



wwPDB X-ray Structure Validation Summary Report ⓘ

Jun 22, 2024 – 02:31 PM EDT

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 types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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

MolProbity : 4.02b-467
Mogul : 1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix) : 1.13
EDS : 2.37.1
buster-report : 1.1.7 (2018)
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac : 5.8.0158
CCP4 : 7.0.044 (Gargrove)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.37.1

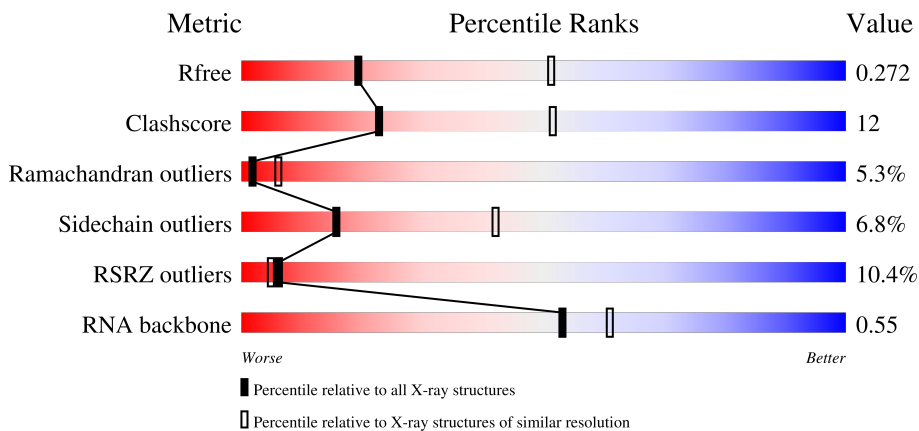
1 Overall quality at a glance

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.








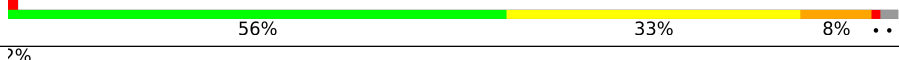



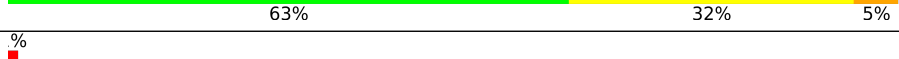
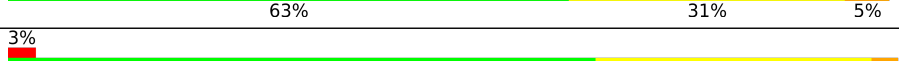
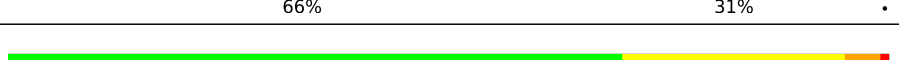
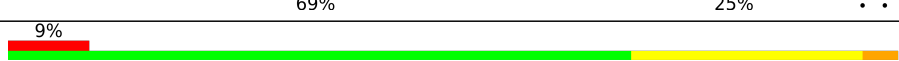
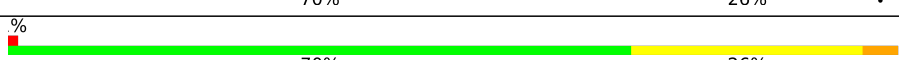
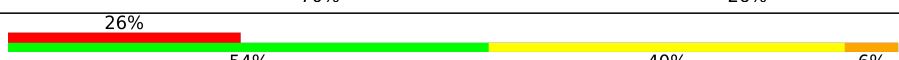
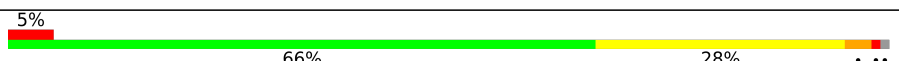
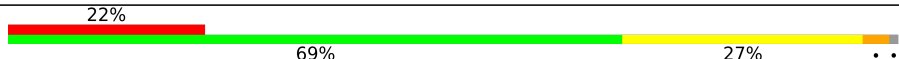
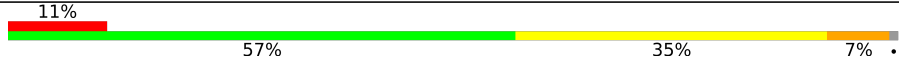



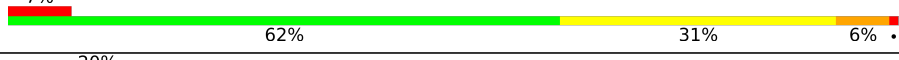
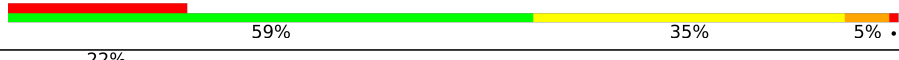
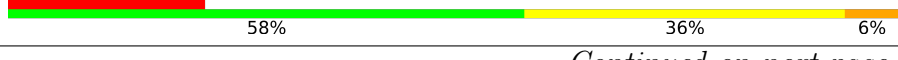

Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	1957 (2.90-2.90)
Clashscore	141614	2172 (2.90-2.90)
Ramachandran outliers	138981	2115 (2.90-2.90)
Sidechain outliers	138945	2117 (2.90-2.90)
RSRZ outliers	127900	1906 (2.90-2.90)
RNA backbone	3102	1007 (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 of the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	AB	120	
1	CB	120	
1	EB	120	
1	GB	120	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
2	AC	273	 % 69% 26% ..
2	CC	273	 5% 68% 24% 7% ..
2	EC	273	 % 64% 30% ..
2	GC	273	 7% 65% 29% 5% .
3	AA	2904	 2% 57% 32% 9% ..
3	CA	2904	 % 56% 33% 8% ..
3	EA	2904	 2% 57% 31% 9% ..
3	GA	2904	 2% 47% 40% 10% ..
4	AD	209	 2% 65% 29% 5% .
4	CD	209	 2% 63% 32% 5%
4	ED	209	 % 63% 31% 5%
4	GD	209	 3% 66% 31% .
5	AE	201	 % 69% 25% ..
5	CE	201	 9% 70% 26% .
5	EE	201	 % 70% 26% .
5	GE	201	 26% 54% 40% 6%
6	AF	179	 5% 66% 28% ..
6	CF	179	 22% 69% 27% ..
6	EF	179	 11% 57% 35% 7% .
6	GF	179	 59% 57% 38% ..
7	AG	177	 6% 63% 28% 8% ..
7	CG	177	 9% 61% 32% 6% ..
7	EG	177	 7% 62% 31% 6% ..
7	GG	177	 20% 59% 35% 5% ..
8	AH	50	 22% 58% 36% 6%

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	2% 69% 24% 6%
14	GN	127	3% 66% 26% 6%
15	AO	117	2% 69% 27% ..
15	CO	117	9% 66% 28% 5%
15	EO	117	4% 75% 21% ..
15	GO	117	38% 61% 35% ..
16	AP	115	2% 65% 24% 7% ..
16	CP	115	2% 60% 28% 10% ..
16	EP	115	% 58% 27% 13% ..
16	GP	115	3% 63% 26% 9% ..
17	AQ	118	3% 63% 31% 5% ..
17	CQ	118	3% 71% 22% 6%
17	EQ	118	3% 69% 24% 6%
17	GQ	118	15% 53% 41% 6%
18	AR	103	2% 63% 34% .
18	CR	103	4% 65% 31% .
18	ER	103	5% 64% 31% 5%
18	GR	103	32% 61% 33% 5%
19	AS	110	2% 66% 26% 6%
19	CS	110	5% 73% 22% 5%
19	ES	110	3% 72% 19% 9%
19	GS	110	19% 64% 31% 5%
20	AT	100	10% 55% 31% 6% 7%
20	CT	100	16% 54% 33% 6% 7%
20	ET	100	14% 49% 36% 6% 7%

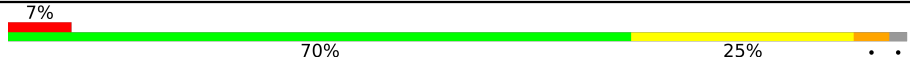

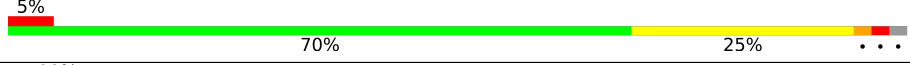

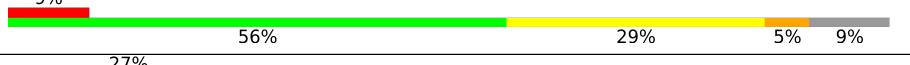
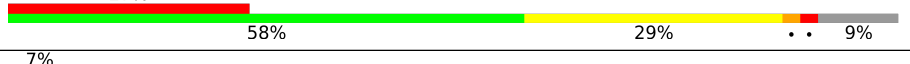
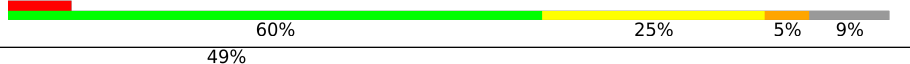

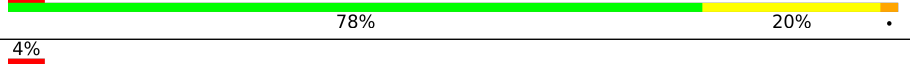


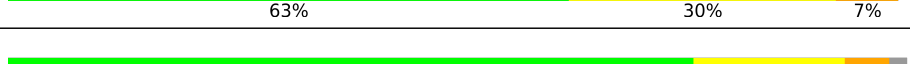
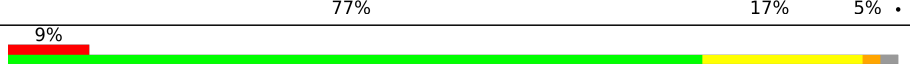
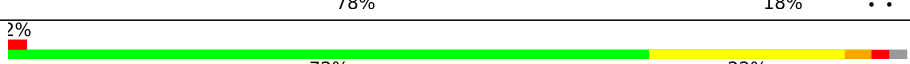

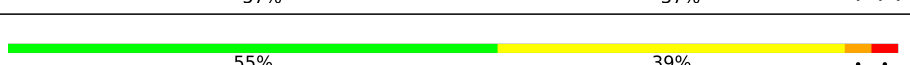
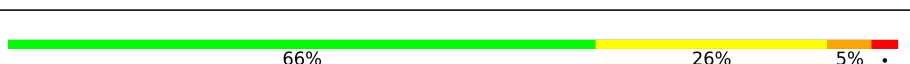
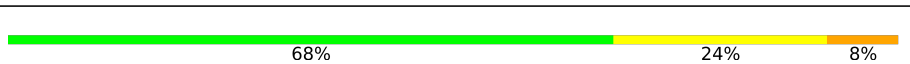
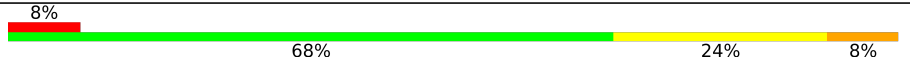

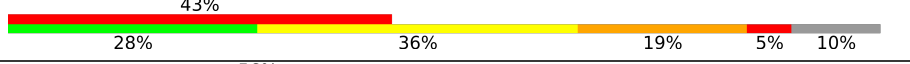




Continued on next page...

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	

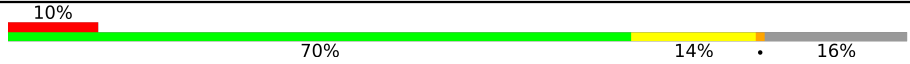

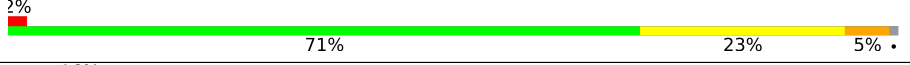

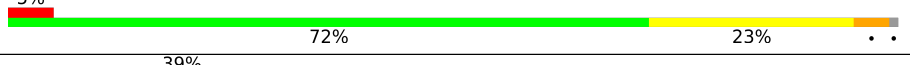
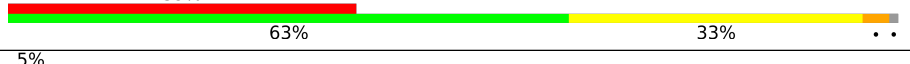
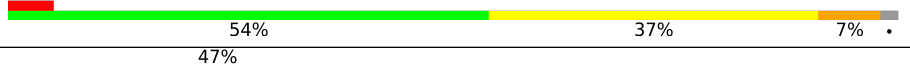

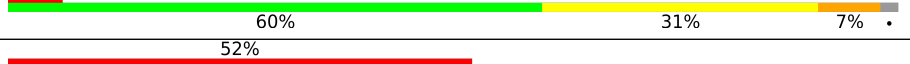


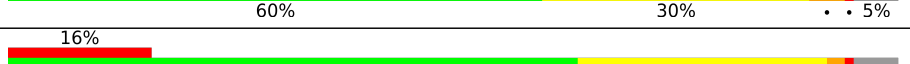

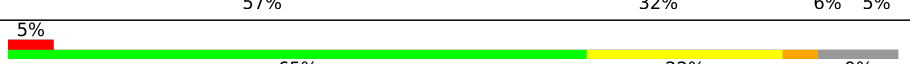
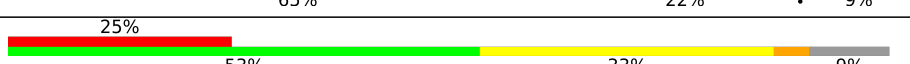


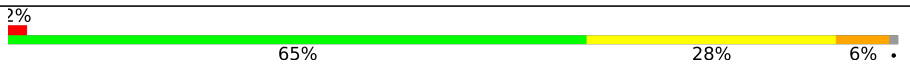
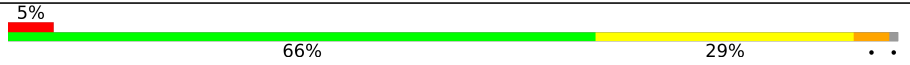


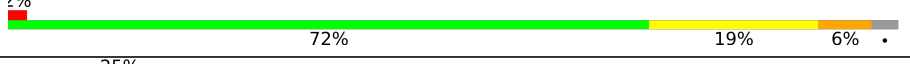
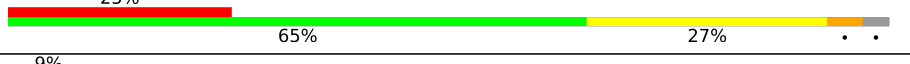


Continued on next page...

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	

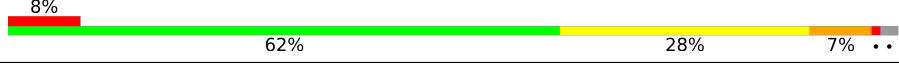

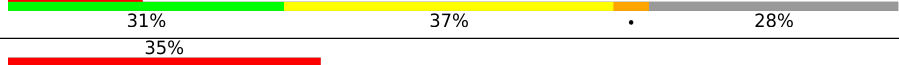
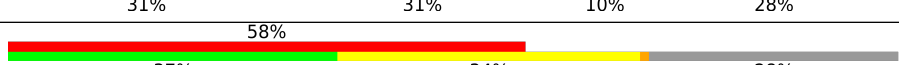
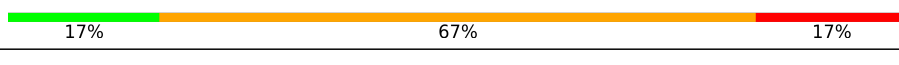
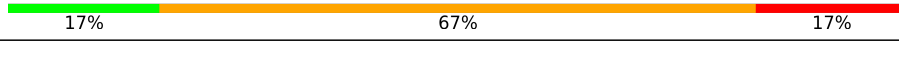

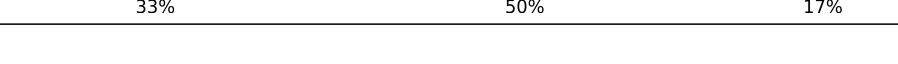

Continued on next page...

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	2529	1126	464	821	118	0	0	0
1	CB	118	2529	1126	464	821	118	0	0	0
1	EB	118	2529	1126	464	821	118	0	0	0
1	GB	118	2529	1126	464	821	118	0	0	0

- 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	2082	1288	423	364	7	0	0	0
2	CC	271	2082	1288	423	364	7	0	0	0
2	EC	271	2082	1288	423	364	7	0	0	0
2	GC	271	2082	1288	423	364	7	0	0	0

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

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

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

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

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

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

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

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

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

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

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
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
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
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
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
50	HQ	80	Total	C	N	O	S	0	0	0
			648	411	121	113	3			

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

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

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

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

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

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

- 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	AB	4	Total	Mg	0	0
			4	4		
57	AC	1	Total	Mg	0	0
			1	1		
57	AA	136	Total	Mg	0	0
			136	136		

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	AE	1	Total Mg 1 1	0	0
57	A4	1	Total Mg 1 1	0	0
57	BA	40	Total Mg 40 40	0	0
57	BE	1	Total Mg 1 1	0	0
57	BN	1	Total Mg 1 1	0	0
57	BU	1	Total Mg 1 1	0	0
57	BV	1	Total Mg 1 1	0	0
57	CB	4	Total Mg 4 4	0	0
57	CA	136	Total Mg 136 136	0	0
57	CE	1	Total Mg 1 1	0	0
57	CN	1	Total Mg 1 1	0	0
57	C4	1	Total Mg 1 1	0	0
57	DA	43	Total Mg 43 43	0	0
57	DV	1	Total Mg 1 1	0	0
57	EA	137	Total Mg 137 137	0	0
57	EB	4	Total Mg 4 4	0	0
57	ED	1	Total Mg 1 1	0	0
57	EE	1	Total Mg 1 1	0	0
57	FA	39	Total Mg 39 39	0	0
57	FE	1	Total Mg 1 1	0	0
57	FN	2	Total Mg 2 2	0	0

Continued on next page...

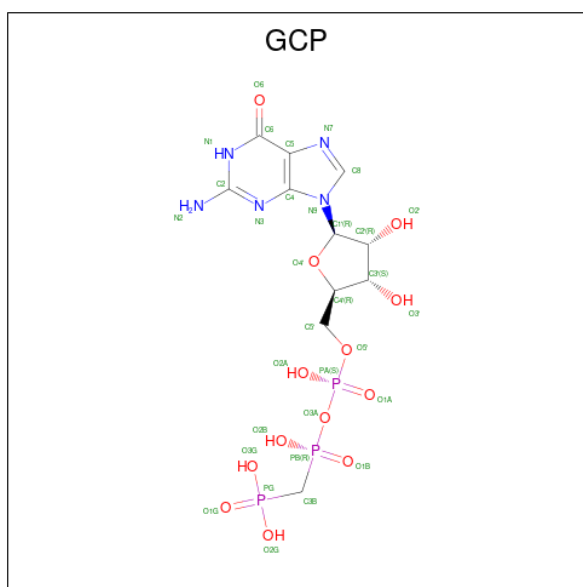
Continued from previous page...

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	FU	1	Total Mg 1 1	0	0
57	FV	1	Total Mg 1 1	0	0
57	GB	4	Total Mg 4 4	0	0
57	GA	136	Total Mg 136 136	0	0
57	GC	2	Total Mg 2 2	0	0
57	GL	1	Total Mg 1 1	0	0
57	HA	41	Total Mg 41 41	0	0
57	HE	1	Total Mg 1 1	0	0
57	HK	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	A4	1	Total Zn 1 1	0	0
58	C4	1	Total Zn 1 1	0	0
58	E4	1	Total Zn 1 1	0	0
58	G4	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...

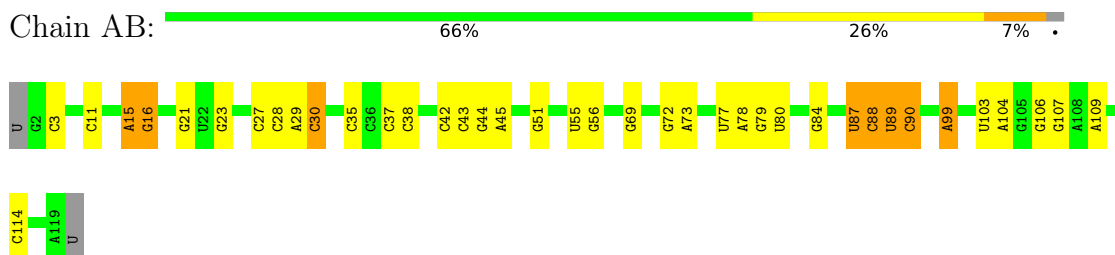
Continued from previous page...

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

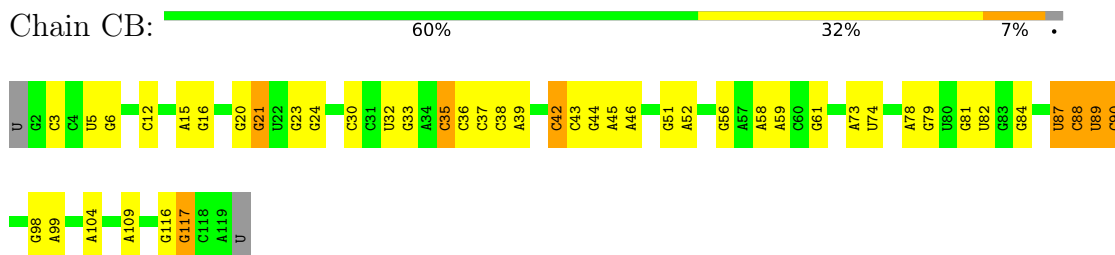
3 Residue-property plots [i](#)

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

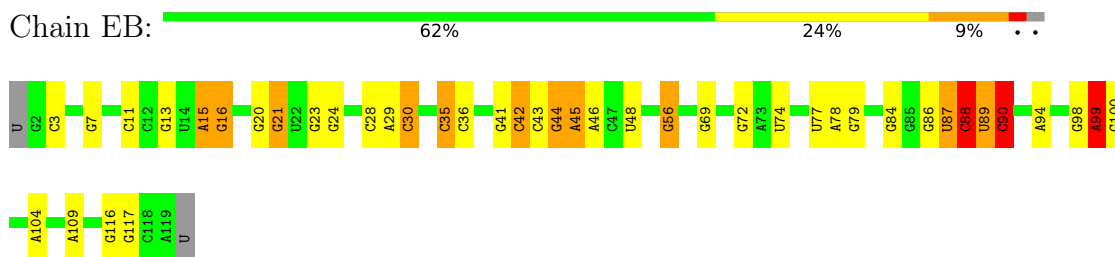
- Molecule 1: 5S rRNA



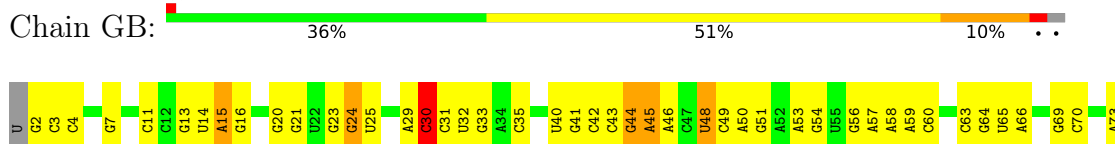
- Molecule 1: 5S rRNA

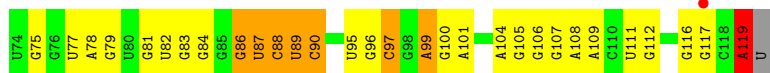


- Molecule 1: 5S rRNA



- Molecule 1: 5S rRNA

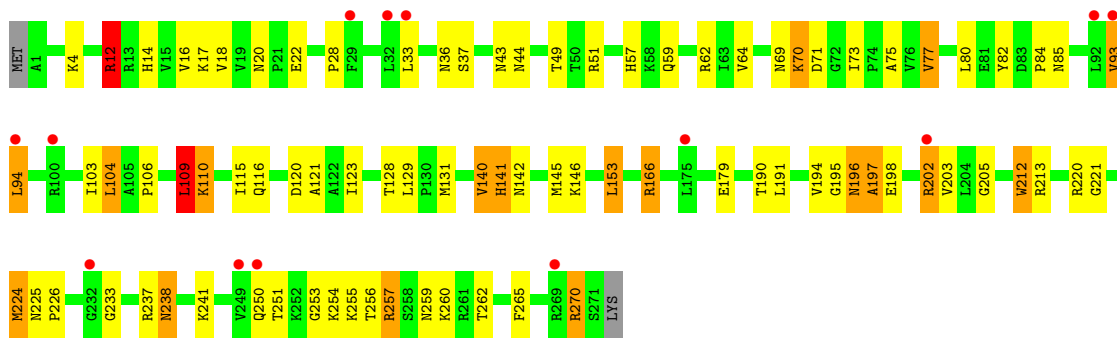




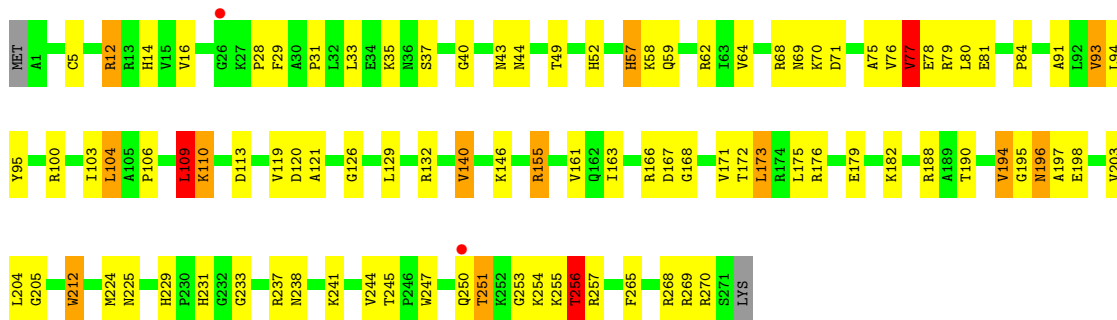
• Molecule 2: 50S ribosomal protein L2



• Molecule 2: 50S ribosomal protein L2

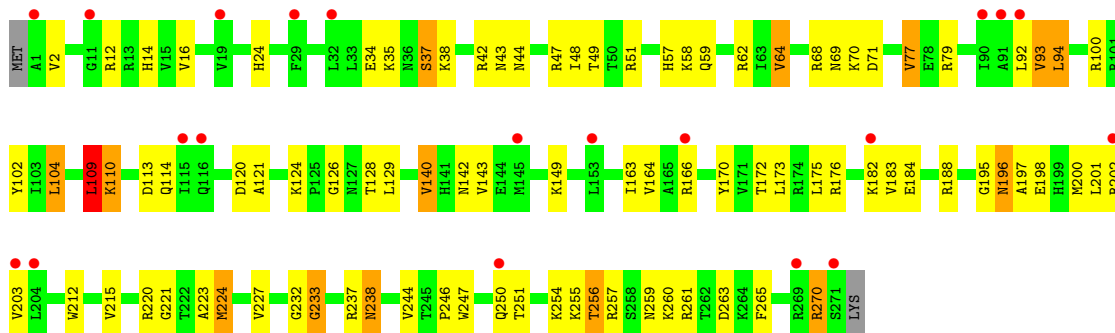


• Molecule 2: 50S ribosomal protein L2

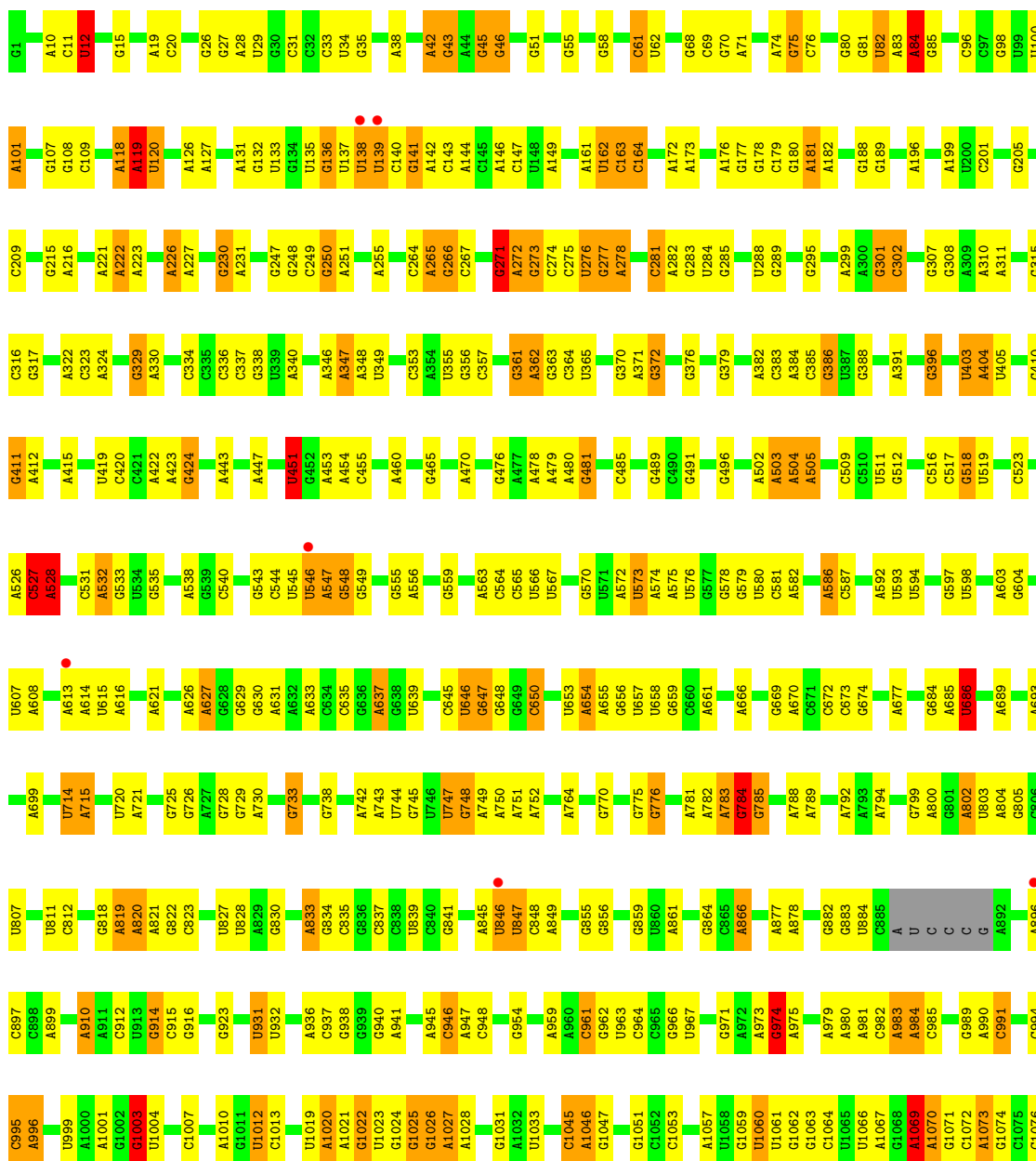


• Molecule 2: 50S ribosomal protein L2

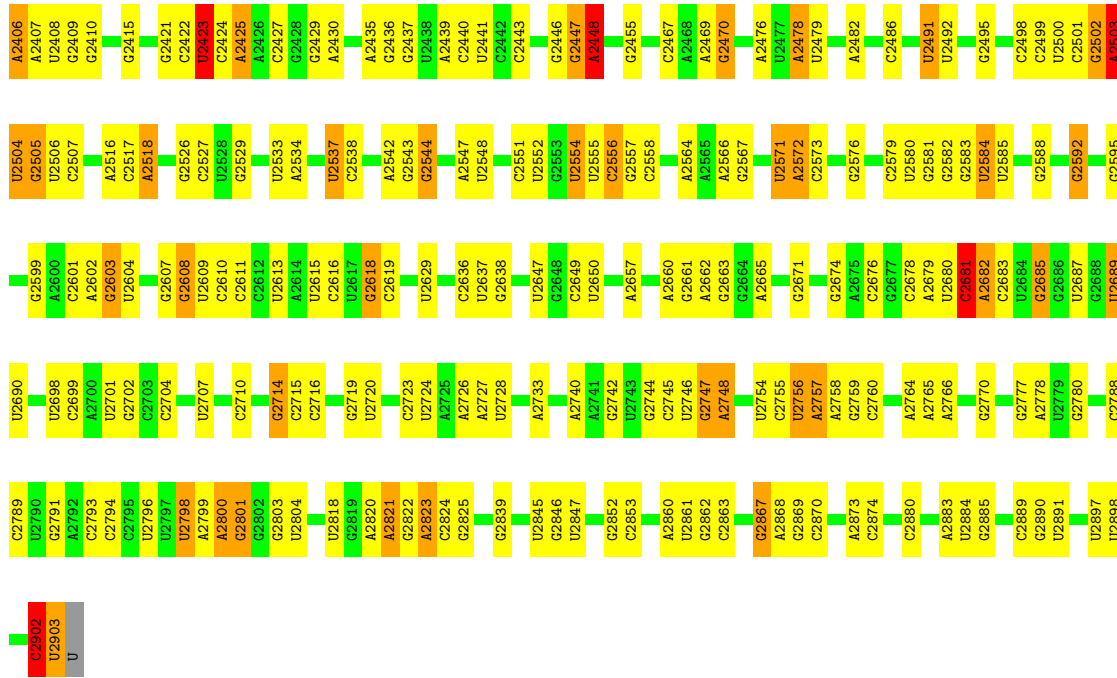




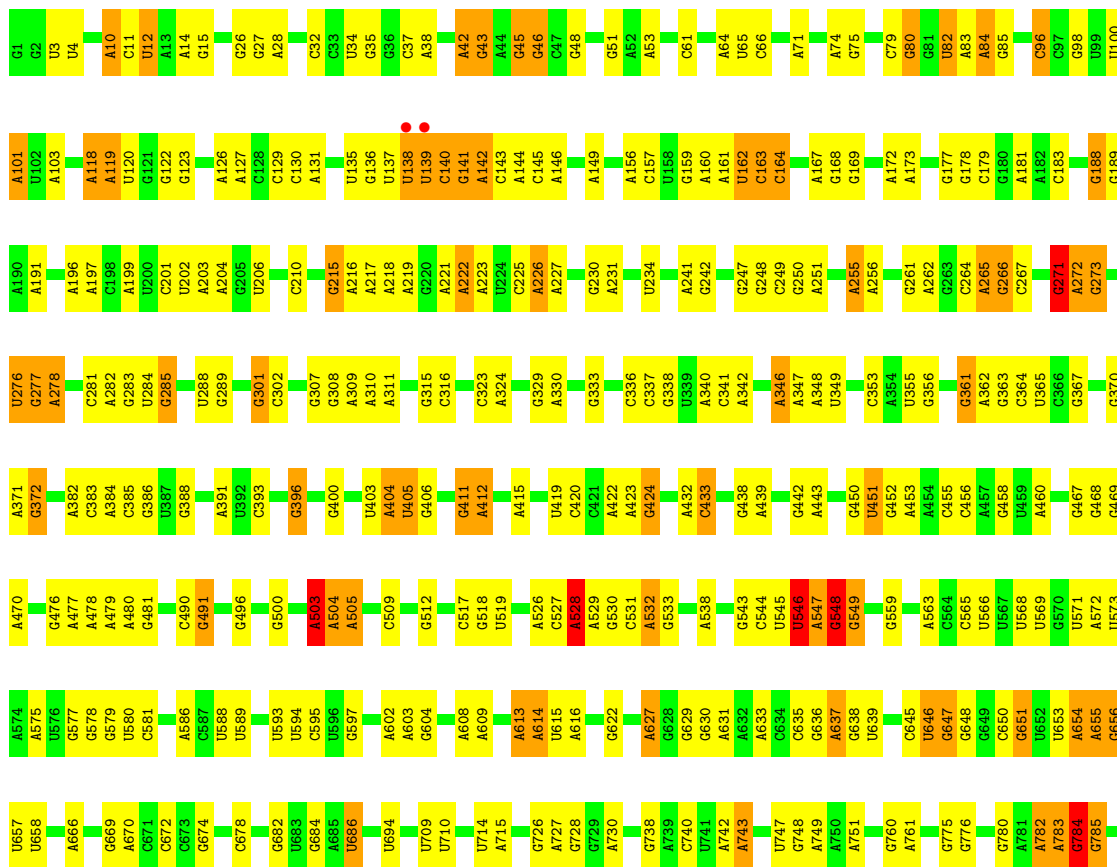
• Molecule 3: 23S rRNA



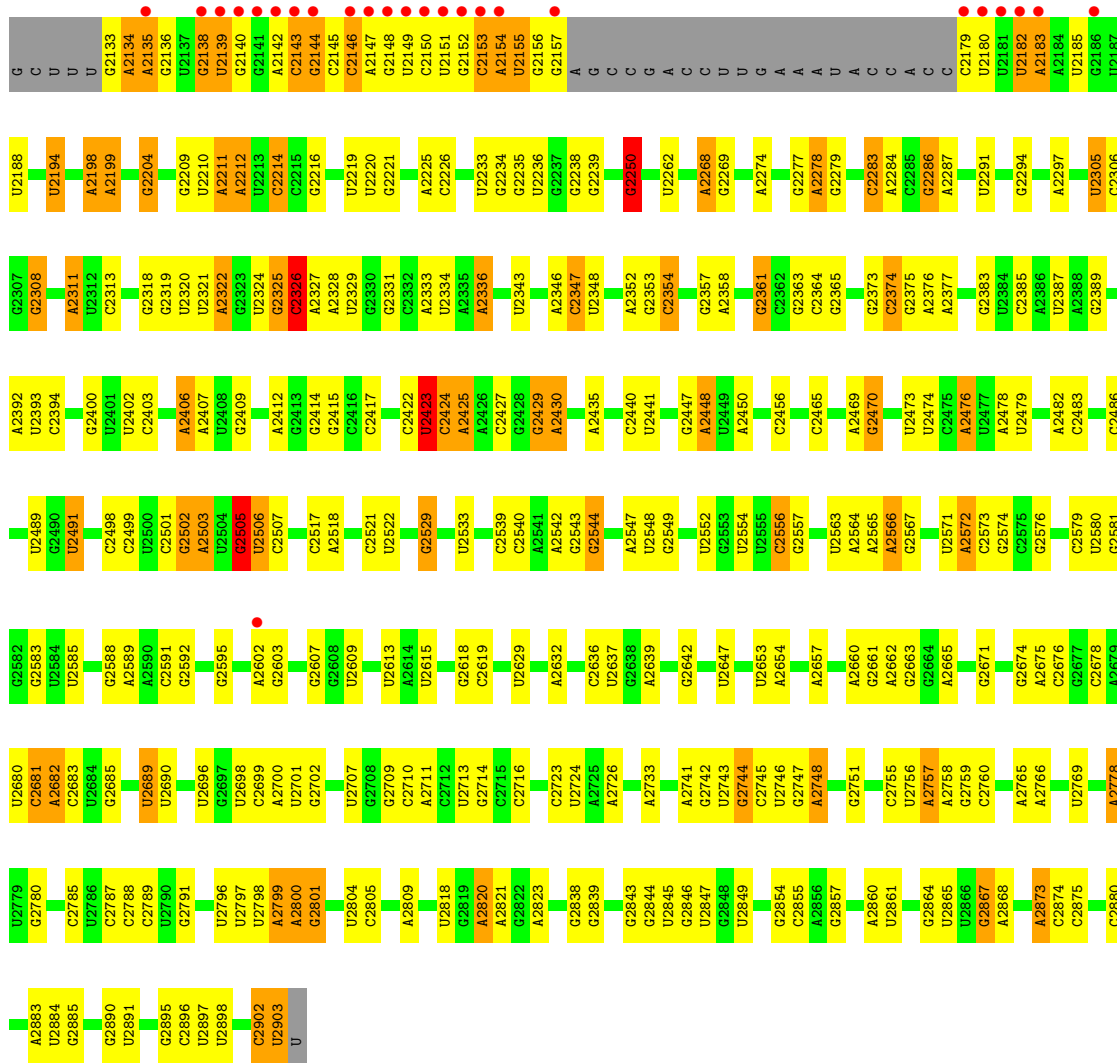
U2312	U2210	G2141	G1832	U1758	G1649	A1553	U1438	A1342	A1253	C1161	A1077
C2313	A2211	A2142	C1833	A1759	A1652	A1553	A1439	G1943	A1253	C1161	U1078
A2314	A2212	C2143	C1837	C1760	G1653	C1565	U1440	U1344	G1256	A1169	C1079
G2318	U2213	G2144	C1838	C1761	A1654	C1566	U1441	C1348	U1262	C1170	A1080
G2319	C2214	C2145	G1839	G1762	A1655	G1567	U1442	C1349	U1263	G1171	U1083
U2320	A2225	C2146	G1840	G1763	A1656	G1568	U1443	C1350	A1264	U1173	A1084
U2321	C2226	A2147	C1843	C1764	A1657	A1569	G1444	G1351	A1265	U1174	A1085
A2322	A2070	U2148	C1844	C1765	A1658	A1570	G1445	U1352	A1266	A1175	A1086
G2323	A2071	U2149	C1944	G1770	G1659	A1571	C1446	A1353	U1267	U1176	G1087
U2324	C2072	U2150	A1847	A1772	U1662	A1572	G1450	A1354	A1268	G1177	A1088
G2325	U2074	U2151	A1848	A1773	U1663	A1573	C1451	G1355	A1269	G1178	A1089
C2326	U2075	U2152	A1849	C1774	A1669	A1574	G1452	C1270	C1270	G1179	A1090
A2327	G2238	A2154	G1857	U1775	A1670	U1578	G1453	G1271	G1271	U1180	G1091
A2328	G2239	U2155	A1858	U1776	G1674	A1579	U4558	A1272	A1272	U1181	U1094
U2329	U2240	G2156	A1859	U1777	A1675	A1580	U4559	A1273	U1273	G1182	A1095
G2330	A2241	G2093	U1864	U1778	C1676	C1582	U4560	A1365	G1277	U1183	A1096
G2331	G2242	A2094	G1867	U1779	A1677	A1583	U4561	A1366	U1277	U1184	U1097
C2332	U2244	U1993	C1868	A1783	A1678	C1585	U4562	A1367	G1281	U1185	A1098
A2333	A2247	C1996	G1869	A1784	A1679	A1586	U4563	G1368	A1281	G1186	
A2335	G2250	C2103	C1870	A1785	A1680	A1587	U4564	G1371	A1284	G1187	C1102
A2336	G2251	A1998	A1871	A1786	G1681	G1588	U4565	A1379	U1284	U1188	
G2337	U2259	C2104	A1872	A1787	G1682	G1589	U4566	U1379	G1288	U1189	G1106
		U2105	G1873	A1789	G1683	A1591	U4567	C1289	C1289	G1190	G1107
		U2106	G1884	C1790	C1685	C1592	U4568	G1380	C1290	G1192	
		G2107	U2011	A1791	C1686	U1594	U4569	G1381	A1301	G1193	G1110
		U2109	A2015	C1795	C1691	A1603	U4570	G1382	A1302	G1194	A1111
		A2108	U2016	U1796	U1692	A1604	U4571	G1383	G1300	U1189	G1112
		G2109	U2017	G1797	U1693	C1605	U4572	A1384	A1301	G1191	U1113
		C2110	G2018	U1798	G1703	G1606	U4573	G1385	A1301	U1192	G1122
		U	A2019	C1800	C1704	C1607	U4574	A1386	G1309	U1199	C1123
		U	A2020	C1801	A1705	A1608	U4575	G1387	G1310	U1203	G1124
		U	C2021	A1802	G1714	A1609	U4576	A1392	G1311	U1204	G1125
		U	C2022	A1803	G1715	A1610	U4577	A1393	U1312	A1204	
		U	G2023	C1804	G1716	C1611	U4578	U1394	U1313	A1205	A1129
		U	C2024	C1805	A1722	C1612	U4579	A1395	C1314	G1206	U1130
		U	G2025	A1806	A1723	G1613	U4580	U1396	C1315	C1207	U1131
		U	A2030	C1807	G1723	A1614	U4581	C1398	G1316	U1219	U1132
		U	A2031	A1808	U1729	C1615	U4582	A1403	G1317	U1219	A1134
		U	G2032	A1809	G1730	A1616	U4583	A1404	A1322	G1223	C1135
		U	A2033	A1810	G1731	C1617	U4584	C1404	C1323	U1224	G1136
		U	U1939	G1811	G1732	A1618	U4585	C1323	C1323	C1229	G1139
		U	U1940	U1812	U1733	A1619	U4586	C1324	G1324	C1229	G1139
		U	C1942	G1813	G1734	G1622	U4587	U1414	G1324	C1229	G1139
		U	U1943	G1814	A1739	U1623	U4588	U1415	A1327	C1140	C1140
		U	G2040	A1815	A1739	A1626	U4589	G1416	A1327	U1141	U1141
		U	U1945	C1816	A1744	G1627	U4590	C1417	A1328	G1232	G1232
		U	U1946	G1817	A1744	G1627	U4591	G1418	U1329	C1233	A1142
		U	G2043	U1818	A1744	G1627	U4592	A1419	C1330	C1238	C1150
		U	U1950	A1819	U1747	C1638	U4593	A1420	G1331	G1239	A1151
		U	G1950	U1820	G1748	C1639	U4594	A1420	G1332	U1240	C1152
		U	U1955	G1824	A1749	G1643	U4595	C1429	A1332	C1153	C1153
		U	C2053	G1828	G1750	G1644	U4596	G1429	A1337	A1247	G1154
		U	A2054	C1957	G1753	G1645	U4597	G1430	G1337	G1248	A1155
		U	C2055	G1958	A1754	C1646	U4598	G1431	G1338	U1249	A1156
		U	G2056	G1959	A1754	C1646	U4599	G1432	G1339	G1250	A1157
		U	G2057	A1960	A1757	U1648	U4600	G1433	U1340	G1251	G1160
		U	G2133	G2133	U1747	C1638	U4601	A1419	G1341	G1252	
		U	G2048	G2048	G1748	C1639	U4602	A1420	G1341	G1252	
		U	G2048	G2048	A1749	G1643	U4603	C1429	G1341	G1252	
		U	G2053	G2053	G1750	G1644	U4604	G1429	G1341	G1252	
		U	A2054	A2054	G1753	G1645	U4605	G1430	G1341	G1252	
		U	U2137	U2137	A1754	C1646	U4606	G1431	G1341	G1252	
		U	G2056	G2056	A1754	C1646	U4607	G1432	G1341	G1252	
		U	G2057	G2057	A1757	U1648	U4608	G1433	G1341	G1252	
		U	G2140	G2140	A1757	U1648	U4609	G1434	G1341	G1252	
		U	G2133	G2133	U1747	C1638	U4610	A1419	G1341	G1252	
		U	G2048	G2048	G1748	C1639	U4611	A1420	G1341	G1252	
		U	G2048	G2048	A1749	G1643	U4612	C1429	G1341	G1252	
		U	G2053	G2053	G1750	G1644	U4613	G1429	G1341	G1252	
		U	A2054	A2054	G1753	G1645	U4614	G1430	G1341	G1252	
		U	U2137	U2137	A1754	C1646	U4615	G1431	G1341	G1252	
		U	G2056	G2056	A1754	C1646	U4616	G1432	G1341	G1252	
		U	G2057	G2057	A1757	U1648	U4617	G1433	G1341	G1252	
		U	G2140	G2140	A1757	U1648	U4618	G1434	G1341	G1252	
		U	G2133	G2133	U1747	C1638	U4619	A1419	G1341	G1252	
		U	G2048	G2048	G1748	C1639	U4620	A1420	G1341	G1252	
		U	G2048	G2048	A1749	G1643	U4621	C1429	G1341	G1252	
		U	G2053	G2053	G1750	G1644	U4622	G1429	G1341	G1252	
		U	A2054	A2054	G1753	G1645	U4623	G1430	G1341	G1252	
		U	U2137	U2137	A1754	C1646	U4624	G1431	G1341	G1252	
		U	G2056	G2056	A1754	C1646	U4625	G1432	G1341	G1252	
		U	G2057	G2057	A1757	U1648	U4626	G1433	G1341	G1252	
		U	G2140	G2140	A1757	U1648	U4627	G1434	G1341	G1252	
		U	G2133	G2133	U1747	C1638	U4628	A1419	G1341	G1252	
		U	G2048	G2048	G1748	C1639	U4629	A1420	G1341	G1252	
		U	G2048	G2048	A1749	G1643	U4630	C1429	G1341	G1252	
		U	G2053	G2053	G1750	G1644	U4631	G1429	G1341	G1252	
		U	A2054	A2054	G1753	G1645	U4632	G1430	G1341	G1252	
		U	U2137	U2137	A1754	C1646	U4633	G1431	G1341	G1252	
		U	G2056	G2056	A1754	C1646	U4634	G1432	G1341	G1252	
		U	G2057	G2057	A1757	U1648	U4635	G1433	G1341	G1252	
		U	G2140	G2140	A1757	U1648	U4636	G1434	G1341	G1252	
		U	G2133	G2133	U1747	C1638	U4637	A1419	G1341	G1252	
		U	G2048	G2048	G1748	C1639	U4638	A1420	G1341	G1252	
		U	G2048	G2048	A1749	G1643	U4639	C1429	G1341	G1252	
		U	G2053	G2053	G1750	G1644	U4640	G1429	G1341	G1252	
		U	A2054	A2054	G1753	G1645	U4641	G1430	G1341	G1252	
		U	U2137	U2137	A1754	C1646	U4642	G1431	G1341	G1252	
		U	G2056	G2056	A1754	C1646	U4643	G1432	G1341	G1252	
		U	G2057	G2057	A1757	U1648	U4644	G1433	G1341	G1252	
		U	G2140	G2140	A1757	U1648	U4645	G1434	G1341	G1252	
		U	G2133	G2133	U1747	C1638	U4646	A1419	G1341	G1252	
		U	G2048	G2048	G1748	C1639	U4647	A1420	G1341	G1252	
		U	G2048	G2048	A1749	G1643	U4648	C1429	G1341	G1252	
		U	G2053	G2053	G1750	G1644	U4649	G1429	G1341	G1252	
		U	A2054	A2054	G1753	G1645	U4650	G1430	G1341	G1252	
		U	U2137	U2137	A1754	C1646	U4651	G1431	G1341	G1252	
		U	G2056	G2056	A1754	C1646	U4652	G1432	G1341	G1252	
		U	G2057	G2057	A1757	U1648	U4653	G1433	G1341	G1252	
		U	G2140	G2140	A1757	U1648	U4654	G1434	G1341	G1252	
		U	G2133	G2133	U1747	C1638	U4655	A1419	G1341	G1252	
		U	G2048	G2048	G1748	C1639	U4656	A1420	G1341	G1252	
		U	G2048	G2048	A1749	G1643	U4657	C1429	G1341	G1252	
		U	G2053	G2053	G1750	G1644	U4658	G1429	G1341	G1252	
		U	A2054	A2054	G1753	G1645	U4659	G1430	G1341	G1252	
		U	U2137	U2137	A1754	C1646	U4660	G1431	G1341	G1252	
		U	G2056	G2056	A1754	C1646	U4661	G1432	G1341	G1252	
		U	G2057	G2057	A1757	U1648	U4662	G1433	G1341	G1252	
		U	G2140	G2140	A1757	U1648	U4663	G1434	G1341	G1252	
		U	G2133	G2133	U1747	C1638	U4664	A1419	G1341	G1252	
		U</									



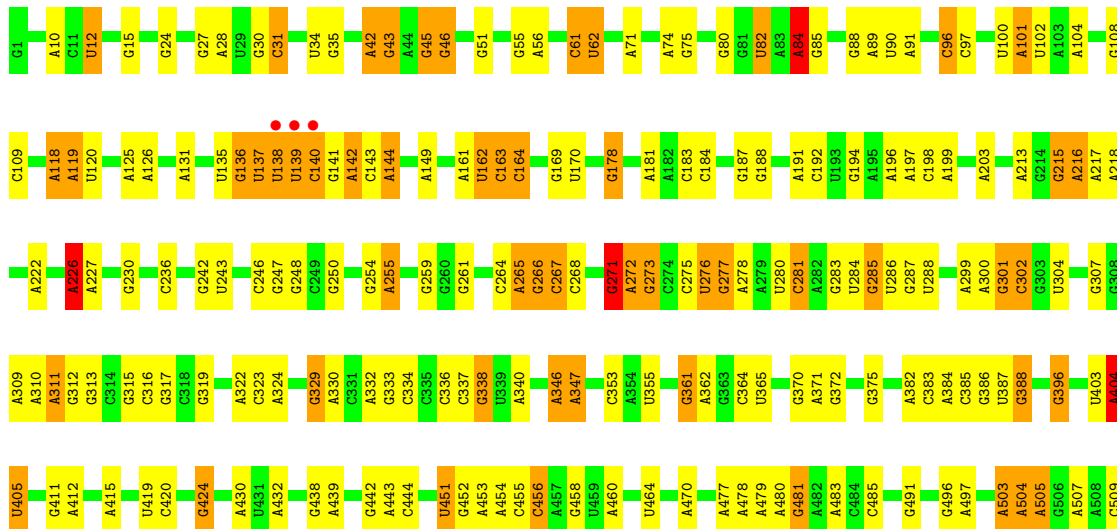
• Molecule 3: 23S rRNA

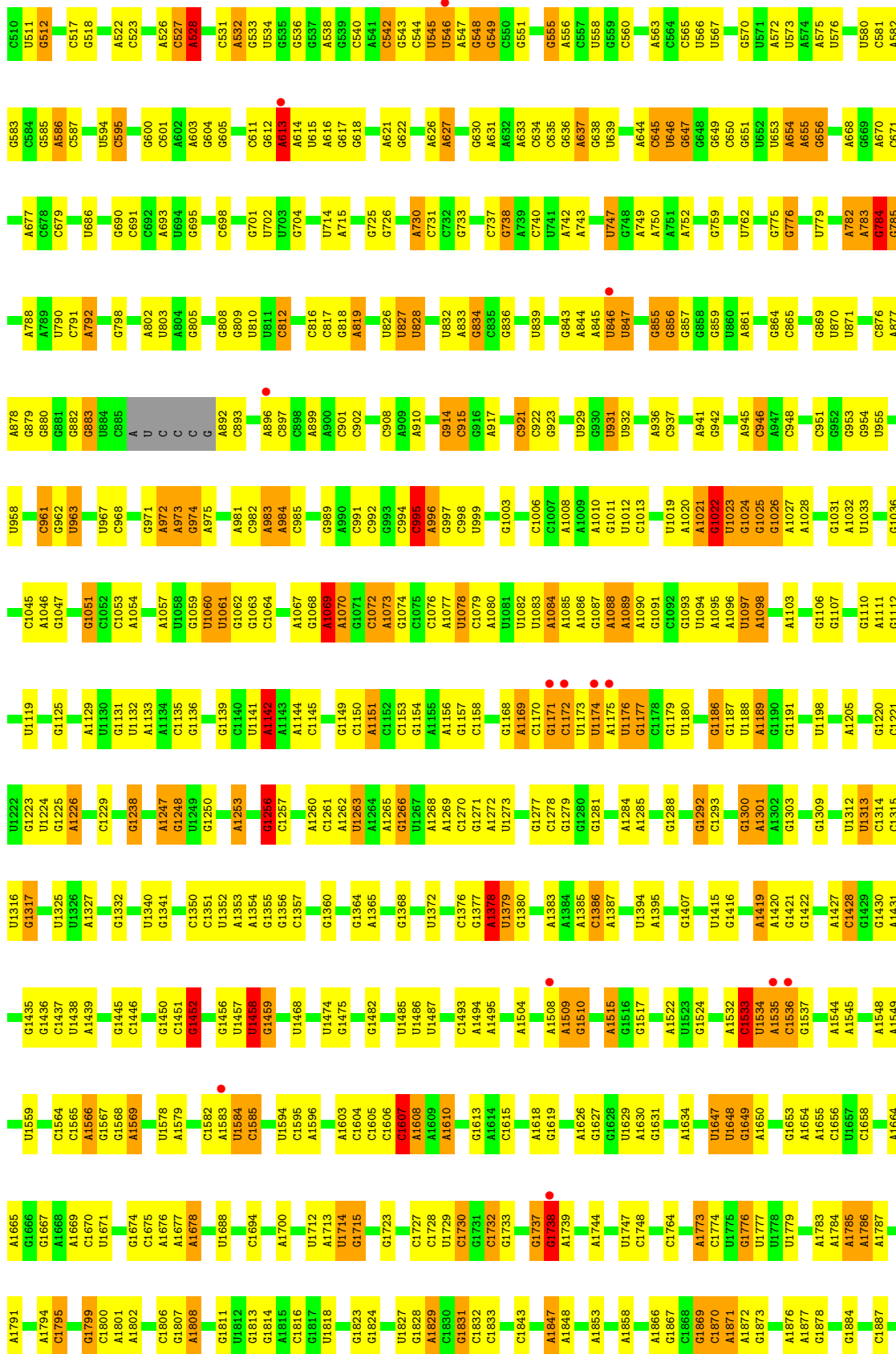


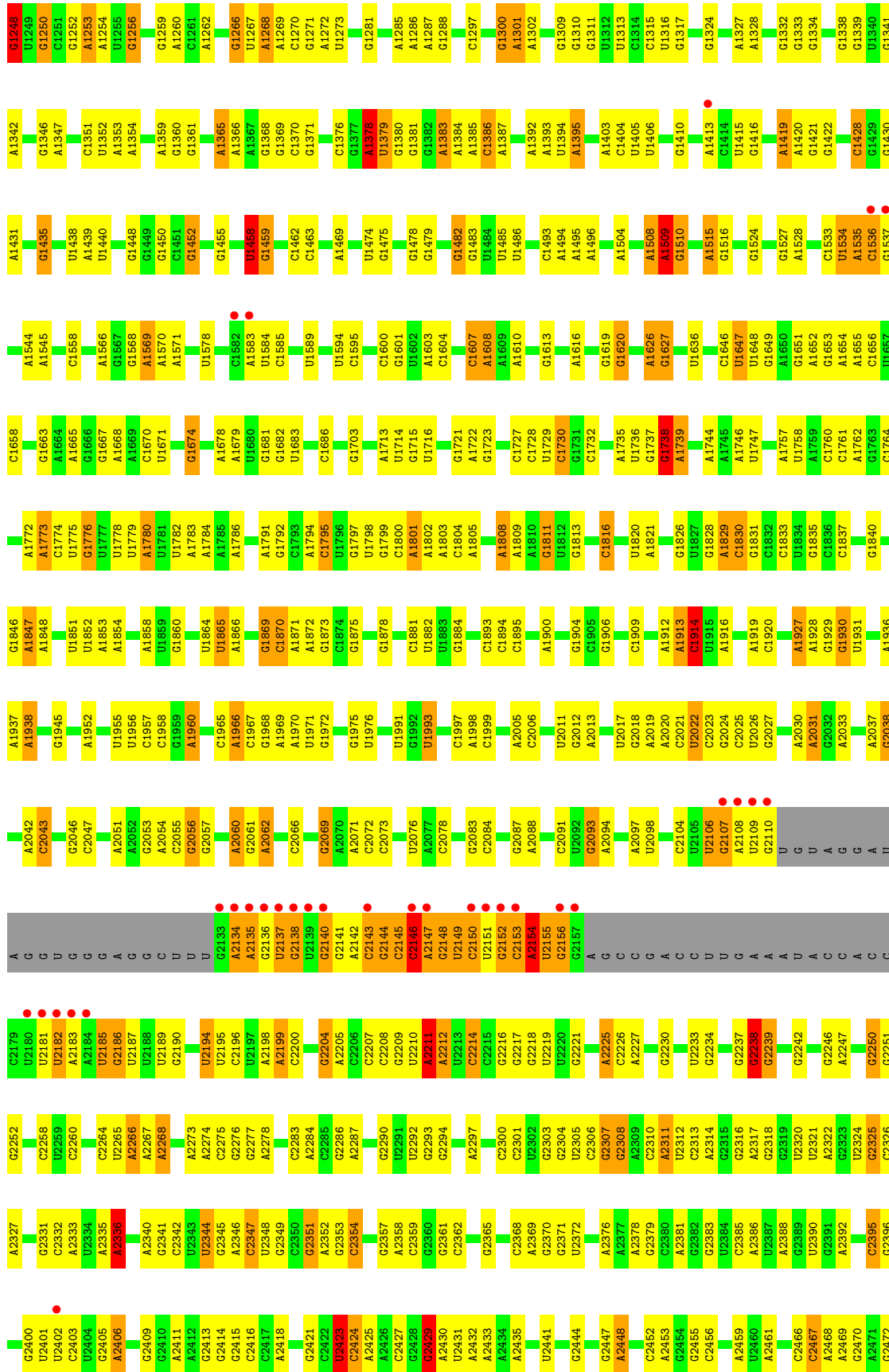
C2043	A1960	C1837	U1629	U1513	U1405	G1309	G1220	G1128	A1050	G956	G880	A788
A2051	U1963	G1838	C1638	G1514	U1406	U1313	C1221	A1129	G1051	A959	G881	A789
A2052	G1839	G1839	A1641	A1515	G1410	C1314	U1224	G1130	C1052	A960	G882	U790
A2053	U1966	U1840	G1642	G1524	C1414	C1315	U1225	U1132	A1054	C961	G883	C791
C2055	G1967	G1841	A1641	U1524	U1415	U1316	G1225	A1133	A1054	G962	U884	A792
G2056	G1968	G1842	U1647	C1533	U1416	G1317	A1230	A1134	A1057	U963	C885	A793
A1969	A1970	A1759	U1648	U1534	C1417	U1318	U1231	G1135	U1058	C964	A	A794
U1971	U1971	C1760	G1649	A1535	A1418	A1322	G1238	G1139	G1059	C965	U	C796
A2061	G1972	C1761	A1649	U1536	A1419	A1322	G1239	C1140	U1060	C	A800	G801
A2062	G1973	A1762	A1652	C1536	A1420	A1322	G1239	A972	U1061	C	A802	A802
C2063	C1974	G1763	G1653	G1537	G1421	U1326	U1242	A892	G1062	C	U803	U803
C2064	G1975	C1764	A1654	A1548	G1428	A1327	U1243	A1142	G1063	C	A804	A804
C2065	U1976	A1655	A1655	A1549	C1428	A1327	C1243	A1143	A1067	C	U805	U805
A2070	U1977	C1658	C1658	A1553	G1435	U1329	U1244	A1144	G1068	C	U806	U806
A2071	A1978	A1664	A1664	U1563	A1439	G1331	A1246	C1145	A1069	C	U807	U807
C2072	G1983	U1668	A1668	C1564	A1439	G1332	G1248	G1149	A1070	C	G808	G808
U2079	G1989	A1669	A1669	U1566	G1444	A1342	U1249	C1150	G1071	C	G809	G809
A2080	C1990	U1781	U1669	A1566	G1445	G1343	G1250	C1152	A1073	C	U810	U810
U2081	U1991	U1782	A1673	G1567	C1446	U1344	C1251	G1153	G1074	C	U811	U811
C2091	U1993	A1784	G1674	U1569	G1447	U1352	G1252	A1154	C1075	C	C812	C812
U2092	C1997	A1785	C1675	A1570	G1448	U1352	A1253	A1155	C1076	C	U813	U813
G2093	A1998	A1786	C1675	A1570	G1449	G1360	G1256	G1168	A1077	C	C816	C816
A2094	C1999	A1787	A1677	U1573	C1450	G1361	A1266	A1169	U1078	C	A819	A819
C2095	C2000	U1789	G1681	U1578	C1451	C1362	A1267	A1170	C1079	C	A820	A820
C2096	G2006	A1791	U1684	A1579	G1452	C1363	G1269	G1171	A1080	C	U821	U821
A2097	G2010	U1794	C1685	U1588	U1459	G1364	U1266	U1173	U1083	C	C823	C823
A2101	U2011	C1795	U1707	U1588	A1469	G1369	U1267	U1174	A1085	C	U824	U824
G2102	G2012	U1915	C1708	U1588	A1469	G1369	A1268	A1175	A1086	C	U827	U827
U2105	A2015	U1916	U1713	U1593	U1476	C1370	G1270	U1176	G1087	C	U828	U828
U2106	U2016	G1929	U1715	C1595	U1476	G1371	A1271	C1178	A1089	C	A833	A833
G2107	G2018	U1930	A1722	U1603	U1479	U1372	U1272	G1179	A1090	C	G834	G834
A2109	A2020	U1931	G1723	C1605	G1482	A1373	U1273	U1180	C1091	C	U835	U835
G2110	C2021	A1932	C1726	C1606	G1483	A1378	G1277	U1181	G1092	C	A845	A845
U	U2022	A1937	C1727	C1607	U1484	U1379	A1277	U1182	G1093	C	U846	U846
G	C2023	A1810	U1728	C1608	U1485	G1380	G1280	U1184	U1096	C	U847	U847
U	G2024	U1811	U1729	C1609	U1486	G1381	A1285	G1187	A1097	C	G855	G855
A	C2025	U1812	C1730	A1609	U1487	G1382	A1286	U1188	C1102	C	U856	U856
U	A2030	G1813	G1731	A1610	U1492	A1383	A1287	A1189	A1103	C	A941	A941
U	G2031	C1816	C1732	G1613	C1498	G1384	C1289	G1195	G1106	C	G942	G942
A	G2032	G1817	G1734	A1616	C1498	A1385	G1291	C1196	G1107	C	A945	A945
G	U2033	U1818	U1734	A1616	C1504	A1393	C1292	U1203	G1110	C	A946	A946
U	U2034	A1819	G1737	A1618	A1505	U1394	C1293	G1207	G1111	C	A947	A947
U	G2035	A1829	U1738	A1618	U1506	A1395	A1296	U1208	G1112	C	U871	U871
C	C2036	G1830	A1739	A1626	U1507	U1396	C1297	C1044	C1044	C	G874	G874
G	A2037	G1831	A1744	G1627	A1508	U1397	G1300	G952	G1124	C	G874	G874
G	U2039	C1832	A1745	G1628	A1509	U1397	A1301	G953	G1125	C	A878	A878
A		C1833			A1510	A1403		U955	A1126	C	A878	A878
C						C1404		U955	A1127	C	G879	G879

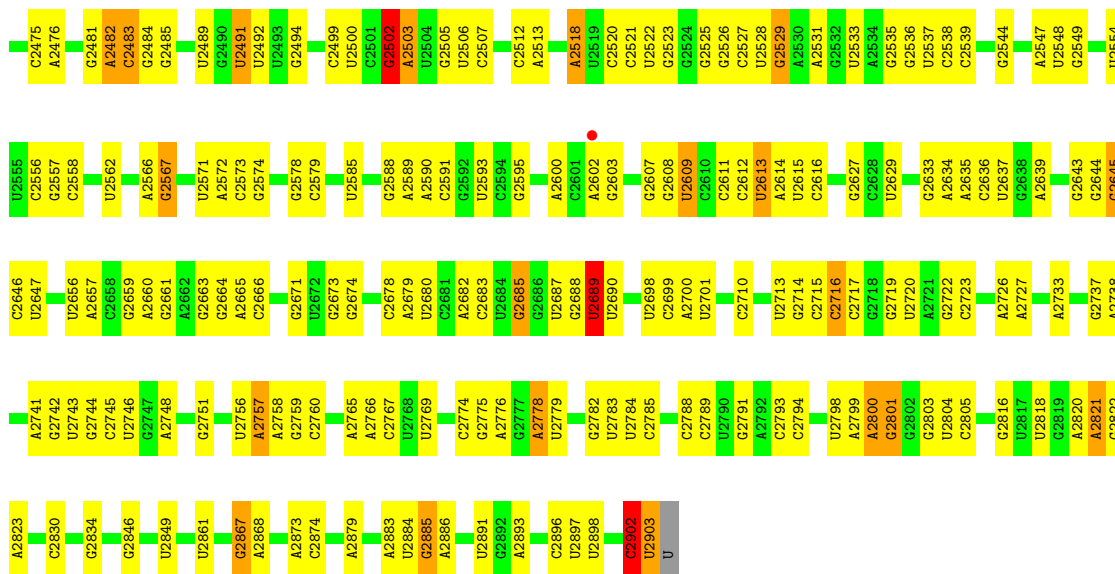


• Molecule 3: 23S rRNA

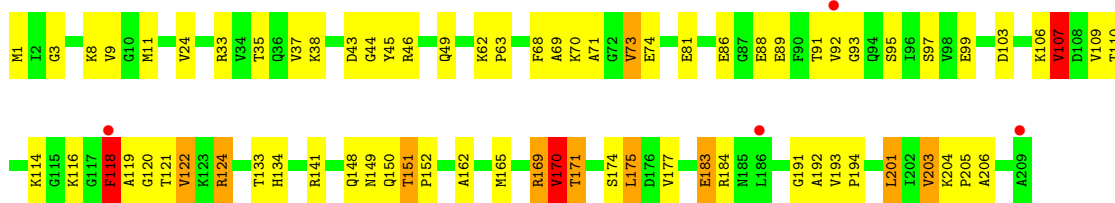




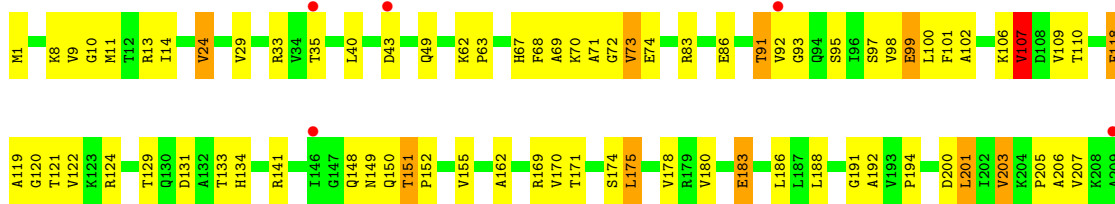




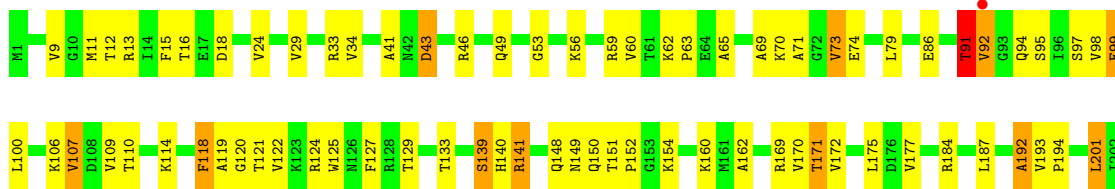
• Molecule 4: 50S ribosomal protein L3

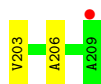


• Molecule 4: 50S ribosomal protein L3

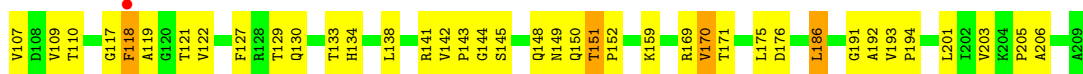


• Molecule 4: 50S ribosomal protein L3





- Molecule 4: 50S ribosomal protein L3



- Molecule 5: 50S ribosomal protein L4



- Molecule 5: 50S ribosomal protein L4

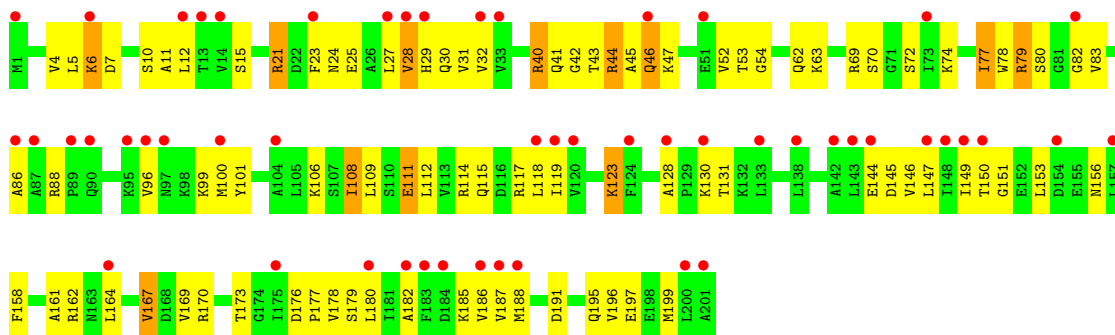


- Molecule 5: 50S ribosomal protein L4

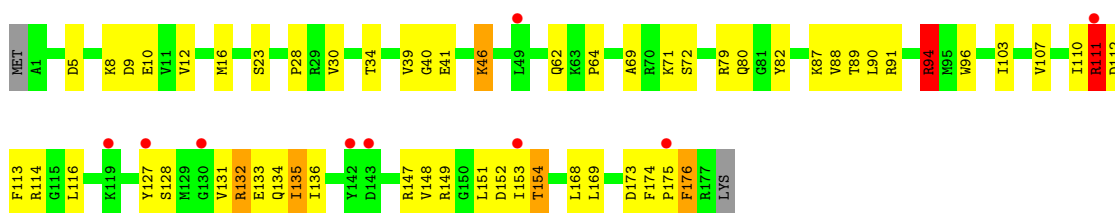


- Molecule 5: 50S ribosomal protein L4

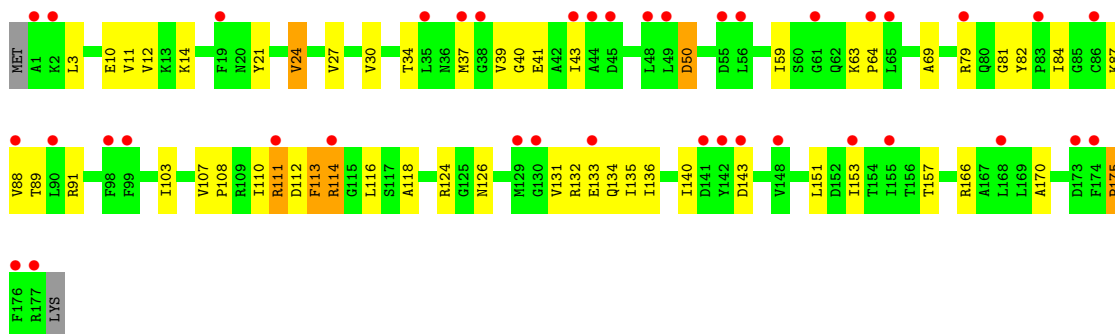
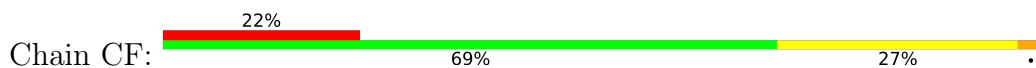




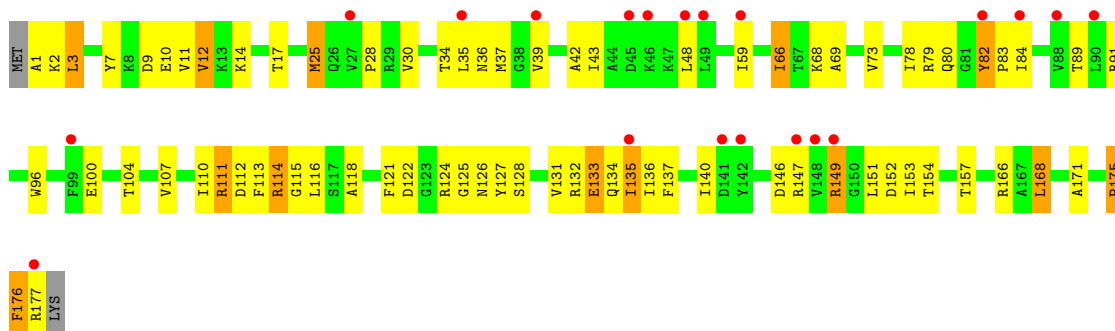
- Molecule 6: 50S ribosomal protein L5



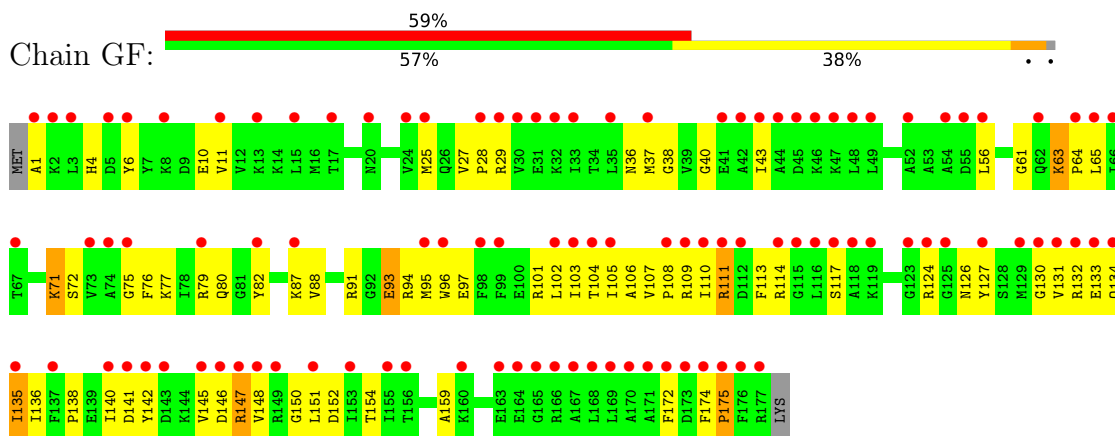
- Molecule 6: 50S ribosomal protein L5



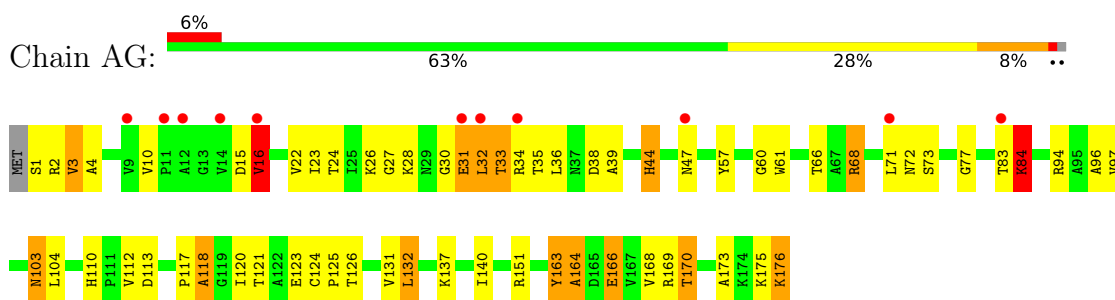
- Molecule 6: 50S ribosomal protein L5



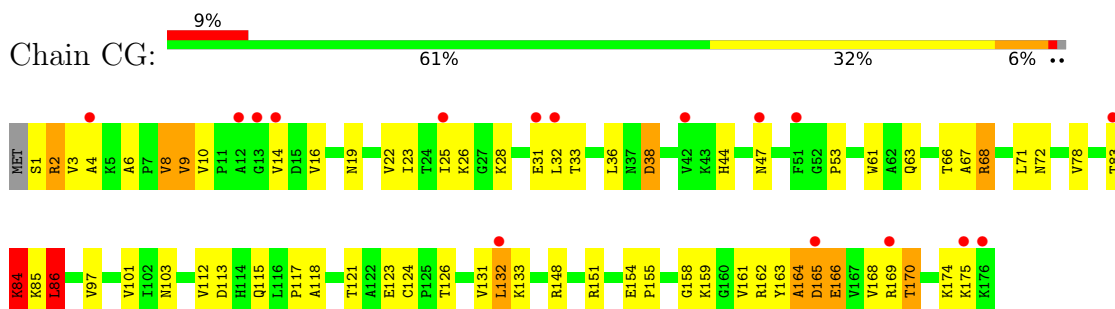
- Molecule 6: 50S ribosomal protein L5



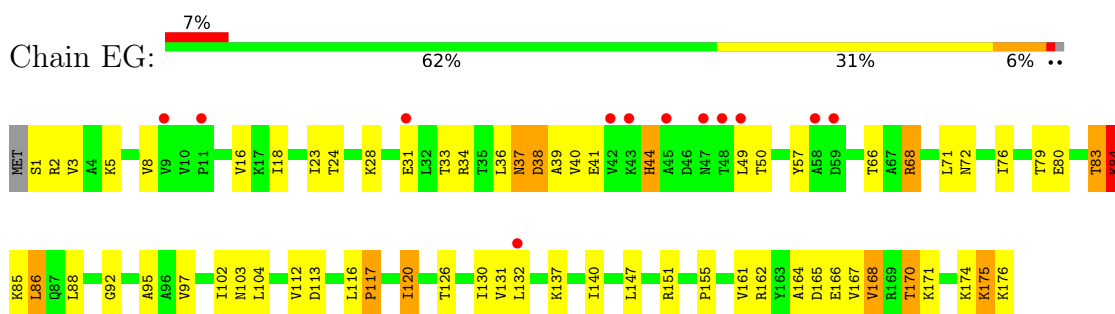
- Molecule 7: 50S ribosomal protein L6



- Molecule 7: 50S ribosomal protein L6

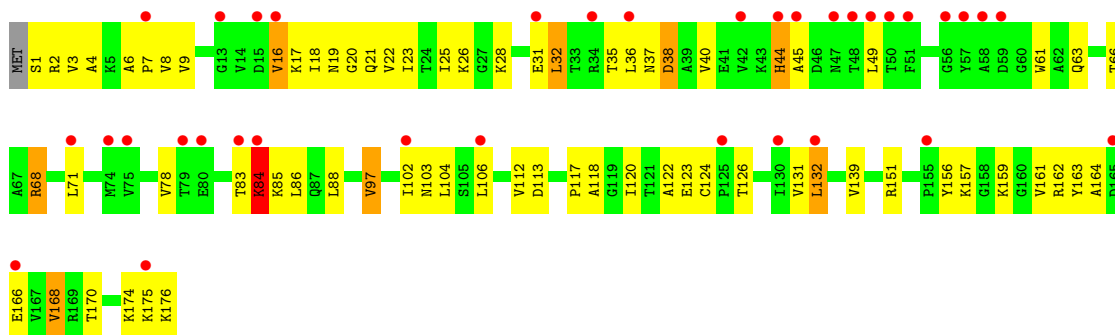


- Molecule 7: 50S ribosomal protein L6



- Molecule 7: 50S ribosomal protein L6

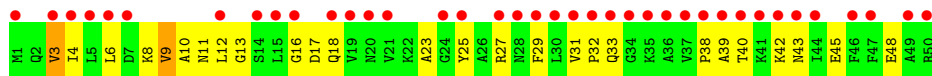
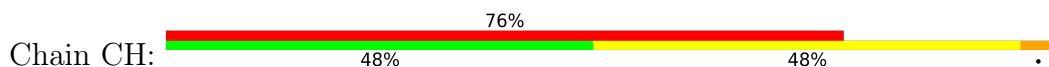




• Molecule 8: 50S ribosomal protein L9



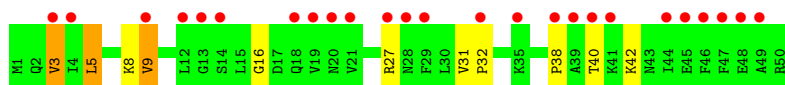
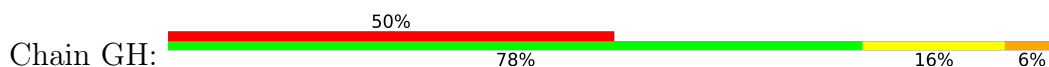
• Molecule 8: 50S ribosomal protein L9



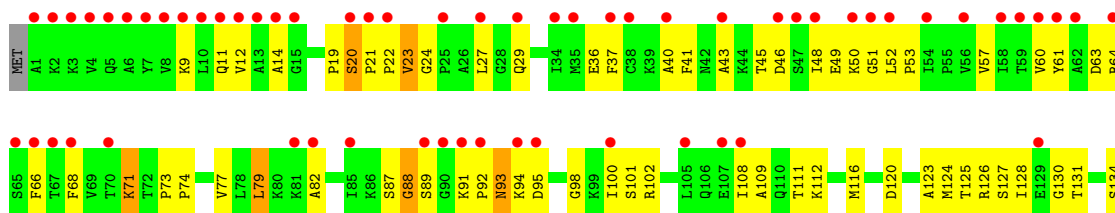
• Molecule 8: 50S ribosomal protein L9

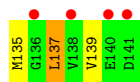


• Molecule 8: 50S ribosomal protein L9



• Molecule 9: 50S ribosomal protein L11

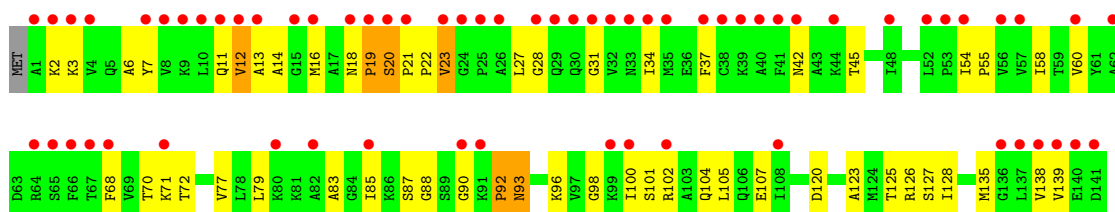




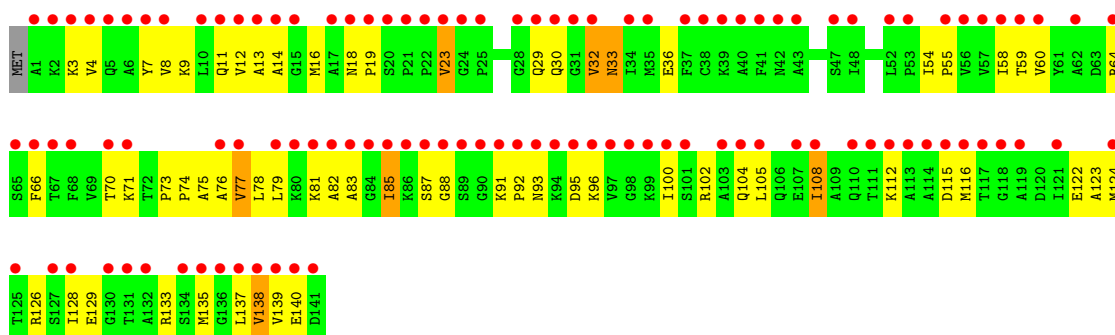
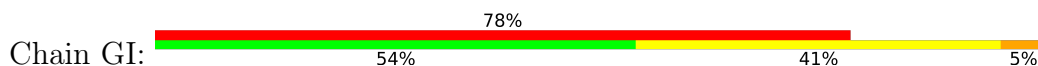
• Molecule 9: 50S ribosomal protein L11



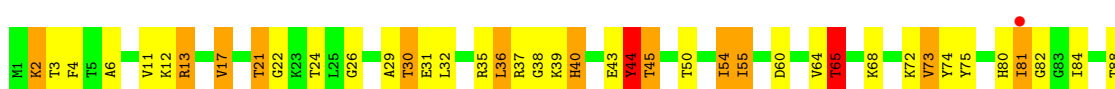
• Molecule 9: 50S ribosomal protein L11



• Molecule 9: 50S ribosomal protein L11



• Molecule 10: 50S ribosomal protein L13

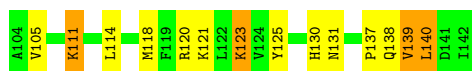
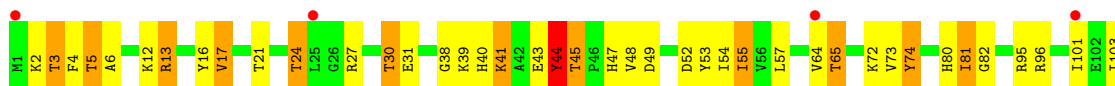




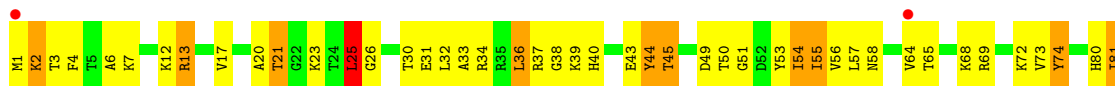
- Molecule 10: 50S ribosomal protein L13



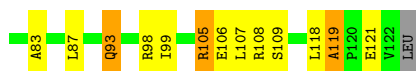
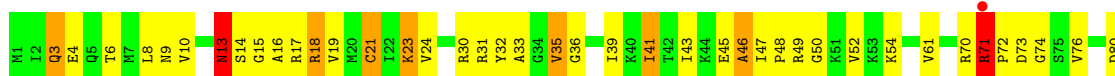
- Molecule 10: 50S ribosomal protein L13



- Molecule 10: 50S ribosomal protein L13

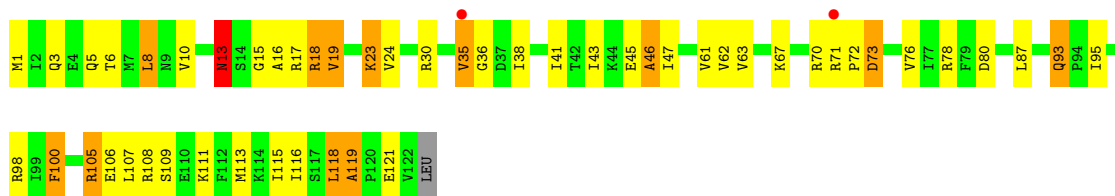


- Molecule 11: 50S ribosomal protein L14

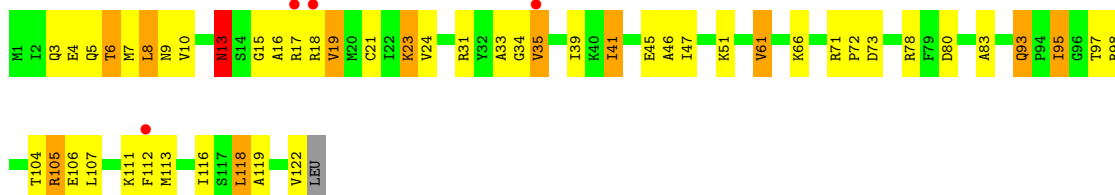


- Molecule 11: 50S ribosomal protein L14

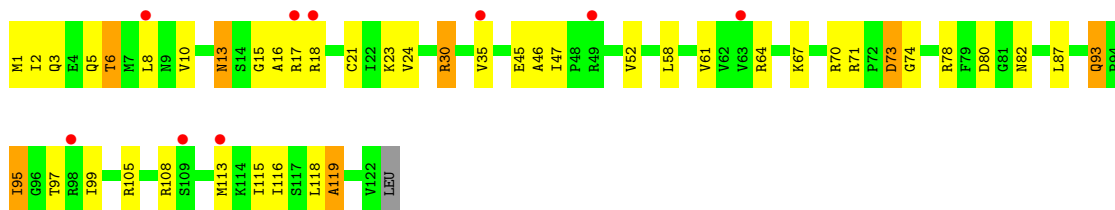




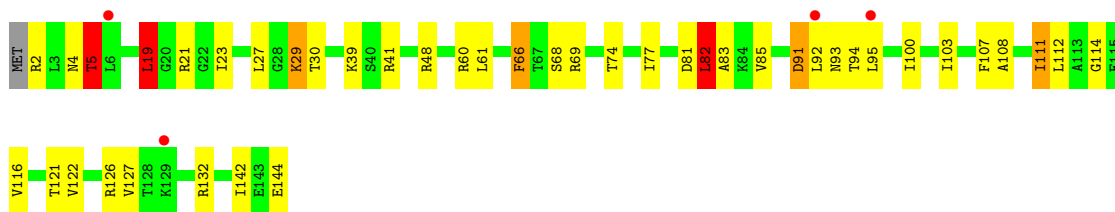
- Molecule 11: 50S ribosomal protein L14



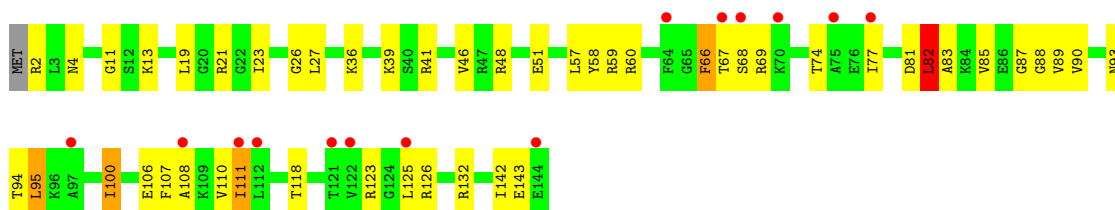
- Molecule 11: 50S ribosomal protein L14



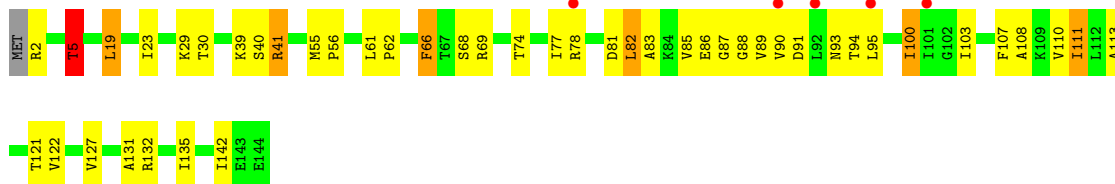
- Molecule 12: 50S ribosomal protein L15



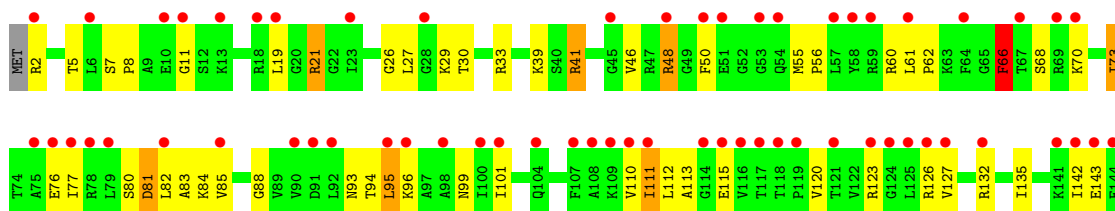
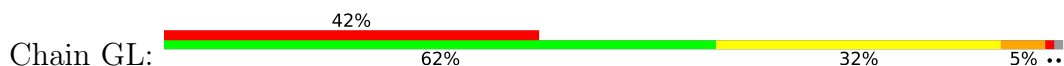
- Molecule 12: 50S ribosomal protein L15



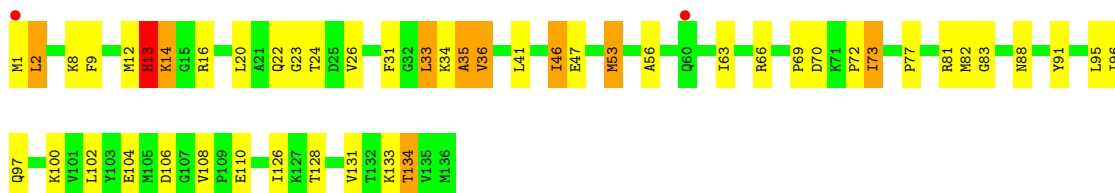
- Molecule 12: 50S ribosomal protein L15



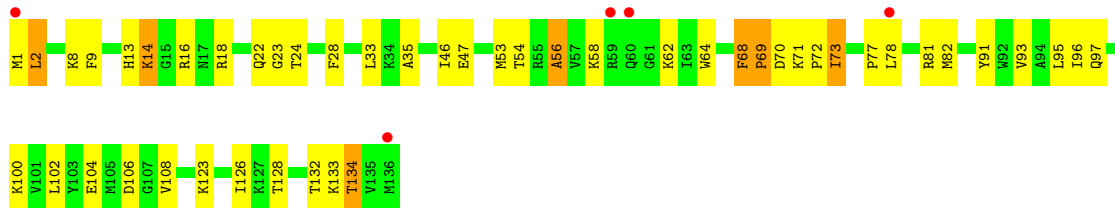
- Molecule 12: 50S ribosomal protein L15



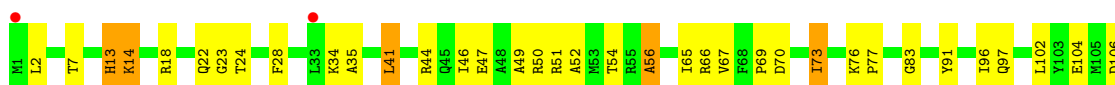
- Molecule 13: 50S ribosomal protein L16



- Molecule 13: 50S ribosomal protein L16

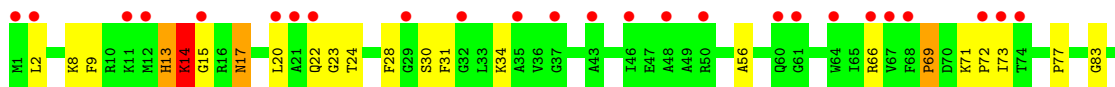
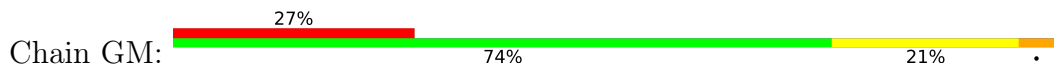


- Molecule 13: 50S ribosomal protein L16

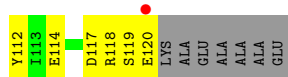
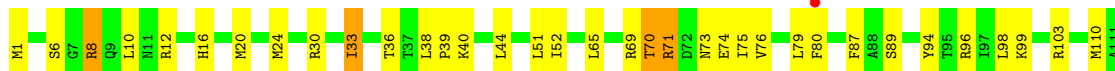




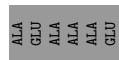
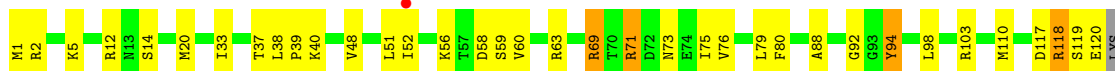
• Molecule 13: 50S ribosomal protein L16



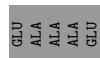
• Molecule 14: 50S ribosomal protein L17



• Molecule 14: 50S ribosomal protein L17

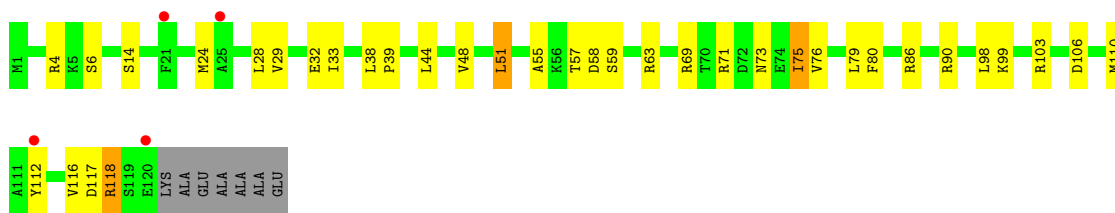


• Molecule 14: 50S ribosomal protein L17

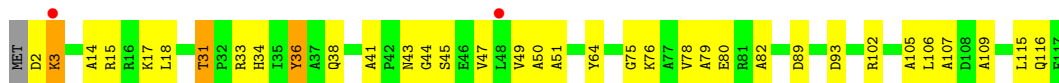


• Molecule 14: 50S ribosomal protein L17

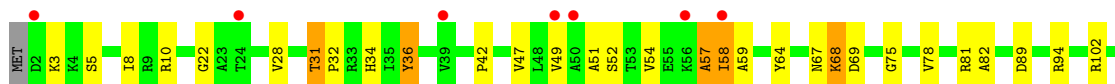




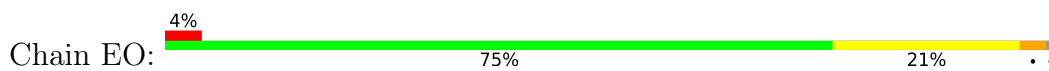
- Molecule 15: 50S ribosomal protein L18



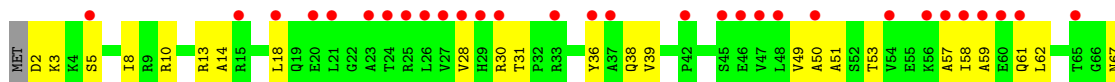
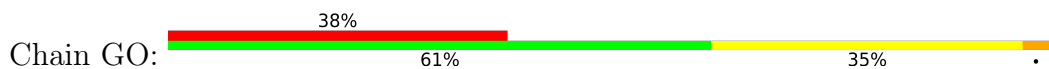
- Molecule 15: 50S ribosomal protein L18



- Molecule 15: 50S ribosomal protein L18

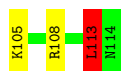


- Molecule 15: 50S ribosomal protein L18



- Molecule 16: 50S ribosomal protein L19

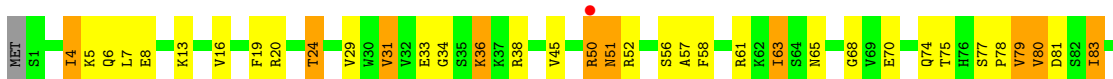




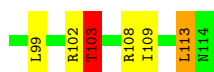
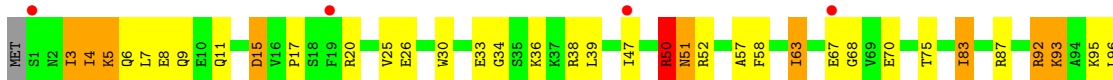
- Molecule 16: 50S ribosomal protein L19



- Molecule 16: 50S ribosomal protein L19



- Molecule 16: 50S ribosomal protein L19

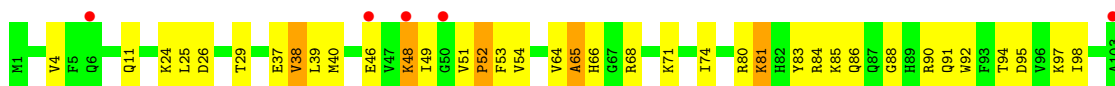


- Molecule 17: 50S ribosomal protein L20

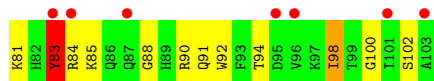
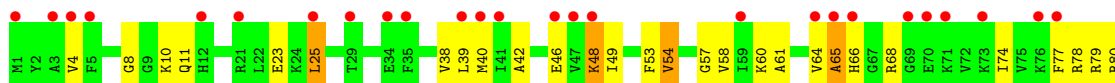


- Molecule 17: 50S ribosomal protein L20

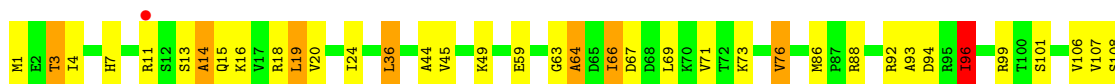




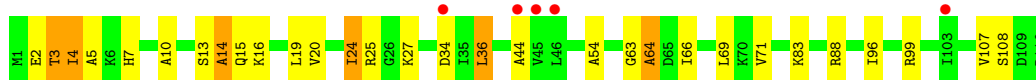
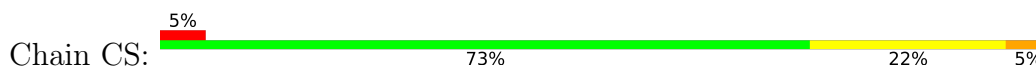
- Molecule 18: 50S ribosomal protein L21



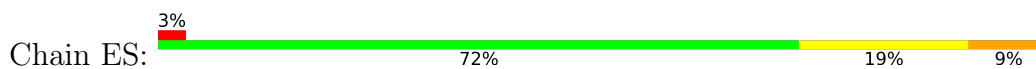
- Molecule 19: 50S ribosomal protein L22



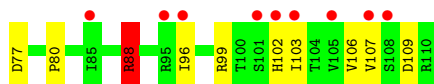
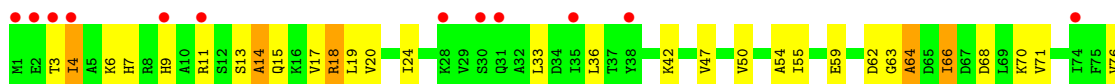
- Molecule 19: 50S ribosomal protein L22



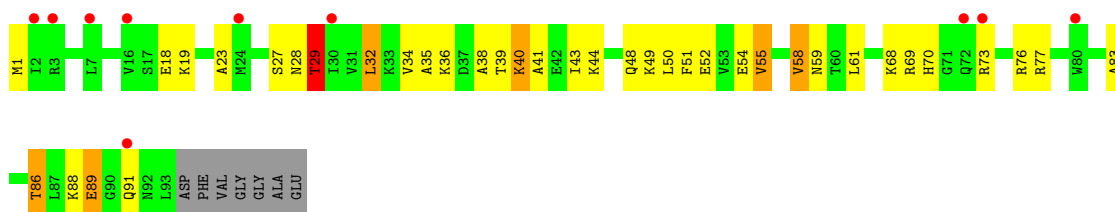
- Molecule 19: 50S ribosomal protein L22



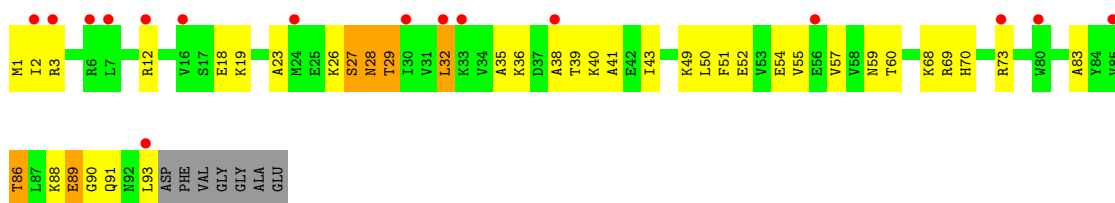
- Molecule 19: 50S ribosomal protein L22



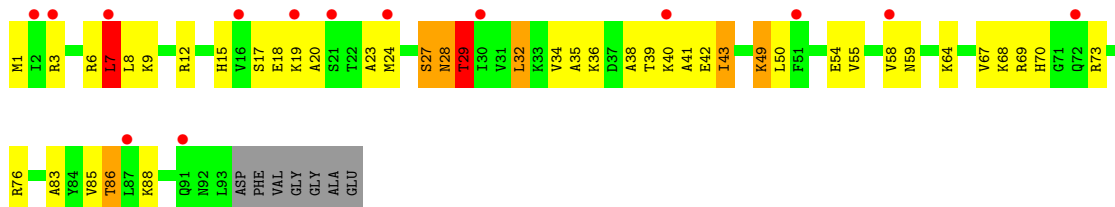
- Molecule 20: 50S ribosomal protein L23



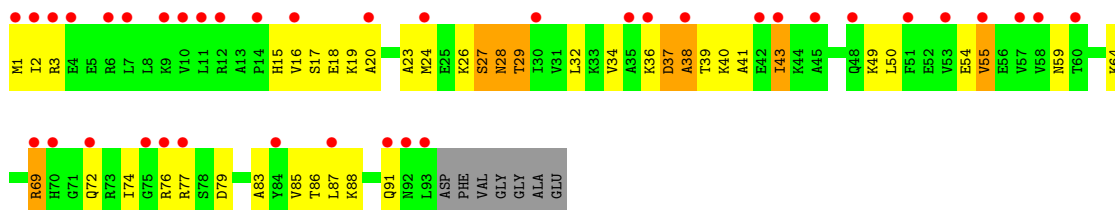
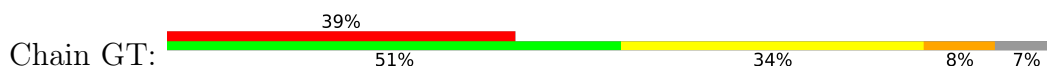
- Molecule 20: 50S ribosomal protein L23



- Molecule 20: 50S ribosomal protein L23



- Molecule 20: 50S ribosomal protein L23

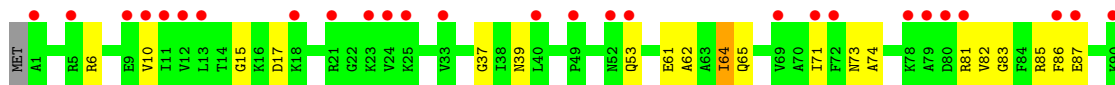
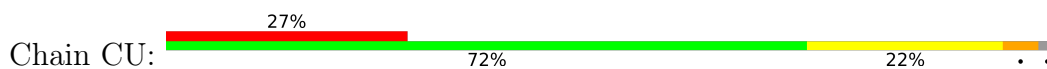


- Molecule 21: 50S ribosomal protein L24





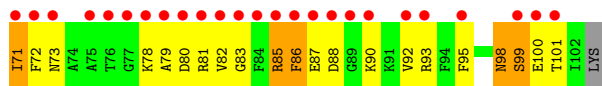
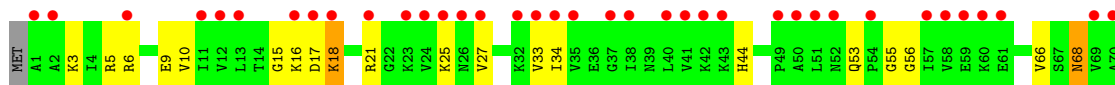
- Molecule 21: 50S ribosomal protein L24



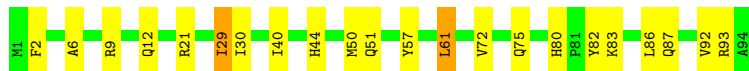
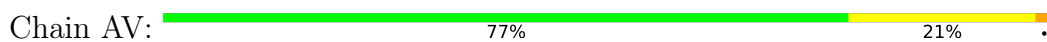
- Molecule 21: 50S ribosomal protein L24



- Molecule 21: 50S ribosomal protein L24



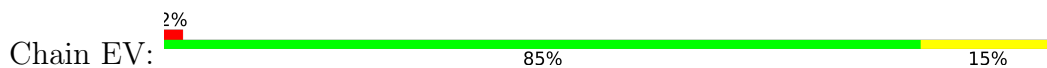
- Molecule 22: 50S ribosomal protein L25



- Molecule 22: 50S ribosomal protein L25

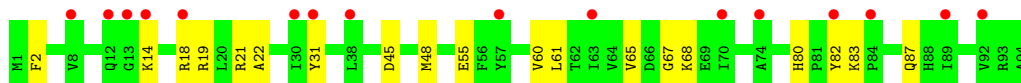
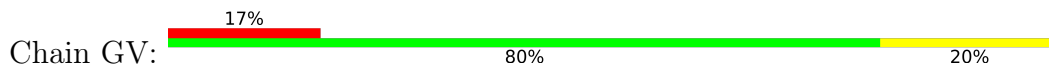


- Molecule 22: 50S ribosomal protein L25

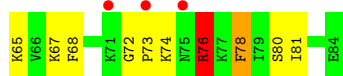




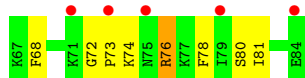
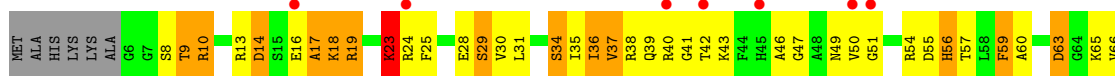
• Molecule 22: 50S ribosomal protein L25



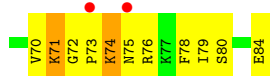
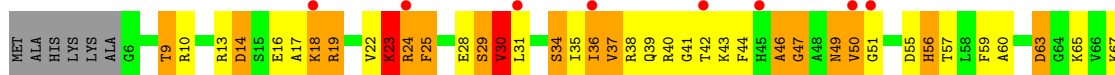
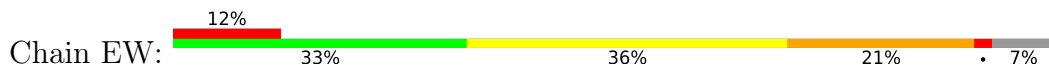
• Molecule 23: 50S ribosomal protein L27



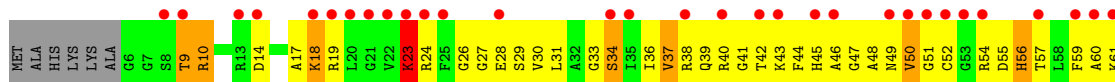
• Molecule 23: 50S ribosomal protein L27



• Molecule 23: 50S ribosomal protein L27



• Molecule 23: 50S ribosomal protein L27

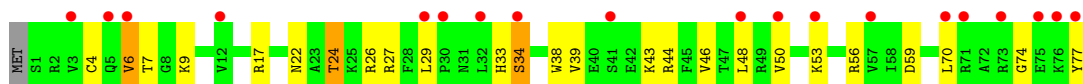




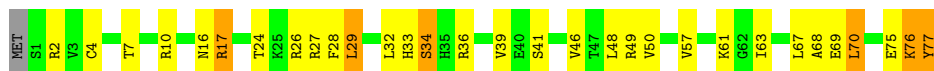
- Molecule 24: 50S ribosomal protein L28



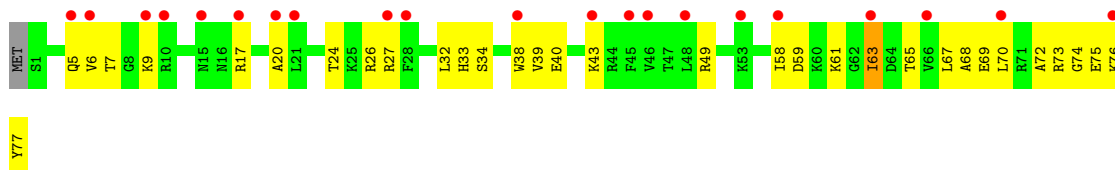
- Molecule 24: 50S ribosomal protein L28



- Molecule 24: 50S ribosomal protein L28



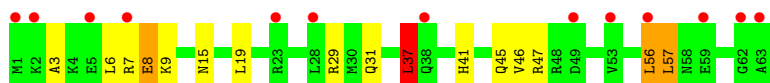
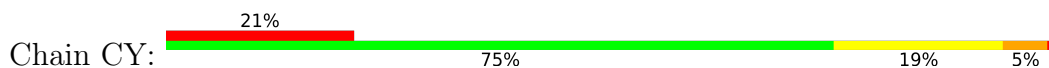
- Molecule 24: 50S ribosomal protein L28



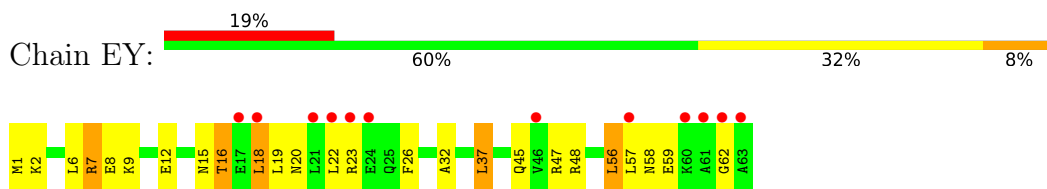
- Molecule 25: 50S ribosomal protein L29



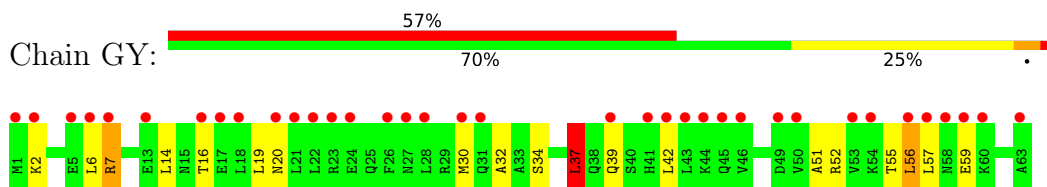
- Molecule 25: 50S ribosomal protein L29



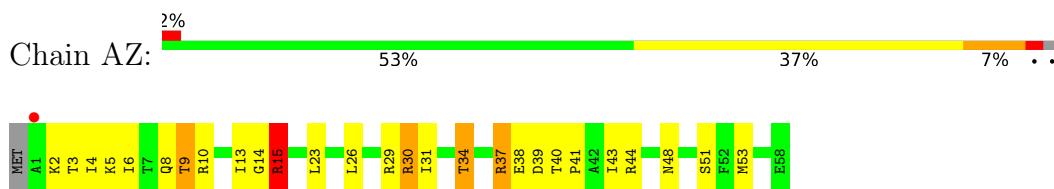
- Molecule 25: 50S ribosomal protein L29



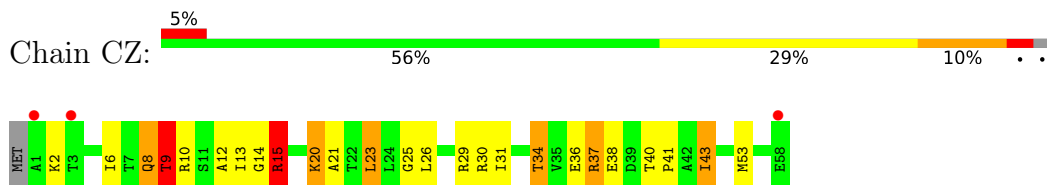
- Molecule 25: 50S ribosomal protein L29



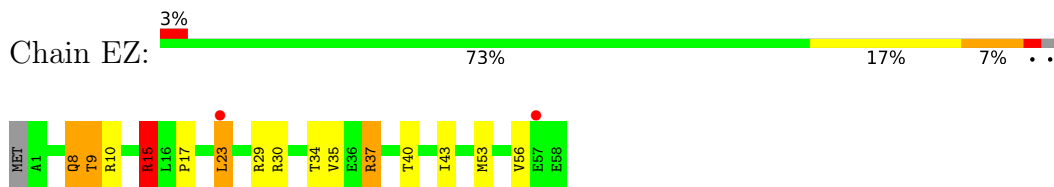
- Molecule 26: 50S ribosomal protein L30



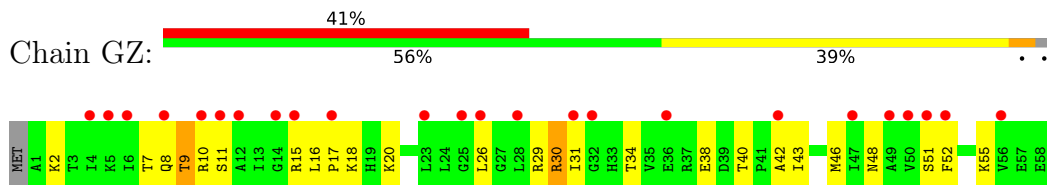
- Molecule 26: 50S ribosomal protein L30



- Molecule 26: 50S ribosomal protein L30

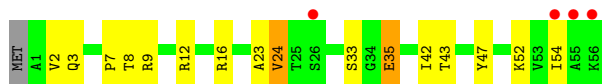


- Molecule 26: 50S ribosomal protein L30



- Molecule 27: 50S ribosomal protein L32





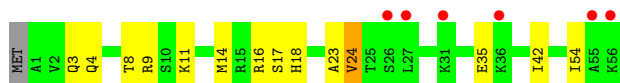
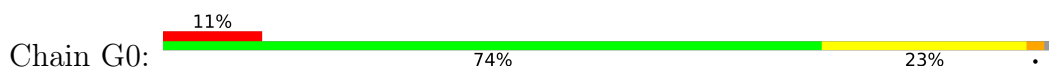
- Molecule 27: 50S ribosomal protein L32



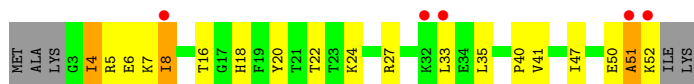
- Molecule 27: 50S ribosomal protein L32



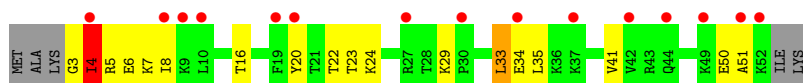
- Molecule 27: 50S ribosomal protein L32



- Molecule 28: 50S ribosomal protein L33



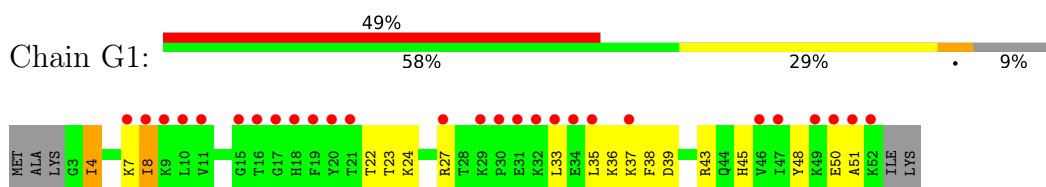
- Molecule 28: 50S ribosomal protein L33



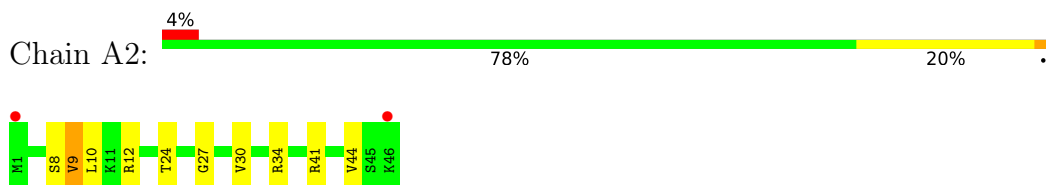
- Molecule 28: 50S ribosomal protein L33



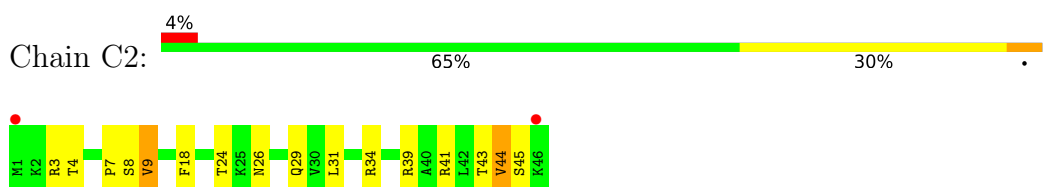
- Molecule 28: 50S ribosomal protein L33



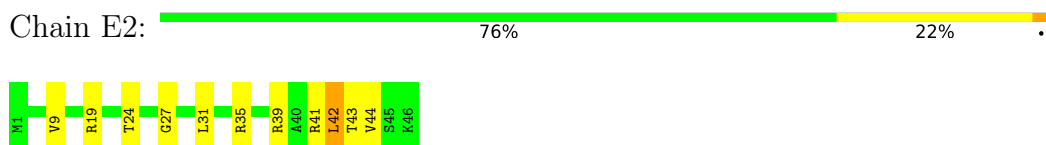
- Molecule 29: 50S ribosomal protein L34



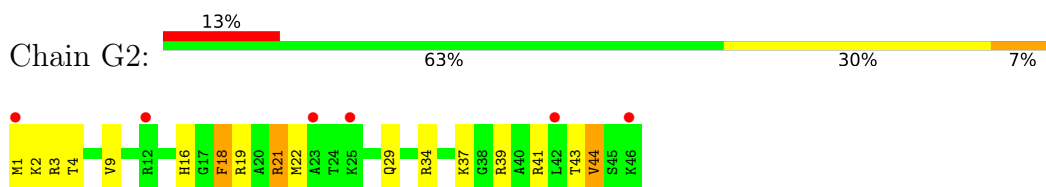
- Molecule 29: 50S ribosomal protein L34



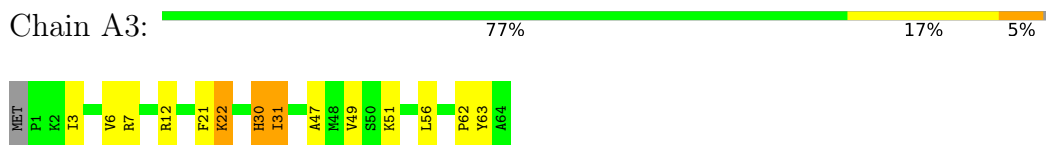
- Molecule 29: 50S ribosomal protein L34



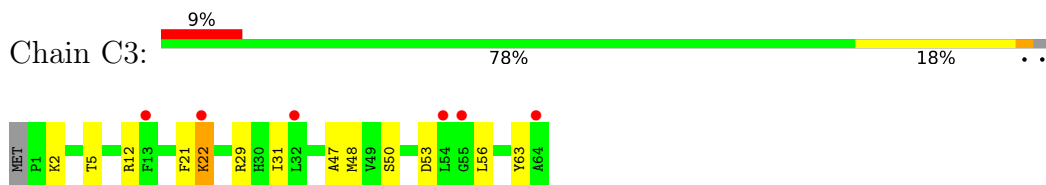
- Molecule 29: 50S ribosomal protein L34



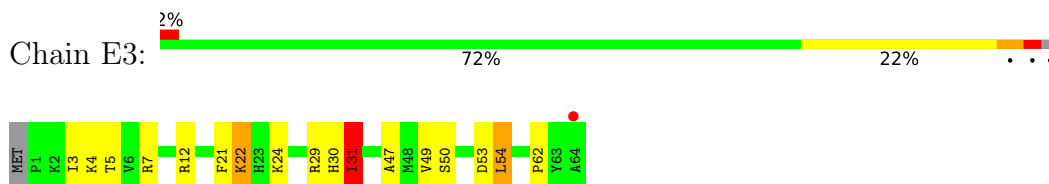
- Molecule 30: 50S ribosomal protein L35



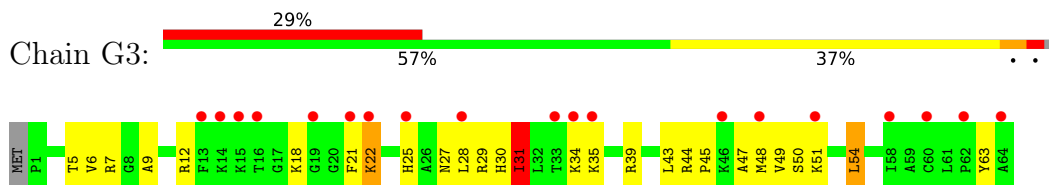
- Molecule 30: 50S ribosomal protein L35



- Molecule 30: 50S ribosomal protein L35



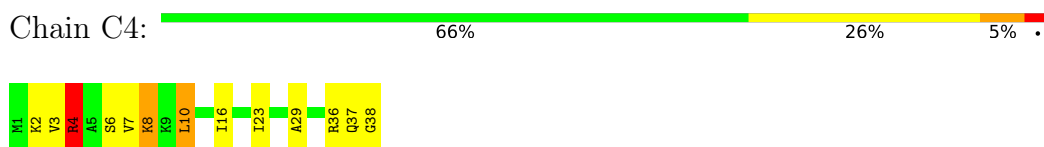
- Molecule 30: 50S ribosomal protein L35



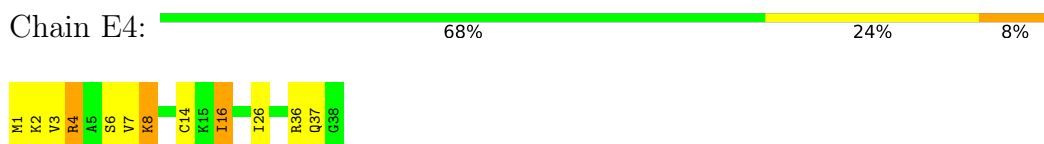
- Molecule 31: 50S ribosomal protein L36



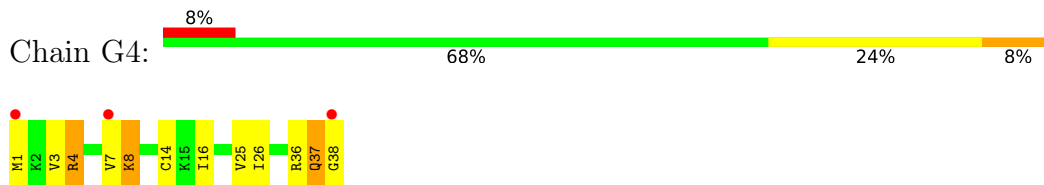
- Molecule 31: 50S ribosomal protein L36



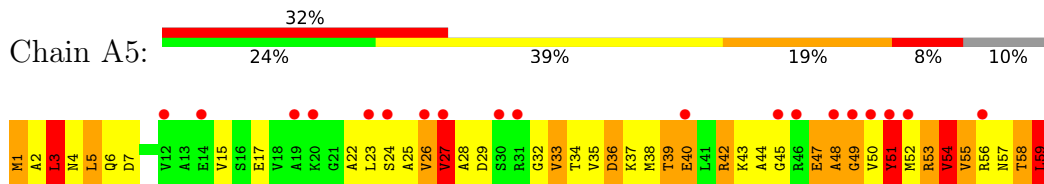
- Molecule 31: 50S ribosomal protein L36

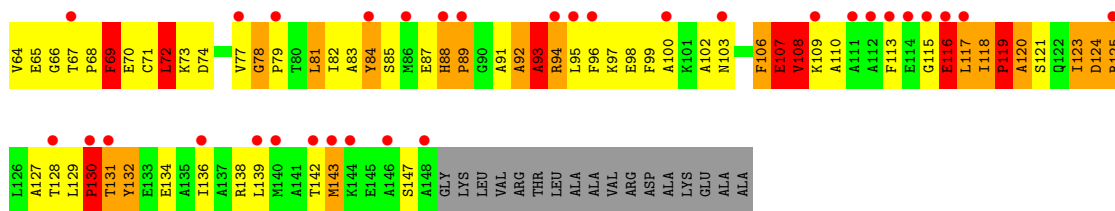


- Molecule 31: 50S ribosomal protein L36

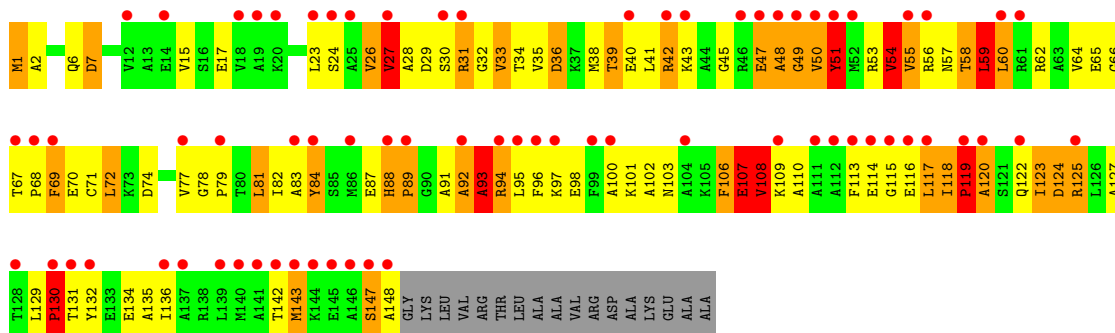


- Molecule 32: 50S ribosomal protein L10

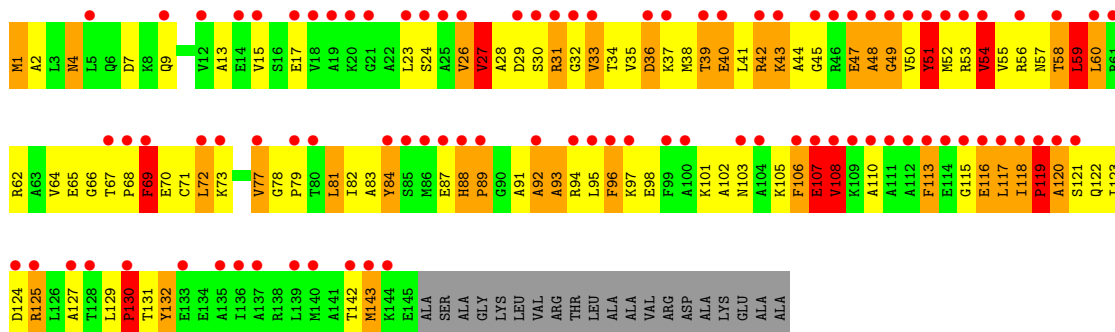
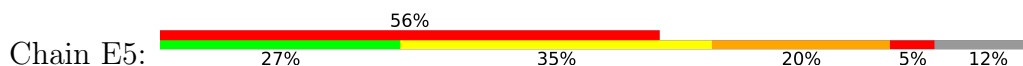




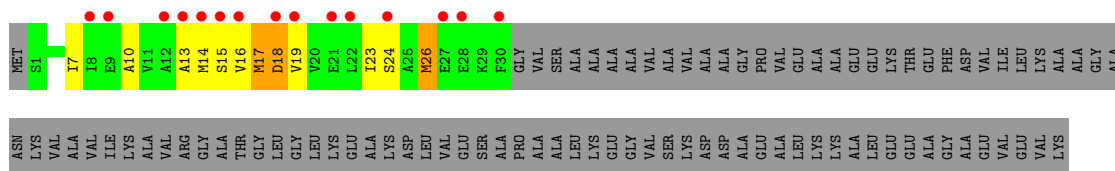
• Molecule 32: 50S ribosomal protein L10



• Molecule 32: 50S ribosomal protein L10

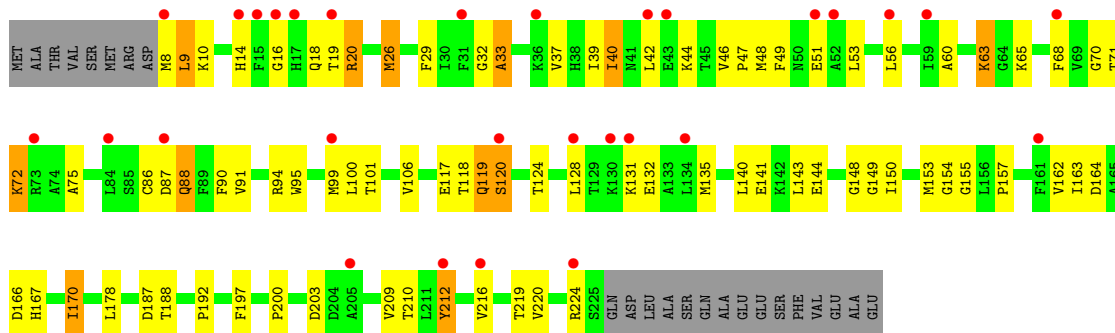


• Molecule 33: 50S ribosomal protein L7/L12

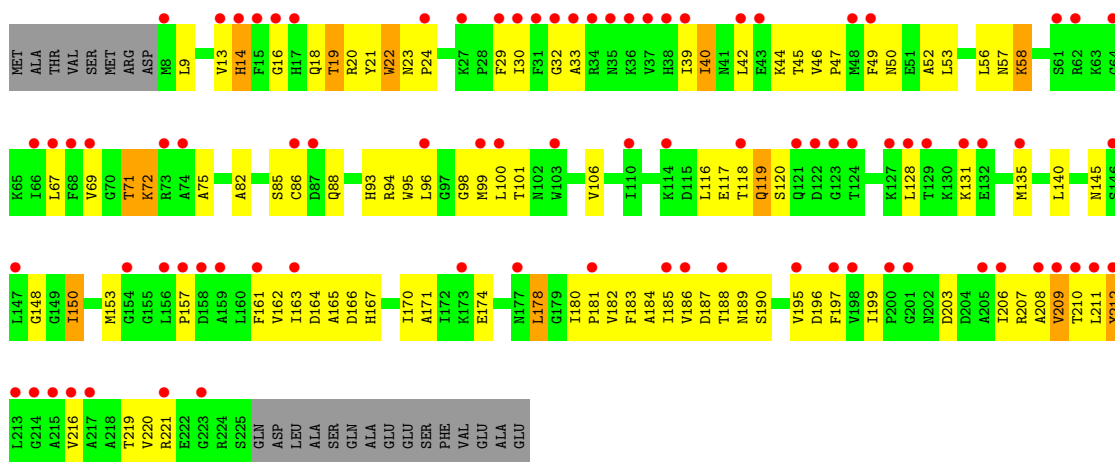


• Molecule 34: 30S ribosomal protein S2

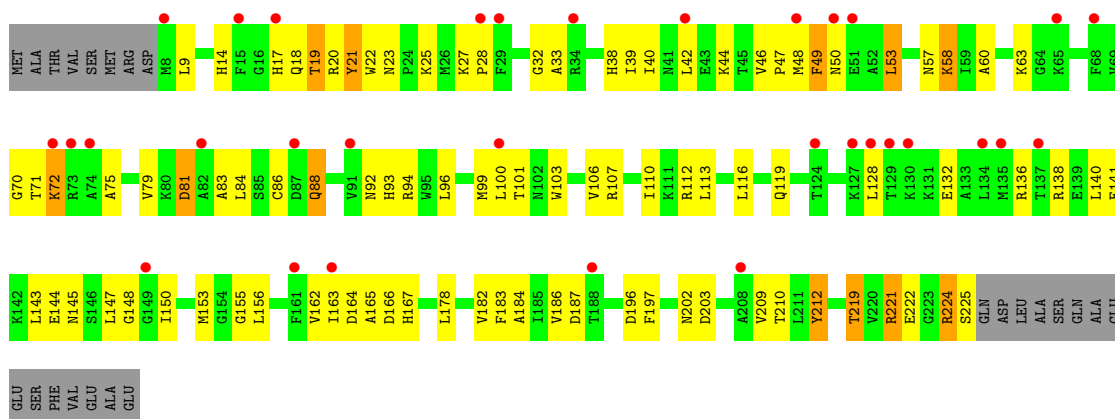




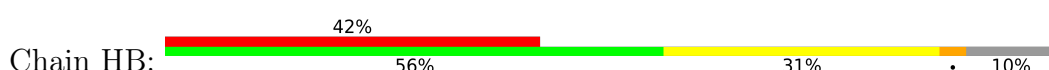
• Molecule 34: 30S ribosomal protein S2

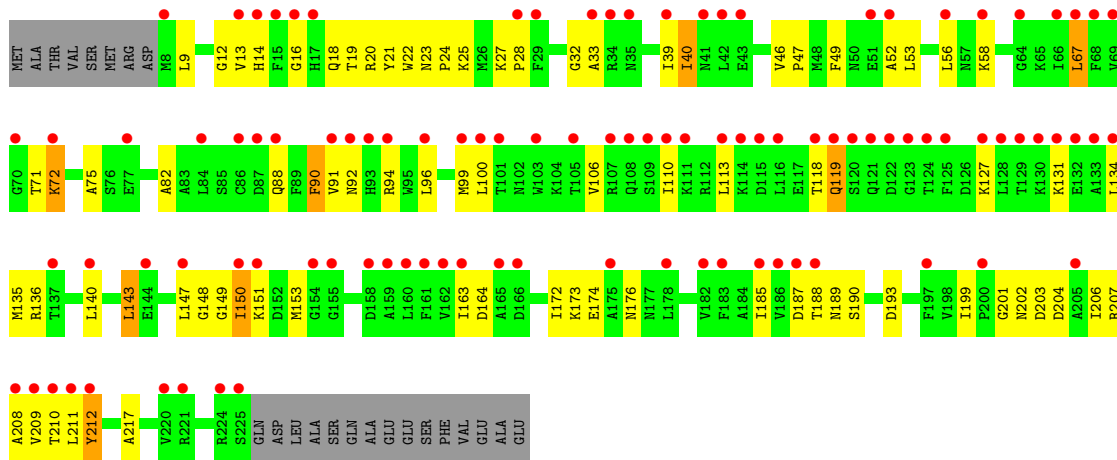


• Molecule 34: 30S ribosomal protein S2

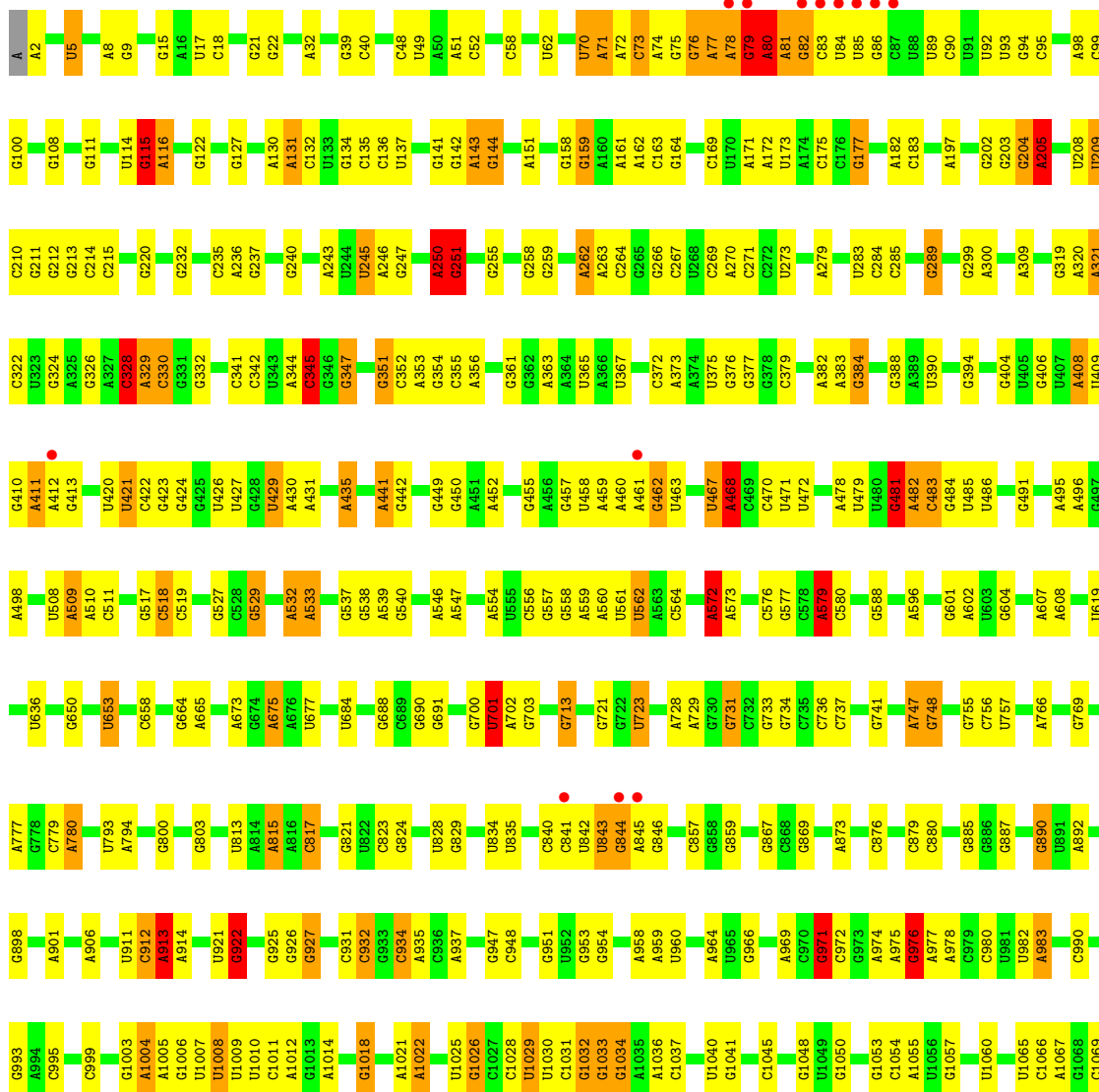


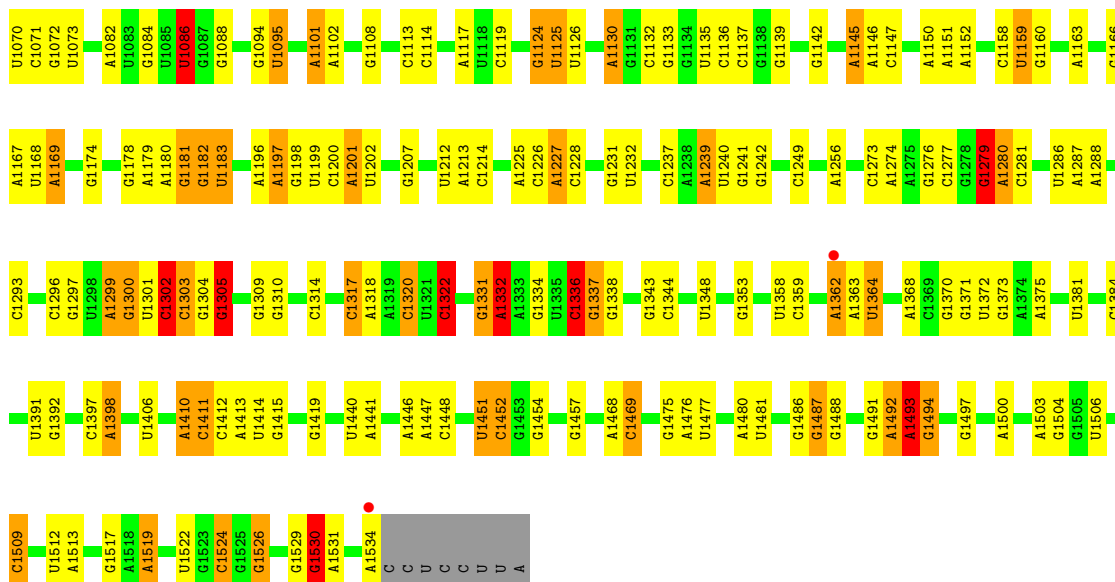
• Molecule 34: 30S ribosomal protein S2



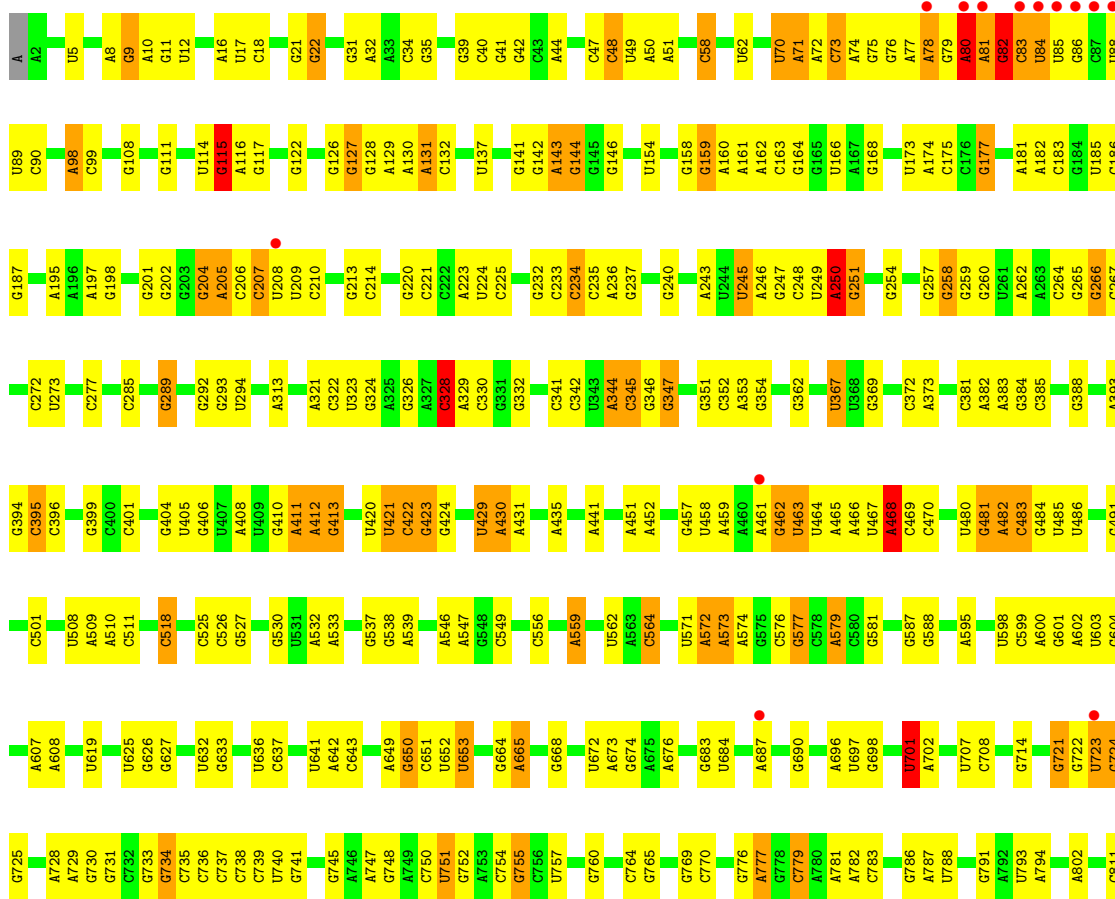


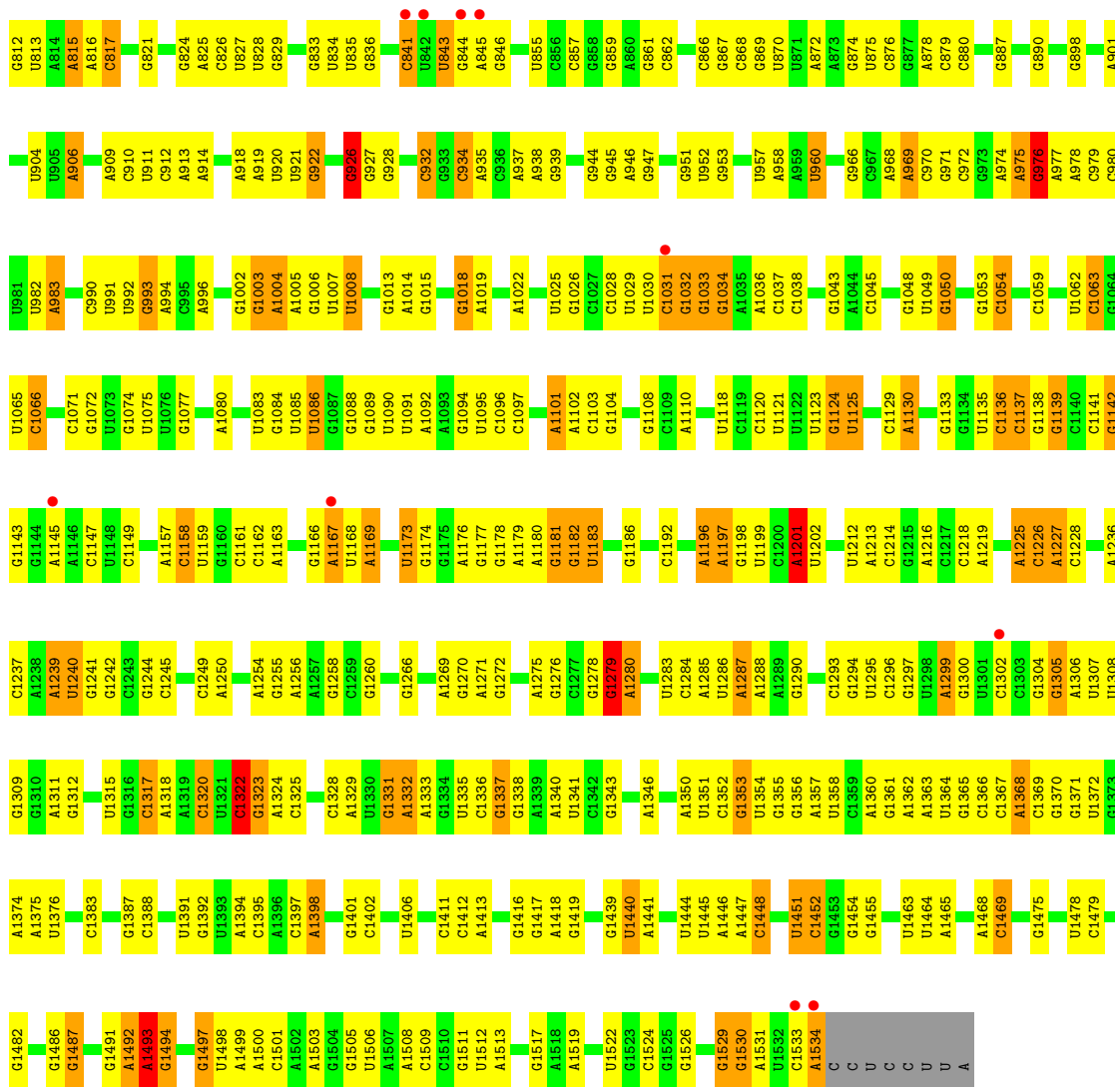
● Molecule 35: 16S rRNA



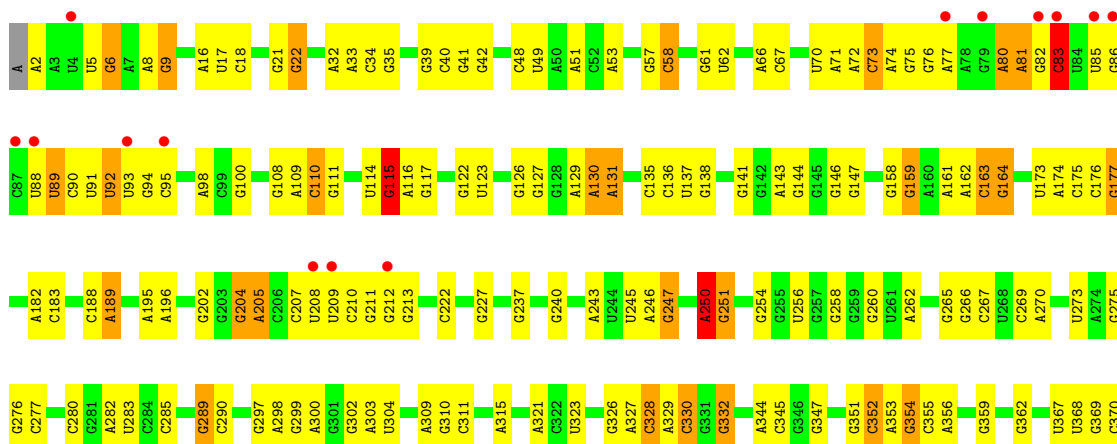


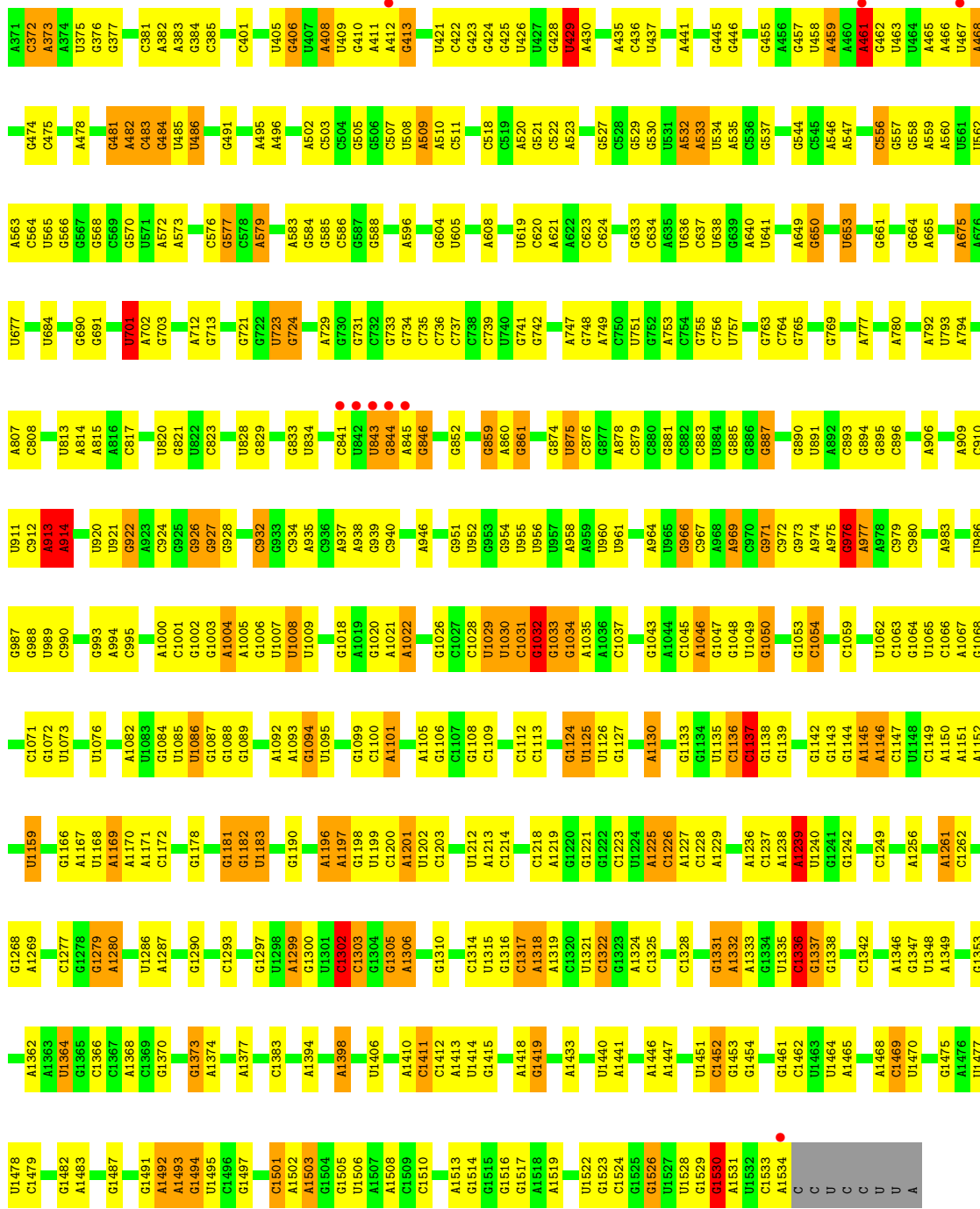
• Molecule 35: 16S rRNA



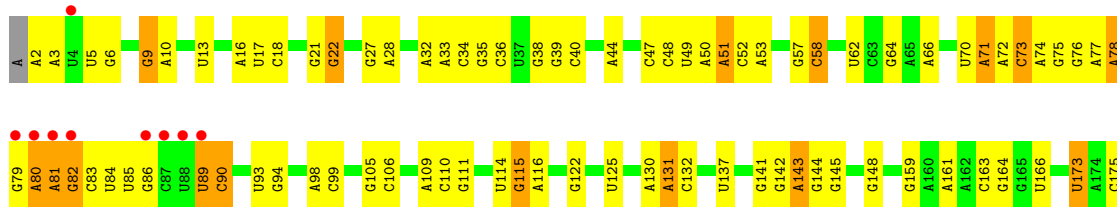


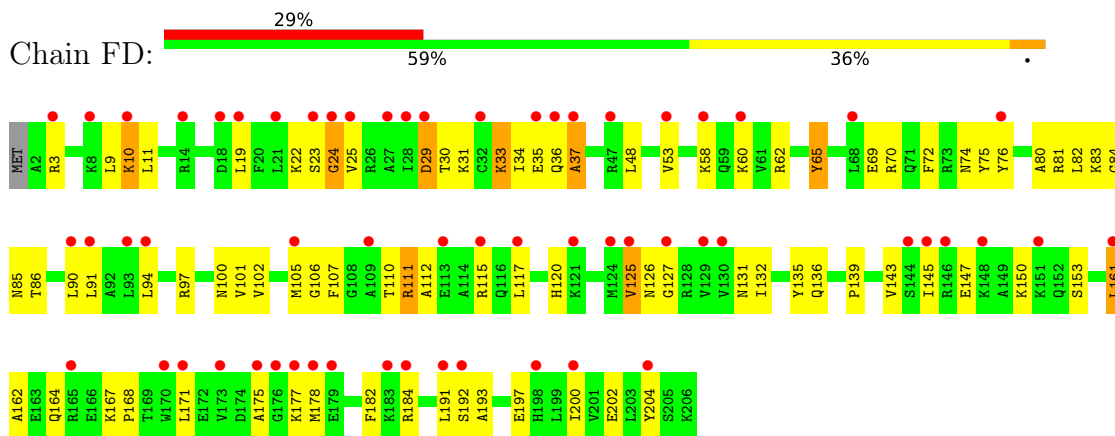
• Molecule 35: 16S rRNA



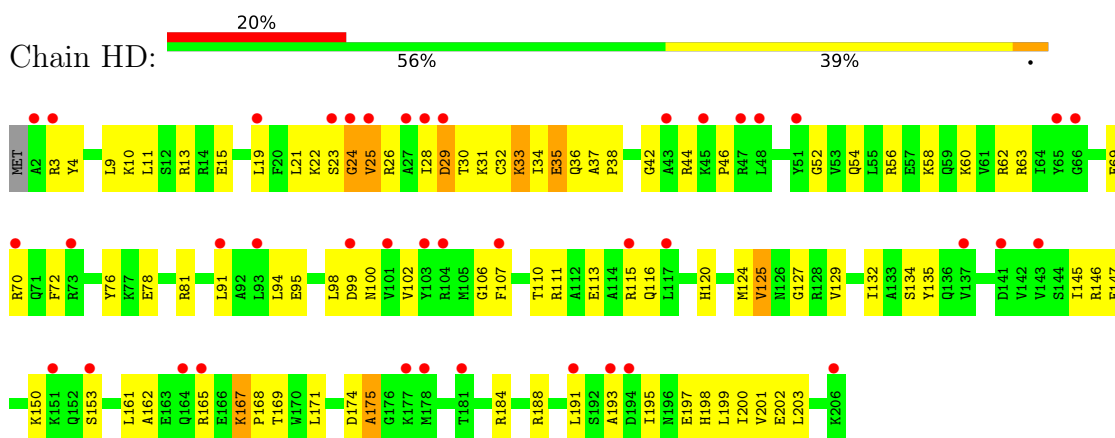


• Molecule 35: 16S rRNA

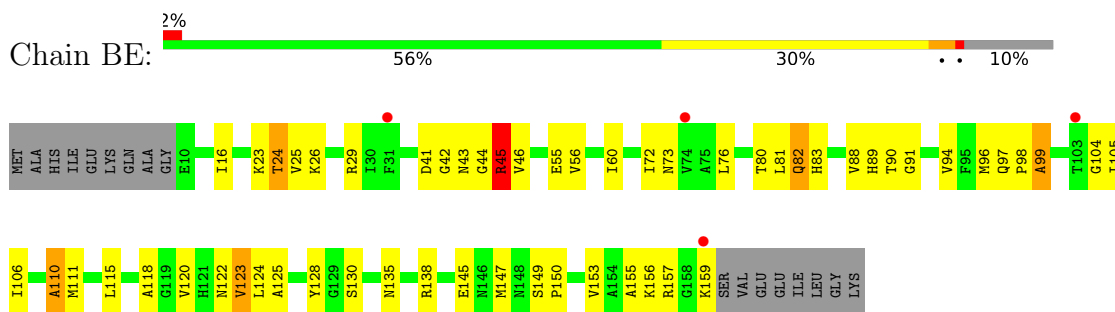




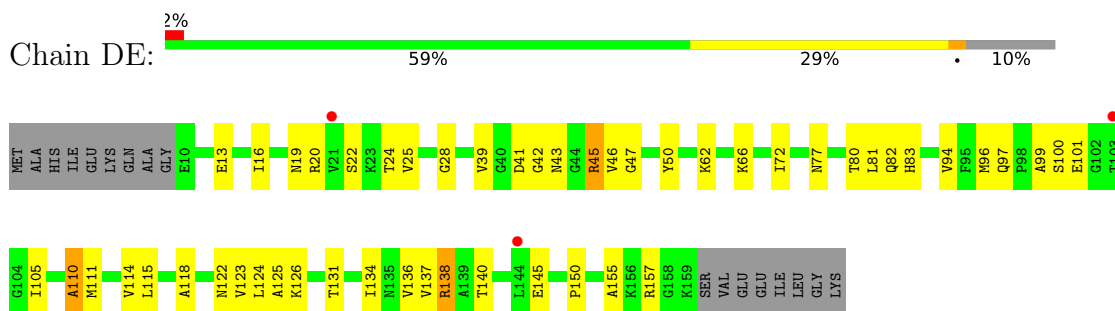
• Molecule 37: 30S ribosomal protein S4



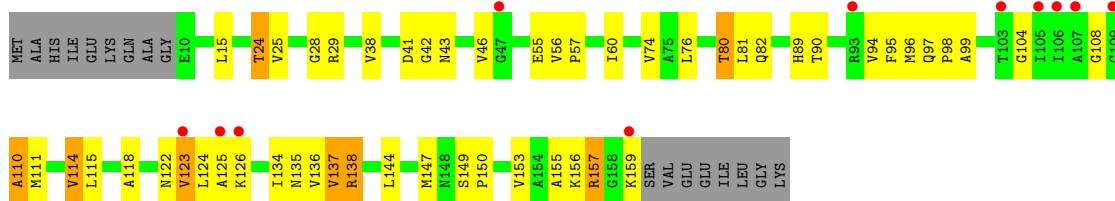
• Molecule 38: 30S ribosomal protein S5



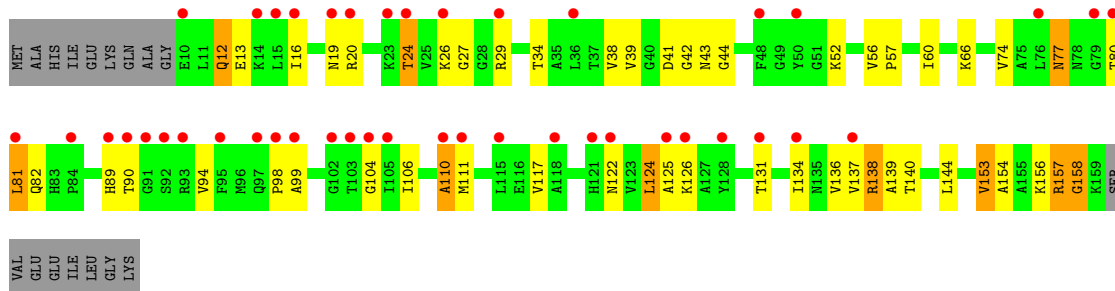
• Molecule 38: 30S ribosomal protein S5



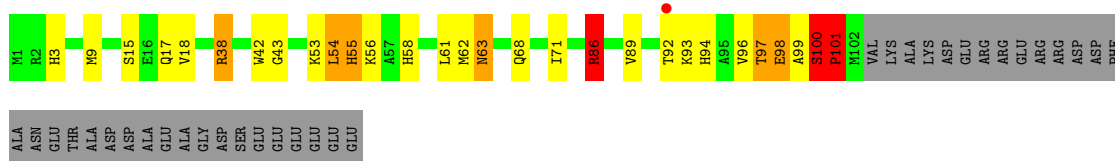
• Molecule 38: 30S ribosomal protein S5



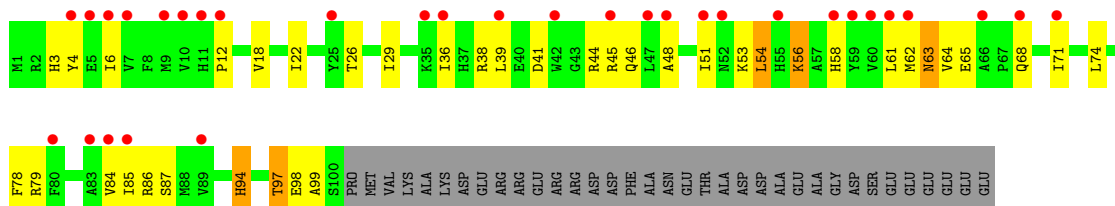
• Molecule 38: 30S ribosomal protein S5



• Molecule 39: 30S ribosomal protein S6



• Molecule 39: 30S ribosomal protein S6

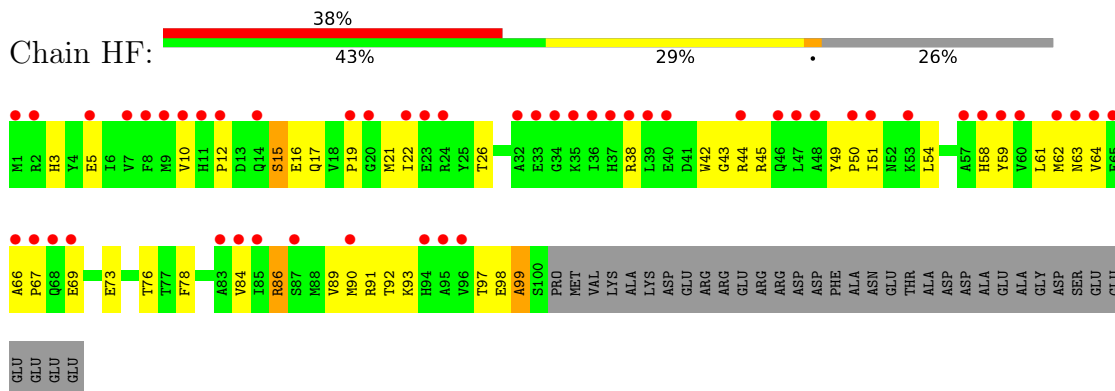


• Molecule 39: 30S ribosomal protein S6

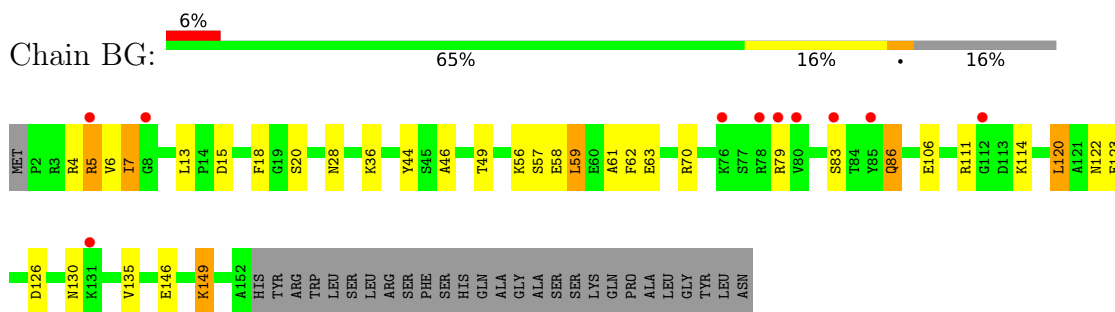


ASP
ASP
PHE
ALA
ASN
GLU
THR
ALA
ASP
ASP
ALA
ALA
ALA
ALA
GLY
ASP
SER
SER
GLU
GLU
GLU
GLU
GLU

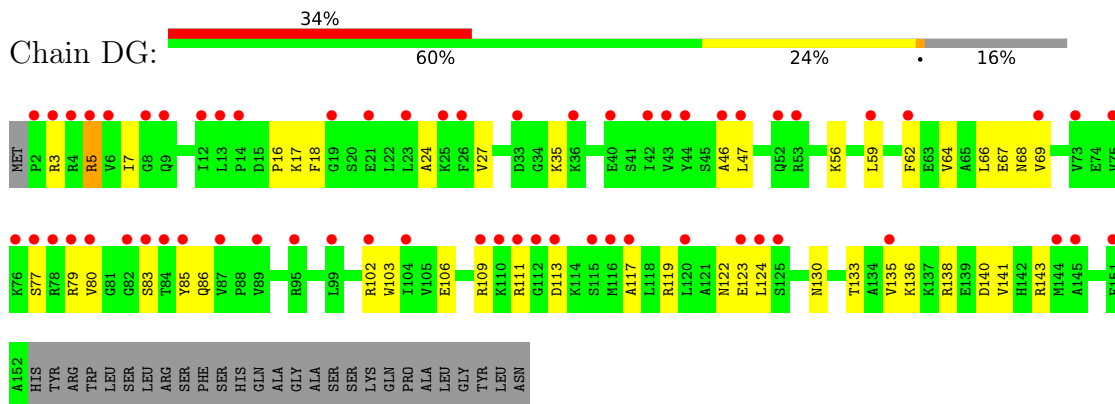
• Molecule 39: 30S ribosomal protein S6



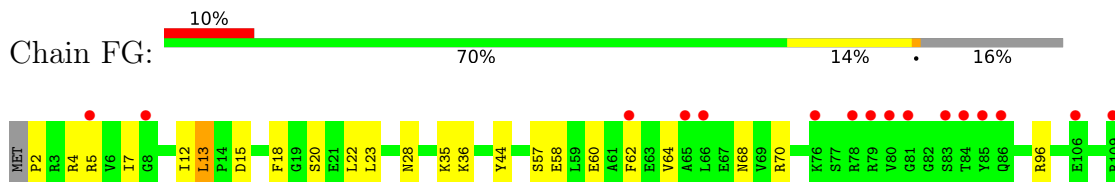
• Molecule 40: 30S ribosomal protein S7

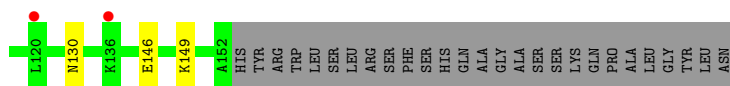


• Molecule 40: 30S ribosomal protein S7

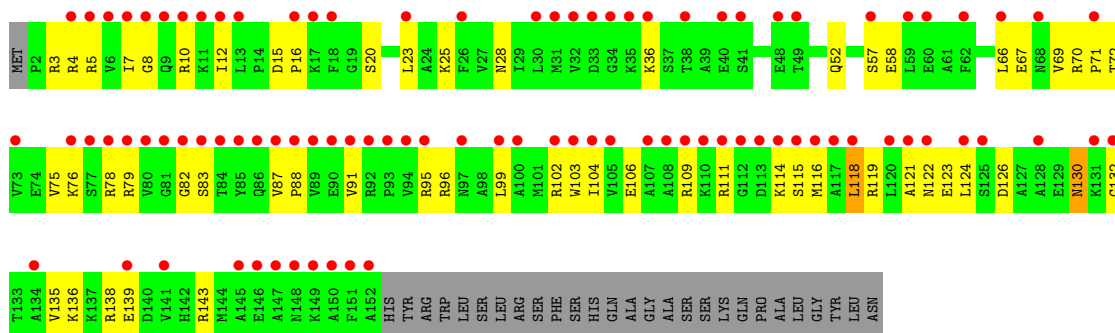


• Molecule 40: 30S ribosomal protein S7

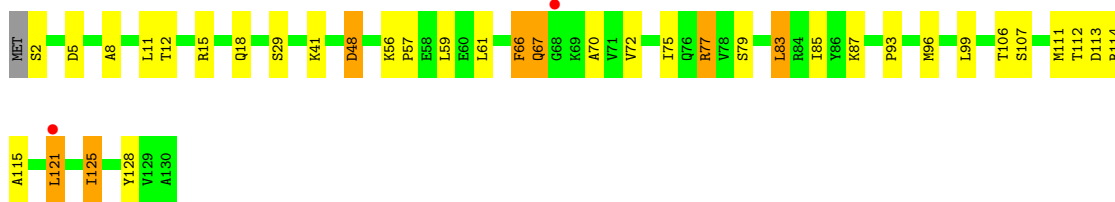
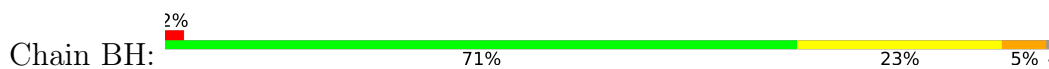




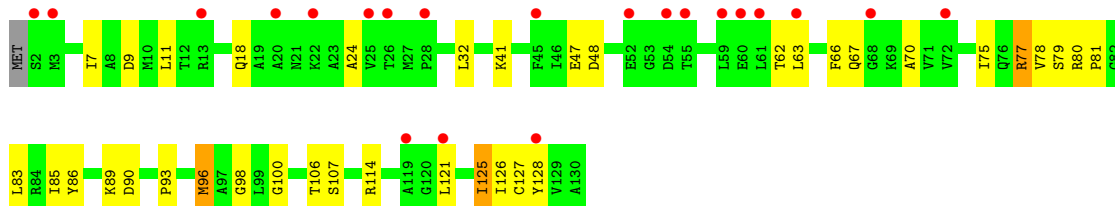
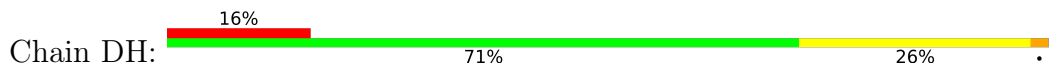
- Molecule 40: 30S ribosomal protein S7



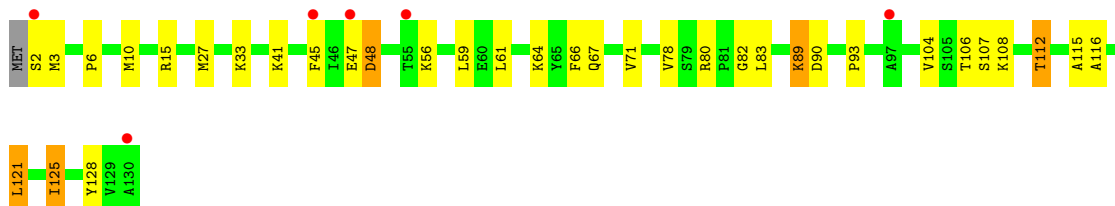
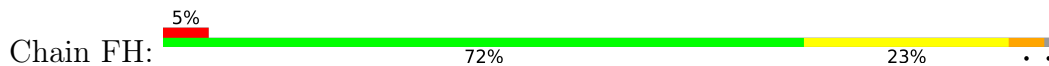
- Molecule 41: 30S ribosomal protein S8



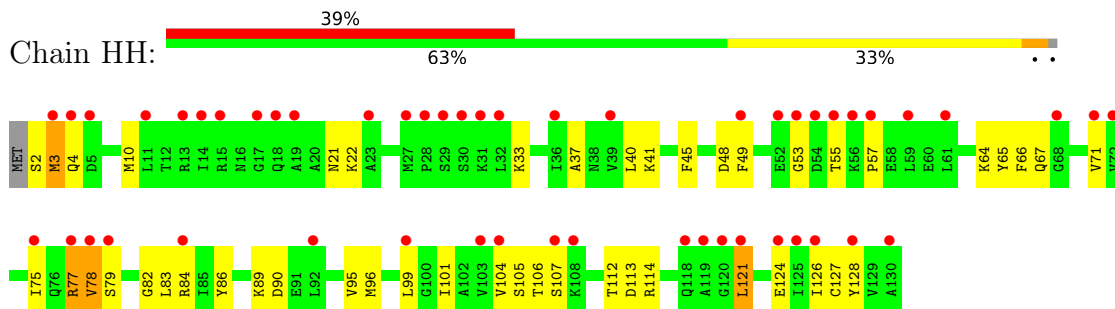
- Molecule 41: 30S ribosomal protein S8



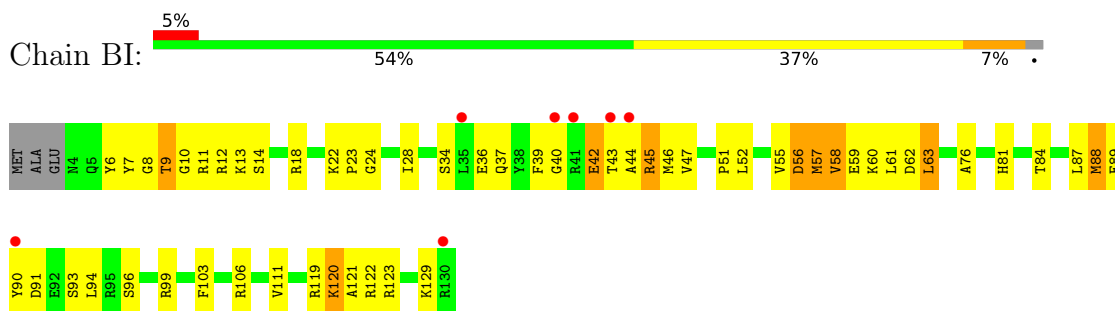
- Molecule 41: 30S ribosomal protein S8



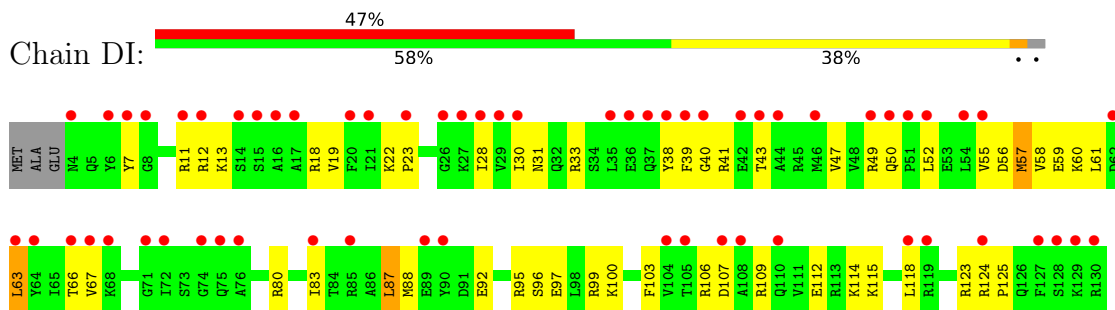
- Molecule 41: 30S ribosomal protein S8



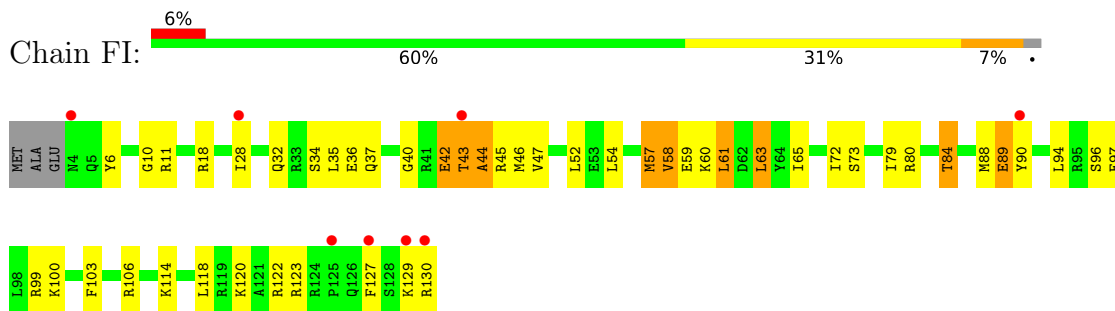
- Molecule 42: 30S ribosomal protein S9



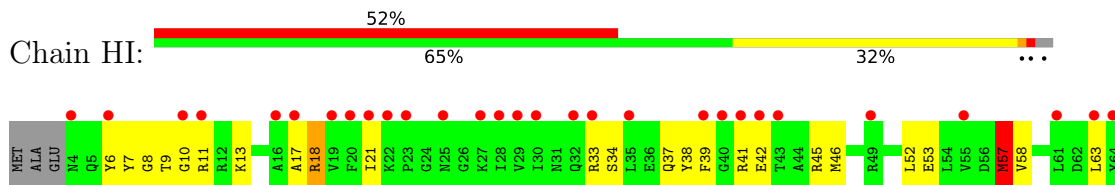
- Molecule 42: 30S ribosomal protein S9

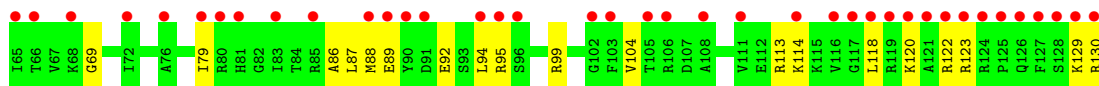


- Molecule 42: 30S ribosomal protein S9

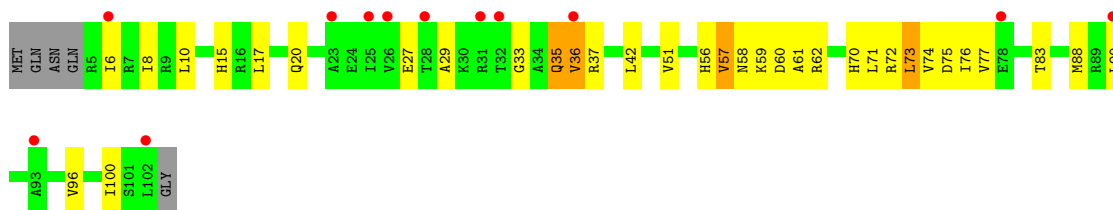


- Molecule 42: 30S ribosomal protein S9

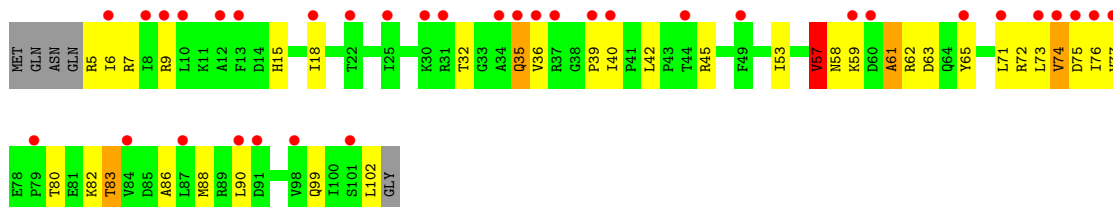




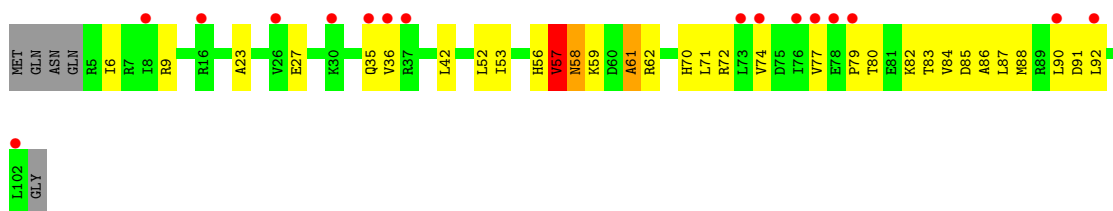
- Molecule 43: 30S ribosomal protein S10



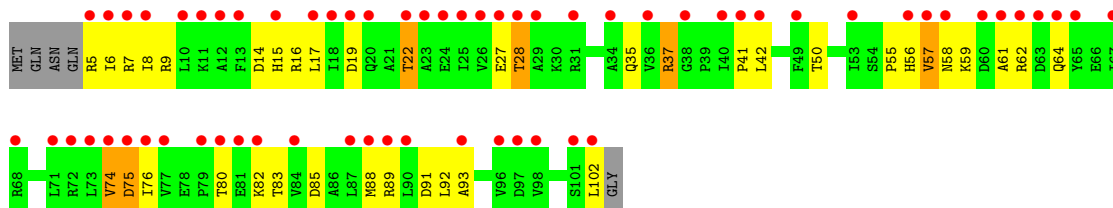
- Molecule 43: 30S ribosomal protein S10



- Molecule 43: 30S ribosomal protein S10

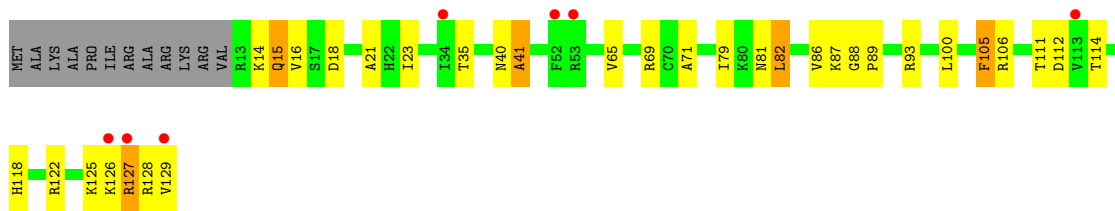


- Molecule 43: 30S ribosomal protein S10

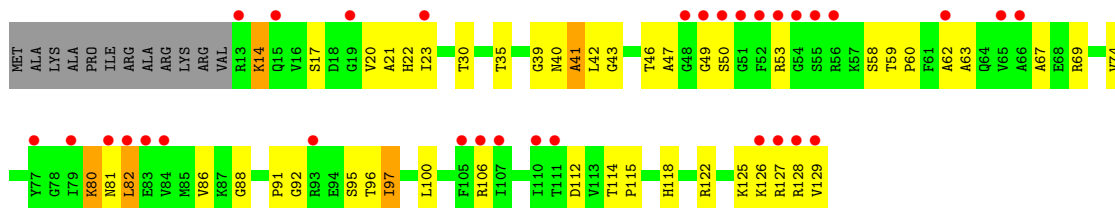


- Molecule 44: 30S ribosomal protein S11

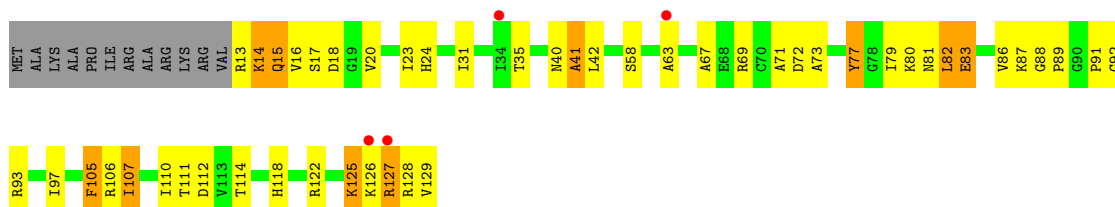




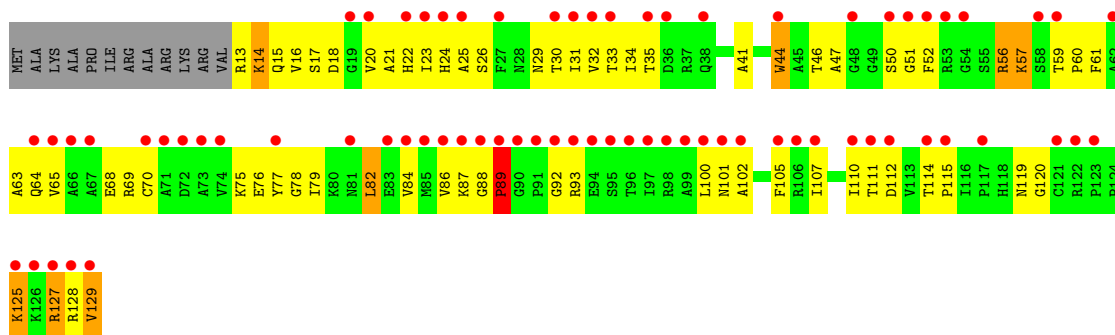
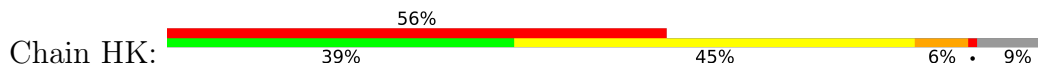
• Molecule 44: 30S ribosomal protein S11



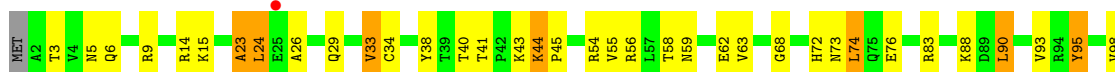
• Molecule 44: 30S ribosomal protein S11



• Molecule 44: 30S ribosomal protein S11



• Molecule 45: 30S ribosomal protein S12





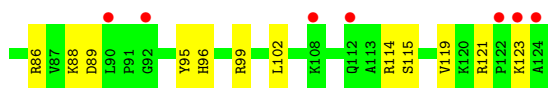
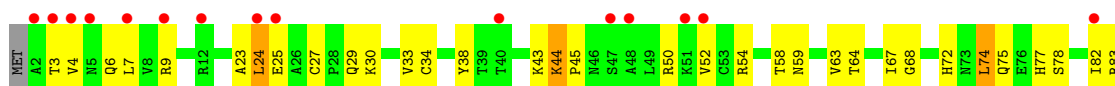
- Molecule 45: 30S ribosomal protein S12



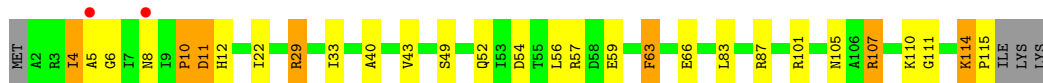
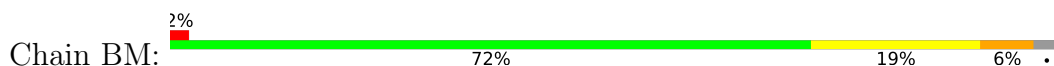
- Molecule 45: 30S ribosomal protein S12



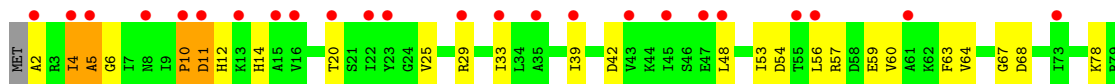
- Molecule 45: 30S ribosomal protein S12

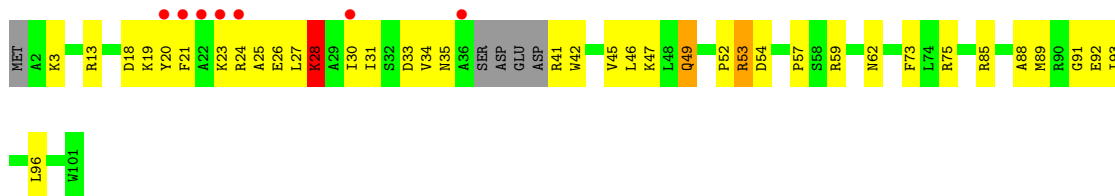


- Molecule 46: 30S ribosomal protein S13

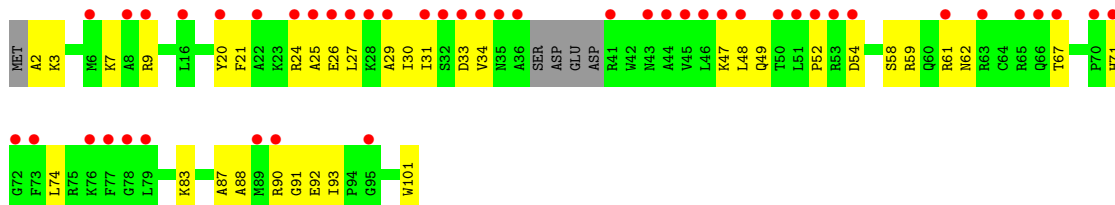


- Molecule 46: 30S ribosomal protein S13

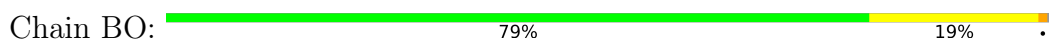




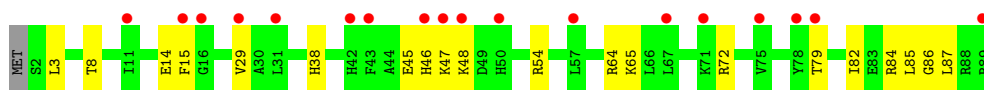
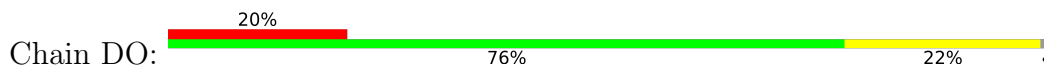
- Molecule 47: 30S ribosomal protein S14



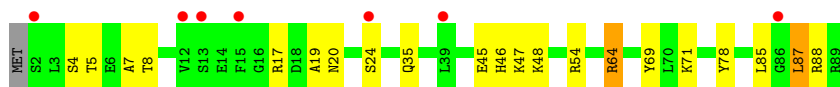
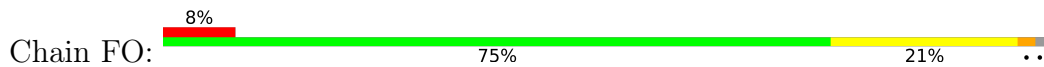
- Molecule 48: 30S ribosomal protein S15



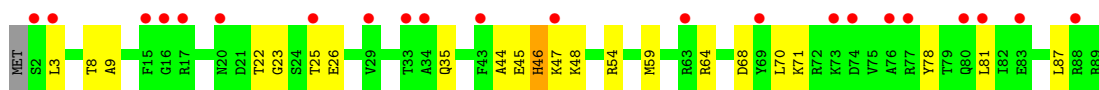
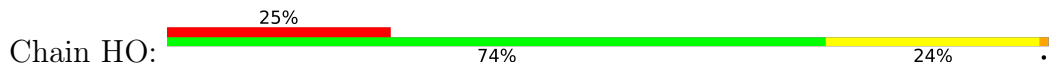
- Molecule 48: 30S ribosomal protein S15



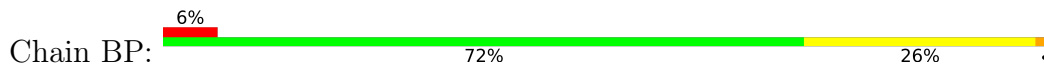
- Molecule 48: 30S ribosomal protein S15



- Molecule 48: 30S ribosomal protein S15

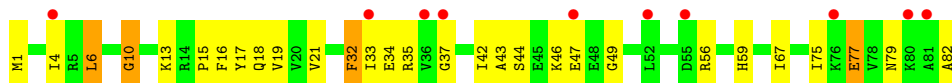


- Molecule 49: 30S ribosomal protein S16

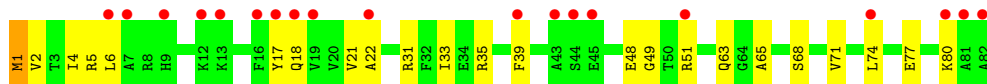
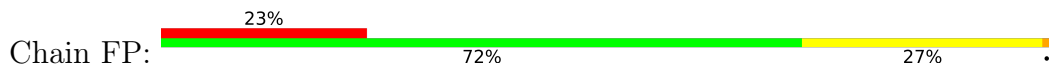




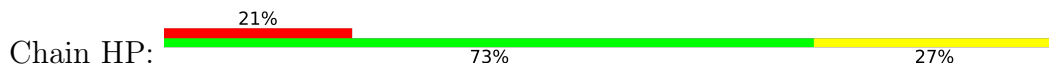
• Molecule 49: 30S ribosomal protein S16



• Molecule 49: 30S ribosomal protein S16



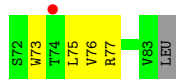
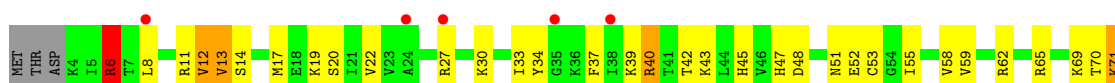
• Molecule 49: 30S ribosomal protein S16



• Molecule 50: 30S ribosomal protein S17



• Molecule 50: 30S ribosomal protein S17

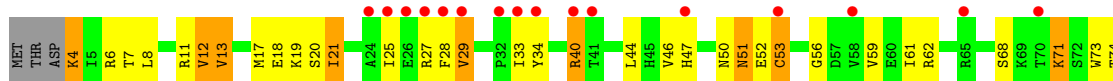


• Molecule 50: 30S ribosomal protein S17





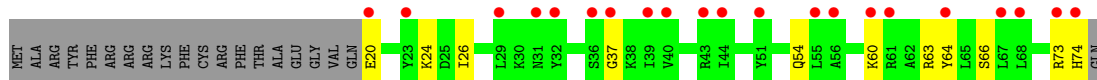
- Molecule 50: 30S ribosomal protein S17



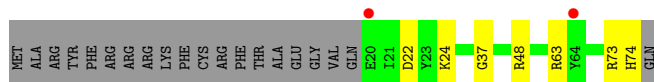
- Molecule 51: 30S ribosomal protein S18



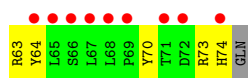
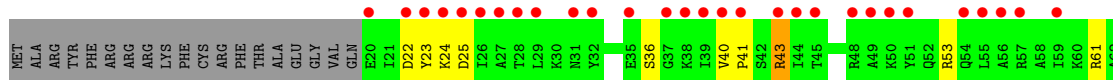
- Molecule 51: 30S ribosomal protein S18



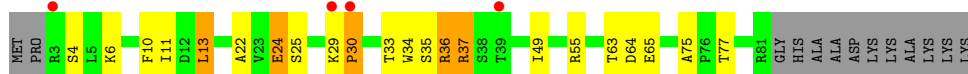
- Molecule 51: 30S ribosomal protein S18



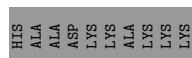
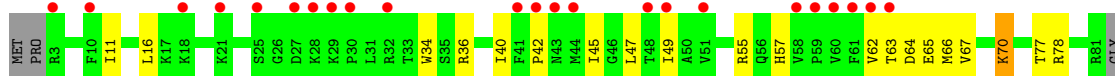
- Molecule 51: 30S ribosomal protein S18



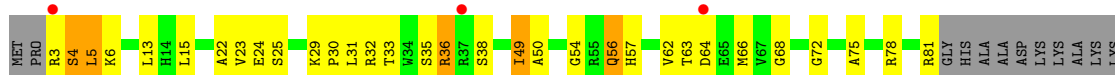
- Molecule 52: 30S ribosomal protein S19



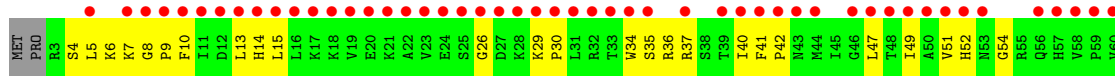
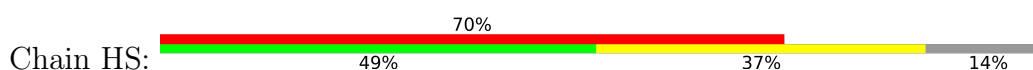
• Molecule 52: 30S ribosomal protein S19



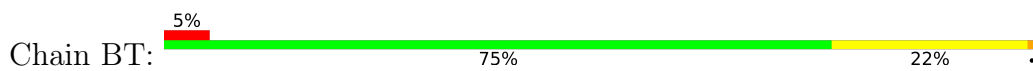
• Molecule 52: 30S ribosomal protein S19



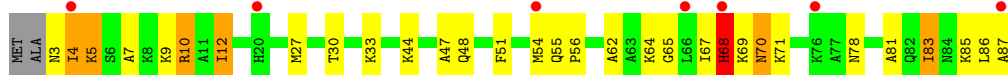
• Molecule 52: 30S ribosomal protein S19



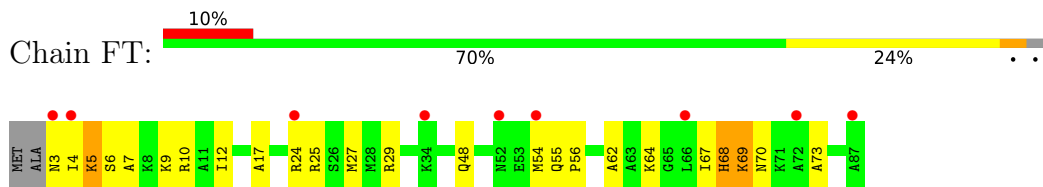
• Molecule 53: 30S ribosomal protein S20



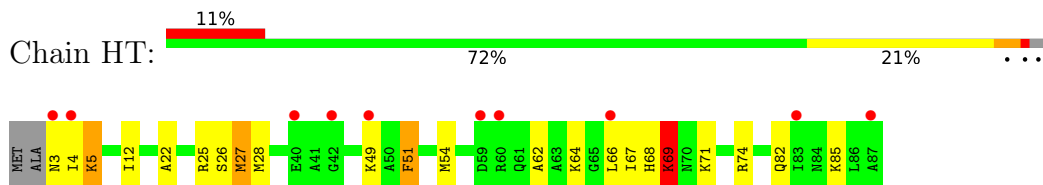
• Molecule 53: 30S ribosomal protein S20



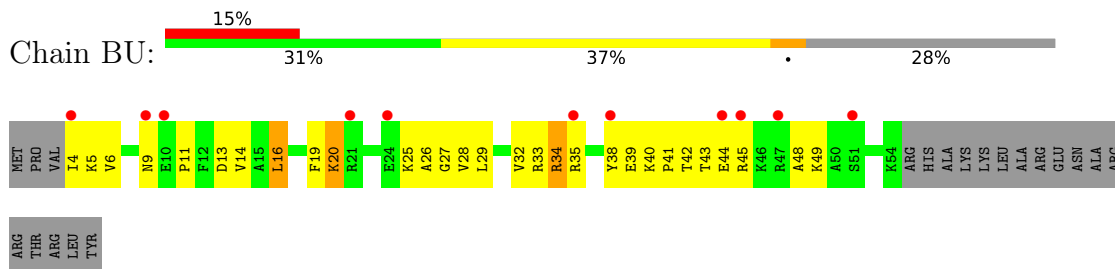
- Molecule 53: 30S ribosomal protein S20



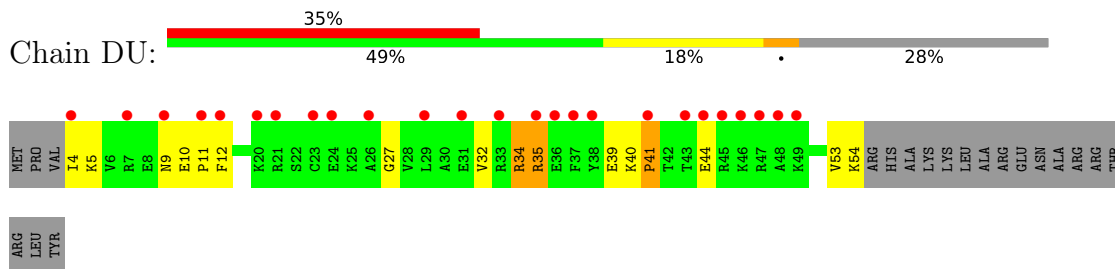
- Molecule 53: 30S ribosomal protein S20



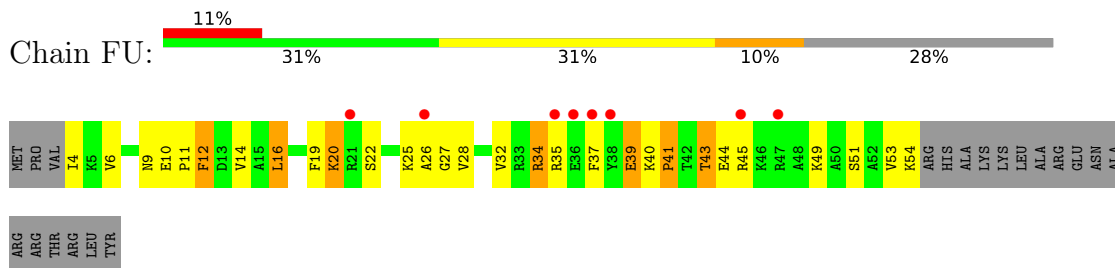
- Molecule 54: 30S ribosomal protein S21



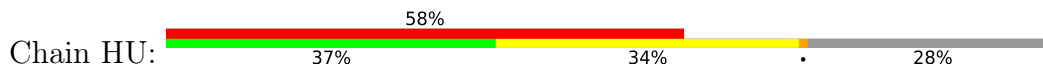
- Molecule 54: 30S ribosomal protein S21

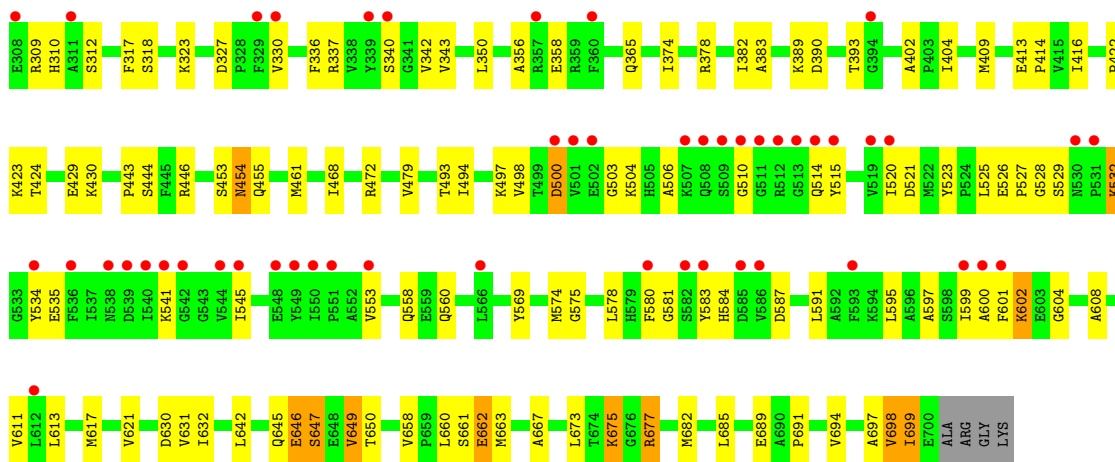


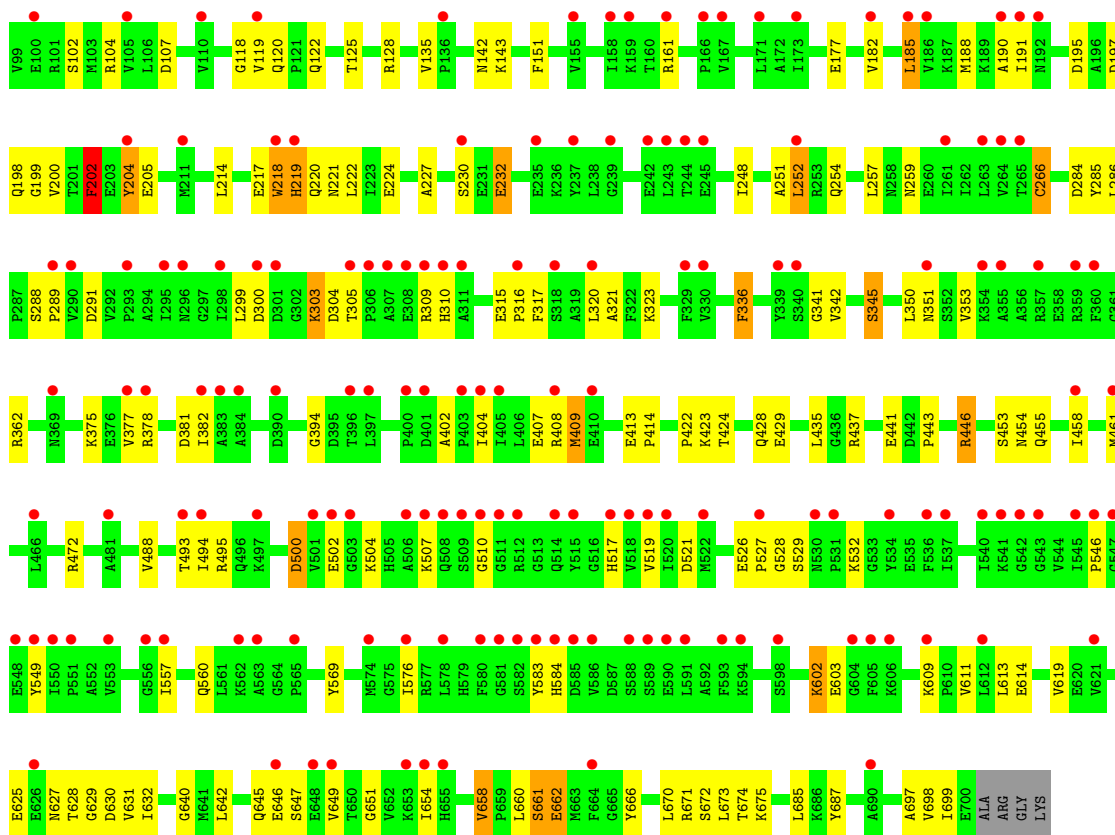
- Molecule 54: 30S ribosomal protein S21



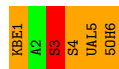
- Molecule 54: 30S ribosomal protein S21







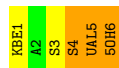
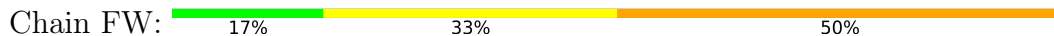
● Molecule 56: Viomycin



● Molecule 56: Viomycin

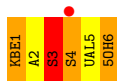


● Molecule 56: Viomycin



● 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: KBE, MG, 5OH, ZN, DPP, GCP, UAL

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
18	ER	81	LYS
55	FV	602	LYS
23	EW	25	PHE
18	ER	52	PRO
38	FE	76	LEU

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

Mol	Chain	Res	Type
38	FE	89	HIS
5	GE	29	HIS
47	FN	35	ASN
55	FV	122	GLN
5	GE	97	ASN

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
3	EA	503	A
3	EA	2423	U
3	GA	2902	C
3	EA	784	G
3	EA	1378	A

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	5OH	FW	6	56	8,12,13	1.89	2 (25%)	3,16,18	1.98	2 (66%)
56	DPP	HW	2	56	3,5,6	0.96	0	1,5,7	0.33	0
56	5OH	BW	6	56	8,12,13	1.65	2 (25%)	3,16,18	2.80	2 (66%)
56	KBE	HW	1	56	8,8,9	0.95	0	7,8,10	1.16	1 (14%)
56	DPP	DW	2	56	3,5,6	0.87	0	1,5,7	0.78	0
56	DPP	FW	2	56	3,5,6	1.09	0	1,5,7	0.84	0
56	UAL	DW	5	56	7,8,9	2.59	4 (57%)	5,9,11	4.41	3 (60%)
56	KBE	FW	1	56	8,8,9	0.96	0	7,8,10	1.09	0
56	KBE	BW	1	56	8,8,9	1.23	1 (12%)	7,8,10	1.28	1 (14%)
56	5OH	HW	6	56	8,12,13	1.61	2 (25%)	3,16,18	1.61	1 (33%)
56	DPP	BW	2	56	3,5,6	0.87	0	1,5,7	0.44	0
56	UAL	FW	5	56	7,8,9	2.51	4 (57%)	5,9,11	5.41	2 (40%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
56	5OH	DW	6	56	8,12,13	1.65	2 (25%)	3,16,18	1.84	2 (66%)
56	KBE	DW	1	56	8,8,9	0.99	0	7,8,10	1.50	2 (28%)
56	UAL	BW	5	56	7,8,9	2.60	4 (57%)	5,9,11	5.94	2 (40%)
56	UAL	HW	5	56	7,8,9	3.10	4 (57%)	5,9,11	4.81	4 (80%)

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	5OH	FW	6	56	-	0/2/18/20	0/1/1/1
56	DPP	HW	2	56	-	0/2/4/6	-
56	5OH	BW	6	56	-	0/2/18/20	0/1/1/1
56	KBE	HW	1	56	-	4/7/7/8	-
56	DPP	DW	2	56	-	0/2/4/6	-
56	DPP	FW	2	56	-	0/2/4/6	-
56	UAL	DW	5	56	-	1/3/7/9	-
56	KBE	FW	1	56	-	3/7/7/8	-
56	KBE	BW	1	56	-	7/7/7/8	-
56	5OH	HW	6	56	-	1/2/18/20	0/1/1/1
56	DPP	BW	2	56	-	0/2/4/6	-
56	UAL	FW	5	56	-	0/3/7/9	-
56	5OH	DW	6	56	-	1/2/18/20	0/1/1/1
56	KBE	DW	1	56	-	4/7/7/8	-
56	UAL	BW	5	56	-	0/3/7/9	-
56	UAL	HW	5	56	-	1/3/7/9	-

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	BW	1	KBE	O-C-CA-CB
56	BW	1	KBE	C-CA-CB-N
56	BW	1	KBE	C-CA-CB-CG
56	BW	1	KBE	N-CB-CG-CD
56	BW	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	FW	6	5OH	1	0
56	HW	2	DPP	1	0
56	BW	6	5OH	1	0
56	HW	1	KBE	3	0
56	DW	5	UAL	2	0
56	FW	1	KBE	1	0
56	BW	1	KBE	2	0
56	HW	6	5OH	2	0
56	FW	5	UAL	1	0
56	DW	6	5OH	1	0
56	DW	1	KBE	2	0
56	BW	5	UAL	2	0

5.5 Carbohydrates [i](#)

There are no monosaccharides 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	BV	801	57	27,34,34	2.36	7 (25%)	34,54,54	2.08	7 (20%)
59	GCP	DV	801	57	27,34,34	2.27	7 (25%)	34,54,54	2.10	9 (26%)
59	GCP	FV	801	57	27,34,34	2.32	7 (25%)	34,54,54	2.10	10 (29%)
59	GCP	HV	801	57	27,34,34	2.25	6 (22%)	34,54,54	2.12	12 (35%)

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	BV	801	57	-	2/15/38/38	0/3/3/3
59	GCP	DV	801	57	-	1/15/38/38	0/3/3/3
59	GCP	FV	801	57	-	3/15/38/38	0/3/3/3
59	GCP	HV	801	57	-	3/15/38/38	0/3/3/3

The worst 5 of 27 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
59	HV	801	GCP	C2-N2	5.87	1.45	1.33
59	BV	801	GCP	C2'-C1'	-5.85	1.44	1.53
59	FV	801	GCP	O4'-C1'	5.69	1.49	1.41
59	FV	801	GCP	C2-N2	5.63	1.45	1.33
59	DV	801	GCP	C2'-C1'	-5.47	1.45	1.53

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

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
59	HV	801	GCP	N3-C2-N1	-6.14	119.04	127.22
59	BV	801	GCP	PB-O3A-PA	-6.05	113.39	132.56
59	FV	801	GCP	C2-N3-C4	5.90	122.10	115.36
59	FV	801	GCP	N3-C2-N1	-5.79	119.50	127.22
59	DV	801	GCP	PB-O3A-PA	-5.43	115.35	132.56

There are no chirality outliers.

5 of 9 torsion outliers are listed below:

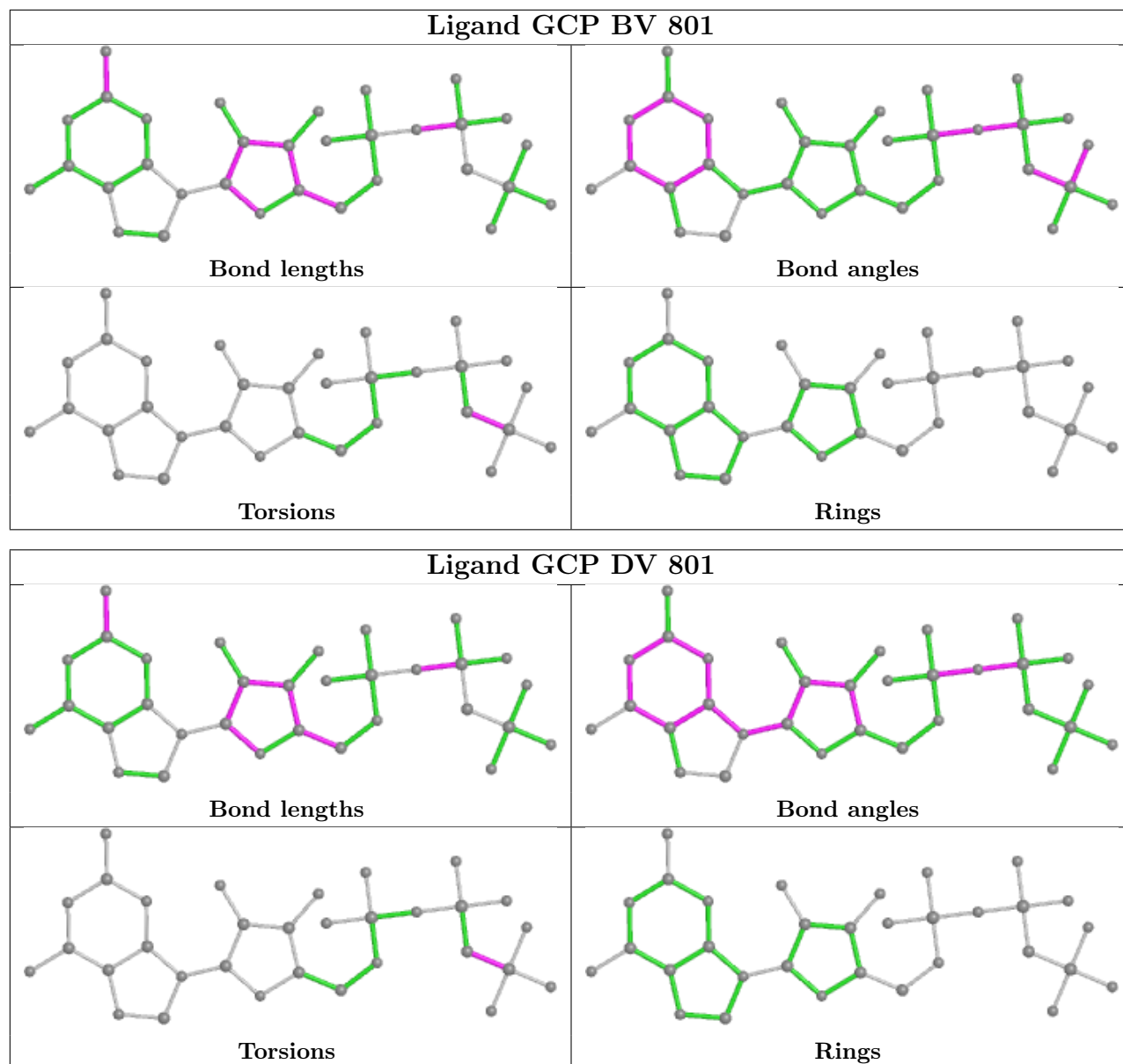
Mol	Chain	Res	Type	Atoms
59	BV	801	GCP	PB-C3B-PG-O3G
59	FV	801	GCP	PB-C3B-PG-O1G
59	FV	801	GCP	PB-C3B-PG-O2G
59	FV	801	GCP	PB-C3B-PG-O3G
59	HV	801	GCP	PB-C3B-PG-O1G

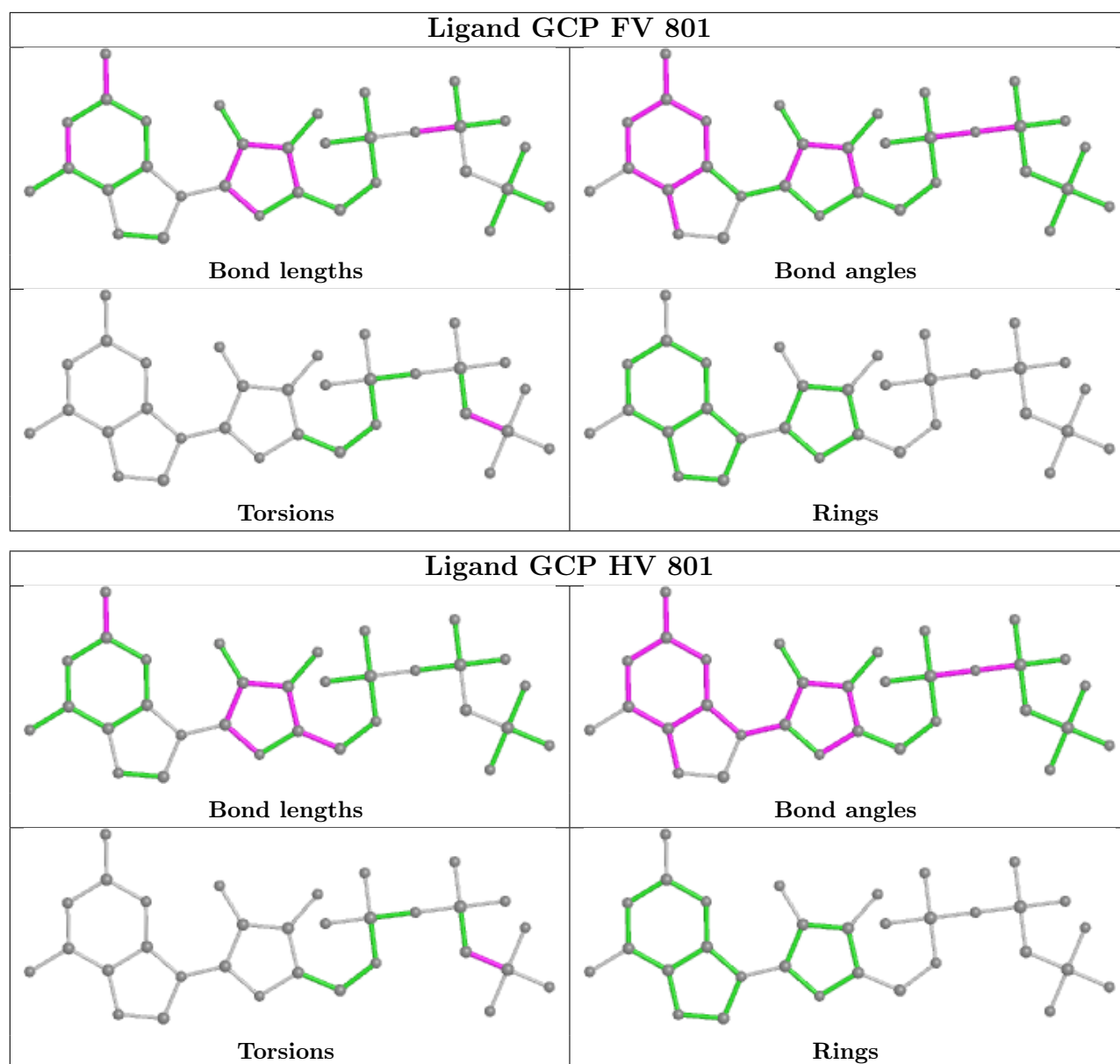
There are no ring outliers.

4 monomers are involved in 6 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
59	BV	801	GCP	1	0
59	DV	801	GCP	2	0
59	FV	801	GCP	2	0
59	HV	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	14, 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	16, 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, 76	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	UAL	DW	5	9/10	0.93	0.12	17,27,36,48	0
56	UAL	FW	5	9/10	0.93	0.15	15,18,29,38	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	KBE	BW	1	9/10	0.93	0.19	4,9,22,23	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	DPP	DW	2	6/7	0.96	0.12	25,37,38,39	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	FW	2	6/7	0.98	0.20	18,22,27,32	0

6.3 Carbohydrates [i](#)

There are no monosaccharides in this entry.

6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 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	BE	201	1/1	0.81	0.15	31,31,31,31	0
57	MG	HK	201	1/1	0.81	0.24	28,28,28,28	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	DA	1614	1/1	0.85	0.26	46,46,46,46	0
57	MG	CA	3136	1/1	0.85	0.28	22,22,22,22	0
57	MG	EA	3136	1/1	0.86	0.37	15,15,15,15	0
57	MG	AA	3069	1/1	0.86	0.13	44,44,44,44	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	3109	1/1	0.87	0.16	35,35,35,35	0
57	MG	CA	3115	1/1	0.87	0.23	51,51,51,51	0
57	MG	EA	3015	1/1	0.87	0.55	2,2,2,2	0
57	MG	GA	3011	1/1	0.88	0.11	46,46,46,46	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	HA	1611	1/1	0.88	0.20	26,26,26,26	0
57	MG	HA	1624	1/1	0.88	0.11	38,38,38,38	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	1617	1/1	0.89	0.14	49,49,49,49	0
57	MG	AA	3060	1/1	0.89	0.27	34,34,34,34	0
57	MG	EA	3055	1/1	0.89	0.56	30,30,30,30	0
57	MG	HA	1615	1/1	0.89	0.17	36,36,36,36	0
57	MG	GA	3083	1/1	0.90	0.12	26,26,26,26	0
57	MG	GA	3088	1/1	0.90	0.67	37,37,37,37	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	DA	1629	1/1	0.90	0.53	43,43,43,43	0
57	MG	GA	3133	1/1	0.90	0.42	15,15,15,15	0
57	MG	HE	201	1/1	0.90	0.34	55,55,55,55	0
57	MG	GA	3080	1/1	0.90	0.21	36,36,36,36	0
57	MG	EA	3011	1/1	0.91	0.88	24,24,24,24	0
57	MG	EA	3110	1/1	0.91	0.14	12,12,12,12	0
57	MG	HA	1609	1/1	0.91	0.20	23,23,23,23	0
57	MG	BA	1615	1/1	0.91	0.30	25,25,25,25	0
57	MG	EA	3050	1/1	0.91	0.19	23,23,23,23	0
57	MG	GA	3035	1/1	0.91	0.14	24,24,24,24	0
57	MG	HA	1619	1/1	0.91	0.10	19,19,19,19	0
57	MG	GA	3055	1/1	0.91	0.64	21,21,21,21	0
57	MG	GA	3110	1/1	0.91	0.21	11,11,11,11	0
57	MG	HA	1629	1/1	0.91	0.11	45,45,45,45	0
57	MG	AA	3093	1/1	0.91	0.31	34,34,34,34	0
57	MG	GA	3076	1/1	0.91	0.26	34,34,34,34	0
57	MG	CA	3094	1/1	0.92	0.43	37,37,37,37	0
57	MG	GA	3114	1/1	0.92	0.31	27,27,27,27	0
57	MG	GA	3116	1/1	0.92	0.31	22,22,22,22	0
57	MG	HA	1618	1/1	0.92	0.16	35,35,35,35	0
57	MG	GA	3128	1/1	0.92	0.10	18,18,18,18	0
57	MG	CB	1202	1/1	0.92	0.16	44,44,44,44	0
57	MG	FA	1603	1/1	0.92	0.14	20,20,20,20	0
57	MG	GA	3057	1/1	0.92	0.14	28,28,28,28	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	1637	1/1	0.92	0.14	51,51,51,51	0
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	EA	3039	1/1	0.93	0.19	15,15,15,15	0
57	MG	GB	1202	1/1	0.93	0.13	64,64,64,64	0
57	MG	GA	3124	1/1	0.93	0.20	36,36,36,36	0
57	MG	EA	3118	1/1	0.93	0.12	17,17,17,17	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	CB	1201	1/1	0.93	0.19	28,28,28,28	0
57	MG	EA	3070	1/1	0.93	0.59	23,23,23,23	0
57	MG	HA	1641	1/1	0.93	0.20	30,30,30,30	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	CA	3092	1/1	0.94	0.26	58,58,58,58	0
57	MG	CA	3006	1/1	0.94	0.08	30,30,30,30	0
57	MG	GA	3006	1/1	0.94	0.12	29,29,29,29	0
57	MG	BA	1637	1/1	0.94	0.34	15,15,15,15	0
57	MG	CA	3119	1/1	0.94	0.08	34,34,34,34	0
57	MG	GA	3129	1/1	0.94	0.28	29,29,29,29	0
57	MG	CA	3135	1/1	0.94	0.36	8,8,8,8	0
57	MG	GA	3025	1/1	0.94	0.17	25,25,25,25	0
57	MG	GA	3032	1/1	0.94	0.16	22,22,22,22	0
57	MG	CA	3012	1/1	0.94	0.13	6,6,6,6	0
57	MG	HA	1601	1/1	0.94	0.06	27,27,27,27	0
57	MG	HA	1608	1/1	0.94	0.43	47,47,47,47	0
57	MG	EA	3095	1/1	0.94	0.13	6,6,6,6	0
57	MG	EA	3097	1/1	0.94	0.21	19,19,19,19	0
57	MG	HA	1614	1/1	0.94	0.17	49,49,49,49	0
57	MG	GA	3068	1/1	0.94	0.40	30,30,30,30	0
57	MG	CA	3015	1/1	0.94	0.12	25,25,25,25	0
57	MG	GA	3070	1/1	0.94	0.14	22,22,22,22	0
57	MG	CA	3025	1/1	0.94	0.14	24,24,24,24	0
57	MG	HA	1620	1/1	0.94	0.17	32,32,32,32	0
57	MG	AA	3083	1/1	0.94	0.26	18,18,18,18	0
57	MG	HA	1625	1/1	0.94	0.32	44,44,44,44	0
57	MG	AA	3090	1/1	0.94	0.24	32,32,32,32	0
57	MG	DA	1635	1/1	0.94	0.08	37,37,37,37	0
57	MG	DA	1643	1/1	0.94	0.22	32,32,32,32	0
57	MG	GA	3090	1/1	0.94	0.10	27,27,27,27	0
57	MG	BA	1636	1/1	0.94	0.15	24,24,24,24	0
57	MG	CA	3091	1/1	0.94	0.43	38,38,38,38	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
57	MG	AE	301	1/1	0.95	0.30	21,21,21,21	0
57	MG	CA	3044	1/1	0.95	0.08	28,28,28,28	0
57	MG	GA	3136	1/1	0.95	0.22	27,27,27,27	0
57	MG	FA	1606	1/1	0.95	0.16	15,15,15,15	0
57	MG	AA	3001	1/1	0.95	0.72	20,20,20,20	0
57	MG	HA	1602	1/1	0.95	0.16	26,26,26,26	0
57	MG	AA	3092	1/1	0.95	0.10	14,14,14,14	0
57	MG	DA	1603	1/1	0.95	0.13	20,20,20,20	0
57	MG	FU	101	1/1	0.95	0.17	21,21,21,21	0
57	MG	EA	3069	1/1	0.95	0.09	25,25,25,25	0
57	MG	AA	3016	1/1	0.95	0.17	11,11,11,11	0
57	MG	GA	3086	1/1	0.95	0.13	24,24,24,24	0
57	MG	GA	3004	1/1	0.95	0.38	25,25,25,25	0
57	MG	CA	3085	1/1	0.95	0.16	5,5,5,5	0
57	MG	EA	3091	1/1	0.95	0.27	40,40,40,40	0
57	MG	AA	3047	1/1	0.95	0.21	12,12,12,12	0
57	MG	AA	3100	1/1	0.95	0.29	1,1,1,1	0
57	MG	GA	3009	1/1	0.95	0.22	35,35,35,35	0
57	MG	AA	3114	1/1	0.95	0.20	10,10,10,10	0
57	MG	GA	3015	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	CA	3113	1/1	0.95	0.20	10,10,10,10	0
57	MG	EA	3125	1/1	0.95	0.24	18,18,18,18	0
59	GCP	FV	801	32/32	0.95	0.16	16,28,45,57	0
57	MG	GA	3101	1/1	0.96	0.14	13,13,13,13	0
57	MG	DA	1604	1/1	0.96	0.07	18,18,18,18	0
57	MG	DA	1608	1/1	0.96	0.22	30,30,30,30	0
57	MG	DA	1612	1/1	0.96	0.14	33,33,33,33	0
57	MG	EA	3088	1/1	0.96	0.35	19,19,19,19	0
57	MG	GA	3121	1/1	0.96	0.15	16,16,16,16	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	AA	3084	1/1	0.96	0.19	2,2,2,2	0
57	MG	BA	1625	1/1	0.96	0.17	23,23,23,23	0
57	MG	EA	3109	1/1	0.96	0.11	19,19,19,19	0
57	MG	GA	3017	1/1	0.96	0.12	10,10,10,10	0
57	MG	GA	3018	1/1	0.96	0.05	21,21,21,21	0
57	MG	GA	3024	1/1	0.96	0.19	14,14,14,14	0
57	MG	DA	1630	1/1	0.96	0.11	25,25,25,25	0
57	MG	GA	3028	1/1	0.96	0.16	12,12,12,12	0
57	MG	HA	1604	1/1	0.96	0.04	31,31,31,31	0
57	MG	EA	3114	1/1	0.96	0.17	17,17,17,17	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	CB	1204	1/1	0.96	0.05	15,15,15,15	0
57	MG	GA	3050	1/1	0.96	0.28	26,26,26,26	0
57	MG	GA	3051	1/1	0.96	0.25	20,20,20,20	0
57	MG	CA	3110	1/1	0.96	0.18	23,23,23,23	0
57	MG	HA	1616	1/1	0.96	0.38	40,40,40,40	0
57	MG	EA	3132	1/1	0.96	0.14	21,21,21,21	0
57	MG	GA	3059	1/1	0.96	0.12	25,25,25,25	0
57	MG	CA	3111	1/1	0.96	0.15	18,18,18,18	0
57	MG	CA	3055	1/1	0.96	0.19	19,19,19,19	0
57	MG	FA	1604	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	FA	1618	1/1	0.96	0.27	21,21,21,21	0
57	MG	HA	1627	1/1	0.96	0.20	41,41,41,41	0
57	MG	CA	3010	1/1	0.96	0.28	8,8,8,8	0
57	MG	HA	1631	1/1	0.96	0.17	31,31,31,31	0
57	MG	HA	1634	1/1	0.96	0.10	35,35,35,35	0
57	MG	EA	3019	1/1	0.96	0.13	10,10,10,10	0
57	MG	HA	1639	1/1	0.96	0.14	22,22,22,22	0
57	MG	BA	1613	1/1	0.96	0.17	8,8,8,8	0
57	MG	FN	201	1/1	0.96	0.24	14,14,14,14	0
57	MG	CA	3078	1/1	0.96	0.08	34,34,34,34	0
59	GCP	DV	801	32/32	0.96	0.14	17,28,38,41	0
57	MG	AA	3037	1/1	0.96	0.43	30,30,30,30	0
59	GCP	HV	801	32/32	0.96	0.12	18,36,48,55	0
57	MG	DA	1628	1/1	0.97	0.32	44,44,44,44	0
57	MG	AA	3045	1/1	0.97	0.21	8,8,8,8	0
57	MG	GA	3084	1/1	0.97	0.41	30,30,30,30	0
57	MG	EB	1201	1/1	0.97	0.10	30,30,30,30	0
57	MG	CA	3093	1/1	0.97	0.11	40,40,40,40	0
57	MG	AA	3113	1/1	0.97	0.12	8,8,8,8	0
57	MG	CA	3098	1/1	0.97	0.15	29,29,29,29	0
57	MG	GA	3099	1/1	0.97	0.14	33,33,33,33	0
57	MG	FA	1610	1/1	0.97	0.25	33,33,33,33	0
57	MG	GA	3108	1/1	0.97	0.18	38,38,38,38	0
57	MG	AA	3087	1/1	0.97	0.15	19,19,19,19	0
57	MG	FA	1620	1/1	0.97	0.09	41,41,41,41	0
57	MG	GA	3113	1/1	0.97	0.13	32,32,32,32	0
57	MG	FA	1621	1/1	0.97	0.14	13,13,13,13	0
57	MG	CA	3016	1/1	0.97	0.18	11,11,11,11	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	GA	3120	1/1	0.97	0.20	19,19,19,19	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	3001	1/1	0.97	0.18	11,11,11,11	0
57	MG	AA	3118	1/1	0.97	0.07	14,14,14,14	0
57	MG	FA	1637	1/1	0.97	0.09	29,29,29,29	0
57	MG	EA	3014	1/1	0.97	0.21	1,1,1,1	0
57	MG	AA	3124	1/1	0.97	0.25	4,4,4,4	0
57	MG	AA	3012	1/1	0.97	0.21	32,32,32,32	0
57	MG	EA	3033	1/1	0.97	0.26	0,0,0,0	0
57	MG	GB	1204	1/1	0.97	0.04	37,37,37,37	0
57	MG	AA	3135	1/1	0.97	0.37	12,12,12,12	0
57	MG	EA	3040	1/1	0.97	0.28	11,11,11,11	0
57	MG	EA	3046	1/1	0.97	0.23	9,9,9,9	0
57	MG	AA	3136	1/1	0.97	0.34	11,11,11,11	0
57	MG	EA	3052	1/1	0.97	0.17	12,12,12,12	0
57	MG	CN	201	1/1	0.97	0.21	20,20,20,20	0
57	MG	EA	3057	1/1	0.97	0.07	18,18,18,18	0
57	MG	HA	1612	1/1	0.97	0.28	20,20,20,20	0
57	MG	HA	1613	1/1	0.97	0.27	32,32,32,32	0
57	MG	C4	101	1/1	0.97	0.09	17,17,17,17	0
57	MG	DA	1601	1/1	0.97	0.12	26,26,26,26	0
57	MG	EA	3076	1/1	0.97	0.13	6,6,6,6	0
57	MG	GA	3021	1/1	0.97	0.67	20,20,20,20	0
57	MG	DA	1602	1/1	0.97	0.08	28,28,28,28	0
57	MG	AA	3005	1/1	0.97	0.13	16,16,16,16	0
57	MG	AA	3025	1/1	0.97	0.15	0,0,0,0	0
57	MG	HA	1622	1/1	0.97	0.21	30,30,30,30	0
57	MG	EA	3092	1/1	0.97	0.13	22,22,22,22	0
57	MG	GA	3033	1/1	0.97	0.28	30,30,30,30	0
57	MG	CA	3080	1/1	0.97	0.17	20,20,20,20	0
57	MG	GA	3040	1/1	0.97	0.15	15,15,15,15	0
57	MG	CA	3002	1/1	0.97	0.16	38,38,38,38	0
57	MG	BA	1603	1/1	0.97	0.15	18,18,18,18	0
57	MG	HA	1632	1/1	0.97	0.10	31,31,31,31	0
57	MG	DA	1617	1/1	0.97	0.08	39,39,39,39	0
57	MG	DA	1618	1/1	0.97	0.04	37,37,37,37	0
57	MG	DA	1623	1/1	0.97	0.18	42,42,42,42	0
57	MG	EA	3117	1/1	0.97	0.09	15,15,15,15	0
57	MG	CA	3090	1/1	0.97	0.21	19,19,19,19	0
57	MG	EA	3121	1/1	0.97	0.30	5,5,5,5	0
57	MG	EA	3122	1/1	0.97	0.28	4,4,4,4	0
57	MG	GA	3077	1/1	0.97	0.12	55,55,55,55	0
57	MG	AA	3007	1/1	0.97	0.10	19,19,19,19	0
57	MG	EA	3130	1/1	0.98	0.20	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	EA	3131	1/1	0.98	0.11	3,3,3,3	0
57	MG	BA	1627	1/1	0.98	0.22	19,19,19,19	0
57	MG	EA	3135	1/1	0.98	0.14	25,25,25,25	0
57	MG	CA	3103	1/1	0.98	0.11	17,17,17,17	0
57	MG	EA	3137	1/1	0.98	0.32	11,11,11,11	0
57	MG	CA	3107	1/1	0.98	0.17	14,14,14,14	0
57	MG	EB	1202	1/1	0.98	0.12	17,17,17,17	0
57	MG	EE	301	1/1	0.98	0.09	19,19,19,19	0
57	MG	FA	1601	1/1	0.98	0.08	17,17,17,17	0
57	MG	FA	1602	1/1	0.98	0.12	18,18,18,18	0
57	MG	CA	3109	1/1	0.98	0.24	7,7,7,7	0
57	MG	BA	1629	1/1	0.98	0.15	15,15,15,15	0
57	MG	BA	1633	1/1	0.98	0.10	20,20,20,20	0
57	MG	BA	1635	1/1	0.98	0.14	29,29,29,29	0
57	MG	FA	1611	1/1	0.98	0.21	7,7,7,7	0
57	MG	FA	1614	1/1	0.98	0.20	13,13,13,13	0
57	MG	FA	1617	1/1	0.98	0.12	40,40,40,40	0
57	MG	AA	3103	1/1	0.98	0.18	0,0,0,0	0
57	MG	CA	3116	1/1	0.98	0.16	7,7,7,7	0
57	MG	CA	3118	1/1	0.98	0.12	31,31,31,31	0
57	MG	FA	1622	1/1	0.98	0.20	9,9,9,9	0
57	MG	FA	1624	1/1	0.98	0.20	27,27,27,27	0
57	MG	FA	1625	1/1	0.98	0.15	21,21,21,21	0
57	MG	FA	1626	1/1	0.98	0.23	22,22,22,22	0
57	MG	AA	3104	1/1	0.98	0.20	2,2,2,2	0
57	MG	FA	1630	1/1	0.98	0.08	44,44,44,44	0
57	MG	FA	1633	1/1	0.98	0.15	24,24,24,24	0
57	MG	CA	3132	1/1	0.98	0.10	9,9,9,9	0
57	MG	CA	3134	1/1	0.98	0.20	21,21,21,21	0
57	MG	BA	1639	1/1	0.98	0.26	12,12,12,12	0
57	MG	FA	1638	1/1	0.98	0.12	16,16,16,16	0
57	MG	FE	201	1/1	0.98	0.12	35,35,35,35	0
57	MG	AA	3110	1/1	0.98	0.20	9,9,9,9	0
57	MG	CE	301	1/1	0.98	0.07	19,19,19,19	0
57	MG	BN	201	1/1	0.98	0.20	13,13,13,13	0
57	MG	BU	101	1/1	0.98	0.14	19,19,19,19	0
57	MG	GB	1203	1/1	0.98	0.07	23,23,23,23	0
57	MG	BV	802	1/1	0.98	0.19	22,22,22,22	0
57	MG	GA	3002	1/1	0.98	0.07	31,31,31,31	0
57	MG	GA	3003	1/1	0.98	0.10	26,26,26,26	0
57	MG	AA	3112	1/1	0.98	0.25	0,0,0,0	0
57	MG	AA	3061	1/1	0.98	0.28	5,5,5,5	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
57	MG	AB	1203	1/1	0.98	0.16	0,0,0,0	0
57	MG	DA	1606	1/1	0.98	0.20	15,15,15,15	0
57	MG	DA	1607	1/1	0.98	0.14	16,16,16,16	0
57	MG	AA	3070	1/1	0.98	0.27	6,6,6,6	0
57	MG	GA	3010	1/1	0.98	0.32	16,16,16,16	0
57	MG	DA	1609	1/1	0.98	0.15	13,13,13,13	0
57	MG	GA	3013	1/1	0.98	0.08	18,18,18,18	0
57	MG	DA	1610	1/1	0.98	0.10	28,28,28,28	0
57	MG	GA	3016	1/1	0.98	0.12	12,12,12,12	0
57	MG	CA	3003	1/1	0.98	0.13	10,10,10,10	0
57	MG	AA	3119	1/1	0.98	0.15	0,0,0,0	0
57	MG	DA	1616	1/1	0.98	0.34	28,28,28,28	0
57	MG	CA	3007	1/1	0.98	0.15	35,35,35,35	0
57	MG	AA	3120	1/1	0.98	0.24	9,9,9,9	0
57	MG	GA	3026	1/1	0.98	0.16	31,31,31,31	0
57	MG	DA	1621	1/1	0.98	0.12	44,44,44,44	0
57	MG	GA	3030	1/1	0.98	0.26	15,15,15,15	0
57	MG	GA	3031	1/1	0.98	0.10	15,15,15,15	0
57	MG	AA	3075	1/1	0.98	0.11	15,15,15,15	0
57	MG	AA	3129	1/1	0.98	0.24	9,9,9,9	0
57	MG	DA	1625	1/1	0.98	0.14	29,29,29,29	0
57	MG	GA	3036	1/1	0.98	0.15	38,38,38,38	0
57	MG	GA	3038	1/1	0.98	0.17	21,21,21,21	0
57	MG	GA	3039	1/1	0.98	0.25	28,28,28,28	0
57	MG	AA	3130	1/1	0.98	0.20	3,3,3,3	0
57	MG	GA	3044	1/1	0.98	0.06	21,21,21,21	0
57	MG	AA	3076	1/1	0.98	0.14	13,13,13,13	0
57	MG	CA	3019	1/1	0.98	0.14	27,27,27,27	0
57	MG	GA	3052	1/1	0.98	0.18	4,4,4,4	0
57	MG	GA	3054	1/1	0.98	0.14	12,12,12,12	0
57	MG	CA	3021	1/1	0.98	0.11	5,5,5,5	0
57	MG	DA	1632	1/1	0.98	0.09	22,22,22,22	0
57	MG	CA	3023	1/1	0.98	0.26	5,5,5,5	0
57	MG	GA	3060	1/1	0.98	0.16	18,18,18,18	0
57	MG	GA	3061	1/1	0.98	0.11	20,20,20,20	0
57	MG	GA	3062	1/1	0.98	0.17	19,19,19,19	0
57	MG	GA	3063	1/1	0.98	0.14	27,27,27,27	0
57	MG	GA	3065	1/1	0.98	0.12	20,20,20,20	0
57	MG	CA	3024	1/1	0.98	0.20	6,6,6,6	0
57	MG	AA	3038	1/1	0.98	0.26	3,3,3,3	0
57	MG	DA	1637	1/1	0.98	0.12	25,25,25,25	0
57	MG	GA	3075	1/1	0.98	0.18	16,16,16,16	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	1638	1/1	0.98	0.10	25,25,25,25	0
57	MG	DA	1639	1/1	0.98	0.16	30,30,30,30	0
57	MG	GA	3078	1/1	0.98	0.12	35,35,35,35	0
57	MG	DA	1640	1/1	0.98	0.06	24,24,24,24	0
57	MG	CA	3026	1/1	0.98	0.15	14,14,14,14	0
57	MG	GA	3082	1/1	0.98	0.09	38,38,38,38	0
57	MG	CA	3034	1/1	0.98	0.13	13,13,13,13	0
57	MG	EA	3004	1/1	0.98	0.13	12,12,12,12	0
57	MG	EA	3007	1/1	0.98	0.08	12,12,12,12	0
57	MG	GA	3087	1/1	0.98	0.12	23,23,23,23	0
57	MG	EA	3009	1/1	0.98	0.25	2,2,2,2	0
57	MG	CA	3036	1/1	0.98	0.12	28,28,28,28	0
57	MG	GA	3091	1/1	0.98	0.06	28,28,28,28	0
57	MG	GA	3092	1/1	0.98	0.17	16,16,16,16	0
57	MG	CA	3042	1/1	0.98	0.08	16,16,16,16	0
57	MG	CA	3043	1/1	0.98	0.16	4,4,4,4	0
57	MG	GA	3100	1/1	0.98	0.29	12,12,12,12	0
57	MG	AA	3042	1/1	0.98	0.20	8,8,8,8	0
57	MG	GA	3105	1/1	0.98	0.17	16,16,16,16	0
57	MG	GA	3106	1/1	0.98	0.15	7,7,7,7	0
57	MG	EA	3025	1/1	0.98	0.23	1,1,1,1	0
57	MG	EA	3028	1/1	0.98	0.17	7,7,7,7	0
57	MG	CA	3045	1/1	0.98	0.20	5,5,5,5	0
57	MG	GA	3111	1/1	0.98	0.14	35,35,35,35	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	3115	1/1	0.98	0.23	20,20,20,20	0
57	MG	EA	3036	1/1	0.98	0.13	12,12,12,12	0
57	MG	EA	3038	1/1	0.98	0.22	2,2,2,2	0
57	MG	CA	3049	1/1	0.98	0.17	7,7,7,7	0
57	MG	CA	3053	1/1	0.98	0.15	20,20,20,20	0
57	MG	EA	3041	1/1	0.98	0.18	3,3,3,3	0
57	MG	GA	3123	1/1	0.98	0.20	44,44,44,44	0
57	MG	EA	3045	1/1	0.98	0.18	9,9,9,9	0
57	MG	GA	3126	1/1	0.98	0.07	35,35,35,35	0
57	MG	GA	3127	1/1	0.98	0.13	18,18,18,18	0
57	MG	AA	3044	1/1	0.98	0.10	4,4,4,4	0
57	MG	EA	3049	1/1	0.98	0.17	8,8,8,8	0
57	MG	A4	101	1/1	0.98	0.12	20,20,20,20	0
57	MG	GA	3132	1/1	0.98	0.16	28,28,28,28	0
57	MG	EA	3051	1/1	0.98	0.27	6,6,6,6	0
57	MG	GA	3134	1/1	0.98	0.08	28,28,28,28	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
57	MG	CA	3059	1/1	0.98	0.18	10,10,10,10	0
57	MG	CA	3061	1/1	0.98	0.10	4,4,4,4	0
57	MG	GC	301	1/1	0.98	0.24	26,26,26,26	0
57	MG	GC	302	1/1	0.98	0.07	22,22,22,22	0
57	MG	EA	3056	1/1	0.98	0.13	13,13,13,13	0
57	MG	CA	3066	1/1	0.98	0.17	4,4,4,4	0
57	MG	CA	3068	1/1	0.98	0.19	9,9,9,9	0
57	MG	BA	1601	1/1	0.98	0.10	23,23,23,23	0
57	MG	HA	1605	1/1	0.98	0.15	40,40,40,40	0
57	MG	HA	1606	1/1	0.98	0.17	29,29,29,29	0
57	MG	HA	1607	1/1	0.98	0.07	33,33,33,33	0
57	MG	EA	3074	1/1	0.98	0.19	11,11,11,11	0
57	MG	CA	3073	1/1	0.98	0.14	4,4,4,4	0
57	MG	HA	1610	1/1	0.98	0.07	31,31,31,31	0
57	MG	EA	3078	1/1	0.98	0.10	20,20,20,20	0
57	MG	EA	3080	1/1	0.98	0.20	15,15,15,15	0
57	MG	CA	3074	1/1	0.98	0.16	13,13,13,13	0
57	MG	EA	3087	1/1	0.98	0.10	21,21,21,21	0
57	MG	CA	3076	1/1	0.98	0.13	16,16,16,16	0
57	MG	AA	3088	1/1	0.98	0.18	4,4,4,4	0
57	MG	AA	3019	1/1	0.98	0.14	15,15,15,15	0
57	MG	EA	3093	1/1	0.98	0.13	11,11,11,11	0
57	MG	BA	1605	1/1	0.98	0.16	28,28,28,28	0
57	MG	CA	3082	1/1	0.98	0.16	14,14,14,14	0
57	MG	AA	3046	1/1	0.98	0.29	13,13,13,13	0
57	MG	HA	1623	1/1	0.98	0.20	36,36,36,36	0
57	MG	EA	3100	1/1	0.98	0.22	1,1,1,1	0
57	MG	EA	3101	1/1	0.98	0.14	7,7,7,7	0
57	MG	EA	3102	1/1	0.98	0.08	23,23,23,23	0
57	MG	EA	3108	1/1	0.98	0.20	15,15,15,15	0
57	MG	HA	1628	1/1	0.98	0.26	29,29,29,29	0
57	MG	BA	1610	1/1	0.98	0.09	41,41,41,41	0
57	MG	AA	3002	1/1	0.98	0.15	25,25,25,25	0
57	MG	EA	3111	1/1	0.98	0.13	5,5,5,5	0
57	MG	AA	3095	1/1	0.98	0.26	4,4,4,4	0
57	MG	HA	1635	1/1	0.98	0.11	28,28,28,28	0
57	MG	EA	3115	1/1	0.98	0.17	6,6,6,6	0
57	MG	AA	3052	1/1	0.98	0.16	3,3,3,3	0
57	MG	AA	3035	1/1	0.98	0.20	5,5,5,5	0
57	MG	EA	3119	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
58	ZN	G4	101	1/1	0.98	0.07	66,66,66,66	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
59	GCP	BV	801	32/32	0.98	0.14	9,25,32,35	0
57	MG	CA	3095	1/1	0.98	0.15	14,14,14,14	0
57	MG	CA	3096	1/1	0.98	0.21	16,16,16,16	0
57	MG	EA	3128	1/1	0.98	0.18	0,0,0,0	0
57	MG	AA	3010	1/1	0.99	0.18	8,8,8,8	0
57	MG	EA	3084	1/1	0.99	0.22	7,7,7,7	0
57	MG	EA	3085	1/1	0.99	0.26	11,11,11,11	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	EA	3089	1/1	0.99	0.14	6,6,6,6	0
57	MG	EA	3090	1/1	0.99	0.08	11,11,11,11	0
57	MG	CA	3047	1/1	0.99	0.10	23,23,23,23	0
57	MG	CA	3048	1/1	0.99	0.17	17,17,17,17	0
57	MG	AB	1201	1/1	0.99	0.08	34,34,34,34	0
57	MG	CA	3050	1/1	0.99	0.08	14,14,14,14	0
57	MG	CA	3051	1/1	0.99	0.32	6,6,6,6	0
57	MG	EA	3096	1/1	0.99	0.22	9,9,9,9	0
57	MG	CA	3052	1/1	0.99	0.14	4,4,4,4	0
57	MG	EA	3098	1/1	0.99	0.17	4,4,4,4	0
57	MG	EA	3099	1/1	0.99	0.16	3,3,3,3	0
57	MG	AA	3115	1/1	0.99	0.24	1,1,1,1	0
57	MG	CA	3054	1/1	0.99	0.09	14,14,14,14	0
57	MG	AA	3116	1/1	0.99	0.14	0,0,0,0	0
57	MG	EA	3103	1/1	0.99	0.26	0,0,0,0	0
57	MG	EA	3104	1/1	0.99	0.23	0,0,0,0	0
57	MG	EA	3105	1/1	0.99	0.14	5,5,5,5	0
57	MG	EA	3106	1/1	0.99	0.13	9,9,9,9	0
57	MG	AA	3117	1/1	0.99	0.10	11,11,11,11	0
57	MG	AA	3013	1/1	0.99	0.18	0,0,0,0	0
57	MG	CA	3060	1/1	0.99	0.12	7,7,7,7	0
57	MG	AA	3014	1/1	0.99	0.14	2,2,2,2	0
57	MG	EA	3112	1/1	0.99	0.17	2,2,2,2	0
57	MG	EA	3113	1/1	0.99	0.14	7,7,7,7	0
57	MG	CA	3062	1/1	0.99	0.16	15,15,15,15	0
57	MG	CA	3063	1/1	0.99	0.13	4,4,4,4	0
57	MG	EA	3116	1/1	0.99	0.16	6,6,6,6	0
57	MG	CA	3064	1/1	0.99	0.16	6,6,6,6	0
57	MG	CA	3065	1/1	0.99	0.17	11,11,11,11	0
57	MG	AA	3015	1/1	0.99	0.27	0,0,0,0	0
57	MG	EA	3120	1/1	0.99	0.20	5,5,5,5	0
57	MG	AA	3121	1/1	0.99	0.22	3,3,3,3	0
57	MG	AA	3122	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	EA	3123	1/1	0.99	0.23	3,3,3,3	0
57	MG	EA	3124	1/1	0.99	0.43	4,4,4,4	0
57	MG	CA	3070	1/1	0.99	0.10	8,8,8,8	0
57	MG	EA	3126	1/1	0.99	0.13	6,6,6,6	0
57	MG	EA	3127	1/1	0.99	0.15	11,11,11,11	0
57	MG	CA	3071	1/1	0.99	0.17	10,10,10,10	0
57	MG	EA	3129	1/1	0.99	0.21	2,2,2,2	0
57	MG	CA	3072	1/1	0.99	0.14	14,14,14,14	0
57	MG	AA	3123	1/1	0.99	0.11	5,5,5,5	0
57	MG	AA	3048	1/1	0.99	0.08	16,16,16,16	0
57	MG	EA	3134	1/1	0.99	0.24	7,7,7,7	0
57	MG	CA	3075	1/1	0.99	0.25	11,11,11,11	0
57	MG	AA	3125	1/1	0.99	0.22	8,8,8,8	0
57	MG	AA	3126	1/1	0.99	0.13	2,2,2,2	0
57	MG	AA	3127	1/1	0.99	0.13	10,10,10,10	0
57	MG	CA	3079	1/1	0.99	0.20	27,27,27,27	0
57	MG	EB	1203	1/1	0.99	0.17	0,0,0,0	0
57	MG	EB	1204	1/1	0.99	0.12	8,8,8,8	0
57	MG	ED	301	1/1	0.99	0.16	7,7,7,7	0
57	MG	AA	3049	1/1	0.99	0.20	17,17,17,17	0
57	MG	CA	3081	1/1	0.99	0.24	6,6,6,6	0
57	MG	AA	3051	1/1	0.99	0.10	9,9,9,9	0
57	MG	CA	3083	1/1	0.99	0.04	32,32,32,32	0
57	MG	CA	3084	1/1	0.99	0.22	20,20,20,20	0
57	MG	FA	1605	1/1	0.99	0.09	30,30,30,30	0
57	MG	AA	3131	1/1	0.99	0.10	3,3,3,3	0
57	MG	FA	1607	1/1	0.99	0.10	21,21,21,21	0
57	MG	FA	1608	1/1	0.99	0.23	13,13,13,13	0
57	MG	FA	1609	1/1	0.99	0.25	7,7,7,7	0
57	MG	CA	3086	1/1	0.99	0.17	15,15,15,15	0
57	MG	CA	3087	1/1	0.99	0.14	23,23,23,23	0
57	MG	FA	1612	1/1	0.99	0.30	4,4,4,4	0
57	MG	AA	3132	1/1	0.99	0.17	0,0,0,0	0
57	MG	FA	1615	1/1	0.99	0.12	16,16,16,16	0
57	MG	FA	1616	1/1	0.99	0.12	18,18,18,18	0
57	MG	CA	3089	1/1	0.99	0.19	14,14,14,14	0
57	MG	AA	3133	1/1	0.99	0.18	10,10,10,10	0
57	MG	FA	1619	1/1	0.99	0.12	7,7,7,7	0
57	MG	AA	3003	1/1	0.99	0.13	11,11,11,11	0
57	MG	AA	3055	1/1	0.99	0.16	0,0,0,0	0
57	MG	AA	3057	1/1	0.99	0.09	25,25,25,25	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	3058	1/1	0.99	0.14	9,9,9,9	0
57	MG	AA	3059	1/1	0.99	0.24	1,1,1,1	0
57	MG	AA	3004	1/1	0.99	0.12	20,20,20,20	0
57	MG	CA	3097	1/1	0.99	0.13	3,3,3,3	0
57	MG	FA	1628	1/1	0.99	0.16	27,27,27,27	0
57	MG	FA	1629	1/1	0.99	0.12	30,30,30,30	0
57	MG	AA	3020	1/1	0.99	0.09	9,9,9,9	0
57	MG	FA	1631	1/1	0.99	0.10	24,24,24,24	0
57	MG	FA	1632	1/1	0.99	0.13	24,24,24,24	0
57	MG	CA	3099	1/1	0.99	0.18	5,5,5,5	0
57	MG	FA	1634	1/1	0.99	0.18	13,13,13,13	0
57	MG	CA	3100	1/1	0.99	0.07	16,16,16,16	0
57	MG	CA	3102	1/1	0.99	0.24	9,9,9,9	0
57	MG	AA	3062	1/1	0.99	0.18	4,4,4,4	0
57	MG	CA	3104	1/1	0.99	0.16	8,8,8,8	0
57	MG	FA	1639	1/1	0.99	0.16	20,20,20,20	0
57	MG	CA	3105	1/1	0.99	0.23	14,14,14,14	0
57	MG	CA	3106	1/1	0.99	0.26	12,12,12,12	0
57	MG	BA	1604	1/1	0.99	0.07	17,17,17,17	0
57	MG	FV	802	1/1	0.99	0.18	24,24,24,24	0
57	MG	AA	3064	1/1	0.99	0.12	3,3,3,3	0
57	MG	BA	1606	1/1	0.99	0.18	14,14,14,14	0
57	MG	AA	3067	1/1	0.99	0.17	2,2,2,2	0
57	MG	CA	3112	1/1	0.99	0.30	10,10,10,10	0
57	MG	GA	3001	1/1	0.99	0.06	31,31,31,31	0
57	MG	BA	1608	1/1	0.99	0.23	11,11,11,11	0
57	MG	CA	3114	1/1	0.99	0.12	26,26,26,26	0
57	MG	BA	1609	1/1	0.99	0.12	7,7,7,7	0
57	MG	AA	3068	1/1	0.99	0.23	2,2,2,2	0
57	MG	CA	3117	1/1	0.99	0.12	7,7,7,7	0
57	MG	BA	1611	1/1	0.99	0.12	7,7,7,7	0
57	MG	BA	1612	1/1	0.99	0.18	3,3,3,3	0
57	MG	CA	3120	1/1	0.99	0.21	11,11,11,11	0
57	MG	CA	3123	1/1	0.99	0.24	26,26,26,26	0
57	MG	CA	3124	1/1	0.99	0.13	26,26,26,26	0
57	MG	GA	3012	1/1	0.99	0.16	22,22,22,22	0
57	MG	CA	3126	1/1	0.99	0.14	22,22,22,22	0
57	MG	GA	3014	1/1	0.99	0.07	15,15,15,15	0
57	MG	CA	3127	1/1	0.99	0.17	3,3,3,3	0
57	MG	CA	3129	1/1	0.99	0.12	9,9,9,9	0
57	MG	CA	3130	1/1	0.99	0.16	21,21,21,21	0
57	MG	CA	3131	1/1	0.99	0.27	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	3020	1/1	0.99	0.19	3,3,3,3	0
57	MG	AA	3021	1/1	0.99	0.20	6,6,6,6	0
57	MG	GA	3022	1/1	0.99	0.17	30,30,30,30	0
57	MG	GA	3023	1/1	0.99	0.33	27,27,27,27	0
57	MG	CA	3133	1/1	0.99	0.21	13,13,13,13	0
57	MG	BA	1614	1/1	0.99	0.11	7,7,7,7	0
57	MG	AA	3024	1/1	0.99	0.15	5,5,5,5	0
57	MG	GA	3027	1/1	0.99	0.09	17,17,17,17	0
57	MG	BA	1616	1/1	0.99	0.27	3,3,3,3	0
57	MG	GA	3029	1/1	0.99	0.08	16,16,16,16	0
57	MG	BA	1617	1/1	0.99	0.06	21,21,21,21	0
57	MG	BA	1618	1/1	0.99	0.17	1,1,1,1	0
57	MG	BA	1619	1/1	0.99	0.17	13,13,13,13	0
57	MG	AA	3072	1/1	0.99	0.17	5,5,5,5	0
57	MG	GA	3034	1/1	0.99	0.10	36,36,36,36	0
57	MG	BA	1622	1/1	0.99	0.16	17,17,17,17	0
57	MG	BA	1623	1/1	0.99	0.10	25,25,25,25	0
57	MG	GA	3037	1/1	0.99	0.32	18,18,18,18	0
57	MG	BA	1624	1/1	0.99	0.21	9,9,9,9	0
57	MG	DA	1605	1/1	0.99	0.15	18,18,18,18	0
57	MG	AA	3073	1/1	0.99	0.18	2,2,2,2	0
57	MG	GA	3041	1/1	0.99	0.12	10,10,10,10	0
57	MG	GA	3043	1/1	0.99	0.09	20,20,20,20	0
57	MG	AA	3074	1/1	0.99	0.18	5,5,5,5	0
57	MG	GA	3045	1/1	0.99	0.20	17,17,17,17	0
57	MG	GA	3046	1/1	0.99	0.12	35,35,35,35	0
57	MG	GA	3047	1/1	0.99	0.12	38,38,38,38	0
57	MG	GA	3048	1/1	0.99	0.16	15,15,15,15	0
57	MG	AB	1204	1/1	0.99	0.06	18,18,18,18	0
57	MG	AA	3026	1/1	0.99	0.22	4,4,4,4	0
57	MG	BA	1630	1/1	0.99	0.16	26,26,26,26	0
57	MG	GA	3053	1/1	0.99	0.17	6,6,6,6	0
57	MG	DA	1611	1/1	0.99	0.11	35,35,35,35	0
57	MG	BA	1631	1/1	0.99	0.07	16,16,16,16	0
57	MG	DA	1613	1/1	0.99	0.13	23,23,23,23	0
57	MG	GA	3058	1/1	0.99	0.13	24,24,24,24	0
57	MG	BA	1632	1/1	0.99	0.16	14,14,14,14	0
57	MG	DA	1615	1/1	0.99	0.20	45,45,45,45	0
57	MG	AA	3077	1/1	0.99	0.11	16,16,16,16	0
57	MG	BA	1634	1/1	0.99	0.10	13,13,13,13	0
57	MG	AA	3078	1/1	0.99	0.34	13,13,13,13	0
57	MG	GA	3064	1/1	0.99	0.12	11,11,11,11	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
57	MG	DA	1619	1/1	0.99	0.18	34,34,34,34	0
57	MG	GA	3066	1/1	0.99	0.16	12,12,12,12	0
57	MG	GA	3067	1/1	0.99	0.27	29,29,29,29	0
57	MG	AA	3079	1/1	0.99	0.11	4,4,4,4	0
57	MG	DA	1622	1/1	0.99	0.14	13,13,13,13	0
57	MG	AA	3080	1/1	0.99	0.22	0,0,0,0	0
57	MG	GA	3071	1/1	0.99	0.16	16,16,16,16	0
57	MG	GA	3072	1/1	0.99	0.08	24,24,24,24	0
57	MG	GA	3073	1/1	0.99	0.17	10,10,10,10	0
57	MG	GA	3074	1/1	0.99	0.14	10,10,10,10	0
57	MG	AA	3081	1/1	0.99	0.11	1,1,1,1	0
57	MG	BA	1640	1/1	0.99	0.22	11,11,11,11	0
57	MG	AA	3082	1/1	0.99	0.07	22,22,22,22	0
57	MG	DA	1627	1/1	0.99	0.14	23,23,23,23	0
57	MG	AA	3027	1/1	0.99	0.17	15,15,15,15	0
57	MG	AA	3028	1/1	0.99	0.12	4,4,4,4	0
57	MG	GA	3081	1/1	0.99	0.19	14,14,14,14	0
57	MG	AA	3086	1/1	0.99	0.08	14,14,14,14	0
57	MG	DA	1631	1/1	0.99	0.06	13,13,13,13	0
57	MG	AA	3029	1/1	0.99	0.24	0,0,0,0	0
57	MG	GA	3085	1/1	0.99	0.17	10,10,10,10	0
57	MG	DA	1633	1/1	0.99	0.08	29,29,29,29	0
57	MG	AA	3030	1/1	0.99	0.09	1,1,1,1	0
57	MG	CB	1203	1/1	0.99	0.10	12,12,12,12	0
57	MG	GA	3089	1/1	0.99	0.20	8,8,8,8	0
57	MG	AA	3089	1/1	0.99	0.09	4,4,4,4	0
57	MG	AA	3031	1/1	0.99	0.20	5,5,5,5	0
57	MG	AA	3091	1/1	0.99	0.08	33,33,33,33	0
57	MG	GA	3093	1/1	0.99	0.11	21,21,21,21	0
57	MG	GA	3094	1/1	0.99	0.06	14,14,14,14	0
57	MG	CA	3004	1/1	0.99	0.09	24,24,24,24	0
57	MG	GA	3096	1/1	0.99	0.15	15,15,15,15	0
57	MG	GA	3097	1/1	0.99	0.28	10,10,10,10	0
57	MG	CA	3005	1/1	0.99	0.15	35,35,35,35	0
57	MG	DA	1641	1/1	0.99	0.11	28,28,28,28	0
57	MG	AA	3032	1/1	0.99	0.17	0,0,0,0	0
57	MG	GA	3102	1/1	0.99	0.14	19,19,19,19	0
57	MG	GA	3103	1/1	0.99	0.22	12,12,12,12	0
57	MG	GA	3104	1/1	0.99	0.29	12,12,12,12	0
57	MG	DV	802	1/1	0.99	0.20	14,14,14,14	0
57	MG	AA	3033	1/1	0.99	0.19	1,1,1,1	0
57	MG	GA	3107	1/1	0.99	0.26	13,13,13,13	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
57	MG	EA	3002	1/1	0.99	0.14	7,7,7,7	0
57	MG	EA	3003	1/1	0.99	0.19	9,9,9,9	0
57	MG	CA	3008	1/1	0.99	0.16	14,14,14,14	0
57	MG	EA	3005	1/1	0.99	0.20	16,16,16,16	0
57	MG	GA	3112	1/1	0.99	0.20	13,13,13,13	0
57	MG	EA	3006	1/1	0.99	0.11	9,9,9,9	0
57	MG	CA	3009	1/1	0.99	0.18	10,10,10,10	0
57	MG	AA	3034	1/1	0.99	0.21	4,4,4,4	0
57	MG	AC	301	1/1	0.99	0.14	3,3,3,3	0
57	MG	AA	3098	1/1	0.99	0.21	0,0,0,0	0
57	MG	GA	3118	1/1	0.99	0.11	39,39,39,39	0
57	MG	CA	3013	1/1	0.99	0.07	9,9,9,9	0
57	MG	EA	3016	1/1	0.99	0.23	0,0,0,0	0
57	MG	EA	3017	1/1	0.99	0.15	8,8,8,8	0
57	MG	GA	3122	1/1	0.99	0.17	16,16,16,16	0
57	MG	EA	3018	1/1	0.99	0.19	9,9,9,9	0
57	MG	AA	3099	1/1	0.99	0.14	13,13,13,13	0
57	MG	EA	3021	1/1	0.99	0.16	11,11,11,11	0
57	MG	EA	3022	1/1	0.99	0.17	2,2,2,2	0
57	MG	EA	3023	1/1	0.99	0.22	9,9,9,9	0
57	MG	EA	3024	1/1	0.99	0.19	2,2,2,2	0
57	MG	AB	1202	1/1	0.99	0.08	25,25,25,25	0
57	MG	EA	3026	1/1	0.99	0.18	0,0,0,0	0
57	MG	CA	3018	1/1	0.99	0.08	30,30,30,30	0
57	MG	EA	3030	1/1	0.99	0.28	7,7,7,7	0
57	MG	AA	3101	1/1	0.99	0.16	8,8,8,8	0
57	MG	CA	3020	1/1	0.99	0.11	6,6,6,6	0
57	MG	AA	3102	1/1	0.99	0.11	10,10,10,10	0
57	MG	CA	3022	1/1	0.99	0.12	17,17,17,17	0
57	MG	EA	3037	1/1	0.99	0.19	2,2,2,2	0
57	MG	AA	3008	1/1	0.99	0.06	19,19,19,19	0
57	MG	AA	3039	1/1	0.99	0.18	3,3,3,3	0
57	MG	HA	1603	1/1	0.99	0.08	25,25,25,25	0
57	MG	AA	3105	1/1	0.99	0.15	2,2,2,2	0
57	MG	AA	3106	1/1	0.99	0.21	4,4,4,4	0
57	MG	EA	3042	1/1	0.99	0.23	13,13,13,13	0
57	MG	EA	3043	1/1	0.99	0.17	8,8,8,8	0
57	MG	EA	3044	1/1	0.99	0.09	15,15,15,15	0
57	MG	CA	3027	1/1	0.99	0.10	10,10,10,10	0
57	MG	CA	3029	1/1	0.99	0.15	19,19,19,19	0
57	MG	EA	3047	1/1	0.99	0.08	25,25,25,25	0
57	MG	EA	3048	1/1	0.99	0.22	25,25,25,25	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	3030	1/1	0.99	0.16	39,39,39,39	0
57	MG	CA	3031	1/1	0.99	0.15	7,7,7,7	0
57	MG	CA	3032	1/1	0.99	0.17	8,8,8,8	0
57	MG	CA	3033	1/1	0.99	0.18	6,6,6,6	0
57	MG	EA	3053	1/1	0.99	0.20	1,1,1,1	0
57	MG	EA	3054	1/1	0.99	0.12	2,2,2,2	0
57	MG	AA	3108	1/1	0.99	0.26	1,1,1,1	0
57	MG	AA	3109	1/1	0.99	0.08	20,20,20,20	0
57	MG	HA	1621	1/1	0.99	0.14	7,7,7,7	0
57	MG	CA	3037	1/1	0.99	0.27	6,6,6,6	0
57	MG	EA	3058	1/1	0.99	0.14	5,5,5,5	0
57	MG	EA	3060	1/1	0.99	0.20	2,2,2,2	0
57	MG	EA	3061	1/1	0.99	0.17	5,5,5,5	0
57	MG	EA	3062	1/1	0.99	0.16	4,4,4,4	0
57	MG	EA	3063	1/1	0.99	0.14	2,2,2,2	0
57	MG	EA	3064	1/1	0.99	0.14	2,2,2,2	0
57	MG	EA	3065	1/1	0.99	0.14	5,5,5,5	0
57	MG	HA	1630	1/1	0.99	0.23	32,32,32,32	0
57	MG	EA	3066	1/1	0.99	0.12	1,1,1,1	0
57	MG	EA	3067	1/1	0.99	0.21	3,3,3,3	0
57	MG	HA	1633	1/1	0.99	0.17	46,46,46,46	0
57	MG	CA	3038	1/1	0.99	0.20	9,9,9,9	0
57	MG	CA	3039	1/1	0.99	0.25	4,4,4,4	0
57	MG	HA	1636	1/1	0.99	0.13	28,28,28,28	0
57	MG	EA	3071	1/1	0.99	0.17	0,0,0,0	0
57	MG	HA	1638	1/1	0.99	0.04	28,28,28,28	0
57	MG	EA	3073	1/1	0.99	0.15	0,0,0,0	0
57	MG	CA	3040	1/1	0.99	0.21	11,11,11,11	0
57	MG	CA	3041	1/1	0.99	0.08	12,12,12,12	0
57	MG	EA	3077	1/1	0.99	0.09	18,18,18,18	0
57	MG	HV	802	1/1	0.99	0.17	38,38,38,38	0
58	ZN	A4	102	1/1	0.99	0.13	42,42,42,42	0
58	ZN	C4	102	1/1	0.99	0.14	41,41,41,41	0
58	ZN	E4	101	1/1	0.99	0.09	59,59,59,59	0
57	MG	AA	3041	1/1	0.99	0.24	7,7,7,7	0
57	MG	EA	3079	1/1	0.99	0.15	8,8,8,8	0
57	MG	AA	3111	1/1	0.99	0.25	3,3,3,3	0
57	MG	EA	3081	1/1	0.99	0.20	0,0,0,0	0
57	MG	EA	3082	1/1	0.99	0.12	6,6,6,6	0
57	MG	EA	3133	1/1	1.00	0.21	0,0,0,0	0
57	MG	AA	3022	1/1	1.00	0.11	2,2,2,2	0
57	MG	CA	3125	1/1	1.00	0.23	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	EA	3027	1/1	1.00	0.17	4,4,4,4	0
57	MG	GA	3130	1/1	1.00	0.11	18,18,18,18	0
57	MG	CA	3057	1/1	1.00	0.11	7,7,7,7	0
57	MG	EA	3029	1/1	1.00	0.25	2,2,2,2	0
57	MG	CA	3058	1/1	1.00	0.14	18,18,18,18	0
57	MG	EA	3031	1/1	1.00	0.16	1,1,1,1	0
57	MG	EA	3032	1/1	1.00	0.18	1,1,1,1	0
57	MG	EA	3086	1/1	1.00	0.19	8,8,8,8	0
57	MG	CA	3128	1/1	1.00	0.16	17,17,17,17	0
57	MG	CA	3028	1/1	1.00	0.18	9,9,9,9	0
57	MG	CA	3001	1/1	1.00	0.09	16,16,16,16	0
57	MG	AA	3065	1/1	1.00	0.18	11,11,11,11	0
57	MG	AA	3066	1/1	1.00	0.21	0,0,0,0	0
57	MG	AA	3023	1/1	1.00	0.08	0,0,0,0	0
57	MG	BA	1628	1/1	1.00	0.19	18,18,18,18	0
57	MG	AA	3053	1/1	1.00	0.17	4,4,4,4	0
57	MG	CA	3035	1/1	1.00	0.13	7,7,7,7	0
57	MG	GA	3019	1/1	1.00	0.15	6,6,6,6	0
57	MG	CA	3067	1/1	1.00	0.20	6,6,6,6	0
57	MG	AA	3085	1/1	1.00	0.14	7,7,7,7	0
57	MG	CA	3101	1/1	1.00	0.18	5,5,5,5	0
57	MG	AA	3054	1/1	1.00	0.14	3,3,3,3	0
57	MG	FA	1613	1/1	1.00	0.20	6,6,6,6	0
57	MG	AA	3036	1/1	1.00	0.18	2,2,2,2	0
57	MG	DA	1642	1/1	1.00	0.21	4,4,4,4	0
57	MG	AA	3107	1/1	1.00	0.24	4,4,4,4	0
57	MG	AA	3128	1/1	1.00	0.15	0,0,0,0	0
57	MG	AA	3071	1/1	1.00	0.12	4,4,4,4	0
57	MG	AA	3056	1/1	1.00	0.13	11,11,11,11	0
57	MG	CA	3108	1/1	1.00	0.21	11,11,11,11	0
57	MG	EA	3107	1/1	1.00	0.15	5,5,5,5	0
57	MG	CA	3014	1/1	1.00	0.27	13,13,13,13	0
57	MG	AA	3018	1/1	1.00	0.16	2,2,2,2	0
57	MG	BA	1638	1/1	1.00	0.18	13,13,13,13	0
57	MG	GA	3098	1/1	1.00	0.15	15,15,15,15	0
57	MG	CA	3017	1/1	1.00	0.18	7,7,7,7	0
57	MG	EA	3008	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	EA	3059	1/1	1.00	0.18	10,10,10,10	0
57	MG	EA	3010	1/1	1.00	0.16	6,6,6,6	0
57	MG	AA	3009	1/1	1.00	0.19	2,2,2,2	0
57	MG	GA	3042	1/1	1.00	0.14	20,20,20,20	0

Continued on next page...

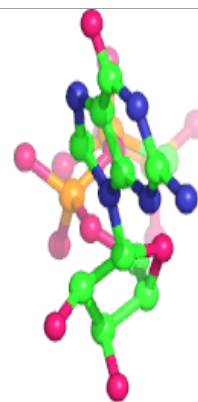
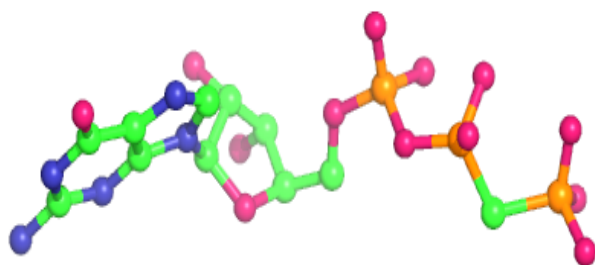
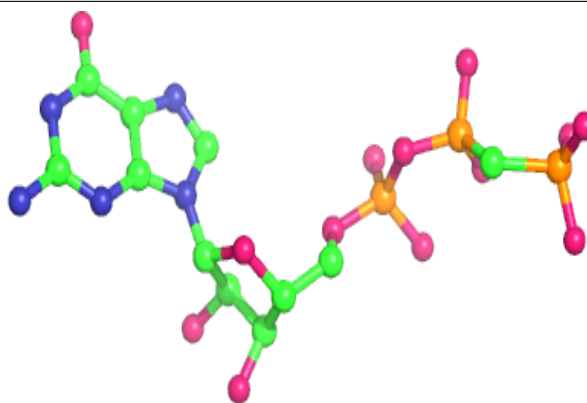
Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
57	MG	EA	3012	1/1	1.00	0.20	2,2,2,2	0
57	MG	EA	3013	1/1	1.00	0.13	1,1,1,1	0
57	MG	AA	3040	1/1	1.00	0.25	1,1,1,1	0
57	MG	AA	3094	1/1	1.00	0.19	16,16,16,16	0
57	MG	AA	3017	1/1	1.00	0.11	0,0,0,0	0
57	MG	AA	3096	1/1	1.00	0.15	0,0,0,0	0
57	MG	GA	3049	1/1	1.00	0.22	12,12,12,12	0
57	MG	EA	3068	1/1	1.00	0.20	2,2,2,2	0
57	MG	HA	1640	1/1	1.00	0.15	18,18,18,18	0
57	MG	BA	1621	1/1	1.00	0.09	11,11,11,11	0
57	MG	AA	3050	1/1	1.00	0.20	2,2,2,2	0
57	MG	EA	3020	1/1	1.00	0.15	7,7,7,7	0
57	MG	EA	3072	1/1	1.00	0.15	2,2,2,2	0
57	MG	FN	202	1/1	1.00	0.15	26,26,26,26	0
57	MG	GA	3056	1/1	1.00	0.06	13,13,13,13	0
57	MG	DA	1620	1/1	1.00	0.04	12,12,12,12	0
57	MG	CA	3121	1/1	1.00	0.22	8,8,8,8	0
57	MG	EA	3075	1/1	1.00	0.21	11,11,11,11	0
57	MG	CA	3122	1/1	1.00	0.20	5,5,5,5	0
57	MG	AA	3063	1/1	1.00	0.19	0,0,0,0	0
57	MG	GA	3125	1/1	1.00	0.12	10,10,10,10	0

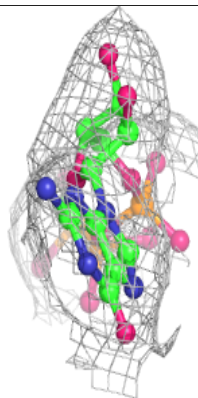
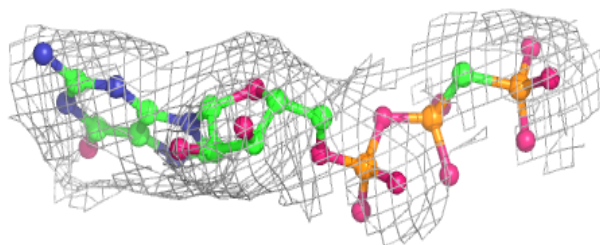
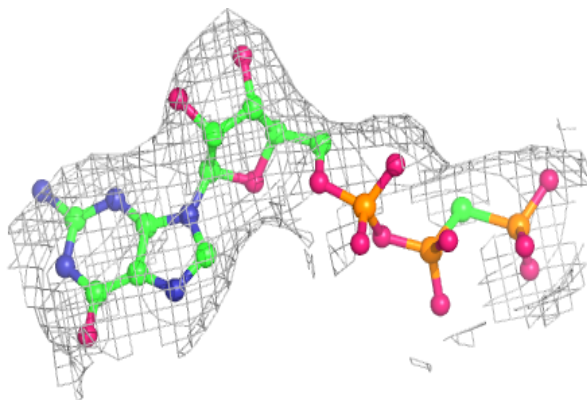
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation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

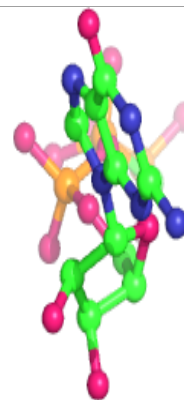
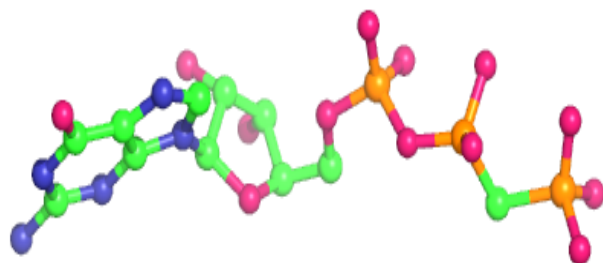
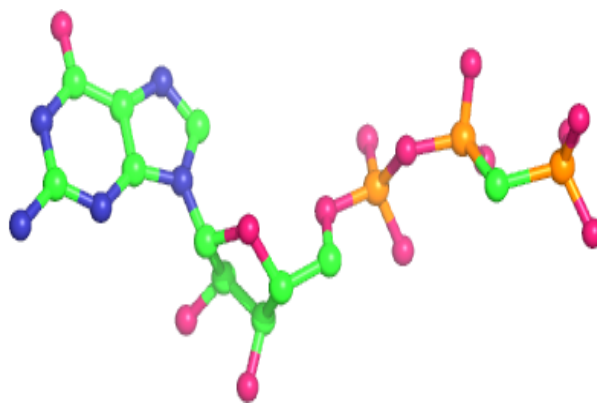
**Electron density around GCP DV 801:**

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

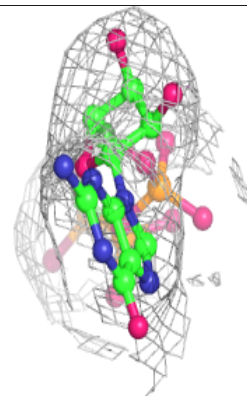
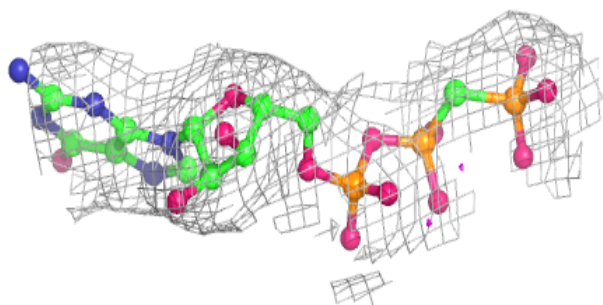
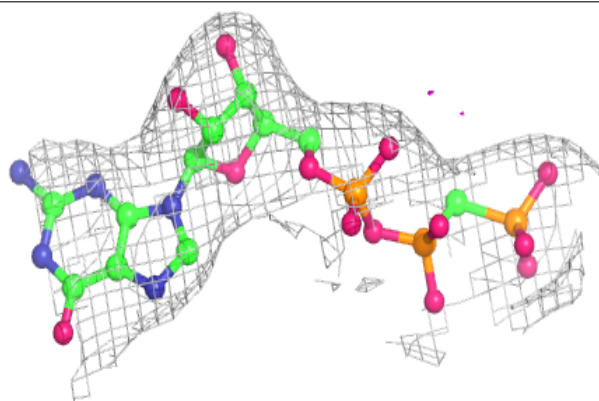


Electron density around GCP HV 801:

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

**Electron density around GCP 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 [i](#)

There are no such residues in this entry.