



wwPDB EM Validation Summary Report ⓘ

Nov 19, 2022 – 10:20 pm GMT

PDB ID : 5K0Y
EMDB ID : EMD-8190
Title : m48S late-stage initiation complex, purified from rabbit reticulocytes lysates, displaying eIF2 ternary complex and eIF3 i and g subunits relocated to the intersubunit face
Authors : Simonetti, A.; Brito Querido, J.; Myasnikov, A.G.; Mancera-Martinez, E.; Renaud, A.; Kuhn, L.; Hashem, Y.
Deposited on : 2016-05-17
Resolution : 5.80 Å (reported)
Based on initial model : 4KZY

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:

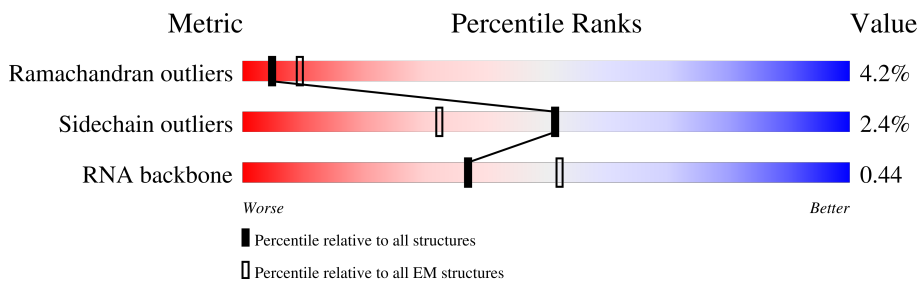
EMDB validation analysis : 0.0.1.dev43
MolProbity : 4.02b-467
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ : 1.9.9
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.31.2

1 Overall quality at a glance i

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

The reported resolution of this entry is 5.80 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 | 154571 | 4023 |
| Sidechain outliers | 154315 | 3826 |
| RNA backbone | 4643 | 859 |

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 $\leq 5\%$. 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 | N | 75 | |
| 2 | A | 1776 | |
| 3 | F | 30 | |
| 4 | P | 266 | |
| 5 | G | 158 | |
| 6 | H | 141 | |
| 7 | I | 263 | |
| 8 | J | 53 | |

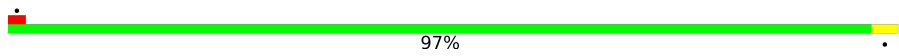
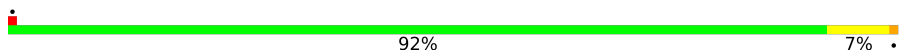

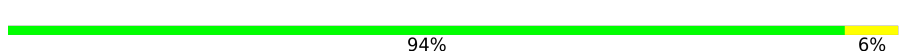

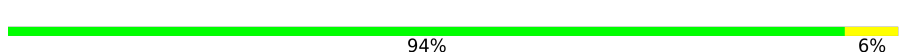
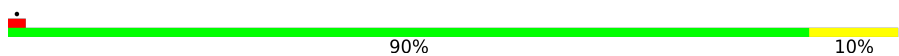


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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 9 | K | 182 | 94% 5% |
| 10 | L | 137 | 91% 8% |
| 11 | M | 38 | 89% 97% |
| 12 | O | 77 | 78% 99% |
| 13 | Q | 142 | 94% 6% |
| 14 | R | 141 | 92% 7% |
| 15 | S | 422 | 75% 92% 7% |
| 16 | T | 329 | 89% 94% 5% |
| 17 | U | 191 | 93% 6% |
| 18 | V | 59 | 7% 92% 8% |
| 19 | W | 75 | 93% 7% |
| 20 | X | 190 | 7% 89% 9% |
| 21 | Y | 84 | 88% 11% |
| 22 | Z | 150 | 97% |
| 23 | a | 129 | 95% 5% |
| 24 | b | 82 | 82% 17% |
| 25 | c | 226 | 95% |
| 26 | d | 17 | 88% 100% |
| 27 | e | 126 | 6% 96% |
| 28 | f | 208 | 93% 7% |
| 29 | g | 227 | 94% 6% |
| 30 | h | 104 | 88% 12% |
| 31 | i | 215 | 94% 6% |
| 32 | j | 136 | 93% 5% |
| 33 | k | 99 | 92% 8% |

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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|--|
| 34 | l | 64 |  97% |
| 35 | m | 313 |  92% 7% |
| 36 | n | 127 |  84% 13% |
| 37 | o | 206 |  94% 6% |
| 38 | p | 71 |  80% 17% |
| 39 | q | 237 |  94% 6% |
| 40 | r | 124 |  90% 10% |
| 41 | s | 131 |  89% 10% |
| 42 | t | 98 |  81% 17% |

2 Entry composition [i](#)

There are 42 unique types of molecules in this entry. The entry contains 88157 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 RNA chain called tRNA.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|----|---------|-------|
| | | | Total | C | N | O | P | | |
| 1 | N | 75 | 1604 | 717 | 298 | 515 | 74 | 0 | 0 |

There are 3 discrepancies between the modelled and reference sequences:

| Chain | Residue | Modelled | Actual | Comment | Reference |
|-------|---------|----------|--------|----------------|---------------|
| N | 73 | C | - | expression tag | REF 655840029 |
| N | 74 | C | - | expression tag | REF 655840029 |
| N | 75 | A | - | expression tag | REF 655840029 |

- Molecule 2 is a RNA chain called 18S ribosomal RNA.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-------|------|-------|------|---------|-------|
| | | | Total | C | N | O | P | | |
| 2 | A | 1776 | 37881 | 16910 | 6782 | 12414 | 1775 | 0 | 0 |

There are 685 discrepancies between the modelled and reference sequences:

| Chain | Residue | Modelled | Actual | Comment | Reference |
|-------|---------|----------|--------|----------------|---------------|
| A | 1 | U | - | expression tag | REF 283837872 |
| A | 2 | A | - | expression tag | REF 283837872 |
| A | 3 | C | - | expression tag | REF 283837872 |
| A | 4 | C | - | expression tag | REF 283837872 |
| A | 5 | U | - | expression tag | REF 283837872 |
| A | 6 | G | - | expression tag | REF 283837872 |
| A | 7 | G | - | expression tag | REF 283837872 |
| A | 8 | U | - | expression tag | REF 283837872 |
| A | 9 | U | - | expression tag | REF 283837872 |
| A | 10 | G | - | expression tag | REF 283837872 |
| A | 11 | A | - | expression tag | REF 283837872 |
| A | 12 | U | - | expression tag | REF 283837872 |
| A | 13 | C | - | expression tag | REF 283837872 |
| A | 14 | C | - | expression tag | REF 283837872 |

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| Chain | Residue | Modelled | Actual | Comment | Reference |
|-------|---------|----------|--------|----------------|---------------|
| A | 15 | U | - | expression tag | REF 283837872 |
| A | 16 | G | - | expression tag | REF 283837872 |
| A | 17 | C | - | expression tag | REF 283837872 |
| A | 18 | C | - | expression tag | REF 283837872 |
| A | 19 | A | - | expression tag | REF 283837872 |
| A | 20 | G | - | expression tag | REF 283837872 |
| A | 21 | U | - | expression tag | REF 283837872 |
| A | 22 | A | - | expression tag | REF 283837872 |
| A | 23 | G | - | expression tag | REF 283837872 |
| A | 24 | C | - | expression tag | REF 283837872 |
| A | 25 | A | - | expression tag | REF 283837872 |
| A | 26 | U | - | expression tag | REF 283837872 |
| A | 27 | A | - | expression tag | REF 283837872 |
| A | 28 | U | - | expression tag | REF 283837872 |
| A | 29 | G | - | expression tag | REF 283837872 |
| A | 30 | C | - | expression tag | REF 283837872 |
| A | 31 | U | - | expression tag | REF 283837872 |
| A | 32 | U | - | expression tag | REF 283837872 |
| A | 33 | G | - | expression tag | REF 283837872 |
| A | 34 | U | - | expression tag | REF 283837872 |
| A | 35 | C | - | expression tag | REF 283837872 |
| A | 36 | U | - | expression tag | REF 283837872 |
| A | 37 | C | - | expression tag | REF 283837872 |
| A | 38 | A | - | expression tag | REF 283837872 |
| A | 39 | A | - | expression tag | REF 283837872 |
| A | 40 | A | - | expression tag | REF 283837872 |
| A | 41 | G | - | expression tag | REF 283837872 |
| A | 42 | A | - | expression tag | REF 283837872 |
| A | 43 | U | - | expression tag | REF 283837872 |
| A | 44 | U | - | expression tag | REF 283837872 |
| A | 45 | A | - | expression tag | REF 283837872 |
| A | 46 | A | - | expression tag | REF 283837872 |
| A | 47 | G | - | expression tag | REF 283837872 |
| A | 48 | C | - | expression tag | REF 283837872 |
| A | 49 | C | - | expression tag | REF 283837872 |
| A | 50 | A | - | expression tag | REF 283837872 |
| A | 51 | U | - | expression tag | REF 283837872 |
| A | 52 | G | - | expression tag | REF 283837872 |
| A | 53 | C | - | expression tag | REF 283837872 |
| A | 54 | A | - | expression tag | REF 283837872 |
| A | 55 | U | - | expression tag | REF 283837872 |
| A | 56 | G | - | expression tag | REF 283837872 |

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| Chain | Residue | Modelled | Actual | Comment | Reference |
|-------|---------|----------|--------|----------------|---------------|
| A | 57 | U | - | expression tag | REF 283837872 |
| A | 58 | C | - | expression tag | REF 283837872 |
| A | 59 | U | - | expression tag | REF 283837872 |
| A | 60 | A | - | expression tag | REF 283837872 |
| A | 61 | A | - | expression tag | REF 283837872 |
| A | 62 | G | - | expression tag | REF 283837872 |
| A | 63 | U | - | expression tag | REF 283837872 |
| A | 64 | A | - | expression tag | REF 283837872 |
| A | 65 | C | - | expression tag | REF 283837872 |
| A | 66 | G | - | expression tag | REF 283837872 |
| A | 67 | C | - | expression tag | REF 283837872 |
| A | 68 | A | - | expression tag | REF 283837872 |
| A | 69 | C | - | expression tag | REF 283837872 |
| A | 70 | G | - | expression tag | REF 283837872 |
| A | 71 | G | - | expression tag | REF 283837872 |
| A | 72 | C | - | expression tag | REF 283837872 |
| A | 73 | C | - | expression tag | REF 283837872 |
| A | 74 | G | - | expression tag | REF 283837872 |
| A | 75 | G | - | expression tag | REF 283837872 |
| A | 76 | U | - | expression tag | REF 283837872 |
| A | 77 | A | - | expression tag | REF 283837872 |
| A | 78 | C | - | expression tag | REF 283837872 |
| A | 79 | A | - | expression tag | REF 283837872 |
| A | 80 | G | - | expression tag | REF 283837872 |
| A | 81 | U | - | expression tag | REF 283837872 |
| A | 82 | G | - | expression tag | REF 283837872 |
| A | 83 | A | - | expression tag | REF 283837872 |
| A | 84 | A | - | expression tag | REF 283837872 |
| A | 85 | A | - | expression tag | REF 283837872 |
| A | 86 | C | - | expression tag | REF 283837872 |
| A | 87 | U | - | expression tag | REF 283837872 |
| A | 88 | G | - | expression tag | REF 283837872 |
| A | 89 | C | - | expression tag | REF 283837872 |
| A | 90 | G | - | expression tag | REF 283837872 |
| A | 91 | A | - | expression tag | REF 283837872 |
| A | 92 | A | - | expression tag | REF 283837872 |
| A | 93 | U | - | expression tag | REF 283837872 |
| A | 94 | G | - | expression tag | REF 283837872 |
| A | 95 | G | - | expression tag | REF 283837872 |
| A | 96 | C | - | expression tag | REF 283837872 |
| A | 97 | U | - | expression tag | REF 283837872 |
| A | 98 | C | - | expression tag | REF 283837872 |

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| Chain | Residue | Modelled | Actual | Comment | Reference |
|-------|---------|----------|--------|----------------|---------------|
| A | 99 | A | - | expression tag | REF 283837872 |
| A | 100 | U | - | expression tag | REF 283837872 |
| A | 101 | U | - | expression tag | REF 283837872 |
| A | 102 | A | - | expression tag | REF 283837872 |
| A | 103 | A | - | expression tag | REF 283837872 |
| A | 104 | A | - | expression tag | REF 283837872 |
| A | 105 | U | - | expression tag | REF 283837872 |
| A | 106 | C | - | expression tag | REF 283837872 |
| A | 107 | A | - | expression tag | REF 283837872 |
| A | 108 | G | - | expression tag | REF 283837872 |
| A | 109 | U | - | expression tag | REF 283837872 |
| A | 110 | U | - | expression tag | REF 283837872 |
| A | 111 | A | - | expression tag | REF 283837872 |
| A | 112 | U | - | expression tag | REF 283837872 |
| A | 113 | G | - | expression tag | REF 283837872 |
| A | 114 | G | - | expression tag | REF 283837872 |
| A | 115 | U | - | expression tag | REF 283837872 |
| A | 116 | U | - | expression tag | REF 283837872 |
| A | 117 | C | - | expression tag | REF 283837872 |
| A | 118 | C | - | expression tag | REF 283837872 |
| A | 119 | U | - | expression tag | REF 283837872 |
| A | 120 | U | - | expression tag | REF 283837872 |
| A | 121 | U | - | expression tag | REF 283837872 |
| A | 122 | G | - | expression tag | REF 283837872 |
| A | 123 | G | - | expression tag | REF 283837872 |
| A | 124 | U | - | expression tag | REF 283837872 |
| A | 125 | C | - | expression tag | REF 283837872 |
| A | 126 | G | - | expression tag | REF 283837872 |
| A | 127 | C | - | expression tag | REF 283837872 |
| A | 128 | U | - | expression tag | REF 283837872 |
| A | 129 | C | - | expression tag | REF 283837872 |
| A | 130 | G | - | expression tag | REF 283837872 |
| A | 131 | C | - | expression tag | REF 283837872 |
| A | 132 | U | - | expression tag | REF 283837872 |
| A | 133 | C | - | expression tag | REF 283837872 |
| A | 134 | C | - | expression tag | REF 283837872 |
| A | 135 | U | - | expression tag | REF 283837872 |
| A | 136 | C | - | expression tag | REF 283837872 |
| A | 137 | U | - | expression tag | REF 283837872 |
| A | 138 | C | - | expression tag | REF 283837872 |
| A | 139 | C | - | expression tag | REF 283837872 |
| A | 140 | U | - | expression tag | REF 283837872 |

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| Chain | Residue | Modelled | Actual | Comment | Reference |
|-------|---------|----------|--------|----------------|---------------|
| A | 141 | A | - | expression tag | REF 283837872 |
| A | 142 | C | - | expression tag | REF 283837872 |
| A | 143 | U | - | expression tag | REF 283837872 |
| A | 144 | U | - | expression tag | REF 283837872 |
| A | 145 | G | - | expression tag | REF 283837872 |
| A | 146 | G | - | expression tag | REF 283837872 |
| A | 147 | A | - | expression tag | REF 283837872 |
| A | 148 | U | - | expression tag | REF 283837872 |
| A | 149 | A | - | expression tag | REF 283837872 |
| A | 150 | A | - | expression tag | REF 283837872 |
| A | 151 | C | - | expression tag | REF 283837872 |
| A | 152 | U | - | expression tag | REF 283837872 |
| A | 153 | G | - | expression tag | REF 283837872 |
| A | 154 | U | - | expression tag | REF 283837872 |
| A | 155 | G | - | expression tag | REF 283837872 |
| A | 156 | G | - | expression tag | REF 283837872 |
| A | 157 | U | - | expression tag | REF 283837872 |
| A | 158 | A | - | expression tag | REF 283837872 |
| A | 159 | A | - | expression tag | REF 283837872 |
| A | 160 | U | - | expression tag | REF 283837872 |
| A | 161 | U | - | expression tag | REF 283837872 |
| A | 162 | C | - | expression tag | REF 283837872 |
| A | 163 | U | - | expression tag | REF 283837872 |
| A | 164 | A | - | expression tag | REF 283837872 |
| A | 165 | G | - | expression tag | REF 283837872 |
| A | 166 | A | - | expression tag | REF 283837872 |
| A | 167 | G | - | expression tag | REF 283837872 |
| A | 168 | C | - | expression tag | REF 283837872 |
| A | 169 | U | - | expression tag | REF 283837872 |
| A | 170 | A | - | expression tag | REF 283837872 |
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| A | 172 | U | - | expression tag | REF 283837872 |
| A | 173 | A | - | expression tag | REF 283837872 |
| A | 174 | C | - | expression tag | REF 283837872 |
| A | 175 | A | - | expression tag | REF 283837872 |
| A | 176 | U | - | expression tag | REF 283837872 |
| A | 177 | G | - | expression tag | REF 283837872 |
| A | 178 | C | - | expression tag | REF 283837872 |
| A | 179 | C | - | expression tag | REF 283837872 |
| A | 180 | G | - | expression tag | REF 283837872 |
| A | 181 | A | - | expression tag | REF 283837872 |
| A | 182 | C | - | expression tag | REF 283837872 |

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| Chain | Residue | Modelled | Actual | Comment | Reference |
|-------|---------|----------|--------|----------------|---------------|
| A | 183 | G | - | expression tag | REF 283837872 |
| A | 184 | G | - | expression tag | REF 283837872 |
| A | 185 | C | - | expression tag | REF 283837872 |
| A | 186 | G | - | expression tag | REF 283837872 |
| A | 187 | C | - | expression tag | REF 283837872 |
| A | 188 | U | - | expression tag | REF 283837872 |
| A | 189 | G | - | expression tag | REF 283837872 |
| A | 190 | A | - | expression tag | REF 283837872 |
| A | 191 | C | - | expression tag | REF 283837872 |
| A | 192 | U | - | expression tag | REF 283837872 |
| A | 193 | C | - | expression tag | REF 283837872 |
| A | 194 | C | - | expression tag | REF 283837872 |
| A | 195 | C | - | expression tag | REF 283837872 |
| A | 196 | U | - | expression tag | REF 283837872 |
| A | 197 | U | - | expression tag | REF 283837872 |
| A | 198 | U | - | expression tag | REF 283837872 |
| A | 199 | G | - | expression tag | REF 283837872 |
| A | 200 | U | - | expression tag | REF 283837872 |
| A | 201 | G | - | expression tag | REF 283837872 |
| A | 202 | U | - | expression tag | REF 283837872 |
| A | 203 | G | - | expression tag | REF 283837872 |
| A | 204 | G | - | expression tag | REF 283837872 |
| A | 205 | G | - | expression tag | REF 283837872 |
| A | 206 | A | - | expression tag | REF 283837872 |
| A | 207 | U | - | expression tag | REF 283837872 |
| A | 208 | G | - | expression tag | REF 283837872 |
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| A | 212 | G | - | expression tag | REF 283837872 |
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| A | 214 | A | - | expression tag | REF 283837872 |
| A | 215 | U | - | expression tag | REF 283837872 |
| A | 216 | U | - | expression tag | REF 283837872 |
| A | 217 | U | - | expression tag | REF 283837872 |
| A | 218 | A | - | expression tag | REF 283837872 |
| A | 219 | U | - | expression tag | REF 283837872 |
| A | 220 | C | - | expression tag | REF 283837872 |
| A | 221 | A | - | expression tag | REF 283837872 |
| A | 222 | G | - | expression tag | REF 283837872 |
| A | 223 | A | - | expression tag | REF 283837872 |
| A | 224 | U | - | expression tag | REF 283837872 |

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| Chain | Residue | Modelled | Actual | Comment | Reference |
|-------|---------|----------|--------|----------------|---------------|
| A | 225 | C | - | expression tag | REF 283837872 |
| A | 226 | A | - | expression tag | REF 283837872 |
| A | 227 | A | - | expression tag | REF 283837872 |
| A | 228 | A | - | expression tag | REF 283837872 |
| A | 229 | A | - | expression tag | REF 283837872 |
| A | 230 | C | - | expression tag | REF 283837872 |
| A | 231 | C | - | expression tag | REF 283837872 |
| A | 232 | A | - | expression tag | REF 283837872 |
| A | 233 | A | - | expression tag | REF 283837872 |
| A | 234 | C | - | expression tag | REF 283837872 |
| A | 235 | C | - | expression tag | REF 283837872 |
| A | 236 | C | - | expression tag | REF 283837872 |
| A | 237 | G | - | expression tag | REF 283837872 |
| A | 238 | G | - | expression tag | REF 283837872 |
| A | 239 | U | - | expression tag | REF 283837872 |
| A | 240 | C | - | expression tag | REF 283837872 |
| A | 241 | A | - | expression tag | REF 283837872 |
| A | 242 | G | - | expression tag | REF 283837872 |
| A | 243 | C | - | expression tag | REF 283837872 |
| A | 267 | G | - | expression tag | REF 283837872 |
| A | 268 | G | - | expression tag | REF 283837872 |
| A | 269 | C | - | expression tag | REF 283837872 |
| A | 270 | G | - | expression tag | REF 283837872 |
| A | 271 | G | - | expression tag | REF 283837872 |
| A | 272 | C | - | expression tag | REF 283837872 |
| A | 273 | G | - | expression tag | REF 283837872 |
| A | 274 | G | - | expression tag | REF 283837872 |
| A | 275 | C | - | expression tag | REF 283837872 |
| A | 276 | U | - | expression tag | REF 283837872 |
| A | 277 | U | - | expression tag | REF 283837872 |
| A | 278 | U | - | expression tag | REF 283837872 |
| A | 279 | G | - | expression tag | REF 283837872 |
| A | 280 | G | - | expression tag | REF 283837872 |
| A | 281 | U | - | expression tag | REF 283837872 |
| A | 282 | G | - | expression tag | REF 283837872 |
| A | 283 | A | - | expression tag | REF 283837872 |
| A | 284 | C | - | expression tag | REF 283837872 |
| A | 285 | U | - | expression tag | REF 283837872 |
| A | 286 | C | - | expression tag | REF 283837872 |
| A | 287 | U | - | expression tag | REF 283837872 |
| A | 288 | A | - | expression tag | REF 283837872 |
| A | 289 | G | - | expression tag | REF 283837872 |

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| Chain | Residue | Modelled | Actual | Comment | Reference |
|-------|---------|----------|--------|----------------|---------------|
| A | 290 | A | - | expression tag | REF 283837872 |
| A | 291 | U | - | expression tag | REF 283837872 |
| A | 292 | A | - | expression tag | REF 283837872 |
| A | 293 | A | - | expression tag | REF 283837872 |
| A | 294 | C | - | expression tag | REF 283837872 |
| A | 295 | C | - | expression tag | REF 283837872 |
| A | 296 | U | - | expression tag | REF 283837872 |
| A | 297 | C | - | expression tag | REF 283837872 |
| A | 298 | G | - | expression tag | REF 283837872 |
| A | 299 | G | - | expression tag | REF 283837872 |
| A | 300 | G | - | expression tag | REF 283837872 |
| A | 301 | C | - | expression tag | REF 283837872 |
| A | 302 | C | - | expression tag | REF 283837872 |
| A | 303 | G | - | expression tag | REF 283837872 |
| A | 304 | A | - | expression tag | REF 283837872 |
| A | 305 | U | - | expression tag | REF 283837872 |
| A | 306 | C | - | expression tag | REF 283837872 |
| A | 307 | G | - | expression tag | REF 283837872 |
| A | 308 | C | - | expression tag | REF 283837872 |
| A | 309 | A | - | expression tag | REF 283837872 |
| A | 310 | G | - | expression tag | REF 283837872 |
| A | 311 | C | - | expression tag | REF 283837872 |
| A | 312 | C | - | expression tag | REF 283837872 |
| A | 313 | C | - | expression tag | REF 283837872 |
| A | 314 | U | - | expression tag | REF 283837872 |
| A | 315 | C | - | expression tag | REF 283837872 |
| A | 316 | C | - | expression tag | REF 283837872 |
| A | 317 | G | - | expression tag | REF 283837872 |
| A | 318 | U | - | expression tag | REF 283837872 |
| A | 319 | G | - | expression tag | REF 283837872 |
| A | 320 | G | - | expression tag | REF 283837872 |
| A | 321 | C | - | expression tag | REF 283837872 |
| A | 322 | G | - | expression tag | REF 283837872 |
| A | 323 | G | - | expression tag | REF 283837872 |
| A | 324 | C | - | expression tag | REF 283837872 |
| A | 325 | G | - | expression tag | REF 283837872 |
| A | 326 | A | - | expression tag | REF 283837872 |
| A | 327 | C | - | expression tag | REF 283837872 |
| A | 328 | G | - | expression tag | REF 283837872 |
| A | 329 | A | - | expression tag | REF 283837872 |
| A | 330 | C | - | expression tag | REF 283837872 |
| A | 331 | C | - | expression tag | REF 283837872 |

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| Chain | Residue | Modelled | Actual | Comment | Reference |
|-------|---------|----------|--------|----------------|---------------|
| A | 332 | C | - | expression tag | REF 283837872 |
| A | 333 | A | - | expression tag | REF 283837872 |
| A | 334 | U | - | expression tag | REF 283837872 |
| A | 335 | U | - | expression tag | REF 283837872 |
| A | 336 | C | - | expression tag | REF 283837872 |
| A | 337 | G | - | expression tag | REF 283837872 |
| A | 338 | A | - | expression tag | REF 283837872 |
| A | 339 | A | - | expression tag | REF 283837872 |
| A | 340 | C | - | expression tag | REF 283837872 |
| A | 341 | G | - | expression tag | REF 283837872 |
| A | 342 | U | - | expression tag | REF 283837872 |
| A | 343 | C | - | expression tag | REF 283837872 |
| A | 344 | U | - | expression tag | REF 283837872 |
| A | 345 | G | - | expression tag | REF 283837872 |
| A | 346 | C | - | expression tag | REF 283837872 |
| A | 347 | C | - | expression tag | REF 283837872 |
| A | 348 | C | - | expression tag | REF 283837872 |
| A | 349 | U | - | expression tag | REF 283837872 |
| A | 350 | A | - | expression tag | REF 283837872 |
| A | 351 | U | - | expression tag | REF 283837872 |
| A | 352 | C | - | expression tag | REF 283837872 |
| A | 353 | A | - | expression tag | REF 283837872 |
| A | 354 | A | - | expression tag | REF 283837872 |
| A | 355 | C | - | expression tag | REF 283837872 |
| A | 356 | U | - | expression tag | REF 283837872 |
| A | 357 | U | - | expression tag | REF 283837872 |
| A | 358 | U | - | expression tag | REF 283837872 |
| A | 359 | C | - | expression tag | REF 283837872 |
| A | 360 | G | - | expression tag | REF 283837872 |
| A | 361 | A | - | expression tag | REF 283837872 |
| A | 362 | U | - | expression tag | REF 283837872 |
| A | 363 | G | - | expression tag | REF 283837872 |
| A | 364 | G | - | expression tag | REF 283837872 |
| A | 365 | U | - | expression tag | REF 283837872 |
| A | 366 | A | - | expression tag | REF 283837872 |
| A | 367 | G | - | expression tag | REF 283837872 |
| A | 368 | U | - | expression tag | REF 283837872 |
| A | 369 | C | - | expression tag | REF 283837872 |
| A | 370 | G | - | expression tag | REF 283837872 |
| A | 371 | C | - | expression tag | REF 283837872 |
| A | 372 | C | - | expression tag | REF 283837872 |
| A | 373 | G | - | expression tag | REF 283837872 |

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| Chain | Residue | Modelled | Actual | Comment | Reference |
|-------|---------|----------|--------|----------------|---------------|
| A | 374 | U | - | expression tag | REF 283837872 |
| A | 375 | G | - | expression tag | REF 283837872 |
| A | 376 | C | - | expression tag | REF 283837872 |
| A | 377 | C | - | expression tag | REF 283837872 |
| A | 378 | U | - | expression tag | REF 283837872 |
| A | 379 | A | - | expression tag | REF 283837872 |
| A | 380 | C | - | expression tag | REF 283837872 |
| A | 381 | C | - | expression tag | REF 283837872 |
| A | 382 | A | - | expression tag | REF 283837872 |
| A | 383 | U | - | expression tag | REF 283837872 |
| A | 384 | G | - | expression tag | REF 283837872 |
| A | 385 | G | - | expression tag | REF 283837872 |
| A | 386 | U | - | expression tag | REF 283837872 |
| A | 387 | G | - | expression tag | REF 283837872 |
| A | 388 | A | - | expression tag | REF 283837872 |
| A | 389 | C | - | expression tag | REF 283837872 |
| A | 390 | C | - | expression tag | REF 283837872 |
| A | 391 | A | - | expression tag | REF 283837872 |
| A | 392 | C | - | expression tag | REF 283837872 |
| A | 393 | G | - | expression tag | REF 283837872 |
| A | 394 | G | - | expression tag | REF 283837872 |
| A | 395 | G | - | expression tag | REF 283837872 |
| A | 396 | U | - | expression tag | REF 283837872 |
| A | 397 | G | - | expression tag | REF 283837872 |
| A | 398 | A | - | expression tag | REF 283837872 |
| A | 399 | C | - | expression tag | REF 283837872 |
| A | 400 | G | - | expression tag | REF 283837872 |
| A | 401 | G | - | expression tag | REF 283837872 |
| A | 402 | G | - | expression tag | REF 283837872 |
| A | 403 | G | - | expression tag | REF 283837872 |
| A | 404 | A | - | expression tag | REF 283837872 |
| A | 405 | A | - | expression tag | REF 283837872 |
| A | 406 | U | - | expression tag | REF 283837872 |
| A | 407 | C | - | expression tag | REF 283837872 |
| A | 408 | A | - | expression tag | REF 283837872 |
| A | 409 | G | - | expression tag | REF 283837872 |
| A | 410 | G | - | expression tag | REF 283837872 |
| A | 411 | G | - | expression tag | REF 283837872 |
| A | 412 | U | - | expression tag | REF 283837872 |
| A | 413 | U | - | expression tag | REF 283837872 |
| A | 414 | C | - | expression tag | REF 283837872 |
| A | 415 | G | - | expression tag | REF 283837872 |

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| Chain | Residue | Modelled | Actual | Comment | Reference |
|-------|---------|----------|--------|----------------|---------------|
| A | 416 | A | - | expression tag | REF 283837872 |
| A | 417 | U | - | expression tag | REF 283837872 |
| A | 418 | U | - | expression tag | REF 283837872 |
| A | 419 | C | - | expression tag | REF 283837872 |
| A | 420 | C | - | expression tag | REF 283837872 |
| A | 421 | G | - | expression tag | REF 283837872 |
| A | 422 | G | - | expression tag | REF 283837872 |
| A | 423 | A | - | expression tag | REF 283837872 |
| A | 424 | G | - | expression tag | REF 283837872 |
| A | 425 | A | - | expression tag | REF 283837872 |
| A | 426 | G | - | expression tag | REF 283837872 |
| A | 427 | G | - | expression tag | REF 283837872 |
| A | 428 | G | - | expression tag | REF 283837872 |
| A | 429 | A | - | expression tag | REF 283837872 |
| A | 430 | G | - | expression tag | REF 283837872 |
| A | 431 | C | - | expression tag | REF 283837872 |
| A | 432 | C | - | expression tag | REF 283837872 |
| A | 433 | U | - | expression tag | REF 283837872 |
| A | 434 | G | - | expression tag | REF 283837872 |
| A | 435 | A | - | expression tag | REF 283837872 |
| A | 436 | G | - | expression tag | REF 283837872 |
| A | 437 | A | - | expression tag | REF 283837872 |
| A | 438 | A | - | expression tag | REF 283837872 |
| A | 439 | A | - | expression tag | REF 283837872 |
| A | 440 | C | - | expression tag | REF 283837872 |
| A | 441 | G | - | expression tag | REF 283837872 |
| A | 442 | G | - | expression tag | REF 283837872 |
| A | 443 | C | - | expression tag | REF 283837872 |
| A | 444 | U | - | expression tag | REF 283837872 |
| A | 445 | A | - | expression tag | REF 283837872 |
| A | 446 | C | - | expression tag | REF 283837872 |
| A | 447 | C | - | expression tag | REF 283837872 |
| A | 448 | A | - | expression tag | REF 283837872 |
| A | 449 | C | - | expression tag | REF 283837872 |
| A | 450 | A | - | expression tag | REF 283837872 |
| A | 451 | U | - | expression tag | REF 283837872 |
| A | 452 | C | - | expression tag | REF 283837872 |
| A | 453 | C | - | expression tag | REF 283837872 |
| A | 454 | A | - | expression tag | REF 283837872 |
| A | 455 | A | - | expression tag | REF 283837872 |
| A | 456 | G | - | expression tag | REF 283837872 |
| A | 457 | G | - | expression tag | REF 283837872 |

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| Chain | Residue | Modelled | Actual | Comment | Reference |
|-------|---------|----------|--------|----------------|---------------|
| A | 458 | A | - | expression tag | REF 283837872 |
| A | 459 | A | - | expression tag | REF 283837872 |
| A | 460 | G | - | expression tag | REF 283837872 |
| A | 461 | G | - | expression tag | REF 283837872 |
| A | 462 | C | - | expression tag | REF 283837872 |
| A | 463 | A | - | expression tag | REF 283837872 |
| A | 464 | G | - | expression tag | REF 283837872 |
| A | 465 | C | - | expression tag | REF 283837872 |
| A | 466 | A | - | expression tag | REF 283837872 |
| A | 467 | G | - | expression tag | REF 283837872 |
| A | 468 | G | - | expression tag | REF 283837872 |
| A | 469 | C | - | expression tag | REF 283837872 |
| A | 470 | G | - | expression tag | REF 283837872 |
| A | 471 | C | - | expression tag | REF 283837872 |
| A | 472 | G | - | expression tag | REF 283837872 |
| A | 473 | C | - | expression tag | REF 283837872 |
| A | 474 | A | - | expression tag | REF 283837872 |
| A | 475 | A | - | expression tag | REF 283837872 |
| A | 476 | A | - | expression tag | REF 283837872 |
| A | 477 | U | - | expression tag | REF 283837872 |
| A | 478 | U | - | expression tag | REF 283837872 |
| A | 479 | A | - | expression tag | REF 283837872 |
| A | 480 | C | - | expression tag | REF 283837872 |
| A | 481 | C | - | expression tag | REF 283837872 |
| A | 482 | C | - | expression tag | REF 283837872 |
| A | 483 | A | - | expression tag | REF 283837872 |
| A | 484 | C | - | expression tag | REF 283837872 |
| A | 485 | U | - | expression tag | REF 283837872 |
| A | 486 | C | - | expression tag | REF 283837872 |
| A | 487 | C | - | expression tag | REF 283837872 |
| A | 488 | C | - | expression tag | REF 283837872 |
| A | 489 | G | - | expression tag | REF 283837872 |
| A | 490 | A | - | expression tag | REF 283837872 |
| A | 491 | C | - | expression tag | REF 283837872 |
| A | 492 | C | - | expression tag | REF 283837872 |
| A | 493 | C | - | expression tag | REF 283837872 |
| A | 494 | G | - | expression tag | REF 283837872 |
| A | 495 | G | - | expression tag | REF 283837872 |
| A | 496 | G | - | expression tag | REF 283837872 |
| A | 497 | G | - | expression tag | REF 283837872 |
| A | 498 | A | - | expression tag | REF 283837872 |
| A | 499 | G | - | expression tag | REF 283837872 |

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| Chain | Residue | Modelled | Actual | Comment | Reference |
|-------|---------|----------|--------|----------------|---------------|
| A | 500 | G | - | expression tag | REF 283837872 |
| A | 501 | U | - | expression tag | REF 283837872 |
| A | 502 | A | - | expression tag | REF 283837872 |
| A | 503 | G | - | expression tag | REF 283837872 |
| A | 504 | U | - | expression tag | REF 283837872 |
| A | 505 | G | - | expression tag | REF 283837872 |
| A | 506 | A | - | expression tag | REF 283837872 |
| A | 507 | C | - | expression tag | REF 283837872 |
| A | 508 | G | - | expression tag | REF 283837872 |
| A | 509 | A | - | expression tag | REF 283837872 |
| A | 510 | A | - | expression tag | REF 283837872 |
| A | 511 | A | - | expression tag | REF 283837872 |
| A | 512 | A | - | expression tag | REF 283837872 |
| A | 513 | A | - | expression tag | REF 283837872 |
| A | 514 | U | - | expression tag | REF 283837872 |
| A | 515 | A | - | expression tag | REF 283837872 |
| A | 516 | A | - | expression tag | REF 283837872 |
| A | 517 | C | - | expression tag | REF 283837872 |
| A | 518 | A | - | expression tag | REF 283837872 |
| A | 519 | A | - | expression tag | REF 283837872 |
| A | 520 | U | - | expression tag | REF 283837872 |
| A | 521 | A | - | expression tag | REF 283837872 |
| A | 522 | C | - | expression tag | REF 283837872 |
| A | 523 | A | - | expression tag | REF 283837872 |
| A | 524 | G | - | expression tag | REF 283837872 |
| A | 525 | G | - | expression tag | REF 283837872 |
| A | 526 | A | - | expression tag | REF 283837872 |
| A | 527 | C | - | expression tag | REF 283837872 |
| A | 528 | U | - | expression tag | REF 283837872 |
| A | 529 | C | - | expression tag | REF 283837872 |
| A | 530 | U | - | expression tag | REF 283837872 |
| A | 531 | U | - | expression tag | REF 283837872 |
| A | 532 | U | - | expression tag | REF 283837872 |
| A | 533 | C | - | expression tag | REF 283837872 |
| A | 534 | G | - | expression tag | REF 283837872 |
| A | 535 | A | - | expression tag | REF 283837872 |
| A | 536 | G | - | expression tag | REF 283837872 |
| A | 537 | G | - | expression tag | REF 283837872 |
| A | 538 | C | - | expression tag | REF 283837872 |
| A | 539 | C | - | expression tag | REF 283837872 |
| A | 540 | C | - | expression tag | REF 283837872 |
| A | 541 | U | - | expression tag | REF 283837872 |

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| Chain | Residue | Modelled | Actual | Comment | Reference |
|-------|---------|----------|--------|----------------|---------------|
| A | 542 | G | - | expression tag | REF 283837872 |
| A | 543 | U | - | expression tag | REF 283837872 |
| A | 544 | A | - | expression tag | REF 283837872 |
| A | 545 | A | - | expression tag | REF 283837872 |
| A | 546 | U | - | expression tag | REF 283837872 |
| A | 547 | U | - | expression tag | REF 283837872 |
| A | 548 | G | - | expression tag | REF 283837872 |
| A | 549 | G | - | expression tag | REF 283837872 |
| A | 550 | A | - | expression tag | REF 283837872 |
| A | 551 | A | - | expression tag | REF 283837872 |
| A | 552 | U | - | expression tag | REF 283837872 |
| A | 553 | G | - | expression tag | REF 283837872 |
| A | 554 | A | - | expression tag | REF 283837872 |
| A | 555 | G | - | expression tag | REF 283837872 |
| A | 556 | U | - | expression tag | REF 283837872 |
| A | 557 | C | - | expression tag | REF 283837872 |
| A | 558 | C | - | expression tag | REF 283837872 |
| A | 559 | A | - | expression tag | REF 283837872 |
| A | 560 | C | - | expression tag | REF 283837872 |
| A | 561 | U | - | expression tag | REF 283837872 |
| A | 562 | U | - | expression tag | REF 283837872 |
| A | 563 | U | - | expression tag | REF 283837872 |
| A | 564 | A | - | expression tag | REF 283837872 |
| A | 565 | A | - | expression tag | REF 283837872 |
| A | 566 | A | - | expression tag | REF 283837872 |
| A | 567 | U | - | expression tag | REF 283837872 |
| A | 568 | C | - | expression tag | REF 283837872 |
| A | 569 | C | - | expression tag | REF 283837872 |
| A | 570 | U | - | expression tag | REF 283837872 |
| A | 571 | U | - | expression tag | REF 283837872 |
| A | 572 | U | - | expression tag | REF 283837872 |
| A | 573 | A | - | expression tag | REF 283837872 |
| A | 574 | A | - | expression tag | REF 283837872 |
| A | 575 | C | - | expression tag | REF 283837872 |
| A | 576 | G | - | expression tag | REF 283837872 |
| A | 577 | A | - | expression tag | REF 283837872 |
| A | 578 | G | - | expression tag | REF 283837872 |
| A | 579 | G | - | expression tag | REF 283837872 |
| A | 580 | A | - | expression tag | REF 283837872 |
| A | 581 | U | - | expression tag | REF 283837872 |
| A | 582 | C | - | expression tag | REF 283837872 |
| A | 583 | C | - | expression tag | REF 283837872 |

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| Chain | Residue | Modelled | Actual | Comment | Reference |
|-------|---------|----------|--------|----------------|---------------|
| A | 584 | A | - | expression tag | REF 283837872 |
| A | 585 | U | - | expression tag | REF 283837872 |
| A | 586 | U | - | expression tag | REF 283837872 |
| A | 587 | G | - | expression tag | REF 283837872 |
| A | 588 | G | - | expression tag | REF 283837872 |
| A | 589 | A | - | expression tag | REF 283837872 |
| A | 590 | G | - | expression tag | REF 283837872 |
| A | 591 | G | - | expression tag | REF 283837872 |
| A | 592 | G | - | expression tag | REF 283837872 |
| A | 593 | C | - | expression tag | REF 283837872 |
| A | 594 | A | - | expression tag | REF 283837872 |
| A | 595 | A | - | expression tag | REF 283837872 |
| A | 596 | G | - | expression tag | REF 283837872 |
| A | 597 | U | - | expression tag | REF 283837872 |
| A | 598 | C | - | expression tag | REF 283837872 |
| A | 599 | U | - | expression tag | REF 283837872 |
| A | 600 | G | - | expression tag | REF 283837872 |
| A | 601 | G | - | expression tag | REF 283837872 |
| A | 602 | U | - | expression tag | REF 283837872 |
| A | 603 | C | - | expression tag | REF 283837872 |
| A | 604 | G | - | expression tag | REF 283837872 |
| A | 605 | C | - | expression tag | REF 283837872 |
| A | 606 | A | - | expression tag | REF 283837872 |
| A | 607 | G | - | expression tag | REF 283837872 |
| A | 608 | C | - | expression tag | REF 283837872 |
| A | 609 | A | - | expression tag | REF 283837872 |
| A | 610 | G | - | expression tag | REF 283837872 |
| A | 611 | C | - | expression tag | REF 283837872 |
| A | 612 | C | - | expression tag | REF 283837872 |
| A | 613 | G | - | expression tag | REF 283837872 |
| A | 614 | C | - | expression tag | REF 283837872 |
| A | 615 | G | - | expression tag | REF 283837872 |
| A | 616 | G | - | expression tag | REF 283837872 |
| A | 617 | U | - | expression tag | REF 283837872 |
| A | 618 | A | - | expression tag | REF 283837872 |
| A | 619 | A | - | expression tag | REF 283837872 |
| A | 620 | U | - | expression tag | REF 283837872 |
| A | 621 | U | - | expression tag | REF 283837872 |
| A | 622 | C | - | expression tag | REF 283837872 |
| A | 623 | C | - | expression tag | REF 283837872 |
| A | 624 | A | - | expression tag | REF 283837872 |
| A | 625 | G | - | expression tag | REF 283837872 |

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|-------|---------|----------|--------|----------------|---------------|
| A | 626 | C | - | expression tag | REF 283837872 |
| A | 627 | U | - | expression tag | REF 283837872 |
| A | 628 | C | - | expression tag | REF 283837872 |
| A | 629 | C | - | expression tag | REF 283837872 |
| A | 630 | A | - | expression tag | REF 283837872 |
| A | 631 | A | - | expression tag | REF 283837872 |
| A | 632 | U | - | expression tag | REF 283837872 |
| A | 633 | A | - | expression tag | REF 283837872 |
| A | 634 | G | - | expression tag | REF 283837872 |
| A | 635 | C | - | expression tag | REF 283837872 |
| A | 636 | G | - | expression tag | REF 283837872 |
| A | 637 | U | - | expression tag | REF 283837872 |
| A | 638 | A | - | expression tag | REF 283837872 |
| A | 639 | U | - | expression tag | REF 283837872 |
| A | 640 | A | - | expression tag | REF 283837872 |
| A | 641 | U | - | expression tag | REF 283837872 |
| A | 642 | U | - | expression tag | REF 283837872 |
| A | 643 | A | - | expression tag | REF 283837872 |
| A | 644 | A | - | expression tag | REF 283837872 |
| A | 645 | A | - | expression tag | REF 283837872 |
| A | 646 | G | - | expression tag | REF 283837872 |
| A | 647 | U | - | expression tag | REF 283837872 |
| A | 648 | U | - | expression tag | REF 283837872 |
| A | 649 | G | - | expression tag | REF 283837872 |
| A | 650 | C | - | expression tag | REF 283837872 |
| A | 651 | U | - | expression tag | REF 283837872 |
| A | 652 | G | - | expression tag | REF 283837872 |
| A | 653 | C | - | expression tag | REF 283837872 |
| A | 654 | A | - | expression tag | REF 283837872 |
| A | 655 | G | - | expression tag | REF 283837872 |
| A | 656 | U | - | expression tag | REF 283837872 |
| A | 657 | U | - | expression tag | REF 283837872 |
| A | 658 | A | - | expression tag | REF 283837872 |
| A | 659 | A | - | expression tag | REF 283837872 |
| A | 660 | A | - | expression tag | REF 283837872 |
| A | 661 | A | - | expression tag | REF 283837872 |
| A | 662 | A | - | expression tag | REF 283837872 |
| A | 663 | G | - | expression tag | REF 283837872 |
| A | 664 | C | - | expression tag | REF 283837872 |
| A | 665 | U | - | expression tag | REF 283837872 |
| A | 666 | C | - | expression tag | REF 283837872 |
| A | 667 | G | - | expression tag | REF 283837872 |

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| Chain | Residue | Modelled | Actual | Comment | Reference |
|-------|---------|----------|--------|----------------|---------------|
| A | 668 | U | - | expression tag | REF 283837872 |
| A | 669 | A | - | expression tag | REF 283837872 |
| A | 670 | G | - | expression tag | REF 283837872 |
| A | 671 | U | - | expression tag | REF 283837872 |
| A | 672 | U | - | expression tag | REF 283837872 |
| A | 673 | G | - | expression tag | REF 283837872 |
| A | 674 | G | - | expression tag | REF 283837872 |
| A | 675 | A | - | expression tag | REF 283837872 |
| A | 676 | U | - | expression tag | REF 283837872 |
| A | 677 | C | - | expression tag | REF 283837872 |
| A | 678 | U | - | expression tag | REF 283837872 |
| A | 679 | U | - | expression tag | REF 283837872 |
| A | 683 | G | - | expression tag | REF 283837872 |
| A | 684 | A | - | expression tag | REF 283837872 |
| A | 685 | G | - | expression tag | REF 283837872 |
| A | 686 | G | - | expression tag | REF 283837872 |
| A | 687 | G | - | expression tag | REF 283837872 |
| A | 730 | C | - | expression tag | REF 283837872 |
| A | 731 | C | - | expression tag | REF 283837872 |
| A | 732 | C | - | expression tag | REF 283837872 |
| A | 733 | G | - | expression tag | REF 283837872 |
| A | 734 | C | - | expression tag | REF 283837872 |
| A | 735 | C | - | expression tag | REF 283837872 |
| A | 736 | C | - | expression tag | REF 283837872 |
| A | 744 | C | - | expression tag | REF 283837872 |
| A | 745 | U | - | expression tag | REF 283837872 |
| A | 746 | C | - | expression tag | REF 283837872 |
| A | 747 | G | - | expression tag | REF 283837872 |
| A | 748 | G | - | expression tag | REF 283837872 |
| A | 749 | C | - | expression tag | REF 283837872 |
| A | 750 | G | - | expression tag | REF 283837872 |
| A | 751 | C | - | expression tag | REF 283837872 |
| A | 752 | C | - | expression tag | REF 283837872 |
| A | 753 | C | - | expression tag | REF 283837872 |
| A | 754 | C | - | expression tag | REF 283837872 |
| A | 755 | C | - | expression tag | REF 283837872 |
| A | 756 | U | - | expression tag | REF 283837872 |
| A | 757 | C | - | expression tag | REF 283837872 |
| A | 758 | G | - | expression tag | REF 283837872 |
| A | 759 | A | - | expression tag | REF 283837872 |
| A | 760 | U | - | expression tag | REF 283837872 |

- Molecule 3 is a RNA chain called mRNA.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|----|---------|-------|
| 3 | F | 30 | Total | C | N | O | P | 0 | 0 |
| | | | 635 | 285 | 115 | 206 | 29 | | |

- Molecule 4 is a protein called Eukaryotic translation initiation factor 2 subunit 1.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| 4 | P | 266 | Total | C | N | O | S | 0 | 0 |
| | | | 2147 | 1354 | 376 | 406 | 11 | | |

- Molecule 5 is a protein called ribosomal protein uS17.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 5 | G | 158 | Total | C | N | O | S | 0 | 0 |
| | | | 1296 | 827 | 241 | 221 | 7 | | |

- Molecule 6 is a protein called ribosomal protein uS9.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 6 | H | 141 | Total | C | N | O | S | 0 | 0 |
| | | | 1124 | 715 | 212 | 194 | 3 | | |

- Molecule 7 is a protein called 40S ribosomal protein S4.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| 7 | I | 263 | Total | C | N | O | S | 0 | 0 |
| | | | 2083 | 1329 | 385 | 359 | 10 | | |

- Molecule 8 is a protein called ribosomal protein uS14.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---|---------|-------|
| 8 | J | 53 | Total | C | N | O | S | 0 | 0 |
| | | | 445 | 278 | 90 | 72 | 5 | | |

- Molecule 9 is a protein called Ribosomal protein S9 (Predicted).

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 9 | K | 182 | Total | C | N | O | S | 0 | 0 |
| | | | 1499 | 952 | 300 | 245 | 2 | | |

- Molecule 10 is a protein called ribosomal protein uS13.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 10 | L | 137 | 1140 | 714 | 231 | 194 | 1 | 0 | 0 |

- Molecule 11 is a protein called Eukaryotic translation initiation factor 3 subunit G.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 11 | M | 38 | 288 | 177 | 45 | 64 | 2 | 0 | 0 |

- Molecule 12 is a protein called Eukaryotic translation initiation factor 3 subunit G.

| Mol | Chain | Residues | Atoms | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---------|-------|
| | | | Total | C | N | O | | |
| 12 | O | 77 | 614 | 388 | 110 | 116 | 0 | 0 |

- Molecule 13 is a protein called ribosomal protein uS12.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 13 | Q | 142 | 1107 | 698 | 220 | 185 | 4 | 0 | 0 |

- Molecule 14 is a protein called ribosomal protein eS19.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 14 | R | 141 | 1113 | 701 | 213 | 196 | 3 | 0 | 0 |

- Molecule 15 is a protein called eukaryotic initiation factor 2 Gamma subunit (eIF2-Gamma).

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| | | | Total | C | N | O | S | | |
| 15 | S | 422 | 3214 | 2044 | 561 | 592 | 17 | 0 | 0 |

- Molecule 16 is a protein called Eukaryotic translation initiation factor 3 subunit I.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| | | | Total | C | N | O | S | | |
| 16 | T | 329 | 2605 | 1640 | 447 | 503 | 15 | 0 | 0 |

- Molecule 17 is a protein called ribosomal protein uS7.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 17 | U | 191 | Total | C | N | O | S | 0 | 0 |
| | | | 1509 | 943 | 286 | 273 | 7 | | |

- Molecule 18 is a protein called ribosomal protein eS30.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|----|---|---------|-------|
| 18 | V | 59 | Total | C | N | O | S | 0 | 0 |
| | | | 473 | 293 | 104 | 75 | 1 | | |

- Molecule 19 is a protein called ribosomal protein eS25.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 19 | W | 75 | Total | C | N | O | S | 0 | 0 |
| | | | 599 | 382 | 111 | 105 | 1 | | |

- Molecule 20 is a protein called ribosomal protein eS7.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 20 | X | 190 | Total | C | N | O | S | 0 | 0 |
| | | | 1530 | 975 | 281 | 273 | 1 | | |

- Molecule 21 is a protein called 40S ribosomal protein S27.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 21 | Y | 84 | Total | C | N | O | S | 0 | 0 |
| | | | 659 | 413 | 122 | 116 | 8 | | |

- Molecule 22 is a protein called ribosomal protein uS15.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 22 | Z | 150 | Total | C | N | O | S | 0 | 0 |
| | | | 1208 | 773 | 229 | 205 | 1 | | |

- Molecule 23 is a protein called ribosomal protein uS8.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 23 | a | 129 | Total | C | N | O | S | 0 | 0 |
| | | | 1034 | 659 | 193 | 176 | 6 | | |

- Molecule 24 is a protein called 40S ribosomal protein S21.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 24 | b | 82 | Total | C | N | O | S | 0 | 0 |
| | | | 620 | 378 | 117 | 120 | 5 | | |

- Molecule 25 is a protein called ribosomal protein uS5.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|---|---------|-------|
| 25 | c | 226 | Total | C | N | O | S | 0 | 0 |
| | | | 1743 | 1127 | 300 | 307 | 9 | | |

- Molecule 26 is a protein called eukaryotic initiation factor 2 subunit Beta (eIF2-Beta).

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|----|----|----|---|---------|-------|
| 26 | d | 17 | Total | C | N | O | S | 0 | 0 |
| | | | 147 | 94 | 22 | 30 | 1 | | |

- Molecule 27 is a protein called ribosomal protein eS17.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 27 | e | 126 | Total | C | N | O | S | 0 | 0 |
| | | | 1020 | 639 | 188 | 188 | 5 | | |

- Molecule 28 is a protein called ribosomal protein uS2.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|---|---------|-------|
| 28 | f | 208 | Total | C | N | O | S | 0 | 0 |
| | | | 1643 | 1045 | 289 | 301 | 8 | | |

- Molecule 29 is a protein called ribosomal protein uS3.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|---|---------|-------|
| 29 | g | 227 | Total | C | N | O | S | 0 | 0 |
| | | | 1765 | 1124 | 317 | 316 | 8 | | |

- Molecule 30 is a protein called ribosomal protein uS10.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 30 | h | 104 | Total | C | N | O | S | 0 | 0 |
| | | | 822 | 514 | 156 | 148 | 4 | | |

- Molecule 31 is a protein called ribosomal protein eS1.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| | | | Total | C | N | O | S | | |
| 31 | i | 215 | 1742 | 1107 | 309 | 311 | 15 | 0 | 0 |

- Molecule 32 is a protein called ribosomal protein uS11.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 32 | j | 136 | 1016 | 621 | 199 | 190 | 6 | 0 | 0 |

- Molecule 33 is a protein called ribosomal protein eS26.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 33 | k | 99 | 790 | 491 | 162 | 131 | 6 | 0 | 0 |

- Molecule 34 is a protein called ribosomal protein eS28.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 34 | l | 64 | 507 | 308 | 102 | 95 | 2 | 0 | 0 |

- Molecule 35 is a protein called ribosomal protein RACK1.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| | | | Total | C | N | O | S | | |
| 35 | m | 313 | 2437 | 1535 | 424 | 466 | 12 | 0 | 0 |

- Molecule 36 is a protein called ribosomal protein uS19.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 36 | n | 127 | 1061 | 673 | 201 | 180 | 7 | 0 | 0 |

- Molecule 37 is a protein called 40S ribosomal protein S8.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 37 | o | 206 | 1680 | 1054 | 329 | 292 | 5 | 0 | 0 |

- Molecule 38 is a protein called ribosomal protein eS31.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|----|---|---------|-------|
| 38 | p | 71 | Total | C | N | O | S | 0 | 0 |
| | | | 582 | 367 | 109 | 99 | 7 | | |

- Molecule 39 is a protein called 40S ribosomal protein S6.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|---|---------|-------|
| 39 | q | 237 | Total | C | N | O | S | 0 | 0 |
| | | | 1924 | 1200 | 387 | 330 | 7 | | |

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

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 40 | r | 124 | Total | C | N | O | S | 0 | 0 |
| | | | 958 | 600 | 170 | 179 | 9 | | |

- Molecule 41 is a protein called 40S ribosomal protein S24.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 41 | s | 131 | Total | C | N | O | S | 0 | 0 |
| | | | 1065 | 673 | 206 | 181 | 5 | | |

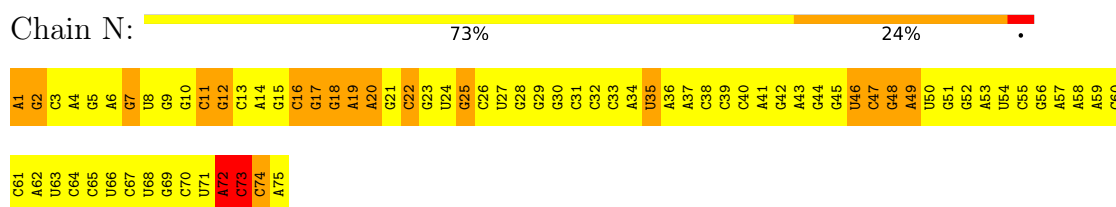
- Molecule 42 is a protein called ribosomal protein eS10.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 42 | t | 98 | Total | C | N | O | S | 0 | 0 |
| | | | 828 | 539 | 148 | 135 | 6 | | |

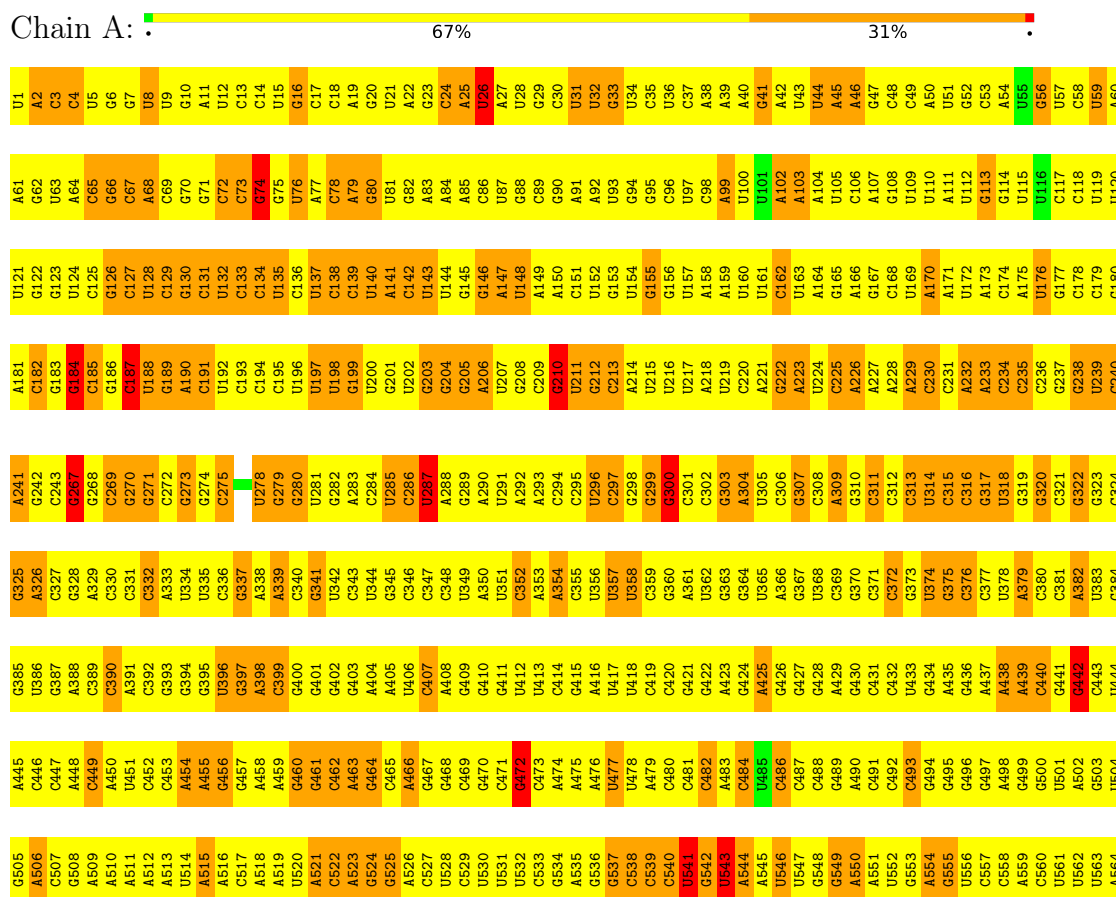
3 Residue-property plots [i](#)

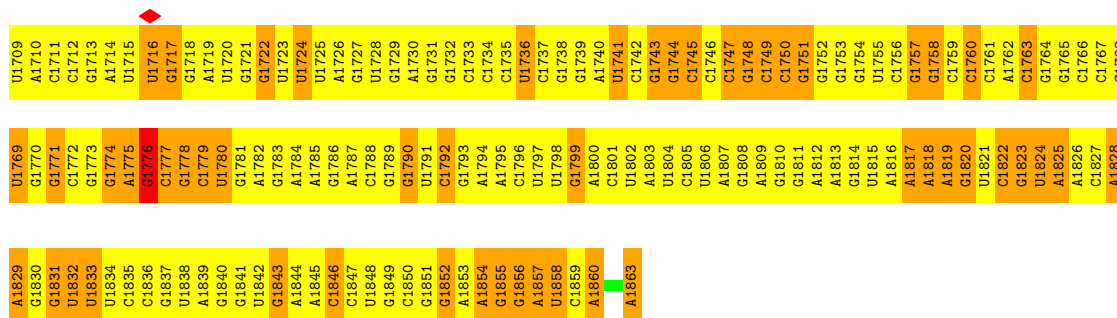
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion 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: tRNA

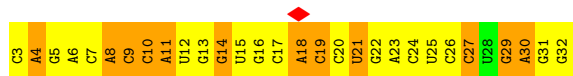


- Molecule 2: 18S ribosomal RNA

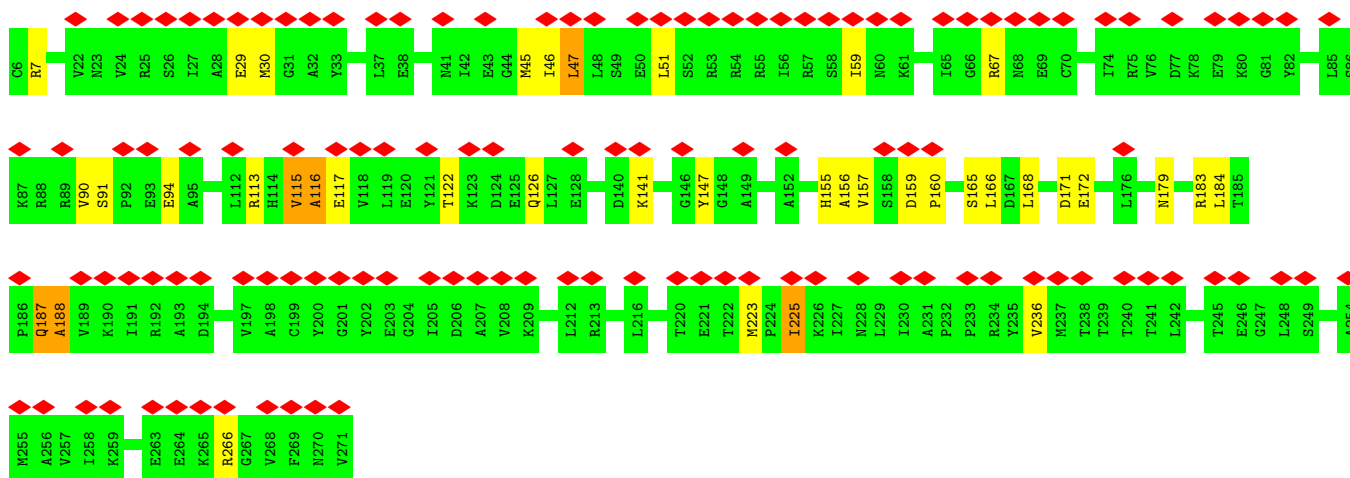
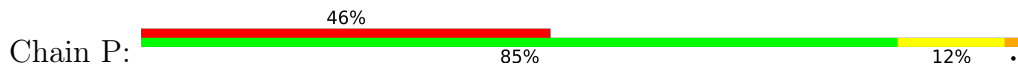




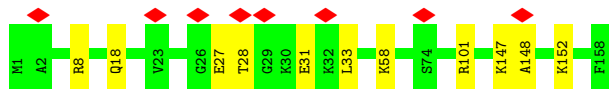
• Molecule 3: mRNA



• Molecule 4: Eukaryotic translation initiation factor 2 subunit 1



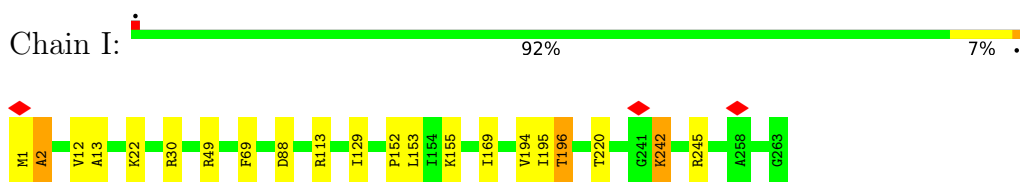
• Molecule 5: ribosomal protein uS17



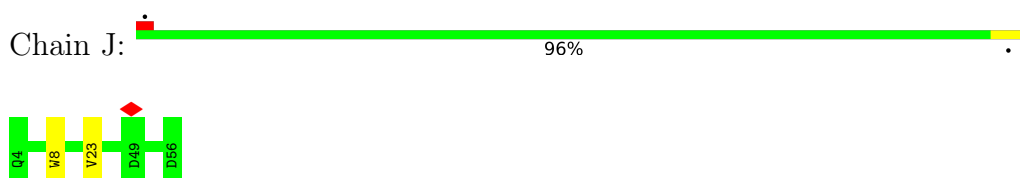
• Molecule 6: ribosomal protein uS9



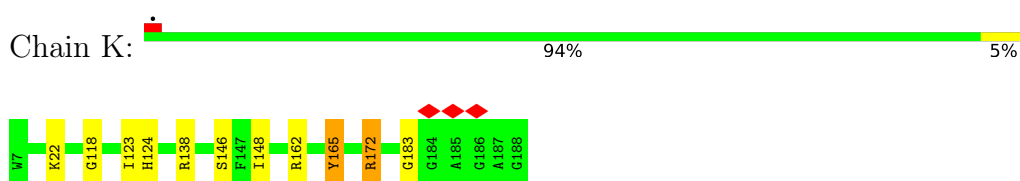
- Molecule 7: 40S ribosomal protein S4



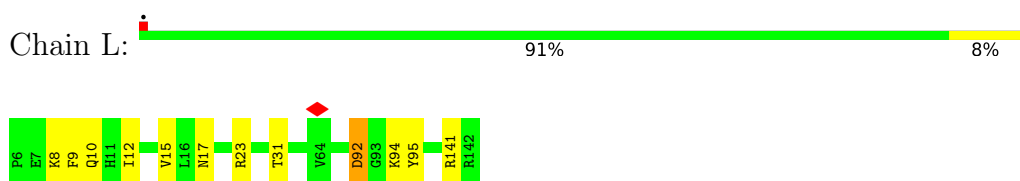
- Molecule 8: ribosomal protein uS14



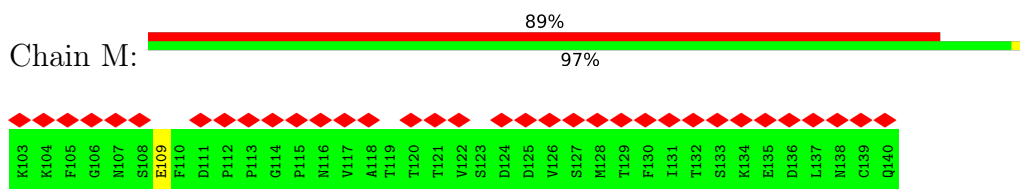
- Molecule 9: Ribosomal protein S9 (Predicted)



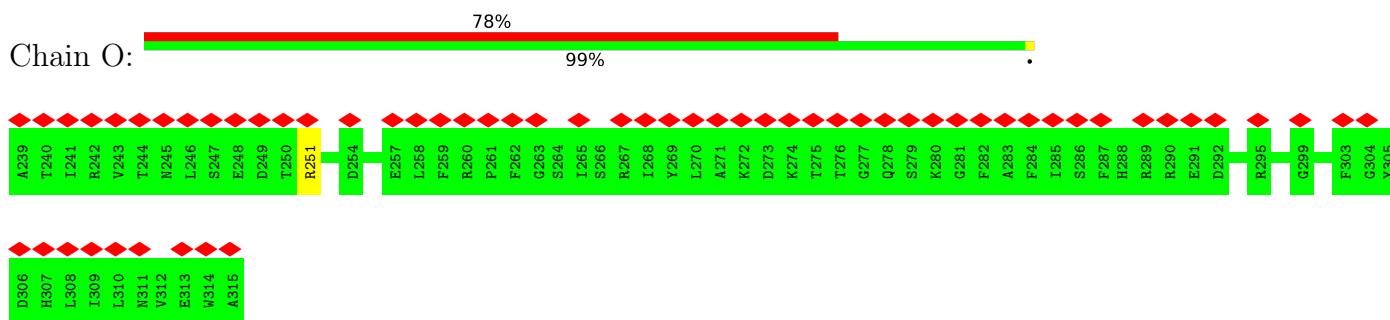
- Molecule 10: ribosomal protein uS13



- Molecule 11: Eukaryotic translation initiation factor 3 subunit G



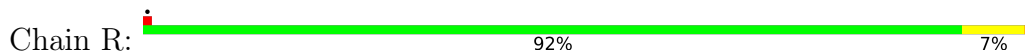
- Molecule 12: Eukaryotic translation initiation factor 3 subunit G



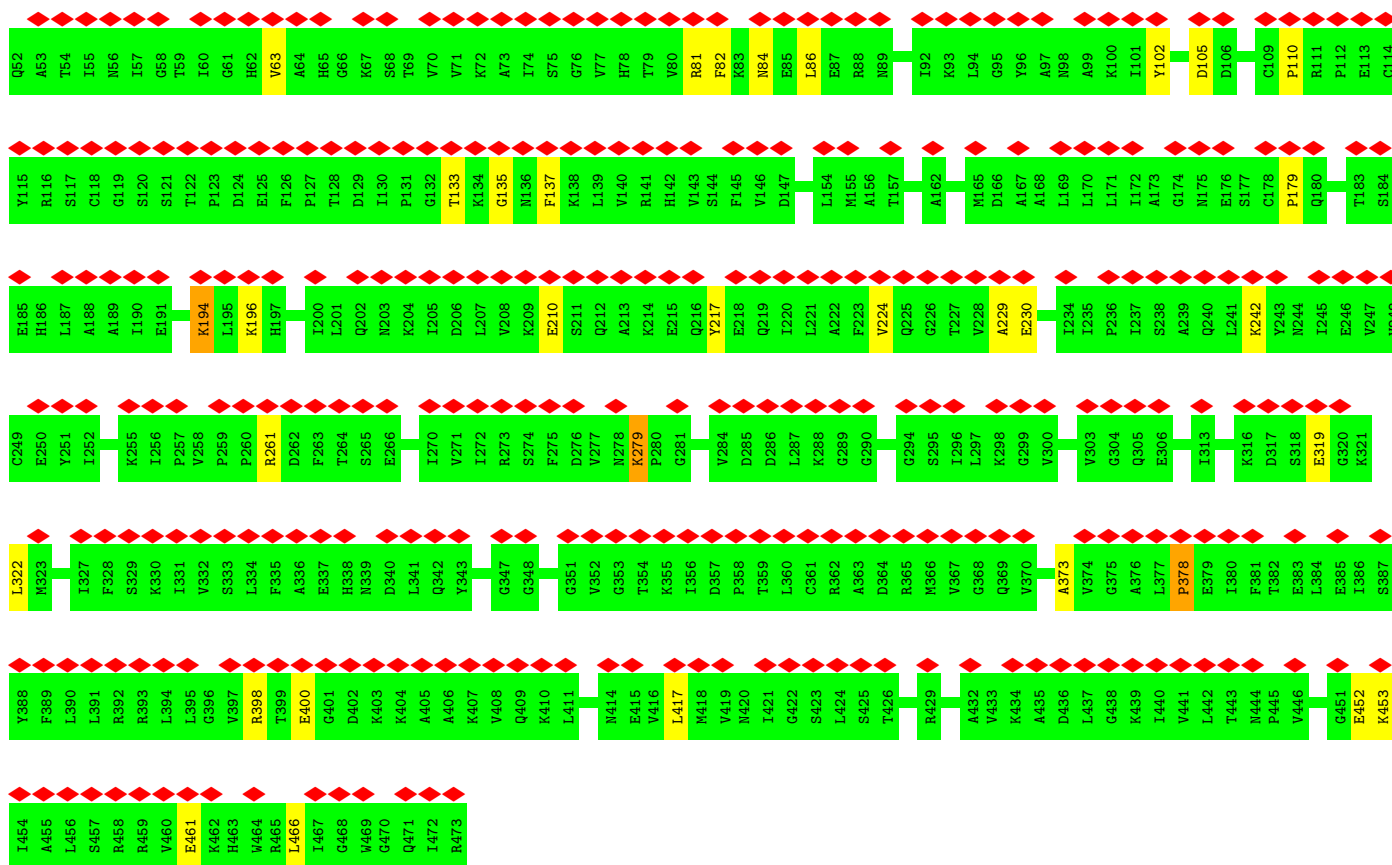
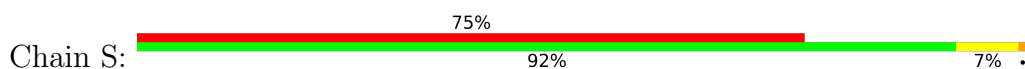
- Molecule 13: ribosomal protein uS12



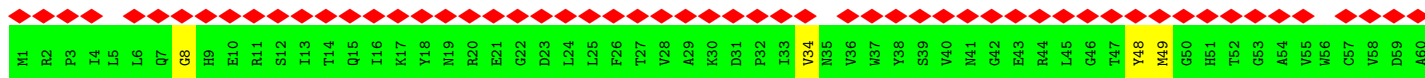
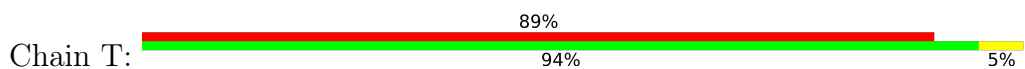
• Molecule 14: ribosomal protein eS19



• Molecule 15: eukaryotic initiation factor 2 Gamma subunit (eIF2-Gamma)

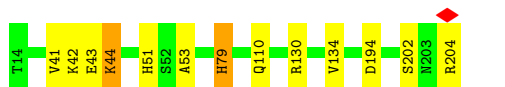


• Molecule 16: Eukaryotic translation initiation factor 3 subunit I

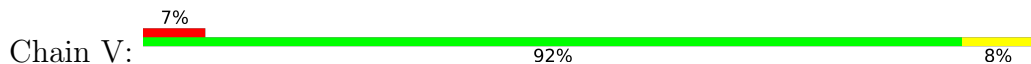




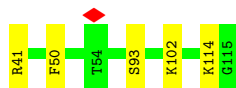
• Molecule 17: ribosomal protein uS7



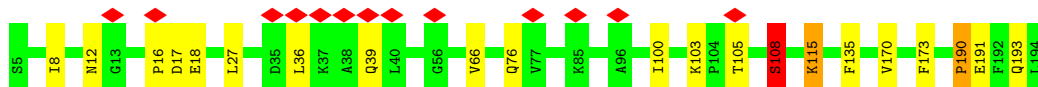
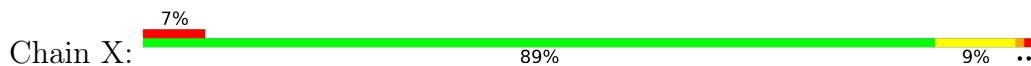
• Molecule 18: ribosomal protein eS30




• Molecule 19: ribosomal protein eS25



• Molecule 20: ribosomal protein eS7



• Molecule 21: 40S ribosomal protein S27

Chain Y:  88% 11%



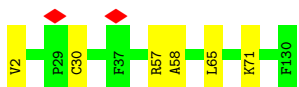
- Molecule 22: ribosomal protein uS15

Chain Z:  97%




- Molecule 23: ribosomal protein uS8

Chain a:  95% 5%



- Molecule 24: 40S ribosomal protein S21

Chain b:  82% 17%




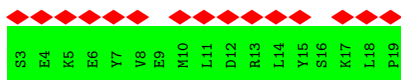
- Molecule 25: ribosomal protein uS5

Chain c:  95%



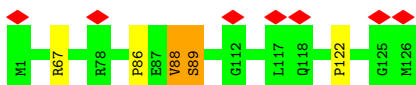
- Molecule 26: eukaryotic initiation factor 2 subunit Beta (eIF2-Beta)

Chain d:  88% 100%



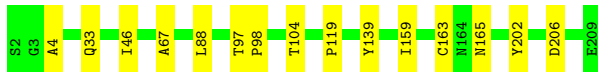
- Molecule 27: ribosomal protein eS17

Chain e:  6% 96%



- Molecule 28: ribosomal protein uS2

Chain f:  93% 7%




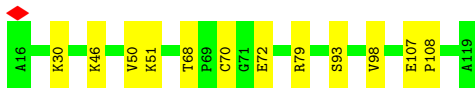
- Molecule 29: ribosomal protein uS3

Chain g:  94% 6%



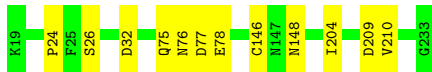
- Molecule 30: ribosomal protein uS10

Chain h:  88% 12%



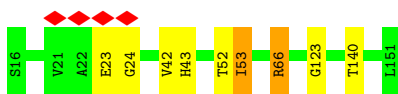
- Molecule 31: ribosomal protein eS1

Chain i:  94% 6%



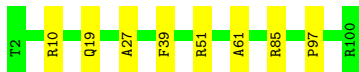
- Molecule 32: ribosomal protein uS11

Chain j:  93% 5%



- Molecule 33: ribosomal protein eS26

Chain k:  92% 8%



- Molecule 34: ribosomal protein eS28

Chain l:  97%




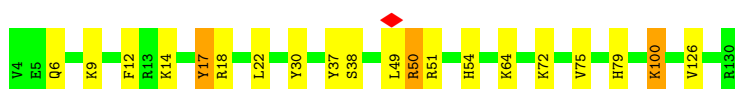
- Molecule 35: ribosomal protein RACK1

Chain m:  92% 7%



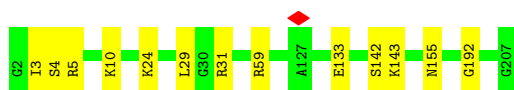
- Molecule 36: ribosomal protein uS19

Chain n:  84% 13%




- Molecule 37: 40S ribosomal protein S8

Chain o:  94% 6%



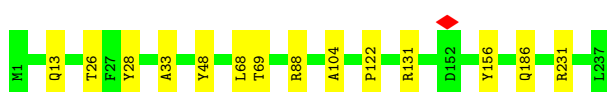
- Molecule 38: ribosomal protein eS31

Chain p:  80% 17%




- Molecule 39: 40S ribosomal protein S6

Chain q:  94% 6%




- Molecule 40: 40S ribosomal protein S12

Chain r:  90% 10%




- Molecule 41: 40S ribosomal protein S24

Chain s:  89% 10%



- Molecule 42: ribosomal protein eS10

Chain t:  81% 17%



4 Experimental information

| Property | Value | Source |
|--------------------------------------|---|-----------|
| EM reconstruction method | SINGLE PARTICLE | Depositor |
| Imposed symmetry | POINT, Not provided | |
| Number of particles used | 475000 | Depositor |
| Resolution determination method | FSC 0.143 CUT-OFF | Depositor |
| CTF correction method | PHASE FLIPPING AND AMPLITUDE CORRECTION | Depositor |
| Microscope | FEI TITAN KRIOS | Depositor |
| Voltage (kV) | 300 | Depositor |
| Electron dose ($e^-/\text{\AA}^2$) | 24 | Depositor |
| Minimum defocus (nm) | 800 | Depositor |
| Maximum defocus (nm) | 4500 | Depositor |
| Magnification | 59000 | Depositor |
| Image detector | FEI FALCON II (4k x 4k) | Depositor |
| Maximum map value | 0.400 | Depositor |
| Minimum map value | -0.107 | Depositor |
| Average map value | 0.000 | Depositor |
| Map value standard deviation | 0.020 | Depositor |
| Recommended contour level | 0.04 | Depositor |
| Map size (\AA) | 440.0, 440.0, 440.0 | wwPDB |
| Map dimensions | 200, 200, 200 | wwPDB |
| Map angles ($^\circ$) | 90.0, 90.0, 90.0 | wwPDB |
| Pixel spacing (\AA) | 2.2, 2.2, 2.2 | Depositor |

5 Model quality

5.1 Standard geometry

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 | N | 1.68 | 9/1795 (0.5%) | 2.61 | 215/2798 (7.7%) |
| 2 | A | 1.62 | 35/42353 (0.1%) | 2.56 | 5098/66010 (7.7%) |
| 3 | F | 1.59 | 0/709 | 2.51 | 91/1103 (8.3%) |
| 4 | P | 1.00 | 0/2178 | 1.08 | 3/2935 (0.1%) |
| 5 | G | 1.02 | 0/1319 | 1.01 | 0/1761 |
| 6 | H | 1.04 | 0/1142 | 1.07 | 3/1528 (0.2%) |
| 7 | I | 0.98 | 0/2125 | 1.06 | 5/2856 (0.2%) |
| 8 | J | 1.12 | 0/455 | 0.98 | 0/603 |
| 9 | K | 1.08 | 0/1523 | 1.00 | 2/2031 (0.1%) |
| 10 | L | 1.06 | 0/1158 | 1.04 | 1/1548 (0.1%) |
| 11 | M | 0.81 | 0/293 | 0.94 | 0/396 |
| 12 | O | 1.03 | 0/626 | 1.01 | 0/842 |
| 13 | Q | 0.99 | 0/1125 | 0.98 | 0/1500 |
| 14 | R | 0.99 | 0/1133 | 1.05 | 5/1517 (0.3%) |
| 15 | S | 0.91 | 0/3267 | 1.01 | 2/4415 (0.0%) |
| 16 | T | 0.96 | 0/2669 | 1.07 | 8/3608 (0.2%) |
| 17 | U | 0.99 | 0/1531 | 0.98 | 0/2059 |
| 18 | V | 1.10 | 0/478 | 1.04 | 1/628 (0.2%) |
| 19 | W | 0.97 | 0/605 | 1.04 | 0/810 |
| 20 | X | 0.96 | 0/1553 | 1.04 | 4/2079 (0.2%) |
| 21 | Y | 0.94 | 0/673 | 1.01 | 0/902 |
| 22 | Z | 0.98 | 0/1232 | 0.94 | 0/1656 |
| 23 | a | 1.01 | 0/1051 | 0.98 | 0/1406 |
| 24 | b | 0.98 | 0/627 | 1.08 | 0/839 |
| 25 | c | 0.91 | 0/1779 | 1.02 | 3/2399 (0.1%) |
| 26 | d | 0.98 | 0/149 | 0.79 | 0/197 |
| 27 | e | 0.99 | 0/1032 | 1.03 | 0/1383 |
| 28 | f | 0.96 | 0/1680 | 1.05 | 2/2283 (0.1%) |
| 29 | g | 0.99 | 0/1793 | 1.04 | 2/2412 (0.1%) |
| 30 | h | 0.99 | 0/832 | 1.08 | 0/1117 |
| 31 | i | 0.91 | 0/1770 | 1.02 | 0/2367 |
| 32 | j | 1.04 | 0/1029 | 1.08 | 0/1380 |
| 33 | k | 1.07 | 0/803 | 1.06 | 1/1076 (0.1%) |
| 34 | l | 1.13 | 0/509 | 1.05 | 0/680 |

| Mol | Chain | Bond lengths | | Bond angles | |
|-----|-------|--------------|-----------------|-------------|--------------------|
| | | RMSZ | # Z >5 | RMSZ | # Z >5 |
| 35 | m | 0.92 | 0/2494 | 1.13 | 3/3394 (0.1%) |
| 36 | n | 1.03 | 0/1080 | 1.04 | 0/1437 |
| 37 | o | 1.04 | 0/1709 | 1.05 | 1/2278 (0.0%) |
| 38 | p | 0.99 | 0/594 | 1.09 | 1/786 (0.1%) |
| 39 | q | 1.07 | 0/1947 | 1.08 | 4/2590 (0.2%) |
| 40 | r | 0.89 | 0/968 | 1.04 | 2/1296 (0.2%) |
| 41 | s | 0.99 | 0/1083 | 1.10 | 0/1437 |
| 42 | t | 0.96 | 0/852 | 1.13 | 4/1147 (0.3%) |
| All | All | 1.33 | 44/93723 (0.0%) | 1.98 | 5461/135489 (4.0%) |

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

| Mol | Chain | #Chirality outliers | #Planarity outliers |
|-----|-------|---------------------|---------------------|
| 1 | N | 0 | 6 |
| 2 | A | 1 | 68 |
| 4 | P | 0 | 17 |
| 5 | G | 0 | 4 |
| 6 | H | 0 | 2 |
| 7 | I | 1 | 2 |
| 9 | K | 0 | 3 |
| 10 | L | 0 | 6 |
| 14 | R | 0 | 1 |
| 15 | S | 0 | 5 |
| 16 | T | 0 | 1 |
| 17 | U | 0 | 3 |
| 18 | V | 0 | 1 |
| 19 | W | 0 | 2 |
| 20 | X | 0 | 6 |
| 21 | Y | 0 | 3 |
| 23 | a | 0 | 1 |
| 24 | b | 0 | 5 |
| 25 | c | 0 | 1 |
| 27 | e | 0 | 3 |
| 28 | f | 0 | 2 |
| 29 | g | 0 | 1 |
| 30 | h | 0 | 5 |
| 31 | i | 0 | 3 |
| 32 | j | 0 | 1 |
| 35 | m | 0 | 7 |

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| Mol | Chain | #Chirality outliers | #Planarity outliers |
|-----|-------|---------------------|---------------------|
| 36 | n | 0 | 3 |
| 37 | o | 0 | 4 |
| 38 | p | 0 | 7 |
| 40 | r | 0 | 1 |
| 41 | s | 1 | 4 |
| 42 | t | 0 | 7 |
| All | All | 3 | 185 |

The worst 5 of 44 bond length outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 2 | A | 211 | U | C2-N3 | 6.75 | 1.42 | 1.37 |
| 2 | A | 524 | G | O3'-P | -6.71 | 1.53 | 1.61 |
| 2 | A | 1186 | A | N7-C5 | -6.68 | 1.35 | 1.39 |
| 2 | A | 749 | C | O3'-P | -6.62 | 1.53 | 1.61 |
| 1 | N | 14 | A | N7-C5 | -6.52 | 1.35 | 1.39 |

The worst 5 of 5461 bond angle outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 2 | A | 730 | C | P-O3'-C3' | 22.13 | 146.25 | 119.70 |
| 2 | A | 883 | U | P-O3'-C3' | 21.96 | 146.05 | 119.70 |
| 2 | A | 748 | G | P-O3'-C3' | 21.66 | 145.69 | 119.70 |
| 2 | A | 524 | G | P-O3'-C3' | 21.53 | 145.53 | 119.70 |
| 2 | A | 1627 | G | P-O3'-C3' | 21.22 | 145.16 | 119.70 |

All (3) chirality outliers are listed below:

| Mol | Chain | Res | Type | Atom |
|-----|-------|-----|------|------|
| 2 | A | 794 | G | C4' |
| 7 | I | 171 | ASP | CA |
| 41 | s | 86 | GLU | CA |

5 of 185 planarity outliers are listed below:

| Mol | Chain | Res | Type | Group |
|-----|-------|-----|------|-----------|
| 1 | N | 1 | A | Sidechain |
| 1 | N | 12 | G | Sidechain |
| 1 | N | 2 | G | Sidechain |
| 1 | N | 22 | C | Sidechain |
| 1 | N | 72 | A | Sidechain |

5.2 Too-close contacts [i](#)

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

| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 1 | N | 1604 | 0 | 816 | 0 | 0 |
| 2 | A | 37881 | 0 | 19145 | 0 | 0 |
| 3 | F | 635 | 0 | 327 | 0 | 0 |
| 4 | P | 2147 | 0 | 2191 | 0 | 0 |
| 5 | G | 1296 | 0 | 1374 | 0 | 0 |
| 6 | H | 1124 | 0 | 1193 | 0 | 0 |
| 7 | I | 2083 | 0 | 2189 | 0 | 0 |
| 8 | J | 445 | 0 | 442 | 0 | 0 |
| 9 | K | 1499 | 0 | 1608 | 0 | 0 |
| 10 | L | 1140 | 0 | 1191 | 0 | 0 |
| 11 | M | 288 | 0 | 269 | 0 | 0 |
| 12 | O | 614 | 0 | 599 | 0 | 0 |
| 13 | Q | 1107 | 0 | 1179 | 0 | 0 |
| 14 | R | 1113 | 0 | 1149 | 0 | 0 |
| 15 | S | 3214 | 0 | 3354 | 0 | 0 |
| 16 | T | 2605 | 0 | 2474 | 0 | 0 |
| 17 | U | 1509 | 0 | 1563 | 0 | 0 |
| 18 | V | 473 | 0 | 524 | 0 | 0 |
| 19 | W | 599 | 0 | 656 | 0 | 0 |
| 20 | X | 1530 | 0 | 1627 | 0 | 0 |
| 21 | Y | 659 | 0 | 683 | 0 | 0 |
| 22 | Z | 1208 | 0 | 1294 | 0 | 0 |
| 23 | a | 1034 | 0 | 1080 | 0 | 0 |
| 24 | b | 620 | 0 | 622 | 0 | 0 |
| 25 | c | 1743 | 0 | 1836 | 0 | 0 |
| 26 | d | 147 | 0 | 146 | 0 | 0 |
| 27 | e | 1020 | 0 | 1075 | 0 | 0 |
| 28 | f | 1643 | 0 | 1646 | 0 | 0 |
| 29 | g | 1765 | 0 | 1863 | 0 | 0 |
| 30 | h | 822 | 0 | 887 | 0 | 0 |
| 31 | i | 1742 | 0 | 1815 | 0 | 0 |
| 32 | j | 1016 | 0 | 1039 | 0 | 0 |
| 33 | k | 790 | 0 | 839 | 0 | 0 |
| 34 | l | 507 | 0 | 536 | 0 | 0 |
| 35 | m | 2437 | 0 | 2393 | 0 | 0 |
| 36 | n | 1061 | 0 | 1120 | 0 | 0 |
| 37 | o | 1680 | 0 | 1762 | 0 | 0 |

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| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 38 | p | 582 | 0 | 599 | 0 | 0 |
| 39 | q | 1924 | 0 | 2089 | 0 | 0 |
| 40 | r | 958 | 0 | 993 | 0 | 0 |
| 41 | s | 1065 | 0 | 1137 | 0 | 0 |
| 42 | t | 828 | 0 | 854 | 0 | 0 |
| All | All | 88157 | 0 | 70178 | 0 | 0 |

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). Clashscore could not be calculated for this entry.

There are no clashes within the asymmetric unit.

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

| Mol | Chain | Analysed | Favoured | Allowed | Outliers | Percentiles | |
|-----|-------|----------------|-----------|----------|----------|-------------|-----|
| 4 | P | 264/266 (99%) | 220 (83%) | 26 (10%) | 18 (7%) | 1 | 14 |
| 5 | G | 156/158 (99%) | 135 (86%) | 17 (11%) | 4 (3%) | 5 | 31 |
| 6 | H | 139/141 (99%) | 125 (90%) | 7 (5%) | 7 (5%) | 2 | 20 |
| 7 | I | 261/263 (99%) | 235 (90%) | 14 (5%) | 12 (5%) | 2 | 21 |
| 8 | J | 51/53 (96%) | 45 (88%) | 4 (8%) | 2 (4%) | 3 | 23 |
| 9 | K | 180/182 (99%) | 156 (87%) | 18 (10%) | 6 (3%) | 4 | 26 |
| 10 | L | 135/137 (98%) | 118 (87%) | 11 (8%) | 6 (4%) | 2 | 22 |
| 11 | M | 36/38 (95%) | 31 (86%) | 5 (14%) | 0 | 100 | 100 |
| 12 | O | 75/77 (97%) | 70 (93%) | 5 (7%) | 0 | 100 | 100 |
| 13 | Q | 140/142 (99%) | 119 (85%) | 15 (11%) | 6 (4%) | 2 | 22 |
| 14 | R | 139/141 (99%) | 130 (94%) | 7 (5%) | 2 (1%) | 11 | 46 |
| 15 | S | 420/422 (100%) | 364 (87%) | 41 (10%) | 15 (4%) | 3 | 25 |
| 16 | T | 327/329 (99%) | 292 (89%) | 29 (9%) | 6 (2%) | 8 | 40 |

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| Mol | Chain | Analysed | Favoured | Allowed | Outliers | Percentiles | |
|-----|-------|-----------------|------------|----------|----------|-------------|-----|
| 17 | U | 189/191 (99%) | 169 (89%) | 13 (7%) | 7 (4%) | 3 | 24 |
| 18 | V | 57/59 (97%) | 46 (81%) | 8 (14%) | 3 (5%) | 2 | 19 |
| 19 | W | 73/75 (97%) | 61 (84%) | 11 (15%) | 1 (1%) | 11 | 46 |
| 20 | X | 188/190 (99%) | 163 (87%) | 11 (6%) | 14 (7%) | 1 | 13 |
| 21 | Y | 82/84 (98%) | 71 (87%) | 5 (6%) | 6 (7%) | 1 | 13 |
| 22 | Z | 148/150 (99%) | 137 (93%) | 9 (6%) | 2 (1%) | 11 | 46 |
| 23 | a | 127/129 (98%) | 118 (93%) | 6 (5%) | 3 (2%) | 6 | 33 |
| 24 | b | 80/82 (98%) | 65 (81%) | 6 (8%) | 9 (11%) | 0 | 7 |
| 25 | c | 224/226 (99%) | 209 (93%) | 9 (4%) | 6 (3%) | 5 | 31 |
| 26 | d | 15/17 (88%) | 15 (100%) | 0 | 0 | 100 | 100 |
| 27 | e | 124/126 (98%) | 110 (89%) | 11 (9%) | 3 (2%) | 6 | 33 |
| 28 | f | 206/208 (99%) | 174 (84%) | 24 (12%) | 8 (4%) | 3 | 23 |
| 29 | g | 225/227 (99%) | 203 (90%) | 14 (6%) | 8 (4%) | 3 | 25 |
| 30 | h | 102/104 (98%) | 86 (84%) | 12 (12%) | 4 (4%) | 3 | 23 |
| 31 | i | 213/215 (99%) | 188 (88%) | 17 (8%) | 8 (4%) | 3 | 24 |
| 32 | j | 134/136 (98%) | 107 (80%) | 19 (14%) | 8 (6%) | 1 | 16 |
| 33 | k | 97/99 (98%) | 87 (90%) | 7 (7%) | 3 (3%) | 4 | 27 |
| 34 | l | 62/64 (97%) | 57 (92%) | 5 (8%) | 0 | 100 | 100 |
| 35 | m | 311/313 (99%) | 278 (89%) | 23 (7%) | 10 (3%) | 4 | 26 |
| 36 | n | 125/127 (98%) | 103 (82%) | 10 (8%) | 12 (10%) | 0 | 9 |
| 37 | o | 204/206 (99%) | 182 (89%) | 14 (7%) | 8 (4%) | 3 | 23 |
| 38 | p | 69/71 (97%) | 47 (68%) | 14 (20%) | 8 (12%) | 0 | 6 |
| 39 | q | 235/237 (99%) | 211 (90%) | 16 (7%) | 8 (3%) | 3 | 26 |
| 40 | r | 122/124 (98%) | 103 (84%) | 12 (10%) | 7 (6%) | 1 | 17 |
| 41 | s | 129/131 (98%) | 113 (88%) | 7 (5%) | 9 (7%) | 1 | 14 |
| 42 | t | 96/98 (98%) | 76 (79%) | 10 (10%) | 10 (10%) | 0 | 8 |
| All | All | 5960/6038 (99%) | 5219 (88%) | 492 (8%) | 249 (4%) | 5 | 22 |

5 of 249 Ramachandran outliers are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 4 | P | 115 | VAL |
| 4 | P | 166 | LEU |

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| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 4 | P | 172 | GLU |
| 4 | P | 223 | MET |
| 6 | H | 19 | ALA |

5.3.2 Protein sidechains [i](#)

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

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

| Mol | Chain | Analysed | Rotameric | Outliers | Percentiles | |
|-----|-------|----------------|------------|----------|-------------|-----|
| 4 | P | 238/238 (100%) | 231 (97%) | 7 (3%) | 42 | 64 |
| 5 | G | 142/142 (100%) | 139 (98%) | 3 (2%) | 53 | 72 |
| 6 | H | 117/117 (100%) | 113 (97%) | 4 (3%) | 37 | 60 |
| 7 | I | 225/225 (100%) | 219 (97%) | 6 (3%) | 44 | 65 |
| 8 | J | 47/47 (100%) | 47 (100%) | 0 | 100 | 100 |
| 9 | K | 157/157 (100%) | 154 (98%) | 3 (2%) | 57 | 75 |
| 10 | L | 119/119 (100%) | 119 (100%) | 0 | 100 | 100 |
| 11 | M | 35/35 (100%) | 34 (97%) | 1 (3%) | 42 | 64 |
| 12 | O | 63/63 (100%) | 62 (98%) | 1 (2%) | 62 | 79 |
| 13 | Q | 114/114 (100%) | 111 (97%) | 3 (3%) | 46 | 66 |
| 14 | R | 113/113 (100%) | 107 (95%) | 6 (5%) | 22 | 47 |
| 15 | S | 354/354 (100%) | 340 (96%) | 14 (4%) | 31 | 55 |
| 16 | T | 281/281 (100%) | 273 (97%) | 8 (3%) | 43 | 64 |
| 17 | U | 161/161 (100%) | 156 (97%) | 5 (3%) | 40 | 62 |
| 18 | V | 49/49 (100%) | 49 (100%) | 0 | 100 | 100 |
| 19 | W | 66/66 (100%) | 64 (97%) | 2 (3%) | 41 | 63 |
| 20 | X | 170/170 (100%) | 168 (99%) | 2 (1%) | 71 | 83 |
| 21 | Y | 76/76 (100%) | 74 (97%) | 2 (3%) | 46 | 66 |
| 22 | Z | 130/130 (100%) | 128 (98%) | 2 (2%) | 65 | 80 |
| 23 | a | 112/112 (100%) | 110 (98%) | 2 (2%) | 59 | 77 |
| 24 | b | 67/67 (100%) | 65 (97%) | 2 (3%) | 41 | 63 |

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| Mol | Chain | Analysed | Rotameric | Outliers | Percentiles | |
|-----|-------|------------------|------------|----------|-------------|-----|
| 25 | c | 187/187 (100%) | 184 (98%) | 3 (2%) | 62 | 79 |
| 26 | d | 17/17 (100%) | 17 (100%) | 0 | 100 | 100 |
| 27 | e | 114/114 (100%) | 113 (99%) | 1 (1%) | 78 | 87 |
| 28 | f | 174/174 (100%) | 171 (98%) | 3 (2%) | 60 | 78 |
| 29 | g | 190/190 (100%) | 187 (98%) | 3 (2%) | 62 | 79 |
| 30 | h | 94/94 (100%) | 91 (97%) | 3 (3%) | 39 | 62 |
| 31 | i | 196/196 (100%) | 195 (100%) | 1 (0%) | 88 | 93 |
| 32 | j | 106/106 (100%) | 104 (98%) | 2 (2%) | 57 | 75 |
| 33 | k | 87/87 (100%) | 83 (95%) | 4 (5%) | 27 | 52 |
| 34 | l | 57/57 (100%) | 55 (96%) | 2 (4%) | 36 | 59 |
| 35 | m | 272/272 (100%) | 265 (97%) | 7 (3%) | 46 | 66 |
| 36 | n | 116/116 (100%) | 108 (93%) | 8 (7%) | 15 | 40 |
| 37 | o | 177/177 (100%) | 177 (100%) | 0 | 100 | 100 |
| 38 | p | 64/64 (100%) | 64 (100%) | 0 | 100 | 100 |
| 39 | q | 207/207 (100%) | 203 (98%) | 4 (2%) | 57 | 75 |
| 40 | r | 104/104 (100%) | 100 (96%) | 4 (4%) | 33 | 57 |
| 41 | s | 113/113 (100%) | 111 (98%) | 2 (2%) | 59 | 77 |
| 42 | t | 89/89 (100%) | 85 (96%) | 4 (4%) | 27 | 52 |
| All | All | 5200/5200 (100%) | 5076 (98%) | 124 (2%) | 51 | 69 |

5 of 124 residues with a non-rotameric sidechain are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 17 | U | 130 | ARG |
| 39 | q | 13 | GLN |
| 24 | b | 32 | ILE |
| 36 | n | 100 | LYS |
| 41 | s | 17 | LEU |

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. There are no such sidechains identified.

5.3.3 RNA [i](#)

| Mol | Chain | Analysed | Backbone Outliers | Pucker Outliers |
|-----|-------|-----------------|-------------------|-----------------|
| 1 | N | 74/75 (98%) | 16 (21%) | 3 (4%) |
| 2 | A | 1772/1776 (99%) | 499 (28%) | 113 (6%) |
| 3 | F | 29/30 (96%) | 11 (37%) | 2 (6%) |
| All | All | 1875/1881 (99%) | 526 (28%) | 118 (6%) |

5 of 526 RNA backbone outliers are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1 | N | 7 | G |
| 1 | N | 11 | C |
| 1 | N | 16 | C |
| 1 | N | 17 | G |
| 1 | N | 18 | G |

5 of 118 RNA pucker outliers are listed below:

| Mol | Chain | Res | Type |
|-----|-------|------|------|
| 2 | A | 807 | A |
| 2 | A | 1774 | G |
| 2 | A | 1249 | A |
| 2 | A | 1763 | C |
| 2 | A | 1615 | A |

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

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

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues

The following chains have linkage breaks:

| Mol | Chain | Number of breaks |
|-----|-------|------------------|
| 2 | A | 5 |

All chain breaks are listed below:

| Model | Chain | Residue-1 | Atom-1 | Residue-2 | Atom-2 | Distance (Å) |
|-------|-------|-----------|--------|-----------|--------|--------------|
| 1 | A | 736:C | O3' | 744:C | P | 29.45 |
| 1 | A | 679:U | O3' | 683:G | P | 18.26 |
| 1 | A | 761:G | O3' | 774:U | P | 17.60 |
| 1 | A | 687:G | O3' | 730:C | P | 14.44 |
| 1 | A | 243:C | O3' | 267:G | P | 13.79 |

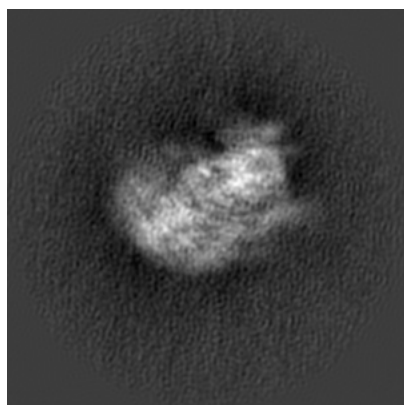
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-8190. These allow visual inspection of the internal detail of the map and identification of artifacts.

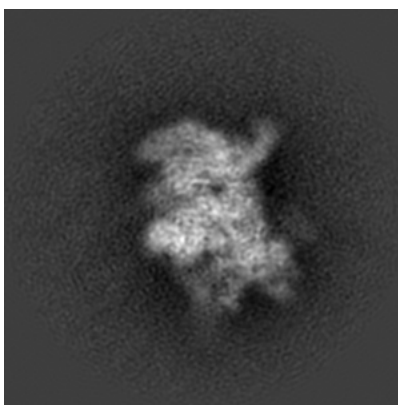
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

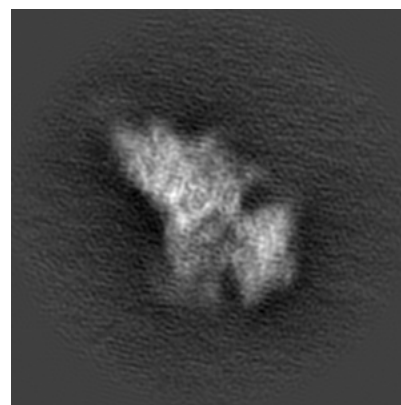
6.1.1 Primary map



X



Y

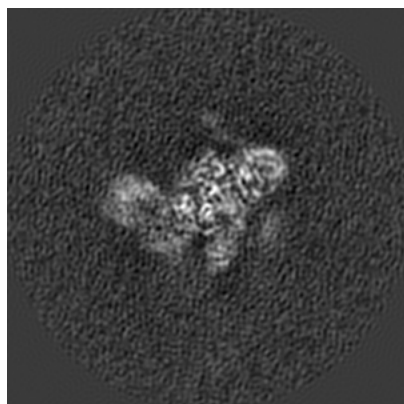


Z

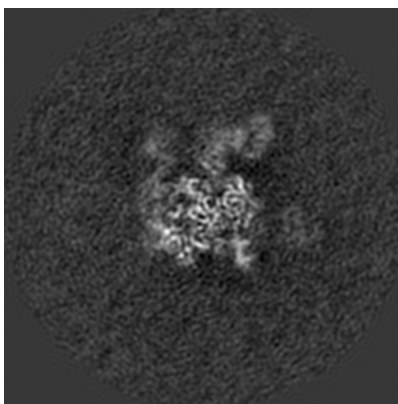
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

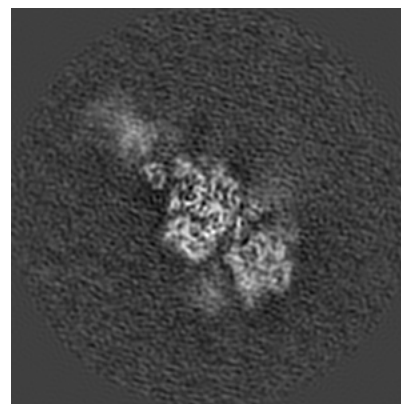
6.2.1 Primary map



X Index: 100



Y Index: 100

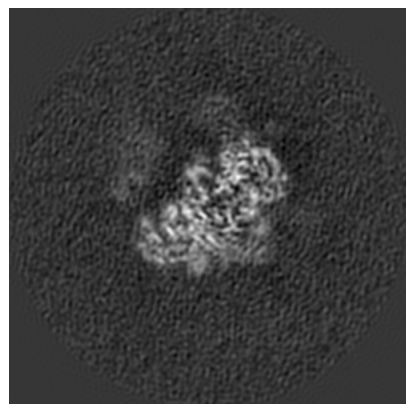


Z Index: 100

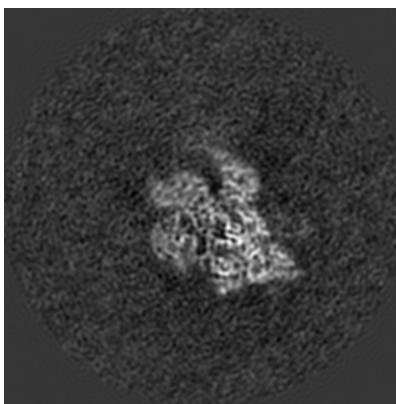
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

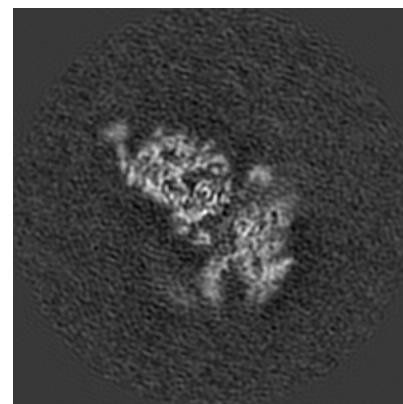
6.3.1 Primary map



X Index: 85



Y Index: 113



Z Index: 108

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

6.4 Orthogonal surface views [i](#)

6.4.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.04. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

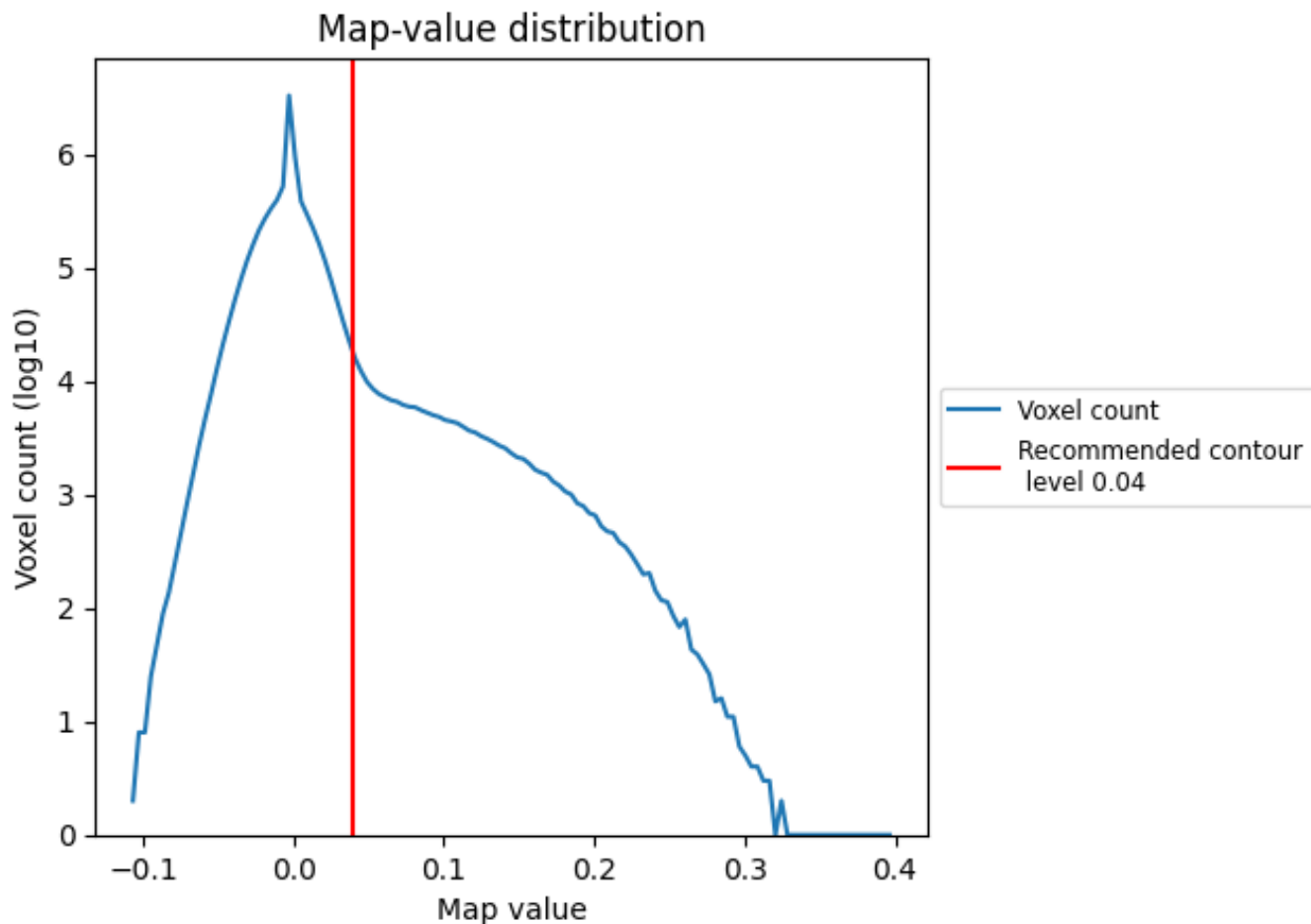
6.5 Mask visualisation

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

7 Map analysis [i](#)

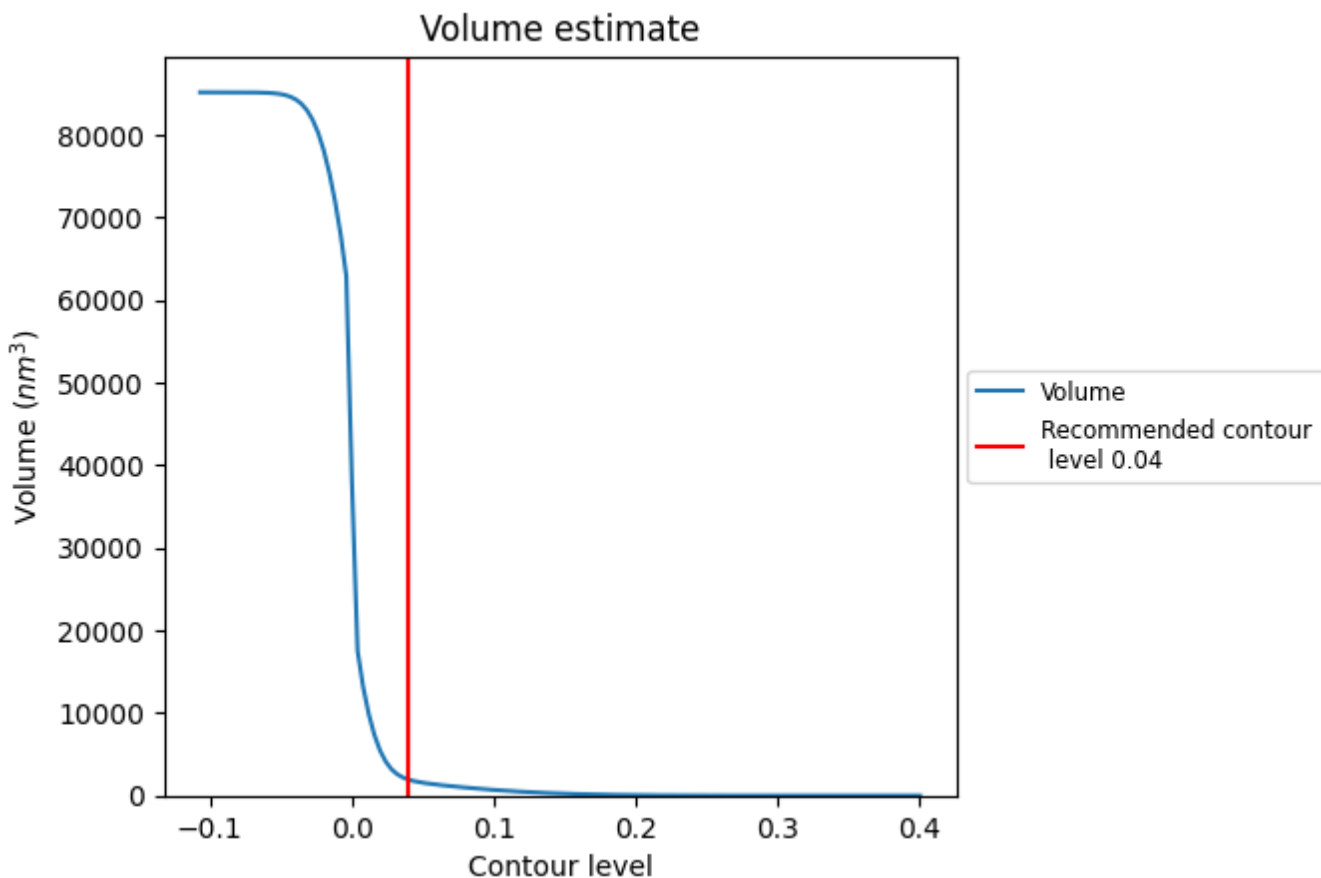
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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.

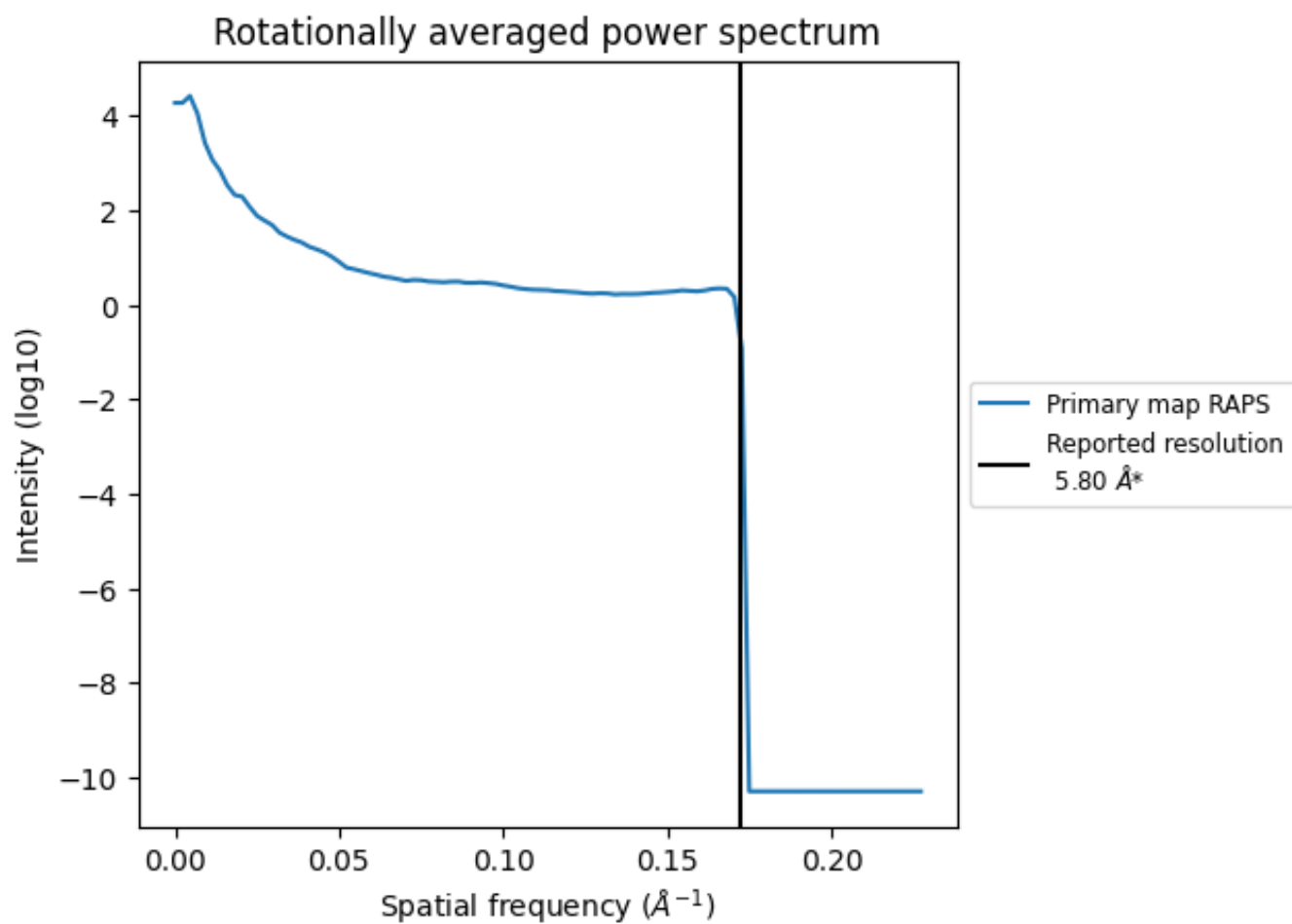
7.2 Volume estimate [\(i\)](#)



The volume at the recommended contour level is 1932 nm^3 ; this corresponds to an approximate mass of 1746 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 0.172 Å⁻¹

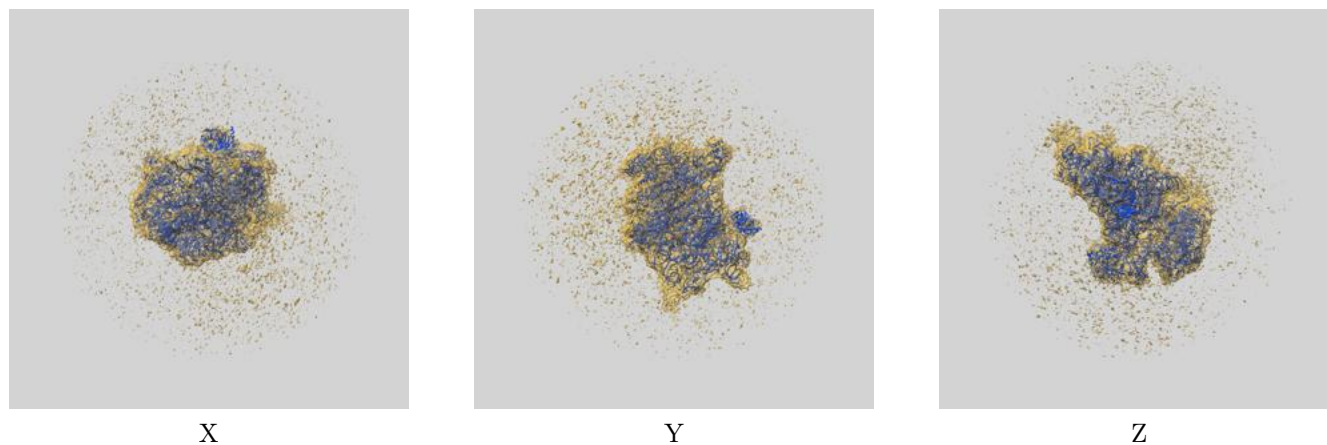
8 Fourier-Shell correlation

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

9 Map-model fit [i](#)

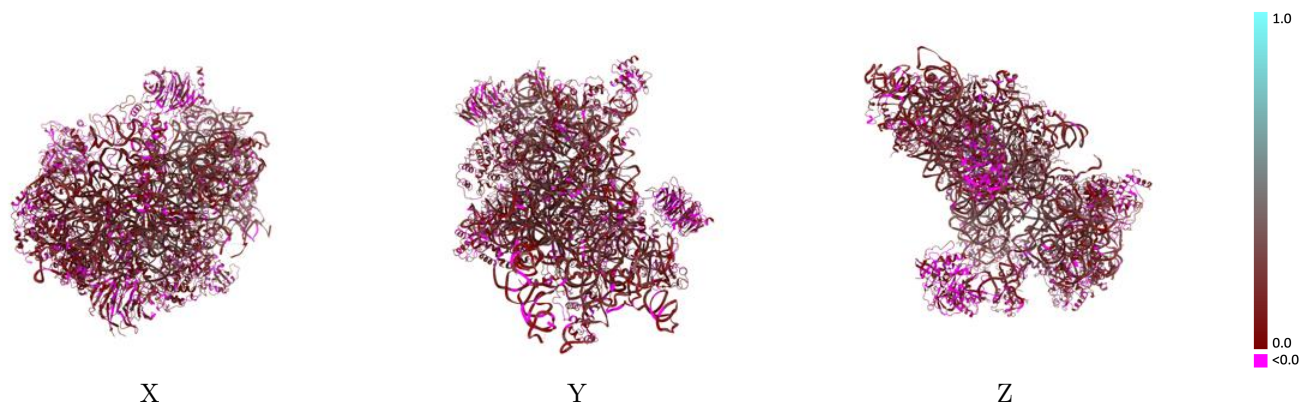
This section contains information regarding the fit between EMDB map EMD-8190 and PDB model 5K0Y. Per-residue inclusion information can be found in section 3 on page 28.

9.1 Map-model overlay [i](#)



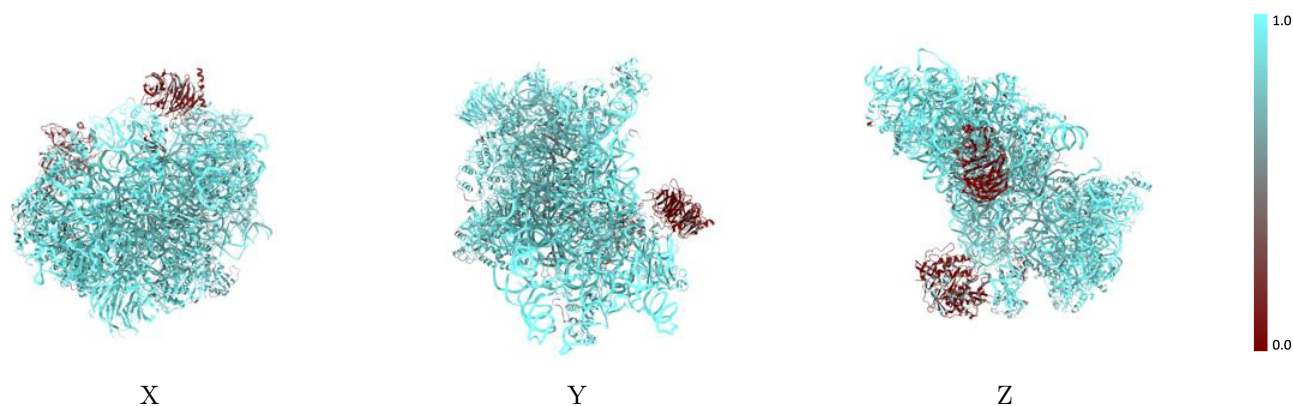
The images above show the 3D surface view of the map at the recommended contour level 0.04 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model [i](#)



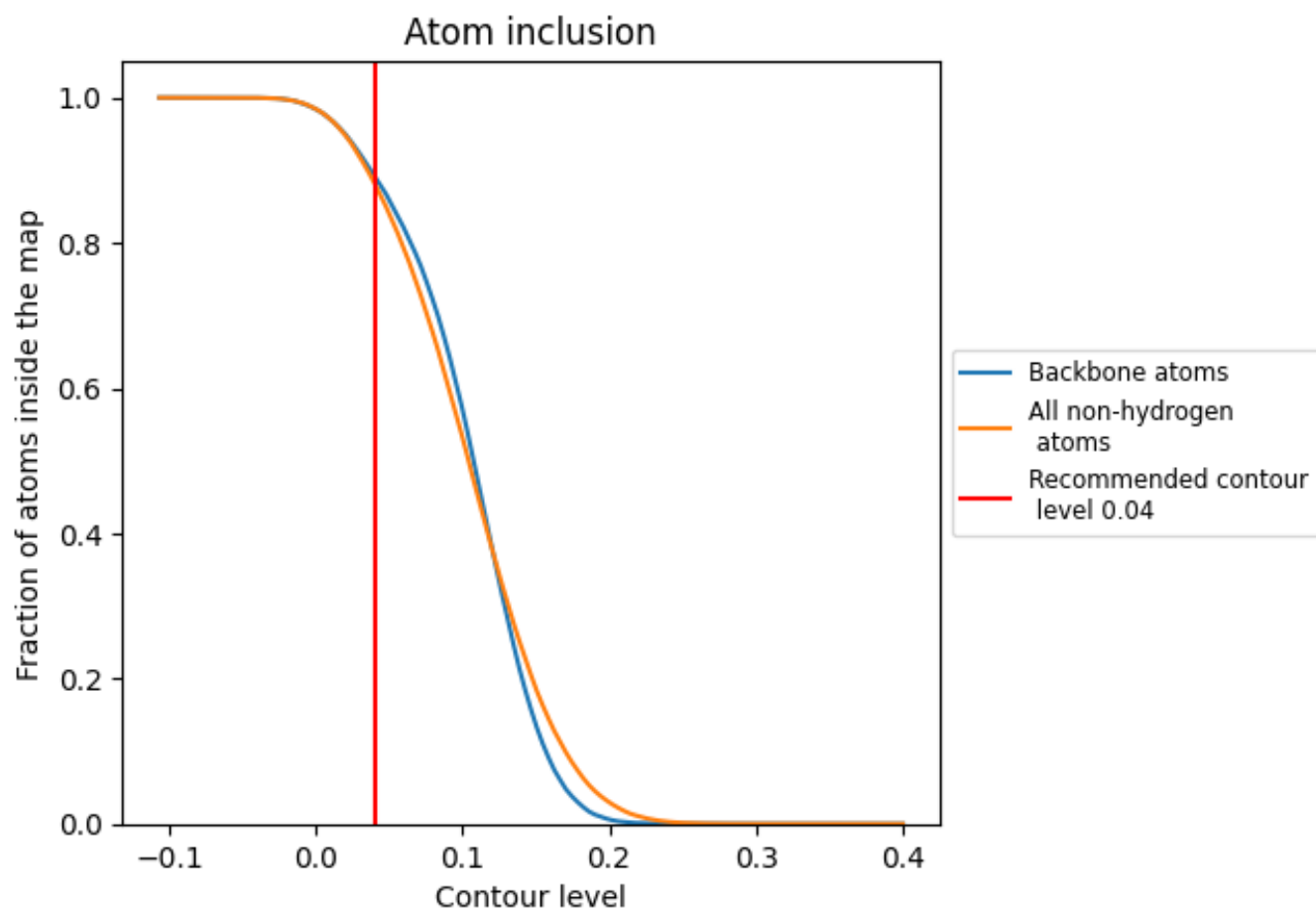
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 [i](#)



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 (0.04).







































































9.4 Atom inclusion [i](#)



At the recommended contour level, 89% of all backbone atoms, 88% 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 (0.04) and Q-score for the entire model and for each chain.

| Chain | Atom inclusion | Q-score |
|-------|--|--|
| All |  0.8817 |  0.1410 |
| A |  0.9915 |  0.1880 |
| F |  0.7890 |  0.0970 |
| G |  0.8469 |  0.1270 |
| H |  0.9540 |  0.1200 |
| I |  0.9199 |  0.1450 |
| J |  0.9063 |  0.0990 |
| K |  0.9133 |  0.1380 |
| L |  0.9508 |  0.1050 |
| M |  0.1632 |  0.1060 |
| N |  0.9133 |  0.1420 |
| O |  0.2044 |  0.0100 |
| P |  0.4785 |  0.0450 |
| Q |  0.9093 |  0.1400 |
| R |  0.9603 |  0.1210 |
| S |  0.2385 |  0.0250 |
| T |  0.1134 |  0.0300 |
| U |  0.9285 |  0.1280 |
| V |  0.8706 |  0.1170 |
| W |  0.9469 |  0.1020 |
| X |  0.8021 |  0.1010 |
| Y |  0.9459 |  0.1200 |
| Z |  0.9266 |  0.1270 |
| a |  0.8158 |  0.1300 |
| b |  0.9290 |  0.1300 |
| c |  0.8698 |  0.1380 |
| d |  0.1329 |  0.0070 |
| e |  0.8679 |  0.1070 |
| f |  0.9326 |  0.1350 |
| g |  0.8891 |  0.1340 |
| h |  0.9014 |  0.1180 |
| i |  0.9650 |  0.1250 |
| j |  0.9331 |  0.1060 |
| k |  0.9106 |  0.1170 |
| l |  0.9363 |  0.1310 |



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| Chain | Atom inclusion | Q-score |
|-------|--|--|
| m |  0.9645 |  0.1020 |
| n |  0.9474 |  0.0890 |
| o |  0.9372 |  0.1160 |
| p |  0.9718 |  0.0690 |
| q |  0.9628 |  0.1210 |
| r |  0.9025 |  0.0880 |
| s |  0.9364 |  0.1350 |
| t |  0.9566 |  0.1240 |