



wwPDB X-ray Structure Validation Summary Report ⓘ

Jun 1, 2020 – 11:21 am BST

PDB ID : 4V9P
Title : Control of ribosomal subunit rotation by elongation factor G
Authors : Pulk, A.; Cate, J.H.D.
Deposited on : 2013-05-03
Resolution : 2.90 Å(reported)

This is a wwPDB X-ray Structure Validation Summary Report for a publicly released PDB entry.

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

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

MolProbity : 4.02b-467
Mogul : 1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix) : 1.13
EDS : 2.11
buster-report : 1.1.7 (2018)
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac : 5.8.0158
CCP4 : 7.0.044 (Gargrove)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.11

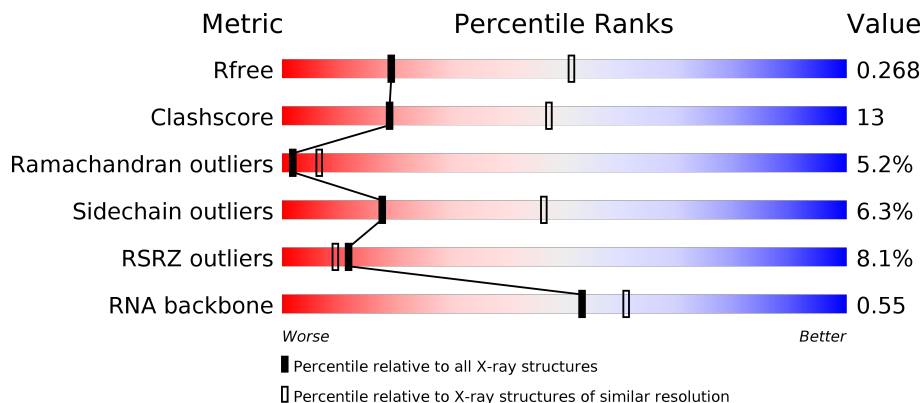
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.90 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	1957 (2.90-2.90)
Clashscore	141614	2172 (2.90-2.90)
Ramachandran outliers	138981	2115 (2.90-2.90)
Sidechain outliers	138945	2117 (2.90-2.90)
RSRZ outliers	127900	1906 (2.90-2.90)
RNA backbone	3102	1007 (3.16-2.64)

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

Mol	Chain	Length	Quality of chain
1	AA	2904	
1	CA	2904	
1	EA	2904	
1	GA	2904	

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Mol	Chain	Length	Quality of chain
2	AB	120	51% 40% 6% ..
2	CB	120	54% 33% 10% ..
2	EB	120	51% 35% 13% .
2	GB	120	52% 40% 6% ..
3	AC	273	68% 28% ...
3	CC	273	67% 25% 7% .
3	EC	273	63% 33% ..
3	GC	273	68% 28% ...
4	AD	209	59% 35% 6%
4	CD	209	57% 36% 7%
4	ED	209	62% 29% 9%
4	GD	209	56% 37% 7%
5	AE	201	65% 27% 7%
5	CE	201	72% 26% .
5	EE	201	67% 29% ..
5	GE	201	62% 34% .
6	AF	179	52% 40% 53% 6% .
6	CF	179	61% 32% 6% .
6	EF	179	55% 36% 7% ..
6	GF	179	52% 43% ..
7	AG	177	55% 38% 6% ..
7	CG	177	58% 33% 7% ..
7	EG	177	60% 32% 6% ..
7	GG	177	58% 34% 7% ..
8	AH	50	54% 42% ..

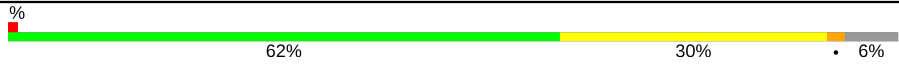



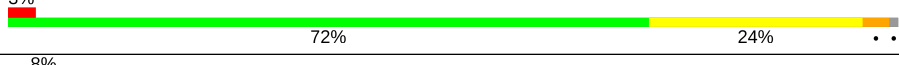
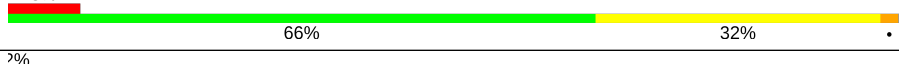
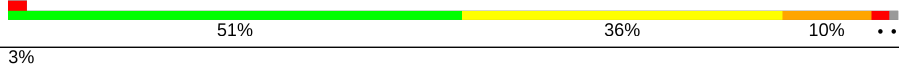

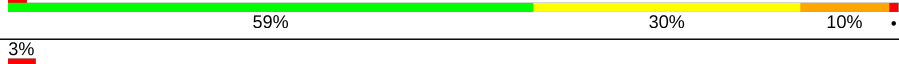


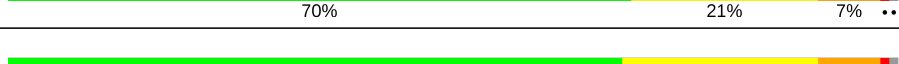

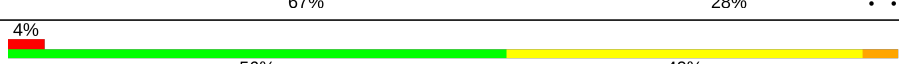

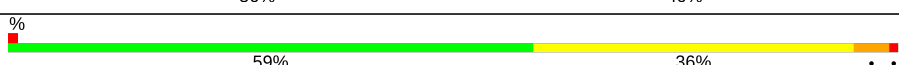
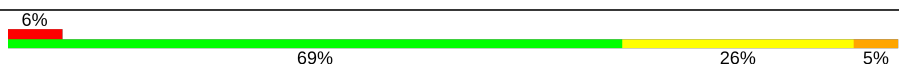
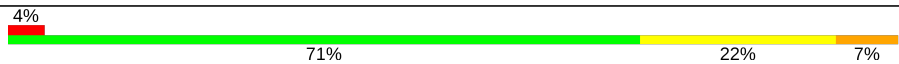
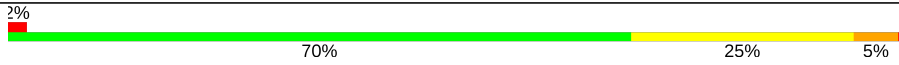


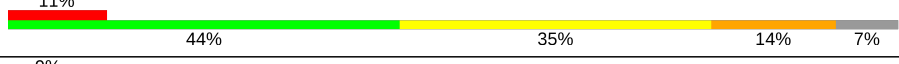



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Mol	Chain	Length	Quality of chain
8	CH	50	34% 56% 38% 6%
8	EH	50	28% 62% 32% 5% ..
8	GH	50	30% 58% 40% ..
9	AI	142	41% 46% 51% ..
9	CI	142	51% 50% 44% 5% ..
9	EI	142	57% 61% 35% ..
9	GI	142	77% 48% 46% 6% ..
10	AJ	142	% 60% 30% 9% ..
10	CJ	142	% 58% 31% 11% ..
10	EJ	142	% 53% 33% 11% ..
10	GJ	142	4% 58% 32% 9% ..
11	AK	123	% 51% 39% 8% ..
11	CK	123	2% 47% 44% 7% ..
11	EK	123	2% 54% 37% 9% ..
11	GK	123	2% 50% 42% 7% ..
12	AL	144	5% 67% 28% ..
12	CL	144	% 63% 32% ..
12	EL	144	% 70% 25% ..
12	GL	144	10% 57% 38% ..
13	AM	136	% 61% 31% 6% ..
13	CM	136	% 63% 32% 5% ..
13	EM	136	% 66% 27% 6% ..
13	GM	136	3% 71% 26% ..
14	AN	127	2% 62% 30% .. 6%
14	CN	127	% 60% 28% 6% .. 6%

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

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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	

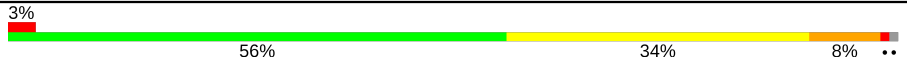

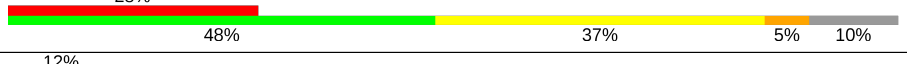
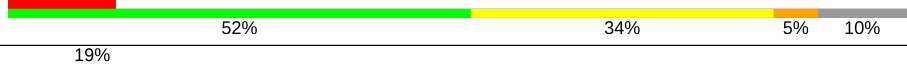

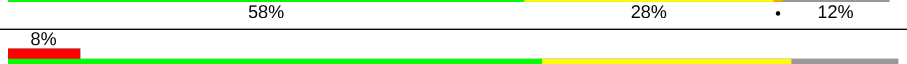
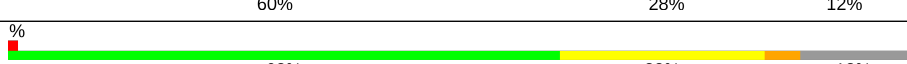
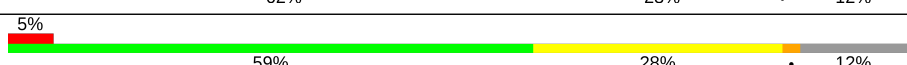
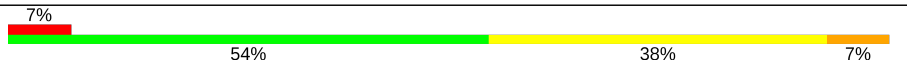


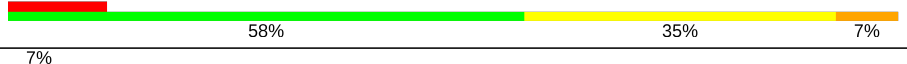


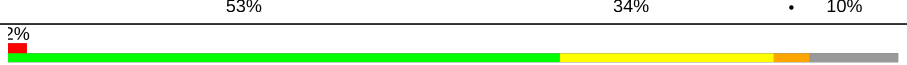
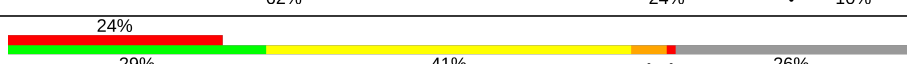
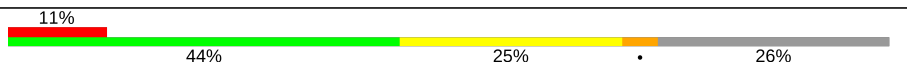








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Mol	Chain	Length	Quality of chain
27	A0	57	4% 67% 30% ..
27	C0	57	2% 70% 26% ..
27	E0	57	2% 75% 21% ..
27	G0	57	5% 67% 28% ..
28	A1	55	16% 51% 35% 5% 9%
28	C1	55	9% 51% 31% 9% 9%
28	E1	55	7% 60% 27% 9%
28	G1	55	27% 65% 25% 9%
29	A2	46	2% 74% 24% .
29	C2	46	4% 72% 24% .
29	E2	46	2% 61% 33% ..
29	G2	46	4% 67% 28% .
30	A3	65	66% 29% ..
30	C3	65	74% 23% ..
30	E3	65	69% 23% 6% .
30	G3	65	2% 63% 31% 5% .
31	A4	38	3% 61% 32% 8%
31	C4	38	3% 55% 39% 5%
31	E4	38	61% 34% 5%
31	G4	38	3% 58% 34% 8%
32	A5	165	50% 28% 35% 21% 6% 10%
32	E5	165	62% 27% 36% 18% 6% 13%
33	BA	1542	2% 49% 39% 10% ..
33	DA	1542	2% 51% 37% 10% ..
33	FA	1542	2% 54% 35% 9% ..

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

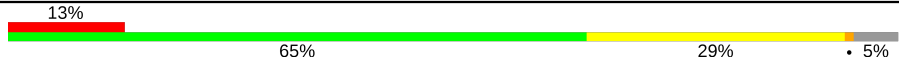
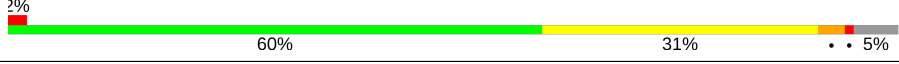



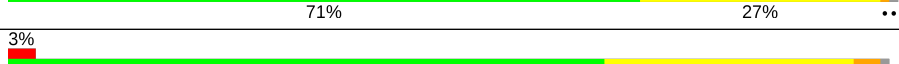
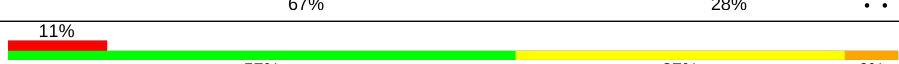
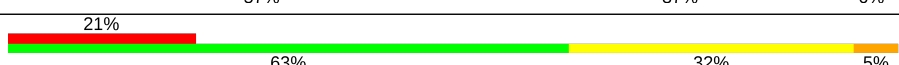
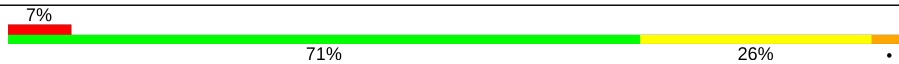


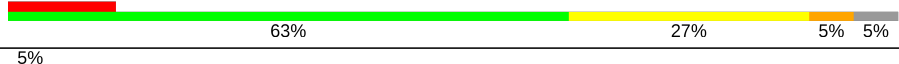


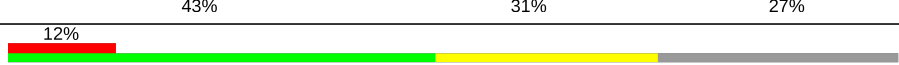

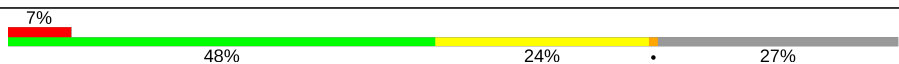


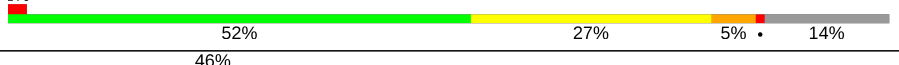





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Mol	Chain	Length	Quality of chain
40	BH	130	
40	DH	130	
40	FH	130	
40	HH	130	
41	BI	130	
41	DI	130	
41	FI	130	
41	HI	130	
42	BJ	103	
42	DJ	103	
42	FJ	103	
42	HJ	103	
43	BK	129	
43	DK	129	
43	FK	129	
43	HK	129	
44	BL	124	
44	DL	124	
44	FL	124	
44	HL	124	
45	BM	118	
45	DM	118	
45	FM	118	
45	HM	118	
46	BN	101	

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Mol	Chain	Length	Quality of chain
46	DN	101	
46	FN	101	
46	HN	101	
47	BO	89	
47	DO	89	
47	FO	89	
47	HO	89	
48	BP	82	
48	DP	82	
48	FP	82	
48	HP	82	
49	BQ	84	
49	DQ	84	
49	FQ	84	
49	HQ	84	
50	BR	75	
50	DR	75	
50	FR	75	
50	HR	75	
51	BS	92	
51	DS	92	
51	FS	92	
51	HS	92	
52	BT	87	
52	DT	87	

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Mol	Chain	Length	Quality of chain
52	FT	87	
52	HT	87	
53	BU	71	
53	DU	71	
53	FU	71	
53	HU	71	
54	BV	704	
54	DV	704	
54	FV	704	
54	HV	704	
55	BW	6	
55	DW	6	
55	FW	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
55	KBE	BW	1	-	-	-	X
55	UAL	BW	5	-	-	-	X
55	5OH	BW	6	-	-	-	X
55	UAL	DW	5	-	-	-	X
55	5OH	DW	6	-	-	-	X
55	KBE	FW	1	-	-	-	X
55	DPP	FW	2	-	-	-	X
55	UAL	FW	5	-	-	-	X
55	5OH	FW	6	-	-	-	X

2 Entry composition [i](#)

There are 59 unique types of molecules in this entry. The entry contains 590573 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 23S rRNA.

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

- Molecule 2 is a RNA chain called 5S rRNA.

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

- Molecule 3 is a protein called 50S ribosomal protein L2.

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

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

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

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

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

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

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

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

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

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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			

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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			

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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			

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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	E5	144	Total	C	N	O	S	0	0	0
			1092	691	192	202	7			

- Molecule 33 is a RNA chain called 16S rRNA.

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

- 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 protein called 30S ribosomal protein S3.

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

- Molecule 36 is a protein called 30S ribosomal protein S4.

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

- Molecule 37 is a protein called 30S ribosomal protein S5.

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

- Molecule 38 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	BF	100	Total	C	N	O	S	0	0	0
			817	515	148	148	6			
38	DF	100	Total	C	N	O	S	0	0	0
			817	515	148	148	6			
38	FF	100	Total	C	N	O	S	0	0	0
			817	515	148	148	6			
38	HF	100	Total	C	N	O	S	0	0	0
			817	515	148	148	6			

- Molecule 39 is a protein called 30S ribosomal protein S7.

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

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

- Molecule 40 is a protein called 30S ribosomal protein S8.

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

- Molecule 41 is a protein called 30S ribosomal protein S9.

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

- Molecule 42 is a protein called 30S ribosomal protein S10.

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

- Molecule 43 is a protein called 30S ribosomal protein S11.

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

- Molecule 44 is a protein called 30S ribosomal protein S12.

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

- Molecule 45 is a protein called 30S ribosomal protein S13.

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

- Molecule 46 is a protein called 30S ribosomal protein S14.

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

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

- Molecule 47 is a protein called 30S ribosomal protein S15.

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

- Molecule 48 is a protein called 30S ribosomal protein S16.

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

- Molecule 49 is a protein called 30S ribosomal protein S17.

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

- Molecule 50 is a protein called 30S ribosomal protein S18.

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

- Molecule 51 is a protein called 30S ribosomal protein S19.

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

- Molecule 52 is a protein called 30S ribosomal protein S20.

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

- Molecule 53 is a protein called 30S ribosomal protein S21.

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

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

- Molecule 54 is a protein called elongation factor G.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	BV	689	Total	C	N	O	S	0	0	0
			5319	3345	919	1030	25			
54	DV	689	Total	C	N	O	S	0	0	0
			5319	3345	919	1030	25			
54	FV	689	Total	C	N	O	S	0	0	0
			5319	3345	919	1030	25			
54	HV	689	Total	C	N	O	S	0	0	0
			5319	3345	919	1030	25			

- Molecule 55 is a protein called Viomycin.

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

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

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	FA	41	Total	Mg	0	0
			41	41		
56	BA	40	Total	Mg	0	0
			40	40		
56	CA	134	Total	Mg	0	0
			134	134		
56	HE	1	Total	Mg	0	0
			1	1		
56	AB	4	Total	Mg	0	0
			4	4		
56	BL	1	Total	Mg	0	0
			1	1		
56	BE	1	Total	Mg	0	0
			1	1		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	GA	134	Total 134	Mg 134	0	0
56	DU	1	Total 1	Mg 1	0	0
56	EB	4	Total 4	Mg 4	0	0
56	FU	1	Total 1	Mg 1	0	0
56	FV	1	Total 1	Mg 1	0	0
56	C4	1	Total 1	Mg 1	0	0
56	AE	1	Total 1	Mg 1	0	0
56	AA	130	Total 130	Mg 130	0	0
56	FE	1	Total 1	Mg 1	0	0
56	GB	4	Total 4	Mg 4	0	0
56	DV	1	Total 1	Mg 1	0	0
56	EA	133	Total 133	Mg 133	0	0
56	BU	1	Total 1	Mg 1	0	0
56	GC	1	Total 1	Mg 1	0	0
56	AD	1	Total 1	Mg 1	0	0
56	HT	1	Total 1	Mg 1	0	0
56	GL	1	Total 1	Mg 1	0	0
56	DA	42	Total 42	Mg 42	0	0
56	EC	1	Total 1	Mg 1	0	0
56	HC	1	Total 1	Mg 1	0	0
56	BV	1	Total 1	Mg 1	0	0

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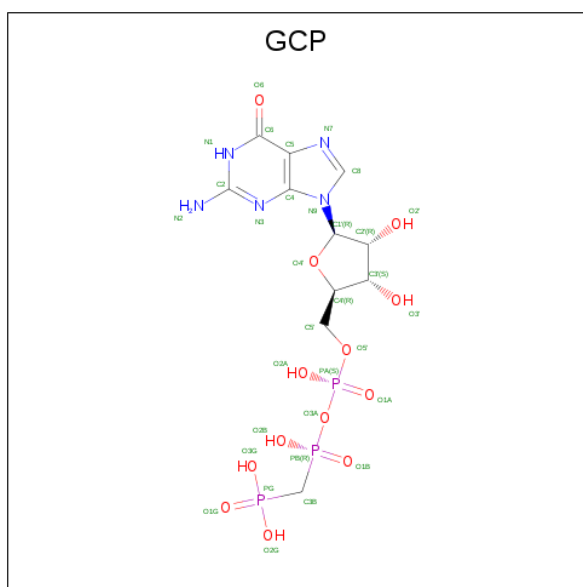
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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	CB	4	Total Mg 4 4	0	0
56	GS	1	Total Mg 1 1	0	0
56	AC	3	Total Mg 3 3	0	0
56	EQ	1	Total Mg 1 1	0	0
56	ED	2	Total Mg 2 2	0	0
56	CD	1	Total Mg 1 1	0	0
56	AT	1	Total Mg 1 1	0	0
56	CE	1	Total Mg 1 1	0	0
56	A3	1	Total Mg 1 1	0	0
56	HA	40	Total Mg 40 40	0	0
56	HV	1	Total Mg 1 1	0	0

- Molecule 57 is ZINC ION (three-letter code: ZN) (formula: Zn).

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

- Molecule 58 is PHOSPHOMETHYLPHOSPHONIC ACID GUANYLATE ESTER (three-letter code: GCP) (formula: C₁₁H₁₈N₅O₁₃P₃).



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

- Molecule 59 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	AA	608	Total 608	O 608	0	0
59	AB	19	Total 19	O 19	0	0
59	AC	10	Total 10	O 10	0	0
59	AD	3	Total 3	O 3	0	0
59	AE	1	Total 1	O 1	0	0
59	AJ	1	Total 1	O 1	0	0
59	AL	7	Total 7	O 7	0	0
59	AN	4	Total 4	O 4	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	AP	1	Total O 1 1	0	0
59	AQ	1	Total O 1 1	0	0
59	AS	1	Total O 1 1	0	0
59	AU	1	Total O 1 1	0	0
59	A0	1	Total O 1 1	0	0
59	A3	1	Total O 1 1	0	0
59	A4	2	Total O 2 2	0	0
59	BA	197	Total O 197 197	0	0
59	BC	1	Total O 1 1	0	0
59	BD	1	Total O 1 1	0	0
59	BI	1	Total O 1 1	0	0
59	BK	1	Total O 1 1	0	0
59	BN	3	Total O 3 3	0	0
59	BT	2	Total O 2 2	0	0
59	BU	1	Total O 1 1	0	0
59	BV	1	Total O 1 1	0	0
59	CA	604	Total O 604 604	0	0
59	CB	20	Total O 20 20	0	0
59	CC	11	Total O 11 11	0	0
59	CD	3	Total O 3 3	0	0
59	CE	1	Total O 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	CF	1	Total O 1 1	0	0
59	CJ	3	Total O 3 3	0	0
59	CL	6	Total O 6 6	0	0
59	CN	4	Total O 4 4	0	0
59	CS	1	Total O 1 1	0	0
59	CT	2	Total O 2 2	0	0
59	C2	1	Total O 1 1	0	0
59	C3	1	Total O 1 1	0	0
59	C4	2	Total O 2 2	0	0
59	DA	193	Total O 193 193	0	0
59	DC	1	Total O 1 1	0	0
59	DE	2	Total O 2 2	0	0
59	DG	1	Total O 1 1	0	0
59	DK	1	Total O 1 1	0	0
59	DL	1	Total O 1 1	0	0
59	DN	6	Total O 6 6	0	0
59	DQ	1	Total O 1 1	0	0
59	DT	1	Total O 1 1	0	0
59	DU	1	Total O 1 1	0	0
59	DV	1	Total O 1 1	0	0
59	EA	617	Total O 617 617	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	EB	20	Total O 20 20	0	0
59	EC	8	Total O 8 8	0	0
59	ED	1	Total O 1 1	0	0
59	EL	4	Total O 4 4	0	0
59	EN	2	Total O 2 2	0	0
59	ER	1	Total O 1 1	0	0
59	ET	1	Total O 1 1	0	0
59	EU	1	Total O 1 1	0	0
59	E0	2	Total O 2 2	0	0
59	E3	2	Total O 2 2	0	0
59	E4	1	Total O 1 1	0	0
59	FA	198	Total O 198 198	0	0
59	FE	1	Total O 1 1	0	0
59	FK	1	Total O 1 1	0	0
59	FN	3	Total O 3 3	0	0
59	FQ	1	Total O 1 1	0	0
59	FT	4	Total O 4 4	0	0
59	FV	1	Total O 1 1	0	0
59	GA	607	Total O 607 607	0	0
59	GB	19	Total O 19 19	0	0
59	GC	9	Total O 9 9	0	0

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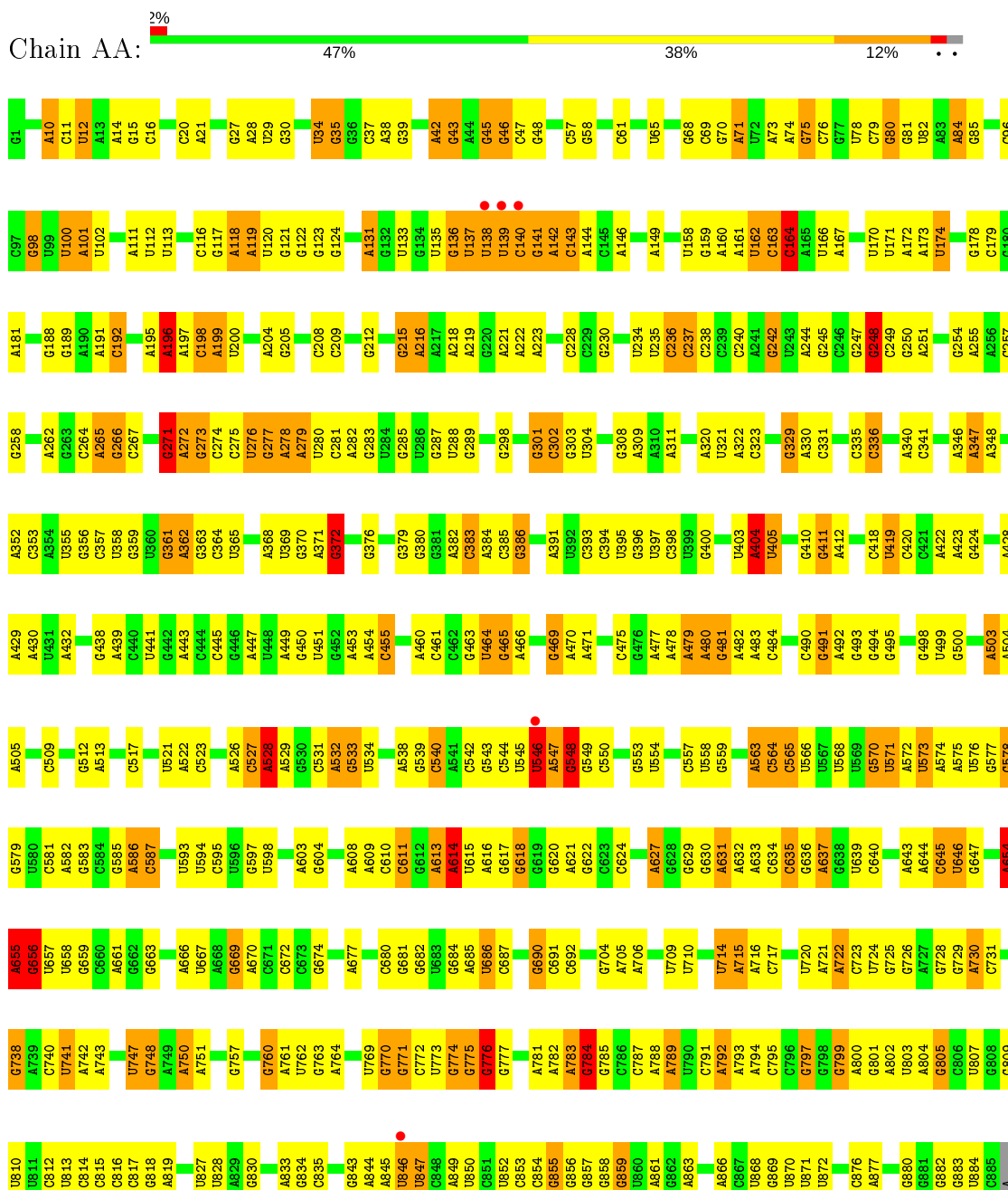
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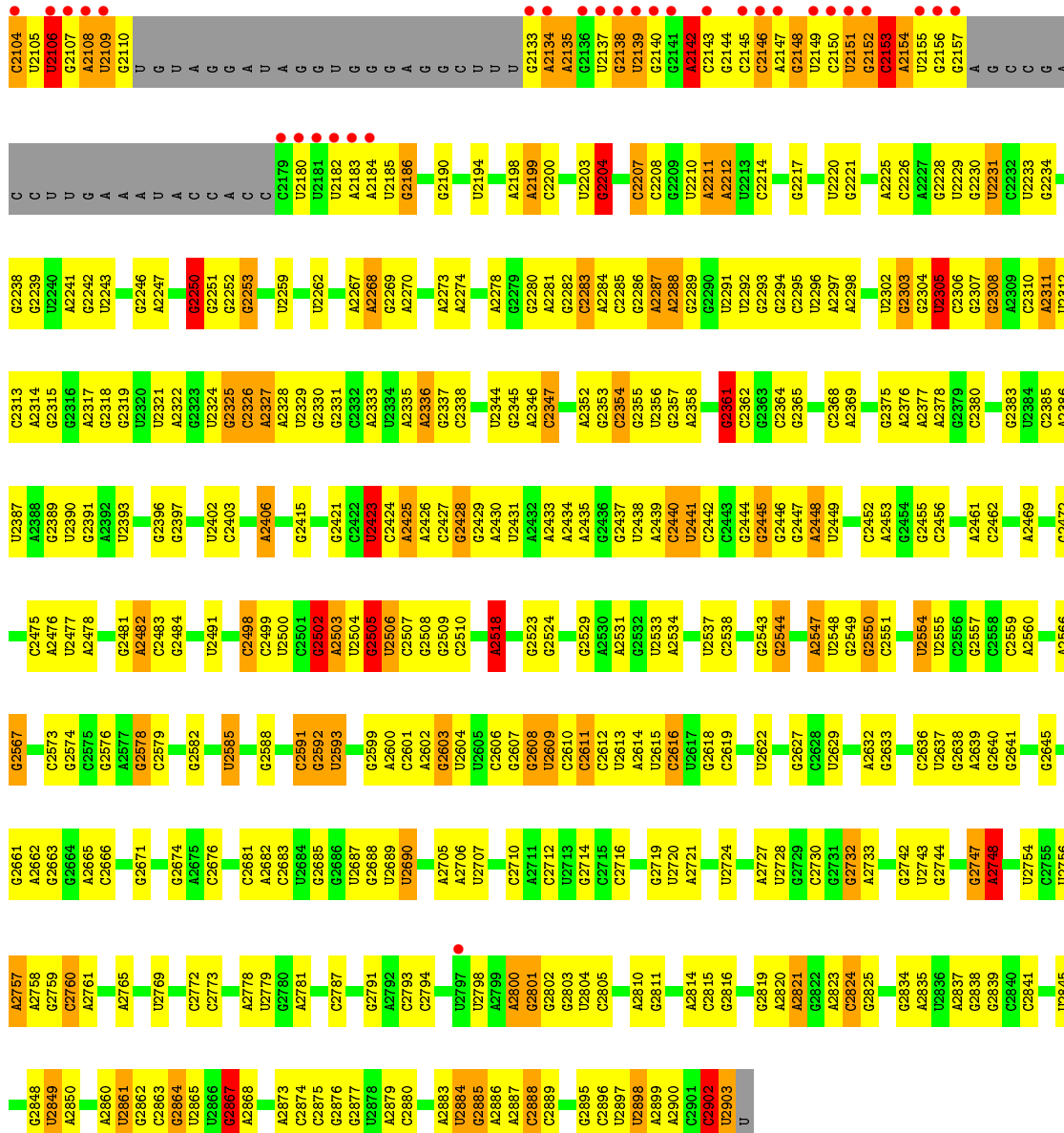
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
59	GD	4	Total O 4 4	0	0
59	GE	2	Total O 2 2	0	0
59	GL	4	Total O 4 4	0	0
59	GN	3	Total O 3 3	0	0
59	GQ	1	Total O 1 1	0	0
59	GR	2	Total O 2 2	0	0
59	GS	1	Total O 1 1	0	0
59	GT	1	Total O 1 1	0	0
59	GU	2	Total O 2 2	0	0
59	GV	1	Total O 1 1	0	0
59	G2	2	Total O 2 2	0	0
59	G3	1	Total O 1 1	0	0
59	G4	1	Total O 1 1	0	0
59	HA	197	Total O 197 197	0	0
59	HD	1	Total O 1 1	0	0
59	HE	3	Total O 3 3	0	0
59	HN	5	Total O 5 5	0	0
59	HT	1	Total O 1 1	0	0
59	HU	1	Total O 1 1	0	0
59	HV	1	Total O 1 1	0	0

3 Residue-property plots

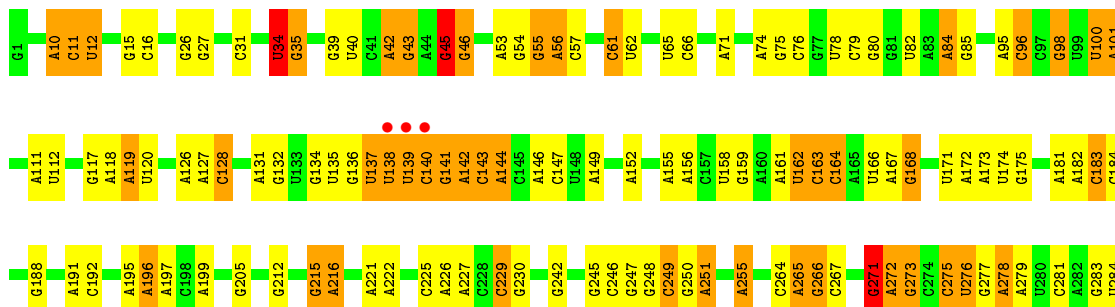
These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are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

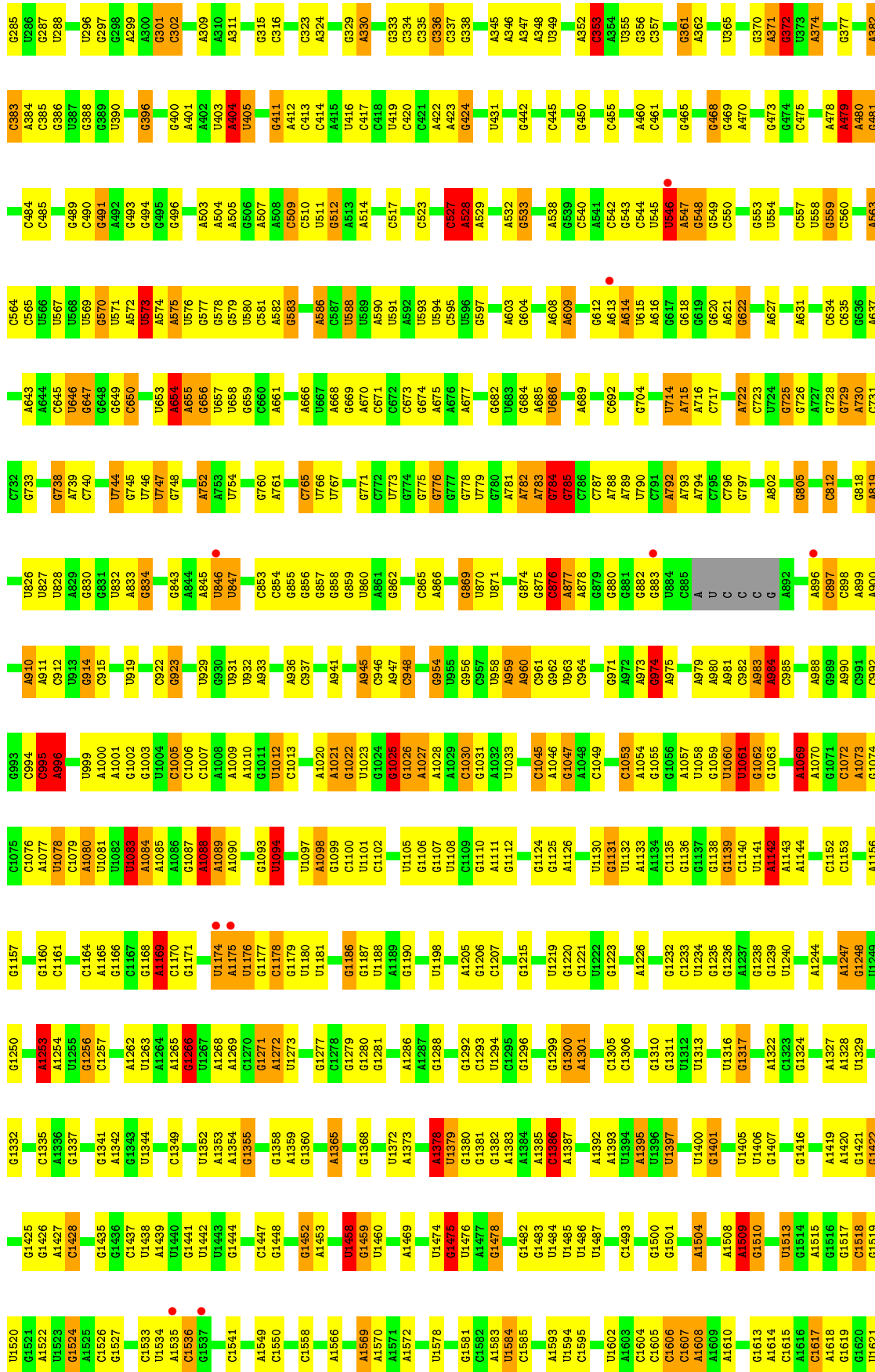
- Molecule 1: 23S rRNA

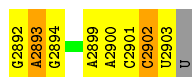




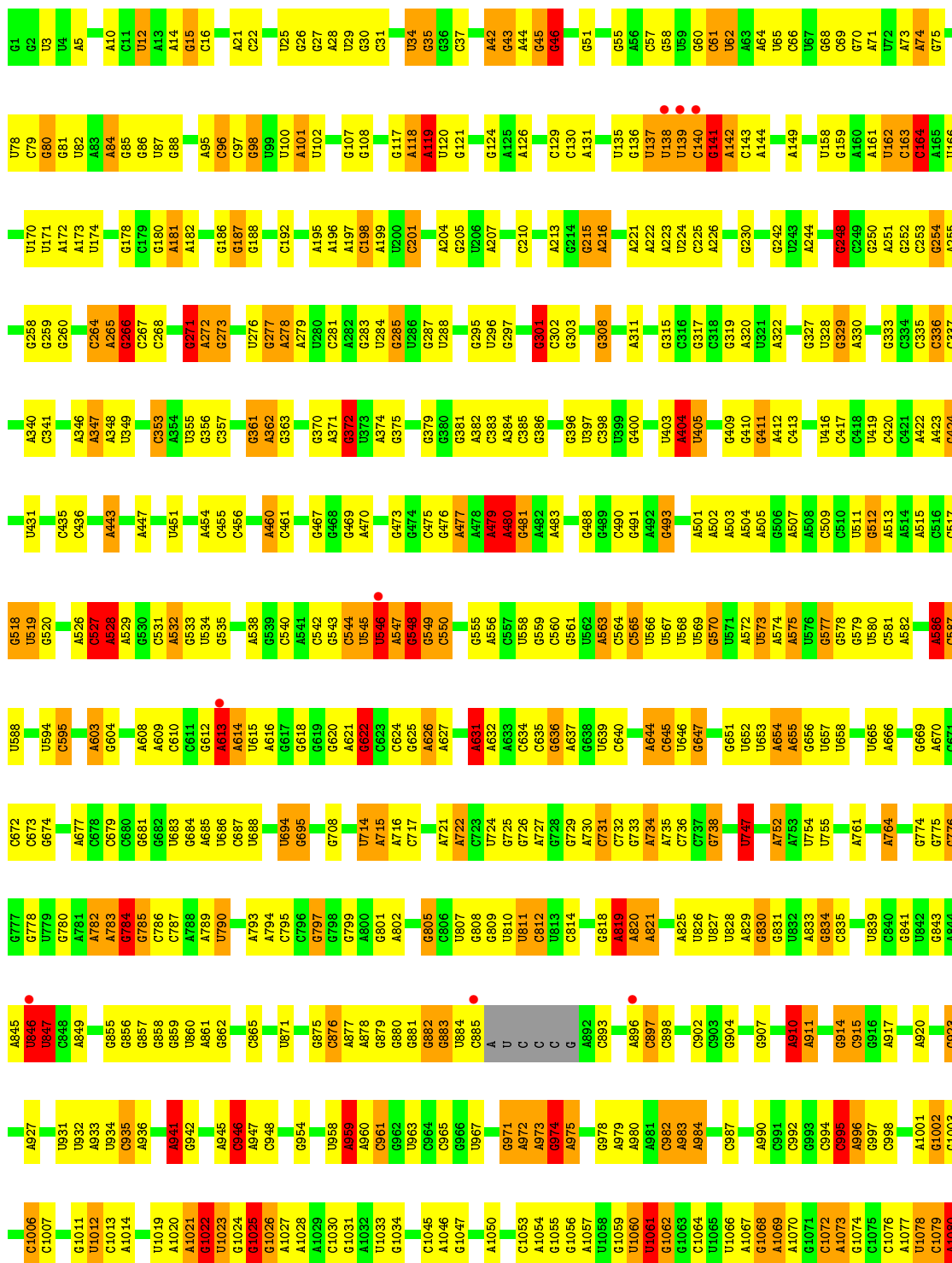
● Molecule 1: 23S rRNA

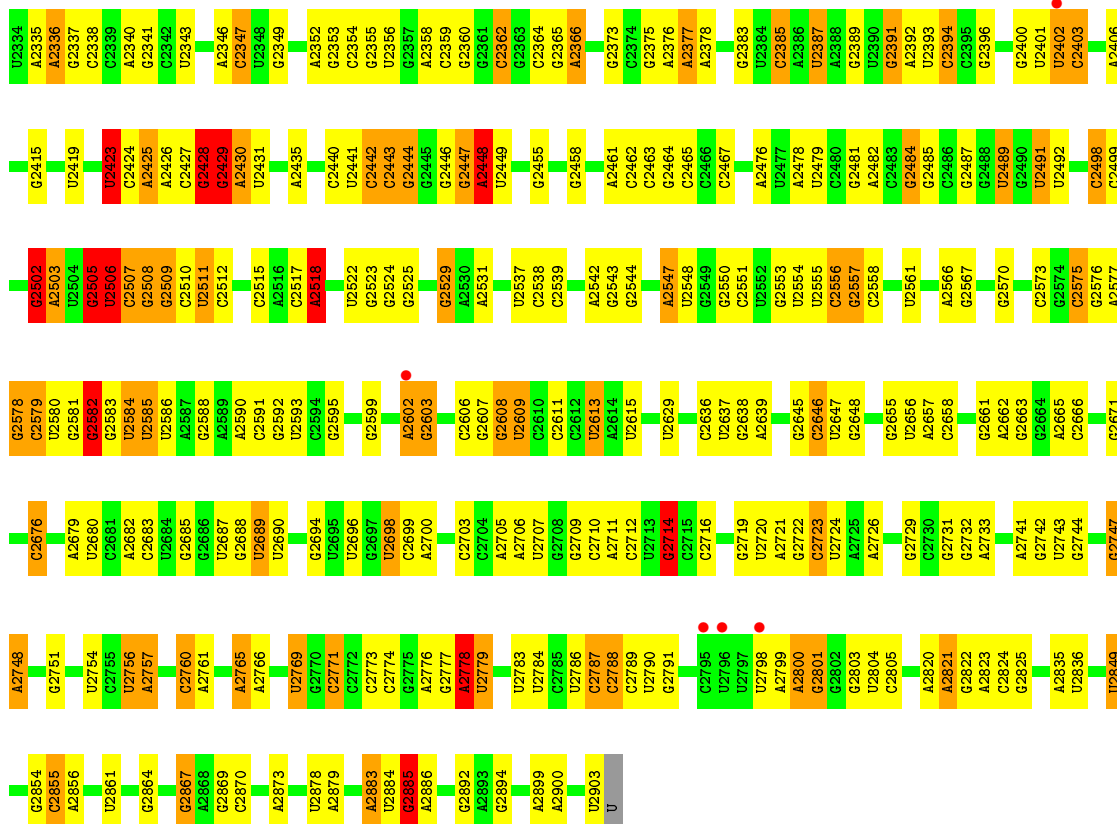




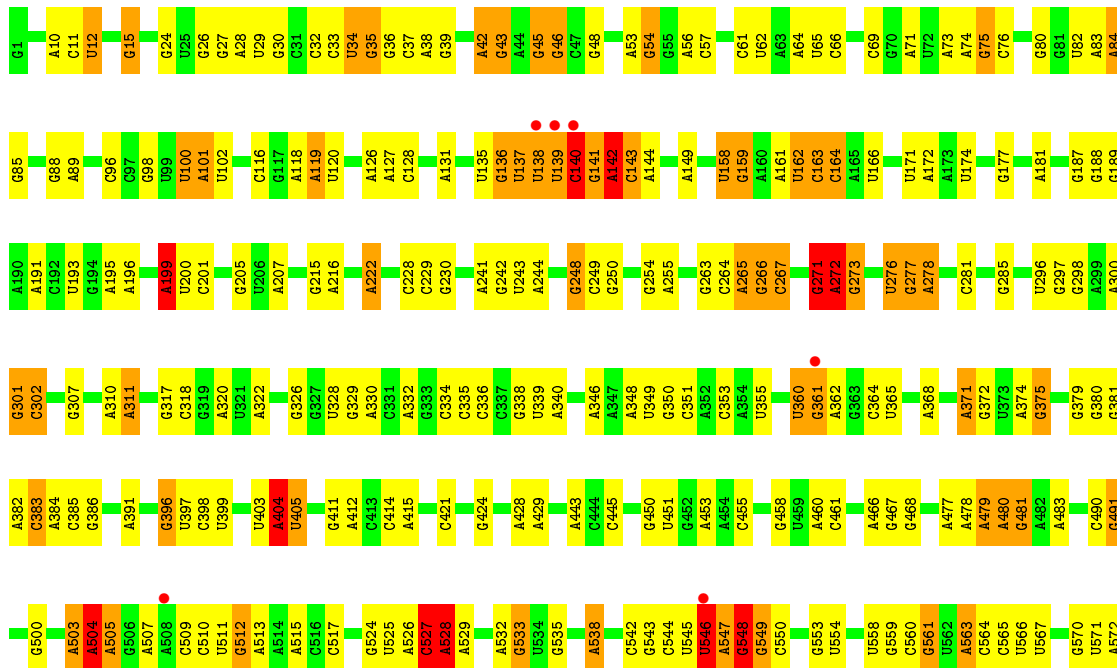


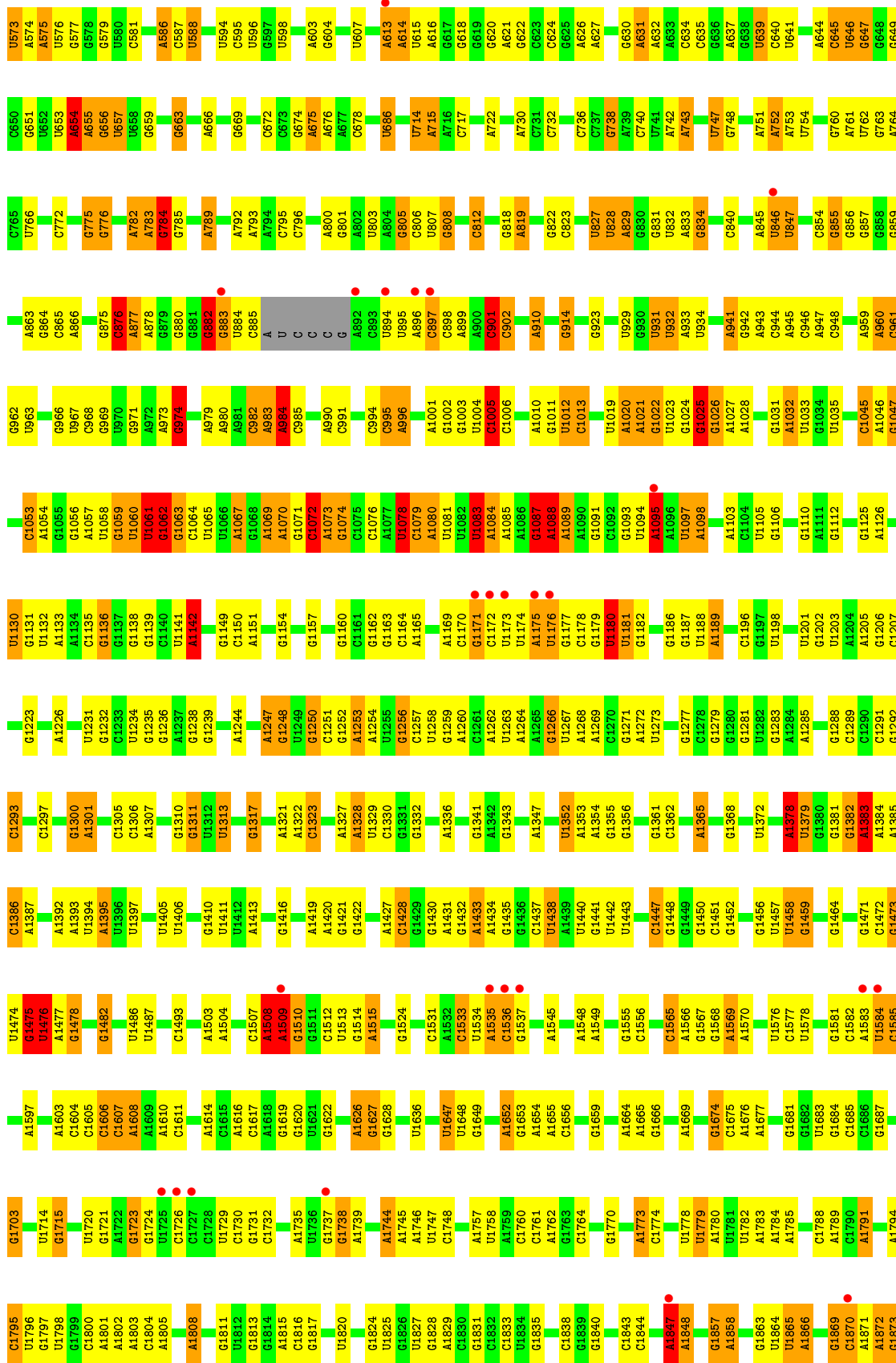
● Molecule 1: 23S rRNA





● Molecule 1: 23S rRNA



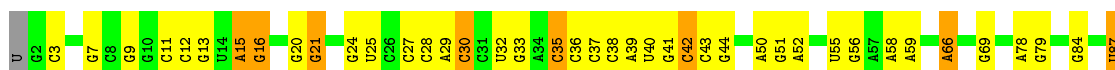




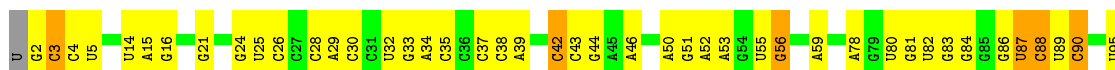
- Molecule 2: 5S rRNA



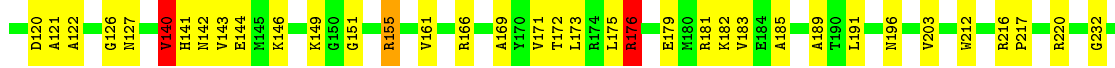
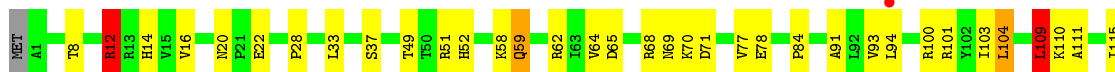
- Molecule 2: 5S rRNA



- Molecule 2: 5S rRNA

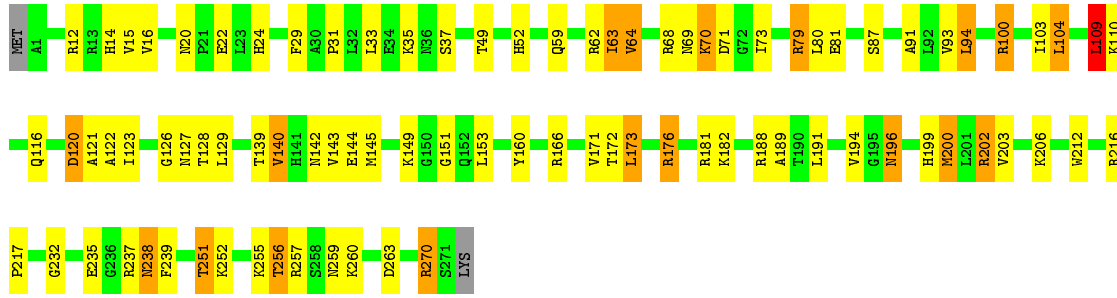


- Molecule 3: 50S ribosomal protein L2

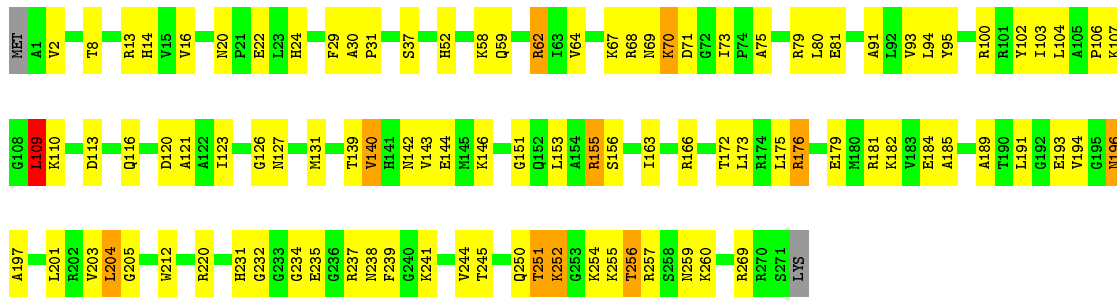


- Molecule 3: 50S ribosomal protein L2

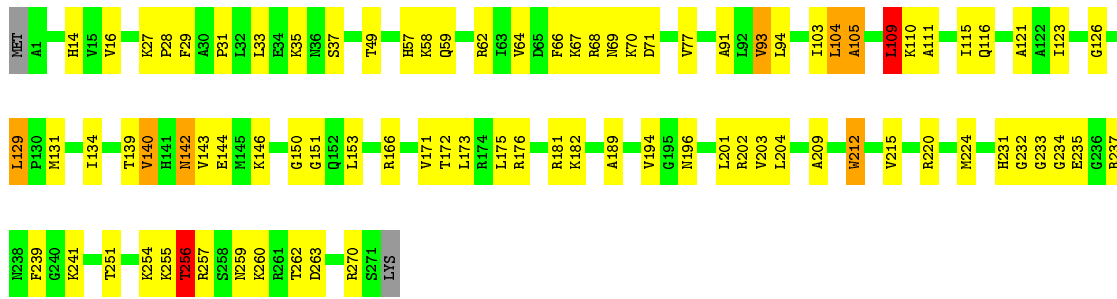




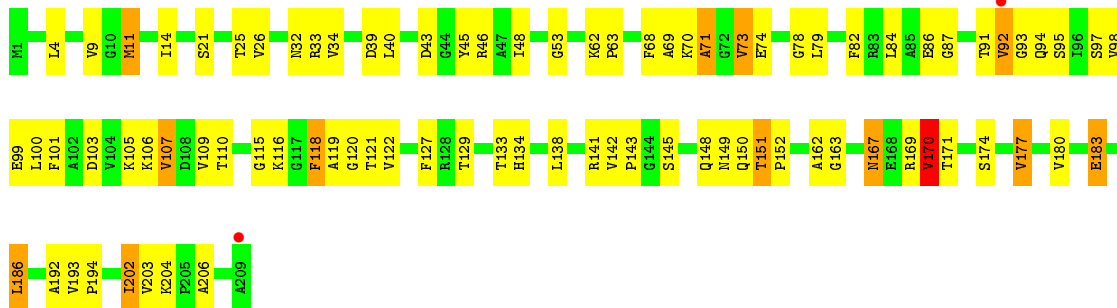
• Molecule 3: 50S ribosomal protein L2



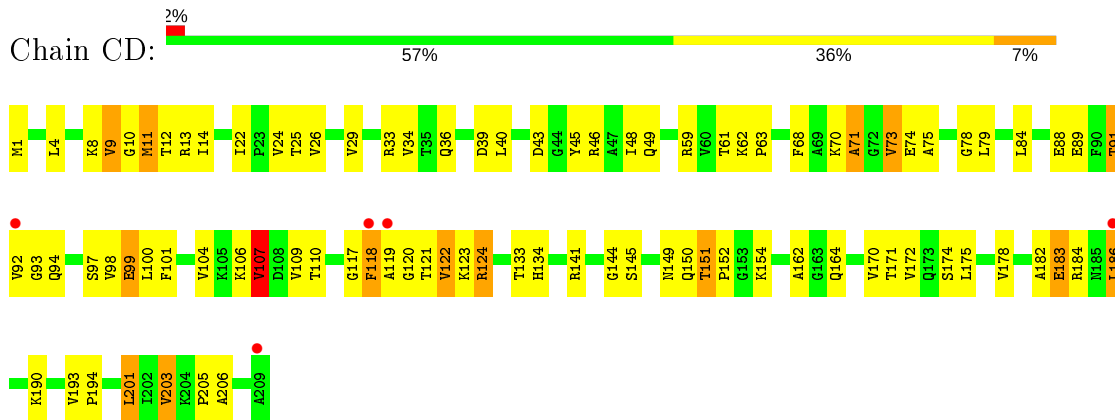
• Molecule 3: 50S ribosomal protein L2



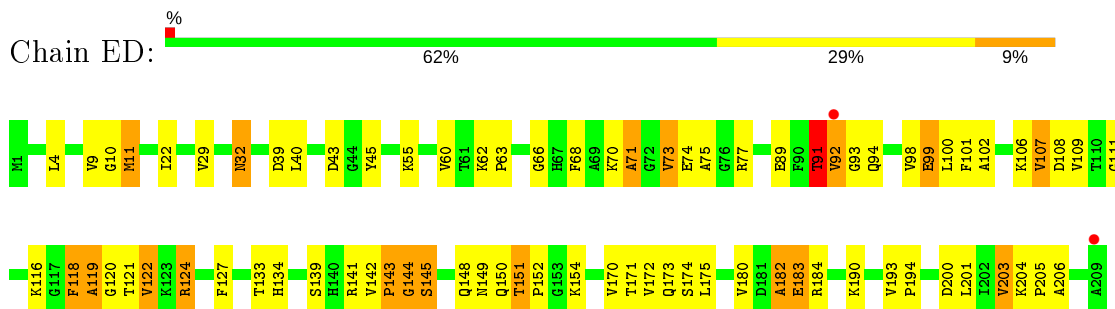
• Molecule 4: 50S ribosomal protein L3



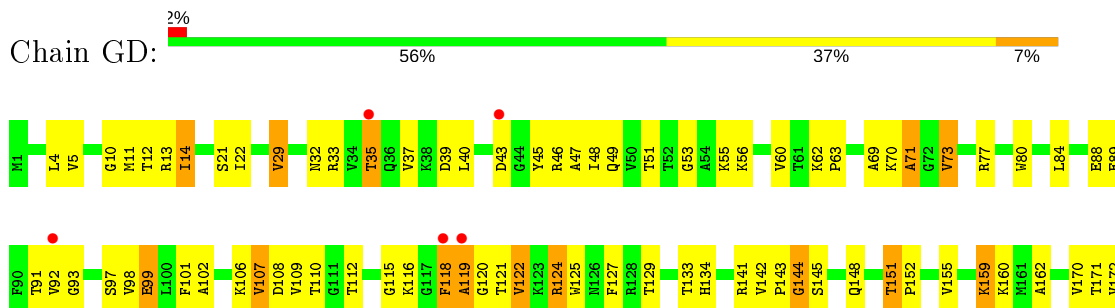
- Molecule 4: 50S ribosomal protein L3



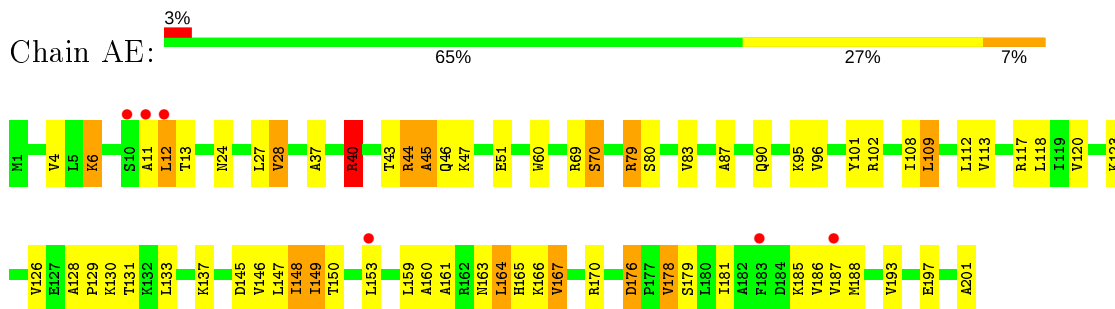
- Molecule 4: 50S ribosomal protein L3



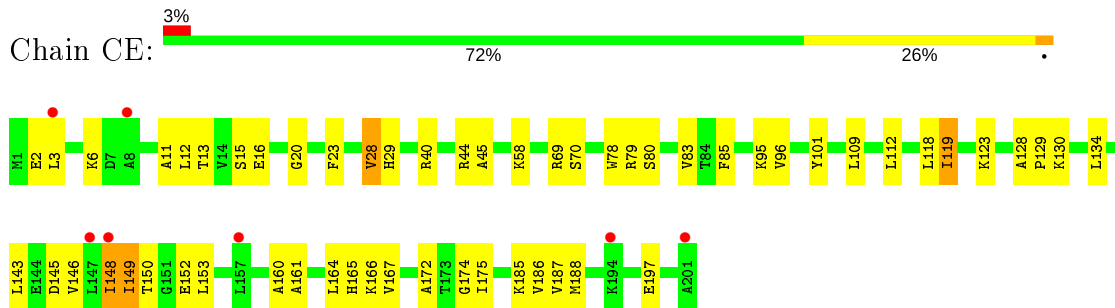
- Molecule 4: 50S ribosomal protein L3



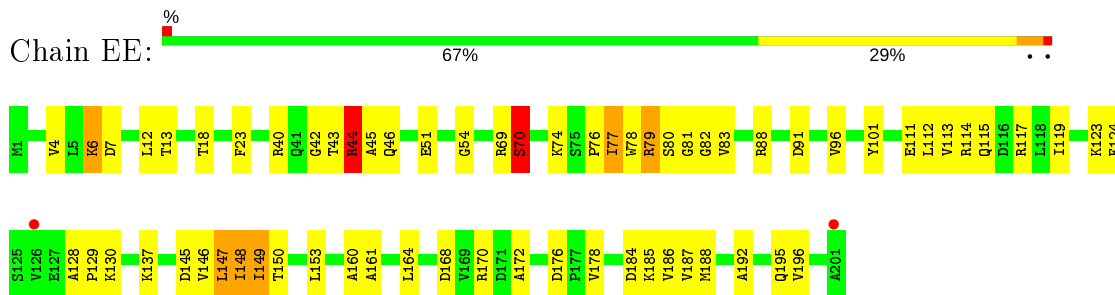
- Molecule 5: 50S ribosomal protein L4



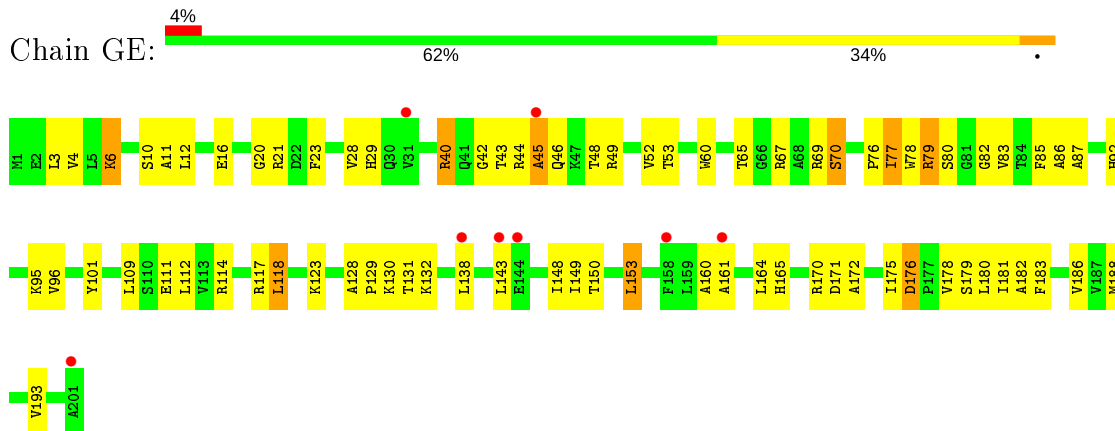
• Molecule 5: 50S ribosomal protein L4



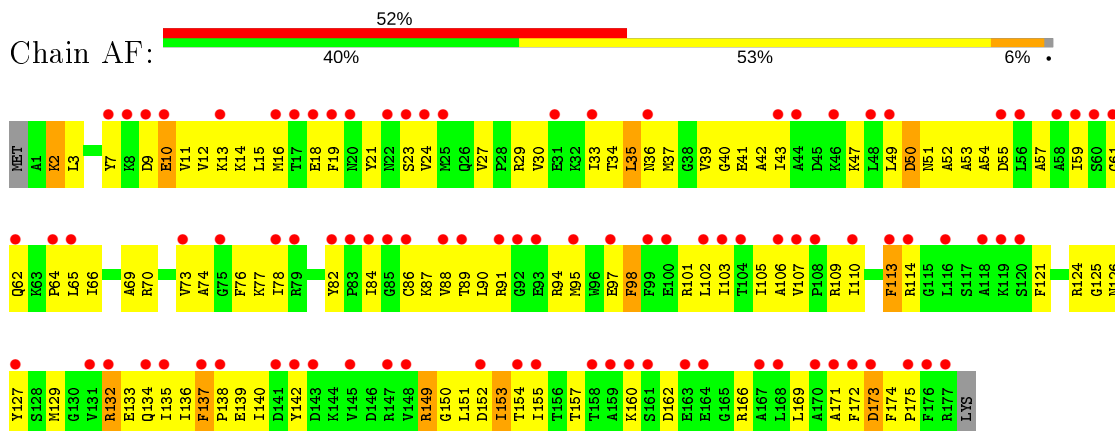
• Molecule 5: 50S ribosomal protein L4



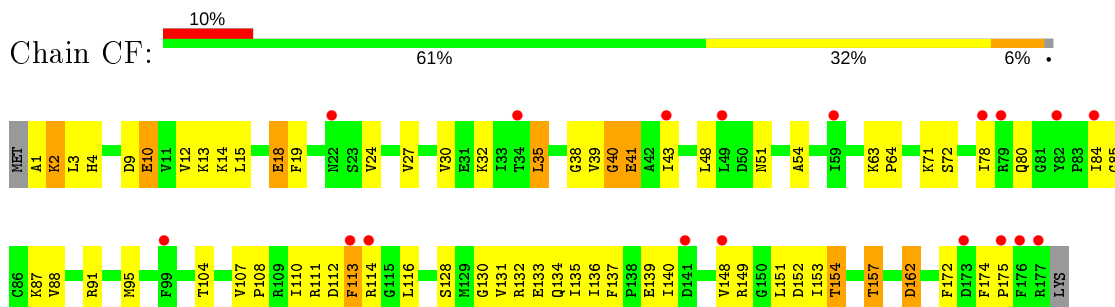
• Molecule 5: 50S ribosomal protein L4



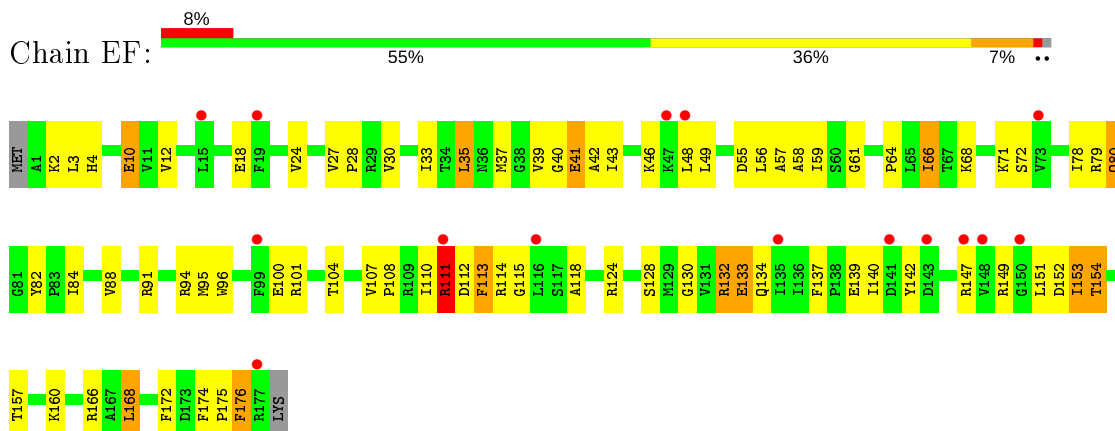
• Molecule 6: 50S ribosomal protein L5



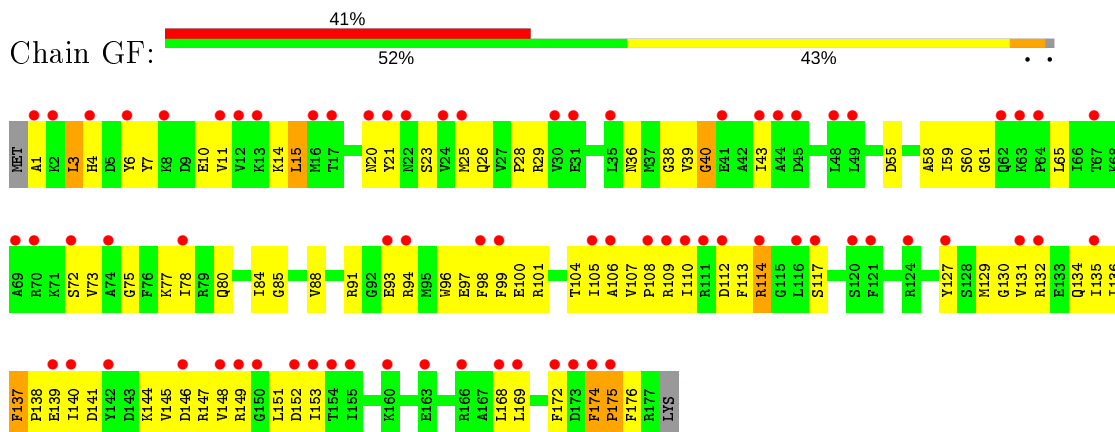
- Molecule 6: 50S ribosomal protein L5



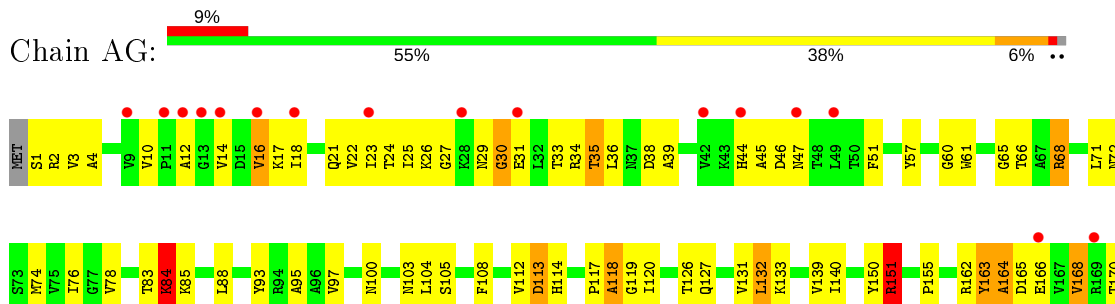
- Molecule 6: 50S ribosomal protein L5



- Molecule 6: 50S ribosomal protein L5



- Molecule 7: 50S ribosomal protein L6

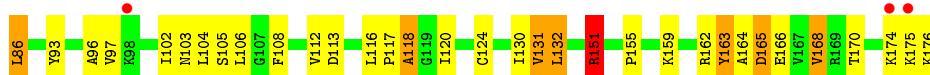
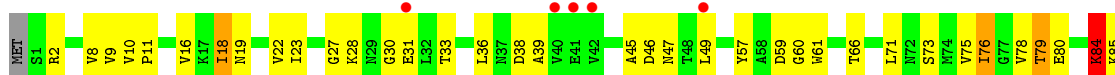




• Molecule 7: 50S ribosomal protein L6



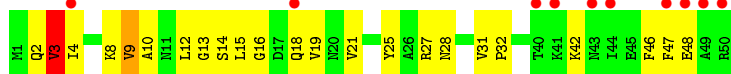
• Molecule 7: 50S ribosomal protein L6



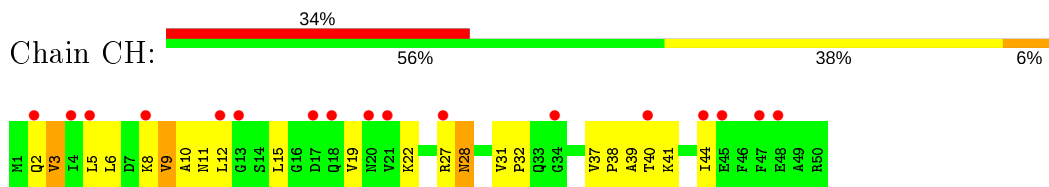
• Molecule 7: 50S ribosomal protein L6



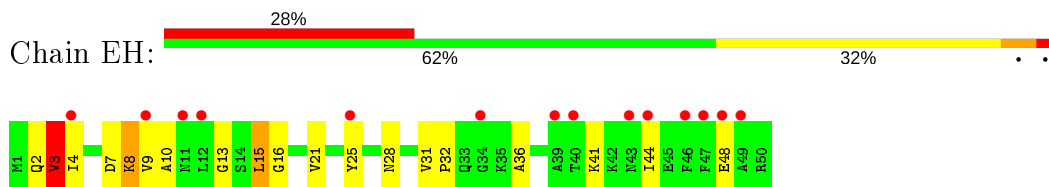
• Molecule 8: 50S ribosomal protein L9



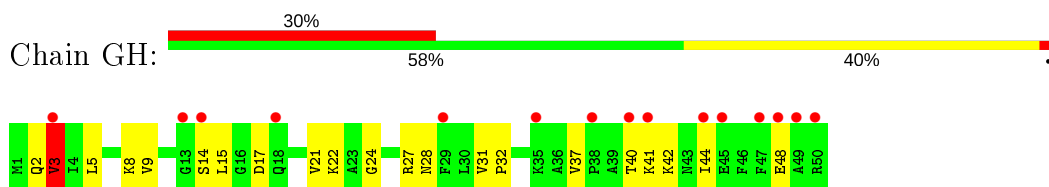
• Molecule 8: 50S ribosomal protein L9



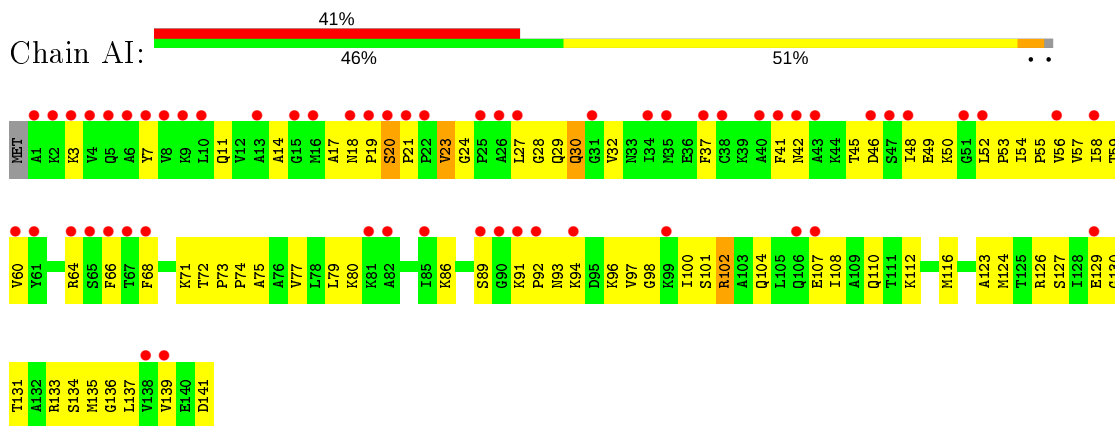
• Molecule 8: 50S ribosomal protein L9



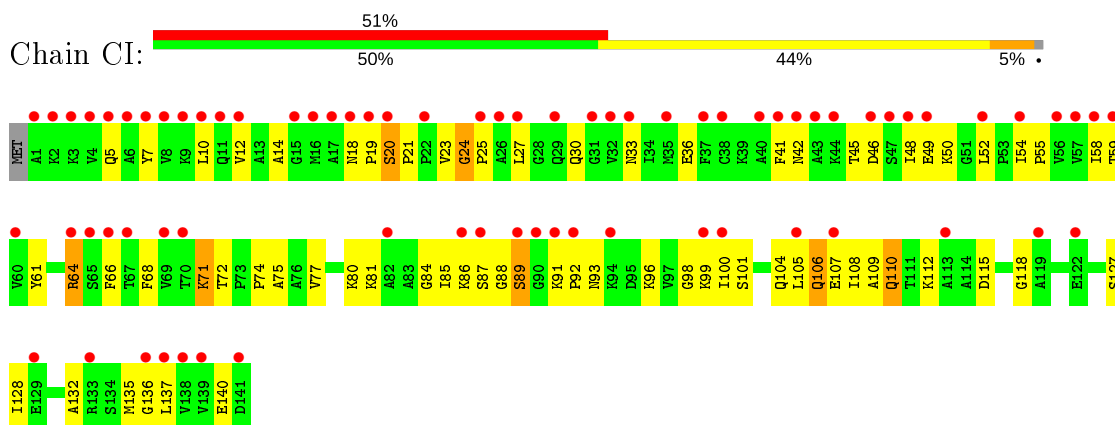
• Molecule 8: 50S ribosomal protein L9



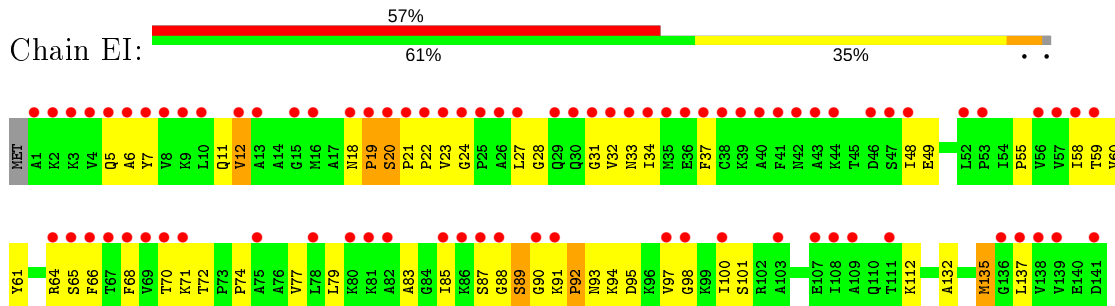
• Molecule 9: 50S ribosomal protein L11



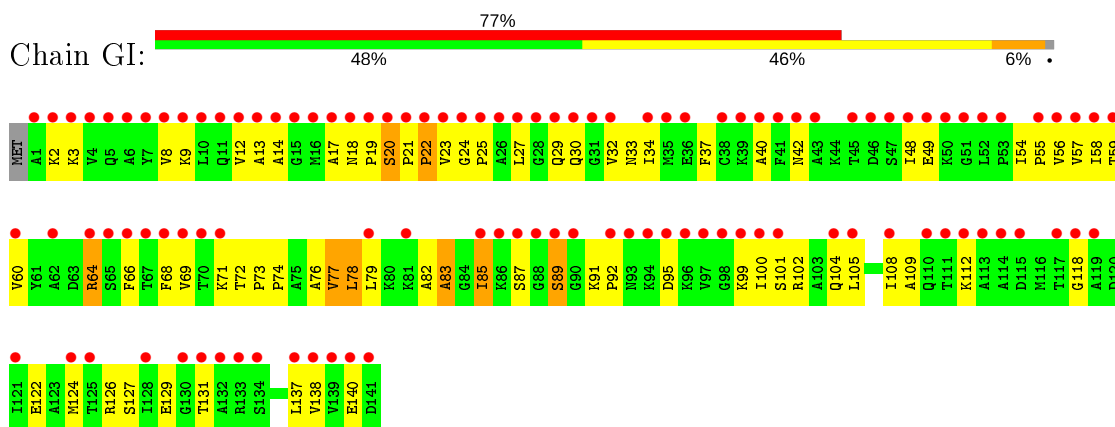
• Molecule 9: 50S ribosomal protein L11



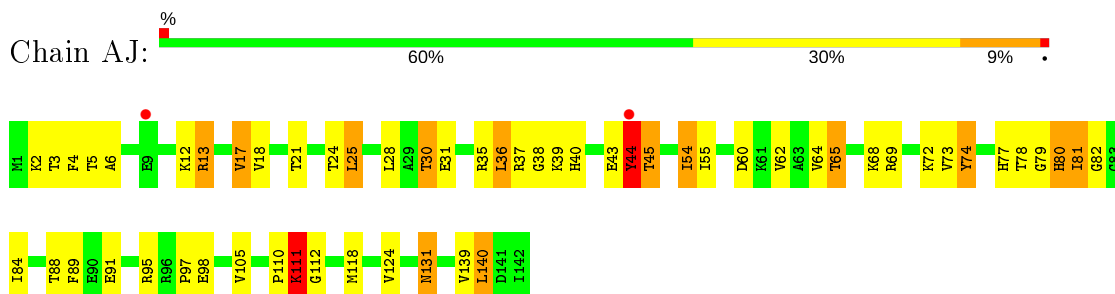
- Molecule 9: 50S ribosomal protein L11



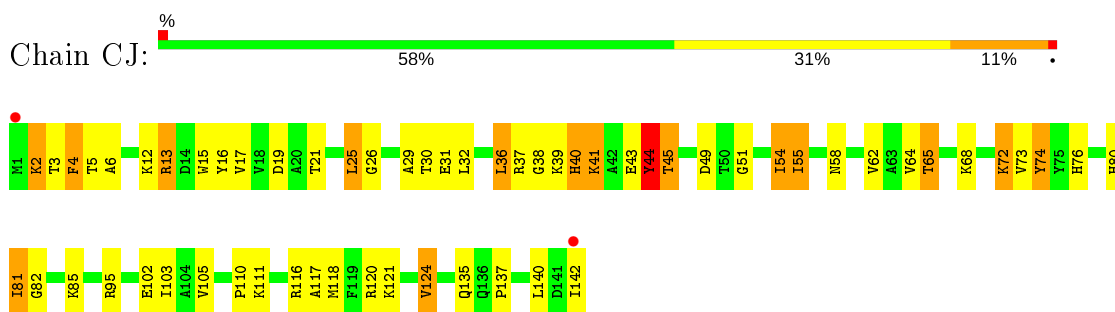
- Molecule 9: 50S ribosomal protein L11



- Molecule 10: 50S ribosomal protein L13

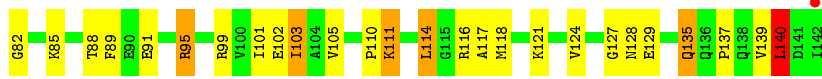
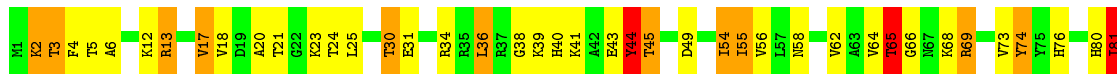


- Molecule 10: 50S ribosomal protein L13

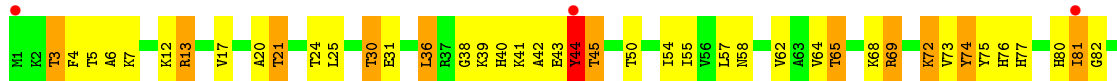


- Molecule 10: 50S ribosomal protein L13

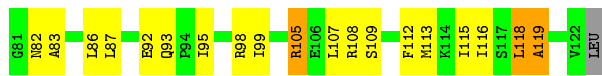
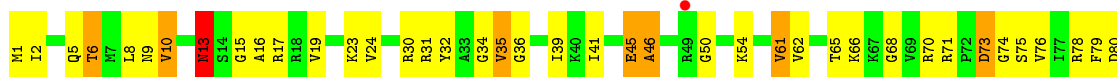




• Molecule 10: 50S ribosomal protein L13



• Molecule 11: 50S ribosomal protein L14



• Molecule 11: 50S ribosomal protein L14

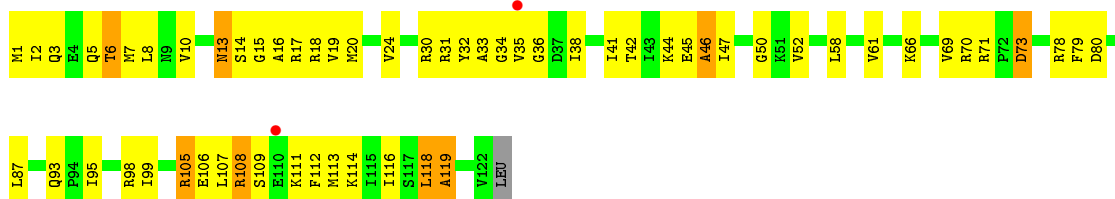


• Molecule 11: 50S ribosomal protein L14



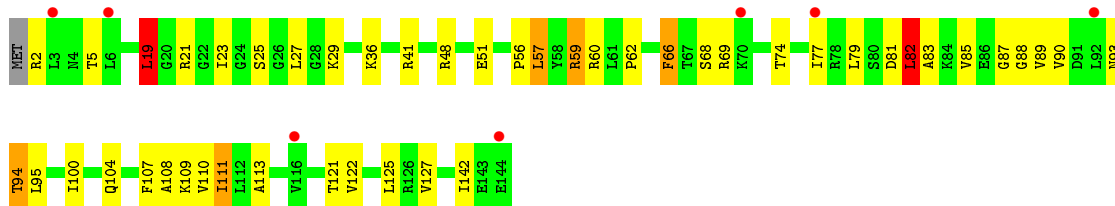
- Molecule 11: 50S ribosomal protein L14

Chain GK: 



- Molecule 12: 50S ribosomal protein L15

Chain AL: 



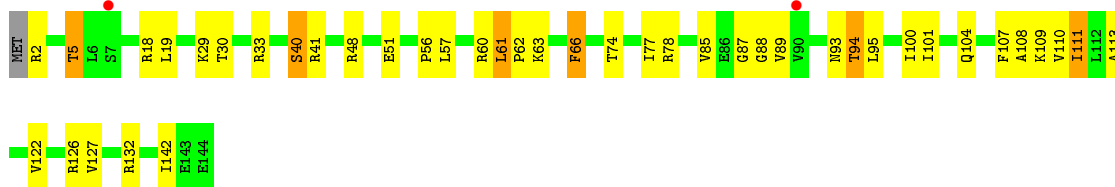
- Molecule 12: 50S ribosomal protein L15

Chain CL: 



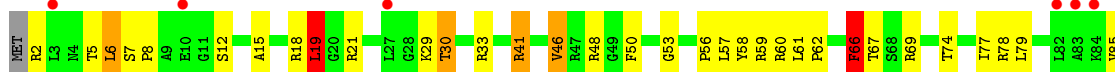
- Molecule 12: 50S ribosomal protein L15

Chain EL: 



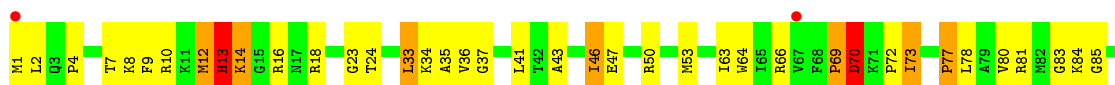
- Molecule 12: 50S ribosomal protein L15

Chain GL: 





- Molecule 13: 50S ribosomal protein L16



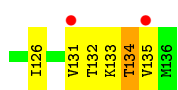
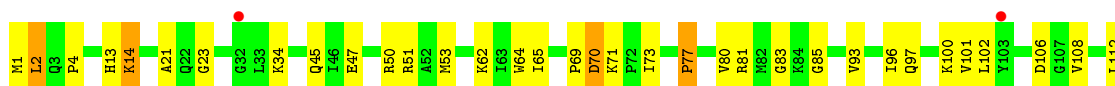
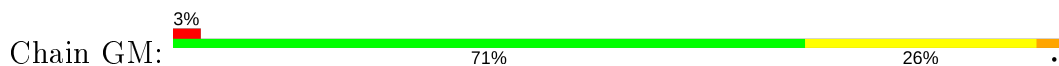
- Molecule 13: 50S ribosomal protein L16



- Molecule 13: 50S ribosomal protein L16

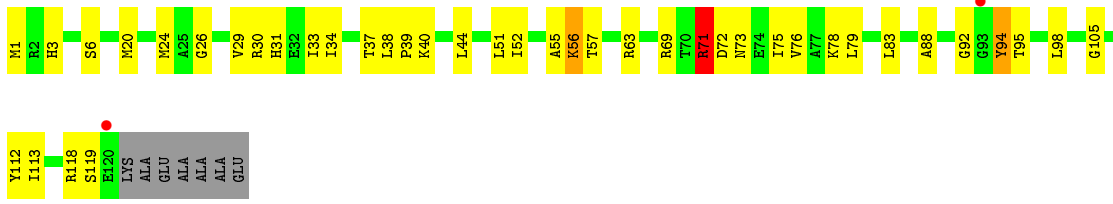


- Molecule 13: 50S ribosomal protein L16

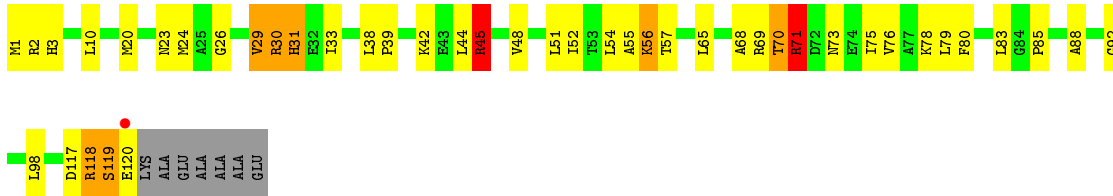


- Molecule 14: 50S ribosomal protein L17

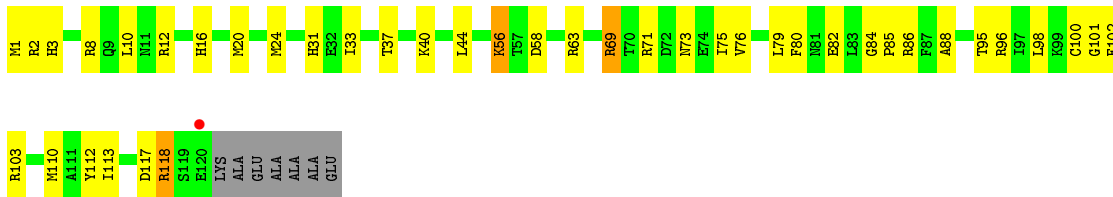




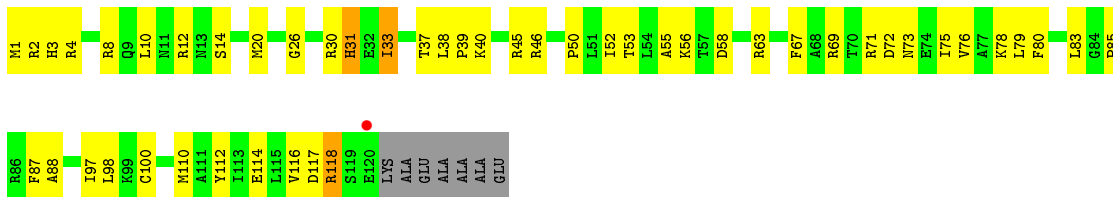
• Molecule 14: 50S ribosomal protein L17



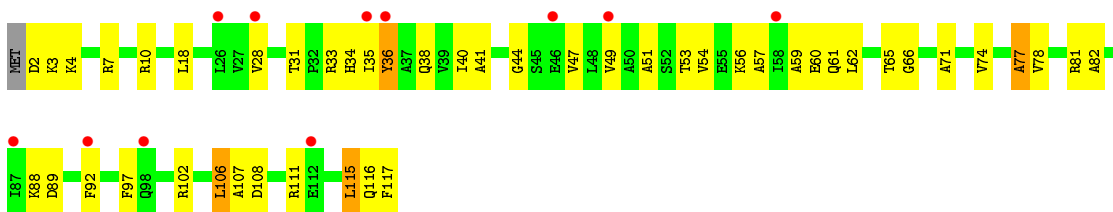
• Molecule 14: 50S ribosomal protein L17



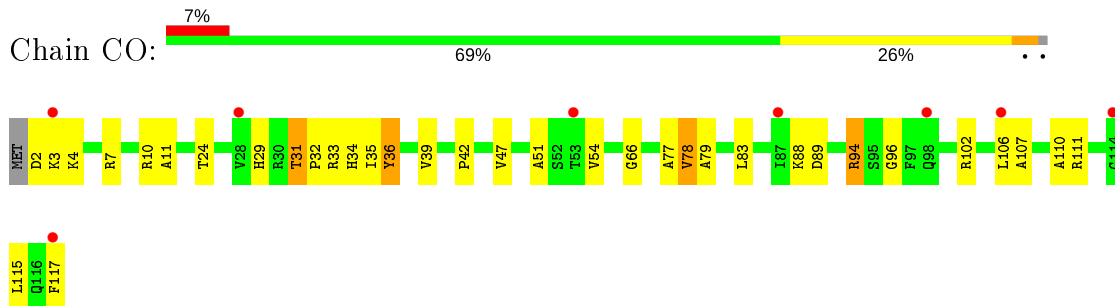
• Molecule 14: 50S ribosomal protein L17



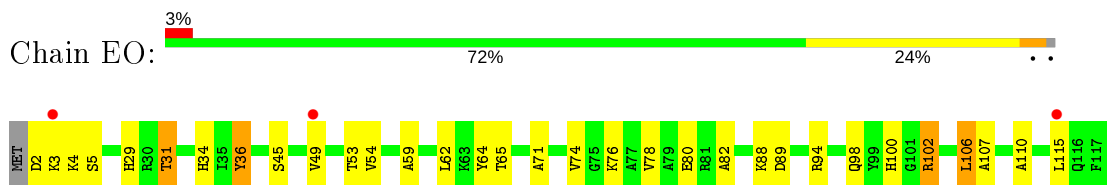
• Molecule 15: 50S ribosomal protein L18



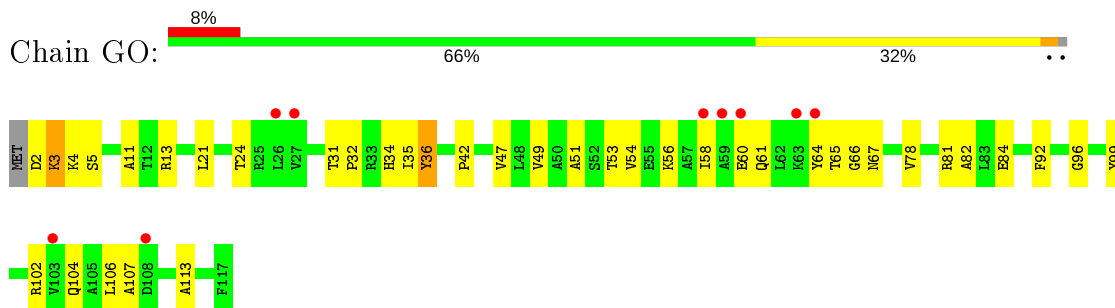
- Molecule 15: 50S ribosomal protein L18



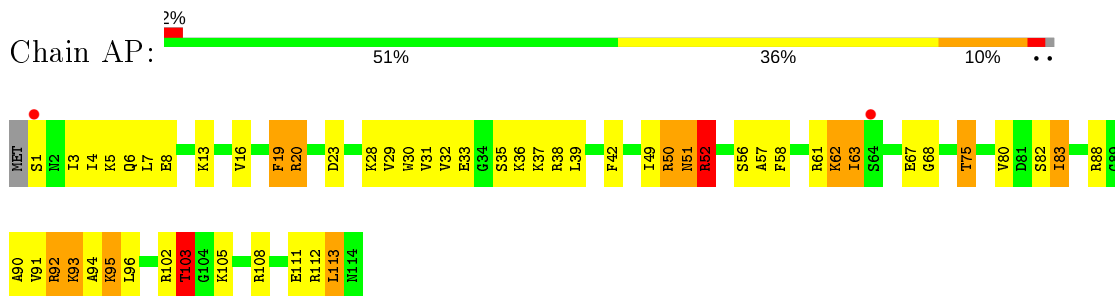
- Molecule 15: 50S ribosomal protein L18



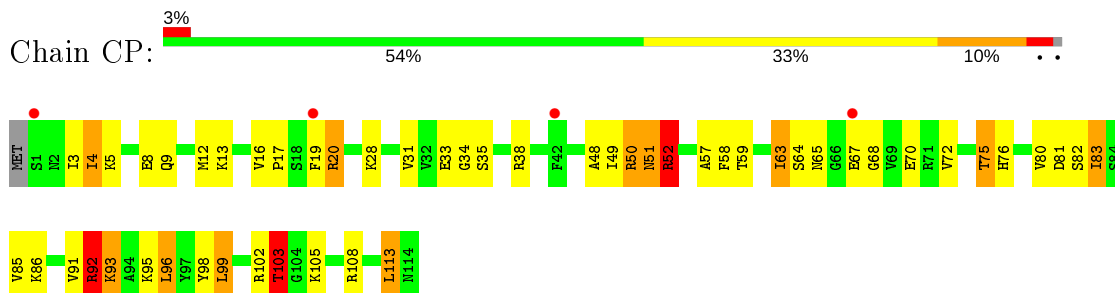
- Molecule 15: 50S ribosomal protein L18



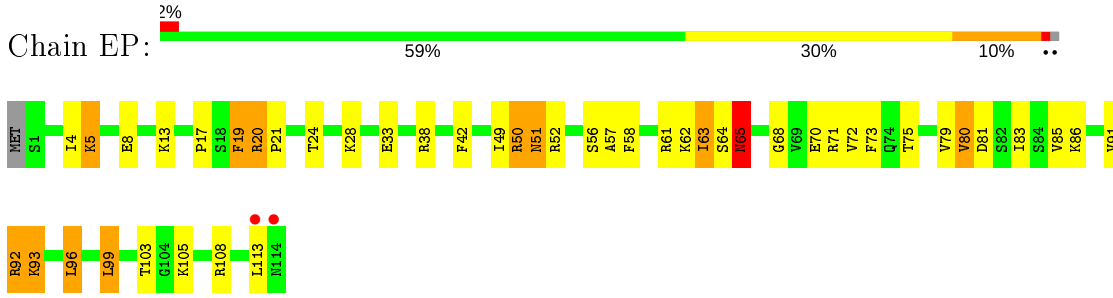
- Molecule 16: 50S ribosomal protein L19



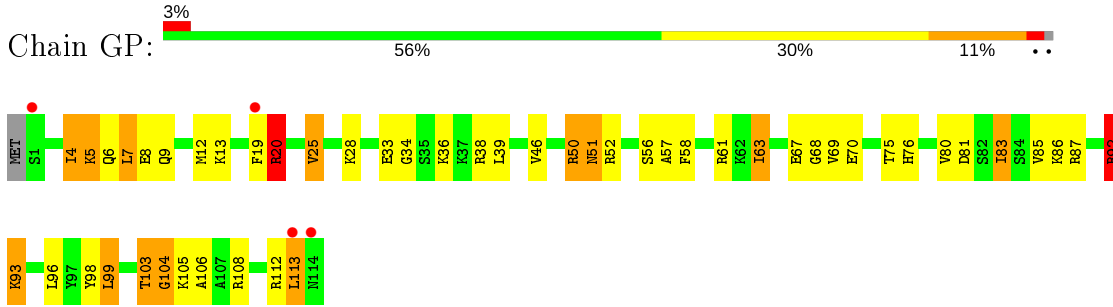
- Molecule 16: 50S ribosomal protein L19



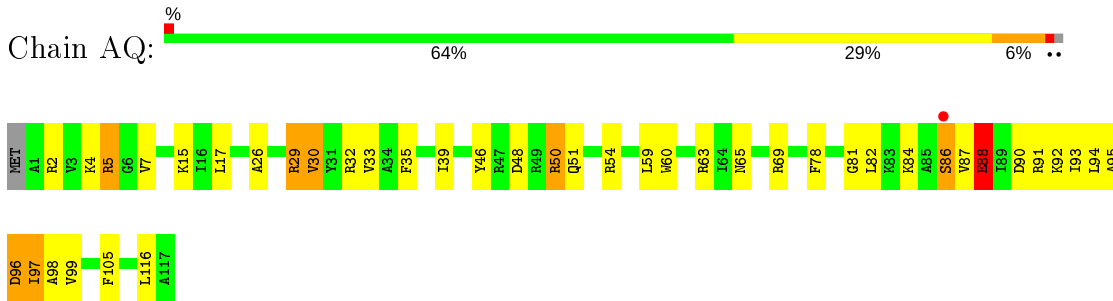
• Molecule 16: 50S ribosomal protein L19



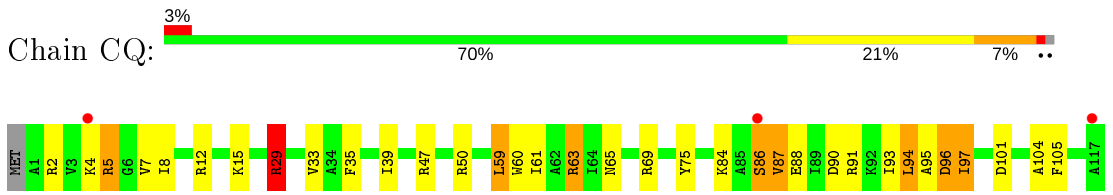
• Molecule 16: 50S ribosomal protein L19



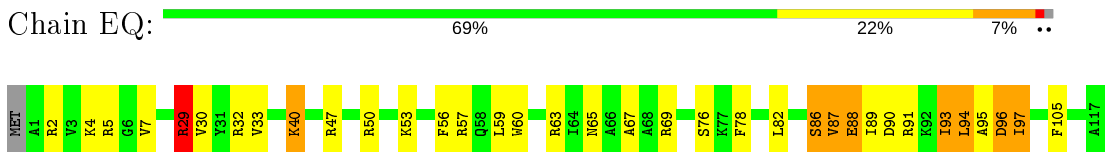
• Molecule 17: 50S ribosomal protein L20



• Molecule 17: 50S ribosomal protein L20



• Molecule 17: 50S ribosomal protein L20

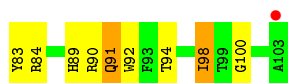
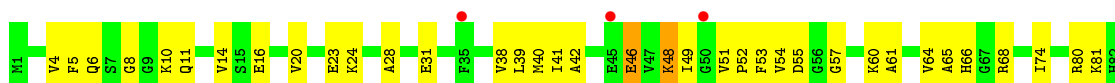


• Molecule 17: 50S ribosomal protein L20

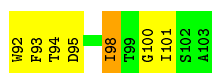
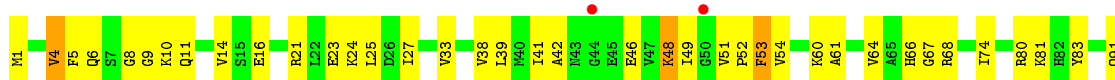




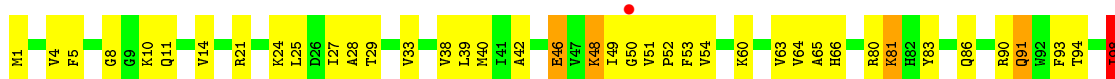
- Molecule 18: 50S ribosomal protein L21



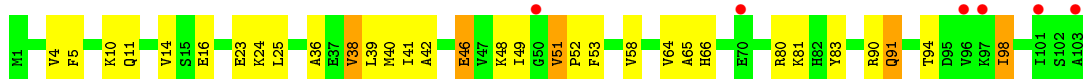
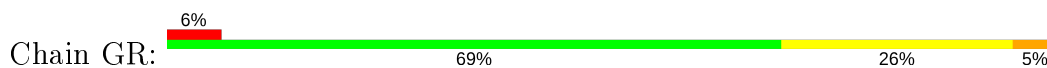
- Molecule 18: 50S ribosomal protein L21



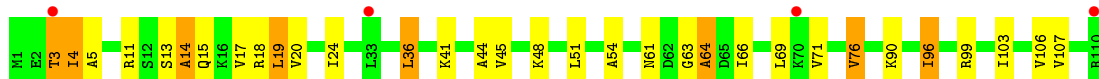
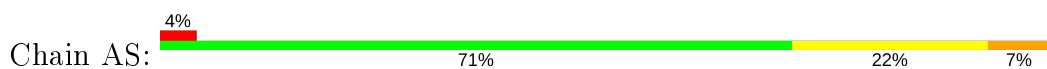
- Molecule 18: 50S ribosomal protein L21



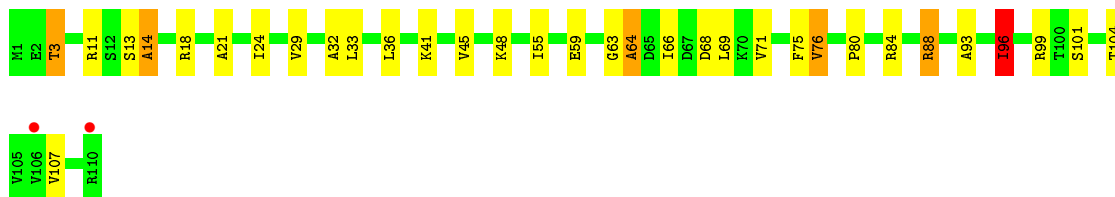
- Molecule 18: 50S ribosomal protein L21



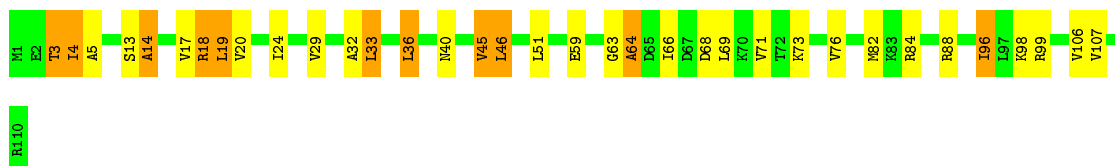
- Molecule 19: 50S ribosomal protein L22



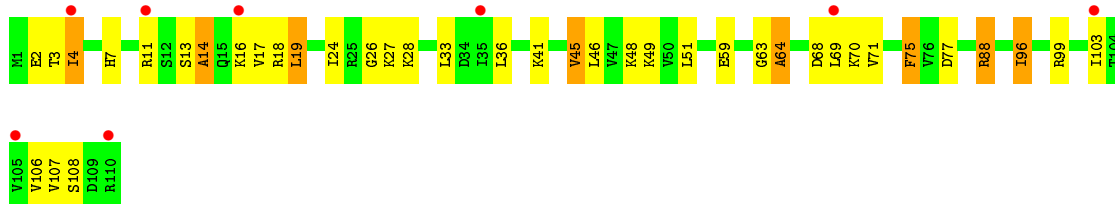
• Molecule 19: 50S ribosomal protein L22



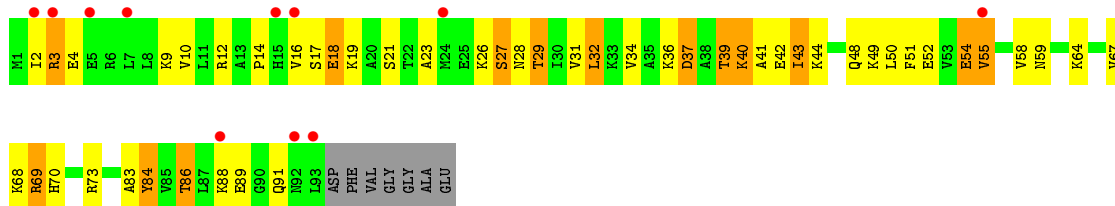
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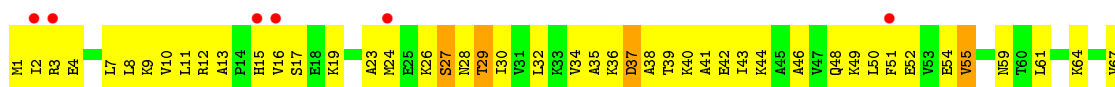
• Molecule 19: 50S ribosomal protein L22

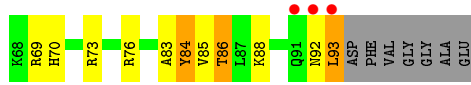


• Molecule 20: 50S ribosomal protein L23

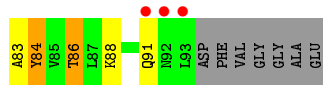
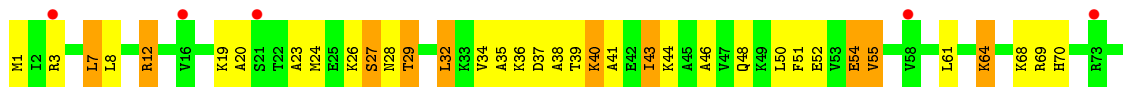


• Molecule 20: 50S ribosomal protein L23

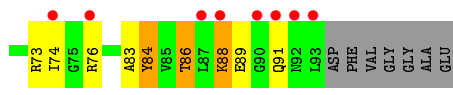




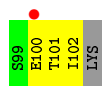
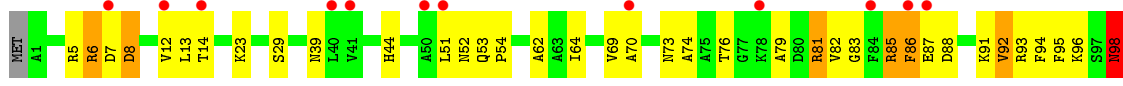
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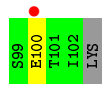
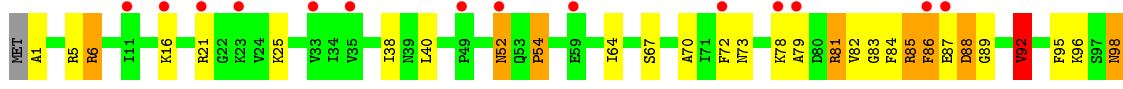
• Molecule 20: 50S ribosomal protein L23



• Molecule 21: 50S ribosomal protein L24

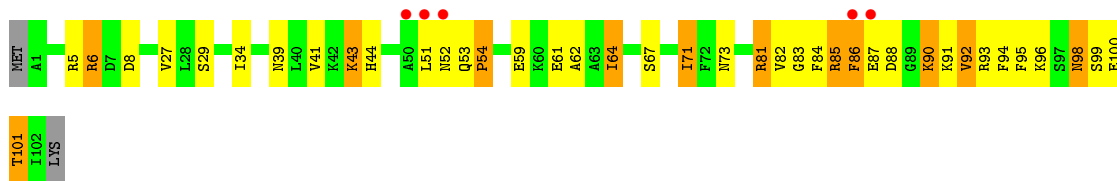


• Molecule 21: 50S ribosomal protein L24

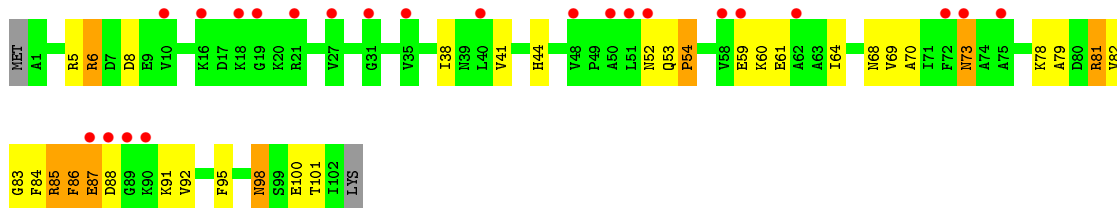


• Molecule 21: 50S ribosomal protein L24

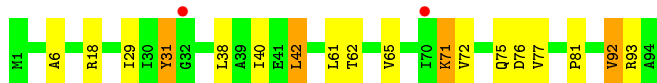
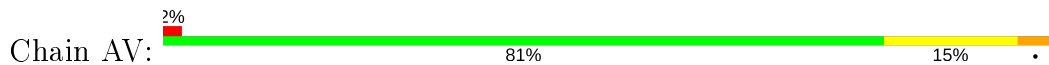




• Molecule 21: 50S ribosomal protein L24



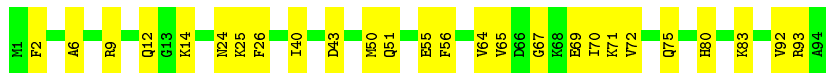
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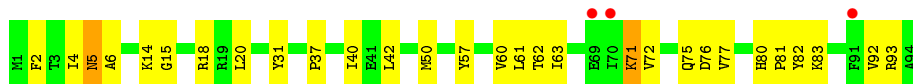
• Molecule 22: 50S ribosomal protein L25



• Molecule 22: 50S ribosomal protein L25

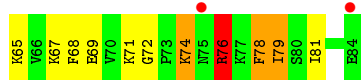
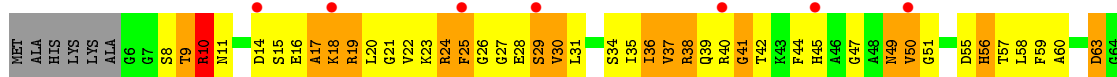


• Molecule 22: 50S ribosomal protein L25

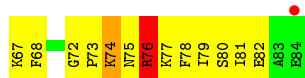
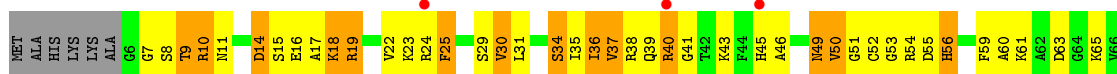


• Molecule 23: 50S ribosomal protein L27

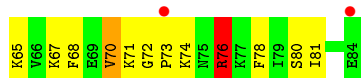
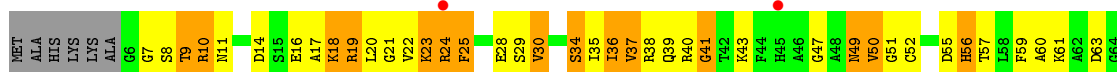
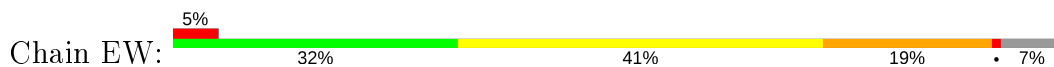




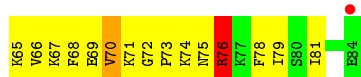
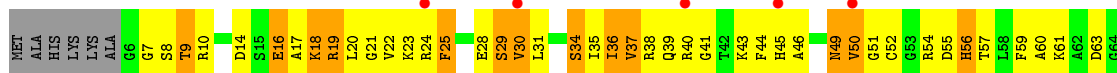
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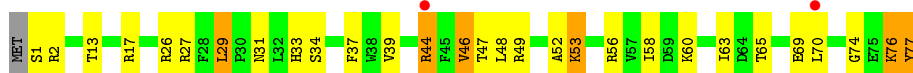
• Molecule 23: 50S ribosomal protein L27



• Molecule 23: 50S ribosomal protein L27



• Molecule 24: 50S ribosomal protein L28



• Molecule 24: 50S ribosomal protein L28





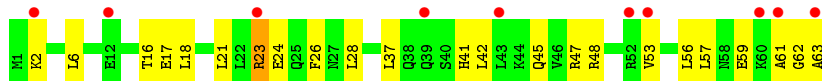
- Molecule 24: 50S ribosomal protein L28



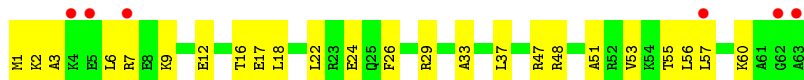
- Molecule 24: 50S ribosomal protein L28



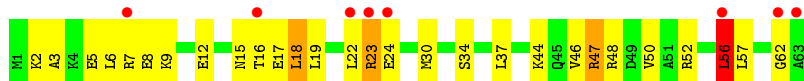
- Molecule 25: 50S ribosomal protein L29



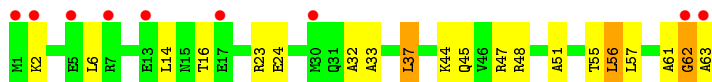
- Molecule 25: 50S ribosomal protein L29



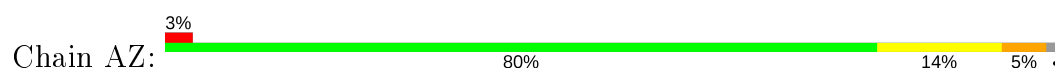
- Molecule 25: 50S ribosomal protein L29



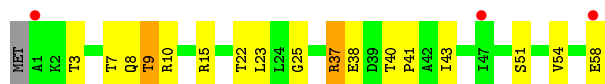
- Molecule 25: 50S ribosomal protein L29



- Molecule 26: 50S ribosomal protein L30



- Molecule 26: 50S ribosomal protein L30



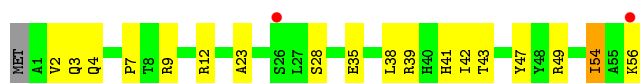
- Molecule 26: 50S ribosomal protein L30



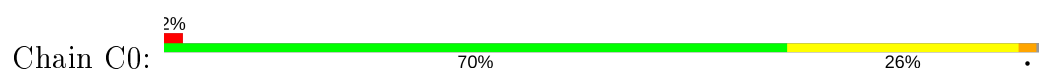
- Molecule 26: 50S ribosomal protein L30



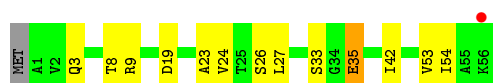
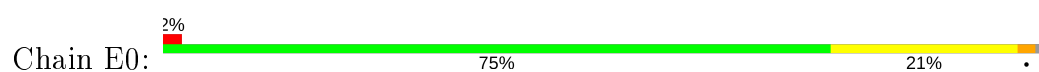
- Molecule 27: 50S ribosomal protein L32



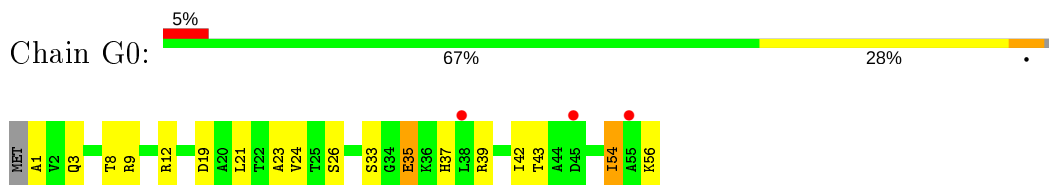
- Molecule 27: 50S ribosomal protein L32



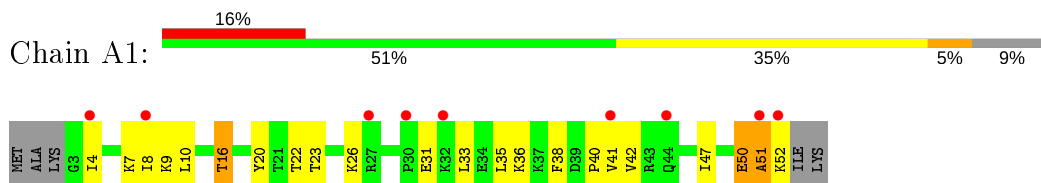
- Molecule 27: 50S ribosomal protein L32



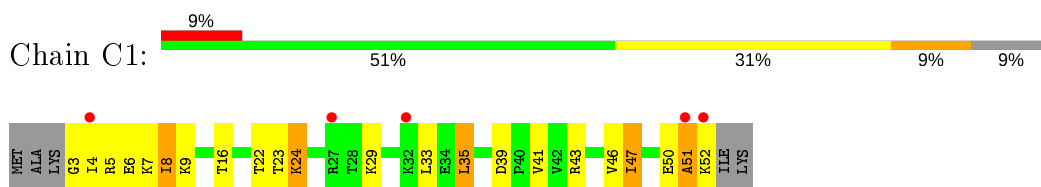
- Molecule 27: 50S ribosomal protein L32



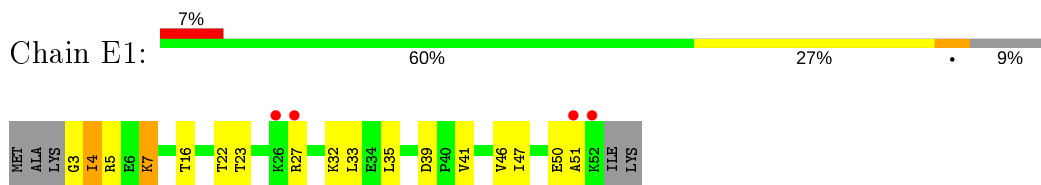
- Molecule 28: 50S ribosomal protein L33



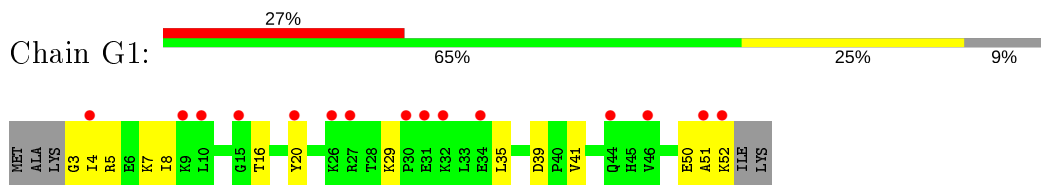
- Molecule 28: 50S ribosomal protein L33



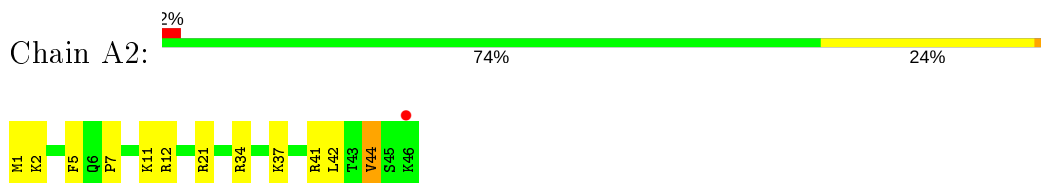
- Molecule 28: 50S ribosomal protein L33



- Molecule 28: 50S ribosomal protein L33



- Molecule 29: 50S ribosomal protein L34



- Molecule 29: 50S ribosomal protein L34





- Molecule 29: 50S ribosomal protein L34



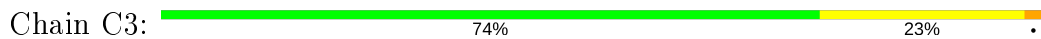
- Molecule 29: 50S ribosomal protein L34



- Molecule 30: 50S ribosomal protein L35



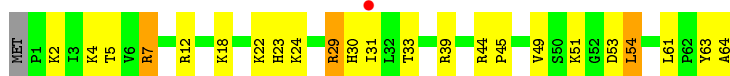
- Molecule 30: 50S ribosomal protein L35



- Molecule 30: 50S ribosomal protein L35

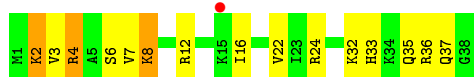


- Molecule 30: 50S ribosomal protein L35



- Molecule 31: 50S ribosomal protein L36

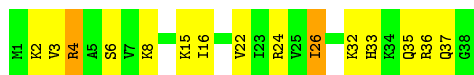




• Molecule 31: 50S ribosomal protein L36



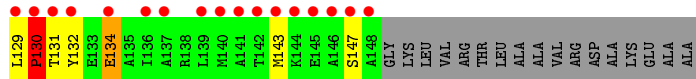
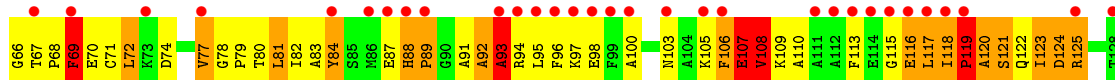
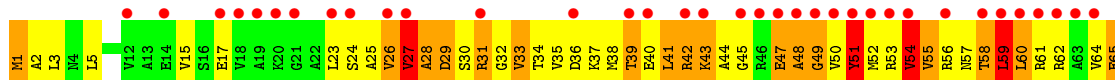
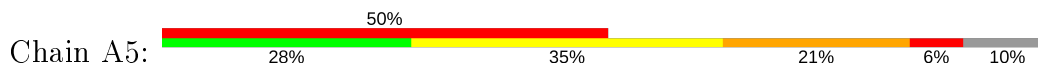
• Molecule 31: 50S ribosomal protein L36



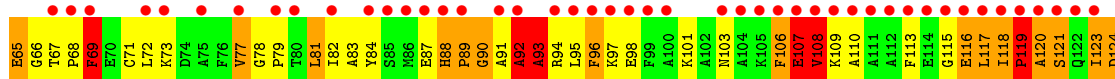
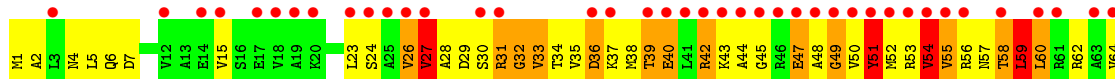
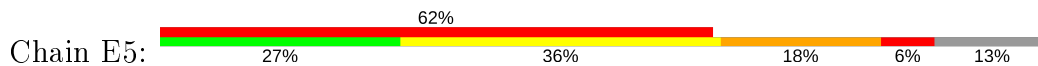
• Molecule 31: 50S ribosomal protein L36

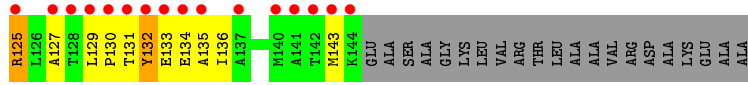


• Molecule 32: 50S ribosomal protein L10

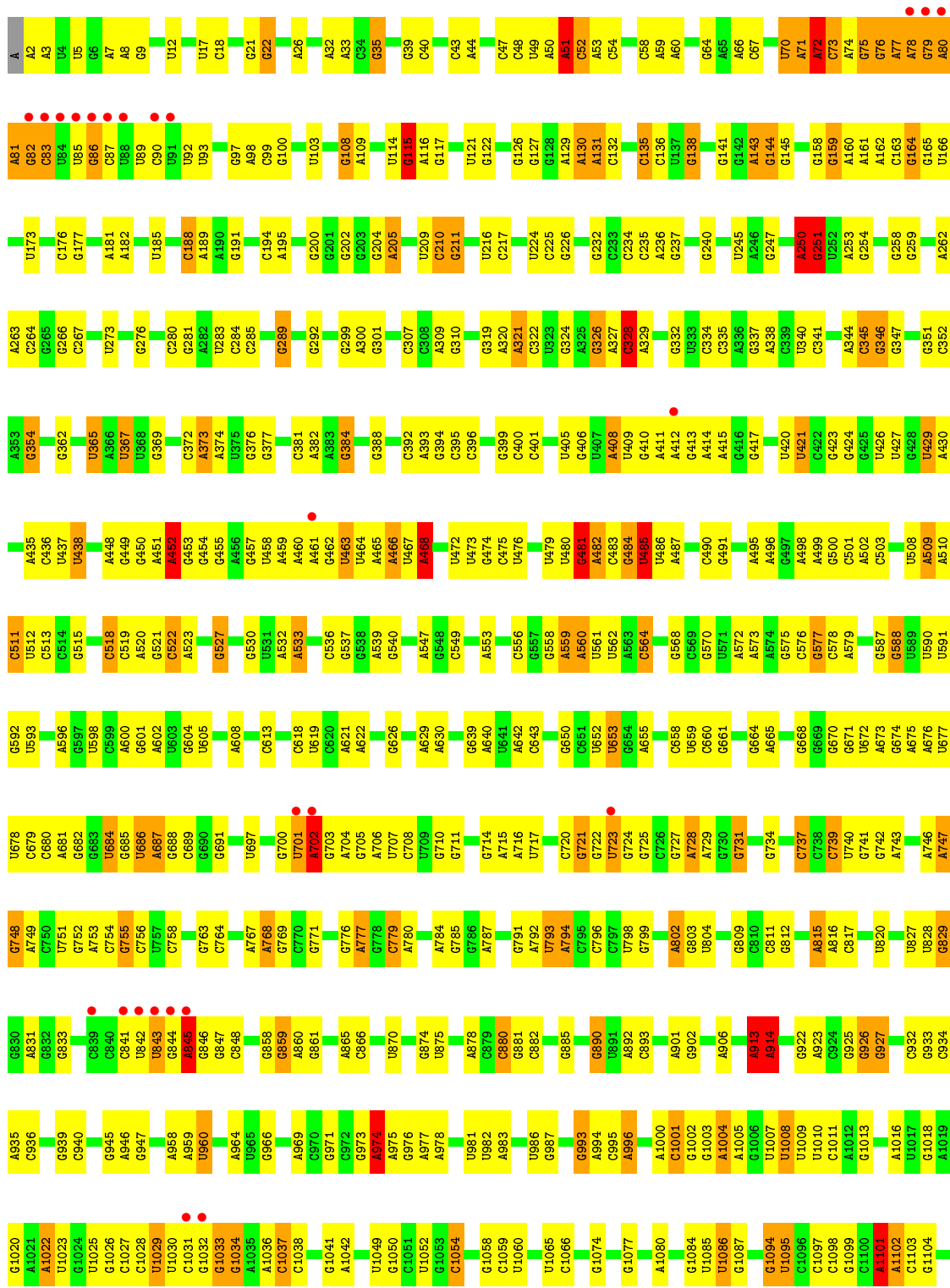


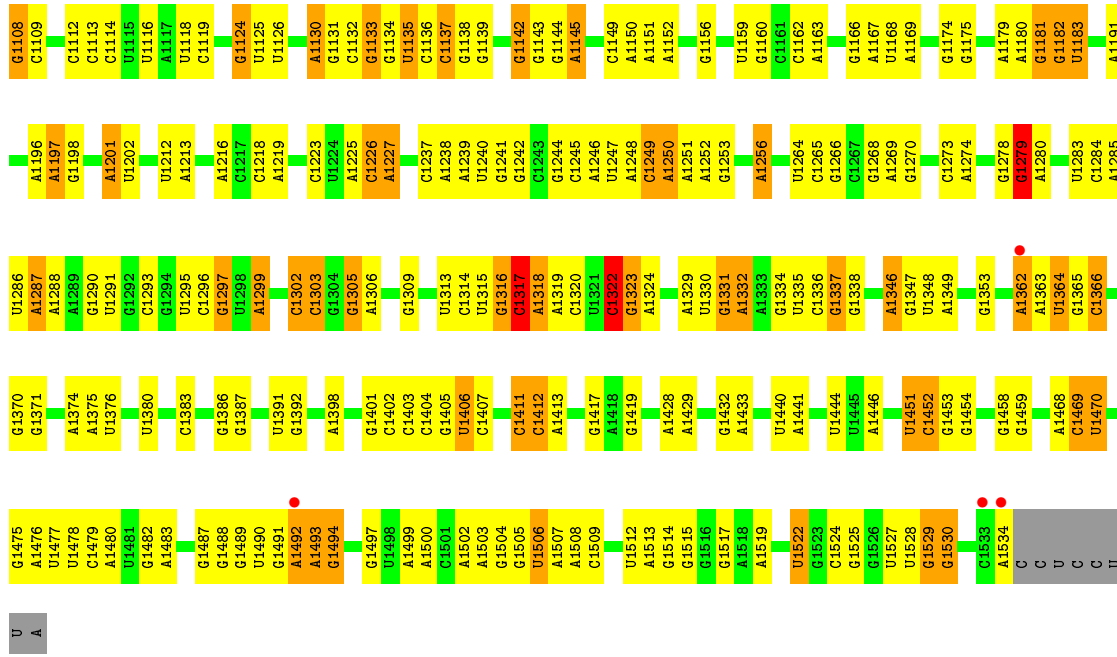
• Molecule 32: 50S ribosomal protein L10



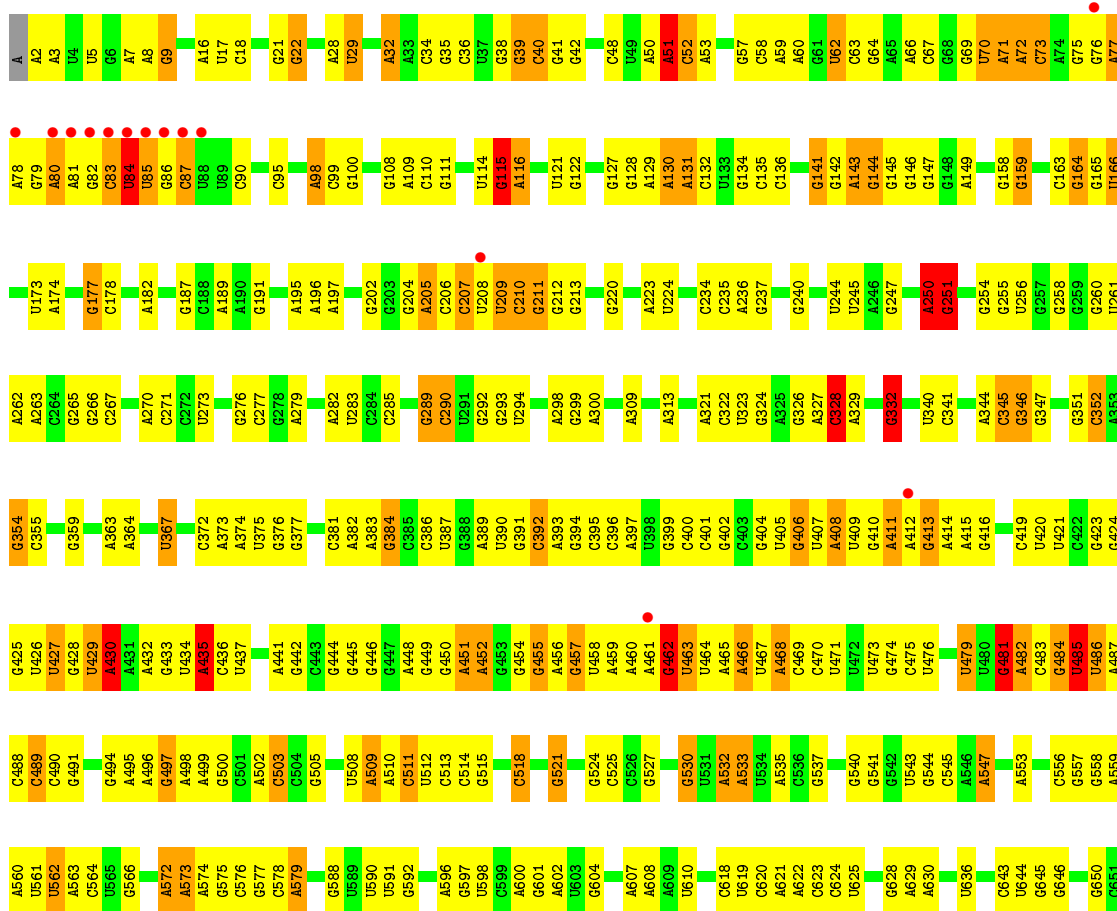


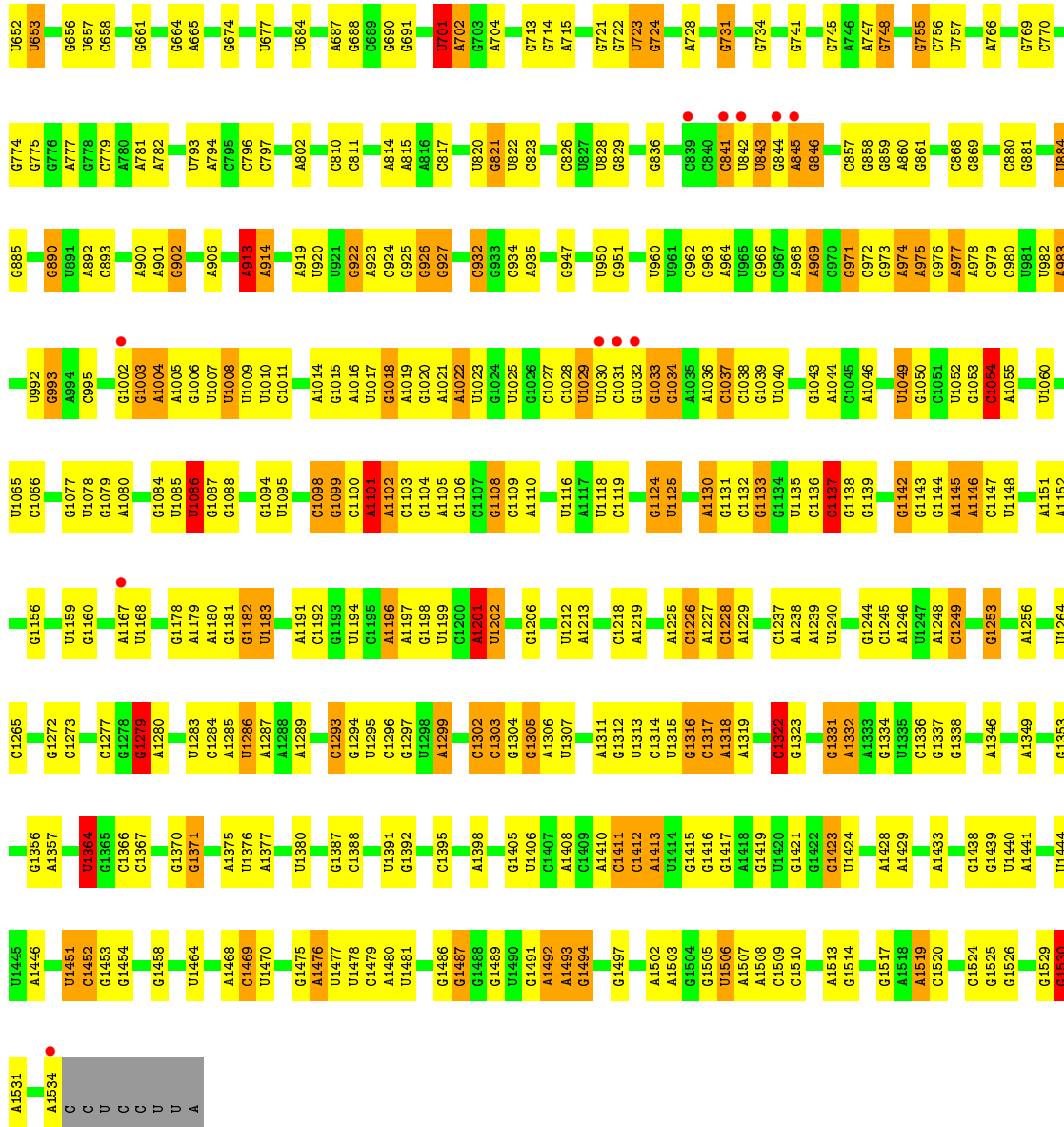
• Molecule 33: 16S rRNA



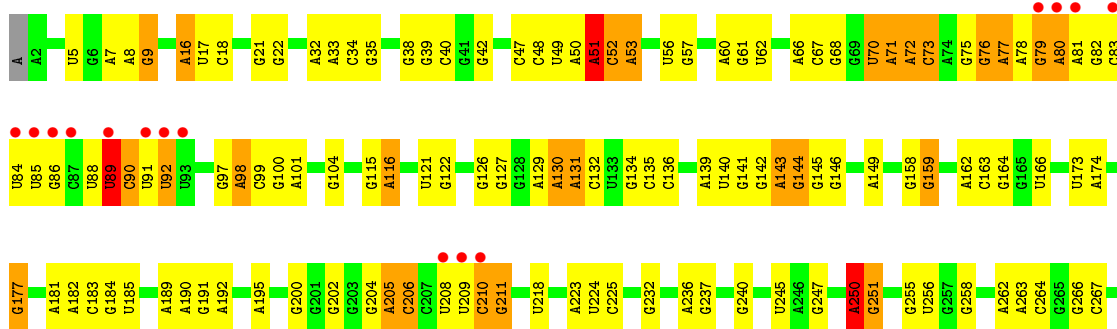


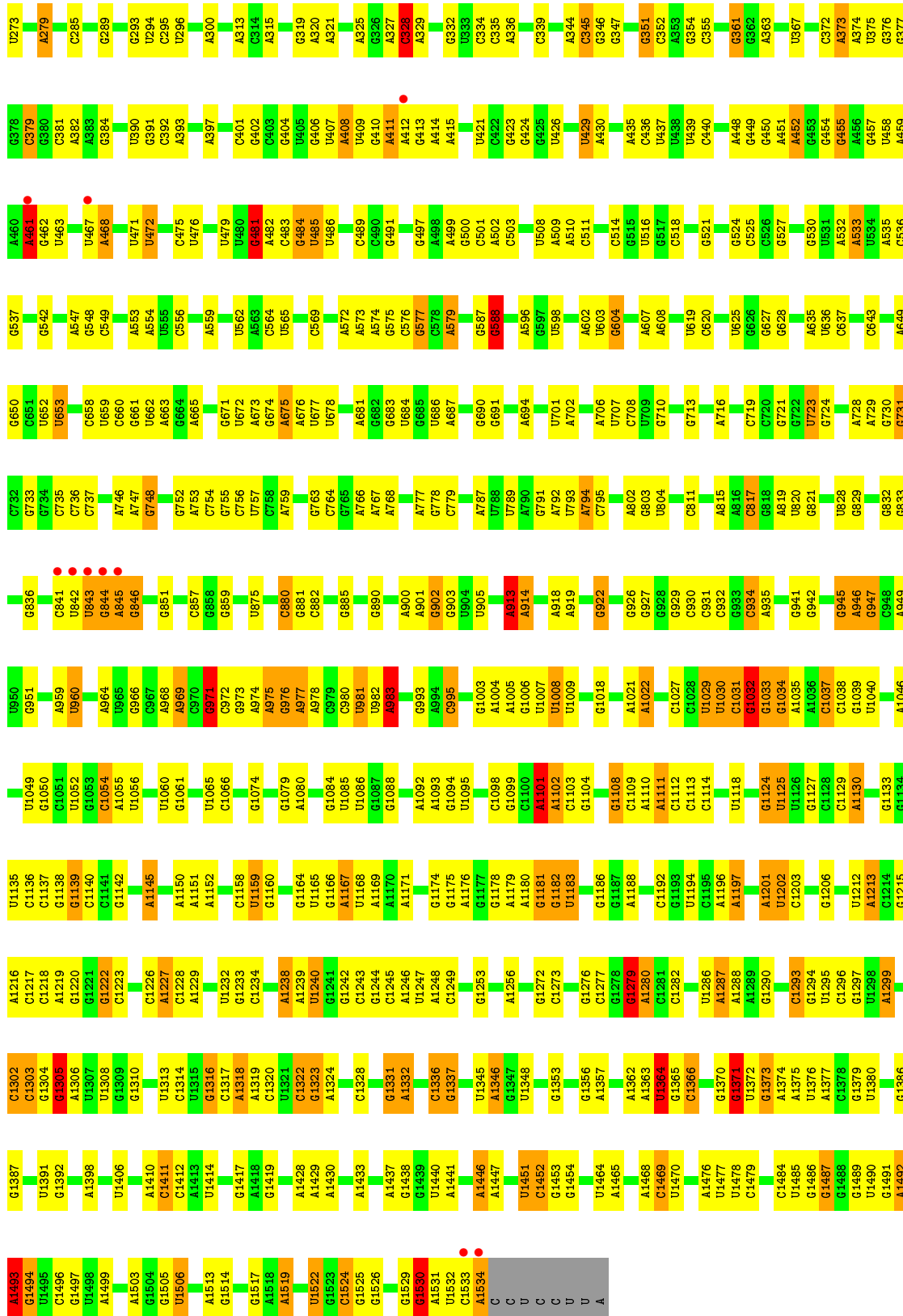
• Molecule 33: 16S rRNA





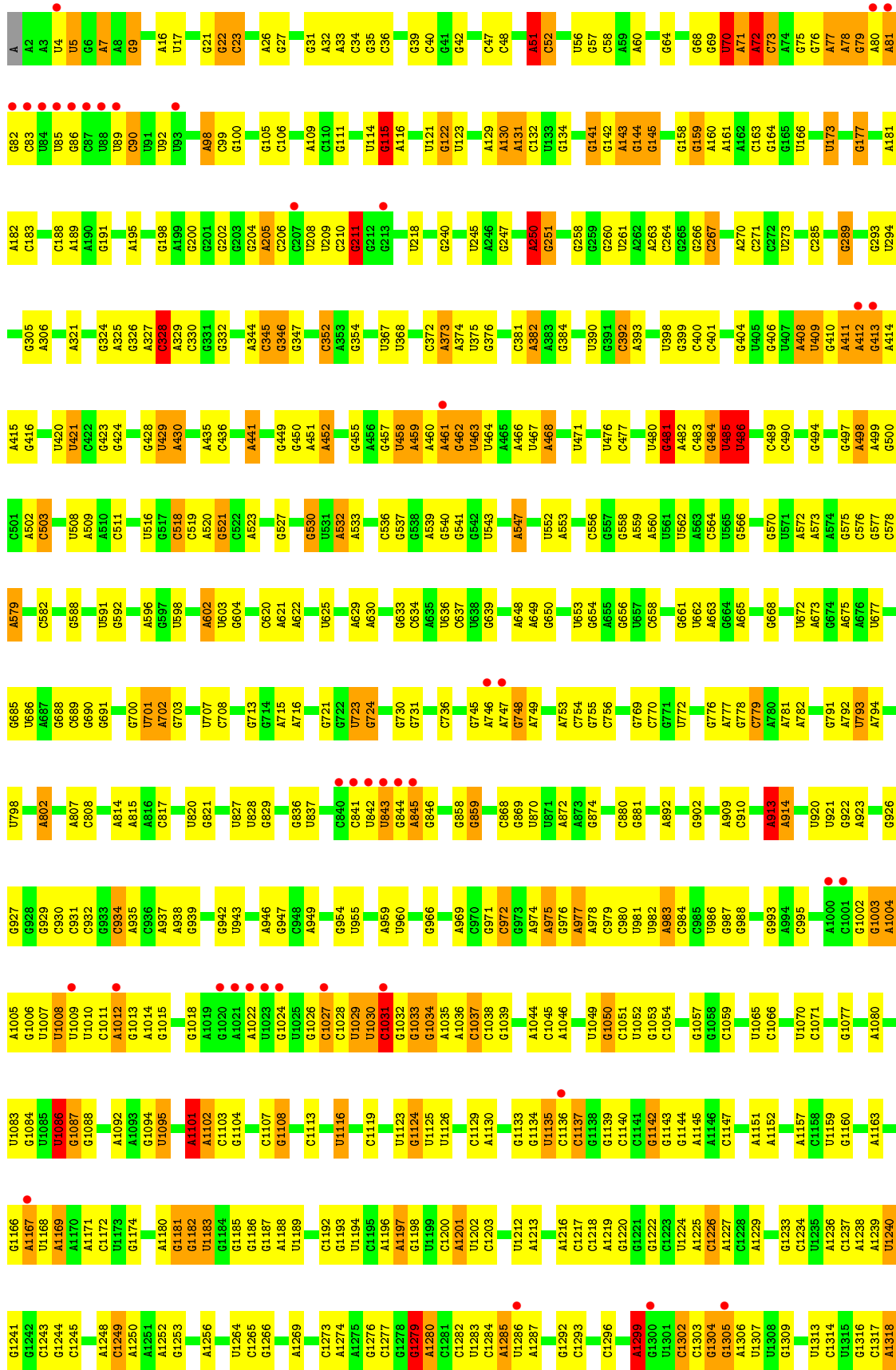
• Molecule 33: 16S rRNA

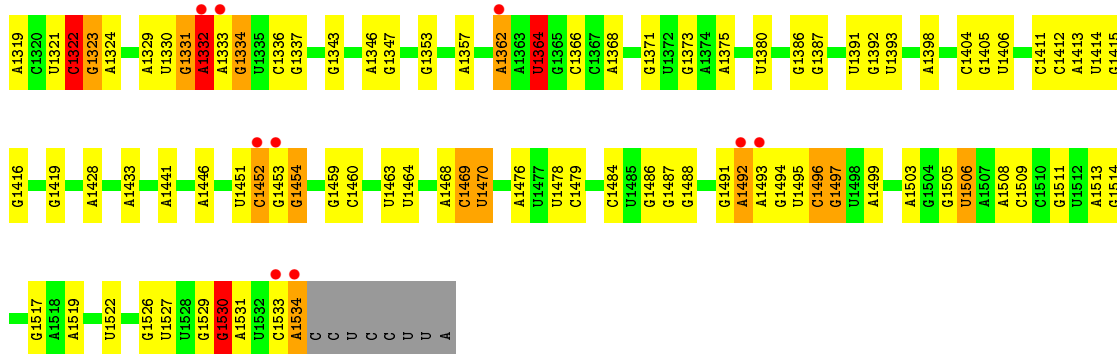




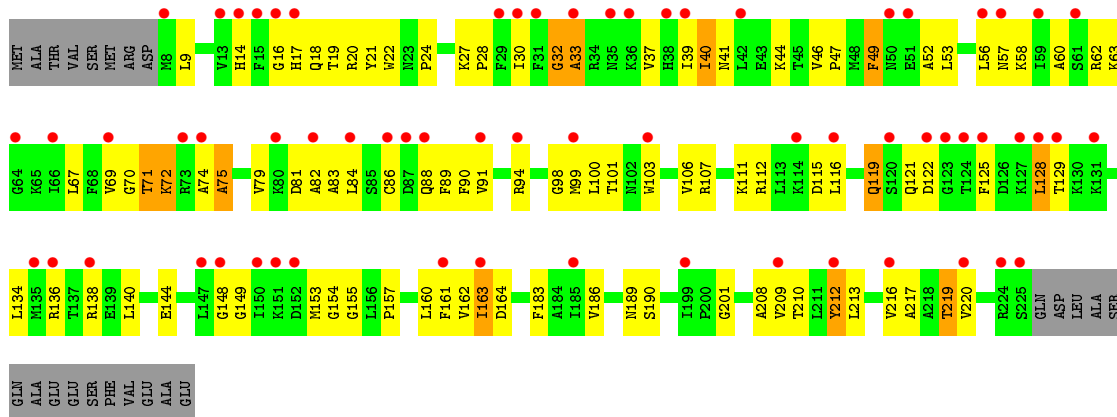
• Molecule 33: 16S rRNA



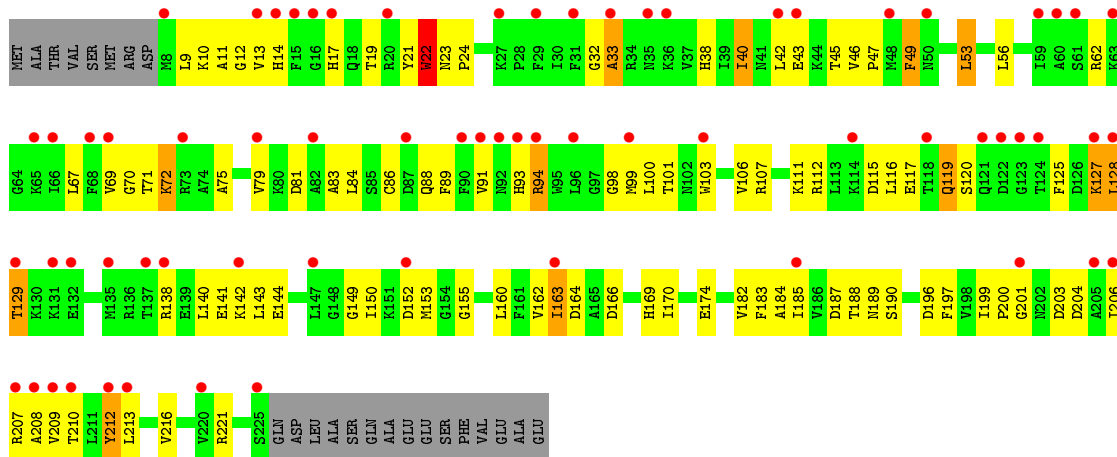




● Molecule 34: 30S ribosomal protein S2

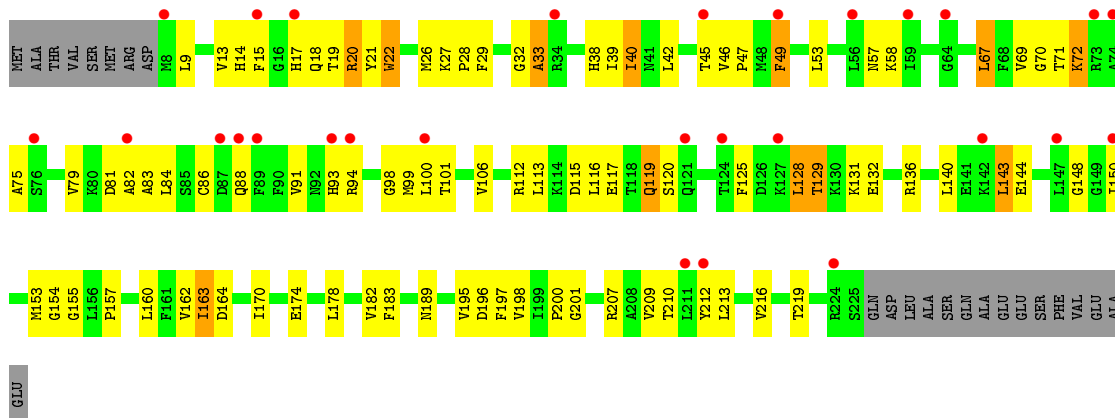


● Molecule 34: 30S ribosomal protein S2

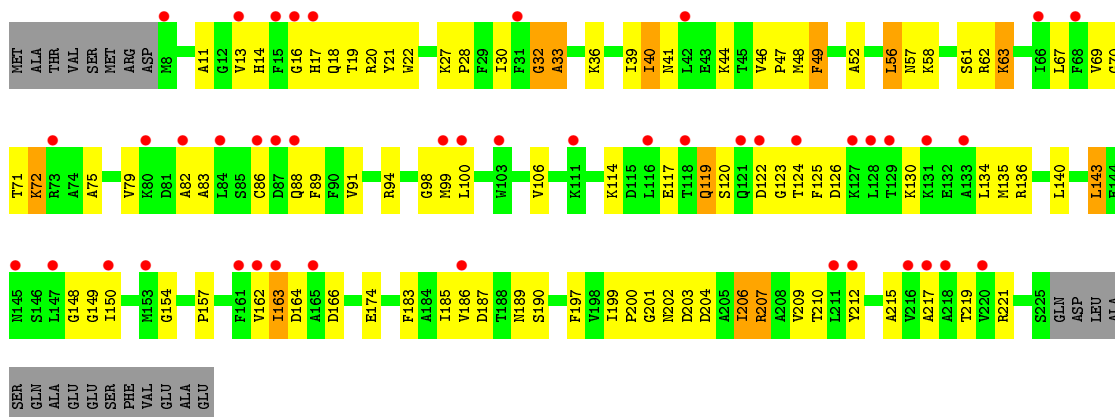


● Molecule 34: 30S ribosomal protein S2

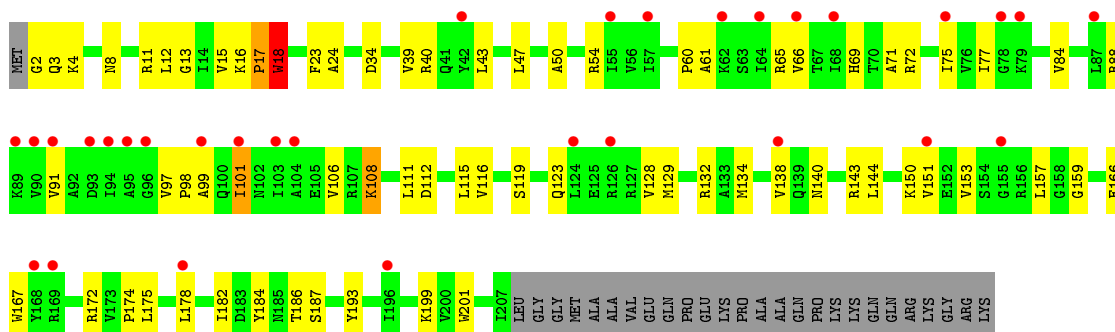




• Molecule 34: 30S ribosomal protein S2

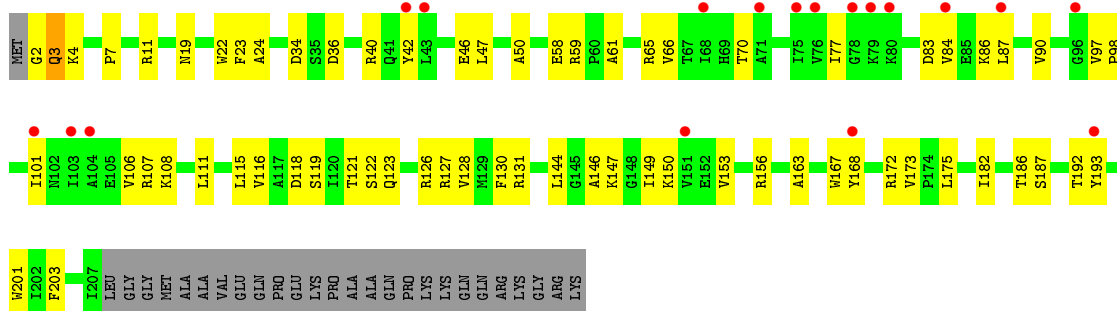


• Molecule 35: 30S ribosomal protein S3

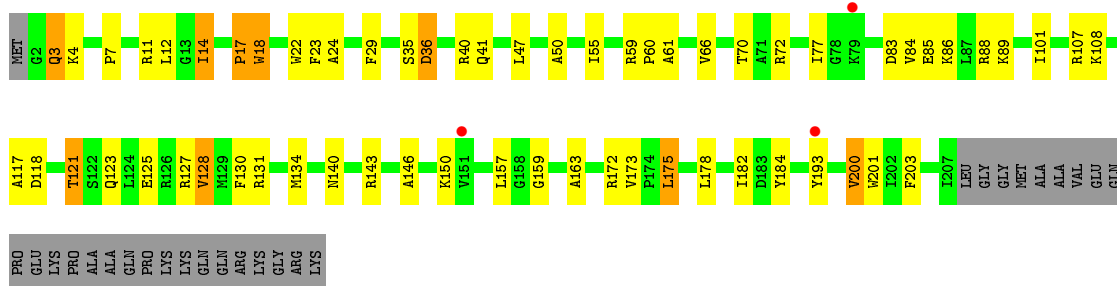


• Molecule 35: 30S ribosomal protein S3

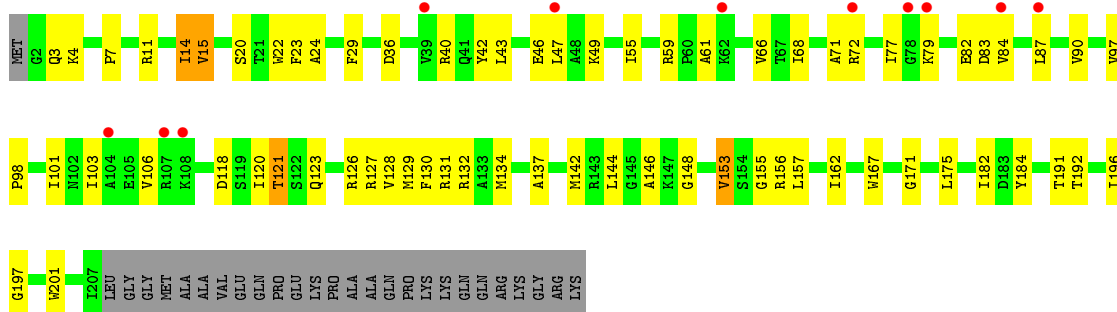




• Molecule 35: 30S ribosomal protein S3



• Molecule 35: 30S ribosomal protein S3

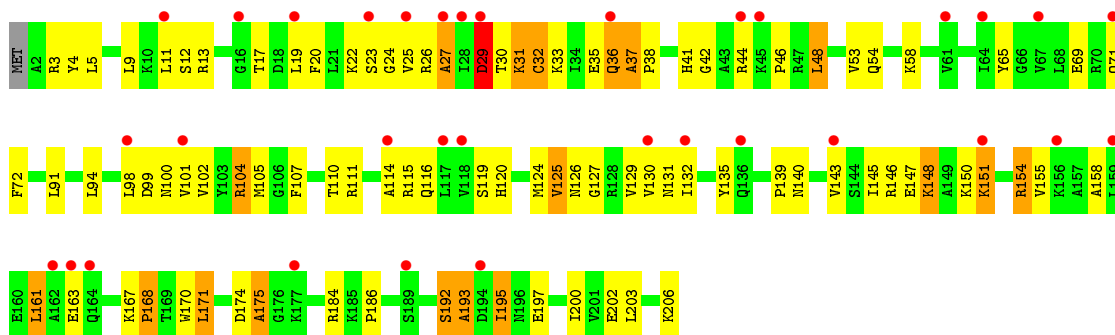


• Molecule 36: 30S ribosomal protein S4

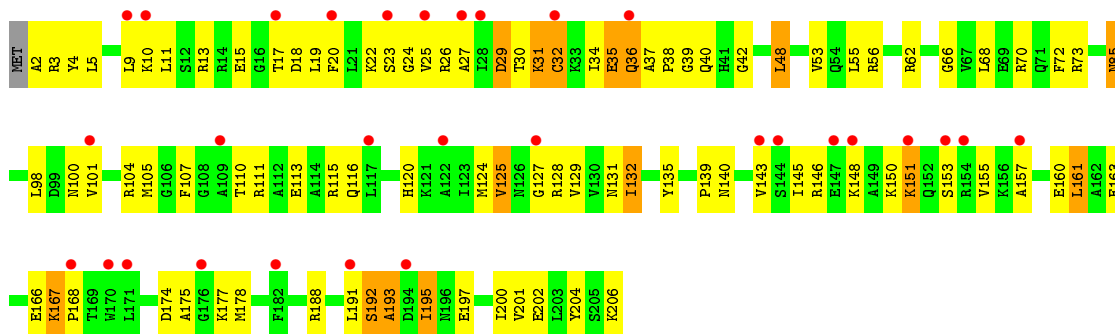




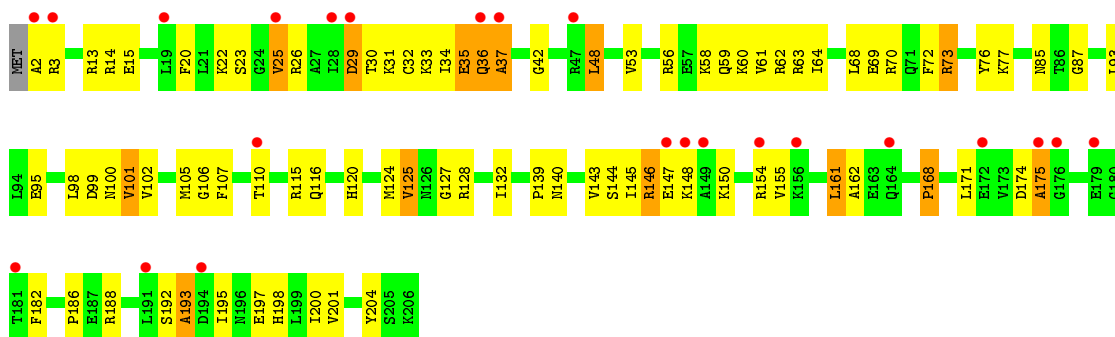
- Molecule 36: 30S ribosomal protein S4



- Molecule 36: 30S ribosomal protein S4

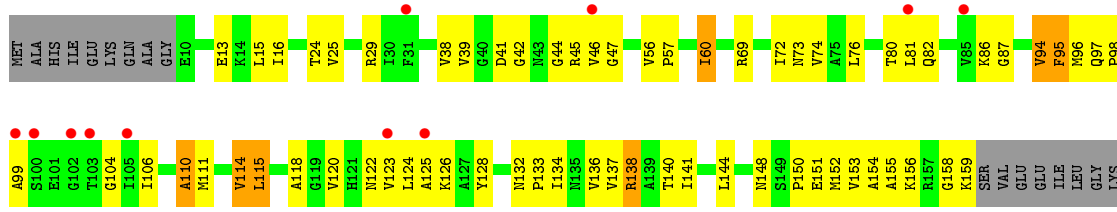


- Molecule 36: 30S ribosomal protein S4

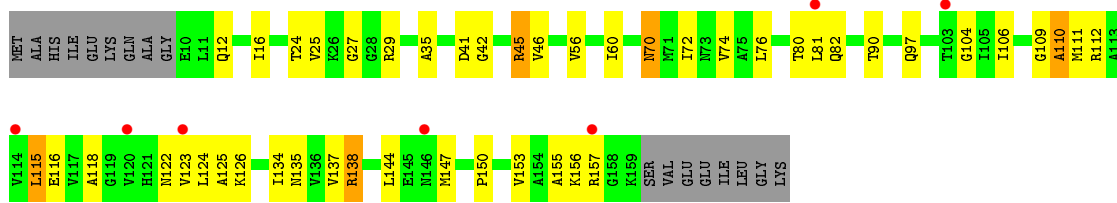


- Molecule 37: 30S ribosomal protein S5

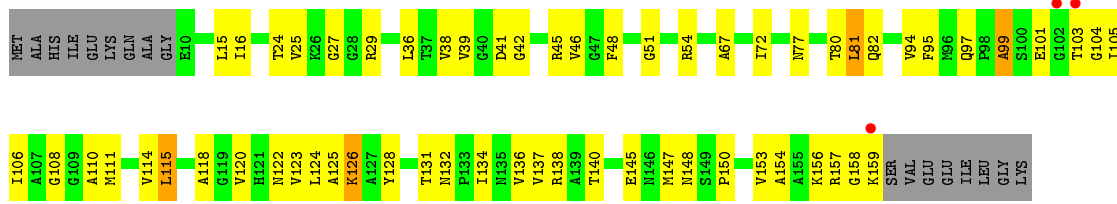




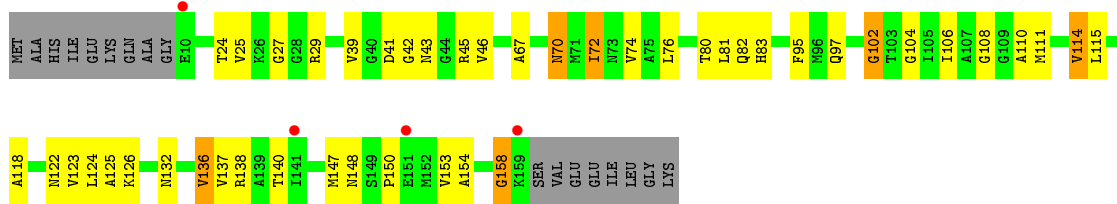
• Molecule 37: 30S ribosomal protein S5



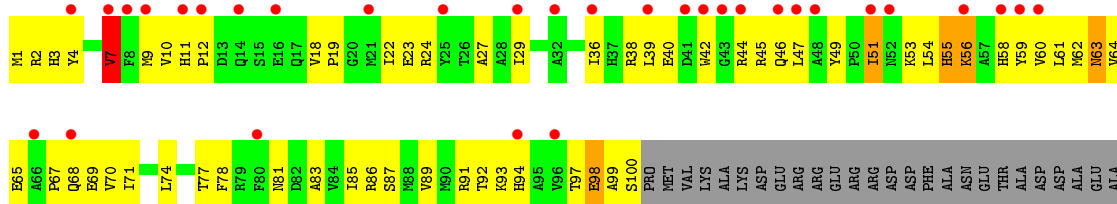
• Molecule 37: 30S ribosomal protein S5



• Molecule 37: 30S ribosomal protein S5

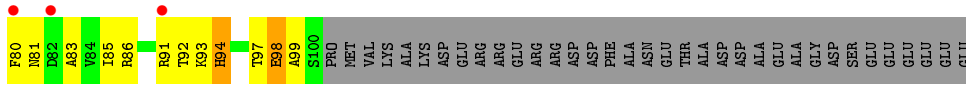
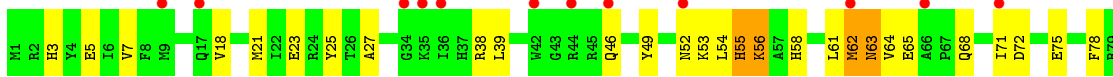


• Molecule 38: 30S ribosomal protein S6

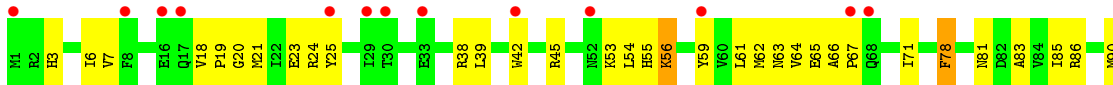


GLY
ASP
SER
GLU
GLU
GLU
GLU

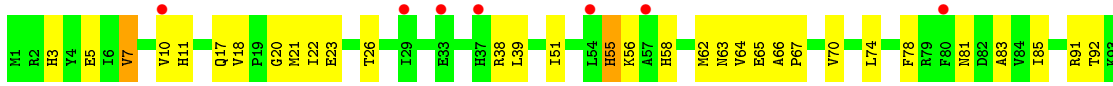
• Molecule 38: 30S ribosomal protein S6



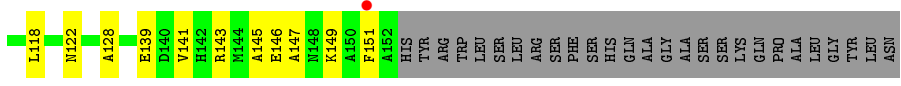
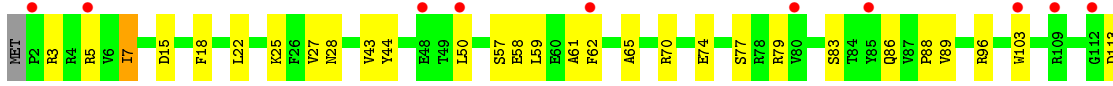
• Molecule 38: 30S ribosomal protein S6



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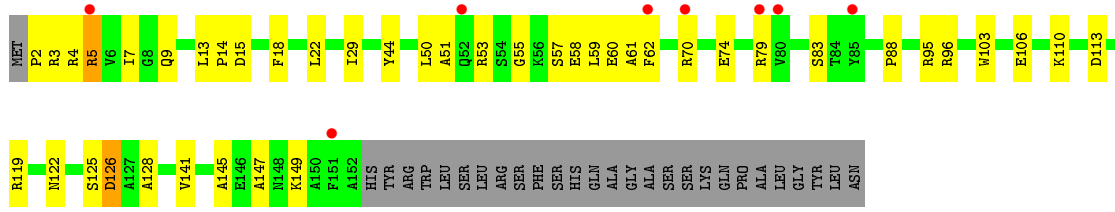


• Molecule 39: 30S ribosomal protein S7

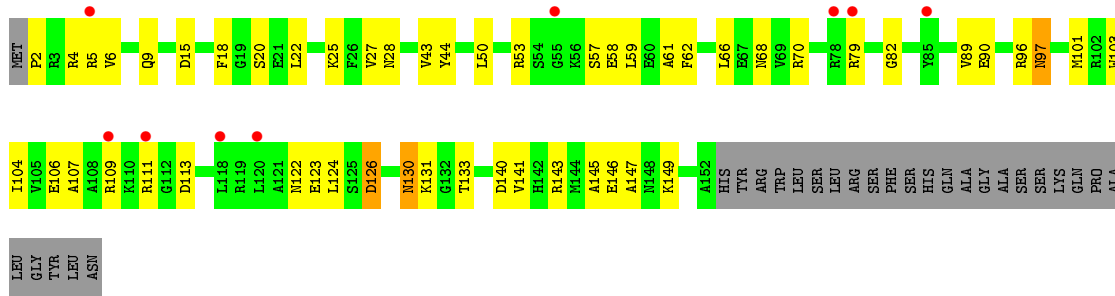


• Molecule 39: 30S ribosomal protein S7

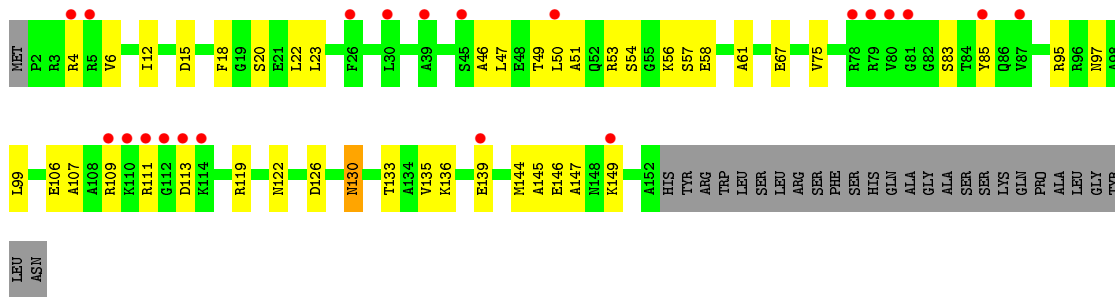




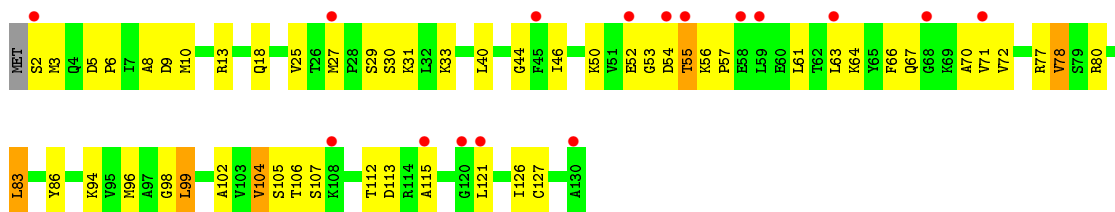
• Molecule 39: 30S ribosomal protein S7



• Molecule 39: 30S ribosomal protein S7

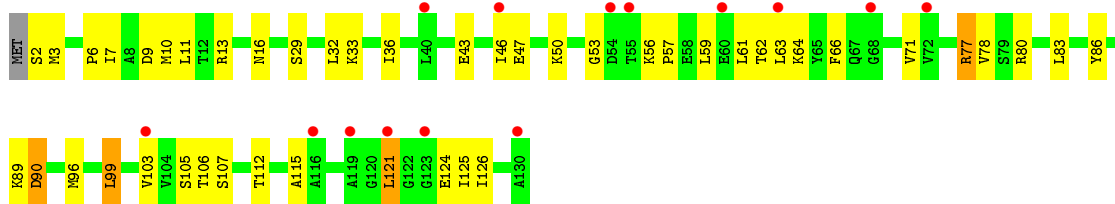


• Molecule 40: 30S ribosomal protein S8



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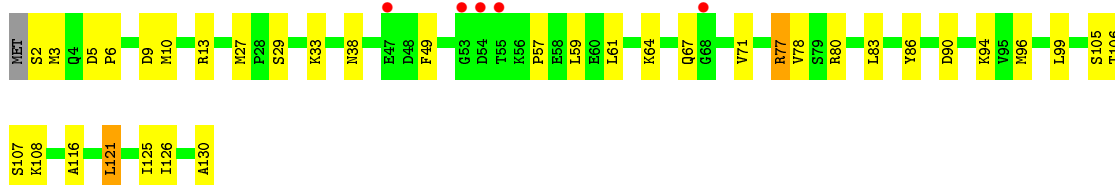
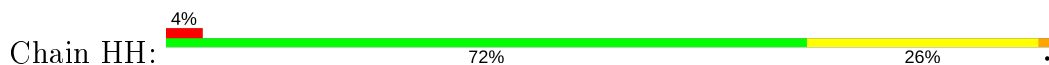




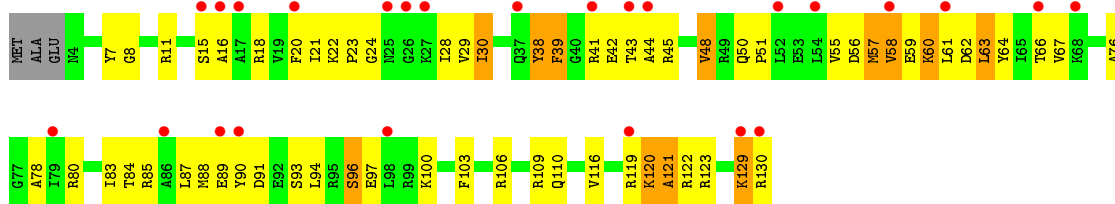
• Molecule 40: 30S ribosomal protein S8



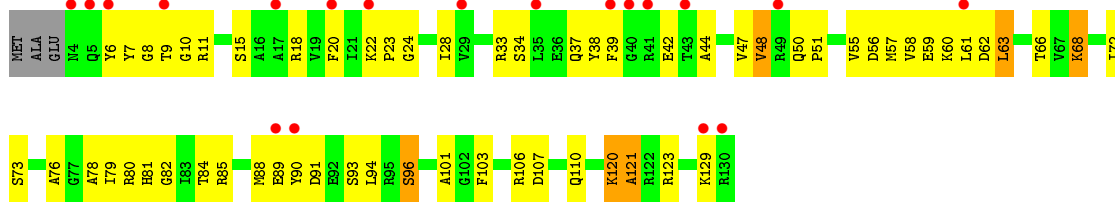
• Molecule 40: 30S ribosomal protein S8



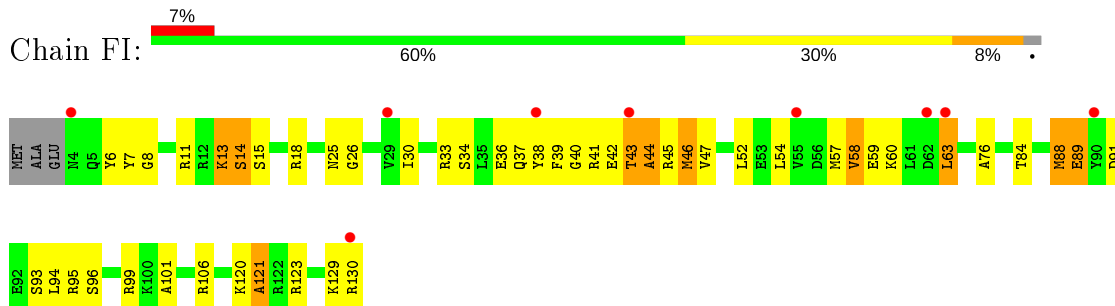
• Molecule 41: 30S ribosomal protein S9



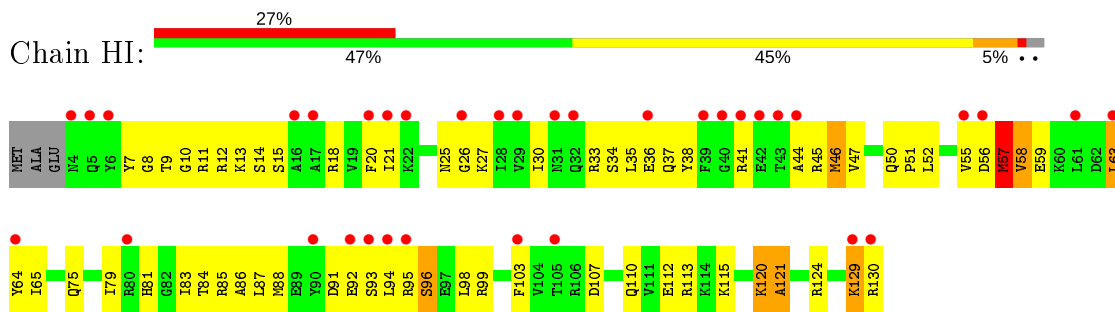
• Molecule 41: 30S ribosomal protein S9



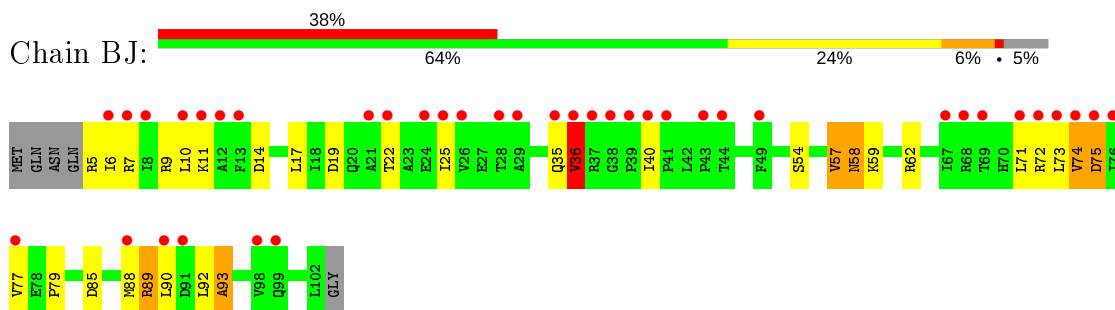
• Molecule 41: 30S ribosomal protein S9



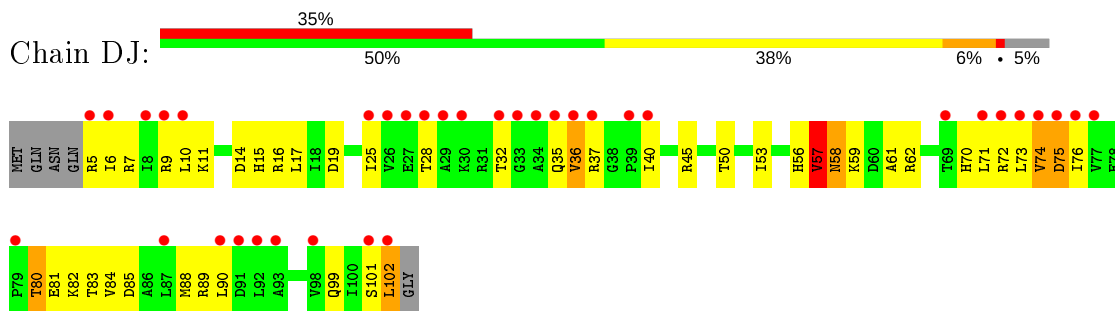
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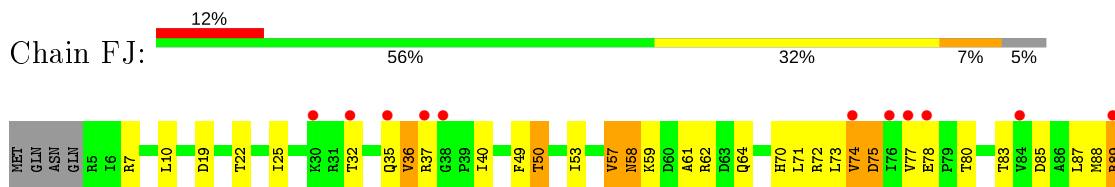
• Molecule 42: 30S ribosomal protein S10



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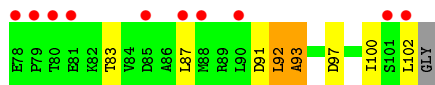
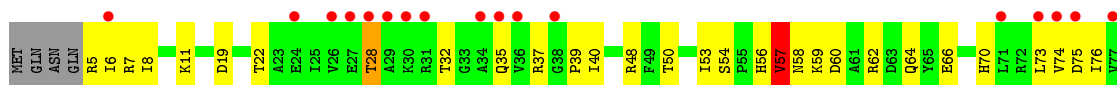


• Molecule 42: 30S ribosomal protein S10

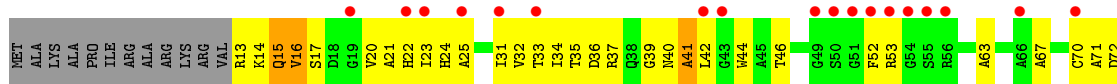
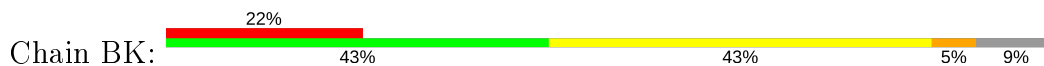




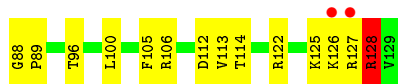
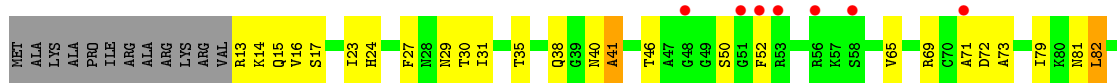
• Molecule 42: 30S ribosomal protein S10



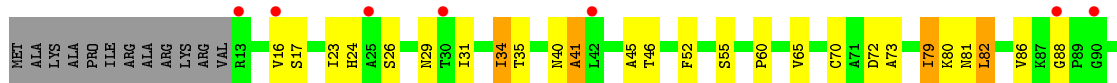
• Molecule 43: 30S ribosomal protein S11



• Molecule 43: 30S ribosomal protein S11



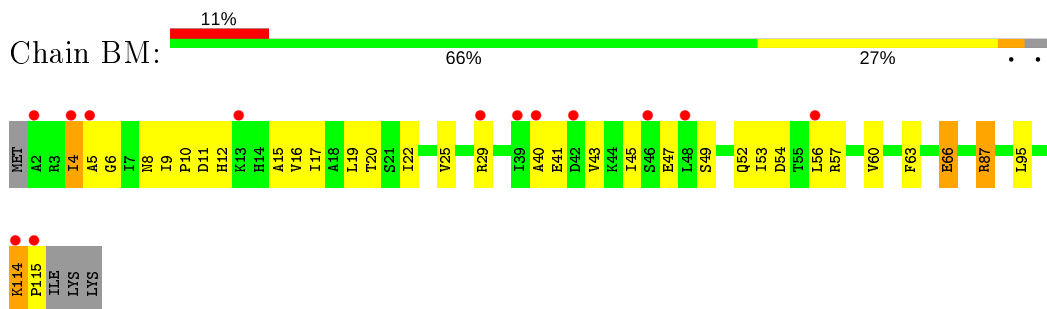
• Molecule 43: 30S ribosomal protein S11



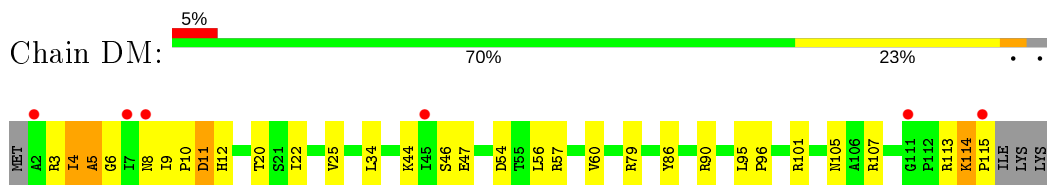
• Molecule 43: 30S ribosomal protein S11



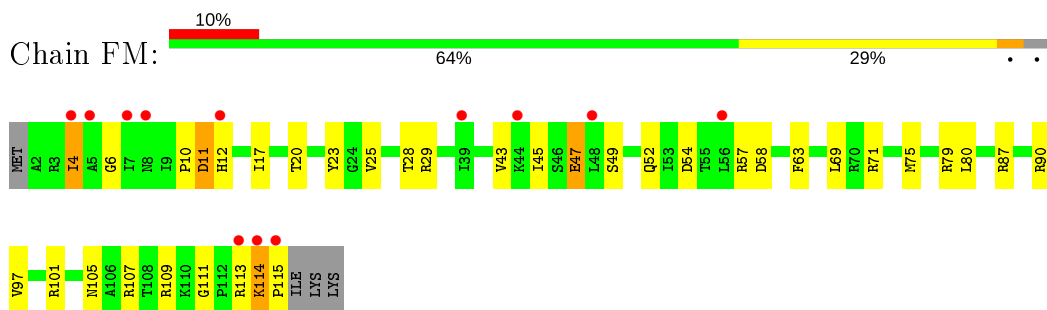
- Molecule 45: 30S ribosomal protein S13



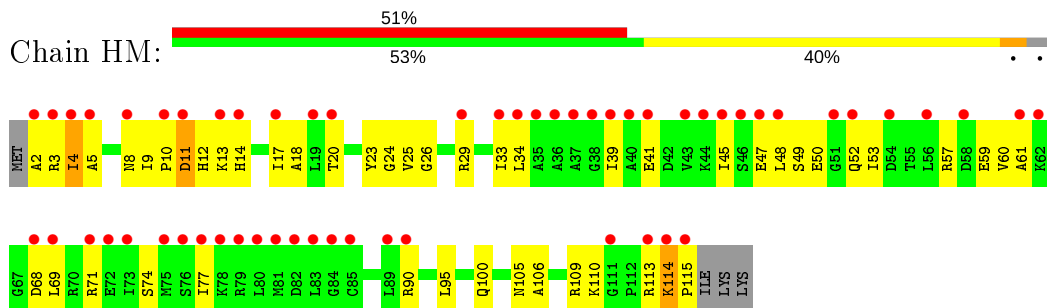
- Molecule 45: 30S ribosomal protein S13



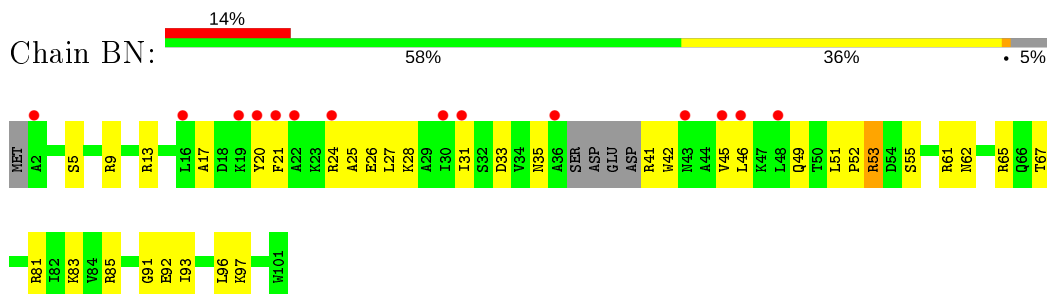
- Molecule 45: 30S ribosomal protein S13



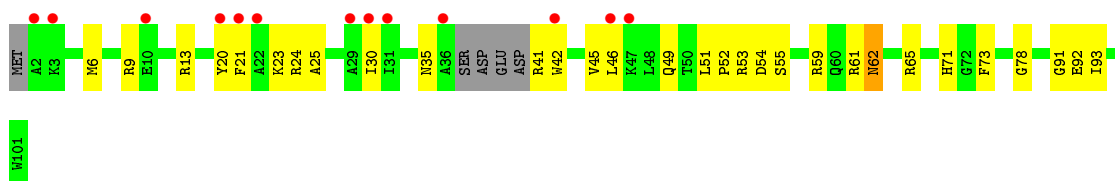
- Molecule 45: 30S ribosomal protein S13



- Molecule 46: 30S ribosomal protein S14



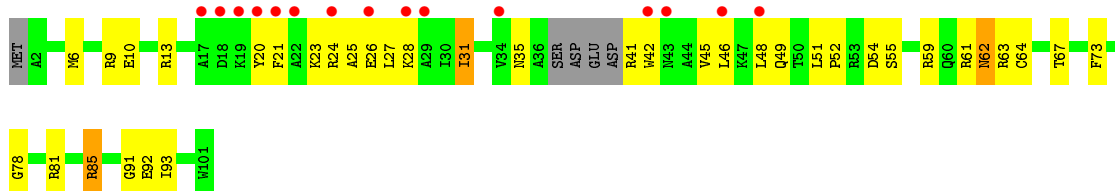
- Molecule 46: 30S ribosomal protein S14



- Molecule 46: 30S ribosomal protein S14



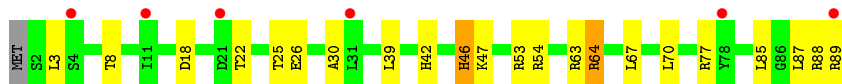
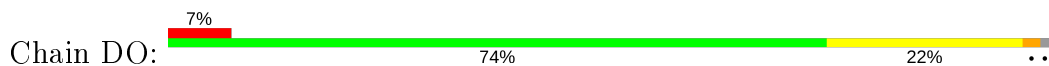
- Molecule 46: 30S ribosomal protein S14



- Molecule 47: 30S ribosomal protein S15



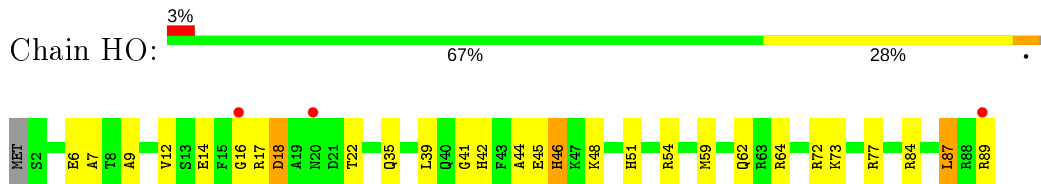
- Molecule 47: 30S ribosomal protein S15



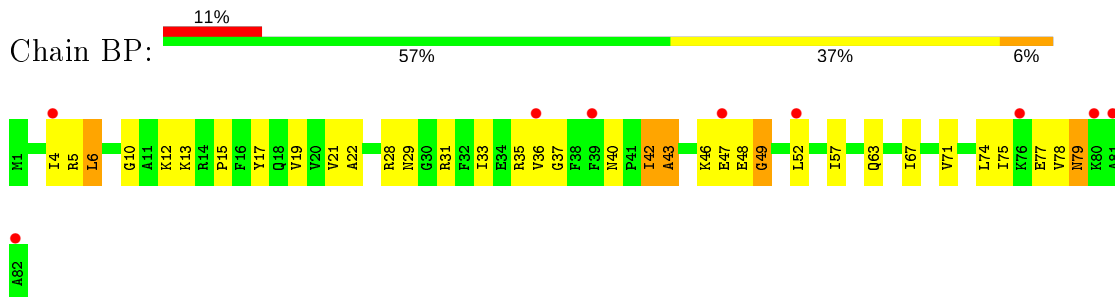
- Molecule 47: 30S ribosomal protein S15



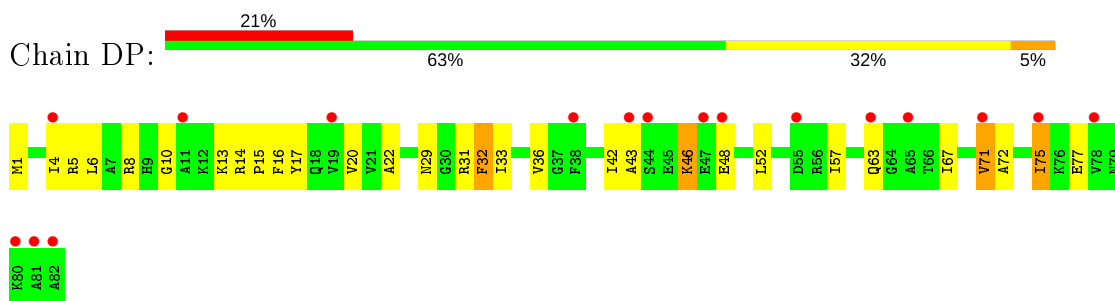
- Molecule 47: 30S ribosomal protein S15



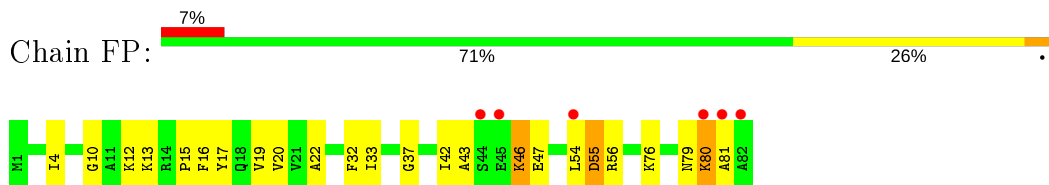
- Molecule 48: 30S ribosomal protein S16



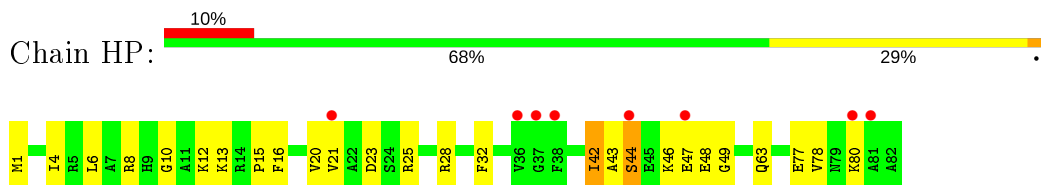
- Molecule 48: 30S ribosomal protein S16



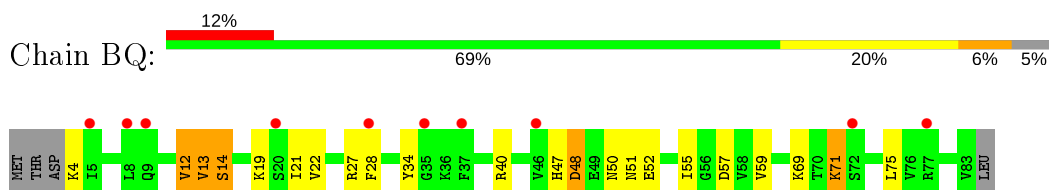
- Molecule 48: 30S ribosomal protein S16



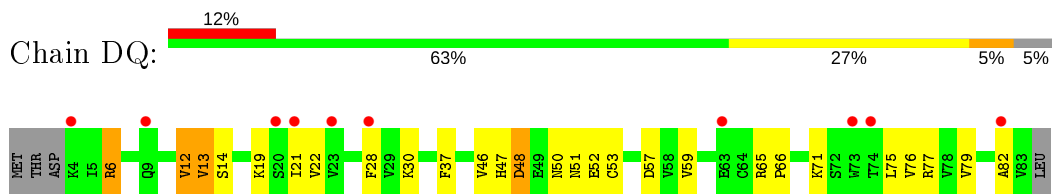
- Molecule 48: 30S ribosomal protein S16



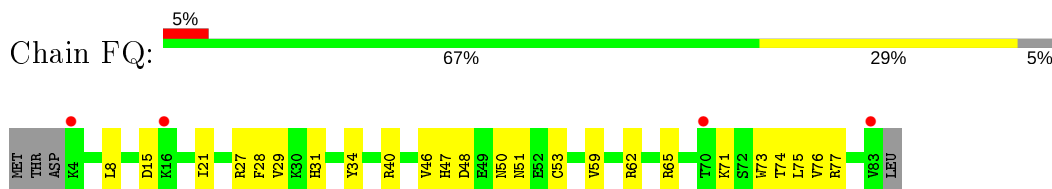
- Molecule 49: 30S ribosomal protein S17



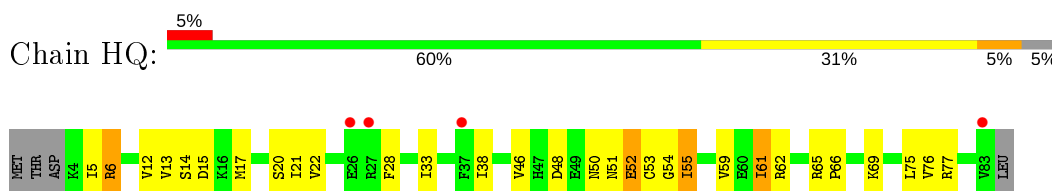
- Molecule 49: 30S ribosomal protein S17



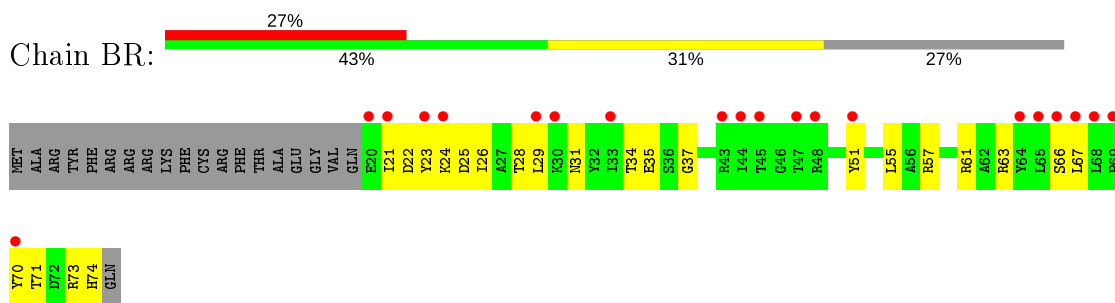
- Molecule 49: 30S ribosomal protein S17



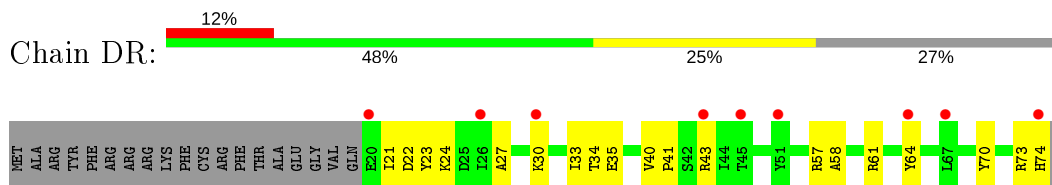
- Molecule 49: 30S ribosomal protein S17



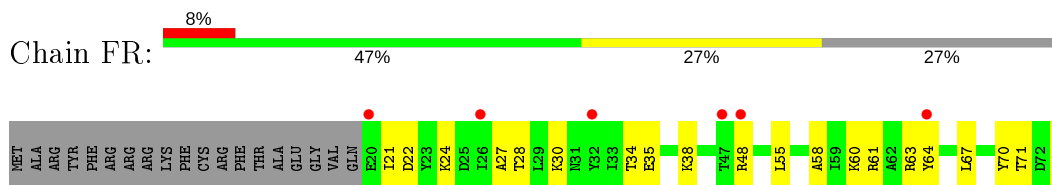
- Molecule 50: 30S ribosomal protein S18



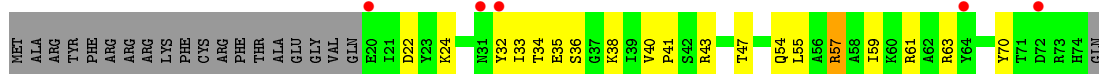
- Molecule 50: 30S ribosomal protein S18



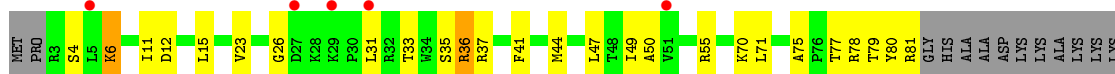
- Molecule 50: 30S ribosomal protein S18



- Molecule 50: 30S ribosomal protein S18



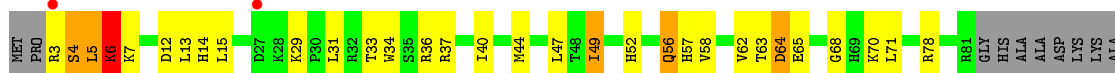
• Molecule 51: 30S ribosomal protein S19



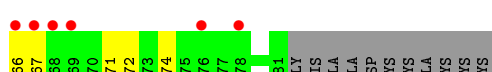
• Molecule 51: 30S ribosomal protein S19



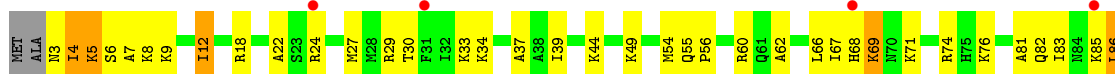
• Molecule 51: 30S ribosomal protein S19

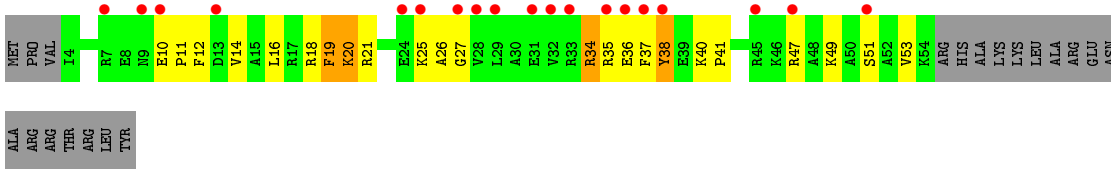


• Molecule 51: 30S ribosomal protein S19

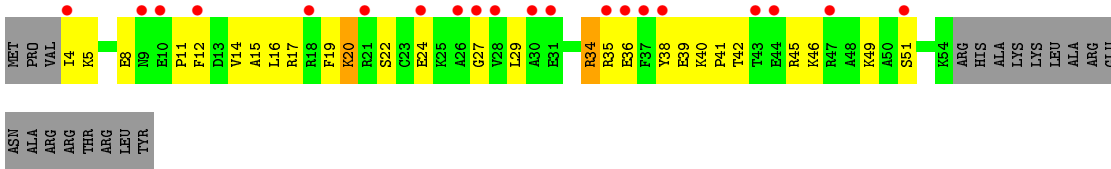


• Molecule 52: 30S ribosomal protein S20

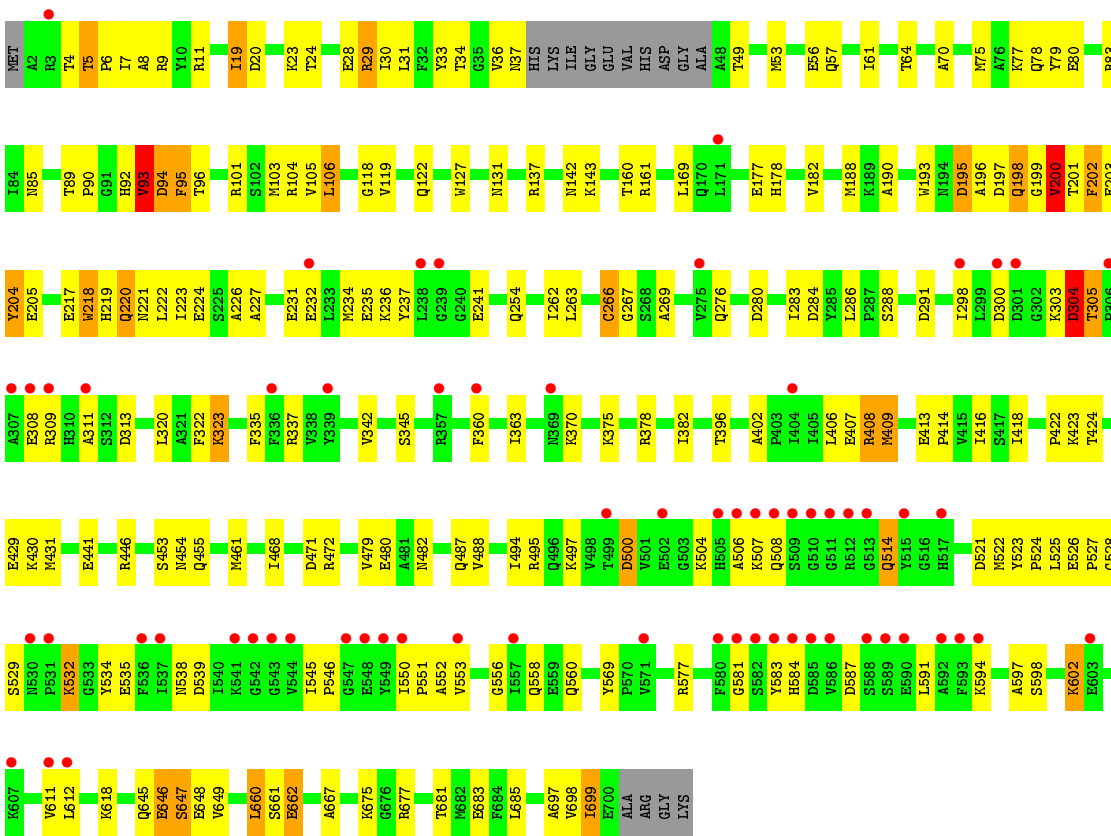




• Molecule 53: 30S ribosomal protein S21

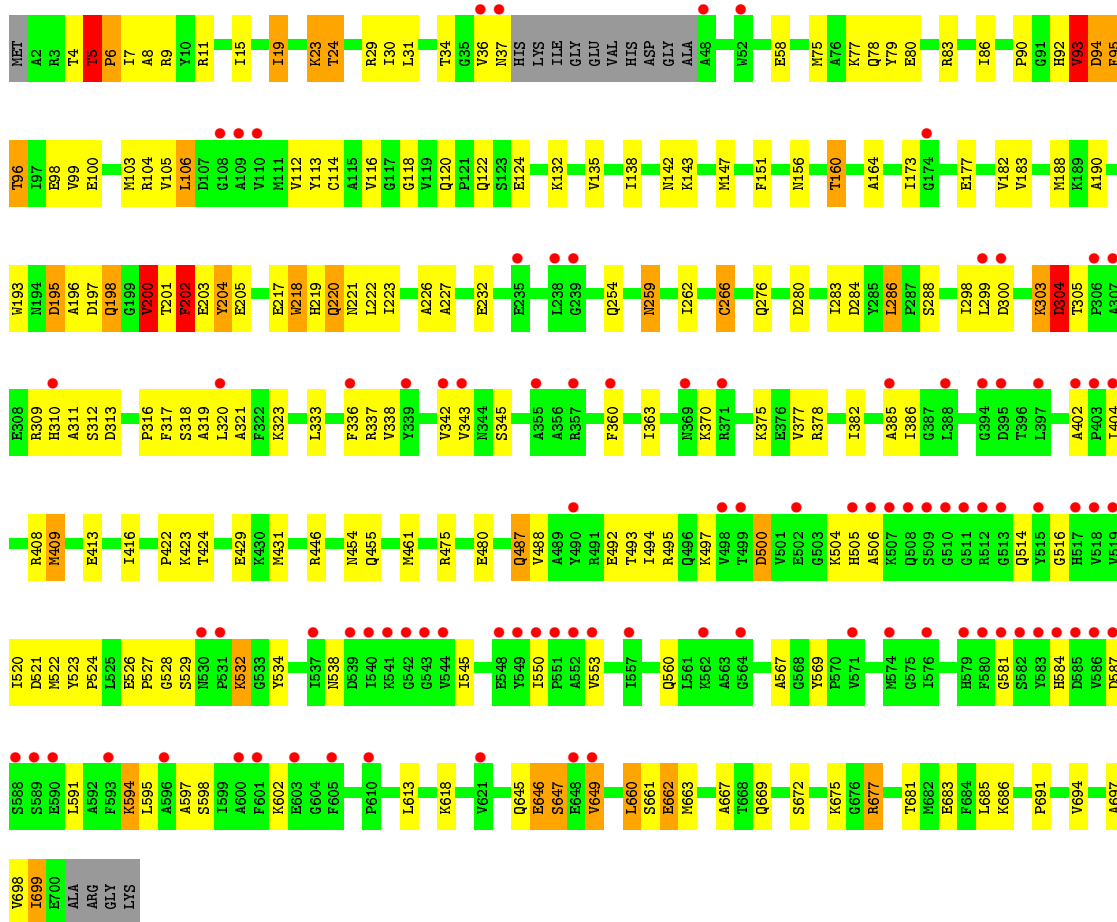


• Molecule 54: elongation factor G

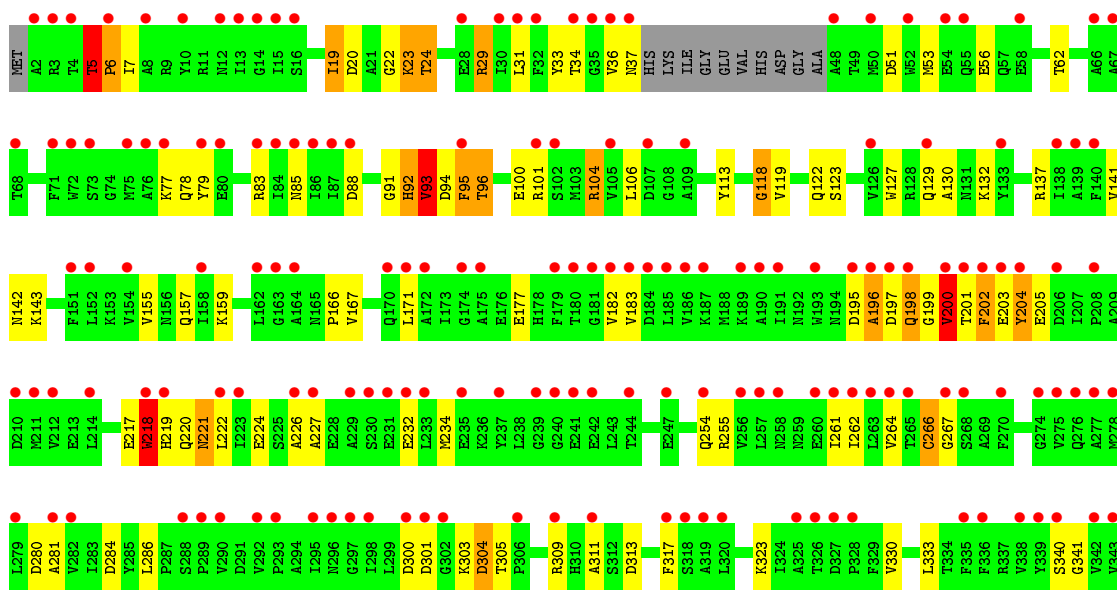


• Molecule 54: elongation factor G



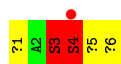
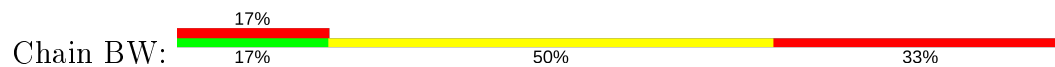


• Molecule 54: elongation factor G

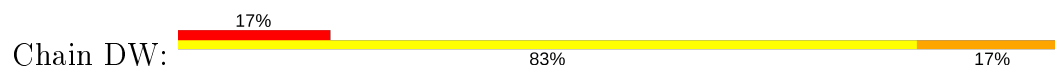




- Molecule 55: Viomycin



- Molecule 55: Viomycin



- Molecule 55: Viomycin



4 Data and refinement statistics

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α , β , γ	361.14Å 360.51Å 429.73Å 90.00° 103.22° 90.00°	Depositor
Resolution (Å)	70.00 – 2.90 69.13 – 2.80	Depositor EDS
% Data completeness (in resolution range)	(Not available) (70.00-2.90) 77.4 (69.13-2.80)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.24 (at 2.81Å)	Xtrriage
Refinement program	PHENIX	Depositor
R, R_{free}	0.215 , 0.267 0.217 , 0.268	Depositor DCC
R_{free} test set	3893 reflections (0.19%)	wwPDB-VP
Wilson B-factor (Å ²)	54.5	Xtrriage
Anisotropy	0.324	Xtrriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.27 , 39.3	EDS
L-test for twinning ²	$\langle L \rangle = 0.45$, $\langle L^2 \rangle = 0.28$	Xtrriage
Estimated twinning fraction	No twinning to report.	Xtrriage
F_o, F_c correlation	0.92	EDS
Total number of atoms	590573	wwPDB-VP
Average B, all atoms (Å ²)	35.0	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 21.58 % 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 6.8072e-03.*

¹Intensities estimated from amplitudes.

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

5 Model quality

5.1 Standard geometry

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	AA	0.74	9/68626 (0.0%)	1.28	446/107056 (0.4%)
1	CA	0.76	7/68626 (0.0%)	1.27	404/107056 (0.4%)
1	EA	0.90	29/68626 (0.0%)	1.41	729/107056 (0.7%)
1	GA	0.72	11/68626 (0.0%)	1.25	345/107056 (0.3%)
2	AB	0.67	0/2828	1.20	13/4410 (0.3%)
2	CB	0.61	0/2828	1.15	11/4410 (0.2%)
2	EB	0.75	1/2828 (0.0%)	1.38	18/4410 (0.4%)
2	GB	0.62	0/2828	1.09	2/4410 (0.0%)
3	AC	0.55	0/2121	0.83	3/2852 (0.1%)
3	CC	0.60	0/2121	0.81	0/2852
3	EC	0.62	0/2121	0.83	1/2852 (0.0%)
3	GC	0.59	0/2121	0.84	1/2852 (0.0%)
4	AD	0.60	0/1586	0.81	1/2134 (0.0%)
4	CD	0.55	0/1586	0.75	1/2134 (0.0%)
4	ED	0.63	0/1586	0.81	0/2134
4	GD	0.54	0/1586	0.78	1/2134 (0.0%)
5	AE	0.50	0/1571	0.76	1/2113 (0.0%)
5	CE	0.53	0/1571	0.71	0/2113
5	EE	0.59	0/1571	0.79	2/2113 (0.1%)
5	GE	0.49	0/1571	0.68	0/2113
6	AF	0.69	0/1434	0.89	0/1926
6	CF	0.52	0/1434	0.70	0/1926
6	EF	0.51	0/1434	0.73	0/1926
6	GF	0.58	0/1434	0.77	1/1926 (0.1%)
7	AG	0.54	0/1343	0.72	0/1816
7	CG	0.52	0/1343	0.73	0/1816
7	EG	0.53	0/1343	0.74	0/1816
7	GG	0.52	0/1343	0.72	0/1816
8	AH	0.54	0/389	0.71	0/523
8	CH	0.60	0/389	0.76	0/523
8	EH	0.57	0/389	0.73	0/523
8	GH	0.57	0/389	0.74	0/523

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
9	AI	0.58	0/1046	0.77	0/1410
9	CI	0.58	0/1046	0.74	0/1410
9	EI	0.61	0/1046	0.75	0/1410
9	GI	0.71	0/1046	0.84	0/1410
10	AJ	0.53	0/1152	0.77	0/1551
10	CJ	0.57	1/1152 (0.1%)	0.78	0/1551
10	EJ	0.70	1/1152 (0.1%)	0.82	1/1551 (0.1%)
10	GJ	0.55	1/1152 (0.1%)	0.71	0/1551
11	AK	0.62	0/947	0.79	0/1268
11	CK	0.63	0/947	0.78	0/1268
11	EK	0.59	0/947	0.83	0/1268
11	GK	0.55	0/947	0.80	0/1268
12	AL	0.53	0/1054	0.78	2/1403 (0.1%)
12	CL	0.53	0/1054	0.81	2/1403 (0.1%)
12	EL	0.61	0/1054	0.81	0/1403
12	GL	0.52	0/1054	0.78	0/1403
13	AM	0.61	1/1093 (0.1%)	0.81	1/1460 (0.1%)
13	CM	0.53	0/1093	0.75	0/1460
13	EM	0.62	0/1093	0.87	2/1460 (0.1%)
13	GM	0.52	0/1093	0.73	0/1460
14	AN	0.51	0/973	0.75	1/1301 (0.1%)
14	CN	0.46	0/973	0.77	4/1301 (0.3%)
14	EN	0.57	0/973	0.74	0/1301
14	GN	0.49	0/973	0.69	0/1301
15	AO	0.48	0/902	0.72	0/1209
15	CO	0.47	0/902	0.70	0/1209
15	EO	0.48	0/902	0.75	0/1209
15	GO	0.48	0/902	0.74	0/1209
16	AP	0.56	0/929	0.87	2/1242 (0.2%)
16	CP	0.56	0/929	0.85	2/1242 (0.2%)
16	EP	0.63	1/929 (0.1%)	0.89	1/1242 (0.1%)
16	GP	0.58	0/929	0.80	0/1242
17	AQ	0.56	0/960	0.75	1/1278 (0.1%)
17	CQ	0.60	0/960	0.78	1/1278 (0.1%)
17	EQ	0.70	0/960	0.88	2/1278 (0.2%)
17	GQ	0.53	0/960	0.74	0/1278
18	AR	0.59	0/829	0.75	0/1107
18	CR	0.59	0/829	0.75	0/1107
18	ER	0.68	2/829 (0.2%)	0.79	0/1107
18	GR	0.56	0/829	0.75	0/1107
19	AS	0.52	0/864	0.76	0/1156
19	CS	0.52	0/864	0.73	0/1156
19	ES	0.62	0/864	0.84	1/1156 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
19	GS	0.49	0/864	0.72	0/1156
20	AT	0.60	0/744	0.84	0/994
20	CT	0.56	0/744	0.89	0/994
20	ET	0.65	0/744	0.92	1/994 (0.1%)
20	GT	0.57	0/744	0.91	1/994 (0.1%)
21	AU	0.56	0/787	0.76	0/1051
21	CU	0.52	0/787	0.75	0/1051
21	EU	0.61	0/787	0.81	0/1051
21	GU	0.52	0/787	0.77	0/1051
22	AV	0.48	0/766	0.67	0/1025
22	CV	0.55	1/766 (0.1%)	0.67	0/1025
22	EV	0.57	0/766	0.72	0/1025
22	GV	0.47	0/766	0.65	0/1025
23	AW	0.63	0/603	0.93	1/797 (0.1%)
23	CW	0.70	0/603	0.94	1/797 (0.1%)
23	EW	0.78	0/603	0.97	1/797 (0.1%)
23	GW	0.66	0/603	0.92	0/797
24	AX	0.52	0/635	0.83	1/848 (0.1%)
24	CX	0.58	0/635	0.80	2/848 (0.2%)
24	EX	0.56	0/635	0.79	1/848 (0.1%)
24	GX	0.51	0/635	0.79	0/848
25	AY	0.47	0/510	0.75	0/677
25	CY	0.51	0/510	0.76	0/677
25	EY	0.54	0/510	0.85	1/677 (0.1%)
25	GY	0.55	0/510	0.79	1/677 (0.1%)
26	AZ	0.53	0/453	0.65	0/605
26	CZ	0.49	0/453	0.75	0/605
26	EZ	0.58	0/453	0.82	0/605
26	GZ	0.48	0/453	0.73	0/605
27	A0	0.50	0/450	0.77	0/599
27	C0	0.49	0/450	0.72	0/599
27	E0	0.68	1/450 (0.2%)	0.80	1/599 (0.2%)
27	G0	0.52	1/450 (0.2%)	0.69	0/599
28	A1	0.54	0/416	0.78	0/554
28	C1	0.51	0/416	0.76	0/554
28	E1	0.54	0/416	0.72	0/554
28	G1	0.54	0/416	0.73	0/554
29	A2	0.52	0/380	0.77	0/498
29	C2	0.56	0/380	0.73	0/498
29	E2	0.75	1/380 (0.3%)	0.84	1/498 (0.2%)
29	G2	0.59	0/380	0.75	0/498
30	A3	0.51	0/513	0.74	0/676
30	C3	0.54	0/513	0.68	0/676

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
30	E3	0.64	0/513	0.81	0/676
30	G3	0.50	0/513	0.70	0/676
31	A4	0.61	0/303	0.78	0/397
31	C4	0.60	0/303	0.81	0/397
31	E4	0.60	0/303	0.82	0/397
31	G4	0.53	0/303	0.77	0/397
32	A5	0.83	0/1131	1.34	28/1524 (1.8%)
32	E5	0.74	0/1106	1.34	26/1490 (1.7%)
33	BA	0.64	0/36834	1.15	99/57462 (0.2%)
33	DA	0.63	0/36834	1.13	95/57462 (0.2%)
33	FA	0.65	1/36834 (0.0%)	1.18	114/57462 (0.2%)
33	HA	0.64	0/36834	1.13	101/57462 (0.2%)
34	BB	0.53	0/1735	0.72	0/2338
34	DB	0.49	0/1735	0.70	0/2338
34	FB	0.54	0/1735	0.73	0/2338
34	HB	0.52	0/1735	0.72	0/2338
35	BC	0.47	0/1651	0.64	0/2225
35	DC	0.47	0/1651	0.61	0/2225
35	FC	0.50	0/1651	0.71	0/2225
35	HC	0.48	0/1651	0.67	0/2225
36	BD	0.52	0/1665	0.74	0/2227
36	DD	0.54	0/1665	0.76	0/2227
36	FD	0.49	0/1665	0.71	0/2227
36	HD	0.52	0/1665	0.73	0/2227
37	BE	0.56	1/1118 (0.1%)	0.77	0/1504
37	DE	0.50	0/1118	0.74	0/1504
37	FE	0.54	0/1118	0.78	0/1504
37	HE	0.52	0/1118	0.76	0/1504
38	BF	0.64	0/835	0.75	0/1128
38	DF	0.55	0/835	0.73	0/1128
38	FF	0.54	0/835	0.73	0/1128
38	HF	0.58	0/835	0.72	0/1128
39	BG	0.48	0/1195	0.66	0/1602
39	DG	0.47	0/1195	0.66	0/1602
39	FG	0.51	0/1195	0.70	0/1602
39	HG	0.51	0/1195	0.73	0/1602
40	BH	0.48	0/989	0.63	0/1326
40	DH	0.50	0/989	0.65	0/1326
40	FH	0.50	0/989	0.72	0/1326
40	HH	0.45	0/989	0.66	0/1326
41	BI	0.52	0/1034	0.77	0/1375
41	DI	0.49	0/1034	0.72	1/1375 (0.1%)
41	FI	0.52	0/1034	0.80	0/1375

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
41	HI	0.56	0/1034	0.76	1/1375 (0.1%)
42	BJ	0.53	0/796	0.73	1/1077 (0.1%)
42	DJ	0.55	0/796	0.75	0/1077
42	FJ	0.55	0/796	0.78	0/1077
42	HJ	0.54	0/796	0.77	0/1077
43	BK	0.59	0/893	0.81	0/1205
43	DK	0.51	0/893	0.80	1/1205 (0.1%)
43	FK	0.52	0/893	0.72	0/1205
43	HK	0.71	0/893	0.92	2/1205 (0.2%)
44	BL	0.55	0/969	0.78	0/1300
44	DL	0.54	0/969	0.79	0/1300
44	FL	0.51	0/969	0.75	1/1300 (0.1%)
44	HL	0.50	0/969	0.78	0/1300
45	BM	0.48	0/892	0.72	0/1193
45	DM	0.48	0/892	0.70	0/1193
45	FM	0.46	0/892	0.72	0/1193
45	HM	0.60	0/892	0.83	0/1193
46	BN	0.53	0/785	0.73	0/1043
46	DN	0.53	0/785	0.68	0/1043
46	FN	0.59	0/785	0.80	0/1043
46	HN	0.48	0/785	0.67	0/1043
47	BO	0.46	0/722	0.65	0/964
47	DO	0.47	0/722	0.64	0/964
47	FO	0.44	0/722	0.63	0/964
47	HO	0.50	0/722	0.68	0/964
48	BP	0.51	0/659	0.74	0/884
48	DP	0.52	0/659	0.72	0/884
48	FP	0.48	0/659	0.70	0/884
48	HP	0.51	0/659	0.67	0/884
49	BQ	0.51	0/657	0.73	0/881
49	DQ	0.50	0/657	0.74	0/881
49	FQ	0.49	0/657	0.66	0/881
49	HQ	0.51	0/657	0.75	0/881
50	BR	0.53	0/462	0.67	0/621
50	DR	0.50	0/462	0.71	0/621
50	FR	0.48	0/462	0.63	0/621
50	HR	0.53	0/462	0.77	1/621 (0.2%)
51	BS	0.47	0/652	0.78	0/877
51	DS	0.49	0/652	0.70	0/877
51	FS	0.48	0/652	0.72	0/877
51	HS	0.66	0/652	0.79	0/877
52	BT	0.50	0/671	0.65	0/888
52	DT	0.49	0/671	0.64	0/888

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
52	FT	0.48	0/671	0.68	0/888
52	HT	0.49	0/671	0.72	0/888
53	BU	0.67	0/430	0.75	0/570
53	DU	0.67	0/430	0.83	1/570 (0.2%)
53	FU	0.69	0/430	0.83	0/570
53	HU	0.78	0/430	0.82	0/570
54	BV	0.48	0/5418	0.68	1/7329 (0.0%)
54	DV	0.46	0/5418	0.66	1/7329 (0.0%)
54	FV	0.57	0/5418	0.68	1/7329 (0.0%)
54	HV	0.50	0/5418	0.70	1/7329 (0.0%)
55	BW	2.44	1/11 (9.1%)	1.38	0/13
55	DW	2.31	1/11 (9.1%)	1.57	0/13
55	FW	2.44	1/11 (9.1%)	2.53	1/13 (7.7%)
All	All	0.68	73/635346 (0.0%)	1.13	2493/946873 (0.3%)

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
3	CC	0	1
3	EC	0	1
3	GC	0	1
4	CD	0	2
4	ED	0	1
4	GD	0	1
32	A5	0	2
41	FI	0	1
44	BL	0	1
44	DL	0	1
44	FL	0	1
44	HL	0	1
54	BV	0	2
54	DV	0	2
54	FV	0	2
54	HV	0	3
All	All	0	23

The worst 5 of 73 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	EA	984	A	N9-C4	-10.08	1.31	1.37
1	EA	528	A	N9-C4	-9.15	1.32	1.37
37	BE	94	VAL	CB-CG2	9.12	1.72	1.52
13	AM	13	HIS	CG-CD2	8.66	1.50	1.35
10	EJ	44	TYR	CD1-CE1	-7.92	1.27	1.39

The worst 5 of 2493 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	EA	834	G	N1-C6-O6	16.23	129.64	119.90
1	EA	984	A	C2-N3-C4	-15.83	102.68	110.60
1	EA	974	G	C4-C5-N7	15.17	116.87	110.80
1	AA	2544	G	N1-C6-O6	14.98	128.89	119.90
1	AA	2053	G	N1-C6-O6	14.67	128.70	119.90

There are no chirality outliers.

5 of 23 planarity outliers are listed below:

Mol	Chain	Res	Type	Group
32	A5	130	PRO	Peptide
32	A5	134	GLU	Peptide
44	BL	23	ALA	Peptide
54	BV	218	TRP	Peptide
54	BV	304	ASP	Peptide

5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AA	61274	0	30818	1057	0
1	CA	61274	0	30819	919	0
1	EA	61274	0	30819	835	0
1	GA	61274	0	30819	917	3
2	AB	2529	0	1281	36	0
2	CB	2529	0	1281	34	0
2	EB	2529	0	1281	35	0
2	GB	2529	0	1281	37	0
3	AC	2082	0	2157	67	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	CC	2082	0	2157	68	0
3	EC	2082	0	2157	65	0
3	GC	2082	0	2157	57	0
4	AD	1565	0	1616	78	0
4	CD	1565	0	1616	75	0
4	ED	1565	0	1616	72	0
4	GD	1565	0	1616	77	0
5	AE	1552	0	1619	63	0
5	CE	1552	0	1619	34	0
5	EE	1552	0	1619	42	0
5	GE	1552	0	1619	56	0
6	AF	1410	0	1447	133	0
6	CF	1410	0	1447	53	0
6	EF	1410	0	1447	60	0
6	GF	1410	0	1447	92	1
7	AG	1323	0	1374	65	0
7	CG	1323	0	1374	65	0
7	EG	1323	0	1374	48	0
7	GG	1323	0	1374	58	0
8	AH	384	0	405	12	0
8	CH	384	0	405	18	0
8	EH	384	0	405	15	0
8	GH	384	0	405	11	0
9	AI	1032	0	1088	70	0
9	CI	1032	0	1088	62	0
9	EI	1032	0	1088	48	0
9	GI	1032	0	1088	82	0
10	AJ	1129	0	1162	49	0
10	CJ	1129	0	1162	58	0
10	EJ	1129	0	1162	76	0
10	GJ	1129	0	1162	57	0
11	AK	938	0	1012	40	0
11	CK	938	0	1012	57	0
11	EK	938	0	1012	49	0
11	GK	938	0	1012	42	0
12	AL	1045	0	1117	51	0
12	CL	1045	0	1117	38	0
12	EL	1045	0	1117	35	0
12	GL	1045	0	1117	50	0
13	AM	1074	0	1157	29	0
13	CM	1074	0	1157	33	0
13	EM	1074	0	1157	29	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
13	GM	1074	0	1157	24	0
14	AN	960	0	1000	35	0
14	CN	960	0	1000	44	0
14	EN	960	0	1000	33	0
14	GN	960	0	1000	36	0
15	AO	892	0	923	41	0
15	CO	892	0	923	32	0
15	EO	892	0	923	21	0
15	GO	892	0	923	29	0
16	AP	917	0	965	63	0
16	CP	917	0	965	58	0
16	EP	917	0	965	52	0
16	GP	917	0	965	49	0
17	AQ	947	0	1022	53	0
17	CQ	947	0	1022	56	0
17	EQ	947	0	1022	58	0
17	GQ	947	0	1022	56	0
18	AR	816	0	839	41	0
18	CR	816	0	839	49	0
18	ER	816	0	839	46	0
18	GR	816	0	839	34	0
19	AS	857	0	922	21	0
19	CS	857	0	922	27	0
19	ES	857	0	922	26	0
19	GS	857	0	922	30	0
20	AT	738	0	807	51	0
20	CT	738	0	807	54	0
20	ET	738	0	807	34	0
20	GT	738	0	807	47	0
21	AU	779	0	834	31	0
21	CU	779	0	834	19	0
21	EU	779	0	834	28	0
21	GU	779	0	834	27	1
22	AV	753	0	780	10	0
22	CV	753	0	780	16	0
22	EV	753	0	780	16	0
22	GV	753	0	780	25	0
23	AW	596	0	610	83	0
23	CW	596	0	610	78	0
23	EW	596	0	610	100	0
23	GW	596	0	610	85	0
24	AX	625	0	655	21	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
24	CX	625	0	655	20	0
24	EX	625	0	655	26	0
24	GX	625	0	655	24	0
25	AY	509	0	543	12	0
25	CY	509	0	543	16	0
25	EY	509	0	543	17	0
25	GY	509	0	543	11	0
26	AZ	449	0	491	6	0
26	CZ	449	0	491	11	0
26	EZ	449	0	491	15	0
26	GZ	449	0	491	14	0
27	A0	444	0	461	20	0
27	C0	444	0	461	15	0
27	E0	444	0	461	6	0
27	G0	444	0	461	12	0
28	A1	409	0	440	18	0
28	C1	409	0	440	23	0
28	E1	409	0	440	14	0
28	G1	409	0	440	13	0
29	A2	377	0	418	12	0
29	C2	377	0	418	9	0
29	E2	377	0	418	15	0
29	G2	377	0	418	8	0
30	A3	504	0	574	20	0
30	C3	504	0	574	16	0
30	E3	504	0	574	14	0
30	G3	504	0	574	21	0
31	A4	302	0	340	14	0
31	C4	302	0	340	17	0
31	E4	302	0	340	14	0
31	G4	302	0	340	13	0
32	A5	1117	0	1155	135	0
32	E5	1092	0	1134	122	0
33	BA	32895	0	16553	571	0
33	DA	32895	0	16553	534	0
33	FA	32895	0	16553	435	3
33	HA	32895	0	16553	430	0
34	BB	1704	0	1732	67	0
34	DB	1704	0	1732	87	0
34	FB	1704	0	1732	79	0
34	HB	1704	0	1732	72	0
35	BC	1624	0	1696	52	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
35	DC	1624	0	1696	40	0
35	FC	1624	0	1696	38	0
35	HC	1624	0	1696	50	0
36	BD	1643	0	1707	80	0
36	DD	1643	0	1707	83	0
36	FD	1643	0	1707	73	0
36	HD	1643	0	1707	72	0
37	BE	1105	0	1148	61	0
37	DE	1105	0	1148	33	0
37	FE	1105	0	1148	50	0
37	HE	1105	0	1148	37	0
38	BF	817	0	808	51	0
38	DF	817	0	808	28	0
38	FF	817	0	808	28	0
38	HF	817	0	808	25	0
39	BG	1181	0	1238	25	0
39	DG	1181	0	1238	31	0
39	FG	1181	0	1238	35	0
39	HG	1181	0	1238	38	0
40	BH	979	0	1031	50	0
40	DH	979	0	1031	28	0
40	FH	979	0	1031	34	0
40	HH	979	0	1031	28	0
41	BI	1022	0	1070	58	0
41	DI	1022	0	1070	53	0
41	FI	1022	0	1070	44	0
41	HI	1022	0	1070	59	0
42	BJ	786	0	828	26	0
42	DJ	786	0	828	34	0
42	FJ	786	0	828	43	0
42	HJ	786	0	828	34	0
43	BK	877	0	887	75	0
43	DK	877	0	887	45	0
43	FK	877	0	887	38	0
43	HK	877	0	887	75	0
44	BL	955	0	1016	55	0
44	DL	955	0	1016	52	0
44	FL	955	0	1016	51	0
44	HL	955	0	1016	39	0
45	BM	883	0	941	26	0
45	DM	883	0	941	25	0
45	FM	883	0	941	34	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
45	HM	883	0	941	53	0
46	BN	774	0	824	32	0
46	DN	774	0	824	21	0
46	FN	774	0	824	30	0
46	HN	774	0	824	29	0
47	BO	714	0	734	18	0
47	DO	714	0	734	13	0
47	FO	714	0	734	17	0
47	HO	714	0	734	21	0
48	BP	649	0	666	29	0
48	DP	649	0	666	25	0
48	FP	649	0	666	18	0
48	HP	649	0	666	19	0
49	BQ	648	0	691	19	0
49	DQ	648	0	691	21	0
49	FQ	648	0	691	16	0
49	HQ	648	0	691	21	0
50	BR	455	0	478	19	0
50	DR	455	0	478	16	0
50	FR	455	0	478	16	0
50	HR	455	0	478	15	0
51	BS	637	0	665	23	0
51	DS	637	0	665	17	0
51	FS	637	0	665	30	0
51	HS	637	0	665	21	0
52	BT	665	0	714	30	0
52	DT	665	0	714	26	0
52	FT	665	0	714	30	0
52	HT	665	0	714	19	0
53	BU	425	0	449	40	0
53	DU	425	0	449	28	0
53	FU	425	0	449	24	0
53	HU	425	0	449	36	0
54	BV	5319	0	5228	105	0
54	DV	5319	0	5228	113	0
54	FV	5319	0	5229	111	0
54	HV	5319	0	5227	145	0
55	BW	48	0	41	7	0
55	DW	48	0	41	8	0
55	FW	48	0	39	9	0
56	A3	1	0	0	0	0
56	AA	130	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	AB	4	0	0	0	0
56	AC	3	0	0	0	0
56	AD	1	0	0	0	0
56	AE	1	0	0	0	0
56	AT	1	0	0	0	0
56	BA	40	0	0	0	0
56	BE	1	0	0	0	0
56	BL	1	0	0	0	0
56	BU	1	0	0	0	0
56	BV	1	0	0	0	0
56	C4	1	0	0	0	0
56	CA	134	0	0	0	0
56	CB	4	0	0	0	0
56	CD	1	0	0	0	0
56	CE	1	0	0	0	0
56	DA	42	0	0	0	0
56	DU	1	0	0	0	0
56	DV	1	0	0	0	0
56	EA	133	0	0	0	0
56	EB	4	0	0	0	0
56	EC	1	0	0	0	0
56	ED	2	0	0	0	0
56	EQ	1	0	0	0	0
56	FA	41	0	0	0	0
56	FE	1	0	0	0	0
56	FU	1	0	0	0	0
56	FV	1	0	0	0	0
56	GA	134	0	0	0	0
56	GB	4	0	0	0	0
56	GC	1	0	0	0	0
56	GL	1	0	0	0	0
56	GS	1	0	0	0	0
56	HA	40	0	0	0	0
56	HC	1	0	0	0	0
56	HE	1	0	0	0	0
56	HT	1	0	0	0	0
56	HV	1	0	0	0	0
57	A4	1	0	0	0	0
57	C4	1	0	0	0	0
57	E4	1	0	0	0	0
57	G4	1	0	0	0	0
58	BV	32	0	14	2	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
58	DV	32	0	14	1	0
58	FV	32	0	14	5	0
58	HV	32	0	14	1	0
59	A0	1	0	0	0	0
59	A3	1	0	0	0	0
59	A4	2	0	0	0	0
59	AA	608	0	0	111	0
59	AB	19	0	0	1	0
59	AC	10	0	0	0	0
59	AD	3	0	0	0	0
59	AE	1	0	0	0	0
59	AJ	1	0	0	1	0
59	AL	7	0	0	1	0
59	AN	4	0	0	0	0
59	AP	1	0	0	0	0
59	AQ	1	0	0	0	0
59	AS	1	0	0	0	0
59	AU	1	0	0	0	0
59	BA	197	0	0	36	0
59	BC	1	0	0	0	0
59	BD	1	0	0	0	0
59	BI	1	0	0	0	0
59	BK	1	0	0	0	0
59	BN	3	0	0	0	0
59	BT	2	0	0	0	0
59	BU	1	0	0	0	0
59	BV	1	0	0	1	0
59	C2	1	0	0	0	0
59	C3	1	0	0	0	0
59	C4	2	0	0	0	0
59	CA	604	0	0	104	0
59	CB	20	0	0	2	0
59	CC	11	0	0	4	0
59	CD	3	0	0	0	0
59	CE	1	0	0	0	0
59	CF	1	0	0	0	0
59	CJ	3	0	0	2	0
59	CL	6	0	0	1	0
59	CN	4	0	0	0	0
59	CS	1	0	0	0	0
59	CT	2	0	0	0	0
59	DA	193	0	0	32	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
59	DC	1	0	0	0	0
59	DE	2	0	0	0	0
59	DG	1	0	0	0	0
59	DK	1	0	0	0	0
59	DL	1	0	0	0	0
59	DN	6	0	0	0	0
59	DQ	1	0	0	0	0
59	DT	1	0	0	1	0
59	DU	1	0	0	0	0
59	DV	1	0	0	1	0
59	E0	2	0	0	0	0
59	E3	2	0	0	0	0
59	E4	1	0	0	0	0
59	EA	617	0	0	88	0
59	EB	20	0	0	1	0
59	EC	8	0	0	0	0
59	ED	1	0	0	0	0
59	EL	4	0	0	0	0
59	EN	2	0	0	0	0
59	ER	1	0	0	0	0
59	ET	1	0	0	0	0
59	EU	1	0	0	0	0
59	FA	198	0	0	21	0
59	FE	1	0	0	0	0
59	FK	1	0	0	0	0
59	FN	3	0	0	0	0
59	FQ	1	0	0	0	0
59	FT	4	0	0	1	0
59	FV	1	0	0	1	0
59	G2	2	0	0	0	0
59	G3	1	0	0	0	0
59	G4	1	0	0	0	0
59	GA	607	0	0	87	0
59	GB	19	0	0	1	0
59	GC	9	0	0	2	0
59	GD	4	0	0	0	0
59	GE	2	0	0	0	0
59	GL	4	0	0	1	0
59	GN	3	0	0	0	0
59	GQ	1	0	0	0	0
59	GR	2	0	0	0	0
59	GS	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
59	GT	1	0	0	0	0
59	GU	2	0	0	0	0
59	GV	1	0	0	1	0
59	HA	197	0	0	33	0
59	HD	1	0	0	0	0
59	HE	3	0	0	0	0
59	HN	5	0	0	0	0
59	HT	1	0	0	0	0
59	HU	1	0	0	0	0
59	HV	1	0	0	1	0
All	All	590573	0	402393	12569	4

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 13.

The worst 5 of 12569 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:A5:117:LEU:CD2	32:A5:120:ALA:HA	1.56	1.35
32:A5:24:SER:CB	32:A5:116:GLU:HG2	1.59	1.32
32:A5:24:SER:O	32:A5:116:GLU:HB3	1.37	1.24
32:E5:117:LEU:CD2	32:E5:120:ALA:HA	1.70	1.20
32:E5:24:SER:CB	32:E5:116:GLU:HG2	1.75	1.16

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

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:FA:1029:U:O3'	1:GA:1508:A:N6[1_565]	2.13	0.07
33:FA:1029:U:OP2	1:GA:1509:A:N6[1_565]	2.16	0.04
33:FA:1029:U:O2'	1:GA:1508:A:N6[1_565]	2.16	0.04
6:GF:20:ASN:ND2	21:GU:52:ASN:OD1[2_556]	2.18	0.02

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	
3	AC	269/273 (98%)	220 (82%)	34 (13%)	15 (6%)	2	5
3	CC	269/273 (98%)	218 (81%)	35 (13%)	16 (6%)	1	5
3	EC	269/273 (98%)	219 (81%)	36 (13%)	14 (5%)	2	6
3	GC	269/273 (98%)	225 (84%)	30 (11%)	14 (5%)	2	6
4	AD	207/209 (99%)	161 (78%)	33 (16%)	13 (6%)	1	4
4	CD	207/209 (99%)	160 (77%)	33 (16%)	14 (7%)	1	3
4	ED	207/209 (99%)	155 (75%)	34 (16%)	18 (9%)	1	2
4	GD	207/209 (99%)	158 (76%)	34 (16%)	15 (7%)	1	3
5	AE	199/201 (99%)	163 (82%)	24 (12%)	12 (6%)	1	4
5	CE	199/201 (99%)	161 (81%)	26 (13%)	12 (6%)	1	4
5	EE	199/201 (99%)	162 (81%)	25 (13%)	12 (6%)	1	4
5	GE	199/201 (99%)	162 (81%)	25 (13%)	12 (6%)	1	4
6	AF	175/179 (98%)	128 (73%)	41 (23%)	6 (3%)	3	15
6	CF	175/179 (98%)	132 (75%)	37 (21%)	6 (3%)	3	15
6	EF	175/179 (98%)	139 (79%)	29 (17%)	7 (4%)	3	11
6	GF	175/179 (98%)	132 (75%)	40 (23%)	3 (2%)	9	31
7	AG	174/177 (98%)	124 (71%)	33 (19%)	17 (10%)	0	1
7	CG	174/177 (98%)	123 (71%)	37 (21%)	14 (8%)	1	2
7	EG	174/177 (98%)	120 (69%)	43 (25%)	11 (6%)	1	4
7	GG	174/177 (98%)	118 (68%)	41 (24%)	15 (9%)	1	2
8	AH	48/50 (96%)	24 (50%)	19 (40%)	5 (10%)	0	1
8	CH	48/50 (96%)	23 (48%)	19 (40%)	6 (12%)	0	0
8	EH	48/50 (96%)	24 (50%)	19 (40%)	5 (10%)	0	1
8	GH	48/50 (96%)	24 (50%)	21 (44%)	3 (6%)	1	4
9	AI	139/142 (98%)	87 (63%)	45 (32%)	7 (5%)	2	7
9	CI	139/142 (98%)	92 (66%)	37 (27%)	10 (7%)	1	3
9	EI	139/142 (98%)	90 (65%)	42 (30%)	7 (5%)	2	7
9	GI	139/142 (98%)	89 (64%)	38 (27%)	12 (9%)	1	2
10	AJ	140/142 (99%)	114 (81%)	18 (13%)	8 (6%)	1	5

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
10	CJ	140/142 (99%)	113 (81%)	19 (14%)	8 (6%)	1	5
10	EJ	140/142 (99%)	113 (81%)	19 (14%)	8 (6%)	1	5
10	GJ	140/142 (99%)	114 (81%)	17 (12%)	9 (6%)	1	4
11	AK	120/123 (98%)	93 (78%)	17 (14%)	10 (8%)	1	2
11	CK	120/123 (98%)	91 (76%)	21 (18%)	8 (7%)	1	3
11	EK	120/123 (98%)	92 (77%)	17 (14%)	11 (9%)	1	1
11	GK	120/123 (98%)	92 (77%)	19 (16%)	9 (8%)	1	2
12	AL	141/144 (98%)	107 (76%)	26 (18%)	8 (6%)	1	5
12	CL	141/144 (98%)	107 (76%)	27 (19%)	7 (5%)	2	7
12	EL	141/144 (98%)	108 (77%)	26 (18%)	7 (5%)	2	7
12	GL	141/144 (98%)	109 (77%)	25 (18%)	7 (5%)	2	7
13	AM	134/136 (98%)	105 (78%)	22 (16%)	7 (5%)	2	6
13	CM	134/136 (98%)	111 (83%)	16 (12%)	7 (5%)	2	6
13	EM	134/136 (98%)	110 (82%)	18 (13%)	6 (4%)	2	9
13	GM	134/136 (98%)	112 (84%)	16 (12%)	6 (4%)	2	9
14	AN	118/127 (93%)	101 (86%)	15 (13%)	2 (2%)	9	31
14	CN	118/127 (93%)	98 (83%)	17 (14%)	3 (2%)	5	21
14	EN	118/127 (93%)	101 (86%)	14 (12%)	3 (2%)	5	21
14	GN	118/127 (93%)	98 (83%)	19 (16%)	1 (1%)	19	51
15	AO	114/117 (97%)	99 (87%)	14 (12%)	1 (1%)	17	48
15	CO	114/117 (97%)	96 (84%)	17 (15%)	1 (1%)	17	48
15	EO	114/117 (97%)	96 (84%)	18 (16%)	0	100	100
15	GO	114/117 (97%)	97 (85%)	13 (11%)	4 (4%)	3	14
16	AP	112/115 (97%)	83 (74%)	22 (20%)	7 (6%)	1	4
16	CP	112/115 (97%)	81 (72%)	22 (20%)	9 (8%)	1	2
16	EP	112/115 (97%)	83 (74%)	22 (20%)	7 (6%)	1	4
16	GP	112/115 (97%)	79 (70%)	21 (19%)	12 (11%)	0	1
17	AQ	115/118 (98%)	101 (88%)	9 (8%)	5 (4%)	2	10
17	CQ	115/118 (98%)	102 (89%)	9 (8%)	4 (4%)	3	14
17	EQ	115/118 (98%)	102 (89%)	8 (7%)	5 (4%)	2	10
17	GQ	115/118 (98%)	103 (90%)	7 (6%)	5 (4%)	2	10

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
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%)	84 (83%)	13 (13%)	4 (4%)	3	11
19	AS	108/110 (98%)	93 (86%)	10 (9%)	5 (5%)	2	9
19	CS	108/110 (98%)	96 (89%)	8 (7%)	4 (4%)	3	13
19	ES	108/110 (98%)	91 (84%)	12 (11%)	5 (5%)	2	9
19	GS	108/110 (98%)	92 (85%)	11 (10%)	5 (5%)	2	9
20	AT	91/100 (91%)	59 (65%)	24 (26%)	8 (9%)	1	2
20	CT	91/100 (91%)	60 (66%)	23 (25%)	8 (9%)	1	2
20	ET	91/100 (91%)	59 (65%)	25 (28%)	7 (8%)	1	2
20	GT	91/100 (91%)	60 (66%)	22 (24%)	9 (10%)	0	1
21	AU	100/104 (96%)	73 (73%)	18 (18%)	9 (9%)	1	1
21	CU	100/104 (96%)	74 (74%)	16 (16%)	10 (10%)	0	1
21	EU	100/104 (96%)	74 (74%)	13 (13%)	13 (13%)	0	0
21	GU	100/104 (96%)	73 (73%)	18 (18%)	9 (9%)	1	1
22	AV	92/94 (98%)	82 (89%)	9 (10%)	1 (1%)	14	42
22	CV	92/94 (98%)	79 (86%)	12 (13%)	1 (1%)	14	42
22	EV	92/94 (98%)	82 (89%)	9 (10%)	1 (1%)	14	42
22	GV	92/94 (98%)	83 (90%)	8 (9%)	1 (1%)	14	42
23	AW	77/85 (91%)	41 (53%)	19 (25%)	17 (22%)	0	0
23	CW	77/85 (91%)	42 (54%)	21 (27%)	14 (18%)	0	0
23	EW	77/85 (91%)	42 (54%)	19 (25%)	16 (21%)	0	0
23	GW	77/85 (91%)	42 (54%)	21 (27%)	14 (18%)	0	0
24	AX	75/78 (96%)	65 (87%)	7 (9%)	3 (4%)	3	11
24	CX	75/78 (96%)	64 (85%)	8 (11%)	3 (4%)	3	11
24	EX	75/78 (96%)	64 (85%)	9 (12%)	2 (3%)	5	19
24	GX	75/78 (96%)	65 (87%)	9 (12%)	1 (1%)	12	37
25	AY	61/63 (97%)	40 (66%)	19 (31%)	2 (3%)	4	15
25	CY	61/63 (97%)	43 (70%)	17 (28%)	1 (2%)	9	32
25	EY	61/63 (97%)	38 (62%)	19 (31%)	4 (7%)	1	3

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
25	GY	61/63 (97%)	42 (69%)	17 (28%)	2 (3%)	4	15
26	AZ	56/59 (95%)	49 (88%)	5 (9%)	2 (4%)	3	14
26	CZ	56/59 (95%)	49 (88%)	5 (9%)	2 (4%)	3	14
26	EZ	56/59 (95%)	48 (86%)	6 (11%)	2 (4%)	3	14
26	GZ	56/59 (95%)	49 (88%)	5 (9%)	2 (4%)	3	14
27	A0	54/57 (95%)	45 (83%)	6 (11%)	3 (6%)	2	5
27	C0	54/57 (95%)	45 (83%)	6 (11%)	3 (6%)	2	5
27	E0	54/57 (95%)	45 (83%)	6 (11%)	3 (6%)	2	5
27	G0	54/57 (95%)	45 (83%)	6 (11%)	3 (6%)	2	5
28	A1	48/55 (87%)	40 (83%)	5 (10%)	3 (6%)	1	4
28	C1	48/55 (87%)	40 (83%)	6 (12%)	2 (4%)	3	10
28	E1	48/55 (87%)	42 (88%)	5 (10%)	1 (2%)	7	26
28	G1	48/55 (87%)	41 (85%)	5 (10%)	2 (4%)	3	10
29	A2	44/46 (96%)	39 (89%)	4 (9%)	1 (2%)	6	23
29	C2	44/46 (96%)	39 (89%)	4 (9%)	1 (2%)	6	23
29	E2	44/46 (96%)	39 (89%)	4 (9%)	1 (2%)	6	23
29	G2	44/46 (96%)	39 (89%)	4 (9%)	1 (2%)	6	23
30	A3	62/65 (95%)	56 (90%)	4 (6%)	2 (3%)	4	16
30	C3	62/65 (95%)	56 (90%)	4 (6%)	2 (3%)	4	16
30	E3	62/65 (95%)	55 (89%)	5 (8%)	2 (3%)	4	16
30	G3	62/65 (95%)	56 (90%)	4 (6%)	2 (3%)	4	16
31	A4	36/38 (95%)	31 (86%)	2 (6%)	3 (8%)	1	2
31	C4	36/38 (95%)	31 (86%)	3 (8%)	2 (6%)	2	5
31	E4	36/38 (95%)	31 (86%)	2 (6%)	3 (8%)	1	2
31	G4	36/38 (95%)	30 (83%)	4 (11%)	2 (6%)	2	5
32	A5	146/165 (88%)	80 (55%)	44 (30%)	22 (15%)	0	0
32	E5	142/165 (86%)	80 (56%)	39 (28%)	23 (16%)	0	0
34	BB	216/241 (90%)	147 (68%)	57 (26%)	12 (6%)	2	5
34	DB	216/241 (90%)	145 (67%)	59 (27%)	12 (6%)	2	5
34	FB	216/241 (90%)	146 (68%)	60 (28%)	10 (5%)	2	9
34	HB	216/241 (90%)	149 (69%)	55 (26%)	12 (6%)	2	5

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
35	BC	204/233 (88%)	180 (88%)	16 (8%)	8 (4%)	3	12
35	DC	204/233 (88%)	177 (87%)	23 (11%)	4 (2%)	7	27
35	FC	204/233 (88%)	181 (89%)	17 (8%)	6 (3%)	4	18
35	HC	204/233 (88%)	183 (90%)	16 (8%)	5 (2%)	5	21
36	BD	203/206 (98%)	157 (77%)	34 (17%)	12 (6%)	1	5
36	DD	203/206 (98%)	157 (77%)	30 (15%)	16 (8%)	1	2
36	FD	203/206 (98%)	155 (76%)	34 (17%)	14 (7%)	1	3
36	HD	203/206 (98%)	159 (78%)	35 (17%)	9 (4%)	2	10
37	BE	148/167 (89%)	124 (84%)	19 (13%)	5 (3%)	3	15
37	DE	148/167 (89%)	125 (84%)	18 (12%)	5 (3%)	3	15
37	FE	148/167 (89%)	122 (82%)	22 (15%)	4 (3%)	5	19
37	HE	148/167 (89%)	122 (82%)	22 (15%)	4 (3%)	5	19
38	BF	98/135 (73%)	73 (74%)	20 (20%)	5 (5%)	2	7
38	DF	98/135 (73%)	71 (72%)	20 (20%)	7 (7%)	1	3
38	FF	98/135 (73%)	72 (74%)	16 (16%)	10 (10%)	0	1
38	HF	98/135 (73%)	75 (76%)	18 (18%)	5 (5%)	2	7
39	BG	149/179 (83%)	126 (85%)	23 (15%)	0	100	100
39	DG	149/179 (83%)	123 (83%)	25 (17%)	1 (1%)	22	54
39	FG	149/179 (83%)	126 (85%)	23 (15%)	0	100	100
39	HG	149/179 (83%)	122 (82%)	25 (17%)	2 (1%)	12	37
40	BH	127/130 (98%)	108 (85%)	18 (14%)	1 (1%)	19	51
40	DH	127/130 (98%)	110 (87%)	15 (12%)	2 (2%)	9	32
40	FH	127/130 (98%)	113 (89%)	12 (9%)	2 (2%)	9	32
40	HH	127/130 (98%)	111 (87%)	16 (13%)	0	100	100
41	BI	125/130 (96%)	96 (77%)	21 (17%)	8 (6%)	1	4
41	DI	125/130 (96%)	99 (79%)	19 (15%)	7 (6%)	2	5
41	FI	125/130 (96%)	97 (78%)	22 (18%)	6 (5%)	2	8
41	HI	125/130 (96%)	98 (78%)	21 (17%)	6 (5%)	2	8
42	BJ	96/103 (93%)	73 (76%)	16 (17%)	7 (7%)	1	3
42	DJ	96/103 (93%)	72 (75%)	18 (19%)	6 (6%)	1	4
42	FJ	96/103 (93%)	73 (76%)	17 (18%)	6 (6%)	1	4

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
42	HJ	96/103 (93%)	73 (76%)	19 (20%)	4 (4%)	3	10
43	BK	115/129 (89%)	92 (80%)	17 (15%)	6 (5%)	2	6
43	DK	115/129 (89%)	90 (78%)	23 (20%)	2 (2%)	9	31
43	FK	115/129 (89%)	92 (80%)	20 (17%)	3 (3%)	5	20
43	HK	115/129 (89%)	87 (76%)	24 (21%)	4 (4%)	3	14
44	BL	121/124 (98%)	95 (78%)	17 (14%)	9 (7%)	1	2
44	DL	121/124 (98%)	95 (78%)	18 (15%)	8 (7%)	1	3
44	FL	121/124 (98%)	96 (79%)	17 (14%)	8 (7%)	1	3
44	HL	121/124 (98%)	97 (80%)	15 (12%)	9 (7%)	1	2
45	BM	112/118 (95%)	98 (88%)	8 (7%)	6 (5%)	2	6
45	DM	112/118 (95%)	99 (88%)	7 (6%)	6 (5%)	2	6
45	FM	112/118 (95%)	98 (88%)	9 (8%)	5 (4%)	2	9
45	HM	112/118 (95%)	91 (81%)	14 (12%)	7 (6%)	1	4
46	BN	92/101 (91%)	71 (77%)	18 (20%)	3 (3%)	4	15
46	DN	92/101 (91%)	71 (77%)	19 (21%)	2 (2%)	6	24
46	FN	92/101 (91%)	69 (75%)	20 (22%)	3 (3%)	4	15
46	HN	92/101 (91%)	70 (76%)	20 (22%)	2 (2%)	6	24
47	BO	86/89 (97%)	72 (84%)	12 (14%)	2 (2%)	6	23
47	DO	86/89 (97%)	73 (85%)	11 (13%)	2 (2%)	6	23
47	FO	86/89 (97%)	72 (84%)	12 (14%)	2 (2%)	6	23
47	HO	86/89 (97%)	70 (81%)	14 (16%)	2 (2%)	6	23
48	BP	80/82 (98%)	60 (75%)	16 (20%)	4 (5%)	2	7
48	DP	80/82 (98%)	62 (78%)	16 (20%)	2 (2%)	5	21
48	FP	80/82 (98%)	65 (81%)	13 (16%)	2 (2%)	5	21
48	HP	80/82 (98%)	61 (76%)	15 (19%)	4 (5%)	2	7
49	BQ	78/84 (93%)	54 (69%)	19 (24%)	5 (6%)	1	4
49	DQ	78/84 (93%)	56 (72%)	16 (20%)	6 (8%)	1	2
49	FQ	78/84 (93%)	57 (73%)	18 (23%)	3 (4%)	3	13
49	HQ	78/84 (93%)	57 (73%)	16 (20%)	5 (6%)	1	4
50	BR	53/75 (71%)	41 (77%)	12 (23%)	0	100	100
50	DR	53/75 (71%)	43 (81%)	10 (19%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
50	FR	53/75 (71%)	40 (76%)	13 (24%)	0	100	100
50	HR	53/75 (71%)	43 (81%)	10 (19%)	0	100	100
51	BS	77/92 (84%)	69 (90%)	7 (9%)	1 (1%)	12	37
51	DS	77/92 (84%)	70 (91%)	6 (8%)	1 (1%)	12	37
51	FS	77/92 (84%)	67 (87%)	6 (8%)	4 (5%)	2	6
51	HS	77/92 (84%)	68 (88%)	9 (12%)	0	100	100
52	BT	83/87 (95%)	66 (80%)	15 (18%)	2 (2%)	6	22
52	DT	83/87 (95%)	69 (83%)	11 (13%)	3 (4%)	3	14
52	FT	83/87 (95%)	66 (80%)	15 (18%)	2 (2%)	6	22
52	HT	83/87 (95%)	68 (82%)	14 (17%)	1 (1%)	13	40
53	BU	49/71 (69%)	25 (51%)	20 (41%)	4 (8%)	1	2
53	DU	49/71 (69%)	27 (55%)	20 (41%)	2 (4%)	3	11
53	FU	49/71 (69%)	28 (57%)	19 (39%)	2 (4%)	3	11
53	HU	49/71 (69%)	24 (49%)	22 (45%)	3 (6%)	1	4
54	BV	685/704 (97%)	559 (82%)	90 (13%)	36 (5%)	2	6
54	DV	685/704 (97%)	558 (82%)	92 (13%)	35 (5%)	2	7
54	FV	685/704 (97%)	556 (81%)	91 (13%)	38 (6%)	2	5
54	HV	685/704 (97%)	556 (81%)	91 (13%)	38 (6%)	2	5
55	BW	2/6 (33%)	0	0	2 (100%)	0	0
55	DW	2/6 (33%)	1 (50%)	1 (50%)	0	100	100
55	FW	2/6 (33%)	2 (100%)	0	0	100	100
All	All	25122/26708 (94%)	19751 (79%)	4073 (16%)	1298 (5%)	2	6

5 of 1298 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	AC	70	LYS
3	AC	104	LEU
3	AC	121	ALA
3	AC	140	VAL
3	AC	256	THR

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	
3	AC	216/218 (99%)	203 (94%)	13 (6%)	19	49
3	CC	216/218 (99%)	201 (93%)	15 (7%)	15	41
3	EC	216/218 (99%)	200 (93%)	16 (7%)	13	38
3	GC	216/218 (99%)	198 (92%)	18 (8%)	11	32
4	AD	164/164 (100%)	153 (93%)	11 (7%)	16	43
4	CD	164/164 (100%)	156 (95%)	8 (5%)	25	57
4	ED	164/164 (100%)	155 (94%)	9 (6%)	21	53
4	GD	164/164 (100%)	156 (95%)	8 (5%)	25	57
5	AE	165/165 (100%)	154 (93%)	11 (7%)	16	43
5	CE	165/165 (100%)	158 (96%)	7 (4%)	30	63
5	EE	165/165 (100%)	153 (93%)	12 (7%)	14	38
5	GE	165/165 (100%)	160 (97%)	5 (3%)	41	75
6	AF	148/150 (99%)	140 (95%)	8 (5%)	22	54
6	CF	148/150 (99%)	139 (94%)	9 (6%)	18	48
6	EF	148/150 (99%)	138 (93%)	10 (7%)	16	42
6	GF	148/150 (99%)	144 (97%)	4 (3%)	44	77
7	AG	137/138 (99%)	126 (92%)	11 (8%)	12	33
7	CG	137/138 (99%)	126 (92%)	11 (8%)	12	33
7	EG	137/138 (99%)	125 (91%)	12 (9%)	10	30
7	GG	137/138 (99%)	130 (95%)	7 (5%)	24	56
8	AH	40/40 (100%)	38 (95%)	2 (5%)	24	57
8	CH	40/40 (100%)	39 (98%)	1 (2%)	47	78
8	EH	40/40 (100%)	36 (90%)	4 (10%)	7	23
8	GH	40/40 (100%)	36 (90%)	4 (10%)	7	23
9	AI	109/110 (99%)	105 (96%)	4 (4%)	34	68
9	CI	109/110 (99%)	108 (99%)	1 (1%)	78	93

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
9	EI	109/110 (99%)	108 (99%)	1 (1%)	78	93
9	GI	109/110 (99%)	108 (99%)	1 (1%)	78	93
10	AJ	116/116 (100%)	97 (84%)	19 (16%)	2	7
10	CJ	116/116 (100%)	102 (88%)	14 (12%)	5	15
10	EJ	116/116 (100%)	96 (83%)	20 (17%)	2	6
10	GJ	116/116 (100%)	103 (89%)	13 (11%)	6	18
11	AK	103/104 (99%)	93 (90%)	10 (10%)	8	25
11	CK	103/104 (99%)	94 (91%)	9 (9%)	10	30
11	EK	103/104 (99%)	95 (92%)	8 (8%)	12	34
11	GK	103/104 (99%)	96 (93%)	7 (7%)	16	42
12	AL	102/103 (99%)	96 (94%)	6 (6%)	19	49
12	CL	102/103 (99%)	96 (94%)	6 (6%)	19	49
12	EL	102/103 (99%)	97 (95%)	5 (5%)	25	57
12	GL	102/103 (99%)	94 (92%)	8 (8%)	12	34
13	AM	109/109 (100%)	94 (86%)	15 (14%)	3	10
13	CM	109/109 (100%)	96 (88%)	13 (12%)	5	15
13	EM	109/109 (100%)	100 (92%)	9 (8%)	11	32
13	GM	109/109 (100%)	102 (94%)	7 (6%)	17	45
14	AN	100/103 (97%)	94 (94%)	6 (6%)	19	49
14	CN	100/103 (97%)	93 (93%)	7 (7%)	15	41
14	EN	100/103 (97%)	98 (98%)	2 (2%)	55	82
14	GN	100/103 (97%)	96 (96%)	4 (4%)	31	65
15	AO	86/87 (99%)	81 (94%)	5 (6%)	20	50
15	CO	86/87 (99%)	80 (93%)	6 (7%)	15	41
15	EO	86/87 (99%)	79 (92%)	7 (8%)	11	33
15	GO	86/87 (99%)	83 (96%)	3 (4%)	36	70
16	AP	99/100 (99%)	85 (86%)	14 (14%)	3	10
16	CP	99/100 (99%)	88 (89%)	11 (11%)	6	19
16	EP	99/100 (99%)	91 (92%)	8 (8%)	11	33
16	GP	99/100 (99%)	88 (89%)	11 (11%)	6	19
17	AQ	89/90 (99%)	83 (93%)	6 (7%)	16	43

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
17	CQ	89/90 (99%)	82 (92%)	7 (8%)	12	34
17	EQ	89/90 (99%)	80 (90%)	9 (10%)	7	23
17	GQ	89/90 (99%)	86 (97%)	3 (3%)	37	71
18	AR	84/84 (100%)	79 (94%)	5 (6%)	19	49
18	CR	84/84 (100%)	78 (93%)	6 (7%)	14	40
18	ER	84/84 (100%)	77 (92%)	7 (8%)	11	32
18	GR	84/84 (100%)	80 (95%)	4 (5%)	25	58
19	AS	93/93 (100%)	85 (91%)	8 (9%)	10	30
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%)	86 (92%)	7 (8%)	13	37
20	AT	80/84 (95%)	71 (89%)	9 (11%)	6	18
20	CT	80/84 (95%)	77 (96%)	3 (4%)	33	67
20	ET	80/84 (95%)	73 (91%)	7 (9%)	10	30
20	GT	80/84 (95%)	76 (95%)	4 (5%)	24	57
21	AU	83/85 (98%)	79 (95%)	4 (5%)	25	58
21	CU	83/85 (98%)	80 (96%)	3 (4%)	35	69
21	EU	83/85 (98%)	76 (92%)	7 (8%)	11	31
21	GU	83/85 (98%)	80 (96%)	3 (4%)	35	69
22	AV	78/78 (100%)	73 (94%)	5 (6%)	17	45
22	CV	78/78 (100%)	75 (96%)	3 (4%)	33	67
22	EV	78/78 (100%)	76 (97%)	2 (3%)	46	77
22	GV	78/78 (100%)	75 (96%)	3 (4%)	33	67
23	AW	59/63 (94%)	49 (83%)	10 (17%)	2	6
23	CW	59/63 (94%)	51 (86%)	8 (14%)	3	11
23	EW	59/63 (94%)	52 (88%)	7 (12%)	5	15
23	GW	59/63 (94%)	53 (90%)	6 (10%)	7	22
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%)	60 (90%)	7 (10%)	7	21
24	GX	67/68 (98%)	61 (91%)	6 (9%)	9	29

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
25	AY	55/55 (100%)	49 (89%)	6 (11%)	6	19
25	CY	55/55 (100%)	53 (96%)	2 (4%)	35	69
25	EY	55/55 (100%)	49 (89%)	6 (11%)	6	19
25	GY	55/55 (100%)	51 (93%)	4 (7%)	14	38
26	AZ	48/49 (98%)	44 (92%)	4 (8%)	11	32
26	CZ	48/49 (98%)	43 (90%)	5 (10%)	7	21
26	EZ	48/49 (98%)	44 (92%)	4 (8%)	11	32
26	GZ	48/49 (98%)	43 (90%)	5 (10%)	7	21
27	A0	47/48 (98%)	47 (100%)	0	100	100
27	C0	47/48 (98%)	45 (96%)	2 (4%)	29	62
27	E0	47/48 (98%)	45 (96%)	2 (4%)	29	62
27	G0	47/48 (98%)	47 (100%)	0	100	100
28	A1	45/49 (92%)	42 (93%)	3 (7%)	16	43
28	C1	45/49 (92%)	41 (91%)	4 (9%)	9	29
28	E1	45/49 (92%)	43 (96%)	2 (4%)	28	61
28	G1	45/49 (92%)	44 (98%)	1 (2%)	52	81
29	A2	38/38 (100%)	37 (97%)	1 (3%)	46	77
29	C2	38/38 (100%)	35 (92%)	3 (8%)	12	34
29	E2	38/38 (100%)	33 (87%)	5 (13%)	4	12
29	G2	38/38 (100%)	34 (90%)	4 (10%)	7	21
30	A3	51/52 (98%)	49 (96%)	2 (4%)	32	66
30	C3	51/52 (98%)	50 (98%)	1 (2%)	55	82
30	E3	51/52 (98%)	47 (92%)	4 (8%)	12	34
30	G3	51/52 (98%)	47 (92%)	4 (8%)	12	34
31	A4	34/34 (100%)	32 (94%)	2 (6%)	19	49
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%)	31 (91%)	3 (9%)	10	30
32	A5	112/123 (91%)	95 (85%)	17 (15%)	3	8
32	E5	110/123 (89%)	96 (87%)	14 (13%)	4	13
34	BB	180/199 (90%)	171 (95%)	9 (5%)	24	57

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
34	DB	180/199 (90%)	171 (95%)	9 (5%)	24	57
34	FB	180/199 (90%)	172 (96%)	8 (4%)	28	61
34	HB	180/199 (90%)	170 (94%)	10 (6%)	21	52
35	BC	170/190 (90%)	167 (98%)	3 (2%)	59	85
35	DC	170/190 (90%)	166 (98%)	4 (2%)	49	79
35	FC	170/190 (90%)	158 (93%)	12 (7%)	14	40
35	HC	170/190 (90%)	164 (96%)	6 (4%)	36	70
36	BD	172/173 (99%)	163 (95%)	9 (5%)	23	55
36	DD	172/173 (99%)	162 (94%)	10 (6%)	20	50
36	FD	172/173 (99%)	162 (94%)	10 (6%)	20	50
36	HD	172/173 (99%)	163 (95%)	9 (5%)	23	55
37	BE	113/126 (90%)	107 (95%)	6 (5%)	22	54
37	DE	113/126 (90%)	110 (97%)	3 (3%)	44	77
37	FE	113/126 (90%)	104 (92%)	9 (8%)	12	33
37	HE	113/126 (90%)	106 (94%)	7 (6%)	18	47
38	BF	87/116 (75%)	83 (95%)	4 (5%)	27	60
38	DF	87/116 (75%)	85 (98%)	2 (2%)	50	80
38	FF	87/116 (75%)	84 (97%)	3 (3%)	37	71
38	HF	87/116 (75%)	85 (98%)	2 (2%)	50	80
39	BG	124/147 (84%)	122 (98%)	2 (2%)	62	86
39	DG	124/147 (84%)	121 (98%)	3 (2%)	49	79
39	FG	124/147 (84%)	120 (97%)	4 (3%)	39	73
39	HG	124/147 (84%)	123 (99%)	1 (1%)	81	94
40	BH	104/105 (99%)	98 (94%)	6 (6%)	20	50
40	DH	104/105 (99%)	97 (93%)	7 (7%)	16	43
40	FH	104/105 (99%)	97 (93%)	7 (7%)	16	43
40	HH	104/105 (99%)	98 (94%)	6 (6%)	20	50
41	BI	105/107 (98%)	96 (91%)	9 (9%)	10	30
41	DI	105/107 (98%)	102 (97%)	3 (3%)	42	76
41	FI	105/107 (98%)	98 (93%)	7 (7%)	16	43
41	HI	105/107 (98%)	99 (94%)	6 (6%)	20	51

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
42	BJ	86/90 (96%)	85 (99%)	1 (1%)	71	91
42	DJ	86/90 (96%)	80 (93%)	6 (7%)	15	41
42	FJ	86/90 (96%)	84 (98%)	2 (2%)	50	80
42	HJ	86/90 (96%)	83 (96%)	3 (4%)	36	70
43	BK	90/99 (91%)	87 (97%)	3 (3%)	38	72
43	DK	90/99 (91%)	88 (98%)	2 (2%)	52	81
43	FK	90/99 (91%)	85 (94%)	5 (6%)	21	52
43	HK	90/99 (91%)	82 (91%)	8 (9%)	9	29
44	BL	103/104 (99%)	100 (97%)	3 (3%)	42	76
44	DL	103/104 (99%)	101 (98%)	2 (2%)	57	84
44	FL	103/104 (99%)	97 (94%)	6 (6%)	20	50
44	HL	103/104 (99%)	94 (91%)	9 (9%)	10	30
45	BM	92/96 (96%)	89 (97%)	3 (3%)	38	72
45	DM	92/96 (96%)	92 (100%)	0	100	100
45	FM	92/96 (96%)	92 (100%)	0	100	100
45	HM	92/96 (96%)	92 (100%)	0	100	100
46	BN	79/84 (94%)	79 (100%)	0	100	100
46	DN	79/84 (94%)	78 (99%)	1 (1%)	69	90
46	FN	79/84 (94%)	75 (95%)	4 (5%)	24	56
46	HN	79/84 (94%)	77 (98%)	2 (2%)	47	78
47	BO	76/77 (99%)	72 (95%)	4 (5%)	22	54
47	DO	76/77 (99%)	74 (97%)	2 (3%)	46	77
47	FO	76/77 (99%)	74 (97%)	2 (3%)	46	77
47	HO	76/77 (99%)	74 (97%)	2 (3%)	46	77
48	BP	65/65 (100%)	63 (97%)	2 (3%)	40	74
48	DP	65/65 (100%)	60 (92%)	5 (8%)	13	35
48	FP	65/65 (100%)	64 (98%)	1 (2%)	65	87
48	HP	65/65 (100%)	63 (97%)	2 (3%)	40	74
49	BQ	74/78 (95%)	70 (95%)	4 (5%)	22	54
49	DQ	74/78 (95%)	72 (97%)	2 (3%)	44	77
49	FQ	74/78 (95%)	73 (99%)	1 (1%)	67	89

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
49	HQ	74/78 (95%)	69 (93%)	5 (7%)	16	42
50	BR	48/65 (74%)	48 (100%)	0	100	100
50	DR	48/65 (74%)	48 (100%)	0	100	100
50	FR	48/65 (74%)	46 (96%)	2 (4%)	30	63
50	HR	48/65 (74%)	48 (100%)	0	100	100
51	BS	70/79 (89%)	69 (99%)	1 (1%)	67	89
51	DS	70/79 (89%)	67 (96%)	3 (4%)	29	62
51	FS	70/79 (89%)	64 (91%)	6 (9%)	10	30
51	HS	70/79 (89%)	67 (96%)	3 (4%)	29	62
52	BT	65/66 (98%)	60 (92%)	5 (8%)	13	35
52	DT	65/66 (98%)	58 (89%)	7 (11%)	6	20
52	FT	65/66 (98%)	60 (92%)	5 (8%)	13	35
52	HT	65/66 (98%)	60 (92%)	5 (8%)	13	35
53	BU	44/61 (72%)	42 (96%)	2 (4%)	27	61
53	DU	44/61 (72%)	41 (93%)	3 (7%)	16	42
53	FU	44/61 (72%)	41 (93%)	3 (7%)	16	42
53	HU	44/61 (72%)	42 (96%)	2 (4%)	27	61
54	BV	557/578 (96%)	503 (90%)	54 (10%)	8	25
54	DV	557/578 (96%)	508 (91%)	49 (9%)	10	30
54	FV	557/578 (96%)	508 (91%)	49 (9%)	10	30
54	HV	557/578 (96%)	507 (91%)	50 (9%)	9	29
55	BW	2/2 (100%)	1 (50%)	1 (50%)	0	0
55	DW	2/2 (100%)	1 (50%)	1 (50%)	0	0
55	FW	2/2 (100%)	2 (100%)	0	100	100
All	All	20824/21780 (96%)	19507 (94%)	1317 (6%)	18	46

5 of 1317 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
49	DQ	48	ASP
10	EJ	95	ARG
40	HH	94	LYS
54	DV	77	LYS
3	EC	176	ARG

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 87 such sidechains are listed below:

Mol	Chain	Res	Type
7	EG	115	GLN
34	FB	57	ASN
51	HS	52	HIS
9	EI	33	ASN
22	EV	80	HIS

5.3.3 RNA [i](#)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	2850/2904 (98%)	472 (16%)	48 (1%)
1	CA	2850/2904 (98%)	470 (16%)	50 (1%)
1	EA	2850/2904 (98%)	471 (16%)	45 (1%)
1	GA	2850/2904 (98%)	471 (16%)	51 (1%)
2	AB	117/120 (97%)	17 (14%)	0
2	CB	117/120 (97%)	18 (15%)	1 (0%)
2	EB	117/120 (97%)	17 (14%)	0
2	GB	117/120 (97%)	19 (16%)	0
33	BA	1532/1542 (99%)	272 (17%)	18 (1%)
33	DA	1532/1542 (99%)	269 (17%)	18 (1%)
33	FA	1532/1542 (99%)	265 (17%)	17 (1%)
33	HA	1532/1542 (99%)	273 (17%)	18 (1%)
All	All	17996/18264 (98%)	3034 (16%)	266 (1%)

5 of 3034 RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	10	A
1	AA	12	U
1	AA	15	G
1	AA	34	U
1	AA	35	G

5 of 266 RNA pucker outliers are listed below:

Mol	Chain	Res	Type
33	DA	250	A
1	EA	764	A
1	GA	2756	U
33	DA	499	A
1	EA	119	A

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

12 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
55	5OH	FW	6	55	8,12,13	1.80	2 (25%)	3,16,18	1.42	0
55	DPP	BW	2	55	3,5,6	1.07	0	1,5,7	0.68	0
55	KBE	FW	1	55	8,8,9	0.97	0	7,8,10	1.91	1 (14%)
55	5OH	BW	6	55	8,12,13	1.51	1 (12%)	3,16,18	1.02	0
55	KBE	DW	1	55	8,8,9	0.91	0	7,8,10	1.12	1 (14%)
55	KBE	BW	1	55	8,8,9	0.90	0	7,8,10	1.07	1 (14%)
55	5OH	DW	6	55	8,12,13	1.68	2 (25%)	3,16,18	1.60	1 (33%)
55	UAL	FW	5	55	7,8,9	2.44	4 (57%)	5,9,11	3.73	3 (60%)
55	DPP	FW	2	55	3,5,6	0.81	0	1,5,7	0.00	0
55	UAL	DW	5	55	7,8,9	2.62	4 (57%)	5,9,11	4.77	2 (40%)
55	DPP	DW	2	55	3,5,6	0.79	0	1,5,7	0.27	0
55	UAL	BW	5	55	7,8,9	2.89	4 (57%)	5,9,11	5.14	2 (40%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
55	5OH	FW	6	55	-	0/2/18/20	0/1/1/1
55	DPP	BW	2	55	-	0/2/4/6	-
55	KBE	FW	1	55	-	2/7/7/8	-
55	5OH	BW	6	55	-	2/2/18/20	0/1/1/1
55	KBE	DW	1	55	-	5/7/7/8	-
55	KBE	BW	1	55	-	3/7/7/8	-
55	5OH	DW	6	55	-	1/2/18/20	0/1/1/1
55	UAL	FW	5	55	-	0/3/7/9	-
55	DPP	FW	2	55	-	0/2/4/6	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
55	UAL	DW	5	55	-	1/3/7/9	-
55	DPP	DW	2	55	-	0/2/4/6	-
55	UAL	BW	5	55	-	1/3/7/9	-

The worst 5 of 17 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
55	BW	5	UAL	CB-N1	4.26	1.46	1.35
55	BW	5	UAL	C-CA	4.23	1.51	1.45
55	DW	5	UAL	CB-N1	4.08	1.46	1.35
55	FW	5	UAL	CB-N1	3.85	1.45	1.35
55	DW	5	UAL	C1-N1	3.72	1.46	1.40

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

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
55	BW	5	UAL	O-C-CA	-8.90	114.08	125.39
55	DW	5	UAL	O-C-CA	-8.50	114.58	125.39
55	BW	5	UAL	CA-CB-N1	-6.87	112.65	125.60
55	FW	5	UAL	CA-CB-N1	-6.21	113.88	125.60
55	DW	5	UAL	CA-CB-N1	-6.01	114.27	125.60

There are no chirality outliers.

5 of 15 torsion outliers are listed below:

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

There are no ring outliers.

10 monomers are involved in 14 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
55	FW	6	5OH	3	0
55	FW	1	KBE	1	0
55	BW	6	5OH	1	0
55	DW	1	KBE	1	0
55	BW	1	KBE	2	0

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

5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

5.6 Ligand geometry [i](#)

Of 748 ligands modelled in this entry, 744 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
58	GCP	HV	801	56	26,34,34	2.68	10 (38%)	31,54,54	1.61	5 (16%)
58	GCP	BV	801	56	26,34,34	2.83	10 (38%)	31,54,54	1.71	5 (16%)
58	GCP	DV	801	56	26,34,34	2.79	9 (34%)	31,54,54	1.47	4 (12%)
58	GCP	FV	801	56	26,34,34	2.50	8 (30%)	31,54,54	1.28	3 (9%)

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
58	GCP	HV	801	56	-	4/18/38/38	0/3/3/3
58	GCP	BV	801	56	-	4/18/38/38	0/3/3/3
58	GCP	DV	801	56	-	3/18/38/38	0/3/3/3
58	GCP	FV	801	56	-	5/18/38/38	0/3/3/3

The worst 5 of 37 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
58	FV	801	GCP	C4-N9	-10.32	1.34	1.47
58	BV	801	GCP	C5-C6	-8.24	1.38	1.52
58	DV	801	GCP	C5-C6	-8.06	1.39	1.52
58	BV	801	GCP	C4-N9	-7.94	1.37	1.47
58	DV	801	GCP	C4-N9	-7.77	1.37	1.47

The worst 5 of 17 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
58	HV	801	GCP	PA-O3A-PB	-4.54	118.16	132.56
58	HV	801	GCP	C4-C5-N7	4.48	108.40	102.46
58	BV	801	GCP	C4'-O4'-C1'	-4.21	100.17	109.47
58	BV	801	GCP	C4-C5-N7	4.17	107.99	102.46
58	DV	801	GCP	C4-C5-N7	4.01	107.77	102.46

There are no chirality outliers.

5 of 16 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
58	DV	801	GCP	C2'-C1'-N9-C4
58	BV	801	GCP	PB-C3B-PG-O1G
58	BV	801	GCP	PB-C3B-PG-O2G
58	BV	801	GCP	PB-C3B-PG-O3G
58	BV	801	GCP	C2'-C1'-N9-C4

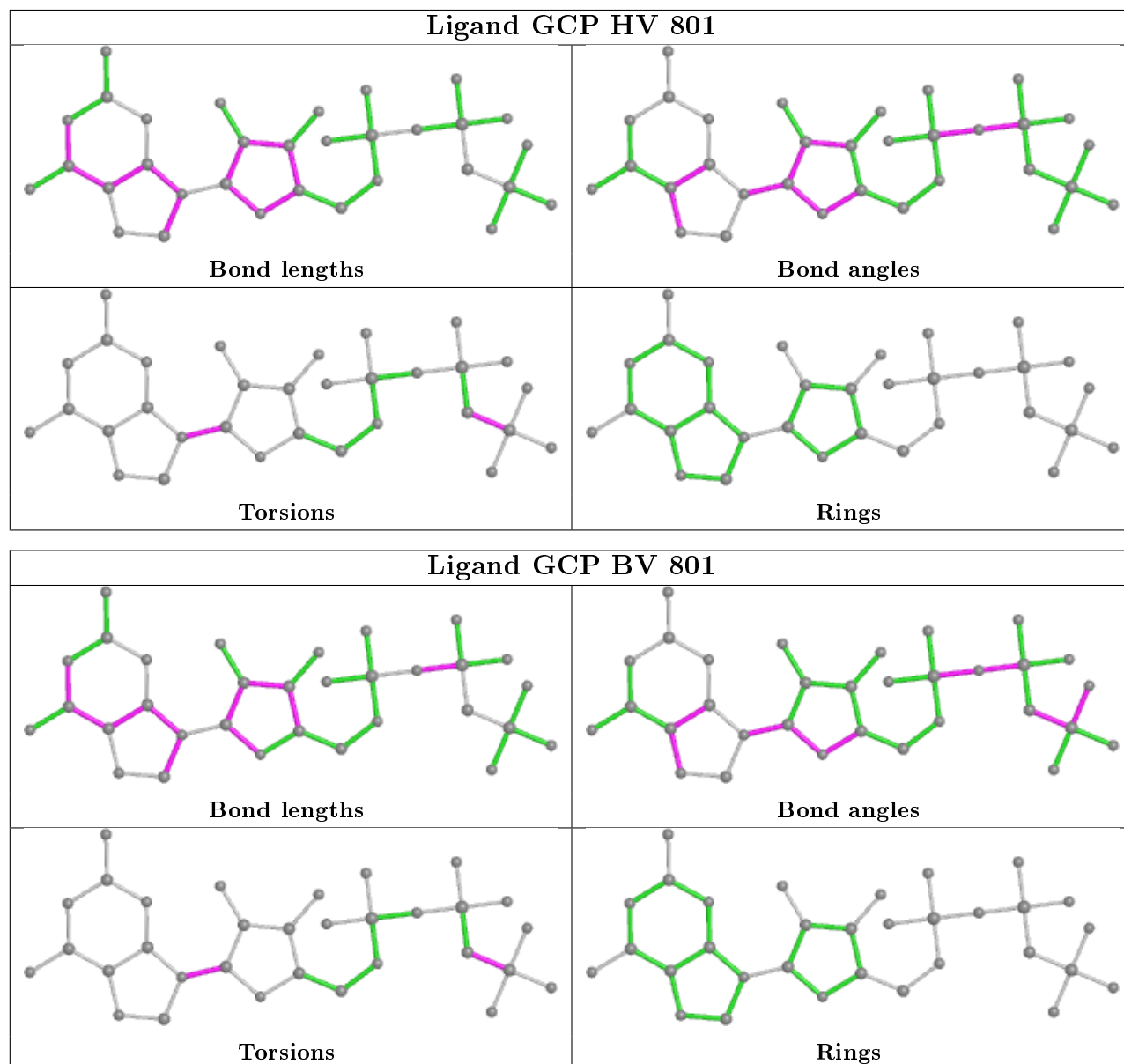
There are no ring outliers.

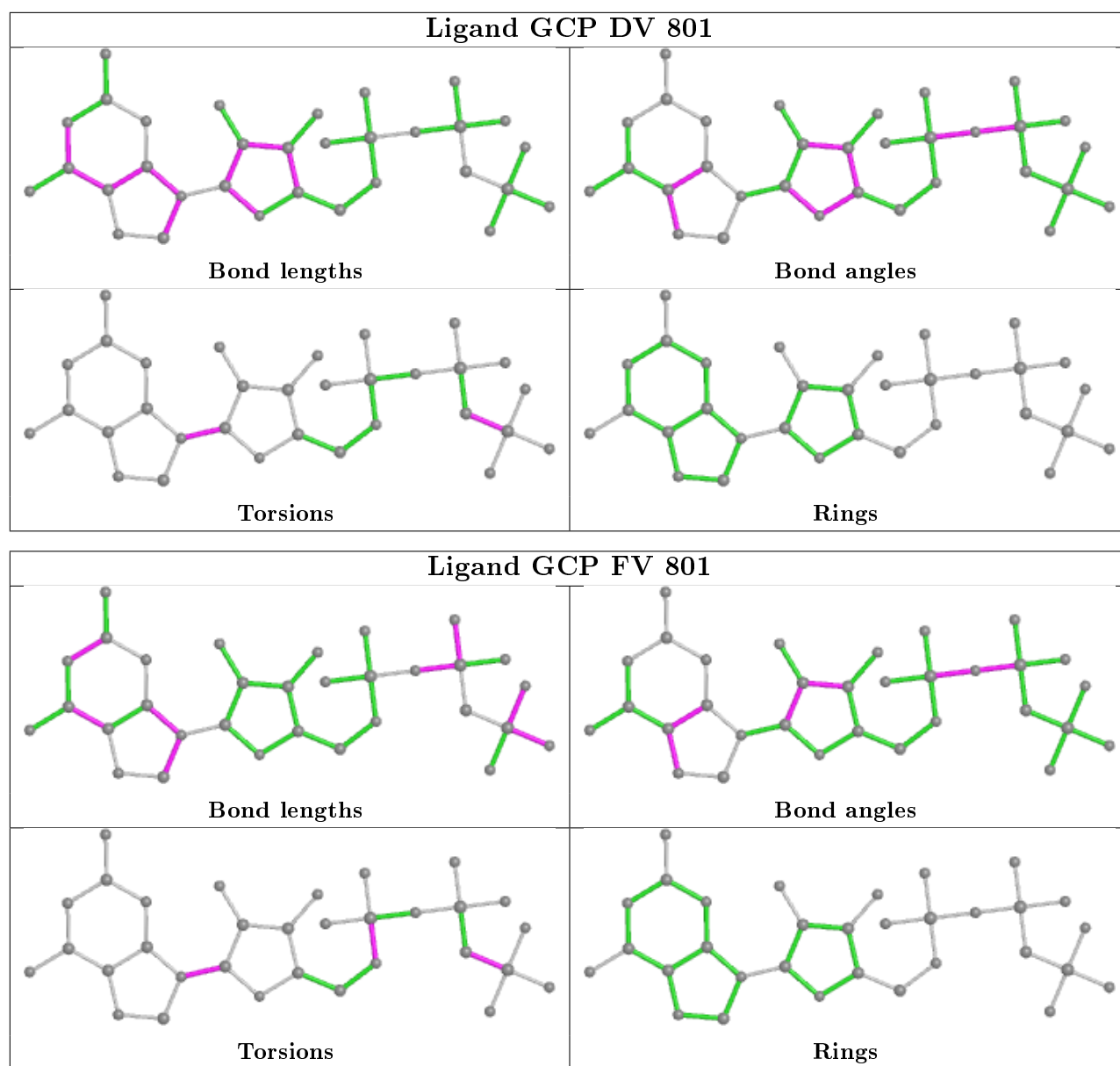
4 monomers are involved in 9 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
58	HV	801	GCP	1	0
58	BV	801	GCP	2	0
58	DV	801	GCP	1	0
58	FV	801	GCP	5	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring

in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.





5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data i

6.1 Protein, DNA and RNA chains i

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	AA	2854/2904 (98%)	-0.24	60 (2%) 63 61	4, 28, 65, 87	0
1	CA	2854/2904 (98%)	-0.26	58 (2%) 65 63	3, 25, 63, 88	0
1	EA	2854/2904 (98%)	-0.25	45 (1%) 72 71	1, 14, 60, 92	0
1	GA	2854/2904 (98%)	-0.22	65 (2%) 60 58	5, 29, 68, 89	0
2	AB	118/120 (98%)	-0.49	0 100 100	18, 48, 62, 72	0
2	CB	118/120 (98%)	-0.61	0 100 100	18, 41, 54, 72	0
2	EB	118/120 (98%)	-0.52	0 100 100	3, 25, 45, 56	0
2	GB	118/120 (98%)	-0.52	1 (0%) 86 86	23, 44, 61, 78	0
3	AC	271/273 (99%)	-0.14	1 (0%) 92 93	5, 26, 40, 60	0
3	CC	271/273 (99%)	-0.23	0 100 100	2, 18, 34, 44	0
3	EC	271/273 (99%)	-0.30	0 100 100	1, 15, 32, 57	0
3	GC	271/273 (99%)	-0.28	0 100 100	3, 17, 30, 42	0
4	AD	209/209 (100%)	-0.09	2 (0%) 82 82	6, 27, 47, 60	0
4	CD	209/209 (100%)	-0.02	5 (2%) 59 56	3, 31, 52, 61	0
4	ED	209/209 (100%)	-0.18	2 (0%) 82 82	1, 20, 43, 56	0
4	GD	209/209 (100%)	0.08	5 (2%) 59 56	4, 36, 54, 62	0
5	AE	201/201 (100%)	0.17	6 (2%) 50 45	7, 33, 55, 63	0
5	CE	201/201 (100%)	0.13	7 (3%) 44 38	4, 33, 54, 60	0
5	EE	201/201 (100%)	-0.05	2 (0%) 82 82	2, 19, 45, 69	0
5	GE	201/201 (100%)	0.25	8 (3%) 38 33	7, 41, 56, 67	0
6	AF	177/179 (98%)	2.43	93 (52%) 0 0	45, 61, 71, 79	0
6	CF	177/179 (98%)	0.66	18 (10%) 6 5	32, 49, 63, 67	0
6	EF	177/179 (98%)	0.55	15 (8%) 10 8	19, 42, 61, 68	0
6	GF	177/179 (98%)	2.01	74 (41%) 0 0	36, 61, 72, 76	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
7	AG	176/177 (99%)	0.40	16 (9%) 9 6	20, 42, 60, 69	0
7	CG	176/177 (99%)	0.61	24 (13%) 3 2	23, 46, 61, 69	0
7	EG	176/177 (99%)	0.11	8 (4%) 33 29	19, 37, 55, 63	0
7	GG	176/177 (99%)	0.60	24 (13%) 3 2	32, 48, 63, 68	0
8	AH	50/50 (100%)	1.28	10 (20%) 1 0	28, 51, 67, 77	0
8	CH	50/50 (100%)	1.48	17 (34%) 0 0	39, 56, 68, 74	0
8	EH	50/50 (100%)	1.31	14 (28%) 0 0	24, 49, 69, 79	0
8	GH	50/50 (100%)	1.16	15 (30%) 0 0	26, 46, 64, 69	0
9	AI	141/142 (99%)	2.13	58 (41%) 0 0	44, 64, 75, 82	0
9	CI	141/142 (99%)	2.46	73 (51%) 0 0	49, 63, 73, 76	0
9	EI	141/142 (99%)	2.84	81 (57%) 0 0	48, 65, 77, 82	0
9	GI	141/142 (99%)	3.94	109 (77%) 0 0	49, 68, 77, 81	0
10	AJ	142/142 (100%)	-0.10	2 (1%) 75 75	12, 29, 41, 60	0
10	CJ	142/142 (100%)	-0.03	2 (1%) 75 75	13, 29, 42, 58	0
10	EJ	142/142 (100%)	-0.19	1 (0%) 87 87	3, 13, 30, 47	0
10	GJ	142/142 (100%)	0.05	5 (3%) 44 38	15, 32, 47, 61	0
11	AK	122/123 (99%)	-0.20	1 (0%) 86 86	5, 19, 34, 54	0
11	CK	122/123 (99%)	-0.14	2 (1%) 72 71	9, 22, 39, 56	0
11	EK	122/123 (99%)	-0.07	2 (1%) 72 71	4, 18, 37, 49	0
11	GK	122/123 (99%)	0.19	2 (1%) 72 71	13, 27, 42, 59	0
12	AL	143/144 (99%)	0.21	7 (4%) 29 26	10, 30, 48, 58	0
12	CL	143/144 (99%)	0.04	2 (1%) 75 75	3, 29, 47, 62	0
12	EL	143/144 (99%)	0.08	2 (1%) 75 75	1, 18, 39, 54	0
12	GL	143/144 (99%)	0.48	14 (9%) 7 5	10, 35, 53, 67	0
13	AM	136/136 (100%)	-0.07	2 (1%) 73 73	8, 19, 37, 55	0
13	CM	136/136 (100%)	-0.08	1 (0%) 87 87	8, 21, 38, 56	0
13	EM	136/136 (100%)	-0.21	2 (1%) 73 73	1, 11, 29, 60	0
13	GM	136/136 (100%)	0.18	4 (2%) 51 47	11, 28, 45, 58	0
14	AN	120/127 (94%)	0.08	2 (1%) 70 69	14, 29, 41, 62	0
14	CN	120/127 (94%)	0.00	1 (0%) 86 86	18, 31, 43, 62	0
14	EN	120/127 (94%)	-0.10	1 (0%) 86 86	6, 19, 32, 61	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
14	GN	120/127 (94%)	-0.00	1 (0%) 86 86	19, 31, 43, 72	0
15	AO	116/117 (99%)	0.60	11 (9%) 8 6	28, 47, 56, 62	0
15	CO	116/117 (99%)	0.40	8 (6%) 16 13	28, 42, 55, 61	0
15	EO	116/117 (99%)	0.09	3 (2%) 56 52	16, 30, 43, 55	0
15	GO	116/117 (99%)	0.49	9 (7%) 13 10	28, 40, 58, 63	0
16	AP	114/115 (99%)	0.08	2 (1%) 68 67	13, 31, 47, 62	0
16	CP	114/115 (99%)	0.06	4 (3%) 44 38	17, 35, 49, 62	0
16	EP	114/115 (99%)	-0.21	2 (1%) 68 67	6, 24, 43, 66	0
16	GP	114/115 (99%)	0.21	4 (3%) 44 38	14, 35, 50, 59	0
17	AQ	117/118 (99%)	0.01	1 (0%) 84 84	10, 26, 43, 56	0
17	CQ	117/118 (99%)	-0.05	3 (2%) 56 52	6, 24, 39, 60	0
17	EQ	117/118 (99%)	-0.18	0 100 100	2, 9, 25, 46	0
17	GQ	117/118 (99%)	0.15	4 (3%) 45 40	19, 29, 42, 56	0
18	AR	103/103 (100%)	0.17	4 (3%) 39 35	10, 37, 52, 60	0
18	CR	103/103 (100%)	0.06	2 (1%) 66 65	9, 34, 49, 63	0
18	ER	103/103 (100%)	-0.20	1 (0%) 82 82	2, 21, 41, 52	0
18	GR	103/103 (100%)	0.46	6 (5%) 23 19	13, 40, 53, 63	0
19	AS	110/110 (100%)	0.15	4 (3%) 42 37	13, 28, 45, 62	0
19	CS	110/110 (100%)	0.11	2 (1%) 68 67	7, 27, 45, 65	0
19	ES	110/110 (100%)	-0.10	0 100 100	2, 12, 36, 49	0
19	GS	110/110 (100%)	0.40	8 (7%) 15 11	12, 31, 50, 69	0
20	AT	93/100 (93%)	0.59	11 (11%) 4 3	18, 37, 58, 63	0
20	CT	93/100 (93%)	0.36	9 (9%) 7 6	14, 37, 57, 67	0
20	ET	93/100 (93%)	0.36	8 (8%) 10 8	6, 24, 53, 61	0
20	GT	93/100 (93%)	0.65	17 (18%) 1 0	19, 36, 57, 62	0
21	AU	102/104 (98%)	0.73	13 (12%) 3 2	24, 40, 56, 64	0
21	CU	102/104 (98%)	0.76	15 (14%) 2 1	24, 41, 61, 73	0
21	EU	102/104 (98%)	0.34	5 (4%) 29 26	13, 28, 51, 65	0
21	GU	102/104 (98%)	1.23	23 (22%) 0 0	32, 46, 63, 75	0
22	AV	94/94 (100%)	-0.12	2 (2%) 63 61	23, 38, 48, 57	0
22	CV	94/94 (100%)	0.00	1 (1%) 80 80	25, 39, 52, 67	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
22	EV	94/94 (100%)	-0.34	0 100 100	9, 22, 40, 45	0
22	GV	94/94 (100%)	0.20	3 (3%) 47 43	29, 42, 55, 60	0
23	AW	79/85 (92%)	0.54	9 (11%) 5 3	17, 35, 52, 61	0
23	CW	79/85 (92%)	0.41	4 (5%) 28 24	15, 29, 51, 65	0
23	EW	79/85 (92%)	0.38	4 (5%) 28 24	5, 17, 44, 50	0
23	GW	79/85 (92%)	0.52	6 (7%) 13 10	15, 33, 55, 63	0
24	AX	77/78 (98%)	0.34	2 (2%) 56 52	16, 31, 47, 57	0
24	CX	77/78 (98%)	0.08	1 (1%) 77 77	8, 22, 46, 49	0
24	EX	77/78 (98%)	0.01	0 100 100	4, 18, 40, 50	0
24	GX	77/78 (98%)	-0.01	1 (1%) 77 77	14, 25, 46, 56	0
25	AY	63/63 (100%)	0.95	10 (15%) 1 1	30, 47, 61, 65	0
25	CY	63/63 (100%)	0.63	6 (9%) 8 6	27, 44, 58, 67	0
25	EY	63/63 (100%)	0.75	8 (12%) 3 2	13, 33, 51, 70	0
25	GY	63/63 (100%)	1.11	9 (14%) 2 2	29, 45, 60, 68	0
26	AZ	58/59 (98%)	0.38	2 (3%) 45 40	15, 31, 55, 71	0
26	CZ	58/59 (98%)	0.25	3 (5%) 27 23	17, 30, 53, 65	0
26	EZ	58/59 (98%)	-0.14	1 (1%) 70 69	2, 10, 35, 59	0
26	GZ	58/59 (98%)	0.27	3 (5%) 27 23	20, 32, 51, 53	0
27	A0	56/57 (98%)	0.37	2 (3%) 42 37	11, 33, 54, 62	0
27	C0	56/57 (98%)	0.18	1 (1%) 68 67	8, 35, 50, 60	0
27	E0	56/57 (98%)	0.11	1 (1%) 68 67	3, 25, 48, 56	0
27	G0	56/57 (98%)	0.31	3 (5%) 25 22	15, 35, 58, 67	0
28	A1	50/55 (90%)	1.09	9 (18%) 1 1	27, 38, 51, 61	0
28	C1	50/55 (90%)	0.79	5 (10%) 7 5	21, 35, 48, 59	0
28	E1	50/55 (90%)	0.44	4 (8%) 12 9	11, 26, 44, 47	0
28	G1	50/55 (90%)	1.24	15 (30%) 0 0	25, 38, 55, 61	0
29	A2	46/46 (100%)	0.07	1 (2%) 62 59	9, 22, 34, 55	0
29	C2	46/46 (100%)	-0.04	2 (4%) 35 31	7, 14, 30, 54	0
29	E2	46/46 (100%)	-0.22	1 (2%) 62 59	2, 7, 15, 53	0
29	G2	46/46 (100%)	0.05	2 (4%) 35 31	8, 17, 28, 51	0
30	A3	64/65 (98%)	-0.00	0 100 100	12, 22, 37, 40	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
30	C3	64/65 (98%)	-0.03	0 100 100	10, 18, 27, 35	0
30	E3	64/65 (98%)	-0.13	0 100 100	2, 8, 14, 27	0
30	G3	64/65 (98%)	0.04	1 (1%) 72 71	13, 22, 37, 48	0
31	A4	38/38 (100%)	0.10	1 (2%) 56 52	13, 22, 36, 38	0
31	C4	38/38 (100%)	0.14	1 (2%) 56 52	14, 27, 39, 46	0
31	E4	38/38 (100%)	-0.14	0 100 100	5, 16, 35, 38	0
31	G4	38/38 (100%)	0.34	1 (2%) 56 52	22, 33, 44, 49	0
32	A5	148/165 (89%)	2.99	83 (56%) 0 0	36, 54, 65, 74	0
32	E5	144/165 (87%)	3.51	102 (70%) 0 0	35, 61, 72, 82	0
33	BA	1533/1542 (99%)	-0.26	29 (1%) 66 65	11, 42, 70, 91	0
33	DA	1533/1542 (99%)	-0.27	25 (1%) 72 71	12, 43, 69, 85	0
33	FA	1533/1542 (99%)	-0.27	25 (1%) 72 71	8, 33, 61, 85	0
33	HA	1533/1542 (99%)	-0.13	50 (3%) 46 41	15, 41, 72, 90	0
34	BB	218/241 (90%)	1.32	65 (29%) 0 0	41, 58, 69, 79	0
34	DB	218/241 (90%)	1.46	67 (30%) 0 0	40, 57, 69, 79	0
34	FB	218/241 (90%)	0.69	28 (12%) 3 2	26, 49, 63, 69	0
34	HB	218/241 (90%)	1.11	45 (20%) 1 0	33, 51, 67, 73	0
35	BC	206/233 (88%)	0.63	31 (15%) 2 1	30, 50, 60, 69	0
35	DC	206/233 (88%)	0.40	18 (8%) 10 7	35, 50, 60, 67	0
35	FC	206/233 (88%)	-0.08	3 (1%) 73 73	13, 30, 46, 58	0
35	HC	206/233 (88%)	0.32	11 (5%) 26 22	21, 40, 56, 66	0
36	BD	205/206 (99%)	0.40	15 (7%) 15 11	23, 39, 57, 64	0
36	DD	205/206 (99%)	0.89	33 (16%) 1 1	26, 47, 60, 65	0
36	FD	205/206 (99%)	0.70	30 (14%) 2 1	27, 44, 60, 73	0
36	HD	205/206 (99%)	0.59	23 (11%) 5 4	25, 47, 61, 79	0
37	BE	150/167 (89%)	0.23	11 (7%) 15 11	17, 48, 63, 76	0
37	DE	150/167 (89%)	0.16	7 (4%) 31 28	25, 45, 62, 71	0
37	FE	150/167 (89%)	-0.09	3 (2%) 65 63	18, 34, 50, 65	0
37	HE	150/167 (89%)	0.06	4 (2%) 54 50	21, 37, 54, 67	0
38	BF	100/135 (74%)	1.50	32 (32%) 0 0	50, 62, 70, 74	0
38	DF	100/135 (74%)	0.61	15 (15%) 2 1	32, 49, 62, 69	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
38	FF	100/135 (74%)	0.77	15 (15%) 2 1	32, 51, 63, 66	0
38	HF	100/135 (74%)	0.54	9 (9%) 9 7	31, 51, 64, 71	0
39	BG	151/179 (84%)	0.38	11 (7%) 15 11	28, 49, 60, 66	0
39	DG	151/179 (84%)	0.34	8 (5%) 26 22	32, 46, 58, 63	0
39	FG	151/179 (84%)	0.33	9 (5%) 21 18	23, 39, 55, 63	0
39	HG	151/179 (84%)	0.79	21 (13%) 2 2	32, 48, 62, 68	0
40	BH	129/130 (99%)	0.70	16 (12%) 4 3	40, 51, 62, 70	0
40	DH	129/130 (99%)	0.58	14 (10%) 5 4	28, 47, 59, 73	0
40	FH	129/130 (99%)	-0.04	2 (1%) 72 71	20, 32, 47, 66	0
40	HH	129/130 (99%)	0.27	5 (3%) 39 35	23, 35, 51, 69	0
41	BI	127/130 (97%)	1.01	25 (19%) 1 0	24, 52, 65, 70	0
41	DI	127/130 (97%)	0.97	19 (14%) 2 1	31, 52, 64, 74	0
41	FI	127/130 (97%)	0.39	9 (7%) 16 12	14, 43, 60, 69	0
41	HI	127/130 (97%)	1.29	35 (27%) 0 0	29, 55, 70, 75	0
42	BJ	98/103 (95%)	1.84	39 (39%) 0 0	30, 55, 68, 72	0
42	DJ	98/103 (95%)	1.73	36 (36%) 0 0	35, 57, 70, 74	0
42	FJ	98/103 (95%)	0.54	12 (12%) 4 3	14, 32, 59, 65	0
42	HJ	98/103 (95%)	1.27	27 (27%) 0 0	30, 51, 69, 78	0
43	BK	117/129 (90%)	1.36	28 (23%) 0 0	33, 56, 66, 80	0
43	DK	117/129 (90%)	0.16	9 (7%) 13 10	26, 41, 56, 60	0
43	FK	117/129 (90%)	0.44	10 (8%) 10 8	18, 42, 59, 64	0
43	HK	117/129 (90%)	1.41	32 (27%) 0 0	23, 50, 70, 74	0
44	BL	123/124 (99%)	-0.10	2 (1%) 72 71	15, 24, 43, 74	0
44	DL	123/124 (99%)	0.02	5 (4%) 37 32	20, 34, 48, 61	0
44	FL	123/124 (99%)	-0.08	4 (3%) 46 41	9, 28, 44, 67	0
44	HL	123/124 (99%)	0.19	7 (5%) 23 19	21, 37, 55, 63	0
45	BM	114/118 (96%)	0.64	13 (11%) 5 3	28, 49, 64, 74	0
45	DM	114/118 (96%)	0.45	6 (5%) 26 22	36, 50, 63, 67	0
45	FM	114/118 (96%)	0.52	12 (10%) 6 5	19, 45, 63, 68	0
45	HM	114/118 (96%)	2.55	60 (52%) 0 0	42, 63, 72, 75	0
46	BN	96/101 (95%)	0.60	14 (14%) 2 1	32, 46, 60, 65	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
46	DN	96/101 (95%)	0.58	13 (13%) 3 2	30, 49, 62, 65	0
46	FN	96/101 (95%)	0.01	2 (2%) 63 61	11, 24, 53, 60	0
46	HN	96/101 (95%)	0.59	15 (15%) 2 1	27, 47, 64, 70	0
47	BO	88/89 (98%)	0.59	8 (9%) 9 6	35, 50, 61, 64	0
47	DO	88/89 (98%)	0.46	6 (6%) 17 13	31, 45, 56, 61	0
47	FO	88/89 (98%)	0.37	2 (2%) 60 58	23, 37, 49, 56	0
47	HO	88/89 (98%)	0.19	3 (3%) 45 40	22, 39, 53, 70	0
48	BP	82/82 (100%)	0.65	9 (10%) 5 4	24, 35, 61, 68	0
48	DP	82/82 (100%)	1.16	17 (20%) 1 0	28, 43, 62, 79	0
48	FP	82/82 (100%)	0.24	6 (7%) 15 11	21, 34, 62, 77	0
48	HP	82/82 (100%)	0.47	8 (9%) 7 5	22, 39, 62, 71	0
49	BQ	80/84 (95%)	0.75	10 (12%) 3 3	30, 45, 55, 63	0
49	DQ	80/84 (95%)	0.79	10 (12%) 3 3	29, 44, 57, 68	0
49	FQ	80/84 (95%)	0.23	4 (5%) 28 25	22, 38, 54, 63	0
49	HQ	80/84 (95%)	0.34	4 (5%) 28 25	27, 41, 51, 57	0
50	BR	55/75 (73%)	1.74	20 (36%) 0 0	46, 55, 66, 69	0
50	DR	55/75 (73%)	0.76	9 (16%) 1 1	35, 44, 60, 66	0
50	FR	55/75 (73%)	0.43	6 (10%) 5 4	35, 44, 53, 61	0
50	HR	55/75 (73%)	0.47	5 (9%) 9 6	26, 40, 55, 64	0
51	BS	79/92 (85%)	0.32	5 (6%) 20 16	30, 44, 59, 64	0
51	DS	79/92 (85%)	0.67	9 (11%) 5 3	36, 49, 63, 67	0
51	FS	79/92 (85%)	-0.20	2 (2%) 57 55	22, 32, 52, 63	0
51	HS	79/92 (85%)	2.44	42 (53%) 0 0	43, 58, 70, 74	0
52	BT	85/87 (97%)	0.53	5 (5%) 22 18	25, 40, 50, 59	0
52	DT	85/87 (97%)	0.53	7 (8%) 11 9	30, 40, 55, 73	0
52	FT	85/87 (97%)	0.22	5 (5%) 22 18	24, 36, 50, 63	0
52	HT	85/87 (97%)	0.71	6 (7%) 16 12	23, 38, 53, 56	0
53	BU	51/71 (71%)	3.67	34 (66%) 0 0	53, 62, 71, 82	0
53	DU	51/71 (71%)	1.58	16 (31%) 0 0	40, 54, 69, 74	0
53	FU	51/71 (71%)	1.37	19 (37%) 0 0	40, 53, 65, 69	0
53	HU	51/71 (71%)	2.31	20 (39%) 0 0	40, 57, 67, 71	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
54	BV	689/704 (97%)	0.39	65 (9%) 8 6	18, 46, 66, 76	0
54	DV	689/704 (97%)	0.58	94 (13%) 3 2	27, 50, 68, 77	0
54	FV	689/704 (97%)	2.68	365 (52%) 0 0	33, 66, 76, 82	0
54	HV	689/704 (97%)	1.00	139 (20%) 1 0	32, 56, 70, 80	0
55	BW	2/6 (33%)	4.04	1 (50%) 0 0	41, 41, 41, 43	2 (100%)
55	DW	2/6 (33%)	3.38	1 (50%) 0 0	40, 40, 40, 44	2 (100%)
55	FW	2/6 (33%)	2.96	2 (100%) 0 0	41, 41, 41, 42	2 (100%)
All	All	43562/44972 (96%)	0.24	3539 (8%) 12 9	1, 37, 66, 92	6 (0%)

The worst 5 of 3539 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
48	DP	81	ALA	19.9
9	GI	8	VAL	16.8
32	A5	112	ALA	16.8
26	AZ	1	ALA	16.7
54	FV	588	SER	15.3

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
55	DPP	FW	2	6/7	0.48	0.88	37,42,43,43	6
55	5OH	FW	6	12/13	0.55	0.73	37,42,45,46	12
55	KBE	FW	1	9/10	0.62	0.49	28,36,40,42	9
55	UAL	FW	5	9/10	0.67	0.57	35,37,39,41	9
55	KBE	DW	1	9/10	0.68	0.37	32,33,40,41	9
55	KBE	BW	1	9/10	0.68	0.60	37,39,42,44	9
55	UAL	BW	5	9/10	0.69	0.62	32,40,42,42	9
55	5OH	BW	6	12/13	0.72	0.49	36,37,41,43	12
55	5OH	DW	6	12/13	0.74	0.44	33,41,43,48	12
55	UAL	DW	5	9/10	0.78	0.44	35,39,42,46	9
55	DPP	DW	2	6/7	0.84	0.43	32,34,37,44	6
55	DPP	BW	2	6/7	0.85	0.57	34,36,39,40	6

6.3 Carbohydrates [i](#)

There are no carbohydrates in this entry.

6.4 Ligands [i](#)

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
56	MG	AA	3068	1/1	0.79	0.17	59,59,59,59	0
56	MG	AA	3115	1/1	0.80	0.14	32,32,32,32	0
56	MG	EA	3133	1/1	0.82	0.13	32,32,32,32	0
56	MG	EQ	201	1/1	0.82	0.66	31,31,31,31	0
56	MG	FA	1636	1/1	0.82	0.63	38,38,38,38	0
56	MG	BA	1614	1/1	0.82	0.38	26,26,26,26	0
56	MG	GA	3069	1/1	0.82	0.07	63,63,63,63	0
56	MG	HA	1617	1/1	0.83	0.16	62,62,62,62	0
56	MG	HA	1613	1/1	0.83	0.47	41,41,41,41	0
56	MG	AA	3078	1/1	0.83	0.24	29,29,29,29	0
56	MG	BA	1609	1/1	0.84	0.11	38,38,38,38	0
56	MG	HE	201	1/1	0.84	0.21	39,39,39,39	0
56	MG	FA	1627	1/1	0.84	0.26	23,23,23,23	0
56	MG	HT	101	1/1	0.86	0.46	41,41,41,41	0
56	MG	EA	3087	1/1	0.86	0.59	30,30,30,30	0
58	GCP	FV	801	32/32	0.87	0.20	43,58,69,87	0
56	MG	CA	3011	1/1	0.87	0.40	23,23,23,23	0
56	MG	EA	3109	1/1	0.88	0.17	8,8,8,8	0
56	MG	FE	201	1/1	0.88	0.51	52,52,52,52	0
56	MG	CA	3092	1/1	0.88	0.17	30,30,30,30	0
56	MG	ED	301	1/1	0.88	0.22	7,7,7,7	0
56	MG	FA	1610	1/1	0.88	0.28	35,35,35,35	0
56	MG	BE	201	1/1	0.88	0.14	43,43,43,43	0
56	MG	EA	3130	1/1	0.89	0.21	29,29,29,29	0
56	MG	FU	101	1/1	0.89	0.14	24,24,24,24	0
56	MG	HC	401	1/1	0.89	0.32	49,49,49,49	0
56	MG	CA	3118	1/1	0.89	0.33	29,29,29,29	0
56	MG	CA	3122	1/1	0.89	0.17	7,7,7,7	0
56	MG	DA	1602	1/1	0.90	0.34	31,31,31,31	0
56	MG	GA	3059	1/1	0.90	0.48	44,44,44,44	0
56	MG	CA	3077	1/1	0.90	0.27	35,35,35,35	0
56	MG	BU	101	1/1	0.91	0.26	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	CA	3091	1/1	0.91	0.21	40,40,40,40	0
56	MG	BL	201	1/1	0.91	0.23	51,51,51,51	0
56	MG	GA	3073	1/1	0.91	0.47	20,20,20,20	0
56	MG	CA	3110	1/1	0.91	0.11	20,20,20,20	0
56	MG	GA	3057	1/1	0.92	0.11	22,22,22,22	0
56	MG	GA	3082	1/1	0.92	0.11	35,35,35,35	0
56	MG	HA	1637	1/1	0.92	0.10	47,47,47,47	0
56	MG	CA	3114	1/1	0.92	0.56	25,25,25,25	0
56	MG	BA	1637	1/1	0.92	0.29	29,29,29,29	0
56	MG	CA	3044	1/1	0.92	0.13	22,22,22,22	0
56	MG	EA	3069	1/1	0.93	0.41	4,4,4,4	0
56	MG	AA	3087	1/1	0.93	0.15	31,31,31,31	0
56	MG	GB	1201	1/1	0.93	0.09	38,38,38,38	0
56	MG	HA	1626	1/1	0.93	0.28	32,32,32,32	0
56	MG	EA	3010	1/1	0.93	0.16	11,11,11,11	0
56	MG	AA	3015	1/1	0.93	0.15	22,22,22,22	0
56	MG	CB	1204	1/1	0.93	0.06	16,16,16,16	0
56	MG	AA	3011	1/1	0.93	0.17	18,18,18,18	0
56	MG	EA	3057	1/1	0.93	0.11	15,15,15,15	0
56	MG	GA	3083	1/1	0.93	0.27	33,33,33,33	0
56	MG	AT	201	1/1	0.93	0.18	36,36,36,36	0
56	MG	BA	1640	1/1	0.93	0.14	33,33,33,33	0
56	MG	DA	1629	1/1	0.93	0.48	54,54,54,54	0
56	MG	AA	3090	1/1	0.94	0.10	23,23,23,23	0
56	MG	GA	3060	1/1	0.94	0.28	23,23,23,23	0
56	MG	CA	3120	1/1	0.94	0.15	3,3,3,3	0
56	MG	CA	3111	1/1	0.94	0.16	13,13,13,13	0
56	MG	HA	1601	1/1	0.94	0.16	38,38,38,38	0
56	MG	HA	1633	1/1	0.94	0.19	52,52,52,52	0
56	MG	FA	1602	1/1	0.94	0.10	23,23,23,23	0
56	MG	DA	1641	1/1	0.94	0.12	30,30,30,30	0
56	MG	GA	3087	1/1	0.94	0.19	19,19,19,19	0
56	MG	EB	1201	1/1	0.94	0.14	26,26,26,26	0
56	MG	GS	201	1/1	0.94	0.48	33,33,33,33	0
56	MG	C4	101	1/1	0.94	0.06	22,22,22,22	0
56	MG	GA	3131	1/1	0.94	0.13	41,41,41,41	0
56	MG	HA	1619	1/1	0.94	0.15	34,34,34,34	0
56	MG	AA	3007	1/1	0.94	0.18	44,44,44,44	0
56	MG	AC	303	1/1	0.94	1.02	34,34,34,34	0
56	MG	GA	3133	1/1	0.94	0.23	4,4,4,4	0
56	MG	FA	1601	1/1	0.94	0.14	28,28,28,28	0
56	MG	CA	3097	1/1	0.94	0.67	22,22,22,22	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	HA	1609	1/1	0.94	0.13	29,29,29,29	0
56	MG	GA	3055	1/1	0.94	0.12	12,12,12,12	0
56	MG	EA	3096	1/1	0.94	0.15	15,15,15,15	0
56	MG	EA	3127	1/1	0.94	0.15	0,0,0,0	0
56	MG	CE	301	1/1	0.94	0.25	16,16,16,16	0
56	MG	GA	3103	1/1	0.94	0.24	12,12,12,12	0
56	MG	AA	3005	1/1	0.94	0.16	23,23,23,23	0
56	MG	DA	1627	1/1	0.94	0.11	21,21,21,21	0
56	MG	GA	3077	1/1	0.95	0.10	33,33,33,33	0
56	MG	AA	3093	1/1	0.95	0.26	34,34,34,34	0
56	MG	GA	3023	1/1	0.95	0.17	7,7,7,7	0
56	MG	AA	3077	1/1	0.95	0.06	36,36,36,36	0
56	MG	BA	1624	1/1	0.95	0.12	28,28,28,28	0
56	MG	HA	1625	1/1	0.95	0.32	22,22,22,22	0
56	MG	GA	3108	1/1	0.95	0.15	16,16,16,16	0
56	MG	HA	1630	1/1	0.95	0.14	40,40,40,40	0
56	MG	HA	1634	1/1	0.95	0.13	24,24,24,24	0
56	MG	AB	1201	1/1	0.95	0.11	38,38,38,38	0
56	MG	EA	3016	1/1	0.95	0.12	6,6,6,6	0
56	MG	GA	3061	1/1	0.95	0.21	10,10,10,10	0
56	MG	EA	3068	1/1	0.95	0.12	35,35,35,35	0
56	MG	EA	3079	1/1	0.95	0.23	0,0,0,0	0
56	MG	DA	1610	1/1	0.95	0.04	48,48,48,48	0
56	MG	AB	1202	1/1	0.95	0.24	44,44,44,44	0
56	MG	DA	1614	1/1	0.95	0.12	44,44,44,44	0
56	MG	AC	301	1/1	0.95	0.35	10,10,10,10	0
56	MG	HA	1608	1/1	0.95	0.14	14,14,14,14	0
56	MG	HA	1610	1/1	0.95	0.27	13,13,13,13	0
56	MG	CA	3005	1/1	0.96	0.17	31,31,31,31	0
56	MG	GA	3037	1/1	0.96	0.19	19,19,19,19	0
56	MG	DA	1606	1/1	0.96	0.11	26,26,26,26	0
56	MG	EA	3088	1/1	0.96	0.16	6,6,6,6	0
56	MG	CA	3069	1/1	0.96	0.15	45,45,45,45	0
56	MG	AA	3069	1/1	0.96	0.17	6,6,6,6	0
56	MG	EA	3050	1/1	0.96	0.24	13,13,13,13	0
56	MG	GA	3001	1/1	0.96	0.17	32,32,32,32	0
56	MG	GA	3093	1/1	0.96	0.49	28,28,28,28	0
56	MG	EA	3025	1/1	0.96	0.21	0,0,0,0	0
56	MG	AA	3059	1/1	0.96	0.50	12,12,12,12	0
56	MG	FA	1604	1/1	0.96	0.07	33,33,33,33	0
56	MG	DA	1628	1/1	0.96	0.33	37,37,37,37	0
56	MG	HA	1604	1/1	0.96	0.17	27,27,27,27	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	CA	3083	1/1	0.96	0.12	22,22,22,22	0
56	MG	BA	1612	1/1	0.96	0.22	5,5,5,5	0
56	MG	CB	1201	1/1	0.96	0.12	41,41,41,41	0
56	MG	EA	3082	1/1	0.96	0.07	13,13,13,13	0
56	MG	EA	3011	1/1	0.96	0.86	17,17,17,17	0
56	MG	CA	3015	1/1	0.96	0.16	14,14,14,14	0
56	MG	GA	3018	1/1	0.96	0.26	36,36,36,36	0
56	MG	CA	3106	1/1	0.96	0.16	13,13,13,13	0
56	MG	GA	3075	1/1	0.96	0.15	7,7,7,7	0
56	MG	BA	1631	1/1	0.96	0.07	28,28,28,28	0
56	MG	DA	1639	1/1	0.96	0.10	40,40,40,40	0
56	MG	DA	1642	1/1	0.96	0.16	29,29,29,29	0
56	MG	CA	3016	1/1	0.96	0.21	8,8,8,8	0
56	MG	HA	1624	1/1	0.96	0.12	14,14,14,14	0
56	MG	GB	1202	1/1	0.96	0.16	36,36,36,36	0
56	MG	DU	101	1/1	0.96	0.27	36,36,36,36	0
58	GCP	DV	801	32/32	0.96	0.14	20,38,49,52	0
56	MG	GA	3113	1/1	0.96	0.10	26,26,26,26	0
56	MG	EA	3044	1/1	0.96	0.13	11,11,11,11	0
56	MG	EA	3059	1/1	0.96	0.14	1,1,1,1	0
56	MG	CA	3094	1/1	0.96	0.08	34,34,34,34	0
56	MG	CA	3087	1/1	0.96	0.06	29,29,29,29	0
56	MG	CA	3061	1/1	0.96	0.12	3,3,3,3	0
56	MG	AA	3006	1/1	0.96	0.09	38,38,38,38	0
56	MG	EA	3090	1/1	0.96	0.07	29,29,29,29	0
56	MG	GA	3094	1/1	0.96	0.56	22,22,22,22	0
56	MG	BA	1623	1/1	0.97	0.10	24,24,24,24	0
56	MG	AD	301	1/1	0.97	0.14	6,6,6,6	0
56	MG	GA	3006	1/1	0.97	0.12	25,25,25,25	0
56	MG	EA	3125	1/1	0.97	0.10	3,3,3,3	0
56	MG	FA	1617	1/1	0.97	0.12	9,9,9,9	0
56	MG	EA	3117	1/1	0.97	0.10	11,11,11,11	0
56	MG	AA	3088	1/1	0.97	0.13	14,14,14,14	0
56	MG	EA	3005	1/1	0.97	0.12	27,27,27,27	0
56	MG	BA	1604	1/1	0.97	0.12	20,20,20,20	0
56	MG	CA	3057	1/1	0.97	0.11	1,1,1,1	0
56	MG	GA	3111	1/1	0.97	0.17	11,11,11,11	0
56	MG	EA	3108	1/1	0.97	0.12	31,31,31,31	0
56	MG	DA	1625	1/1	0.97	0.09	23,23,23,23	0
56	MG	DA	1624	1/1	0.97	0.17	48,48,48,48	0
56	MG	AA	3002	1/1	0.97	0.10	20,20,20,20	0
56	MG	AA	3092	1/1	0.97	0.05	31,31,31,31	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
56	MG	CA	3020	1/1	0.97	0.16	19,19,19,19	0
56	MG	FV	802	1/1	0.97	0.12	48,48,48,48	0
56	MG	HA	1629	1/1	0.97	0.10	17,17,17,17	0
56	MG	BA	1621	1/1	0.97	0.23	52,52,52,52	0
56	MG	FA	1628	1/1	0.97	0.18	19,19,19,19	0
56	MG	FA	1639	1/1	0.97	0.26	25,25,25,25	0
56	MG	EA	3029	1/1	0.97	0.18	0,0,0,0	0
56	MG	GB	1203	1/1	0.97	0.13	16,16,16,16	0
56	MG	HA	1621	1/1	0.97	0.28	29,29,29,29	0
56	MG	FA	1641	1/1	0.97	0.17	18,18,18,18	0
56	MG	BA	1634	1/1	0.97	0.14	14,14,14,14	0
56	MG	AA	3044	1/1	0.97	0.14	17,17,17,17	0
56	MG	DA	1622	1/1	0.97	0.08	37,37,37,37	0
56	MG	BA	1636	1/1	0.97	0.12	40,40,40,40	0
56	MG	DA	1636	1/1	0.97	0.29	41,41,41,41	0
56	MG	AC	302	1/1	0.97	0.23	19,19,19,19	0
56	MG	CA	3085	1/1	0.97	0.27	28,28,28,28	0
56	MG	AA	3098	1/1	0.97	0.23	5,5,5,5	0
58	GCP	BV	801	32/32	0.97	0.13	17,36,43,49	0
56	MG	EA	3113	1/1	0.97	0.18	0,0,0,0	0
56	MG	GA	3118	1/1	0.97	0.29	9,9,9,9	0
56	MG	EA	3056	1/1	0.97	0.08	2,2,2,2	0
56	MG	AA	3063	1/1	0.97	0.08	9,9,9,9	0
56	MG	HV	802	1/1	0.97	0.13	38,38,38,38	0
56	MG	FA	1618	1/1	0.97	0.10	28,28,28,28	0
56	MG	GA	3102	1/1	0.97	0.35	40,40,40,40	0
56	MG	DA	1604	1/1	0.97	0.08	23,23,23,23	0
56	MG	AA	3111	1/1	0.97	0.16	21,21,21,21	0
56	MG	AA	3089	1/1	0.97	0.06	26,26,26,26	0
56	MG	DA	1601	1/1	0.97	0.11	37,37,37,37	0
56	MG	FA	1630	1/1	0.97	0.09	16,16,16,16	0
56	MG	CA	3103	1/1	0.97	0.17	0,0,0,0	0
56	MG	GA	3040	1/1	0.97	0.21	16,16,16,16	0
56	MG	GA	3100	1/1	0.97	0.22	19,19,19,19	0
56	MG	AA	3100	1/1	0.97	0.12	6,6,6,6	0
56	MG	DA	1611	1/1	0.97	0.10	15,15,15,15	0
56	MG	EB	1202	1/1	0.97	0.08	19,19,19,19	0
56	MG	AA	3086	1/1	0.97	0.07	35,35,35,35	0
56	MG	DA	1626	1/1	0.97	0.08	24,24,24,24	0
56	MG	GA	3046	1/1	0.97	0.07	35,35,35,35	0
56	MG	EA	3024	1/1	0.97	0.19	0,0,0,0	0
56	MG	EA	3098	1/1	0.97	0.16	6,6,6,6	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	GA	3110	1/1	0.97	0.19	12,12,12,12	0
56	MG	BA	1613	1/1	0.97	0.13	38,38,38,38	0
56	MG	AA	3024	1/1	0.97	0.18	20,20,20,20	0
56	MG	BA	1635	1/1	0.97	0.23	29,29,29,29	0
56	MG	EA	3055	1/1	0.97	0.43	14,14,14,14	0
56	MG	EA	3060	1/1	0.97	0.28	3,3,3,3	0
56	MG	BA	1629	1/1	0.97	0.15	41,41,41,41	0
56	MG	EA	3102	1/1	0.97	0.21	0,0,0,0	0
56	MG	EA	3080	1/1	0.97	0.20	3,3,3,3	0
56	MG	GA	3091	1/1	0.97	0.14	11,11,11,11	0
56	MG	GA	3029	1/1	0.97	0.20	5,5,5,5	0
56	MG	DA	1618	1/1	0.97	0.09	33,33,33,33	0
56	MG	GA	3072	1/1	0.97	0.15	13,13,13,13	0
58	GCP	HV	801	32/32	0.97	0.11	24,48,54,56	0
56	MG	CA	3007	1/1	0.97	0.09	15,15,15,15	0
56	MG	CA	3045	1/1	0.97	0.14	21,21,21,21	0
56	MG	DA	1631	1/1	0.97	0.17	25,25,25,25	0
56	MG	EA	3071	1/1	0.97	0.13	2,2,2,2	0
56	MG	BA	1606	1/1	0.97	0.54	39,39,39,39	0
56	MG	GA	3088	1/1	0.98	0.17	8,8,8,8	0
56	MG	EA	3103	1/1	0.98	0.21	10,10,10,10	0
56	MG	GA	3068	1/1	0.98	0.27	15,15,15,15	0
56	MG	DA	1608	1/1	0.98	0.14	14,14,14,14	0
56	MG	AE	301	1/1	0.98	0.12	11,11,11,11	0
56	MG	BA	1601	1/1	0.98	0.17	33,33,33,33	0
56	MG	GA	3095	1/1	0.98	0.18	2,2,2,2	0
56	MG	EA	3058	1/1	0.98	0.13	6,6,6,6	0
56	MG	CA	3105	1/1	0.98	0.17	6,6,6,6	0
56	MG	AA	3127	1/1	0.98	0.13	16,16,16,16	0
56	MG	FA	1640	1/1	0.98	0.18	23,23,23,23	0
56	MG	GA	3030	1/1	0.98	0.24	11,11,11,11	0
56	MG	EA	3076	1/1	0.98	0.10	18,18,18,18	0
56	MG	GA	3010	1/1	0.98	0.26	15,15,15,15	0
56	MG	GA	3106	1/1	0.98	0.21	3,3,3,3	0
56	MG	BA	1622	1/1	0.98	0.21	32,32,32,32	0
56	MG	EA	3083	1/1	0.98	0.14	1,1,1,1	0
56	MG	GA	3035	1/1	0.98	0.13	15,15,15,15	0
56	MG	AA	3085	1/1	0.98	0.08	30,30,30,30	0
56	MG	GA	3066	1/1	0.98	0.17	4,4,4,4	0
56	MG	CA	3076	1/1	0.98	0.08	25,25,25,25	0
56	MG	GA	3025	1/1	0.98	0.17	18,18,18,18	0
56	MG	BA	1617	1/1	0.98	0.13	25,25,25,25	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	HA	1602	1/1	0.98	0.37	48,48,48,48	0
56	MG	CA	3024	1/1	0.98	0.19	2,2,2,2	0
56	MG	EA	3004	1/1	0.98	0.09	13,13,13,13	0
56	MG	EA	3075	1/1	0.98	0.13	10,10,10,10	0
56	MG	EA	3022	1/1	0.98	0.15	0,0,0,0	0
56	MG	AA	3026	1/1	0.98	0.07	10,10,10,10	0
56	MG	EA	3052	1/1	0.98	0.20	2,2,2,2	0
56	MG	AA	3096	1/1	0.98	0.15	33,33,33,33	0
56	MG	DA	1638	1/1	0.98	0.04	40,40,40,40	0
56	MG	CA	3093	1/1	0.98	0.12	25,25,25,25	0
56	MG	GA	3033	1/1	0.98	0.24	12,12,12,12	0
56	MG	BA	1619	1/1	0.98	0.18	28,28,28,28	0
56	MG	DA	1632	1/1	0.98	0.15	28,28,28,28	0
56	MG	FA	1611	1/1	0.98	0.23	0,0,0,0	0
56	MG	GA	3047	1/1	0.98	0.18	27,27,27,27	0
56	MG	EA	3122	1/1	0.98	0.19	0,0,0,0	0
56	MG	AA	3091	1/1	0.98	0.14	16,16,16,16	0
56	MG	EA	3078	1/1	0.98	0.18	3,3,3,3	0
56	MG	GA	3076	1/1	0.98	0.14	23,23,23,23	0
56	MG	AA	3099	1/1	0.98	0.14	15,15,15,15	0
56	MG	GL	201	1/1	0.98	0.19	7,7,7,7	0
56	MG	CA	3006	1/1	0.98	0.09	15,15,15,15	0
56	MG	EA	3054	1/1	0.98	0.13	5,5,5,5	0
56	MG	GA	3104	1/1	0.98	0.20	6,6,6,6	0
56	MG	GB	1204	1/1	0.98	0.07	21,21,21,21	0
56	MG	AA	3074	1/1	0.98	0.17	9,9,9,9	0
56	MG	GA	3031	1/1	0.98	0.14	4,4,4,4	0
56	MG	EB	1204	1/1	0.98	0.06	12,12,12,12	0
56	MG	AA	3112	1/1	0.98	0.11	7,7,7,7	0
56	MG	DA	1630	1/1	0.98	0.10	34,34,34,34	0
56	MG	GA	3009	1/1	0.98	0.16	20,20,20,20	0
56	MG	EA	3121	1/1	0.98	0.24	1,1,1,1	0
56	MG	AA	3125	1/1	0.98	0.17	23,23,23,23	0
56	MG	FA	1629	1/1	0.98	0.10	16,16,16,16	0
56	MG	HA	1618	1/1	0.98	0.08	19,19,19,19	0
56	MG	EA	3031	1/1	0.98	0.23	2,2,2,2	0
56	MG	GA	3058	1/1	0.98	0.14	17,17,17,17	0
56	MG	EA	3086	1/1	0.98	0.07	34,34,34,34	0
56	MG	GA	3122	1/1	0.98	0.19	14,14,14,14	0
56	MG	EA	3094	1/1	0.98	0.11	15,15,15,15	0
56	MG	CA	3055	1/1	0.98	0.13	20,20,20,20	0
56	MG	BA	1625	1/1	0.98	0.20	21,21,21,21	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	DA	1621	1/1	0.98	0.19	22,22,22,22	0
56	MG	EA	3120	1/1	0.98	0.22	0,0,0,0	0
56	MG	GA	3044	1/1	0.98	0.20	23,23,23,23	0
56	MG	GA	3071	1/1	0.98	0.18	20,20,20,20	0
56	MG	AA	3054	1/1	0.98	0.12	11,11,11,11	0
56	MG	CA	3127	1/1	0.98	0.08	11,11,11,11	0
56	MG	AA	3057	1/1	0.98	0.09	18,18,18,18	0
56	MG	FA	1638	1/1	0.98	0.10	33,33,33,33	0
56	MG	FA	1606	1/1	0.98	0.13	13,13,13,13	0
56	MG	FA	1605	1/1	0.98	0.15	36,36,36,36	0
56	MG	EA	3077	1/1	0.98	0.11	14,14,14,14	0
56	MG	CA	3013	1/1	0.98	0.08	7,7,7,7	0
56	MG	AA	3064	1/1	0.98	0.13	20,20,20,20	0
56	MG	BA	1626	1/1	0.98	0.16	36,36,36,36	0
56	MG	BA	1603	1/1	0.98	0.06	21,21,21,21	0
56	MG	AA	3050	1/1	0.98	0.09	7,7,7,7	0
56	MG	GA	3011	1/1	0.98	0.10	46,46,46,46	0
56	MG	CA	3068	1/1	0.98	0.13	13,13,13,13	0
56	MG	AA	3025	1/1	0.98	0.17	8,8,8,8	0
56	MG	CA	3009	1/1	0.98	0.15	18,18,18,18	0
56	MG	AA	3076	1/1	0.98	0.09	21,21,21,21	0
56	MG	HA	1639	1/1	0.98	0.17	20,20,20,20	0
56	MG	GA	3079	1/1	0.98	0.12	18,18,18,18	0
56	MG	EA	3019	1/1	0.98	0.08	13,13,13,13	0
56	MG	GA	3078	1/1	0.98	0.24	40,40,40,40	0
56	MG	BA	1630	1/1	0.98	0.11	25,25,25,25	0
56	MG	GA	3017	1/1	0.98	0.09	24,24,24,24	0
56	MG	A3	101	1/1	0.98	0.10	13,13,13,13	0
56	MG	AA	3105	1/1	0.98	0.19	12,12,12,12	0
56	MG	AA	3124	1/1	0.98	0.17	9,9,9,9	0
56	MG	CA	3008	1/1	0.98	0.17	15,15,15,15	0
56	MG	HA	1615	1/1	0.98	0.27	38,38,38,38	0
56	MG	FA	1632	1/1	0.98	0.13	28,28,28,28	0
56	MG	BA	1616	1/1	0.98	0.22	35,35,35,35	0
56	MG	GA	3084	1/1	0.98	0.30	25,25,25,25	0
56	MG	AA	3060	1/1	0.98	0.46	25,25,25,25	0
56	MG	CA	3037	1/1	0.98	0.20	1,1,1,1	0
56	MG	EA	3129	1/1	0.98	0.22	0,0,0,0	0
56	MG	GA	3126	1/1	0.98	0.09	18,18,18,18	0
56	MG	CB	1202	1/1	0.98	0.12	55,55,55,55	0
56	MG	CA	3028	1/1	0.98	0.21	7,7,7,7	0
56	MG	GA	3014	1/1	0.98	0.28	8,8,8,8	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	BA	1627	1/1	0.98	0.08	25,25,25,25	0
56	MG	HA	1611	1/1	0.98	0.23	20,20,20,20	0
56	MG	AA	3029	1/1	0.98	0.09	21,21,21,21	0
56	MG	DA	1620	1/1	0.98	0.08	22,22,22,22	0
56	MG	AA	3082	1/1	0.98	0.03	29,29,29,29	0
56	MG	EA	3034	1/1	0.98	0.21	0,0,0,0	0
56	MG	CA	3132	1/1	0.98	0.17	2,2,2,2	0
56	MG	AA	3080	1/1	0.98	0.18	7,7,7,7	0
56	MG	FA	1603	1/1	0.98	0.11	30,30,30,30	0
56	MG	GA	3114	1/1	0.98	0.17	10,10,10,10	0
56	MG	GA	3022	1/1	0.98	0.16	16,16,16,16	0
56	MG	CA	3003	1/1	0.98	0.13	12,12,12,12	0
56	MG	DA	1612	1/1	0.98	0.19	11,11,11,11	0
56	MG	AA	3061	1/1	0.98	0.14	6,6,6,6	0
56	MG	DA	1607	1/1	0.98	0.13	16,16,16,16	0
56	MG	GA	3045	1/1	0.98	0.17	7,7,7,7	0
56	MG	CA	3060	1/1	0.98	0.22	13,13,13,13	0
56	MG	AA	3075	1/1	0.98	0.09	15,15,15,15	0
56	MG	EA	3020	1/1	0.98	0.24	4,4,4,4	0
56	MG	GA	3036	1/1	0.98	0.14	35,35,35,35	0
56	MG	GA	3002	1/1	0.98	0.17	14,14,14,14	0
56	MG	EA	3006	1/1	0.98	0.12	19,19,19,19	0
56	MG	GA	3098	1/1	0.98	0.15	25,25,25,25	0
56	MG	DA	1615	1/1	0.98	0.15	24,24,24,24	0
56	MG	AA	3030	1/1	0.98	0.16	13,13,13,13	0
56	MG	BA	1618	1/1	0.98	0.13	3,3,3,3	0
56	MG	CA	3030	1/1	0.98	0.21	11,11,11,11	0
56	MG	CA	3073	1/1	0.98	0.24	5,5,5,5	0
56	MG	HA	1603	1/1	0.98	0.36	38,38,38,38	0
56	MG	HA	1638	1/1	0.98	0.09	26,26,26,26	0
56	MG	CA	3019	1/1	0.98	0.10	22,22,22,22	0
56	MG	FA	1633	1/1	0.98	0.11	28,28,28,28	0
56	MG	EA	3014	1/1	0.98	0.19	0,0,0,0	0
56	MG	HA	1636	1/1	0.98	0.05	21,21,21,21	0
56	MG	BA	1620	1/1	0.98	0.05	20,20,20,20	0
56	MG	EA	3053	1/1	0.98	0.18	1,1,1,1	0
56	MG	FA	1621	1/1	0.98	0.18	10,10,10,10	0
56	MG	AA	3116	1/1	0.98	0.18	3,3,3,3	0
56	MG	GA	3089	1/1	0.98	0.13	14,14,14,14	0
56	MG	GA	3120	1/1	0.98	0.21	5,5,5,5	0
56	MG	FA	1615	1/1	0.98	0.18	16,16,16,16	0
56	MG	EA	3003	1/1	0.98	0.14	6,6,6,6	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	GA	3026	1/1	0.98	0.16	6,6,6,6	0
56	MG	CA	3123	1/1	0.98	0.17	8,8,8,8	0
56	MG	GA	3064	1/1	0.98	0.12	9,9,9,9	0
56	MG	AB	1204	1/1	0.98	0.07	8,8,8,8	0
56	MG	GA	3004	1/1	0.98	0.42	19,19,19,19	0
56	MG	FA	1607	1/1	0.98	0.10	18,18,18,18	0
56	MG	EA	3101	1/1	0.99	0.13	26,26,26,26	0
56	MG	EA	3124	1/1	0.99	0.11	5,5,5,5	0
56	MG	EA	3039	1/1	0.99	0.19	0,0,0,0	0
56	MG	GA	3125	1/1	0.99	0.11	5,5,5,5	0
56	MG	AA	3102	1/1	0.99	0.24	0,0,0,0	0
56	MG	AA	3045	1/1	0.99	0.13	18,18,18,18	0
56	MG	BA	1638	1/1	0.99	0.14	31,31,31,31	0
56	MG	BA	1607	1/1	0.99	0.26	8,8,8,8	0
56	MG	DA	1633	1/1	0.99	0.04	45,45,45,45	0
56	MG	AA	3048	1/1	0.99	0.12	2,2,2,2	0
56	MG	CA	3064	1/1	0.99	0.10	1,1,1,1	0
56	MG	CA	3100	1/1	0.99	0.17	1,1,1,1	0
56	MG	CA	3051	1/1	0.99	0.29	7,7,7,7	0
56	MG	EA	3119	1/1	0.99	0.22	0,0,0,0	0
56	MG	CA	3039	1/1	0.99	0.22	6,6,6,6	0
56	MG	EA	3030	1/1	0.99	0.16	0,0,0,0	0
56	MG	GA	3038	1/1	0.99	0.16	11,11,11,11	0
56	MG	GA	3065	1/1	0.99	0.15	3,3,3,3	0
56	MG	GA	3024	1/1	0.99	0.15	8,8,8,8	0
56	MG	EA	3085	1/1	0.99	0.19	4,4,4,4	0
56	MG	EA	3111	1/1	0.99	0.19	2,2,2,2	0
56	MG	GA	3132	1/1	0.99	0.14	7,7,7,7	0
56	MG	FA	1620	1/1	0.99	0.15	6,6,6,6	0
56	MG	CA	3017	1/1	0.99	0.18	2,2,2,2	0
56	MG	CA	3066	1/1	0.99	0.17	2,2,2,2	0
56	MG	EA	3021	1/1	0.99	0.12	5,5,5,5	0
56	MG	EA	3046	1/1	0.99	0.15	9,9,9,9	0
56	MG	FA	1608	1/1	0.99	0.18	14,14,14,14	0
56	MG	GA	3063	1/1	0.99	0.27	3,3,3,3	0
56	MG	EA	3043	1/1	0.99	0.10	4,4,4,4	0
56	MG	EA	3045	1/1	0.99	0.13	1,1,1,1	0
56	MG	CA	3056	1/1	0.99	0.11	7,7,7,7	0
56	MG	BA	1632	1/1	0.99	0.10	40,40,40,40	0
56	MG	HA	1620	1/1	0.99	0.08	14,14,14,14	0
56	MG	DA	1609	1/1	0.99	0.16	16,16,16,16	0
56	MG	AB	1203	1/1	0.99	0.12	14,14,14,14	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	EA	3026	1/1	0.99	0.10	28,28,28,28	0
56	MG	CA	3121	1/1	0.99	0.21	3,3,3,3	0
56	MG	BA	1628	1/1	0.99	0.12	26,26,26,26	0
56	MG	CA	3010	1/1	0.99	0.25	10,10,10,10	0
56	MG	CA	3041	1/1	0.99	0.13	13,13,13,13	0
56	MG	ED	302	1/1	0.99	0.17	2,2,2,2	0
56	MG	CA	3036	1/1	0.99	0.08	19,19,19,19	0
56	MG	CA	3026	1/1	0.99	0.09	5,5,5,5	0
56	MG	CA	3070	1/1	0.99	0.15	4,4,4,4	0
56	MG	HA	1614	1/1	0.99	0.12	37,37,37,37	0
56	MG	AA	3114	1/1	0.99	0.09	1,1,1,1	0
57	ZN	C4	102	1/1	0.99	0.09	76,76,76,76	0
56	MG	GA	3129	1/1	0.99	0.22	19,19,19,19	0
56	MG	CA	3063	1/1	0.99	0.16	2,2,2,2	0
57	ZN	A4	101	1/1	0.99	0.09	63,63,63,63	0
56	MG	GA	3099	1/1	0.99	0.13	12,12,12,12	0
56	MG	CA	3023	1/1	0.99	0.17	5,5,5,5	0
56	MG	EA	3015	1/1	0.99	0.51	1,1,1,1	0
56	MG	AA	3123	1/1	0.99	0.17	14,14,14,14	0
56	MG	AA	3108	1/1	0.99	0.16	21,21,21,21	0
56	MG	CA	3025	1/1	0.99	0.10	7,7,7,7	0
56	MG	GA	3051	1/1	0.99	0.19	4,4,4,4	0
56	MG	AA	3008	1/1	0.99	0.12	15,15,15,15	0
56	MG	CA	3004	1/1	0.99	0.08	6,6,6,6	0
56	MG	EA	3064	1/1	0.99	0.19	0,0,0,0	0
56	MG	CA	3065	1/1	0.99	0.11	1,1,1,1	0
56	MG	AA	3109	1/1	0.99	0.21	6,6,6,6	0
56	MG	AA	3037	1/1	0.99	0.19	9,9,9,9	0
56	MG	GA	3116	1/1	0.99	0.14	3,3,3,3	0
56	MG	FA	1612	1/1	0.99	0.31	17,17,17,17	0
56	MG	AA	3003	1/1	0.99	0.10	26,26,26,26	0
56	MG	HA	1623	1/1	0.99	0.11	18,18,18,18	0
56	MG	AA	3010	1/1	0.99	0.23	13,13,13,13	0
56	MG	GA	3092	1/1	0.99	0.07	17,17,17,17	0
56	MG	EA	3041	1/1	0.99	0.10	2,2,2,2	0
56	MG	CA	3115	1/1	0.99	0.16	12,12,12,12	0
56	MG	CA	3002	1/1	0.99	0.14	17,17,17,17	0
56	MG	AA	3052	1/1	0.99	0.12	2,2,2,2	0
56	MG	AA	3129	1/1	0.99	0.11	20,20,20,20	0
56	MG	EA	3100	1/1	0.99	0.14	0,0,0,0	0
56	MG	CA	3078	1/1	0.99	0.10	25,25,25,25	0
56	MG	EA	3007	1/1	0.99	0.07	15,15,15,15	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	GA	3053	1/1	0.99	0.15	4,4,4,4	0
56	MG	DA	1623	1/1	0.99	0.07	12,12,12,12	0
56	MG	CA	3035	1/1	0.99	0.16	3,3,3,3	0
56	MG	BA	1633	1/1	0.99	0.10	35,35,35,35	0
56	MG	GA	3041	1/1	0.99	0.09	10,10,10,10	0
56	MG	CA	3071	1/1	0.99	0.14	2,2,2,2	0
56	MG	AA	3101	1/1	0.99	0.17	7,7,7,7	0
56	MG	GA	3134	1/1	0.99	0.05	16,16,16,16	0
57	ZN	E4	101	1/1	0.99	0.09	54,54,54,54	0
56	MG	AA	3118	1/1	0.99	0.11	11,11,11,11	0
56	MG	GA	3097	1/1	0.99	0.17	26,26,26,26	0
56	MG	CA	3034	1/1	0.99	0.19	18,18,18,18	0
56	MG	CA	3038	1/1	0.99	0.18	7,7,7,7	0
56	MG	GA	3112	1/1	0.99	0.10	15,15,15,15	0
56	MG	AA	3009	1/1	0.99	0.22	12,12,12,12	0
56	MG	AA	3106	1/1	0.99	0.18	9,9,9,9	0
56	MG	GC	301	1/1	0.99	0.18	4,4,4,4	0
56	MG	CA	3129	1/1	0.99	0.17	9,9,9,9	0
56	MG	GA	3070	1/1	0.99	0.23	13,13,13,13	0
56	MG	CA	3101	1/1	0.99	0.15	10,10,10,10	0
56	MG	GA	3123	1/1	0.99	0.20	11,11,11,11	0
56	MG	EA	3067	1/1	0.99	0.26	4,4,4,4	0
56	MG	DA	1635	1/1	0.99	0.08	38,38,38,38	0
56	MG	GA	3096	1/1	0.99	0.16	4,4,4,4	0
56	MG	CA	3133	1/1	0.99	0.12	13,13,13,13	0
56	MG	AA	3065	1/1	0.99	0.16	2,2,2,2	0
56	MG	CA	3081	1/1	0.99	0.15	10,10,10,10	0
56	MG	CA	3075	1/1	0.99	0.22	20,20,20,20	0
56	MG	CA	3048	1/1	0.99	0.09	13,13,13,13	0
56	MG	EA	3092	1/1	0.99	0.14	7,7,7,7	0
56	MG	EA	3017	1/1	0.99	0.16	3,3,3,3	0
56	MG	CA	3088	1/1	0.99	0.10	28,28,28,28	0
56	MG	CA	3112	1/1	0.99	0.14	4,4,4,4	0
56	MG	GA	3081	1/1	0.99	0.19	16,16,16,16	0
56	MG	CA	3059	1/1	0.99	0.17	3,3,3,3	0
56	MG	GA	3115	1/1	0.99	0.23	23,23,23,23	0
56	MG	AA	3084	1/1	0.99	0.20	12,12,12,12	0
56	MG	GA	3012	1/1	0.99	0.19	2,2,2,2	0
56	MG	AA	3081	1/1	0.99	0.14	16,16,16,16	0
56	MG	GA	3028	1/1	0.99	0.12	10,10,10,10	0
56	MG	EA	3063	1/1	0.99	0.13	1,1,1,1	0
56	MG	CA	3049	1/1	0.99	0.18	9,9,9,9	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
56	MG	CA	3052	1/1	0.99	0.10	10,10,10,10	0
56	MG	CA	3128	1/1	0.99	0.16	6,6,6,6	0
56	MG	GA	3090	1/1	0.99	0.07	26,26,26,26	0
56	MG	CA	3014	1/1	0.99	0.12	9,9,9,9	0
56	MG	GA	3003	1/1	0.99	0.11	15,15,15,15	0
56	MG	AA	3117	1/1	0.99	0.25	7,7,7,7	0
56	MG	AA	3053	1/1	0.99	0.10	6,6,6,6	0
56	MG	EA	3118	1/1	0.99	0.19	1,1,1,1	0
56	MG	AA	3028	1/1	0.99	0.28	2,2,2,2	0
56	MG	GA	3107	1/1	0.99	0.12	27,27,27,27	0
56	MG	FA	1631	1/1	0.99	0.06	21,21,21,21	0
56	MG	BA	1611	1/1	0.99	0.13	15,15,15,15	0
56	MG	HA	1605	1/1	0.99	0.11	39,39,39,39	0
56	MG	EA	3081	1/1	0.99	0.15	3,3,3,3	0
57	ZN	G4	101	1/1	0.99	0.09	69,69,69,69	0
56	MG	AA	3042	1/1	0.99	0.17	11,11,11,11	0
56	MG	CA	3022	1/1	0.99	0.12	0,0,0,0	0
56	MG	FA	1622	1/1	0.99	0.10	15,15,15,15	0
56	MG	CA	3047	1/1	0.99	0.10	31,31,31,31	0
56	MG	FA	1637	1/1	0.99	0.10	34,34,34,34	0
56	MG	GA	3074	1/1	0.99	0.14	2,2,2,2	0
56	MG	CA	3084	1/1	0.99	0.21	4,4,4,4	0
56	MG	BA	1639	1/1	0.99	0.13	19,19,19,19	0
56	MG	EA	3036	1/1	0.99	0.14	1,1,1,1	0
56	MG	EA	3110	1/1	0.99	0.11	24,24,24,24	0
56	MG	GA	3128	1/1	0.99	0.09	20,20,20,20	0
56	MG	GA	3109	1/1	0.99	0.09	9,9,9,9	0
56	MG	GA	3086	1/1	0.99	0.04	26,26,26,26	0
56	MG	EA	3106	1/1	0.99	0.15	0,0,0,0	0
56	MG	CA	3131	1/1	0.99	0.10	0,0,0,0	0
56	MG	AA	3121	1/1	0.99	0.10	20,20,20,20	0
56	MG	AA	3004	1/1	0.99	0.07	34,34,34,34	0
56	MG	GA	3117	1/1	0.99	0.07	22,22,22,22	0
56	MG	AA	3034	1/1	0.99	0.11	14,14,14,14	0
56	MG	EA	3126	1/1	0.99	0.17	2,2,2,2	0
56	MG	GA	3052	1/1	0.99	0.18	8,8,8,8	0
56	MG	HA	1640	1/1	0.99	0.10	15,15,15,15	0
56	MG	GA	3121	1/1	0.99	0.14	4,4,4,4	0
56	MG	AA	3001	1/1	0.99	0.09	11,11,11,11	0
56	MG	DA	1634	1/1	0.99	0.13	33,33,33,33	0
56	MG	CA	3108	1/1	0.99	0.12	3,3,3,3	0
56	MG	HA	1606	1/1	0.99	0.16	17,17,17,17	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
56	MG	CA	3012	1/1	0.99	0.12	3,3,3,3	0
56	MG	GA	3130	1/1	0.99	0.09	9,9,9,9	0
56	MG	GA	3005	1/1	0.99	0.13	15,15,15,15	0
56	MG	EA	3009	1/1	0.99	0.20	0,0,0,0	0
56	MG	CA	3074	1/1	0.99	0.05	19,19,19,19	0
56	MG	GA	3124	1/1	0.99	0.12	16,16,16,16	0
56	MG	CA	3102	1/1	0.99	0.07	32,32,32,32	0
56	MG	EA	3066	1/1	0.99	0.19	0,0,0,0	0
56	MG	CA	3125	1/1	0.99	0.14	9,9,9,9	0
56	MG	CA	3124	1/1	0.99	0.15	0,0,0,0	0
56	MG	BA	1615	1/1	0.99	0.20	22,22,22,22	0
56	MG	FA	1634	1/1	0.99	0.07	19,19,19,19	0
56	MG	CA	3021	1/1	0.99	0.10	10,10,10,10	0
56	MG	FA	1623	1/1	0.99	0.21	7,7,7,7	0
56	MG	GA	3067	1/1	0.99	0.19	16,16,16,16	0
56	MG	CA	3096	1/1	0.99	0.21	10,10,10,10	0
56	MG	CA	3134	1/1	0.99	0.18	23,23,23,23	0
56	MG	CA	3119	1/1	0.99	0.21	3,3,3,3	0
56	MG	EA	3001	1/1	0.99	0.11	9,9,9,9	0
56	MG	FA	1613	1/1	0.99	0.11	9,9,9,9	0
56	MG	AA	3018	1/1	0.99	0.18	12,12,12,12	0
56	MG	AA	3051	1/1	0.99	0.08	4,4,4,4	0
56	MG	EA	3042	1/1	0.99	0.18	2,2,2,2	0
56	MG	GA	3105	1/1	0.99	0.15	3,3,3,3	0
56	MG	EA	3123	1/1	0.99	0.29	2,2,2,2	0
56	MG	EA	3116	1/1	0.99	0.15	0,0,0,0	0
56	MG	HA	1607	1/1	0.99	0.21	11,11,11,11	0
56	MG	CA	3116	1/1	0.99	0.12	13,13,13,13	0
56	MG	EA	3023	1/1	0.99	0.17	2,2,2,2	0
56	MG	EA	3093	1/1	0.99	0.09	21,21,21,21	0
56	MG	DA	1616	1/1	0.99	0.27	26,26,26,26	0
56	MG	EA	3013	1/1	0.99	0.14	0,0,0,0	0
56	MG	CA	3043	1/1	0.99	0.11	5,5,5,5	0
56	MG	CA	3001	1/1	0.99	0.15	10,10,10,10	0
56	MG	AA	3027	1/1	0.99	0.15	8,8,8,8	0
56	MG	CD	301	1/1	0.99	0.17	3,3,3,3	0
56	MG	AA	3019	1/1	0.99	0.18	33,33,33,33	0
56	MG	DA	1605	1/1	0.99	0.12	28,28,28,28	0
56	MG	AA	3020	1/1	0.99	0.13	24,24,24,24	0
56	MG	GA	3034	1/1	0.99	0.19	16,16,16,16	0
56	MG	HA	1622	1/1	0.99	0.10	36,36,36,36	0
56	MG	EA	3047	1/1	0.99	0.09	6,6,6,6	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	EA	3062	1/1	0.99	0.17	0,0,0,0	0
56	MG	GA	3049	1/1	0.99	0.17	8,8,8,8	0
56	MG	GA	3008	1/1	0.99	0.20	12,12,12,12	0
56	MG	EA	3074	1/1	0.99	0.18	4,4,4,4	0
56	MG	GA	3050	1/1	0.99	0.15	9,9,9,9	0
56	MG	AA	3094	1/1	0.99	0.06	20,20,20,20	0
56	MG	AA	3067	1/1	0.99	0.09	29,29,29,29	0
56	MG	CA	3029	1/1	0.99	0.07	8,8,8,8	0
56	MG	CA	3117	1/1	0.99	0.08	7,7,7,7	0
56	MG	CA	3095	1/1	0.99	0.11	21,21,21,21	0
56	MG	EA	3032	1/1	0.99	0.16	0,0,0,0	0
56	MG	HA	1631	1/1	0.99	0.10	28,28,28,28	0
56	MG	GA	3013	1/1	0.99	0.21	1,1,1,1	0
56	MG	GA	3043	1/1	0.99	0.10	8,8,8,8	0
56	MG	CA	3082	1/1	0.99	0.12	15,15,15,15	0
56	MG	AA	3013	1/1	0.99	0.16	5,5,5,5	0
56	MG	CA	3042	1/1	0.99	0.11	8,8,8,8	0
56	MG	EB	1203	1/1	0.99	0.14	3,3,3,3	0
56	MG	AA	3047	1/1	0.99	0.10	30,30,30,30	0
56	MG	AA	3062	1/1	0.99	0.18	2,2,2,2	0
56	MG	AA	3122	1/1	0.99	0.16	2,2,2,2	0
56	MG	EA	3027	1/1	0.99	0.20	0,0,0,0	0
56	MG	DA	1617	1/1	0.99	0.13	45,45,45,45	0
56	MG	AA	3039	1/1	0.99	0.18	5,5,5,5	0
56	MG	BA	1608	1/1	0.99	0.10	22,22,22,22	0
56	MG	EC	301	1/1	0.99	0.14	1,1,1,1	0
56	MG	AA	3095	1/1	0.99	0.10	9,9,9,9	0
56	MG	AA	3058	1/1	0.99	0.19	9,9,9,9	0
56	MG	FA	1609	1/1	0.99	0.32	16,16,16,16	0
56	MG	EA	3128	1/1	0.99	0.15	4,4,4,4	0
56	MG	EA	3012	1/1	0.99	0.17	1,1,1,1	0
56	MG	CA	3033	1/1	0.99	0.18	9,9,9,9	0
56	MG	FA	1619	1/1	0.99	0.10	25,25,25,25	0
56	MG	CA	3027	1/1	0.99	0.10	2,2,2,2	0
56	MG	BA	1602	1/1	0.99	0.12	15,15,15,15	0
56	MG	AA	3072	1/1	0.99	0.16	7,7,7,7	0
56	MG	EA	3095	1/1	0.99	0.17	5,5,5,5	0
56	MG	EA	3105	1/1	0.99	0.14	4,4,4,4	0
56	MG	FA	1635	1/1	0.99	0.13	8,8,8,8	0
56	MG	AA	3130	1/1	0.99	0.15	27,27,27,27	0
56	MG	EA	3084	1/1	0.99	0.17	2,2,2,2	0
56	MG	EA	3072	1/1	0.99	0.15	8,8,8,8	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	GA	3016	1/1	0.99	0.15	9,9,9,9	0
56	MG	AA	3041	1/1	0.99	0.18	2,2,2,2	0
56	MG	CA	3104	1/1	0.99	0.14	4,4,4,4	0
56	MG	FA	1625	1/1	0.99	0.09	18,18,18,18	0
56	MG	CA	3086	1/1	0.99	0.19	20,20,20,20	0
56	MG	HA	1635	1/1	0.99	0.15	17,17,17,17	0
56	MG	CA	3054	1/1	0.99	0.17	6,6,6,6	0
56	MG	AA	3120	1/1	0.99	0.18	6,6,6,6	0
56	MG	EA	3038	1/1	0.99	0.11	2,2,2,2	0
56	MG	DV	802	1/1	0.99	0.11	34,34,34,34	0
56	MG	HA	1627	1/1	0.99	0.14	24,24,24,24	0
56	MG	EA	3035	1/1	0.99	0.17	0,0,0,0	0
56	MG	CA	3067	1/1	0.99	0.11	4,4,4,4	0
56	MG	EA	3028	1/1	0.99	0.18	1,1,1,1	0
56	MG	AA	3046	1/1	0.99	0.15	7,7,7,7	0
56	MG	CA	3089	1/1	0.99	0.15	2,2,2,2	0
56	MG	DA	1640	1/1	0.99	0.18	21,21,21,21	0
56	MG	CA	3109	1/1	0.99	0.12	26,26,26,26	0
56	MG	FA	1624	1/1	0.99	0.18	18,18,18,18	0
56	MG	EA	3065	1/1	0.99	0.11	0,0,0,0	0
56	MG	CA	3113	1/1	0.99	0.11	14,14,14,14	0
56	MG	DA	1603	1/1	0.99	0.12	22,22,22,22	0
56	MG	AA	3040	1/1	0.99	0.12	24,24,24,24	0
56	MG	EA	3008	1/1	0.99	0.18	1,1,1,1	0
56	MG	AA	3083	1/1	0.99	0.27	33,33,33,33	0
56	MG	AA	3126	1/1	0.99	0.10	3,3,3,3	0
56	MG	HA	1628	1/1	0.99	0.14	30,30,30,30	0
56	MG	CA	3079	1/1	0.99	0.22	12,12,12,12	0
56	MG	AA	3021	1/1	0.99	0.11	11,11,11,11	0
56	MG	EA	3132	1/1	0.99	0.23	6,6,6,6	0
56	MG	CA	3018	1/1	0.99	0.10	26,26,26,26	0
56	MG	GA	3015	1/1	0.99	0.11	18,18,18,18	0
56	MG	GA	3119	1/1	0.99	0.16	5,5,5,5	0
56	MG	CA	3031	1/1	0.99	0.14	11,11,11,11	0
56	MG	GA	3101	1/1	0.99	0.10	15,15,15,15	0
56	MG	GA	3054	1/1	0.99	0.14	1,1,1,1	0
56	MG	AA	3104	1/1	0.99	0.13	12,12,12,12	0
56	MG	CA	3062	1/1	0.99	0.13	5,5,5,5	0
56	MG	AA	3036	1/1	0.99	0.24	25,25,25,25	0
56	MG	AA	3103	1/1	0.99	0.17	10,10,10,10	0
56	MG	GA	3032	1/1	0.99	0.13	8,8,8,8	0
56	MG	CA	3050	1/1	0.99	0.11	12,12,12,12	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	AA	3049	1/1	0.99	0.15	3,3,3,3	0
56	MG	GA	3027	1/1	0.99	0.17	6,6,6,6	0
56	MG	GA	3062	1/1	0.99	0.13	18,18,18,18	0
56	MG	CA	3072	1/1	0.99	0.15	11,11,11,11	0
56	MG	EA	3048	1/1	0.99	0.13	11,11,11,11	0
56	MG	CA	3032	1/1	0.99	0.17	3,3,3,3	0
56	MG	CA	3090	1/1	0.99	0.13	20,20,20,20	0
56	MG	AA	3035	1/1	0.99	0.20	3,3,3,3	0
56	MG	HA	1612	1/1	0.99	0.19	8,8,8,8	0
56	MG	EA	3131	1/1	0.99	0.20	5,5,5,5	0
56	MG	EA	3049	1/1	0.99	0.23	8,8,8,8	0
56	MG	EA	3073	1/1	0.99	0.19	0,0,0,0	0
56	MG	GA	3019	1/1	0.99	0.10	5,5,5,5	0
56	MG	AA	3014	1/1	0.99	0.18	4,4,4,4	0
56	MG	HA	1632	1/1	0.99	0.21	25,25,25,25	0
56	MG	AA	3022	1/1	0.99	0.11	8,8,8,8	0
56	MG	BA	1610	1/1	0.99	0.07	19,19,19,19	0
56	MG	EA	3114	1/1	0.99	0.18	1,1,1,1	0
56	MG	DA	1619	1/1	0.99	0.12	33,33,33,33	0
56	MG	EA	3061	1/1	0.99	0.22	0,0,0,0	0
56	MG	FA	1626	1/1	0.99	0.16	15,15,15,15	0
56	MG	GA	3007	1/1	0.99	0.07	28,28,28,28	0
56	MG	AA	3107	1/1	0.99	0.19	18,18,18,18	0
56	MG	AA	3110	1/1	0.99	0.21	4,4,4,4	0
56	MG	CA	3098	1/1	0.99	0.21	10,10,10,10	0
56	MG	FA	1616	1/1	0.99	0.19	16,16,16,16	0
56	MG	CA	3080	1/1	0.99	0.16	8,8,8,8	0
56	MG	AA	3056	1/1	0.99	0.13	24,24,24,24	0
56	MG	AA	3073	1/1	0.99	0.16	8,8,8,8	0
56	MG	AA	3038	1/1	0.99	0.11	6,6,6,6	0
56	MG	CA	3040	1/1	0.99	0.19	12,12,12,12	0
56	MG	GA	3020	1/1	0.99	0.21	3,3,3,3	0
56	MG	GA	3080	1/1	0.99	0.26	5,5,5,5	0
56	MG	DA	1637	1/1	0.99	0.11	23,23,23,23	0
56	MG	EA	3099	1/1	0.99	0.28	2,2,2,2	0
56	MG	GA	3127	1/1	0.99	0.12	1,1,1,1	0
56	MG	CA	3046	1/1	0.99	0.16	17,17,17,17	0
56	MG	HA	1616	1/1	0.99	0.16	33,33,33,33	0
56	MG	FA	1614	1/1	1.00	0.13	5,5,5,5	0
56	MG	GA	3085	1/1	1.00	0.15	16,16,16,16	0
56	MG	CA	3107	1/1	1.00	0.20	6,6,6,6	0
56	MG	AA	3031	1/1	1.00	0.17	8,8,8,8	0

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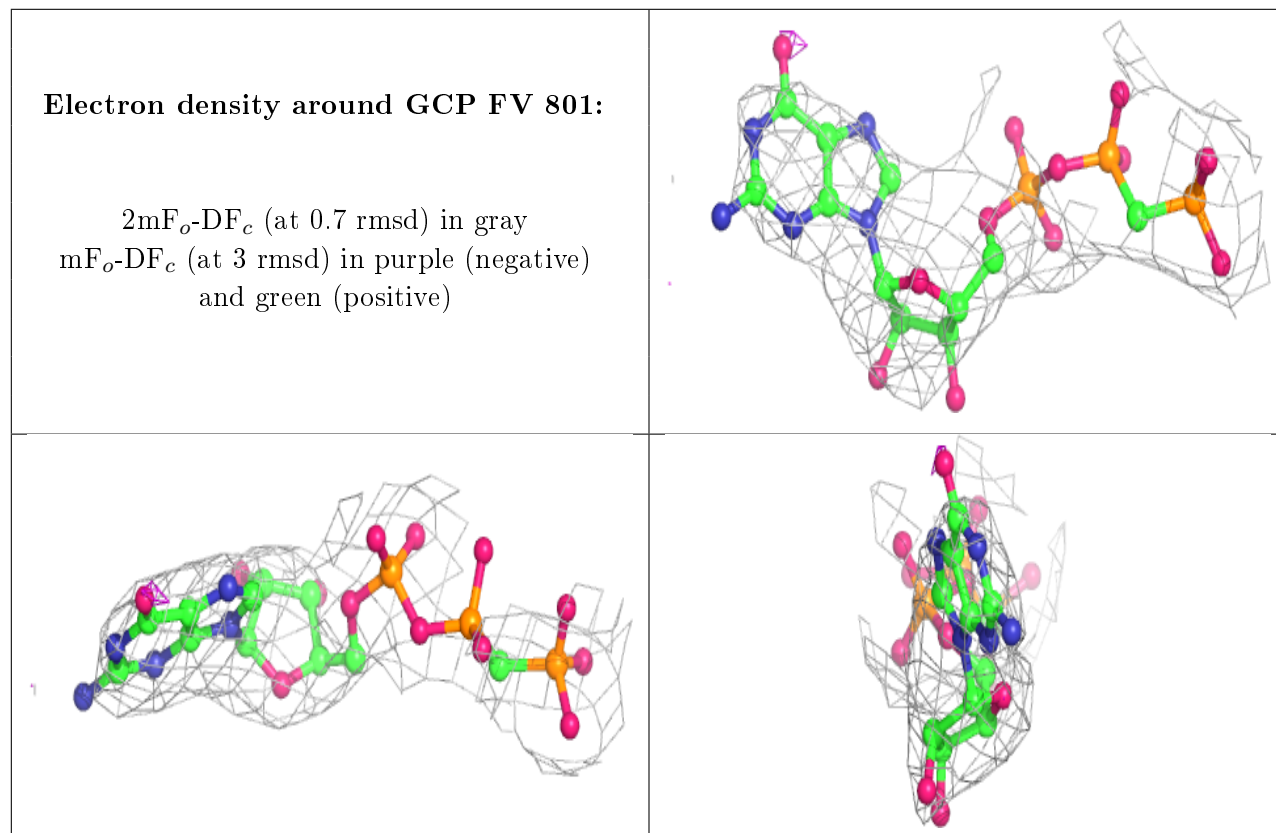
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	AA	3033	1/1	1.00	0.17	8,8,8,8	0
56	MG	AA	3055	1/1	1.00	0.17	18,18,18,18	0
56	MG	CB	1203	1/1	1.00	0.11	6,6,6,6	0
56	MG	EA	3089	1/1	1.00	0.10	5,5,5,5	0
56	MG	EA	3051	1/1	1.00	0.15	0,0,0,0	0
56	MG	EA	3107	1/1	1.00	0.20	0,0,0,0	0
56	MG	EA	3091	1/1	1.00	0.14	11,11,11,11	0
56	MG	AA	3016	1/1	1.00	0.12	10,10,10,10	0
56	MG	AA	3066	1/1	1.00	0.17	6,6,6,6	0
56	MG	EA	3104	1/1	1.00	0.16	1,1,1,1	0
56	MG	DA	1613	1/1	1.00	0.10	12,12,12,12	0
56	MG	EA	3115	1/1	1.00	0.13	2,2,2,2	0
56	MG	GA	3056	1/1	1.00	0.12	4,4,4,4	0
56	MG	CA	3099	1/1	1.00	0.14	17,17,17,17	0
56	MG	EA	3097	1/1	1.00	0.19	2,2,2,2	0
56	MG	GA	3039	1/1	1.00	0.17	15,15,15,15	0
56	MG	AA	3032	1/1	1.00	0.16	14,14,14,14	0
56	MG	EA	3037	1/1	1.00	0.13	2,2,2,2	0
56	MG	AA	3128	1/1	1.00	0.14	2,2,2,2	0
56	MG	EA	3018	1/1	1.00	0.14	8,8,8,8	0
56	MG	GA	3048	1/1	1.00	0.19	6,6,6,6	0
56	MG	AA	3113	1/1	1.00	0.11	8,8,8,8	0
56	MG	BA	1605	1/1	1.00	0.12	21,21,21,21	0
56	MG	CA	3053	1/1	1.00	0.12	5,5,5,5	0
56	MG	AA	3070	1/1	1.00	0.13	11,11,11,11	0
56	MG	CA	3130	1/1	1.00	0.17	1,1,1,1	0
56	MG	EA	3040	1/1	1.00	0.18	1,1,1,1	0
56	MG	AA	3119	1/1	1.00	0.15	13,13,13,13	0
56	MG	AA	3043	1/1	1.00	0.13	21,21,21,21	0
56	MG	AA	3012	1/1	1.00	0.20	7,7,7,7	0
56	MG	CA	3126	1/1	1.00	0.14	7,7,7,7	0
56	MG	EA	3070	1/1	1.00	0.14	3,3,3,3	0
56	MG	AA	3097	1/1	1.00	0.18	8,8,8,8	0
56	MG	EA	3002	1/1	1.00	0.17	4,4,4,4	0
56	MG	CA	3058	1/1	1.00	0.13	5,5,5,5	0
56	MG	AA	3071	1/1	1.00	0.13	3,3,3,3	0
56	MG	AA	3023	1/1	1.00	0.17	3,3,3,3	0
56	MG	GA	3021	1/1	1.00	0.12	9,9,9,9	0
56	MG	EA	3112	1/1	1.00	0.15	5,5,5,5	0
56	MG	AA	3017	1/1	1.00	0.20	1,1,1,1	0
56	MG	GA	3042	1/1	1.00	0.14	24,24,24,24	0
56	MG	BV	802	1/1	1.00	0.17	27,27,27,27	0

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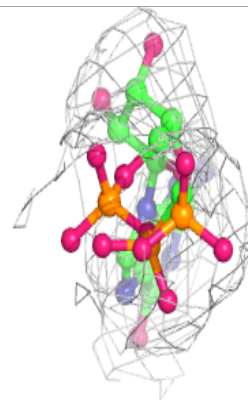
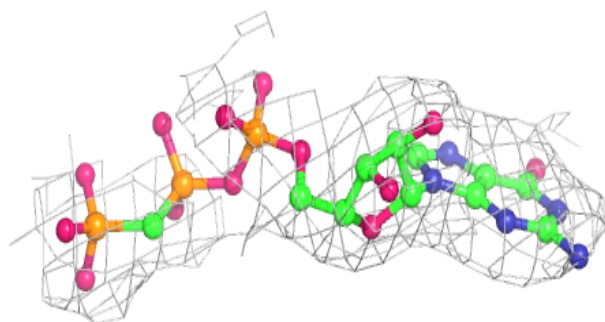
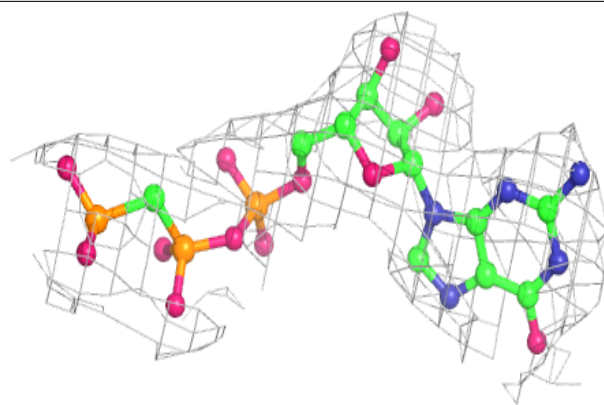
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
56	MG	EA	3033	1/1	1.00	0.17	1,1,1,1	0
56	MG	AA	3079	1/1	1.00	0.16	11,11,11,11	0

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.

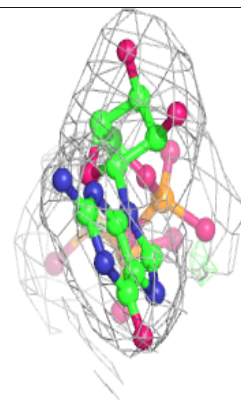
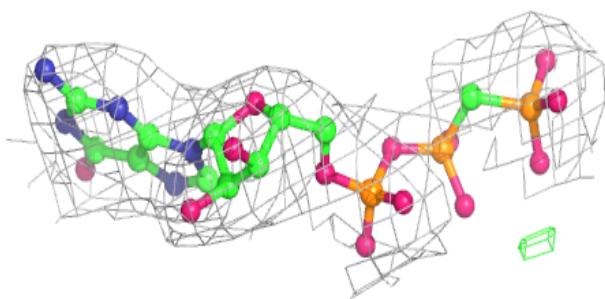
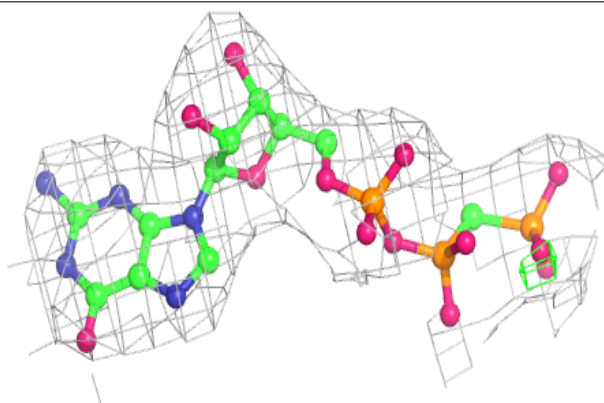


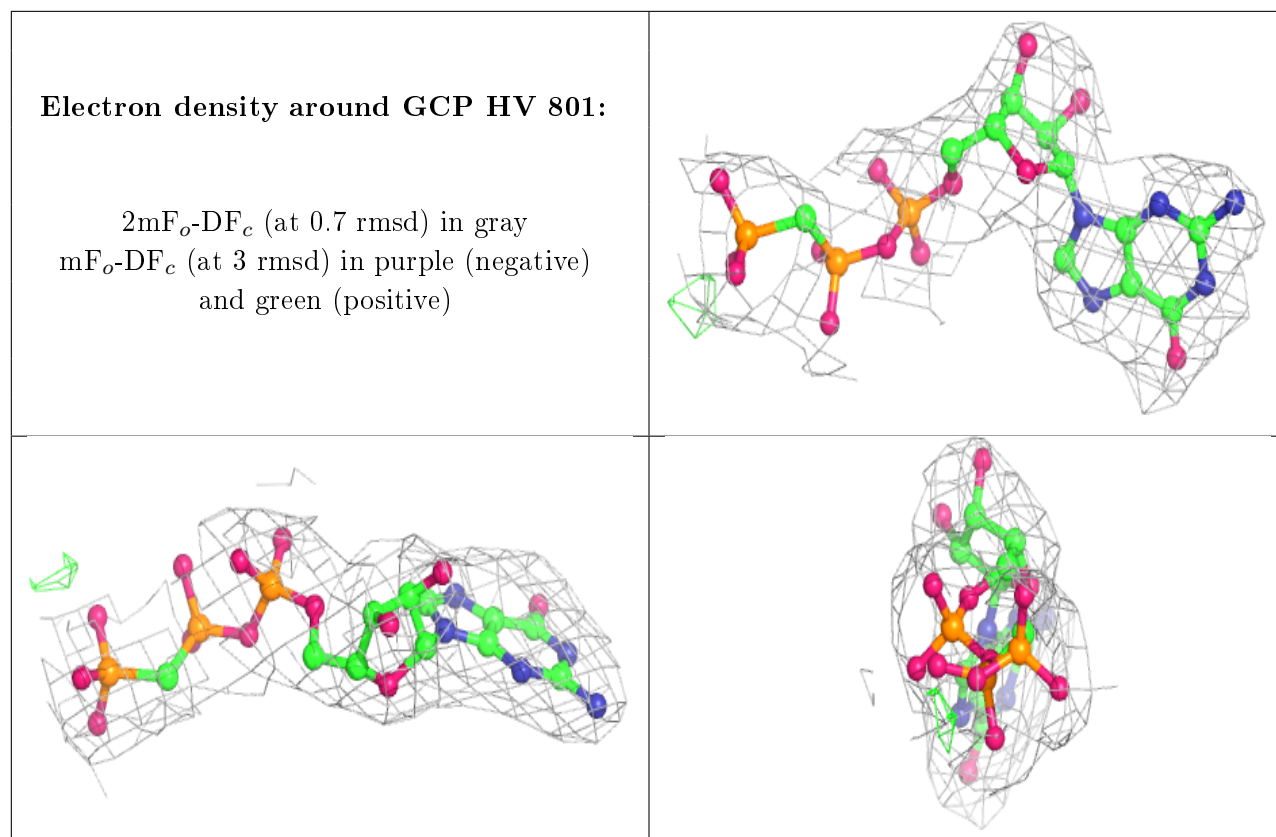
Electron density around GCP DV 801:

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

**Electron density around GCP BV 801:**

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





6.5 Other polymers [i](#)

There are no such residues in this entry.