



## wwPDB EM Validation Summary Report ⓘ

Nov 20, 2022 – 03:15 pm GMT

PDB ID : 2W4A  
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 : 2008-11-24  
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](mailto:validation@mail.wwpdb.org)

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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The following versions of software and data (see [references ⓘ](#)) 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

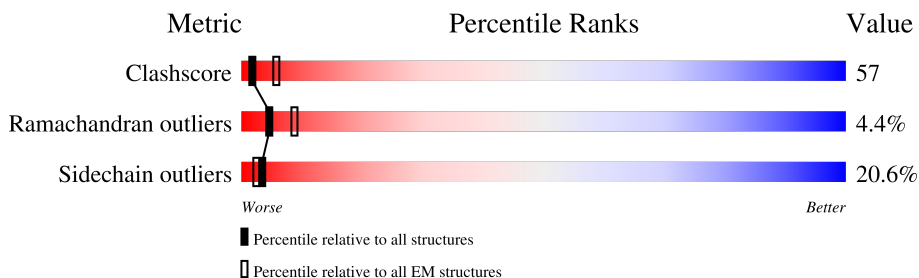
# 1 Overall quality at a glance i

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  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions  $\leq 5\%$ .

| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 1   | 1-B   | 150    | 49% 35% 13% .    |
| 1   | 10-B  | 150    | 49% 36% 13% .    |
| 1   | 11-B  | 150    | 48% 37% 13% .    |
| 1   | 12-B  | 150    | 50% 35% 13% .    |
| 1   | 13-B  | 150    | 48% 37% 13% .    |
| 1   | 14-B  | 150    | 49% 35% 14% .    |
| 1   | 15-B  | 150    | 49% 35% 14% .    |
| 1   | 16-B  | 150    | 49% 36% 13% .    |
| 1   | 17-B  | 150    | 47% 37% 13% .    |

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| Mol | Chain | Length | Quality of chain |     |     |
|-----|-------|--------|------------------|-----|-----|
| 1   | 18-B  | 150    | 50%              | 35% | 13% |
| 1   | 19-B  | 150    | 49%              | 35% | 14% |
| 1   | 2-B   | 150    | 50%              | 35% | 13% |
| 1   | 20-B  | 150    | 49%              | 35% | 13% |
| 1   | 21-B  | 150    | 48%              | 37% | 13% |
| 1   | 22-B  | 150    | 48%              | 37% | 13% |
| 1   | 3-B   | 150    | 47%              | 37% | 14% |
| 1   | 4-B   | 150    | 49%              | 35% | 13% |
| 1   | 5-B   | 150    | 47%              | 37% | 13% |
| 1   | 6-B   | 150    | 49%              | 35% | 14% |
| 1   | 7-B   | 150    | 49%              | 35% | 14% |
| 1   | 8-B   | 150    | 50%              | 33% | 15% |
| 1   | 9-B   | 150    | 50%              | 35% | 13% |
| 2   | 1-C   | 145    | 52%              | 39% | 8%  |
| 2   | 10-C  | 145    | 52%              | 39% | 8%  |
| 2   | 11-C  | 145    | 52%              | 39% | 8%  |
| 2   | 12-C  | 145    | 45%              | 45% | 9%  |
| 2   | 13-C  | 145    | 52%              | 39% | 8%  |
| 2   | 14-C  | 145    | 46%              | 44% | 9%  |
| 2   | 15-C  | 145    | 52%              | 39% | 8%  |
| 2   | 16-C  | 145    | 52%              | 38% | 8%  |
| 2   | 17-C  | 145    | 52%              | 39% | 8%  |
| 2   | 18-C  | 145    | 51%              | 40% | 8%  |
| 2   | 19-C  | 145    | 49%              | 41% | 9%  |
| 2   | 2-C   | 145    | 50%              | 41% | 8%  |

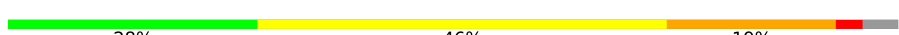
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| Mol | Chain | Length | Quality of chain |     |     |
|-----|-------|--------|------------------|-----|-----|
| 2   | 20-C  | 145    | 52%              | 39% | 8%  |
| 2   | 21-C  | 145    | 49%              | 41% | 8%  |
| 2   | 22-C  | 145    | 53%              | 38% | 8%  |
| 2   | 3-C   | 145    | 52%              | 38% | 9%  |
| 2   | 4-C   | 145    | 52%              | 39% | 8%  |
| 2   | 5-C   | 145    | 47%              | 43% | 9%  |
| 2   | 6-C   | 145    | 52%              | 39% | 8%  |
| 2   | 7-C   | 145    | 52%              | 39% | 8%  |
| 2   | 8-C   | 145    | 52%              | 38% | 8%  |
| 2   | 9-C   | 145    | 52%              | 39% | 8%  |
| 3   | 1-M   | 840    | 27%              | 46% | 19% |
| 3   | 10-M  | 840    | 27%              | 46% | 19% |
| 3   | 11-M  | 840    | 27%              | 46% | 19% |
| 3   | 12-M  | 840    | 27%              | 45% | 20% |
| 3   | 13-M  | 840    | 27%              | 47% | 19% |
| 3   | 14-M  | 840    | 27%              | 47% | 19% |
| 3   | 15-M  | 840    | 27%              | 47% | 19% |
| 3   | 16-M  | 840    | 27%              | 47% | 19% |
| 3   | 17-M  | 840    | 28%              | 46% | 19% |
| 3   | 18-M  | 840    | 28%              | 46% | 19% |
| 3   | 19-M  | 840    | 27%              | 46% | 19% |
| 3   | 2-M   | 840    | 28%              | 46% | 19% |
| 3   | 20-M  | 840    | 27%              | 47% | 19% |
| 3   | 21-M  | 840    | 27%              | 46% | 19% |
| 3   | 22-M  | 840    | 27%              | 46% | 19% |

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| Mol | Chain | Length | Quality of chain   |     |     |     |     |
|-----|-------|--------|--|-----|-----|-----|-----|
| 3   | 3-M   | 840    |  | 28% | 46% | 19% | . . |
| 3   | 4-M   | 840    |  | 27% | 47% | 19% | . . |
| 3   | 5-M   | 840    |  | 27% | 47% | 19% | . . |
| 3   | 6-M   | 840    |  | 27% | 47% | 19% | . . |
| 3   | 7-M   | 840    |  | 28% | 46% | 18% | . . |
| 3   | 8-M   | 840    |  | 27% | 46% | 19% | . . |
| 3   | 9-M   | 840    |  | 28% | 46% | 19% | . . |

## 2 Entry composition [i](#)

There are 3 unique types of molecules in this entry. The entry contains 192676 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 REGULATORY LIGHT CHAIN 2, SKELETAL MUSCLE ISOFORM.

| Mol | Chain | Residues | Atoms |     |     |     |   | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
|     |       |          | Total | C   | N   | O   | S |         |       |
| 1   | 1-B   | 150      | 1177  | 748 | 187 | 234 | 8 | 0       | 0     |
| 1   | 2-B   | 150      | 1177  | 748 | 187 | 234 | 8 | 0       | 0     |
| 1   | 3-B   | 150      | 1177  | 748 | 187 | 234 | 8 | 0       | 0     |
| 1   | 4-B   | 150      | 1177  | 748 | 187 | 234 | 8 | 0       | 0     |
| 1   | 5-B   | 150      | 1177  | 748 | 187 | 234 | 8 | 0       | 0     |
| 1   | 6-B   | 150      | 1177  | 748 | 187 | 234 | 8 | 0       | 0     |
| 1   | 7-B   | 150      | 1177  | 748 | 187 | 234 | 8 | 0       | 0     |
| 1   | 8-B   | 150      | 1177  | 748 | 187 | 234 | 8 | 0       | 0     |
| 1   | 9-B   | 150      | 1177  | 748 | 187 | 234 | 8 | 0       | 0     |
| 1   | 10-B  | 150      | 1177  | 748 | 187 | 234 | 8 | 0       | 0     |
| 1   | 11-B  | 150      | 1177  | 748 | 187 | 234 | 8 | 0       | 0     |
| 1   | 12-B  | 150      | 1177  | 748 | 187 | 234 | 8 | 0       | 0     |
| 1   | 13-B  | 150      | 1177  | 748 | 187 | 234 | 8 | 0       | 0     |
| 1   | 14-B  | 150      | 1177  | 748 | 187 | 234 | 8 | 0       | 0     |
| 1   | 15-B  | 150      | 1177  | 748 | 187 | 234 | 8 | 0       | 0     |
| 1   | 16-B  | 150      | 1177  | 748 | 187 | 234 | 8 | 0       | 0     |

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| Mol | Chain | Residues | Atoms |     |     |     |   | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 1   | 17-B  | 150      | Total | C   | N   | O   | S | 0       | 0     |
|     |       |          | 1177  | 748 | 187 | 234 | 8 |         |       |
| 1   | 18-B  | 150      | Total | C   | N   | O   | S | 0       | 0     |
|     |       |          | 1177  | 748 | 187 | 234 | 8 |         |       |
| 1   | 19-B  | 150      | Total | C   | N   | O   | S | 0       | 0     |
|     |       |          | 1177  | 748 | 187 | 234 | 8 |         |       |
| 1   | 20-B  | 150      | Total | C   | N   | O   | S | 0       | 0     |
|     |       |          | 1177  | 748 | 187 | 234 | 8 |         |       |
| 1   | 21-B  | 150      | Total | C   | N   | O   | S | 0       | 0     |
|     |       |          | 1177  | 748 | 187 | 234 | 8 |         |       |
| 1   | 22-B  | 150      | Total | C   | N   | O   | S | 0       | 0     |
|     |       |          | 1177  | 748 | 187 | 234 | 8 |         |       |

There is a discrepancy between the modelled and reference sequences:

| Chain | Residue | Modelled | Actual | Comment  | Reference  |
|-------|---------|----------|--------|----------|------------|
| B     | 26      | ASP      | GLU    | conflict | UNP P02609 |

- Molecule 2 is a protein called MYOSIN LIGHT CHAIN 3, SKELETAL MUSCLE ISOFORM.

| Mol | Chain | Residues | Atoms |     |     |     |   | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 2   | 1-C   | 145      | Total | C   | N   | O   | S | 0       | 0     |
|     |       |          | 1126  | 701 | 188 | 230 | 7 |         |       |
| 2   | 2-C   | 145      | Total | C   | N   | O   | S | 0       | 0     |
|     |       |          | 1126  | 701 | 188 | 230 | 7 |         |       |
| 2   | 3-C   | 145      | Total | C   | N   | O   | S | 0       | 0     |
|     |       |          | 1126  | 701 | 188 | 230 | 7 |         |       |
| 2   | 4-C   | 145      | Total | C   | N   | O   | S | 0       | 0     |
|     |       |          | 1126  | 701 | 188 | 230 | 7 |         |       |
| 2   | 5-C   | 145      | Total | C   | N   | O   | S | 0       | 0     |
|     |       |          | 1126  | 701 | 188 | 230 | 7 |         |       |
| 2   | 6-C   | 145      | Total | C   | N   | O   | S | 0       | 0     |
|     |       |          | 1126  | 701 | 188 | 230 | 7 |         |       |
| 2   | 7-C   | 145      | Total | C   | N   | O   | S | 0       | 0     |
|     |       |          | 1126  | 701 | 188 | 230 | 7 |         |       |
| 2   | 8-C   | 145      | Total | C   | N   | O   | S | 0       | 0     |
|     |       |          | 1126  | 701 | 188 | 230 | 7 |         |       |
| 2   | 9-C   | 145      | Total | C   | N   | O   | S | 0       | 0     |
|     |       |          | 1126  | 701 | 188 | 230 | 7 |         |       |
| 2   | 10-C  | 145      | Total | C   | N   | O   | S | 0       | 0     |
|     |       |          | 1126  | 701 | 188 | 230 | 7 |         |       |
| 2   | 11-C  | 145      | Total | C   | N   | O   | S | 0       | 0     |
|     |       |          | 1126  | 701 | 188 | 230 | 7 |         |       |

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| Mol | Chain | Residues | Atoms |     |     |     |   | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
|     |       |          | Total | C   | N   | O   | S |         |       |
| 2   | 12-C  | 145      | 1126  | 701 | 188 | 230 | 7 | 0       | 0     |
| 2   | 13-C  | 145      | 1126  | 701 | 188 | 230 | 7 | 0       | 0     |
| 2   | 14-C  | 145      | 1126  | 701 | 188 | 230 | 7 | 0       | 0     |
| 2   | 15-C  | 145      | 1126  | 701 | 188 | 230 | 7 | 0       | 0     |
| 2   | 16-C  | 145      | 1126  | 701 | 188 | 230 | 7 | 0       | 0     |
| 2   | 17-C  | 145      | 1126  | 701 | 188 | 230 | 7 | 0       | 0     |
| 2   | 18-C  | 145      | 1126  | 701 | 188 | 230 | 7 | 0       | 0     |
| 2   | 19-C  | 145      | 1126  | 701 | 188 | 230 | 7 | 0       | 0     |
| 2   | 20-C  | 145      | 1126  | 701 | 188 | 230 | 7 | 0       | 0     |
| 2   | 21-C  | 145      | 1126  | 701 | 188 | 230 | 7 | 0       | 0     |
| 2   | 22-C  | 145      | 1126  | 701 | 188 | 230 | 7 | 0       | 0     |

- Molecule 3 is a protein called MYOSIN HEAVY CHAIN, SKELETAL MUSCLE, ADULT.

| Mol | Chain | Residues | Atoms |      |      |      |    | AltConf | Trace |
|-----|-------|----------|-------|------|------|------|----|---------|-------|
|     |       |          | Total | C    | N    | O    | S  |         |       |
| 3   | 1-M   | 804      | 6455  | 4140 | 1089 | 1190 | 36 | 0       | 0     |
| 3   | 2-M   | 804      | 6455  | 4140 | 1089 | 1190 | 36 | 0       | 0     |
| 3   | 3-M   | 804      | 6455  | 4140 | 1089 | 1190 | 36 | 0       | 0     |
| 3   | 4-M   | 804      | 6455  | 4140 | 1089 | 1190 | 36 | 0       | 0     |
| 3   | 5-M   | 804      | 6455  | 4140 | 1089 | 1190 | 36 | 0       | 0     |
| 3   | 6-M   | 804      | 6455  | 4140 | 1089 | 1190 | 36 | 0       | 0     |
| 3   | 7-M   | 804      | 6455  | 4140 | 1089 | 1190 | 36 | 0       | 0     |
| 3   | 8-M   | 804      | 6455  | 4140 | 1089 | 1190 | 36 | 0       | 0     |

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| Mol | Chain | Residues | Atoms         |           |           |           |         | AltConf | Trace |
|-----|-------|----------|---------------|-----------|-----------|-----------|---------|---------|-------|
|     |       |          | Total         | C         | N         | O         | S       |         |       |
| 3   | 9-M   | 804      | Total<br>6455 | C<br>4140 | N<br>1089 | O<br>1190 | S<br>36 | 0       | 0     |
| 3   | 10-M  | 804      | Total<br>6455 | C<br>4140 | N<br>1089 | O<br>1190 | S<br>36 | 0       | 0     |
| 3   | 11-M  | 804      | Total<br>6455 | C<br>4140 | N<br>1089 | O<br>1190 | S<br>36 | 0       | 0     |
| 3   | 12-M  | 804      | Total<br>6455 | C<br>4140 | N<br>1089 | O<br>1190 | S<br>36 | 0       | 0     |
| 3   | 13-M  | 804      | Total<br>6455 | C<br>4140 | N<br>1089 | O<br>1190 | S<br>36 | 0       | 0     |
| 3   | 14-M  | 804      | Total<br>6455 | C<br>4140 | N<br>1089 | O<br>1190 | S<br>36 | 0       | 0     |
| 3   | 15-M  | 804      | Total<br>6455 | C<br>4140 | N<br>1089 | O<br>1190 | S<br>36 | 0       | 0     |
| 3   | 16-M  | 804      | Total<br>6455 | C<br>4140 | N<br>1089 | O<br>1190 | S<br>36 | 0       | 0     |
| 3   | 17-M  | 804      | Total<br>6455 | C<br>4140 | N<br>1089 | O<br>1190 | S<br>36 | 0       | 0     |
| 3   | 18-M  | 804      | Total<br>6455 | C<br>4140 | N<br>1089 | O<br>1190 | S<br>36 | 0       | 0     |
| 3   | 19-M  | 804      | Total<br>6455 | C<br>4140 | N<br>1089 | O<br>1190 | S<br>36 | 0       | 0     |
| 3   | 20-M  | 804      | Total<br>6455 | C<br>4140 | N<br>1089 | O<br>1190 | S<br>36 | 0       | 0     |
| 3   | 21-M  | 804      | Total<br>6455 | C<br>4140 | N<br>1089 | O<br>1190 | S<br>36 | 0       | 0     |
| 3   | 22-M  | 804      | Total<br>6455 | C<br>4140 | N<br>1089 | O<br>1190 | S<br>36 | 0       | 0     |

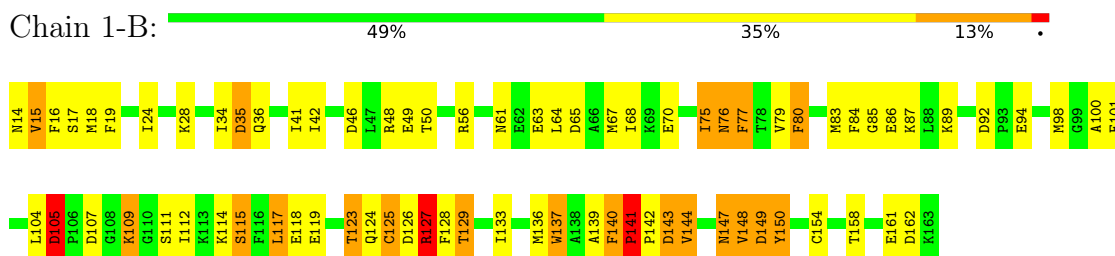
There is a discrepancy between the modelled and reference sequences:

| Chain | Residue | Modelled | Actual | Comment  | Reference  |
|-------|---------|----------|--------|----------|------------|
| M     | 138     | LYS      | GLU    | conflict | UNP P02609 |

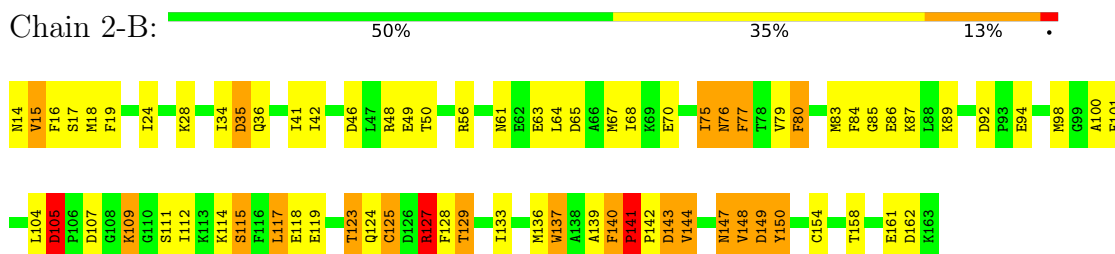
### 3 Residue-property plots [i](#)

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.

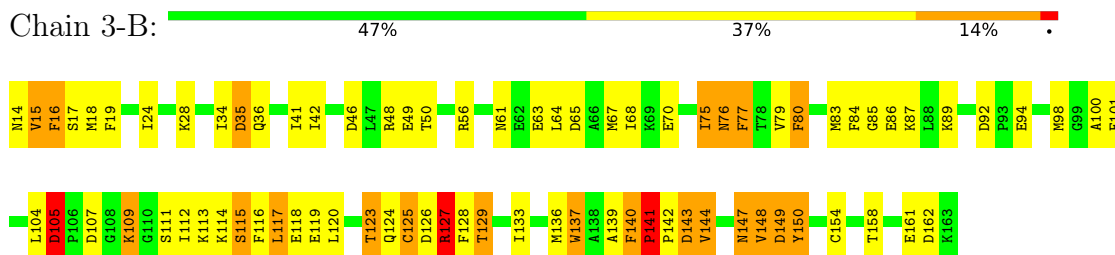
- Molecule 1: MYOSIN REGULATORY LIGHT CHAIN 2, SKELETAL MUSCLE ISOFORM



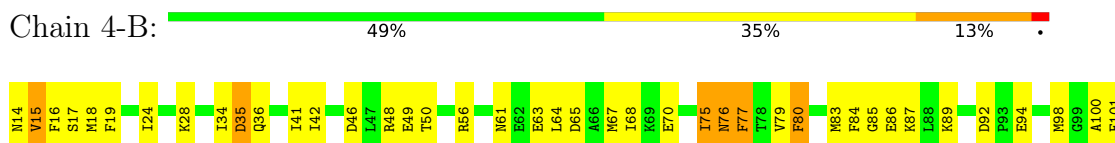
- Molecule 1: MYOSIN REGULATORY LIGHT CHAIN 2, SKELETAL MUSCLE ISOFORM

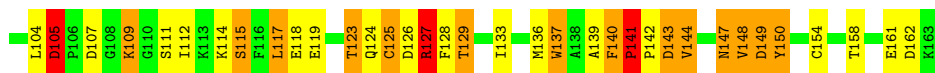


- Molecule 1: MYOSIN REGULATORY LIGHT CHAIN 2, SKELETAL MUSCLE ISOFORM

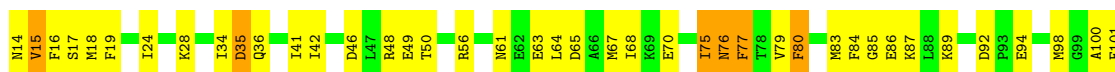


- Molecule 1: MYOSIN REGULATORY LIGHT CHAIN 2, SKELETAL MUSCLE ISOFORM

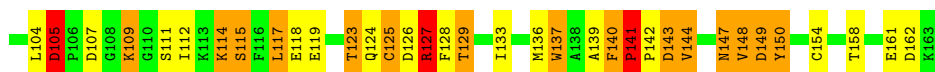




● Molecule 1: MYOSIN REGULATORY LIGHT CHAIN 2, SKELETAL MUSCLE ISOFORM



● Molecule 1: MYOSIN REGULATORY LIGHT CHAIN 2, SKELETAL MUSCLE ISOFORM



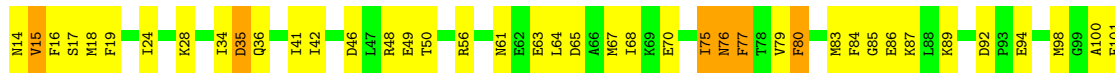
● Molecule 1: MYOSIN REGULATORY LIGHT CHAIN 2, SKELETAL MUSCLE ISOFORM

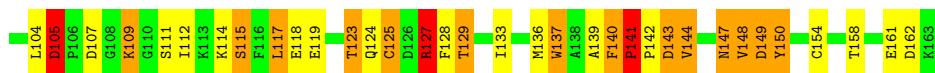


● Molecule 1: MYOSIN REGULATORY LIGHT CHAIN 2, SKELETAL MUSCLE ISOFORM

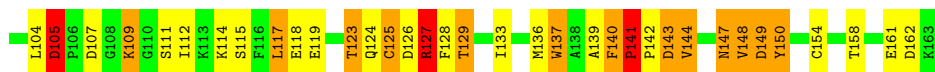


● Molecule 1: MYOSIN REGULATORY LIGHT CHAIN 2, SKELETAL MUSCLE ISOFORM





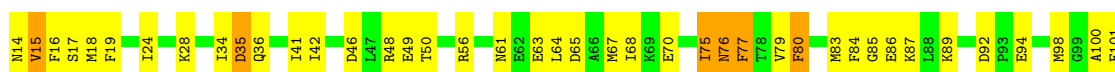
● Molecule 1: MYOSIN REGULATORY LIGHT CHAIN 2, SKELETAL MUSCLE ISOFORM



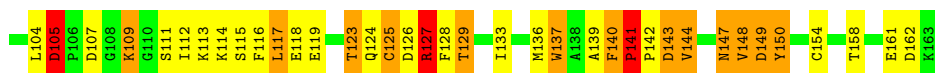
● Molecule 1: MYOSIN REGULATORY LIGHT CHAIN 2, SKELETAL MUSCLE ISOFORM



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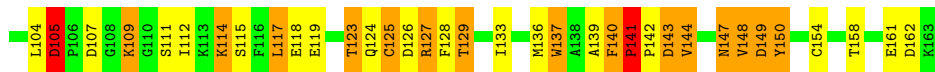


● Molecule 1: MYOSIN REGULATORY LIGHT CHAIN 2, SKELETAL MUSCLE ISOFORM





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● Molecule 1: MYOSIN REGULATORY LIGHT CHAIN 2, SKELETAL MUSCLE ISOFORM



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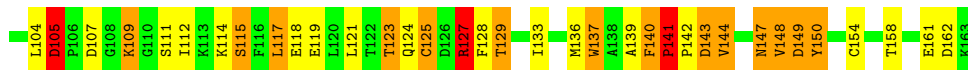


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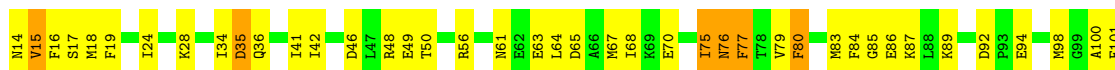




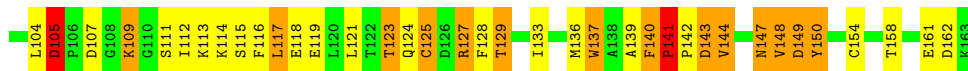
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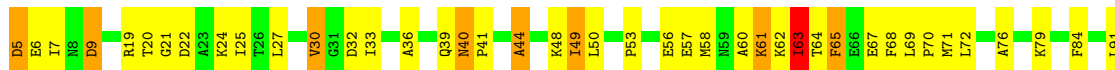
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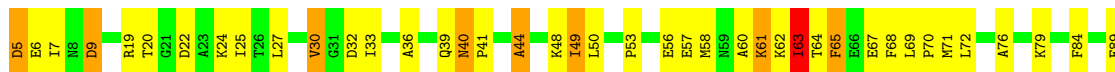
• Molecule 1: MYOSIN REGULATORY LIGHT CHAIN 2, SKELETAL MUSCLE ISOFORM



• Molecule 2: MYOSIN LIGHT CHAIN 3, SKELETAL MUSCLE ISOFORM

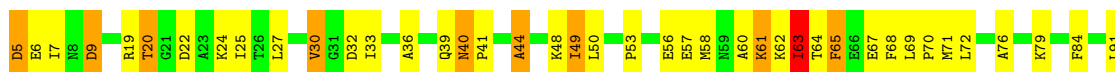


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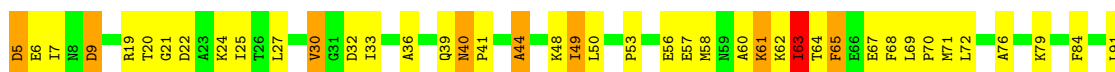




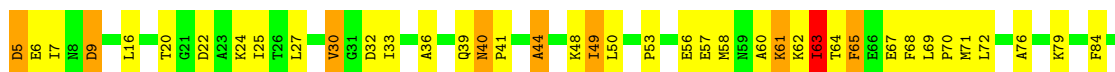
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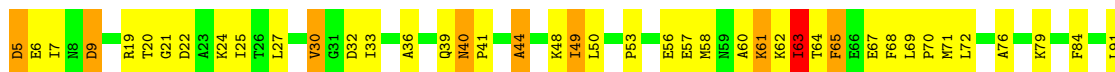
● Molecule 2: MYOSIN LIGHT CHAIN 3, SKELETAL MUSCLE ISOFORM



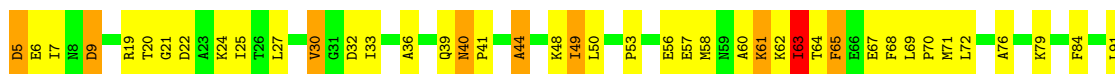
● Molecule 2: MYOSIN LIGHT CHAIN 3, SKELETAL MUSCLE ISOFORM



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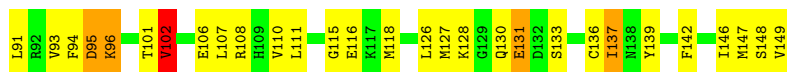
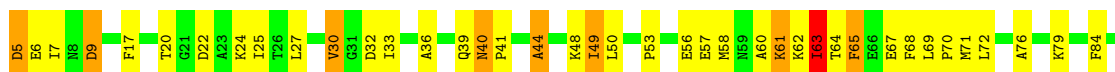


● Molecule 2: MYOSIN LIGHT CHAIN 3, SKELETAL MUSCLE ISOFORM

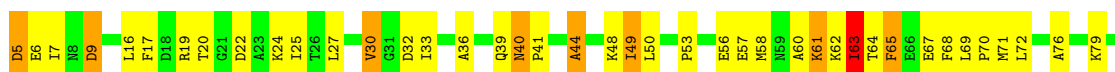




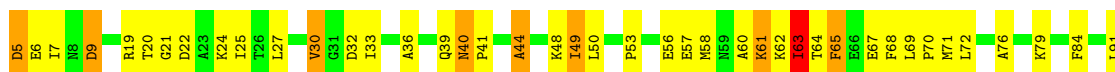
● Molecule 2: MYOSIN LIGHT CHAIN 3, SKELETAL MUSCLE ISOFORM



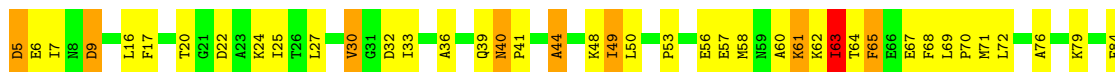
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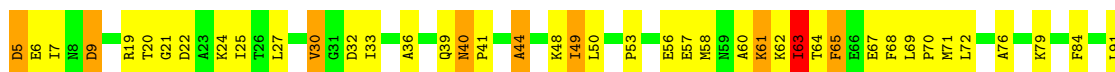
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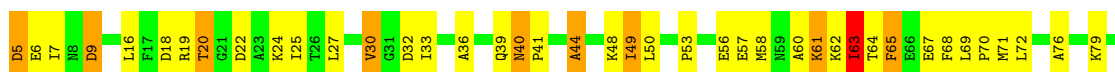




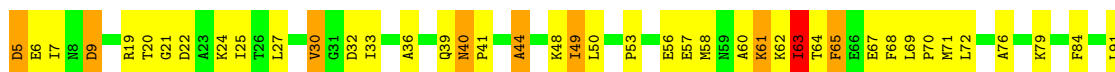
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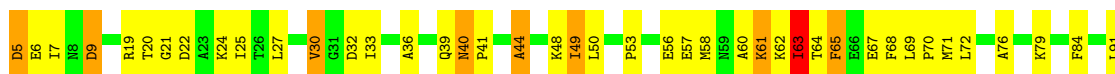
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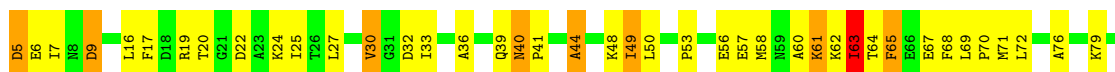


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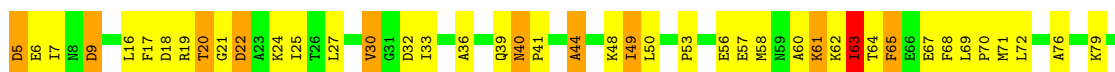




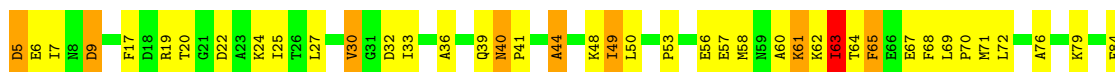
• Molecule 2: MYOSIN LIGHT CHAIN 3, SKELETAL MUSCLE ISOFORM



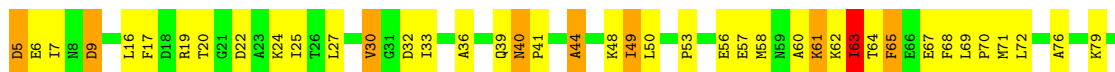
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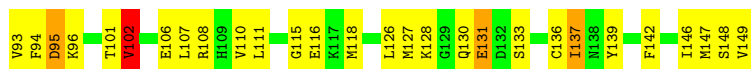


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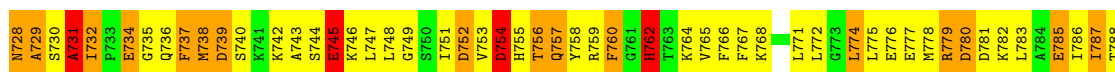
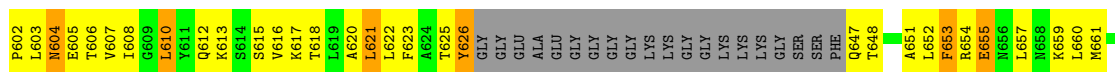
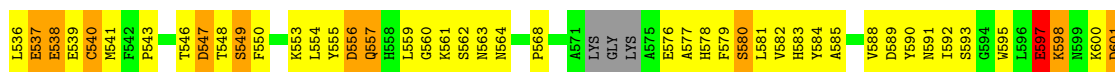
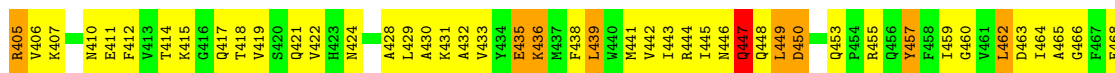
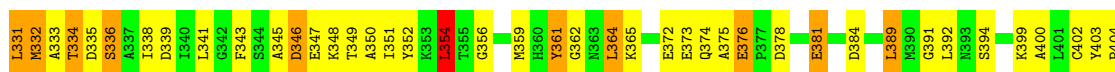
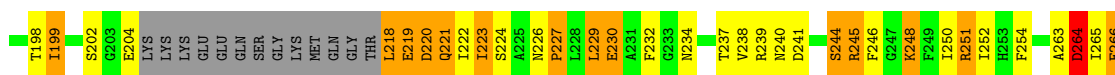
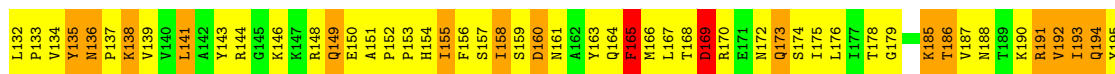


• Molecule 2: MYOSIN LIGHT CHAIN 3, SKELETAL MUSCLE ISOFORM



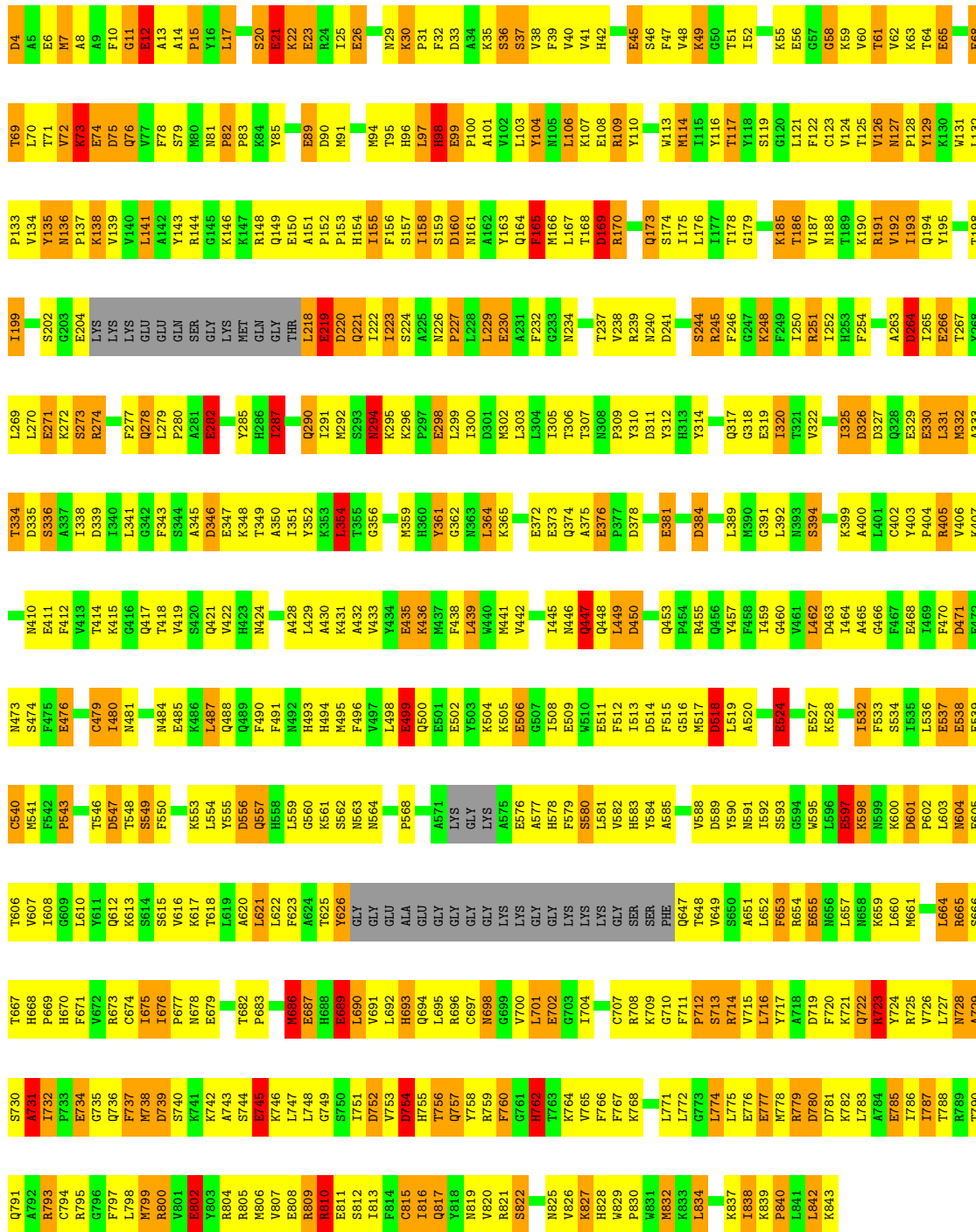


● Molecule 3: MYOSIN HEAVY CHAIN, SKELETAL MUSCLE, ADULT



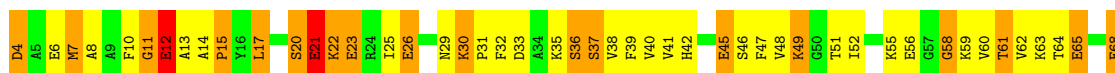
● Molecule 3: MYOSIN HEAVY CHAIN, SKELETAL MUSCLE, ADULT

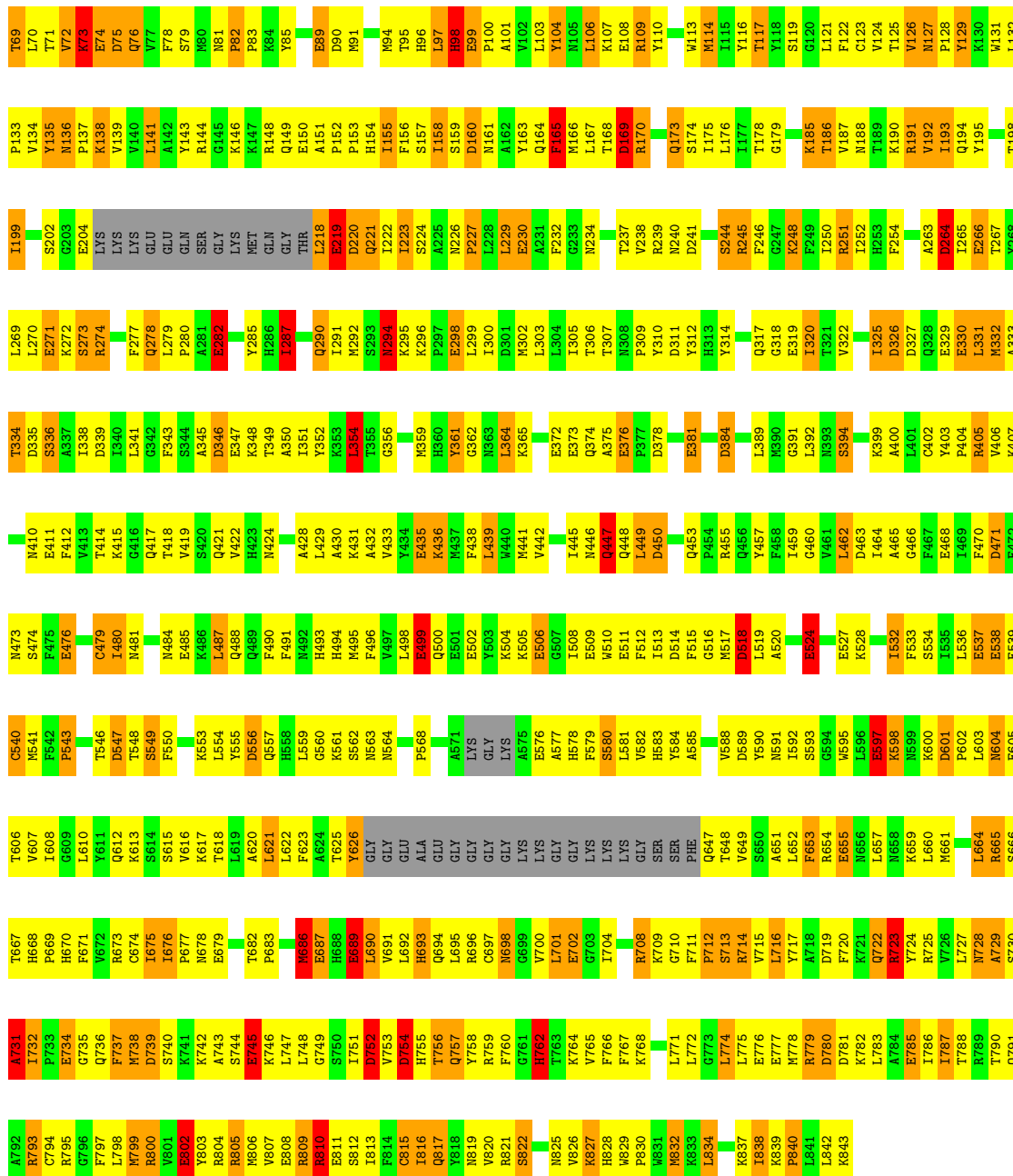
Chain 2-M: 28% 46% 19%



• Molecule 3: MYOSIN HEAVY CHAIN, SKELETAL MUSCLE, ADULT

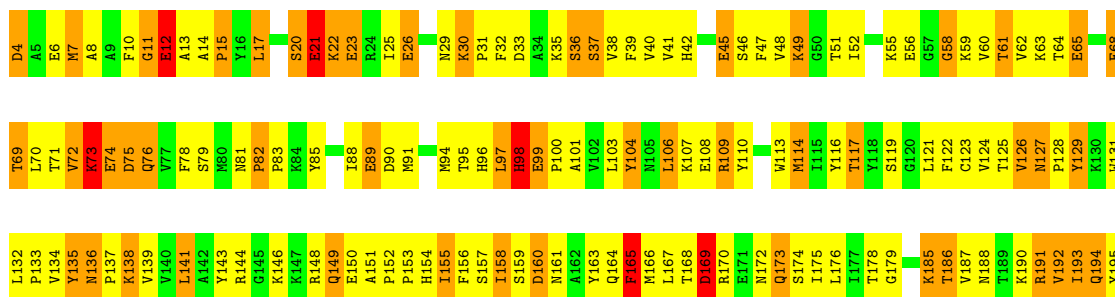
Chain 3-M: 28% 46% 19%



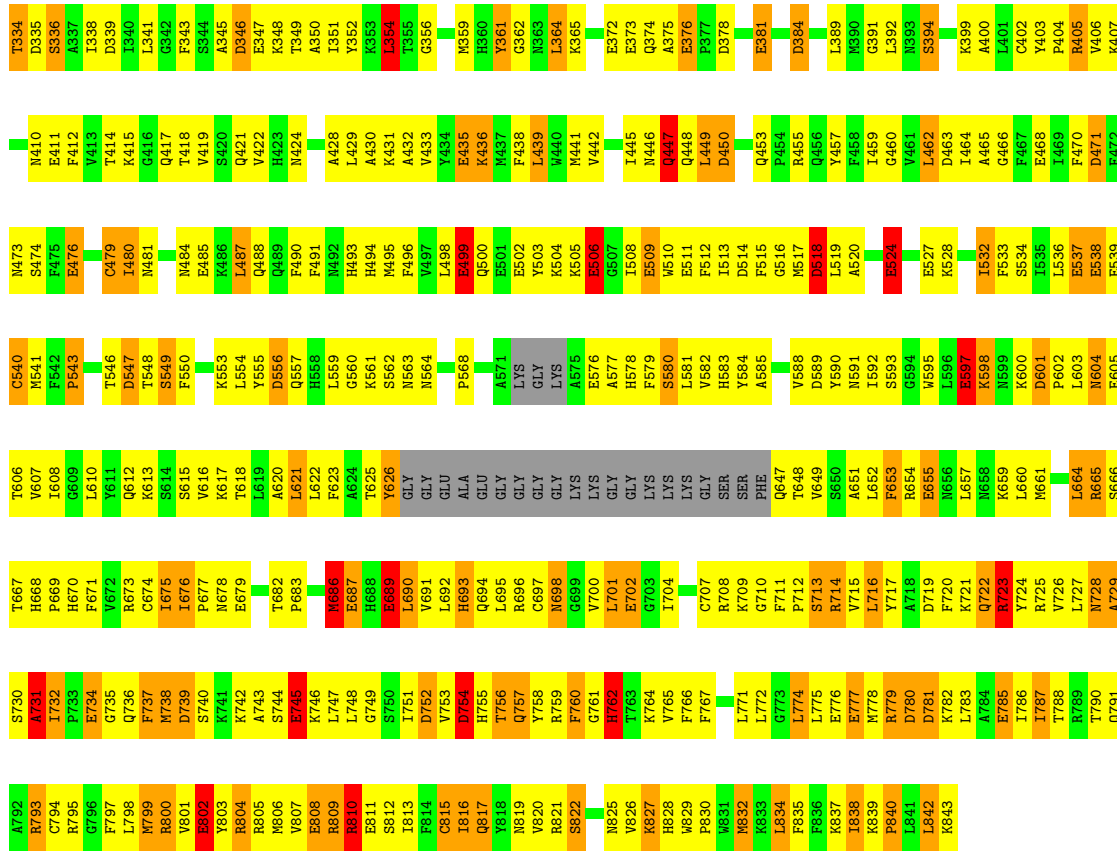


● Molecule 3: MYOSIN HEAVY CHAIN, SKELETAL MUSCLE, ADULT

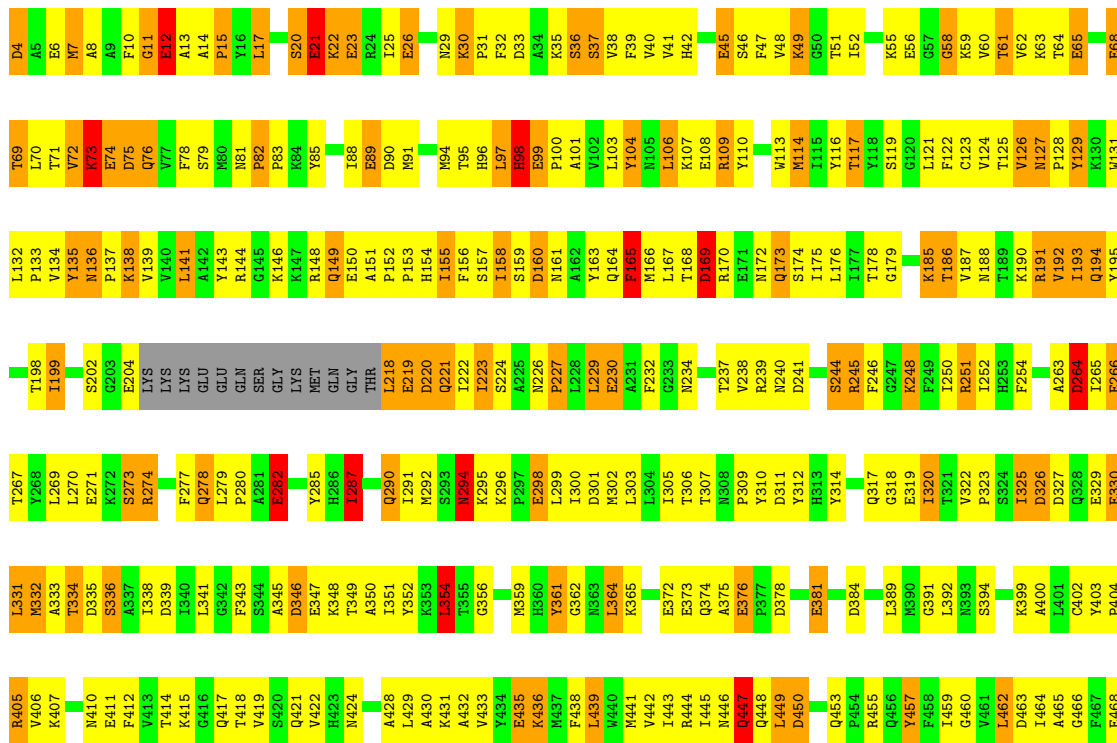
Chain 4-M: 27% 47% 19%

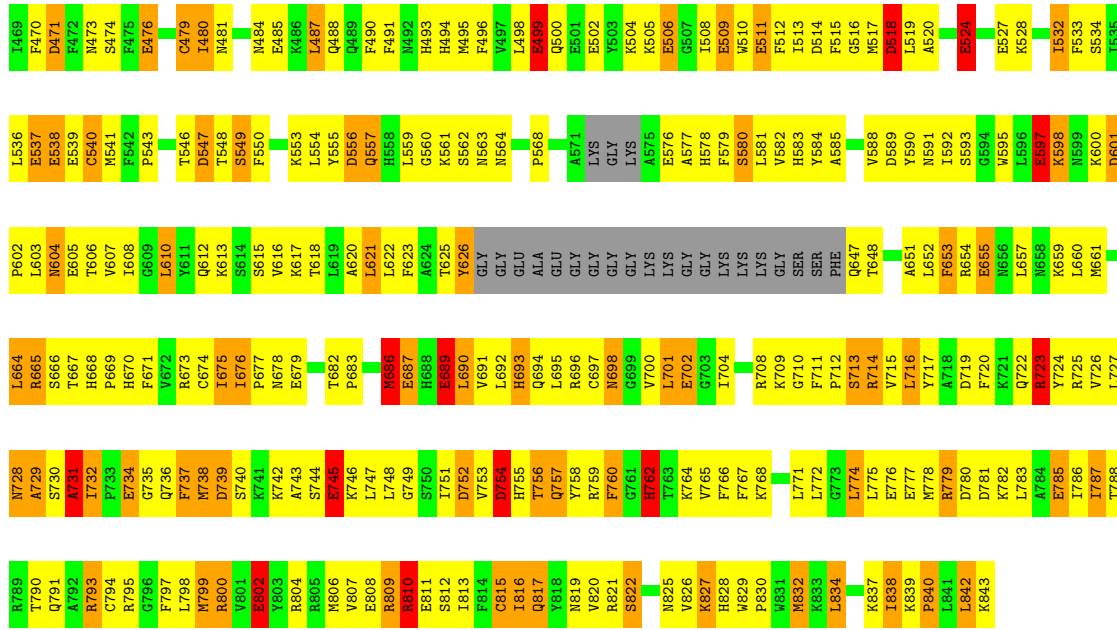




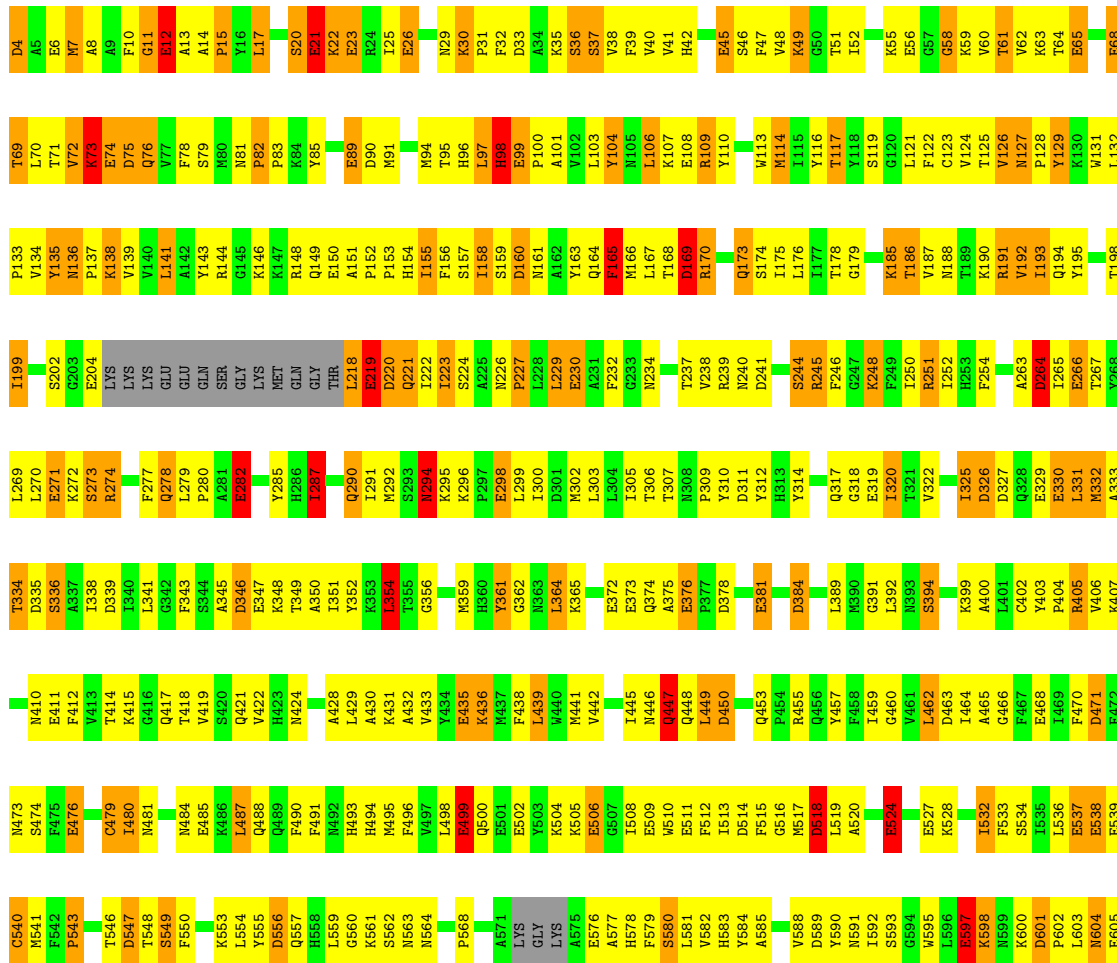
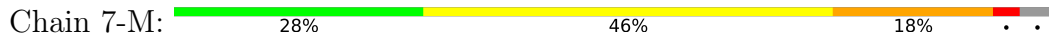


● Molecule 3: MYOSIN HEAVY CHAIN, SKELETAL MUSCLE, ADULT

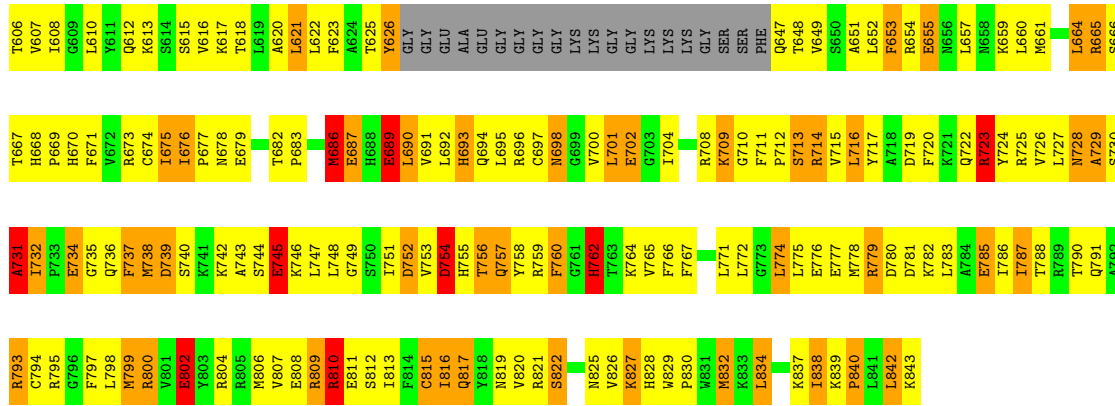




● Molecule 3: MYOSIN HEAVY CHAIN, SKELETAL MUSCLE, ADULT



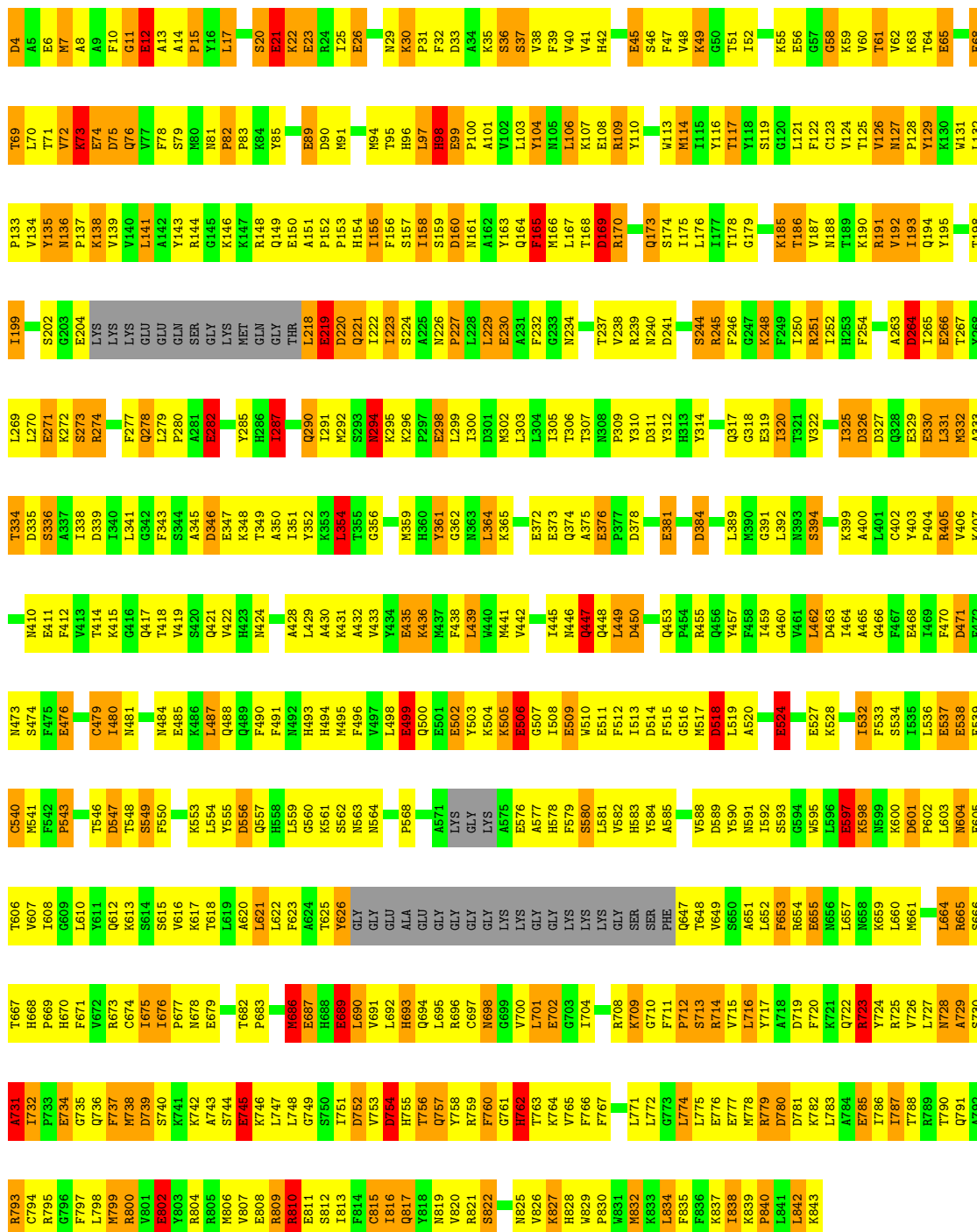






● Molecule 3: MYOSIN HEAVY CHAIN, SKELETAL MUSCLE, ADULT

Chain 10-M: 27% 46% 19%



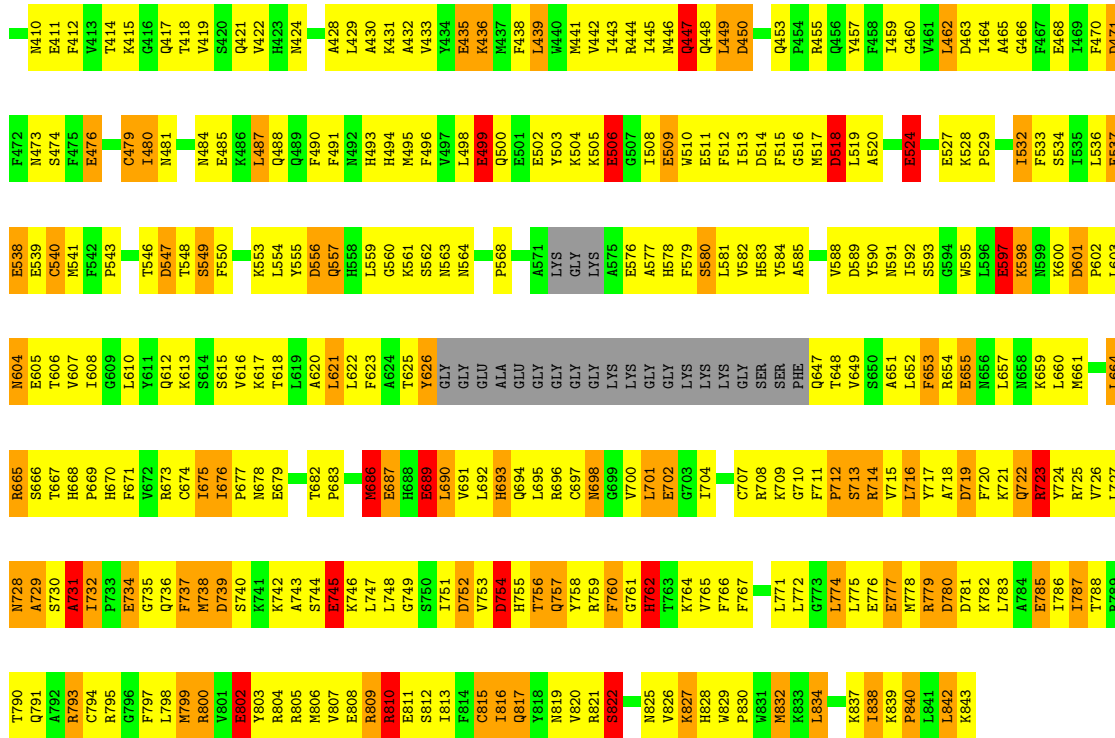
● Molecule 3: MYOSIN HEAVY CHAIN, SKELETAL MUSCLE, ADULT

Chain 11-M: 27% 46% 19%

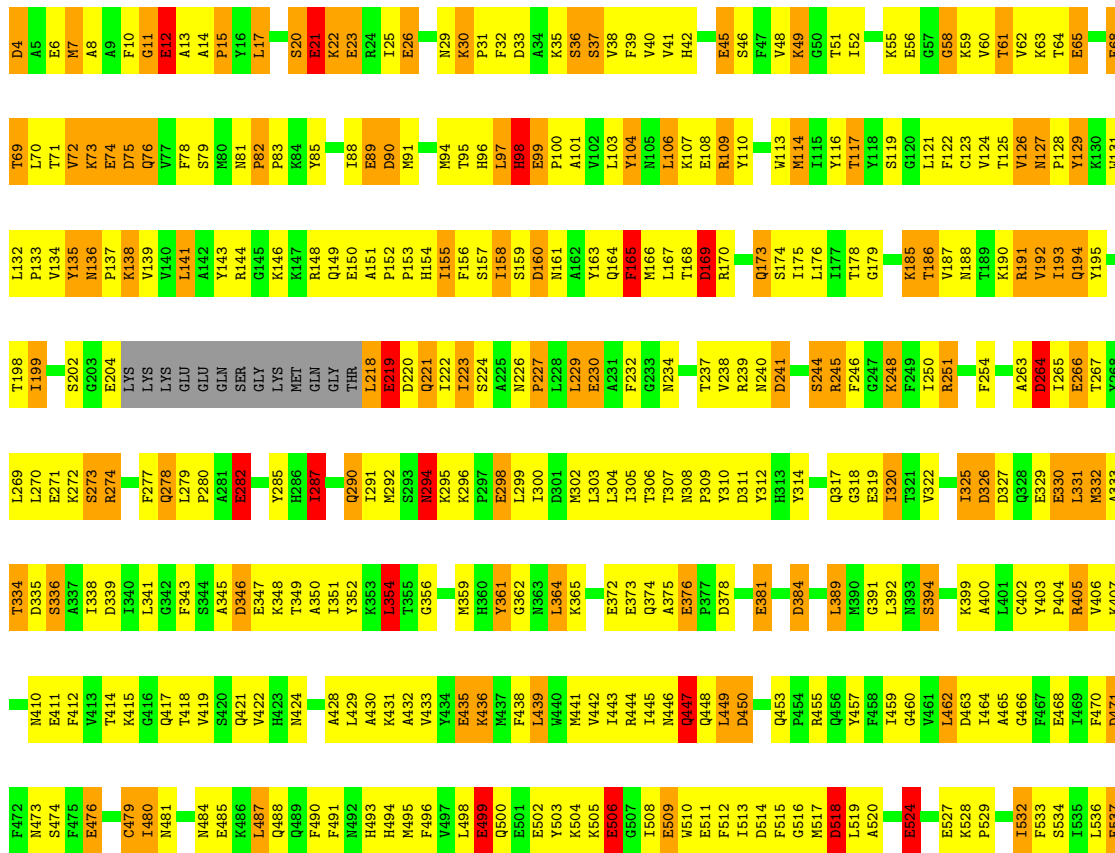
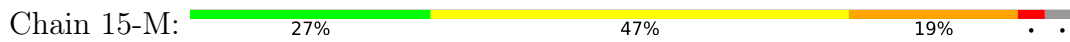






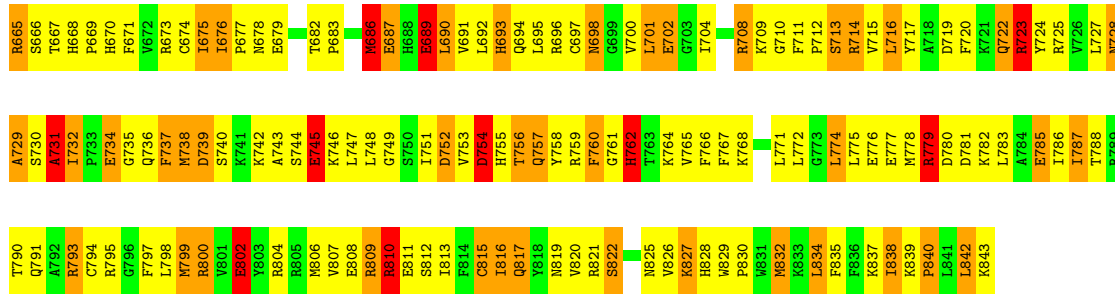


● Molecule 3: MYOSIN HEAVY CHAIN, SKELETAL MUSCLE, ADULT

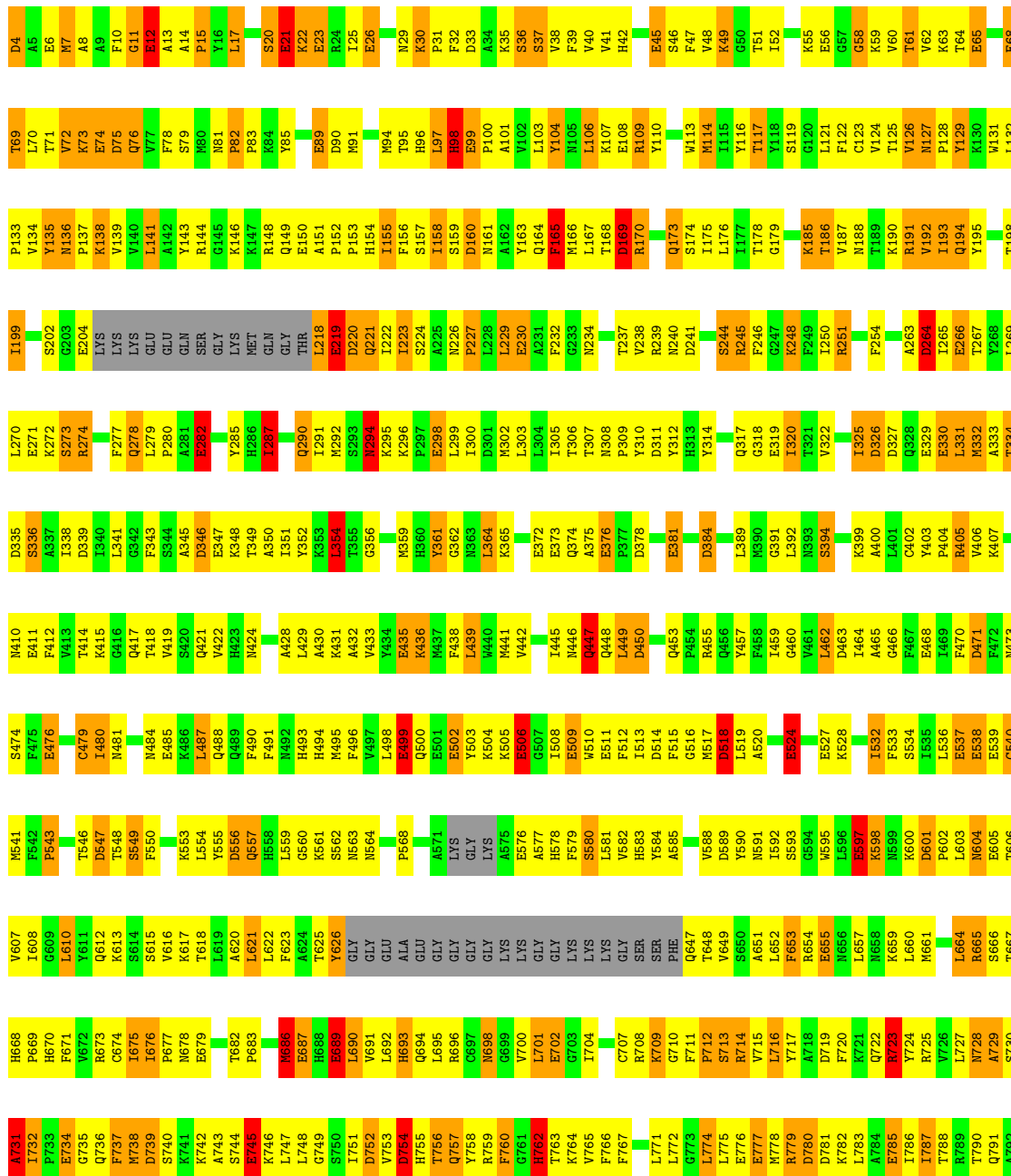


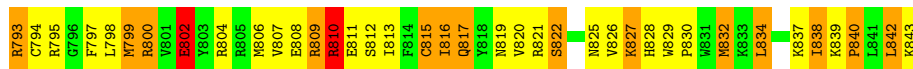




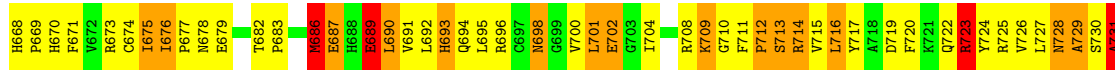
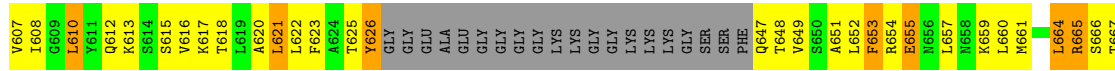
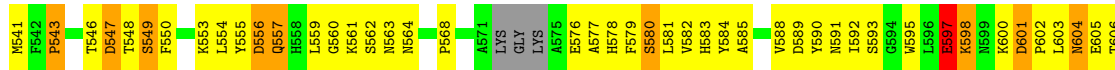
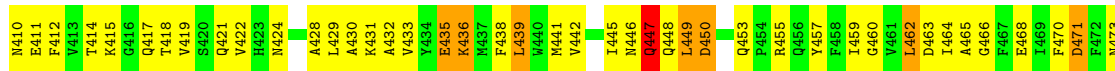
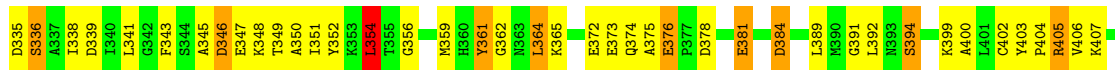
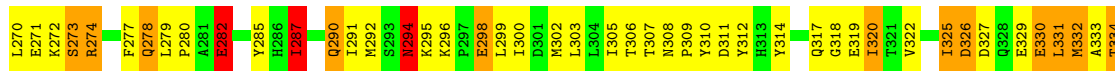
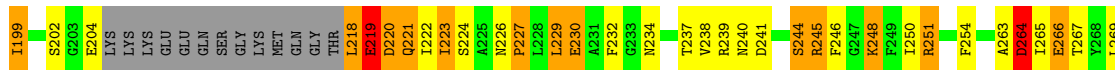
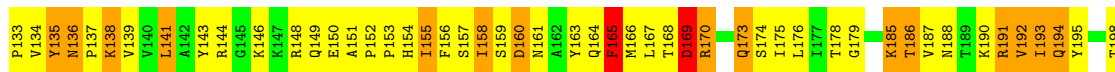
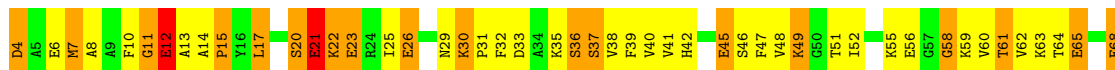
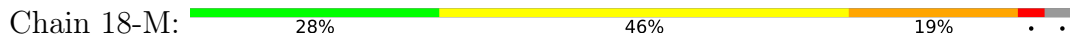


● Molecule 3: MYOSIN HEAVY CHAIN, SKELETAL MUSCLE, ADULT



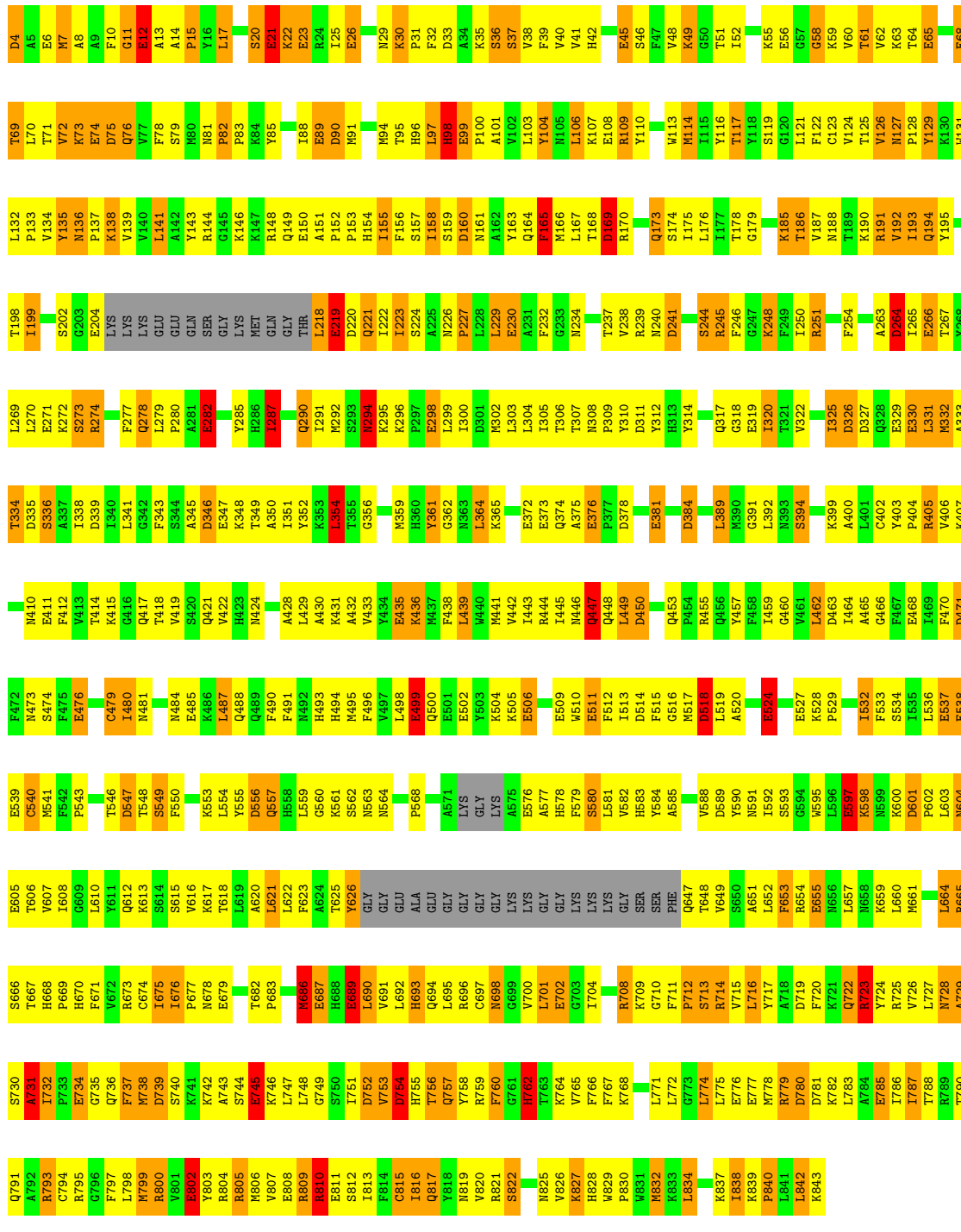


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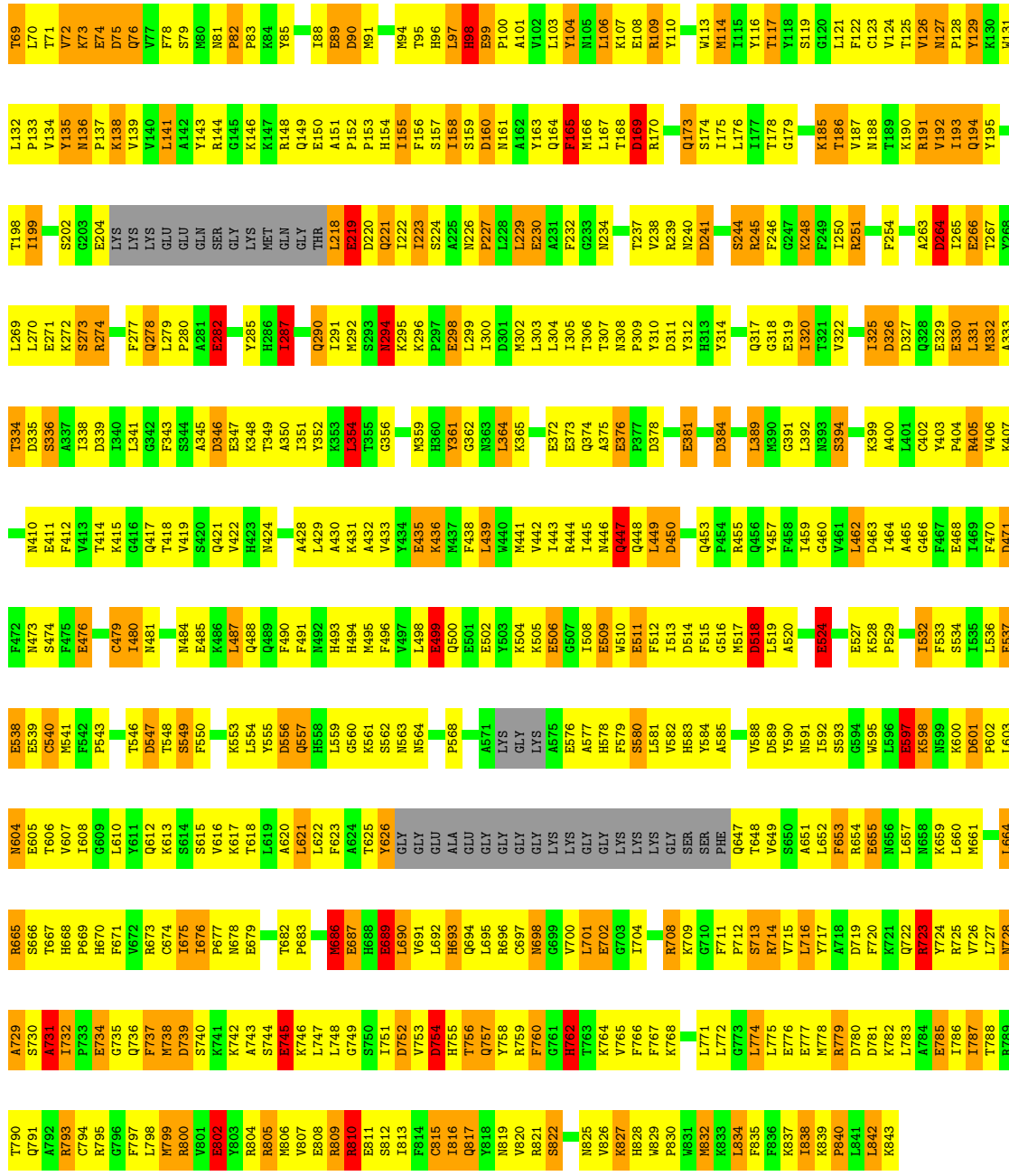
Chain 19-M: 27% 46% 19%



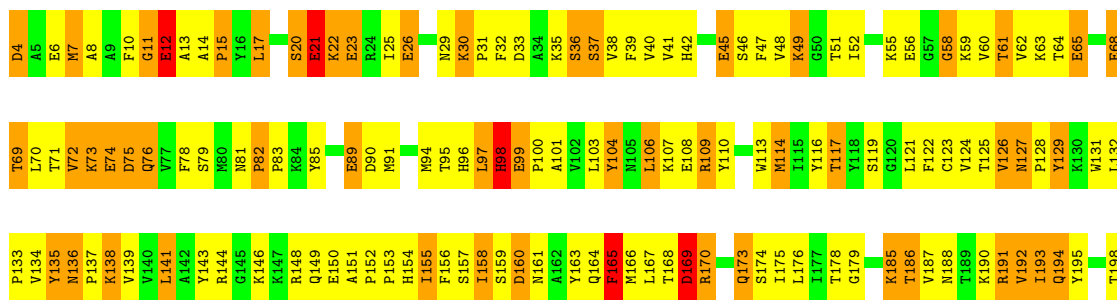
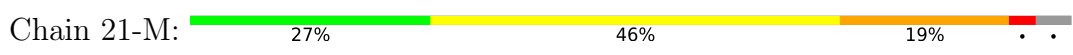
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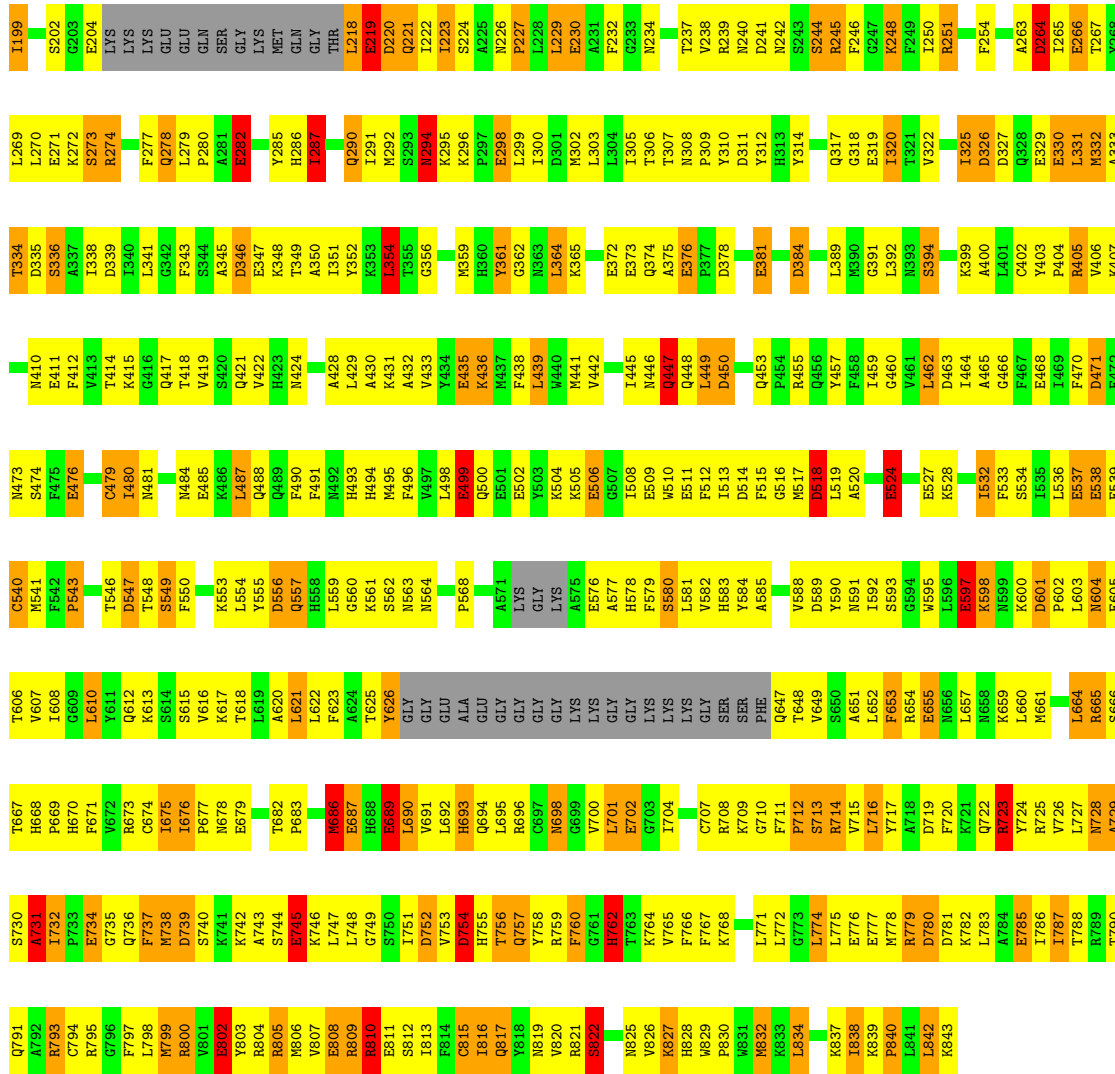
Chain 20-M: 27% 47% 19%



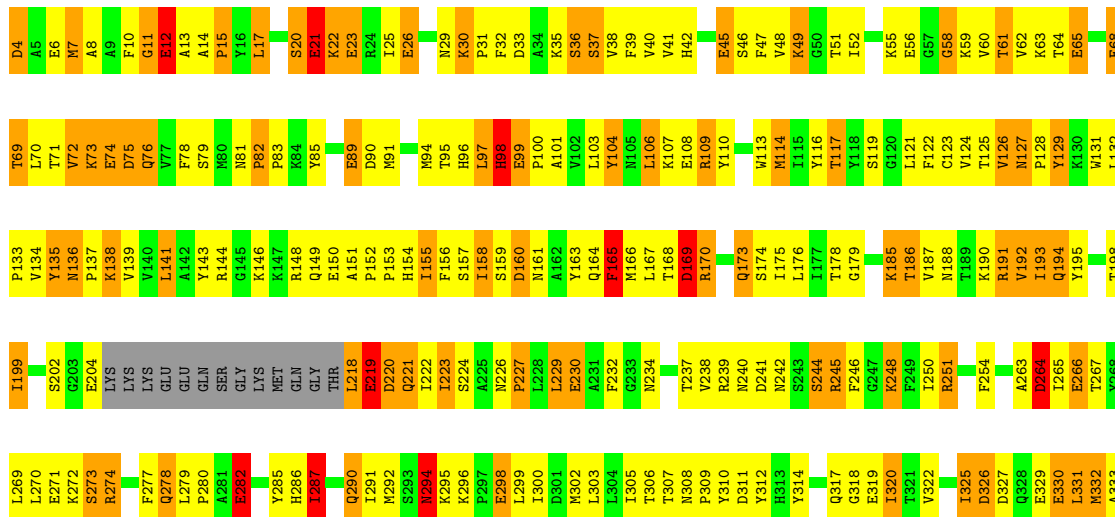


• Molecule 3: MYOSIN HEAVY CHAIN, SKELETAL MUSCLE, ADULT





● Molecule 3: MYOSIN HEAVY CHAIN, SKELETAL MUSCLE, ADULT



|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
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| S730 | A731 | I732 | F733 | E734 | G735 | Q736 | F737 | M738 | D739 | S740 | K741 | K742 | A743 | S744 | E745 | K746 | R747 | L748 | G749 | S750 | D751 | D752 | V753 | D754 | H755 | T756 | Q757 | Y758 | R759 | F760 | G761 | R762 | T763 | K764 | H828 | W829 | P830 | A831 | M832 | R833 | L834 | K837 | I838 | P840 | L841 | L842 | K843 |      |      |      |      |      |      |      |      |      |      |      |      |
| T667 | H668 | P669 | G670 | L671 | Y611 | Q612 | K613 | S614 | S615 | V616 | K617 | L654 | T618 | L619 | A620 | Q657 | H658 | L659 | F623 | A624 | T625 | Y626 | GLY  | GLY  | GLY  | ALA  | GLU  | GLY  | L695 | C697 | N698 | G699 | V700 | L701 | E702 | G703 | I704 | C707 | R708 | K709 | G710 | F711 | S712 | S713 | R714 | V715 | L716 | Y717 | A718 | D719 | F720 | F721 | Q722 | R723 | Y724 | R725 | V726 | L727 | A729 |
| T606 | V607 | T608 | G609 | L610 | Y611 | Q612 | K613 | S614 | S615 | V616 | K617 | L654 | T618 | L619 | A620 | Q657 | H658 | L659 | F623 | A624 | T625 | Y626 | GLY  | GLY  | GLY  | ALA  | GLU  | GLY  | L695 | C697 | N698 | G699 | V700 | L701 | E702 | G703 | I704 | C707 | R708 | K709 | G710 | F711 | S712 | S713 | R714 | V715 | L716 | Y717 | A718 | D719 | F720 | F721 | Q722 | R723 | Y724 | R725 | V726 | L727 | A729 |
| C540 | M541 | F542 | P543 | T546 | D547 | T548 | S549 | F550 | K553 | L554 | Y555 | D556 | Q557 | H558 | L559 | G560 | K561 | S562 | N563 | N564 | P568 | A571 | L572 | GLY  | GLY  | GLY  | L576 | H577 | H578 | F579 | S580 | L581 | V582 | H583 | Y584 | A585 | V588 | D589 | Y590 | M591 | I592 | S593 | G594 | M595 | L596 | E597 | K598 | N599 | K600 | D601 | P602 | L603 | N604 | E605 |      |      |      |      |      |
| M473 | S474 | F475 | E476 | C479 | I480 | M481 | N484 | E485 | V486 | K486 | Q487 | Q488 | Q489 | F490 | F491 | N492 | H493 | H494 | M495 | F496 | V497 | L498 | E499 | Q500 | E501 | E502 | Y503 | L504 | K505 | E506 | G507 | I508 | E509 | W510 | E511 | F512 | I513 | D514 | F515 | G516 | M517 | D518 | L519 | A520 | I459 | G460 | V461 | L462 | D463 | I464 | A465 | G466 | F467 | Y403 | E468 | I469 | F470 | D471 | F472 |
| M410 | E411 | F412 | V413 | K415 | G416 | Q417 | T418 | V419 | S344 | A420 | S421 | V422 | H423 | N424 | A428 | L429 | A430 | K431 | A432 | V433 | Y434 | E435 | H436 | M437 | F438 | L439 | N363 | L364 | W440 | M441 | V442 | I445 | N446 | Q447 | Q448 | L449 | D450 | Q453 | P454 | Q456 | Y457 | F458 | G391 | L392 | V461 | L462 | D463 | I464 | A465 | G466 | F467 | Y403 | E468 | I469 | F470 | D471 | F472 |      |      |
| T334 | D335 | S336 | A337 | I338 | D339 | L340 | G342 | F343 | S344 | A345 | D346 | E347 | K348 | T349 | A350 | I351 | Y352 | K353 | L354 | G356 | M359 | H360 | Y361 | G362 | N363 | L364 | W440 | M441 | V442 | E372 | E373 | Q374 | A375 | E376 | P377 | D378 | E381 | D384 | L389 | M390 | G391 | L392 | N393 | S394 | K399 | A400 | L401 | C402 | Y403 | P404 | R405 | V406 | K407 |      |      |      |      |      |      |

## 4 Experimental information

| 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 ( $e^-/\text{Å}^2$ ) | 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-B   | 0.70         | 0/1199        | 1.67        | 18/1617 (1.1%) |
| 1   | 2-B   | 0.70         | 0/1199        | 1.67        | 18/1617 (1.1%) |
| 1   | 3-B   | 0.70         | 0/1199        | 1.67        | 18/1617 (1.1%) |
| 1   | 4-B   | 0.70         | 0/1199        | 1.67        | 18/1617 (1.1%) |
| 1   | 5-B   | 0.70         | 0/1199        | 1.67        | 18/1617 (1.1%) |
| 1   | 6-B   | 0.70         | 0/1199        | 1.67        | 18/1617 (1.1%) |
| 1   | 7-B   | 0.70         | 0/1199        | 1.67        | 18/1617 (1.1%) |
| 1   | 8-B   | 0.70         | 0/1199        | 1.67        | 18/1617 (1.1%) |
| 1   | 9-B   | 0.70         | 0/1199        | 1.67        | 18/1617 (1.1%) |
| 1   | 10-B  | 0.70         | 0/1199        | 1.67        | 18/1617 (1.1%) |
| 1   | 11-B  | 0.69         | 0/1199        | 1.67        | 18/1617 (1.1%) |
| 1   | 12-B  | 0.70         | 0/1199        | 1.67        | 18/1617 (1.1%) |
| 1   | 13-B  | 0.70         | 0/1199        | 1.67        | 18/1617 (1.1%) |
| 1   | 14-B  | 0.70         | 0/1199        | 1.67        | 17/1617 (1.1%) |
| 1   | 15-B  | 0.70         | 0/1199        | 1.67        | 17/1617 (1.1%) |
| 1   | 16-B  | 0.70         | 0/1199        | 1.67        | 18/1617 (1.1%) |
| 1   | 17-B  | 0.69         | 0/1199        | 1.67        | 18/1617 (1.1%) |
| 1   | 18-B  | 0.70         | 0/1199        | 1.67        | 17/1617 (1.1%) |
| 1   | 19-B  | 0.70         | 0/1199        | 1.67        | 18/1617 (1.1%) |
| 1   | 20-B  | 0.70         | 0/1199        | 1.67        | 18/1617 (1.1%) |
| 1   | 21-B  | 0.70         | 0/1199        | 1.67        | 17/1617 (1.1%) |
| 1   | 22-B  | 0.70         | 0/1199        | 1.67        | 17/1617 (1.1%) |
| 2   | 1-C   | 0.74         | 1/1140 (0.1%) | 1.59        | 9/1530 (0.6%)  |
| 2   | 2-C   | 0.74         | 1/1140 (0.1%) | 1.58        | 9/1530 (0.6%)  |
| 2   | 3-C   | 0.74         | 1/1140 (0.1%) | 1.58        | 9/1530 (0.6%)  |
| 2   | 4-C   | 0.74         | 1/1140 (0.1%) | 1.59        | 9/1530 (0.6%)  |
| 2   | 5-C   | 0.74         | 1/1140 (0.1%) | 1.58        | 9/1530 (0.6%)  |
| 2   | 6-C   | 0.74         | 1/1140 (0.1%) | 1.59        | 9/1530 (0.6%)  |
| 2   | 7-C   | 0.74         | 1/1140 (0.1%) | 1.58        | 9/1530 (0.6%)  |
| 2   | 8-C   | 0.74         | 1/1140 (0.1%) | 1.58        | 9/1530 (0.6%)  |
| 2   | 9-C   | 0.74         | 1/1140 (0.1%) | 1.59        | 9/1530 (0.6%)  |
| 2   | 10-C  | 0.74         | 1/1140 (0.1%) | 1.58        | 9/1530 (0.6%)  |
| 2   | 11-C  | 0.74         | 1/1140 (0.1%) | 1.59        | 9/1530 (0.6%)  |
| 2   | 12-C  | 0.74         | 1/1140 (0.1%) | 1.59        | 9/1530 (0.6%)  |



| Mol | Chain | Bond lengths |                    | Bond angles |                    |
|-----|-------|--------------|--------------------|-------------|--------------------|
|     |       | RMSZ         | # Z  >5            | RMSZ        | # Z  >5            |
| 2   | 13-C  | 0.74         | 1/1140 (0.1%)      | 1.58        | 9/1530 (0.6%)      |
| 2   | 14-C  | 0.74         | 1/1140 (0.1%)      | 1.59        | 9/1530 (0.6%)      |
| 2   | 15-C  | 0.74         | 1/1140 (0.1%)      | 1.58        | 9/1530 (0.6%)      |
| 2   | 16-C  | 0.74         | 1/1140 (0.1%)      | 1.58        | 9/1530 (0.6%)      |
| 2   | 17-C  | 0.74         | 1/1140 (0.1%)      | 1.59        | 9/1530 (0.6%)      |
| 2   | 18-C  | 0.74         | 1/1140 (0.1%)      | 1.58        | 9/1530 (0.6%)      |
| 2   | 19-C  | 0.74         | 1/1140 (0.1%)      | 1.59        | 9/1530 (0.6%)      |
| 2   | 20-C  | 0.74         | 1/1140 (0.1%)      | 1.58        | 9/1530 (0.6%)      |
| 2   | 21-C  | 0.74         | 1/1140 (0.1%)      | 1.59        | 9/1530 (0.6%)      |
| 2   | 22-C  | 0.74         | 1/1140 (0.1%)      | 1.58        | 9/1530 (0.6%)      |
| 3   | 1-M   | 1.28         | 59/6593 (0.9%)     | 1.53        | 96/8881 (1.1%)     |
| 3   | 2-M   | 1.30         | 62/6593 (0.9%)     | 1.54        | 98/8881 (1.1%)     |
| 3   | 3-M   | 1.28         | 60/6593 (0.9%)     | 1.54        | 97/8881 (1.1%)     |
| 3   | 4-M   | 1.28         | 59/6593 (0.9%)     | 1.53        | 96/8881 (1.1%)     |
| 3   | 5-M   | 1.31         | 61/6592 (0.9%)     | 1.54        | 98/8878 (1.1%)     |
| 3   | 6-M   | 1.28         | 59/6593 (0.9%)     | 1.53        | 96/8881 (1.1%)     |
| 3   | 7-M   | 1.33         | 61/6594 (0.9%)     | 1.54        | 97/8884 (1.1%)     |
| 3   | 8-M   | 1.28         | 60/6592 (0.9%)     | 1.54        | 95/8878 (1.1%)     |
| 3   | 9-M   | 1.28         | 61/6593 (0.9%)     | 1.54        | 99/8881 (1.1%)     |
| 3   | 10-M  | 1.32         | 61/6594 (0.9%)     | 1.54        | 97/8884 (1.1%)     |
| 3   | 11-M  | 1.31         | 59/6593 (0.9%)     | 1.54        | 98/8881 (1.1%)     |
| 3   | 12-M  | 1.32         | 60/6593 (0.9%)     | 1.54        | 98/8881 (1.1%)     |
| 3   | 13-M  | 1.28         | 59/6593 (0.9%)     | 1.53        | 96/8881 (1.1%)     |
| 3   | 14-M  | 1.28         | 60/6592 (0.9%)     | 1.54        | 97/8878 (1.1%)     |
| 3   | 15-M  | 1.28         | 59/6593 (0.9%)     | 1.53        | 96/8881 (1.1%)     |
| 3   | 16-M  | 1.28         | 59/6593 (0.9%)     | 1.54        | 96/8881 (1.1%)     |
| 3   | 17-M  | 1.36         | 60/6594 (0.9%)     | 1.56        | 101/8884 (1.1%)    |
| 3   | 18-M  | 1.32         | 60/6594 (0.9%)     | 1.54        | 98/8884 (1.1%)     |
| 3   | 19-M  | 1.29         | 61/6593 (0.9%)     | 1.56        | 99/8881 (1.1%)     |
| 3   | 20-M  | 1.28         | 60/6593 (0.9%)     | 1.54        | 96/8881 (1.1%)     |
| 3   | 21-M  | 1.30         | 59/6593 (0.9%)     | 1.54        | 98/8881 (1.1%)     |
| 3   | 22-M  | 1.29         | 59/6593 (0.9%)     | 1.54        | 98/8881 (1.1%)     |
| All | All   | 1.17         | 1340/196505 (0.7%) | 1.56        | 2729/264619 (1.0%) |

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

| Mol | Chain | #Chirality outliers | #Planarity outliers |
|-----|-------|---------------------|---------------------|
| 1   | 1-B   | 0                   | 4                   |
| 1   | 2-B   | 0                   | 4                   |

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| Mol | Chain | #Chirality outliers | #Planarity outliers |
|-----|-------|---------------------|---------------------|
| 1   | 3-B   | 0                   | 4                   |
| 1   | 4-B   | 0                   | 4                   |
| 1   | 5-B   | 0                   | 4                   |
| 1   | 6-B   | 0                   | 4                   |
| 1   | 7-B   | 0                   | 4                   |
| 1   | 8-B   | 0                   | 4                   |
| 1   | 9-B   | 0                   | 4                   |
| 1   | 10-B  | 0                   | 4                   |
| 1   | 11-B  | 0                   | 4                   |
| 1   | 12-B  | 0                   | 4                   |
| 1   | 13-B  | 0                   | 4                   |
| 1   | 14-B  | 0                   | 4                   |
| 1   | 15-B  | 0                   | 4                   |
| 1   | 16-B  | 0                   | 4                   |
| 1   | 17-B  | 0                   | 4                   |
| 1   | 18-B  | 0                   | 4                   |
| 1   | 19-B  | 0                   | 4                   |
| 1   | 20-B  | 0                   | 4                   |
| 1   | 21-B  | 0                   | 4                   |
| 1   | 22-B  | 0                   | 4                   |
| 3   | 1-M   | 0                   | 1                   |
| 3   | 2-M   | 0                   | 1                   |
| 3   | 3-M   | 0                   | 2                   |
| 3   | 4-M   | 0                   | 1                   |
| 3   | 5-M   | 0                   | 1                   |
| 3   | 6-M   | 0                   | 1                   |
| 3   | 7-M   | 0                   | 1                   |
| 3   | 8-M   | 0                   | 1                   |
| 3   | 9-M   | 0                   | 1                   |
| 3   | 10-M  | 0                   | 1                   |
| 3   | 11-M  | 0                   | 1                   |
| 3   | 12-M  | 0                   | 1                   |
| 3   | 13-M  | 0                   | 1                   |
| 3   | 14-M  | 0                   | 1                   |
| 3   | 15-M  | 0                   | 1                   |
| 3   | 16-M  | 0                   | 2                   |
| 3   | 17-M  | 0                   | 1                   |
| 3   | 18-M  | 0                   | 1                   |
| 3   | 19-M  | 0                   | 3                   |
| 3   | 20-M  | 0                   | 1                   |
| 3   | 21-M  | 0                   | 1                   |
| 3   | 22-M  | 0                   | 1                   |

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| Mol | Chain | #Chirality outliers | #Planarity outliers |
|-----|-------|---------------------|---------------------|
| All | All   | 0                   | 114                 |

The worst 5 of 1340 bond length outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z     | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|-------|-------|-------------|----------|
| 3   | 17-M  | 709 | LYS  | C-N   | 36.40 | 1.98        | 1.33     |
| 3   | 7-M   | 709 | LYS  | C-N   | 30.92 | 1.88        | 1.33     |
| 3   | 10-M  | 709 | LYS  | C-N   | 27.52 | 1.82        | 1.33     |
| 3   | 18-M  | 709 | LYS  | C-N   | 26.92 | 1.81        | 1.33     |
| 3   | 12-M  | 709 | LYS  | C-N   | 26.38 | 1.80        | 1.33     |

The worst 5 of 2729 bond angle outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z      | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------|--------|-------------|----------|
| 3   | 8-M   | 731 | ALA  | O-C-N | -28.59 | 76.95       | 122.70   |
| 3   | 3-M   | 731 | ALA  | O-C-N | -28.59 | 76.97       | 122.70   |
| 3   | 9-M   | 731 | ALA  | O-C-N | -28.58 | 76.97       | 122.70   |
| 3   | 2-M   | 731 | ALA  | O-C-N | -28.57 | 76.98       | 122.70   |
| 3   | 5-M   | 731 | ALA  | O-C-N | -28.57 | 76.98       | 122.70   |

There are no chirality outliers.

5 of 114 planarity outliers are listed below:

| Mol | Chain | Res | Type | Group     |
|-----|-------|-----|------|-----------|
| 1   | 1-B   | 105 | ASP  | Peptide   |
| 1   | 1-B   | 127 | ARG  | Peptide   |
| 1   | 1-B   | 140 | PHE  | Peptide   |
| 1   | 1-B   | 141 | PRO  | Peptide   |
| 3   | 1-M   | 98  | HIS  | Mainchain |

## 5.2 Too-close contacts

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-B   | 1177  | 0        | 1134     | 131     | 0            |
| 1   | 2-B   | 1177  | 0        | 1134     | 136     | 0            |

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| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 1   | 3-B   | 1177  | 0        | 1132     | 176     | 0            |
| 1   | 4-B   | 1177  | 0        | 1134     | 133     | 0            |
| 1   | 5-B   | 1177  | 0        | 1132     | 251     | 0            |
| 1   | 6-B   | 1177  | 0        | 1134     | 135     | 0            |
| 1   | 7-B   | 1177  | 0        | 1134     | 139     | 0            |
| 1   | 8-B   | 1177  | 0        | 1134     | 134     | 0            |
| 1   | 9-B   | 1177  | 0        | 1134     | 136     | 0            |
| 1   | 10-B  | 1177  | 0        | 1134     | 133     | 0            |
| 1   | 11-B  | 1177  | 0        | 1134     | 134     | 0            |
| 1   | 12-B  | 1177  | 0        | 1134     | 127     | 0            |
| 1   | 13-B  | 1177  | 0        | 1134     | 132     | 0            |
| 1   | 14-B  | 1177  | 0        | 1134     | 161     | 0            |
| 1   | 15-B  | 1177  | 0        | 1134     | 134     | 0            |
| 1   | 16-B  | 1177  | 0        | 1134     | 136     | 0            |
| 1   | 17-B  | 1177  | 0        | 1134     | 137     | 0            |
| 1   | 18-B  | 1177  | 0        | 1134     | 134     | 0            |
| 1   | 19-B  | 1177  | 0        | 1131     | 185     | 0            |
| 1   | 20-B  | 1177  | 0        | 1134     | 146     | 0            |
| 1   | 21-B  | 1177  | 0        | 1131     | 193     | 0            |
| 1   | 22-B  | 1177  | 0        | 1134     | 131     | 0            |
| 2   | 1-C   | 1126  | 0        | 1084     | 88      | 0            |
| 2   | 2-C   | 1126  | 0        | 1084     | 210     | 0            |
| 2   | 3-C   | 1126  | 0        | 1082     | 134     | 0            |
| 2   | 4-C   | 1126  | 0        | 1084     | 87      | 0            |
| 2   | 5-C   | 1126  | 0        | 1077     | 211     | 0            |
| 2   | 6-C   | 1126  | 0        | 1084     | 88      | 0            |
| 2   | 7-C   | 1126  | 0        | 1084     | 89      | 0            |
| 2   | 8-C   | 1126  | 0        | 1084     | 94      | 0            |
| 2   | 9-C   | 1126  | 0        | 1084     | 89      | 0            |
| 2   | 10-C  | 1126  | 0        | 1084     | 89      | 0            |
| 2   | 11-C  | 1126  | 0        | 1084     | 91      | 0            |
| 2   | 12-C  | 1126  | 0        | 1072     | 320     | 0            |
| 2   | 13-C  | 1126  | 0        | 1084     | 85      | 0            |
| 2   | 14-C  | 1126  | 0        | 1079     | 205     | 0            |
| 2   | 15-C  | 1126  | 0        | 1084     | 89      | 0            |
| 2   | 16-C  | 1126  | 0        | 1084     | 91      | 0            |
| 2   | 17-C  | 1126  | 0        | 1084     | 85      | 0            |
| 2   | 18-C  | 1126  | 0        | 1084     | 90      | 0            |
| 2   | 19-C  | 1126  | 0        | 1079     | 166     | 0            |
| 2   | 20-C  | 1126  | 0        | 1084     | 102     | 0            |
| 2   | 21-C  | 1126  | 0        | 1082     | 153     | 0            |
| 2   | 22-C  | 1126  | 0        | 1084     | 85      | 0            |

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| Mol | Chain | Non-H  | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|--------|----------|----------|---------|--------------|
| 3   | 1-M   | 6455   | 0        | 6382     | 873     | 0            |
| 3   | 2-M   | 6455   | 0        | 6379     | 961     | 0            |
| 3   | 3-M   | 6455   | 0        | 6378     | 852     | 0            |
| 3   | 4-M   | 6455   | 0        | 6382     | 830     | 0            |
| 3   | 5-M   | 6455   | 0        | 6375     | 957     | 0            |
| 3   | 6-M   | 6455   | 0        | 6376     | 824     | 0            |
| 3   | 7-M   | 6455   | 0        | 6383     | 836     | 0            |
| 3   | 8-M   | 6455   | 0        | 6382     | 914     | 0            |
| 3   | 9-M   | 6455   | 0        | 6383     | 832     | 0            |
| 3   | 10-M  | 6455   | 0        | 6379     | 863     | 0            |
| 3   | 11-M  | 6455   | 0        | 6379     | 890     | 0            |
| 3   | 12-M  | 6455   | 0        | 6370     | 1075    | 0            |
| 3   | 13-M  | 6455   | 0        | 6382     | 865     | 0            |
| 3   | 14-M  | 6455   | 0        | 6364     | 1004    | 0            |
| 3   | 15-M  | 6455   | 0        | 6379     | 843     | 0            |
| 3   | 16-M  | 6455   | 0        | 6378     | 862     | 0            |
| 3   | 17-M  | 6455   | 0        | 6380     | 850     | 0            |
| 3   | 18-M  | 6455   | 0        | 6381     | 854     | 0            |
| 3   | 19-M  | 6455   | 0        | 6378     | 887     | 0            |
| 3   | 20-M  | 6455   | 0        | 6381     | 842     | 0            |
| 3   | 21-M  | 6455   | 0        | 6380     | 842     | 0            |
| 3   | 22-M  | 6455   | 0        | 6382     | 835     | 0            |
| All | All   | 192676 | 0        | 189086   | 21901   | 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 57.

The worst 5 of 21901 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) |
|------------------|-----------------|--------------------------|-------------------|
| 3:M:510:TRP:HZ3  | 3:M:766:PHE:CE2 | 1.08                     | 1.71              |
| 3:M:508:ILE:HD13 | 3:M:766:PHE:CE2 | 1.23                     | 1.66              |
| 3:M:510:TRP:CE3  | 3:M:766:PHE:CD2 | 1.74                     | 1.65              |
| 3:M:510:TRP:CZ3  | 3:M:766:PHE:HB3 | 1.33                     | 1.64              |
| 3:M:508:ILE:CD1  | 3:M:714:ARG:HD3 | 1.16                     | 1.63              |

There are no symmetry-related clashes.

## 5.3 Torsion angles

### 5.3.1 Protein backbone

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-B   | 148/150 (99%) | 119 (80%) | 17 (12%) | 12 (8%)  | 1           | 12 |
| 1   | 2-B   | 148/150 (99%) | 120 (81%) | 16 (11%) | 12 (8%)  | 1           | 12 |
| 1   | 3-B   | 148/150 (99%) | 120 (81%) | 16 (11%) | 12 (8%)  | 1           | 12 |
| 1   | 4-B   | 148/150 (99%) | 119 (80%) | 17 (12%) | 12 (8%)  | 1           | 12 |
| 1   | 5-B   | 148/150 (99%) | 119 (80%) | 17 (12%) | 12 (8%)  | 1           | 12 |
| 1   | 6-B   | 148/150 (99%) | 119 (80%) | 17 (12%) | 12 (8%)  | 1           | 12 |
| 1   | 7-B   | 148/150 (99%) | 119 (80%) | 17 (12%) | 12 (8%)  | 1           | 12 |
| 1   | 8-B   | 148/150 (99%) | 119 (80%) | 17 (12%) | 12 (8%)  | 1           | 12 |
| 1   | 9-B   | 148/150 (99%) | 119 (80%) | 17 (12%) | 12 (8%)  | 1           | 12 |
| 1   | 10-B  | 148/150 (99%) | 120 (81%) | 16 (11%) | 12 (8%)  | 1           | 12 |
| 1   | 11-B  | 148/150 (99%) | 119 (80%) | 17 (12%) | 12 (8%)  | 1           | 12 |
| 1   | 12-B  | 148/150 (99%) | 119 (80%) | 17 (12%) | 12 (8%)  | 1           | 12 |
| 1   | 13-B  | 148/150 (99%) | 119 (80%) | 17 (12%) | 12 (8%)  | 1           | 12 |
| 1   | 14-B  | 148/150 (99%) | 119 (80%) | 17 (12%) | 12 (8%)  | 1           | 12 |
| 1   | 15-B  | 148/150 (99%) | 119 (80%) | 17 (12%) | 12 (8%)  | 1           | 12 |
| 1   | 16-B  | 148/150 (99%) | 119 (80%) | 17 (12%) | 12 (8%)  | 1           | 12 |
| 1   | 17-B  | 148/150 (99%) | 119 (80%) | 17 (12%) | 12 (8%)  | 1           | 12 |
| 1   | 18-B  | 148/150 (99%) | 119 (80%) | 17 (12%) | 12 (8%)  | 1           | 12 |
| 1   | 19-B  | 148/150 (99%) | 119 (80%) | 17 (12%) | 12 (8%)  | 1           | 12 |
| 1   | 20-B  | 148/150 (99%) | 119 (80%) | 17 (12%) | 12 (8%)  | 1           | 12 |
| 1   | 21-B  | 148/150 (99%) | 119 (80%) | 17 (12%) | 12 (8%)  | 1           | 12 |
| 1   | 22-B  | 148/150 (99%) | 119 (80%) | 17 (12%) | 12 (8%)  | 1           | 12 |
| 2   | 1-C   | 143/145 (99%) | 111 (78%) | 20 (14%) | 12 (8%)  | 1           | 12 |
| 2   | 2-C   | 143/145 (99%) | 111 (78%) | 20 (14%) | 12 (8%)  | 1           | 12 |
| 2   | 3-C   | 143/145 (99%) | 111 (78%) | 20 (14%) | 12 (8%)  | 1           | 12 |

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| Mol | Chain | Analysed      | Favoured  | Allowed   | Outliers | Percentiles |    |
|-----|-------|---------------|-----------|-----------|----------|-------------|----|
| 2   | 4-C   | 143/145 (99%) | 111 (78%) | 20 (14%)  | 12 (8%)  | 1           | 12 |
| 2   | 5-C   | 143/145 (99%) | 111 (78%) | 20 (14%)  | 12 (8%)  | 1           | 12 |
| 2   | 6-C   | 143/145 (99%) | 111 (78%) | 20 (14%)  | 12 (8%)  | 1           | 12 |
| 2   | 7-C   | 143/145 (99%) | 111 (78%) | 20 (14%)  | 12 (8%)  | 1           | 12 |
| 2   | 8-C   | 143/145 (99%) | 111 (78%) | 20 (14%)  | 12 (8%)  | 1           | 12 |
| 2   | 9-C   | 143/145 (99%) | 111 (78%) | 20 (14%)  | 12 (8%)  | 1           | 12 |
| 2   | 10-C  | 143/145 (99%) | 111 (78%) | 20 (14%)  | 12 (8%)  | 1           | 12 |
| 2   | 11-C  | 143/145 (99%) | 111 (78%) | 20 (14%)  | 12 (8%)  | 1           | 12 |
| 2   | 12-C  | 143/145 (99%) | 111 (78%) | 20 (14%)  | 12 (8%)  | 1           | 12 |
| 2   | 13-C  | 143/145 (99%) | 111 (78%) | 20 (14%)  | 12 (8%)  | 1           | 12 |
| 2   | 14-C  | 143/145 (99%) | 111 (78%) | 20 (14%)  | 12 (8%)  | 1           | 12 |
| 2   | 15-C  | 143/145 (99%) | 111 (78%) | 20 (14%)  | 12 (8%)  | 1           | 12 |
| 2   | 16-C  | 143/145 (99%) | 111 (78%) | 20 (14%)  | 12 (8%)  | 1           | 12 |
| 2   | 17-C  | 143/145 (99%) | 111 (78%) | 20 (14%)  | 12 (8%)  | 1           | 12 |
| 2   | 18-C  | 143/145 (99%) | 111 (78%) | 20 (14%)  | 12 (8%)  | 1           | 12 |
| 2   | 19-C  | 143/145 (99%) | 111 (78%) | 20 (14%)  | 12 (8%)  | 1           | 12 |
| 2   | 20-C  | 143/145 (99%) | 111 (78%) | 20 (14%)  | 12 (8%)  | 1           | 12 |
| 2   | 21-C  | 143/145 (99%) | 111 (78%) | 20 (14%)  | 12 (8%)  | 1           | 12 |
| 2   | 22-C  | 143/145 (99%) | 111 (78%) | 20 (14%)  | 12 (8%)  | 1           | 12 |
| 3   | 1-M   | 786/840 (94%) | 649 (83%) | 115 (15%) | 22 (3%)  | 5           | 30 |
| 3   | 2-M   | 786/840 (94%) | 649 (83%) | 114 (14%) | 23 (3%)  | 4           | 29 |
| 3   | 3-M   | 786/840 (94%) | 649 (83%) | 114 (14%) | 23 (3%)  | 4           | 29 |
| 3   | 4-M   | 786/840 (94%) | 649 (83%) | 115 (15%) | 22 (3%)  | 5           | 30 |
| 3   | 5-M   | 784/840 (93%) | 647 (82%) | 114 (14%) | 23 (3%)  | 4           | 29 |
| 3   | 6-M   | 786/840 (94%) | 649 (83%) | 115 (15%) | 22 (3%)  | 5           | 30 |
| 3   | 7-M   | 788/840 (94%) | 650 (82%) | 115 (15%) | 23 (3%)  | 4           | 29 |
| 3   | 8-M   | 784/840 (93%) | 646 (82%) | 115 (15%) | 23 (3%)  | 4           | 29 |
| 3   | 9-M   | 786/840 (94%) | 648 (82%) | 115 (15%) | 23 (3%)  | 4           | 29 |
| 3   | 10-M  | 788/840 (94%) | 651 (83%) | 114 (14%) | 23 (3%)  | 4           | 29 |
| 3   | 11-M  | 786/840 (94%) | 648 (82%) | 115 (15%) | 23 (3%)  | 4           | 29 |
| 3   | 12-M  | 786/840 (94%) | 647 (82%) | 115 (15%) | 24 (3%)  | 4           | 27 |

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| Mol | Chain | Analysed          | Favoured    | Allowed    | Outliers  | Percentiles |    |
|-----|-------|-------------------|-------------|------------|-----------|-------------|----|
| 3   | 13-M  | 786/840 (94%)     | 649 (83%)   | 114 (14%)  | 23 (3%)   | 4           | 29 |
| 3   | 14-M  | 784/840 (93%)     | 646 (82%)   | 114 (14%)  | 24 (3%)   | 4           | 27 |
| 3   | 15-M  | 786/840 (94%)     | 649 (83%)   | 114 (14%)  | 23 (3%)   | 4           | 29 |
| 3   | 16-M  | 786/840 (94%)     | 649 (83%)   | 114 (14%)  | 23 (3%)   | 4           | 29 |
| 3   | 17-M  | 788/840 (94%)     | 650 (82%)   | 115 (15%)  | 23 (3%)   | 4           | 29 |
| 3   | 18-M  | 788/840 (94%)     | 650 (82%)   | 115 (15%)  | 23 (3%)   | 4           | 29 |
| 3   | 19-M  | 786/840 (94%)     | 649 (83%)   | 114 (14%)  | 23 (3%)   | 4           | 29 |
| 3   | 20-M  | 786/840 (94%)     | 649 (83%)   | 114 (14%)  | 23 (3%)   | 4           | 29 |
| 3   | 21-M  | 786/840 (94%)     | 647 (82%)   | 115 (15%)  | 24 (3%)   | 4           | 27 |
| 3   | 22-M  | 786/840 (94%)     | 648 (82%)   | 114 (14%)  | 24 (3%)   | 4           | 27 |
| All | All   | 23696/24970 (95%) | 19331 (82%) | 3330 (14%) | 1035 (4%) | 4           | 22 |

5 of 1035 Ramachandran outliers are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1   | 1-B   | 76  | ASN  |
| 1   | 1-B   | 109 | LYS  |
| 1   | 1-B   | 115 | SER  |
| 1   | 1-B   | 141 | PRO  |
| 1   | 1-B   | 142 | PRO  |

### 5.3.2 Protein sidechains [i](#)

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

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

| Mol | Chain | Analysed      | Rotameric | Outliers | Percentiles |    |
|-----|-------|---------------|-----------|----------|-------------|----|
| 1   | 1-B   | 128/130 (98%) | 116 (91%) | 12 (9%)  | 8           | 28 |
| 1   | 2-B   | 128/130 (98%) | 116 (91%) | 12 (9%)  | 8           | 28 |
| 1   | 3-B   | 128/130 (98%) | 116 (91%) | 12 (9%)  | 8           | 28 |
| 1   | 4-B   | 128/130 (98%) | 116 (91%) | 12 (9%)  | 8           | 28 |
| 1   | 5-B   | 128/130 (98%) | 116 (91%) | 12 (9%)  | 8           | 28 |
| 1   | 6-B   | 128/130 (98%) | 116 (91%) | 12 (9%)  | 8           | 28 |

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| Mol | Chain | Analysed      | Rotameric | Outliers | Percentiles |    |
|-----|-------|---------------|-----------|----------|-------------|----|
| 1   | 7-B   | 128/130 (98%) | 116 (91%) | 12 (9%)  | 8           | 28 |
| 1   | 8-B   | 128/130 (98%) | 116 (91%) | 12 (9%)  | 8           | 28 |
| 1   | 9-B   | 128/130 (98%) | 116 (91%) | 12 (9%)  | 8           | 28 |
| 1   | 10-B  | 128/130 (98%) | 116 (91%) | 12 (9%)  | 8           | 28 |
| 1   | 11-B  | 128/130 (98%) | 116 (91%) | 12 (9%)  | 8           | 28 |
| 1   | 12-B  | 128/130 (98%) | 116 (91%) | 12 (9%)  | 8           | 28 |
| 1   | 13-B  | 128/130 (98%) | 116 (91%) | 12 (9%)  | 8           | 28 |
| 1   | 14-B  | 128/130 (98%) | 116 (91%) | 12 (9%)  | 8           | 28 |
| 1   | 15-B  | 128/130 (98%) | 116 (91%) | 12 (9%)  | 8           | 28 |
| 1   | 16-B  | 128/130 (98%) | 116 (91%) | 12 (9%)  | 8           | 28 |
| 1   | 17-B  | 128/130 (98%) | 116 (91%) | 12 (9%)  | 8           | 28 |
| 1   | 18-B  | 128/130 (98%) | 116 (91%) | 12 (9%)  | 8           | 28 |
| 1   | 19-B  | 128/130 (98%) | 116 (91%) | 12 (9%)  | 8           | 28 |
| 1   | 20-B  | 128/130 (98%) | 116 (91%) | 12 (9%)  | 8           | 28 |
| 1   | 21-B  | 128/130 (98%) | 116 (91%) | 12 (9%)  | 8           | 28 |
| 1   | 22-B  | 128/130 (98%) | 116 (91%) | 12 (9%)  | 8           | 28 |
| 2   | 1-C   | 120/122 (98%) | 109 (91%) | 11 (9%)  | 9           | 29 |
| 2   | 2-C   | 120/122 (98%) | 109 (91%) | 11 (9%)  | 9           | 29 |
| 2   | 3-C   | 120/122 (98%) | 109 (91%) | 11 (9%)  | 9           | 29 |
| 2   | 4-C   | 120/122 (98%) | 109 (91%) | 11 (9%)  | 9           | 29 |
| 2   | 5-C   | 120/122 (98%) | 109 (91%) | 11 (9%)  | 9           | 29 |
| 2   | 6-C   | 120/122 (98%) | 109 (91%) | 11 (9%)  | 9           | 29 |
| 2   | 7-C   | 120/122 (98%) | 109 (91%) | 11 (9%)  | 9           | 29 |
| 2   | 8-C   | 120/122 (98%) | 109 (91%) | 11 (9%)  | 9           | 29 |
| 2   | 9-C   | 120/122 (98%) | 109 (91%) | 11 (9%)  | 9           | 29 |
| 2   | 10-C  | 120/122 (98%) | 109 (91%) | 11 (9%)  | 9           | 29 |
| 2   | 11-C  | 120/122 (98%) | 109 (91%) | 11 (9%)  | 9           | 29 |
| 2   | 12-C  | 120/122 (98%) | 109 (91%) | 11 (9%)  | 9           | 29 |
| 2   | 13-C  | 120/122 (98%) | 109 (91%) | 11 (9%)  | 9           | 29 |
| 2   | 14-C  | 120/122 (98%) | 109 (91%) | 11 (9%)  | 9           | 29 |
| 2   | 15-C  | 120/122 (98%) | 109 (91%) | 11 (9%)  | 9           | 29 |

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| Mol | Chain | Analysed          | Rotameric   | Outliers   | Percentiles |    |
|-----|-------|-------------------|-------------|------------|-------------|----|
| 2   | 16-C  | 120/122 (98%)     | 109 (91%)   | 11 (9%)    | 9           | 29 |
| 2   | 17-C  | 120/122 (98%)     | 109 (91%)   | 11 (9%)    | 9           | 29 |
| 2   | 18-C  | 120/122 (98%)     | 109 (91%)   | 11 (9%)    | 9           | 29 |
| 2   | 19-C  | 120/122 (98%)     | 109 (91%)   | 11 (9%)    | 9           | 29 |
| 2   | 20-C  | 120/122 (98%)     | 109 (91%)   | 11 (9%)    | 9           | 29 |
| 2   | 21-C  | 120/122 (98%)     | 109 (91%)   | 11 (9%)    | 9           | 29 |
| 2   | 22-C  | 120/122 (98%)     | 109 (91%)   | 11 (9%)    | 9           | 29 |
| 3   | 1-M   | 693/724 (96%)     | 523 (76%)   | 170 (24%)  | 0           | 3  |
| 3   | 2-M   | 693/724 (96%)     | 522 (75%)   | 171 (25%)  | 0           | 3  |
| 3   | 3-M   | 693/724 (96%)     | 522 (75%)   | 171 (25%)  | 0           | 3  |
| 3   | 4-M   | 693/724 (96%)     | 523 (76%)   | 170 (24%)  | 0           | 3  |
| 3   | 5-M   | 693/724 (96%)     | 522 (75%)   | 171 (25%)  | 0           | 3  |
| 3   | 6-M   | 693/724 (96%)     | 523 (76%)   | 170 (24%)  | 0           | 3  |
| 3   | 7-M   | 693/724 (96%)     | 522 (75%)   | 171 (25%)  | 0           | 3  |
| 3   | 8-M   | 693/724 (96%)     | 522 (75%)   | 171 (25%)  | 0           | 3  |
| 3   | 9-M   | 693/724 (96%)     | 522 (75%)   | 171 (25%)  | 0           | 3  |
| 3   | 10-M  | 693/724 (96%)     | 522 (75%)   | 171 (25%)  | 0           | 3  |
| 3   | 11-M  | 693/724 (96%)     | 522 (75%)   | 171 (25%)  | 0           | 3  |
| 3   | 12-M  | 693/724 (96%)     | 522 (75%)   | 171 (25%)  | 0           | 3  |
| 3   | 13-M  | 693/724 (96%)     | 523 (76%)   | 170 (24%)  | 0           | 3  |
| 3   | 14-M  | 693/724 (96%)     | 523 (76%)   | 170 (24%)  | 0           | 3  |
| 3   | 15-M  | 693/724 (96%)     | 523 (76%)   | 170 (24%)  | 0           | 3  |
| 3   | 16-M  | 693/724 (96%)     | 523 (76%)   | 170 (24%)  | 0           | 3  |
| 3   | 17-M  | 693/724 (96%)     | 522 (75%)   | 171 (25%)  | 0           | 3  |
| 3   | 18-M  | 693/724 (96%)     | 522 (75%)   | 171 (25%)  | 0           | 3  |
| 3   | 19-M  | 693/724 (96%)     | 523 (76%)   | 170 (24%)  | 0           | 3  |
| 3   | 20-M  | 693/724 (96%)     | 523 (76%)   | 170 (24%)  | 0           | 3  |
| 3   | 21-M  | 693/724 (96%)     | 522 (75%)   | 171 (25%)  | 0           | 3  |
| 3   | 22-M  | 693/724 (96%)     | 522 (75%)   | 171 (25%)  | 0           | 3  |
| All | All   | 20702/21472 (96%) | 16443 (79%) | 4259 (21%) | 3           | 7  |

5 of 4259 residues with a non-rotameric sidechain are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 3   | 20-M  | 17  | LEU  |
| 3   | 20-M  | 563 | ASN  |
| 3   | 20-M  | 4   | ASP  |
| 3   | 22-M  | 336 | SER  |
| 1   | 9-B   | 117 | LEU  |

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 630 such sidechains are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 2   | 17-C  | 77  | ASN  |
| 3   | 20-M  | 762 | HIS  |
| 3   | 17-M  | 453 | GLN  |
| 2   | 17-C  | 40  | ASN  |
| 2   | 19-C  | 77  | ASN  |

### 5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

### 5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

### 5.6 Ligand geometry [i](#)

There are no ligands in this entry.

### 5.7 Other polymers [i](#)

There are no such residues in this entry.

### 5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

| Mol | Chain | Number of breaks |
|-----|-------|------------------|
| 3   | 5-M   | 9                |
| 3   | 14-M  | 9                |
| 3   | 2-M   | 8                |
| 3   | 8-M   | 8                |
| 3   | 11-M  | 8                |
| 3   | 12-M  | 8                |
| 3   | 17-M  | 8                |
| 3   | 19-M  | 8                |
| 3   | 21-M  | 8                |
| 3   | 22-M  | 8                |
| 3   | 1-M   | 7                |
| 3   | 3-M   | 7                |
| 3   | 4-M   | 7                |
| 3   | 6-M   | 7                |
| 3   | 7-M   | 7                |
| 3   | 9-M   | 7                |
| 3   | 10-M  | 7                |
| 3   | 13-M  | 7                |
| 3   | 15-M  | 7                |
| 3   | 16-M  | 7                |
| 3   | 18-M  | 7                |
| 3   | 20-M  | 7                |

The worst 5 of 166 chain breaks are listed below:

| Model | Chain | Residue-1 | Atom-1 | Residue-2 | Atom-2 | Distance (Å) |
|-------|-------|-----------|--------|-----------|--------|--------------|
| 1     | M     | 601:ASP   | C      | 602:PRO   | N      | 9.78         |
| 2     | M     | 601:ASP   | C      | 602:PRO   | N      | 9.78         |
| 3     | M     | 601:ASP   | C      | 602:PRO   | N      | 9.78         |
| 4     | M     | 601:ASP   | C      | 602:PRO   | N      | 9.78         |
| 5     | M     | 601:ASP   | C      | 602:PRO   | N      | 9.78         |

## 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

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

## 9 Map-model fit

This section was not generated.