wwPDB EM Validation Summary Report

Oct 21, 2024 – 08:20 PM JST

PDB ID	:	8I0V
EMDB ID	:	EMD-35111
Title	:	The cryo-EM structure of human post-Bact complex
Authors	:	Zhan, X.; Lu, Y.; Shi, Y.
Deposited on	:	2023-01-11
Resolution	:	3.00 Å(reported)

This is a wwPDB EM 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/EMValidationReportHelp
with specific help available everywhere you see the ⓘ symbol.

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

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

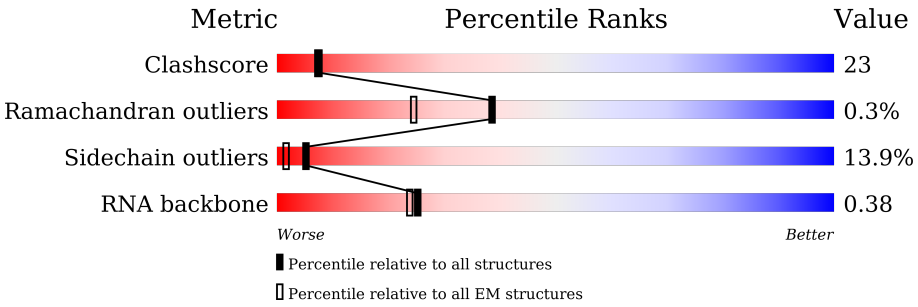
EMDB validation analysis	:	0.0.1.dev113
Mogul	:	1.8.5 (274361), CSD as541be (2020)
MolProbity	:	4.02b-467
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.39

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 3.00 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)	EM structures (#Entries)
Clashscore	210492	15764
Ramachandran outliers	207382	16835
Sidechain outliers	206894	16415
RNA backbone	6643	2191

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5% The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion < 40%). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	2335	53% 27% 5% 16%
2	B	117	29% 38% 14% 16%
3	C	972	45% 38% 5% 12%
4	E	357	33% 44% 6% 16%
5	F	107	23% 37% 25% 5% 9%
6	G	220	5% 18% 10% 64%
7	H	188	55% 20% 46% 13% 20%

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Mol	Chain	Length	Quality of chain
8	I	855	27% 76% 21%
9	J	848	8% 54% 10% 34%
10	L	802	7% 34% 13% 52%
11	M	243	27% 14% 5% 53%
12	N	144	55% 40% 5%
13	O	420	64% 5% 31%
14	P	229	24% 15% 5% 56%
15	Q	1485	53% 88% 11%
16	R	536	44% 23% 29%
17	S	166	88% 7% 5%
18	T	514	39% 20% 38%
19	U	2752	97%
20	V	908	14% 37% 12% 49%
21	W	579	61% 85% 13%
22	X	1041	33% 38% 5% 24%
23	Y	492	31% 29% 35%
24	Z	225	20% 66% 31%
25	a	240	5% 36% 64%
25	m	240	32% 34% 66%
26	b	119	69% 31%
26	n	119	66% 67% 33%
27	c	118	11% 82% 18%
27	h	118	80% 81% 19%
28	d	86	86% 14%
28	i	86	84% 84% 16%

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Mol	Chain	Length	Quality of chain
29	e	92	86% 14%
29	j	92	88% 88% 12%
30	f	76	14% 97%
30	k	76	95% 96%
31	g	126	64% 36%
31	l	126	60% 66% 34%
32	q	504	17% 26% 74%
32	r	504	12% 26% 74%
32	s	504	15% 25% 74%
32	t	504	17% 26% 74%
33	y	301	16% 26% 74%
34	1	1304	49% 24% 33% 6% 37%
35	3	1217	81% 35% 51% 11%
36	2	895	23% 18% 7% 72%
37	4	424	28% 34% 62%
38	7	110	50% 25% 34% 15% 26%
39	5	86	57% 28% 50% 12% 10%
40	p	225	40% 40% 60%
41	o	255	63% 64% 36%

2 Entry composition (i)

There are 45 unique types of molecules in this entry. The entry contains 104205 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, 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 protein called Pre-mRNA-processing-splicing factor 8.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	A	1969	16331	10528	2863	2872	68	0	0

- Molecule 2 is a RNA chain called U5 snRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
2	B	98	2066	925	347	696	98	0	0

- Molecule 3 is a protein called 116 kDa U5 small nuclear ribonucleoprotein component.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	C	860	6724	4298	1122	1272	32	0	0

- Molecule 4 is a protein called U5 small nuclear ribonucleoprotein 40 kDa protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
4	E	299	2338	1470	410	445	13	0	0

- Molecule 5 is a RNA chain called U6 snRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
5	F	97	2075	928	381	669	97	0	0

- Molecule 6 is a RNA chain called Pre-mRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
6	G	79	1587	708	248	552	79	0	0

- Molecule 7 is a RNA chain called U2 snRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	H	151	Total	C	N	O	P	0	0
			3203	1431	551	1070	151		

- Molecule 8 is a protein called Pre-mRNA-splicing factor SYF1.

Mol	Chain	Residues	Atoms				AltConf	Trace
8	I	672	Total	C	N	O	0	0
			3387	2043	672	672		

- Molecule 9 is a protein called Crooked neck-like protein 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	J	563	Total	C	N	O	S	0	0
			3789	2361	712	710	6		

- Molecule 10 is a protein called Cell division cycle 5-like protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	L	387	Total	C	N	O	S	0	0
			2584	1596	494	489	5		

- Molecule 11 is a protein called Pre-mRNA-splicing factor SYF2.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	M	114	Total	C	N	O	S	0	0
			971	605	181	183	2		

- Molecule 12 is a protein called Protein BUD31 homolog.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	N	143	Total	C	N	O	S	0	0
			1184	746	217	209	12		

- Molecule 13 is a protein called Pre-mRNA-splicing factor RBM22.

Mol	Chain	Residues	Atoms				AltConf	Trace
13	O	290	Total	C	N	O	0	0
			1447	862	292	293		

- Molecule 14 is a protein called Spliceosome-associated protein CWC15 homolog.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	P	101	Total	C	N	O	S	0	0
			876	537	175	162	2		

- Molecule 15 is a protein called RNA helicase aquarius.

Mol	Chain	Residues	Atoms				AltConf	Trace
15	Q	1322	Total	C	N	O	0	0
			5288	2644	1322	1322		

- Molecule 16 is a protein called SNW domain-containing protein 1.

Mol	Chain	Residues	Atoms						AltConf	Trace
16	R	380	Total	C	N	O	P	S	0	0
			2915	1791	552	558	2	12		

- Molecule 17 is a protein called Peptidyl-prolyl cis-trans isomerase-like 1.

Mol	Chain	Residues	Atoms				AltConf	Trace
17	S	158	Total	C	N	O	0	0
			770	454	158	158		

- Molecule 18 is a protein called Pleiotropic regulator 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	T	320	Total	C	N	O	S	0	0
			2507	1582	456	462	7		

- Molecule 19 is a protein called Serine/arginine repetitive matrix protein 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	U	72	Total	C	N	O	S	0	0
			422	257	82	82	1		

- Molecule 20 is a protein called Pre-mRNA-splicing factor CWC22 homolog.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	V	462	Total	C	N	O	S	0	0
			2959	1842	537	567	13		

- Molecule 21 is a protein called Pre-mRNA-processing factor 17.

Mol	Chain	Residues	Atoms				AltConf	Trace
21	W	501	Total 2473	C 1471	N 501	O 501	0	0

- Molecule 22 is a protein called Pre-mRNA-splicing factor ATP-dependent RNA helicase DHX16.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	X	786	Total 6357	C 4010	N 1133	O 1184	S 30	0	0

- Molecule 23 is a protein called Peptidyl-prolyl cis-trans isomerase-like 4.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	Y	320	Total 2556	C 1616	N 420	O 508	S 12	0	0

- Molecule 24 is a protein called Pre-mRNA-splicing factor SPF27.

Mol	Chain	Residues	Atoms				AltConf	Trace
24	Z	155	Total 772	C 462	N 155	O 155	0	0

- Molecule 25 is a protein called Small nuclear ribonucleoprotein-associated proteins B and B'.

Mol	Chain	Residues	Atoms				AltConf	Trace
25	a	86	Total 344	C 172	N 86	O 86	0	0
25	m	82	Total 413	C 249	N 82	O 82	0	0

- Molecule 26 is a protein called Small nuclear ribonucleoprotein Sm D1.

Mol	Chain	Residues	Atoms				AltConf	Trace
26	b	82	Total 328	C 164	N 82	O 82	0	0
26	n	80	Total 402	C 242	N 80	O 80	0	0

- Molecule 27 is a protein called Small nuclear ribonucleoprotein Sm D2.

Mol	Chain	Residues	Atoms				AltConf	Trace
27	c	97	Total 388	C 194	N 97	O 97	0	0
27	h	95	Total 482	C 292	N 95	O 95	0	0

- Molecule 28 is a protein called Small nuclear ribonucleoprotein F.

Mol	Chain	Residues	Atoms				AltConf	Trace
28	d	74	Total 296	C 148	N 74	O 74	0	0
28	i	72	Total 359	C 215	N 72	O 72	0	0

- Molecule 29 is a protein called Small nuclear ribonucleoprotein E.

Mol	Chain	Residues	Atoms				AltConf	Trace
29	e	79	Total 316	C 158	N 79	O 79	0	0
29	j	81	Total 403	C 241	N 81	O 81	0	0

- Molecule 30 is a protein called Small nuclear ribonucleoprotein G.

Mol	Chain	Residues	Atoms				AltConf	Trace
30	f	74	Total 296	C 148	N 74	O 74	0	0
30	k	73	Total 364	C 218	N 73	O 73	0	0

- Molecule 31 is a protein called Small nuclear ribonucleoprotein Sm D3.

Mol	Chain	Residues	Atoms				AltConf	Trace
31	g	81	Total 324	C 162	N 81	O 81	0	0
31	l	83	Total 415	C 249	N 83	O 83	0	0

- Molecule 32 is a protein called Pre-mRNA-processing factor 19.

Mol	Chain	Residues	Atoms				AltConf	Trace
32	q	132	Total 659	C 395	N 132	O 132	0	0

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Mol	Chain	Residues	Atoms				AltConf	Trace
32	r	131	Total 654	C 392	N 131	O 131	0	0
32	s	132	Total 659	C 395	N 132	O 132	0	0
32	t	131	Total 654	C 392	N 131	O 131	0	0

- Molecule 33 is a protein called Peptidyl-prolyl cis-trans isomerase E.

Mol	Chain	Residues	Atoms				AltConf	Trace
33	y	79	Total 316	C 158	N 79	O 79	0	0

- Molecule 34 is a protein called Splicing factor 3B subunit 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	1	816	Total 6378	C 4084	N 1106	O 1151	S 37	0	0

- Molecule 35 is a protein called Splicing factor 3B subunit 3.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	3	1177	Total 9210	C 5848	N 1562	O 1755	S 45	0	0

- Molecule 36 is a protein called Splicing factor 3B subunit 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	2	250	Total 1576	C 973	N 307	O 294	S 2	0	0

- Molecule 37 is a protein called Splicing factor 3B subunit 4.

Mol	Chain	Residues	Atoms				AltConf	Trace
37	4	161	Total 792	C 470	N 161	O 161	0	0

- Molecule 38 is a protein called PHD finger-like domain-containing protein 5A.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	7	81	Total	C	N	O	S	0	0
			613	376	109	115	13		

- Molecule 39 is a protein called Splicing factor 3B subunit 5.

Mol	Chain	Residues	Atoms					AltConf	Trace
39	5	77	Total	C	N	O	S	0	0
			635	403	110	117	5		

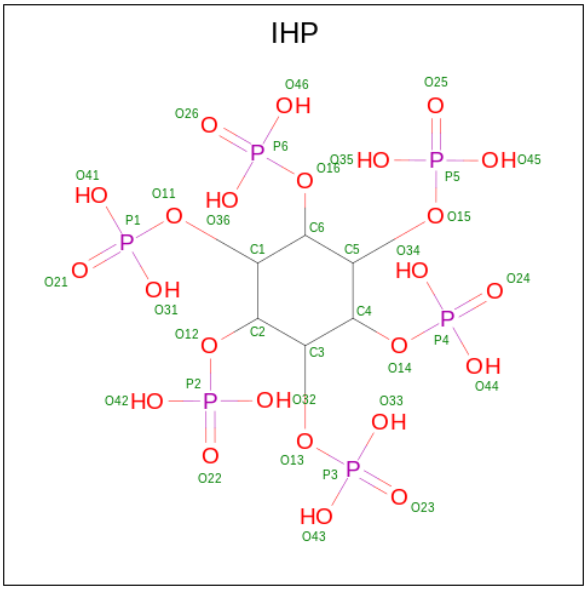
- Molecule 40 is a protein called U2 small nuclear ribonucleoprotein B".

Mol	Chain	Residues	Atoms				AltConf	Trace
40	p	90	Total	C	N	O	0	0
			451	271	90	90		

- Molecule 41 is a protein called U2 small nuclear ribonucleoprotein A'.

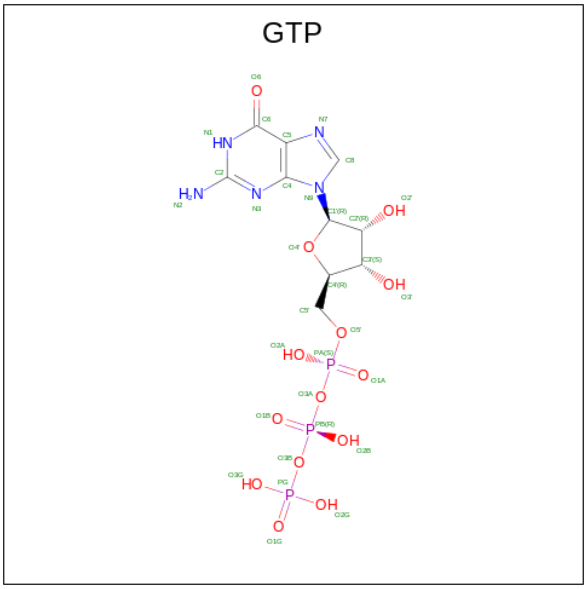
Mol	Chain	Residues	Atoms				AltConf	Trace
41	o	162	Total	C	N	O	0	0
			816	492	162	162		

- Molecule 42 is INOSITOL HEXAKISPHOSPHATE (three-letter code: IHP) (formula: $C_6H_{18}O_{24}P_6$).



Mol	Chain	Residues	Atoms				AltConf
42	A	1	Total	C	O	P	0
			36	6	24	6	

- Molecule 43 is GUANOSINE-5'-TRIPHOSPHATE (three-letter code: GTP) (formula: $C_{10}H_{16}N_5O_{14}P_3$).



Mol	Chain	Residues	Atoms					AltConf
43	C	1	Total	C	N	O	P	0
			32	10	5	14	3	

- Molecule 44 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		AltConf
44	C	1	Total	Mg	0
			1	1	
44	F	5	Total	Mg	0
			5	5	
44	L	1	Total	Mg	0
			1	1	

- Molecule 45 is ZINC ION (three-letter code: ZN) (formula: Zn).

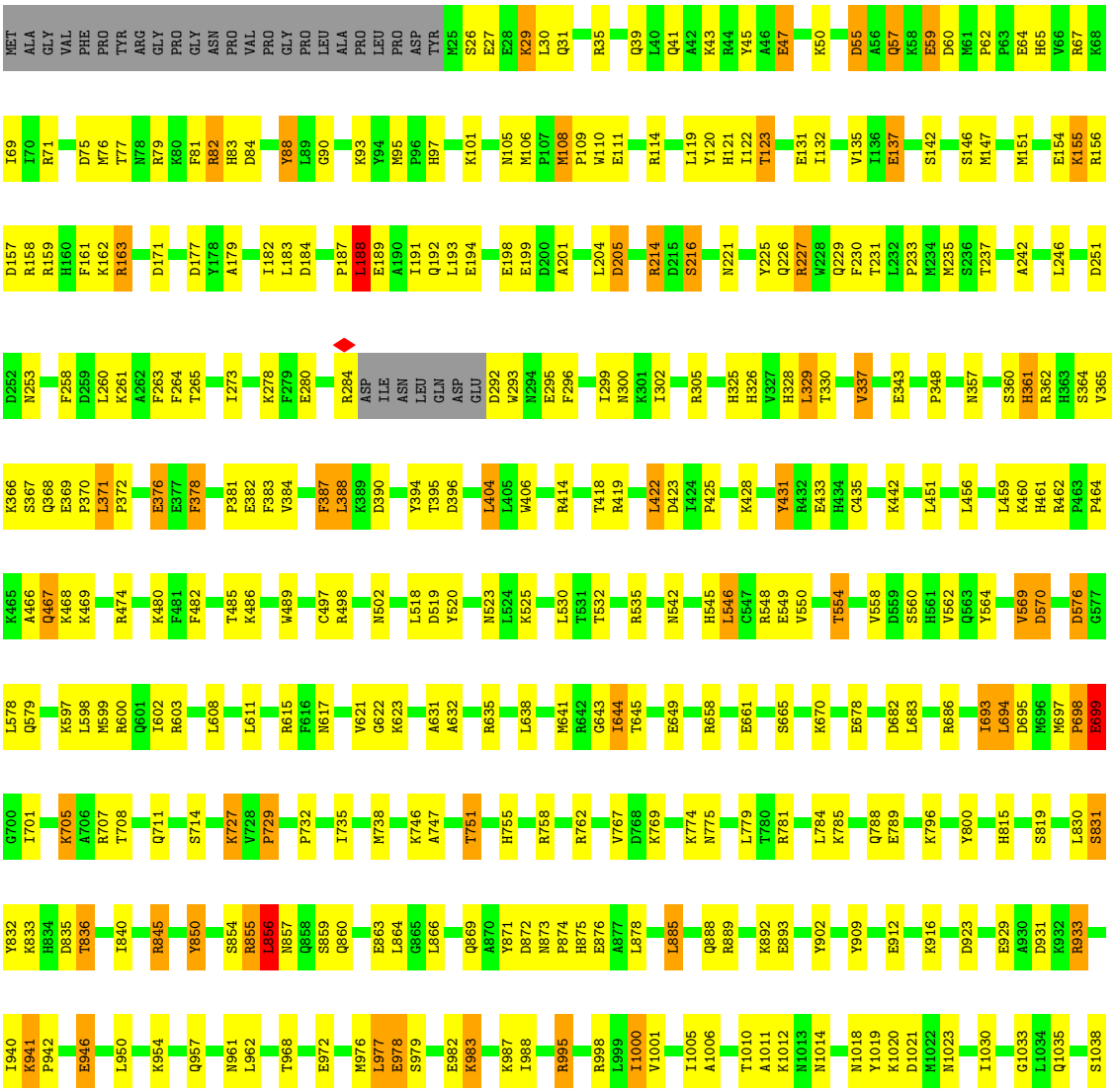
Mol	Chain	Residues	Atoms		AltConf
45	N	3	Total	Zn	0
			3	3	
45	7	3	Total	Zn	0
			3	3	

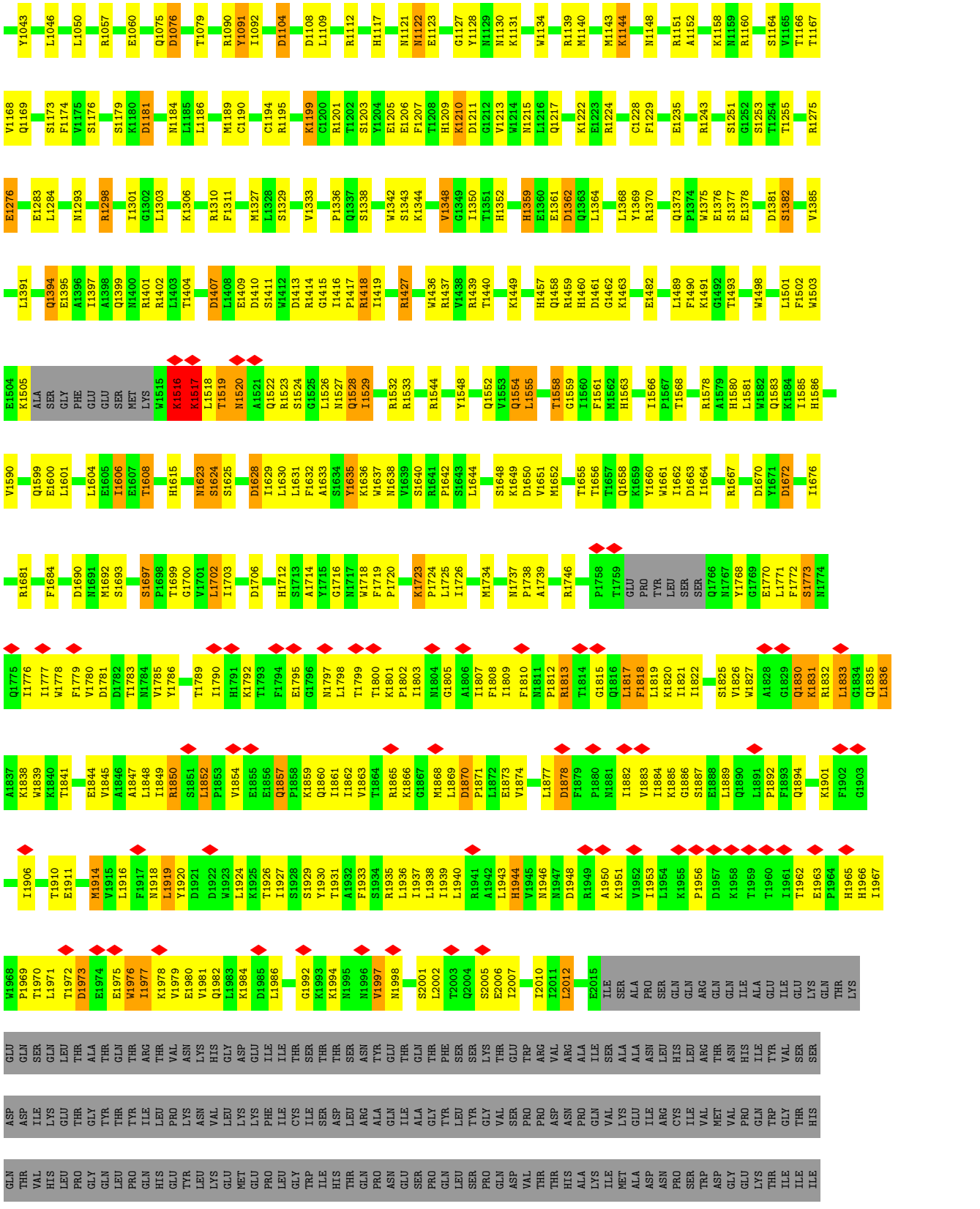
3 Residue-property plots (i)

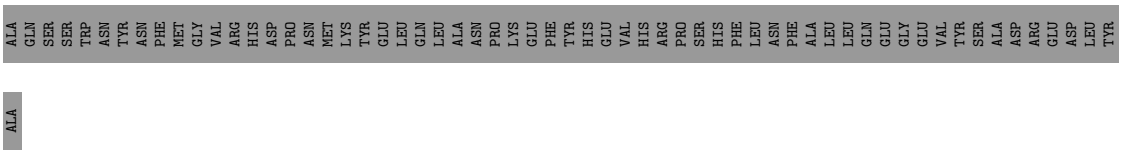
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map 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 diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). 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: Pre-mRNA-processing-splicing factor 8

Chain A:

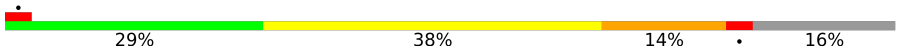


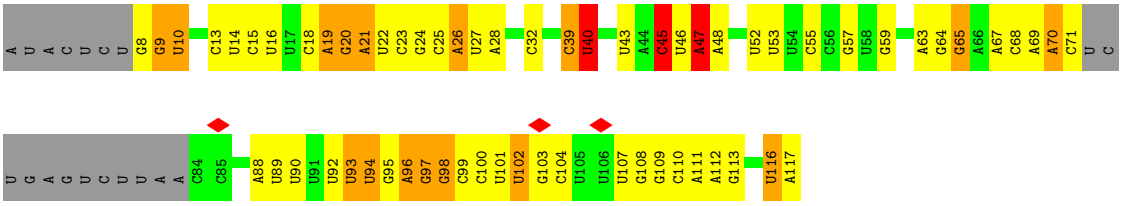




• Molecule 2: U5 snRNA

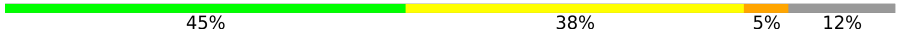
Chain B:

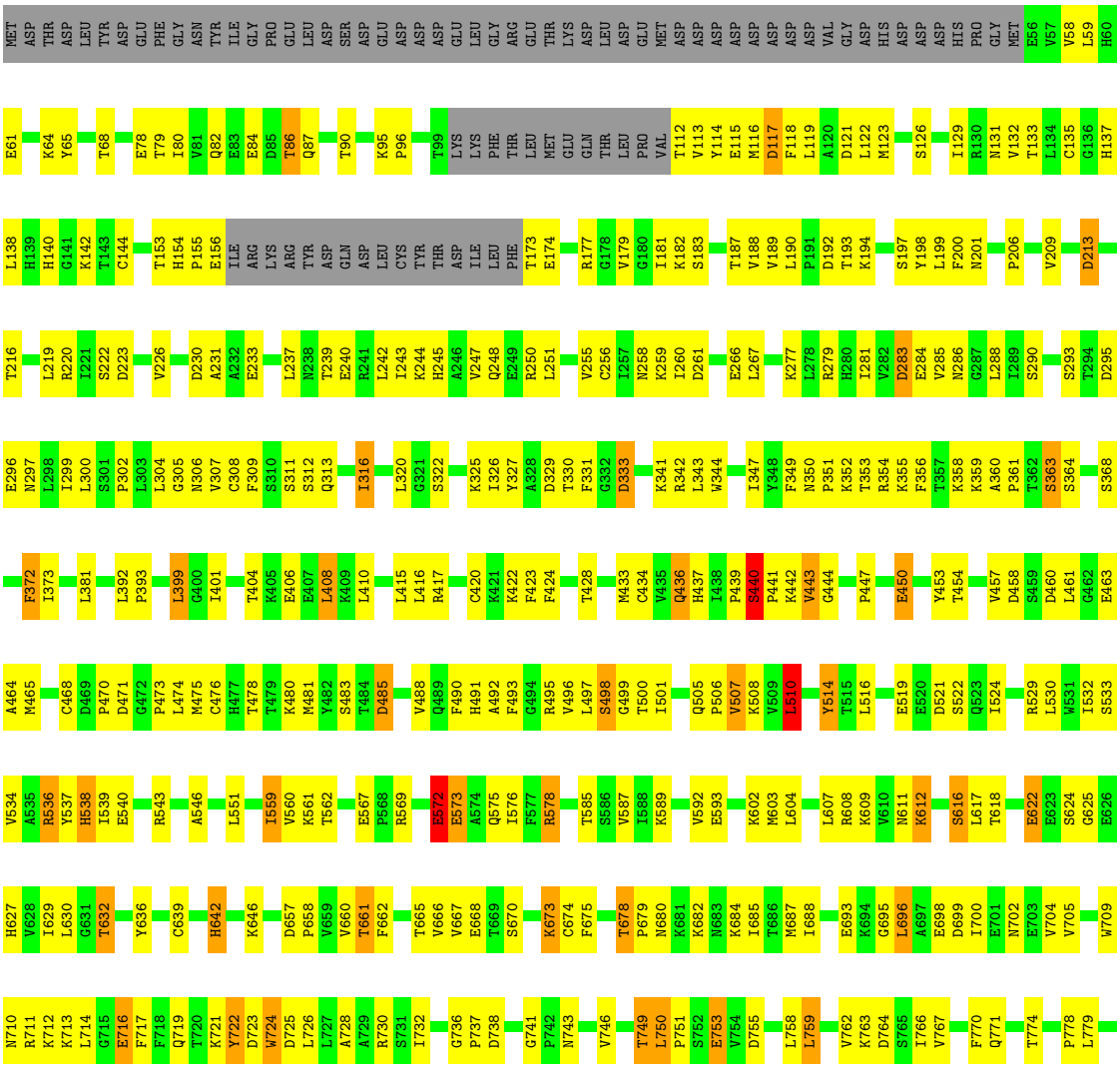




• Molecule 3: 116 kDa U5 small nuclear ribonucleoprotein component

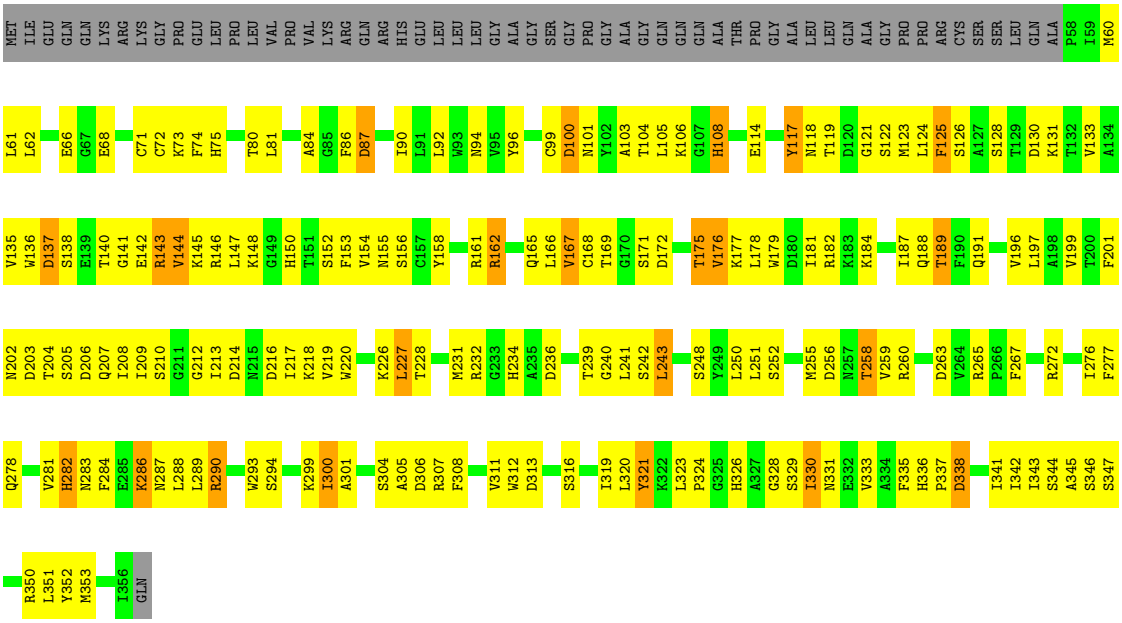
Chain C:





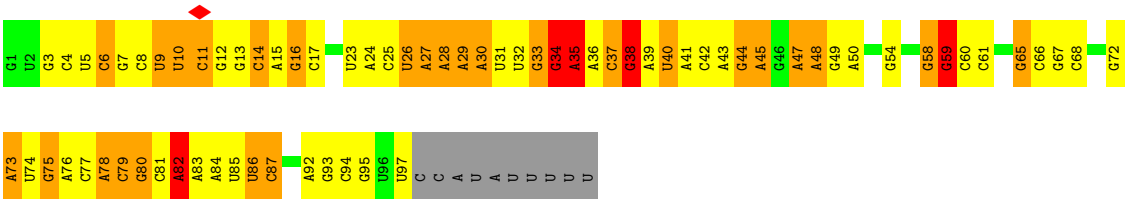
• Molecule 4: U5 small nuclear ribonucleoprotein 40 kDa protein

Chain E:



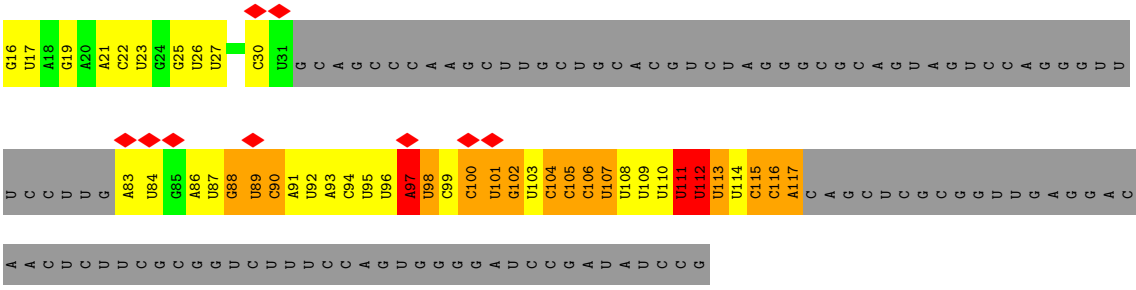
• Molecule 5: U6 snRNA

Chain F:



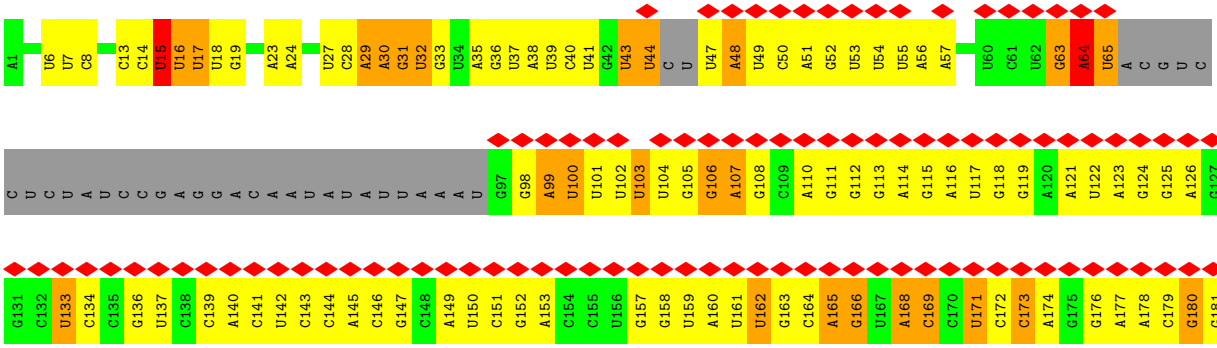
• Molecule 6: Pre-mRNA

Chain G:



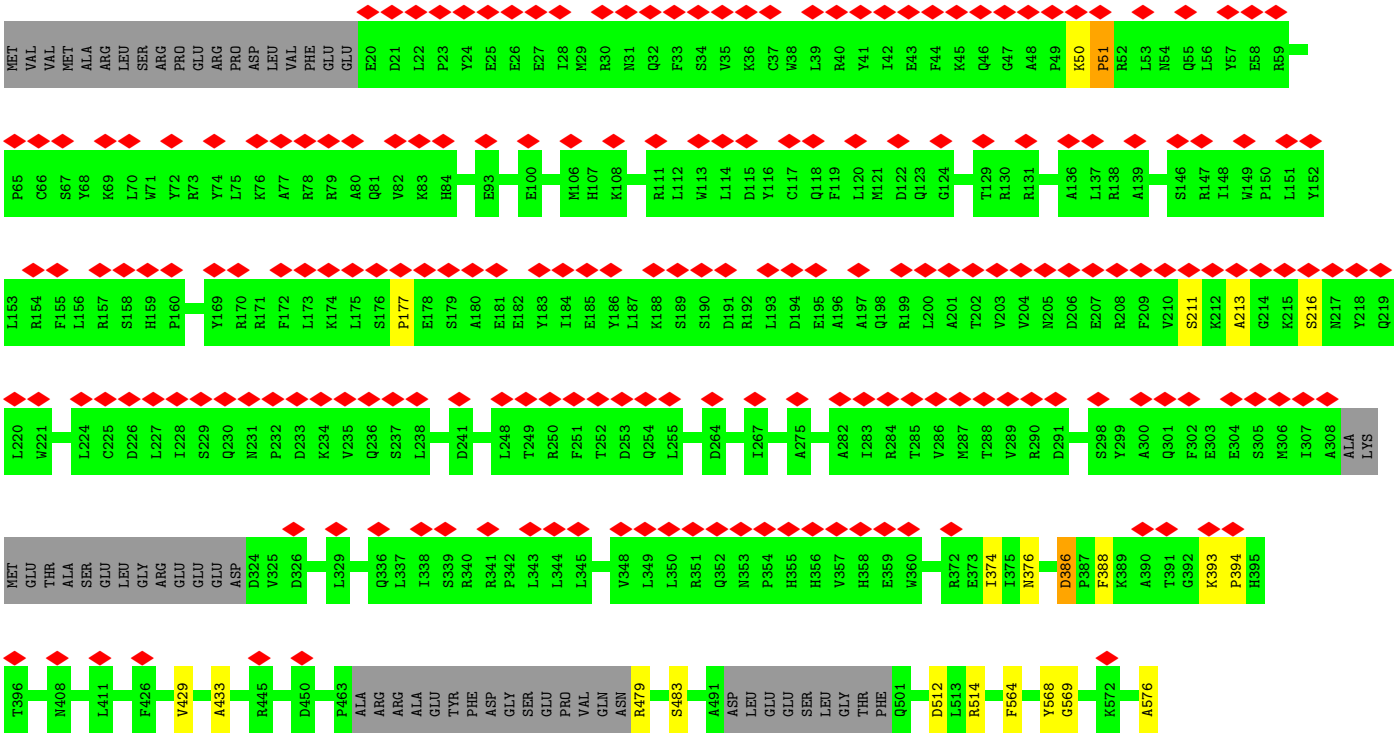
• Molecule 7: U2 snRNA

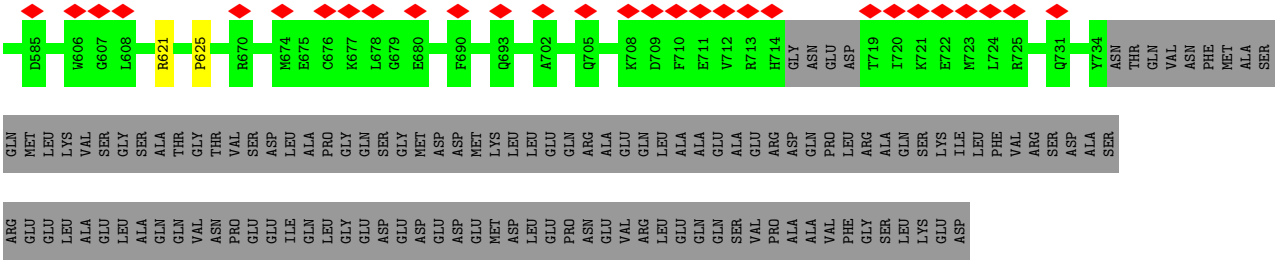
Chain H:



• Molecule 8: Pre-mRNA-splicing factor SYF1

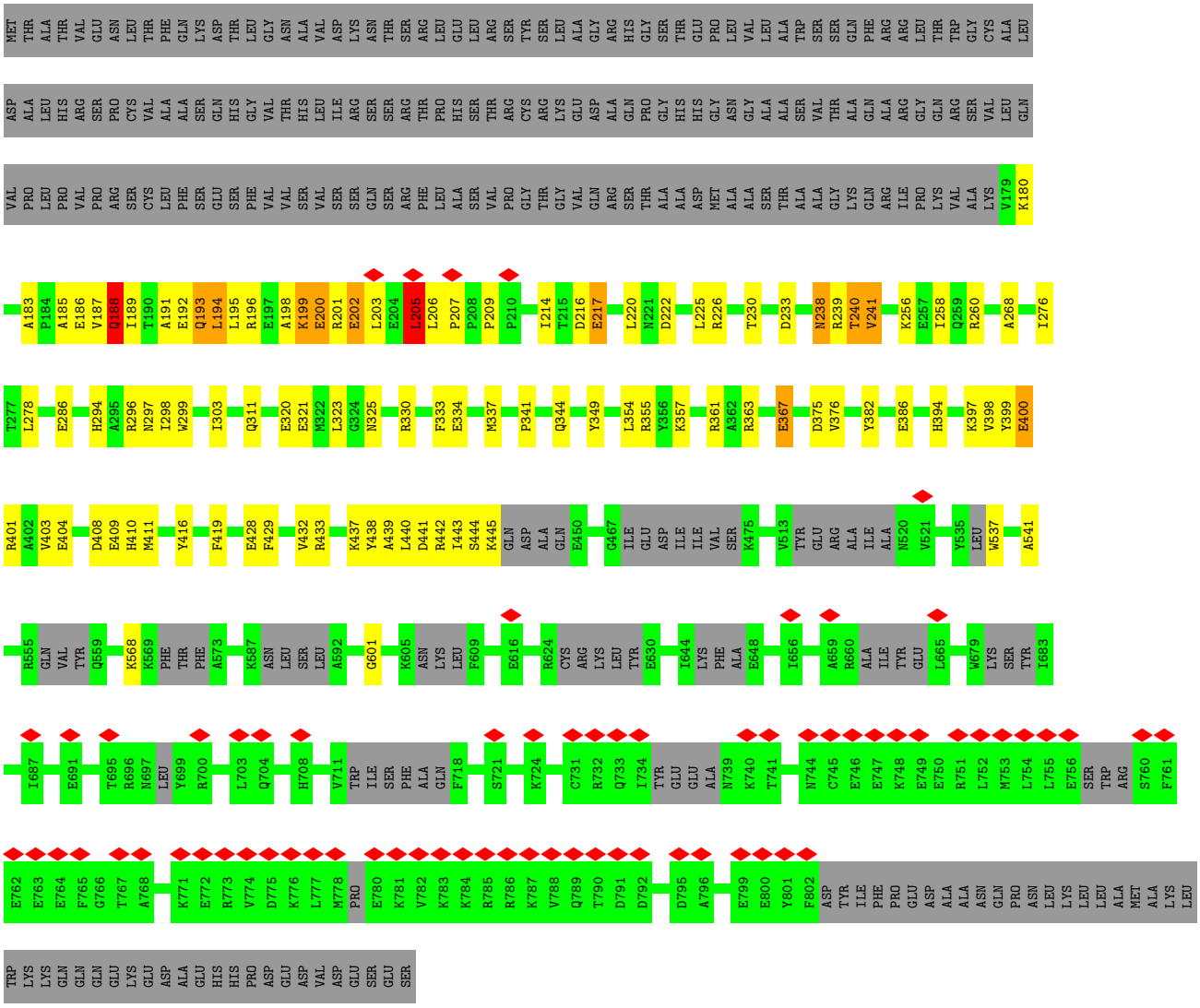
Chain I:





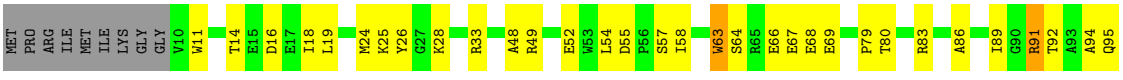
• Molecule 9: Crooked neck-like protein 1

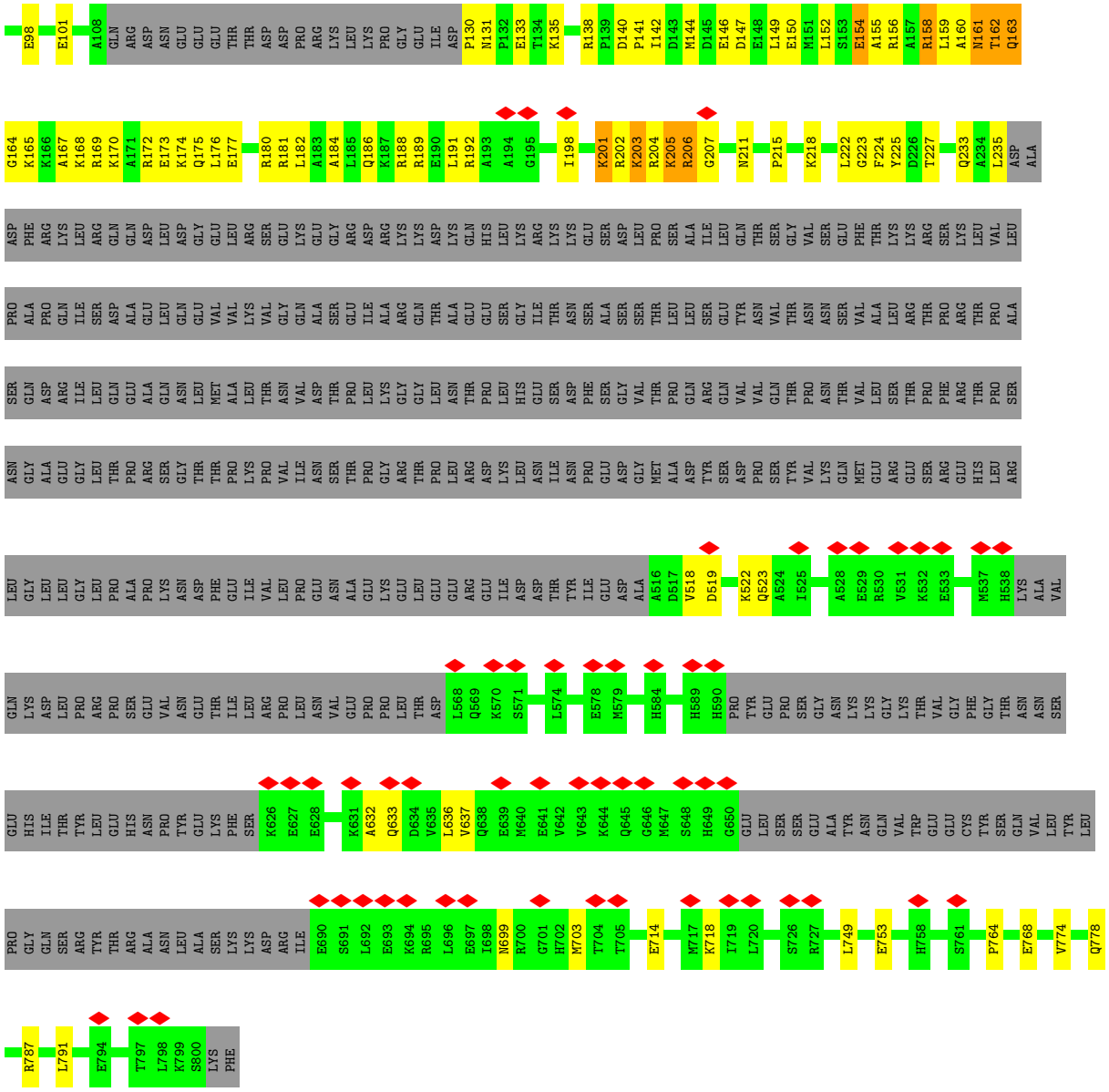
Chain J:



• Molecule 10: Cell division cycle 5-like protein

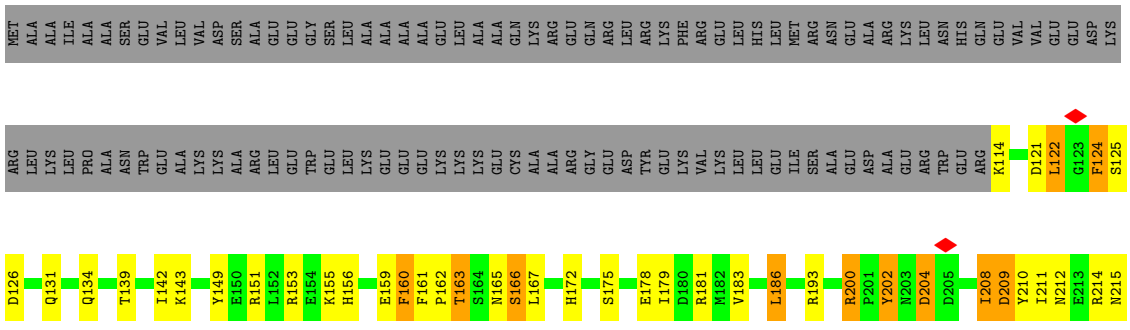
Chain L:

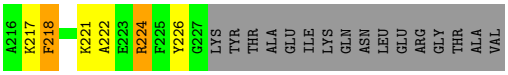




• Molecule 11: Pre-mRNA-splicing factor SYF2

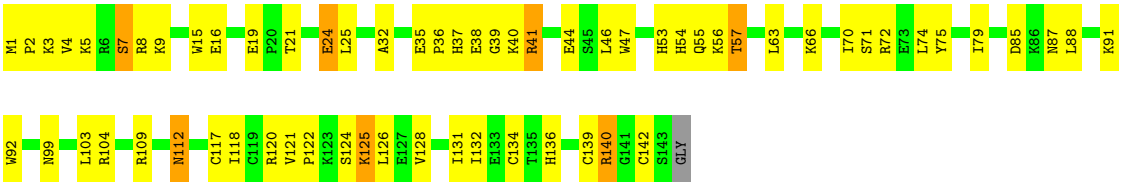
Chain M:





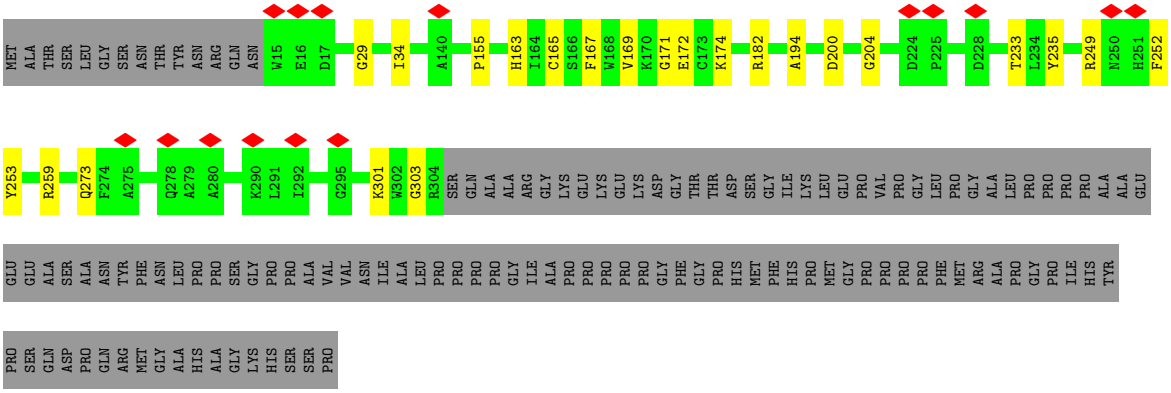
• Molecule 12: Protein BUD31 homolog

Chain N:



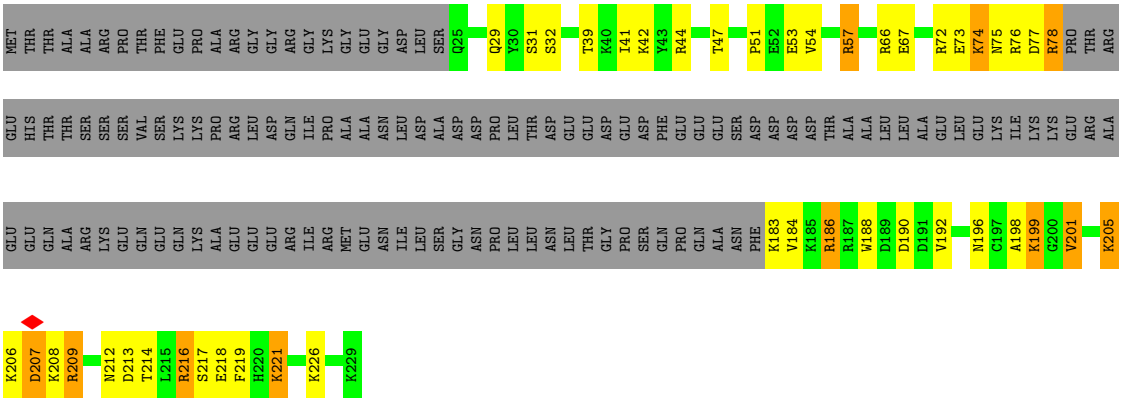
• Molecule 13: Pre-mRNA-splicing factor RBM22

Chain O:



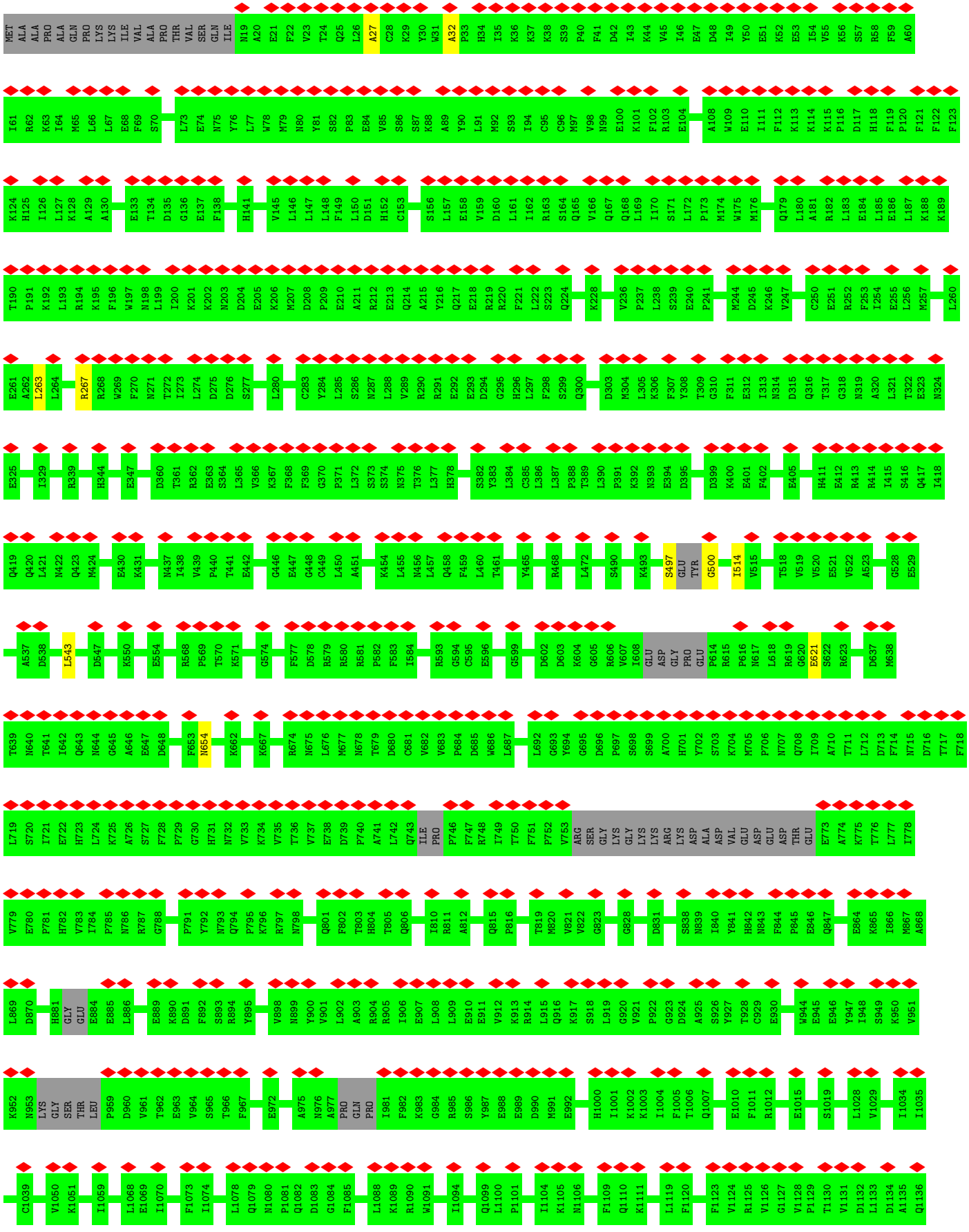
• Molecule 14: Spliceosome-associated protein CWC15 homolog

Chain P:



• Molecule 15: RNA helicase aquarius

Chain Q: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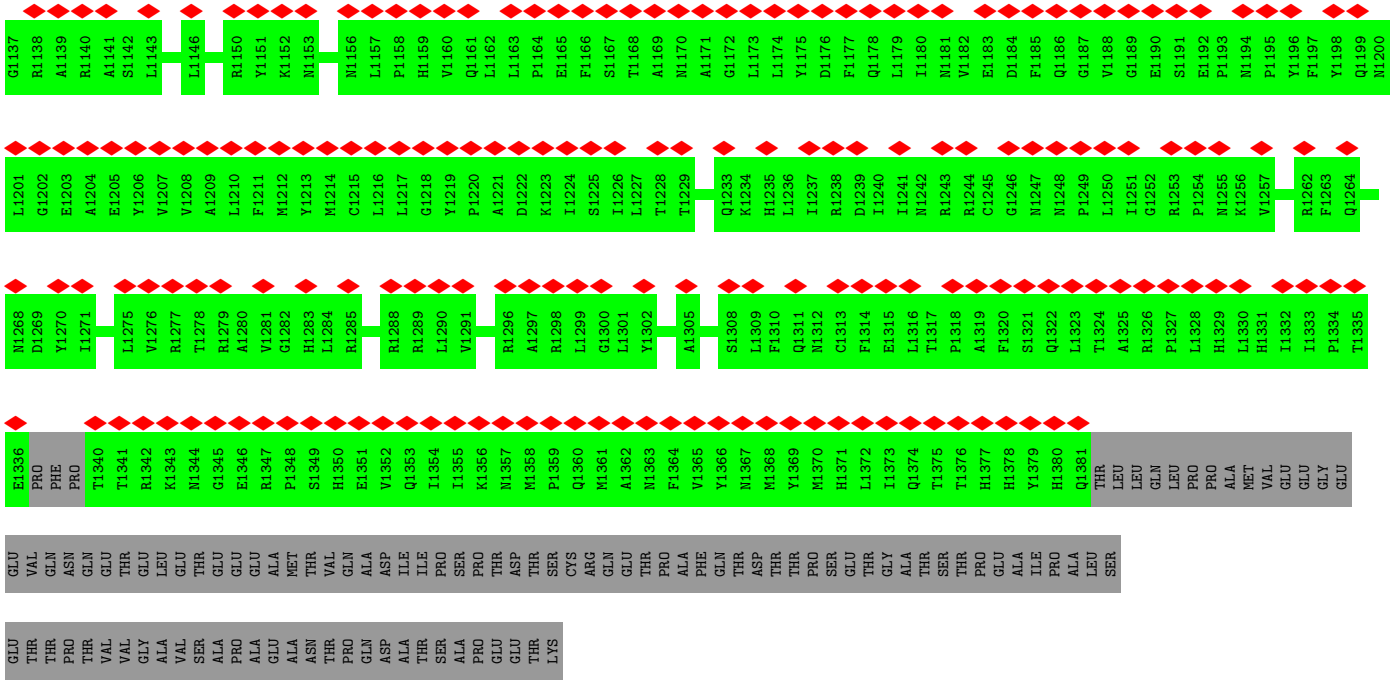
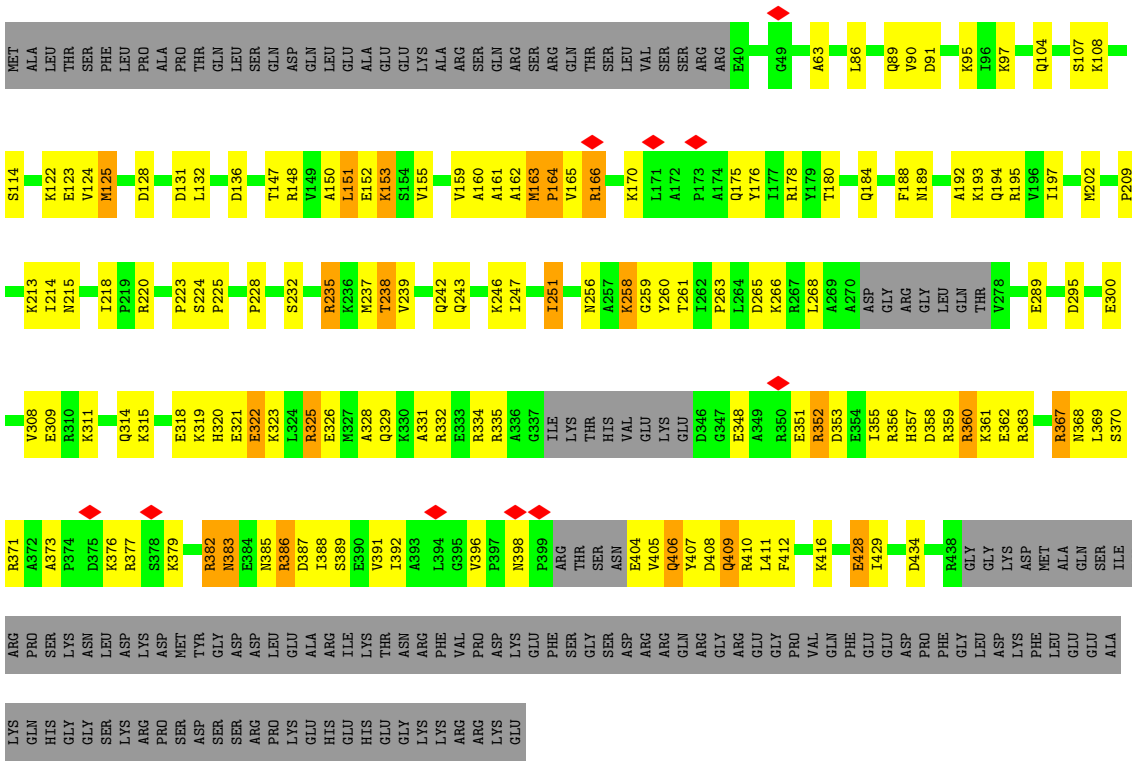
I61 R62 K63 I64 M65 L66 L67 E68 F69 S70 L73 E74 N75 Y76 L77 W78 M79 N80 Y81 S82 P83 E84 V85 S86 S87 K88 A89 Y90 L91 M92 S93 I94 C95 C96 M97 V98 N99 E100 K101 F102 R103 E104 A108 W109 E110 I111 F112 K113 K114 K115 P116 D117 H118 F119 P120 F121 F122 F123
K124 H125 I126 L127 K128 A129 A130 E133 T134 D135 G136 E137 F138 H141 V145 L146 L147 L148 F149 L150 D151 H152 C153 S156 L157 E158 V159 D160 L161 I162 R163 S164 Q165 V166 Q167 Q168 L169 I170 S171 L172 P173 M174 W175 M176 Q179 L180 A181 R182 L183 E184 L185 E186 L187 K188 K189
T190 P191 K192 L193 R194 K195 F196 W197 N198 L199 I200 K201 K202 N203 D204 E205 K206 M207 D208 P209 E210 A211 R212 E213 Q214 A215 Y216 Q217 E218 R219 R220 F221 L222 S223 Q224 K228 V236 P237 L238 S239 E240 P241 M244 D245 K246 V247 C250 E251 R252 F253 I254 E255 L256 M257 L260
E261 A262 L263 L264 R267 R268 W269 F270 N271 T272 I273 L274 D275 D276 S277 L280 C283 Y284 L285 S286 N287 L288 V289 R290 R291 E292 E293 D294 G295 H296 L297 F298 S299 Q300 D303 M304 L305 K306 F307 Y308 T309 G310 F311 E312 I313 N314 D315 Q316 T317 G318 N319 A320 L321 T322 E323 N324
E325 I329 R339 H344 E347 D360 T361 R362 E363 S364 L365 V366 K367 F368 F369 G370 P371 L372 S373 S374 N375 T376 L377 H378 S382 Y383 L384 C385 L386 L387 P388 T389 L390 P391 K392 N393 E394 D395 D399 K400 E401 F402 E405 H411 E412 R413 R414 I415 S416 Q417 I418
Q419 Q420 L421 N422 Q423 M424 E430 K431 N437 I438 V439 P440 T441 E442 G446 E447 G448 C449 L450 A451 K454 L455 N456 L457 Q458 F459 L460 T461 Y465 R468 L472 S490 K493 S497 GLU TYR G500 I514 V515 T518 V519 V520 E521 V522 A523 G528 E529
A537 D538 L543 D547 K550 E554 R568 P569 T570 K571 G574 F577 D578 R579 R580 R581 P582 F583 I584 R593 G594 C595 E596 G599 D602 D603 K604 G605 R606 V607 I608 GLU ASP GLY PRO GLU P614 R615 P616 N617 L618 R619 G620 E621 S622 R623 D637 M638
T639 N640 T641 I642 Q643 N644 G645 A646 E647 D648 F653 N654 K662 K667 R674 N675 L676 M677 N678 T679 D680 C681 V682 V683 P684 D685 W686 L687 L692 G693 Y694 G695 D696 P697 S698 S699 A700 H701 Y702 S703 K704 M705 P706 N707 Q708 I709 A710 T711 L712 D713 F714 W715 D716 T717 F718
L719 S720 I721 E722 H723 L724 K725 A726 S727 F728 P729 G730 H731 N732 V733 K734 V735 T736 V737 E738 D739 P740 A741 L742 Q743 ILE PRO P746 F747 R748 I749 T750 F751 P752 V753 ARG SER GLY LYS GLY LYS LYS ARG LYS ASP ALA ASP VAL GLU ASP GLU ASP THR GLU E773 A774 K775 T776 L777 I778
V779 E780 P781 H782 V783 I784 P785 N786 R787 G788 P791 Y792 N793 Q794 P795 K796 R797 N798 Q801 F802 T803 H804 T805 Q806 I810 R811 A812 Q815 P816 T819 M820 V821 V822 G823 G828 D831 S838 N839 I840 Y841 H842 N843 F844 P845 E846 Q847 E864 K865 I866 M867 A868
L869 D870 H881 GLY GLU E884 E885 L886 E889 K890 D891 F892 S893 R894 Y895 V898 N899 Y900 V901 L902 A903 R904 R905 I906 E907 L908 L909 E910 E911 V912 K913 R914 L915 Q916 K917 S918 L919 G920 V921 P922 G923 D924 A925 S926 Y927 T928 C929 E930 W944 E945 E946 Y947 I948 S949 K950 V951
K952 N953 LYS GLY SER THR LEU P959 D960 V961 T962 E963 V964 S965 T966 F967 E972 A975 N976 A977 PRO GLN PRO I981 F982 K983 G984 R985 S986 Y987 E988 E989 D990 M991 E992 H1000 I1001 K1002 K1003 I1004 F1005 T1006 Q1007 E1010 F1011 R1012 E1015 S1019 L1028 V1029 I1034 I1035
C1039 V1050 K1051 I1059 L1068 E1069 I1070 F1073 I1074 L1078 Q1079 N1080 P1081 Q1082 D1083 G1084 F1085 L1088 K1089 R1090 W1091 I1094 Q1099 L1100 P1101 I1104 K1105 N1106 F1109 Q1110 K1111 L1119 F1120 F1123 V1124 R1125 V1126 G1127 V1128 P1129 T1130 V1131 D1132 L1133 D1134 A1135 Q1136



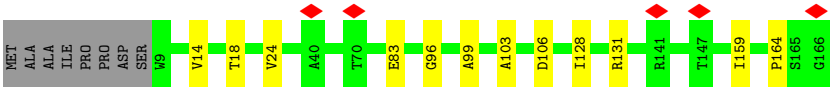
• Molecule 16: SNW domain-containing protein 1

Chain R:



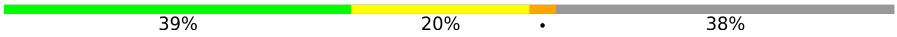
• Molecule 17: Peptidyl-prolyl cis-trans isomerase-like 1

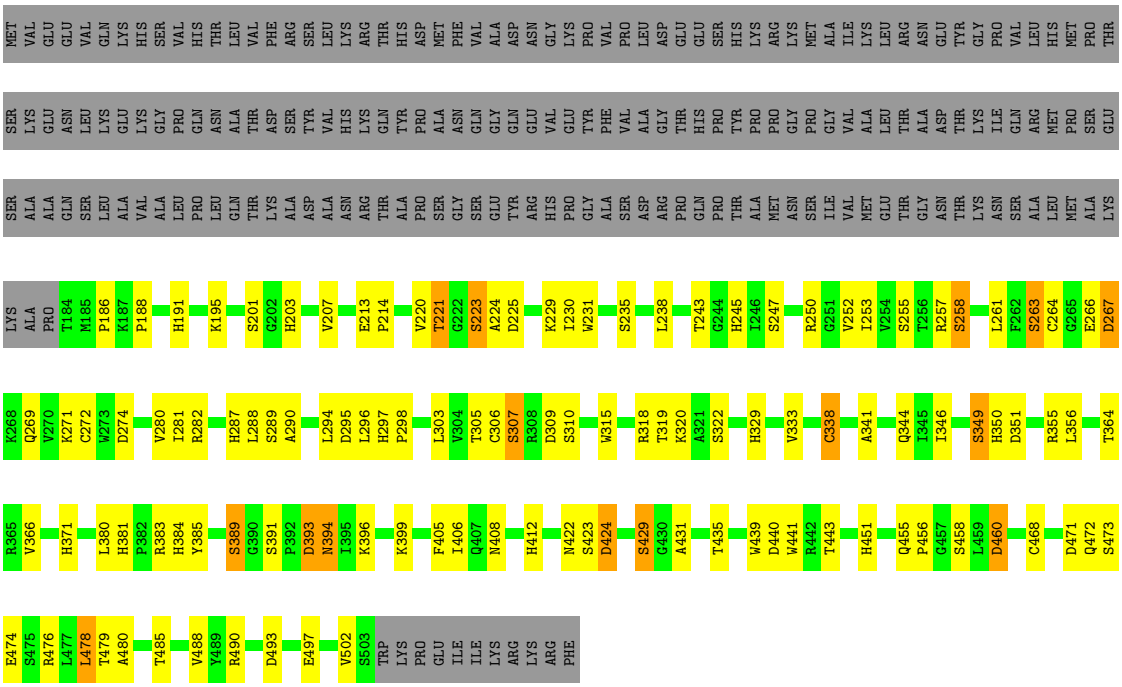
Chain S:



• Molecule 18: Pleiotropic regulator 1

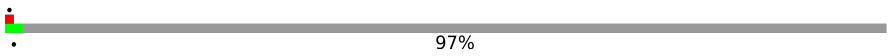
Chain T:

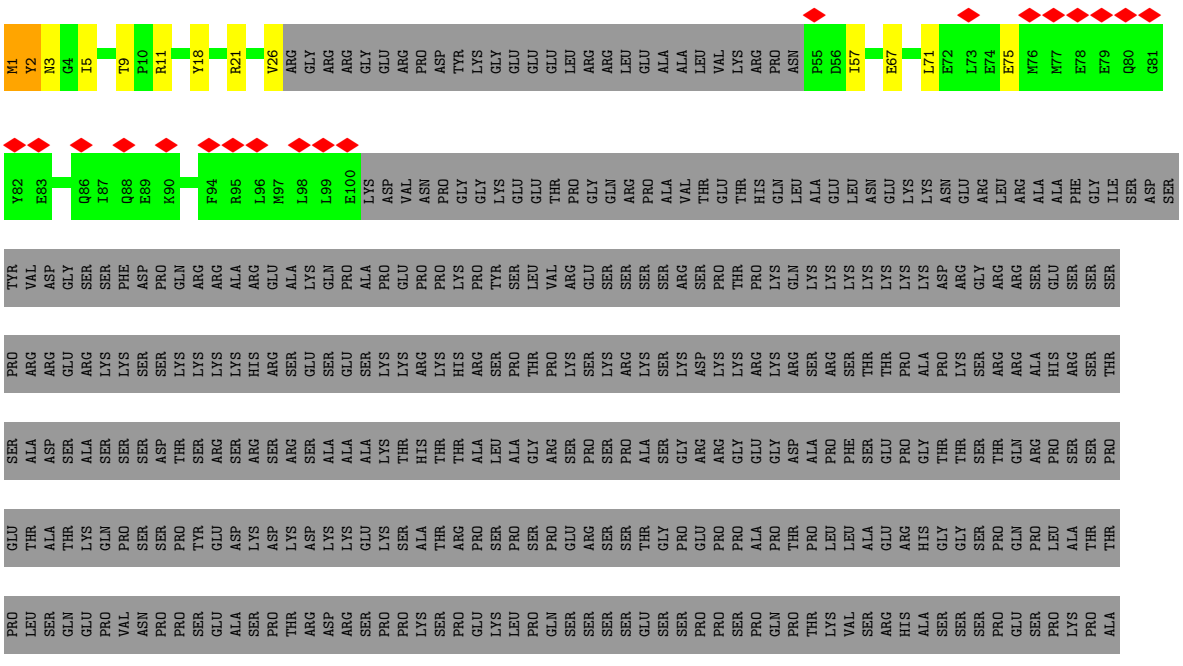


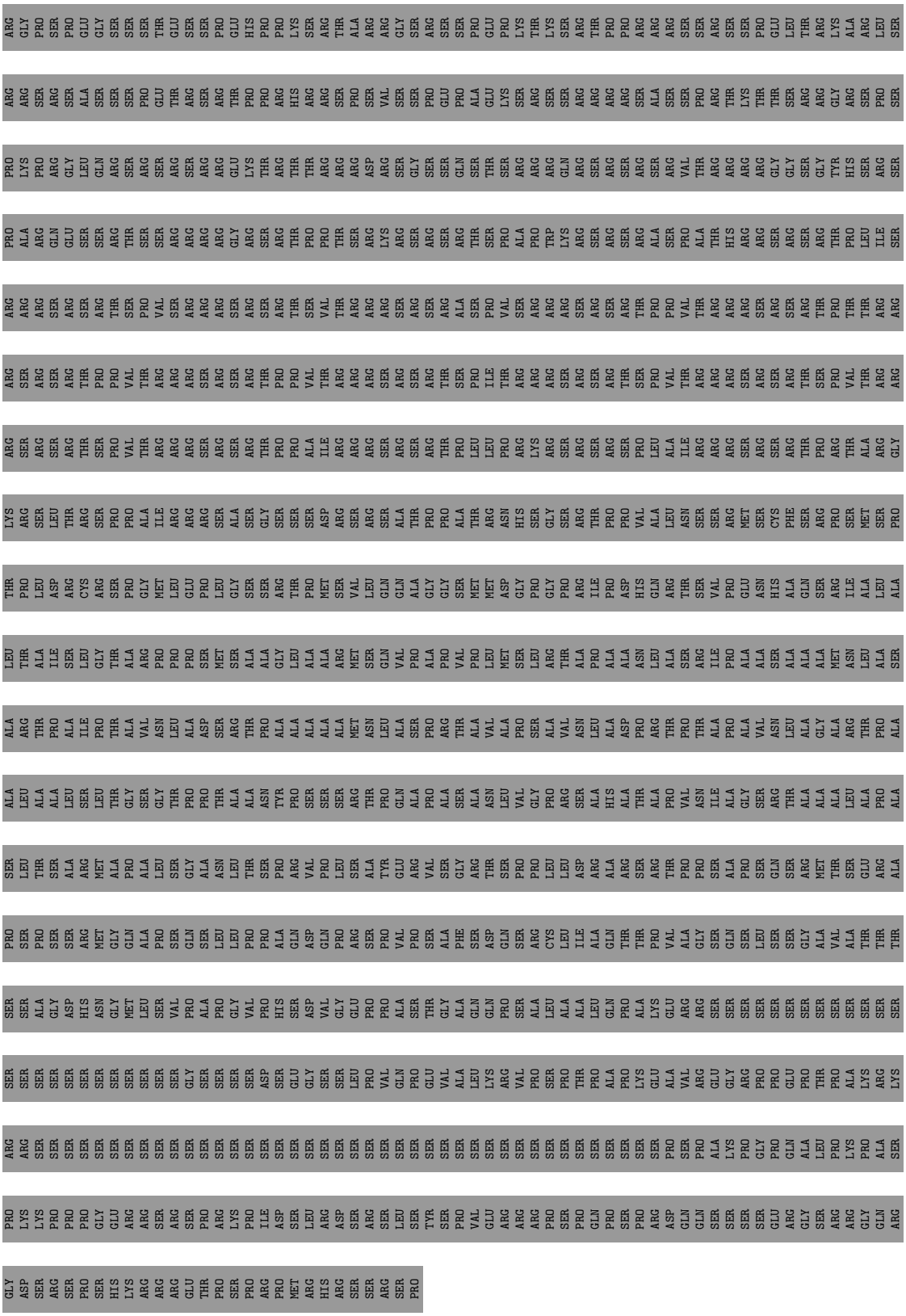


• Molecule 19: Serine/arginine repetitive matrix protein 2

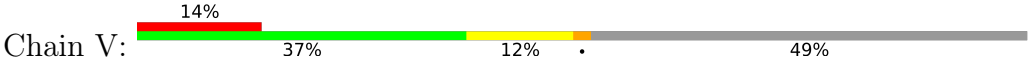
Chain U:

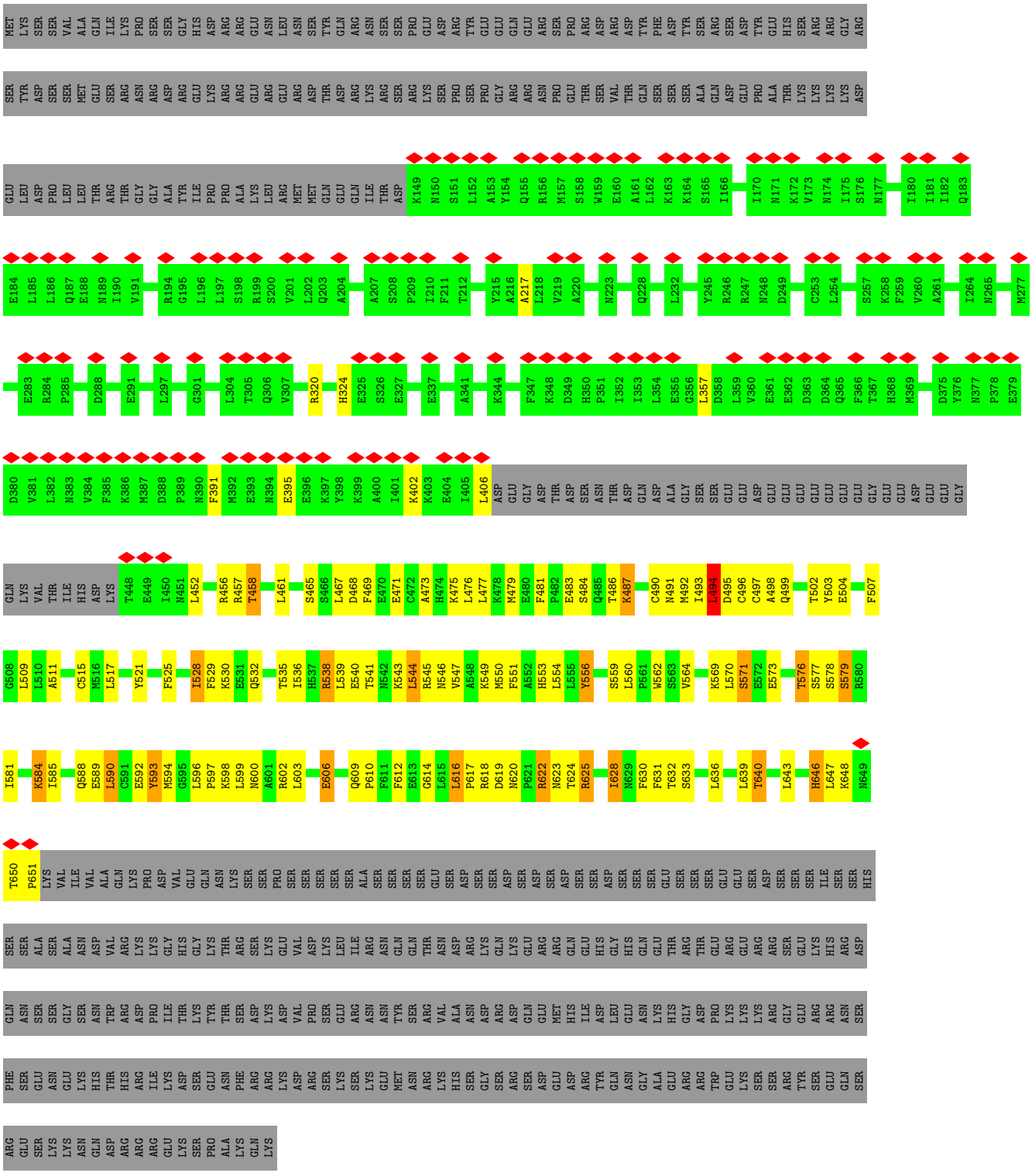




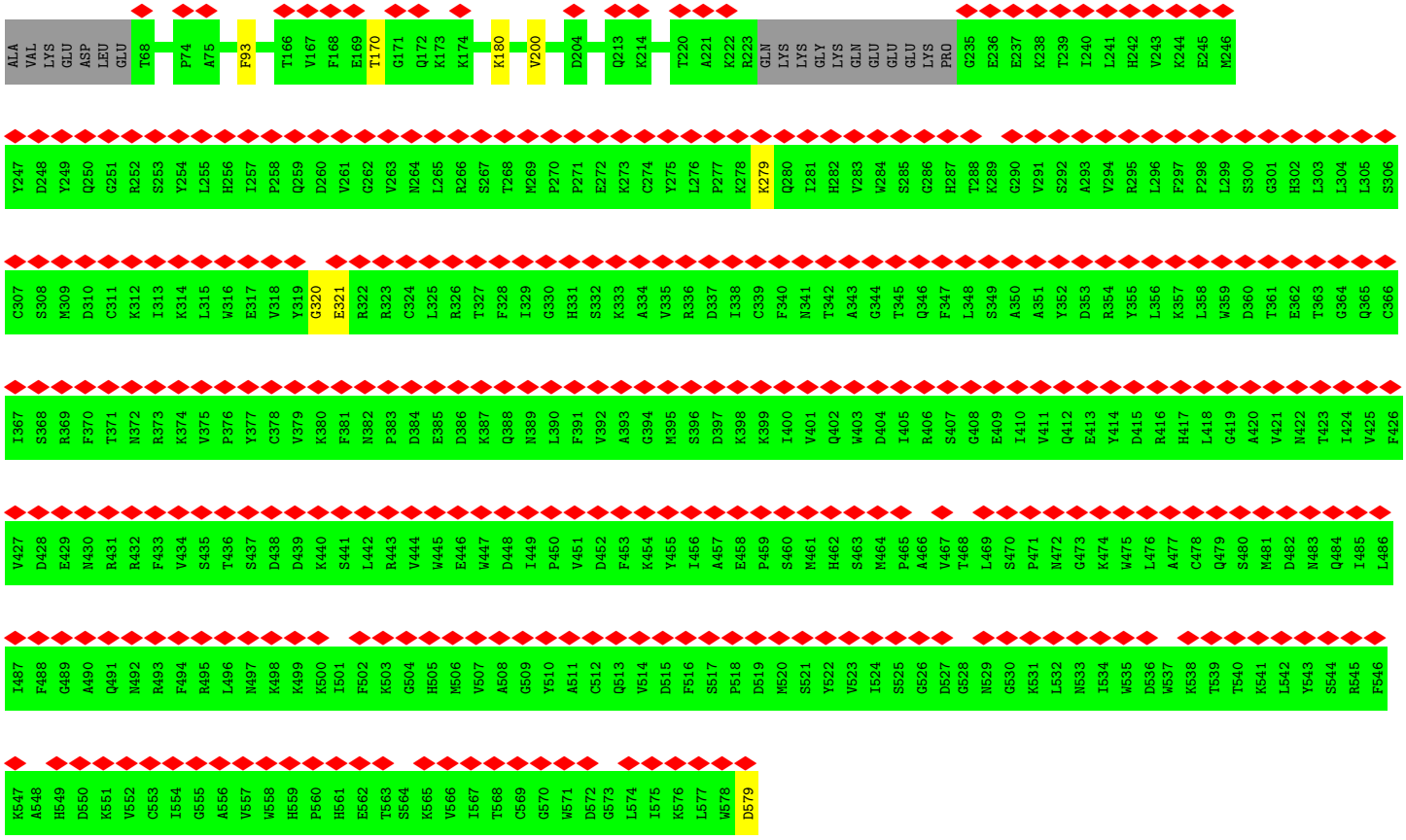


• Molecule 20: Pre-mRNA-splicing factor CWC22 homolog



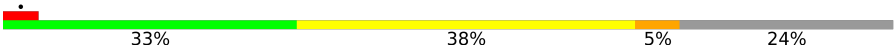


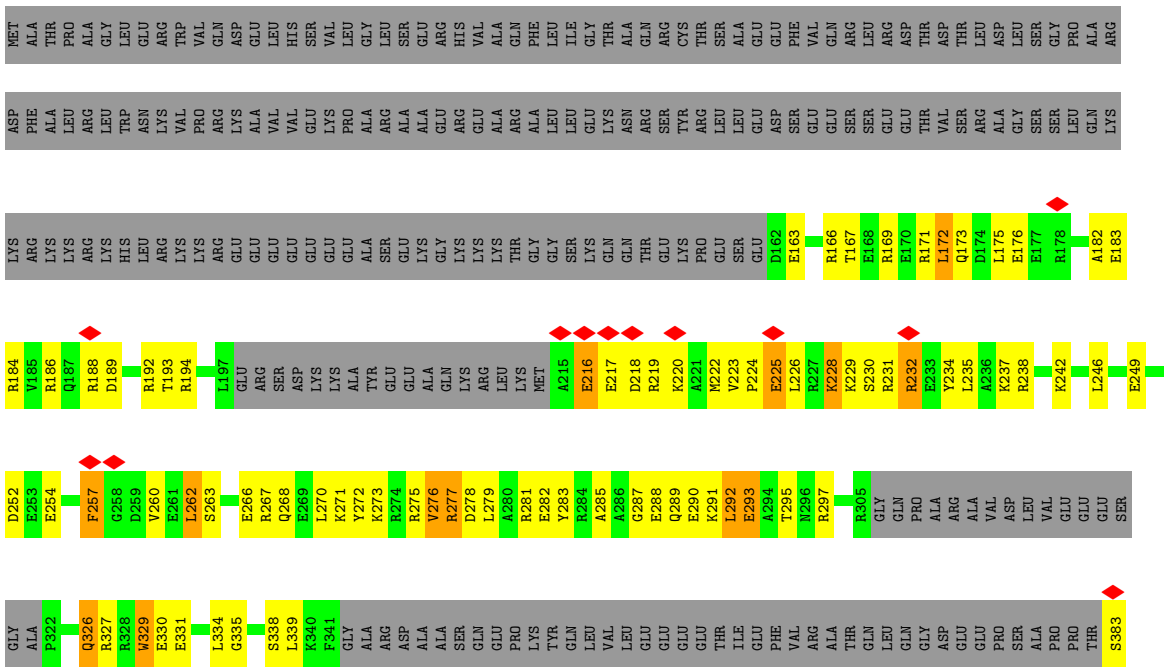
• Molecule 21: Pre-mRNA-processing factor 17

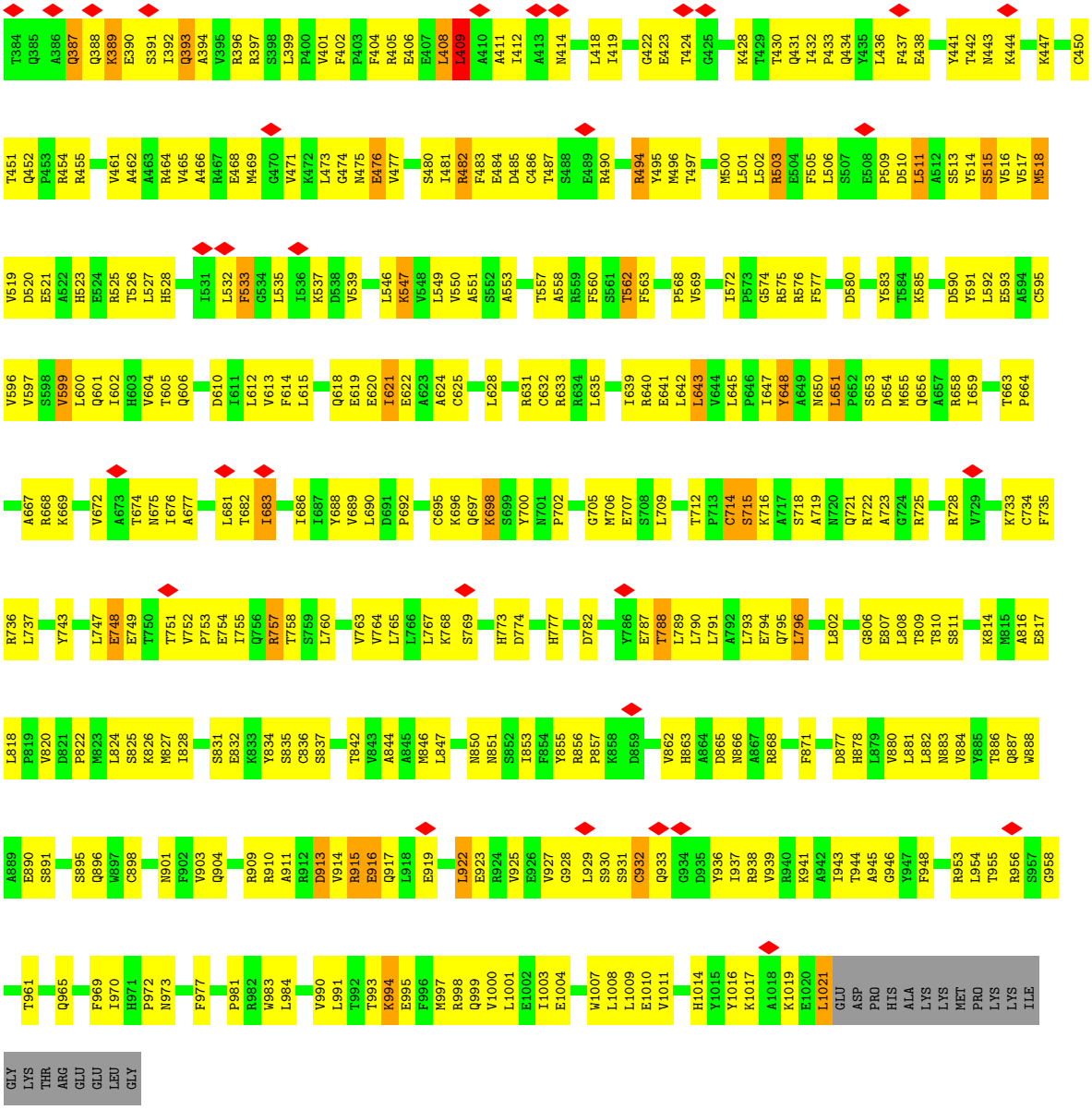


• Molecule 22: Pre-mRNA-splicing factor ATP-dependent RNA helicase DHX16

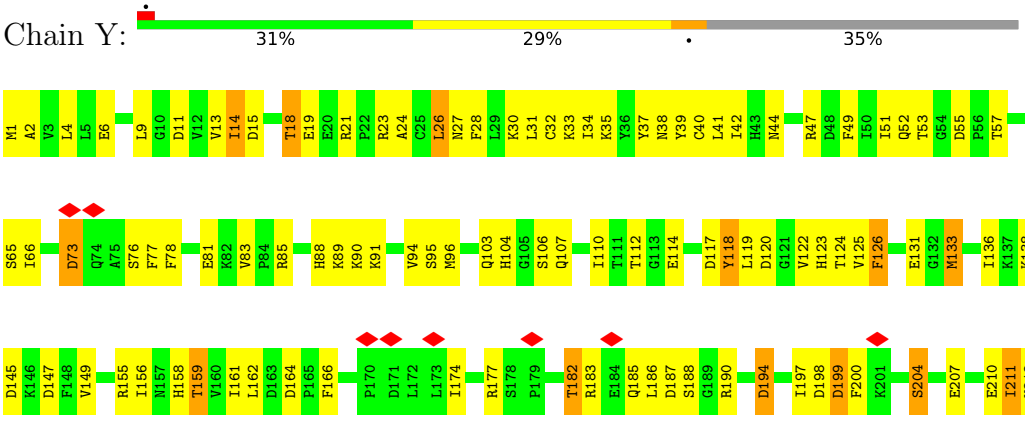
Chain X:

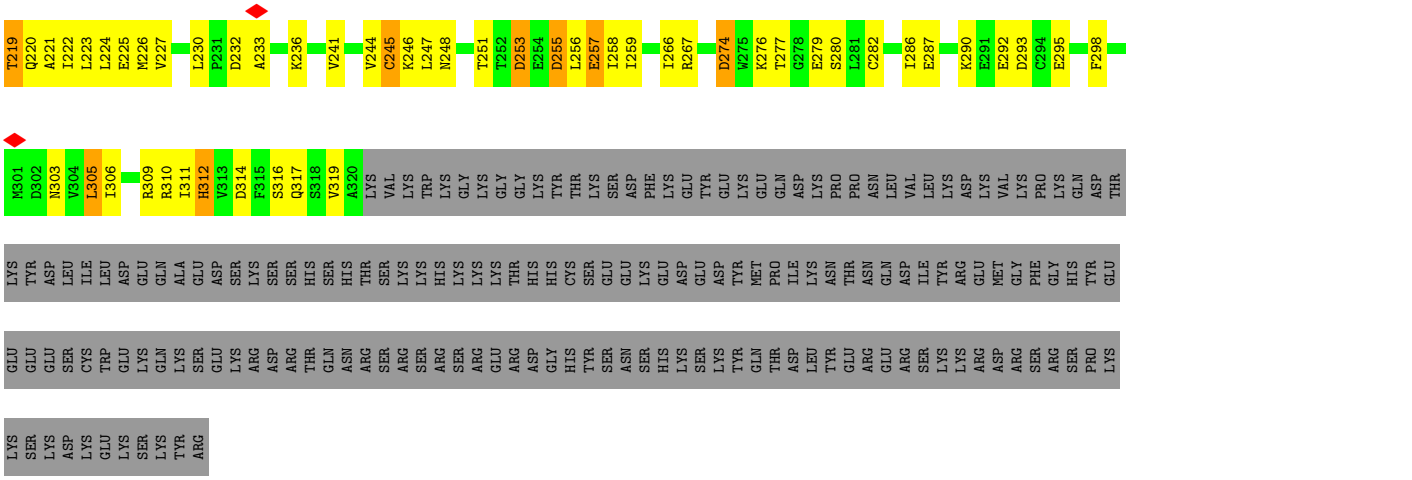






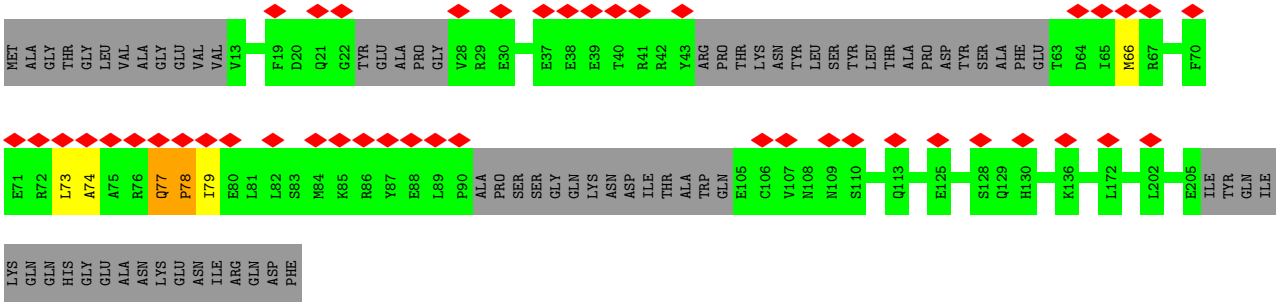
• Molecule 23: Peptidyl-prolyl cis-trans isomerase-like 4





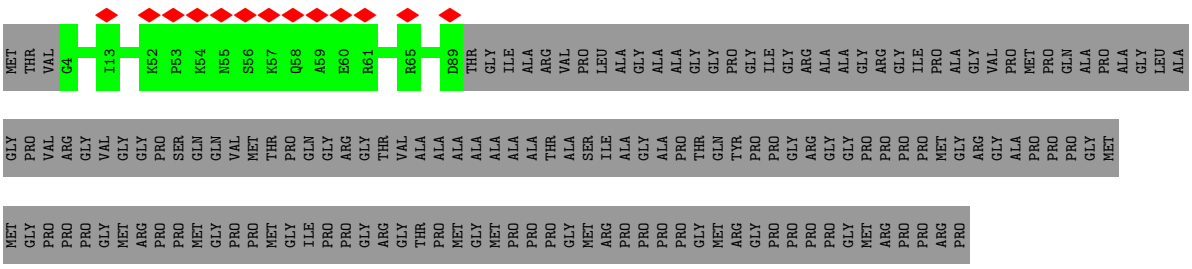
• Molecule 24: Pre-mRNA-splicing factor SPF27

Chain Z:



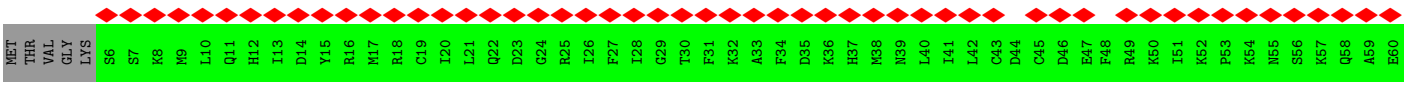
• Molecule 25: Small nuclear ribonucleoprotein-associated proteins B and B'

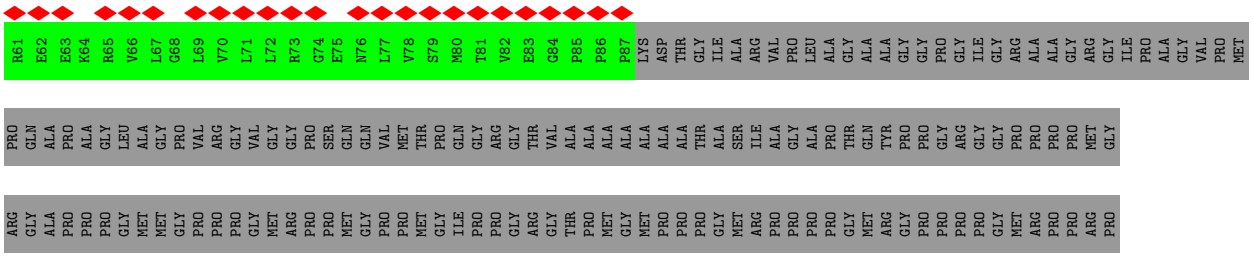
Chain a:



• Molecule 25: Small nuclear ribonucleoprotein-associated proteins B and B'

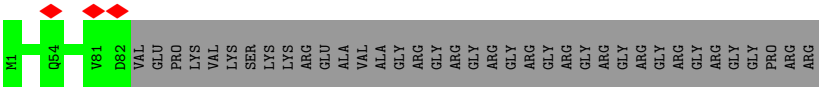
Chain m:





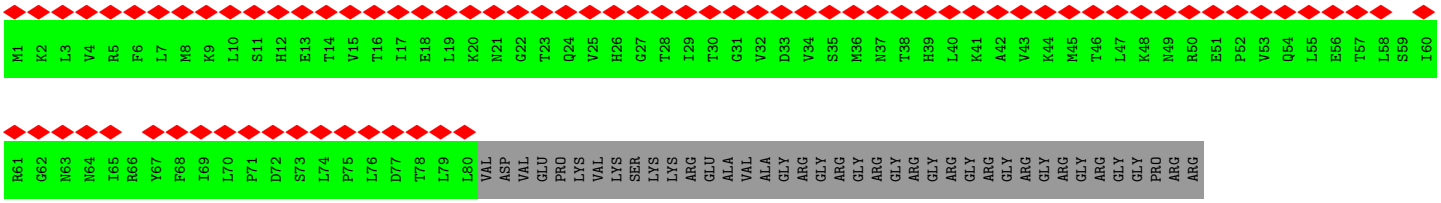
• Molecule 26: Small nuclear ribonucleoprotein Sm D1

Chain b:



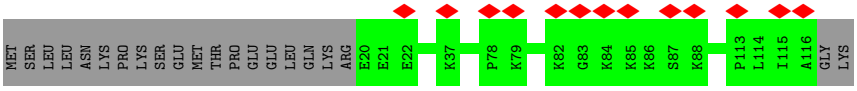
• Molecule 26: Small nuclear ribonucleoprotein Sm D1

Chain n:



• Molecule 27: Small nuclear ribonucleoprotein Sm D2

Chain c:

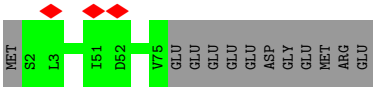


• Molecule 27: Small nuclear ribonucleoprotein Sm D2

Chain h:

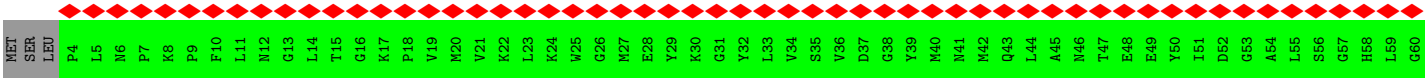
• Molecule 28: Small nuclear ribonucleoprotein F

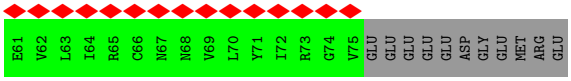
Chain d:



• Molecule 28: Small nuclear ribonucleoprotein F

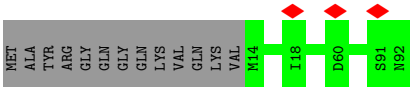
Chain i:





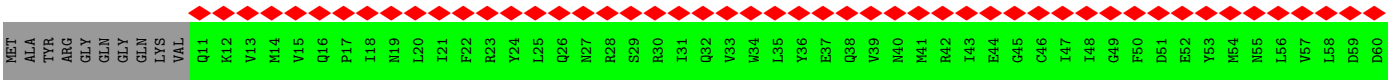
• Molecule 29: Small nuclear ribonucleoprotein E

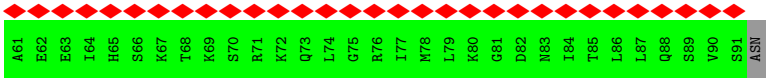
Chain e:



• Molecule 29: Small nuclear ribonucleoprotein E

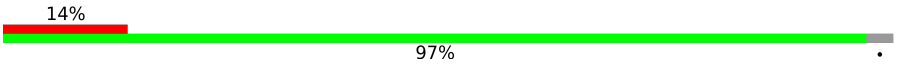
Chain j:

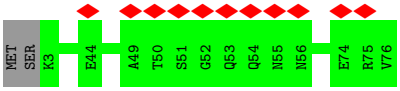




• Molecule 30: Small nuclear ribonucleoprotein G

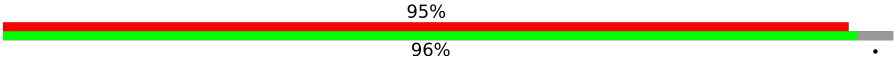
Chain f:

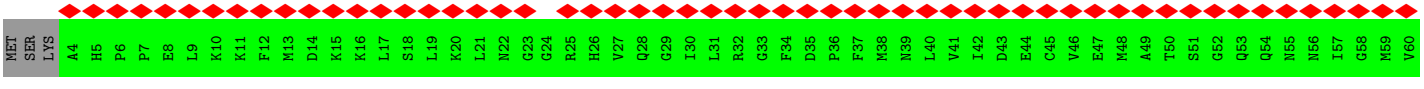


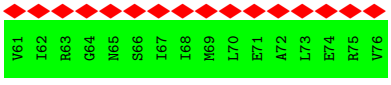


• Molecule 30: Small nuclear ribonucleoprotein G

Chain k:

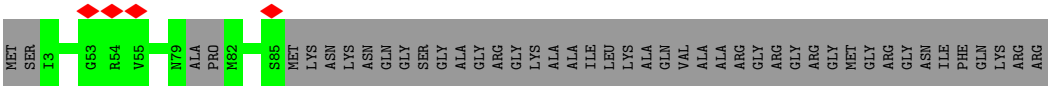






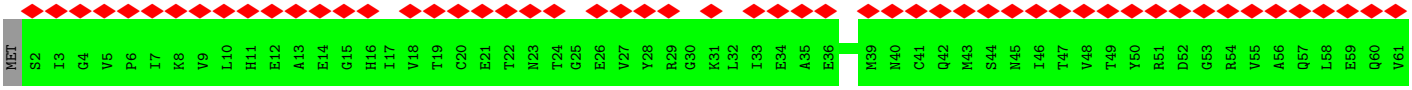
• Molecule 31: Small nuclear ribonucleoprotein Sm D3

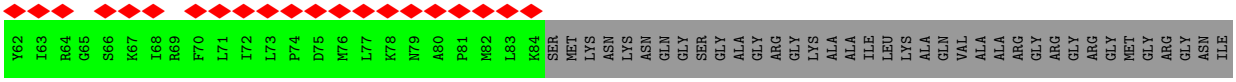
Chain g:



• Molecule 31: Small nuclear ribonucleoprotein Sm D3

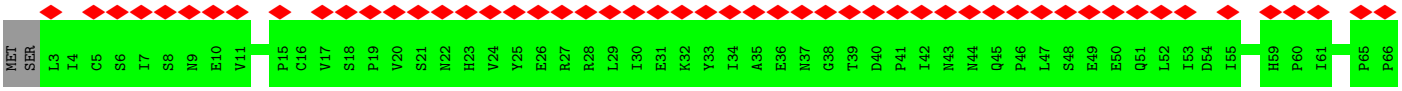
Chain l:

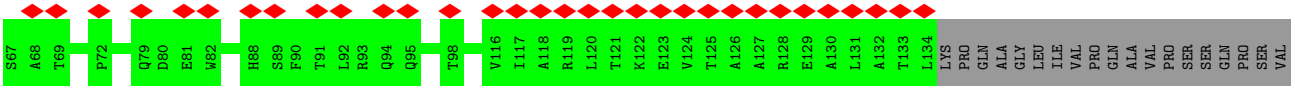




• Molecule 32: Pre-mRNA-processing factor 19

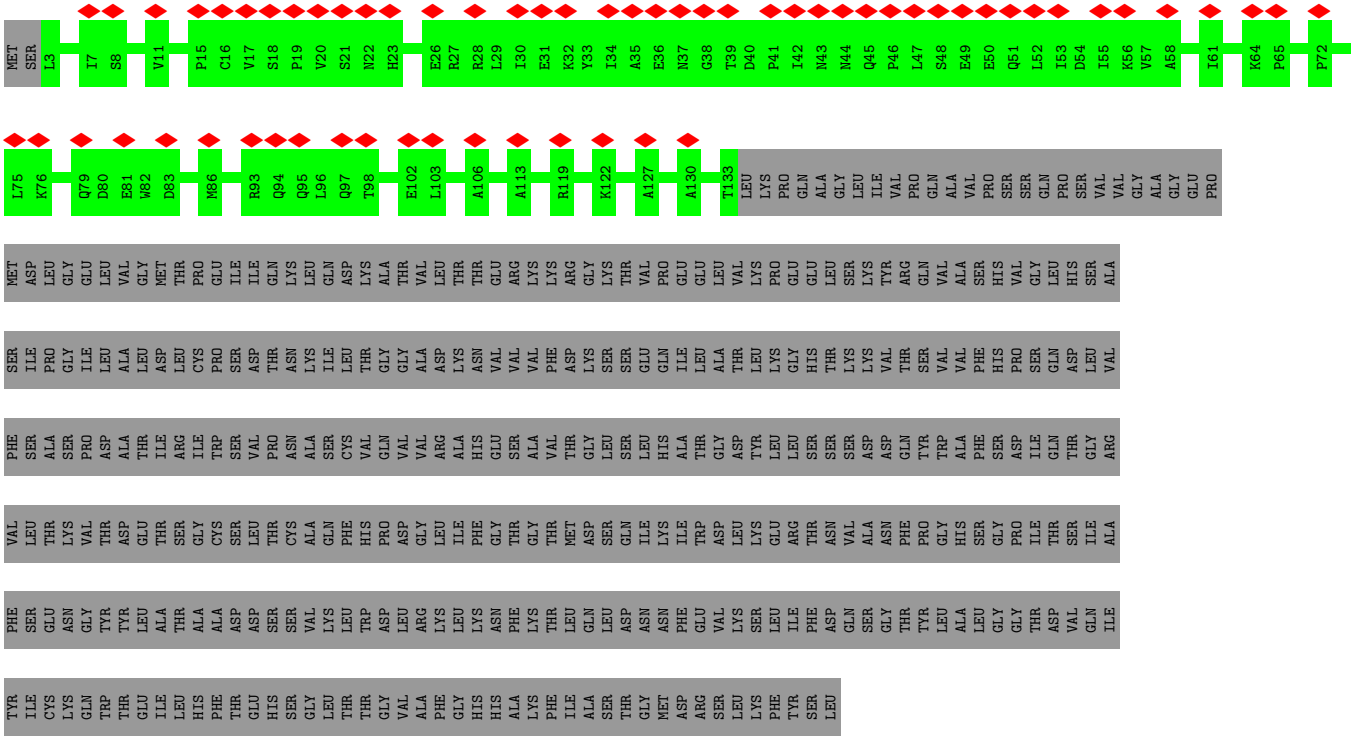
Chain q:



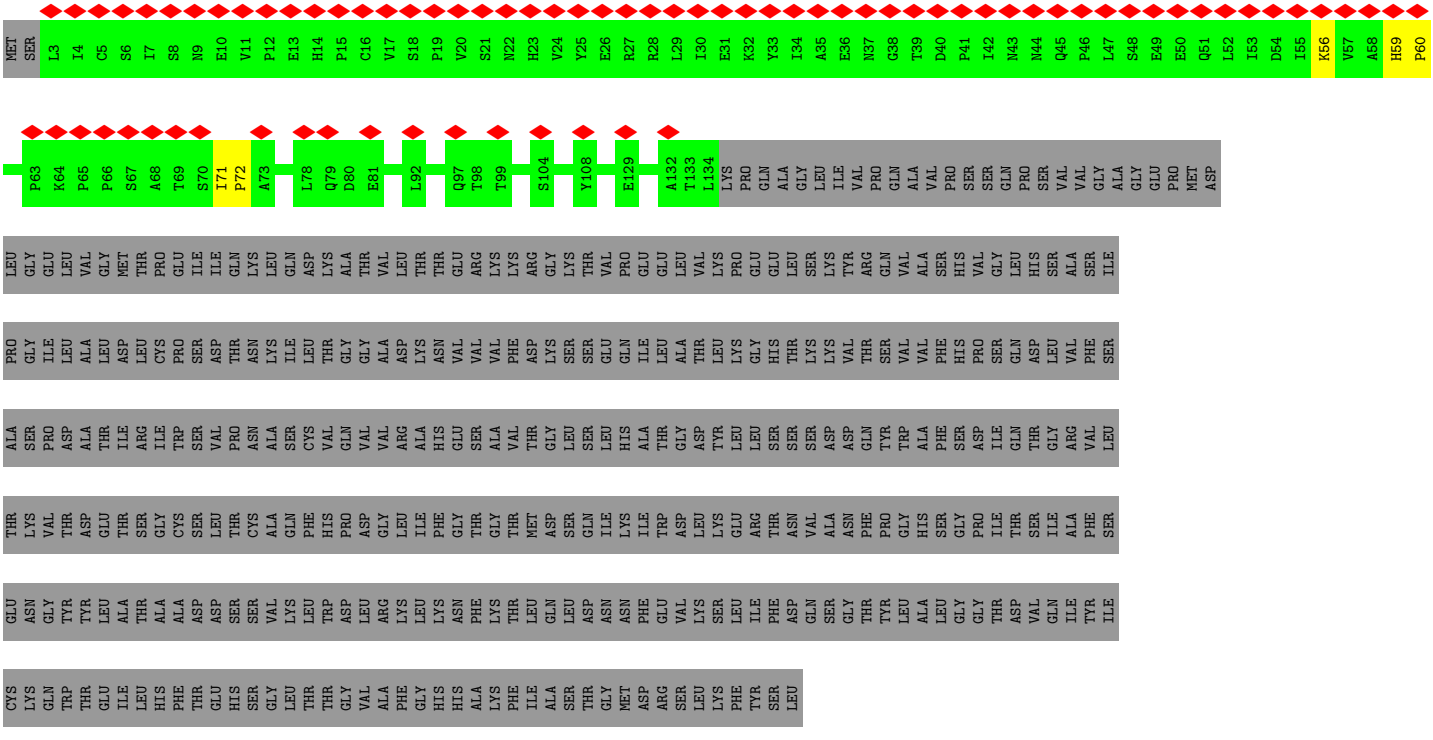


• Molecule 32: Pre-mRNA-processing factor 19

Chain r:

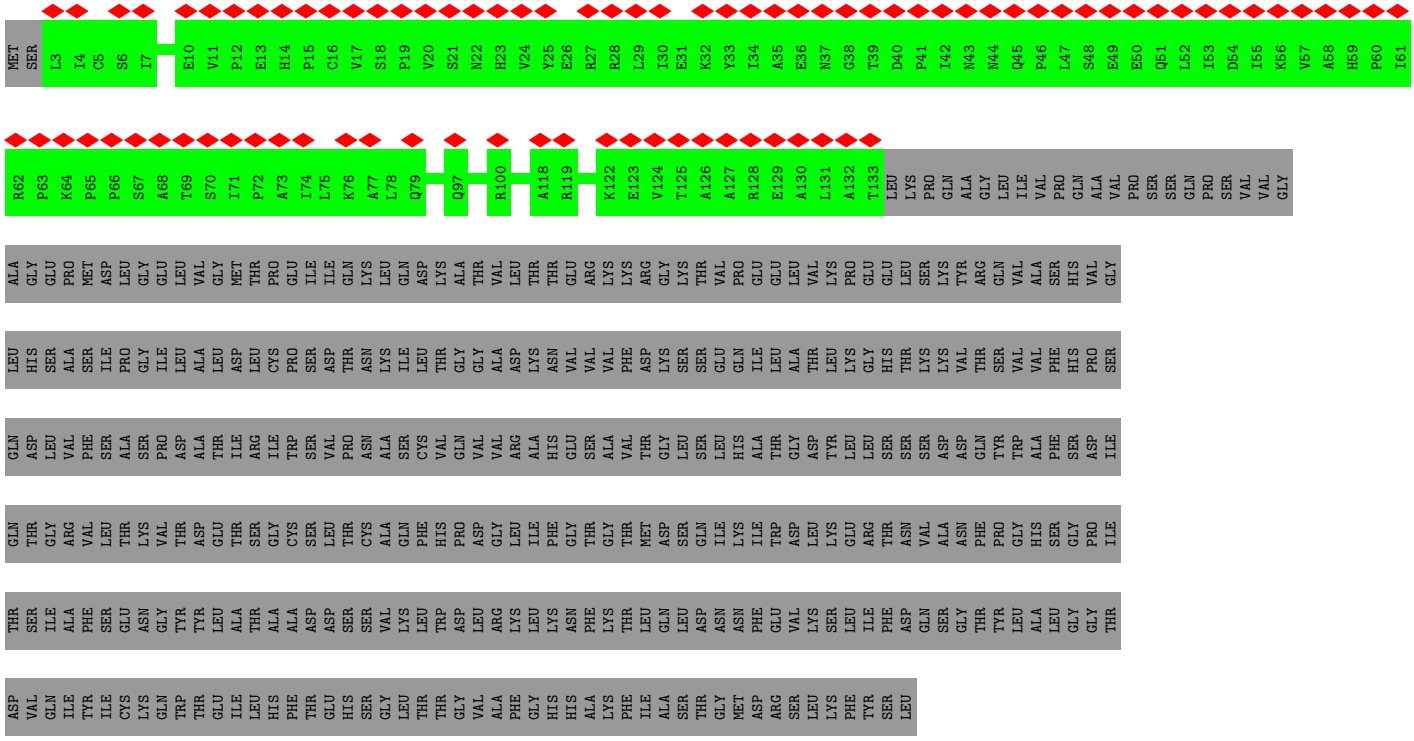


• Molecule 32: Pre-mRNA-processing factor 19



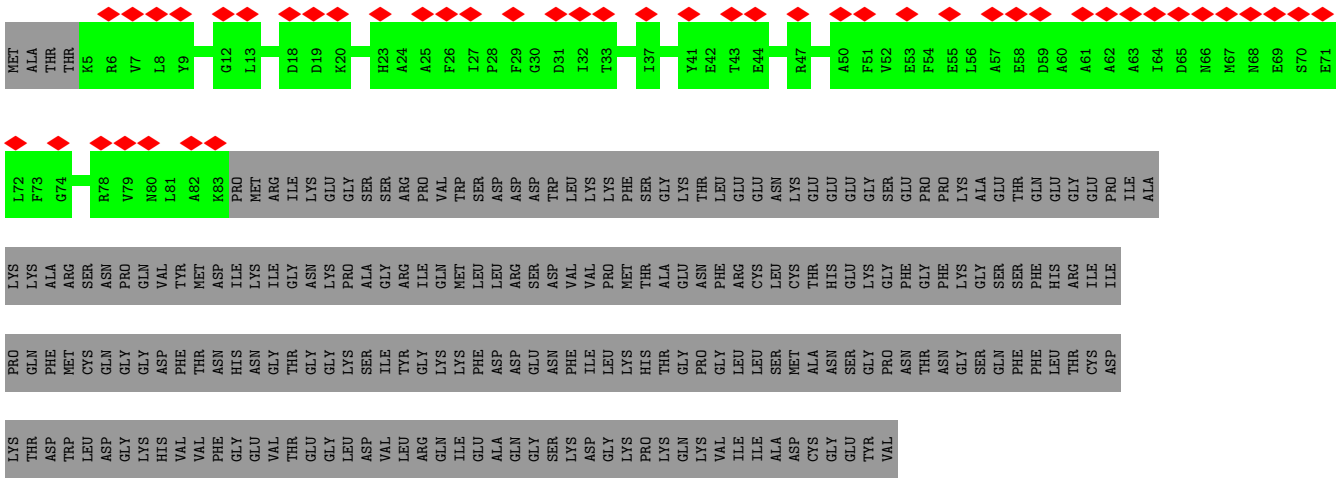
• Molecule 32: Pre-mRNA-processing factor 19

Chain t:



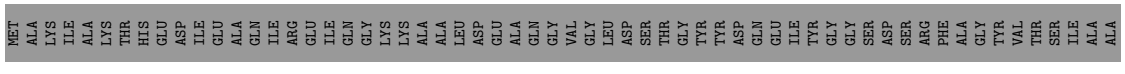
• Molecule 33: Peptidyl-prolyl cis-trans isomerase E

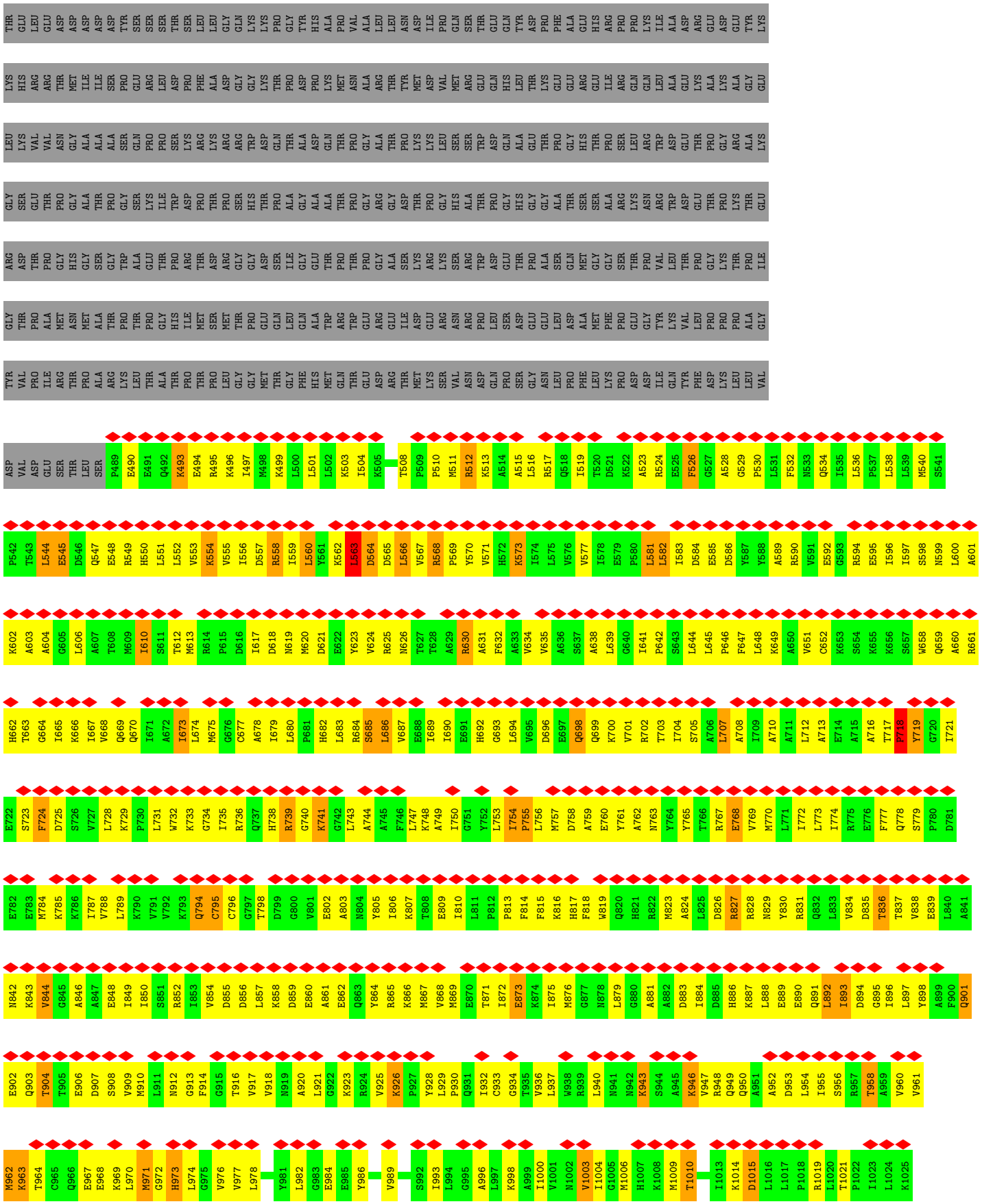
Chain y:

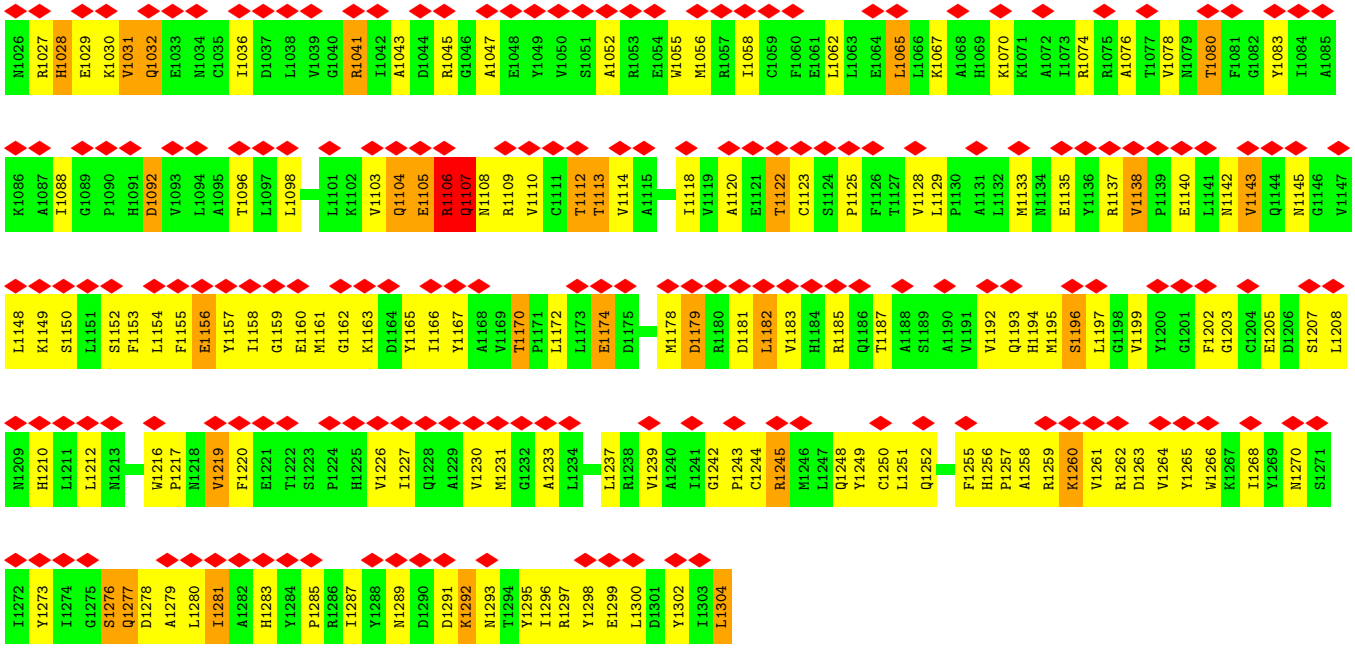


• Molecule 34: Splicing factor 3B subunit 1

Chain 1:

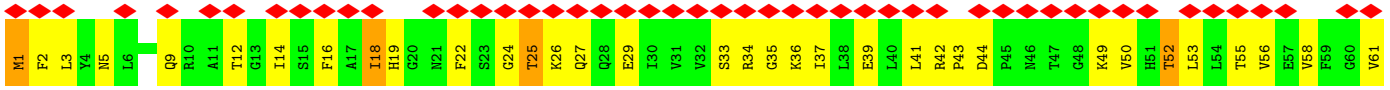


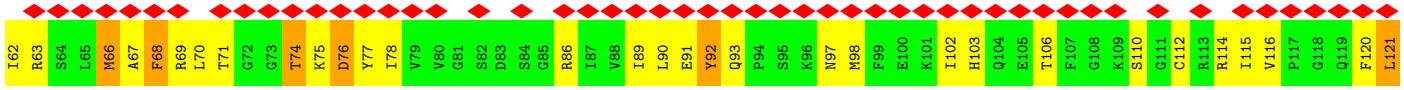

THR GLU LEU GLU ASP ASP ASP TYR SER SER SER THR SER LEU LEU GLY GLN LYS LYS PRO GLY TYR HIS ALA PRO VAL ALA LEU LEU ASN ASP ILE PRO GLN SER THR GLU GLN TYR ASP PRO PHE ALA GLU HIS ARG PRO PRO LYS ILE ALA ASP ARG GLU ASP GLU TYR LYS
LYS HIS ARG ARG THR MET ILE ILE SER PRO GLU ARG LEU ASP PRO PHE ALA ASP GLY GLY LYS THR PRO ASP PRO MET ASN ALA ARG THR TYR MET ASP VAL MET ARG GLU GLN HIS LEU THR LYS GLU GLU ARG GLN GLN LEU ALA GLU LYS ALA LYS ALA GLY GLU
LEU LYS VAL VAL ASN GLY ALA ALA ALA SER GLN PRO PRO SER LYS ARG LYS ARG ARG TRP ASP GLN THR ALA ASP PRO GLY ALA THR PRO LYS LYS LEU SER SER TRP ASP GLN ALA GLU GLU THR PRO GLY HIS THR PRO SER LEU ARG TRP ASP GLU THR PRO GLY HIS THR
GLY SER GLU THR PRO GLY ALA THR PRO GLY SER LYS ILE TRP ASP PRO THR PRO SER HIS THR PRO ALA GLY ALA ALA THR PRO GLY ARG GLY ASP THR PRO LYS LYS SER HIS ALA THR PRO GLY HIS GLY GLY ALA ALA THR SER SER ALA ARG LYS ASN ARG THR LEU THR PRO LYS
ARG ASP THR PRO GLY TRP ALA GLU THR PRO ARG THR ASP ARG GLY GLY ASP SER ARG THR ASP GLU THR PRO ALA SER GLY GLU GLY ALA SER LYS SER ARG THR ASP GLN MET GLY GLY SER THR PRO VAL LEU THR PRO GLY LYS THR PRO ILE
GLY THR PRO ALA MET ASN MET ALA THR PRO TRP ARG TRP GLU ARG GLU ILE ASP GLU ARG ASN ARG PRO LEU SER ASP GLU GLU LEU ASP ALA MET MET PHE PRO GLU GLY TYR LYS VAL LEU PRO PRO GLY LYS PRO ALA GLY
TYR VAL PRO ILE ARG THR PRO ALA ARG LYS LEU THR ALA THR PRO THR PRO LEU GLY GLY MET THR GLN THR GLU ASP ARG THR MET LYS SER VAL ASN ASP GLN PRO SER GLY ASN LEU PRO PHE LEU LYS PRO ASP ASP ILE GLN TYR PHE ASP LYS LEU LEU VAL
ASP VAL ASP GLU SER LEU SER HIS THR PRO ALA GLY ALA GLU LEU GLN PRO GLY HIS LEU GLY GLY ALA THR PRO GLY GLY GLY SER THR PRO VAL LEU THR PRO GLY LYS THR PRO ASP GLN LEU THR ALA SER GLN MET GLY GLY SER ALA ARG LYS ASN ARG PRO LYS THR PRO ILE
P489 E490 E491 Q492 K493 E494 R495 K496 I497 M498 K499 L500 L501 L502 K503 I504 K505 T508 P509 P510 M511 R512 K513 A514 A515 L516 R517 Q518 I519 T520 D521 K522 A523 R524 E525 F526 G527 A528 G529 P530 L531 F532 N533 Q534 I535 L536 P537 L538 L539 M540 S541
P542 T543 L544 E545 D546 Q547 E548 R549 H550 L551 L552 V553 K554 V555 I556 D557 R558 I559 L560 Y561 K562 L563 D564 D565 L566 V567 R568 P569 Y570 V571 H572 K573 I574 L575 V576 V577 I578 E579 P580 L581 L582 I583 D584 E585 D586 Y587 Y588 A589 R590 V591 E592 G593 R594 E595 I596 I597 S598 N599 L600 A601
K602 A603 A604 G605 L606 A607 T608 M609 I610 S611 T612 M613 R614 P615 D616 I617 D618 N619 M620 D621 E622 Y623 V624 R625 N626 T627 T628 A629 R630 A631 F632 A633 V634 V635 A636 S637 A638 L639 G640 I641 P642 S643 L644 L645 P646 F647 L648 K649 A650 V651 C652 K653 S654 K655 K656 S657 W658 Q659 A660 R661
H662 T663 G664 I665 K666 I667 V668 Q669 Q670 I671 A672 I673 L674 M675 G676 C677 A678 I679 L680 P681 H682 L683 R684 S685 L686 V687 E688 I689 I690 E691 H692 G693 L694 V695 D696 E697 Q698 Q699 K700 V701 R702 T703 I704 S705 A706 L707 A708 I709 A710 A711 L712 A713 E714 A715 A716 T717 P718 Y719 G720 I721
E722 S723 F724 D725 S726 V727 L728 K729 P730 L731 W732 K733 G734 I735 R736 Q737 H738 R739 G740 K741 G742 L743 A744 A745 F746 L747 K748 A749 I750 G751 Y752 L753 I754 P755 L756 M757 D758 A759 E760 Y761 A762 N763 Y764 Y765 T766 R767 E768 V769 M770 L771 I772 L773 I774 R775 E776 F777 Q778 S779 P780 D781
E782 E783 M784 K785 K786 I787 V788 L789 K790 V791 V792 K793 Q794 C795 C796 G797 T798 D799 G800 V801 E802 A803 N804 Y805 I806 K807 T808 E809 I810 L811 P812 P813 F814 F815 K816 H817 F818 W819 Q820 H821 R822 M823 A824 L825 D826 R827 R828 N829 Y830 R831 Q832 L833 V834 D835 T836 T837 V838 E839 L840 A841
N842 K843 V844 G845 A846 A847 E848 I849 I850 S851 R852 I853 V854 D855 D856 L857 K858 D859 E860 A861 E862 Q863 Y864 R865 K866 M867 V868 M869 E870 T871 I872 E873 K874 I875 M876 G877 N878 L879 G880 A881 A882 D883 I884 D885 H886 K887 L888 E889 E890 Q891 L892 I893 D894 D835 G895 I896 L897 Y898 A899 P900 Q901
E902 Q903 T904 T905 E906 D907 S908 V909 M910 L911 N912 G913 F914 G915 T916 V917 V918 N919 A920 L921 G922 K923 R924 V925 K926 P927 Y928 L929 P930 Q931 I932 C933 G934 T935 V936 L937 W938 R939 L940 N941 N942 K943 S944 A945 K946 V947 R948 Q949 Q950 A951 A952 D953 L954 I955 S956 R957 T958 A959 V960 V961
M962 K963 T964 C965 Q966 E967 E968 K969 L970 M971 G972 H973 L974 G975 V976 V977 L978 Y981 L982 G983 E984 E985 Y986 V989 S992 I993 L994 G995 A996 L997 K998 A999 I1000 V1001 N1002 V1003 I1004 G1005 M1006 H1007 K1008 M1009 T1010 I1013 K1014 D1015 L1016 L1017 P1018 R1019 L1020 T1021 P1022 I1023 L1024 K1025

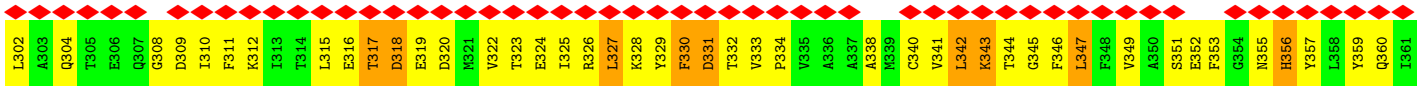


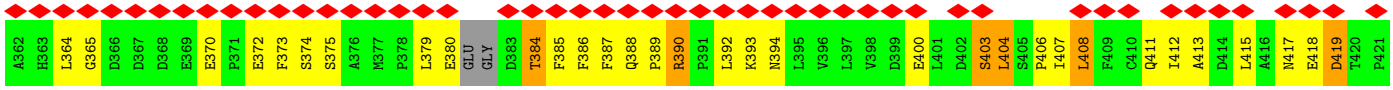
• Molecule 35: Splicing factor 3B subunit 3

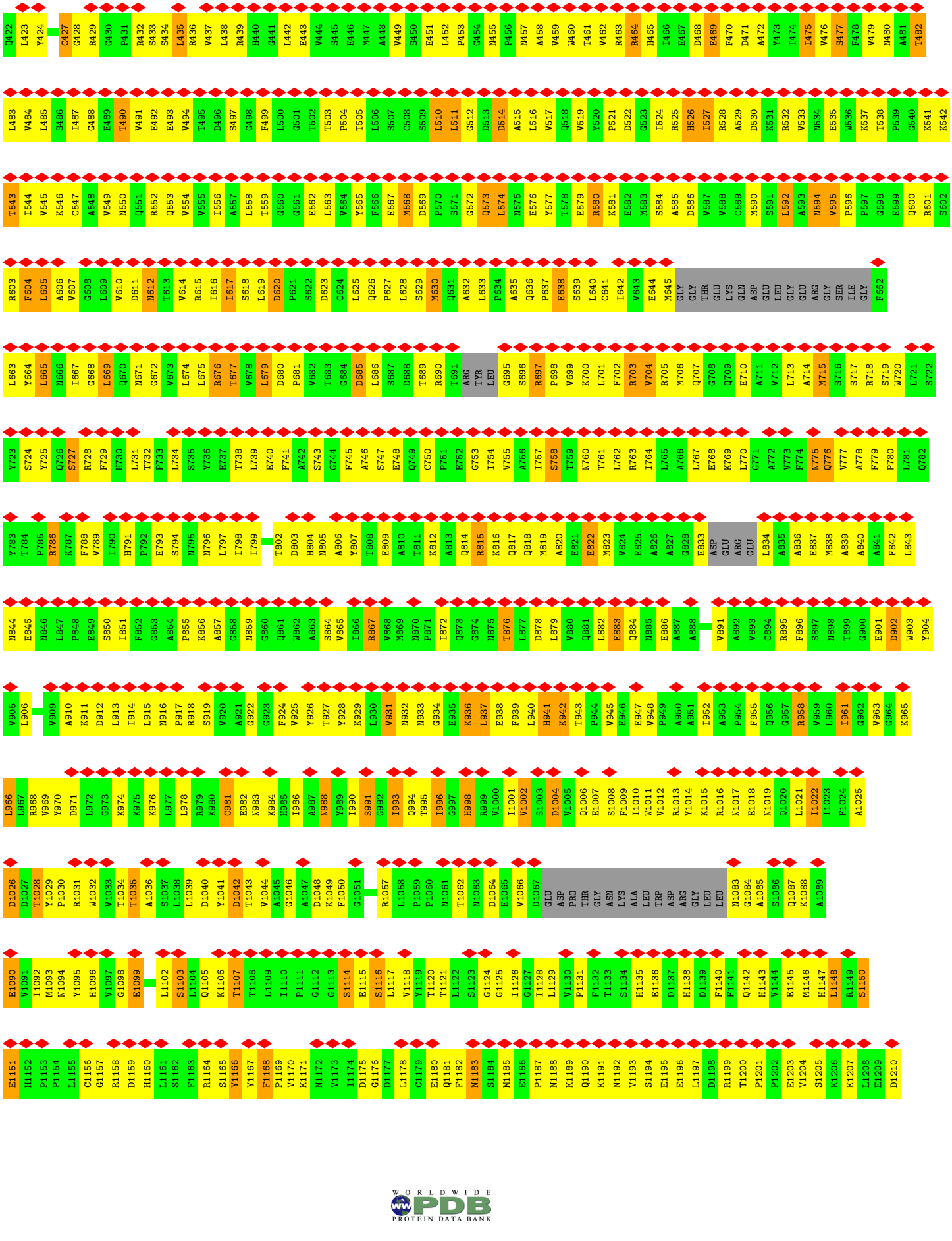
Chain 3:

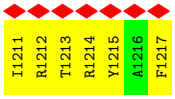






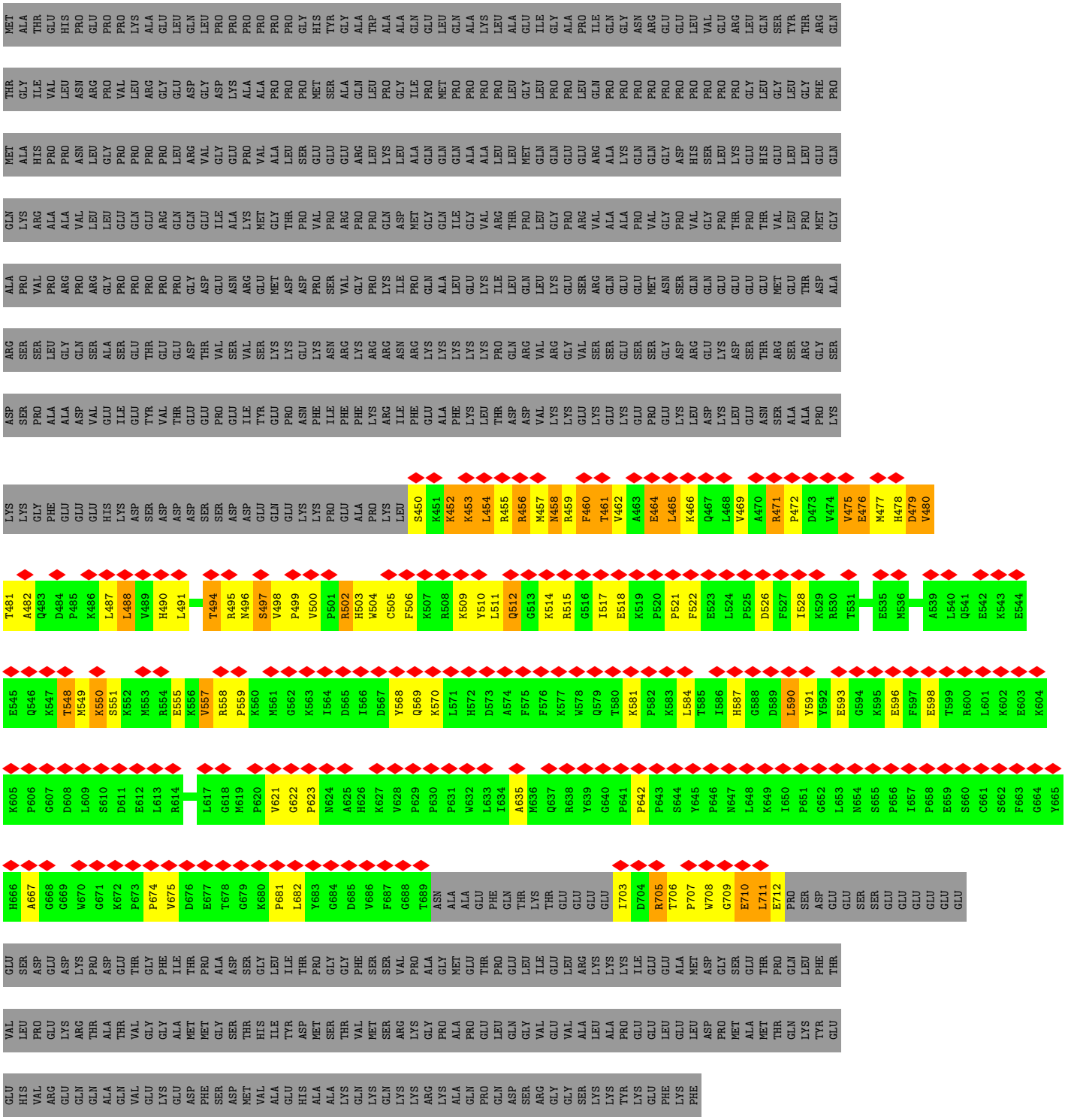



Q422 L423 Y424 C427 G428 R429 G430 P431 R432 S433 S434 L435 R436 V437 L438 R439 H440 G441 L442 E443 V444 S445 E446 M447 A448 V449 S450 E451 L452 P453 G454 N455 P456 N457 A458 V459 W460 T461 V462 R463 R464 H465 I466 E467 D468 E469 F470 D471 A472 Y473 I474 I475 V476 S477 F478 V479 N480 A481 T482
L483 V484 L485 S486 I487 G488 E489 T490 V491 E492 E493 V494 T495 D496 S497 G498 F499 L500 G501 T502 T503 P504 T505 L506 S507 C508 S509 L510 L511 G512 D513 D514 A515 L516 V517 Q518 V519 Y520 P521 D522 G523 I524 R525 H526 I527 R528 A529 D530 K531 R532 V533 N534 E535 W536 K537 T538 P539 G540 K541 K542
T543 I544 V545 K546 C547 A548 V549 N550 Q551 R552 Q553 V554 V555 I556 A557 L558 T559 G560 G561 E562 L563 V564 Y565 F566 E567 M568 D569 P570 S571 G572 Q573 L574 N575 E576 Y577 T578 E579 R580 K581 E582 M583 S584 A585 D586 V587 V588 C589 M590 S591 L592 A593 N594 V595 P596 P597 G598 E599 Q600 R601 S602
R603 F604 L605 A606 V607 G608 L609 V610 D611 N612 T613 V614 R615 I616 I617 S618 L619 D620 P621 S622 D623 C624 L625 Q626 P627 L628 S629 M630 Q631 A632 L633 P634 A635 Q636 P637 E638 S639 L640 C641 I642 V643 E644 M645 GLY GLY THR GLU LYS GLN ASP GLU LEU GLY GLU ARG GLY SER ILE GLY F662
L663 Y664 L665 N666 I667 G668 L669 Q670 N671 G672 V673 L674 L675 R676 T677 V678 L679 D680 P681 V682 T683 G684 D685 L686 S687 D688 T689 R690 T691 ARG TYR LEU G695 S696 R697 P698 V699 K700 L701 F702 R703 V704 R705 M706 Q707 G708 Q709 E710 A711 V712 L713 A714 M715 S716 S717 R718 S719 W720 L721 S722
Y723 S724 Y725 Q726 S727 R728 F729 H730 L731 T732 P733 L734 S735 Y736 E737 T738 L739 E740 F741 A742 S743 G744 F745 A746 S747 E748 Q749 C750 P751 E752 G753 I754 V755 A756 I757 S758 T759 N760 T761 L762 R763 I764 L765 A766 L767 E768 K769 L770 G771 A772 V773 F774 N775 Q776 V777 A778 F779 P780 L781 Q782
Y783 T784 P785 R786 K787 F788 V789 I790 H791 P792 E793 S794 N795 N796 L797 T798 I799 T802 D803 H804 N805 A806 Y807 T808 E809 A810 T811 K812 A813 Q814 R815 K816 Q817 Q818 M819 A820 E821 E822 M823 V824 E825 A826 A827 G828 E833 ASP GLU ARG GLU L834 A835 A836 E837 M838 A839 A840 A841 F842 L843
N844 E845 N846 L847 P848 E849 S850 I851 F852 G853 A854 P855 K856 A857 G858 N859 G860 Q861 W862 A863 S864 V865 I866 R867 V868 M869 N870 P871 I872 Q873 G874 N875 T876 L877 D878 L879 V880 Q881 L882 E883 Q884 N885 E886 A887 A888 V891 A892 V893 C894 R895 F896 S897 N898 T899 G900 E901 D902 W903 Y904
V905 L906 V909 A910 K911 D912 L913 I914 L915 N916 P917 R918 S919 V920 A921 G922 G923 F924 V925 Y926 T927 Y928 K929 L930 V931 N932 N933 G934 E935 K936 L937 E938 F939 L940 H941 K942 T943 P944 V945 E946 E947 V948 P949 A950 A951 I952 A953 P954 F955 Q956 G957 R958 V959 L960 I961 G962 V963 G964 K965
L966 L967 R968 V969 Y970 D971 L972 G973 K974 K975 K976 L977 L978 R979 K980 C981 E982 N983 K984 H985 I986 A987 N988 Y989 I990 S991 Q992 I993 Q994 T995 I996 G997 H998 R999 V1000 I1001 V1002 S1003 D1004 V1005 Q1006 E1007 S1008 F1009 I1010 W1011 V1012 R1013 Y1014 K1015 R1016 N1017 E1018 N1019 Q1020 L1021 I1022 I1023 F1024 A1025
D1026 D1027 T1028 Y1029 P1030 R1031 W1032 V1033 T1034 T1035 A1036 S1037 L1038 L1039 D1040 Y1041 D1042 T1043 V1044 A1045 G1046 A1047 D1048 K1049 F1050 G1051 R1057 L1058 P1059 P1060 N1061 T1062 N1063 D1064 E1065 V1066 D1067 GLU ASP PRO THR GLY ASN LYS ALA LEU TRP ASP ARG GLY LEU LEU N1083 G1084 A1085 S1086 Q1087 K1088 A1089
E1090 Y1091 I1092 M1093 N1094 Y1095 H1096 V1097 G1098 E1099 L1102 S1103 L1104 Q1105 K1106 T1107 T1108 L1109 I1110 P1111 G1112 G1113 S1114 E1115 S1116 L1117 V1118 Y1119 T1120 T1121 L1122 S1123 G1124 G1125 I1126 G1127 I1128 L1129 V1130 P1131 F1132 T1133 S1134 H1135 E1136 D1137 H1138 D1139 F1140 F1141 Q1142 H1143 V1144 E1145 M1146 H1147 L1148 R1149 S1150
E1151 H1152 P1153 P1154 L1155 C1156 G1157 R1158 D1159 H1160 L1161 S1162 F1163 R1164 S1165 Y1166 Y1167 F1168 P1169 V1170 K1171 N1172 V1173 I1174 D1175 G1176 D1177 L1178 C1179 E1180 Q1181 F1182 N1183 S1184 M1185 E1186 P1187 N1188 K1189 Q1190 K1191 N1192 V1193 S1194 E1195 E1196 L1197 D1198 R1199 T1200 P1201 P1202 E1203 V1204 S1205 K1206 K1207 L1208 E1209 D1210



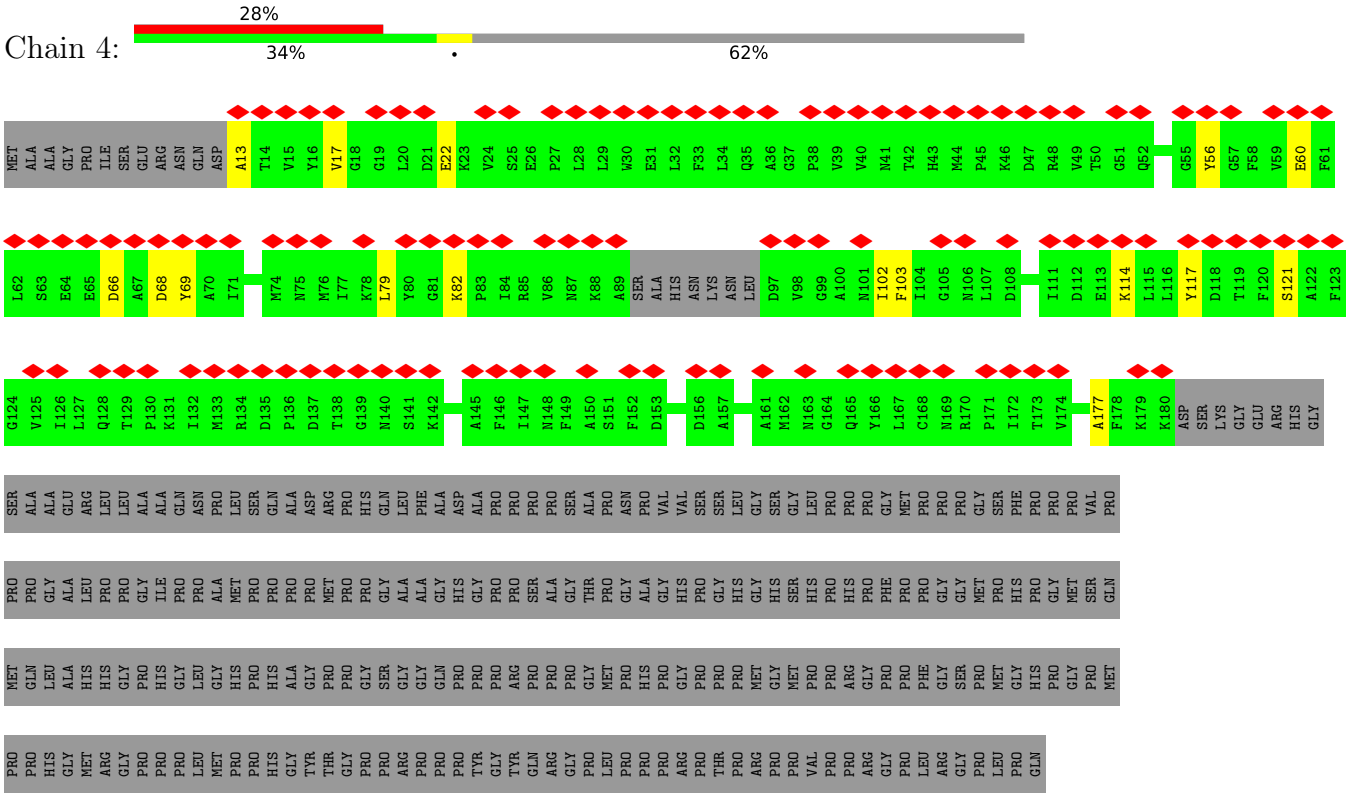
• Molecule 36: Splicing factor 3B subunit 2

Chain 2:



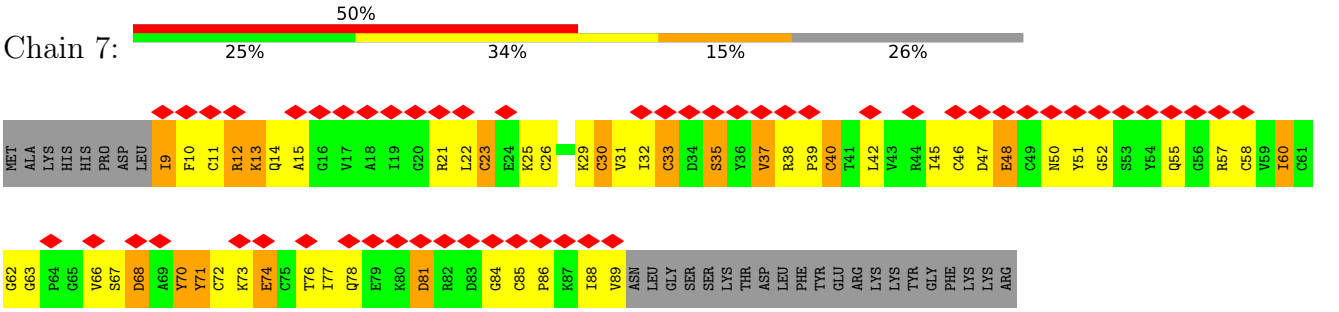
• Molecule 37: Splicing factor 3B subunit 4

Chain 4:



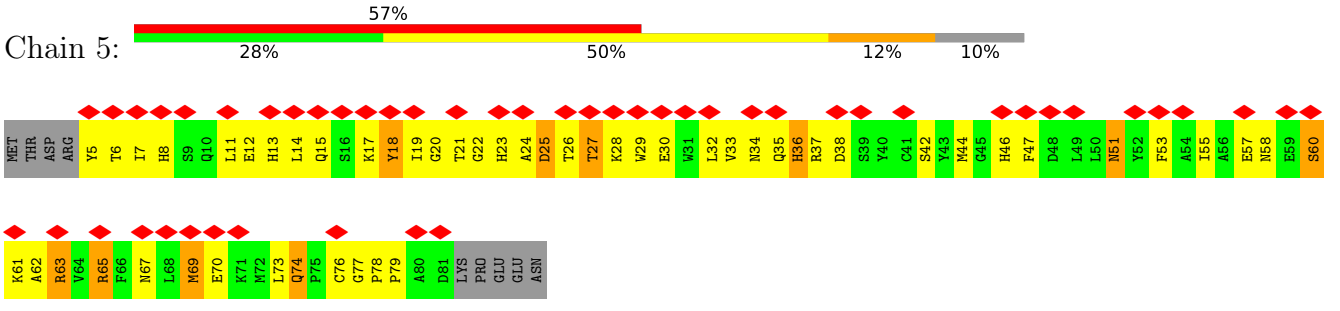
• Molecule 38: PHD finger-like domain-containing protein 5A

Chain 7:



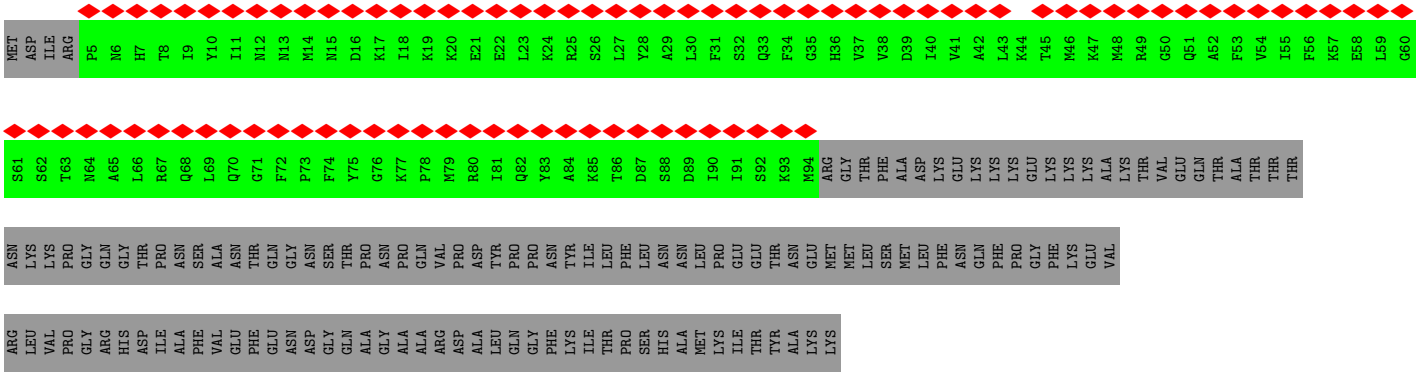
• Molecule 39: Splicing factor 3B subunit 5

Chain 5:



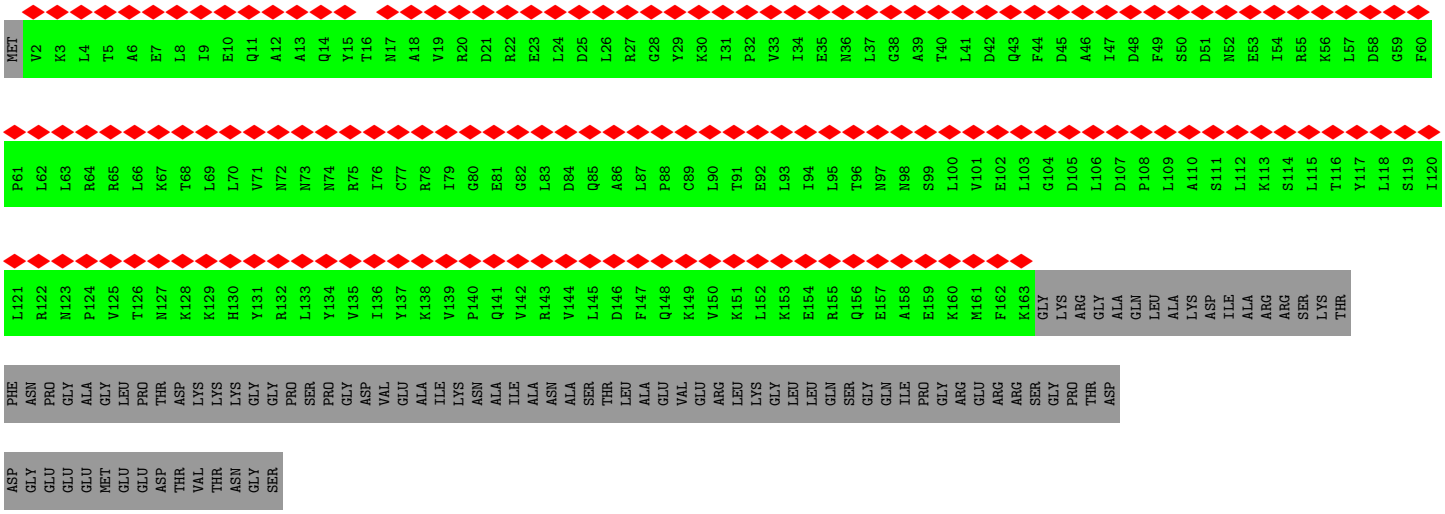
• Molecule 40: U2 small nuclear ribonucleoprotein B”

Chain p:



• Molecule 41: U2 small nuclear ribonucleoprotein A'

Chain o:



4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	92596	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	NONE	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	50	Depositor
Minimum defocus (nm)	1400	Depositor
Maximum defocus (nm)	2000	Depositor
Magnification	Not provided	
Image detector	GATAN K3 (6k x 4k)	Depositor
Maximum map value	3.253	Depositor
Minimum map value	-1.475	Depositor
Average map value	0.005	Depositor
Map value standard deviation	0.066	Depositor
Recommended contour level	0.22	Depositor
Map size (Å)	516.96, 516.96, 516.96	wwPDB
Map dimensions	480, 480, 480	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.077, 1.077, 1.077	Depositor

5 Model quality

5.1 Standard geometry

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

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	A	0.78	1/16774 (0.0%)	0.66	5/22749 (0.0%)
2	B	1.08	2/2303 (0.1%)	1.04	6/3579 (0.2%)
3	C	0.55	0/6873	0.63	2/9346 (0.0%)
4	E	0.42	0/2392	0.63	1/3242 (0.0%)
5	F	1.21	3/2323 (0.1%)	1.17	11/3619 (0.3%)
6	G	0.70	3/1764 (0.2%)	1.30	19/2737 (0.7%)
7	H	0.66	2/3574 (0.1%)	1.07	10/5560 (0.2%)
8	I	0.25	0/3406	0.42	0/4767
9	J	0.58	0/3833	0.55	0/5205
10	L	0.46	0/2612	0.53	0/3548
11	M	0.48	0/991	0.73	0/1325
12	N	0.64	0/1210	0.60	0/1622
13	O	0.33	0/1447	0.48	0/2013
14	P	0.74	0/888	0.80	1/1177 (0.1%)
15	Q	0.24	0/5279	0.45	0/6583
16	R	0.52	0/2937	0.58	0/3945
17	S	0.27	0/769	0.50	0/1063
18	T	1.02	0/2574	0.73	3/3511 (0.1%)
19	U	0.43	0/424	0.48	0/582
20	V	0.32	0/2993	0.50	1/4088 (0.0%)
21	W	0.34	0/2471	0.71	0/3437
22	X	0.34	0/6479	0.59	4/8747 (0.0%)
23	Y	0.33	0/2605	0.58	0/3522
24	Z	0.25	0/768	0.39	0/1067
25	a	0.26	0/343	0.55	0/427
25	m	0.25	0/416	0.54	0/581
26	b	0.25	0/327	0.52	0/407
26	n	0.24	0/404	0.50	0/564
27	c	0.24	0/387	0.52	0/482
27	h	0.24	0/485	0.48	0/677
28	d	0.24	0/295	0.54	0/367
28	i	0.27	0/362	0.53	0/502

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
29	e	0.23	0/315	0.51	0/392
29	j	0.25	0/403	0.46	0/561
30	f	0.24	0/295	0.53	0/367
30	k	0.26	0/366	0.53	0/509
31	g	0.24	0/322	0.51	0/399
31	l	0.26	0/417	0.51	0/581
32	q	0.25	0/658	0.41	0/919
32	r	0.27	0/653	0.41	0/912
32	s	0.27	0/658	0.45	0/919
32	t	0.26	0/653	0.38	0/912
33	y	0.26	0/315	0.51	0/392
34	1	0.63	0/6494	0.70	7/8801 (0.1%)
35	3	0.52	0/9398	0.66	1/12756 (0.0%)
36	2	0.56	0/1593	0.75	1/2170 (0.0%)
37	4	0.27	0/790	0.48	0/1095
38	7	0.56	0/621	0.61	0/833
39	5	0.72	0/654	0.64	0/885
40	p	0.25	0/453	0.46	0/631
41	o	0.24	0/821	0.48	0/1149
All	All	0.59	11/106587 (0.0%)	0.68	72/146224 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	11
3	C	0	4
4	E	0	1
8	I	0	1
9	J	0	3
11	M	0	1
12	N	0	1
14	P	0	1
16	R	0	1
22	X	0	1
23	Y	0	1
24	Z	0	1
34	1	0	4
35	3	0	5
36	2	0	2

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Mol	Chain	#Chirality outliers	#Planarity outliers
38	7	0	1
39	5	0	1
All	All	0	40

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

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	G	97	A	N7-C5	7.07	1.43	1.39
6	G	97	A	N9-C4	-6.39	1.34	1.37
1	A	705	LYS	CD-CE	5.89	1.66	1.51
7	H	15	U	C4-O4	-5.71	1.19	1.23
2	B	32	C	N3-C4	-5.67	1.29	1.33

The worst 5 of 72 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	G	97	A	C8-N9-C4	20.50	114.00	105.80
34	1	755	PRO	CA-N-CD	-15.48	89.83	111.50
6	G	97	A	N9-C4-C5	-13.31	100.47	105.80
7	H	15	U	N3-C4-O4	-12.76	110.47	119.40
7	H	15	U	N3-C2-O2	-11.44	114.19	122.20

There are no chirality outliers.

5 of 40 planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	187	PRO	Peptide
1	A	365	VAL	Peptide
1	A	433	GLU	Peptide
1	A	699	GLU	Peptide
1	A	855	ARG	Peptide

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	16331	0	16276	594	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	B	2066	0	1047	50	0
3	C	6724	0	6696	316	0
4	E	2338	0	2275	144	0
5	F	2075	0	1048	86	0
6	G	1587	0	808	77	0
7	H	3203	0	1618	100	0
8	I	3387	0	1651	13	0
9	J	3789	0	2891	95	0
10	L	2584	0	2096	97	0
11	M	971	0	950	69	0
12	N	1184	0	1190	44	0
13	O	1447	0	638	15	0
14	P	876	0	875	51	0
15	Q	5288	0	1361	5	0
16	R	2915	0	2794	134	0
17	S	770	0	356	8	0
18	T	2507	0	2451	79	0
19	U	422	0	291	14	0
20	V	2959	0	2237	103	0
21	W	2473	0	1096	19	0
22	X	6357	0	6349	345	0
23	Y	2556	0	2492	135	0
24	Z	772	0	342	2	0
25	a	344	0	93	0	0
25	m	413	0	194	0	0
26	b	328	0	89	0	0
26	n	402	0	184	0	0
27	c	388	0	102	0	0
27	h	482	0	220	0	0
28	d	296	0	87	0	0
28	i	359	0	179	0	0
29	e	316	0	85	0	0
29	j	403	0	173	0	0
30	f	296	0	84	0	0
30	k	364	0	176	0	0
31	g	324	0	89	0	0
31	l	415	0	198	0	0
32	q	659	0	296	0	0
32	r	654	0	294	0	0
32	s	659	0	296	0	0
32	t	654	0	294	0	0
33	y	316	0	86	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
34	1	6378	0	6511	959	0
35	3	9210	0	9117	813	0
36	2	1576	0	1191	294	0
37	4	792	0	367	11	0
38	7	613	0	596	56	0
39	5	635	0	595	137	0
40	p	451	0	215	0	0
41	o	816	0	386	0	0
42	A	36	0	6	5	0
43	C	32	0	12	0	0
44	C	1	0	0	0	0
44	F	5	0	0	0	0
44	L	1	0	0	0	0
45	7	3	0	0	0	0
45	N	3	0	0	0	0
All	All	104205	0	82043	4180	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 23.

The worst 5 of 4180 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)
34:1:1279:ALA:HA	35:3:1167:TYR:CD1	1.35	1.61
1:A:1798:LEU:HD21	34:1:973:HIS:CD2	1.35	1.58
34:1:495:ARG:CG	34:1:530:PRO:HB3	1.36	1.54
21:W:279:LYS:CB	36:2:622:GLY:HA3	1.10	1.51
34:1:495:ARG:HG2	34:1:530:PRO:CB	1.44	1.45

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

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
1	A	1961/2335 (84%)	1760 (90%)	186 (10%)	15 (1%)	16 51
3	C	854/972 (88%)	751 (88%)	100 (12%)	3 (0%)	30 66
4	E	297/357 (83%)	270 (91%)	27 (9%)	0	100 100
8	I	662/855 (77%)	575 (87%)	86 (13%)	1 (0%)	44 77
9	J	527/848 (62%)	487 (92%)	36 (7%)	4 (1%)	16 51
10	L	375/802 (47%)	360 (96%)	15 (4%)	0	100 100
11	M	112/243 (46%)	105 (94%)	5 (4%)	2 (2%)	7 32
12	N	141/144 (98%)	124 (88%)	17 (12%)	0	100 100
13	O	288/420 (69%)	262 (91%)	26 (9%)	0	100 100
14	P	97/229 (42%)	90 (93%)	6 (6%)	1 (1%)	13 46
15	Q	1304/1485 (88%)	1279 (98%)	25 (2%)	0	100 100
16	R	370/536 (69%)	337 (91%)	30 (8%)	3 (1%)	16 51
17	S	156/166 (94%)	144 (92%)	12 (8%)	0	100 100
18	T	318/514 (62%)	301 (95%)	17 (5%)	0	100 100
19	U	68/2752 (2%)	63 (93%)	4 (6%)	1 (2%)	8 36
20	V	458/908 (50%)	433 (94%)	25 (6%)	0	100 100
21	W	497/579 (86%)	473 (95%)	24 (5%)	0	100 100
22	X	778/1041 (75%)	730 (94%)	48 (6%)	0	100 100
23	Y	318/492 (65%)	296 (93%)	22 (7%)	0	100 100
24	Z	147/225 (65%)	138 (94%)	6 (4%)	3 (2%)	6 29
25	a	84/240 (35%)	76 (90%)	8 (10%)	0	100 100
25	m	80/240 (33%)	72 (90%)	8 (10%)	0	100 100
26	b	80/119 (67%)	73 (91%)	7 (9%)	0	100 100
26	n	78/119 (66%)	67 (86%)	11 (14%)	0	100 100
27	c	95/118 (80%)	87 (92%)	8 (8%)	0	100 100
27	h	91/118 (77%)	82 (90%)	9 (10%)	0	100 100
28	d	72/86 (84%)	67 (93%)	5 (7%)	0	100 100
28	i	70/86 (81%)	64 (91%)	6 (9%)	0	100 100
29	e	77/92 (84%)	73 (95%)	4 (5%)	0	100 100
29	j	79/92 (86%)	73 (92%)	6 (8%)	0	100 100
30	f	72/76 (95%)	66 (92%)	6 (8%)	0	100 100
30	k	71/76 (93%)	63 (89%)	8 (11%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
31	g	77/126 (61%)	72 (94%)	5 (6%)	0	100 100
31	l	81/126 (64%)	70 (86%)	11 (14%)	0	100 100
32	q	130/504 (26%)	122 (94%)	8 (6%)	0	100 100
32	r	129/504 (26%)	122 (95%)	7 (5%)	0	100 100
32	s	130/504 (26%)	113 (87%)	12 (9%)	5 (4%)	2 15
32	t	129/504 (26%)	122 (95%)	7 (5%)	0	100 100
33	y	77/301 (26%)	76 (99%)	1 (1%)	0	100 100
34	1	814/1304 (62%)	709 (87%)	100 (12%)	5 (1%)	22 57
35	3	1165/1217 (96%)	992 (85%)	172 (15%)	1 (0%)	48 81
36	2	246/895 (28%)	217 (88%)	24 (10%)	5 (2%)	6 29
37	4	157/424 (37%)	138 (88%)	19 (12%)	0	100 100
38	7	79/110 (72%)	65 (82%)	14 (18%)	0	100 100
39	5	75/86 (87%)	64 (85%)	11 (15%)	0	100 100
40	p	88/225 (39%)	81 (92%)	7 (8%)	0	100 100
41	o	160/255 (63%)	137 (86%)	23 (14%)	0	100 100
All	All	14214/24450 (58%)	12941 (91%)	1224 (9%)	49 (0%)	38 70

5 of 49 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	1417	PRO
16	R	164	PRO
32	s	59	HIS
32	s	60	PRO
34	1	718	PRO

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 PDB entries followed by that with respect to all EM entries.

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
1	A	1768/2108 (84%)	1580 (89%)	188 (11%)	5 23

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
3	C	747/866 (86%)	654 (88%)	93 (12%)	4 17
4	E	256/300 (85%)	213 (83%)	43 (17%)	1 9
8	I	24/749 (3%)	24 (100%)	0	100 100
9	J	241/751 (32%)	223 (92%)	18 (8%)	11 38
10	L	171/709 (24%)	150 (88%)	21 (12%)	4 18
11	M	104/209 (50%)	89 (86%)	15 (14%)	2 13
12	N	130/130 (100%)	116 (89%)	14 (11%)	5 22
13	O	3/361 (1%)	3 (100%)	0	100 100
14	P	95/203 (47%)	80 (84%)	15 (16%)	2 10
16	R	282/457 (62%)	238 (84%)	44 (16%)	2 11
18	T	273/441 (62%)	248 (91%)	25 (9%)	7 29
19	U	21/2432 (1%)	19 (90%)	2 (10%)	7 28
20	V	188/838 (22%)	156 (83%)	32 (17%)	1 9
22	X	682/897 (76%)	599 (88%)	83 (12%)	4 18
23	Y	286/451 (63%)	246 (86%)	40 (14%)	3 13
25	m	4/177 (2%)	4 (100%)	0	100 100
26	n	3/101 (3%)	3 (100%)	0	100 100
27	h	5/110 (4%)	5 (100%)	0	100 100
28	i	4/74 (5%)	4 (100%)	0	100 100
29	j	1/84 (1%)	1 (100%)	0	100 100
30	k	3/66 (4%)	3 (100%)	0	100 100
31	l	3/101 (3%)	3 (100%)	0	100 100
34	1	675/1104 (61%)	574 (85%)	101 (15%)	2 12
35	3	1016/1051 (97%)	808 (80%)	208 (20%)	1 5
36	2	92/776 (12%)	68 (74%)	24 (26%)	0 2
38	7	69/95 (73%)	47 (68%)	22 (32%)	0 1
39	5	68/77 (88%)	53 (78%)	15 (22%)	1 4
40	p	3/195 (2%)	3 (100%)	0	100 100
41	o	6/218 (3%)	6 (100%)	0	100 100
All	All	7223/16131 (45%)	6220 (86%)	1003 (14%)	5 14

5 of 1003 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
18	T	338	CYS
35	3	850	SER
22	X	796	LEU
35	3	797	LEU
36	2	458	ASN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 154 such sidechains are listed below:

Mol	Chain	Res	Type
34	1	1028	HIS
35	3	817	GLN
34	1	1277	GLN
35	3	233	ASN
36	2	458	ASN

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
2	B	96/117 (82%)	31 (32%)	1 (1%)
5	F	96/107 (89%)	42 (43%)	6 (6%)
6	G	77/220 (35%)	41 (53%)	7 (9%)
7	H	149/188 (79%)	60 (40%)	5 (3%)
All	All	418/632 (66%)	174 (41%)	19 (4%)

5 of 174 RNA backbone outliers are listed below:

Mol	Chain	Res	Type
2	B	9	G
2	B	10	U
2	B	20	G
2	B	21	A
2	B	22	U

5 of 19 RNA pucker outliers are listed below:

Mol	Chain	Res	Type
7	H	15	U
7	H	47	U
7	H	165	A
7	H	43	U
6	G	88	G

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

2 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	$\#\|Z\| > 2$
16	SEP	R	224	16	8,9,10	1.41	1 (12%)	8,12,14	1.63	2 (25%)
16	SEP	R	232	16	8,9,10	1.50	1 (12%)	8,12,14	1.30	1 (12%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
16	SEP	R	224	16	-	1/5/8/10	-
16	SEP	R	232	16	-	2/5/8/10	-

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
16	R	232	SEP	P-O1P	3.20	1.60	1.50
16	R	224	SEP	P-O1P	3.11	1.60	1.50

All (3) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
16	R	224	SEP	P-OG-CB	-3.28	109.25	118.30
16	R	224	SEP	OG-CB-CA	2.41	110.50	108.14
16	R	232	SEP	P-OG-CB	-2.26	112.07	118.30

There are no chirality outliers.

All (3) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
16	R	224	SEP	N-CA-CB-OG
16	R	232	SEP	CB-OG-P-O2P
16	R	232	SEP	CB-OG-P-O3P

There are no ring outliers.

No monomer is involved in short contacts.

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 15 ligands modelled in this entry, 13 are monoatomic - leaving 2 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
42	IHP	A	3000	-	36,36,36	1.00	1 (2%)	54,60,60	1.84	12 (22%)
43	GTP	C	1500	44	26,34,34	1.60	4 (15%)	32,54,54	2.02	9 (28%)

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
42	IHP	A	3000	-	-	5/30/54/54	0/1/1/1
43	GTP	C	1500	44	-	4/18/38/38	0/3/3/3

All (5) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	C	1500	GTP	C5-C6	-5.10	1.37	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	C	1500	GTP	C2'-C1'	-2.98	1.49	1.53
43	C	1500	GTP	C5-C4	-2.33	1.37	1.43
42	A	3000	IHP	P5-O15	2.16	1.63	1.59
43	C	1500	GTP	C2-N3	2.01	1.38	1.33

The worst 5 of 21 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
43	C	1500	GTP	PB-O3B-PG	-5.17	115.07	132.83
42	A	3000	IHP	O41-P1-O31	4.72	125.69	107.64
42	A	3000	IHP	C5-C4-C3	4.58	120.43	110.41
42	A	3000	IHP	C5-C6-C1	4.38	120.00	110.41
42	A	3000	IHP	O15-C5-C4	4.29	118.80	108.69

There are no chirality outliers.

5 of 9 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
42	A	3000	IHP	C3-C4-O14-P4
42	A	3000	IHP	C3-O13-P3-O23
42	A	3000	IHP	C5-O15-P5-O25
43	C	1500	GTP	C4'-C5'-O5'-PA
43	C	1500	GTP	C3'-C4'-C5'-O5'

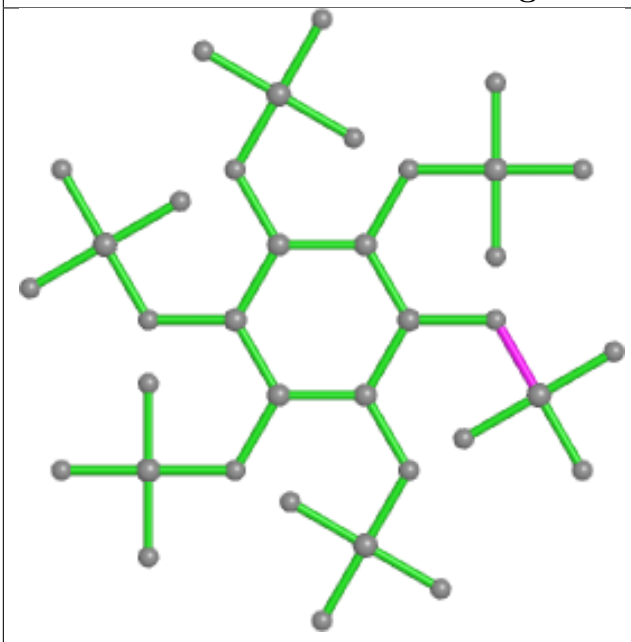
There are no ring outliers.

1 monomer is involved in 5 short contacts:

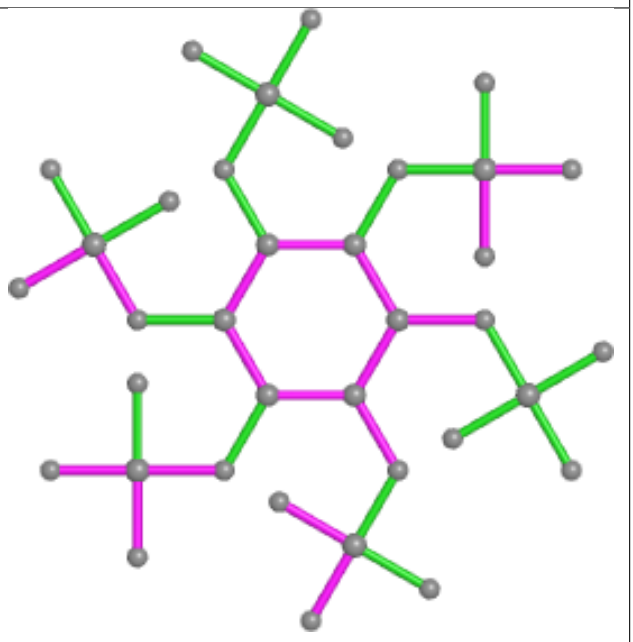
Mol	Chain	Res	Type	Clashes	Symm-Clashes
42	A	3000	IHP	5	0

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 then 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

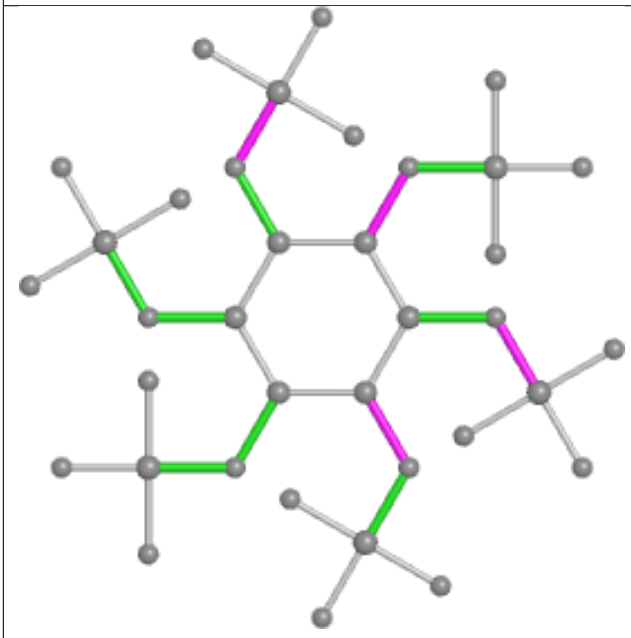
Ligand IHP A 3000



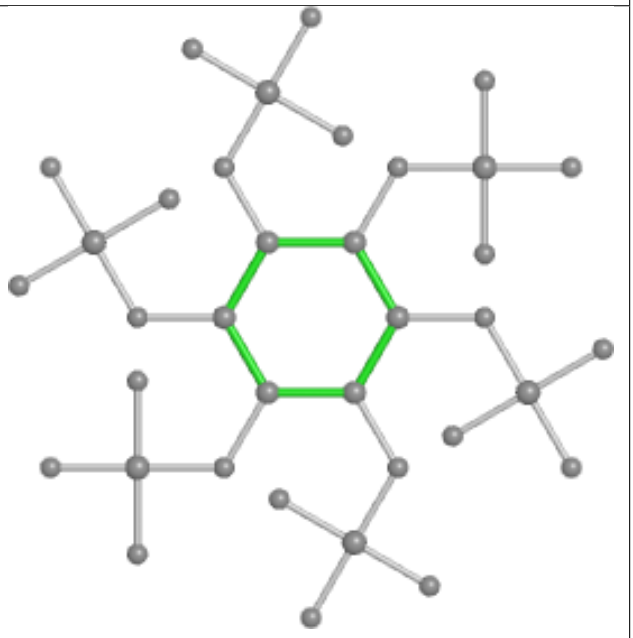
Bond lengths



Bond angles

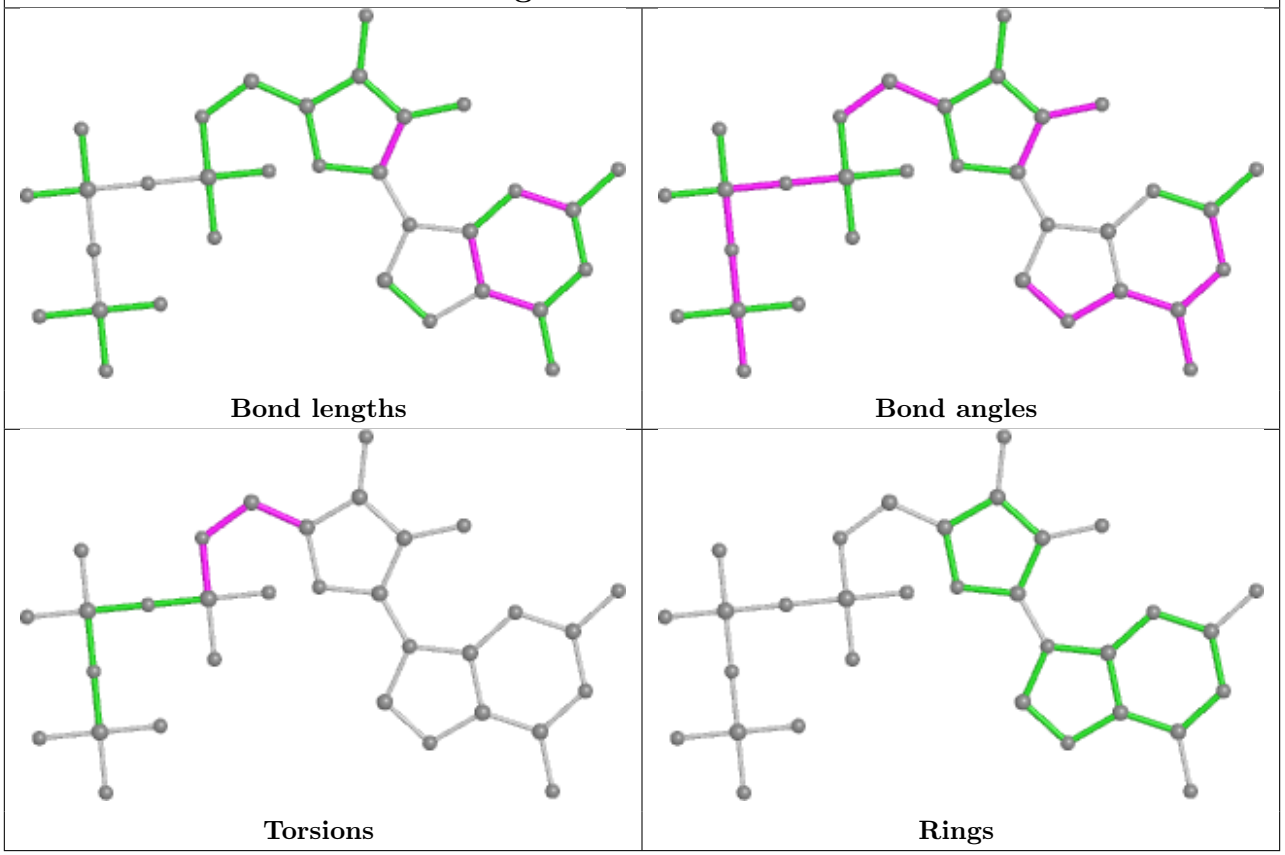


Torsions



Rings

Ligand GTP C 1500



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.

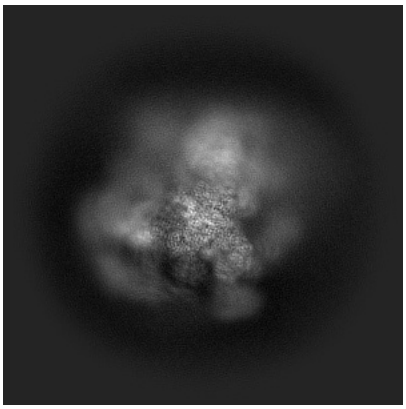
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-35111. These allow visual inspection of the internal detail of the map and identification of artifacts.

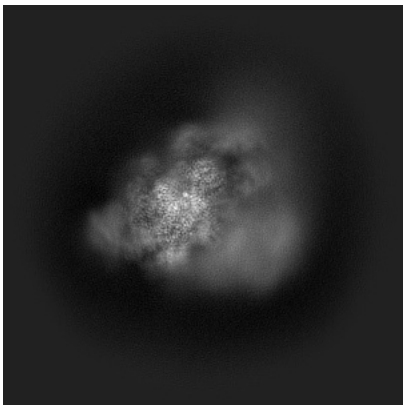
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections

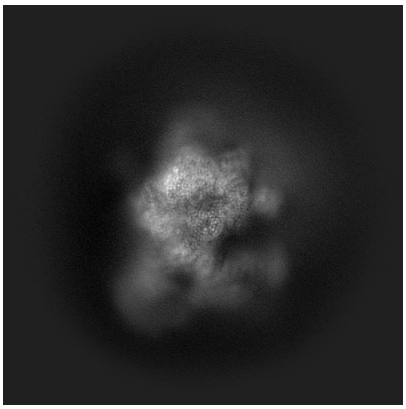
6.1.1 Primary map



X

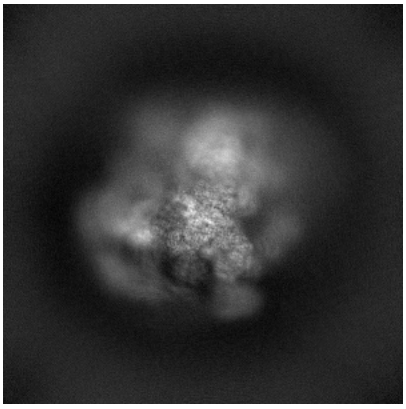


Y

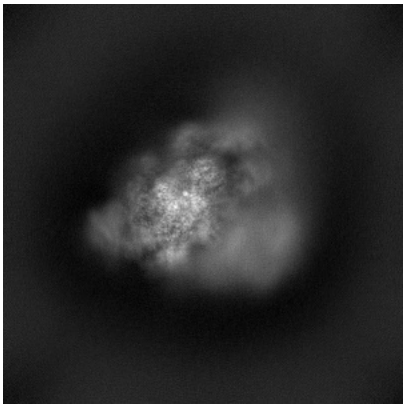


Z

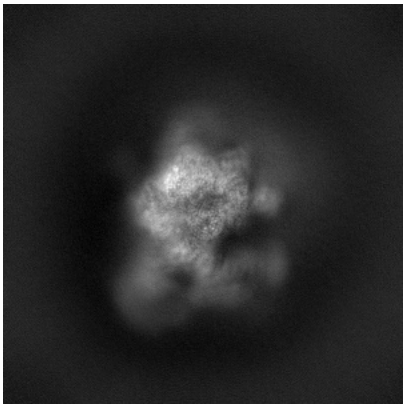
6.1.2 Raw map



X



Y

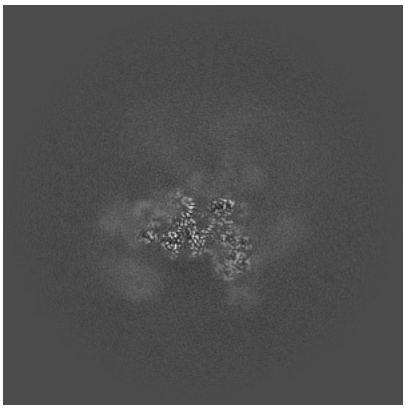


Z

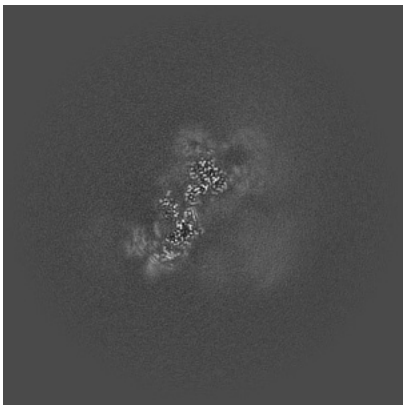
The images above show the map projected in three orthogonal directions.

6.2 Central slices (i)

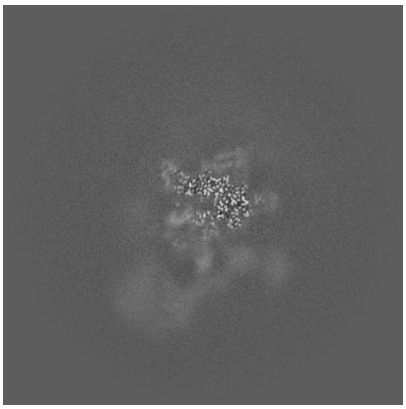
6.2.1 Primary map



X Index: 240

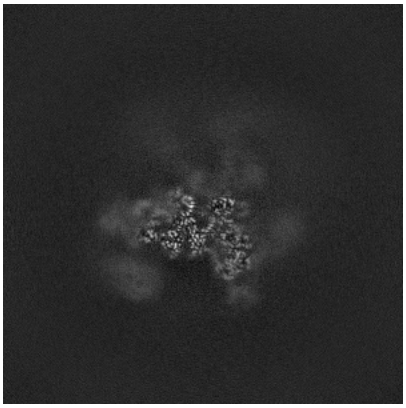


Y Index: 240

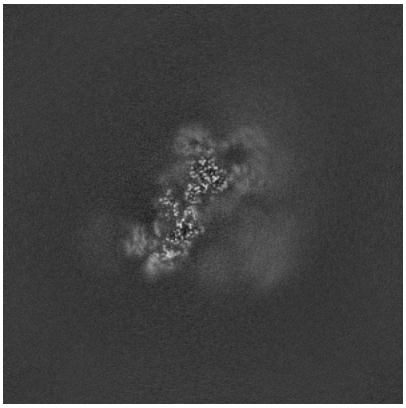


Z Index: 240

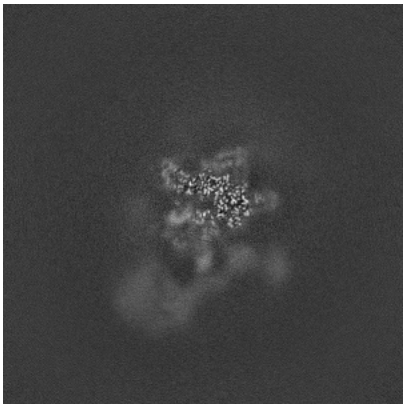
6.2.2 Raw map



X Index: 240



Y Index: 240

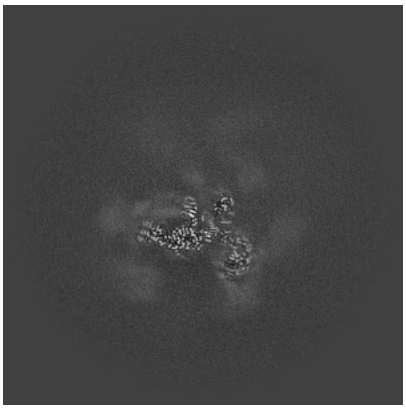


Z Index: 240

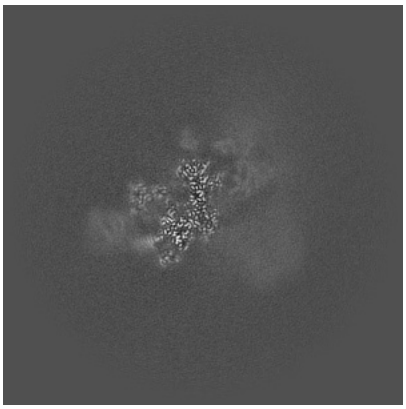
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

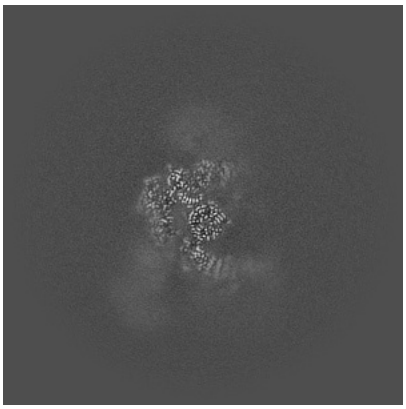
6.3.1 Primary map



X Index: 235

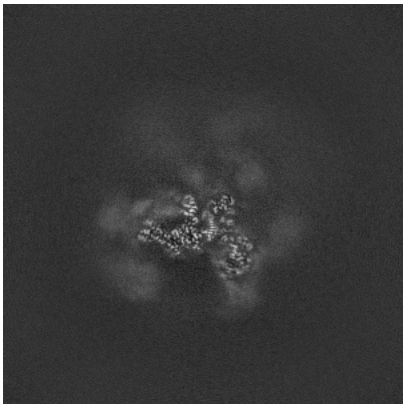


Y Index: 259

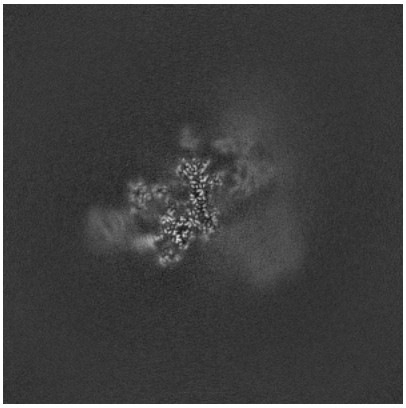


Z Index: 200

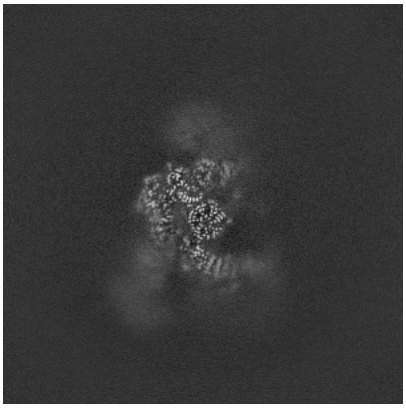
6.3.2 Raw map



X Index: 236



Y Index: 259

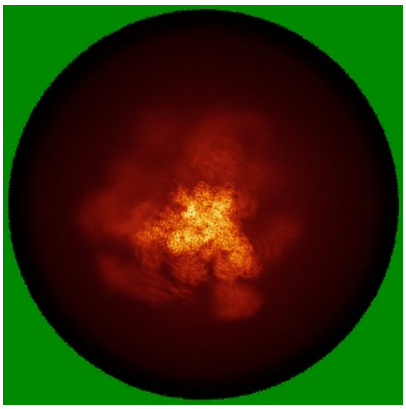


Z Index: 200

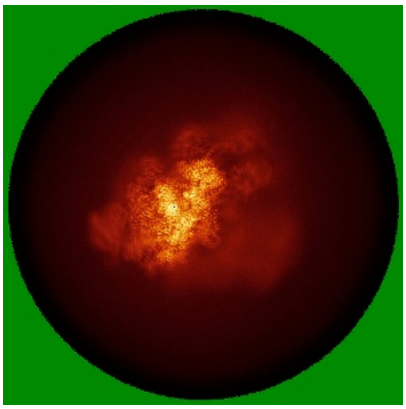
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) (i)

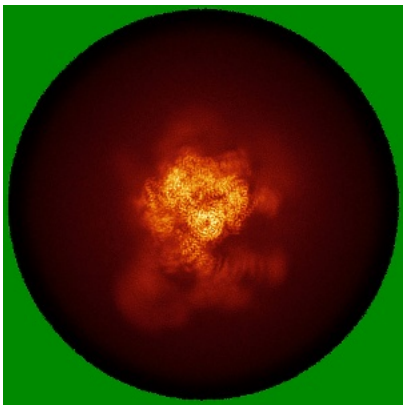
6.4.1 Primary map



X

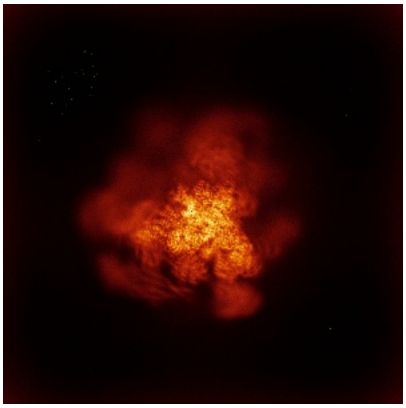


Y

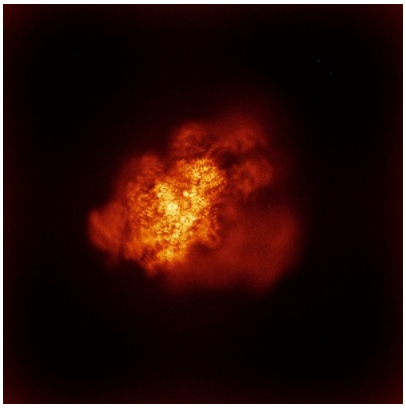


Z

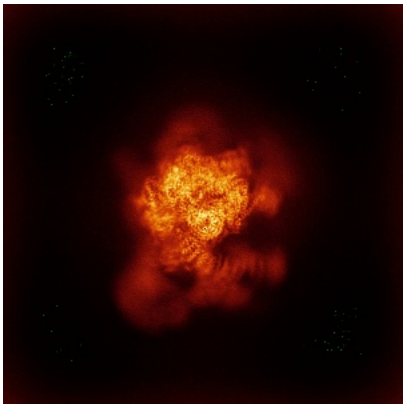
6.4.2 Raw map



X



Y



Z

The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views (i)

6.5.1 Primary map

X Y Z

The images above show the 3D surface view of the map at the recommended contour level 0.22. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.5.2 Raw map

X Y Z

These images show the 3D surface of the raw map. The raw map's contour level was selected so that its surface encloses the same volume as the primary map does at its recommended contour level.

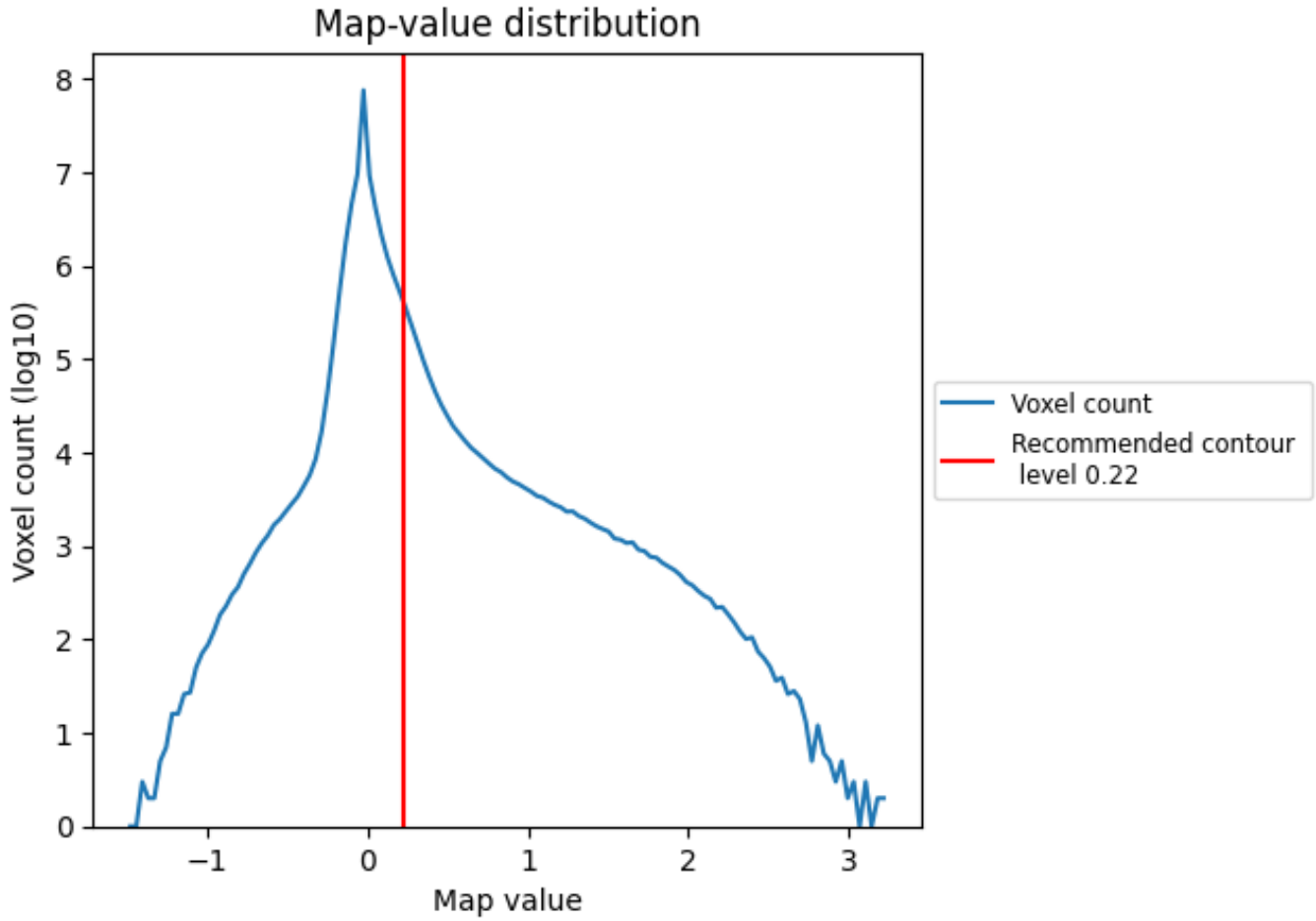
6.6 Mask visualisation (i)

This section was not generated. No masks/segmentation were deposited.

7 Map analysis

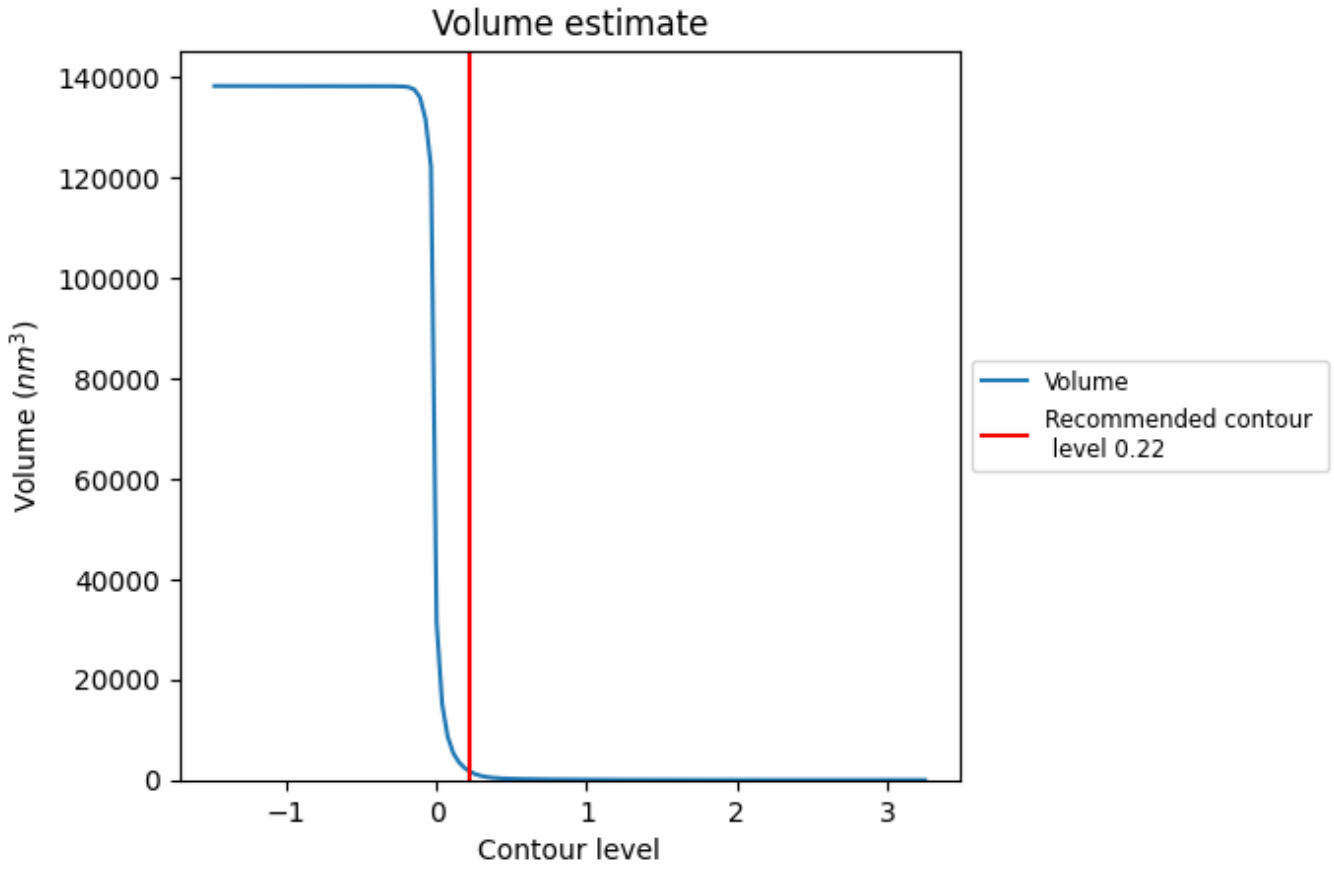
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

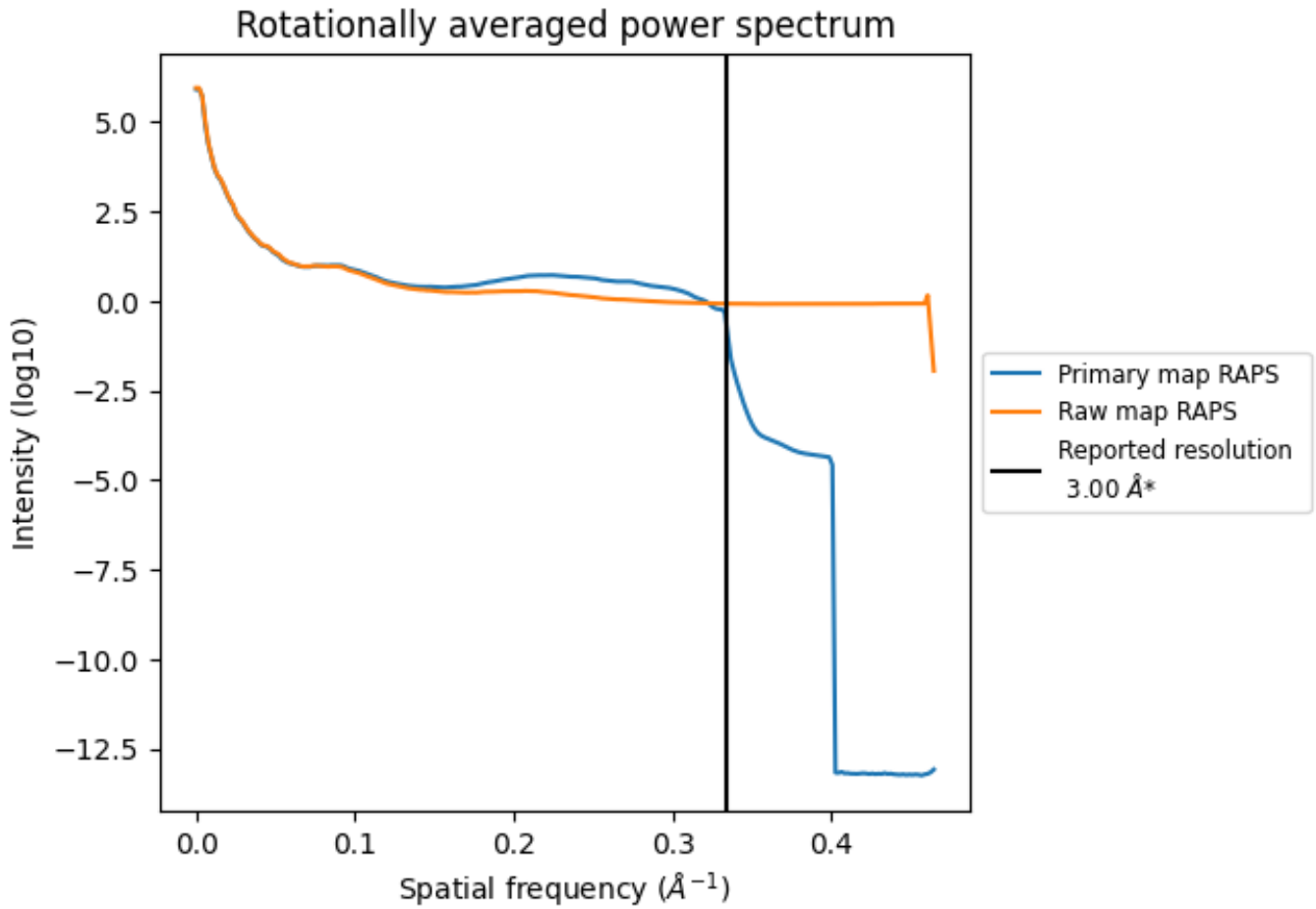
7.2 Volume estimate (i)



The volume at the recommended contour level is 1755 nm^3; this corresponds to an approximate mass of 1586 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum (i)

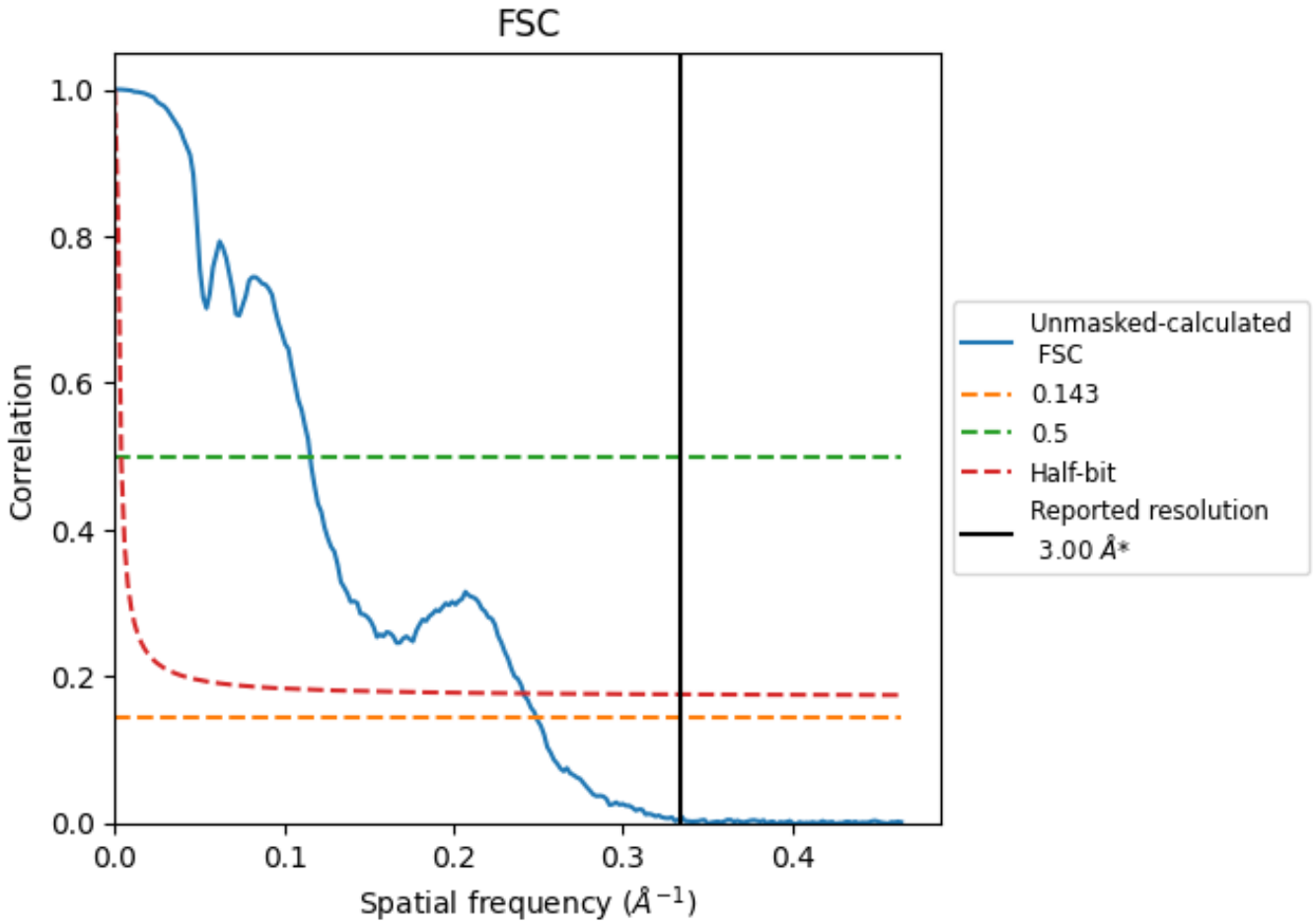


*Reported resolution corresponds to spatial frequency of 0.333 $Å^{-1}$

8 Fourier-Shell correlation

Fourier-Shell Correlation (FSC) is the most commonly used method to estimate the resolution of single-particle and subtomogram-averaged maps. The shape of the curve depends on the imposed symmetry, mask and whether or not the two 3D reconstructions used were processed from a common reference. The reported resolution is shown as a black line. A curve is displayed for the half-bit criterion in addition to lines showing the 0.143 gold standard cut-off and 0.5 cut-off.

8.1 FSC



*Reported resolution corresponds to spatial frequency of 0.333 Å^{-1}

8.2 Resolution estimates (i)

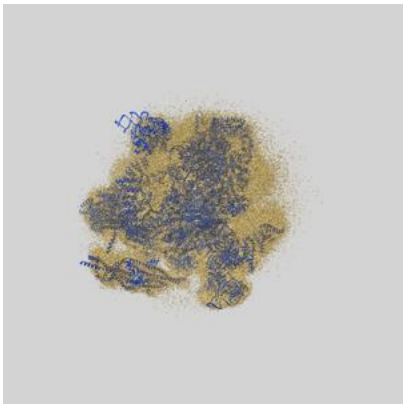
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	3.00	-	-
Author-provided FSC curve	-	-	-
Unmasked-calculated*	4.02	8.67	4.14

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 4.02 differs from the reported value 3.0 by more than 10 %

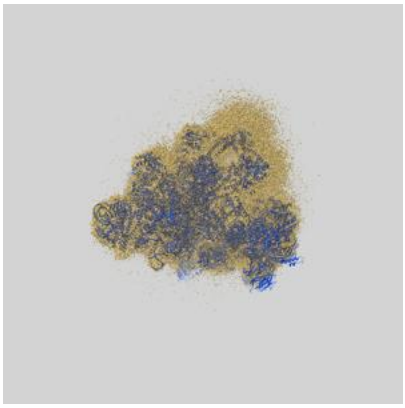
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-35111 and PDB model 8I0V. Per-residue inclusion information can be found in section 3 on page 13.

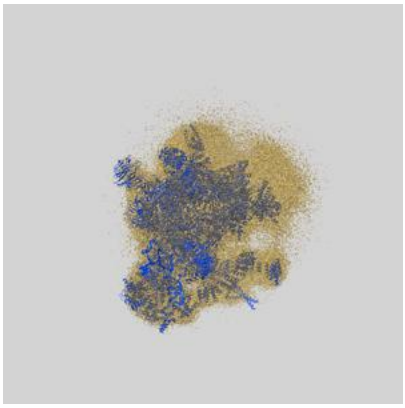
9.1 Map-model overlay



X



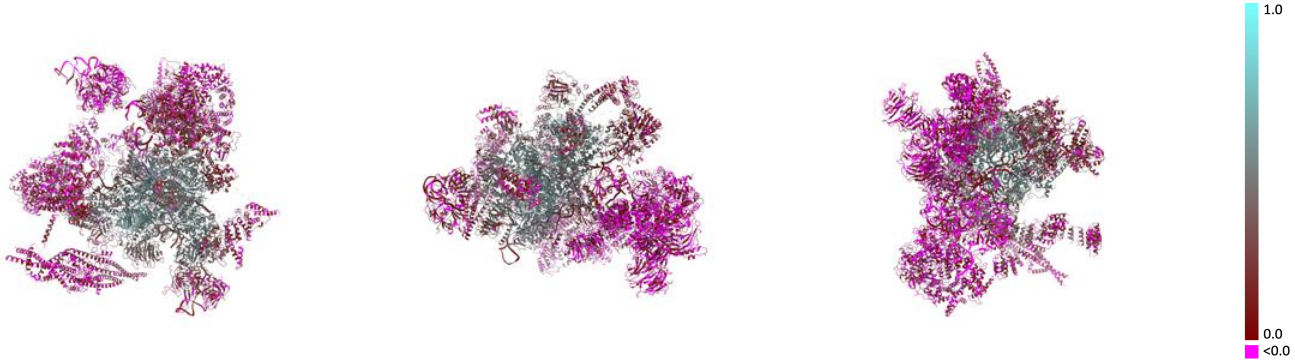
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.22 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

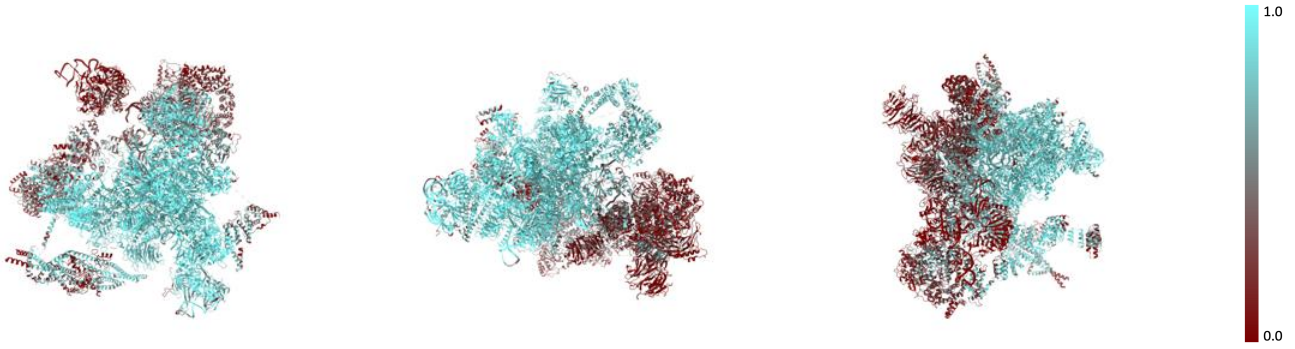
9.2 Q-score mapped to coordinate model



X Y Z

The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

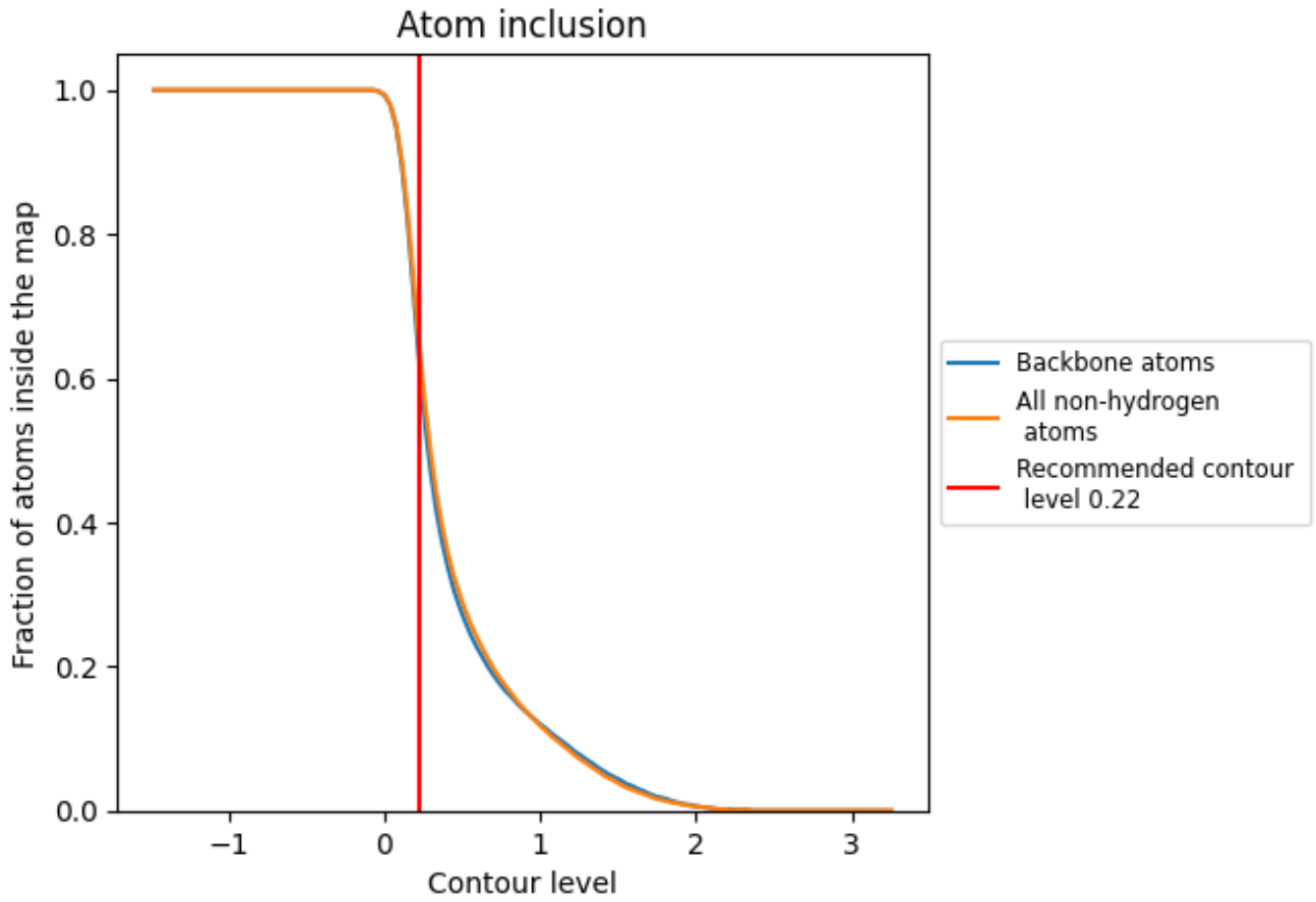
9.3 Atom inclusion mapped to coordinate model



X Y Z

The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.22).

9.4 Atom inclusion (i)



At the recommended contour level, 63% of all backbone atoms, 66% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.22) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.6560	0.2460
1	0.2480	0.0090
2	0.2640	0.0420
3	0.1890	0.0020
4	0.3410	0.0300
5	0.3310	0.0080
7	0.2760	-0.0280
A	0.9260	0.4910
B	0.9280	0.3460
C	0.9700	0.4480
E	0.9600	0.3550
F	0.9400	0.3750
G	0.8110	0.2260
H	0.3280	0.0810
I	0.6230	0.0850
J	0.8550	0.3550
L	0.8380	0.3330
M	0.9220	0.3990
N	0.9740	0.5010
O	0.9330	0.3810
P	0.9530	0.4970
Q	0.3220	0.0740
R	0.9070	0.4050
S	0.9430	0.2510
T	0.9970	0.6080
U	0.7430	0.3070
V	0.7270	0.2130
W	0.3490	0.1250
X	0.8180	0.2260
Y	0.8710	0.2490
Z	0.6760	0.1220
a	0.7960	0.1420
b	0.8960	0.1690
c	0.7940	0.1090
d	0.8410	0.0950

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Chain	Atom inclusion	Q-score
e	0.8510	0.1010
f	0.8010	0.1390
g	0.9170	0.2400
h	0.0600	0.0340
i	0.0190	-0.0070
j	0.0200	-0.0000
k	0.0520	-0.0180
l	0.1610	-0.0180
m	0.1770	0.0080
n	0.1070	-0.0200
o	0.0370	-0.0200
p	0.0640	-0.0240
q	0.3500	0.0400
r	0.5180	0.0530
s	0.3980	0.0820
t	0.3260	0.0430
y	0.3230	0.0340