2	Total O 2 2	0	0
60	BV	1	Total O 1 1	0	0
60	CB	21	Total O 21 21	0	0
60	CA	607	Total O 607 607	0	0
60	CC	8	Total O 8 8	0	0
60	CD	3	Total O 3 3	0	0
60	CE	1	Total O 1 1	0	0
60	CJ	2	Total O 2 2	0	0
60	CL	5	Total O 5 5	0	0
60	CN	2	Total O 2 2	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	CQ	1	Total O 1 1	0	0
60	CS	2	Total O 2 2	0	0
60	CT	2	Total O 2 2	0	0
60	CU	1	Total O 1 1	0	0
60	C0	1	Total O 1 1	0	0
60	C2	1	Total O 1 1	0	0
60	C3	1	Total O 1 1	0	0
60	C4	2	Total O 2 2	0	0
60	DA	186	Total O 186 186	0	0
60	DC	2	Total O 2 2	0	0
60	DD	1	Total O 1 1	0	0
60	DE	1	Total O 1 1	0	0
60	DG	1	Total O 1 1	0	0
60	DK	1	Total O 1 1	0	0
60	DL	2	Total O 2 2	0	0
60	DN	8	Total O 8 8	0	0
60	DQ	1	Total O 1 1	0	0
60	DT	4	Total O 4 4	0	0
60	DU	1	Total O 1 1	0	0
60	DV	1	Total O 1 1	0	0
60	EA	610	Total O 610 610	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	EB	18	Total O 18 18	0	0
60	EC	9	Total O 9 9	0	0
60	ED	3	Total O 3 3	0	0
60	EE	2	Total O 2 2	0	0
60	EL	4	Total O 4 4	0	0
60	EN	3	Total O 3 3	0	0
60	ER	1	Total O 1 1	0	0
60	ET	2	Total O 2 2	0	0
60	EV	2	Total O 2 2	0	0
60	E0	1	Total O 1 1	0	0
60	E2	1	Total O 1 1	0	0
60	E3	2	Total O 2 2	0	0
60	E4	2	Total O 2 2	0	0
60	FA	197	Total O 197 197	0	0
60	FC	1	Total O 1 1	0	0
60	FE	2	Total O 2 2	0	0
60	FN	3	Total O 3 3	0	0
60	FT	4	Total O 4 4	0	0
60	FU	1	Total O 1 1	0	0
60	FV	1	Total O 1 1	0	0
60	GB	19	Total O 19 19	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
60	GA	606	Total O 606 606	0	0
60	GC	10	Total O 10 10	0	0
60	GD	3	Total O 3 3	0	0
60	GE	2	Total O 2 2	0	0
60	GJ	1	Total O 1 1	0	0
60	GL	4	Total O 4 4	0	0
60	GN	4	Total O 4 4	0	0
60	GQ	1	Total O 1 1	0	0
60	GR	2	Total O 2 2	0	0
60	GS	2	Total O 2 2	0	0
60	GU	1	Total O 1 1	0	0
60	GV	1	Total O 1 1	0	0
60	G2	2	Total O 2 2	0	0
60	G3	1	Total O 1 1	0	0
60	G4	1	Total O 1 1	0	0
60	HA	193	Total O 193 193	0	0
60	HD	3	Total O 3 3	0	0
60	HE	3	Total O 3 3	0	0
60	HN	7	Total O 7 7	0	0
60	HQ	1	Total O 1 1	0	0
60	HT	1	Total O 1 1	0	0

Continued on next page...

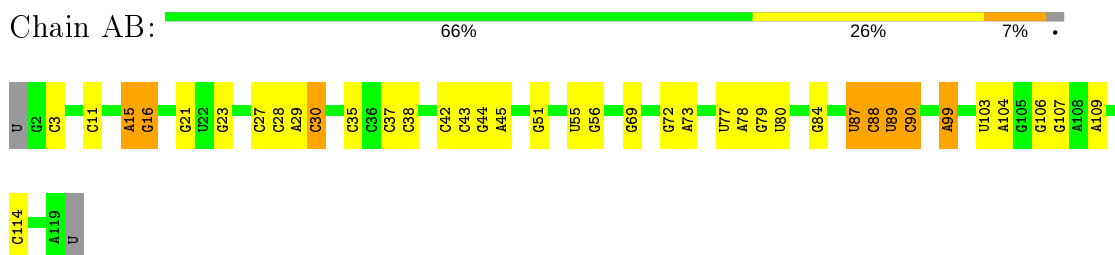
Continued from previous page...

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
60	HV	1	Total	O	0	0
			1	1		

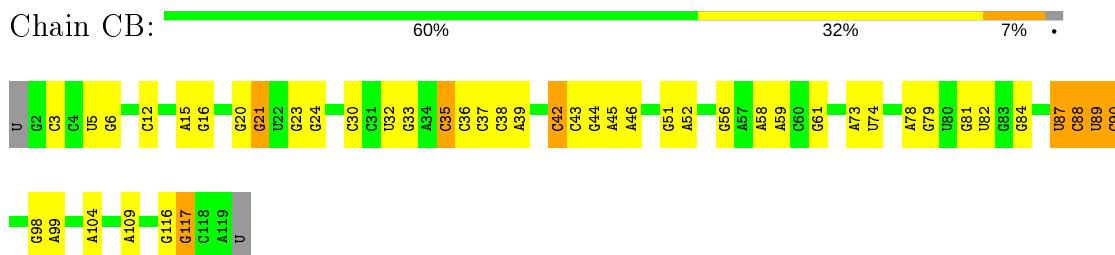
3 Residue-property plots [i](#)

These plots are drawn for all protein, RNA and DNA 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.

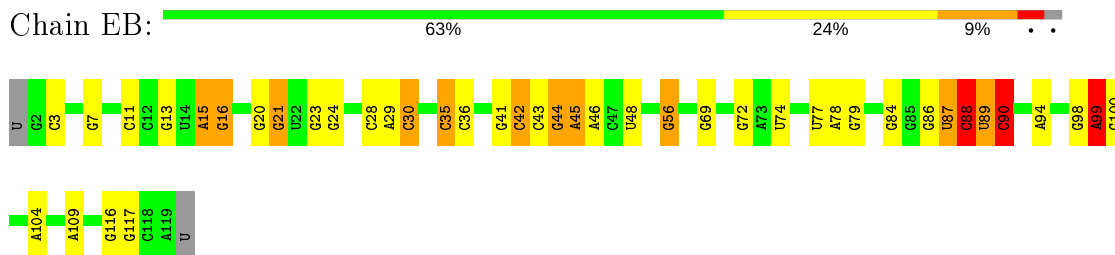
- Molecule 1: 5S rRNA



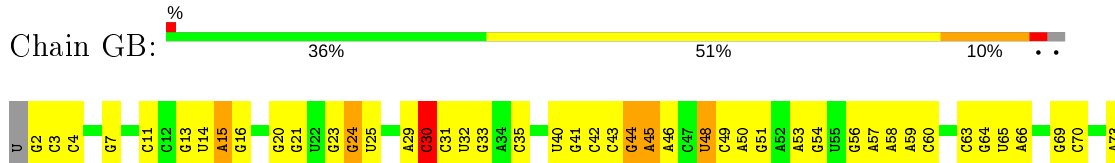
- Molecule 1: 5S rRNA

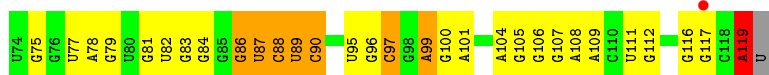


- Molecule 1: 5S rRNA

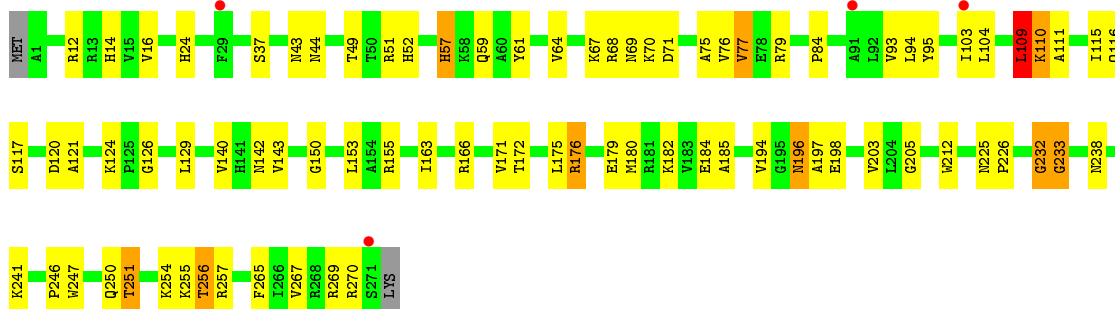


- Molecule 1: 5S rRNA

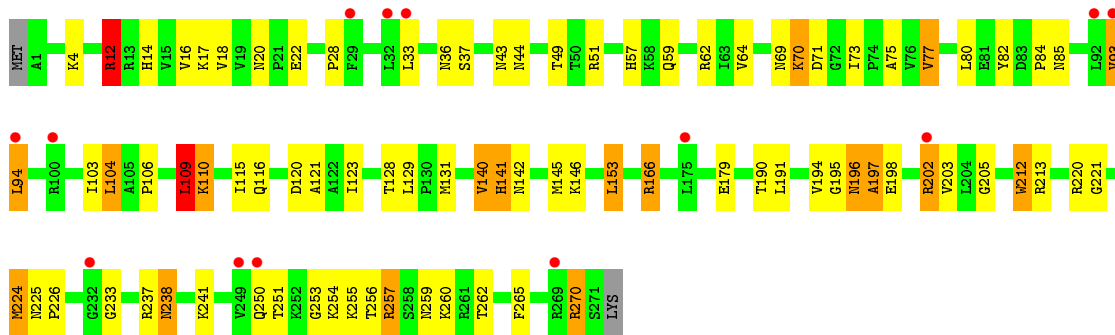




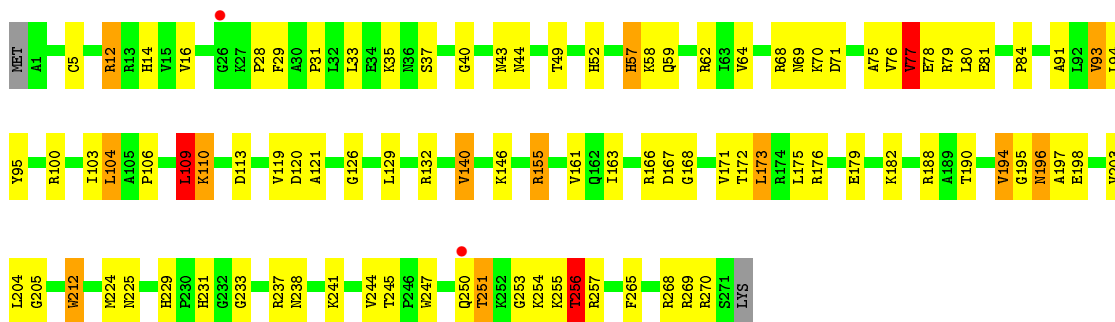
- Molecule 2: 50S ribosomal protein L2



- Molecule 2: 50S ribosomal protein L2

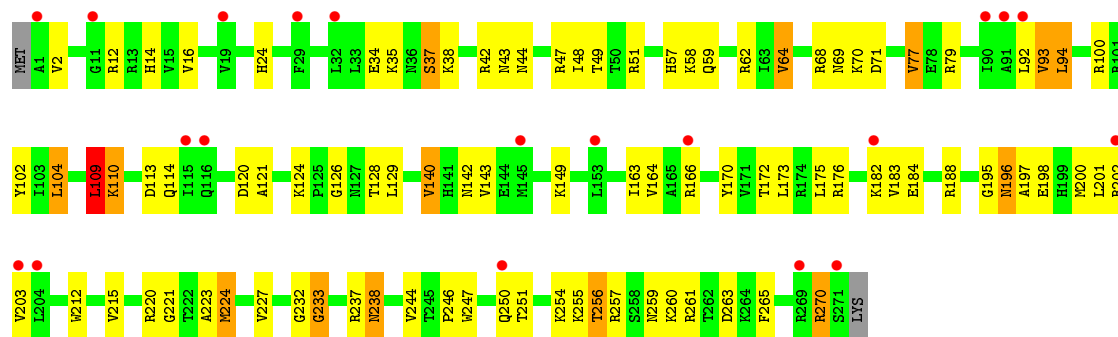


- Molecule 2: 50S ribosomal protein L2

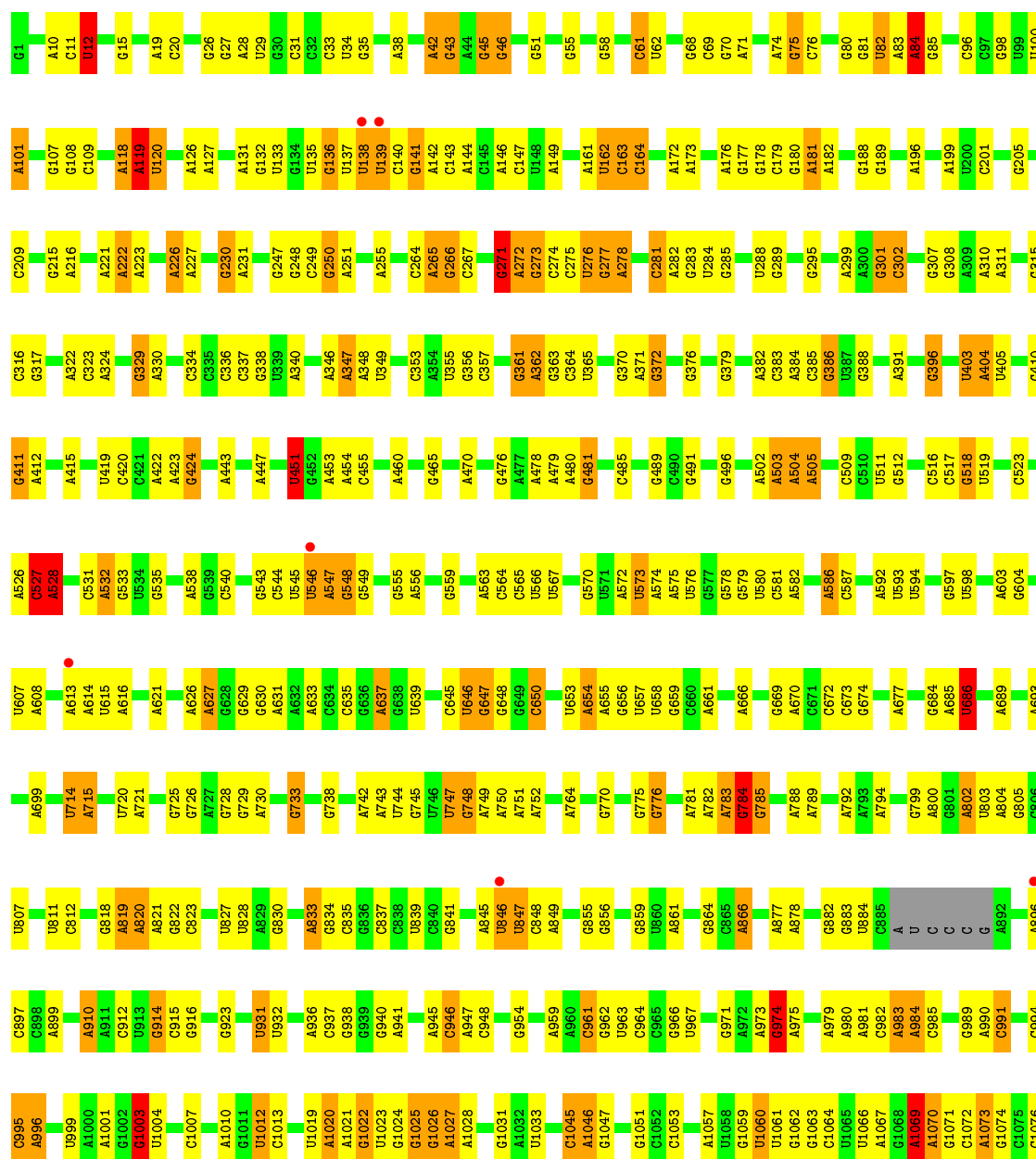


- Molecule 2: 50S ribosomal protein L2

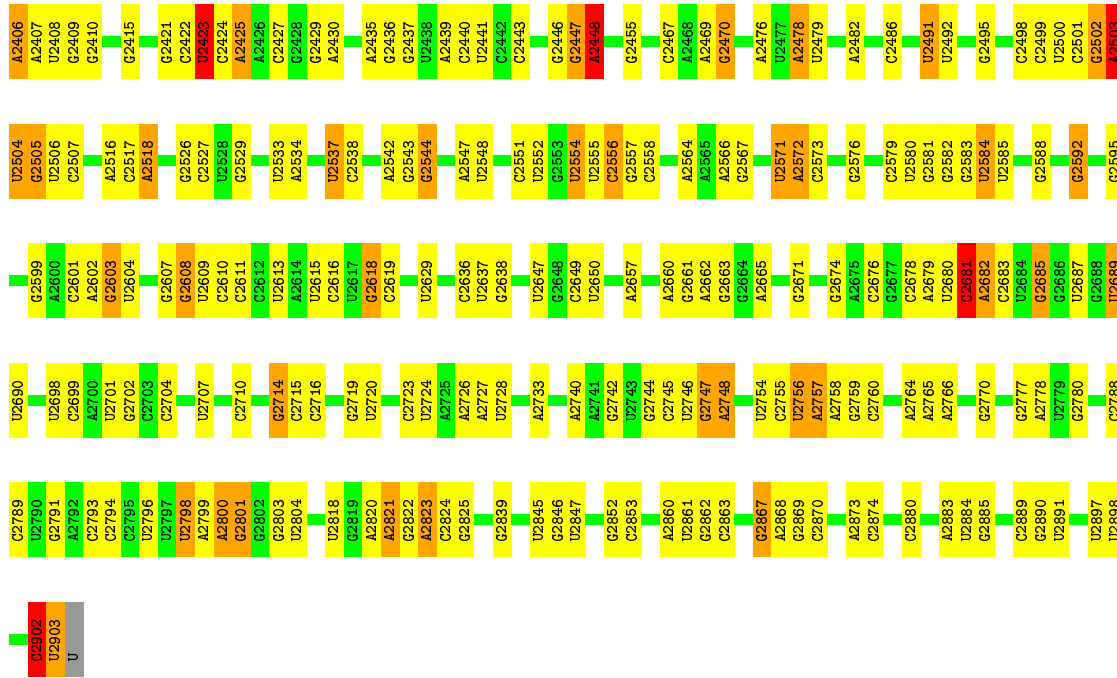




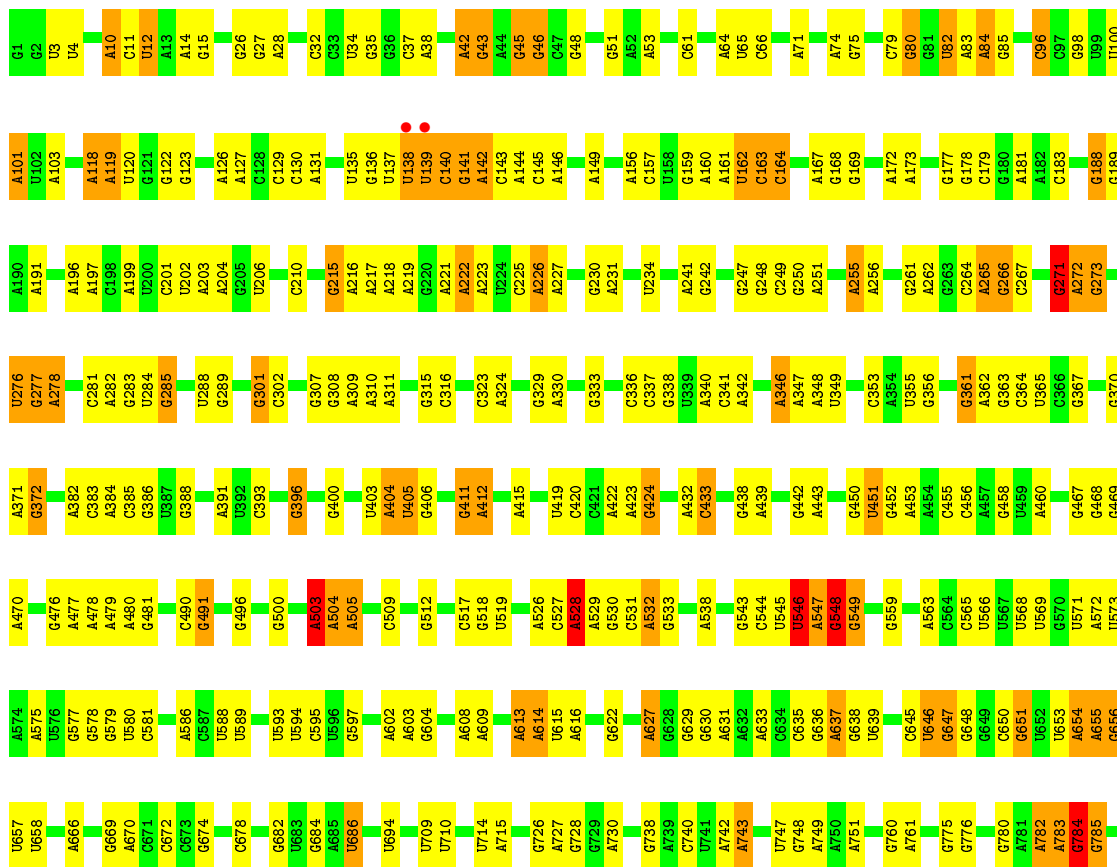
• Molecule 3: 23S rRNA



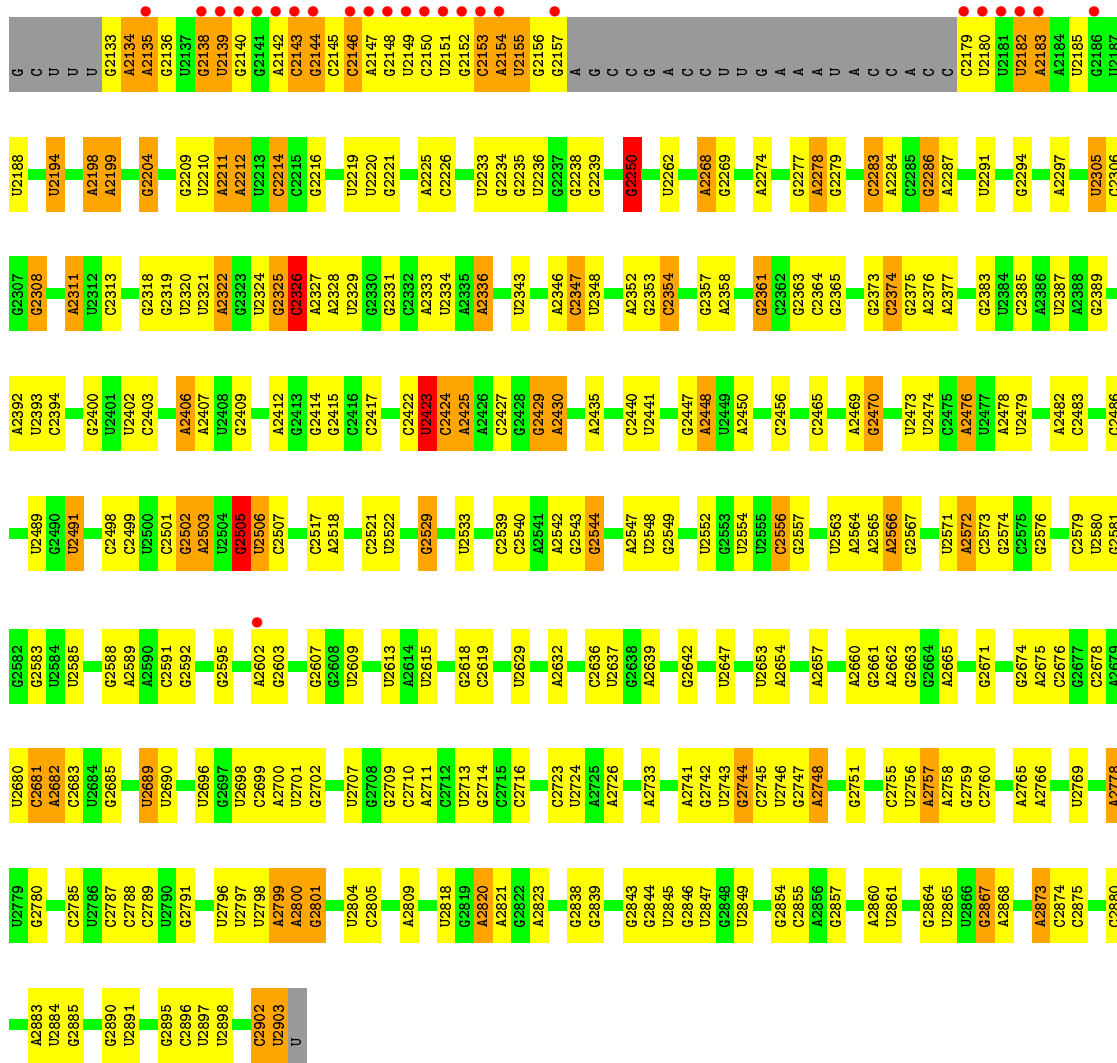
U2312	U2210	G2141	G2058	U1983	G1832	U1758	G1649	A1553	U1438	A1342	A1253	C1161	A1077
C2313	A2211	A2142	A2059	U1963	C1833	A1759	A1652	A1553	A1489	G1943	A1253	C1161	U1078
A2314	A2212	G2143	A2060	C1760	C1837	A1760	A1653	C1565	U1440	U1344	G1256	A1169	C1079
G2318	U2213	G2144	G2061	A1966	C1837	C1761	A1652	G1566	G1441	C1170	G1256	C1170	A1080
G2319	C2214	C2145	A2062	G1967	G1838	A1762	A1654	G1566	U1442	C1348	U1262	G1172	U1083
U2320	A2225	C2146	G2069	G1968	G1839	G1763	A1655	G1568	U1443	C1349	U1263	G1172	A1084
U2321	C2226	A2147	G2069	A1969	C1843	C1764	A1656	A1568	G1444	C1350	A1264	U1173	A1084
A2322	A2070	U2149	A2070	A1970	C1844	G1770	A1659	A1569	C1445	C1351	A1265	U1174	A1085
G2323	A2071	U2150	A2071	G1972	C1844	G1771	G1659	A1570	G1446	U1352	A1266	A1175	A1086
U2324	C2072	U2151	C2072	G1972	A1847	G1772	U1662	A1571	G1450	A1353	U1267	U1176	G1087
G2325	U2074	G2152	U2074	U1979	A1848	A1773	U1662	A1572	C1451	A1354	U1268	G1177	A1088
C2326	U2075	G2153	U2075	G1980	A1848	C1774	A1669	A1572	G1452	A1355	G1270	U1178	A1089
A2327	G2238	A2154	C2091	G1983	G1857	U1775	A1670	U1578	G1452	G1355	G1271	C1178	A1090
U2328	A2239	U2155	C2091	G1983	A1858	U1776	A1670	A1579	U1458	G1356	G1271	U1180	U1094
U2329	U2240	G2156	U2092	G1983	A1858	G1776	A1670	A1580	U1459	A1359	A1272	U1181	A1095
G2330	A2241	A2157	G2093	U1991	U1864	U1777	A1674	G1581	G1459	G1365	U1273	U1182	A1096
G2331	G2242	G2157	A2094	G1992	U1864	U1778	A1675	C1582	G1465	A1366	G1277	U1183	A1096
C2332	U2244	A	A2094	G1992	G1867	U1779	A1677	U1584	U1466	A1367	G1281	G1185	U1097
A2333	A2244	C	U2099	U1993	G1868	A1783	A1678	C1585	A1469	G1368	G1281	G1186	A1098
U2334	A2247	C	C2102	C1996	G1868	A1784	A1679	C1585	A1469	G1371	A1284	G1187	C1102
G2335	G2250	G	C2103	C1997	G1868	A1784	A1679	C1585	U1474	U1371	A1284	U1188	G1106
A2336	G2250	A	C2103	C1997	G1868	A1784	A1679	C1585	G1475	U1372	G1288	U1189	G1107
G2337	U2259	C	C2104	A1998	A1871	A1786	A1681	G1588	U1476	U1373	G1288	G1190	G1107
U2343	U2259	C	U2105	C2006	A1872	A1789	G1684	A1591	U1477	U1374	G1289	G1191	G1110
U2344	U2262	U	U2106	C2006	A1873	C1790	C1685	C1592	A1477	U1375	G1289	G1192	G1110
G2345	C2263	U	G2107	U2011	G1884	A1791	C1686	C1592	A1478	U1376	G1289	G1193	A1111
A2346	A2263	G	A2108	U2011	G1884	A1791	C1686	C1592	G1478	U1377	G1289	G1194	A1111
G2347	A2263	A	U2109	A2015	G1905	C1795	A1691	A1603	G1479	U1378	C1298	G1195	U1113
A2352	A2267	A	U2109	A2015	G1905	U1796	A1692	A1603	U1487	U1379	C1298	G1196	U1113
G2353	A2268	A	U2109	A2015	G1905	U1796	A1692	A1603	U1487	U1380	G1300	G1197	G1122
G2354	G2269	U	U2109	A2015	G1905	U1796	A1692	A1603	U1487	U1381	G1300	U1199	C1123
G2355	A2270	C	A2109	A2015	G1905	U1796	A1692	A1603	U1487	U1382	G1300	U1199	G1123
U2361	G2271	C	A2109	A2015	G1905	U1796	A1692	A1603	U1487	U1383	G1300	U1199	G1123
G2365	G2271	C	A2109	A2015	G1905	U1796	A1692	A1603	U1487	U1384	G1300	U1199	G1123
C2368	A2274	A	U2109	A2015	G1905	U1796	A1692	A1603	U1487	U1385	G1300	U1199	G1123
G2373	A2274	A	U2109	A2015	G1905	U1796	A1692	A1603	U1487	U1386	G1300	U1199	G1123
G2383	A2274	A	U2109	A2015	G1905	U1796	A1692	A1603	U1487	U1387	G1300	U1199	G1123
U2384	A2274	A	U2109	A2015	G1905	U1796	A1692	A1603	U1487	U1388	G1300	U1199	G1123
G2385	A2274	A	U2109	A2015	G1905	U1796	A1692	A1603	U1487	U1389	G1300	U1199	G1123
A2386	A2274	A	U2109	A2015	G1905	U1796	A1692	A1603	U1487	U1390	G1300	U1199	G1123
U2387	A2274	A	U2109	A2015	G1905	U1796	A1692	A1603	U1487	U1391	G1300	U1199	G1123
A2388	A2274	A	U2109	A2015	G1905	U1796	A1692	A1603	U1487	U1392	G1300	U1199	G1123
G2389	A2274	A	U2109	A2015	G1905	U1796	A1692	A1603	U1487	U1393	G1300	U1199	G1123
U2393	A2274	A	U2109	A2015	G1905	U1796	A1692	A1603	U1487	U1394	G1300	U1199	G1123
G2396	A2274	A	U2109	A2015	G1905	U1796	A1692	A1603	U1487	U1395	G1300	U1199	G1123
U2402	A2274	A	U2109	A2015	G1905	U1796	A1692	A1603	U1487	U1396	G1300	U1199	G1123
G2403	A2274	A	U2109	A2015	G1905	U1796	A1692	A1603	U1487	U1397	G1300	U1199	G1123
G2405	A2274	A	U2109	A2015	G1905	U1796	A1692	A1603	U1487	U1398	G1300	U1199	G1123



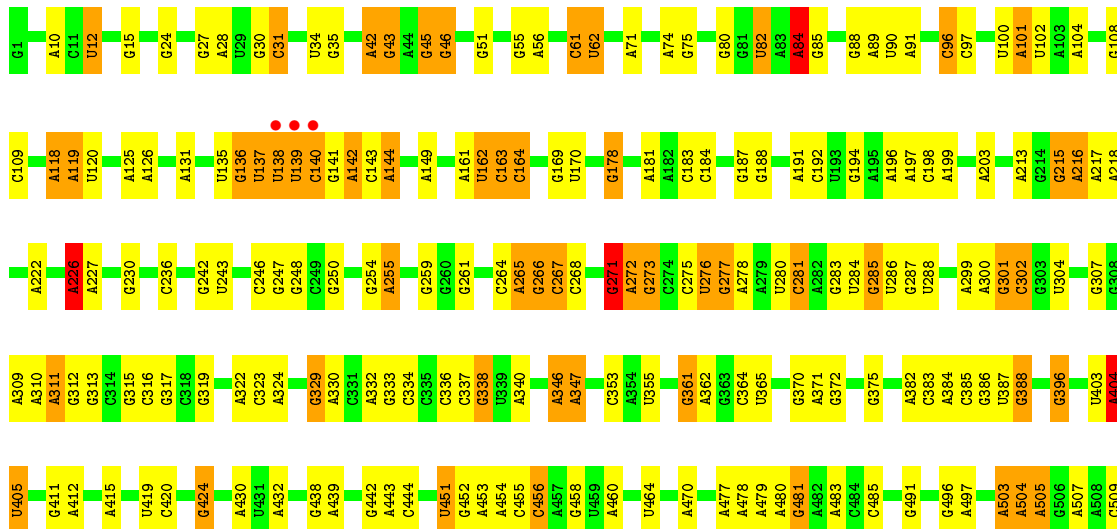
• Molecule 3: 23S rRNA

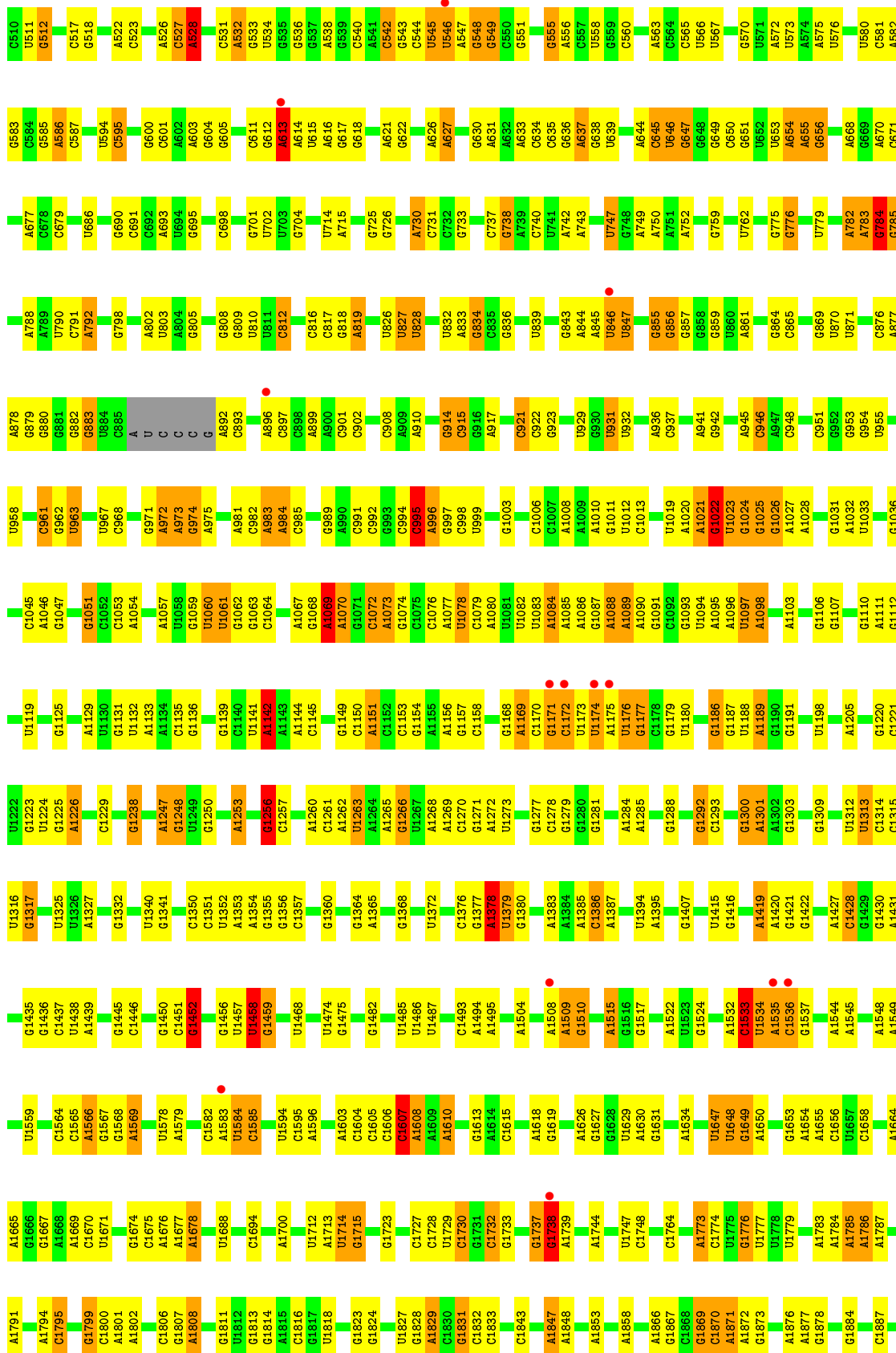


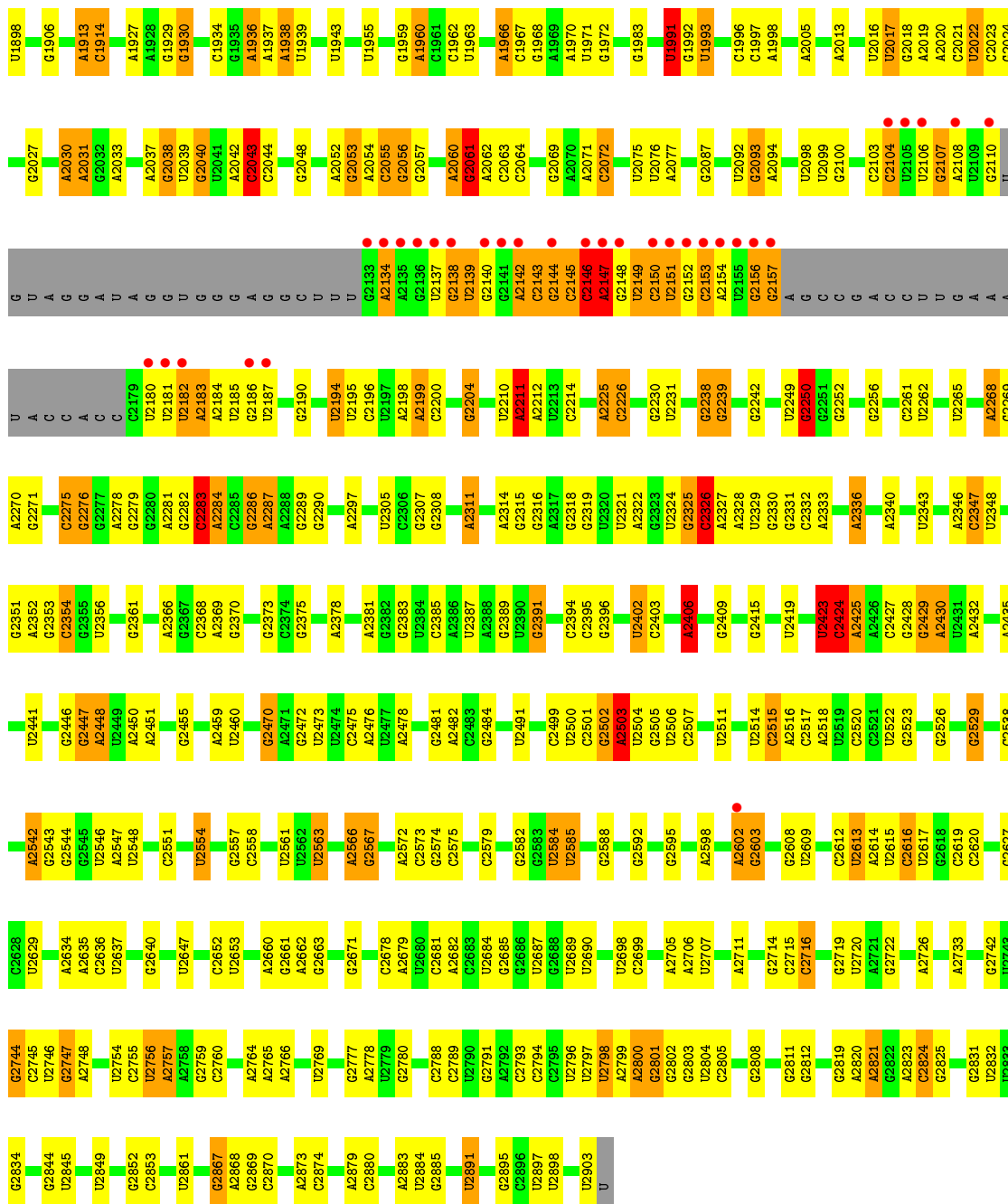
C2043	A1960	C1837	U1629	G1513	A1405	G1309	G1128	A1050	G956	C880	A788
A2051	U1963	C1838	C1638	G1514	U1406	U1313	A1129	G1051	A956	G881	A789
A2052	G1839	G1839	A1641	A1515	G1410	C1314	U1130	C1052	A959	G882	U790
A2053	A1966	A1840	G1642	G1524	C1414	C1315	U1131	G1053	A960	G883	C791
A2054	C1967	U1841	A1641	G1524	U1415	U1316	U1132	A1054	C961	U884	A792
C2055	G1888	G1842	U1647	C1533	U1416	G1317	A1133	A1057	G962	C885	A793
G2056	A1969	C1843	U1648	U1534	C1417	U1318	A1134	U1058	U963	A	A794
A2060	A1970	A1847	G1648	A1535	A1418	A1322	G1135	G1059	C964	U	C795
A2061	U1971	A1848	G1649	A1536	A1419	A1323	C1136	G1060	C	C	A800
A2062	G1972	A1849	A1652	C1536	A1420	U1326	U1139	U1061	C	G	A801
C2063	A1973	G1763	G1653	G1537	G1421	A1327	C1140	G1062	A972	A802	A802
C2064	G1974	C1764	A1654	G1548	G1422	U1328	U1141	G1063	A973	U803	U803
C2065	G1975	A1655	A1654	A1549	C1428	A1329	A1142	C1064	G974	A804	A804
A2070	U1976	U1864	A1655	A1553	G1435	U1328	A1143	A1067	A975	G805	A805
A2071	A1977	U1865	C1658	A1553	G1435	A1328	A1144	G1068	A981	A806	A806
A2072	A1978	U1775	A1658	A1563	A1439	G1331	C1145	A1069	A982	U807	C806
G1989	G1983	G1776	A1664	C1564	U1444	G1332	G1149	A1070	A983	G808	G808
C1990	G1989	U1779	A1668	C1566	G1444	A1342	C1150	G1071	A984	U810	U810
A2094	C1990	U1780	A1669	A1566	G1445	U1343	C1152	A1073	A990	U811	U811
A2095	U1991	U1781	A1673	G1567	G1446	U1344	C1153	G1074	A990	C812	C812
C2096	G1992	G1673	A1674	A1568	C1447	U1352	G1154	G1075	C991	G904	U813
A2097	U1993	A1674	C1675	A1569	G1448	U1352	A1155	G1076	C992	G904	U813
C2101	C1997	U1785	A1676	A1570	G1449	U1360	G1168	A1077	G993	G907	C816
C2102	A1998	A1786	A1677	A1573	G1450	G1361	A1169	C1078	C994	G908	C816
C2103	A1999	A1787	G1681	U1578	G1452	C1362	A1170	C1079	C995	A909	A819
A2104	G1906	U1791	G1684	A1579	U1459	C1363	C1171	A1080	A996	A910	A820
U2105	A1913	A1794	C1685	A1583	A1469	G1369	U1175	G1087	A997	A911	A821
U2106	C1914	U1795	A1685	C1585	U1476	C1370	C1177	A1088	C998	C912	G822
G2107	U1915	G1707	G1708	A1588	U1477	G1371	C1178	U1089	U999	C913	C823
A2108	A1916	C1708	A1713	G1588	G1479	U1372	G1179	A1090	A1000	G914	U824
A2109	A1927	U1714	U1715	A1593	G1482	A1373	U1180	G1091	G1003	G915	U827
G2110	A1928	G1714	A1722	C1595	G1483	A1378	U1181	C1092	A1009	G916	U828
U	A1929	A1722	A1723	A1603	U1484	U1379	U1182	G1093	U1019	A927	A833
G	A1938	G1726	C1727	C1604	U1485	G1380	U1183	U1096	A1020	A928	G834
A	U1939	C1727	C1728	C1605	U1486	G1381	U1184	A1097	U931	U929	C835
C	A1945	A1730	G1731	A1606	U1487	G1382	G1185	A1098	U932	A936	A845
A	U1946	A1731	C1732	A1610	C1498	A1383	G1186	U1099	G1022	U936	G856
U	C1947	G1733	G1734	G1613	C1498	A1384	G1187	C1102	U1023	A937	G856
A	G1948	A1734	A1616	A1613	A1504	A1385	U1188	A1103	G1024	A938	A863
G	A1949	G1734	C1617	A1616	U1505	A1386	A1189	A1103	G1025	A939	G864
C	G1950	A1734	A1618	A1618	U1506	C1386	G1207	G1106	G1026	C948	U871
U	U1951	G1737	A1738	A1626	U1507	A1387	C1208	G1107	A1027	A941	U871
C	A1952	A1738	A1739	G1627	C1507	A1387	U1209	G1107	A1027	G942	G874
G	A1953	A1739	A1744	G1628	A1508	A1392	C1196	G1107	A1027	A945	A878
G	U1954	A1744	A1745	G1628	A1509	A1393	U1203	G1110	A1032	A946	A878
A	U1955	A1744	A1745	G1628	A1510	U1394	U1203	G1111	U1033	A947	A878
G						A1395	G1207	G1112	U948	A948	A878
C						U1396	C1208	C1044	C1045	A949	A878
G						U1397	U1209	C1046	A1047	A950	A878
A						A1403	U1217	G1047	G1047	A951	A878
G						C1404				A952	A878



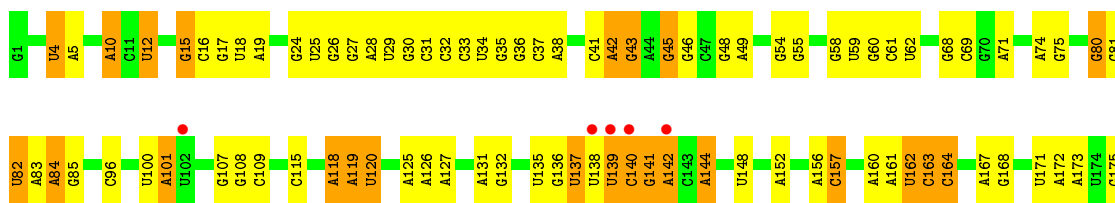
• Molecule 3: 23S rRNA

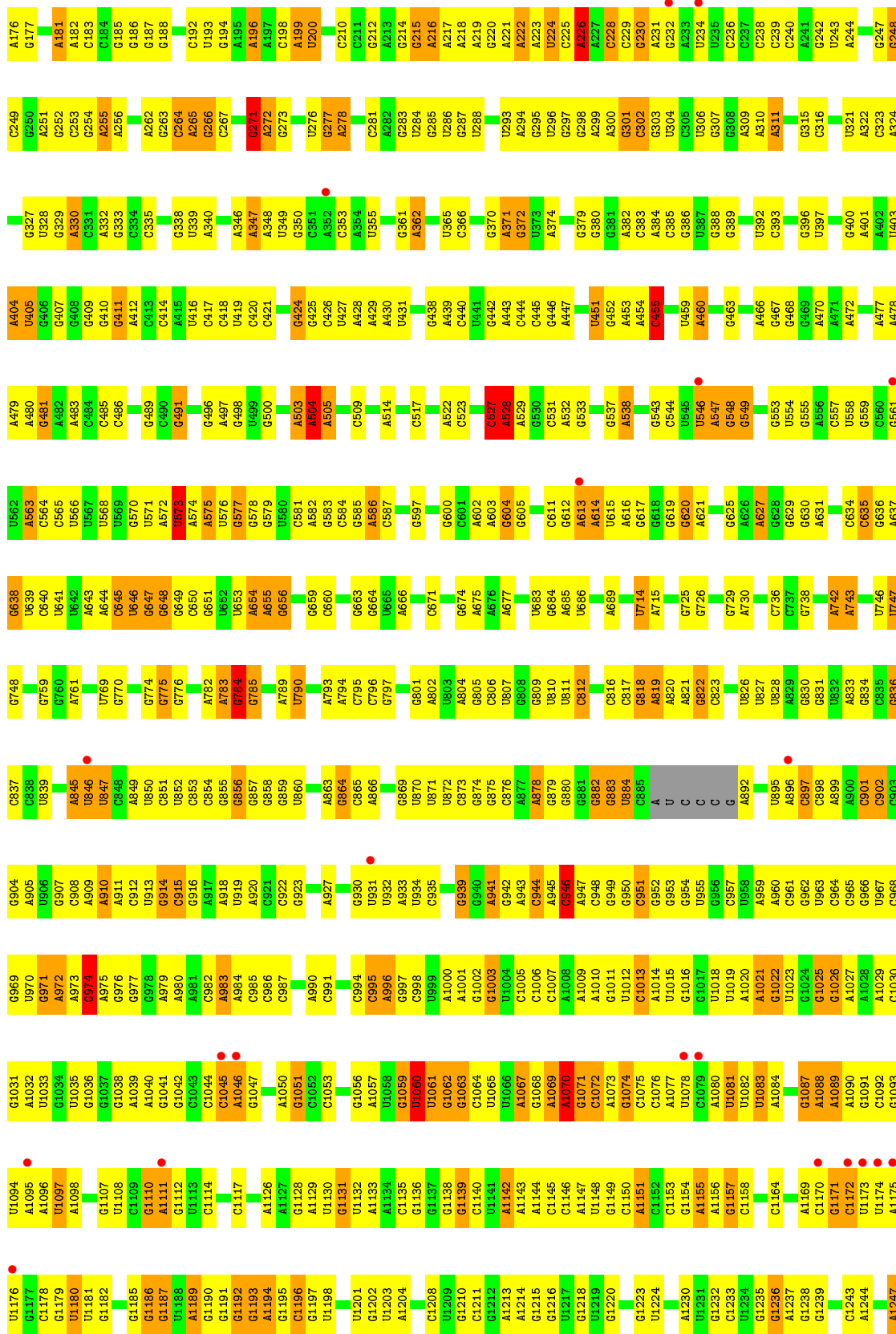


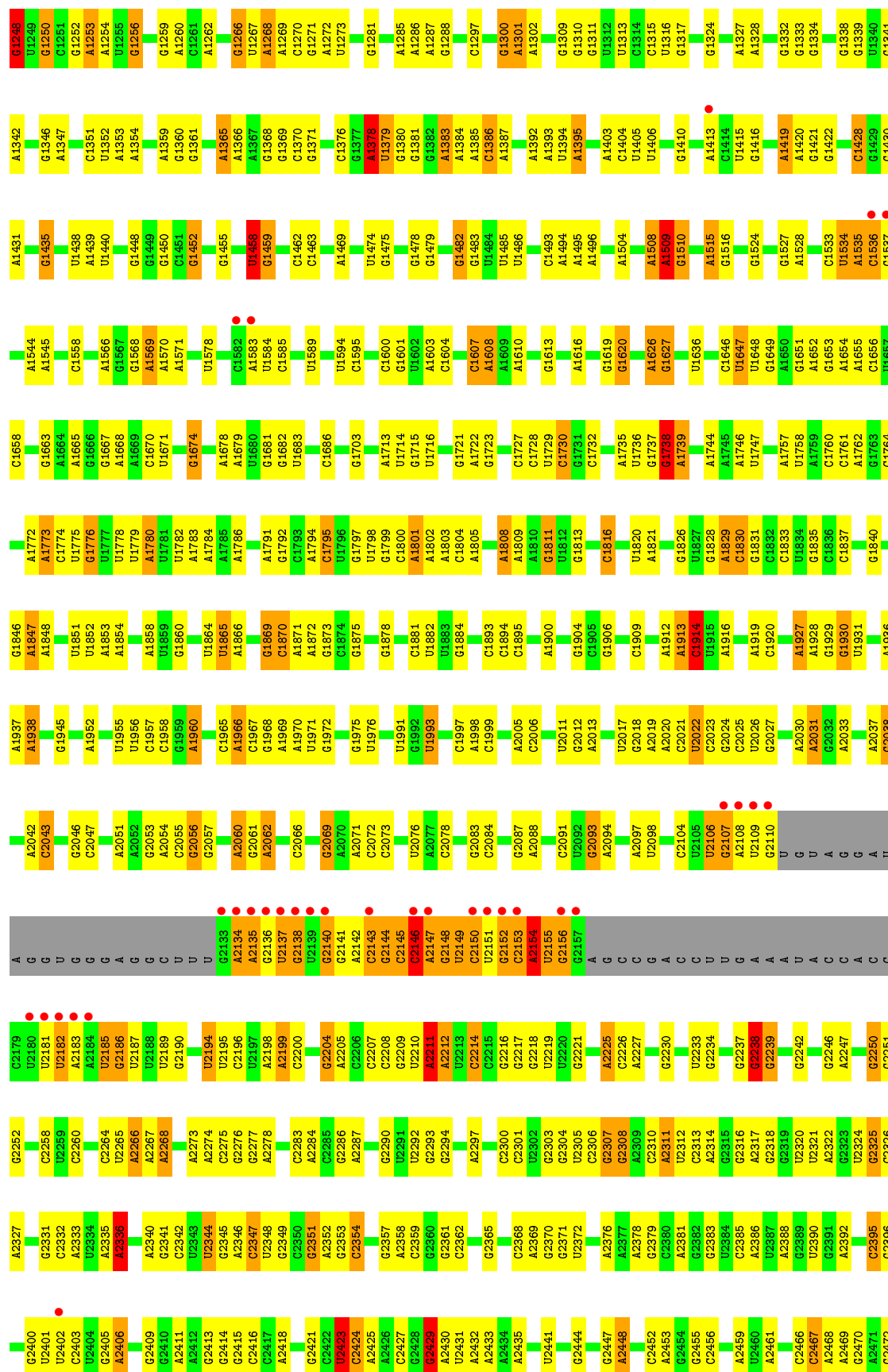


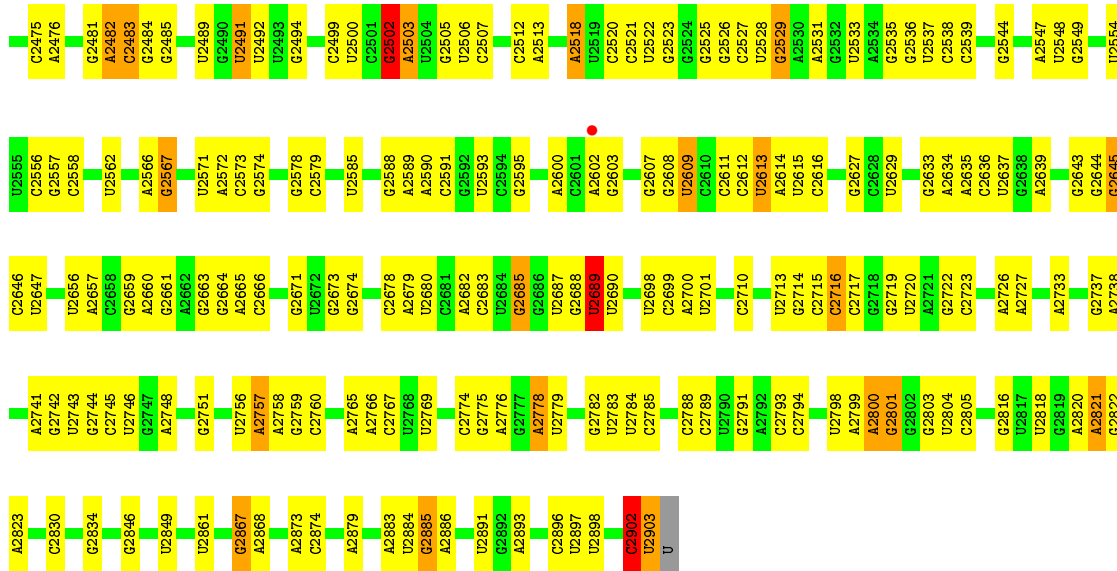


● Molecule 3: 23S rRNA

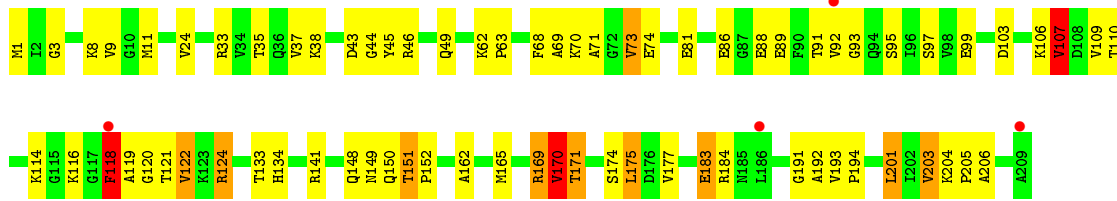




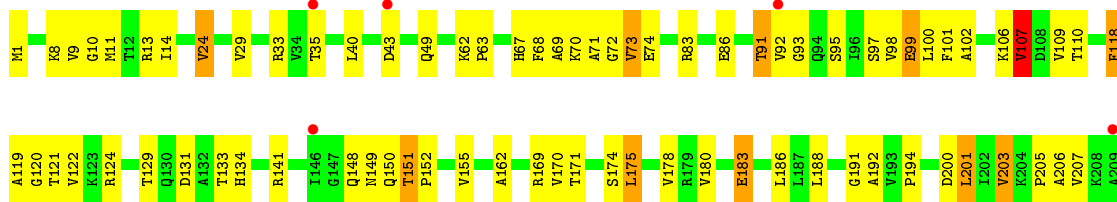




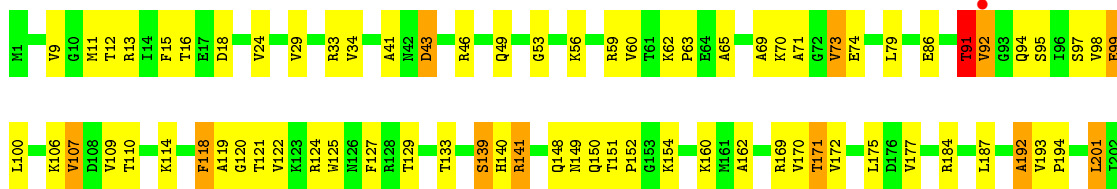
• Molecule 4: 50S ribosomal protein L3

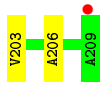


• Molecule 4: 50S ribosomal protein L3

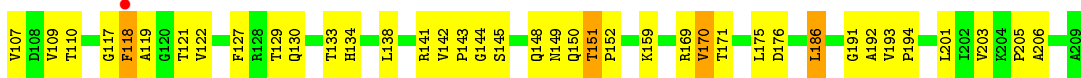
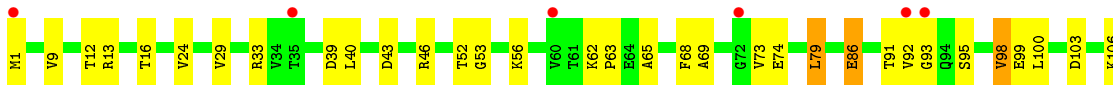


• Molecule 4: 50S ribosomal protein L3

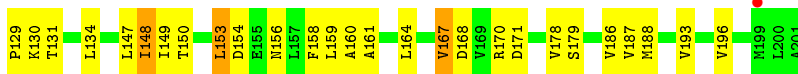




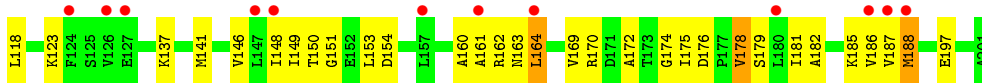
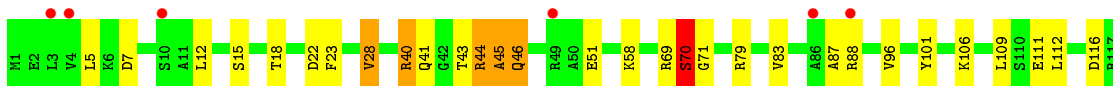
- Molecule 4: 50S ribosomal protein L3



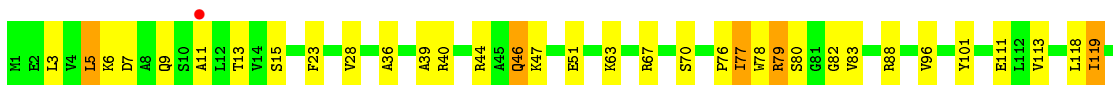
- Molecule 5: 50S ribosomal protein L4



- Molecule 5: 50S ribosomal protein L4

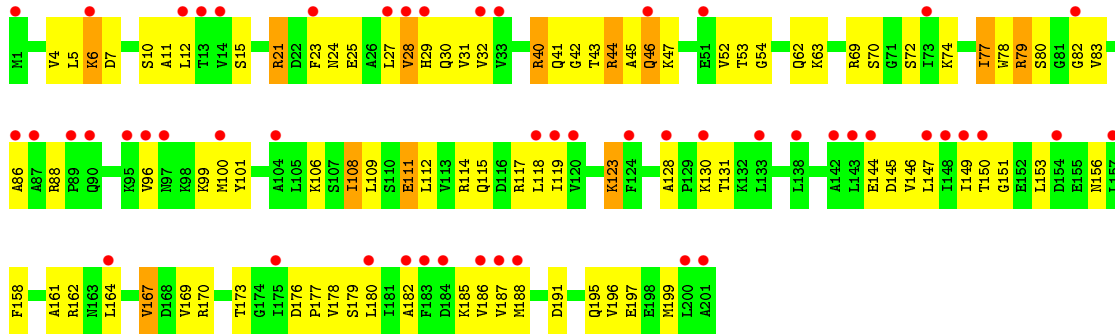


- Molecule 5: 50S ribosomal protein L4

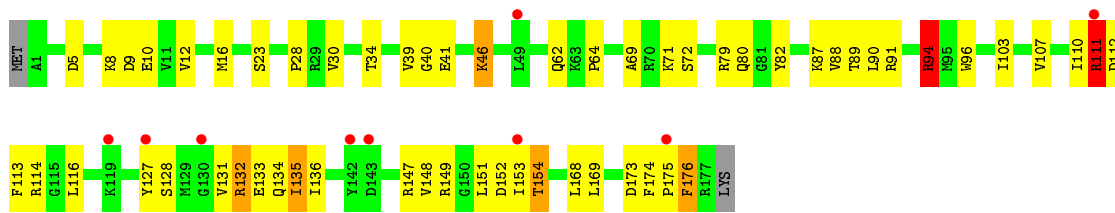


- Molecule 5: 50S ribosomal protein L4

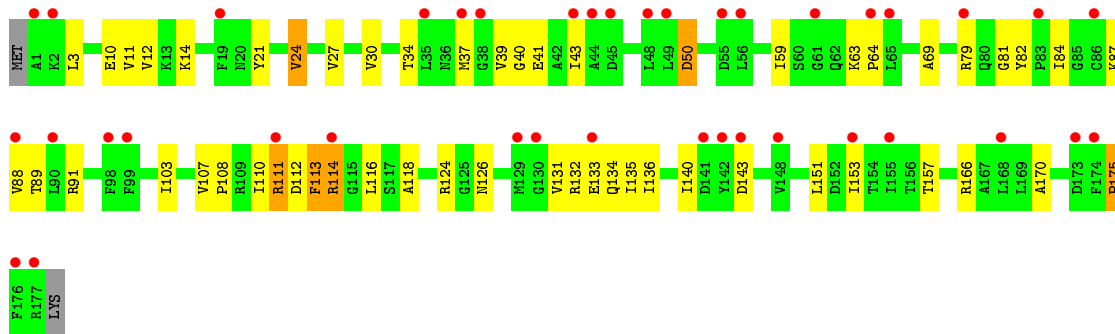




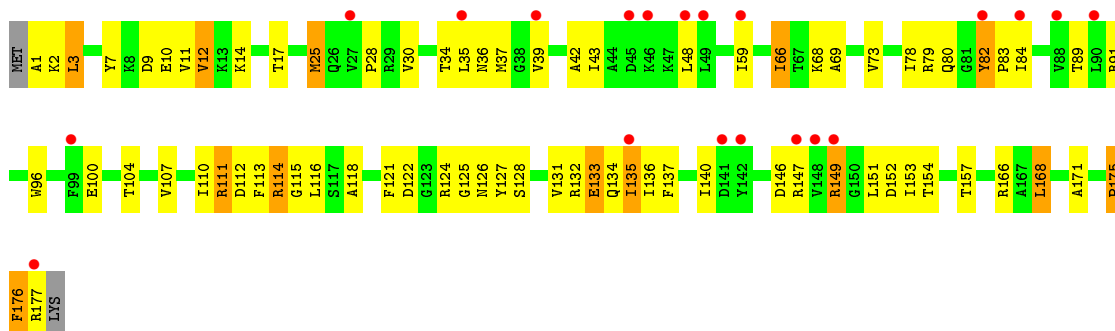
- Molecule 6: 50S ribosomal protein L5



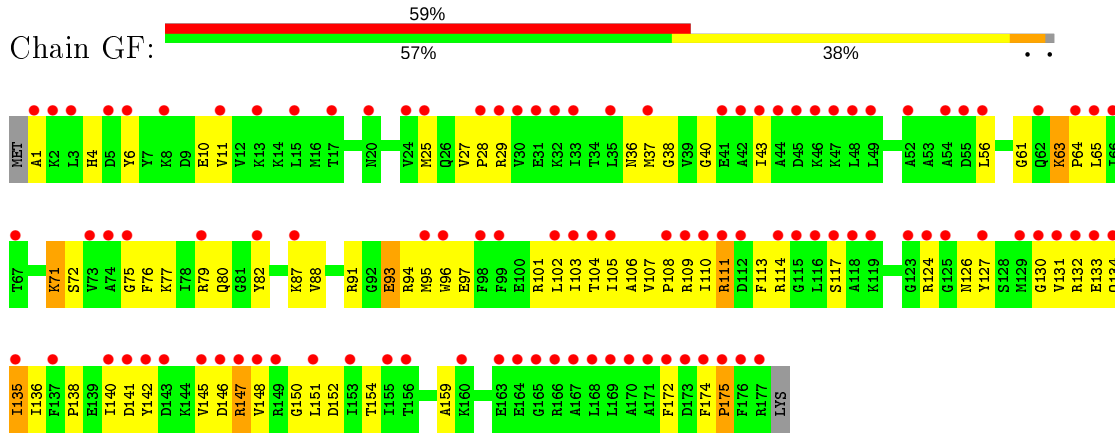
- Molecule 6: 50S ribosomal protein L5



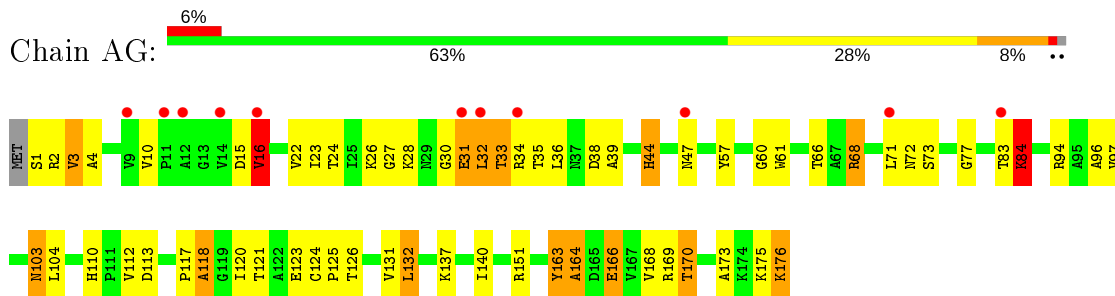
- Molecule 6: 50S ribosomal protein L5



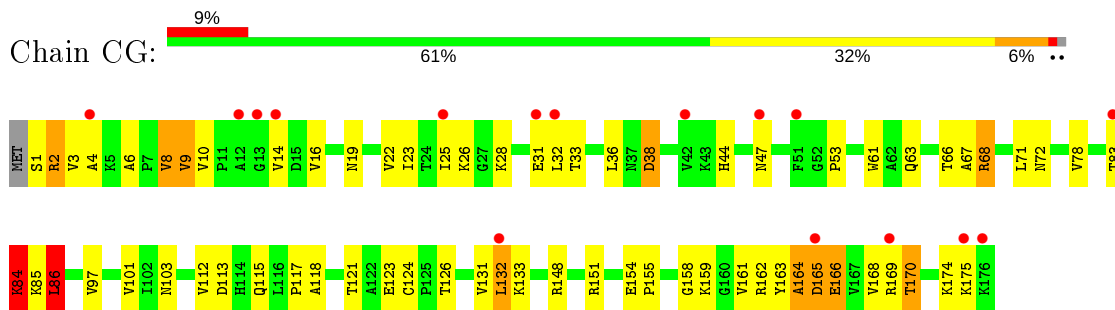
- Molecule 6: 50S ribosomal protein L5



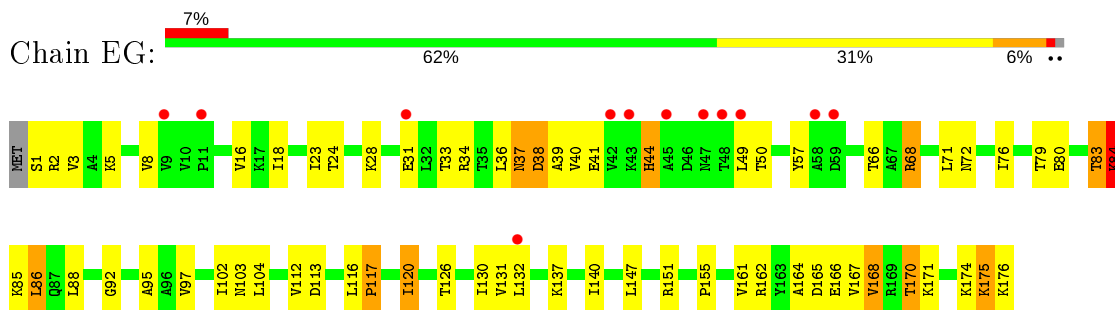
- Molecule 7: 50S ribosomal protein L6



- Molecule 7: 50S ribosomal protein L6

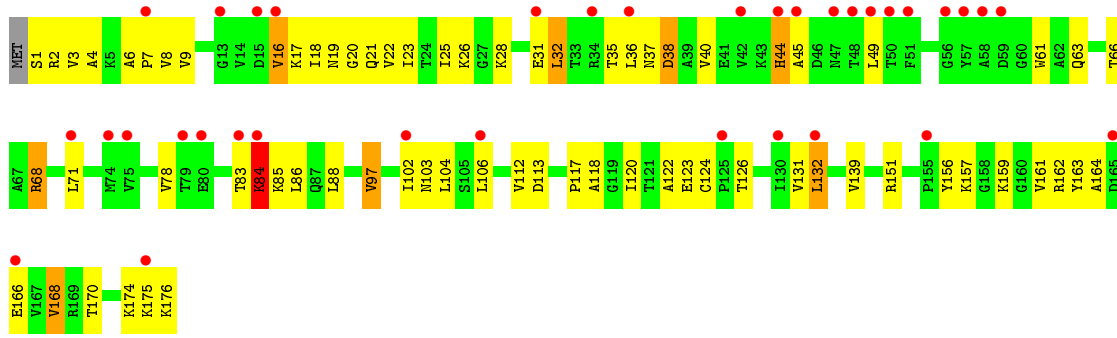


- Molecule 7: 50S ribosomal protein L6

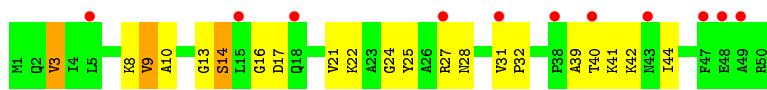


- Molecule 7: 50S ribosomal protein L6

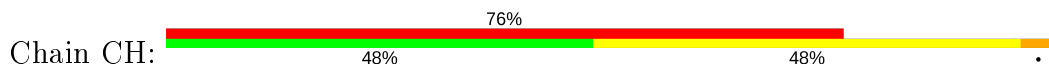




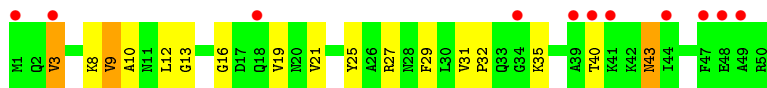
● Molecule 8: 50S ribosomal protein L9



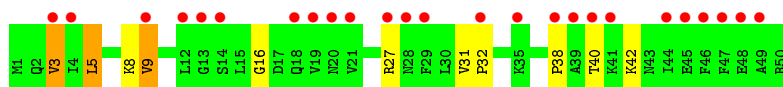
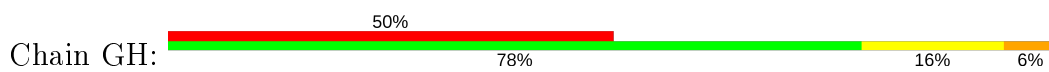
● Molecule 8: 50S ribosomal protein L9



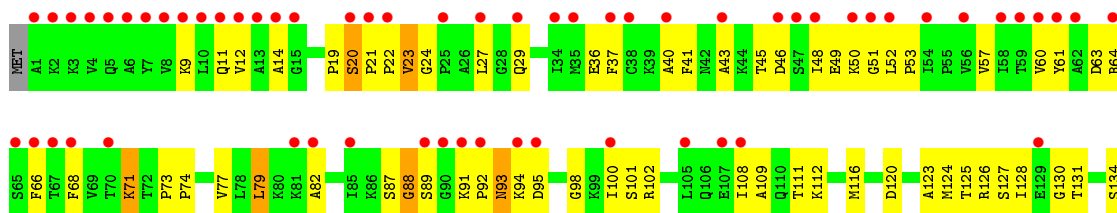
● Molecule 8: 50S ribosomal protein L9

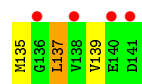


● Molecule 8: 50S ribosomal protein L9

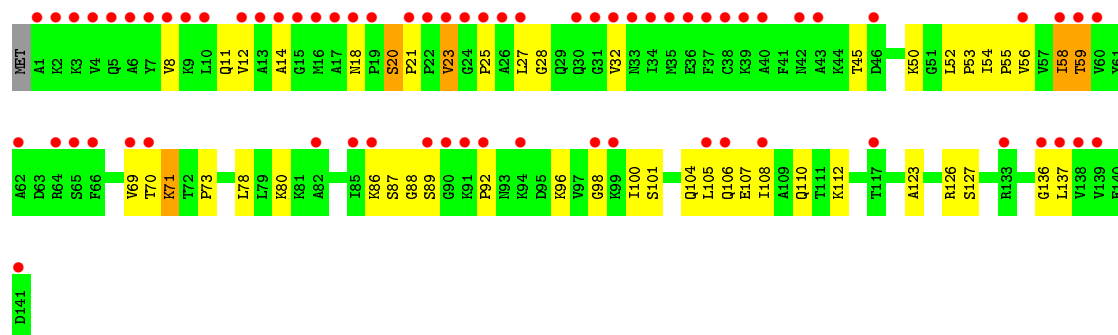


● Molecule 9: 50S ribosomal protein L11

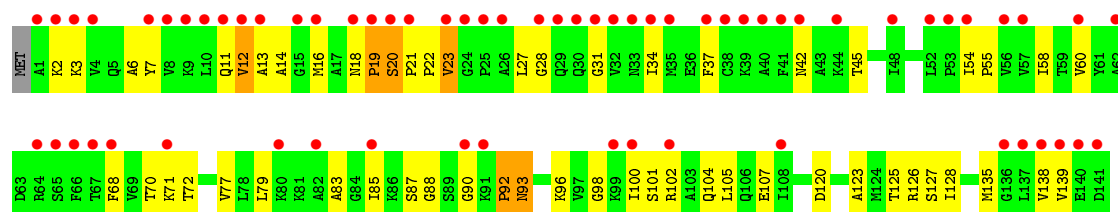




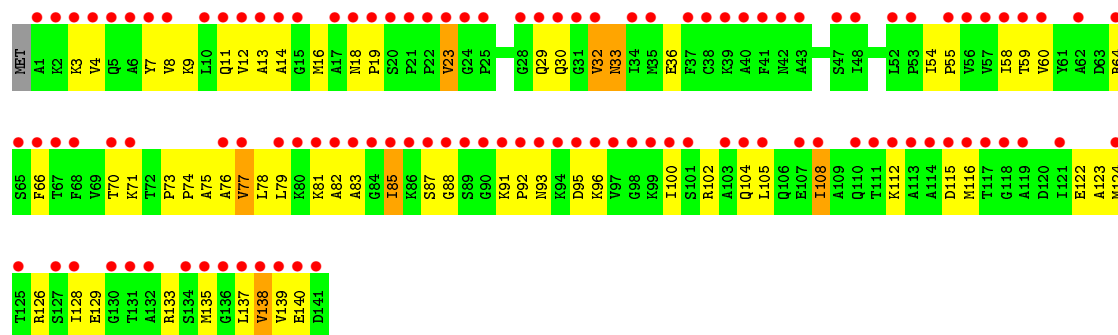
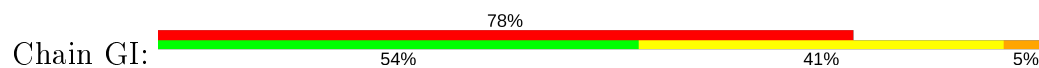
- Molecule 9: 50S ribosomal protein L11



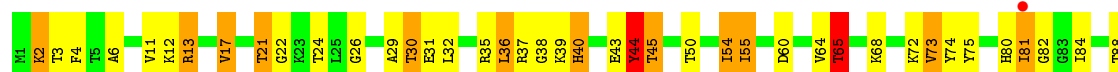
- Molecule 9: 50S ribosomal protein L11



- Molecule 9: 50S ribosomal protein L11



- Molecule 10: 50S ribosomal protein L13

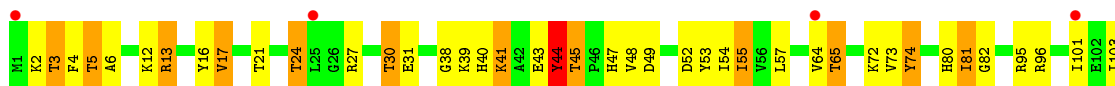




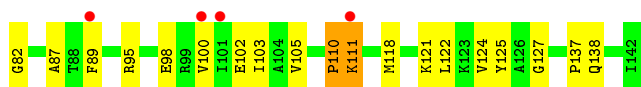
- Molecule 10: 50S ribosomal protein L13



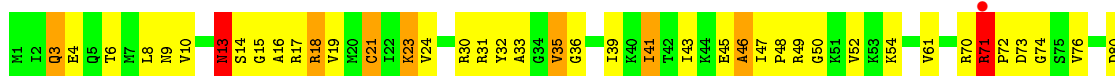
- Molecule 10: 50S ribosomal protein L13



- Molecule 10: 50S ribosomal protein L13

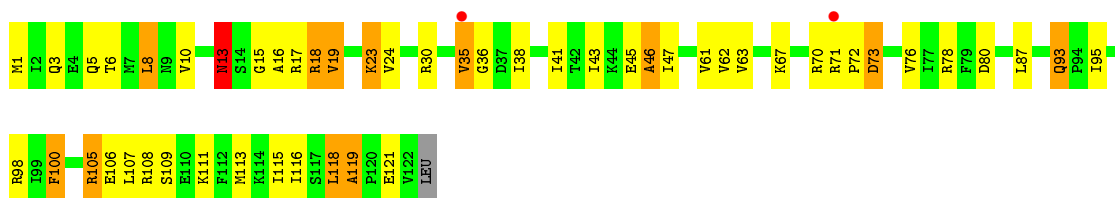


- Molecule 11: 50S ribosomal protein L14



- Molecule 11: 50S ribosomal protein L14

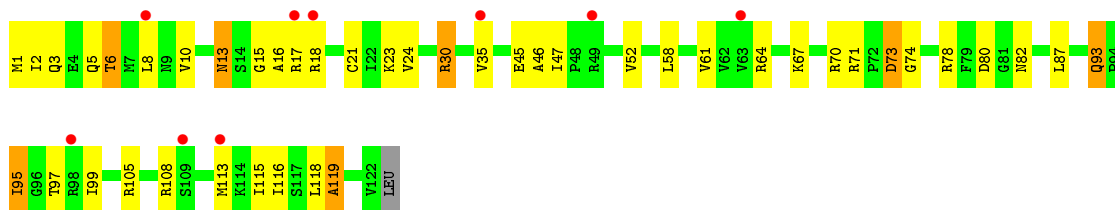




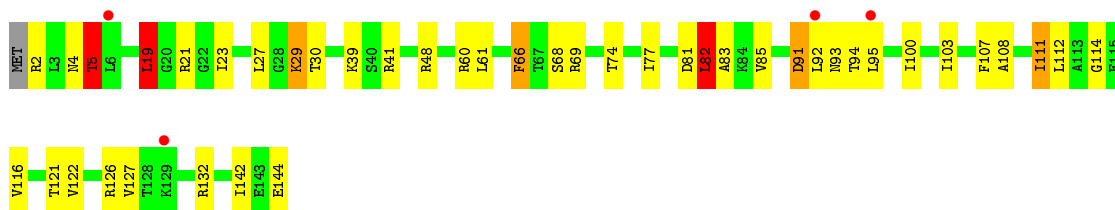
- Molecule 11: 50S ribosomal protein L14



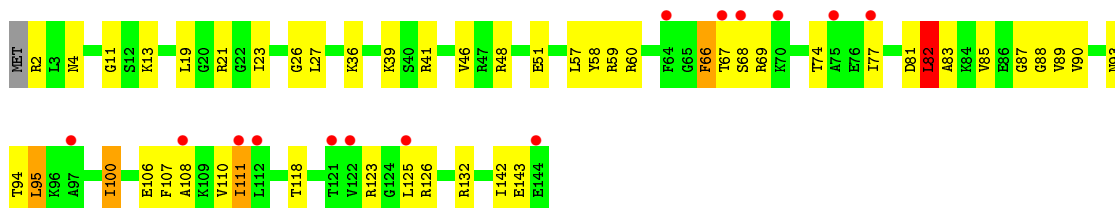
- Molecule 11: 50S ribosomal protein L14

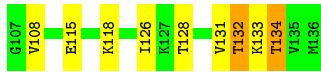


- Molecule 12: 50S ribosomal protein L15

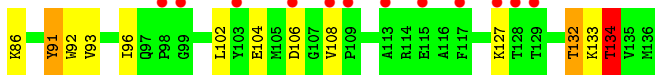
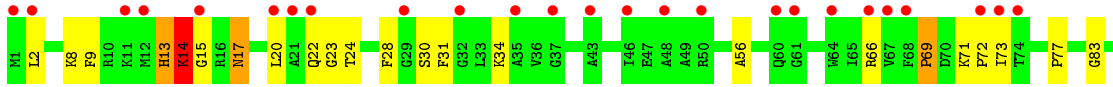
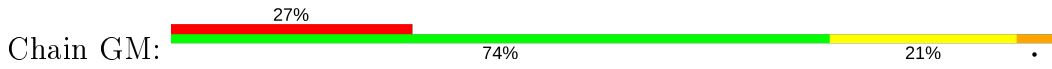


- Molecule 12: 50S ribosomal protein L15

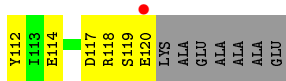
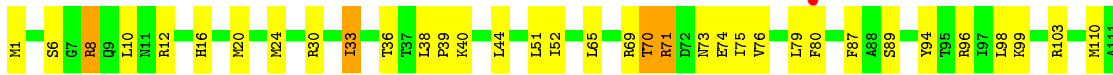




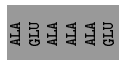
• Molecule 13: 50S ribosomal protein L16



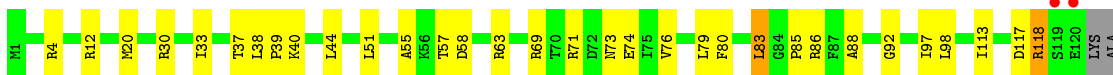
• Molecule 14: 50S ribosomal protein L17



• Molecule 14: 50S ribosomal protein L17

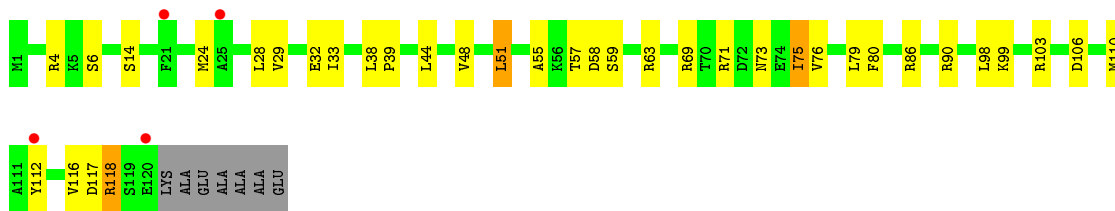


• Molecule 14: 50S ribosomal protein L17

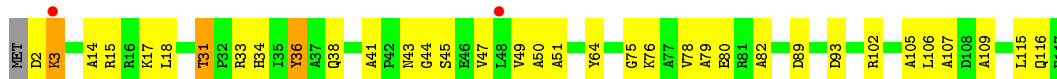


• Molecule 14: 50S ribosomal protein L17

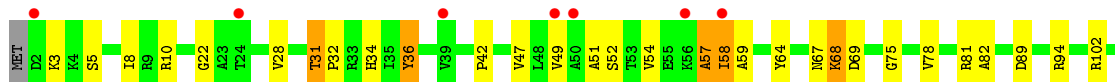




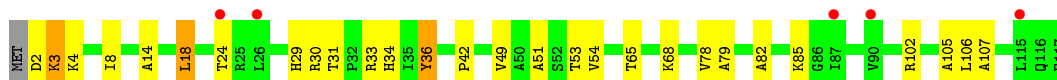
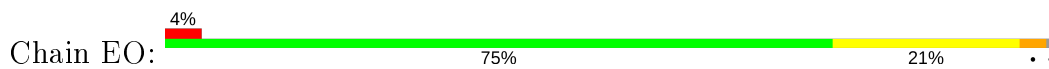
• Molecule 15: 50S ribosomal protein L18



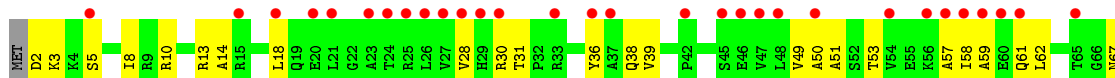
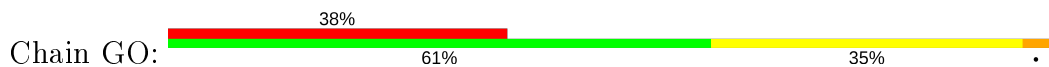
• Molecule 15: 50S ribosomal protein L18



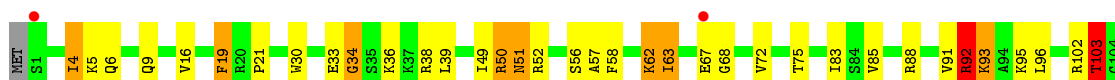
• Molecule 15: 50S ribosomal protein L18



• Molecule 15: 50S ribosomal protein L18

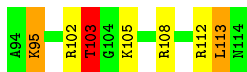
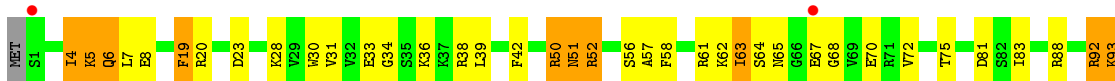


• Molecule 16: 50S ribosomal protein L19

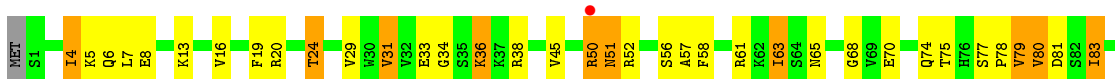




- Molecule 16: 50S ribosomal protein L19



- Molecule 16: 50S ribosomal protein L19



- Molecule 16: 50S ribosomal protein L19

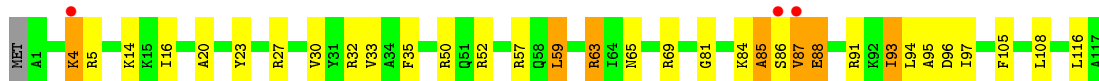


- Molecule 17: 50S ribosomal protein L20

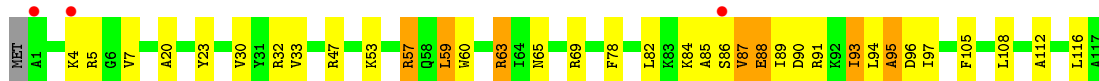


- Molecule 17: 50S ribosomal protein L20





• Molecule 17: 50S ribosomal protein L20



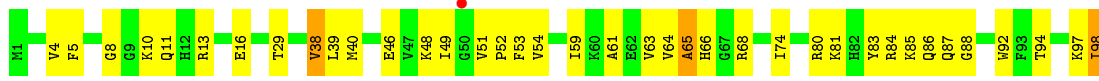
• Molecule 17: 50S ribosomal protein L20



• Molecule 18: 50S ribosomal protein L21



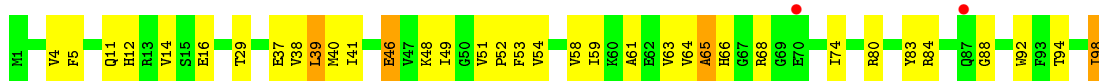
• Molecule 18: 50S ribosomal protein L21



• Molecule 18: 50S ribosomal protein L21

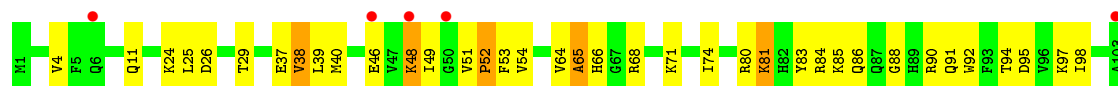


• Molecule 18: 50S ribosomal protein L21

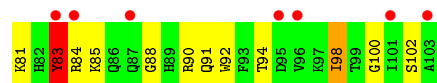
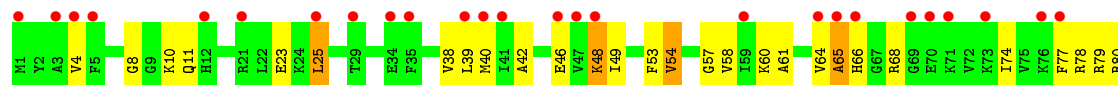


• Molecule 18: 50S ribosomal protein L21

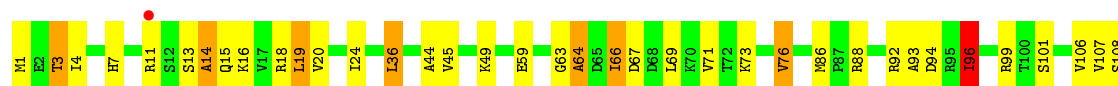




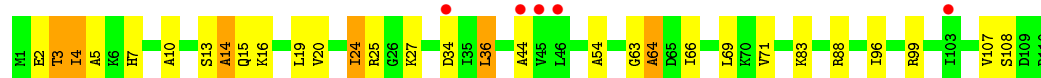
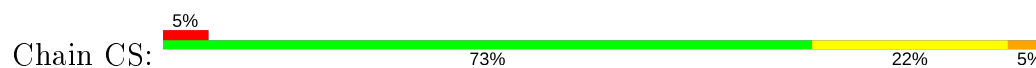
- Molecule 18: 50S ribosomal protein L21



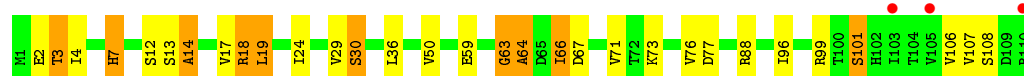
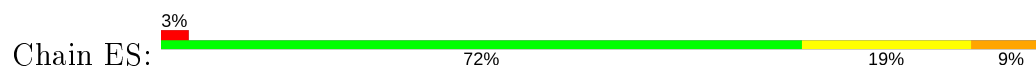
- Molecule 19: 50S ribosomal protein L22



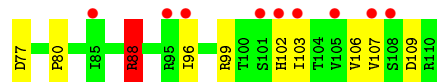
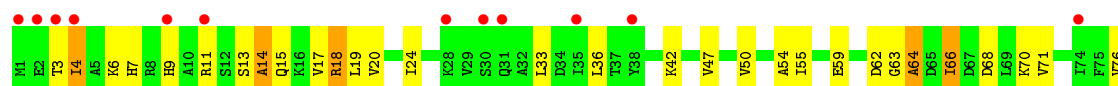
- Molecule 19: 50S ribosomal protein L22



- Molecule 19: 50S ribosomal protein L22



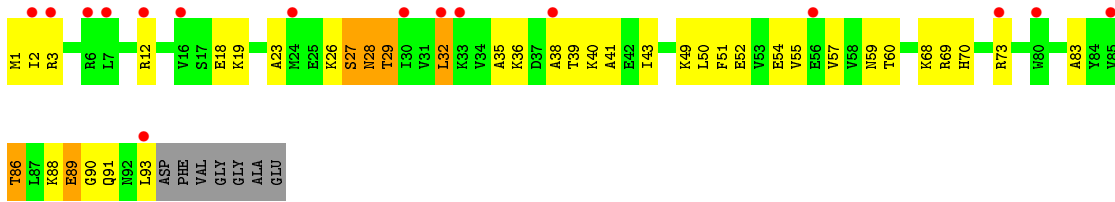
- Molecule 19: 50S ribosomal protein L22



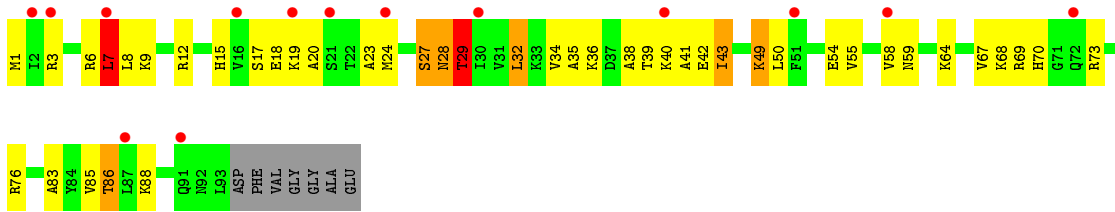
• Molecule 20: 50S ribosomal protein L23



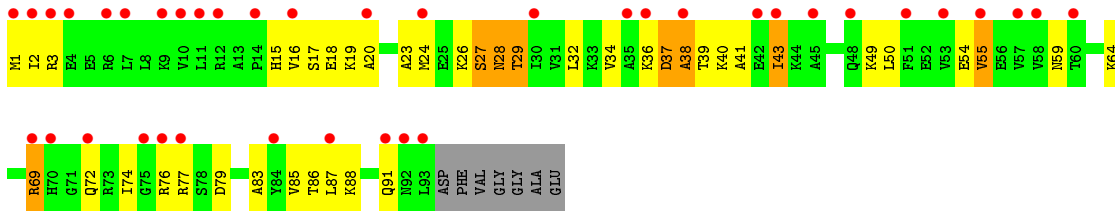
• Molecule 20: 50S ribosomal protein L23



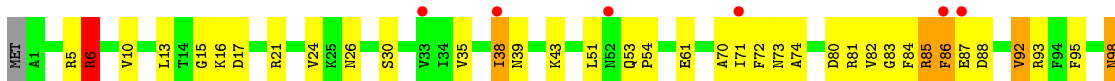
• Molecule 20: 50S ribosomal protein L23



• Molecule 20: 50S ribosomal protein L23

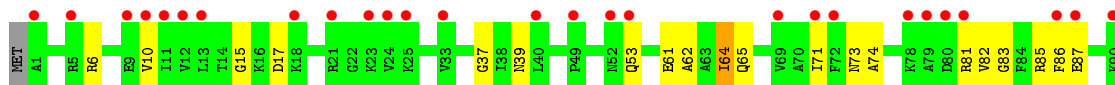
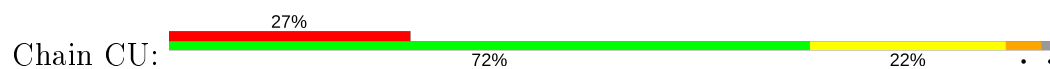


• Molecule 21: 50S ribosomal protein L24





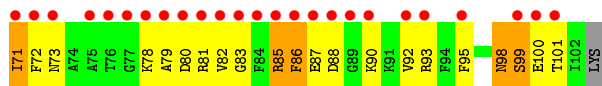
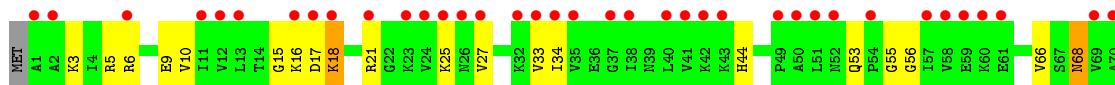
- Molecule 21: 50S ribosomal protein L24



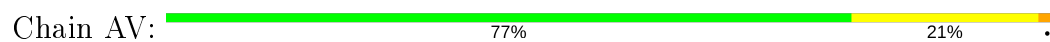
- Molecule 21: 50S ribosomal protein L24



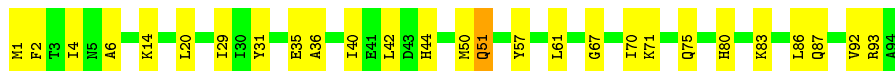
- Molecule 21: 50S ribosomal protein L24



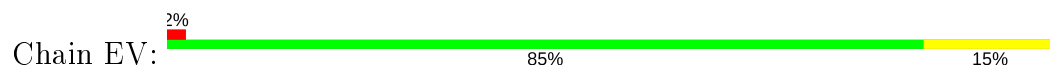
- Molecule 22: 50S ribosomal protein L25



- Molecule 22: 50S ribosomal protein L25

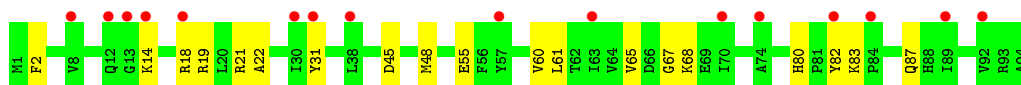
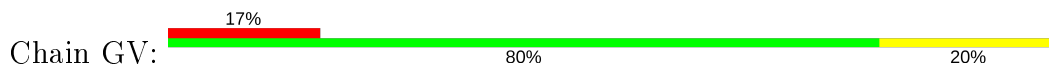


- Molecule 22: 50S ribosomal protein L25

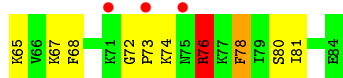
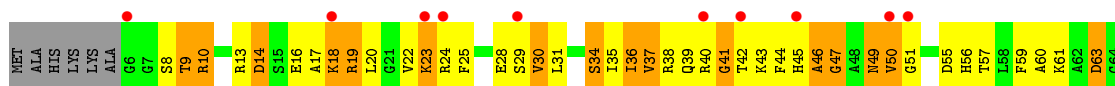




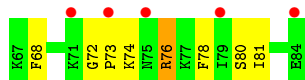
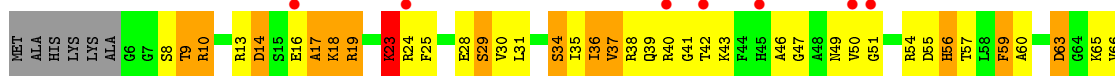
• Molecule 22: 50S ribosomal protein L25



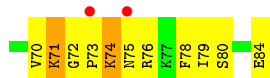
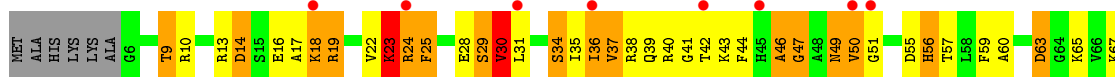
• Molecule 23: 50S ribosomal protein L27



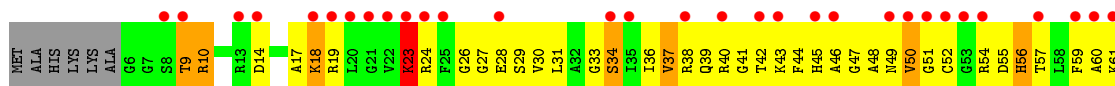
• Molecule 23: 50S ribosomal protein L27



• Molecule 23: 50S ribosomal protein L27

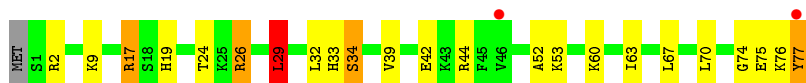


• Molecule 23: 50S ribosomal protein L27

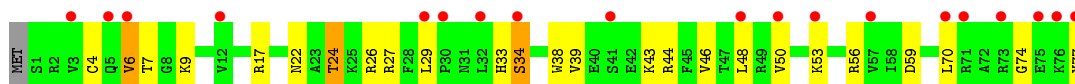




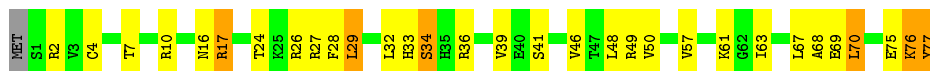
- Molecule 24: 50S ribosomal protein L28



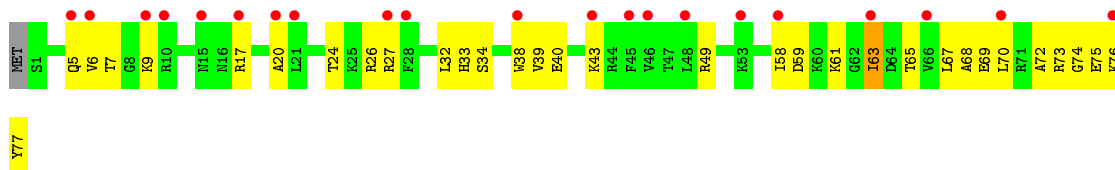
- Molecule 24: 50S ribosomal protein L28



- Molecule 24: 50S ribosomal protein L28



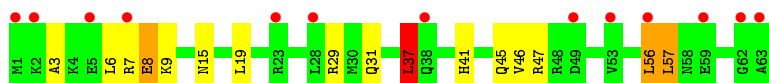
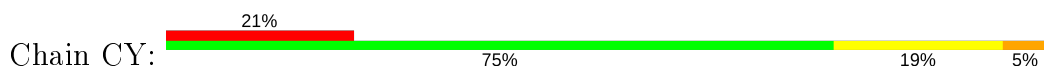
- Molecule 24: 50S ribosomal protein L28



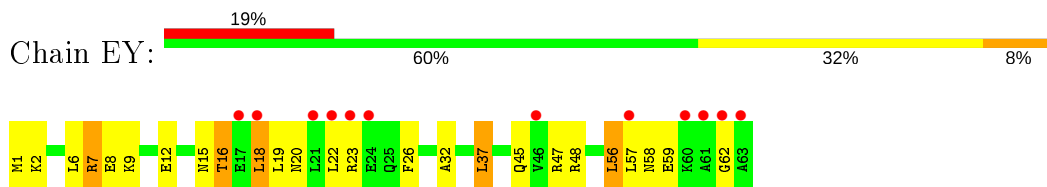
- Molecule 25: 50S ribosomal protein L29



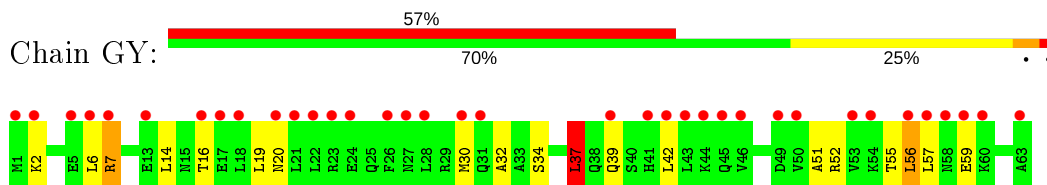
- Molecule 25: 50S ribosomal protein L29



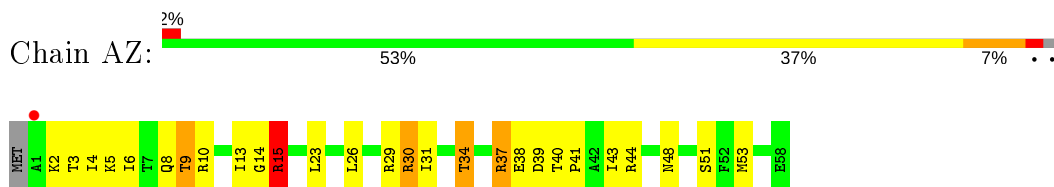
- Molecule 25: 50S ribosomal protein L29



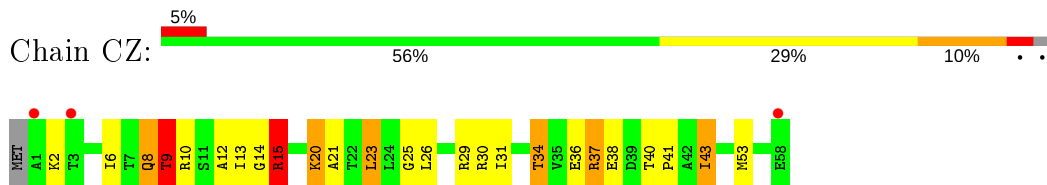
- Molecule 25: 50S ribosomal protein L29



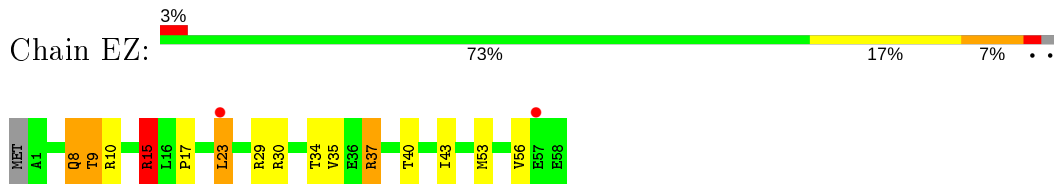
- Molecule 26: 50S ribosomal protein L30



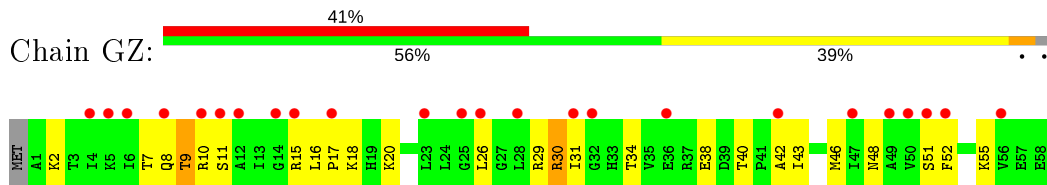
- Molecule 26: 50S ribosomal protein L30



- Molecule 26: 50S ribosomal protein L30

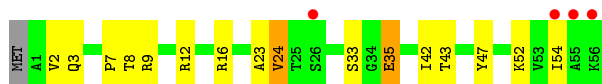


- Molecule 26: 50S ribosomal protein L30

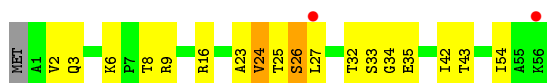


- Molecule 27: 50S ribosomal protein L32





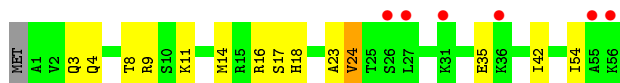
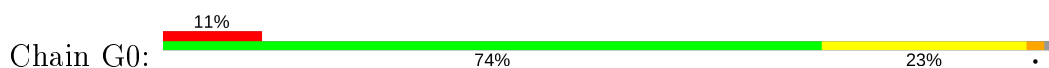
- Molecule 27: 50S ribosomal protein L32



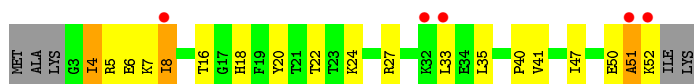
- Molecule 27: 50S ribosomal protein L32



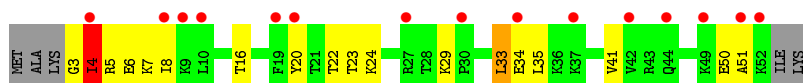
- Molecule 27: 50S ribosomal protein L32



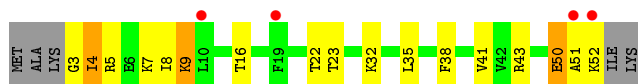
- Molecule 28: 50S ribosomal protein L33



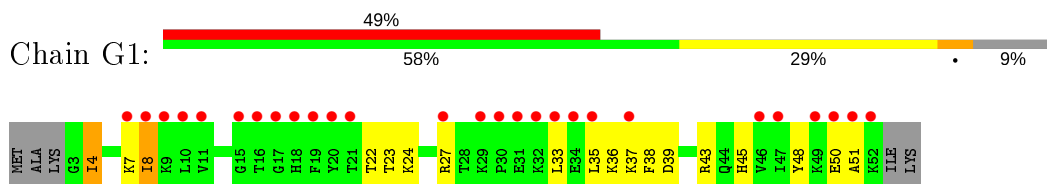
- Molecule 28: 50S ribosomal protein L33



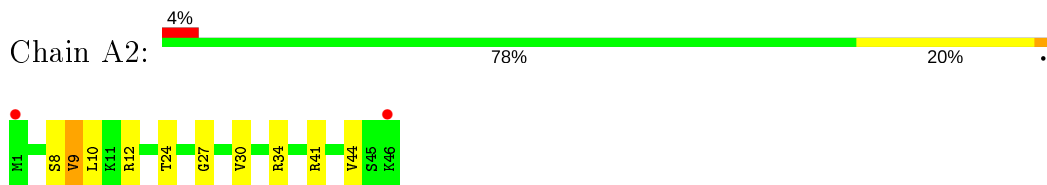
- Molecule 28: 50S ribosomal protein L33



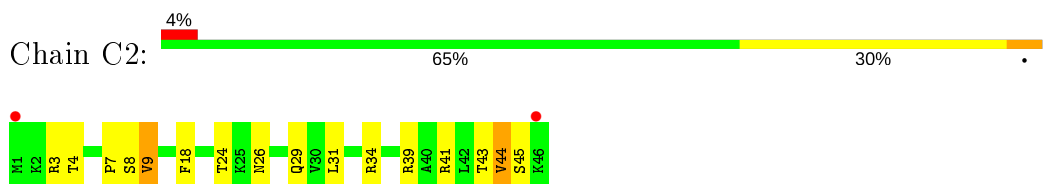
- Molecule 28: 50S ribosomal protein L33



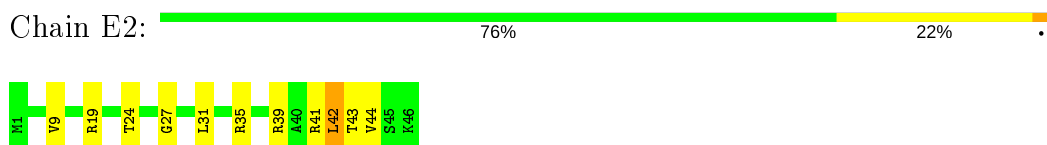
- Molecule 29: 50S ribosomal protein L34



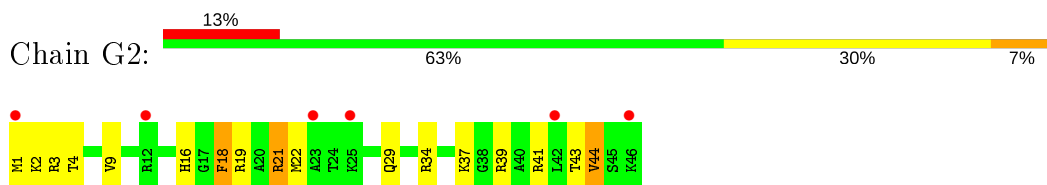
- Molecule 29: 50S ribosomal protein L34



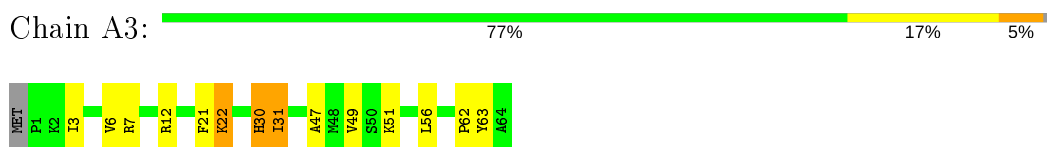
- Molecule 29: 50S ribosomal protein L34



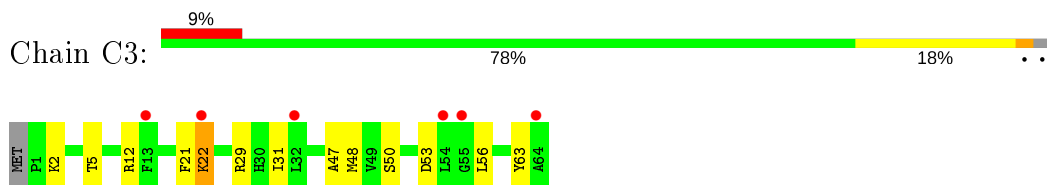
- Molecule 29: 50S ribosomal protein L34



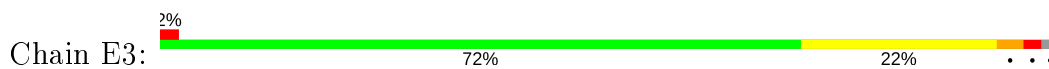
- Molecule 30: 50S ribosomal protein L35



- Molecule 30: 50S ribosomal protein L35



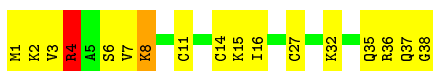
- Molecule 30: 50S ribosomal protein L35



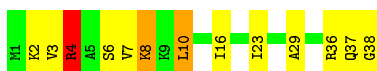
- Molecule 30: 50S ribosomal protein L35



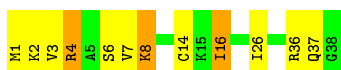
- Molecule 31: 50S ribosomal protein L36



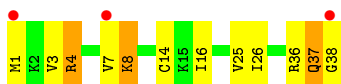
- Molecule 31: 50S ribosomal protein L36



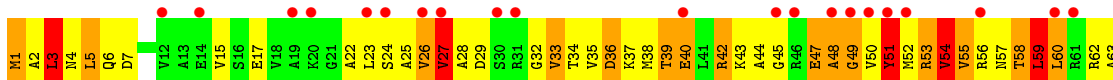
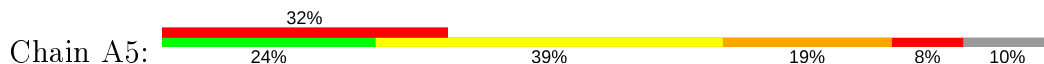
- Molecule 31: 50S ribosomal protein L36

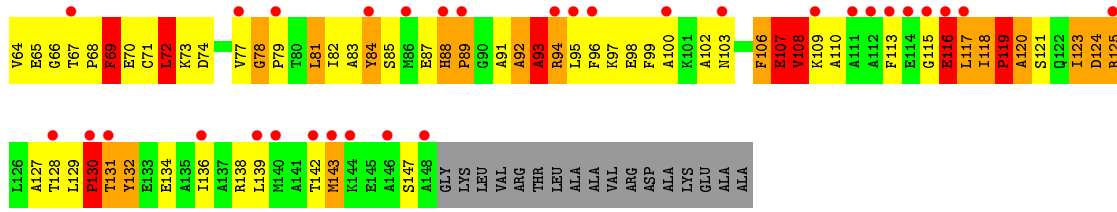


- Molecule 31: 50S ribosomal protein L36

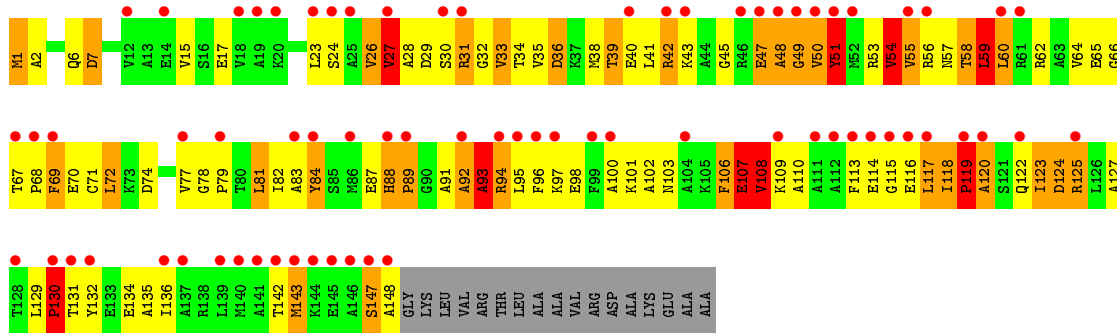


- Molecule 32: 50S ribosomal protein L10

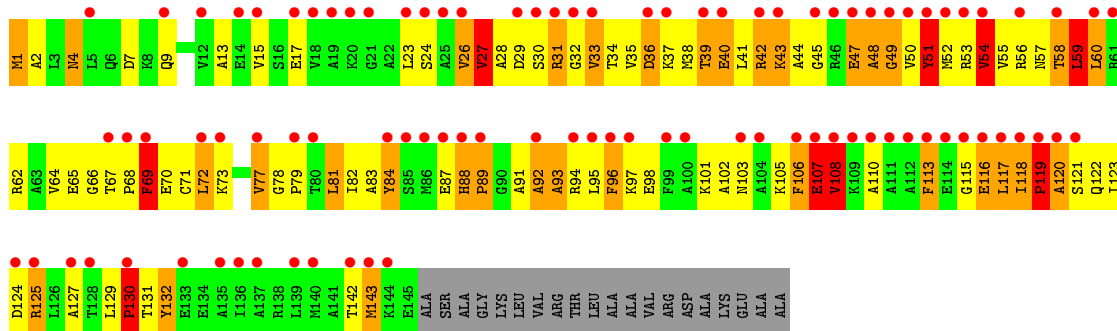
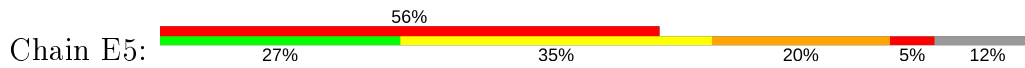




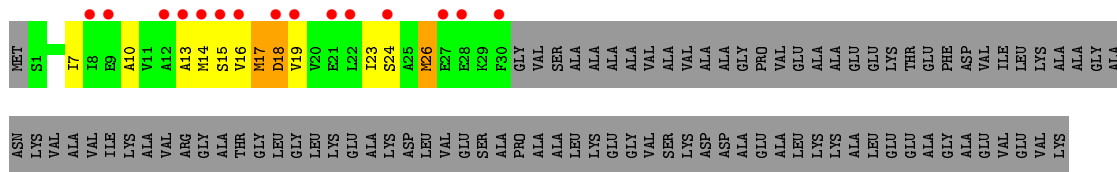
• Molecule 32: 50S ribosomal protein L10



• Molecule 32: 50S ribosomal protein L10

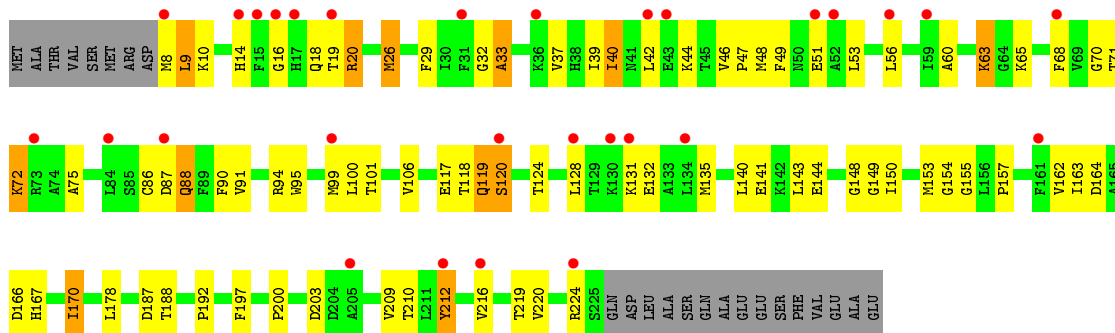


• Molecule 33: 50S ribosomal protein L7/L12

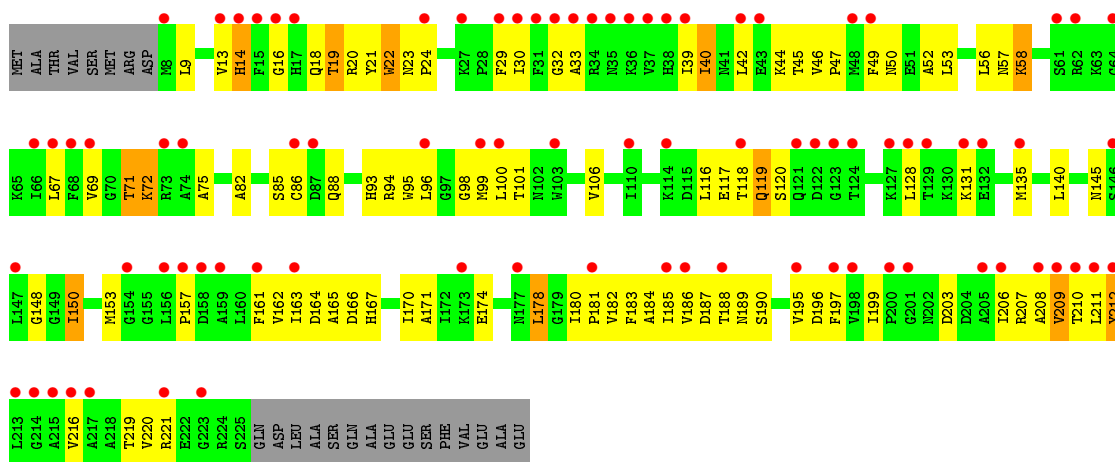


• Molecule 34: 30S ribosomal protein S2

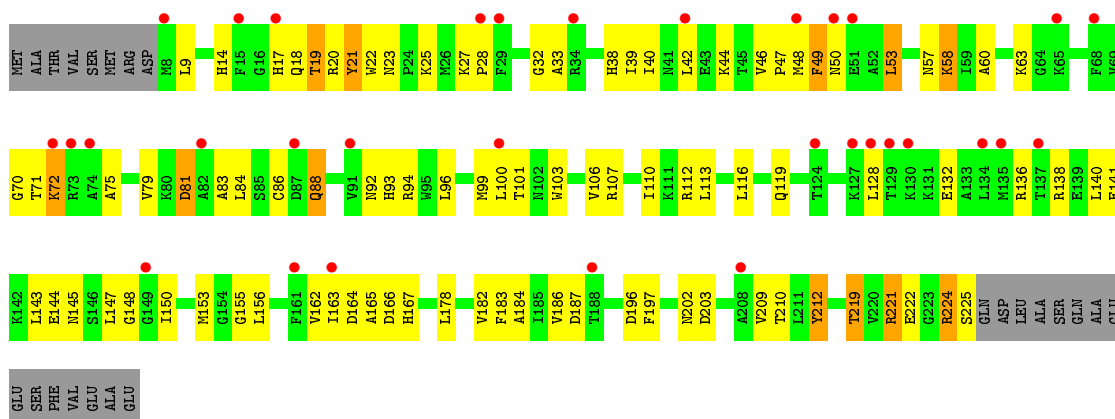




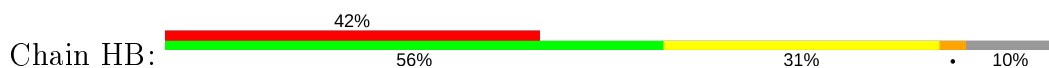
• Molecule 34: 30S ribosomal protein S2

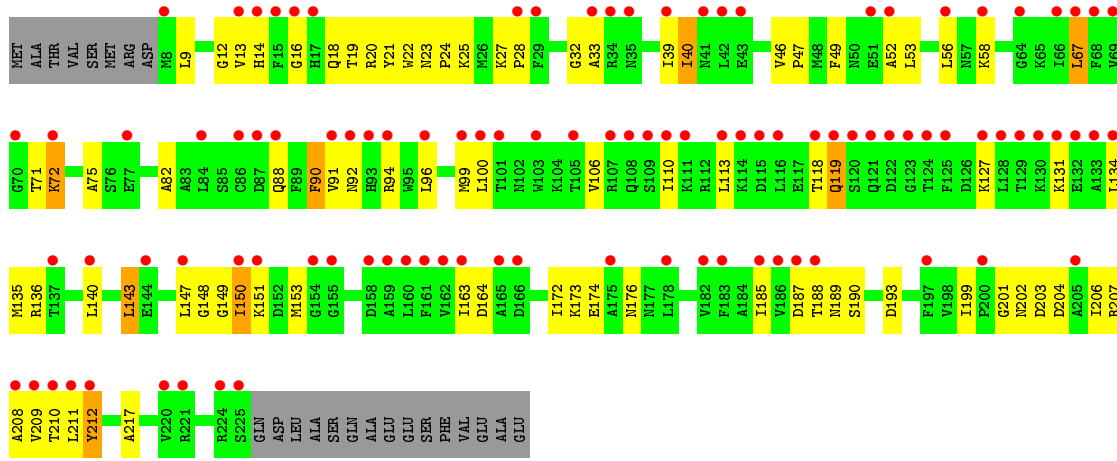


• Molecule 34: 30S ribosomal protein S2

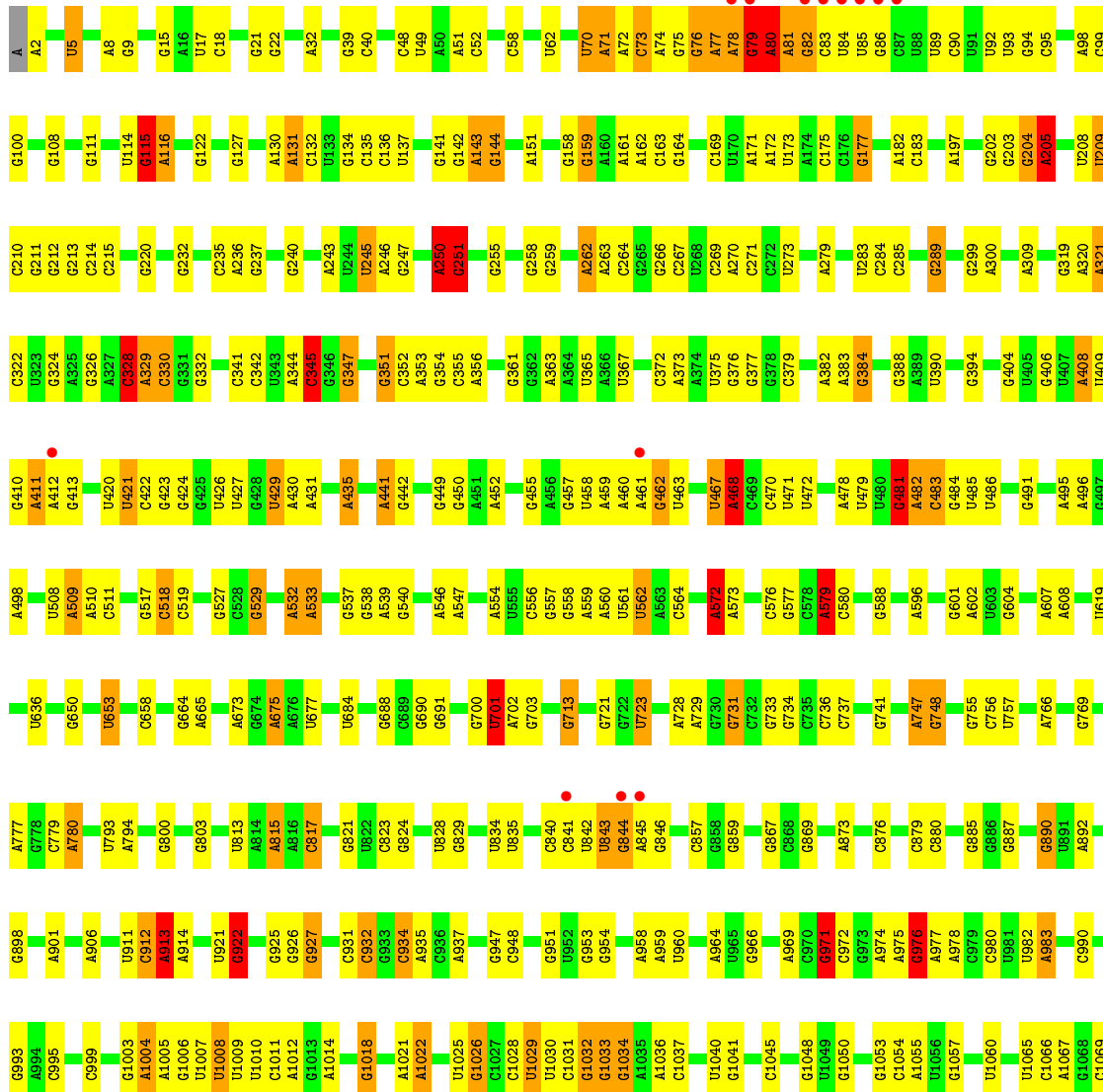


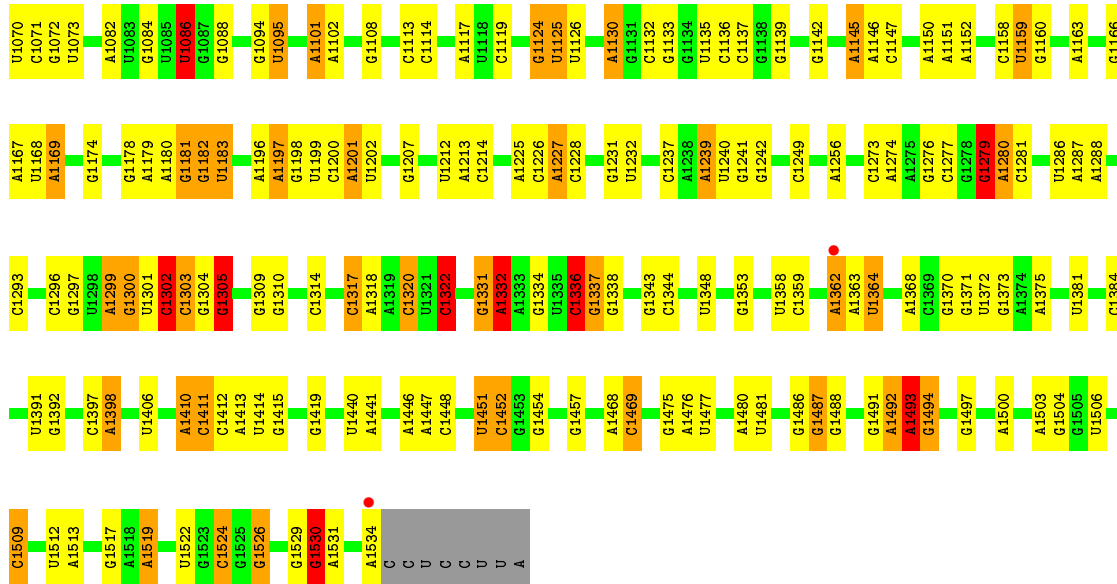
• Molecule 34: 30S ribosomal protein S2



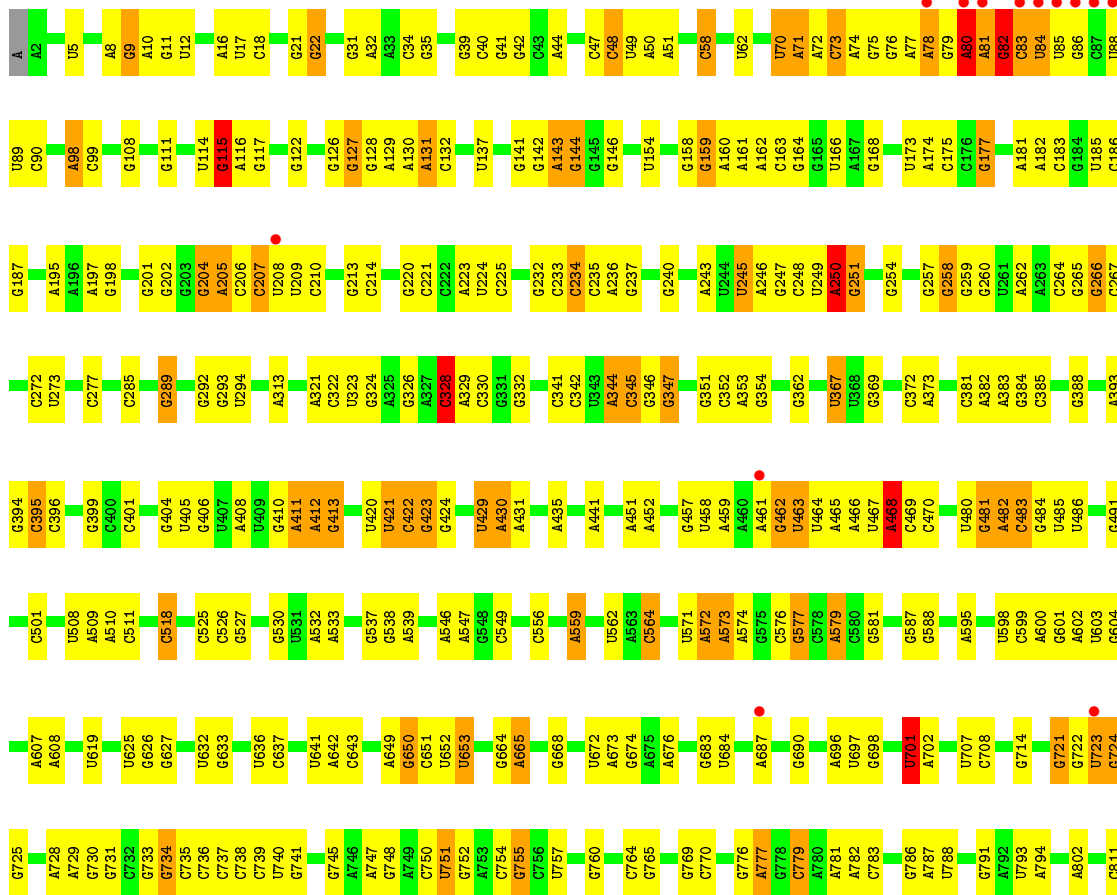


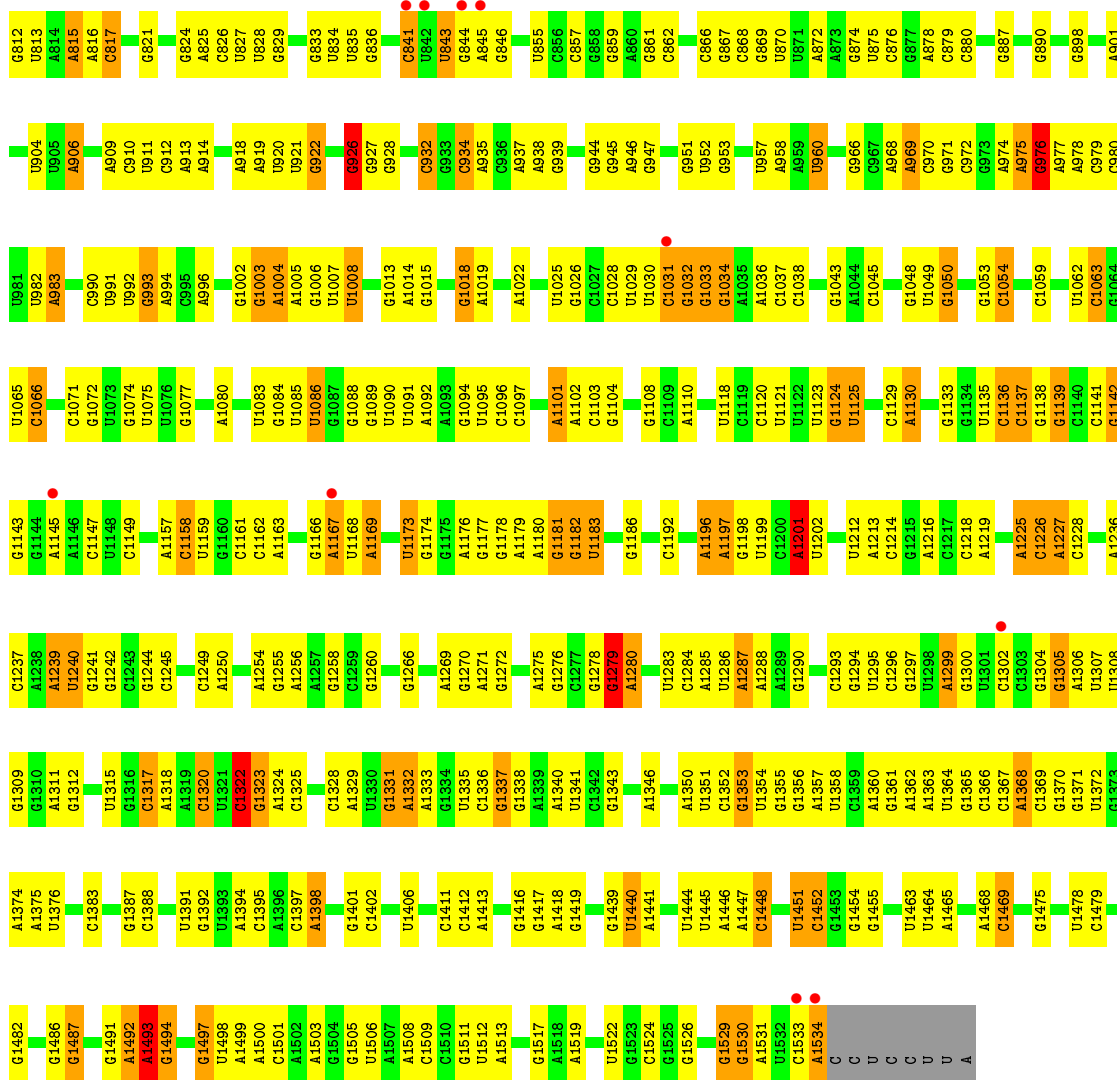
• Molecule 35: 16S rRNA

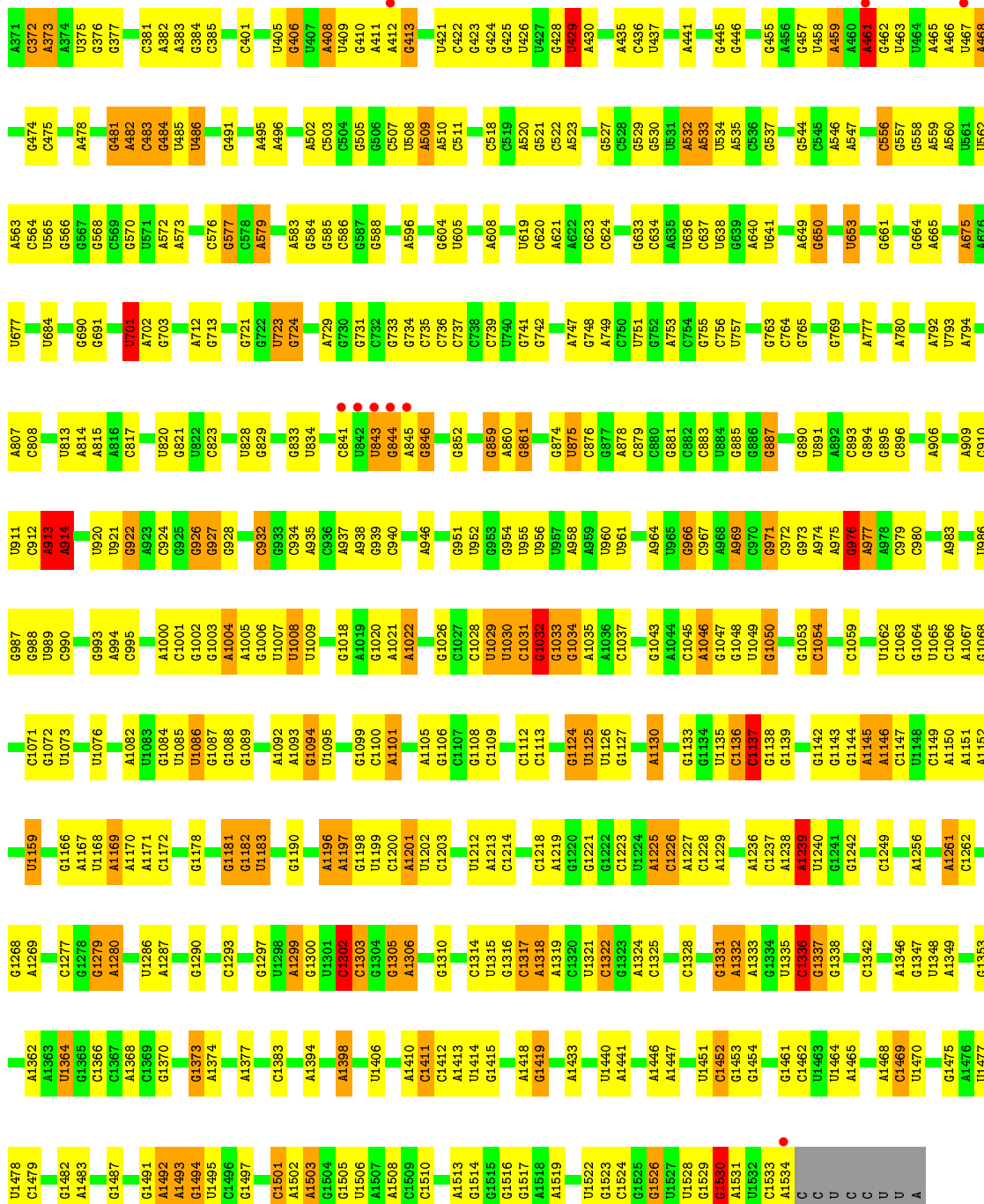




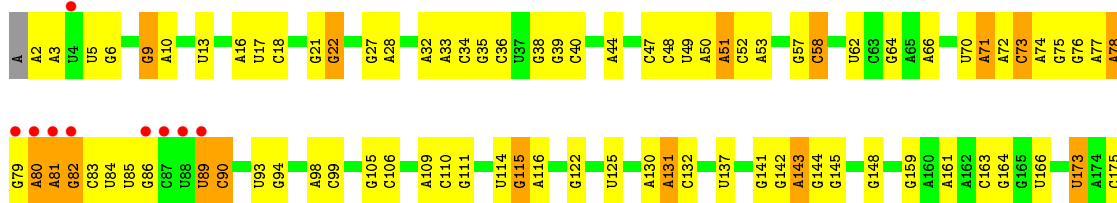
• Molecule 35: 16S rRNA



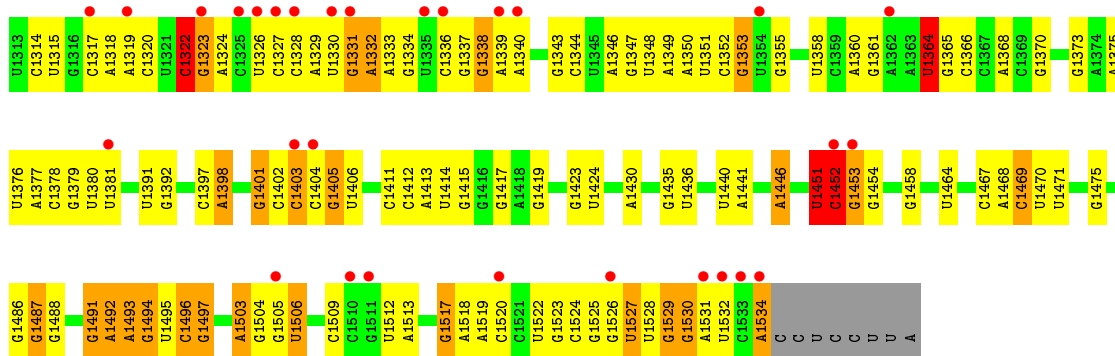




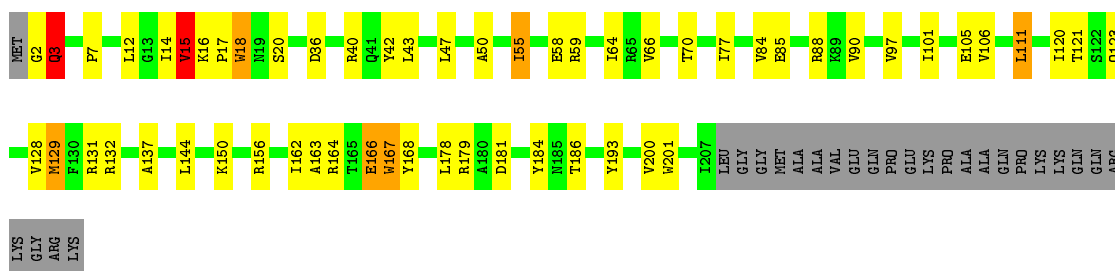
• Molecule 35: 16S rRNA



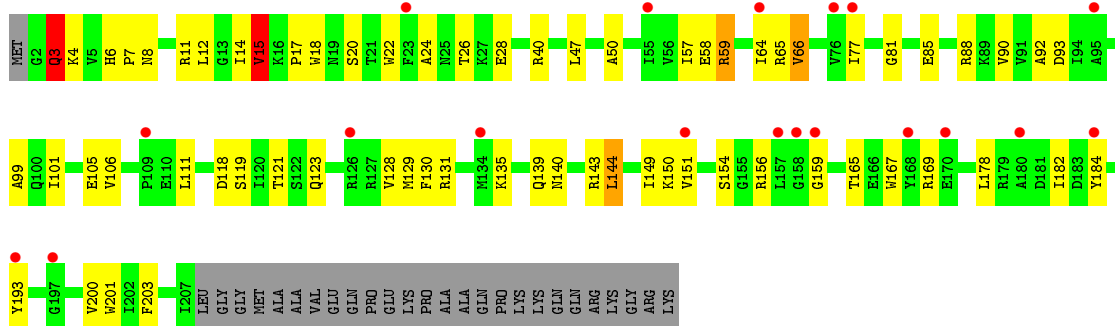
G1244	A1180	C1028	C1096	G1285	A1187	C967	A892	A814	G658	A468	A383	C271	C176
C1245	G1181	U1029	C1097	C1286	A1188	A968	G895	A815	A559	C469	G384	C272	G177
A1250	G1182	U1030	C1098	A1287	U1183	A969	G896	C817	U562	C470	C385	U273	C178
A1251	U1183	C1031	A1101	A1251	G1183	G971	G897	G818	U563	G474	U387	G276	A179
A1256	G1187	G1032	G1101	A1256	U1184	G972	G898	A819	C564	U480	C392	C285	U180
A1257	A1188	U1034	G1104	A1257	A1035	G973	A901	U820	U565	G481	G397	G289	A181
G1258	U1189	A1036	A1105	A1258	A1036	A974	G902	G821	U566	G482	A397	G289	A182
C1259	G1190	G1037	G1106	A1259	A1037	G975	G903	U822	U567	A483	U398	G297	C188
G1260	A1191	C1038	C1107	G1260	G1037	G976	G904	C823	U568	G484	U399	G297	C188
A1261	G1192	G1038	G1108	A1261	A1038	A977	U904	C824	U573	G485	G400	A298	A189
C1262	U1193	U1039	G1109	C1262	G1039	G978	U905	U827	A574	U486	C401	G299	C194
C1263	A1194	G1040	A1110	C1263	U1040	U828	A913	U828	U574	G402	G402	A300	A196
C1264	C1195	G1041	G1111	C1264	G1041	G829	A914	G829	G574	G491	G403	G301	A196
C1265	A1197	A1042	C1114	C1265	A1042	G830	A915	G830	G575	A498	G404	C316	G204
G1266	G1198	C1045	U1115	G1266	C1045	G831	U916	G831	G576	U498	G404	U317	A205
G1267	U1199	A1046	U1116	G1267	A1046	U832	U917	U832	G577	C501	U407	C316	C206
A1268	C1200	G1047	U1118	A1268	A1047	G833	A918	U833	G578	A502	U408	A321	C207
A1269	U1201	G1048	G1124	A1269	G1048	G834	A919	G834	A579	A503	U409	A321	U208
C1270	A1202	U1049	U1125	C1270	U1049	U837	U920	U837	C580	C504	U410	G324	U209
A1271	C1203	G1050	U1126	A1271	G1050	G838	U921	G838	C581	C505	G411	G324	U209
G1272	A1204	C1051	U1127	G1272	C1051	U839	G922	C839	A583	G412	A411	A325	U209
C1273	U1205	U1052	C1128	C1273	U1052	C840	G923	C840	A584	G506	A412	G326	G210
A1274	G1206	G1053	C1129	A1274	G1053	C841	G924	C841	G587	C507	A413	A327	C211
A1275	C1207	C1054	A1130	A1275	C1054	U842	G925	U842	G588	U508	A414	G328	G212
G1276	C1208	A1055	G1131	G1276	A1055	U843	G926	U843	C588	A509	A415	C328	G213
C1277	U1209	U1056	C1132	C1277	U1056	U844	G927	U844	C589	A510	G415	C330	U216
G1278	C1210	G1057	U1133	G1278	G1057	A845	G928	A845	A596	C511	G416	G331	U217
A1280	U1211	C1058	G1134	A1280	C1058	G846	G929	G846	C597	U512	G417	G332	C217
C1281	U1212	U1059	U1135	C1281	U1059	G847	G930	G847	U598	C513	U420	U333	U224
C1282	A1213	U1060	C1136	C1282	U1060	G848	G931	G848	G604	G517	U421	A344	C225
U1283	C1214	G1061	C1137	U1283	G1061	G849	G932	G849	G605	C422	U422	C346	G232
C1284	G1215	U1062	U1138	C1284	U1062	U850	G933	U850	G615	C519	G423	G346	G232
A1285	U1216	C1063	G1139	A1285	C1063	G851	G934	G851	U619	G527	G424	A347	U224
U1286	C1217	G1064	C1140	U1286	G1064	G852	G935	G852	C620	G530	G425	G347	C225
A1287	U1218	U1065	U1141	A1287	U1065	G853	G936	G853	U621	U531	G426	C352	G232
A1288	A1219	C1066	G1143	A1288	C1066	G854	G937	G854	G626	G532	G427	C352	G232
C1289	G1220	A1067	G1144	C1289	A1067	G855	G938	G855	G627	U533	U439	C356	U245
G1292	U1221	U1068	A1145	G1292	U1068	G856	G939	G856	G640	U534	U439	C356	U245
C1293	G1222	G1071	C1146	C1293	G1071	A864	G940	A864	U642	A455	A430	C356	U245
G1294	C1223	U1072	U1147	G1294	U1072	A865	G941	A865	C623	A456	A430	C356	U245
U1295	U1224	U1073	C1148	U1295	U1073	A866	G942	A866	G626	A534	U439	C356	U245
C1296	A1225	G1074	G1149	C1296	G1074	G867	G943	G867	G627	U535	U440	C360	A246
G1297	C1226	U1075	A1150	G1297	U1075	G868	G944	G868	G640	U536	C440	G361	A246
U1298	A1227	G1076	C1151	U1298	G1076	G869	G945	G869	U642	C537	C441	G361	A246
A1299	C1228	U1077	U1152	A1299	U1077	A872	U952	A872	U643	G540	A441	G362	A251
C1302	U1229	G1078	G1153	C1302	G1078	G873	U953	G873	U644	U543	G457	U367	G254
C1303	C1230	U1079	U1154	C1303	U1079	G874	U954	G874	U645	U544	G458	U368	G254
G1304	G1233	A1080	A1166	G1304	A1080	G875	U955	G875	U646	U545	U456	U368	G254
G1305	U1167	G1084	U1168	G1305	G1084	G876	A958	G876	G650	U546	U457	C372	G258
A1306	A1169	U1085	A1169	A1306	U1085	A878	A959	A878	C651	C545	A459	C372	G259
U1307	C1237	U1086	A1170	U1307	U1086	C879	U960	C879	U652	C546	A460	A373	G260
U1308	A1171	G1087	C1171	U1308	G1087	U885	U961	U885	U653	A547	A461	A374	U261
A1309	C1172	U1088	A1172	A1309	U1088	G886	G962	G886	G654	U463	G462	U375	A262
G1310	U1240	G1089	G1177	G1310	G1089	G887	G963	G887	A655	U464	U464	C379	G266
G1312	G1241	U1094	C1178	G1312	U1094	G888	A964	G888	G656	A465	U465	C380	C267
	A1179	U1095	C1027		U1095	G889	G965	G889	U657	A466	U466	C381	C267
									C658			A382	A270



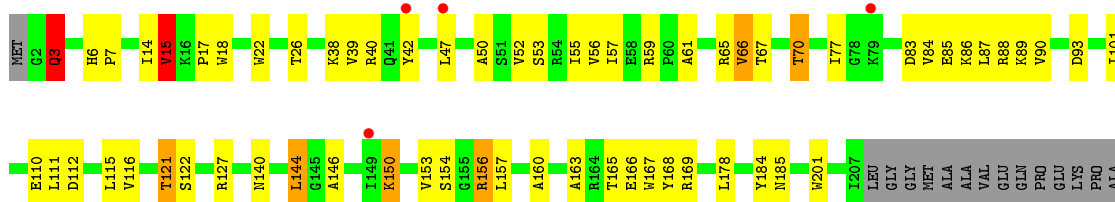
• Molecule 36: 30S ribosomal protein S3



• Molecule 36: 30S ribosomal protein S3

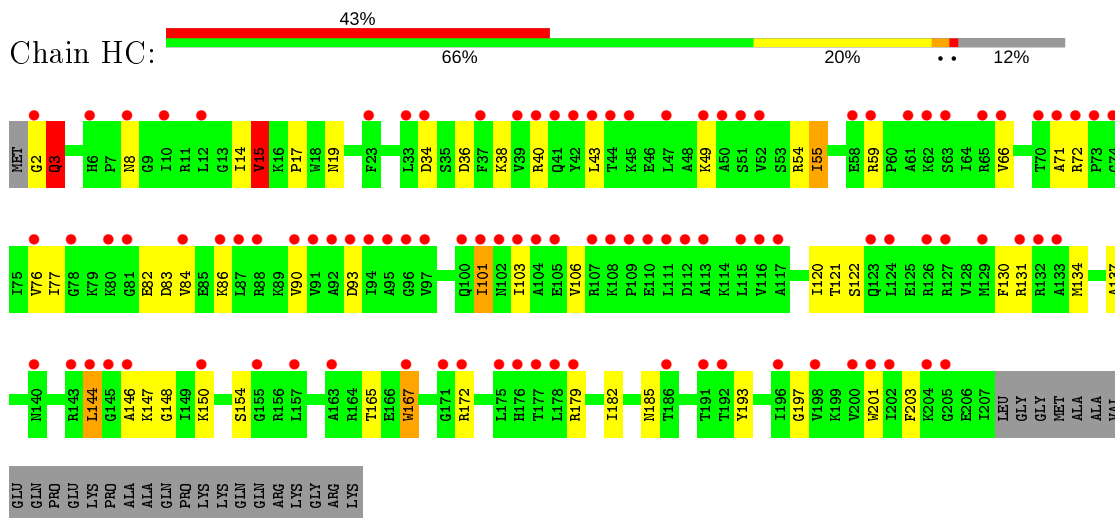


• Molecule 36: 30S ribosomal protein S3

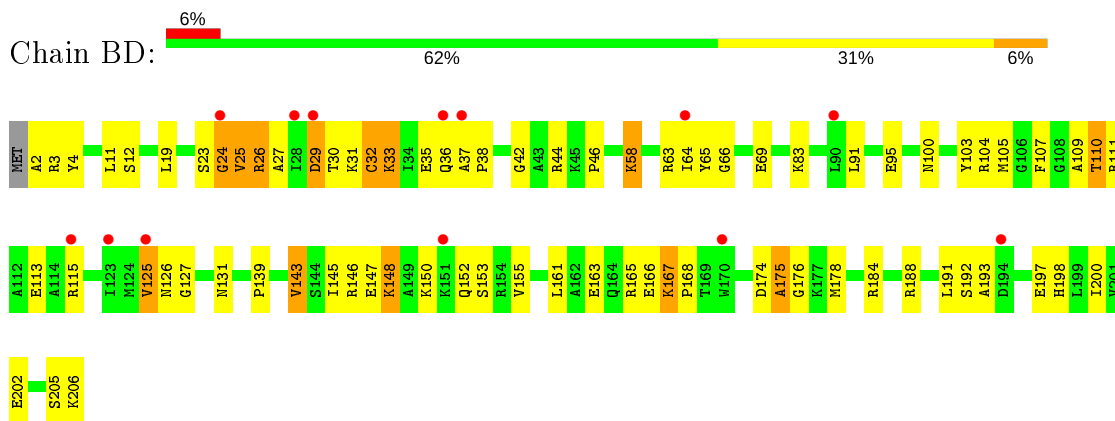


ALA
GLN
PRO
LYS
LYS
GLN
GLN
LYS
ARG
GLY
ARG
LYS

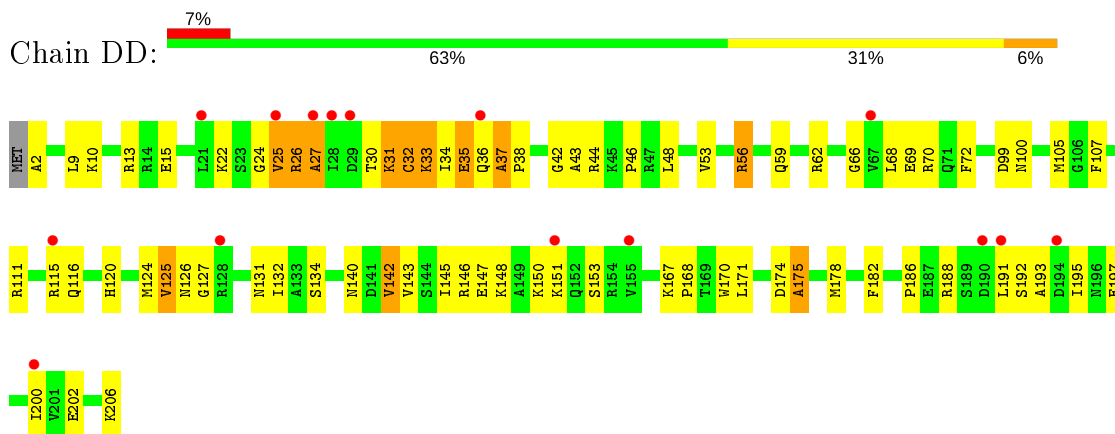
- Molecule 36: 30S ribosomal protein S3



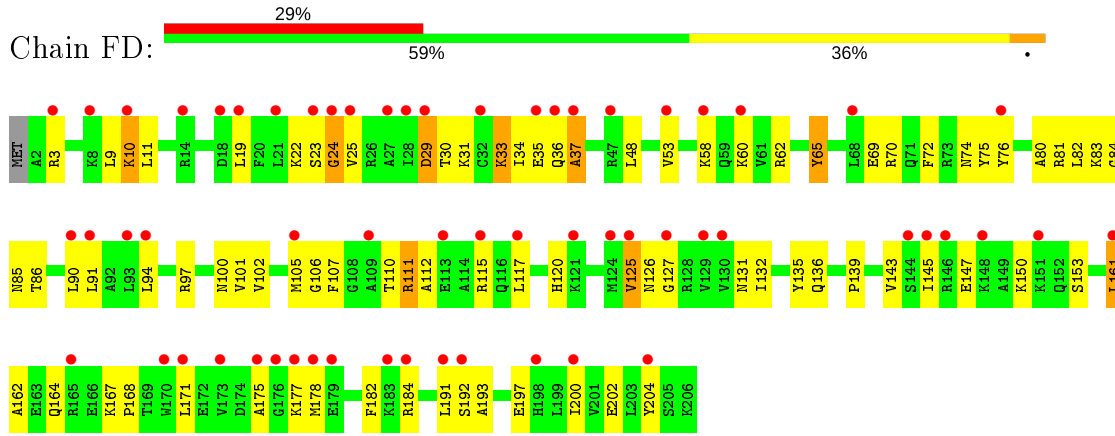
- Molecule 37: 30S ribosomal protein S4



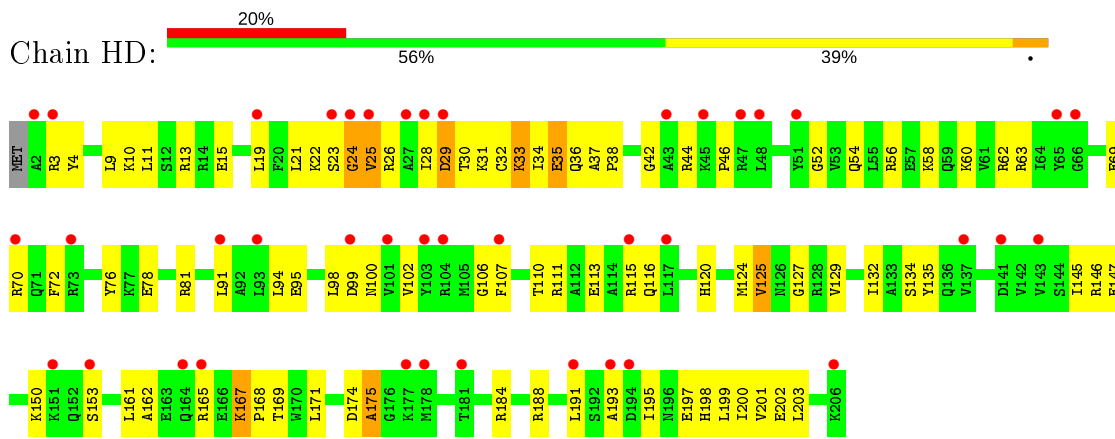
- Molecule 37: 30S ribosomal protein S4



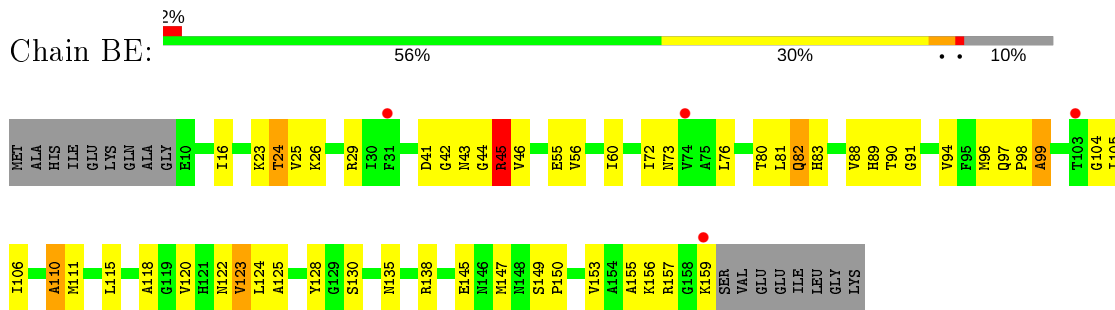
- Molecule 37: 30S ribosomal protein S4



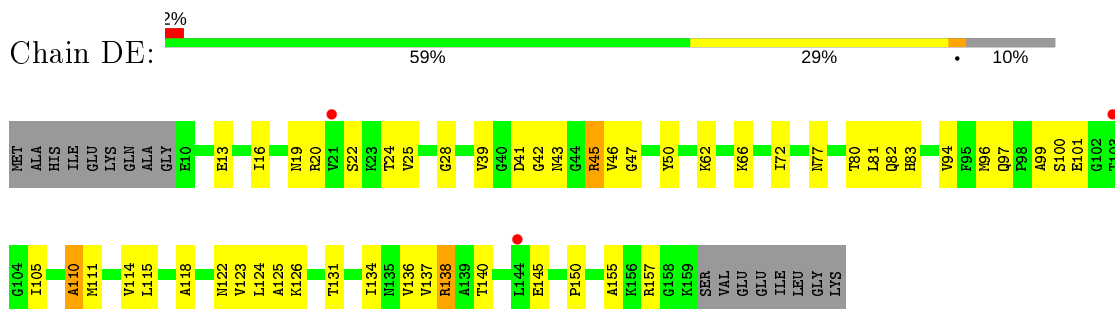
• Molecule 37: 30S ribosomal protein S4



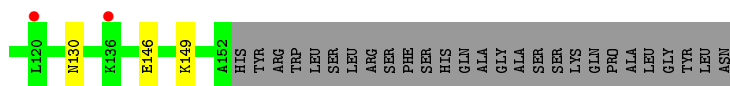
• Molecule 38: 30S ribosomal protein S5



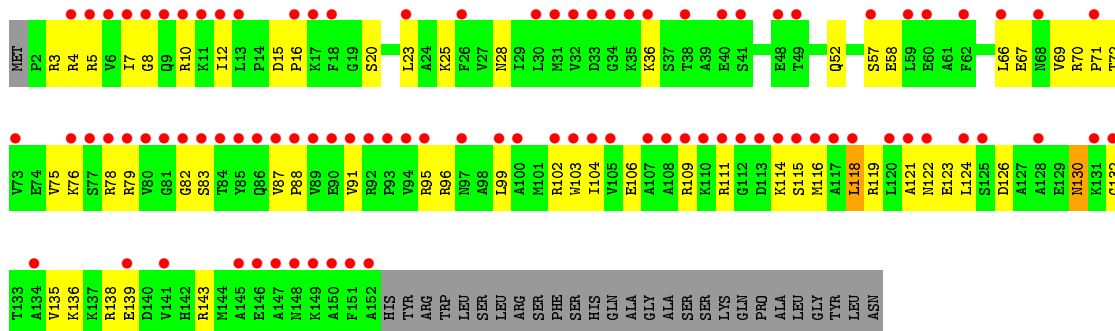
• Molecule 38: 30S ribosomal protein S5



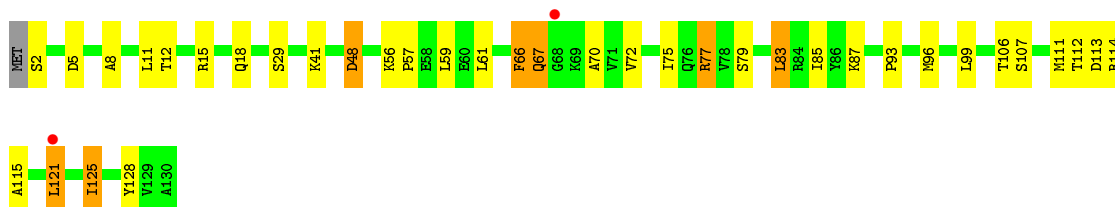
• Molecule 38: 30S ribosomal protein S5



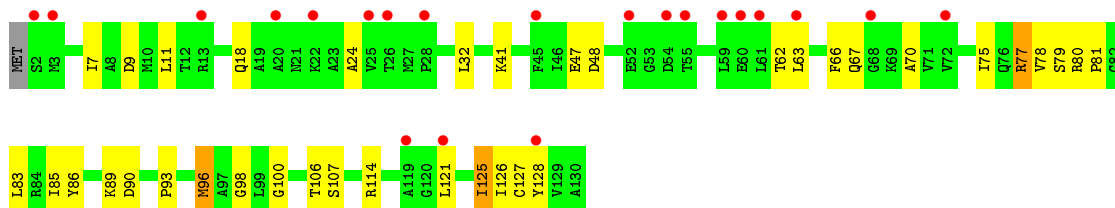
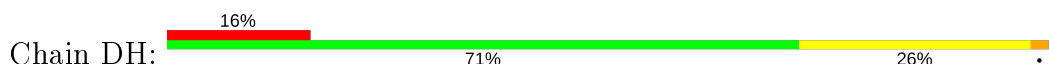
• Molecule 40: 30S ribosomal protein S7



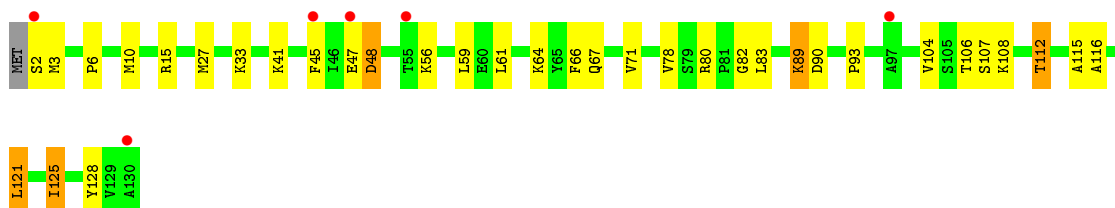
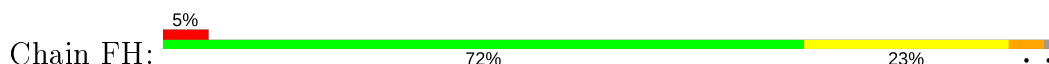
• Molecule 41: 30S ribosomal protein S8



• Molecule 41: 30S ribosomal protein S8

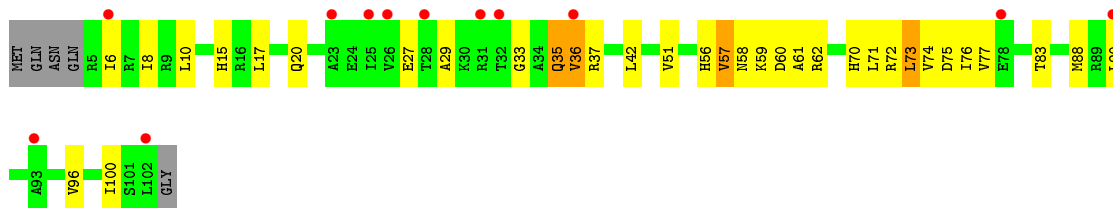


• Molecule 41: 30S ribosomal protein S8

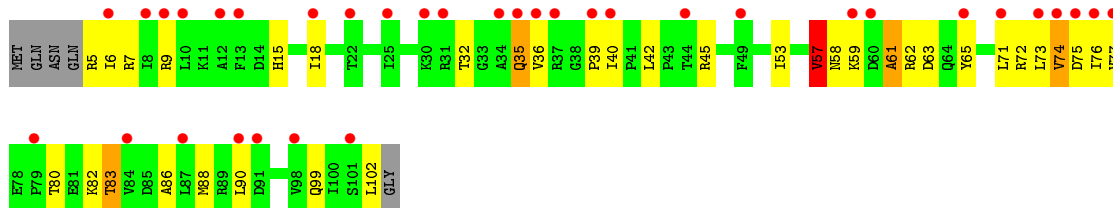




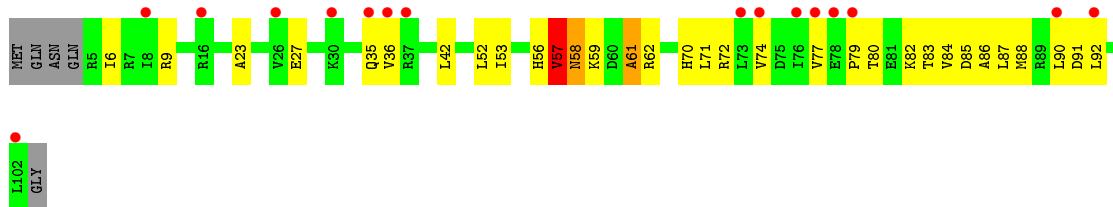
• Molecule 43: 30S ribosomal protein S10



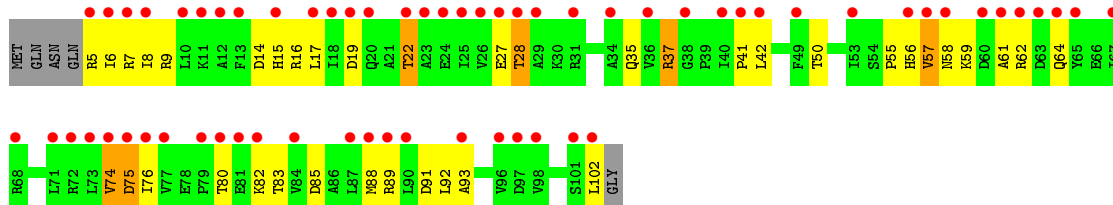
• Molecule 43: 30S ribosomal protein S10



• Molecule 43: 30S ribosomal protein S10



• Molecule 43: 30S ribosomal protein S10

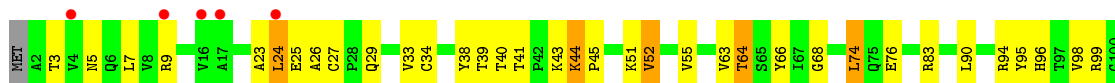


• Molecule 44: 30S ribosomal protein S11





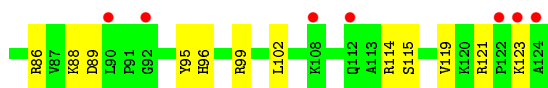
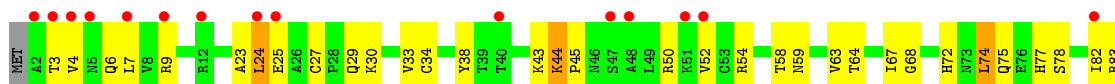
• Molecule 45: 30S ribosomal protein S12



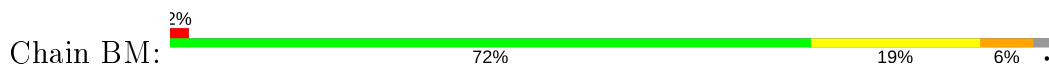
• Molecule 45: 30S ribosomal protein S12



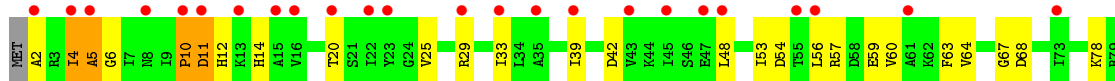
• Molecule 45: 30S ribosomal protein S12

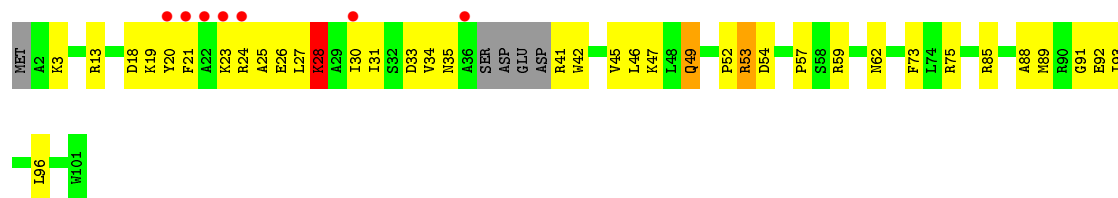


• Molecule 46: 30S ribosomal protein S13

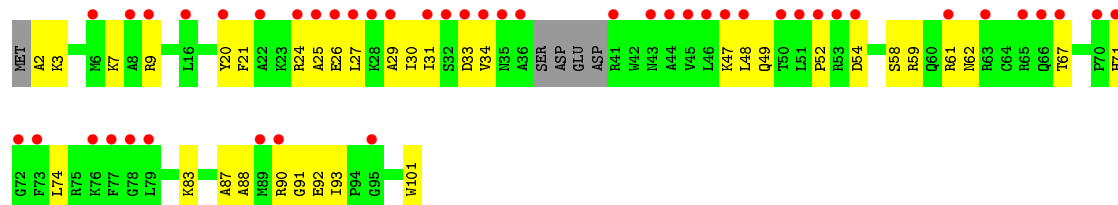


• Molecule 46: 30S ribosomal protein S13

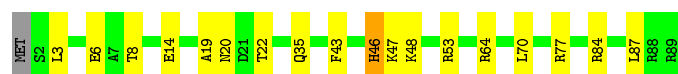
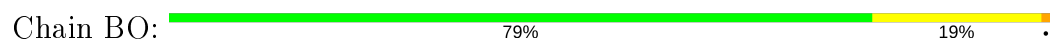




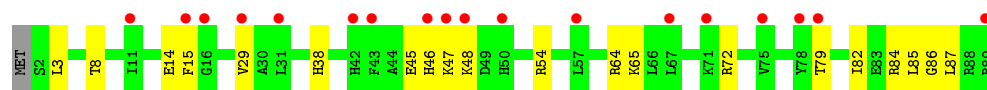
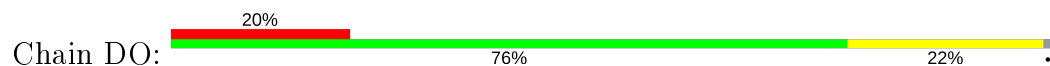
- Molecule 47: 30S ribosomal protein S14



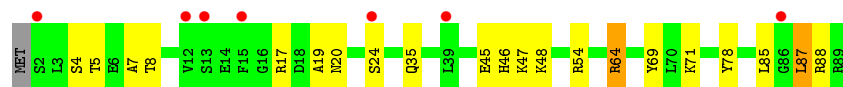
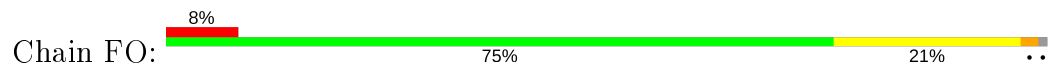
- Molecule 48: 30S ribosomal protein S15



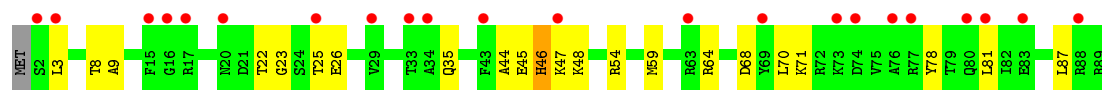
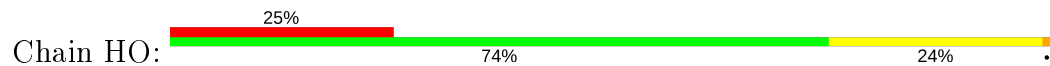
- Molecule 48: 30S ribosomal protein S15



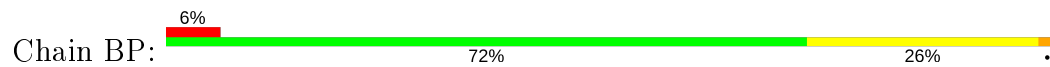
- Molecule 48: 30S ribosomal protein S15

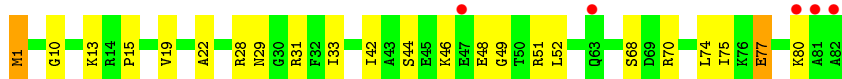


- Molecule 48: 30S ribosomal protein S15

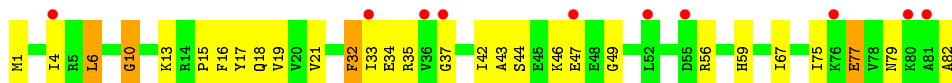


- Molecule 49: 30S ribosomal protein S16

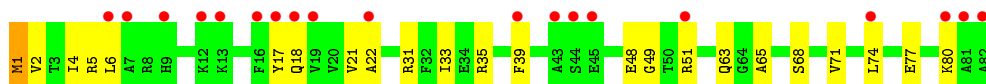
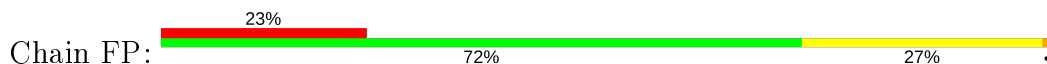




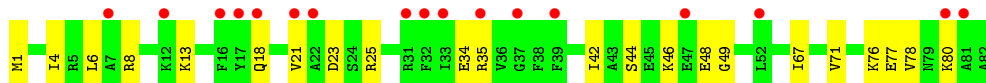
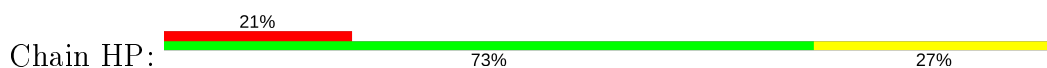
- Molecule 49: 30S ribosomal protein S16



- Molecule 49: 30S ribosomal protein S16



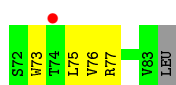
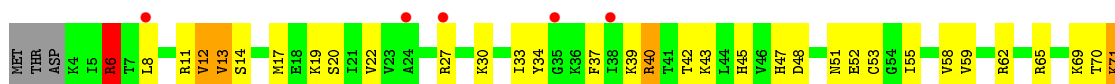
- Molecule 49: 30S ribosomal protein S16



- Molecule 50: 30S ribosomal protein S17

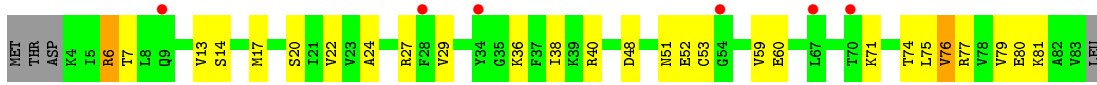


- Molecule 50: 30S ribosomal protein S17

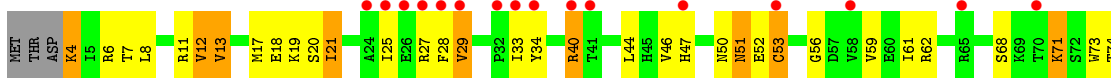


- Molecule 50: 30S ribosomal protein S17





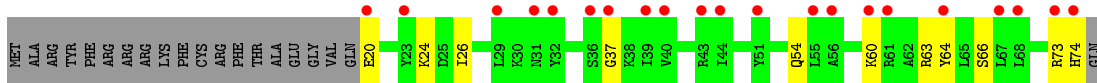
- Molecule 50: 30S ribosomal protein S17



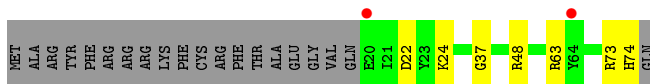
- Molecule 51: 30S ribosomal protein S18



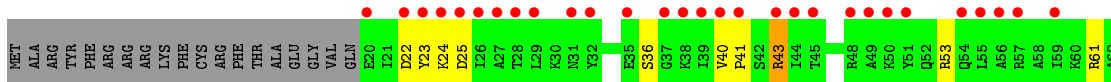
- Molecule 51: 30S ribosomal protein S18



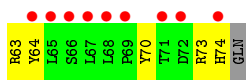
- Molecule 51: 30S ribosomal protein S18

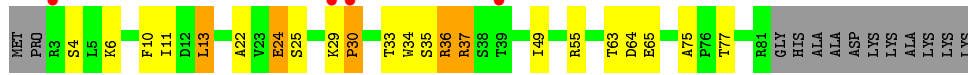


- Molecule 51: 30S ribosomal protein S18

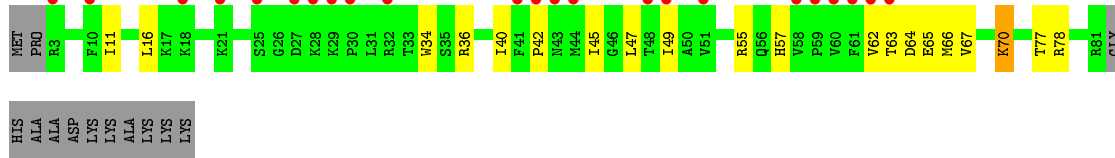


- Molecule 52: 30S ribosomal protein S19

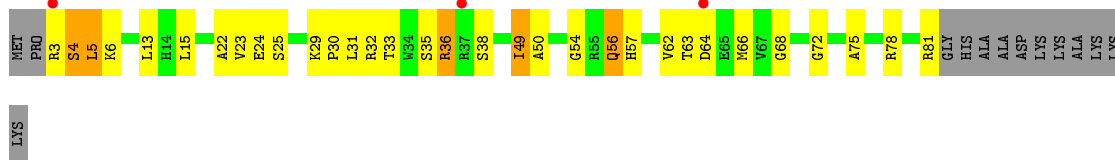




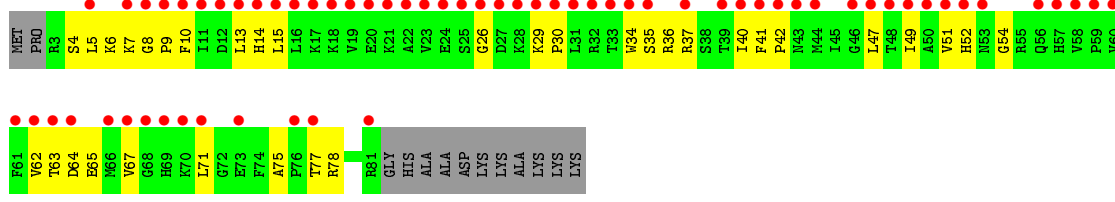
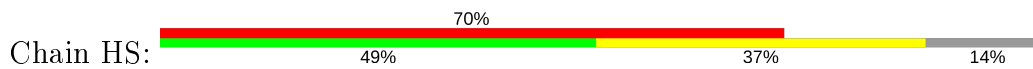
• Molecule 52: 30S ribosomal protein S19



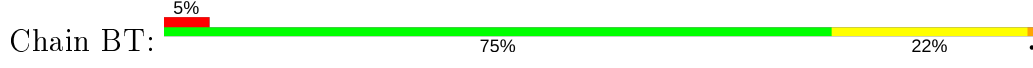
• Molecule 52: 30S ribosomal protein S19



• Molecule 52: 30S ribosomal protein S19



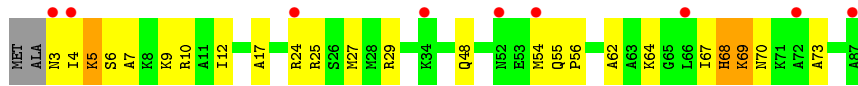
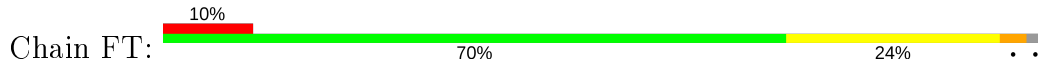
• Molecule 53: 30S ribosomal protein S20



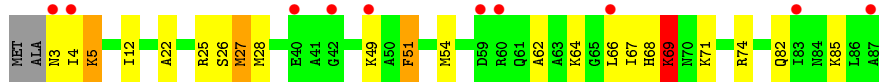
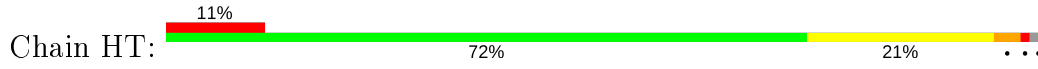
• Molecule 53: 30S ribosomal protein S20



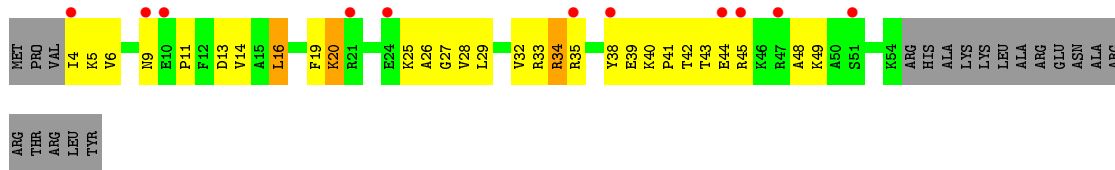
• Molecule 53: 30S ribosomal protein S20



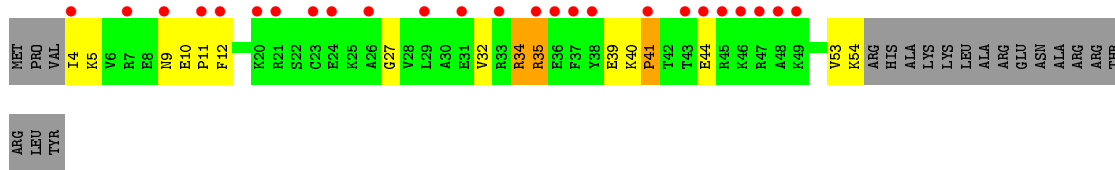
• Molecule 53: 30S ribosomal protein S20



• Molecule 54: 30S ribosomal protein S21



• Molecule 54: 30S ribosomal protein S21

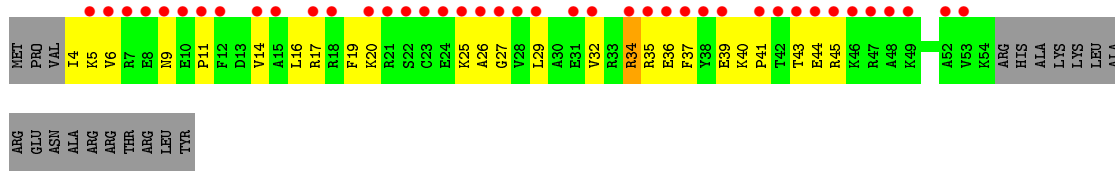


• Molecule 54: 30S ribosomal protein S21

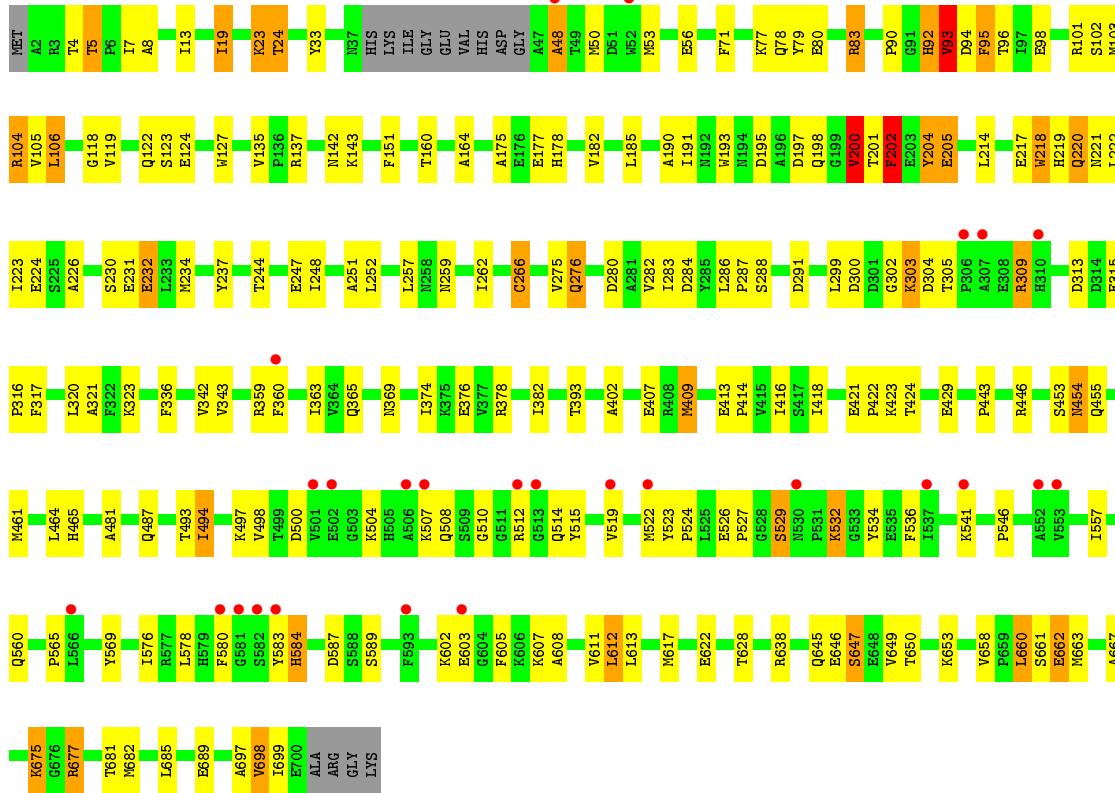


• Molecule 54: 30S ribosomal protein S21

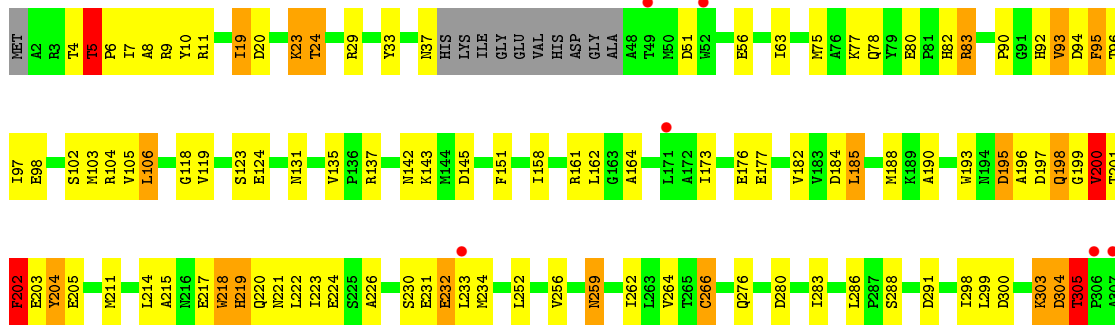


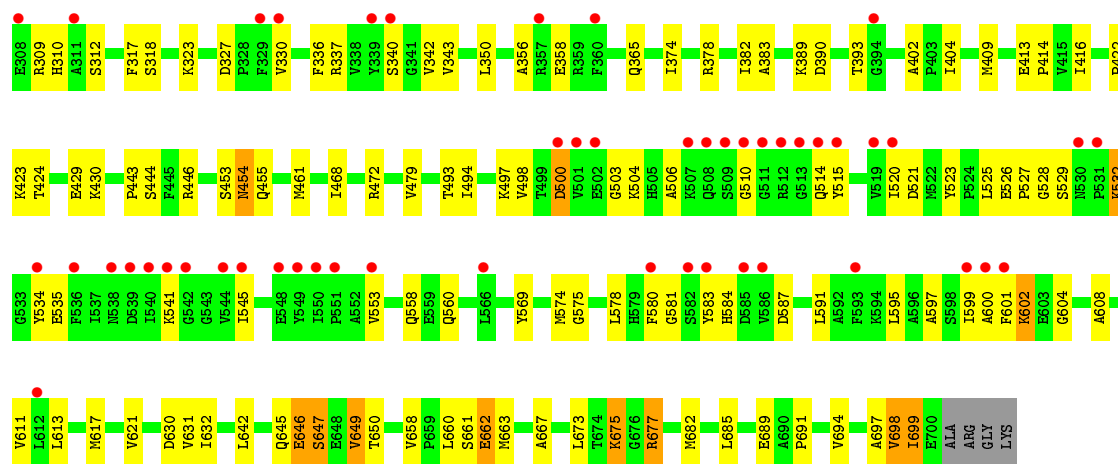


• Molecule 55: Elongation factor G

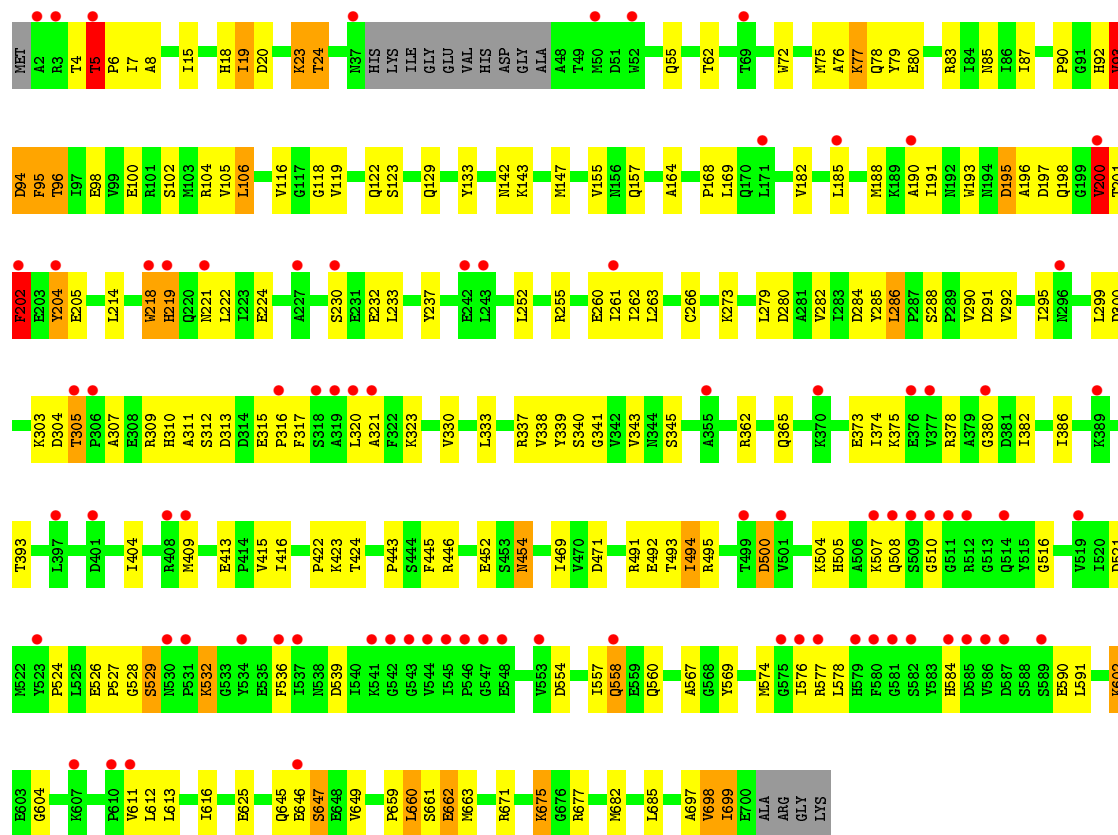


• Molecule 55: Elongation factor G

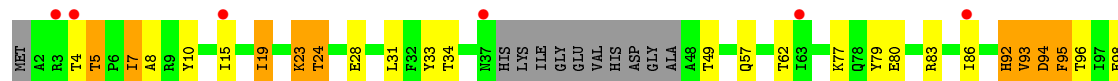
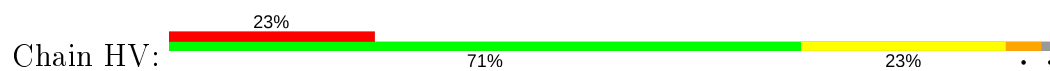


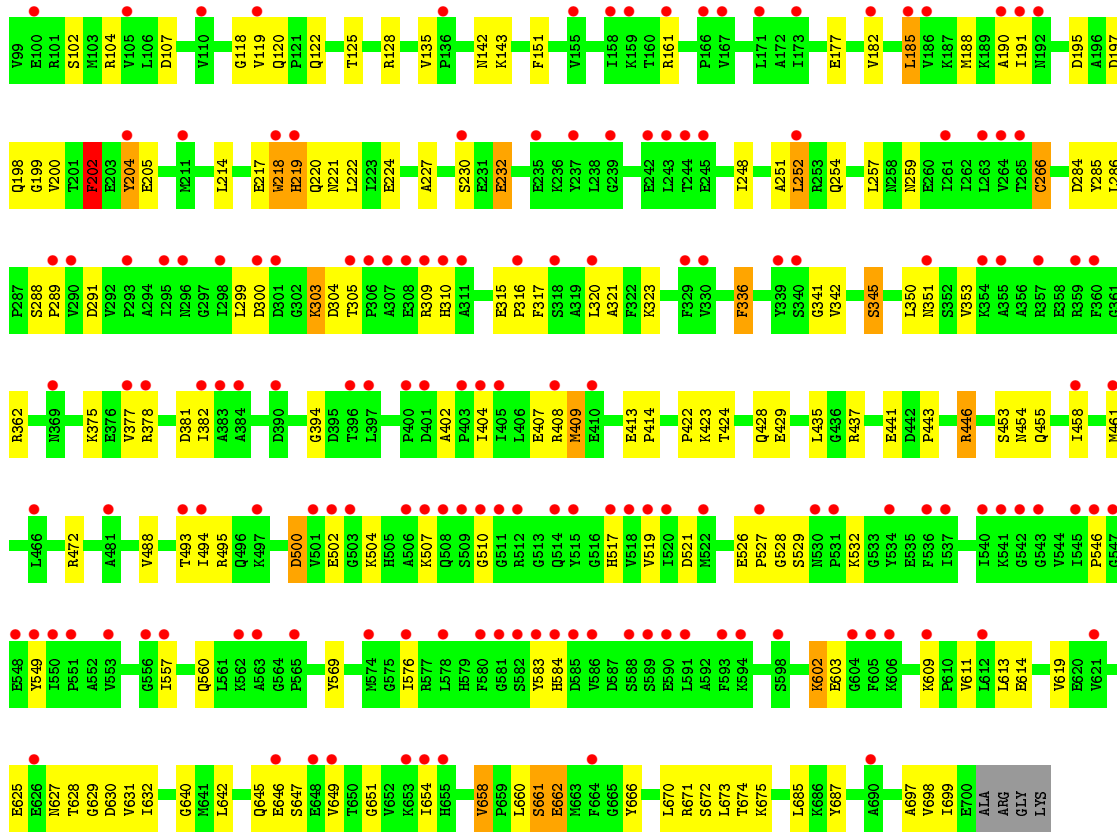


• Molecule 55: Elongation factor G

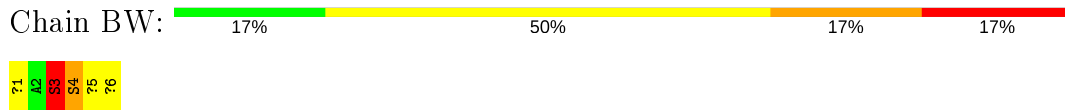


• Molecule 55: Elongation factor G

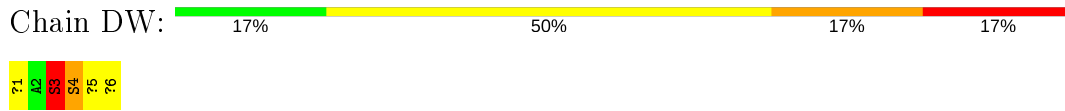




• Molecule 56: Viomycin



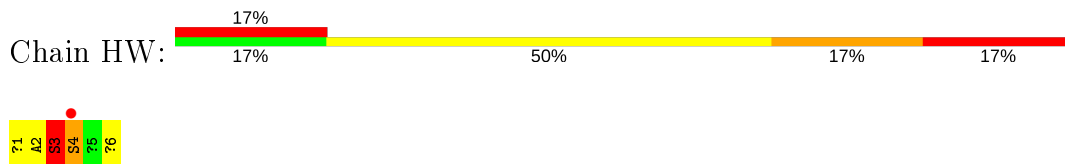
• Molecule 56: Viomycin



• Molecule 56: Viomycin



• Molecule 56: Viomycin



4 Data and refinement statistics

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α , β , γ	361.60Å 361.77Å 433.20Å 90.00° 103.57° 90.00°	Depositor
Resolution (Å)	70.00 – 2.90 69.05 – 2.90	Depositor EDS
% Data completeness (in resolution range)	(Not available) (70.00-2.90) 78.9 (69.05-2.90)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.35 (at 2.91Å)	Xtrriage
Refinement program	PHENIX	Depositor
R, R_{free}	0.223 , 0.272 0.223 , 0.272	Depositor DCC
R_{free} test set	8388 reflections (0.45%)	wwPDB-VP
Wilson B-factor (Å ²)	73.3	Xtrriage
Anisotropy	0.160	Xtrriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.26 , 28.0	EDS
L-test for twinning ²	$\langle L \rangle = 0.46$, $\langle L^2 \rangle = 0.28$	Xtrriage
Estimated twinning fraction	No twinning to report.	Xtrriage
F_o, F_c correlation	0.93	EDS
Total number of atoms	592086	wwPDB-VP
Average B, all atoms (Å ²)	32.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The analyses of the Patterson function reveals a significant off-origin peak that is 29.65 % of the origin peak, indicating pseudo-translational symmetry. The chance of finding a peak of this or larger height randomly in a structure without pseudo-translational symmetry is equal to 1.4952e-03. The detected translational NCS is most likely also responsible for the elevated intensity ratio.*

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 i

5.1 Standard geometry i

Bond lengths and bond angles in the following residue types are not validated in this section: ZN, DPP, MG, KBE, GCP, UAL, 5OH

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	AB	0.66	0/2828	1.10	2/4410 (0.0%)
1	CB	0.53	0/2828	1.02	1/4410 (0.0%)
1	EB	0.63	0/2828	1.15	8/4410 (0.2%)
1	GB	0.75	0/2828	1.13	10/4410 (0.2%)
2	AC	0.54	0/2121	0.79	2/2852 (0.1%)
2	CC	0.46	0/2121	0.72	2/2852 (0.1%)
2	EC	0.52	0/2121	0.76	2/2852 (0.1%)
2	GC	0.46	0/2121	0.74	1/2852 (0.0%)
3	AA	0.81	17/68626 (0.0%)	1.22	304/107056 (0.3%)
3	CA	0.62	4/68626 (0.0%)	1.08	117/107056 (0.1%)
3	EA	0.76	17/68626 (0.0%)	1.22	292/107056 (0.3%)
3	GA	0.64	0/68626	1.14	193/107056 (0.2%)
4	AD	0.57	0/1586	0.77	1/2134 (0.0%)
4	CD	0.51	0/1586	0.75	1/2134 (0.0%)
4	ED	0.55	0/1586	0.74	0/2134
4	GD	0.48	0/1586	0.72	1/2134 (0.0%)
5	AE	0.53	0/1571	0.76	2/2113 (0.1%)
5	CE	0.43	0/1571	0.66	0/2113
5	EE	0.51	0/1571	0.72	0/2113
5	GE	0.54	0/1571	0.75	2/2113 (0.1%)
6	AF	0.49	0/1434	0.71	1/1926 (0.1%)
6	CF	0.48	0/1434	0.70	0/1926
6	EF	0.50	0/1434	0.73	0/1926
6	GF	0.60	0/1434	0.75	0/1926
7	AG	0.55	0/1343	0.73	0/1816
7	CG	0.49	0/1343	0.73	1/1816 (0.1%)
7	EG	0.50	0/1343	0.75	0/1816
7	GG	0.51	0/1343	0.68	0/1816
8	AH	0.53	0/389	0.73	0/523
8	CH	0.61	0/389	0.74	0/523
8	EH	0.50	0/389	0.73	0/523
8	GH	0.55	0/389	0.69	0/523

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
9	AI	0.62	0/1046	0.84	1/1410 (0.1%)
9	CI	0.57	0/1046	0.72	0/1410
9	EI	0.53	0/1046	0.72	0/1410
9	GI	0.71	0/1046	0.80	0/1410
10	AJ	0.63	1/1152 (0.1%)	0.78	0/1551
10	CJ	0.52	1/1152 (0.1%)	0.72	0/1551
10	EJ	0.63	1/1152 (0.1%)	0.78	0/1551
10	GJ	0.48	0/1152	0.71	1/1551 (0.1%)
11	AK	0.65	1/947 (0.1%)	0.77	0/1268
11	CK	0.55	0/947	0.78	0/1268
11	EK	0.53	0/947	0.74	0/1268
11	GK	0.49	0/947	0.77	0/1268
12	AL	0.56	0/1054	0.79	2/1403 (0.1%)
12	CL	0.44	0/1054	0.74	1/1403 (0.1%)
12	EL	0.55	0/1054	0.77	1/1403 (0.1%)
12	GL	0.53	0/1054	0.73	0/1403
13	AM	0.61	0/1093	0.77	0/1460
13	CM	0.47	0/1093	0.67	0/1460
13	EM	0.55	0/1093	0.72	0/1460
13	GM	0.48	0/1093	0.68	0/1460
14	AN	0.51	0/973	0.68	0/1301
14	CN	0.45	0/973	0.64	0/1301
14	EN	0.48	0/973	0.65	0/1301
14	GN	0.45	0/973	0.65	0/1301
15	AO	0.46	0/902	0.70	0/1209
15	CO	0.42	0/902	0.70	0/1209
15	EO	0.44	0/902	0.74	0/1209
15	GO	0.55	0/902	0.82	1/1209 (0.1%)
16	AP	0.52	0/929	0.78	1/1242 (0.1%)
16	CP	0.51	0/929	0.80	0/1242
16	EP	0.55	0/929	0.80	0/1242
16	GP	0.51	0/929	0.81	2/1242 (0.2%)
17	AQ	0.62	0/960	0.71	1/1278 (0.1%)
17	CQ	0.50	0/960	0.67	0/1278
17	EQ	0.58	0/960	0.68	0/1278
17	GQ	0.49	0/960	0.69	1/1278 (0.1%)
18	AR	0.61	1/829 (0.1%)	0.76	0/1107
18	CR	0.50	0/829	0.70	0/1107
18	ER	0.57	1/829 (0.1%)	0.77	0/1107
18	GR	0.55	0/829	0.78	1/1107 (0.1%)
19	AS	0.54	0/864	0.73	0/1156
19	CS	0.46	0/864	0.66	0/1156
19	ES	0.52	0/864	0.75	0/1156

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
19	GS	0.45	0/864	0.75	2/1156 (0.2%)
20	AT	0.54	0/744	0.85	1/994 (0.1%)
20	CT	0.49	0/744	0.74	0/994
20	ET	0.59	0/744	0.87	3/994 (0.3%)
20	GT	0.54	0/744	0.76	0/994
21	AU	0.56	0/787	0.78	0/1051
21	CU	0.47	0/787	0.69	0/1051
21	EU	0.48	0/787	0.79	0/1051
21	GU	0.56	0/787	0.73	0/1051
22	AV	0.48	0/766	0.67	1/1025 (0.1%)
22	CV	0.44	0/766	0.62	0/1025
22	EV	0.49	0/766	0.67	0/1025
22	GV	0.55	0/766	0.70	0/1025
23	AW	0.69	0/603	1.00	1/797 (0.1%)
23	CW	0.63	0/603	0.88	0/797
23	EW	0.69	0/603	0.97	0/797
23	GW	0.63	0/603	0.87	0/797
24	AX	0.50	0/635	0.79	1/848 (0.1%)
24	CX	0.41	0/635	0.71	0/848
24	EX	0.51	0/635	0.78	0/848
24	GX	0.45	0/635	0.68	0/848
25	AY	0.46	0/510	0.75	0/677
25	CY	0.47	0/510	0.74	0/677
25	EY	0.49	0/510	0.81	0/677
25	GY	0.55	0/510	0.75	0/677
26	AZ	0.54	0/453	0.84	1/605 (0.2%)
26	CZ	0.48	0/453	0.80	1/605 (0.2%)
26	EZ	0.50	0/453	0.75	2/605 (0.3%)
26	GZ	0.57	0/453	0.83	0/605
27	A0	0.54	0/450	0.70	0/599
27	C0	0.48	0/450	0.69	0/599
27	E0	0.49	0/450	0.71	1/599 (0.2%)
27	G0	0.43	0/450	0.64	0/599
28	A1	0.53	0/416	0.74	0/554
28	C1	0.49	0/416	0.73	0/554
28	E1	0.49	0/416	0.70	0/554
28	G1	0.54	0/416	0.78	0/554
29	A2	0.53	0/380	0.70	0/498
29	C2	0.46	0/380	0.77	0/498
29	E2	0.51	0/380	0.69	0/498
29	G2	0.48	0/380	0.65	0/498
30	A3	0.53	0/513	0.75	0/676
30	C3	0.41	0/513	0.63	0/676

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
30	E3	0.54	0/513	0.74	0/676
30	G3	0.49	0/513	0.65	0/676
31	A4	0.59	0/303	0.84	0/397
31	C4	0.48	0/303	0.70	0/397
31	E4	0.56	0/303	0.78	1/397 (0.3%)
31	G4	0.50	0/303	0.78	0/397
32	A5	0.74	0/1131	1.32	26/1524 (1.7%)
32	C5	0.70	0/1131	1.31	26/1524 (1.7%)
32	E5	0.69	0/1115	1.33	24/1502 (1.6%)
33	A6	0.59	0/227	0.65	0/304
34	BB	0.49	0/1735	0.71	0/2338
34	DB	0.51	0/1735	0.72	0/2338
34	FB	0.50	0/1735	0.76	0/2338
34	HB	0.56	0/1735	0.73	0/2338
35	BA	0.65	3/36834 (0.0%)	1.14	96/57462 (0.2%)
35	DA	0.60	0/36834	1.06	47/57462 (0.1%)
35	FA	0.62	1/36834 (0.0%)	1.11	98/57462 (0.2%)
35	HA	0.72	2/36834 (0.0%)	1.11	74/57462 (0.1%)
36	BC	0.45	0/1651	0.69	0/2225
36	DC	0.43	0/1651	0.66	0/2225
36	FC	0.46	0/1651	0.70	0/2225
36	HC	0.57	0/1651	0.73	1/2225 (0.0%)
37	BD	0.53	0/1665	0.79	0/2227
37	DD	0.51	0/1665	0.73	0/2227
37	FD	0.52	0/1665	0.69	0/2227
37	HD	0.52	0/1665	0.73	0/2227
38	BE	0.49	0/1118	0.76	0/1504
38	DE	0.46	0/1118	0.71	0/1504
38	FE	0.47	0/1118	0.69	0/1504
38	HE	0.48	0/1118	0.68	0/1504
39	BF	0.50	0/851	0.70	0/1150
39	DF	0.54	0/835	0.75	0/1128
39	FF	0.47	0/835	0.72	0/1128
39	HF	0.56	0/835	0.73	0/1128
40	BG	0.49	0/1195	0.67	0/1602
40	DG	0.52	0/1195	0.69	0/1602
40	FG	0.48	0/1195	0.69	0/1602
40	HG	0.60	0/1195	0.74	1/1602 (0.1%)
41	BH	0.48	0/989	0.65	0/1326
41	DH	0.48	0/989	0.63	0/1326
41	FH	0.44	0/989	0.62	0/1326
41	HH	0.54	0/989	0.77	1/1326 (0.1%)
42	BI	0.54	0/1034	0.81	0/1375

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
42	DI	0.52	0/1034	0.70	0/1375
42	FI	0.54	0/1034	0.77	0/1375
42	HI	0.57	0/1034	0.79	2/1375 (0.1%)
43	BJ	0.54	0/796	0.80	0/1077
43	DJ	0.55	0/796	0.73	0/1077
43	FJ	0.51	0/796	0.74	0/1077
43	HJ	0.59	0/796	0.80	0/1077
44	BK	0.50	0/893	0.74	0/1205
44	DK	0.51	0/893	0.67	0/1205
44	FK	0.50	0/893	0.75	1/1205 (0.1%)
44	HK	0.63	0/893	0.79	0/1205
45	BL	0.54	0/969	0.82	0/1300
45	DL	0.51	0/969	0.79	0/1300
45	FL	0.47	0/969	0.78	0/1300
45	HL	0.47	0/969	0.77	0/1300
46	BM	0.48	0/892	0.70	0/1193
46	DM	0.51	0/892	0.71	0/1193
46	FM	0.42	0/892	0.71	0/1193
46	HM	0.66	0/892	0.80	0/1193
47	BN	0.48	0/785	0.78	0/1043
47	DN	0.47	0/785	0.72	0/1043
47	FN	0.50	0/785	0.80	0/1043
47	HN	0.53	0/785	0.73	0/1043
48	BO	0.44	0/722	0.66	0/964
48	DO	0.44	0/722	0.67	0/964
48	FO	0.42	0/722	0.63	0/964
48	HO	0.56	0/722	0.69	0/964
49	BP	0.48	0/659	0.74	0/884
49	DP	0.45	0/659	0.69	0/884
49	FP	0.48	0/659	0.68	0/884
49	HP	0.46	0/659	0.65	0/884
50	BQ	0.46	0/657	0.73	0/881
50	DQ	0.49	0/657	0.82	2/881 (0.2%)
50	FQ	0.47	0/657	0.68	0/881
50	HQ	0.53	0/657	0.78	0/881
51	BR	0.45	0/462	0.62	0/621
51	DR	0.50	0/462	0.67	0/621
51	FR	0.46	0/462	0.62	0/621
51	HR	0.58	0/462	0.74	1/621 (0.2%)
52	BS	0.47	0/652	0.81	0/877
52	DS	0.50	0/652	0.72	0/877
52	FS	0.46	0/652	0.71	0/877
52	HS	0.67	0/652	0.85	1/877 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
53	BT	0.47	0/671	0.60	0/888
53	DT	0.49	0/671	0.64	0/888
53	FT	0.45	0/671	0.64	0/888
53	HT	0.43	0/671	0.66	0/888
54	BU	0.66	0/430	0.84	0/570
54	DU	0.73	0/430	0.83	0/570
54	FU	0.73	1/430 (0.2%)	0.88	0/570
54	HU	0.68	0/430	0.73	0/570
55	BV	0.46	0/5444	0.67	2/7367 (0.0%)
55	DV	0.45	0/5439	0.65	0/7360
55	FV	0.46	0/5439	0.65	1/7360 (0.0%)
55	HV	0.48	0/5439	0.65	0/7360
56	BW	2.29	1/11 (9.1%)	1.55	0/13
56	DW	2.28	1/11 (9.1%)	1.54	0/13
56	FW	2.37	1/11 (9.1%)	1.57	0/13
56	HW	2.38	1/11 (9.1%)	1.80	0/13
All	All	0.64	55/636829 (0.0%)	1.05	1375/948879 (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
2	AC	0	1
2	GC	0	1
4	AD	0	1
4	CD	0	2
4	ED	0	1
4	GD	0	1
10	AJ	0	1
10	GJ	0	1
11	AK	0	1
32	A5	0	1
39	BF	0	1
39	FF	0	1
42	DI	0	1
45	BL	0	1
45	DL	0	1
45	HL	0	1
53	DT	0	1
55	BV	0	1

Continued on next page...

Continued from previous page...

Mol	Chain	#Chirality outliers	#Planarity outliers
55	DV	0	1
55	FV	0	1
55	HV	0	1
All	All	0	22

The worst 5 of 55 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	HA	753	A	N7-C5	8.68	1.44	1.39
3	EA	528	A	N9-C4	-8.47	1.32	1.37
3	AA	984	A	N9-C4	-8.47	1.32	1.37
35	BA	1362	A	N7-C5	7.96	1.44	1.39
3	AA	528	A	N9-C4	-6.66	1.33	1.37

The worst 5 of 1375 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	AA	1073	A	N1-C6-N6	-20.05	106.57	118.60
3	EA	1936	A	N1-C6-N6	15.79	128.07	118.60
3	AA	1073	A	C5-C6-N6	14.08	134.96	123.70
3	AA	2053	G	N1-C6-O6	13.88	128.23	119.90
3	EA	1936	A	C5-C6-N6	-13.76	112.69	123.70

There are no chirality outliers.

5 of 22 planarity outliers are listed below:

Mol	Chain	Res	Type	Group
32	A5	130	PRO	Peptide
2	AC	233	GLY	Peptide
4	AD	9	VAL	Peptide
10	AJ	110	PRO	Peptide
11	AK	71	ARG	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	AB	2529	0	1281	20	0
1	CB	2529	0	1281	30	0
1	EB	2529	0	1281	33	0
1	GB	2529	0	1281	59	0
2	AC	2082	0	2157	52	0
2	CC	2082	0	2157	66	0
2	EC	2082	0	2157	65	0
2	GC	2082	0	2157	68	0
3	AA	61274	0	30819	778	0
3	CA	61274	0	30819	819	0
3	EA	61274	0	30819	734	0
3	GA	61274	0	30817	1239	2
4	AD	1565	0	1616	53	0
4	CD	1565	0	1616	49	0
4	ED	1565	0	1616	49	0
4	GD	1565	0	1616	48	0
5	AE	1552	0	1619	36	0
5	CE	1552	0	1619	44	0
5	EE	1552	0	1619	34	0
5	GE	1552	0	1619	72	0
6	AF	1410	0	1447	41	0
6	CF	1410	0	1447	39	0
6	EF	1410	0	1447	48	0
6	GF	1410	0	1447	57	0
7	AG	1323	0	1374	39	0
7	CG	1323	0	1374	50	0
7	EG	1323	0	1374	43	0
7	GG	1323	0	1374	56	0
8	AH	384	0	405	14	0
8	CH	384	0	405	20	0
8	EH	384	0	405	9	0
8	GH	384	0	405	7	0
9	AI	1032	0	1088	52	0
9	CI	1032	0	1088	38	0
9	EI	1032	0	1088	45	0
9	GI	1032	0	1088	64	0
10	AJ	1129	0	1162	53	0
10	CJ	1129	0	1162	54	0
10	EJ	1129	0	1162	49	0
10	GJ	1129	0	1162	53	0
11	AK	938	0	1012	40	0
11	CK	938	0	1012	38	0
11	EK	938	0	1012	32	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
11	GK	938	0	1012	24	0
12	AL	1045	0	1117	35	0
12	CL	1045	0	1116	36	0
12	EL	1045	0	1117	34	0
12	GL	1045	0	1117	52	0
13	AM	1074	0	1157	26	0
13	CM	1074	0	1157	32	0
13	EM	1074	0	1157	23	0
13	GM	1074	0	1157	26	0
14	AN	960	0	1000	30	0
14	CN	960	0	1000	34	0
14	EN	960	0	1000	24	0
14	GN	960	0	1000	23	0
15	AO	892	0	923	18	0
15	CO	892	0	923	27	0
15	EO	892	0	923	18	0
15	GO	892	0	923	32	0
16	AP	917	0	965	44	0
16	CP	917	0	965	41	0
16	EP	917	0	965	44	0
16	GP	917	0	965	36	0
17	AQ	947	0	1022	52	0
17	CQ	947	0	1022	50	0
17	EQ	947	0	1022	44	0
17	GQ	947	0	1022	56	0
18	AR	816	0	839	35	0
18	CR	816	0	839	36	0
18	ER	816	0	839	34	0
18	GR	816	0	839	46	0
19	AS	857	0	922	29	0
19	CS	857	0	922	18	0
19	ES	857	0	922	20	0
19	GS	857	0	922	29	0
20	AT	738	0	807	35	0
20	CT	738	0	807	26	0
20	ET	738	0	807	33	0
20	GT	738	0	807	29	0
21	AU	779	0	834	27	0
21	CU	779	0	834	12	0
21	EU	779	0	834	23	0
21	GU	779	0	834	29	0
22	AV	753	0	780	13	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
22	CV	753	0	780	17	0
22	EV	753	0	780	10	0
22	GV	753	0	780	13	0
23	AW	596	0	610	77	0
23	CW	596	0	610	62	0
23	EW	596	0	610	74	0
23	GW	596	0	610	60	0
24	AX	625	0	655	17	0
24	CX	625	0	655	14	0
24	EX	625	0	655	21	0
24	GX	625	0	655	18	0
25	AY	509	0	543	13	0
25	CY	509	0	543	9	0
25	EY	509	0	543	16	0
25	GY	509	0	543	11	0
26	AZ	449	0	491	16	0
26	CZ	449	0	491	21	0
26	EZ	449	0	491	10	0
26	GZ	449	0	491	27	0
27	A0	444	0	461	19	0
27	C0	444	0	461	17	0
27	E0	444	0	461	12	0
27	G0	444	0	461	8	0
28	A1	409	0	440	15	0
28	C1	409	0	440	11	0
28	E1	409	0	440	15	0
28	G1	409	0	440	17	0
29	A2	377	0	418	5	0
29	C2	377	0	418	11	0
29	E2	377	0	418	9	0
29	G2	377	0	418	17	0
30	A3	504	0	574	10	0
30	C3	504	0	574	7	0
30	E3	504	0	574	15	0
30	G3	504	0	574	27	0
31	A4	302	0	340	15	0
31	C4	302	0	340	12	0
31	E4	302	0	340	8	0
31	G4	302	0	340	12	0
32	A5	1117	0	1155	122	0
32	C5	1117	0	1155	136	0
32	E5	1101	0	1140	128	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
33	A6	227	0	237	7	0
34	BB	1704	0	1732	54	0
34	DB	1704	0	1732	62	0
34	FB	1704	0	1732	74	0
34	HB	1704	0	1732	58	0
35	BA	32895	0	16553	336	0
35	DA	32895	0	16553	472	0
35	FA	32895	0	16553	401	1
35	HA	32895	0	16552	581	0
36	BC	1624	0	1696	33	0
36	DC	1624	0	1696	41	0
36	FC	1624	0	1696	44	0
36	HC	1624	0	1696	35	0
37	BD	1643	0	1707	69	0
37	DD	1643	0	1707	63	0
37	FD	1643	0	1707	63	0
37	HD	1643	0	1707	73	0
38	BE	1105	0	1148	45	0
38	DE	1105	0	1148	35	0
38	FE	1105	0	1148	36	0
38	HE	1105	0	1148	36	0
39	BF	832	0	824	23	0
39	DF	817	0	808	36	0
39	FF	817	0	808	21	0
39	HF	817	0	808	36	0
40	BG	1181	0	1238	22	0
40	DG	1181	0	1238	30	0
40	FG	1181	0	1238	18	0
40	HG	1181	0	1238	50	0
41	BH	979	0	1031	28	0
41	DH	979	0	1031	25	0
41	FH	979	0	1031	28	0
41	HH	979	0	1031	33	0
42	BI	1022	0	1070	46	0
42	DI	1022	0	1070	39	0
42	FI	1022	0	1070	43	0
42	HI	1022	0	1070	38	0
43	BJ	786	0	828	23	0
43	DJ	786	0	828	28	0
43	FJ	786	0	828	18	1
43	HJ	786	0	828	29	0
44	BK	877	0	887	32	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
44	DK	877	0	887	40	0
44	FK	877	0	887	40	0
44	HK	877	0	887	57	0
45	BL	955	0	1016	36	0
45	DL	955	0	1016	37	0
45	FL	955	0	1016	33	0
45	HL	955	0	1016	41	0
46	BM	883	0	941	20	0
46	DM	883	0	941	33	0
46	FM	883	0	941	33	0
46	HM	883	0	941	39	0
47	BN	774	0	824	25	0
47	DN	774	0	824	31	0
47	FN	774	0	824	27	0
47	HN	774	0	824	28	0
48	BO	714	0	734	8	0
48	DO	714	0	734	13	0
48	FO	714	0	734	12	0
48	HO	714	0	734	18	0
49	BP	649	0	666	13	0
49	DP	649	0	666	17	0
49	FP	649	0	666	15	0
49	HP	649	0	666	12	0
50	BQ	648	0	691	11	0
50	DQ	648	0	691	33	0
50	FQ	648	0	691	23	0
50	HQ	648	0	691	28	0
51	BR	455	0	478	10	0
51	DR	455	0	478	9	0
51	FR	455	0	478	4	0
51	HR	455	0	478	24	0
52	BS	637	0	665	18	0
52	DS	637	0	665	14	0
52	FS	637	0	665	29	0
52	HS	637	0	665	32	0
53	BT	665	0	714	11	0
53	DT	665	0	714	23	0
53	FT	665	0	714	15	0
53	HT	665	0	714	13	0
54	BU	425	0	449	30	0
54	DU	425	0	449	17	0
54	FU	425	0	449	39	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
54	HU	425	0	449	27	0
55	BV	5345	0	5311	117	0
55	DV	5340	0	5306	132	0
55	FV	5340	0	5306	103	0
55	HV	5340	0	5307	116	0
56	BW	48	0	41	5	0
56	DW	48	0	41	5	0
56	FW	48	0	41	3	0
56	HW	48	0	40	6	0
57	A4	1	0	0	0	0
57	AA	136	0	0	0	0
57	AB	4	0	0	0	0
57	AC	1	0	0	0	0
57	AE	1	0	0	0	0
57	BA	40	0	0	0	0
57	BE	1	0	0	0	0
57	BN	1	0	0	0	0
57	BU	1	0	0	0	0
57	BV	1	0	0	0	0
57	C4	1	0	0	0	0
57	CA	136	0	0	0	0
57	CB	4	0	0	0	0
57	CE	1	0	0	0	0
57	CN	1	0	0	0	0
57	DA	43	0	0	0	0
57	DV	1	0	0	0	0
57	EA	137	0	0	0	0
57	EB	4	0	0	0	0
57	ED	1	0	0	0	0
57	EE	1	0	0	0	0
57	FA	39	0	0	0	0
57	FE	1	0	0	0	0
57	FN	2	0	0	0	0
57	FU	1	0	0	0	0
57	FV	1	0	0	0	0
57	GA	136	0	0	0	0
57	GB	4	0	0	0	0
57	GC	2	0	0	0	0
57	GL	1	0	0	0	0
57	HA	41	0	0	0	0
57	HE	1	0	0	0	0
57	HK	1	0	0	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
57	HV	1	0	0	0	0
58	A4	1	0	0	0	0
58	C4	1	0	0	0	0
58	E4	1	0	0	0	0
58	G4	1	0	0	0	0
59	BV	32	0	14	1	0
59	DV	32	0	14	2	0
59	FV	32	0	14	2	0
59	HV	32	0	14	1	0
60	A0	2	0	0	0	0
60	A2	1	0	0	0	0
60	A3	1	0	0	0	0
60	A4	1	0	0	0	0
60	AA	614	0	0	102	0
60	AB	18	0	0	1	0
60	AC	6	0	0	1	0
60	AD	4	0	0	0	0
60	AE	1	0	0	0	0
60	AF	1	0	0	0	0
60	AJ	1	0	0	0	0
60	AL	5	0	0	1	0
60	AN	2	0	0	0	0
60	AP	1	0	0	0	0
60	AQ	2	0	0	0	0
60	AS	1	0	0	0	0
60	BA	202	0	0	31	0
60	BL	1	0	0	0	0
60	BN	2	0	0	0	0
60	BT	2	0	0	0	0
60	BV	1	0	0	1	0
60	C0	1	0	0	0	0
60	C2	1	0	0	0	0
60	C3	1	0	0	0	0
60	C4	2	0	0	0	0
60	CA	607	0	0	84	0
60	CB	21	0	0	2	0
60	CC	8	0	0	0	0
60	CD	3	0	0	0	0
60	CE	1	0	0	0	0
60	CJ	2	0	0	1	0
60	CL	5	0	0	0	0
60	CN	2	0	0	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
60	CQ	1	0	0	1	0
60	CS	2	0	0	1	0
60	CT	2	0	0	1	0
60	CU	1	0	0	0	0
60	DA	186	0	0	27	0
60	DC	2	0	0	0	0
60	DD	1	0	0	0	0
60	DE	1	0	0	0	0
60	DG	1	0	0	0	0
60	DK	1	0	0	0	0
60	DL	2	0	0	0	0
60	DN	8	0	0	3	0
60	DQ	1	0	0	0	0
60	DT	4	0	0	1	0
60	DU	1	0	0	0	0
60	DV	1	0	0	0	0
60	E0	1	0	0	0	0
60	E2	1	0	0	0	0
60	E3	2	0	0	0	0
60	E4	2	0	0	0	0
60	EA	610	0	0	105	0
60	EB	18	0	0	3	0
60	EC	9	0	0	1	0
60	ED	3	0	0	0	0
60	EE	2	0	0	1	0
60	EL	4	0	0	0	0
60	EN	3	0	0	0	0
60	ER	1	0	0	0	0
60	ET	2	0	0	0	0
60	EV	2	0	0	0	0
60	FA	197	0	0	24	0
60	FC	1	0	0	0	0
60	FE	2	0	0	0	0
60	FN	3	0	0	0	0
60	FT	4	0	0	0	0
60	FU	1	0	0	0	0
60	FV	1	0	0	0	0
60	G2	2	0	0	0	0
60	G3	1	0	0	0	0
60	G4	1	0	0	0	0
60	GA	606	0	0	136	0
60	GB	19	0	0	9	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
60	GC	10	0	0	0	0
60	GD	3	0	0	0	0
60	GE	2	0	0	1	0
60	GJ	1	0	0	0	0
60	GL	4	0	0	1	0
60	GN	4	0	0	0	0
60	GQ	1	0	0	0	0
60	GR	2	0	0	1	0
60	GS	2	0	0	0	0
60	GU	1	0	0	0	0
60	GV	1	0	0	0	0
60	HA	193	0	0	31	0
60	HD	3	0	0	2	0
60	HE	3	0	0	0	0
60	HN	7	0	0	3	0
60	HQ	1	0	0	0	0
60	HT	1	0	0	0	0
60	HV	1	0	0	0	0
All	All	592086	0	404164	11056	2

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 12.

The worst 5 of 11056 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)
32:C5:24:SER:CB	32:C5:116:GLU:HG2	1.46	1.44
32:C5:24:SER:O	32:C5:116:GLU:HB3	1.41	1.16
32:C5:24:SER:HB2	32:C5:116:GLU:CG	1.76	1.14
32:E5:24:SER:HB2	32:E5:116:GLU:HG2	1.27	1.14
3:AA:912:C:OP1	13:AM:8:LYS:NZ	1.79	1.12

All (2) 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)
35:FA:1029:U:O3'	3:GA:1508:A:N6[1_565]	2.04	0.16
43:FJ:85:ASP:OD1	3:GA:1722:A:O2'[1_565]	2.16	0.04

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	AC	269/273 (98%)	211 (78%)	43 (16%)	15 (6%)	2	5
2	CC	269/273 (98%)	211 (78%)	42 (16%)	16 (6%)	1	5
2	EC	269/273 (98%)	212 (79%)	44 (16%)	13 (5%)	2	8
2	GC	269/273 (98%)	210 (78%)	42 (16%)	17 (6%)	1	4
4	AD	207/209 (99%)	163 (79%)	30 (14%)	14 (7%)	1	3
4	CD	207/209 (99%)	166 (80%)	27 (13%)	14 (7%)	1	3
4	ED	207/209 (99%)	165 (80%)	29 (14%)	13 (6%)	1	4
4	GD	207/209 (99%)	161 (78%)	32 (16%)	14 (7%)	1	3
5	AE	199/201 (99%)	162 (81%)	27 (14%)	10 (5%)	2	7
5	CE	199/201 (99%)	159 (80%)	27 (14%)	13 (6%)	1	3
5	EE	199/201 (99%)	164 (82%)	24 (12%)	11 (6%)	2	5
5	GE	199/201 (99%)	159 (80%)	30 (15%)	10 (5%)	2	7
6	AF	175/179 (98%)	141 (81%)	30 (17%)	4 (2%)	6	23
6	CF	175/179 (98%)	145 (83%)	25 (14%)	5 (3%)	4	18
6	EF	175/179 (98%)	140 (80%)	26 (15%)	9 (5%)	2	7
6	GF	175/179 (98%)	140 (80%)	26 (15%)	9 (5%)	2	7
7	AG	174/177 (98%)	127 (73%)	30 (17%)	17 (10%)	0	1
7	CG	174/177 (98%)	131 (75%)	28 (16%)	15 (9%)	1	2
7	EG	174/177 (98%)	125 (72%)	35 (20%)	14 (8%)	1	2
7	GG	174/177 (98%)	126 (72%)	30 (17%)	18 (10%)	0	1
8	AH	48/50 (96%)	29 (60%)	14 (29%)	5 (10%)	0	1
8	CH	48/50 (96%)	31 (65%)	12 (25%)	5 (10%)	0	1
8	EH	48/50 (96%)	31 (65%)	12 (25%)	5 (10%)	0	1
8	GH	48/50 (96%)	30 (62%)	15 (31%)	3 (6%)	1	4
9	AI	139/142 (98%)	97 (70%)	33 (24%)	9 (6%)	1	3

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
9	CI	139/142 (98%)	95 (68%)	38 (27%)	6 (4%)	2	10
9	EI	139/142 (98%)	97 (70%)	38 (27%)	4 (3%)	4	18
9	GI	139/142 (98%)	95 (68%)	34 (24%)	10 (7%)	1	3
10	AJ	140/142 (99%)	113 (81%)	18 (13%)	9 (6%)	1	4
10	CJ	140/142 (99%)	112 (80%)	20 (14%)	8 (6%)	1	5
10	EJ	140/142 (99%)	114 (81%)	17 (12%)	9 (6%)	1	4
10	GJ	140/142 (99%)	113 (81%)	19 (14%)	8 (6%)	1	5
11	AK	120/123 (98%)	96 (80%)	14 (12%)	10 (8%)	1	2
11	CK	120/123 (98%)	93 (78%)	21 (18%)	6 (5%)	2	7
11	EK	120/123 (98%)	92 (77%)	21 (18%)	7 (6%)	1	5
11	GK	120/123 (98%)	92 (77%)	20 (17%)	8 (7%)	1	3
12	AL	141/144 (98%)	104 (74%)	32 (23%)	5 (4%)	3	14
12	CL	141/144 (98%)	103 (73%)	33 (23%)	5 (4%)	3	14
12	EL	141/144 (98%)	108 (77%)	26 (18%)	7 (5%)	2	7
12	GL	141/144 (98%)	103 (73%)	32 (23%)	6 (4%)	2	10
13	AM	134/136 (98%)	107 (80%)	16 (12%)	11 (8%)	1	2
13	CM	134/136 (98%)	110 (82%)	16 (12%)	8 (6%)	1	4
13	EM	134/136 (98%)	106 (79%)	18 (13%)	10 (8%)	1	2
13	GM	134/136 (98%)	109 (81%)	17 (13%)	8 (6%)	1	4
14	AN	118/127 (93%)	101 (86%)	16 (14%)	1 (1%)	19	51
14	CN	118/127 (93%)	103 (87%)	14 (12%)	1 (1%)	19	51
14	EN	118/127 (93%)	100 (85%)	17 (14%)	1 (1%)	19	51
14	GN	118/127 (93%)	98 (83%)	19 (16%)	1 (1%)	19	51
15	AO	114/117 (97%)	95 (83%)	18 (16%)	1 (1%)	17	48
15	CO	114/117 (97%)	95 (83%)	15 (13%)	4 (4%)	3	14
15	EO	114/117 (97%)	95 (83%)	18 (16%)	1 (1%)	17	48
15	GO	114/117 (97%)	95 (83%)	15 (13%)	4 (4%)	3	14
16	AP	112/115 (97%)	86 (77%)	17 (15%)	9 (8%)	1	2
16	CP	112/115 (97%)	87 (78%)	16 (14%)	9 (8%)	1	2
16	EP	112/115 (97%)	84 (75%)	16 (14%)	12 (11%)	0	1
16	GP	112/115 (97%)	85 (76%)	19 (17%)	8 (7%)	1	3

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
17	AQ	115/118 (98%)	99 (86%)	12 (10%)	4 (4%)	3	14
17	CQ	115/118 (98%)	99 (86%)	12 (10%)	4 (4%)	3	14
17	EQ	115/118 (98%)	99 (86%)	12 (10%)	4 (4%)	3	14
17	GQ	115/118 (98%)	99 (86%)	14 (12%)	2 (2%)	9	31
18	AR	101/103 (98%)	83 (82%)	15 (15%)	3 (3%)	4	17
18	CR	101/103 (98%)	83 (82%)	15 (15%)	3 (3%)	4	17
18	ER	101/103 (98%)	83 (82%)	15 (15%)	3 (3%)	4	17
18	GR	101/103 (98%)	83 (82%)	13 (13%)	5 (5%)	2	7
19	AS	108/110 (98%)	94 (87%)	9 (8%)	5 (5%)	2	9
19	CS	108/110 (98%)	95 (88%)	9 (8%)	4 (4%)	3	13
19	ES	108/110 (98%)	92 (85%)	10 (9%)	6 (6%)	2	5
19	GS	108/110 (98%)	91 (84%)	11 (10%)	6 (6%)	2	5
20	AT	91/100 (91%)	57 (63%)	24 (26%)	10 (11%)	0	1
20	CT	91/100 (91%)	55 (60%)	25 (28%)	11 (12%)	0	1
20	ET	91/100 (91%)	56 (62%)	26 (29%)	9 (10%)	0	1
20	GT	91/100 (91%)	58 (64%)	23 (25%)	10 (11%)	0	1
21	AU	100/104 (96%)	74 (74%)	16 (16%)	10 (10%)	0	1
21	CU	100/104 (96%)	75 (75%)	17 (17%)	8 (8%)	1	2
21	EU	100/104 (96%)	74 (74%)	15 (15%)	11 (11%)	0	1
21	GU	100/104 (96%)	76 (76%)	14 (14%)	10 (10%)	0	1
22	AV	92/94 (98%)	81 (88%)	11 (12%)	0	100	100
22	CV	92/94 (98%)	80 (87%)	11 (12%)	1 (1%)	14	42
22	EV	92/94 (98%)	80 (87%)	12 (13%)	0	100	100
22	GV	92/94 (98%)	78 (85%)	13 (14%)	1 (1%)	14	42
23	AW	77/85 (91%)	39 (51%)	22 (29%)	16 (21%)	0	0
23	CW	77/85 (91%)	41 (53%)	17 (22%)	19 (25%)	0	0
23	EW	77/85 (91%)	41 (53%)	21 (27%)	15 (20%)	0	0
23	GW	77/85 (91%)	40 (52%)	21 (27%)	16 (21%)	0	0
24	AX	75/78 (96%)	64 (85%)	8 (11%)	3 (4%)	3	11
24	CX	75/78 (96%)	63 (84%)	10 (13%)	2 (3%)	5	19
24	EX	75/78 (96%)	63 (84%)	9 (12%)	3 (4%)	3	11

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
24	GX	75/78 (96%)	63 (84%)	9 (12%)	3 (4%)	3	11
25	AY	61/63 (97%)	39 (64%)	18 (30%)	4 (7%)	1	3
25	CY	61/63 (97%)	42 (69%)	15 (25%)	4 (7%)	1	3
25	EY	61/63 (97%)	40 (66%)	17 (28%)	4 (7%)	1	3
25	GY	61/63 (97%)	39 (64%)	20 (33%)	2 (3%)	4	15
26	AZ	56/59 (95%)	46 (82%)	8 (14%)	2 (4%)	3	14
26	CZ	56/59 (95%)	46 (82%)	8 (14%)	2 (4%)	3	14
26	EZ	56/59 (95%)	46 (82%)	8 (14%)	2 (4%)	3	14
26	GZ	56/59 (95%)	44 (79%)	10 (18%)	2 (4%)	3	14
27	A0	54/57 (95%)	43 (80%)	7 (13%)	4 (7%)	1	2
27	C0	54/57 (95%)	45 (83%)	3 (6%)	6 (11%)	0	1
27	E0	54/57 (95%)	44 (82%)	6 (11%)	4 (7%)	1	2
27	G0	54/57 (95%)	46 (85%)	4 (7%)	4 (7%)	1	2
28	A1	48/55 (87%)	42 (88%)	3 (6%)	3 (6%)	1	4
28	C1	48/55 (87%)	42 (88%)	4 (8%)	2 (4%)	3	10
28	E1	48/55 (87%)	42 (88%)	4 (8%)	2 (4%)	3	10
28	G1	48/55 (87%)	42 (88%)	3 (6%)	3 (6%)	1	4
29	A2	44/46 (96%)	41 (93%)	3 (7%)	0	100	100
29	C2	44/46 (96%)	41 (93%)	2 (4%)	1 (2%)	6	23
29	E2	44/46 (96%)	40 (91%)	4 (9%)	0	100	100
29	G2	44/46 (96%)	40 (91%)	3 (7%)	1 (2%)	6	23
30	A3	62/65 (95%)	53 (86%)	7 (11%)	2 (3%)	4	16
30	C3	62/65 (95%)	54 (87%)	6 (10%)	2 (3%)	4	16
30	E3	62/65 (95%)	56 (90%)	4 (6%)	2 (3%)	4	16
30	G3	62/65 (95%)	54 (87%)	6 (10%)	2 (3%)	4	16
31	A4	36/38 (95%)	29 (81%)	4 (11%)	3 (8%)	1	2
31	C4	36/38 (95%)	29 (81%)	4 (11%)	3 (8%)	1	2
31	E4	36/38 (95%)	29 (81%)	4 (11%)	3 (8%)	1	2
31	G4	36/38 (95%)	30 (83%)	2 (6%)	4 (11%)	0	1
32	A5	146/165 (88%)	77 (53%)	40 (27%)	29 (20%)	0	0
32	C5	146/165 (88%)	78 (53%)	45 (31%)	23 (16%)	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
32	E5	143/165 (87%)	79 (55%)	41 (29%)	23 (16%)	0	0
33	A6	28/121 (23%)	20 (71%)	7 (25%)	1 (4%)	3	14
34	BB	216/241 (90%)	151 (70%)	51 (24%)	14 (6%)	1	3
34	DB	216/241 (90%)	157 (73%)	47 (22%)	12 (6%)	2	5
34	FB	216/241 (90%)	153 (71%)	51 (24%)	12 (6%)	2	5
34	HB	216/241 (90%)	153 (71%)	51 (24%)	12 (6%)	2	5
36	BC	204/233 (88%)	181 (89%)	18 (9%)	5 (2%)	5	21
36	DC	204/233 (88%)	179 (88%)	20 (10%)	5 (2%)	5	21
36	FC	204/233 (88%)	180 (88%)	18 (9%)	6 (3%)	4	18
36	HC	204/233 (88%)	181 (89%)	17 (8%)	6 (3%)	4	18
37	BD	203/206 (98%)	162 (80%)	30 (15%)	11 (5%)	2	6
37	DD	203/206 (98%)	162 (80%)	29 (14%)	12 (6%)	1	5
37	FD	203/206 (98%)	163 (80%)	29 (14%)	11 (5%)	2	6
37	HD	203/206 (98%)	165 (81%)	26 (13%)	12 (6%)	1	5
38	BE	148/167 (89%)	123 (83%)	18 (12%)	7 (5%)	2	8
38	DE	148/167 (89%)	125 (84%)	18 (12%)	5 (3%)	3	15
38	FE	148/167 (89%)	122 (82%)	20 (14%)	6 (4%)	3	11
38	HE	148/167 (89%)	121 (82%)	20 (14%)	7 (5%)	2	8
39	BF	100/135 (74%)	79 (79%)	15 (15%)	6 (6%)	1	4
39	DF	98/135 (73%)	80 (82%)	13 (13%)	5 (5%)	2	7
39	FF	98/135 (73%)	81 (83%)	11 (11%)	6 (6%)	1	4
39	HF	98/135 (73%)	76 (78%)	18 (18%)	4 (4%)	3	11
40	BG	149/179 (83%)	128 (86%)	20 (13%)	1 (1%)	22	54
40	DG	149/179 (83%)	125 (84%)	22 (15%)	2 (1%)	12	37
40	FG	149/179 (83%)	127 (85%)	21 (14%)	1 (1%)	22	54
40	HG	149/179 (83%)	127 (85%)	20 (13%)	2 (1%)	12	37
41	BH	127/130 (98%)	114 (90%)	12 (9%)	1 (1%)	19	51
41	DH	127/130 (98%)	113 (89%)	12 (9%)	2 (2%)	9	32
41	FH	127/130 (98%)	112 (88%)	13 (10%)	2 (2%)	9	32
41	HH	127/130 (98%)	112 (88%)	13 (10%)	2 (2%)	9	32
42	BI	125/130 (96%)	105 (84%)	14 (11%)	6 (5%)	2	8

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
42	DI	125/130 (96%)	102 (82%)	22 (18%)	1 (1%)	19	51
42	FI	125/130 (96%)	106 (85%)	13 (10%)	6 (5%)	2	8
42	HI	125/130 (96%)	103 (82%)	19 (15%)	3 (2%)	6	22
43	BJ	96/103 (93%)	69 (72%)	20 (21%)	7 (7%)	1	3
43	DJ	96/103 (93%)	71 (74%)	19 (20%)	6 (6%)	1	4
43	FJ	96/103 (93%)	69 (72%)	21 (22%)	6 (6%)	1	4
43	HJ	96/103 (93%)	68 (71%)	19 (20%)	9 (9%)	0	1
44	BK	115/129 (89%)	97 (84%)	12 (10%)	6 (5%)	2	6
44	DK	115/129 (89%)	92 (80%)	19 (16%)	4 (4%)	3	14
44	FK	115/129 (89%)	96 (84%)	13 (11%)	6 (5%)	2	6
44	HK	115/129 (89%)	91 (79%)	15 (13%)	9 (8%)	1	2
45	BL	121/124 (98%)	101 (84%)	16 (13%)	4 (3%)	4	15
45	DL	121/124 (98%)	98 (81%)	20 (16%)	3 (2%)	5	21
45	FL	121/124 (98%)	100 (83%)	14 (12%)	7 (6%)	1	5
45	HL	121/124 (98%)	101 (84%)	15 (12%)	5 (4%)	3	11
46	BM	112/118 (95%)	98 (88%)	8 (7%)	6 (5%)	2	6
46	DM	112/118 (95%)	96 (86%)	11 (10%)	5 (4%)	2	9
46	FM	112/118 (95%)	99 (88%)	7 (6%)	6 (5%)	2	6
46	HM	112/118 (95%)	92 (82%)	12 (11%)	8 (7%)	1	3
47	BN	92/101 (91%)	73 (79%)	13 (14%)	6 (6%)	1	3
47	DN	92/101 (91%)	71 (77%)	19 (21%)	2 (2%)	6	24
47	FN	92/101 (91%)	71 (77%)	17 (18%)	4 (4%)	2	10
47	HN	92/101 (91%)	70 (76%)	18 (20%)	4 (4%)	2	10
48	BO	86/89 (97%)	75 (87%)	9 (10%)	2 (2%)	6	23
48	DO	86/89 (97%)	75 (87%)	11 (13%)	0	100	100
48	FO	86/89 (97%)	75 (87%)	11 (13%)	0	100	100
48	HO	86/89 (97%)	72 (84%)	11 (13%)	3 (4%)	3	14
49	BP	80/82 (98%)	60 (75%)	17 (21%)	3 (4%)	3	13
49	DP	80/82 (98%)	60 (75%)	15 (19%)	5 (6%)	1	4
49	FP	80/82 (98%)	62 (78%)	15 (19%)	3 (4%)	3	13
49	HP	80/82 (98%)	56 (70%)	21 (26%)	3 (4%)	3	13

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
50	BQ	78/84 (93%)	59 (76%)	15 (19%)	4 (5%)	2	7
50	DQ	78/84 (93%)	58 (74%)	14 (18%)	6 (8%)	1	2
50	FQ	78/84 (93%)	58 (74%)	17 (22%)	3 (4%)	3	13
50	HQ	78/84 (93%)	58 (74%)	13 (17%)	7 (9%)	1	1
51	BR	53/75 (71%)	47 (89%)	6 (11%)	0	100	100
51	DR	53/75 (71%)	46 (87%)	7 (13%)	0	100	100
51	FR	53/75 (71%)	48 (91%)	5 (9%)	0	100	100
51	HR	53/75 (71%)	49 (92%)	4 (8%)	0	100	100
52	BS	77/92 (84%)	65 (84%)	11 (14%)	1 (1%)	12	37
52	DS	77/92 (84%)	66 (86%)	11 (14%)	0	100	100
52	FS	77/92 (84%)	64 (83%)	11 (14%)	2 (3%)	5	20
52	HS	77/92 (84%)	66 (86%)	9 (12%)	2 (3%)	5	20
53	BT	83/87 (95%)	74 (89%)	7 (8%)	2 (2%)	6	22
53	DT	83/87 (95%)	74 (89%)	6 (7%)	3 (4%)	3	14
53	FT	83/87 (95%)	75 (90%)	6 (7%)	2 (2%)	6	22
53	HT	83/87 (95%)	73 (88%)	8 (10%)	2 (2%)	6	22
54	BU	49/71 (69%)	26 (53%)	20 (41%)	3 (6%)	1	4
54	DU	49/71 (69%)	25 (51%)	20 (41%)	4 (8%)	1	2
54	FU	49/71 (69%)	24 (49%)	21 (43%)	4 (8%)	1	2
54	HU	49/71 (69%)	29 (59%)	18 (37%)	2 (4%)	3	11
55	BV	686/704 (97%)	559 (82%)	92 (13%)	35 (5%)	2	7
55	DV	685/704 (97%)	559 (82%)	93 (14%)	33 (5%)	2	8
55	FV	685/704 (97%)	564 (82%)	89 (13%)	32 (5%)	2	8
55	HV	685/704 (97%)	562 (82%)	88 (13%)	35 (5%)	2	7
56	BW	2/6 (33%)	0	0	2 (100%)	0	0
56	DW	2/6 (33%)	0	1 (50%)	1 (50%)	0	0
56	FW	2/6 (33%)	2 (100%)	0	0	100	100
56	HW	2/6 (33%)	1 (50%)	0	1 (50%)	0	0
All	All	25302/27000 (94%)	20075 (79%)	3885 (15%)	1342 (5%)	2	6

5 of 1342 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AC	70	LYS
2	AC	104	LEU
2	AC	121	ALA
2	AC	140	VAL
4	AD	43	ASP

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	AC	216/218 (99%)	202 (94%)	14 (6%)	17 45
2	CC	216/218 (99%)	197 (91%)	19 (9%)	10 30
2	EC	216/218 (99%)	194 (90%)	22 (10%)	7 22
2	GC	216/218 (99%)	203 (94%)	13 (6%)	19 49
4	AD	164/164 (100%)	151 (92%)	13 (8%)	12 34
4	CD	164/164 (100%)	152 (93%)	12 (7%)	14 38
4	ED	164/164 (100%)	152 (93%)	12 (7%)	14 38
4	GD	164/164 (100%)	151 (92%)	13 (8%)	12 34
5	AE	165/165 (100%)	146 (88%)	19 (12%)	5 17
5	CE	165/165 (100%)	157 (95%)	8 (5%)	25 58
5	EE	165/165 (100%)	153 (93%)	12 (7%)	14 38
5	GE	165/165 (100%)	152 (92%)	13 (8%)	12 34
6	AF	148/150 (99%)	138 (93%)	10 (7%)	16 42
6	CF	148/150 (99%)	140 (95%)	8 (5%)	22 54
6	EF	148/150 (99%)	133 (90%)	15 (10%)	7 23
6	GF	148/150 (99%)	146 (99%)	2 (1%)	67 89
7	AG	137/138 (99%)	122 (89%)	15 (11%)	6 19
7	CG	137/138 (99%)	125 (91%)	12 (9%)	10 30
7	EG	137/138 (99%)	119 (87%)	18 (13%)	4 12
7	GG	137/138 (99%)	128 (93%)	9 (7%)	16 44

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
8	AH	40/40 (100%)	39 (98%)	1 (2%)	47	78
8	CH	40/40 (100%)	38 (95%)	2 (5%)	24	57
8	EH	40/40 (100%)	37 (92%)	3 (8%)	13	37
8	GH	40/40 (100%)	39 (98%)	1 (2%)	47	78
9	AI	109/110 (99%)	105 (96%)	4 (4%)	34	68
9	CI	109/110 (99%)	106 (97%)	3 (3%)	43	76
9	EI	109/110 (99%)	106 (97%)	3 (3%)	43	76
9	GI	109/110 (99%)	107 (98%)	2 (2%)	59	85
10	AJ	116/116 (100%)	100 (86%)	16 (14%)	3	10
10	CJ	116/116 (100%)	101 (87%)	15 (13%)	4	13
10	EJ	116/116 (100%)	97 (84%)	19 (16%)	2	7
10	GJ	116/116 (100%)	104 (90%)	12 (10%)	7	22
11	AK	103/104 (99%)	92 (89%)	11 (11%)	6	20
11	CK	103/104 (99%)	87 (84%)	16 (16%)	2	8
11	EK	103/104 (99%)	87 (84%)	16 (16%)	2	8
11	GK	103/104 (99%)	90 (87%)	13 (13%)	4	13
12	AL	102/103 (99%)	95 (93%)	7 (7%)	15	41
12	CL	102/103 (99%)	94 (92%)	8 (8%)	12	34
12	EL	102/103 (99%)	96 (94%)	6 (6%)	19	49
12	GL	102/103 (99%)	96 (94%)	6 (6%)	19	49
13	AM	109/109 (100%)	93 (85%)	16 (15%)	3	9
13	CM	109/109 (100%)	98 (90%)	11 (10%)	7	23
13	EM	109/109 (100%)	100 (92%)	9 (8%)	11	32
13	GM	109/109 (100%)	103 (94%)	6 (6%)	21	53
14	AN	100/103 (97%)	93 (93%)	7 (7%)	15	41
14	CN	100/103 (97%)	96 (96%)	4 (4%)	31	65
14	EN	100/103 (97%)	96 (96%)	4 (4%)	31	65
14	GN	100/103 (97%)	93 (93%)	7 (7%)	15	41
15	AO	86/87 (99%)	78 (91%)	8 (9%)	9	27
15	CO	86/87 (99%)	80 (93%)	6 (7%)	15	41
15	EO	86/87 (99%)	81 (94%)	5 (6%)	20	50

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
15	GO	86/87 (99%)	81 (94%)	5 (6%)	20	50
16	AP	99/100 (99%)	91 (92%)	8 (8%)	11	33
16	CP	99/100 (99%)	90 (91%)	9 (9%)	9	28
16	EP	99/100 (99%)	88 (89%)	11 (11%)	6	19
16	GP	99/100 (99%)	90 (91%)	9 (9%)	9	28
17	AQ	89/90 (99%)	81 (91%)	8 (9%)	9	29
17	CQ	89/90 (99%)	84 (94%)	5 (6%)	21	52
17	EQ	89/90 (99%)	83 (93%)	6 (7%)	16	43
17	GQ	89/90 (99%)	83 (93%)	6 (7%)	16	43
18	AR	84/84 (100%)	78 (93%)	6 (7%)	14	40
18	CR	84/84 (100%)	79 (94%)	5 (6%)	19	49
18	ER	84/84 (100%)	76 (90%)	8 (10%)	8	26
18	GR	84/84 (100%)	79 (94%)	5 (6%)	19	49
19	AS	93/93 (100%)	84 (90%)	9 (10%)	8	25
19	CS	93/93 (100%)	86 (92%)	7 (8%)	13	37
19	ES	93/93 (100%)	84 (90%)	9 (10%)	8	25
19	GS	93/93 (100%)	88 (95%)	5 (5%)	22	54
20	AT	80/84 (95%)	77 (96%)	3 (4%)	33	67
20	CT	80/84 (95%)	75 (94%)	5 (6%)	18	46
20	ET	80/84 (95%)	74 (92%)	6 (8%)	13	37
20	GT	80/84 (95%)	77 (96%)	3 (4%)	33	67
21	AU	83/85 (98%)	76 (92%)	7 (8%)	11	31
21	CU	83/85 (98%)	80 (96%)	3 (4%)	35	69
21	EU	83/85 (98%)	78 (94%)	5 (6%)	19	49
21	GU	83/85 (98%)	79 (95%)	4 (5%)	25	58
22	AV	78/78 (100%)	75 (96%)	3 (4%)	33	67
22	CV	78/78 (100%)	73 (94%)	5 (6%)	17	45
22	EV	78/78 (100%)	75 (96%)	3 (4%)	33	67
22	GV	78/78 (100%)	77 (99%)	1 (1%)	69	90
23	AW	59/63 (94%)	53 (90%)	6 (10%)	7	22
23	CW	59/63 (94%)	55 (93%)	4 (7%)	16	42

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
23	EW	59/63 (94%)	49 (83%)	10 (17%)	2	6
23	GW	59/63 (94%)	57 (97%)	2 (3%)	37	71
24	AX	67/68 (98%)	61 (91%)	6 (9%)	9	29
24	CX	67/68 (98%)	60 (90%)	7 (10%)	7	21
24	EX	67/68 (98%)	57 (85%)	10 (15%)	3	9
24	GX	67/68 (98%)	63 (94%)	4 (6%)	19	49
25	AY	55/55 (100%)	52 (94%)	3 (6%)	21	53
25	CY	55/55 (100%)	51 (93%)	4 (7%)	14	38
25	EY	55/55 (100%)	50 (91%)	5 (9%)	9	28
25	GY	55/55 (100%)	52 (94%)	3 (6%)	21	53
26	AZ	48/49 (98%)	40 (83%)	8 (17%)	2	6
26	CZ	48/49 (98%)	39 (81%)	9 (19%)	1	4
26	EZ	48/49 (98%)	41 (85%)	7 (15%)	3	9
26	GZ	48/49 (98%)	46 (96%)	2 (4%)	30	63
27	A0	47/48 (98%)	46 (98%)	1 (2%)	53	81
27	C0	47/48 (98%)	47 (100%)	0	100	100
27	E0	47/48 (98%)	46 (98%)	1 (2%)	53	81
27	G0	47/48 (98%)	45 (96%)	2 (4%)	29	62
28	A1	45/49 (92%)	42 (93%)	3 (7%)	16	43
28	C1	45/49 (92%)	42 (93%)	3 (7%)	16	43
28	E1	45/49 (92%)	42 (93%)	3 (7%)	16	43
28	G1	45/49 (92%)	43 (96%)	2 (4%)	28	61
29	A2	38/38 (100%)	35 (92%)	3 (8%)	12	34
29	C2	38/38 (100%)	34 (90%)	4 (10%)	7	21
29	E2	38/38 (100%)	36 (95%)	2 (5%)	22	54
29	G2	38/38 (100%)	35 (92%)	3 (8%)	12	34
30	A3	51/52 (98%)	46 (90%)	5 (10%)	8	24
30	C3	51/52 (98%)	49 (96%)	2 (4%)	32	66
30	E3	51/52 (98%)	47 (92%)	4 (8%)	12	34
30	G3	51/52 (98%)	48 (94%)	3 (6%)	19	49
31	A4	34/34 (100%)	31 (91%)	3 (9%)	10	30

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
31	C4	34/34 (100%)	32 (94%)	2 (6%)	19	49
31	E4	34/34 (100%)	32 (94%)	2 (6%)	19	49
31	G4	34/34 (100%)	33 (97%)	1 (3%)	42	76
32	A5	112/123 (91%)	93 (83%)	19 (17%)	2	6
32	C5	112/123 (91%)	95 (85%)	17 (15%)	3	8
32	E5	111/123 (90%)	93 (84%)	18 (16%)	2	7
33	A6	26/85 (31%)	22 (85%)	4 (15%)	2	8
34	BB	180/199 (90%)	170 (94%)	10 (6%)	21	52
34	DB	180/199 (90%)	170 (94%)	10 (6%)	21	52
34	FB	180/199 (90%)	171 (95%)	9 (5%)	24	57
34	HB	180/199 (90%)	174 (97%)	6 (3%)	38	72
36	BC	170/190 (90%)	156 (92%)	14 (8%)	11	32
36	DC	170/190 (90%)	162 (95%)	8 (5%)	26	59
36	FC	170/190 (90%)	158 (93%)	12 (7%)	14	40
36	HC	170/190 (90%)	163 (96%)	7 (4%)	30	64
37	BD	172/173 (99%)	165 (96%)	7 (4%)	30	64
37	DD	172/173 (99%)	163 (95%)	9 (5%)	23	55
37	FD	172/173 (99%)	165 (96%)	7 (4%)	30	64
37	HD	172/173 (99%)	167 (97%)	5 (3%)	42	76
38	BE	113/126 (90%)	108 (96%)	5 (4%)	28	61
38	DE	113/126 (90%)	109 (96%)	4 (4%)	36	70
38	FE	113/126 (90%)	107 (95%)	6 (5%)	22	54
38	HE	113/126 (90%)	105 (93%)	8 (7%)	14	40
39	BF	89/116 (77%)	82 (92%)	7 (8%)	12	34
39	DF	87/116 (75%)	86 (99%)	1 (1%)	73	92
39	FF	87/116 (75%)	82 (94%)	5 (6%)	20	51
39	HF	87/116 (75%)	85 (98%)	2 (2%)	50	80
40	BG	124/147 (84%)	115 (93%)	9 (7%)	14	38
40	DG	124/147 (84%)	123 (99%)	1 (1%)	81	94
40	FG	124/147 (84%)	122 (98%)	2 (2%)	62	86
40	HG	124/147 (84%)	124 (100%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
41	BH	104/105 (99%)	96 (92%)	8 (8%)	13	35
41	DH	104/105 (99%)	97 (93%)	7 (7%)	16	43
41	FH	104/105 (99%)	99 (95%)	5 (5%)	25	58
41	HH	104/105 (99%)	97 (93%)	7 (7%)	16	43
42	BI	105/107 (98%)	96 (91%)	9 (9%)	10	30
42	DI	105/107 (98%)	101 (96%)	4 (4%)	33	67
42	FI	105/107 (98%)	96 (91%)	9 (9%)	10	30
42	HI	105/107 (98%)	102 (97%)	3 (3%)	42	76
43	BJ	86/90 (96%)	83 (96%)	3 (4%)	36	70
43	DJ	86/90 (96%)	82 (95%)	4 (5%)	26	59
43	FJ	86/90 (96%)	83 (96%)	3 (4%)	36	70
43	HJ	86/90 (96%)	81 (94%)	5 (6%)	20	50
44	BK	90/99 (91%)	85 (94%)	5 (6%)	21	52
44	DK	90/99 (91%)	87 (97%)	3 (3%)	38	72
44	FK	90/99 (91%)	81 (90%)	9 (10%)	7	23
44	HK	90/99 (91%)	83 (92%)	7 (8%)	12	34
45	BL	103/104 (99%)	96 (93%)	7 (7%)	16	42
45	DL	103/104 (99%)	96 (93%)	7 (7%)	16	42
45	FL	103/104 (99%)	96 (93%)	7 (7%)	16	42
45	HL	103/104 (99%)	99 (96%)	4 (4%)	32	66
46	BM	92/96 (96%)	88 (96%)	4 (4%)	29	62
46	DM	92/96 (96%)	92 (100%)	0	100	100
46	FM	92/96 (96%)	91 (99%)	1 (1%)	73	92
46	HM	92/96 (96%)	91 (99%)	1 (1%)	73	92
47	BN	79/84 (94%)	75 (95%)	4 (5%)	24	56
47	DN	79/84 (94%)	78 (99%)	1 (1%)	69	90
47	FN	79/84 (94%)	76 (96%)	3 (4%)	33	67
47	HN	79/84 (94%)	79 (100%)	0	100	100
48	BO	76/77 (99%)	72 (95%)	4 (5%)	22	54
48	DO	76/77 (99%)	74 (97%)	2 (3%)	46	77
48	FO	76/77 (99%)	71 (93%)	5 (7%)	16	44

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
48	HO	76/77 (99%)	74 (97%)	2 (3%)	46	77
49	BP	65/65 (100%)	61 (94%)	4 (6%)	18	47
49	DP	65/65 (100%)	62 (95%)	3 (5%)	27	60
49	FP	65/65 (100%)	64 (98%)	1 (2%)	65	87
49	HP	65/65 (100%)	63 (97%)	2 (3%)	40	74
50	BQ	74/78 (95%)	66 (89%)	8 (11%)	6	20
50	DQ	74/78 (95%)	71 (96%)	3 (4%)	30	64
50	FQ	74/78 (95%)	72 (97%)	2 (3%)	44	77
50	HQ	74/78 (95%)	68 (92%)	6 (8%)	11	33
51	BR	48/65 (74%)	47 (98%)	1 (2%)	53	81
51	DR	48/65 (74%)	48 (100%)	0	100	100
51	FR	48/65 (74%)	48 (100%)	0	100	100
51	HR	48/65 (74%)	48 (100%)	0	100	100
52	BS	70/79 (89%)	64 (91%)	6 (9%)	10	30
52	DS	70/79 (89%)	67 (96%)	3 (4%)	29	62
52	FS	70/79 (89%)	67 (96%)	3 (4%)	29	62
52	HS	70/79 (89%)	69 (99%)	1 (1%)	67	89
53	BT	65/66 (98%)	60 (92%)	5 (8%)	13	35
53	DT	65/66 (98%)	58 (89%)	7 (11%)	6	20
53	FT	65/66 (98%)	58 (89%)	7 (11%)	6	20
53	HT	65/66 (98%)	57 (88%)	8 (12%)	4	14
54	BU	44/61 (72%)	36 (82%)	8 (18%)	1	5
54	DU	44/61 (72%)	42 (96%)	2 (4%)	27	61
54	FU	44/61 (72%)	39 (89%)	5 (11%)	5	17
54	HU	44/61 (72%)	43 (98%)	1 (2%)	50	80
55	BV	568/578 (98%)	521 (92%)	47 (8%)	11	32
55	DV	568/578 (98%)	527 (93%)	41 (7%)	14	39
55	FV	568/578 (98%)	528 (93%)	40 (7%)	15	41
55	HV	568/578 (98%)	535 (94%)	33 (6%)	20	50
56	BW	2/2 (100%)	1 (50%)	1 (50%)	0	0
56	DW	2/2 (100%)	1 (50%)	1 (50%)	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
56	FW	2/2 (100%)	1 (50%)	1 (50%)	0 0
56	HW	2/2 (100%)	0	2 (100%)	0 0
All	All	21011/21990 (96%)	19590 (93%)	1421 (7%)	16 42

5 of 1421 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
34	DB	71	THR
5	EE	44	ARG
34	HB	90	PHE
37	DD	171	LEU
55	DV	77	LYS

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 99 such sidechains are listed below:

Mol	Chain	Res	Type
55	DV	465	HIS
38	FE	82	GLN
43	HJ	56	HIS
4	ED	49	GLN
18	ER	66	HIS

5.3.3 RNA [i](#)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AB	117/120 (97%)	17 (14%)	0
1	CB	117/120 (97%)	19 (16%)	0
1	EB	117/120 (97%)	18 (15%)	0
1	GB	117/120 (97%)	20 (17%)	0
3	AA	2850/2904 (98%)	455 (15%)	40 (1%)
3	CA	2850/2904 (98%)	457 (16%)	39 (1%)
3	EA	2850/2904 (98%)	452 (15%)	36 (1%)
3	GA	2850/2904 (98%)	459 (16%)	38 (1%)
35	BA	1532/1542 (99%)	264 (17%)	17 (1%)
35	DA	1532/1542 (99%)	264 (17%)	14 (0%)
35	FA	1532/1542 (99%)	263 (17%)	16 (1%)
35	HA	1532/1542 (99%)	268 (17%)	15 (0%)
All	All	17996/18264 (98%)	2956 (16%)	215 (1%)

5 of 2956 RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AB	3	C
1	AB	15	A
1	AB	16	G
1	AB	21	G
1	AB	30	C

5 of 215 RNA pucker outliers are listed below:

Mol	Chain	Res	Type
35	DA	209	U
3	EA	827	U
3	GA	2873	A
35	DA	481	G
35	DA	1451	U

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

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

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
56	KBE	DW	1	56	8,8,9	0.99	0	7,8,10	1.50	2 (28%)
56	5OH	BW	6	56	8,12,13	1.65	2 (25%)	3,16,18	2.80	2 (66%)
56	5OH	DW	6	56	8,12,13	1.65	2 (25%)	3,16,18	1.84	2 (66%)
56	5OH	FW	6	56	8,12,13	1.89	2 (25%)	3,16,18	1.98	2 (66%)
56	KBE	FW	1	56	8,8,9	0.96	0	7,8,10	1.09	0
56	KBE	HW	1	56	8,8,9	0.95	0	7,8,10	1.16	1 (14%)
56	KBE	BW	1	56	8,8,9	1.23	1 (12%)	7,8,10	1.28	1 (14%)
56	UAL	BW	5	56	7,8,9	2.60	4 (57%)	5,9,11	5.94	2 (40%)
56	DPP	HW	2	56	3,5,6	0.96	0	1,5,7	0.33	0
56	DPP	BW	2	56	3,5,6	0.87	0	1,5,7	0.44	0
56	UAL	HW	5	56	7,8,9	3.10	4 (57%)	5,9,11	4.81	4 (80%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
56	DPP	FW	2	56	3,5,6	1.09	0	1,5,7	0.84	0
56	5OH	HW	6	56	8,12,13	1.61	2 (25%)	3,16,18	1.61	1 (33%)
56	UAL	DW	5	56	7,8,9	2.59	4 (57%)	5,9,11	4.41	3 (60%)
56	UAL	FW	5	56	7,8,9	2.51	4 (57%)	5,9,11	5.41	2 (40%)
56	DPP	DW	2	56	3,5,6	0.87	0	1,5,7	0.78	0

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
56	KBE	DW	1	56	-	4/7/7/8	-
56	5OH	BW	6	56	-	0/2/18/20	0/1/1/1
56	5OH	DW	6	56	-	1/2/18/20	0/1/1/1
56	5OH	FW	6	56	-	0/2/18/20	0/1/1/1
56	KBE	FW	1	56	-	3/7/7/8	-
56	KBE	HW	1	56	-	4/7/7/8	-
56	KBE	BW	1	56	-	7/7/7/8	-
56	UAL	BW	5	56	-	0/3/7/9	-
56	DPP	HW	2	56	-	0/2/4/6	-
56	DPP	BW	2	56	-	0/2/4/6	-
56	UAL	HW	5	56	-	1/3/7/9	-
56	DPP	FW	2	56	-	0/2/4/6	-
56	5OH	HW	6	56	-	1/2/18/20	0/1/1/1
56	UAL	DW	5	56	-	1/3/7/9	-
56	UAL	FW	5	56	-	0/3/7/9	-
56	DPP	DW	2	56	-	0/2/4/6	-

The worst 5 of 25 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
56	HW	5	UAL	C1-N1	4.70	1.47	1.40
56	HW	5	UAL	CB-N1	4.45	1.47	1.35
56	HW	5	UAL	C-CA	4.34	1.52	1.45
56	FW	5	UAL	CB-N1	4.17	1.46	1.35
56	BW	5	UAL	CB-N1	4.16	1.46	1.35

The worst 5 of 22 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
56	FW	5	UAL	O-C-CA	-9.99	112.69	125.39
56	BW	5	UAL	CA-CB-N1	-9.91	106.90	125.60
56	BW	5	UAL	O-C-CA	-8.69	114.35	125.39
56	HW	5	UAL	O-C-CA	-8.61	114.45	125.39
56	DW	5	UAL	O-C-CA	-8.12	115.06	125.39

There are no chirality outliers.

5 of 22 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
56	DW	1	KBE	CA-CB-CG-CD
56	DW	6	5OH	C-CA-CB-CR
56	FW	1	KBE	C-CA-CB-N
56	FW	1	KBE	C-CA-CB-CG
56	FW	1	KBE	CA-CB-CG-CD

There are no ring outliers.

12 monomers are involved in 15 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
56	DW	1	KBE	2	0
56	BW	6	5OH	1	0
56	DW	6	5OH	1	0
56	FW	6	5OH	1	0
56	FW	1	KBE	1	0
56	HW	1	KBE	3	0
56	BW	1	KBE	2	0
56	BW	5	UAL	2	0
56	HW	2	DPP	1	0
56	HW	6	5OH	2	0
56	DW	5	UAL	2	0
56	FW	5	UAL	1	0

5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

5.6 Ligand geometry [i](#)

Of 756 ligands modelled in this entry, 752 are monoatomic - leaving 4 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
59	GCP	HV	801	57	26,34,34	2.71	9 (34%)	31,54,54	1.61	8 (25%)
59	GCP	FV	801	57	26,34,34	2.71	9 (34%)	31,54,54	1.61	6 (19%)
59	GCP	DV	801	57	26,34,34	2.88	10 (38%)	31,54,54	1.77	5 (16%)
59	GCP	BV	801	57	26,34,34	2.82	10 (38%)	31,54,54	1.74	4 (12%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
59	GCP	HV	801	57	-	4/18/38/38	0/3/3/3
59	GCP	FV	801	57	-	5/18/38/38	0/3/3/3
59	GCP	DV	801	57	-	4/18/38/38	0/3/3/3
59	GCP	BV	801	57	-	3/18/38/38	0/3/3/3

The worst 5 of 38 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
59	DV	801	GCP	C4-N9	-8.30	1.36	1.47
59	DV	801	GCP	C5-C6	-7.94	1.39	1.52
59	BV	801	GCP	C5-C6	-7.77	1.39	1.52
59	FV	801	GCP	C5-C6	-7.66	1.39	1.52
59	HV	801	GCP	C4-N9	-7.63	1.37	1.47

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

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
59	BV	801	GCP	PA-O3A-PB	-6.05	113.39	132.56
59	DV	801	GCP	PA-O3A-PB	-5.43	115.35	132.56
59	FV	801	GCP	PA-O3A-PB	-5.24	115.94	132.56
59	DV	801	GCP	C4'-O4'-C1'	-3.95	100.76	109.47
59	DV	801	GCP	C4-C5-N7	3.94	107.69	102.46

There are no chirality outliers.

5 of 16 torsion outliers are listed below:

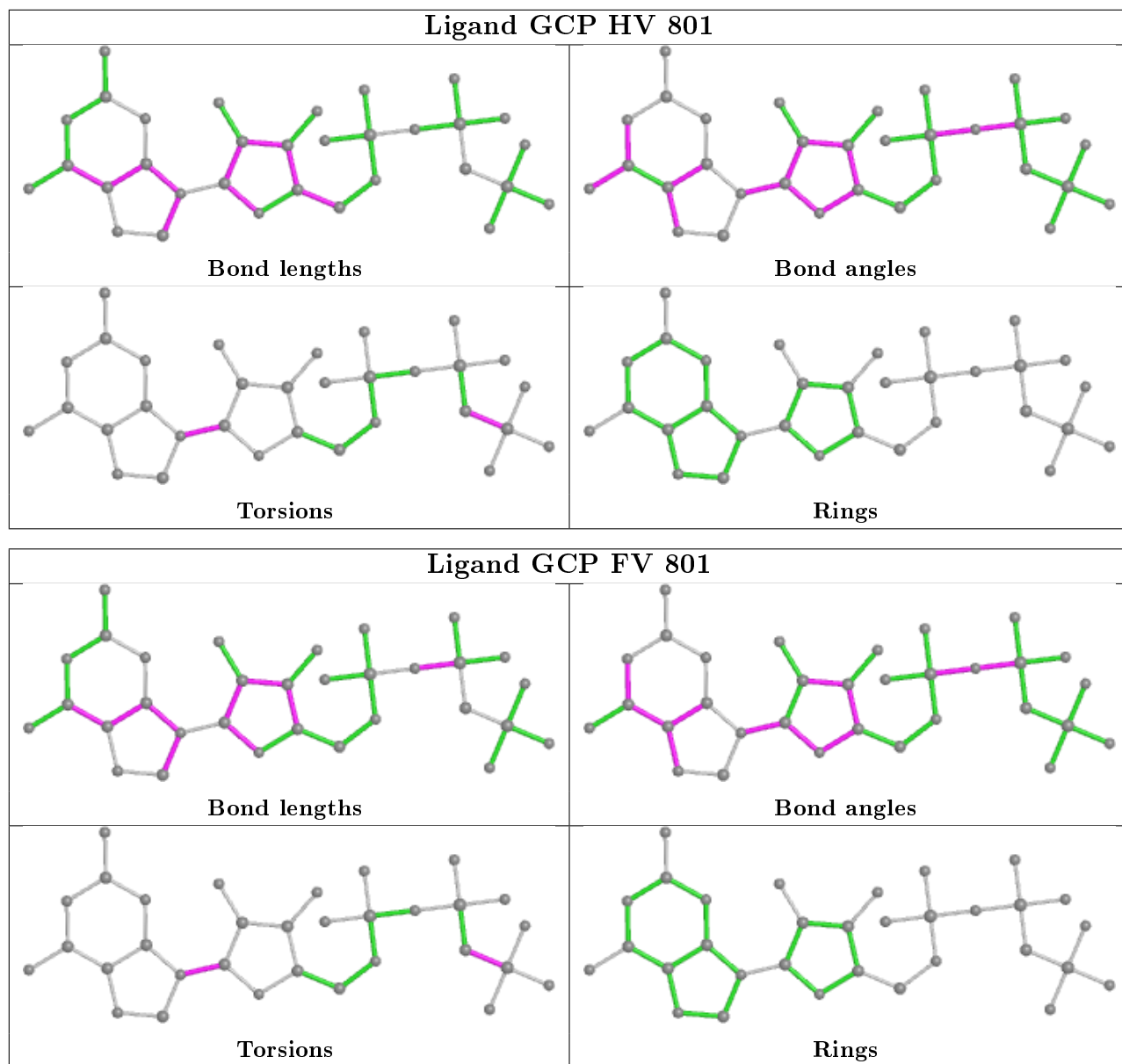
Mol	Chain	Res	Type	Atoms
59	FV	801	GCP	PB-C3B-PG-O1G
59	FV	801	GCP	PB-C3B-PG-O2G
59	FV	801	GCP	PB-C3B-PG-O3G
59	FV	801	GCP	C2'-C1'-N9-C8
59	FV	801	GCP	C2'-C1'-N9-C4

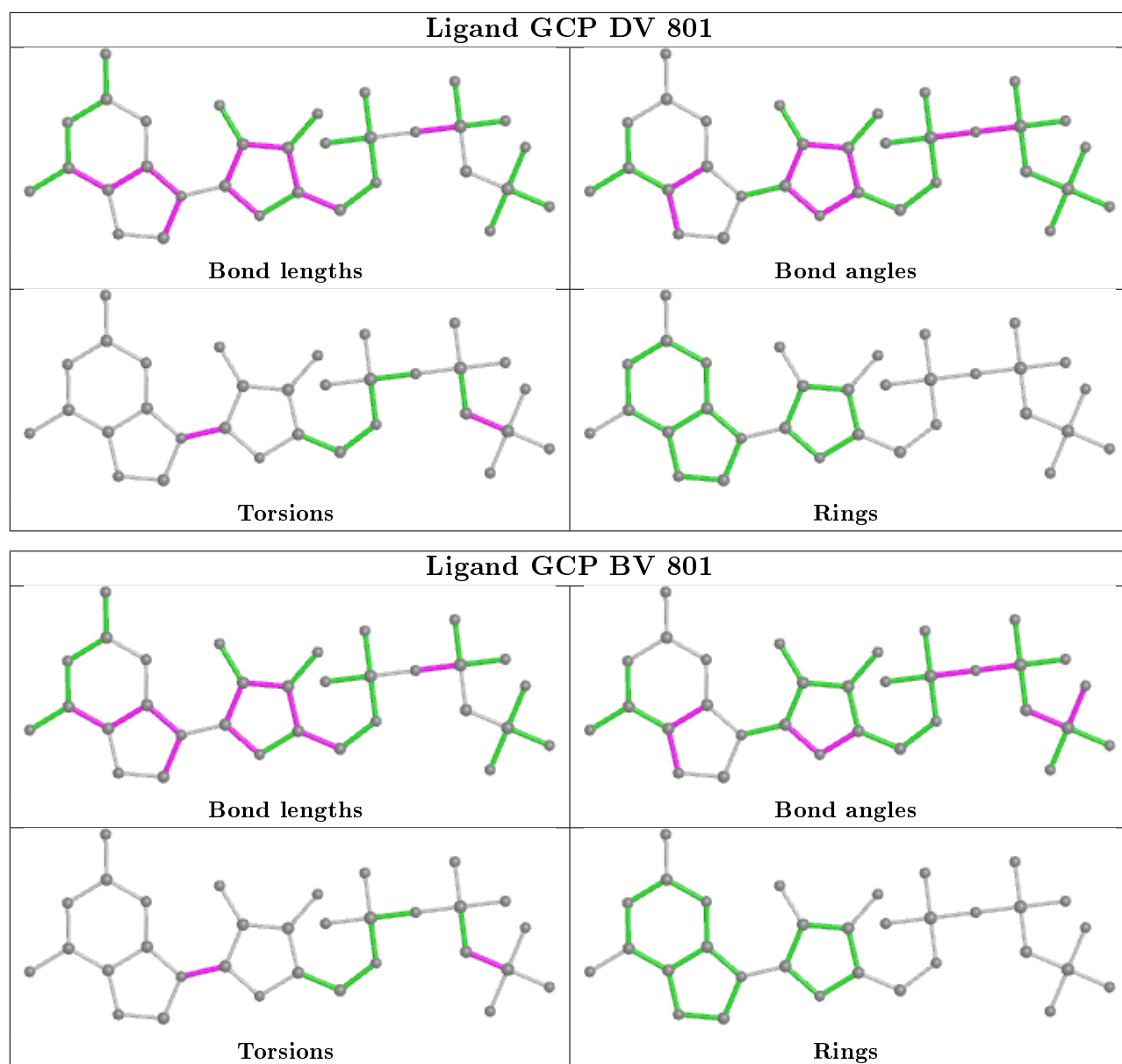
There are no ring outliers.

4 monomers are involved in 6 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
59	HV	801	GCP	1	0
59	FV	801	GCP	2	0
59	DV	801	GCP	2	0
59	BV	801	GCP	1	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	AB	118/120 (98%)	-0.52	0 100 100	7, 25, 37, 49	0
1	CB	118/120 (98%)	-0.69	0 100 100	19, 41, 55, 61	0
1	EB	118/120 (98%)	-0.43	0 100 100	6, 27, 41, 51	0
1	GB	118/120 (98%)	-0.01	1 (0%) 86 86	34, 57, 66, 70	0
2	AC	271/273 (99%)	-0.01	4 (1%) 73 73	2, 14, 26, 50	0
2	CC	271/273 (99%)	0.32	13 (4%) 30 27	14, 33, 45, 54	0
2	EC	271/273 (99%)	0.03	2 (0%) 87 87	3, 17, 30, 42	0
2	GC	271/273 (99%)	0.35	20 (7%) 14 11	12, 29, 43, 52	0
3	AA	2854/2904 (98%)	-0.08	51 (1%) 68 67	2, 14, 50, 79	0
3	CA	2854/2904 (98%)	-0.25	39 (1%) 75 75	8, 29, 57, 78	0
3	EA	2854/2904 (98%)	-0.09	48 (1%) 70 69	2, 16, 52, 83	0
3	GA	2854/2904 (98%)	-0.09	59 (2%) 63 61	10, 42, 64, 76	0
4	AD	209/209 (100%)	0.02	4 (1%) 66 65	2, 15, 35, 57	0
4	CD	209/209 (100%)	0.17	5 (2%) 59 56	5, 23, 42, 56	0
4	ED	209/209 (100%)	0.02	2 (0%) 82 82	2, 20, 40, 52	0
4	GD	209/209 (100%)	0.20	7 (3%) 46 41	10, 30, 46, 55	0
5	AE	201/201 (100%)	0.05	1 (0%) 91 91	3, 19, 40, 51	0
5	CE	201/201 (100%)	0.38	18 (8%) 9 7	9, 34, 47, 57	0
5	EE	201/201 (100%)	0.10	3 (1%) 73 73	2, 21, 43, 57	0
5	GE	201/201 (100%)	1.27	52 (25%) 0 0	25, 51, 61, 68	0
6	AF	177/179 (98%)	0.39	9 (5%) 28 24	19, 33, 50, 60	0
6	CF	177/179 (98%)	0.98	39 (22%) 0 0	31, 47, 56, 62	0
6	EF	177/179 (98%)	0.59	20 (11%) 5 4	16, 34, 49, 58	0
6	GF	177/179 (98%)	3.10	105 (59%) 0 0	47, 59, 67, 72	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
7	AG	176/177 (99%)	0.30	11 (6%) 20 16	9, 25, 46, 59	0
7	CG	176/177 (99%)	0.50	16 (9%) 9 6	18, 36, 51, 61	0
7	EG	176/177 (99%)	0.30	12 (6%) 17 13	16, 31, 44, 55	0
7	GG	176/177 (99%)	1.03	35 (19%) 1 0	26, 43, 54, 65	0
8	AH	50/50 (100%)	0.88	11 (22%) 0 0	16, 41, 55, 57	0
8	CH	50/50 (100%)	3.70	38 (76%) 0 0	46, 57, 64, 68	0
8	EH	50/50 (100%)	1.17	11 (22%) 0 0	14, 38, 56, 62	0
8	GH	50/50 (100%)	2.27	25 (50%) 0 0	39, 52, 61, 64	0
9	AI	141/142 (99%)	2.48	64 (45%) 0 0	31, 53, 66, 78	0
9	CI	141/142 (99%)	2.16	69 (48%) 0 0	36, 54, 63, 72	0
9	EI	141/142 (99%)	2.22	65 (46%) 0 0	32, 54, 66, 76	0
9	GI	141/142 (99%)	3.98	111 (78%) 0 0	42, 59, 69, 80	0
10	AJ	142/142 (100%)	0.03	1 (0%) 87 87	4, 11, 29, 39	0
10	CJ	142/142 (100%)	0.21	3 (2%) 63 61	8, 24, 37, 54	0
10	EJ	142/142 (100%)	0.19	4 (2%) 53 49	5, 14, 28, 43	0
10	GJ	142/142 (100%)	0.35	6 (4%) 36 32	21, 36, 47, 55	0
11	AK	122/123 (99%)	0.12	1 (0%) 86 86	4, 10, 25, 50	0
11	CK	122/123 (99%)	0.07	2 (1%) 72 71	9, 18, 35, 42	0
11	EK	122/123 (99%)	0.18	4 (3%) 46 41	7, 18, 34, 47	0
11	GK	122/123 (99%)	0.65	9 (7%) 14 11	12, 24, 39, 53	0
12	AL	143/144 (99%)	0.15	4 (2%) 53 49	2, 18, 34, 39	0
12	CL	143/144 (99%)	0.52	14 (9%) 7 5	11, 31, 46, 54	0
12	EL	143/144 (99%)	0.25	5 (3%) 44 38	2, 18, 37, 49	0
12	GL	143/144 (99%)	1.76	61 (42%) 0 0	29, 46, 59, 65	0
13	AM	136/136 (100%)	0.16	2 (1%) 73 73	2, 9, 25, 48	0
13	CM	136/136 (100%)	0.34	5 (3%) 41 37	10, 21, 36, 52	0
13	EM	136/136 (100%)	0.14	2 (1%) 73 73	4, 13, 29, 43	0
13	GM	136/136 (100%)	1.44	37 (27%) 0 0	28, 44, 56, 60	0
14	AN	120/127 (94%)	0.17	2 (1%) 70 69	5, 13, 25, 56	0
14	CN	120/127 (94%)	0.21	1 (0%) 86 86	13, 24, 35, 56	0
14	EN	120/127 (94%)	0.19	2 (1%) 70 69	9, 19, 31, 59	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
14	GN	120/127 (94%)	0.24	4 (3%) 46 41	16, 28, 37, 58	0
15	AO	116/117 (99%)	0.04	2 (1%) 70 69	12, 24, 37, 46	0
15	CO	116/117 (99%)	0.56	10 (8%) 10 8	29, 40, 53, 59	0
15	EO	116/117 (99%)	0.32	5 (4%) 35 31	14, 27, 40, 44	0
15	GO	116/117 (99%)	1.75	44 (37%) 0 0	39, 52, 58, 65	0
16	AP	114/115 (99%)	0.04	2 (1%) 68 67	5, 19, 36, 44	0
16	CP	114/115 (99%)	0.16	2 (1%) 68 67	11, 25, 41, 54	0
16	EP	114/115 (99%)	0.01	1 (0%) 84 84	14, 26, 41, 60	0
16	GP	114/115 (99%)	0.13	4 (3%) 44 38	13, 27, 42, 51	0
17	AQ	117/118 (99%)	0.11	3 (2%) 56 52	3, 10, 26, 53	0
17	CQ	117/118 (99%)	0.16	3 (2%) 56 52	9, 23, 35, 54	0
17	EQ	117/118 (99%)	0.15	3 (2%) 56 52	2, 12, 27, 52	0
17	GQ	117/118 (99%)	0.93	18 (15%) 2 1	24, 41, 53, 58	0
18	AR	103/103 (100%)	0.01	2 (1%) 66 65	2, 18, 34, 47	0
18	CR	103/103 (100%)	0.28	4 (3%) 39 35	12, 31, 45, 55	0
18	ER	103/103 (100%)	0.27	5 (4%) 29 26	3, 23, 42, 49	0
18	GR	103/103 (100%)	1.50	33 (32%) 0 0	30, 47, 56, 64	0
19	AS	110/110 (100%)	0.19	2 (1%) 68 67	3, 12, 32, 54	0
19	CS	110/110 (100%)	0.41	5 (4%) 33 29	13, 22, 40, 47	0
19	ES	110/110 (100%)	0.30	3 (2%) 54 50	5, 14, 36, 51	0
19	GS	110/110 (100%)	0.99	21 (19%) 1 0	20, 39, 50, 55	0
20	AT	93/100 (93%)	0.63	10 (10%) 5 4	7, 24, 51, 55	0
20	CT	93/100 (93%)	0.98	16 (17%) 1 1	22, 36, 52, 56	0
20	ET	93/100 (93%)	0.86	14 (15%) 2 1	13, 26, 50, 58	0
20	GT	93/100 (93%)	1.78	39 (41%) 0 0	26, 45, 57, 64	0
21	AU	102/104 (98%)	0.55	6 (5%) 22 18	9, 22, 41, 62	0
21	CU	102/104 (98%)	1.33	28 (27%) 0 0	25, 36, 52, 65	0
21	EU	102/104 (98%)	0.58	10 (9%) 7 5	14, 30, 44, 59	0
21	GU	102/104 (98%)	2.69	62 (60%) 0 0	35, 53, 61, 68	0
22	AV	94/94 (100%)	-0.24	0 100 100	8, 23, 40, 46	0
22	CV	94/94 (100%)	-0.15	0 100 100	22, 31, 44, 52	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
22	EV	94/94 (100%)	-0.09	2 (2%) 63 61	12, 23, 40, 48	0
22	GV	94/94 (100%)	0.86	16 (17%) 1 1	36, 49, 59, 61	0
23	AW	79/85 (92%)	0.75	13 (16%) 1 1	8, 19, 41, 49	0
23	CW	79/85 (92%)	0.87	12 (15%) 2 1	18, 32, 48, 60	0
23	EW	79/85 (92%)	0.73	10 (12%) 3 2	6, 20, 38, 51	0
23	GW	79/85 (92%)	2.39	41 (51%) 0 0	35, 49, 59, 71	0
24	AX	77/78 (98%)	0.35	2 (2%) 56 52	7, 17, 37, 41	0
24	CX	77/78 (98%)	1.19	19 (24%) 0 0	22, 37, 49, 54	0
24	EX	77/78 (98%)	0.43	0 100 100	5, 15, 36, 37	0
24	GX	77/78 (98%)	1.26	21 (27%) 0 0	26, 44, 53, 58	0
25	AY	63/63 (100%)	0.52	7 (11%) 5 4	16, 34, 48, 52	0
25	CY	63/63 (100%)	1.06	13 (20%) 1 0	30, 43, 55, 62	0
25	EY	63/63 (100%)	0.88	12 (19%) 1 0	18, 33, 45, 56	0
25	GY	63/63 (100%)	2.50	36 (57%) 0 0	44, 51, 58, 60	0
26	AZ	58/59 (98%)	0.56	1 (1%) 70 69	4, 13, 39, 51	0
26	CZ	58/59 (98%)	0.67	3 (5%) 27 23	11, 26, 46, 59	0
26	EZ	58/59 (98%)	0.29	2 (3%) 45 40	3, 15, 37, 47	0
26	GZ	58/59 (98%)	1.85	24 (41%) 0 0	25, 48, 58, 63	0
27	A0	56/57 (98%)	0.43	4 (7%) 16 12	3, 19, 42, 51	0
27	C0	56/57 (98%)	0.27	2 (3%) 42 37	10, 27, 44, 55	0
27	E0	56/57 (98%)	0.31	3 (5%) 25 22	3, 22, 40, 47	0
27	G0	56/57 (98%)	0.61	6 (10%) 6 4	18, 35, 49, 57	0
28	A1	50/55 (90%)	0.66	5 (10%) 7 5	13, 24, 37, 43	0
28	C1	50/55 (90%)	1.61	15 (30%) 0 0	25, 39, 50, 51	0
28	E1	50/55 (90%)	0.68	4 (8%) 12 9	12, 22, 36, 43	0
28	G1	50/55 (90%)	2.69	27 (54%) 0 0	38, 50, 60, 65	0
29	A2	46/46 (100%)	0.09	2 (4%) 35 31	4, 8, 18, 44	0
29	C2	46/46 (100%)	0.47	2 (4%) 35 31	17, 24, 34, 43	0
29	E2	46/46 (100%)	0.06	0 100 100	5, 11, 21, 36	0
29	G2	46/46 (100%)	1.02	6 (13%) 3 2	20, 36, 43, 54	0
30	A3	64/65 (98%)	0.17	0 100 100	3, 10, 18, 30	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
30	C3	64/65 (98%)	0.65	6 (9%) 8 6	15, 28, 36, 39	0
30	E3	64/65 (98%)	0.30	1 (1%) 72 71	4, 9, 19, 31	0
30	G3	64/65 (98%)	1.63	19 (29%) 0 0	32, 43, 52, 60	0
31	A4	38/38 (100%)	0.18	0 100 100	5, 11, 25, 27	0
31	C4	38/38 (100%)	0.31	0 100 100	14, 23, 37, 39	0
31	E4	38/38 (100%)	0.09	0 100 100	7, 16, 27, 30	0
31	G4	38/38 (100%)	0.70	3 (7%) 12 10	24, 37, 50, 53	0
32	A5	148/165 (89%)	1.81	53 (35%) 0 0	30, 49, 61, 72	0
32	C5	148/165 (89%)	2.49	71 (47%) 0 0	37, 54, 64, 72	0
32	E5	145/165 (87%)	3.16	92 (63%) 0 0	36, 53, 62, 67	0
33	A6	30/121 (24%)	3.13	15 (50%) 0 0	47, 53, 62, 65	0
34	BB	218/241 (90%)	0.75	29 (13%) 3 2	24, 41, 56, 66	0
34	DB	218/241 (90%)	1.76	85 (38%) 0 0	35, 52, 61, 69	0
34	FB	218/241 (90%)	0.72	32 (14%) 2 1	25, 43, 56, 66	0
34	HB	218/241 (90%)	2.15	102 (46%) 0 0	42, 56, 66, 71	0
35	BA	1533/1542 (99%)	-0.25	15 (0%) 82 82	7, 21, 52, 78	0
35	DA	1533/1542 (99%)	-0.24	23 (1%) 73 73	13, 42, 64, 78	0
35	FA	1533/1542 (99%)	-0.19	23 (1%) 73 73	9, 31, 57, 75	0
35	HA	1533/1542 (99%)	0.36	146 (9%) 8 6	20, 52, 71, 78	0
36	BC	206/233 (88%)	-0.07	0 100 100	8, 26, 39, 57	0
36	DC	206/233 (88%)	0.60	19 (9%) 9 6	30, 45, 52, 59	0
36	FC	206/233 (88%)	0.25	4 (1%) 66 65	15, 30, 44, 57	0
36	HC	206/233 (88%)	2.15	100 (48%) 0 0	36, 52, 61, 67	0
37	BD	205/206 (99%)	0.34	13 (6%) 20 16	12, 28, 44, 51	0
37	DD	205/206 (99%)	0.38	15 (7%) 15 11	14, 30, 47, 55	0
37	FD	205/206 (99%)	1.48	60 (29%) 0 0	29, 45, 56, 68	0
37	HD	205/206 (99%)	0.99	41 (20%) 1 0	32, 45, 56, 65	0
38	BE	150/167 (89%)	0.05	4 (2%) 54 50	11, 26, 45, 63	0
38	DE	150/167 (89%)	0.09	3 (2%) 65 63	24, 38, 51, 60	0
38	FE	150/167 (89%)	0.27	11 (7%) 15 11	16, 35, 49, 64	0
38	HE	150/167 (89%)	1.21	43 (28%) 0 0	34, 49, 56, 59	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
39	BF	102/135 (75%)	-0.02	1 (0%) 82 82	15, 30, 42, 51	0
39	DF	100/135 (74%)	1.55	32 (32%) 0 0	42, 52, 59, 63	0
39	FF	100/135 (74%)	0.23	4 (4%) 38 33	13, 32, 44, 49	0
39	HF	100/135 (74%)	2.39	51 (51%) 0 0	46, 56, 65, 69	0
40	BG	151/179 (84%)	0.29	10 (6%) 18 14	10, 27, 46, 60	0
40	DG	151/179 (84%)	1.84	61 (40%) 0 0	41, 54, 61, 67	0
40	FG	151/179 (84%)	0.71	18 (11%) 4 3	15, 32, 50, 59	0
40	HG	151/179 (84%)	3.31	93 (61%) 0 0	46, 58, 66, 69	0
41	BH	129/130 (99%)	0.15	2 (1%) 72 71	15, 26, 40, 58	0
41	DH	129/130 (99%)	0.78	21 (16%) 1 1	27, 43, 55, 61	0
41	FH	129/130 (99%)	0.29	6 (4%) 31 28	19, 35, 47, 55	0
41	HH	129/130 (99%)	1.84	51 (39%) 0 0	36, 50, 58, 64	0
42	BI	127/130 (97%)	0.44	7 (5%) 25 21	8, 25, 47, 58	0
42	DI	127/130 (97%)	2.30	61 (48%) 0 0	41, 55, 62, 68	0
42	FI	127/130 (97%)	0.35	8 (6%) 20 16	9, 27, 50, 56	0
42	HI	127/130 (97%)	2.45	68 (53%) 0 0	46, 57, 65, 68	0
43	BJ	98/103 (95%)	0.72	12 (12%) 4 3	9, 35, 56, 61	0
43	DJ	98/103 (95%)	1.62	35 (35%) 0 0	38, 52, 60, 68	0
43	FJ	98/103 (95%)	0.90	16 (16%) 1 1	16, 31, 53, 59	0
43	HJ	98/103 (95%)	2.67	63 (64%) 0 0	40, 54, 63, 66	0
44	BK	117/129 (90%)	0.21	7 (5%) 21 18	14, 26, 40, 52	0
44	DK	117/129 (90%)	1.29	32 (27%) 0 0	38, 52, 60, 62	0
44	FK	117/129 (90%)	-0.05	4 (3%) 45 40	13, 24, 36, 41	0
44	HK	117/129 (90%)	2.81	72 (61%) 0 0	45, 58, 68, 73	0
45	BL	123/124 (99%)	0.05	2 (1%) 72 71	5, 12, 29, 52	0
45	DL	123/124 (99%)	0.21	6 (4%) 29 26	12, 24, 40, 49	0
45	FL	123/124 (99%)	0.17	3 (2%) 59 56	11, 26, 43, 51	0
45	HL	123/124 (99%)	0.96	22 (17%) 1 1	24, 41, 53, 63	0
46	BM	114/118 (96%)	-0.02	2 (1%) 68 67	11, 30, 51, 54	0
46	DM	114/118 (96%)	1.35	30 (26%) 0 0	39, 53, 62, 66	0
46	FM	114/118 (96%)	0.34	11 (9%) 8 6	17, 36, 52, 59	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
46	HM	114/118 (96%)	4.31	88 (77%) 0 0	48, 60, 68, 77	0
47	BN	96/101 (95%)	0.29	4 (4%) 36 32	10, 22, 46, 57	0
47	DN	96/101 (95%)	0.68	12 (12%) 3 3	31, 45, 55, 62	0
47	FN	96/101 (95%)	0.49	7 (7%) 15 11	19, 29, 50, 64	0
47	HN	96/101 (95%)	2.31	46 (47%) 0 0	41, 56, 66, 71	0
48	BO	88/89 (98%)	0.03	0 100 100	12, 27, 40, 42	0
48	DO	88/89 (98%)	0.96	18 (20%) 1 0	36, 46, 55, 59	0
48	FO	88/89 (98%)	0.46	7 (7%) 12 9	16, 31, 44, 51	0
48	HO	88/89 (98%)	1.15	22 (25%) 0 0	37, 49, 58, 63	0
49	BP	82/82 (100%)	0.55	5 (6%) 21 17	13, 21, 46, 63	0
49	DP	82/82 (100%)	0.84	10 (12%) 4 3	16, 27, 48, 59	0
49	FP	82/82 (100%)	1.25	19 (23%) 0 0	24, 35, 54, 70	0
49	HP	82/82 (100%)	0.97	17 (20%) 1 0	25, 37, 49, 59	0
50	BQ	80/84 (95%)	0.34	3 (3%) 40 36	14, 26, 39, 48	0
50	DQ	80/84 (95%)	0.62	6 (7%) 14 11	26, 37, 45, 48	0
50	FQ	80/84 (95%)	0.58	6 (7%) 14 11	18, 36, 50, 55	0
50	HQ	80/84 (95%)	1.18	18 (22%) 0 0	35, 44, 55, 62	0
51	BR	55/75 (73%)	0.32	2 (3%) 42 37	16, 26, 39, 48	0
51	DR	55/75 (73%)	2.03	21 (38%) 0 0	43, 52, 60, 62	0
51	FR	55/75 (73%)	0.30	2 (3%) 42 37	18, 26, 37, 45	0
51	HR	55/75 (73%)	3.32	38 (69%) 0 0	43, 54, 61, 63	0
52	BS	79/92 (85%)	0.24	4 (5%) 28 24	14, 23, 39, 65	0
52	DS	79/92 (85%)	1.43	23 (29%) 0 0	31, 49, 58, 61	0
52	FS	79/92 (85%)	0.26	3 (3%) 40 36	22, 34, 48, 52	0
52	HS	79/92 (85%)	4.40	64 (81%) 0 0	50, 60, 70, 73	0
53	BT	85/87 (97%)	0.46	4 (4%) 31 28	12, 23, 42, 47	0
53	DT	85/87 (97%)	0.51	7 (8%) 11 9	17, 28, 44, 53	0
53	FT	85/87 (97%)	0.74	9 (10%) 6 4	25, 38, 47, 63	0
53	HT	85/87 (97%)	0.92	10 (11%) 4 3	22, 33, 46, 52	0
54	BU	51/71 (71%)	1.00	11 (21%) 0 0	22, 37, 52, 61	0
54	DU	51/71 (71%)	2.21	25 (49%) 0 0	36, 54, 60, 64	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
54	FU	51/71 (71%)	0.79	8 (15%) 2 1	25, 35, 54, 61	0
54	HU	51/71 (71%)	4.15	41 (80%) 0 0	40, 54, 65, 71	0
55	BV	690/704 (98%)	0.02	26 (3%) 40 36	10, 30, 48, 66	0
55	DV	689/704 (97%)	0.25	56 (8%) 12 9	16, 37, 53, 63	0
55	FV	689/704 (97%)	0.58	81 (11%) 4 3	16, 41, 54, 63	0
55	HV	689/704 (97%)	1.14	165 (23%) 0 0	25, 51, 62, 73	0
56	BW	2/6 (33%)	0.13	0 100 100	16, 16, 16, 20	0
56	DW	2/6 (33%)	-0.25	0 100 100	32, 32, 32, 34	0
56	FW	2/6 (33%)	0.75	0 100 100	23, 23, 23, 29	0
56	HW	2/6 (33%)	0.85	1 (50%) 0 0	51, 51, 51, 58	0
All	All	43746/45264 (96%)	0.42	4534 (10%) 6 5	2, 33, 60, 83	0

The worst 5 of 4534 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
46	HM	84	GLY	19.7
26	CZ	1	ALA	18.7
26	AZ	1	ALA	16.3
6	GF	169	LEU	15.6
28	C1	52	LYS	15.2

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

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
56	5OH	HW	6	12/13	0.81	0.27	48,54,58,60	0
56	DPP	HW	2	6/7	0.82	0.15	30,41,49,53	0
56	KBE	DW	1	9/10	0.83	0.27	33,35,41,48	0
56	KBE	HW	1	9/10	0.84	0.31	27,45,52,55	0
56	UAL	HW	5	9/10	0.87	0.25	36,48,56,60	0
56	KBE	FW	1	9/10	0.89	0.42	17,21,37,51	0
56	UAL	BW	5	9/10	0.92	0.21	16,20,27,32	0
56	KBE	BW	1	9/10	0.93	0.19	4,9,22,23	0
56	UAL	DW	5	9/10	0.93	0.12	17,27,36,48	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	UAL	FW	5	9/10	0.93	0.15	15,18,29,38	0
56	5OH	BW	6	12/13	0.94	0.14	11,17,21,21	0
56	5OH	DW	6	12/13	0.95	0.13	22,29,35,37	0
56	5OH	FW	6	12/13	0.96	0.16	10,24,29,30	0
56	DPP	BW	2	6/7	0.96	0.18	6,12,15,22	0
56	DPP	DW	2	6/7	0.96	0.12	25,37,38,39	0
56	DPP	FW	2	6/7	0.98	0.20	18,22,27,32	0

6.3 Carbohydrates [i](#)

There are no carbohydrates 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(\AA^2)	Q<0.9
57	MG	FA	1627	1/1	0.49	0.53	53,53,53,53	0
57	MG	EA	3083	1/1	0.59	0.43	35,35,35,35	0
57	MG	AA	3097	1/1	0.70	0.56	34,34,34,34	0
57	MG	FA	1636	1/1	0.71	0.24	35,35,35,35	0
57	MG	GA	3079	1/1	0.72	0.81	52,52,52,52	0
57	MG	HA	1626	1/1	0.74	0.27	32,32,32,32	0
57	MG	HK	201	1/1	0.81	0.24	28,28,28,28	0
57	MG	BE	201	1/1	0.81	0.15	31,31,31,31	0
57	MG	GB	1201	1/1	0.82	0.27	62,62,62,62	0
57	MG	GA	3131	1/1	0.82	1.13	43,43,43,43	0
57	MG	GA	3005	1/1	0.83	0.11	42,42,42,42	0
57	MG	GA	3069	1/1	0.83	0.11	70,70,70,70	0
57	MG	FA	1635	1/1	0.84	0.34	41,41,41,41	0
57	MG	GA	3135	1/1	0.84	0.41	28,28,28,28	0
57	MG	CA	3069	1/1	0.84	0.12	61,61,61,61	0
57	MG	GA	3095	1/1	0.84	0.41	43,43,43,43	0
57	MG	GL	201	1/1	0.85	0.30	47,47,47,47	0
57	MG	CA	3136	1/1	0.85	0.28	22,22,22,22	0
57	MG	DA	1614	1/1	0.85	0.26	46,46,46,46	0
57	MG	AA	3069	1/1	0.86	0.13	44,44,44,44	0
57	MG	EA	3136	1/1	0.86	0.37	15,15,15,15	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	CA	3115	1/1	0.87	0.23	51,51,51,51	0
57	MG	GA	3109	1/1	0.87	0.16	35,35,35,35	0
57	MG	EA	3015	1/1	0.87	0.55	2,2,2,2	0
57	MG	AA	3006	1/1	0.88	0.15	32,32,32,32	0
57	MG	CA	3056	1/1	0.88	0.72	27,27,27,27	0
57	MG	HA	1611	1/1	0.88	0.20	26,26,26,26	0
57	MG	BA	1602	1/1	0.88	0.23	38,38,38,38	0
57	MG	BA	1607	1/1	0.88	0.27	34,34,34,34	0
57	MG	GA	3011	1/1	0.88	0.11	46,46,46,46	0
57	MG	HA	1624	1/1	0.88	0.11	38,38,38,38	0
57	MG	EA	3055	1/1	0.89	0.56	30,30,30,30	0
57	MG	AA	3060	1/1	0.89	0.27	34,34,34,34	0
57	MG	HA	1617	1/1	0.89	0.14	49,49,49,49	0
57	MG	HA	1615	1/1	0.89	0.17	36,36,36,36	0
57	MG	CA	3077	1/1	0.90	0.63	37,37,37,37	0
57	MG	CA	3011	1/1	0.90	0.22	31,31,31,31	0
57	MG	GA	3083	1/1	0.90	0.12	26,26,26,26	0
57	MG	DA	1629	1/1	0.90	0.53	43,43,43,43	0
57	MG	GA	3080	1/1	0.90	0.21	36,36,36,36	0
57	MG	GA	3133	1/1	0.90	0.42	15,15,15,15	0
57	MG	GA	3088	1/1	0.90	0.67	37,37,37,37	0
57	MG	HE	201	1/1	0.90	0.34	55,55,55,55	0
57	MG	EA	3050	1/1	0.91	0.19	23,23,23,23	0
57	MG	GA	3076	1/1	0.91	0.26	34,34,34,34	0
57	MG	GA	3055	1/1	0.91	0.64	21,21,21,21	0
57	MG	HA	1609	1/1	0.91	0.20	23,23,23,23	0
57	MG	HA	1619	1/1	0.91	0.10	19,19,19,19	0
57	MG	EA	3011	1/1	0.91	0.88	24,24,24,24	0
57	MG	GA	3110	1/1	0.91	0.21	11,11,11,11	0
57	MG	AA	3093	1/1	0.91	0.31	34,34,34,34	0
57	MG	HA	1629	1/1	0.91	0.11	45,45,45,45	0
57	MG	GA	3035	1/1	0.91	0.14	24,24,24,24	0
57	MG	BA	1615	1/1	0.91	0.30	25,25,25,25	0
57	MG	EA	3110	1/1	0.91	0.14	12,12,12,12	0
57	MG	CA	3094	1/1	0.92	0.43	37,37,37,37	0
57	MG	CB	1202	1/1	0.92	0.16	44,44,44,44	0
57	MG	GA	3057	1/1	0.92	0.14	28,28,28,28	0
57	MG	HA	1618	1/1	0.92	0.16	35,35,35,35	0
57	MG	HA	1637	1/1	0.92	0.14	51,51,51,51	0
57	MG	GA	3116	1/1	0.92	0.31	22,22,22,22	0
57	MG	GA	3114	1/1	0.92	0.31	27,27,27,27	0
57	MG	GA	3128	1/1	0.92	0.10	18,18,18,18	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	DA	1626	1/1	0.92	0.15	44,44,44,44	0
57	MG	GA	3007	1/1	0.92	0.07	39,39,39,39	0
57	MG	FA	1603	1/1	0.92	0.14	20,20,20,20	0
57	MG	HA	1641	1/1	0.93	0.20	30,30,30,30	0
57	MG	DA	1634	1/1	0.93	0.08	34,34,34,34	0
57	MG	GA	3008	1/1	0.93	0.17	24,24,24,24	0
57	MG	GB	1202	1/1	0.93	0.13	64,64,64,64	0
57	MG	EA	3070	1/1	0.93	0.59	23,23,23,23	0
57	MG	EA	3039	1/1	0.93	0.19	15,15,15,15	0
57	MG	GA	3124	1/1	0.93	0.20	36,36,36,36	0
57	MG	BA	1620	1/1	0.93	0.12	15,15,15,15	0
57	MG	EA	3094	1/1	0.93	0.13	33,33,33,33	0
57	MG	CB	1201	1/1	0.93	0.19	28,28,28,28	0
57	MG	EA	3118	1/1	0.93	0.12	17,17,17,17	0
57	MG	GA	3070	1/1	0.94	0.14	22,22,22,22	0
57	MG	CA	3012	1/1	0.94	0.13	6,6,6,6	0
57	MG	CA	3006	1/1	0.94	0.08	30,30,30,30	0
57	MG	DA	1643	1/1	0.94	0.22	32,32,32,32	0
57	MG	HA	1601	1/1	0.94	0.06	27,27,27,27	0
57	MG	DA	1635	1/1	0.94	0.08	37,37,37,37	0
57	MG	GA	3090	1/1	0.94	0.10	27,27,27,27	0
57	MG	AA	3083	1/1	0.94	0.26	18,18,18,18	0
57	MG	CA	3092	1/1	0.94	0.26	58,58,58,58	0
57	MG	HA	1625	1/1	0.94	0.32	44,44,44,44	0
57	MG	EA	3095	1/1	0.94	0.13	6,6,6,6	0
57	MG	CA	3025	1/1	0.94	0.14	24,24,24,24	0
57	MG	HA	1608	1/1	0.94	0.43	47,47,47,47	0
57	MG	GA	3025	1/1	0.94	0.17	25,25,25,25	0
57	MG	AA	3090	1/1	0.94	0.24	32,32,32,32	0
57	MG	GA	3068	1/1	0.94	0.40	30,30,30,30	0
57	MG	HA	1614	1/1	0.94	0.17	49,49,49,49	0
57	MG	CA	3015	1/1	0.94	0.12	25,25,25,25	0
57	MG	HA	1620	1/1	0.94	0.17	32,32,32,32	0
57	MG	CA	3119	1/1	0.94	0.08	34,34,34,34	0
57	MG	GA	3032	1/1	0.94	0.16	22,22,22,22	0
57	MG	CA	3091	1/1	0.94	0.43	38,38,38,38	0
57	MG	GA	3006	1/1	0.94	0.12	29,29,29,29	0
57	MG	GA	3129	1/1	0.94	0.28	29,29,29,29	0
57	MG	EA	3097	1/1	0.94	0.21	19,19,19,19	0
57	MG	BA	1636	1/1	0.94	0.15	24,24,24,24	0
57	MG	CA	3135	1/1	0.94	0.36	8,8,8,8	0
57	MG	BA	1637	1/1	0.94	0.34	15,15,15,15	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	AA	3016	1/1	0.95	0.17	11,11,11,11	0
57	MG	CA	3085	1/1	0.95	0.16	5,5,5,5	0
57	MG	EA	3069	1/1	0.95	0.09	25,25,25,25	0
57	MG	AE	301	1/1	0.95	0.30	21,21,21,21	0
57	MG	EA	3125	1/1	0.95	0.24	18,18,18,18	0
57	MG	GA	3086	1/1	0.95	0.13	24,24,24,24	0
57	MG	FU	101	1/1	0.95	0.17	21,21,21,21	0
57	MG	GA	3015	1/1	0.95	0.22	27,27,27,27	0
57	MG	CA	3113	1/1	0.95	0.20	10,10,10,10	0
57	MG	GA	3004	1/1	0.95	0.38	25,25,25,25	0
57	MG	FA	1606	1/1	0.95	0.16	15,15,15,15	0
57	MG	AA	3114	1/1	0.95	0.20	10,10,10,10	0
57	MG	HA	1602	1/1	0.95	0.16	26,26,26,26	0
57	MG	AA	3047	1/1	0.95	0.21	12,12,12,12	0
57	MG	GA	3136	1/1	0.95	0.22	27,27,27,27	0
57	MG	DA	1636	1/1	0.95	0.77	34,34,34,34	0
57	MG	GA	3009	1/1	0.95	0.22	35,35,35,35	0
59	GCP	FV	801	32/32	0.95	0.16	16,28,45,57	0
57	MG	AA	3092	1/1	0.95	0.10	14,14,14,14	0
57	MG	AA	3001	1/1	0.95	0.72	20,20,20,20	0
57	MG	AA	3100	1/1	0.95	0.29	1,1,1,1	0
57	MG	EA	3091	1/1	0.95	0.27	40,40,40,40	0
57	MG	DA	1603	1/1	0.95	0.13	20,20,20,20	0
57	MG	CA	3044	1/1	0.95	0.08	28,28,28,28	0
57	MG	CA	3088	1/1	0.96	0.28	23,23,23,23	0
57	MG	DA	1624	1/1	0.96	0.14	18,18,18,18	0
57	MG	GA	3051	1/1	0.96	0.25	20,20,20,20	0
57	MG	HA	1634	1/1	0.96	0.10	35,35,35,35	0
57	MG	GA	3059	1/1	0.96	0.12	25,25,25,25	0
57	MG	GA	3101	1/1	0.96	0.14	13,13,13,13	0
57	MG	FA	1618	1/1	0.96	0.27	21,21,21,21	0
57	MG	EA	3109	1/1	0.96	0.11	19,19,19,19	0
57	MG	DA	1612	1/1	0.96	0.14	33,33,33,33	0
57	MG	GA	3121	1/1	0.96	0.15	16,16,16,16	0
57	MG	EA	3088	1/1	0.96	0.35	19,19,19,19	0
57	MG	CA	3010	1/1	0.96	0.28	8,8,8,8	0
57	MG	GA	3028	1/1	0.96	0.16	12,12,12,12	0
57	MG	DA	1630	1/1	0.96	0.11	25,25,25,25	0
57	MG	GA	3050	1/1	0.96	0.28	26,26,26,26	0
57	MG	DA	1608	1/1	0.96	0.22	30,30,30,30	0
57	MG	HA	1627	1/1	0.96	0.20	41,41,41,41	0
57	MG	HA	1604	1/1	0.96	0.04	31,31,31,31	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	CA	3111	1/1	0.96	0.15	18,18,18,18	0
57	MG	EA	3114	1/1	0.96	0.17	17,17,17,17	0
57	MG	DA	1604	1/1	0.96	0.07	18,18,18,18	0
57	MG	EA	3132	1/1	0.96	0.14	21,21,21,21	0
59	GCP	HV	801	32/32	0.96	0.12	18,36,48,55	0
57	MG	BA	1625	1/1	0.96	0.17	23,23,23,23	0
57	MG	CA	3055	1/1	0.96	0.19	19,19,19,19	0
57	MG	EA	3019	1/1	0.96	0.13	10,10,10,10	0
57	MG	HA	1631	1/1	0.96	0.17	31,31,31,31	0
57	MG	CA	3110	1/1	0.96	0.18	23,23,23,23	0
57	MG	FA	1604	1/1	0.96	0.08	34,34,34,34	0
57	MG	BA	1613	1/1	0.96	0.17	8,8,8,8	0
57	MG	AA	3084	1/1	0.96	0.19	2,2,2,2	0
57	MG	FN	201	1/1	0.96	0.24	14,14,14,14	0
59	GCP	DV	801	32/32	0.96	0.14	17,28,38,41	0
57	MG	CB	1204	1/1	0.96	0.05	15,15,15,15	0
57	MG	GA	3017	1/1	0.96	0.12	10,10,10,10	0
57	MG	CA	3078	1/1	0.96	0.08	34,34,34,34	0
57	MG	AA	3134	1/1	0.96	0.24	21,21,21,21	0
57	MG	GA	3024	1/1	0.96	0.19	14,14,14,14	0
57	MG	HA	1616	1/1	0.96	0.38	40,40,40,40	0
57	MG	GA	3018	1/1	0.96	0.05	21,21,21,21	0
57	MG	HA	1639	1/1	0.96	0.14	22,22,22,22	0
57	MG	AA	3037	1/1	0.96	0.43	30,30,30,30	0
57	MG	HA	1612	1/1	0.97	0.28	20,20,20,20	0
57	MG	CA	3098	1/1	0.97	0.15	29,29,29,29	0
57	MG	GA	3113	1/1	0.97	0.13	32,32,32,32	0
57	MG	AA	3135	1/1	0.97	0.37	12,12,12,12	0
57	MG	EA	3117	1/1	0.97	0.09	15,15,15,15	0
57	MG	GA	3033	1/1	0.97	0.28	30,30,30,30	0
57	MG	HA	1632	1/1	0.97	0.10	31,31,31,31	0
57	MG	CN	201	1/1	0.97	0.21	20,20,20,20	0
57	MG	FA	1621	1/1	0.97	0.14	13,13,13,13	0
57	MG	HA	1613	1/1	0.97	0.27	32,32,32,32	0
57	MG	EA	3033	1/1	0.97	0.26	0,0,0,0	0
57	MG	EB	1201	1/1	0.97	0.10	30,30,30,30	0
57	MG	AA	3005	1/1	0.97	0.13	16,16,16,16	0
57	MG	AA	3045	1/1	0.97	0.21	8,8,8,8	0
57	MG	CA	3093	1/1	0.97	0.11	40,40,40,40	0
57	MG	AA	3118	1/1	0.97	0.07	14,14,14,14	0
57	MG	AA	3025	1/1	0.97	0.15	0,0,0,0	0
57	MG	AA	3136	1/1	0.97	0.34	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
57	MG	GA	3077	1/1	0.97	0.12	55,55,55,55	0
57	MG	AA	3113	1/1	0.97	0.12	8,8,8,8	0
57	MG	AA	3007	1/1	0.97	0.10	19,19,19,19	0
57	MG	GA	3099	1/1	0.97	0.14	33,33,33,33	0
57	MG	EA	3057	1/1	0.97	0.07	18,18,18,18	0
57	MG	EA	3076	1/1	0.97	0.13	6,6,6,6	0
57	MG	EA	3046	1/1	0.97	0.23	9,9,9,9	0
57	MG	EA	3092	1/1	0.97	0.13	22,22,22,22	0
57	MG	BA	1603	1/1	0.97	0.15	18,18,18,18	0
57	MG	CA	3002	1/1	0.97	0.16	38,38,38,38	0
57	MG	DA	1602	1/1	0.97	0.08	28,28,28,28	0
57	MG	AA	3087	1/1	0.97	0.15	19,19,19,19	0
57	MG	DA	1623	1/1	0.97	0.18	42,42,42,42	0
57	MG	EA	3121	1/1	0.97	0.30	5,5,5,5	0
57	MG	CA	3090	1/1	0.97	0.21	19,19,19,19	0
57	MG	CA	3080	1/1	0.97	0.17	20,20,20,20	0
57	MG	EA	3122	1/1	0.97	0.28	4,4,4,4	0
57	MG	C4	101	1/1	0.97	0.09	17,17,17,17	0
57	MG	GA	3040	1/1	0.97	0.15	15,15,15,15	0
57	MG	DA	1618	1/1	0.97	0.04	37,37,37,37	0
57	MG	GA	3117	1/1	0.97	0.13	10,10,10,10	0
57	MG	GA	3119	1/1	0.97	0.21	18,18,18,18	0
57	MG	FA	1637	1/1	0.97	0.09	29,29,29,29	0
57	MG	DA	1601	1/1	0.97	0.12	26,26,26,26	0
57	MG	HA	1622	1/1	0.97	0.21	30,30,30,30	0
57	MG	AA	3124	1/1	0.97	0.25	4,4,4,4	0
57	MG	GA	3120	1/1	0.97	0.20	19,19,19,19	0
57	MG	AA	3012	1/1	0.97	0.21	32,32,32,32	0
57	MG	EA	3052	1/1	0.97	0.17	12,12,12,12	0
57	MG	GB	1204	1/1	0.97	0.04	37,37,37,37	0
57	MG	EA	3040	1/1	0.97	0.28	11,11,11,11	0
57	MG	GA	3108	1/1	0.97	0.18	38,38,38,38	0
57	MG	DA	1628	1/1	0.97	0.32	44,44,44,44	0
57	MG	FA	1620	1/1	0.97	0.09	41,41,41,41	0
57	MG	GA	3084	1/1	0.97	0.41	30,30,30,30	0
57	MG	GA	3021	1/1	0.97	0.67	20,20,20,20	0
57	MG	EA	3014	1/1	0.97	0.21	1,1,1,1	0
57	MG	DA	1617	1/1	0.97	0.08	39,39,39,39	0
57	MG	EA	3001	1/1	0.97	0.18	11,11,11,11	0
57	MG	FA	1610	1/1	0.97	0.25	33,33,33,33	0
57	MG	CA	3016	1/1	0.97	0.18	11,11,11,11	0
57	MG	GC	301	1/1	0.98	0.24	26,26,26,26	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	EA	3028	1/1	0.98	0.17	7,7,7,7	0
57	MG	EA	3119	1/1	0.98	0.23	1,1,1,1	0
57	MG	DA	1609	1/1	0.98	0.15	13,13,13,13	0
57	MG	GC	302	1/1	0.98	0.07	22,22,22,22	0
57	MG	GA	3075	1/1	0.98	0.18	16,16,16,16	0
57	MG	CA	3045	1/1	0.98	0.20	5,5,5,5	0
57	MG	BN	201	1/1	0.98	0.20	13,13,13,13	0
57	MG	CA	3007	1/1	0.98	0.15	35,35,35,35	0
57	MG	EA	3004	1/1	0.98	0.13	12,12,12,12	0
57	MG	BA	1635	1/1	0.98	0.14	29,29,29,29	0
57	MG	CA	3082	1/1	0.98	0.16	14,14,14,14	0
57	MG	AA	3052	1/1	0.98	0.16	3,3,3,3	0
57	MG	CA	3019	1/1	0.98	0.14	27,27,27,27	0
57	MG	DA	1610	1/1	0.98	0.10	28,28,28,28	0
57	MG	DA	1621	1/1	0.98	0.12	44,44,44,44	0
57	MG	EA	3078	1/1	0.98	0.10	20,20,20,20	0
57	MG	EA	3025	1/1	0.98	0.23	1,1,1,1	0
57	MG	BA	1626	1/1	0.98	0.21	5,5,5,5	0
57	MG	GA	3065	1/1	0.98	0.12	20,20,20,20	0
57	MG	EA	3111	1/1	0.98	0.13	5,5,5,5	0
57	MG	CA	3043	1/1	0.98	0.16	4,4,4,4	0
57	MG	FA	1614	1/1	0.98	0.20	13,13,13,13	0
57	MG	EA	3093	1/1	0.98	0.13	11,11,11,11	0
57	MG	AA	3019	1/1	0.98	0.14	15,15,15,15	0
57	MG	GA	3062	1/1	0.98	0.17	19,19,19,19	0
57	MG	GA	3054	1/1	0.98	0.14	12,12,12,12	0
57	MG	CA	3023	1/1	0.98	0.26	5,5,5,5	0
57	MG	GA	3091	1/1	0.98	0.06	28,28,28,28	0
57	MG	GA	3003	1/1	0.98	0.10	26,26,26,26	0
57	MG	GA	3052	1/1	0.98	0.18	4,4,4,4	0
57	MG	AA	3095	1/1	0.98	0.26	4,4,4,4	0
57	MG	CA	3061	1/1	0.98	0.10	4,4,4,4	0
57	MG	CA	3107	1/1	0.98	0.17	14,14,14,14	0
57	MG	CA	3095	1/1	0.98	0.15	14,14,14,14	0
57	MG	EA	3102	1/1	0.98	0.08	23,23,23,23	0
58	ZN	G4	101	1/1	0.98	0.07	66,66,66,66	0
57	MG	GA	3115	1/1	0.98	0.23	20,20,20,20	0
57	MG	AA	3130	1/1	0.98	0.20	3,3,3,3	0
57	MG	FA	1633	1/1	0.98	0.15	24,24,24,24	0
57	MG	EA	3101	1/1	0.98	0.14	7,7,7,7	0
57	MG	AA	3104	1/1	0.98	0.20	2,2,2,2	0
57	MG	GB	1203	1/1	0.98	0.07	23,23,23,23	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	GA	3026	1/1	0.98	0.16	31,31,31,31	0
57	MG	FA	1625	1/1	0.98	0.15	21,21,21,21	0
57	MG	AA	3042	1/1	0.98	0.20	8,8,8,8	0
57	MG	EA	3087	1/1	0.98	0.10	21,21,21,21	0
57	MG	A4	101	1/1	0.98	0.12	20,20,20,20	0
57	MG	BV	802	1/1	0.98	0.19	22,22,22,22	0
57	MG	GA	3134	1/1	0.98	0.08	28,28,28,28	0
57	MG	EA	3115	1/1	0.98	0.17	6,6,6,6	0
57	MG	FA	1624	1/1	0.98	0.20	27,27,27,27	0
57	MG	CA	3068	1/1	0.98	0.19	9,9,9,9	0
57	MG	AA	3119	1/1	0.98	0.15	0,0,0,0	0
57	MG	BA	1605	1/1	0.98	0.16	28,28,28,28	0
57	MG	CA	3034	1/1	0.98	0.13	13,13,13,13	0
57	MG	CA	3116	1/1	0.98	0.16	7,7,7,7	0
57	MG	HA	1623	1/1	0.98	0.20	36,36,36,36	0
57	MG	AA	3112	1/1	0.98	0.25	0,0,0,0	0
57	MG	GA	3111	1/1	0.98	0.14	35,35,35,35	0
57	MG	GA	3127	1/1	0.98	0.13	18,18,18,18	0
57	MG	CA	3118	1/1	0.98	0.12	31,31,31,31	0
57	MG	GA	3078	1/1	0.98	0.12	35,35,35,35	0
57	MG	EA	3051	1/1	0.98	0.27	6,6,6,6	0
57	MG	DA	1625	1/1	0.98	0.14	29,29,29,29	0
57	MG	EA	3080	1/1	0.98	0.20	15,15,15,15	0
57	MG	GA	3082	1/1	0.98	0.09	38,38,38,38	0
57	MG	GA	3010	1/1	0.98	0.32	16,16,16,16	0
57	MG	AA	3035	1/1	0.98	0.20	5,5,5,5	0
57	MG	CA	3026	1/1	0.98	0.15	14,14,14,14	0
57	MG	AA	3070	1/1	0.98	0.27	6,6,6,6	0
57	MG	GA	3132	1/1	0.98	0.16	28,28,28,28	0
57	MG	BA	1627	1/1	0.98	0.22	19,19,19,19	0
57	MG	EA	3056	1/1	0.98	0.13	13,13,13,13	0
57	MG	GA	3126	1/1	0.98	0.07	35,35,35,35	0
57	MG	CA	3103	1/1	0.98	0.11	17,17,17,17	0
57	MG	AA	3075	1/1	0.98	0.11	15,15,15,15	0
57	MG	CA	3053	1/1	0.98	0.15	20,20,20,20	0
57	MG	CA	3109	1/1	0.98	0.24	7,7,7,7	0
57	MG	CA	3059	1/1	0.98	0.18	10,10,10,10	0
57	MG	CA	3074	1/1	0.98	0.16	13,13,13,13	0
57	MG	GA	3123	1/1	0.98	0.20	44,44,44,44	0
57	MG	BA	1601	1/1	0.98	0.10	23,23,23,23	0
57	MG	GA	3002	1/1	0.98	0.07	31,31,31,31	0
57	MG	GA	3106	1/1	0.98	0.15	7,7,7,7	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	GA	3016	1/1	0.98	0.12	12,12,12,12	0
57	MG	FA	1611	1/1	0.98	0.21	7,7,7,7	0
57	MG	EA	3007	1/1	0.98	0.08	12,12,12,12	0
57	MG	DA	1640	1/1	0.98	0.06	24,24,24,24	0
57	MG	HA	1635	1/1	0.98	0.11	28,28,28,28	0
57	MG	EA	3049	1/1	0.98	0.17	8,8,8,8	0
57	MG	CA	3036	1/1	0.98	0.12	28,28,28,28	0
57	MG	GA	3039	1/1	0.98	0.25	28,28,28,28	0
57	MG	EA	3108	1/1	0.98	0.20	15,15,15,15	0
57	MG	EA	3041	1/1	0.98	0.18	3,3,3,3	0
57	MG	GA	3060	1/1	0.98	0.16	18,18,18,18	0
57	MG	DA	1637	1/1	0.98	0.12	25,25,25,25	0
57	MG	AA	3129	1/1	0.98	0.24	9,9,9,9	0
57	MG	GA	3036	1/1	0.98	0.15	38,38,38,38	0
57	MG	BA	1610	1/1	0.98	0.09	41,41,41,41	0
57	MG	CA	3049	1/1	0.98	0.17	7,7,7,7	0
57	MG	DA	1632	1/1	0.98	0.09	22,22,22,22	0
57	MG	EB	1202	1/1	0.98	0.12	17,17,17,17	0
57	MG	HA	1606	1/1	0.98	0.17	29,29,29,29	0
57	MG	EA	3128	1/1	0.98	0.18	0,0,0,0	0
57	MG	FA	1601	1/1	0.98	0.08	17,17,17,17	0
57	MG	GA	3063	1/1	0.98	0.14	27,27,27,27	0
57	MG	AA	3038	1/1	0.98	0.26	3,3,3,3	0
57	MG	HA	1628	1/1	0.98	0.26	29,29,29,29	0
57	MG	HA	1605	1/1	0.98	0.15	40,40,40,40	0
57	MG	AA	3103	1/1	0.98	0.18	0,0,0,0	0
57	MG	AA	3002	1/1	0.98	0.15	25,25,25,25	0
57	MG	DA	1616	1/1	0.98	0.34	28,28,28,28	0
57	MG	AA	3110	1/1	0.98	0.20	9,9,9,9	0
57	MG	FE	201	1/1	0.98	0.12	35,35,35,35	0
57	MG	GA	3030	1/1	0.98	0.26	15,15,15,15	0
57	MG	GA	3087	1/1	0.98	0.12	23,23,23,23	0
57	MG	EA	3036	1/1	0.98	0.13	12,12,12,12	0
57	MG	EA	3045	1/1	0.98	0.18	9,9,9,9	0
57	MG	FA	1638	1/1	0.98	0.12	16,16,16,16	0
57	MG	AA	3076	1/1	0.98	0.14	13,13,13,13	0
57	MG	EA	3034	1/1	0.98	0.17	31,31,31,31	0
57	MG	EA	3035	1/1	0.98	0.18	12,12,12,12	0
57	MG	GA	3105	1/1	0.98	0.17	16,16,16,16	0
57	MG	DA	1606	1/1	0.98	0.20	15,15,15,15	0
57	MG	CA	3066	1/1	0.98	0.17	4,4,4,4	0
57	MG	GA	3061	1/1	0.98	0.11	20,20,20,20	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	EA	3009	1/1	0.98	0.25	2,2,2,2	0
57	MG	EA	3100	1/1	0.98	0.22	1,1,1,1	0
57	MG	FA	1622	1/1	0.98	0.20	9,9,9,9	0
57	MG	FA	1626	1/1	0.98	0.23	22,22,22,22	0
57	MG	GA	3013	1/1	0.98	0.08	18,18,18,18	0
57	MG	DA	1639	1/1	0.98	0.16	30,30,30,30	0
57	MG	EA	3074	1/1	0.98	0.19	11,11,11,11	0
57	MG	CA	3003	1/1	0.98	0.13	10,10,10,10	0
57	MG	BU	101	1/1	0.98	0.14	19,19,19,19	0
57	MG	AB	1203	1/1	0.98	0.16	0,0,0,0	0
57	MG	CA	3042	1/1	0.98	0.08	16,16,16,16	0
57	MG	FA	1602	1/1	0.98	0.12	18,18,18,18	0
57	MG	CA	3076	1/1	0.98	0.13	16,16,16,16	0
57	MG	GA	3044	1/1	0.98	0.06	21,21,21,21	0
57	MG	CE	301	1/1	0.98	0.07	19,19,19,19	0
57	MG	AA	3044	1/1	0.98	0.10	4,4,4,4	0
57	MG	HA	1610	1/1	0.98	0.07	31,31,31,31	0
57	MG	CA	3096	1/1	0.98	0.21	16,16,16,16	0
57	MG	AA	3046	1/1	0.98	0.29	13,13,13,13	0
57	MG	FA	1630	1/1	0.98	0.08	44,44,44,44	0
57	MG	CA	3021	1/1	0.98	0.11	5,5,5,5	0
57	MG	BA	1639	1/1	0.98	0.26	12,12,12,12	0
57	MG	GA	3100	1/1	0.98	0.29	12,12,12,12	0
57	MG	EE	301	1/1	0.98	0.09	19,19,19,19	0
57	MG	BA	1633	1/1	0.98	0.10	20,20,20,20	0
57	MG	BA	1629	1/1	0.98	0.15	15,15,15,15	0
57	MG	AA	3120	1/1	0.98	0.24	9,9,9,9	0
59	GCP	BV	801	32/32	0.98	0.14	9,25,32,35	0
57	MG	EA	3135	1/1	0.98	0.14	25,25,25,25	0
57	MG	GA	3038	1/1	0.98	0.17	21,21,21,21	0
57	MG	EA	3130	1/1	0.98	0.20	0,0,0,0	0
57	MG	CA	3073	1/1	0.98	0.14	4,4,4,4	0
57	MG	EA	3038	1/1	0.98	0.22	2,2,2,2	0
57	MG	CA	3134	1/1	0.98	0.20	21,21,21,21	0
57	MG	GA	3092	1/1	0.98	0.17	16,16,16,16	0
57	MG	GA	3031	1/1	0.98	0.10	15,15,15,15	0
57	MG	EA	3137	1/1	0.98	0.32	11,11,11,11	0
57	MG	CA	3132	1/1	0.98	0.10	9,9,9,9	0
57	MG	FA	1617	1/1	0.98	0.12	40,40,40,40	0
57	MG	AA	3061	1/1	0.98	0.28	5,5,5,5	0
57	MG	AA	3088	1/1	0.98	0.18	4,4,4,4	0
57	MG	CA	3024	1/1	0.98	0.20	6,6,6,6	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	HA	1607	1/1	0.98	0.07	33,33,33,33	0
57	MG	DA	1638	1/1	0.98	0.10	25,25,25,25	0
57	MG	DA	1607	1/1	0.98	0.14	16,16,16,16	0
57	MG	EA	3131	1/1	0.98	0.11	3,3,3,3	0
57	MG	FA	1608	1/1	0.99	0.23	13,13,13,13	0
57	MG	BA	1632	1/1	0.99	0.16	14,14,14,14	0
57	MG	AA	3031	1/1	0.99	0.20	5,5,5,5	0
57	MG	AA	3079	1/1	0.99	0.11	4,4,4,4	0
57	MG	GA	3012	1/1	0.99	0.16	22,22,22,22	0
57	MG	CA	3047	1/1	0.99	0.10	23,23,23,23	0
57	MG	AA	3058	1/1	0.99	0.14	9,9,9,9	0
57	MG	DA	1631	1/1	0.99	0.06	13,13,13,13	0
57	MG	CA	3127	1/1	0.99	0.17	3,3,3,3	0
57	MG	EA	3071	1/1	0.99	0.17	0,0,0,0	0
57	MG	BA	1618	1/1	0.99	0.17	1,1,1,1	0
57	MG	EA	3006	1/1	0.99	0.11	9,9,9,9	0
57	MG	EA	3134	1/1	0.99	0.24	7,7,7,7	0
57	MG	EA	3063	1/1	0.99	0.14	2,2,2,2	0
57	MG	EA	3044	1/1	0.99	0.09	15,15,15,15	0
58	ZN	E4	101	1/1	0.99	0.09	59,59,59,59	0
57	MG	EA	3129	1/1	0.99	0.21	2,2,2,2	0
57	MG	EA	3065	1/1	0.99	0.14	5,5,5,5	0
57	MG	EA	3082	1/1	0.99	0.12	6,6,6,6	0
57	MG	EA	3124	1/1	0.99	0.43	4,4,4,4	0
57	MG	CA	3060	1/1	0.99	0.12	7,7,7,7	0
57	MG	AA	3108	1/1	0.99	0.26	1,1,1,1	0
57	MG	GA	3066	1/1	0.99	0.16	12,12,12,12	0
57	MG	CA	3020	1/1	0.99	0.11	6,6,6,6	0
57	MG	DA	1633	1/1	0.99	0.08	29,29,29,29	0
57	MG	CA	3124	1/1	0.99	0.13	26,26,26,26	0
57	MG	CA	3072	1/1	0.99	0.14	14,14,14,14	0
57	MG	EA	3126	1/1	0.99	0.13	6,6,6,6	0
57	MG	EA	3104	1/1	0.99	0.23	0,0,0,0	0
57	MG	EA	3090	1/1	0.99	0.08	11,11,11,11	0
57	MG	EA	3084	1/1	0.99	0.22	7,7,7,7	0
57	MG	GA	3104	1/1	0.99	0.29	12,12,12,12	0
57	MG	AA	3101	1/1	0.99	0.16	8,8,8,8	0
57	MG	GA	3112	1/1	0.99	0.20	13,13,13,13	0
57	MG	GA	3085	1/1	0.99	0.17	10,10,10,10	0
57	MG	GA	3073	1/1	0.99	0.17	10,10,10,10	0
57	MG	AA	3049	1/1	0.99	0.20	17,17,17,17	0
57	MG	FA	1623	1/1	0.99	0.16	6,6,6,6	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	AA	3059	1/1	0.99	0.24	1,1,1,1	0
57	MG	CA	3051	1/1	0.99	0.32	6,6,6,6	0
57	MG	DV	802	1/1	0.99	0.20	14,14,14,14	0
57	MG	CA	3123	1/1	0.99	0.24	26,26,26,26	0
57	MG	AA	3033	1/1	0.99	0.19	1,1,1,1	0
57	MG	EA	3127	1/1	0.99	0.15	11,11,11,11	0
57	MG	DA	1615	1/1	0.99	0.20	45,45,45,45	0
57	MG	AA	3024	1/1	0.99	0.15	5,5,5,5	0
57	MG	AA	3121	1/1	0.99	0.22	3,3,3,3	0
57	MG	AA	3126	1/1	0.99	0.13	2,2,2,2	0
57	MG	BA	1604	1/1	0.99	0.07	17,17,17,17	0
57	MG	AA	3133	1/1	0.99	0.18	10,10,10,10	0
57	MG	EA	3060	1/1	0.99	0.20	2,2,2,2	0
57	MG	AA	3099	1/1	0.99	0.14	13,13,13,13	0
57	MG	EA	3005	1/1	0.99	0.20	16,16,16,16	0
57	MG	AA	3030	1/1	0.99	0.09	1,1,1,1	0
57	MG	GA	3041	1/1	0.99	0.12	10,10,10,10	0
57	MG	GA	3014	1/1	0.99	0.07	15,15,15,15	0
57	MG	GA	3023	1/1	0.99	0.33	27,27,27,27	0
57	MG	BA	1616	1/1	0.99	0.27	3,3,3,3	0
57	MG	GA	3043	1/1	0.99	0.09	20,20,20,20	0
57	MG	EA	3054	1/1	0.99	0.12	2,2,2,2	0
57	MG	AA	3127	1/1	0.99	0.13	10,10,10,10	0
57	MG	GA	3067	1/1	0.99	0.27	29,29,29,29	0
57	MG	GA	3103	1/1	0.99	0.22	12,12,12,12	0
57	MG	AA	3043	1/1	0.99	0.15	5,5,5,5	0
57	MG	CA	3046	1/1	0.99	0.22	21,21,21,21	0
57	MG	FA	1605	1/1	0.99	0.09	30,30,30,30	0
57	MG	AA	3074	1/1	0.99	0.18	5,5,5,5	0
57	MG	EA	3067	1/1	0.99	0.21	3,3,3,3	0
57	MG	GA	3094	1/1	0.99	0.06	14,14,14,14	0
57	MG	CA	3106	1/1	0.99	0.26	12,12,12,12	0
57	MG	FA	1612	1/1	0.99	0.30	4,4,4,4	0
57	MG	CA	3130	1/1	0.99	0.16	21,21,21,21	0
57	MG	EA	3073	1/1	0.99	0.15	0,0,0,0	0
57	MG	CA	3054	1/1	0.99	0.09	14,14,14,14	0
57	MG	CA	3117	1/1	0.99	0.12	7,7,7,7	0
57	MG	BA	1608	1/1	0.99	0.23	11,11,11,11	0
57	MG	AA	3064	1/1	0.99	0.12	3,3,3,3	0
57	MG	EA	3112	1/1	0.99	0.17	2,2,2,2	0
57	MG	FV	802	1/1	0.99	0.18	24,24,24,24	0
57	MG	CA	3050	1/1	0.99	0.08	14,14,14,14	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	CA	3112	1/1	0.99	0.30	10,10,10,10	0
57	MG	AA	3089	1/1	0.99	0.09	4,4,4,4	0
58	ZN	A4	102	1/1	0.99	0.13	42,42,42,42	0
57	MG	EA	3089	1/1	0.99	0.14	6,6,6,6	0
57	MG	EA	3085	1/1	0.99	0.26	11,11,11,11	0
57	MG	CA	3040	1/1	0.99	0.21	11,11,11,11	0
57	MG	CA	3004	1/1	0.99	0.09	24,24,24,24	0
57	MG	EA	3002	1/1	0.99	0.14	7,7,7,7	0
57	MG	GA	3022	1/1	0.99	0.17	30,30,30,30	0
57	MG	CA	3083	1/1	0.99	0.04	32,32,32,32	0
57	MG	AA	3027	1/1	0.99	0.17	15,15,15,15	0
57	MG	AA	3032	1/1	0.99	0.17	0,0,0,0	0
57	MG	CA	3070	1/1	0.99	0.10	8,8,8,8	0
57	MG	CA	3009	1/1	0.99	0.18	10,10,10,10	0
57	MG	AA	3106	1/1	0.99	0.21	4,4,4,4	0
57	MG	HA	1621	1/1	0.99	0.14	7,7,7,7	0
57	MG	CB	1203	1/1	0.99	0.10	12,12,12,12	0
57	MG	GA	3072	1/1	0.99	0.08	24,24,24,24	0
57	MG	AA	3008	1/1	0.99	0.06	19,19,19,19	0
57	MG	EA	3099	1/1	0.99	0.16	3,3,3,3	0
57	MG	CA	3005	1/1	0.99	0.15	35,35,35,35	0
57	MG	GA	3118	1/1	0.99	0.11	39,39,39,39	0
57	MG	BA	1617	1/1	0.99	0.06	21,21,21,21	0
57	MG	BA	1614	1/1	0.99	0.11	7,7,7,7	0
57	MG	CA	3097	1/1	0.99	0.13	3,3,3,3	0
57	MG	DA	1611	1/1	0.99	0.11	35,35,35,35	0
57	MG	CA	3075	1/1	0.99	0.25	11,11,11,11	0
57	MG	EA	3116	1/1	0.99	0.16	6,6,6,6	0
57	MG	AA	3131	1/1	0.99	0.10	3,3,3,3	0
57	MG	CA	3100	1/1	0.99	0.07	16,16,16,16	0
57	MG	FA	1629	1/1	0.99	0.12	30,30,30,30	0
57	MG	GA	3048	1/1	0.99	0.16	15,15,15,15	0
57	MG	EA	3064	1/1	0.99	0.14	2,2,2,2	0
57	MG	GA	3001	1/1	0.99	0.06	31,31,31,31	0
57	MG	EA	3123	1/1	0.99	0.23	3,3,3,3	0
57	MG	GA	3034	1/1	0.99	0.10	36,36,36,36	0
57	MG	EA	3106	1/1	0.99	0.13	9,9,9,9	0
57	MG	BA	1619	1/1	0.99	0.17	13,13,13,13	0
57	MG	GA	3029	1/1	0.99	0.08	16,16,16,16	0
57	MG	CA	3029	1/1	0.99	0.15	19,19,19,19	0
57	MG	EA	3058	1/1	0.99	0.14	5,5,5,5	0
57	MG	CA	3065	1/1	0.99	0.17	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
57	MG	AA	3072	1/1	0.99	0.17	5,5,5,5	0
57	MG	AA	3123	1/1	0.99	0.11	5,5,5,5	0
57	MG	CA	3081	1/1	0.99	0.24	6,6,6,6	0
57	MG	FA	1639	1/1	0.99	0.16	20,20,20,20	0
57	MG	CA	3089	1/1	0.99	0.19	14,14,14,14	0
57	MG	AA	3041	1/1	0.99	0.24	7,7,7,7	0
57	MG	EA	3120	1/1	0.99	0.20	5,5,5,5	0
57	MG	CA	3071	1/1	0.99	0.17	10,10,10,10	0
57	MG	EA	3105	1/1	0.99	0.14	5,5,5,5	0
57	MG	GA	3045	1/1	0.99	0.20	17,17,17,17	0
57	MG	CA	3041	1/1	0.99	0.08	12,12,12,12	0
57	MG	GA	3093	1/1	0.99	0.11	21,21,21,21	0
57	MG	GA	3074	1/1	0.99	0.14	10,10,10,10	0
57	MG	GA	3053	1/1	0.99	0.17	6,6,6,6	0
57	MG	EA	3017	1/1	0.99	0.15	8,8,8,8	0
57	MG	AA	3062	1/1	0.99	0.18	4,4,4,4	0
57	MG	FA	1619	1/1	0.99	0.12	7,7,7,7	0
57	MG	EB	1204	1/1	0.99	0.12	8,8,8,8	0
57	MG	HV	802	1/1	0.99	0.17	38,38,38,38	0
57	MG	EA	3062	1/1	0.99	0.16	4,4,4,4	0
57	MG	AA	3115	1/1	0.99	0.24	1,1,1,1	0
57	MG	AA	3132	1/1	0.99	0.17	0,0,0,0	0
57	MG	GA	3122	1/1	0.99	0.17	16,16,16,16	0
57	MG	GA	3027	1/1	0.99	0.09	17,17,17,17	0
57	MG	EA	3077	1/1	0.99	0.09	18,18,18,18	0
57	MG	BA	1612	1/1	0.99	0.18	3,3,3,3	0
57	MG	FA	1609	1/1	0.99	0.25	7,7,7,7	0
57	MG	EA	3066	1/1	0.99	0.12	1,1,1,1	0
57	MG	EA	3021	1/1	0.99	0.16	11,11,11,11	0
57	MG	CA	3062	1/1	0.99	0.16	15,15,15,15	0
57	MG	AA	3111	1/1	0.99	0.25	3,3,3,3	0
57	MG	DA	1619	1/1	0.99	0.18	34,34,34,34	0
57	MG	EA	3113	1/1	0.99	0.14	7,7,7,7	0
57	MG	BA	1624	1/1	0.99	0.21	9,9,9,9	0
57	MG	AB	1201	1/1	0.99	0.08	34,34,34,34	0
57	MG	CA	3027	1/1	0.99	0.10	10,10,10,10	0
57	MG	AA	3068	1/1	0.99	0.23	2,2,2,2	0
57	MG	AA	3021	1/1	0.99	0.20	6,6,6,6	0
57	MG	AB	1204	1/1	0.99	0.06	18,18,18,18	0
57	MG	AA	3080	1/1	0.99	0.22	0,0,0,0	0
57	MG	CA	3087	1/1	0.99	0.14	23,23,23,23	0
57	MG	CA	3063	1/1	0.99	0.13	4,4,4,4	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	GA	3058	1/1	0.99	0.13	24,24,24,24	0
57	MG	HA	1633	1/1	0.99	0.17	46,46,46,46	0
57	MG	CA	3131	1/1	0.99	0.27	11,11,11,11	0
57	MG	EB	1203	1/1	0.99	0.17	0,0,0,0	0
57	MG	AA	3048	1/1	0.99	0.08	16,16,16,16	0
57	MG	EA	3061	1/1	0.99	0.17	5,5,5,5	0
57	MG	GA	3046	1/1	0.99	0.12	35,35,35,35	0
57	MG	BA	1609	1/1	0.99	0.12	7,7,7,7	0
57	MG	AA	3051	1/1	0.99	0.10	9,9,9,9	0
57	MG	DA	1622	1/1	0.99	0.14	13,13,13,13	0
57	MG	GA	3037	1/1	0.99	0.32	18,18,18,18	0
57	MG	ED	301	1/1	0.99	0.16	7,7,7,7	0
57	MG	AA	3086	1/1	0.99	0.08	14,14,14,14	0
57	MG	CA	3013	1/1	0.99	0.07	9,9,9,9	0
57	MG	GA	3047	1/1	0.99	0.12	38,38,38,38	0
57	MG	EA	3079	1/1	0.99	0.15	8,8,8,8	0
57	MG	EA	3016	1/1	0.99	0.23	0,0,0,0	0
57	MG	CA	3105	1/1	0.99	0.23	14,14,14,14	0
57	MG	DA	1613	1/1	0.99	0.13	23,23,23,23	0
57	MG	CA	3031	1/1	0.99	0.15	7,7,7,7	0
57	MG	FA	1631	1/1	0.99	0.10	24,24,24,24	0
57	MG	AA	3039	1/1	0.99	0.18	3,3,3,3	0
57	MG	AA	3010	1/1	0.99	0.18	8,8,8,8	0
57	MG	AA	3081	1/1	0.99	0.11	1,1,1,1	0
57	MG	DA	1627	1/1	0.99	0.14	23,23,23,23	0
57	MG	EA	3096	1/1	0.99	0.22	9,9,9,9	0
57	MG	AA	3082	1/1	0.99	0.07	22,22,22,22	0
57	MG	CA	3048	1/1	0.99	0.17	17,17,17,17	0
57	MG	GA	3096	1/1	0.99	0.15	15,15,15,15	0
57	MG	AA	3013	1/1	0.99	0.18	0,0,0,0	0
57	MG	CA	3032	1/1	0.99	0.17	8,8,8,8	0
57	MG	CA	3008	1/1	0.99	0.16	14,14,14,14	0
57	MG	CA	3102	1/1	0.99	0.24	9,9,9,9	0
57	MG	CA	3084	1/1	0.99	0.22	20,20,20,20	0
57	MG	AC	301	1/1	0.99	0.14	3,3,3,3	0
57	MG	CA	3114	1/1	0.99	0.12	26,26,26,26	0
57	MG	AA	3105	1/1	0.99	0.15	2,2,2,2	0
57	MG	BA	1622	1/1	0.99	0.16	17,17,17,17	0
57	MG	AA	3014	1/1	0.99	0.14	2,2,2,2	0
57	MG	AA	3015	1/1	0.99	0.27	0,0,0,0	0
57	MG	GA	3107	1/1	0.99	0.26	13,13,13,13	0
57	MG	CA	3039	1/1	0.99	0.25	4,4,4,4	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	EA	3023	1/1	0.99	0.22	9,9,9,9	0
57	MG	EA	3047	1/1	0.99	0.08	25,25,25,25	0
57	MG	CA	3086	1/1	0.99	0.17	15,15,15,15	0
57	MG	BA	1631	1/1	0.99	0.07	16,16,16,16	0
57	MG	AA	3073	1/1	0.99	0.18	2,2,2,2	0
57	MG	AA	3028	1/1	0.99	0.12	4,4,4,4	0
57	MG	CA	3129	1/1	0.99	0.12	9,9,9,9	0
57	MG	CA	3022	1/1	0.99	0.12	17,17,17,17	0
57	MG	FA	1634	1/1	0.99	0.18	13,13,13,13	0
57	MG	AA	3098	1/1	0.99	0.21	0,0,0,0	0
57	MG	CA	3120	1/1	0.99	0.21	11,11,11,11	0
57	MG	AA	3034	1/1	0.99	0.21	4,4,4,4	0
57	MG	AA	3091	1/1	0.99	0.08	33,33,33,33	0
57	MG	EA	3053	1/1	0.99	0.20	1,1,1,1	0
57	MG	GA	3097	1/1	0.99	0.28	10,10,10,10	0
57	MG	FA	1615	1/1	0.99	0.12	16,16,16,16	0
57	MG	AA	3057	1/1	0.99	0.09	25,25,25,25	0
57	MG	CA	3038	1/1	0.99	0.20	9,9,9,9	0
57	MG	GA	3081	1/1	0.99	0.19	14,14,14,14	0
57	MG	AA	3004	1/1	0.99	0.12	20,20,20,20	0
57	MG	EA	3003	1/1	0.99	0.19	9,9,9,9	0
57	MG	EA	3098	1/1	0.99	0.17	4,4,4,4	0
57	MG	FA	1607	1/1	0.99	0.10	21,21,21,21	0
57	MG	GA	3064	1/1	0.99	0.12	11,11,11,11	0
57	MG	AA	3116	1/1	0.99	0.14	0,0,0,0	0
57	MG	GA	3020	1/1	0.99	0.19	3,3,3,3	0
57	MG	EA	3103	1/1	0.99	0.26	0,0,0,0	0
57	MG	DA	1641	1/1	0.99	0.11	28,28,28,28	0
57	MG	GA	3089	1/1	0.99	0.20	8,8,8,8	0
57	MG	HA	1636	1/1	0.99	0.13	28,28,28,28	0
57	MG	HA	1630	1/1	0.99	0.23	32,32,32,32	0
57	MG	EA	3024	1/1	0.99	0.19	2,2,2,2	0
57	MG	CA	3030	1/1	0.99	0.16	39,39,39,39	0
57	MG	AA	3122	1/1	0.99	0.16	6,6,6,6	0
57	MG	AB	1202	1/1	0.99	0.08	25,25,25,25	0
57	MG	CA	3133	1/1	0.99	0.21	13,13,13,13	0
57	MG	BA	1611	1/1	0.99	0.12	7,7,7,7	0
57	MG	AA	3125	1/1	0.99	0.22	8,8,8,8	0
57	MG	AA	3109	1/1	0.99	0.08	20,20,20,20	0
57	MG	AA	3077	1/1	0.99	0.11	16,16,16,16	0
57	MG	BA	1630	1/1	0.99	0.16	26,26,26,26	0
57	MG	BA	1634	1/1	0.99	0.10	13,13,13,13	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	AA	3003	1/1	0.99	0.13	11,11,11,11	0
57	MG	EA	3043	1/1	0.99	0.17	8,8,8,8	0
58	ZN	C4	102	1/1	0.99	0.14	41,41,41,41	0
57	MG	CA	3033	1/1	0.99	0.18	6,6,6,6	0
57	MG	EA	3037	1/1	0.99	0.19	2,2,2,2	0
57	MG	EA	3042	1/1	0.99	0.23	13,13,13,13	0
57	MG	HA	1603	1/1	0.99	0.08	25,25,25,25	0
57	MG	AA	3117	1/1	0.99	0.10	11,11,11,11	0
57	MG	EA	3022	1/1	0.99	0.17	2,2,2,2	0
57	MG	BA	1606	1/1	0.99	0.18	14,14,14,14	0
57	MG	EA	3048	1/1	0.99	0.22	25,25,25,25	0
57	MG	AA	3026	1/1	0.99	0.22	4,4,4,4	0
57	MG	DA	1605	1/1	0.99	0.15	18,18,18,18	0
57	MG	GA	3071	1/1	0.99	0.16	16,16,16,16	0
57	MG	CA	3052	1/1	0.99	0.14	4,4,4,4	0
57	MG	BA	1623	1/1	0.99	0.10	25,25,25,25	0
57	MG	AA	3102	1/1	0.99	0.11	10,10,10,10	0
57	MG	BA	1640	1/1	0.99	0.22	11,11,11,11	0
57	MG	EA	3030	1/1	0.99	0.28	7,7,7,7	0
57	MG	EA	3026	1/1	0.99	0.18	0,0,0,0	0
57	MG	FA	1616	1/1	0.99	0.12	18,18,18,18	0
57	MG	GA	3102	1/1	0.99	0.14	19,19,19,19	0
57	MG	EA	3081	1/1	0.99	0.20	0,0,0,0	0
57	MG	CA	3126	1/1	0.99	0.14	22,22,22,22	0
57	MG	CA	3099	1/1	0.99	0.18	5,5,5,5	0
57	MG	EA	3018	1/1	0.99	0.19	9,9,9,9	0
57	MG	AA	3029	1/1	0.99	0.24	0,0,0,0	0
57	MG	AA	3078	1/1	0.99	0.34	13,13,13,13	0
57	MG	AA	3067	1/1	0.99	0.17	2,2,2,2	0
57	MG	CA	3037	1/1	0.99	0.27	6,6,6,6	0
57	MG	CA	3104	1/1	0.99	0.16	8,8,8,8	0
57	MG	CA	3064	1/1	0.99	0.16	6,6,6,6	0
57	MG	AA	3055	1/1	0.99	0.16	0,0,0,0	0
57	MG	CA	3018	1/1	0.99	0.08	30,30,30,30	0
57	MG	AA	3020	1/1	0.99	0.09	9,9,9,9	0
57	MG	FA	1628	1/1	0.99	0.16	27,27,27,27	0
57	MG	FA	1632	1/1	0.99	0.13	24,24,24,24	0
57	MG	HA	1638	1/1	0.99	0.04	28,28,28,28	0
57	MG	CA	3079	1/1	0.99	0.20	27,27,27,27	0
57	MG	AA	3056	1/1	1.00	0.13	11,11,11,11	0
57	MG	EA	3086	1/1	1.00	0.19	8,8,8,8	0
57	MG	EA	3010	1/1	1.00	0.16	6,6,6,6	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	EA	3075	1/1	1.00	0.21	11,11,11,11	0
57	MG	CA	3125	1/1	1.00	0.23	11,11,11,11	0
57	MG	EA	3032	1/1	1.00	0.18	1,1,1,1	0
57	MG	AA	3011	1/1	1.00	0.25	6,6,6,6	0
57	MG	GA	3049	1/1	1.00	0.22	12,12,12,12	0
57	MG	CA	3121	1/1	1.00	0.22	8,8,8,8	0
57	MG	GA	3056	1/1	1.00	0.06	13,13,13,13	0
57	MG	FN	202	1/1	1.00	0.15	26,26,26,26	0
57	MG	EA	3133	1/1	1.00	0.21	0,0,0,0	0
57	MG	EA	3107	1/1	1.00	0.15	5,5,5,5	0
57	MG	AA	3066	1/1	1.00	0.21	0,0,0,0	0
57	MG	EA	3008	1/1	1.00	0.18	1,1,1,1	0
57	MG	CA	3028	1/1	1.00	0.18	9,9,9,9	0
57	MG	AA	3085	1/1	1.00	0.14	7,7,7,7	0
57	MG	EA	3013	1/1	1.00	0.13	1,1,1,1	0
57	MG	GA	3019	1/1	1.00	0.15	6,6,6,6	0
57	MG	GA	3130	1/1	1.00	0.11	18,18,18,18	0
57	MG	EA	3072	1/1	1.00	0.15	2,2,2,2	0
57	MG	CA	3057	1/1	1.00	0.11	7,7,7,7	0
57	MG	AA	3094	1/1	1.00	0.19	16,16,16,16	0
57	MG	AA	3071	1/1	1.00	0.12	4,4,4,4	0
57	MG	AA	3054	1/1	1.00	0.14	3,3,3,3	0
57	MG	CA	3001	1/1	1.00	0.09	16,16,16,16	0
57	MG	AA	3053	1/1	1.00	0.17	4,4,4,4	0
57	MG	FA	1613	1/1	1.00	0.20	6,6,6,6	0
57	MG	CA	3035	1/1	1.00	0.13	7,7,7,7	0
57	MG	GA	3125	1/1	1.00	0.12	10,10,10,10	0
57	MG	EA	3029	1/1	1.00	0.25	2,2,2,2	0
57	MG	EA	3027	1/1	1.00	0.17	4,4,4,4	0
57	MG	AA	3036	1/1	1.00	0.18	2,2,2,2	0
57	MG	BA	1621	1/1	1.00	0.09	11,11,11,11	0
57	MG	EA	3012	1/1	1.00	0.20	2,2,2,2	0
57	MG	EA	3059	1/1	1.00	0.18	10,10,10,10	0
57	MG	AA	3063	1/1	1.00	0.19	0,0,0,0	0
57	MG	BA	1628	1/1	1.00	0.19	18,18,18,18	0
57	MG	DA	1620	1/1	1.00	0.04	12,12,12,12	0
57	MG	GA	3042	1/1	1.00	0.14	20,20,20,20	0
57	MG	CA	3101	1/1	1.00	0.18	5,5,5,5	0
57	MG	CA	3014	1/1	1.00	0.27	13,13,13,13	0
57	MG	EA	3068	1/1	1.00	0.20	2,2,2,2	0
57	MG	CA	3122	1/1	1.00	0.20	5,5,5,5	0
57	MG	AA	3023	1/1	1.00	0.08	0,0,0,0	0

Continued on next page...

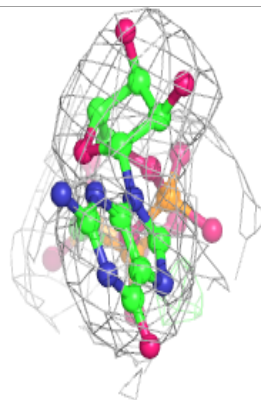
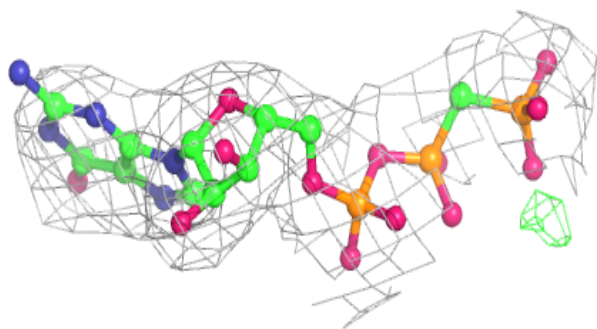
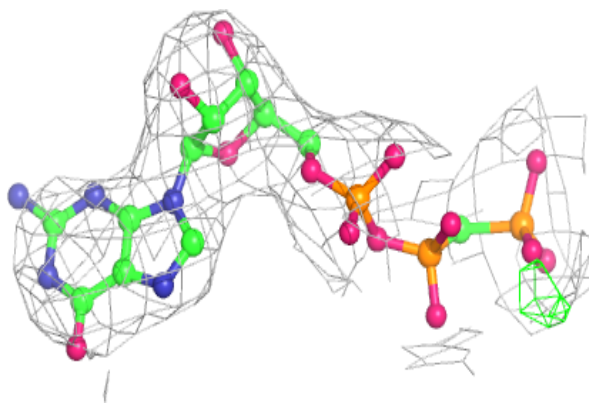
Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	AA	3040	1/1	1.00	0.25	1,1,1,1	0
57	MG	AA	3022	1/1	1.00	0.11	2,2,2,2	0
57	MG	EA	3031	1/1	1.00	0.16	1,1,1,1	0
57	MG	CA	3108	1/1	1.00	0.21	11,11,11,11	0
57	MG	AA	3128	1/1	1.00	0.15	0,0,0,0	0
57	MG	AA	3018	1/1	1.00	0.16	2,2,2,2	0
57	MG	GA	3098	1/1	1.00	0.15	15,15,15,15	0
57	MG	AA	3009	1/1	1.00	0.19	2,2,2,2	0
57	MG	AA	3050	1/1	1.00	0.20	2,2,2,2	0
57	MG	BA	1638	1/1	1.00	0.18	13,13,13,13	0
57	MG	EA	3020	1/1	1.00	0.15	7,7,7,7	0
57	MG	CA	3058	1/1	1.00	0.14	18,18,18,18	0
57	MG	CA	3017	1/1	1.00	0.18	7,7,7,7	0
57	MG	AA	3065	1/1	1.00	0.18	11,11,11,11	0
57	MG	AA	3107	1/1	1.00	0.24	4,4,4,4	0
57	MG	AA	3017	1/1	1.00	0.11	0,0,0,0	0
57	MG	DA	1642	1/1	1.00	0.21	4,4,4,4	0
57	MG	AA	3096	1/1	1.00	0.15	0,0,0,0	0
57	MG	CA	3067	1/1	1.00	0.20	6,6,6,6	0
57	MG	CA	3128	1/1	1.00	0.16	17,17,17,17	0
57	MG	HA	1640	1/1	1.00	0.15	18,18,18,18	0

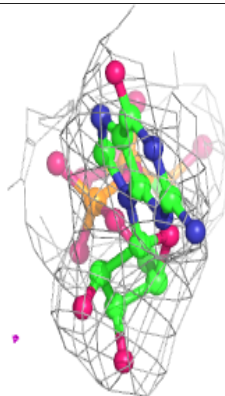
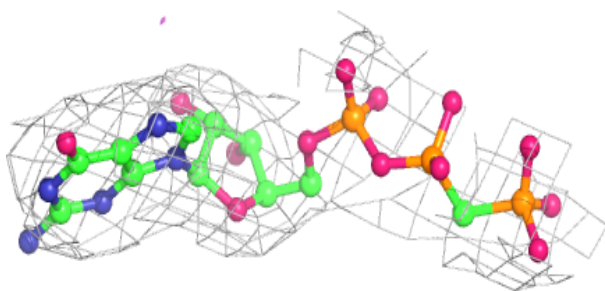
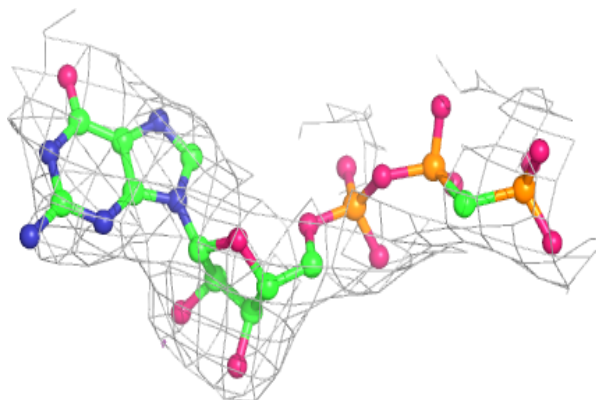
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation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

Electron density around GCP FV 801:

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

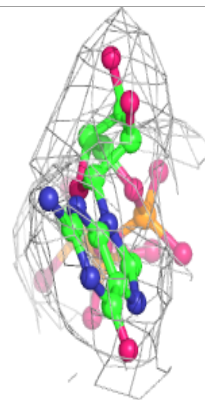
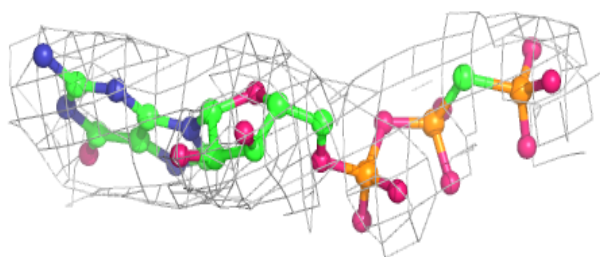
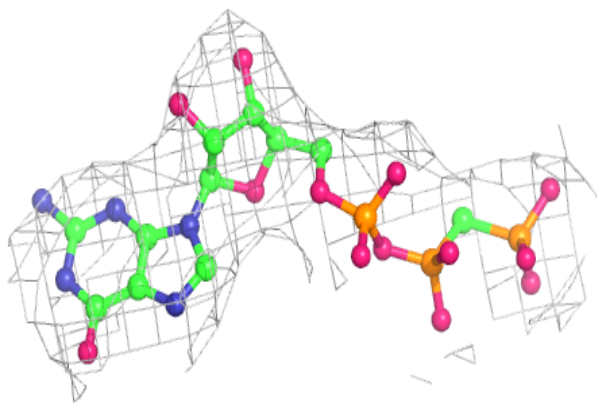
**Electron density around GCP HV 801:**

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

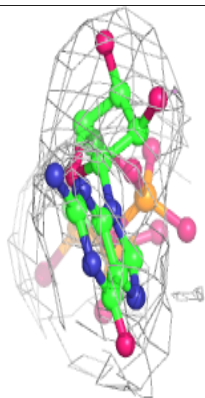
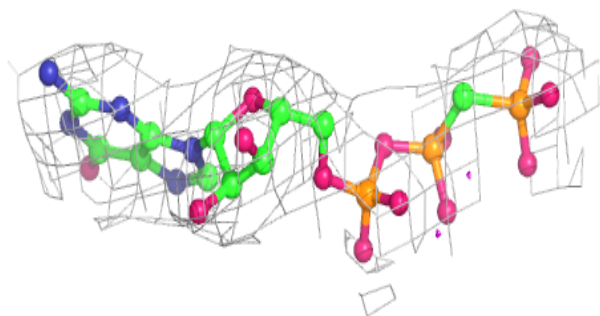
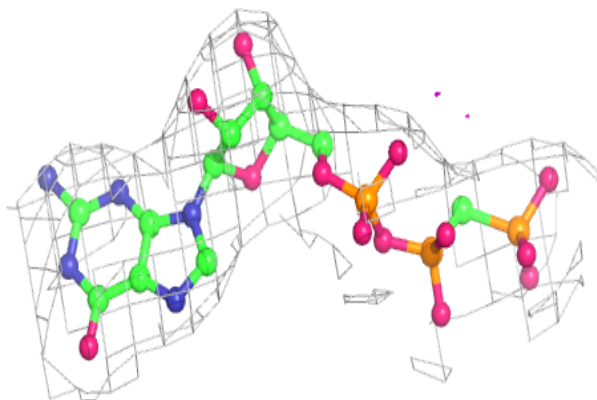


Electron density around GCP DV 801:

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

**Electron density around GCP BV 801:**

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



6.5 Other polymers

There are no such residues in this entry.