



# wwPDB X-ray Structure Validation Summary Report ⓘ

May 26, 2022 – 04:17 pm BST

PDB ID : 7QIJ  
Title : Complex of the Yersinia enterocolitica Type III secretion export gate YscV  
with substrate:chaperone complex YscX:YscY  
Authors : Gilzer, D.; Niemann, H.H.  
Deposited on : 2021-12-15  
Resolution : 4.10 Å(reported)

This is a wwPDB X-ray Structure Validation Summary Report for a publicly released PDB entry.

We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

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

MolProbity : 4.02b-467  
Xtriage (Phenix) : 1.13  
EDS : 2.28.1  
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)  
Refmac : 5.8.0267  
CCP4 : 7.1.010 (Gargrove)  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.28.1

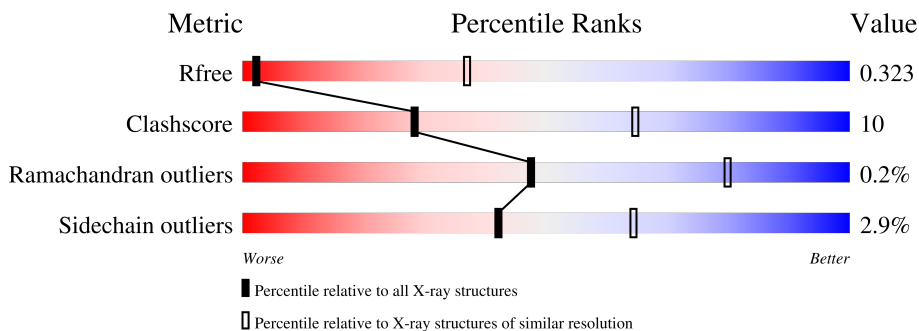
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 4.10 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) | Similar resolution (#Entries, resolution range(Å)) |
|-----------------------|--------------------------|--|
| $R_{free}$            | 130704                   | 1193 (4.50-3.70)                                   |
| Clashscore            | 141614                   | 1003 (4.44-3.76)                                   |
| Ramachandran outliers | 138981                   | 1005 (4.48-3.72)                                   |
| Sidechain outliers    | 138945                   | 1199 (4.50-3.70)                                   |

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions  $\leq 5\%$

| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 1   | AA    | 350    | 67% 24% 8%       |
| 1   | BA    | 350    | 70% 23% 5%       |
| 1   | CA    | 350    | 68% 29% ..       |
| 1   | DA    | 350    | 67% 25% 7%       |
| 1   | EA    | 350    | 69% 24% 6%       |
| 1   | FA    | 350    | 72% 24% ..       |
| 1   | GA    | 350    | 69% 28% .        |









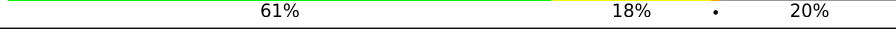


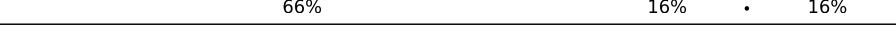

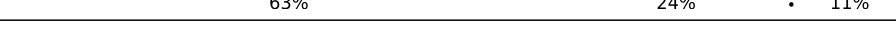


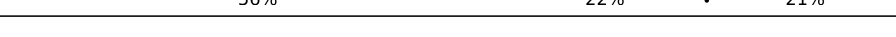

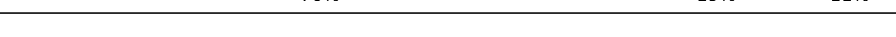



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| Mol | Chain | Length | Quality of chain |     |       |
|-----|-------|--------|------------------|-----|-------|
| 1   | HA    | 350    | 73%              | 22% | • •   |
| 1   | IA    | 350    | 69%              | 26% | • •   |
| 1   | JA    | 350    | 70%              | 23% | • 6%  |
| 1   | KA    | 350    | 71%              | 24% | • •   |
| 1   | LA    | 350    | 74%              | 21% | • •   |
| 1   | MA    | 350    | 66%              | 25% | • 8%  |
| 1   | NA    | 350    | 69%              | 25% | • 5%  |
| 1   | OA    | 350    | 69%              | 24% | • 5%  |
| 1   | PA    | 350    | 68%              | 25% | • 6%  |
| 1   | QA    | 350    | 67%              | 27% | • 5%  |
| 1   | RA    | 350    | 73%              | 24% | • •   |
| 2   | AB    | 95     | 60%              | 13% | • 26% |
| 2   | BB    | 95     | 51%              | 16% | • 32% |
| 2   | CB    | 95     | 49%              | 21% | • 28% |
| 2   | DB    | 95     | 48%              | 16% | 36%   |
| 2   | EB    | 95     | 46%              | 17% | 37%   |
| 2   | FB    | 95     | 52%              | 22% | • 25% |
| 2   | GB    | 95     | 57%              | 19% | • 23% |
| 2   | HB    | 95     | 53%              | 16% | 32%   |
| 2   | IB    | 95     | 47%              | 18% | • 34% |
| 2   | JB    | 95     | 56%              | 17% | 27%   |
| 2   | KB    | 95     | 58%              | 22% | • 19% |
| 2   | LB    | 95     | 46%              | 27% | 26%   |
| 2   | MB    | 95     | 46%              | 20% | • 33% |
| 2   | NB    | 95     | 44%              | 19% | • 36% |

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| Mol | Chain | Length | Quality of chain   |
|-----|-------|--------|--|
| 2   | OB    | 95     |    |
| 2   | PB    | 95     |    |
| 2   | QB    | 95     |    |
| 2   | RB    | 95     |    |
| 3   | AC    | 122    |    |
| 3   | BC    | 122    |    |
| 3   | CC    | 122    |    |
| 3   | DC    | 122    |    |
| 3   | EC    | 122    |    |
| 3   | FC    | 122    |    |
| 3   | GC    | 122    |    |
| 3   | HC    | 122    |   |
| 3   | IC    | 122    |  |
| 3   | JC    | 122    |  |
| 3   | KC    | 122    |  |
| 3   | LC    | 122    |  |
| 3   | MC    | 122    |  |
| 3   | NC    | 122    |  |
| 3   | OC    | 122    |  |
| 3   | PC    | 122    |  |
| 3   | QC    | 122    |  |
| 3   | RC    | 122    |  |

## 2 Entry composition [i](#)

There are 3 unique types of molecules in this entry. The entry contains 73488 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a protein called Low calcium response locus protein D.

| Mol | Chain | Residues | Atoms         |           |          |          |        | ZeroOcc | AltConf | Trace |
|-----|-------|----------|---------------|-----------|----------|----------|--------|---------|---------|-------|
|     |       |          | Total         | C         | N        | O        | S      |         |         |       |
| 1   | AA    | 323      | Total<br>2628 | C<br>1676 | N<br>448 | O<br>495 | S<br>9 | 0       | 0       | 0     |
| 1   | BA    | 331      | Total<br>2688 | C<br>1712 | N<br>458 | O<br>509 | S<br>9 | 0       | 0       | 0     |
| 1   | CA    | 343      | Total<br>2792 | C<br>1779 | N<br>474 | O<br>530 | S<br>9 | 0       | 0       | 0     |
| 1   | DA    | 326      | Total<br>2661 | C<br>1695 | N<br>451 | O<br>506 | S<br>9 | 0       | 0       | 0     |
| 1   | EA    | 329      | Total<br>2684 | C<br>1710 | N<br>456 | O<br>509 | S<br>9 | 0       | 0       | 0     |
| 1   | FA    | 337      | Total<br>2736 | C<br>1740 | N<br>466 | O<br>521 | S<br>9 | 0       | 0       | 0     |
| 1   | GA    | 341      | Total<br>2772 | C<br>1766 | N<br>469 | O<br>528 | S<br>9 | 0       | 0       | 0     |
| 1   | HA    | 335      | Total<br>2727 | C<br>1741 | N<br>460 | O<br>517 | S<br>9 | 0       | 0       | 0     |
| 1   | IA    | 336      | Total<br>2731 | C<br>1738 | N<br>465 | O<br>519 | S<br>9 | 0       | 0       | 0     |
| 1   | JA    | 330      | Total<br>2689 | C<br>1713 | N<br>457 | O<br>510 | S<br>9 | 0       | 0       | 0     |
| 1   | KA    | 335      | Total<br>2736 | C<br>1746 | N<br>464 | O<br>517 | S<br>9 | 0       | 0       | 0     |
| 1   | LA    | 336      | Total<br>2734 | C<br>1743 | N<br>462 | O<br>520 | S<br>9 | 0       | 0       | 0     |
| 1   | MA    | 322      | Total<br>2632 | C<br>1683 | N<br>448 | O<br>493 | S<br>8 | 0       | 0       | 0     |
| 1   | NA    | 331      | Total<br>2698 | C<br>1720 | N<br>456 | O<br>513 | S<br>9 | 0       | 0       | 0     |
| 1   | OA    | 331      | Total<br>2694 | C<br>1718 | N<br>458 | O<br>509 | S<br>9 | 0       | 0       | 0     |
| 1   | PA    | 330      | Total<br>2688 | C<br>1713 | N<br>457 | O<br>509 | S<br>9 | 0       | 0       | 0     |

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| Mol | Chain | Residues | Atoms |      |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|---|---------|---------|-------|
|     |       |          | Total | C    | N   | O   | S |         |         |       |
| 1   | QA    | 334      | 2713  | 1728 | 462 | 514 | 9 | 0       | 0       | 0     |
| 1   | RA    | 344      | 2798  | 1782 | 474 | 533 | 9 | 0       | 0       | 0     |

There are 36 discrepancies between the modelled and reference sequences:

| Chain | Residue | Modelled | Actual | Comment               | Reference  |
|-------|---------|----------|--------|-----------------------|------------|
| AA    | 355     | MET      | -      | initiating methionine | UNP P0C2V3 |
| AA    | 621     | ARG      | GLY    | variant               | UNP P0C2V3 |
| BA    | 355     | MET      | -      | initiating methionine | UNP P0C2V3 |
| BA    | 621     | ARG      | GLY    | variant               | UNP P0C2V3 |
| CA    | 355     | MET      | -      | initiating methionine | UNP P0C2V3 |
| CA    | 621     | ARG      | GLY    | variant               | UNP P0C2V3 |
| DA    | 355     | MET      | -      | initiating methionine | UNP P0C2V3 |
| DA    | 621     | ARG      | GLY    | variant               | UNP P0C2V3 |
| EA    | 355     | MET      | -      | initiating methionine | UNP P0C2V3 |
| EA    | 621     | ARG      | GLY    | variant               | UNP P0C2V3 |
| FA    | 355     | MET      | -      | initiating methionine | UNP P0C2V3 |
| FA    | 621     | ARG      | GLY    | variant               | UNP P0C2V3 |
| GA    | 355     | MET      | -      | initiating methionine | UNP P0C2V3 |
| GA    | 621     | ARG      | GLY    | variant               | UNP P0C2V3 |
| HA    | 355     | MET      | -      | initiating methionine | UNP P0C2V3 |
| HA    | 621     | ARG      | GLY    | variant               | UNP P0C2V3 |
| IA    | 355     | MET      | -      | initiating methionine | UNP P0C2V3 |
| IA    | 621     | ARG      | GLY    | variant               | UNP P0C2V3 |
| JA    | 355     | MET      | -      | initiating methionine | UNP P0C2V3 |
| JA    | 621     | ARG      | GLY    | variant               | UNP P0C2V3 |
| KA    | 355     | MET      | -      | initiating methionine | UNP P0C2V3 |
| KA    | 621     | ARG      | GLY    | variant               | UNP P0C2V3 |
| LA    | 355     | MET      | -      | initiating methionine | UNP P0C2V3 |
| LA    | 621     | ARG      | GLY    | variant               | UNP P0C2V3 |
| MA    | 355     | MET      | -      | initiating methionine | UNP P0C2V3 |
| MA    | 621     | ARG      | GLY    | variant               | UNP P0C2V3 |
| NA    | 355     | MET      | -      | initiating methionine | UNP P0C2V3 |
| NA    | 621     | ARG      | GLY    | variant               | UNP P0C2V3 |
| OA    | 355     | MET      | -      | initiating methionine | UNP P0C2V3 |
| OA    | 621     | ARG      | GLY    | variant               | UNP P0C2V3 |
| PA    | 355     | MET      | -      | initiating methionine | UNP P0C2V3 |
| PA    | 621     | ARG      | GLY    | variant               | UNP P0C2V3 |
| QA    | 355     | MET      | -      | initiating methionine | UNP P0C2V3 |
| QA    | 621     | ARG      | GLY    | variant               | UNP P0C2V3 |

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| Chain | Residue | Modelled | Actual | Comment               | Reference  |
|-------|---------|----------|--------|-----------------------|------------|
| RA    | 355     | MET      | -      | initiating methionine | UNP P0C2V3 |
| RA    | 621     | ARG      | GLY    | variant               | UNP P0C2V3 |

- Molecule 2 is a protein called Yop proteins translocation protein X.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
|     |       |          | Total | C   | N   | O   | S |         |         |       |
| 2   | CB    | 68       | 546   | 338 | 102 | 105 | 1 | 0       | 0       | 0     |
| 2   | JB    | 69       | 554   | 346 | 98  | 109 | 1 | 0       | 0       | 0     |
| 2   | KB    | 77       | 624   | 390 | 114 | 119 | 1 | 0       | 0       | 0     |
| 2   | RB    | 70       | 559   | 347 | 102 | 109 | 1 | 0       | 0       | 0     |
| 2   | GB    | 73       | 596   | 371 | 110 | 114 | 1 | 0       | 0       | 0     |
| 2   | LB    | 70       | 569   | 356 | 99  | 113 | 1 | 0       | 1       | 0     |
| 2   | NB    | 61       | 487   | 302 | 87  | 97  | 1 | 0       | 0       | 0     |
| 2   | OB    | 70       | 562   | 349 | 104 | 108 | 1 | 0       | 0       | 0     |
| 2   | PB    | 65       | 521   | 322 | 95  | 103 | 1 | 0       | 0       | 0     |
| 2   | EB    | 60       | 482   | 299 | 86  | 96  | 1 | 0       | 0       | 0     |
| 2   | FB    | 71       | 572   | 357 | 101 | 113 | 1 | 3       | 1       | 0     |
| 2   | HB    | 65       | 524   | 324 | 97  | 102 | 1 | 1       | 0       | 0     |
| 2   | IB    | 63       | 503   | 312 | 90  | 100 | 1 | 0       | 0       | 0     |
| 2   | AB    | 70       | 562   | 349 | 104 | 108 | 1 | 0       | 0       | 0     |
| 2   | BB    | 65       | 524   | 324 | 97  | 102 | 1 | 0       | 0       | 0     |
| 2   | DB    | 61       | 493   | 306 | 88  | 98  | 1 | 0       | 0       | 0     |
| 2   | MB    | 64       | 513   | 320 | 95  | 97  | 1 | 0       | 0       | 0     |
| 2   | QB    | 66       | 532   | 331 | 97  | 103 | 1 | 0       | 0       | 0     |

There are 72 discrepancies between the modelled and reference sequences:

| Chain | Residue | Modelled | Actual | Comment        | Reference  |
|-------|---------|----------|--------|----------------|------------|
| CB    | 28      | GLY      | -      | expression tag | UNP P0C2N4 |
| CB    | 29      | ALA      | -      | expression tag | UNP P0C2N4 |
| CB    | 30      | MET      | -      | expression tag | UNP P0C2N4 |
| CB    | 31      | GLY      | -      | expression tag | UNP P0C2N4 |
| JB    | 28      | GLY      | -      | expression tag | UNP P0C2N4 |
| JB    | 29      | ALA      | -      | expression tag | UNP P0C2N4 |
| JB    | 30      | MET      | -      | expression tag | UNP P0C2N4 |
| JB    | 31      | GLY      | -      | expression tag | UNP P0C2N4 |
| KB    | 28      | GLY      | -      | expression tag | UNP P0C2N4 |
| KB    | 29      | ALA      | -      | expression tag | UNP P0C2N4 |
| KB    | 30      | MET      | -      | expression tag | UNP P0C2N4 |
| KB    | 31      | GLY      | -      | expression tag | UNP P0C2N4 |
| RB    | 28      | GLY      | -      | expression tag | UNP P0C2N4 |
| RB    | 29      | ALA      | -      | expression tag | UNP P0C2N4 |
| RB    | 30      | MET      | -      | expression tag | UNP P0C2N4 |
| RB    | 31      | GLY      | -      | expression tag | UNP P0C2N4 |
| GB    | 28      | GLY      | -      | expression tag | UNP P0C2N4 |
| GB    | 29      | ALA      | -      | expression tag | UNP P0C2N4 |
| GB    | 30      | MET      | -      | expression tag | UNP P0C2N4 |
| GB    | 31      | GLY      | -      | expression tag | UNP P0C2N4 |
| LB    | 28      | GLY      | -      | expression tag | UNP P0C2N4 |
| LB    | 29      | ALA      | -      | expression tag | UNP P0C2N4 |
| LB    | 30      | MET      | -      | expression tag | UNP P0C2N4 |
| LB    | 31      | GLY      | -      | expression tag | UNP P0C2N4 |
| NB    | 28      | GLY      | -      | expression tag | UNP P0C2N4 |
| NB    | 29      | ALA      | -      | expression tag | UNP P0C2N4 |
| NB    | 30      | MET      | -      | expression tag | UNP P0C2N4 |
| NB    | 31      | GLY      | -      | expression tag | UNP P0C2N4 |
| OB    | 28      | GLY      | -      | expression tag | UNP P0C2N4 |
| OB    | 29      | ALA      | -      | expression tag | UNP P0C2N4 |
| OB    | 30      | MET      | -      | expression tag | UNP P0C2N4 |
| OB    | 31      | GLY      | -      | expression tag | UNP P0C2N4 |
| PB    | 28      | GLY      | -      | expression tag | UNP P0C2N4 |
| PB    | 29      | ALA      | -      | expression tag | UNP P0C2N4 |
| PB    | 30      | MET      | -      | expression tag | UNP P0C2N4 |
| PB    | 31      | GLY      | -      | expression tag | UNP P0C2N4 |
| EB    | 28      | GLY      | -      | expression tag | UNP P0C2N4 |
| EB    | 29      | ALA      | -      | expression tag | UNP P0C2N4 |
| EB    | 30      | MET      | -      | expression tag | UNP P0C2N4 |
| EB    | 31      | GLY      | -      | expression tag | UNP P0C2N4 |
| FB    | 28      | GLY      | -      | expression tag | UNP P0C2N4 |
| FB    | 29      | ALA      | -      | expression tag | UNP P0C2N4 |

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| Chain | Residue | Modelled | Actual | Comment        | Reference  |
|-------|---------|----------|--------|----------------|------------|
| FB    | 30      | MET      | -      | expression tag | UNP P0C2N4 |
| FB    | 31      | GLY      | -      | expression tag | UNP P0C2N4 |
| HB    | 28      | GLY      | -      | expression tag | UNP P0C2N4 |
| HB    | 29      | ALA      | -      | expression tag | UNP P0C2N4 |
| HB    | 30      | MET      | -      | expression tag | UNP P0C2N4 |
| HB    | 31      | GLY      | -      | expression tag | UNP P0C2N4 |
| IB    | 28      | GLY      | -      | expression tag | UNP P0C2N4 |
| IB    | 29      | ALA      | -      | expression tag | UNP P0C2N4 |
| IB    | 30      | MET      | -      | expression tag | UNP P0C2N4 |
| IB    | 31      | GLY      | -      | expression tag | UNP P0C2N4 |
| AB    | 28      | GLY      | -      | expression tag | UNP P0C2N4 |
| AB    | 29      | ALA      | -      | expression tag | UNP P0C2N4 |
| AB    | 30      | MET      | -      | expression tag | UNP P0C2N4 |
| AB    | 31      | GLY      | -      | expression tag | UNP P0C2N4 |
| BB    | 28      | GLY      | -      | expression tag | UNP P0C2N4 |
| BB    | 29      | ALA      | -      | expression tag | UNP P0C2N4 |
| BB    | 30      | MET      | -      | expression tag | UNP P0C2N4 |
| BB    | 31      | GLY      | -      | expression tag | UNP P0C2N4 |
| DB    | 28      | GLY      | -      | expression tag | UNP P0C2N4 |
| DB    | 29      | ALA      | -      | expression tag | UNP P0C2N4 |
| DB    | 30      | MET      | -      | expression tag | UNP P0C2N4 |
| DB    | 31      | GLY      | -      | expression tag | UNP P0C2N4 |
| MB    | 28      | GLY      | -      | expression tag | UNP P0C2N4 |
| MB    | 29      | ALA      | -      | expression tag | UNP P0C2N4 |
| MB    | 30      | MET      | -      | expression tag | UNP P0C2N4 |
| MB    | 31      | GLY      | -      | expression tag | UNP P0C2N4 |
| QB    | 28      | GLY      | -      | expression tag | UNP P0C2N4 |
| QB    | 29      | ALA      | -      | expression tag | UNP P0C2N4 |
| QB    | 30      | MET      | -      | expression tag | UNP P0C2N4 |
| QB    | 31      | GLY      | -      | expression tag | UNP P0C2N4 |

- Molecule 3 is a protein called Chaperone protein YscY.

| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 3   | CC    | 108      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 879   | 549 | 169 | 157 | 4 |         |         |       |
| 3   | JC    | 109      | Total | C   | N   | O   | S | 2       | 0       | 0     |
|     |       |          | 883   | 548 | 170 | 161 | 4 |         |         |       |
| 3   | KC    | 112      | Total | C   | N   | O   | S | 0       | 0       | 0     |
|     |       |          | 904   | 562 | 174 | 164 | 4 |         |         |       |
| 3   | RC    | 108      | Total | C   | N   | O   | S | 0       | 1       | 0     |
|     |       |          | 878   | 549 | 168 | 156 | 5 |         |         |       |

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| Mol | Chain | Residues | Atoms |     |     |     |   | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
|     |       |          | Total | C   | N   | O   | S |         |         |       |
| 3   | GC    | 108      | 878   | 549 | 168 | 156 | 5 | 3       | 1       | 0     |
| 3   | LC    | 105      | 851   | 533 | 162 | 152 | 4 | 0       | 0       | 0     |
| 3   | NC    | 102      | 826   | 515 | 159 | 148 | 4 | 0       | 0       | 0     |
| 3   | OC    | 108      | 875   | 543 | 169 | 159 | 4 | 0       | 0       | 0     |
| 3   | PC    | 109      | 883   | 551 | 170 | 158 | 4 | 0       | 0       | 0     |
| 3   | EC    | 98       | 800   | 499 | 155 | 142 | 4 | 0       | 0       | 0     |
| 3   | FC    | 106      | 858   | 536 | 165 | 153 | 4 | 0       | 0       | 0     |
| 3   | HC    | 102      | 830   | 519 | 160 | 147 | 4 | 0       | 1       | 0     |
| 3   | IC    | 89       | 732   | 460 | 142 | 126 | 4 | 0       | 0       | 0     |
| 3   | AC    | 93       | 754   | 473 | 142 | 136 | 3 | 0       | 0       | 0     |
| 3   | BC    | 95       | 771   | 482 | 144 | 141 | 4 | 0       | 0       | 0     |
| 3   | DC    | 101      | 817   | 513 | 156 | 144 | 4 | 0       | 0       | 0     |
| 3   | MC    | 96       | 784   | 489 | 153 | 138 | 4 | 0       | 0       | 0     |
| 3   | QC    | 93       | 761   | 477 | 147 | 133 | 4 | 0       | 0       | 0     |

There are 162 discrepancies between the modelled and reference sequences:

| Chain | Residue | Modelled | Actual | Comment               | Reference  |
|-------|---------|----------|--------|-----------------------|------------|
| CC    | -7      | MET      | -      | initiating methionine | UNP P0C2N2 |
| CC    | -6      | GLY      | -      | expression tag        | UNP P0C2N2 |
| CC    | -5      | HIS      | -      | expression tag        | UNP P0C2N2 |
| CC    | -4      | HIS      | -      | expression tag        | UNP P0C2N2 |
| CC    | -3      | HIS      | -      | expression tag        | UNP P0C2N2 |
| CC    | -2      | HIS      | -      | expression tag        | UNP P0C2N2 |
| CC    | -1      | HIS      | -      | expression tag        | UNP P0C2N2 |
| CC    | 0       | HIS      | -      | expression tag        | UNP P0C2N2 |
| CC    | 1       | GLY      | -      | expression tag        | UNP P0C2N2 |
| JC    | -7      | MET      | -      | initiating methionine | UNP P0C2N2 |
| JC    | -6      | GLY      | -      | expression tag        | UNP P0C2N2 |

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| Chain | Residue | Modelled | Actual | Comment               | Reference  |
|-------|---------|----------|--------|-----------------------|------------|
| JC    | -5      | HIS      | -      | expression tag        | UNP P0C2N2 |
| JC    | -4      | HIS      | -      | expression tag        | UNP P0C2N2 |
| JC    | -3      | HIS      | -      | expression tag        | UNP P0C2N2 |
| JC    | -2      | HIS      | -      | expression tag        | UNP P0C2N2 |
| JC    | -1      | HIS      | -      | expression tag        | UNP P0C2N2 |
| JC    | 0       | HIS      | -      | expression tag        | UNP P0C2N2 |
| JC    | 1       | GLY      | -      | expression tag        | UNP P0C2N2 |
| KC    | -7      | MET      | -      | initiating methionine | UNP P0C2N2 |
| KC    | -6      | GLY      | -      | expression tag        | UNP P0C2N2 |
| KC    | -5      | HIS      | -      | expression tag        | UNP P0C2N2 |
| KC    | -4      | HIS      | -      | expression tag        | UNP P0C2N2 |
| KC    | -3      | HIS      | -      | expression tag        | UNP P0C2N2 |
| KC    | -2      | HIS      | -      | expression tag        | UNP P0C2N2 |
| KC    | -1      | HIS      | -      | expression tag        | UNP P0C2N2 |
| KC    | 0       | HIS      | -      | expression tag        | UNP P0C2N2 |
| KC    | 1       | GLY      | -      | expression tag        | UNP P0C2N2 |
| RC    | -7      | MET      | -      | initiating methionine | UNP P0C2N2 |
| RC    | -6      | GLY      | -      | expression tag        | UNP P0C2N2 |
| RC    | -5      | HIS      | -      | expression tag        | UNP P0C2N2 |
| RC    | -4      | HIS      | -      | expression tag        | UNP P0C2N2 |
| RC    | -3      | HIS      | -      | expression tag        | UNP P0C2N2 |
| RC    | -2      | HIS      | -      | expression tag        | UNP P0C2N2 |
| RC    | -1      | HIS      | -      | expression tag        | UNP P0C2N2 |
| RC    | 0       | HIS      | -      | expression tag        | UNP P0C2N2 |
| RC    | 1       | GLY      | -      | expression tag        | UNP P0C2N2 |
| GC    | -7      | MET      | -      | initiating methionine | UNP P0C2N2 |
| GC    | -6      | GLY      | -      | expression tag        | UNP P0C2N2 |
| GC    | -5      | HIS      | -      | expression tag        | UNP P0C2N2 |
| GC    | -4      | HIS      | -      | expression tag        | UNP P0C2N2 |
| GC    | -3      | HIS      | -      | expression tag        | UNP P0C2N2 |
| GC    | -2      | HIS      | -      | expression tag        | UNP P0C2N2 |
| GC    | -1      | HIS      | -      | expression tag        | UNP P0C2N2 |
| GC    | 0       | HIS      | -      | expression tag        | UNP P0C2N2 |
| GC    | 1       | GLY      | -      | expression tag        | UNP P0C2N2 |
| LC    | -7      | MET      | -      | initiating methionine | UNP P0C2N2 |
| LC    | -6      | GLY      | -      | expression tag        | UNP P0C2N2 |
| LC    | -5      | HIS      | -      | expression tag        | UNP P0C2N2 |
| LC    | -4      | HIS      | -      | expression tag        | UNP P0C2N2 |
| LC    | -3      | HIS      | -      | expression tag        | UNP P0C2N2 |
| LC    | -2      | HIS      | -      | expression tag        | UNP P0C2N2 |
| LC    | -1      | HIS      | -      | expression tag        | UNP P0C2N2 |
| LC    | 0       | HIS      | -      | expression tag        | UNP P0C2N2 |

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| Chain | Residue | Modelled | Actual | Comment               | Reference  |
|-------|---------|----------|--------|-----------------------|------------|
| LC    | 1       | GLY      | -      | expression tag        | UNP P0C2N2 |
| NC    | -7      | MET      | -      | initiating methionine | UNP P0C2N2 |
| NC    | -6      | GLY      | -      | expression tag        | UNP P0C2N2 |
| NC    | -5      | HIS      | -      | expression tag        | UNP P0C2N2 |
| NC    | -4      | HIS      | -      | expression tag        | UNP P0C2N2 |
| NC    | -3      | HIS      | -      | expression tag        | UNP P0C2N2 |
| NC    | -2      | HIS      | -      | expression tag        | UNP P0C2N2 |
| NC    | -1      | HIS      | -      | expression tag        | UNP P0C2N2 |
| NC    | 0       | HIS      | -      | expression tag        | UNP P0C2N2 |
| NC    | 1       | GLY      | -      | expression tag        | UNP P0C2N2 |
| OC    | -7      | MET      | -      | initiating methionine | UNP P0C2N2 |
| OC    | -6      | GLY      | -      | expression tag        | UNP P0C2N2 |
| OC    | -5      | HIS      | -      | expression tag        | UNP P0C2N2 |
| OC    | -4      | HIS      | -      | expression tag        | UNP P0C2N2 |
| OC    | -3      | HIS      | -      | expression tag        | UNP P0C2N2 |
| OC    | -2      | HIS      | -      | expression tag        | UNP P0C2N2 |
| OC    | -1      | HIS      | -      | expression tag        | UNP P0C2N2 |
| OC    | 0       | HIS      | -      | expression tag        | UNP P0C2N2 |
| OC    | 1       | GLY      | -      | expression tag        | UNP P0C2N2 |
| PC    | -7      | MET      | -      | initiating methionine | UNP P0C2N2 |
| PC    | -6      | GLY      | -      | expression tag        | UNP P0C2N2 |
| PC    | -5      | HIS      | -      | expression tag        | UNP P0C2N2 |
| PC    | -4      | HIS      | -      | expression tag        | UNP P0C2N2 |
| PC    | -3      | HIS      | -      | expression tag        | UNP P0C2N2 |
| PC    | -2      | HIS      | -      | expression tag        | UNP P0C2N2 |
| PC    | -1      | HIS      | -      | expression tag        | UNP P0C2N2 |
| PC    | 0       | HIS      | -      | expression tag        | UNP P0C2N2 |
| PC    | 1       | GLY      | -      | expression tag        | UNP P0C2N2 |
| EC    | -7      | MET      | -      | initiating methionine | UNP P0C2N2 |
| EC    | -6      | GLY      | -      | expression tag        | UNP P0C2N2 |
| EC    | -5      | HIS      | -      | expression tag        | UNP P0C2N2 |
| EC    | -4      | HIS      | -      | expression tag        | UNP P0C2N2 |
| EC    | -3      | HIS      | -      | expression tag        | UNP P0C2N2 |
| EC    | -2      | HIS      | -      | expression tag        | UNP P0C2N2 |
| EC    | -1      | HIS      | -      | expression tag        | UNP P0C2N2 |
| EC    | 0       | HIS      | -      | expression tag        | UNP P0C2N2 |
| EC    | 1       | GLY      | -      | expression tag        | UNP P0C2N2 |
| FC    | -7      | MET      | -      | initiating methionine | UNP P0C2N2 |
| FC    | -6      | GLY      | -      | expression tag        | UNP P0C2N2 |
| FC    | -5      | HIS      | -      | expression tag        | UNP P0C2N2 |
| FC    | -4      | HIS      | -      | expression tag        | UNP P0C2N2 |
| FC    | -3      | HIS      | -      | expression tag        | UNP P0C2N2 |

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| Chain | Residue | Modelled | Actual | Comment               | Reference  |
|-------|---------|----------|--------|-----------------------|------------|
| FC    | -2      | HIS      | -      | expression tag        | UNP P0C2N2 |
| FC    | -1      | HIS      | -      | expression tag        | UNP P0C2N2 |
| FC    | 0       | HIS      | -      | expression tag        | UNP P0C2N2 |
| FC    | 1       | GLY      | -      | expression tag        | UNP P0C2N2 |
| HC    | -7      | MET      | -      | initiating methionine | UNP P0C2N2 |
| HC    | -6      | GLY      | -      | expression tag        | UNP P0C2N2 |
| HC    | -5      | HIS      | -      | expression tag        | UNP P0C2N2 |
| HC    | -4      | HIS      | -      | expression tag        | UNP P0C2N2 |
| HC    | -3      | HIS      | -      | expression tag        | UNP P0C2N2 |
| HC    | -2      | HIS      | -      | expression tag        | UNP P0C2N2 |
| HC    | -1      | HIS      | -      | expression tag        | UNP P0C2N2 |
| HC    | 0       | HIS      | -      | expression tag        | UNP P0C2N2 |
| HC    | 1       | GLY      | -      | expression tag        | UNP P0C2N2 |
| IC    | -7      | MET      | -      | initiating methionine | UNP P0C2N2 |
| IC    | -6      | GLY      | -      | expression tag        | UNP P0C2N2 |
| IC    | -5      | HIS      | -      | expression tag        | UNP P0C2N2 |
| IC    | -4      | HIS      | -      | expression tag        | UNP P0C2N2 |
| IC    | -3      | HIS      | -      | expression tag        | UNP P0C2N2 |
| IC    | -2      | HIS      | -      | expression tag        | UNP P0C2N2 |
| IC    | -1      | HIS      | -      | expression tag        | UNP P0C2N2 |
| IC    | 0       | HIS      | -      | expression tag        | UNP P0C2N2 |
| IC    | 1       | GLY      | -      | expression tag        | UNP P0C2N2 |
| AC    | -7      | MET      | -      | initiating methionine | UNP P0C2N2 |
| AC    | -6      | GLY      | -      | expression tag        | UNP P0C2N2 |
| AC    | -5      | HIS      | -      | expression tag        | UNP P0C2N2 |
| AC    | -4      | HIS      | -      | expression tag        | UNP P0C2N2 |
| AC    | -3      | HIS      | -      | expression tag        | UNP P0C2N2 |
| AC    | -2      | HIS      | -      | expression tag        | UNP P0C2N2 |
| AC    | -1      | HIS      | -      | expression tag        | UNP P0C2N2 |
| AC    | 0       | HIS      | -      | expression tag        | UNP P0C2N2 |
| AC    | 1       | GLY      | -      | expression tag        | UNP P0C2N2 |
| BC    | -7      | MET      | -      | initiating methionine | UNP P0C2N2 |
| BC    | -6      | GLY      | -      | expression tag        | UNP P0C2N2 |
| BC    | -5      | HIS      | -      | expression tag        | UNP P0C2N2 |
| BC    | -4      | HIS      | -      | expression tag        | UNP P0C2N2 |
| BC    | -3      | HIS      | -      | expression tag        | UNP P0C2N2 |
| BC    | -2      | HIS      | -      | expression tag        | UNP P0C2N2 |
| BC    | -1      | HIS      | -      | expression tag        | UNP P0C2N2 |
| BC    | 0       | HIS      | -      | expression tag        | UNP P0C2N2 |
| BC    | 1       | GLY      | -      | expression tag        | UNP P0C2N2 |
| DC    | -7      | MET      | -      | initiating methionine | UNP P0C2N2 |
| DC    | -6      | GLY      | -      | expression tag        | UNP P0C2N2 |

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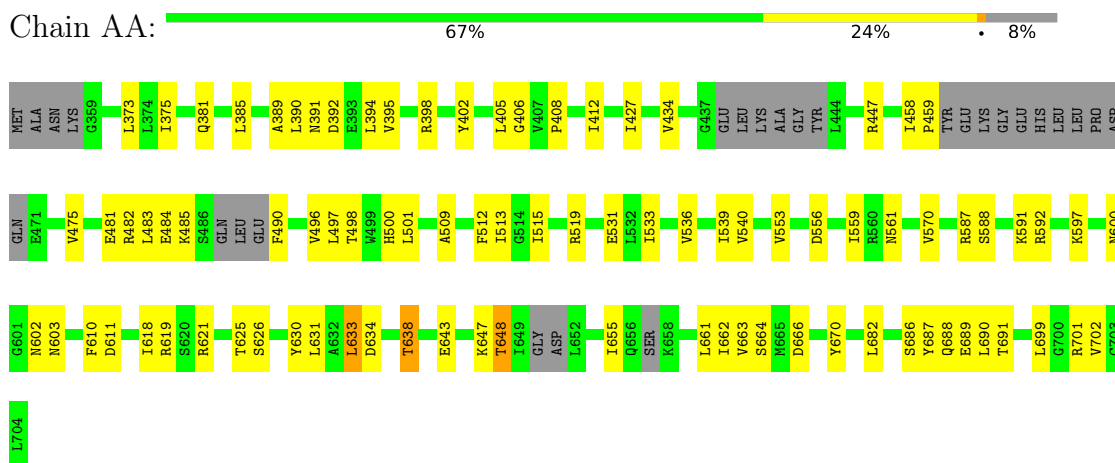
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| Chain | Residue | Modelled | Actual | Comment               | Reference  |
|-------|---------|----------|--------|-----------------------|------------|
| DC    | -5      | HIS      | -      | expression tag        | UNP P0C2N2 |
| DC    | -4      | HIS      | -      | expression tag        | UNP P0C2N2 |
| DC    | -3      | HIS      | -      | expression tag        | UNP P0C2N2 |
| DC    | -2      | HIS      | -      | expression tag        | UNP P0C2N2 |
| DC    | -1      | HIS      | -      | expression tag        | UNP P0C2N2 |
| DC    | 0       | HIS      | -      | expression tag        | UNP P0C2N2 |
| DC    | 1       | GLY      | -      | expression tag        | UNP P0C2N2 |
| MC    | -7      | MET      | -      | initiating methionine | UNP P0C2N2 |
| MC    | -6      | GLY      | -      | expression tag        | UNP P0C2N2 |
| MC    | -5      | HIS      | -      | expression tag        | UNP P0C2N2 |
| MC    | -4      | HIS      | -      | expression tag        | UNP P0C2N2 |
| MC    | -3      | HIS      | -      | expression tag        | UNP P0C2N2 |
| MC    | -2      | HIS      | -      | expression tag        | UNP P0C2N2 |
| MC    | -1      | HIS      | -      | expression tag        | UNP P0C2N2 |
| MC    | 0       | HIS      | -      | expression tag        | UNP P0C2N2 |
| MC    | 1       | GLY      | -      | expression tag        | UNP P0C2N2 |
| QC    | -7      | MET      | -      | initiating methionine | UNP P0C2N2 |
| QC    | -6      | GLY      | -      | expression tag        | UNP P0C2N2 |
| QC    | -5      | HIS      | -      | expression tag        | UNP P0C2N2 |
| QC    | -4      | HIS      | -      | expression tag        | UNP P0C2N2 |
| QC    | -3      | HIS      | -      | expression tag        | UNP P0C2N2 |
| QC    | -2      | HIS      | -      | expression tag        | UNP P0C2N2 |
| QC    | -1      | HIS      | -      | expression tag        | UNP P0C2N2 |
| QC    | 0       | HIS      | -      | expression tag        | UNP P0C2N2 |
| QC    | 1       | GLY      | -      | expression tag        | UNP P0C2N2 |

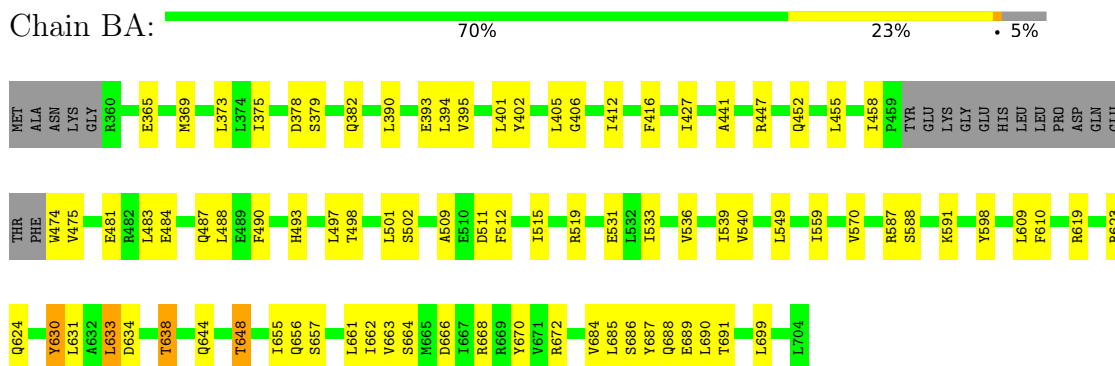
### 3 Residue-property plots

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

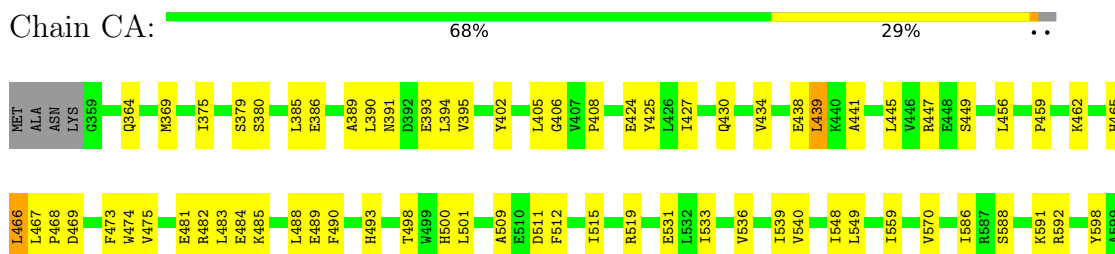
- Molecule 1: Low calcium response locus protein D

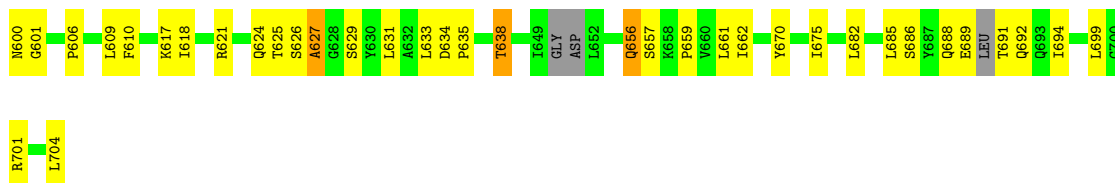


- Molecule 1: Low calcium response locus protein D



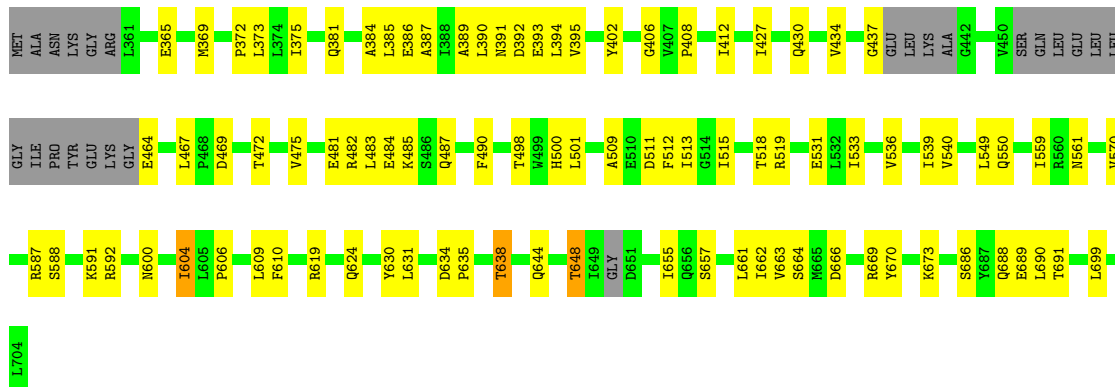
- Molecule 1: Low calcium response locus protein D





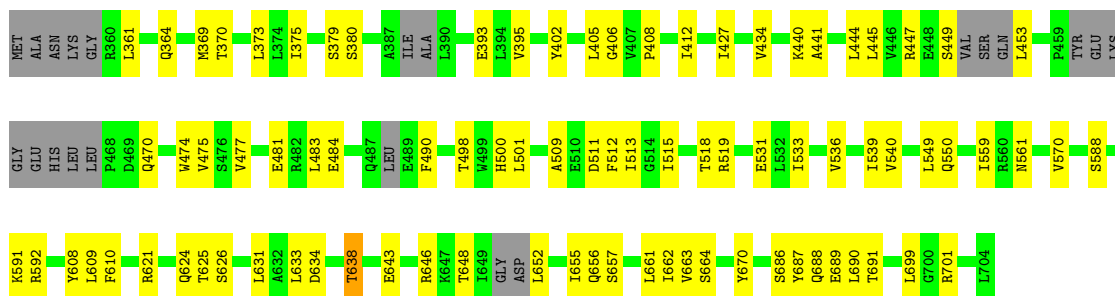
- Molecule 1: Low calcium response locus protein D

Chain DA: 67% 25% 7%



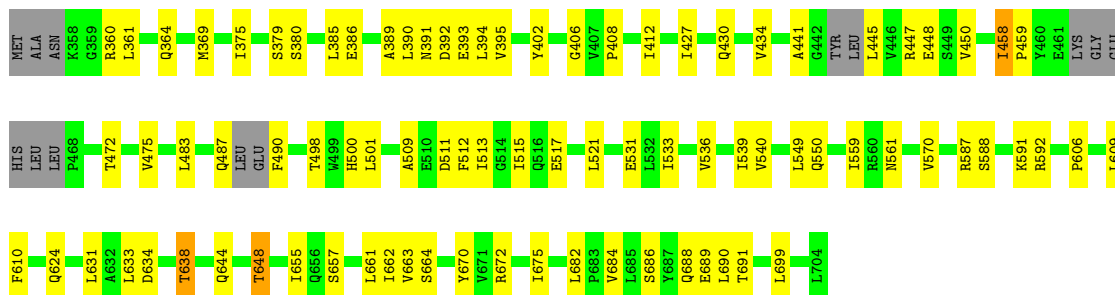
- Molecule 1: Low calcium response locus protein D

Chain EA: 69% 24% 6%



- Molecule 1: Low calcium response locus protein D

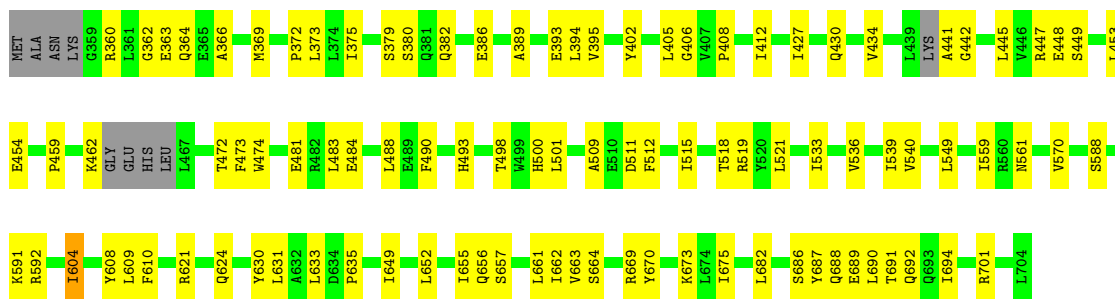
Chain FA: 72% 24% 2%




- Molecule 1: Low calcium response locus protein D

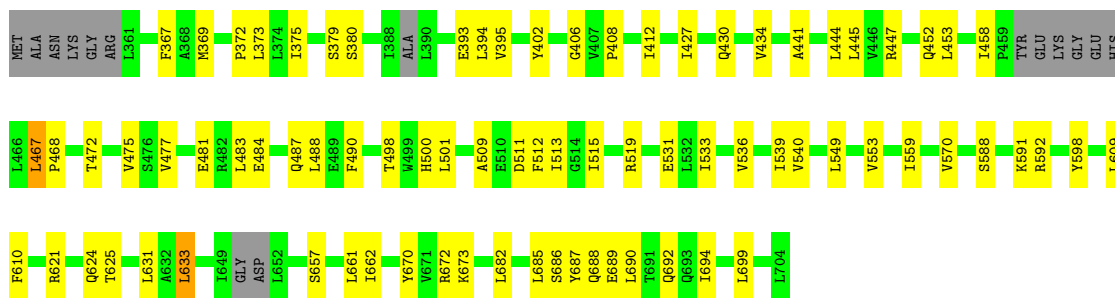


Chain GA:  69% 28%



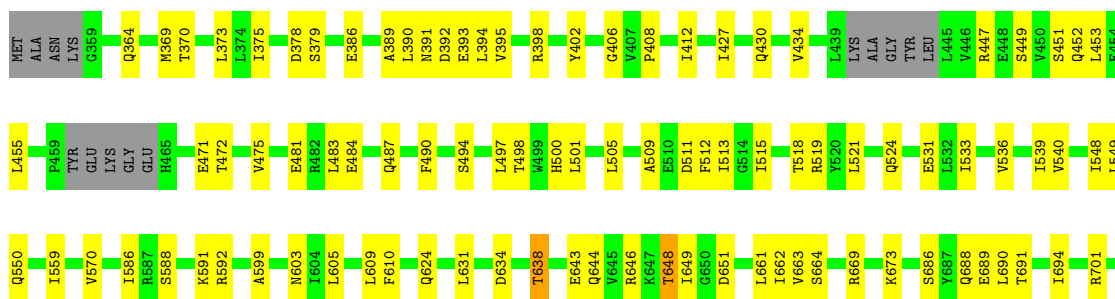
• Molecule 1: Low calcium response locus protein D

Chain HA:  73% 22%



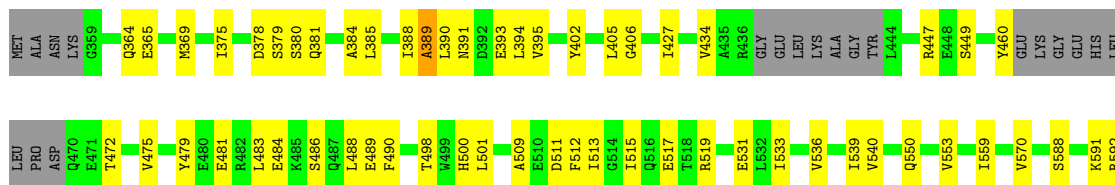
• Molecule 1: Low calcium response locus protein D

Chain IA:  69% 26%



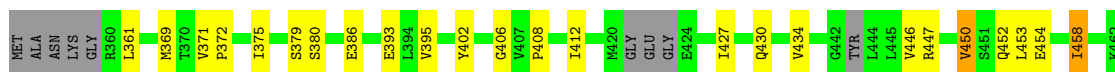
• Molecule 1: Low calcium response locus protein D

Chain JA:  70% 23% 6%

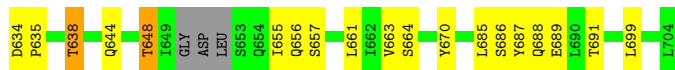




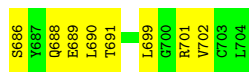
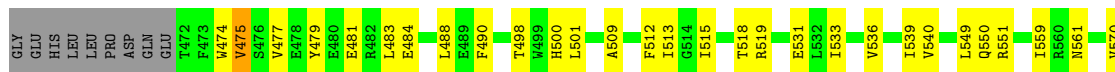
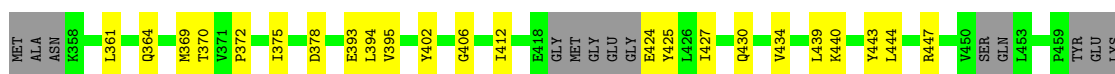
• Molecule 1: Low calcium response locus protein D



• Molecule 1: Low calcium response locus protein D

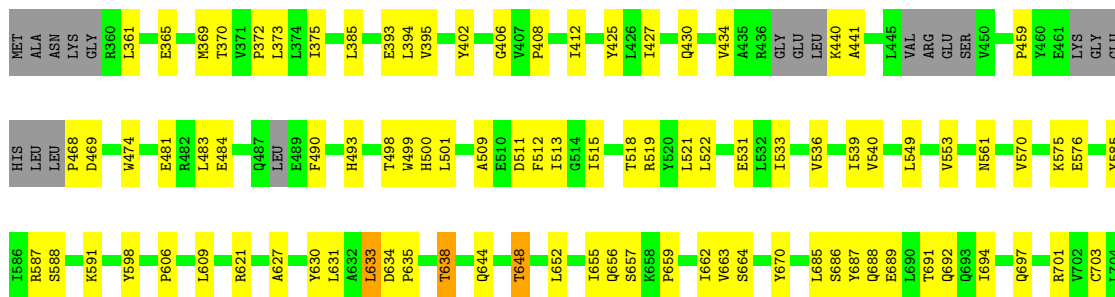


• Molecule 1: Low calcium response locus protein D

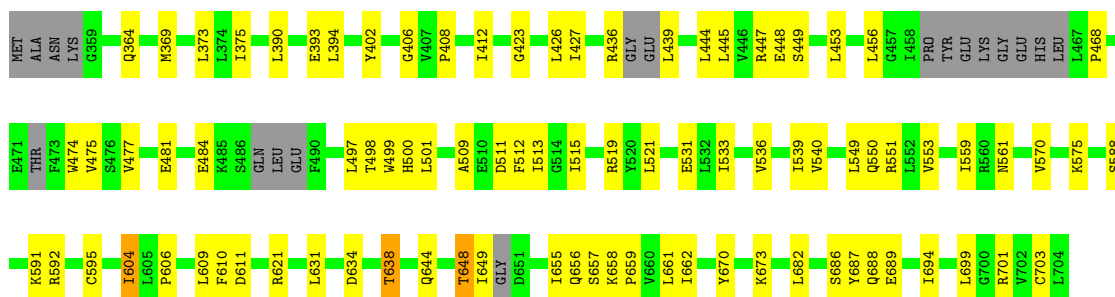


• Molecule 1: Low calcium response locus protein D

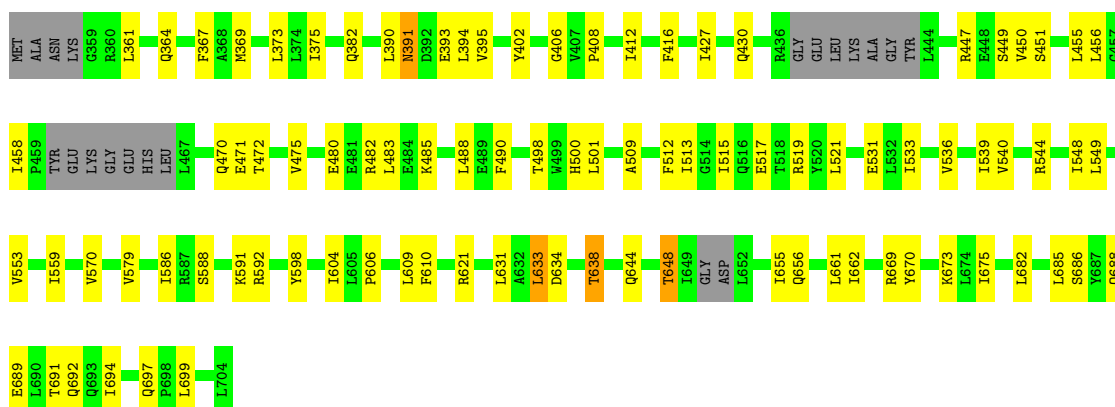




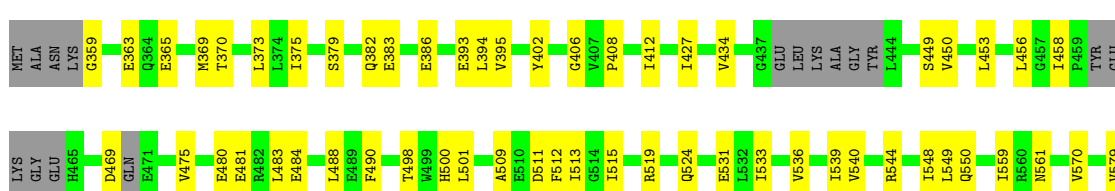
● Molecule 1: Low calcium response locus protein D

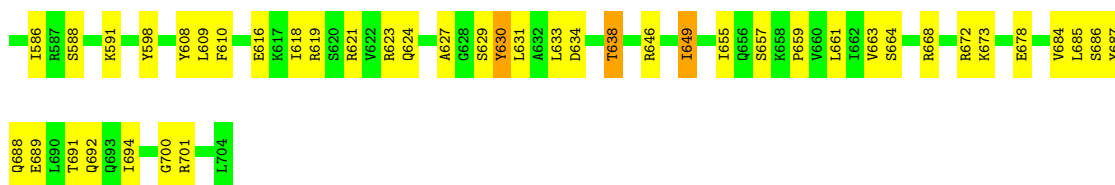


● Molecule 1: Low calcium response locus protein D



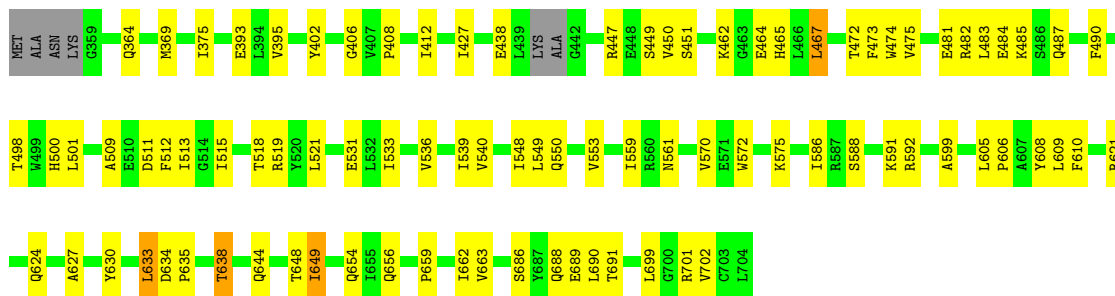
● Molecule 1: Low calcium response locus protein D





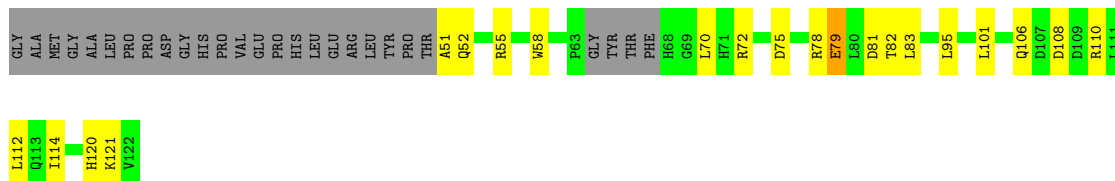
- Molecule 1: Low calcium response locus protein D

Chain RA: 73% 24% ..



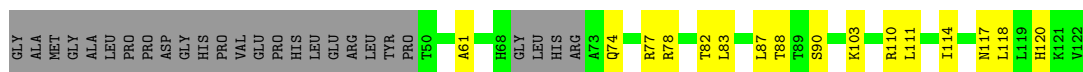
- Molecule 2: Yop proteins translocation protein X

Chain CB: 49% 21% • 28%



- Molecule 2: Yop proteins translocation protein X

Chain JB: 56% 17% 27%



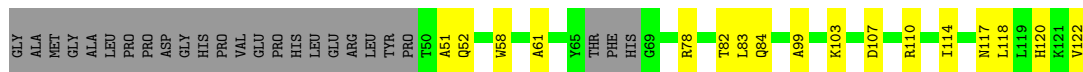
- Molecule 2: Yop proteins translocation protein X

Chain KB: 58% 22% • 19%



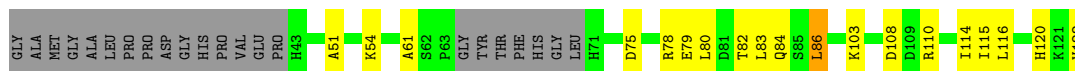
- Molecule 2: Yop proteins translocation protein X

Chain RB: 56% 18% 26%



- Molecule 2: Yop proteins translocation protein X

Chain GB:  57% 19% 23%



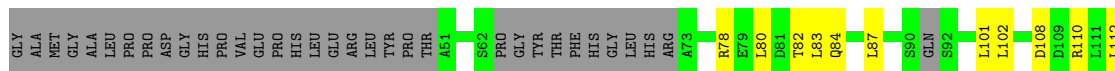
- Molecule 2: Yop proteins translocation protein X

Chain LB:  46% 27% 26%



- Molecule 2: Yop proteins translocation protein X

Chain NB:  44% 19% 36%



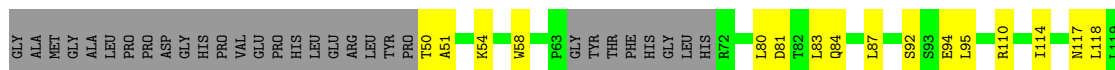
- Molecule 2: Yop proteins translocation protein X

Chain OB:  42% 29% 26%



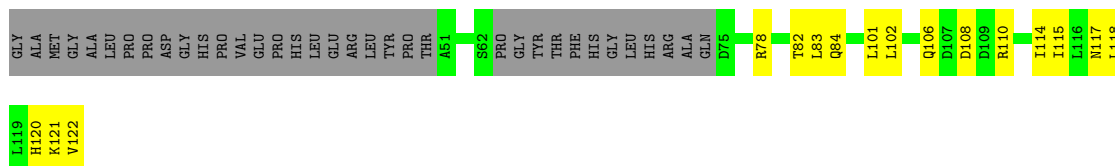
- Molecule 2: Yop proteins translocation protein X

Chain PB:  48% 20% 32%

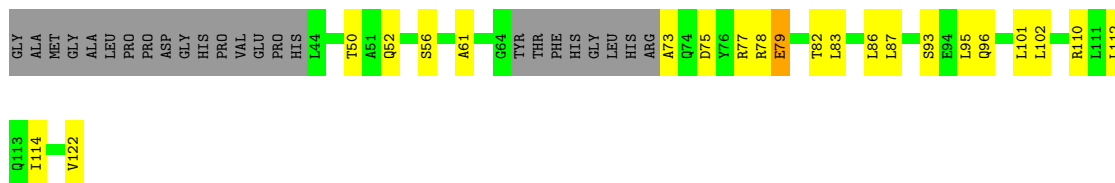


- Molecule 2: Yop proteins translocation protein X

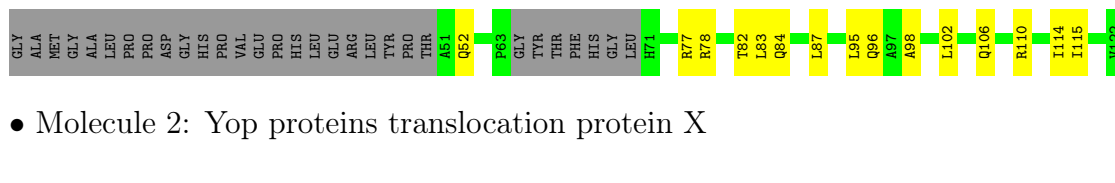
Chain EB:  46% 17% 37%



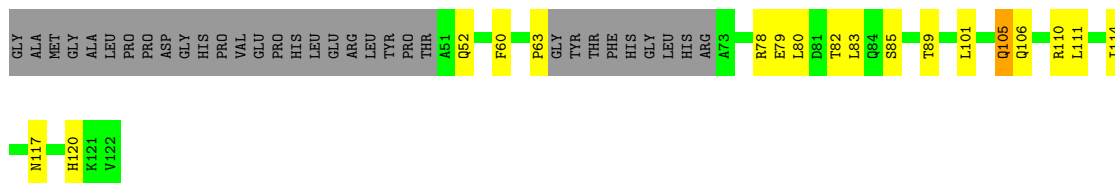
• Molecule 2: Yop proteins translocation protein X



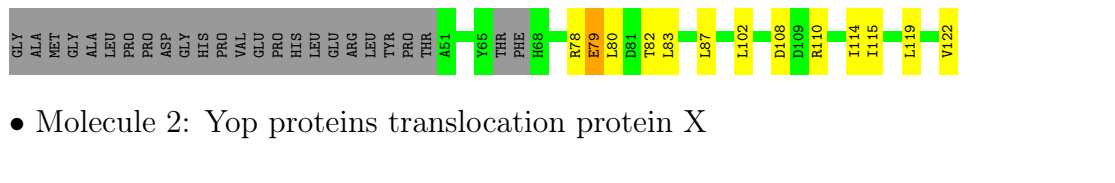
• Molecule 2: Yop proteins translocation protein X



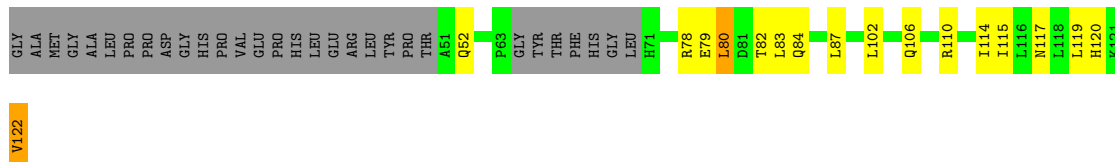
• Molecule 2: Yop proteins translocation protein X



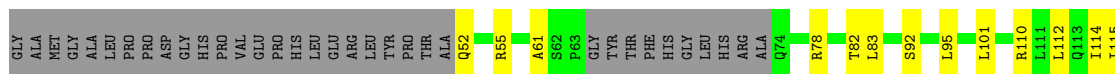
• Molecule 2: Yop proteins translocation protein X



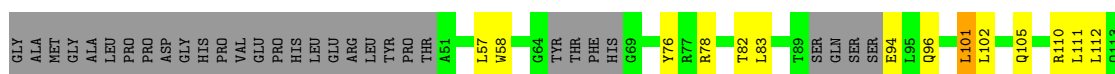
• Molecule 2: Yop proteins translocation protein X



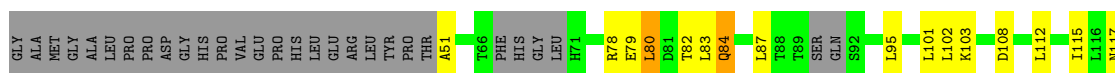
• Molecule 2: Yop proteins translocation protein X



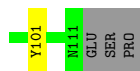
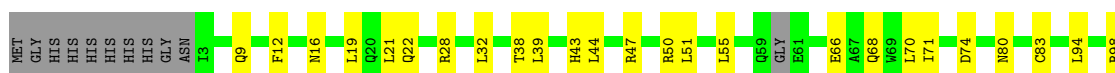
• Molecule 2: Yop proteins translocation protein X



• Molecule 2: Yop proteins translocation protein X



• Molecule 3: Chaperone protein YscY

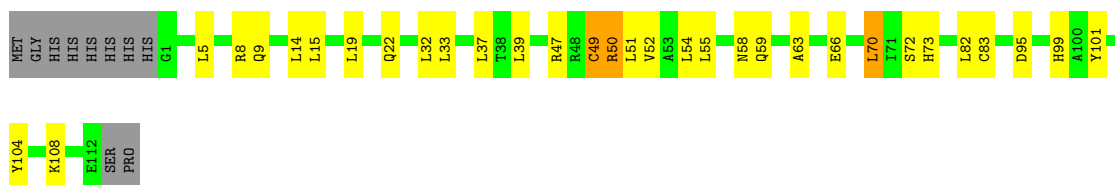


• Molecule 3: Chaperone protein YscY



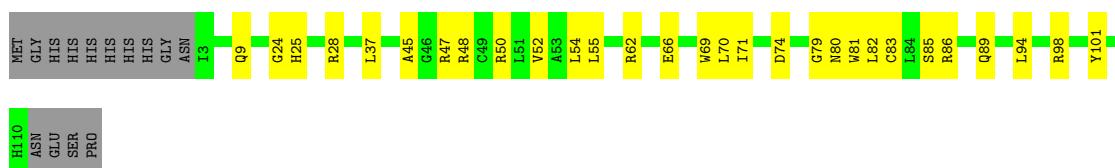
- Molecule 3: Chaperone protein YscY

Chain KC:  66% 24% 8%



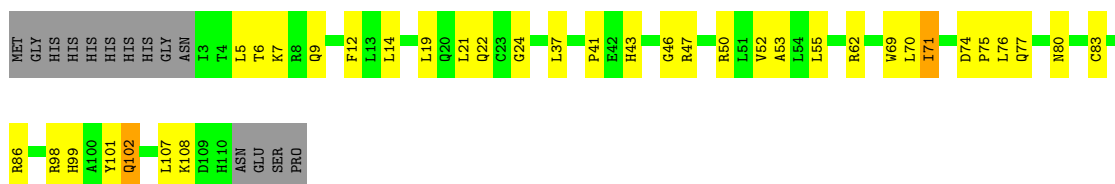
- Molecule 3: Chaperone protein YscY

Chain RC:  65% 24% 11%



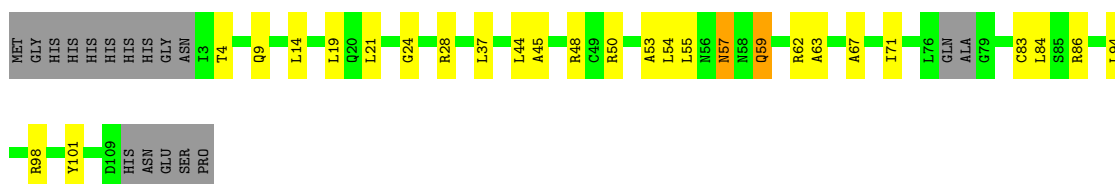
- Molecule 3: Chaperone protein YscY

Chain GC:  59% 28% 11%



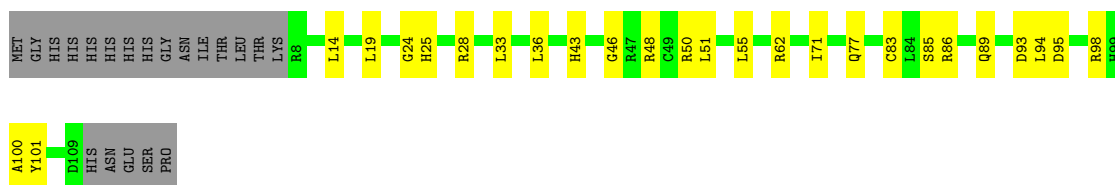
- Molecule 3: Chaperone protein YscY

Chain LC:  64% 20% 14%



- Molecule 3: Chaperone protein YscY

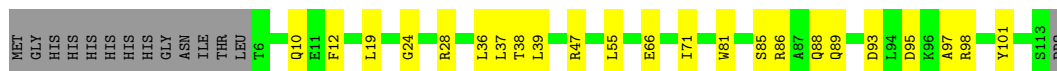
Chain NC:  62% 21% 16%





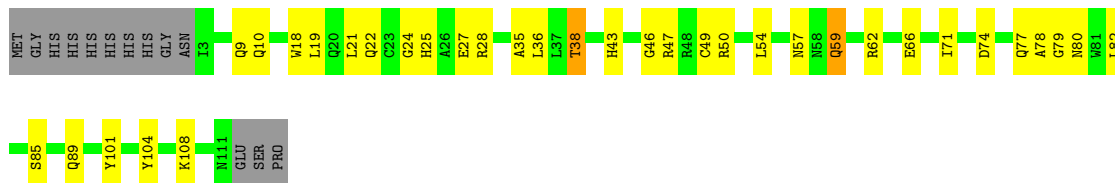
- Molecule 3: Chaperone protein YscY

Chain OC:  70% 19% 11%



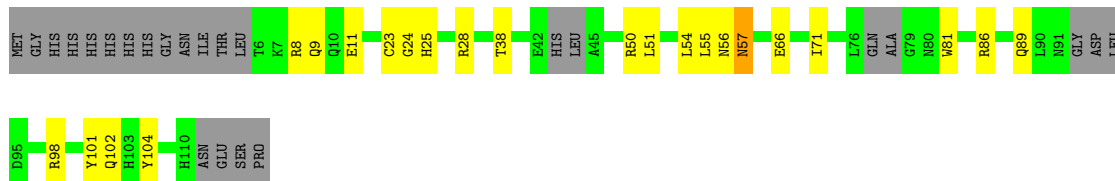
- Molecule 3: Chaperone protein YscY

Chain PC:  61% 27% 11%



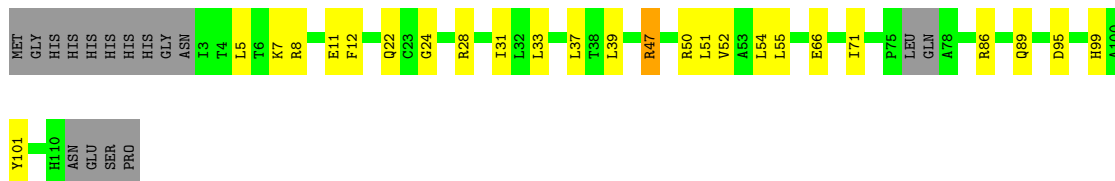
- Molecule 3: Chaperone protein YscY

Chain EC:  61% 18% 20%



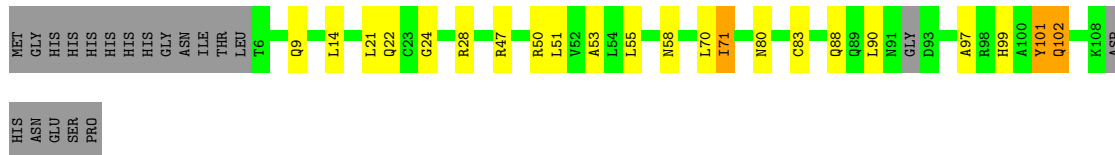
- Molecule 3: Chaperone protein YscY

Chain FC:  66% 20% 13%



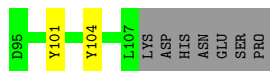
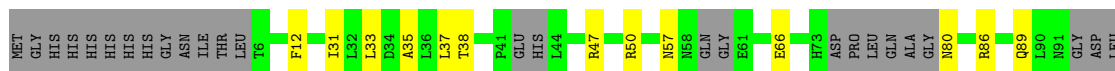
- Molecule 3: Chaperone protein YscY

Chain HC:  66% 16% 16%

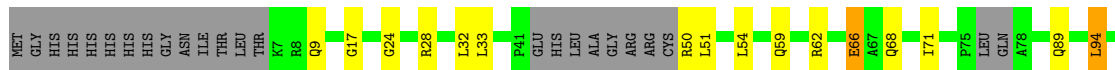


- Molecule 3: Chaperone protein YscY

Chain IC:  61% 12% 27%



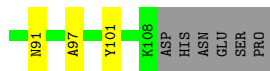
• Molecule 3: Chaperone protein YscY



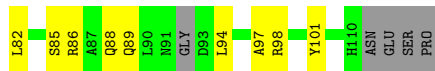
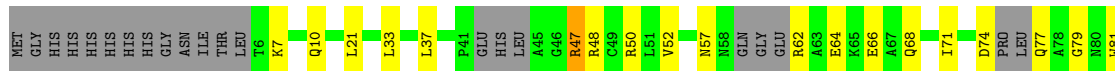
• Molecule 3: Chaperone protein YscY



• Molecule 3: Chaperone protein YscY

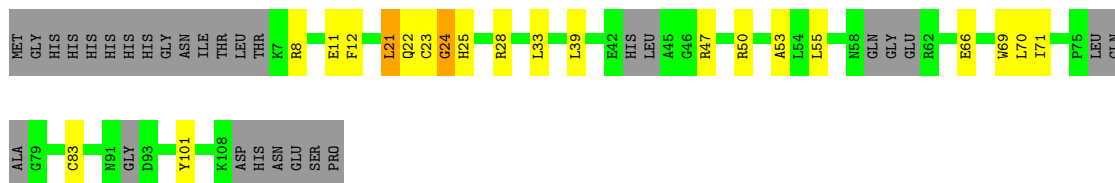


• Molecule 3: Chaperone protein YscY



• Molecule 3: Chaperone protein YscY





## 4 Data and refinement statistics

| Property  | Value   | Source           |
|---|---|------------------|
| Space group   | P 21 21 21  | Depositor        |
| Cell constants<br>a, b, c, $\alpha$ , $\beta$ , $\gamma$                | 143.46Å 324.92Å 369.38Å<br>90.00° 90.00° 90.00°             | Depositor        |
| Resolution (Å)  | 49.83 – 4.10<br>49.83 – 4.10                                | Depositor<br>EDS |
| % Data completeness<br>(in resolution range)                            | 99.6 (49.83-4.10)<br>91.0 (49.83-4.10)                      | Depositor<br>EDS |
| $R_{merge}$   | (Not available)   | Depositor        |
| $R_{sym}$   | (Not available)   | Depositor        |
| $\langle I/\sigma(I) \rangle$ <sup>1</sup>                              | 2.34 (at 4.14Å)   | Xtriage          |
| Refinement program  | PHENIX 1.20.1_4487  | Depositor        |
| R, $R_{free}$   | 0.305 , 0.325<br>0.306 , 0.323                              | Depositor<br>DCC |
| $R_{free}$ test set   | 6770 reflections (5.00%)                                    | wwPDB-VP         |
| Wilson B-factor (Å <sup>2</sup> )                                       | 153.2   | Xtriage          |
| Anisotropy  | 0.664   | Xtriage          |
| Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> ) | (Not available) , (Not available)                           | EDS              |
| L-test for twinning <sup>2</sup>  | $\langle  L  \rangle = 0.47$ , $\langle L^2 \rangle = 0.30$ | Xtriage          |
| Estimated twinning fraction   | No twinning to report.                                      | Xtriage          |
| $F_o, F_c$ correlation  | 0.75  | EDS              |
| Total number of atoms   | 73488   | wwPDB-VP         |
| Average B, all atoms (Å <sup>2</sup> )                                  | 193.0   | wwPDB-VP         |

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.90% of the height of the origin peak. No significant pseudotranslation is detected.*

<sup>1</sup>Intensities estimated from amplitudes.

<sup>2</sup>Theoretical values of  $\langle |L| \rangle$ ,  $\langle L^2 \rangle$  for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

## 5 Model quality [i](#)

### 5.1 Standard geometry [i](#)

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

| Mol | Chain | Bond lengths |         | Bond angles |              |
|-----|-------|--------------|---------|-------------|--------------|
|     |       | RMSZ         | # Z  >5 | RMSZ        | # Z  >5      |
| 1   | AA    | 0.24         | 0/2667  | 0.49        | 0/3597       |
| 1   | BA    | 0.24         | 0/2731  | 0.50        | 0/3689       |
| 1   | CA    | 0.24         | 0/2838  | 0.51        | 0/3832       |
| 1   | DA    | 0.24         | 0/2704  | 0.50        | 0/3652       |
| 1   | EA    | 0.24         | 0/2725  | 0.49        | 0/3674       |
| 1   | FA    | 0.24         | 0/2779  | 0.50        | 0/3749       |
| 1   | GA    | 0.25         | 0/2817  | 0.52        | 0/3805       |
| 1   | HA    | 0.24         | 0/2770  | 0.49        | 0/3741       |
| 1   | IA    | 0.24         | 0/2775  | 0.50        | 0/3749       |
| 1   | JA    | 0.24         | 0/2732  | 0.50        | 0/3690       |
| 1   | KA    | 0.25         | 0/2778  | 0.50        | 0/3749       |
| 1   | LA    | 0.24         | 0/2777  | 0.50        | 0/3749       |
| 1   | MA    | 0.24         | 0/2673  | 0.51        | 0/3607       |
| 1   | NA    | 0.24         | 0/2741  | 0.50        | 0/3699       |
| 1   | OA    | 0.24         | 0/2734  | 0.50        | 0/3687       |
| 1   | PA    | 0.24         | 0/2730  | 0.50        | 0/3687       |
| 1   | QA    | 0.24         | 0/2756  | 0.50        | 0/3722       |
| 1   | RA    | 0.25         | 0/2845  | 0.51        | 0/3844       |
| 2   | AB    | 0.24         | 0/569   | 0.53        | 0/765        |
| 2   | BB    | 0.24         | 0/529   | 0.57        | 0/711        |
| 2   | CB    | 0.25         | 0/552   | 0.55        | 0/742        |
| 2   | DB    | 0.24         | 0/497   | 0.53        | 0/668        |
| 2   | EB    | 0.24         | 0/485   | 0.52        | 0/651        |
| 2   | FB    | 0.25         | 0/581   | 0.57        | 0/783        |
| 2   | GB    | 0.24         | 0/604   | 0.62        | 1/814 (0.1%) |
| 2   | HB    | 0.25         | 0/529   | 0.54        | 0/711        |
| 2   | IB    | 0.25         | 0/507   | 0.54        | 0/682        |
| 2   | JB    | 0.25         | 0/561   | 0.50        | 0/756        |
| 2   | KB    | 0.25         | 0/633   | 0.60        | 1/853 (0.1%) |
| 2   | LB    | 0.26         | 0/579   | 0.59        | 0/781        |
| 2   | MB    | 0.24         | 0/517   | 0.54        | 1/693 (0.1%) |
| 2   | NB    | 0.26         | 0/489   | 0.62        | 0/655        |
| 2   | OB    | 0.24         | 0/569   | 0.56        | 0/765        |
| 2   | PB    | 0.24         | 0/525   | 0.55        | 0/706        |

| Mol | Chain | Bond lengths |         | Bond angles |                 |
|-----|-------|--------------|---------|-------------|-----------------|
|     |       | RMSZ         | # Z  >5 | RMSZ        | # Z  >5         |
| 2   | QB    | 0.25         | 0/537   | 0.55        | 0/721           |
| 2   | RB    | 0.25         | 0/565   | 0.52        | 0/760           |
| 3   | AC    | 0.23         | 0/766   | 0.48        | 0/1033          |
| 3   | BC    | 0.23         | 0/783   | 0.47        | 0/1056          |
| 3   | CC    | 0.23         | 0/894   | 0.49        | 0/1208          |
| 3   | DC    | 0.23         | 0/829   | 0.50        | 0/1118          |
| 3   | EC    | 0.22         | 0/812   | 0.48        | 0/1092          |
| 3   | FC    | 0.23         | 0/873   | 0.49        | 0/1179          |
| 3   | GC    | 0.23         | 0/897   | 0.50        | 0/1213          |
| 3   | HC    | 0.24         | 0/844   | 0.50        | 0/1139          |
| 3   | IC    | 0.23         | 0/741   | 0.50        | 0/995           |
| 3   | JC    | 0.24         | 0/900   | 0.49        | 0/1216          |
| 3   | KC    | 0.26         | 0/920   | 0.56        | 0/1244          |
| 3   | LC    | 0.24         | 0/865   | 0.53        | 0/1168          |
| 3   | MC    | 0.23         | 0/794   | 0.49        | 0/1066          |
| 3   | NC    | 0.23         | 0/841   | 0.49        | 0/1137          |
| 3   | OC    | 0.23         | 0/891   | 0.45        | 0/1204          |
| 3   | PC    | 0.24         | 0/899   | 0.50        | 0/1216          |
| 3   | QC    | 0.22         | 0/771   | 0.46        | 0/1035          |
| 3   | RC    | 0.24         | 0/897   | 0.50        | 0/1213          |
| All | All   | 0.24         | 0/74617 | 0.51        | 3/100671 (0.0%) |

There are no bond length outliers.

All (3) bond angle outliers are listed below:

| Mol | Chain | Res | Type | Atoms    | Z    | Observed(°) | Ideal(°) |
|-----|-------|-----|------|----------|------|-------------|----------|
| 2   | GB    | 86  | LEU  | CA-CB-CG | 6.65 | 130.60      | 115.30   |
| 2   | MB    | 101 | LEU  | CA-CB-CG | 5.39 | 127.70      | 115.30   |
| 2   | KB    | 83  | LEU  | CA-CB-CG | 5.06 | 126.95      | 115.30   |

There are no chirality outliers.

There are no planarity outliers.

## 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   | AA    | 2628  | 0        | 2660     | 58      | 0            |
| 1   | BA    | 2688  | 0        | 2723     | 57      | 0            |
| 1   | CA    | 2792  | 0        | 2814     | 73      | 0            |
| 1   | DA    | 2661  | 0        | 2673     | 66      | 0            |
| 1   | EA    | 2684  | 0        | 2705     | 54      | 0            |
| 1   | FA    | 2736  | 0        | 2757     | 55      | 0            |
| 1   | GA    | 2772  | 0        | 2792     | 67      | 0            |
| 1   | HA    | 2727  | 0        | 2759     | 51      | 0            |
| 1   | IA    | 2731  | 0        | 2754     | 63      | 0            |
| 1   | JA    | 2689  | 0        | 2714     | 57      | 0            |
| 1   | KA    | 2736  | 0        | 2772     | 63      | 0            |
| 1   | LA    | 2734  | 0        | 2761     | 59      | 0            |
| 1   | MA    | 2632  | 0        | 2673     | 59      | 0            |
| 1   | NA    | 2698  | 0        | 2713     | 63      | 0            |
| 1   | OA    | 2694  | 0        | 2723     | 63      | 0            |
| 1   | PA    | 2688  | 0        | 2719     | 61      | 0            |
| 1   | QA    | 2713  | 0        | 2739     | 73      | 0            |
| 1   | RA    | 2798  | 0        | 2815     | 66      | 0            |
| 2   | AB    | 562   | 0        | 560      | 11      | 0            |
| 2   | BB    | 524   | 0        | 527      | 13      | 0            |
| 2   | CB    | 546   | 0        | 548      | 18      | 0            |
| 2   | DB    | 493   | 0        | 497      | 11      | 0            |
| 2   | EB    | 482   | 0        | 487      | 14      | 0            |
| 2   | FB    | 572   | 0        | 579      | 20      | 0            |
| 2   | GB    | 596   | 0        | 598      | 10      | 0            |
| 2   | HB    | 524   | 0        | 527      | 13      | 0            |
| 2   | IB    | 503   | 0        | 507      | 13      | 0            |
| 2   | JB    | 554   | 0        | 549      | 10      | 0            |
| 2   | KB    | 624   | 0        | 624      | 20      | 0            |
| 2   | LB    | 569   | 0        | 571      | 22      | 0            |
| 2   | MB    | 513   | 0        | 520      | 13      | 0            |
| 2   | NB    | 487   | 0        | 491      | 14      | 0            |
| 2   | OB    | 562   | 0        | 560      | 23      | 0            |
| 2   | PB    | 521   | 0        | 527      | 15      | 0            |
| 2   | QB    | 532   | 0        | 532      | 15      | 0            |
| 2   | RB    | 559   | 0        | 560      | 15      | 0            |
| 3   | AC    | 754   | 0        | 744      | 11      | 0            |
| 3   | BC    | 771   | 0        | 757      | 16      | 0            |
| 3   | CC    | 879   | 0        | 873      | 18      | 0            |
| 3   | DC    | 817   | 0        | 823      | 17      | 0            |
| 3   | EC    | 800   | 0        | 790      | 17      | 0            |
| 3   | FC    | 858   | 0        | 851      | 21      | 0            |
| 3   | GC    | 878   | 0        | 876      | 30      | 0            |

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| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 3   | HC    | 830   | 0        | 827      | 12      | 0            |
| 3   | IC    | 732   | 0        | 734      | 10      | 0            |
| 3   | JC    | 883   | 0        | 866      | 22      | 0            |
| 3   | KC    | 904   | 0        | 895      | 24      | 0            |
| 3   | LC    | 851   | 0        | 850      | 22      | 0            |
| 3   | MC    | 784   | 0        | 776      | 19      | 0            |
| 3   | NC    | 826   | 0        | 815      | 19      | 0            |
| 3   | OC    | 875   | 0        | 859      | 15      | 0            |
| 3   | PC    | 883   | 0        | 877      | 26      | 0            |
| 3   | QC    | 761   | 0        | 758      | 14      | 0            |
| 3   | RC    | 878   | 0        | 876      | 17      | 0            |
| All | All   | 73488 | 0        | 73877    | 1436    | 0            |

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 10.

The worst 5 of 1436 close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

| Atom-1           | Atom-2            | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 1:QA:687:TYR:HB3 | 2:QB:119:LEU:HD11 | 1.44                     | 0.96              |
| 2:EB:84:GLN:HE22 | 2:EB:106:GLN:HB2  | 1.30                     | 0.94              |
| 1:AA:687:TYR:HB3 | 2:AB:119:LEU:HD11 | 1.53                     | 0.90              |
| 2:BB:87:LEU:HD12 | 2:BB:102:LEU:HD12 | 1.59                     | 0.84              |
| 1:LA:627:ALA:HB2 | 1:MA:575:LYS:HD3  | 1.60                     | 0.82              |

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 X-ray entries followed by that with respect to entries of similar resolution.

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

| Mol | Chain | Analysed      | Favoured  | Allowed | Outliers | Percentiles |
|-----|-------|---------------|-----------|---------|----------|-------------|
| 1   | AA    | 311/350 (89%) | 283 (91%) | 27 (9%) | 1 (0%)   | 41 75       |

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| Mol | Chain | Analysed      | Favoured  | Allowed  | Outliers | Percentiles |     |
|-----|-------|---------------|-----------|----------|----------|-------------|-----|
| 1   | BA    | 327/350 (93%) | 302 (92%) | 25 (8%)  | 0        | 100         | 100 |
| 1   | CA    | 337/350 (96%) | 294 (87%) | 41 (12%) | 2 (1%)   | 25          | 63  |
| 1   | DA    | 318/350 (91%) | 288 (91%) | 30 (9%)  | 0        | 100         | 100 |
| 1   | EA    | 317/350 (91%) | 289 (91%) | 28 (9%)  | 0        | 100         | 100 |
| 1   | FA    | 329/350 (94%) | 299 (91%) | 30 (9%)  | 0        | 100         | 100 |
| 1   | GA    | 335/350 (96%) | 298 (89%) | 37 (11%) | 0        | 100         | 100 |
| 1   | HA    | 327/350 (93%) | 294 (90%) | 33 (10%) | 0        | 100         | 100 |
| 1   | IA    | 330/350 (94%) | 296 (90%) | 32 (10%) | 2 (1%)   | 25          | 63  |
| 1   | JA    | 324/350 (93%) | 289 (89%) | 34 (10%) | 1 (0%)   | 41          | 75  |
| 1   | KA    | 325/350 (93%) | 296 (91%) | 27 (8%)  | 2 (1%)   | 25          | 63  |
| 1   | LA    | 328/350 (94%) | 298 (91%) | 30 (9%)  | 0        | 100         | 100 |
| 1   | MA    | 312/350 (89%) | 276 (88%) | 36 (12%) | 0        | 100         | 100 |
| 1   | NA    | 321/350 (92%) | 290 (90%) | 31 (10%) | 0        | 100         | 100 |
| 1   | OA    | 319/350 (91%) | 284 (89%) | 35 (11%) | 0        | 100         | 100 |
| 1   | PA    | 322/350 (92%) | 284 (88%) | 37 (12%) | 1 (0%)   | 41          | 75  |
| 1   | QA    | 326/350 (93%) | 292 (90%) | 33 (10%) | 1 (0%)   | 41          | 75  |
| 1   | RA    | 340/350 (97%) | 299 (88%) | 40 (12%) | 1 (0%)   | 41          | 75  |
| 2   | AB    | 66/95 (70%)   | 61 (92%)  | 5 (8%)   | 0        | 100         | 100 |
| 2   | BB    | 61/95 (64%)   | 57 (93%)  | 4 (7%)   | 0        | 100         | 100 |
| 2   | CB    | 64/95 (67%)   | 59 (92%)  | 4 (6%)   | 1 (2%)   | 9           | 43  |
| 2   | DB    | 57/95 (60%)   | 55 (96%)  | 2 (4%)   | 0        | 100         | 100 |
| 2   | EB    | 56/95 (59%)   | 54 (96%)  | 2 (4%)   | 0        | 100         | 100 |
| 2   | FB    | 68/95 (72%)   | 64 (94%)  | 4 (6%)   | 0        | 100         | 100 |
| 2   | GB    | 69/95 (73%)   | 66 (96%)  | 3 (4%)   | 0        | 100         | 100 |
| 2   | HB    | 61/95 (64%)   | 54 (88%)  | 7 (12%)  | 0        | 100         | 100 |
| 2   | IB    | 59/95 (62%)   | 57 (97%)  | 2 (3%)   | 0        | 100         | 100 |
| 2   | JB    | 65/95 (68%)   | 62 (95%)  | 3 (5%)   | 0        | 100         | 100 |
| 2   | KB    | 73/95 (77%)   | 67 (92%)  | 6 (8%)   | 0        | 100         | 100 |
| 2   | LB    | 67/95 (70%)   | 55 (82%)  | 11 (16%) | 1 (2%)   | 10          | 44  |
| 2   | MB    | 58/95 (61%)   | 54 (93%)  | 4 (7%)   | 0        | 100         | 100 |
| 2   | NB    | 55/95 (58%)   | 53 (96%)  | 2 (4%)   | 0        | 100         | 100 |

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| Mol | Chain | Analysed         | Favoured   | Allowed  | Outliers | Percentiles |     |
|-----|-------|------------------|------------|----------|----------|-------------|-----|
| 2   | OB    | 66/95 (70%)      | 63 (96%)   | 3 (4%)   | 0        | 100         | 100 |
| 2   | PB    | 61/95 (64%)      | 54 (88%)   | 7 (12%)  | 0        | 100         | 100 |
| 2   | QB    | 60/95 (63%)      | 58 (97%)   | 2 (3%)   | 0        | 100         | 100 |
| 2   | RB    | 66/95 (70%)      | 63 (96%)   | 3 (4%)   | 0        | 100         | 100 |
| 3   | AC    | 87/122 (71%)     | 80 (92%)   | 7 (8%)   | 0        | 100         | 100 |
| 3   | BC    | 89/122 (73%)     | 84 (94%)   | 4 (4%)   | 1 (1%)   | 14          | 50  |
| 3   | CC    | 104/122 (85%)    | 100 (96%)  | 4 (4%)   | 0        | 100         | 100 |
| 3   | DC    | 95/122 (78%)     | 89 (94%)   | 5 (5%)   | 1 (1%)   | 14          | 50  |
| 3   | EC    | 90/122 (74%)     | 84 (93%)   | 6 (7%)   | 0        | 100         | 100 |
| 3   | FC    | 102/122 (84%)    | 93 (91%)   | 9 (9%)   | 0        | 100         | 100 |
| 3   | GC    | 107/122 (88%)    | 97 (91%)   | 10 (9%)  | 0        | 100         | 100 |
| 3   | HC    | 98/122 (80%)     | 90 (92%)   | 7 (7%)   | 1 (1%)   | 15          | 52  |
| 3   | IC    | 79/122 (65%)     | 74 (94%)   | 5 (6%)   | 0        | 100         | 100 |
| 3   | JC    | 107/122 (88%)    | 99 (92%)   | 7 (6%)   | 1 (1%)   | 17          | 54  |
| 3   | KC    | 110/122 (90%)    | 105 (96%)  | 5 (4%)   | 0        | 100         | 100 |
| 3   | LC    | 101/122 (83%)    | 95 (94%)   | 6 (6%)   | 0        | 100         | 100 |
| 3   | MC    | 86/122 (70%)     | 82 (95%)   | 4 (5%)   | 0        | 100         | 100 |
| 3   | NC    | 100/122 (82%)    | 93 (93%)   | 7 (7%)   | 0        | 100         | 100 |
| 3   | OC    | 106/122 (87%)    | 98 (92%)   | 8 (8%)   | 0        | 100         | 100 |
| 3   | PC    | 107/122 (88%)    | 99 (92%)   | 8 (8%)   | 0        | 100         | 100 |
| 3   | QC    | 83/122 (68%)     | 78 (94%)   | 4 (5%)   | 1 (1%)   | 13          | 48  |
| 3   | RC    | 107/122 (88%)    | 100 (94%)  | 6 (6%)   | 1 (1%)   | 17          | 54  |
| All | All   | 8738/10206 (86%) | 7947 (91%) | 772 (9%) | 19 (0%)  | 47          | 80  |

5 of 19 Ramachandran outliers are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1   | CA    | 469 | ASP  |
| 1   | CA    | 627 | ALA  |
| 1   | PA    | 391 | ASN  |
| 2   | CB    | 120 | HIS  |
| 2   | LB    | 77  | ARG  |

### 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 X-ray entries followed by that with respect to entries of similar resolution.

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

| Mol | Chain | Analysed      | Rotameric | Outliers | Percentiles |     |
|-----|-------|---------------|-----------|----------|-------------|-----|
| 1   | AA    | 290/312 (93%) | 284 (98%) | 6 (2%)   | 53          | 72  |
| 1   | BA    | 296/312 (95%) | 288 (97%) | 8 (3%)   | 44          | 66  |
| 1   | CA    | 307/312 (98%) | 297 (97%) | 10 (3%)  | 38          | 62  |
| 1   | DA    | 294/312 (94%) | 284 (97%) | 10 (3%)  | 37          | 61  |
| 1   | EA    | 296/312 (95%) | 288 (97%) | 8 (3%)   | 44          | 66  |
| 1   | FA    | 301/312 (96%) | 292 (97%) | 9 (3%)   | 41          | 64  |
| 1   | GA    | 305/312 (98%) | 297 (97%) | 8 (3%)   | 46          | 67  |
| 1   | HA    | 302/312 (97%) | 294 (97%) | 8 (3%)   | 46          | 67  |
| 1   | IA    | 302/312 (97%) | 297 (98%) | 5 (2%)   | 60          | 78  |
| 1   | JA    | 297/312 (95%) | 288 (97%) | 9 (3%)   | 41          | 64  |
| 1   | KA    | 303/312 (97%) | 294 (97%) | 9 (3%)   | 41          | 64  |
| 1   | LA    | 302/312 (97%) | 294 (97%) | 8 (3%)   | 46          | 67  |
| 1   | MA    | 290/312 (93%) | 280 (97%) | 10 (3%)  | 37          | 61  |
| 1   | NA    | 297/312 (95%) | 289 (97%) | 8 (3%)   | 44          | 66  |
| 1   | OA    | 297/312 (95%) | 291 (98%) | 6 (2%)   | 55          | 73  |
| 1   | PA    | 298/312 (96%) | 288 (97%) | 10 (3%)  | 37          | 61  |
| 1   | QA    | 300/312 (96%) | 290 (97%) | 10 (3%)  | 38          | 62  |
| 1   | RA    | 308/312 (99%) | 299 (97%) | 9 (3%)   | 42          | 64  |
| 2   | AB    | 61/81 (75%)   | 59 (97%)  | 2 (3%)   | 38          | 62  |
| 2   | BB    | 58/81 (72%)   | 55 (95%)  | 3 (5%)   | 23          | 51  |
| 2   | CB    | 60/81 (74%)   | 59 (98%)  | 1 (2%)   | 60          | 78  |
| 2   | DB    | 56/81 (69%)   | 55 (98%)  | 1 (2%)   | 59          | 77  |
| 2   | EB    | 54/81 (67%)   | 54 (100%) | 0        | 100         | 100 |
| 2   | FB    | 64/81 (79%)   | 61 (95%)  | 3 (5%)   | 26          | 53  |
| 2   | GB    | 66/81 (82%)   | 62 (94%)  | 4 (6%)   | 18          | 47  |
| 2   | HB    | 58/81 (72%)   | 58 (100%) | 0        | 100         | 100 |

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| Mol | Chain | Analysed        | Rotameric  | Outliers | Percentiles |     |
|-----|-------|-----------------|------------|----------|-------------|-----|
| 2   | IB    | 56/81 (69%)     | 55 (98%)   | 1 (2%)   | 59          | 77  |
| 2   | JB    | 61/81 (75%)     | 61 (100%)  | 0        | 100         | 100 |
| 2   | KB    | 68/81 (84%)     | 68 (100%)  | 0        | 100         | 100 |
| 2   | LB    | 64/81 (79%)     | 64 (100%)  | 0        | 100         | 100 |
| 2   | MB    | 55/81 (68%)     | 53 (96%)   | 2 (4%)   | 35          | 60  |
| 2   | NB    | 54/81 (67%)     | 53 (98%)   | 1 (2%)   | 57          | 75  |
| 2   | OB    | 61/81 (75%)     | 59 (97%)   | 2 (3%)   | 38          | 62  |
| 2   | PB    | 58/81 (72%)     | 58 (100%)  | 0        | 100         | 100 |
| 2   | QB    | 58/81 (72%)     | 55 (95%)   | 3 (5%)   | 23          | 51  |
| 2   | RB    | 61/81 (75%)     | 60 (98%)   | 1 (2%)   | 62          | 78  |
| 3   | AC    | 78/103 (76%)    | 75 (96%)   | 3 (4%)   | 33          | 59  |
| 3   | BC    | 81/103 (79%)    | 78 (96%)   | 3 (4%)   | 34          | 59  |
| 3   | CC    | 92/103 (89%)    | 89 (97%)   | 3 (3%)   | 38          | 62  |
| 3   | DC    | 85/103 (82%)    | 81 (95%)   | 4 (5%)   | 26          | 53  |
| 3   | EC    | 83/103 (81%)    | 79 (95%)   | 4 (5%)   | 25          | 53  |
| 3   | FC    | 89/103 (86%)    | 86 (97%)   | 3 (3%)   | 37          | 61  |
| 3   | GC    | 92/103 (89%)    | 88 (96%)   | 4 (4%)   | 29          | 56  |
| 3   | HC    | 86/103 (84%)    | 82 (95%)   | 4 (5%)   | 26          | 53  |
| 3   | IC    | 76/103 (74%)    | 74 (97%)   | 2 (3%)   | 46          | 67  |
| 3   | JC    | 92/103 (89%)    | 87 (95%)   | 5 (5%)   | 22          | 50  |
| 3   | KC    | 94/103 (91%)    | 90 (96%)   | 4 (4%)   | 29          | 56  |
| 3   | LC    | 89/103 (86%)    | 86 (97%)   | 3 (3%)   | 37          | 61  |
| 3   | MC    | 81/103 (79%)    | 77 (95%)   | 4 (5%)   | 25          | 52  |
| 3   | NC    | 85/103 (82%)    | 83 (98%)   | 2 (2%)   | 49          | 69  |
| 3   | OC    | 91/103 (88%)    | 88 (97%)   | 3 (3%)   | 38          | 62  |
| 3   | PC    | 92/103 (89%)    | 87 (95%)   | 5 (5%)   | 22          | 50  |
| 3   | QC    | 79/103 (77%)    | 76 (96%)   | 3 (4%)   | 33          | 59  |
| 3   | RC    | 92/103 (89%)    | 90 (98%)   | 2 (2%)   | 52          | 71  |
| All | All   | 8015/8928 (90%) | 7779 (97%) | 236 (3%) | 42          | 64  |

5 of 236 residues with a non-rotameric sidechain are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1   | NA    | 648 | THR  |
| 3   | DC    | 38  | THR  |
| 1   | RA    | 395 | VAL  |
| 2   | DB    | 122 | VAL  |
| 3   | FC    | 71  | ILE  |

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 18 such sidechains are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 2   | FB    | 106 | GLN  |
| 2   | BB    | 106 | GLN  |
| 2   | IB    | 105 | GLN  |
| 3   | RC    | 25  | HIS  |
| 2   | EB    | 84  | GLN  |

### 5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

### 5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

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

There are no ligands in this entry.

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

There are no such residues in this entry.

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

There are no chain breaks in this entry.

## 6 Fit of model and data

### 6.1 Protein, DNA and RNA chains

Unable to reproduce the depositors R factor - this section is therefore empty.

### 6.2 Non-standard residues in protein, DNA, RNA chains

Unable to reproduce the depositors R factor - this section is therefore empty.

### 6.3 Carbohydrates

Unable to reproduce the depositors R factor - this section is therefore empty.

### 6.4 Ligands

Unable to reproduce the depositors R factor - this section is therefore empty.

### 6.5 Other polymers

Unable to reproduce the depositors R factor - this section is therefore empty.