# wwPDB EM Validation Summary Report

Nov 9, 2024 – 12:05 pm GMT

| | | |
|---|---|---|
| PDB ID | : | 9G8M |
| EMDB ID | : | EMD-51132 |
| Title | : | human 80S ribosome bound by a SKI2-exosome complex |
| Authors | : | Koegel, A.; Keidel, A.; Loukeri, M.J.; Kuhn, C.C.; Langer, L.M.; Schaefer, I.B.; Conti, E. |
| Deposited on | : | 2024-07-23 |
| Resolution | : | 3.30 Å(reported) |

This is a wwPDB EM Validation Summary Report for a publicly released PDB entry.

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/EMValidationReportHelp
with specific help available everywhere you see the ⓘ symbol.

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

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

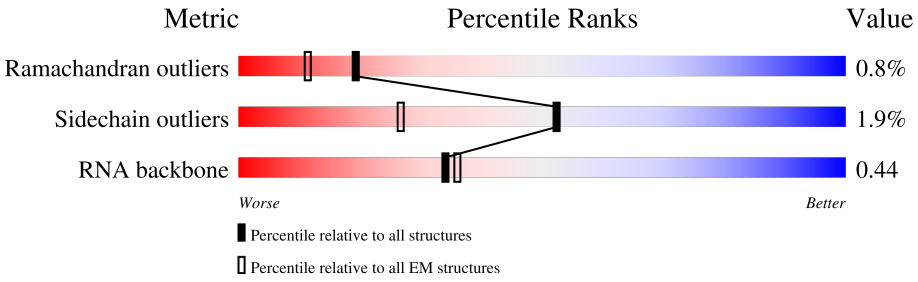
| | | |
|---|---|---|
| EMDB validation analysis | : | 0.0.1.dev113 |
| MolProbity | : | 4.02b-467 |
| Percentile statistics | : | 20231227.v01 (using entries in the PDB archive December 27th 2023) |
| MapQ | : | 1.9.13 |
| Ideal geometry (proteins) | : | Engh & Huber (2001) |
| Ideal geometry (DNA,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

# 1 Overall quality at a glance (i)

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

The reported resolution of this entry is 3.30 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) |
|---|---|---|
| Ramachandran outliers | 207382 | 16835 |
| Sidechain outliers | 206894 | 16415 |
| RNA backbone | 6643 | 2191 |

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

| Mol | Chain | Length | Quality of chain |
|---|---|---|---|
| 1 | A | 1246 | 72% 75% · 24% |
| 2 | L | 245 | 98% 98% ·· |
| 3 | N | 280 | 95% 92% · 5% |
| 4 | O | 239 | 87% 87% 13% |
| 5 | F | 295 | 97% 95% ·· |
| 6 | G | 272 | 92% 90% · 8% |
| 7 | H | 371 | 64% 64% 36% |
| 8 | I | 297 | 97% 96% ·· |

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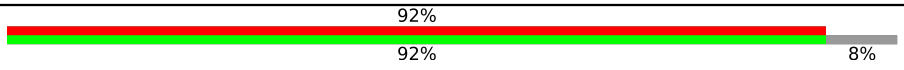
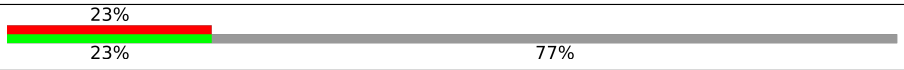
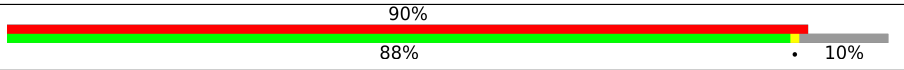
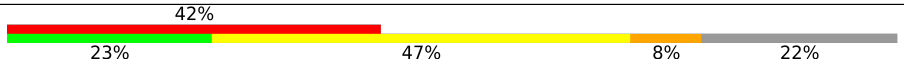
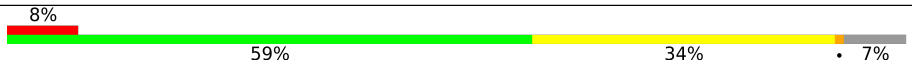
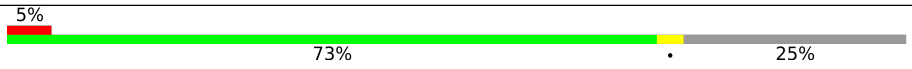
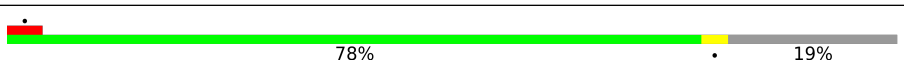
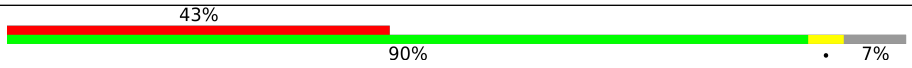
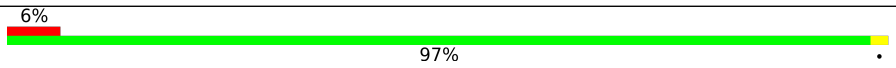
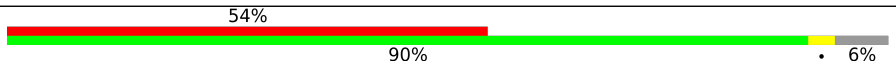
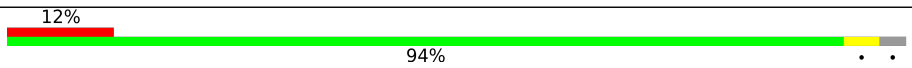
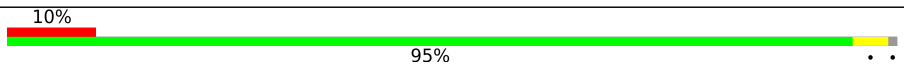
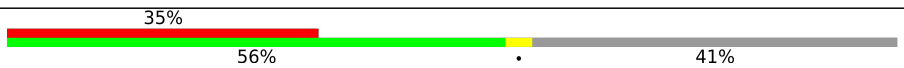
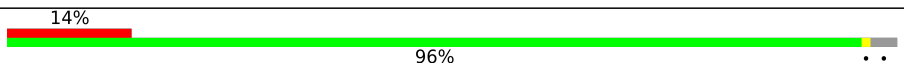
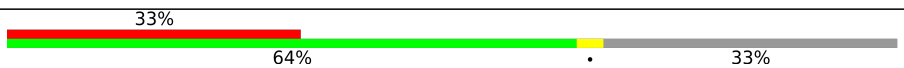
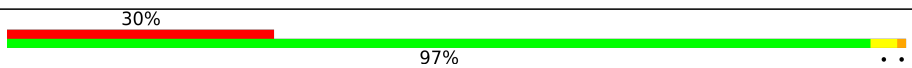
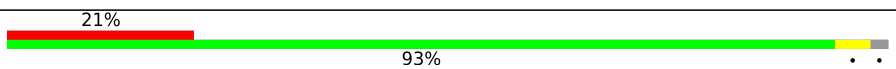
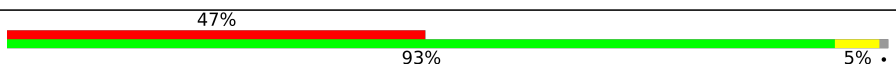
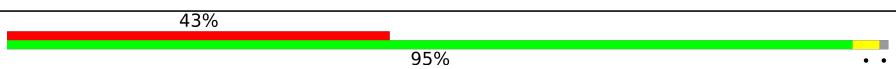
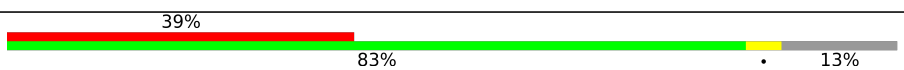
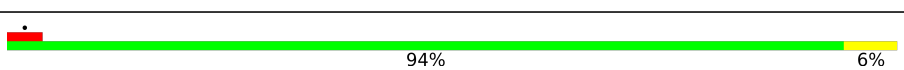
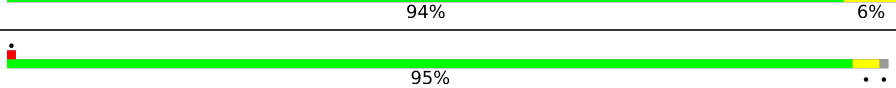
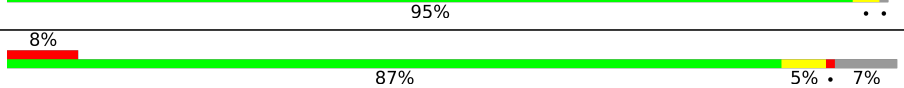
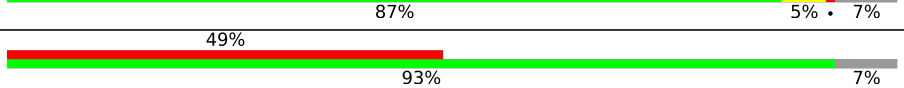
| Mol | Chain | Length | Quality of chain |
|---|---|---|---|
| 9 | J | 199 |   |
| 10 | K | 443 |   |
| 11 | E | 274 |   |
| 12 | M | 1096 |   |
| 13 | X | 249 |   |
| 14 | S2 | 1869 |   |
| 15 | SA | 295 |   |
| 16 | SB | 264 |   |
| 17 | SD | 243 |   |
| 18 | SE | 263 |   |
| 19 | SF | 204 |   |
| 20 | SH | 194 |   |
| 21 | SI | 208 |   |
| 22 | SK | 165 |   |
| 23 | SL | 158 |   |
| 24 | SP | 145 |   |
| 25 | SQ | 146 |   |
| 26 | SR | 135 |   |
| 27 | SS | 152 |   |
| 28 | ST | 145 |   |
| 29 | SU | 119 |   |
| 30 | SV | 83 |   |
| 31 | SX | 143 |   |
| 32 | Sa | 115 |   |
| 33 | Sc | 69 |   |

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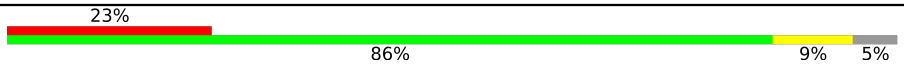
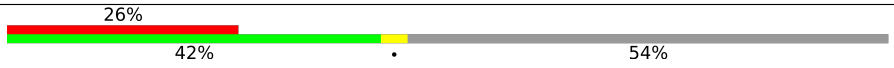
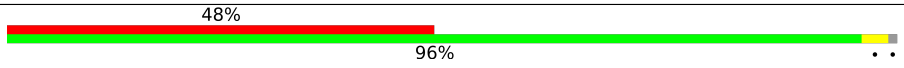
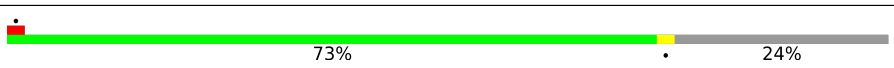
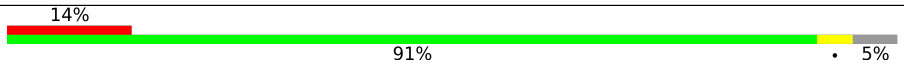
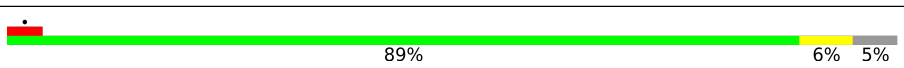
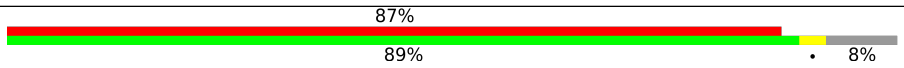
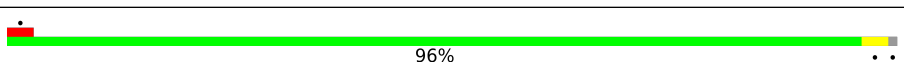
| Mol | Chain | Length | Quality of chain |
|---|---|---|---|
| 34 | Sd | 56 |   |
| 35 | Sf | 156 |   |
| 36 | Sg | 317 |   |
| 37 | SC | 293 |   |
| 38 | SG | 249 |   |
| 39 | SJ | 194 |   |
| 40 | SM | 132 |   |
| 41 | SN | 151 |   |
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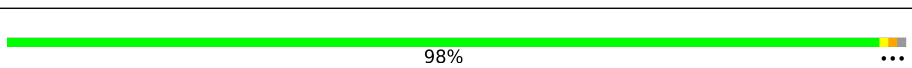
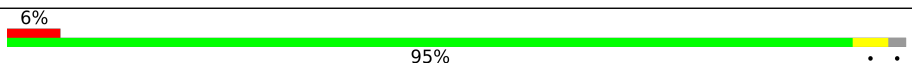
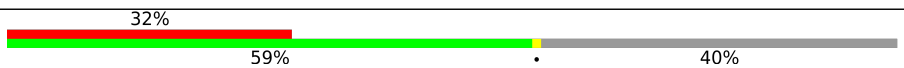
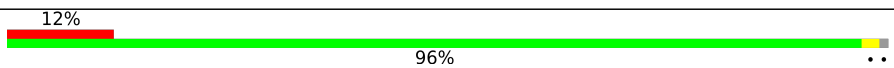
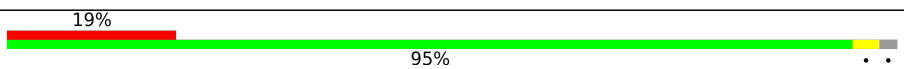
| 43 | SW | 130 |   |
| 44 | SY | 133 |   |
| 45 | SZ | 125 |   |
| 46 | Sb | 84 |   |
| 47 | Se | 59 |   |
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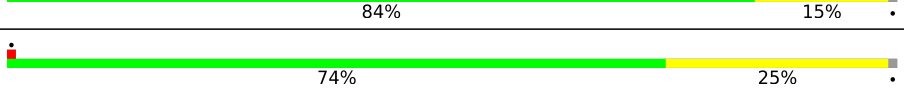
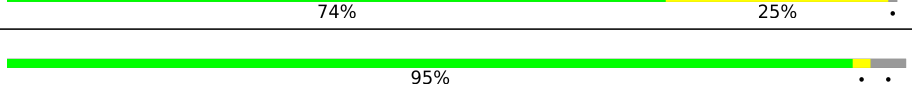
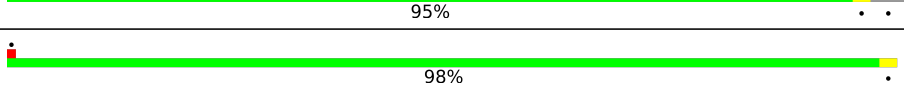
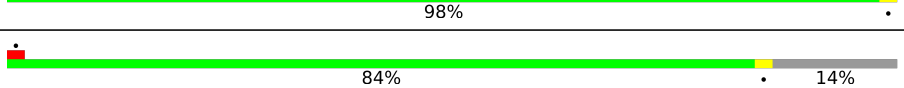
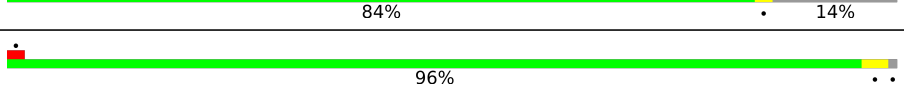
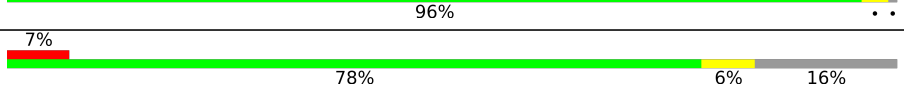
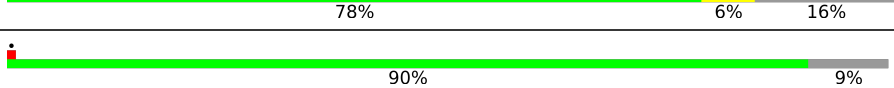
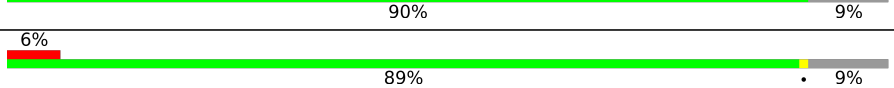
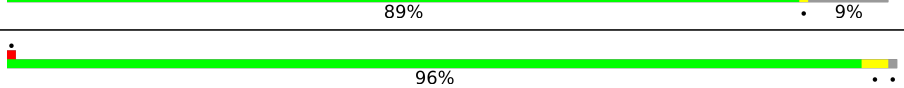
| 50 | L8 | 157 |   |
| 51 | LA | 257 |   |
| 52 | LB | 403 |   |
| 53 | LC | 427 |   |
| 54 | LD | 297 |   |
| 55 | LE | 288 |   |
| 56 | LF | 248 |   |
| 57 | LG | 266 |   |
| 58 | LH | 192 |   |

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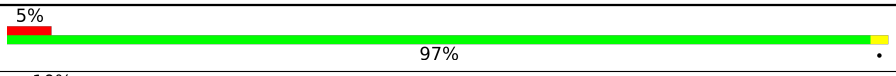
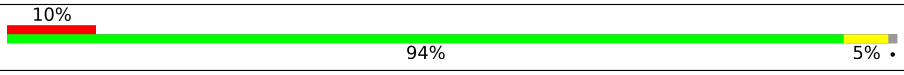
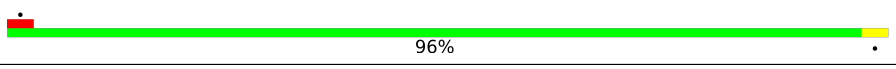
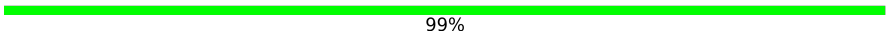
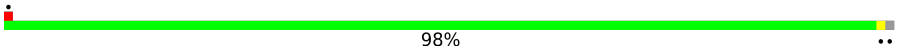
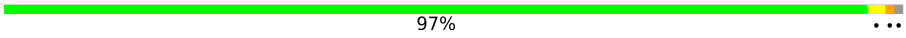
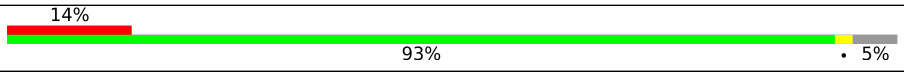
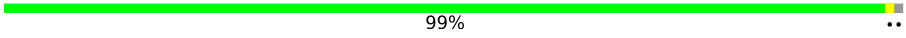
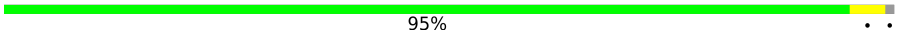
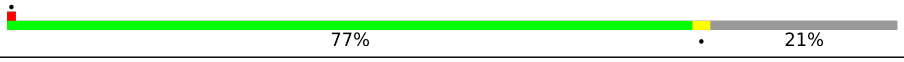
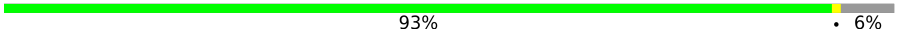
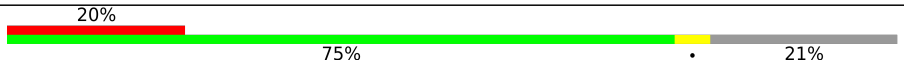
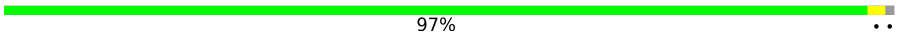
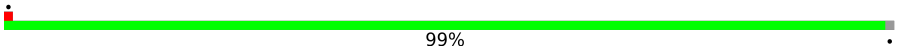
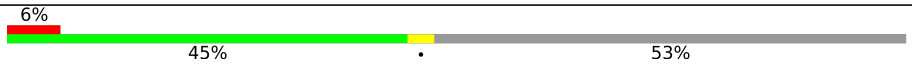
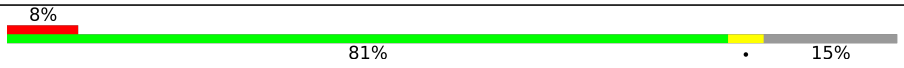
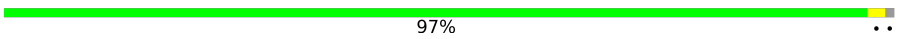
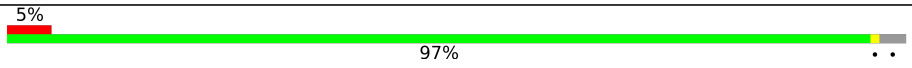
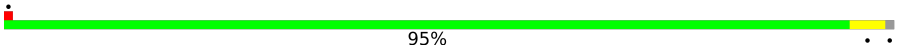
| Mol | Chain | Length | Quality of chain |
|---|---|---|---|
| 59 | LI | 214 |   |
| 60 | LJ | 178 |   |
| 61 | LL | 211 |   |
| 62 | LM | 215 |   |
| 63 | LN | 204 |   |
| 64 | LO | 203 |   |
| 65 | LP | 184 |   |
| 66 | LQ | 188 |   |
| 67 | LR | 196 |   |
| 68 | LS | 176 |   |
| 69 | LT | 160 |   |
| 70 | LU | 128 |   |
| 71 | LV | 140 |   |
| 72 | LW | 157 |   |
| 73 | LX | 156 |   |
| 74 | LY | 145 |   |
| 75 | LZ | 136 |   |
| 76 | La | 148 |   |
| 77 | Lb | 159 |   |
| 78 | Lc | 115 |   |
| 79 | Ld | 125 |   |
| 80 | Le | 135 |   |
| 81 | Lf | 110 |   |
| 82 | Lg | 117 |   |
| 83 | Lh | 123 |   |

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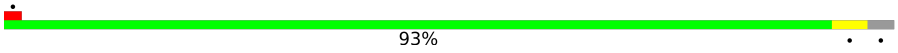
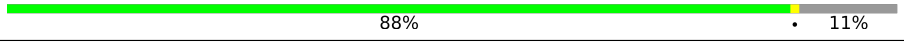
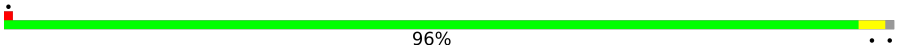
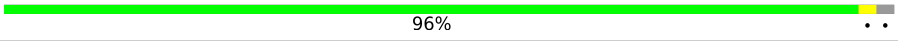
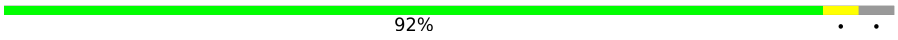
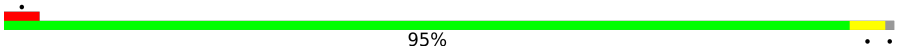
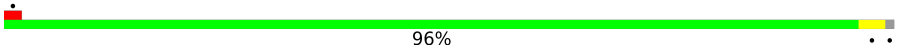
| Mol | Chain | Length | Quality of chain |
|---|---|---|---|
| 84 | Li | 105 |   |
| 85 | Lj | 97 |   |
| 86 | Lk | 70 |   |
| 87 | Ll | 51 |   |
| 88 | Lm | 128 |   |
| 89 | Ln | 25 |   |
| 90 | Lo | 106 |   |
| 91 | Lp | 92 |   |
| 92 | Lr | 137 |   |

# 2 Entry composition (i)

There are 94 unique types of molecules in this entry. The entry contains 251092 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 Helicase SKI2W.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 1 | A | 949 | Total | C | N | O | S | 0 | 0 |
| | | | 7438 | 4710 | 1316 | 1370 | 42 | | |

- Molecule 2 is a protein called Exosome complex component RRP41.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 2 | L | 241 | Total | C | N | O | S | 0 | 0 |
| | | | 1819 | 1123 | 343 | 344 | 9 | | |

- Molecule 3 is a protein called Exosome complex component RRP43.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 3 | N | 265 | Total | C | N | O | S | 0 | 0 |
| | | | 2020 | 1272 | 337 | 397 | 14 | | |

There are 4 discrepancies between the modelled and reference sequences:

| Chain | Residue | Modelled | Actual | Comment | Reference |
|---|---|---|---|---|---|
| N | -3 | GLY | - | expression tag | UNP Q96B26 |
| N | -2 | PRO | - | expression tag | UNP Q96B26 |
| N | -1 | ASP | - | expression tag | UNP Q96B26 |
| N | 0 | SER | - | expression tag | UNP Q96B26 |

- Molecule 4 is a protein called Exosome complex component RRP46.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 4 | O | 208 | Total | C | N | O | S | 0 | 0 |
| | | | 1566 | 979 | 278 | 297 | 12 | | |

There are 4 discrepancies between the modelled and reference sequences:

| Chain | Residue | Modelled | Actual | Comment | Reference |
|---|---|---|---|---|---|
| O | -3 | GLY | - | expression tag | UNP Q9NQT4 |

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| Chain | Residue | Modelled | Actual | Comment | Reference |
|---|---|---|---|---|---|
| O | -2 | PRO | - | expression tag | UNP Q9NQT4 |
| O | -1 | ASP | - | expression tag | UNP Q9NQT4 |
| O | 0 | SER | - | expression tag | UNP Q9NQT4 |

- Molecule 5 is a protein called Exosome complex component RRP42.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 5 | F | 286 | Total | C | N | O | S | 0 | 0 |
| | | | 2194 | 1373 | 374 | 432 | 15 | | |

There are 4 discrepancies between the modelled and reference sequences:

| Chain | Residue | Modelled | Actual | Comment | Reference |
|---|---|---|---|---|---|
| F | -3 | GLY | - | expression tag | UNP Q15024 |
| F | -2 | PRO | - | expression tag | UNP Q15024 |
| F | -1 | ASP | - | expression tag | UNP Q15024 |
| F | 0 | SER | - | expression tag | UNP Q15024 |

- Molecule 6 is a protein called Exosome complex component MTR3.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 6 | G | 251 | Total | C | N | O | S | 0 | 0 |
| | | | 1852 | 1149 | 352 | 344 | 7 | | |

- Molecule 7 is a protein called Exosome complex component RRP40,Exosome complex component MTR3.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 7 | H | 237 | Total | C | N | O | S | 0 | 0 |
| | | | 1810 | 1139 | 331 | 328 | 12 | | |

There are 6 discrepancies between the modelled and reference sequences:

| Chain | Residue | Modelled | Actual | Comment | Reference |
|---|---|---|---|---|---|
| H | -3 | GLY | - | expression tag | UNP Q9NQT5 |
| H | -2 | PRO | - | expression tag | UNP Q9NQT5 |
| H | -1 | ASP | - | expression tag | UNP Q9NQT5 |
| H | 0 | SER | - | expression tag | UNP Q9NQT5 |
| H | 61 | HIS | SER | conflict | UNP Q9NQT5 |
| H | 225 | HIS | TYR | variant | UNP Q9NQT5 |

- Molecule 8 is a protein called Exosome complex component RRP4.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 8 | I | 289 | Total | C | N | O | S | 0 | 0 |
| | | | 2263 | 1424 | 405 | 419 | 15 | | |

There are 4 discrepancies between the modelled and reference sequences:

| Chain | Residue | Modelled | Actual | Comment | Reference |
|---|---|---|---|---|---|
| I | -3 | GLY | - | expression tag | UNP Q13868 |
| I | -2 | PRO | - | expression tag | UNP Q13868 |
| I | -1 | ASP | - | expression tag | UNP Q13868 |
| I | 0 | SER | - | expression tag | UNP Q13868 |

- Molecule 9 is a protein called Exosome complex component CSL4.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 9 | J | 184 | Total | C | N | O | S | 0 | 0 |
| | | | 1414 | 889 | 248 | 267 | 10 | | |

There are 4 discrepancies between the modelled and reference sequences:

| Chain | Residue | Modelled | Actual | Comment | Reference |
|---|---|---|---|---|---|
| J | -3 | GLY | - | expression tag | UNP Q9Y3B2 |
| J | -2 | PRO | - | expression tag | UNP Q9Y3B2 |
| J | -1 | ASP | - | expression tag | UNP Q9Y3B2 |
| J | 0 | SER | - | expression tag | UNP Q9Y3B2 |

- Molecule 10 is a protein called Exosome complex component RRP45.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 10 | K | 341 | Total | C | N | O | S | 0 | 0 |
| | | | 2673 | 1680 | 468 | 506 | 19 | | |

There are 4 discrepancies between the modelled and reference sequences:

| Chain | Residue | Modelled | Actual | Comment | Reference |
|---|---|---|---|---|---|
| K | -3 | GLY | - | expression tag | UNP Q06265 |
| K | -2 | PRO | - | expression tag | UNP Q06265 |
| K | -1 | ASP | - | expression tag | UNP Q06265 |
| K | 0 | SER | - | expression tag | UNP Q06265 |

- Molecule 11 is a protein called Isoform 2 of HBS1-like protein.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 11 | E | 63 | Total | C | N | O | S | 0 | 0 |
| | | | 499 | 324 | 83 | 91 | 1 | | |

There are 10 discrepancies between the modelled and reference sequences:

| Chain | Residue | Modelled | Actual | Comment | Reference |
|---|---|---|---|---|---|
| E | 365 | GLY | - | expression tag | UNP Q9Y450 |
| E | 366 | PRO | - | expression tag | UNP Q9Y450 |
| E | 367 | ASP | - | expression tag | UNP Q9Y450 |
| E | 368 | SER | - | expression tag | UNP Q9Y450 |
| E | 633 | LEU | - | expression tag | UNP Q9Y450 |
| E | 634 | GLU | - | expression tag | UNP Q9Y450 |
| E | 635 | VAL | - | expression tag | UNP Q9Y450 |
| E | 636 | LEU | - | expression tag | UNP Q9Y450 |
| E | 637 | PHE | - | expression tag | UNP Q9Y450 |
| E | 638 | GLN | - | expression tag | UNP Q9Y450 |

- Molecule 12 is a protein called DIS3-like exonuclease 1.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 12 | M | 983 | Total | C | N | O | S | 0 | 0 |
| | | | 7967 | 5028 | 1412 | 1486 | 41 | | |

There are 43 discrepancies between the modelled and reference sequences:

| Chain | Residue | Modelled | Actual | Comment | Reference |
|---|---|---|---|---|---|
| M | -41 | MET | - | initiating methionine | UNP Q8TF46 |
| M | -40 | SER | - | expression tag | UNP Q8TF46 |
| M | -39 | ALA | - | expression tag | UNP Q8TF46 |
| M | -38 | TRP | - | expression tag | UNP Q8TF46 |
| M | -37 | SER | - | expression tag | UNP Q8TF46 |
| M | -36 | HIS | - | expression tag | UNP Q8TF46 |
| M | -35 | PRO | - | expression tag | UNP Q8TF46 |
| M | -34 | GLN | - | expression tag | UNP Q8TF46 |
| M | -33 | PHE | - | expression tag | UNP Q8TF46 |
| M | -32 | GLU | - | expression tag | UNP Q8TF46 |
| M | -31 | LYS | - | expression tag | UNP Q8TF46 |
| M | -30 | GLY | - | expression tag | UNP Q8TF46 |
| M | -29 | GLY | - | expression tag | UNP Q8TF46 |
| M | -28 | GLY | - | expression tag | UNP Q8TF46 |
| M | -27 | SER | - | expression tag | UNP Q8TF46 |
| M | -26 | GLY | - | expression tag | UNP Q8TF46 |
| M | -25 | GLY | - | expression tag | UNP Q8TF46 |

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| Chain | Residue | Modelled | Actual | Comment | Reference |
|---|---|---|---|---|---|
| M | -24 | GLY | - | expression tag | UNP Q8TF46 |
| M | -23 | SER | - | expression tag | UNP Q8TF46 |
| M | -22 | GLY | - | expression tag | UNP Q8TF46 |
| M | -21 | GLY | - | expression tag | UNP Q8TF46 |
| M | -20 | SER | - | expression tag | UNP Q8TF46 |
| M | -19 | ALA | - | expression tag | UNP Q8TF46 |
| M | -18 | TRP | - | expression tag | UNP Q8TF46 |
| M | -17 | SER | - | expression tag | UNP Q8TF46 |
| M | -16 | HIS | - | expression tag | UNP Q8TF46 |
| M | -15 | PRO | - | expression tag | UNP Q8TF46 |
| M | -14 | GLN | - | expression tag | UNP Q8TF46 |
| M | -13 | PHE | - | expression tag | UNP Q8TF46 |
| M | -12 | GLU | - | expression tag | UNP Q8TF46 |
| M | -11 | LYS | - | expression tag | UNP Q8TF46 |
| M | -10 | THR | - | expression tag | UNP Q8TF46 |
| M | -9 | ALA | - | expression tag | UNP Q8TF46 |
| M | -8 | GLY | - | expression tag | UNP Q8TF46 |
| M | -7 | LEU | - | expression tag | UNP Q8TF46 |
| M | -6 | GLU | - | expression tag | UNP Q8TF46 |
| M | -5 | VAL | - | expression tag | UNP Q8TF46 |
| M | -4 | LEU | - | expression tag | UNP Q8TF46 |
| M | -3 | PHE | - | expression tag | UNP Q8TF46 |
| M | -2 | GLN | - | expression tag | UNP Q8TF46 |
| M | -1 | GLY | - | expression tag | UNP Q8TF46 |
| M | 0 | PRO | - | expression tag | UNP Q8TF46 |
| M | 486 | ASN | ASP | conflict | UNP Q8TF46 |

- Molecule 13 is a RNA chain called CrPV-IRES RNA.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 13 | X | 194 | Total | C | N | O | P | 0 | 0 |
| | | | 4020 | 1802 | 633 | 1391 | 194 | | |

- Molecule 14 is a RNA chain called 18S ribosomal RNA.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 14 | S2 | 1742 | Total | C | N | O | P | 0 | 0 |
| | | | 36900 | 16458 | 6595 | 12106 | 1741 | | |

- Molecule 15 is a protein called 40S ribosomal protein SA.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 15 | SA | 222 | Total | C | N | O | S | 0 | 0 |
| | | | 1747 | 1109 | 306 | 324 | 8 | | |

- Molecule 16 is a protein called 40S ribosomal protein S3a.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 16 | SB | 214 | Total | C | N | O | S | 0 | 0 |
| | | | 1738 | 1103 | 310 | 311 | 14 | | |

- Molecule 17 is a protein called 40S ribosomal protein S3.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 17 | SD | 227 | Total | C | N | O | S | 0 | 0 |
| | | | 1765 | 1125 | 317 | 315 | 8 | | |

- Molecule 18 is a protein called 40S ribosomal protein S4, X isoform.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 18 | SE | 262 | Total | C | N | O | S | 0 | 0 |
| | | | 2076 | 1324 | 386 | 358 | 8 | | |

- Molecule 19 is a protein called 40S ribosomal protein S5.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 19 | SF | 191 | Total | C | N | O | S | 0 | 0 |
| | | | 1509 | 943 | 286 | 273 | 7 | | |

- Molecule 20 is a protein called 40S ribosomal protein S7.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 20 | SH | 189 | Total | C | N | O | S | 0 | 0 |
| | | | 1521 | 969 | 280 | 271 | 1 | | |

- Molecule 21 is a protein called 40S ribosomal protein S8.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 21 | SI | 206 | Total | C | N | O | S | 0 | 0 |
| | | | 1686 | 1058 | 332 | 291 | 5 | | |

- Molecule 22 is a protein called 40S ribosomal protein S10.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 22 | SK | 98 | Total | C | N | O | S | 0 | 0 |
| | | | 827 | 539 | 148 | 134 | 6 | | |

- Molecule 23 is a protein called 40S ribosomal protein S11.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 23 | SL | 153 | Total | C | N | O | S | 0 | 0 |
| | | | 1247 | 793 | 234 | 214 | 6 | | |

- Molecule 24 is a protein called 40S ribosomal protein S15.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 24 | SP | 97 | Total | C | N | O | S | 0 | 0 |
| | | | 804 | 505 | 155 | 138 | 6 | | |

- Molecule 25 is a protein called 40S ribosomal protein S16.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 25 | SQ | 146 | Total | C | N | O | S | 0 | 0 |
| | | | 1158 | 736 | 218 | 200 | 4 | | |

- Molecule 26 is a protein called 40S ribosomal protein S17.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 26 | SR | 132 | Total | C | N | O | S | 0 | 0 |
| | | | 1072 | 673 | 199 | 195 | 5 | | |

- Molecule 27 is a protein called 40S ribosomal protein S18.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 27 | SS | 150 | Total | C | N | O | S | 0 | 0 |
| | | | 1235 | 776 | 250 | 208 | 1 | | |

- Molecule 28 is a protein called 40S ribosomal protein S19.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 28 | ST | 143 | Total | C | N | O | S | 0 | 0 |
| | | | 1112 | 697 | 214 | 198 | 3 | | |

- Molecule 29 is a protein called 40S ribosomal protein S20.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 29 | SU | 104 | Total | C | N | O | S | 0 | 0 |
| | | | 822 | 514 | 156 | 148 | 4 | | |

- Molecule 30 is a protein called 40S ribosomal protein S21.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 30 | SV | 83 | Total | C | N | O | S | 0 | 0 |
| | | | 636 | 393 | 117 | 121 | 5 | | |

- Molecule 31 is a protein called 40S ribosomal protein S23.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 31 | SX | 141 | Total | C | N | O | S | 0 | 0 |
| | | | 1098 | 693 | 219 | 183 | 3 | | |

- Molecule 32 is a protein called 40S ribosomal protein S26.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 32 | Sa | 107 | Total | C | N | O | S | 0 | 0 |
| | | | 847 | 528 | 176 | 138 | 5 | | |

- Molecule 33 is a protein called 40S ribosomal protein S28.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 33 | Sc | 64 | Total | C | N | O | S | 0 | 0 |
| | | | 506 | 308 | 102 | 94 | 2 | | |

- Molecule 34 is a protein called 40S ribosomal protein S29.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 34 | Sd | 53 | Total | C | N | O | S | 0 | 0 |
| | | | 445 | 278 | 90 | 72 | 5 | | |

- Molecule 35 is a protein called Ubiquitin.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 35 | Sf | 71 | Total | C | N | O | S | 0 | 0 |
| | | | 581 | 367 | 109 | 98 | 7 | | |

- Molecule 36 is a protein called Receptor of activated protein C kinase 1.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 36 | Sg | 313 | Total | C | N | O | S | 0 | 0 |
| | | | 2436 | 1535 | 424 | 465 | 12 | | |

- Molecule 37 is a protein called 40S ribosomal protein S2.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 37 | SC | 222 | Total | C | N | O | S | 0 | 0 |
| | | | 1725 | 1115 | 298 | 302 | 10 | | |

- Molecule 38 is a protein called 40S ribosomal protein S6.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 38 | SG | 237 | Total | C | N | O | S | 0 | 0 |
| | | | 1923 | 1200 | 387 | 329 | 7 | | |

- Molecule 39 is a protein called 40S ribosomal protein S9.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 39 | SJ | 185 | Total | C | N | O | S | 0 | 0 |
| | | | 1525 | 969 | 306 | 248 | 2 | | |

- Molecule 40 is a protein called 40S ribosomal protein S12.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 40 | SM | 122 | Total | C | N | O | S | 0 | 0 |
| | | | 952 | 596 | 169 | 179 | 8 | | |

There are 3 discrepancies between the modelled and reference sequences:

| Chain | Residue | Modelled | Actual | Comment | Reference |
|---|---|---|---|---|---|
| SM | 52 | GLN | LEU | conflict | UNP P25398 |
| SM | 69 | LEU | CYS | conflict | UNP P25398 |
| SM | 99 | ASN | LYS | conflict | UNP P25398 |

- Molecule 41 is a protein called 40S ribosomal protein S13.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 41 | SN | 150 | Total | C | N | O | S | 0 | 0 |
| | | | 1208 | 773 | 229 | 205 | 1 | | |

- Molecule 42 is a protein called 40S ribosomal protein S14.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 42 | SO | 140 | Total | C | N | O | S | 0 | 0 |
| | | | 1049 | 642 | 204 | 197 | 6 | | |

- Molecule 43 is a protein called 40S ribosomal protein S15a.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 43 | SW | 129 | Total | C | N | O | S | 0 | 0 |
| | | | 1034 | 659 | 193 | 176 | 6 | | |

- Molecule 44 is a protein called 40S ribosomal protein S24.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 44 | SY | 131 | Total | C | N | O | S | 0 | 0 |
| | | | 1065 | 673 | 209 | 178 | 5 | | |

- Molecule 45 is a protein called 40S ribosomal protein S25.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 45 | SZ | 75 | Total | C | N | O | S | 0 | 0 |
| | | | 598 | 382 | 111 | 104 | 1 | | |

- Molecule 46 is a protein called 40S ribosomal protein S27.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 46 | Sb | 83 | Total | C | N | O | S | 0 | 0 |
| | | | 651 | 408 | 121 | 115 | 7 | | |

- Molecule 47 is a protein called 40S ribosomal protein S30.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 47 | Se | 58 | Total | C | N | O | S | 0 | 0 |
| | | | 459 | 284 | 100 | 74 | 1 | | |

- Molecule 48 is a RNA chain called 28S ribosomal RNA.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 48 | L5 | 3654 | Total | C | N | O | P | 0 | 0 |
| | | | 78316 | 34871 | 14334 | 25458 | 3653 | | |

- Molecule 49 is a RNA chain called 5S ribosomal RNA.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 49 | L7 | 120 | Total | C | N | O | P | 0 | 0 |
| | | | 2558 | 1141 | 456 | 842 | 119 | | |

- Molecule 50 is a RNA chain called 5.8S ribosomal RNA.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 50 | L8 | 156 | Total | C | N | O | P | 0 | 0 |
| | | | 3314 | 1480 | 585 | 1094 | 155 | | |

- Molecule 51 is a protein called 60S ribosomal protein L8.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 51 | LA | 248 | Total | C | N | O | S | 0 | 0 |
| | | | 1898 | 1189 | 389 | 314 | 6 | | |

- Molecule 52 is a protein called 60S ribosomal protein L3.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 52 | LB | 402 | Total | C | N | O | S | 0 | 0 |
| | | | 3238 | 2060 | 608 | 556 | 14 | | |

- Molecule 53 is a protein called 60S ribosomal protein L4.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 53 | LC | 367 | Total | C | N | O | S | 0 | 0 |
| | | | 2919 | 1835 | 582 | 488 | 14 | | |

- Molecule 54 is a protein called 60S ribosomal protein L5.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 54 | LD | 293 | Total | C | N | O | S | 0 | 0 |
| | | | 2382 | 1507 | 434 | 427 | 14 | | |

- Molecule 55 is a protein called Large ribosomal subunit protein eL6.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 55 | LE | 242 | Total | C | N | O | S | 0 | 0 |
| | | | 1958 | 1257 | 372 | 325 | 4 | | |

- Molecule 56 is a protein called Large ribosomal subunit protein uL30.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 56 | LF | 225 | Total | C | N | O | S | 0 | 0 |
| | | | 1870 | 1202 | 358 | 301 | 9 | | |

- Molecule 57 is a protein called 60S ribosomal protein L7a.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 57 | LG | 241 | Total | C | N | O | S | 0 | 0 |
| | | | 1927 | 1228 | 371 | 324 | 4 | | |

- Molecule 58 is a protein called 60S ribosomal protein L9.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 58 | LH | 190 | Total | C | N | O | S | 0 | 0 |
| | | | 1518 | 956 | 284 | 272 | 6 | | |

- Molecule 59 is a protein called Ribosomal protein uL16-like.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 59 | LI | 213 | Total | C | N | O | S | 0 | 0 |
| | | | 1711 | 1082 | 329 | 285 | 15 | | |

- Molecule 60 is a protein called 60S ribosomal protein L11.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 60 | LJ | 176 | Total | C | N | O | S | 0 | 0 |
| | | | 1410 | 888 | 263 | 253 | 6 | | |

- Molecule 61 is a protein called 60S ribosomal protein L13.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 61 | LL | 210 | Total | C | N | O | S | 0 | 0 |
| | | | 1701 | 1064 | 352 | 281 | 4 | | |

- Molecule 62 is a protein called 60S ribosomal protein L14.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 62 | LM | 139 | Total | C | N | O | S | 0 | 0 |
| | | | 1138 | 730 | 218 | 183 | 7 | | |

- Molecule 63 is a protein called 60S ribosomal protein L15.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 63 | LN | 203 | Total | C | N | O | S | 0 | 0 |
| | | | 1701 | 1072 | 359 | 266 | 4 | | |

- Molecule 64 is a protein called 60S ribosomal protein L13a.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 64 | LO | 201 | Total | C | N | O | S | 0 | 0 |
| | | | 1650 | 1063 | 321 | 261 | 5 | | |

- Molecule 65 is a protein called 60S ribosomal protein L17.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 65 | LP | 153 | Total | C | N | O | S | 0 | 0 |
| | | | 1242 | 776 | 241 | 216 | 9 | | |

- Molecule 66 is a protein called 60S ribosomal protein L18.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 66 | LQ | 187 | Total | C | N | O | S | 0 | 0 |
| | | | 1513 | 944 | 314 | 250 | 5 | | |

- Molecule 67 is a protein called 60S ribosomal protein L19.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 67 | LR | 187 | Total | C | N | O | S | 0 | 0 |
| | | | 1566 | 971 | 336 | 250 | 9 | | |

- Molecule 68 is a protein called 60S ribosomal protein L18a.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 68 | LS | 175 | Total | C | N | O | S | 0 | 0 |
| | | | 1453 | 925 | 283 | 235 | 10 | | |

- Molecule 69 is a protein called 60S ribosomal protein L21.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 69 | LT | 159 | Total | C | N | O | S | 0 | 0 |
| | | | 1298 | 823 | 252 | 217 | 6 | | |

- Molecule 70 is a protein called 60S ribosomal protein L22.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 70 | LU | 101 | Total | C | N | O | S | 0 | 0 |
| | | | 825 | 529 | 144 | 150 | 2 | | |

- Molecule 71 is a protein called 60S ribosomal protein L23.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 71 | LV | 131 | Total | C | N | O | S | 0 | 0 |
| | | | 979 | 618 | 184 | 172 | 5 | | |

- Molecule 72 is a protein called 60S ribosomal protein L24.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 72 | LW | 124 | Total | C | N | O | S | 0 | 0 |
| | | | 1015 | 634 | 207 | 170 | 4 | | |

- Molecule 73 is a protein called 60S ribosomal protein L23a.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 73 | LX | 120 | Total | C | N | O | S | 0 | 0 |
| | | | 985 | 630 | 185 | 169 | 1 | | |

- Molecule 74 is a protein called 60S ribosomal protein L26.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 74 | LY | 134 | Total | C | N | O | S | 0 | 0 |
| | | | 1115 | 700 | 226 | 186 | 3 | | |

- Molecule 75 is a protein called 60S ribosomal protein L27.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 75 | LZ | 135 | Total | C | N | O | S | 0 | 0 |
| | | | 1107 | 714 | 208 | 182 | 3 | | |

- Molecule 76 is a protein called 60S ribosomal protein L27a.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 76 | La | 147 | Total | C | N | O | S | 0 | 0 |
| | | | 1162 | 736 | 237 | 186 | 3 | | |

- Molecule 77 is a protein called 60S ribosomal protein L29.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 77 | Lb | 75 | Total | C | N | O | S | 0 | 0 |
| | | | 610 | 378 | 130 | 99 | 3 | | |

- Molecule 78 is a protein called 60S ribosomal protein L30.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 78 | Lc | 98 | Total | C | N | O | S | 0 | 0 |
| | | | 764 | 485 | 135 | 138 | 6 | | |

- Molecule 79 is a protein called 60S ribosomal protein L31.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 79 | Ld | 107 | Total | C | N | O | S | 0 | 0 |
| | | | 888 | 560 | 171 | 155 | 2 | | |

- Molecule 80 is a protein called 60S ribosomal protein L32.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 80 | Le | 128 | Total | C | N | O | S | 0 | 0 |
| | | | 1053 | 667 | 216 | 165 | 5 | | |

- Molecule 81 is a protein called 60S ribosomal protein L35a.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 81 | Lf | 109 | Total | C | N | O | S | 0 | 0 |
| | | | 876 | 555 | 174 | 144 | 3 | | |

- Molecule 82 is a protein called 60S ribosomal protein L34.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 82 | Lg | 114 | Total | C | N | O | S | 0 | 0 |
| | | | 906 | 566 | 187 | 147 | 6 | | |

- Molecule 83 is a protein called 60S ribosomal protein L35.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 83 | Lh | 122 | Total | C | N | O | S | 0 | 0 |
| | | | 1015 | 641 | 205 | 168 | 1 | | |

- Molecule 84 is a protein called 60S ribosomal protein L36.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 84 | Li | 102 | Total | C | N | O | S | 0 | 0 |
| | | | 832 | 521 | 177 | 129 | 5 | | |

- Molecule 85 is a protein called 60S ribosomal protein L37.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 85 | Lj | 86 | Total | C | N | O | S | 0 | 0 |
| | | | 705 | 434 | 155 | 111 | 5 | | |

- Molecule 86 is a protein called 60S ribosomal protein L38.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 86 | Lk | 69 | Total | C | N | O | S | 0 | 0 |
| | | | 569 | 366 | 103 | 99 | 1 | | |

- Molecule 87 is a protein called 60S ribosomal protein L39.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 87 | Ll | 50 | Total | C | N | O | S | 0 | 0 |
| | | | 444 | 281 | 98 | 64 | 1 | | |

- Molecule 88 is a protein called Ubiquitin-60S ribosomal protein L40.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 88 | Lm | 52 | Total | C | N | O | S | 0 | 0 |
| | | | 429 | 266 | 90 | 67 | 6 | | |

- Molecule 89 is a protein called 60S ribosomal protein L41.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 89 | Ln | 24 | Total | C | N | O | S | 0 | 0 |
| | | | 230 | 139 | 62 | 26 | 3 | | |

- Molecule 90 is a protein called 60S ribosomal protein L36a.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 90 | Lo | 105 | Total | C | N | O | S | 0 | 0 |
| | | | 862 | 542 | 175 | 139 | 6 | | |

- Molecule 91 is a protein called 60S ribosomal protein L37a.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 91 | Lp | 91 | Total | C | N | O | S | 0 | 0 |
| | | | 708 | 445 | 136 | 120 | 7 | | |

- Molecule 92 is a protein called 60S ribosomal protein L28.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 92 | Lr | 125 | Total | C | N | O | S | 0 | 0 |
| | | | 1002 | 622 | 207 | 168 | 5 | | |

- Molecule 93 is MAGNESIUM ION (three-letter code: MG) (formula: Mg) (labeled as "Ligand of Interest" by depositor).

| Mol | Chain | Residues | Atoms | | AltConf |
|---|---|---|---|---|---|
| 93 | S2 | 65 | Total | Mg | 0 |
| | | | 65 | 65 | |
| 93 | Sc | 1 | Total | Mg | 0 |
| | | | 1 | 1 | |
| 93 | L5 | 145 | Total | Mg | 0 |
| | | | 145 | 145 | |
| 93 | L7 | 7 | Total | Mg | 0 |
| | | | 7 | 7 | |
| 93 | L8 | 5 | Total | Mg | 0 |
| | | | 5 | 5 | |
| 93 | LA | 1 | Total | Mg | 0 |
| | | | 1 | 1 | |
| 93 | LH | 1 | Total | Mg | 0 |
| | | | 1 | 1 | |
| 93 | LN | 1 | Total | Mg | 0 |
| | | | 1 | 1 | |
| 93 | LP | 1 | Total | Mg | 0 |
| | | | 1 | 1 | |
| 93 | LQ | 1 | Total | Mg | 0 |
| | | | 1 | 1 | |
| 93 | LV | 2 | Total | Mg | 0 |
| | | | 2 | 2 | |
| 93 | Ll | 1 | Total | Mg | 0 |
| | | | 1 | 1 | |
| 93 | Lr | 1 | Total | Mg | 0 |
| | | | 1 | 1 | |

- Molecule 94 is ZINC ION (three-letter code: ZN) (formula: Zn).

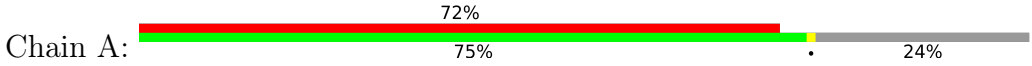
| Mol | Chain | Residues | Atoms | AltConf |
|---|---|---|---|---|
| 94 | Sa | 1 | Total Zn<br>1 1 | 0 |
| 94 | Lg | 1 | Total Zn<br>1 1 | 0 |
| 94 | Lj | 1 | Total Zn<br>1 1 | 0 |
| 94 | Lm | 1 | Total Zn<br>1 1 | 0 |
| 94 | Lo | 1 | Total Zn<br>1 1 | 0 |
| 94 | Lp | 1 | Total Zn<br>1 1 | 0 |

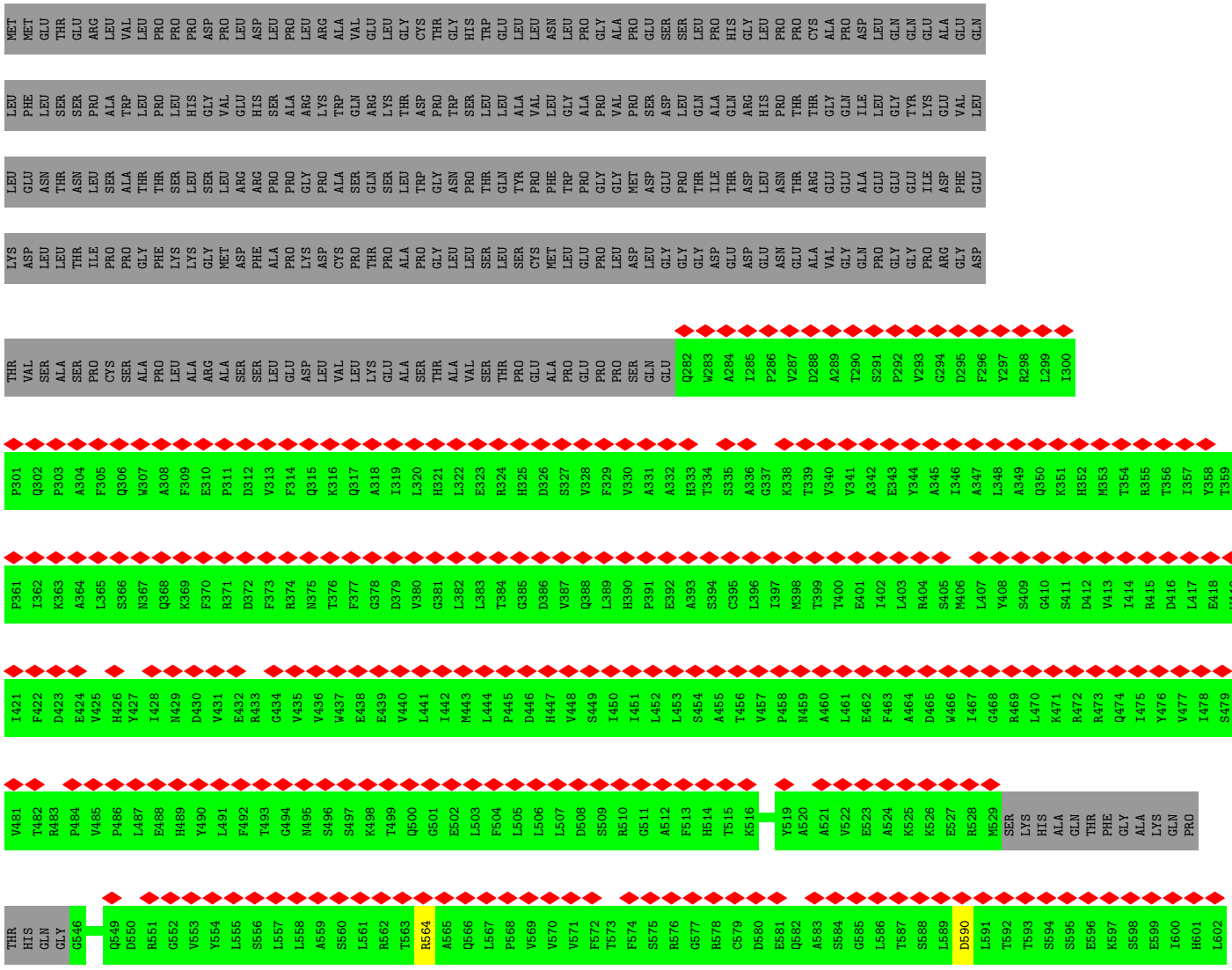
# 3 Residue-property plots (i)

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

- Molecule 1: Helicase SKI2W

Chain A:



F603 L604 Q605 R606 C607 L608 A609 R610 L611 R612 G613 S614 D615 R616 Q617 L618 P619 Q620 V621 L622 H623 M624 S625 E626 L627 L628 N629 R630 G631 L632 G633 V634 H635 H636 S637 G638 I639 L640 P641 I642 L643 K644 E645 I646 V647 E648 M649 L650 F651 S652 R653 G654 L655 V656 K657 V658 L659 F660 A661 T662

E663 T664 F665 A666 M667 G668 V669 N670 M671 P672 A673 R674 T675 V676 V677 F678 D679 S680 M681 R682 K683 H684 D685 G686 S687 T688 F689 R690 D691 L692 L693 P694 G695 E696 Y697 V698 Q699 M700 A701 G702 R703 R706 R707 G708 L709 D710 P711 T712 G713 T714 V715 I716 L717 L718 C719 K720 G721 R722 V723

P724 E725 M726 A727 R731 M732 M733 M734 G735 K736 P737 S738 Q739 L740 Q741 S742 Q743 F744 R745 L746 T747 Y748 T749 M750 I751 L752 N753 L754 L755 R756 V757 D758 A759 L760 R761 V762 E763 D764 M765 M766 K767 R768 S769 F770 S771 E772 F773 P774 S775 R776 K777 D778 S779 K780 A781 H782 E783 Q784 A785

L786 A787 E788 L789 T790 K791 R792 L793 G794 A795 L796 E797 E798 P799 D800 M801 T802 G803 Q804 L805 V806 D807 L808 P809 E810 Y811 Y812 S813 W814 G815 E816 E817 L818 T819 E820 T821 Q822 H823 M824 I825 Q826 R827 R828 I829 M830 E831 S832 V833 N834 G835 L836 K837 S838 L839 S840 A841 G842 R843 V844 V845

V846 V847 K848 N849 Q850 E851 H852 H853 N854 A855 L856 G857 V858 I859 L860 Q861 V862 S863 S864 N865 S866 T867 S868 R869 V870 F871 T872 T873 L874 V875 L876 C877 D878 K879 P880 L881 S882 Q883 D884 P885 Q886 D887 R888 G889 P890 A891 T892 A893 E894 V895 P896 Y897 P898 D899 D900 L901 V902 G903 F904 K905

L906 F907 L908 P909 E910 G911 P912 C913 D914 H915 T916 V917 V918 K919 L920 Q921 P922 G923 D924 M925 A926 A927 I928 T929 T930 K931 V932 L933 R934 V935 N936 G937 E938 K939 I940 L941 E942 D943 F944 S945 K946 R947 Q948 Q949 P950 K951 F952 K953 K954 D955 P956 P957 L958 A959 A960 V961 T962 T963 A964 V965

Q966 E967 L968 L969 R970 L971 A972 Q973 A974 H975 P976 A977 G978 P979 P980 T981 L982 D983 P984 V985 N986 D987 L988 Q989 L990 K991 D992 M993 S994 V995 V996 E997 G998 G999 L1000 R1001 A1002 R1003 K1004 L1005 E1006 E1007 L1008 I1009 Q1010 G1011 A1012 Q1013 C1014 V1015 H1016 S1017 P1018 R1019 F1020 P1021 A1022 Q1023 Y1024 L1025

K1026 L1027 R1028 E1029 R1030 M1031 Q1032 I1033 Q1034 K1035 E1036 M1037 E1038 R1039 L1040 R1041 F1042 L1043 L1044 S1045 D1046 Q1047 S1048 L1049 L1050 L1051 L1052 P1053 E1054 Y1055 H1056 Q1057 R1058 V1059 E1060 V1061 L1062 R1063 T1064 L1065 G1066 Y1067 V1068 D1069 E1070 A1071 G1072 T1073 V1074 K1075 L1076 A1077 G1078 R1079 V1080 A1081 C1082 A1083 M1084 S1085

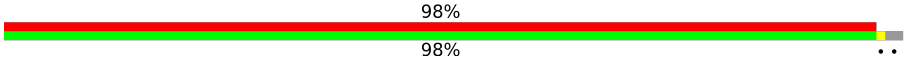
S1086 H1087 E1088 L1089 L1090 L1091 T1092 E1093 L1094 M1095 F1096 D1097 N1098 A1099 L1100 S1101 T1102 L1103 R1104 P1105 E1106 E1107 I1108 A1109 A1110 L1111 L1112 S1113 G1114 L1115 V1116 C1117 Q1118 S1119 P1120 G1121 D1122 A1123 G1124 D1125 Q1126 L1127 P1128 N1129 T1130 L1131 K1132 Q1133 G1134 I1135 E1136 R1137 V1138 R1139 A1140 V1141 A1142 K1143 R1144 I1145

G1146 E1147 V1148 Q1149 V1150 A1151 C1152 G1153 L1154 N1155 Q1156 T1157 V1158 E1159 E1160 F1161 V1162 G1163 E1164 L1165 N1166 F1167 G1168 L1169 V1170 E1171 V1172 V1173 Y1174 E1175 W1176 A1177 R1178 G1179 M1180 P1181 F1182 S1183 E1184 L1185 A1186 G1187 L1188 S1189 G1190 T1191 P1192 E1193 G1194 L1195 V1196 V1197 R1198 C1199 I1200 Q1201 R1202 L1203 A1204 E1205

M1206 C1207 R1208 S1209 L1210 R1211 G1212 A1213 A1214 R1215 Q1216 V1217 G1218 E1219 P1220 V1221 L1222 G1223 A1224 K1225 M1226 E1227 T1228 A1229 A1230 T1231 L1232 L1233 R1234 R1235 D1236 I1237 V1238 F1239 A1240 A1241 S1242 L1243 Y1244 T1245 Q1246

- Molecule 2: Exosome complex component RRP41

Chain L:




MET ALA GLY L3 E4 L5 L6 S7 D8 Q9 G10 Y11 R12 V13 D14 G15 R16 R17 A18 G19 E20 L21 R22 K23 I24 Q25 A26 R27 M28 G29 V30 F31 A32 Q33 A34 D35 G36 S37 A38 Y39 I40 E41 Q42 G43 N44 T45 K46 A47 L48 A49 V50 V51 Y52 G53 P54 H55 E56 I57 R58 G59

S60 R61 A62 R63 A64 L65 P66 D67 R68 A69 L70 V71 N72 C73 Q74 Y75 S76 S77 A78 T79 F80 S81 T82 G83 E84 R85 K86 R87 R88 P89 H90 G91 D92 R93 K94 S95 C96 E97 M98 G99 L100 Q101 L102 R103 Q104 T105 F106 E107 A108 A109 I110 L111 T112 Q113 L114 H115 P116 R117 S118 Q119

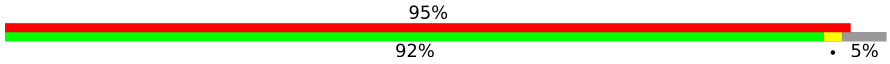
I120 D121 I122 Y123 V124 Q125 V126 L127 Q128 A129 D130 G131 G132 T133 Y134 A135 A136 C137 V138 N139 A140 A141 T142 L143 A144 V145 L146 D147 A148 G149 I150 P151 M152 R153 D154 F155 V156 C157 A158 C159 S160 A161 G162 F163 V164 D165 G166 T167 A168 L169 A170 D171 L172 S173 H174 V175 E176 E177 A178 A179

G180 G181 P182 Q183 L184 A185 L186 A187 L188 L189 P190 A191 S192 G193 Q194 I195 A196 L197 L198 E199 M200 D201 A202 R203 L204 H205 E206 D207 H208 L209 E210 R211 V212 L213 E214 A215 A216 A217 Q218 A219 A220 R221 D222 V223 H224 T225 L226 L227 D228 R229 V230 V231 R232 Q233 H234 V235 R236 E237 A238 S239

I240 L241 L242 G243 ASP

- Molecule 3: Exosome complex component RRP43

Chain N:




GLY PRO ASP SER MET ALA ALA GLY PHE LYS THR VAL E9 P10 L11 E12 Y13 Y14 R15 R16 F17 L18 K19 E20 N21 C22 R23 P24 D25 G26 R27 E28 L29 G30 E31 F32 R33 T34 T35 T36 V37 N38 T39 G40 S41 I42 S43 T44 A45 D46 G47 S48 A49 L50 V51 K52 L53 G54 N55 T56

T57 V58 I59 C60 G61 V62 K63 A64 E65 F66 A67 A68 P69 S70 T71 D72 A73 P74 D75 K76 G77 Y78 V79 V80 P81 N82 V83 D84 L85 P86 P87 L88 C89 S90 S91 R92 F93 R94 S95 G96 P97 P98 G99 E100 E101 A102 Q103 V104 A105 S106 Q107 F108 I109 A110 D111 V112 I113 E114 N115 S116

Q117 I118 I119 Q120 K121 E122 D123 L124 C125 I126 S127 P128 G129 K130 L131 V132 W133 V134 L135 Y136 C137 D138 L139 I140 C141 L142 D143 Y144 D145 G146 N147 I148 L149 D150 A151 C152 T153 F154 A155 L156 L157 A158 A159 L160 K161 N162 V163 Q164 L165 P166 E167 V168 T169 I170 N171 E172 E173 T174 A175 L176

A177 E178 V179 N180 L181 K182 K183 K184 S185 Y186 L187 N188 I189 R190 T191 H192 P193 V194 A195 T196 S197 F198 A199 V200 F201 D202 D203 T204 L205 L206 I207 V208 D209 P210 T211 G212 E213 E214 E215 H216 L217 A218 T219 G220 T221 L222 T223 I224 V225 M226 D227 E228 E229 G230 K231 L232 C233 C234 L235 H236

K237 P238 G239 G240 S241 G242 L243 T244 G245 A246 K247 L248 Q249 D250 C251 M252 S253 R254 A255 V256 T257 R258 H259 K260 E261 V262 K263 K264 L265 M266 D267 E268 V269 I270 K271 S272 M273 LYS PRO LYS

- Molecule 4: Exosome complex component RRP46

Chain O:


GLY PRO ASP SER MET GLU GLU GLU THR HIS THR ASP ALA LYS ILE ARG ALA GLU ASN GLY THR GLY SER SER PRO ARG GLY PRO GLY C26 S27 L28 R29 H30 F31 A32 C33 E34 Q35 N36 L37 L38 S39 R40 P41 D42 G43 S44 A45 S46 F47 L48 Q49 G50 D51 T52 S53 V54 L55 A56

G57 V58 Y59 G60 P61 A62 E63 V64 K65 V66 S67 K68 E69 I70 F71 N72 K73 A74 T75 L76 E77 V78 I79 L80 R81 P82 K83 I84 G85 L86 P87 G88 V89 A90 E91 K92 S93 R94 E95 R96 L97 I98 R99 N100 T101 C102 E103 A104 V105 V106 L107 G108 T109 L110 H111 P112 R113 T114 S115 I116

T117 V118 V119 L120 Q121 V122 V123 S124 D125 A126 G127 S128 L129 L130 A131 C132 C133 L134 N135 A136 A137 C138 M139 A140 L141 V142 D143 A144 G145 V146 P147 M148 R149 A150 L151 F152 C153 G154 V155 A156 C157 A158 L159 D160 S161 D162 G163 T164 L165 V166 L167 D168 P169 T170 S171 K172 Q173 E174 K175 E176

A177 R178 A179 V180 L181 T182 F183 A184 L185 D186 S187 V188 E189 R190 K191 L192 L193 M194 S195 S196 T197 K198 G199 L200 Y201 S202 D203 T204 E205 L206 Q207 Q208 C209 L210 A211 A212 A213 Q214 A215 A216 S217 Q218 H219 V220 F221 R222 F223 Y224 R225 E226 S227 L228 Q229 R230 R231 Y232 S233 LYS SER

• Molecule 5: Exosome complex component RRP42

Chain F: 97% 95%

GLY PRO ASP SER MET ALA SER VAL T5 L6 S7 E8 A9 E10 K11 V12 Y13 I14 V15 H16 G17 V18 Q19 E20 D21 L22 R23 V24 D25 G26 R27 G28 C29 E30 D31 Y32 R33 C34 V35 E36 V37 E38 T39 D40 V41 V42 S43 N44 T45 S46 G47 S48 A49 R50 V51 K52 L53 G54 H55 T56

D57 I58 L59 V60 G61 V62 K63 A64 E65 M66 G67 T68 P69 K70 L71 E72 K73 P74 N75 E76 G77 Y78 L79 E80 F81 F82 V83 D84 C85 S86 A87 S88 A89 T90 P91 E92 F93 E94 G95 R96 G97 G98 D99 D100 L101 G102 T103 E104 I105 A106 N107 T108 L109 Y110 R111 I112 F113 N114 N115 K116

S117 S118 V119 D120 L121 K122 T123 L124 C125 I126 S127 P128 R129 E130 H131 C132 W133 V134 L135 Y136 V137 D138 V139 L140 L141 L142 E143 C144 G145 G146 N147 L148 F149 D150 A151 I152 S153 I154 A155 V156 K157 A158 A159 L160 F161 N162 T163 R164 I165 P166 R167 V168 R169 V170 L171 E172 D173 E174 E175 G176

S177 K178 D179 I180 E181 L182 S183 D184 D185 P186 Y187 D188 C189 I190 R191 L192 S193 V194 E195 N196 V197 P198 C199 I200 V201 T202 L203 C204 K205 I206 G207 Y208 R209 H210 V211 V212 D213 A214 T215 L216 Q217 E218 E219 A220 C221 S222 L223 A224 S225 L226 L227 V228 S229 V230 T231 S232 K233 G234 V235 V236

T237 C238 M239 R240 K241 V242 G243 K244 G245 S246 L247 D248 P249 E250 S251 I252 F253 E254 M255 M256 E257 T258 G259 K260 R261 V262 G263 K264 V265 L266 H267 A268 S269 L270 Q271 S272 V273 Y274 H275 K276 E277 E278 S279 L280 G281 P282 K283 R284 Q285 K286 V287 G288 F289 L290 GLY

• Molecule 6: Exosome complex component MTR3

Chain G: 92% 90% 8%

MET PRO G3 D4 H5 R6 R7 I8 R9 G10 P11 E12 E13 S14 Q15 P16 P17 Q18 L19 Y20 A21 A22 D23 E24 E25 E26 A27 P28 G29 T30 R31 D32 P33 T34 R35 L36 R37 P38 V39 Y40 A41 R42 A43 G44 L45 L46 S47 Q48 A49 K50 G51 S52 A53 Y54 L55 E56 A57 G58 G59 T60

K61 V62 L63 C64 A65 V66 S67 G68 P69 R70 Q71 A72 GLU GLY GLY GLU ARG GLY GLY GLY PRO ALA GLY ALA GLY GLU GLU ALA PRO A90 A91 L92 R93 G94 R95 L96 L97 C98 D99 F100 R101 R102 A103 P104 F105 A106 G107 R108 R109 R110 R111 A112 P113 P114 G115 G116 C117 E118 E119 R120

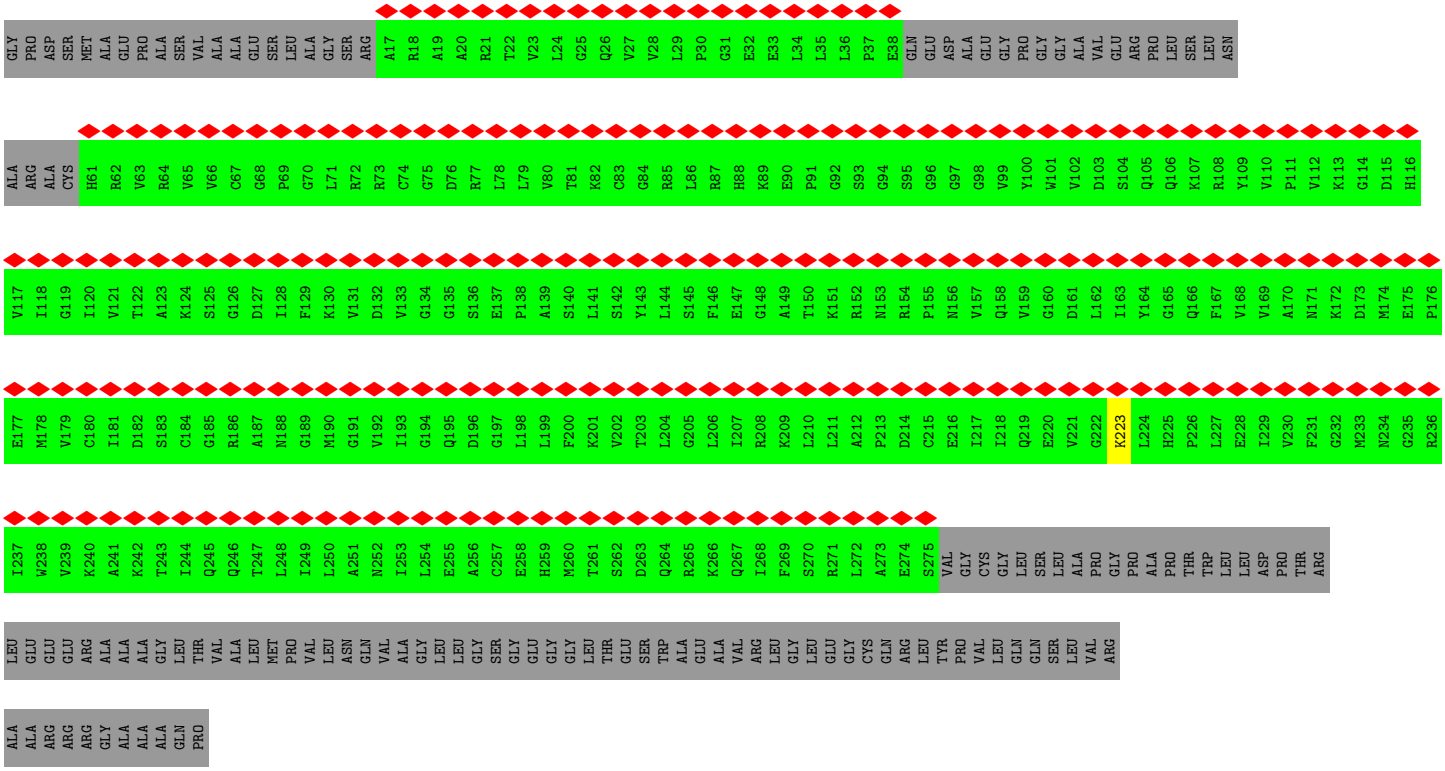
E121 L122 A123 L124 A125 L126 Q127 E128 A129 L130 E131 P132 A133 V134 R135 L136 G137 R138 Y139 P140 R141 A142 Q143 L144 E145 V146 S147 A148 L149 L150 L151 E152 D153 G154 G155 S156 A157 L158 A159 A160 A161 L162 T163 A164 A165 A166 L167 A168 L169 A170 D171 A172 G173 V174 E175 M176 Y177 D178 L179 V180

V181 G182 C183 G184 L185 S186 L187 A188 P189 G190 P191 A192 P193 T194 W195 L196 L197 D198 P199 T200 R201 L202 E203 E204 E205 R206 A207 A208 A209 G210 L211 T212 V213 A214 L215 M216 P217 V218 L219 N220 Q221 V222 A223 G224 L225 L226 G227 S228 G229 E230 G231 G232 L233 T234 E235 S236 W237 A238 E239 A240

V241 R242 L243 G244 L245 E246 G247 C248 Q249 R250 L251 Y252 P253 V254 L255 Q256 Q257 S258 L259 V260 R261 A262 A263 R264 R265 R266 G267 A268 A269 A270 GLN PRO

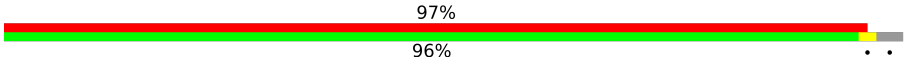
• Molecule 7: Exosome complex component RRP40,Exosome complex component MTR3

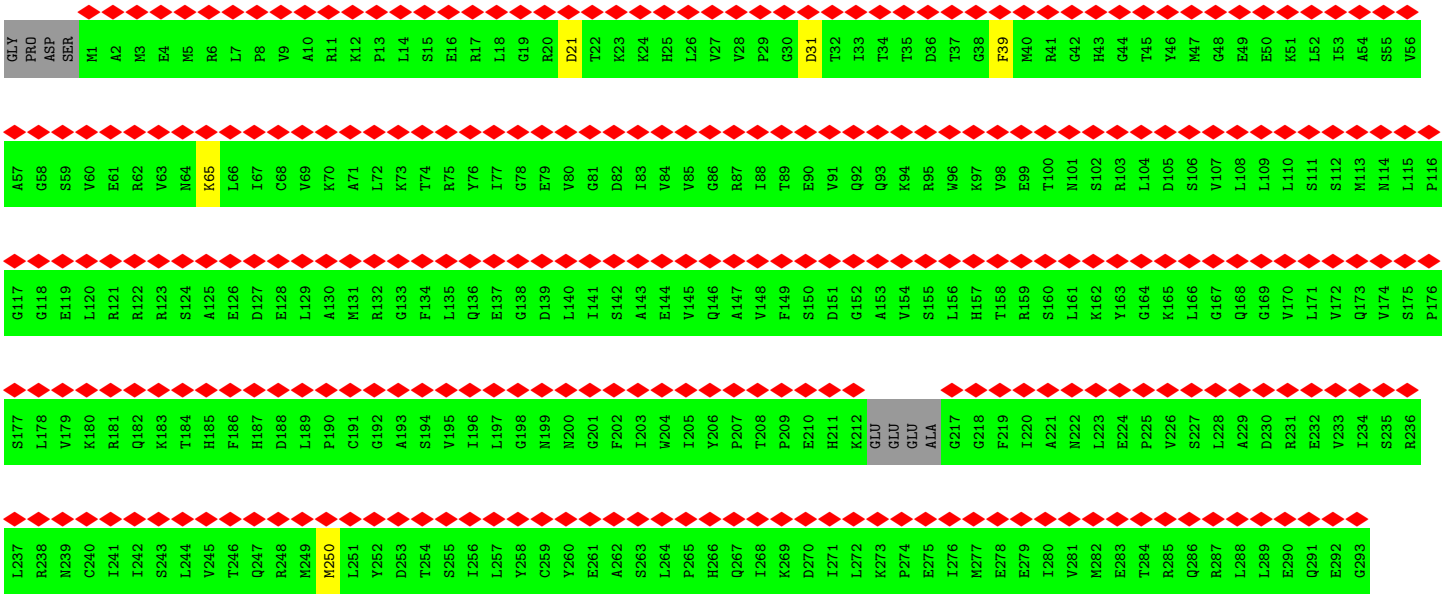
Chain H: 64% 64% 36%




• Molecule 8: Exosome complex component RRP4

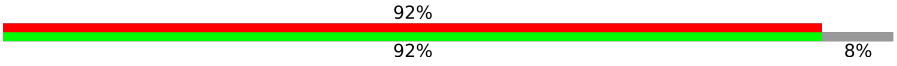
Chain I:

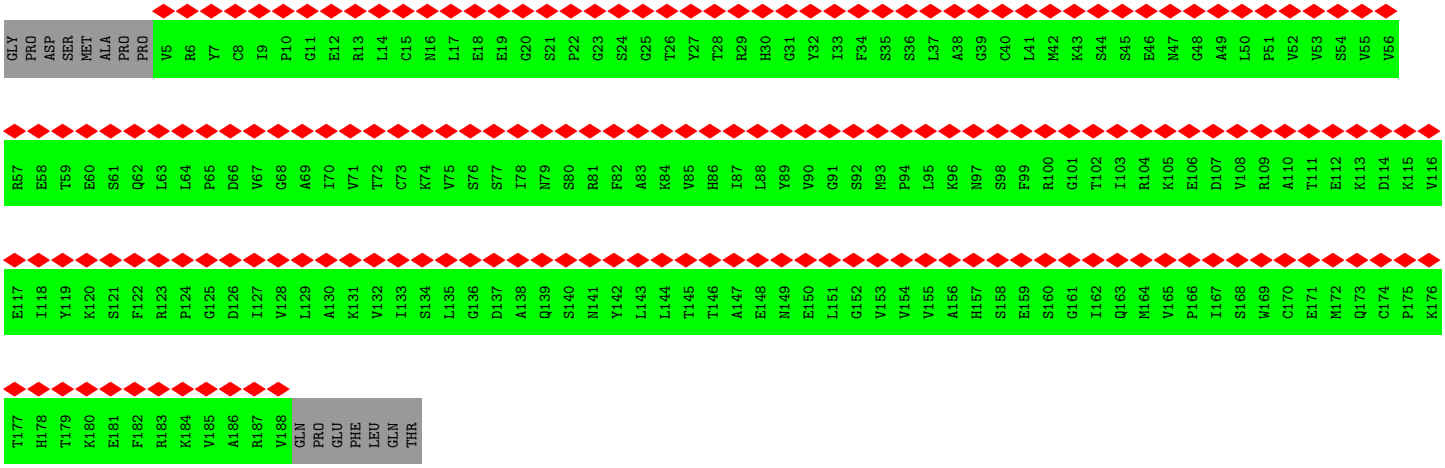



• Molecule 9: Exosome complex component CSL4

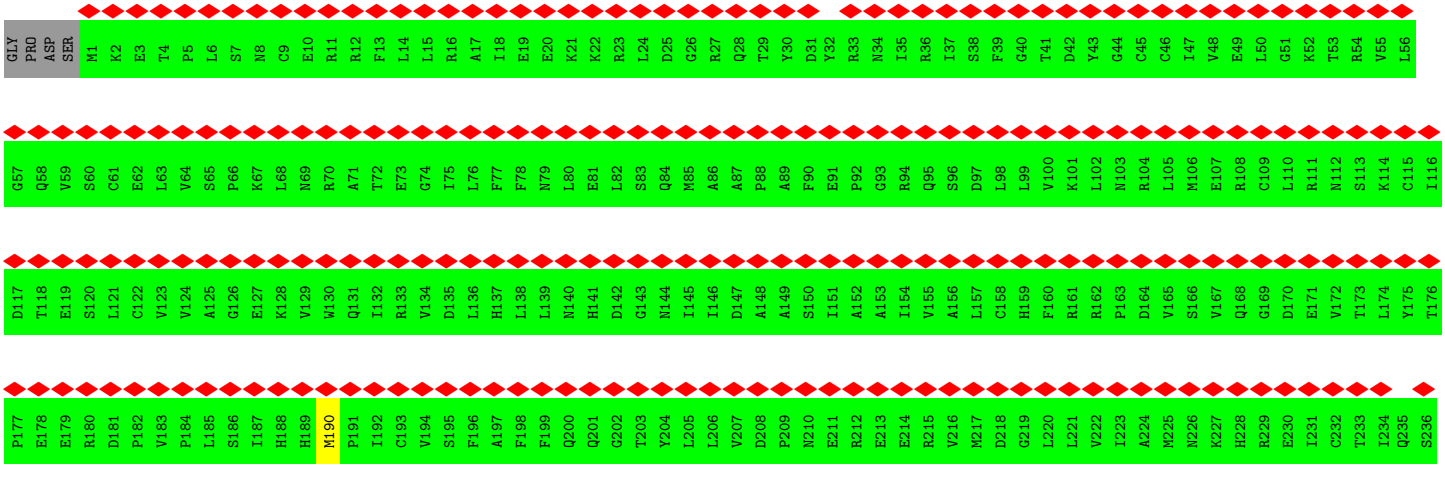
Chain J:





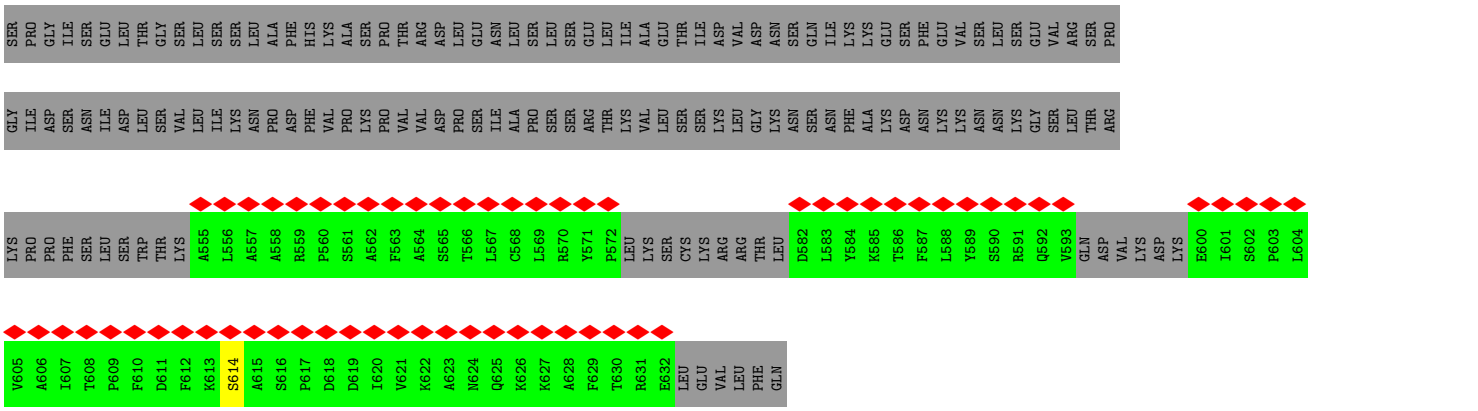

• Molecule 10: Exosome complex component RRP45

Chain K:

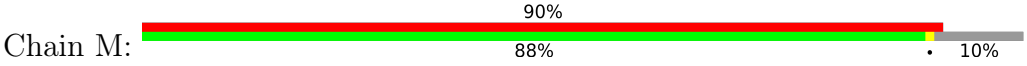



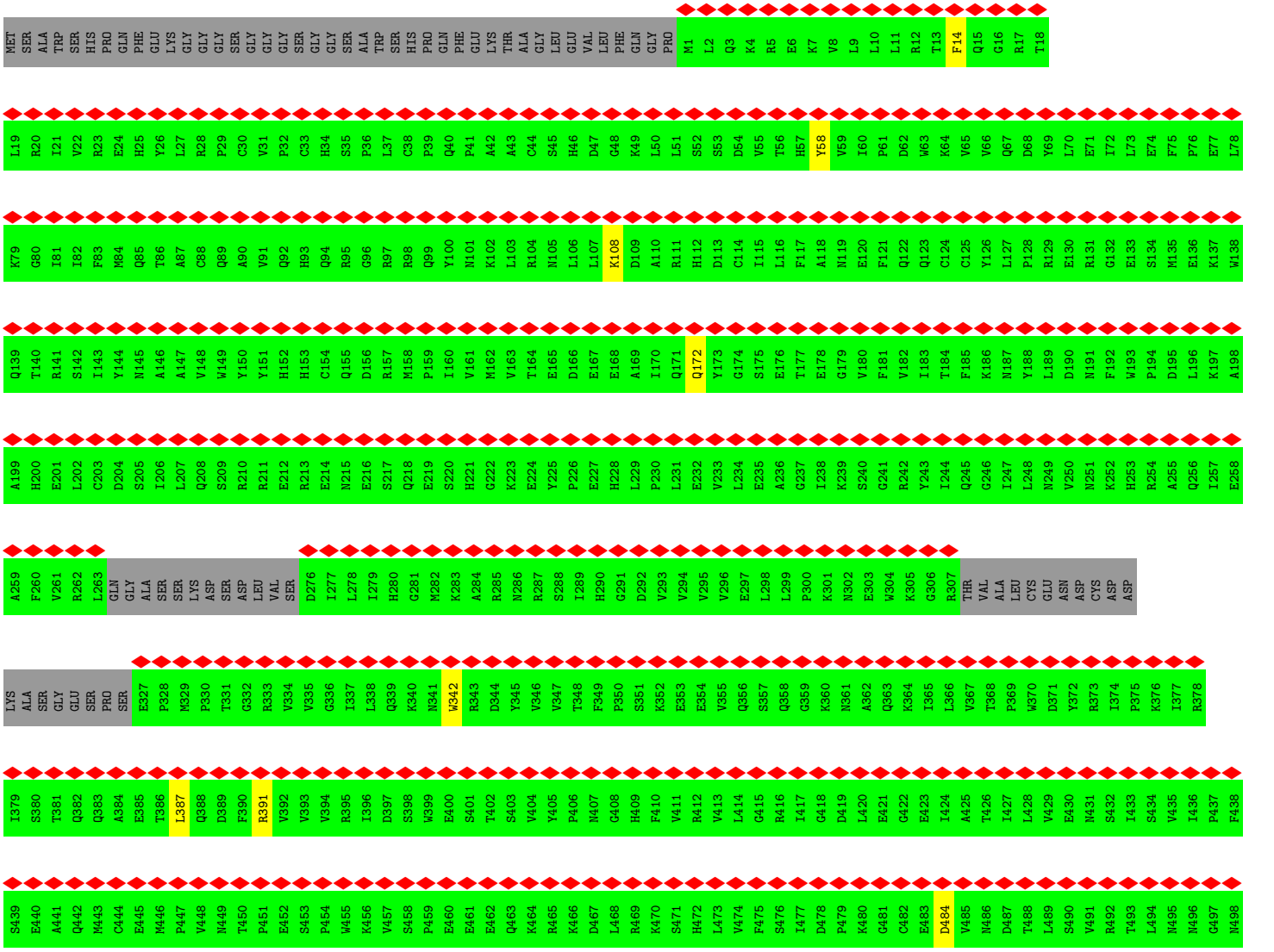

• Molecule 11: Isoform 2 of HBS1-like protein

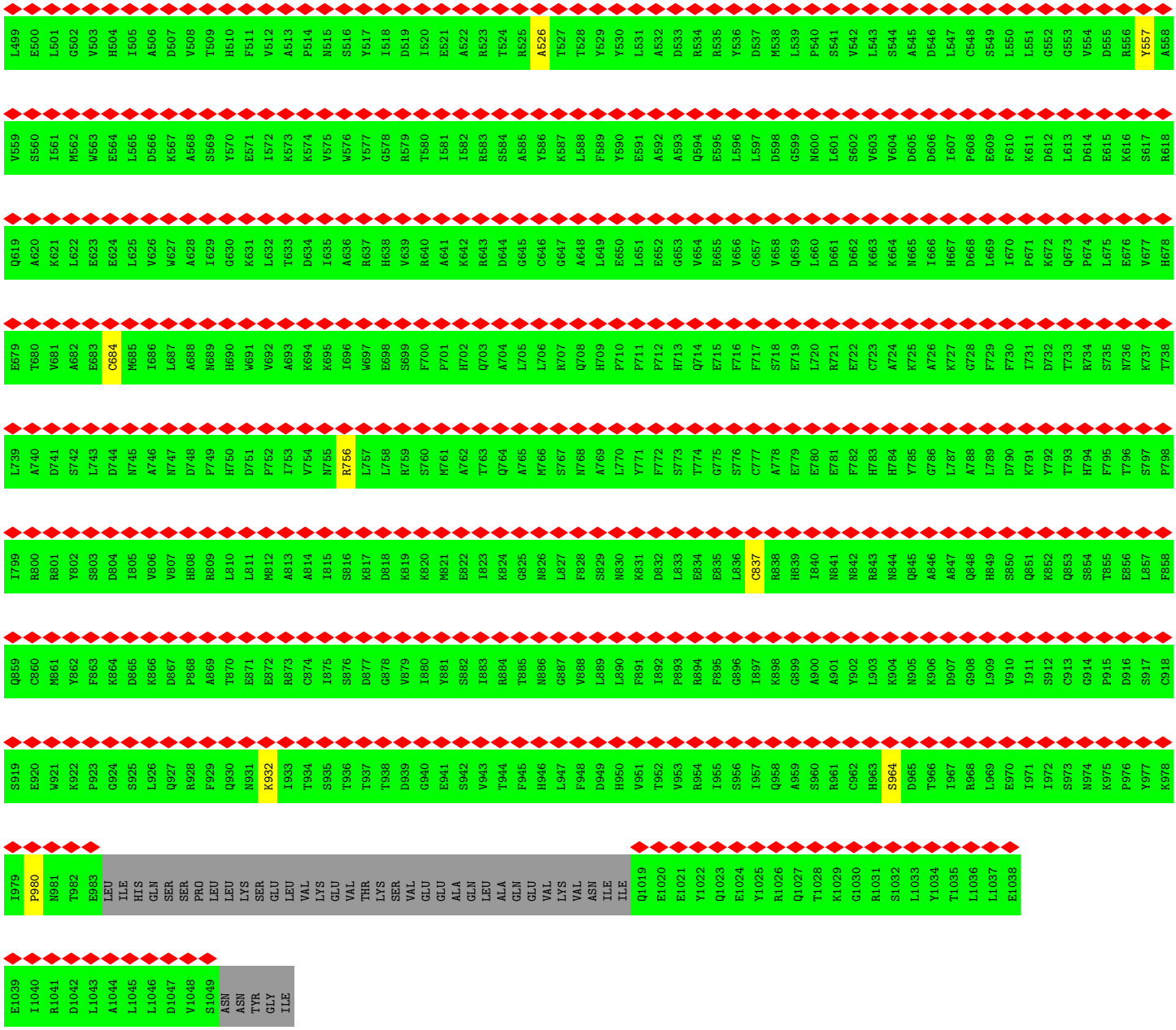
Chain E:


• Molecule 12: DIS3-like exonuclease 1

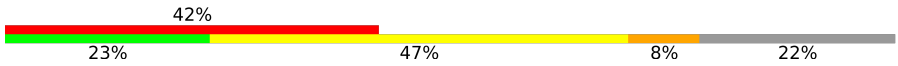


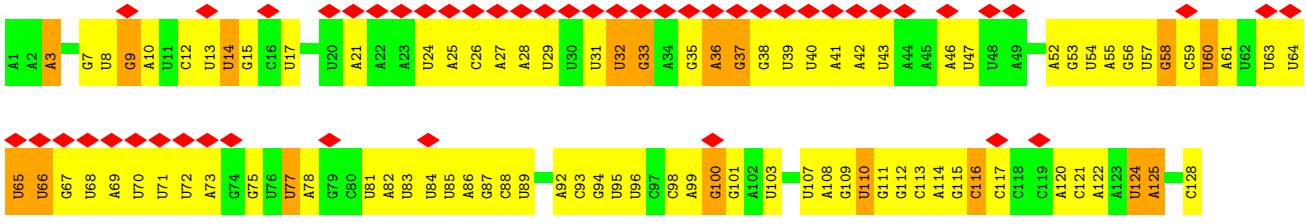



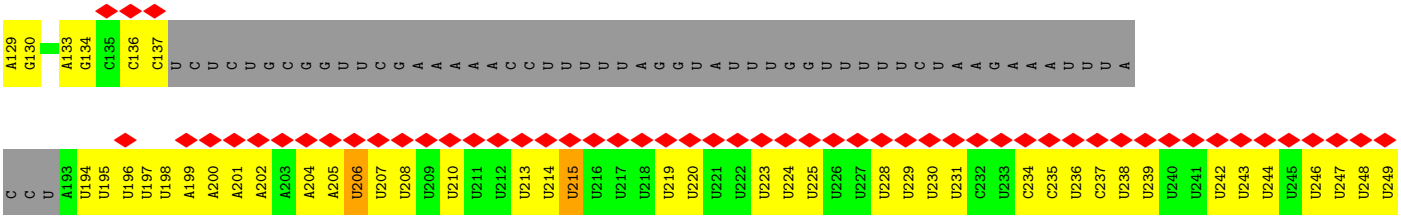



- Molecule 13: CrPV-IRES RNA

Chain X:

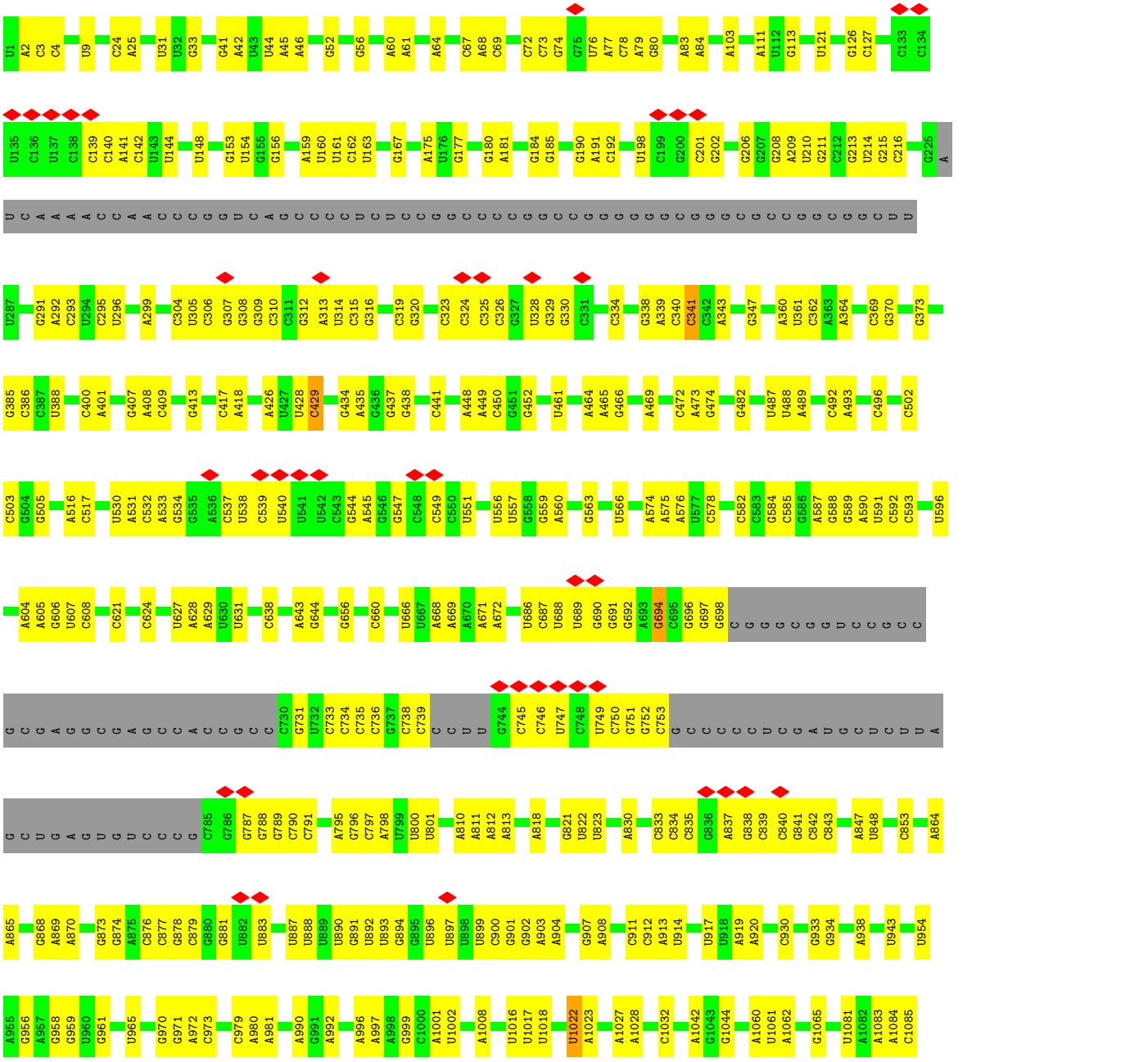


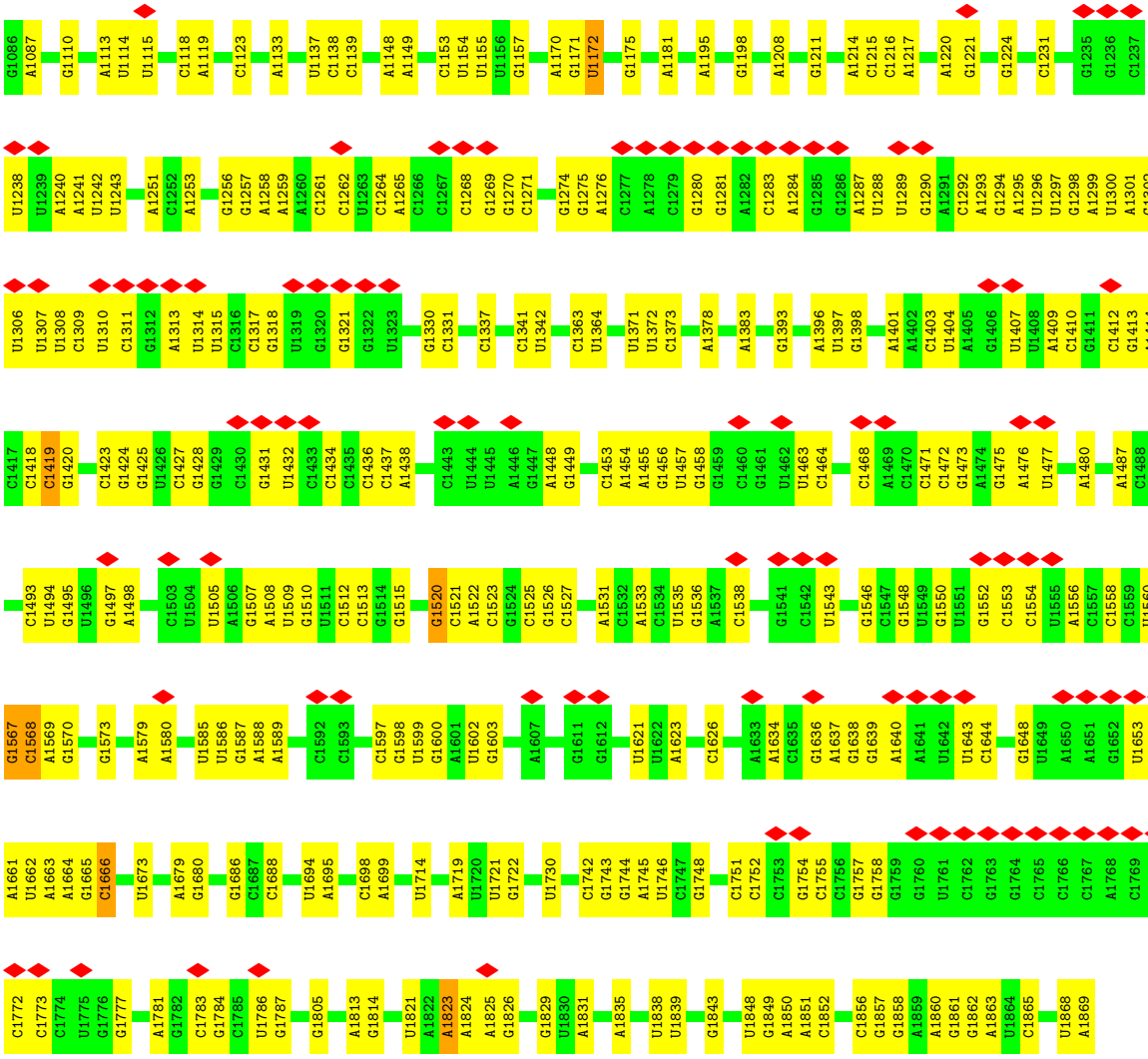





• Molecule 14: 18S ribosomal RNA

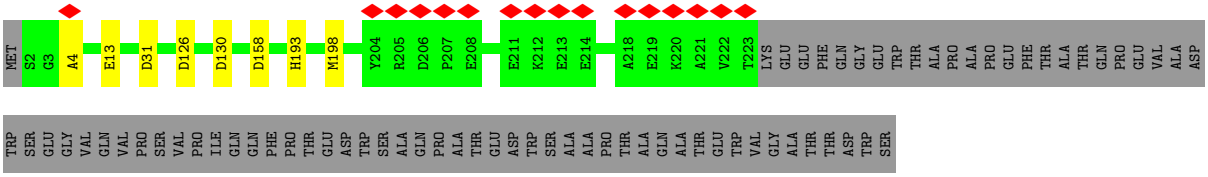
Chain S2:



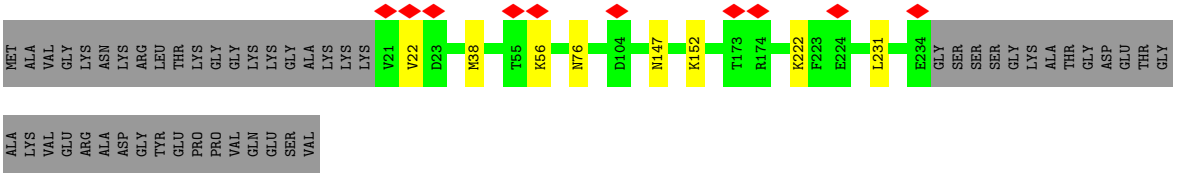
• Molecule 15: 40S ribosomal protein SA

Chain SA:

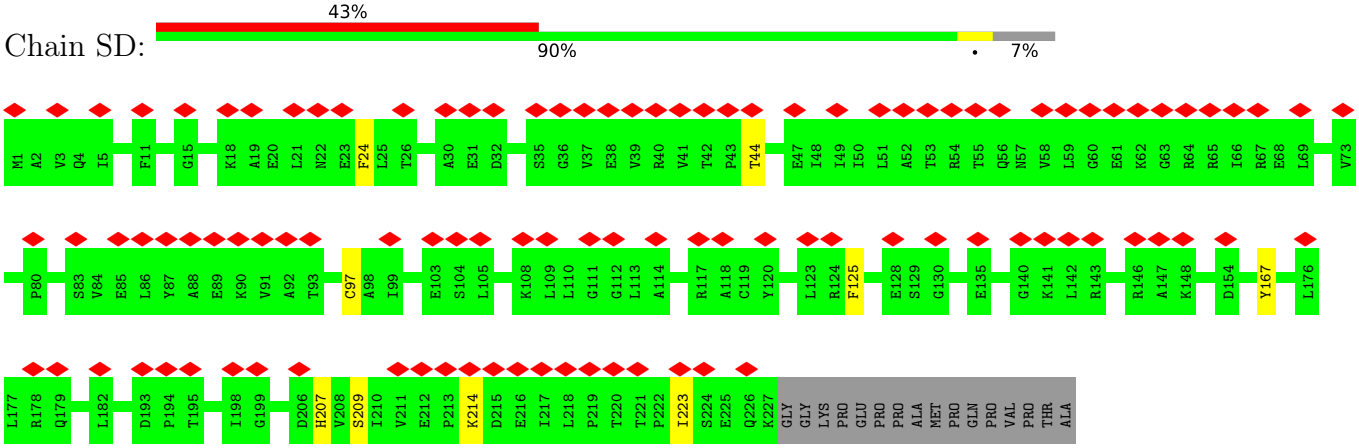
• Molecule 16: 40S ribosomal protein S3a

Chain SB:

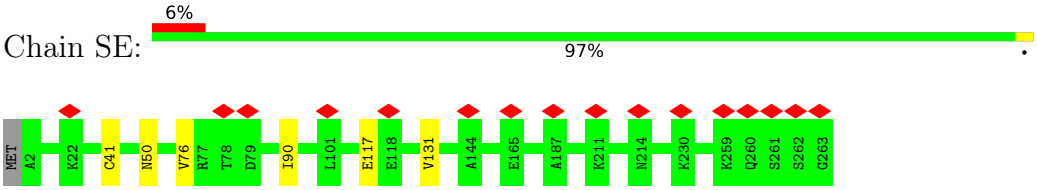
• Molecule 17: 40S ribosomal protein S3

Chain SD:



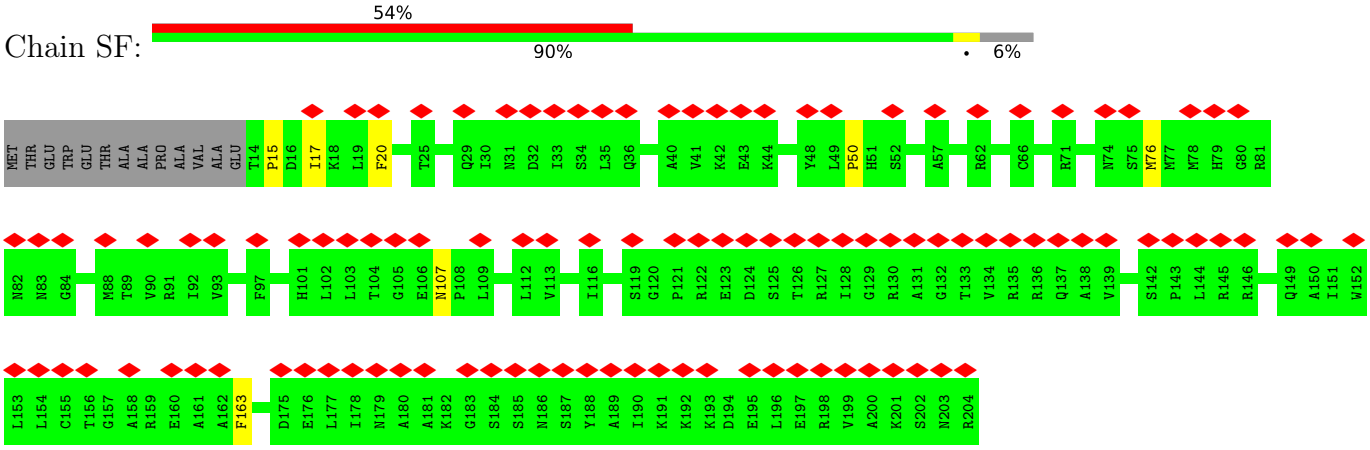

• Molecule 18: 40S ribosomal protein S4, X isoform

Chain SE:



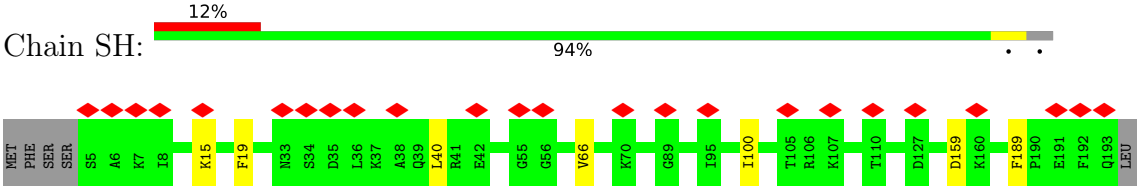

• Molecule 19: 40S ribosomal protein S5

Chain SF:



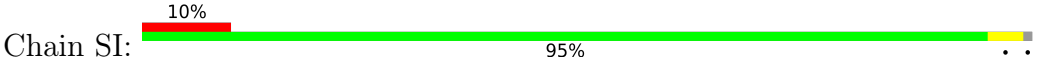

• Molecule 20: 40S ribosomal protein S7

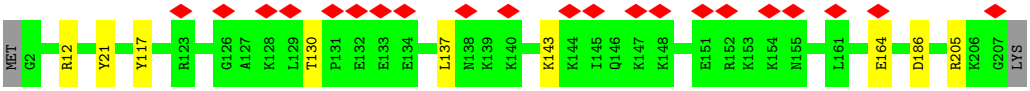
Chain SH:



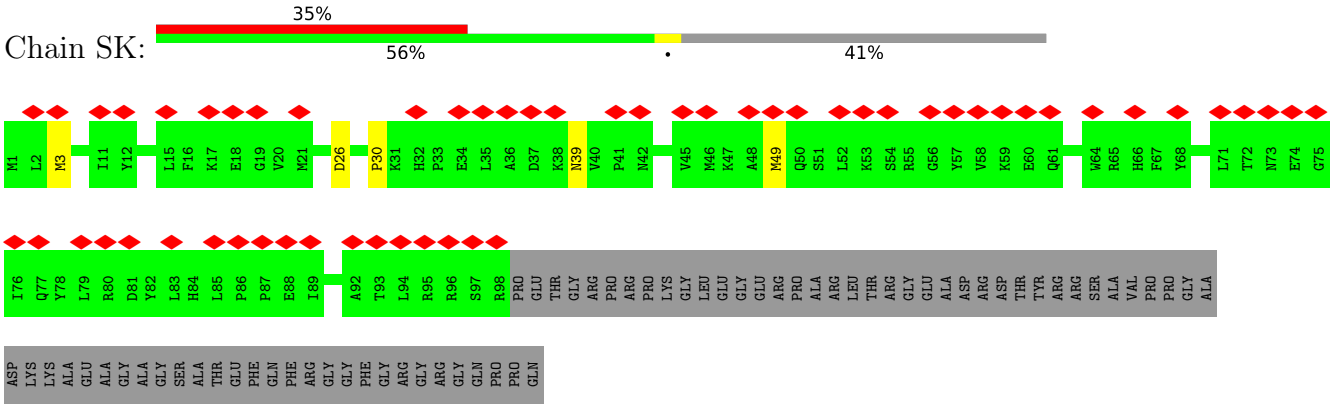

• Molecule 21: 40S ribosomal protein S8

Chain SI:

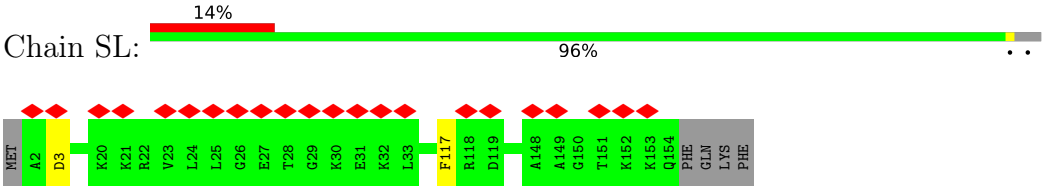




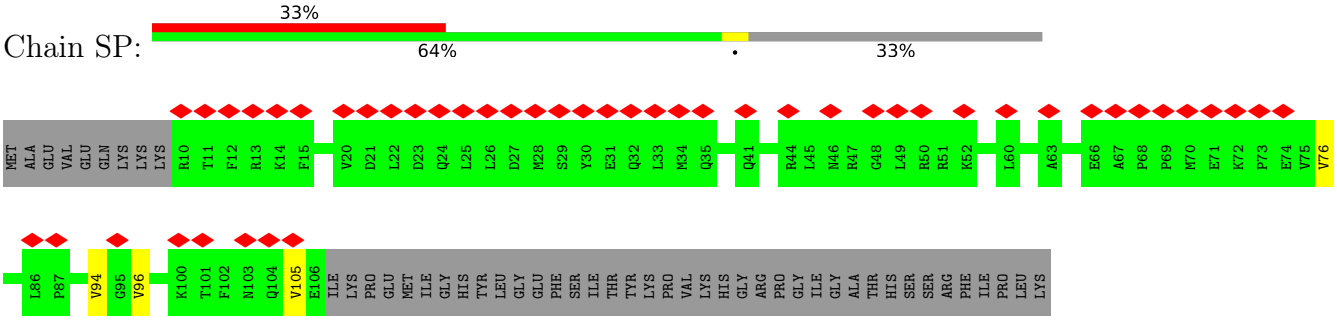

• Molecule 22: 40S ribosomal protein S10



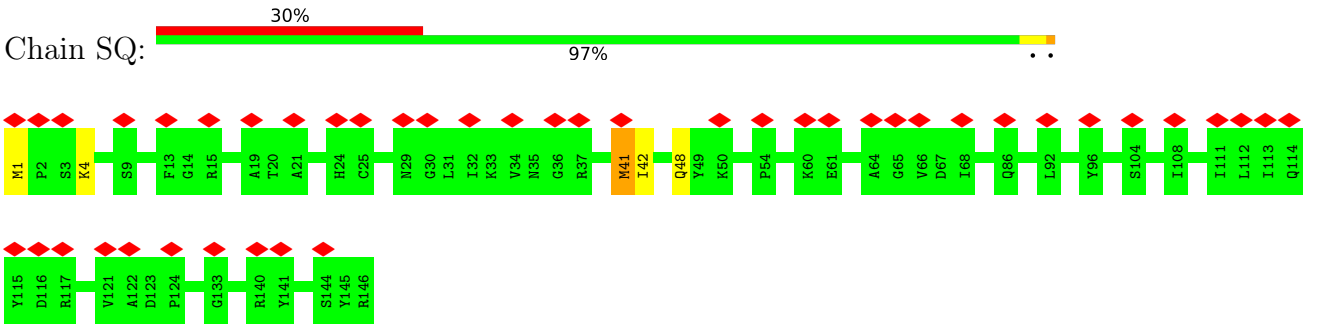

• Molecule 23: 40S ribosomal protein S11




• Molecule 24: 40S ribosomal protein S15

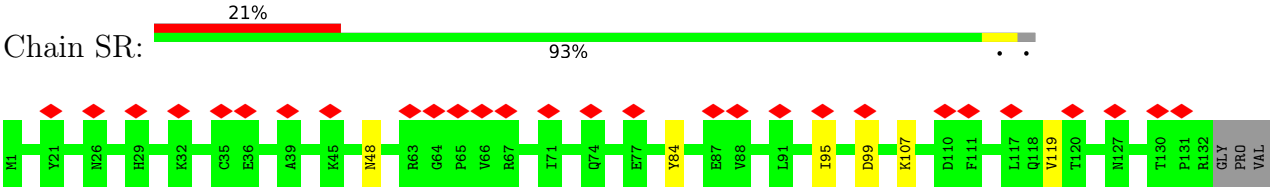



• Molecule 25: 40S ribosomal protein S16



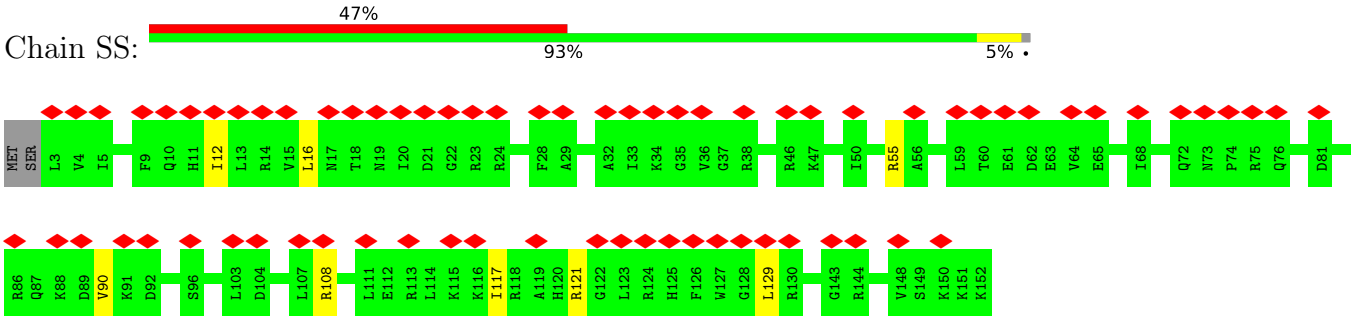

• Molecule 26: 40S ribosomal protein S17

Chain SR:



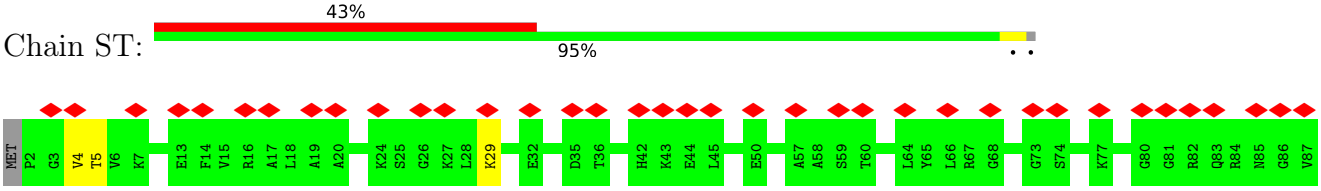

• Molecule 27: 40S ribosomal protein S18

Chain SS:



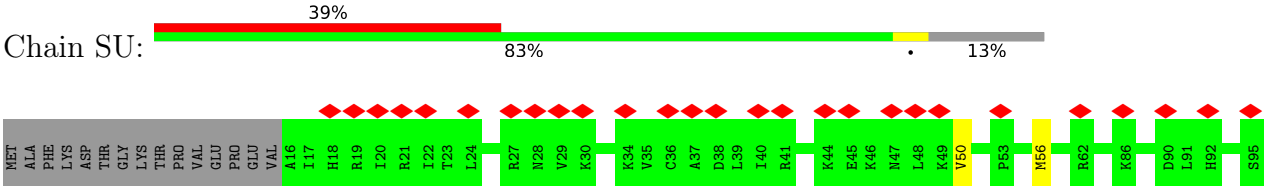

• Molecule 28: 40S ribosomal protein S19

Chain ST:



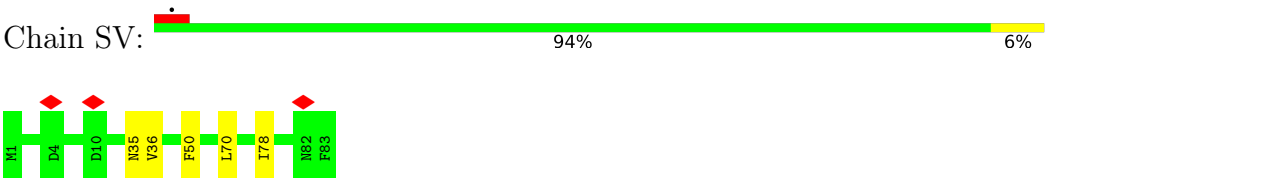

• Molecule 29: 40S ribosomal protein S20

Chain SU:



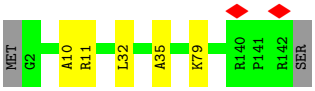

• Molecule 30: 40S ribosomal protein S21

Chain SV:



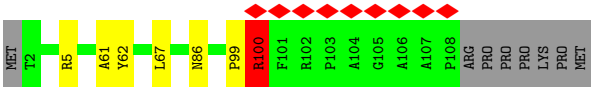

• Molecule 31: 40S ribosomal protein S23

Chain SX:



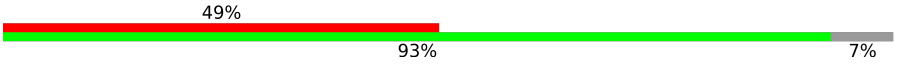

• Molecule 32: 40S ribosomal protein S26

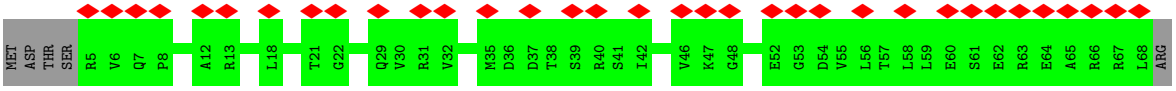
Chain Sa:


• Molecule 33: 40S ribosomal protein S28

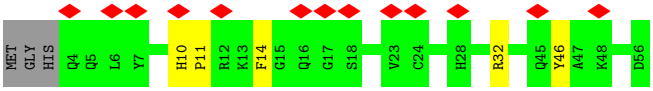
Chain Sc:



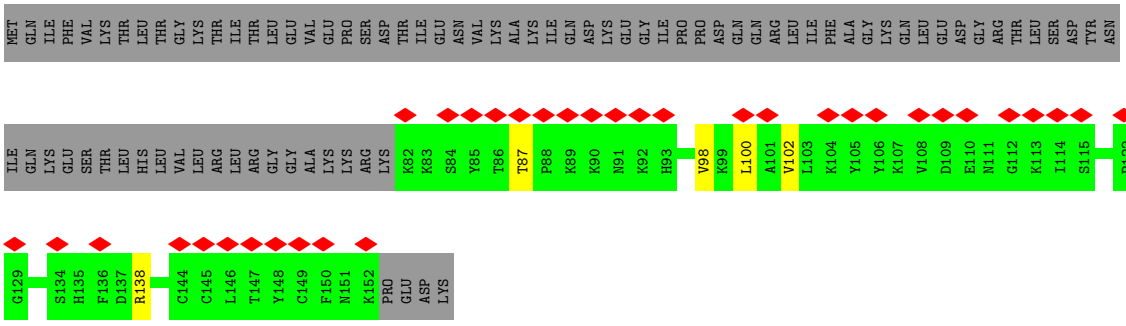

• Molecule 34: 40S ribosomal protein S29

Chain Sd:

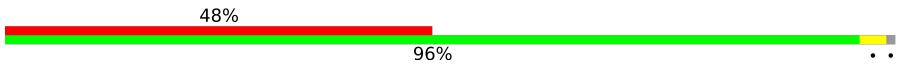

• Molecule 35: Ubiquitin

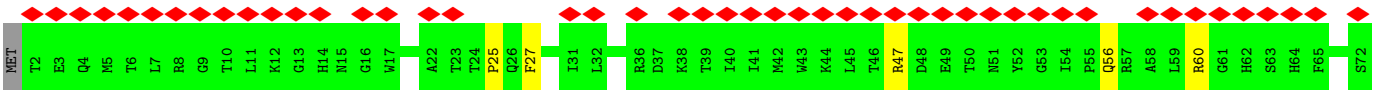
Chain Sf:

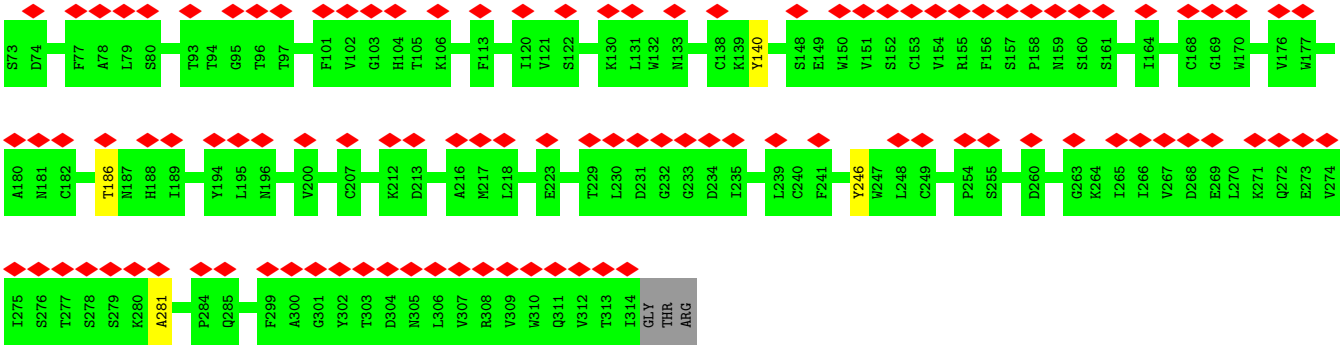




• Molecule 36: Receptor of activated protein C kinase 1

Chain Sg:



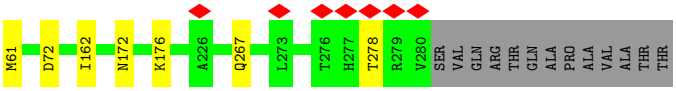






• Molecule 37: 40S ribosomal protein S2

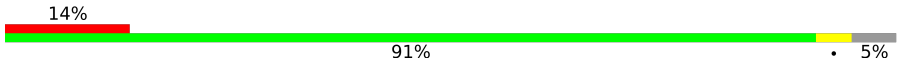
Chain SC:

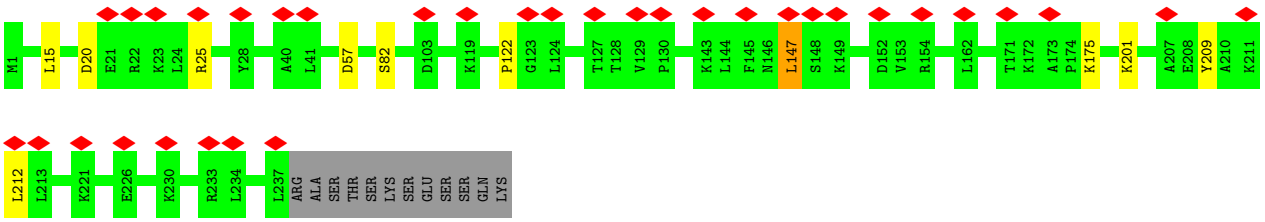





• Molecule 38: 40S ribosomal protein S6

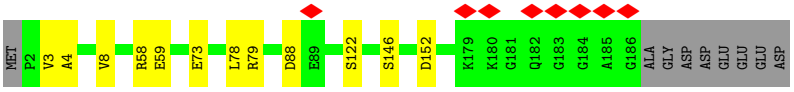
Chain SG:



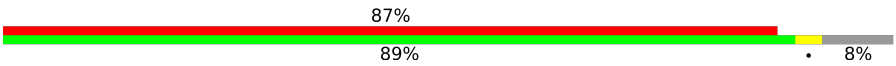

• Molecule 39: 40S ribosomal protein S9

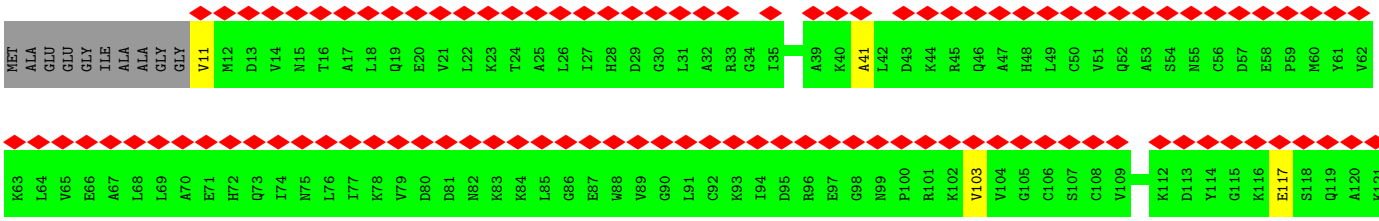
Chain SJ:

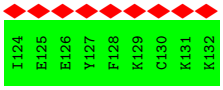




• Molecule 40: 40S ribosomal protein S12

Chain SM:

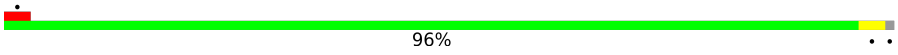


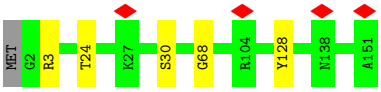






• Molecule 41: 40S ribosomal protein S13

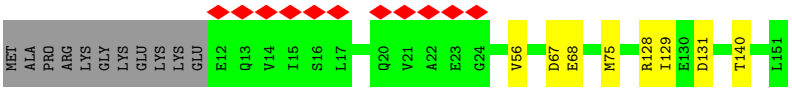
Chain SN:



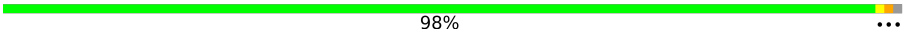

• Molecule 42: 40S ribosomal protein S14

Chain SO:


• Molecule 43: 40S ribosomal protein S15a

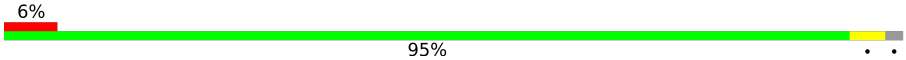
Chain SW:

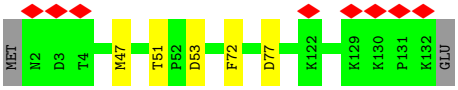




• Molecule 44: 40S ribosomal protein S24

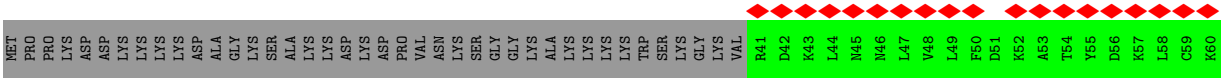
Chain SY:

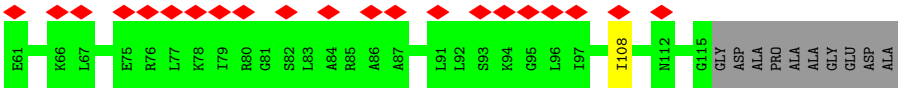



• Molecule 45: 40S ribosomal protein S25

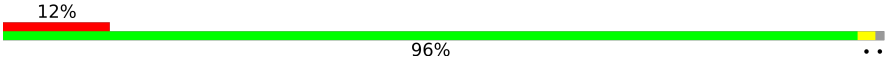
Chain SZ:

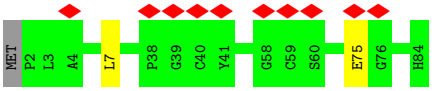



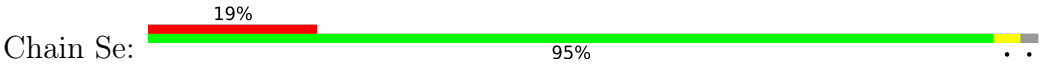

• Molecule 46: 40S ribosomal protein S27

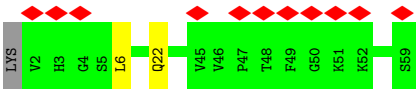
Chain Sb:



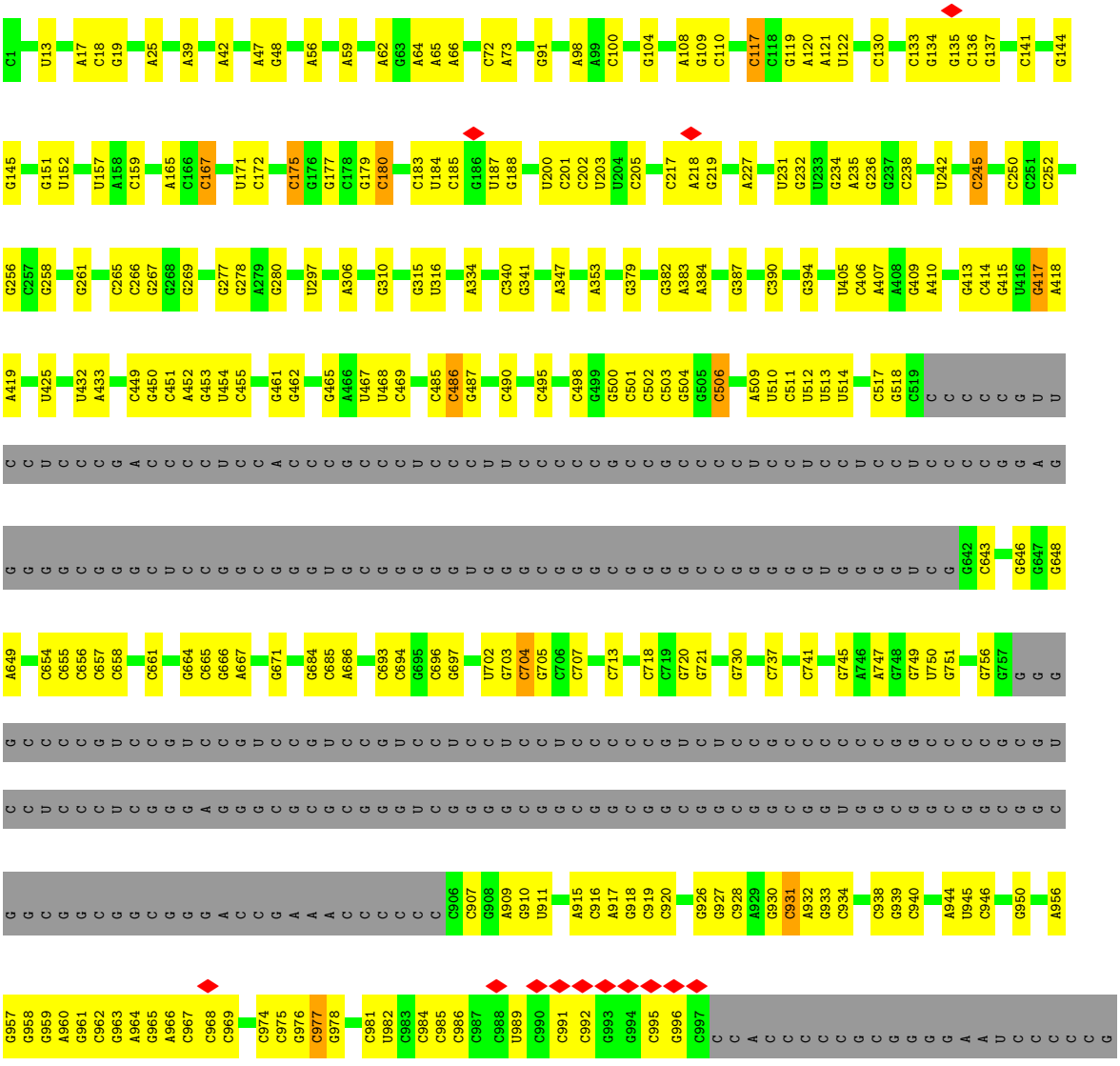


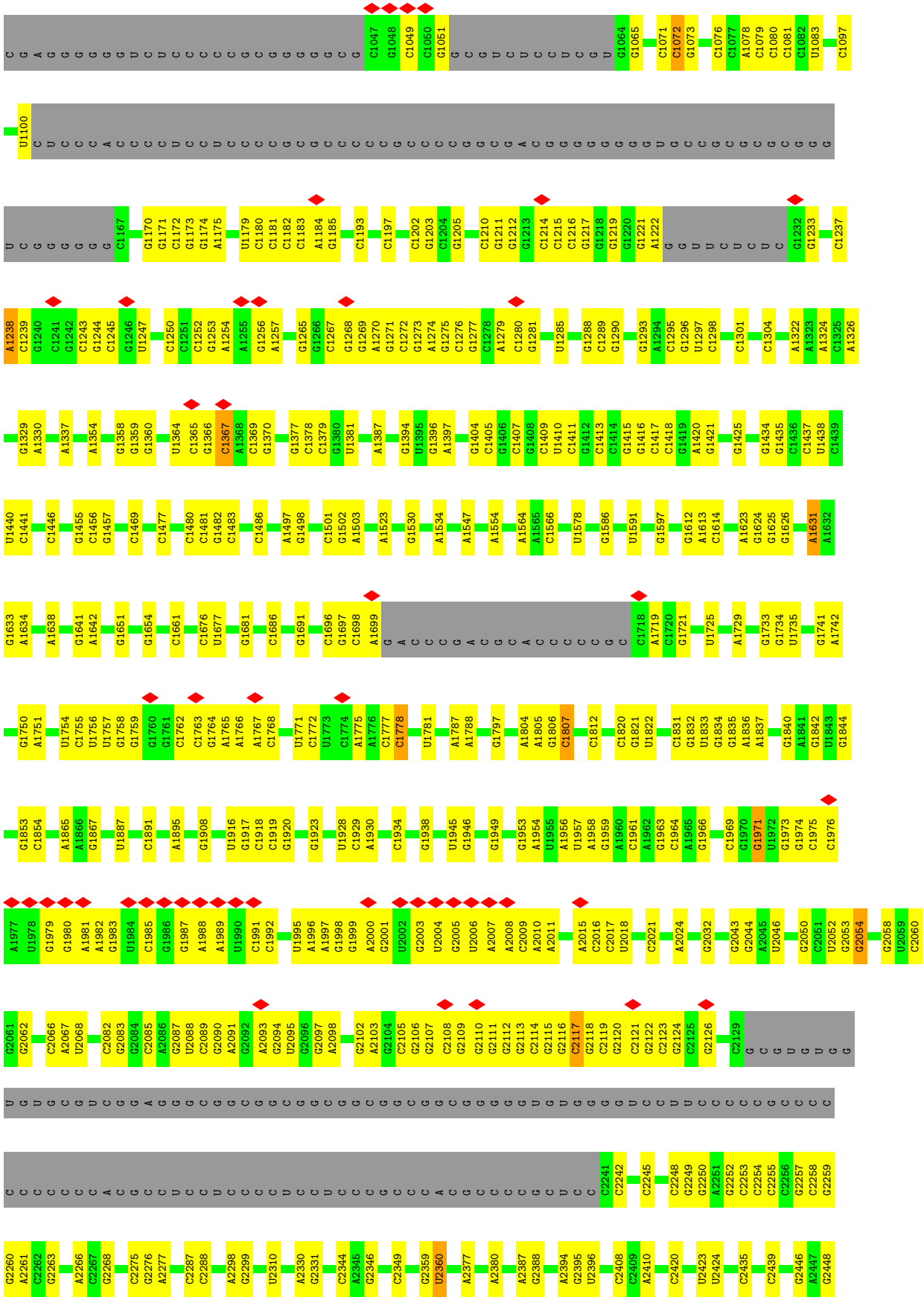

• Molecule 47: 40S ribosomal protein S30

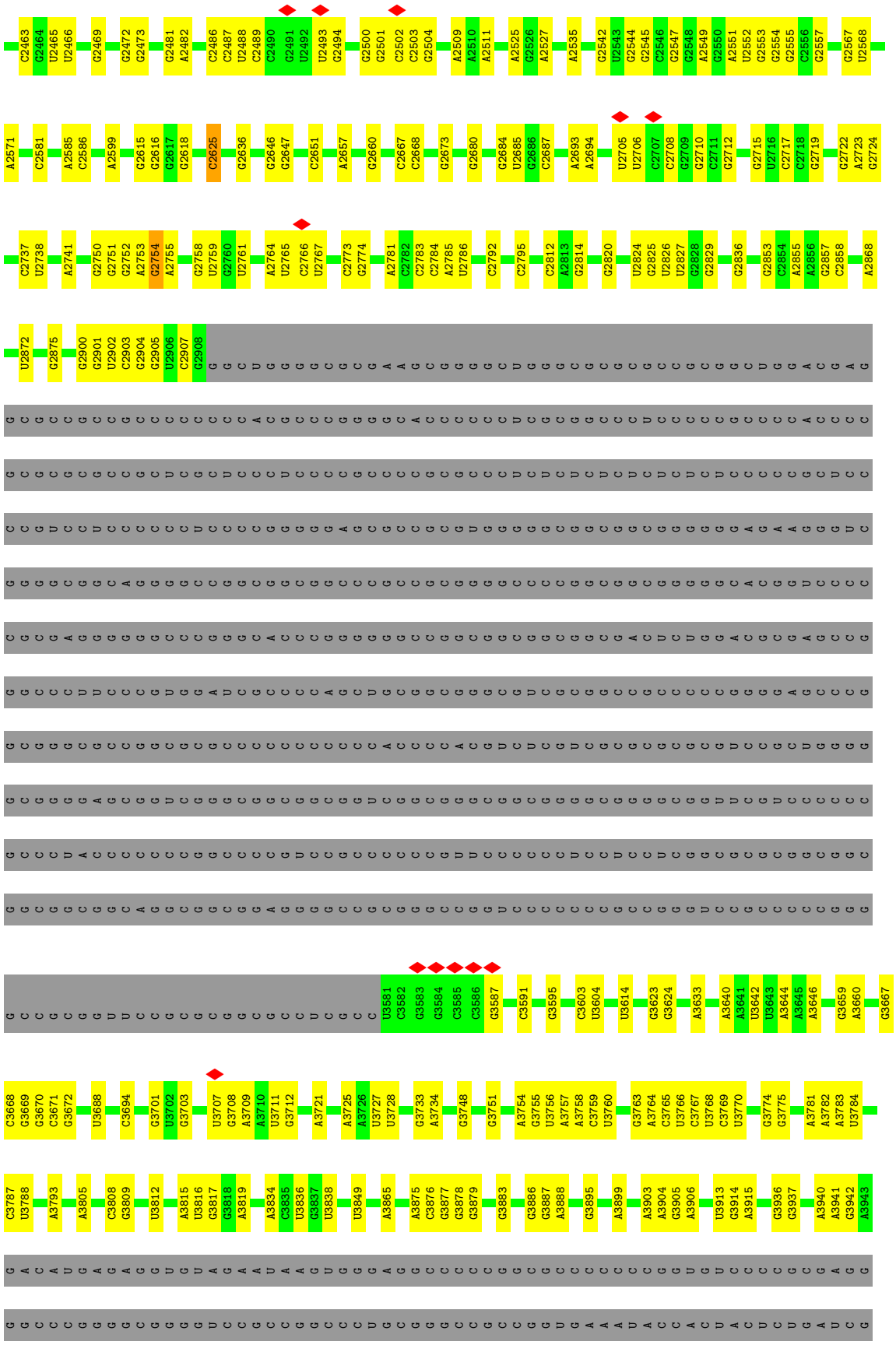


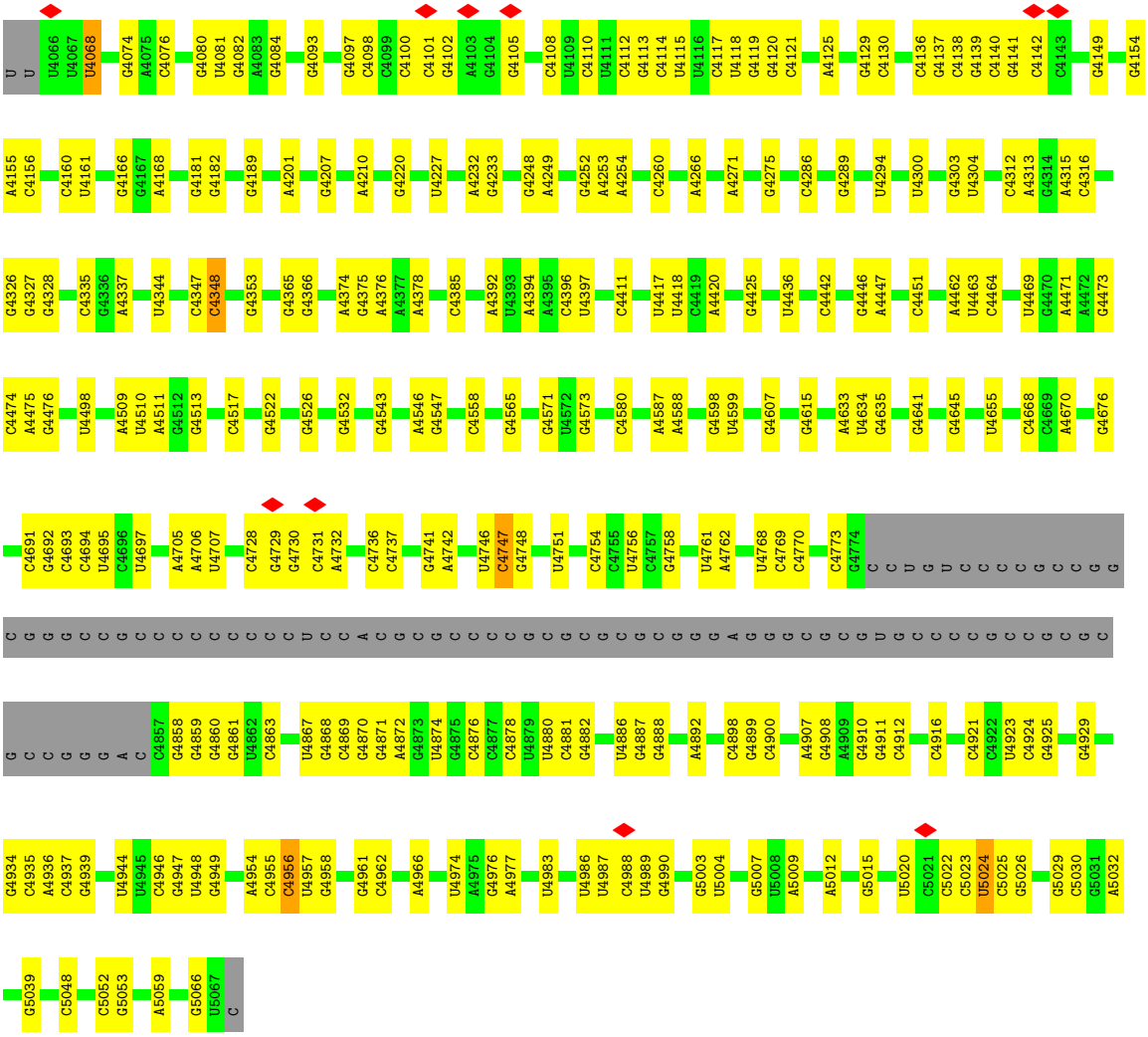




• Molecule 48: 28S ribosomal RNA





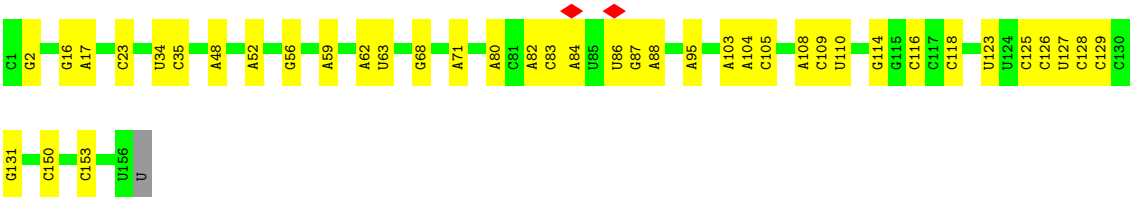


• Molecule 49: 5S ribosomal RNA

Chain L7:

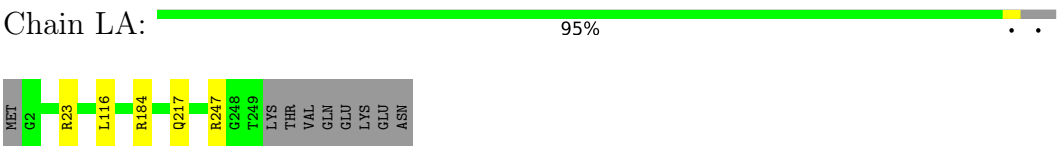

• Molecule 50: 5.8S ribosomal RNA

Chain L8:

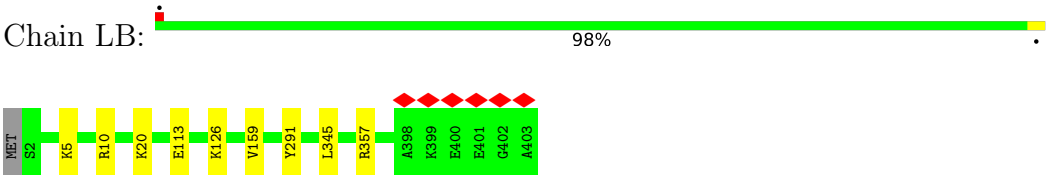
• Molecule 51: 60S ribosomal protein L8

Chain LA:



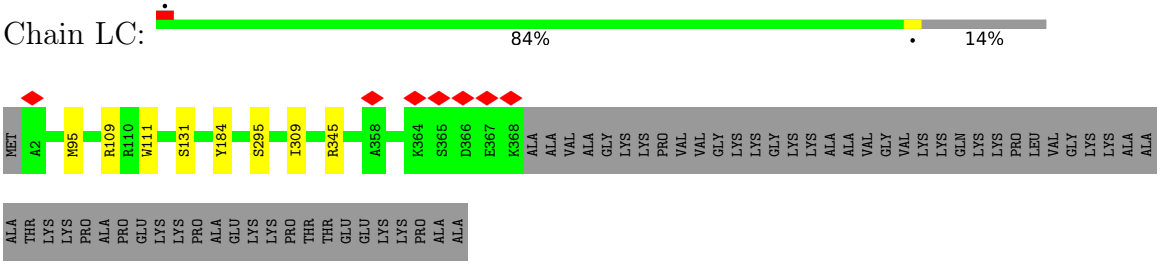

• Molecule 52: 60S ribosomal protein L3

Chain LB:



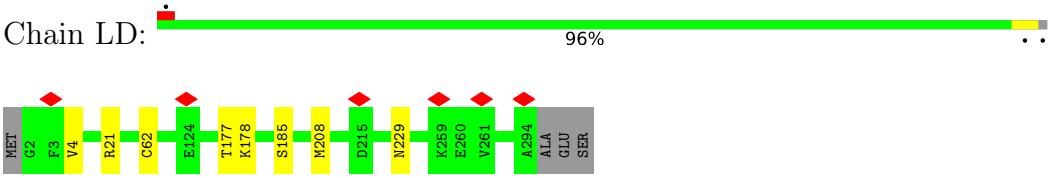

• Molecule 53: 60S ribosomal protein L4

Chain LC:



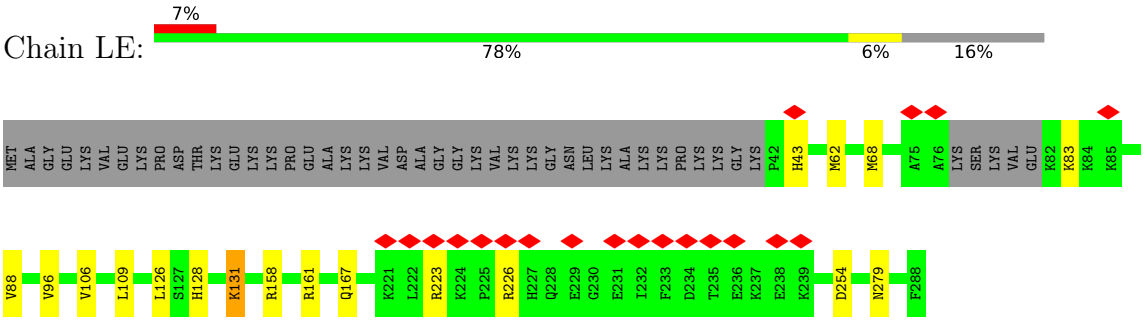

• Molecule 54: 60S ribosomal protein L5

Chain LD:



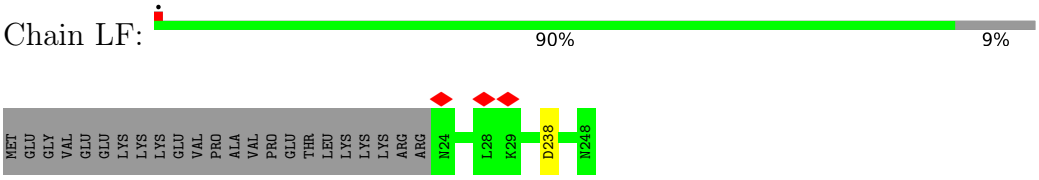

• Molecule 55: Large ribosomal subunit protein eL6

Chain LE:



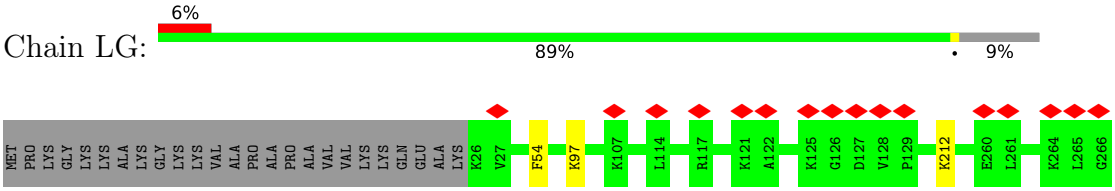

• Molecule 56: Large ribosomal subunit protein uL30

Chain LF:



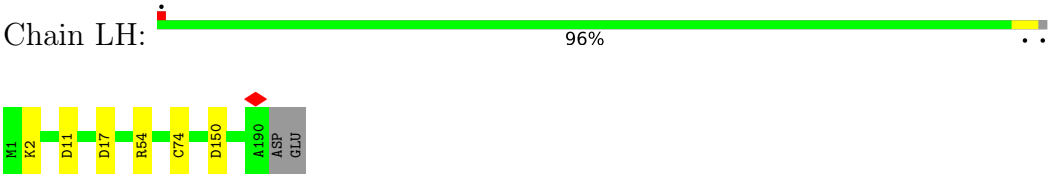

• Molecule 57: 60S ribosomal protein L7a

Chain LG:



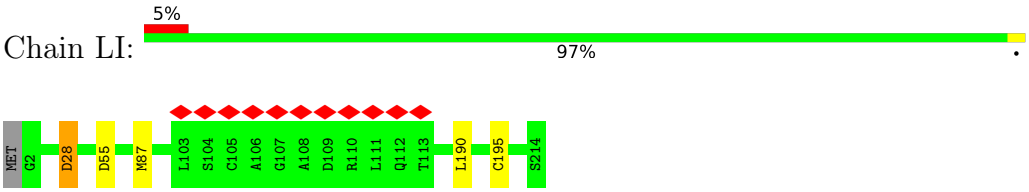

• Molecule 58: 60S ribosomal protein L9

Chain LH:



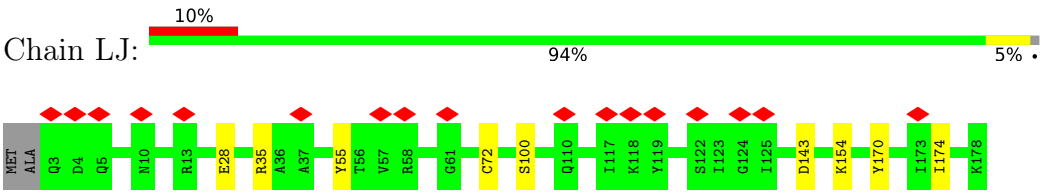

• Molecule 59: Ribosomal protein uL16-like

Chain LI:



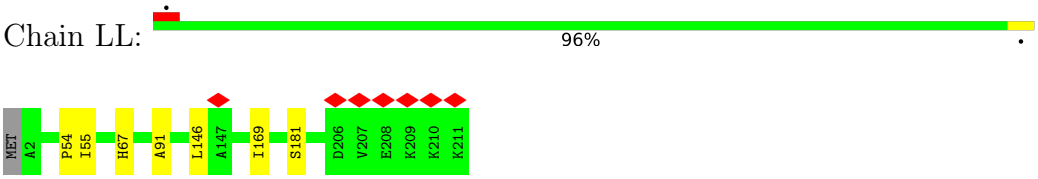

• Molecule 60: 60S ribosomal protein L11

Chain LJ:



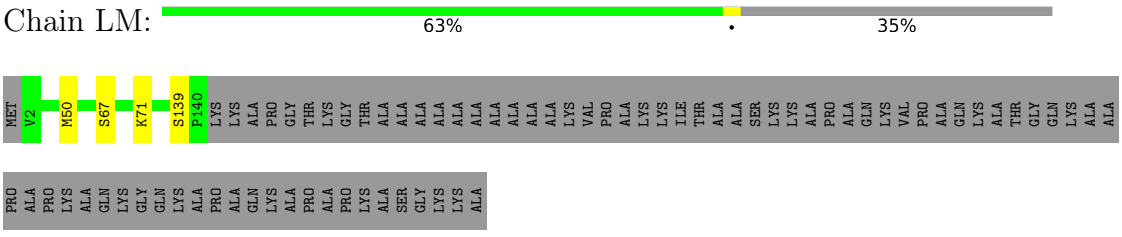

• Molecule 61: 60S ribosomal protein L13

Chain LL:



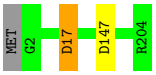

• Molecule 62: 60S ribosomal protein L14

Chain LM:



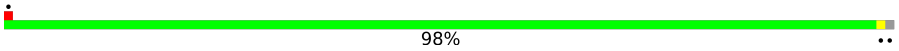

• Molecule 63: 60S ribosomal protein L15

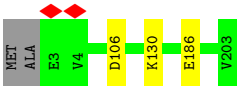
Chain LN:




• Molecule 64: 60S ribosomal protein L13a

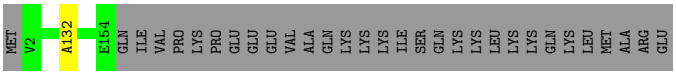
Chain LO:



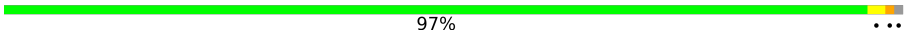

• Molecule 65: 60S ribosomal protein L17

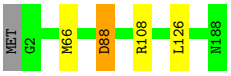
Chain LP:


• Molecule 66: 60S ribosomal protein L18

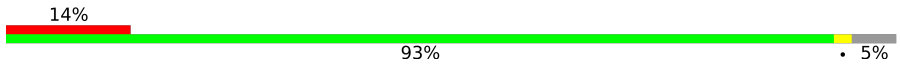
Chain LQ:

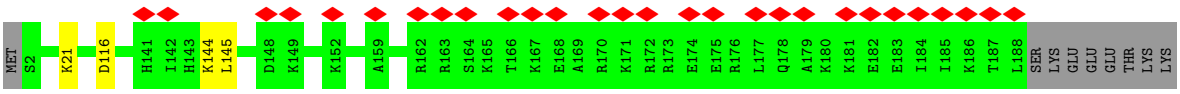



• Molecule 67: 60S ribosomal protein L19

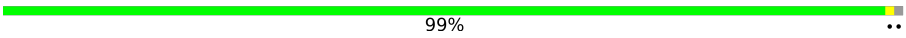
Chain LR:

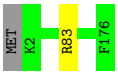



• Molecule 68: 60S ribosomal protein L18a

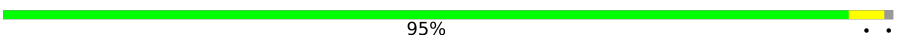
Chain LS:

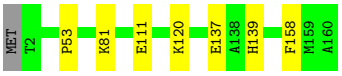



• Molecule 69: 60S ribosomal protein L21

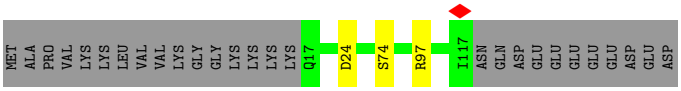
Chain LT:



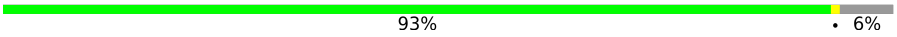

• Molecule 70: 60S ribosomal protein L22

Chain LU:




• Molecule 71: 60S ribosomal protein L23

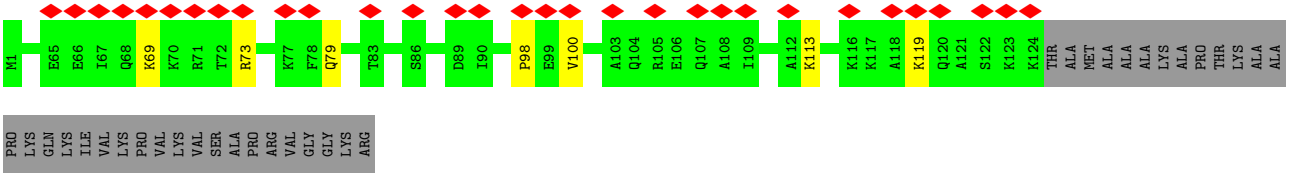
Chain LV:





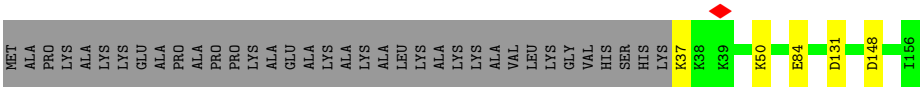
• Molecule 72: 60S ribosomal protein L24

Chain LW:

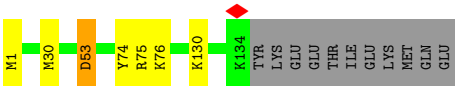

• Molecule 73: 60S ribosomal protein L23a

Chain LX:

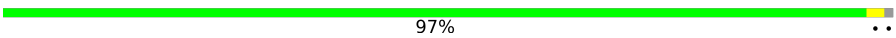

• Molecule 74: 60S ribosomal protein L26

Chain LY:


• Molecule 75: 60S ribosomal protein L27

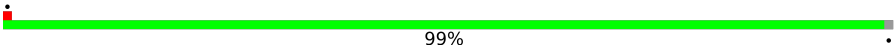
Chain LZ:

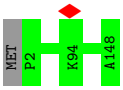




• Molecule 76: 60S ribosomal protein L27a

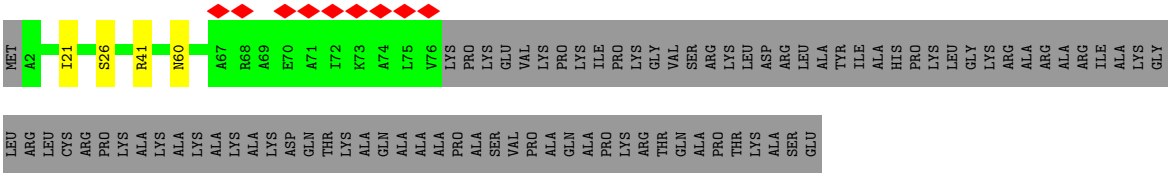
Chain La:



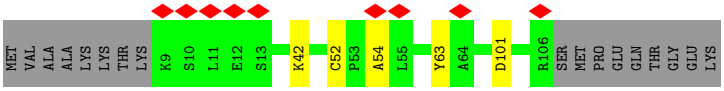
• Molecule 77: 60S ribosomal protein L29

Chain Lb:

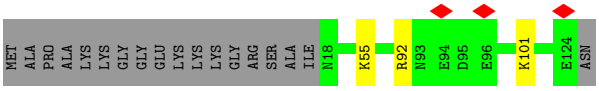

• Molecule 78: 60S ribosomal protein L30

Chain Lc:

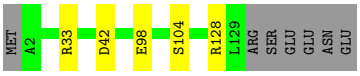

• Molecule 79: 60S ribosomal protein L31

Chain Ld:

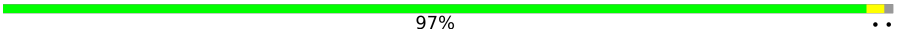

• Molecule 80: 60S ribosomal protein L32

Chain Le:


• Molecule 81: 60S ribosomal protein L35a

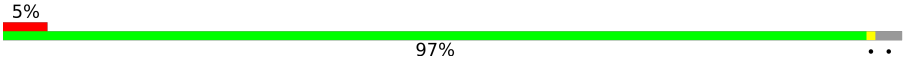
Chain Lf:





• Molecule 82: 60S ribosomal protein L34

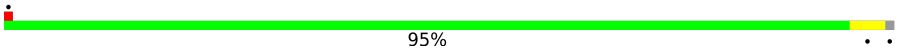
Chain Lg:

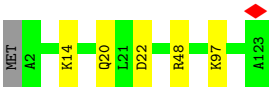




• Molecule 83: 60S ribosomal protein L35

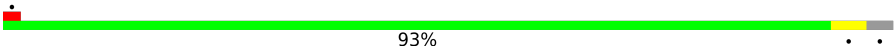
Chain Lh:

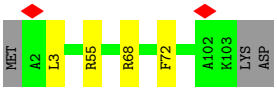





• Molecule 84: 60S ribosomal protein L36

Chain Li:



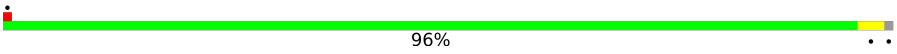

• Molecule 85: 60S ribosomal protein L37

Chain Lj:



• Molecule 86: 60S ribosomal protein L38

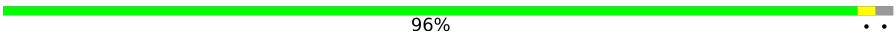
Chain Lk:





• Molecule 87: 60S ribosomal protein L39

Chain Ll:

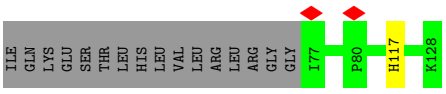




• Molecule 88: Ubiquitin-60S ribosomal protein L40

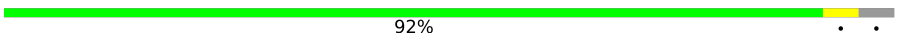
Chain Lm:

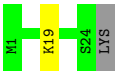





• Molecule 89: 60S ribosomal protein L41

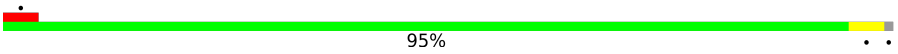
Chain Ln:

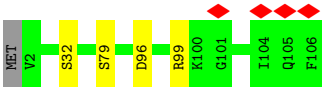


• Molecule 90: 60S ribosomal protein L36a

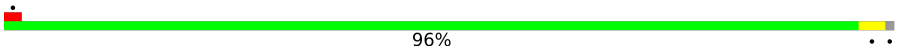
Chain Lo:

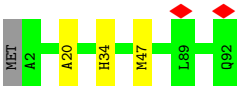



• Molecule 91: 60S ribosomal protein L37a

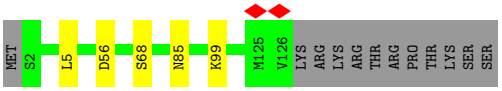
Chain Lp:




• Molecule 92: 60S ribosomal protein L28

Chain Lr:

# 4 Experimental information (i)

| Property | Value | Source |
|---|---|---|
| EM reconstruction method | SINGLE PARTICLE | Depositor |
| Imposed symmetry | POINT, Not provided | |
| Number of particles used | 79353 | Depositor |
| Resolution determination method | FSC 0.143 CUT-OFF | Depositor |
| CTF correction method | PHASE FLIPPING AND AMPLITUDE CORRECTION | Depositor |
| Microscope | TFS KRIOS | Depositor |
| Voltage (kV) | 300 | Depositor |
| Electron dose ($e^-/Å^2$) | 64.2 | Depositor |
| Minimum defocus (nm) | 600 | Depositor |
| Maximum defocus (nm) | 2400 | Depositor |
| Magnification | Not provided | |
| Image detector | GATAN K3 BIOQUANTUM (6k x 4k) | Depositor |
| Maximum map value | 0.070 | Depositor |
| Minimum map value | -0.023 | Depositor |
| Average map value | 0.000 | Depositor |
| Map value standard deviation | 0.002 | Depositor |
| Recommended contour level | 0.01 | Depositor |
| Map size (Å) | 708.19836, 708.19836, 708.19836 | wwPDB |
| Map dimensions | 832, 832, 832 | wwPDB |
| Map angles (°) | 90.0, 90.0, 90.0 | wwPDB |
| Pixel spacing (Å) | 0.8512, 0.8512, 0.8512 | Depositor |

# 5 Model quality

## 5.1 Standard geometry

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

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

| Mol | Chain | Bond lengths | | Bond angles | |
|---|---|---|---|---|---|
| | | RMSZ | #$\|Z\|$ >5 | RMSZ | #$\|Z\|$ >5 |
| 1 | A | 0.26 | 0/7577 | 0.55 | 2/10257 (0.0%) |
| 2 | L | 0.32 | 1/1843 (0.1%) | 0.54 | 0/2492 |
| 3 | N | 0.73 | 2/2053 (0.1%) | 0.81 | 5/2786 (0.2%) |
| 4 | O | 0.25 | 0/1586 | 0.52 | 0/2145 |
| 5 | F | 0.24 | 0/2225 | 0.52 | 1/3007 (0.0%) |
| 6 | G | 0.26 | 0/1881 | 0.59 | 1/2551 (0.0%) |
| 7 | H | 0.26 | 0/1837 | 0.55 | 1/2474 (0.0%) |
| 8 | I | 0.24 | 0/2296 | 0.54 | 0/3092 |
| 9 | J | 0.25 | 0/1438 | 0.54 | 0/1942 |
| 10 | K | 0.25 | 0/2714 | 0.51 | 0/3665 |
| 11 | E | 0.25 | 0/509 | 0.49 | 0/687 |
| 12 | M | 0.32 | 2/8139 (0.0%) | 0.56 | 5/11009 (0.0%) |
| 13 | X | 0.53 | 2/4477 (0.0%) | 1.19 | 38/6954 (0.5%) |
| 14 | S2 | 0.25 | 0/41243 | 0.84 | 37/64257 (0.1%) |
| 15 | SA | 0.27 | 0/1784 | 0.56 | 1/2424 (0.0%) |
| 16 | SB | 0.28 | 0/1765 | 0.56 | 0/2362 |
| 17 | SD | 0.30 | 0/1793 | 0.60 | 0/2414 |
| 18 | SE | 0.26 | 0/2118 | 0.57 | 0/2849 |
| 19 | SF | 0.28 | 0/1531 | 0.60 | 1/2059 (0.0%) |
| 20 | SH | 0.28 | 0/1544 | 0.60 | 1/2068 (0.0%) |
| 21 | SI | 0.28 | 0/1715 | 0.59 | 0/2287 |
| 22 | SK | 0.36 | 0/851 | 0.74 | 2/1147 (0.2%) |
| 23 | SL | 0.28 | 0/1268 | 0.59 | 0/1696 |
| 24 | SP | 0.28 | 0/815 | 0.72 | 0/1087 |
| 25 | SQ | 0.27 | 0/1177 | 0.62 | 1/1575 (0.1%) |
| 26 | SR | 0.27 | 0/1086 | 0.67 | 2/1457 (0.1%) |
| 27 | SS | 0.31 | 0/1253 | 0.59 | 0/1676 |
| 28 | ST | 0.26 | 0/1131 | 0.59 | 1/1515 (0.1%) |
| 29 | SU | 0.26 | 0/832 | 0.63 | 0/1117 |
| 30 | SV | 0.27 | 0/643 | 0.57 | 0/860 |
| 31 | SX | 0.26 | 0/1116 | 0.54 | 0/1490 |
| 32 | Sa | 0.32 | 0/863 | 0.65 | 1/1159 (0.1%) |

| Mol | Chain | Bond lengths | | Bond angles | |
|---|---|---|---|---|---|
| | | RMSZ | #\|Z\| >5 | RMSZ | #\|Z\| >5 |
| 33 | Sc | 0.25 | 0/508 | 0.65 | 0/680 |
| 34 | Sd | 1.45 | 3/455 (0.7%) | 1.45 | 6/603 (1.0%) |
| 35 | Sf | 0.26 | 0/593 | 0.56 | 0/786 |
| 36 | Sg | 0.33 | 1/2493 (0.0%) | 0.67 | 3/3394 (0.1%) |
| 37 | SC | 0.28 | 0/1762 | 0.55 | 0/2381 |
| 38 | SG | 0.26 | 0/1946 | 0.63 | 1/2590 (0.0%) |
| 39 | SJ | 0.27 | 0/1550 | 0.62 | 2/2069 (0.1%) |
| 40 | SM | 0.39 | 1/962 (0.1%) | 0.55 | 0/1290 |
| 41 | SN | 0.26 | 0/1232 | 0.51 | 0/1656 |
| 42 | SO | 0.29 | 0/1062 | 0.66 | 1/1425 (0.1%) |
| 43 | SW | 0.29 | 0/1051 | 0.58 | 1/1406 (0.1%) |
| 44 | SY | 0.26 | 0/1083 | 0.59 | 0/1438 |
| 45 | SZ | 0.24 | 0/604 | 0.53 | 0/810 |
| 46 | Sb | 0.31 | 0/665 | 0.56 | 0/891 |
| 47 | Se | 0.27 | 0/465 | 0.64 | 1/612 (0.2%) |
| 48 | L5 | 0.31 | 0/87605 | 0.87 | 64/136661 (0.0%) |
| 49 | L7 | 0.29 | 0/2858 | 0.81 | 0/4455 |
| 50 | L8 | 0.28 | 0/3701 | 0.79 | 0/5766 |
| 51 | LA | 0.31 | 0/1936 | 0.61 | 0/2596 |
| 52 | LB | 0.30 | 0/3306 | 0.56 | 0/4424 |
| 53 | LC | 0.29 | 0/2973 | 0.58 | 0/3992 |
| 54 | LD | 0.29 | 0/2428 | 0.54 | 0/3252 |
| 55 | LE | 0.30 | 0/1996 | 0.69 | 4/2673 (0.1%) |
| 56 | LF | 0.30 | 0/1905 | 0.57 | 1/2539 (0.0%) |
| 57 | LG | 0.29 | 0/1960 | 0.56 | 0/2637 |
| 58 | LH | 0.32 | 0/1537 | 0.62 | 1/2066 (0.0%) |
| 59 | LI | 0.31 | 0/1751 | 0.59 | 1/2340 (0.0%) |
| 60 | LJ | 0.31 | 0/1433 | 0.63 | 0/1915 |
| 61 | LL | 0.28 | 0/1732 | 0.66 | 2/2315 (0.1%) |
| 62 | LM | 0.29 | 0/1161 | 0.54 | 0/1554 |
| 63 | LN | 0.31 | 0/1746 | 0.64 | 2/2338 (0.1%) |
| 64 | LO | 0.30 | 0/1682 | 0.57 | 0/2250 |
| 65 | LP | 0.30 | 0/1268 | 0.59 | 0/1701 |
| 66 | LQ | 0.30 | 0/1537 | 0.64 | 1/2052 (0.0%) |
| 67 | LR | 0.28 | 0/1582 | 0.65 | 1/2091 (0.0%) |
| 68 | LS | 0.32 | 0/1493 | 0.60 | 0/2003 |
| 69 | LT | 0.31 | 0/1326 | 0.60 | 0/1770 |
| 70 | LU | 0.35 | 0/839 | 0.63 | 1/1126 (0.1%) |
| 71 | LV | 0.31 | 0/993 | 0.58 | 0/1332 |
| 72 | LW | 0.28 | 0/1030 | 0.69 | 3/1364 (0.2%) |
| 73 | LX | 0.29 | 0/1002 | 0.63 | 1/1345 (0.1%) |
| 74 | LY | 0.29 | 0/1132 | 0.60 | 0/1504 |
| 75 | LZ | 0.31 | 0/1130 | 0.58 | 0/1507 |

| Mol | Chain | Bond lengths | | Bond angles | |
|---|---|---|---|---|---|
| | | RMSZ | #\|Z\| >5 | RMSZ | #\|Z\| >5 |
| 76 | La | 0.32 | 0/1191 | 0.57 | 0/1591 |
| 77 | Lb | 0.26 | 0/620 | 0.52 | 0/819 |
| 78 | Lc | 0.38 | 0/774 | 0.59 | 0/1038 |
| 79 | Ld | 0.30 | 0/903 | 0.60 | 0/1216 |
| 80 | Le | 0.32 | 0/1071 | 0.60 | 0/1429 |
| 81 | Lf | 0.30 | 0/895 | 0.60 | 0/1198 |
| 82 | Lg | 0.29 | 0/916 | 0.60 | 0/1220 |
| 83 | Lh | 0.30 | 0/1023 | 0.61 | 1/1351 (0.1%) |
| 84 | Li | 0.29 | 0/843 | 0.64 | 0/1115 |
| 85 | Lj | 0.34 | 0/720 | 0.64 | 0/952 |
| 86 | Lk | 0.36 | 0/575 | 0.64 | 0/761 |
| 87 | Ll | 0.28 | 0/454 | 0.62 | 0/599 |
| 88 | Lm | 0.27 | 0/435 | 0.60 | 0/575 |
| 89 | Ln | 0.30 | 0/231 | 0.75 | 0/294 |
| 90 | Lo | 0.31 | 0/876 | 0.58 | 0/1156 |
| 91 | Lp | 0.32 | 0/718 | 0.56 | 0/953 |
| 92 | Lr | 0.32 | 0/1017 | 0.67 | 1/1364 (0.1%) |
| All | All | 0.31 | 12/267838 (0.0%) | 0.76 | 199/389790 (0.1%) |

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

| Mol | Chain | #Chirality outliers | #Planarity outliers |
|---|---|---|---|
| 1 | A | 0 | 1 |
| 32 | Sa | 0 | 3 |
| 70 | LU | 0 | 1 |
| All | All | 0 | 5 |

The worst 5 of 12 bond length outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|---|---|---|---|---|---|---|---|
| 3 | N | 128 | PRO | CB-CG | 24.45 | 2.72 | 1.50 |
| 34 | Sd | 11 | PRO | CB-CG | 22.51 | 2.62 | 1.50 |
| 34 | Sd | 11 | PRO | CG-CD | -19.04 | 0.87 | 1.50 |
| 3 | N | 128 | PRO | CG-CD | -18.96 | 0.88 | 1.50 |
| 12 | M | 980 | PRO | CG-CD | -16.59 | 0.95 | 1.50 |

The worst 5 of 199 bond angle outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z | Observed($^o$) | Ideal($^o$) |
|---|---|---|---|---|---|---|---|
| 3 | N | 128 | PRO | CB-CG-CD | -27.30 | 0.01 | 106.50 |
| 34 | Sd | 11 | PRO | CB-CG-CD | -25.88 | 5.56 | 106.50 |
| 12 | M | 980 | PRO | N-CD-CG | -19.36 | 74.17 | 103.20 |
| 36 | Sg | 25 | PRO | N-CD-CG | -18.20 | 75.91 | 103.20 |
| 14 | S2 | 1568 | C | C5-C4-N4 | -17.51 | 107.94 | 120.20 |

There are no chirality outliers.

All (5) planarity outliers are listed below:

| Mol | Chain | Res | Type | Group |
|---|---|---|---|---|
| 1 | A | 1017 | SER | Peptide |
| 70 | LU | 97 | ARG | Peptide |
| 32 | Sa | 100 | ARG | Sidechain |
| 32 | Sa | 99 | PRO | Mainchain,Peptide |

## 5.2 Too-close contacts (i)

Due to software issues we are unable to calculate clashes - this section is therefore empty.

## 5.3 Torsion angles (i)

### 5.3.1 Protein backbone (i)

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

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

| Mol | Chain | Analysed | Favoured | Allowed | Outliers | Percentiles |
|---|---|---|---|---|---|---|
| 1 | A | 945/1246 (76%) | 874 (92%) | 70 (7%) | 1 (0%) | 48 76 |
| 2 | L | 239/245 (98%) | 227 (95%) | 11 (5%) | 1 (0%) | 30 61 |
| 3 | N | 263/280 (94%) | 251 (95%) | 12 (5%) | 0 | 100 100 |
| 4 | O | 206/239 (86%) | 204 (99%) | 2 (1%) | 0 | 100 100 |
| 5 | F | 284/295 (96%) | 257 (90%) | 24 (8%) | 3 (1%) | 12 40 |
| 6 | G | 247/272 (91%) | 238 (96%) | 8 (3%) | 1 (0%) | 30 61 |
| 7 | H | 233/371 (63%) | 210 (90%) | 23 (10%) | 0 | 100 100 |
| 8 | I | 285/297 (96%) | 253 (89%) | 31 (11%) | 1 (0%) | 30 61 |

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| Mol | Chain | Analysed | Favoured | Allowed | Outliers | Percentiles | |
|---|---|---|---|---|---|---|---|
| 9 | J | 182/199 (92%) | 157 (86%) | 25 (14%) | 0 | 100 | 100 |
| 10 | K | 339/443 (76%) | 313 (92%) | 26 (8%) | 0 | 100 | 100 |
| 11 | E | 57/274 (21%) | 48 (84%) | 8 (14%) | 1 (2%) | 7 | 30 |
| 12 | M | 975/1096 (89%) | 914 (94%) | 59 (6%) | 2 (0%) | 44 | 71 |
| 15 | SA | 220/295 (75%) | 195 (89%) | 24 (11%) | 1 (0%) | 25 | 56 |
| 16 | SB | 212/264 (80%) | 192 (91%) | 18 (8%) | 2 (1%) | 14 | 44 |
| 17 | SD | 225/243 (93%) | 192 (85%) | 30 (13%) | 3 (1%) | 10 | 36 |
| 18 | SE | 260/263 (99%) | 232 (89%) | 25 (10%) | 3 (1%) | 11 | 38 |
| 19 | SF | 189/204 (93%) | 154 (82%) | 32 (17%) | 3 (2%) | 8 | 32 |
| 20 | SH | 187/194 (96%) | 152 (81%) | 33 (18%) | 2 (1%) | 12 | 40 |
| 21 | SI | 204/208 (98%) | 176 (86%) | 26 (13%) | 2 (1%) | 13 | 42 |
| 22 | SK | 96/165 (58%) | 81 (84%) | 13 (14%) | 2 (2%) | 5 | 27 |
| 23 | SL | 151/158 (96%) | 134 (89%) | 16 (11%) | 1 (1%) | 19 | 50 |
| 24 | SP | 95/145 (66%) | 70 (74%) | 21 (22%) | 4 (4%) | 2 | 15 |
| 25 | SQ | 144/146 (99%) | 124 (86%) | 17 (12%) | 3 (2%) | 5 | 27 |
| 26 | SR | 130/135 (96%) | 114 (88%) | 15 (12%) | 1 (1%) | 16 | 46 |
| 27 | SS | 148/152 (97%) | 124 (84%) | 19 (13%) | 5 (3%) | 3 | 19 |
| 28 | ST | 141/145 (97%) | 128 (91%) | 11 (8%) | 2 (1%) | 9 | 34 |
| 29 | SU | 102/119 (86%) | 93 (91%) | 7 (7%) | 2 (2%) | 6 | 28 |
| 30 | SV | 81/83 (98%) | 68 (84%) | 11 (14%) | 2 (2%) | 4 | 24 |
| 31 | SX | 139/143 (97%) | 122 (88%) | 14 (10%) | 3 (2%) | 5 | 26 |
| 32 | Sa | 105/115 (91%) | 85 (81%) | 18 (17%) | 2 (2%) | 6 | 29 |
| 33 | Sc | 62/69 (90%) | 49 (79%) | 13 (21%) | 0 | 100 | 100 |
| 34 | Sd | 51/56 (91%) | 50 (98%) | 1 (2%) | 0 | 100 | 100 |
| 35 | Sf | 69/156 (44%) | 51 (74%) | 14 (20%) | 4 (6%) | 1 | 9 |
| 36 | Sg | 311/317 (98%) | 256 (82%) | 52 (17%) | 3 (1%) | 13 | 42 |
| 37 | SC | 220/293 (75%) | 191 (87%) | 26 (12%) | 3 (1%) | 9 | 34 |
| 38 | SG | 235/249 (94%) | 204 (87%) | 25 (11%) | 6 (3%) | 4 | 23 |
| 39 | SJ | 183/194 (94%) | 163 (89%) | 17 (9%) | 3 (2%) | 8 | 32 |
| 40 | SM | 120/132 (91%) | 99 (82%) | 18 (15%) | 3 (2%) | 4 | 24 |
| 41 | SN | 148/151 (98%) | 142 (96%) | 3 (2%) | 3 (2%) | 6 | 28 |

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| Mol | Chain | Analysed | Favoured | Allowed | Outliers | Percentiles |
|---|---|---|---|---|---|---|
| 42 | SO | 138/151 (91%) | 110 (80%) | 23 (17%) | 5 (4%) | 3 18 |
| 43 | SW | 127/130 (98%) | 117 (92%) | 10 (8%) | 0 | 100 100 |
| 44 | SY | 129/133 (97%) | 114 (88%) | 14 (11%) | 1 (1%) | 16 46 |
| 45 | SZ | 73/125 (58%) | 63 (86%) | 9 (12%) | 1 (1%) | 9 34 |
| 46 | Sb | 81/84 (96%) | 70 (86%) | 10 (12%) | 1 (1%) | 11 38 |
| 47 | Se | 56/59 (95%) | 44 (79%) | 12 (21%) | 0 | 100 100 |
| 51 | LA | 246/257 (96%) | 221 (90%) | 24 (10%) | 1 (0%) | 30 61 |
| 52 | LB | 400/403 (99%) | 359 (90%) | 37 (9%) | 4 (1%) | 13 42 |
| 53 | LC | 365/427 (86%) | 316 (87%) | 47 (13%) | 2 (0%) | 25 56 |
| 54 | LD | 291/297 (98%) | 270 (93%) | 17 (6%) | 4 (1%) | 9 34 |
| 55 | LE | 238/288 (83%) | 188 (79%) | 44 (18%) | 6 (2%) | 4 24 |
| 56 | LF | 223/248 (90%) | 212 (95%) | 11 (5%) | 0 | 100 100 |
| 57 | LG | 239/266 (90%) | 213 (89%) | 26 (11%) | 0 | 100 100 |
| 58 | LH | 188/192 (98%) | 175 (93%) | 13 (7%) | 0 | 100 100 |
| 59 | LI | 211/214 (99%) | 202 (96%) | 9 (4%) | 0 | 100 100 |
| 60 | LJ | 174/178 (98%) | 163 (94%) | 9 (5%) | 2 (1%) | 12 40 |
| 61 | LL | 208/211 (99%) | 185 (89%) | 19 (9%) | 4 (2%) | 6 29 |
| 62 | LM | 137/215 (64%) | 118 (86%) | 17 (12%) | 2 (2%) | 8 33 |
| 63 | LN | 201/204 (98%) | 190 (94%) | 11 (6%) | 0 | 100 100 |
| 64 | LO | 199/203 (98%) | 191 (96%) | 8 (4%) | 0 | 100 100 |
| 65 | LP | 151/184 (82%) | 139 (92%) | 11 (7%) | 1 (1%) | 19 50 |
| 66 | LQ | 185/188 (98%) | 172 (93%) | 13 (7%) | 0 | 100 100 |
| 67 | LR | 185/196 (94%) | 180 (97%) | 5 (3%) | 0 | 100 100 |
| 68 | LS | 173/176 (98%) | 153 (88%) | 19 (11%) | 1 (1%) | 22 53 |
| 69 | LT | 157/160 (98%) | 146 (93%) | 8 (5%) | 3 (2%) | 6 29 |
| 70 | LU | 99/128 (77%) | 91 (92%) | 8 (8%) | 0 | 100 100 |
| 71 | LV | 129/140 (92%) | 119 (92%) | 10 (8%) | 0 | 100 100 |
| 72 | LW | 122/157 (78%) | 104 (85%) | 16 (13%) | 2 (2%) | 8 32 |
| 73 | LX | 118/156 (76%) | 111 (94%) | 7 (6%) | 0 | 100 100 |
| 74 | LY | 132/145 (91%) | 123 (93%) | 8 (6%) | 1 (1%) | 16 46 |
| 75 | LZ | 133/136 (98%) | 120 (90%) | 13 (10%) | 0 | 100 100 |

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| Mol | Chain | Analysed | Favoured | Allowed | Outliers | Percentiles | |
|---|---|---|---|---|---|---|---|
| 76 | La | 145/148 (98%) | 127 (88%) | 18 (12%) | 0 | 100 | 100 |
| 77 | Lb | 73/159 (46%) | 68 (93%) | 4 (6%) | 1 (1%) | 9 | 34 |
| 78 | Lc | 96/115 (84%) | 85 (88%) | 9 (9%) | 2 (2%) | 5 | 27 |
| 79 | Ld | 105/125 (84%) | 98 (93%) | 7 (7%) | 0 | 100 | 100 |
| 80 | Le | 126/135 (93%) | 116 (92%) | 9 (7%) | 1 (1%) | 16 | 46 |
| 81 | Lf | 107/110 (97%) | 100 (94%) | 6 (6%) | 1 (1%) | 14 | 44 |
| 82 | Lg | 112/117 (96%) | 108 (96%) | 4 (4%) | 0 | 100 | 100 |
| 83 | Lh | 120/123 (98%) | 112 (93%) | 7 (6%) | 1 (1%) | 16 | 46 |
| 84 | Li | 100/105 (95%) | 93 (93%) | 7 (7%) | 0 | 100 | 100 |
| 85 | Lj | 84/97 (87%) | 76 (90%) | 7 (8%) | 1 (1%) | 11 | 38 |
| 86 | Lk | 67/70 (96%) | 58 (87%) | 8 (12%) | 1 (2%) | 8 | 33 |
| 87 | Ll | 48/51 (94%) | 45 (94%) | 3 (6%) | 0 | 100 | 100 |
| 88 | Lm | 50/128 (39%) | 49 (98%) | 0 | 1 (2%) | 6 | 28 |
| 89 | Ln | 22/25 (88%) | 20 (91%) | 2 (9%) | 0 | 100 | 100 |
| 90 | Lo | 103/106 (97%) | 96 (93%) | 6 (6%) | 1 (1%) | 13 | 42 |
| 91 | Lp | 89/92 (97%) | 80 (90%) | 8 (9%) | 1 (1%) | 12 | 40 |
| 92 | Lr | 123/137 (90%) | 109 (89%) | 13 (11%) | 1 (1%) | 16 | 46 |
| All | All | 15561/17945 (87%) | 14006 (90%) | 1424 (9%) | 131 (1%) | 19 | 46 |

5 of 131 Ramachandran outliers are listed below:

| Mol | Chain | Res | Type |
|---|---|---|---|
| 1 | A | 1018 | PRO |
| 12 | M | 14 | PHE |
| 16 | SB | 147 | ASN |
| 18 | SE | 76 | VAL |
| 19 | SF | 15 | PRO |

### 5.3.2 Protein sidechains (i)

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

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

| Mol | Chain | Analysed | Rotameric | Outliers | Percentiles |
|---|---|---|---|---|---|
| 1 | A | 813/1062 (77%) | 806 (99%) | 7 (1%) | 75 85 |
| 2 | L | 183/186 (98%) | 183 (100%) | 0 | 100 100 |
| 3 | N | 227/238 (95%) | 222 (98%) | 5 (2%) | 47 69 |
| 4 | O | 172/196 (88%) | 171 (99%) | 1 (1%) | 84 90 |
| 5 | F | 249/255 (98%) | 246 (99%) | 3 (1%) | 67 80 |
| 6 | G | 178/188 (95%) | 174 (98%) | 4 (2%) | 47 69 |
| 7 | H | 196/290 (68%) | 196 (100%) | 0 | 100 100 |
| 8 | I | 251/257 (98%) | 247 (98%) | 4 (2%) | 58 76 |
| 9 | J | 160/173 (92%) | 160 (100%) | 0 | 100 100 |
| 10 | K | 297/384 (77%) | 295 (99%) | 2 (1%) | 81 88 |
| 11 | E | 54/251 (22%) | 54 (100%) | 0 | 100 100 |
| 12 | M | 881/973 (90%) | 869 (99%) | 12 (1%) | 62 78 |
| 15 | SA | 184/243 (76%) | 178 (97%) | 6 (3%) | 33 60 |
| 16 | SB | 195/231 (84%) | 189 (97%) | 6 (3%) | 35 61 |
| 17 | SD | 190/202 (94%) | 184 (97%) | 6 (3%) | 34 61 |
| 18 | SE | 224/225 (100%) | 221 (99%) | 3 (1%) | 65 79 |
| 19 | SF | 161/170 (95%) | 158 (98%) | 3 (2%) | 52 72 |
| 20 | SH | 169/174 (97%) | 165 (98%) | 4 (2%) | 44 68 |
| 21 | SI | 178/180 (99%) | 171 (96%) | 7 (4%) | 27 55 |
| 22 | SK | 89/136 (65%) | 87 (98%) | 2 (2%) | 47 69 |
| 23 | SL | 137/142 (96%) | 136 (99%) | 1 (1%) | 81 88 |
| 24 | SP | 87/130 (67%) | 87 (100%) | 0 | 100 100 |
| 25 | SQ | 121/121 (100%) | 119 (98%) | 2 (2%) | 56 74 |
| 26 | SR | 120/122 (98%) | 117 (98%) | 3 (2%) | 42 67 |
| 27 | SS | 130/132 (98%) | 127 (98%) | 3 (2%) | 45 68 |
| 28 | ST | 113/115 (98%) | 111 (98%) | 2 (2%) | 54 74 |
| 29 | SU | 94/107 (88%) | 91 (97%) | 3 (3%) | 34 61 |
| 30 | SV | 67/67 (100%) | 64 (96%) | 3 (4%) | 23 52 |
| 31 | SX | 113/115 (98%) | 111 (98%) | 2 (2%) | 54 74 |
| 32 | Sa | 90/98 (92%) | 86 (96%) | 4 (4%) | 24 52 |
| 33 | Sc | 57/62 (92%) | 57 (100%) | 0 | 100 100 |
| 34 | Sd | 47/49 (96%) | 44 (94%) | 3 (6%) | 14 40 |

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| Mol | Chain | Analysed | Rotameric | Outliers | Percentiles | |
|---|---|---|---|---|---|---|
| 35 | Sf | 64/140 (46%) | 63 (98%) | 1 (2%) | 58 | 76 |
| 36 | Sg | 272/275 (99%) | 267 (98%) | 5 (2%) | 54 | 74 |
| 37 | SC | 188/225 (84%) | 184 (98%) | 4 (2%) | 48 | 70 |
| 38 | SG | 207/218 (95%) | 202 (98%) | 5 (2%) | 44 | 68 |
| 39 | SJ | 161/168 (96%) | 154 (96%) | 7 (4%) | 25 | 53 |
| 40 | SM | 104/108 (96%) | 104 (100%) | 0 | 100 | 100 |
| 41 | SN | 130/131 (99%) | 128 (98%) | 2 (2%) | 60 | 77 |
| 42 | SO | 110/119 (92%) | 108 (98%) | 2 (2%) | 54 | 74 |
| 43 | SW | 112/113 (99%) | 110 (98%) | 2 (2%) | 54 | 74 |
| 44 | SY | 113/115 (98%) | 109 (96%) | 4 (4%) | 31 | 58 |
| 45 | SZ | 66/103 (64%) | 66 (100%) | 0 | 100 | 100 |
| 46 | Sb | 75/76 (99%) | 74 (99%) | 1 (1%) | 65 | 79 |
| 47 | Se | 47/48 (98%) | 46 (98%) | 1 (2%) | 48 | 70 |
| 51 | LA | 190/199 (96%) | 186 (98%) | 4 (2%) | 48 | 70 |
| 52 | LB | 348/349 (100%) | 343 (99%) | 5 (1%) | 62 | 78 |
| 53 | LC | 305/348 (88%) | 299 (98%) | 6 (2%) | 50 | 71 |
| 54 | LD | 246/250 (98%) | 242 (98%) | 4 (2%) | 58 | 76 |
| 55 | LE | 215/252 (85%) | 206 (96%) | 9 (4%) | 25 | 53 |
| 56 | LF | 194/215 (90%) | 194 (100%) | 0 | 100 | 100 |
| 57 | LG | 203/223 (91%) | 200 (98%) | 3 (2%) | 60 | 77 |
| 58 | LH | 169/171 (99%) | 164 (97%) | 5 (3%) | 36 | 62 |
| 59 | LI | 180/181 (99%) | 175 (97%) | 5 (3%) | 38 | 64 |
| 60 | LJ | 148/149 (99%) | 141 (95%) | 7 (5%) | 22 | 51 |
| 61 | LL | 176/177 (99%) | 175 (99%) | 1 (1%) | 84 | 90 |
| 62 | LM | 118/161 (73%) | 116 (98%) | 2 (2%) | 56 | 74 |
| 63 | LN | 171/172 (99%) | 170 (99%) | 1 (1%) | 84 | 90 |
| 64 | LO | 173/174 (99%) | 170 (98%) | 3 (2%) | 56 | 74 |
| 65 | LP | 134/163 (82%) | 134 (100%) | 0 | 100 | 100 |
| 66 | LQ | 164/165 (99%) | 160 (98%) | 4 (2%) | 44 | 68 |
| 67 | LR | 166/175 (95%) | 163 (98%) | 3 (2%) | 54 | 74 |
| 68 | LS | 156/157 (99%) | 156 (100%) | 0 | 100 | 100 |

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| Mol | Chain | Analysed | Rotameric | Outliers | Percentiles | |
|---|---|---|---|---|---|---|
| 69 | LT | 139/140 (99%) | 135 (97%) | 4 (3%) | 37 | 63 |
| 70 | LU | 91/115 (79%) | 90 (99%) | 1 (1%) | 70 | 82 |
| 71 | LV | 101/107 (94%) | 100 (99%) | 1 (1%) | 73 | 84 |
| 72 | LW | 103/126 (82%) | 101 (98%) | 2 (2%) | 52 | 72 |
| 73 | LX | 108/133 (81%) | 104 (96%) | 4 (4%) | 29 | 56 |
| 74 | LY | 124/135 (92%) | 117 (94%) | 7 (6%) | 17 | 45 |
| 75 | LZ | 117/118 (99%) | 114 (97%) | 3 (3%) | 41 | 66 |
| 76 | La | 120/121 (99%) | 120 (100%) | 0 | 100 | 100 |
| 77 | Lb | 63/126 (50%) | 60 (95%) | 3 (5%) | 21 | 50 |
| 78 | Lc | 83/97 (86%) | 80 (96%) | 3 (4%) | 30 | 57 |
| 79 | Ld | 98/110 (89%) | 95 (97%) | 3 (3%) | 35 | 61 |
| 80 | Le | 114/121 (94%) | 110 (96%) | 4 (4%) | 31 | 58 |
| 81 | Lf | 88/89 (99%) | 87 (99%) | 1 (1%) | 70 | 82 |
| 82 | Lg | 98/100 (98%) | 97 (99%) | 1 (1%) | 73 | 84 |
| 83 | Lh | 109/110 (99%) | 106 (97%) | 3 (3%) | 38 | 64 |
| 84 | Li | 86/89 (97%) | 82 (95%) | 4 (5%) | 22 | 51 |
| 85 | Lj | 73/80 (91%) | 73 (100%) | 0 | 100 | 100 |
| 86 | Lk | 64/65 (98%) | 63 (98%) | 1 (2%) | 58 | 76 |
| 87 | Ll | 47/48 (98%) | 46 (98%) | 1 (2%) | 48 | 70 |
| 88 | Lm | 48/116 (41%) | 48 (100%) | 0 | 100 | 100 |
| 89 | Ln | 23/24 (96%) | 22 (96%) | 1 (4%) | 25 | 53 |
| 90 | Lo | 93/94 (99%) | 90 (97%) | 3 (3%) | 34 | 61 |
| 91 | Lp | 74/75 (99%) | 72 (97%) | 2 (3%) | 40 | 65 |
| 92 | Lr | 109/121 (90%) | 106 (97%) | 3 (3%) | 38 | 64 |
| All | All | 13505/15254 (88%) | 13253 (98%) | 252 (2%) | 52 | 72 |

5 of 252 residues with a non-rotameric sidechain are listed below:

| Mol | Chain | Res | Type |
|---|---|---|---|
| 38 | SG | 209 | TYR |
| 77 | Lb | 60 | ASN |
| 52 | LB | 357 | ARG |
| 77 | Lb | 26 | SER |
| 83 | Lh | 48 | ARG |

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 28 such sidechains are listed below:

| Mol | Chain | Res | Type |
|---|---|---|---|
| 37 | SC | 113 | GLN |
| 92 | Lr | 6 | GLN |
| 39 | SJ | 124 | HIS |
| 62 | LM | 34 | ASN |
| 38 | SG | 225 | GLN |

### 5.3.3 RNA (i)

| Mol | Chain | Analysed | Backbone Outliers | Pucker Outliers |
|---|---|---|---|---|
| 13 | X | 192/249 (77%) | 128 (66%) | 13 (6%) |
| 14 | S2 | 1716/1869 (91%) | 624 (36%) | 23 (1%) |
| 48 | L5 | 3640/5066 (71%) | 1082 (29%) | 52 (1%) |
| 49 | L7 | 119/121 (98%) | 18 (15%) | 0 |
| 50 | L8 | 155/157 (98%) | 39 (25%) | 2 (1%) |
| All | All | 5822/7462 (78%) | 1891 (32%) | 90 (1%) |

5 of 1891 RNA backbone outliers are listed below:

| Mol | Chain | Res | Type |
|---|---|---|---|
| 13 | X | 3 | A |
| 13 | X | 8 | U |
| 13 | X | 9 | G |
| 13 | X | 10 | A |
| 13 | X | 12 | C |

5 of 90 RNA pucker outliers are listed below:

| Mol | Chain | Res | Type |
|---|---|---|---|
| 48 | L5 | 2094 | G |
| 48 | L5 | 3711 | U |
| 48 | L5 | 2117 | C |
| 48 | L5 | 2693 | A |
| 48 | L5 | 3886 | G |

## 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 oligosaccharides in this entry.

## 5.6 Ligand geometry (i)

Of 238 ligands modelled in this entry, 238 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

## 5.7 Other polymers (i)

There are no such residues in this entry.

## 5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

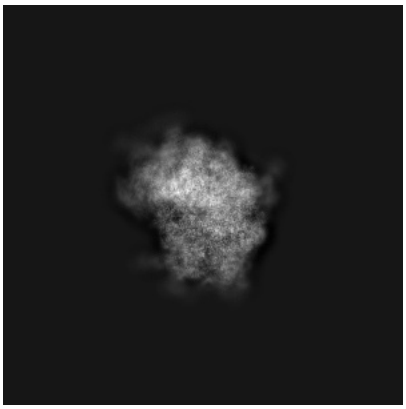
# 6 Map visualisation

This section contains visualisations of the EMDB entry EMD-51132. These allow visual inspection of the internal detail of the map and identification of artifacts.

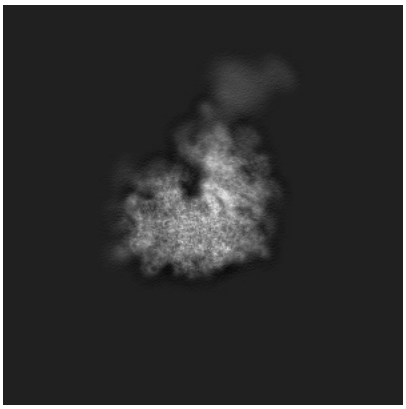
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

## 6.1 Orthogonal projections

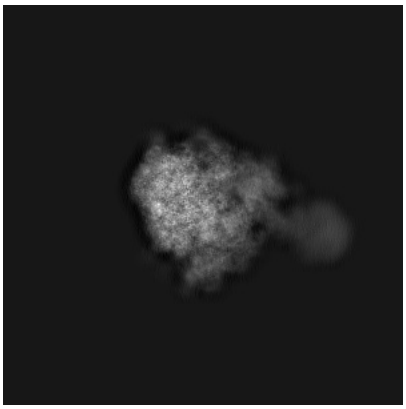
### 6.1.1 Primary map



X

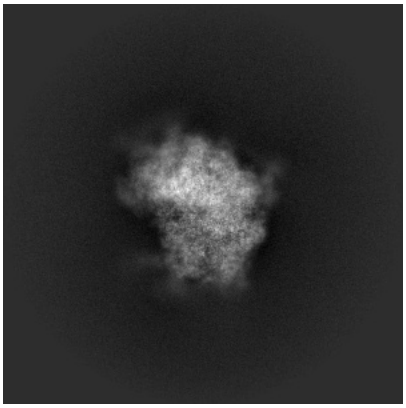


Y

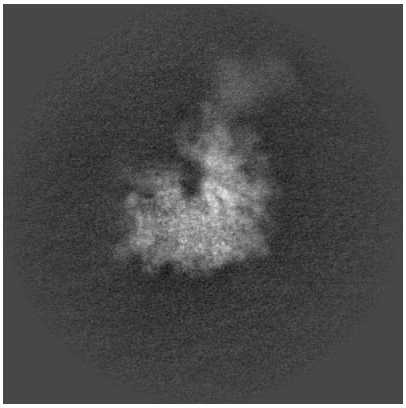


Z

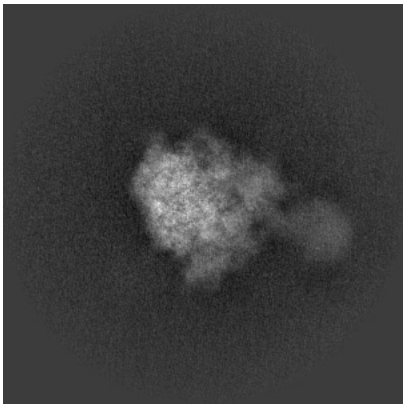
### 6.1.2 Raw map



X



Y

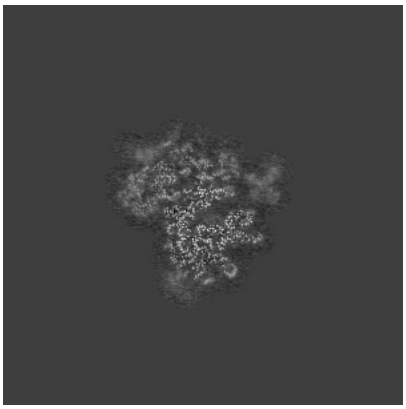


Z

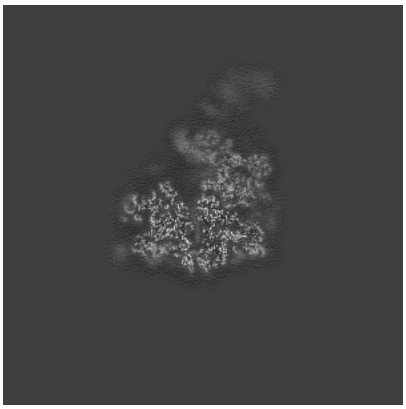
The images above show the map projected in three orthogonal directions.

## 6.2 Central slices (i)

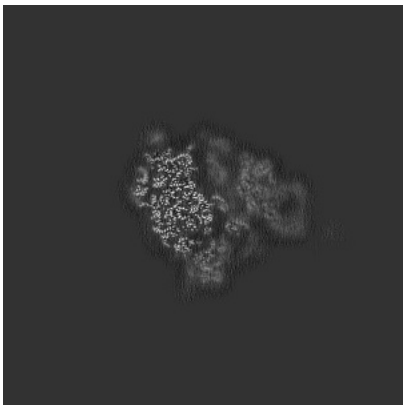
### 6.2.1 Primary map



X Index: 416

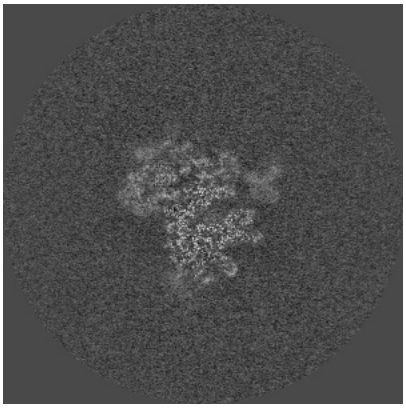


Y Index: 416

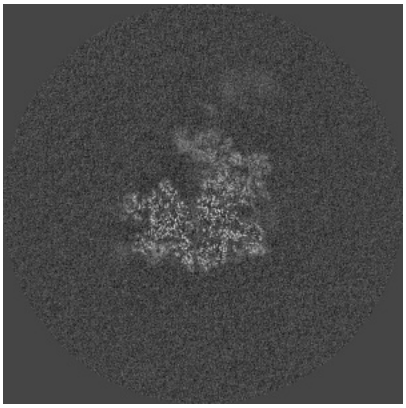


Z Index: 416

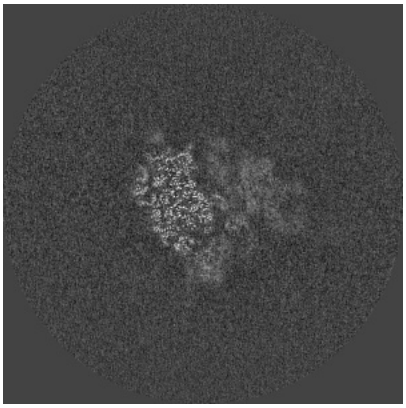
### 6.2.2 Raw map



X Index: 416



Y Index: 416

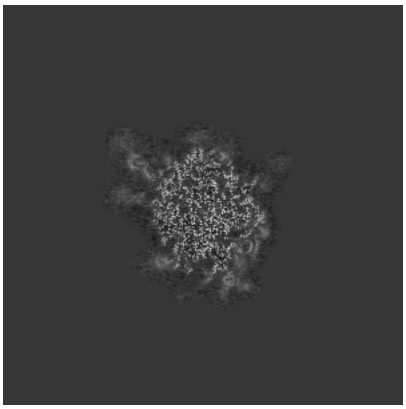


Z Index: 416

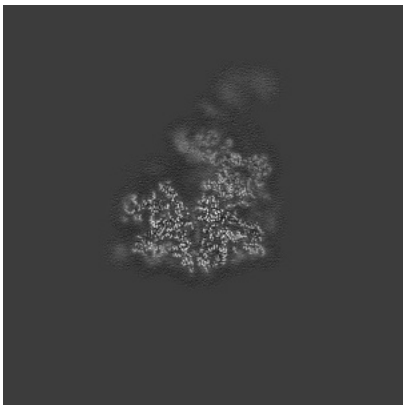
The images above show central slices of the map in three orthogonal directions.

## 6.3 Largest variance slices (i)

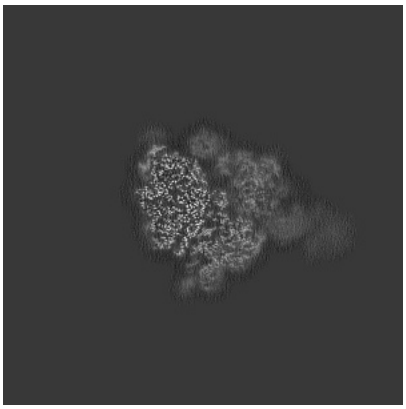
### 6.3.1 Primary map



X Index: 380

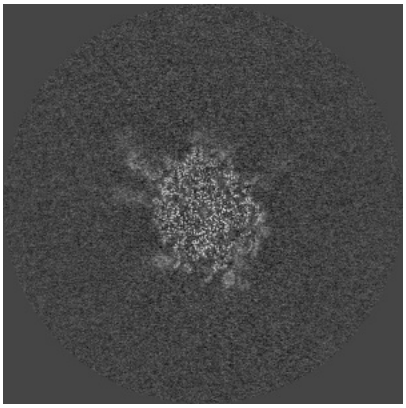


Y Index: 417

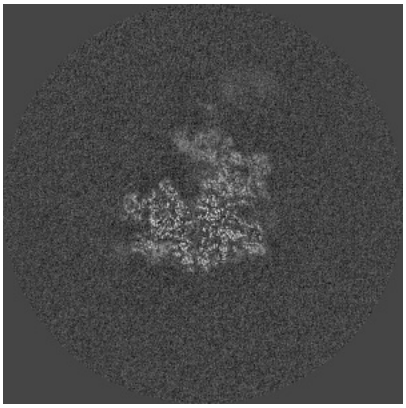


Z Index: 441

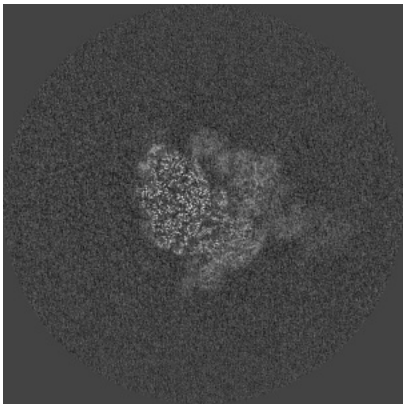
### 6.3.2 Raw map



X Index: 381



Y Index: 417

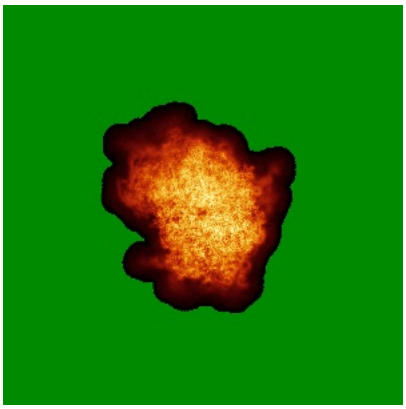


Z Index: 440

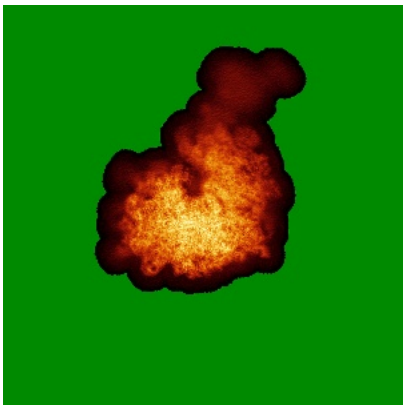
The images above show the largest variance slices of the map in three orthogonal directions.

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

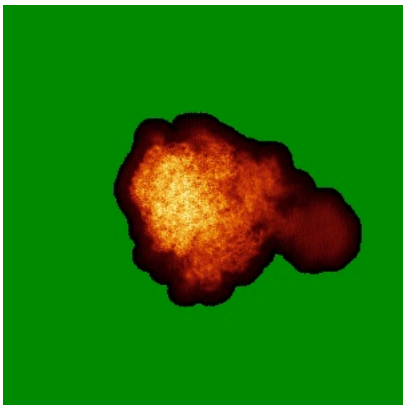
### 6.4.1 Primary map



X

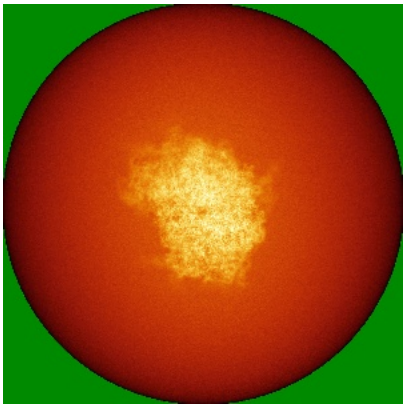


Y

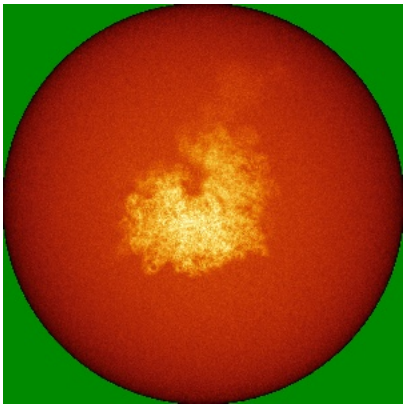


Z

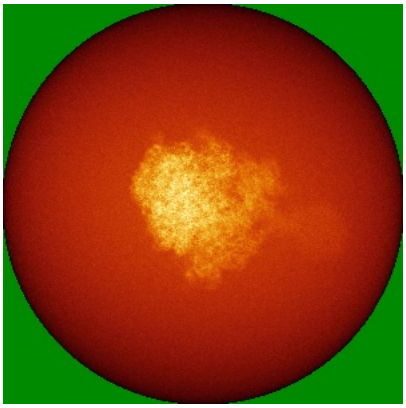
### 6.4.2 Raw map



X



Y



Z

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

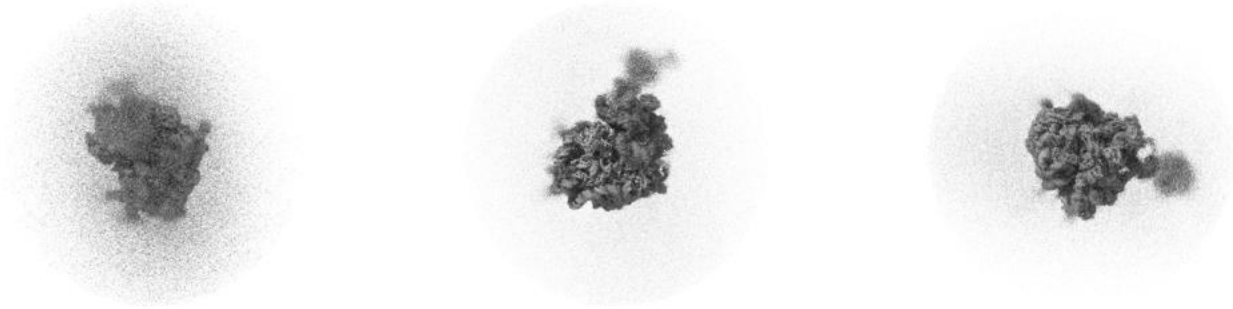
## 6.5 Orthogonal surface views (i)

### 6.5.1 Primary map

X Y Z

The images above show the 3D surface view of the map at the recommended contour level 0.01. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

### 6.5.2 Raw map



X Y Z

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

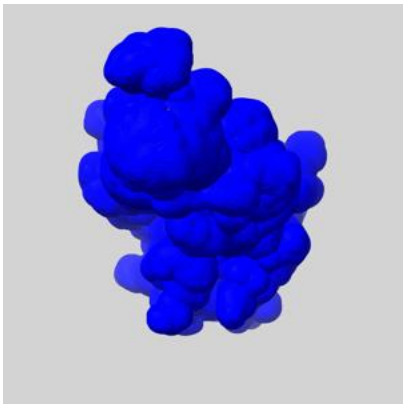
## 6.6 Mask visualisation (i)

This section shows the 3D surface view of the primary map at 50% transparency overlaid with the specified mask at 0% transparency

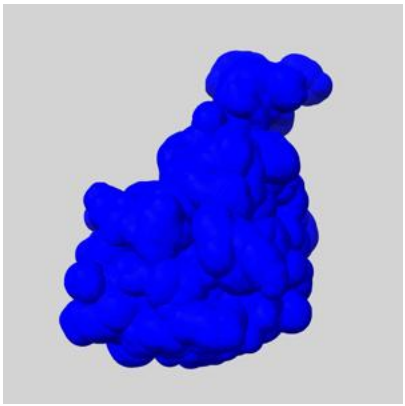
A mask typically either:

- Encompasses the whole structure
- Separates out a domain, a functional unit, a monomer or an area of interest from a larger structure

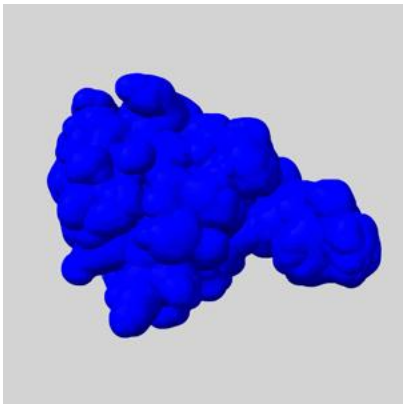
### 6.6.1 emd_51132_msk_1.map (i)



X



Y

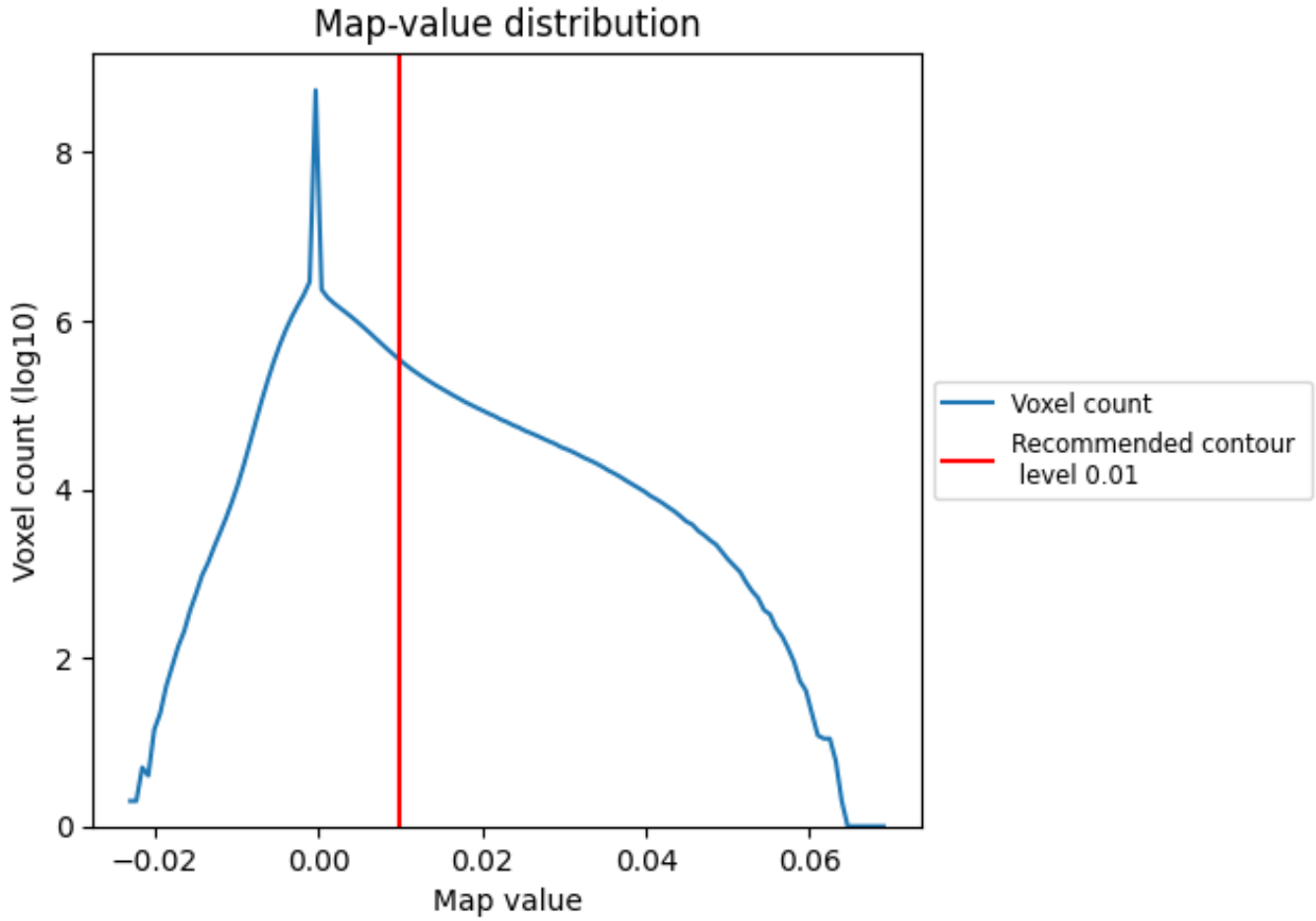


Z

# 7 Map analysis

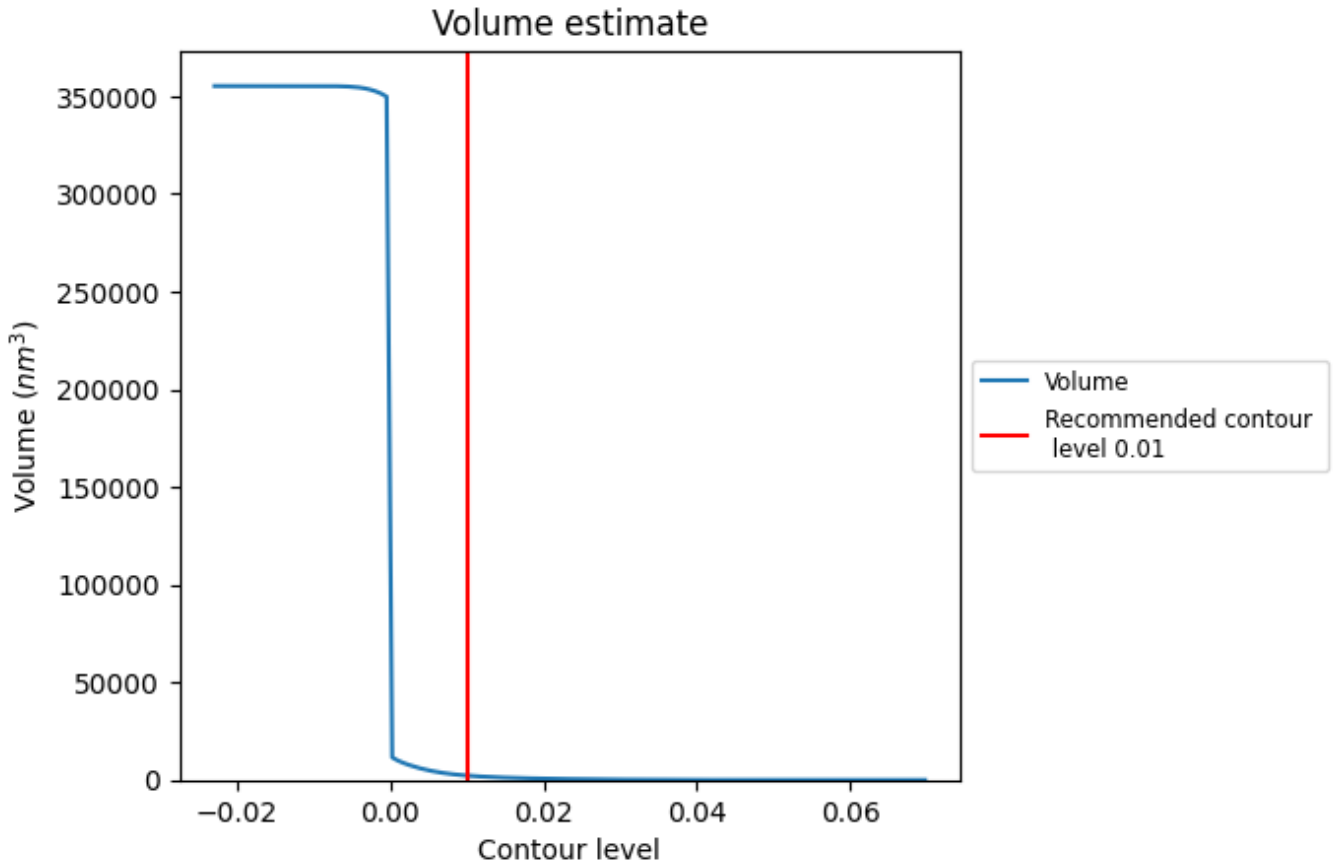
This section contains the results of statistical analysis of the map.

## 7.1 Map-value distribution




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

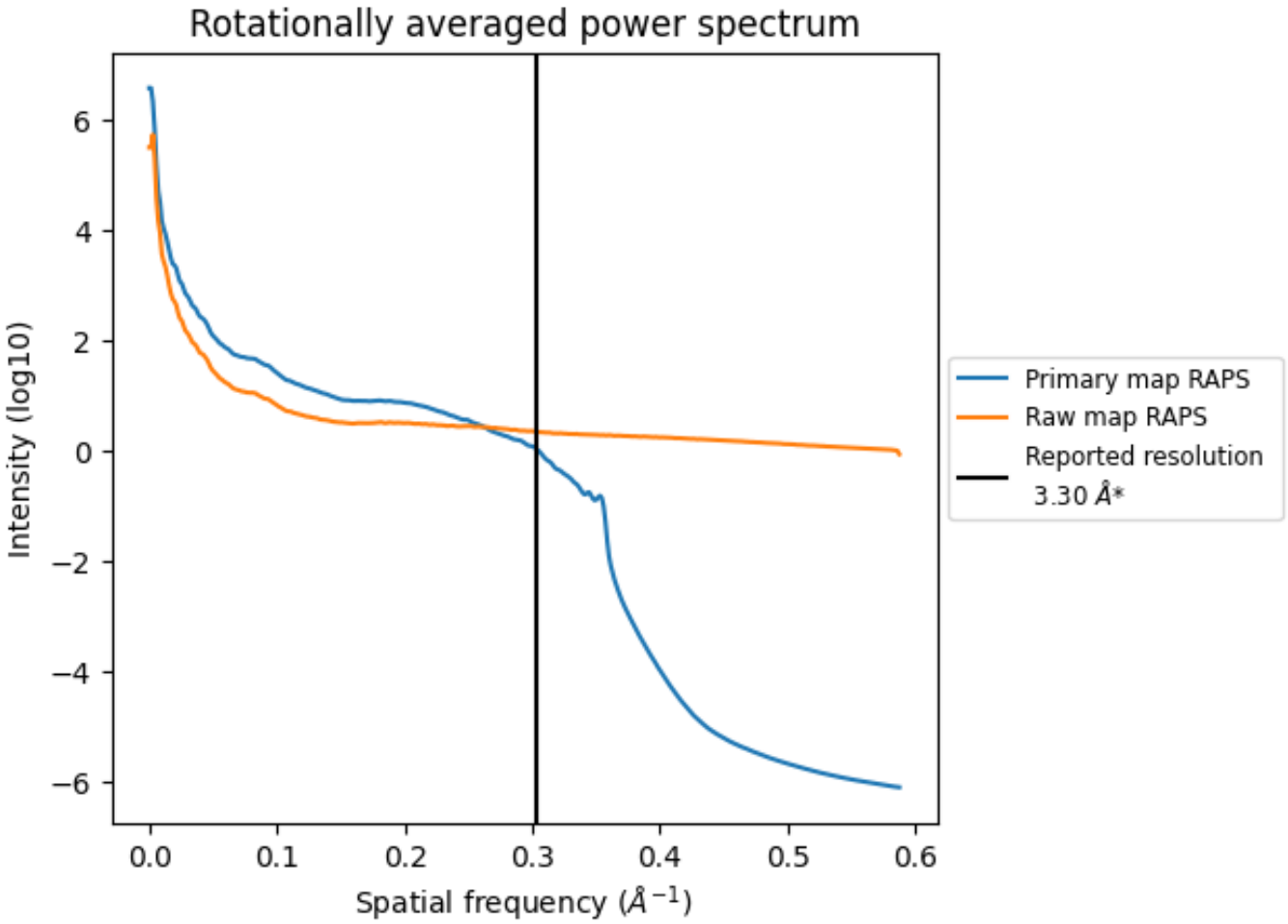
## 7.2 Volume estimate (i)




The volume at the recommended contour level is 2249 $nm^3$; this corresponds to an approximate mass of 2031 kDa.

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

## 7.3 Rotationally averaged power spectrum (i)

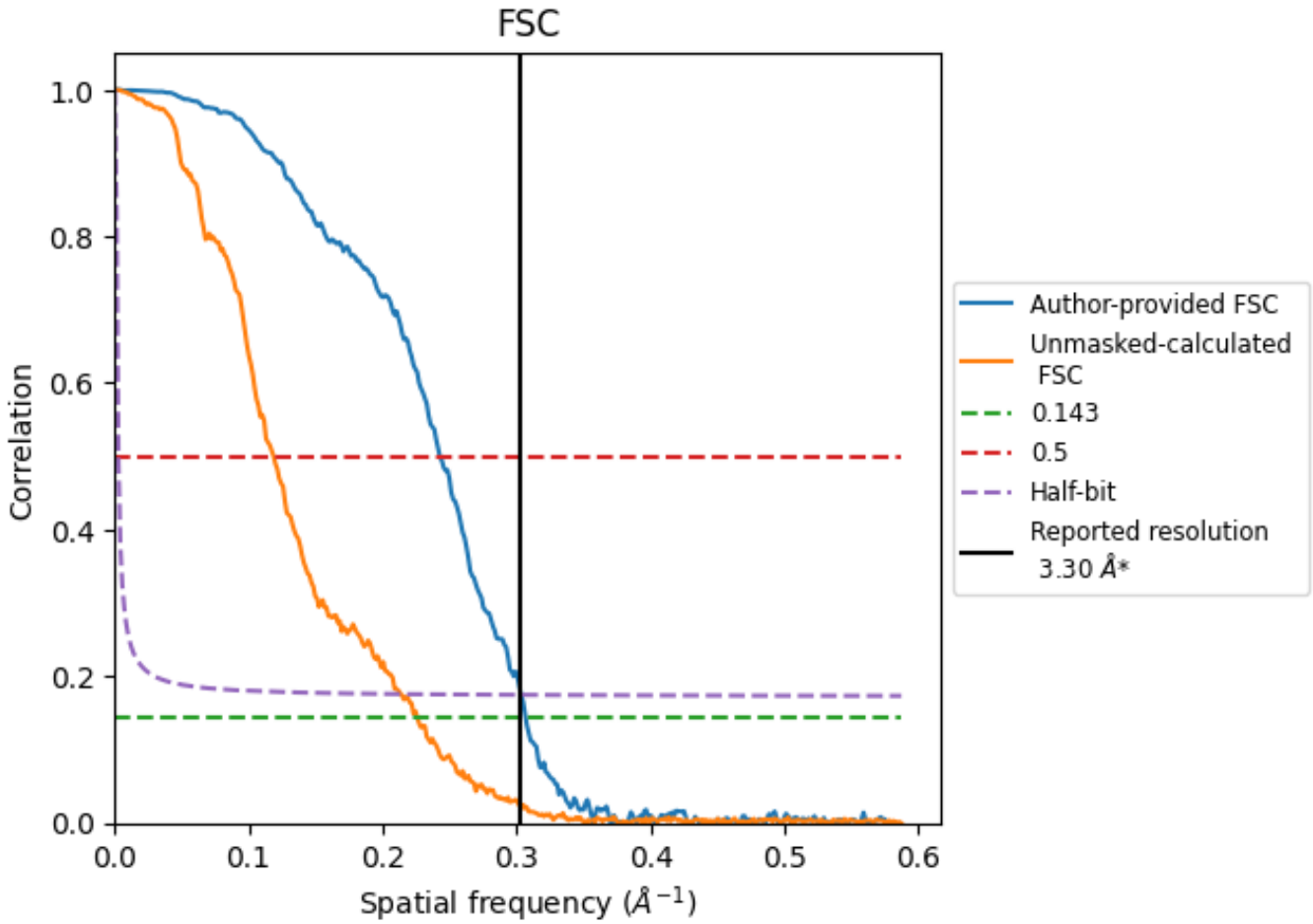



*Reported resolution corresponds to spatial frequency of 0.303 Å$^{-1}$

# 8 Fourier-Shell correlation

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

## 8.1 FSC




*Reported resolution corresponds to spatial frequency of 0.303 Å$^{-1}$

## 8.2 Resolution estimates (i)

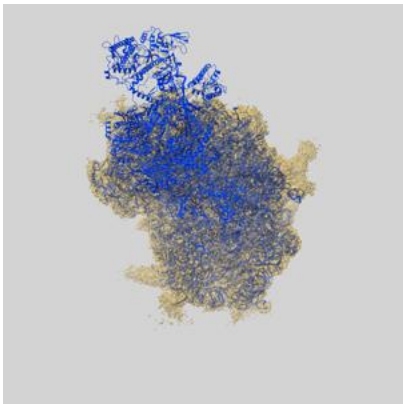
| Resolution estimate (Å) | Estimation criterion (FSC cut-off) | | |
|---|---|---|---|
| | 0.143 | 0.5 | Half-bit |
| Reported by author | 3.30 | - | - |
| Author-provided FSC curve | 3.26 | 4.12 | 3.29 |
| Unmasked-calculated* | 4.42 | 8.42 | 4.68 |

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 4.42 differs from the reported value 3.3 by more than 10 %

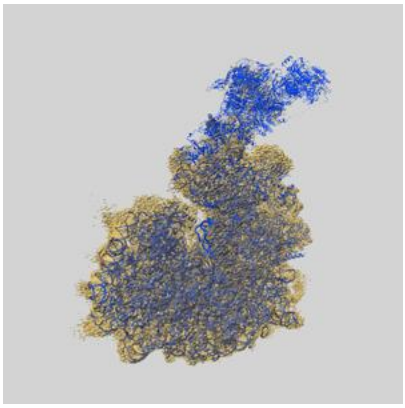
# 9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-51132 and PDB model 9G8M. Per-residue inclusion information can be found in section 3 on page 25.

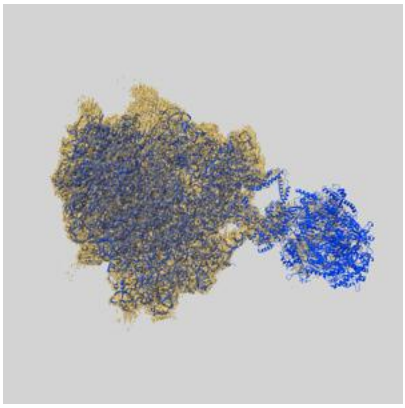
## 9.1 Map-model overlay



X



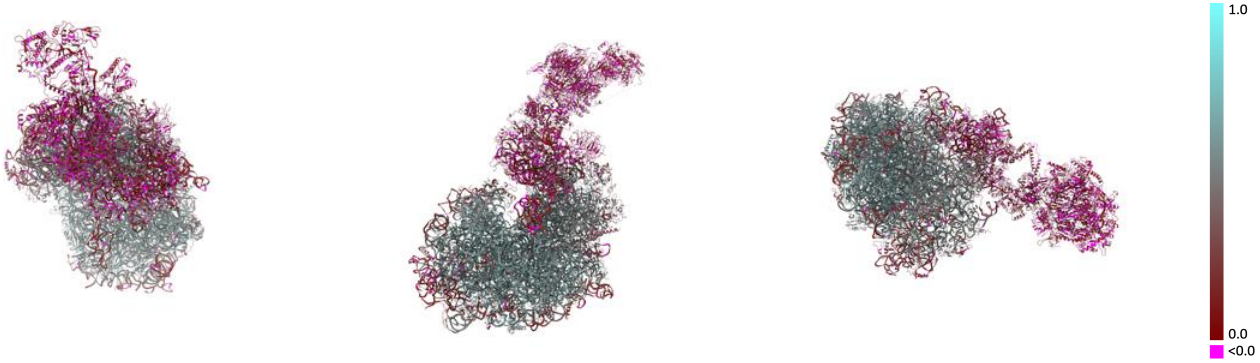
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.01 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

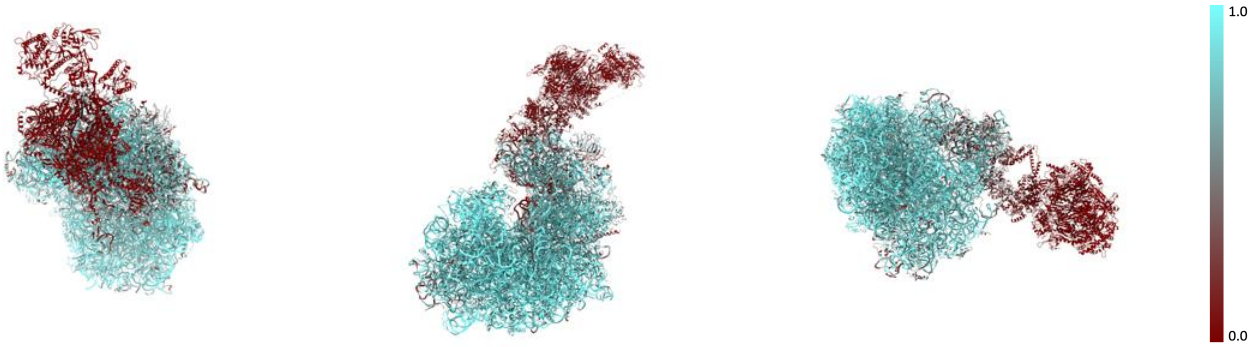
## 9.2 Q-score mapped to coordinate model




X Y Z

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

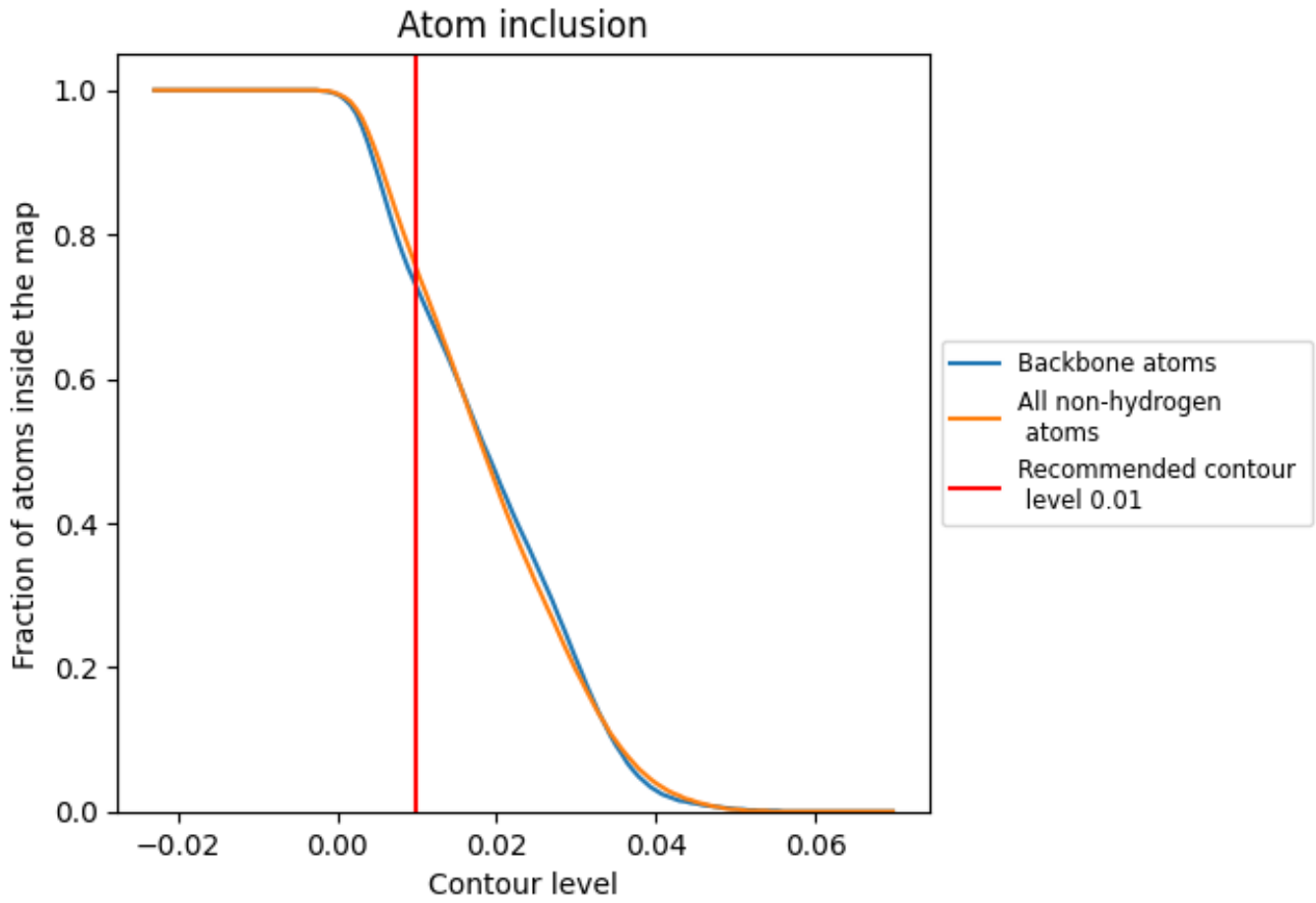
## 9.3 Atom inclusion mapped to coordinate model




X Y Z

The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.01).

## 9.4 Atom inclusion (i)




At the recommended contour level, 73% of all backbone atoms, 75% of all non-hydrogen atoms, are inside the map.

## 9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.01) and Q-score for the entire model and for each chain.

| Chain | Atom inclusion | Q-score |
|---|---|---|
| All | 0.7510 | 0.4050 |
| A | 0.0980 | 0.1490 |
| E | 0.0060 | 0.1440 |
| F | 0.0230 | 0.1110 |
| G | 0.0190 | 0.1170 |
| H | 0.0250 | 0.1240 |
| I | 0.0160 | 0.1330 |
| J | 0.0080 | 0.0860 |
| K | 0.0280 | 0.1260 |
| L | 0.0190 | 0.1140 |
| L5 | 0.9430 | 0.4950 |
| L7 | 0.9930 | 0.5610 |
| L8 | 0.9720 | 0.5360 |
| LA | 0.9580 | 0.5750 |
| LB | 0.9280 | 0.5520 |
| LC | 0.9270 | 0.5460 |
| LD | 0.9160 | 0.5030 |
| LE | 0.8410 | 0.4430 |
| LF | 0.9290 | 0.5550 |
| LG | 0.8660 | 0.4850 |
| LH | 0.9320 | 0.5380 |
| LI | 0.8980 | 0.5380 |
| LJ | 0.8170 | 0.4030 |
| LL | 0.9080 | 0.5290 |
| LM | 0.9440 | 0.5340 |
| LN | 0.9680 | 0.5860 |
| LO | 0.9520 | 0.5650 |
| LP | 0.9510 | 0.5670 |
| LQ | 0.9550 | 0.5700 |
| LR | 0.8100 | 0.4390 |
| LS | 0.9620 | 0.5650 |
| LT | 0.9430 | 0.5510 |
| LU | 0.9030 | 0.4580 |
| LV | 0.9400 | 0.5690 |
| LW | 0.6880 | 0.3800 |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| Chain | Atom inclusion | Q-score |
|---|---|---|
| LX | 0.9160 | 0.5300 |
| LY | 0.9370 | 0.5410 |
| LZ | 0.9420 | 0.5350 |
| La | 0.9660 | 0.5740 |
| Lb | 0.8400 | 0.4950 |
| Lc | 0.8550 | 0.4550 |
| Ld | 0.9240 | 0.5330 |
| Le | 0.9500 | 0.5730 |
| Lf | 0.9640 | 0.5790 |
| Lg | 0.9230 | 0.5420 |
| Lh | 0.9180 | 0.5370 |
| Li | 0.9110 | 0.5300 |
| Lj | 0.9600 | 0.5720 |
| Lk | 0.8670 | 0.4610 |
| Ll | 0.9410 | 0.5580 |
| Lm | 0.9250 | 0.5440 |
| Ln | 0.9280 | 0.5520 |
| Lo | 0.8960 | 0.5310 |
| Lp | 0.9170 | 0.5620 |
| Lr | 0.9530 | 0.5590 |
| M | 0.0050 | 0.1180 |
| N | 0.0150 | 0.1180 |
| O | 0.0170 | 0.0910 |
| S2 | 0.8560 | 0.3830 |
| SA | 0.8160 | 0.4250 |
| SB | 0.8160 | 0.4570 |
| SC | 0.8570 | 0.4820 |
| SD | 0.4590 | 0.2350 |
| SE | 0.7990 | 0.4430 |
| SF | 0.3850 | 0.1110 |
| SG | 0.7030 | 0.3060 |
| SH | 0.7080 | 0.3870 |
| SI | 0.7660 | 0.4450 |
| SJ | 0.8250 | 0.4580 |
| SK | 0.3680 | 0.1330 |
| SL | 0.7560 | 0.4790 |
| SM | 0.0840 | 0.1210 |
| SN | 0.8530 | 0.5020 |
| SO | 0.8200 | 0.4770 |
| SP | 0.4290 | 0.1480 |
| SQ | 0.5610 | 0.1250 |
| SR | 0.5940 | 0.2280 |

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| Chain | Atom inclusion | Q-score |
|---|---|---|
| SS | 0.4700 | 0.1180 |
| ST | 0.5130 | 0.1250 |
| SU | 0.4620 | 0.1900 |
| SV | 0.8540 | 0.4450 |
| SW | 0.8820 | 0.5120 |
| SX | 0.8960 | 0.5080 |
| SY | 0.8220 | 0.4120 |
| SZ | 0.4240 | 0.1120 |
| Sa | 0.8490 | 0.4650 |
| Sb | 0.7570 | 0.4320 |
| Sc | 0.3780 | 0.1100 |
| Sd | 0.6390 | 0.2680 |
| Se | 0.6960 | 0.3720 |
| Sf | 0.3710 | 0.1380 |
| Sg | 0.4180 | 0.1140 |
| X | 0.4040 | 0.1240 |