



Full wwPDB X-ray Structure Validation Report ⓘ

Jul 29, 2024 – 07:34 PM EDT

PDB ID : 8UVR
Title : Crystal structure of the wild-type *Thermus thermophilus* 70S ribosome in complex with spectinomycin, mRNA, deacylated A- and E-site tRNA^{phe}, and deacylated P-site tRNA^{met} at 2.60Å resolution
Authors : Killam, B.Y.; Phelps, G.A.; Lee, R.E.; Polikanov, Y.S.
Deposited on : 2023-11-03
Resolution : 2.60 Å(reported)

This is a Full wwPDB X-ray Structure Validation 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/XrayValidationReportHelp>

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:

MolProbity : 4.02b-467
Mogul : 1.8.5 (274361), CSD as541be (2020)
Xtrriage (Phenix) : 1.13
EDS : 2.37.1
buster-report : 1.1.7 (2018)
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac : 5.8.0158
CCP4 : 7.0.044 (Gargrove)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.37.1

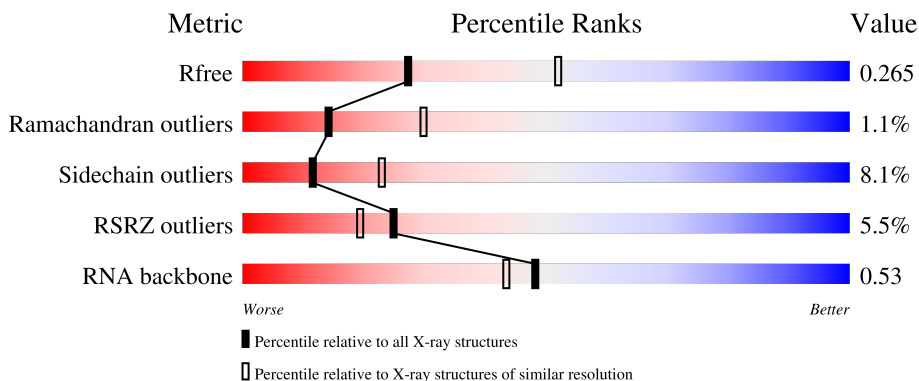
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.60 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 | 3163 (2.60-2.60) |
| Ramachandran outliers | 138981 | 3455 (2.60-2.60) |
| Sidechain outliers | 138945 | 3455 (2.60-2.60) |
| RSRZ outliers | 127900 | 3104 (2.60-2.60) |
| RNA backbone | 3102 | 1040 (2.90-2.30) |

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 ≥ 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 electron density. The numeric value is given above the bar.

| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 1 | 1A | 2915 | 82% 16% .. |
| 1 | 2A | 2915 | 79% 17% . |
| 2 | 1B | 121 | 91% 8% . |
| 2 | 2B | 121 | 79% 20% . |

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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 3 | 1D | 276 | 95% 5% |
| 3 | 2D | 276 | 96% 4% |
| 4 | 1E | 206 | 94% 5% |
| 4 | 2E | 206 | 94% 5% |
| 5 | 1F | 210 | 90% 6% |
| 5 | 2F | 210 | 91% 5% |
| 6 | 1G | 182 | 90% 9% |
| 6 | 2G | 182 | 88% 11% |
| 7 | 1H | 180 | 89% 7% |
| 7 | 2H | 180 | 86% 11% |
| 8 | 1I | 148 | 85% 14% |
| 8 | 2I | 148 | 89% 10% |
| 9 | 1N | 140 | 92% 8% |
| 9 | 2N | 140 | 94% 6% |
| 10 | 1O | 122 | 98% |
| 10 | 2O | 122 | 97% |
| 11 | 1P | 150 | 93% 7% |
| 11 | 2P | 150 | 91% 8% |
| 12 | 1Q | 141 | 96% |
| 12 | 2Q | 141 | 99% |
| 13 | 1R | 118 | 99% |
| 13 | 2R | 118 | 94% 6% |
| 14 | 1S | 112 | 90% 8% |
| 14 | 2S | 112 | 91% 7% |
| 15 | 1T | 146 | 85% 5% 10% |

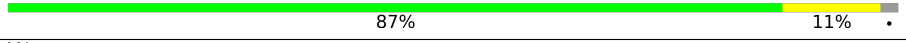
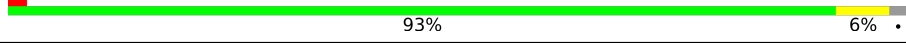


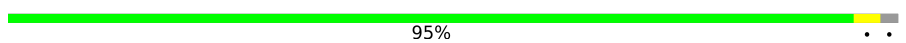
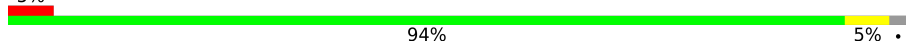
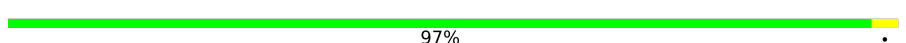




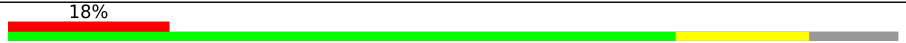




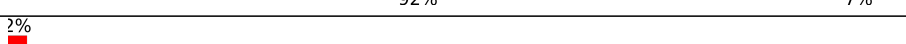
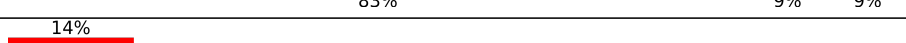

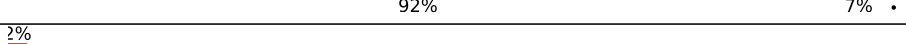
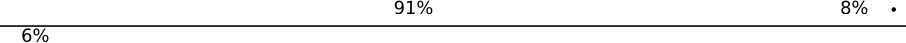
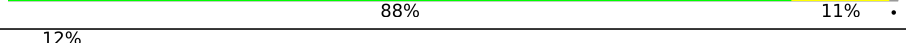

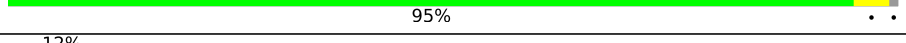
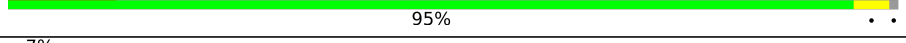
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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 15 | 2T | 146 | 7% 84% 6% 10% |
| 16 | 1U | 118 | 95% .. |
| 16 | 2U | 118 | 3% 96% ... |
| 17 | 1V | 101 | 96% .. |
| 17 | 2V | 101 | 7% 95% 5% |
| 18 | 1W | 113 | 3% 96% .. |
| 18 | 2W | 113 | 3% 96% .. |
| 19 | 1X | 96 | % 96% .. |
| 19 | 2X | 96 | 6% 94% 5% . |
| 20 | 1Y | 110 | % 90% 7% . |
| 20 | 2Y | 110 | 23% 88% 9% . |
| 21 | 1Z | 206 | 3% 68% 6% 25% |
| 21 | 2Z | 206 | 27% 66% 12% 22% |
| 22 | 10 | 85 | 5% 94% .. |
| 22 | 20 | 85 | 15% 94% .. |
| 23 | 11 | 98 | 2% 96% .. |
| 23 | 21 | 98 | 5% 95% .. |
| 24 | 12 | 72 | 89% 8% . |
| 24 | 22 | 72 | 3% 89% 8% . |
| 25 | 13 | 60 | 92% 7% . |
| 25 | 23 | 60 | 22% 93% 5% . |
| 26 | 14 | 71 | 3% 77% 17% .. |
| 26 | 24 | 71 | 20% 77% 18% .. |
| 27 | 15 | 60 | 95% .. |
| 27 | 25 | 60 | 93% 5% . |

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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|--|
| 28 | 16 | 54 |  87% 11% . |
| 28 | 26 | 54 |  93% 6% . |
| 29 | 17 | 49 |  88% 10% . |
| 29 | 27 | 49 |  88% 10% . |
| 30 | 18 | 65 |  95% . . |
| 30 | 28 | 65 |  94% 5% . |
| 31 | 19 | 37 |  97% . |
| 31 | 29 | 37 |  92% 8% |
| 32 | 1a | 1521 |  82% 16% . |
| 32 | 2a | 1521 |  79% 19% . |
| 33 | 1b | 256 |  77% 13% 10% |
| 33 | 2b | 256 |  75% 15% 10% |
| 34 | 1c | 239 |  80% 6% 14% |
| 34 | 2c | 239 |  77% 10% 14% |
| 35 | 1d | 209 |  89% 11% |
| 35 | 2d | 209 |  92% 7% |
| 36 | 1e | 162 |  83% 9% 9% |
| 36 | 2e | 162 |  78% 13% 9% |
| 37 | 1f | 101 |  92% 7% . |
| 37 | 2f | 101 |  91% 8% . |
| 38 | 1g | 156 |  88% 11% . |
| 38 | 2g | 156 |  88% 11% . |
| 39 | 1h | 138 |  95% . . |
| 39 | 2h | 138 |  95% . . |
| 40 | 1i | 128 |  92% 6% . . |

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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|-------------------------|
| 40 | 2i | 128 | 25% 88% 12% |
| 41 | 1j | 105 | 3% 85% 8% 8% |
| 41 | 2j | 105 | 18% 77% 13% 9% |
| 42 | 1k | 129 | 5% 81% 7% 12% |
| 42 | 2k | 129 | 5% 83% 5% 12% |
| 43 | 1l | 132 | % 88% 5% 8% |
| 43 | 2l | 132 | 19% 89% 8% |
| 44 | 1m | 126 | 2% 89% 7% .. |
| 44 | 2m | 126 | 26% 87% 9% .. |
| 45 | 1n | 61 | 2% 90% 8% . |
| 45 | 2n | 61 | 52% 92% 7% . |
| 46 | 1o | 89 | % 92% 6% .. |
| 46 | 2o | 89 | 16% 91% 7% .. |
| 47 | 1p | 88 | % 89% 5% 7% |
| 47 | 2p | 88 | 8% 85% 8% 7% |
| 48 | 1q | 105 | 5% 93% 6% |
| 48 | 2q | 105 | 37% 91% 6% |
| 49 | 1r | 88 | % 69% 8% 23% |
| 49 | 2r | 88 | 2% 74% 23% |
| 50 | 1s | 93 | 82% 8% 11% |
| 50 | 2s | 93 | 18% 81% 9% 11% |
| 51 | 1t | 106 | 2% 84% 7% 9% |
| 51 | 2t | 106 | 9% 86% 5% 9% |
| 52 | 1u | 27 | 81% 15% |
| 52 | 2u | 27 | 44% 85% 15% |

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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 53 | 1v | 24 | |
| 53 | 2v | 24 | |
| 54 | 1w | 76 | |
| 54 | 1y | 76 | |
| 54 | 2w | 76 | |
| 54 | 2y | 76 | |
| 55 | 1x | 77 | |
| 55 | 2x | 77 | |

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

| Mol | Type | Chain | Res | Chirality | Geometry | Clashes | Electron density |
|-----|------|-------|------|-----------|----------|---------|------------------|
| 56 | MG | 11 | 102 | - | - | - | X |
| 56 | MG | 18 | 108 | - | - | - | X |
| 56 | MG | 1A | 3338 | - | - | - | X |
| 56 | MG | 1A | 3441 | - | - | - | X |
| 56 | MG | 1A | 3471 | - | - | - | X |
| 56 | MG | 1A | 3933 | - | - | - | X |
| 56 | MG | 1B | 233 | - | - | - | X |
| 56 | MG | 1U | 212 | - | - | - | X |
| 56 | MG | 28 | 101 | - | - | - | X |
| 56 | MG | 29 | 101 | - | - | - | X |
| 56 | MG | 2A | 3249 | - | - | - | X |
| 56 | MG | 2A | 3261 | - | - | - | X |
| 56 | MG | 2A | 3291 | - | - | - | X |
| 56 | MG | 2A | 3296 | - | - | - | X |
| 56 | MG | 2A | 3311 | - | - | - | X |
| 56 | MG | 2A | 3439 | - | - | - | X |
| 56 | MG | 2D | 305 | - | - | - | X |
| 56 | MG | 2a | 3014 | - | - | - | X |
| 56 | MG | 2a | 3028 | - | - | - | X |
| 56 | MG | 2l | 204 | - | - | - | X |

2 Entry composition [i](#)

There are 61 unique types of molecules in this entry. The entry contains 300591 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 RNA chain called 23S Ribosomal RNA.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-------|-------|-------|------|---------|---------|-------|
| | | | Total | C | N | O | P | | | |
| 1 | 1A | 2871 | Total | C | N | O | P | 0 | 0 | 0 |
| | | | 61852 | 27531 | 11572 | 19878 | 2871 | | | |
| 1 | 2A | 2800 | Total | C | N | O | P | 0 | 0 | 0 |
| | | | 60322 | 26848 | 11284 | 19390 | 2800 | | | |

- Molecule 2 is a RNA chain called 5S Ribosomal RNA.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|-----|---------|---------|-------|
| | | | Total | C | N | O | P | | | |
| 2 | 1B | 120 | Total | C | N | O | P | 0 | 0 | 0 |
| | | | 2577 | 1146 | 476 | 835 | 120 | | | |
| 2 | 2B | 120 | Total | C | N | O | P | 0 | 0 | 0 |
| | | | 2575 | 1146 | 476 | 833 | 120 | | | |

- Molecule 3 is a protein called 50S ribosomal protein L2.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|---|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 3 | 1D | 275 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 2136 | 1349 | 423 | 361 | 3 | | | |
| 3 | 2D | 275 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 2136 | 1349 | 423 | 361 | 3 | | | |

- Molecule 4 is a protein called 50S ribosomal protein L3.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 4 | 1E | 204 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 1559 | 985 | 298 | 270 | 6 | | | |
| 4 | 2E | 204 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 1559 | 985 | 298 | 270 | 6 | | | |

- Molecule 5 is a protein called 50S ribosomal protein L4.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|---------------|-----------|----------|----------|--------|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 5 | 1F | 202 | Total 1583 | C 1009 | N 297 | O 275 | S 2 | 0 | 0 | 0 |
| 5 | 2F | 202 | Total 1579 | C 1007 | N 296 | O 274 | S 2 | 0 | 0 | 0 |

- Molecule 6 is a protein called 50S ribosomal protein L5.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|---------------|----------|----------|----------|--------|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 6 | 1G | 181 | Total 1423 | C 913 | N 253 | O 253 | S 4 | 0 | 0 | 0 |
| 6 | 2G | 181 | Total 1428 | C 913 | N 258 | O 253 | S 4 | 0 | 0 | 0 |

- Molecule 7 is a protein called 50S ribosomal protein L6.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|---------------|----------|----------|----------|--------|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 7 | 1H | 174 | Total 1330 | C 845 | N 248 | O 236 | S 1 | 0 | 0 | 0 |
| 7 | 2H | 174 | Total 1330 | C 845 | N 248 | O 236 | S 1 | 0 | 0 | 0 |

- Molecule 8 is a protein called 50S ribosomal protein L9.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|---------------|----------|----------|----------|--------|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 8 | 1I | 146 | Total 1097 | C 701 | N 191 | O 204 | S 1 | 0 | 0 | 0 |
| 8 | 2I | 146 | Total 1064 | C 681 | N 186 | O 196 | S 1 | 0 | 0 | 0 |

- Molecule 9 is a protein called 50S ribosomal protein L13.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|---------------|----------|----------|----------|--------|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 9 | 1N | 140 | Total 1117 | C 719 | N 207 | O 187 | S 4 | 0 | 0 | 0 |
| 9 | 2N | 140 | Total 1117 | C 719 | N 207 | O 187 | S 4 | 0 | 0 | 0 |

- Molecule 10 is a protein called 50S ribosomal protein L14.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|--------------|----------|----------|----------|--------|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 10 | 1O | 122 | Total 933 | C 588 | N 171 | O 170 | S 4 | 0 | 0 | 0 |

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| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 10 | 2O | 122 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 933 | 588 | 171 | 170 | 4 | | | |

- Molecule 11 is a protein called 50S ribosomal protein L15.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 11 | 1P | 149 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 1135 | 706 | 230 | 196 | 3 | | | |
| 11 | 2P | 149 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 1135 | 706 | 230 | 196 | 3 | | | |

- Molecule 12 is a protein called 50S ribosomal protein L16.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 12 | 1Q | 141 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 1122 | 715 | 212 | 188 | 7 | | | |
| 12 | 2Q | 141 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 1122 | 715 | 212 | 188 | 7 | | | |

- Molecule 13 is a protein called 50S ribosomal protein L17.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 13 | 1R | 118 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 968 | 604 | 203 | 160 | 1 | | | |
| 13 | 2R | 118 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 968 | 604 | 203 | 160 | 1 | | | |

- Molecule 14 is a protein called 50S ribosomal protein L18.

| Mol | Chain | Residues | Atoms | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---------|---------|-------|
| 14 | 1S | 110 | Total | C | N | O | 0 | 0 | 0 |
| | | | 873 | 550 | 174 | 149 | | | |
| 14 | 2S | 110 | Total | C | N | O | 0 | 0 | 0 |
| | | | 870 | 549 | 173 | 148 | | | |

- Molecule 15 is a protein called 50S ribosomal protein L19.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 15 | 1T | 131 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 1091 | 680 | 225 | 185 | 1 | | | |
| 15 | 2T | 131 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 1083 | 675 | 224 | 183 | 1 | | | |

- Molecule 16 is a protein called 50S ribosomal protein L20.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|--------------|----------|----------|----------|--------|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 16 | 1U | 116 | Total 959 | C 608 | N 201 | O 149 | S 1 | 0 | 0 | 0 |
| 16 | 2U | 116 | Total 959 | C 608 | N 201 | O 149 | S 1 | 0 | 0 | 0 |

- Molecule 17 is a protein called 50S ribosomal protein L21.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|--------------|----------|----------|----------|--------|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 17 | 1V | 101 | Total 771 | C 495 | N 140 | O 135 | S 1 | 0 | 0 | 0 |
| 17 | 2V | 101 | Total 771 | C 495 | N 140 | O 135 | S 1 | 0 | 0 | 0 |

- Molecule 18 is a protein called 50S ribosomal protein L22.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|--------------|----------|----------|----------|--------|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 18 | 1W | 112 | Total 886 | C 557 | N 174 | O 153 | S 2 | 0 | 0 | 0 |
| 18 | 2W | 112 | Total 886 | C 557 | N 174 | O 153 | S 2 | 0 | 0 | 0 |

- Molecule 19 is a protein called 50S ribosomal protein L23.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|--------------|----------|----------|----------|--------|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 19 | 1X | 95 | Total 750 | C 488 | N 135 | O 126 | S 1 | 0 | 0 | 0 |
| 19 | 2X | 95 | Total 750 | C 488 | N 135 | O 126 | S 1 | 0 | 0 | 0 |

- Molecule 20 is a protein called 50S ribosomal protein L24.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|--------------|----------|----------|----------|--------|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 20 | 1Y | 107 | Total 806 | C 517 | N 152 | O 131 | S 6 | 0 | 0 | 0 |
| 20 | 2Y | 107 | Total 806 | C 517 | N 152 | O 131 | S 6 | 0 | 0 | 0 |

- Molecule 21 is a protein called 50S ribosomal protein L25.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 21 | 1Z | 154 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 1240 | 795 | 222 | 220 | 3 | | | |
| 21 | 2Z | 160 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 1271 | 814 | 228 | 227 | 2 | | | |

- Molecule 22 is a protein called 50S ribosomal protein L27.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 22 | 10 | 83 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 653 | 404 | 139 | 109 | 1 | | | |
| 22 | 20 | 83 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 653 | 404 | 139 | 109 | 1 | | | |

- Molecule 23 is a protein called 50S ribosomal protein L28.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 23 | 11 | 97 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 755 | 475 | 148 | 131 | 1 | | | |
| 23 | 21 | 97 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 755 | 475 | 148 | 131 | 1 | | | |

- Molecule 24 is a protein called 50S ribosomal protein L29.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 24 | 12 | 70 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 588 | 365 | 118 | 103 | 2 | | | |
| 24 | 22 | 70 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 588 | 365 | 118 | 103 | 2 | | | |

- Molecule 25 is a protein called 50S ribosomal protein L30.

| Mol | Chain | Residues | Atoms | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---------|---------|-------|
| 25 | 13 | 59 | Total | C | N | O | 0 | 0 | 0 |
| | | | 469 | 298 | 90 | 81 | | | |
| 25 | 23 | 59 | Total | C | N | O | 0 | 0 | 0 |
| | | | 464 | 296 | 90 | 78 | | | |

- Molecule 26 is a protein called 50S ribosomal protein L31.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---|---------|---------|-------|
| 26 | 14 | 69 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 552 | 349 | 99 | 99 | 5 | | | |

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| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---|---------|---------|-------|
| 26 | 24 | 69 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 532 | 339 | 97 | 91 | 5 | | | |

- Molecule 27 is a protein called 50S ribosomal protein L32.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---|---------|---------|-------|
| 27 | 15 | 59 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 455 | 285 | 89 | 76 | 5 | | | |
| 27 | 25 | 59 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 455 | 285 | 89 | 76 | 5 | | | |

- Molecule 28 is a protein called 50S ribosomal protein L33.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---|---------|---------|-------|
| 28 | 16 | 53 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 453 | 281 | 91 | 77 | 4 | | | |
| 28 | 26 | 53 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 449 | 279 | 91 | 75 | 4 | | | |

- Molecule 29 is a protein called 50S ribosomal protein L34.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|----|---|---------|---------|-------|
| 29 | 17 | 48 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 418 | 257 | 104 | 55 | 2 | | | |
| 29 | 27 | 48 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 418 | 257 | 104 | 55 | 2 | | | |

- Molecule 30 is a protein called 50S ribosomal protein L35.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|----|---|---------|---------|-------|
| 30 | 18 | 64 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 517 | 331 | 102 | 82 | 2 | | | |
| 30 | 28 | 64 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 517 | 331 | 102 | 82 | 2 | | | |

- Molecule 31 is a protein called 50S ribosomal protein L36.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---|---------|---------|-------|
| 31 | 19 | 37 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 307 | 188 | 68 | 47 | 4 | | | |
| 31 | 29 | 37 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 307 | 188 | 68 | 47 | 4 | | | |

- Molecule 32 is a RNA chain called 16S Ribosomal RNA.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-------|------|-------|------|---------|---------|-------|
| 32 | 1a | 1500 | Total | C | N | O | P | 0 | 0 | 0 |
| | | | 32246 | 14358 | 5975 | 10413 | 1500 | | | |
| 32 | 2a | 1503 | Total | C | N | O | P | 0 | 0 | 0 |
| | | | 32327 | 14396 | 5990 | 10438 | 1503 | | | |

- Molecule 33 is a protein called 30S ribosomal protein S2.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|---|---------|---------|-------|
| 33 | 1b | 231 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 1846 | 1179 | 331 | 331 | 5 | | | |
| 33 | 2b | 231 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 1825 | 1167 | 326 | 327 | 5 | | | |

- Molecule 34 is a protein called 30S ribosomal protein S3.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 34 | 1c | 206 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 1548 | 973 | 301 | 273 | 1 | | | |
| 34 | 2c | 206 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 1542 | 968 | 300 | 273 | 1 | | | |

- Molecule 35 is a protein called 30S ribosomal protein S4.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|---|---------|---------|-------|
| 35 | 1d | 208 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 1655 | 1038 | 326 | 284 | 7 | | | |
| 35 | 2d | 208 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 1674 | 1050 | 333 | 284 | 7 | | | |

- Molecule 36 is a protein called 30S ribosomal protein S5.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 36 | 1e | 148 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 1129 | 714 | 213 | 198 | 4 | | | |
| 36 | 2e | 148 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 1133 | 716 | 214 | 199 | 4 | | | |

- Molecule 37 is a protein called 30S ribosomal protein S6.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 37 | 1f | 100 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 810 | 514 | 144 | 149 | 3 | | | |
| 37 | 2f | 100 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 816 | 516 | 146 | 151 | 3 | | | |

- Molecule 38 is a protein called 30S ribosomal protein S7.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 38 | 1g | 155 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 1231 | 766 | 243 | 216 | 6 | | | |
| 38 | 2g | 155 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 1235 | 769 | 244 | 216 | 6 | | | |

- Molecule 39 is a protein called 30S ribosomal protein S8.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 39 | 1h | 137 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 1088 | 689 | 206 | 191 | 2 | | | |
| 39 | 2h | 137 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 1088 | 689 | 206 | 191 | 2 | | | |

- Molecule 40 is a protein called 30S ribosomal protein S9.

| Mol | Chain | Residues | Atoms | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---------|---------|-------|
| 40 | 1i | 127 | Total | C | N | O | 0 | 0 | 0 |
| | | | 983 | 623 | 193 | 167 | | | |
| 40 | 2i | 127 | Total | C | N | O | 0 | 0 | 0 |
| | | | 978 | 619 | 190 | 169 | | | |

- Molecule 41 is a protein called 30S ribosomal protein S10.

| Mol | Chain | Residues | Atoms | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---------|---------|-------|
| 41 | 1j | 97 | Total | C | N | O | 0 | 0 | 0 |
| | | | 709 | 440 | 138 | 131 | | | |
| 41 | 2j | 96 | Total | C | N | O | 0 | 0 | 0 |
| | | | 714 | 445 | 138 | 131 | | | |

- Molecule 42 is a protein called 30S ribosomal protein S11.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| 42 | 1k | 114 | Total | C | N | O | S | 0 | 0 | 0 |
| | | | 829 | 516 | 155 | 155 | 3 | | | |

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| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 42 | 2k | 114 | 833 | 519 | 156 | 155 | 3 | 0 | 0 | 0 |

- Molecule 43 is a protein called 30S ribosomal protein S12.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 43 | 1l | 122 | 932 | 586 | 185 | 159 | 2 | 0 | 0 | 0 |
| 43 | 2l | 122 | 932 | 586 | 185 | 159 | 2 | 0 | 0 | 0 |

- Molecule 44 is a protein called 30S ribosomal protein S13.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 44 | 1m | 123 | 958 | 592 | 198 | 166 | 2 | 0 | 0 | 0 |
| 44 | 2m | 122 | 950 | 586 | 197 | 165 | 2 | 0 | 0 | 0 |

- Molecule 45 is a protein called 30S ribosomal protein S14 type Z.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|----|---|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 45 | 1n | 60 | 492 | 312 | 104 | 72 | 4 | 0 | 0 | 0 |
| 45 | 2n | 60 | 492 | 312 | 104 | 72 | 4 | 0 | 0 | 0 |

- Molecule 46 is a protein called 30S ribosomal protein S15.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 46 | 1o | 88 | 728 | 456 | 144 | 126 | 2 | 0 | 0 | 0 |
| 46 | 2o | 88 | 728 | 456 | 144 | 126 | 2 | 0 | 0 | 0 |

- Molecule 47 is a protein called 30S ribosomal protein S16.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 47 | 1p | 82 | 681 | 433 | 134 | 113 | 1 | 0 | 0 | 0 |
| 47 | 2p | 82 | 677 | 430 | 133 | 113 | 1 | 0 | 0 | 0 |

- Molecule 48 is a protein called 30S ribosomal protein S17.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|--------------|----------|----------|----------|--------|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 48 | 1q | 99 | Total 823 | C 528 | N 151 | O 142 | S 2 | 0 | 0 | 0 |
| 48 | 2q | 99 | Total 823 | C 528 | N 151 | O 142 | S 2 | 0 | 0 | 0 |

- Molecule 49 is a protein called 30S ribosomal protein S18.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|--------------|----------|----------|---------|---|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 49 | 1r | 68 | Total 555 | C 355 | N 108 | O 92 | S | 0 | 0 | 0 |
| 49 | 2r | 68 | Total 555 | C 355 | N 108 | O 92 | S | 0 | 0 | 0 |

- Molecule 50 is a protein called 30S ribosomal protein S19.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|--------------|----------|----------|----------|--------|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 50 | 1s | 83 | Total 652 | C 417 | N 120 | O 113 | S 2 | 0 | 0 | 0 |
| 50 | 2s | 83 | Total 646 | C 412 | N 119 | O 113 | S 2 | 0 | 0 | 0 |

- Molecule 51 is a protein called 30S ribosomal protein S20.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|--------------|----------|----------|----------|--------|---------|---------|-------|
| | | | Total | C | N | O | S | | | |
| 51 | 1t | 96 | Total 728 | C 446 | N 156 | O 124 | S 2 | 0 | 0 | 0 |
| 51 | 2t | 96 | Total 727 | C 446 | N 155 | O 124 | S 2 | 0 | 0 | 0 |

- Molecule 52 is a protein called 30S ribosomal protein Thx.

| Mol | Chain | Residues | Atoms | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|--------------|----------|---------|---------|---------|---------|-------|
| | | | Total | C | N | O | | | |
| 52 | 1u | 23 | Total 199 | C 122 | N 48 | O 29 | 0 | 0 | 0 |
| 52 | 2u | 23 | Total 199 | C 122 | N 48 | O 29 | 0 | 0 | 0 |

- Molecule 53 is a RNA chain called MF-mRNA.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|----|---------|---------|-------|
| 53 | 1v | 13 | Total | C | N | O | P | 0 | 0 | 0 |
| | | | 277 | 125 | 51 | 88 | 13 | | | |
| 53 | 2v | 13 | Total | C | N | O | P | 0 | 0 | 0 |
| | | | 277 | 125 | 51 | 88 | 13 | | | |

- Molecule 54 is a RNA chain called A-site and E-site Deacylated tRNAphe.

| Mol | Chain | Residues | Atoms | | | | | | ZeroOcc | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|----|---|---------|---------|-------|
| 54 | 1w | 74 | Total | C | N | O | P | S | 0 | 0 | 0 |
| | | | 1592 | 713 | 285 | 518 | 74 | 2 | | | |
| 54 | 1y | 74 | Total | C | N | O | P | S | 0 | 0 | 0 |
| | | | 1585 | 707 | 285 | 518 | 74 | 1 | | | |
| 54 | 2w | 72 | Total | C | N | O | P | S | 0 | 0 | 0 |
| | | | 1544 | 690 | 278 | 502 | 72 | 2 | | | |
| 54 | 2y | 73 | Total | C | N | O | P | S | 0 | 0 | 0 |
| | | | 1565 | 698 | 283 | 510 | 73 | 1 | | | |

- Molecule 55 is a RNA chain called P-site Deacylated tRNAmet.

| Mol | Chain | Residues | Atoms | | | | | ZeroOcc | AltConf | Trace | |
|-----|-------|----------|-------|-----|-----|-----|----|---------|---------|-------|---|
| 55 | 1x | 76 | Total | C | N | O | P | S | 0 | 0 | 0 |
| | | | 1625 | 725 | 294 | 529 | 76 | 1 | | | |
| 55 | 2x | 76 | Total | C | N | O | P | S | 0 | 0 | 0 |
| | | | 1625 | 725 | 294 | 529 | 76 | 1 | | | |

- Molecule 56 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

| Mol | Chain | Residues | Atoms | | ZeroOcc | AltConf |
|-----|-------|----------|-------|------|---------|---------|
| 56 | 1A | 1116 | Total | Mg | 0 | 0 |
| | | | 1116 | 1116 | | |
| 56 | 1B | 39 | Total | Mg | 0 | 0 |
| | | | 39 | 39 | | |
| 56 | 1D | 15 | Total | Mg | 0 | 0 |
| | | | 15 | 15 | | |
| 56 | 1E | 14 | Total | Mg | 0 | 0 |
| | | | 14 | 14 | | |
| 56 | 1F | 15 | Total | Mg | 0 | 0 |
| | | | 15 | 15 | | |
| 56 | 1G | 5 | Total | Mg | 0 | 0 |
| | | | 5 | 5 | | |
| 56 | 1H | 1 | Total | Mg | 0 | 0 |
| | | | 1 | 1 | | |

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| Mol | Chain | Residues | Atoms | ZeroOcc | AltConf |
|-----|-------|----------|-------------------|---------|---------|
| 56 | 1I | 1 | Total Mg 1 1 | 0 | 0 |
| 56 | 1N | 5 | Total Mg 5 5 | 0 | 0 |
| 56 | 1O | 6 | Total Mg 6 6 | 0 | 0 |
| 56 | 1P | 4 | Total Mg 4 4 | 0 | 0 |
| 56 | 1Q | 8 | Total Mg 8 8 | 0 | 0 |
| 56 | 1R | 4 | Total Mg 4 4 | 0 | 0 |
| 56 | 1S | 3 | Total Mg 3 3 | 0 | 0 |
| 56 | 1T | 2 | Total Mg 2 2 | 0 | 0 |
| 56 | 1U | 13 | Total Mg 13 13 | 0 | 0 |
| 56 | 1V | 9 | Total Mg 9 9 | 0 | 0 |
| 56 | 1W | 7 | Total Mg 7 7 | 0 | 0 |
| 56 | 1X | 5 | Total Mg 5 5 | 0 | 0 |
| 56 | 1Y | 3 | Total Mg 3 3 | 0 | 0 |
| 56 | 1Z | 2 | Total Mg 2 2 | 0 | 0 |
| 56 | 10 | 10 | Total Mg 10 10 | 0 | 0 |
| 56 | 11 | 5 | Total Mg 5 5 | 0 | 0 |
| 56 | 12 | 2 | Total Mg 2 2 | 0 | 0 |
| 56 | 13 | 5 | Total Mg 5 5 | 0 | 0 |
| 56 | 14 | 1 | Total Mg 1 1 | 0 | 0 |
| 56 | 15 | 10 | Total Mg 10 10 | 0 | 0 |
| 56 | 16 | 1 | Total Mg 1 1 | 0 | 0 |

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| Mol | Chain | Residues | Atoms | ZeroOcc | AltConf |
|-----|-------|----------|---------------------|---------|---------|
| 56 | 17 | 4 | Total Mg 4 4 | 0 | 0 |
| 56 | 18 | 8 | Total Mg 8 8 | 0 | 0 |
| 56 | 19 | 2 | Total Mg 2 2 | 0 | 0 |
| 56 | 1a | 214 | Total Mg 214 214 | 0 | 0 |
| 56 | 1b | 1 | Total Mg 1 1 | 0 | 0 |
| 56 | 1e | 1 | Total Mg 1 1 | 0 | 0 |
| 56 | 1f | 2 | Total Mg 2 2 | 0 | 0 |
| 56 | 1k | 1 | Total Mg 1 1 | 0 | 0 |
| 56 | 1l | 2 | Total Mg 2 2 | 0 | 0 |
| 56 | 1m | 1 | Total Mg 1 1 | 0 | 0 |
| 56 | 1n | 2 | Total Mg 2 2 | 0 | 0 |
| 56 | 1p | 1 | Total Mg 1 1 | 0 | 0 |
| 56 | 1t | 1 | Total Mg 1 1 | 0 | 0 |
| 56 | 1v | 1 | Total Mg 1 1 | 0 | 0 |
| 56 | 1w | 9 | Total Mg 9 9 | 0 | 0 |
| 56 | 1x | 13 | Total Mg 13 13 | 0 | 0 |
| 56 | 1y | 2 | Total Mg 2 2 | 0 | 0 |
| 56 | 2A | 880 | Total Mg 880 880 | 0 | 0 |
| 56 | 2B | 19 | Total Mg 19 19 | 0 | 0 |
| 56 | 2D | 8 | Total Mg 8 8 | 0 | 0 |
| 56 | 2E | 10 | Total Mg 10 10 | 0 | 0 |

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| Mol | Chain | Residues | Atoms | ZeroOcc | AltConf |
|------------|--------------|-----------------|-----------------|----------------|----------------|
| 56 | 2F | 8 | Total Mg 8 8 | 0 | 0 |
| 56 | 2G | 1 | Total Mg 1 1 | 0 | 0 |
| 56 | 2O | 1 | Total Mg 1 1 | 0 | 0 |
| 56 | 2P | 2 | Total Mg 2 2 | 0 | 0 |
| 56 | 2Q | 3 | Total Mg 3 3 | 0 | 0 |
| 56 | 2R | 2 | Total Mg 2 2 | 0 | 0 |
| 56 | 2S | 1 | Total Mg 1 1 | 0 | 0 |
| 56 | 2T | 3 | Total Mg 3 3 | 0 | 0 |
| 56 | 2U | 2 | Total Mg 2 2 | 0 | 0 |
| 56 | 2V | 2 | Total Mg 2 2 | 0 | 0 |
| 56 | 2W | 3 | Total Mg 3 3 | 0 | 0 |
| 56 | 2X | 1 | Total Mg 1 1 | 0 | 0 |
| 56 | 2Z | 1 | Total Mg 1 1 | 0 | 0 |
| 56 | 20 | 4 | Total Mg 4 4 | 0 | 0 |
| 56 | 21 | 2 | Total Mg 2 2 | 0 | 0 |
| 56 | 23 | 1 | Total Mg 1 1 | 0 | 0 |
| 56 | 25 | 6 | Total Mg 6 6 | 0 | 0 |
| 56 | 26 | 1 | Total Mg 1 1 | 0 | 0 |
| 56 | 27 | 2 | Total Mg 2 2 | 0 | 0 |
| 56 | 28 | 4 | Total Mg 4 4 | 0 | 0 |
| 56 | 29 | 1 | Total Mg 1 1 | 0 | 0 |

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| Mol | Chain | Residues | Atoms | | ZeroOcc | AltConf |
|-----|-------|----------|--------------|-----------|---------|---------|
| 56 | 2a | 235 | Total 235 | Mg 235 | 0 | 0 |
| 56 | 2d | 2 | Total 2 | Mg 2 | 0 | 0 |
| 56 | 2e | 3 | Total 3 | Mg 3 | 0 | 0 |
| 56 | 2f | 3 | Total 3 | Mg 3 | 0 | 0 |
| 56 | 2g | 1 | Total 1 | Mg 1 | 0 | 0 |
| 56 | 2j | 1 | Total 1 | Mg 1 | 0 | 0 |
| 56 | 2l | 6 | Total 6 | Mg 6 | 0 | 0 |
| 56 | 2q | 4 | Total 4 | Mg 4 | 0 | 0 |
| 56 | 2t | 1 | Total 1 | Mg 1 | 0 | 0 |
| 56 | 2v | 3 | Total 3 | Mg 3 | 0 | 0 |
| 56 | 2w | 9 | Total 9 | Mg 9 | 0 | 0 |
| 56 | 2x | 7 | Total 7 | Mg 7 | 0 | 0 |
| 56 | 2y | 7 | Total 7 | Mg 7 | 0 | 0 |

- Molecule 57 is POTASSIUM ION (three-letter code: K) (formula: K).

| Mol | Chain | Residues | Atoms | | ZeroOcc | AltConf |
|-----|-------|----------|------------|--------|---------|---------|
| 57 | 1A | 1 | Total 1 | K 1 | 0 | 0 |
| 57 | 2A | 1 | Total 1 | K 1 | 0 | 0 |

- Molecule 58 is ZINC ION (three-letter code: ZN) (formula: Zn).

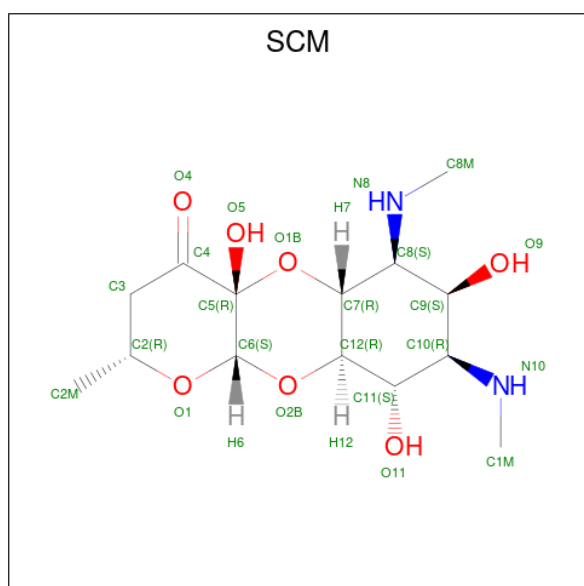
| Mol | Chain | Residues | Atoms | | ZeroOcc | AltConf |
|-----|-------|----------|------------|---------|---------|---------|
| 58 | 1Y | 1 | Total 1 | Zn 1 | 0 | 0 |
| 58 | 14 | 1 | Total 1 | Zn 1 | 0 | 0 |

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| Mol | Chain | Residues | Atoms | | ZeroOcc | AltConf |
|-----|-------|----------|-------|----|---------|---------|
| 58 | 15 | 1 | Total | Zn | 0 | 0 |
| | | | 1 | 1 | | |
| 58 | 16 | 1 | Total | Zn | 0 | 0 |
| | | | 1 | 1 | | |
| 58 | 19 | 1 | Total | Zn | 0 | 0 |
| | | | 1 | 1 | | |
| 58 | 1n | 1 | Total | Zn | 0 | 0 |
| | | | 1 | 1 | | |
| 58 | 2Y | 1 | Total | Zn | 0 | 0 |
| | | | 1 | 1 | | |
| 58 | 24 | 1 | Total | Zn | 0 | 0 |
| | | | 1 | 1 | | |
| 58 | 25 | 1 | Total | Zn | 0 | 0 |
| | | | 1 | 1 | | |
| 58 | 26 | 1 | Total | Zn | 0 | 0 |
| | | | 1 | 1 | | |
| 58 | 29 | 1 | Total | Zn | 0 | 0 |
| | | | 1 | 1 | | |
| 58 | 2n | 1 | Total | Zn | 0 | 0 |
| | | | 1 | 1 | | |

- Molecule 59 is SPECTINOMYCIN (three-letter code: SCM) (formula: $C_{14}H_{24}N_2O_7$).



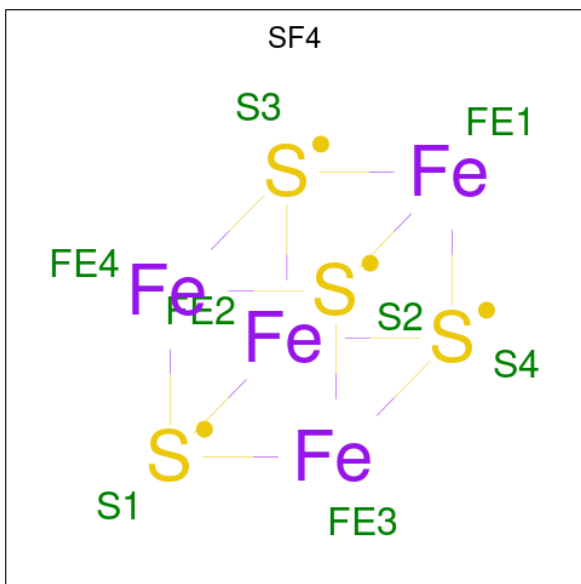
| Mol | Chain | Residues | Atoms | | | | ZeroOcc | AltConf |
|-----|-------|----------|-------|----|---|---|---------|---------|
| 59 | 1a | 1 | Total | C | N | O | 0 | 0 |
| | | | 23 | 14 | 2 | 7 | | |

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| Mol | Chain | Residues | Atoms | | | | ZeroOcc | AltConf |
|-----|-------|----------|-------|----|---|---|---------|---------|
| | | | Total | C | N | O | | |
| 59 | 2a | 1 | 23 | 14 | 2 | 7 | 0 | 0 |

- Molecule 60 is IRON/SULFUR CLUSTER (three-letter code: SF4) (formula: Fe₄S₄).



| Mol | Chain | Residues | Atoms | | | ZeroOcc | AltConf |
|-----|-------|----------|-------|----|---|---------|---------|
| | | | Total | Fe | S | | |
| 60 | 1d | 1 | 8 | 4 | 4 | 0 | 0 |
| 60 | 2d | 1 | 8 | 4 | 4 | 0 | 0 |

- Molecule 61 is water.

| Mol | Chain | Residues | Atoms | | ZeroOcc | AltConf |
|-----|-------|----------|-------|------|---------|---------|
| | | | Total | O | | |
| 61 | 1A | 2167 | 2167 | 2167 | 0 | 0 |
| 61 | 1B | 69 | 69 | 69 | 0 | 0 |
| 61 | 1D | 27 | 27 | 27 | 0 | 0 |
| 61 | 1E | 25 | 25 | 25 | 0 | 0 |
| 61 | 1F | 21 | 21 | 21 | 0 | 0 |
| 61 | 1G | 2 | 2 | 2 | 0 | 0 |

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| Mol | Chain | Residues | Atoms | | ZeroOcc | AltConf |
|-----|-------|----------|-------------|---------|---------|---------|
| 61 | 1H | 2 | Total 2 | O 2 | 0 | 0 |
| 61 | 1I | 1 | Total 1 | O 1 | 0 | 0 |
| 61 | 1N | 5 | Total 5 | O 5 | 0 | 0 |
| 61 | 1O | 5 | Total 5 | O 5 | 0 | 0 |
| 61 | 1P | 24 | Total 24 | O 24 | 0 | 0 |
| 61 | 1Q | 11 | Total 11 | O 11 | 0 | 0 |
| 61 | 1R | 11 | Total 11 | O 11 | 0 | 0 |
| 61 | 1S | 5 | Total 5 | O 5 | 0 | 0 |
| 61 | 1T | 9 | Total 9 | O 9 | 0 | 0 |
| 61 | 1U | 15 | Total 15 | O 15 | 0 | 0 |
| 61 | 1V | 10 | Total 10 | O 10 | 0 | 0 |
| 61 | 1W | 8 | Total 8 | O 8 | 0 | 0 |
| 61 | 1X | 5 | Total 5 | O 5 | 0 | 0 |
| 61 | 1Y | 3 | Total 3 | O 3 | 0 | 0 |
| 61 | 1Z | 2 | Total 2 | O 2 | 0 | 0 |
| 61 | 10 | 18 | Total 18 | O 18 | 0 | 0 |
| 61 | 11 | 8 | Total 8 | O 8 | 0 | 0 |
| 61 | 12 | 3 | Total 3 | O 3 | 0 | 0 |
| 61 | 13 | 4 | Total 4 | O 4 | 0 | 0 |
| 61 | 14 | 1 | Total 1 | O 1 | 0 | 0 |
| 61 | 15 | 8 | Total 8 | O 8 | 0 | 0 |

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| Mol | Chain | Residues | Atoms | ZeroOcc | AltConf |
|-----|-------|----------|--------------------|---------|---------|
| 61 | 16 | 3 | Total O 3 3 | 0 | 0 |
| 61 | 17 | 8 | Total O 8 8 | 0 | 0 |
| 61 | 18 | 11 | Total O 11 11 | 0 | 0 |
| 61 | 1a | 426 | Total O 426 426 | 0 | 0 |
| 61 | 1b | 1 | Total O 1 1 | 0 | 0 |
| 61 | 1c | 1 | Total O 1 1 | 0 | 0 |
| 61 | 1d | 1 | Total O 1 1 | 0 | 0 |
| 61 | 1f | 1 | Total O 1 1 | 0 | 0 |
| 61 | 1i | 2 | Total O 2 2 | 0 | 0 |
| 61 | 1j | 2 | Total O 2 2 | 0 | 0 |
| 61 | 1l | 8 | Total O 8 8 | 0 | 0 |
| 61 | 1m | 1 | Total O 1 1 | 0 | 0 |
| 61 | 1n | 2 | Total O 2 2 | 0 | 0 |
| 61 | 1o | 2 | Total O 2 2 | 0 | 0 |
| 61 | 1p | 1 | Total O 1 1 | 0 | 0 |
| 61 | 1q | 2 | Total O 2 2 | 0 | 0 |
| 61 | 1t | 2 | Total O 2 2 | 0 | 0 |
| 61 | 1u | 1 | Total O 1 1 | 0 | 0 |
| 61 | 1v | 5 | Total O 5 5 | 0 | 0 |
| 61 | 1w | 14 | Total O 14 14 | 0 | 0 |
| 61 | 1x | 15 | Total O 15 15 | 0 | 0 |

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| Mol | Chain | Residues | Atoms | ZeroOcc | AltConf |
|-----|-------|----------|----------------------|---------|---------|
| 61 | 1y | 1 | Total O 1 1 | 0 | 0 |
| 61 | 2A | 1243 | Total O 1243 1243 | 0 | 0 |
| 61 | 2B | 23 | Total O 23 23 | 0 | 0 |
| 61 | 2D | 25 | Total O 25 25 | 0 | 0 |
| 61 | 2E | 11 | Total O 11 11 | 0 | 0 |
| 61 | 2F | 12 | Total O 12 12 | 0 | 0 |
| 61 | 2I | 2 | Total O 2 2 | 0 | 0 |
| 61 | 2N | 2 | Total O 2 2 | 0 | 0 |
| 61 | 2O | 2 | Total O 2 2 | 0 | 0 |
| 61 | 2P | 10 | Total O 10 10 | 0 | 0 |
| 61 | 2Q | 2 | Total O 2 2 | 0 | 0 |
| 61 | 2R | 4 | Total O 4 4 | 0 | 0 |
| 61 | 2T | 5 | Total O 5 5 | 0 | 0 |
| 61 | 2U | 1 | Total O 1 1 | 0 | 0 |
| 61 | 2V | 2 | Total O 2 2 | 0 | 0 |
| 61 | 2W | 2 | Total O 2 2 | 0 | 0 |
| 61 | 2X | 2 | Total O 2 2 | 0 | 0 |
| 61 | 2Z | 1 | Total O 1 1 | 0 | 0 |
| 61 | 20 | 3 | Total O 3 3 | 0 | 0 |
| 61 | 21 | 11 | Total O 11 11 | 0 | 0 |
| 61 | 23 | 2 | Total O 2 2 | 0 | 0 |

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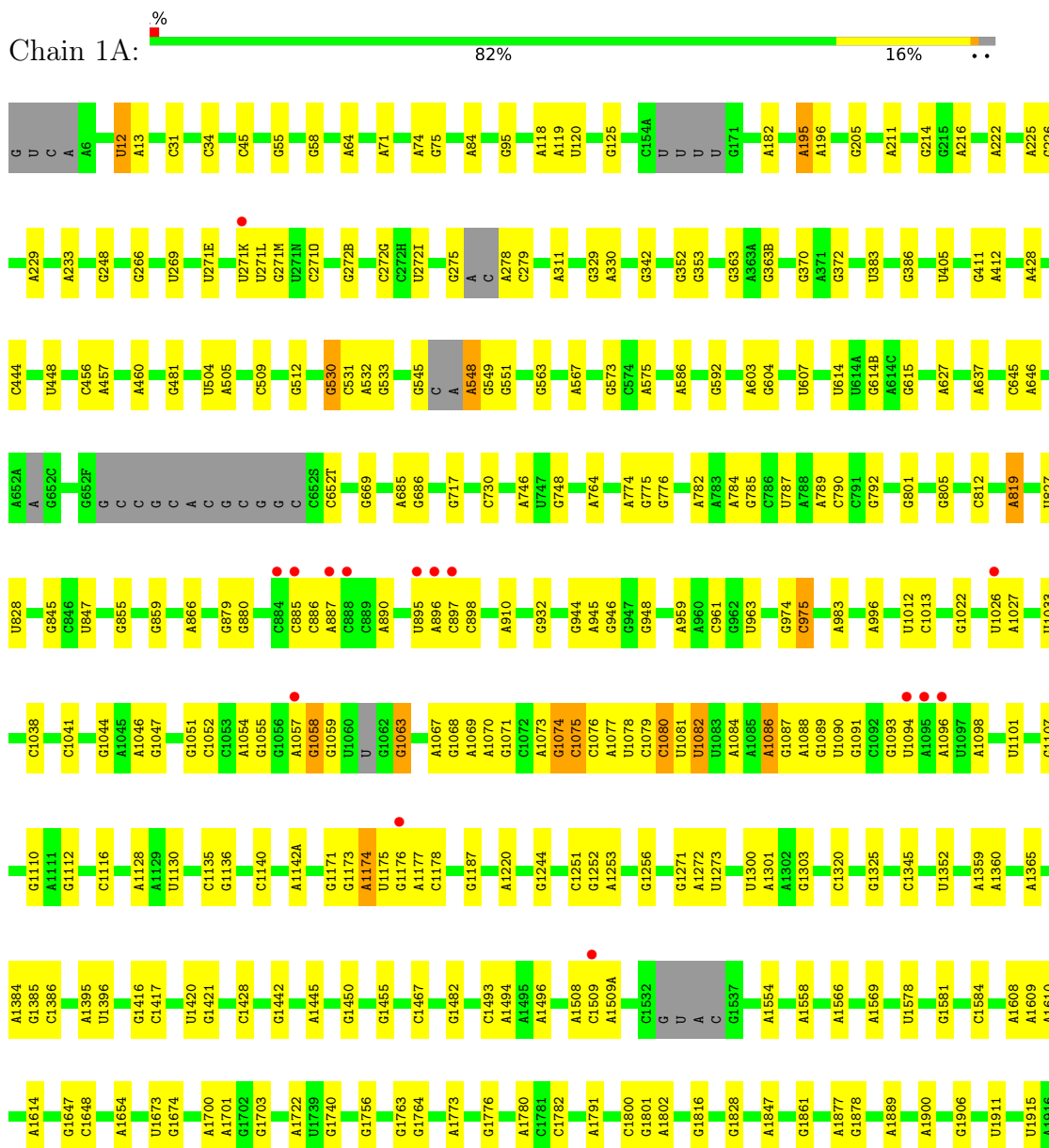
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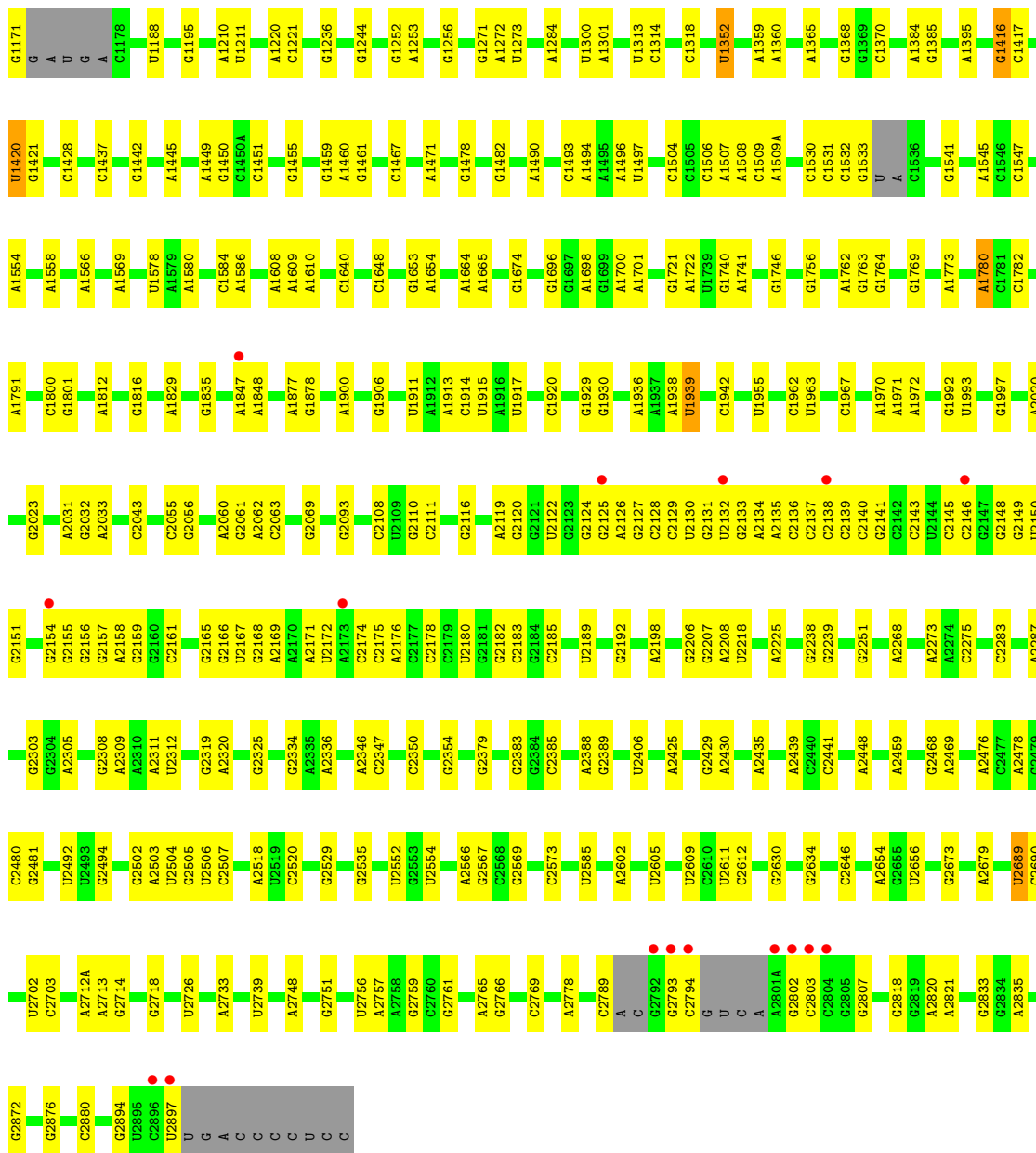
| Mol | Chain | Residues | Atoms | | ZeroOcc | AltConf |
|-----|-------|----------|--------------|----------|---------|---------|
| 61 | 25 | 1 | Total 1 | O 1 | 0 | 0 |
| 61 | 27 | 4 | Total 4 | O 4 | 0 | 0 |
| 61 | 28 | 4 | Total 4 | O 4 | 0 | 0 |
| 61 | 29 | 1 | Total 1 | O 1 | 0 | 0 |
| 61 | 2a | 311 | Total 311 | O 311 | 0 | 0 |
| 61 | 2c | 1 | Total 1 | O 1 | 0 | 0 |
| 61 | 2d | 4 | Total 4 | O 4 | 0 | 0 |
| 61 | 2e | 2 | Total 2 | O 2 | 0 | 0 |
| 61 | 2g | 1 | Total 1 | O 1 | 0 | 0 |
| 61 | 2j | 2 | Total 2 | O 2 | 0 | 0 |
| 61 | 2l | 5 | Total 5 | O 5 | 0 | 0 |
| 61 | 2p | 2 | Total 2 | O 2 | 0 | 0 |
| 61 | 2r | 1 | Total 1 | O 1 | 0 | 0 |
| 61 | 2t | 2 | Total 2 | O 2 | 0 | 0 |
| 61 | 2v | 1 | Total 1 | O 1 | 0 | 0 |
| 61 | 2w | 3 | Total 3 | O 3 | 0 | 0 |
| 61 | 2x | 3 | Total 3 | O 3 | 0 | 0 |
| 61 | 2y | 14 | Total 14 | O 14 | 0 | 0 |

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 and electron 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 dot above a residue indicates a poor fit to the electron density ($RSRZ > 2$). 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: 23S Ribosomal RNA

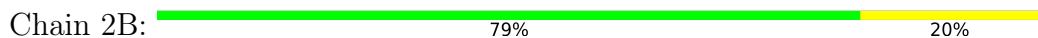




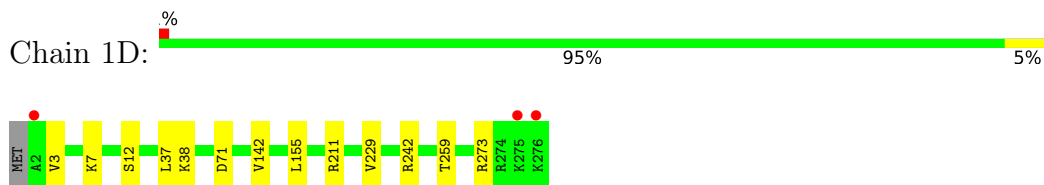
• Molecule 2: 5S Ribosomal RNA



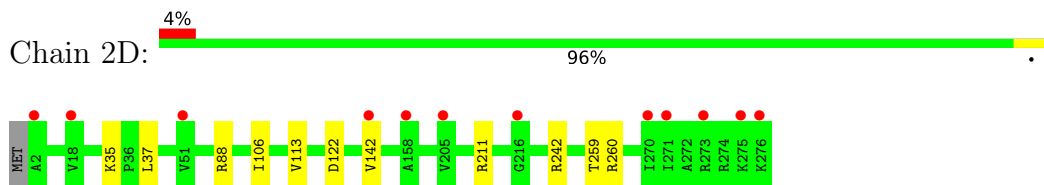
• Molecule 2: 5S Ribosomal RNA



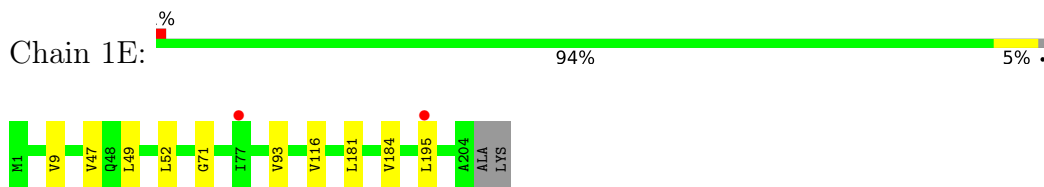
- Molecule 3: 50S ribosomal protein L2



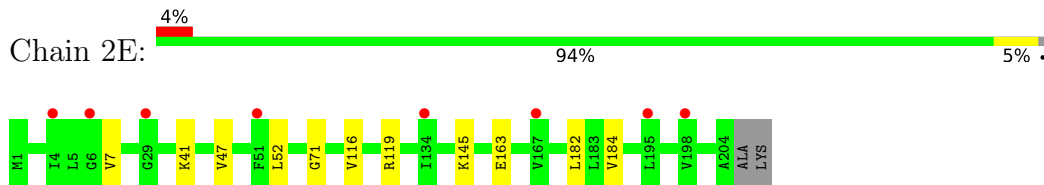
- Molecule 3: 50S ribosomal protein L2



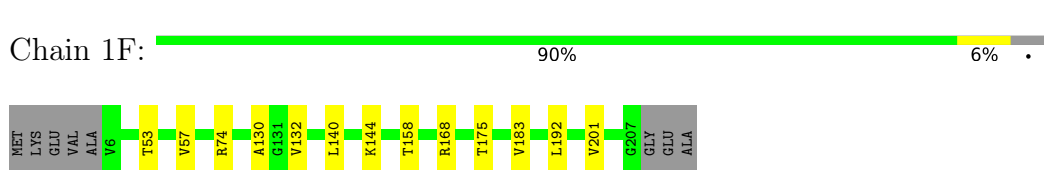
- Molecule 4: 50S ribosomal protein L3



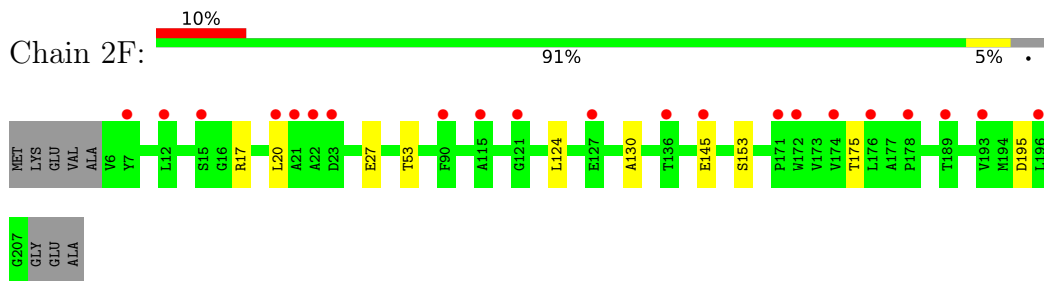
- Molecule 4: 50S ribosomal protein L3



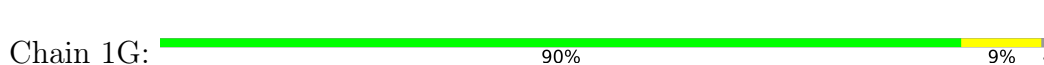
- Molecule 5: 50S ribosomal protein L4



- Molecule 5: 50S ribosomal protein L4

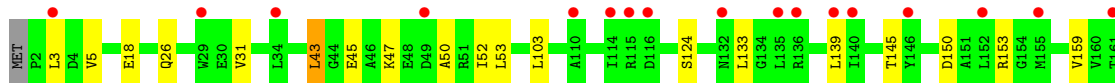
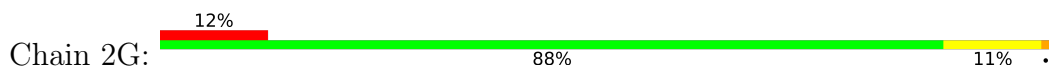


- Molecule 6: 50S ribosomal protein L5

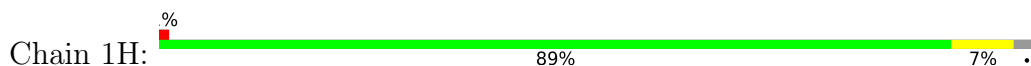




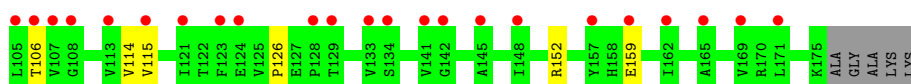
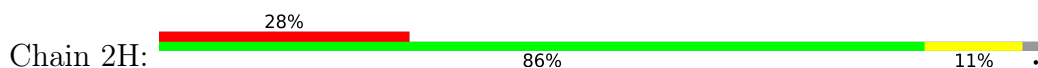
- Molecule 6: 50S ribosomal protein L5



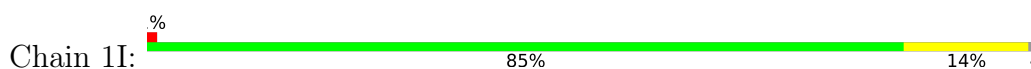
- Molecule 7: 50S ribosomal protein L6



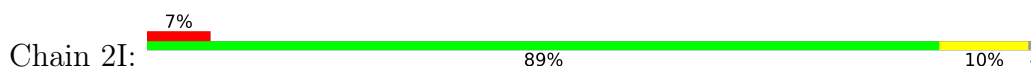
- Molecule 7: 50S ribosomal protein L6



- Molecule 8: 50S ribosomal protein L9



- Molecule 8: 50S ribosomal protein L9

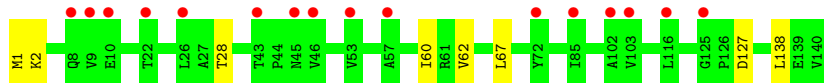


- Molecule 9: 50S ribosomal protein L13





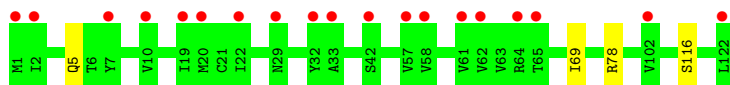
- Molecule 9: 50S ribosomal protein L13



- Molecule 10: 50S ribosomal protein L14



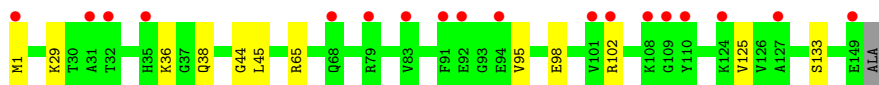
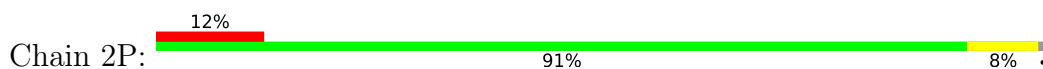
- Molecule 10: 50S ribosomal protein L14



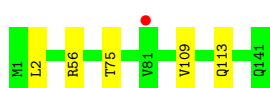
- Molecule 11: 50S ribosomal protein L15



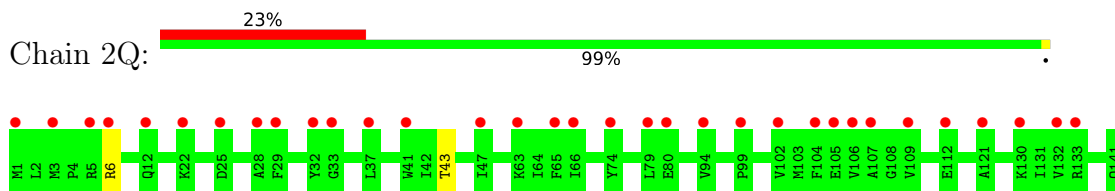
- Molecule 11: 50S ribosomal protein L15



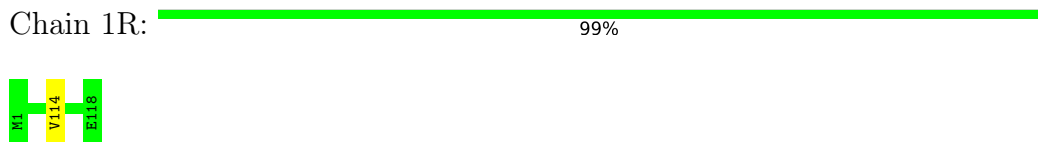
- Molecule 12: 50S ribosomal protein L16



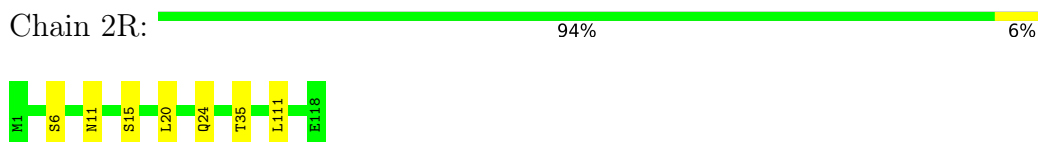
- Molecule 12: 50S ribosomal protein L16



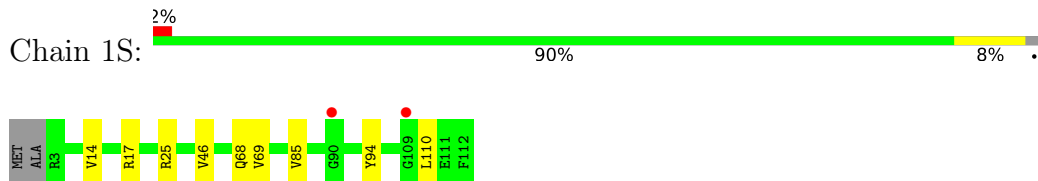
- Molecule 13: 50S ribosomal protein L17



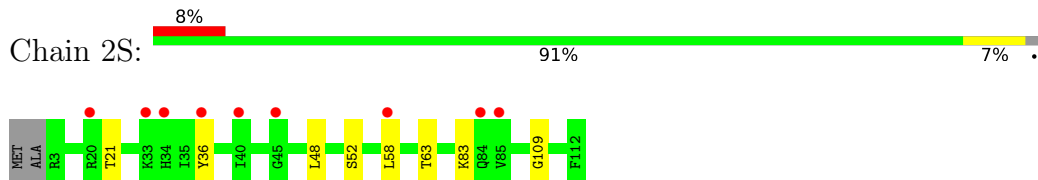
- Molecule 13: 50S ribosomal protein L17



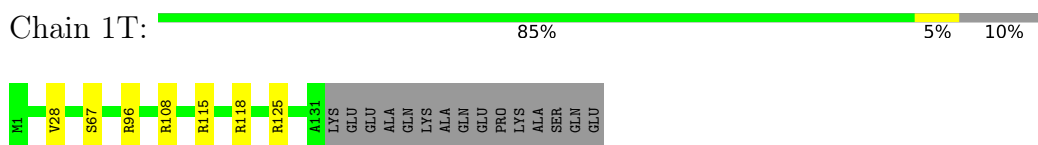
- Molecule 14: 50S ribosomal protein L18



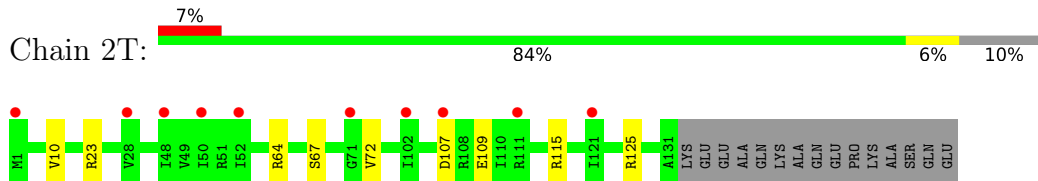
- Molecule 14: 50S ribosomal protein L18



- Molecule 15: 50S ribosomal protein L19



- Molecule 15: 50S ribosomal protein L19



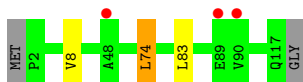
- Molecule 16: 50S ribosomal protein L20

Chain 1U:  95%



- Molecule 16: 50S ribosomal protein L20

Chain 2U:  96%



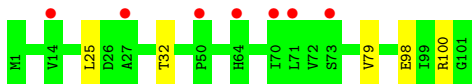
- Molecule 17: 50S ribosomal protein L21

Chain 1V:  96%



- Molecule 17: 50S ribosomal protein L21

Chain 2V:  95%



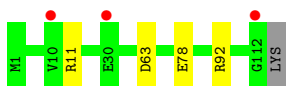
- Molecule 18: 50S ribosomal protein L22

Chain 1W:  96%



- Molecule 18: 50S ribosomal protein L22

Chain 2W:  96%

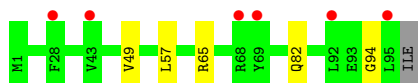


- Molecule 19: 50S ribosomal protein L23

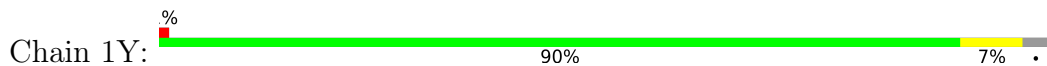
Chain 1X:  96%



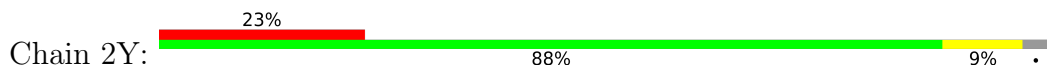
- Molecule 19: 50S ribosomal protein L23



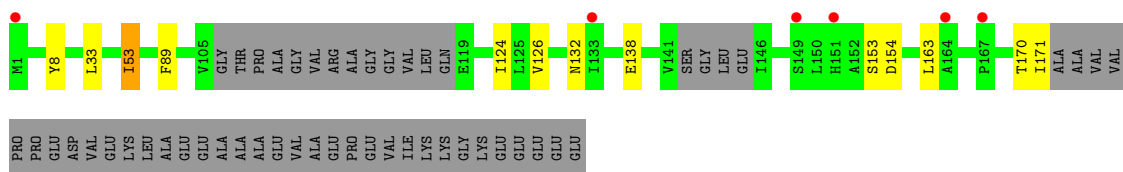
- Molecule 20: 50S ribosomal protein L24



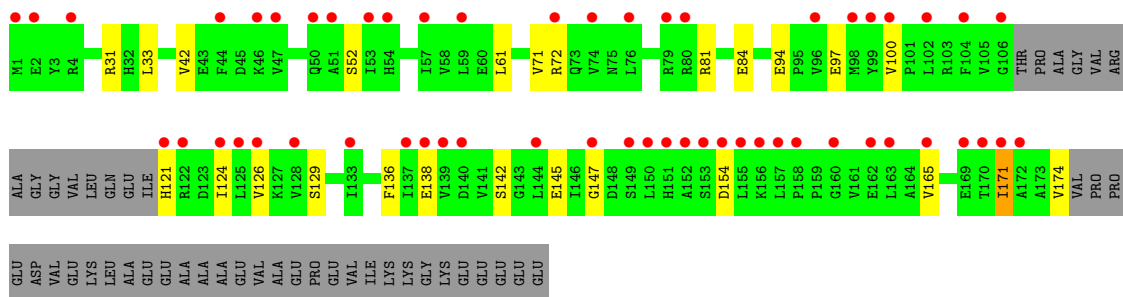
- Molecule 20: 50S ribosomal protein L24



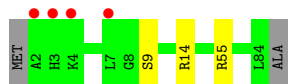
- Molecule 21: 50S ribosomal protein L25



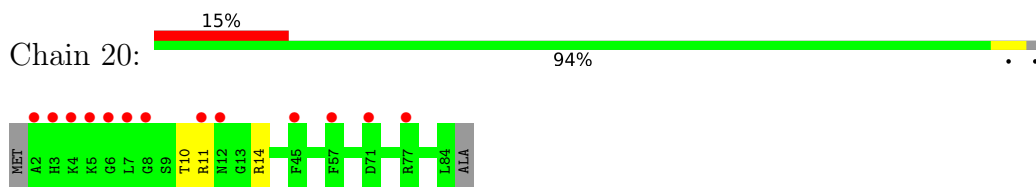
- Molecule 21: 50S ribosomal protein L25



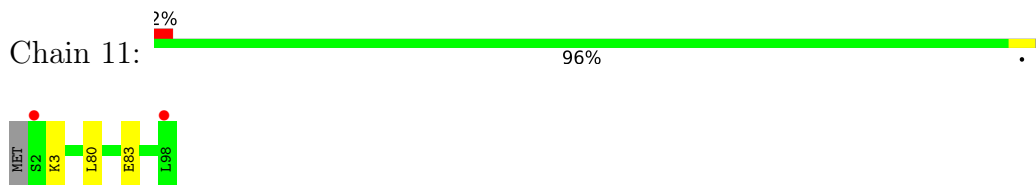
- Molecule 22: 50S ribosomal protein L27



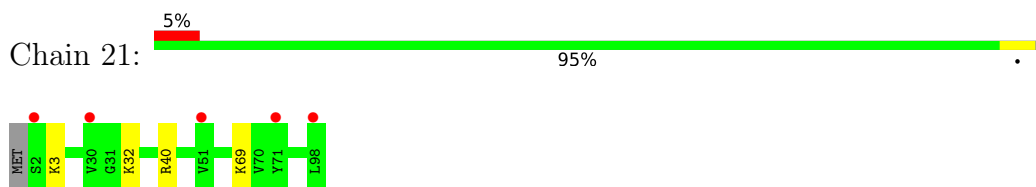
- Molecule 22: 50S ribosomal protein L27



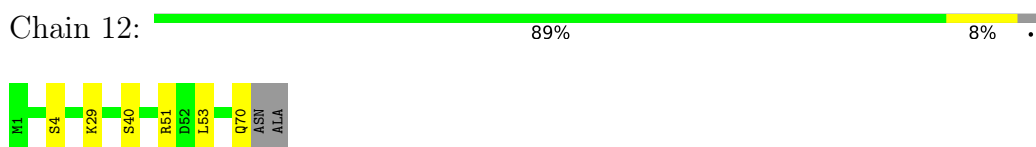
- Molecule 23: 50S ribosomal protein L28



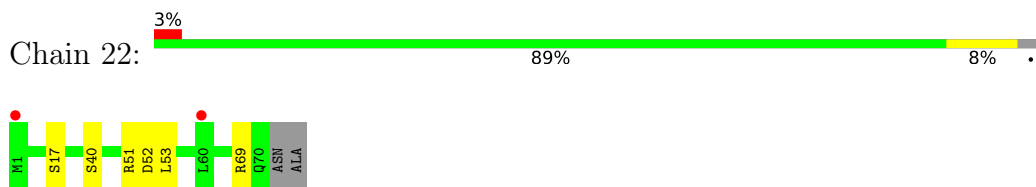
- Molecule 23: 50S ribosomal protein L28



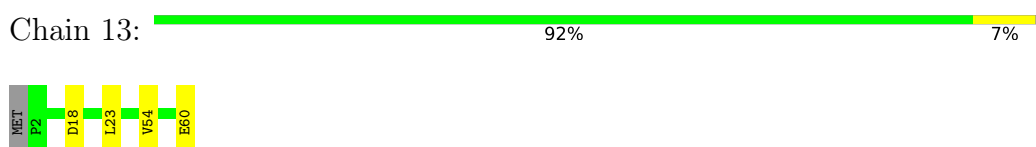
- Molecule 24: 50S ribosomal protein L29



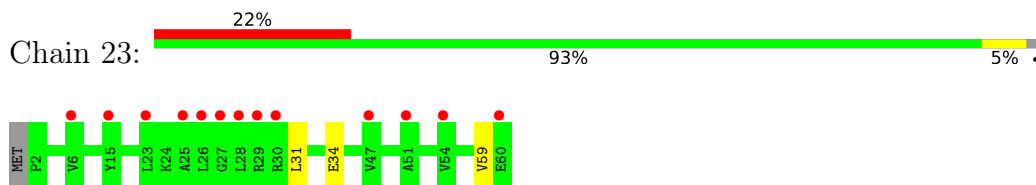
- Molecule 24: 50S ribosomal protein L29



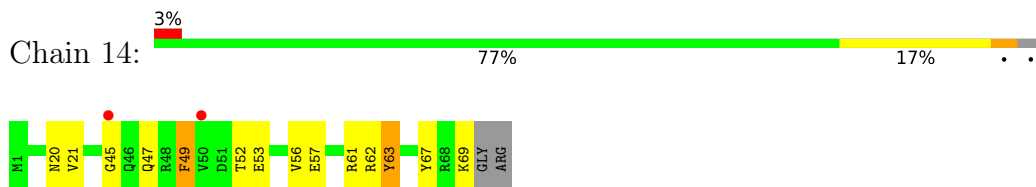
- Molecule 25: 50S ribosomal protein L30



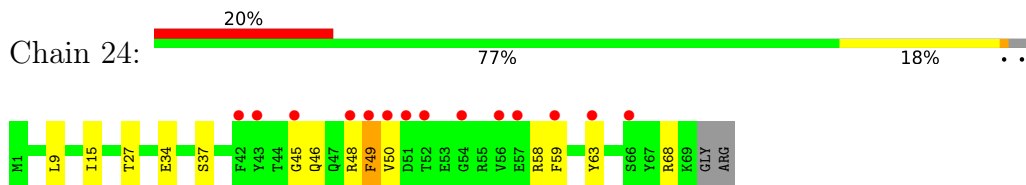
- Molecule 25: 50S ribosomal protein L30



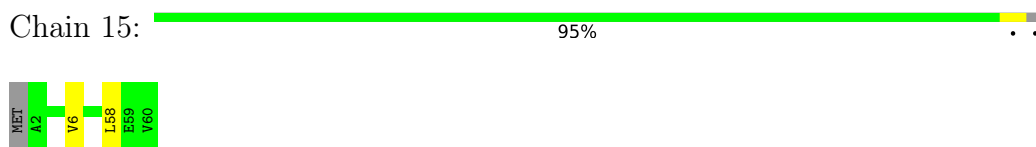
- Molecule 26: 50S ribosomal protein L31



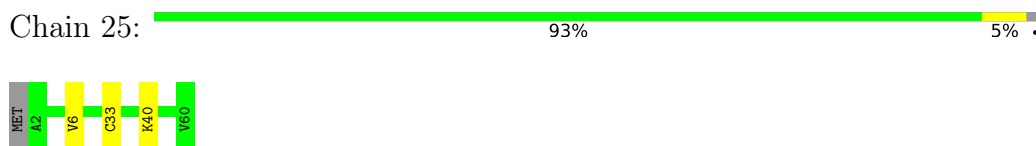
- Molecule 26: 50S ribosomal protein L31



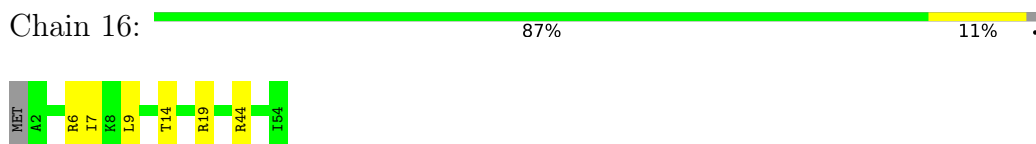
- Molecule 27: 50S ribosomal protein L32



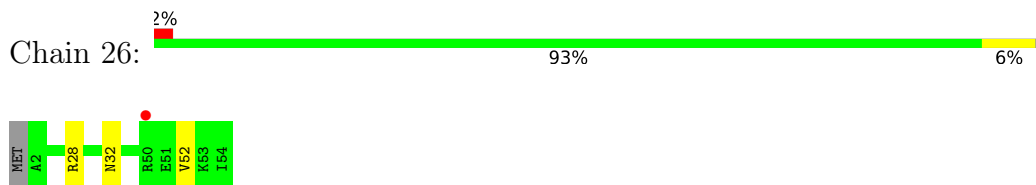
- Molecule 27: 50S ribosomal protein L32



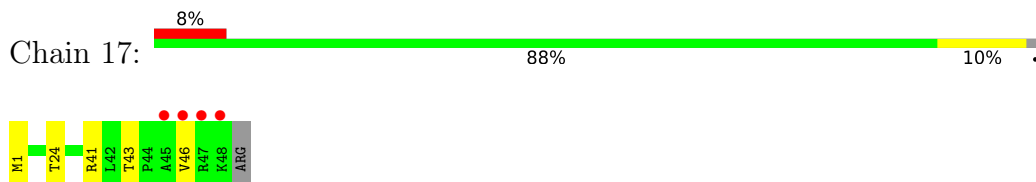
- Molecule 28: 50S ribosomal protein L33



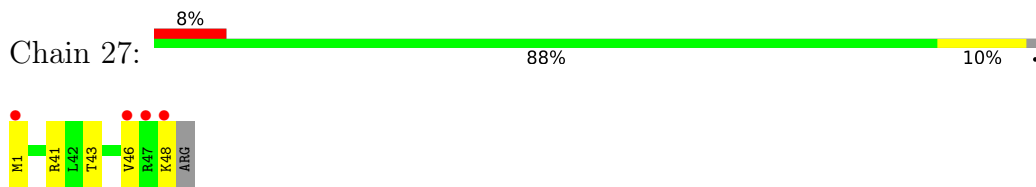
- Molecule 28: 50S ribosomal protein L33



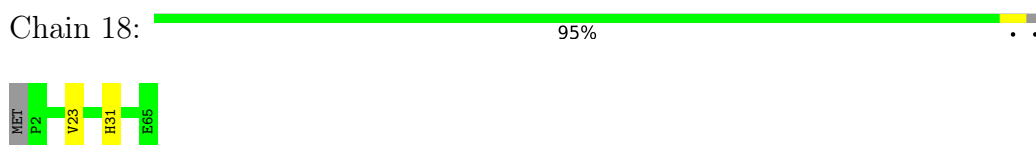
- Molecule 29: 50S ribosomal protein L34



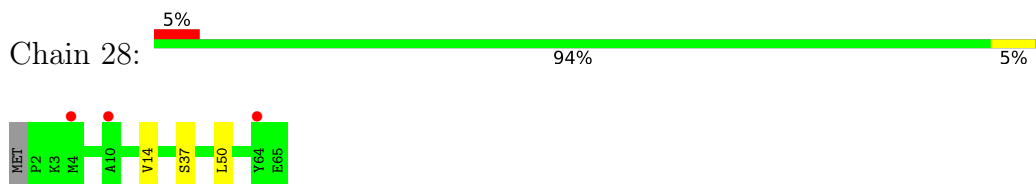
- Molecule 29: 50S ribosomal protein L34



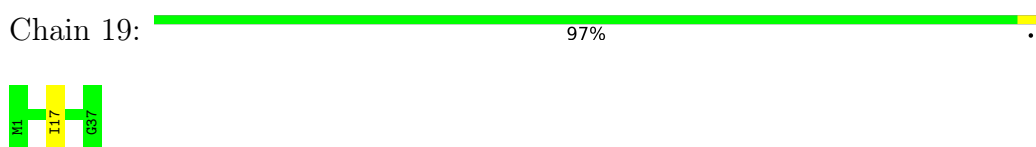
- Molecule 30: 50S ribosomal protein L35



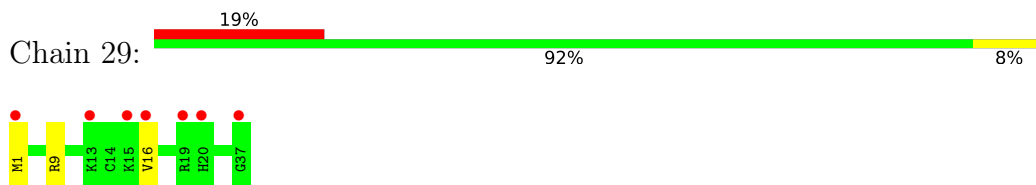
- Molecule 30: 50S ribosomal protein L35



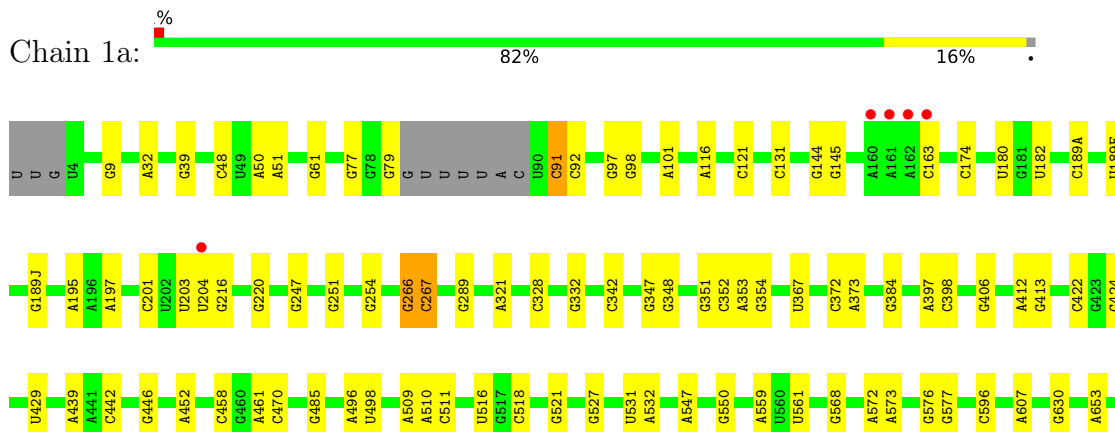
- Molecule 31: 50S ribosomal protein L36

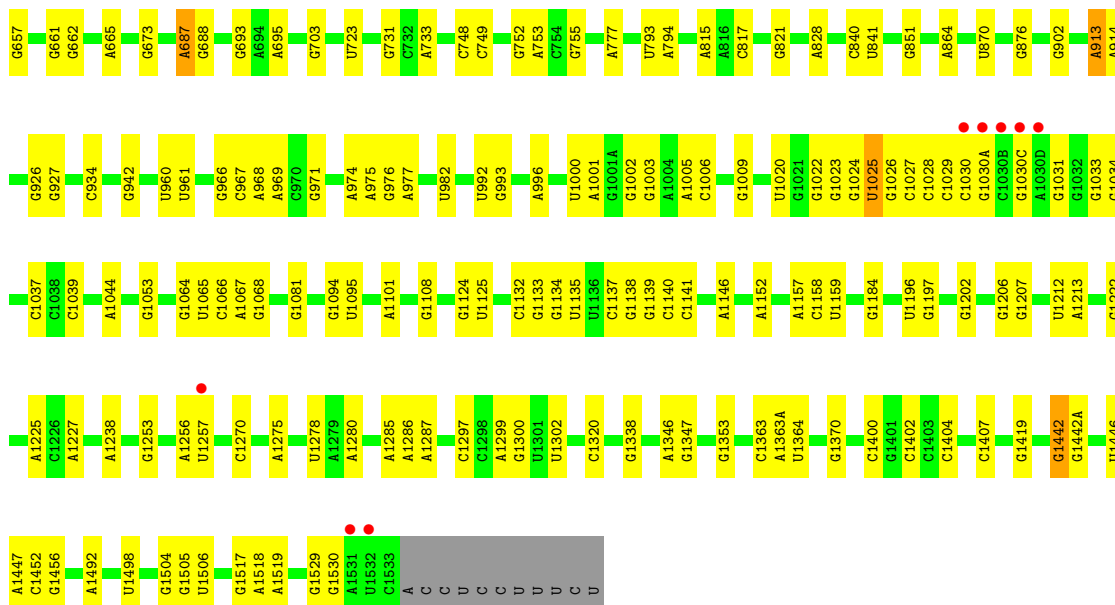


- Molecule 31: 50S ribosomal protein L36

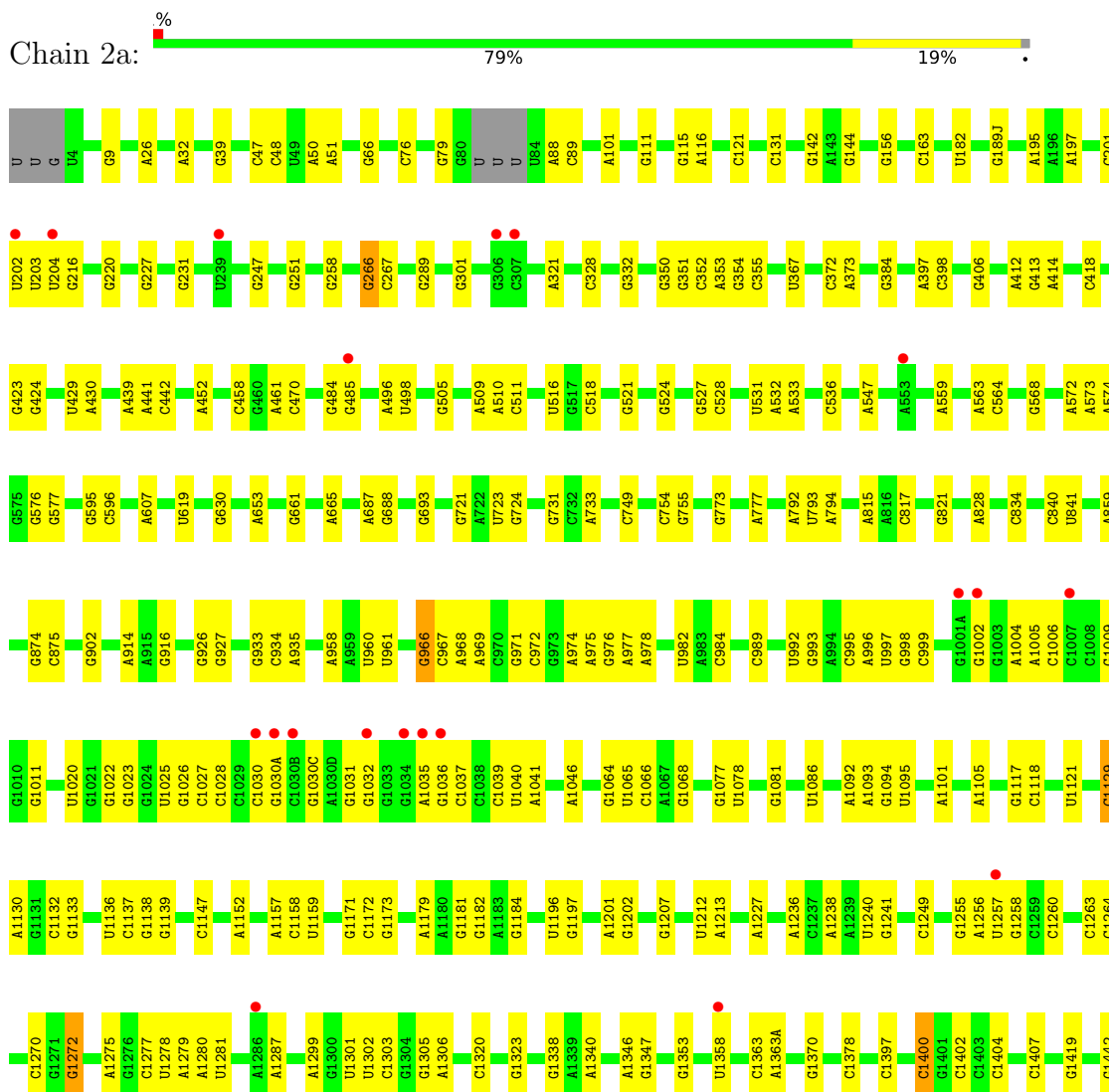


- Molecule 32: 16S Ribosomal RNA



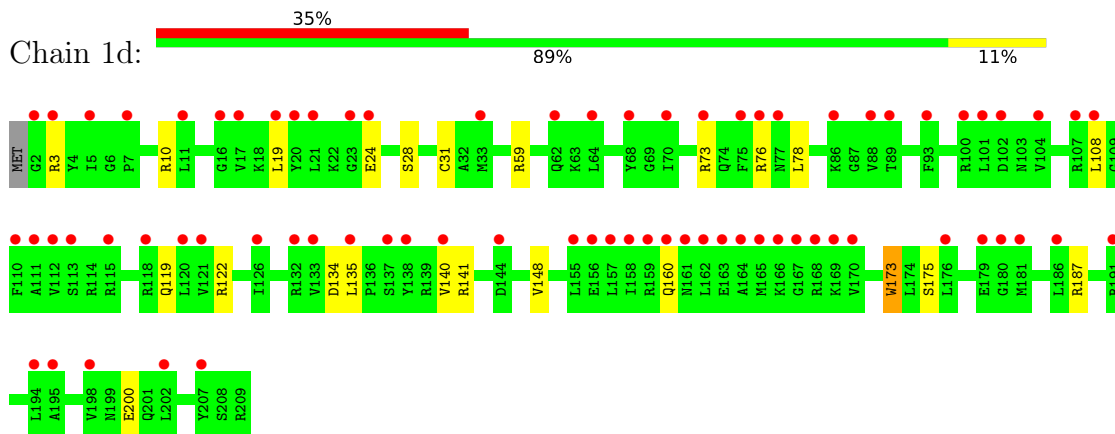


• Molecule 32: 16S Ribosomal RNA

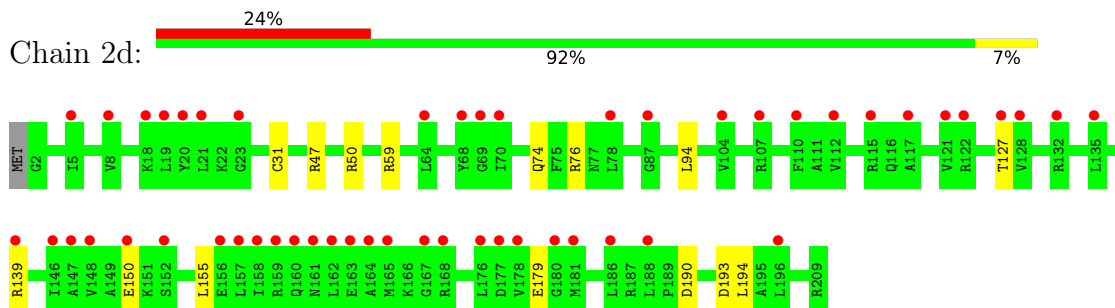


PRO
ARG
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ALA
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LYS
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GLU

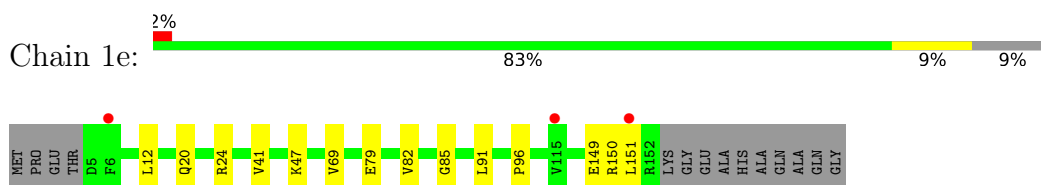
- Molecule 35: 30S ribosomal protein S4



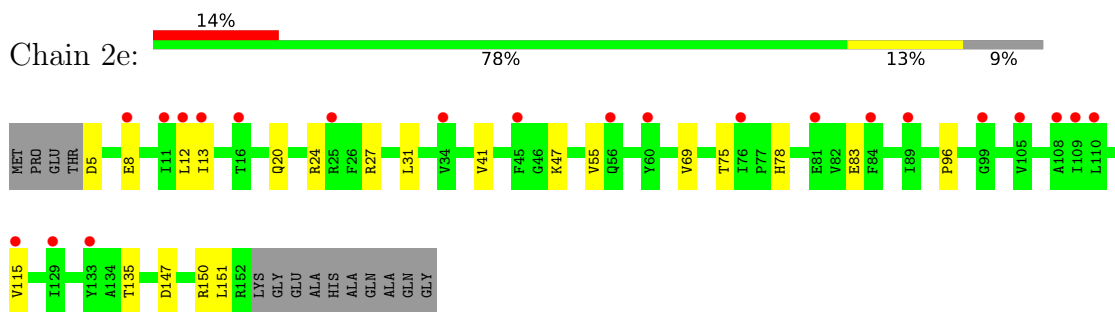
- Molecule 35: 30S ribosomal protein S4



- Molecule 36: 30S ribosomal protein S5



- Molecule 36: 30S ribosomal protein S5

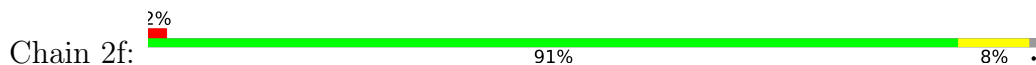


- Molecule 37: 30S ribosomal protein S6

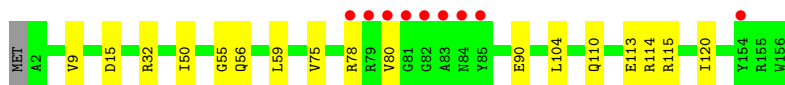
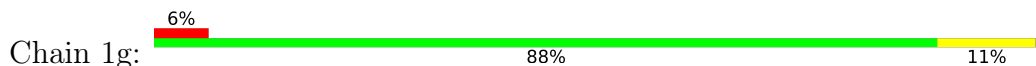




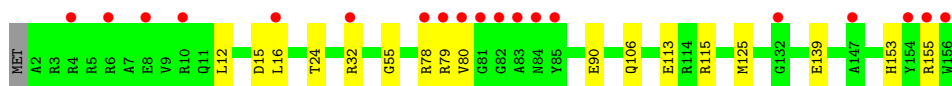
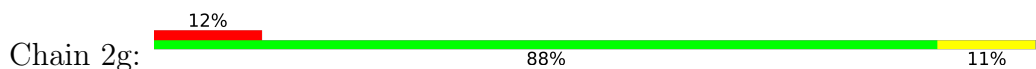
- Molecule 37: 30S ribosomal protein S6



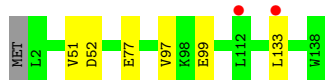
- Molecule 38: 30S ribosomal protein S7



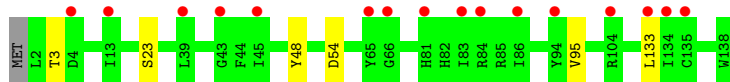
- Molecule 38: 30S ribosomal protein S7



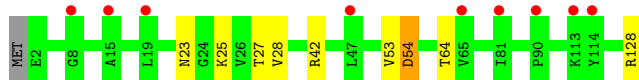
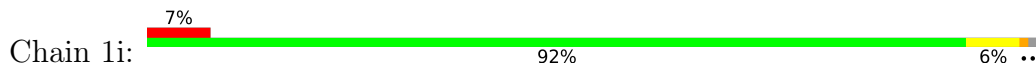
- Molecule 39: 30S ribosomal protein S8



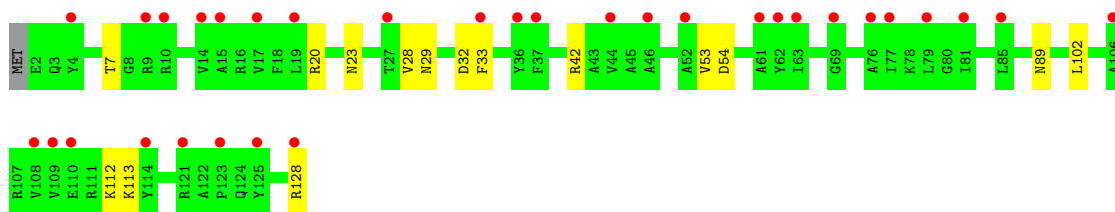
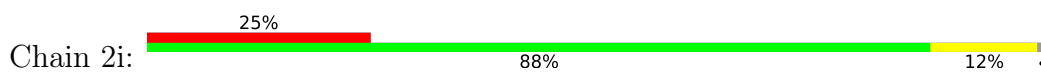
- Molecule 39: 30S ribosomal protein S8



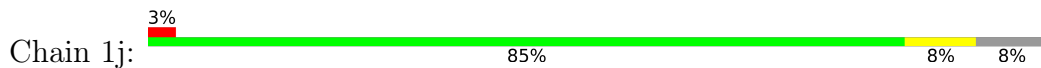
- Molecule 40: 30S ribosomal protein S9



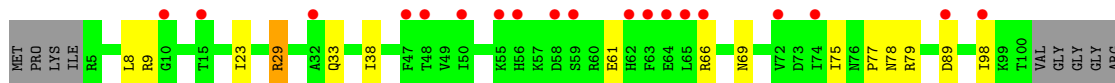
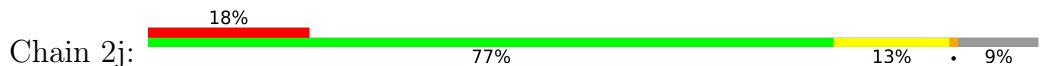
- Molecule 40: 30S ribosomal protein S9



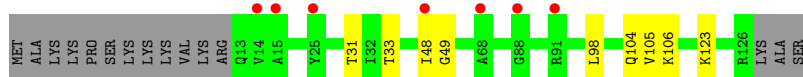
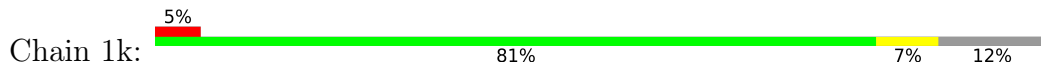
- Molecule 41: 30S ribosomal protein S10



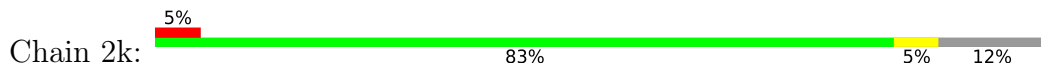
- Molecule 41: 30S ribosomal protein S10



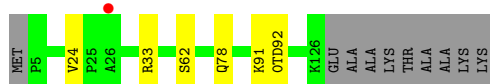
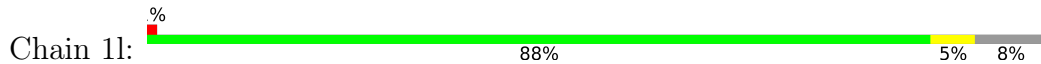
- Molecule 42: 30S ribosomal protein S11



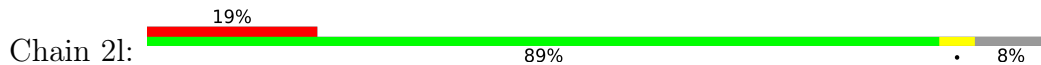
- Molecule 42: 30S ribosomal protein S11

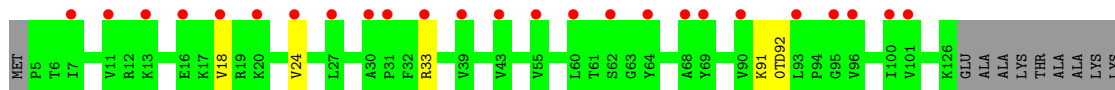


- Molecule 43: 30S ribosomal protein S12

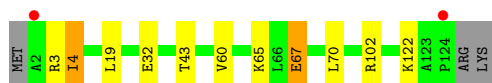
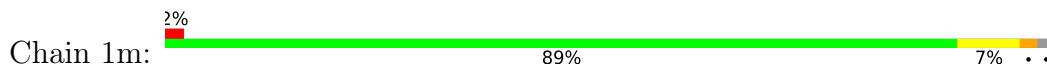


- Molecule 43: 30S ribosomal protein S12

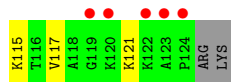
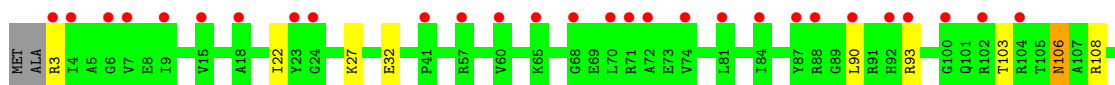




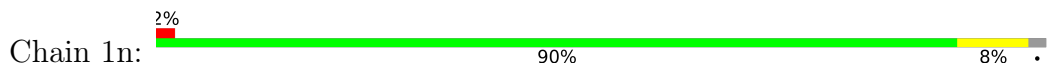
- Molecule 44: 30S ribosomal protein S13



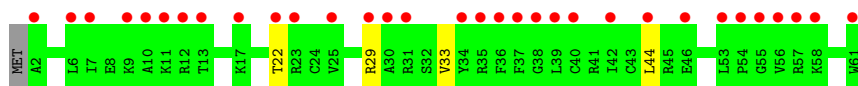
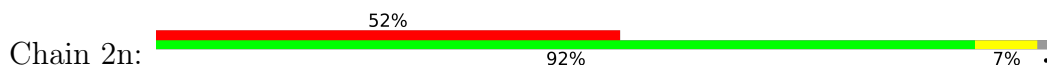
- Molecule 44: 30S ribosomal protein S13



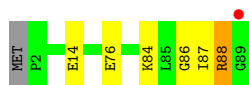
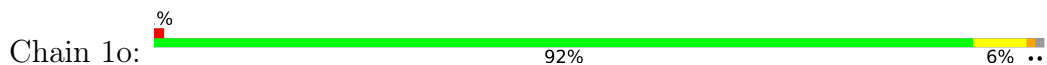
- Molecule 45: 30S ribosomal protein S14 type Z



- Molecule 45: 30S ribosomal protein S14 type Z

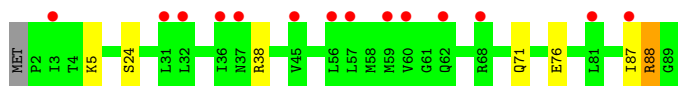


- Molecule 46: 30S ribosomal protein S15

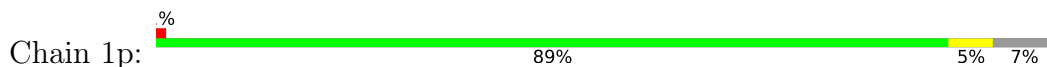


- Molecule 46: 30S ribosomal protein S15

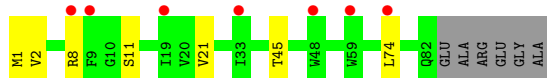
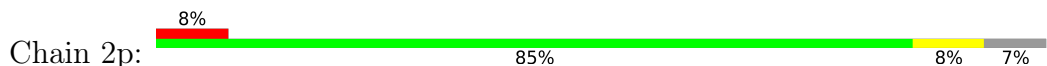




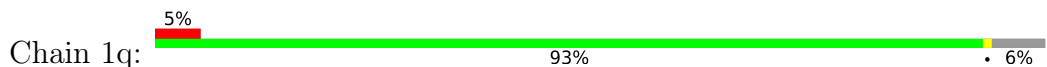
- Molecule 47: 30S ribosomal protein S16



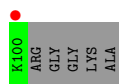
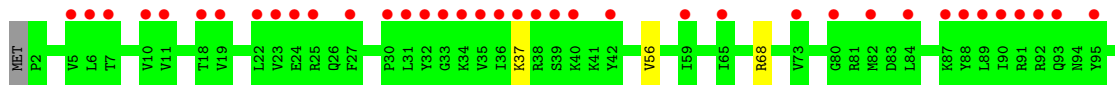
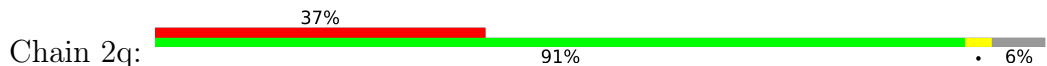
- Molecule 47: 30S ribosomal protein S16



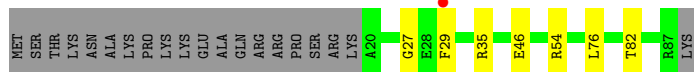
- Molecule 48: 30S ribosomal protein S17



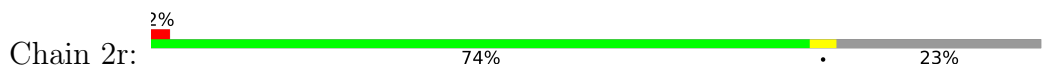
- Molecule 48: 30S ribosomal protein S17

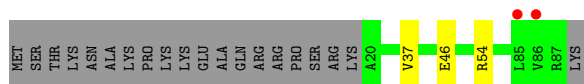


- Molecule 49: 30S ribosomal protein S18

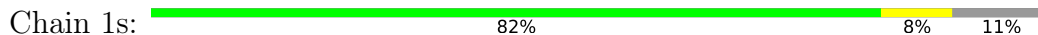


- Molecule 49: 30S ribosomal protein S18

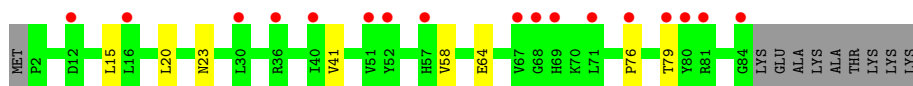
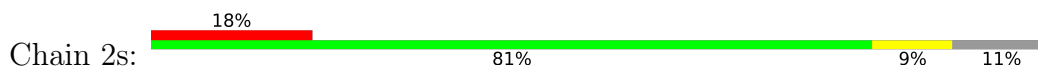




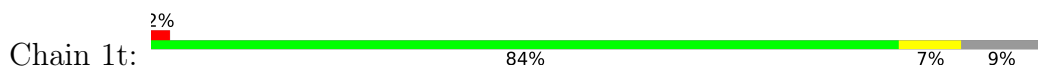
• Molecule 50: 30S ribosomal protein S19



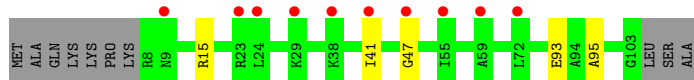
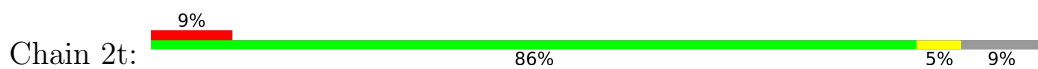
• Molecule 50: 30S ribosomal protein S19



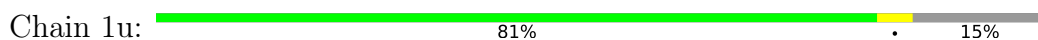
• Molecule 51: 30S ribosomal protein S20



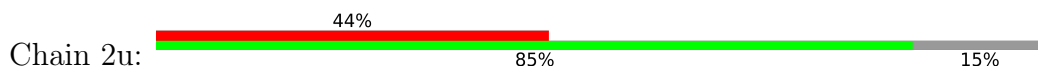
• Molecule 51: 30S ribosomal protein S20



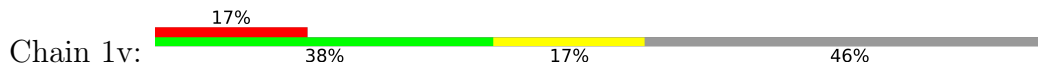
• Molecule 52: 30S ribosomal protein Thx

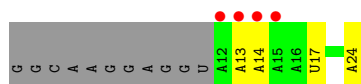


• Molecule 52: 30S ribosomal protein Thx

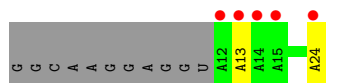


• Molecule 53: MF-mRNA





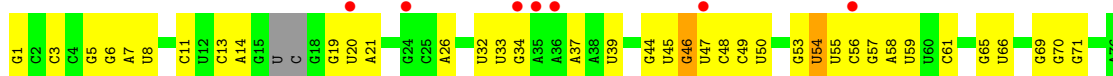
- Molecule 53: MF-mRNA



- Molecule 54: A-site and E-site Deacylated tRNAphe



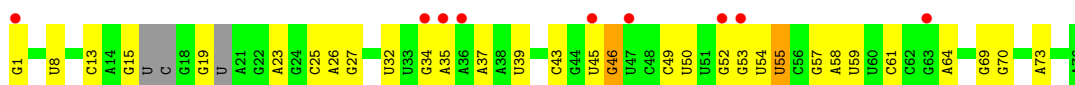
- Molecule 54: A-site and E-site Deacylated tRNAphe



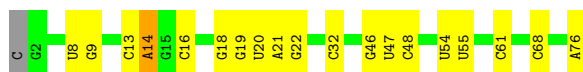
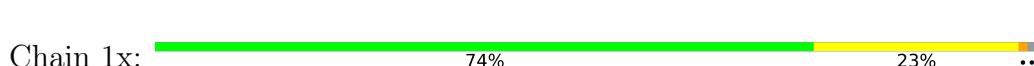
- Molecule 54: A-site and E-site Deacylated tRNAphe



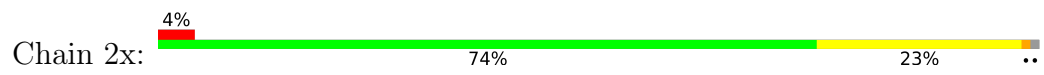
- Molecule 54: A-site and E-site Deacylated tRNAphe



- Molecule 55: P-site Deacylated tRNAmet



- Molecule 55: P-site Deacylated tRNAmet



4 Data and refinement statistics

| Property | Value | Source |
|---|---|------------------|
| Space group | P 21 21 21 | Depositor |
| Cell constants a, b, c, α , β , γ | 209.07Å 447.77Å 621.31Å 90.00° 90.00° 90.00° | Depositor |
| Resolution (Å) | 255.24 – 2.60 310.65 – 2.60 | Depositor EDS |
| % Data completeness (in resolution range) | 98.8 (255.24-2.60) 98.8 (310.65-2.60) | Depositor EDS |
| R_{merge} | 0.14 | Depositor |
| R_{sym} | (Not available) | Depositor |
| $\langle I/\sigma(I) \rangle$ ¹ | 1.35 (at 2.62Å) | Xtrriage |
| Refinement program | PHENIX 1.8.2 | Depositor |
| R, R_{free} | 0.218 , 0.265 0.218 , 0.265 | Depositor DCC |
| R_{free} test set | 87480 reflections (5.02%) | wwPDB-VP |
| Wilson B-factor (Å ²) | 48.8 | Xtrriage |
| Anisotropy | 0.181 | Xtrriage |
| Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²) | 0.29 , 54.3 | EDS |
| L-test for twinning ² | $\langle L \rangle = 0.40$, $\langle L^2 \rangle = 0.22$ | Xtrriage |
| Estimated twinning fraction | No twinning to report. | Xtrriage |
| F_o, F_c correlation | 0.90 | EDS |
| Total number of atoms | 300591 | wwPDB-VP |
| Average B, all atoms (Å ²) | 54.0 | wwPDB-VP |

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.51% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical 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

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: M2G, 2MG, ZN, 5MC, MG, 2MA, PSU, UR3, 4OC, MA6, SF4, G7M, 4SU, OMG, 0TD, SCM, K, OMC, 5MU, OMU, MIA

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 | 1A | 0.54 | 0/69011 | 0.98 | 83/107720 (0.1%) |
| 1 | 2A | 0.38 | 0/67295 | 0.85 | 24/105042 (0.0%) |
| 2 | 1B | 0.48 | 1/2882 (0.0%) | 0.89 | 0/4494 |
| 2 | 2B | 0.39 | 1/2879 (0.0%) | 0.85 | 2/4487 (0.0%) |
| 3 | 1D | 0.37 | 0/2186 | 0.56 | 0/2944 |
| 3 | 2D | 0.32 | 0/2186 | 0.52 | 1/2944 (0.0%) |
| 4 | 1E | 0.35 | 0/1592 | 0.55 | 0/2149 |
| 4 | 2E | 0.29 | 0/1592 | 0.51 | 0/2149 |
| 5 | 1F | 0.33 | 0/1618 | 0.53 | 0/2191 |
| 5 | 2F | 0.30 | 0/1614 | 0.50 | 0/2186 |
| 6 | 1G | 0.29 | 0/1448 | 0.49 | 0/1957 |
| 6 | 2G | 0.30 | 0/1453 | 0.48 | 0/1963 |
| 7 | 1H | 0.33 | 0/1356 | 0.50 | 0/1834 |
| 7 | 2H | 0.28 | 0/1356 | 0.47 | 0/1834 |
| 8 | 1I | 0.29 | 0/1112 | 0.51 | 0/1514 |
| 8 | 2I | 0.28 | 0/1079 | 0.48 | 0/1475 |
| 9 | 1N | 0.36 | 0/1144 | 0.54 | 0/1543 |
| 9 | 2N | 0.28 | 0/1144 | 0.45 | 0/1543 |
| 10 | 1O | 0.35 | 0/943 | 0.54 | 0/1269 |
| 10 | 2O | 0.31 | 0/943 | 0.51 | 0/1269 |
| 11 | 1P | 0.34 | 0/1152 | 0.59 | 0/1533 |
| 11 | 2P | 0.29 | 0/1152 | 0.52 | 0/1533 |
| 12 | 1Q | 0.36 | 0/1143 | 0.53 | 0/1527 |
| 12 | 2Q | 0.30 | 0/1143 | 0.48 | 0/1527 |
| 13 | 1R | 0.33 | 0/982 | 0.55 | 0/1312 |
| 13 | 2R | 0.28 | 0/982 | 0.50 | 0/1312 |
| 14 | 1S | 0.32 | 0/883 | 0.53 | 0/1176 |
| 14 | 2S | 0.30 | 0/880 | 0.50 | 0/1172 |
| 15 | 1T | 0.34 | 0/1105 | 0.51 | 0/1477 |
| 15 | 2T | 0.29 | 0/1097 | 0.49 | 0/1468 |
| 16 | 1U | 0.38 | 0/977 | 0.57 | 0/1301 |

| Mol | Chain | Bond lengths | | Bond angles | |
|-----|-------|--------------|----------------|-------------|-----------------|
| | | RMSZ | # Z >5 | RMSZ | # Z >5 |
| 16 | 2U | 0.29 | 0/977 | 0.46 | 1/1301 (0.1%) |
| 17 | 1V | 0.36 | 0/782 | 0.52 | 0/1049 |
| 17 | 2V | 0.29 | 0/782 | 0.51 | 0/1049 |
| 18 | 1W | 0.37 | 0/897 | 0.53 | 0/1205 |
| 18 | 2W | 0.29 | 0/897 | 0.48 | 0/1205 |
| 19 | 1X | 0.37 | 0/764 | 0.58 | 0/1025 |
| 19 | 2X | 0.33 | 0/764 | 0.52 | 0/1025 |
| 20 | 1Y | 0.35 | 0/819 | 0.55 | 0/1095 |
| 20 | 2Y | 0.31 | 0/819 | 0.49 | 0/1095 |
| 21 | 1Z | 0.31 | 0/1267 | 0.52 | 0/1717 |
| 21 | 2Z | 0.30 | 0/1299 | 0.50 | 0/1763 |
| 22 | 10 | 0.37 | 0/662 | 0.58 | 0/881 |
| 22 | 20 | 0.29 | 0/662 | 0.49 | 0/881 |
| 23 | 11 | 0.35 | 0/762 | 0.54 | 0/1014 |
| 23 | 21 | 0.32 | 0/762 | 0.50 | 0/1014 |
| 24 | 12 | 0.32 | 0/590 | 0.46 | 0/781 |
| 24 | 22 | 0.27 | 0/590 | 0.42 | 0/781 |
| 25 | 13 | 0.35 | 0/474 | 0.52 | 0/635 |
| 25 | 23 | 0.28 | 0/469 | 0.43 | 0/630 |
| 26 | 14 | 0.34 | 0/565 | 0.55 | 0/761 |
| 26 | 24 | 0.31 | 0/545 | 0.51 | 0/737 |
| 27 | 15 | 0.36 | 0/469 | 0.57 | 0/635 |
| 27 | 25 | 0.33 | 0/469 | 0.50 | 0/635 |
| 28 | 16 | 0.34 | 0/460 | 0.55 | 0/613 |
| 28 | 26 | 0.28 | 0/456 | 0.51 | 0/608 |
| 29 | 17 | 0.35 | 0/426 | 0.54 | 0/561 |
| 29 | 27 | 0.31 | 0/426 | 0.50 | 0/561 |
| 30 | 18 | 0.34 | 0/525 | 0.52 | 0/691 |
| 30 | 28 | 0.29 | 0/525 | 0.48 | 0/691 |
| 31 | 19 | 0.38 | 0/310 | 0.53 | 0/407 |
| 31 | 29 | 0.27 | 0/310 | 0.50 | 0/407 |
| 32 | 1a | 0.38 | 0/35795 | 0.87 | 16/55864 (0.0%) |
| 32 | 2a | 0.36 | 2/35886 (0.0%) | 0.88 | 30/56005 (0.1%) |
| 33 | 1b | 0.30 | 0/1881 | 0.49 | 0/2542 |
| 33 | 2b | 0.31 | 0/1860 | 0.48 | 0/2518 |
| 34 | 1c | 0.28 | 0/1572 | 0.45 | 0/2126 |
| 34 | 2c | 0.31 | 0/1566 | 0.50 | 0/2119 |
| 35 | 1d | 0.29 | 0/1685 | 0.50 | 1/2262 (0.0%) |
| 35 | 2d | 0.30 | 0/1704 | 0.46 | 0/2284 |
| 36 | 1e | 0.29 | 0/1145 | 0.50 | 0/1543 |
| 36 | 2e | 0.31 | 0/1149 | 0.49 | 0/1548 |
| 37 | 1f | 0.30 | 0/823 | 0.48 | 0/1115 |
| 37 | 2f | 0.30 | 0/829 | 0.49 | 0/1123 |

| Mol | Chain | Bond lengths | | Bond angles | |
|-----|-------|--------------|------------------|-------------|-------------------|
| | | RMSZ | # Z >5 | RMSZ | # Z >5 |
| 38 | 1g | 0.29 | 0/1250 | 0.44 | 0/1679 |
| 38 | 2g | 0.29 | 0/1254 | 0.45 | 0/1683 |
| 39 | 1h | 0.28 | 0/1108 | 0.47 | 0/1494 |
| 39 | 2h | 0.28 | 0/1108 | 0.46 | 0/1494 |
| 40 | 1i | 0.30 | 0/1002 | 0.50 | 0/1346 |
| 40 | 2i | 0.30 | 0/997 | 0.53 | 0/1343 |
| 41 | 1j | 0.28 | 0/722 | 0.48 | 0/982 |
| 41 | 2j | 0.28 | 0/727 | 0.48 | 0/988 |
| 42 | 1k | 0.29 | 0/844 | 0.49 | 0/1145 |
| 42 | 2k | 0.29 | 0/848 | 0.50 | 0/1149 |
| 43 | 1l | 0.31 | 0/937 | 0.51 | 0/1260 |
| 43 | 2l | 0.28 | 0/937 | 0.48 | 0/1260 |
| 44 | 1m | 0.29 | 0/969 | 0.48 | 0/1302 |
| 44 | 2m | 0.29 | 0/961 | 0.45 | 0/1291 |
| 45 | 1n | 0.32 | 0/501 | 0.51 | 1/664 (0.2%) |
| 45 | 2n | 0.31 | 0/501 | 0.45 | 0/664 |
| 46 | 1o | 0.28 | 0/739 | 0.46 | 0/985 |
| 46 | 2o | 0.26 | 0/739 | 0.42 | 0/985 |
| 47 | 1p | 0.30 | 0/697 | 0.52 | 0/939 |
| 47 | 2p | 0.29 | 0/693 | 0.51 | 0/935 |
| 48 | 1q | 0.29 | 0/836 | 0.47 | 0/1117 |
| 48 | 2q | 0.29 | 0/836 | 0.48 | 0/1117 |
| 49 | 1r | 0.28 | 0/560 | 0.48 | 0/746 |
| 49 | 2r | 0.27 | 0/560 | 0.50 | 0/746 |
| 50 | 1s | 0.28 | 0/667 | 0.53 | 0/900 |
| 50 | 2s | 0.29 | 0/661 | 0.53 | 0/893 |
| 51 | 1t | 0.28 | 0/730 | 0.45 | 0/965 |
| 51 | 2t | 0.27 | 0/729 | 0.43 | 0/965 |
| 52 | 1u | 0.28 | 0/203 | 0.49 | 0/266 |
| 52 | 2u | 0.28 | 0/203 | 0.49 | 0/266 |
| 53 | 1v | 0.47 | 0/310 | 0.99 | 1/480 (0.2%) |
| 53 | 2v | 0.41 | 0/310 | 0.93 | 0/480 |
| 54 | 1w | 0.49 | 1/1606 (0.1%) | 0.99 | 0/2497 |
| 54 | 1y | 0.53 | 1/1606 (0.1%) | 1.05 | 3/2497 (0.1%) |
| 54 | 2w | 0.43 | 0/1556 | 0.99 | 1/2418 (0.0%) |
| 54 | 2y | 0.54 | 1/1583 (0.1%) | 1.05 | 0/2459 |
| 55 | 1x | 0.53 | 2/1725 (0.1%) | 1.12 | 14/2689 (0.5%) |
| 55 | 2x | 0.48 | 1/1725 (0.1%) | 1.06 | 11/2689 (0.4%) |
| All | All | 0.41 | 10/316688 (0.0%) | 0.82 | 189/474125 (0.0%) |

All (10) bond length outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|--------|-------------|----------|
| 2 | 2B | 1 | U | OP3-P | -10.35 | 1.48 | 1.61 |
| 54 | 1y | 1 | G | OP3-P | -10.28 | 1.48 | 1.61 |
| 2 | 1B | 1 | U | OP3-P | -10.17 | 1.49 | 1.61 |
| 54 | 1w | 1 | G | OP3-P | -10.04 | 1.49 | 1.61 |
| 54 | 2y | 1 | G | OP3-P | -9.97 | 1.49 | 1.61 |
| 32 | 2a | 1272 | G | N1-C2 | -7.68 | 1.31 | 1.37 |
| 55 | 1x | 14 | A | N7-C5 | -7.37 | 1.34 | 1.39 |
| 32 | 2a | 1272 | G | C6-N1 | -6.82 | 1.34 | 1.39 |
| 55 | 1x | 14 | A | C8-N7 | -6.13 | 1.27 | 1.31 |
| 55 | 2x | 14 | A | N7-C5 | -5.91 | 1.35 | 1.39 |

All (189) bond angle outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|--------|-------------|----------|
| 32 | 2a | 1263 | C | N1-C2-O2 | 25.06 | 133.93 | 118.90 |
| 32 | 2a | 1272 | G | N3-C2-N2 | 19.52 | 133.56 | 119.90 |
| 32 | 2a | 1272 | G | N1-C2-N2 | -17.45 | 100.50 | 116.20 |
| 32 | 2a | 1272 | G | C5-C6-O6 | 15.92 | 138.15 | 128.60 |
| 32 | 2a | 1263 | C | C2-N3-C4 | 14.43 | 127.11 | 119.90 |
| 32 | 2a | 1263 | C | N3-C2-O2 | -13.11 | 112.73 | 121.90 |
| 32 | 2a | 1263 | C | C5-C6-N1 | 11.53 | 126.76 | 121.00 |
| 55 | 1x | 14 | A | C4-C5-C6 | 11.03 | 122.52 | 117.00 |
| 55 | 2x | 14 | A | C4-C5-C6 | 10.88 | 122.44 | 117.00 |
| 32 | 2a | 1272 | G | C6-N1-C2 | 10.86 | 131.62 | 125.10 |
| 32 | 2a | 1272 | G | C5-C6-N1 | -10.54 | 106.23 | 111.50 |
| 55 | 1x | 46 | G | C6-N1-C2 | -10.48 | 118.81 | 125.10 |
| 2 | 2B | 80 | U | O4'-C1'-N1 | 9.89 | 116.11 | 108.20 |
| 1 | 1A | 1075 | C | C2-N3-C4 | 9.70 | 124.75 | 119.90 |
| 32 | 2a | 1263 | C | C4-C5-C6 | -9.43 | 112.69 | 117.40 |
| 1 | 1A | 1063 | G | C5-C6-O6 | 9.24 | 134.14 | 128.60 |
| 1 | 1A | 1075 | C | N1-C2-O2 | 9.21 | 124.43 | 118.90 |
| 32 | 2a | 1272 | G | C2-N3-C4 | -9.02 | 107.39 | 111.90 |
| 1 | 2A | 2136 | C | N1-C2-O2 | 8.80 | 124.18 | 118.90 |
| 32 | 2a | 1263 | C | C2-N1-C1' | 8.75 | 128.43 | 118.80 |
| 55 | 2x | 46 | G | C6-N1-C2 | -8.63 | 119.92 | 125.10 |
| 1 | 1A | 1086 | A | N1-C6-N6 | -8.62 | 113.42 | 118.60 |
| 55 | 2x | 14 | A | C5-N7-C8 | 8.53 | 108.16 | 103.90 |
| 32 | 2a | 1263 | C | N1-C2-N3 | -8.38 | 113.33 | 119.20 |
| 55 | 1x | 14 | A | C5-N7-C8 | 8.33 | 108.06 | 103.90 |
| 1 | 1A | 1614 | A | O5'-P-OP1 | -8.19 | 98.33 | 105.70 |
| 1 | 1A | 801 | G | O5'-P-OP2 | -8.10 | 98.41 | 105.70 |
| 1 | 1A | 2167 | U | C2-N1-C1' | 7.99 | 127.28 | 117.70 |
| 1 | 1A | 512 | G | O4'-C1'-N9 | 7.77 | 114.42 | 108.20 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 54 | 1y | 56 | C | N1-C2-O2 | 7.76 | 123.56 | 118.90 |
| 55 | 1x | 14 | A | N1-C6-N6 | 7.63 | 123.18 | 118.60 |
| 32 | 2a | 1263 | C | N3-C4-N4 | -7.54 | 112.72 | 118.00 |
| 32 | 1a | 1025 | U | N1-C2-O2 | 7.52 | 128.06 | 122.80 |
| 1 | 1A | 2036 | C | O5'-P-OP1 | -7.50 | 98.95 | 105.70 |
| 1 | 1A | 1063 | G | C6-N1-C2 | 7.42 | 129.56 | 125.10 |
| 55 | 1x | 14 | A | C5-C6-N1 | -7.38 | 114.01 | 117.70 |
| 1 | 1A | 1776 | G | O5'-P-OP2 | -7.31 | 99.12 | 105.70 |
| 32 | 2a | 1272 | G | N1-C6-O6 | -7.23 | 115.56 | 119.90 |
| 32 | 2a | 754 | C | C2-N1-C1' | 7.17 | 126.69 | 118.80 |
| 1 | 1A | 975 | C | N1-C2-O2 | -7.12 | 114.63 | 118.90 |
| 55 | 1x | 46 | G | C5-C6-N1 | 7.09 | 115.05 | 111.50 |
| 55 | 1x | 22 | G | C5-N7-C8 | -7.07 | 100.77 | 104.30 |
| 1 | 1A | 2685 | G | N1-C6-O6 | -7.02 | 115.69 | 119.90 |
| 1 | 1A | 1075 | C | C5-C4-N4 | 6.97 | 125.08 | 120.20 |
| 1 | 1A | 1080 | C | C2-N3-C4 | 6.93 | 123.37 | 119.90 |
| 32 | 2a | 1263 | C | C5-C4-N4 | 6.93 | 125.05 | 120.20 |
| 55 | 2x | 14 | A | C5-C6-N1 | -6.91 | 114.25 | 117.70 |
| 1 | 1A | 2629 | A | P-O3'-C3' | 6.84 | 127.91 | 119.70 |
| 1 | 1A | 1992 | G | P-O3'-C3' | 6.83 | 127.90 | 119.70 |
| 54 | 1y | 56 | C | C2-N3-C4 | 6.82 | 123.31 | 119.90 |
| 1 | 1A | 2689 | U | N3-C2-O2 | -6.78 | 117.45 | 122.20 |
| 1 | 1A | 12 | U | C2-N1-C1' | 6.76 | 125.81 | 117.70 |
| 55 | 2x | 22 | G | C5-N7-C8 | -6.74 | 100.93 | 104.30 |
| 32 | 2a | 1272 | G | C8-N9-C1' | -6.66 | 118.34 | 127.00 |
| 1 | 1A | 372 | G | O4'-C1'-N9 | 6.60 | 113.48 | 108.20 |
| 1 | 1A | 948 | G | O5'-P-OP1 | -6.56 | 99.79 | 105.70 |
| 1 | 2A | 2136 | C | N3-C2-O2 | -6.52 | 117.33 | 121.90 |
| 1 | 1A | 2167 | U | N1-C2-O2 | 6.47 | 127.33 | 122.80 |
| 1 | 1A | 1080 | C | N1-C2-O2 | 6.45 | 122.77 | 118.90 |
| 32 | 2a | 1272 | G | C4-N9-C1' | 6.42 | 134.84 | 126.50 |
| 1 | 1A | 975 | C | O5'-P-OP1 | -6.39 | 99.95 | 105.70 |
| 32 | 2a | 1158 | C | C2-N1-C1' | 6.35 | 125.78 | 118.80 |
| 32 | 2a | 1263 | C | C6-N1-C2 | -6.33 | 117.77 | 120.30 |
| 1 | 2A | 1780 | A | O5'-P-OP1 | -6.33 | 100.01 | 105.70 |
| 1 | 1A | 2167 | U | N3-C2-O2 | -6.32 | 117.78 | 122.20 |
| 1 | 1A | 1082 | U | N3-C4-O4 | -6.31 | 114.98 | 119.40 |
| 1 | 1A | 2032 | G | C5-N7-C8 | 6.30 | 107.45 | 104.30 |
| 1 | 1A | 2593 | U | N3-C4-O4 | -6.29 | 114.99 | 119.40 |
| 32 | 2a | 1129 | C | C2-N1-C1' | -6.29 | 111.88 | 118.80 |
| 1 | 2A | 512 | G | O4'-C1'-N9 | 6.22 | 113.18 | 108.20 |
| 1 | 2A | 784 | A | P-O3'-C3' | 6.21 | 127.15 | 119.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 1 | 1A | 819 | A | O5'-P-OP1 | -6.20 | 100.12 | 105.70 |
| 55 | 2x | 46 | G | N3-C2-N2 | -6.16 | 115.59 | 119.90 |
| 1 | 2A | 784 | A | OP1-P-O3' | 6.16 | 118.74 | 105.20 |
| 32 | 2a | 754 | C | N1-C2-O2 | 6.13 | 122.58 | 118.90 |
| 1 | 2A | 576 | U | O5'-P-OP1 | -6.11 | 100.20 | 105.70 |
| 1 | 1A | 530 | G | C5-C6-N1 | 6.08 | 114.54 | 111.50 |
| 55 | 1x | 46 | G | N3-C2-N2 | -6.08 | 115.64 | 119.90 |
| 1 | 1A | 2245 | U | O5'-P-OP2 | -6.07 | 100.23 | 105.70 |
| 1 | 1A | 1993 | U | O5'-P-OP1 | -6.03 | 100.27 | 105.70 |
| 1 | 1A | 1187 | G | N1-C6-O6 | -5.98 | 116.31 | 119.90 |
| 55 | 1x | 14 | A | C6-C5-N7 | -5.95 | 128.14 | 132.30 |
| 54 | 1y | 33 | U | C2-N1-C1' | 5.93 | 124.82 | 117.70 |
| 1 | 2A | 2689 | U | N3-C2-O2 | -5.93 | 118.05 | 122.20 |
| 32 | 2a | 1263 | C | C6-N1-C1' | -5.91 | 113.71 | 120.80 |
| 1 | 1A | 548 | A | P-O3'-C3' | 5.88 | 126.76 | 119.70 |
| 1 | 2A | 1420 | U | P-O3'-C3' | 5.86 | 126.74 | 119.70 |
| 1 | 1A | 847 | U | C2-N1-C1' | 5.81 | 124.67 | 117.70 |
| 1 | 2A | 885 | C | C5-C6-N1 | 5.79 | 123.90 | 121.00 |
| 55 | 1x | 22 | G | C5-C6-N1 | 5.79 | 114.39 | 111.50 |
| 2 | 2B | 1 | U | C2-N1-C1' | 5.76 | 124.61 | 117.70 |
| 55 | 1x | 22 | G | C4-C5-C6 | -5.75 | 115.35 | 118.80 |
| 1 | 1A | 2021 | C | C6-N1-C2 | 5.74 | 122.60 | 120.30 |
| 1 | 1A | 125 | G | O4'-C1'-N9 | -5.73 | 103.62 | 108.20 |
| 1 | 2A | 1416 | G | O4'-C1'-N9 | 5.73 | 112.78 | 108.20 |
| 1 | 1A | 748 | G | O4'-C1'-N9 | 5.73 | 112.78 | 108.20 |
| 32 | 1a | 1225 | A | C5-C6-N6 | 5.69 | 128.25 | 123.70 |
| 1 | 1A | 226 | G | O4'-C1'-N9 | 5.68 | 112.74 | 108.20 |
| 1 | 1A | 1174 | A | P-O3'-C3' | 5.68 | 126.51 | 119.70 |
| 45 | 1n | 12 | ARG | C-N-CA | -5.64 | 107.60 | 121.70 |
| 55 | 2x | 46 | G | C5-C6-N1 | 5.62 | 114.31 | 111.50 |
| 1 | 1A | 211 | A | C8-N9-C4 | 5.62 | 108.05 | 105.80 |
| 1 | 1A | 787 | U | O5'-P-OP1 | -5.62 | 100.64 | 105.70 |
| 1 | 1A | 2136 | C | N1-C2-O2 | 5.62 | 122.27 | 118.90 |
| 32 | 2a | 1158 | C | N1-C2-O2 | 5.61 | 122.27 | 118.90 |
| 55 | 2x | 14 | A | C4-N9-C1' | 5.61 | 136.39 | 126.30 |
| 1 | 1A | 1251 | C | C6-N1-C2 | -5.60 | 118.06 | 120.30 |
| 35 | 1d | 187 | ARG | C-N-CA | -5.60 | 107.71 | 121.70 |
| 1 | 1A | 1174 | A | OP1-P-O3' | 5.59 | 117.50 | 105.20 |
| 32 | 1a | 1225 | A | N1-C6-N6 | -5.58 | 115.25 | 118.60 |
| 32 | 2a | 754 | C | C6-N1-C1' | -5.57 | 114.12 | 120.80 |
| 1 | 1A | 460 | A | N1-C6-N6 | -5.57 | 115.26 | 118.60 |
| 1 | 1A | 944 | G | C4-N9-C1' | 5.55 | 133.72 | 126.50 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 32 | 1a | 91 | C | N1-C2-O2 | 5.54 | 122.22 | 118.90 |
| 32 | 1a | 687 | A | P-O3'-C3' | 5.52 | 126.32 | 119.70 |
| 1 | 1A | 2501 | C | C2-N1-C1' | -5.51 | 112.74 | 118.80 |
| 32 | 2a | 1129 | C | N1-C2-O2 | -5.51 | 115.60 | 118.90 |
| 1 | 1A | 2056 | G | O4'-C1'-N9 | -5.50 | 103.80 | 108.20 |
| 1 | 1A | 1992 | G | O4'-C1'-N9 | -5.48 | 103.81 | 108.20 |
| 1 | 2A | 885 | C | C6-N1-C2 | -5.46 | 118.12 | 120.30 |
| 3 | 2D | 122 | ASP | C-N-CA | -5.46 | 108.06 | 121.70 |
| 32 | 1a | 266 | G | P-O3'-C3' | 5.45 | 126.24 | 119.70 |
| 32 | 1a | 1067 | A | P-O3'-C3' | 5.43 | 126.22 | 119.70 |
| 1 | 1A | 383 | U | O4'-C1'-N1 | 5.43 | 112.54 | 108.20 |
| 1 | 1A | 1140 | C | C6-N1-C2 | -5.43 | 118.13 | 120.30 |
| 32 | 1a | 1158 | C | N1-C2-O2 | 5.42 | 122.15 | 118.90 |
| 55 | 2x | 14 | A | C8-N9-C1' | -5.42 | 117.95 | 127.70 |
| 1 | 2A | 740 | U | OP1-P-O3' | 5.40 | 117.08 | 105.20 |
| 1 | 2A | 847 | U | C2-N1-C1' | 5.39 | 124.17 | 117.70 |
| 1 | 1A | 530 | G | N1-C6-O6 | -5.39 | 116.67 | 119.90 |
| 1 | 2A | 646 | A | O4'-C1'-N9 | 5.38 | 112.50 | 108.20 |
| 55 | 1x | 14 | A | C8-N9-C1' | -5.37 | 118.04 | 127.70 |
| 32 | 2a | 563 | A | O4'-C1'-N9 | 5.36 | 112.49 | 108.20 |
| 1 | 1A | 1252 | G | O4'-C1'-N9 | -5.35 | 103.92 | 108.20 |
| 1 | 1A | 1936 | A | O4'-C1'-N9 | 5.33 | 112.46 | 108.20 |
| 1 | 1A | 2689 | U | P-O3'-C3' | 5.33 | 126.09 | 119.70 |
| 1 | 1A | 1075 | C | N3-C4-C5 | -5.33 | 119.77 | 121.90 |
| 1 | 1A | 2136 | C | C2-N3-C4 | 5.32 | 122.56 | 119.90 |
| 1 | 1A | 1058 | G | C6-N1-C2 | 5.31 | 128.29 | 125.10 |
| 1 | 1A | 2848 | G | O4'-C1'-N9 | 5.31 | 112.44 | 108.20 |
| 32 | 1a | 1158 | C | C2-N1-C1' | 5.31 | 124.64 | 118.80 |
| 32 | 2a | 79 | G | C5-C6-O6 | 5.30 | 131.78 | 128.60 |
| 32 | 1a | 913 | A | P-O3'-C3' | 5.27 | 126.03 | 119.70 |
| 32 | 1a | 748 | C | P-O3'-C3' | 5.27 | 126.02 | 119.70 |
| 1 | 2A | 2492 | U | O5'-P-OP1 | -5.25 | 100.97 | 105.70 |
| 1 | 1A | 31 | C | O5'-P-OP1 | -5.25 | 100.97 | 105.70 |
| 1 | 2A | 2689 | U | P-O3'-C3' | 5.24 | 125.99 | 119.70 |
| 1 | 1A | 1082 | U | N3-C4-C5 | 5.24 | 117.74 | 114.60 |
| 1 | 1A | 2319 | G | O4'-C1'-N9 | 5.24 | 112.39 | 108.20 |
| 1 | 1A | 567 | A | O5'-P-OP1 | -5.23 | 100.99 | 105.70 |
| 55 | 1x | 14 | A | C4-N9-C1' | 5.23 | 135.71 | 126.30 |
| 32 | 2a | 266 | G | P-O3'-C3' | 5.23 | 125.97 | 119.70 |
| 1 | 1A | 614 | U | N3-C2-O2 | -5.22 | 118.54 | 122.20 |
| 55 | 2x | 14 | A | N1-C6-N6 | 5.22 | 121.73 | 118.60 |
| 1 | 1A | 1058 | G | C5-C6-O6 | 5.21 | 131.73 | 128.60 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 53 | 1v | 17 | U | C5-C4-O4 | 5.21 | 129.03 | 125.90 |
| 1 | 2A | 1698 | A | O4'-C1'-N9 | 5.20 | 112.36 | 108.20 |
| 55 | 2x | 22 | G | C4-C5-C6 | -5.20 | 115.68 | 118.80 |
| 1 | 2A | 2159 | G | C6-N1-C2 | 5.19 | 128.22 | 125.10 |
| 1 | 1A | 1074 | G | N3-C4-N9 | 5.19 | 129.11 | 126.00 |
| 1 | 1A | 2167 | U | C5-C6-N1 | 5.18 | 125.29 | 122.70 |
| 1 | 2A | 228 | A | P-O3'-C3' | 5.17 | 125.91 | 119.70 |
| 1 | 1A | 2789 | C | C2-N1-C1' | -5.16 | 113.12 | 118.80 |
| 1 | 1A | 1325 | G | O4'-C1'-N9 | 5.16 | 112.33 | 108.20 |
| 32 | 1a | 1206 | G | C5-C6-O6 | -5.15 | 125.51 | 128.60 |
| 55 | 1x | 14 | A | N3-C4-N9 | 5.15 | 131.52 | 127.40 |
| 1 | 1A | 975 | C | C2-N1-C1' | -5.14 | 113.15 | 118.80 |
| 1 | 1A | 195 | A | P-O3'-C3' | 5.14 | 125.86 | 119.70 |
| 32 | 1a | 1025 | U | N3-C2-O2 | -5.12 | 118.61 | 122.20 |
| 1 | 1A | 1673 | U | C5-C6-N1 | -5.12 | 120.14 | 122.70 |
| 1 | 1A | 1673 | U | C2-N1-C1' | -5.11 | 111.57 | 117.70 |
| 1 | 2A | 2143 | C | C2-N3-C4 | 5.10 | 122.45 | 119.90 |
| 1 | 2A | 1352 | U | O5'-P-OP1 | -5.09 | 101.12 | 105.70 |
| 1 | 1A | 847 | U | C5-C6-N1 | 5.09 | 125.25 | 122.70 |
| 1 | 1A | 1063 | G | N3-C2-N2 | 5.09 | 123.46 | 119.90 |
| 54 | 2w | 13 | C | OP1-P-O3' | 5.08 | 116.38 | 105.20 |
| 32 | 1a | 267 | C | O5'-P-OP1 | -5.08 | 101.13 | 105.70 |
| 16 | 2U | 74 | LEU | CA-CB-CG | 5.07 | 126.97 | 115.30 |
| 1 | 1A | 1063 | G | C5-C6-N1 | -5.07 | 108.97 | 111.50 |
| 1 | 1A | 1074 | G | C5-C6-O6 | -5.06 | 125.56 | 128.60 |
| 1 | 2A | 2155 | G | N3-C2-N2 | 5.05 | 123.44 | 119.90 |
| 1 | 2A | 528 | A | P-O3'-C3' | 5.05 | 125.75 | 119.70 |
| 1 | 1A | 2689 | U | C6-N1-C2 | -5.03 | 117.98 | 121.00 |
| 1 | 1A | 2628 | C | C6-N1-C2 | 5.03 | 122.31 | 120.30 |
| 32 | 1a | 254 | G | O5'-P-OP1 | -5.02 | 101.18 | 105.70 |
| 1 | 1A | 1063 | G | N1-C6-O6 | -5.02 | 116.89 | 119.90 |
| 1 | 1A | 944 | G | C8-N9-C1' | -5.01 | 120.48 | 127.00 |
| 32 | 1a | 1442 | G | OP1-P-O3' | 5.01 | 116.23 | 105.20 |
| 1 | 1A | 845 | G | O4'-C1'-N9 | 5.01 | 112.21 | 108.20 |

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts [\(i\)](#)

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

5.3 Torsion angles

5.3.1 Protein backbone

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all 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 | |
|-----|-------|---------------|-----------|----------|----------|-------------|-----|
| 3 | 1D | 273/276 (99%) | 262 (96%) | 11 (4%) | 0 | 100 | 100 |
| 3 | 2D | 273/276 (99%) | 252 (92%) | 21 (8%) | 0 | 100 | 100 |
| 4 | 1E | 202/206 (98%) | 192 (95%) | 8 (4%) | 2 (1%) | 15 | 32 |
| 4 | 2E | 202/206 (98%) | 188 (93%) | 12 (6%) | 2 (1%) | 15 | 32 |
| 5 | 1F | 200/210 (95%) | 190 (95%) | 9 (4%) | 1 (0%) | 29 | 52 |
| 5 | 2F | 200/210 (95%) | 187 (94%) | 11 (6%) | 2 (1%) | 15 | 32 |
| 6 | 1G | 179/182 (98%) | 164 (92%) | 13 (7%) | 2 (1%) | 14 | 30 |
| 6 | 2G | 179/182 (98%) | 158 (88%) | 17 (10%) | 4 (2%) | 6 | 12 |
| 7 | 1H | 172/180 (96%) | 161 (94%) | 11 (6%) | 0 | 100 | 100 |
| 7 | 2H | 172/180 (96%) | 153 (89%) | 17 (10%) | 2 (1%) | 13 | 27 |
| 8 | 1I | 144/148 (97%) | 129 (90%) | 14 (10%) | 1 (1%) | 22 | 43 |
| 8 | 2I | 144/148 (97%) | 126 (88%) | 17 (12%) | 1 (1%) | 22 | 43 |
| 9 | 1N | 138/140 (99%) | 131 (95%) | 5 (4%) | 2 (1%) | 11 | 22 |
| 9 | 2N | 138/140 (99%) | 129 (94%) | 8 (6%) | 1 (1%) | 22 | 43 |
| 10 | 1O | 120/122 (98%) | 116 (97%) | 4 (3%) | 0 | 100 | 100 |
| 10 | 2O | 120/122 (98%) | 108 (90%) | 11 (9%) | 1 (1%) | 19 | 39 |
| 11 | 1P | 147/150 (98%) | 132 (90%) | 13 (9%) | 2 (1%) | 11 | 22 |
| 11 | 2P | 147/150 (98%) | 129 (88%) | 13 (9%) | 5 (3%) | 3 | 5 |
| 12 | 1Q | 139/141 (99%) | 129 (93%) | 10 (7%) | 0 | 100 | 100 |
| 12 | 2Q | 139/141 (99%) | 128 (92%) | 11 (8%) | 0 | 100 | 100 |
| 13 | 1R | 116/118 (98%) | 113 (97%) | 3 (3%) | 0 | 100 | 100 |
| 13 | 2R | 116/118 (98%) | 112 (97%) | 4 (3%) | 0 | 100 | 100 |
| 14 | 1S | 108/112 (96%) | 101 (94%) | 6 (6%) | 1 (1%) | 17 | 35 |
| 14 | 2S | 108/112 (96%) | 103 (95%) | 4 (4%) | 1 (1%) | 17 | 35 |
| 15 | 1T | 129/146 (88%) | 120 (93%) | 9 (7%) | 0 | 100 | 100 |

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| Mol | Chain | Analysed | Favoured | Allowed | Outliers | Percentiles | |
|-----|-------|---------------|------------|----------|----------|-------------|-----|
| 15 | 2T | 129/146 (88%) | 121 (94%) | 8 (6%) | 0 | 100 | 100 |
| 16 | 1U | 114/118 (97%) | 114 (100%) | 0 | 0 | 100 | 100 |
| 16 | 2U | 114/118 (97%) | 109 (96%) | 5 (4%) | 0 | 100 | 100 |
| 17 | 1V | 99/101 (98%) | 91 (92%) | 6 (6%) | 2 (2%) | 7 | 14 |
| 17 | 2V | 99/101 (98%) | 93 (94%) | 5 (5%) | 1 (1%) | 15 | 32 |
| 18 | 1W | 110/113 (97%) | 107 (97%) | 3 (3%) | 0 | 100 | 100 |
| 18 | 2W | 110/113 (97%) | 106 (96%) | 4 (4%) | 0 | 100 | 100 |
| 19 | 1X | 93/96 (97%) | 88 (95%) | 4 (4%) | 1 (1%) | 14 | 30 |
| 19 | 2X | 93/96 (97%) | 89 (96%) | 3 (3%) | 1 (1%) | 14 | 30 |
| 20 | 1Y | 105/110 (96%) | 96 (91%) | 8 (8%) | 1 (1%) | 15 | 32 |
| 20 | 2Y | 105/110 (96%) | 97 (92%) | 8 (8%) | 0 | 100 | 100 |
| 21 | 1Z | 148/206 (72%) | 137 (93%) | 9 (6%) | 2 (1%) | 11 | 22 |
| 21 | 2Z | 156/206 (76%) | 122 (78%) | 29 (19%) | 5 (3%) | 4 | 6 |
| 22 | 10 | 81/85 (95%) | 77 (95%) | 4 (5%) | 0 | 100 | 100 |
| 22 | 20 | 81/85 (95%) | 75 (93%) | 6 (7%) | 0 | 100 | 100 |
| 23 | 11 | 95/98 (97%) | 93 (98%) | 2 (2%) | 0 | 100 | 100 |
| 23 | 21 | 95/98 (97%) | 93 (98%) | 1 (1%) | 1 (1%) | 14 | 30 |
| 24 | 12 | 68/72 (94%) | 66 (97%) | 2 (3%) | 0 | 100 | 100 |
| 24 | 22 | 68/72 (94%) | 67 (98%) | 1 (2%) | 0 | 100 | 100 |
| 25 | 13 | 57/60 (95%) | 56 (98%) | 1 (2%) | 0 | 100 | 100 |
| 25 | 23 | 57/60 (95%) | 52 (91%) | 4 (7%) | 1 (2%) | 8 | 16 |
| 26 | 14 | 67/71 (94%) | 51 (76%) | 9 (13%) | 7 (10%) | 0 | 0 |
| 26 | 24 | 67/71 (94%) | 52 (78%) | 12 (18%) | 3 (4%) | 2 | 3 |
| 27 | 15 | 57/60 (95%) | 54 (95%) | 3 (5%) | 0 | 100 | 100 |
| 27 | 25 | 57/60 (95%) | 53 (93%) | 4 (7%) | 0 | 100 | 100 |
| 28 | 16 | 51/54 (94%) | 48 (94%) | 3 (6%) | 0 | 100 | 100 |
| 28 | 26 | 51/54 (94%) | 46 (90%) | 5 (10%) | 0 | 100 | 100 |
| 29 | 17 | 46/49 (94%) | 45 (98%) | 1 (2%) | 0 | 100 | 100 |
| 29 | 27 | 46/49 (94%) | 45 (98%) | 1 (2%) | 0 | 100 | 100 |
| 30 | 18 | 62/65 (95%) | 61 (98%) | 1 (2%) | 0 | 100 | 100 |
| 30 | 28 | 62/65 (95%) | 59 (95%) | 3 (5%) | 0 | 100 | 100 |

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| Mol | Chain | Analysed | Favoured | Allowed | Outliers | Percentiles | |
|-----|-------|---------------|-----------|----------|----------|-------------|-----|
| 31 | 19 | 35/37 (95%) | 34 (97%) | 1 (3%) | 0 | 100 | 100 |
| 31 | 29 | 35/37 (95%) | 34 (97%) | 1 (3%) | 0 | 100 | 100 |
| 33 | 1b | 229/256 (90%) | 187 (82%) | 36 (16%) | 6 (3%) | 5 | 9 |
| 33 | 2b | 229/256 (90%) | 180 (79%) | 42 (18%) | 7 (3%) | 4 | 6 |
| 34 | 1c | 204/239 (85%) | 184 (90%) | 19 (9%) | 1 (0%) | 29 | 52 |
| 34 | 2c | 204/239 (85%) | 166 (81%) | 33 (16%) | 5 (2%) | 5 | 9 |
| 35 | 1d | 206/209 (99%) | 189 (92%) | 16 (8%) | 1 (0%) | 29 | 52 |
| 35 | 2d | 206/209 (99%) | 189 (92%) | 17 (8%) | 0 | 100 | 100 |
| 36 | 1e | 146/162 (90%) | 133 (91%) | 10 (7%) | 3 (2%) | 7 | 13 |
| 36 | 2e | 146/162 (90%) | 132 (90%) | 12 (8%) | 2 (1%) | 11 | 22 |
| 37 | 1f | 98/101 (97%) | 91 (93%) | 7 (7%) | 0 | 100 | 100 |
| 37 | 2f | 98/101 (97%) | 93 (95%) | 5 (5%) | 0 | 100 | 100 |
| 38 | 1g | 153/156 (98%) | 147 (96%) | 4 (3%) | 2 (1%) | 12 | 24 |
| 38 | 2g | 153/156 (98%) | 142 (93%) | 8 (5%) | 3 (2%) | 7 | 14 |
| 39 | 1h | 135/138 (98%) | 128 (95%) | 7 (5%) | 0 | 100 | 100 |
| 39 | 2h | 135/138 (98%) | 127 (94%) | 8 (6%) | 0 | 100 | 100 |
| 40 | 1i | 125/128 (98%) | 109 (87%) | 15 (12%) | 1 (1%) | 19 | 39 |
| 40 | 2i | 125/128 (98%) | 103 (82%) | 20 (16%) | 2 (2%) | 9 | 19 |
| 41 | 1j | 95/105 (90%) | 84 (88%) | 9 (10%) | 2 (2%) | 7 | 13 |
| 41 | 2j | 94/105 (90%) | 76 (81%) | 13 (14%) | 5 (5%) | 2 | 2 |
| 42 | 1k | 112/129 (87%) | 101 (90%) | 8 (7%) | 3 (3%) | 5 | 8 |
| 42 | 2k | 112/129 (87%) | 99 (88%) | 10 (9%) | 3 (3%) | 5 | 8 |
| 43 | 1l | 119/132 (90%) | 110 (92%) | 9 (8%) | 0 | 100 | 100 |
| 43 | 2l | 119/132 (90%) | 111 (93%) | 8 (7%) | 0 | 100 | 100 |
| 44 | 1m | 121/126 (96%) | 111 (92%) | 8 (7%) | 2 (2%) | 9 | 18 |
| 44 | 2m | 120/126 (95%) | 105 (88%) | 13 (11%) | 2 (2%) | 9 | 18 |
| 45 | 1n | 58/61 (95%) | 55 (95%) | 3 (5%) | 0 | 100 | 100 |
| 45 | 2n | 58/61 (95%) | 50 (86%) | 8 (14%) | 0 | 100 | 100 |
| 46 | 1o | 86/89 (97%) | 78 (91%) | 5 (6%) | 3 (4%) | 3 | 5 |
| 46 | 2o | 86/89 (97%) | 81 (94%) | 2 (2%) | 3 (4%) | 3 | 5 |
| 47 | 1p | 80/88 (91%) | 73 (91%) | 7 (9%) | 0 | 100 | 100 |

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| Mol | Chain | Analysed | Favoured | Allowed | Outliers | Percentiles | |
|-----|-------|-------------------|-------------|----------|----------|-------------|-----|
| 47 | 2p | 80/88 (91%) | 73 (91%) | 7 (9%) | 0 | 100 | 100 |
| 48 | 1q | 97/105 (92%) | 90 (93%) | 7 (7%) | 0 | 100 | 100 |
| 48 | 2q | 97/105 (92%) | 88 (91%) | 8 (8%) | 1 (1%) | 15 | 32 |
| 49 | 1r | 66/88 (75%) | 64 (97%) | 1 (2%) | 1 (2%) | 10 | 21 |
| 49 | 2r | 66/88 (75%) | 61 (92%) | 5 (8%) | 0 | 100 | 100 |
| 50 | 1s | 81/93 (87%) | 72 (89%) | 8 (10%) | 1 (1%) | 13 | 27 |
| 50 | 2s | 81/93 (87%) | 71 (88%) | 9 (11%) | 1 (1%) | 13 | 27 |
| 51 | 1t | 94/106 (89%) | 84 (89%) | 6 (6%) | 4 (4%) | 2 | 3 |
| 51 | 2t | 94/106 (89%) | 87 (93%) | 5 (5%) | 2 (2%) | 7 | 13 |
| 52 | 1u | 21/27 (78%) | 20 (95%) | 1 (5%) | 0 | 100 | 100 |
| 52 | 2u | 21/27 (78%) | 20 (95%) | 1 (5%) | 0 | 100 | 100 |
| All | All | 11368/12128 (94%) | 10408 (92%) | 839 (7%) | 121 (1%) | 14 | 30 |

All (121) Ramachandran outliers are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 4 | 1E | 71 | GLY |
| 5 | 1F | 130 | ALA |
| 11 | 1P | 29 | LYS |
| 21 | 1Z | 53 | ILE |
| 26 | 14 | 49 | PHE |
| 26 | 14 | 62 | ARG |
| 26 | 14 | 63 | TYR |
| 33 | 1b | 17 | PHE |
| 38 | 1g | 80 | VAL |
| 40 | 1i | 54 | ASP |
| 42 | 1k | 106 | LYS |
| 5 | 2F | 130 | ALA |
| 6 | 2G | 43 | LEU |
| 8 | 2I | 40 | THR |
| 11 | 2P | 29 | LYS |
| 11 | 2P | 36 | LYS |
| 11 | 2P | 45 | LEU |
| 23 | 21 | 3 | LYS |
| 26 | 24 | 45 | GLY |
| 33 | 2b | 17 | PHE |
| 33 | 2b | 21 | ARG |
| 38 | 2g | 80 | VAL |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 48 | 2q | 68 | ARG |
| 11 | 1P | 38 | GLN |
| 17 | 1V | 79 | VAL |
| 19 | 1X | 93 | GLU |
| 21 | 1Z | 163 | LEU |
| 26 | 14 | 45 | GLY |
| 26 | 14 | 47 | GLN |
| 33 | 1b | 129 | GLU |
| 35 | 1d | 173 | TRP |
| 38 | 1g | 55 | GLY |
| 41 | 1j | 79 | ARG |
| 44 | 1m | 67 | GLU |
| 4 | 2E | 71 | GLY |
| 5 | 2F | 17 | ARG |
| 6 | 2G | 47 | LYS |
| 6 | 2G | 50 | ALA |
| 21 | 2Z | 52 | SER |
| 21 | 2Z | 145 | GLU |
| 21 | 2Z | 171 | ILE |
| 33 | 2b | 150 | SER |
| 40 | 2i | 54 | ASP |
| 44 | 2m | 106 | ASN |
| 44 | 2m | 115 | LYS |
| 6 | 1G | 43 | LEU |
| 9 | 1N | 8 | GLN |
| 17 | 1V | 100 | ARG |
| 26 | 14 | 57 | GLU |
| 33 | 1b | 8 | LYS |
| 46 | 1o | 87 | ILE |
| 46 | 1o | 88 | ARG |
| 51 | 1t | 89 | ARG |
| 51 | 1t | 100 | ILE |
| 7 | 2H | 126 | PRO |
| 10 | 2O | 5 | GLN |
| 21 | 2Z | 147 | GLY |
| 26 | 24 | 49 | PHE |
| 33 | 2b | 74 | LYS |
| 34 | 2c | 3 | ASN |
| 34 | 2c | 43 | LEU |
| 38 | 2g | 55 | GLY |
| 40 | 2i | 33 | PHE |
| 41 | 2j | 75 | ILE |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 41 | 2j | 78 | ASN |
| 46 | 2o | 5 | LYS |
| 51 | 2t | 47 | GLY |
| 51 | 2t | 95 | ALA |
| 4 | 1E | 52 | LEU |
| 20 | 1Y | 54 | LYS |
| 26 | 14 | 52 | THR |
| 33 | 1b | 124 | SER |
| 33 | 1b | 125 | PRO |
| 34 | 1c | 18 | TRP |
| 41 | 1j | 77 | PRO |
| 42 | 1k | 49 | GLY |
| 42 | 1k | 105 | VAL |
| 51 | 1t | 102 | GLY |
| 4 | 2E | 52 | LEU |
| 9 | 2N | 2 | LYS |
| 11 | 2P | 38 | GLN |
| 17 | 2V | 79 | VAL |
| 33 | 2b | 20 | GLU |
| 33 | 2b | 126 | GLU |
| 34 | 2c | 95 | THR |
| 34 | 2c | 156 | ARG |
| 34 | 2c | 179 | ARG |
| 36 | 2e | 96 | PRO |
| 41 | 2j | 79 | ARG |
| 6 | 1G | 47 | LYS |
| 8 | 1I | 117 | GLU |
| 9 | 1N | 2 | LYS |
| 14 | 1S | 94 | TYR |
| 33 | 1b | 20 | GLU |
| 36 | 1e | 69 | VAL |
| 49 | 1r | 27 | GLY |
| 50 | 1s | 27 | GLU |
| 11 | 2P | 44 | GLY |
| 26 | 24 | 46 | GLN |
| 38 | 2g | 153 | HIS |
| 41 | 2j | 77 | PRO |
| 42 | 2k | 117 | ASN |
| 46 | 2o | 87 | ILE |
| 14 | 2S | 109 | GLY |
| 33 | 2b | 123 | ALA |
| 41 | 2j | 29 | ARG |

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| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 42 | 2k | 49 | GLY |
| 46 | 2o | 88 | ARG |
| 36 | 1e | 96 | PRO |
| 36 | 2e | 69 | VAL |
| 42 | 2k | 90 | GLY |
| 46 | 1o | 86 | GLY |
| 51 | 1t | 47 | GLY |
| 6 | 2G | 52 | ILE |
| 36 | 1e | 85 | GLY |
| 7 | 2H | 29 | PRO |
| 25 | 23 | 59 | VAL |
| 50 | 2s | 76 | PRO |
| 44 | 1m | 4 | ILE |
| 19 | 2X | 94 | GLY |
| 21 | 2Z | 124 | ILE |

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 | |
|-----|-------|---------------|-----------|----------|-------------|----|
| 3 | 1D | 215/218 (99%) | 202 (94%) | 13 (6%) | 19 | 39 |
| 3 | 2D | 215/218 (99%) | 205 (95%) | 10 (5%) | 26 | 50 |
| 4 | 1E | 164/166 (99%) | 156 (95%) | 8 (5%) | 25 | 48 |
| 4 | 2E | 164/166 (99%) | 155 (94%) | 9 (6%) | 21 | 43 |
| 5 | 1F | 160/166 (96%) | 148 (92%) | 12 (8%) | 13 | 27 |
| 5 | 2F | 159/166 (96%) | 150 (94%) | 9 (6%) | 20 | 41 |
| 6 | 1G | 143/156 (92%) | 128 (90%) | 15 (10%) | 7 | 13 |
| 6 | 2G | 143/156 (92%) | 125 (87%) | 18 (13%) | 4 | 8 |
| 7 | 1H | 144/148 (97%) | 131 (91%) | 13 (9%) | 9 | 18 |
| 7 | 2H | 144/148 (97%) | 126 (88%) | 18 (12%) | 4 | 8 |
| 8 | 1I | 113/124 (91%) | 94 (83%) | 19 (17%) | 2 | 3 |
| 8 | 2I | 105/124 (85%) | 91 (87%) | 14 (13%) | 4 | 7 |

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| Mol | Chain | Analysed | Rotameric | Outliers | Percentiles | |
|-----|-------|----------------|-----------|----------|-------------|----|
| 9 | 1N | 118/119 (99%) | 109 (92%) | 9 (8%) | 13 | 26 |
| 9 | 2N | 118/119 (99%) | 111 (94%) | 7 (6%) | 19 | 39 |
| 10 | 1O | 100/100 (100%) | 98 (98%) | 2 (2%) | 55 | 78 |
| 10 | 2O | 100/100 (100%) | 97 (97%) | 3 (3%) | 41 | 67 |
| 11 | 1P | 115/116 (99%) | 107 (93%) | 8 (7%) | 15 | 30 |
| 11 | 2P | 115/116 (99%) | 108 (94%) | 7 (6%) | 18 | 38 |
| 12 | 1Q | 111/111 (100%) | 106 (96%) | 5 (4%) | 27 | 52 |
| 12 | 2Q | 111/111 (100%) | 109 (98%) | 2 (2%) | 59 | 80 |
| 13 | 1R | 101/101 (100%) | 100 (99%) | 1 (1%) | 76 | 90 |
| 13 | 2R | 101/101 (100%) | 94 (93%) | 7 (7%) | 15 | 31 |
| 14 | 1S | 86/88 (98%) | 78 (91%) | 8 (9%) | 9 | 17 |
| 14 | 2S | 85/88 (97%) | 78 (92%) | 7 (8%) | 11 | 22 |
| 15 | 1T | 115/127 (91%) | 108 (94%) | 7 (6%) | 18 | 38 |
| 15 | 2T | 113/127 (89%) | 104 (92%) | 9 (8%) | 12 | 24 |
| 16 | 1U | 93/94 (99%) | 89 (96%) | 4 (4%) | 29 | 54 |
| 16 | 2U | 93/94 (99%) | 90 (97%) | 3 (3%) | 39 | 65 |
| 17 | 1V | 80/82 (98%) | 77 (96%) | 3 (4%) | 33 | 59 |
| 17 | 2V | 80/82 (98%) | 76 (95%) | 4 (5%) | 24 | 47 |
| 18 | 1W | 90/92 (98%) | 87 (97%) | 3 (3%) | 38 | 64 |
| 18 | 2W | 90/92 (98%) | 86 (96%) | 4 (4%) | 28 | 53 |
| 19 | 1X | 77/78 (99%) | 75 (97%) | 2 (3%) | 46 | 72 |
| 19 | 2X | 77/78 (99%) | 73 (95%) | 4 (5%) | 23 | 46 |
| 20 | 1Y | 85/91 (93%) | 78 (92%) | 7 (8%) | 11 | 22 |
| 20 | 2Y | 85/91 (93%) | 75 (88%) | 10 (12%) | 5 | 9 |
| 21 | 1Z | 135/179 (75%) | 123 (91%) | 12 (9%) | 9 | 19 |
| 21 | 2Z | 137/179 (76%) | 116 (85%) | 21 (15%) | 2 | 4 |
| 22 | 10 | 65/67 (97%) | 62 (95%) | 3 (5%) | 27 | 51 |
| 22 | 20 | 65/67 (97%) | 62 (95%) | 3 (5%) | 27 | 51 |
| 23 | 11 | 80/83 (96%) | 77 (96%) | 3 (4%) | 33 | 59 |
| 23 | 21 | 80/83 (96%) | 77 (96%) | 3 (4%) | 33 | 59 |
| 24 | 12 | 65/67 (97%) | 59 (91%) | 6 (9%) | 9 | 17 |

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| Mol | Chain | Analysed | Rotameric | Outliers | Percentiles | |
|-----|-------|---------------|-----------|----------|-------------|----|
| 24 | 22 | 65/67 (97%) | 59 (91%) | 6 (9%) | 9 | 17 |
| 25 | 13 | 51/52 (98%) | 47 (92%) | 4 (8%) | 12 | 25 |
| 25 | 23 | 50/52 (96%) | 48 (96%) | 2 (4%) | 31 | 57 |
| 26 | 14 | 59/63 (94%) | 50 (85%) | 9 (15%) | 2 | 4 |
| 26 | 24 | 53/63 (84%) | 41 (77%) | 12 (23%) | 1 | 1 |
| 27 | 15 | 50/52 (96%) | 48 (96%) | 2 (4%) | 31 | 57 |
| 27 | 25 | 50/52 (96%) | 47 (94%) | 3 (6%) | 19 | 39 |
| 28 | 16 | 51/52 (98%) | 45 (88%) | 6 (12%) | 5 | 9 |
| 28 | 26 | 50/52 (96%) | 47 (94%) | 3 (6%) | 19 | 39 |
| 29 | 17 | 41/42 (98%) | 36 (88%) | 5 (12%) | 5 | 9 |
| 29 | 27 | 41/42 (98%) | 36 (88%) | 5 (12%) | 5 | 9 |
| 30 | 18 | 54/55 (98%) | 52 (96%) | 2 (4%) | 34 | 60 |
| 30 | 28 | 54/55 (98%) | 51 (94%) | 3 (6%) | 21 | 42 |
| 31 | 19 | 34/34 (100%) | 33 (97%) | 1 (3%) | 42 | 68 |
| 31 | 29 | 34/34 (100%) | 31 (91%) | 3 (9%) | 10 | 19 |
| 33 | 1b | 192/220 (87%) | 164 (85%) | 28 (15%) | 3 | 5 |
| 33 | 2b | 187/220 (85%) | 156 (83%) | 31 (17%) | 2 | 3 |
| 34 | 1c | 142/188 (76%) | 129 (91%) | 13 (9%) | 9 | 17 |
| 34 | 2c | 140/188 (74%) | 122 (87%) | 18 (13%) | 4 | 7 |
| 35 | 1d | 169/181 (93%) | 147 (87%) | 22 (13%) | 4 | 7 |
| 35 | 2d | 173/181 (96%) | 158 (91%) | 15 (9%) | 10 | 20 |
| 36 | 1e | 113/123 (92%) | 102 (90%) | 11 (10%) | 8 | 15 |
| 36 | 2e | 114/123 (93%) | 95 (83%) | 19 (17%) | 2 | 3 |
| 37 | 1f | 84/90 (93%) | 77 (92%) | 7 (8%) | 11 | 22 |
| 37 | 2f | 85/90 (94%) | 77 (91%) | 8 (9%) | 8 | 17 |
| 38 | 1g | 119/127 (94%) | 104 (87%) | 15 (13%) | 4 | 8 |
| 38 | 2g | 120/127 (94%) | 106 (88%) | 14 (12%) | 5 | 10 |
| 39 | 1h | 114/119 (96%) | 108 (95%) | 6 (5%) | 22 | 45 |
| 39 | 2h | 114/119 (96%) | 108 (95%) | 6 (5%) | 22 | 45 |
| 40 | 1i | 90/99 (91%) | 81 (90%) | 9 (10%) | 7 | 14 |
| 40 | 2i | 89/99 (90%) | 76 (85%) | 13 (15%) | 3 | 5 |

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| Mol | Chain | Analysed | Rotameric | Outliers | Percentiles | |
|-----|-------|------------------|------------|----------|-------------|-----|
| 41 | 1j | 66/92 (72%) | 60 (91%) | 6 (9%) | 9 | 18 |
| 41 | 2j | 69/92 (75%) | 58 (84%) | 11 (16%) | 2 | 4 |
| 42 | 1k | 82/99 (83%) | 76 (93%) | 6 (7%) | 14 | 28 |
| 42 | 2k | 83/99 (84%) | 79 (95%) | 4 (5%) | 25 | 49 |
| 43 | 1l | 96/108 (89%) | 91 (95%) | 5 (5%) | 23 | 46 |
| 43 | 2l | 96/108 (89%) | 92 (96%) | 4 (4%) | 30 | 55 |
| 44 | 1m | 93/101 (92%) | 82 (88%) | 11 (12%) | 5 | 9 |
| 44 | 2m | 92/101 (91%) | 81 (88%) | 11 (12%) | 5 | 9 |
| 45 | 1n | 49/50 (98%) | 45 (92%) | 4 (8%) | 11 | 22 |
| 45 | 2n | 49/50 (98%) | 45 (92%) | 4 (8%) | 11 | 22 |
| 46 | 1o | 78/80 (98%) | 74 (95%) | 4 (5%) | 24 | 46 |
| 46 | 2o | 78/80 (98%) | 73 (94%) | 5 (6%) | 17 | 35 |
| 47 | 1p | 69/74 (93%) | 65 (94%) | 4 (6%) | 20 | 40 |
| 47 | 2p | 68/74 (92%) | 61 (90%) | 7 (10%) | 7 | 13 |
| 48 | 1q | 94/97 (97%) | 93 (99%) | 1 (1%) | 73 | 88 |
| 48 | 2q | 94/97 (97%) | 92 (98%) | 2 (2%) | 53 | 77 |
| 49 | 1r | 59/77 (77%) | 53 (90%) | 6 (10%) | 7 | 14 |
| 49 | 2r | 59/77 (77%) | 56 (95%) | 3 (5%) | 24 | 46 |
| 50 | 1s | 69/80 (86%) | 63 (91%) | 6 (9%) | 10 | 20 |
| 50 | 2s | 67/80 (84%) | 60 (90%) | 7 (10%) | 7 | 13 |
| 51 | 1t | 70/82 (85%) | 67 (96%) | 3 (4%) | 29 | 54 |
| 51 | 2t | 70/82 (85%) | 67 (96%) | 3 (4%) | 29 | 54 |
| 52 | 1u | 18/22 (82%) | 17 (94%) | 1 (6%) | 21 | 42 |
| 52 | 2u | 18/22 (82%) | 18 (100%) | 0 | 100 | 100 |
| All | All | 9303/10064 (92%) | 8549 (92%) | 754 (8%) | 11 | 23 |

All (754) residues with a non-rotameric sidechain are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 3 | 1D | 3 | VAL |
| 3 | 1D | 7 | LYS |
| 3 | 1D | 12 | SER |
| 3 | 1D | 37 | LEU |
| 3 | 1D | 38 | LYS |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 3 | 1D | 71 | ASP |
| 3 | 1D | 142 | VAL |
| 3 | 1D | 155 | LEU |
| 3 | 1D | 211 | ARG |
| 3 | 1D | 229 | VAL |
| 3 | 1D | 242 | ARG |
| 3 | 1D | 259 | THR |
| 3 | 1D | 273 | ARG |
| 4 | 1E | 9 | VAL |
| 4 | 1E | 47 | VAL |
| 4 | 1E | 49 | LEU |
| 4 | 1E | 93 | VAL |
| 4 | 1E | 116 | VAL |
| 4 | 1E | 181 | LEU |
| 4 | 1E | 184 | VAL |
| 4 | 1E | 195 | LEU |
| 5 | 1F | 53 | THR |
| 5 | 1F | 57 | VAL |
| 5 | 1F | 74 | ARG |
| 5 | 1F | 132 | VAL |
| 5 | 1F | 140 | LEU |
| 5 | 1F | 144 | LYS |
| 5 | 1F | 158 | THR |
| 5 | 1F | 168 | ARG |
| 5 | 1F | 175 | THR |
| 5 | 1F | 183 | VAL |
| 5 | 1F | 192 | LEU |
| 5 | 1F | 201 | VAL |
| 6 | 1G | 3 | LEU |
| 6 | 1G | 5 | VAL |
| 6 | 1G | 7 | LEU |
| 6 | 1G | 21 | ARG |
| 6 | 1G | 31 | VAL |
| 6 | 1G | 53 | LEU |
| 6 | 1G | 77 | ILE |
| 6 | 1G | 91 | ARG |
| 6 | 1G | 108 | ASN |
| 6 | 1G | 109 | VAL |
| 6 | 1G | 126 | ASP |
| 6 | 1G | 133 | LEU |
| 6 | 1G | 139 | LEU |
| 6 | 1G | 148 | MET |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 6 | 1G | 150 | ASP |
| 7 | 1H | 15 | VAL |
| 7 | 1H | 16 | SER |
| 7 | 1H | 18 | GLU |
| 7 | 1H | 23 | ARG |
| 7 | 1H | 27 | LYS |
| 7 | 1H | 47 | GLU |
| 7 | 1H | 56 | SER |
| 7 | 1H | 57 | ASP |
| 7 | 1H | 76 | VAL |
| 7 | 1H | 107 | VAL |
| 7 | 1H | 134 | SER |
| 7 | 1H | 149 | ARG |
| 7 | 1H | 175 | LYS |
| 8 | 1I | 9 | LEU |
| 8 | 1I | 12 | LEU |
| 8 | 1I | 20 | ASP |
| 8 | 1I | 21 | VAL |
| 8 | 1I | 50 | ARG |
| 8 | 1I | 61 | ARG |
| 8 | 1I | 77 | LEU |
| 8 | 1I | 79 | ILE |
| 8 | 1I | 81 | VAL |
| 8 | 1I | 85 | GLU |
| 8 | 1I | 87 | LYS |
| 8 | 1I | 92 | VAL |
| 8 | 1I | 101 | LEU |
| 8 | 1I | 103 | ARG |
| 8 | 1I | 108 | THR |
| 8 | 1I | 127 | VAL |
| 8 | 1I | 129 | THR |
| 8 | 1I | 133 | HIS |
| 8 | 1I | 140 | LEU |
| 9 | 1N | 1 | MET |
| 9 | 1N | 28 | THR |
| 9 | 1N | 62 | VAL |
| 9 | 1N | 67 | LEU |
| 9 | 1N | 96 | GLU |
| 9 | 1N | 112 | LEU |
| 9 | 1N | 136 | GLU |
| 9 | 1N | 137 | LYS |
| 9 | 1N | 138 | LEU |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 10 | 1O | 28 | SER |
| 10 | 1O | 117 | LEU |
| 11 | 1P | 1 | MET |
| 11 | 1P | 45 | LEU |
| 11 | 1P | 102 | ARG |
| 11 | 1P | 126 | VAL |
| 11 | 1P | 133 | SER |
| 11 | 1P | 135 | LEU |
| 11 | 1P | 136 | GLU |
| 11 | 1P | 148 | LEU |
| 12 | 1Q | 2 | LEU |
| 12 | 1Q | 56 | ARG |
| 12 | 1Q | 75 | THR |
| 12 | 1Q | 109 | VAL |
| 12 | 1Q | 113 | GLN |
| 13 | 1R | 114 | VAL |
| 14 | 1S | 14 | VAL |
| 14 | 1S | 17 | ARG |
| 14 | 1S | 25 | ARG |
| 14 | 1S | 46 | VAL |
| 14 | 1S | 68 | GLN |
| 14 | 1S | 69 | VAL |
| 14 | 1S | 85 | VAL |
| 14 | 1S | 110 | LEU |
| 15 | 1T | 28 | VAL |
| 15 | 1T | 67 | SER |
| 15 | 1T | 96 | ARG |
| 15 | 1T | 108 | ARG |
| 15 | 1T | 115 | ARG |
| 15 | 1T | 118 | ARG |
| 15 | 1T | 125 | ARG |
| 16 | 1U | 8 | VAL |
| 16 | 1U | 27 | LEU |
| 16 | 1U | 31 | SER |
| 16 | 1U | 74 | LEU |
| 17 | 1V | 32 | THR |
| 17 | 1V | 73 | SER |
| 17 | 1V | 79 | VAL |
| 18 | 1W | 11 | ARG |
| 18 | 1W | 15 | ARG |
| 18 | 1W | 67 | ASP |
| 19 | 1X | 57 | LEU |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 19 | 1X | 81 | VAL |
| 20 | 1Y | 5 | MET |
| 20 | 1Y | 7 | VAL |
| 20 | 1Y | 8 | LYS |
| 20 | 1Y | 31 | LEU |
| 20 | 1Y | 64 | GLU |
| 20 | 1Y | 72 | VAL |
| 20 | 1Y | 92 | ASN |
| 21 | 1Z | 8 | TYR |
| 21 | 1Z | 33 | LEU |
| 21 | 1Z | 53 | ILE |
| 21 | 1Z | 89 | PHE |
| 21 | 1Z | 124 | ILE |
| 21 | 1Z | 126 | VAL |
| 21 | 1Z | 132 | ASN |
| 21 | 1Z | 138 | GLU |
| 21 | 1Z | 153 | SER |
| 21 | 1Z | 154 | ASP |
| 21 | 1Z | 170 | THR |
| 21 | 1Z | 171 | ILE |
| 22 | 10 | 9 | SER |
| 22 | 10 | 14 | ARG |
| 22 | 10 | 55 | ARG |
| 23 | 11 | 3 | LYS |
| 23 | 11 | 80 | LEU |
| 23 | 11 | 83 | GLU |
| 24 | 12 | 4 | SER |
| 24 | 12 | 29 | LYS |
| 24 | 12 | 40 | SER |
| 24 | 12 | 51 | ARG |
| 24 | 12 | 53 | LEU |
| 24 | 12 | 70 | GLN |
| 25 | 13 | 18 | ASP |
| 25 | 13 | 23 | LEU |
| 25 | 13 | 54 | VAL |
| 25 | 13 | 60 | GLU |
| 26 | 14 | 20 | ASN |
| 26 | 14 | 21 | VAL |
| 26 | 14 | 49 | PHE |
| 26 | 14 | 53 | GLU |
| 26 | 14 | 56 | VAL |
| 26 | 14 | 61 | ARG |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 26 | 14 | 63 | TYR |
| 26 | 14 | 67 | TYR |
| 26 | 14 | 69 | LYS |
| 27 | 15 | 6 | VAL |
| 27 | 15 | 58 | LEU |
| 28 | 16 | 6 | ARG |
| 28 | 16 | 7 | ILE |
| 28 | 16 | 9 | LEU |
| 28 | 16 | 14 | THR |
| 28 | 16 | 19 | ARG |
| 28 | 16 | 44 | ARG |
| 29 | 17 | 1 | MET |
| 29 | 17 | 24 | THR |
| 29 | 17 | 41 | ARG |
| 29 | 17 | 43 | THR |
| 29 | 17 | 46 | VAL |
| 30 | 18 | 23 | VAL |
| 30 | 18 | 31 | HIS |
| 31 | 19 | 17 | ILE |
| 33 | 1b | 7 | VAL |
| 33 | 1b | 11 | LEU |
| 33 | 1b | 12 | GLU |
| 33 | 1b | 24 | TRP |
| 33 | 1b | 30 | ARG |
| 33 | 1b | 37 | ASN |
| 33 | 1b | 45 | GLN |
| 33 | 1b | 53 | ARG |
| 33 | 1b | 54 | THR |
| 33 | 1b | 67 | THR |
| 33 | 1b | 76 | GLN |
| 33 | 1b | 80 | ILE |
| 33 | 1b | 82 | ARG |
| 33 | 1b | 93 | VAL |
| 33 | 1b | 126 | GLU |
| 33 | 1b | 133 | LYS |
| 33 | 1b | 142 | LEU |
| 33 | 1b | 145 | LEU |
| 33 | 1b | 153 | ARG |
| 33 | 1b | 154 | LEU |
| 33 | 1b | 156 | LYS |
| 33 | 1b | 164 | VAL |
| 33 | 1b | 172 | ILE |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 33 | 1b | 195 | ASP |
| 33 | 1b | 212 | GLN |
| 33 | 1b | 215 | LEU |
| 33 | 1b | 217 | ARG |
| 33 | 1b | 236 | TYR |
| 34 | 1c | 3 | ASN |
| 34 | 1c | 15 | THR |
| 34 | 1c | 32 | LEU |
| 34 | 1c | 49 | SER |
| 34 | 1c | 64 | VAL |
| 34 | 1c | 70 | VAL |
| 34 | 1c | 85 | ARG |
| 34 | 1c | 89 | GLU |
| 34 | 1c | 112 | SER |
| 34 | 1c | 123 | GLN |
| 34 | 1c | 131 | ARG |
| 34 | 1c | 192 | THR |
| 34 | 1c | 195 | VAL |
| 35 | 1d | 3 | ARG |
| 35 | 1d | 10 | ARG |
| 35 | 1d | 19 | LEU |
| 35 | 1d | 24 | GLU |
| 35 | 1d | 28 | SER |
| 35 | 1d | 31 | CYS |
| 35 | 1d | 59 | ARG |
| 35 | 1d | 73 | ARG |
| 35 | 1d | 76 | ARG |
| 35 | 1d | 78 | LEU |
| 35 | 1d | 108 | LEU |
| 35 | 1d | 119 | GLN |
| 35 | 1d | 122 | ARG |
| 35 | 1d | 134 | ASP |
| 35 | 1d | 135 | LEU |
| 35 | 1d | 140 | VAL |
| 35 | 1d | 141 | ARG |
| 35 | 1d | 148 | VAL |
| 35 | 1d | 160 | GLN |
| 35 | 1d | 173 | TRP |
| 35 | 1d | 175 | SER |
| 35 | 1d | 200 | GLU |
| 36 | 1e | 12 | LEU |
| 36 | 1e | 20 | GLN |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 36 | 1e | 24 | ARG |
| 36 | 1e | 41 | VAL |
| 36 | 1e | 47 | LYS |
| 36 | 1e | 79 | GLU |
| 36 | 1e | 82 | VAL |
| 36 | 1e | 91 | LEU |
| 36 | 1e | 149 | GLU |
| 36 | 1e | 150 | ARG |
| 36 | 1e | 151 | LEU |
| 37 | 1f | 45 | LEU |
| 37 | 1f | 64 | GLN |
| 37 | 1f | 72 | VAL |
| 37 | 1f | 73 | ASN |
| 37 | 1f | 75 | LEU |
| 37 | 1f | 78 | GLU |
| 37 | 1f | 98 | LEU |
| 38 | 1g | 9 | VAL |
| 38 | 1g | 15 | ASP |
| 38 | 1g | 32 | ARG |
| 38 | 1g | 50 | ILE |
| 38 | 1g | 56 | GLN |
| 38 | 1g | 59 | LEU |
| 38 | 1g | 75 | VAL |
| 38 | 1g | 78 | ARG |
| 38 | 1g | 90 | GLU |
| 38 | 1g | 104 | LEU |
| 38 | 1g | 110 | GLN |
| 38 | 1g | 113 | GLU |
| 38 | 1g | 114 | ARG |
| 38 | 1g | 115 | ARG |
| 38 | 1g | 120 | ILE |
| 39 | 1h | 51 | VAL |
| 39 | 1h | 52 | ASP |
| 39 | 1h | 77 | GLU |
| 39 | 1h | 97 | VAL |
| 39 | 1h | 99 | GLU |
| 39 | 1h | 133 | LEU |
| 40 | 1i | 23 | ASN |
| 40 | 1i | 25 | LYS |
| 40 | 1i | 27 | THR |
| 40 | 1i | 28 | VAL |
| 40 | 1i | 42 | ARG |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 40 | 1i | 53 | VAL |
| 40 | 1i | 54 | ASP |
| 40 | 1i | 64 | THR |
| 40 | 1i | 128 | ARG |
| 41 | 1j | 7 | LYS |
| 41 | 1j | 42 | THR |
| 41 | 1j | 43 | ARG |
| 41 | 1j | 46 | ARG |
| 41 | 1j | 81 | THR |
| 41 | 1j | 98 | ILE |
| 42 | 1k | 31 | THR |
| 42 | 1k | 33 | THR |
| 42 | 1k | 48 | ILE |
| 42 | 1k | 98 | LEU |
| 42 | 1k | 104 | GLN |
| 42 | 1k | 123 | LYS |
| 43 | 1l | 24 | VAL |
| 43 | 1l | 33 | ARG |
| 43 | 1l | 62 | SER |
| 43 | 1l | 78 | GLN |
| 43 | 1l | 91 | LYS |
| 44 | 1m | 3 | ARG |
| 44 | 1m | 4 | ILE |
| 44 | 1m | 19 | LEU |
| 44 | 1m | 32 | GLU |
| 44 | 1m | 43 | THR |
| 44 | 1m | 60 | VAL |
| 44 | 1m | 65 | LYS |
| 44 | 1m | 67 | GLU |
| 44 | 1m | 70 | LEU |
| 44 | 1m | 102 | ARG |
| 44 | 1m | 122 | LYS |
| 45 | 1n | 16 | PHE |
| 45 | 1n | 17 | LYS |
| 45 | 1n | 18 | VAL |
| 45 | 1n | 32 | SER |
| 46 | 1o | 14 | GLU |
| 46 | 1o | 76 | GLU |
| 46 | 1o | 84 | LYS |
| 46 | 1o | 88 | ARG |
| 47 | 1p | 20 | VAL |
| 47 | 1p | 27 | LYS |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 47 | 1p | 54 | GLU |
| 47 | 1p | 68 | ASP |
| 48 | 1q | 60 | ILE |
| 49 | 1r | 29 | PHE |
| 49 | 1r | 35 | ARG |
| 49 | 1r | 46 | GLU |
| 49 | 1r | 54 | ARG |
| 49 | 1r | 76 | LEU |
| 49 | 1r | 82 | THR |
| 50 | 1s | 12 | ASP |
| 50 | 1s | 28 | LYS |
| 50 | 1s | 32 | LYS |
| 50 | 1s | 41 | VAL |
| 50 | 1s | 48 | THR |
| 50 | 1s | 79 | THR |
| 51 | 1t | 10 | LEU |
| 51 | 1t | 24 | LEU |
| 51 | 1t | 74 | LYS |
| 52 | 1u | 15 | ARG |
| 3 | 2D | 35 | LYS |
| 3 | 2D | 37 | LEU |
| 3 | 2D | 88 | ARG |
| 3 | 2D | 106 | ILE |
| 3 | 2D | 113 | VAL |
| 3 | 2D | 142 | VAL |
| 3 | 2D | 211 | ARG |
| 3 | 2D | 242 | ARG |
| 3 | 2D | 259 | THR |
| 3 | 2D | 260 | ARG |
| 4 | 2E | 7 | VAL |
| 4 | 2E | 41 | LYS |
| 4 | 2E | 47 | VAL |
| 4 | 2E | 116 | VAL |
| 4 | 2E | 119 | ARG |
| 4 | 2E | 145 | LYS |
| 4 | 2E | 163 | GLU |
| 4 | 2E | 182 | LEU |
| 4 | 2E | 184 | VAL |
| 5 | 2F | 20 | LEU |
| 5 | 2F | 27 | GLU |
| 5 | 2F | 53 | THR |
| 5 | 2F | 124 | LEU |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 5 | 2F | 145 | GLU |
| 5 | 2F | 153 | SER |
| 5 | 2F | 175 | THR |
| 5 | 2F | 195 | ASP |
| 5 | 2F | 197 | ASP |
| 6 | 2G | 3 | LEU |
| 6 | 2G | 5 | VAL |
| 6 | 2G | 18 | GLU |
| 6 | 2G | 26 | GLN |
| 6 | 2G | 31 | VAL |
| 6 | 2G | 43 | LEU |
| 6 | 2G | 45 | GLU |
| 6 | 2G | 53 | LEU |
| 6 | 2G | 103 | LEU |
| 6 | 2G | 124 | SER |
| 6 | 2G | 133 | LEU |
| 6 | 2G | 139 | LEU |
| 6 | 2G | 145 | THR |
| 6 | 2G | 150 | ASP |
| 6 | 2G | 153 | ARG |
| 6 | 2G | 159 | VAL |
| 6 | 2G | 170 | ARG |
| 6 | 2G | 173 | LEU |
| 7 | 2H | 7 | LEU |
| 7 | 2H | 23 | ARG |
| 7 | 2H | 43 | VAL |
| 7 | 2H | 44 | VAL |
| 7 | 2H | 49 | VAL |
| 7 | 2H | 57 | ASP |
| 7 | 2H | 68 | THR |
| 7 | 2H | 71 | LEU |
| 7 | 2H | 76 | VAL |
| 7 | 2H | 88 | LEU |
| 7 | 2H | 95 | ARG |
| 7 | 2H | 97 | ARG |
| 7 | 2H | 104 | GLU |
| 7 | 2H | 106 | THR |
| 7 | 2H | 114 | VAL |
| 7 | 2H | 115 | VAL |
| 7 | 2H | 152 | ARG |
| 7 | 2H | 159 | GLU |
| 8 | 2I | 15 | VAL |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 8 | 2I | 54 | GLN |
| 8 | 2I | 58 | LEU |
| 8 | 2I | 61 | ARG |
| 8 | 2I | 62 | LYS |
| 8 | 2I | 77 | LEU |
| 8 | 2I | 82 | ARG |
| 8 | 2I | 87 | LYS |
| 8 | 2I | 101 | LEU |
| 8 | 2I | 102 | SER |
| 8 | 2I | 108 | THR |
| 8 | 2I | 117 | GLU |
| 8 | 2I | 121 | LYS |
| 8 | 2I | 127 | VAL |
| 9 | 2N | 1 | MET |
| 9 | 2N | 28 | THR |
| 9 | 2N | 60 | ILE |
| 9 | 2N | 62 | VAL |
| 9 | 2N | 67 | LEU |
| 9 | 2N | 127 | ASP |
| 9 | 2N | 138 | LEU |
| 10 | 2O | 69 | ILE |
| 10 | 2O | 78 | ARG |
| 10 | 2O | 116 | SER |
| 11 | 2P | 1 | MET |
| 11 | 2P | 65 | ARG |
| 11 | 2P | 95 | VAL |
| 11 | 2P | 98 | GLU |
| 11 | 2P | 102 | ARG |
| 11 | 2P | 125 | VAL |
| 11 | 2P | 133 | SER |
| 12 | 2Q | 6 | ARG |
| 12 | 2Q | 43 | THR |
| 13 | 2R | 6 | SER |
| 13 | 2R | 11 | ASN |
| 13 | 2R | 15 | SER |
| 13 | 2R | 20 | LEU |
| 13 | 2R | 24 | GLN |
| 13 | 2R | 35 | THR |
| 13 | 2R | 111 | LEU |
| 14 | 2S | 21 | THR |
| 14 | 2S | 36 | TYR |
| 14 | 2S | 48 | LEU |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 14 | 2S | 52 | SER |
| 14 | 2S | 58 | LEU |
| 14 | 2S | 63 | THR |
| 14 | 2S | 83 | LYS |
| 15 | 2T | 10 | VAL |
| 15 | 2T | 23 | ARG |
| 15 | 2T | 64 | ARG |
| 15 | 2T | 67 | SER |
| 15 | 2T | 72 | VAL |
| 15 | 2T | 107 | ASP |
| 15 | 2T | 109 | GLU |
| 15 | 2T | 115 | ARG |
| 15 | 2T | 125 | ARG |
| 16 | 2U | 8 | VAL |
| 16 | 2U | 74 | LEU |
| 16 | 2U | 83 | LEU |
| 17 | 2V | 25 | LEU |
| 17 | 2V | 32 | THR |
| 17 | 2V | 98 | GLU |
| 17 | 2V | 100 | ARG |
| 18 | 2W | 11 | ARG |
| 18 | 2W | 63 | ASP |
| 18 | 2W | 78 | GLU |
| 18 | 2W | 92 | ARG |
| 19 | 2X | 49 | VAL |
| 19 | 2X | 57 | LEU |
| 19 | 2X | 65 | ARG |
| 19 | 2X | 82 | GLN |
| 20 | 2Y | 1 | MET |
| 20 | 2Y | 5 | MET |
| 20 | 2Y | 6 | HIS |
| 20 | 2Y | 11 | ASP |
| 20 | 2Y | 45 | VAL |
| 20 | 2Y | 49 | VAL |
| 20 | 2Y | 85 | VAL |
| 20 | 2Y | 91 | GLU |
| 20 | 2Y | 92 | ASN |
| 20 | 2Y | 99 | CYS |
| 21 | 2Z | 31 | ARG |
| 21 | 2Z | 33 | LEU |
| 21 | 2Z | 42 | VAL |
| 21 | 2Z | 61 | LEU |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 21 | 2Z | 71 | VAL |
| 21 | 2Z | 72 | ARG |
| 21 | 2Z | 81 | ARG |
| 21 | 2Z | 84 | GLU |
| 21 | 2Z | 94 | GLU |
| 21 | 2Z | 97 | GLU |
| 21 | 2Z | 100 | VAL |
| 21 | 2Z | 121 | HIS |
| 21 | 2Z | 126 | VAL |
| 21 | 2Z | 129 | SER |
| 21 | 2Z | 136 | PHE |
| 21 | 2Z | 138 | GLU |
| 21 | 2Z | 142 | SER |
| 21 | 2Z | 154 | ASP |
| 21 | 2Z | 165 | VAL |
| 21 | 2Z | 171 | ILE |
| 21 | 2Z | 174 | VAL |
| 22 | 20 | 10 | THR |
| 22 | 20 | 11 | ARG |
| 22 | 20 | 14 | ARG |
| 23 | 21 | 32 | LYS |
| 23 | 21 | 40 | ARG |
| 23 | 21 | 69 | LYS |
| 24 | 22 | 17 | SER |
| 24 | 22 | 40 | SER |
| 24 | 22 | 51 | ARG |
| 24 | 22 | 52 | ASP |
| 24 | 22 | 53 | LEU |
| 24 | 22 | 69 | ARG |
| 25 | 23 | 31 | LEU |
| 25 | 23 | 34 | GLU |
| 26 | 24 | 9 | LEU |
| 26 | 24 | 15 | ILE |
| 26 | 24 | 27 | THR |
| 26 | 24 | 34 | GLU |
| 26 | 24 | 37 | SER |
| 26 | 24 | 48 | ARG |
| 26 | 24 | 49 | PHE |
| 26 | 24 | 50 | VAL |
| 26 | 24 | 58 | ARG |
| 26 | 24 | 59 | PHE |
| 26 | 24 | 63 | TYR |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 26 | 24 | 68 | ARG |
| 27 | 25 | 6 | VAL |
| 27 | 25 | 33 | CYS |
| 27 | 25 | 40 | LYS |
| 28 | 26 | 28 | ARG |
| 28 | 26 | 32 | ASN |
| 28 | 26 | 52 | VAL |
| 29 | 27 | 1 | MET |
| 29 | 27 | 41 | ARG |
| 29 | 27 | 43 | THR |
| 29 | 27 | 46 | VAL |
| 29 | 27 | 48 | LYS |
| 30 | 28 | 14 | VAL |
| 30 | 28 | 37 | SER |
| 30 | 28 | 50 | LEU |
| 31 | 29 | 1 | MET |
| 31 | 29 | 9 | ARG |
| 31 | 29 | 16 | VAL |
| 33 | 2b | 8 | LYS |
| 33 | 2b | 9 | GLU |
| 33 | 2b | 11 | LEU |
| 33 | 2b | 16 | HIS |
| 33 | 2b | 24 | TRP |
| 33 | 2b | 28 | PHE |
| 33 | 2b | 53 | ARG |
| 33 | 2b | 58 | ILE |
| 33 | 2b | 60 | ASP |
| 33 | 2b | 67 | THR |
| 33 | 2b | 76 | GLN |
| 33 | 2b | 95 | GLN |
| 33 | 2b | 101 | MET |
| 33 | 2b | 107 | THR |
| 33 | 2b | 111 | ARG |
| 33 | 2b | 112 | VAL |
| 33 | 2b | 115 | LEU |
| 33 | 2b | 118 | LEU |
| 33 | 2b | 127 | ILE |
| 33 | 2b | 130 | ARG |
| 33 | 2b | 140 | HIS |
| 33 | 2b | 142 | LEU |
| 33 | 2b | 157 | ARG |
| 33 | 2b | 163 | PHE |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 33 | 2b | 185 | ILE |
| 33 | 2b | 195 | ASP |
| 33 | 2b | 210 | SER |
| 33 | 2b | 215 | LEU |
| 33 | 2b | 224 | GLN |
| 33 | 2b | 226 | ARG |
| 33 | 2b | 236 | TYR |
| 34 | 2c | 15 | THR |
| 34 | 2c | 36 | ASP |
| 34 | 2c | 47 | LEU |
| 34 | 2c | 56 | ASP |
| 34 | 2c | 63 | ASN |
| 34 | 2c | 69 | HIS |
| 34 | 2c | 77 | ILE |
| 34 | 2c | 105 | GLU |
| 34 | 2c | 115 | LEU |
| 34 | 2c | 127 | ARG |
| 34 | 2c | 136 | GLN |
| 34 | 2c | 152 | ILE |
| 34 | 2c | 154 | SER |
| 34 | 2c | 161 | GLU |
| 34 | 2c | 178 | LEU |
| 34 | 2c | 182 | ILE |
| 34 | 2c | 190 | ARG |
| 34 | 2c | 202 | ILE |
| 35 | 2d | 31 | CYS |
| 35 | 2d | 47 | ARG |
| 35 | 2d | 50 | ARG |
| 35 | 2d | 59 | ARG |
| 35 | 2d | 74 | GLN |
| 35 | 2d | 76 | ARG |
| 35 | 2d | 94 | LEU |
| 35 | 2d | 127 | THR |
| 35 | 2d | 139 | ARG |
| 35 | 2d | 150 | GLU |
| 35 | 2d | 155 | LEU |
| 35 | 2d | 179 | GLU |
| 35 | 2d | 190 | ASP |
| 35 | 2d | 193 | ASP |
| 35 | 2d | 194 | LEU |
| 36 | 2e | 5 | ASP |
| 36 | 2e | 8 | GLU |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 36 | 2e | 12 | LEU |
| 36 | 2e | 13 | ILE |
| 36 | 2e | 20 | GLN |
| 36 | 2e | 24 | ARG |
| 36 | 2e | 27 | ARG |
| 36 | 2e | 31 | LEU |
| 36 | 2e | 41 | VAL |
| 36 | 2e | 47 | LYS |
| 36 | 2e | 55 | VAL |
| 36 | 2e | 75 | THR |
| 36 | 2e | 78 | HIS |
| 36 | 2e | 83 | GLU |
| 36 | 2e | 115 | VAL |
| 36 | 2e | 135 | THR |
| 36 | 2e | 147 | ASP |
| 36 | 2e | 150 | ARG |
| 36 | 2e | 151 | LEU |
| 37 | 2f | 17 | SER |
| 37 | 2f | 19 | LEU |
| 37 | 2f | 37 | VAL |
| 37 | 2f | 40 | VAL |
| 37 | 2f | 64 | GLN |
| 37 | 2f | 69 | GLU |
| 37 | 2f | 70 | ASP |
| 37 | 2f | 98 | LEU |
| 38 | 2g | 12 | LEU |
| 38 | 2g | 15 | ASP |
| 38 | 2g | 16 | LEU |
| 38 | 2g | 24 | THR |
| 38 | 2g | 32 | ARG |
| 38 | 2g | 78 | ARG |
| 38 | 2g | 79 | ARG |
| 38 | 2g | 90 | GLU |
| 38 | 2g | 106 | GLN |
| 38 | 2g | 113 | GLU |
| 38 | 2g | 115 | ARG |
| 38 | 2g | 125 | MET |
| 38 | 2g | 139 | GLU |
| 38 | 2g | 155 | ARG |
| 39 | 2h | 3 | THR |
| 39 | 2h | 23 | SER |
| 39 | 2h | 48 | TYR |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 39 | 2h | 54 | ASP |
| 39 | 2h | 95 | VAL |
| 39 | 2h | 133 | LEU |
| 40 | 2i | 7 | THR |
| 40 | 2i | 20 | ARG |
| 40 | 2i | 23 | ASN |
| 40 | 2i | 28 | VAL |
| 40 | 2i | 29 | ASN |
| 40 | 2i | 32 | ASP |
| 40 | 2i | 42 | ARG |
| 40 | 2i | 53 | VAL |
| 40 | 2i | 89 | ASN |
| 40 | 2i | 102 | LEU |
| 40 | 2i | 112 | LYS |
| 40 | 2i | 113 | LYS |
| 40 | 2i | 128 | ARG |
| 41 | 2j | 8 | LEU |
| 41 | 2j | 9 | ARG |
| 41 | 2j | 23 | ILE |
| 41 | 2j | 29 | ARG |
| 41 | 2j | 33 | GLN |
| 41 | 2j | 38 | ILE |
| 41 | 2j | 61 | GLU |
| 41 | 2j | 66 | ARG |
| 41 | 2j | 69 | ASN |
| 41 | 2j | 89 | ASP |
| 41 | 2j | 98 | ILE |
| 42 | 2k | 14 | VAL |
| 42 | 2k | 84 | VAL |
| 42 | 2k | 109 | VAL |
| 42 | 2k | 126 | ARG |
| 43 | 2l | 18 | VAL |
| 43 | 2l | 24 | VAL |
| 43 | 2l | 33 | ARG |
| 43 | 2l | 91 | LYS |
| 44 | 2m | 3 | ARG |
| 44 | 2m | 22 | ILE |
| 44 | 2m | 27 | LYS |
| 44 | 2m | 32 | GLU |
| 44 | 2m | 90 | LEU |
| 44 | 2m | 93 | ARG |
| 44 | 2m | 103 | THR |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 44 | 2m | 106 | ASN |
| 44 | 2m | 108 | ARG |
| 44 | 2m | 117 | VAL |
| 44 | 2m | 121 | LYS |
| 45 | 2n | 22 | THR |
| 45 | 2n | 29 | ARG |
| 45 | 2n | 33 | VAL |
| 45 | 2n | 44 | LEU |
| 46 | 2o | 24 | SER |
| 46 | 2o | 38 | ARG |
| 46 | 2o | 71 | GLN |
| 46 | 2o | 76 | GLU |
| 46 | 2o | 88 | ARG |
| 47 | 2p | 1 | MET |
| 47 | 2p | 2 | VAL |
| 47 | 2p | 8 | ARG |
| 47 | 2p | 11 | SER |
| 47 | 2p | 21 | VAL |
| 47 | 2p | 45 | THR |
| 47 | 2p | 74 | LEU |
| 48 | 2q | 37 | LYS |
| 48 | 2q | 56 | VAL |
| 49 | 2r | 37 | VAL |
| 49 | 2r | 46 | GLU |
| 49 | 2r | 54 | ARG |
| 50 | 2s | 15 | LEU |
| 50 | 2s | 20 | LEU |
| 50 | 2s | 23 | ASN |
| 50 | 2s | 41 | VAL |
| 50 | 2s | 58 | VAL |
| 50 | 2s | 64 | GLU |
| 50 | 2s | 79 | THR |
| 51 | 2t | 15 | ARG |
| 51 | 2t | 41 | ILE |
| 51 | 2t | 93 | GLU |

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (122) such sidechains are listed below:

| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 3 | 1D | 112 | GLN |
| 3 | 1D | 116 | GLN |
| 4 | 1E | 48 | GLN |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 4 | 1E | 85 | ASN |
| 5 | 1F | 8 | GLN |
| 5 | 1F | 69 | HIS |
| 6 | 1G | 26 | GLN |
| 9 | 1N | 8 | GLN |
| 9 | 1N | 69 | GLN |
| 10 | 1O | 3 | GLN |
| 12 | 1Q | 12 | GLN |
| 12 | 1Q | 57 | HIS |
| 12 | 1Q | 113 | GLN |
| 13 | 1R | 71 | GLN |
| 14 | 1S | 68 | GLN |
| 16 | 1U | 81 | HIS |
| 19 | 1X | 31 | HIS |
| 19 | 1X | 82 | GLN |
| 20 | 1Y | 6 | HIS |
| 20 | 1Y | 43 | ASN |
| 20 | 1Y | 92 | ASN |
| 21 | 1Z | 34 | ASN |
| 21 | 1Z | 73 | GLN |
| 23 | 11 | 56 | GLN |
| 25 | 13 | 32 | GLN |
| 33 | 1b | 16 | HIS |
| 33 | 1b | 40 | HIS |
| 33 | 1b | 78 | GLN |
| 33 | 1b | 94 | ASN |
| 34 | 1c | 6 | HIS |
| 34 | 1c | 162 | GLN |
| 34 | 1c | 176 | HIS |
| 34 | 1c | 181 | ASN |
| 35 | 1d | 74 | GLN |
| 35 | 1d | 77 | ASN |
| 35 | 1d | 116 | GLN |
| 35 | 1d | 125 | HIS |
| 36 | 1e | 20 | GLN |
| 36 | 1e | 78 | HIS |
| 37 | 1f | 73 | ASN |
| 37 | 1f | 100 | ASN |
| 38 | 1g | 28 | ASN |
| 38 | 1g | 148 | ASN |
| 40 | 1i | 31 | GLN |
| 40 | 1i | 34 | ASN |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 41 | 1j | 56 | HIS |
| 43 | 1l | 99 | HIS |
| 44 | 1m | 77 | ASN |
| 44 | 1m | 92 | HIS |
| 46 | 1o | 13 | GLN |
| 46 | 1o | 46 | HIS |
| 46 | 1o | 62 | GLN |
| 47 | 1p | 13 | HIS |
| 49 | 1r | 63 | GLN |
| 50 | 1s | 23 | ASN |
| 50 | 1s | 83 | HIS |
| 51 | 1t | 90 | GLN |
| 3 | 2D | 87 | ASN |
| 3 | 2D | 116 | GLN |
| 4 | 2E | 48 | GLN |
| 4 | 2E | 180 | ASN |
| 5 | 2F | 69 | HIS |
| 5 | 2F | 203 | GLN |
| 6 | 2G | 27 | ASN |
| 6 | 2G | 41 | GLN |
| 6 | 2G | 108 | ASN |
| 7 | 2H | 139 | GLN |
| 8 | 2I | 105 | HIS |
| 9 | 2N | 8 | GLN |
| 9 | 2N | 38 | HIS |
| 10 | 2O | 3 | GLN |
| 10 | 2O | 5 | GLN |
| 12 | 2Q | 12 | GLN |
| 13 | 2R | 24 | GLN |
| 13 | 2R | 71 | GLN |
| 14 | 2S | 38 | GLN |
| 15 | 2T | 58 | ASN |
| 16 | 2U | 81 | HIS |
| 16 | 2U | 94 | ASN |
| 19 | 2X | 82 | GLN |
| 20 | 2Y | 6 | HIS |
| 20 | 2Y | 92 | ASN |
| 21 | 2Z | 34 | ASN |
| 21 | 2Z | 73 | GLN |
| 26 | 24 | 46 | GLN |
| 30 | 28 | 35 | GLN |
| 33 | 2b | 40 | HIS |

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| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 33 | 2b | 110 | GLN |
| 33 | 2b | 135 | GLN |
| 33 | 2b | 146 | GLN |
| 33 | 2b | 224 | GLN |
| 35 | 2d | 116 | GLN |
| 35 | 2d | 119 | GLN |
| 35 | 2d | 123 | HIS |
| 35 | 2d | 125 | HIS |
| 35 | 2d | 160 | GLN |
| 36 | 2e | 56 | GLN |
| 36 | 2e | 72 | GLN |
| 37 | 2f | 73 | ASN |
| 37 | 2f | 94 | GLN |
| 37 | 2f | 100 | ASN |
| 38 | 2g | 28 | ASN |
| 38 | 2g | 68 | ASN |
| 40 | 2i | 3 | GLN |
| 40 | 2i | 31 | GLN |
| 40 | 2i | 58 | HIS |
| 40 | 2i | 89 | ASN |
| 41 | 2j | 21 | GLN |
| 41 | 2j | 33 | GLN |
| 41 | 2j | 68 | HIS |
| 42 | 2k | 99 | GLN |
| 42 | 2k | 117 | ASN |
| 43 | 2l | 99 | HIS |
| 44 | 2m | 62 | ASN |
| 44 | 2m | 92 | HIS |
| 46 | 2o | 13 | GLN |
| 49 | 2r | 63 | GLN |
| 50 | 2s | 47 | HIS |
| 50 | 2s | 69 | HIS |
| 50 | 2s | 83 | HIS |
| 51 | 2t | 75 | ASN |
| 51 | 2t | 90 | GLN |

5.3.3 RNA

| Mol | Chain | Analysed | Backbone Outliers | Pucker Outliers |
|-----|-------|-----------------|-------------------|-----------------|
| 1 | 1A | 2863/2915 (98%) | 415 (14%) | 31 (1%) |
| 1 | 2A | 2790/2915 (95%) | 482 (17%) | 22 (0%) |

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| Mol | Chain | Analysed | Backbone Outliers | Pucker Outliers |
|-----|-------|-----------------|-------------------|-----------------|
| 2 | 1B | 119/121 (98%) | 9 (7%) | 0 |
| 2 | 2B | 118/121 (97%) | 22 (18%) | 0 |
| 32 | 1a | 1494/1521 (98%) | 236 (15%) | 0 |
| 32 | 2a | 1498/1521 (98%) | 285 (19%) | 0 |
| 53 | 1v | 12/24 (50%) | 3 (25%) | 0 |
| 53 | 2v | 12/24 (50%) | 2 (16%) | 0 |
| 54 | 1w | 71/76 (93%) | 23 (32%) | 0 |
| 54 | 1y | 71/76 (93%) | 30 (42%) | 0 |
| 54 | 2w | 68/76 (89%) | 26 (38%) | 0 |
| 54 | 2y | 69/76 (90%) | 25 (36%) | 0 |
| 55 | 1x | 75/77 (97%) | 13 (17%) | 0 |
| 55 | 2x | 75/77 (97%) | 13 (17%) | 0 |
| All | All | 9335/9620 (97%) | 1584 (16%) | 53 (0%) |

All (1584) RNA backbone outliers are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1 | 1A | 12 | U |
| 1 | 1A | 13 | A |
| 1 | 1A | 34 | C |
| 1 | 1A | 45 | C |
| 1 | 1A | 55 | G |
| 1 | 1A | 58 | G |
| 1 | 1A | 64 | A |
| 1 | 1A | 71 | A |
| 1 | 1A | 74 | A |
| 1 | 1A | 75 | G |
| 1 | 1A | 84 | A |
| 1 | 1A | 95 | G |
| 1 | 1A | 118 | A |
| 1 | 1A | 119 | A |
| 1 | 1A | 120 | U |
| 1 | 1A | 182 | A |
| 1 | 1A | 196 | A |
| 1 | 1A | 205 | G |
| 1 | 1A | 214 | G |
| 1 | 1A | 216 | A |
| 1 | 1A | 222 | A |
| 1 | 1A | 225 | A |
| 1 | 1A | 229 | A |
| 1 | 1A | 233 | A |
| 1 | 1A | 248 | G |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | 1A | 269 | U |
| 1 | 1A | 271(E) | U |
| 1 | 1A | 271(K) | U |
| 1 | 1A | 271(L) | U |
| 1 | 1A | 271(M) | G |
| 1 | 1A | 271(O) | C |
| 1 | 1A | 272(B) | G |
| 1 | 1A | 272(G) | C |
| 1 | 1A | 272(I) | U |
| 1 | 1A | 275 | G |
| 1 | 1A | 279 | C |
| 1 | 1A | 311 | A |
| 1 | 1A | 329 | G |
| 1 | 1A | 330 | A |
| 1 | 1A | 342 | G |
| 1 | 1A | 352 | G |
| 1 | 1A | 353 | G |
| 1 | 1A | 363 | G |
| 1 | 1A | 363(B) | G |
| 1 | 1A | 370 | G |
| 1 | 1A | 386 | G |
| 1 | 1A | 405 | U |
| 1 | 1A | 411 | G |
| 1 | 1A | 412 | A |
| 1 | 1A | 428 | A |
| 1 | 1A | 444 | C |
| 1 | 1A | 448 | U |
| 1 | 1A | 456 | C |
| 1 | 1A | 457 | A |
| 1 | 1A | 481 | G |
| 1 | 1A | 504 | U |
| 1 | 1A | 505 | A |
| 1 | 1A | 509 | C |
| 1 | 1A | 530 | G |
| 1 | 1A | 531 | C |
| 1 | 1A | 532 | A |
| 1 | 1A | 533 | G |
| 1 | 1A | 545 | G |
| 1 | 1A | 549 | G |
| 1 | 1A | 551 | G |
| 1 | 1A | 563 | G |
| 1 | 1A | 573 | G |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | 1A | 575 | A |
| 1 | 1A | 586 | A |
| 1 | 1A | 592 | G |
| 1 | 1A | 603 | A |
| 1 | 1A | 604 | G |
| 1 | 1A | 607 | U |
| 1 | 1A | 614(B) | G |
| 1 | 1A | 615 | G |
| 1 | 1A | 627 | A |
| 1 | 1A | 637 | A |
| 1 | 1A | 645 | C |
| 1 | 1A | 646 | A |
| 1 | 1A | 652(T) | C |
| 1 | 1A | 669 | G |
| 1 | 1A | 686 | G |
| 1 | 1A | 717 | G |
| 1 | 1A | 730 | C |
| 1 | 1A | 764 | A |
| 1 | 1A | 775 | G |
| 1 | 1A | 776 | G |
| 1 | 1A | 782 | A |
| 1 | 1A | 784 | A |
| 1 | 1A | 785 | G |
| 1 | 1A | 789 | A |
| 1 | 1A | 790 | C |
| 1 | 1A | 792 | G |
| 1 | 1A | 805 | G |
| 1 | 1A | 812 | C |
| 1 | 1A | 819 | A |
| 1 | 1A | 827 | U |
| 1 | 1A | 828 | U |
| 1 | 1A | 855 | G |
| 1 | 1A | 859 | G |
| 1 | 1A | 866 | A |
| 1 | 1A | 879 | G |
| 1 | 1A | 880 | G |
| 1 | 1A | 885 | C |
| 1 | 1A | 886 | C |
| 1 | 1A | 887 | A |
| 1 | 1A | 890 | A |
| 1 | 1A | 895 | U |
| 1 | 1A | 896 | A |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | 1A | 897 | C |
| 1 | 1A | 898 | C |
| 1 | 1A | 910 | A |
| 1 | 1A | 932 | G |
| 1 | 1A | 945 | A |
| 1 | 1A | 946 | G |
| 1 | 1A | 959 | A |
| 1 | 1A | 961 | C |
| 1 | 1A | 963 | U |
| 1 | 1A | 974 | G |
| 1 | 1A | 975 | C |
| 1 | 1A | 983 | A |
| 1 | 1A | 996 | A |
| 1 | 1A | 1012 | U |
| 1 | 1A | 1013 | C |
| 1 | 1A | 1022 | G |
| 1 | 1A | 1026 | U |
| 1 | 1A | 1027 | A |
| 1 | 1A | 1033 | U |
| 1 | 1A | 1038 | C |
| 1 | 1A | 1041 | C |
| 1 | 1A | 1044 | G |
| 1 | 1A | 1046 | A |
| 1 | 1A | 1047 | G |
| 1 | 1A | 1051 | G |
| 1 | 1A | 1052 | C |
| 1 | 1A | 1054 | A |
| 1 | 1A | 1055 | G |
| 1 | 1A | 1057 | A |
| 1 | 1A | 1058 | G |
| 1 | 1A | 1059 | G |
| 1 | 1A | 1063 | G |
| 1 | 1A | 1068 | G |
| 1 | 1A | 1069 | A |
| 1 | 1A | 1070 | A |
| 1 | 1A | 1071 | G |
| 1 | 1A | 1073 | A |
| 1 | 1A | 1074 | G |
| 1 | 1A | 1075 | C |
| 1 | 1A | 1076 | C |
| 1 | 1A | 1077 | A |
| 1 | 1A | 1078 | U |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | 1A | 1079 | C |
| 1 | 1A | 1080 | C |
| 1 | 1A | 1081 | U |
| 1 | 1A | 1082 | U |
| 1 | 1A | 1084 | A |
| 1 | 1A | 1086 | A |
| 1 | 1A | 1087 | G |
| 1 | 1A | 1088 | A |
| 1 | 1A | 1089 | G |
| 1 | 1A | 1090 | U |
| 1 | 1A | 1091 | G |
| 1 | 1A | 1093 | G |
| 1 | 1A | 1094 | U |
| 1 | 1A | 1096 | A |
| 1 | 1A | 1098 | A |
| 1 | 1A | 1101 | U |
| 1 | 1A | 1107 | G |
| 1 | 1A | 1110 | G |
| 1 | 1A | 1112 | G |
| 1 | 1A | 1116 | C |
| 1 | 1A | 1128 | A |
| 1 | 1A | 1130 | U |
| 1 | 1A | 1135 | C |
| 1 | 1A | 1136 | G |
| 1 | 1A | 1171 | G |
| 1 | 1A | 1173 | G |
| 1 | 1A | 1174 | A |
| 1 | 1A | 1175 | U |
| 1 | 1A | 1176 | G |
| 1 | 1A | 1177 | A |
| 1 | 1A | 1178 | C |
| 1 | 1A | 1220 | A |
| 1 | 1A | 1244 | G |
| 1 | 1A | 1253 | A |
| 1 | 1A | 1256 | G |
| 1 | 1A | 1271 | G |
| 1 | 1A | 1272 | A |
| 1 | 1A | 1273 | U |
| 1 | 1A | 1300 | U |
| 1 | 1A | 1301 | A |
| 1 | 1A | 1303 | G |
| 1 | 1A | 1320 | C |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | 1A | 1345 | C |
| 1 | 1A | 1352 | U |
| 1 | 1A | 1359 | A |
| 1 | 1A | 1360 | A |
| 1 | 1A | 1365 | A |
| 1 | 1A | 1384 | A |
| 1 | 1A | 1385 | G |
| 1 | 1A | 1386 | C |
| 1 | 1A | 1395 | A |
| 1 | 1A | 1396 | U |
| 1 | 1A | 1416 | G |
| 1 | 1A | 1417 | C |
| 1 | 1A | 1420 | U |
| 1 | 1A | 1421 | G |
| 1 | 1A | 1428 | C |
| 1 | 1A | 1445 | A |
| 1 | 1A | 1450 | G |
| 1 | 1A | 1455 | G |
| 1 | 1A | 1467 | C |
| 1 | 1A | 1482 | G |
| 1 | 1A | 1493 | C |
| 1 | 1A | 1494 | A |
| 1 | 1A | 1496 | A |
| 1 | 1A | 1509 | C |
| 1 | 1A | 1509(A) | A |
| 1 | 1A | 1554 | A |
| 1 | 1A | 1558 | A |
| 1 | 1A | 1566 | A |
| 1 | 1A | 1569 | A |
| 1 | 1A | 1578 | U |
| 1 | 1A | 1581 | G |
| 1 | 1A | 1584 | C |
| 1 | 1A | 1608 | A |
| 1 | 1A | 1609 | A |
| 1 | 1A | 1610 | A |
| 1 | 1A | 1647 | G |
| 1 | 1A | 1648 | C |
| 1 | 1A | 1654 | A |
| 1 | 1A | 1674 | G |
| 1 | 1A | 1700 | A |
| 1 | 1A | 1701 | A |
| 1 | 1A | 1703 | G |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | 1A | 1722 | A |
| 1 | 1A | 1740 | G |
| 1 | 1A | 1756 | G |
| 1 | 1A | 1763 | G |
| 1 | 1A | 1764 | G |
| 1 | 1A | 1773 | A |
| 1 | 1A | 1780 | A |
| 1 | 1A | 1782 | C |
| 1 | 1A | 1791 | A |
| 1 | 1A | 1800 | C |
| 1 | 1A | 1801 | G |
| 1 | 1A | 1802 | A |
| 1 | 1A | 1816 | G |
| 1 | 1A | 1828 | G |
| 1 | 1A | 1847 | A |
| 1 | 1A | 1861 | G |
| 1 | 1A | 1877 | A |
| 1 | 1A | 1878 | G |
| 1 | 1A | 1889 | A |
| 1 | 1A | 1900 | A |
| 1 | 1A | 1906 | G |
| 1 | 1A | 1927 | A |
| 1 | 1A | 1929 | G |
| 1 | 1A | 1930 | G |
| 1 | 1A | 1937 | A |
| 1 | 1A | 1938 | A |
| 1 | 1A | 1955 | U |
| 1 | 1A | 1963 | U |
| 1 | 1A | 1965 | C |
| 1 | 1A | 1967 | C |
| 1 | 1A | 1970 | A |
| 1 | 1A | 1971 | A |
| 1 | 1A | 1972 | A |
| 1 | 1A | 1992 | G |
| 1 | 1A | 1993 | U |
| 1 | 1A | 1997 | G |
| 1 | 1A | 2020 | A |
| 1 | 1A | 2023 | G |
| 1 | 1A | 2031 | A |
| 1 | 1A | 2033 | A |
| 1 | 1A | 2043 | C |
| 1 | 1A | 2055 | C |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | 1A | 2056 | G |
| 1 | 1A | 2060 | A |
| 1 | 1A | 2061 | G |
| 1 | 1A | 2069 | G |
| 1 | 1A | 2110 | G |
| 1 | 1A | 2111 | C |
| 1 | 1A | 2113 | U |
| 1 | 1A | 2116 | G |
| 1 | 1A | 2121 | G |
| 1 | 1A | 2127 | G |
| 1 | 1A | 2129 | C |
| 1 | 1A | 2131 | G |
| 1 | 1A | 2132 | U |
| 1 | 1A | 2133 | G |
| 1 | 1A | 2134 | A |
| 1 | 1A | 2135 | A |
| 1 | 1A | 2136 | C |
| 1 | 1A | 2142 | C |
| 1 | 1A | 2143 | C |
| 1 | 1A | 2144 | U |
| 1 | 1A | 2145 | C |
| 1 | 1A | 2146 | C |
| 1 | 1A | 2150 | U |
| 1 | 1A | 2151 | G |
| 1 | 1A | 2152 | G |
| 1 | 1A | 2155 | G |
| 1 | 1A | 2156 | G |
| 1 | 1A | 2157 | G |
| 1 | 1A | 2158 | A |
| 1 | 1A | 2159 | G |
| 1 | 1A | 2161 | C |
| 1 | 1A | 2162 | G |
| 1 | 1A | 2163 | C |
| 1 | 1A | 2165 | G |
| 1 | 1A | 2166 | G |
| 1 | 1A | 2167 | U |
| 1 | 1A | 2171 | A |
| 1 | 1A | 2172 | U |
| 1 | 1A | 2173 | A |
| 1 | 1A | 2174 | C |
| 1 | 1A | 2175 | C |
| 1 | 1A | 2180 | U |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | 1A | 2182 | G |
| 1 | 1A | 2184 | G |
| 1 | 1A | 2192 | G |
| 1 | 1A | 2198 | A |
| 1 | 1A | 2206 | G |
| 1 | 1A | 2207 | G |
| 1 | 1A | 2219 | G |
| 1 | 1A | 2225 | A |
| 1 | 1A | 2238 | G |
| 1 | 1A | 2239 | G |
| 1 | 1A | 2268 | A |
| 1 | 1A | 2269 | A |
| 1 | 1A | 2283 | C |
| 1 | 1A | 2286 | A |
| 1 | 1A | 2287 | A |
| 1 | 1A | 2305 | A |
| 1 | 1A | 2307 | G |
| 1 | 1A | 2308 | G |
| 1 | 1A | 2320 | A |
| 1 | 1A | 2325 | G |
| 1 | 1A | 2334 | G |
| 1 | 1A | 2336 | A |
| 1 | 1A | 2347 | C |
| 1 | 1A | 2350 | C |
| 1 | 1A | 2361 | A |
| 1 | 1A | 2383 | G |
| 1 | 1A | 2385 | C |
| 1 | 1A | 2396 | G |
| 1 | 1A | 2406 | U |
| 1 | 1A | 2422 | A |
| 1 | 1A | 2423 | U |
| 1 | 1A | 2424 | C |
| 1 | 1A | 2425 | A |
| 1 | 1A | 2429 | G |
| 1 | 1A | 2430 | A |
| 1 | 1A | 2431 | U |
| 1 | 1A | 2435 | A |
| 1 | 1A | 2439 | A |
| 1 | 1A | 2441 | C |
| 1 | 1A | 2448 | A |
| 1 | 1A | 2469 | A |
| 1 | 1A | 2470 | G |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | 1A | 2474 | C |
| 1 | 1A | 2476 | A |
| 1 | 1A | 2477 | C |
| 1 | 1A | 2491 | U |
| 1 | 1A | 2494 | G |
| 1 | 1A | 2502 | G |
| 1 | 1A | 2505 | G |
| 1 | 1A | 2518 | A |
| 1 | 1A | 2529 | G |
| 1 | 1A | 2535 | G |
| 1 | 1A | 2549 | G |
| 1 | 1A | 2554 | U |
| 1 | 1A | 2566 | A |
| 1 | 1A | 2567 | G |
| 1 | 1A | 2573 | C |
| 1 | 1A | 2578 | G |
| 1 | 1A | 2585 | U |
| 1 | 1A | 2602 | A |
| 1 | 1A | 2609 | U |
| 1 | 1A | 2611 | U |
| 1 | 1A | 2612 | C |
| 1 | 1A | 2629 | A |
| 1 | 1A | 2630 | G |
| 1 | 1A | 2689 | U |
| 1 | 1A | 2690 | C |
| 1 | 1A | 2691 | C |
| 1 | 1A | 2702 | U |
| 1 | 1A | 2703 | C |
| 1 | 1A | 2712(A) | A |
| 1 | 1A | 2713 | A |
| 1 | 1A | 2714 | G |
| 1 | 1A | 2726 | U |
| 1 | 1A | 2733 | A |
| 1 | 1A | 2734 | A |
| 1 | 1A | 2757 | A |
| 1 | 1A | 2758 | A |
| 1 | 1A | 2761 | G |
| 1 | 1A | 2764 | A |
| 1 | 1A | 2765 | A |
| 1 | 1A | 2766 | G |
| 1 | 1A | 2769 | C |
| 1 | 1A | 2778 | A |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | 1A | 2790 | A |
| 1 | 1A | 2802 | G |
| 1 | 1A | 2805 | G |
| 1 | 1A | 2818 | G |
| 1 | 1A | 2820 | A |
| 1 | 1A | 2821 | A |
| 1 | 1A | 2833 | G |
| 1 | 1A | 2835 | A |
| 1 | 1A | 2836 | U |
| 1 | 1A | 2872 | G |
| 1 | 1A | 2892 | A |
| 1 | 1A | 2894 | G |
| 2 | 1B | 12 | C |
| 2 | 1B | 25 | A |
| 2 | 1B | 45 | A |
| 2 | 1B | 52 | A |
| 2 | 1B | 56 | G |
| 2 | 1B | 67 | G |
| 2 | 1B | 73 | A |
| 2 | 1B | 106 | G |
| 2 | 1B | 110 | G |
| 32 | 1a | 9 | G |
| 32 | 1a | 32 | A |
| 32 | 1a | 39 | G |
| 32 | 1a | 48 | C |
| 32 | 1a | 50 | A |
| 32 | 1a | 51 | A |
| 32 | 1a | 61 | G |
| 32 | 1a | 77 | G |
| 32 | 1a | 79 | G |
| 32 | 1a | 91 | C |
| 32 | 1a | 92 | C |
| 32 | 1a | 97 | G |
| 32 | 1a | 98 | G |
| 32 | 1a | 101 | A |
| 32 | 1a | 116 | A |
| 32 | 1a | 121 | C |
| 32 | 1a | 131 | C |
| 32 | 1a | 144 | G |
| 32 | 1a | 145 | G |
| 32 | 1a | 163 | C |
| 32 | 1a | 174 | C |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 32 | 1a | 180 | U |
| 32 | 1a | 182 | U |
| 32 | 1a | 189(A) | C |
| 32 | 1a | 189(F) | U |
| 32 | 1a | 189(J) | G |
| 32 | 1a | 195 | A |
| 32 | 1a | 197 | A |
| 32 | 1a | 201 | C |
| 32 | 1a | 203 | U |
| 32 | 1a | 204 | U |
| 32 | 1a | 216 | G |
| 32 | 1a | 220 | G |
| 32 | 1a | 247 | G |
| 32 | 1a | 251 | G |
| 32 | 1a | 266 | G |
| 32 | 1a | 267 | C |
| 32 | 1a | 289 | G |
| 32 | 1a | 321 | A |
| 32 | 1a | 328 | C |
| 32 | 1a | 332 | G |
| 32 | 1a | 342 | C |
| 32 | 1a | 347 | G |
| 32 | 1a | 348 | G |
| 32 | 1a | 351 | G |
| 32 | 1a | 352 | C |
| 32 | 1a | 353 | A |
| 32 | 1a | 354 | G |
| 32 | 1a | 367 | U |
| 32 | 1a | 372 | C |
| 32 | 1a | 373 | A |
| 32 | 1a | 384 | G |
| 32 | 1a | 397 | A |
| 32 | 1a | 398 | C |
| 32 | 1a | 406 | G |
| 32 | 1a | 412 | A |
| 32 | 1a | 413 | G |
| 32 | 1a | 422 | C |
| 32 | 1a | 424 | G |
| 32 | 1a | 429 | U |
| 32 | 1a | 439 | A |
| 32 | 1a | 442 | C |
| 32 | 1a | 446 | G |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 32 | 1a | 452 | A |
| 32 | 1a | 458 | C |
| 32 | 1a | 461 | A |
| 32 | 1a | 470 | C |
| 32 | 1a | 485 | G |
| 32 | 1a | 496 | A |
| 32 | 1a | 498 | U |
| 32 | 1a | 509 | A |
| 32 | 1a | 510 | A |
| 32 | 1a | 511 | C |
| 32 | 1a | 518 | C |
| 32 | 1a | 521 | G |
| 32 | 1a | 531 | U |
| 32 | 1a | 532 | A |
| 32 | 1a | 547 | A |
| 32 | 1a | 550 | G |
| 32 | 1a | 559 | A |
| 32 | 1a | 561 | U |
| 32 | 1a | 568 | G |
| 32 | 1a | 572 | A |
| 32 | 1a | 573 | A |
| 32 | 1a | 576 | G |
| 32 | 1a | 577 | G |
| 32 | 1a | 596 | C |
| 32 | 1a | 607 | A |
| 32 | 1a | 630 | G |
| 32 | 1a | 653 | A |
| 32 | 1a | 657 | G |
| 32 | 1a | 661 | G |
| 32 | 1a | 662 | G |
| 32 | 1a | 665 | A |
| 32 | 1a | 673 | G |
| 32 | 1a | 687 | A |
| 32 | 1a | 688 | G |
| 32 | 1a | 693 | G |
| 32 | 1a | 695 | A |
| 32 | 1a | 703 | G |
| 32 | 1a | 723 | U |
| 32 | 1a | 731 | G |
| 32 | 1a | 733 | A |
| 32 | 1a | 749 | C |
| 32 | 1a | 752 | G |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 32 | 1a | 753 | A |
| 32 | 1a | 755 | G |
| 32 | 1a | 777 | A |
| 32 | 1a | 793 | U |
| 32 | 1a | 794 | A |
| 32 | 1a | 815 | A |
| 32 | 1a | 817 | C |
| 32 | 1a | 821 | G |
| 32 | 1a | 828 | A |
| 32 | 1a | 840 | C |
| 32 | 1a | 841 | U |
| 32 | 1a | 851 | G |
| 32 | 1a | 864 | A |
| 32 | 1a | 870 | U |
| 32 | 1a | 876 | G |
| 32 | 1a | 902 | G |
| 32 | 1a | 913 | A |
| 32 | 1a | 914 | A |
| 32 | 1a | 926 | G |
| 32 | 1a | 927 | G |
| 32 | 1a | 934 | C |
| 32 | 1a | 942 | G |
| 32 | 1a | 960 | U |
| 32 | 1a | 961 | U |
| 32 | 1a | 968 | A |
| 32 | 1a | 969 | A |
| 32 | 1a | 971 | G |
| 32 | 1a | 974 | A |
| 32 | 1a | 975 | A |
| 32 | 1a | 976 | G |
| 32 | 1a | 977 | A |
| 32 | 1a | 982 | U |
| 32 | 1a | 992 | U |
| 32 | 1a | 993 | G |
| 32 | 1a | 996 | A |
| 32 | 1a | 1000 | U |
| 32 | 1a | 1001 | A |
| 32 | 1a | 1002 | G |
| 32 | 1a | 1003 | G |
| 32 | 1a | 1005 | A |
| 32 | 1a | 1006 | C |
| 32 | 1a | 1009 | G |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 32 | 1a | 1020 | U |
| 32 | 1a | 1022 | G |
| 32 | 1a | 1023 | G |
| 32 | 1a | 1024 | G |
| 32 | 1a | 1025 | U |
| 32 | 1a | 1026 | G |
| 32 | 1a | 1027 | C |
| 32 | 1a | 1028 | C |
| 32 | 1a | 1029 | C |
| 32 | 1a | 1030 | C |
| 32 | 1a | 1030(A) | G |
| 32 | 1a | 1030(C) | G |
| 32 | 1a | 1031 | G |
| 32 | 1a | 1033 | G |
| 32 | 1a | 1034 | G |
| 32 | 1a | 1037 | C |
| 32 | 1a | 1039 | C |
| 32 | 1a | 1044 | A |
| 32 | 1a | 1053 | G |
| 32 | 1a | 1064 | G |
| 32 | 1a | 1065 | U |
| 32 | 1a | 1066 | C |
| 32 | 1a | 1068 | G |
| 32 | 1a | 1081 | G |
| 32 | 1a | 1094 | G |
| 32 | 1a | 1095 | U |
| 32 | 1a | 1101 | A |
| 32 | 1a | 1108 | G |
| 32 | 1a | 1124 | G |
| 32 | 1a | 1125 | U |
| 32 | 1a | 1132 | C |
| 32 | 1a | 1133 | G |
| 32 | 1a | 1134 | G |
| 32 | 1a | 1135 | U |
| 32 | 1a | 1137 | C |
| 32 | 1a | 1138 | G |
| 32 | 1a | 1139 | G |
| 32 | 1a | 1140 | C |
| 32 | 1a | 1141 | C |
| 32 | 1a | 1146 | A |
| 32 | 1a | 1152 | A |
| 32 | 1a | 1157 | A |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 32 | 1a | 1159 | U |
| 32 | 1a | 1184 | G |
| 32 | 1a | 1196 | U |
| 32 | 1a | 1197 | G |
| 32 | 1a | 1202 | G |
| 32 | 1a | 1212 | U |
| 32 | 1a | 1213 | A |
| 32 | 1a | 1222 | G |
| 32 | 1a | 1227 | A |
| 32 | 1a | 1238 | A |
| 32 | 1a | 1253 | G |
| 32 | 1a | 1256 | A |
| 32 | 1a | 1257 | U |
| 32 | 1a | 1270 | C |
| 32 | 1a | 1275 | A |
| 32 | 1a | 1278 | U |
| 32 | 1a | 1280 | A |
| 32 | 1a | 1285 | A |
| 32 | 1a | 1286 | A |
| 32 | 1a | 1287 | A |
| 32 | 1a | 1297 | C |
| 32 | 1a | 1299 | A |
| 32 | 1a | 1300 | G |
| 32 | 1a | 1302 | U |
| 32 | 1a | 1320 | C |
| 32 | 1a | 1338 | G |
| 32 | 1a | 1346 | A |
| 32 | 1a | 1347 | G |
| 32 | 1a | 1353 | G |
| 32 | 1a | 1363 | C |
| 32 | 1a | 1363(A) | A |
| 32 | 1a | 1364 | U |
| 32 | 1a | 1370 | G |
| 32 | 1a | 1419 | G |
| 32 | 1a | 1442 | G |
| 32 | 1a | 1442(A) | G |
| 32 | 1a | 1446 | U |
| 32 | 1a | 1447 | A |
| 32 | 1a | 1452 | C |
| 32 | 1a | 1456 | G |
| 32 | 1a | 1492 | A |
| 32 | 1a | 1504 | G |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 32 | 1a | 1505 | G |
| 32 | 1a | 1506 | U |
| 32 | 1a | 1517 | G |
| 32 | 1a | 1529 | G |
| 32 | 1a | 1530 | G |
| 53 | 1v | 13 | A |
| 53 | 1v | 14 | A |
| 53 | 1v | 24 | A |
| 54 | 1w | 2 | C |
| 54 | 1w | 3 | C |
| 54 | 1w | 6 | G |
| 54 | 1w | 7 | A |
| 54 | 1w | 8 | 4SU |
| 54 | 1w | 11 | C |
| 54 | 1w | 14 | A |
| 54 | 1w | 19 | G |
| 54 | 1w | 20 | U |
| 54 | 1w | 21 | A |
| 54 | 1w | 24 | G |
| 54 | 1w | 25 | C |
| 54 | 1w | 34 | G |
| 54 | 1w | 45 | U |
| 54 | 1w | 46 | G7M |
| 54 | 1w | 47 | U |
| 54 | 1w | 48 | C |
| 54 | 1w | 65 | G |
| 54 | 1w | 68 | C |
| 54 | 1w | 70 | G |
| 54 | 1w | 71 | G |
| 54 | 1w | 73 | A |
| 54 | 1w | 74 | C |
| 55 | 1x | 9 | G |
| 55 | 1x | 13 | C |
| 55 | 1x | 14 | A |
| 55 | 1x | 16 | C |
| 55 | 1x | 18 | G |
| 55 | 1x | 19 | G |
| 55 | 1x | 20 | U |
| 55 | 1x | 21 | A |
| 55 | 1x | 47 | U |
| 55 | 1x | 48 | C |
| 55 | 1x | 61 | C |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 55 | 1x | 68 | C |
| 55 | 1x | 76 | A |
| 54 | 1y | 3 | C |
| 54 | 1y | 5 | G |
| 54 | 1y | 6 | G |
| 54 | 1y | 7 | A |
| 54 | 1y | 11 | C |
| 54 | 1y | 13 | C |
| 54 | 1y | 14 | A |
| 54 | 1y | 19 | G |
| 54 | 1y | 20 | U |
| 54 | 1y | 21 | A |
| 54 | 1y | 26 | A |
| 54 | 1y | 34 | G |
| 54 | 1y | 44 | G |
| 54 | 1y | 45 | U |
| 54 | 1y | 46 | G7M |
| 54 | 1y | 47 | U |
| 54 | 1y | 48 | C |
| 54 | 1y | 49 | C |
| 54 | 1y | 50 | U |
| 54 | 1y | 53 | G |
| 54 | 1y | 54 | 5MU |
| 54 | 1y | 57 | G |
| 54 | 1y | 58 | A |
| 54 | 1y | 59 | U |
| 54 | 1y | 61 | C |
| 54 | 1y | 65 | G |
| 54 | 1y | 66 | U |
| 54 | 1y | 69 | G |
| 54 | 1y | 70 | G |
| 54 | 1y | 71 | G |
| 1 | 2A | 15 | G |
| 1 | 2A | 27 | G |
| 1 | 2A | 34 | C |
| 1 | 2A | 35 | G |
| 1 | 2A | 45 | C |
| 1 | 2A | 71 | A |
| 1 | 2A | 74 | A |
| 1 | 2A | 75 | G |
| 1 | 2A | 84 | A |
| 1 | 2A | 96 | G |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | 2A | 100 | G |
| 1 | 2A | 118 | A |
| 1 | 2A | 119 | A |
| 1 | 2A | 120 | U |
| 1 | 2A | 154 | G |
| 1 | 2A | 154(A) | C |
| 1 | 2A | 157 | U |
| 1 | 2A | 181 | A |
| 1 | 2A | 196 | A |
| 1 | 2A | 199 | A |
| 1 | 2A | 205 | G |
| 1 | 2A | 215 | G |
| 1 | 2A | 216 | A |
| 1 | 2A | 221 | A |
| 1 | 2A | 222 | A |
| 1 | 2A | 228 | A |
| 1 | 2A | 229 | A |
| 1 | 2A | 230 | U |
| 1 | 2A | 233 | A |
| 1 | 2A | 245 | G |
| 1 | 2A | 248 | G |
| 1 | 2A | 266 | G |
| 1 | 2A | 271(I) | G |
| 1 | 2A | 271(J) | C |
| 1 | 2A | 271(K) | U |
| 1 | 2A | 271(L) | U |
| 1 | 2A | 271(M) | G |
| 1 | 2A | 271(N) | U |
| 1 | 2A | 271(O) | C |
| 1 | 2A | 272(B) | G |
| 1 | 2A | 272(J) | C |
| 1 | 2A | 277 | C |
| 1 | 2A | 278 | A |
| 1 | 2A | 311 | A |
| 1 | 2A | 312 | G |
| 1 | 2A | 327 | G |
| 1 | 2A | 329 | G |
| 1 | 2A | 330 | A |
| 1 | 2A | 352 | G |
| 1 | 2A | 362 | U |
| 1 | 2A | 363 | G |
| 1 | 2A | 380 | U |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | 2A | 386 | G |
| 1 | 2A | 396 | G |
| 1 | 2A | 405 | U |
| 1 | 2A | 407 | G |
| 1 | 2A | 411 | G |
| 1 | 2A | 412 | A |
| 1 | 2A | 418 | G |
| 1 | 2A | 421 | U |
| 1 | 2A | 422 | A |
| 1 | 2A | 444 | C |
| 1 | 2A | 455 | C |
| 1 | 2A | 456 | C |
| 1 | 2A | 457 | A |
| 1 | 2A | 481 | G |
| 1 | 2A | 496 | G |
| 1 | 2A | 501 | A |
| 1 | 2A | 505 | A |
| 1 | 2A | 509 | C |
| 1 | 2A | 512 | G |
| 1 | 2A | 528 | A |
| 1 | 2A | 529 | A |
| 1 | 2A | 530 | G |
| 1 | 2A | 531 | C |
| 1 | 2A | 532 | A |
| 1 | 2A | 533 | G |
| 1 | 2A | 551 | G |
| 1 | 2A | 556 | G |
| 1 | 2A | 563 | G |
| 1 | 2A | 568 | U |
| 1 | 2A | 573 | G |
| 1 | 2A | 574 | C |
| 1 | 2A | 575 | A |
| 1 | 2A | 586 | A |
| 1 | 2A | 588 | U |
| 1 | 2A | 595 | C |
| 1 | 2A | 603 | A |
| 1 | 2A | 604 | G |
| 1 | 2A | 607 | U |
| 1 | 2A | 615 | G |
| 1 | 2A | 627 | A |
| 1 | 2A | 634 | C |
| 1 | 2A | 637 | A |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | 2A | 645 | C |
| 1 | 2A | 652(B) | A |
| 1 | 2A | 669 | G |
| 1 | 2A | 686 | G |
| 1 | 2A | 717 | G |
| 1 | 2A | 730 | C |
| 1 | 2A | 753 | C |
| 1 | 2A | 762 | U |
| 1 | 2A | 764 | A |
| 1 | 2A | 771 | G |
| 1 | 2A | 775 | G |
| 1 | 2A | 776 | G |
| 1 | 2A | 782 | A |
| 1 | 2A | 784 | A |
| 1 | 2A | 785 | G |
| 1 | 2A | 790 | C |
| 1 | 2A | 792 | G |
| 1 | 2A | 805 | G |
| 1 | 2A | 812 | C |
| 1 | 2A | 819 | A |
| 1 | 2A | 827 | U |
| 1 | 2A | 828 | U |
| 1 | 2A | 847 | U |
| 1 | 2A | 857 | C |
| 1 | 2A | 859 | G |
| 1 | 2A | 865 | C |
| 1 | 2A | 866 | A |
| 1 | 2A | 874 | G |
| 1 | 2A | 879 | G |
| 1 | 2A | 880 | G |
| 1 | 2A | 883 | G |
| 1 | 2A | 884 | C |
| 1 | 2A | 886 | C |
| 1 | 2A | 887 | A |
| 1 | 2A | 888 | C |
| 1 | 2A | 889 | C |
| 1 | 2A | 892 | G |
| 1 | 2A | 893 | C |
| 1 | 2A | 894 | C |
| 1 | 2A | 896 | A |
| 1 | 2A | 897 | C |
| 1 | 2A | 900 | A |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | 2A | 901 | A |
| 1 | 2A | 903 | C |
| 1 | 2A | 910 | A |
| 1 | 2A | 915 | C |
| 1 | 2A | 917 | A |
| 1 | 2A | 919 | G |
| 1 | 2A | 921 | G |
| 1 | 2A | 932 | G |
| 1 | 2A | 936 | C |
| 1 | 2A | 938 | G |
| 1 | 2A | 941 | A |
| 1 | 2A | 945 | A |
| 1 | 2A | 946 | G |
| 1 | 2A | 953 | A |
| 1 | 2A | 961 | C |
| 1 | 2A | 974 | G |
| 1 | 2A | 975 | C |
| 1 | 2A | 980 | A |
| 1 | 2A | 983 | A |
| 1 | 2A | 989 | G |
| 1 | 2A | 996 | A |
| 1 | 2A | 1012 | U |
| 1 | 2A | 1013 | C |
| 1 | 2A | 1017 | G |
| 1 | 2A | 1020 | A |
| 1 | 2A | 1022 | G |
| 1 | 2A | 1025 | G |
| 1 | 2A | 1026 | U |
| 1 | 2A | 1027 | A |
| 1 | 2A | 1033 | U |
| 1 | 2A | 1034 | G |
| 1 | 2A | 1038 | C |
| 1 | 2A | 1039 | G |
| 1 | 2A | 1041 | C |
| 1 | 2A | 1043 | C |
| 1 | 2A | 1114 | G |
| 1 | 2A | 1115 | G |
| 1 | 2A | 1128 | A |
| 1 | 2A | 1130 | U |
| 1 | 2A | 1135 | C |
| 1 | 2A | 1136 | G |
| 1 | 2A | 1139 | G |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | 2A | 1143 | A |
| 1 | 2A | 1168 | G |
| 1 | 2A | 1171 | G |
| 1 | 2A | 1188 | U |
| 1 | 2A | 1195 | G |
| 1 | 2A | 1210 | A |
| 1 | 2A | 1211 | U |
| 1 | 2A | 1220 | A |
| 1 | 2A | 1221 | C |
| 1 | 2A | 1236 | G |
| 1 | 2A | 1244 | G |
| 1 | 2A | 1252 | G |
| 1 | 2A | 1253 | A |
| 1 | 2A | 1256 | G |
| 1 | 2A | 1271 | G |
| 1 | 2A | 1272 | A |
| 1 | 2A | 1273 | U |
| 1 | 2A | 1284 | A |
| 1 | 2A | 1300 | U |
| 1 | 2A | 1301 | A |
| 1 | 2A | 1313 | U |
| 1 | 2A | 1314 | C |
| 1 | 2A | 1318 | C |
| 1 | 2A | 1352 | U |
| 1 | 2A | 1359 | A |
| 1 | 2A | 1360 | A |
| 1 | 2A | 1365 | A |
| 1 | 2A | 1368 | G |
| 1 | 2A | 1370 | C |
| 1 | 2A | 1384 | A |
| 1 | 2A | 1385 | G |
| 1 | 2A | 1395 | A |
| 1 | 2A | 1416 | G |
| 1 | 2A | 1417 | C |
| 1 | 2A | 1420 | U |
| 1 | 2A | 1421 | G |
| 1 | 2A | 1428 | C |
| 1 | 2A | 1437 | C |
| 1 | 2A | 1445 | A |
| 1 | 2A | 1449 | A |
| 1 | 2A | 1450 | G |
| 1 | 2A | 1451 | C |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | 2A | 1455 | G |
| 1 | 2A | 1459 | G |
| 1 | 2A | 1460 | A |
| 1 | 2A | 1461 | G |
| 1 | 2A | 1467 | C |
| 1 | 2A | 1471 | A |
| 1 | 2A | 1478 | G |
| 1 | 2A | 1482 | G |
| 1 | 2A | 1490 | A |
| 1 | 2A | 1493 | C |
| 1 | 2A | 1494 | A |
| 1 | 2A | 1496 | A |
| 1 | 2A | 1497 | U |
| 1 | 2A | 1504 | C |
| 1 | 2A | 1506 | C |
| 1 | 2A | 1507 | A |
| 1 | 2A | 1508 | A |
| 1 | 2A | 1509 | C |
| 1 | 2A | 1509(A) | A |
| 1 | 2A | 1531 | C |
| 1 | 2A | 1532 | C |
| 1 | 2A | 1533 | G |
| 1 | 2A | 1541 | G |
| 1 | 2A | 1545 | A |
| 1 | 2A | 1547 | C |
| 1 | 2A | 1554 | A |
| 1 | 2A | 1558 | A |
| 1 | 2A | 1566 | A |
| 1 | 2A | 1569 | A |
| 1 | 2A | 1578 | U |
| 1 | 2A | 1580 | A |
| 1 | 2A | 1584 | C |
| 1 | 2A | 1586 | A |
| 1 | 2A | 1608 | A |
| 1 | 2A | 1609 | A |
| 1 | 2A | 1610 | A |
| 1 | 2A | 1640 | C |
| 1 | 2A | 1648 | C |
| 1 | 2A | 1654 | A |
| 1 | 2A | 1664 | A |
| 1 | 2A | 1665 | A |
| 1 | 2A | 1674 | G |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | 2A | 1696 | G |
| 1 | 2A | 1700 | A |
| 1 | 2A | 1701 | A |
| 1 | 2A | 1721 | G |
| 1 | 2A | 1722 | A |
| 1 | 2A | 1740 | G |
| 1 | 2A | 1741 | A |
| 1 | 2A | 1746 | G |
| 1 | 2A | 1756 | G |
| 1 | 2A | 1762 | A |
| 1 | 2A | 1763 | G |
| 1 | 2A | 1764 | G |
| 1 | 2A | 1769 | G |
| 1 | 2A | 1773 | A |
| 1 | 2A | 1780 | A |
| 1 | 2A | 1782 | C |
| 1 | 2A | 1791 | A |
| 1 | 2A | 1800 | C |
| 1 | 2A | 1801 | G |
| 1 | 2A | 1812 | A |
| 1 | 2A | 1816 | G |
| 1 | 2A | 1829 | A |
| 1 | 2A | 1835 | G |
| 1 | 2A | 1847 | A |
| 1 | 2A | 1848 | A |
| 1 | 2A | 1877 | A |
| 1 | 2A | 1878 | G |
| 1 | 2A | 1900 | A |
| 1 | 2A | 1906 | G |
| 1 | 2A | 1913 | A |
| 1 | 2A | 1914 | C |
| 1 | 2A | 1929 | G |
| 1 | 2A | 1930 | G |
| 1 | 2A | 1936 | A |
| 1 | 2A | 1938 | A |
| 1 | 2A | 1939 | 5MU |
| 1 | 2A | 1955 | U |
| 1 | 2A | 1963 | U |
| 1 | 2A | 1967 | C |
| 1 | 2A | 1970 | A |
| 1 | 2A | 1971 | A |
| 1 | 2A | 1972 | A |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | 2A | 1993 | U |
| 1 | 2A | 1997 | G |
| 1 | 2A | 2020 | A |
| 1 | 2A | 2023 | G |
| 1 | 2A | 2031 | A |
| 1 | 2A | 2032 | G |
| 1 | 2A | 2033 | A |
| 1 | 2A | 2043 | C |
| 1 | 2A | 2055 | C |
| 1 | 2A | 2056 | G |
| 1 | 2A | 2060 | A |
| 1 | 2A | 2061 | G |
| 1 | 2A | 2062 | A |
| 1 | 2A | 2063 | C |
| 1 | 2A | 2069 | G |
| 1 | 2A | 2093 | G |
| 1 | 2A | 2108 | C |
| 1 | 2A | 2110 | G |
| 1 | 2A | 2111 | C |
| 1 | 2A | 2116 | G |
| 1 | 2A | 2120 | G |
| 1 | 2A | 2122 | U |
| 1 | 2A | 2124 | G |
| 1 | 2A | 2125 | G |
| 1 | 2A | 2126 | A |
| 1 | 2A | 2127 | G |
| 1 | 2A | 2128 | C |
| 1 | 2A | 2129 | C |
| 1 | 2A | 2130 | U |
| 1 | 2A | 2131 | G |
| 1 | 2A | 2132 | U |
| 1 | 2A | 2133 | G |
| 1 | 2A | 2134 | A |
| 1 | 2A | 2135 | A |
| 1 | 2A | 2137 | C |
| 1 | 2A | 2138 | C |
| 1 | 2A | 2139 | C |
| 1 | 2A | 2140 | C |
| 1 | 2A | 2141 | G |
| 1 | 2A | 2145 | C |
| 1 | 2A | 2146 | C |
| 1 | 2A | 2148 | G |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | 2A | 2149 | G |
| 1 | 2A | 2150 | U |
| 1 | 2A | 2151 | G |
| 1 | 2A | 2154 | G |
| 1 | 2A | 2156 | G |
| 1 | 2A | 2157 | G |
| 1 | 2A | 2158 | A |
| 1 | 2A | 2161 | C |
| 1 | 2A | 2165 | G |
| 1 | 2A | 2166 | G |
| 1 | 2A | 2167 | U |
| 1 | 2A | 2168 | G |
| 1 | 2A | 2169 | A |
| 1 | 2A | 2171 | A |
| 1 | 2A | 2172 | U |
| 1 | 2A | 2174 | C |
| 1 | 2A | 2175 | C |
| 1 | 2A | 2176 | A |
| 1 | 2A | 2178 | C |
| 1 | 2A | 2180 | U |
| 1 | 2A | 2182 | G |
| 1 | 2A | 2183 | C |
| 1 | 2A | 2185 | C |
| 1 | 2A | 2189 | U |
| 1 | 2A | 2192 | G |
| 1 | 2A | 2198 | A |
| 1 | 2A | 2206 | G |
| 1 | 2A | 2207 | G |
| 1 | 2A | 2208 | A |
| 1 | 2A | 2218 | U |
| 1 | 2A | 2225 | A |
| 1 | 2A | 2238 | G |
| 1 | 2A | 2239 | G |
| 1 | 2A | 2268 | A |
| 1 | 2A | 2273 | A |
| 1 | 2A | 2275 | C |
| 1 | 2A | 2283 | C |
| 1 | 2A | 2287 | A |
| 1 | 2A | 2303 | G |
| 1 | 2A | 2305 | A |
| 1 | 2A | 2308 | G |
| 1 | 2A | 2309 | A |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | 2A | 2311 | A |
| 1 | 2A | 2312 | U |
| 1 | 2A | 2319 | G |
| 1 | 2A | 2320 | A |
| 1 | 2A | 2325 | G |
| 1 | 2A | 2334 | G |
| 1 | 2A | 2336 | A |
| 1 | 2A | 2346 | A |
| 1 | 2A | 2347 | C |
| 1 | 2A | 2350 | C |
| 1 | 2A | 2354 | G |
| 1 | 2A | 2379 | G |
| 1 | 2A | 2383 | G |
| 1 | 2A | 2385 | C |
| 1 | 2A | 2388 | A |
| 1 | 2A | 2389 | G |
| 1 | 2A | 2406 | U |
| 1 | 2A | 2425 | A |
| 1 | 2A | 2429 | G |
| 1 | 2A | 2430 | A |
| 1 | 2A | 2435 | A |
| 1 | 2A | 2439 | A |
| 1 | 2A | 2441 | C |
| 1 | 2A | 2448 | A |
| 1 | 2A | 2459 | A |
| 1 | 2A | 2468 | G |
| 1 | 2A | 2469 | A |
| 1 | 2A | 2476 | A |
| 1 | 2A | 2478 | A |
| 1 | 2A | 2480 | C |
| 1 | 2A | 2481 | G |
| 1 | 2A | 2494 | G |
| 1 | 2A | 2502 | G |
| 1 | 2A | 2504 | U |
| 1 | 2A | 2505 | G |
| 1 | 2A | 2506 | U |
| 1 | 2A | 2507 | C |
| 1 | 2A | 2518 | A |
| 1 | 2A | 2520 | C |
| 1 | 2A | 2529 | G |
| 1 | 2A | 2535 | G |
| 1 | 2A | 2554 | U |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | 2A | 2566 | A |
| 1 | 2A | 2567 | G |
| 1 | 2A | 2569 | G |
| 1 | 2A | 2573 | C |
| 1 | 2A | 2585 | U |
| 1 | 2A | 2602 | A |
| 1 | 2A | 2609 | U |
| 1 | 2A | 2611 | U |
| 1 | 2A | 2612 | C |
| 1 | 2A | 2630 | G |
| 1 | 2A | 2634 | G |
| 1 | 2A | 2646 | C |
| 1 | 2A | 2654 | A |
| 1 | 2A | 2656 | U |
| 1 | 2A | 2673 | G |
| 1 | 2A | 2679 | A |
| 1 | 2A | 2689 | U |
| 1 | 2A | 2690 | C |
| 1 | 2A | 2702 | U |
| 1 | 2A | 2703 | C |
| 1 | 2A | 2712(A) | A |
| 1 | 2A | 2713 | A |
| 1 | 2A | 2714 | G |
| 1 | 2A | 2718 | G |
| 1 | 2A | 2726 | U |
| 1 | 2A | 2733 | A |
| 1 | 2A | 2739 | U |
| 1 | 2A | 2748 | A |
| 1 | 2A | 2751 | G |
| 1 | 2A | 2757 | A |
| 1 | 2A | 2759 | G |
| 1 | 2A | 2761 | G |
| 1 | 2A | 2765 | A |
| 1 | 2A | 2766 | G |
| 1 | 2A | 2769 | C |
| 1 | 2A | 2778 | A |
| 1 | 2A | 2789 | C |
| 1 | 2A | 2793 | G |
| 1 | 2A | 2794 | C |
| 1 | 2A | 2802 | G |
| 1 | 2A | 2803 | C |
| 1 | 2A | 2807 | G |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 1 | 2A | 2818 | G |
| 1 | 2A | 2820 | A |
| 1 | 2A | 2821 | A |
| 1 | 2A | 2833 | G |
| 1 | 2A | 2835 | A |
| 1 | 2A | 2872 | G |
| 1 | 2A | 2876 | G |
| 1 | 2A | 2880 | C |
| 1 | 2A | 2894 | G |
| 1 | 2A | 2897 | U |
| 2 | 2B | 2 | C |
| 2 | 2B | 9 | G |
| 2 | 2B | 19 | G |
| 2 | 2B | 25 | A |
| 2 | 2B | 32 | C |
| 2 | 2B | 34 | U |
| 2 | 2B | 35 | U |
| 2 | 2B | 40 | U |
| 2 | 2B | 42 | C |
| 2 | 2B | 51 | G |
| 2 | 2B | 53 | A |
| 2 | 2B | 56 | G |
| 2 | 2B | 61 | G |
| 2 | 2B | 73 | A |
| 2 | 2B | 74 | U |
| 2 | 2B | 75 | G |
| 2 | 2B | 85 | G |
| 2 | 2B | 101 | G |
| 2 | 2B | 105 | A |
| 2 | 2B | 108 | U |
| 2 | 2B | 110 | G |
| 2 | 2B | 120 | A |
| 32 | 2a | 9 | G |
| 32 | 2a | 26 | A |
| 32 | 2a | 32 | A |
| 32 | 2a | 39 | G |
| 32 | 2a | 47 | C |
| 32 | 2a | 48 | C |
| 32 | 2a | 50 | A |
| 32 | 2a | 51 | A |
| 32 | 2a | 66 | G |
| 32 | 2a | 76 | C |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 32 | 2a | 88 | A |
| 32 | 2a | 89 | C |
| 32 | 2a | 101 | A |
| 32 | 2a | 111 | G |
| 32 | 2a | 115 | G |
| 32 | 2a | 116 | A |
| 32 | 2a | 121 | C |
| 32 | 2a | 131 | C |
| 32 | 2a | 142 | G |
| 32 | 2a | 144 | G |
| 32 | 2a | 156 | G |
| 32 | 2a | 163 | C |
| 32 | 2a | 182 | U |
| 32 | 2a | 189(J) | G |
| 32 | 2a | 195 | A |
| 32 | 2a | 197 | A |
| 32 | 2a | 201 | C |
| 32 | 2a | 202 | U |
| 32 | 2a | 203 | U |
| 32 | 2a | 204 | U |
| 32 | 2a | 216 | G |
| 32 | 2a | 220 | G |
| 32 | 2a | 227 | G |
| 32 | 2a | 231 | G |
| 32 | 2a | 247 | G |
| 32 | 2a | 251 | G |
| 32 | 2a | 258 | G |
| 32 | 2a | 266 | G |
| 32 | 2a | 267 | C |
| 32 | 2a | 289 | G |
| 32 | 2a | 301 | G |
| 32 | 2a | 321 | A |
| 32 | 2a | 328 | C |
| 32 | 2a | 332 | G |
| 32 | 2a | 350 | G |
| 32 | 2a | 351 | G |
| 32 | 2a | 352 | C |
| 32 | 2a | 353 | A |
| 32 | 2a | 354 | G |
| 32 | 2a | 355 | C |
| 32 | 2a | 367 | U |
| 32 | 2a | 372 | C |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 32 | 2a | 373 | A |
| 32 | 2a | 384 | G |
| 32 | 2a | 397 | A |
| 32 | 2a | 398 | C |
| 32 | 2a | 406 | G |
| 32 | 2a | 412 | A |
| 32 | 2a | 413 | G |
| 32 | 2a | 414 | A |
| 32 | 2a | 418 | C |
| 32 | 2a | 423 | G |
| 32 | 2a | 424 | G |
| 32 | 2a | 429 | U |
| 32 | 2a | 430 | A |
| 32 | 2a | 439 | A |
| 32 | 2a | 441 | A |
| 32 | 2a | 442 | C |
| 32 | 2a | 452 | A |
| 32 | 2a | 458 | C |
| 32 | 2a | 461 | A |
| 32 | 2a | 470 | C |
| 32 | 2a | 484 | G |
| 32 | 2a | 485 | G |
| 32 | 2a | 496 | A |
| 32 | 2a | 498 | U |
| 32 | 2a | 505 | G |
| 32 | 2a | 509 | A |
| 32 | 2a | 510 | A |
| 32 | 2a | 511 | C |
| 32 | 2a | 518 | C |
| 32 | 2a | 521 | G |
| 32 | 2a | 524 | G |
| 32 | 2a | 528 | C |
| 32 | 2a | 531 | U |
| 32 | 2a | 532 | A |
| 32 | 2a | 533 | A |
| 32 | 2a | 536 | C |
| 32 | 2a | 547 | A |
| 32 | 2a | 559 | A |
| 32 | 2a | 564 | C |
| 32 | 2a | 568 | G |
| 32 | 2a | 572 | A |
| 32 | 2a | 573 | A |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 32 | 2a | 574 | A |
| 32 | 2a | 576 | G |
| 32 | 2a | 577 | G |
| 32 | 2a | 595 | G |
| 32 | 2a | 596 | C |
| 32 | 2a | 607 | A |
| 32 | 2a | 619 | U |
| 32 | 2a | 630 | G |
| 32 | 2a | 653 | A |
| 32 | 2a | 661 | G |
| 32 | 2a | 665 | A |
| 32 | 2a | 687 | A |
| 32 | 2a | 688 | G |
| 32 | 2a | 693 | G |
| 32 | 2a | 721 | G |
| 32 | 2a | 723 | U |
| 32 | 2a | 724 | G |
| 32 | 2a | 731 | G |
| 32 | 2a | 733 | A |
| 32 | 2a | 749 | C |
| 32 | 2a | 755 | G |
| 32 | 2a | 773 | G |
| 32 | 2a | 777 | A |
| 32 | 2a | 792 | A |
| 32 | 2a | 793 | U |
| 32 | 2a | 794 | A |
| 32 | 2a | 815 | A |
| 32 | 2a | 817 | C |
| 32 | 2a | 821 | G |
| 32 | 2a | 828 | A |
| 32 | 2a | 834 | C |
| 32 | 2a | 840 | C |
| 32 | 2a | 841 | U |
| 32 | 2a | 859 | A |
| 32 | 2a | 874 | G |
| 32 | 2a | 875 | C |
| 32 | 2a | 902 | G |
| 32 | 2a | 914 | A |
| 32 | 2a | 916 | G |
| 32 | 2a | 926 | G |
| 32 | 2a | 927 | G |
| 32 | 2a | 933 | G |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 32 | 2a | 934 | C |
| 32 | 2a | 935 | A |
| 32 | 2a | 958 | A |
| 32 | 2a | 960 | U |
| 32 | 2a | 961 | U |
| 32 | 2a | 966 | M2G |
| 32 | 2a | 968 | A |
| 32 | 2a | 969 | A |
| 32 | 2a | 971 | G |
| 32 | 2a | 972 | C |
| 32 | 2a | 974 | A |
| 32 | 2a | 975 | A |
| 32 | 2a | 976 | G |
| 32 | 2a | 977 | A |
| 32 | 2a | 978 | A |
| 32 | 2a | 982 | U |
| 32 | 2a | 984 | C |
| 32 | 2a | 989 | C |
| 32 | 2a | 992 | U |
| 32 | 2a | 993 | G |
| 32 | 2a | 995 | C |
| 32 | 2a | 996 | A |
| 32 | 2a | 997 | U |
| 32 | 2a | 998 | G |
| 32 | 2a | 999 | C |
| 32 | 2a | 1002 | G |
| 32 | 2a | 1004 | A |
| 32 | 2a | 1005 | A |
| 32 | 2a | 1006 | C |
| 32 | 2a | 1009 | G |
| 32 | 2a | 1011 | G |
| 32 | 2a | 1020 | U |
| 32 | 2a | 1022 | G |
| 32 | 2a | 1023 | G |
| 32 | 2a | 1025 | U |
| 32 | 2a | 1026 | G |
| 32 | 2a | 1027 | C |
| 32 | 2a | 1028 | C |
| 32 | 2a | 1030 | C |
| 32 | 2a | 1030(A) | G |
| 32 | 2a | 1030(C) | G |
| 32 | 2a | 1031 | G |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 32 | 2a | 1032 | G |
| 32 | 2a | 1035 | A |
| 32 | 2a | 1036 | G |
| 32 | 2a | 1037 | C |
| 32 | 2a | 1039 | C |
| 32 | 2a | 1040 | U |
| 32 | 2a | 1041 | A |
| 32 | 2a | 1046 | A |
| 32 | 2a | 1064 | G |
| 32 | 2a | 1065 | U |
| 32 | 2a | 1066 | C |
| 32 | 2a | 1068 | G |
| 32 | 2a | 1077 | G |
| 32 | 2a | 1078 | U |
| 32 | 2a | 1081 | G |
| 32 | 2a | 1086 | U |
| 32 | 2a | 1092 | A |
| 32 | 2a | 1093 | A |
| 32 | 2a | 1094 | G |
| 32 | 2a | 1095 | U |
| 32 | 2a | 1101 | A |
| 32 | 2a | 1105 | A |
| 32 | 2a | 1117 | G |
| 32 | 2a | 1118 | C |
| 32 | 2a | 1121 | U |
| 32 | 2a | 1129 | C |
| 32 | 2a | 1130 | A |
| 32 | 2a | 1132 | C |
| 32 | 2a | 1133 | G |
| 32 | 2a | 1136 | U |
| 32 | 2a | 1137 | C |
| 32 | 2a | 1138 | G |
| 32 | 2a | 1139 | G |
| 32 | 2a | 1147 | C |
| 32 | 2a | 1152 | A |
| 32 | 2a | 1157 | A |
| 32 | 2a | 1159 | U |
| 32 | 2a | 1171 | G |
| 32 | 2a | 1172 | C |
| 32 | 2a | 1173 | G |
| 32 | 2a | 1179 | A |
| 32 | 2a | 1181 | G |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 32 | 2a | 1182 | G |
| 32 | 2a | 1184 | G |
| 32 | 2a | 1196 | U |
| 32 | 2a | 1197 | G |
| 32 | 2a | 1201 | A |
| 32 | 2a | 1202 | G |
| 32 | 2a | 1212 | U |
| 32 | 2a | 1213 | A |
| 32 | 2a | 1227 | A |
| 32 | 2a | 1236 | A |
| 32 | 2a | 1238 | A |
| 32 | 2a | 1240 | U |
| 32 | 2a | 1241 | G |
| 32 | 2a | 1249 | C |
| 32 | 2a | 1255 | G |
| 32 | 2a | 1256 | A |
| 32 | 2a | 1257 | U |
| 32 | 2a | 1258 | G |
| 32 | 2a | 1260 | C |
| 32 | 2a | 1264 | C |
| 32 | 2a | 1270 | C |
| 32 | 2a | 1272 | G |
| 32 | 2a | 1275 | A |
| 32 | 2a | 1277 | C |
| 32 | 2a | 1278 | U |
| 32 | 2a | 1279 | A |
| 32 | 2a | 1280 | A |
| 32 | 2a | 1281 | U |
| 32 | 2a | 1287 | A |
| 32 | 2a | 1299 | A |
| 32 | 2a | 1301 | U |
| 32 | 2a | 1302 | U |
| 32 | 2a | 1303 | C |
| 32 | 2a | 1305 | G |
| 32 | 2a | 1306 | A |
| 32 | 2a | 1320 | C |
| 32 | 2a | 1323 | G |
| 32 | 2a | 1338 | G |
| 32 | 2a | 1340 | A |
| 32 | 2a | 1346 | A |
| 32 | 2a | 1347 | G |
| 32 | 2a | 1353 | G |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 32 | 2a | 1358 | U |
| 32 | 2a | 1363 | C |
| 32 | 2a | 1363(A) | A |
| 32 | 2a | 1370 | G |
| 32 | 2a | 1378 | C |
| 32 | 2a | 1397 | C |
| 32 | 2a | 1400 | 5MC |
| 32 | 2a | 1419 | G |
| 32 | 2a | 1442 | G |
| 32 | 2a | 1442(A) | G |
| 32 | 2a | 1452 | C |
| 32 | 2a | 1475 | G |
| 32 | 2a | 1492 | A |
| 32 | 2a | 1494 | G |
| 32 | 2a | 1497 | G |
| 32 | 2a | 1503 | A |
| 32 | 2a | 1504 | G |
| 32 | 2a | 1506 | U |
| 32 | 2a | 1517 | G |
| 32 | 2a | 1529 | G |
| 32 | 2a | 1530 | G |
| 32 | 2a | 1531 | A |
| 32 | 2a | 1532 | U |
| 53 | 2v | 13 | A |
| 53 | 2v | 24 | A |
| 54 | 2w | 3 | C |
| 54 | 2w | 4 | C |
| 54 | 2w | 5 | G |
| 54 | 2w | 8 | 4SU |
| 54 | 2w | 11 | C |
| 54 | 2w | 13 | C |
| 54 | 2w | 14 | A |
| 54 | 2w | 19 | G |
| 54 | 2w | 22 | G |
| 54 | 2w | 29 | G |
| 54 | 2w | 32 | PSU |
| 54 | 2w | 40 | C |
| 54 | 2w | 46 | G7M |
| 54 | 2w | 47 | U |
| 54 | 2w | 48 | C |
| 54 | 2w | 57 | G |
| 54 | 2w | 62 | C |

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| Mol | Chain | Res | Type |
|------------|--------------|------------|-------------|
| 54 | 2w | 63 | G |
| 54 | 2w | 64 | A |
| 54 | 2w | 66 | U |
| 54 | 2w | 67 | C |
| 54 | 2w | 68 | C |
| 54 | 2w | 69 | G |
| 54 | 2w | 70 | G |
| 54 | 2w | 73 | A |
| 54 | 2w | 74 | C |
| 55 | 2x | 9 | G |
| 55 | 2x | 10 | G |
| 55 | 2x | 14 | A |
| 55 | 2x | 15 | G |
| 55 | 2x | 19 | G |
| 55 | 2x | 21 | A |
| 55 | 2x | 43 | A |
| 55 | 2x | 47 | U |
| 55 | 2x | 52 | G |
| 55 | 2x | 53 | G |
| 55 | 2x | 59 | A |
| 55 | 2x | 61 | C |
| 55 | 2x | 76 | A |
| 54 | 2y | 13 | C |
| 54 | 2y | 15 | G |
| 54 | 2y | 19 | G |
| 54 | 2y | 23 | A |
| 54 | 2y | 25 | C |
| 54 | 2y | 26 | A |
| 54 | 2y | 27 | G |
| 54 | 2y | 34 | G |
| 54 | 2y | 35 | A |
| 54 | 2y | 43 | C |
| 54 | 2y | 45 | U |
| 54 | 2y | 46 | G7M |
| 54 | 2y | 49 | C |
| 54 | 2y | 50 | U |
| 54 | 2y | 52 | G |
| 54 | 2y | 53 | G |
| 54 | 2y | 55 | PSU |
| 54 | 2y | 57 | G |
| 54 | 2y | 58 | A |
| 54 | 2y | 59 | U |

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| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 54 | 2y | 61 | C |
| 54 | 2y | 64 | A |
| 54 | 2y | 69 | G |
| 54 | 2y | 70 | G |
| 54 | 2y | 73 | A |

All (53) RNA pucker outliers are listed below:

| Mol | Chain | Res | Type |
|-----|-------|---------|------|
| 1 | 1A | 195 | A |
| 1 | 1A | 196 | A |
| 1 | 1A | 266 | G |
| 1 | 1A | 278 | A |
| 1 | 1A | 548 | A |
| 1 | 1A | 669 | G |
| 1 | 1A | 685 | A |
| 1 | 1A | 746 | A |
| 1 | 1A | 764 | A |
| 1 | 1A | 774 | A |
| 1 | 1A | 895 | U |
| 1 | 1A | 974 | G |
| 1 | 1A | 1067 | A |
| 1 | 1A | 1142(A) | A |
| 1 | 1A | 1174 | A |
| 1 | 1A | 1176 | G |
| 1 | 1A | 1420 | U |
| 1 | 1A | 1442 | G |
| 1 | 1A | 1508 | A |
| 1 | 1A | 1608 | A |
| 1 | 1A | 1992 | G |
| 1 | 1A | 2134 | A |
| 1 | 1A | 2170 | A |
| 1 | 1A | 2181 | G |
| 1 | 1A | 2183 | C |
| 1 | 1A | 2406 | U |
| 1 | 1A | 2422 | A |
| 1 | 1A | 2430 | A |
| 1 | 1A | 2629 | A |
| 1 | 1A | 2689 | U |
| 1 | 1A | 2756 | U |
| 1 | 2A | 196 | A |
| 1 | 2A | 228 | A |

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| Mol | Chain | Res | Type |
|-----|-------|--------|------|
| 1 | 2A | 266 | G |
| 1 | 2A | 271(M) | G |
| 1 | 2A | 277 | C |
| 1 | 2A | 528 | A |
| 1 | 2A | 752 | A |
| 1 | 2A | 827 | U |
| 1 | 2A | 856 | C |
| 1 | 2A | 1026 | U |
| 1 | 2A | 1210 | A |
| 1 | 2A | 1420 | U |
| 1 | 2A | 1442 | G |
| 1 | 2A | 1530 | C |
| 1 | 2A | 1653 | G |
| 1 | 2A | 1913 | A |
| 1 | 2A | 1992 | G |
| 1 | 2A | 2062 | A |
| 1 | 2A | 2119 | A |
| 1 | 2A | 2126 | A |
| 1 | 2A | 2689 | U |
| 1 | 2A | 2756 | U |

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

84 non-standard protein/DNA/RNA residues are modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. 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 $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|------|------|--------------|------|-------------|-------------|------|-------------|
| | | | | | Counts | RMSZ | # $ Z > 2$ | Counts | RMSZ | # $ Z > 2$ |
| 55 | 5MC | 1x | 32 | 55 | 18,22,23 | 0.98 | 2 (11%) | 26,32,35 | 1.22 | 2 (7%) |
| 54 | 4SU | 2y | 8 | 54 | 18,21,22 | 1.63 | 4 (22%) | 26,30,33 | 2.67 | 5 (19%) |
| 54 | 4SU | 1w | 8 | 54 | 18,21,22 | 1.80 | 4 (22%) | 26,30,33 | 1.82 | 4 (15%) |
| 32 | MA6 | 2a | 1518 | 32 | 18,26,27 | 0.79 | 0 | 19,38,41 | 1.39 | 2 (10%) |
| 32 | 5MC | 1a | 967 | 32 | 18,22,23 | 0.93 | 2 (11%) | 26,32,35 | 1.17 | 3 (11%) |
| 32 | MA6 | 1a | 1519 | 32 | 18,26,27 | 0.80 | 0 | 19,38,41 | 1.44 | 2 (10%) |

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|------|---------|--------------|------|----------|-------------|------|----------|
| | | | | | Counts | RMSZ | # Z > 2 | Counts | RMSZ | # Z > 2 |
| 54 | PSU | 1w | 39 | 54 | 18,21,22 | 1.33 | 2 (11%) | 22,30,33 | 1.94 | 4 (18%) |
| 43 | 0TD | 1l | 92 | 43 | 7,9,10 | 4.88 | 1 (14%) | 6,11,13 | 8.10 | 2 (33%) |
| 32 | 2MG | 1a | 1207 | 32,56 | 18,26,27 | 0.97 | 1 (5%) | 16,38,41 | 1.11 | 3 (18%) |
| 32 | M2G | 1a | 966 | 32 | 20,27,28 | 1.51 | 3 (15%) | 22,40,43 | 1.06 | 2 (9%) |
| 1 | 2MA | 1A | 2503 | 56,1 | 17,25,26 | 0.98 | 1 (5%) | 17,37,40 | 1.09 | 2 (11%) |
| 32 | MA6 | 1a | 1518 | 32 | 18,26,27 | 0.81 | 0 | 19,38,41 | 1.30 | 2 (10%) |
| 54 | G7M | 2y | 46 | 54 | 20,26,27 | 1.34 | 2 (10%) | 17,39,42 | 0.69 | 0 |
| 54 | PSU | 2w | 39 | 54 | 18,21,22 | 1.32 | 2 (11%) | 22,30,33 | 1.93 | 3 (13%) |
| 32 | UR3 | 1a | 1498 | 32 | 19,22,23 | 0.95 | 0 | 26,32,35 | 1.49 | 1 (3%) |
| 32 | 5MC | 2a | 1407 | 32 | 18,22,23 | 1.03 | 2 (11%) | 26,32,35 | 1.27 | 3 (11%) |
| 54 | G7M | 1y | 46 | 54 | 20,26,27 | 1.38 | 2 (10%) | 17,39,42 | 0.57 | 0 |
| 1 | 5MU | 1A | 1939 | 56,1 | 19,22,23 | 1.41 | 4 (21%) | 28,32,35 | 2.09 | 6 (21%) |
| 54 | MIA | 2y | 37 | 54 | 18,24,32 | 1.11 | 2 (11%) | 18,35,47 | 1.30 | 2 (11%) |
| 1 | PSU | 1A | 2605 | 56,1 | 18,21,22 | 1.34 | 2 (11%) | 22,30,33 | 1.98 | 4 (18%) |
| 1 | 2MA | 2A | 2503 | 56,1 | 17,25,26 | 0.96 | 0 | 17,37,40 | 1.04 | 2 (11%) |
| 54 | MIA | 1y | 37 | 54 | 18,24,32 | 1.16 | 2 (11%) | 18,35,47 | 1.22 | 2 (11%) |
| 54 | MIA | 1w | 37 | 54 | 24,31,32 | 2.31 | 3 (12%) | 26,44,47 | 2.63 | 9 (34%) |
| 55 | 4SU | 1x | 8 | 55 | 18,21,22 | 2.16 | 6 (33%) | 26,30,33 | 1.65 | 5 (19%) |
| 55 | 4SU | 2x | 8 | 55 | 18,21,22 | 2.03 | 5 (27%) | 26,30,33 | 1.37 | 3 (11%) |
| 32 | MA6 | 2a | 1519 | 32 | 18,26,27 | 0.80 | 0 | 19,38,41 | 1.45 | 2 (10%) |
| 43 | 0TD | 2l | 92 | 43 | 7,9,10 | 4.73 | 1 (14%) | 6,11,13 | 1.30 | 1 (16%) |
| 32 | G7M | 1a | 527 | 32,56 | 20,26,27 | 1.25 | 2 (10%) | 17,39,42 | 0.61 | 0 |
| 54 | PSU | 1w | 55 | 54 | 18,21,22 | 1.33 | 2 (11%) | 22,30,33 | 1.88 | 4 (18%) |
| 54 | PSU | 2y | 39 | 54 | 18,21,22 | 1.46 | 2 (11%) | 22,30,33 | 1.52 | 4 (18%) |
| 55 | 5MU | 1x | 54 | 55,56 | 19,22,23 | 1.40 | 5 (26%) | 28,32,35 | 1.93 | 6 (21%) |
| 1 | OMG | 1A | 2251 | 56,55,1 | 18,26,27 | 0.93 | 1 (5%) | 19,38,41 | 1.15 | 3 (15%) |
| 1 | PSU | 2A | 2605 | 1 | 18,21,22 | 1.36 | 3 (16%) | 22,30,33 | 1.84 | 5 (22%) |
| 32 | 5MC | 2a | 1400 | 32 | 18,22,23 | 0.96 | 2 (11%) | 26,32,35 | 1.25 | 2 (7%) |
| 32 | M2G | 2a | 966 | 32 | 20,27,28 | 1.44 | 3 (15%) | 22,40,43 | 0.96 | 2 (9%) |
| 54 | PSU | 1y | 55 | 54 | 18,21,22 | 1.33 | 2 (11%) | 22,30,33 | 1.80 | 3 (13%) |
| 1 | 5MC | 1A | 1942 | 1 | 18,22,23 | 0.99 | 2 (11%) | 26,32,35 | 1.19 | 2 (7%) |
| 32 | PSU | 1a | 516 | 32 | 18,21,22 | 1.38 | 2 (11%) | 22,30,33 | 1.79 | 3 (13%) |
| 1 | PSU | 1A | 1917 | 1 | 18,21,22 | 1.32 | 3 (16%) | 22,30,33 | 1.93 | 3 (13%) |
| 1 | 5MC | 1A | 1962 | 56,1 | 18,22,23 | 1.00 | 2 (11%) | 26,32,35 | 1.25 | 3 (11%) |
| 1 | 5MU | 1A | 1915 | 1 | 19,22,23 | 1.37 | 5 (26%) | 28,32,35 | 2.26 | 8 (28%) |

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|------|-------|--------------|------|----------|-------------|------|----------|
| | | | | | Counts | RMSZ | # Z > 2 | Counts | RMSZ | # Z > 2 |
| 54 | 5MU | 1w | 54 | 54 | 19,22,23 | 1.43 | 5 (26%) | 28,32,35 | 1.66 | 5 (17%) |
| 54 | PSU | 1w | 32 | 54,56 | 18,21,22 | 1.36 | 2 (11%) | 22,30,33 | 1.89 | 3 (13%) |
| 54 | 4SU | 2w | 8 | 54 | 18,21,22 | 1.73 | 6 (33%) | 26,30,33 | 1.94 | 4 (15%) |
| 54 | G7M | 2w | 46 | 54 | 20,26,27 | 1.19 | 1 (5%) | 17,39,42 | 0.82 | 0 |
| 55 | PSU | 1x | 55 | 55 | 18,21,22 | 1.35 | 2 (11%) | 22,30,33 | 1.77 | 3 (13%) |
| 55 | PSU | 2x | 55 | 55 | 18,21,22 | 1.38 | 2 (11%) | 22,30,33 | 1.77 | 3 (13%) |
| 54 | 5MU | 1y | 54 | 54 | 19,22,23 | 1.50 | 6 (31%) | 28,32,35 | 2.02 | 5 (17%) |
| 1 | PSU | 2A | 1911 | 1 | 18,21,22 | 1.36 | 2 (11%) | 22,30,33 | 1.90 | 3 (13%) |
| 32 | 5MC | 1a | 1404 | 32 | 18,22,23 | 1.01 | 2 (11%) | 26,32,35 | 1.22 | 3 (11%) |
| 32 | UR3 | 2a | 1498 | 32 | 19,22,23 | 1.10 | 1 (5%) | 26,32,35 | 1.52 | 3 (11%) |
| 32 | 5MC | 1a | 1407 | 32 | 18,22,23 | 0.98 | 2 (11%) | 26,32,35 | 0.99 | 2 (7%) |
| 1 | OMC | 1A | 1920 | 1 | 19,22,23 | 0.86 | 0 | 26,31,34 | 0.98 | 0 |
| 54 | PSU | 1y | 39 | 54 | 18,21,22 | 1.41 | 2 (11%) | 22,30,33 | 1.73 | 4 (18%) |
| 1 | PSU | 2A | 1917 | 1 | 18,21,22 | 1.31 | 2 (11%) | 22,30,33 | 1.79 | 3 (13%) |
| 32 | 5MC | 2a | 967 | 32 | 18,22,23 | 0.94 | 2 (11%) | 26,32,35 | 1.11 | 2 (7%) |
| 32 | 4OC | 2a | 1402 | 32,56 | 20,23,24 | 0.78 | 0 | 26,32,35 | 0.96 | 1 (3%) |
| 1 | 5MU | 2A | 1939 | 56,1 | 19,22,23 | 1.48 | 5 (26%) | 28,32,35 | 2.19 | 8 (28%) |
| 32 | PSU | 2a | 516 | 32 | 18,21,22 | 1.29 | 2 (11%) | 22,30,33 | 1.96 | 3 (13%) |
| 1 | OMU | 1A | 2552 | 56,1 | 19,22,23 | 1.19 | 3 (15%) | 26,31,34 | 1.70 | 5 (19%) |
| 54 | 5MU | 2w | 54 | 54 | 19,22,23 | 1.35 | 4 (21%) | 28,32,35 | 1.80 | 7 (25%) |
| 32 | 4OC | 1a | 1402 | 32 | 20,23,24 | 0.75 | 0 | 26,32,35 | 1.00 | 1 (3%) |
| 54 | PSU | 2w | 32 | 54 | 18,21,22 | 1.32 | 2 (11%) | 22,30,33 | 1.77 | 4 (18%) |
| 1 | OMC | 2A | 1920 | 1 | 19,22,23 | 0.82 | 0 | 26,31,34 | 0.91 | 1 (3%) |
| 54 | G7M | 1w | 46 | 54 | 20,26,27 | 1.25 | 2 (10%) | 17,39,42 | 0.72 | 0 |
| 1 | 5MC | 2A | 1962 | 56,1 | 18,22,23 | 0.93 | 2 (11%) | 26,32,35 | 1.10 | 2 (7%) |
| 32 | G7M | 2a | 527 | 32,56 | 20,26,27 | 1.21 | 2 (10%) | 17,39,42 | 0.64 | 0 |
| 1 | PSU | 1A | 1911 | 1 | 18,21,22 | 1.36 | 2 (11%) | 22,30,33 | 1.85 | 3 (13%) |
| 55 | 5MC | 2x | 32 | 55 | 18,22,23 | 1.03 | 2 (11%) | 26,32,35 | 1.25 | 3 (11%) |
| 54 | 5MU | 2y | 54 | 54 | 19,22,23 | 1.49 | 4 (21%) | 28,32,35 | 1.79 | 8 (28%) |
| 54 | PSU | 2y | 32 | 54 | 18,21,22 | 1.31 | 2 (11%) | 22,30,33 | 1.82 | 3 (13%) |
| 54 | PSU | 2w | 55 | 54 | 18,21,22 | 1.33 | 2 (11%) | 22,30,33 | 1.88 | 3 (13%) |
| 32 | 2MG | 2a | 1207 | 32,56 | 18,26,27 | 0.89 | 1 (5%) | 16,38,41 | 1.04 | 2 (12%) |
| 32 | 5MC | 1a | 1400 | 32 | 18,22,23 | 0.97 | 2 (11%) | 26,32,35 | 1.31 | 5 (19%) |
| 54 | MIA | 2w | 37 | 54 | 20,27,32 | 1.79 | 3 (15%) | 22,39,47 | 2.08 | 7 (31%) |
| 54 | PSU | 2y | 55 | 54 | 18,21,22 | 1.32 | 3 (16%) | 22,30,33 | 1.78 | 4 (18%) |

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|------|---------|--------------|------|----------|-------------|------|----------|
| | | | | | Counts | RMSZ | # Z > 2 | Counts | RMSZ | # Z > 2 |
| 1 | OMG | 2A | 2251 | 56,55,1 | 18,26,27 | 0.97 | 1 (5%) | 19,38,41 | 1.16 | 3 (15%) |
| 32 | 5MC | 2a | 1404 | 32 | 18,22,23 | 1.02 | 2 (11%) | 26,32,35 | 1.12 | 3 (11%) |
| 55 | 5MU | 2x | 54 | 55 | 19,22,23 | 1.44 | 6 (31%) | 28,32,35 | 1.86 | 5 (17%) |
| 54 | 4SU | 1y | 8 | 54 | 18,21,22 | 1.71 | 5 (27%) | 26,30,33 | 1.62 | 5 (19%) |
| 1 | 5MU | 2A | 1915 | 56,1 | 19,22,23 | 1.44 | 6 (31%) | 28,32,35 | 2.20 | 6 (21%) |
| 54 | PSU | 1y | 32 | 54 | 18,21,22 | 1.33 | 2 (11%) | 22,30,33 | 1.79 | 3 (13%) |
| 1 | 5MC | 2A | 1942 | 1 | 18,22,23 | 1.02 | 2 (11%) | 26,32,35 | 1.19 | 3 (11%) |
| 1 | OMU | 2A | 2552 | 56,1 | 19,22,23 | 1.18 | 3 (15%) | 26,31,34 | 1.68 | 5 (19%) |

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

| Mol | Type | Chain | Res | Link | Chirals | Torsions | Rings |
|-----|------|-------|------|-------|---------|------------|---------|
| 55 | 5MC | 1x | 32 | 55 | - | 0/7/25/26 | 0/2/2/2 |
| 54 | 4SU | 2y | 8 | 54 | - | 1/7/25/26 | 0/2/2/2 |
| 54 | 4SU | 1w | 8 | 54 | - | 0/7/25/26 | 0/2/2/2 |
| 32 | MA6 | 2a | 1518 | 32 | - | 0/7/29/30 | 0/3/3/3 |
| 32 | 5MC | 1a | 967 | 32 | - | 0/7/25/26 | 0/2/2/2 |
| 32 | MA6 | 1a | 1519 | 32 | - | 3/7/29/30 | 0/3/3/3 |
| 54 | PSU | 1w | 39 | 54 | - | 0/7/25/26 | 0/2/2/2 |
| 43 | 0TD | 1l | 92 | 43 | - | 3/7/12/14 | - |
| 32 | 2MG | 1a | 1207 | 32,56 | - | 2/5/27/28 | 0/3/3/3 |
| 32 | M2G | 1a | 966 | 32 | - | 0/7/29/30 | 0/3/3/3 |
| 1 | 2MA | 1A | 2503 | 56,1 | - | 2/3/25/26 | 0/3/3/3 |
| 32 | MA6 | 1a | 1518 | 32 | - | 0/7/29/30 | 0/3/3/3 |
| 54 | G7M | 2y | 46 | 54 | - | 0/3/25/26 | 0/3/3/3 |
| 54 | PSU | 2w | 39 | 54 | - | 0/7/25/26 | 0/2/2/2 |
| 32 | UR3 | 1a | 1498 | 32 | - | 0/7/25/26 | 0/2/2/2 |
| 32 | 5MC | 2a | 1407 | 32 | - | 0/7/25/26 | 0/2/2/2 |
| 54 | G7M | 1y | 46 | 54 | - | 2/3/25/26 | 0/3/3/3 |
| 1 | 5MU | 1A | 1939 | 56,1 | - | 0/7/25/26 | 0/2/2/2 |
| 54 | MIA | 2y | 37 | 54 | - | 2/3/25/34 | 0/3/3/3 |
| 1 | PSU | 1A | 2605 | 56,1 | - | 0/7/25/26 | 0/2/2/2 |
| 1 | 2MA | 2A | 2503 | 56,1 | - | 1/3/25/26 | 0/3/3/3 |
| 54 | MIA | 1y | 37 | 54 | - | 2/3/25/34 | 0/3/3/3 |
| 54 | MIA | 1w | 37 | 54 | - | 1/11/33/34 | 0/3/3/3 |
| 55 | 4SU | 1x | 8 | 55 | - | 0/7/25/26 | 0/2/2/2 |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions | Rings |
|-----|------|-------|------|---------|---------|-----------|---------|
| 55 | 4SU | 2x | 8 | 55 | - | 0/7/25/26 | 0/2/2/2 |
| 32 | MA6 | 2a | 1519 | 32 | - | 2/7/29/30 | 0/3/3/3 |
| 43 | 0TD | 2l | 92 | 43 | - | 4/7/12/14 | - |
| 32 | G7M | 1a | 527 | 32,56 | - | 2/3/25/26 | 0/3/3/3 |
| 54 | PSU | 1w | 55 | 54 | - | 0/7/25/26 | 0/2/2/2 |
| 54 | PSU | 2y | 39 | 54 | - | 0/7/25/26 | 0/2/2/2 |
| 55 | 5MU | 1x | 54 | 55,56 | - | 0/7/25/26 | 0/2/2/2 |
| 1 | OMG | 1A | 2251 | 56,55,1 | - | 0/5/27/28 | 0/3/3/3 |
| 1 | PSU | 2A | 2605 | 1 | - | 0/7/25/26 | 0/2/2/2 |
| 32 | 5MC | 2a | 1400 | 32 | - | 2/7/25/26 | 0/2/2/2 |
| 32 | M2G | 2a | 966 | 32 | - | 0/7/29/30 | 0/3/3/3 |
| 54 | PSU | 1y | 55 | 54 | - | 2/7/25/26 | 0/2/2/2 |
| 1 | 5MC | 1A | 1942 | 1 | - | 0/7/25/26 | 0/2/2/2 |
| 32 | PSU | 1a | 516 | 32 | - | 0/7/25/26 | 0/2/2/2 |
| 1 | PSU | 1A | 1917 | 1 | - | 0/7/25/26 | 0/2/2/2 |
| 1 | 5MC | 1A | 1962 | 56,1 | - | 0/7/25/26 | 0/2/2/2 |
| 1 | 5MU | 1A | 1915 | 1 | - | 0/7/25/26 | 0/2/2/2 |
| 54 | 5MU | 1w | 54 | 54 | - | 0/7/25/26 | 0/2/2/2 |
| 54 | PSU | 1w | 32 | 54,56 | - | 0/7/25/26 | 0/2/2/2 |
| 54 | 4SU | 2w | 8 | 54 | - | 0/7/25/26 | 0/2/2/2 |
| 54 | G7M | 2w | 46 | 54 | - | 3/3/25/26 | 0/3/3/3 |
| 55 | PSU | 1x | 55 | 55 | - | 0/7/25/26 | 0/2/2/2 |
| 55 | PSU | 2x | 55 | 55 | - | 0/7/25/26 | 0/2/2/2 |
| 54 | 5MU | 1y | 54 | 54 | - | 2/7/25/26 | 0/2/2/2 |
| 1 | PSU | 2A | 1911 | 1 | - | 0/7/25/26 | 0/2/2/2 |
| 32 | 5MC | 1a | 1404 | 32 | - | 0/7/25/26 | 0/2/2/2 |
| 32 | UR3 | 2a | 1498 | 32 | - | 0/7/25/26 | 0/2/2/2 |
| 32 | 5MC | 1a | 1407 | 32 | - | 0/7/25/26 | 0/2/2/2 |
| 1 | OMC | 1A | 1920 | 1 | - | 1/9/27/28 | 0/2/2/2 |
| 54 | PSU | 1y | 39 | 54 | - | 0/7/25/26 | 0/2/2/2 |
| 1 | PSU | 2A | 1917 | 1 | - | 0/7/25/26 | 0/2/2/2 |
| 32 | 5MC | 2a | 967 | 32 | - | 0/7/25/26 | 0/2/2/2 |
| 32 | 4OC | 2a | 1402 | 32,56 | - | 0/9/29/30 | 0/2/2/2 |
| 1 | 5MU | 2A | 1939 | 56,1 | - | 0/7/25/26 | 0/2/2/2 |
| 32 | PSU | 2a | 516 | 32 | - | 0/7/25/26 | 0/2/2/2 |
| 1 | OMU | 1A | 2552 | 56,1 | - | 0/9/27/28 | 0/2/2/2 |
| 54 | 5MU | 2w | 54 | 54 | - | 0/7/25/26 | 0/2/2/2 |
| 32 | 4OC | 1a | 1402 | 32 | - | 0/9/29/30 | 0/2/2/2 |
| 54 | PSU | 2w | 32 | 54 | - | 2/7/25/26 | 0/2/2/2 |
| 1 | OMC | 2A | 1920 | 1 | - | 0/9/27/28 | 0/2/2/2 |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions | Rings |
|-----|------|-------|------|---------|---------|-----------|---------|
| 54 | G7M | 1w | 46 | 54 | - | 1/3/25/26 | 0/3/3/3 |
| 1 | 5MC | 2A | 1962 | 56,1 | - | 0/7/25/26 | 0/2/2/2 |
| 32 | G7M | 2a | 527 | 32,56 | - | 2/3/25/26 | 0/3/3/3 |
| 1 | PSU | 1A | 1911 | 1 | - | 0/7/25/26 | 0/2/2/2 |
| 55 | 5MC | 2x | 32 | 55 | - | 0/7/25/26 | 0/2/2/2 |
| 54 | 5MU | 2y | 54 | 54 | - | 4/7/25/26 | 0/2/2/2 |
| 54 | PSU | 2y | 32 | 54 | - | 0/7/25/26 | 0/2/2/2 |
| 54 | PSU | 2w | 55 | 54 | - | 0/7/25/26 | 0/2/2/2 |
| 32 | 2MG | 2a | 1207 | 32,56 | - | 0/5/27/28 | 0/3/3/3 |
| 32 | 5MC | 1a | 1400 | 32 | - | 0/7/25/26 | 0/2/2/2 |
| 54 | MIA | 2w | 37 | 54 | - | 3/7/29/34 | 0/3/3/3 |
| 54 | PSU | 2y | 55 | 54 | - | 3/7/25/26 | 0/2/2/2 |
| 1 | OMG | 2A | 2251 | 56,55,1 | - | 0/5/27/28 | 0/3/3/3 |
| 32 | 5MC | 2a | 1404 | 32 | - | 0/7/25/26 | 0/2/2/2 |
| 55 | 5MU | 2x | 54 | 55 | - | 0/7/25/26 | 0/2/2/2 |
| 54 | 4SU | 1y | 8 | 54 | - | 2/7/25/26 | 0/2/2/2 |
| 1 | 5MU | 2A | 1915 | 56,1 | - | 0/7/25/26 | 0/2/2/2 |
| 54 | PSU | 1y | 32 | 54 | - | 0/7/25/26 | 0/2/2/2 |
| 1 | 5MC | 2A | 1942 | 1 | - | 0/7/25/26 | 0/2/2/2 |
| 1 | OMU | 2A | 2552 | 56,1 | - | 0/9/27/28 | 0/2/2/2 |

All (196) bond length outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|--------|-------------|----------|
| 43 | 1l | 92 | 0TD | CB-SB | -12.59 | 1.69 | 1.82 |
| 43 | 2l | 92 | 0TD | CB-SB | -12.16 | 1.69 | 1.82 |
| 54 | 1w | 37 | MIA | C2-S10 | -7.50 | 1.69 | 1.75 |
| 54 | 1w | 37 | MIA | C13-C14 | 7.22 | 1.53 | 1.32 |
| 54 | 2w | 37 | MIA | C2-S10 | -6.58 | 1.70 | 1.75 |
| 55 | 1x | 8 | 4SU | C4-N3 | -5.37 | 1.31 | 1.37 |
| 32 | 1a | 966 | M2G | C2-N3 | 4.99 | 1.36 | 1.30 |
| 55 | 2x | 8 | 4SU | C4-N3 | -4.75 | 1.32 | 1.37 |
| 32 | 2a | 966 | M2G | C2-N3 | 4.65 | 1.36 | 1.30 |
| 54 | 2y | 8 | 4SU | C4-S4 | -4.64 | 1.59 | 1.68 |
| 55 | 2x | 8 | 4SU | C4-S4 | -4.49 | 1.59 | 1.68 |
| 54 | 1w | 8 | 4SU | C4-S4 | -4.47 | 1.59 | 1.68 |
| 55 | 1x | 8 | 4SU | C4-S4 | -4.33 | 1.60 | 1.68 |
| 54 | 1y | 46 | G7M | C5-C4 | 4.25 | 1.47 | 1.39 |
| 54 | 1y | 39 | PSU | C6-C5 | 4.15 | 1.40 | 1.35 |
| 54 | 2w | 8 | 4SU | C4-S4 | -4.14 | 1.60 | 1.68 |
| 54 | 2y | 46 | G7M | C5-C4 | 4.05 | 1.47 | 1.39 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 54 | 2y | 39 | PSU | C6-C5 | 4.03 | 1.40 | 1.35 |
| 54 | 1y | 8 | 4SU | C4-S4 | -3.89 | 1.61 | 1.68 |
| 54 | 1w | 46 | G7M | C5-C4 | 3.89 | 1.46 | 1.39 |
| 54 | 2w | 55 | PSU | C6-C5 | 3.68 | 1.39 | 1.35 |
| 54 | 1y | 55 | PSU | C6-C5 | 3.66 | 1.39 | 1.35 |
| 54 | 2y | 32 | PSU | C6-C5 | 3.64 | 1.39 | 1.35 |
| 32 | 2a | 527 | G7M | C5-C4 | 3.62 | 1.46 | 1.39 |
| 54 | 1w | 8 | 4SU | C4-N3 | -3.59 | 1.33 | 1.37 |
| 54 | 2w | 8 | 4SU | C4-N3 | -3.59 | 1.33 | 1.37 |
| 54 | 2w | 46 | G7M | C5-C4 | 3.57 | 1.46 | 1.39 |
| 32 | 1a | 527 | G7M | C5-C4 | 3.51 | 1.46 | 1.39 |
| 54 | 1y | 32 | PSU | C6-C5 | 3.49 | 1.39 | 1.35 |
| 54 | 1w | 55 | PSU | C6-C5 | 3.45 | 1.39 | 1.35 |
| 55 | 2x | 55 | PSU | C6-C5 | 3.41 | 1.39 | 1.35 |
| 1 | 2A | 1911 | PSU | C6-C5 | 3.35 | 1.39 | 1.35 |
| 54 | 1y | 8 | 4SU | C4-N3 | -3.34 | 1.34 | 1.37 |
| 55 | 1x | 8 | 4SU | C5-C4 | -3.32 | 1.38 | 1.42 |
| 55 | 2x | 8 | 4SU | C5-C4 | -3.31 | 1.38 | 1.42 |
| 55 | 1x | 8 | 4SU | C2-N3 | -3.29 | 1.32 | 1.38 |
| 1 | 1A | 1911 | PSU | C6-C5 | 3.29 | 1.39 | 1.35 |
| 32 | 2a | 516 | PSU | C6-C5 | 3.28 | 1.39 | 1.35 |
| 32 | 1a | 516 | PSU | C6-C5 | 3.28 | 1.39 | 1.35 |
| 32 | 2a | 1404 | 5MC | C6-C5 | 3.27 | 1.40 | 1.34 |
| 54 | 2w | 39 | PSU | C6-C5 | 3.23 | 1.39 | 1.35 |
| 55 | 1x | 55 | PSU | C6-C5 | 3.23 | 1.39 | 1.35 |
| 54 | 1w | 32 | PSU | C6-C5 | 3.19 | 1.39 | 1.35 |
| 1 | 2A | 1917 | PSU | C6-C5 | 3.19 | 1.39 | 1.35 |
| 54 | 2w | 32 | PSU | C6-C5 | 3.15 | 1.39 | 1.35 |
| 1 | 1A | 1939 | 5MU | C4-N3 | -3.12 | 1.33 | 1.38 |
| 54 | 2y | 54 | 5MU | C2-N1 | 3.06 | 1.43 | 1.38 |
| 32 | 2a | 1407 | 5MC | C6-C5 | 3.04 | 1.39 | 1.34 |
| 1 | 2A | 1942 | 5MC | C6-C5 | 3.02 | 1.39 | 1.34 |
| 32 | 1a | 1407 | 5MC | C6-C5 | 3.00 | 1.39 | 1.34 |
| 55 | 2x | 32 | 5MC | C6-C5 | 2.99 | 1.39 | 1.34 |
| 1 | 1A | 1917 | PSU | C6-C5 | 2.95 | 1.38 | 1.35 |
| 54 | 1y | 54 | 5MU | C6-C5 | 2.94 | 1.39 | 1.34 |
| 54 | 1w | 39 | PSU | C6-C5 | 2.92 | 1.38 | 1.35 |
| 54 | 2y | 39 | PSU | C4-N3 | -2.91 | 1.33 | 1.38 |
| 1 | 2A | 1915 | 5MU | C6-C5 | 2.90 | 1.39 | 1.34 |
| 1 | 2A | 1939 | 5MU | C4-N3 | -2.89 | 1.33 | 1.38 |
| 1 | 1A | 1942 | 5MC | C6-C5 | 2.89 | 1.39 | 1.34 |
| 1 | 1A | 1962 | 5MC | C6-C5 | 2.88 | 1.39 | 1.34 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 1 | 1A | 1939 | 5MU | C6-C5 | 2.88 | 1.39 | 1.34 |
| 1 | 2A | 2605 | PSU | C4-N3 | -2.88 | 1.33 | 1.38 |
| 1 | 2A | 2605 | PSU | C6-C5 | 2.87 | 1.38 | 1.35 |
| 54 | 2y | 54 | 5MU | C6-C5 | 2.81 | 1.39 | 1.34 |
| 54 | 1y | 37 | MIA | C5-C4 | 2.80 | 1.48 | 1.40 |
| 55 | 2x | 54 | 5MU | C6-C5 | 2.79 | 1.39 | 1.34 |
| 54 | 1y | 37 | MIA | C2-N3 | 2.79 | 1.36 | 1.32 |
| 54 | 1w | 54 | 5MU | C4-N3 | -2.75 | 1.33 | 1.38 |
| 55 | 1x | 54 | 5MU | C4-N3 | -2.75 | 1.33 | 1.38 |
| 54 | 2y | 55 | PSU | C6-C5 | 2.75 | 1.38 | 1.35 |
| 54 | 1w | 39 | PSU | C4-N3 | -2.74 | 1.33 | 1.38 |
| 32 | 2a | 966 | M2G | C2-N2 | 2.74 | 1.40 | 1.35 |
| 32 | 1a | 966 | M2G | C2-N2 | 2.73 | 1.40 | 1.35 |
| 55 | 1x | 54 | 5MU | C6-C5 | 2.73 | 1.39 | 1.34 |
| 1 | 1A | 2605 | PSU | C6-C5 | 2.73 | 1.38 | 1.35 |
| 32 | 1a | 967 | 5MC | C6-C5 | 2.72 | 1.39 | 1.34 |
| 32 | 1a | 1404 | 5MC | C6-N1 | -2.71 | 1.33 | 1.38 |
| 55 | 2x | 54 | 5MU | C4-N3 | -2.70 | 1.33 | 1.38 |
| 54 | 1y | 54 | 5MU | C4-C5 | 2.69 | 1.49 | 1.44 |
| 55 | 2x | 55 | PSU | C4-N3 | -2.69 | 1.33 | 1.38 |
| 54 | 1y | 54 | 5MU | C4-N3 | -2.69 | 1.33 | 1.38 |
| 54 | 2y | 37 | MIA | C5-C4 | 2.68 | 1.48 | 1.40 |
| 55 | 1x | 32 | 5MC | C6-C5 | 2.68 | 1.39 | 1.34 |
| 32 | 1a | 516 | PSU | C4-N3 | -2.68 | 1.33 | 1.38 |
| 54 | 1w | 54 | 5MU | C6-C5 | 2.67 | 1.39 | 1.34 |
| 1 | 1A | 2605 | PSU | C4-N3 | -2.67 | 1.33 | 1.38 |
| 32 | 1a | 966 | M2G | C6-N1 | -2.65 | 1.33 | 1.37 |
| 1 | 2A | 1911 | PSU | C4-N3 | -2.65 | 1.33 | 1.38 |
| 54 | 2y | 37 | MIA | C2-N3 | 2.65 | 1.36 | 1.32 |
| 1 | 2A | 1939 | 5MU | C6-C5 | 2.65 | 1.38 | 1.34 |
| 1 | 2A | 1915 | 5MU | C4-N3 | -2.64 | 1.33 | 1.38 |
| 54 | 1w | 32 | PSU | C4-N3 | -2.63 | 1.34 | 1.38 |
| 54 | 1w | 8 | 4SU | C5-C4 | -2.63 | 1.39 | 1.42 |
| 54 | 2w | 37 | MIA | C5-C4 | 2.62 | 1.47 | 1.40 |
| 54 | 2y | 55 | PSU | C4-N3 | -2.61 | 1.34 | 1.38 |
| 54 | 2w | 54 | 5MU | C6-C5 | 2.61 | 1.38 | 1.34 |
| 1 | 2A | 1939 | 5MU | C6-N1 | -2.61 | 1.33 | 1.38 |
| 1 | 1A | 1915 | 5MU | C4-N3 | -2.60 | 1.34 | 1.38 |
| 54 | 2y | 54 | 5MU | C4-N3 | -2.59 | 1.34 | 1.38 |
| 1 | 1A | 1911 | PSU | C4-N3 | -2.59 | 1.34 | 1.38 |
| 32 | 1a | 527 | G7M | C6-N1 | -2.58 | 1.34 | 1.37 |
| 1 | 1A | 2251 | OMG | C6-N1 | -2.58 | 1.34 | 1.37 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 54 | 2w | 32 | PSU | C4-N3 | -2.58 | 1.34 | 1.38 |
| 54 | 1y | 32 | PSU | C4-N3 | -2.57 | 1.34 | 1.38 |
| 54 | 1w | 37 | MIA | C5-C4 | 2.57 | 1.47 | 1.40 |
| 1 | 2A | 1917 | PSU | C4-N3 | -2.57 | 1.34 | 1.38 |
| 1 | 2A | 1915 | 5MU | C4-C5 | 2.57 | 1.49 | 1.44 |
| 32 | 2a | 967 | 5MC | C6-C5 | 2.57 | 1.38 | 1.34 |
| 55 | 1x | 32 | 5MC | C6-N1 | -2.56 | 1.33 | 1.38 |
| 1 | 2A | 2251 | OMG | C6-N1 | -2.54 | 1.34 | 1.37 |
| 32 | 1a | 1400 | 5MC | C6-C5 | 2.54 | 1.38 | 1.34 |
| 54 | 2w | 39 | PSU | C4-N3 | -2.52 | 1.34 | 1.38 |
| 32 | 2a | 1400 | 5MC | C6-C5 | 2.52 | 1.38 | 1.34 |
| 54 | 1y | 54 | 5MU | C2-N1 | 2.50 | 1.42 | 1.38 |
| 1 | 2A | 1962 | 5MC | C6-C5 | 2.50 | 1.38 | 1.34 |
| 54 | 2y | 8 | 4SU | C5-C4 | -2.50 | 1.39 | 1.42 |
| 32 | 2a | 1498 | UR3 | C2-N1 | 2.50 | 1.42 | 1.38 |
| 55 | 1x | 55 | PSU | C4-N3 | -2.50 | 1.34 | 1.38 |
| 32 | 1a | 1404 | 5MC | C6-C5 | 2.47 | 1.38 | 1.34 |
| 54 | 1w | 55 | PSU | C4-N3 | -2.46 | 1.34 | 1.38 |
| 1 | 1A | 1915 | 5MU | C2-N1 | 2.46 | 1.42 | 1.38 |
| 1 | 2A | 1939 | 5MU | C4-C5 | 2.46 | 1.48 | 1.44 |
| 54 | 1y | 55 | PSU | C4-N3 | -2.46 | 1.34 | 1.38 |
| 54 | 2y | 8 | 4SU | C4-N3 | -2.46 | 1.35 | 1.37 |
| 55 | 2x | 8 | 4SU | O2-C2 | 2.45 | 1.27 | 1.23 |
| 54 | 2w | 54 | 5MU | C4-C5 | 2.45 | 1.48 | 1.44 |
| 32 | 1a | 1207 | 2MG | C6-N1 | -2.44 | 1.34 | 1.37 |
| 1 | 1A | 1962 | 5MC | C6-N1 | -2.42 | 1.33 | 1.38 |
| 55 | 2x | 8 | 4SU | C2-N3 | -2.41 | 1.33 | 1.38 |
| 1 | 2A | 1939 | 5MU | C2-N1 | 2.41 | 1.42 | 1.38 |
| 1 | 1A | 1915 | 5MU | C6-C5 | 2.41 | 1.38 | 1.34 |
| 54 | 1w | 54 | 5MU | C4-C5 | 2.40 | 1.48 | 1.44 |
| 1 | 2A | 2552 | OMU | C4-N3 | -2.39 | 1.34 | 1.38 |
| 55 | 2x | 54 | 5MU | C4-C5 | 2.38 | 1.48 | 1.44 |
| 54 | 1y | 39 | PSU | C4-N3 | -2.38 | 1.34 | 1.38 |
| 1 | 1A | 2552 | OMU | C4-N3 | -2.38 | 1.34 | 1.38 |
| 32 | 2a | 1207 | 2MG | C6-N1 | -2.38 | 1.34 | 1.37 |
| 54 | 2y | 32 | PSU | C4-N3 | -2.37 | 1.34 | 1.38 |
| 1 | 1A | 1942 | 5MC | C6-N1 | -2.37 | 1.34 | 1.38 |
| 32 | 1a | 1400 | 5MC | C6-N1 | -2.37 | 1.34 | 1.38 |
| 32 | 2a | 1400 | 5MC | C6-N1 | -2.37 | 1.34 | 1.38 |
| 54 | 1y | 8 | 4SU | C5-C4 | -2.37 | 1.39 | 1.42 |
| 1 | 1A | 1917 | PSU | C4-N3 | -2.36 | 1.34 | 1.38 |
| 32 | 2a | 516 | PSU | C4-N3 | -2.34 | 1.34 | 1.38 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 54 | 2w | 54 | 5MU | C4-N3 | -2.34 | 1.34 | 1.38 |
| 54 | 1y | 8 | 4SU | C2-N1 | 2.33 | 1.42 | 1.38 |
| 1 | 1A | 1915 | 5MU | C4-C5 | 2.32 | 1.48 | 1.44 |
| 54 | 2w | 8 | 4SU | C2-N3 | -2.32 | 1.33 | 1.38 |
| 54 | 1y | 46 | G7M | C6-N1 | -2.31 | 1.34 | 1.37 |
| 32 | 2a | 966 | M2G | C6-N1 | -2.31 | 1.34 | 1.37 |
| 54 | 2y | 46 | G7M | C6-N1 | -2.29 | 1.34 | 1.37 |
| 55 | 1x | 54 | 5MU | C4-C5 | 2.28 | 1.48 | 1.44 |
| 54 | 1w | 8 | 4SU | C2-N3 | -2.28 | 1.33 | 1.38 |
| 54 | 2w | 55 | PSU | C4-N3 | -2.28 | 1.34 | 1.38 |
| 1 | 1A | 1939 | 5MU | C2-N3 | -2.28 | 1.33 | 1.38 |
| 55 | 1x | 8 | 4SU | O2-C2 | 2.27 | 1.27 | 1.23 |
| 32 | 1a | 967 | 5MC | C6-N1 | -2.27 | 1.34 | 1.38 |
| 54 | 1w | 46 | G7M | C6-N1 | -2.26 | 1.34 | 1.37 |
| 1 | 2A | 2552 | OMU | C2-N3 | -2.26 | 1.33 | 1.38 |
| 54 | 2y | 54 | 5MU | C4-C5 | 2.25 | 1.48 | 1.44 |
| 32 | 2a | 967 | 5MC | C6-N1 | -2.25 | 1.34 | 1.38 |
| 54 | 2w | 8 | 4SU | C2-N1 | 2.24 | 1.42 | 1.38 |
| 1 | 1A | 2503 | 2MA | C2-N3 | 2.24 | 1.36 | 1.31 |
| 1 | 2A | 1962 | 5MC | C6-N1 | -2.24 | 1.34 | 1.38 |
| 32 | 2a | 1407 | 5MC | C6-N1 | -2.23 | 1.34 | 1.38 |
| 1 | 1A | 1939 | 5MU | C6-N1 | -2.21 | 1.34 | 1.38 |
| 32 | 2a | 527 | G7M | C6-N1 | -2.21 | 1.34 | 1.37 |
| 54 | 1y | 8 | 4SU | C2-N3 | -2.21 | 1.34 | 1.38 |
| 55 | 2x | 54 | 5MU | C2-N1 | 2.21 | 1.42 | 1.38 |
| 1 | 2A | 1915 | 5MU | C2-N1 | 2.20 | 1.42 | 1.38 |
| 55 | 2x | 32 | 5MC | C6-N1 | -2.20 | 1.34 | 1.38 |
| 54 | 1y | 54 | 5MU | C2-N3 | -2.18 | 1.34 | 1.38 |
| 1 | 1A | 1915 | 5MU | C6-N1 | -2.16 | 1.34 | 1.38 |
| 54 | 1w | 54 | 5MU | C2-N1 | 2.16 | 1.41 | 1.38 |
| 32 | 1a | 1407 | 5MC | C6-N1 | -2.15 | 1.34 | 1.38 |
| 1 | 2A | 2605 | PSU | C2-N3 | -2.14 | 1.33 | 1.37 |
| 1 | 1A | 2552 | OMU | C2-N3 | -2.14 | 1.34 | 1.38 |
| 55 | 1x | 54 | 5MU | C6-N1 | -2.14 | 1.34 | 1.38 |
| 1 | 2A | 1942 | 5MC | C6-N1 | -2.12 | 1.34 | 1.38 |
| 54 | 1w | 54 | 5MU | C2-N3 | -2.10 | 1.34 | 1.38 |
| 1 | 1A | 2552 | OMU | C5-C4 | -2.10 | 1.39 | 1.43 |
| 55 | 2x | 54 | 5MU | C2-N3 | -2.09 | 1.34 | 1.38 |
| 54 | 2w | 37 | MIA | C6-N1 | 2.08 | 1.35 | 1.32 |
| 54 | 1y | 54 | 5MU | C6-N1 | -2.08 | 1.34 | 1.38 |
| 1 | 2A | 1915 | 5MU | C6-N1 | -2.08 | 1.34 | 1.38 |
| 54 | 2y | 55 | PSU | C2-N3 | -2.08 | 1.33 | 1.37 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|-------|-------------|----------|
| 54 | 2y | 8 | 4SU | C2-N1 | 2.07 | 1.41 | 1.38 |
| 54 | 2w | 8 | 4SU | C5-C4 | -2.07 | 1.39 | 1.42 |
| 1 | 2A | 1915 | 5MU | C2-N3 | -2.07 | 1.34 | 1.38 |
| 1 | 1A | 1917 | PSU | C2-N1 | -2.06 | 1.33 | 1.36 |
| 54 | 2w | 8 | 4SU | C6-C5 | 2.04 | 1.39 | 1.35 |
| 32 | 2a | 1404 | 5MC | C6-N1 | -2.03 | 1.34 | 1.38 |
| 1 | 2A | 2552 | OMU | C5-C4 | -2.03 | 1.39 | 1.43 |
| 54 | 2w | 54 | 5MU | C2-N1 | 2.02 | 1.41 | 1.38 |
| 55 | 2x | 54 | 5MU | C6-N1 | -2.02 | 1.34 | 1.38 |
| 55 | 1x | 8 | 4SU | C6-C5 | 2.01 | 1.39 | 1.35 |
| 55 | 1x | 54 | 5MU | C2-N3 | -2.00 | 1.34 | 1.38 |

All (270) bond angle outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 43 | 1l | 92 | 0TD | CSB-SB-CB | 19.61 | 137.91 | 102.44 |
| 54 | 1w | 37 | MIA | C12-C13-C14 | -8.28 | 111.02 | 127.14 |
| 54 | 2y | 8 | 4SU | C4-N3-C2 | -8.20 | 119.38 | 127.34 |
| 54 | 2y | 8 | 4SU | C5-C4-N3 | 6.90 | 121.09 | 114.69 |
| 32 | 2a | 516 | PSU | N1-C2-N3 | 6.17 | 122.12 | 115.13 |
| 32 | 1a | 1498 | UR3 | C4-N3-C2 | -6.17 | 118.75 | 124.56 |
| 54 | 1w | 39 | PSU | N1-C2-N3 | 6.07 | 122.01 | 115.13 |
| 1 | 2A | 1911 | PSU | N1-C2-N3 | 6.06 | 122.00 | 115.13 |
| 54 | 1w | 32 | PSU | N1-C2-N3 | 6.05 | 121.98 | 115.13 |
| 1 | 2A | 2605 | PSU | N1-C2-N3 | 6.00 | 121.93 | 115.13 |
| 54 | 2w | 39 | PSU | N1-C2-N3 | 6.00 | 121.93 | 115.13 |
| 1 | 1A | 2605 | PSU | N1-C2-N3 | 5.96 | 121.88 | 115.13 |
| 54 | 2w | 8 | 4SU | C4-N3-C2 | -5.96 | 121.55 | 127.34 |
| 32 | 2a | 1498 | UR3 | C4-N3-C2 | -5.92 | 118.99 | 124.56 |
| 1 | 1A | 1911 | PSU | N1-C2-N3 | 5.89 | 121.81 | 115.13 |
| 1 | 1A | 1917 | PSU | N1-C2-N3 | 5.87 | 121.79 | 115.13 |
| 54 | 2w | 55 | PSU | N1-C2-N3 | 5.85 | 121.76 | 115.13 |
| 55 | 2x | 55 | PSU | N1-C2-N3 | 5.76 | 121.66 | 115.13 |
| 54 | 2y | 32 | PSU | N1-C2-N3 | 5.73 | 121.62 | 115.13 |
| 54 | 1y | 32 | PSU | N1-C2-N3 | 5.66 | 121.55 | 115.13 |
| 55 | 1x | 55 | PSU | N1-C2-N3 | 5.64 | 121.52 | 115.13 |
| 1 | 2A | 1939 | 5MU | C4-N3-C2 | -5.60 | 120.10 | 127.35 |
| 1 | 2A | 1915 | 5MU | C4-N3-C2 | -5.57 | 120.13 | 127.35 |
| 32 | 1a | 516 | PSU | N1-C2-N3 | 5.56 | 121.43 | 115.13 |
| 54 | 1y | 55 | PSU | N1-C2-N3 | 5.55 | 121.42 | 115.13 |
| 1 | 1A | 1915 | 5MU | C4-N3-C2 | -5.54 | 120.18 | 127.35 |
| 54 | 1w | 8 | 4SU | C5-C4-N3 | 5.54 | 119.83 | 114.69 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 1 | 2A | 1917 | PSU | N1-C2-N3 | 5.49 | 121.35 | 115.13 |
| 54 | 2w | 32 | PSU | N1-C2-N3 | 5.45 | 121.30 | 115.13 |
| 54 | 1w | 55 | PSU | N1-C2-N3 | 5.43 | 121.29 | 115.13 |
| 1 | 2A | 1939 | 5MU | N3-C2-N1 | 5.37 | 122.02 | 114.89 |
| 54 | 1y | 39 | PSU | N1-C2-N3 | 5.36 | 121.20 | 115.13 |
| 54 | 2y | 8 | 4SU | C5-C4-S4 | -5.28 | 117.67 | 124.47 |
| 54 | 2y | 55 | PSU | N1-C2-N3 | 5.28 | 121.11 | 115.13 |
| 1 | 1A | 1939 | 5MU | C4-N3-C2 | -5.18 | 120.65 | 127.35 |
| 1 | 2A | 1915 | 5MU | C5-C4-N3 | 5.13 | 119.69 | 115.31 |
| 54 | 1y | 54 | 5MU | C4-N3-C2 | -5.08 | 120.78 | 127.35 |
| 1 | 1A | 1939 | 5MU | N3-C2-N1 | 5.08 | 121.63 | 114.89 |
| 1 | 2A | 1915 | 5MU | N3-C2-N1 | 5.08 | 121.63 | 114.89 |
| 54 | 1w | 8 | 4SU | C4-N3-C2 | -5.07 | 122.42 | 127.34 |
| 1 | 1A | 1915 | 5MU | N3-C2-N1 | 5.03 | 121.56 | 114.89 |
| 54 | 2w | 8 | 4SU | C5-C4-N3 | 4.99 | 119.31 | 114.69 |
| 1 | 1A | 1915 | 5MU | C5-C4-N3 | 4.94 | 119.53 | 115.31 |
| 54 | 1y | 54 | 5MU | N3-C2-N1 | 4.94 | 121.45 | 114.89 |
| 32 | 1a | 1519 | MA6 | N3-C2-N1 | -4.83 | 121.13 | 128.68 |
| 32 | 2a | 1519 | MA6 | N3-C2-N1 | -4.79 | 121.20 | 128.68 |
| 1 | 1A | 1939 | 5MU | C5-C4-N3 | 4.73 | 119.35 | 115.31 |
| 55 | 1x | 54 | 5MU | C4-N3-C2 | -4.65 | 121.33 | 127.35 |
| 54 | 2y | 39 | PSU | N1-C2-N3 | 4.65 | 120.39 | 115.13 |
| 1 | 1A | 1915 | 5MU | O4-C4-C5 | -4.63 | 119.53 | 124.90 |
| 32 | 2a | 1518 | MA6 | N3-C2-N1 | -4.63 | 121.44 | 128.68 |
| 1 | 1A | 2552 | OMU | C4-N3-C2 | -4.51 | 120.64 | 126.58 |
| 55 | 1x | 54 | 5MU | N3-C2-N1 | 4.49 | 120.84 | 114.89 |
| 1 | 2A | 1939 | 5MU | C5-C4-N3 | 4.47 | 119.13 | 115.31 |
| 1 | 1A | 2605 | PSU | C4-N3-C2 | -4.44 | 119.95 | 126.34 |
| 54 | 1y | 8 | 4SU | C5-C4-N3 | 4.43 | 118.80 | 114.69 |
| 55 | 2x | 54 | 5MU | C4-N3-C2 | -4.40 | 121.65 | 127.35 |
| 54 | 2w | 37 | MIA | C2-N3-C4 | 4.40 | 121.39 | 115.32 |
| 55 | 2x | 54 | 5MU | N3-C2-N1 | 4.38 | 120.71 | 114.89 |
| 1 | 2A | 2552 | OMU | C4-N3-C2 | -4.38 | 120.81 | 126.58 |
| 54 | 2y | 8 | 4SU | N3-C2-N1 | 4.36 | 120.68 | 114.89 |
| 32 | 1a | 1518 | MA6 | N3-C2-N1 | -4.36 | 121.87 | 128.68 |
| 54 | 1y | 54 | 5MU | C5-C4-N3 | 4.35 | 119.02 | 115.31 |
| 1 | 2A | 2552 | OMU | N3-C2-N1 | 4.29 | 120.59 | 114.89 |
| 32 | 2a | 516 | PSU | C4-N3-C2 | -4.24 | 120.23 | 126.34 |
| 54 | 1y | 54 | 5MU | C5-C6-N1 | -4.21 | 119.01 | 123.34 |
| 54 | 1w | 37 | MIA | C15-C14-C13 | -4.20 | 110.51 | 122.65 |
| 1 | 1A | 1917 | PSU | O2-C2-N1 | -4.18 | 118.19 | 122.79 |
| 32 | 2a | 1400 | 5MC | C5-C6-N1 | -4.17 | 119.05 | 123.34 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 54 | 1w | 39 | PSU | C4-N3-C2 | -4.15 | 120.36 | 126.34 |
| 55 | 2x | 54 | 5MU | C5-C4-N3 | 4.14 | 118.85 | 115.31 |
| 54 | 2w | 8 | 4SU | N3-C2-N1 | 4.13 | 120.38 | 114.89 |
| 55 | 1x | 8 | 4SU | C6-C5-C4 | -4.12 | 116.38 | 119.95 |
| 1 | 2A | 1915 | 5MU | C5-C6-N1 | -4.12 | 119.10 | 123.34 |
| 1 | 1A | 2552 | OMU | N3-C2-N1 | 4.11 | 120.35 | 114.89 |
| 54 | 2w | 39 | PSU | C4-N3-C2 | -4.09 | 120.45 | 126.34 |
| 54 | 1w | 37 | MIA | C11-S10-C2 | -4.08 | 99.22 | 102.27 |
| 55 | 1x | 54 | 5MU | C5-C4-N3 | 4.07 | 118.78 | 115.31 |
| 54 | 2w | 37 | MIA | C12-N6-C6 | -4.06 | 119.38 | 122.87 |
| 54 | 2w | 37 | MIA | C11-S10-C2 | -4.05 | 99.24 | 102.27 |
| 54 | 2w | 54 | 5MU | C4-N3-C2 | -4.05 | 122.11 | 127.35 |
| 1 | 2A | 1915 | 5MU | O4-C4-C5 | -4.04 | 120.22 | 124.90 |
| 1 | 1A | 1939 | 5MU | C5-C6-N1 | -4.03 | 119.19 | 123.34 |
| 54 | 2w | 54 | 5MU | N3-C2-N1 | 4.02 | 120.23 | 114.89 |
| 32 | 2a | 1407 | 5MC | C5-C6-N1 | -3.98 | 119.25 | 123.34 |
| 54 | 1w | 54 | 5MU | N3-C2-N1 | 3.95 | 120.14 | 114.89 |
| 32 | 1a | 1404 | 5MC | C5-C6-N1 | -3.94 | 119.28 | 123.34 |
| 1 | 1A | 1939 | 5MU | O4-C4-C5 | -3.93 | 120.34 | 124.90 |
| 55 | 2x | 8 | 4SU | C5-C4-N3 | 3.93 | 118.33 | 114.69 |
| 54 | 1y | 8 | 4SU | C4-N3-C2 | -3.92 | 123.53 | 127.34 |
| 1 | 2A | 1939 | 5MU | C5-C6-N1 | -3.92 | 119.31 | 123.34 |
| 55 | 1x | 32 | 5MC | C5-C6-N1 | -3.89 | 119.33 | 123.34 |
| 1 | 1A | 1917 | PSU | C4-N3-C2 | -3.88 | 120.75 | 126.34 |
| 54 | 2y | 54 | 5MU | C5-C4-N3 | 3.87 | 118.61 | 115.31 |
| 54 | 2y | 55 | PSU | C4-N3-C2 | -3.87 | 120.77 | 126.34 |
| 54 | 1y | 55 | PSU | C4-N3-C2 | -3.84 | 120.80 | 126.34 |
| 1 | 2A | 1917 | PSU | C4-N3-C2 | -3.84 | 120.80 | 126.34 |
| 1 | 1A | 1911 | PSU | C4-N3-C2 | -3.84 | 120.81 | 126.34 |
| 54 | 1w | 32 | PSU | C4-N3-C2 | -3.84 | 120.81 | 126.34 |
| 55 | 1x | 54 | 5MU | C5-C6-N1 | -3.83 | 119.39 | 123.34 |
| 32 | 1a | 967 | 5MC | C5-C6-N1 | -3.82 | 119.41 | 123.34 |
| 1 | 2A | 1911 | PSU | C4-N3-C2 | -3.82 | 120.84 | 126.34 |
| 54 | 1w | 37 | MIA | C2-N3-C4 | 3.82 | 120.59 | 115.32 |
| 54 | 1w | 55 | PSU | C4-N3-C2 | -3.81 | 120.86 | 126.34 |
| 54 | 2w | 55 | PSU | C4-N3-C2 | -3.80 | 120.87 | 126.34 |
| 54 | 1w | 54 | 5MU | C4-N3-C2 | -3.79 | 122.45 | 127.35 |
| 1 | 2A | 2605 | PSU | C4-N3-C2 | -3.79 | 120.89 | 126.34 |
| 54 | 2w | 37 | MIA | C5-C6-N1 | -3.78 | 117.67 | 120.81 |
| 54 | 1w | 37 | MIA | C16-C14-C13 | -3.77 | 111.76 | 122.65 |
| 54 | 1y | 32 | PSU | C4-N3-C2 | -3.76 | 120.92 | 126.34 |
| 54 | 1w | 54 | 5MU | C5-C4-N3 | 3.74 | 118.51 | 115.31 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 54 | 2w | 54 | 5MU | C5-C4-N3 | 3.74 | 118.50 | 115.31 |
| 54 | 2y | 32 | PSU | C4-N3-C2 | -3.74 | 120.95 | 126.34 |
| 32 | 2a | 967 | 5MC | C5-C6-N1 | -3.72 | 119.51 | 123.34 |
| 32 | 1a | 516 | PSU | C4-N3-C2 | -3.70 | 121.00 | 126.34 |
| 54 | 2w | 39 | PSU | O2-C2-N1 | -3.68 | 118.74 | 122.79 |
| 54 | 2w | 32 | PSU | C4-N3-C2 | -3.66 | 121.06 | 126.34 |
| 54 | 2y | 54 | 5MU | N3-C2-N1 | 3.66 | 119.75 | 114.89 |
| 54 | 2w | 55 | PSU | O2-C2-N1 | -3.65 | 118.77 | 122.79 |
| 54 | 2y | 54 | 5MU | O4-C4-C5 | -3.64 | 120.68 | 124.90 |
| 55 | 1x | 55 | PSU | C4-N3-C2 | -3.64 | 121.09 | 126.34 |
| 1 | 2A | 1911 | PSU | O2-C2-N1 | -3.64 | 118.79 | 122.79 |
| 54 | 2y | 54 | 5MU | C4-N3-C2 | -3.60 | 122.69 | 127.35 |
| 55 | 2x | 8 | 4SU | C6-C5-C4 | -3.60 | 116.84 | 119.95 |
| 55 | 2x | 54 | 5MU | O4-C4-C5 | -3.59 | 120.74 | 124.90 |
| 55 | 2x | 55 | PSU | C4-N3-C2 | -3.58 | 121.18 | 126.34 |
| 1 | 2A | 1962 | 5MC | C5-C6-N1 | -3.57 | 119.66 | 123.34 |
| 54 | 2w | 54 | 5MU | O4-C4-C5 | -3.57 | 120.76 | 124.90 |
| 55 | 1x | 54 | 5MU | O4-C4-C5 | -3.56 | 120.77 | 124.90 |
| 1 | 1A | 2552 | OMU | C5-C4-N3 | 3.54 | 120.13 | 114.84 |
| 1 | 1A | 2605 | PSU | O2-C2-N1 | -3.53 | 118.91 | 122.79 |
| 1 | 1A | 1942 | 5MC | C5-C6-N1 | -3.50 | 119.73 | 123.34 |
| 54 | 1w | 55 | PSU | O2-C2-N1 | -3.50 | 118.94 | 122.79 |
| 54 | 1w | 37 | MIA | C12-N6-C6 | -3.49 | 117.37 | 122.55 |
| 54 | 1w | 39 | PSU | O2-C2-N1 | -3.49 | 118.95 | 122.79 |
| 32 | 2a | 516 | PSU | O2-C2-N1 | -3.46 | 118.98 | 122.79 |
| 54 | 1y | 39 | PSU | C4-N3-C2 | -3.46 | 121.36 | 126.34 |
| 54 | 1w | 37 | MIA | C5-C6-N1 | -3.45 | 117.95 | 120.81 |
| 54 | 1w | 32 | PSU | O2-C2-N1 | -3.42 | 119.02 | 122.79 |
| 54 | 2y | 8 | 4SU | O2-C2-N1 | -3.42 | 118.23 | 122.79 |
| 1 | 2A | 2552 | OMU | C5-C4-N3 | 3.41 | 119.94 | 114.84 |
| 32 | 2a | 1404 | 5MC | C5-C6-N1 | -3.35 | 119.89 | 123.34 |
| 1 | 2A | 1939 | 5MU | O4-C4-C5 | -3.34 | 121.03 | 124.90 |
| 54 | 2y | 37 | MIA | N3-C2-N1 | -3.34 | 123.46 | 128.68 |
| 54 | 1y | 54 | 5MU | O4-C4-C5 | -3.33 | 121.04 | 124.90 |
| 1 | 1A | 1962 | 5MC | C5-C6-N1 | -3.30 | 119.94 | 123.34 |
| 1 | 1A | 1911 | PSU | O2-C2-N1 | -3.29 | 119.17 | 122.79 |
| 55 | 2x | 54 | 5MU | C5-C6-N1 | -3.26 | 119.98 | 123.34 |
| 55 | 2x | 32 | 5MC | C5-C6-N1 | -3.26 | 119.98 | 123.34 |
| 1 | 2A | 1942 | 5MC | C5-C6-N1 | -3.26 | 119.99 | 123.34 |
| 55 | 1x | 8 | 4SU | C1'-N1-C2 | 3.24 | 123.43 | 117.57 |
| 32 | 1a | 1400 | 5MC | C5-C6-N1 | -3.17 | 120.08 | 123.34 |
| 54 | 1w | 8 | 4SU | N3-C2-N1 | 3.15 | 119.07 | 114.89 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 1 | 1A | 1915 | 5MU | C5-C6-N1 | -3.14 | 120.11 | 123.34 |
| 54 | 1y | 37 | MIA | N3-C2-N1 | -3.10 | 123.84 | 128.68 |
| 32 | 2a | 1519 | MA6 | C4-C5-N7 | -3.09 | 106.17 | 109.40 |
| 55 | 1x | 8 | 4SU | O2-C2-N1 | 3.08 | 126.88 | 122.79 |
| 55 | 1x | 8 | 4SU | C5-C4-N3 | 3.08 | 117.54 | 114.69 |
| 1 | 1A | 1915 | 5MU | O2-C2-N1 | -3.06 | 118.72 | 122.79 |
| 32 | 1a | 1519 | MA6 | C4-C5-N7 | -3.04 | 106.23 | 109.40 |
| 54 | 2w | 37 | MIA | C4-C5-N7 | -3.04 | 106.23 | 109.40 |
| 54 | 2y | 54 | 5MU | C1'-N1-C2 | 3.03 | 123.06 | 117.57 |
| 55 | 1x | 32 | 5MC | C5-C4-N3 | -3.02 | 118.41 | 121.67 |
| 54 | 1w | 54 | 5MU | O4-C4-C5 | -2.99 | 121.44 | 124.90 |
| 32 | 1a | 1407 | 5MC | C5-C6-N1 | -2.98 | 120.28 | 123.34 |
| 1 | 2A | 1942 | 5MC | C5-C4-N3 | -2.98 | 118.46 | 121.67 |
| 32 | 2a | 1518 | MA6 | C4-C5-N7 | -2.96 | 106.31 | 109.40 |
| 1 | 1A | 1962 | 5MC | C5-C4-N3 | -2.96 | 118.48 | 121.67 |
| 1 | 1A | 2552 | OMU | O4-C4-C5 | -2.96 | 119.96 | 125.16 |
| 54 | 1w | 54 | 5MU | C5-C6-N1 | -2.95 | 120.30 | 123.34 |
| 1 | 1A | 1942 | 5MC | C5-C4-N3 | -2.92 | 118.52 | 121.67 |
| 1 | 2A | 1917 | PSU | O2-C2-N1 | -2.92 | 119.58 | 122.79 |
| 54 | 1y | 8 | 4SU | N3-C2-N1 | 2.92 | 118.76 | 114.89 |
| 32 | 2a | 1404 | 5MC | C5-C4-N3 | -2.92 | 118.53 | 121.67 |
| 54 | 1y | 8 | 4SU | C1'-N1-C2 | 2.90 | 122.82 | 117.57 |
| 1 | 1A | 2503 | 2MA | C5-C6-N1 | 2.90 | 119.02 | 114.02 |
| 54 | 2y | 32 | PSU | O2-C2-N1 | -2.89 | 119.61 | 122.79 |
| 55 | 2x | 8 | 4SU | C1'-N1-C2 | 2.85 | 122.72 | 117.57 |
| 1 | 2A | 2552 | OMU | O4-C4-C5 | -2.84 | 120.17 | 125.16 |
| 32 | 2a | 1407 | 5MC | O2-C2-N3 | -2.82 | 117.74 | 122.33 |
| 54 | 2w | 32 | PSU | O2-C2-N1 | -2.82 | 119.69 | 122.79 |
| 55 | 1x | 55 | PSU | O2-C2-N1 | -2.81 | 119.70 | 122.79 |
| 32 | 1a | 516 | PSU | O2-C2-N1 | -2.80 | 119.70 | 122.79 |
| 55 | 1x | 8 | 4SU | S4-C4-N3 | -2.80 | 117.45 | 120.21 |
| 54 | 2y | 37 | MIA | C4-C5-N7 | -2.78 | 106.50 | 109.40 |
| 55 | 2x | 32 | 5MC | O2-C2-N3 | -2.75 | 117.86 | 122.33 |
| 55 | 1x | 54 | 5MU | O2-C2-N1 | -2.75 | 119.14 | 122.79 |
| 54 | 2w | 37 | MIA | C2-N1-C6 | 2.73 | 122.08 | 117.19 |
| 54 | 1y | 32 | PSU | O2-C2-N1 | -2.73 | 119.78 | 122.79 |
| 54 | 2w | 54 | 5MU | C5M-C5-C4 | 2.73 | 121.77 | 118.77 |
| 54 | 1y | 37 | MIA | C4-C5-N7 | -2.71 | 106.57 | 109.40 |
| 32 | 1a | 1207 | 2MG | C8-N7-C5 | 2.71 | 108.15 | 102.99 |
| 54 | 1y | 55 | PSU | O2-C2-N1 | -2.71 | 119.81 | 122.79 |
| 1 | 1A | 2552 | OMU | O2-C2-N1 | -2.69 | 119.22 | 122.79 |
| 54 | 2y | 54 | 5MU | C1'-N1-C6 | -2.68 | 116.66 | 121.12 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 1 | 1A | 1962 | 5MC | O2-C2-N3 | -2.67 | 117.99 | 122.33 |
| 32 | 2a | 1407 | 5MC | C5-C4-N3 | -2.65 | 118.81 | 121.67 |
| 32 | 1a | 1400 | 5MC | C1'-N1-C6 | -2.65 | 116.72 | 121.12 |
| 55 | 2x | 32 | 5MC | C5-C4-N3 | -2.65 | 118.82 | 121.67 |
| 54 | 1w | 55 | PSU | C6-C5-C4 | -2.60 | 116.38 | 118.20 |
| 32 | 1a | 1400 | 5MC | C5-C4-N3 | -2.60 | 118.87 | 121.67 |
| 1 | 2A | 1915 | 5MU | O2-C2-N1 | -2.60 | 119.33 | 122.79 |
| 54 | 2w | 54 | 5MU | C5-C6-N1 | -2.59 | 120.67 | 123.34 |
| 54 | 2y | 55 | PSU | C6-C5-C4 | -2.58 | 116.39 | 118.20 |
| 54 | 2y | 54 | 5MU | C5-C6-N1 | -2.57 | 120.69 | 123.34 |
| 32 | 1a | 966 | M2G | C5-C6-N1 | 2.57 | 118.49 | 113.95 |
| 32 | 1a | 1402 | 4OC | C6-C5-C4 | 2.57 | 120.10 | 116.96 |
| 54 | 2y | 39 | PSU | C4-N3-C2 | -2.56 | 122.65 | 126.34 |
| 1 | 1A | 1915 | 5MU | C5M-C5-C4 | 2.55 | 121.57 | 118.77 |
| 54 | 1w | 37 | MIA | C2-N1-C6 | 2.54 | 121.73 | 117.19 |
| 54 | 1w | 37 | MIA | C4-C5-N7 | -2.53 | 106.77 | 109.40 |
| 1 | 2A | 2251 | OMG | O6-C6-C5 | -2.49 | 119.51 | 124.37 |
| 32 | 1a | 1404 | 5MC | C5-C4-N3 | -2.48 | 119.00 | 121.67 |
| 1 | 1A | 2503 | 2MA | C8-N7-C5 | 2.48 | 107.72 | 102.99 |
| 32 | 1a | 1518 | MA6 | C4-C5-N7 | -2.48 | 106.82 | 109.40 |
| 32 | 1a | 1400 | 5MC | CM5-C5-C6 | -2.47 | 119.55 | 122.85 |
| 1 | 1A | 1939 | 5MU | O2-C2-N1 | -2.46 | 119.52 | 122.79 |
| 1 | 2A | 2503 | 2MA | C8-N7-C5 | 2.46 | 107.67 | 102.99 |
| 54 | 1w | 8 | 4SU | C5-C4-S4 | -2.45 | 121.31 | 124.47 |
| 1 | 1A | 2251 | OMG | C8-N7-C5 | 2.43 | 107.61 | 102.99 |
| 32 | 1a | 1407 | 5MC | C5-C4-N3 | -2.40 | 119.09 | 121.67 |
| 32 | 2a | 1498 | UR3 | C1'-N1-C2 | 2.39 | 121.02 | 116.99 |
| 1 | 2A | 2251 | OMG | C5-C6-N1 | 2.39 | 118.17 | 113.95 |
| 55 | 2x | 55 | PSU | O2-C2-N1 | -2.37 | 120.18 | 122.79 |
| 1 | 2A | 2503 | 2MA | C5-C6-N1 | 2.35 | 118.07 | 114.02 |
| 1 | 2A | 2251 | OMG | C8-N7-C5 | 2.34 | 107.45 | 102.99 |
| 54 | 2w | 37 | MIA | N3-C2-N1 | -2.34 | 122.68 | 126.98 |
| 32 | 2a | 967 | 5MC | C5-C4-N3 | -2.32 | 119.17 | 121.67 |
| 1 | 1A | 2251 | OMG | O6-C6-C5 | -2.30 | 119.88 | 124.37 |
| 32 | 1a | 967 | 5MC | C5-C4-N3 | -2.29 | 119.20 | 121.67 |
| 1 | 1A | 2605 | PSU | C5-C6-N1 | -2.29 | 118.68 | 122.11 |
| 54 | 2y | 55 | PSU | O2-C2-N1 | -2.29 | 120.27 | 122.79 |
| 32 | 2a | 1404 | 5MC | O2-C2-N3 | -2.28 | 118.62 | 122.33 |
| 1 | 2A | 2605 | PSU | O2-C2-N3 | -2.24 | 117.59 | 121.82 |
| 32 | 2a | 1400 | 5MC | O2-C2-N3 | -2.24 | 118.69 | 122.33 |
| 32 | 2a | 1207 | 2MG | C8-N7-C5 | 2.23 | 107.25 | 102.99 |
| 1 | 2A | 2552 | OMU | O2-C2-N1 | -2.23 | 119.82 | 122.79 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 1 | 2A | 1939 | 5MU | O2-C2-N1 | -2.22 | 119.84 | 122.79 |
| 32 | 2a | 1402 | 4OC | CM4-N4-C4 | -2.20 | 118.15 | 122.45 |
| 1 | 2A | 1920 | OMC | O2-C2-N3 | -2.20 | 118.76 | 122.33 |
| 54 | 2y | 54 | 5MU | O2-C2-N3 | -2.20 | 117.41 | 121.50 |
| 32 | 1a | 966 | M2G | C8-N7-C5 | 2.19 | 107.17 | 102.99 |
| 1 | 2A | 1942 | 5MC | O2-C2-N3 | -2.19 | 118.77 | 122.33 |
| 1 | 2A | 1962 | 5MC | C5-C4-N3 | -2.19 | 119.31 | 121.67 |
| 54 | 1y | 39 | PSU | C6-C5-C4 | -2.18 | 116.67 | 118.20 |
| 54 | 1y | 8 | 4SU | C5-C4-S4 | -2.18 | 121.66 | 124.47 |
| 54 | 2w | 8 | 4SU | C5-C4-S4 | -2.17 | 121.67 | 124.47 |
| 1 | 1A | 2251 | OMG | C5-C6-N1 | 2.17 | 117.78 | 113.95 |
| 32 | 1a | 967 | 5MC | CM5-C5-C6 | -2.17 | 119.95 | 122.85 |
| 32 | 2a | 1207 | 2MG | C5-C6-N1 | 2.17 | 117.78 | 113.95 |
| 54 | 1w | 39 | PSU | C5-C6-N1 | -2.16 | 118.87 | 122.11 |
| 43 | 1l | 92 | 0TD | OD2-CG-CB | 2.16 | 117.81 | 113.15 |
| 32 | 1a | 1400 | 5MC | O2-C2-N3 | -2.14 | 118.84 | 122.33 |
| 1 | 2A | 1939 | 5MU | C5M-C5-C6 | -2.14 | 119.99 | 122.85 |
| 1 | 2A | 2605 | PSU | C5-C6-N1 | -2.13 | 118.91 | 122.11 |
| 1 | 1A | 1915 | 5MU | C5M-C5-C6 | -2.13 | 120.01 | 122.85 |
| 32 | 2a | 966 | M2G | C8-N7-C5 | 2.10 | 106.99 | 102.99 |
| 1 | 2A | 2605 | PSU | O2-C2-N1 | -2.10 | 120.48 | 122.79 |
| 54 | 2w | 32 | PSU | C6-C5-C4 | -2.09 | 116.74 | 118.20 |
| 32 | 1a | 1404 | 5MC | CM5-C5-C6 | -2.09 | 120.06 | 122.85 |
| 54 | 2y | 39 | PSU | C6-C5-C4 | -2.08 | 116.75 | 118.20 |
| 32 | 2a | 1498 | UR3 | C3U-N3-C4 | 2.08 | 120.86 | 117.89 |
| 54 | 1y | 39 | PSU | O2-C2-N1 | -2.07 | 120.51 | 122.79 |
| 54 | 2y | 39 | PSU | O2-C2-N3 | -2.07 | 117.92 | 121.82 |
| 43 | 2l | 92 | 0TD | OD2-CG-CB | 2.05 | 117.57 | 113.15 |
| 32 | 2a | 966 | M2G | C5-C6-N1 | 2.04 | 117.56 | 113.95 |
| 32 | 1a | 1207 | 2MG | C5-C6-N1 | 2.04 | 117.55 | 113.95 |
| 1 | 2A | 1939 | 5MU | C5M-C5-C4 | 2.04 | 121.01 | 118.77 |
| 32 | 1a | 1207 | 2MG | CM2-N2-C2 | -2.03 | 119.38 | 123.86 |
| 54 | 2w | 54 | 5MU | O2-C2-N1 | -2.00 | 120.13 | 122.79 |

There are no chirality outliers.

All (54) torsion outliers are listed below:

| Mol | Chain | Res | Type | Atoms |
|-----|-------|------|------|-----------------|
| 32 | 1a | 1207 | 2MG | N1-C2-N2-CM2 |
| 32 | 1a | 1207 | 2MG | N3-C2-N2-CM2 |
| 32 | 1a | 1519 | MA6 | O4'-C4'-C5'-O5' |
| 54 | 1w | 37 | MIA | C12-C13-C14-C16 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|------|------|-----------------|
| 54 | 1y | 37 | MIA | C3'-C4'-C5'-O5' |
| 54 | 1y | 46 | G7M | C4'-C5'-O5'-P |
| 54 | 1y | 54 | 5MU | C3'-C4'-C5'-O5' |
| 54 | 1y | 54 | 5MU | O4'-C4'-C5'-O5' |
| 43 | 2l | 92 | 0TD | CG-CB-SB-CSB |
| 54 | 2w | 37 | MIA | N1-C6-N6-C12 |
| 54 | 2y | 37 | MIA | C3'-C4'-C5'-O5' |
| 54 | 2y | 55 | PSU | C2'-C1'-C5-C6 |
| 54 | 2y | 55 | PSU | O4'-C1'-C5-C6 |
| 32 | 1a | 1519 | MA6 | C3'-C4'-C5'-O5' |
| 54 | 2w | 37 | MIA | N3-C2-S10-C11 |
| 54 | 1y | 37 | MIA | O4'-C4'-C5'-O5' |
| 32 | 2a | 1400 | 5MC | C3'-C4'-C5'-O5' |
| 32 | 2a | 1519 | MA6 | O4'-C4'-C5'-O5' |
| 54 | 2w | 32 | PSU | C3'-C4'-C5'-O5' |
| 54 | 2w | 46 | G7M | O4'-C4'-C5'-O5' |
| 54 | 2y | 37 | MIA | O4'-C4'-C5'-O5' |
| 32 | 2a | 1400 | 5MC | O4'-C4'-C5'-O5' |
| 54 | 2w | 46 | G7M | C3'-C4'-C5'-O5' |
| 54 | 2w | 37 | MIA | N1-C2-S10-C11 |
| 54 | 2w | 32 | PSU | O4'-C4'-C5'-O5' |
| 32 | 2a | 1519 | MA6 | C3'-C4'-C5'-O5' |
| 54 | 2y | 55 | PSU | O4'-C4'-C5'-O5' |
| 43 | 1l | 92 | 0TD | CG-CB-SB-CSB |
| 54 | 1w | 46 | G7M | C4'-C5'-O5'-P |
| 32 | 2a | 527 | G7M | C3'-C4'-C5'-O5' |
| 43 | 2l | 92 | 0TD | SB-CB-CG-OD1 |
| 32 | 1a | 527 | G7M | C4'-C5'-O5'-P |
| 54 | 2w | 46 | G7M | C4'-C5'-O5'-P |
| 54 | 2y | 54 | 5MU | C3'-C4'-C5'-O5' |
| 54 | 1y | 46 | G7M | C3'-C4'-C5'-O5' |
| 1 | 1A | 2503 | 2MA | C4'-C5'-O5'-P |
| 54 | 2y | 8 | 4SU | C4'-C5'-O5'-P |
| 32 | 1a | 527 | G7M | C3'-C4'-C5'-O5' |
| 32 | 2a | 527 | G7M | C4'-C5'-O5'-P |
| 54 | 2y | 54 | 5MU | C2'-C1'-N1-C6 |
| 54 | 1y | 55 | PSU | O4'-C1'-C5-C4 |
| 54 | 1y | 8 | 4SU | C2'-C1'-N1-C6 |
| 43 | 2l | 92 | 0TD | CA-CB-SB-CSB |
| 43 | 1l | 92 | 0TD | SB-CB-CG-OD2 |
| 43 | 2l | 92 | 0TD | SB-CB-CG-OD2 |
| 1 | 1A | 1920 | OMC | C2'-C1'-N1-C2 |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|------|------|-----------------|
| 32 | 1a | 1519 | MA6 | C4'-C5'-O5'-P |
| 1 | 2A | 2503 | 2MA | O4'-C4'-C5'-O5' |
| 54 | 1y | 55 | PSU | O4'-C1'-C5-C6 |
| 54 | 2y | 54 | 5MU | C2'-C1'-N1-C2 |
| 1 | 1A | 2503 | 2MA | O4'-C4'-C5'-O5' |
| 54 | 2y | 54 | 5MU | O4'-C4'-C5'-O5' |
| 43 | 1l | 92 | 0TD | SB-CB-CG-OD1 |
| 54 | 1y | 8 | 4SU | C2'-C1'-N1-C2 |

There are no ring outliers.

No monomer is involved in short contacts.

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 2844 ligands modelled in this entry, 2840 are monoatomic - leaving 4 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. 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 $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|------|------|--------------|------|-------------|-------------|------|-------------|
| | | | | | Counts | RMSZ | $\# Z > 2$ | Counts | RMSZ | $\# Z > 2$ |
| 60 | SF4 | 2d | 303 | 35 | 0,12,12 | - | - | - | - | - |
| 59 | SCM | 2a | 3236 | - | 23,25,25 | 0.79 | 1 (4%) | 26,39,39 | 1.30 | 2 (7%) |
| 59 | SCM | 1a | 1815 | - | 23,25,25 | 0.72 | 0 | 26,39,39 | 1.43 | 4 (15%) |
| 60 | SF4 | 1d | 501 | 35 | 0,12,12 | - | - | - | - | - |

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

| Mol | Type | Chain | Res | Link | Chirals | Torsions | Rings |
|-----|------|-------|------|------|---------|-----------|---------|
| 60 | SF4 | 2d | 303 | 35 | - | - | 0/6/5/5 |
| 59 | SCM | 2a | 3236 | - | - | 0/4/57/57 | 0/3/3/3 |
| 59 | SCM | 1a | 1815 | - | - | 0/4/57/57 | 0/3/3/3 |
| 60 | SF4 | 1d | 501 | 35 | - | - | 0/6/5/5 |

All (1) bond length outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|------|------|-------|------|-------------|----------|
| 59 | 2a | 3236 | SCM | O5-C5 | 2.34 | 1.43 | 1.39 |

All (6) bond angle outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-------------|-------|-------------|----------|
| 59 | 2a | 3236 | SCM | C8M-N8-C8 | 4.67 | 121.19 | 114.38 |
| 59 | 1a | 1815 | SCM | C1M-N10-C10 | 4.25 | 120.57 | 114.38 |
| 59 | 1a | 1815 | SCM | C8M-N8-C8 | 3.68 | 119.74 | 114.38 |
| 59 | 2a | 3236 | SCM | C1M-N10-C10 | 3.12 | 118.93 | 114.38 |
| 59 | 1a | 1815 | SCM | O2B-C6-O1 | 2.39 | 109.91 | 107.01 |
| 59 | 1a | 1815 | SCM | C2-C3-C4 | -2.20 | 105.69 | 111.61 |

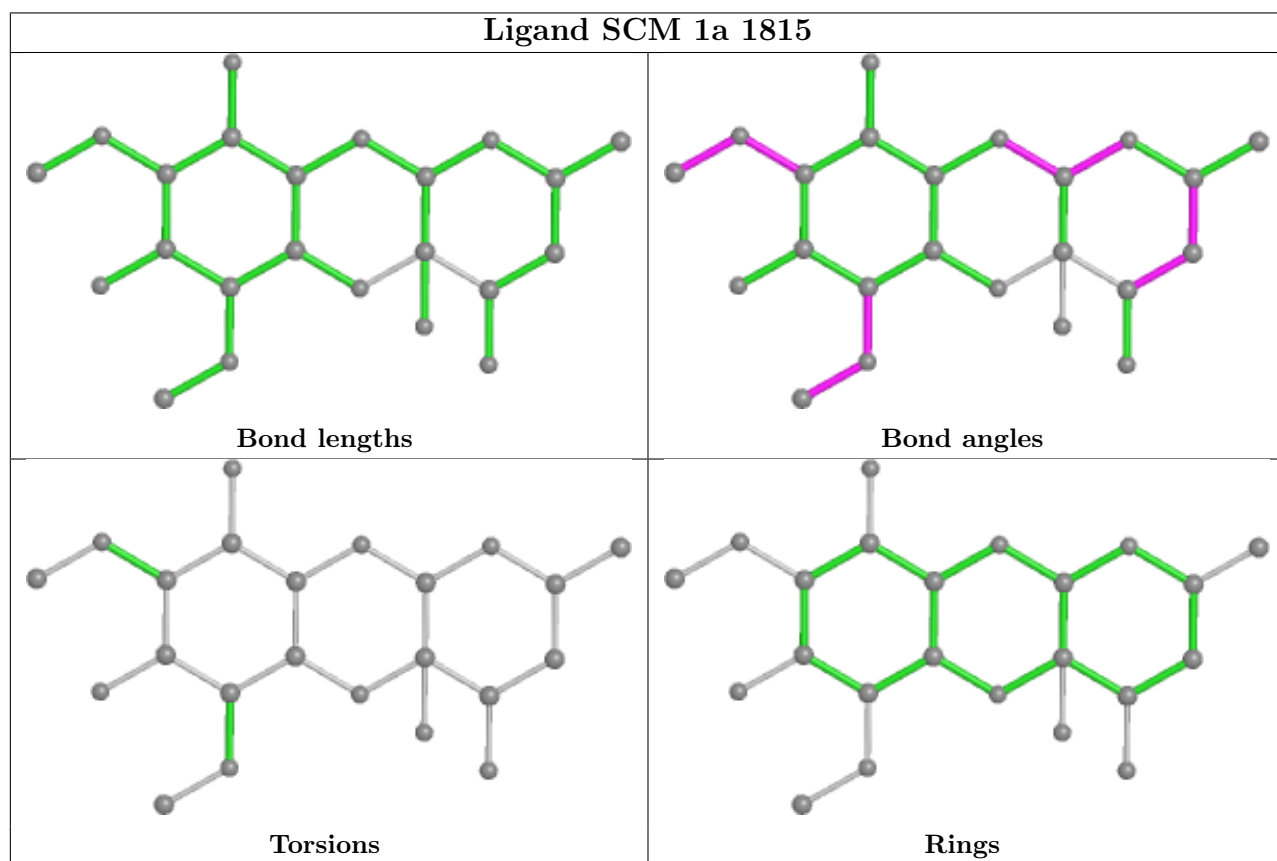
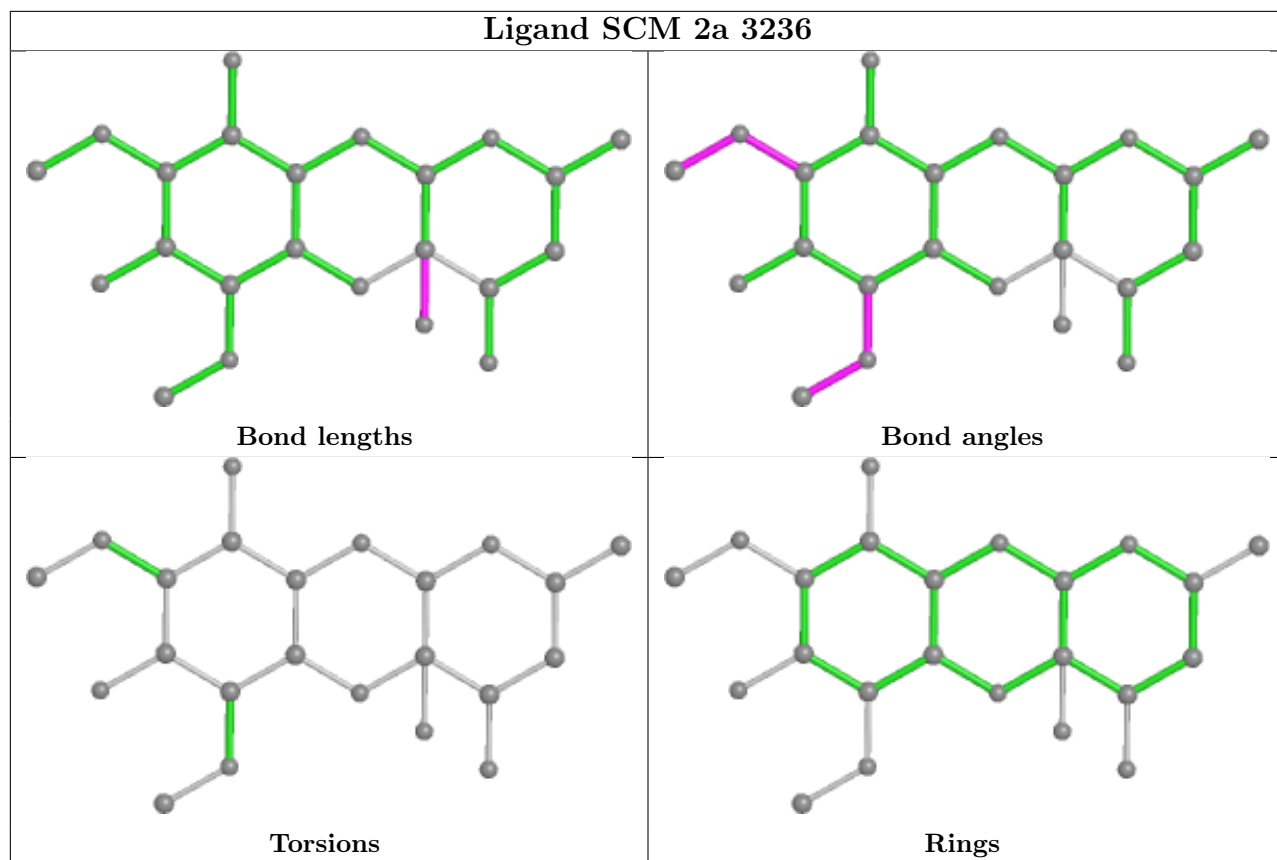
There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.



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 i

6.1 Protein, DNA and RNA chains i

In the following table, the column labelled '#RSRZ > 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q < 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

| Mol | Chain | Analysed | <RSRZ> | #RSRZ>2 | OWAB(Å ²) | Q<0.9 |
|-----|-------|-----------------|--------|---------------|-----------------------|-------|
| 1 | 1A | 2860/2915 (98%) | 0.33 | 29 (1%) 82 80 | 14, 30, 85, 98 | 0 |
| 1 | 2A | 2789/2915 (95%) | 0.12 | 33 (1%) 79 76 | 33, 56, 85, 98 | 0 |
| 2 | 1B | 120/121 (99%) | 0.08 | 0 100 100 | 25, 44, 56, 82 | 0 |
| 2 | 2B | 120/121 (99%) | -0.17 | 0 100 100 | 57, 70, 78, 85 | 0 |
| 3 | 1D | 275/276 (99%) | 0.47 | 3 (1%) 80 78 | 16, 32, 46, 72 | 0 |
| 3 | 2D | 275/276 (99%) | 0.61 | 12 (4%) 34 27 | 28, 46, 56, 71 | 0 |
| 4 | 1E | 204/206 (99%) | 0.39 | 2 (0%) 82 80 | 14, 34, 52, 67 | 0 |
| 4 | 2E | 204/206 (99%) | 0.59 | 8 (3%) 39 32 | 36, 59, 70, 78 | 0 |
| 5 | 1F | 202/210 (96%) | 0.31 | 0 100 100 | 16, 35, 59, 77 | 0 |
| 5 | 2F | 202/210 (96%) | 0.89 | 22 (10%) 5 3 | 35, 62, 74, 80 | 0 |
| 6 | 1G | 181/182 (99%) | 0.16 | 0 100 100 | 34, 50, 65, 77 | 0 |
| 6 | 2G | 181/182 (99%) | 0.86 | 22 (12%) 4 2 | 58, 69, 76, 84 | 0 |
| 7 | 1H | 174/180 (96%) | 0.34 | 2 (1%) 80 78 | 34, 48, 60, 72 | 0 |
| 7 | 2H | 174/180 (96%) | 1.29 | 50 (28%) 0 0 | 66, 77, 83, 87 | 0 |
| 8 | 1I | 146/148 (98%) | 0.26 | 2 (1%) 75 71 | 40, 65, 72, 75 | 0 |
| 8 | 2I | 146/148 (98%) | 0.31 | 11 (7%) 14 10 | 48, 65, 74, 79 | 0 |
| 9 | 1N | 140/140 (100%) | 0.34 | 0 100 100 | 20, 31, 52, 63 | 0 |
| 9 | 2N | 140/140 (100%) | 0.94 | 16 (11%) 5 3 | 51, 63, 74, 77 | 0 |
| 10 | 1O | 122/122 (100%) | 0.42 | 1 (0%) 86 84 | 20, 36, 51, 56 | 0 |
| 10 | 2O | 122/122 (100%) | 1.12 | 19 (15%) 2 1 | 43, 57, 65, 72 | 0 |
| 11 | 1P | 149/150 (99%) | 0.19 | 0 100 100 | 17, 41, 62, 72 | 0 |
| 11 | 2P | 149/150 (99%) | 0.88 | 18 (12%) 4 2 | 40, 62, 75, 86 | 0 |
| 12 | 1Q | 141/141 (100%) | 0.42 | 1 (0%) 87 86 | 23, 36, 49, 64 | 0 |
| 12 | 2Q | 141/141 (100%) | 1.43 | 33 (23%) 0 0 | 47, 65, 72, 75 | 0 |

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| Mol | Chain | Analysed | <RSRZ> | #RSRZ>2 | OWAB(Å ²) | Q<0.9 |
|-----|-------|----------------|--------|---------------|-----------------------|-------|
| 13 | 1R | 118/118 (100%) | 0.35 | 0 100 100 | 19, 28, 41, 53 | 0 |
| 13 | 2R | 118/118 (100%) | 0.44 | 0 100 100 | 39, 49, 59, 63 | 0 |
| 14 | 1S | 110/112 (98%) | 0.32 | 2 (1%) 68 64 | 31, 43, 56, 59 | 0 |
| 14 | 2S | 110/112 (98%) | 0.83 | 9 (8%) 11 8 | 55, 66, 73, 77 | 0 |
| 15 | 1T | 131/146 (89%) | 0.25 | 0 100 100 | 27, 39, 60, 72 | 0 |
| 15 | 2T | 131/146 (89%) | 0.71 | 10 (7%) 13 10 | 49, 59, 68, 74 | 0 |
| 16 | 1U | 116/118 (98%) | 0.40 | 0 100 100 | 16, 23, 38, 53 | 0 |
| 16 | 2U | 116/118 (98%) | 0.49 | 3 (2%) 56 50 | 43, 63, 72, 74 | 0 |
| 17 | 1V | 101/101 (100%) | 0.26 | 0 100 100 | 16, 31, 47, 59 | 0 |
| 17 | 2V | 101/101 (100%) | 0.54 | 7 (6%) 16 12 | 45, 69, 76, 81 | 0 |
| 18 | 1W | 112/113 (99%) | 0.45 | 3 (2%) 54 48 | 18, 25, 42, 73 | 0 |
| 18 | 2W | 112/113 (99%) | 0.64 | 3 (2%) 54 48 | 39, 49, 66, 82 | 0 |
| 19 | 1X | 95/96 (98%) | 0.41 | 1 (1%) 80 78 | 21, 30, 57, 68 | 0 |
| 19 | 2X | 95/96 (98%) | 0.57 | 6 (6%) 20 15 | 38, 54, 66, 76 | 0 |
| 20 | 1Y | 107/110 (97%) | 0.46 | 1 (0%) 84 82 | 31, 43, 61, 74 | 0 |
| 20 | 2Y | 107/110 (97%) | 1.30 | 25 (23%) 0 0 | 58, 67, 76, 79 | 0 |
| 21 | 1Z | 154/206 (74%) | 0.48 | 6 (3%) 39 32 | 28, 57, 74, 81 | 0 |
| 21 | 2Z | 160/206 (77%) | 1.46 | 55 (34%) 0 0 | 65, 75, 81, 85 | 0 |
| 22 | 10 | 83/85 (97%) | 0.56 | 4 (4%) 30 24 | 21, 33, 52, 64 | 0 |
| 22 | 20 | 83/85 (97%) | 1.03 | 13 (15%) 2 1 | 49, 62, 69, 73 | 0 |
| 23 | 11 | 97/98 (98%) | 0.42 | 2 (2%) 63 58 | 24, 39, 62, 66 | 0 |
| 23 | 21 | 97/98 (98%) | 0.87 | 5 (5%) 27 21 | 38, 52, 68, 75 | 0 |
| 24 | 12 | 70/72 (97%) | 0.48 | 0 100 100 | 28, 42, 53, 66 | 0 |
| 24 | 22 | 70/72 (97%) | 0.38 | 2 (2%) 51 45 | 52, 62, 69, 74 | 0 |
| 25 | 13 | 59/60 (98%) | 0.30 | 0 100 100 | 20, 29, 53, 68 | 0 |
| 25 | 23 | 59/60 (98%) | 1.02 | 13 (22%) 0 0 | 55, 63, 72, 79 | 0 |
| 26 | 14 | 69/71 (97%) | 0.22 | 2 (2%) 51 45 | 43, 62, 77, 82 | 0 |
| 26 | 24 | 69/71 (97%) | 1.14 | 14 (20%) 1 0 | 63, 75, 82, 85 | 0 |
| 27 | 15 | 59/60 (98%) | 0.39 | 0 100 100 | 15, 24, 38, 45 | 0 |
| 27 | 25 | 59/60 (98%) | 0.39 | 0 100 100 | 37, 50, 60, 73 | 0 |
| 28 | 16 | 53/54 (98%) | 0.07 | 0 100 100 | 28, 35, 50, 53 | 0 |

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| Mol | Chain | Analysed | <RSRZ> | #RSRZ>2 | OWAB(Å ²) | Q<0.9 |
|-----|-------|-----------------|--------|---------------|-----------------------|-------|
| 28 | 26 | 53/54 (98%) | 0.54 | 1 (1%) 66 62 | 48, 56, 63, 71 | 0 |
| 29 | 17 | 48/49 (97%) | 0.72 | 4 (8%) 11 8 | 15, 23, 49, 62 | 0 |
| 29 | 27 | 48/49 (97%) | 0.99 | 4 (8%) 11 8 | 30, 38, 59, 68 | 0 |
| 30 | 18 | 64/65 (98%) | 0.21 | 0 100 100 | 23, 27, 36, 46 | 0 |
| 30 | 28 | 64/65 (98%) | 0.79 | 3 (4%) 31 25 | 47, 54, 60, 63 | 0 |
| 31 | 19 | 37/37 (100%) | 0.61 | 0 100 100 | 24, 34, 53, 59 | 0 |
| 31 | 29 | 37/37 (100%) | 1.21 | 7 (18%) 1 0 | 61, 68, 76, 78 | 0 |
| 32 | 1a | 1488/1521 (97%) | -0.01 | 13 (0%) 84 82 | 30, 56, 82, 95 | 0 |
| 32 | 2a | 1491/1521 (98%) | 0.17 | 21 (1%) 75 71 | 43, 68, 85, 97 | 0 |
| 33 | 1b | 231/256 (90%) | 0.56 | 14 (6%) 21 16 | 54, 68, 78, 87 | 0 |
| 33 | 2b | 231/256 (90%) | 1.16 | 45 (19%) 1 0 | 64, 75, 82, 86 | 0 |
| 34 | 1c | 206/239 (86%) | 0.33 | 5 (2%) 59 53 | 50, 62, 74, 77 | 0 |
| 34 | 2c | 206/239 (86%) | 1.10 | 42 (20%) 1 0 | 64, 74, 80, 87 | 0 |
| 35 | 1d | 208/209 (99%) | 1.59 | 74 (35%) 0 0 | 50, 62, 72, 76 | 0 |
| 35 | 2d | 208/209 (99%) | 1.34 | 51 (24%) 0 0 | 50, 62, 70, 80 | 0 |
| 36 | 1e | 148/162 (91%) | 0.65 | 3 (2%) 65 60 | 44, 56, 66, 71 | 0 |
| 36 | 2e | 148/162 (91%) | 1.05 | 22 (14%) 2 1 | 55, 67, 73, 76 | 0 |
| 37 | 1f | 100/101 (99%) | 0.51 | 2 (2%) 65 60 | 48, 57, 66, 67 | 0 |
| 37 | 2f | 100/101 (99%) | 0.52 | 2 (2%) 65 60 | 51, 61, 68, 77 | 0 |
| 38 | 1g | 155/156 (99%) | 0.29 | 9 (5%) 23 17 | 48, 58, 73, 85 | 0 |
| 38 | 2g | 155/156 (99%) | 0.65 | 19 (12%) 4 2 | 58, 68, 75, 82 | 0 |
| 39 | 1h | 137/138 (99%) | 0.36 | 2 (1%) 73 70 | 46, 58, 65, 69 | 0 |
| 39 | 2h | 137/138 (99%) | 0.87 | 16 (11%) 4 3 | 57, 68, 72, 78 | 0 |
| 40 | 1i | 127/128 (99%) | 0.63 | 9 (7%) 16 11 | 45, 64, 73, 77 | 0 |
| 40 | 2i | 127/128 (99%) | 1.26 | 32 (25%) 0 0 | 59, 74, 79, 83 | 0 |
| 41 | 1j | 97/105 (92%) | 0.46 | 3 (3%) 49 42 | 48, 66, 75, 77 | 0 |
| 41 | 2j | 96/105 (91%) | 0.93 | 19 (19%) 1 0 | 67, 75, 80, 89 | 0 |
| 42 | 1k | 114/129 (88%) | 0.87 | 7 (6%) 21 16 | 41, 56, 67, 71 | 0 |
| 42 | 2k | 114/129 (88%) | 0.69 | 6 (5%) 26 20 | 51, 64, 71, 75 | 0 |
| 43 | 1l | 121/132 (91%) | 0.18 | 1 (0%) 86 84 | 36, 46, 57, 66 | 0 |
| 43 | 2l | 121/132 (91%) | 1.06 | 25 (20%) 1 0 | 52, 60, 67, 73 | 0 |

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| Mol | Chain | Analysed | <RSRZ> | #RSRZ>2 | OWAB(Å ²) | Q<0.9 |
|-----|-------|-------------------|--------|-----------------|-----------------------|-------|
| 44 | 1m | 123/126 (97%) | 0.20 | 2 (1%) 72 68 | 43, 58, 66, 70 | 0 |
| 44 | 2m | 122/126 (96%) | 1.36 | 33 (27%) 0 0 | 61, 71, 78, 80 | 0 |
| 45 | 1n | 60/61 (98%) | 0.34 | 1 (1%) 70 66 | 50, 56, 64, 65 | 0 |
| 45 | 2n | 60/61 (98%) | 2.45 | 32 (53%) 0 0 | 68, 74, 78, 80 | 0 |
| 46 | 1o | 88/89 (98%) | 0.37 | 1 (1%) 80 78 | 41, 56, 67, 74 | 0 |
| 46 | 2o | 88/89 (98%) | 0.95 | 14 (15%) 1 1 | 53, 64, 72, 76 | 0 |
| 47 | 1p | 82/88 (93%) | 0.52 | 1 (1%) 79 76 | 47, 60, 67, 72 | 0 |
| 47 | 2p | 82/88 (93%) | 0.90 | 7 (8%) 10 7 | 53, 61, 69, 74 | 0 |
| 48 | 1q | 99/105 (94%) | 0.45 | 5 (5%) 28 22 | 47, 58, 67, 71 | 0 |
| 48 | 2q | 99/105 (94%) | 1.74 | 39 (39%) 0 0 | 56, 65, 72, 74 | 0 |
| 49 | 1r | 68/88 (77%) | 0.58 | 1 (1%) 73 70 | 47, 55, 67, 69 | 0 |
| 49 | 2r | 68/88 (77%) | 0.35 | 2 (2%) 51 45 | 57, 63, 69, 71 | 0 |
| 50 | 1s | 83/93 (89%) | -0.05 | 0 100 100 | 47, 60, 70, 73 | 0 |
| 50 | 2s | 83/93 (89%) | 1.13 | 17 (20%) 1 0 | 68, 76, 81, 84 | 0 |
| 51 | 1t | 96/106 (90%) | 0.52 | 2 (2%) 63 58 | 51, 62, 71, 74 | 0 |
| 51 | 2t | 96/106 (90%) | 0.68 | 10 (10%) 6 4 | 51, 63, 73, 77 | 0 |
| 52 | 1u | 23/27 (85%) | 0.65 | 0 100 100 | 49, 56, 61, 63 | 0 |
| 52 | 2u | 23/27 (85%) | 2.09 | 12 (52%) 0 0 | 64, 69, 73, 80 | 0 |
| 53 | 1v | 13/24 (54%) | 1.76 | 4 (30%) 0 0 | 39, 45, 83, 95 | 0 |
| 53 | 2v | 13/24 (54%) | 1.61 | 5 (38%) 0 0 | 61, 69, 88, 96 | 0 |
| 54 | 1w | 67/76 (88%) | 0.33 | 5 (7%) 14 10 | 41, 74, 90, 91 | 0 |
| 54 | 1y | 67/76 (88%) | 0.51 | 7 (10%) 6 4 | 30, 86, 91, 92 | 0 |
| 54 | 2w | 65/76 (85%) | 0.99 | 14 (21%) 0 0 | 63, 85, 95, 98 | 0 |
| 54 | 2y | 66/76 (86%) | 0.91 | 9 (13%) 3 1 | 47, 87, 93, 96 | 0 |
| 55 | 1x | 72/77 (93%) | 0.02 | 0 100 100 | 31, 58, 72, 84 | 0 |
| 55 | 2x | 72/77 (93%) | 0.01 | 3 (4%) 36 29 | 50, 70, 81, 90 | 0 |
| All | All | 20873/21748 (95%) | 0.46 | 1157 (5%) 25 19 | 14, 57, 80, 98 | 0 |

All (1157) RSRZ outliers are listed below:

| Mol | Chain | Res | Type | RSRZ |
|-----|-------|-----|------|------|
| 44 | 2m | 123 | ALA | 8.8 |
| 1 | 2A | 888 | C | 8.5 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 21 | 2Z | 155 | LEU | 8.2 |
| 54 | 2w | 71 | G | 7.6 |
| 21 | 2Z | 149 | SER | 7.5 |
| 38 | 2g | 82 | GLY | 7.4 |
| 22 | 20 | 7 | LEU | 7.4 |
| 38 | 1g | 83 | ALA | 7.2 |
| 20 | 2Y | 45 | VAL | 7.2 |
| 21 | 2Z | 170 | THR | 6.7 |
| 45 | 2n | 39 | LEU | 6.6 |
| 1 | 2A | 2802 | G | 6.6 |
| 54 | 1w | 71 | G | 6.4 |
| 45 | 2n | 34 | TYR | 6.4 |
| 26 | 24 | 50 | VAL | 6.4 |
| 45 | 2n | 25 | VAL | 6.3 |
| 45 | 2n | 37 | PHE | 6.2 |
| 26 | 24 | 51 | ASP | 6.1 |
| 29 | 27 | 46 | VAL | 6.1 |
| 32 | 2a | 1257 | U | 6.1 |
| 20 | 2Y | 1 | MET | 6.0 |
| 48 | 2q | 23 | VAL | 5.9 |
| 34 | 2c | 182 | ILE | 5.9 |
| 20 | 2Y | 65 | ALA | 5.8 |
| 22 | 20 | 2 | ALA | 5.8 |
| 7 | 2H | 159 | GLU | 5.8 |
| 23 | 21 | 2 | SER | 5.8 |
| 41 | 2j | 47 | PHE | 5.8 |
| 33 | 2b | 165 | VAL | 5.7 |
| 50 | 2s | 71 | LEU | 5.6 |
| 35 | 2d | 164 | ALA | 5.5 |
| 33 | 2b | 215 | LEU | 5.4 |
| 48 | 1q | 98 | LEU | 5.4 |
| 35 | 1d | 170 | VAL | 5.4 |
| 43 | 2l | 18 | VAL | 5.4 |
| 54 | 2w | 73 | A | 5.4 |
| 12 | 2Q | 104 | PHE | 5.3 |
| 38 | 1g | 85 | TYR | 5.2 |
| 32 | 2a | 1030(B) | C | 5.2 |
| 53 | 1v | 13 | A | 5.2 |
| 1 | 2A | 883 | G | 5.2 |
| 1 | 2A | 229 | A | 5.2 |
| 38 | 2g | 80 | VAL | 5.2 |
| 44 | 2m | 87 | TYR | 5.1 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 11 | 2P | 149 | GLU | 5.1 |
| 50 | 2s | 80 | TYR | 5.1 |
| 40 | 2i | 114 | TYR | 5.1 |
| 48 | 2q | 11 | VAL | 5.0 |
| 53 | 2v | 12 | A | 5.0 |
| 6 | 2G | 136 | ARG | 4.9 |
| 44 | 2m | 124 | PRO | 4.9 |
| 45 | 2n | 38 | GLY | 4.9 |
| 45 | 2n | 35 | ARG | 4.9 |
| 22 | 20 | 3 | HIS | 4.8 |
| 7 | 2H | 128 | PRO | 4.8 |
| 26 | 24 | 49 | PHE | 4.7 |
| 32 | 1a | 1030(B) | C | 4.7 |
| 53 | 1v | 12 | A | 4.7 |
| 34 | 2c | 159 | GLY | 4.7 |
| 21 | 2Z | 121 | HIS | 4.7 |
| 12 | 2Q | 33 | GLY | 4.7 |
| 22 | 20 | 4 | LYS | 4.6 |
| 35 | 1d | 167 | GLY | 4.6 |
| 48 | 2q | 10 | VAL | 4.6 |
| 22 | 20 | 5 | LYS | 4.6 |
| 35 | 1d | 168 | ARG | 4.6 |
| 35 | 1d | 110 | PHE | 4.6 |
| 1 | 2A | 887 | A | 4.6 |
| 33 | 1b | 165 | VAL | 4.6 |
| 38 | 2g | 81 | GLY | 4.5 |
| 7 | 2H | 123 | PHE | 4.5 |
| 54 | 2w | 4 | C | 4.5 |
| 22 | 10 | 7 | LEU | 4.5 |
| 41 | 2j | 10 | GLY | 4.5 |
| 14 | 2S | 20 | ARG | 4.5 |
| 35 | 2d | 23 | GLY | 4.5 |
| 29 | 27 | 48 | LYS | 4.5 |
| 21 | 2Z | 76 | LEU | 4.4 |
| 33 | 2b | 207 | ALA | 4.4 |
| 32 | 2a | 1001(A) | G | 4.4 |
| 26 | 24 | 43 | TYR | 4.4 |
| 34 | 2c | 157 | ILE | 4.4 |
| 53 | 1v | 14 | A | 4.4 |
| 33 | 2b | 161 | ALA | 4.4 |
| 1 | 1A | 896 | A | 4.4 |
| 54 | 2y | 36 | A | 4.4 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 9 | 2N | 116 | LEU | 4.3 |
| 23 | 11 | 2 | SER | 4.3 |
| 44 | 2m | 7 | VAL | 4.3 |
| 54 | 2w | 76 | A | 4.3 |
| 38 | 2g | 32 | ARG | 4.3 |
| 50 | 2s | 81 | ARG | 4.3 |
| 38 | 1g | 82 | GLY | 4.3 |
| 48 | 2q | 35 | VAL | 4.3 |
| 29 | 27 | 47 | ARG | 4.3 |
| 33 | 1b | 232 | PRO | 4.2 |
| 45 | 2n | 2 | ALA | 4.2 |
| 38 | 1g | 79 | ARG | 4.2 |
| 6 | 2G | 140 | ILE | 4.2 |
| 35 | 2d | 158 | ILE | 4.2 |
| 35 | 2d | 159 | ARG | 4.2 |
| 41 | 2j | 65 | LEU | 4.2 |
| 38 | 1g | 84 | ASN | 4.2 |
| 21 | 2Z | 144 | LEU | 4.1 |
| 26 | 24 | 54 | GLY | 4.1 |
| 54 | 2w | 3 | C | 4.1 |
| 35 | 1d | 138 | TYR | 4.1 |
| 21 | 2Z | 51 | ALA | 4.1 |
| 44 | 2m | 90 | LEU | 4.1 |
| 21 | 2Z | 98 | MET | 4.1 |
| 12 | 2Q | 106 | VAL | 4.1 |
| 35 | 1d | 104 | VAL | 4.1 |
| 40 | 2i | 36 | TYR | 4.1 |
| 3 | 1D | 276 | LYS | 4.1 |
| 21 | 2Z | 152 | ALA | 4.1 |
| 35 | 1d | 3 | ARG | 4.0 |
| 21 | 2Z | 125 | LEU | 4.0 |
| 48 | 2q | 6 | LEU | 4.0 |
| 48 | 2q | 25 | ARG | 4.0 |
| 52 | 2u | 16 | GLY | 4.0 |
| 45 | 2n | 55 | GLY | 4.0 |
| 35 | 1d | 70 | ILE | 4.0 |
| 6 | 2G | 152 | LEU | 4.0 |
| 21 | 2Z | 139 | VAL | 4.0 |
| 34 | 2c | 6 | HIS | 4.0 |
| 35 | 2d | 157 | LEU | 4.0 |
| 48 | 2q | 36 | ILE | 4.0 |
| 40 | 2i | 108 | VAL | 4.0 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 25 | 23 | 29 | ARG | 4.0 |
| 35 | 2d | 176 | LEU | 4.0 |
| 54 | 1w | 72 | C | 4.0 |
| 12 | 2Q | 65 | PHE | 4.0 |
| 29 | 17 | 46 | VAL | 4.0 |
| 7 | 2H | 94 | TYR | 3.9 |
| 21 | 2Z | 172 | ALA | 3.9 |
| 34 | 2c | 80 | GLY | 3.9 |
| 21 | 2Z | 133 | ILE | 3.9 |
| 33 | 2b | 34 | ALA | 3.9 |
| 3 | 2D | 275 | LYS | 3.9 |
| 21 | 2Z | 171 | ILE | 3.9 |
| 6 | 2G | 115 | ARG | 3.9 |
| 35 | 2d | 139 | ARG | 3.9 |
| 1 | 1A | 2141 | G | 3.9 |
| 36 | 2e | 109 | ILE | 3.9 |
| 12 | 2Q | 1 | MET | 3.9 |
| 38 | 2g | 147 | ALA | 3.8 |
| 48 | 2q | 30 | PRO | 3.8 |
| 7 | 2H | 102 | ALA | 3.8 |
| 35 | 2d | 121 | VAL | 3.8 |
| 41 | 2j | 55 | LYS | 3.8 |
| 44 | 2m | 70 | LEU | 3.8 |
| 46 | 2o | 60 | VAL | 3.8 |
| 1 | 1A | 885 | C | 3.8 |
| 47 | 2p | 9 | PHE | 3.8 |
| 38 | 1g | 80 | VAL | 3.8 |
| 33 | 2b | 232 | PRO | 3.8 |
| 33 | 2b | 163 | PHE | 3.8 |
| 41 | 2j | 59 | SER | 3.8 |
| 48 | 1q | 27 | PHE | 3.7 |
| 35 | 1d | 120 | LEU | 3.7 |
| 41 | 2j | 32 | ALA | 3.7 |
| 52 | 2u | 17 | THR | 3.7 |
| 35 | 2d | 181 | MET | 3.7 |
| 33 | 2b | 187 | LEU | 3.7 |
| 6 | 2G | 181 | ARG | 3.7 |
| 44 | 2m | 88 | ARG | 3.7 |
| 35 | 2d | 180 | GLY | 3.7 |
| 22 | 10 | 3 | HIS | 3.7 |
| 54 | 1y | 35 | A | 3.7 |
| 32 | 2a | 204 | U | 3.7 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | 2A | 885 | C | 3.7 |
| 1 | 2A | 896 | A | 3.7 |
| 45 | 2n | 44 | LEU | 3.7 |
| 52 | 2u | 9 | ARG | 3.6 |
| 7 | 2H | 82 | GLY | 3.6 |
| 21 | 2Z | 124 | ILE | 3.6 |
| 22 | 20 | 6 | GLY | 3.6 |
| 34 | 2c | 176 | HIS | 3.6 |
| 35 | 1d | 115 | ARG | 3.6 |
| 7 | 2H | 145 | ALA | 3.6 |
| 1 | 2A | 2792 | G | 3.6 |
| 54 | 2y | 34 | G | 3.6 |
| 11 | 2P | 79 | ARG | 3.6 |
| 26 | 14 | 50 | VAL | 3.6 |
| 29 | 17 | 48 | LYS | 3.6 |
| 40 | 2i | 19 | LEU | 3.6 |
| 35 | 1d | 198 | VAL | 3.6 |
| 33 | 2b | 92 | TYR | 3.6 |
| 14 | 2S | 58 | LEU | 3.6 |
| 32 | 2a | 1030(A) | G | 3.6 |
| 32 | 2a | 1286 | A | 3.6 |
| 7 | 2H | 113 | VAL | 3.6 |
| 35 | 1d | 101 | LEU | 3.6 |
| 48 | 2q | 27 | PHE | 3.6 |
| 33 | 2b | 201 | ILE | 3.6 |
| 45 | 2n | 42 | ILE | 3.6 |
| 34 | 2c | 186 | PHE | 3.5 |
| 35 | 1d | 158 | ILE | 3.5 |
| 38 | 2g | 85 | TYR | 3.5 |
| 32 | 1a | 204 | U | 3.5 |
| 6 | 2G | 29 | TRP | 3.5 |
| 1 | 1A | 1509 | C | 3.5 |
| 7 | 2H | 103 | LEU | 3.5 |
| 35 | 2d | 110 | PHE | 3.5 |
| 45 | 2n | 13 | THR | 3.5 |
| 8 | 2I | 35 | LEU | 3.5 |
| 20 | 1Y | 1 | MET | 3.5 |
| 35 | 1d | 163 | GLU | 3.5 |
| 32 | 1a | 162 | A | 3.5 |
| 53 | 1v | 15 | A | 3.5 |
| 35 | 1d | 21 | LEU | 3.5 |
| 45 | 2n | 6 | LEU | 3.5 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 12 | 2Q | 32 | TYR | 3.5 |
| 43 | 2l | 62 | SER | 3.5 |
| 34 | 2c | 124 | ILE | 3.5 |
| 1 | 2A | 884 | C | 3.5 |
| 1 | 2A | 2896 | C | 3.5 |
| 35 | 2d | 168 | ARG | 3.5 |
| 5 | 2F | 115 | ALA | 3.5 |
| 35 | 2d | 148 | VAL | 3.5 |
| 54 | 2w | 72 | C | 3.4 |
| 48 | 2q | 92 | ARG | 3.4 |
| 18 | 1W | 112 | GLY | 3.4 |
| 33 | 2b | 216 | SER | 3.4 |
| 1 | 2A | 2801(A) | A | 3.4 |
| 53 | 2v | 24 | A | 3.4 |
| 54 | 1y | 36 | A | 3.4 |
| 4 | 2E | 195 | LEU | 3.4 |
| 54 | 1y | 34 | G | 3.4 |
| 50 | 2s | 40 | ILE | 3.4 |
| 36 | 2e | 13 | ILE | 3.4 |
| 54 | 2y | 35 | A | 3.4 |
| 30 | 28 | 64 | TYR | 3.4 |
| 34 | 2c | 179 | ARG | 3.4 |
| 39 | 2h | 4 | ASP | 3.4 |
| 40 | 2i | 110 | GLU | 3.4 |
| 33 | 2b | 7 | VAL | 3.4 |
| 39 | 2h | 133 | LEU | 3.4 |
| 31 | 29 | 13 | LYS | 3.4 |
| 44 | 2m | 100 | GLY | 3.4 |
| 38 | 2g | 79 | ARG | 3.4 |
| 21 | 2Z | 1 | MET | 3.4 |
| 7 | 2H | 162 | ILE | 3.4 |
| 21 | 2Z | 57 | ILE | 3.4 |
| 21 | 2Z | 138 | GLU | 3.4 |
| 48 | 2q | 22 | LEU | 3.4 |
| 6 | 2G | 116 | ASP | 3.4 |
| 38 | 2g | 156 | TRP | 3.4 |
| 3 | 2D | 2 | ALA | 3.4 |
| 43 | 2l | 30 | ALA | 3.4 |
| 1 | 1A | 897 | C | 3.4 |
| 20 | 2Y | 44 | ILE | 3.3 |
| 46 | 2o | 36 | ILE | 3.3 |
| 40 | 1i | 15 | ALA | 3.3 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 12 | 2Q | 63 | LYS | 3.3 |
| 5 | 2F | 127 | GLU | 3.3 |
| 52 | 2u | 11 | GLY | 3.3 |
| 5 | 2F | 196 | LEU | 3.3 |
| 23 | 2l | 98 | LEU | 3.3 |
| 1 | 1A | 884 | C | 3.3 |
| 33 | 2b | 214 | ILE | 3.3 |
| 33 | 2b | 170 | GLU | 3.3 |
| 53 | 2v | 14 | A | 3.3 |
| 50 | 2s | 76 | PRO | 3.3 |
| 21 | 2Z | 153 | SER | 3.3 |
| 33 | 2b | 17 | PHE | 3.3 |
| 33 | 2b | 32 | ILE | 3.3 |
| 34 | 2c | 8 | ILE | 3.3 |
| 36 | 2e | 45 | PHE | 3.3 |
| 51 | 2t | 9 | ASN | 3.3 |
| 35 | 2d | 160 | GLN | 3.3 |
| 40 | 2i | 63 | ILE | 3.3 |
| 1 | 2A | 2138 | C | 3.3 |
| 44 | 2m | 60 | VAL | 3.3 |
| 45 | 2n | 29 | ARG | 3.3 |
| 39 | 2h | 134 | ILE | 3.3 |
| 44 | 1m | 2 | ALA | 3.3 |
| 54 | 1w | 44 | G | 3.3 |
| 54 | 2w | 70 | G | 3.3 |
| 5 | 2F | 171 | PRO | 3.3 |
| 6 | 2G | 139 | LEU | 3.3 |
| 37 | 2f | 55 | ASP | 3.3 |
| 29 | 17 | 47 | ARG | 3.3 |
| 33 | 2b | 81 | VAL | 3.3 |
| 35 | 1d | 73 | ARG | 3.3 |
| 20 | 2Y | 59 | GLY | 3.3 |
| 48 | 1q | 36 | ILE | 3.3 |
| 45 | 2n | 10 | ALA | 3.3 |
| 21 | 1Z | 1 | MET | 3.3 |
| 35 | 1d | 157 | LEU | 3.3 |
| 1 | 1A | 271(K) | U | 3.2 |
| 33 | 2b | 70 | PHE | 3.2 |
| 48 | 2q | 90 | ILE | 3.2 |
| 9 | 2N | 8 | GLN | 3.2 |
| 34 | 2c | 145 | GLY | 3.2 |
| 35 | 1d | 164 | ALA | 3.2 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 12 | 2Q | 99 | PRO | 3.2 |
| 21 | 2Z | 163 | LEU | 3.2 |
| 35 | 2d | 152 | SER | 3.2 |
| 48 | 2q | 59 | ILE | 3.2 |
| 34 | 2c | 28 | GLN | 3.2 |
| 54 | 1w | 70 | G | 3.2 |
| 44 | 2m | 68 | GLY | 3.2 |
| 26 | 24 | 52 | THR | 3.2 |
| 43 | 2l | 64 | TYR | 3.2 |
| 35 | 1d | 102 | ASP | 3.2 |
| 35 | 2d | 163 | GLU | 3.2 |
| 44 | 2m | 6 | GLY | 3.2 |
| 44 | 2m | 15 | VAL | 3.2 |
| 33 | 1b | 215 | LEU | 3.2 |
| 1 | 1A | 2145 | C | 3.2 |
| 35 | 1d | 159 | ARG | 3.2 |
| 39 | 2h | 104 | ARG | 3.2 |
| 35 | 2d | 161 | ASN | 3.2 |
| 22 | 20 | 77 | ARG | 3.2 |
| 52 | 2u | 10 | ARG | 3.2 |
| 45 | 2n | 36 | PHE | 3.2 |
| 21 | 2Z | 140 | ASP | 3.2 |
| 40 | 2i | 106 | ALA | 3.2 |
| 48 | 2q | 31 | LEU | 3.2 |
| 49 | 2r | 85 | LEU | 3.2 |
| 35 | 1d | 137 | SER | 3.2 |
| 1 | 1A | 2062 | A | 3.1 |
| 26 | 24 | 42 | PHE | 3.1 |
| 50 | 2s | 51 | VAL | 3.1 |
| 1 | 1A | 2131 | G | 3.1 |
| 48 | 2q | 91 | ARG | 3.1 |
| 11 | 2P | 101 | VAL | 3.1 |
| 34 | 2c | 158 | GLY | 3.1 |
| 41 | 2j | 66 | ARG | 3.1 |
| 50 | 2s | 36 | ARG | 3.1 |
| 1 | 2A | 2897 | U | 3.1 |
| 25 | 23 | 51 | ALA | 3.1 |
| 35 | 1d | 11 | LEU | 3.1 |
| 48 | 2q | 82 | MET | 3.1 |
| 7 | 2H | 76 | VAL | 3.1 |
| 34 | 2c | 198 | VAL | 3.1 |
| 48 | 2q | 7 | THR | 3.1 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 21 | 2Z | 50 | GLN | 3.1 |
| 34 | 2c | 171 | GLY | 3.1 |
| 39 | 2h | 84 | ARG | 3.1 |
| 7 | 2H | 133 | VAL | 3.1 |
| 12 | 2Q | 94 | VAL | 3.1 |
| 18 | 2W | 112 | GLY | 3.1 |
| 7 | 2H | 13 | LYS | 3.1 |
| 38 | 2g | 84 | ASN | 3.1 |
| 10 | 2O | 2 | ILE | 3.1 |
| 32 | 1a | 1030(A) | G | 3.1 |
| 33 | 2b | 31 | TYR | 3.1 |
| 54 | 2w | 5 | G | 3.1 |
| 40 | 2i | 128 | ARG | 3.1 |
| 21 | 2Z | 162 | GLU | 3.1 |
| 33 | 2b | 203 | GLY | 3.1 |
| 5 | 2F | 7 | TYR | 3.1 |
| 11 | 2P | 92 | GLU | 3.1 |
| 32 | 1a | 1030(C) | G | 3.1 |
| 34 | 2c | 194 | GLY | 3.1 |
| 52 | 2u | 14 | TRP | 3.1 |
| 7 | 2H | 169 | VAL | 3.1 |
| 48 | 2q | 73 | VAL | 3.1 |
| 7 | 2H | 105 | LEU | 3.1 |
| 54 | 2w | 75 | C | 3.1 |
| 35 | 1d | 24 | GLU | 3.1 |
| 36 | 2e | 133 | TYR | 3.0 |
| 45 | 2n | 22 | THR | 3.0 |
| 49 | 1r | 29 | PHE | 3.0 |
| 54 | 2w | 44 | G | 3.0 |
| 48 | 2q | 38 | ARG | 3.0 |
| 7 | 2H | 48 | GLY | 3.0 |
| 22 | 20 | 8 | GLY | 3.0 |
| 50 | 2s | 67 | VAL | 3.0 |
| 5 | 2F | 12 | LEU | 3.0 |
| 6 | 2G | 49 | ASP | 3.0 |
| 42 | 1k | 15 | ALA | 3.0 |
| 38 | 1g | 81 | GLY | 3.0 |
| 48 | 2q | 95 | TYR | 3.0 |
| 1 | 1A | 1095 | A | 3.0 |
| 21 | 2Z | 156 | LYS | 3.0 |
| 33 | 2b | 233 | SER | 3.0 |
| 40 | 2i | 109 | VAL | 3.0 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 21 | 2Z | 150 | LEU | 3.0 |
| 35 | 2d | 5 | ILE | 3.0 |
| 12 | 2Q | 80 | GLU | 3.0 |
| 33 | 2b | 37 | ASN | 3.0 |
| 25 | 23 | 26 | LEU | 3.0 |
| 35 | 2d | 186 | LEU | 3.0 |
| 36 | 2e | 110 | LEU | 3.0 |
| 54 | 1w | 20 | U | 3.0 |
| 35 | 2d | 167 | GLY | 3.0 |
| 45 | 2n | 54 | PRO | 3.0 |
| 45 | 2n | 57 | ARG | 3.0 |
| 7 | 2H | 106 | THR | 3.0 |
| 35 | 2d | 165 | MET | 3.0 |
| 16 | 2U | 48 | ALA | 3.0 |
| 45 | 2n | 17 | LYS | 3.0 |
| 34 | 2c | 5 | ILE | 3.0 |
| 43 | 2l | 7 | ILE | 3.0 |
| 38 | 1g | 78 | ARG | 3.0 |
| 17 | 2V | 71 | LEU | 3.0 |
| 46 | 2o | 81 | LEU | 3.0 |
| 33 | 2b | 227 | GLY | 3.0 |
| 45 | 1n | 2 | ALA | 3.0 |
| 1 | 2A | 2125 | G | 3.0 |
| 45 | 2n | 61 | TRP | 3.0 |
| 42 | 2k | 126 | ARG | 3.0 |
| 32 | 1a | 1030 | C | 2.9 |
| 35 | 2d | 146 | ILE | 2.9 |
| 38 | 2g | 154 | TYR | 2.9 |
| 34 | 2c | 204 | LEU | 2.9 |
| 40 | 2i | 52 | ALA | 2.9 |
| 3 | 2D | 276 | LYS | 2.9 |
| 15 | 2T | 48 | ILE | 2.9 |
| 35 | 1d | 156 | GLU | 2.9 |
| 1 | 1A | 2793 | G | 2.9 |
| 45 | 2n | 56 | VAL | 2.9 |
| 38 | 2g | 83 | ALA | 2.9 |
| 21 | 1Z | 151 | HIS | 2.9 |
| 26 | 24 | 59 | PHE | 2.9 |
| 1 | 1A | 2140 | C | 2.9 |
| 41 | 2j | 72 | VAL | 2.9 |
| 32 | 1a | 1030(D) | A | 2.9 |
| 44 | 2m | 4 | ILE | 2.9 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 40 | 2i | 121 | ARG | 2.9 |
| 35 | 1d | 108 | LEU | 2.9 |
| 35 | 2d | 196 | LEU | 2.9 |
| 31 | 29 | 1 | MET | 2.9 |
| 20 | 2Y | 61 | ILE | 2.9 |
| 33 | 2b | 19 | HIS | 2.9 |
| 44 | 2m | 65 | LYS | 2.9 |
| 44 | 2m | 122 | LYS | 2.9 |
| 39 | 2h | 86 | ILE | 2.9 |
| 21 | 2Z | 44 | PHE | 2.9 |
| 22 | 20 | 45 | PHE | 2.9 |
| 40 | 1i | 8 | GLY | 2.9 |
| 41 | 2j | 48 | THR | 2.9 |
| 7 | 2H | 141 | VAL | 2.9 |
| 46 | 2o | 59 | MET | 2.9 |
| 32 | 1a | 163 | C | 2.9 |
| 7 | 2H | 100 | GLY | 2.9 |
| 7 | 2H | 148 | ILE | 2.9 |
| 36 | 2e | 99 | GLY | 2.9 |
| 33 | 1b | 15 | VAL | 2.9 |
| 8 | 2I | 20 | ASP | 2.9 |
| 12 | 2Q | 121 | ALA | 2.9 |
| 1 | 2A | 2803 | C | 2.9 |
| 11 | 2P | 91 | PHE | 2.9 |
| 7 | 2H | 107 | VAL | 2.9 |
| 9 | 2N | 9 | VAL | 2.9 |
| 44 | 2m | 93 | ARG | 2.9 |
| 26 | 24 | 63 | TYR | 2.9 |
| 47 | 2p | 59 | TRP | 2.8 |
| 33 | 1b | 231 | GLU | 2.8 |
| 7 | 2H | 17 | VAL | 2.8 |
| 40 | 2i | 17 | VAL | 2.8 |
| 42 | 2k | 89 | ALA | 2.8 |
| 44 | 1m | 124 | PRO | 2.8 |
| 48 | 2q | 42 | TYR | 2.8 |
| 1 | 2A | 2793 | G | 2.8 |
| 1 | 1A | 1094 | U | 2.8 |
| 33 | 2b | 223 | ILE | 2.8 |
| 36 | 2e | 76 | ILE | 2.8 |
| 12 | 2Q | 37 | LEU | 2.8 |
| 7 | 2H | 32 | GLU | 2.8 |
| 7 | 2H | 115 | VAL | 2.8 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 29 | 17 | 45 | ALA | 2.8 |
| 5 | 2F | 172 | TRP | 2.8 |
| 39 | 2h | 45 | ILE | 2.8 |
| 10 | 2O | 122 | LEU | 2.8 |
| 32 | 2a | 1034 | G | 2.8 |
| 34 | 2c | 15 | THR | 2.8 |
| 29 | 27 | 1 | MET | 2.8 |
| 35 | 1d | 133 | VAL | 2.8 |
| 11 | 2P | 35 | HIS | 2.8 |
| 39 | 2h | 65 | TYR | 2.8 |
| 25 | 23 | 28 | LEU | 2.8 |
| 35 | 1d | 162 | LEU | 2.8 |
| 54 | 1y | 47 | U | 2.8 |
| 20 | 2Y | 42 | VAL | 2.8 |
| 33 | 2b | 229 | VAL | 2.8 |
| 51 | 2t | 47 | GLY | 2.8 |
| 28 | 26 | 50 | ARG | 2.8 |
| 8 | 1I | 41 | GLU | 2.8 |
| 26 | 24 | 57 | GLU | 2.8 |
| 10 | 2O | 57 | VAL | 2.8 |
| 21 | 2Z | 165 | VAL | 2.8 |
| 35 | 1d | 88 | VAL | 2.8 |
| 35 | 1d | 112 | VAL | 2.8 |
| 44 | 2m | 18 | ALA | 2.8 |
| 20 | 2Y | 55 | TYR | 2.8 |
| 35 | 1d | 179 | GLU | 2.8 |
| 19 | 2X | 95 | LEU | 2.8 |
| 48 | 2q | 33 | GLY | 2.8 |
| 4 | 2E | 167 | VAL | 2.8 |
| 7 | 2H | 101 | ARG | 2.8 |
| 21 | 2Z | 96 | VAL | 2.8 |
| 44 | 2m | 23 | TYR | 2.8 |
| 33 | 2b | 41 | ILE | 2.8 |
| 35 | 2d | 135 | LEU | 2.8 |
| 44 | 2m | 120 | LYS | 2.8 |
| 12 | 2Q | 109 | VAL | 2.7 |
| 25 | 23 | 25 | ALA | 2.7 |
| 48 | 2q | 88 | TYR | 2.7 |
| 21 | 2Z | 157 | LEU | 2.7 |
| 35 | 1d | 64 | LEU | 2.7 |
| 7 | 2H | 89 | ILE | 2.7 |
| 12 | 2Q | 47 | ILE | 2.7 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 34 | 1c | 14 | ILE | 2.7 |
| 44 | 2m | 84 | ILE | 2.7 |
| 38 | 2g | 6 | ARG | 2.7 |
| 33 | 1b | 78 | GLN | 2.7 |
| 7 | 2H | 84 | SER | 2.7 |
| 36 | 2e | 16 | THR | 2.7 |
| 21 | 1Z | 164 | ALA | 2.7 |
| 36 | 2e | 115 | VAL | 2.7 |
| 35 | 1d | 165 | MET | 2.7 |
| 12 | 2Q | 133 | ARG | 2.7 |
| 32 | 2a | 202 | U | 2.7 |
| 36 | 2e | 8 | GLU | 2.7 |
| 43 | 2l | 95 | GLY | 2.7 |
| 34 | 2c | 14 | ILE | 2.7 |
| 25 | 23 | 54 | VAL | 2.7 |
| 35 | 2d | 147 | ALA | 2.7 |
| 1 | 1A | 888 | C | 2.7 |
| 7 | 2H | 86 | GLU | 2.7 |
| 5 | 2F | 20 | LEU | 2.7 |
| 34 | 2c | 33 | LEU | 2.7 |
| 10 | 2O | 7 | TYR | 2.7 |
| 40 | 2i | 62 | TYR | 2.7 |
| 41 | 2j | 63 | PHE | 2.7 |
| 54 | 2y | 1 | G | 2.7 |
| 8 | 2I | 34 | GLY | 2.7 |
| 35 | 1d | 23 | GLY | 2.7 |
| 32 | 1a | 161 | A | 2.7 |
| 34 | 2c | 193 | TYR | 2.7 |
| 1 | 2A | 2132 | U | 2.7 |
| 12 | 2Q | 66 | ILE | 2.7 |
| 33 | 2b | 200 | ILE | 2.7 |
| 17 | 2V | 50 | PRO | 2.7 |
| 33 | 1b | 233 | SER | 2.7 |
| 18 | 1W | 92 | ARG | 2.7 |
| 20 | 2Y | 80 | GLY | 2.7 |
| 50 | 2s | 69 | HIS | 2.7 |
| 48 | 2q | 65 | ILE | 2.7 |
| 32 | 1a | 1257 | U | 2.7 |
| 5 | 2F | 22 | ALA | 2.7 |
| 10 | 2O | 10 | VAL | 2.7 |
| 26 | 24 | 56 | VAL | 2.7 |
| 35 | 1d | 160 | GLN | 2.7 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 43 | 2l | 24 | VAL | 2.7 |
| 6 | 2G | 146 | TYR | 2.7 |
| 21 | 2Z | 80 | ARG | 2.7 |
| 12 | 2Q | 107 | ALA | 2.6 |
| 43 | 2l | 31 | PRO | 2.6 |
| 40 | 2i | 14 | VAL | 2.6 |
| 20 | 2Y | 43 | ASN | 2.6 |
| 32 | 2a | 485 | G | 2.6 |
| 12 | 2Q | 12 | GLN | 2.6 |
| 7 | 2H | 93 | GLY | 2.6 |
| 7 | 2H | 52 | VAL | 2.6 |
| 1 | 2A | 2146 | C | 2.6 |
| 35 | 1d | 77 | ASN | 2.6 |
| 20 | 2Y | 62 | GLU | 2.6 |
| 51 | 2t | 72 | LEU | 2.6 |
| 15 | 2T | 111 | ARG | 2.6 |
| 32 | 2a | 1035 | A | 2.6 |
| 35 | 1d | 76 | ARG | 2.6 |
| 43 | 2l | 33 | ARG | 2.6 |
| 5 | 2F | 199 | TRP | 2.6 |
| 45 | 2n | 40 | CYS | 2.6 |
| 5 | 2F | 145 | GLU | 2.6 |
| 21 | 2Z | 79 | ARG | 2.6 |
| 34 | 1c | 179 | ARG | 2.6 |
| 46 | 2o | 31 | LEU | 2.6 |
| 50 | 2s | 16 | LEU | 2.6 |
| 10 | 2O | 32 | TYR | 2.6 |
| 20 | 2Y | 75 | ILE | 2.6 |
| 33 | 2b | 222 | ILE | 2.6 |
| 48 | 2q | 32 | TYR | 2.6 |
| 9 | 2N | 10 | GLU | 2.6 |
| 43 | 2l | 20 | LYS | 2.6 |
| 12 | 1Q | 81 | VAL | 2.6 |
| 32 | 2a | 1002 | G | 2.6 |
| 32 | 2a | 1032 | G | 2.6 |
| 36 | 2e | 34 | VAL | 2.6 |
| 54 | 2y | 47 | U | 2.6 |
| 46 | 1o | 89 | GLY | 2.6 |
| 3 | 2D | 273 | ARG | 2.6 |
| 7 | 2H | 95 | ARG | 2.6 |
| 32 | 1a | 1531 | A | 2.6 |
| 21 | 2Z | 47 | VAL | 2.6 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 34 | 2c | 178 | LEU | 2.6 |
| 35 | 1d | 33 | MET | 2.6 |
| 35 | 1d | 202 | LEU | 2.6 |
| 1 | 2A | 652(U) | G | 2.6 |
| 1 | 2A | 882 | G | 2.6 |
| 32 | 2a | 306 | G | 2.6 |
| 6 | 2G | 182 | LYS | 2.6 |
| 42 | 2k | 49 | GLY | 2.6 |
| 43 | 2l | 13 | LYS | 2.6 |
| 45 | 2n | 58 | LYS | 2.6 |
| 1 | 1A | 2144 | U | 2.6 |
| 10 | 2O | 19 | ILE | 2.6 |
| 12 | 2Q | 6 | ARG | 2.6 |
| 7 | 2H | 96 | ALA | 2.6 |
| 11 | 2P | 124 | LYS | 2.6 |
| 34 | 1c | 124 | ILE | 2.6 |
| 40 | 2i | 81 | ILE | 2.6 |
| 38 | 1g | 154 | TYR | 2.6 |
| 1 | 1A | 2794 | C | 2.6 |
| 11 | 2P | 108 | LYS | 2.6 |
| 40 | 1i | 113 | LYS | 2.6 |
| 35 | 1d | 155 | LEU | 2.6 |
| 40 | 1i | 19 | LEU | 2.6 |
| 47 | 2p | 74 | LEU | 2.6 |
| 35 | 2d | 69 | GLY | 2.6 |
| 21 | 2Z | 72 | ARG | 2.6 |
| 54 | 2w | 31 | A | 2.6 |
| 7 | 2H | 92 | ILE | 2.5 |
| 12 | 2Q | 28 | ALA | 2.5 |
| 12 | 2Q | 132 | VAL | 2.5 |
| 19 | 1X | 95 | LEU | 2.5 |
| 43 | 2l | 60 | LEU | 2.5 |
| 25 | 23 | 30 | ARG | 2.5 |
| 35 | 1d | 161 | ASN | 2.5 |
| 6 | 2G | 163 | ALA | 2.5 |
| 35 | 2d | 127 | THR | 2.5 |
| 51 | 2t | 59 | ALA | 2.5 |
| 35 | 1d | 207 | TYR | 2.5 |
| 9 | 2N | 53 | VAL | 2.5 |
| 44 | 2m | 74 | VAL | 2.5 |
| 21 | 2Z | 4 | ARG | 2.5 |
| 22 | 20 | 11 | ARG | 2.5 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 26 | 24 | 48 | ARG | 2.5 |
| 38 | 2g | 78 | ARG | 2.5 |
| 44 | 2m | 71 | ARG | 2.5 |
| 45 | 2n | 12 | ARG | 2.5 |
| 35 | 1d | 166 | LYS | 2.5 |
| 9 | 2N | 22 | THR | 2.5 |
| 23 | 21 | 30 | VAL | 2.5 |
| 32 | 1a | 160 | A | 2.5 |
| 35 | 1d | 135 | LEU | 2.5 |
| 35 | 1d | 140 | VAL | 2.5 |
| 36 | 2e | 12 | LEU | 2.5 |
| 38 | 2g | 4 | ARG | 2.5 |
| 40 | 1i | 65 | VAL | 2.5 |
| 51 | 2t | 23 | ARG | 2.5 |
| 12 | 2Q | 29 | PHE | 2.5 |
| 1 | 2A | 2154 | G | 2.5 |
| 10 | 2O | 29 | ASN | 2.5 |
| 8 | 2I | 36 | ALA | 2.5 |
| 35 | 1d | 111 | ALA | 2.5 |
| 11 | 2P | 109 | GLY | 2.5 |
| 8 | 2I | 12 | LEU | 2.5 |
| 32 | 2a | 239 | U | 2.5 |
| 11 | 2P | 94 | GLU | 2.5 |
| 45 | 2n | 46 | GLU | 2.5 |
| 53 | 2v | 13 | A | 2.5 |
| 10 | 2O | 64 | ARG | 2.5 |
| 33 | 1b | 26 | PRO | 2.5 |
| 48 | 2q | 37 | LYS | 2.5 |
| 32 | 2a | 1452 | C | 2.5 |
| 35 | 2d | 70 | ILE | 2.5 |
| 54 | 2y | 53 | G | 2.5 |
| 6 | 2G | 34 | LEU | 2.5 |
| 25 | 23 | 23 | LEU | 2.5 |
| 33 | 2b | 155 | LEU | 2.5 |
| 35 | 1d | 176 | LEU | 2.5 |
| 21 | 2Z | 74 | VAL | 2.5 |
| 21 | 2Z | 126 | VAL | 2.5 |
| 42 | 2k | 25 | TYR | 2.5 |
| 40 | 2i | 9 | ARG | 2.5 |
| 44 | 2m | 119 | GLY | 2.5 |
| 21 | 2Z | 137 | ILE | 2.5 |
| 36 | 2e | 11 | ILE | 2.5 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 6 | 2G | 3 | LEU | 2.5 |
| 18 | 2W | 30 | GLU | 2.5 |
| 1 | 1A | 2128 | C | 2.5 |
| 1 | 2A | 897 | C | 2.5 |
| 10 | 2O | 1 | MET | 2.5 |
| 6 | 2G | 110 | ALA | 2.5 |
| 9 | 2N | 43 | THR | 2.5 |
| 46 | 2o | 3 | ILE | 2.5 |
| 14 | 2S | 85 | VAL | 2.5 |
| 42 | 2k | 125 | PHE | 2.5 |
| 50 | 2s | 52 | TYR | 2.5 |
| 55 | 2x | 2 | G | 2.5 |
| 15 | 2T | 71 | GLY | 2.4 |
| 9 | 2N | 57 | ALA | 2.4 |
| 39 | 2h | 81 | HIS | 2.4 |
| 4 | 2E | 4 | ILE | 2.4 |
| 36 | 2e | 60 | TYR | 2.4 |
| 16 | 2U | 89 | GLU | 2.4 |
| 26 | 14 | 45 | GLY | 2.4 |
| 35 | 1d | 180 | GLY | 2.4 |
| 44 | 2m | 24 | GLY | 2.4 |
| 21 | 2Z | 151 | HIS | 2.4 |
| 43 | 2l | 93 | LEU | 2.4 |
| 7 | 2H | 24 | VAL | 2.4 |
| 8 | 2I | 82 | ARG | 2.4 |
| 20 | 2Y | 24 | VAL | 2.4 |
| 26 | 24 | 66 | SER | 2.4 |
| 36 | 2e | 25 | ARG | 2.4 |
| 11 | 2P | 110 | TYR | 2.4 |
| 12 | 2Q | 74 | TYR | 2.4 |
| 34 | 2c | 181 | ASN | 2.4 |
| 21 | 2Z | 160 | GLY | 2.4 |
| 32 | 2a | 1007 | C | 2.4 |
| 35 | 1d | 113 | SER | 2.4 |
| 7 | 2H | 99 | VAL | 2.4 |
| 12 | 2Q | 25 | ASP | 2.4 |
| 20 | 2Y | 34 | LYS | 2.4 |
| 43 | 2l | 55 | VAL | 2.4 |
| 42 | 1k | 25 | TYR | 2.4 |
| 52 | 2u | 2 | GLY | 2.4 |
| 1 | 2A | 1847 | A | 2.4 |
| 41 | 2j | 56 | HIS | 2.4 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 44 | 2m | 57 | ARG | 2.4 |
| 40 | 2i | 85 | LEU | 2.4 |
| 16 | 2U | 90 | VAL | 2.4 |
| 31 | 29 | 16 | VAL | 2.4 |
| 35 | 2d | 104 | VAL | 2.4 |
| 48 | 2q | 80 | GLY | 2.4 |
| 44 | 2m | 72 | ALA | 2.4 |
| 52 | 2u | 8 | THR | 2.4 |
| 34 | 2c | 170 | GLN | 2.4 |
| 46 | 2o | 62 | GLN | 2.4 |
| 33 | 1b | 93 | VAL | 2.4 |
| 34 | 2c | 167 | TRP | 2.4 |
| 35 | 2d | 128 | VAL | 2.4 |
| 21 | 2Z | 99 | TYR | 2.4 |
| 10 | 2O | 42 | SER | 2.4 |
| 17 | 2V | 73 | SER | 2.4 |
| 4 | 2E | 134 | ILE | 2.4 |
| 33 | 2b | 39 | ILE | 2.4 |
| 40 | 1i | 81 | ILE | 2.4 |
| 41 | 2j | 98 | ILE | 2.4 |
| 51 | 2t | 41 | ILE | 2.4 |
| 7 | 2H | 108 | GLY | 2.4 |
| 49 | 2r | 86 | VAL | 2.4 |
| 35 | 1d | 132 | ARG | 2.4 |
| 52 | 2u | 24 | ARG | 2.4 |
| 25 | 23 | 15 | TYR | 2.4 |
| 37 | 2f | 59 | TYR | 2.4 |
| 5 | 2F | 178 | PRO | 2.4 |
| 10 | 2O | 33 | ALA | 2.4 |
| 48 | 2q | 89 | LEU | 2.4 |
| 1 | 1A | 2151 | G | 2.4 |
| 1 | 2A | 614(B) | G | 2.4 |
| 20 | 2Y | 63 | LYS | 2.4 |
| 44 | 2m | 9 | ILE | 2.4 |
| 6 | 2G | 178 | PHE | 2.4 |
| 20 | 2Y | 60 | PHE | 2.4 |
| 21 | 2Z | 104 | PHE | 2.4 |
| 38 | 2g | 10 | ARG | 2.4 |
| 44 | 2m | 3 | ARG | 2.4 |
| 45 | 2n | 31 | ARG | 2.4 |
| 1 | 1A | 887 | A | 2.3 |
| 1 | 2A | 2173 | A | 2.3 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 1 | 2A | 2804 | C | 2.3 |
| 40 | 2i | 4 | TYR | 2.3 |
| 20 | 2Y | 6 | HIS | 2.3 |
| 4 | 1E | 195 | LEU | 2.3 |
| 40 | 2i | 27 | THR | 2.3 |
| 40 | 2i | 61 | ALA | 2.3 |
| 46 | 2o | 56 | LEU | 2.3 |
| 10 | 2O | 22 | ILE | 2.3 |
| 34 | 2c | 190 | ARG | 2.3 |
| 52 | 2u | 6 | ARG | 2.3 |
| 33 | 1b | 70 | PHE | 2.3 |
| 42 | 1k | 14 | VAL | 2.3 |
| 32 | 2a | 1036 | G | 2.3 |
| 19 | 2X | 69 | TYR | 2.3 |
| 35 | 2d | 68 | TYR | 2.3 |
| 33 | 2b | 77 | ALA | 2.3 |
| 34 | 2c | 180 | ALA | 2.3 |
| 35 | 1d | 195 | ALA | 2.3 |
| 45 | 2n | 30 | ALA | 2.3 |
| 46 | 2o | 32 | LEU | 2.3 |
| 8 | 2I | 11 | ASN | 2.3 |
| 35 | 2d | 156 | GLU | 2.3 |
| 36 | 2e | 81 | GLU | 2.3 |
| 53 | 2v | 15 | A | 2.3 |
| 7 | 2H | 45 | VAL | 2.3 |
| 48 | 2q | 87 | LYS | 2.3 |
| 7 | 2H | 10 | PRO | 2.3 |
| 24 | 22 | 1 | MET | 2.3 |
| 1 | 1A | 1026 | U | 2.3 |
| 1 | 2A | 1026 | U | 2.3 |
| 5 | 2F | 15 | SER | 2.3 |
| 5 | 2F | 176 | LEU | 2.3 |
| 6 | 2G | 173 | LEU | 2.3 |
| 25 | 23 | 60 | GLU | 2.3 |
| 34 | 1c | 196 | LEU | 2.3 |
| 48 | 2q | 84 | LEU | 2.3 |
| 41 | 2j | 15 | THR | 2.3 |
| 48 | 2q | 18 | THR | 2.3 |
| 3 | 2D | 271 | ILE | 2.3 |
| 34 | 2c | 57 | ILE | 2.3 |
| 35 | 1d | 126 | ILE | 2.3 |
| 10 | 2O | 58 | VAL | 2.3 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 36 | 2e | 105 | VAL | 2.3 |
| 48 | 2q | 19 | VAL | 2.3 |
| 14 | 1S | 109 | GLY | 2.3 |
| 34 | 2c | 155 | GLY | 2.3 |
| 40 | 2i | 46 | ALA | 2.3 |
| 54 | 2w | 45 | U | 2.3 |
| 54 | 2y | 52 | G | 2.3 |
| 21 | 1Z | 133 | ILE | 2.3 |
| 10 | 2O | 62 | VAL | 2.3 |
| 34 | 2c | 138 | VAL | 2.3 |
| 14 | 2S | 45 | GLY | 2.3 |
| 44 | 2m | 92 | HIS | 2.3 |
| 24 | 22 | 60 | LEU | 2.3 |
| 48 | 2q | 39 | SER | 2.3 |
| 6 | 2G | 161 | THR | 2.3 |
| 10 | 2O | 65 | THR | 2.3 |
| 11 | 2P | 31 | ALA | 2.3 |
| 20 | 2Y | 12 | THR | 2.3 |
| 33 | 2b | 29 | ALA | 2.3 |
| 35 | 1d | 89 | THR | 2.3 |
| 40 | 2i | 15 | ALA | 2.3 |
| 48 | 2q | 40 | LYS | 2.3 |
| 32 | 1a | 1532 | U | 2.3 |
| 12 | 2Q | 105 | GLU | 2.3 |
| 25 | 23 | 47 | VAL | 2.3 |
| 33 | 2b | 55 | PHE | 2.3 |
| 43 | 2l | 90 | VAL | 2.3 |
| 5 | 2F | 23 | ASP | 2.3 |
| 12 | 2Q | 5 | ARG | 2.3 |
| 19 | 2X | 68 | ARG | 2.3 |
| 20 | 2Y | 50 | ARG | 2.3 |
| 35 | 1d | 100 | ARG | 2.3 |
| 34 | 1c | 2 | GLY | 2.3 |
| 35 | 1d | 181 | MET | 2.3 |
| 44 | 2m | 41 | PRO | 2.3 |
| 7 | 2H | 171 | LEU | 2.3 |
| 23 | 11 | 98 | LEU | 2.3 |
| 40 | 2i | 125 | TYR | 2.3 |
| 41 | 2j | 64 | GLU | 2.3 |
| 9 | 2N | 85 | ILE | 2.3 |
| 15 | 2T | 50 | ILE | 2.3 |
| 33 | 2b | 127 | ILE | 2.3 |

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| Mol | Chain | Res | Type | RSRZ |
|-----|-------|------|------|------|
| 51 | 2t | 55 | ILE | 2.3 |
| 11 | 2P | 102 | ARG | 2.3 |
| 21 | 2Z | 128 | VAL | 2.3 |
| 25 | 23 | 6 | VAL | 2.3 |
| 43 | 2l | 96 | VAL | 2.3 |
| 48 | 2q | 5 | VAL | 2.3 |
| 51 | 1t | 22 | ARG | 2.3 |
| 41 | 2j | 58 | ASP | 2.3 |
| 50 | 2s | 84 | GLY | 2.3 |
| 7 | 1H | 2 | SER | 2.3 |
| 14 | 2S | 34 | HIS | 2.3 |
| 21 | 2Z | 102 | LEU | 2.3 |
| 43 | 2l | 27 | LEU | 2.3 |
| 46 | 2o | 57 | LEU | 2.3 |
| 35 | 1d | 75 | PHE | 2.3 |
| 39 | 2h | 83 | ILE | 2.3 |
| 40 | 2i | 37 | PHE | 2.3 |
| 43 | 2l | 11 | VAL | 2.3 |
| 40 | 1i | 47 | LEU | 2.2 |
| 21 | 2Z | 2 | GLU | 2.2 |
| 50 | 2s | 79 | THR | 2.2 |
| 1 | 1A | 1176 | G | 2.2 |
| 20 | 2Y | 20 | TYR | 2.2 |
| 35 | 2d | 18 | LYS | 2.2 |
| 45 | 2n | 9 | LYS | 2.2 |
| 7 | 2H | 43 | VAL | 2.2 |
| 10 | 2O | 102 | VAL | 2.2 |
| 15 | 2T | 52 | ILE | 2.2 |
| 26 | 24 | 45 | GLY | 2.2 |
| 32 | 2a | 553 | A | 2.2 |
| 55 | 2x | 76 | A | 2.2 |
| 20 | 2Y | 35 | TYR | 2.2 |
| 40 | 1i | 114 | TYR | 2.2 |
| 3 | 2D | 51 | VAL | 2.2 |
| 7 | 2H | 121 | ILE | 2.2 |
| 8 | 2I | 117 | GLU | 2.2 |
| 7 | 1H | 21 | PRO | 2.2 |
| 12 | 2Q | 79 | LEU | 2.2 |
| 21 | 2Z | 46 | LYS | 2.2 |
| 34 | 2c | 87 | LEU | 2.2 |
| 35 | 1d | 19 | LEU | 2.2 |
| 39 | 1h | 112 | LEU | 2.2 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 40 | 2i | 123 | PRO | 2.2 |
| 35 | 2d | 115 | ARG | 2.2 |
| 40 | 2i | 76 | ALA | 2.2 |
| 43 | 2l | 68 | ALA | 2.2 |
| 21 | 2Z | 154 | ASP | 2.2 |
| 38 | 2g | 132 | GLY | 2.2 |
| 43 | 2l | 69 | TYR | 2.2 |
| 34 | 2c | 134 | ILE | 2.2 |
| 31 | 29 | 15 | LYS | 2.2 |
| 35 | 1d | 17 | VAL | 2.2 |
| 7 | 2H | 134 | SER | 2.2 |
| 10 | 1O | 122 | LEU | 2.2 |
| 35 | 1d | 186 | LEU | 2.2 |
| 35 | 2d | 19 | LEU | 2.2 |
| 35 | 2d | 21 | LEU | 2.2 |
| 35 | 2d | 78 | LEU | 2.2 |
| 1 | 2A | 6 | A | 2.2 |
| 20 | 2Y | 105 | ALA | 2.2 |
| 22 | 10 | 2 | ALA | 2.2 |
| 25 | 23 | 27 | GLY | 2.2 |
| 35 | 1d | 62 | GLN | 2.2 |
| 20 | 2Y | 26 | LYS | 2.2 |
| 34 | 2c | 201 | TYR | 2.2 |
| 15 | 2T | 28 | VAL | 2.2 |
| 21 | 2Z | 53 | ILE | 2.2 |
| 21 | 2Z | 100 | VAL | 2.2 |
| 35 | 2d | 8 | VAL | 2.2 |
| 40 | 2i | 77 | ILE | 2.2 |
| 43 | 2l | 100 | ILE | 2.2 |
| 43 | 2l | 101 | VAL | 2.2 |
| 32 | 2a | 1030 | C | 2.2 |
| 12 | 2Q | 3 | MET | 2.2 |
| 43 | 1l | 26 | ALA | 2.2 |
| 1 | 1A | 895 | U | 2.2 |
| 14 | 1S | 90 | GLY | 2.2 |
| 22 | 10 | 4 | LYS | 2.2 |
| 35 | 1d | 2 | GLY | 2.2 |
| 35 | 1d | 86 | LYS | 2.2 |
| 51 | 2t | 29 | LYS | 2.2 |
| 23 | 2l | 71 | TYR | 2.2 |
| 42 | 2k | 117 | ASN | 2.2 |
| 47 | 2p | 33 | ILE | 2.2 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 3 | 1D | 275 | LYS | 2.2 |
| 20 | 2Y | 91 | GLU | 2.2 |
| 39 | 2h | 135 | CYS | 2.2 |
| 7 | 2H | 165 | ALA | 2.2 |
| 12 | 2Q | 41 | TRP | 2.2 |
| 48 | 2q | 34 | LYS | 2.2 |
| 10 | 2O | 20 | MET | 2.2 |
| 22 | 20 | 71 | ASP | 2.2 |
| 34 | 2c | 183 | ASP | 2.2 |
| 35 | 1d | 144 | ASP | 2.2 |
| 37 | 1f | 83 | ASP | 2.2 |
| 52 | 2u | 19 | GLY | 2.2 |
| 54 | 1y | 56 | C | 2.2 |
| 5 | 2F | 90 | PHE | 2.2 |
| 35 | 1d | 118 | ARG | 2.2 |
| 36 | 1e | 6 | PHE | 2.2 |
| 54 | 2y | 63 | G | 2.2 |
| 23 | 21 | 51 | VAL | 2.2 |
| 1 | 1A | 1096 | A | 2.2 |
| 8 | 2I | 38 | LEU | 2.2 |
| 12 | 2Q | 112 | GLU | 2.2 |
| 14 | 2S | 33 | LYS | 2.2 |
| 21 | 2Z | 158 | PRO | 2.2 |
| 33 | 1b | 149 | LEU | 2.2 |
| 35 | 2d | 64 | LEU | 2.2 |
| 41 | 2j | 62 | HIS | 2.2 |
| 43 | 2l | 16 | GLU | 2.2 |
| 45 | 2n | 53 | LEU | 2.2 |
| 51 | 2t | 24 | LEU | 2.2 |
| 51 | 2t | 38 | LYS | 2.2 |
| 33 | 1b | 234 | PRO | 2.2 |
| 21 | 2Z | 106 | GLY | 2.2 |
| 50 | 2s | 68 | GLY | 2.2 |
| 33 | 2b | 83 | MET | 2.2 |
| 31 | 29 | 19 | ARG | 2.2 |
| 1 | 1A | 2118 | U | 2.1 |
| 9 | 2N | 45 | ASN | 2.1 |
| 14 | 2S | 40 | ILE | 2.1 |
| 15 | 2T | 121 | ILE | 2.1 |
| 21 | 1Z | 149 | SER | 2.1 |
| 55 | 2x | 47 | U | 2.1 |
| 35 | 1d | 5 | ILE | 2.1 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 36 | 2e | 89 | ILE | 2.1 |
| 33 | 1b | 213 | LEU | 2.1 |
| 34 | 2c | 196 | LEU | 2.1 |
| 7 | 2H | 31 | GLY | 2.1 |
| 5 | 2F | 136 | THR | 2.1 |
| 38 | 2g | 155 | ARG | 2.1 |
| 40 | 2i | 10 | ARG | 2.1 |
| 48 | 2q | 100 | LYS | 2.1 |
| 36 | 2e | 84 | PHE | 2.1 |
| 40 | 2i | 33 | PHE | 2.1 |
| 1 | 1A | 2146 | C | 2.1 |
| 1 | 2A | 889 | C | 2.1 |
| 1 | 2A | 614(A) | U | 2.1 |
| 6 | 2G | 114 | ILE | 2.1 |
| 9 | 2N | 46 | VAL | 2.1 |
| 15 | 2T | 102 | ILE | 2.1 |
| 33 | 2b | 219 | VAL | 2.1 |
| 35 | 1d | 68 | TYR | 2.1 |
| 35 | 1d | 121 | VAL | 2.1 |
| 36 | 2e | 129 | ILE | 2.1 |
| 45 | 2n | 7 | ILE | 2.1 |
| 6 | 2G | 135 | LEU | 2.1 |
| 38 | 2g | 16 | LEU | 2.1 |
| 54 | 2y | 45 | U | 2.1 |
| 17 | 2V | 64 | HIS | 2.1 |
| 41 | 2j | 89 | ASP | 2.1 |
| 50 | 2s | 57 | HIS | 2.1 |
| 4 | 2E | 6 | GLY | 2.1 |
| 34 | 2c | 81 | GLY | 2.1 |
| 3 | 1D | 2 | ALA | 2.1 |
| 15 | 2T | 1 | MET | 2.1 |
| 20 | 2Y | 47 | LYS | 2.1 |
| 35 | 2d | 117 | ALA | 2.1 |
| 42 | 1k | 68 | ALA | 2.1 |
| 21 | 2Z | 169 | GLU | 2.1 |
| 17 | 2V | 70 | ILE | 2.1 |
| 35 | 2d | 162 | LEU | 2.1 |
| 41 | 2j | 50 | ILE | 2.1 |
| 1 | 2A | 886 | C | 2.1 |
| 32 | 2a | 307 | C | 2.1 |
| 32 | 2a | 1358 | U | 2.1 |
| 39 | 2h | 43 | GLY | 2.1 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 42 | 1k | 88 | GLY | 2.1 |
| 35 | 1d | 169 | LYS | 2.1 |
| 44 | 2m | 102 | ARG | 2.1 |
| 44 | 2m | 104 | ARG | 2.1 |
| 45 | 2n | 23 | ARG | 2.1 |
| 47 | 2p | 8 | ARG | 2.1 |
| 36 | 2e | 56 | GLN | 2.1 |
| 54 | 1y | 24 | G | 2.1 |
| 3 | 2D | 216 | GLY | 2.1 |
| 5 | 2F | 174 | VAL | 2.1 |
| 7 | 2H | 23 | ARG | 2.1 |
| 9 | 2N | 125 | GLY | 2.1 |
| 12 | 2Q | 22 | LYS | 2.1 |
| 14 | 2S | 36 | TYR | 2.1 |
| 21 | 2Z | 147 | GLY | 2.1 |
| 31 | 29 | 37 | GLY | 2.1 |
| 33 | 2b | 66 | GLY | 2.1 |
| 35 | 2d | 107 | ARG | 2.1 |
| 35 | 2d | 122 | ARG | 2.1 |
| 35 | 2d | 188 | LEU | 2.1 |
| 39 | 2h | 13 | ILE | 2.1 |
| 42 | 1k | 91 | ARG | 2.1 |
| 48 | 1q | 38 | ARG | 2.1 |
| 50 | 2s | 30 | LEU | 2.1 |
| 51 | 1t | 55 | ILE | 2.1 |
| 33 | 1b | 50 | GLU | 2.1 |
| 35 | 2d | 150 | GLU | 2.1 |
| 9 | 2N | 102 | ALA | 2.1 |
| 54 | 2w | 74 | C | 2.1 |
| 11 | 2P | 32 | THR | 2.1 |
| 47 | 2p | 48 | TRP | 2.1 |
| 48 | 2q | 93 | GLN | 2.1 |
| 35 | 1d | 93 | PHE | 2.1 |
| 34 | 2c | 4 | LYS | 2.1 |
| 19 | 2X | 43 | VAL | 2.1 |
| 21 | 2Z | 59 | LEU | 2.1 |
| 33 | 2b | 16 | HIS | 2.1 |
| 35 | 1d | 194 | LEU | 2.1 |
| 44 | 2m | 81 | LEU | 2.1 |
| 30 | 28 | 10 | ALA | 2.1 |
| 30 | 28 | 4 | MET | 2.1 |
| 35 | 2d | 132 | ARG | 2.1 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 5 | 2F | 121 | GLY | 2.1 |
| 8 | 1I | 34 | GLY | 2.1 |
| 5 | 2F | 193 | VAL | 2.1 |
| 7 | 2H | 79 | VAL | 2.1 |
| 9 | 2N | 26 | LEU | 2.1 |
| 9 | 2N | 103 | VAL | 2.1 |
| 17 | 2V | 14 | VAL | 2.1 |
| 36 | 1e | 151 | LEU | 2.1 |
| 40 | 2i | 79 | LEU | 2.1 |
| 18 | 1W | 96 | ILE | 2.1 |
| 33 | 2b | 80 | ILE | 2.1 |
| 34 | 2c | 39 | ILE | 2.1 |
| 34 | 2c | 184 | TYR | 2.1 |
| 40 | 1i | 90 | PRO | 2.1 |
| 41 | 1j | 50 | ILE | 2.1 |
| 42 | 1k | 48 | ILE | 2.1 |
| 46 | 2o | 87 | ILE | 2.1 |
| 47 | 2p | 19 | ILE | 2.1 |
| 21 | 2Z | 122 | ARG | 2.1 |
| 4 | 2E | 29 | GLY | 2.1 |
| 15 | 2T | 107 | ASP | 2.1 |
| 35 | 2d | 87 | GLY | 2.1 |
| 3 | 2D | 18 | VAL | 2.1 |
| 33 | 2b | 113 | HIS | 2.1 |
| 34 | 2c | 188 | LEU | 2.1 |
| 21 | 1Z | 167 | PRO | 2.1 |
| 33 | 2b | 211 | ILE | 2.1 |
| 36 | 1e | 115 | VAL | 2.1 |
| 40 | 2i | 44 | VAL | 2.1 |
| 35 | 1d | 7 | PRO | 2.1 |
| 41 | 1j | 98 | ILE | 2.1 |
| 41 | 2j | 74 | ILE | 2.1 |
| 43 | 2l | 39 | VAL | 2.1 |
| 43 | 2l | 43 | VAL | 2.1 |
| 37 | 1f | 54 | LYS | 2.1 |
| 8 | 2I | 33 | ARG | 2.1 |
| 22 | 20 | 12 | ASN | 2.1 |
| 46 | 2o | 68 | ARG | 2.1 |
| 7 | 2H | 124 | GLU | 2.1 |
| 48 | 2q | 24 | GLU | 2.1 |
| 1 | 1A | 1057 | A | 2.1 |
| 1 | 1A | 2132 | U | 2.0 |

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| Mol | Chain | Res | Type | RSRZ |
|------------|--------------|------------|-------------|-------------|
| 35 | 1d | 16 | GLY | 2.1 |
| 39 | 2h | 66 | GLY | 2.1 |
| 50 | 2s | 12 | ASP | 2.1 |
| 54 | 2w | 66 | U | 2.0 |
| 33 | 2b | 118 | LEU | 2.0 |
| 3 | 2D | 205 | VAL | 2.0 |
| 11 | 2P | 83 | VAL | 2.0 |
| 14 | 2S | 84 | GLN | 2.0 |
| 39 | 2h | 39 | LEU | 2.0 |
| 31 | 29 | 20 | HIS | 2.0 |
| 45 | 2n | 11 | LYS | 2.0 |
| 7 | 2H | 157 | TYR | 2.0 |
| 39 | 2h | 94 | TYR | 2.0 |
| 5 | 2F | 189 | THR | 2.0 |
| 7 | 2H | 129 | THR | 2.0 |
| 40 | 2i | 69 | GLY | 2.0 |
| 41 | 1j | 10 | GLY | 2.0 |
| 19 | 2X | 28 | PHE | 2.0 |
| 22 | 20 | 57 | PHE | 2.0 |
| 47 | 1p | 48 | TRP | 2.0 |
| 1 | 1A | 2897 | U | 2.0 |
| 33 | 2b | 44 | LEU | 2.0 |
| 54 | 1y | 20 | U | 2.0 |
| 3 | 2D | 142 | VAL | 2.0 |
| 21 | 2Z | 54 | HIS | 2.0 |
| 35 | 2d | 112 | VAL | 2.0 |
| 4 | 1E | 77 | ILE | 2.0 |
| 52 | 2u | 23 | PRO | 2.0 |
| 35 | 1d | 107 | ARG | 2.0 |
| 35 | 1d | 20 | TYR | 2.0 |
| 11 | 2P | 127 | ALA | 2.0 |
| 17 | 2V | 27 | ALA | 2.0 |
| 7 | 2H | 142 | GLY | 2.0 |
| 8 | 2I | 42 | SER | 2.0 |
| 11 | 2P | 1 | MET | 2.0 |
| 11 | 2P | 68 | GLN | 2.0 |
| 34 | 2c | 34 | LEU | 2.0 |
| 1 | 2A | 958 | U | 2.0 |
| 10 | 2O | 61 | VAL | 2.0 |
| 18 | 2W | 10 | VAL | 2.0 |
| 35 | 1d | 191 | ARG | 2.0 |
| 35 | 2d | 178 | VAL | 2.0 |

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| Mol | Chain | Res | Type | RSRZ |
|-----|-------|------|------|------|
| 38 | 2g | 8 | GLU | 2.0 |
| 46 | 2o | 45 | VAL | 2.0 |
| 3 | 2D | 270 | ILE | 2.0 |
| 9 | 2N | 72 | TYR | 2.0 |
| 1 | 2A | 2794 | C | 2.0 |
| 3 | 2D | 158 | ALA | 2.0 |
| 5 | 2F | 21 | ALA | 2.0 |
| 6 | 2G | 132 | ASN | 2.0 |
| 35 | 2d | 20 | TYR | 2.0 |
| 35 | 2d | 177 | ASP | 2.0 |
| 36 | 2e | 108 | ALA | 2.0 |
| 46 | 2o | 37 | ASN | 2.0 |
| 33 | 2b | 228 | GLY | 2.0 |
| 4 | 2E | 51 | PHE | 2.0 |
| 6 | 2G | 155 | MET | 2.0 |
| 19 | 2X | 92 | LEU | 2.0 |
| 39 | 1h | 133 | LEU | 2.0 |
| 4 | 2E | 198 | VAL | 2.0 |
| 12 | 2Q | 102 | VAL | 2.0 |
| 12 | 2Q | 130 | LYS | 2.0 |
| 48 | 1q | 28 | PRO | 2.0 |

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

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|-----|-------|------|------|-----------------------------|-------|
| 54 | PSU | 1y | 55 | 20/21 | 0.71 | 0.33 | 85,91,96,104 | 0 |
| 54 | 5MU | 2y | 54 | 21/22 | 0.72 | 0.28 | 79,86,98,117 | 0 |
| 54 | MIA | 2y | 37 | 22/30 | 0.73 | 0.29 | 68,81,92,107 | 0 |
| 54 | 5MU | 1y | 54 | 21/22 | 0.74 | 0.28 | 81,88,95,107 | 0 |
| 54 | 4SU | 1y | 8 | 20/21 | 0.78 | 0.14 | 84,88,98,104 | 0 |
| 54 | G7M | 2y | 46 | 24/25 | 0.79 | 0.22 | 81,87,94,109 | 0 |
| 54 | 4SU | 2y | 8 | 20/21 | 0.80 | 0.17 | 80,90,100,111 | 0 |
| 54 | PSU | 2y | 55 | 20/21 | 0.80 | 0.20 | 80,88,99,99 | 0 |
| 54 | G7M | 1y | 46 | 24/25 | 0.81 | 0.23 | 79,89,95,98 | 0 |
| 54 | 4SU | 2w | 8 | 20/21 | 0.83 | 0.23 | 83,89,98,105 | 0 |
| 54 | MIA | 1y | 37 | 22/30 | 0.83 | 0.20 | 68,76,88,98 | 0 |
| 54 | PSU | 2y | 39 | 20/21 | 0.84 | 0.22 | 67,77,86,92 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 54 | PSU | 2w | 55 | 20/21 | 0.85 | 0.17 | 74,81,88,90 | 0 |
| 54 | PSU | 2y | 32 | 20/21 | 0.86 | 0.21 | 72,78,87,92 | 0 |
| 54 | PSU | 1y | 32 | 20/21 | 0.86 | 0.21 | 68,77,90,93 | 0 |
| 54 | G7M | 1w | 46 | 24/25 | 0.86 | 0.13 | 68,76,94,104 | 0 |
| 32 | 2MG | 2a | 1207 | 24/25 | 0.87 | 0.21 | 73,77,85,88 | 0 |
| 54 | G7M | 2w | 46 | 24/25 | 0.88 | 0.17 | 81,84,96,114 | 0 |
| 54 | 5MU | 2w | 54 | 21/22 | 0.89 | 0.13 | 68,76,78,79 | 0 |
| 54 | PSU | 1y | 39 | 20/21 | 0.90 | 0.22 | 65,72,77,77 | 0 |
| 54 | 4SU | 1w | 8 | 20/21 | 0.90 | 0.14 | 69,73,84,85 | 0 |
| 55 | PSU | 2x | 55 | 20/21 | 0.91 | 0.14 | 63,70,78,84 | 0 |
| 55 | 4SU | 2x | 8 | 20/21 | 0.91 | 0.15 | 63,74,78,85 | 0 |
| 32 | M2G | 2a | 966 | 25/26 | 0.92 | 0.25 | 58,65,72,80 | 0 |
| 54 | PSU | 1w | 55 | 20/21 | 0.92 | 0.17 | 48,63,71,71 | 0 |
| 32 | PSU | 2a | 516 | 20/21 | 0.92 | 0.17 | 46,64,69,71 | 0 |
| 54 | PSU | 2w | 39 | 20/21 | 0.92 | 0.21 | 57,73,82,83 | 0 |
| 32 | 5MC | 2a | 967 | 21/22 | 0.93 | 0.17 | 59,64,69,74 | 0 |
| 54 | PSU | 2w | 32 | 20/21 | 0.93 | 0.25 | 69,76,82,89 | 0 |
| 54 | MIA | 2w | 37 | 25/30 | 0.93 | 0.22 | 61,69,74,77 | 0 |
| 32 | 4OC | 2a | 1402 | 22/23 | 0.93 | 0.18 | 53,60,64,73 | 0 |
| 55 | 5MU | 2x | 54 | 21/22 | 0.94 | 0.20 | 69,74,77,82 | 0 |
| 54 | PSU | 1w | 32 | 20/21 | 0.94 | 0.18 | 51,55,66,68 | 0 |
| 43 | 0TD | 1l | 92 | 10/11 | 0.94 | 0.19 | 43,45,51,64 | 0 |
| 32 | 2MG | 1a | 1207 | 24/25 | 0.94 | 0.17 | 47,59,63,65 | 0 |
| 32 | 5MC | 2a | 1400 | 21/22 | 0.94 | 0.21 | 60,65,71,73 | 0 |
| 55 | 4SU | 1x | 8 | 20/21 | 0.94 | 0.17 | 47,59,68,68 | 0 |
| 32 | MA6 | 2a | 1518 | 24/25 | 0.94 | 0.20 | 48,56,64,67 | 0 |
| 32 | G7M | 2a | 527 | 24/25 | 0.94 | 0.23 | 51,61,67,72 | 0 |
| 55 | 5MC | 2x | 32 | 21/22 | 0.94 | 0.17 | 60,67,72,74 | 0 |
| 54 | 5MU | 1w | 54 | 21/22 | 0.95 | 0.15 | 44,53,61,64 | 0 |
| 1 | PSU | 2A | 1911 | 20/21 | 0.95 | 0.19 | 52,56,64,70 | 0 |
| 1 | 5MU | 2A | 1915 | 21/22 | 0.95 | 0.17 | 59,66,73,77 | 0 |
| 1 | PSU | 2A | 1917 | 20/21 | 0.95 | 0.18 | 53,61,66,68 | 0 |
| 55 | 5MU | 1x | 54 | 21/22 | 0.95 | 0.16 | 58,61,69,73 | 0 |
| 32 | 5MC | 2a | 1404 | 21/22 | 0.95 | 0.20 | 42,46,53,61 | 0 |
| 55 | PSU | 1x | 55 | 20/21 | 0.95 | 0.14 | 53,57,70,74 | 0 |
| 32 | MA6 | 2a | 1519 | 24/25 | 0.95 | 0.24 | 45,57,62,63 | 0 |
| 43 | 0TD | 2l | 92 | 10/11 | 0.95 | 0.25 | 57,61,63,69 | 0 |
| 1 | 5MC | 2A | 1962 | 21/22 | 0.96 | 0.18 | 37,49,52,62 | 0 |
| 1 | OMU | 2A | 2552 | 21/22 | 0.96 | 0.22 | 44,47,55,60 | 0 |
| 1 | PSU | 2A | 2605 | 20/21 | 0.96 | 0.19 | 33,37,44,44 | 0 |
| 32 | 5MC | 1a | 967 | 21/22 | 0.96 | 0.24 | 41,49,55,57 | 0 |
| 1 | 5MU | 1A | 1915 | 21/22 | 0.96 | 0.19 | 36,45,50,50 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 1 | PSU | 1A | 1917 | 20/21 | 0.96 | 0.17 | 40,46,52,55 | 0 |
| 1 | OMC | 2A | 1920 | 21/22 | 0.96 | 0.20 | 45,54,58,58 | 0 |
| 1 | 5MC | 2A | 1942 | 21/22 | 0.96 | 0.16 | 49,54,59,63 | 0 |
| 1 | OMG | 2A | 2251 | 24/25 | 0.97 | 0.21 | 38,44,48,52 | 0 |
| 32 | 5MC | 2a | 1407 | 21/22 | 0.97 | 0.21 | 42,50,56,56 | 0 |
| 32 | UR3 | 2a | 1498 | 21/22 | 0.97 | 0.20 | 47,49,53,57 | 0 |
| 55 | 5MC | 1x | 32 | 21/22 | 0.97 | 0.20 | 39,47,55,59 | 0 |
| 32 | PSU | 1a | 516 | 20/21 | 0.97 | 0.16 | 37,47,51,52 | 0 |
| 54 | MIA | 1w | 37 | 29/30 | 0.97 | 0.19 | 34,42,60,63 | 0 |
| 54 | PSU | 1w | 39 | 20/21 | 0.97 | 0.19 | 44,48,56,58 | 0 |
| 32 | 5MC | 1a | 1400 | 21/22 | 0.97 | 0.22 | 36,44,49,56 | 0 |
| 32 | MA6 | 1a | 1519 | 24/25 | 0.97 | 0.20 | 31,37,39,40 | 0 |
| 1 | 5MU | 2A | 1939 | 21/22 | 0.97 | 0.19 | 34,40,46,48 | 0 |
| 32 | M2G | 1a | 966 | 25/26 | 0.97 | 0.21 | 43,48,54,57 | 0 |
| 1 | PSU | 1A | 1911 | 20/21 | 0.97 | 0.18 | 27,42,47,48 | 0 |
| 1 | 5MC | 1A | 1942 | 21/22 | 0.98 | 0.20 | 29,34,39,41 | 0 |
| 1 | 5MC | 1A | 1962 | 21/22 | 0.98 | 0.19 | 20,27,33,40 | 0 |
| 1 | 2MA | 2A | 2503 | 23/24 | 0.98 | 0.22 | 31,37,44,45 | 0 |
| 1 | OMG | 1A | 2251 | 24/25 | 0.98 | 0.21 | 17,21,26,29 | 0 |
| 32 | 4OC | 1a | 1402 | 22/23 | 0.98 | 0.20 | 35,39,45,51 | 0 |
| 32 | 5MC | 1a | 1404 | 21/22 | 0.98 | 0.20 | 30,35,40,49 | 0 |
| 32 | 5MC | 1a | 1407 | 21/22 | 0.98 | 0.21 | 29,35,39,39 | 0 |
| 32 | MA6 | 1a | 1518 | 24/25 | 0.98 | 0.21 | 28,34,38,39 | 0 |
| 1 | OMU | 1A | 2552 | 21/22 | 0.98 | 0.19 | 20,26,30,34 | 0 |
| 1 | OMC | 1A | 1920 | 21/22 | 0.98 | 0.19 | 28,36,40,42 | 0 |
| 32 | G7M | 1a | 527 | 24/25 | 0.98 | 0.20 | 36,40,47,49 | 0 |
| 1 | 5MU | 1A | 1939 | 21/22 | 0.98 | 0.20 | 19,25,28,36 | 0 |
| 1 | PSU | 1A | 2605 | 20/21 | 0.99 | 0.19 | 21,25,31,32 | 0 |
| 1 | 2MA | 1A | 2503 | 23/24 | 0.99 | 0.23 | 12,17,21,26 | 0 |
| 32 | UR3 | 1a | 1498 | 21/22 | 0.99 | 0.23 | 29,35,39,41 | 0 |

6.3 Carbohydrates [\(i\)](#)

There are no monosaccharides in this entry.

6.4 Ligands [\(i\)](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 2a | 3099 | 1/1 | 0.16 | 0.21 | 81,81,81,81 | 0 |
| 56 | MG | 2a | 3127 | 1/1 | 0.26 | 0.11 | 71,71,71,71 | 0 |
| 56 | MG | 2a | 3129 | 1/1 | 0.26 | 0.11 | 77,77,77,77 | 0 |
| 56 | MG | 1A | 3865 | 1/1 | 0.28 | 0.15 | 73,73,73,73 | 0 |
| 56 | MG | 18 | 108 | 1/1 | 0.30 | 0.46 | 67,67,67,67 | 0 |
| 56 | MG | 2a | 3118 | 1/1 | 0.30 | 0.11 | 84,84,84,84 | 0 |
| 56 | MG | 1A | 3979 | 1/1 | 0.33 | 0.17 | 42,42,42,42 | 0 |
| 56 | MG | 2A | 3707 | 1/1 | 0.41 | 0.11 | 66,66,66,66 | 0 |
| 56 | MG | 2A | 3810 | 1/1 | 0.43 | 0.37 | 80,80,80,80 | 0 |
| 56 | MG | 2A | 3760 | 1/1 | 0.46 | 0.13 | 71,71,71,71 | 0 |
| 56 | MG | 2a | 3007 | 1/1 | 0.46 | 0.31 | 64,64,64,64 | 0 |
| 56 | MG | 2A | 3035 | 1/1 | 0.47 | 0.30 | 72,72,72,72 | 0 |
| 56 | MG | 2A | 3249 | 1/1 | 0.50 | 0.73 | 75,75,75,75 | 0 |
| 56 | MG | 2a | 3010 | 1/1 | 0.52 | 0.15 | 69,69,69,69 | 0 |
| 56 | MG | 2A | 3734 | 1/1 | 0.53 | 0.34 | 59,59,59,59 | 0 |
| 56 | MG | 2A | 3261 | 1/1 | 0.53 | 0.60 | 62,62,62,62 | 0 |
| 56 | MG | 2A | 3232 | 1/1 | 0.53 | 0.31 | 74,74,74,74 | 0 |
| 56 | MG | 2A | 3792 | 1/1 | 0.54 | 0.20 | 76,76,76,76 | 0 |
| 56 | MG | 2A | 3254 | 1/1 | 0.54 | 0.20 | 74,74,74,74 | 0 |
| 56 | MG | 2A | 3285 | 1/1 | 0.54 | 0.18 | 67,67,67,67 | 0 |
| 56 | MG | 2A | 3555 | 1/1 | 0.54 | 0.18 | 67,67,67,67 | 0 |
| 56 | MG | 2a | 3147 | 1/1 | 0.54 | 0.19 | 70,70,70,70 | 0 |
| 56 | MG | 2A | 3439 | 1/1 | 0.55 | 0.88 | 71,71,71,71 | 0 |
| 56 | MG | 1A | 3069 | 1/1 | 0.56 | 0.20 | 63,63,63,63 | 0 |
| 56 | MG | 2A | 3833 | 1/1 | 0.56 | 0.12 | 77,77,77,77 | 0 |
| 56 | MG | 1A | 3974 | 1/1 | 0.56 | 0.20 | 61,61,61,61 | 0 |
| 56 | MG | 2a | 3142 | 1/1 | 0.57 | 0.23 | 73,73,73,73 | 0 |
| 56 | MG | 2A | 3054 | 1/1 | 0.58 | 0.17 | 70,70,70,70 | 0 |
| 56 | MG | 2a | 3119 | 1/1 | 0.58 | 0.13 | 63,63,63,63 | 0 |
| 56 | MG | 2w | 109 | 1/1 | 0.58 | 0.15 | 77,77,77,77 | 0 |
| 56 | MG | 2A | 3233 | 1/1 | 0.60 | 0.19 | 55,55,55,55 | 0 |
| 56 | MG | 1A | 3484 | 1/1 | 0.60 | 0.20 | 74,74,74,74 | 0 |
| 56 | MG | 2A | 3724 | 1/1 | 0.60 | 0.14 | 68,68,68,68 | 0 |
| 56 | MG | 2a | 3121 | 1/1 | 0.61 | 0.08 | 63,63,63,63 | 0 |
| 56 | MG | 2A | 3861 | 1/1 | 0.61 | 0.12 | 66,66,66,66 | 0 |
| 56 | MG | 2A | 3786 | 1/1 | 0.61 | 0.12 | 50,50,50,50 | 0 |
| 56 | MG | 1w | 107 | 1/1 | 0.62 | 0.16 | 72,72,72,72 | 0 |
| 56 | MG | 1A | 3590 | 1/1 | 0.62 | 0.16 | 39,39,39,39 | 0 |
| 56 | MG | 2a | 3027 | 1/1 | 0.62 | 0.18 | 67,67,67,67 | 0 |
| 56 | MG | 1A | 3921 | 1/1 | 0.62 | 0.09 | 63,63,63,63 | 0 |
| 56 | MG | 1R | 201 | 1/1 | 0.62 | 0.37 | 61,61,61,61 | 0 |
| 56 | MG | 2a | 3189 | 1/1 | 0.62 | 0.18 | 72,72,72,72 | 0 |
| 56 | MG | 1A | 3962 | 1/1 | 0.62 | 0.28 | 70,70,70,70 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 1A | 3432 | 1/1 | 0.63 | 0.24 | 62,62,62,62 | 0 |
| 56 | MG | 2a | 3122 | 1/1 | 0.64 | 0.09 | 69,69,69,69 | 0 |
| 56 | MG | 1A | 3735 | 1/1 | 0.64 | 0.15 | 73,73,73,73 | 0 |
| 56 | MG | 1A | 3338 | 1/1 | 0.64 | 0.48 | 52,52,52,52 | 0 |
| 56 | MG | 2A | 3150 | 1/1 | 0.64 | 0.32 | 59,59,59,59 | 0 |
| 56 | MG | 2a | 3146 | 1/1 | 0.64 | 0.12 | 58,58,58,58 | 0 |
| 56 | MG | 1a | 1781 | 1/1 | 0.64 | 0.15 | 59,59,59,59 | 0 |
| 56 | MG | 1A | 3096 | 1/1 | 0.64 | 0.14 | 65,65,65,65 | 0 |
| 56 | MG | 2A | 3765 | 1/1 | 0.64 | 0.14 | 68,68,68,68 | 0 |
| 56 | MG | 2A | 3336 | 1/1 | 0.65 | 0.17 | 61,61,61,61 | 0 |
| 56 | MG | 2A | 3095 | 1/1 | 0.65 | 0.14 | 65,65,65,65 | 0 |
| 56 | MG | 1A | 3377 | 1/1 | 0.65 | 0.24 | 61,61,61,61 | 0 |
| 56 | MG | 2A | 3191 | 1/1 | 0.65 | 0.20 | 70,70,70,70 | 0 |
| 56 | MG | 2A | 3801 | 1/1 | 0.66 | 0.17 | 52,52,52,52 | 0 |
| 56 | MG | 2A | 3265 | 1/1 | 0.66 | 0.18 | 63,63,63,63 | 0 |
| 56 | MG | 1v | 101 | 1/1 | 0.66 | 0.17 | 77,77,77,77 | 0 |
| 56 | MG | 2A | 3322 | 1/1 | 0.66 | 0.17 | 71,71,71,71 | 0 |
| 56 | MG | 2A | 3874 | 1/1 | 0.66 | 0.14 | 60,60,60,60 | 0 |
| 56 | MG | 2B | 205 | 1/1 | 0.66 | 0.18 | 63,63,63,63 | 0 |
| 56 | MG | 1F | 312 | 1/1 | 0.66 | 0.37 | 56,56,56,56 | 0 |
| 56 | MG | 1a | 1753 | 1/1 | 0.66 | 0.21 | 58,58,58,58 | 0 |
| 56 | MG | 2A | 3539 | 1/1 | 0.66 | 0.24 | 54,54,54,54 | 0 |
| 56 | MG | 2a | 3098 | 1/1 | 0.66 | 0.12 | 70,70,70,70 | 0 |
| 56 | MG | 1B | 237 | 1/1 | 0.66 | 0.22 | 58,58,58,58 | 0 |
| 56 | MG | 2A | 3419 | 1/1 | 0.67 | 0.21 | 61,61,61,61 | 0 |
| 56 | MG | 1a | 1693 | 1/1 | 0.67 | 0.13 | 64,64,64,64 | 0 |
| 56 | MG | 2a | 3116 | 1/1 | 0.67 | 0.13 | 67,67,67,67 | 0 |
| 56 | MG | 2a | 3003 | 1/1 | 0.67 | 0.27 | 74,74,74,74 | 0 |
| 56 | MG | 1A | 3998 | 1/1 | 0.67 | 0.19 | 54,54,54,54 | 0 |
| 56 | MG | 2A | 3283 | 1/1 | 0.67 | 0.15 | 61,61,61,61 | 0 |
| 56 | MG | 2w | 105 | 1/1 | 0.67 | 0.40 | 78,78,78,78 | 0 |
| 56 | MG | 2A | 3400 | 1/1 | 0.67 | 0.32 | 64,64,64,64 | 0 |
| 56 | MG | 2A | 3316 | 1/1 | 0.68 | 0.26 | 74,74,74,74 | 0 |
| 56 | MG | 2A | 3825 | 1/1 | 0.68 | 0.36 | 65,65,65,65 | 0 |
| 56 | MG | 2A | 3046 | 1/1 | 0.68 | 0.14 | 69,69,69,69 | 0 |
| 56 | MG | 2A | 3142 | 1/1 | 0.68 | 0.16 | 64,64,64,64 | 0 |
| 56 | MG | 2A | 3607 | 1/1 | 0.68 | 0.15 | 53,53,53,53 | 0 |
| 56 | MG | 2A | 3050 | 1/1 | 0.68 | 0.22 | 67,67,67,67 | 0 |
| 56 | MG | 2B | 212 | 1/1 | 0.68 | 0.26 | 73,73,73,73 | 0 |
| 56 | MG | 25 | 102 | 1/1 | 0.68 | 0.22 | 57,57,57,57 | 0 |
| 56 | MG | 1A | 3812 | 1/1 | 0.68 | 0.14 | 53,53,53,53 | 0 |
| 56 | MG | 1A | 4036 | 1/1 | 0.69 | 0.20 | 52,52,52,52 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(Å ²) | Q<0.9 |
|-----|------|-------|------|-------|------|------|----------------------------|-------|
| 56 | MG | 2A | 3363 | 1/1 | 0.69 | 0.19 | 75,75,75,75 | 0 |
| 56 | MG | 2A | 3653 | 1/1 | 0.69 | 0.15 | 55,55,55,55 | 0 |
| 56 | MG | 2A | 3229 | 1/1 | 0.69 | 0.22 | 72,72,72,72 | 0 |
| 56 | MG | 1B | 205 | 1/1 | 0.69 | 0.17 | 59,59,59,59 | 0 |
| 56 | MG | 1A | 3900 | 1/1 | 0.69 | 0.11 | 46,46,46,46 | 0 |
| 56 | MG | 2A | 3522 | 1/1 | 0.69 | 0.10 | 63,63,63,63 | 0 |
| 56 | MG | 2A | 3325 | 1/1 | 0.69 | 0.21 | 71,71,71,71 | 0 |
| 56 | MG | 2A | 3772 | 1/1 | 0.69 | 0.15 | 82,82,82,82 | 0 |
| 56 | MG | 2A | 3775 | 1/1 | 0.69 | 0.12 | 51,51,51,51 | 0 |
| 56 | MG | 2a | 3090 | 1/1 | 0.70 | 0.21 | 71,71,71,71 | 0 |
| 56 | MG | 1A | 3650 | 1/1 | 0.70 | 0.18 | 27,27,27,27 | 0 |
| 56 | MG | 1a | 1797 | 1/1 | 0.70 | 0.09 | 53,53,53,53 | 0 |
| 56 | MG | 1l | 201 | 1/1 | 0.70 | 0.15 | 69,69,69,69 | 0 |
| 56 | MG | 2A | 3505 | 1/1 | 0.70 | 0.12 | 68,68,68,68 | 0 |
| 56 | MG | 1a | 1677 | 1/1 | 0.70 | 0.26 | 57,57,57,57 | 0 |
| 56 | MG | 2A | 3868 | 1/1 | 0.70 | 0.11 | 69,69,69,69 | 0 |
| 56 | MG | 2A | 3176 | 1/1 | 0.70 | 0.16 | 44,44,44,44 | 0 |
| 56 | MG | 1A | 3894 | 1/1 | 0.71 | 0.16 | 50,50,50,50 | 0 |
| 56 | MG | 2A | 3032 | 1/1 | 0.71 | 0.14 | 49,49,49,49 | 0 |
| 56 | MG | 20 | 102 | 1/1 | 0.71 | 0.10 | 59,59,59,59 | 0 |
| 56 | MG | 1A | 3290 | 1/1 | 0.71 | 0.38 | 55,55,55,55 | 0 |
| 56 | MG | 1A | 3995 | 1/1 | 0.71 | 0.22 | 58,58,58,58 | 0 |
| 56 | MG | 1a | 1775 | 1/1 | 0.71 | 0.12 | 76,76,76,76 | 0 |
| 56 | MG | 2a | 3132 | 1/1 | 0.71 | 0.15 | 73,73,73,73 | 0 |
| 56 | MG | 2A | 3706 | 1/1 | 0.71 | 0.17 | 67,67,67,67 | 0 |
| 56 | MG | 1A | 3280 | 1/1 | 0.71 | 0.35 | 48,48,48,48 | 0 |
| 56 | MG | 1A | 3887 | 1/1 | 0.71 | 0.24 | 20,20,20,20 | 0 |
| 56 | MG | 1a | 1629 | 1/1 | 0.71 | 0.19 | 58,58,58,58 | 0 |
| 56 | MG | 1a | 1650 | 1/1 | 0.71 | 0.12 | 66,66,66,66 | 0 |
| 56 | MG | 2A | 3151 | 1/1 | 0.71 | 0.13 | 63,63,63,63 | 0 |
| 56 | MG | 2A | 3513 | 1/1 | 0.72 | 0.13 | 43,43,43,43 | 0 |
| 56 | MG | 15 | 104 | 1/1 | 0.72 | 0.35 | 44,44,44,44 | 0 |
| 56 | MG | 2A | 3773 | 1/1 | 0.72 | 0.21 | 51,51,51,51 | 0 |
| 56 | MG | 1A | 3496 | 1/1 | 0.72 | 0.17 | 50,50,50,50 | 0 |
| 56 | MG | 1B | 212 | 1/1 | 0.72 | 0.24 | 62,62,62,62 | 0 |
| 56 | MG | 2A | 3373 | 1/1 | 0.72 | 0.21 | 66,66,66,66 | 0 |
| 56 | MG | 1A | 3935 | 1/1 | 0.72 | 0.09 | 46,46,46,46 | 0 |
| 56 | MG | 2A | 3401 | 1/1 | 0.72 | 0.15 | 60,60,60,60 | 0 |
| 56 | MG | 2a | 3012 | 1/1 | 0.72 | 0.11 | 68,68,68,68 | 0 |
| 56 | MG | 1A | 3345 | 1/1 | 0.72 | 0.33 | 67,67,67,67 | 0 |
| 56 | MG | 2a | 3051 | 1/1 | 0.72 | 0.16 | 65,65,65,65 | 0 |
| 56 | MG | 2a | 3167 | 1/1 | 0.72 | 0.24 | 66,66,66,66 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 1A | 3242 | 1/1 | 0.72 | 0.26 | 74,74,74,74 | 0 |
| 56 | MG | 2a | 3215 | 1/1 | 0.72 | 0.27 | 61,61,61,61 | 0 |
| 56 | MG | 2A | 3440 | 1/1 | 0.72 | 0.22 | 70,70,70,70 | 0 |
| 56 | MG | 10 | 102 | 1/1 | 0.72 | 0.22 | 47,47,47,47 | 0 |
| 56 | MG | 2x | 103 | 1/1 | 0.72 | 0.09 | 70,70,70,70 | 0 |
| 56 | MG | 2a | 3106 | 1/1 | 0.73 | 0.24 | 70,70,70,70 | 0 |
| 56 | MG | 1A | 3747 | 1/1 | 0.73 | 0.28 | 54,54,54,54 | 0 |
| 56 | MG | 1a | 1621 | 1/1 | 0.73 | 0.13 | 55,55,55,55 | 0 |
| 56 | MG | 2A | 3250 | 1/1 | 0.73 | 0.13 | 66,66,66,66 | 0 |
| 56 | MG | 1A | 3788 | 1/1 | 0.73 | 0.16 | 55,55,55,55 | 0 |
| 56 | MG | 2B | 216 | 1/1 | 0.73 | 0.23 | 65,65,65,65 | 0 |
| 56 | MG | 2A | 3258 | 1/1 | 0.73 | 0.35 | 59,59,59,59 | 0 |
| 56 | MG | 1A | 3669 | 1/1 | 0.73 | 0.15 | 55,55,55,55 | 0 |
| 56 | MG | 29 | 101 | 1/1 | 0.73 | 0.55 | 69,69,69,69 | 0 |
| 56 | MG | 1U | 212 | 1/1 | 0.73 | 0.87 | 59,59,59,59 | 0 |
| 56 | MG | 1a | 1682 | 1/1 | 0.73 | 0.13 | 52,52,52,52 | 0 |
| 56 | MG | 2A | 3025 | 1/1 | 0.73 | 0.19 | 54,54,54,54 | 0 |
| 56 | MG | 2A | 3315 | 1/1 | 0.73 | 0.22 | 72,72,72,72 | 0 |
| 56 | MG | 2A | 3183 | 1/1 | 0.73 | 0.17 | 57,57,57,57 | 0 |
| 56 | MG | 1A | 3978 | 1/1 | 0.73 | 0.15 | 46,46,46,46 | 0 |
| 56 | MG | 1A | 3401 | 1/1 | 0.73 | 0.21 | 54,54,54,54 | 0 |
| 56 | MG | 1a | 1766 | 1/1 | 0.73 | 0.06 | 61,61,61,61 | 0 |
| 56 | MG | 2A | 3347 | 1/1 | 0.73 | 0.16 | 61,61,61,61 | 0 |
| 56 | MG | 2a | 3104 | 1/1 | 0.74 | 0.14 | 63,63,63,63 | 0 |
| 56 | MG | 2A | 3466 | 1/1 | 0.74 | 0.12 | 59,59,59,59 | 0 |
| 56 | MG | 1E | 312 | 1/1 | 0.74 | 0.18 | 62,62,62,62 | 0 |
| 56 | MG | 2A | 3199 | 1/1 | 0.74 | 0.17 | 58,58,58,58 | 0 |
| 56 | MG | 2D | 305 | 1/1 | 0.74 | 0.70 | 40,40,40,40 | 0 |
| 56 | MG | 2a | 3120 | 1/1 | 0.74 | 0.13 | 70,70,70,70 | 0 |
| 56 | MG | 2F | 304 | 1/1 | 0.74 | 0.17 | 56,56,56,56 | 0 |
| 56 | MG | 1A | 3977 | 1/1 | 0.74 | 0.11 | 45,45,45,45 | 0 |
| 56 | MG | 1A | 4058 | 1/1 | 0.74 | 0.19 | 49,49,49,49 | 0 |
| 56 | MG | 2A | 3269 | 1/1 | 0.74 | 0.14 | 58,58,58,58 | 0 |
| 56 | MG | 2A | 3577 | 1/1 | 0.74 | 0.13 | 34,34,34,34 | 0 |
| 56 | MG | 2A | 3376 | 1/1 | 0.74 | 0.21 | 70,70,70,70 | 0 |
| 56 | MG | 2A | 3087 | 1/1 | 0.74 | 0.16 | 71,71,71,71 | 0 |
| 56 | MG | 2A | 3234 | 1/1 | 0.74 | 0.24 | 63,63,63,63 | 0 |
| 56 | MG | 2a | 3014 | 1/1 | 0.74 | 0.71 | 68,68,68,68 | 0 |
| 56 | MG | 2A | 3238 | 1/1 | 0.74 | 0.20 | 58,58,58,58 | 0 |
| 56 | MG | 2a | 3204 | 1/1 | 0.74 | 0.15 | 64,64,64,64 | 0 |
| 56 | MG | 2A | 3842 | 1/1 | 0.74 | 0.13 | 66,66,66,66 | 0 |
| 56 | MG | 2w | 103 | 1/1 | 0.74 | 0.35 | 75,75,75,75 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 2A | 3178 | 1/1 | 0.74 | 0.11 | 60,60,60,60 | 0 |
| 56 | MG | 1A | 4071 | 1/1 | 0.74 | 0.17 | 48,48,48,48 | 0 |
| 56 | MG | 2A | 3751 | 1/1 | 0.74 | 0.11 | 38,38,38,38 | 0 |
| 56 | MG | 2A | 3379 | 1/1 | 0.75 | 0.12 | 68,68,68,68 | 0 |
| 56 | MG | 2a | 3032 | 1/1 | 0.75 | 0.14 | 69,69,69,69 | 0 |
| 56 | MG | 2A | 3289 | 1/1 | 0.75 | 0.15 | 53,53,53,53 | 0 |
| 56 | MG | 2A | 3100 | 1/1 | 0.75 | 0.11 | 63,63,63,63 | 0 |
| 56 | MG | 2A | 3102 | 1/1 | 0.75 | 0.13 | 56,56,56,56 | 0 |
| 56 | MG | 1a | 1665 | 1/1 | 0.75 | 0.18 | 66,66,66,66 | 0 |
| 56 | MG | 2A | 3806 | 1/1 | 0.75 | 0.13 | 64,64,64,64 | 0 |
| 56 | MG | 1B | 229 | 1/1 | 0.75 | 0.11 | 84,84,84,84 | 0 |
| 56 | MG | 2A | 3453 | 1/1 | 0.75 | 0.20 | 77,77,77,77 | 0 |
| 56 | MG | 1A | 3870 | 1/1 | 0.75 | 0.17 | 28,28,28,28 | 0 |
| 56 | MG | 1A | 3854 | 1/1 | 0.75 | 0.20 | 58,58,58,58 | 0 |
| 56 | MG | 1A | 3545 | 1/1 | 0.75 | 0.10 | 46,46,46,46 | 0 |
| 56 | MG | 2A | 3180 | 1/1 | 0.75 | 0.19 | 63,63,63,63 | 0 |
| 56 | MG | 2A | 3239 | 1/1 | 0.75 | 0.32 | 64,64,64,64 | 0 |
| 56 | MG | 2x | 104 | 1/1 | 0.75 | 0.18 | 64,64,64,64 | 0 |
| 56 | MG | 1A | 3412 | 1/1 | 0.76 | 0.23 | 29,29,29,29 | 0 |
| 56 | MG | 2A | 3431 | 1/1 | 0.76 | 0.16 | 65,65,65,65 | 0 |
| 56 | MG | 2a | 3009 | 1/1 | 0.76 | 0.25 | 66,66,66,66 | 0 |
| 56 | MG | 2A | 3217 | 1/1 | 0.76 | 0.22 | 61,61,61,61 | 0 |
| 56 | MG | 1a | 1733 | 1/1 | 0.76 | 0.06 | 72,72,72,72 | 0 |
| 56 | MG | 2A | 3343 | 1/1 | 0.76 | 0.36 | 64,64,64,64 | 0 |
| 56 | MG | 1A | 3385 | 1/1 | 0.76 | 0.23 | 49,49,49,49 | 0 |
| 56 | MG | 1A | 3500 | 1/1 | 0.76 | 0.31 | 50,50,50,50 | 0 |
| 56 | MG | 2a | 3039 | 1/1 | 0.76 | 0.15 | 63,63,63,63 | 0 |
| 56 | MG | 2a | 3043 | 1/1 | 0.76 | 0.14 | 66,66,66,66 | 0 |
| 56 | MG | 2a | 3157 | 1/1 | 0.76 | 0.28 | 65,65,65,65 | 0 |
| 56 | MG | 2A | 3059 | 1/1 | 0.76 | 0.17 | 64,64,64,64 | 0 |
| 56 | MG | 2a | 3181 | 1/1 | 0.76 | 0.14 | 67,67,67,67 | 0 |
| 56 | MG | 1A | 3933 | 1/1 | 0.76 | 0.47 | 43,43,43,43 | 0 |
| 56 | MG | 2A | 3093 | 1/1 | 0.76 | 0.14 | 61,61,61,61 | 0 |
| 56 | MG | 2A | 3396 | 1/1 | 0.76 | 0.28 | 64,64,64,64 | 0 |
| 56 | MG | 2A | 3026 | 1/1 | 0.76 | 0.18 | 63,63,63,63 | 0 |
| 56 | MG | 2A | 3591 | 1/1 | 0.76 | 0.13 | 61,61,61,61 | 0 |
| 56 | MG | 2a | 3112 | 1/1 | 0.76 | 0.23 | 70,70,70,70 | 0 |
| 56 | MG | 1A | 4030 | 1/1 | 0.76 | 0.18 | 57,57,57,57 | 0 |
| 56 | MG | 2A | 3644 | 1/1 | 0.76 | 0.14 | 74,74,74,74 | 0 |
| 56 | MG | 2A | 3291 | 1/1 | 0.77 | 0.47 | 69,69,69,69 | 0 |
| 56 | MG | 2A | 3295 | 1/1 | 0.77 | 0.23 | 48,48,48,48 | 0 |
| 56 | MG | 1a | 1605 | 1/1 | 0.77 | 0.18 | 61,61,61,61 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 2a | 3013 | 1/1 | 0.77 | 0.22 | 72,72,72,72 | 0 |
| 56 | MG | 1a | 1771 | 1/1 | 0.77 | 0.07 | 45,45,45,45 | 0 |
| 56 | MG | 2A | 3720 | 1/1 | 0.77 | 0.17 | 55,55,55,55 | 0 |
| 56 | MG | 1D | 302 | 1/1 | 0.77 | 0.24 | 53,53,53,53 | 0 |
| 56 | MG | 2a | 3038 | 1/1 | 0.77 | 0.33 | 64,64,64,64 | 0 |
| 56 | MG | 1A | 3319 | 1/1 | 0.77 | 0.24 | 57,57,57,57 | 0 |
| 56 | MG | 1A | 4093 | 1/1 | 0.77 | 0.17 | 44,44,44,44 | 0 |
| 56 | MG | 2A | 3339 | 1/1 | 0.77 | 0.23 | 79,79,79,79 | 0 |
| 56 | MG | 1a | 1802 | 1/1 | 0.77 | 0.12 | 60,60,60,60 | 0 |
| 56 | MG | 1A | 4013 | 1/1 | 0.77 | 0.18 | 60,60,60,60 | 0 |
| 56 | MG | 1A | 3441 | 1/1 | 0.77 | 0.52 | 41,41,41,41 | 0 |
| 56 | MG | 2A | 3371 | 1/1 | 0.77 | 0.18 | 74,74,74,74 | 0 |
| 56 | MG | 1B | 228 | 1/1 | 0.77 | 0.30 | 78,78,78,78 | 0 |
| 56 | MG | 28 | 101 | 1/1 | 0.77 | 0.48 | 71,71,71,71 | 0 |
| 56 | MG | 11 | 102 | 1/1 | 0.77 | 0.75 | 59,59,59,59 | 0 |
| 56 | MG | 1A | 3424 | 1/1 | 0.77 | 0.20 | 54,54,54,54 | 0 |
| 56 | MG | 1A | 3430 | 1/1 | 0.77 | 0.24 | 49,49,49,49 | 0 |
| 56 | MG | 1A | 3906 | 1/1 | 0.78 | 0.15 | 56,56,56,56 | 0 |
| 56 | MG | 1A | 3852 | 1/1 | 0.78 | 0.13 | 41,41,41,41 | 0 |
| 56 | MG | 1A | 3471 | 1/1 | 0.78 | 0.44 | 46,46,46,46 | 0 |
| 56 | MG | 2A | 3187 | 1/1 | 0.78 | 0.17 | 65,65,65,65 | 0 |
| 56 | MG | 2B | 202 | 1/1 | 0.78 | 0.14 | 56,56,56,56 | 0 |
| 56 | MG | 2A | 3189 | 1/1 | 0.78 | 0.27 | 50,50,50,50 | 0 |
| 56 | MG | 1A | 3208 | 1/1 | 0.78 | 0.16 | 56,56,56,56 | 0 |
| 56 | MG | 2A | 3192 | 1/1 | 0.78 | 0.15 | 60,60,60,60 | 0 |
| 56 | MG | 2B | 219 | 1/1 | 0.78 | 0.11 | 75,75,75,75 | 0 |
| 56 | MG | 1A | 3782 | 1/1 | 0.78 | 0.18 | 54,54,54,54 | 0 |
| 56 | MG | 2a | 3088 | 1/1 | 0.78 | 0.29 | 73,73,73,73 | 0 |
| 56 | MG | 1B | 233 | 1/1 | 0.78 | 0.73 | 70,70,70,70 | 0 |
| 56 | MG | 2a | 3182 | 1/1 | 0.78 | 0.13 | 69,69,69,69 | 0 |
| 56 | MG | 1a | 1762 | 1/1 | 0.78 | 0.10 | 55,55,55,55 | 0 |
| 56 | MG | 1A | 4032 | 1/1 | 0.78 | 0.36 | 67,67,67,67 | 0 |
| 56 | MG | 1A | 3330 | 1/1 | 0.78 | 0.22 | 49,49,49,49 | 0 |
| 56 | MG | 2g | 201 | 1/1 | 0.78 | 0.15 | 64,64,64,64 | 0 |
| 56 | MG | 2l | 204 | 1/1 | 0.78 | 0.51 | 66,66,66,66 | 0 |
| 56 | MG | 2v | 102 | 1/1 | 0.78 | 0.14 | 60,60,60,60 | 0 |
| 56 | MG | 1A | 3024 | 1/1 | 0.78 | 0.12 | 54,54,54,54 | 0 |
| 56 | MG | 2A | 3410 | 1/1 | 0.78 | 0.20 | 57,57,57,57 | 0 |
| 56 | MG | 2A | 3172 | 1/1 | 0.78 | 0.24 | 69,69,69,69 | 0 |
| 56 | MG | 2a | 3008 | 1/1 | 0.78 | 0.11 | 72,72,72,72 | 0 |
| 56 | MG | 1A | 3831 | 1/1 | 0.78 | 0.20 | 29,29,29,29 | 0 |
| 56 | MG | 1A | 4031 | 1/1 | 0.79 | 0.14 | 49,49,49,49 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(Å ²) | Q<0.9 |
|-----|------|-------|------|-------|------|------|----------------------------|-------|
| 56 | MG | 2A | 3559 | 1/1 | 0.79 | 0.11 | 60,60,60,60 | 0 |
| 56 | MG | 2A | 3242 | 1/1 | 0.79 | 0.20 | 75,75,75,75 | 0 |
| 56 | MG | 1A | 3607 | 1/1 | 0.79 | 0.14 | 52,52,52,52 | 0 |
| 56 | MG | 2A | 3352 | 1/1 | 0.79 | 0.23 | 65,65,65,65 | 0 |
| 56 | MG | 2A | 3626 | 1/1 | 0.79 | 0.16 | 54,54,54,54 | 0 |
| 56 | MG | 1A | 3920 | 1/1 | 0.79 | 0.07 | 39,39,39,39 | 0 |
| 56 | MG | 2A | 3043 | 1/1 | 0.79 | 0.15 | 56,56,56,56 | 0 |
| 56 | MG | 2A | 3684 | 1/1 | 0.79 | 0.16 | 47,47,47,47 | 0 |
| 56 | MG | 2A | 3690 | 1/1 | 0.79 | 0.12 | 53,53,53,53 | 0 |
| 56 | MG | 1A | 3737 | 1/1 | 0.79 | 0.16 | 50,50,50,50 | 0 |
| 56 | MG | 1A | 4063 | 1/1 | 0.79 | 0.14 | 42,42,42,42 | 0 |
| 56 | MG | 2A | 3053 | 1/1 | 0.79 | 0.13 | 63,63,63,63 | 0 |
| 56 | MG | 1A | 3546 | 1/1 | 0.79 | 0.17 | 46,46,46,46 | 0 |
| 56 | MG | 2A | 3397 | 1/1 | 0.79 | 0.18 | 51,51,51,51 | 0 |
| 56 | MG | 1a | 1639 | 1/1 | 0.79 | 0.35 | 63,63,63,63 | 0 |
| 56 | MG | 1A | 4081 | 1/1 | 0.79 | 0.21 | 50,50,50,50 | 0 |
| 56 | MG | 2A | 3089 | 1/1 | 0.79 | 0.12 | 53,53,53,53 | 0 |
| 56 | MG | 1a | 1658 | 1/1 | 0.79 | 0.16 | 49,49,49,49 | 0 |
| 56 | MG | 1A | 3761 | 1/1 | 0.79 | 0.18 | 44,44,44,44 | 0 |
| 56 | MG | 2A | 3296 | 1/1 | 0.79 | 0.50 | 78,78,78,78 | 0 |
| 56 | MG | 2A | 3308 | 1/1 | 0.79 | 0.12 | 65,65,65,65 | 0 |
| 56 | MG | 2a | 3028 | 1/1 | 0.79 | 0.53 | 71,71,71,71 | 0 |
| 56 | MG | 2A | 3096 | 1/1 | 0.79 | 0.23 | 71,71,71,71 | 0 |
| 56 | MG | 1A | 3446 | 1/1 | 0.79 | 0.35 | 41,41,41,41 | 0 |
| 56 | MG | 2v | 101 | 1/1 | 0.79 | 0.15 | 63,63,63,63 | 0 |
| 56 | MG | 2A | 3504 | 1/1 | 0.79 | 0.17 | 68,68,68,68 | 0 |
| 56 | MG | 2A | 3317 | 1/1 | 0.79 | 0.18 | 64,64,64,64 | 0 |
| 56 | MG | 1A | 3903 | 1/1 | 0.79 | 0.11 | 36,36,36,36 | 0 |
| 56 | MG | 2A | 3518 | 1/1 | 0.79 | 0.10 | 68,68,68,68 | 0 |
| 56 | MG | 2A | 3133 | 1/1 | 0.79 | 0.15 | 56,56,56,56 | 0 |
| 56 | MG | 10 | 108 | 1/1 | 0.79 | 0.18 | 54,54,54,54 | 0 |
| 56 | MG | 2A | 3311 | 1/1 | 0.80 | 0.60 | 58,58,58,58 | 0 |
| 56 | MG | 2A | 3243 | 1/1 | 0.80 | 0.30 | 58,58,58,58 | 0 |
| 56 | MG | 2A | 3647 | 1/1 | 0.80 | 0.13 | 55,55,55,55 | 0 |
| 56 | MG | 1A | 3613 | 1/1 | 0.80 | 0.18 | 23,23,23,23 | 0 |
| 56 | MG | 1x | 103 | 1/1 | 0.80 | 0.11 | 58,58,58,58 | 0 |
| 56 | MG | 1A | 3918 | 1/1 | 0.80 | 0.16 | 65,65,65,65 | 0 |
| 56 | MG | 2A | 3698 | 1/1 | 0.80 | 0.17 | 71,71,71,71 | 0 |
| 56 | MG | 2A | 3424 | 1/1 | 0.80 | 0.20 | 64,64,64,64 | 0 |
| 56 | MG | 1A | 3051 | 1/1 | 0.80 | 0.21 | 55,55,55,55 | 0 |
| 56 | MG | 2A | 3437 | 1/1 | 0.80 | 0.21 | 62,62,62,62 | 0 |
| 56 | MG | 2a | 3126 | 1/1 | 0.80 | 0.16 | 58,58,58,58 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(Å ²) | Q<0.9 |
|-----|------|-------|------|-------|------|------|----------------------------|-------|
| 56 | MG | 2A | 3328 | 1/1 | 0.80 | 0.16 | 60,60,60,60 | 0 |
| 56 | MG | 2A | 3330 | 1/1 | 0.80 | 0.20 | 47,47,47,47 | 0 |
| 56 | MG | 2A | 3746 | 1/1 | 0.80 | 0.10 | 59,59,59,59 | 0 |
| 56 | MG | 2a | 3137 | 1/1 | 0.80 | 0.07 | 59,59,59,59 | 0 |
| 56 | MG | 2A | 3446 | 1/1 | 0.80 | 0.13 | 42,42,42,42 | 0 |
| 56 | MG | 2A | 3259 | 1/1 | 0.80 | 0.55 | 59,59,59,59 | 0 |
| 56 | MG | 1A | 4077 | 1/1 | 0.80 | 0.10 | 37,37,37,37 | 0 |
| 56 | MG | 1A | 3133 | 1/1 | 0.80 | 0.26 | 46,46,46,46 | 0 |
| 56 | MG | 1A | 3886 | 1/1 | 0.80 | 0.13 | 16,16,16,16 | 0 |
| 56 | MG | 1A | 3790 | 1/1 | 0.80 | 0.12 | 49,49,49,49 | 0 |
| 56 | MG | 2A | 3047 | 1/1 | 0.80 | 0.14 | 50,50,50,50 | 0 |
| 56 | MG | 2a | 3026 | 1/1 | 0.80 | 0.17 | 58,58,58,58 | 0 |
| 56 | MG | 2A | 3368 | 1/1 | 0.80 | 0.19 | 53,53,53,53 | 0 |
| 56 | MG | 2A | 3370 | 1/1 | 0.80 | 0.23 | 57,57,57,57 | 0 |
| 56 | MG | 2a | 3224 | 1/1 | 0.80 | 0.08 | 78,78,78,78 | 0 |
| 56 | MG | 2a | 3233 | 1/1 | 0.80 | 0.13 | 71,71,71,71 | 0 |
| 56 | MG | 1a | 1656 | 1/1 | 0.80 | 0.18 | 47,47,47,47 | 0 |
| 56 | MG | 2j | 201 | 1/1 | 0.80 | 0.09 | 78,78,78,78 | 0 |
| 56 | MG | 1Y | 202 | 1/1 | 0.80 | 0.14 | 53,53,53,53 | 0 |
| 56 | MG | 2A | 3562 | 1/1 | 0.80 | 0.22 | 69,69,69,69 | 0 |
| 56 | MG | 2A | 3829 | 1/1 | 0.80 | 0.12 | 47,47,47,47 | 0 |
| 56 | MG | 1A | 3550 | 1/1 | 0.80 | 0.18 | 24,24,24,24 | 0 |
| 56 | MG | 2a | 3087 | 1/1 | 0.80 | 0.08 | 55,55,55,55 | 0 |
| 56 | MG | 2A | 3583 | 1/1 | 0.80 | 0.10 | 70,70,70,70 | 0 |
| 56 | MG | 1A | 3416 | 1/1 | 0.80 | 0.19 | 71,71,71,71 | 0 |
| 56 | MG | 1A | 3300 | 1/1 | 0.80 | 0.25 | 41,41,41,41 | 0 |
| 56 | MG | 2y | 105 | 1/1 | 0.80 | 0.17 | 67,67,67,67 | 0 |
| 56 | MG | 2A | 3236 | 1/1 | 0.81 | 0.16 | 66,66,66,66 | 0 |
| 56 | MG | 1a | 1694 | 1/1 | 0.81 | 0.12 | 43,43,43,43 | 0 |
| 56 | MG | 1a | 1697 | 1/1 | 0.81 | 0.12 | 31,31,31,31 | 0 |
| 56 | MG | 2a | 3034 | 1/1 | 0.81 | 0.18 | 63,63,63,63 | 0 |
| 56 | MG | 1a | 1716 | 1/1 | 0.81 | 0.12 | 56,56,56,56 | 0 |
| 56 | MG | 1A | 3226 | 1/1 | 0.81 | 0.15 | 58,58,58,58 | 0 |
| 56 | MG | 1A | 3229 | 1/1 | 0.81 | 0.15 | 35,35,35,35 | 0 |
| 56 | MG | 2A | 3730 | 1/1 | 0.81 | 0.15 | 65,65,65,65 | 0 |
| 56 | MG | 2a | 3052 | 1/1 | 0.81 | 0.08 | 64,64,64,64 | 0 |
| 56 | MG | 2a | 3057 | 1/1 | 0.81 | 0.14 | 54,54,54,54 | 0 |
| 56 | MG | 2a | 3072 | 1/1 | 0.81 | 0.18 | 55,55,55,55 | 0 |
| 56 | MG | 2a | 3081 | 1/1 | 0.81 | 0.24 | 63,63,63,63 | 0 |
| 56 | MG | 1A | 3558 | 1/1 | 0.81 | 0.11 | 41,41,41,41 | 0 |
| 56 | MG | 2A | 3253 | 1/1 | 0.81 | 0.10 | 56,56,56,56 | 0 |
| 56 | MG | 1A | 3816 | 1/1 | 0.81 | 0.07 | 33,33,33,33 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 10 | 105 | 1/1 | 0.81 | 0.15 | 43,43,43,43 | 0 |
| 56 | MG | 1A | 3025 | 1/1 | 0.81 | 0.29 | 34,34,34,34 | 0 |
| 56 | MG | 1A | 3959 | 1/1 | 0.81 | 0.40 | 80,80,80,80 | 0 |
| 56 | MG | 2A | 3420 | 1/1 | 0.81 | 0.35 | 42,42,42,42 | 0 |
| 56 | MG | 1A | 3599 | 1/1 | 0.81 | 0.15 | 59,59,59,59 | 0 |
| 56 | MG | 2A | 3425 | 1/1 | 0.81 | 0.50 | 50,50,50,50 | 0 |
| 56 | MG | 1A | 3359 | 1/1 | 0.81 | 0.22 | 59,59,59,59 | 0 |
| 56 | MG | 1A | 3138 | 1/1 | 0.81 | 0.18 | 36,36,36,36 | 0 |
| 56 | MG | 2A | 3166 | 1/1 | 0.81 | 0.17 | 55,55,55,55 | 0 |
| 56 | MG | 2A | 3170 | 1/1 | 0.81 | 0.19 | 61,61,61,61 | 0 |
| 56 | MG | 1B | 206 | 1/1 | 0.81 | 0.20 | 54,54,54,54 | 0 |
| 56 | MG | 1A | 3453 | 1/1 | 0.81 | 0.22 | 45,45,45,45 | 0 |
| 56 | MG | 1a | 1634 | 1/1 | 0.81 | 0.26 | 62,62,62,62 | 0 |
| 56 | MG | 2A | 3482 | 1/1 | 0.81 | 0.23 | 57,57,57,57 | 0 |
| 56 | MG | 2A | 3307 | 1/1 | 0.81 | 0.50 | 54,54,54,54 | 0 |
| 56 | MG | 1x | 110 | 1/1 | 0.81 | 0.16 | 66,66,66,66 | 0 |
| 56 | MG | 1y | 102 | 1/1 | 0.81 | 0.09 | 67,67,67,67 | 0 |
| 56 | MG | 2A | 3879 | 1/1 | 0.81 | 0.21 | 64,64,64,64 | 0 |
| 56 | MG | 2A | 3313 | 1/1 | 0.81 | 0.09 | 67,67,67,67 | 0 |
| 56 | MG | 2A | 3519 | 1/1 | 0.81 | 0.14 | 45,45,45,45 | 0 |
| 56 | MG | 2A | 3185 | 1/1 | 0.81 | 0.20 | 51,51,51,51 | 0 |
| 56 | MG | 1B | 214 | 1/1 | 0.81 | 0.11 | 54,54,54,54 | 0 |
| 56 | MG | 1A | 3006 | 1/1 | 0.81 | 0.19 | 52,52,52,52 | 0 |
| 56 | MG | 1A | 3472 | 1/1 | 0.81 | 0.17 | 57,57,57,57 | 0 |
| 56 | MG | 2A | 3561 | 1/1 | 0.81 | 0.14 | 66,66,66,66 | 0 |
| 56 | MG | 1A | 3389 | 1/1 | 0.81 | 0.12 | 44,44,44,44 | 0 |
| 56 | MG | 25 | 101 | 1/1 | 0.81 | 0.21 | 69,69,69,69 | 0 |
| 56 | MG | 2A | 3326 | 1/1 | 0.81 | 0.19 | 53,53,53,53 | 0 |
| 56 | MG | 2A | 3197 | 1/1 | 0.81 | 0.16 | 60,60,60,60 | 0 |
| 56 | MG | 2A | 3040 | 1/1 | 0.81 | 0.13 | 67,67,67,67 | 0 |
| 56 | MG | 2A | 3594 | 1/1 | 0.81 | 0.08 | 44,44,44,44 | 0 |
| 56 | MG | 1A | 4011 | 1/1 | 0.81 | 0.08 | 44,44,44,44 | 0 |
| 56 | MG | 2A | 3221 | 1/1 | 0.81 | 0.24 | 56,56,56,56 | 0 |
| 56 | MG | 2A | 3637 | 1/1 | 0.81 | 0.33 | 56,56,56,56 | 0 |
| 56 | MG | 1a | 1675 | 1/1 | 0.81 | 0.23 | 46,46,46,46 | 0 |
| 56 | MG | 1A | 3299 | 1/1 | 0.81 | 0.20 | 40,40,40,40 | 0 |
| 56 | MG | 1A | 3216 | 1/1 | 0.81 | 0.17 | 30,30,30,30 | 0 |
| 56 | MG | 2A | 3669 | 1/1 | 0.81 | 0.13 | 40,40,40,40 | 0 |
| 56 | MG | 1A | 3217 | 1/1 | 0.81 | 0.18 | 47,47,47,47 | 0 |
| 56 | MG | 1A | 3461 | 1/1 | 0.82 | 0.18 | 49,49,49,49 | 0 |
| 56 | MG | 2a | 3071 | 1/1 | 0.82 | 0.08 | 61,61,61,61 | 0 |
| 56 | MG | 1a | 1750 | 1/1 | 0.82 | 0.11 | 67,67,67,67 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 2A | 3335 | 1/1 | 0.82 | 0.13 | 68,68,68,68 | 0 |
| 56 | MG | 1A | 3351 | 1/1 | 0.82 | 0.15 | 46,46,46,46 | 0 |
| 56 | MG | 1A | 3320 | 1/1 | 0.82 | 0.13 | 35,35,35,35 | 0 |
| 56 | MG | 2A | 3546 | 1/1 | 0.82 | 0.15 | 58,58,58,58 | 0 |
| 56 | MG | 1A | 3637 | 1/1 | 0.82 | 0.10 | 64,64,64,64 | 0 |
| 56 | MG | 10 | 110 | 1/1 | 0.82 | 0.15 | 58,58,58,58 | 0 |
| 56 | MG | 1A | 3417 | 1/1 | 0.82 | 0.42 | 45,45,45,45 | 0 |
| 56 | MG | 1A | 3652 | 1/1 | 0.82 | 0.11 | 36,36,36,36 | 0 |
| 56 | MG | 2A | 3564 | 1/1 | 0.82 | 0.17 | 40,40,40,40 | 0 |
| 56 | MG | 2A | 3106 | 1/1 | 0.82 | 0.15 | 57,57,57,57 | 0 |
| 56 | MG | 2a | 3117 | 1/1 | 0.82 | 0.13 | 59,59,59,59 | 0 |
| 56 | MG | 2A | 3581 | 1/1 | 0.82 | 0.09 | 43,43,43,43 | 0 |
| 56 | MG | 2A | 3120 | 1/1 | 0.82 | 0.37 | 66,66,66,66 | 0 |
| 56 | MG | 1a | 1783 | 1/1 | 0.82 | 0.15 | 54,54,54,54 | 0 |
| 56 | MG | 1A | 4085 | 1/1 | 0.82 | 0.08 | 61,61,61,61 | 0 |
| 56 | MG | 1A | 3362 | 1/1 | 0.82 | 0.44 | 36,36,36,36 | 0 |
| 56 | MG | 2A | 3377 | 1/1 | 0.82 | 0.24 | 74,74,74,74 | 0 |
| 56 | MG | 2T | 201 | 1/1 | 0.82 | 0.22 | 54,54,54,54 | 0 |
| 56 | MG | 2A | 3378 | 1/1 | 0.82 | 0.17 | 63,63,63,63 | 0 |
| 56 | MG | 2a | 3131 | 1/1 | 0.82 | 0.26 | 74,74,74,74 | 0 |
| 56 | MG | 1A | 3702 | 1/1 | 0.82 | 0.19 | 51,51,51,51 | 0 |
| 56 | MG | 1A | 3712 | 1/1 | 0.82 | 0.18 | 33,33,33,33 | 0 |
| 56 | MG | 2a | 3139 | 1/1 | 0.82 | 0.08 | 51,51,51,51 | 0 |
| 56 | MG | 1A | 3981 | 1/1 | 0.82 | 0.18 | 51,51,51,51 | 0 |
| 56 | MG | 1a | 1638 | 1/1 | 0.82 | 0.13 | 56,56,56,56 | 0 |
| 56 | MG | 1A | 3983 | 1/1 | 0.82 | 0.13 | 43,43,43,43 | 0 |
| 56 | MG | 2a | 3005 | 1/1 | 0.82 | 0.13 | 62,62,62,62 | 0 |
| 56 | MG | 2A | 3403 | 1/1 | 0.82 | 0.22 | 58,58,58,58 | 0 |
| 56 | MG | 1A | 3292 | 1/1 | 0.82 | 0.22 | 51,51,51,51 | 0 |
| 56 | MG | 1A | 3301 | 1/1 | 0.82 | 0.26 | 58,58,58,58 | 0 |
| 56 | MG | 1A | 4005 | 1/1 | 0.82 | 0.16 | 62,62,62,62 | 0 |
| 56 | MG | 1A | 3434 | 1/1 | 0.82 | 0.12 | 53,53,53,53 | 0 |
| 56 | MG | 1a | 1671 | 1/1 | 0.82 | 0.16 | 52,52,52,52 | 0 |
| 56 | MG | 2a | 3223 | 1/1 | 0.82 | 0.09 | 56,56,56,56 | 0 |
| 56 | MG | 1A | 3753 | 1/1 | 0.82 | 0.16 | 57,57,57,57 | 0 |
| 56 | MG | 2a | 3021 | 1/1 | 0.82 | 0.19 | 60,60,60,60 | 0 |
| 56 | MG | 2A | 3432 | 1/1 | 0.82 | 0.51 | 49,49,49,49 | 0 |
| 56 | MG | 1E | 309 | 1/1 | 0.82 | 0.31 | 58,58,58,58 | 0 |
| 56 | MG | 1A | 3250 | 1/1 | 0.82 | 0.23 | 45,45,45,45 | 0 |
| 56 | MG | 1A | 3395 | 1/1 | 0.82 | 0.17 | 42,42,42,42 | 0 |
| 56 | MG | 2A | 3048 | 1/1 | 0.82 | 0.14 | 59,59,59,59 | 0 |
| 56 | MG | 2A | 3214 | 1/1 | 0.82 | 0.15 | 72,72,72,72 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 1A | 3349 | 1/1 | 0.82 | 0.14 | 41,41,41,41 | 0 |
| 56 | MG | 1A | 4033 | 1/1 | 0.82 | 0.10 | 48,48,48,48 | 0 |
| 56 | MG | 2A | 3227 | 1/1 | 0.82 | 0.18 | 60,60,60,60 | 0 |
| 56 | MG | 1W | 206 | 1/1 | 0.82 | 0.29 | 33,33,33,33 | 0 |
| 56 | MG | 2y | 104 | 1/1 | 0.82 | 0.24 | 77,77,77,77 | 0 |
| 56 | MG | 2a | 3053 | 1/1 | 0.82 | 0.19 | 63,63,63,63 | 0 |
| 56 | MG | 2A | 3685 | 1/1 | 0.83 | 0.16 | 66,66,66,66 | 0 |
| 56 | MG | 1A | 3356 | 1/1 | 0.83 | 0.14 | 46,46,46,46 | 0 |
| 56 | MG | 2A | 3107 | 1/1 | 0.83 | 0.10 | 72,72,72,72 | 0 |
| 56 | MG | 2A | 3116 | 1/1 | 0.83 | 0.13 | 64,64,64,64 | 0 |
| 56 | MG | 2a | 3041 | 1/1 | 0.83 | 0.29 | 73,73,73,73 | 0 |
| 56 | MG | 1A | 3479 | 1/1 | 0.83 | 0.15 | 40,40,40,40 | 0 |
| 56 | MG | 2A | 3122 | 1/1 | 0.83 | 0.37 | 49,49,49,49 | 0 |
| 56 | MG | 1w | 105 | 1/1 | 0.83 | 0.17 | 69,69,69,69 | 0 |
| 56 | MG | 2A | 3264 | 1/1 | 0.83 | 0.20 | 56,56,56,56 | 0 |
| 56 | MG | 1w | 106 | 1/1 | 0.83 | 0.13 | 54,54,54,54 | 0 |
| 56 | MG | 2A | 3147 | 1/1 | 0.83 | 0.14 | 64,64,64,64 | 0 |
| 56 | MG | 2A | 3272 | 1/1 | 0.83 | 0.30 | 70,70,70,70 | 0 |
| 56 | MG | 1A | 3614 | 1/1 | 0.83 | 0.09 | 29,29,29,29 | 0 |
| 56 | MG | 1A | 3860 | 1/1 | 0.83 | 0.18 | 23,23,23,23 | 0 |
| 56 | MG | 2A | 3164 | 1/1 | 0.83 | 0.09 | 66,66,66,66 | 0 |
| 56 | MG | 1E | 310 | 1/1 | 0.83 | 0.12 | 18,18,18,18 | 0 |
| 56 | MG | 1A | 3862 | 1/1 | 0.83 | 0.15 | 35,35,35,35 | 0 |
| 56 | MG | 2A | 3778 | 1/1 | 0.83 | 0.18 | 77,77,77,77 | 0 |
| 56 | MG | 2A | 3006 | 1/1 | 0.83 | 0.11 | 60,60,60,60 | 0 |
| 56 | MG | 2A | 3024 | 1/1 | 0.83 | 0.15 | 58,58,58,58 | 0 |
| 56 | MG | 2A | 3444 | 1/1 | 0.83 | 0.20 | 51,51,51,51 | 0 |
| 56 | MG | 1A | 3549 | 1/1 | 0.83 | 0.09 | 46,46,46,46 | 0 |
| 56 | MG | 2A | 3447 | 1/1 | 0.83 | 0.19 | 65,65,65,65 | 0 |
| 56 | MG | 2A | 3448 | 1/1 | 0.83 | 0.15 | 61,61,61,61 | 0 |
| 56 | MG | 2A | 3309 | 1/1 | 0.83 | 0.20 | 71,71,71,71 | 0 |
| 56 | MG | 1O | 205 | 1/1 | 0.83 | 0.23 | 57,57,57,57 | 0 |
| 56 | MG | 2A | 3836 | 1/1 | 0.83 | 0.18 | 58,58,58,58 | 0 |
| 56 | MG | 2A | 3027 | 1/1 | 0.83 | 0.10 | 59,59,59,59 | 0 |
| 56 | MG | 1A | 3976 | 1/1 | 0.83 | 0.09 | 53,53,53,53 | 0 |
| 56 | MG | 1A | 3454 | 1/1 | 0.83 | 0.72 | 57,57,57,57 | 0 |
| 56 | MG | 1A | 4074 | 1/1 | 0.83 | 0.38 | 64,64,64,64 | 0 |
| 56 | MG | 1A | 3758 | 1/1 | 0.83 | 0.13 | 64,64,64,64 | 0 |
| 56 | MG | 1a | 1701 | 1/1 | 0.83 | 0.13 | 52,52,52,52 | 0 |
| 56 | MG | 1A | 3486 | 1/1 | 0.83 | 0.30 | 63,63,63,63 | 0 |
| 56 | MG | 2A | 3536 | 1/1 | 0.83 | 0.16 | 36,36,36,36 | 0 |
| 56 | MG | 2A | 3538 | 1/1 | 0.83 | 0.18 | 52,52,52,52 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(Å ²) | Q<0.9 |
|-----|------|-------|------|-------|------|------|----------------------------|-------|
| 56 | MG | 1A | 3780 | 1/1 | 0.83 | 0.13 | 33,33,33,33 | 0 |
| 56 | MG | 1A | 3657 | 1/1 | 0.83 | 0.09 | 57,57,57,57 | 0 |
| 56 | MG | 2E | 306 | 1/1 | 0.83 | 0.16 | 66,66,66,66 | 0 |
| 56 | MG | 1A | 3992 | 1/1 | 0.83 | 0.11 | 56,56,56,56 | 0 |
| 56 | MG | 1a | 1756 | 1/1 | 0.83 | 0.13 | 65,65,65,65 | 0 |
| 56 | MG | 2W | 203 | 1/1 | 0.83 | 0.27 | 52,52,52,52 | 0 |
| 56 | MG | 1A | 3098 | 1/1 | 0.83 | 0.18 | 26,26,26,26 | 0 |
| 56 | MG | 2A | 3060 | 1/1 | 0.83 | 0.08 | 64,64,64,64 | 0 |
| 56 | MG | 2A | 3345 | 1/1 | 0.83 | 0.24 | 67,67,67,67 | 0 |
| 56 | MG | 2A | 3346 | 1/1 | 0.83 | 0.16 | 47,47,47,47 | 0 |
| 56 | MG | 2A | 3063 | 1/1 | 0.83 | 0.17 | 37,37,37,37 | 0 |
| 56 | MG | 2A | 3348 | 1/1 | 0.83 | 0.99 | 67,67,67,67 | 0 |
| 56 | MG | 2A | 3349 | 1/1 | 0.83 | 0.14 | 66,66,66,66 | 0 |
| 56 | MG | 2A | 3076 | 1/1 | 0.83 | 0.34 | 65,65,65,65 | 0 |
| 56 | MG | 2A | 3598 | 1/1 | 0.83 | 0.20 | 47,47,47,47 | 0 |
| 56 | MG | 1A | 3679 | 1/1 | 0.83 | 0.19 | 50,50,50,50 | 0 |
| 56 | MG | 1A | 3684 | 1/1 | 0.83 | 0.15 | 51,51,51,51 | 0 |
| 56 | MG | 1B | 220 | 1/1 | 0.83 | 0.15 | 48,48,48,48 | 0 |
| 56 | MG | 2w | 104 | 1/1 | 0.83 | 0.24 | 76,76,76,76 | 0 |
| 56 | MG | 1B | 221 | 1/1 | 0.83 | 0.16 | 42,42,42,42 | 0 |
| 56 | MG | 1B | 227 | 1/1 | 0.83 | 0.13 | 32,32,32,32 | 0 |
| 56 | MG | 2x | 102 | 1/1 | 0.83 | 0.24 | 77,77,77,77 | 0 |
| 56 | MG | 2A | 3374 | 1/1 | 0.83 | 0.15 | 53,53,53,53 | 0 |
| 56 | MG | 1A | 3919 | 1/1 | 0.83 | 0.13 | 69,69,69,69 | 0 |
| 56 | MG | 2A | 3678 | 1/1 | 0.83 | 0.14 | 58,58,58,58 | 0 |
| 56 | MG | 1A | 3361 | 1/1 | 0.83 | 0.38 | 69,69,69,69 | 0 |
| 56 | MG | 2A | 3481 | 1/1 | 0.84 | 0.16 | 53,53,53,53 | 0 |
| 56 | MG | 2A | 3757 | 1/1 | 0.84 | 0.16 | 68,68,68,68 | 0 |
| 56 | MG | 1A | 3325 | 1/1 | 0.84 | 0.19 | 71,71,71,71 | 0 |
| 56 | MG | 1A | 3380 | 1/1 | 0.84 | 0.12 | 39,39,39,39 | 0 |
| 56 | MG | 2A | 3766 | 1/1 | 0.84 | 0.35 | 68,68,68,68 | 0 |
| 56 | MG | 1a | 1632 | 1/1 | 0.84 | 0.31 | 61,61,61,61 | 0 |
| 56 | MG | 2a | 3045 | 1/1 | 0.84 | 0.14 | 80,80,80,80 | 0 |
| 56 | MG | 2A | 3262 | 1/1 | 0.84 | 0.22 | 50,50,50,50 | 0 |
| 56 | MG | 2A | 3354 | 1/1 | 0.84 | 0.14 | 62,62,62,62 | 0 |
| 56 | MG | 1A | 4068 | 1/1 | 0.84 | 0.16 | 54,54,54,54 | 0 |
| 56 | MG | 2A | 3783 | 1/1 | 0.84 | 0.14 | 51,51,51,51 | 0 |
| 56 | MG | 2A | 3364 | 1/1 | 0.84 | 0.18 | 50,50,50,50 | 0 |
| 56 | MG | 2A | 3526 | 1/1 | 0.84 | 0.07 | 50,50,50,50 | 0 |
| 56 | MG | 2A | 3798 | 1/1 | 0.84 | 0.17 | 40,40,40,40 | 0 |
| 56 | MG | 1D | 304 | 1/1 | 0.84 | 0.34 | 36,36,36,36 | 0 |
| 56 | MG | 2A | 3805 | 1/1 | 0.84 | 0.10 | 67,67,67,67 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(Å ²) | Q<0.9 |
|-----|------|-------|------|-------|------|------|----------------------------|-------|
| 56 | MG | 1A | 3084 | 1/1 | 0.84 | 0.29 | 38,38,38,38 | 0 |
| 56 | MG | 1A | 3244 | 1/1 | 0.84 | 0.14 | 61,61,61,61 | 0 |
| 56 | MG | 2A | 3824 | 1/1 | 0.84 | 0.12 | 55,55,55,55 | 0 |
| 56 | MG | 1A | 3393 | 1/1 | 0.84 | 0.19 | 54,54,54,54 | 0 |
| 56 | MG | 1A | 3582 | 1/1 | 0.84 | 0.14 | 30,30,30,30 | 0 |
| 56 | MG | 2A | 3286 | 1/1 | 0.84 | 0.15 | 56,56,56,56 | 0 |
| 56 | MG | 1A | 3248 | 1/1 | 0.84 | 0.14 | 60,60,60,60 | 0 |
| 56 | MG | 2A | 3838 | 1/1 | 0.84 | 0.17 | 55,55,55,55 | 0 |
| 56 | MG | 2A | 3839 | 1/1 | 0.84 | 0.16 | 54,54,54,54 | 0 |
| 56 | MG | 1Q | 202 | 1/1 | 0.84 | 0.20 | 55,55,55,55 | 0 |
| 56 | MG | 2A | 3855 | 1/1 | 0.84 | 0.11 | 73,73,73,73 | 0 |
| 56 | MG | 2A | 3200 | 1/1 | 0.84 | 0.11 | 58,58,58,58 | 0 |
| 56 | MG | 2A | 3573 | 1/1 | 0.84 | 0.14 | 54,54,54,54 | 0 |
| 56 | MG | 2A | 3384 | 1/1 | 0.84 | 0.14 | 53,53,53,53 | 0 |
| 56 | MG | 2A | 3578 | 1/1 | 0.84 | 0.14 | 43,43,43,43 | 0 |
| 56 | MG | 2A | 3211 | 1/1 | 0.84 | 0.78 | 61,61,61,61 | 0 |
| 56 | MG | 1A | 3016 | 1/1 | 0.84 | 0.21 | 38,38,38,38 | 0 |
| 56 | MG | 2A | 3590 | 1/1 | 0.84 | 0.10 | 44,44,44,44 | 0 |
| 56 | MG | 1A | 4108 | 1/1 | 0.84 | 0.16 | 65,65,65,65 | 0 |
| 56 | MG | 2B | 217 | 1/1 | 0.84 | 0.15 | 76,76,76,76 | 0 |
| 56 | MG | 2A | 3218 | 1/1 | 0.84 | 0.54 | 46,46,46,46 | 0 |
| 56 | MG | 2A | 3220 | 1/1 | 0.84 | 0.41 | 73,73,73,73 | 0 |
| 56 | MG | 1A | 4116 | 1/1 | 0.84 | 0.21 | 46,46,46,46 | 0 |
| 56 | MG | 1A | 3728 | 1/1 | 0.84 | 0.09 | 56,56,56,56 | 0 |
| 56 | MG | 2A | 3630 | 1/1 | 0.84 | 0.11 | 59,59,59,59 | 0 |
| 56 | MG | 1A | 3444 | 1/1 | 0.84 | 0.21 | 41,41,41,41 | 0 |
| 56 | MG | 20 | 101 | 1/1 | 0.84 | 0.19 | 60,60,60,60 | 0 |
| 56 | MG | 2A | 3423 | 1/1 | 0.84 | 0.41 | 66,66,66,66 | 0 |
| 56 | MG | 2a | 3193 | 1/1 | 0.84 | 0.09 | 77,77,77,77 | 0 |
| 56 | MG | 20 | 103 | 1/1 | 0.84 | 0.13 | 61,61,61,61 | 0 |
| 56 | MG | 1a | 1695 | 1/1 | 0.84 | 0.13 | 32,32,32,32 | 0 |
| 56 | MG | 2A | 3319 | 1/1 | 0.84 | 0.18 | 81,81,81,81 | 0 |
| 56 | MG | 1A | 3493 | 1/1 | 0.84 | 0.19 | 44,44,44,44 | 0 |
| 56 | MG | 1A | 3445 | 1/1 | 0.84 | 0.16 | 43,43,43,43 | 0 |
| 56 | MG | 2f | 201 | 1/1 | 0.84 | 0.14 | 43,43,43,43 | 0 |
| 56 | MG | 1a | 1712 | 1/1 | 0.84 | 0.10 | 64,64,64,64 | 0 |
| 56 | MG | 2A | 3438 | 1/1 | 0.84 | 0.11 | 69,69,69,69 | 0 |
| 56 | MG | 10 | 109 | 1/1 | 0.84 | 0.17 | 54,54,54,54 | 0 |
| 56 | MG | 1A | 3939 | 1/1 | 0.84 | 0.17 | 26,26,26,26 | 0 |
| 56 | MG | 1A | 3947 | 1/1 | 0.84 | 0.14 | 51,51,51,51 | 0 |
| 56 | MG | 2A | 3042 | 1/1 | 0.84 | 0.34 | 62,62,62,62 | 0 |
| 56 | MG | 2A | 3715 | 1/1 | 0.84 | 0.16 | 48,48,48,48 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 1A | 3625 | 1/1 | 0.84 | 0.12 | 30,30,30,30 | 0 |
| 56 | MG | 1A | 3374 | 1/1 | 0.84 | 0.18 | 36,36,36,36 | 0 |
| 56 | MG | 2A | 3450 | 1/1 | 0.84 | 0.13 | 57,57,57,57 | 0 |
| 56 | MG | 2a | 3024 | 1/1 | 0.84 | 0.20 | 62,62,62,62 | 0 |
| 56 | MG | 1A | 3873 | 1/1 | 0.84 | 0.11 | 38,38,38,38 | 0 |
| 56 | MG | 2y | 101 | 1/1 | 0.84 | 0.12 | 50,50,50,50 | 0 |
| 56 | MG | 2A | 3745 | 1/1 | 0.84 | 0.11 | 65,65,65,65 | 0 |
| 56 | MG | 1a | 1764 | 1/1 | 0.84 | 0.52 | 81,81,81,81 | 0 |
| 56 | MG | 2A | 3764 | 1/1 | 0.85 | 0.23 | 63,63,63,63 | 0 |
| 56 | MG | 1a | 1745 | 1/1 | 0.85 | 0.07 | 50,50,50,50 | 0 |
| 56 | MG | 2A | 3511 | 1/1 | 0.85 | 0.17 | 42,42,42,42 | 0 |
| 56 | MG | 2A | 3512 | 1/1 | 0.85 | 0.15 | 48,48,48,48 | 0 |
| 56 | MG | 2A | 3245 | 1/1 | 0.85 | 0.28 | 56,56,56,56 | 0 |
| 56 | MG | 1A | 3114 | 1/1 | 0.85 | 0.35 | 47,47,47,47 | 0 |
| 56 | MG | 1A | 3083 | 1/1 | 0.85 | 0.22 | 38,38,38,38 | 0 |
| 56 | MG | 1E | 305 | 1/1 | 0.85 | 0.44 | 35,35,35,35 | 0 |
| 56 | MG | 2A | 3525 | 1/1 | 0.85 | 0.11 | 66,66,66,66 | 0 |
| 56 | MG | 2A | 3168 | 1/1 | 0.85 | 0.25 | 76,76,76,76 | 0 |
| 56 | MG | 2A | 3255 | 1/1 | 0.85 | 0.10 | 61,61,61,61 | 0 |
| 56 | MG | 1A | 3745 | 1/1 | 0.85 | 0.16 | 55,55,55,55 | 0 |
| 56 | MG | 2A | 3365 | 1/1 | 0.85 | 0.27 | 59,59,59,59 | 0 |
| 56 | MG | 1A | 3288 | 1/1 | 0.85 | 0.19 | 43,43,43,43 | 0 |
| 56 | MG | 2a | 3084 | 1/1 | 0.85 | 0.30 | 65,65,65,65 | 0 |
| 56 | MG | 2A | 3807 | 1/1 | 0.85 | 0.09 | 62,62,62,62 | 0 |
| 56 | MG | 2A | 3554 | 1/1 | 0.85 | 0.14 | 72,72,72,72 | 0 |
| 56 | MG | 2A | 3173 | 1/1 | 0.85 | 0.48 | 64,64,64,64 | 0 |
| 56 | MG | 2A | 3174 | 1/1 | 0.85 | 0.16 | 57,57,57,57 | 0 |
| 56 | MG | 1A | 4092 | 1/1 | 0.85 | 0.13 | 28,28,28,28 | 0 |
| 56 | MG | 1F | 305 | 1/1 | 0.85 | 0.20 | 31,31,31,31 | 0 |
| 56 | MG | 2A | 3049 | 1/1 | 0.85 | 0.18 | 60,60,60,60 | 0 |
| 56 | MG | 1A | 3306 | 1/1 | 0.85 | 0.19 | 45,45,45,45 | 0 |
| 56 | MG | 1H | 201 | 1/1 | 0.85 | 0.22 | 33,33,33,33 | 0 |
| 56 | MG | 1A | 4102 | 1/1 | 0.85 | 0.06 | 63,63,63,63 | 0 |
| 56 | MG | 2A | 3853 | 1/1 | 0.85 | 0.13 | 65,65,65,65 | 0 |
| 56 | MG | 1a | 1791 | 1/1 | 0.85 | 0.20 | 49,49,49,49 | 0 |
| 56 | MG | 2A | 3287 | 1/1 | 0.85 | 1.16 | 55,55,55,55 | 0 |
| 56 | MG | 2A | 3288 | 1/1 | 0.85 | 0.20 | 59,59,59,59 | 0 |
| 56 | MG | 1A | 3581 | 1/1 | 0.85 | 0.09 | 49,49,49,49 | 0 |
| 56 | MG | 1A | 3487 | 1/1 | 0.85 | 0.14 | 60,60,60,60 | 0 |
| 56 | MG | 2A | 3293 | 1/1 | 0.85 | 0.15 | 58,58,58,58 | 0 |
| 56 | MG | 2B | 203 | 1/1 | 0.85 | 0.15 | 64,64,64,64 | 0 |
| 56 | MG | 2A | 3195 | 1/1 | 0.85 | 0.14 | 47,47,47,47 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 2A | 3610 | 1/1 | 0.85 | 0.16 | 55,55,55,55 | 0 |
| 56 | MG | 1A | 4026 | 1/1 | 0.85 | 0.24 | 52,52,52,52 | 0 |
| 56 | MG | 1n | 102 | 1/1 | 0.85 | 0.16 | 53,53,53,53 | 0 |
| 56 | MG | 2a | 3140 | 1/1 | 0.85 | 0.04 | 68,68,68,68 | 0 |
| 56 | MG | 2A | 3632 | 1/1 | 0.85 | 0.17 | 56,56,56,56 | 0 |
| 56 | MG | 2D | 302 | 1/1 | 0.85 | 0.27 | 44,44,44,44 | 0 |
| 56 | MG | 1A | 3670 | 1/1 | 0.85 | 0.22 | 59,59,59,59 | 0 |
| 56 | MG | 2A | 3208 | 1/1 | 0.85 | 0.18 | 43,43,43,43 | 0 |
| 56 | MG | 1a | 1680 | 1/1 | 0.85 | 0.14 | 73,73,73,73 | 0 |
| 56 | MG | 1A | 3877 | 1/1 | 0.85 | 0.06 | 63,63,63,63 | 0 |
| 56 | MG | 1A | 3371 | 1/1 | 0.85 | 0.34 | 40,40,40,40 | 0 |
| 56 | MG | 2A | 3670 | 1/1 | 0.85 | 0.10 | 68,68,68,68 | 0 |
| 56 | MG | 2A | 3676 | 1/1 | 0.85 | 0.14 | 27,27,27,27 | 0 |
| 56 | MG | 1w | 109 | 1/1 | 0.85 | 0.08 | 65,65,65,65 | 0 |
| 56 | MG | 1A | 3094 | 1/1 | 0.85 | 0.12 | 53,53,53,53 | 0 |
| 56 | MG | 2a | 3218 | 1/1 | 0.85 | 0.11 | 65,65,65,65 | 0 |
| 56 | MG | 2a | 3222 | 1/1 | 0.85 | 0.20 | 65,65,65,65 | 0 |
| 56 | MG | 1A | 3469 | 1/1 | 0.85 | 0.19 | 40,40,40,40 | 0 |
| 56 | MG | 2A | 3686 | 1/1 | 0.85 | 0.13 | 48,48,48,48 | 0 |
| 56 | MG | 1A | 3529 | 1/1 | 0.85 | 0.13 | 49,49,49,49 | 0 |
| 56 | MG | 2d | 302 | 1/1 | 0.85 | 0.11 | 69,69,69,69 | 0 |
| 56 | MG | 2a | 3001 | 1/1 | 0.85 | 0.18 | 53,53,53,53 | 0 |
| 56 | MG | 2A | 3228 | 1/1 | 0.85 | 0.60 | 71,71,71,71 | 0 |
| 56 | MG | 1A | 4061 | 1/1 | 0.85 | 0.09 | 69,69,69,69 | 0 |
| 56 | MG | 2A | 3009 | 1/1 | 0.85 | 0.09 | 54,54,54,54 | 0 |
| 56 | MG | 1A | 3141 | 1/1 | 0.85 | 0.30 | 35,35,35,35 | 0 |
| 56 | MG | 1A | 3828 | 1/1 | 0.85 | 0.27 | 31,31,31,31 | 0 |
| 56 | MG | 1A | 3911 | 1/1 | 0.85 | 0.25 | 37,37,37,37 | 0 |
| 56 | MG | 2A | 3463 | 1/1 | 0.85 | 0.09 | 67,67,67,67 | 0 |
| 56 | MG | 2A | 3144 | 1/1 | 0.85 | 0.19 | 58,58,58,58 | 0 |
| 56 | MG | 2A | 3471 | 1/1 | 0.85 | 0.15 | 56,56,56,56 | 0 |
| 56 | MG | 2A | 3341 | 1/1 | 0.85 | 0.16 | 59,59,59,59 | 0 |
| 56 | MG | 1a | 1739 | 1/1 | 0.85 | 0.12 | 54,54,54,54 | 0 |
| 56 | MG | 2a | 3025 | 1/1 | 0.85 | 0.84 | 59,59,59,59 | 0 |
| 56 | MG | 2A | 3498 | 1/1 | 0.85 | 0.14 | 66,66,66,66 | 0 |
| 56 | MG | 2A | 3149 | 1/1 | 0.85 | 0.09 | 55,55,55,55 | 0 |
| 56 | MG | 2A | 3763 | 1/1 | 0.85 | 0.26 | 54,54,54,54 | 0 |
| 56 | MG | 2y | 107 | 1/1 | 0.85 | 0.07 | 65,65,65,65 | 0 |
| 56 | MG | 1A | 3874 | 1/1 | 0.86 | 0.14 | 34,34,34,34 | 0 |
| 56 | MG | 2A | 3052 | 1/1 | 0.86 | 0.13 | 73,73,73,73 | 0 |
| 56 | MG | 1A | 3980 | 1/1 | 0.86 | 0.09 | 30,30,30,30 | 0 |
| 56 | MG | 1a | 1755 | 1/1 | 0.86 | 0.10 | 40,40,40,40 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 2A | 3329 | 1/1 | 0.86 | 0.27 | 57,57,57,57 | 0 |
| 56 | MG | 2a | 3046 | 1/1 | 0.86 | 0.34 | 65,65,65,65 | 0 |
| 56 | MG | 1A | 3332 | 1/1 | 0.86 | 0.37 | 44,44,44,44 | 0 |
| 56 | MG | 1a | 1761 | 1/1 | 0.86 | 0.08 | 69,69,69,69 | 0 |
| 56 | MG | 1A | 3881 | 1/1 | 0.86 | 0.14 | 50,50,50,50 | 0 |
| 56 | MG | 2A | 3072 | 1/1 | 0.86 | 0.23 | 30,30,30,30 | 0 |
| 56 | MG | 2a | 3067 | 1/1 | 0.86 | 0.19 | 60,60,60,60 | 0 |
| 56 | MG | 1A | 3884 | 1/1 | 0.86 | 0.12 | 49,49,49,49 | 0 |
| 56 | MG | 2A | 3224 | 1/1 | 0.86 | 0.13 | 65,65,65,65 | 0 |
| 56 | MG | 2A | 3082 | 1/1 | 0.86 | 0.11 | 63,63,63,63 | 0 |
| 56 | MG | 2a | 3083 | 1/1 | 0.86 | 0.14 | 72,72,72,72 | 0 |
| 56 | MG | 1B | 209 | 1/1 | 0.86 | 0.22 | 55,55,55,55 | 0 |
| 56 | MG | 2A | 3808 | 1/1 | 0.86 | 0.08 | 46,46,46,46 | 0 |
| 56 | MG | 1A | 3497 | 1/1 | 0.86 | 0.11 | 51,51,51,51 | 0 |
| 56 | MG | 2A | 3550 | 1/1 | 0.86 | 0.15 | 61,61,61,61 | 0 |
| 56 | MG | 2A | 3092 | 1/1 | 0.86 | 0.08 | 70,70,70,70 | 0 |
| 56 | MG | 1A | 3209 | 1/1 | 0.86 | 0.32 | 43,43,43,43 | 0 |
| 56 | MG | 1A | 3090 | 1/1 | 0.86 | 0.18 | 46,46,46,46 | 0 |
| 56 | MG | 1A | 3760 | 1/1 | 0.86 | 0.14 | 36,36,36,36 | 0 |
| 56 | MG | 1A | 3115 | 1/1 | 0.86 | 0.28 | 40,40,40,40 | 0 |
| 56 | MG | 2a | 3114 | 1/1 | 0.86 | 0.18 | 61,61,61,61 | 0 |
| 56 | MG | 1A | 3467 | 1/1 | 0.86 | 0.13 | 41,41,41,41 | 0 |
| 56 | MG | 1A | 3075 | 1/1 | 0.86 | 0.17 | 55,55,55,55 | 0 |
| 56 | MG | 2A | 3366 | 1/1 | 0.86 | 0.33 | 61,61,61,61 | 0 |
| 56 | MG | 1a | 1806 | 1/1 | 0.86 | 0.09 | 57,57,57,57 | 0 |
| 56 | MG | 1a | 1810 | 1/1 | 0.86 | 0.11 | 67,67,67,67 | 0 |
| 56 | MG | 1B | 231 | 1/1 | 0.86 | 0.21 | 73,73,73,73 | 0 |
| 56 | MG | 1A | 3915 | 1/1 | 0.86 | 0.08 | 62,62,62,62 | 0 |
| 56 | MG | 2A | 3124 | 1/1 | 0.86 | 0.18 | 57,57,57,57 | 0 |
| 56 | MG | 2A | 3126 | 1/1 | 0.86 | 0.22 | 44,44,44,44 | 0 |
| 56 | MG | 1A | 3662 | 1/1 | 0.86 | 0.17 | 53,53,53,53 | 0 |
| 56 | MG | 1A | 3055 | 1/1 | 0.86 | 0.27 | 49,49,49,49 | 0 |
| 56 | MG | 1A | 3555 | 1/1 | 0.86 | 0.15 | 52,52,52,52 | 0 |
| 56 | MG | 2B | 214 | 1/1 | 0.86 | 0.11 | 62,62,62,62 | 0 |
| 56 | MG | 2A | 3260 | 1/1 | 0.86 | 0.38 | 63,63,63,63 | 0 |
| 56 | MG | 1D | 312 | 1/1 | 0.86 | 0.10 | 53,53,53,53 | 0 |
| 56 | MG | 1A | 3677 | 1/1 | 0.86 | 0.11 | 63,63,63,63 | 0 |
| 56 | MG | 2A | 3263 | 1/1 | 0.86 | 0.38 | 50,50,50,50 | 0 |
| 56 | MG | 1A | 3321 | 1/1 | 0.86 | 0.22 | 56,56,56,56 | 0 |
| 56 | MG | 1x | 104 | 1/1 | 0.86 | 0.16 | 51,51,51,51 | 0 |
| 56 | MG | 2A | 3266 | 1/1 | 0.86 | 0.27 | 62,62,62,62 | 0 |
| 56 | MG | 2a | 3179 | 1/1 | 0.86 | 0.14 | 63,63,63,63 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 2S | 3900 | 1/1 | 0.86 | 0.13 | 75,75,75,75 | 0 |
| 56 | MG | 2A | 3662 | 1/1 | 0.86 | 0.12 | 53,53,53,53 | 0 |
| 56 | MG | 1x | 108 | 1/1 | 0.86 | 0.14 | 67,67,67,67 | 0 |
| 56 | MG | 1a | 1676 | 1/1 | 0.86 | 0.25 | 58,58,58,58 | 0 |
| 56 | MG | 2A | 3674 | 1/1 | 0.86 | 0.10 | 54,54,54,54 | 0 |
| 56 | MG | 1A | 3681 | 1/1 | 0.86 | 0.26 | 66,66,66,66 | 0 |
| 56 | MG | 1A | 3835 | 1/1 | 0.86 | 0.21 | 16,16,16,16 | 0 |
| 56 | MG | 2A | 3171 | 1/1 | 0.86 | 0.20 | 55,55,55,55 | 0 |
| 56 | MG | 1A | 3435 | 1/1 | 0.86 | 0.21 | 67,67,67,67 | 0 |
| 56 | MG | 1A | 3438 | 1/1 | 0.86 | 0.18 | 41,41,41,41 | 0 |
| 56 | MG | 1A | 4075 | 1/1 | 0.86 | 0.21 | 58,58,58,58 | 0 |
| 56 | MG | 2A | 3694 | 1/1 | 0.86 | 0.11 | 64,64,64,64 | 0 |
| 56 | MG | 2A | 3175 | 1/1 | 0.86 | 0.17 | 53,53,53,53 | 0 |
| 56 | MG | 1O | 201 | 1/1 | 0.86 | 0.13 | 61,61,61,61 | 0 |
| 56 | MG | 1A | 3583 | 1/1 | 0.86 | 0.18 | 41,41,41,41 | 0 |
| 56 | MG | 2l | 201 | 1/1 | 0.86 | 0.72 | 70,70,70,70 | 0 |
| 56 | MG | 1A | 4078 | 1/1 | 0.86 | 0.09 | 42,42,42,42 | 0 |
| 56 | MG | 2A | 3445 | 1/1 | 0.86 | 0.14 | 58,58,58,58 | 0 |
| 56 | MG | 2A | 3300 | 1/1 | 0.86 | 0.18 | 55,55,55,55 | 0 |
| 56 | MG | 1A | 3002 | 1/1 | 0.86 | 0.17 | 51,51,51,51 | 0 |
| 56 | MG | 1A | 3400 | 1/1 | 0.86 | 0.14 | 56,56,56,56 | 0 |
| 56 | MG | 2a | 3018 | 1/1 | 0.86 | 0.10 | 59,59,59,59 | 0 |
| 56 | MG | 1a | 1726 | 1/1 | 0.86 | 0.12 | 60,60,60,60 | 0 |
| 56 | MG | 1U | 213 | 1/1 | 0.86 | 0.16 | 28,28,28,28 | 0 |
| 56 | MG | 1a | 1735 | 1/1 | 0.86 | 0.09 | 66,66,66,66 | 0 |
| 56 | MG | 1a | 1738 | 1/1 | 0.86 | 0.37 | 79,79,79,79 | 0 |
| 56 | MG | 1A | 3107 | 1/1 | 0.86 | 0.21 | 36,36,36,36 | 0 |
| 56 | MG | 2A | 3196 | 1/1 | 0.86 | 0.19 | 64,64,64,64 | 0 |
| 56 | MG | 2A | 3318 | 1/1 | 0.86 | 0.16 | 72,72,72,72 | 0 |
| 56 | MG | 1A | 3744 | 1/1 | 0.86 | 0.11 | 32,32,32,32 | 0 |
| 56 | MG | 1a | 1737 | 1/1 | 0.87 | 0.14 | 73,73,73,73 | 0 |
| 56 | MG | 1A | 3658 | 1/1 | 0.87 | 0.28 | 49,49,49,49 | 0 |
| 56 | MG | 2a | 3035 | 1/1 | 0.87 | 0.27 | 55,55,55,55 | 0 |
| 56 | MG | 2A | 3161 | 1/1 | 0.87 | 0.15 | 56,56,56,56 | 0 |
| 56 | MG | 14 | 101 | 1/1 | 0.87 | 0.27 | 57,57,57,57 | 0 |
| 56 | MG | 1A | 3867 | 1/1 | 0.87 | 0.13 | 31,31,31,31 | 0 |
| 56 | MG | 2A | 3533 | 1/1 | 0.87 | 0.14 | 34,34,34,34 | 0 |
| 56 | MG | 1A | 3309 | 1/1 | 0.87 | 0.14 | 49,49,49,49 | 0 |
| 56 | MG | 2A | 3537 | 1/1 | 0.87 | 0.07 | 66,66,66,66 | 0 |
| 56 | MG | 1B | 236 | 1/1 | 0.87 | 0.19 | 30,30,30,30 | 0 |
| 56 | MG | 1A | 3667 | 1/1 | 0.87 | 0.16 | 69,69,69,69 | 0 |
| 56 | MG | 2A | 3541 | 1/1 | 0.87 | 0.14 | 46,46,46,46 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 2A | 3045 | 1/1 | 0.87 | 0.98 | 52,52,52,52 | 0 |
| 56 | MG | 2A | 3549 | 1/1 | 0.87 | 0.13 | 51,51,51,51 | 0 |
| 56 | MG | 1B | 238 | 1/1 | 0.87 | 0.10 | 46,46,46,46 | 0 |
| 56 | MG | 1A | 3443 | 1/1 | 0.87 | 0.13 | 63,63,63,63 | 0 |
| 56 | MG | 1A | 3504 | 1/1 | 0.87 | 0.10 | 64,64,64,64 | 0 |
| 56 | MG | 2A | 3809 | 1/1 | 0.87 | 0.19 | 33,33,33,33 | 0 |
| 56 | MG | 1A | 3879 | 1/1 | 0.87 | 0.08 | 31,31,31,31 | 0 |
| 56 | MG | 2A | 3823 | 1/1 | 0.87 | 0.10 | 63,63,63,63 | 0 |
| 56 | MG | 1A | 3516 | 1/1 | 0.87 | 0.17 | 41,41,41,41 | 0 |
| 56 | MG | 1a | 1647 | 1/1 | 0.87 | 0.17 | 40,40,40,40 | 0 |
| 56 | MG | 1a | 1649 | 1/1 | 0.87 | 0.12 | 52,52,52,52 | 0 |
| 56 | MG | 2A | 3569 | 1/1 | 0.87 | 0.16 | 65,65,65,65 | 0 |
| 56 | MG | 1A | 3310 | 1/1 | 0.87 | 0.20 | 48,48,48,48 | 0 |
| 56 | MG | 1A | 3539 | 1/1 | 0.87 | 0.20 | 55,55,55,55 | 0 |
| 56 | MG | 1a | 1789 | 1/1 | 0.87 | 0.10 | 60,60,60,60 | 0 |
| 56 | MG | 1A | 3230 | 1/1 | 0.87 | 0.47 | 32,32,32,32 | 0 |
| 56 | MG | 2a | 3115 | 1/1 | 0.87 | 0.18 | 65,65,65,65 | 0 |
| 56 | MG | 1A | 3982 | 1/1 | 0.87 | 0.08 | 41,41,41,41 | 0 |
| 56 | MG | 2A | 3290 | 1/1 | 0.87 | 0.42 | 66,66,66,66 | 0 |
| 56 | MG | 2A | 3194 | 1/1 | 0.87 | 0.33 | 42,42,42,42 | 0 |
| 56 | MG | 1a | 1798 | 1/1 | 0.87 | 0.12 | 58,58,58,58 | 0 |
| 56 | MG | 2A | 3872 | 1/1 | 0.87 | 0.10 | 55,55,55,55 | 0 |
| 56 | MG | 2A | 3417 | 1/1 | 0.87 | 0.23 | 68,68,68,68 | 0 |
| 56 | MG | 2A | 3876 | 1/1 | 0.87 | 0.13 | 61,61,61,61 | 0 |
| 56 | MG | 1A | 3791 | 1/1 | 0.87 | 0.18 | 59,59,59,59 | 0 |
| 56 | MG | 2B | 201 | 1/1 | 0.87 | 0.16 | 74,74,74,74 | 0 |
| 56 | MG | 1A | 3273 | 1/1 | 0.87 | 0.10 | 45,45,45,45 | 0 |
| 56 | MG | 1A | 4097 | 1/1 | 0.87 | 0.11 | 43,43,43,43 | 0 |
| 56 | MG | 1a | 1813 | 1/1 | 0.87 | 0.08 | 61,61,61,61 | 0 |
| 56 | MG | 2A | 3206 | 1/1 | 0.87 | 0.24 | 48,48,48,48 | 0 |
| 56 | MG | 2A | 3426 | 1/1 | 0.87 | 0.37 | 46,46,46,46 | 0 |
| 56 | MG | 2A | 3207 | 1/1 | 0.87 | 0.15 | 43,43,43,43 | 0 |
| 56 | MG | 1A | 3433 | 1/1 | 0.87 | 0.14 | 61,61,61,61 | 0 |
| 56 | MG | 2A | 3312 | 1/1 | 0.87 | 0.08 | 65,65,65,65 | 0 |
| 56 | MG | 2A | 3661 | 1/1 | 0.87 | 0.16 | 59,59,59,59 | 0 |
| 56 | MG | 1A | 3827 | 1/1 | 0.87 | 0.12 | 39,39,39,39 | 0 |
| 56 | MG | 2A | 3664 | 1/1 | 0.87 | 0.14 | 65,65,65,65 | 0 |
| 56 | MG | 2a | 3175 | 1/1 | 0.87 | 0.11 | 75,75,75,75 | 0 |
| 56 | MG | 2F | 303 | 1/1 | 0.87 | 0.14 | 37,37,37,37 | 0 |
| 56 | MG | 2A | 3665 | 1/1 | 0.87 | 0.10 | 65,65,65,65 | 0 |
| 56 | MG | 1A | 4001 | 1/1 | 0.87 | 0.45 | 50,50,50,50 | 0 |
| 56 | MG | 2A | 3097 | 1/1 | 0.87 | 0.15 | 40,40,40,40 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 1a | 1687 | 1/1 | 0.87 | 0.14 | 62,62,62,62 | 0 |
| 56 | MG | 1A | 3714 | 1/1 | 0.87 | 0.15 | 27,27,27,27 | 0 |
| 56 | MG | 2a | 3205 | 1/1 | 0.87 | 0.25 | 55,55,55,55 | 0 |
| 56 | MG | 2a | 3208 | 1/1 | 0.87 | 0.15 | 58,58,58,58 | 0 |
| 56 | MG | 1A | 3721 | 1/1 | 0.87 | 0.10 | 35,35,35,35 | 0 |
| 56 | MG | 1w | 108 | 1/1 | 0.87 | 0.15 | 72,72,72,72 | 0 |
| 56 | MG | 1A | 3027 | 1/1 | 0.87 | 0.22 | 59,59,59,59 | 0 |
| 56 | MG | 2A | 3449 | 1/1 | 0.87 | 0.16 | 44,44,44,44 | 0 |
| 56 | MG | 1A | 4017 | 1/1 | 0.87 | 0.40 | 45,45,45,45 | 0 |
| 56 | MG | 1Z | 301 | 1/1 | 0.87 | 0.10 | 58,58,58,58 | 0 |
| 56 | MG | 2A | 3454 | 1/1 | 0.87 | 0.19 | 60,60,60,60 | 0 |
| 56 | MG | 2a | 3002 | 1/1 | 0.87 | 0.24 | 73,73,73,73 | 0 |
| 56 | MG | 2A | 3705 | 1/1 | 0.87 | 0.14 | 66,66,66,66 | 0 |
| 56 | MG | 1A | 3843 | 1/1 | 0.87 | 0.08 | 35,35,35,35 | 0 |
| 56 | MG | 1A | 3641 | 1/1 | 0.87 | 0.12 | 23,23,23,23 | 0 |
| 56 | MG | 2A | 3332 | 1/1 | 0.87 | 0.41 | 60,60,60,60 | 0 |
| 56 | MG | 2A | 3473 | 1/1 | 0.87 | 0.16 | 42,42,42,42 | 0 |
| 56 | MG | 2A | 3722 | 1/1 | 0.87 | 0.13 | 61,61,61,61 | 0 |
| 56 | MG | 2A | 3478 | 1/1 | 0.87 | 0.27 | 62,62,62,62 | 0 |
| 56 | MG | 1a | 1723 | 1/1 | 0.87 | 0.10 | 56,56,56,56 | 0 |
| 56 | MG | 2A | 3136 | 1/1 | 0.87 | 0.17 | 49,49,49,49 | 0 |
| 56 | MG | 2a | 3017 | 1/1 | 0.87 | 0.25 | 75,75,75,75 | 0 |
| 56 | MG | 2A | 3141 | 1/1 | 0.87 | 0.16 | 51,51,51,51 | 0 |
| 56 | MG | 1A | 3088 | 1/1 | 0.87 | 0.14 | 54,54,54,54 | 0 |
| 56 | MG | 2A | 3750 | 1/1 | 0.87 | 0.24 | 56,56,56,56 | 0 |
| 56 | MG | 1A | 3199 | 1/1 | 0.87 | 0.21 | 59,59,59,59 | 0 |
| 56 | MG | 2A | 3146 | 1/1 | 0.87 | 0.23 | 61,61,61,61 | 0 |
| 56 | MG | 1A | 3567 | 1/1 | 0.87 | 0.14 | 27,27,27,27 | 0 |
| 56 | MG | 1a | 1736 | 1/1 | 0.87 | 0.11 | 50,50,50,50 | 0 |
| 56 | MG | 1A | 3907 | 1/1 | 0.88 | 0.12 | 43,43,43,43 | 0 |
| 56 | MG | 1A | 3193 | 1/1 | 0.88 | 0.14 | 39,39,39,39 | 0 |
| 56 | MG | 2A | 3305 | 1/1 | 0.88 | 0.66 | 62,62,62,62 | 0 |
| 56 | MG | 2A | 3056 | 1/1 | 0.88 | 0.08 | 65,65,65,65 | 0 |
| 56 | MG | 1A | 3289 | 1/1 | 0.88 | 0.12 | 47,47,47,47 | 0 |
| 56 | MG | 1A | 3916 | 1/1 | 0.88 | 0.38 | 69,69,69,69 | 0 |
| 56 | MG | 1A | 3254 | 1/1 | 0.88 | 0.15 | 48,48,48,48 | 0 |
| 56 | MG | 2a | 3022 | 1/1 | 0.88 | 0.56 | 71,71,71,71 | 0 |
| 56 | MG | 2a | 3023 | 1/1 | 0.88 | 0.29 | 67,67,67,67 | 0 |
| 56 | MG | 2A | 3066 | 1/1 | 0.88 | 0.11 | 49,49,49,49 | 0 |
| 56 | MG | 1A | 3474 | 1/1 | 0.88 | 0.22 | 34,34,34,34 | 0 |
| 56 | MG | 1a | 1782 | 1/1 | 0.88 | 0.11 | 64,64,64,64 | 0 |
| 56 | MG | 2A | 3739 | 1/1 | 0.88 | 0.22 | 54,54,54,54 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 2A | 3081 | 1/1 | 0.88 | 0.11 | 78,78,78,78 | 0 |
| 56 | MG | 1A | 3736 | 1/1 | 0.88 | 0.15 | 52,52,52,52 | 0 |
| 56 | MG | 2A | 3748 | 1/1 | 0.88 | 0.31 | 66,66,66,66 | 0 |
| 56 | MG | 2A | 3475 | 1/1 | 0.88 | 0.14 | 37,37,37,37 | 0 |
| 56 | MG | 1a | 1785 | 1/1 | 0.88 | 0.10 | 58,58,58,58 | 0 |
| 56 | MG | 2A | 3088 | 1/1 | 0.88 | 0.18 | 69,69,69,69 | 0 |
| 56 | MG | 1A | 3413 | 1/1 | 0.88 | 0.30 | 47,47,47,47 | 0 |
| 56 | MG | 1a | 1643 | 1/1 | 0.88 | 0.17 | 34,34,34,34 | 0 |
| 56 | MG | 1A | 3324 | 1/1 | 0.88 | 0.18 | 56,56,56,56 | 0 |
| 56 | MG | 1A | 3060 | 1/1 | 0.88 | 0.18 | 48,48,48,48 | 0 |
| 56 | MG | 1A | 4052 | 1/1 | 0.88 | 0.14 | 54,54,54,54 | 0 |
| 56 | MG | 2A | 3769 | 1/1 | 0.88 | 0.12 | 59,59,59,59 | 0 |
| 56 | MG | 1A | 3938 | 1/1 | 0.88 | 0.15 | 52,52,52,52 | 0 |
| 56 | MG | 2a | 3056 | 1/1 | 0.88 | 0.10 | 52,52,52,52 | 0 |
| 56 | MG | 2A | 3099 | 1/1 | 0.88 | 0.13 | 37,37,37,37 | 0 |
| 56 | MG | 2A | 3515 | 1/1 | 0.88 | 0.15 | 37,37,37,37 | 0 |
| 56 | MG | 2a | 3070 | 1/1 | 0.88 | 0.15 | 51,51,51,51 | 0 |
| 56 | MG | 2A | 3225 | 1/1 | 0.88 | 0.09 | 63,63,63,63 | 0 |
| 56 | MG | 1A | 3863 | 1/1 | 0.88 | 0.17 | 44,44,44,44 | 0 |
| 56 | MG | 2A | 3785 | 1/1 | 0.88 | 0.12 | 53,53,53,53 | 0 |
| 56 | MG | 1E | 301 | 1/1 | 0.88 | 0.14 | 44,44,44,44 | 0 |
| 56 | MG | 1A | 3660 | 1/1 | 0.88 | 0.22 | 38,38,38,38 | 0 |
| 56 | MG | 2a | 3086 | 1/1 | 0.88 | 0.38 | 60,60,60,60 | 0 |
| 56 | MG | 2A | 3795 | 1/1 | 0.88 | 0.10 | 47,47,47,47 | 0 |
| 56 | MG | 2A | 3342 | 1/1 | 0.88 | 0.64 | 54,54,54,54 | 0 |
| 56 | MG | 2A | 3799 | 1/1 | 0.88 | 0.12 | 63,63,63,63 | 0 |
| 56 | MG | 1E | 308 | 1/1 | 0.88 | 0.48 | 60,60,60,60 | 0 |
| 56 | MG | 1A | 3952 | 1/1 | 0.88 | 0.15 | 23,23,23,23 | 0 |
| 56 | MG | 1A | 3954 | 1/1 | 0.88 | 0.14 | 32,32,32,32 | 0 |
| 56 | MG | 1A | 4073 | 1/1 | 0.88 | 0.17 | 59,59,59,59 | 0 |
| 56 | MG | 1A | 3421 | 1/1 | 0.88 | 0.37 | 35,35,35,35 | 0 |
| 56 | MG | 1A | 3388 | 1/1 | 0.88 | 0.11 | 38,38,38,38 | 0 |
| 56 | MG | 2A | 3240 | 1/1 | 0.88 | 0.23 | 66,66,66,66 | 0 |
| 56 | MG | 2A | 3813 | 1/1 | 0.88 | 0.22 | 54,54,54,54 | 0 |
| 56 | MG | 2A | 3241 | 1/1 | 0.88 | 0.10 | 64,64,64,64 | 0 |
| 56 | MG | 2A | 3355 | 1/1 | 0.88 | 0.19 | 52,52,52,52 | 0 |
| 56 | MG | 2A | 3357 | 1/1 | 0.88 | 0.09 | 60,60,60,60 | 0 |
| 56 | MG | 2A | 3129 | 1/1 | 0.88 | 0.15 | 46,46,46,46 | 0 |
| 56 | MG | 1A | 3449 | 1/1 | 0.88 | 0.19 | 59,59,59,59 | 0 |
| 56 | MG | 1x | 102 | 1/1 | 0.88 | 0.20 | 46,46,46,46 | 0 |
| 56 | MG | 2a | 3124 | 1/1 | 0.88 | 0.26 | 69,69,69,69 | 0 |
| 56 | MG | 1I | 201 | 1/1 | 0.88 | 0.12 | 63,63,63,63 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 1A | 3425 | 1/1 | 0.88 | 0.21 | 33,33,33,33 | 0 |
| 56 | MG | 2A | 3251 | 1/1 | 0.88 | 0.10 | 65,65,65,65 | 0 |
| 56 | MG | 2A | 3845 | 1/1 | 0.88 | 0.27 | 60,60,60,60 | 0 |
| 56 | MG | 2A | 3851 | 1/1 | 0.88 | 0.21 | 48,48,48,48 | 0 |
| 56 | MG | 2A | 3570 | 1/1 | 0.88 | 0.14 | 61,61,61,61 | 0 |
| 56 | MG | 2A | 3571 | 1/1 | 0.88 | 0.12 | 57,57,57,57 | 0 |
| 56 | MG | 1A | 3768 | 1/1 | 0.88 | 0.12 | 38,38,38,38 | 0 |
| 56 | MG | 1O | 206 | 1/1 | 0.88 | 0.26 | 53,53,53,53 | 0 |
| 56 | MG | 1a | 1706 | 1/1 | 0.88 | 0.22 | 70,70,70,70 | 0 |
| 56 | MG | 1a | 1707 | 1/1 | 0.88 | 0.18 | 52,52,52,52 | 0 |
| 56 | MG | 2a | 3150 | 1/1 | 0.88 | 0.24 | 60,60,60,60 | 0 |
| 56 | MG | 2a | 3154 | 1/1 | 0.88 | 0.13 | 52,52,52,52 | 0 |
| 56 | MG | 1A | 3089 | 1/1 | 0.88 | 0.26 | 52,52,52,52 | 0 |
| 56 | MG | 1A | 3597 | 1/1 | 0.88 | 0.13 | 47,47,47,47 | 0 |
| 56 | MG | 2A | 3157 | 1/1 | 0.88 | 0.35 | 56,56,56,56 | 0 |
| 56 | MG | 2a | 3178 | 1/1 | 0.88 | 0.11 | 65,65,65,65 | 0 |
| 56 | MG | 1A | 3459 | 1/1 | 0.88 | 0.18 | 35,35,35,35 | 0 |
| 56 | MG | 1A | 3313 | 1/1 | 0.88 | 0.33 | 64,64,64,64 | 0 |
| 56 | MG | 2A | 3606 | 1/1 | 0.88 | 0.15 | 46,46,46,46 | 0 |
| 56 | MG | 2a | 3184 | 1/1 | 0.88 | 0.10 | 75,75,75,75 | 0 |
| 56 | MG | 2B | 209 | 1/1 | 0.88 | 0.16 | 54,54,54,54 | 0 |
| 56 | MG | 1A | 3691 | 1/1 | 0.88 | 0.16 | 56,56,56,56 | 0 |
| 56 | MG | 2a | 3194 | 1/1 | 0.88 | 0.10 | 61,61,61,61 | 0 |
| 56 | MG | 2A | 3398 | 1/1 | 0.88 | 0.23 | 61,61,61,61 | 0 |
| 56 | MG | 2A | 3618 | 1/1 | 0.88 | 0.12 | 56,56,56,56 | 0 |
| 56 | MG | 1A | 3522 | 1/1 | 0.88 | 0.17 | 33,33,33,33 | 0 |
| 56 | MG | 1A | 4115 | 1/1 | 0.88 | 0.12 | 51,51,51,51 | 0 |
| 56 | MG | 1A | 3986 | 1/1 | 0.88 | 0.16 | 28,28,28,28 | 0 |
| 56 | MG | 2A | 3635 | 1/1 | 0.88 | 0.14 | 62,62,62,62 | 0 |
| 56 | MG | 2A | 3270 | 1/1 | 0.88 | 0.14 | 63,63,63,63 | 0 |
| 56 | MG | 2E | 307 | 1/1 | 0.88 | 0.11 | 49,49,49,49 | 0 |
| 56 | MG | 2a | 3226 | 1/1 | 0.88 | 0.10 | 58,58,58,58 | 0 |
| 56 | MG | 1B | 201 | 1/1 | 0.88 | 0.15 | 59,59,59,59 | 0 |
| 56 | MG | 2A | 3276 | 1/1 | 0.88 | 0.15 | 64,64,64,64 | 0 |
| 56 | MG | 1A | 3988 | 1/1 | 0.88 | 0.09 | 41,41,41,41 | 0 |
| 56 | MG | 2f | 203 | 1/1 | 0.88 | 0.09 | 68,68,68,68 | 0 |
| 56 | MG | 2A | 3654 | 1/1 | 0.88 | 0.15 | 53,53,53,53 | 0 |
| 56 | MG | 2W | 201 | 1/1 | 0.88 | 0.16 | 67,67,67,67 | 0 |
| 56 | MG | 1a | 1743 | 1/1 | 0.88 | 0.07 | 59,59,59,59 | 0 |
| 56 | MG | 1A | 3898 | 1/1 | 0.88 | 0.16 | 52,52,52,52 | 0 |
| 56 | MG | 1A | 3710 | 1/1 | 0.88 | 0.19 | 21,21,21,21 | 0 |
| 56 | MG | 2A | 3177 | 1/1 | 0.88 | 0.11 | 57,57,57,57 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 2A | 3427 | 1/1 | 0.88 | 0.66 | 66,66,66,66 | 0 |
| 56 | MG | 1B | 210 | 1/1 | 0.88 | 0.12 | 46,46,46,46 | 0 |
| 56 | MG | 2A | 3179 | 1/1 | 0.88 | 0.24 | 63,63,63,63 | 0 |
| 56 | MG | 2A | 3434 | 1/1 | 0.88 | 0.16 | 67,67,67,67 | 0 |
| 56 | MG | 13 | 105 | 1/1 | 0.88 | 0.14 | 40,40,40,40 | 0 |
| 56 | MG | 2A | 3292 | 1/1 | 0.88 | 0.20 | 64,64,64,64 | 0 |
| 56 | MG | 1A | 3824 | 1/1 | 0.88 | 0.20 | 61,61,61,61 | 0 |
| 56 | MG | 2A | 3294 | 1/1 | 0.88 | 0.28 | 55,55,55,55 | 0 |
| 56 | MG | 2A | 3442 | 1/1 | 0.88 | 0.15 | 43,43,43,43 | 0 |
| 56 | MG | 1A | 3336 | 1/1 | 0.88 | 0.22 | 37,37,37,37 | 0 |
| 56 | MG | 2A | 3697 | 1/1 | 0.88 | 0.19 | 48,48,48,48 | 0 |
| 56 | MG | 2A | 3062 | 1/1 | 0.89 | 0.16 | 53,53,53,53 | 0 |
| 56 | MG | 1A | 3892 | 1/1 | 0.89 | 0.07 | 53,53,53,53 | 0 |
| 56 | MG | 2I | 101 | 1/1 | 0.89 | 1.10 | 50,50,50,50 | 0 |
| 56 | MG | 1A | 3408 | 1/1 | 0.89 | 0.21 | 37,37,37,37 | 0 |
| 56 | MG | 2A | 3067 | 1/1 | 0.89 | 0.11 | 57,57,57,57 | 0 |
| 56 | MG | 25 | 105 | 1/1 | 0.89 | 0.20 | 46,46,46,46 | 0 |
| 56 | MG | 2A | 3643 | 1/1 | 0.89 | 0.11 | 49,49,49,49 | 0 |
| 56 | MG | 2A | 3071 | 1/1 | 0.89 | 0.44 | 52,52,52,52 | 0 |
| 56 | MG | 2A | 3235 | 1/1 | 0.89 | 0.56 | 71,71,71,71 | 0 |
| 56 | MG | 1A | 3448 | 1/1 | 0.89 | 0.20 | 47,47,47,47 | 0 |
| 56 | MG | 2A | 3074 | 1/1 | 0.89 | 0.21 | 50,50,50,50 | 0 |
| 56 | MG | 2A | 3658 | 1/1 | 0.89 | 0.10 | 61,61,61,61 | 0 |
| 56 | MG | 1A | 3899 | 1/1 | 0.89 | 0.06 | 45,45,45,45 | 0 |
| 56 | MG | 1A | 4035 | 1/1 | 0.89 | 0.12 | 58,58,58,58 | 0 |
| 56 | MG | 1A | 3329 | 1/1 | 0.89 | 0.17 | 48,48,48,48 | 0 |
| 56 | MG | 2A | 3399 | 1/1 | 0.89 | 0.19 | 51,51,51,51 | 0 |
| 56 | MG | 2A | 3666 | 1/1 | 0.89 | 0.08 | 65,65,65,65 | 0 |
| 56 | MG | 1A | 3368 | 1/1 | 0.89 | 0.17 | 43,43,43,43 | 0 |
| 56 | MG | 1A | 4054 | 1/1 | 0.89 | 0.07 | 59,59,59,59 | 0 |
| 56 | MG | 2a | 3015 | 1/1 | 0.89 | 0.25 | 65,65,65,65 | 0 |
| 56 | MG | 2A | 3671 | 1/1 | 0.89 | 0.13 | 55,55,55,55 | 0 |
| 56 | MG | 2A | 3673 | 1/1 | 0.89 | 0.12 | 54,54,54,54 | 0 |
| 56 | MG | 1A | 3190 | 1/1 | 0.89 | 0.19 | 30,30,30,30 | 0 |
| 56 | MG | 2A | 3404 | 1/1 | 0.89 | 0.24 | 53,53,53,53 | 0 |
| 56 | MG | 2A | 3408 | 1/1 | 0.89 | 0.23 | 58,58,58,58 | 0 |
| 56 | MG | 1Q | 208 | 1/1 | 0.89 | 0.17 | 48,48,48,48 | 0 |
| 56 | MG | 2A | 3411 | 1/1 | 0.89 | 0.16 | 56,56,56,56 | 0 |
| 56 | MG | 2A | 3412 | 1/1 | 0.89 | 0.17 | 51,51,51,51 | 0 |
| 56 | MG | 2A | 3413 | 1/1 | 0.89 | 0.14 | 49,49,49,49 | 0 |
| 56 | MG | 2A | 3414 | 1/1 | 0.89 | 0.17 | 61,61,61,61 | 0 |
| 56 | MG | 2a | 3030 | 1/1 | 0.89 | 0.09 | 69,69,69,69 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(Å ²) | Q<0.9 |
|-----|------|-------|------|-------|------|------|----------------------------|-------|
| 56 | MG | 1a | 1747 | 1/1 | 0.89 | 0.15 | 53,53,53,53 | 0 |
| 56 | MG | 2a | 3033 | 1/1 | 0.89 | 0.09 | 73,73,73,73 | 0 |
| 56 | MG | 1A | 3777 | 1/1 | 0.89 | 0.10 | 66,66,66,66 | 0 |
| 56 | MG | 1A | 3541 | 1/1 | 0.89 | 0.13 | 45,45,45,45 | 0 |
| 56 | MG | 1A | 3047 | 1/1 | 0.89 | 0.13 | 27,27,27,27 | 0 |
| 56 | MG | 1A | 3419 | 1/1 | 0.89 | 0.15 | 56,56,56,56 | 0 |
| 56 | MG | 2A | 3712 | 1/1 | 0.89 | 0.16 | 44,44,44,44 | 0 |
| 56 | MG | 2A | 3714 | 1/1 | 0.89 | 0.18 | 63,63,63,63 | 0 |
| 56 | MG | 1A | 3375 | 1/1 | 0.89 | 0.12 | 34,34,34,34 | 0 |
| 56 | MG | 1A | 3099 | 1/1 | 0.89 | 0.47 | 43,43,43,43 | 0 |
| 56 | MG | 1A | 3793 | 1/1 | 0.89 | 0.11 | 39,39,39,39 | 0 |
| 56 | MG | 10 | 104 | 1/1 | 0.89 | 0.10 | 62,62,62,62 | 0 |
| 56 | MG | 2A | 3111 | 1/1 | 0.89 | 0.15 | 57,57,57,57 | 0 |
| 56 | MG | 2A | 3112 | 1/1 | 0.89 | 0.23 | 50,50,50,50 | 0 |
| 56 | MG | 2A | 3738 | 1/1 | 0.89 | 0.18 | 64,64,64,64 | 0 |
| 56 | MG | 1a | 1770 | 1/1 | 0.89 | 0.08 | 58,58,58,58 | 0 |
| 56 | MG | 1A | 3799 | 1/1 | 0.89 | 0.13 | 69,69,69,69 | 0 |
| 56 | MG | 10 | 107 | 1/1 | 0.89 | 0.09 | 55,55,55,55 | 0 |
| 56 | MG | 1A | 3553 | 1/1 | 0.89 | 0.15 | 38,38,38,38 | 0 |
| 56 | MG | 1A | 3237 | 1/1 | 0.89 | 0.51 | 44,44,44,44 | 0 |
| 56 | MG | 1A | 3556 | 1/1 | 0.89 | 0.17 | 27,27,27,27 | 0 |
| 56 | MG | 2A | 3132 | 1/1 | 0.89 | 0.18 | 59,59,59,59 | 0 |
| 56 | MG | 2A | 3277 | 1/1 | 0.89 | 0.10 | 48,48,48,48 | 0 |
| 56 | MG | 2A | 3761 | 1/1 | 0.89 | 0.11 | 58,58,58,58 | 0 |
| 56 | MG | 1A | 3825 | 1/1 | 0.89 | 0.12 | 24,24,24,24 | 0 |
| 56 | MG | 1A | 3382 | 1/1 | 0.89 | 0.14 | 59,59,59,59 | 0 |
| 56 | MG | 2a | 3095 | 1/1 | 0.89 | 0.46 | 62,62,62,62 | 0 |
| 56 | MG | 2A | 3139 | 1/1 | 0.89 | 0.13 | 42,42,42,42 | 0 |
| 56 | MG | 1A | 3384 | 1/1 | 0.89 | 0.15 | 41,41,41,41 | 0 |
| 56 | MG | 2a | 3100 | 1/1 | 0.89 | 0.23 | 56,56,56,56 | 0 |
| 56 | MG | 2a | 3103 | 1/1 | 0.89 | 0.14 | 41,41,41,41 | 0 |
| 56 | MG | 2A | 3768 | 1/1 | 0.89 | 0.17 | 68,68,68,68 | 0 |
| 56 | MG | 1a | 1792 | 1/1 | 0.89 | 0.12 | 59,59,59,59 | 0 |
| 56 | MG | 1A | 3579 | 1/1 | 0.89 | 0.14 | 26,26,26,26 | 0 |
| 56 | MG | 15 | 110 | 1/1 | 0.89 | 0.14 | 31,31,31,31 | 0 |
| 56 | MG | 16 | 101 | 1/1 | 0.89 | 0.24 | 50,50,50,50 | 0 |
| 56 | MG | 2A | 3776 | 1/1 | 0.89 | 0.07 | 49,49,49,49 | 0 |
| 56 | MG | 2A | 3777 | 1/1 | 0.89 | 0.15 | 45,45,45,45 | 0 |
| 56 | MG | 18 | 105 | 1/1 | 0.89 | 0.21 | 51,51,51,51 | 0 |
| 56 | MG | 2A | 3779 | 1/1 | 0.89 | 0.07 | 65,65,65,65 | 0 |
| 56 | MG | 1A | 3955 | 1/1 | 0.89 | 0.09 | 32,32,32,32 | 0 |
| 56 | MG | 1A | 3694 | 1/1 | 0.89 | 0.15 | 29,29,29,29 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 1A | 3695 | 1/1 | 0.89 | 0.21 | 47,47,47,47 | 0 |
| 56 | MG | 1a | 1624 | 1/1 | 0.89 | 0.19 | 44,44,44,44 | 0 |
| 56 | MG | 2A | 3299 | 1/1 | 0.89 | 0.13 | 56,56,56,56 | 0 |
| 56 | MG | 2A | 3163 | 1/1 | 0.89 | 0.15 | 45,45,45,45 | 0 |
| 56 | MG | 2A | 3303 | 1/1 | 0.89 | 0.46 | 54,54,54,54 | 0 |
| 56 | MG | 1A | 3964 | 1/1 | 0.89 | 0.15 | 56,56,56,56 | 0 |
| 56 | MG | 1a | 1631 | 1/1 | 0.89 | 0.34 | 65,65,65,65 | 0 |
| 56 | MG | 1A | 3973 | 1/1 | 0.89 | 0.07 | 46,46,46,46 | 0 |
| 56 | MG | 1A | 3846 | 1/1 | 0.89 | 0.11 | 49,49,49,49 | 0 |
| 56 | MG | 1A | 3975 | 1/1 | 0.89 | 0.05 | 33,33,33,33 | 0 |
| 56 | MG | 1A | 3847 | 1/1 | 0.89 | 0.18 | 41,41,41,41 | 0 |
| 56 | MG | 1A | 3700 | 1/1 | 0.89 | 0.18 | 53,53,53,53 | 0 |
| 56 | MG | 1a | 1644 | 1/1 | 0.89 | 0.14 | 43,43,43,43 | 0 |
| 56 | MG | 2A | 3524 | 1/1 | 0.89 | 0.12 | 55,55,55,55 | 0 |
| 56 | MG | 1B | 213 | 1/1 | 0.89 | 0.22 | 52,52,52,52 | 0 |
| 56 | MG | 1x | 105 | 1/1 | 0.89 | 0.19 | 64,64,64,64 | 0 |
| 56 | MG | 2a | 3160 | 1/1 | 0.89 | 0.13 | 66,66,66,66 | 0 |
| 56 | MG | 2a | 3163 | 1/1 | 0.89 | 0.11 | 72,72,72,72 | 0 |
| 56 | MG | 1x | 106 | 1/1 | 0.89 | 0.15 | 72,72,72,72 | 0 |
| 56 | MG | 2a | 3168 | 1/1 | 0.89 | 0.18 | 56,56,56,56 | 0 |
| 56 | MG | 2A | 3535 | 1/1 | 0.89 | 0.19 | 62,62,62,62 | 0 |
| 56 | MG | 1A | 3344 | 1/1 | 0.89 | 0.16 | 37,37,37,37 | 0 |
| 56 | MG | 1A | 3316 | 1/1 | 0.89 | 0.26 | 29,29,29,29 | 0 |
| 56 | MG | 2a | 3180 | 1/1 | 0.89 | 0.15 | 60,60,60,60 | 0 |
| 56 | MG | 2A | 3324 | 1/1 | 0.89 | 0.40 | 45,45,45,45 | 0 |
| 56 | MG | 2A | 3841 | 1/1 | 0.89 | 0.22 | 56,56,56,56 | 0 |
| 56 | MG | 1a | 1653 | 1/1 | 0.89 | 0.12 | 46,46,46,46 | 0 |
| 56 | MG | 2a | 3187 | 1/1 | 0.89 | 0.09 | 64,64,64,64 | 0 |
| 56 | MG | 1A | 3711 | 1/1 | 0.89 | 0.19 | 21,21,21,21 | 0 |
| 56 | MG | 2A | 3849 | 1/1 | 0.89 | 0.06 | 54,54,54,54 | 0 |
| 56 | MG | 1a | 1657 | 1/1 | 0.89 | 0.13 | 69,69,69,69 | 0 |
| 56 | MG | 2a | 3202 | 1/1 | 0.89 | 0.10 | 67,67,67,67 | 0 |
| 56 | MG | 1B | 225 | 1/1 | 0.89 | 0.14 | 60,60,60,60 | 0 |
| 56 | MG | 2A | 3188 | 1/1 | 0.89 | 0.42 | 60,60,60,60 | 0 |
| 56 | MG | 1a | 1659 | 1/1 | 0.89 | 0.10 | 52,52,52,52 | 0 |
| 56 | MG | 1A | 3207 | 1/1 | 0.89 | 0.31 | 32,32,32,32 | 0 |
| 56 | MG | 1A | 3587 | 1/1 | 0.89 | 0.18 | 62,62,62,62 | 0 |
| 56 | MG | 1a | 1672 | 1/1 | 0.89 | 0.23 | 59,59,59,59 | 0 |
| 56 | MG | 1A | 3715 | 1/1 | 0.89 | 0.14 | 20,20,20,20 | 0 |
| 56 | MG | 1A | 3095 | 1/1 | 0.89 | 0.31 | 50,50,50,50 | 0 |
| 56 | MG | 2A | 3568 | 1/1 | 0.89 | 0.14 | 53,53,53,53 | 0 |
| 56 | MG | 2A | 3041 | 1/1 | 0.89 | 0.18 | 49,49,49,49 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 1A | 3593 | 1/1 | 0.89 | 0.15 | 44,44,44,44 | 0 |
| 56 | MG | 1A | 3488 | 1/1 | 0.89 | 0.12 | 42,42,42,42 | 0 |
| 56 | MG | 2A | 3572 | 1/1 | 0.89 | 0.11 | 52,52,52,52 | 0 |
| 56 | MG | 2A | 3201 | 1/1 | 0.89 | 0.16 | 53,53,53,53 | 0 |
| 56 | MG | 1A | 3489 | 1/1 | 0.89 | 0.12 | 37,37,37,37 | 0 |
| 56 | MG | 1A | 3050 | 1/1 | 0.89 | 0.23 | 32,32,32,32 | 0 |
| 56 | MG | 1a | 1689 | 1/1 | 0.89 | 0.17 | 51,51,51,51 | 0 |
| 56 | MG | 1A | 3999 | 1/1 | 0.89 | 0.14 | 48,48,48,48 | 0 |
| 56 | MG | 1A | 3742 | 1/1 | 0.89 | 0.21 | 17,17,17,17 | 0 |
| 56 | MG | 1A | 3398 | 1/1 | 0.89 | 0.20 | 40,40,40,40 | 0 |
| 56 | MG | 2A | 3362 | 1/1 | 0.89 | 0.26 | 49,49,49,49 | 0 |
| 56 | MG | 2A | 3595 | 1/1 | 0.89 | 0.14 | 49,49,49,49 | 0 |
| 56 | MG | 1D | 315 | 1/1 | 0.89 | 0.53 | 40,40,40,40 | 0 |
| 56 | MG | 1A | 3145 | 1/1 | 0.89 | 0.23 | 35,35,35,35 | 0 |
| 56 | MG | 1A | 3176 | 1/1 | 0.89 | 0.10 | 47,47,47,47 | 0 |
| 56 | MG | 1A | 3888 | 1/1 | 0.89 | 0.12 | 44,44,44,44 | 0 |
| 56 | MG | 2T | 202 | 1/1 | 0.89 | 0.31 | 57,57,57,57 | 0 |
| 56 | MG | 1A | 4025 | 1/1 | 0.89 | 0.24 | 49,49,49,49 | 0 |
| 56 | MG | 1A | 3890 | 1/1 | 0.89 | 0.09 | 40,40,40,40 | 0 |
| 56 | MG | 2A | 3627 | 1/1 | 0.89 | 0.15 | 68,68,68,68 | 0 |
| 58 | ZN | 24 | 501 | 1/1 | 0.89 | 0.06 | 109,109,109,109 | 0 |
| 56 | MG | 2a | 3011 | 1/1 | 0.90 | 0.15 | 60,60,60,60 | 0 |
| 56 | MG | 2A | 3297 | 1/1 | 0.90 | 0.54 | 68,68,68,68 | 0 |
| 56 | MG | 2A | 3451 | 1/1 | 0.90 | 0.11 | 70,70,70,70 | 0 |
| 56 | MG | 1A | 3675 | 1/1 | 0.90 | 0.14 | 21,21,21,21 | 0 |
| 56 | MG | 2A | 3017 | 1/1 | 0.90 | 0.12 | 54,54,54,54 | 0 |
| 56 | MG | 2A | 3457 | 1/1 | 0.90 | 0.08 | 52,52,52,52 | 0 |
| 56 | MG | 2A | 3723 | 1/1 | 0.90 | 0.17 | 67,67,67,67 | 0 |
| 56 | MG | 1P | 204 | 1/1 | 0.90 | 0.25 | 44,44,44,44 | 0 |
| 56 | MG | 1A | 3498 | 1/1 | 0.90 | 0.24 | 54,54,54,54 | 0 |
| 56 | MG | 1A | 3960 | 1/1 | 0.90 | 0.13 | 59,59,59,59 | 0 |
| 56 | MG | 1a | 1700 | 1/1 | 0.90 | 0.13 | 50,50,50,50 | 0 |
| 56 | MG | 1A | 3961 | 1/1 | 0.90 | 0.13 | 52,52,52,52 | 0 |
| 56 | MG | 2A | 3741 | 1/1 | 0.90 | 0.14 | 48,48,48,48 | 0 |
| 56 | MG | 1A | 3463 | 1/1 | 0.90 | 0.09 | 50,50,50,50 | 0 |
| 56 | MG | 1A | 4091 | 1/1 | 0.90 | 0.15 | 45,45,45,45 | 0 |
| 56 | MG | 1V | 202 | 1/1 | 0.90 | 0.15 | 28,28,28,28 | 0 |
| 56 | MG | 2A | 3488 | 1/1 | 0.90 | 0.19 | 68,68,68,68 | 0 |
| 56 | MG | 2A | 3181 | 1/1 | 0.90 | 0.16 | 57,57,57,57 | 0 |
| 56 | MG | 1V | 208 | 1/1 | 0.90 | 0.13 | 46,46,46,46 | 0 |
| 56 | MG | 2A | 3184 | 1/1 | 0.90 | 0.16 | 53,53,53,53 | 0 |
| 56 | MG | 2a | 3036 | 1/1 | 0.90 | 0.07 | 50,50,50,50 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 1A | 3767 | 1/1 | 0.90 | 0.12 | 23,23,23,23 | 0 |
| 56 | MG | 1X | 101 | 1/1 | 0.90 | 0.29 | 27,27,27,27 | 0 |
| 56 | MG | 1a | 1729 | 1/1 | 0.90 | 0.35 | 58,58,58,58 | 0 |
| 56 | MG | 1A | 3501 | 1/1 | 0.90 | 0.15 | 57,57,57,57 | 0 |
| 56 | MG | 1A | 3464 | 1/1 | 0.90 | 0.12 | 47,47,47,47 | 0 |
| 56 | MG | 1A | 3778 | 1/1 | 0.90 | 0.12 | 39,39,39,39 | 0 |
| 56 | MG | 2a | 3049 | 1/1 | 0.90 | 0.19 | 66,66,66,66 | 0 |
| 56 | MG | 1A | 3779 | 1/1 | 0.90 | 0.14 | 39,39,39,39 | 0 |
| 56 | MG | 1A | 4111 | 1/1 | 0.90 | 0.16 | 46,46,46,46 | 0 |
| 56 | MG | 1A | 3685 | 1/1 | 0.90 | 0.12 | 52,52,52,52 | 0 |
| 56 | MG | 1a | 1742 | 1/1 | 0.90 | 0.09 | 69,69,69,69 | 0 |
| 56 | MG | 2A | 3531 | 1/1 | 0.90 | 0.23 | 30,30,30,30 | 0 |
| 56 | MG | 2a | 3059 | 1/1 | 0.90 | 0.13 | 59,59,59,59 | 0 |
| 56 | MG | 1A | 3465 | 1/1 | 0.90 | 0.39 | 52,52,52,52 | 0 |
| 56 | MG | 2A | 3058 | 1/1 | 0.90 | 0.12 | 43,43,43,43 | 0 |
| 56 | MG | 1A | 3885 | 1/1 | 0.90 | 0.05 | 34,34,34,34 | 0 |
| 56 | MG | 1A | 3784 | 1/1 | 0.90 | 0.11 | 40,40,40,40 | 0 |
| 56 | MG | 1A | 3312 | 1/1 | 0.90 | 0.19 | 51,51,51,51 | 0 |
| 56 | MG | 1l | 105 | 1/1 | 0.90 | 0.23 | 41,41,41,41 | 0 |
| 56 | MG | 1A | 3097 | 1/1 | 0.90 | 0.13 | 40,40,40,40 | 0 |
| 56 | MG | 2A | 3212 | 1/1 | 0.90 | 0.10 | 51,51,51,51 | 0 |
| 56 | MG | 1A | 3538 | 1/1 | 0.90 | 0.32 | 35,35,35,35 | 0 |
| 56 | MG | 1a | 1758 | 1/1 | 0.90 | 0.10 | 41,41,41,41 | 0 |
| 56 | MG | 2A | 3553 | 1/1 | 0.90 | 0.08 | 61,61,61,61 | 0 |
| 56 | MG | 2a | 3092 | 1/1 | 0.90 | 0.24 | 58,58,58,58 | 0 |
| 56 | MG | 1a | 1759 | 1/1 | 0.90 | 0.16 | 56,56,56,56 | 0 |
| 56 | MG | 1A | 3610 | 1/1 | 0.90 | 0.20 | 18,18,18,18 | 0 |
| 56 | MG | 15 | 106 | 1/1 | 0.90 | 0.19 | 27,27,27,27 | 0 |
| 56 | MG | 2A | 3079 | 1/1 | 0.90 | 0.38 | 56,56,56,56 | 0 |
| 56 | MG | 1A | 3794 | 1/1 | 0.90 | 0.41 | 69,69,69,69 | 0 |
| 56 | MG | 2A | 3361 | 1/1 | 0.90 | 0.08 | 52,52,52,52 | 0 |
| 56 | MG | 1A | 3796 | 1/1 | 0.90 | 0.19 | 19,19,19,19 | 0 |
| 56 | MG | 1A | 3410 | 1/1 | 0.90 | 0.33 | 33,33,33,33 | 0 |
| 56 | MG | 1A | 3996 | 1/1 | 0.90 | 0.12 | 59,59,59,59 | 0 |
| 56 | MG | 1A | 3808 | 1/1 | 0.90 | 0.15 | 43,43,43,43 | 0 |
| 56 | MG | 2A | 3827 | 1/1 | 0.90 | 0.15 | 67,67,67,67 | 0 |
| 56 | MG | 2A | 3091 | 1/1 | 0.90 | 0.19 | 58,58,58,58 | 0 |
| 56 | MG | 1a | 1780 | 1/1 | 0.90 | 0.14 | 57,57,57,57 | 0 |
| 56 | MG | 1A | 3233 | 1/1 | 0.90 | 0.17 | 23,23,23,23 | 0 |
| 56 | MG | 1A | 3904 | 1/1 | 0.90 | 0.19 | 45,45,45,45 | 0 |
| 56 | MG | 1A | 3814 | 1/1 | 0.90 | 0.09 | 43,43,43,43 | 0 |
| 56 | MG | 1A | 3182 | 1/1 | 0.90 | 0.17 | 44,44,44,44 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 2A | 3584 | 1/1 | 0.90 | 0.15 | 49,49,49,49 | 0 |
| 56 | MG | 2A | 3843 | 1/1 | 0.90 | 0.21 | 60,60,60,60 | 0 |
| 56 | MG | 1A | 3478 | 1/1 | 0.90 | 0.24 | 29,29,29,29 | 0 |
| 56 | MG | 1A | 4014 | 1/1 | 0.90 | 0.23 | 35,35,35,35 | 0 |
| 56 | MG | 1A | 3913 | 1/1 | 0.90 | 0.10 | 55,55,55,55 | 0 |
| 56 | MG | 1a | 1795 | 1/1 | 0.90 | 0.12 | 60,60,60,60 | 0 |
| 56 | MG | 2a | 3134 | 1/1 | 0.90 | 0.09 | 45,45,45,45 | 0 |
| 56 | MG | 2a | 3136 | 1/1 | 0.90 | 0.10 | 64,64,64,64 | 0 |
| 56 | MG | 2A | 3244 | 1/1 | 0.90 | 0.21 | 62,62,62,62 | 0 |
| 56 | MG | 2A | 3857 | 1/1 | 0.90 | 0.11 | 51,51,51,51 | 0 |
| 56 | MG | 2A | 3859 | 1/1 | 0.90 | 0.11 | 57,57,57,57 | 0 |
| 56 | MG | 2A | 3391 | 1/1 | 0.90 | 0.25 | 40,40,40,40 | 0 |
| 56 | MG | 2a | 3143 | 1/1 | 0.90 | 0.18 | 59,59,59,59 | 0 |
| 56 | MG | 2a | 3145 | 1/1 | 0.90 | 0.12 | 59,59,59,59 | 0 |
| 56 | MG | 2A | 3867 | 1/1 | 0.90 | 0.21 | 47,47,47,47 | 0 |
| 56 | MG | 1A | 3238 | 1/1 | 0.90 | 0.16 | 44,44,44,44 | 0 |
| 56 | MG | 2A | 3110 | 1/1 | 0.90 | 0.12 | 82,82,82,82 | 0 |
| 56 | MG | 2A | 3614 | 1/1 | 0.90 | 0.08 | 48,48,48,48 | 0 |
| 56 | MG | 1A | 3720 | 1/1 | 0.90 | 0.11 | 57,57,57,57 | 0 |
| 56 | MG | 2A | 3619 | 1/1 | 0.90 | 0.28 | 60,60,60,60 | 0 |
| 56 | MG | 2a | 3162 | 1/1 | 0.90 | 0.12 | 63,63,63,63 | 0 |
| 56 | MG | 2A | 3620 | 1/1 | 0.90 | 0.22 | 59,59,59,59 | 0 |
| 56 | MG | 2A | 3621 | 1/1 | 0.90 | 0.11 | 58,58,58,58 | 0 |
| 56 | MG | 1A | 3644 | 1/1 | 0.90 | 0.13 | 40,40,40,40 | 0 |
| 56 | MG | 2a | 3174 | 1/1 | 0.90 | 0.16 | 55,55,55,55 | 0 |
| 56 | MG | 2B | 204 | 1/1 | 0.90 | 0.11 | 66,66,66,66 | 0 |
| 56 | MG | 1A | 3151 | 1/1 | 0.90 | 0.09 | 56,56,56,56 | 0 |
| 56 | MG | 2B | 206 | 1/1 | 0.90 | 0.12 | 66,66,66,66 | 0 |
| 56 | MG | 1a | 1809 | 1/1 | 0.90 | 0.18 | 52,52,52,52 | 0 |
| 56 | MG | 1a | 1648 | 1/1 | 0.90 | 0.11 | 62,62,62,62 | 0 |
| 56 | MG | 2A | 3256 | 1/1 | 0.90 | 0.28 | 58,58,58,58 | 0 |
| 56 | MG | 1A | 3832 | 1/1 | 0.90 | 0.17 | 39,39,39,39 | 0 |
| 56 | MG | 1f | 202 | 1/1 | 0.90 | 0.10 | 56,56,56,56 | 0 |
| 56 | MG | 1A | 3152 | 1/1 | 0.90 | 0.40 | 28,28,28,28 | 0 |
| 56 | MG | 2a | 3191 | 1/1 | 0.90 | 0.13 | 60,60,60,60 | 0 |
| 56 | MG | 1m | 3001 | 1/1 | 0.90 | 0.11 | 48,48,48,48 | 0 |
| 56 | MG | 2A | 3652 | 1/1 | 0.90 | 0.15 | 58,58,58,58 | 0 |
| 56 | MG | 2E | 302 | 1/1 | 0.90 | 0.47 | 56,56,56,56 | 0 |
| 56 | MG | 1A | 3175 | 1/1 | 0.90 | 0.17 | 42,42,42,42 | 0 |
| 56 | MG | 1A | 3392 | 1/1 | 0.90 | 0.11 | 62,62,62,62 | 0 |
| 56 | MG | 2a | 3207 | 1/1 | 0.90 | 0.13 | 52,52,52,52 | 0 |
| 56 | MG | 2A | 3137 | 1/1 | 0.90 | 0.14 | 59,59,59,59 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 2a | 3210 | 1/1 | 0.90 | 0.18 | 55,55,55,55 | 0 |
| 56 | MG | 1w | 104 | 1/1 | 0.90 | 0.12 | 69,69,69,69 | 0 |
| 56 | MG | 2F | 307 | 1/1 | 0.90 | 0.09 | 55,55,55,55 | 0 |
| 56 | MG | 2a | 3219 | 1/1 | 0.90 | 0.12 | 59,59,59,59 | 0 |
| 56 | MG | 1A | 3937 | 1/1 | 0.90 | 0.10 | 38,38,38,38 | 0 |
| 56 | MG | 1A | 3221 | 1/1 | 0.90 | 0.15 | 44,44,44,44 | 0 |
| 56 | MG | 1A | 3203 | 1/1 | 0.90 | 0.17 | 33,33,33,33 | 0 |
| 56 | MG | 2T | 203 | 1/1 | 0.90 | 0.12 | 52,52,52,52 | 0 |
| 56 | MG | 2A | 3271 | 1/1 | 0.90 | 0.14 | 57,57,57,57 | 0 |
| 56 | MG | 1A | 3944 | 1/1 | 0.90 | 0.12 | 46,46,46,46 | 0 |
| 56 | MG | 1F | 311 | 1/1 | 0.90 | 0.20 | 46,46,46,46 | 0 |
| 56 | MG | 1A | 3946 | 1/1 | 0.90 | 0.08 | 71,71,71,71 | 0 |
| 56 | MG | 1F | 313 | 1/1 | 0.90 | 0.14 | 57,57,57,57 | 0 |
| 56 | MG | 1G | 204 | 1/1 | 0.90 | 0.09 | 42,42,42,42 | 0 |
| 56 | MG | 23 | 101 | 1/1 | 0.90 | 0.13 | 53,53,53,53 | 0 |
| 56 | MG | 2A | 3435 | 1/1 | 0.90 | 0.15 | 60,60,60,60 | 0 |
| 56 | MG | 2A | 3154 | 1/1 | 0.90 | 0.17 | 68,68,68,68 | 0 |
| 56 | MG | 2A | 3683 | 1/1 | 0.90 | 0.09 | 44,44,44,44 | 0 |
| 56 | MG | 25 | 106 | 1/1 | 0.90 | 0.48 | 66,66,66,66 | 0 |
| 56 | MG | 26 | 101 | 1/1 | 0.90 | 0.14 | 40,40,40,40 | 0 |
| 56 | MG | 2A | 3156 | 1/1 | 0.90 | 0.26 | 53,53,53,53 | 0 |
| 56 | MG | 1A | 3578 | 1/1 | 0.90 | 0.15 | 49,49,49,49 | 0 |
| 56 | MG | 2A | 3159 | 1/1 | 0.90 | 0.22 | 62,62,62,62 | 0 |
| 56 | MG | 2A | 3160 | 1/1 | 0.90 | 0.18 | 49,49,49,49 | 0 |
| 56 | MG | 1A | 3950 | 1/1 | 0.90 | 0.12 | 22,22,22,22 | 0 |
| 56 | MG | 2x | 106 | 1/1 | 0.90 | 0.19 | 63,63,63,63 | 0 |
| 56 | MG | 1N | 201 | 1/1 | 0.90 | 0.16 | 34,34,34,34 | 0 |
| 56 | MG | 1a | 1683 | 1/1 | 0.90 | 0.35 | 51,51,51,51 | 0 |
| 56 | MG | 1A | 3266 | 1/1 | 0.90 | 0.45 | 37,37,37,37 | 0 |
| 56 | MG | 2A | 3005 | 1/1 | 0.90 | 0.10 | 55,55,55,55 | 0 |
| 56 | MG | 1A | 3204 | 1/1 | 0.90 | 0.17 | 43,43,43,43 | 0 |
| 58 | ZN | 2n | 501 | 1/1 | 0.90 | 0.07 | 90,90,90,90 | 0 |
| 56 | MG | 2A | 3696 | 1/1 | 0.91 | 0.12 | 68,68,68,68 | 0 |
| 56 | MG | 2A | 3443 | 1/1 | 0.91 | 0.06 | 45,45,45,45 | 0 |
| 56 | MG | 1F | 308 | 1/1 | 0.91 | 0.70 | 34,34,34,34 | 0 |
| 56 | MG | 2A | 3701 | 1/1 | 0.91 | 0.14 | 53,53,53,53 | 0 |
| 56 | MG | 1a | 1670 | 1/1 | 0.91 | 0.20 | 61,61,61,61 | 0 |
| 56 | MG | 1x | 101 | 1/1 | 0.91 | 0.37 | 48,48,48,48 | 0 |
| 56 | MG | 1F | 310 | 1/1 | 0.91 | 0.14 | 26,26,26,26 | 0 |
| 56 | MG | 1A | 4055 | 1/1 | 0.91 | 0.13 | 39,39,39,39 | 0 |
| 56 | MG | 1A | 3730 | 1/1 | 0.91 | 0.11 | 27,27,27,27 | 0 |
| 56 | MG | 1A | 4059 | 1/1 | 0.91 | 0.11 | 54,54,54,54 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 2A | 3717 | 1/1 | 0.91 | 0.11 | 51,51,51,51 | 0 |
| 56 | MG | 2a | 3019 | 1/1 | 0.91 | 0.09 | 75,75,75,75 | 0 |
| 56 | MG | 1A | 3533 | 1/1 | 0.91 | 0.20 | 39,39,39,39 | 0 |
| 56 | MG | 1a | 1679 | 1/1 | 0.91 | 0.13 | 57,57,57,57 | 0 |
| 56 | MG | 1A | 3636 | 1/1 | 0.91 | 0.21 | 20,20,20,20 | 0 |
| 56 | MG | 2A | 3456 | 1/1 | 0.91 | 0.27 | 56,56,56,56 | 0 |
| 56 | MG | 2A | 3729 | 1/1 | 0.91 | 0.15 | 47,47,47,47 | 0 |
| 56 | MG | 1A | 3853 | 1/1 | 0.91 | 0.12 | 36,36,36,36 | 0 |
| 56 | MG | 2A | 3459 | 1/1 | 0.91 | 0.11 | 51,51,51,51 | 0 |
| 56 | MG | 1A | 3535 | 1/1 | 0.91 | 0.27 | 37,37,37,37 | 0 |
| 56 | MG | 2A | 3298 | 1/1 | 0.91 | 0.30 | 62,62,62,62 | 0 |
| 56 | MG | 2A | 3169 | 1/1 | 0.91 | 0.13 | 63,63,63,63 | 0 |
| 56 | MG | 2A | 3744 | 1/1 | 0.91 | 0.10 | 64,64,64,64 | 0 |
| 56 | MG | 2A | 3472 | 1/1 | 0.91 | 0.17 | 36,36,36,36 | 0 |
| 56 | MG | 1A | 3181 | 1/1 | 0.91 | 0.23 | 56,56,56,56 | 0 |
| 56 | MG | 1A | 3331 | 1/1 | 0.91 | 0.14 | 43,43,43,43 | 0 |
| 56 | MG | 2A | 3013 | 1/1 | 0.91 | 0.16 | 37,37,37,37 | 0 |
| 56 | MG | 2A | 3015 | 1/1 | 0.91 | 0.11 | 50,50,50,50 | 0 |
| 56 | MG | 2a | 3040 | 1/1 | 0.91 | 0.13 | 62,62,62,62 | 0 |
| 56 | MG | 1A | 3540 | 1/1 | 0.91 | 0.18 | 44,44,44,44 | 0 |
| 56 | MG | 2A | 3486 | 1/1 | 0.91 | 0.08 | 49,49,49,49 | 0 |
| 56 | MG | 2a | 3044 | 1/1 | 0.91 | 0.10 | 77,77,77,77 | 0 |
| 56 | MG | 2A | 3020 | 1/1 | 0.91 | 0.37 | 62,62,62,62 | 0 |
| 56 | MG | 1P | 202 | 1/1 | 0.91 | 0.17 | 26,26,26,26 | 0 |
| 56 | MG | 1A | 3957 | 1/1 | 0.91 | 0.16 | 42,42,42,42 | 0 |
| 56 | MG | 1A | 3005 | 1/1 | 0.91 | 0.15 | 36,36,36,36 | 0 |
| 56 | MG | 1Q | 203 | 1/1 | 0.91 | 0.11 | 48,48,48,48 | 0 |
| 56 | MG | 1A | 3656 | 1/1 | 0.91 | 0.13 | 37,37,37,37 | 0 |
| 56 | MG | 1A | 3072 | 1/1 | 0.91 | 0.22 | 37,37,37,37 | 0 |
| 56 | MG | 1A | 4086 | 1/1 | 0.91 | 0.16 | 28,28,28,28 | 0 |
| 56 | MG | 1a | 1708 | 1/1 | 0.91 | 0.18 | 50,50,50,50 | 0 |
| 56 | MG | 2a | 3062 | 1/1 | 0.91 | 0.20 | 45,45,45,45 | 0 |
| 56 | MG | 1A | 4088 | 1/1 | 0.91 | 0.08 | 59,59,59,59 | 0 |
| 56 | MG | 2A | 3520 | 1/1 | 0.91 | 0.15 | 37,37,37,37 | 0 |
| 56 | MG | 1a | 1714 | 1/1 | 0.91 | 0.15 | 48,48,48,48 | 0 |
| 56 | MG | 1A | 3872 | 1/1 | 0.91 | 0.18 | 37,37,37,37 | 0 |
| 56 | MG | 2a | 3079 | 1/1 | 0.91 | 0.13 | 55,55,55,55 | 0 |
| 56 | MG | 2a | 3080 | 1/1 | 0.91 | 0.18 | 39,39,39,39 | 0 |
| 56 | MG | 1A | 3426 | 1/1 | 0.91 | 0.15 | 58,58,58,58 | 0 |
| 56 | MG | 1A | 3548 | 1/1 | 0.91 | 0.17 | 28,28,28,28 | 0 |
| 56 | MG | 1A | 3252 | 1/1 | 0.91 | 0.25 | 65,65,65,65 | 0 |
| 56 | MG | 2A | 3193 | 1/1 | 0.91 | 0.14 | 51,51,51,51 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 2A | 3534 | 1/1 | 0.91 | 0.21 | 58,58,58,58 | 0 |
| 56 | MG | 1X | 105 | 1/1 | 0.91 | 0.16 | 27,27,27,27 | 0 |
| 56 | MG | 2A | 3333 | 1/1 | 0.91 | 0.12 | 48,48,48,48 | 0 |
| 56 | MG | 1A | 3665 | 1/1 | 0.91 | 0.20 | 34,34,34,34 | 0 |
| 56 | MG | 1A | 3253 | 1/1 | 0.91 | 0.18 | 47,47,47,47 | 0 |
| 56 | MG | 2A | 3802 | 1/1 | 0.91 | 0.13 | 46,46,46,46 | 0 |
| 56 | MG | 2A | 3338 | 1/1 | 0.91 | 0.09 | 71,71,71,71 | 0 |
| 56 | MG | 1A | 3018 | 1/1 | 0.91 | 0.17 | 33,33,33,33 | 0 |
| 56 | MG | 2A | 3340 | 1/1 | 0.91 | 0.36 | 52,52,52,52 | 0 |
| 56 | MG | 2A | 3198 | 1/1 | 0.91 | 0.18 | 64,64,64,64 | 0 |
| 56 | MG | 1A | 3106 | 1/1 | 0.91 | 0.39 | 35,35,35,35 | 0 |
| 56 | MG | 2a | 3107 | 1/1 | 0.91 | 0.14 | 56,56,56,56 | 0 |
| 56 | MG | 1A | 3482 | 1/1 | 0.91 | 0.14 | 60,60,60,60 | 0 |
| 56 | MG | 2a | 3113 | 1/1 | 0.91 | 0.14 | 53,53,53,53 | 0 |
| 56 | MG | 2A | 3812 | 1/1 | 0.91 | 0.10 | 40,40,40,40 | 0 |
| 56 | MG | 1A | 3046 | 1/1 | 0.91 | 0.19 | 29,29,29,29 | 0 |
| 56 | MG | 2A | 3814 | 1/1 | 0.91 | 0.10 | 40,40,40,40 | 0 |
| 56 | MG | 1A | 3354 | 1/1 | 0.91 | 0.23 | 23,23,23,23 | 0 |
| 56 | MG | 1A | 3015 | 1/1 | 0.91 | 0.21 | 30,30,30,30 | 0 |
| 56 | MG | 1A | 3167 | 1/1 | 0.91 | 0.15 | 31,31,31,31 | 0 |
| 56 | MG | 1a | 1749 | 1/1 | 0.91 | 0.17 | 63,63,63,63 | 0 |
| 56 | MG | 2A | 3064 | 1/1 | 0.91 | 0.57 | 68,68,68,68 | 0 |
| 56 | MG | 2A | 3213 | 1/1 | 0.91 | 0.14 | 54,54,54,54 | 0 |
| 56 | MG | 2A | 3834 | 1/1 | 0.91 | 0.20 | 51,51,51,51 | 0 |
| 56 | MG | 1A | 3085 | 1/1 | 0.91 | 0.23 | 39,39,39,39 | 0 |
| 56 | MG | 1A | 3792 | 1/1 | 0.91 | 0.10 | 61,61,61,61 | 0 |
| 56 | MG | 1a | 1754 | 1/1 | 0.91 | 0.11 | 50,50,50,50 | 0 |
| 56 | MG | 12 | 102 | 1/1 | 0.91 | 0.32 | 39,39,39,39 | 0 |
| 56 | MG | 1A | 3690 | 1/1 | 0.91 | 0.20 | 37,37,37,37 | 0 |
| 56 | MG | 1a | 1757 | 1/1 | 0.91 | 0.08 | 64,64,64,64 | 0 |
| 56 | MG | 2A | 3078 | 1/1 | 0.91 | 0.07 | 48,48,48,48 | 0 |
| 56 | MG | 1A | 3402 | 1/1 | 0.91 | 0.12 | 57,57,57,57 | 0 |
| 56 | MG | 2A | 3850 | 1/1 | 0.91 | 0.09 | 63,63,63,63 | 0 |
| 56 | MG | 15 | 101 | 1/1 | 0.91 | 0.26 | 38,38,38,38 | 0 |
| 56 | MG | 1A | 3692 | 1/1 | 0.91 | 0.11 | 45,45,45,45 | 0 |
| 56 | MG | 2A | 3585 | 1/1 | 0.91 | 0.17 | 52,52,52,52 | 0 |
| 56 | MG | 1A | 3406 | 1/1 | 0.91 | 0.24 | 45,45,45,45 | 0 |
| 56 | MG | 2A | 3858 | 1/1 | 0.91 | 0.15 | 59,59,59,59 | 0 |
| 56 | MG | 2A | 3372 | 1/1 | 0.91 | 0.11 | 63,63,63,63 | 0 |
| 56 | MG | 1B | 223 | 1/1 | 0.91 | 0.18 | 54,54,54,54 | 0 |
| 56 | MG | 1A | 3905 | 1/1 | 0.91 | 0.11 | 20,20,20,20 | 0 |
| 56 | MG | 17 | 104 | 1/1 | 0.91 | 0.16 | 28,28,28,28 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 2A | 3869 | 1/1 | 0.91 | 0.14 | 57,57,57,57 | 0 |
| 56 | MG | 2a | 3161 | 1/1 | 0.91 | 0.15 | 57,57,57,57 | 0 |
| 56 | MG | 1A | 4000 | 1/1 | 0.91 | 0.35 | 35,35,35,35 | 0 |
| 56 | MG | 2A | 3873 | 1/1 | 0.91 | 0.18 | 59,59,59,59 | 0 |
| 56 | MG | 1A | 3806 | 1/1 | 0.91 | 0.07 | 34,34,34,34 | 0 |
| 56 | MG | 1A | 3240 | 1/1 | 0.91 | 0.16 | 54,54,54,54 | 0 |
| 56 | MG | 2a | 3172 | 1/1 | 0.91 | 0.12 | 61,61,61,61 | 0 |
| 56 | MG | 2a | 3173 | 1/1 | 0.91 | 0.17 | 49,49,49,49 | 0 |
| 56 | MG | 2A | 3611 | 1/1 | 0.91 | 0.13 | 58,58,58,58 | 0 |
| 56 | MG | 2A | 3881 | 1/1 | 0.91 | 0.48 | 59,59,59,59 | 0 |
| 56 | MG | 2A | 3381 | 1/1 | 0.91 | 0.80 | 57,57,57,57 | 0 |
| 56 | MG | 1a | 1612 | 1/1 | 0.91 | 0.10 | 60,60,60,60 | 0 |
| 56 | MG | 2A | 3388 | 1/1 | 0.91 | 0.24 | 37,37,37,37 | 0 |
| 56 | MG | 1a | 1619 | 1/1 | 0.91 | 0.12 | 64,64,64,64 | 0 |
| 56 | MG | 1A | 3365 | 1/1 | 0.91 | 0.16 | 36,36,36,36 | 0 |
| 56 | MG | 1A | 3912 | 1/1 | 0.91 | 0.18 | 50,50,50,50 | 0 |
| 56 | MG | 1a | 1628 | 1/1 | 0.91 | 0.12 | 63,63,63,63 | 0 |
| 56 | MG | 2A | 3628 | 1/1 | 0.91 | 0.15 | 75,75,75,75 | 0 |
| 56 | MG | 2A | 3105 | 1/1 | 0.91 | 0.13 | 51,51,51,51 | 0 |
| 56 | MG | 2B | 215 | 1/1 | 0.91 | 0.14 | 66,66,66,66 | 0 |
| 56 | MG | 1A | 3411 | 1/1 | 0.91 | 0.28 | 53,53,53,53 | 0 |
| 56 | MG | 1A | 4015 | 1/1 | 0.91 | 0.12 | 41,41,41,41 | 0 |
| 56 | MG | 1A | 3703 | 1/1 | 0.91 | 0.21 | 13,13,13,13 | 0 |
| 56 | MG | 2A | 3641 | 1/1 | 0.91 | 0.11 | 59,59,59,59 | 0 |
| 56 | MG | 2a | 3206 | 1/1 | 0.91 | 0.09 | 64,64,64,64 | 0 |
| 56 | MG | 1B | 239 | 1/1 | 0.91 | 0.17 | 48,48,48,48 | 0 |
| 56 | MG | 1A | 4018 | 1/1 | 0.91 | 0.23 | 56,56,56,56 | 0 |
| 56 | MG | 2A | 3645 | 1/1 | 0.91 | 0.17 | 58,58,58,58 | 0 |
| 56 | MG | 2A | 3113 | 1/1 | 0.91 | 0.18 | 54,54,54,54 | 0 |
| 56 | MG | 2F | 301 | 1/1 | 0.91 | 0.13 | 52,52,52,52 | 0 |
| 56 | MG | 2A | 3651 | 1/1 | 0.91 | 0.09 | 64,64,64,64 | 0 |
| 56 | MG | 2A | 3114 | 1/1 | 0.91 | 0.13 | 52,52,52,52 | 0 |
| 56 | MG | 1A | 3291 | 1/1 | 0.91 | 0.25 | 53,53,53,53 | 0 |
| 56 | MG | 2Q | 203 | 1/1 | 0.91 | 0.18 | 58,58,58,58 | 0 |
| 56 | MG | 2R | 202 | 1/1 | 0.91 | 0.11 | 48,48,48,48 | 0 |
| 56 | MG | 2a | 3230 | 1/1 | 0.91 | 0.14 | 53,53,53,53 | 0 |
| 56 | MG | 1A | 3917 | 1/1 | 0.91 | 0.19 | 25,25,25,25 | 0 |
| 56 | MG | 2a | 3235 | 1/1 | 0.91 | 0.10 | 56,56,56,56 | 0 |
| 56 | MG | 1D | 313 | 1/1 | 0.91 | 0.15 | 30,30,30,30 | 0 |
| 56 | MG | 1D | 314 | 1/1 | 0.91 | 0.39 | 44,44,44,44 | 0 |
| 56 | MG | 1A | 3456 | 1/1 | 0.91 | 0.12 | 52,52,52,52 | 0 |
| 56 | MG | 1b | 301 | 1/1 | 0.91 | 0.10 | 67,67,67,67 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(Å ²) | Q<0.9 |
|-----|------|-------|------|-------|------|------|----------------------------|-------|
| 56 | MG | 1A | 3826 | 1/1 | 0.91 | 0.13 | 32,32,32,32 | 0 |
| 56 | MG | 1A | 3125 | 1/1 | 0.91 | 0.31 | 32,32,32,32 | 0 |
| 56 | MG | 2A | 3667 | 1/1 | 0.91 | 0.13 | 51,51,51,51 | 0 |
| 56 | MG | 2l | 206 | 1/1 | 0.91 | 0.12 | 60,60,60,60 | 0 |
| 56 | MG | 1A | 3328 | 1/1 | 0.91 | 0.17 | 54,54,54,54 | 0 |
| 56 | MG | 2A | 3267 | 1/1 | 0.91 | 0.12 | 51,51,51,51 | 0 |
| 56 | MG | 2l | 102 | 1/1 | 0.91 | 0.18 | 60,60,60,60 | 0 |
| 56 | MG | 1a | 1655 | 1/1 | 0.91 | 0.13 | 50,50,50,50 | 0 |
| 56 | MG | 2A | 3430 | 1/1 | 0.91 | 0.10 | 54,54,54,54 | 0 |
| 56 | MG | 2w | 108 | 1/1 | 0.91 | 0.15 | 74,74,74,74 | 0 |
| 56 | MG | 1A | 3294 | 1/1 | 0.91 | 0.21 | 26,26,26,26 | 0 |
| 56 | MG | 1w | 101 | 1/1 | 0.91 | 0.08 | 49,49,49,49 | 0 |
| 56 | MG | 1w | 102 | 1/1 | 0.91 | 0.12 | 71,71,71,71 | 0 |
| 56 | MG | 1A | 3530 | 1/1 | 0.91 | 0.18 | 43,43,43,43 | 0 |
| 56 | MG | 1A | 3615 | 1/1 | 0.91 | 0.12 | 40,40,40,40 | 0 |
| 56 | MG | 2A | 3281 | 1/1 | 0.91 | 0.57 | 57,57,57,57 | 0 |
| 56 | MG | 2y | 102 | 1/1 | 0.91 | 0.12 | 68,68,68,68 | 0 |
| 56 | MG | 2A | 3282 | 1/1 | 0.91 | 0.25 | 45,45,45,45 | 0 |
| 56 | MG | 1A | 3624 | 1/1 | 0.91 | 0.08 | 46,46,46,46 | 0 |
| 56 | MG | 2y | 106 | 1/1 | 0.91 | 0.06 | 78,78,78,78 | 0 |
| 56 | MG | 2A | 3693 | 1/1 | 0.91 | 0.11 | 55,55,55,55 | 0 |
| 56 | MG | 2a | 3004 | 1/1 | 0.91 | 0.13 | 61,61,61,61 | 0 |
| 56 | MG | 1a | 1663 | 1/1 | 0.91 | 0.11 | 59,59,59,59 | 0 |
| 56 | MG | 2A | 3138 | 1/1 | 0.92 | 0.11 | 50,50,50,50 | 0 |
| 56 | MG | 1p | 101 | 1/1 | 0.92 | 0.17 | 49,49,49,49 | 0 |
| 56 | MG | 1A | 3455 | 1/1 | 0.92 | 0.12 | 53,53,53,53 | 0 |
| 56 | MG | 1E | 306 | 1/1 | 0.92 | 0.23 | 49,49,49,49 | 0 |
| 56 | MG | 1A | 3785 | 1/1 | 0.92 | 0.11 | 30,30,30,30 | 0 |
| 56 | MG | 2A | 3145 | 1/1 | 0.92 | 0.36 | 42,42,42,42 | 0 |
| 56 | MG | 1A | 4020 | 1/1 | 0.92 | 0.17 | 23,23,23,23 | 0 |
| 56 | MG | 2A | 3709 | 1/1 | 0.92 | 0.09 | 56,56,56,56 | 0 |
| 56 | MG | 1A | 4021 | 1/1 | 0.92 | 0.36 | 47,47,47,47 | 0 |
| 56 | MG | 2A | 3713 | 1/1 | 0.92 | 0.10 | 65,65,65,65 | 0 |
| 56 | MG | 1A | 3348 | 1/1 | 0.92 | 0.10 | 53,53,53,53 | 0 |
| 56 | MG | 1A | 3403 | 1/1 | 0.92 | 0.17 | 41,41,41,41 | 0 |
| 56 | MG | 1A | 3126 | 1/1 | 0.92 | 0.18 | 34,34,34,34 | 0 |
| 56 | MG | 2A | 3718 | 1/1 | 0.92 | 0.30 | 56,56,56,56 | 0 |
| 56 | MG | 1a | 1666 | 1/1 | 0.92 | 0.26 | 50,50,50,50 | 0 |
| 56 | MG | 1A | 3542 | 1/1 | 0.92 | 0.26 | 37,37,37,37 | 0 |
| 56 | MG | 1A | 3102 | 1/1 | 0.92 | 0.34 | 31,31,31,31 | 0 |
| 56 | MG | 1A | 3103 | 1/1 | 0.92 | 0.56 | 29,29,29,29 | 0 |
| 56 | MG | 2A | 3727 | 1/1 | 0.92 | 0.08 | 63,63,63,63 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 1A | 3224 | 1/1 | 0.92 | 0.14 | 35,35,35,35 | 0 |
| 56 | MG | 1G | 201 | 1/1 | 0.92 | 0.13 | 32,32,32,32 | 0 |
| 56 | MG | 2A | 3162 | 1/1 | 0.92 | 0.24 | 55,55,55,55 | 0 |
| 56 | MG | 2A | 3302 | 1/1 | 0.92 | 0.18 | 65,65,65,65 | 0 |
| 56 | MG | 1A | 3311 | 1/1 | 0.92 | 0.13 | 29,29,29,29 | 0 |
| 56 | MG | 2A | 3740 | 1/1 | 0.92 | 0.11 | 50,50,50,50 | 0 |
| 56 | MG | 1A | 3086 | 1/1 | 0.92 | 0.10 | 46,46,46,46 | 0 |
| 56 | MG | 1A | 4053 | 1/1 | 0.92 | 0.16 | 55,55,55,55 | 0 |
| 56 | MG | 1x | 113 | 1/1 | 0.92 | 0.16 | 60,60,60,60 | 0 |
| 56 | MG | 2A | 3492 | 1/1 | 0.92 | 0.07 | 46,46,46,46 | 0 |
| 56 | MG | 2a | 3037 | 1/1 | 0.92 | 0.09 | 56,56,56,56 | 0 |
| 56 | MG | 2A | 3747 | 1/1 | 0.92 | 0.17 | 58,58,58,58 | 0 |
| 56 | MG | 2A | 3497 | 1/1 | 0.92 | 0.16 | 48,48,48,48 | 0 |
| 56 | MG | 1A | 3470 | 1/1 | 0.92 | 0.28 | 53,53,53,53 | 0 |
| 56 | MG | 2A | 3001 | 1/1 | 0.92 | 0.16 | 49,49,49,49 | 0 |
| 56 | MG | 2A | 3002 | 1/1 | 0.92 | 0.16 | 56,56,56,56 | 0 |
| 56 | MG | 2A | 3506 | 1/1 | 0.92 | 0.13 | 46,46,46,46 | 0 |
| 56 | MG | 2A | 3507 | 1/1 | 0.92 | 0.17 | 55,55,55,55 | 0 |
| 56 | MG | 2A | 3003 | 1/1 | 0.92 | 0.14 | 54,54,54,54 | 0 |
| 56 | MG | 2a | 3047 | 1/1 | 0.92 | 0.33 | 71,71,71,71 | 0 |
| 56 | MG | 1A | 3228 | 1/1 | 0.92 | 0.25 | 24,24,24,24 | 0 |
| 56 | MG | 2a | 3050 | 1/1 | 0.92 | 0.08 | 62,62,62,62 | 0 |
| 56 | MG | 1O | 202 | 1/1 | 0.92 | 0.24 | 43,43,43,43 | 0 |
| 56 | MG | 1A | 4056 | 1/1 | 0.92 | 0.13 | 42,42,42,42 | 0 |
| 56 | MG | 2A | 3517 | 1/1 | 0.92 | 0.13 | 42,42,42,42 | 0 |
| 56 | MG | 2a | 3055 | 1/1 | 0.92 | 0.13 | 53,53,53,53 | 0 |
| 56 | MG | 2A | 3010 | 1/1 | 0.92 | 0.13 | 47,47,47,47 | 0 |
| 56 | MG | 2A | 3771 | 1/1 | 0.92 | 0.07 | 62,62,62,62 | 0 |
| 56 | MG | 1A | 3364 | 1/1 | 0.92 | 0.33 | 29,29,29,29 | 0 |
| 56 | MG | 2a | 3061 | 1/1 | 0.92 | 0.13 | 47,47,47,47 | 0 |
| 56 | MG | 2A | 3320 | 1/1 | 0.92 | 0.27 | 72,72,72,72 | 0 |
| 56 | MG | 2A | 3521 | 1/1 | 0.92 | 0.16 | 44,44,44,44 | 0 |
| 56 | MG | 2a | 3069 | 1/1 | 0.92 | 0.09 | 65,65,65,65 | 0 |
| 56 | MG | 2A | 3321 | 1/1 | 0.92 | 0.19 | 63,63,63,63 | 0 |
| 56 | MG | 1A | 3924 | 1/1 | 0.92 | 0.32 | 61,61,61,61 | 0 |
| 56 | MG | 1A | 3925 | 1/1 | 0.92 | 0.08 | 55,55,55,55 | 0 |
| 56 | MG | 2a | 3073 | 1/1 | 0.92 | 0.08 | 56,56,56,56 | 0 |
| 56 | MG | 1A | 3418 | 1/1 | 0.92 | 0.15 | 60,60,60,60 | 0 |
| 56 | MG | 1A | 3934 | 1/1 | 0.92 | 0.29 | 61,61,61,61 | 0 |
| 56 | MG | 2A | 3327 | 1/1 | 0.92 | 0.43 | 54,54,54,54 | 0 |
| 56 | MG | 1A | 3817 | 1/1 | 0.92 | 0.27 | 32,32,32,32 | 0 |
| 56 | MG | 1A | 3689 | 1/1 | 0.92 | 0.16 | 11,11,11,11 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 2A | 3793 | 1/1 | 0.92 | 0.09 | 55,55,55,55 | 0 |
| 56 | MG | 1R | 202 | 1/1 | 0.92 | 0.12 | 40,40,40,40 | 0 |
| 56 | MG | 2A | 3031 | 1/1 | 0.92 | 0.12 | 34,34,34,34 | 0 |
| 56 | MG | 1U | 204 | 1/1 | 0.92 | 0.18 | 42,42,42,42 | 0 |
| 56 | MG | 1A | 3560 | 1/1 | 0.92 | 0.16 | 23,23,23,23 | 0 |
| 56 | MG | 2A | 3037 | 1/1 | 0.92 | 0.20 | 58,58,58,58 | 0 |
| 56 | MG | 2A | 3039 | 1/1 | 0.92 | 0.16 | 51,51,51,51 | 0 |
| 56 | MG | 1A | 3564 | 1/1 | 0.92 | 0.13 | 47,47,47,47 | 0 |
| 56 | MG | 1A | 3269 | 1/1 | 0.92 | 0.25 | 19,19,19,19 | 0 |
| 56 | MG | 1a | 1722 | 1/1 | 0.92 | 0.21 | 57,57,57,57 | 0 |
| 56 | MG | 1A | 3574 | 1/1 | 0.92 | 0.09 | 29,29,29,29 | 0 |
| 56 | MG | 1a | 1725 | 1/1 | 0.92 | 0.17 | 48,48,48,48 | 0 |
| 56 | MG | 2A | 3811 | 1/1 | 0.92 | 0.12 | 57,57,57,57 | 0 |
| 56 | MG | 1A | 3830 | 1/1 | 0.92 | 0.24 | 22,22,22,22 | 0 |
| 56 | MG | 1a | 1727 | 1/1 | 0.92 | 0.14 | 57,57,57,57 | 0 |
| 56 | MG | 1A | 3576 | 1/1 | 0.92 | 0.13 | 24,24,24,24 | 0 |
| 56 | MG | 2A | 3817 | 1/1 | 0.92 | 0.18 | 40,40,40,40 | 0 |
| 56 | MG | 1X | 104 | 1/1 | 0.92 | 0.23 | 38,38,38,38 | 0 |
| 56 | MG | 2A | 3203 | 1/1 | 0.92 | 0.18 | 59,59,59,59 | 0 |
| 56 | MG | 1A | 3951 | 1/1 | 0.92 | 0.17 | 29,29,29,29 | 0 |
| 56 | MG | 1A | 3192 | 1/1 | 0.92 | 0.14 | 25,25,25,25 | 0 |
| 56 | MG | 1A | 3370 | 1/1 | 0.92 | 0.14 | 47,47,47,47 | 0 |
| 56 | MG | 2A | 3210 | 1/1 | 0.92 | 0.20 | 45,45,45,45 | 0 |
| 56 | MG | 2A | 3358 | 1/1 | 0.92 | 0.24 | 70,70,70,70 | 0 |
| 56 | MG | 2a | 3123 | 1/1 | 0.92 | 0.25 | 73,73,73,73 | 0 |
| 56 | MG | 2A | 3576 | 1/1 | 0.92 | 0.20 | 34,34,34,34 | 0 |
| 56 | MG | 2a | 3125 | 1/1 | 0.92 | 0.20 | 64,64,64,64 | 0 |
| 56 | MG | 1A | 3839 | 1/1 | 0.92 | 0.18 | 11,11,11,11 | 0 |
| 56 | MG | 1A | 3277 | 1/1 | 0.92 | 0.08 | 32,32,32,32 | 0 |
| 56 | MG | 2A | 3579 | 1/1 | 0.92 | 0.14 | 55,55,55,55 | 0 |
| 56 | MG | 1A | 3013 | 1/1 | 0.92 | 0.17 | 20,20,20,20 | 0 |
| 56 | MG | 1A | 3285 | 1/1 | 0.92 | 0.15 | 38,38,38,38 | 0 |
| 56 | MG | 2A | 3216 | 1/1 | 0.92 | 0.14 | 36,36,36,36 | 0 |
| 56 | MG | 1A | 3584 | 1/1 | 0.92 | 0.18 | 14,14,14,14 | 0 |
| 56 | MG | 1A | 3148 | 1/1 | 0.92 | 0.17 | 48,48,48,48 | 0 |
| 56 | MG | 1A | 3326 | 1/1 | 0.92 | 0.12 | 39,39,39,39 | 0 |
| 56 | MG | 2A | 3593 | 1/1 | 0.92 | 0.16 | 56,56,56,56 | 0 |
| 56 | MG | 1A | 3970 | 1/1 | 0.92 | 0.18 | 38,38,38,38 | 0 |
| 56 | MG | 1a | 1751 | 1/1 | 0.92 | 0.10 | 48,48,48,48 | 0 |
| 56 | MG | 11 | 103 | 1/1 | 0.92 | 0.14 | 32,32,32,32 | 0 |
| 56 | MG | 2A | 3226 | 1/1 | 0.92 | 0.19 | 66,66,66,66 | 0 |
| 56 | MG | 2A | 3860 | 1/1 | 0.92 | 0.20 | 61,61,61,61 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 2A | 3375 | 1/1 | 0.92 | 0.15 | 56,56,56,56 | 0 |
| 56 | MG | 2A | 3864 | 1/1 | 0.92 | 0.13 | 63,63,63,63 | 0 |
| 56 | MG | 2A | 3609 | 1/1 | 0.92 | 0.34 | 68,68,68,68 | 0 |
| 56 | MG | 1A | 3492 | 1/1 | 0.92 | 0.38 | 43,43,43,43 | 0 |
| 56 | MG | 1A | 3111 | 1/1 | 0.92 | 0.16 | 25,25,25,25 | 0 |
| 56 | MG | 2A | 3870 | 1/1 | 0.92 | 0.20 | 67,67,67,67 | 0 |
| 56 | MG | 2A | 3612 | 1/1 | 0.92 | 0.15 | 48,48,48,48 | 0 |
| 56 | MG | 2a | 3166 | 1/1 | 0.92 | 0.19 | 56,56,56,56 | 0 |
| 56 | MG | 13 | 104 | 1/1 | 0.92 | 0.15 | 33,33,33,33 | 0 |
| 56 | MG | 1A | 3495 | 1/1 | 0.92 | 0.33 | 47,47,47,47 | 0 |
| 56 | MG | 2A | 3077 | 1/1 | 0.92 | 0.11 | 53,53,53,53 | 0 |
| 56 | MG | 2A | 3382 | 1/1 | 0.92 | 0.22 | 48,48,48,48 | 0 |
| 56 | MG | 1B | 207 | 1/1 | 0.92 | 0.15 | 40,40,40,40 | 0 |
| 56 | MG | 2A | 3622 | 1/1 | 0.92 | 0.11 | 59,59,59,59 | 0 |
| 56 | MG | 2a | 3176 | 1/1 | 0.92 | 0.23 | 67,67,67,67 | 0 |
| 56 | MG | 1A | 3601 | 1/1 | 0.92 | 0.19 | 43,43,43,43 | 0 |
| 56 | MG | 1A | 3048 | 1/1 | 0.92 | 0.16 | 42,42,42,42 | 0 |
| 56 | MG | 1A | 3159 | 1/1 | 0.92 | 0.26 | 30,30,30,30 | 0 |
| 56 | MG | 1A | 3241 | 1/1 | 0.92 | 0.21 | 36,36,36,36 | 0 |
| 56 | MG | 1a | 1765 | 1/1 | 0.92 | 0.10 | 49,49,49,49 | 0 |
| 56 | MG | 2a | 3183 | 1/1 | 0.92 | 0.20 | 57,57,57,57 | 0 |
| 56 | MG | 2B | 207 | 1/1 | 0.92 | 0.14 | 69,69,69,69 | 0 |
| 56 | MG | 2a | 3185 | 1/1 | 0.92 | 0.08 | 68,68,68,68 | 0 |
| 56 | MG | 2B | 208 | 1/1 | 0.92 | 0.20 | 61,61,61,61 | 0 |
| 56 | MG | 2A | 3634 | 1/1 | 0.92 | 0.12 | 44,44,44,44 | 0 |
| 56 | MG | 2B | 210 | 1/1 | 0.92 | 0.10 | 59,59,59,59 | 0 |
| 56 | MG | 1A | 3044 | 1/1 | 0.92 | 0.15 | 29,29,29,29 | 0 |
| 56 | MG | 1B | 219 | 1/1 | 0.92 | 0.16 | 33,33,33,33 | 0 |
| 56 | MG | 2A | 3638 | 1/1 | 0.92 | 0.24 | 69,69,69,69 | 0 |
| 56 | MG | 2a | 3203 | 1/1 | 0.92 | 0.17 | 48,48,48,48 | 0 |
| 56 | MG | 18 | 101 | 1/1 | 0.92 | 0.20 | 40,40,40,40 | 0 |
| 56 | MG | 1A | 3335 | 1/1 | 0.92 | 0.27 | 39,39,39,39 | 0 |
| 56 | MG | 1a | 1776 | 1/1 | 0.92 | 0.14 | 51,51,51,51 | 0 |
| 56 | MG | 2A | 3407 | 1/1 | 0.92 | 0.23 | 50,50,50,50 | 0 |
| 56 | MG | 1A | 3618 | 1/1 | 0.92 | 0.11 | 18,18,18,18 | 0 |
| 56 | MG | 2D | 307 | 1/1 | 0.92 | 0.16 | 45,45,45,45 | 0 |
| 56 | MG | 2a | 3212 | 1/1 | 0.92 | 0.10 | 65,65,65,65 | 0 |
| 56 | MG | 2a | 3214 | 1/1 | 0.92 | 0.15 | 58,58,58,58 | 0 |
| 56 | MG | 1a | 1602 | 1/1 | 0.92 | 0.10 | 46,46,46,46 | 0 |
| 56 | MG | 1A | 3296 | 1/1 | 0.92 | 0.24 | 50,50,50,50 | 0 |
| 56 | MG | 1A | 3507 | 1/1 | 0.92 | 0.19 | 49,49,49,49 | 0 |
| 56 | MG | 2E | 310 | 1/1 | 0.92 | 0.09 | 63,63,63,63 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 1a | 1615 | 1/1 | 0.92 | 0.12 | 39,39,39,39 | 0 |
| 56 | MG | 2A | 3656 | 1/1 | 0.92 | 0.11 | 63,63,63,63 | 0 |
| 56 | MG | 2A | 3104 | 1/1 | 0.92 | 0.20 | 63,63,63,63 | 0 |
| 56 | MG | 1A | 3987 | 1/1 | 0.92 | 0.14 | 22,22,22,22 | 0 |
| 56 | MG | 2F | 308 | 1/1 | 0.92 | 0.09 | 54,54,54,54 | 0 |
| 56 | MG | 1A | 3754 | 1/1 | 0.92 | 0.09 | 47,47,47,47 | 0 |
| 56 | MG | 1A | 3628 | 1/1 | 0.92 | 0.10 | 26,26,26,26 | 0 |
| 56 | MG | 2e | 202 | 1/1 | 0.92 | 0.10 | 74,74,74,74 | 0 |
| 56 | MG | 1A | 3994 | 1/1 | 0.92 | 0.16 | 18,18,18,18 | 0 |
| 56 | MG | 2f | 202 | 1/1 | 0.92 | 0.13 | 61,61,61,61 | 0 |
| 56 | MG | 1A | 3630 | 1/1 | 0.92 | 0.17 | 57,57,57,57 | 0 |
| 56 | MG | 1A | 3394 | 1/1 | 0.92 | 0.32 | 48,48,48,48 | 0 |
| 56 | MG | 1A | 3297 | 1/1 | 0.92 | 0.20 | 32,32,32,32 | 0 |
| 56 | MG | 2V | 202 | 1/1 | 0.92 | 0.16 | 64,64,64,64 | 0 |
| 56 | MG | 2l | 203 | 1/1 | 0.92 | 0.33 | 59,59,59,59 | 0 |
| 56 | MG | 1A | 3889 | 1/1 | 0.92 | 0.21 | 46,46,46,46 | 0 |
| 56 | MG | 1a | 1807 | 1/1 | 0.92 | 0.14 | 61,61,61,61 | 0 |
| 56 | MG | 2q | 204 | 1/1 | 0.92 | 0.11 | 64,64,64,64 | 0 |
| 56 | MG | 2t | 201 | 1/1 | 0.92 | 0.14 | 53,53,53,53 | 0 |
| 56 | MG | 1A | 3243 | 1/1 | 0.92 | 0.15 | 45,45,45,45 | 0 |
| 56 | MG | 1A | 3776 | 1/1 | 0.92 | 0.17 | 42,42,42,42 | 0 |
| 56 | MG | 1a | 1811 | 1/1 | 0.92 | 0.13 | 50,50,50,50 | 0 |
| 56 | MG | 1A | 3451 | 1/1 | 0.92 | 0.19 | 41,41,41,41 | 0 |
| 56 | MG | 2A | 3679 | 1/1 | 0.92 | 0.18 | 67,67,67,67 | 0 |
| 56 | MG | 2w | 106 | 1/1 | 0.92 | 0.40 | 68,68,68,68 | 0 |
| 56 | MG | 2w | 107 | 1/1 | 0.92 | 0.14 | 58,58,58,58 | 0 |
| 56 | MG | 2A | 3680 | 1/1 | 0.92 | 0.74 | 56,56,56,56 | 0 |
| 56 | MG | 1A | 4007 | 1/1 | 0.92 | 0.11 | 34,34,34,34 | 0 |
| 56 | MG | 1A | 3648 | 1/1 | 0.92 | 0.10 | 46,46,46,46 | 0 |
| 56 | MG | 25 | 103 | 1/1 | 0.92 | 0.35 | 43,43,43,43 | 0 |
| 56 | MG | 2A | 3275 | 1/1 | 0.92 | 0.54 | 62,62,62,62 | 0 |
| 56 | MG | 1A | 3019 | 1/1 | 0.92 | 0.18 | 42,42,42,42 | 0 |
| 56 | MG | 2A | 3688 | 1/1 | 0.92 | 0.08 | 61,61,61,61 | 0 |
| 56 | MG | 27 | 101 | 1/1 | 0.92 | 0.60 | 43,43,43,43 | 0 |
| 56 | MG | 1A | 3346 | 1/1 | 0.92 | 0.46 | 52,52,52,52 | 0 |
| 56 | MG | 28 | 102 | 1/1 | 0.92 | 0.14 | 53,53,53,53 | 0 |
| 56 | MG | 28 | 104 | 1/1 | 0.92 | 0.24 | 46,46,46,46 | 0 |
| 56 | MG | 2A | 3691 | 1/1 | 0.92 | 0.10 | 55,55,55,55 | 0 |
| 57 | K | 2A | 3428 | 1/1 | 0.92 | 0.08 | 63,63,63,63 | 0 |
| 56 | MG | 2A | 3279 | 1/1 | 0.92 | 0.12 | 63,63,63,63 | 0 |
| 56 | MG | 1A | 3536 | 1/1 | 0.92 | 0.17 | 55,55,55,55 | 0 |
| 56 | MG | 1A | 3057 | 1/1 | 0.93 | 0.11 | 30,30,30,30 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 1A | 3897 | 1/1 | 0.93 | 0.12 | 35,35,35,35 | 0 |
| 56 | MG | 2A | 3422 | 1/1 | 0.93 | 0.29 | 37,37,37,37 | 0 |
| 56 | MG | 2A | 3231 | 1/1 | 0.93 | 0.12 | 48,48,48,48 | 0 |
| 56 | MG | 1a | 1696 | 1/1 | 0.93 | 0.18 | 30,30,30,30 | 0 |
| 56 | MG | 1A | 3405 | 1/1 | 0.93 | 0.17 | 51,51,51,51 | 0 |
| 56 | MG | 1a | 1698 | 1/1 | 0.93 | 0.11 | 59,59,59,59 | 0 |
| 56 | MG | 1A | 3655 | 1/1 | 0.93 | 0.20 | 50,50,50,50 | 0 |
| 56 | MG | 2A | 3702 | 1/1 | 0.93 | 0.18 | 44,44,44,44 | 0 |
| 56 | MG | 2A | 3704 | 1/1 | 0.93 | 0.07 | 55,55,55,55 | 0 |
| 56 | MG | 2a | 3016 | 1/1 | 0.93 | 0.12 | 65,65,65,65 | 0 |
| 56 | MG | 1F | 314 | 1/1 | 0.93 | 0.13 | 41,41,41,41 | 0 |
| 56 | MG | 2A | 3237 | 1/1 | 0.93 | 0.10 | 63,63,63,63 | 0 |
| 56 | MG | 1A | 3174 | 1/1 | 0.93 | 0.21 | 30,30,30,30 | 0 |
| 56 | MG | 2A | 3708 | 1/1 | 0.93 | 0.12 | 53,53,53,53 | 0 |
| 56 | MG | 1A | 3901 | 1/1 | 0.93 | 0.13 | 54,54,54,54 | 0 |
| 56 | MG | 2A | 3057 | 1/1 | 0.93 | 0.13 | 53,53,53,53 | 0 |
| 56 | MG | 1A | 3259 | 1/1 | 0.93 | 0.15 | 42,42,42,42 | 0 |
| 56 | MG | 1A | 3260 | 1/1 | 0.93 | 0.24 | 29,29,29,29 | 0 |
| 56 | MG | 1A | 3360 | 1/1 | 0.93 | 0.30 | 42,42,42,42 | 0 |
| 56 | MG | 2A | 3716 | 1/1 | 0.93 | 0.16 | 46,46,46,46 | 0 |
| 56 | MG | 1A | 3119 | 1/1 | 0.93 | 0.25 | 27,27,27,27 | 0 |
| 56 | MG | 2a | 3029 | 1/1 | 0.93 | 0.51 | 68,68,68,68 | 0 |
| 56 | MG | 1A | 3041 | 1/1 | 0.93 | 0.19 | 23,23,23,23 | 0 |
| 56 | MG | 1A | 3363 | 1/1 | 0.93 | 0.19 | 33,33,33,33 | 0 |
| 56 | MG | 1A | 3178 | 1/1 | 0.93 | 0.07 | 55,55,55,55 | 0 |
| 56 | MG | 1A | 3557 | 1/1 | 0.93 | 0.14 | 45,45,45,45 | 0 |
| 56 | MG | 2A | 3252 | 1/1 | 0.93 | 0.34 | 62,62,62,62 | 0 |
| 56 | MG | 2A | 3068 | 1/1 | 0.93 | 0.18 | 57,57,57,57 | 0 |
| 56 | MG | 1A | 3672 | 1/1 | 0.93 | 0.11 | 58,58,58,58 | 0 |
| 56 | MG | 1Q | 201 | 1/1 | 0.93 | 0.17 | 30,30,30,30 | 0 |
| 56 | MG | 2A | 3073 | 1/1 | 0.93 | 0.13 | 58,58,58,58 | 0 |
| 56 | MG | 1a | 1730 | 1/1 | 0.93 | 0.14 | 53,53,53,53 | 0 |
| 56 | MG | 1a | 1732 | 1/1 | 0.93 | 0.10 | 52,52,52,52 | 0 |
| 56 | MG | 2a | 3042 | 1/1 | 0.93 | 0.13 | 58,58,58,58 | 0 |
| 56 | MG | 1A | 3317 | 1/1 | 0.93 | 0.19 | 34,34,34,34 | 0 |
| 56 | MG | 1A | 3366 | 1/1 | 0.93 | 0.25 | 40,40,40,40 | 0 |
| 56 | MG | 1Q | 206 | 1/1 | 0.93 | 0.34 | 37,37,37,37 | 0 |
| 56 | MG | 1A | 3678 | 1/1 | 0.93 | 0.15 | 51,51,51,51 | 0 |
| 56 | MG | 1A | 3064 | 1/1 | 0.93 | 0.22 | 20,20,20,20 | 0 |
| 56 | MG | 2A | 3464 | 1/1 | 0.93 | 0.19 | 49,49,49,49 | 0 |
| 56 | MG | 1A | 3422 | 1/1 | 0.93 | 0.17 | 47,47,47,47 | 0 |
| 56 | MG | 2A | 3467 | 1/1 | 0.93 | 0.15 | 57,57,57,57 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 2A | 3469 | 1/1 | 0.93 | 0.12 | 49,49,49,49 | 0 |
| 56 | MG | 2A | 3756 | 1/1 | 0.93 | 0.08 | 56,56,56,56 | 0 |
| 56 | MG | 1T | 202 | 1/1 | 0.93 | 0.32 | 53,53,53,53 | 0 |
| 56 | MG | 1A | 3573 | 1/1 | 0.93 | 0.12 | 17,17,17,17 | 0 |
| 56 | MG | 1U | 211 | 1/1 | 0.93 | 0.14 | 50,50,50,50 | 0 |
| 56 | MG | 2A | 3474 | 1/1 | 0.93 | 0.16 | 68,68,68,68 | 0 |
| 56 | MG | 1A | 4057 | 1/1 | 0.93 | 0.16 | 38,38,38,38 | 0 |
| 56 | MG | 1a | 1748 | 1/1 | 0.93 | 0.12 | 46,46,46,46 | 0 |
| 56 | MG | 1A | 3923 | 1/1 | 0.93 | 0.24 | 57,57,57,57 | 0 |
| 56 | MG | 1A | 3369 | 1/1 | 0.93 | 0.30 | 46,46,46,46 | 0 |
| 56 | MG | 1A | 3810 | 1/1 | 0.93 | 0.13 | 39,39,39,39 | 0 |
| 56 | MG | 1A | 4062 | 1/1 | 0.93 | 0.12 | 49,49,49,49 | 0 |
| 56 | MG | 1A | 3926 | 1/1 | 0.93 | 0.19 | 17,17,17,17 | 0 |
| 56 | MG | 2A | 3493 | 1/1 | 0.93 | 0.12 | 39,39,39,39 | 0 |
| 56 | MG | 2a | 3075 | 1/1 | 0.93 | 0.16 | 56,56,56,56 | 0 |
| 56 | MG | 2a | 3078 | 1/1 | 0.93 | 0.10 | 64,64,64,64 | 0 |
| 56 | MG | 2A | 3280 | 1/1 | 0.93 | 0.15 | 51,51,51,51 | 0 |
| 56 | MG | 1A | 3927 | 1/1 | 0.93 | 0.13 | 29,29,29,29 | 0 |
| 56 | MG | 2A | 3502 | 1/1 | 0.93 | 0.15 | 73,73,73,73 | 0 |
| 56 | MG | 1A | 3930 | 1/1 | 0.93 | 0.18 | 24,24,24,24 | 0 |
| 56 | MG | 1A | 3931 | 1/1 | 0.93 | 0.17 | 22,22,22,22 | 0 |
| 56 | MG | 2A | 3782 | 1/1 | 0.93 | 0.18 | 43,43,43,43 | 0 |
| 56 | MG | 1A | 3278 | 1/1 | 0.93 | 0.09 | 54,54,54,54 | 0 |
| 56 | MG | 1A | 3279 | 1/1 | 0.93 | 0.18 | 52,52,52,52 | 0 |
| 56 | MG | 2A | 3508 | 1/1 | 0.93 | 0.20 | 40,40,40,40 | 0 |
| 56 | MG | 2A | 3108 | 1/1 | 0.93 | 0.11 | 41,41,41,41 | 0 |
| 56 | MG | 2A | 3109 | 1/1 | 0.93 | 0.22 | 40,40,40,40 | 0 |
| 56 | MG | 1A | 3372 | 1/1 | 0.93 | 0.56 | 44,44,44,44 | 0 |
| 56 | MG | 1A | 3936 | 1/1 | 0.93 | 0.18 | 32,32,32,32 | 0 |
| 56 | MG | 1a | 1763 | 1/1 | 0.93 | 0.14 | 53,53,53,53 | 0 |
| 56 | MG | 2a | 3102 | 1/1 | 0.93 | 0.18 | 66,66,66,66 | 0 |
| 56 | MG | 2A | 3800 | 1/1 | 0.93 | 0.14 | 33,33,33,33 | 0 |
| 56 | MG | 10 | 106 | 1/1 | 0.93 | 0.12 | 57,57,57,57 | 0 |
| 56 | MG | 1A | 3491 | 1/1 | 0.93 | 0.36 | 29,29,29,29 | 0 |
| 56 | MG | 1A | 4083 | 1/1 | 0.93 | 0.15 | 58,58,58,58 | 0 |
| 56 | MG | 1a | 1768 | 1/1 | 0.93 | 0.08 | 46,46,46,46 | 0 |
| 56 | MG | 2A | 3121 | 1/1 | 0.93 | 0.14 | 47,47,47,47 | 0 |
| 56 | MG | 2A | 3523 | 1/1 | 0.93 | 0.17 | 39,39,39,39 | 0 |
| 56 | MG | 1A | 3020 | 1/1 | 0.93 | 0.13 | 48,48,48,48 | 0 |
| 56 | MG | 1A | 3281 | 1/1 | 0.93 | 0.18 | 23,23,23,23 | 0 |
| 56 | MG | 1A | 3699 | 1/1 | 0.93 | 0.14 | 31,31,31,31 | 0 |
| 56 | MG | 2A | 3527 | 1/1 | 0.93 | 0.14 | 32,32,32,32 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 1A | 3945 | 1/1 | 0.93 | 0.04 | 62,62,62,62 | 0 |
| 56 | MG | 1A | 3494 | 1/1 | 0.93 | 0.16 | 17,17,17,17 | 0 |
| 56 | MG | 2A | 3816 | 1/1 | 0.93 | 0.22 | 44,44,44,44 | 0 |
| 56 | MG | 1A | 3188 | 1/1 | 0.93 | 0.11 | 39,39,39,39 | 0 |
| 56 | MG | 2A | 3821 | 1/1 | 0.93 | 0.07 | 59,59,59,59 | 0 |
| 56 | MG | 1A | 4096 | 1/1 | 0.93 | 0.15 | 55,55,55,55 | 0 |
| 56 | MG | 1A | 3137 | 1/1 | 0.93 | 0.16 | 43,43,43,43 | 0 |
| 56 | MG | 1A | 4101 | 1/1 | 0.93 | 0.09 | 62,62,62,62 | 0 |
| 56 | MG | 2A | 3826 | 1/1 | 0.93 | 0.09 | 50,50,50,50 | 0 |
| 56 | MG | 1A | 3706 | 1/1 | 0.93 | 0.18 | 14,14,14,14 | 0 |
| 56 | MG | 1A | 4103 | 1/1 | 0.93 | 0.18 | 31,31,31,31 | 0 |
| 56 | MG | 1A | 4105 | 1/1 | 0.93 | 0.23 | 45,45,45,45 | 0 |
| 56 | MG | 15 | 107 | 1/1 | 0.93 | 0.17 | 30,30,30,30 | 0 |
| 56 | MG | 2A | 3835 | 1/1 | 0.93 | 0.10 | 64,64,64,64 | 0 |
| 56 | MG | 1a | 1796 | 1/1 | 0.93 | 0.23 | 67,67,67,67 | 0 |
| 56 | MG | 1A | 4106 | 1/1 | 0.93 | 0.13 | 37,37,37,37 | 0 |
| 56 | MG | 1A | 3708 | 1/1 | 0.93 | 0.13 | 22,22,22,22 | 0 |
| 56 | MG | 2A | 3148 | 1/1 | 0.93 | 0.15 | 46,46,46,46 | 0 |
| 56 | MG | 1A | 4109 | 1/1 | 0.93 | 0.11 | 34,34,34,34 | 0 |
| 56 | MG | 1A | 3436 | 1/1 | 0.93 | 0.23 | 57,57,57,57 | 0 |
| 56 | MG | 1A | 3071 | 1/1 | 0.93 | 0.12 | 25,25,25,25 | 0 |
| 56 | MG | 2A | 3152 | 1/1 | 0.93 | 0.12 | 70,70,70,70 | 0 |
| 56 | MG | 2A | 3563 | 1/1 | 0.93 | 0.21 | 54,54,54,54 | 0 |
| 56 | MG | 1a | 1808 | 1/1 | 0.93 | 0.13 | 40,40,40,40 | 0 |
| 56 | MG | 2a | 3156 | 1/1 | 0.93 | 0.19 | 55,55,55,55 | 0 |
| 56 | MG | 2A | 3565 | 1/1 | 0.93 | 0.25 | 51,51,51,51 | 0 |
| 56 | MG | 2a | 3158 | 1/1 | 0.93 | 0.21 | 61,61,61,61 | 0 |
| 56 | MG | 2A | 3566 | 1/1 | 0.93 | 0.11 | 63,63,63,63 | 0 |
| 56 | MG | 2A | 3155 | 1/1 | 0.93 | 0.19 | 58,58,58,58 | 0 |
| 56 | MG | 1A | 3383 | 1/1 | 0.93 | 0.34 | 49,49,49,49 | 0 |
| 56 | MG | 19 | 101 | 1/1 | 0.93 | 0.20 | 45,45,45,45 | 0 |
| 56 | MG | 1A | 3958 | 1/1 | 0.93 | 0.15 | 37,37,37,37 | 0 |
| 56 | MG | 1A | 3104 | 1/1 | 0.93 | 0.36 | 21,21,21,21 | 0 |
| 56 | MG | 1A | 3194 | 1/1 | 0.93 | 0.18 | 17,17,17,17 | 0 |
| 56 | MG | 2a | 3170 | 1/1 | 0.93 | 0.13 | 67,67,67,67 | 0 |
| 56 | MG | 2A | 3331 | 1/1 | 0.93 | 0.18 | 47,47,47,47 | 0 |
| 56 | MG | 1a | 1614 | 1/1 | 0.93 | 0.10 | 50,50,50,50 | 0 |
| 56 | MG | 1A | 3849 | 1/1 | 0.93 | 0.12 | 33,33,33,33 | 0 |
| 56 | MG | 1a | 1616 | 1/1 | 0.93 | 0.17 | 54,54,54,54 | 0 |
| 56 | MG | 1a | 1617 | 1/1 | 0.93 | 0.18 | 51,51,51,51 | 0 |
| 56 | MG | 2a | 3177 | 1/1 | 0.93 | 0.10 | 68,68,68,68 | 0 |
| 56 | MG | 1A | 3851 | 1/1 | 0.93 | 0.14 | 51,51,51,51 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 1A | 3716 | 1/1 | 0.93 | 0.08 | 50,50,50,50 | 0 |
| 56 | MG | 1a | 1623 | 1/1 | 0.93 | 0.13 | 48,48,48,48 | 0 |
| 56 | MG | 1A | 3966 | 1/1 | 0.93 | 0.10 | 68,68,68,68 | 0 |
| 56 | MG | 1a | 1625 | 1/1 | 0.93 | 0.20 | 58,58,58,58 | 0 |
| 56 | MG | 1A | 3967 | 1/1 | 0.93 | 0.11 | 52,52,52,52 | 0 |
| 56 | MG | 1A | 3197 | 1/1 | 0.93 | 0.22 | 30,30,30,30 | 0 |
| 56 | MG | 1A | 3509 | 1/1 | 0.93 | 0.24 | 22,22,22,22 | 0 |
| 56 | MG | 1A | 3722 | 1/1 | 0.93 | 0.15 | 26,26,26,26 | 0 |
| 56 | MG | 1A | 3725 | 1/1 | 0.93 | 0.12 | 38,38,38,38 | 0 |
| 56 | MG | 2a | 3190 | 1/1 | 0.93 | 0.15 | 63,63,63,63 | 0 |
| 56 | MG | 1a | 1635 | 1/1 | 0.93 | 0.13 | 55,55,55,55 | 0 |
| 56 | MG | 1A | 3333 | 1/1 | 0.93 | 0.22 | 43,43,43,43 | 0 |
| 56 | MG | 1A | 3864 | 1/1 | 0.93 | 0.13 | 37,37,37,37 | 0 |
| 56 | MG | 2a | 3196 | 1/1 | 0.93 | 0.09 | 67,67,67,67 | 0 |
| 56 | MG | 2a | 3198 | 1/1 | 0.93 | 0.11 | 60,60,60,60 | 0 |
| 56 | MG | 2a | 3199 | 1/1 | 0.93 | 0.07 | 61,61,61,61 | 0 |
| 56 | MG | 2a | 3200 | 1/1 | 0.93 | 0.11 | 55,55,55,55 | 0 |
| 56 | MG | 1a | 1642 | 1/1 | 0.93 | 0.17 | 48,48,48,48 | 0 |
| 56 | MG | 2A | 3356 | 1/1 | 0.93 | 0.18 | 60,60,60,60 | 0 |
| 56 | MG | 1A | 3017 | 1/1 | 0.93 | 0.16 | 41,41,41,41 | 0 |
| 56 | MG | 1A | 3733 | 1/1 | 0.93 | 0.10 | 40,40,40,40 | 0 |
| 56 | MG | 1x | 107 | 1/1 | 0.93 | 0.22 | 59,59,59,59 | 0 |
| 56 | MG | 2A | 3186 | 1/1 | 0.93 | 0.14 | 37,37,37,37 | 0 |
| 56 | MG | 1A | 3868 | 1/1 | 0.93 | 0.09 | 48,48,48,48 | 0 |
| 56 | MG | 2a | 3209 | 1/1 | 0.93 | 0.10 | 58,58,58,58 | 0 |
| 56 | MG | 1A | 3523 | 1/1 | 0.93 | 0.27 | 26,26,26,26 | 0 |
| 56 | MG | 2a | 3211 | 1/1 | 0.93 | 0.08 | 56,56,56,56 | 0 |
| 56 | MG | 1B | 232 | 1/1 | 0.93 | 0.16 | 52,52,52,52 | 0 |
| 56 | MG | 2A | 3190 | 1/1 | 0.93 | 0.15 | 60,60,60,60 | 0 |
| 56 | MG | 2A | 3367 | 1/1 | 0.93 | 0.20 | 66,66,66,66 | 0 |
| 56 | MG | 2a | 3216 | 1/1 | 0.93 | 0.08 | 58,58,58,58 | 0 |
| 56 | MG | 1A | 3040 | 1/1 | 0.93 | 0.10 | 26,26,26,26 | 0 |
| 56 | MG | 1B | 235 | 1/1 | 0.93 | 0.17 | 36,36,36,36 | 0 |
| 56 | MG | 1a | 1654 | 1/1 | 0.93 | 0.19 | 52,52,52,52 | 0 |
| 56 | MG | 1A | 3108 | 1/1 | 0.93 | 0.21 | 33,33,33,33 | 0 |
| 56 | MG | 1A | 3985 | 1/1 | 0.93 | 0.23 | 23,23,23,23 | 0 |
| 56 | MG | 1A | 3627 | 1/1 | 0.93 | 0.19 | 18,18,18,18 | 0 |
| 56 | MG | 2A | 3639 | 1/1 | 0.93 | 0.14 | 37,37,37,37 | 0 |
| 56 | MG | 2a | 3232 | 1/1 | 0.93 | 0.16 | 64,64,64,64 | 0 |
| 56 | MG | 1A | 3531 | 1/1 | 0.93 | 0.19 | 53,53,53,53 | 0 |
| 56 | MG | 1D | 301 | 1/1 | 0.93 | 0.12 | 52,52,52,52 | 0 |
| 56 | MG | 2d | 301 | 1/1 | 0.93 | 0.07 | 58,58,58,58 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 2P | 201 | 1/1 | 0.93 | 0.12 | 61,61,61,61 | 0 |
| 56 | MG | 2e | 201 | 1/1 | 0.93 | 0.11 | 60,60,60,60 | 0 |
| 56 | MG | 2Q | 201 | 1/1 | 0.93 | 0.14 | 61,61,61,61 | 0 |
| 56 | MG | 1A | 3452 | 1/1 | 0.93 | 0.28 | 49,49,49,49 | 0 |
| 56 | MG | 2A | 3014 | 1/1 | 0.93 | 0.12 | 54,54,54,54 | 0 |
| 56 | MG | 1A | 3990 | 1/1 | 0.93 | 0.08 | 41,41,41,41 | 0 |
| 56 | MG | 1A | 3082 | 1/1 | 0.93 | 0.66 | 34,34,34,34 | 0 |
| 56 | MG | 1A | 3993 | 1/1 | 0.93 | 0.12 | 46,46,46,46 | 0 |
| 56 | MG | 1A | 3056 | 1/1 | 0.93 | 0.30 | 45,45,45,45 | 0 |
| 56 | MG | 1A | 3164 | 1/1 | 0.93 | 0.25 | 29,29,29,29 | 0 |
| 56 | MG | 2A | 3209 | 1/1 | 0.93 | 0.46 | 45,45,45,45 | 0 |
| 56 | MG | 1a | 1674 | 1/1 | 0.93 | 0.14 | 54,54,54,54 | 0 |
| 56 | MG | 2Z | 301 | 1/1 | 0.93 | 0.17 | 70,70,70,70 | 0 |
| 56 | MG | 1A | 3755 | 1/1 | 0.93 | 0.08 | 29,29,29,29 | 0 |
| 56 | MG | 2A | 3030 | 1/1 | 0.93 | 0.19 | 40,40,40,40 | 0 |
| 56 | MG | 1A | 3756 | 1/1 | 0.93 | 0.23 | 42,42,42,42 | 0 |
| 56 | MG | 2w | 101 | 1/1 | 0.93 | 0.21 | 59,59,59,59 | 0 |
| 56 | MG | 1A | 3302 | 1/1 | 0.93 | 0.20 | 30,30,30,30 | 0 |
| 56 | MG | 2A | 3215 | 1/1 | 0.93 | 0.18 | 52,52,52,52 | 0 |
| 56 | MG | 1A | 3759 | 1/1 | 0.93 | 0.24 | 59,59,59,59 | 0 |
| 56 | MG | 1A | 3645 | 1/1 | 0.93 | 0.20 | 25,25,25,25 | 0 |
| 56 | MG | 2A | 3406 | 1/1 | 0.93 | 0.18 | 51,51,51,51 | 0 |
| 56 | MG | 2A | 3038 | 1/1 | 0.93 | 0.10 | 65,65,65,65 | 0 |
| 56 | MG | 25 | 104 | 1/1 | 0.93 | 0.19 | 59,59,59,59 | 0 |
| 56 | MG | 1A | 4002 | 1/1 | 0.93 | 0.17 | 22,22,22,22 | 0 |
| 56 | MG | 2A | 3409 | 1/1 | 0.93 | 0.08 | 59,59,59,59 | 0 |
| 56 | MG | 1A | 4004 | 1/1 | 0.93 | 0.10 | 29,29,29,29 | 0 |
| 56 | MG | 2A | 3223 | 1/1 | 0.93 | 0.09 | 53,53,53,53 | 0 |
| 56 | MG | 27 | 102 | 1/1 | 0.93 | 0.20 | 45,45,45,45 | 0 |
| 56 | MG | 1A | 3303 | 1/1 | 0.93 | 0.19 | 53,53,53,53 | 0 |
| 56 | MG | 1a | 1688 | 1/1 | 0.93 | 0.12 | 52,52,52,52 | 0 |
| 56 | MG | 2A | 3682 | 1/1 | 0.93 | 0.07 | 60,60,60,60 | 0 |
| 56 | MG | 1A | 3893 | 1/1 | 0.93 | 0.04 | 62,62,62,62 | 0 |
| 56 | MG | 2A | 3415 | 1/1 | 0.93 | 0.19 | 42,42,42,42 | 0 |
| 56 | MG | 2A | 3416 | 1/1 | 0.93 | 0.15 | 45,45,45,45 | 0 |
| 58 | ZN | 1Y | 204 | 1/1 | 0.93 | 0.15 | 67,67,67,67 | 0 |
| 58 | ZN | 2Y | 501 | 1/1 | 0.93 | 0.07 | 103,103,103,103 | 0 |
| 56 | MG | 1F | 309 | 1/1 | 0.93 | 0.22 | 54,54,54,54 | 0 |
| 56 | MG | 2A | 3418 | 1/1 | 0.93 | 0.22 | 62,62,62,62 | 0 |
| 56 | MG | 1A | 3774 | 1/1 | 0.94 | 0.19 | 34,34,34,34 | 0 |
| 56 | MG | 1A | 3775 | 1/1 | 0.94 | 0.20 | 52,52,52,52 | 0 |
| 56 | MG | 1A | 3223 | 1/1 | 0.94 | 0.13 | 29,29,29,29 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 1A | 3179 | 1/1 | 0.94 | 0.19 | 34,34,34,34 | 0 |
| 56 | MG | 1A | 4065 | 1/1 | 0.94 | 0.13 | 44,44,44,44 | 0 |
| 56 | MG | 1a | 1784 | 1/1 | 0.94 | 0.18 | 50,50,50,50 | 0 |
| 56 | MG | 1A | 3058 | 1/1 | 0.94 | 0.17 | 49,49,49,49 | 0 |
| 56 | MG | 1A | 4069 | 1/1 | 0.94 | 0.25 | 40,40,40,40 | 0 |
| 56 | MG | 1A | 3327 | 1/1 | 0.94 | 0.10 | 53,53,53,53 | 0 |
| 56 | MG | 2A | 3165 | 1/1 | 0.94 | 0.09 | 55,55,55,55 | 0 |
| 56 | MG | 1A | 3026 | 1/1 | 0.94 | 0.10 | 57,57,57,57 | 0 |
| 56 | MG | 2A | 3369 | 1/1 | 0.94 | 0.23 | 48,48,48,48 | 0 |
| 56 | MG | 1A | 3922 | 1/1 | 0.94 | 0.12 | 58,58,58,58 | 0 |
| 56 | MG | 1A | 3781 | 1/1 | 0.94 | 0.25 | 41,41,41,41 | 0 |
| 56 | MG | 1A | 3653 | 1/1 | 0.94 | 0.11 | 34,34,34,34 | 0 |
| 56 | MG | 1A | 3009 | 1/1 | 0.94 | 0.11 | 16,16,16,16 | 0 |
| 56 | MG | 2A | 3660 | 1/1 | 0.94 | 0.12 | 58,58,58,58 | 0 |
| 56 | MG | 13 | 102 | 1/1 | 0.94 | 0.25 | 35,35,35,35 | 0 |
| 56 | MG | 1a | 1805 | 1/1 | 0.94 | 0.19 | 48,48,48,48 | 0 |
| 56 | MG | 1A | 4080 | 1/1 | 0.94 | 0.27 | 42,42,42,42 | 0 |
| 56 | MG | 1A | 3065 | 1/1 | 0.94 | 0.16 | 9,9,9,9 | 0 |
| 56 | MG | 1A | 3787 | 1/1 | 0.94 | 0.21 | 32,32,32,32 | 0 |
| 56 | MG | 1A | 4084 | 1/1 | 0.94 | 0.15 | 41,41,41,41 | 0 |
| 56 | MG | 2A | 3380 | 1/1 | 0.94 | 0.09 | 45,45,45,45 | 0 |
| 56 | MG | 1A | 3231 | 1/1 | 0.94 | 0.14 | 22,22,22,22 | 0 |
| 56 | MG | 1A | 3287 | 1/1 | 0.94 | 0.11 | 33,33,33,33 | 0 |
| 56 | MG | 2A | 3383 | 1/1 | 0.94 | 0.16 | 53,53,53,53 | 0 |
| 56 | MG | 1a | 1812 | 1/1 | 0.94 | 0.16 | 68,68,68,68 | 0 |
| 56 | MG | 2A | 3385 | 1/1 | 0.94 | 0.19 | 28,28,28,28 | 0 |
| 56 | MG | 2A | 3677 | 1/1 | 0.94 | 0.13 | 41,41,41,41 | 0 |
| 56 | MG | 1A | 3066 | 1/1 | 0.94 | 0.27 | 31,31,31,31 | 0 |
| 56 | MG | 2A | 3182 | 1/1 | 0.94 | 0.10 | 47,47,47,47 | 0 |
| 56 | MG | 2A | 3394 | 1/1 | 0.94 | 0.24 | 47,47,47,47 | 0 |
| 56 | MG | 2A | 3681 | 1/1 | 0.94 | 0.17 | 55,55,55,55 | 0 |
| 56 | MG | 15 | 109 | 1/1 | 0.94 | 0.17 | 50,50,50,50 | 0 |
| 56 | MG | 1A | 4090 | 1/1 | 0.94 | 0.29 | 45,45,45,45 | 0 |
| 56 | MG | 1A | 3029 | 1/1 | 0.94 | 0.17 | 26,26,26,26 | 0 |
| 56 | MG | 1l | 202 | 1/1 | 0.94 | 0.14 | 58,58,58,58 | 0 |
| 56 | MG | 1A | 3663 | 1/1 | 0.94 | 0.23 | 43,43,43,43 | 0 |
| 56 | MG | 1A | 3087 | 1/1 | 0.94 | 0.11 | 47,47,47,47 | 0 |
| 56 | MG | 1A | 4095 | 1/1 | 0.94 | 0.08 | 61,61,61,61 | 0 |
| 56 | MG | 1A | 3795 | 1/1 | 0.94 | 0.28 | 35,35,35,35 | 0 |
| 56 | MG | 1A | 3397 | 1/1 | 0.94 | 0.14 | 30,30,30,30 | 0 |
| 56 | MG | 2a | 3031 | 1/1 | 0.94 | 0.19 | 49,49,49,49 | 0 |
| 56 | MG | 1A | 4098 | 1/1 | 0.94 | 0.12 | 41,41,41,41 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 1w | 103 | 1/1 | 0.94 | 0.11 | 51,51,51,51 | 0 |
| 56 | MG | 1A | 4100 | 1/1 | 0.94 | 0.17 | 34,34,34,34 | 0 |
| 56 | MG | 1a | 1607 | 1/1 | 0.94 | 0.13 | 40,40,40,40 | 0 |
| 56 | MG | 2A | 3700 | 1/1 | 0.94 | 0.08 | 56,56,56,56 | 0 |
| 56 | MG | 1a | 1608 | 1/1 | 0.94 | 0.18 | 57,57,57,57 | 0 |
| 56 | MG | 1A | 3797 | 1/1 | 0.94 | 0.13 | 44,44,44,44 | 0 |
| 56 | MG | 1a | 1613 | 1/1 | 0.94 | 0.14 | 38,38,38,38 | 0 |
| 56 | MG | 1A | 3941 | 1/1 | 0.94 | 0.21 | 26,26,26,26 | 0 |
| 56 | MG | 1A | 3798 | 1/1 | 0.94 | 0.16 | 46,46,46,46 | 0 |
| 56 | MG | 1A | 4104 | 1/1 | 0.94 | 0.16 | 43,43,43,43 | 0 |
| 56 | MG | 1A | 3337 | 1/1 | 0.94 | 0.23 | 33,33,33,33 | 0 |
| 56 | MG | 1A | 3239 | 1/1 | 0.94 | 0.48 | 26,26,26,26 | 0 |
| 56 | MG | 1a | 1620 | 1/1 | 0.94 | 0.12 | 62,62,62,62 | 0 |
| 56 | MG | 1A | 3340 | 1/1 | 0.94 | 0.15 | 48,48,48,48 | 0 |
| 56 | MG | 2A | 3421 | 1/1 | 0.94 | 0.13 | 50,50,50,50 | 0 |
| 56 | MG | 1a | 1622 | 1/1 | 0.94 | 0.21 | 43,43,43,43 | 0 |
| 56 | MG | 1A | 3948 | 1/1 | 0.94 | 0.11 | 29,29,29,29 | 0 |
| 56 | MG | 1A | 3949 | 1/1 | 0.94 | 0.19 | 13,13,13,13 | 0 |
| 56 | MG | 1x | 111 | 1/1 | 0.94 | 0.38 | 59,59,59,59 | 0 |
| 56 | MG | 1A | 4112 | 1/1 | 0.94 | 0.34 | 48,48,48,48 | 0 |
| 56 | MG | 2A | 3721 | 1/1 | 0.94 | 0.43 | 48,48,48,48 | 0 |
| 56 | MG | 1a | 1626 | 1/1 | 0.94 | 0.14 | 66,66,66,66 | 0 |
| 56 | MG | 2A | 3429 | 1/1 | 0.94 | 0.15 | 19,19,19,19 | 0 |
| 56 | MG | 1A | 3552 | 1/1 | 0.94 | 0.24 | 14,14,14,14 | 0 |
| 56 | MG | 1A | 3676 | 1/1 | 0.94 | 0.16 | 23,23,23,23 | 0 |
| 56 | MG | 1a | 1630 | 1/1 | 0.94 | 0.14 | 38,38,38,38 | 0 |
| 56 | MG | 2a | 3065 | 1/1 | 0.94 | 0.18 | 48,48,48,48 | 0 |
| 56 | MG | 1A | 3196 | 1/1 | 0.94 | 0.13 | 50,50,50,50 | 0 |
| 56 | MG | 2A | 3731 | 1/1 | 0.94 | 0.19 | 57,57,57,57 | 0 |
| 56 | MG | 1B | 202 | 1/1 | 0.94 | 0.24 | 60,60,60,60 | 0 |
| 56 | MG | 2A | 3436 | 1/1 | 0.94 | 0.44 | 50,50,50,50 | 0 |
| 56 | MG | 1B | 203 | 1/1 | 0.94 | 0.12 | 43,43,43,43 | 0 |
| 56 | MG | 2A | 3222 | 1/1 | 0.94 | 0.10 | 52,52,52,52 | 0 |
| 56 | MG | 1A | 3815 | 1/1 | 0.94 | 0.31 | 27,27,27,27 | 0 |
| 56 | MG | 1a | 1636 | 1/1 | 0.94 | 0.10 | 58,58,58,58 | 0 |
| 56 | MG | 1A | 3554 | 1/1 | 0.94 | 0.16 | 20,20,20,20 | 0 |
| 56 | MG | 1A | 3116 | 1/1 | 0.94 | 0.33 | 31,31,31,31 | 0 |
| 56 | MG | 2A | 3016 | 1/1 | 0.94 | 0.12 | 31,31,31,31 | 0 |
| 56 | MG | 1a | 1641 | 1/1 | 0.94 | 0.14 | 43,43,43,43 | 0 |
| 56 | MG | 2A | 3749 | 1/1 | 0.94 | 0.13 | 69,69,69,69 | 0 |
| 56 | MG | 2a | 3085 | 1/1 | 0.94 | 0.20 | 51,51,51,51 | 0 |
| 56 | MG | 1A | 3295 | 1/1 | 0.94 | 0.33 | 26,26,26,26 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 1A | 3157 | 1/1 | 0.94 | 0.12 | 57,57,57,57 | 0 |
| 56 | MG | 2A | 3755 | 1/1 | 0.94 | 0.10 | 38,38,38,38 | 0 |
| 56 | MG | 1B | 211 | 1/1 | 0.94 | 0.29 | 48,48,48,48 | 0 |
| 56 | MG | 2a | 3091 | 1/1 | 0.94 | 0.12 | 50,50,50,50 | 0 |
| 56 | MG | 1a | 1645 | 1/1 | 0.94 | 0.07 | 59,59,59,59 | 0 |
| 56 | MG | 2a | 3094 | 1/1 | 0.94 | 0.24 | 61,61,61,61 | 0 |
| 56 | MG | 1A | 3407 | 1/1 | 0.94 | 0.41 | 38,38,38,38 | 0 |
| 56 | MG | 2A | 3029 | 1/1 | 0.94 | 0.14 | 47,47,47,47 | 0 |
| 56 | MG | 1A | 3688 | 1/1 | 0.94 | 0.14 | 25,25,25,25 | 0 |
| 56 | MG | 1A | 3117 | 1/1 | 0.94 | 0.13 | 30,30,30,30 | 0 |
| 56 | MG | 1B | 215 | 1/1 | 0.94 | 0.06 | 44,44,44,44 | 0 |
| 56 | MG | 2A | 3034 | 1/1 | 0.94 | 0.19 | 21,21,21,21 | 0 |
| 56 | MG | 2A | 3458 | 1/1 | 0.94 | 0.14 | 44,44,44,44 | 0 |
| 56 | MG | 2a | 3105 | 1/1 | 0.94 | 0.08 | 57,57,57,57 | 0 |
| 56 | MG | 1a | 1651 | 1/1 | 0.94 | 0.21 | 46,46,46,46 | 0 |
| 56 | MG | 2A | 3460 | 1/1 | 0.94 | 0.15 | 61,61,61,61 | 0 |
| 56 | MG | 2a | 3108 | 1/1 | 0.94 | 0.16 | 46,46,46,46 | 0 |
| 56 | MG | 2A | 3462 | 1/1 | 0.94 | 0.26 | 53,53,53,53 | 0 |
| 56 | MG | 1A | 3963 | 1/1 | 0.94 | 0.06 | 60,60,60,60 | 0 |
| 56 | MG | 2A | 3774 | 1/1 | 0.94 | 0.16 | 56,56,56,56 | 0 |
| 56 | MG | 1A | 3409 | 1/1 | 0.94 | 0.36 | 37,37,37,37 | 0 |
| 56 | MG | 1A | 3965 | 1/1 | 0.94 | 0.09 | 52,52,52,52 | 0 |
| 56 | MG | 1B | 222 | 1/1 | 0.94 | 0.20 | 55,55,55,55 | 0 |
| 56 | MG | 1A | 3350 | 1/1 | 0.94 | 0.20 | 43,43,43,43 | 0 |
| 56 | MG | 2A | 3246 | 1/1 | 0.94 | 0.12 | 55,55,55,55 | 0 |
| 56 | MG | 1A | 3570 | 1/1 | 0.94 | 0.12 | 53,53,53,53 | 0 |
| 56 | MG | 1A | 3968 | 1/1 | 0.94 | 0.08 | 40,40,40,40 | 0 |
| 56 | MG | 1A | 3969 | 1/1 | 0.94 | 0.13 | 27,27,27,27 | 0 |
| 56 | MG | 1a | 1664 | 1/1 | 0.94 | 0.19 | 64,64,64,64 | 0 |
| 56 | MG | 1A | 3833 | 1/1 | 0.94 | 0.12 | 37,37,37,37 | 0 |
| 56 | MG | 1A | 3971 | 1/1 | 0.94 | 0.10 | 40,40,40,40 | 0 |
| 56 | MG | 1a | 1667 | 1/1 | 0.94 | 0.17 | 33,33,33,33 | 0 |
| 56 | MG | 1A | 3834 | 1/1 | 0.94 | 0.15 | 37,37,37,37 | 0 |
| 56 | MG | 2A | 3051 | 1/1 | 0.94 | 0.21 | 50,50,50,50 | 0 |
| 56 | MG | 1A | 3476 | 1/1 | 0.94 | 0.36 | 31,31,31,31 | 0 |
| 56 | MG | 1A | 3836 | 1/1 | 0.94 | 0.14 | 24,24,24,24 | 0 |
| 56 | MG | 2A | 3494 | 1/1 | 0.94 | 0.10 | 57,57,57,57 | 0 |
| 56 | MG | 1a | 1673 | 1/1 | 0.94 | 0.24 | 53,53,53,53 | 0 |
| 56 | MG | 1A | 3163 | 1/1 | 0.94 | 0.20 | 49,49,49,49 | 0 |
| 56 | MG | 2A | 3500 | 1/1 | 0.94 | 0.14 | 44,44,44,44 | 0 |
| 56 | MG | 1A | 3841 | 1/1 | 0.94 | 0.12 | 42,42,42,42 | 0 |
| 56 | MG | 2a | 3141 | 1/1 | 0.94 | 0.07 | 46,46,46,46 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 1A | 3245 | 1/1 | 0.94 | 0.17 | 37,37,37,37 | 0 |
| 56 | MG | 1A | 3845 | 1/1 | 0.94 | 0.07 | 50,50,50,50 | 0 |
| 56 | MG | 1A | 3246 | 1/1 | 0.94 | 0.25 | 26,26,26,26 | 0 |
| 56 | MG | 2A | 3061 | 1/1 | 0.94 | 0.13 | 58,58,58,58 | 0 |
| 56 | MG | 1A | 3414 | 1/1 | 0.94 | 0.13 | 55,55,55,55 | 0 |
| 56 | MG | 2a | 3149 | 1/1 | 0.94 | 0.10 | 60,60,60,60 | 0 |
| 56 | MG | 1A | 3247 | 1/1 | 0.94 | 0.10 | 42,42,42,42 | 0 |
| 56 | MG | 1D | 308 | 1/1 | 0.94 | 0.24 | 31,31,31,31 | 0 |
| 56 | MG | 1A | 3205 | 1/1 | 0.94 | 0.14 | 51,51,51,51 | 0 |
| 56 | MG | 2A | 3514 | 1/1 | 0.94 | 0.12 | 43,43,43,43 | 0 |
| 56 | MG | 1A | 3304 | 1/1 | 0.94 | 0.15 | 44,44,44,44 | 0 |
| 56 | MG | 1A | 3305 | 1/1 | 0.94 | 0.12 | 47,47,47,47 | 0 |
| 56 | MG | 2A | 3069 | 1/1 | 0.94 | 0.33 | 45,45,45,45 | 0 |
| 56 | MG | 1a | 1690 | 1/1 | 0.94 | 0.19 | 58,58,58,58 | 0 |
| 56 | MG | 1A | 3101 | 1/1 | 0.94 | 0.15 | 18,18,18,18 | 0 |
| 56 | MG | 2a | 3164 | 1/1 | 0.94 | 0.11 | 65,65,65,65 | 0 |
| 56 | MG | 1A | 3251 | 1/1 | 0.94 | 0.21 | 50,50,50,50 | 0 |
| 56 | MG | 2A | 3830 | 1/1 | 0.94 | 0.09 | 68,68,68,68 | 0 |
| 56 | MG | 2A | 3831 | 1/1 | 0.94 | 0.18 | 55,55,55,55 | 0 |
| 56 | MG | 2a | 3169 | 1/1 | 0.94 | 0.08 | 53,53,53,53 | 0 |
| 56 | MG | 1A | 3423 | 1/1 | 0.94 | 0.20 | 45,45,45,45 | 0 |
| 56 | MG | 1A | 3121 | 1/1 | 0.94 | 0.36 | 32,32,32,32 | 0 |
| 56 | MG | 1A | 3598 | 1/1 | 0.94 | 0.18 | 31,31,31,31 | 0 |
| 56 | MG | 1A | 3719 | 1/1 | 0.94 | 0.16 | 28,28,28,28 | 0 |
| 56 | MG | 2A | 3837 | 1/1 | 0.94 | 0.13 | 57,57,57,57 | 0 |
| 56 | MG | 1A | 3866 | 1/1 | 0.94 | 0.22 | 28,28,28,28 | 0 |
| 56 | MG | 1A | 3033 | 1/1 | 0.94 | 0.28 | 22,22,22,22 | 0 |
| 56 | MG | 2A | 3840 | 1/1 | 0.94 | 0.13 | 56,56,56,56 | 0 |
| 56 | MG | 1A | 3600 | 1/1 | 0.94 | 0.17 | 41,41,41,41 | 0 |
| 56 | MG | 2A | 3532 | 1/1 | 0.94 | 0.10 | 48,48,48,48 | 0 |
| 56 | MG | 1A | 3212 | 1/1 | 0.94 | 0.29 | 47,47,47,47 | 0 |
| 56 | MG | 1A | 3604 | 1/1 | 0.94 | 0.17 | 16,16,16,16 | 0 |
| 56 | MG | 1A | 3726 | 1/1 | 0.94 | 0.21 | 49,49,49,49 | 0 |
| 56 | MG | 1A | 3429 | 1/1 | 0.94 | 0.26 | 46,46,46,46 | 0 |
| 56 | MG | 1A | 3729 | 1/1 | 0.94 | 0.18 | 47,47,47,47 | 0 |
| 56 | MG | 2a | 3186 | 1/1 | 0.94 | 0.09 | 62,62,62,62 | 0 |
| 56 | MG | 1a | 1717 | 1/1 | 0.94 | 0.14 | 56,56,56,56 | 0 |
| 56 | MG | 2a | 3188 | 1/1 | 0.94 | 0.31 | 56,56,56,56 | 0 |
| 56 | MG | 2A | 3094 | 1/1 | 0.94 | 0.13 | 37,37,37,37 | 0 |
| 56 | MG | 1A | 3258 | 1/1 | 0.94 | 0.25 | 32,32,32,32 | 0 |
| 56 | MG | 2A | 3542 | 1/1 | 0.94 | 0.17 | 40,40,40,40 | 0 |
| 56 | MG | 2A | 3544 | 1/1 | 0.94 | 0.18 | 67,67,67,67 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(Å ²) | Q<0.9 |
|-----|------|-------|------|-------|------|------|----------------------------|-------|
| 56 | MG | 1A | 3215 | 1/1 | 0.94 | 0.19 | 31,31,31,31 | 0 |
| 56 | MG | 2a | 3195 | 1/1 | 0.94 | 0.17 | 63,63,63,63 | 0 |
| 56 | MG | 1A | 4009 | 1/1 | 0.94 | 0.14 | 39,39,39,39 | 0 |
| 56 | MG | 2a | 3197 | 1/1 | 0.94 | 0.10 | 65,65,65,65 | 0 |
| 56 | MG | 2A | 3098 | 1/1 | 0.94 | 0.14 | 44,44,44,44 | 0 |
| 56 | MG | 2A | 3552 | 1/1 | 0.94 | 0.12 | 55,55,55,55 | 0 |
| 56 | MG | 1A | 3001 | 1/1 | 0.94 | 0.15 | 38,38,38,38 | 0 |
| 56 | MG | 1G | 205 | 1/1 | 0.94 | 0.14 | 55,55,55,55 | 0 |
| 56 | MG | 1A | 3129 | 1/1 | 0.94 | 0.10 | 41,41,41,41 | 0 |
| 56 | MG | 2A | 3871 | 1/1 | 0.94 | 0.11 | 69,69,69,69 | 0 |
| 56 | MG | 2A | 3306 | 1/1 | 0.94 | 0.15 | 50,50,50,50 | 0 |
| 56 | MG | 2A | 3560 | 1/1 | 0.94 | 0.11 | 50,50,50,50 | 0 |
| 56 | MG | 1A | 3373 | 1/1 | 0.94 | 0.08 | 51,51,51,51 | 0 |
| 56 | MG | 1A | 3619 | 1/1 | 0.94 | 0.17 | 13,13,13,13 | 0 |
| 56 | MG | 2A | 3877 | 1/1 | 0.94 | 0.13 | 56,56,56,56 | 0 |
| 56 | MG | 2A | 3878 | 1/1 | 0.94 | 0.16 | 55,55,55,55 | 0 |
| 56 | MG | 1N | 202 | 1/1 | 0.94 | 0.13 | 32,32,32,32 | 0 |
| 56 | MG | 1A | 3743 | 1/1 | 0.94 | 0.22 | 41,41,41,41 | 0 |
| 56 | MG | 1A | 3623 | 1/1 | 0.94 | 0.16 | 47,47,47,47 | 0 |
| 56 | MG | 1A | 4019 | 1/1 | 0.94 | 0.27 | 55,55,55,55 | 0 |
| 56 | MG | 1A | 3132 | 1/1 | 0.94 | 0.19 | 37,37,37,37 | 0 |
| 56 | MG | 1A | 3272 | 1/1 | 0.94 | 0.23 | 33,33,33,33 | 0 |
| 56 | MG | 1a | 1740 | 1/1 | 0.94 | 0.15 | 52,52,52,52 | 0 |
| 56 | MG | 1A | 4023 | 1/1 | 0.94 | 0.20 | 36,36,36,36 | 0 |
| 56 | MG | 1A | 4024 | 1/1 | 0.94 | 0.32 | 42,42,42,42 | 0 |
| 56 | MG | 1A | 3749 | 1/1 | 0.94 | 0.18 | 18,18,18,18 | 0 |
| 56 | MG | 2A | 3117 | 1/1 | 0.94 | 0.09 | 47,47,47,47 | 0 |
| 56 | MG | 2a | 3227 | 1/1 | 0.94 | 0.17 | 46,46,46,46 | 0 |
| 56 | MG | 2a | 3228 | 1/1 | 0.94 | 0.08 | 67,67,67,67 | 0 |
| 56 | MG | 1A | 3750 | 1/1 | 0.94 | 0.12 | 32,32,32,32 | 0 |
| 56 | MG | 2a | 3231 | 1/1 | 0.94 | 0.11 | 53,53,53,53 | 0 |
| 56 | MG | 2B | 211 | 1/1 | 0.94 | 0.10 | 62,62,62,62 | 0 |
| 56 | MG | 2A | 3323 | 1/1 | 0.94 | 0.18 | 49,49,49,49 | 0 |
| 56 | MG | 2B | 213 | 1/1 | 0.94 | 0.16 | 60,60,60,60 | 0 |
| 56 | MG | 1Q | 205 | 1/1 | 0.94 | 0.13 | 44,44,44,44 | 0 |
| 56 | MG | 2A | 3580 | 1/1 | 0.94 | 0.13 | 45,45,45,45 | 0 |
| 56 | MG | 1A | 4027 | 1/1 | 0.94 | 0.27 | 39,39,39,39 | 0 |
| 56 | MG | 1Q | 207 | 1/1 | 0.94 | 0.17 | 32,32,32,32 | 0 |
| 56 | MG | 2e | 203 | 1/1 | 0.94 | 0.13 | 74,74,74,74 | 0 |
| 56 | MG | 2A | 3125 | 1/1 | 0.94 | 0.30 | 37,37,37,37 | 0 |
| 56 | MG | 1A | 4028 | 1/1 | 0.94 | 0.15 | 41,41,41,41 | 0 |
| 56 | MG | 2A | 3587 | 1/1 | 0.94 | 0.08 | 34,34,34,34 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 2D | 306 | 1/1 | 0.94 | 0.25 | 54,54,54,54 | 0 |
| 56 | MG | 2A | 3588 | 1/1 | 0.94 | 0.14 | 53,53,53,53 | 0 |
| 56 | MG | 1a | 1752 | 1/1 | 0.94 | 0.08 | 43,43,43,43 | 0 |
| 56 | MG | 2l | 202 | 1/1 | 0.94 | 0.21 | 63,63,63,63 | 0 |
| 56 | MG | 2A | 3131 | 1/1 | 0.94 | 0.19 | 47,47,47,47 | 0 |
| 56 | MG | 1A | 3752 | 1/1 | 0.94 | 0.17 | 16,16,16,16 | 0 |
| 56 | MG | 2E | 309 | 1/1 | 0.94 | 0.12 | 57,57,57,57 | 0 |
| 56 | MG | 2q | 201 | 1/1 | 0.94 | 0.17 | 52,52,52,52 | 0 |
| 56 | MG | 1A | 3626 | 1/1 | 0.94 | 0.15 | 43,43,43,43 | 0 |
| 56 | MG | 1A | 3518 | 1/1 | 0.94 | 0.18 | 11,11,11,11 | 0 |
| 56 | MG | 1A | 3521 | 1/1 | 0.94 | 0.52 | 39,39,39,39 | 0 |
| 56 | MG | 2A | 3600 | 1/1 | 0.94 | 0.08 | 37,37,37,37 | 0 |
| 56 | MG | 1A | 3439 | 1/1 | 0.94 | 0.25 | 37,37,37,37 | 0 |
| 56 | MG | 1A | 3633 | 1/1 | 0.94 | 0.18 | 27,27,27,27 | 0 |
| 56 | MG | 2G | 201 | 1/1 | 0.94 | 0.11 | 57,57,57,57 | 0 |
| 56 | MG | 1A | 4037 | 1/1 | 0.94 | 0.15 | 54,54,54,54 | 0 |
| 56 | MG | 1A | 3634 | 1/1 | 0.94 | 0.23 | 15,15,15,15 | 0 |
| 56 | MG | 2A | 3143 | 1/1 | 0.94 | 0.10 | 53,53,53,53 | 0 |
| 56 | MG | 1V | 204 | 1/1 | 0.94 | 0.27 | 28,28,28,28 | 0 |
| 56 | MG | 1A | 3440 | 1/1 | 0.94 | 0.28 | 31,31,31,31 | 0 |
| 56 | MG | 2A | 3616 | 1/1 | 0.94 | 0.10 | 68,68,68,68 | 0 |
| 56 | MG | 1A | 3524 | 1/1 | 0.94 | 0.17 | 26,26,26,26 | 0 |
| 56 | MG | 1A | 3764 | 1/1 | 0.94 | 0.15 | 31,31,31,31 | 0 |
| 56 | MG | 2U | 201 | 1/1 | 0.94 | 0.42 | 53,53,53,53 | 0 |
| 56 | MG | 1X | 103 | 1/1 | 0.94 | 0.87 | 33,33,33,33 | 0 |
| 56 | MG | 1a | 1767 | 1/1 | 0.94 | 0.07 | 66,66,66,66 | 0 |
| 56 | MG | 2W | 202 | 1/1 | 0.94 | 0.43 | 42,42,42,42 | 0 |
| 56 | MG | 1A | 3640 | 1/1 | 0.94 | 0.12 | 26,26,26,26 | 0 |
| 56 | MG | 2X | 101 | 1/1 | 0.94 | 0.09 | 62,62,62,62 | 0 |
| 56 | MG | 2A | 3350 | 1/1 | 0.94 | 0.10 | 59,59,59,59 | 0 |
| 57 | K | 1A | 3515 | 1/1 | 0.94 | 0.10 | 47,47,47,47 | 0 |
| 56 | MG | 1A | 3527 | 1/1 | 0.94 | 0.16 | 28,28,28,28 | 0 |
| 56 | MG | 2A | 3353 | 1/1 | 0.94 | 0.18 | 44,44,44,44 | 0 |
| 56 | MG | 1Y | 201 | 1/1 | 0.94 | 0.16 | 54,54,54,54 | 0 |
| 56 | MG | 20 | 104 | 1/1 | 0.94 | 0.08 | 61,61,61,61 | 0 |
| 58 | ZN | 29 | 102 | 1/1 | 0.94 | 0.09 | 70,70,70,70 | 0 |
| 56 | MG | 1A | 3769 | 1/1 | 0.94 | 0.18 | 31,31,31,31 | 0 |
| 59 | SCM | 2a | 3236 | 23/23 | 0.94 | 0.24 | 63,68,73,77 | 0 |
| 56 | MG | 1S | 201 | 1/1 | 0.95 | 0.24 | 36,36,36,36 | 0 |
| 56 | MG | 2a | 3020 | 1/1 | 0.95 | 0.13 | 42,42,42,42 | 0 |
| 56 | MG | 1S | 202 | 1/1 | 0.95 | 0.22 | 46,46,46,46 | 0 |
| 56 | MG | 2A | 3065 | 1/1 | 0.95 | 0.14 | 47,47,47,47 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 1a | 1718 | 1/1 | 0.95 | 0.15 | 51,51,51,51 | 0 |
| 56 | MG | 2A | 3719 | 1/1 | 0.95 | 0.13 | 35,35,35,35 | 0 |
| 56 | MG | 1a | 1721 | 1/1 | 0.95 | 0.14 | 52,52,52,52 | 0 |
| 56 | MG | 2A | 3455 | 1/1 | 0.95 | 0.17 | 30,30,30,30 | 0 |
| 56 | MG | 1A | 3293 | 1/1 | 0.95 | 0.18 | 32,32,32,32 | 0 |
| 56 | MG | 1A | 3932 | 1/1 | 0.95 | 0.13 | 34,34,34,34 | 0 |
| 56 | MG | 2A | 3070 | 1/1 | 0.95 | 0.27 | 43,43,43,43 | 0 |
| 56 | MG | 1U | 206 | 1/1 | 0.95 | 0.18 | 26,26,26,26 | 0 |
| 56 | MG | 1A | 3144 | 1/1 | 0.95 | 0.25 | 22,22,22,22 | 0 |
| 56 | MG | 1A | 3475 | 1/1 | 0.95 | 0.19 | 30,30,30,30 | 0 |
| 56 | MG | 1A | 3800 | 1/1 | 0.95 | 0.20 | 17,17,17,17 | 0 |
| 56 | MG | 2A | 3733 | 1/1 | 0.95 | 0.18 | 35,35,35,35 | 0 |
| 56 | MG | 1A | 3802 | 1/1 | 0.95 | 0.13 | 35,35,35,35 | 0 |
| 56 | MG | 2A | 3465 | 1/1 | 0.95 | 0.08 | 56,56,56,56 | 0 |
| 56 | MG | 1A | 3805 | 1/1 | 0.95 | 0.13 | 48,48,48,48 | 0 |
| 56 | MG | 1A | 3686 | 1/1 | 0.95 | 0.21 | 13,13,13,13 | 0 |
| 56 | MG | 1W | 201 | 1/1 | 0.95 | 0.22 | 36,36,36,36 | 0 |
| 56 | MG | 2A | 3742 | 1/1 | 0.95 | 0.11 | 58,58,58,58 | 0 |
| 56 | MG | 2A | 3470 | 1/1 | 0.95 | 0.13 | 50,50,50,50 | 0 |
| 56 | MG | 2A | 3080 | 1/1 | 0.95 | 0.21 | 63,63,63,63 | 0 |
| 56 | MG | 1A | 3807 | 1/1 | 0.95 | 0.11 | 34,34,34,34 | 0 |
| 56 | MG | 1W | 207 | 1/1 | 0.95 | 0.12 | 43,43,43,43 | 0 |
| 56 | MG | 2A | 3085 | 1/1 | 0.95 | 0.12 | 46,46,46,46 | 0 |
| 56 | MG | 2A | 3273 | 1/1 | 0.95 | 0.28 | 59,59,59,59 | 0 |
| 56 | MG | 2A | 3476 | 1/1 | 0.95 | 0.17 | 46,46,46,46 | 0 |
| 56 | MG | 2a | 3048 | 1/1 | 0.95 | 0.12 | 49,49,49,49 | 0 |
| 56 | MG | 1A | 3081 | 1/1 | 0.95 | 0.65 | 31,31,31,31 | 0 |
| 56 | MG | 1X | 102 | 1/1 | 0.95 | 0.21 | 30,30,30,30 | 0 |
| 56 | MG | 1A | 3943 | 1/1 | 0.95 | 0.14 | 31,31,31,31 | 0 |
| 56 | MG | 1A | 3809 | 1/1 | 0.95 | 0.08 | 27,27,27,27 | 0 |
| 56 | MG | 2A | 3759 | 1/1 | 0.95 | 0.17 | 72,72,72,72 | 0 |
| 56 | MG | 1A | 3008 | 1/1 | 0.95 | 0.14 | 22,22,22,22 | 0 |
| 56 | MG | 2A | 3490 | 1/1 | 0.95 | 0.12 | 58,58,58,58 | 0 |
| 56 | MG | 1A | 4087 | 1/1 | 0.95 | 0.11 | 62,62,62,62 | 0 |
| 56 | MG | 1A | 3150 | 1/1 | 0.95 | 0.23 | 37,37,37,37 | 0 |
| 56 | MG | 1A | 3575 | 1/1 | 0.95 | 0.14 | 17,17,17,17 | 0 |
| 56 | MG | 2A | 3284 | 1/1 | 0.95 | 0.09 | 61,61,61,61 | 0 |
| 56 | MG | 2a | 3063 | 1/1 | 0.95 | 0.10 | 41,41,41,41 | 0 |
| 56 | MG | 10 | 101 | 1/1 | 0.95 | 0.34 | 42,42,42,42 | 0 |
| 56 | MG | 2A | 3499 | 1/1 | 0.95 | 0.15 | 38,38,38,38 | 0 |
| 56 | MG | 2a | 3068 | 1/1 | 0.95 | 0.18 | 51,51,51,51 | 0 |
| 56 | MG | 2A | 3770 | 1/1 | 0.95 | 0.16 | 52,52,52,52 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 1A | 3198 | 1/1 | 0.95 | 0.13 | 36,36,36,36 | 0 |
| 56 | MG | 1A | 3483 | 1/1 | 0.95 | 0.20 | 68,68,68,68 | 0 |
| 56 | MG | 1A | 3043 | 1/1 | 0.95 | 0.16 | 26,26,26,26 | 0 |
| 56 | MG | 1A | 4094 | 1/1 | 0.95 | 0.05 | 52,52,52,52 | 0 |
| 56 | MG | 1A | 3697 | 1/1 | 0.95 | 0.23 | 23,23,23,23 | 0 |
| 56 | MG | 2a | 3077 | 1/1 | 0.95 | 0.12 | 50,50,50,50 | 0 |
| 56 | MG | 2A | 3103 | 1/1 | 0.95 | 0.13 | 65,65,65,65 | 0 |
| 56 | MG | 1A | 3201 | 1/1 | 0.95 | 0.12 | 45,45,45,45 | 0 |
| 56 | MG | 1A | 3953 | 1/1 | 0.95 | 0.10 | 35,35,35,35 | 0 |
| 56 | MG | 1A | 3023 | 1/1 | 0.95 | 0.10 | 16,16,16,16 | 0 |
| 56 | MG | 1A | 3701 | 1/1 | 0.95 | 0.27 | 44,44,44,44 | 0 |
| 56 | MG | 1A | 3156 | 1/1 | 0.95 | 0.18 | 42,42,42,42 | 0 |
| 56 | MG | 1A | 3829 | 1/1 | 0.95 | 0.21 | 16,16,16,16 | 0 |
| 56 | MG | 1A | 3420 | 1/1 | 0.95 | 0.17 | 40,40,40,40 | 0 |
| 56 | MG | 2A | 3789 | 1/1 | 0.95 | 0.08 | 45,45,45,45 | 0 |
| 56 | MG | 1A | 3705 | 1/1 | 0.95 | 0.13 | 34,34,34,34 | 0 |
| 56 | MG | 1A | 3070 | 1/1 | 0.95 | 0.20 | 19,19,19,19 | 0 |
| 56 | MG | 2A | 3301 | 1/1 | 0.95 | 0.21 | 50,50,50,50 | 0 |
| 56 | MG | 1A | 3589 | 1/1 | 0.95 | 0.14 | 23,23,23,23 | 0 |
| 56 | MG | 1A | 3249 | 1/1 | 0.95 | 0.15 | 16,16,16,16 | 0 |
| 56 | MG | 2A | 3304 | 1/1 | 0.95 | 0.17 | 46,46,46,46 | 0 |
| 56 | MG | 1A | 3158 | 1/1 | 0.95 | 0.23 | 32,32,32,32 | 0 |
| 56 | MG | 1A | 4110 | 1/1 | 0.95 | 0.18 | 37,37,37,37 | 0 |
| 56 | MG | 2A | 3119 | 1/1 | 0.95 | 0.09 | 58,58,58,58 | 0 |
| 56 | MG | 1A | 3307 | 1/1 | 0.95 | 0.14 | 31,31,31,31 | 0 |
| 56 | MG | 2A | 3528 | 1/1 | 0.95 | 0.15 | 47,47,47,47 | 0 |
| 56 | MG | 2A | 3529 | 1/1 | 0.95 | 0.13 | 33,33,33,33 | 0 |
| 56 | MG | 1A | 3045 | 1/1 | 0.95 | 0.14 | 20,20,20,20 | 0 |
| 56 | MG | 2A | 3310 | 1/1 | 0.95 | 0.48 | 52,52,52,52 | 0 |
| 56 | MG | 1a | 1772 | 1/1 | 0.95 | 0.23 | 51,51,51,51 | 0 |
| 56 | MG | 2A | 3123 | 1/1 | 0.95 | 0.32 | 58,58,58,58 | 0 |
| 56 | MG | 2a | 3111 | 1/1 | 0.95 | 0.33 | 48,48,48,48 | 0 |
| 56 | MG | 1A | 4113 | 1/1 | 0.95 | 0.16 | 48,48,48,48 | 0 |
| 56 | MG | 2A | 3314 | 1/1 | 0.95 | 0.15 | 58,58,58,58 | 0 |
| 56 | MG | 2A | 3815 | 1/1 | 0.95 | 0.17 | 44,44,44,44 | 0 |
| 56 | MG | 1A | 4114 | 1/1 | 0.95 | 0.09 | 42,42,42,42 | 0 |
| 56 | MG | 1a | 1778 | 1/1 | 0.95 | 0.14 | 46,46,46,46 | 0 |
| 56 | MG | 2A | 3819 | 1/1 | 0.95 | 0.15 | 36,36,36,36 | 0 |
| 56 | MG | 1A | 3840 | 1/1 | 0.95 | 0.11 | 63,63,63,63 | 0 |
| 56 | MG | 2A | 3130 | 1/1 | 0.95 | 0.14 | 45,45,45,45 | 0 |
| 56 | MG | 1A | 3061 | 1/1 | 0.95 | 0.17 | 33,33,33,33 | 0 |
| 56 | MG | 1A | 3842 | 1/1 | 0.95 | 0.22 | 29,29,29,29 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 2A | 3545 | 1/1 | 0.95 | 0.18 | 34,34,34,34 | 0 |
| 56 | MG | 1A | 3427 | 1/1 | 0.95 | 0.24 | 37,37,37,37 | 0 |
| 56 | MG | 2A | 3828 | 1/1 | 0.95 | 0.21 | 62,62,62,62 | 0 |
| 56 | MG | 18 | 107 | 1/1 | 0.95 | 0.27 | 40,40,40,40 | 0 |
| 56 | MG | 1A | 3428 | 1/1 | 0.95 | 0.25 | 40,40,40,40 | 0 |
| 56 | MG | 1a | 1788 | 1/1 | 0.95 | 0.22 | 49,49,49,49 | 0 |
| 56 | MG | 2a | 3128 | 1/1 | 0.95 | 0.14 | 60,60,60,60 | 0 |
| 56 | MG | 1A | 3603 | 1/1 | 0.95 | 0.17 | 23,23,23,23 | 0 |
| 56 | MG | 1a | 1601 | 1/1 | 0.95 | 0.10 | 55,55,55,55 | 0 |
| 56 | MG | 1A | 3499 | 1/1 | 0.95 | 0.22 | 44,44,44,44 | 0 |
| 56 | MG | 2a | 3133 | 1/1 | 0.95 | 0.10 | 46,46,46,46 | 0 |
| 56 | MG | 1A | 3210 | 1/1 | 0.95 | 0.25 | 33,33,33,33 | 0 |
| 56 | MG | 2a | 3135 | 1/1 | 0.95 | 0.18 | 47,47,47,47 | 0 |
| 56 | MG | 1B | 208 | 1/1 | 0.95 | 0.34 | 46,46,46,46 | 0 |
| 56 | MG | 1A | 3723 | 1/1 | 0.95 | 0.13 | 19,19,19,19 | 0 |
| 56 | MG | 2a | 3138 | 1/1 | 0.95 | 0.07 | 56,56,56,56 | 0 |
| 56 | MG | 1A | 3724 | 1/1 | 0.95 | 0.15 | 31,31,31,31 | 0 |
| 56 | MG | 1A | 3073 | 1/1 | 0.95 | 0.21 | 35,35,35,35 | 0 |
| 56 | MG | 1A | 3502 | 1/1 | 0.95 | 0.07 | 54,54,54,54 | 0 |
| 56 | MG | 1A | 3255 | 1/1 | 0.95 | 0.22 | 25,25,25,25 | 0 |
| 56 | MG | 1A | 3214 | 1/1 | 0.95 | 0.22 | 49,49,49,49 | 0 |
| 56 | MG | 2A | 3844 | 1/1 | 0.95 | 0.14 | 60,60,60,60 | 0 |
| 56 | MG | 2A | 3567 | 1/1 | 0.95 | 0.18 | 61,61,61,61 | 0 |
| 56 | MG | 1A | 3166 | 1/1 | 0.95 | 0.23 | 36,36,36,36 | 0 |
| 56 | MG | 2a | 3148 | 1/1 | 0.95 | 0.06 | 57,57,57,57 | 0 |
| 56 | MG | 1B | 217 | 1/1 | 0.95 | 0.18 | 41,41,41,41 | 0 |
| 56 | MG | 1A | 3510 | 1/1 | 0.95 | 0.38 | 31,31,31,31 | 0 |
| 56 | MG | 2a | 3153 | 1/1 | 0.95 | 0.10 | 48,48,48,48 | 0 |
| 56 | MG | 1A | 3620 | 1/1 | 0.95 | 0.17 | 20,20,20,20 | 0 |
| 56 | MG | 1A | 3513 | 1/1 | 0.95 | 0.33 | 54,54,54,54 | 0 |
| 56 | MG | 1A | 3318 | 1/1 | 0.95 | 0.17 | 23,23,23,23 | 0 |
| 56 | MG | 2A | 3574 | 1/1 | 0.95 | 0.17 | 58,58,58,58 | 0 |
| 56 | MG | 2A | 3344 | 1/1 | 0.95 | 0.24 | 55,55,55,55 | 0 |
| 56 | MG | 2A | 3158 | 1/1 | 0.95 | 0.24 | 30,30,30,30 | 0 |
| 56 | MG | 1a | 1814 | 1/1 | 0.95 | 0.08 | 51,51,51,51 | 0 |
| 56 | MG | 1A | 3074 | 1/1 | 0.95 | 0.22 | 24,24,24,24 | 0 |
| 56 | MG | 2A | 3865 | 1/1 | 0.95 | 0.15 | 60,60,60,60 | 0 |
| 56 | MG | 2a | 3165 | 1/1 | 0.95 | 0.14 | 60,60,60,60 | 0 |
| 56 | MG | 1A | 3519 | 1/1 | 0.95 | 0.33 | 44,44,44,44 | 0 |
| 56 | MG | 1A | 3991 | 1/1 | 0.95 | 0.18 | 21,21,21,21 | 0 |
| 56 | MG | 1a | 1627 | 1/1 | 0.95 | 0.16 | 18,18,18,18 | 0 |
| 56 | MG | 2A | 3351 | 1/1 | 0.95 | 0.15 | 42,42,42,42 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 1A | 3437 | 1/1 | 0.95 | 0.13 | 33,33,33,33 | 0 |
| 56 | MG | 2a | 3171 | 1/1 | 0.95 | 0.08 | 69,69,69,69 | 0 |
| 56 | MG | 1n | 101 | 1/1 | 0.95 | 0.09 | 51,51,51,51 | 0 |
| 56 | MG | 1A | 3171 | 1/1 | 0.95 | 0.21 | 23,23,23,23 | 0 |
| 56 | MG | 2A | 3167 | 1/1 | 0.95 | 0.13 | 55,55,55,55 | 0 |
| 56 | MG | 2A | 3875 | 1/1 | 0.95 | 0.07 | 62,62,62,62 | 0 |
| 56 | MG | 1A | 3379 | 1/1 | 0.95 | 0.21 | 50,50,50,50 | 0 |
| 56 | MG | 2A | 3592 | 1/1 | 0.95 | 0.15 | 44,44,44,44 | 0 |
| 56 | MG | 1A | 3876 | 1/1 | 0.95 | 0.10 | 28,28,28,28 | 0 |
| 56 | MG | 1A | 3268 | 1/1 | 0.95 | 0.37 | 30,30,30,30 | 0 |
| 56 | MG | 2A | 3360 | 1/1 | 0.95 | 0.14 | 52,52,52,52 | 0 |
| 56 | MG | 2A | 3596 | 1/1 | 0.95 | 0.11 | 61,61,61,61 | 0 |
| 56 | MG | 1A | 3525 | 1/1 | 0.95 | 0.28 | 36,36,36,36 | 0 |
| 56 | MG | 1A | 3880 | 1/1 | 0.95 | 0.17 | 24,24,24,24 | 0 |
| 56 | MG | 1A | 3381 | 1/1 | 0.95 | 0.11 | 45,45,45,45 | 0 |
| 56 | MG | 1A | 3882 | 1/1 | 0.95 | 0.12 | 34,34,34,34 | 0 |
| 56 | MG | 1A | 3883 | 1/1 | 0.95 | 0.10 | 51,51,51,51 | 0 |
| 56 | MG | 1A | 3528 | 1/1 | 0.95 | 0.45 | 33,33,33,33 | 0 |
| 56 | MG | 1A | 3172 | 1/1 | 0.95 | 0.24 | 15,15,15,15 | 0 |
| 56 | MG | 1A | 3222 | 1/1 | 0.95 | 0.13 | 43,43,43,43 | 0 |
| 56 | MG | 1A | 3642 | 1/1 | 0.95 | 0.19 | 34,34,34,34 | 0 |
| 56 | MG | 1A | 3757 | 1/1 | 0.95 | 0.11 | 55,55,55,55 | 0 |
| 56 | MG | 1A | 3130 | 1/1 | 0.95 | 0.11 | 26,26,26,26 | 0 |
| 56 | MG | 1A | 3275 | 1/1 | 0.95 | 0.28 | 55,55,55,55 | 0 |
| 56 | MG | 1A | 3646 | 1/1 | 0.95 | 0.14 | 17,17,17,17 | 0 |
| 56 | MG | 1A | 3131 | 1/1 | 0.95 | 0.37 | 27,27,27,27 | 0 |
| 56 | MG | 1A | 3763 | 1/1 | 0.95 | 0.08 | 37,37,37,37 | 0 |
| 56 | MG | 1A | 3895 | 1/1 | 0.95 | 0.19 | 52,52,52,52 | 0 |
| 56 | MG | 1x | 109 | 1/1 | 0.95 | 0.09 | 65,65,65,65 | 0 |
| 56 | MG | 1A | 3004 | 1/1 | 0.95 | 0.22 | 23,23,23,23 | 0 |
| 56 | MG | 2D | 303 | 1/1 | 0.95 | 0.46 | 50,50,50,50 | 0 |
| 56 | MG | 2D | 304 | 1/1 | 0.95 | 0.14 | 30,30,30,30 | 0 |
| 56 | MG | 1A | 3651 | 1/1 | 0.95 | 0.13 | 24,24,24,24 | 0 |
| 56 | MG | 1x | 112 | 1/1 | 0.95 | 0.15 | 45,45,45,45 | 0 |
| 56 | MG | 1A | 3537 | 1/1 | 0.95 | 0.26 | 29,29,29,29 | 0 |
| 56 | MG | 2D | 308 | 1/1 | 0.95 | 0.11 | 48,48,48,48 | 0 |
| 56 | MG | 1A | 3091 | 1/1 | 0.95 | 0.19 | 39,39,39,39 | 0 |
| 56 | MG | 2E | 303 | 1/1 | 0.95 | 0.14 | 41,41,41,41 | 0 |
| 56 | MG | 2E | 305 | 1/1 | 0.95 | 0.17 | 29,29,29,29 | 0 |
| 56 | MG | 1E | 314 | 1/1 | 0.95 | 0.26 | 50,50,50,50 | 0 |
| 56 | MG | 1A | 3772 | 1/1 | 0.95 | 0.12 | 49,49,49,49 | 0 |
| 56 | MG | 1a | 1661 | 1/1 | 0.95 | 0.18 | 60,60,60,60 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 2A | 3387 | 1/1 | 0.95 | 0.23 | 45,45,45,45 | 0 |
| 56 | MG | 1F | 307 | 1/1 | 0.95 | 0.29 | 23,23,23,23 | 0 |
| 56 | MG | 1A | 3135 | 1/1 | 0.95 | 0.15 | 11,11,11,11 | 0 |
| 56 | MG | 2A | 3392 | 1/1 | 0.95 | 0.28 | 43,43,43,43 | 0 |
| 56 | MG | 2a | 3221 | 1/1 | 0.95 | 0.15 | 51,51,51,51 | 0 |
| 56 | MG | 2A | 3007 | 1/1 | 0.95 | 0.14 | 32,32,32,32 | 0 |
| 56 | MG | 2A | 3649 | 1/1 | 0.95 | 0.11 | 49,49,49,49 | 0 |
| 56 | MG | 1A | 3136 | 1/1 | 0.95 | 0.08 | 40,40,40,40 | 0 |
| 56 | MG | 2a | 3225 | 1/1 | 0.95 | 0.19 | 55,55,55,55 | 0 |
| 56 | MG | 1A | 3282 | 1/1 | 0.95 | 0.16 | 33,33,33,33 | 0 |
| 56 | MG | 1A | 3334 | 1/1 | 0.95 | 0.52 | 49,49,49,49 | 0 |
| 56 | MG | 1a | 1668 | 1/1 | 0.95 | 0.27 | 42,42,42,42 | 0 |
| 56 | MG | 2a | 3229 | 1/1 | 0.95 | 0.09 | 59,59,59,59 | 0 |
| 56 | MG | 2A | 3655 | 1/1 | 0.95 | 0.12 | 38,38,38,38 | 0 |
| 56 | MG | 2A | 3204 | 1/1 | 0.95 | 0.16 | 50,50,50,50 | 0 |
| 56 | MG | 1a | 1669 | 1/1 | 0.95 | 0.15 | 46,46,46,46 | 0 |
| 56 | MG | 1A | 3093 | 1/1 | 0.95 | 0.08 | 39,39,39,39 | 0 |
| 56 | MG | 1A | 3661 | 1/1 | 0.95 | 0.08 | 35,35,35,35 | 0 |
| 56 | MG | 2A | 3405 | 1/1 | 0.95 | 0.19 | 56,56,56,56 | 0 |
| 56 | MG | 2U | 202 | 1/1 | 0.95 | 0.11 | 46,46,46,46 | 0 |
| 56 | MG | 2A | 3663 | 1/1 | 0.95 | 0.19 | 45,45,45,45 | 0 |
| 56 | MG | 1A | 3457 | 1/1 | 0.95 | 0.21 | 20,20,20,20 | 0 |
| 56 | MG | 1A | 4034 | 1/1 | 0.95 | 0.24 | 28,28,28,28 | 0 |
| 56 | MG | 1G | 203 | 1/1 | 0.95 | 0.11 | 64,64,64,64 | 0 |
| 56 | MG | 1A | 3232 | 1/1 | 0.95 | 0.39 | 27,27,27,27 | 0 |
| 56 | MG | 1A | 3664 | 1/1 | 0.95 | 0.12 | 55,55,55,55 | 0 |
| 56 | MG | 2A | 3028 | 1/1 | 0.95 | 0.16 | 43,43,43,43 | 0 |
| 56 | MG | 1A | 3109 | 1/1 | 0.95 | 0.11 | 25,25,25,25 | 0 |
| 56 | MG | 1a | 1678 | 1/1 | 0.95 | 0.15 | 55,55,55,55 | 0 |
| 56 | MG | 1A | 4041 | 1/1 | 0.95 | 0.10 | 56,56,56,56 | 0 |
| 56 | MG | 1A | 4043 | 1/1 | 0.95 | 0.17 | 17,17,17,17 | 0 |
| 56 | MG | 2A | 3033 | 1/1 | 0.95 | 0.10 | 44,44,44,44 | 0 |
| 56 | MG | 2l | 205 | 1/1 | 0.95 | 0.12 | 53,53,53,53 | 0 |
| 56 | MG | 1A | 4051 | 1/1 | 0.95 | 0.11 | 35,35,35,35 | 0 |
| 56 | MG | 1N | 204 | 1/1 | 0.95 | 0.39 | 31,31,31,31 | 0 |
| 56 | MG | 2A | 3036 | 1/1 | 0.95 | 0.45 | 54,54,54,54 | 0 |
| 56 | MG | 1A | 3234 | 1/1 | 0.95 | 0.34 | 33,33,33,33 | 0 |
| 56 | MG | 1A | 3786 | 1/1 | 0.95 | 0.20 | 55,55,55,55 | 0 |
| 56 | MG | 1O | 204 | 1/1 | 0.95 | 0.11 | 43,43,43,43 | 0 |
| 56 | MG | 1A | 3236 | 1/1 | 0.95 | 0.17 | 41,41,41,41 | 0 |
| 56 | MG | 2w | 102 | 1/1 | 0.95 | 0.06 | 77,77,77,77 | 0 |
| 56 | MG | 1A | 3404 | 1/1 | 0.95 | 0.29 | 42,42,42,42 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 1P | 201 | 1/1 | 0.95 | 0.26 | 24,24,24,24 | 0 |
| 56 | MG | 2A | 3687 | 1/1 | 0.95 | 0.14 | 41,41,41,41 | 0 |
| 56 | MG | 2A | 3230 | 1/1 | 0.95 | 0.17 | 54,54,54,54 | 0 |
| 56 | MG | 1A | 3789 | 1/1 | 0.95 | 0.17 | 41,41,41,41 | 0 |
| 56 | MG | 1A | 3466 | 1/1 | 0.95 | 0.18 | 36,36,36,36 | 0 |
| 56 | MG | 1A | 3341 | 1/1 | 0.95 | 0.84 | 46,46,46,46 | 0 |
| 56 | MG | 2x | 101 | 1/1 | 0.95 | 0.16 | 58,58,58,58 | 0 |
| 56 | MG | 1A | 3342 | 1/1 | 0.95 | 0.24 | 45,45,45,45 | 0 |
| 56 | MG | 1a | 1699 | 1/1 | 0.95 | 0.15 | 50,50,50,50 | 0 |
| 56 | MG | 1A | 3079 | 1/1 | 0.95 | 0.13 | 38,38,38,38 | 0 |
| 56 | MG | 1A | 3143 | 1/1 | 0.95 | 0.20 | 24,24,24,24 | 0 |
| 56 | MG | 2x | 107 | 1/1 | 0.95 | 0.12 | 57,57,57,57 | 0 |
| 56 | MG | 2A | 3699 | 1/1 | 0.95 | 0.14 | 61,61,61,61 | 0 |
| 56 | MG | 2a | 3006 | 1/1 | 0.95 | 0.15 | 47,47,47,47 | 0 |
| 56 | MG | 1a | 1703 | 1/1 | 0.95 | 0.21 | 50,50,50,50 | 0 |
| 56 | MG | 1a | 1705 | 1/1 | 0.95 | 0.12 | 35,35,35,35 | 0 |
| 56 | MG | 1A | 3559 | 1/1 | 0.95 | 0.20 | 16,16,16,16 | 0 |
| 56 | MG | 1A | 3928 | 1/1 | 0.95 | 0.18 | 28,28,28,28 | 0 |
| 56 | MG | 1A | 4066 | 1/1 | 0.95 | 0.12 | 36,36,36,36 | 0 |
| 56 | MG | 1a | 1709 | 1/1 | 0.95 | 0.12 | 48,48,48,48 | 0 |
| 56 | MG | 1a | 1711 | 1/1 | 0.95 | 0.11 | 51,51,51,51 | 0 |
| 56 | MG | 1A | 4067 | 1/1 | 0.95 | 0.17 | 43,43,43,43 | 0 |
| 56 | MG | 1a | 1713 | 1/1 | 0.95 | 0.13 | 42,42,42,42 | 0 |
| 56 | MG | 2A | 3247 | 1/1 | 0.95 | 0.17 | 68,68,68,68 | 0 |
| 56 | MG | 1A | 3680 | 1/1 | 0.95 | 0.13 | 43,43,43,43 | 0 |
| 59 | SCM | 1a | 1815 | 23/23 | 0.95 | 0.26 | 45,48,54,57 | 0 |
| 56 | MG | 1a | 1715 | 1/1 | 0.95 | 0.11 | 47,47,47,47 | 0 |
| 56 | MG | 2A | 3055 | 1/1 | 0.96 | 0.18 | 49,49,49,49 | 0 |
| 56 | MG | 18 | 104 | 1/1 | 0.96 | 0.15 | 37,37,37,37 | 0 |
| 56 | MG | 2a | 3054 | 1/1 | 0.96 | 0.11 | 65,65,65,65 | 0 |
| 56 | MG | 1A | 4060 | 1/1 | 0.96 | 0.13 | 46,46,46,46 | 0 |
| 56 | MG | 1A | 3698 | 1/1 | 0.96 | 0.12 | 12,12,12,12 | 0 |
| 56 | MG | 1A | 3480 | 1/1 | 0.96 | 0.15 | 39,39,39,39 | 0 |
| 56 | MG | 2a | 3058 | 1/1 | 0.96 | 0.13 | 55,55,55,55 | 0 |
| 56 | MG | 1A | 3270 | 1/1 | 0.96 | 0.25 | 38,38,38,38 | 0 |
| 56 | MG | 1E | 302 | 1/1 | 0.96 | 0.38 | 25,25,25,25 | 0 |
| 56 | MG | 2A | 3804 | 1/1 | 0.96 | 0.06 | 71,71,71,71 | 0 |
| 56 | MG | 1A | 4064 | 1/1 | 0.96 | 0.09 | 42,42,42,42 | 0 |
| 56 | MG | 1a | 1603 | 1/1 | 0.96 | 0.14 | 56,56,56,56 | 0 |
| 56 | MG | 2A | 3575 | 1/1 | 0.96 | 0.17 | 57,57,57,57 | 0 |
| 56 | MG | 1a | 1604 | 1/1 | 0.96 | 0.15 | 42,42,42,42 | 0 |
| 56 | MG | 1A | 3052 | 1/1 | 0.96 | 0.17 | 38,38,38,38 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 1E | 307 | 1/1 | 0.96 | 0.15 | 27,27,27,27 | 0 |
| 56 | MG | 1A | 3149 | 1/1 | 0.96 | 0.22 | 30,30,30,30 | 0 |
| 56 | MG | 1a | 1609 | 1/1 | 0.96 | 0.14 | 18,18,18,18 | 0 |
| 56 | MG | 1a | 1610 | 1/1 | 0.96 | 0.10 | 51,51,51,51 | 0 |
| 56 | MG | 1a | 1611 | 1/1 | 0.96 | 0.05 | 57,57,57,57 | 0 |
| 56 | MG | 1A | 3308 | 1/1 | 0.96 | 0.11 | 53,53,53,53 | 0 |
| 56 | MG | 1A | 3274 | 1/1 | 0.96 | 0.14 | 26,26,26,26 | 0 |
| 56 | MG | 2A | 3586 | 1/1 | 0.96 | 0.12 | 30,30,30,30 | 0 |
| 56 | MG | 2A | 3818 | 1/1 | 0.96 | 0.24 | 42,42,42,42 | 0 |
| 56 | MG | 1a | 1760 | 1/1 | 0.96 | 0.09 | 47,47,47,47 | 0 |
| 56 | MG | 1A | 3177 | 1/1 | 0.96 | 0.27 | 49,49,49,49 | 0 |
| 56 | MG | 2A | 3822 | 1/1 | 0.96 | 0.40 | 59,59,59,59 | 0 |
| 56 | MG | 2A | 3075 | 1/1 | 0.96 | 0.15 | 49,49,49,49 | 0 |
| 56 | MG | 1A | 3707 | 1/1 | 0.96 | 0.12 | 31,31,31,31 | 0 |
| 56 | MG | 1F | 303 | 1/1 | 0.96 | 0.35 | 28,28,28,28 | 0 |
| 56 | MG | 1A | 3053 | 1/1 | 0.96 | 0.18 | 26,26,26,26 | 0 |
| 56 | MG | 1A | 3709 | 1/1 | 0.96 | 0.19 | 17,17,17,17 | 0 |
| 56 | MG | 1A | 3551 | 1/1 | 0.96 | 0.18 | 26,26,26,26 | 0 |
| 56 | MG | 1A | 3007 | 1/1 | 0.96 | 0.15 | 29,29,29,29 | 0 |
| 56 | MG | 1A | 3635 | 1/1 | 0.96 | 0.17 | 15,15,15,15 | 0 |
| 56 | MG | 2A | 3083 | 1/1 | 0.96 | 0.30 | 42,42,42,42 | 0 |
| 56 | MG | 2a | 3096 | 1/1 | 0.96 | 0.06 | 65,65,65,65 | 0 |
| 56 | MG | 2A | 3832 | 1/1 | 0.96 | 0.09 | 45,45,45,45 | 0 |
| 56 | MG | 2A | 3601 | 1/1 | 0.96 | 0.08 | 56,56,56,56 | 0 |
| 56 | MG | 2A | 3603 | 1/1 | 0.96 | 0.23 | 54,54,54,54 | 0 |
| 56 | MG | 2a | 3101 | 1/1 | 0.96 | 0.19 | 40,40,40,40 | 0 |
| 56 | MG | 2A | 3604 | 1/1 | 0.96 | 0.25 | 65,65,65,65 | 0 |
| 56 | MG | 2A | 3084 | 1/1 | 0.96 | 0.65 | 45,45,45,45 | 0 |
| 56 | MG | 1a | 1769 | 1/1 | 0.96 | 0.18 | 36,36,36,36 | 0 |
| 56 | MG | 2A | 3608 | 1/1 | 0.96 | 0.14 | 30,30,30,30 | 0 |
| 56 | MG | 2A | 3086 | 1/1 | 0.96 | 0.16 | 38,38,38,38 | 0 |
| 56 | MG | 1A | 3713 | 1/1 | 0.96 | 0.20 | 23,23,23,23 | 0 |
| 56 | MG | 1A | 3211 | 1/1 | 0.96 | 0.17 | 40,40,40,40 | 0 |
| 56 | MG | 2a | 3109 | 1/1 | 0.96 | 0.12 | 62,62,62,62 | 0 |
| 56 | MG | 1A | 3110 | 1/1 | 0.96 | 0.18 | 36,36,36,36 | 0 |
| 56 | MG | 2A | 3613 | 1/1 | 0.96 | 0.58 | 51,51,51,51 | 0 |
| 56 | MG | 1A | 3639 | 1/1 | 0.96 | 0.17 | 34,34,34,34 | 0 |
| 56 | MG | 1A | 3153 | 1/1 | 0.96 | 0.19 | 23,23,23,23 | 0 |
| 56 | MG | 2A | 3848 | 1/1 | 0.96 | 0.16 | 52,52,52,52 | 0 |
| 56 | MG | 2A | 3617 | 1/1 | 0.96 | 0.20 | 43,43,43,43 | 0 |
| 56 | MG | 1G | 202 | 1/1 | 0.96 | 0.20 | 49,49,49,49 | 0 |
| 56 | MG | 1A | 3801 | 1/1 | 0.96 | 0.23 | 18,18,18,18 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 1A | 3184 | 1/1 | 0.96 | 0.18 | 37,37,37,37 | 0 |
| 56 | MG | 2A | 3854 | 1/1 | 0.96 | 0.07 | 50,50,50,50 | 0 |
| 56 | MG | 1A | 3803 | 1/1 | 0.96 | 0.14 | 54,54,54,54 | 0 |
| 56 | MG | 2A | 3856 | 1/1 | 0.96 | 0.23 | 52,52,52,52 | 0 |
| 56 | MG | 1A | 4089 | 1/1 | 0.96 | 0.06 | 39,39,39,39 | 0 |
| 56 | MG | 1a | 1633 | 1/1 | 0.96 | 0.05 | 57,57,57,57 | 0 |
| 56 | MG | 1A | 3284 | 1/1 | 0.96 | 0.14 | 20,20,20,20 | 0 |
| 56 | MG | 1A | 3447 | 1/1 | 0.96 | 0.16 | 43,43,43,43 | 0 |
| 56 | MG | 2A | 3629 | 1/1 | 0.96 | 0.09 | 43,43,43,43 | 0 |
| 56 | MG | 2A | 3863 | 1/1 | 0.96 | 0.11 | 48,48,48,48 | 0 |
| 56 | MG | 1A | 3186 | 1/1 | 0.96 | 0.54 | 23,23,23,23 | 0 |
| 56 | MG | 2a | 3130 | 1/1 | 0.96 | 0.12 | 63,63,63,63 | 0 |
| 56 | MG | 2A | 3631 | 1/1 | 0.96 | 0.18 | 48,48,48,48 | 0 |
| 56 | MG | 2A | 3866 | 1/1 | 0.96 | 0.14 | 52,52,52,52 | 0 |
| 56 | MG | 1a | 1637 | 1/1 | 0.96 | 0.10 | 44,44,44,44 | 0 |
| 56 | MG | 2A | 3633 | 1/1 | 0.96 | 0.09 | 51,51,51,51 | 0 |
| 56 | MG | 1N | 203 | 1/1 | 0.96 | 0.20 | 33,33,33,33 | 0 |
| 56 | MG | 1a | 1794 | 1/1 | 0.96 | 0.08 | 47,47,47,47 | 0 |
| 56 | MG | 1A | 3902 | 1/1 | 0.96 | 0.18 | 36,36,36,36 | 0 |
| 56 | MG | 1a | 1640 | 1/1 | 0.96 | 0.08 | 41,41,41,41 | 0 |
| 56 | MG | 1A | 3286 | 1/1 | 0.96 | 0.19 | 48,48,48,48 | 0 |
| 56 | MG | 2A | 3433 | 1/1 | 0.96 | 0.33 | 51,51,51,51 | 0 |
| 56 | MG | 2A | 3642 | 1/1 | 0.96 | 0.13 | 54,54,54,54 | 0 |
| 56 | MG | 2A | 3268 | 1/1 | 0.96 | 0.16 | 55,55,55,55 | 0 |
| 56 | MG | 1A | 3563 | 1/1 | 0.96 | 0.18 | 26,26,26,26 | 0 |
| 56 | MG | 1a | 1801 | 1/1 | 0.96 | 0.27 | 43,43,43,43 | 0 |
| 56 | MG | 1O | 203 | 1/1 | 0.96 | 0.15 | 36,36,36,36 | 0 |
| 56 | MG | 1a | 1804 | 1/1 | 0.96 | 0.20 | 53,53,53,53 | 0 |
| 56 | MG | 2A | 3650 | 1/1 | 0.96 | 0.13 | 58,58,58,58 | 0 |
| 56 | MG | 1A | 3989 | 1/1 | 0.96 | 0.13 | 32,32,32,32 | 0 |
| 56 | MG | 2A | 3274 | 1/1 | 0.96 | 0.19 | 58,58,58,58 | 0 |
| 56 | MG | 2a | 3152 | 1/1 | 0.96 | 0.11 | 52,52,52,52 | 0 |
| 56 | MG | 2A | 3441 | 1/1 | 0.96 | 0.17 | 37,37,37,37 | 0 |
| 56 | MG | 1A | 3450 | 1/1 | 0.96 | 0.20 | 40,40,40,40 | 0 |
| 56 | MG | 2a | 3155 | 1/1 | 0.96 | 0.10 | 38,38,38,38 | 0 |
| 56 | MG | 2A | 3115 | 1/1 | 0.96 | 0.10 | 59,59,59,59 | 0 |
| 56 | MG | 1a | 1646 | 1/1 | 0.96 | 0.20 | 58,58,58,58 | 0 |
| 56 | MG | 2A | 3657 | 1/1 | 0.96 | 0.20 | 30,30,30,30 | 0 |
| 56 | MG | 1A | 3323 | 1/1 | 0.96 | 0.10 | 44,44,44,44 | 0 |
| 56 | MG | 2A | 3659 | 1/1 | 0.96 | 0.11 | 52,52,52,52 | 0 |
| 56 | MG | 2A | 3118 | 1/1 | 0.96 | 0.16 | 41,41,41,41 | 0 |
| 56 | MG | 1A | 4099 | 1/1 | 0.96 | 0.07 | 55,55,55,55 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(Å ²) | Q<0.9 |
|-----|------|-------|------|-------|------|------|----------------------------|-------|
| 56 | MG | 1A | 3021 | 1/1 | 0.96 | 0.14 | 21,21,21,21 | 0 |
| 56 | MG | 1A | 3909 | 1/1 | 0.96 | 0.10 | 44,44,44,44 | 0 |
| 56 | MG | 1A | 3910 | 1/1 | 0.96 | 0.10 | 48,48,48,48 | 0 |
| 56 | MG | 1A | 3189 | 1/1 | 0.96 | 0.30 | 31,31,31,31 | 0 |
| 56 | MG | 1A | 3505 | 1/1 | 0.96 | 0.21 | 22,22,22,22 | 0 |
| 56 | MG | 1Q | 204 | 1/1 | 0.96 | 0.14 | 50,50,50,50 | 0 |
| 56 | MG | 2A | 3668 | 1/1 | 0.96 | 0.16 | 56,56,56,56 | 0 |
| 56 | MG | 1A | 3997 | 1/1 | 0.96 | 0.14 | 41,41,41,41 | 0 |
| 56 | MG | 1A | 3076 | 1/1 | 0.96 | 0.28 | 27,27,27,27 | 0 |
| 56 | MG | 1A | 4107 | 1/1 | 0.96 | 0.43 | 48,48,48,48 | 0 |
| 56 | MG | 1A | 3914 | 1/1 | 0.96 | 0.09 | 59,59,59,59 | 0 |
| 56 | MG | 1A | 3191 | 1/1 | 0.96 | 0.15 | 26,26,26,26 | 0 |
| 56 | MG | 2A | 3675 | 1/1 | 0.96 | 0.14 | 33,33,33,33 | 0 |
| 56 | MG | 2E | 301 | 1/1 | 0.96 | 0.05 | 55,55,55,55 | 0 |
| 56 | MG | 1a | 1662 | 1/1 | 0.96 | 0.12 | 46,46,46,46 | 0 |
| 56 | MG | 2A | 3134 | 1/1 | 0.96 | 0.13 | 34,34,34,34 | 0 |
| 56 | MG | 2E | 304 | 1/1 | 0.96 | 0.07 | 56,56,56,56 | 0 |
| 56 | MG | 2A | 3135 | 1/1 | 0.96 | 0.48 | 51,51,51,51 | 0 |
| 56 | MG | 1A | 3078 | 1/1 | 0.96 | 0.20 | 30,30,30,30 | 0 |
| 56 | MG | 1t | 201 | 1/1 | 0.96 | 0.09 | 40,40,40,40 | 0 |
| 56 | MG | 1R | 204 | 1/1 | 0.96 | 0.23 | 27,27,27,27 | 0 |
| 56 | MG | 1A | 3738 | 1/1 | 0.96 | 0.12 | 43,43,43,43 | 0 |
| 56 | MG | 2A | 3468 | 1/1 | 0.96 | 0.12 | 43,43,43,43 | 0 |
| 56 | MG | 1A | 3659 | 1/1 | 0.96 | 0.17 | 9,9,9,9 | 0 |
| 56 | MG | 1S | 203 | 1/1 | 0.96 | 0.09 | 51,51,51,51 | 0 |
| 56 | MG | 2F | 305 | 1/1 | 0.96 | 0.42 | 38,38,38,38 | 0 |
| 56 | MG | 1A | 3415 | 1/1 | 0.96 | 0.20 | 38,38,38,38 | 0 |
| 56 | MG | 1U | 202 | 1/1 | 0.96 | 0.22 | 29,29,29,29 | 0 |
| 56 | MG | 1A | 4006 | 1/1 | 0.96 | 0.13 | 35,35,35,35 | 0 |
| 56 | MG | 1U | 205 | 1/1 | 0.96 | 0.13 | 26,26,26,26 | 0 |
| 56 | MG | 1A | 3514 | 1/1 | 0.96 | 0.20 | 44,44,44,44 | 0 |
| 56 | MG | 1A | 3067 | 1/1 | 0.96 | 0.25 | 19,19,19,19 | 0 |
| 56 | MG | 2A | 3477 | 1/1 | 0.96 | 0.13 | 24,24,24,24 | 0 |
| 56 | MG | 1A | 4117 | 1/1 | 0.96 | 0.09 | 48,48,48,48 | 0 |
| 56 | MG | 1A | 3517 | 1/1 | 0.96 | 0.21 | 27,27,27,27 | 0 |
| 56 | MG | 1A | 3748 | 1/1 | 0.96 | 0.20 | 14,14,14,14 | 0 |
| 56 | MG | 2a | 3201 | 1/1 | 0.96 | 0.19 | 56,56,56,56 | 0 |
| 56 | MG | 2A | 3484 | 1/1 | 0.96 | 0.10 | 59,59,59,59 | 0 |
| 56 | MG | 1V | 203 | 1/1 | 0.96 | 0.38 | 32,32,32,32 | 0 |
| 56 | MG | 2A | 3487 | 1/1 | 0.96 | 0.08 | 33,33,33,33 | 0 |
| 56 | MG | 2V | 201 | 1/1 | 0.96 | 0.38 | 45,45,45,45 | 0 |
| 56 | MG | 2A | 3153 | 1/1 | 0.96 | 0.11 | 47,47,47,47 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 1A | 3460 | 1/1 | 0.96 | 0.26 | 30,30,30,30 | 0 |
| 56 | MG | 1V | 205 | 1/1 | 0.96 | 0.20 | 24,24,24,24 | 0 |
| 56 | MG | 1B | 204 | 1/1 | 0.96 | 0.21 | 36,36,36,36 | 0 |
| 56 | MG | 1A | 3586 | 1/1 | 0.96 | 0.20 | 54,54,54,54 | 0 |
| 56 | MG | 2A | 3495 | 1/1 | 0.96 | 0.07 | 57,57,57,57 | 0 |
| 56 | MG | 1W | 204 | 1/1 | 0.96 | 0.16 | 27,27,27,27 | 0 |
| 56 | MG | 2A | 3710 | 1/1 | 0.96 | 0.28 | 44,44,44,44 | 0 |
| 56 | MG | 2A | 3711 | 1/1 | 0.96 | 0.10 | 66,66,66,66 | 0 |
| 56 | MG | 1a | 1684 | 1/1 | 0.96 | 0.07 | 64,64,64,64 | 0 |
| 56 | MG | 2a | 3217 | 1/1 | 0.96 | 0.09 | 49,49,49,49 | 0 |
| 56 | MG | 1a | 1685 | 1/1 | 0.96 | 0.18 | 35,35,35,35 | 0 |
| 56 | MG | 1A | 3751 | 1/1 | 0.96 | 0.19 | 22,22,22,22 | 0 |
| 56 | MG | 1A | 3227 | 1/1 | 0.96 | 0.25 | 24,24,24,24 | 0 |
| 56 | MG | 1A | 3837 | 1/1 | 0.96 | 0.13 | 16,16,16,16 | 0 |
| 56 | MG | 1A | 3030 | 1/1 | 0.96 | 0.25 | 24,24,24,24 | 0 |
| 56 | MG | 1a | 1691 | 1/1 | 0.96 | 0.21 | 45,45,45,45 | 0 |
| 56 | MG | 1A | 3011 | 1/1 | 0.96 | 0.11 | 34,34,34,34 | 0 |
| 56 | MG | 1A | 3671 | 1/1 | 0.96 | 0.23 | 32,32,32,32 | 0 |
| 56 | MG | 1A | 3592 | 1/1 | 0.96 | 0.11 | 28,28,28,28 | 0 |
| 56 | MG | 1A | 3376 | 1/1 | 0.96 | 0.32 | 35,35,35,35 | 0 |
| 56 | MG | 1A | 3844 | 1/1 | 0.96 | 0.15 | 22,22,22,22 | 0 |
| 56 | MG | 1A | 3594 | 1/1 | 0.96 | 0.10 | 36,36,36,36 | 0 |
| 56 | MG | 2A | 3726 | 1/1 | 0.96 | 0.08 | 54,54,54,54 | 0 |
| 56 | MG | 2A | 3012 | 1/1 | 0.96 | 0.14 | 40,40,40,40 | 0 |
| 56 | MG | 1B | 216 | 1/1 | 0.96 | 0.18 | 41,41,41,41 | 0 |
| 56 | MG | 1A | 3596 | 1/1 | 0.96 | 0.08 | 30,30,30,30 | 0 |
| 56 | MG | 10 | 103 | 1/1 | 0.96 | 0.34 | 34,34,34,34 | 0 |
| 56 | MG | 1A | 3105 | 1/1 | 0.96 | 0.10 | 39,39,39,39 | 0 |
| 56 | MG | 1A | 3142 | 1/1 | 0.96 | 0.18 | 24,24,24,24 | 0 |
| 56 | MG | 1A | 3468 | 1/1 | 0.96 | 0.25 | 29,29,29,29 | 0 |
| 56 | MG | 2A | 3021 | 1/1 | 0.96 | 0.25 | 54,54,54,54 | 0 |
| 56 | MG | 1A | 3942 | 1/1 | 0.96 | 0.18 | 14,14,14,14 | 0 |
| 56 | MG | 1A | 3298 | 1/1 | 0.96 | 0.17 | 45,45,45,45 | 0 |
| 56 | MG | 1A | 3765 | 1/1 | 0.96 | 0.10 | 19,19,19,19 | 0 |
| 56 | MG | 1a | 1710 | 1/1 | 0.96 | 0.17 | 43,43,43,43 | 0 |
| 56 | MG | 1B | 226 | 1/1 | 0.96 | 0.18 | 31,31,31,31 | 0 |
| 56 | MG | 11 | 101 | 1/1 | 0.96 | 0.24 | 28,28,28,28 | 0 |
| 56 | MG | 1A | 3169 | 1/1 | 0.96 | 0.39 | 31,31,31,31 | 0 |
| 56 | MG | 1A | 3857 | 1/1 | 0.96 | 0.17 | 23,23,23,23 | 0 |
| 56 | MG | 1A | 3602 | 1/1 | 0.96 | 0.14 | 37,37,37,37 | 0 |
| 56 | MG | 1A | 3262 | 1/1 | 0.96 | 0.25 | 31,31,31,31 | 0 |
| 56 | MG | 13 | 101 | 1/1 | 0.96 | 0.12 | 28,28,28,28 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 2A | 3752 | 1/1 | 0.96 | 0.32 | 73,73,73,73 | 0 |
| 56 | MG | 2q | 202 | 1/1 | 0.96 | 0.23 | 55,55,55,55 | 0 |
| 56 | MG | 2A | 3753 | 1/1 | 0.96 | 0.14 | 53,53,53,53 | 0 |
| 56 | MG | 2A | 3754 | 1/1 | 0.96 | 0.38 | 60,60,60,60 | 0 |
| 56 | MG | 1A | 4044 | 1/1 | 0.96 | 0.16 | 17,17,17,17 | 0 |
| 56 | MG | 1a | 1719 | 1/1 | 0.96 | 0.08 | 45,45,45,45 | 0 |
| 56 | MG | 13 | 103 | 1/1 | 0.96 | 0.23 | 36,36,36,36 | 0 |
| 56 | MG | 2A | 3758 | 1/1 | 0.96 | 0.10 | 55,55,55,55 | 0 |
| 56 | MG | 1A | 4045 | 1/1 | 0.96 | 0.13 | 32,32,32,32 | 0 |
| 56 | MG | 2A | 3540 | 1/1 | 0.96 | 0.13 | 40,40,40,40 | 0 |
| 56 | MG | 1A | 4050 | 1/1 | 0.96 | 0.24 | 45,45,45,45 | 0 |
| 56 | MG | 1A | 3263 | 1/1 | 0.96 | 0.25 | 21,21,21,21 | 0 |
| 56 | MG | 2A | 3543 | 1/1 | 0.96 | 0.08 | 59,59,59,59 | 0 |
| 56 | MG | 1A | 3532 | 1/1 | 0.96 | 0.22 | 42,42,42,42 | 0 |
| 56 | MG | 2A | 3359 | 1/1 | 0.96 | 0.31 | 74,74,74,74 | 0 |
| 56 | MG | 1A | 3473 | 1/1 | 0.96 | 0.21 | 21,21,21,21 | 0 |
| 56 | MG | 2A | 3547 | 1/1 | 0.96 | 0.13 | 46,46,46,46 | 0 |
| 56 | MG | 1A | 3122 | 1/1 | 0.96 | 0.17 | 55,55,55,55 | 0 |
| 56 | MG | 2A | 3044 | 1/1 | 0.96 | 0.12 | 26,26,26,26 | 0 |
| 56 | MG | 2x | 105 | 1/1 | 0.96 | 0.28 | 55,55,55,55 | 0 |
| 56 | MG | 2A | 3551 | 1/1 | 0.96 | 0.15 | 39,39,39,39 | 0 |
| 56 | MG | 1A | 3124 | 1/1 | 0.96 | 0.11 | 59,59,59,59 | 0 |
| 56 | MG | 2A | 3202 | 1/1 | 0.96 | 0.35 | 43,43,43,43 | 0 |
| 56 | MG | 1a | 1731 | 1/1 | 0.96 | 0.15 | 47,47,47,47 | 0 |
| 56 | MG | 15 | 108 | 1/1 | 0.96 | 0.19 | 35,35,35,35 | 0 |
| 56 | MG | 2A | 3556 | 1/1 | 0.96 | 0.15 | 53,53,53,53 | 0 |
| 56 | MG | 2A | 3558 | 1/1 | 0.96 | 0.13 | 34,34,34,34 | 0 |
| 56 | MG | 1A | 3386 | 1/1 | 0.96 | 0.26 | 41,41,41,41 | 0 |
| 56 | MG | 2A | 3780 | 1/1 | 0.96 | 0.16 | 54,54,54,54 | 0 |
| 56 | MG | 1a | 1734 | 1/1 | 0.96 | 0.07 | 45,45,45,45 | 0 |
| 56 | MG | 1A | 3034 | 1/1 | 0.96 | 0.21 | 26,26,26,26 | 0 |
| 56 | MG | 1A | 3871 | 1/1 | 0.96 | 0.11 | 30,30,30,30 | 0 |
| 56 | MG | 17 | 103 | 1/1 | 0.96 | 0.14 | 27,27,27,27 | 0 |
| 58 | ZN | 26 | 102 | 1/1 | 0.96 | 0.17 | 58,58,58,58 | 0 |
| 56 | MG | 2A | 3787 | 1/1 | 0.96 | 0.13 | 31,31,31,31 | 0 |
| 56 | MG | 1D | 309 | 1/1 | 0.96 | 0.22 | 40,40,40,40 | 0 |
| 56 | MG | 2A | 3790 | 1/1 | 0.96 | 0.15 | 38,38,38,38 | 0 |
| 56 | MG | 1A | 3343 | 1/1 | 0.96 | 0.54 | 31,31,31,31 | 0 |
| 56 | MG | 1a | 1746 | 1/1 | 0.97 | 0.07 | 52,52,52,52 | 0 |
| 56 | MG | 1A | 3734 | 1/1 | 0.97 | 0.17 | 14,14,14,14 | 0 |
| 56 | MG | 1E | 303 | 1/1 | 0.97 | 0.18 | 22,22,22,22 | 0 |
| 56 | MG | 2A | 3597 | 1/1 | 0.97 | 0.13 | 39,39,39,39 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 1A | 3569 | 1/1 | 0.97 | 0.17 | 41,41,41,41 | 0 |
| 56 | MG | 2a | 3066 | 1/1 | 0.97 | 0.18 | 55,55,55,55 | 0 |
| 56 | MG | 2A | 3599 | 1/1 | 0.97 | 0.11 | 47,47,47,47 | 0 |
| 56 | MG | 1A | 3508 | 1/1 | 0.97 | 0.25 | 27,27,27,27 | 0 |
| 56 | MG | 1A | 3572 | 1/1 | 0.97 | 0.11 | 41,41,41,41 | 0 |
| 56 | MG | 1A | 3267 | 1/1 | 0.97 | 0.15 | 19,19,19,19 | 0 |
| 56 | MG | 1a | 1606 | 1/1 | 0.97 | 0.15 | 39,39,39,39 | 0 |
| 56 | MG | 2A | 3820 | 1/1 | 0.97 | 0.15 | 52,52,52,52 | 0 |
| 56 | MG | 2A | 3605 | 1/1 | 0.97 | 0.25 | 40,40,40,40 | 0 |
| 56 | MG | 1A | 3739 | 1/1 | 0.97 | 0.16 | 19,19,19,19 | 0 |
| 56 | MG | 2a | 3076 | 1/1 | 0.97 | 0.16 | 57,57,57,57 | 0 |
| 56 | MG | 1A | 3740 | 1/1 | 0.97 | 0.19 | 14,14,14,14 | 0 |
| 56 | MG | 1A | 3838 | 1/1 | 0.97 | 0.14 | 16,16,16,16 | 0 |
| 56 | MG | 1A | 3059 | 1/1 | 0.97 | 0.20 | 31,31,31,31 | 0 |
| 56 | MG | 1F | 301 | 1/1 | 0.97 | 0.28 | 29,29,29,29 | 0 |
| 56 | MG | 1F | 302 | 1/1 | 0.97 | 0.27 | 25,25,25,25 | 0 |
| 56 | MG | 2a | 3082 | 1/1 | 0.97 | 0.10 | 61,61,61,61 | 0 |
| 56 | MG | 1A | 3654 | 1/1 | 0.97 | 0.19 | 32,32,32,32 | 0 |
| 56 | MG | 1F | 304 | 1/1 | 0.97 | 0.25 | 26,26,26,26 | 0 |
| 56 | MG | 1A | 3512 | 1/1 | 0.97 | 0.17 | 24,24,24,24 | 0 |
| 56 | MG | 1A | 3378 | 1/1 | 0.97 | 0.15 | 39,39,39,39 | 0 |
| 56 | MG | 1A | 3746 | 1/1 | 0.97 | 0.14 | 32,32,32,32 | 0 |
| 56 | MG | 2A | 3248 | 1/1 | 0.97 | 0.12 | 77,77,77,77 | 0 |
| 56 | MG | 2a | 3089 | 1/1 | 0.97 | 0.15 | 46,46,46,46 | 0 |
| 56 | MG | 1a | 1618 | 1/1 | 0.97 | 0.15 | 37,37,37,37 | 0 |
| 56 | MG | 1A | 3577 | 1/1 | 0.97 | 0.17 | 15,15,15,15 | 0 |
| 56 | MG | 1A | 3146 | 1/1 | 0.97 | 0.13 | 23,23,23,23 | 0 |
| 56 | MG | 2a | 3093 | 1/1 | 0.97 | 0.12 | 54,54,54,54 | 0 |
| 56 | MG | 1A | 3147 | 1/1 | 0.97 | 0.17 | 23,23,23,23 | 0 |
| 56 | MG | 2A | 3623 | 1/1 | 0.97 | 0.07 | 63,63,63,63 | 0 |
| 56 | MG | 2A | 3624 | 1/1 | 0.97 | 0.09 | 54,54,54,54 | 0 |
| 56 | MG | 2a | 3097 | 1/1 | 0.97 | 0.14 | 59,59,59,59 | 0 |
| 56 | MG | 2A | 3625 | 1/1 | 0.97 | 0.13 | 56,56,56,56 | 0 |
| 56 | MG | 1A | 3339 | 1/1 | 0.97 | 0.30 | 44,44,44,44 | 0 |
| 56 | MG | 1A | 3031 | 1/1 | 0.97 | 0.15 | 24,24,24,24 | 0 |
| 56 | MG | 1A | 3850 | 1/1 | 0.97 | 0.27 | 16,16,16,16 | 0 |
| 56 | MG | 1F | 315 | 1/1 | 0.97 | 0.50 | 40,40,40,40 | 0 |
| 56 | MG | 2A | 3090 | 1/1 | 0.97 | 0.13 | 56,56,56,56 | 0 |
| 56 | MG | 2A | 3847 | 1/1 | 0.97 | 0.17 | 57,57,57,57 | 0 |
| 56 | MG | 1a | 1773 | 1/1 | 0.97 | 0.18 | 47,47,47,47 | 0 |
| 56 | MG | 1a | 1774 | 1/1 | 0.97 | 0.26 | 46,46,46,46 | 0 |
| 56 | MG | 1A | 4070 | 1/1 | 0.97 | 0.09 | 41,41,41,41 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 1A | 3128 | 1/1 | 0.97 | 0.11 | 33,33,33,33 | 0 |
| 56 | MG | 2A | 3852 | 1/1 | 0.97 | 0.20 | 61,61,61,61 | 0 |
| 56 | MG | 1A | 4072 | 1/1 | 0.97 | 0.20 | 48,48,48,48 | 0 |
| 56 | MG | 2A | 3636 | 1/1 | 0.97 | 0.15 | 45,45,45,45 | 0 |
| 56 | MG | 1a | 1779 | 1/1 | 0.97 | 0.12 | 47,47,47,47 | 0 |
| 56 | MG | 1A | 3956 | 1/1 | 0.97 | 0.15 | 24,24,24,24 | 0 |
| 56 | MG | 1A | 3042 | 1/1 | 0.97 | 0.17 | 23,23,23,23 | 0 |
| 56 | MG | 2A | 3640 | 1/1 | 0.97 | 0.15 | 46,46,46,46 | 0 |
| 56 | MG | 1A | 3180 | 1/1 | 0.97 | 0.18 | 31,31,31,31 | 0 |
| 56 | MG | 1A | 3063 | 1/1 | 0.97 | 0.21 | 40,40,40,40 | 0 |
| 56 | MG | 1A | 3855 | 1/1 | 0.97 | 0.14 | 34,34,34,34 | 0 |
| 56 | MG | 2A | 3862 | 1/1 | 0.97 | 0.08 | 70,70,70,70 | 0 |
| 56 | MG | 1A | 3588 | 1/1 | 0.97 | 0.17 | 20,20,20,20 | 0 |
| 56 | MG | 1a | 1786 | 1/1 | 0.97 | 0.14 | 42,42,42,42 | 0 |
| 56 | MG | 2A | 3646 | 1/1 | 0.97 | 0.16 | 45,45,45,45 | 0 |
| 56 | MG | 1A | 3858 | 1/1 | 0.97 | 0.16 | 19,19,19,19 | 0 |
| 56 | MG | 2A | 3648 | 1/1 | 0.97 | 0.15 | 61,61,61,61 | 0 |
| 56 | MG | 1A | 4082 | 1/1 | 0.97 | 0.13 | 49,49,49,49 | 0 |
| 56 | MG | 1a | 1790 | 1/1 | 0.97 | 0.11 | 61,61,61,61 | 0 |
| 56 | MG | 1N | 205 | 1/1 | 0.97 | 0.15 | 41,41,41,41 | 0 |
| 56 | MG | 1A | 3668 | 1/1 | 0.97 | 0.09 | 44,44,44,44 | 0 |
| 56 | MG | 2A | 3452 | 1/1 | 0.97 | 0.12 | 54,54,54,54 | 0 |
| 56 | MG | 1A | 3861 | 1/1 | 0.97 | 0.17 | 39,39,39,39 | 0 |
| 56 | MG | 2A | 3278 | 1/1 | 0.97 | 0.09 | 47,47,47,47 | 0 |
| 56 | MG | 1A | 3387 | 1/1 | 0.97 | 0.24 | 33,33,33,33 | 0 |
| 56 | MG | 1A | 3112 | 1/1 | 0.97 | 0.19 | 18,18,18,18 | 0 |
| 56 | MG | 1A | 3591 | 1/1 | 0.97 | 0.15 | 24,24,24,24 | 0 |
| 56 | MG | 1A | 3032 | 1/1 | 0.97 | 0.21 | 20,20,20,20 | 0 |
| 56 | MG | 1a | 1799 | 1/1 | 0.97 | 0.14 | 54,54,54,54 | 0 |
| 56 | MG | 1a | 1800 | 1/1 | 0.97 | 0.20 | 53,53,53,53 | 0 |
| 56 | MG | 2A | 3461 | 1/1 | 0.97 | 0.19 | 54,54,54,54 | 0 |
| 56 | MG | 1A | 3762 | 1/1 | 0.97 | 0.22 | 26,26,26,26 | 0 |
| 56 | MG | 1A | 3673 | 1/1 | 0.97 | 0.14 | 28,28,28,28 | 0 |
| 56 | MG | 1A | 3674 | 1/1 | 0.97 | 0.10 | 32,32,32,32 | 0 |
| 56 | MG | 1A | 3431 | 1/1 | 0.97 | 0.16 | 43,43,43,43 | 0 |
| 56 | MG | 2a | 3144 | 1/1 | 0.97 | 0.10 | 61,61,61,61 | 0 |
| 56 | MG | 1A | 3390 | 1/1 | 0.97 | 0.22 | 40,40,40,40 | 0 |
| 56 | MG | 1A | 3012 | 1/1 | 0.97 | 0.13 | 24,24,24,24 | 0 |
| 56 | MG | 1A | 3477 | 1/1 | 0.97 | 0.22 | 33,33,33,33 | 0 |
| 56 | MG | 1A | 3770 | 1/1 | 0.97 | 0.15 | 23,23,23,23 | 0 |
| 56 | MG | 1a | 1652 | 1/1 | 0.97 | 0.12 | 60,60,60,60 | 0 |
| 56 | MG | 1A | 3771 | 1/1 | 0.97 | 0.15 | 28,28,28,28 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 2A | 3127 | 1/1 | 0.97 | 0.14 | 54,54,54,54 | 0 |
| 56 | MG | 2A | 3128 | 1/1 | 0.97 | 0.17 | 40,40,40,40 | 0 |
| 56 | MG | 1A | 3187 | 1/1 | 0.97 | 0.20 | 21,21,21,21 | 0 |
| 56 | MG | 1A | 3314 | 1/1 | 0.97 | 0.29 | 35,35,35,35 | 0 |
| 56 | MG | 1A | 3534 | 1/1 | 0.97 | 0.16 | 37,37,37,37 | 0 |
| 56 | MG | 1A | 3682 | 1/1 | 0.97 | 0.07 | 35,35,35,35 | 0 |
| 56 | MG | 2B | 218 | 1/1 | 0.97 | 0.14 | 64,64,64,64 | 0 |
| 56 | MG | 1e | 201 | 1/1 | 0.97 | 0.13 | 69,69,69,69 | 0 |
| 56 | MG | 2D | 301 | 1/1 | 0.97 | 0.22 | 44,44,44,44 | 0 |
| 56 | MG | 2A | 3480 | 1/1 | 0.97 | 0.13 | 36,36,36,36 | 0 |
| 56 | MG | 1R | 203 | 1/1 | 0.97 | 0.23 | 28,28,28,28 | 0 |
| 56 | MG | 1k | 201 | 1/1 | 0.97 | 0.16 | 35,35,35,35 | 0 |
| 56 | MG | 2A | 3483 | 1/1 | 0.97 | 0.17 | 44,44,44,44 | 0 |
| 56 | MG | 1A | 3315 | 1/1 | 0.97 | 0.49 | 32,32,32,32 | 0 |
| 56 | MG | 1a | 1660 | 1/1 | 0.97 | 0.11 | 50,50,50,50 | 0 |
| 56 | MG | 1A | 3481 | 1/1 | 0.97 | 0.33 | 38,38,38,38 | 0 |
| 56 | MG | 1A | 3352 | 1/1 | 0.97 | 0.32 | 30,30,30,30 | 0 |
| 56 | MG | 2A | 3689 | 1/1 | 0.97 | 0.16 | 25,25,25,25 | 0 |
| 56 | MG | 2A | 3140 | 1/1 | 0.97 | 0.14 | 30,30,30,30 | 0 |
| 56 | MG | 2A | 3491 | 1/1 | 0.97 | 0.12 | 46,46,46,46 | 0 |
| 56 | MG | 2A | 3692 | 1/1 | 0.97 | 0.11 | 34,34,34,34 | 0 |
| 56 | MG | 1A | 3687 | 1/1 | 0.97 | 0.30 | 25,25,25,25 | 0 |
| 56 | MG | 1T | 201 | 1/1 | 0.97 | 0.08 | 53,53,53,53 | 0 |
| 56 | MG | 2E | 308 | 1/1 | 0.97 | 0.14 | 42,42,42,42 | 0 |
| 56 | MG | 1A | 3077 | 1/1 | 0.97 | 0.43 | 25,25,25,25 | 0 |
| 56 | MG | 1A | 3606 | 1/1 | 0.97 | 0.19 | 11,11,11,11 | 0 |
| 56 | MG | 1A | 3399 | 1/1 | 0.97 | 0.18 | 30,30,30,30 | 0 |
| 56 | MG | 2F | 302 | 1/1 | 0.97 | 0.15 | 48,48,48,48 | 0 |
| 56 | MG | 1A | 3608 | 1/1 | 0.97 | 0.12 | 26,26,26,26 | 0 |
| 56 | MG | 1A | 3609 | 1/1 | 0.97 | 0.25 | 25,25,25,25 | 0 |
| 56 | MG | 1U | 207 | 1/1 | 0.97 | 0.38 | 32,32,32,32 | 0 |
| 56 | MG | 2F | 306 | 1/1 | 0.97 | 0.30 | 46,46,46,46 | 0 |
| 56 | MG | 1U | 208 | 1/1 | 0.97 | 0.34 | 26,26,26,26 | 0 |
| 56 | MG | 2A | 3703 | 1/1 | 0.97 | 0.11 | 42,42,42,42 | 0 |
| 56 | MG | 2A | 3503 | 1/1 | 0.97 | 0.18 | 44,44,44,44 | 0 |
| 56 | MG | 2O | 201 | 1/1 | 0.97 | 0.16 | 51,51,51,51 | 0 |
| 56 | MG | 1A | 3891 | 1/1 | 0.97 | 0.13 | 37,37,37,37 | 0 |
| 56 | MG | 1A | 3693 | 1/1 | 0.97 | 0.14 | 24,24,24,24 | 0 |
| 56 | MG | 2Q | 202 | 1/1 | 0.97 | 0.37 | 64,64,64,64 | 0 |
| 56 | MG | 2a | 3192 | 1/1 | 0.97 | 0.13 | 56,56,56,56 | 0 |
| 56 | MG | 1A | 3485 | 1/1 | 0.97 | 0.13 | 50,50,50,50 | 0 |
| 56 | MG | 1A | 3218 | 1/1 | 0.97 | 0.17 | 27,27,27,27 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 1A | 3696 | 1/1 | 0.97 | 0.15 | 32,32,32,32 | 0 |
| 56 | MG | 2A | 3509 | 1/1 | 0.97 | 0.09 | 43,43,43,43 | 0 |
| 56 | MG | 2A | 3510 | 1/1 | 0.97 | 0.08 | 47,47,47,47 | 0 |
| 56 | MG | 1A | 3896 | 1/1 | 0.97 | 0.11 | 57,57,57,57 | 0 |
| 56 | MG | 1A | 3220 | 1/1 | 0.97 | 0.33 | 29,29,29,29 | 0 |
| 56 | MG | 1V | 206 | 1/1 | 0.97 | 0.14 | 21,21,21,21 | 0 |
| 56 | MG | 1A | 3543 | 1/1 | 0.97 | 0.20 | 29,29,29,29 | 0 |
| 56 | MG | 1a | 1681 | 1/1 | 0.97 | 0.19 | 33,33,33,33 | 0 |
| 56 | MG | 2A | 3516 | 1/1 | 0.97 | 0.12 | 41,41,41,41 | 0 |
| 56 | MG | 1A | 3616 | 1/1 | 0.97 | 0.15 | 15,15,15,15 | 0 |
| 56 | MG | 1W | 202 | 1/1 | 0.97 | 0.15 | 40,40,40,40 | 0 |
| 56 | MG | 1W | 203 | 1/1 | 0.97 | 0.41 | 36,36,36,36 | 0 |
| 56 | MG | 1A | 3617 | 1/1 | 0.97 | 0.19 | 16,16,16,16 | 0 |
| 56 | MG | 1A | 3544 | 1/1 | 0.97 | 0.14 | 34,34,34,34 | 0 |
| 56 | MG | 1A | 3442 | 1/1 | 0.97 | 0.14 | 27,27,27,27 | 0 |
| 56 | MG | 2A | 3334 | 1/1 | 0.97 | 0.18 | 54,54,54,54 | 0 |
| 56 | MG | 2A | 3725 | 1/1 | 0.97 | 0.08 | 51,51,51,51 | 0 |
| 56 | MG | 1A | 3022 | 1/1 | 0.97 | 0.20 | 34,34,34,34 | 0 |
| 56 | MG | 2a | 3213 | 1/1 | 0.97 | 0.20 | 60,60,60,60 | 0 |
| 56 | MG | 1A | 3621 | 1/1 | 0.97 | 0.14 | 21,21,21,21 | 0 |
| 56 | MG | 2A | 3337 | 1/1 | 0.97 | 0.31 | 50,50,50,50 | 0 |
| 56 | MG | 1A | 3035 | 1/1 | 0.97 | 0.09 | 42,42,42,42 | 0 |
| 56 | MG | 1a | 1692 | 1/1 | 0.97 | 0.12 | 48,48,48,48 | 0 |
| 56 | MG | 2A | 3732 | 1/1 | 0.97 | 0.09 | 33,33,33,33 | 0 |
| 56 | MG | 1A | 4010 | 1/1 | 0.97 | 0.16 | 18,18,18,18 | 0 |
| 56 | MG | 2a | 3220 | 1/1 | 0.97 | 0.07 | 55,55,55,55 | 0 |
| 56 | MG | 2A | 3004 | 1/1 | 0.97 | 0.19 | 57,57,57,57 | 0 |
| 56 | MG | 1A | 3161 | 1/1 | 0.97 | 0.26 | 31,31,31,31 | 0 |
| 56 | MG | 1A | 4012 | 1/1 | 0.97 | 0.13 | 15,15,15,15 | 0 |
| 56 | MG | 1A | 3120 | 1/1 | 0.97 | 0.27 | 35,35,35,35 | 0 |
| 56 | MG | 2A | 3008 | 1/1 | 0.97 | 0.17 | 46,46,46,46 | 0 |
| 56 | MG | 1Y | 203 | 1/1 | 0.97 | 0.34 | 42,42,42,42 | 0 |
| 56 | MG | 2A | 3743 | 1/1 | 0.97 | 0.07 | 54,54,54,54 | 0 |
| 56 | MG | 28 | 103 | 1/1 | 0.97 | 0.09 | 44,44,44,44 | 0 |
| 56 | MG | 1A | 3139 | 1/1 | 0.97 | 0.37 | 21,21,21,21 | 0 |
| 56 | MG | 1Z | 302 | 1/1 | 0.97 | 0.10 | 43,43,43,43 | 0 |
| 56 | MG | 1A | 3140 | 1/1 | 0.97 | 0.24 | 26,26,26,26 | 0 |
| 56 | MG | 1A | 4016 | 1/1 | 0.97 | 0.06 | 41,41,41,41 | 0 |
| 56 | MG | 1a | 1702 | 1/1 | 0.97 | 0.14 | 66,66,66,66 | 0 |
| 56 | MG | 2a | 3234 | 1/1 | 0.97 | 0.06 | 69,69,69,69 | 0 |
| 56 | MG | 1A | 3804 | 1/1 | 0.97 | 0.24 | 25,25,25,25 | 0 |
| 56 | MG | 1a | 1704 | 1/1 | 0.97 | 0.08 | 39,39,39,39 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 2A | 3018 | 1/1 | 0.97 | 0.10 | 34,34,34,34 | 0 |
| 56 | MG | 2A | 3019 | 1/1 | 0.97 | 0.24 | 39,39,39,39 | 0 |
| 56 | MG | 1A | 3256 | 1/1 | 0.97 | 0.31 | 42,42,42,42 | 0 |
| 56 | MG | 1B | 218 | 1/1 | 0.97 | 0.23 | 38,38,38,38 | 0 |
| 56 | MG | 2A | 3548 | 1/1 | 0.97 | 0.16 | 56,56,56,56 | 0 |
| 56 | MG | 1A | 3629 | 1/1 | 0.97 | 0.17 | 21,21,21,21 | 0 |
| 56 | MG | 1A | 3257 | 1/1 | 0.97 | 0.25 | 46,46,46,46 | 0 |
| 56 | MG | 1A | 3631 | 1/1 | 0.97 | 0.12 | 18,18,18,18 | 0 |
| 56 | MG | 1A | 4022 | 1/1 | 0.97 | 0.24 | 26,26,26,26 | 0 |
| 56 | MG | 1A | 3632 | 1/1 | 0.97 | 0.13 | 15,15,15,15 | 0 |
| 56 | MG | 1B | 224 | 1/1 | 0.97 | 0.12 | 47,47,47,47 | 0 |
| 56 | MG | 1A | 3092 | 1/1 | 0.97 | 0.18 | 29,29,29,29 | 0 |
| 56 | MG | 1A | 3811 | 1/1 | 0.97 | 0.15 | 19,19,19,19 | 0 |
| 56 | MG | 2A | 3557 | 1/1 | 0.97 | 0.14 | 31,31,31,31 | 0 |
| 56 | MG | 1A | 3038 | 1/1 | 0.97 | 0.31 | 34,34,34,34 | 0 |
| 56 | MG | 2A | 3767 | 1/1 | 0.97 | 0.24 | 58,58,58,58 | 0 |
| 56 | MG | 1A | 3813 | 1/1 | 0.97 | 0.12 | 37,37,37,37 | 0 |
| 56 | MG | 2q | 203 | 1/1 | 0.97 | 0.21 | 64,64,64,64 | 0 |
| 56 | MG | 1A | 3123 | 1/1 | 0.97 | 0.18 | 34,34,34,34 | 0 |
| 56 | MG | 1B | 230 | 1/1 | 0.97 | 0.11 | 47,47,47,47 | 0 |
| 56 | MG | 1A | 3010 | 1/1 | 0.97 | 0.19 | 30,30,30,30 | 0 |
| 56 | MG | 1a | 1720 | 1/1 | 0.97 | 0.12 | 33,33,33,33 | 0 |
| 56 | MG | 2v | 103 | 1/1 | 0.97 | 0.14 | 55,55,55,55 | 0 |
| 56 | MG | 1A | 3200 | 1/1 | 0.97 | 0.14 | 31,31,31,31 | 0 |
| 56 | MG | 1A | 3638 | 1/1 | 0.97 | 0.17 | 16,16,16,16 | 0 |
| 56 | MG | 1A | 3821 | 1/1 | 0.97 | 0.23 | 36,36,36,36 | 0 |
| 56 | MG | 1a | 1724 | 1/1 | 0.97 | 0.15 | 45,45,45,45 | 0 |
| 56 | MG | 1A | 3822 | 1/1 | 0.97 | 0.25 | 26,26,26,26 | 0 |
| 56 | MG | 1A | 3265 | 1/1 | 0.97 | 0.20 | 28,28,28,28 | 0 |
| 56 | MG | 15 | 105 | 1/1 | 0.97 | 0.38 | 27,27,27,27 | 0 |
| 56 | MG | 1a | 1728 | 1/1 | 0.97 | 0.12 | 38,38,38,38 | 0 |
| 56 | MG | 2A | 3781 | 1/1 | 0.97 | 0.10 | 34,34,34,34 | 0 |
| 56 | MG | 1A | 3561 | 1/1 | 0.97 | 0.21 | 9,9,9,9 | 0 |
| 56 | MG | 1A | 3929 | 1/1 | 0.97 | 0.17 | 10,10,10,10 | 0 |
| 56 | MG | 2A | 3784 | 1/1 | 0.97 | 0.18 | 27,27,27,27 | 0 |
| 56 | MG | 1A | 4038 | 1/1 | 0.97 | 0.22 | 60,60,60,60 | 0 |
| 56 | MG | 1A | 4040 | 1/1 | 0.97 | 0.14 | 16,16,16,16 | 0 |
| 56 | MG | 1A | 3562 | 1/1 | 0.97 | 0.20 | 22,22,22,22 | 0 |
| 56 | MG | 1D | 306 | 1/1 | 0.97 | 0.26 | 38,38,38,38 | 0 |
| 56 | MG | 2A | 3386 | 1/1 | 0.97 | 0.24 | 49,49,49,49 | 0 |
| 56 | MG | 17 | 102 | 1/1 | 0.97 | 0.22 | 24,24,24,24 | 0 |
| 56 | MG | 2y | 103 | 1/1 | 0.97 | 0.07 | 63,63,63,63 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(Å ²) | Q<0.9 |
|-----|------|-------|------|-------|------|------|----------------------------|-------|
| 56 | MG | 1A | 3173 | 1/1 | 0.97 | 0.18 | 24,24,24,24 | 0 |
| 56 | MG | 2A | 3219 | 1/1 | 0.97 | 0.14 | 55,55,55,55 | 0 |
| 56 | MG | 2A | 3797 | 1/1 | 0.97 | 0.08 | 64,64,64,64 | 0 |
| 56 | MG | 2A | 3582 | 1/1 | 0.97 | 0.14 | 36,36,36,36 | 0 |
| 56 | MG | 1A | 3506 | 1/1 | 0.97 | 0.31 | 30,30,30,30 | 0 |
| 56 | MG | 1A | 3565 | 1/1 | 0.97 | 0.14 | 19,19,19,19 | 0 |
| 56 | MG | 2A | 3395 | 1/1 | 0.97 | 0.22 | 40,40,40,40 | 0 |
| 58 | ZN | 14 | 102 | 1/1 | 0.97 | 0.10 | 70,70,70,70 | 0 |
| 56 | MG | 18 | 103 | 1/1 | 0.97 | 0.28 | 37,37,37,37 | 0 |
| 56 | MG | 1A | 4047 | 1/1 | 0.97 | 0.15 | 32,32,32,32 | 0 |
| 56 | MG | 1a | 1741 | 1/1 | 0.97 | 0.05 | 51,51,51,51 | 0 |
| 56 | MG | 1A | 4048 | 1/1 | 0.97 | 0.09 | 44,44,44,44 | 0 |
| 56 | MG | 1A | 4049 | 1/1 | 0.97 | 0.16 | 17,17,17,17 | 0 |
| 56 | MG | 1a | 1744 | 1/1 | 0.97 | 0.17 | 45,45,45,45 | 0 |
| 56 | MG | 1A | 3458 | 1/1 | 0.97 | 0.26 | 28,28,28,28 | 0 |
| 56 | MG | 1U | 203 | 1/1 | 0.98 | 0.18 | 25,25,25,25 | 0 |
| 56 | MG | 1a | 1787 | 1/1 | 0.98 | 0.17 | 51,51,51,51 | 0 |
| 56 | MG | 2A | 3762 | 1/1 | 0.98 | 0.14 | 46,46,46,46 | 0 |
| 56 | MG | 1D | 307 | 1/1 | 0.98 | 0.22 | 24,24,24,24 | 0 |
| 56 | MG | 1A | 3683 | 1/1 | 0.98 | 0.14 | 43,43,43,43 | 0 |
| 56 | MG | 1A | 3526 | 1/1 | 0.98 | 0.27 | 27,27,27,27 | 0 |
| 56 | MG | 1D | 310 | 1/1 | 0.98 | 0.24 | 33,33,33,33 | 0 |
| 56 | MG | 1D | 311 | 1/1 | 0.98 | 0.32 | 21,21,21,21 | 0 |
| 56 | MG | 1a | 1793 | 1/1 | 0.98 | 0.08 | 60,60,60,60 | 0 |
| 56 | MG | 1U | 209 | 1/1 | 0.98 | 0.13 | 26,26,26,26 | 0 |
| 56 | MG | 1A | 3225 | 1/1 | 0.98 | 0.38 | 30,30,30,30 | 0 |
| 56 | MG | 1A | 3357 | 1/1 | 0.98 | 0.51 | 27,27,27,27 | 0 |
| 56 | MG | 1A | 4029 | 1/1 | 0.98 | 0.13 | 51,51,51,51 | 0 |
| 56 | MG | 1A | 3134 | 1/1 | 0.98 | 0.27 | 26,26,26,26 | 0 |
| 56 | MG | 1A | 3264 | 1/1 | 0.98 | 0.28 | 21,21,21,21 | 0 |
| 56 | MG | 1A | 3068 | 1/1 | 0.98 | 0.16 | 9,9,9,9 | 0 |
| 56 | MG | 1A | 3195 | 1/1 | 0.98 | 0.15 | 20,20,20,20 | 0 |
| 56 | MG | 1A | 3848 | 1/1 | 0.98 | 0.10 | 39,39,39,39 | 0 |
| 56 | MG | 1a | 1803 | 1/1 | 0.98 | 0.10 | 45,45,45,45 | 0 |
| 56 | MG | 1A | 3908 | 1/1 | 0.98 | 0.15 | 16,16,16,16 | 0 |
| 56 | MG | 1A | 3566 | 1/1 | 0.98 | 0.14 | 26,26,26,26 | 0 |
| 56 | MG | 1A | 3605 | 1/1 | 0.98 | 0.19 | 18,18,18,18 | 0 |
| 56 | MG | 1A | 3649 | 1/1 | 0.98 | 0.20 | 18,18,18,18 | 0 |
| 56 | MG | 1A | 4039 | 1/1 | 0.98 | 0.16 | 11,11,11,11 | 0 |
| 56 | MG | 1W | 205 | 1/1 | 0.98 | 0.21 | 24,24,24,24 | 0 |
| 56 | MG | 1E | 311 | 1/1 | 0.98 | 0.16 | 18,18,18,18 | 0 |
| 56 | MG | 2a | 3064 | 1/1 | 0.98 | 0.13 | 43,43,43,43 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 1A | 3127 | 1/1 | 0.98 | 0.17 | 29,29,29,29 | 0 |
| 56 | MG | 1E | 313 | 1/1 | 0.98 | 0.19 | 33,33,33,33 | 0 |
| 56 | MG | 2A | 3788 | 1/1 | 0.98 | 0.09 | 54,54,54,54 | 0 |
| 56 | MG | 1A | 3568 | 1/1 | 0.98 | 0.15 | 34,34,34,34 | 0 |
| 56 | MG | 2A | 3672 | 1/1 | 0.98 | 0.15 | 49,49,49,49 | 0 |
| 56 | MG | 1A | 4042 | 1/1 | 0.98 | 0.16 | 32,32,32,32 | 0 |
| 56 | MG | 1A | 3213 | 1/1 | 0.98 | 0.19 | 24,24,24,24 | 0 |
| 56 | MG | 2A | 3794 | 1/1 | 0.98 | 0.38 | 53,53,53,53 | 0 |
| 56 | MG | 1A | 3391 | 1/1 | 0.98 | 0.29 | 48,48,48,48 | 0 |
| 56 | MG | 2a | 3074 | 1/1 | 0.98 | 0.13 | 48,48,48,48 | 0 |
| 56 | MG | 2A | 3796 | 1/1 | 0.98 | 0.14 | 45,45,45,45 | 0 |
| 56 | MG | 1A | 3856 | 1/1 | 0.98 | 0.21 | 29,29,29,29 | 0 |
| 56 | MG | 2A | 3257 | 1/1 | 0.98 | 0.12 | 46,46,46,46 | 0 |
| 56 | MG | 1A | 3571 | 1/1 | 0.98 | 0.17 | 19,19,19,19 | 0 |
| 56 | MG | 1F | 306 | 1/1 | 0.98 | 0.19 | 32,32,32,32 | 0 |
| 56 | MG | 1A | 3611 | 1/1 | 0.98 | 0.15 | 15,15,15,15 | 0 |
| 56 | MG | 1A | 3859 | 1/1 | 0.98 | 0.15 | 25,25,25,25 | 0 |
| 56 | MG | 2A | 3803 | 1/1 | 0.98 | 0.12 | 26,26,26,26 | 0 |
| 56 | MG | 1A | 3612 | 1/1 | 0.98 | 0.14 | 15,15,15,15 | 0 |
| 56 | MG | 1A | 3503 | 1/1 | 0.98 | 0.12 | 54,54,54,54 | 0 |
| 56 | MG | 1A | 3984 | 1/1 | 0.98 | 0.18 | 24,24,24,24 | 0 |
| 56 | MG | 1A | 3170 | 1/1 | 0.98 | 0.14 | 18,18,18,18 | 0 |
| 56 | MG | 2P | 202 | 1/1 | 0.98 | 0.21 | 48,48,48,48 | 0 |
| 56 | MG | 1A | 3183 | 1/1 | 0.98 | 0.26 | 28,28,28,28 | 0 |
| 56 | MG | 1A | 3704 | 1/1 | 0.98 | 0.19 | 30,30,30,30 | 0 |
| 56 | MG | 1A | 3271 | 1/1 | 0.98 | 0.21 | 41,41,41,41 | 0 |
| 56 | MG | 2R | 201 | 1/1 | 0.98 | 0.19 | 45,45,45,45 | 0 |
| 56 | MG | 1A | 3113 | 1/1 | 0.98 | 0.26 | 26,26,26,26 | 0 |
| 56 | MG | 1A | 3396 | 1/1 | 0.98 | 0.16 | 35,35,35,35 | 0 |
| 56 | MG | 1A | 3062 | 1/1 | 0.98 | 0.18 | 19,19,19,19 | 0 |
| 56 | MG | 1A | 3869 | 1/1 | 0.98 | 0.12 | 43,43,43,43 | 0 |
| 56 | MG | 1A | 3235 | 1/1 | 0.98 | 0.20 | 46,46,46,46 | 0 |
| 56 | MG | 1A | 3580 | 1/1 | 0.98 | 0.14 | 10,10,10,10 | 0 |
| 56 | MG | 2A | 3695 | 1/1 | 0.98 | 0.17 | 56,56,56,56 | 0 |
| 56 | MG | 11 | 104 | 1/1 | 0.98 | 0.15 | 41,41,41,41 | 0 |
| 56 | MG | 1A | 3666 | 1/1 | 0.98 | 0.14 | 17,17,17,17 | 0 |
| 56 | MG | 12 | 101 | 1/1 | 0.98 | 0.27 | 41,41,41,41 | 0 |
| 56 | MG | 1A | 3622 | 1/1 | 0.98 | 0.19 | 24,24,24,24 | 0 |
| 56 | MG | 1A | 3511 | 1/1 | 0.98 | 0.20 | 29,29,29,29 | 0 |
| 56 | MG | 2A | 3589 | 1/1 | 0.98 | 0.16 | 45,45,45,45 | 0 |
| 56 | MG | 1A | 3875 | 1/1 | 0.98 | 0.12 | 4,4,4,4 | 0 |
| 56 | MG | 1A | 3014 | 1/1 | 0.98 | 0.15 | 16,16,16,16 | 0 |

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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 1A | 3766 | 1/1 | 0.98 | 0.14 | 27,27,27,27 | 0 |
| 56 | MG | 2A | 3485 | 1/1 | 0.98 | 0.15 | 36,36,36,36 | 0 |
| 56 | MG | 1A | 3878 | 1/1 | 0.98 | 0.15 | 15,15,15,15 | 0 |
| 56 | MG | 2a | 3110 | 1/1 | 0.98 | 0.17 | 49,49,49,49 | 0 |
| 56 | MG | 1A | 3819 | 1/1 | 0.98 | 0.14 | 27,27,27,27 | 0 |
| 56 | MG | 1A | 3940 | 1/1 | 0.98 | 0.18 | 11,11,11,11 | 0 |
| 56 | MG | 2A | 3489 | 1/1 | 0.98 | 0.17 | 37,37,37,37 | 0 |
| 56 | MG | 15 | 103 | 1/1 | 0.98 | 0.22 | 29,29,29,29 | 0 |
| 56 | MG | 1A | 3276 | 1/1 | 0.98 | 0.17 | 40,40,40,40 | 0 |
| 56 | MG | 1A | 3322 | 1/1 | 0.98 | 0.10 | 35,35,35,35 | 0 |
| 56 | MG | 1y | 101 | 1/1 | 0.98 | 0.27 | 39,39,39,39 | 0 |
| 56 | MG | 2A | 3602 | 1/1 | 0.98 | 0.10 | 36,36,36,36 | 0 |
| 56 | MG | 1A | 3823 | 1/1 | 0.98 | 0.25 | 25,25,25,25 | 0 |
| 56 | MG | 2A | 3389 | 1/1 | 0.98 | 0.28 | 45,45,45,45 | 0 |
| 56 | MG | 2A | 3496 | 1/1 | 0.98 | 0.09 | 35,35,35,35 | 0 |
| 56 | MG | 2A | 3390 | 1/1 | 0.98 | 0.26 | 49,49,49,49 | 0 |
| 56 | MG | 1A | 3718 | 1/1 | 0.98 | 0.18 | 18,18,18,18 | 0 |
| 56 | MG | 1A | 4076 | 1/1 | 0.98 | 0.32 | 45,45,45,45 | 0 |
| 56 | MG | 2A | 3393 | 1/1 | 0.98 | 0.17 | 53,53,53,53 | 0 |
| 56 | MG | 2A | 3501 | 1/1 | 0.98 | 0.05 | 52,52,52,52 | 0 |
| 56 | MG | 1P | 203 | 1/1 | 0.98 | 0.54 | 31,31,31,31 | 0 |
| 56 | MG | 2A | 3846 | 1/1 | 0.98 | 0.21 | 44,44,44,44 | 0 |
| 56 | MG | 1A | 3585 | 1/1 | 0.98 | 0.13 | 10,10,10,10 | 0 |
| 56 | MG | 2A | 3101 | 1/1 | 0.98 | 0.07 | 57,57,57,57 | 0 |
| 56 | MG | 1A | 3219 | 1/1 | 0.98 | 0.19 | 21,21,21,21 | 0 |
| 56 | MG | 2A | 3615 | 1/1 | 0.98 | 0.15 | 51,51,51,51 | 0 |
| 56 | MG | 2A | 3728 | 1/1 | 0.98 | 0.16 | 55,55,55,55 | 0 |
| 56 | MG | 1A | 4079 | 1/1 | 0.98 | 0.15 | 32,32,32,32 | 0 |
| 56 | MG | 1A | 3160 | 1/1 | 0.98 | 0.19 | 26,26,26,26 | 0 |
| 56 | MG | 1A | 3773 | 1/1 | 0.98 | 0.12 | 48,48,48,48 | 0 |
| 56 | MG | 1A | 3028 | 1/1 | 0.98 | 0.12 | 24,24,24,24 | 0 |
| 56 | MG | 2A | 3402 | 1/1 | 0.98 | 0.29 | 47,47,47,47 | 0 |
| 56 | MG | 18 | 102 | 1/1 | 0.98 | 0.22 | 30,30,30,30 | 0 |
| 56 | MG | 2A | 3735 | 1/1 | 0.98 | 0.13 | 45,45,45,45 | 0 |
| 56 | MG | 2A | 3737 | 1/1 | 0.98 | 0.13 | 56,56,56,56 | 0 |
| 56 | MG | 1A | 3080 | 1/1 | 0.98 | 0.21 | 25,25,25,25 | 0 |
| 56 | MG | 2A | 3205 | 1/1 | 0.98 | 0.11 | 61,61,61,61 | 0 |
| 56 | MG | 1B | 234 | 1/1 | 0.98 | 0.13 | 60,60,60,60 | 0 |
| 56 | MG | 1A | 3520 | 1/1 | 0.98 | 0.29 | 36,36,36,36 | 0 |
| 56 | MG | 18 | 106 | 1/1 | 0.98 | 0.16 | 41,41,41,41 | 0 |
| 56 | MG | 1A | 3118 | 1/1 | 0.98 | 0.37 | 26,26,26,26 | 0 |
| 56 | MG | 1A | 3165 | 1/1 | 0.98 | 0.21 | 41,41,41,41 | 0 |

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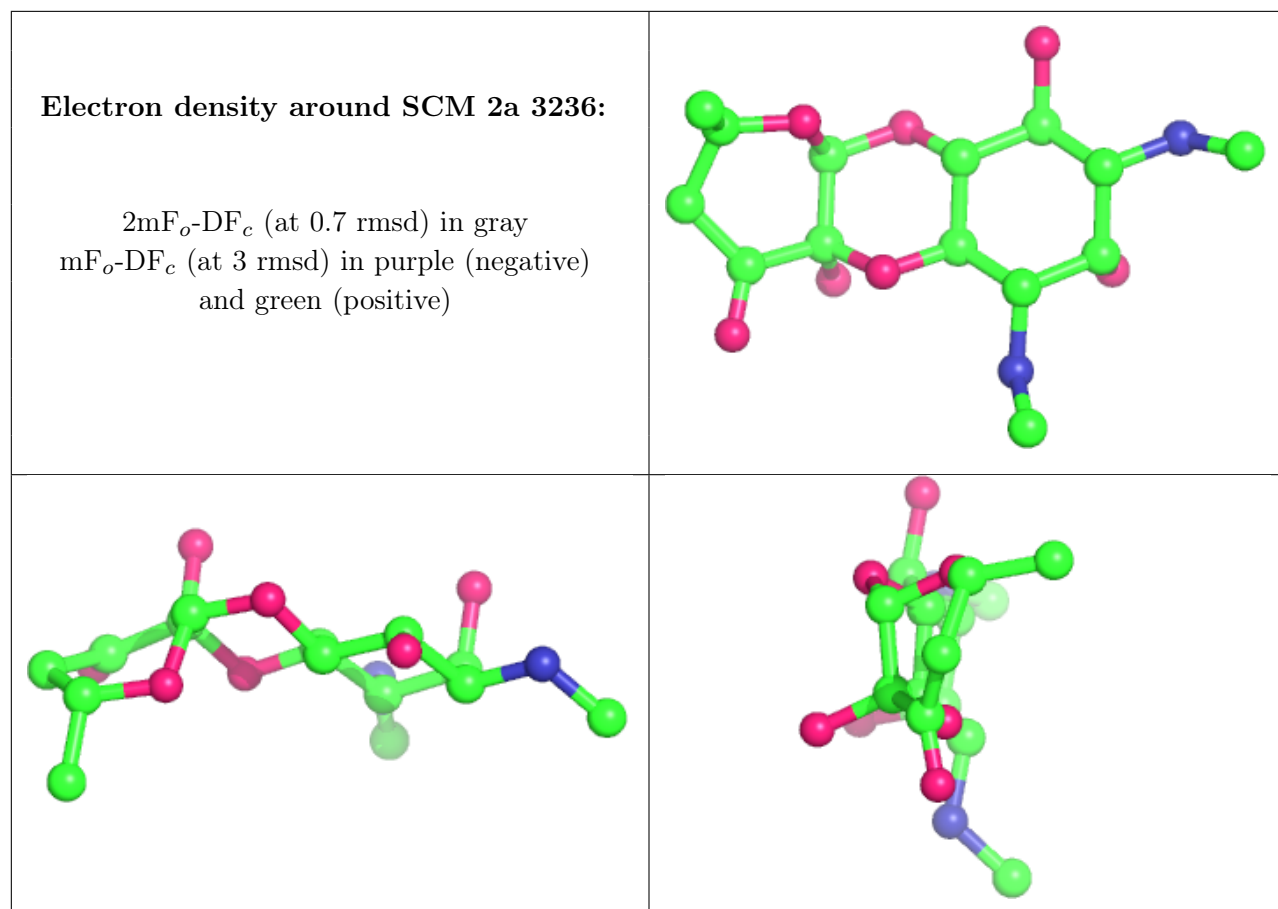
| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 1a | 1686 | 1/1 | 0.98 | 0.19 | 28,28,28,28 | 0 |
| 56 | MG | 1A | 3727 | 1/1 | 0.98 | 0.20 | 23,23,23,23 | 0 |
| 56 | MG | 2a | 3151 | 1/1 | 0.98 | 0.12 | 49,49,49,49 | 0 |
| 56 | MG | 19 | 102 | 1/1 | 0.98 | 0.19 | 31,31,31,31 | 0 |
| 56 | MG | 1a | 1777 | 1/1 | 0.98 | 0.18 | 45,45,45,45 | 0 |
| 56 | MG | 2A | 3022 | 1/1 | 0.98 | 0.36 | 40,40,40,40 | 0 |
| 56 | MG | 2A | 3023 | 1/1 | 0.98 | 0.15 | 34,34,34,34 | 0 |
| 56 | MG | 1A | 3462 | 1/1 | 0.98 | 0.12 | 39,39,39,39 | 0 |
| 56 | MG | 1A | 3261 | 1/1 | 0.98 | 0.13 | 26,26,26,26 | 0 |
| 56 | MG | 1A | 3355 | 1/1 | 0.98 | 0.13 | 18,18,18,18 | 0 |
| 58 | ZN | 16 | 102 | 1/1 | 0.98 | 0.21 | 36,36,36,36 | 0 |
| 56 | MG | 2a | 3159 | 1/1 | 0.98 | 0.19 | 47,47,47,47 | 0 |
| 56 | MG | 1D | 303 | 1/1 | 0.98 | 0.26 | 40,40,40,40 | 0 |
| 58 | ZN | 25 | 107 | 1/1 | 0.98 | 0.19 | 46,46,46,46 | 0 |
| 56 | MG | 1A | 3783 | 1/1 | 0.98 | 0.24 | 31,31,31,31 | 0 |
| 56 | MG | 2A | 3530 | 1/1 | 0.98 | 0.12 | 33,33,33,33 | 0 |
| 56 | MG | 1D | 305 | 1/1 | 0.98 | 0.15 | 11,11,11,11 | 0 |
| 56 | MG | 1U | 201 | 1/1 | 0.98 | 0.18 | 22,22,22,22 | 0 |
| 56 | MG | 1A | 3732 | 1/1 | 0.98 | 0.08 | 30,30,30,30 | 0 |
| 60 | SF4 | 2d | 303 | 8/8 | 0.98 | 0.14 | 61,64,74,78 | 0 |
| 56 | MG | 1A | 3818 | 1/1 | 0.99 | 0.14 | 25,25,25,25 | 0 |
| 56 | MG | 1A | 3358 | 1/1 | 0.99 | 0.26 | 27,27,27,27 | 0 |
| 56 | MG | 1A | 3820 | 1/1 | 0.99 | 0.20 | 25,25,25,25 | 0 |
| 56 | MG | 1A | 3741 | 1/1 | 0.99 | 0.20 | 17,17,17,17 | 0 |
| 56 | MG | 1U | 210 | 1/1 | 0.99 | 0.27 | 27,27,27,27 | 0 |
| 56 | MG | 1A | 3647 | 1/1 | 0.99 | 0.15 | 7,7,7,7 | 0 |
| 56 | MG | 1A | 3717 | 1/1 | 0.99 | 0.16 | 17,17,17,17 | 0 |
| 56 | MG | 2A | 3479 | 1/1 | 0.99 | 0.18 | 33,33,33,33 | 0 |
| 56 | MG | 1A | 3154 | 1/1 | 0.99 | 0.35 | 36,36,36,36 | 0 |
| 56 | MG | 1V | 201 | 1/1 | 0.99 | 0.23 | 17,17,17,17 | 0 |
| 56 | MG | 1A | 3155 | 1/1 | 0.99 | 0.25 | 23,23,23,23 | 0 |
| 56 | MG | 1A | 3185 | 1/1 | 0.99 | 0.30 | 23,23,23,23 | 0 |
| 56 | MG | 2A | 3736 | 1/1 | 0.99 | 0.07 | 44,44,44,44 | 0 |
| 56 | MG | 1A | 3100 | 1/1 | 0.99 | 0.16 | 29,29,29,29 | 0 |
| 56 | MG | 1A | 3547 | 1/1 | 0.99 | 0.16 | 16,16,16,16 | 0 |
| 56 | MG | 1A | 3049 | 1/1 | 0.99 | 0.15 | 20,20,20,20 | 0 |
| 56 | MG | 1V | 207 | 1/1 | 0.99 | 0.18 | 24,24,24,24 | 0 |
| 56 | MG | 1A | 3490 | 1/1 | 0.99 | 0.34 | 32,32,32,32 | 0 |
| 56 | MG | 1V | 209 | 1/1 | 0.99 | 0.13 | 33,33,33,33 | 0 |
| 56 | MG | 1A | 3347 | 1/1 | 0.99 | 0.14 | 16,16,16,16 | 0 |
| 56 | MG | 1A | 3972 | 1/1 | 0.99 | 0.17 | 17,17,17,17 | 0 |
| 56 | MG | 1A | 3037 | 1/1 | 0.99 | 0.17 | 10,10,10,10 | 0 |

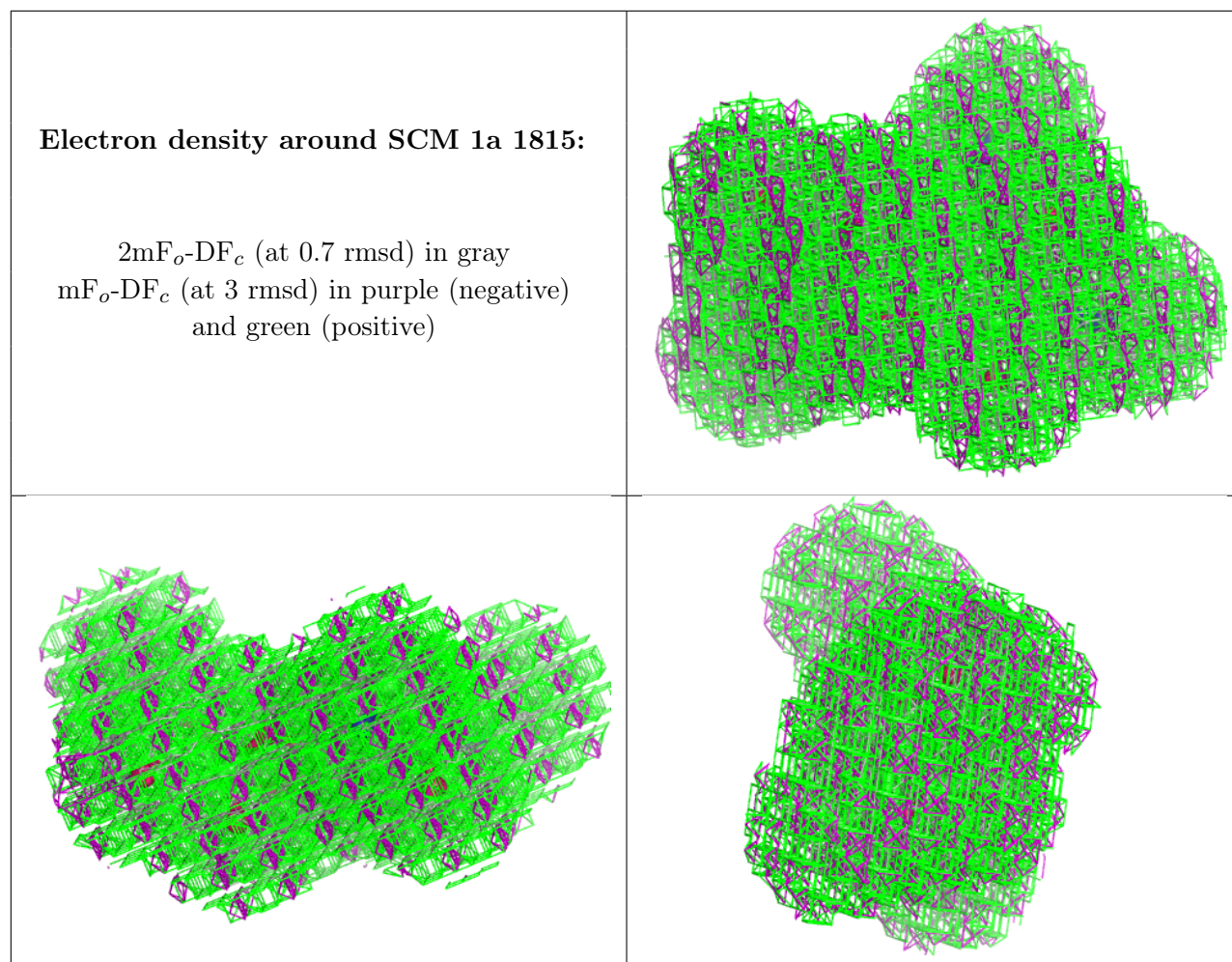
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| Mol | Type | Chain | Res | Atoms | RSCC | RSR | B-factors(\AA^2) | Q<0.9 |
|-----|------|-------|------|-------|------|------|-----------------------------|-------|
| 56 | MG | 1A | 4003 | 1/1 | 0.99 | 0.18 | 16,16,16,16 | 0 |
| 56 | MG | 15 | 102 | 1/1 | 0.99 | 0.30 | 28,28,28,28 | 0 |
| 56 | MG | 2A | 3791 | 1/1 | 0.99 | 0.13 | 41,41,41,41 | 0 |
| 56 | MG | 2A | 3880 | 1/1 | 0.99 | 0.09 | 63,63,63,63 | 0 |
| 56 | MG | 1A | 3168 | 1/1 | 0.99 | 0.34 | 27,27,27,27 | 0 |
| 56 | MG | 1A | 3367 | 1/1 | 0.99 | 0.09 | 57,57,57,57 | 0 |
| 56 | MG | 1A | 3003 | 1/1 | 0.99 | 0.23 | 20,20,20,20 | 0 |
| 56 | MG | 1A | 3595 | 1/1 | 0.99 | 0.11 | 24,24,24,24 | 0 |
| 56 | MG | 1A | 4008 | 1/1 | 0.99 | 0.23 | 10,10,10,10 | 0 |
| 56 | MG | 1f | 201 | 1/1 | 0.99 | 0.23 | 43,43,43,43 | 0 |
| 56 | MG | 1A | 3731 | 1/1 | 0.99 | 0.10 | 36,36,36,36 | 0 |
| 56 | MG | 1A | 3202 | 1/1 | 0.99 | 0.23 | 19,19,19,19 | 0 |
| 56 | MG | 1A | 3039 | 1/1 | 0.99 | 0.30 | 24,24,24,24 | 0 |
| 56 | MG | 1A | 3353 | 1/1 | 0.99 | 0.23 | 18,18,18,18 | 0 |
| 58 | ZN | 15 | 111 | 1/1 | 0.99 | 0.20 | 35,35,35,35 | 0 |
| 56 | MG | 2A | 3011 | 1/1 | 0.99 | 0.11 | 43,43,43,43 | 0 |
| 58 | ZN | 19 | 103 | 1/1 | 0.99 | 0.19 | 36,36,36,36 | 0 |
| 58 | ZN | 1n | 103 | 1/1 | 0.99 | 0.17 | 53,53,53,53 | 0 |
| 56 | MG | 17 | 101 | 1/1 | 0.99 | 0.23 | 22,22,22,22 | 0 |
| 56 | MG | 1A | 3036 | 1/1 | 0.99 | 0.26 | 23,23,23,23 | 0 |
| 56 | MG | 2a | 3060 | 1/1 | 0.99 | 0.13 | 47,47,47,47 | 0 |
| 56 | MG | 1A | 3283 | 1/1 | 0.99 | 0.24 | 23,23,23,23 | 0 |
| 56 | MG | 1A | 4046 | 1/1 | 0.99 | 0.17 | 29,29,29,29 | 0 |
| 56 | MG | 1E | 304 | 1/1 | 0.99 | 0.19 | 22,22,22,22 | 0 |
| 56 | MG | 1A | 3643 | 1/1 | 0.99 | 0.21 | 15,15,15,15 | 0 |
| 56 | MG | 1A | 3162 | 1/1 | 0.99 | 0.21 | 48,48,48,48 | 0 |
| 60 | SF4 | 1d | 501 | 8/8 | 0.99 | 0.14 | 53,59,64,67 | 0 |
| 56 | MG | 1A | 3206 | 1/1 | 0.99 | 0.28 | 30,30,30,30 | 0 |
| 56 | MG | 1A | 3054 | 1/1 | 1.00 | 0.16 | 22,22,22,22 | 0 |

The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.





6.5 Other polymers [i](#)

There are no such residues in this entry.