wwPDB EM Validation Summary Report (i)

Nov 20, 2022 – 03:53 pm GMT

PDB ID	:	2W4T
EMDB ID	:	EMD-1561
Title	:	ISOMETRICALLY CONTRACTING INSECT ASYNCHRONOUS FLIGHT MUSCLE
Authors	:	Wu, S.; Liu, J.; Reedy, M.C.; Tregear, R.T.; Winkler, H.; Franzini-Armstrong, C.; Sasaki, H.; Lucaveche, C.; Goldman, Y.E.; Reedy, M.K.; Taylor, K.A.
Deposited on	:	2008-12-02
Resolution	:	35.00 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 (i) 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 (i)) were used in the production of this report:

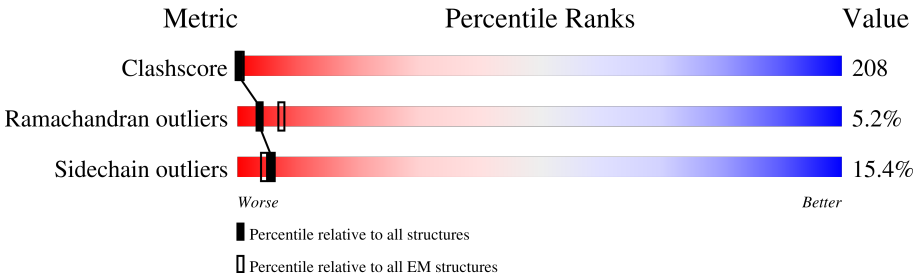
EMDB validation analysis	:	0.0.1.dev43
MolProbity	:	4.02b-467
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	FAILED
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.31.2

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 35.00 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	158937	4297
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826

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%

Mol	Chain	Length	Quality of chain
1	1-C	831	13% 59% 18% • 7%
1	10-C	831	13% 60% 18% • 7%
1	11-C	831	14% 59% 18% • 7%
1	12-C	831	13% 59% 18% • 7%
1	13-C	831	14% 59% 18% • 7%
1	14-C	831	13% 59% 18% • 7%
1	15-C	831	13% 59% 18% • 7%
1	16-C	831	13% 59% 18% • 7%
1	17-C	831	14% 59% 18% • 7%

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Mol	Chain	Length	Quality of chain
1	18-C	831	13% 59% 18% • 7%
1	19-C	831	13% 59% 18% • 7%
1	2-C	831	14% 60% 17% • 7%
1	20-C	831	13% 59% 18% • 7%
1	21-C	831	13% 59% 18% • 7%
1	22-C	831	13% 60% 18% • 7%
1	23-C	831	13% 59% 18% • 7%
1	24-C	831	13% 59% 18% • 7%
1	25-C	831	13% 59% 18% • 7%
1	26-C	831	14% 59% 18% • 7%
1	27-C	831	13% 60% 18% • 7%
1	28-C	831	13% 60% 18% • 7%
1	29-C	831	13% 60% 18% • 7%
1	3-C	831	13% 59% 18% • 7%
1	30-C	831	14% 59% 18% • 7%
1	31-C	831	13% 60% 18% • 7%
1	32-C	831	13% 59% 18% • 7%
1	33-C	831	13% 59% 18% • 7%
1	34-C	831	13% 60% 18% • 7%
1	35-C	831	13% 60% 18% • 7%
1	36-C	831	13% 59% 18% • 7%
1	37-C	831	14% 59% 17% • 7%
1	38-C	831	13% 59% 18% • 7%
1	39-C	831	13% 60% 18% • 7%
1	4-C	831	14% 59% 18% • 7%

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Mol	Chain	Length	Quality of chain
1	40-C	831	13% 59% 18% 7%
1	41-C	831	13% 59% 18% 7%
1	42-C	831	14% 59% 18% 7%
1	43-C	831	13% 60% 18% 7%
1	5-C	831	14% 59% 18% 7%
1	6-C	831	14% 59% 18% 7%
1	7-C	831	12% 60% 18% 7%
1	8-C	831	13% 59% 18% 7%
1	9-C	831	13% 60% 18% 7%
2	1-Y	136	14% 65% 21%
2	10-Y	136	12% 66% 20%
2	11-Y	136	13% 65% 20%
2	12-Y	136	14% 65% 20%
2	13-Y	136	13% 66% 18%
2	14-Y	136	13% 65% 21%
2	15-Y	136	13% 65% 20%
2	16-Y	136	12% 67% 19%
2	17-Y	136	13% 66% 19%
2	18-Y	136	14% 65% 20%
2	19-Y	136	14% 65% 19%
2	2-Y	136	13% 67% 18%
2	20-Y	136	12% 68% 19%
2	21-Y	136	15% 64% 20%
2	22-Y	136	11% 68% 20%
2	23-Y	136	13% 66% 19%

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Mol	Chain	Length	Quality of chain
2	24-Y	136	13% 66% 19%
2	25-Y	136	12% 68% 18%
2	26-Y	136	14% 65% 18%
2	27-Y	136	13% 65% 20%
2	28-Y	136	13% 66% 18%
2	29-Y	136	14% 65% 19%
2	3-Y	136	12% 67% 19%
2	30-Y	136	12% 68% 18%
2	31-Y	136	12% 68% 19%
2	32-Y	136	14% 65% 19%
2	33-Y	136	13% 66% 18%
2	34-Y	136	12% 66% 19%
2	35-Y	136	13% 66% 19%
2	36-Y	136	13% 66% 19%
2	37-Y	136	12% 68% 19%
2	38-Y	136	12% 67% 18%
2	39-Y	136	14% 65% 19%
2	4-Y	136	14% 65% 19%
2	40-Y	136	14% 65% 20%
2	41-Y	136	15% 65% 19%
2	42-Y	136	12% 68% 19%
2	43-Y	136	14% 65% 18%
2	5-Y	136	14% 65% 20%
2	6-Y	136	14% 66% 18%
2	7-Y	136	12% 68% 18%

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Mol	Chain	Length	Quality of chain
2	8-Y	136	13% 65% 19%
2	9-Y	136	13% 66% 19%
3	1-Z	151	19% 63% 17%
3	10-Z	151	19% 62% 17%
3	11-Z	151	19% 62% 17%
3	12-Z	151	19% 63% 17%
3	13-Z	151	19% 62% 17%
3	14-Z	151	19% 63% 17%
3	15-Z	151	19% 62% 17%
3	16-Z	151	19% 62% 17%
3	17-Z	151	19% 63% 17%
3	18-Z	151	19% 62% 17%
3	19-Z	151	20% 62% 17%
3	2-Z	151	19% 63% 17%
3	20-Z	151	19% 62% 17%
3	21-Z	151	20% 61% 17%
3	22-Z	151	18% 64% 17%
3	23-Z	151	20% 62% 17%
3	24-Z	151	18% 64% 17%
3	25-Z	151	19% 62% 17%
3	26-Z	151	19% 62% 17%
3	27-Z	151	19% 62% 17%
3	28-Z	151	19% 62% 17%
3	29-Z	151	17% 64% 17%
3	3-Z	151	19% 62% 17%

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Mol	Chain	Length	Quality of chain
3	30-Z	151	19% 63% 17%
3	31-Z	151	19% 62% 17%
3	32-Z	151	19% 62% 17%
3	33-Z	151	19% 62% 17%
3	34-Z	151	19% 62% 17%
3	35-Z	151	19% 63% 17%
3	36-Z	151	20% 62% 17%
3	37-Z	151	19% 63% 17%
3	38-Z	151	19% 62% 17%
3	39-Z	151	19% 63% 17%
3	4-Z	151	19% 62% 17%
3	40-Z	151	21% 61% 17%
3	41-Z	151	19% 62% 17%
3	42-Z	151	17% 65% 17%
3	43-Z	151	19% 63% 17%
3	5-Z	151	20% 62% 17%
3	6-Z	151	19% 62% 17%
3	7-Z	151	17% 64% 17%
3	8-Z	151	19% 62% 17%
3	9-Z	151	18% 64% 17%

2 Entry composition (i)

There are 3 unique types of molecules in this entry. The entry contains 365543 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 MYOSIN HEAVY CHAIN, STRIATED MUSCLE.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	1-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	2-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	3-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	4-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	5-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	6-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	7-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	8-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	9-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	10-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	11-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	12-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	13-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	14-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	15-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	16-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	17-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		

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Mol	Chain	Residues	Atoms					AltConf	Trace
1	18-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	19-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	20-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	21-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	22-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	23-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	24-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	25-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	26-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	27-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	28-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	29-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	30-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	31-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	32-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	33-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	34-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	35-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	36-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	37-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	38-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		

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Mol	Chain	Residues	Atoms					AltConf	Trace
1	39-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	40-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	41-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	42-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		
1	43-C	772	Total	C	N	O	S	0	0
			6215	3957	1067	1155	36		

- Molecule 2 is a protein called MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	1-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	2-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	3-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	4-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	5-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	6-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	7-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	8-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	9-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	10-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	11-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	12-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	13-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	14-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		

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Mol	Chain	Residues	Atoms					AltConf	Trace
2	15-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	16-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	17-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	18-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	19-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	20-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	21-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	22-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	23-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	24-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	25-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	26-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	27-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	28-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	29-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	30-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	31-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	32-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	33-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	34-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	35-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		

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Mol	Chain	Residues	Atoms					AltConf	Trace
2	36-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	37-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	38-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	39-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	40-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	41-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	42-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		
2	43-Y	136	Total	C	N	O	S	0	0
			1088	687	173	219	9		

- Molecule 3 is a protein called MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	1-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	2-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	3-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	4-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	5-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	6-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	7-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	8-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	9-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	10-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	11-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		

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Mol	Chain	Residues	Atoms					AltConf	Trace
3	12-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	13-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	14-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	15-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	16-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	17-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	18-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	19-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	20-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	21-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	22-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	23-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	24-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	25-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	26-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	27-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	28-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	29-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	30-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	31-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	32-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		

Continued on next page...

Continued from previous page...

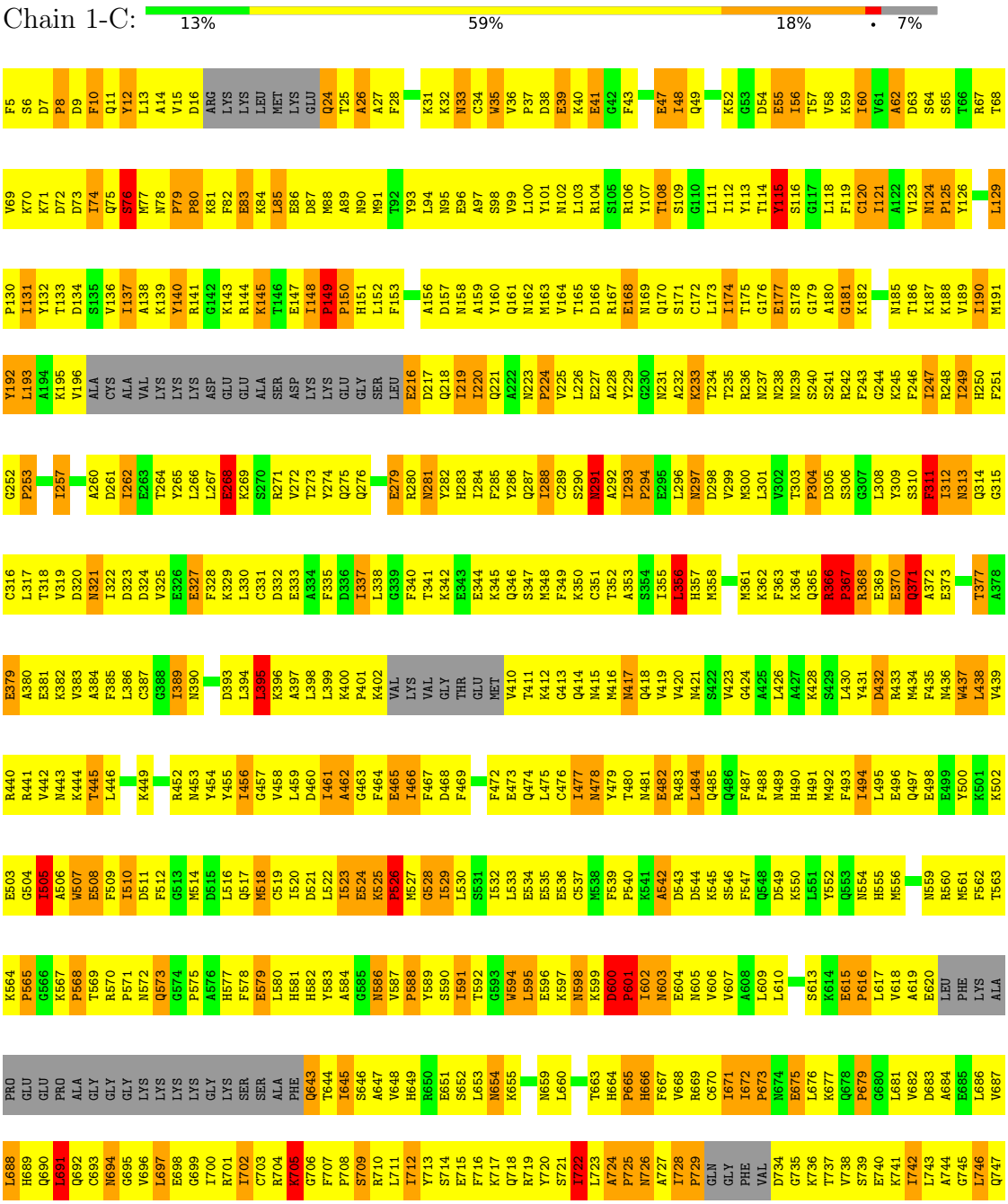
Mol	Chain	Residues	Atoms					AltConf	Trace
3	33-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	34-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	35-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	36-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	37-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	38-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	39-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	40-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	41-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	42-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		
3	43-Z	151	Total	C	N	O	S	0	0
			1198	757	190	244	7		

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. 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. 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.

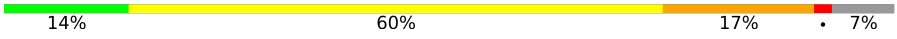
- Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

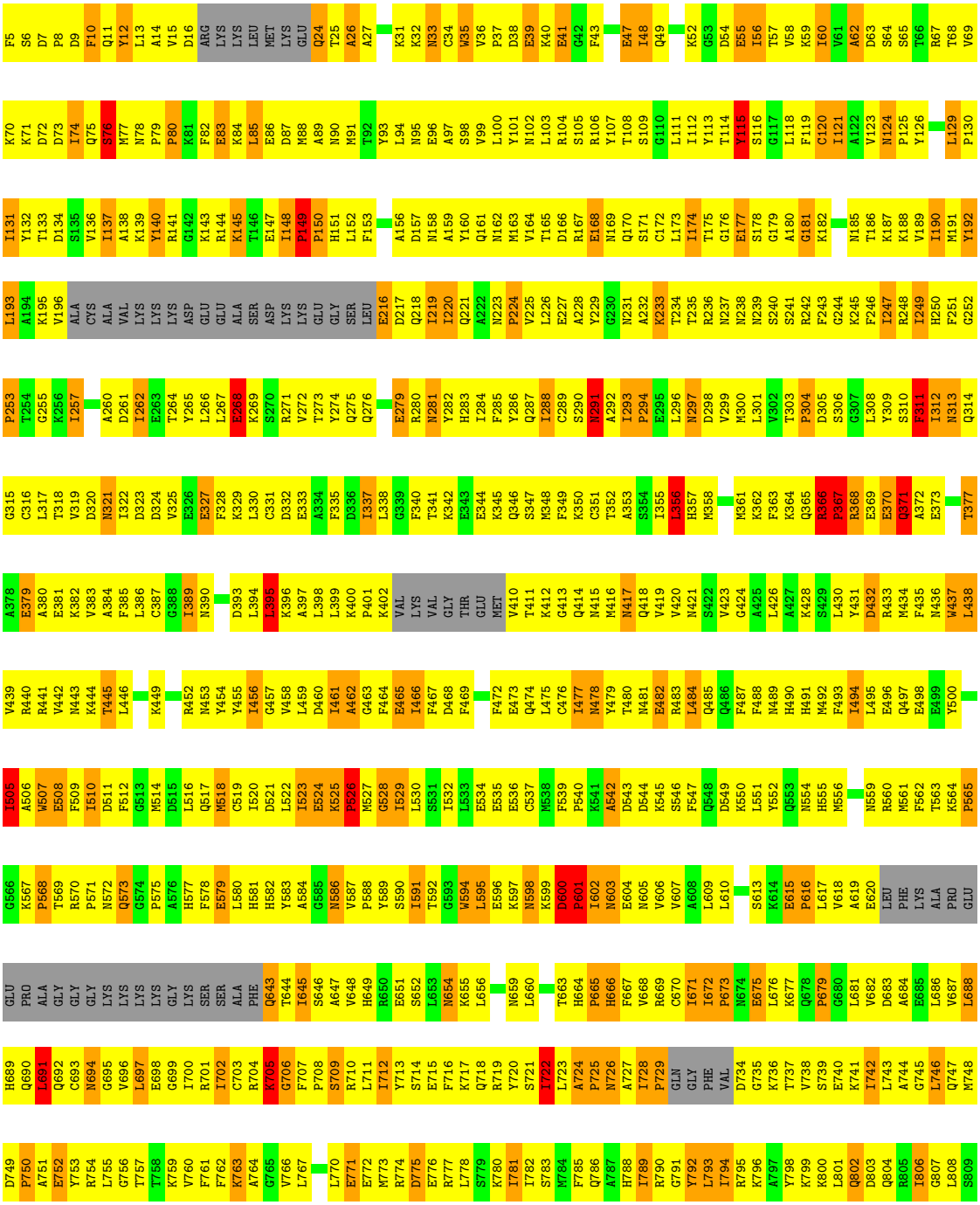
Chain 1-C:



• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

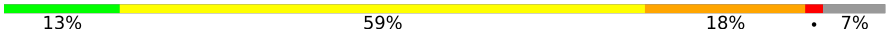
Chain 2-C:

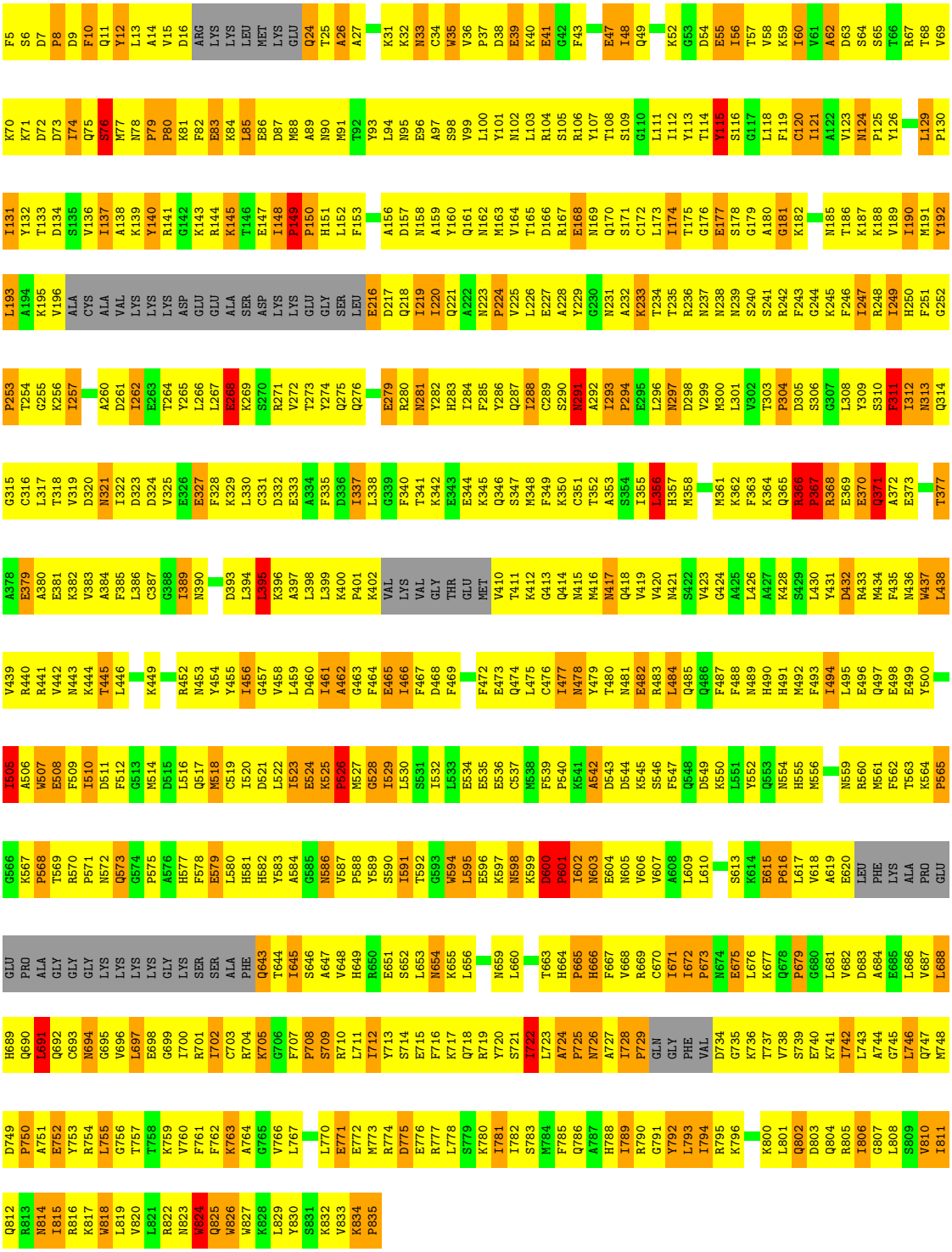




• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

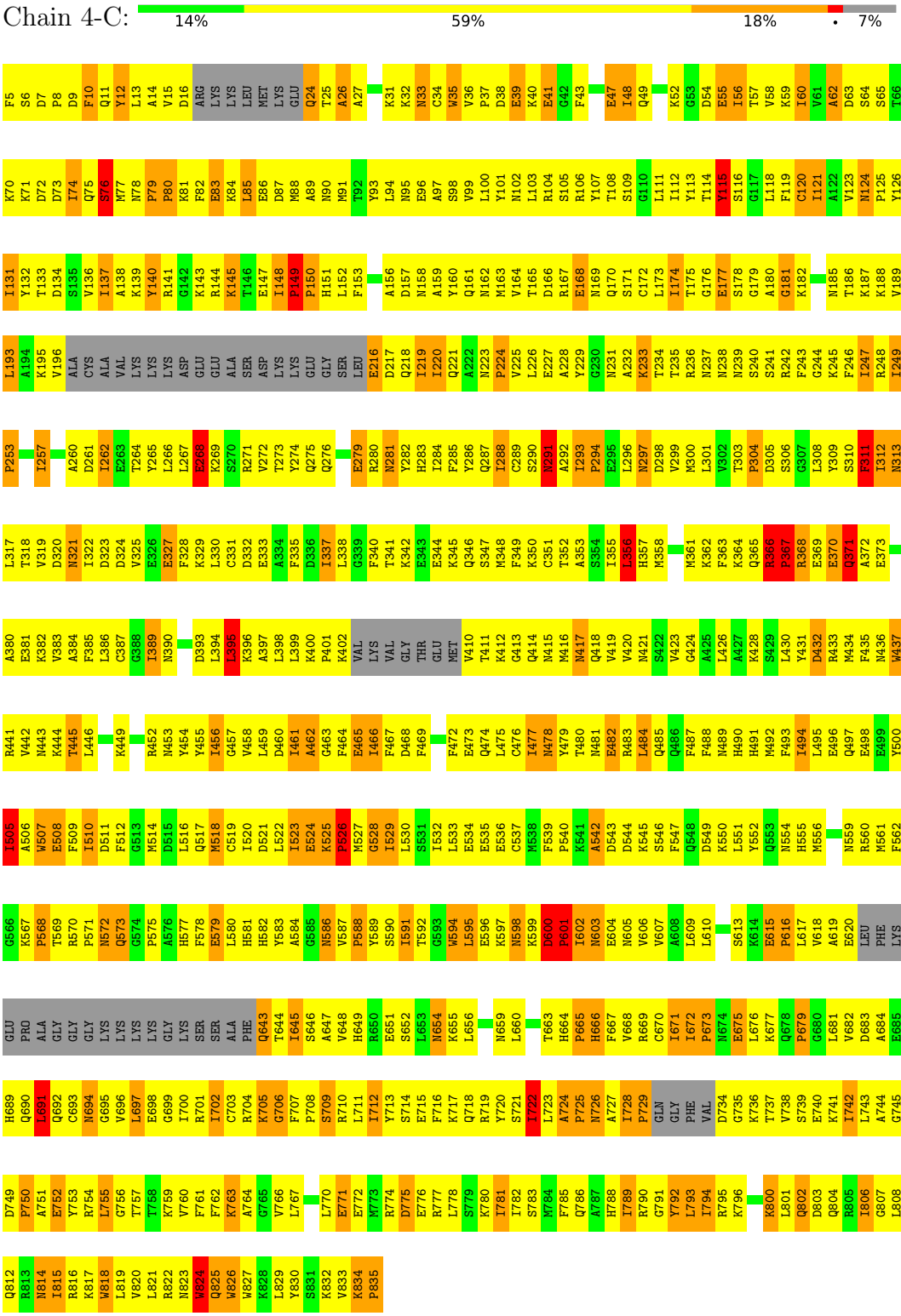
Chain 3-C:





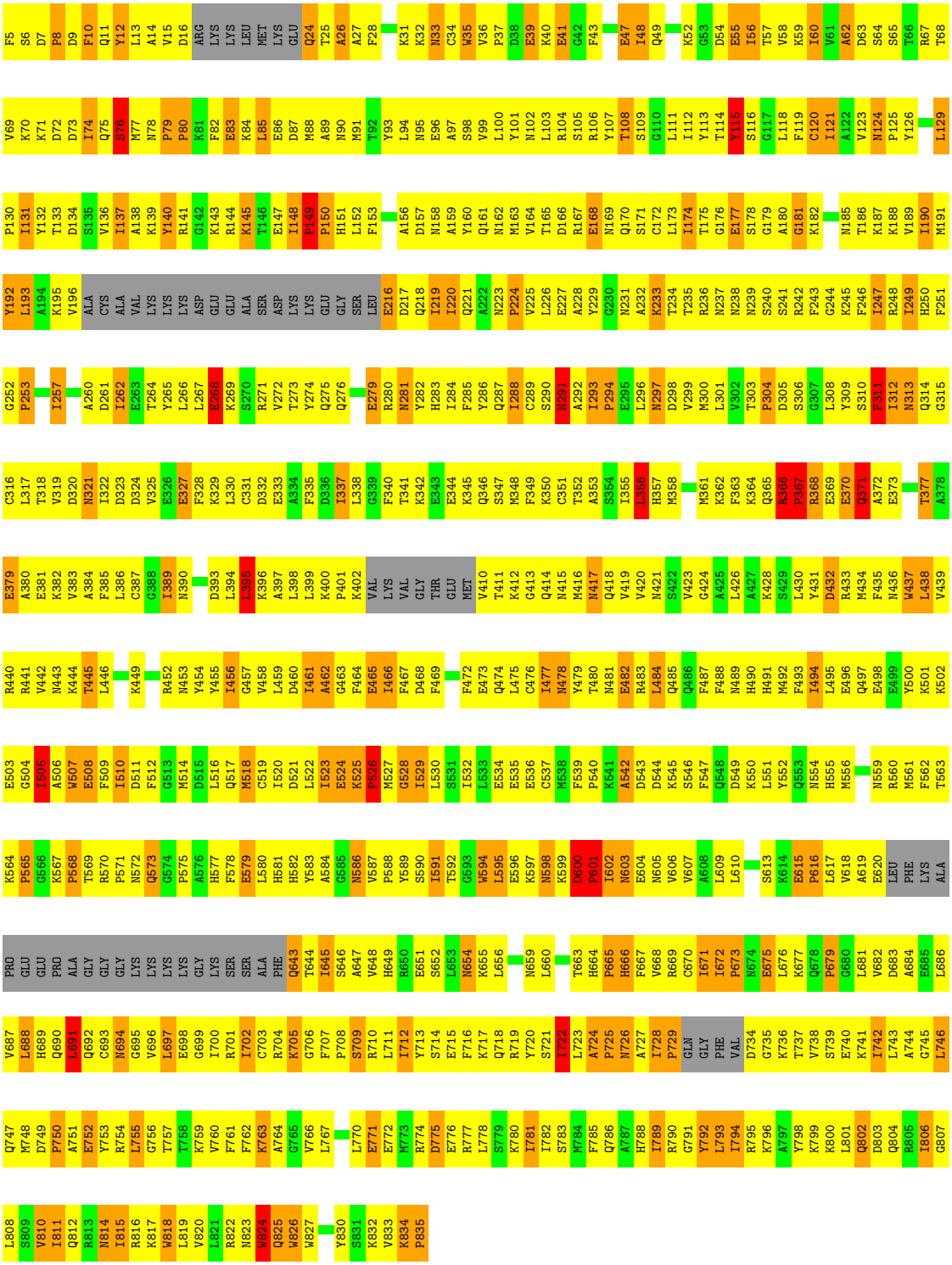
• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

Chain 4-C:



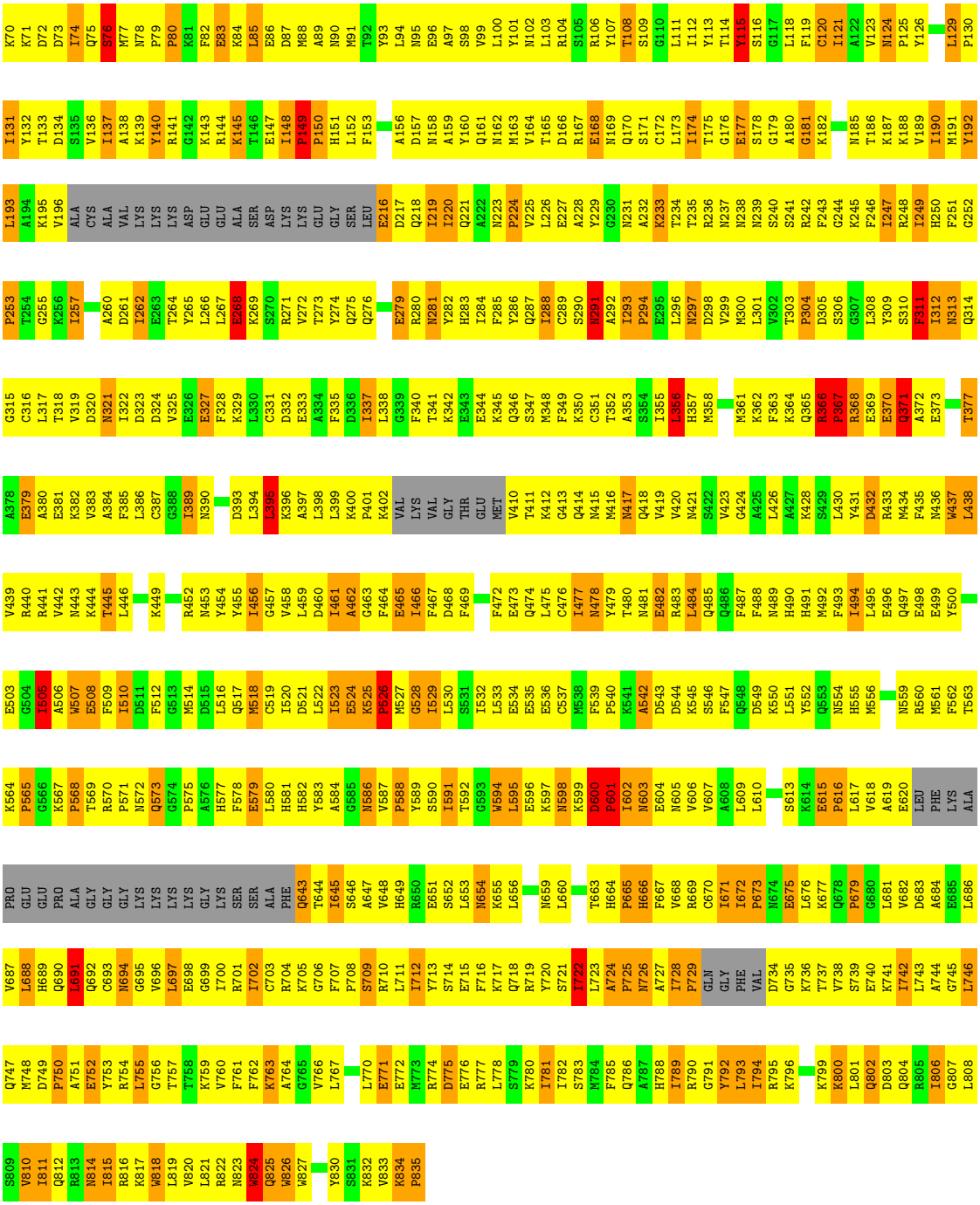
• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

Chain 5-C:



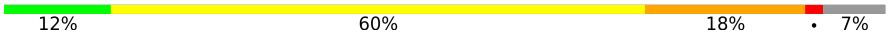
• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

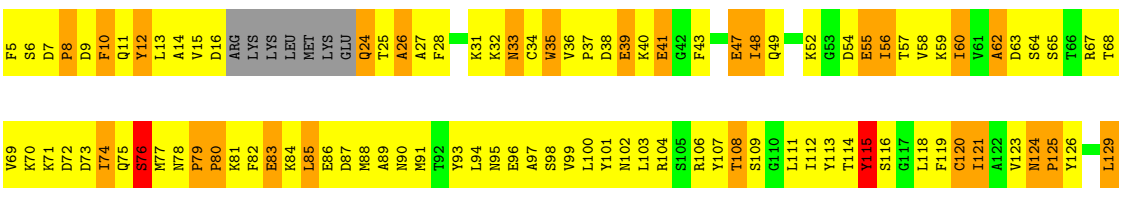
Chain 6-C: 14% 59% 18% • 7%

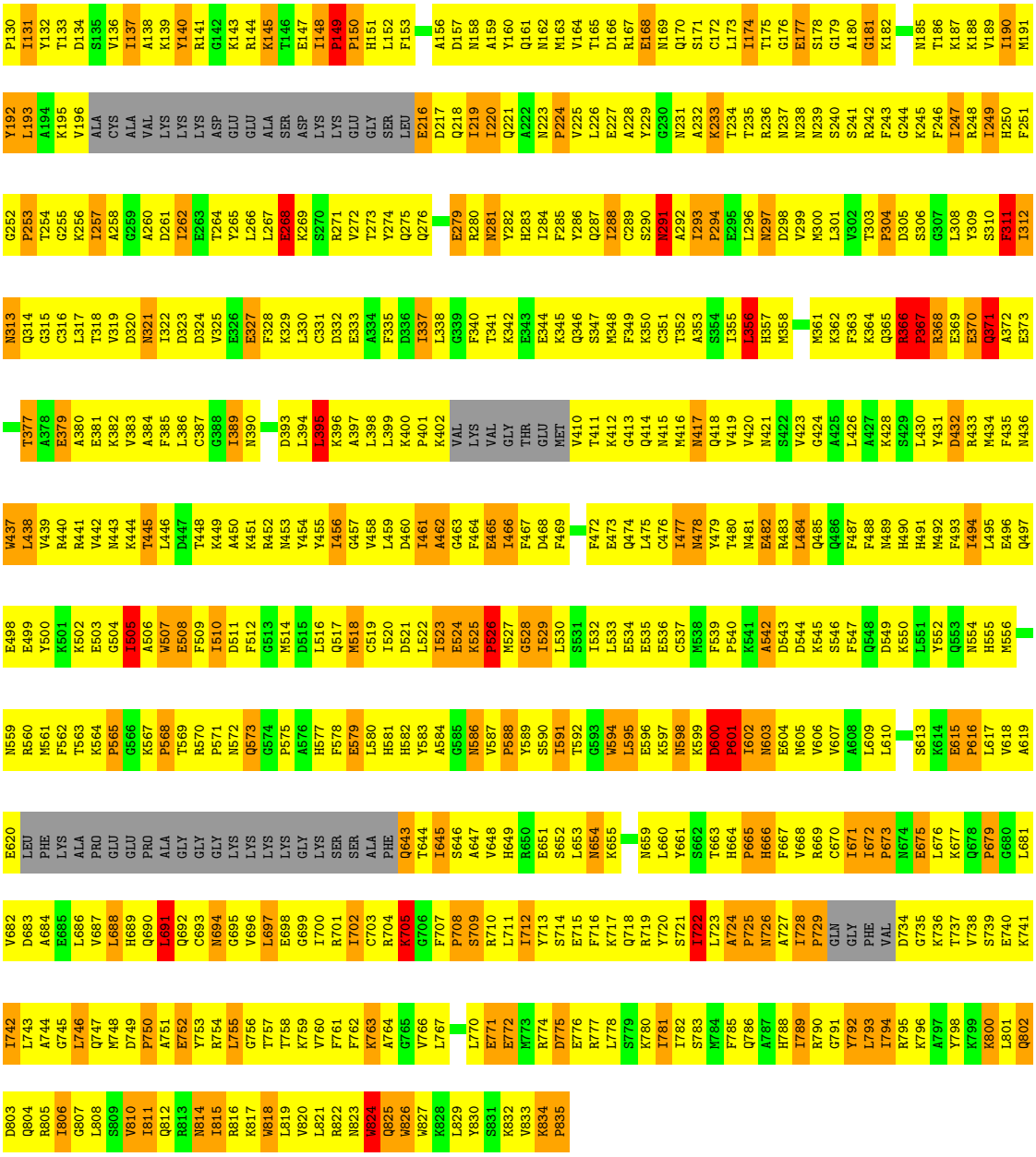


• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

Chain 7-C:

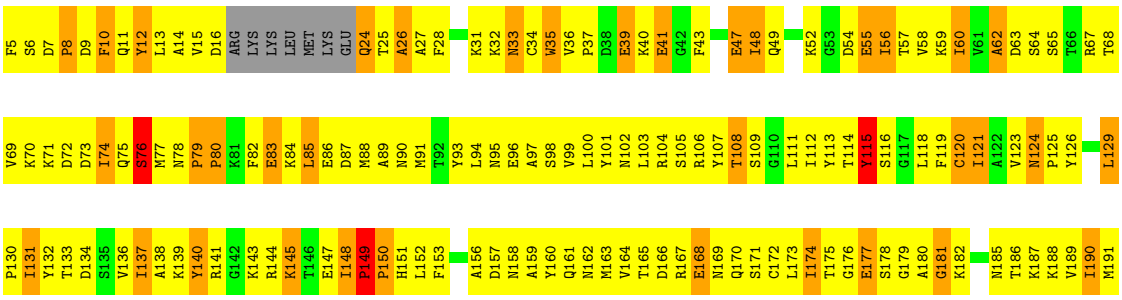


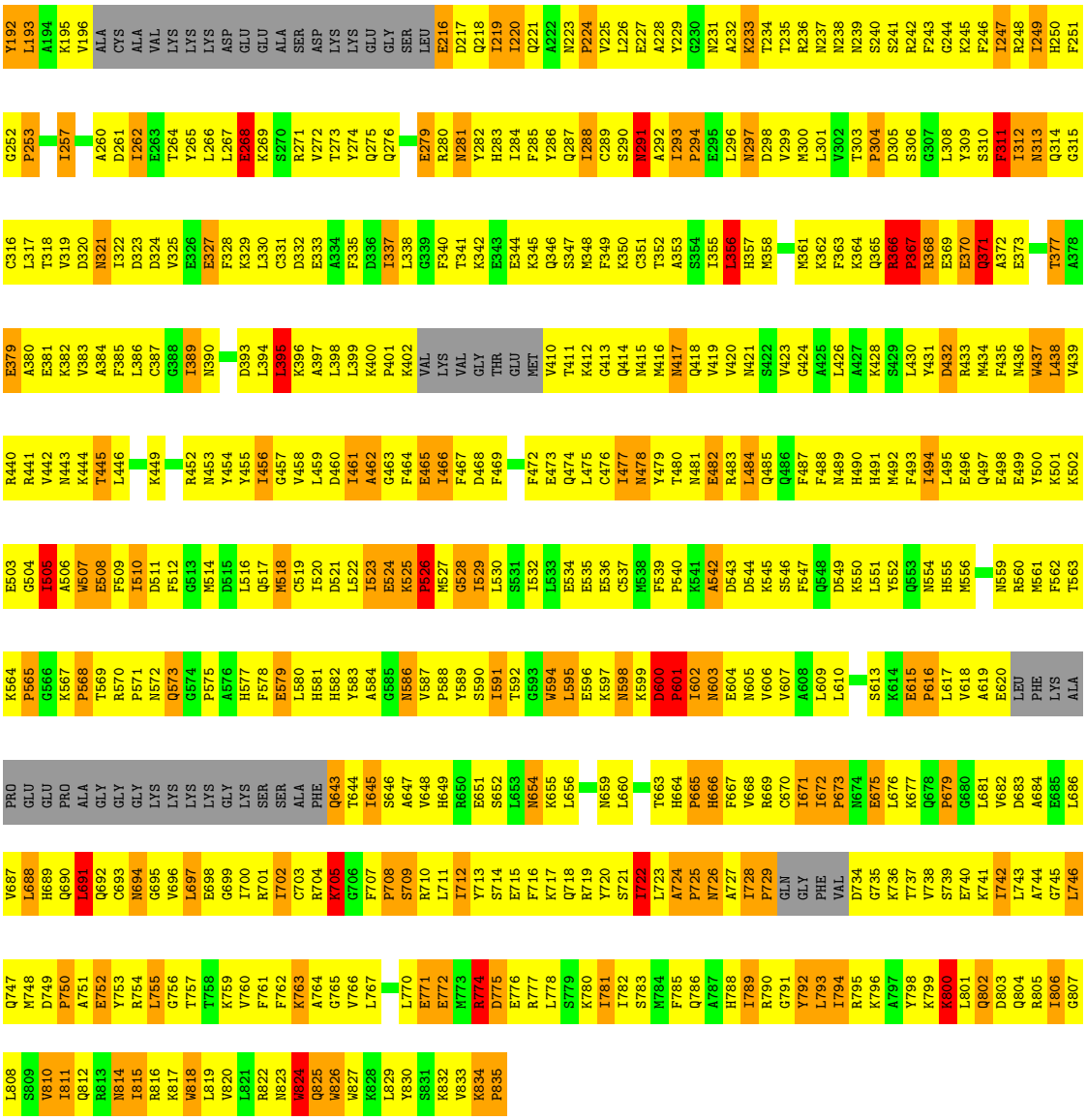




• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

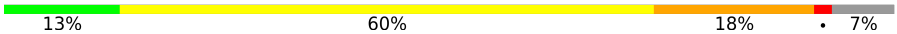
Chain 8-C:

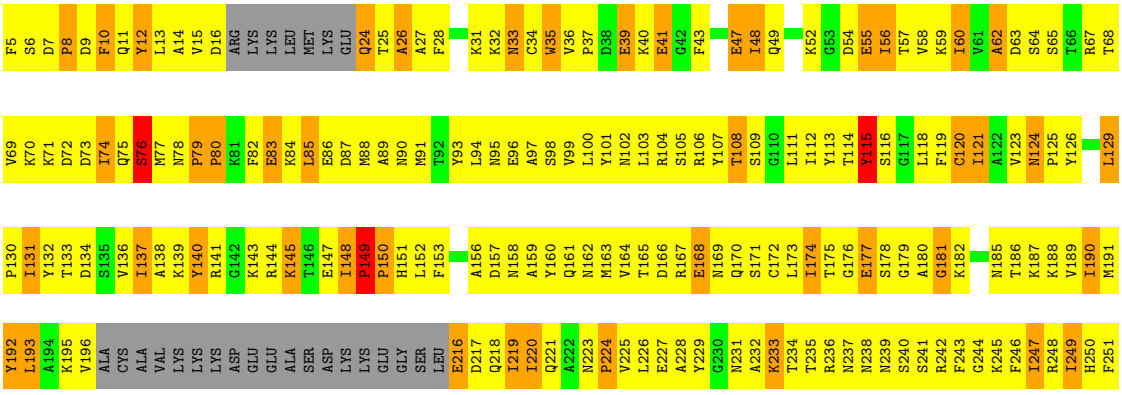


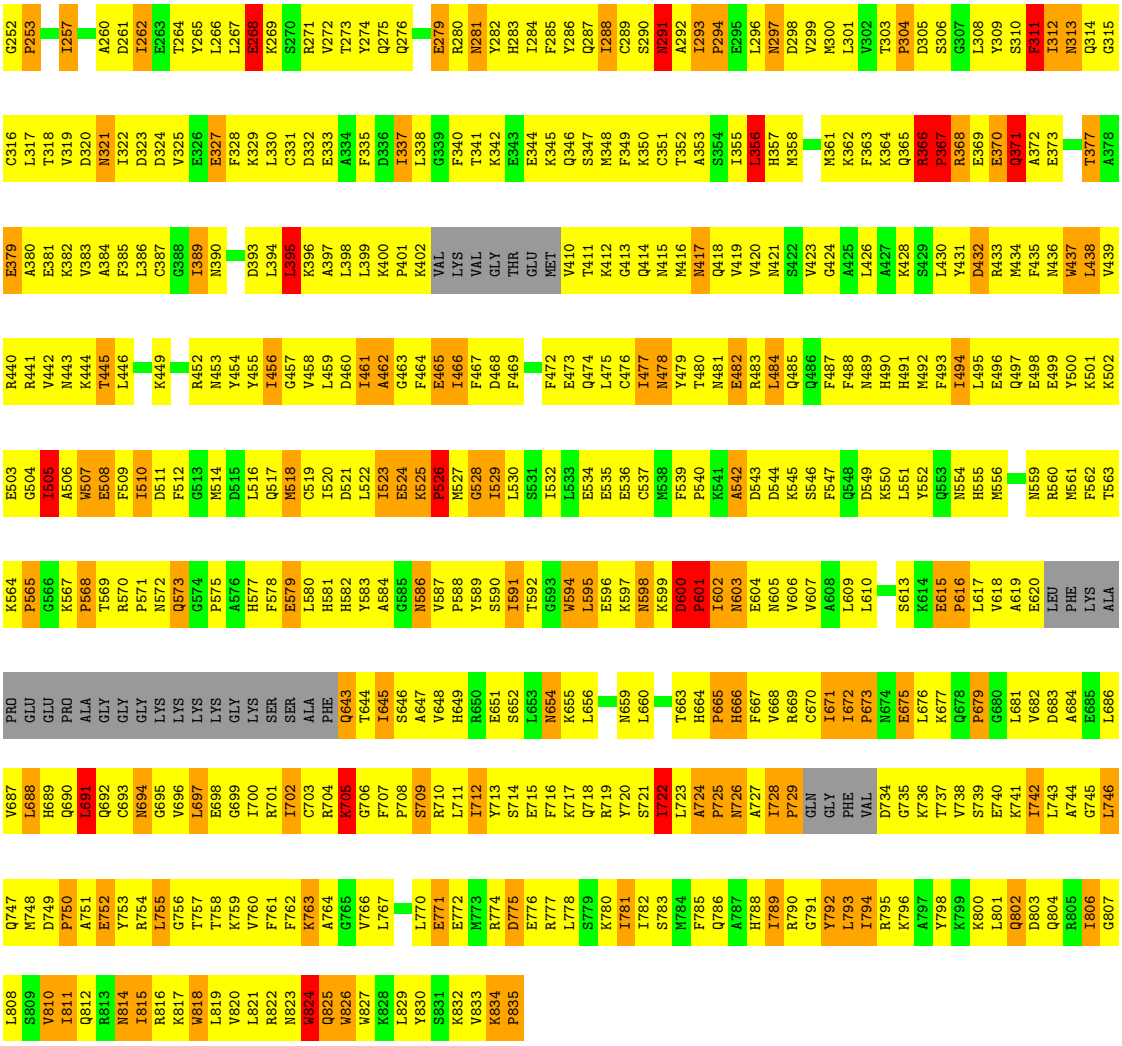


• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

Chain 9-C:

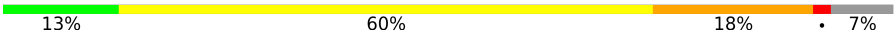


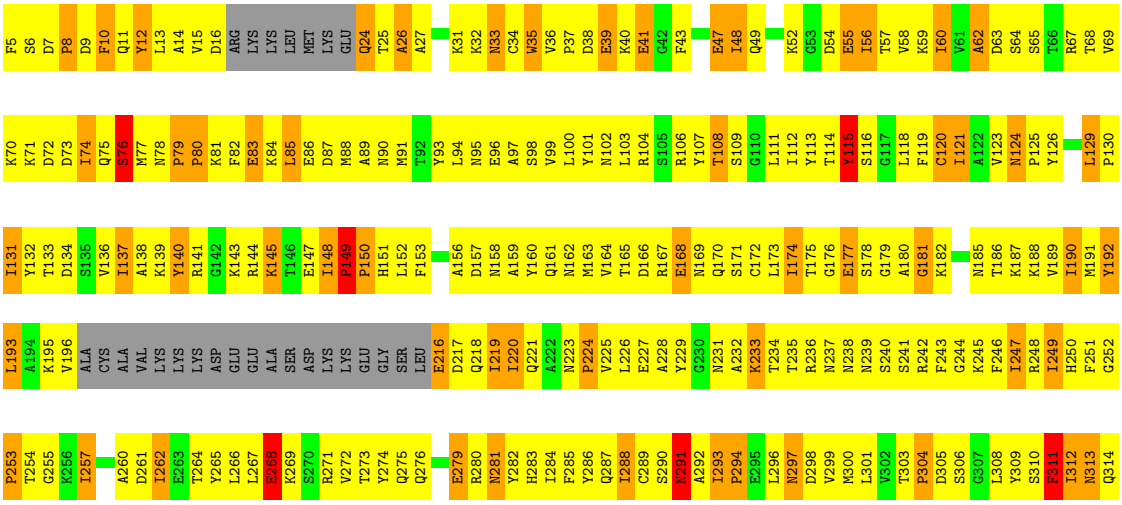


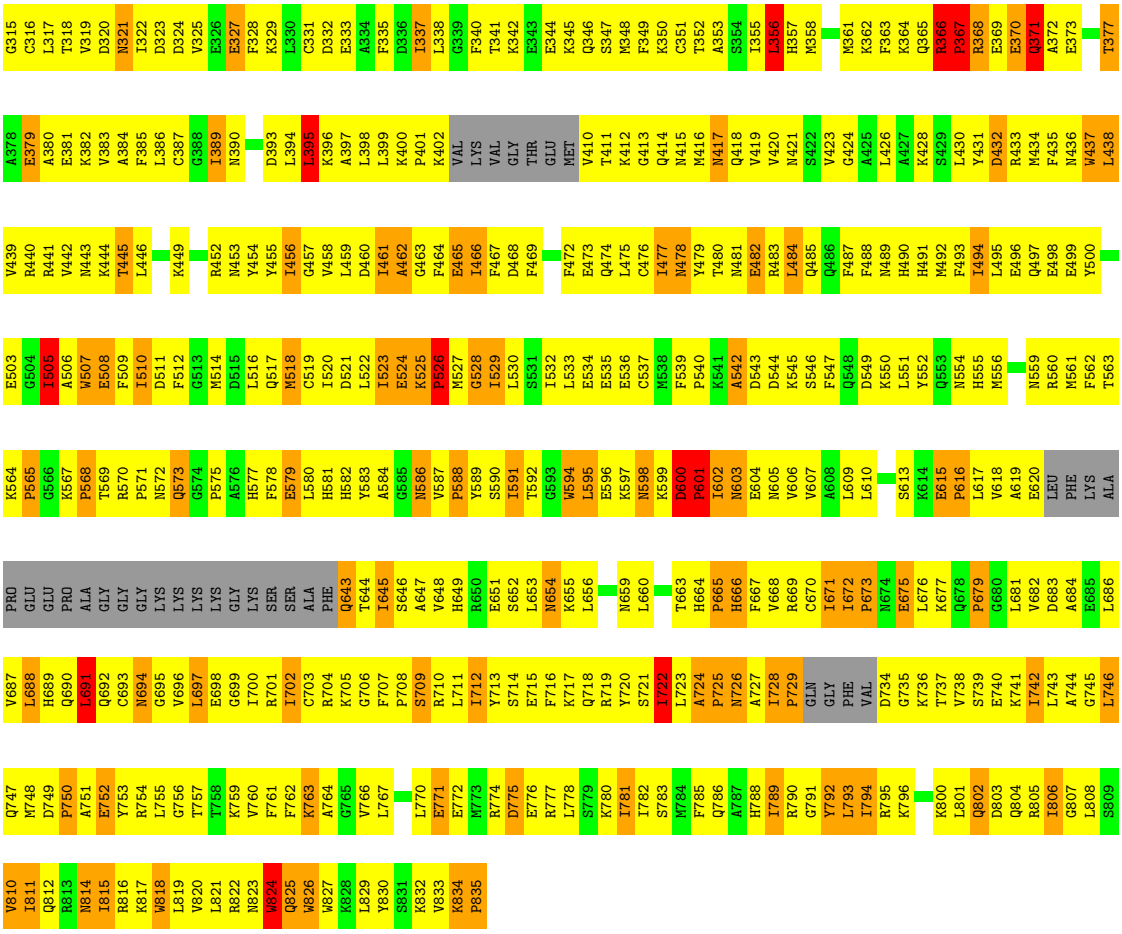


• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

Chain 10-C:

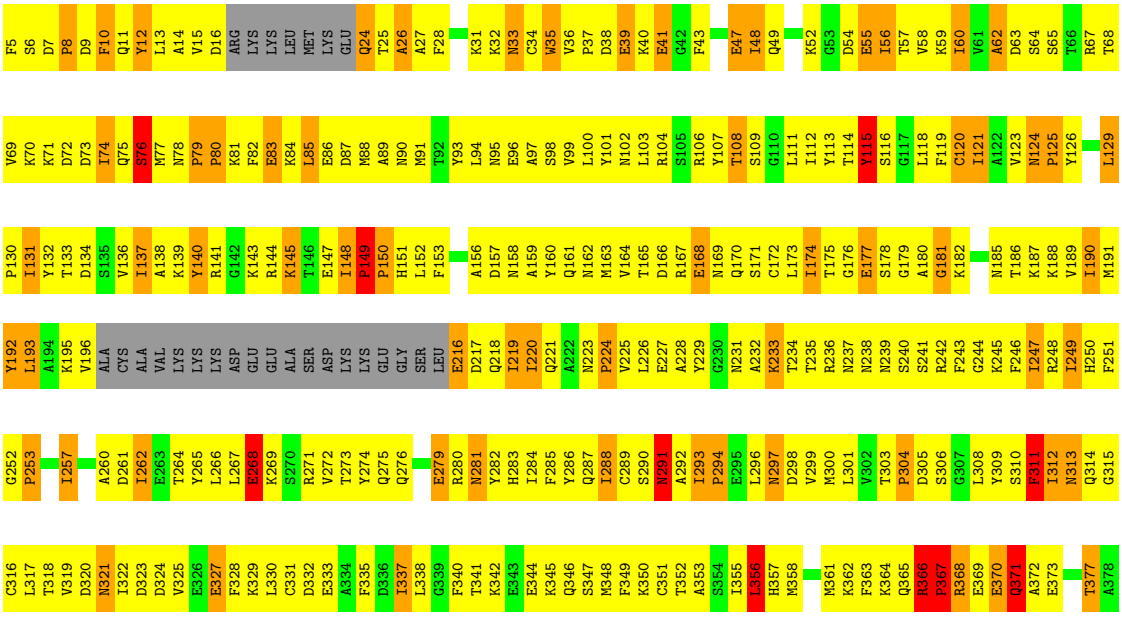


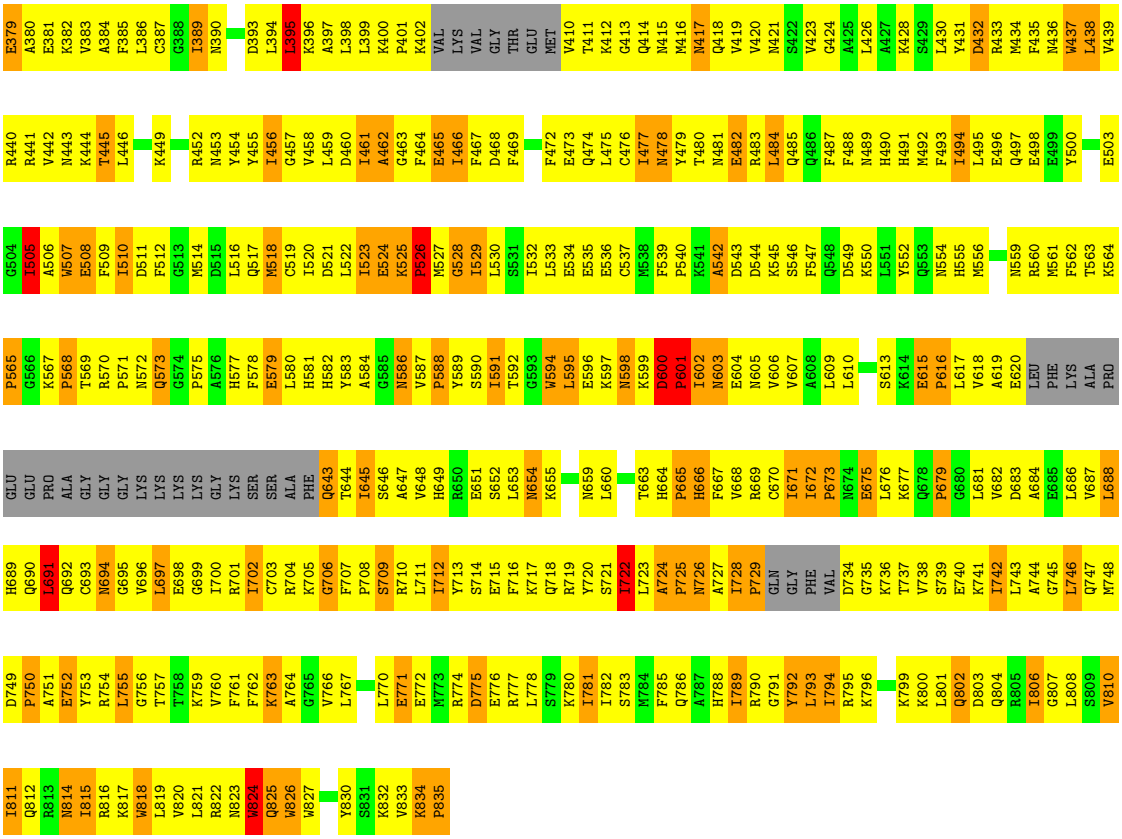




• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

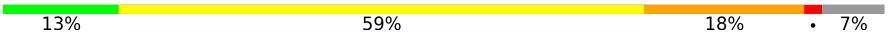
Chain 11-C:

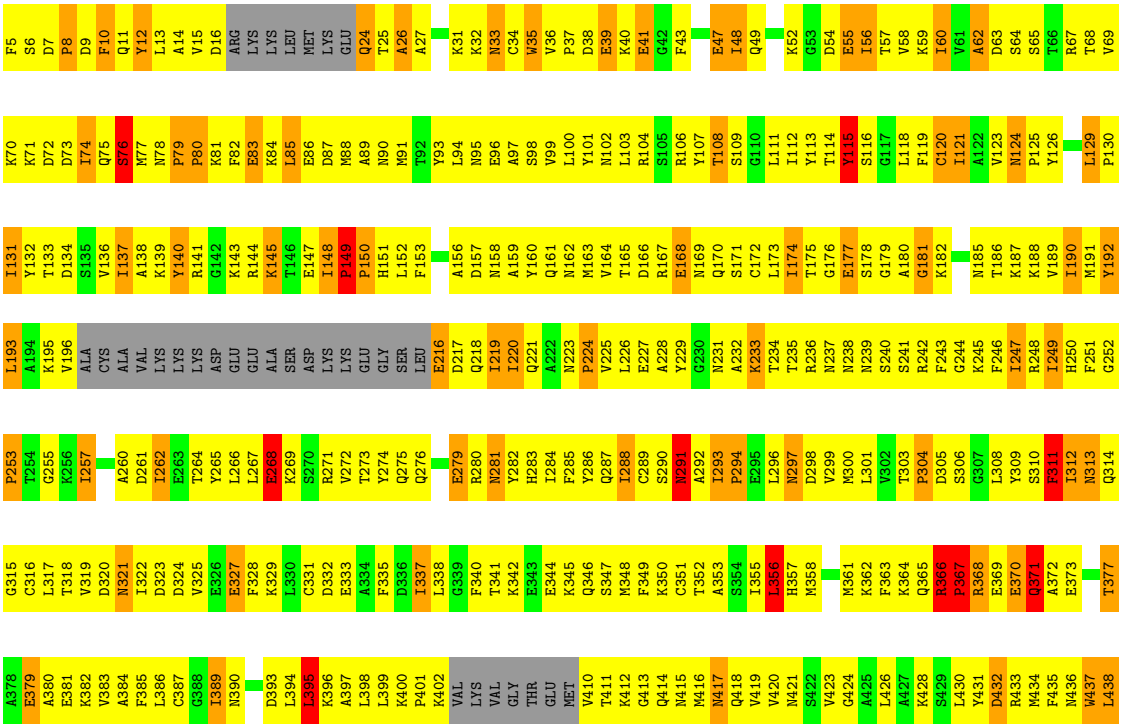


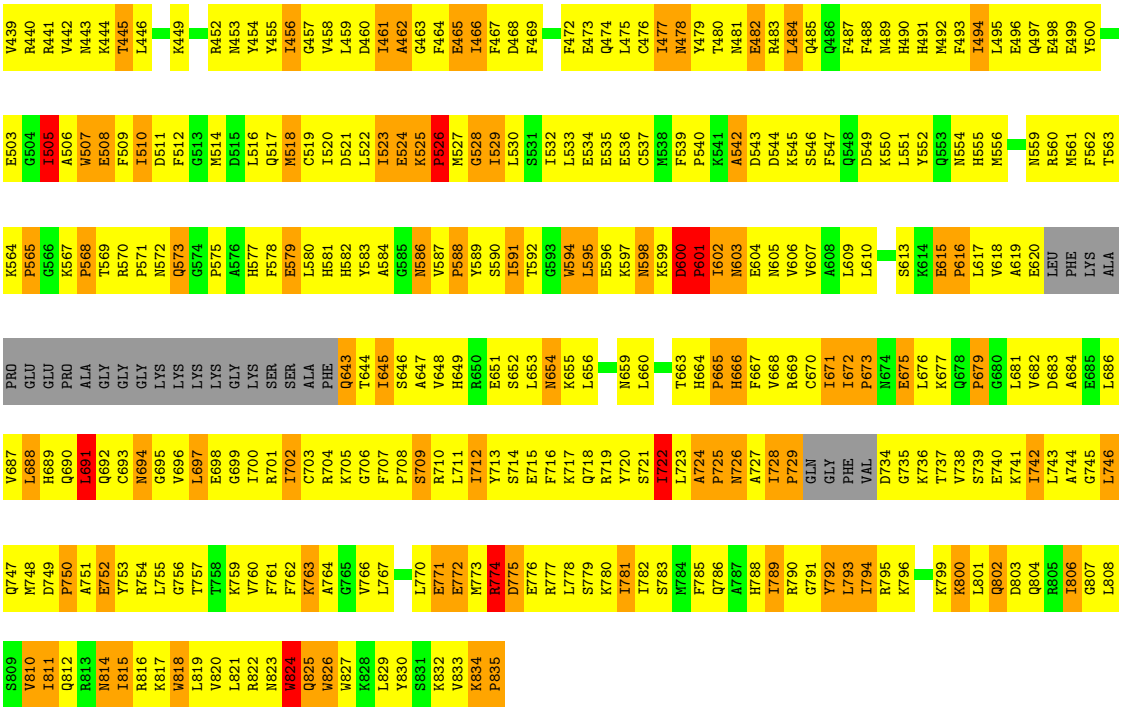


• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

Chain 12-C:

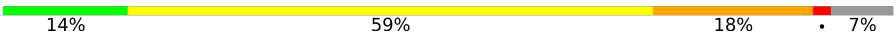


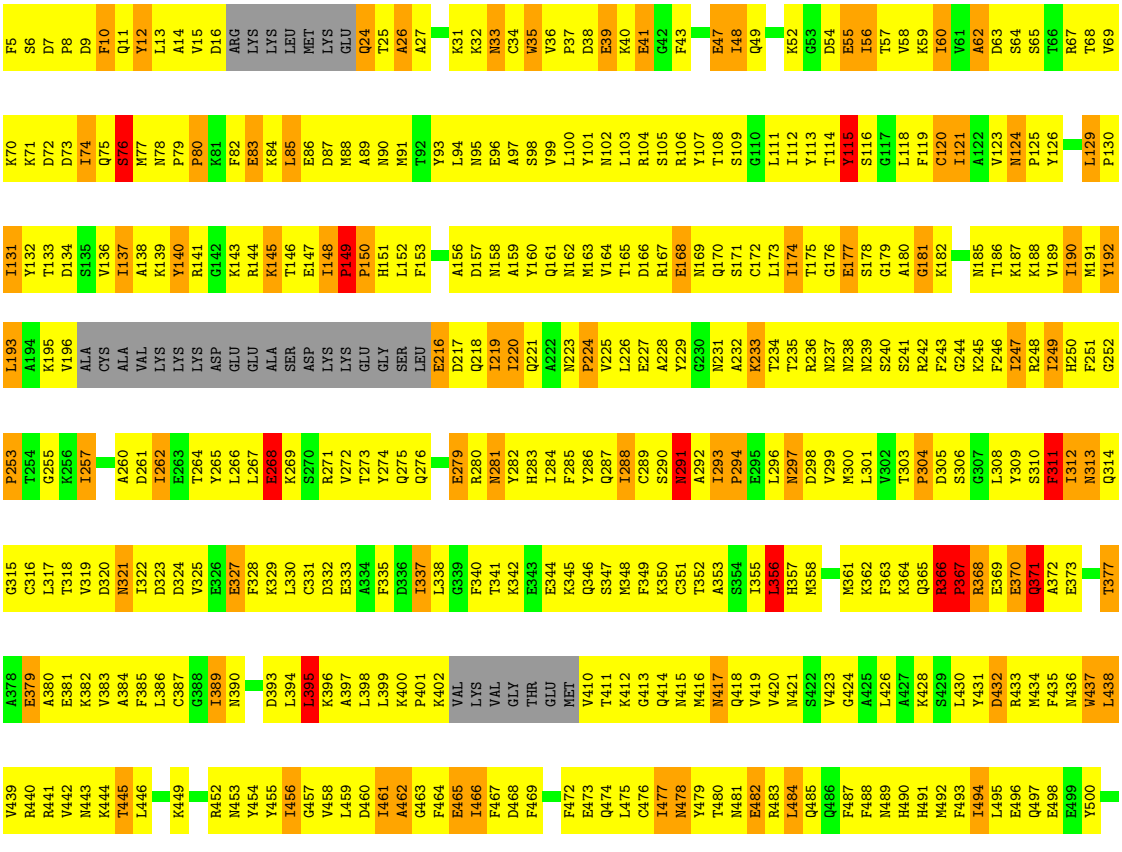


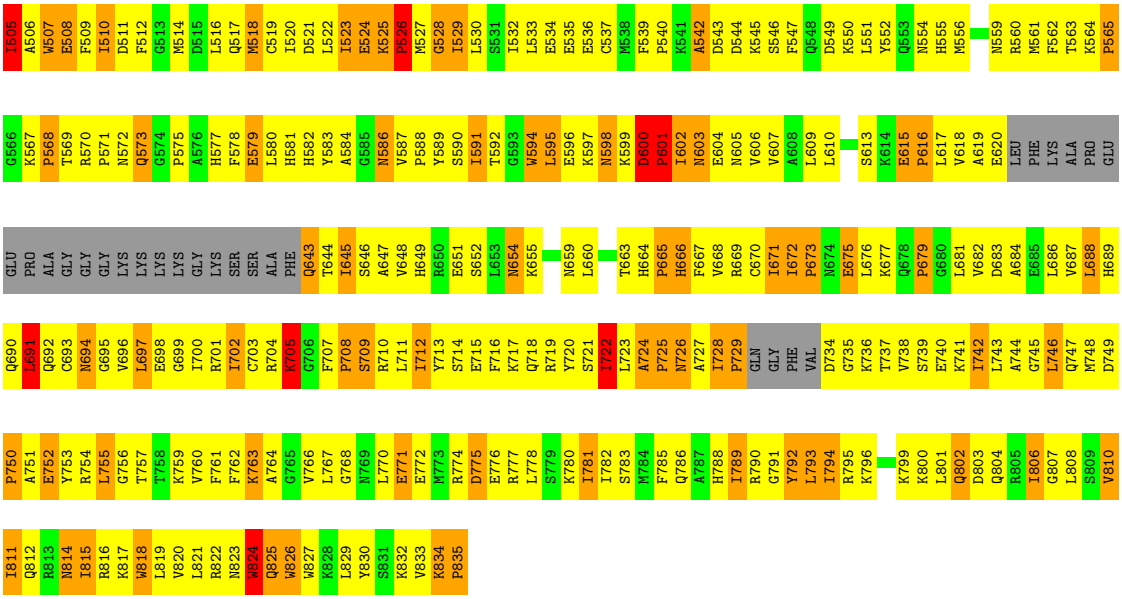


• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

Chain 13-C:

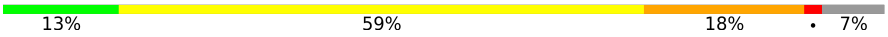


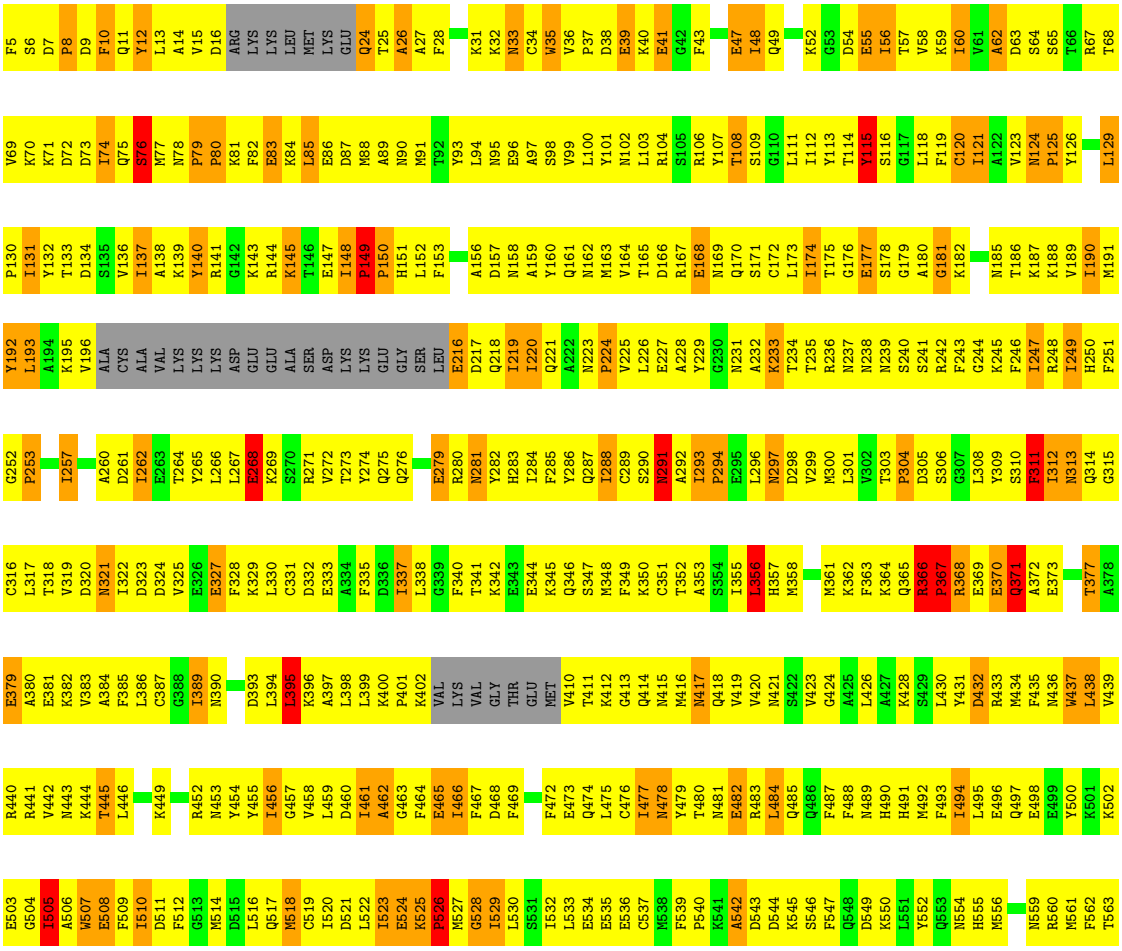


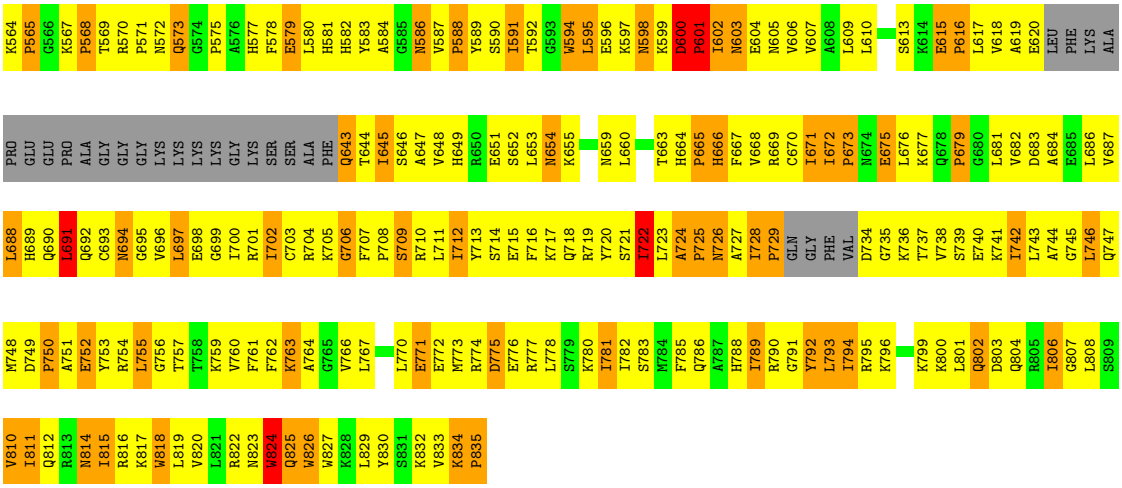


• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

Chain 14-C:

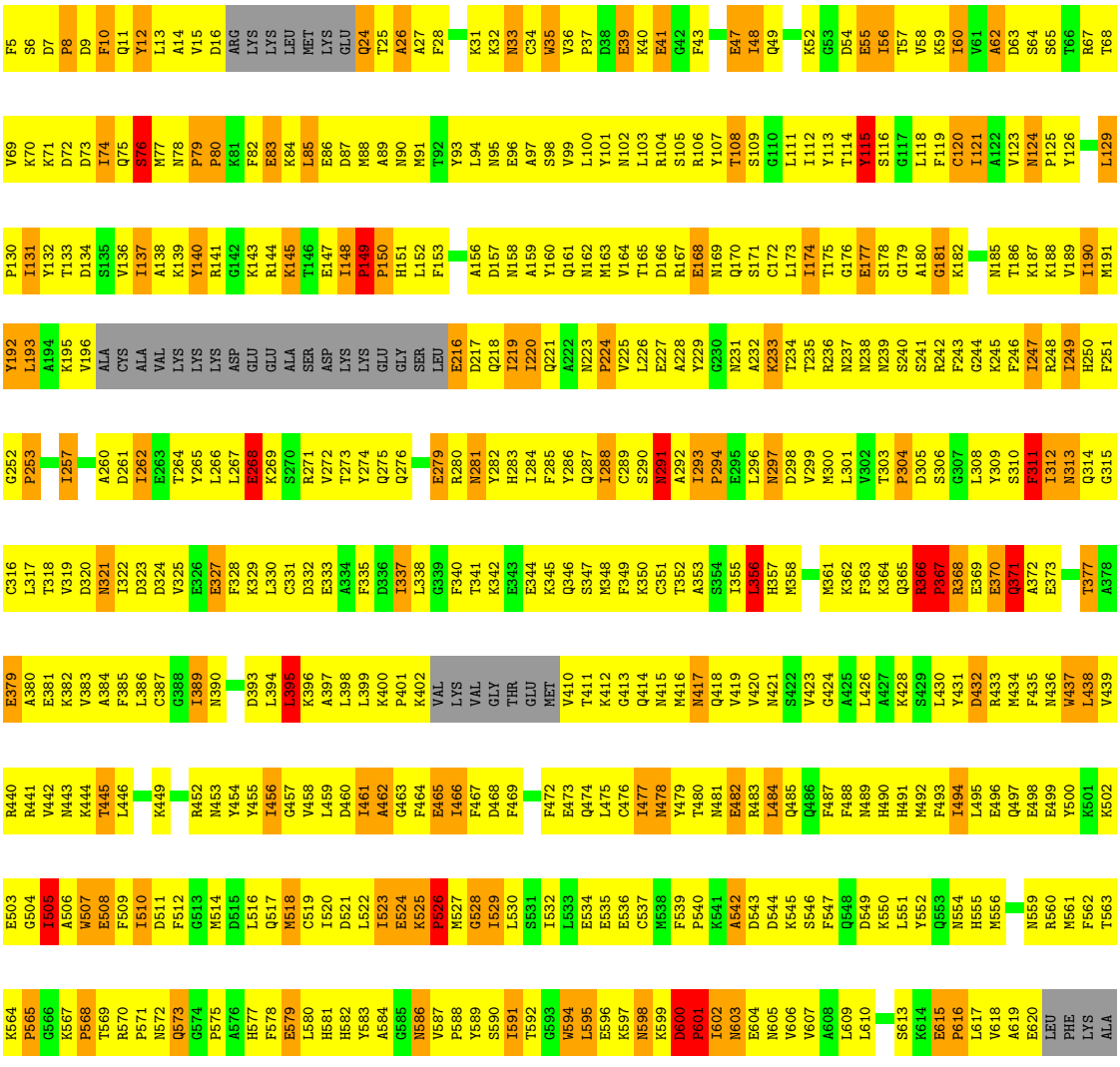


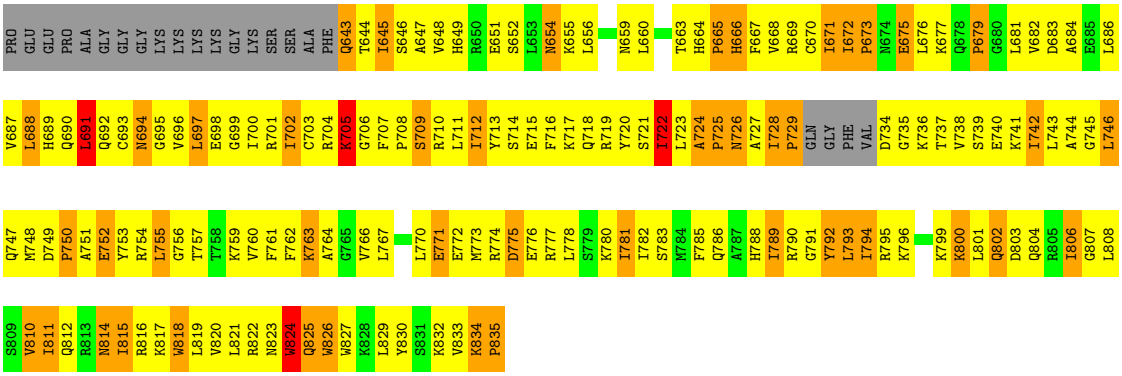




• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

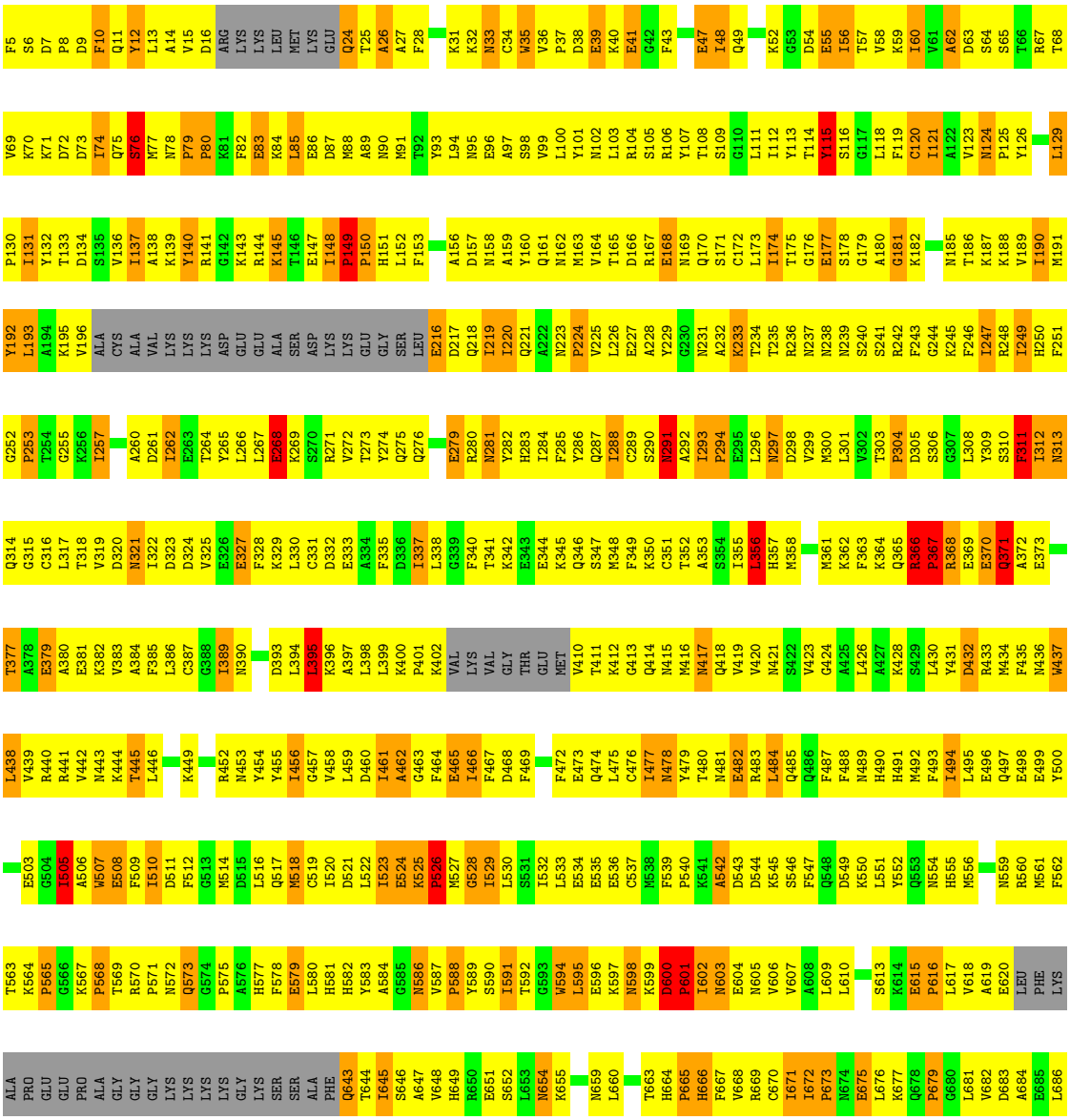
Chain 15-C:

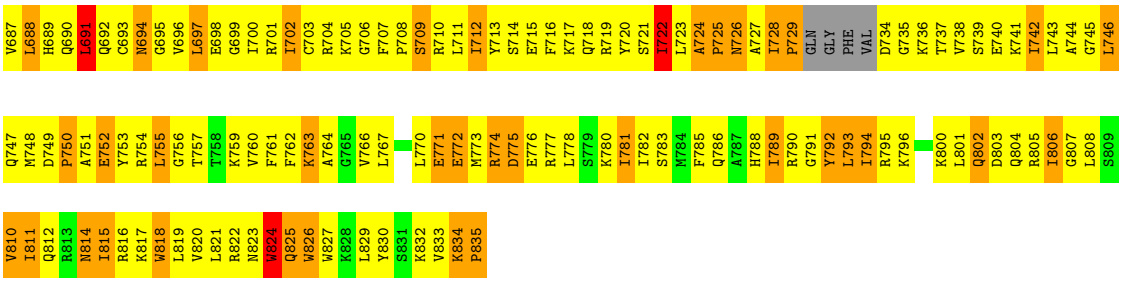




• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

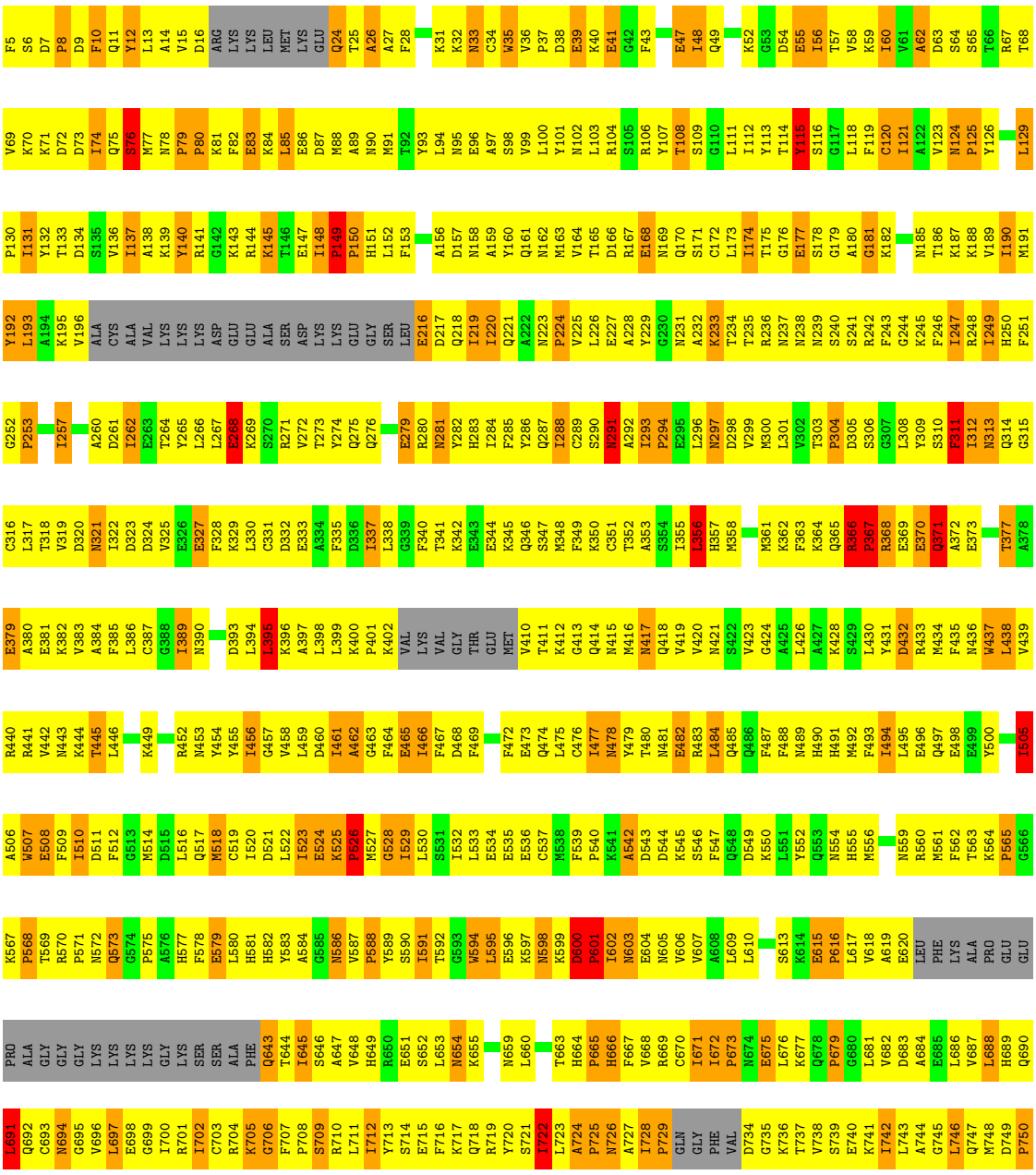
Chain 16-C:

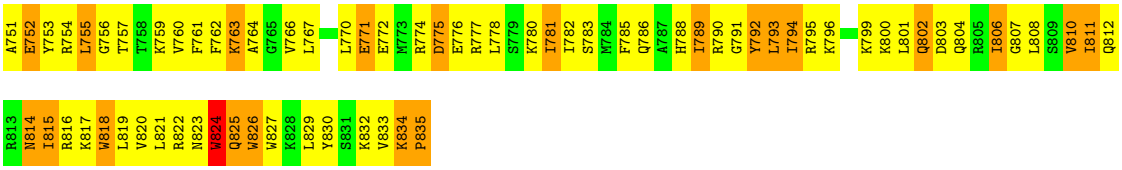




• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

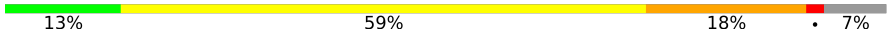
Chain 17-C:

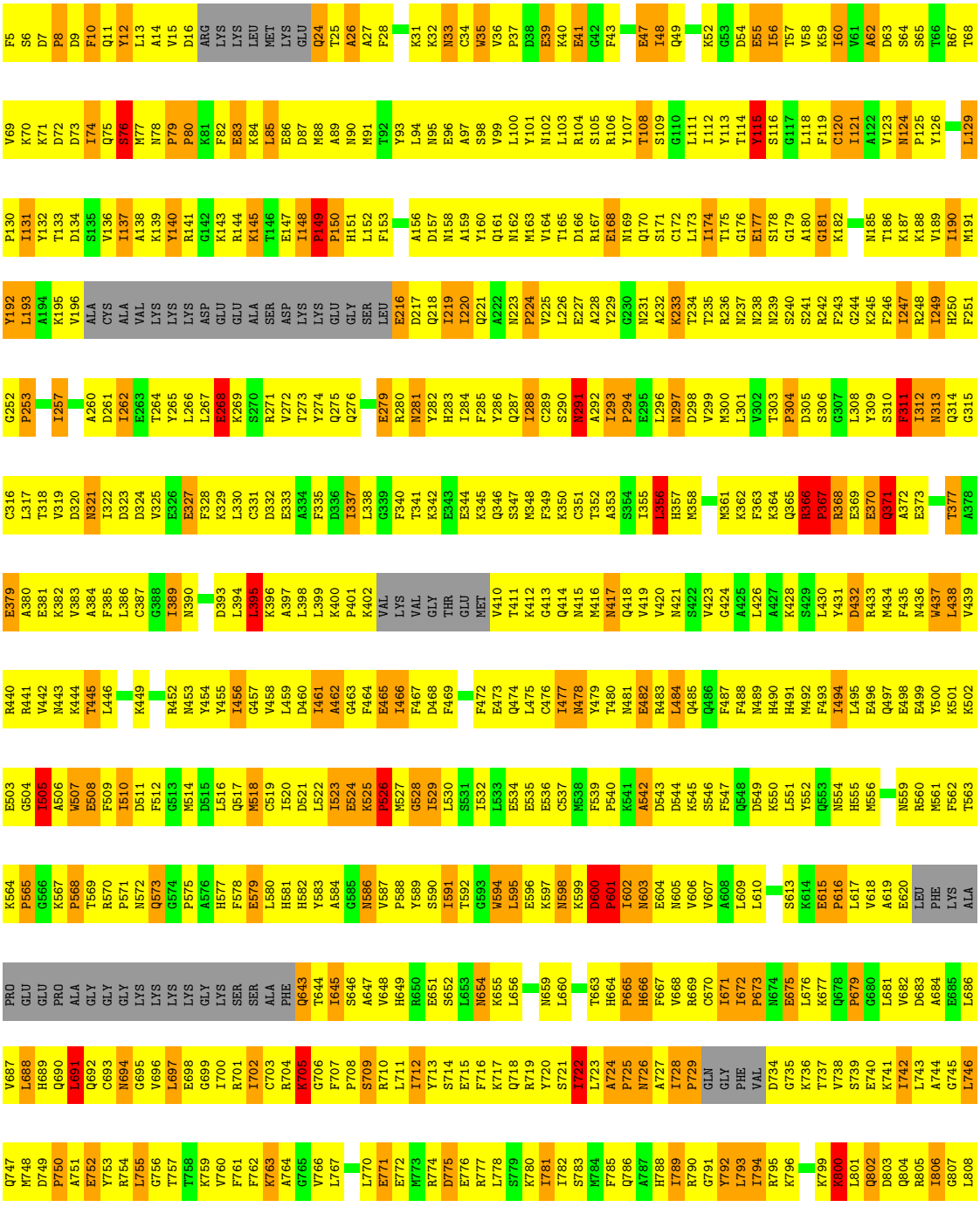




• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

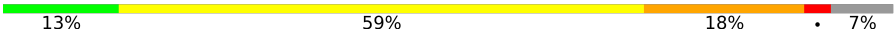
Chain 18-C:

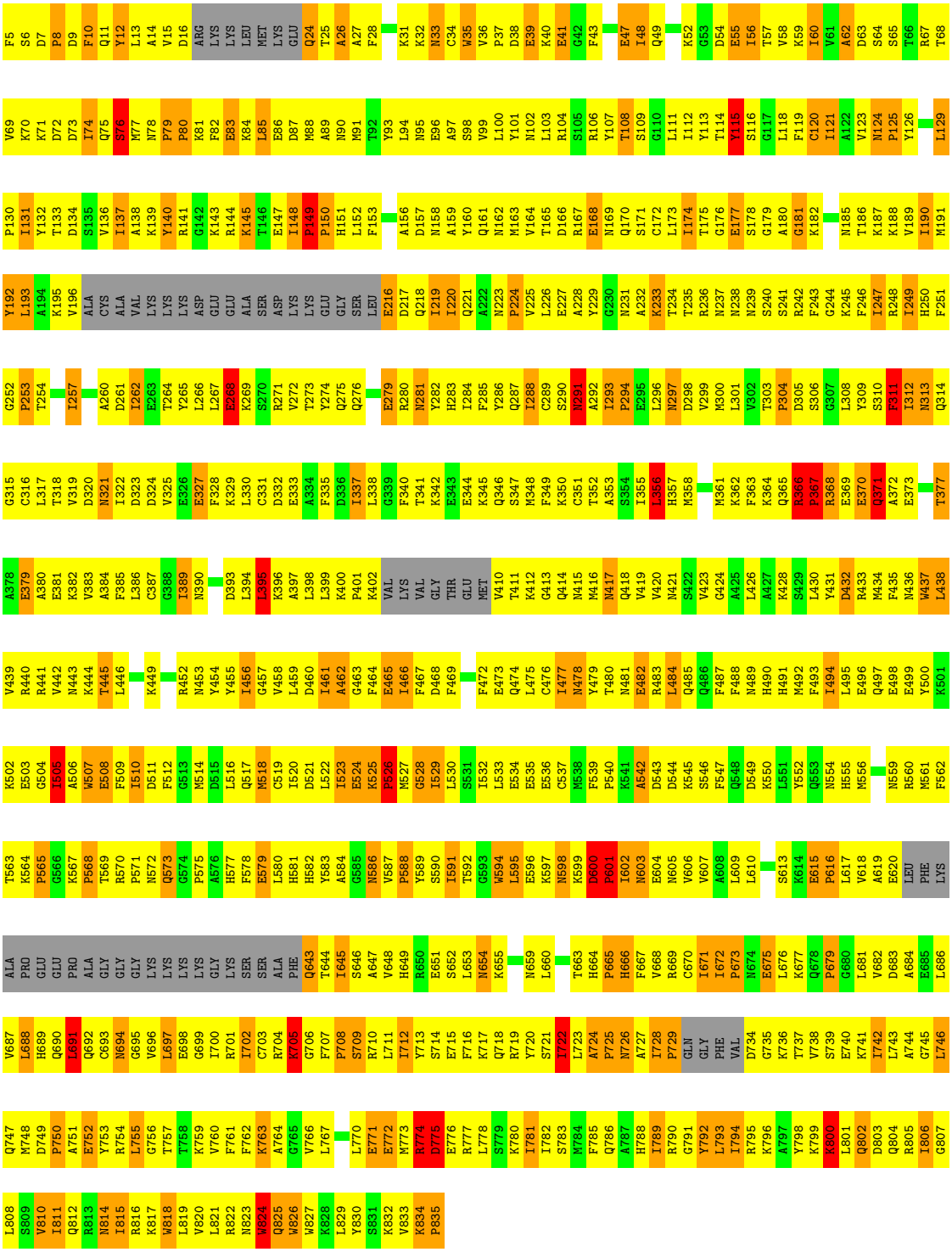




• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

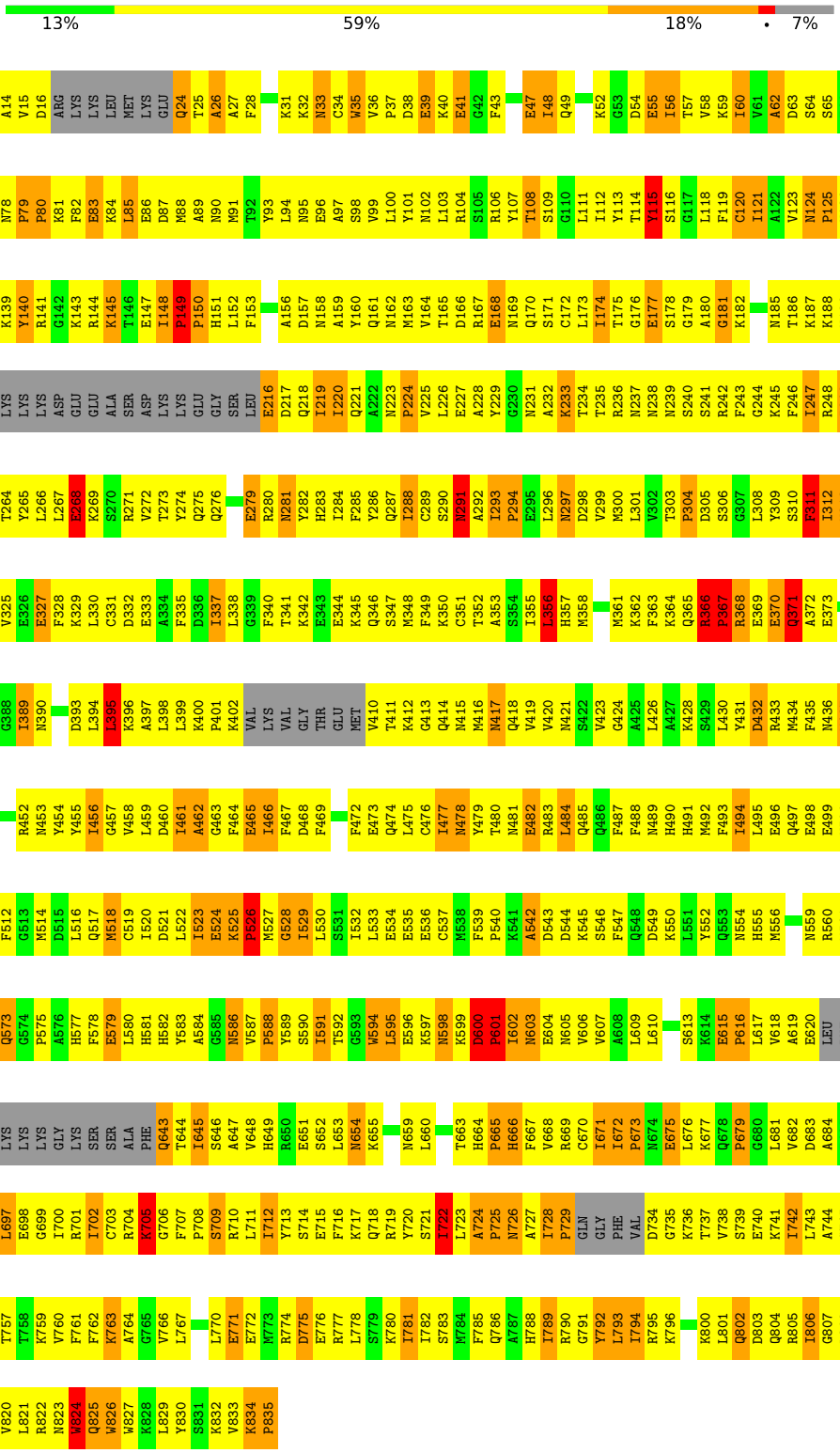
Chain 19-C:





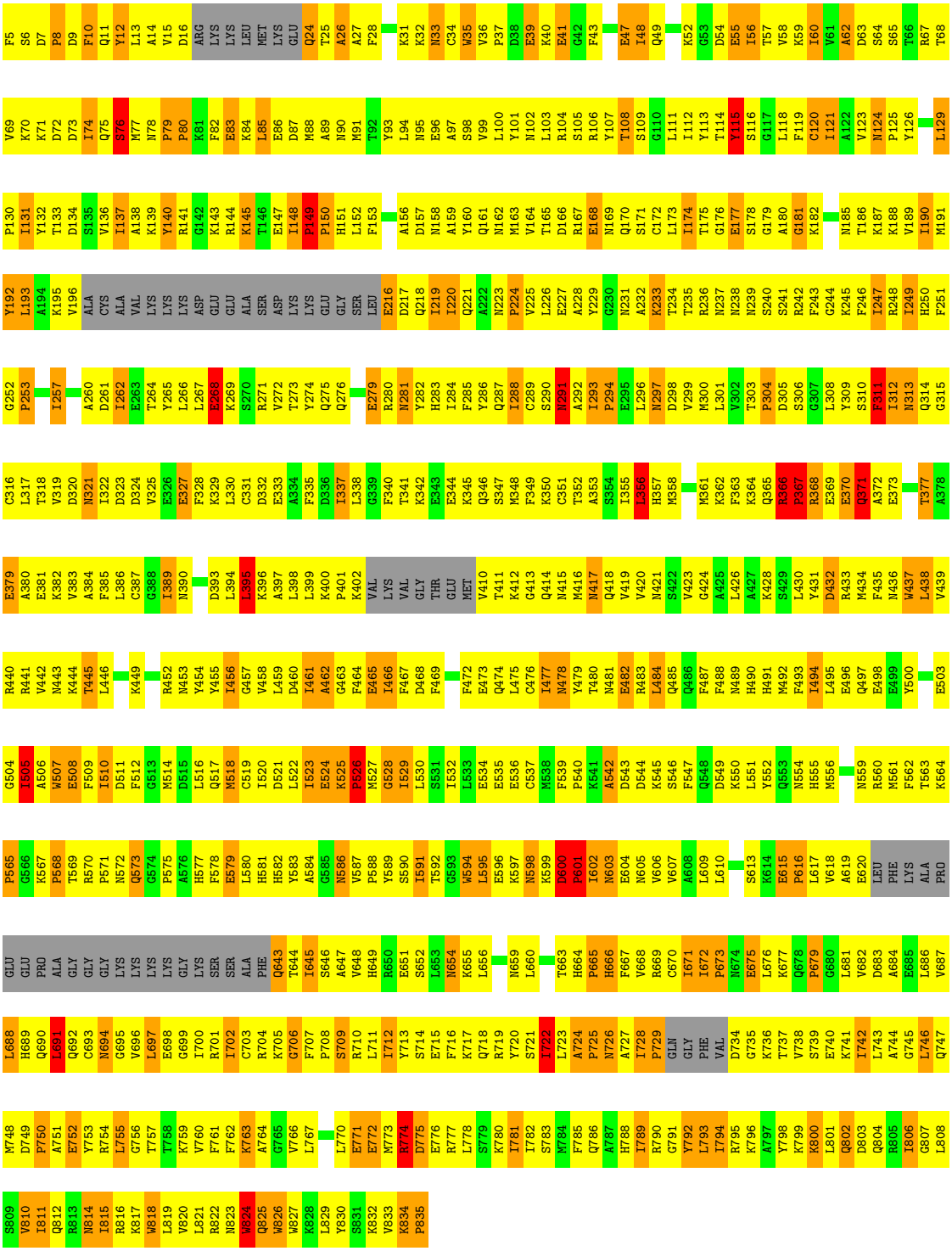
• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

Chain 20-C:



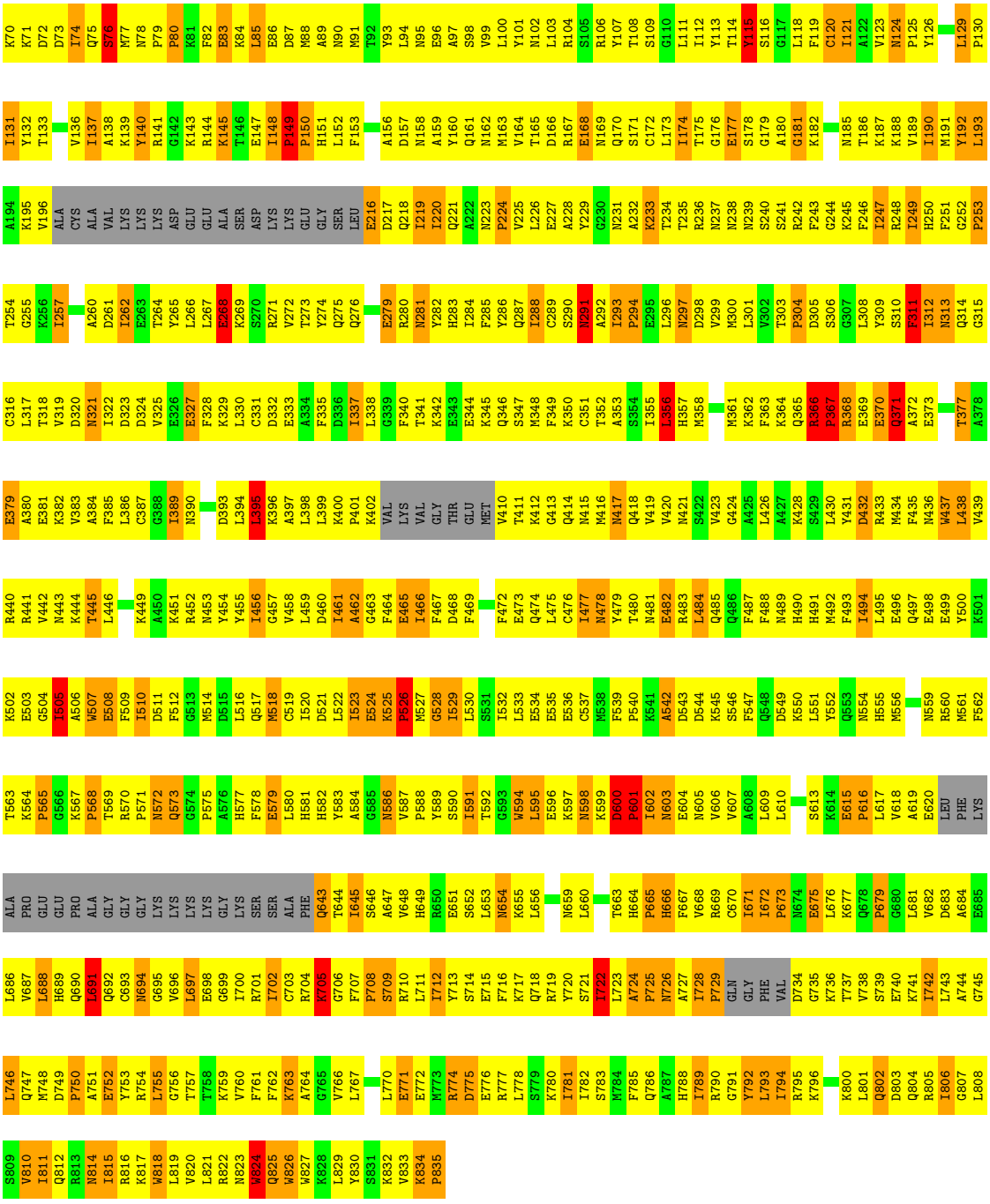
• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

Chain 21-C:



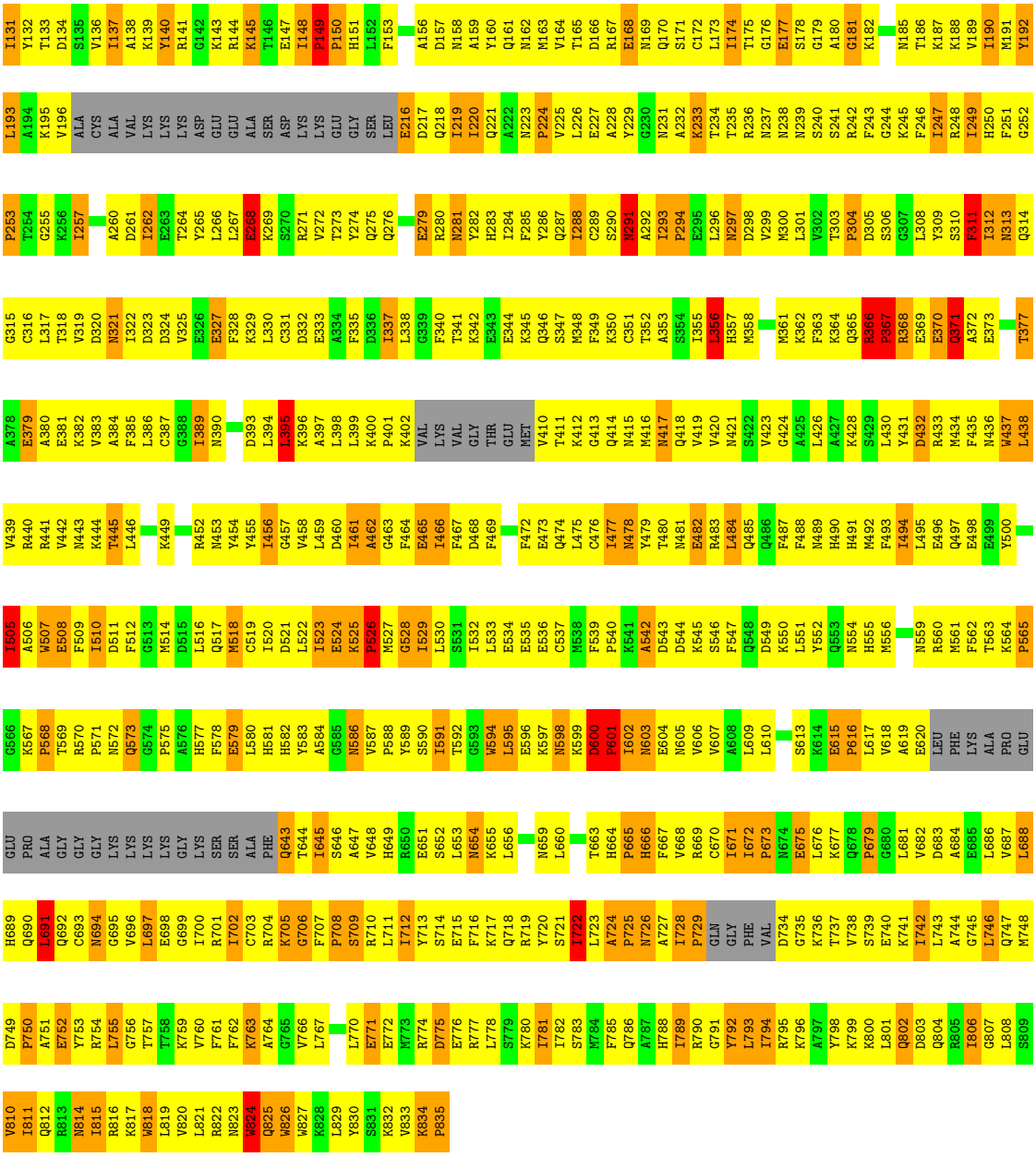
• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

Chain 22-C:



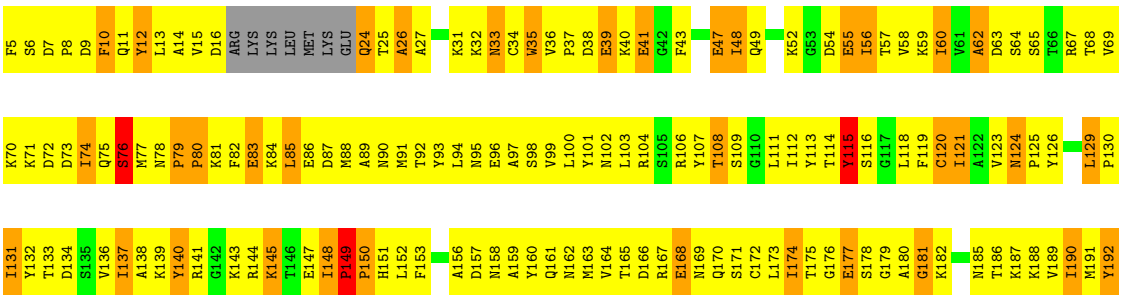
• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

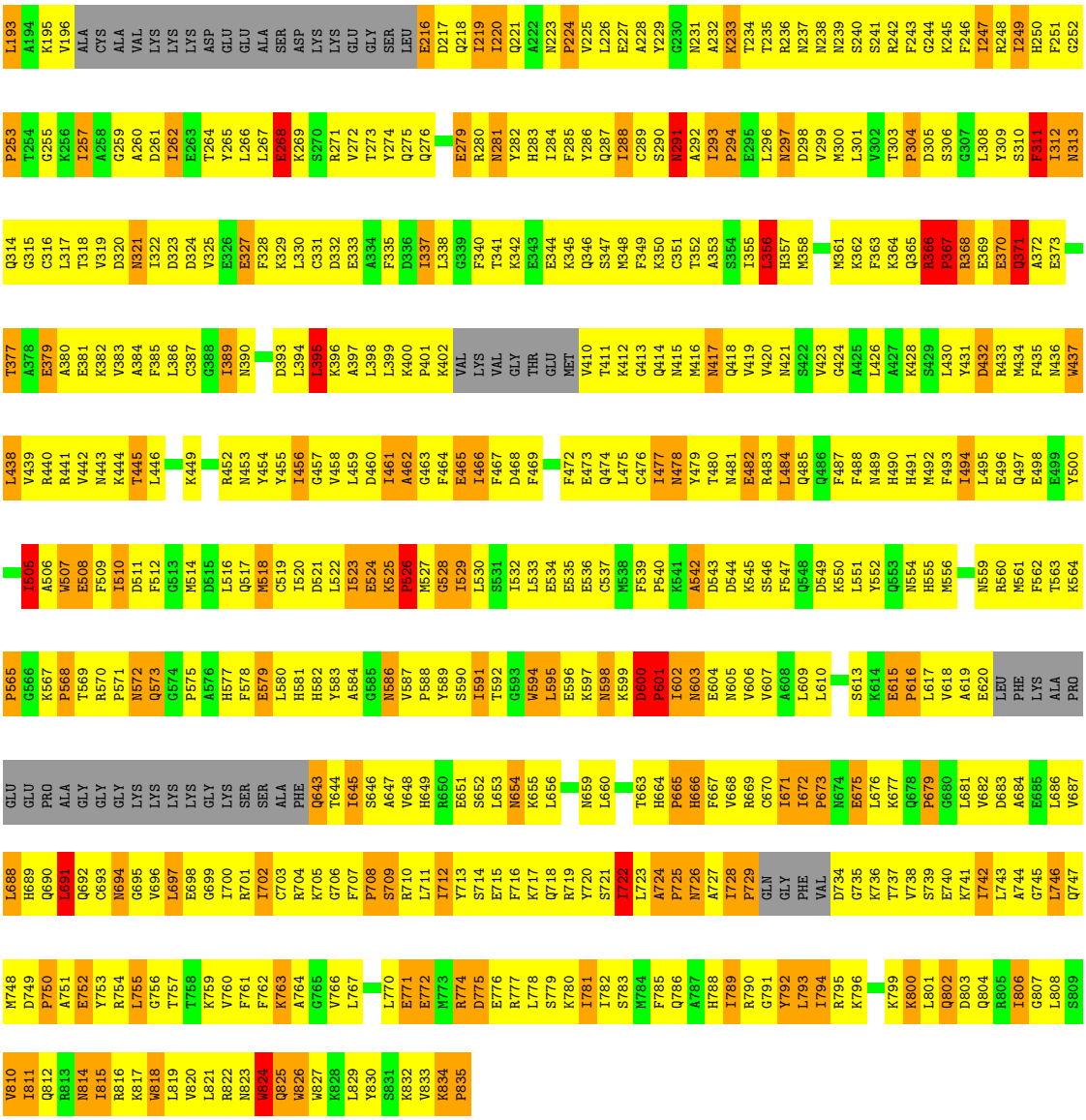
Chain 23-C:



• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

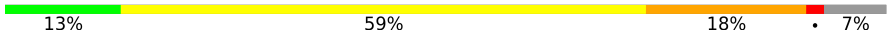
Chain 24-C: 13% 59% 18% • 7%

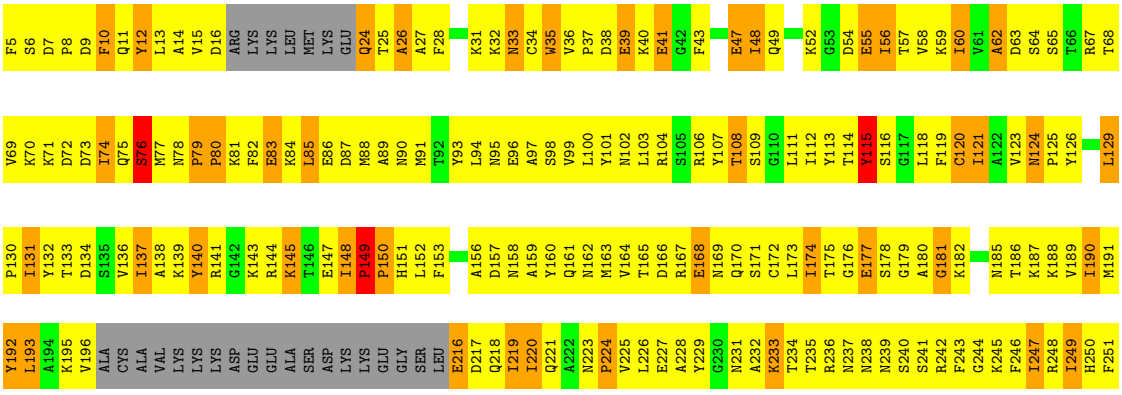


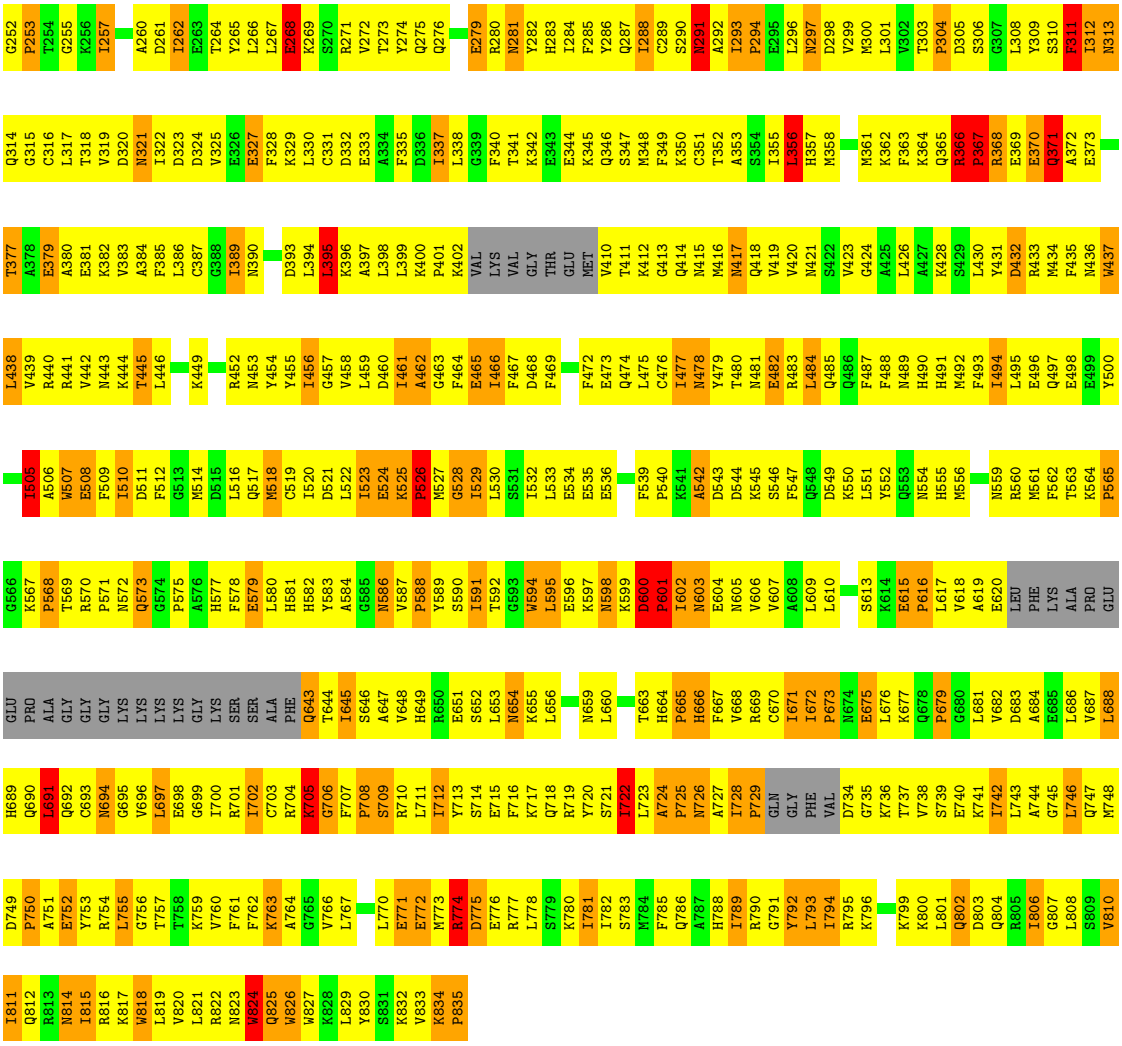


• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

Chain 25-C:

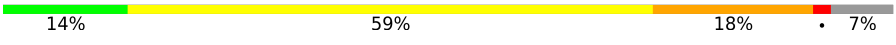


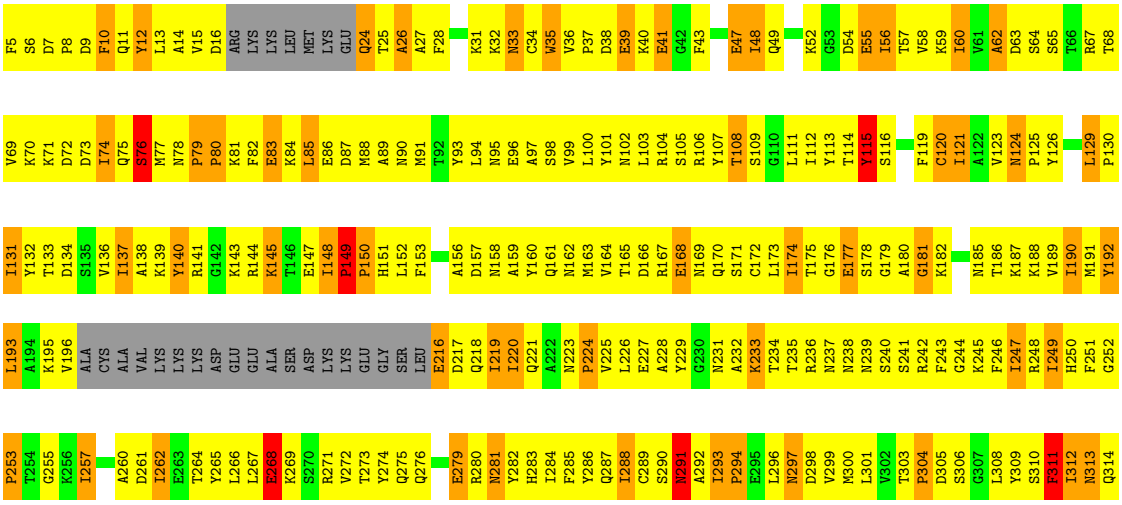


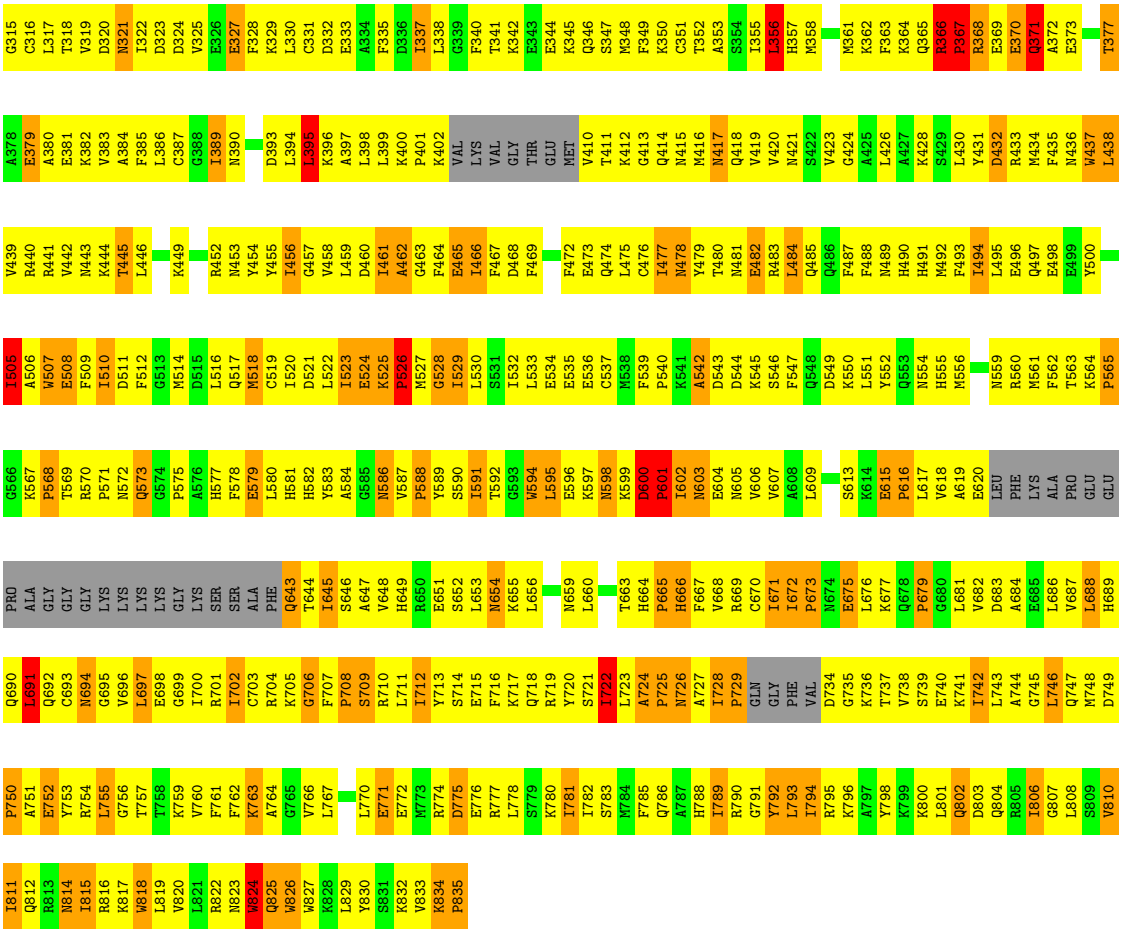


• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

Chain 26-C:

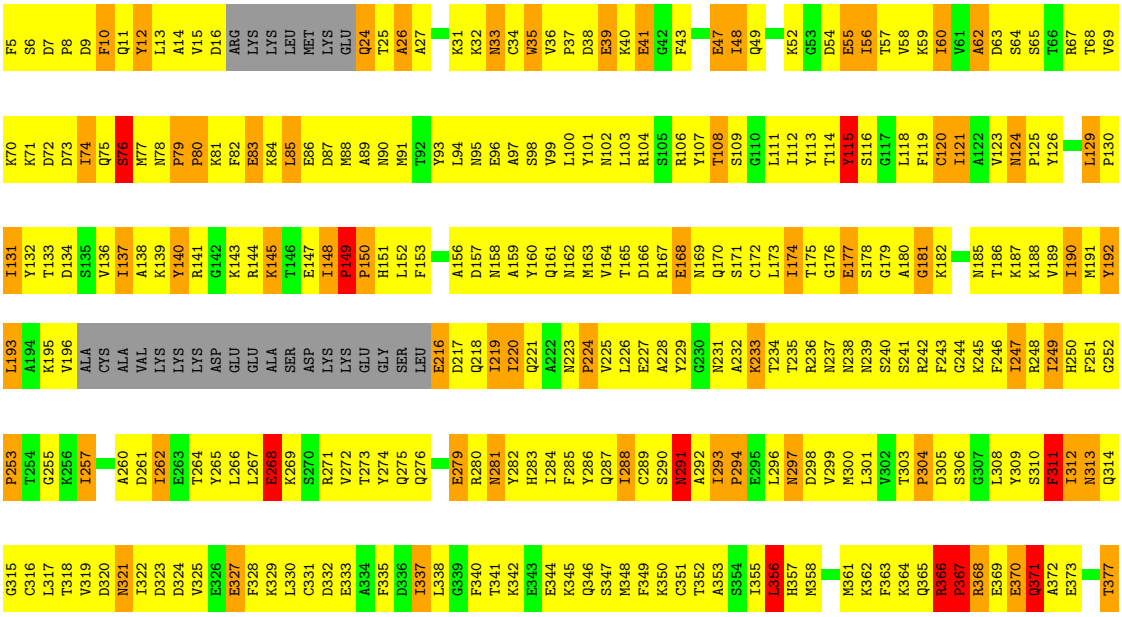


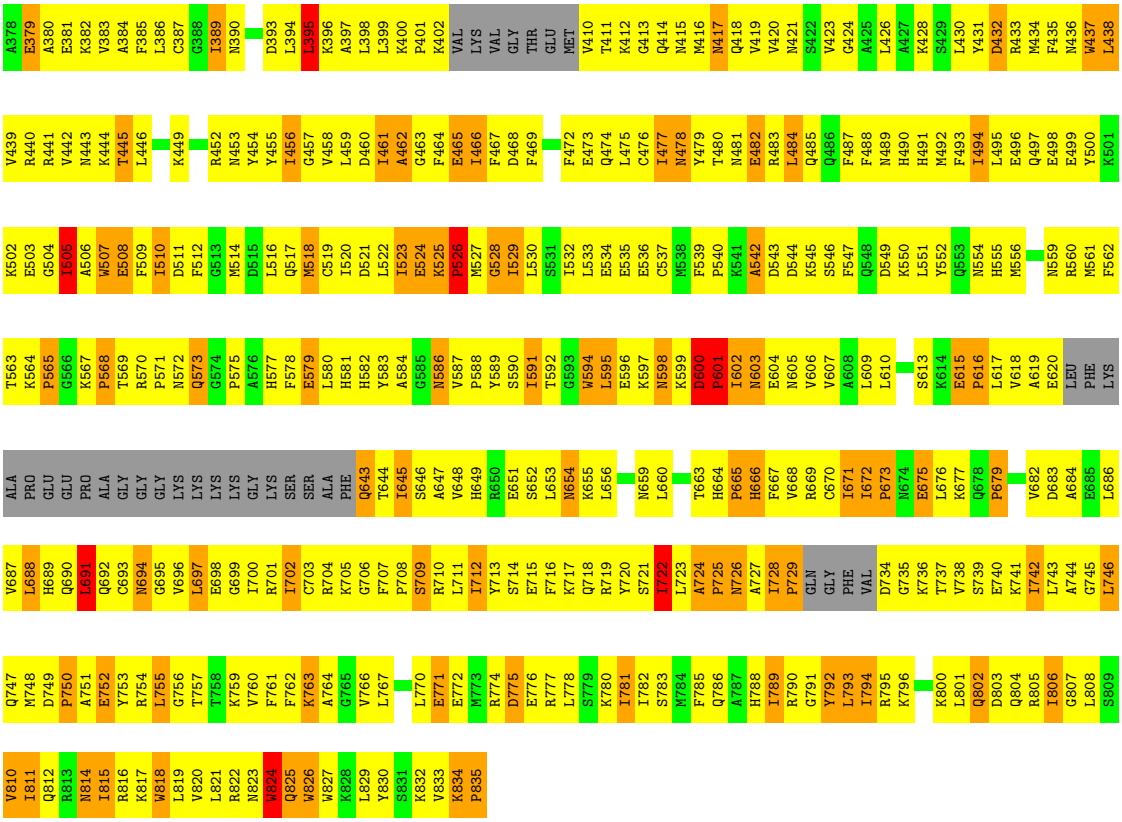




• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

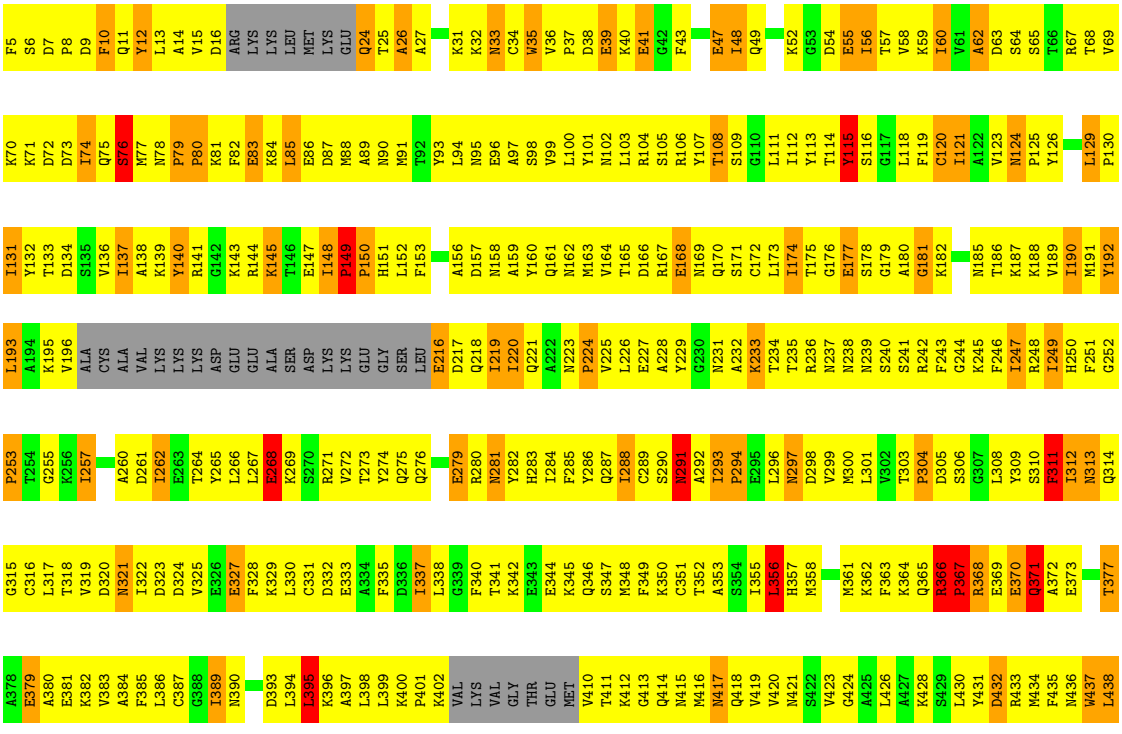
Chain 27-C:

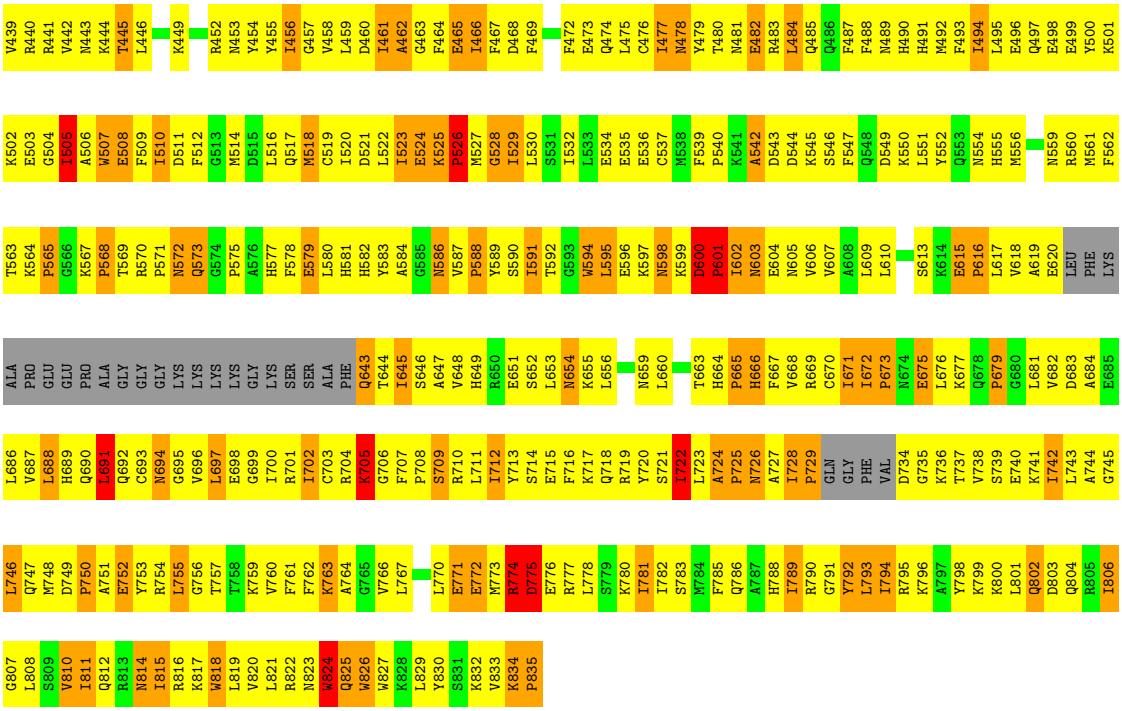




• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

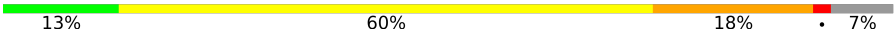
Chain 28-C:

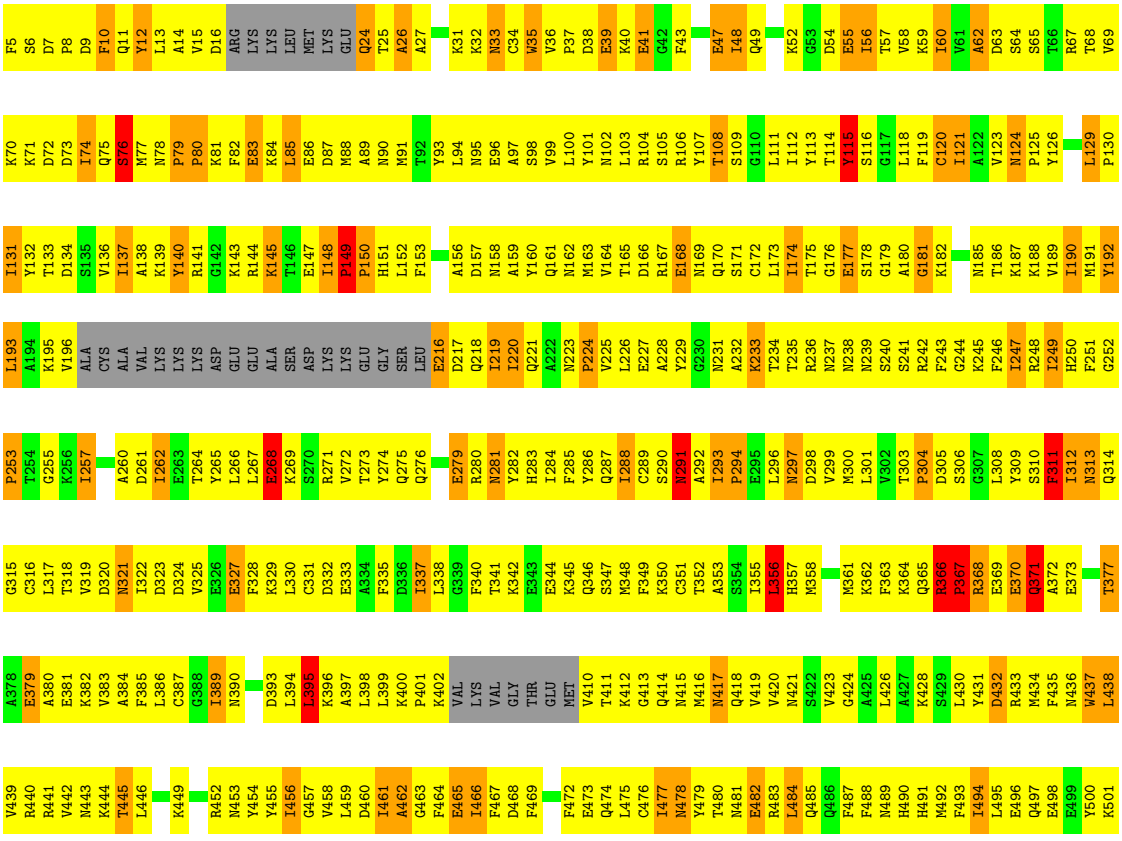


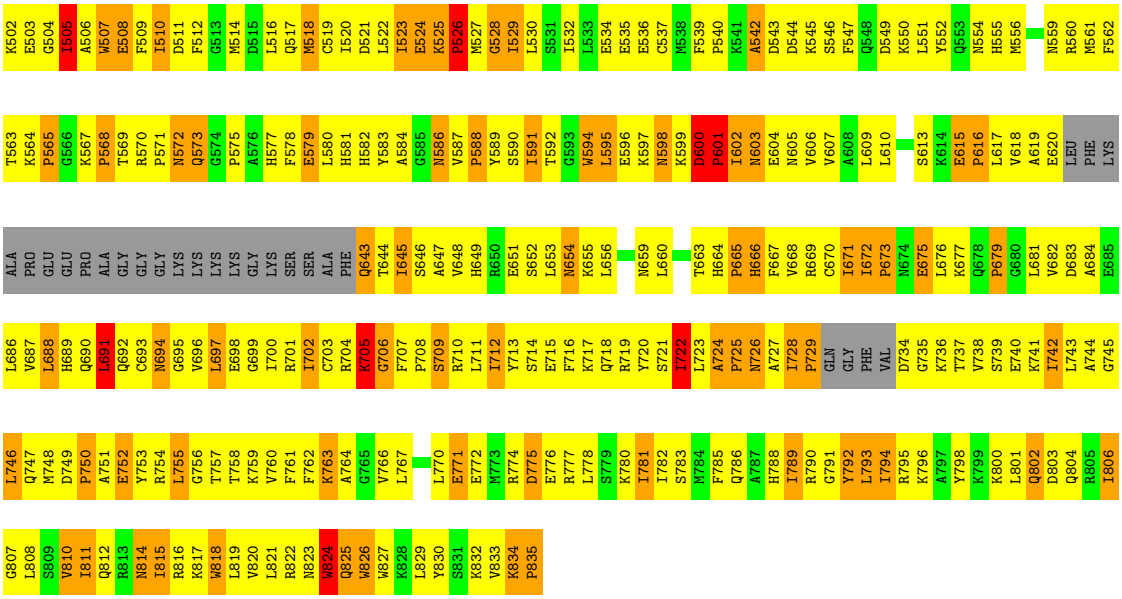


• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

Chain 29-C:

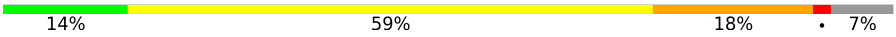


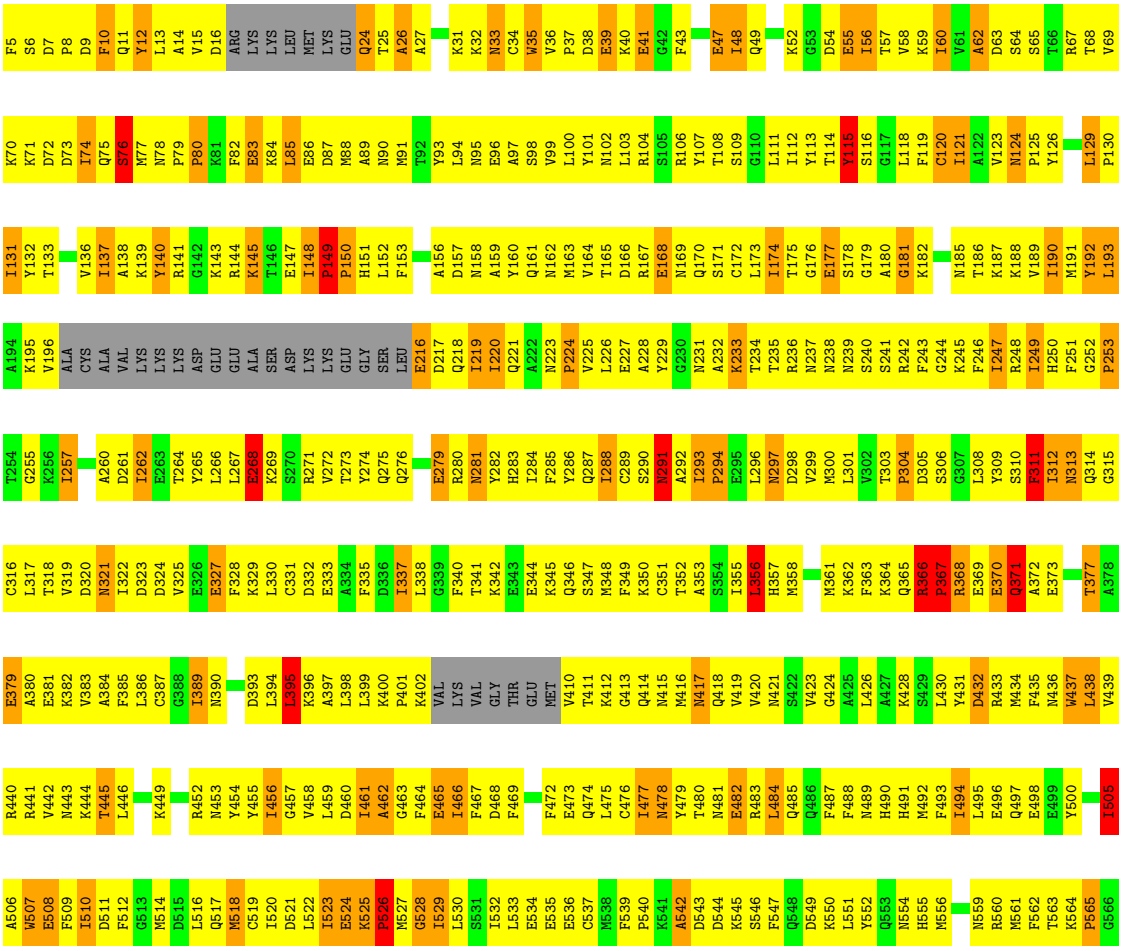


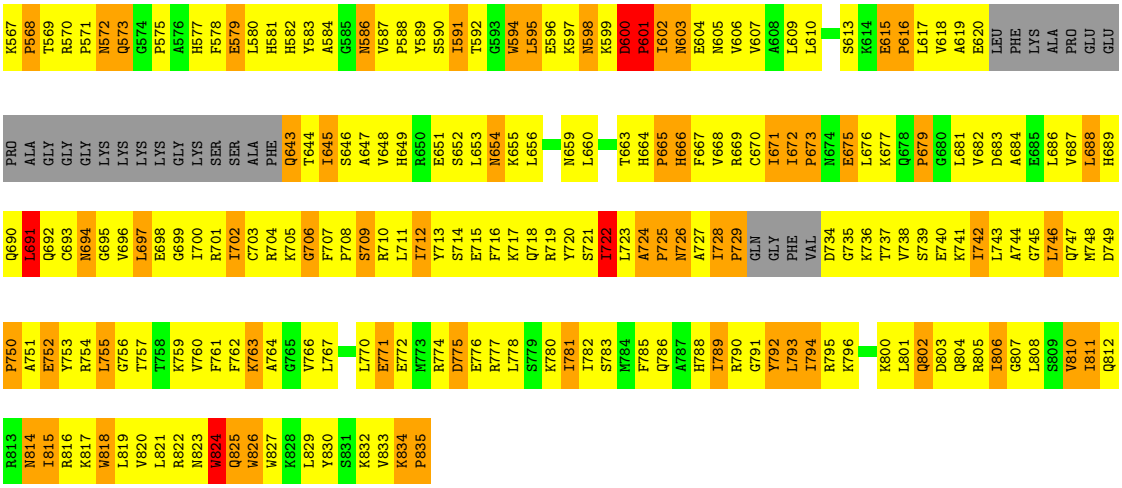


• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

Chain 30-C:

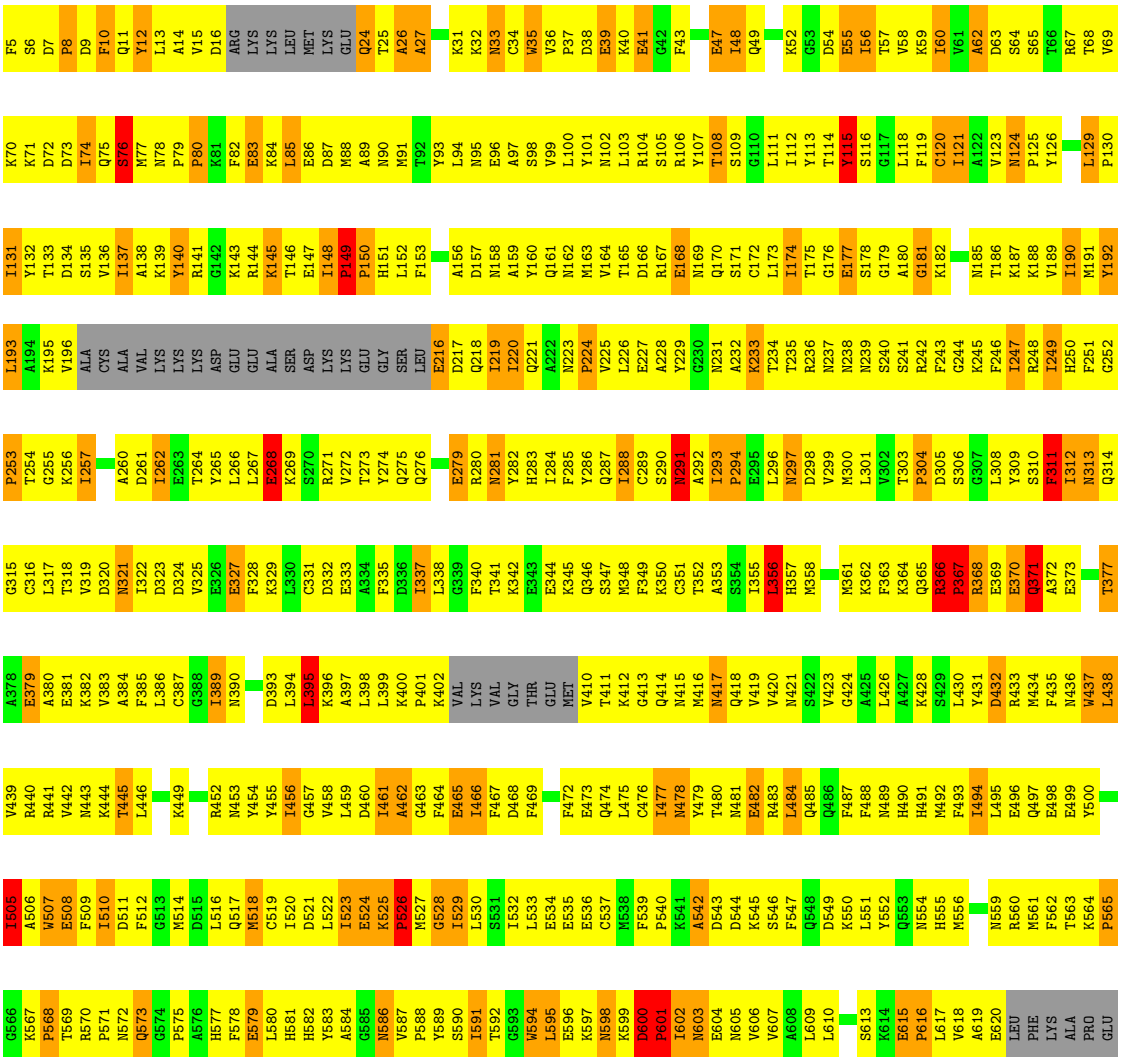


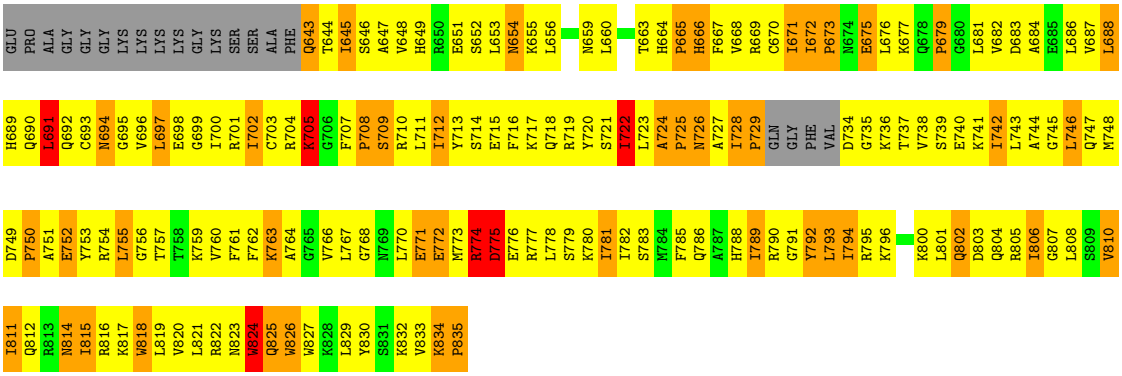




• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

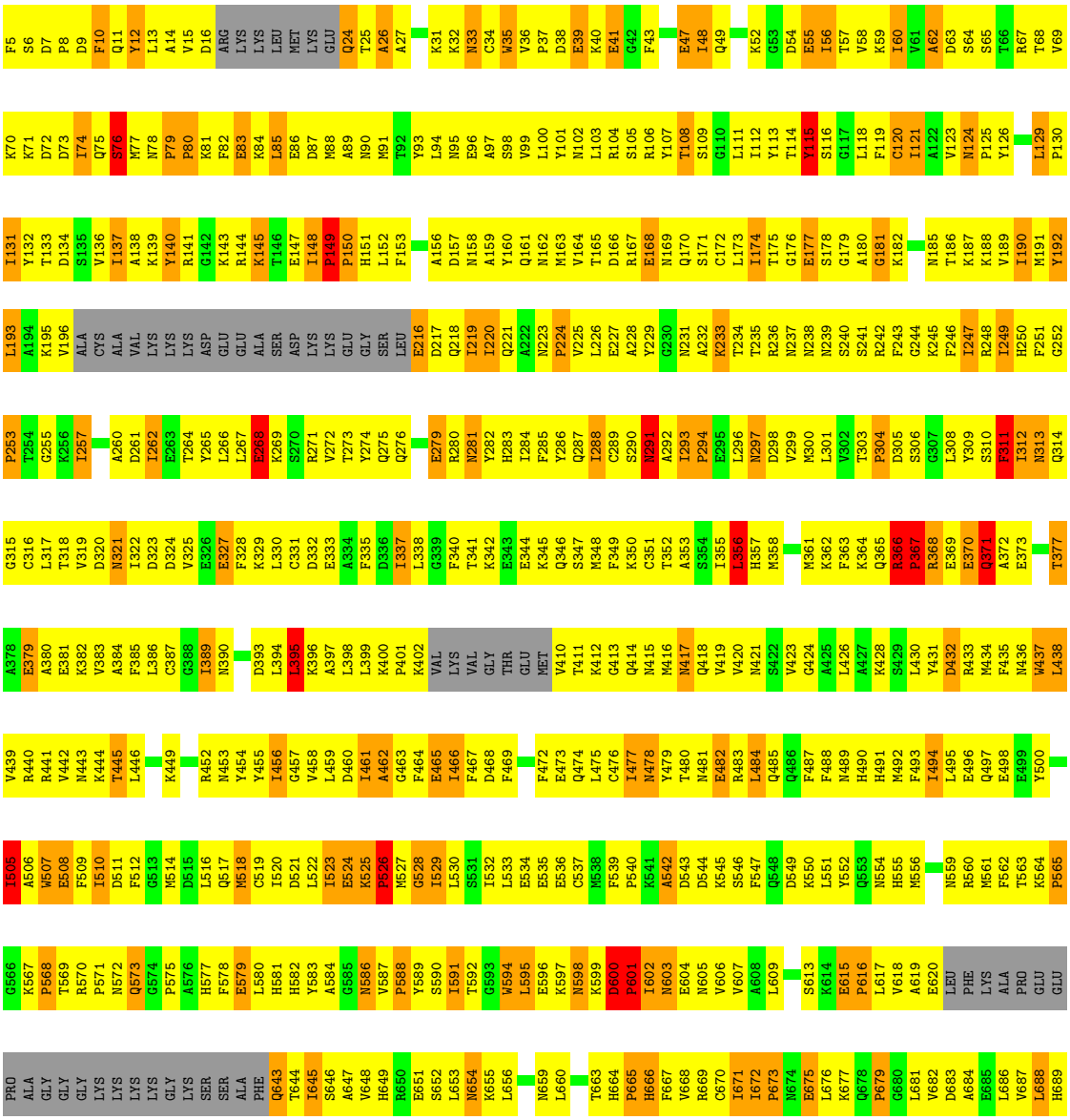
Chain 31-C:

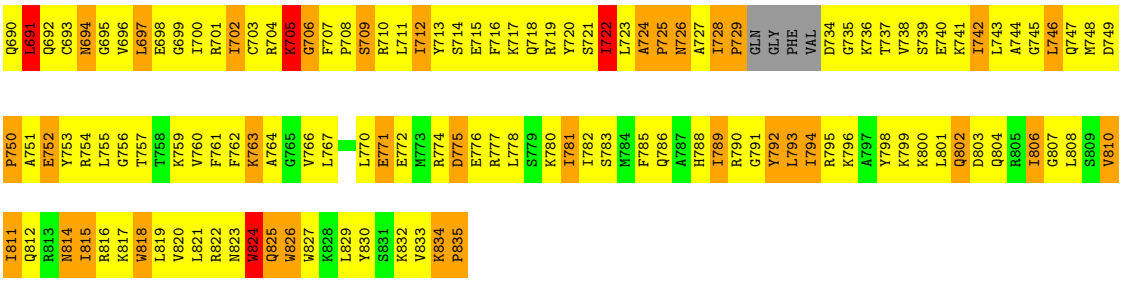




• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

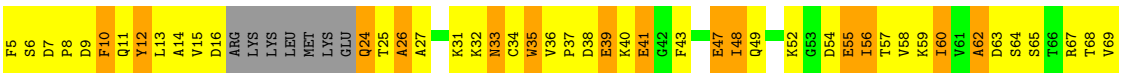
Chain 32-C:

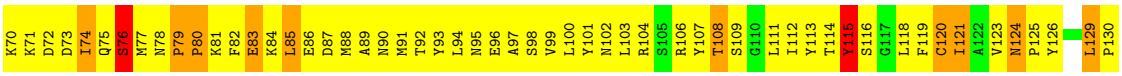


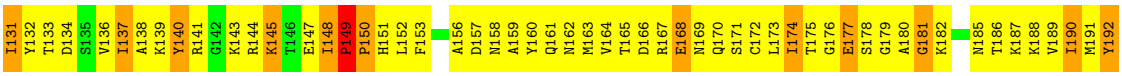


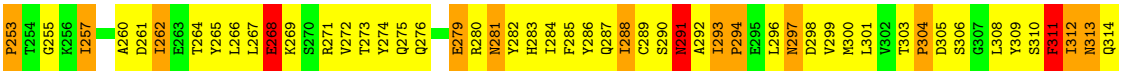
• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

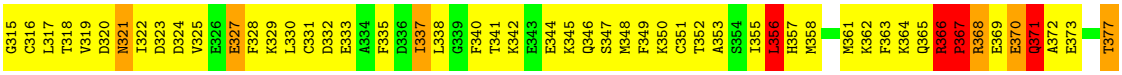
Chain 33-C:

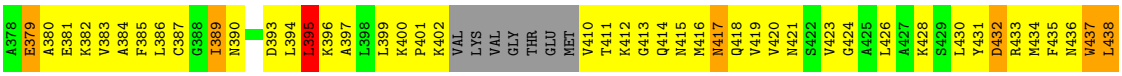


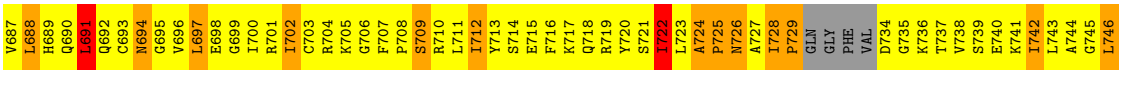


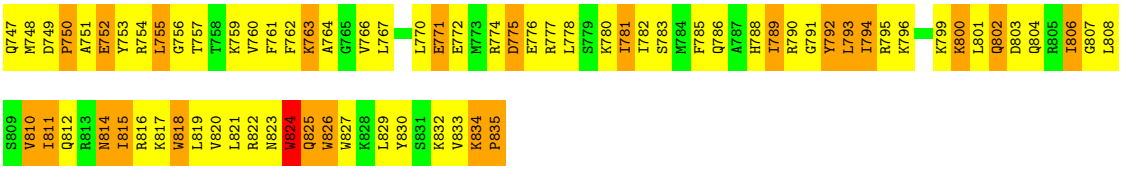






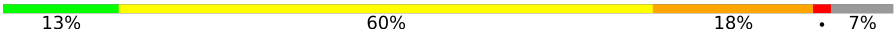


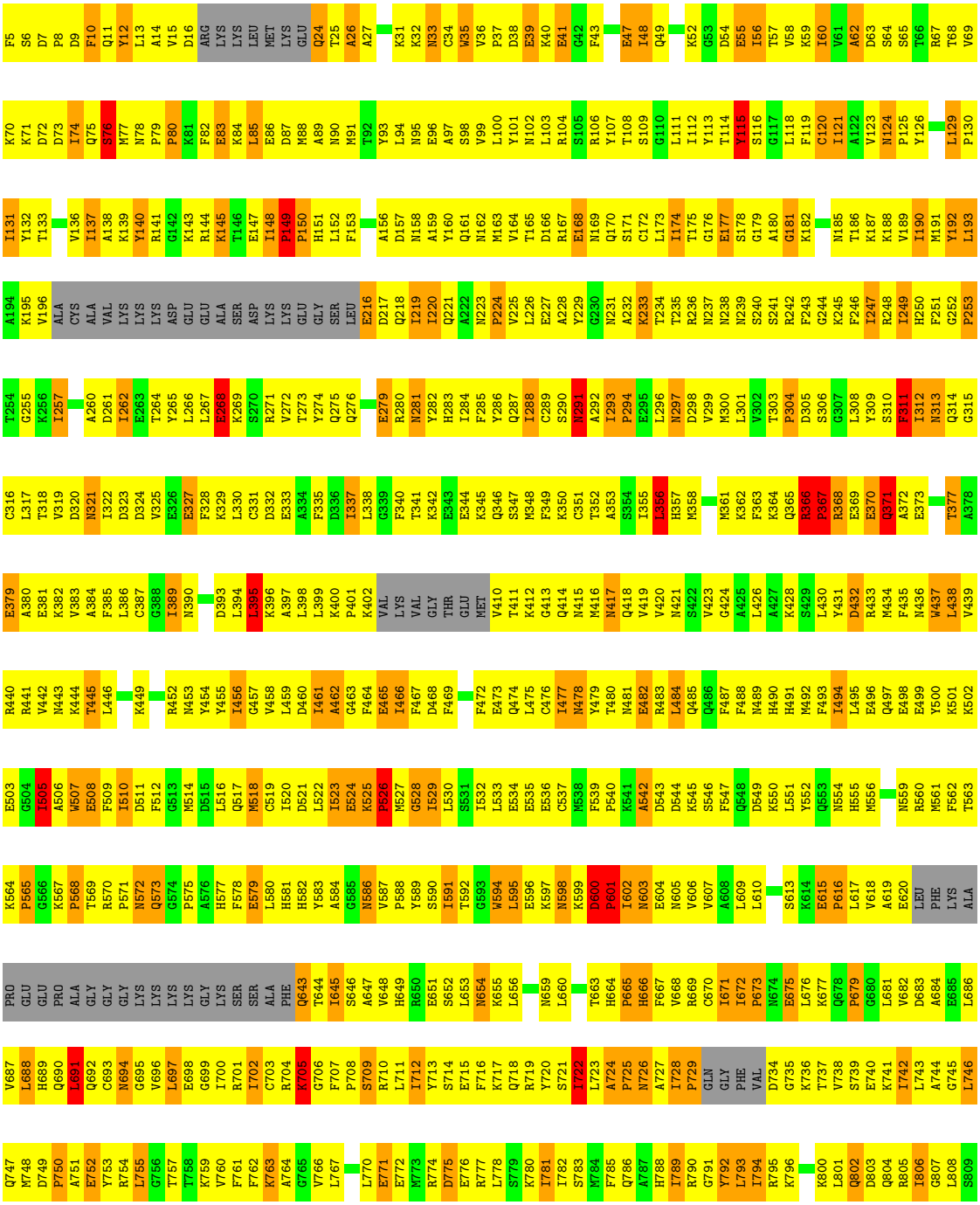




• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

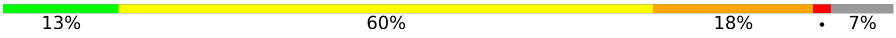
Chain 34-C:

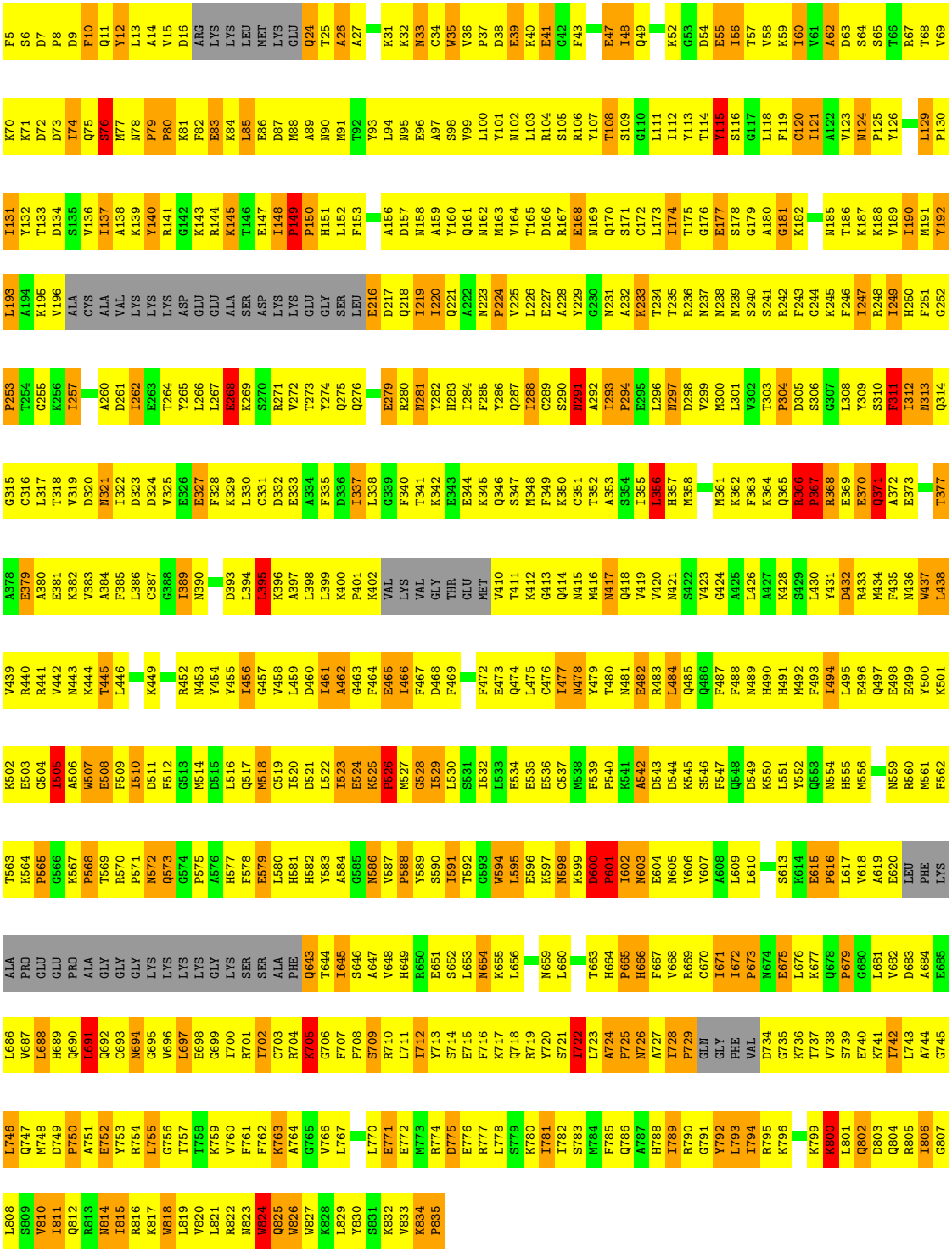




• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

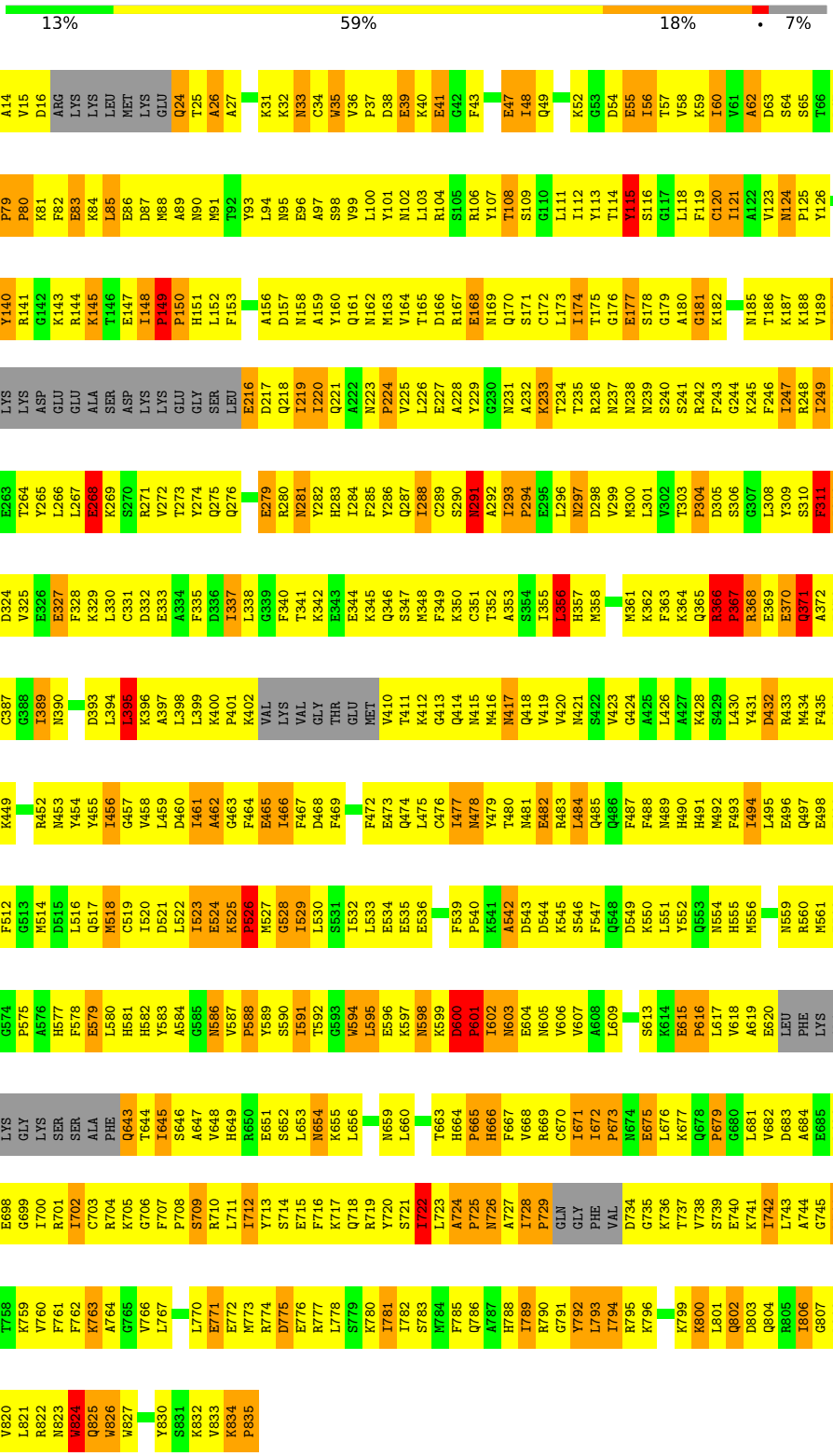
Chain 35-C:





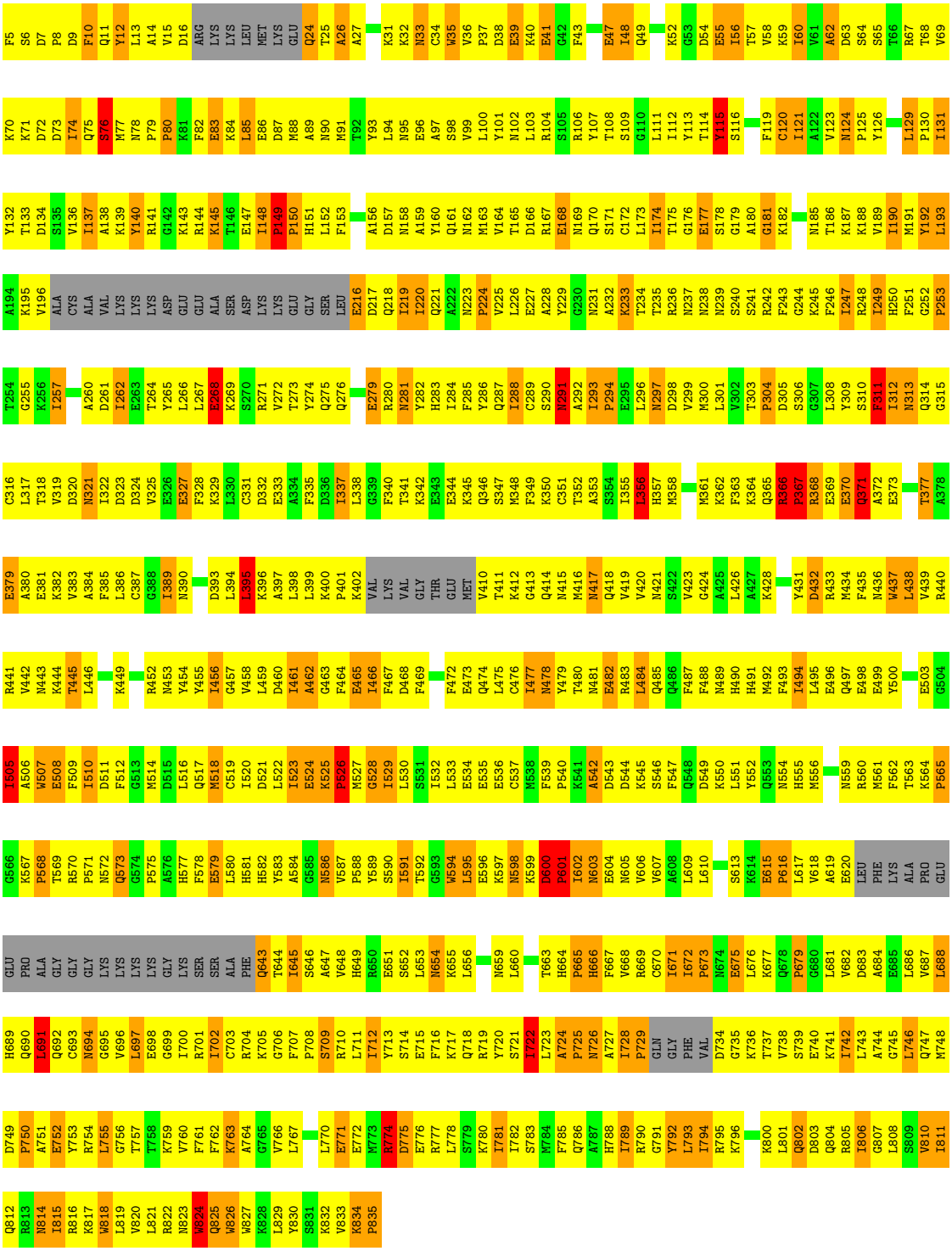
• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

Chain 36-C:



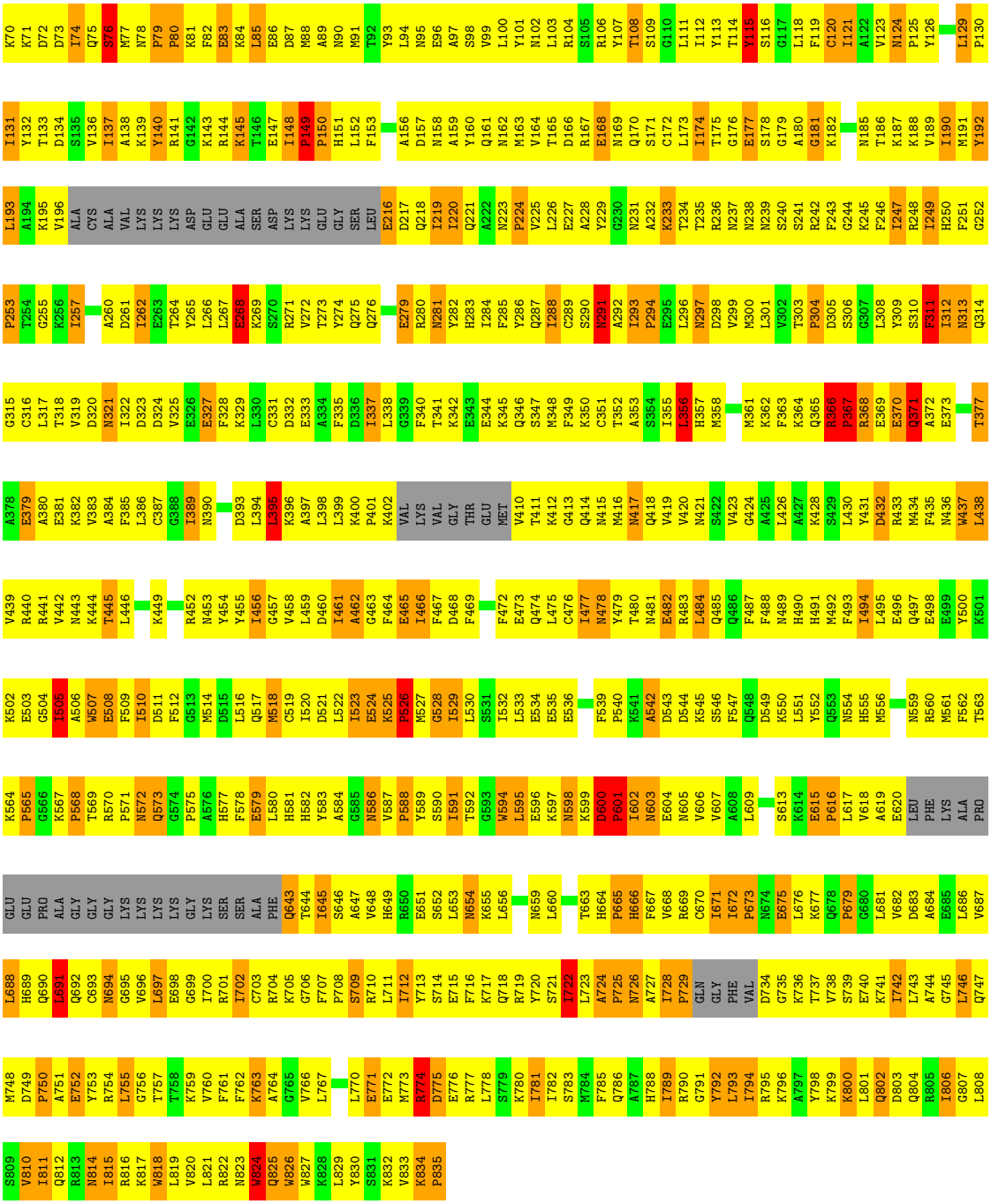
• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

Chain 37-C:



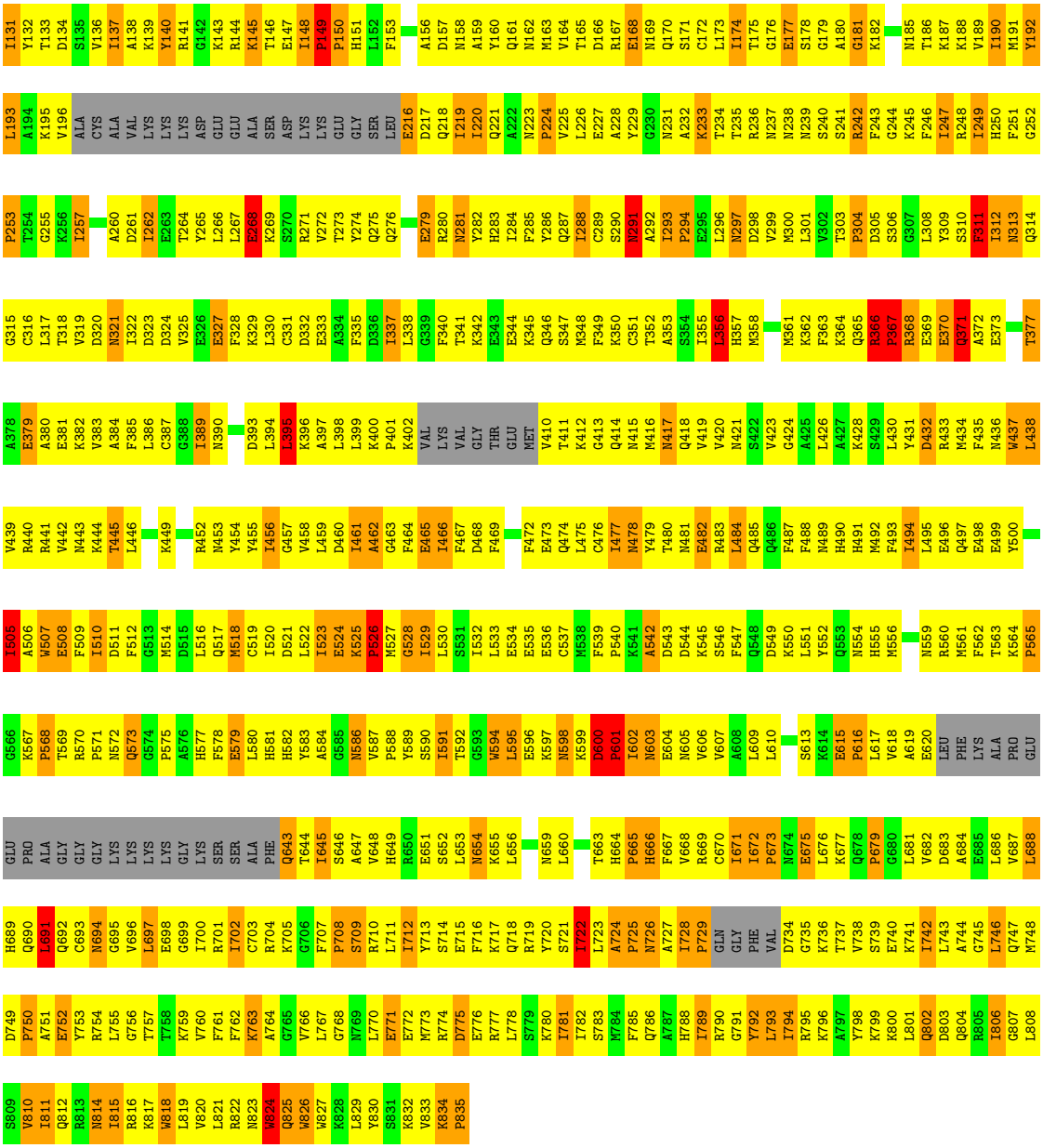
• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

Chain 38-C:



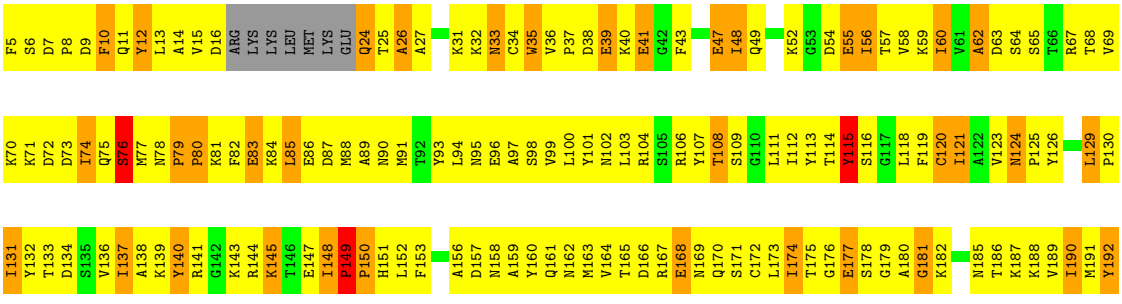
• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

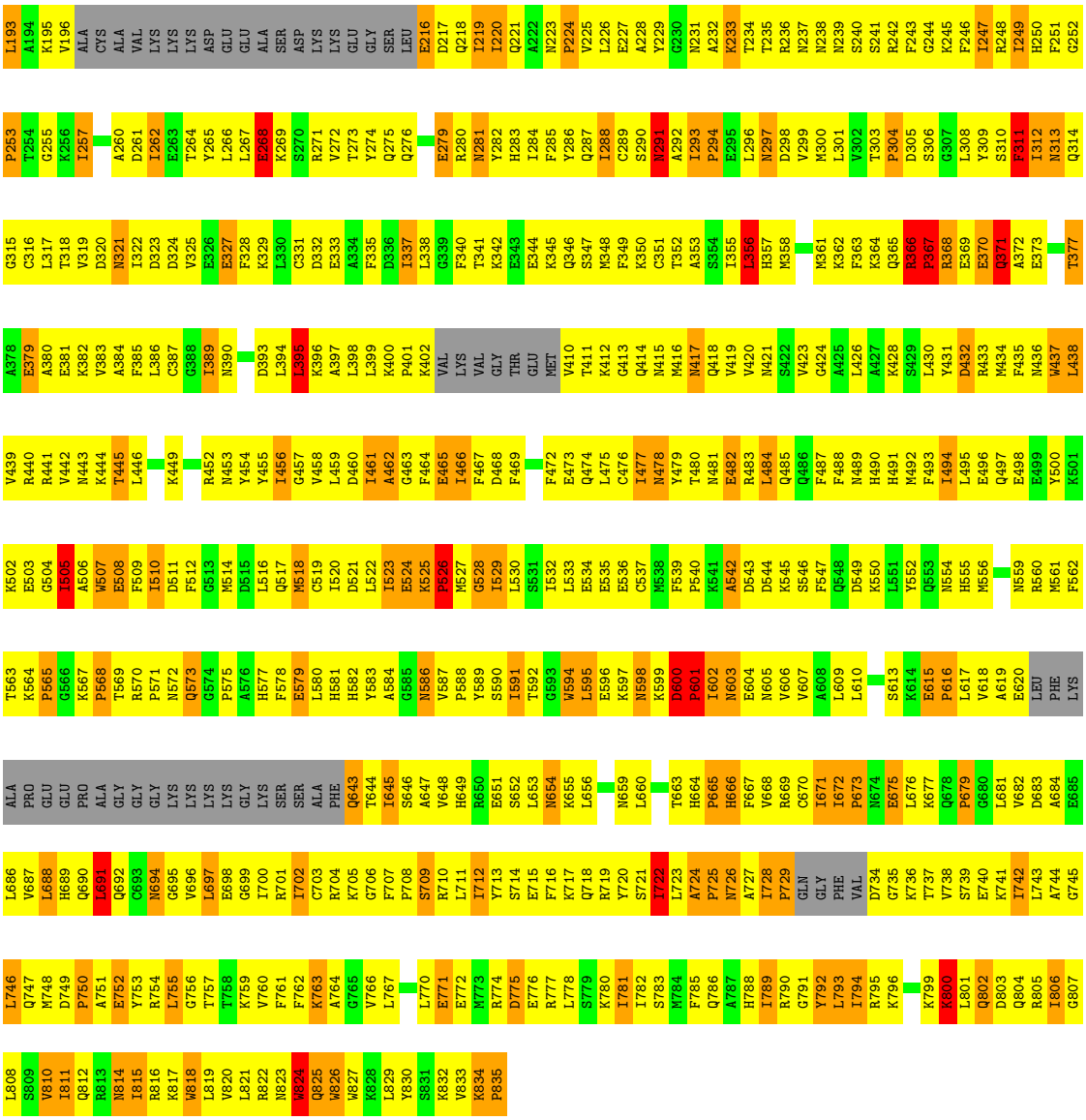
Chain 39-C:



• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

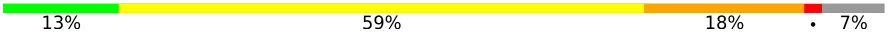
Chain 40-C:

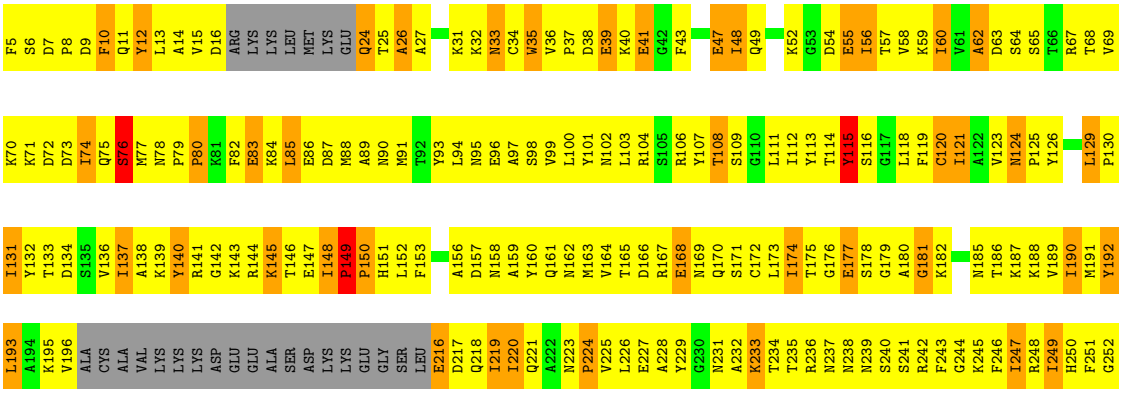


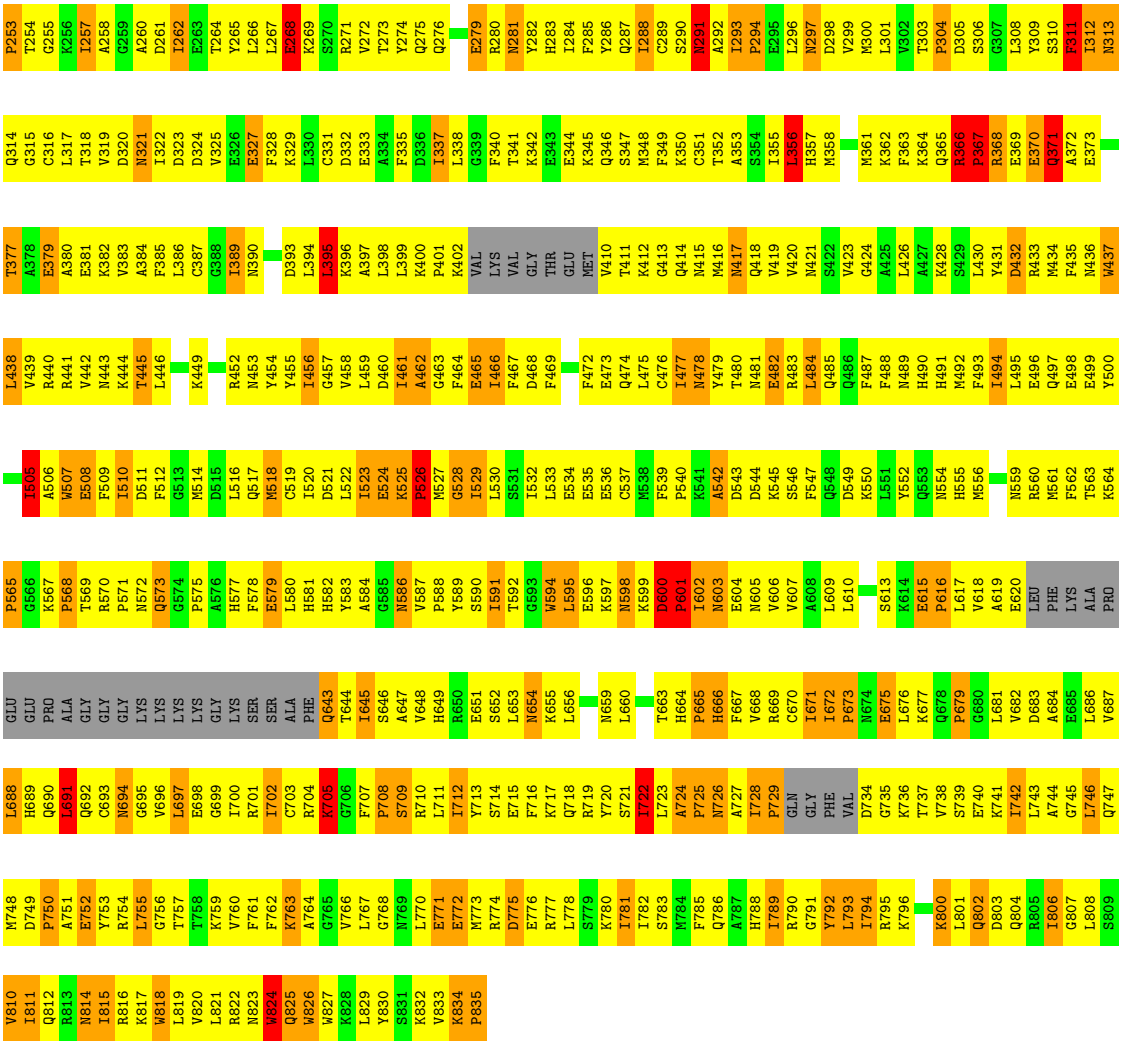


• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

Chain 41-C:

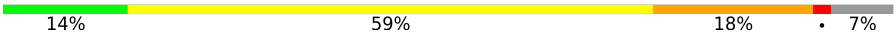


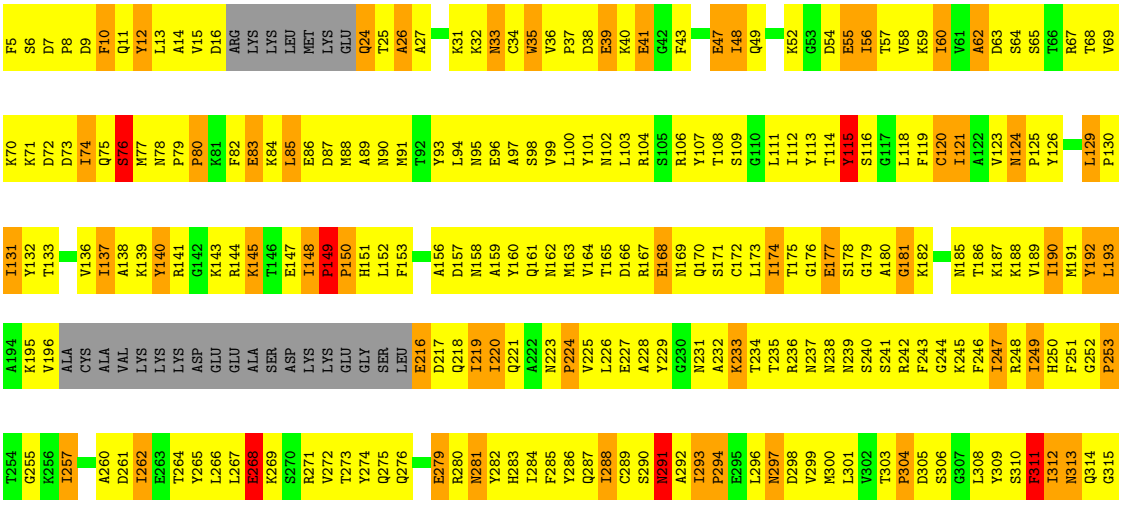


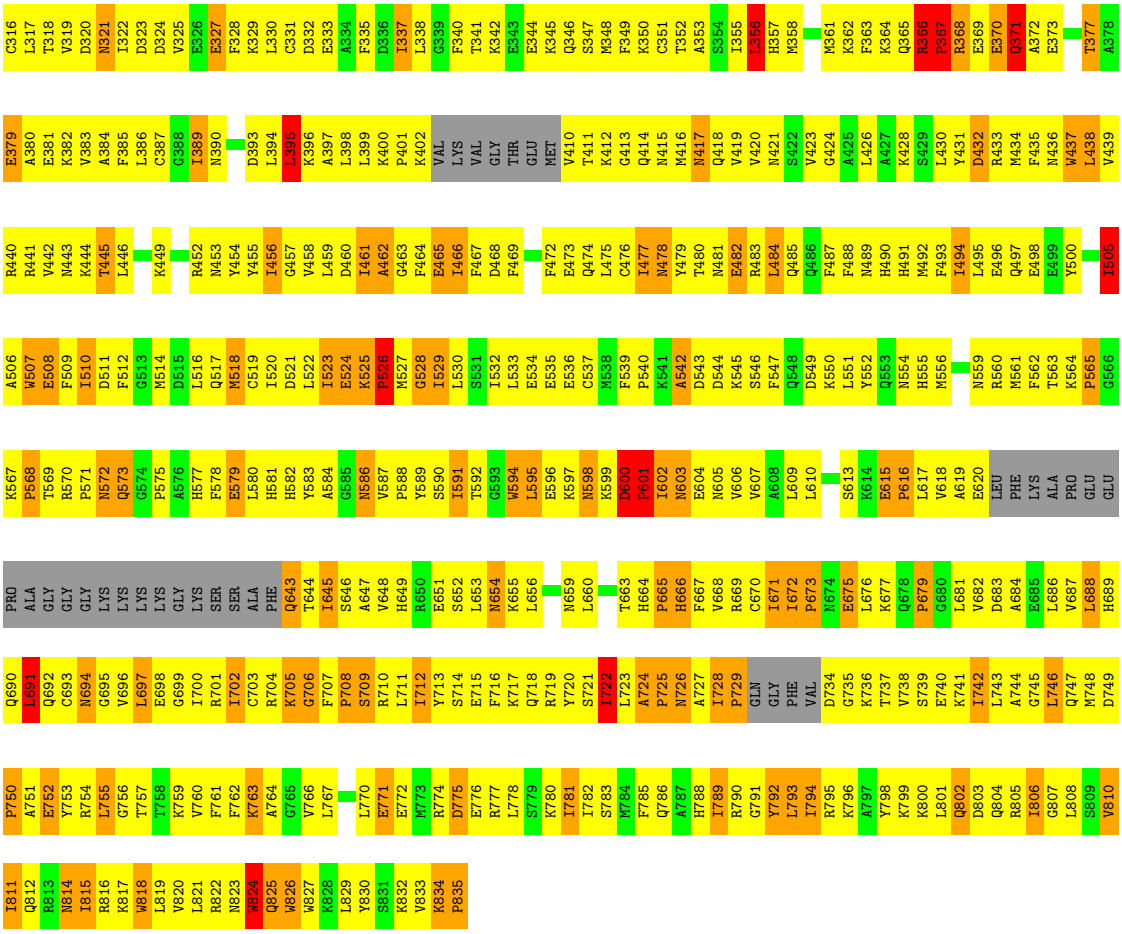


• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

Chain 42-C:

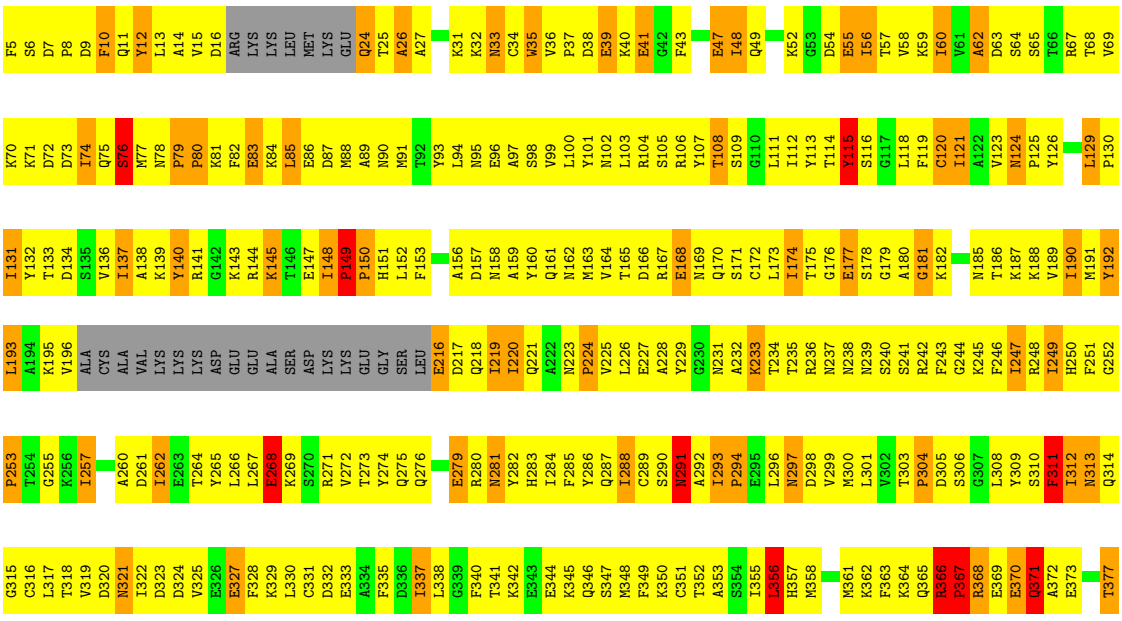


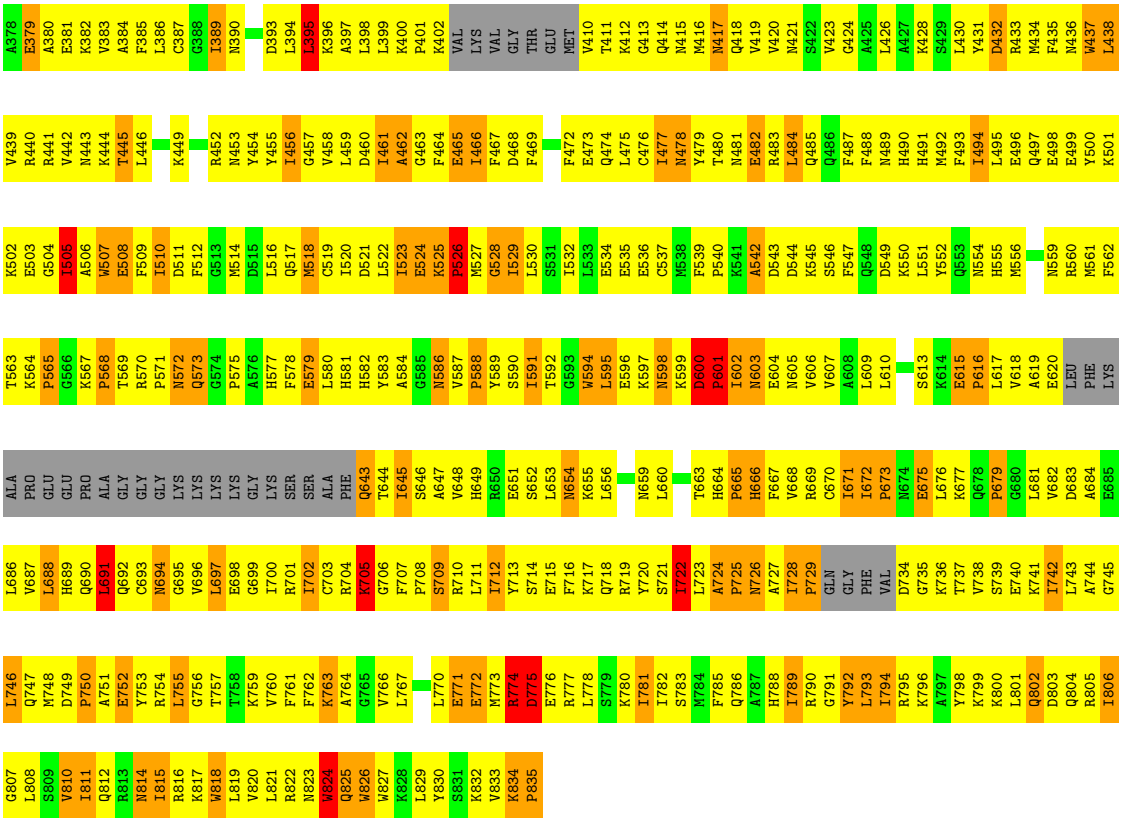




• Molecule 1: MYOSIN HEAVY CHAIN, STRIATED MUSCLE

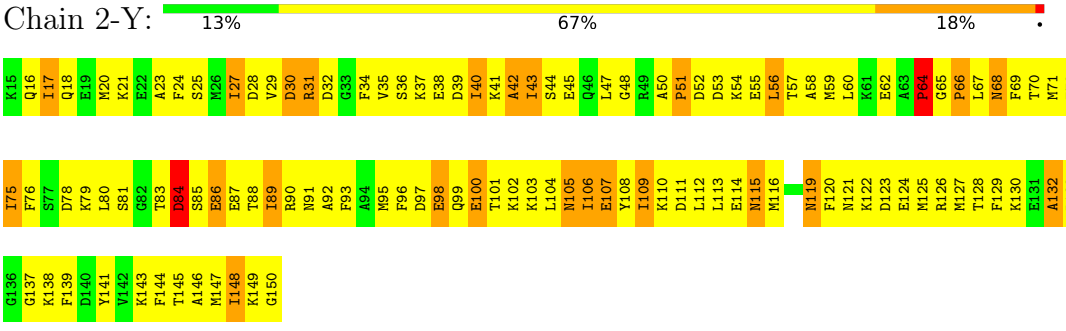
Chain 43-C:





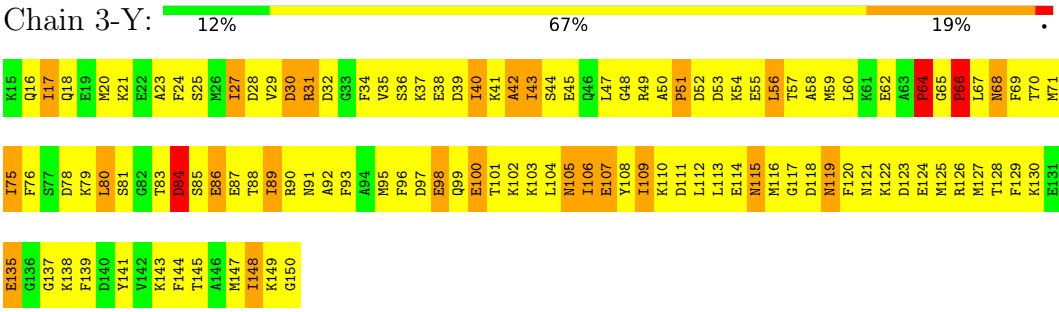
• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE



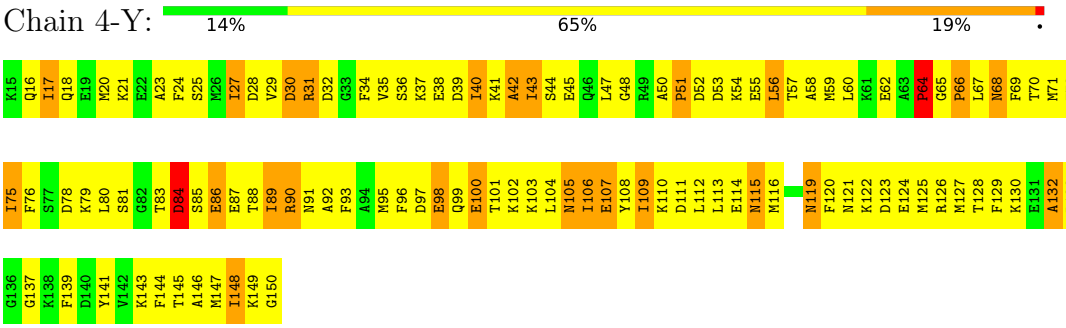
• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

Chain 3-Y:



• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

Chain 4-Y:

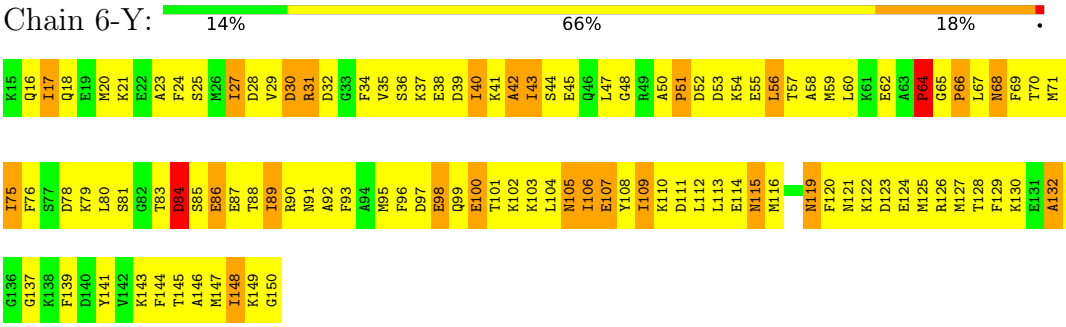


• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

Chain 5-Y:

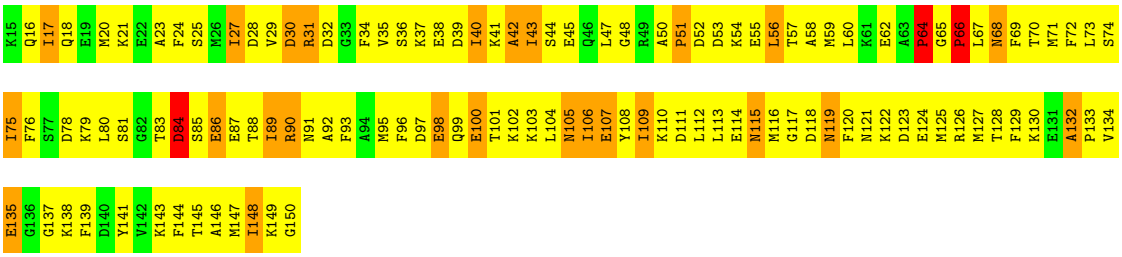
• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

Chain 6-Y:



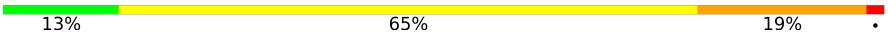
• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

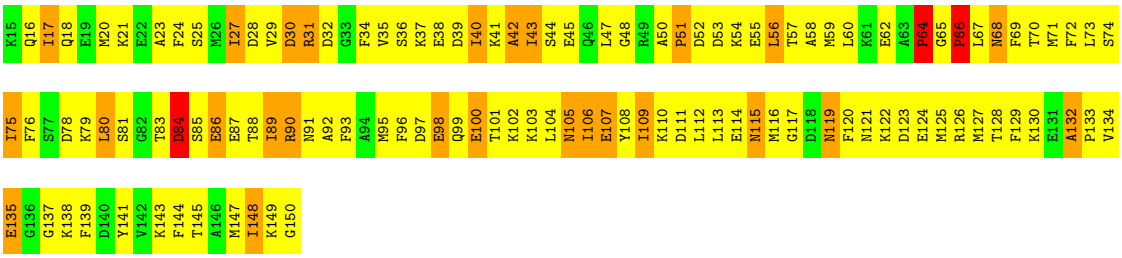
Chain 7-Y:



• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

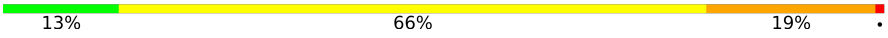
Chain 8-Y:

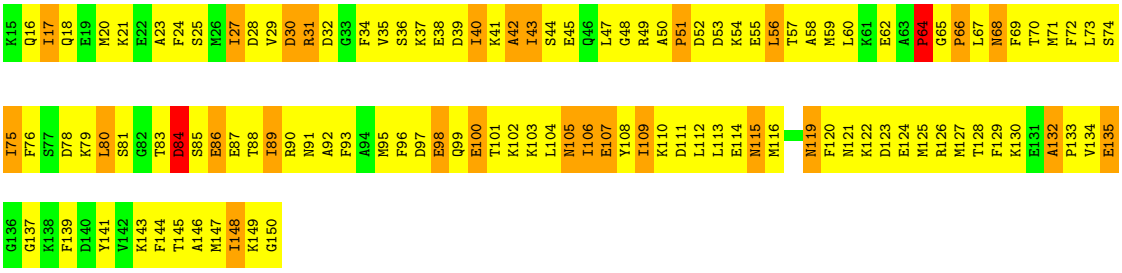




• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

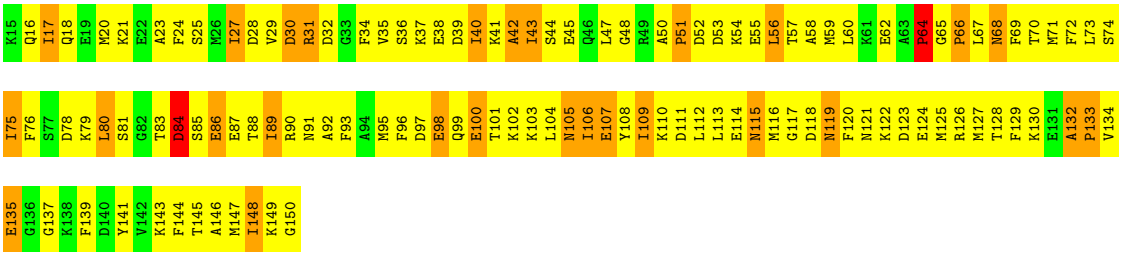
Chain 9-Y:





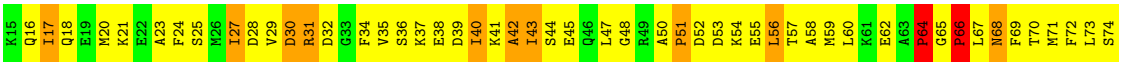
• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

Chain 10-Y:



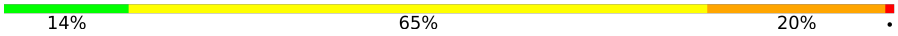
• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

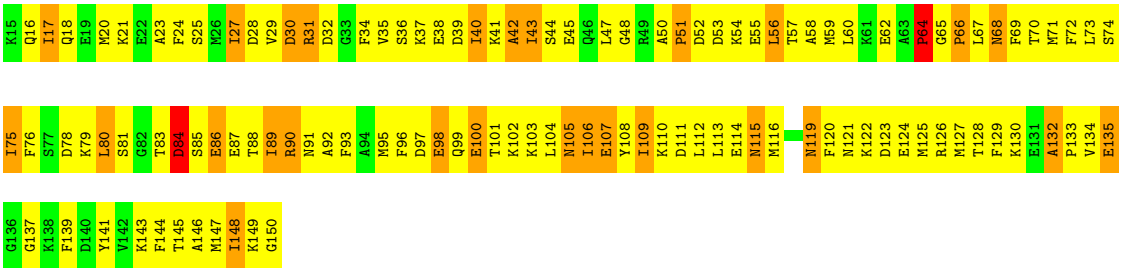
Chain 11-Y:



• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

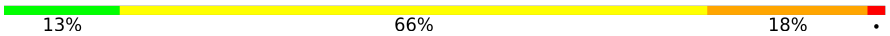
Chain 12-Y:

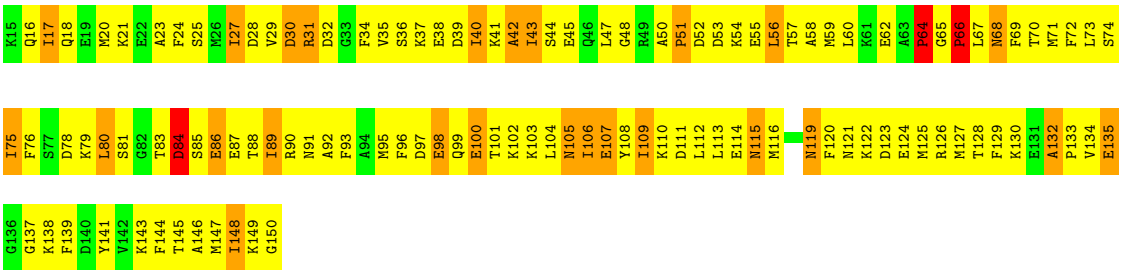




• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

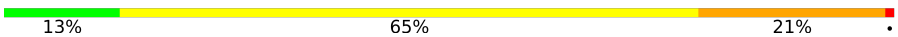
Chain 13-Y:

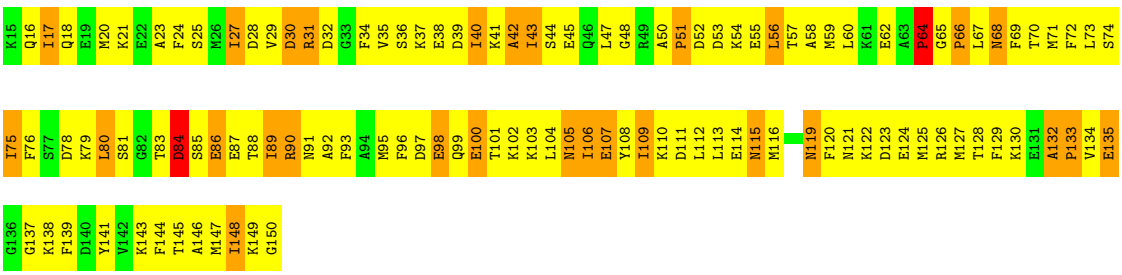




• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

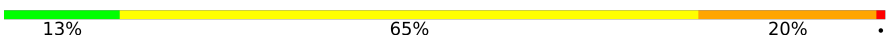
Chain 14-Y:





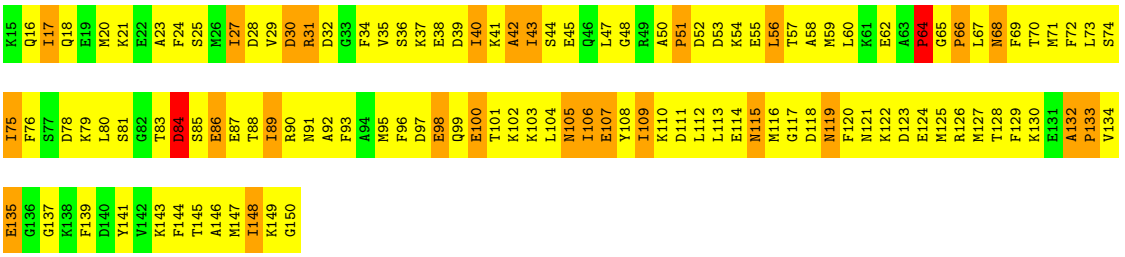
• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

Chain 15-Y:



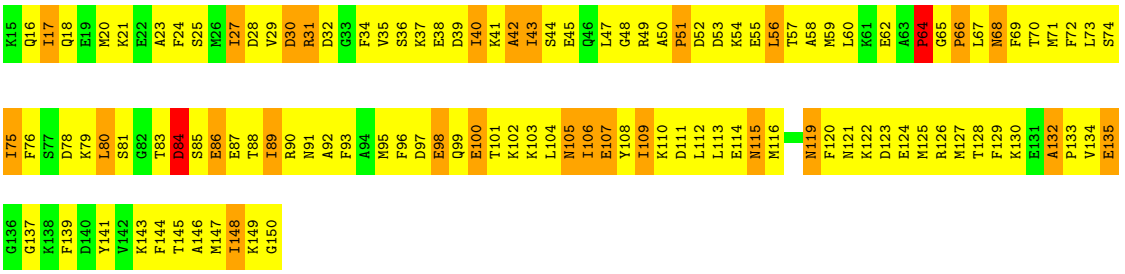
• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

Chain 16-Y:



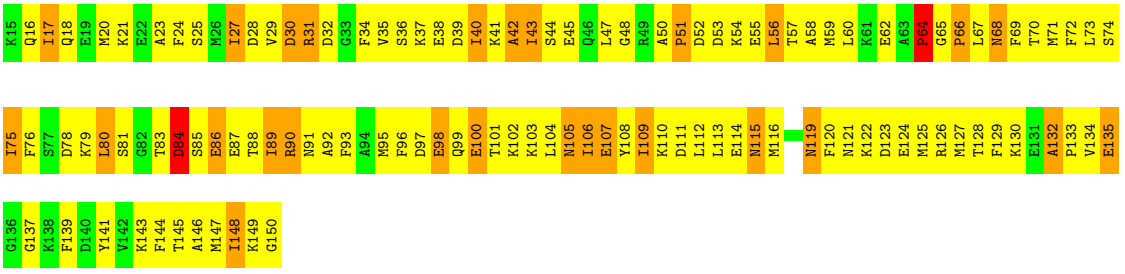
• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

Chain 17-Y:



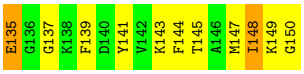
• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

Chain 18-Y:



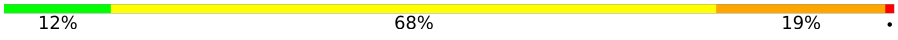
• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

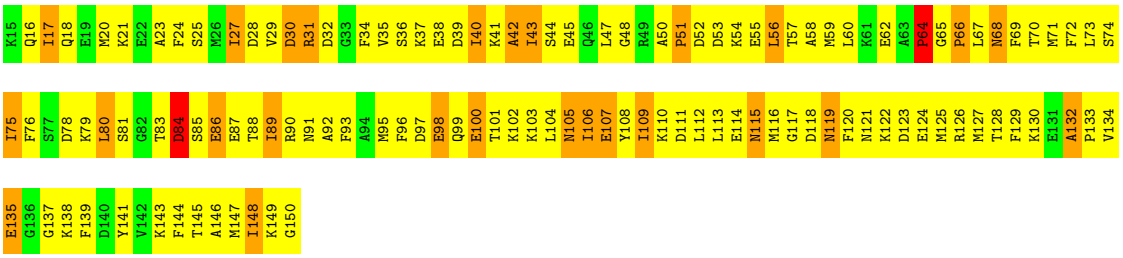
Chain 19-Y:



• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

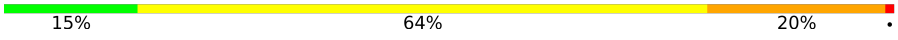
Chain 20-Y:

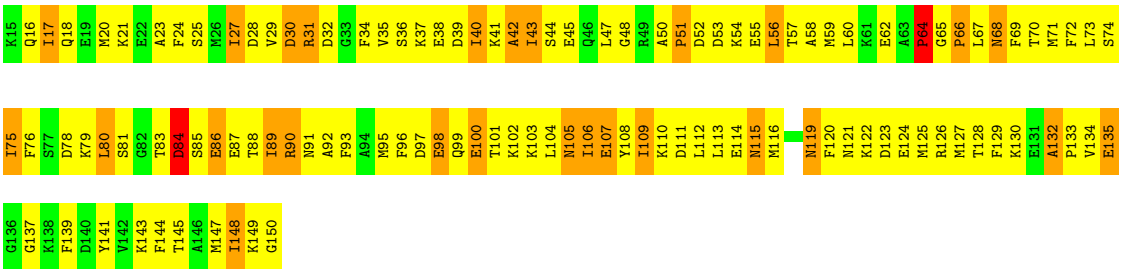




• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

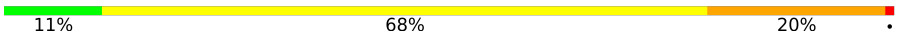
Chain 21-Y:

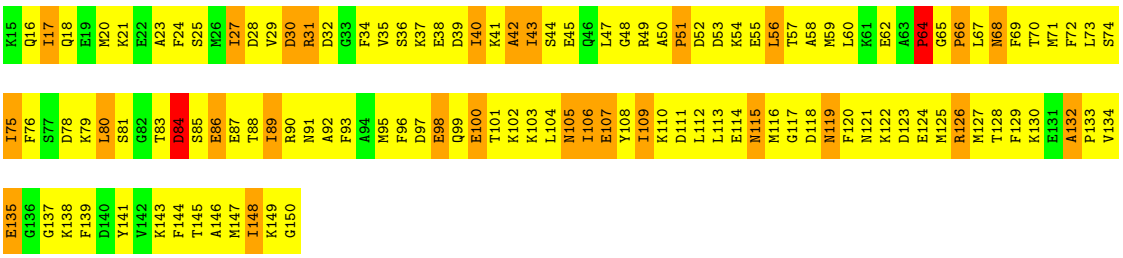




• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

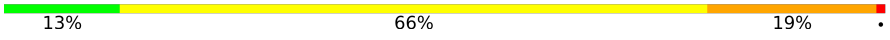
Chain 22-Y:

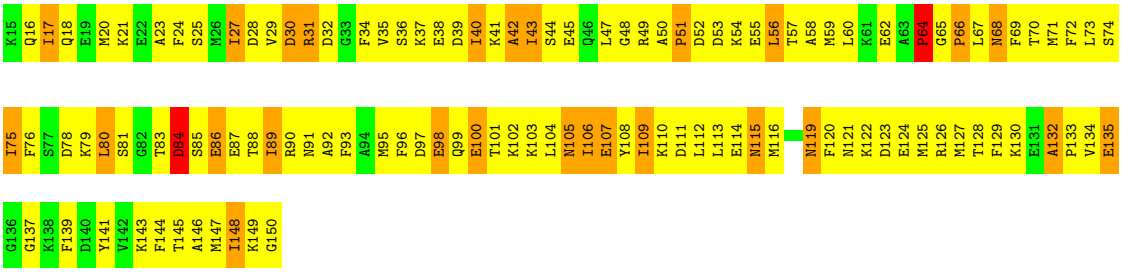




• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

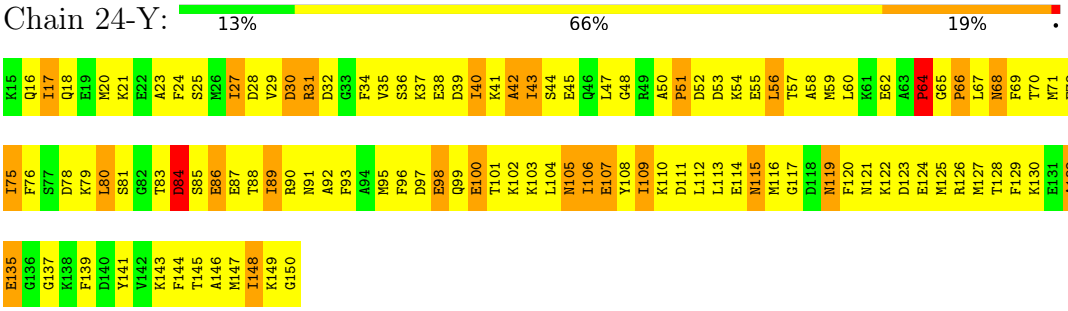
Chain 23-Y:





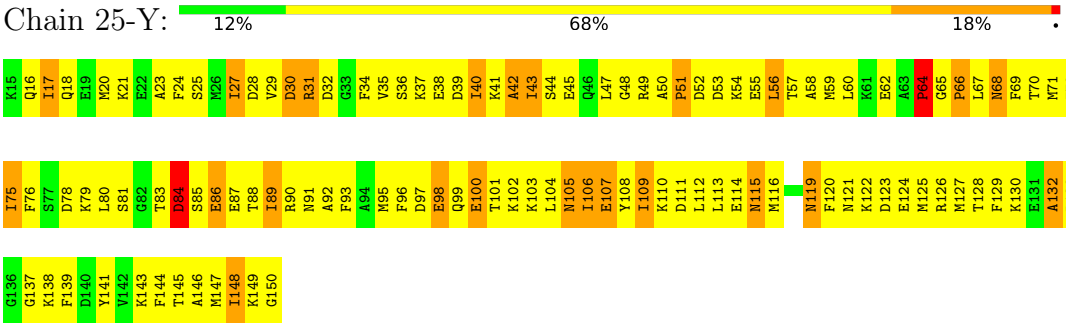
• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

Chain 24-Y:



• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

Chain 25-Y:

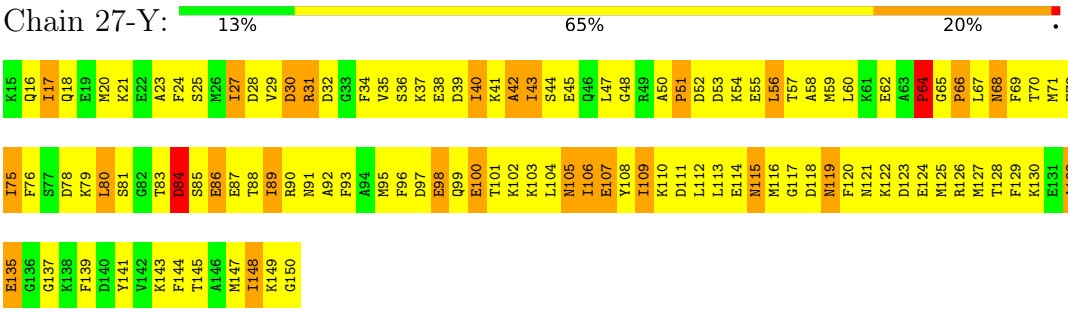


• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

Chain 26-Y:

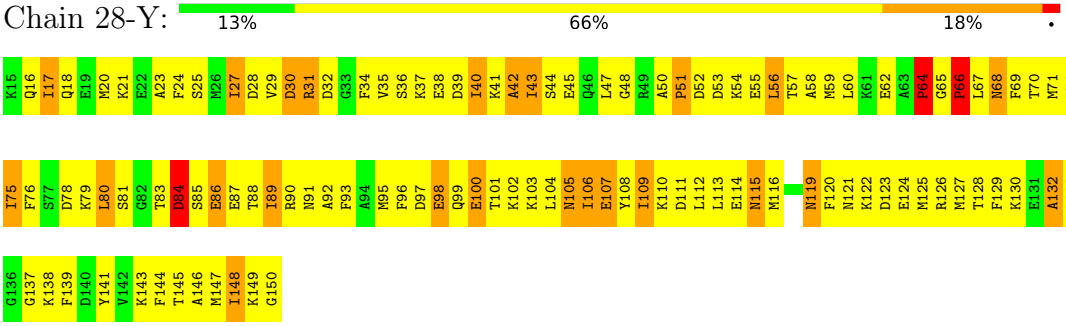
• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

Chain 27-Y:



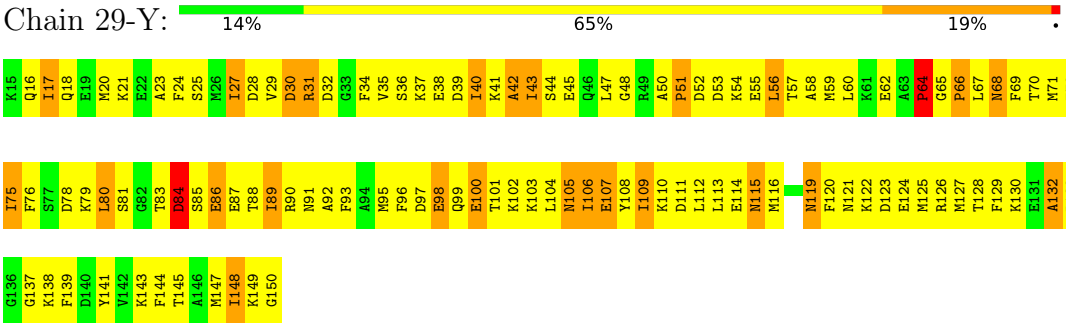
• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

Chain 28-Y:



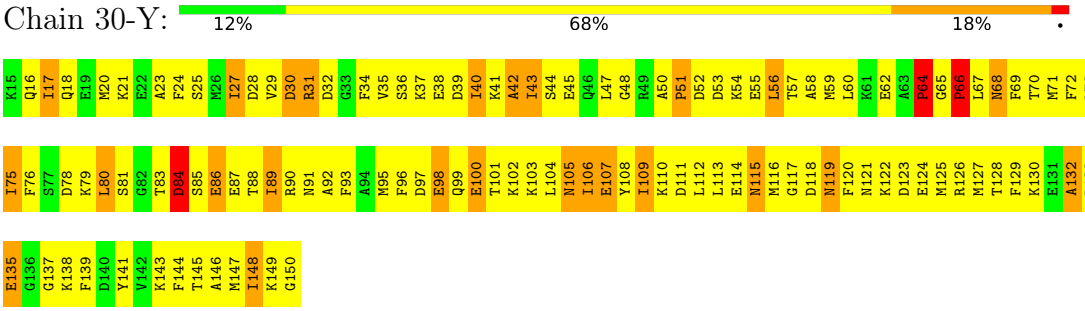
• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

Chain 29-Y:



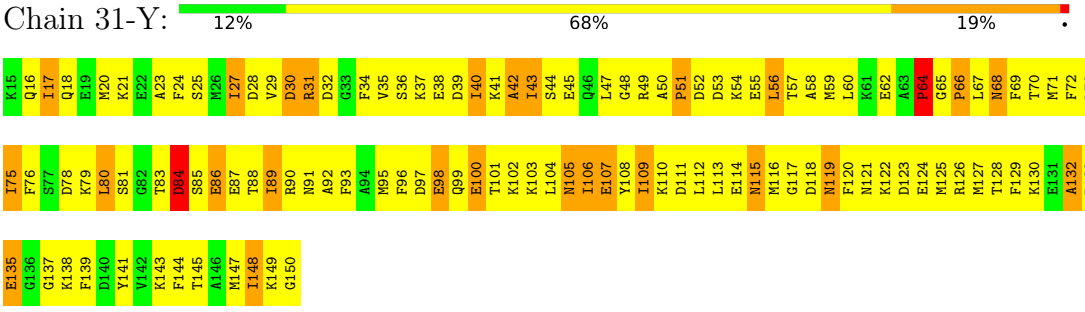
• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

Chain 30-Y:



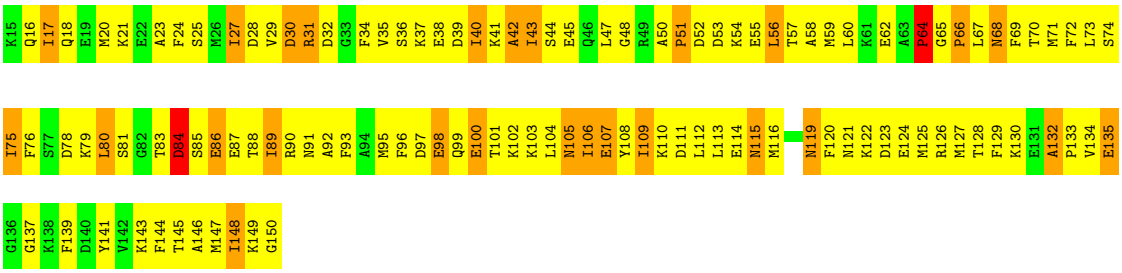
• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

Chain 31-Y:



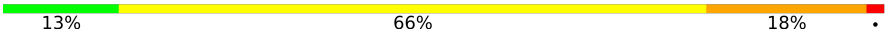
• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

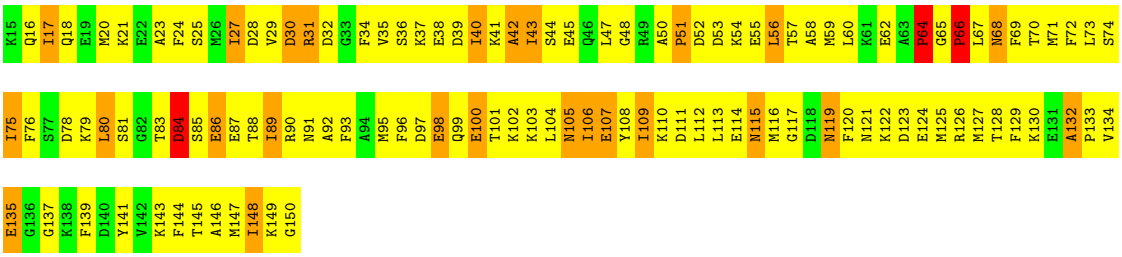
Chain 32-Y:



• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

Chain 33-Y:



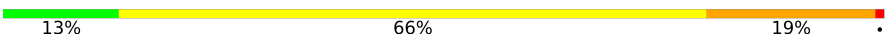


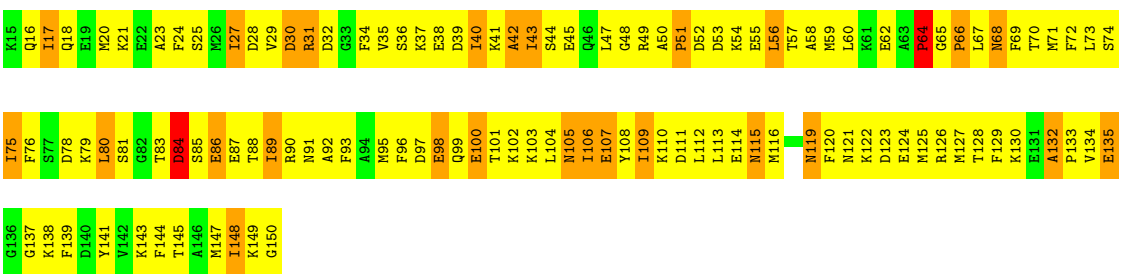
• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

Chain 34-Y:

• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

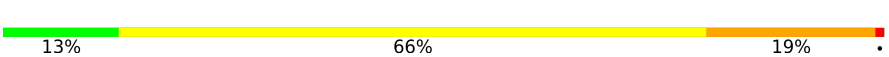
Chain 35-Y:

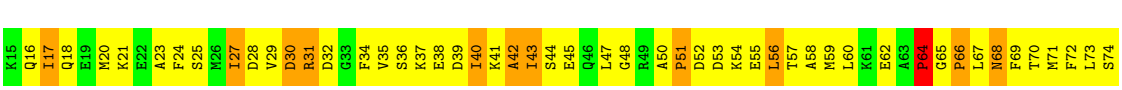




• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

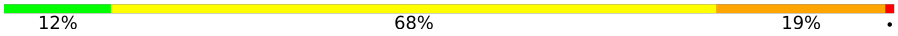
Chain 36-Y:

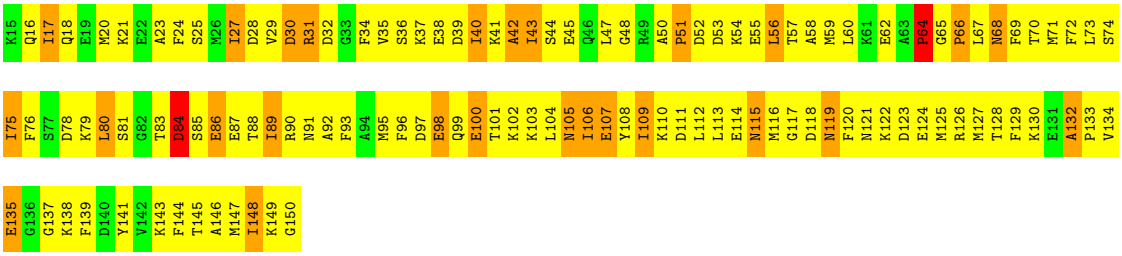




• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

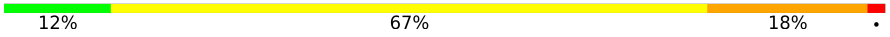
Chain 37-Y:

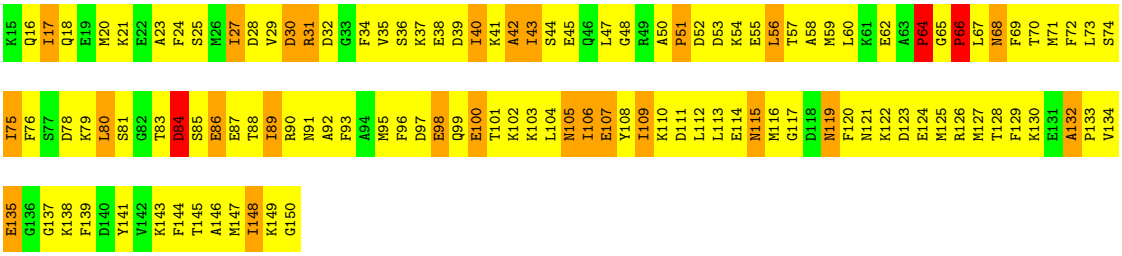




• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

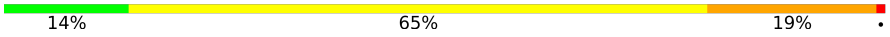
Chain 38-Y:





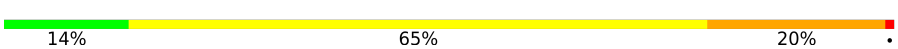
• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

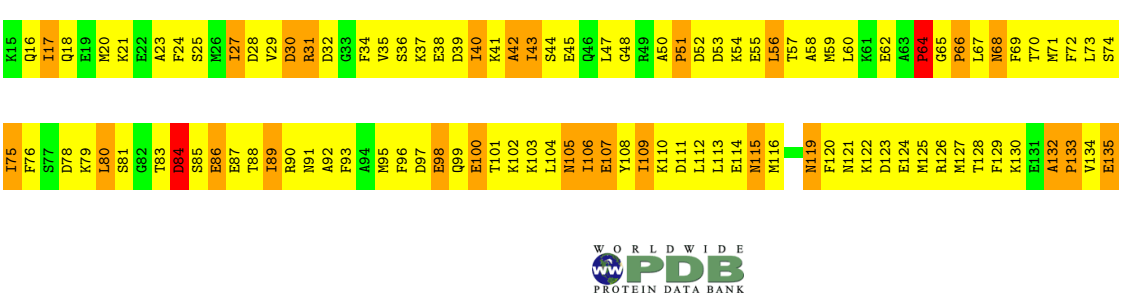
Chain 39-Y:



• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

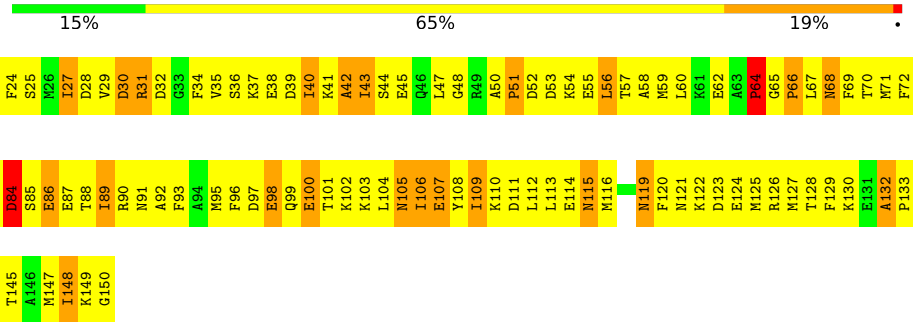
Chain 40-Y:





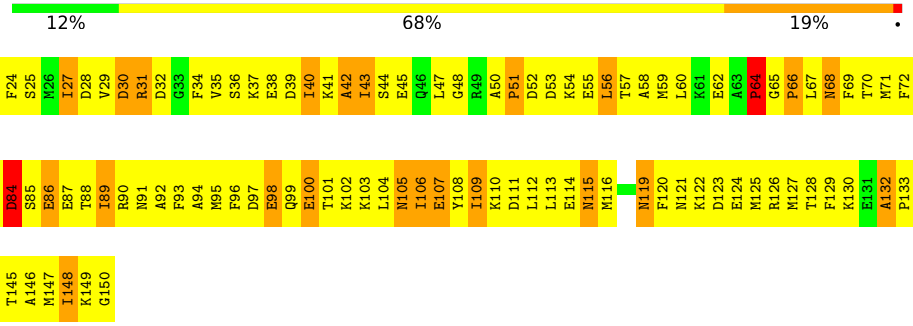
• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

Chain 41-Y:



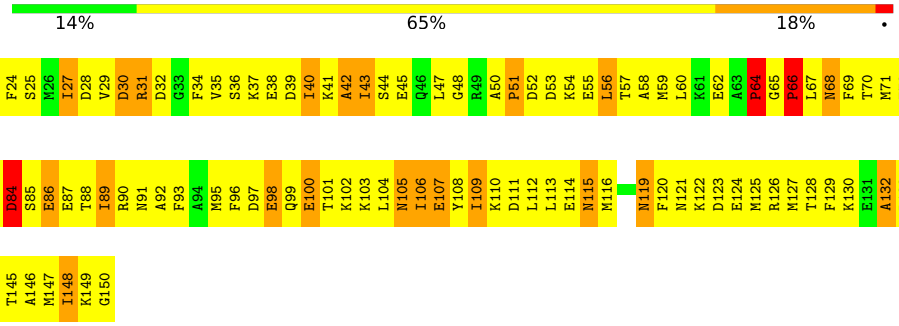
• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

Chain 42-Y:



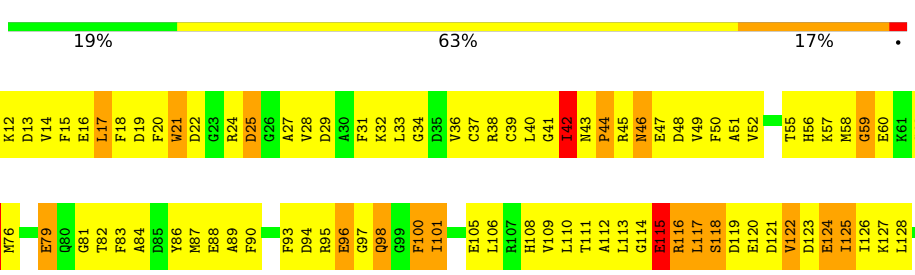
• Molecule 2: MYOSIN REGULATORY LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

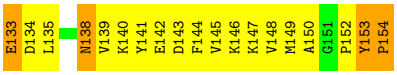
Chain 43-Y:



• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

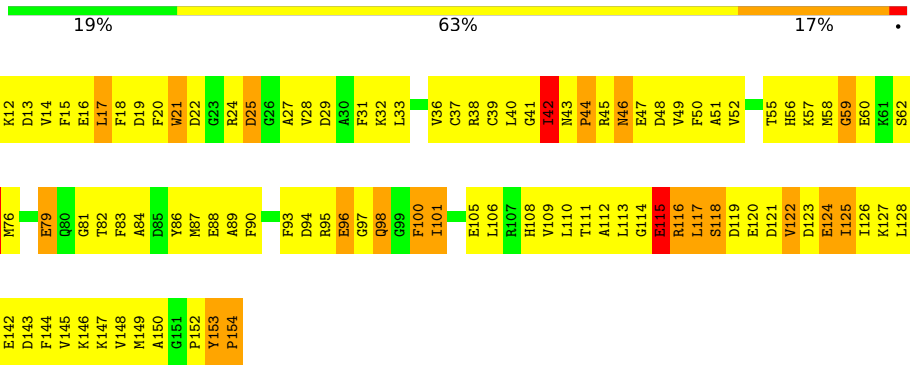
Chain 1-Z:





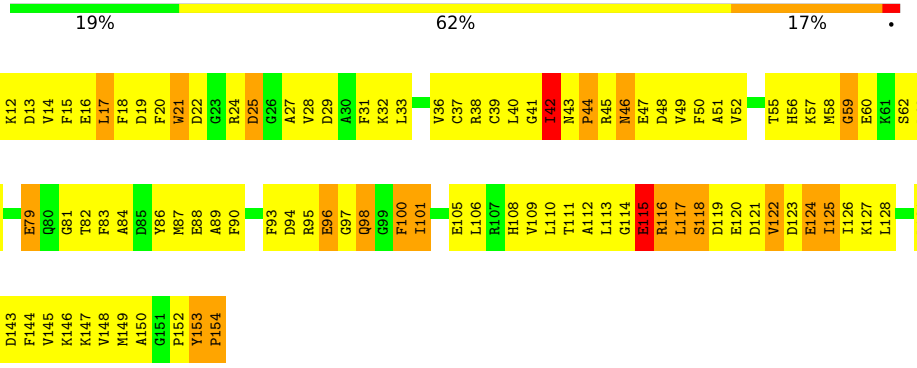
• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

Chain 2-Z:



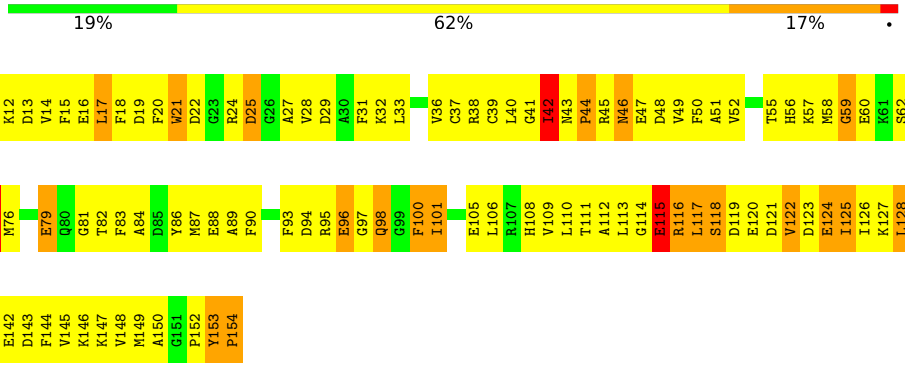
• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

Chain 3-Z:



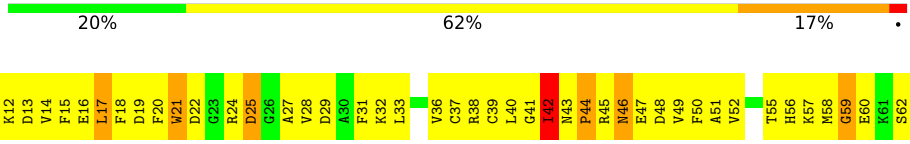
• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

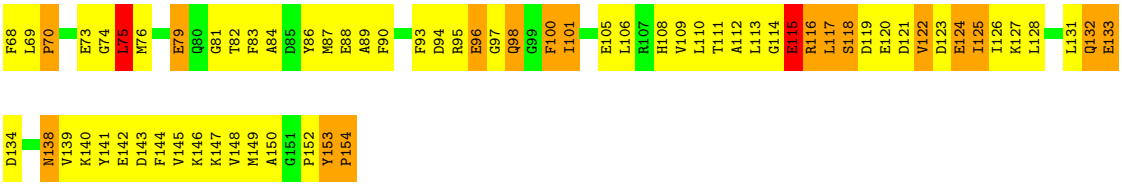
Chain 4-Z:



• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

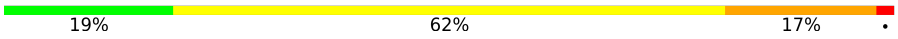
Chain 5-Z:

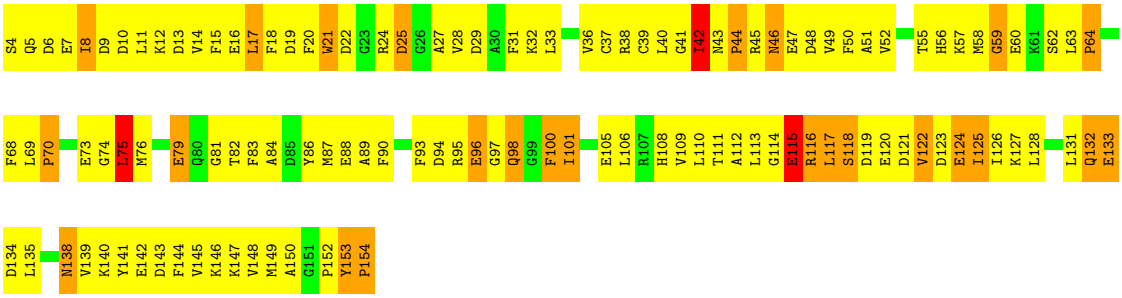




• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

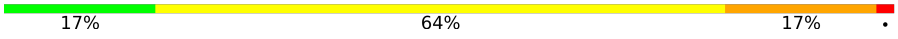
Chain 6-Z:

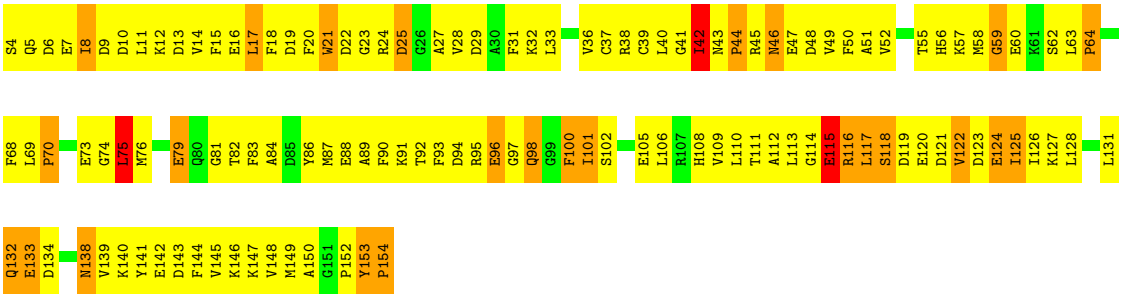




• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

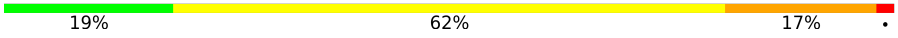
Chain 7-Z:

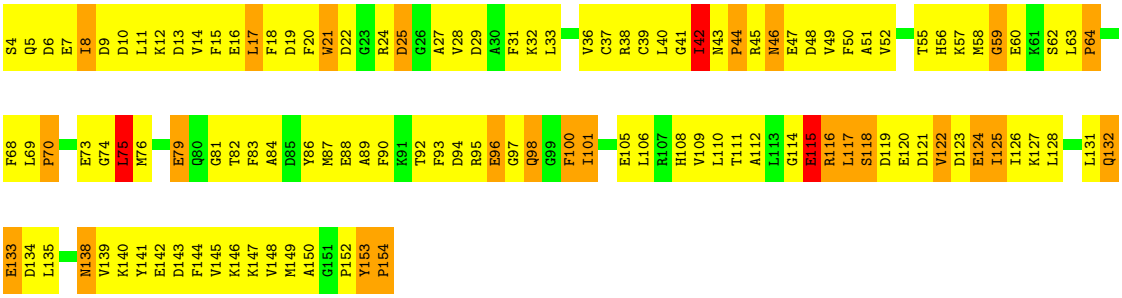




• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

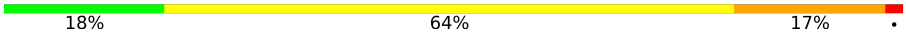
Chain 8-Z:

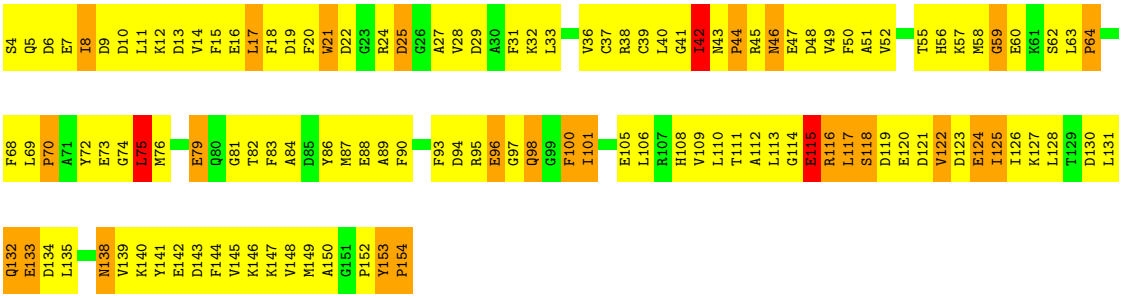




• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

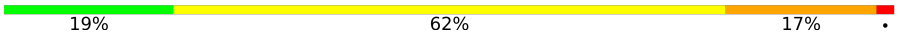
Chain 9-Z:

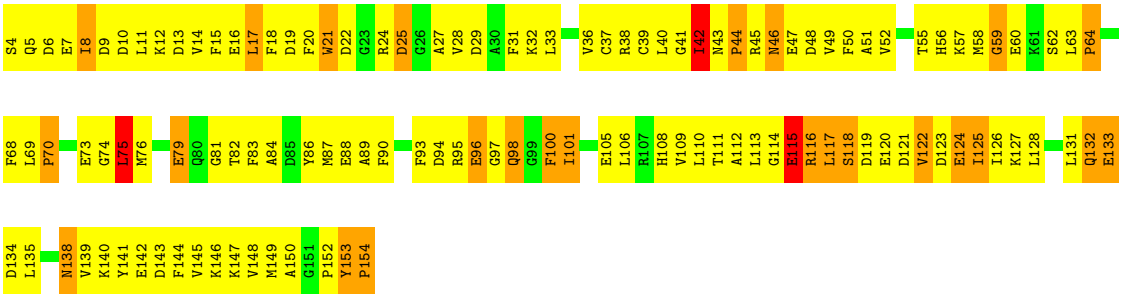




• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

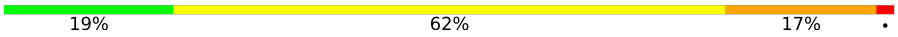
Chain 10-Z:

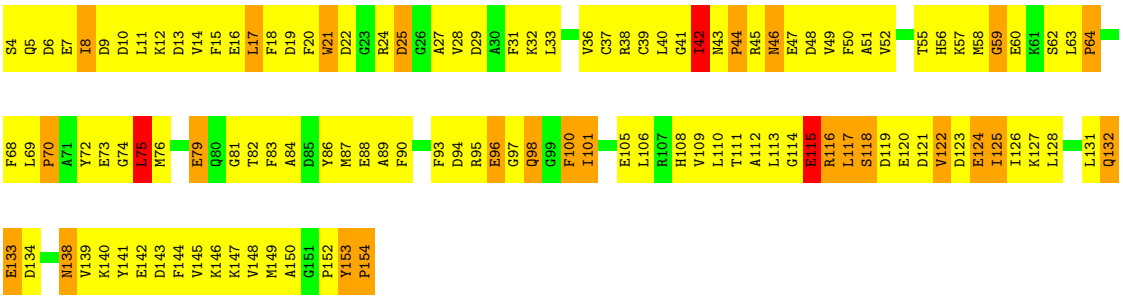




• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

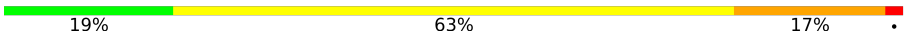
Chain 11-Z:

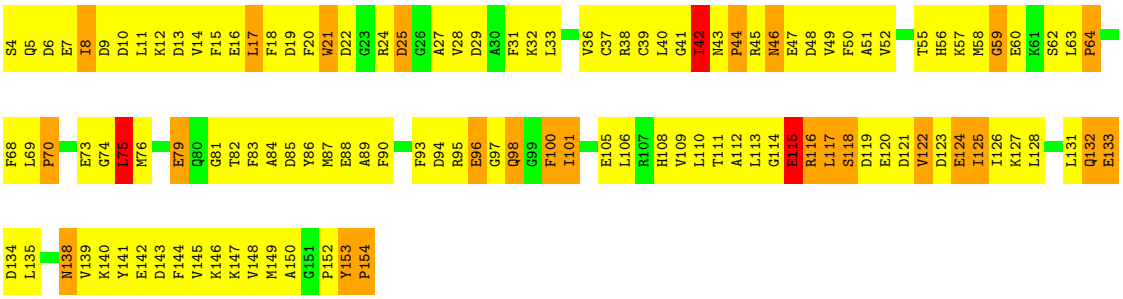




• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

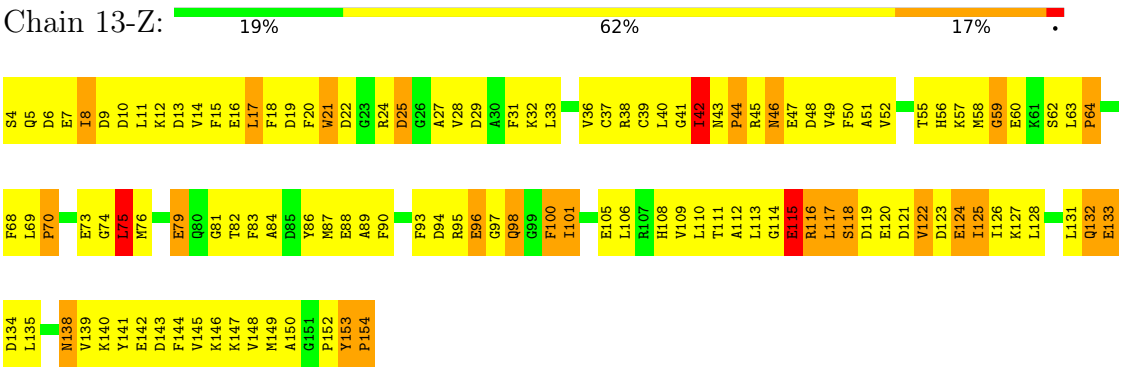
Chain 12-Z:





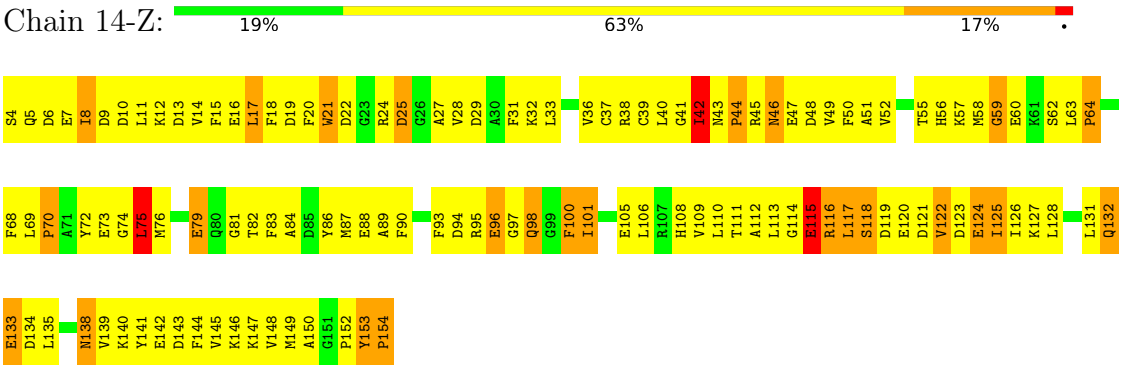
• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

Chain 13-Z:



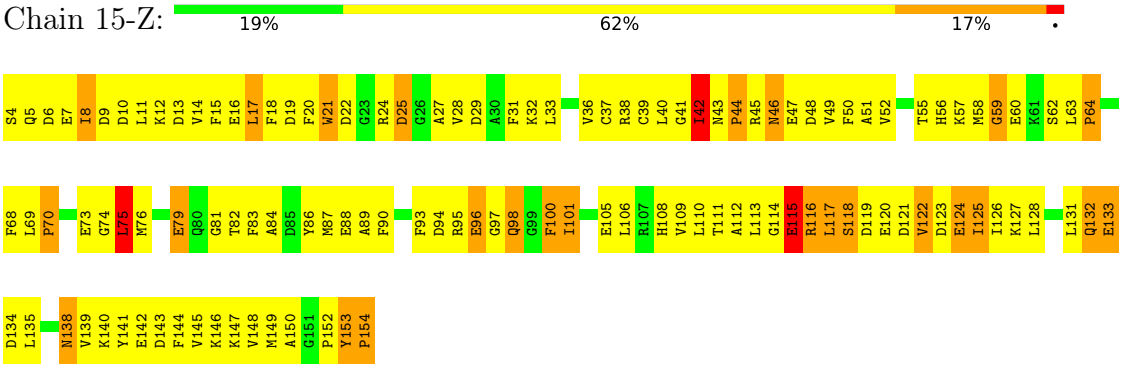
• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

Chain 14-Z:



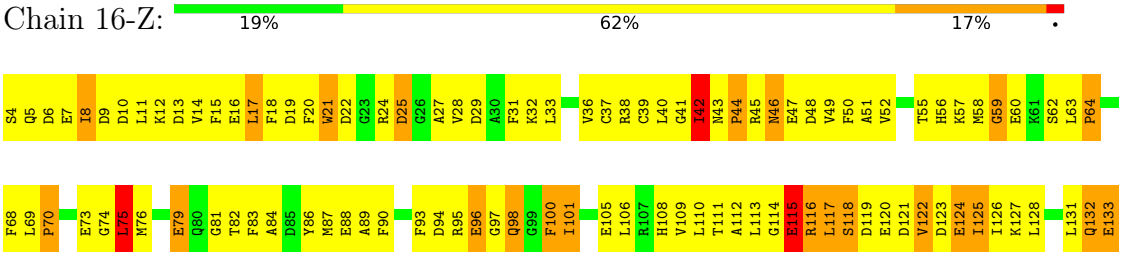
• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

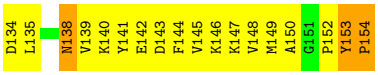
Chain 15-Z:



• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

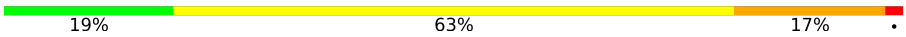
Chain 16-Z:

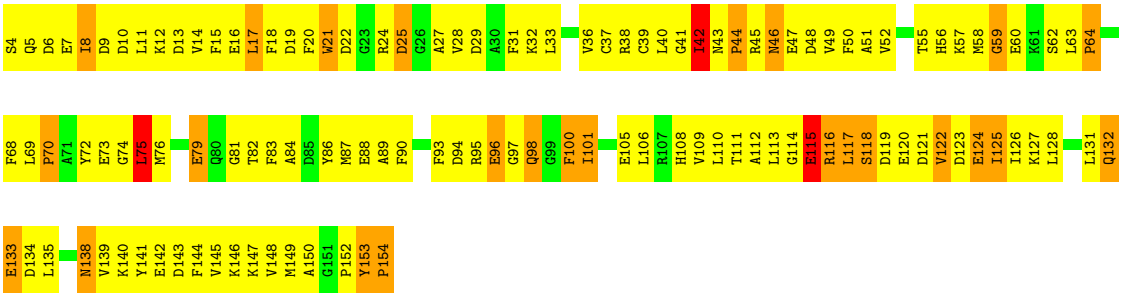




• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

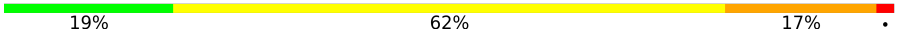
Chain 17-Z:

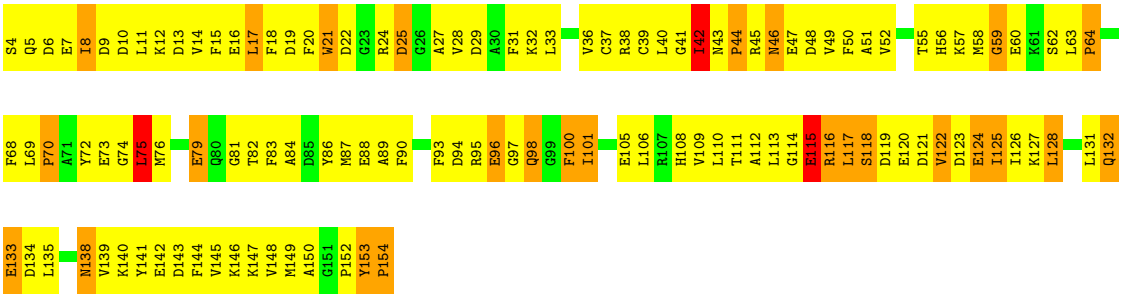




• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

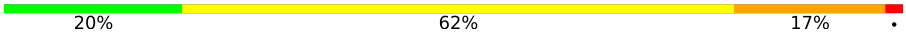
Chain 18-Z:

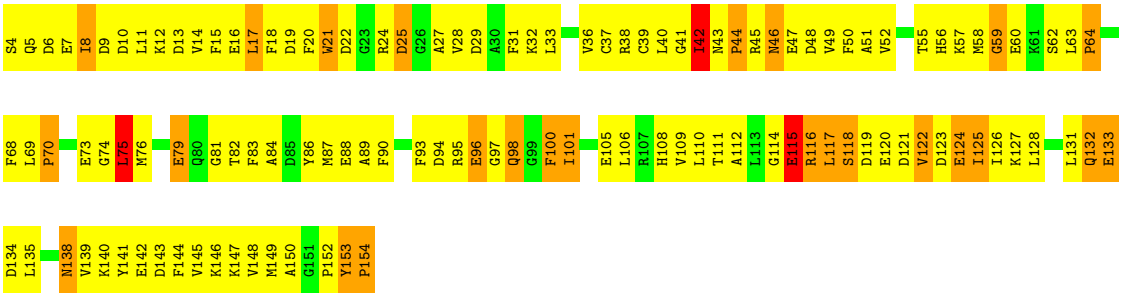




• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

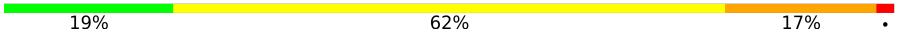
Chain 19-Z:

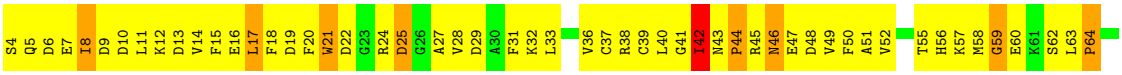


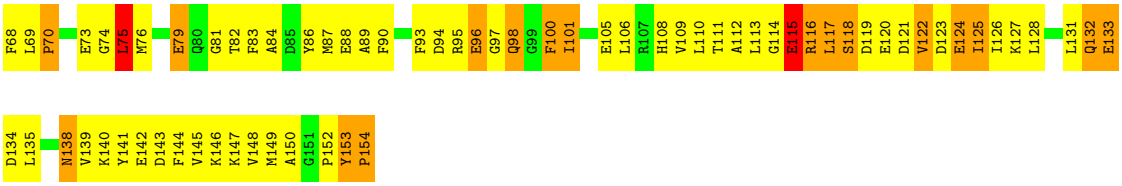


• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

Chain 20-Z:

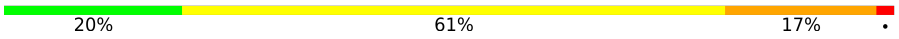


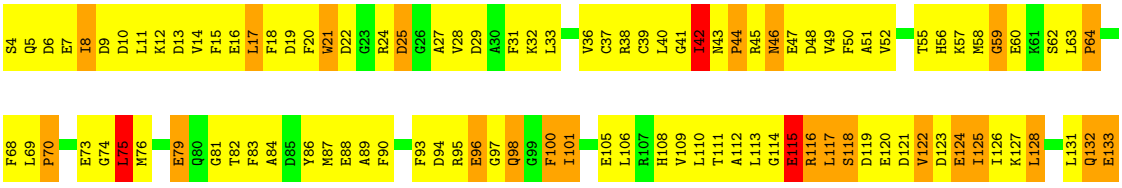




• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

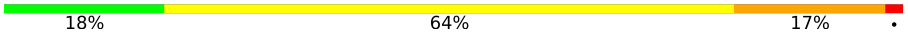
Chain 21-Z:

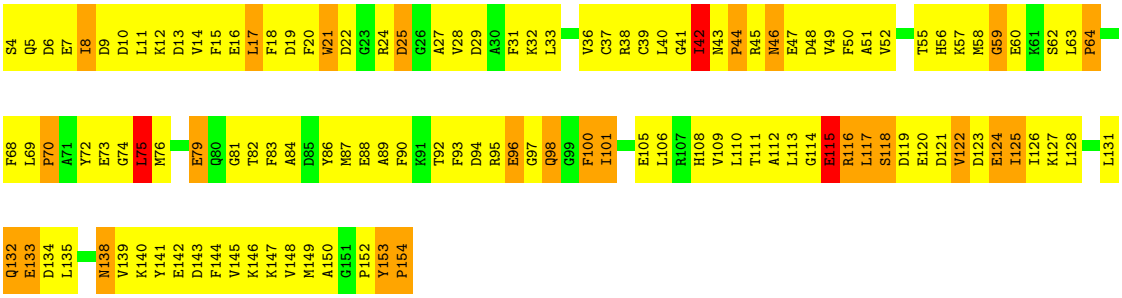




• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

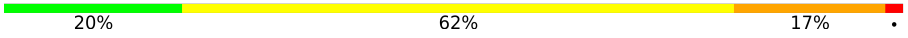
Chain 22-Z:

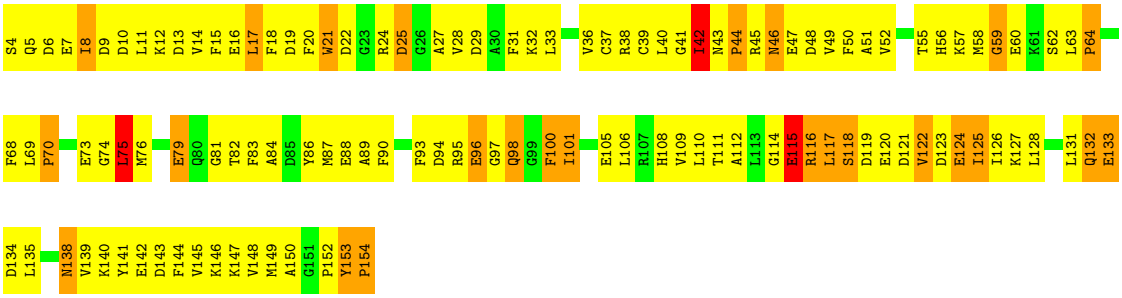




• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

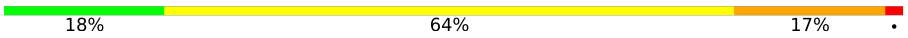
Chain 23-Z:

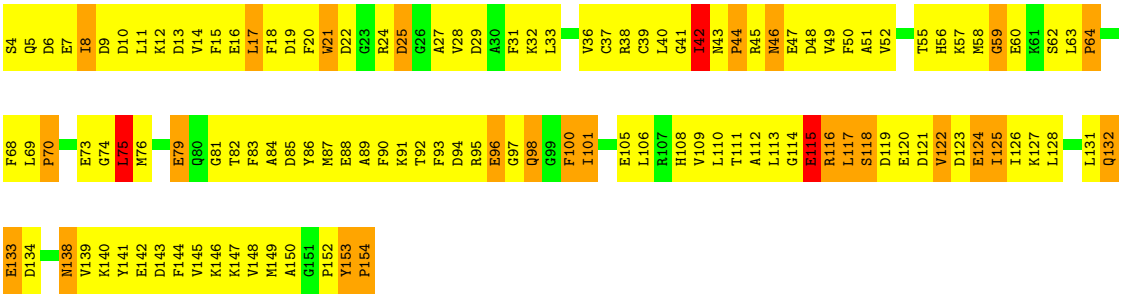




• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

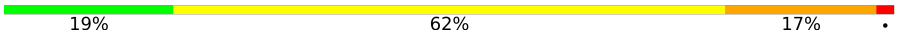
Chain 24-Z:

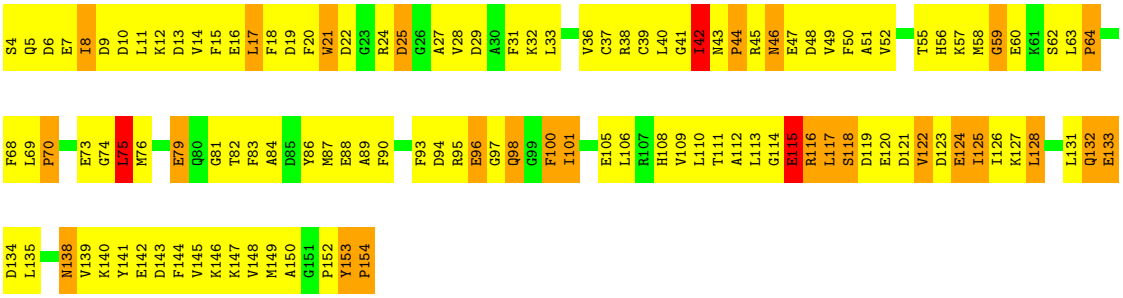




• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

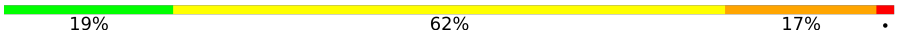
Chain 25-Z:

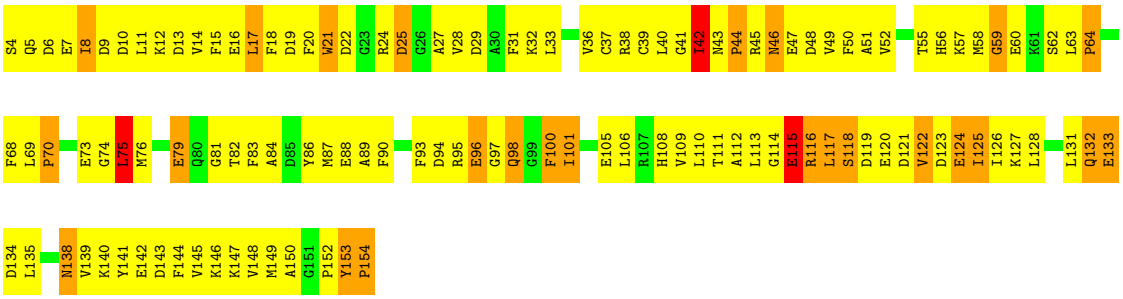




• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

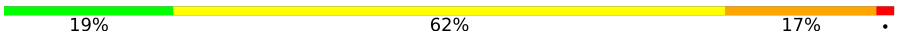
Chain 26-Z:

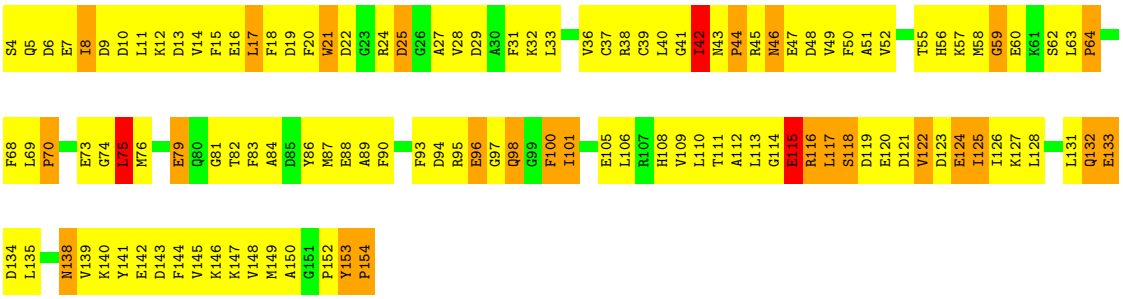




• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

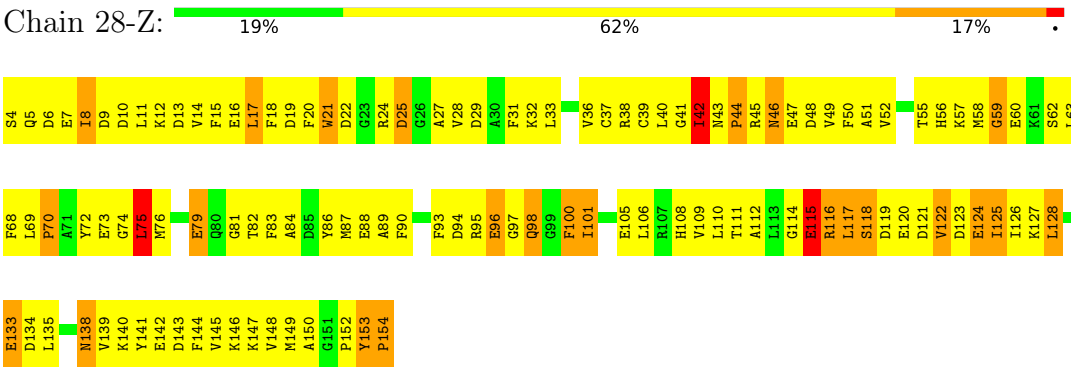
Chain 27-Z:





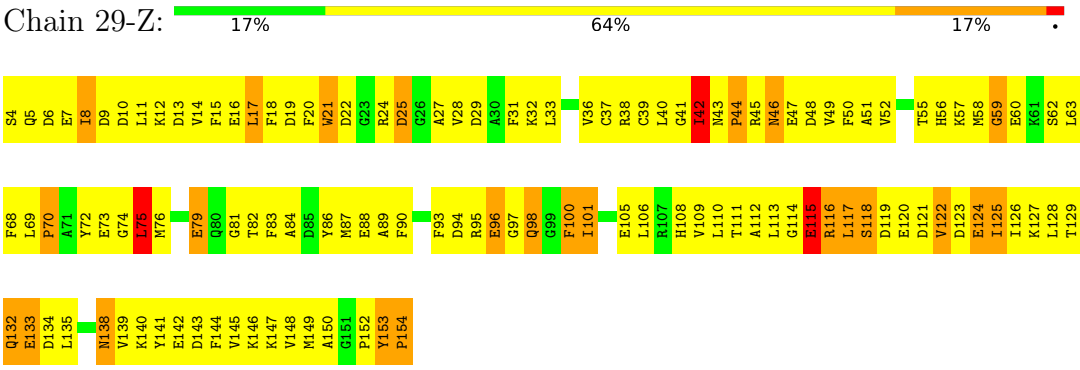
• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

Chain 28-Z:



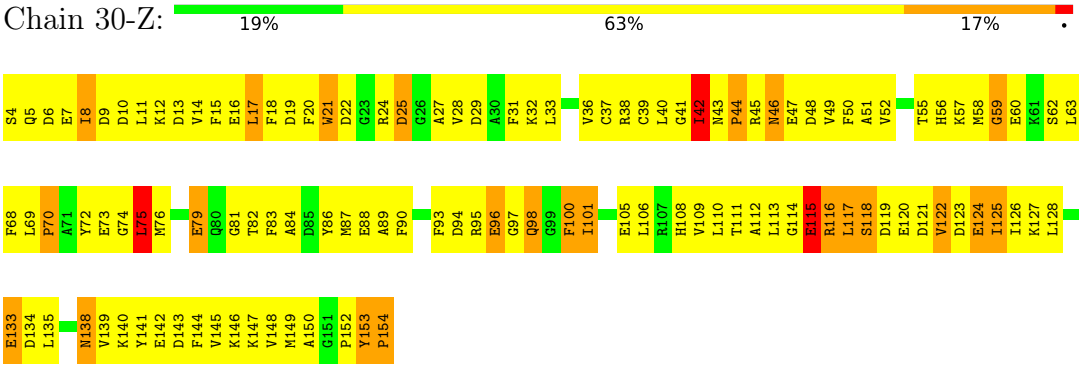
• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

Chain 29-Z:



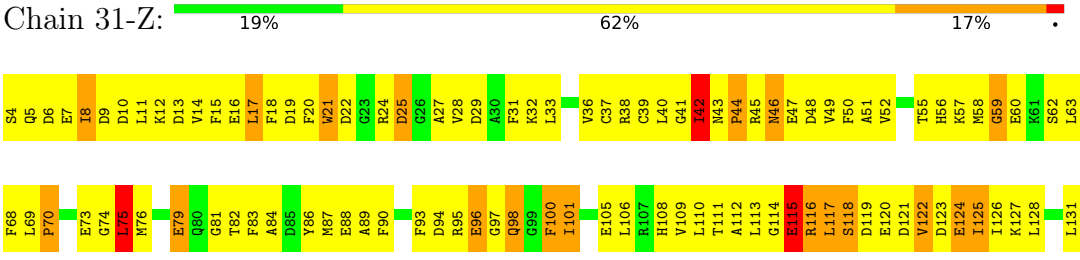
• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

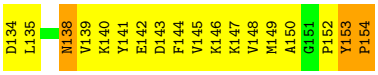
Chain 30-Z:



• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

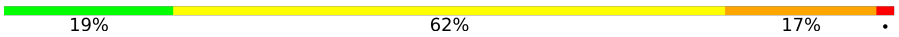
Chain 31-Z:

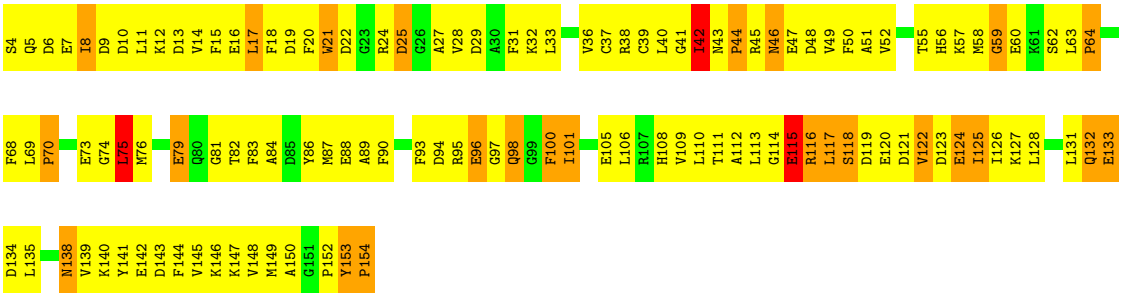




• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

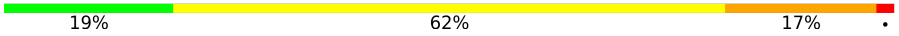
Chain 32-Z:

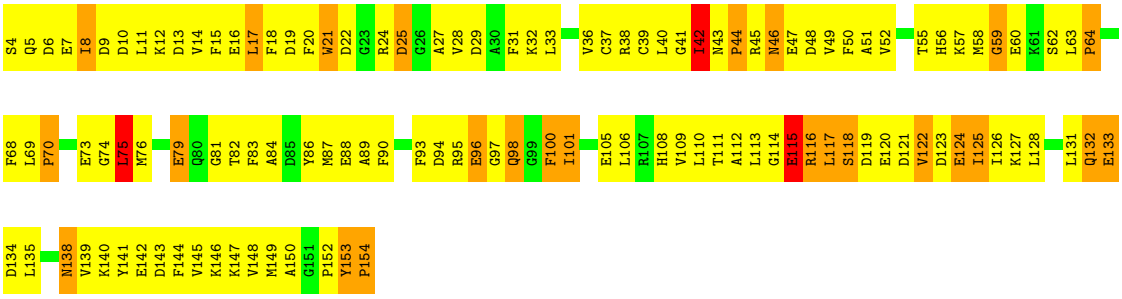




• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

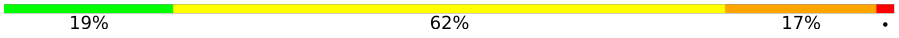
Chain 33-Z:

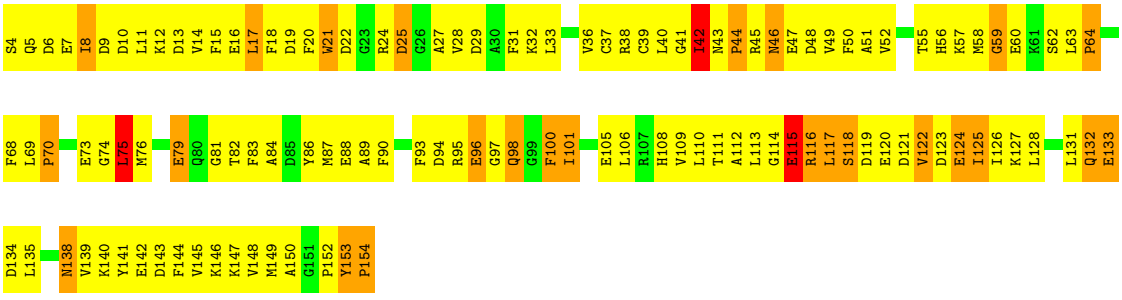




• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

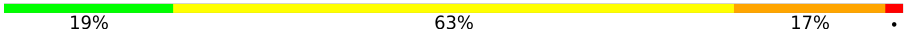
Chain 34-Z:

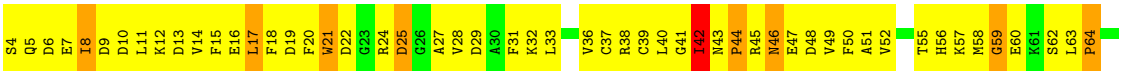


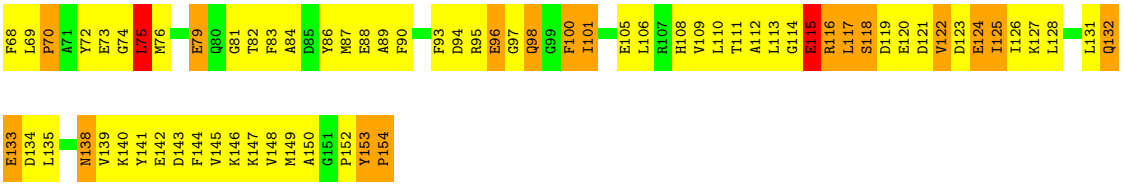


• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

Chain 35-Z:

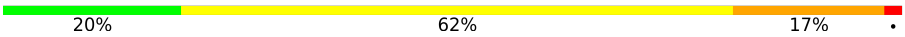


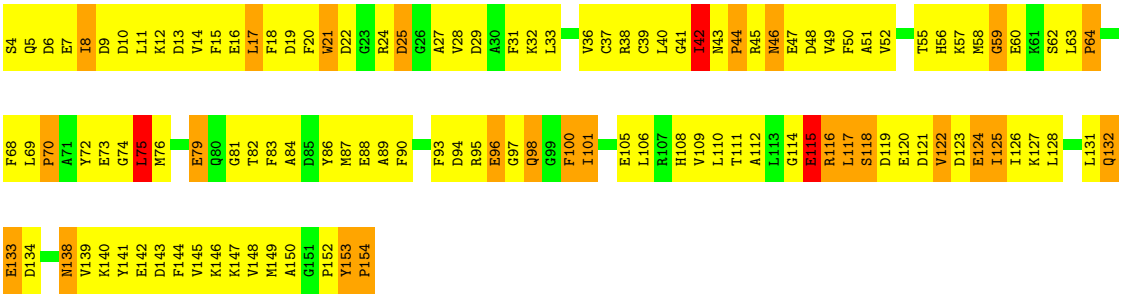




• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

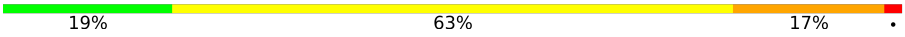
Chain 36-Z:

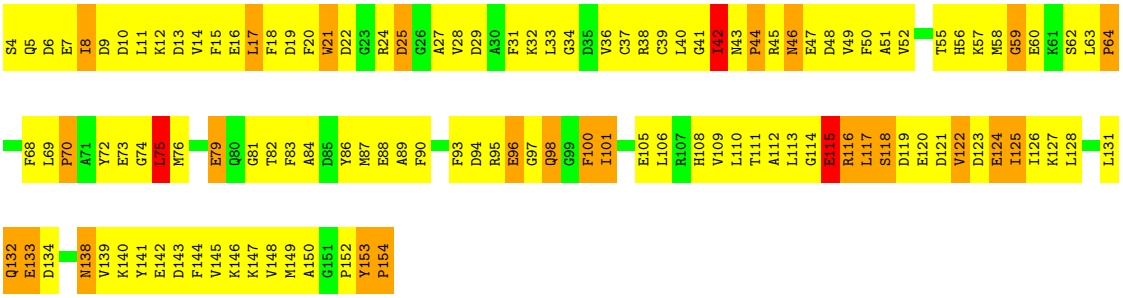




• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

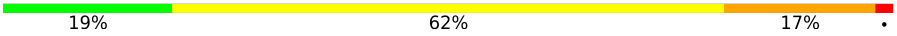
Chain 37-Z:

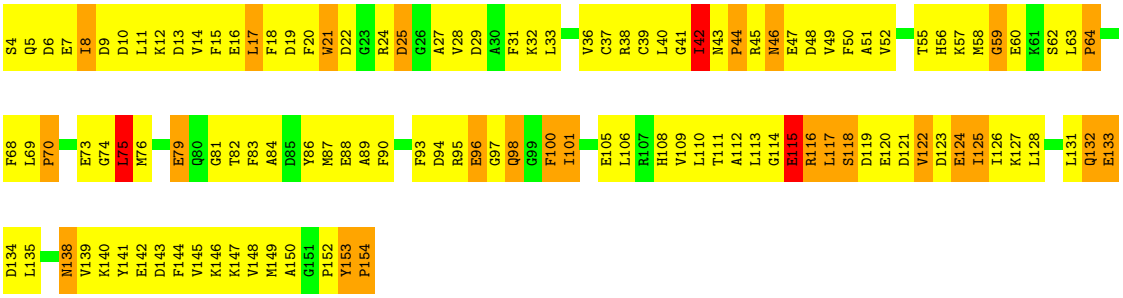




• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

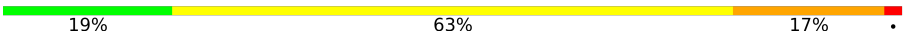
Chain 38-Z:

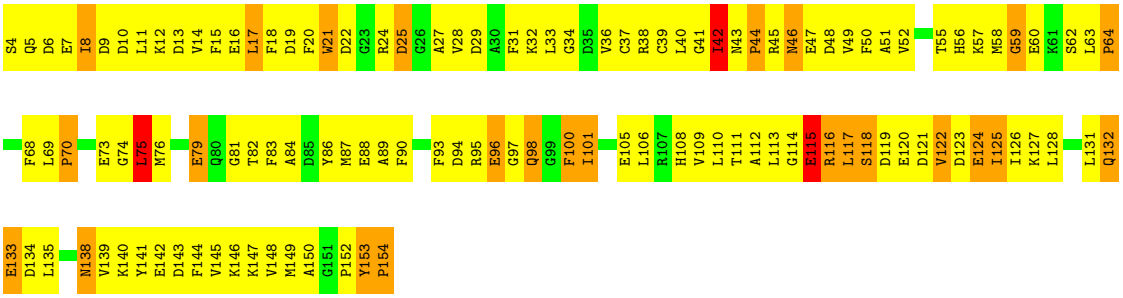




• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

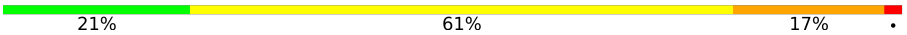
Chain 39-Z:

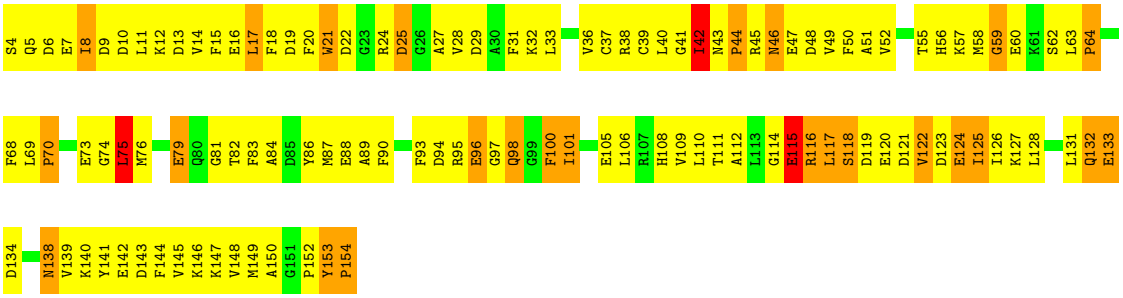




• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

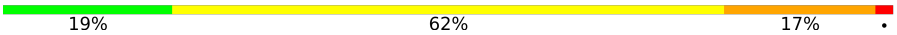
Chain 40-Z:

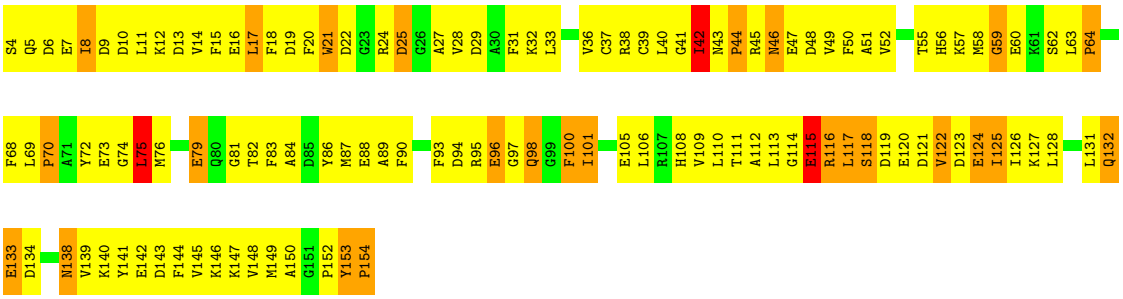




• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

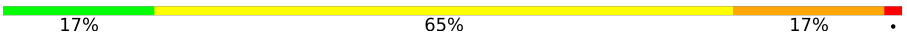
Chain 41-Z:

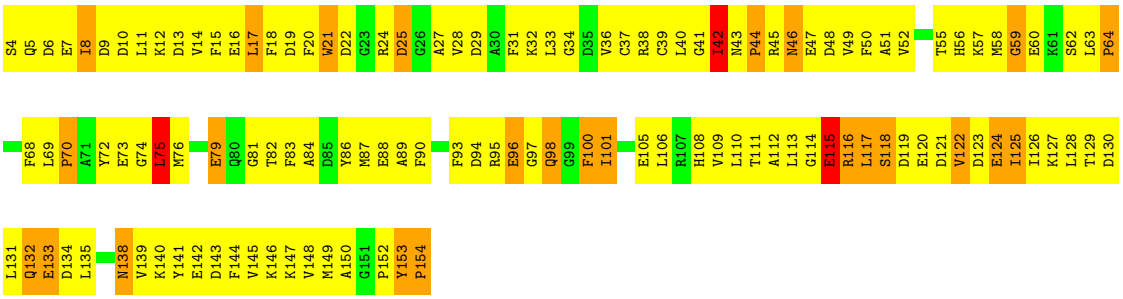




• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

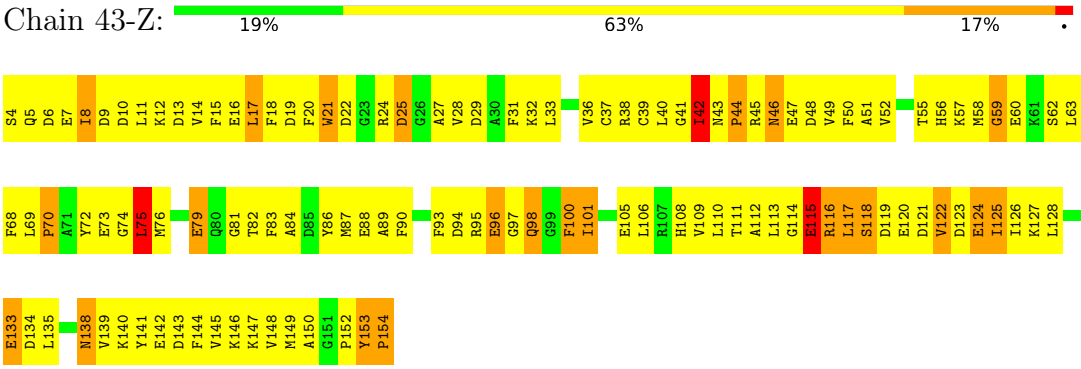
Chain 42-Z:





• Molecule 3: MYOSIN ESSENTIAL LIGHT CHAIN, STRIATED ADDUCTOR MUSCLE

Chain 43-Z:


19%
63%
17%
S4 Q5 D6 E7 I8 D9 D10 L11 K12 D13 V14 F15 E16 L17 F18 D19 F20 W21 D22 G23 R24 D25 G26 A27 V28 D29 A30 F31 K32 L33 V36 C37 R38 C39 L40 G41 I42 N43 P44 R45 N46 E47 D48 V49 F50 A51 V52 T55 H56 K57 M58 G59 E60 K61 S62 L63 P64
F68 L69 P70 A71 Y72 E73 G74 L75 M76 E79 Q80 G81 T82 F83 A84 D85 Y86 M87 E88 A89 F90 F93 D94 R95 E96 G97 Q98 G99 F100 I101 E105 L106 R107 H108 V109 L110 T111 A112 L113 G114 E115 R116 L117 S118 D119 E120 D121 V122 D123 E124 I125 I126 K127 L128 L131 Q132
E133 D134 L135 N138 V139 K140 Y141 E142 D143 F144 V145 K146 K147 V148 M149 A150 G151 P152 Y153 P154

4 Experimental information (i)

Property	Value	Source
EM reconstruction method	HELICAL	Depositor
Imposed symmetry	HELICAL, twist=Not provided°, rise=Not provided Å, axial sym=Not provided	Depositor
Number of segments used	Not provided	
Resolution determination method	FSC 0.5 CUT-OFF	Depositor
CTF correction method	Not provided	
Microscope	FEI/PHILIPS CM300FEG/T	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	Not provided	
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	TVIPS TEMCAM-F224 (2k x 2k)	Depositor

5 Model quality (i)

5.1 Standard geometry (i)

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	1-C	1.19	83/6340 (1.3%)	1.30	32/8539 (0.4%)
1	2-C	1.18	82/6339 (1.3%)	1.29	30/8536 (0.4%)
1	3-C	1.14	82/6340 (1.3%)	1.29	30/8539 (0.4%)
1	4-C	1.17	83/6340 (1.3%)	1.29	29/8539 (0.3%)
1	5-C	1.14	82/6339 (1.3%)	1.29	28/8536 (0.3%)
1	6-C	1.18	82/6340 (1.3%)	1.30	28/8539 (0.3%)
1	7-C	1.15	83/6340 (1.3%)	1.31	32/8539 (0.4%)
1	8-C	1.17	84/6340 (1.3%)	1.38	33/8539 (0.4%)
1	9-C	1.14	82/6339 (1.3%)	1.32	30/8536 (0.4%)
1	10-C	1.14	81/6340 (1.3%)	1.29	29/8539 (0.3%)
1	11-C	1.15	82/6340 (1.3%)	1.29	31/8539 (0.4%)
1	12-C	1.18	83/6340 (1.3%)	1.30	31/8539 (0.4%)
1	13-C	1.14	82/6339 (1.3%)	1.29	30/8536 (0.4%)
1	14-C	1.14	81/6339 (1.3%)	1.29	28/8536 (0.3%)
1	15-C	1.17	83/6340 (1.3%)	1.34	30/8539 (0.4%)
1	16-C	1.14	81/6340 (1.3%)	1.29	28/8539 (0.3%)
1	17-C	1.16	82/6339 (1.3%)	1.29	29/8536 (0.3%)
1	18-C	1.16	83/6340 (1.3%)	1.33	32/8539 (0.4%)
1	19-C	1.15	83/6340 (1.3%)	1.34	33/8539 (0.4%)
1	20-C	1.14	82/6340 (1.3%)	1.33	32/8539 (0.4%)
1	21-C	1.18	82/6340 (1.3%)	1.30	28/8539 (0.3%)
1	22-C	1.14	81/6340 (1.3%)	1.29	31/8539 (0.4%)
1	23-C	1.17	82/6339 (1.3%)	1.30	31/8536 (0.4%)
1	24-C	1.19	83/6339 (1.3%)	1.30	32/8536 (0.4%)
1	25-C	1.21	83/6339 (1.3%)	1.31	34/8536 (0.4%)
1	26-C	1.14	81/6339 (1.3%)	1.29	30/8536 (0.4%)
1	27-C	1.14	81/6340 (1.3%)	1.29	30/8539 (0.4%)
1	28-C	1.16	83/6339 (1.3%)	1.36	36/8536 (0.4%)
1	29-C	1.16	82/6339 (1.3%)	1.31	33/8536 (0.4%)
1	30-C	1.14	81/6340 (1.3%)	1.29	30/8539 (0.4%)
1	31-C	1.21	83/6340 (1.3%)	1.36	32/8539 (0.4%)
1	32-C	1.19	82/6339 (1.3%)	1.30	31/8536 (0.4%)
1	33-C	1.15	82/6340 (1.3%)	1.29	31/8539 (0.4%)
1	34-C	1.14	82/6340 (1.3%)	1.30	33/8539 (0.4%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\#\|Z\| > 5$	RMSZ	$\#\|Z\| > 5$
1	35-C	1.18	83/6340 (1.3%)	1.32	34/8539 (0.4%)
1	36-C	1.14	82/6340 (1.3%)	1.29	30/8539 (0.4%)
1	37-C	1.14	81/6340 (1.3%)	1.29	28/8539 (0.3%)
1	38-C	1.14	82/6340 (1.3%)	1.30	31/8539 (0.4%)
1	39-C	1.14	80/6339 (1.3%)	1.29	30/8536 (0.4%)
1	40-C	1.17	82/6340 (1.3%)	1.30	30/8539 (0.4%)
1	41-C	1.14	83/6340 (1.3%)	1.29	29/8539 (0.3%)
1	42-C	1.17	82/6339 (1.3%)	1.29	31/8536 (0.4%)
1	43-C	1.14	83/6339 (1.3%)	1.36	33/8536 (0.4%)
2	1-Y	0.80	9/1104 (0.8%)	1.06	2/1472 (0.1%)
2	2-Y	0.80	9/1104 (0.8%)	1.06	1/1472 (0.1%)
2	3-Y	0.80	9/1104 (0.8%)	1.06	1/1472 (0.1%)
2	4-Y	0.80	8/1104 (0.7%)	1.06	2/1472 (0.1%)
2	5-Y	0.79	9/1104 (0.8%)	1.06	2/1472 (0.1%)
2	6-Y	0.80	9/1104 (0.8%)	1.06	1/1472 (0.1%)
2	7-Y	0.80	9/1104 (0.8%)	1.06	2/1472 (0.1%)
2	8-Y	0.80	8/1104 (0.7%)	1.06	2/1472 (0.1%)
2	9-Y	0.80	8/1104 (0.7%)	1.06	1/1472 (0.1%)
2	10-Y	0.80	9/1104 (0.8%)	1.06	1/1472 (0.1%)
2	11-Y	0.80	9/1104 (0.8%)	1.06	2/1472 (0.1%)
2	12-Y	0.80	9/1104 (0.8%)	1.06	2/1472 (0.1%)
2	13-Y	0.80	8/1104 (0.7%)	1.06	1/1472 (0.1%)
2	14-Y	0.80	9/1104 (0.8%)	1.06	2/1472 (0.1%)
2	15-Y	0.80	9/1104 (0.8%)	1.06	2/1472 (0.1%)
2	16-Y	0.80	9/1104 (0.8%)	1.06	1/1472 (0.1%)
2	17-Y	0.80	9/1104 (0.8%)	1.06	1/1472 (0.1%)
2	18-Y	0.80	9/1104 (0.8%)	1.06	2/1472 (0.1%)
2	19-Y	0.80	9/1104 (0.8%)	1.06	1/1472 (0.1%)
2	20-Y	0.80	9/1104 (0.8%)	1.06	1/1472 (0.1%)
2	21-Y	0.80	9/1104 (0.8%)	1.06	2/1472 (0.1%)
2	22-Y	0.80	8/1104 (0.7%)	1.06	2/1472 (0.1%)
2	23-Y	0.80	8/1104 (0.7%)	1.05	1/1472 (0.1%)
2	24-Y	0.80	8/1104 (0.7%)	1.06	1/1472 (0.1%)
2	25-Y	0.80	8/1104 (0.7%)	1.05	1/1472 (0.1%)
2	26-Y	0.80	8/1104 (0.7%)	1.05	1/1472 (0.1%)
2	27-Y	0.80	8/1104 (0.7%)	1.06	1/1472 (0.1%)
2	28-Y	0.80	8/1104 (0.7%)	1.05	1/1472 (0.1%)
2	29-Y	0.80	9/1104 (0.8%)	1.05	1/1472 (0.1%)
2	30-Y	0.80	8/1104 (0.7%)	1.05	1/1472 (0.1%)
2	31-Y	0.80	8/1104 (0.7%)	1.06	1/1472 (0.1%)
2	32-Y	0.80	8/1104 (0.7%)	1.06	1/1472 (0.1%)
2	33-Y	0.80	9/1104 (0.8%)	1.06	1/1472 (0.1%)
2	34-Y	0.80	8/1104 (0.7%)	1.06	1/1472 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\#\|Z\| > 5$	RMSZ	$\#\|Z\| > 5$
2	35-Y	0.80	9/1104 (0.8%)	1.06	1/1472 (0.1%)
2	36-Y	0.80	8/1104 (0.7%)	1.06	1/1472 (0.1%)
2	37-Y	0.80	8/1104 (0.7%)	1.06	1/1472 (0.1%)
2	38-Y	0.80	8/1104 (0.7%)	1.06	1/1472 (0.1%)
2	39-Y	0.80	8/1104 (0.7%)	1.06	1/1472 (0.1%)
2	40-Y	0.80	9/1104 (0.8%)	1.05	1/1472 (0.1%)
2	41-Y	0.80	8/1104 (0.7%)	1.06	1/1472 (0.1%)
2	42-Y	0.80	9/1104 (0.8%)	1.06	1/1472 (0.1%)
2	43-Y	0.80	8/1104 (0.7%)	1.06	1/1472 (0.1%)
3	1-Z	0.81	11/1222 (0.9%)	1.09	2/1644 (0.1%)
3	2-Z	0.81	10/1222 (0.8%)	1.09	2/1644 (0.1%)
3	3-Z	0.82	10/1222 (0.8%)	1.09	2/1644 (0.1%)
3	4-Z	0.81	11/1222 (0.9%)	1.09	2/1644 (0.1%)
3	5-Z	0.81	11/1222 (0.9%)	1.09	2/1644 (0.1%)
3	6-Z	0.81	11/1222 (0.9%)	1.09	2/1644 (0.1%)
3	7-Z	0.81	10/1222 (0.8%)	1.09	2/1644 (0.1%)
3	8-Z	0.82	11/1222 (0.9%)	1.09	1/1644 (0.1%)
3	9-Z	0.81	11/1222 (0.9%)	1.09	2/1644 (0.1%)
3	10-Z	0.81	11/1222 (0.9%)	1.09	2/1644 (0.1%)
3	11-Z	0.81	10/1222 (0.8%)	1.09	2/1644 (0.1%)
3	12-Z	0.82	11/1222 (0.9%)	1.09	2/1644 (0.1%)
3	13-Z	0.81	10/1222 (0.8%)	1.09	2/1644 (0.1%)
3	14-Z	0.81	10/1222 (0.8%)	1.09	2/1644 (0.1%)
3	15-Z	0.81	10/1222 (0.8%)	1.09	2/1644 (0.1%)
3	16-Z	0.81	11/1222 (0.9%)	1.09	2/1644 (0.1%)
3	17-Z	0.81	11/1222 (0.9%)	1.09	2/1644 (0.1%)
3	18-Z	0.82	11/1222 (0.9%)	1.09	2/1644 (0.1%)
3	19-Z	0.81	10/1222 (0.8%)	1.09	2/1644 (0.1%)
3	20-Z	0.81	11/1222 (0.9%)	1.09	2/1644 (0.1%)
3	21-Z	0.81	10/1222 (0.8%)	1.09	2/1644 (0.1%)
3	22-Z	0.81	10/1222 (0.8%)	1.09	1/1644 (0.1%)
3	23-Z	0.81	10/1222 (0.8%)	1.09	2/1644 (0.1%)
3	24-Z	0.81	11/1222 (0.9%)	1.09	1/1644 (0.1%)
3	25-Z	0.81	10/1222 (0.8%)	1.09	2/1644 (0.1%)
3	26-Z	0.81	9/1222 (0.7%)	1.09	2/1644 (0.1%)
3	27-Z	0.81	11/1222 (0.9%)	1.09	2/1644 (0.1%)
3	28-Z	0.82	10/1222 (0.8%)	1.09	2/1644 (0.1%)
3	29-Z	0.81	10/1222 (0.8%)	1.09	2/1644 (0.1%)
3	30-Z	0.81	11/1222 (0.9%)	1.09	2/1644 (0.1%)
3	31-Z	0.81	10/1222 (0.8%)	1.09	1/1644 (0.1%)
3	32-Z	0.81	11/1222 (0.9%)	1.09	1/1644 (0.1%)
3	33-Z	0.81	9/1222 (0.7%)	1.09	2/1644 (0.1%)
3	34-Z	0.81	10/1222 (0.8%)	1.09	2/1644 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\#\|Z\| > 5$	RMSZ	$\#\|Z\| > 5$
3	35-Z	0.82	11/1222 (0.9%)	1.09	2/1644 (0.1%)
3	36-Z	0.81	11/1222 (0.9%)	1.09	2/1644 (0.1%)
3	37-Z	0.81	11/1222 (0.9%)	1.09	2/1644 (0.1%)
3	38-Z	0.81	11/1222 (0.9%)	1.09	2/1644 (0.1%)
3	39-Z	0.81	10/1222 (0.8%)	1.09	2/1644 (0.1%)
3	40-Z	0.81	10/1222 (0.8%)	1.09	2/1644 (0.1%)
3	41-Z	0.82	11/1222 (0.9%)	1.09	2/1644 (0.1%)
3	42-Z	0.81	11/1222 (0.9%)	1.09	1/1644 (0.1%)
3	43-Z	0.81	10/1222 (0.8%)	1.09	2/1644 (0.1%)
All	All	1.08	4348/372622 (1.2%)	1.25	1458/501117 (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
1	1-C	0	5
1	2-C	0	4
1	3-C	0	4
1	4-C	0	4
1	5-C	0	4
1	6-C	0	4
1	7-C	0	6
1	8-C	0	6
1	9-C	0	6
1	10-C	0	4
1	11-C	0	4
1	12-C	0	5
1	13-C	0	4
1	14-C	0	4
1	15-C	0	6
1	16-C	0	4
1	17-C	0	4
1	18-C	0	6
1	19-C	0	9
1	20-C	0	6
1	21-C	0	5
1	22-C	0	7
1	23-C	0	4
1	24-C	0	4
1	25-C	0	6

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Mol	Chain	#Chirality outliers	#Planarity outliers
1	26-C	0	4
1	27-C	0	4
1	28-C	0	8
1	29-C	0	5
1	30-C	0	4
1	31-C	0	6
1	32-C	0	4
1	33-C	0	4
1	34-C	0	6
1	35-C	0	6
1	36-C	0	4
1	37-C	0	6
1	38-C	0	7
1	39-C	0	4
1	40-C	0	4
1	41-C	0	4
1	42-C	0	4
1	43-C	0	8
2	1-Y	0	1
2	2-Y	0	1
2	3-Y	0	1
2	4-Y	0	1
2	5-Y	0	1
2	6-Y	0	1
2	7-Y	0	1
2	8-Y	0	1
2	9-Y	0	1
2	10-Y	0	1
2	11-Y	0	1
2	12-Y	0	1
2	13-Y	0	1
2	14-Y	0	1
2	15-Y	0	1
2	16-Y	0	1
2	17-Y	0	1
2	18-Y	0	1
2	19-Y	0	1
2	20-Y	0	1
2	21-Y	0	1
2	22-Y	0	1
2	23-Y	0	1
2	24-Y	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
2	25-Y	0	1
2	26-Y	0	1
2	27-Y	0	1
2	28-Y	0	1
2	29-Y	0	1
2	30-Y	0	1
2	31-Y	0	1
2	32-Y	0	1
2	33-Y	0	1
2	34-Y	0	1
2	35-Y	0	1
2	36-Y	0	1
2	37-Y	0	1
2	38-Y	0	1
2	39-Y	0	1
2	40-Y	0	1
2	41-Y	0	1
2	42-Y	0	1
2	43-Y	0	1
All	All	0	260

The worst 5 of 4348 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	36-C	462	ALA	C-N	33.20	1.92	1.33
1	40-C	462	ALA	C-N	33.19	1.92	1.33
1	28-C	462	ALA	C-N	33.19	1.92	1.33
1	29-C	462	ALA	C-N	33.19	1.92	1.33
1	33-C	462	ALA	C-N	33.19	1.92	1.33

The worst 5 of 1458 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	31-C	774	ARG	O-C-N	-38.20	61.57	122.70
1	8-C	705	LYS	O-C-N	-33.25	66.68	123.20
1	43-C	705	LYS	O-C-N	-30.78	70.87	123.20
1	8-C	705	LYS	CA-C-N	28.08	172.37	116.20
1	20-C	705	LYS	O-C-N	-27.41	76.60	123.20

There are no chirality outliers.

5 of 260 planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	1-C	115	TYR	Mainchain
1	1-C	691	LEU	Mainchain
1	1-C	705	LYS	Mainchain
1	1-C	76	SER	Mainchain
1	1-C	824	TRP	Mainchain

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	1-C	6215	0	6178	2653	0
1	2-C	6215	0	6182	2653	0
1	3-C	6215	0	6179	2620	0
1	4-C	6215	0	6182	2643	0
1	5-C	6215	0	6168	2765	0
1	6-C	6215	0	6184	2649	0
1	7-C	6215	0	6142	3004	0
1	8-C	6215	0	6165	2902	0
1	9-C	6215	0	6169	2803	0
1	10-C	6215	0	6185	2603	0
1	11-C	6215	0	6183	2601	0
1	12-C	6215	0	6181	2649	0
1	13-C	6215	0	6182	2634	0
1	14-C	6215	0	6184	2657	0
1	15-C	6215	0	6171	2692	0
1	16-C	6215	0	6185	2603	0
1	17-C	6215	0	6183	2617	0
1	18-C	6215	0	6171	2777	0
1	19-C	6215	0	6170	2771	0
1	20-C	6215	0	6169	2784	0
1	21-C	6215	0	6178	2695	0
1	22-C	6215	0	6175	2737	0
1	23-C	6215	0	6181	2654	0
1	24-C	6215	0	6178	2704	0
1	25-C	6215	0	6179	2644	0
1	26-C	6215	0	6179	2598	0
1	27-C	6215	0	6183	2652	0
1	28-C	6215	0	6163	2840	0
1	29-C	6215	0	6167	2794	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	30-C	6215	0	6183	2598	0
1	31-C	6215	0	6168	2829	0
1	32-C	6215	0	6180	2691	0
1	33-C	6215	0	6184	2617	0
1	34-C	6215	0	6175	2700	0
1	35-C	6215	0	6172	2773	0
1	36-C	6215	0	6185	2595	0
1	37-C	6215	0	6185	2605	0
1	38-C	6215	0	6181	2646	0
1	39-C	6215	0	6180	2643	0
1	40-C	6215	0	6180	2623	0
1	41-C	6215	0	6168	2729	0
1	42-C	6215	0	6176	2627	0
1	43-C	6215	0	6159	2820	0
2	1-Y	1088	0	1066	467	0
2	2-Y	1088	0	1066	467	0
2	3-Y	1088	0	1066	474	0
2	4-Y	1088	0	1066	483	0
2	5-Y	1088	0	1064	489	0
2	6-Y	1088	0	1066	466	0
2	7-Y	1088	0	1066	506	0
2	8-Y	1088	0	1063	492	0
2	9-Y	1088	0	1065	506	0
2	10-Y	1088	0	1066	472	0
2	11-Y	1088	0	1066	469	0
2	12-Y	1088	0	1066	465	0
2	13-Y	1088	0	1066	475	0
2	14-Y	1088	0	1066	470	0
2	15-Y	1088	0	1066	468	0
2	16-Y	1088	0	1066	471	0
2	17-Y	1088	0	1066	471	0
2	18-Y	1088	0	1063	477	0
2	19-Y	1088	0	1066	474	0
2	20-Y	1088	0	1066	476	0
2	21-Y	1088	0	1066	470	0
2	22-Y	1088	0	1066	482	0
2	23-Y	1088	0	1066	482	0
2	24-Y	1088	0	1066	469	0
2	25-Y	1088	0	1064	482	0
2	26-Y	1088	0	1065	502	0
2	27-Y	1088	0	1066	476	0
2	28-Y	1088	0	1054	553	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	29-Y	1088	0	1064	655	0
2	30-Y	1088	0	1066	474	0
2	31-Y	1088	0	1066	478	0
2	32-Y	1088	0	1066	474	0
2	33-Y	1088	0	1066	475	0
2	34-Y	1088	0	1066	476	0
2	35-Y	1088	0	1062	498	0
2	36-Y	1088	0	1066	472	0
2	37-Y	1088	0	1066	474	0
2	38-Y	1088	0	1066	476	0
2	39-Y	1088	0	1064	475	0
2	40-Y	1088	0	1066	478	0
2	41-Y	1088	0	1066	469	0
2	42-Y	1088	0	1057	628	0
2	43-Y	1088	0	1066	469	0
3	1-Z	1198	0	1120	500	0
3	2-Z	1198	0	1120	512	0
3	3-Z	1198	0	1120	510	0
3	4-Z	1198	0	1120	512	0
3	5-Z	1198	0	1120	516	0
3	6-Z	1198	0	1117	497	0
3	7-Z	1198	0	1113	730	0
3	8-Z	1198	0	1120	536	0
3	9-Z	1198	0	1120	533	0
3	10-Z	1198	0	1120	497	0
3	11-Z	1198	0	1120	498	0
3	12-Z	1198	0	1120	506	0
3	13-Z	1198	0	1120	498	0
3	14-Z	1198	0	1120	497	0
3	15-Z	1198	0	1120	496	0
3	16-Z	1198	0	1120	497	0
3	17-Z	1198	0	1120	498	0
3	18-Z	1198	0	1120	524	0
3	19-Z	1198	0	1120	523	0
3	20-Z	1198	0	1120	499	0
3	21-Z	1198	0	1120	505	0
3	22-Z	1198	0	1120	539	0
3	23-Z	1198	0	1120	499	0
3	24-Z	1198	0	1118	562	0
3	25-Z	1198	0	1120	512	0
3	26-Z	1198	0	1117	522	0
3	27-Z	1198	0	1117	510	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	28-Z	1198	0	1115	585	0
3	29-Z	1198	0	1115	639	0
3	30-Z	1198	0	1120	502	0
3	31-Z	1198	0	1118	605	0
3	32-Z	1198	0	1120	517	0
3	33-Z	1198	0	1120	503	0
3	34-Z	1198	0	1120	499	0
3	35-Z	1198	0	1116	555	0
3	36-Z	1198	0	1120	498	0
3	37-Z	1198	0	1120	507	0
3	38-Z	1198	0	1120	503	0
3	39-Z	1198	0	1120	490	0
3	40-Z	1198	0	1120	507	0
3	41-Z	1198	0	1117	521	0
3	42-Z	1198	0	1115	648	0
3	43-Z	1198	0	1120	496	0
All	All	365543	0	359487	151000	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 208.

The worst 5 of 151000 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)
1:C:503:GLU:HG3	1:C:761:PHE:CE1	1.20	1.71
1:C:505:ILE:HB	1:C:761:PHE:CD1	1.21	1.71
1:C:285:PHE:CZ	1:C:312:ILE:CG2	1.75	1.70
1:C:505:ILE:CB	1:C:762:PHE:HA	1.23	1.69
1:C:285:PHE:CZ	1:C:312:ILE:CG2	1.75	1.68

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	1-C	758/831 (91%)	608 (80%)	112 (15%)	38 (5%)	2	20
1	2-C	756/831 (91%)	604 (80%)	112 (15%)	40 (5%)	2	19
1	3-C	758/831 (91%)	606 (80%)	114 (15%)	38 (5%)	2	20
1	4-C	758/831 (91%)	605 (80%)	114 (15%)	39 (5%)	2	19
1	5-C	756/831 (91%)	605 (80%)	113 (15%)	38 (5%)	2	20
1	6-C	758/831 (91%)	608 (80%)	112 (15%)	38 (5%)	2	20
1	7-C	758/831 (91%)	607 (80%)	113 (15%)	38 (5%)	2	20
1	8-C	758/831 (91%)	607 (80%)	112 (15%)	39 (5%)	2	19
1	9-C	756/831 (91%)	606 (80%)	112 (15%)	38 (5%)	2	20
1	10-C	758/831 (91%)	606 (80%)	114 (15%)	38 (5%)	2	20
1	11-C	758/831 (91%)	606 (80%)	113 (15%)	39 (5%)	2	19
1	12-C	758/831 (91%)	606 (80%)	114 (15%)	38 (5%)	2	20
1	13-C	756/831 (91%)	604 (80%)	113 (15%)	39 (5%)	2	19
1	14-C	756/831 (91%)	605 (80%)	112 (15%)	39 (5%)	2	19
1	15-C	758/831 (91%)	608 (80%)	112 (15%)	38 (5%)	2	20
1	16-C	758/831 (91%)	606 (80%)	114 (15%)	38 (5%)	2	20
1	17-C	756/831 (91%)	604 (80%)	113 (15%)	39 (5%)	2	19
1	18-C	758/831 (91%)	607 (80%)	112 (15%)	39 (5%)	2	19
1	19-C	758/831 (91%)	605 (80%)	112 (15%)	41 (5%)	2	19
1	20-C	758/831 (91%)	606 (80%)	114 (15%)	38 (5%)	2	20
1	21-C	758/831 (91%)	605 (80%)	114 (15%)	39 (5%)	2	19
1	22-C	758/831 (91%)	607 (80%)	113 (15%)	38 (5%)	2	20
1	23-C	756/831 (91%)	603 (80%)	114 (15%)	39 (5%)	2	19
1	24-C	756/831 (91%)	605 (80%)	113 (15%)	38 (5%)	2	20
1	25-C	756/831 (91%)	602 (80%)	114 (15%)	40 (5%)	2	19
1	26-C	756/831 (91%)	604 (80%)	113 (15%)	39 (5%)	2	19
1	27-C	758/831 (91%)	607 (80%)	113 (15%)	38 (5%)	2	20
1	28-C	756/831 (91%)	604 (80%)	113 (15%)	39 (5%)	2	19
1	29-C	756/831 (91%)	605 (80%)	112 (15%)	39 (5%)	2	19
1	30-C	758/831 (91%)	605 (80%)	114 (15%)	39 (5%)	2	19

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	31-C	758/831 (91%)	603 (80%)	114 (15%)	41 (5%)	2	19
1	32-C	756/831 (91%)	605 (80%)	111 (15%)	40 (5%)	2	19
1	33-C	758/831 (91%)	605 (80%)	115 (15%)	38 (5%)	2	20
1	34-C	758/831 (91%)	607 (80%)	113 (15%)	38 (5%)	2	20
1	35-C	758/831 (91%)	606 (80%)	113 (15%)	39 (5%)	2	19
1	36-C	758/831 (91%)	607 (80%)	113 (15%)	38 (5%)	2	20
1	37-C	758/831 (91%)	605 (80%)	115 (15%)	38 (5%)	2	20
1	38-C	758/831 (91%)	607 (80%)	113 (15%)	38 (5%)	2	20
1	39-C	756/831 (91%)	605 (80%)	113 (15%)	38 (5%)	2	20
1	40-C	758/831 (91%)	607 (80%)	112 (15%)	39 (5%)	2	19
1	41-C	758/831 (91%)	605 (80%)	114 (15%)	39 (5%)	2	19
1	42-C	756/831 (91%)	604 (80%)	113 (15%)	39 (5%)	2	19
1	43-C	756/831 (91%)	603 (80%)	114 (15%)	39 (5%)	2	19
2	1-Y	134/136 (98%)	95 (71%)	33 (25%)	6 (4%)	2	22
2	2-Y	134/136 (98%)	95 (71%)	33 (25%)	6 (4%)	2	22
2	3-Y	134/136 (98%)	95 (71%)	33 (25%)	6 (4%)	2	22
2	4-Y	134/136 (98%)	95 (71%)	33 (25%)	6 (4%)	2	22
2	5-Y	134/136 (98%)	95 (71%)	33 (25%)	6 (4%)	2	22
2	6-Y	134/136 (98%)	95 (71%)	33 (25%)	6 (4%)	2	22
2	7-Y	134/136 (98%)	95 (71%)	33 (25%)	6 (4%)	2	22
2	8-Y	134/136 (98%)	95 (71%)	33 (25%)	6 (4%)	2	22
2	9-Y	134/136 (98%)	95 (71%)	33 (25%)	6 (4%)	2	22
2	10-Y	134/136 (98%)	95 (71%)	33 (25%)	6 (4%)	2	22
2	11-Y	134/136 (98%)	95 (71%)	33 (25%)	6 (4%)	2	22
2	12-Y	134/136 (98%)	95 (71%)	33 (25%)	6 (4%)	2	22
2	13-Y	134/136 (98%)	95 (71%)	33 (25%)	6 (4%)	2	22
2	14-Y	134/136 (98%)	95 (71%)	33 (25%)	6 (4%)	2	22
2	15-Y	134/136 (98%)	95 (71%)	33 (25%)	6 (4%)	2	22
2	16-Y	134/136 (98%)	95 (71%)	33 (25%)	6 (4%)	2	22
2	17-Y	134/136 (98%)	95 (71%)	33 (25%)	6 (4%)	2	22
2	18-Y	134/136 (98%)	95 (71%)	33 (25%)	6 (4%)	2	22

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	19-Y	134/136 (98%)	95 (71%)	33 (25%)	6 (4%)	2	22
2	20-Y	134/136 (98%)	95 (71%)	33 (25%)	6 (4%)	2	22
2	21-Y	134/136 (98%)	95 (71%)	33 (25%)	6 (4%)	2	22
2	22-Y	134/136 (98%)	94 (70%)	34 (25%)	6 (4%)	2	22
2	23-Y	134/136 (98%)	95 (71%)	33 (25%)	6 (4%)	2	22
2	24-Y	134/136 (98%)	94 (70%)	34 (25%)	6 (4%)	2	22
2	25-Y	134/136 (98%)	95 (71%)	33 (25%)	6 (4%)	2	22
2	26-Y	134/136 (98%)	95 (71%)	33 (25%)	6 (4%)	2	22
2	27-Y	134/136 (98%)	94 (70%)	34 (25%)	6 (4%)	2	22
2	28-Y	134/136 (98%)	95 (71%)	33 (25%)	6 (4%)	2	22
2	29-Y	134/136 (98%)	95 (71%)	33 (25%)	6 (4%)	2	22
2	30-Y	134/136 (98%)	95 (71%)	33 (25%)	6 (4%)	2	22
2	31-Y	134/136 (98%)	94 (70%)	34 (25%)	6 (4%)	2	22
2	32-Y	134/136 (98%)	94 (70%)	34 (25%)	6 (4%)	2	22
2	33-Y	134/136 (98%)	95 (71%)	33 (25%)	6 (4%)	2	22
2	34-Y	134/136 (98%)	95 (71%)	33 (25%)	6 (4%)	2	22
2	35-Y	134/136 (98%)	95 (71%)	33 (25%)	6 (4%)	2	22
2	36-Y	134/136 (98%)	95 (71%)	33 (25%)	6 (4%)	2	22
2	37-Y	134/136 (98%)	95 (71%)	33 (25%)	6 (4%)	2	22
2	38-Y	134/136 (98%)	94 (70%)	34 (25%)	6 (4%)	2	22
2	39-Y	134/136 (98%)	94 (70%)	34 (25%)	6 (4%)	2	22
2	40-Y	134/136 (98%)	95 (71%)	33 (25%)	6 (4%)	2	22
2	41-Y	134/136 (98%)	94 (70%)	34 (25%)	6 (4%)	2	22
2	42-Y	134/136 (98%)	94 (70%)	34 (25%)	6 (4%)	2	22
2	43-Y	134/136 (98%)	95 (71%)	33 (25%)	6 (4%)	2	22
3	1-Z	149/151 (99%)	104 (70%)	36 (24%)	9 (6%)	1	17
3	2-Z	149/151 (99%)	104 (70%)	36 (24%)	9 (6%)	1	17
3	3-Z	149/151 (99%)	104 (70%)	36 (24%)	9 (6%)	1	17
3	4-Z	149/151 (99%)	104 (70%)	35 (24%)	10 (7%)	1	15
3	5-Z	149/151 (99%)	104 (70%)	36 (24%)	9 (6%)	1	17
3	6-Z	149/151 (99%)	104 (70%)	36 (24%)	9 (6%)	1	17

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	7-Z	149/151 (99%)	104 (70%)	36 (24%)	9 (6%)	1	17
3	8-Z	149/151 (99%)	104 (70%)	36 (24%)	9 (6%)	1	17
3	9-Z	149/151 (99%)	104 (70%)	36 (24%)	9 (6%)	1	17
3	10-Z	149/151 (99%)	104 (70%)	36 (24%)	9 (6%)	1	17
3	11-Z	149/151 (99%)	104 (70%)	36 (24%)	9 (6%)	1	17
3	12-Z	149/151 (99%)	104 (70%)	36 (24%)	9 (6%)	1	17
3	13-Z	149/151 (99%)	104 (70%)	36 (24%)	9 (6%)	1	17
3	14-Z	149/151 (99%)	104 (70%)	36 (24%)	9 (6%)	1	17
3	15-Z	149/151 (99%)	104 (70%)	36 (24%)	9 (6%)	1	17
3	16-Z	149/151 (99%)	104 (70%)	36 (24%)	9 (6%)	1	17
3	17-Z	149/151 (99%)	104 (70%)	36 (24%)	9 (6%)	1	17
3	18-Z	149/151 (99%)	104 (70%)	35 (24%)	10 (7%)	1	15
3	19-Z	149/151 (99%)	104 (70%)	36 (24%)	9 (6%)	1	17
3	20-Z	149/151 (99%)	104 (70%)	36 (24%)	9 (6%)	1	17
3	21-Z	149/151 (99%)	104 (70%)	35 (24%)	10 (7%)	1	15
3	22-Z	149/151 (99%)	104 (70%)	36 (24%)	9 (6%)	1	17
3	23-Z	149/151 (99%)	104 (70%)	36 (24%)	9 (6%)	1	17
3	24-Z	149/151 (99%)	104 (70%)	36 (24%)	9 (6%)	1	17
3	25-Z	149/151 (99%)	104 (70%)	35 (24%)	10 (7%)	1	15
3	26-Z	149/151 (99%)	104 (70%)	36 (24%)	9 (6%)	1	17
3	27-Z	149/151 (99%)	104 (70%)	36 (24%)	9 (6%)	1	17
3	28-Z	149/151 (99%)	104 (70%)	35 (24%)	10 (7%)	1	15
3	29-Z	149/151 (99%)	104 (70%)	36 (24%)	9 (6%)	1	17
3	30-Z	149/151 (99%)	104 (70%)	36 (24%)	9 (6%)	1	17
3	31-Z	149/151 (99%)	104 (70%)	36 (24%)	9 (6%)	1	17
3	32-Z	149/151 (99%)	104 (70%)	36 (24%)	9 (6%)	1	17
3	33-Z	149/151 (99%)	104 (70%)	36 (24%)	9 (6%)	1	17
3	34-Z	149/151 (99%)	104 (70%)	36 (24%)	9 (6%)	1	17
3	35-Z	149/151 (99%)	104 (70%)	36 (24%)	9 (6%)	1	17
3	36-Z	149/151 (99%)	104 (70%)	36 (24%)	9 (6%)	1	17
3	37-Z	149/151 (99%)	104 (70%)	36 (24%)	9 (6%)	1	17

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	38-Z	149/151 (99%)	104 (70%)	36 (24%)	9 (6%)	1	17
3	39-Z	149/151 (99%)	104 (70%)	36 (24%)	9 (6%)	1	17
3	40-Z	149/151 (99%)	104 (70%)	36 (24%)	9 (6%)	1	17
3	41-Z	149/151 (99%)	104 (70%)	36 (24%)	9 (6%)	1	17
3	42-Z	149/151 (99%)	104 (70%)	36 (24%)	9 (6%)	1	17
3	43-Z	149/151 (99%)	104 (70%)	36 (24%)	9 (6%)	1	17
All	All	44731/48074 (93%)	34583 (77%)	7834 (18%)	2314 (5%)	4	19

5 of 2314 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	1-C	27	ALA
1	1-C	366	ARG
1	1-C	368	ARG
1	1-C	371	GLN
1	1-C	542	ALA

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	1-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	2-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	3-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	4-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	5-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	6-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	7-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	8-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	9-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	10-C	678/724 (94%)	571 (84%)	107 (16%)	2	13

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	11-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	12-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	13-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	14-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	15-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	16-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	17-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	18-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	19-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	20-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	21-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	22-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	23-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	24-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	25-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	26-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	27-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	28-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	29-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	30-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	31-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	32-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	33-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	34-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	35-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	36-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	37-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	38-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	39-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	40-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	41-C	678/724 (94%)	571 (84%)	107 (16%)	2	13

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	42-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
1	43-C	678/724 (94%)	571 (84%)	107 (16%)	2	13
2	1-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	2-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	3-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	4-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	5-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	6-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	7-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	8-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	9-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	10-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	11-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	12-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	13-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	14-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	15-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	16-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	17-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	18-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	19-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	20-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	21-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	22-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	23-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	24-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	25-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	26-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	27-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	28-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	29-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	30-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	31-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	32-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	33-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	34-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	35-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	36-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	37-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	38-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	39-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	40-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	41-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	42-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
2	43-Y	119/119 (100%)	100 (84%)	19 (16%)	2	13
3	1-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	2-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	3-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	4-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	5-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	6-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	7-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	8-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	9-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	10-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	11-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	12-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	13-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	14-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	15-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	16-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	17-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	18-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	19-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	20-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	21-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	22-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	23-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	24-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	25-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	26-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	27-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	28-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	29-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	30-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	31-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	32-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	33-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	34-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	35-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	36-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	37-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	38-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	39-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	40-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	41-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	42-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
3	43-Z	127/127 (100%)	111 (87%)	16 (13%)	4	19
All	All	39732/41710 (95%)	33626 (85%)	6106 (15%)	6	14

5 of 6106 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	27-C	85	LEU
1	33-C	297	ASN

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Mol	Chain	Res	Type
2	27-Y	115	ASN
1	27-C	56	ILE
1	30-C	311	PHE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 2066 such sidechains are listed below:

Mol	Chain	Res	Type
1	39-C	559	ASN
1	40-C	726	ASN
1	39-C	491	HIS
1	17-C	313	ASN
2	16-Y	119	ASN

5.3.3 RNA

There are no RNA molecules in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains

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

5.5 Carbohydrates

There are no monosaccharides in this entry.

5.6 Ligand geometry

There are no ligands in this entry.

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

The following chains have linkage breaks:

Mol	Chain	Number of breaks
1	28-C	13
1	8-C	13
1	24-C	13
1	25-C	13
1	42-C	12
1	23-C	12
1	32-C	12
1	2-C	12
1	43-C	12
1	9-C	12
1	29-C	12
1	17-C	12
1	1-C	12
1	12-C	12
1	15-C	12
1	18-C	12
1	35-C	12
1	5-C	11
1	39-C	11
1	26-C	11
1	14-C	11
1	4-C	11
1	6-C	11
1	7-C	11
1	11-C	11
1	13-C	11
1	19-C	11
1	21-C	11
1	31-C	11
1	33-C	11
1	34-C	11
1	40-C	11
1	3-C	10
1	10-C	10
1	16-C	10
1	20-C	10
1	22-C	10
1	27-C	10
1	30-C	10
1	36-C	10
1	37-C	10
1	38-C	10
1	41-C	10

The worst 5 of 483 chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
42	C	800:LYS	C	801:LEU	N	3.10
23	C	800:LYS	C	801:LEU	N	2.77
5	C	800:LYS	C	801:LEU	N	2.74
32	C	800:LYS	C	801:LEU	N	2.62
39	C	800:LYS	C	801:LEU	N	2.52

6 Map visualisation

This section contains visualisations of the EMDB entry EMD-1561. These allow visual inspection of the internal detail of the map and identification of artifacts.

No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

This section was not generated.

6.2 Central slices

This section was not generated.

6.3 Largest variance slices

This section was not generated.

6.4 Orthogonal surface views

This section was not generated.

6.5 Mask visualisation

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

This section was not generated.

7.2 Volume estimate versus contour level

This section was not generated.

7.3 Rotationally averaged power spectrum

This section was not generated. The rotationally averaged power spectrum had issues being displayed.

8 Fourier-Shell correlation (i)

This section was not generated. No FSC curve or half-maps provided.

9 Map-model fit

This section was not generated.