



Full wwPDB EM Validation Report ⓘ

Sep 3, 2025 – 05:43 PM EDT

PDB ID : 9AY5 / pdb_00009ay5
EMDB ID : EMD-43960
Title : Tail-Baseplate of P1 bacteriophage
Authors : Nakamura, T.; Sen, A.; Terashi, G.; Kihara, D.
Deposited on : 2024-03-07
Resolution : 6.00 Å(reported)

This is a Full wwPDB EM 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/EMValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

EMDB validation analysis : 0.0.1.dev126
MolProbity : 4-5-2 with Phenix2.0rc1
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.45.1

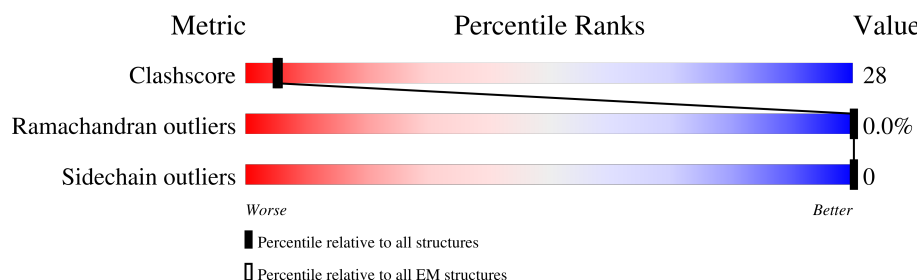
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 6.00 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



| Metric | Whole archive (#Entries) | EM structures (#Entries) |
|-----------------------|-----------------------------|-----------------------------|
| Clashscore | 210492 | 15764 |
| Ramachandran outliers | 207382 | 16835 |
| Sidechain outliers | 206894 | 16415 |

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

| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|--|
| 1 | A | 203 | <div> <div>51%</div> <div>40%</div> <div>48%</div> <div>11%</div> </div> |
| 1 | B | 203 | <div> <div>52%</div> <div>37%</div> <div>51%</div> <div>11%</div> </div> |
| 1 | C | 203 | <div> <div>53%</div> <div>36%</div> <div>52%</div> <div>11%</div> </div> |
| 1 | D | 203 | <div> <div>51%</div> <div>39%</div> <div>50%</div> <div>11%</div> </div> |
| 1 | E | 203 | <div> <div>52%</div> <div>39%</div> <div>50%</div> <div>11%</div> </div> |
| 1 | F | 203 | <div> <div>53%</div> <div>38%</div> <div>51%</div> <div>11%</div> </div> |
| 2 | G | 193 | <div> <div>54%</div> <div>39%</div> <div>42%</div> <div>18%</div> </div> |
| 2 | H | 193 | <div> <div>52%</div> <div>40%</div> <div>41%</div> <div>18%</div> </div> |

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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 2 | I | 193 | |
| 2 | J | 193 | |
| 2 | K | 193 | |
| 2 | L | 193 | |
| 3 | M | 118 | |
| 3 | N | 118 | |
| 3 | O | 118 | |
| 3 | P | 118 | |
| 3 | Q | 118 | |
| 3 | R | 118 | |
| 4 | S | 125 | |
| 4 | T | 125 | |
| 4 | U | 125 | |
| 4 | V | 125 | |
| 4 | W | 125 | |
| 4 | X | 125 | |
| 5 | 0 | 477 | |
| 5 | 1 | 477 | |
| 5 | 2 | 477 | |
| 5 | 3 | 477 | |
| 5 | 4 | 477 | |
| 5 | 5 | 477 | |
| 5 | 6 | 477 | |
| 5 | 7 | 477 | |
| 5 | 8 | 477 | |

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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 5 | 9 | 477 | |
| 5 | Y | 477 | |
| 5 | Z | 477 | |
| 6 | a | 278 | |
| 6 | b | 278 | |
| 6 | c | 278 | |
| 6 | d | 278 | |
| 6 | e | 278 | |
| 6 | f | 278 | |
| 7 | AA | 529 | |
| 7 | BA | 529 | |
| 7 | CA | 529 | |
| 7 | DA | 529 | |
| 7 | EA | 529 | |
| 7 | FA | 529 | |
| 7 | GA | 529 | |
| 7 | HA | 529 | |
| 7 | IA | 529 | |
| 7 | JA | 529 | |
| 7 | KA | 529 | |
| 7 | LA | 529 | |
| 7 | MA | 529 | |
| 7 | NA | 529 | |
| 7 | OA | 529 | |
| 7 | PA | 529 | |

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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|---|
| 7 | QA | 529 | <div> <div>28%</div> <div>52%</div> <div>47%</div> </div> |
| 7 | RA | 529 | <div> <div>28%</div> <div>52%</div> <div>47%</div> </div> |
| 7 | g | 529 | <div> <div>32%</div> <div>47%</div> <div>53%</div> </div> |
| 7 | h | 529 | <div> <div>32%</div> <div>46%</div> <div>54%</div> </div> |
| 7 | i | 529 | <div> <div>33%</div> <div>47%</div> <div>53%</div> </div> |
| 7 | j | 529 | <div> <div>32%</div> <div>47%</div> <div>53%</div> </div> |
| 7 | k | 529 | <div> <div>32%</div> <div>47%</div> <div>53%</div> </div> |
| 7 | l | 529 | <div> <div>32%</div> <div>47%</div> <div>53%</div> </div> |
| 7 | m | 529 | <div> <div>29%</div> <div>52%</div> <div>48%</div> </div> |
| 7 | n | 529 | <div> <div>29%</div> <div>51%</div> <div>49%</div> </div> |
| 7 | o | 529 | <div> <div>29%</div> <div>49%</div> <div>51%</div> </div> |
| 7 | p | 529 | <div> <div>29%</div> <div>51%</div> <div>49%</div> </div> |
| 7 | q | 529 | <div> <div>29%</div> <div>50%</div> <div>50%</div> </div> |
| 7 | r | 529 | <div> <div>29%</div> <div>50%</div> <div>50%</div> </div> |
| 8 | AB | 169 | <div> <div>63%</div> <div>43%</div> <div>57%</div> </div> |
| 8 | BB | 169 | <div> <div>62%</div> <div>40%</div> <div>59%</div> </div> |
| 8 | CB | 169 | <div> <div>62%</div> <div>41%</div> <div>59%</div> </div> |
| 8 | DB | 169 | <div> <div>62%</div> <div>40%</div> <div>60%</div> </div> |
| 8 | EB | 169 | <div> <div>62%</div> <div>42%</div> <div>57%</div> </div> |
| 8 | FB | 169 | <div> <div>62%</div> <div>40%</div> <div>60%</div> </div> |
| 8 | GB | 169 | <div> <div>67%</div> <div>31%</div> <div>68%</div> </div> |
| 8 | HB | 169 | <div> <div>66%</div> <div>33%</div> <div>67%</div> </div> |
| 8 | IB | 169 | <div> <div>66%</div> <div>32%</div> <div>67%</div> </div> |
| 8 | JB | 169 | <div> <div>66%</div> <div>30%</div> <div>70%</div> </div> |
| 8 | KB | 169 | <div> <div>66%</div> <div>35%</div> <div>64%</div> </div> |

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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 8 | LB | 169 | |
| 8 | MB | 169 | |
| 8 | NB | 169 | |
| 8 | OB | 169 | |
| 8 | PB | 169 | |
| 8 | QB | 169 | |
| 8 | RB | 169 | |

2 Entry composition

There are 8 unique types of molecules in this entry. The entry contains 225414 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Tub.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 1 | A | 180 | Total | C | N | O | S | 0 | 0 |
| | | | 1409 | 900 | 229 | 274 | 6 | | |
| 1 | B | 180 | Total | C | N | O | S | 0 | 0 |
| | | | 1409 | 900 | 229 | 274 | 6 | | |
| 1 | C | 180 | Total | C | N | O | S | 0 | 0 |
| | | | 1409 | 900 | 229 | 274 | 6 | | |
| 1 | D | 180 | Total | C | N | O | S | 0 | 0 |
| | | | 1409 | 900 | 229 | 274 | 6 | | |
| 1 | E | 180 | Total | C | N | O | S | 0 | 0 |
| | | | 1409 | 900 | 229 | 274 | 6 | | |
| 1 | F | 180 | Total | C | N | O | S | 0 | 0 |
| | | | 1409 | 900 | 229 | 274 | 6 | | |

- Molecule 2 is a protein called PmgG.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 2 | G | 158 | Total | C | N | O | S | 0 | 0 |
| | | | 1202 | 764 | 199 | 235 | 4 | | |
| 2 | H | 158 | Total | C | N | O | S | 0 | 0 |
| | | | 1202 | 764 | 199 | 235 | 4 | | |
| 2 | I | 158 | Total | C | N | O | S | 0 | 0 |
| | | | 1202 | 764 | 199 | 235 | 4 | | |
| 2 | J | 158 | Total | C | N | O | S | 0 | 0 |
| | | | 1202 | 764 | 199 | 235 | 4 | | |
| 2 | K | 158 | Total | C | N | O | S | 0 | 0 |
| | | | 1202 | 764 | 199 | 235 | 4 | | |
| 2 | L | 158 | Total | C | N | O | S | 0 | 0 |
| | | | 1202 | 764 | 199 | 235 | 4 | | |

- Molecule 3 is a protein called PmgA.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 3 | M | 112 | Total | C | N | O | S | 0 | 0 |
| | | | 888 | 571 | 142 | 174 | 1 | | |

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| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 3 | N | 112 | Total | C | N | O | S | 0 | 0 |
| | | | 888 | 571 | 142 | 174 | 1 | | |
| 3 | O | 112 | Total | C | N | O | S | 0 | 0 |
| | | | 888 | 571 | 142 | 174 | 1 | | |
| 3 | P | 112 | Total | C | N | O | S | 0 | 0 |
| | | | 888 | 571 | 142 | 174 | 1 | | |
| 3 | Q | 112 | Total | C | N | O | S | 0 | 0 |
| | | | 888 | 571 | 142 | 174 | 1 | | |
| 3 | R | 112 | Total | C | N | O | S | 0 | 0 |
| | | | 888 | 571 | 142 | 174 | 1 | | |

- Molecule 4 is a protein called Gp26.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 4 | S | 115 | Total | C | N | O | S | 0 | 0 |
| | | | 944 | 602 | 163 | 173 | 6 | | |
| 4 | T | 115 | Total | C | N | O | S | 0 | 0 |
| | | | 944 | 602 | 163 | 173 | 6 | | |
| 4 | U | 115 | Total | C | N | O | S | 0 | 0 |
| | | | 944 | 602 | 163 | 173 | 6 | | |
| 4 | V | 115 | Total | C | N | O | S | 0 | 0 |
| | | | 944 | 602 | 163 | 173 | 6 | | |
| 4 | W | 115 | Total | C | N | O | S | 0 | 0 |
| | | | 944 | 602 | 163 | 173 | 6 | | |
| 4 | X | 115 | Total | C | N | O | S | 0 | 0 |
| | | | 944 | 602 | 163 | 173 | 6 | | |

- Molecule 5 is a protein called BplA.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| 5 | Y | 477 | Total | C | N | O | S | 0 | 0 |
| | | | 3780 | 2426 | 601 | 741 | 12 | | |
| 5 | Z | 477 | Total | C | N | O | S | 0 | 0 |
| | | | 3780 | 2426 | 601 | 741 | 12 | | |
| 5 | 0 | 477 | Total | C | N | O | S | 0 | 0 |
| | | | 3780 | 2426 | 601 | 741 | 12 | | |
| 5 | 1 | 477 | Total | C | N | O | S | 0 | 0 |
| | | | 3780 | 2426 | 601 | 741 | 12 | | |
| 5 | 2 | 477 | Total | C | N | O | S | 0 | 0 |
| | | | 3780 | 2426 | 601 | 741 | 12 | | |
| 5 | 3 | 477 | Total | C | N | O | S | 0 | 0 |
| | | | 3780 | 2426 | 601 | 741 | 12 | | |

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| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| 5 | 4 | 477 | Total | C | N | O | S | 0 | 0 |
| | | | 3780 | 2426 | 601 | 741 | 12 | | |
| 5 | 5 | 477 | Total | C | N | O | S | 0 | 0 |
| | | | 3780 | 2426 | 601 | 741 | 12 | | |
| 5 | 6 | 477 | Total | C | N | O | S | 0 | 0 |
| | | | 3780 | 2426 | 601 | 741 | 12 | | |
| 5 | 7 | 477 | Total | C | N | O | S | 0 | 0 |
| | | | 3780 | 2426 | 601 | 741 | 12 | | |
| 5 | 8 | 477 | Total | C | N | O | S | 0 | 0 |
| | | | 3780 | 2426 | 601 | 741 | 12 | | |
| 5 | 9 | 477 | Total | C | N | O | S | 0 | 0 |
| | | | 3780 | 2426 | 601 | 741 | 12 | | |

- Molecule 6 is a protein called Gp16.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|---|---------|-------|
| 6 | a | 204 | Total | C | N | O | S | 0 | 0 |
| | | | 1652 | 1056 | 279 | 309 | 8 | | |
| 6 | b | 204 | Total | C | N | O | S | 0 | 0 |
| | | | 1652 | 1056 | 279 | 309 | 8 | | |
| 6 | c | 204 | Total | C | N | O | S | 0 | 0 |
| | | | 1652 | 1056 | 279 | 309 | 8 | | |
| 6 | d | 204 | Total | C | N | O | S | 0 | 0 |
| | | | 1652 | 1056 | 279 | 309 | 8 | | |
| 6 | e | 204 | Total | C | N | O | S | 0 | 0 |
| | | | 1652 | 1056 | 279 | 309 | 8 | | |
| 6 | f | 204 | Total | C | N | O | S | 0 | 0 |
| | | | 1652 | 1056 | 279 | 309 | 8 | | |

- Molecule 7 is a protein called Gp22.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| 7 | g | 528 | Total | C | N | O | S | 0 | 0 |
| | | | 3995 | 2525 | 668 | 784 | 18 | | |
| 7 | h | 528 | Total | C | N | O | S | 0 | 0 |
| | | | 3995 | 2525 | 668 | 784 | 18 | | |
| 7 | i | 528 | Total | C | N | O | S | 0 | 0 |
| | | | 3995 | 2525 | 668 | 784 | 18 | | |
| 7 | j | 528 | Total | C | N | O | S | 0 | 0 |
| | | | 3995 | 2525 | 668 | 784 | 18 | | |
| 7 | k | 528 | Total | C | N | O | S | 0 | 0 |
| | | | 3995 | 2525 | 668 | 784 | 18 | | |

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| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|---------------|-----------|----------|----------|---------|---------|-------|
| 7 | l | 528 | Total 3995 | C 2525 | N 668 | O 784 | S 18 | 0 | 0 |
| 7 | m | 528 | Total 3995 | C 2525 | N 668 | O 784 | S 18 | 0 | 0 |
| 7 | n | 528 | Total 3995 | C 2525 | N 668 | O 784 | S 18 | 0 | 0 |
| 7 | o | 528 | Total 3995 | C 2525 | N 668 | O 784 | S 18 | 0 | 0 |
| 7 | p | 528 | Total 3995 | C 2525 | N 668 | O 784 | S 18 | 0 | 0 |
| 7 | q | 528 | Total 3995 | C 2525 | N 668 | O 784 | S 18 | 0 | 0 |
| 7 | r | 528 | Total 3995 | C 2525 | N 668 | O 784 | S 18 | 0 | 0 |
| 7 | AA | 528 | Total 3995 | C 2525 | N 668 | O 784 | S 18 | 0 | 0 |
| 7 | BA | 528 | Total 3995 | C 2525 | N 668 | O 784 | S 18 | 0 | 0 |
| 7 | CA | 528 | Total 3995 | C 2525 | N 668 | O 784 | S 18 | 0 | 0 |
| 7 | DA | 528 | Total 3995 | C 2525 | N 668 | O 784 | S 18 | 0 | 0 |
| 7 | EA | 528 | Total 3995 | C 2525 | N 668 | O 784 | S 18 | 0 | 0 |
| 7 | FA | 528 | Total 3995 | C 2525 | N 668 | O 784 | S 18 | 0 | 0 |
| 7 | GA | 528 | Total 3995 | C 2525 | N 668 | O 784 | S 18 | 0 | 0 |
| 7 | HA | 528 | Total 3995 | C 2525 | N 668 | O 784 | S 18 | 0 | 0 |
| 7 | IA | 528 | Total 3995 | C 2525 | N 668 | O 784 | S 18 | 0 | 0 |
| 7 | JA | 528 | Total 3995 | C 2525 | N 668 | O 784 | S 18 | 0 | 0 |
| 7 | KA | 528 | Total 3995 | C 2525 | N 668 | O 784 | S 18 | 0 | 0 |
| 7 | LA | 528 | Total 3995 | C 2525 | N 668 | O 784 | S 18 | 0 | 0 |
| 7 | MA | 528 | Total 3995 | C 2525 | N 668 | O 784 | S 18 | 0 | 0 |
| 7 | NA | 528 | Total 3995 | C 2525 | N 668 | O 784 | S 18 | 0 | 0 |

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| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| 7 | OA | 528 | Total | C | N | O | S | 0 | 0 |
| | | | 3995 | 2525 | 668 | 784 | 18 | | |
| 7 | PA | 528 | Total | C | N | O | S | 0 | 0 |
| | | | 3995 | 2525 | 668 | 784 | 18 | | |
| 7 | QA | 528 | Total | C | N | O | S | 0 | 0 |
| | | | 3995 | 2525 | 668 | 784 | 18 | | |
| 7 | RA | 528 | Total | C | N | O | S | 0 | 0 |
| | | | 3995 | 2525 | 668 | 784 | 18 | | |

- Molecule 8 is a protein called BplB.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 8 | AB | 168 | Total | C | N | O | S | 0 | 0 |
| | | | 1313 | 819 | 227 | 262 | 5 | | |
| 8 | BB | 168 | Total | C | N | O | S | 0 | 0 |
| | | | 1313 | 819 | 227 | 262 | 5 | | |
| 8 | CB | 168 | Total | C | N | O | S | 0 | 0 |
| | | | 1313 | 819 | 227 | 262 | 5 | | |
| 8 | DB | 168 | Total | C | N | O | S | 0 | 0 |
| | | | 1313 | 819 | 227 | 262 | 5 | | |
| 8 | EB | 168 | Total | C | N | O | S | 0 | 0 |
| | | | 1313 | 819 | 227 | 262 | 5 | | |
| 8 | FB | 168 | Total | C | N | O | S | 0 | 0 |
| | | | 1313 | 819 | 227 | 262 | 5 | | |
| 8 | GB | 168 | Total | C | N | O | S | 0 | 0 |
| | | | 1313 | 819 | 227 | 262 | 5 | | |
| 8 | HB | 168 | Total | C | N | O | S | 0 | 0 |
| | | | 1313 | 819 | 227 | 262 | 5 | | |
| 8 | IB | 168 | Total | C | N | O | S | 0 | 0 |
| | | | 1313 | 819 | 227 | 262 | 5 | | |
| 8 | JB | 168 | Total | C | N | O | S | 0 | 0 |
| | | | 1313 | 819 | 227 | 262 | 5 | | |
| 8 | KB | 168 | Total | C | N | O | S | 0 | 0 |
| | | | 1313 | 819 | 227 | 262 | 5 | | |
| 8 | LB | 168 | Total | C | N | O | S | 0 | 0 |
| | | | 1313 | 819 | 227 | 262 | 5 | | |
| 8 | MB | 168 | Total | C | N | O | S | 0 | 0 |
| | | | 1313 | 819 | 227 | 262 | 5 | | |
| 8 | NB | 168 | Total | C | N | O | S | 0 | 0 |
| | | | 1313 | 819 | 227 | 262 | 5 | | |
| 8 | OB | 168 | Total | C | N | O | S | 0 | 0 |
| | | | 1313 | 819 | 227 | 262 | 5 | | |

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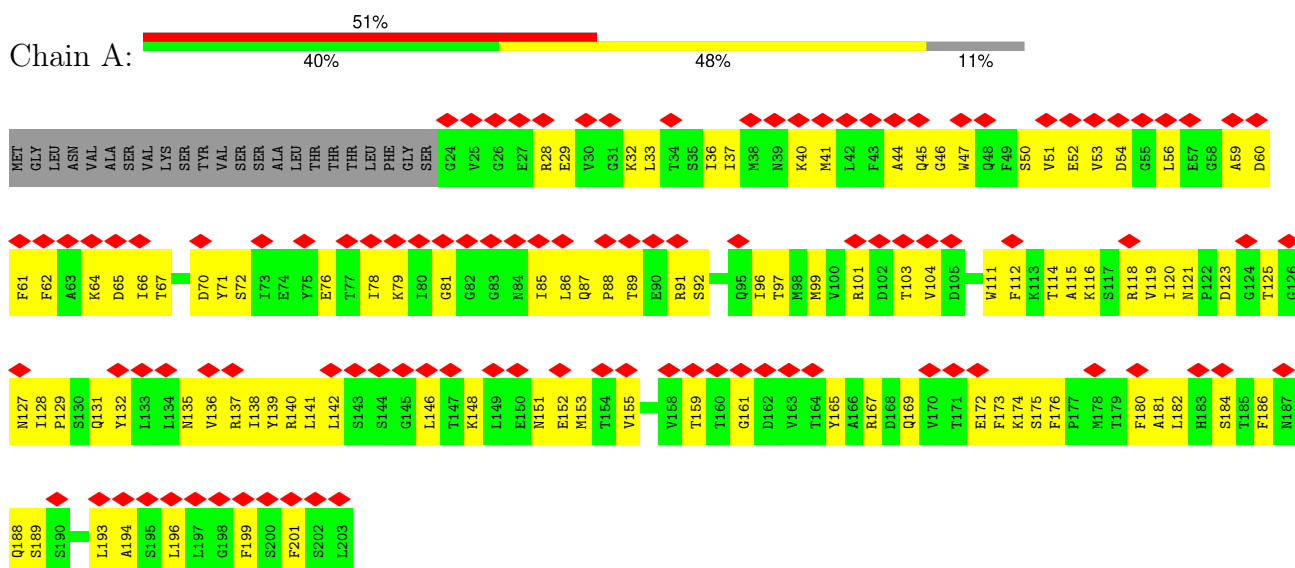
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| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 8 | PB | 168 | Total | C | N | O | S | 0 | 0 |
| | | | 1313 | 819 | 227 | 262 | 5 | | |
| 8 | QB | 168 | Total | C | N | O | S | 0 | 0 |
| | | | 1313 | 819 | 227 | 262 | 5 | | |
| 8 | RB | 168 | Total | C | N | O | S | 0 | 0 |
| | | | 1313 | 819 | 227 | 262 | 5 | | |

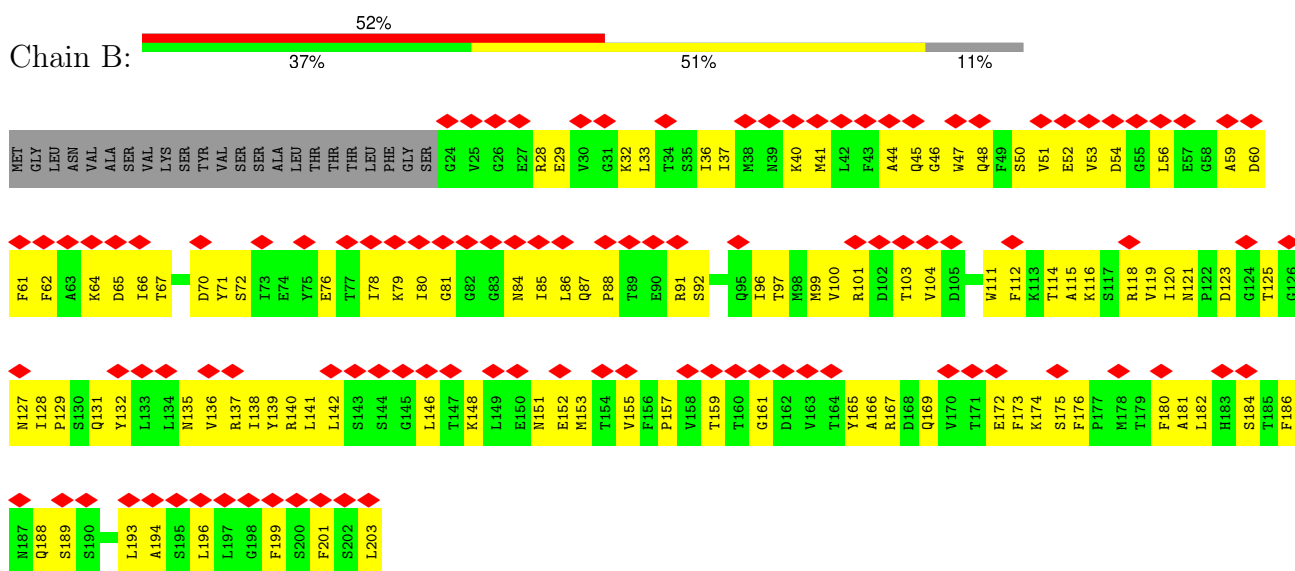
3 Residue-property plots

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 atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

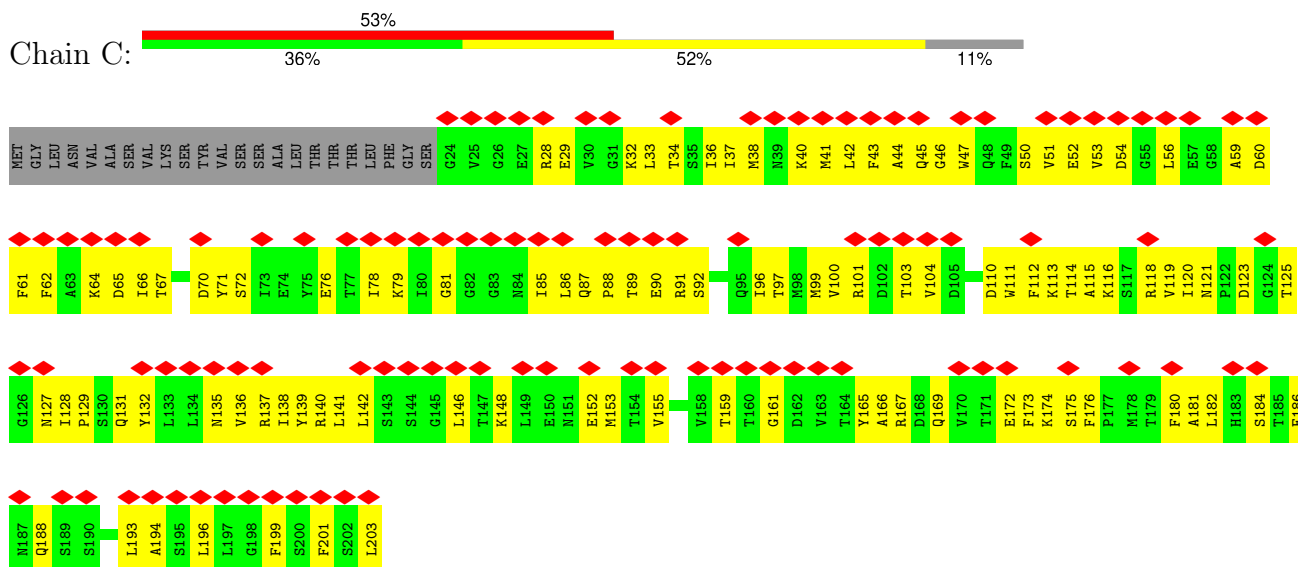
• Molecule 1: Tub



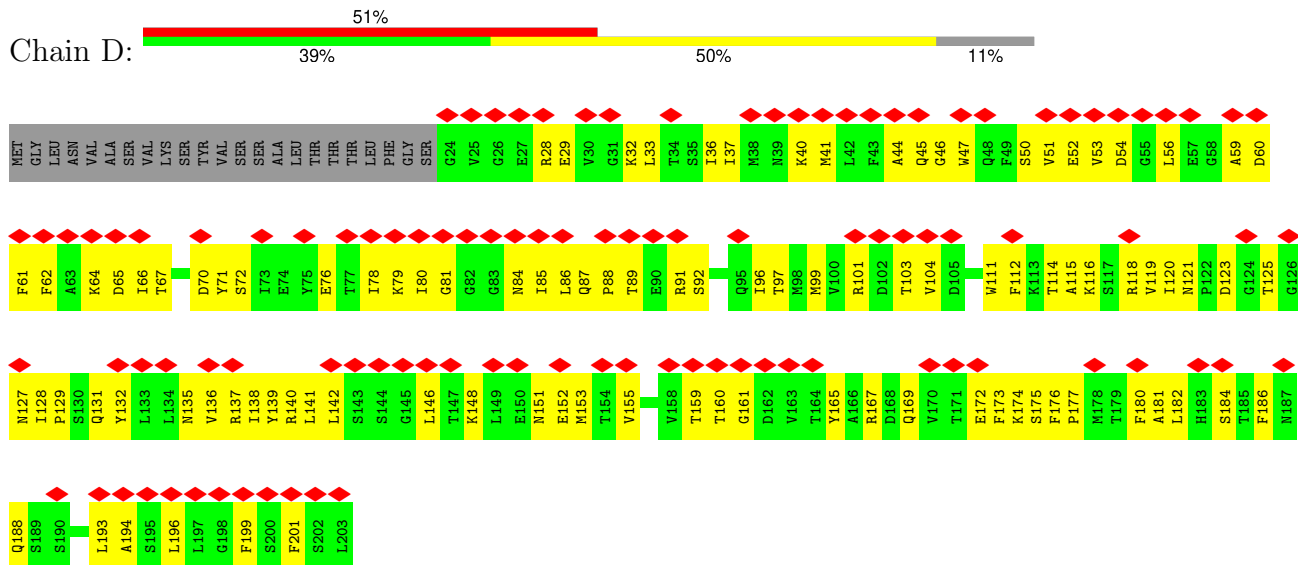
• Molecule 1: Tub



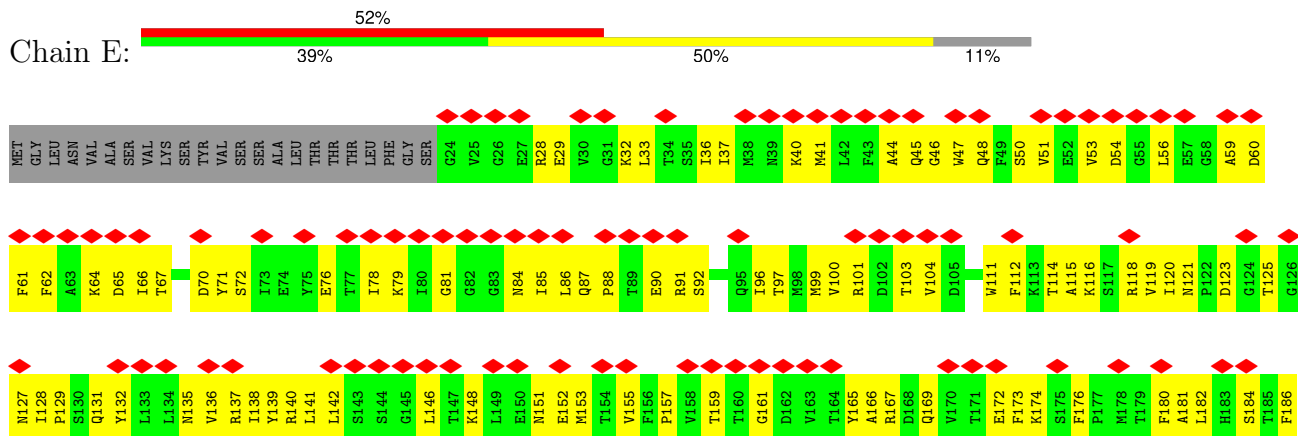
• Molecule 1: Tub



• Molecule 1: Tub

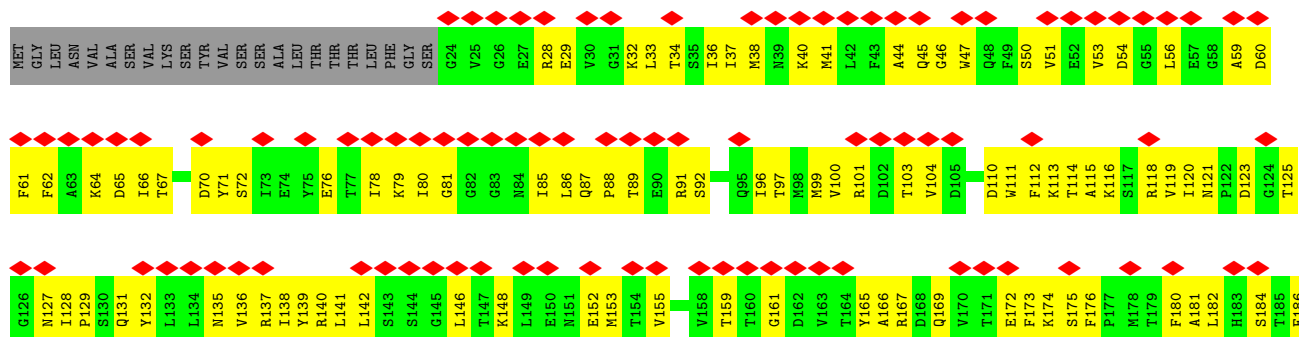


• Molecule 1: Tub

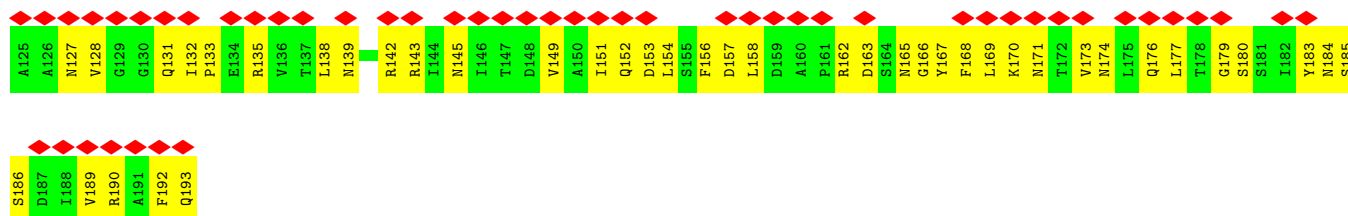
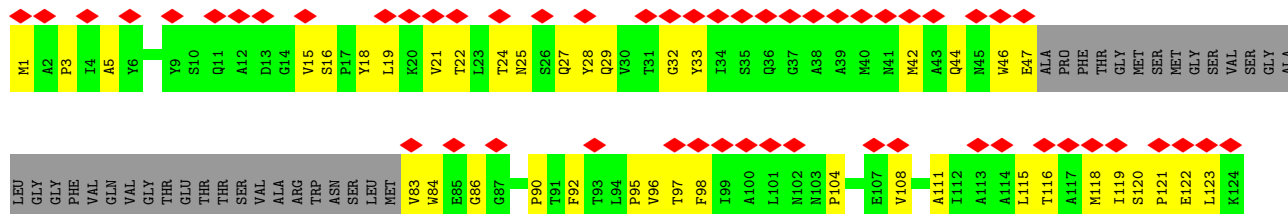




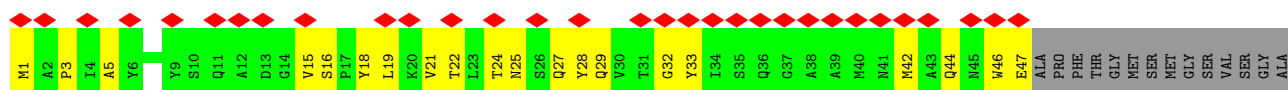
• Molecule 1: Tub

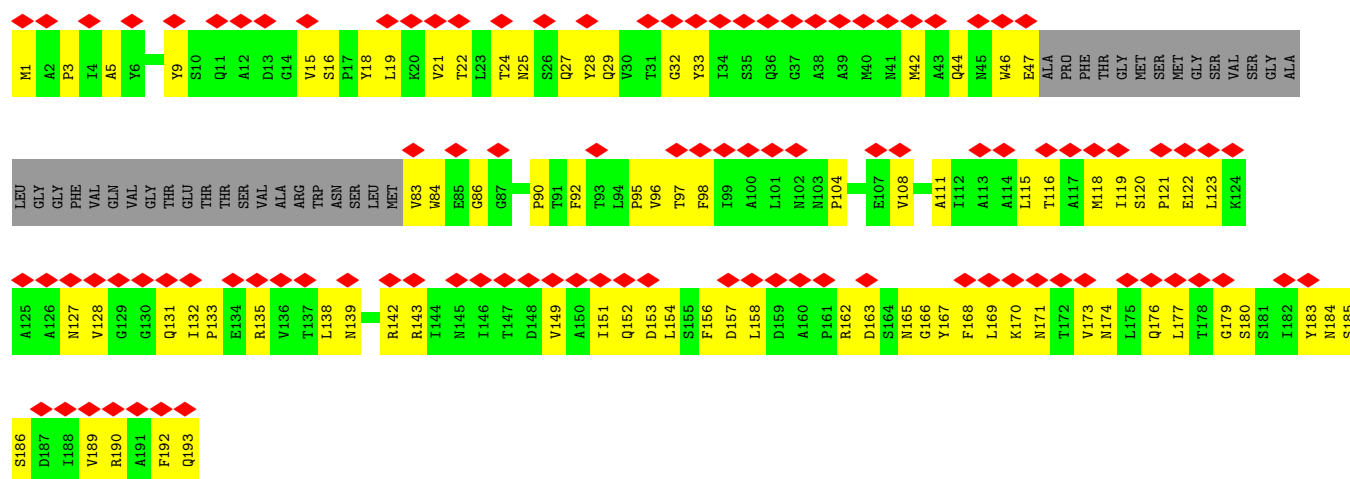
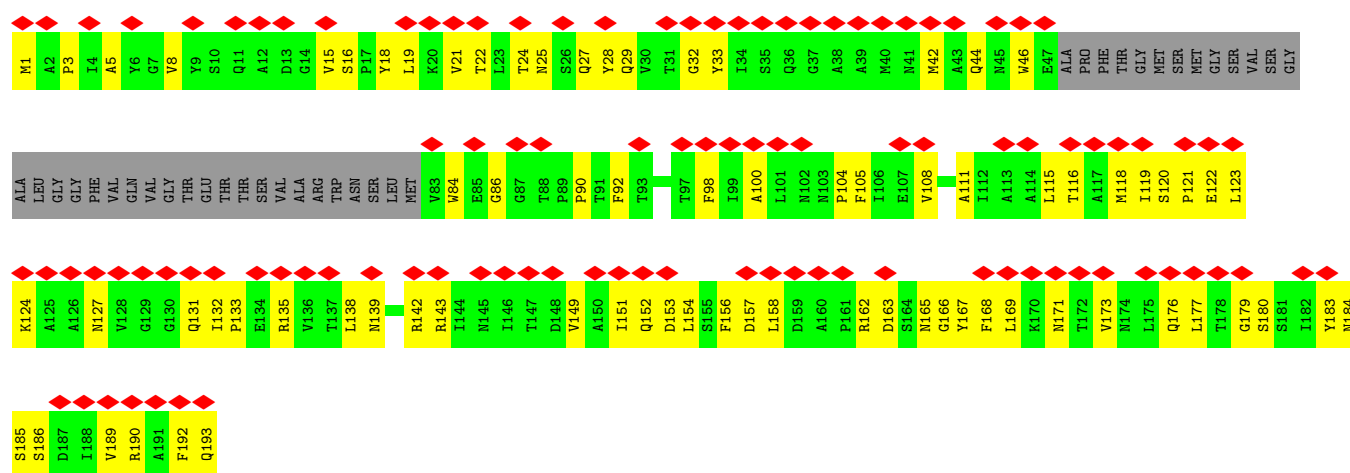
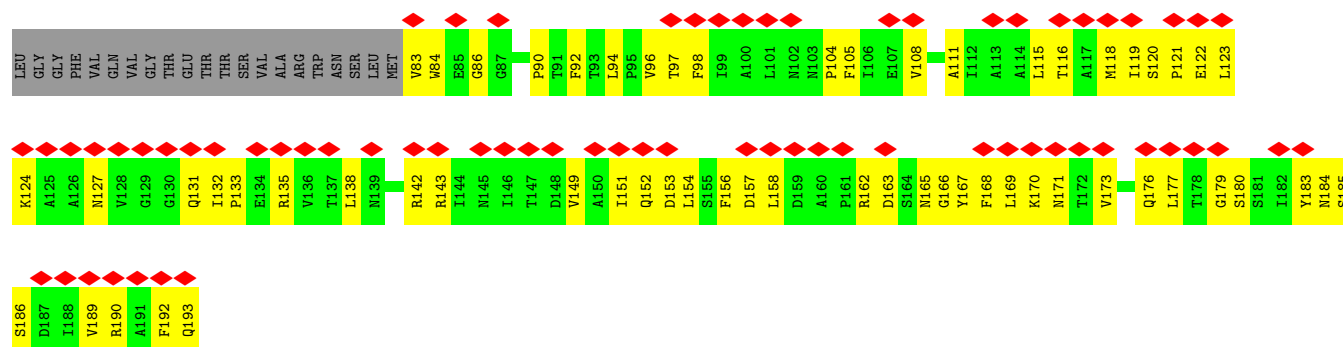


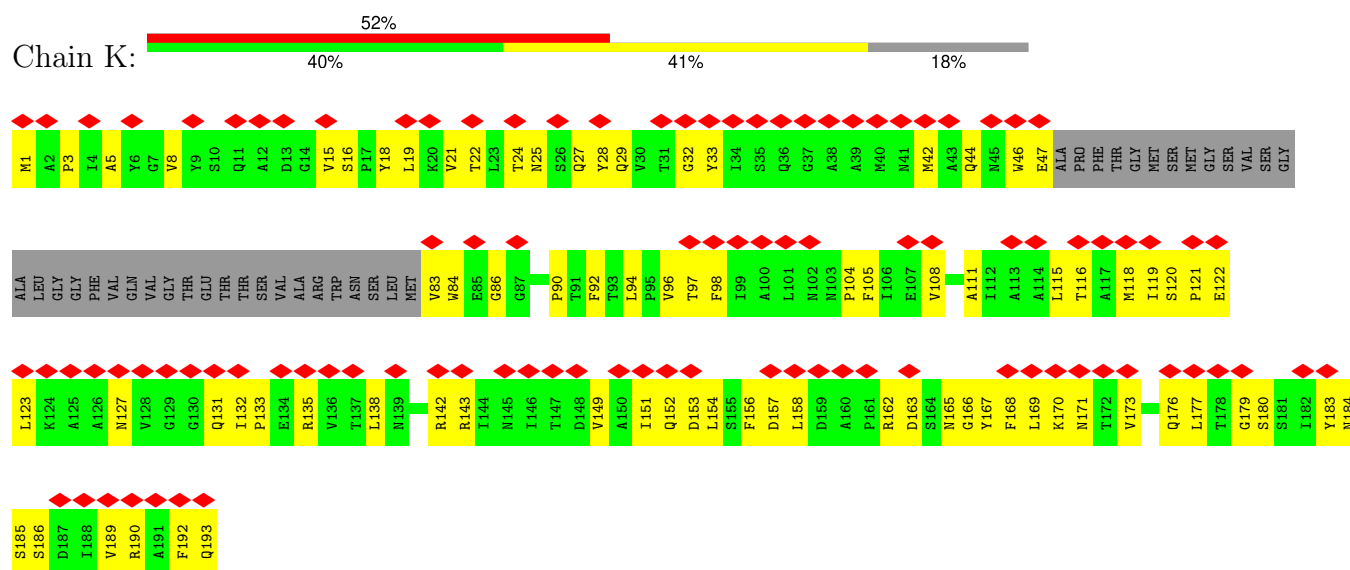
• Molecule 2: PmgG



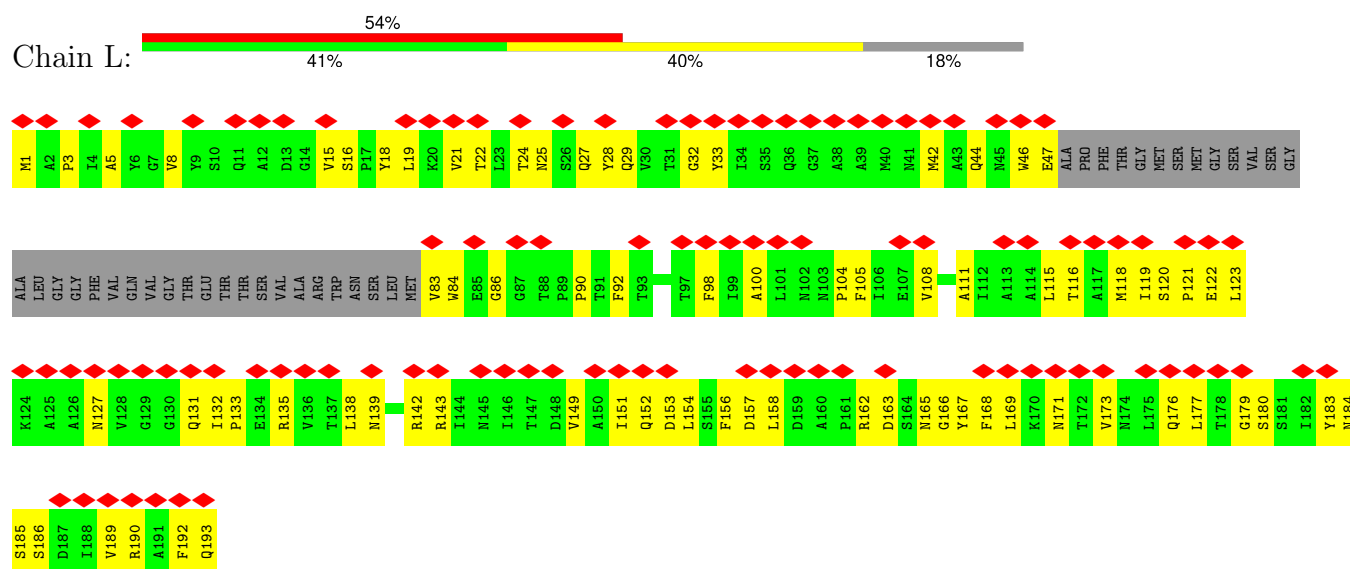
• Molecule 2: PmgG



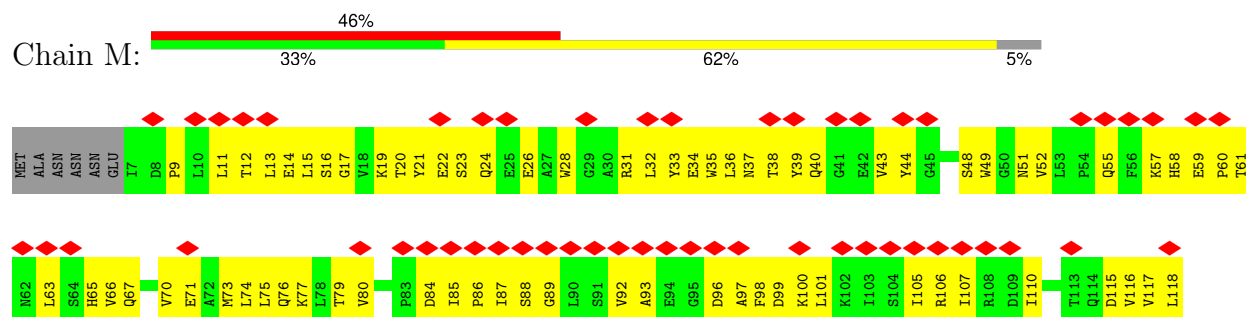




• Molecule 2: PmgG

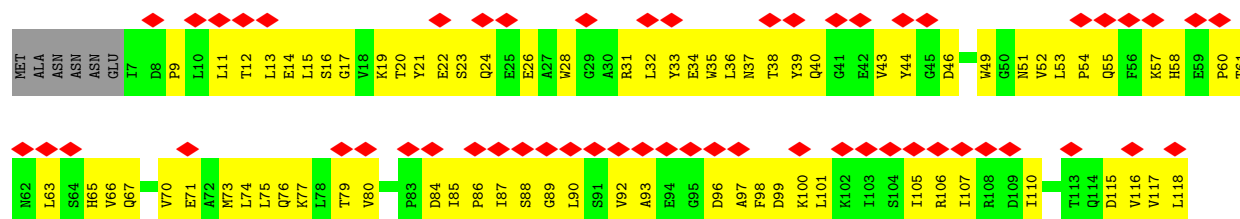


• Molecule 3: PmgA

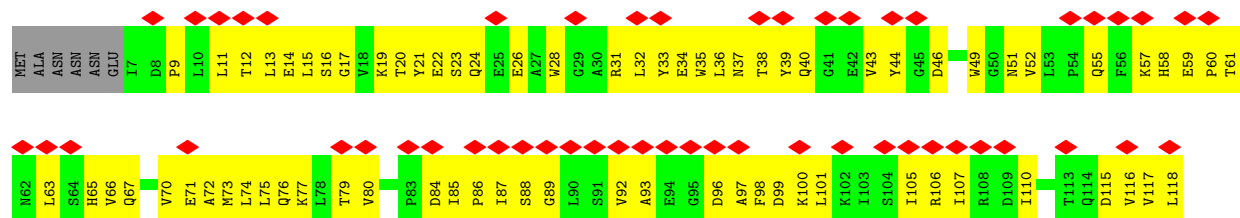
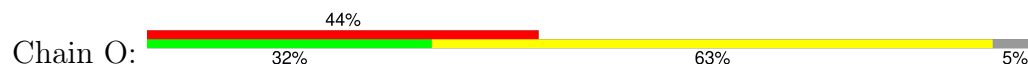


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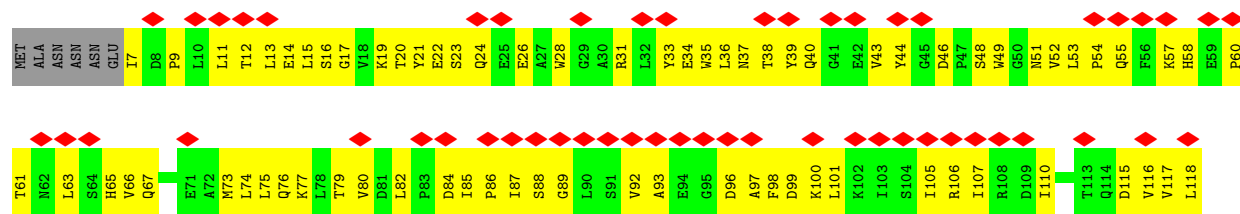




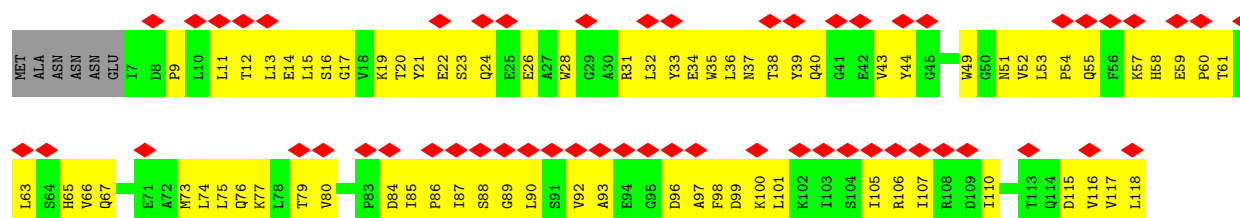
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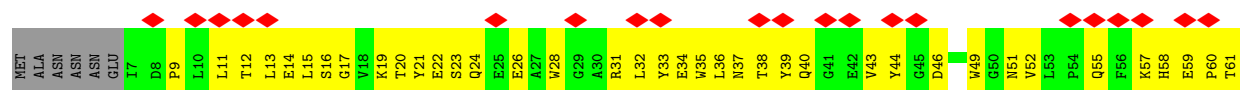
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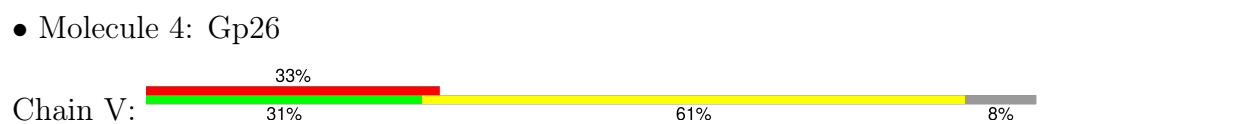
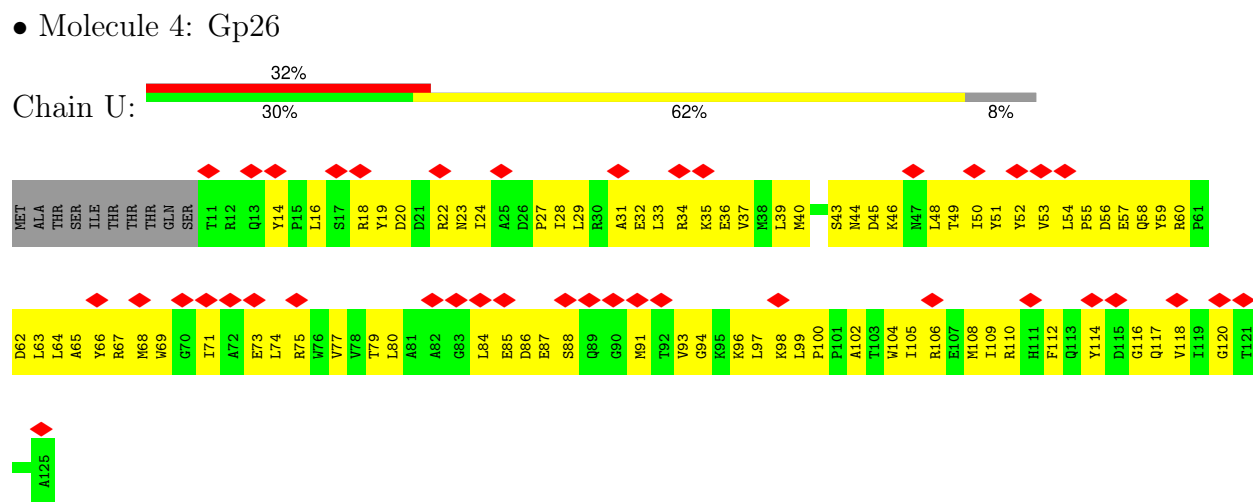
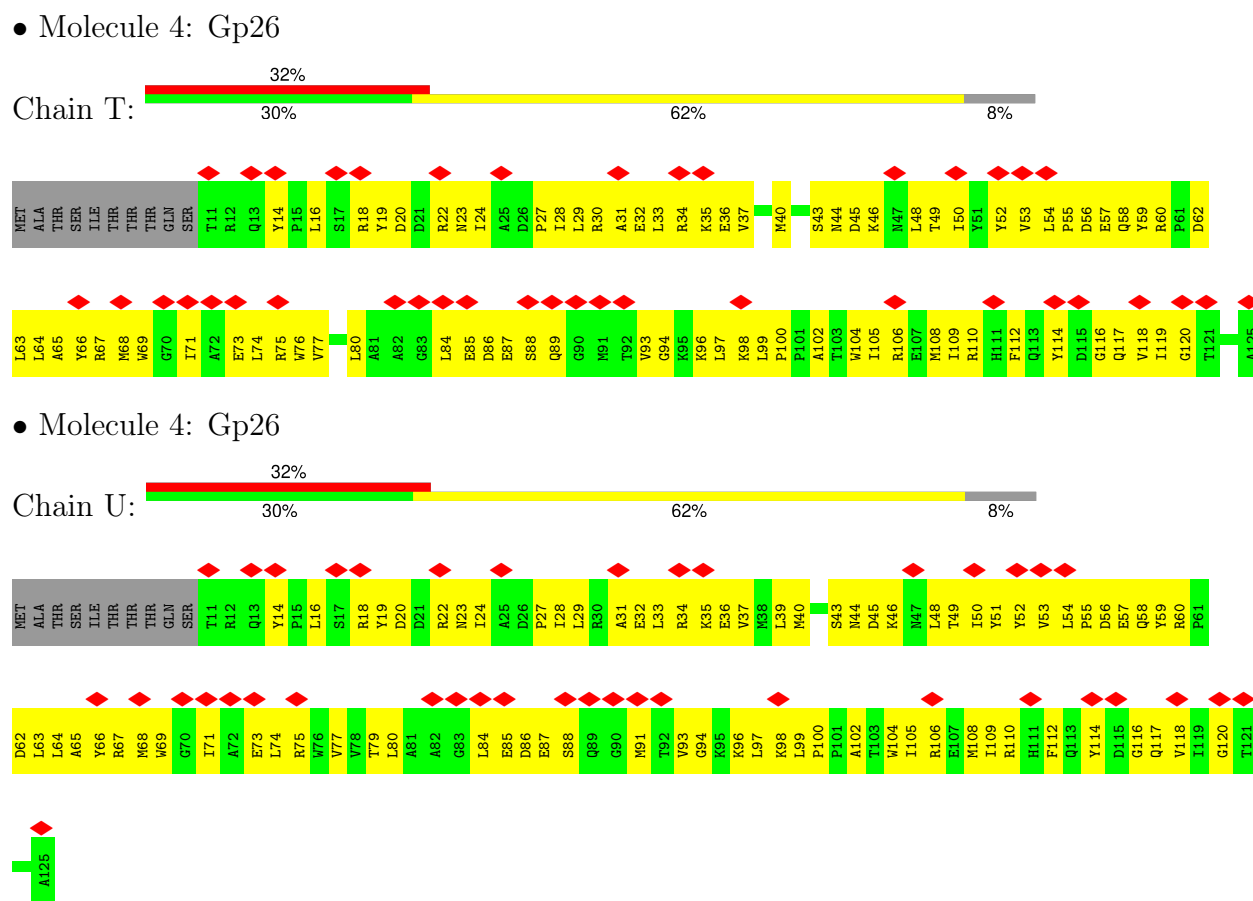
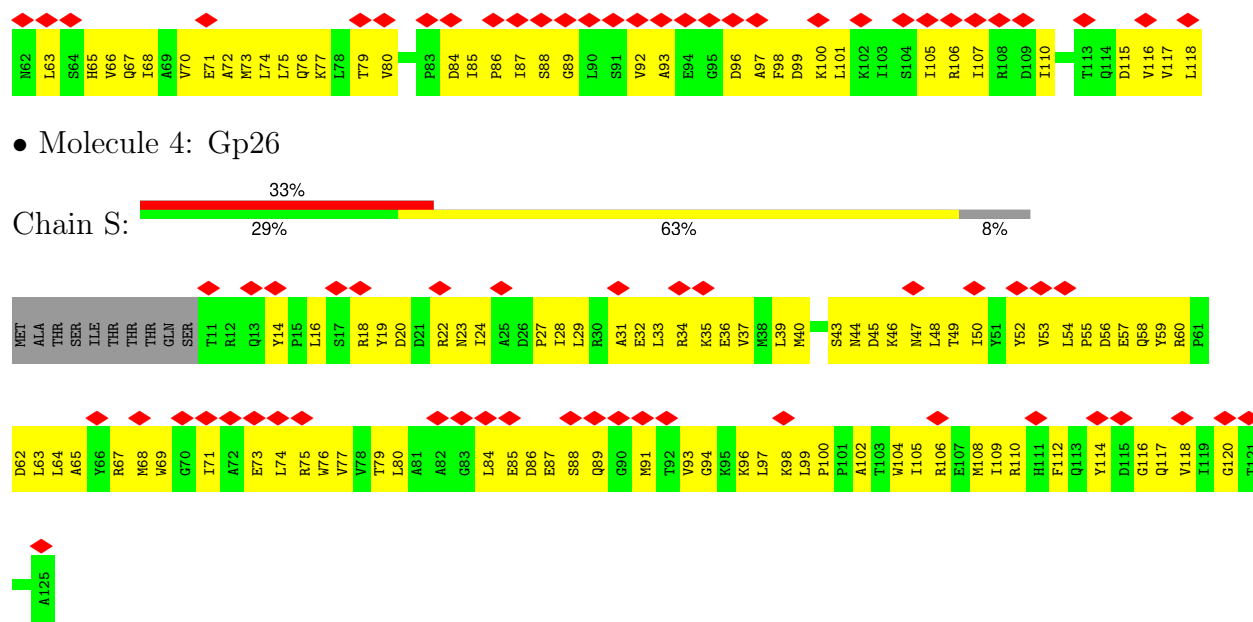


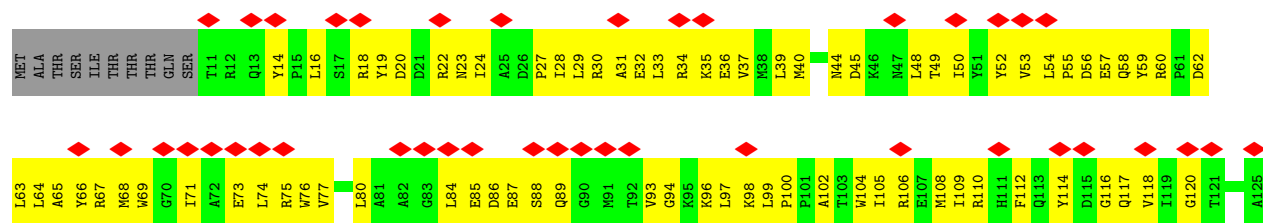
• Molecule 3: PmgA



• Molecule 3: PmgA



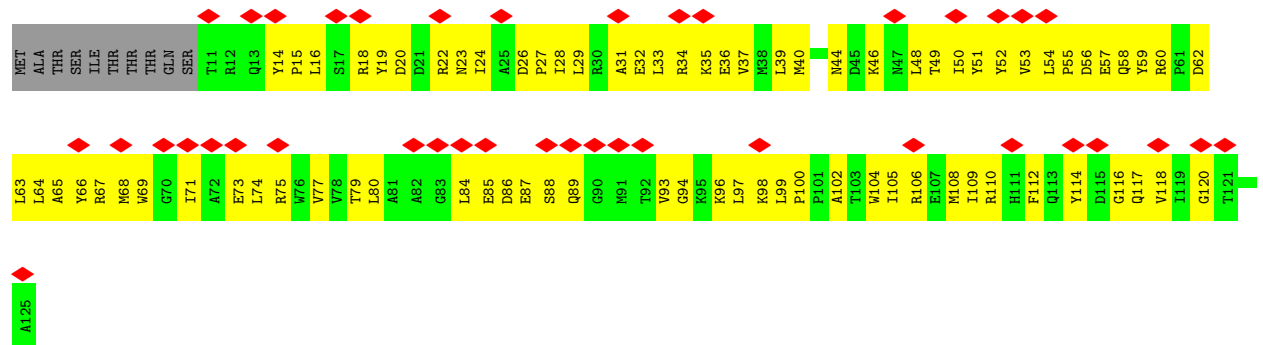




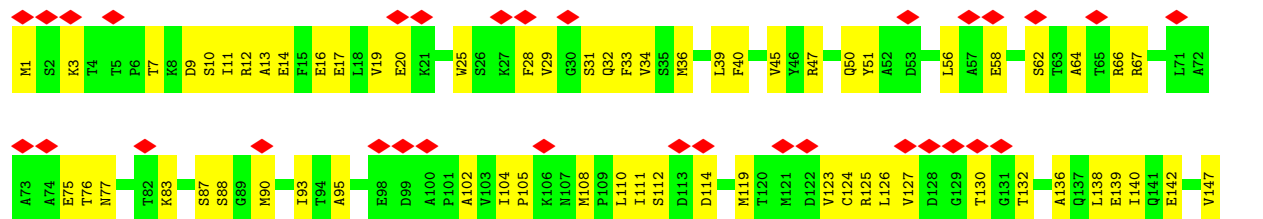
• Molecule 4: Gp26

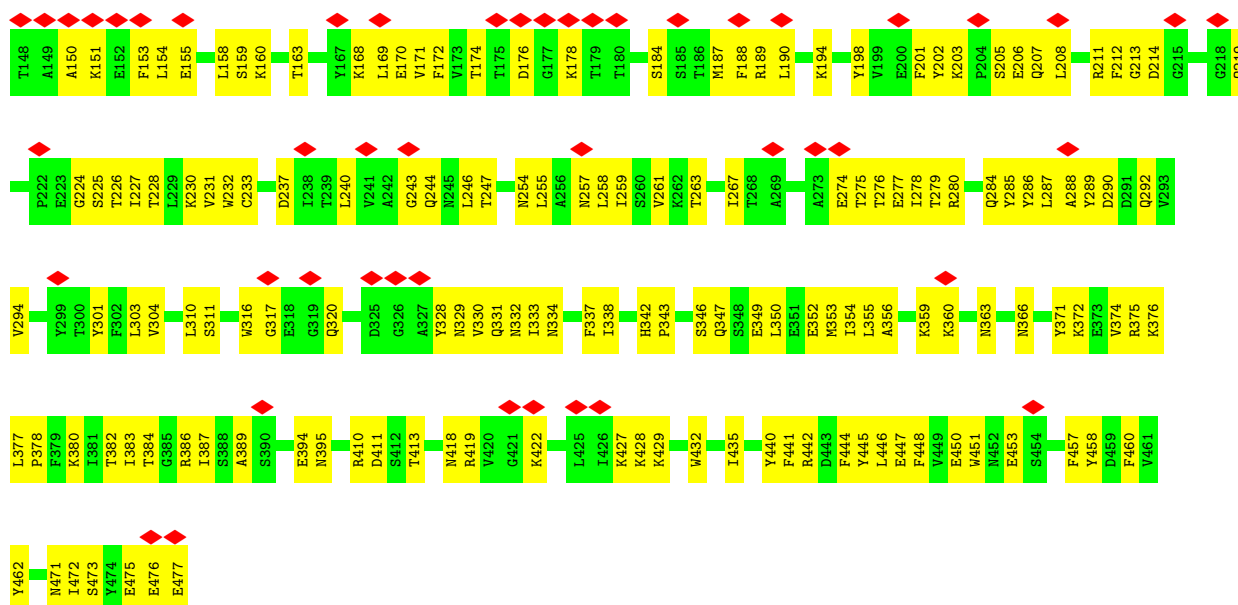


• Molecule 4: Gp26

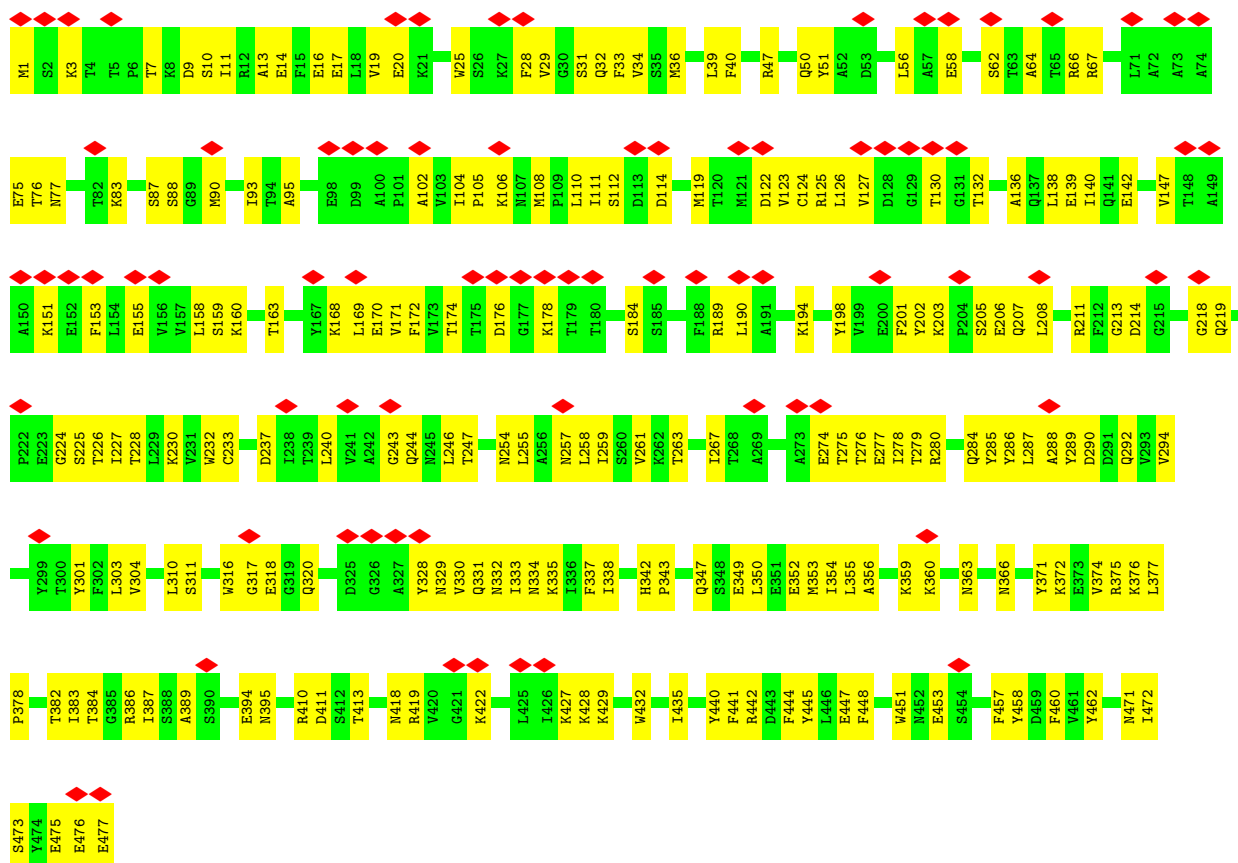


• Molecule 5: Bp1A

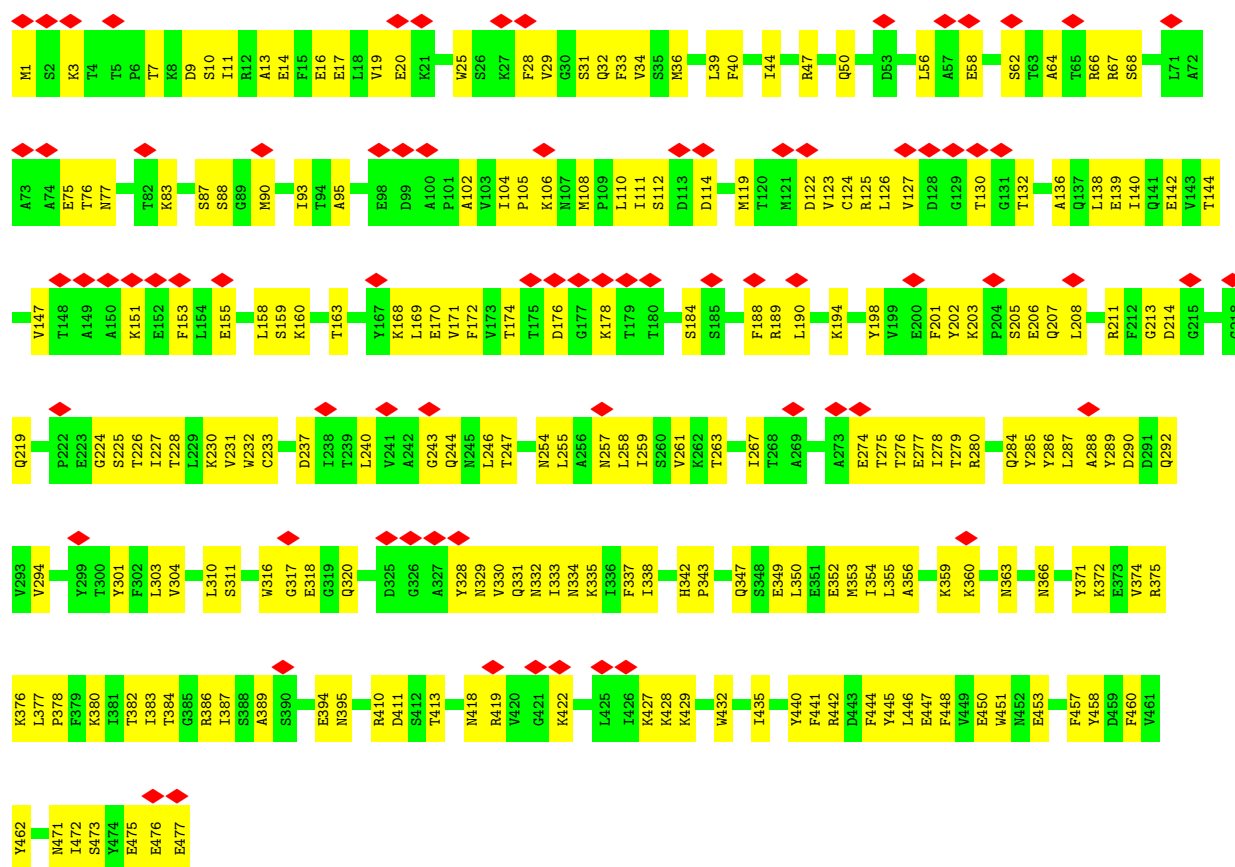




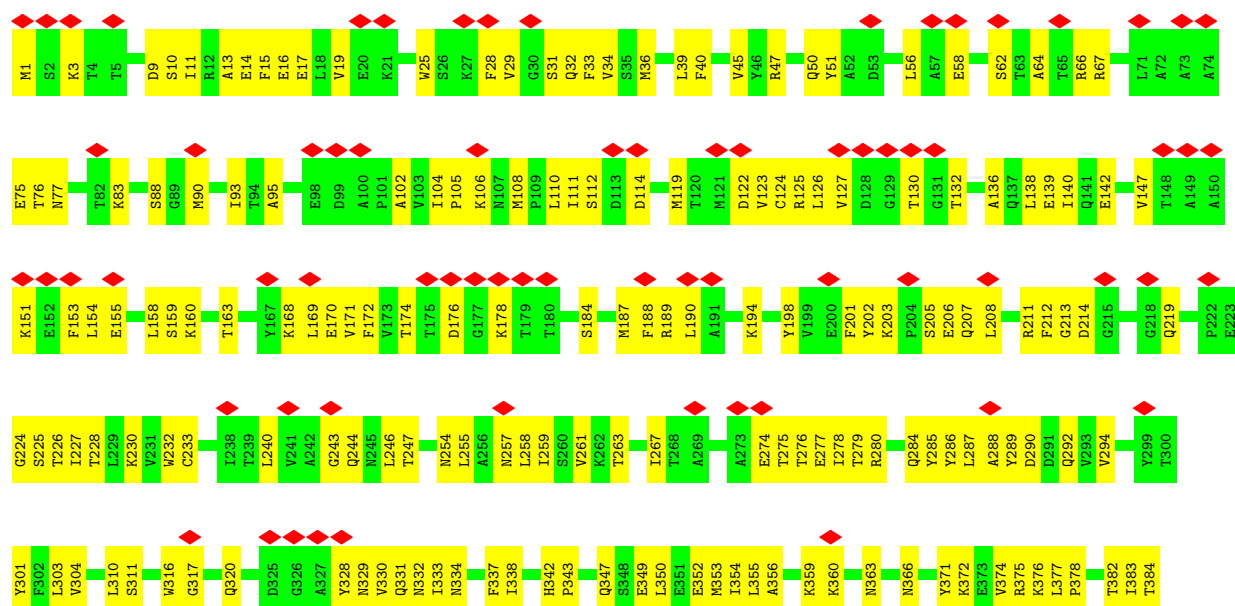
• Molecule 5: BplA



• Molecule 5: BplA

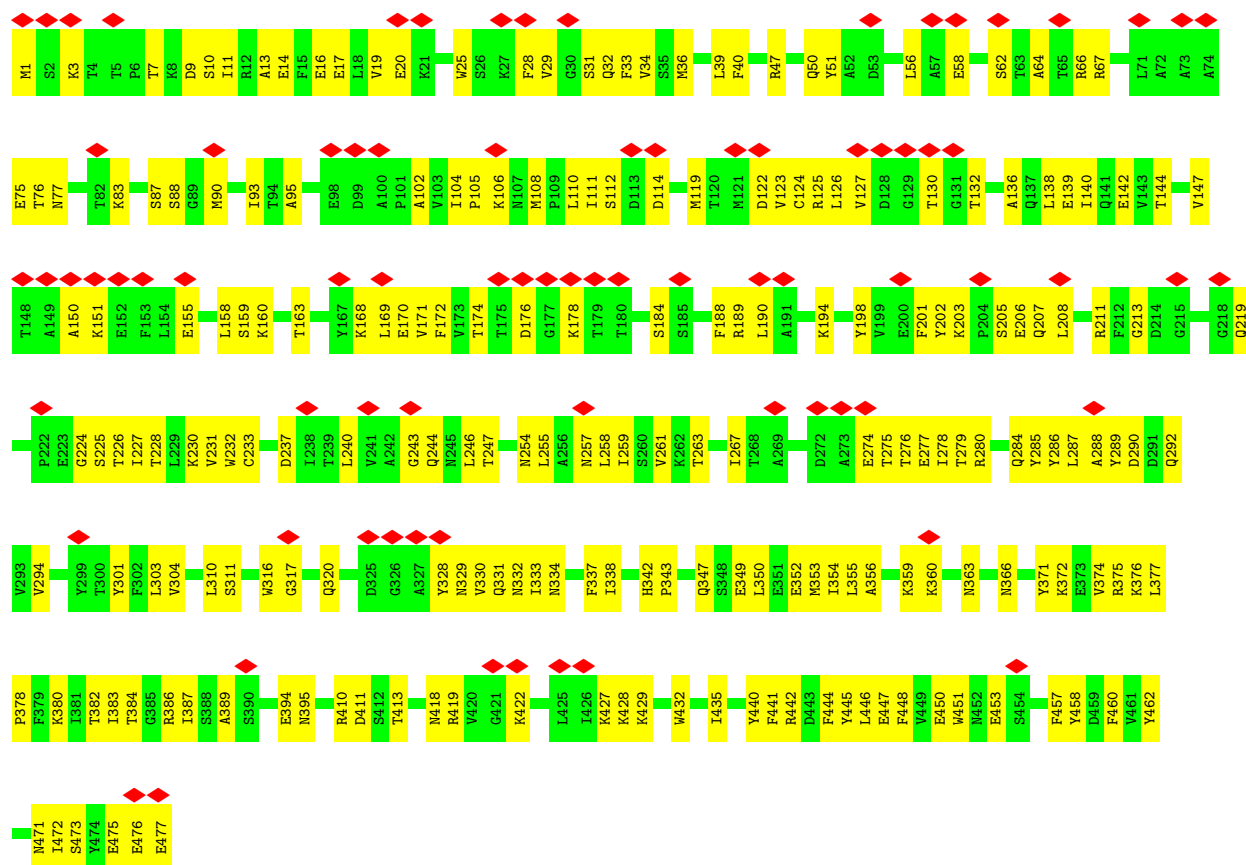


• Molecule 5: Bp1A

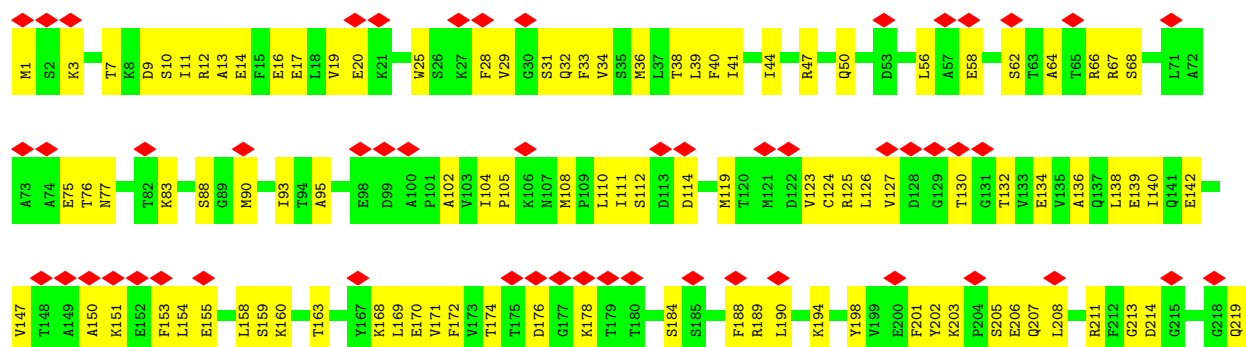


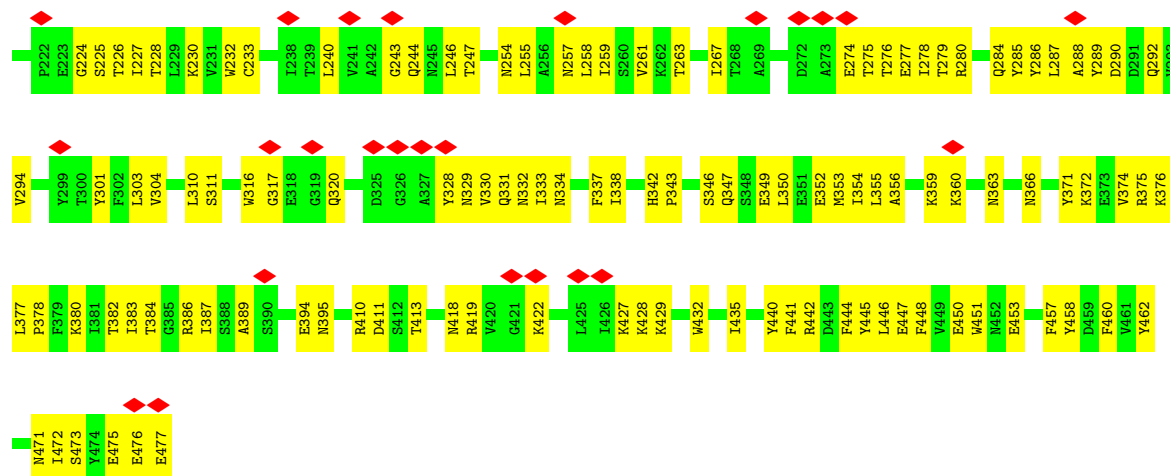


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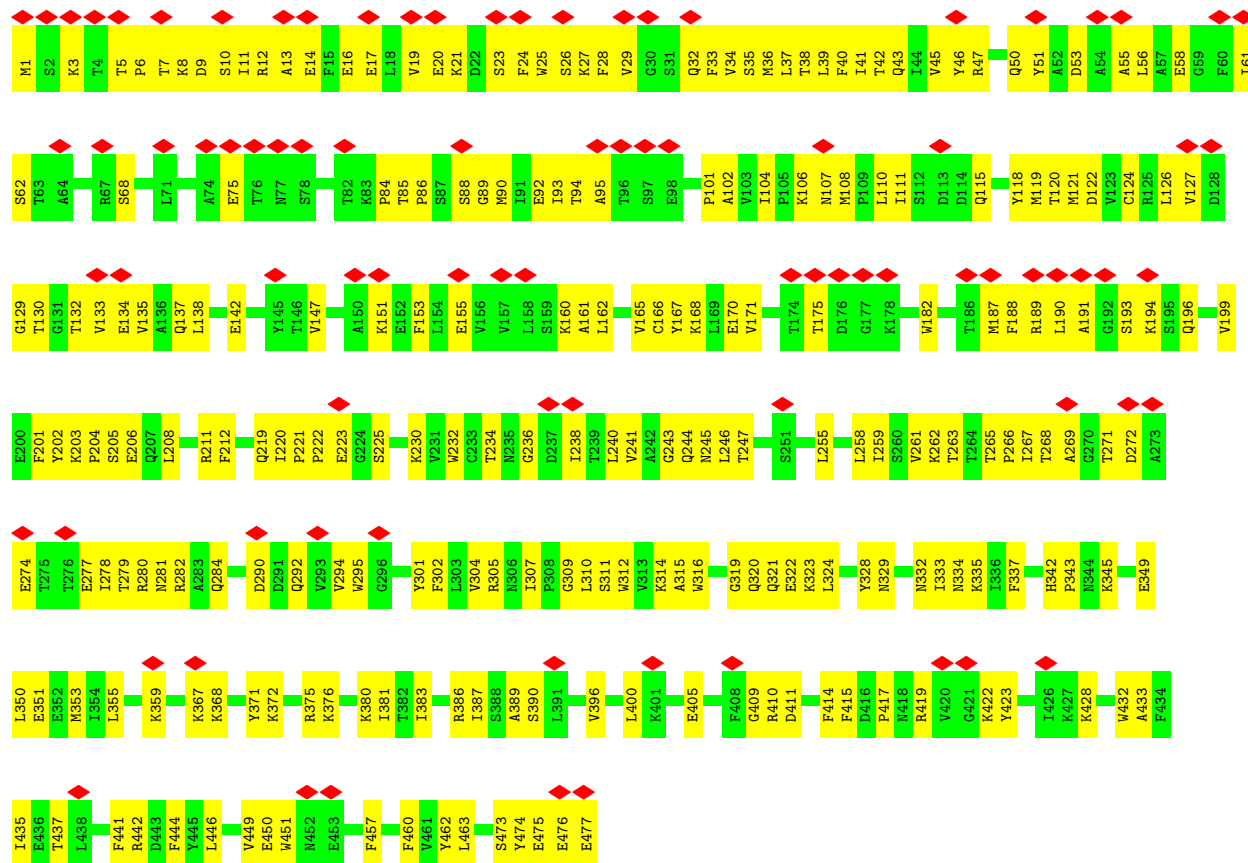


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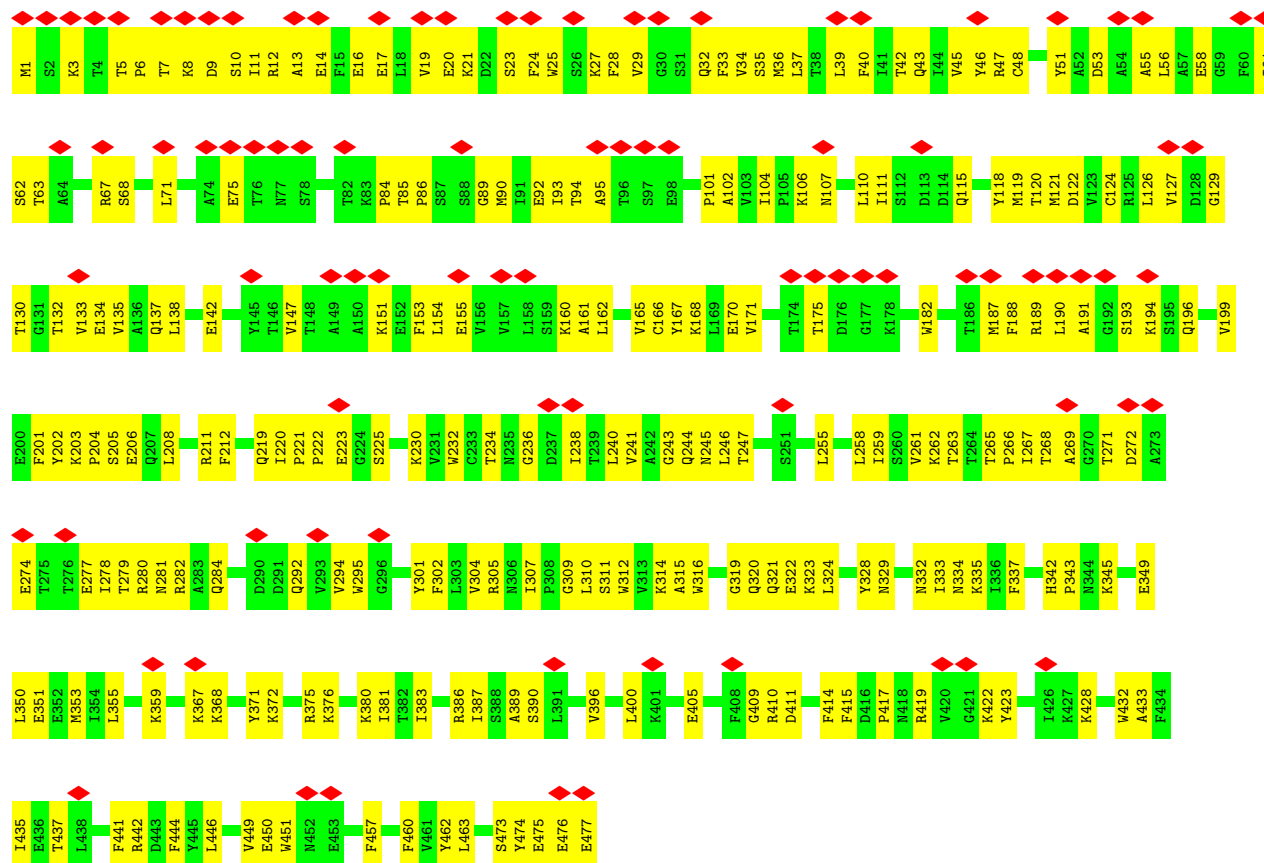


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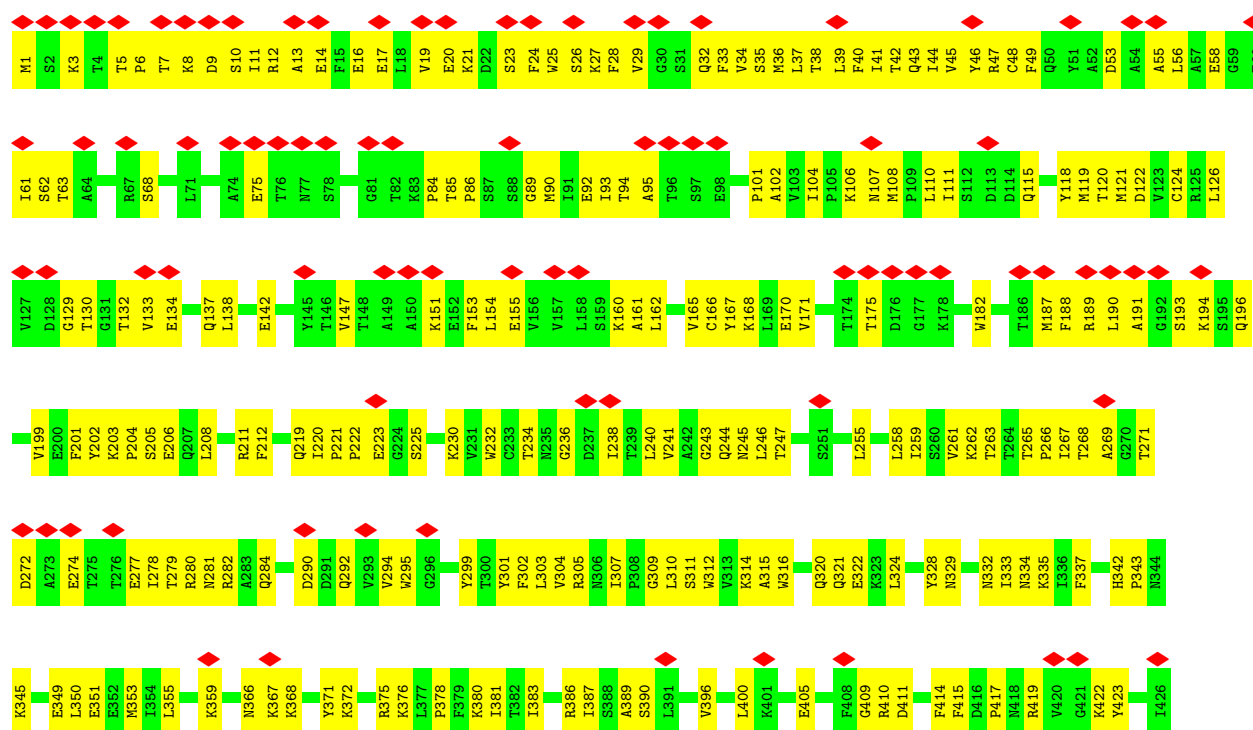


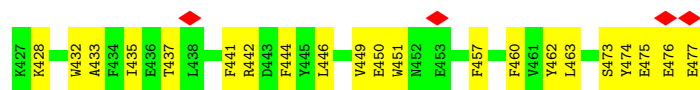
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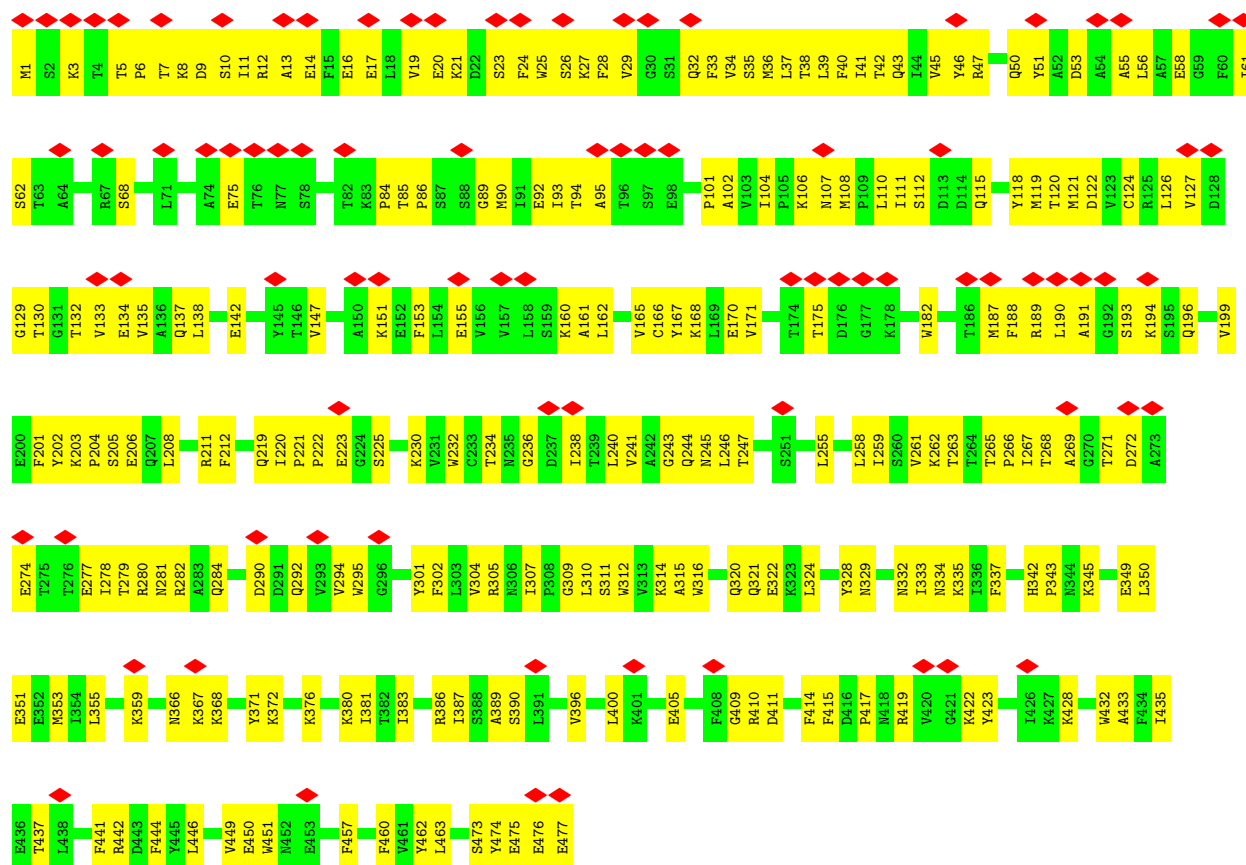


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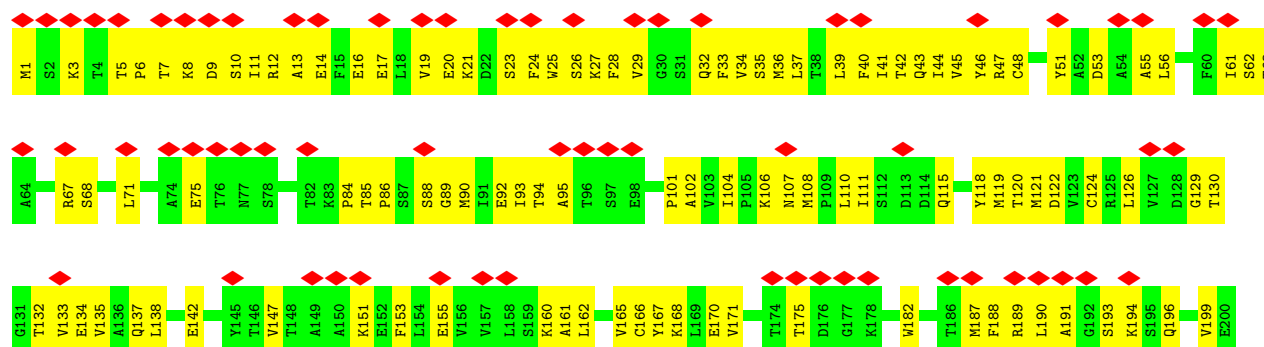


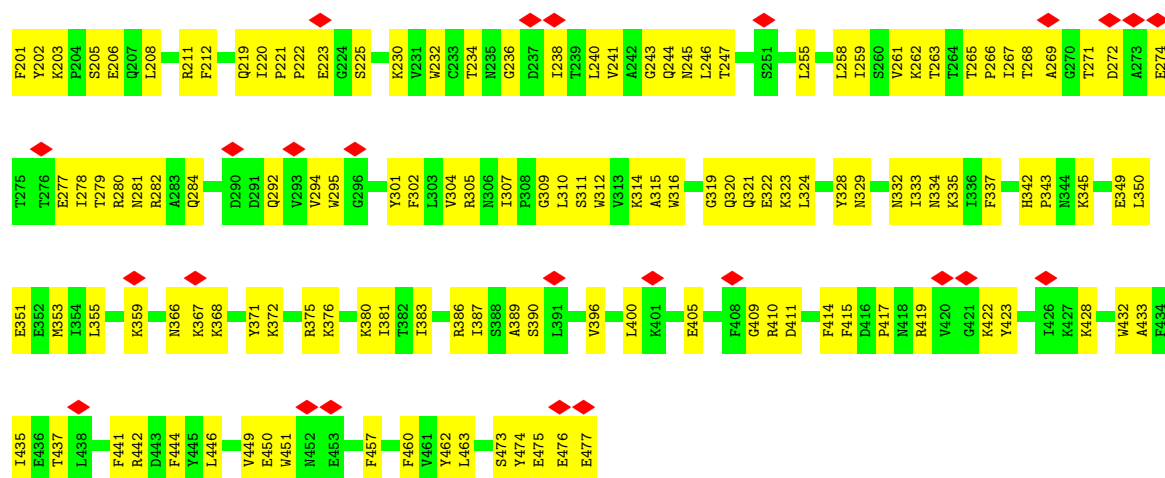


• Molecule 5: Bp1A

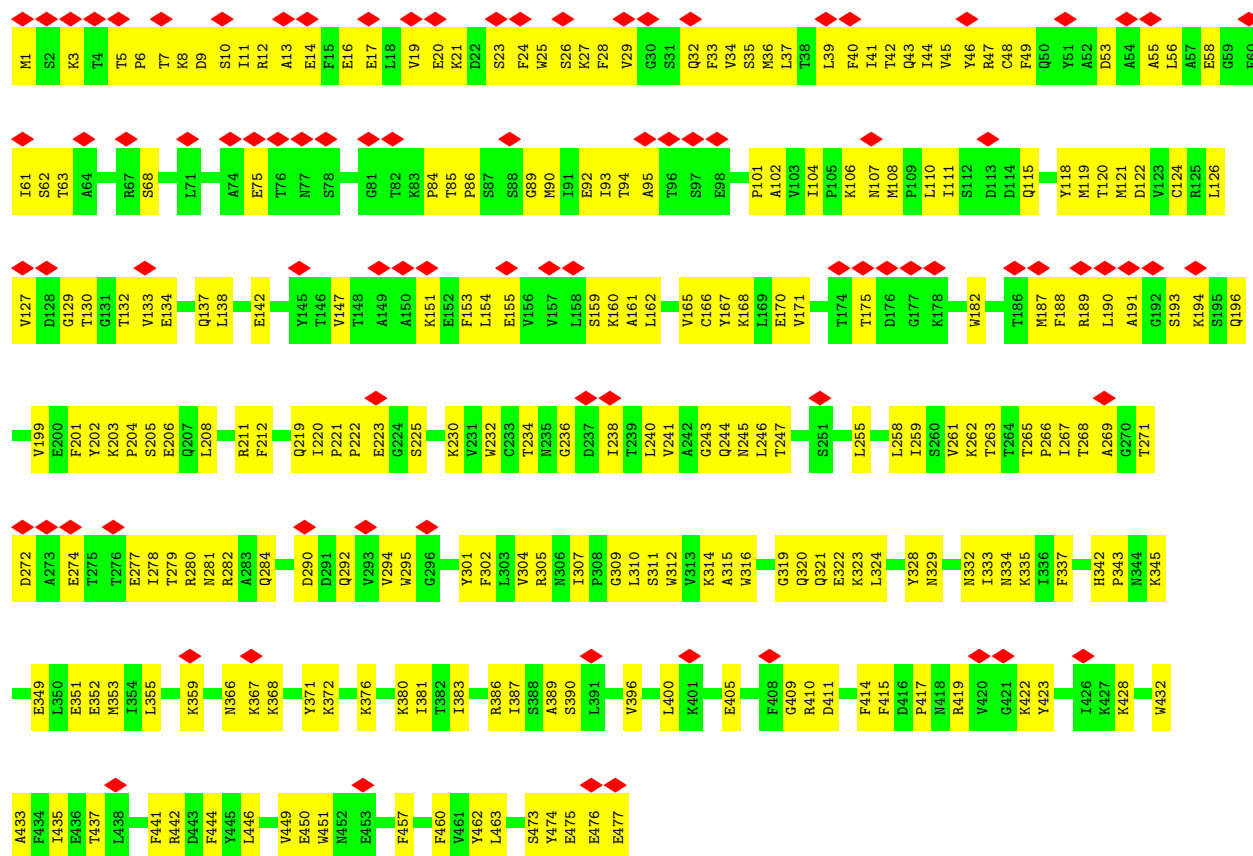


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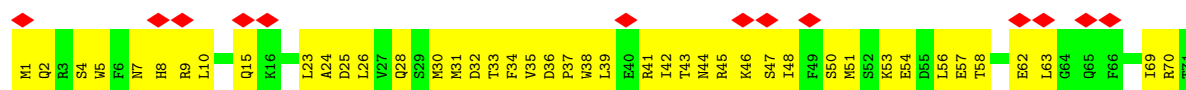


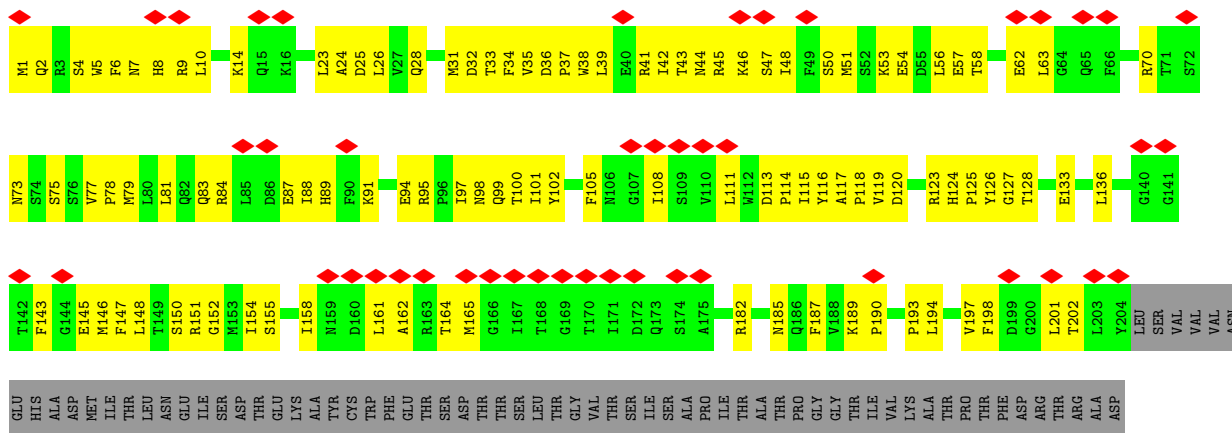


• Molecule 5: Bp1a



• Molecule 6: Gp16

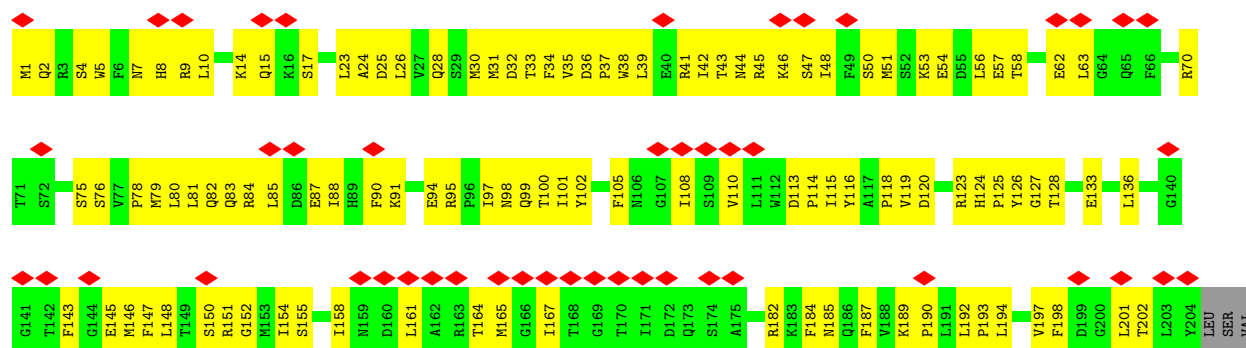




ASP
LEU
LEU
LEU
ASP
SER
ASP
ALA

• Molecule 6: Gp16

Chain d: 17% 33% 40% 27%

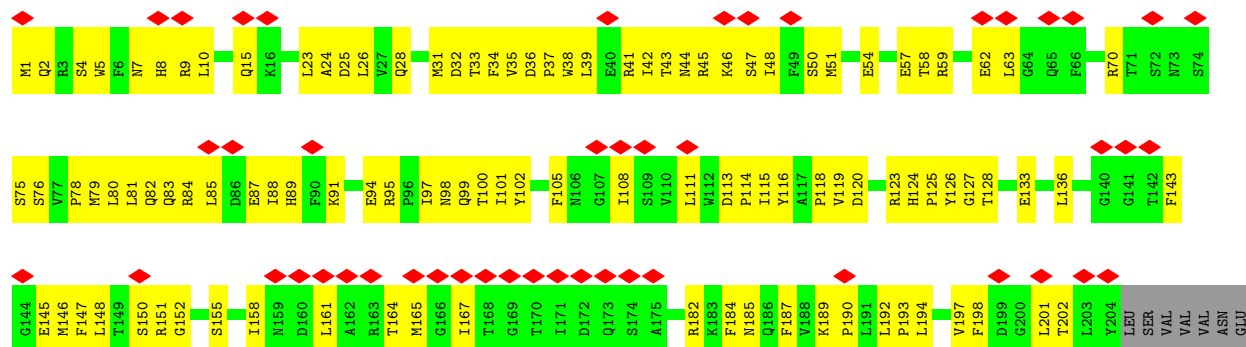


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TRP
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ASP
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LEU
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PHE
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ARG
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ARG
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ASP
ASP
LEU
LEU
LEU
SER
SER
ASP
ALA

• Molecule 6: Gp16

Chain e: 17% 35% 38% 27%



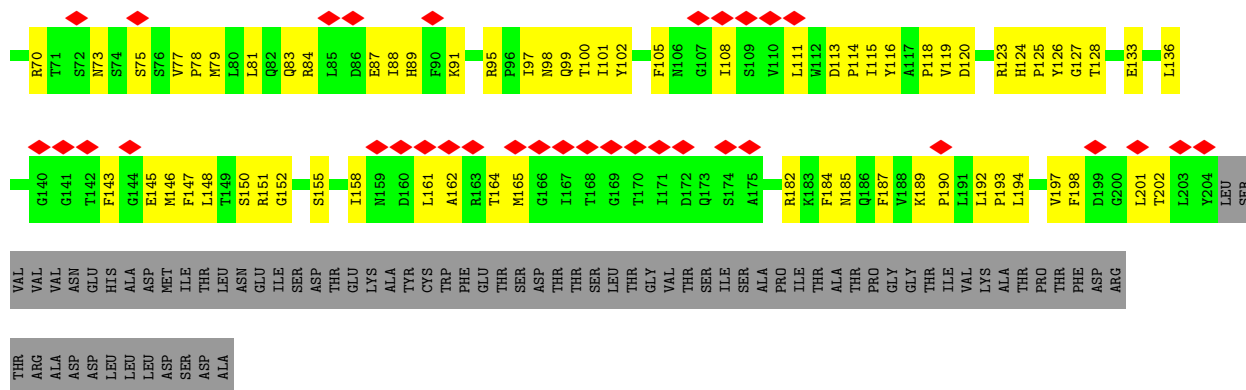
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TRP
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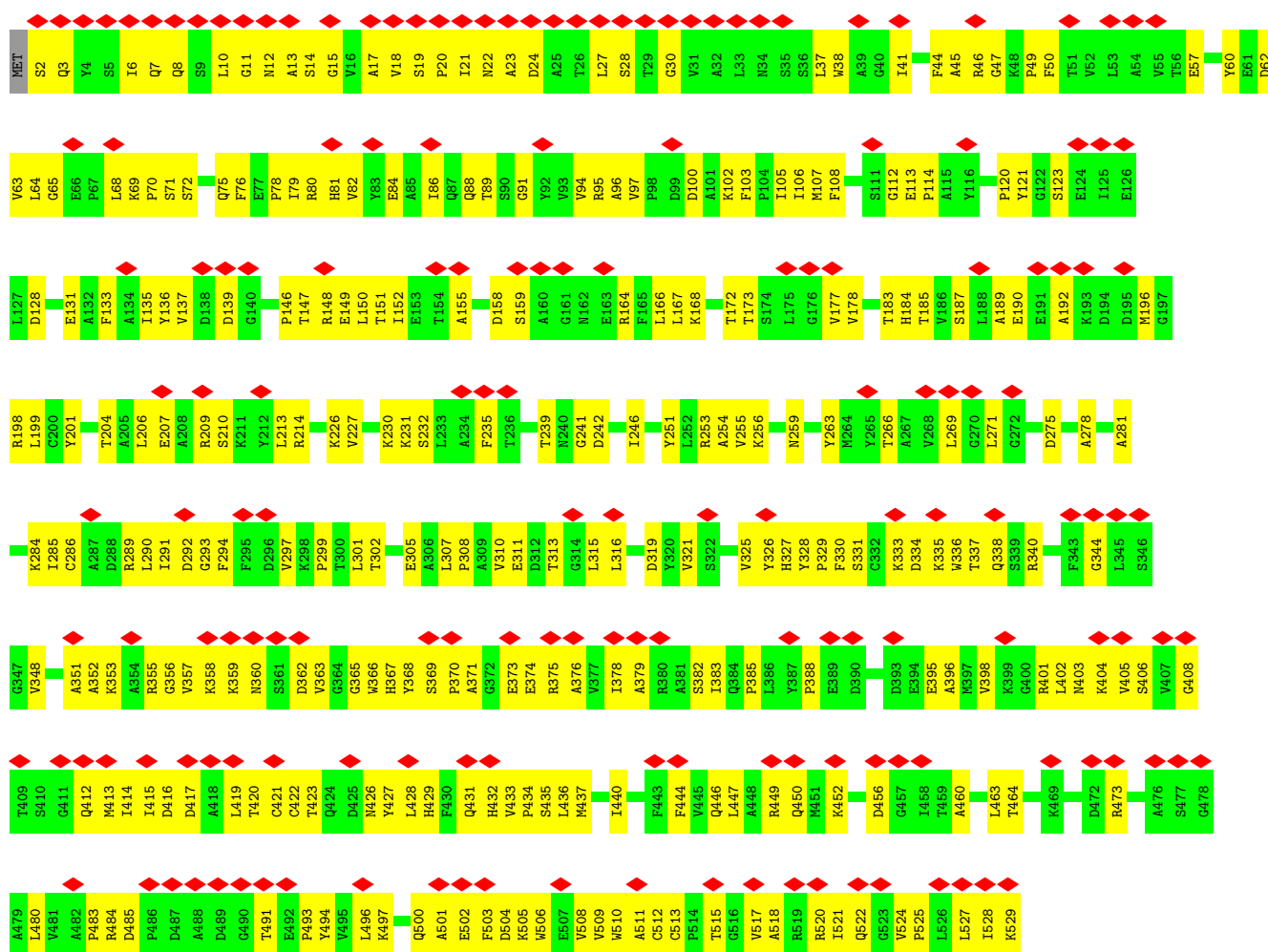
• Molecule 6: Gp16

Chain f: 17% 34% 39% 27%



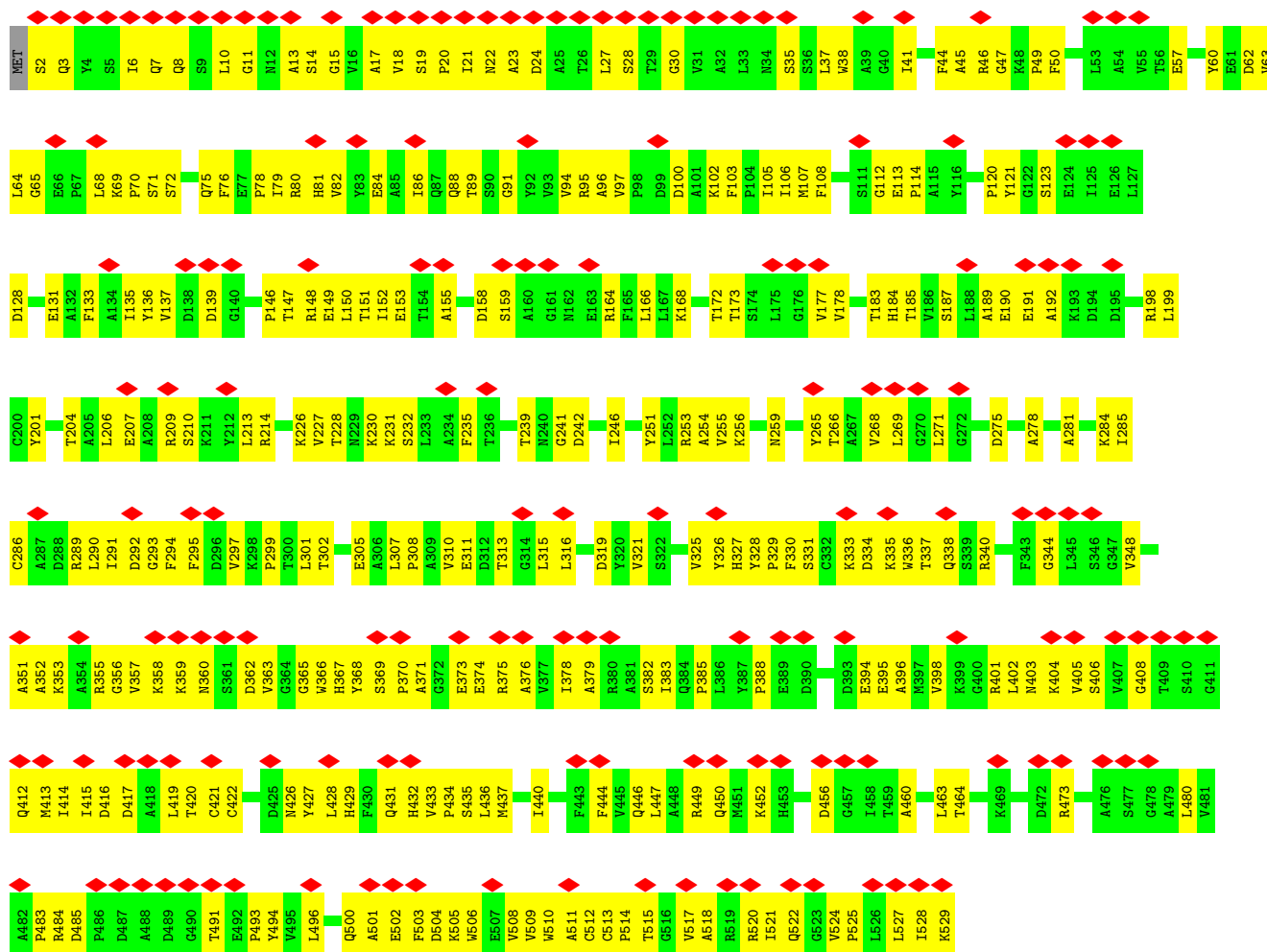


• Molecule 7: Gp22

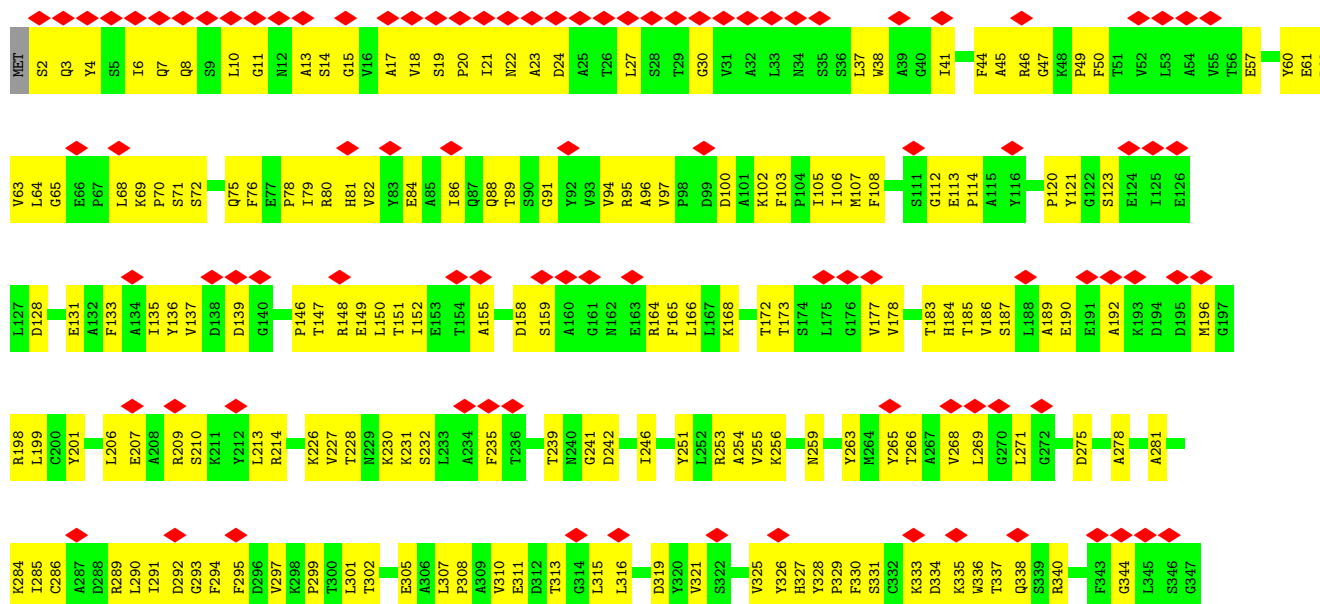


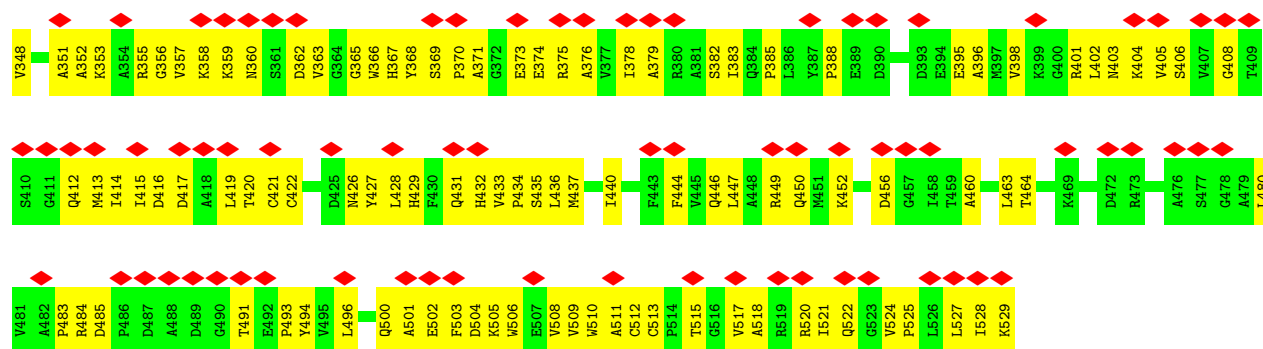
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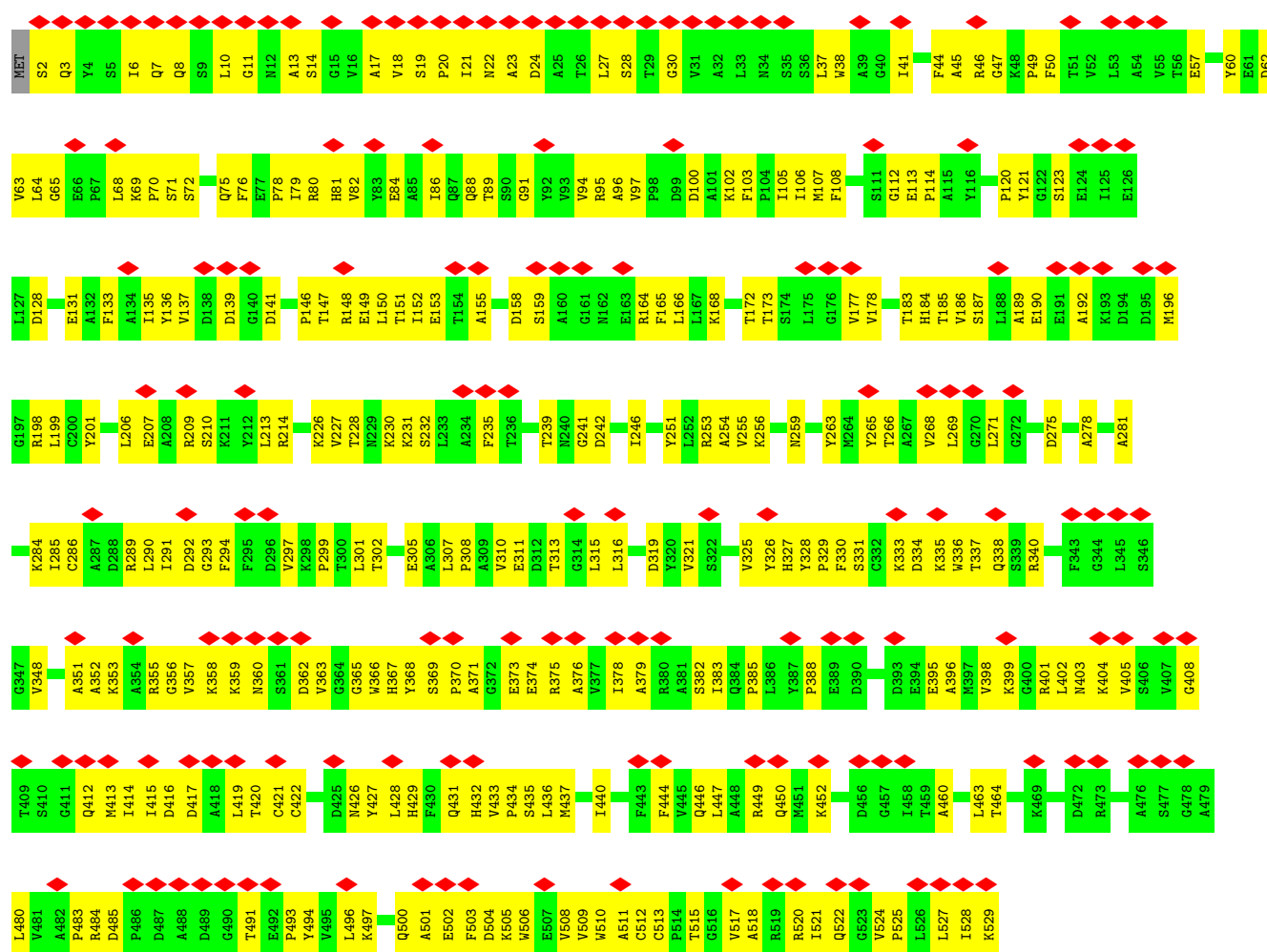


Molecule 7: Gp22



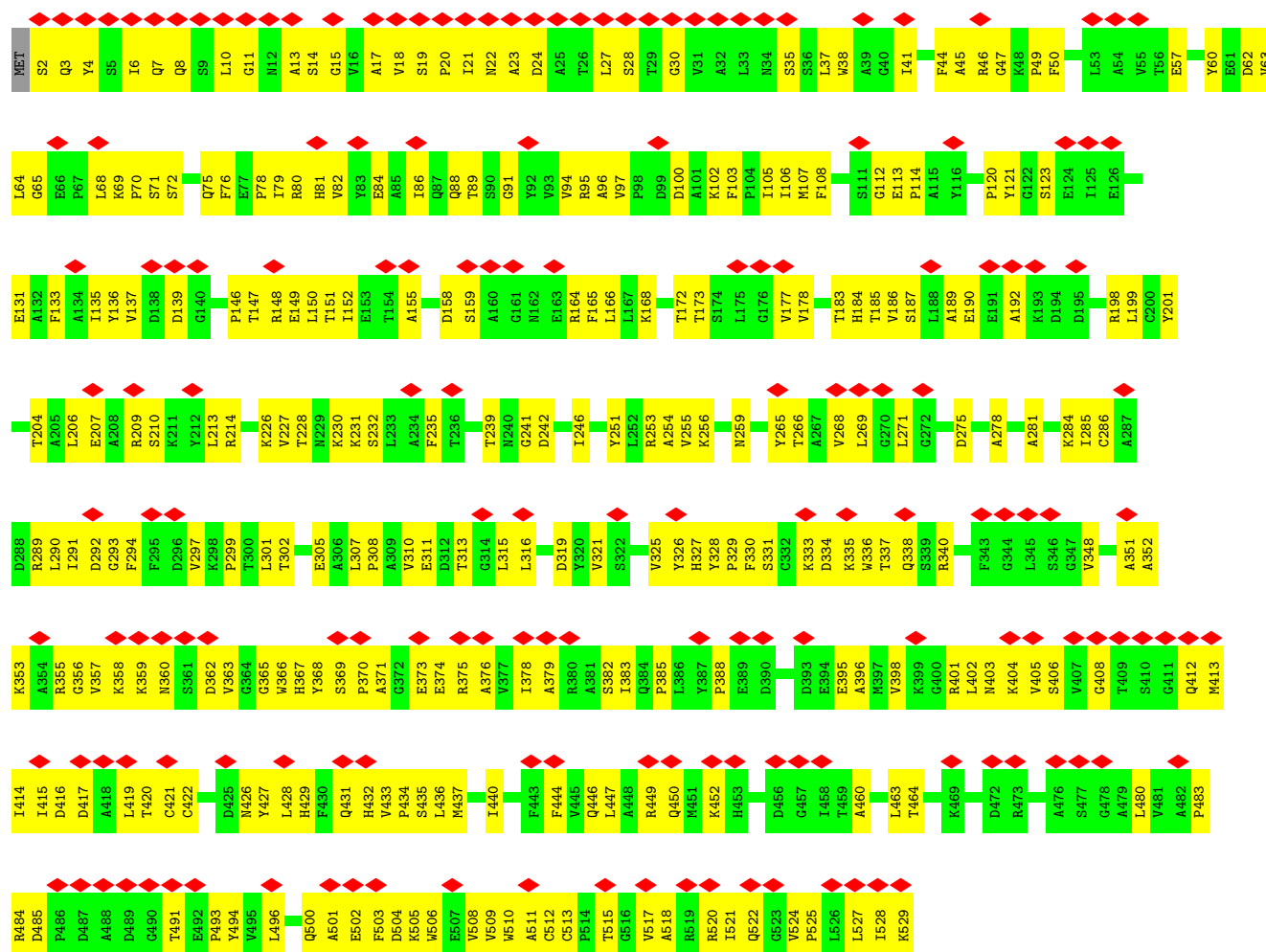


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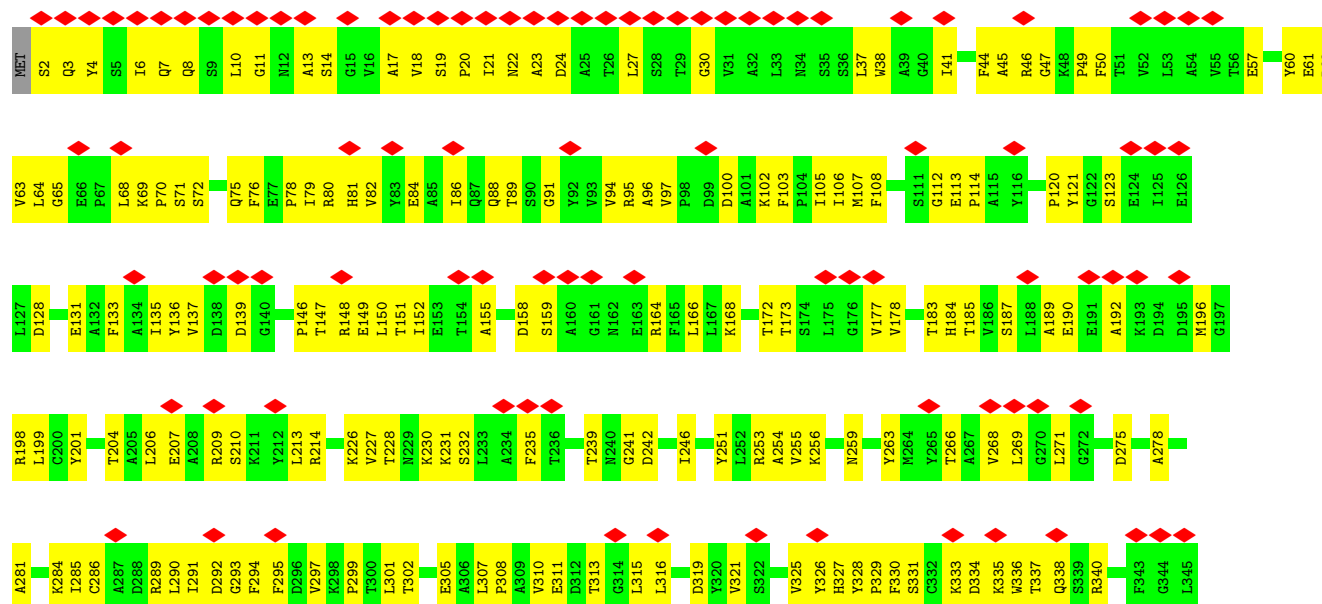


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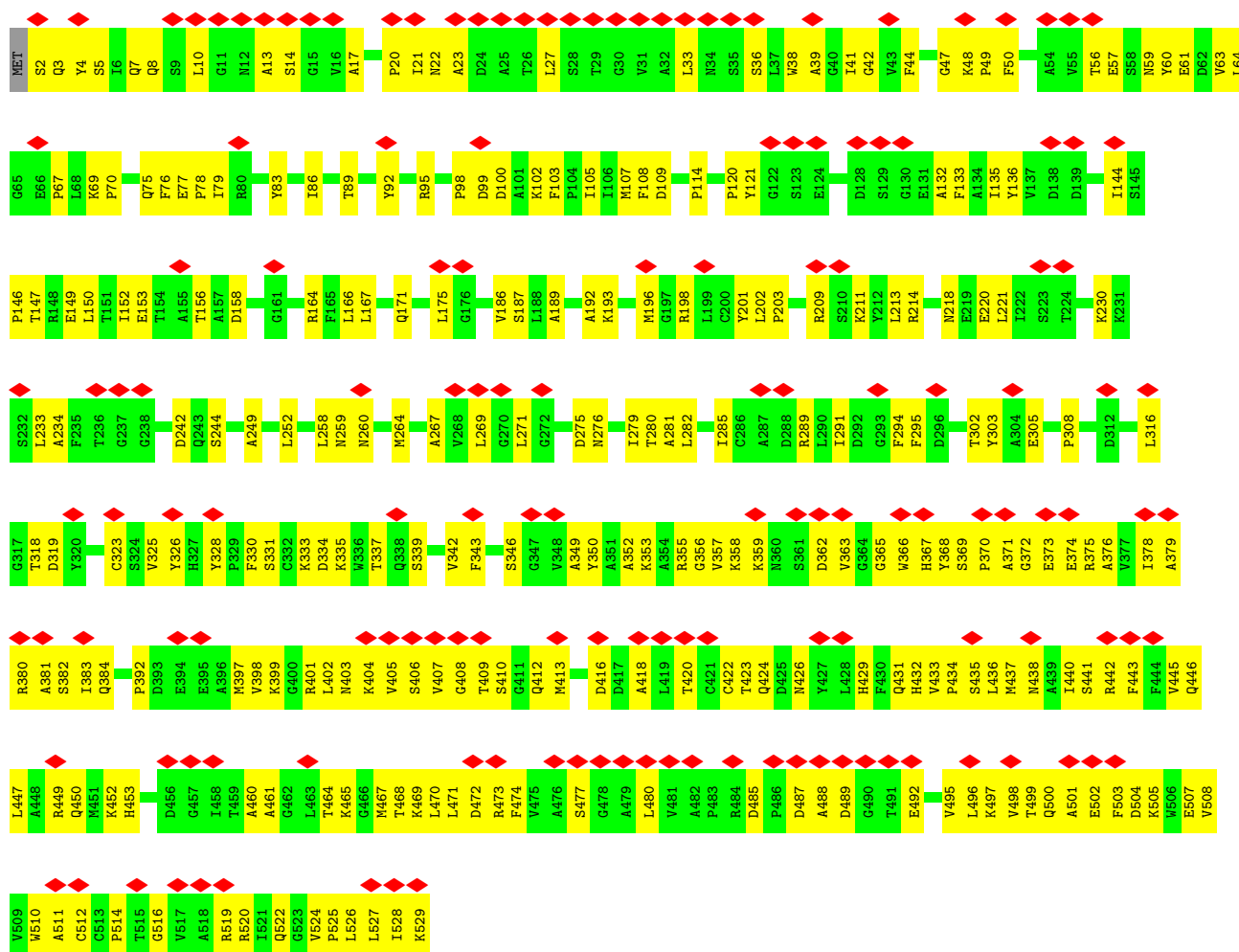




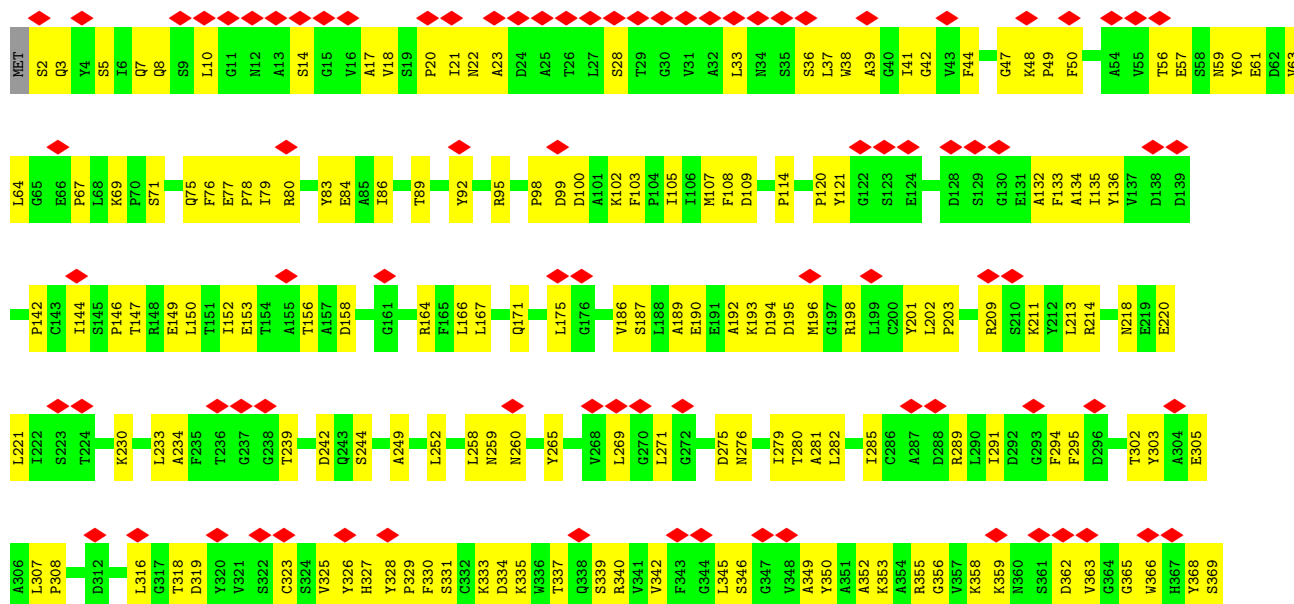
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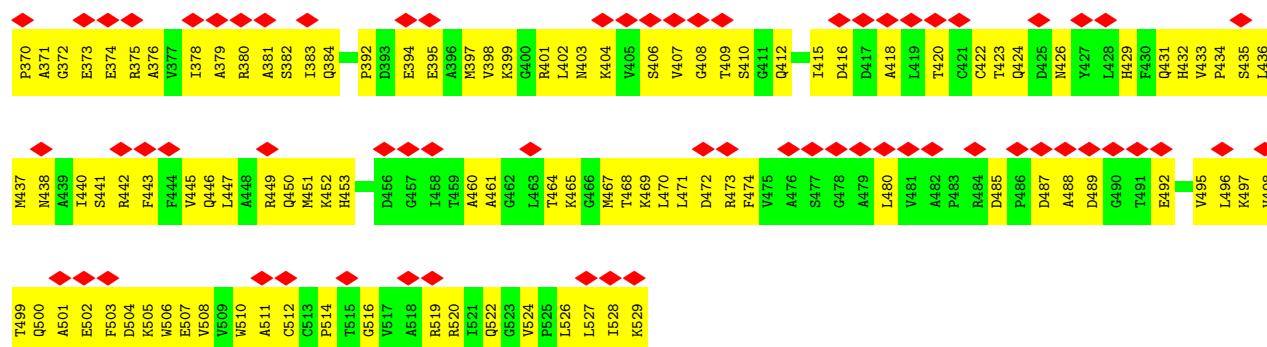






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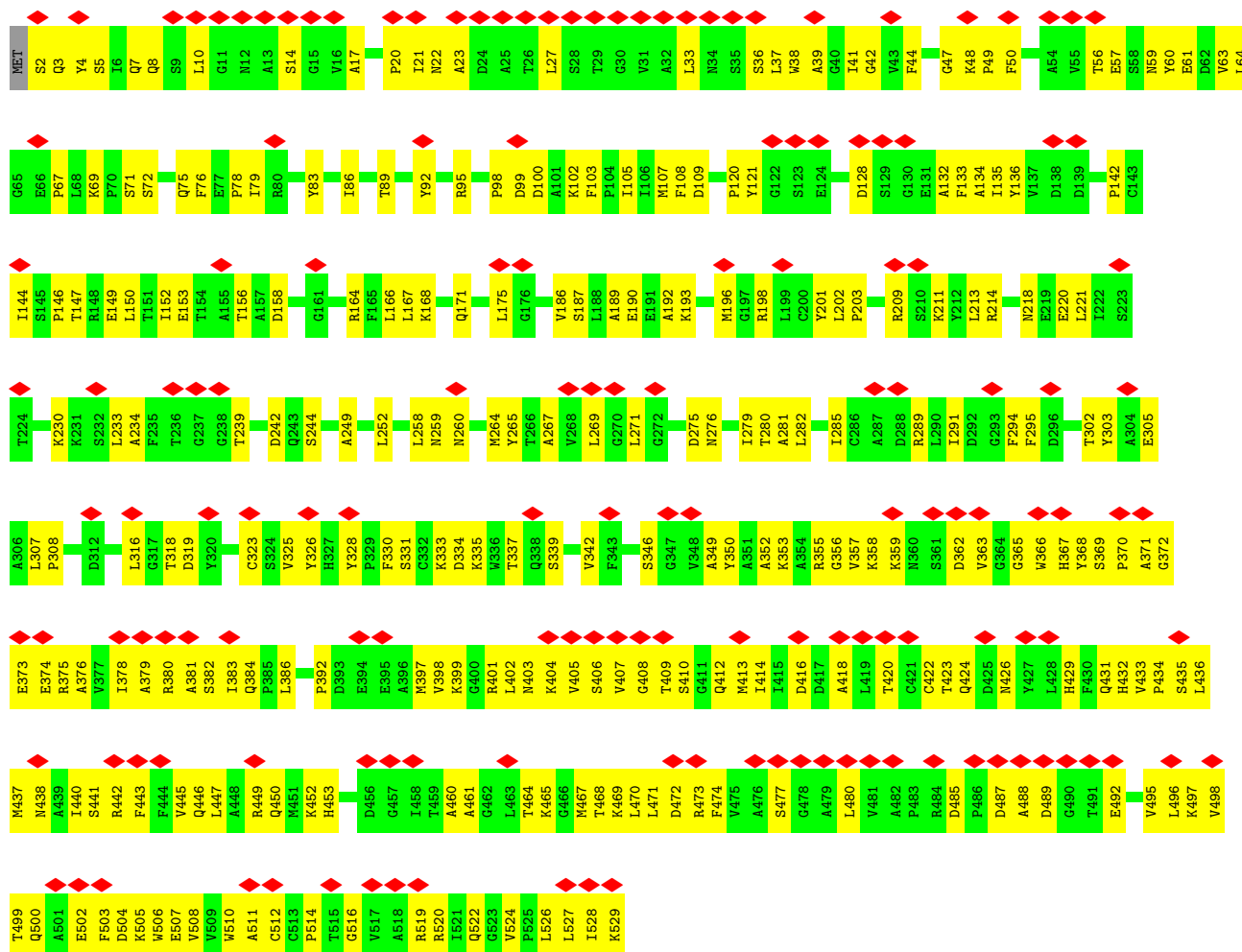


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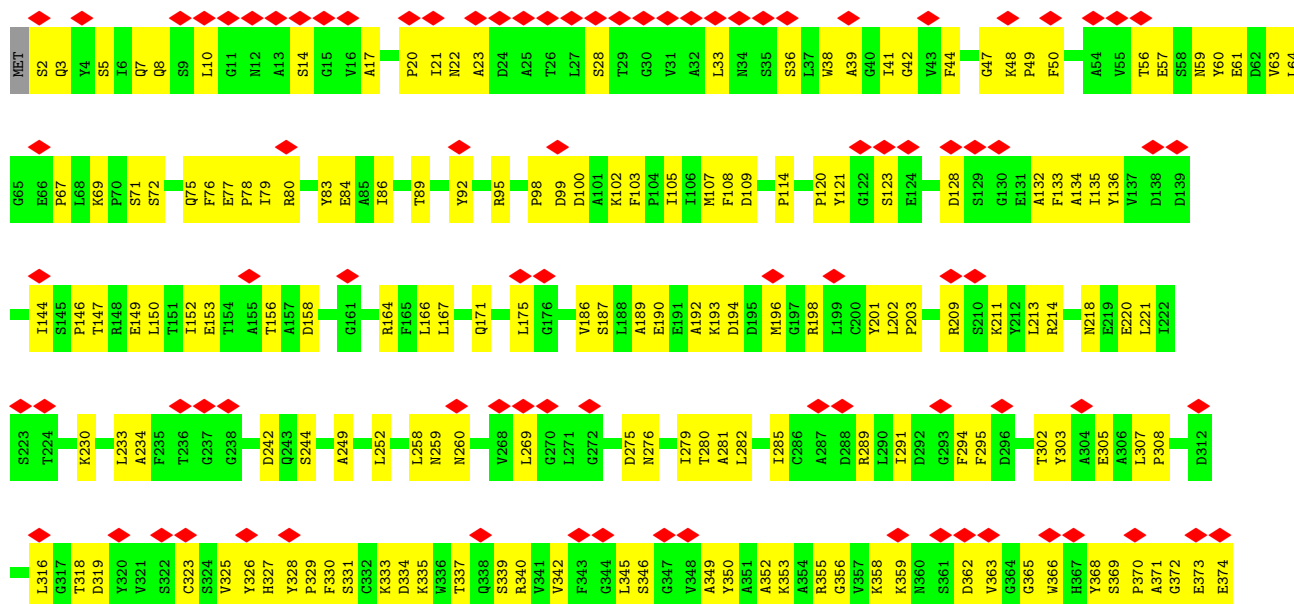


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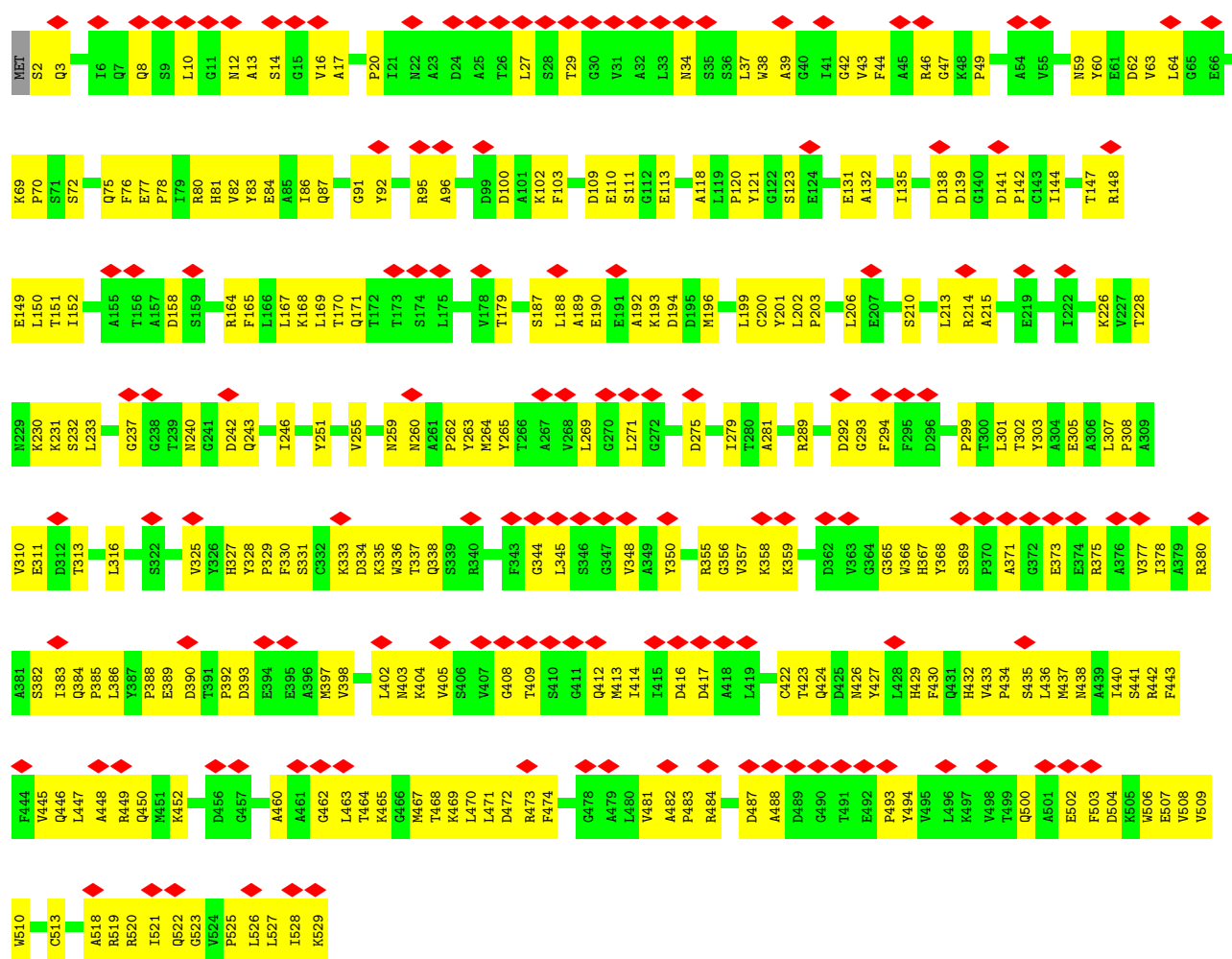


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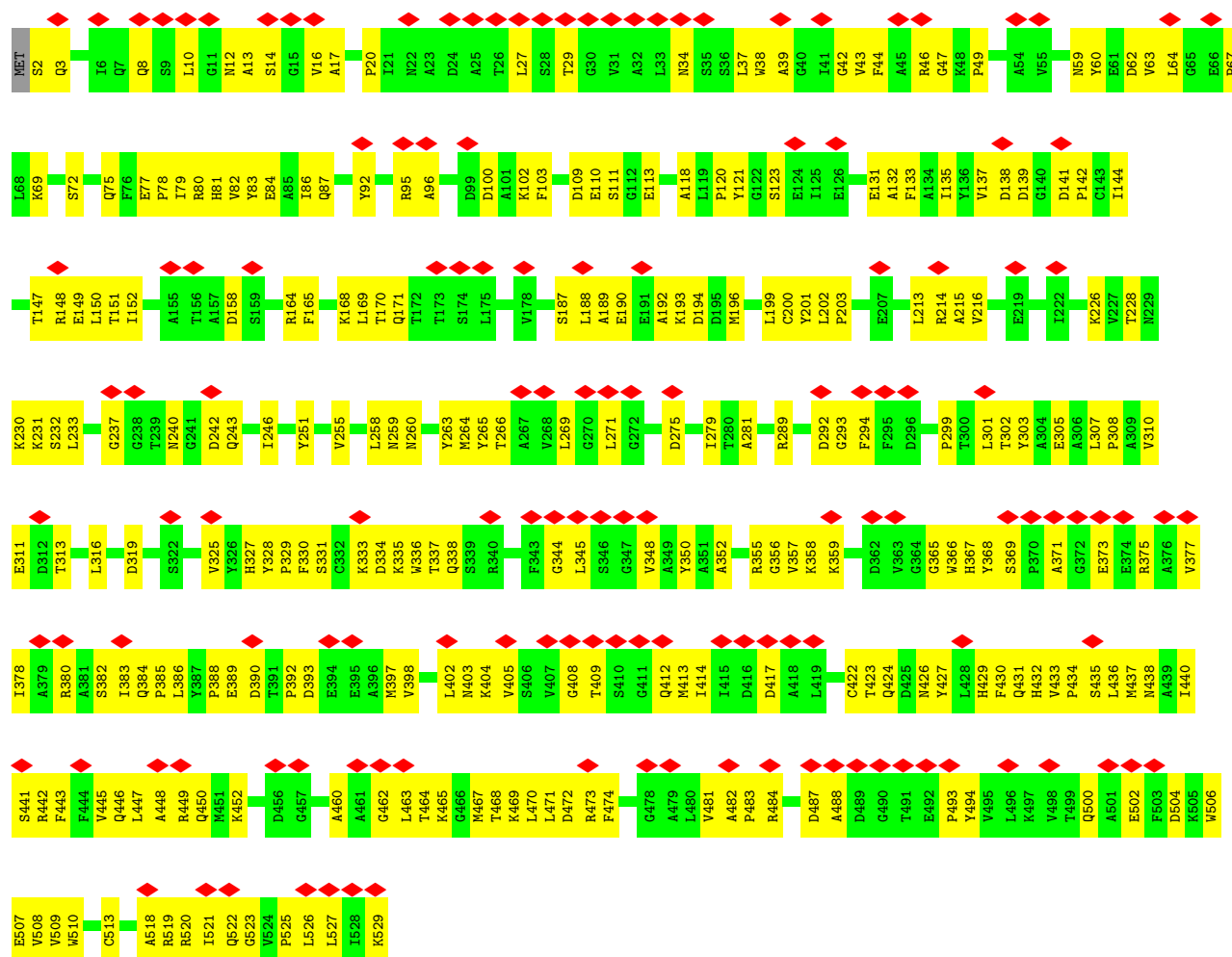


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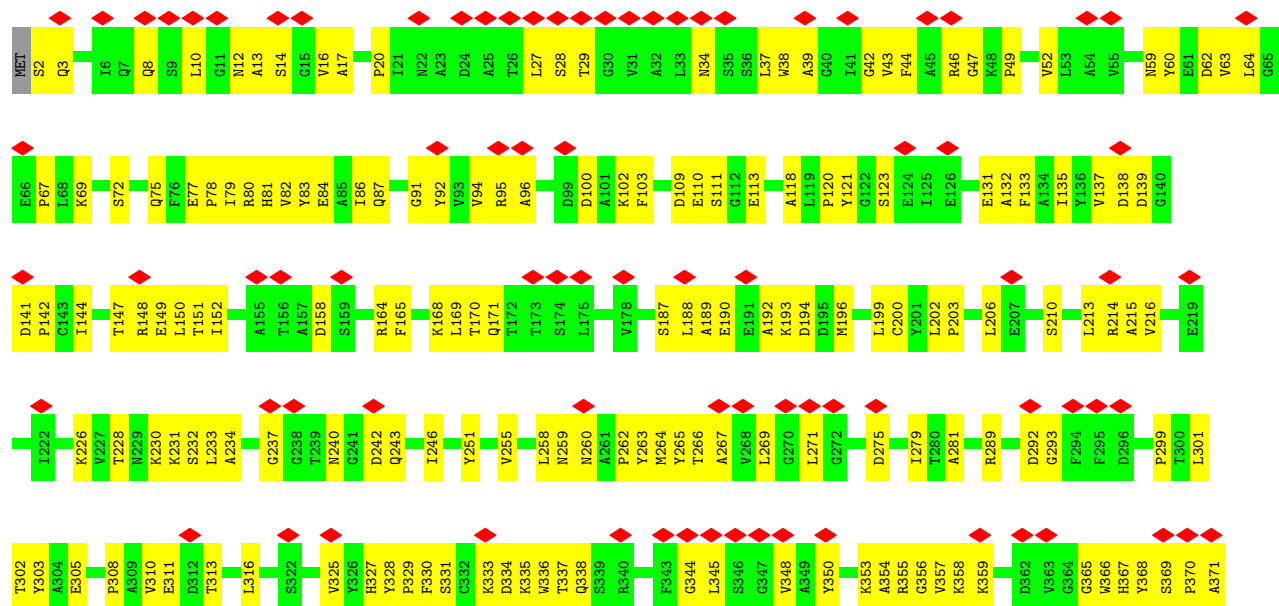


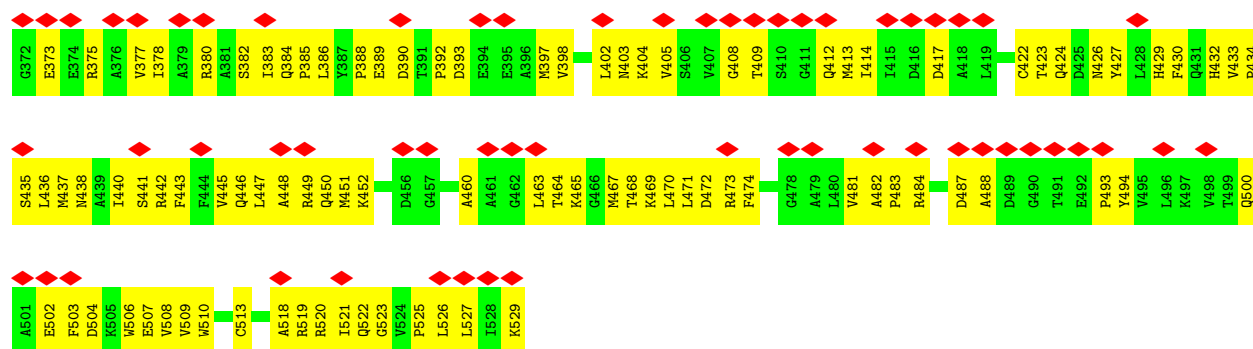
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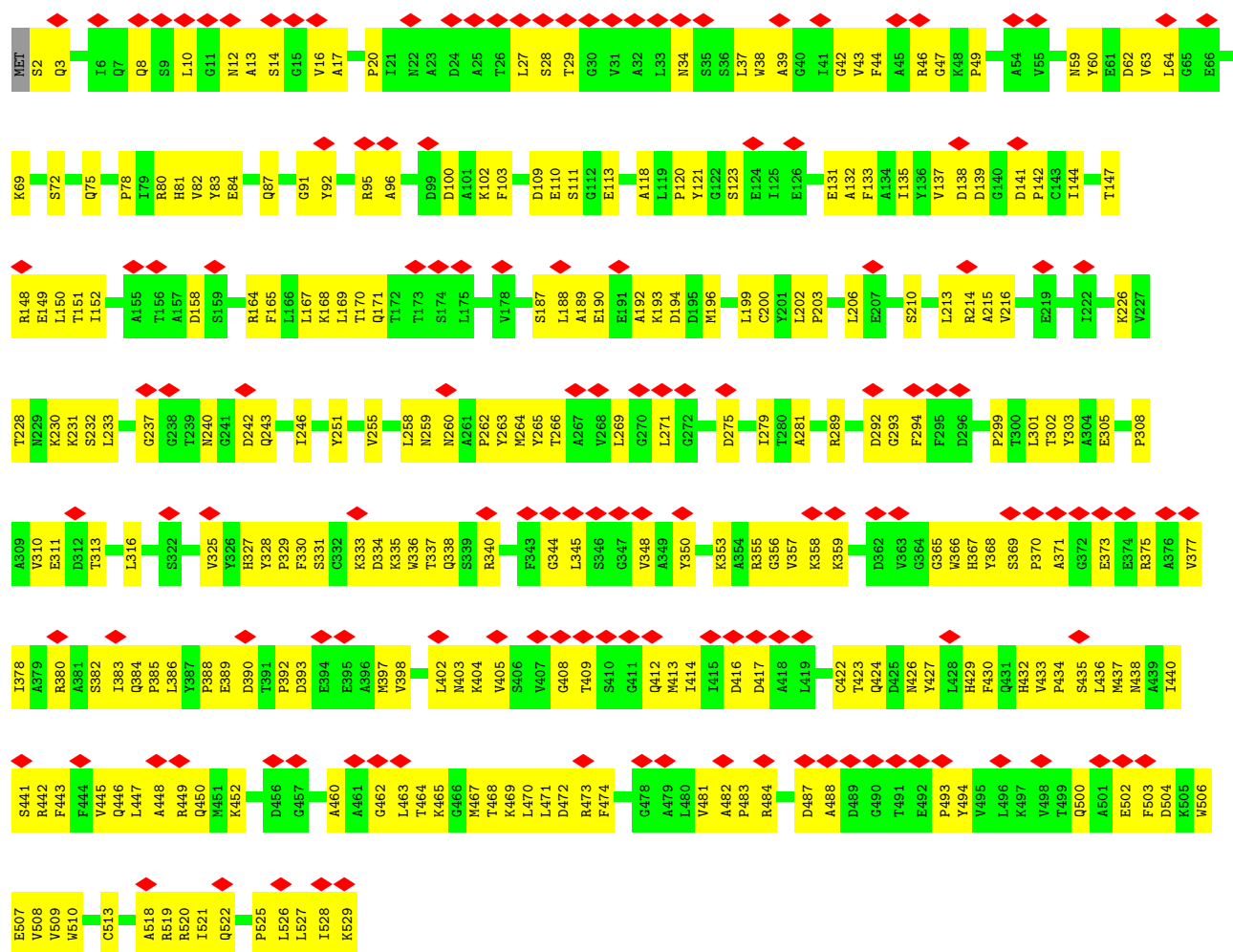


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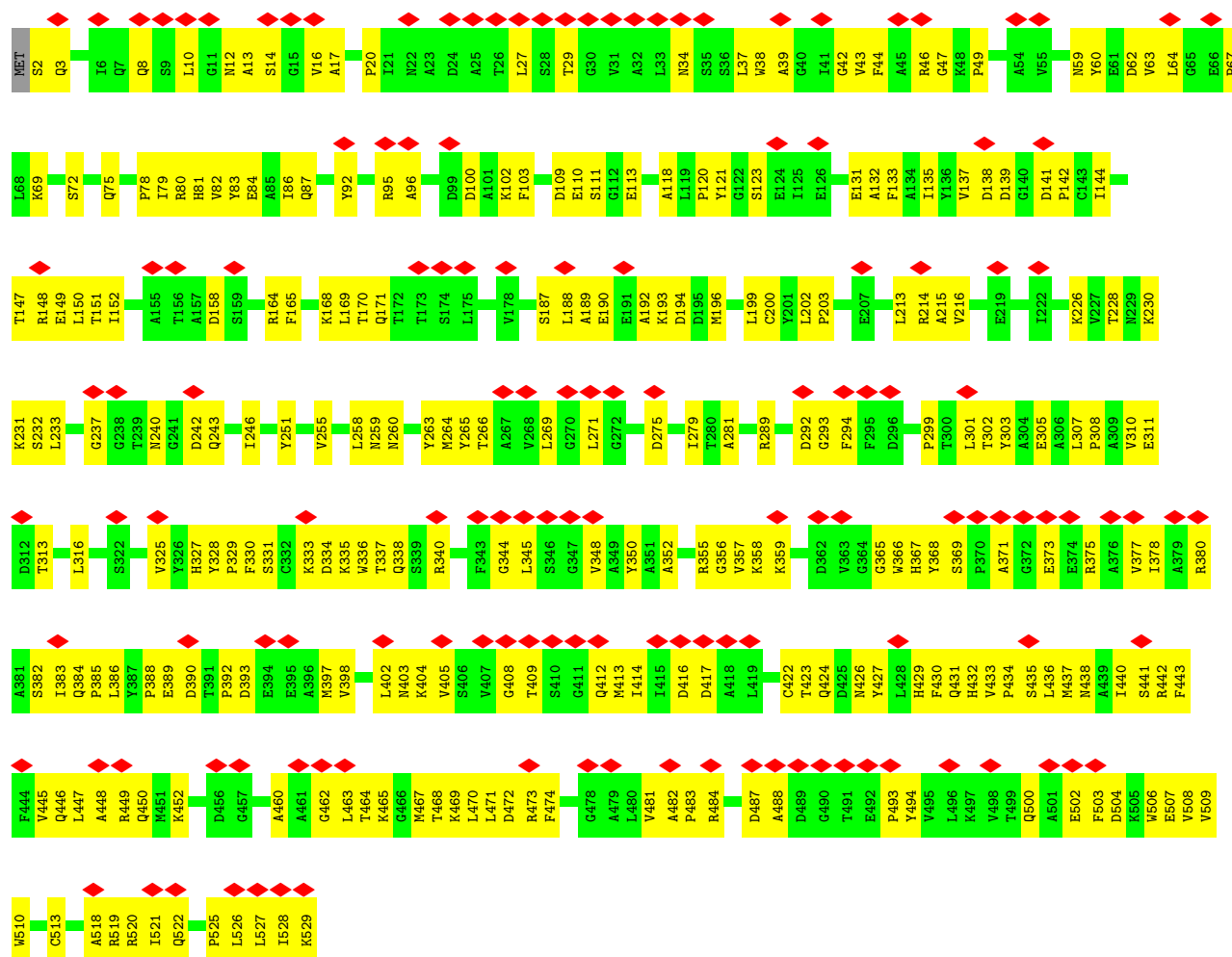


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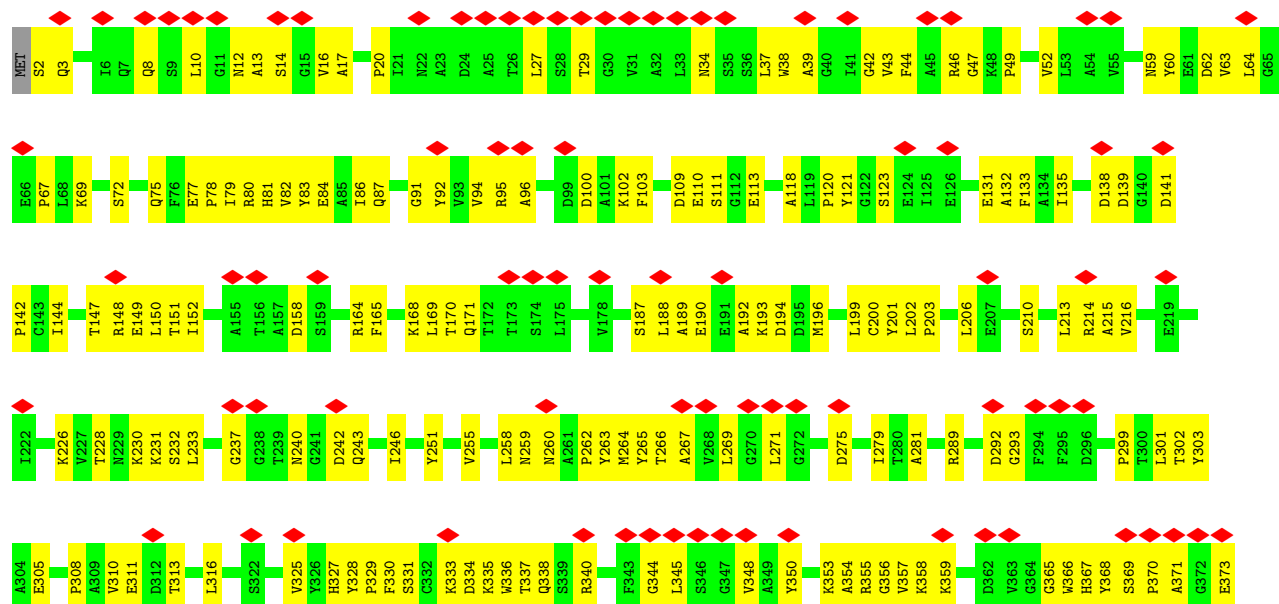


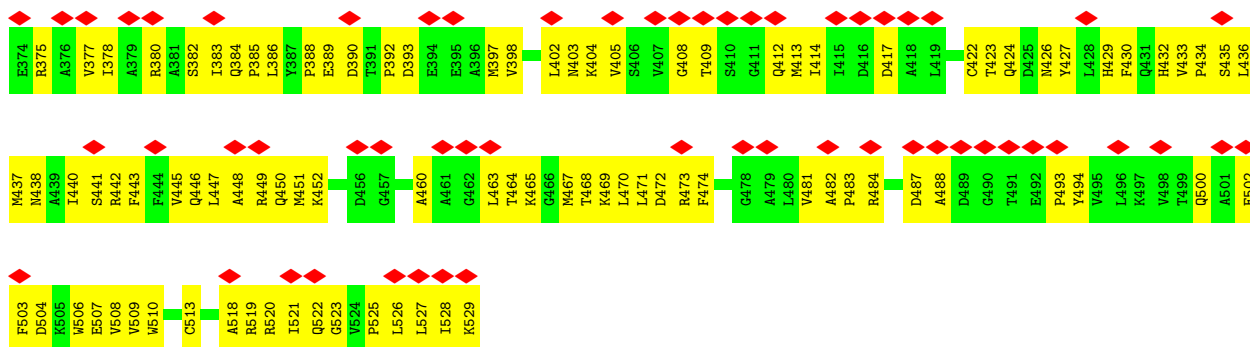
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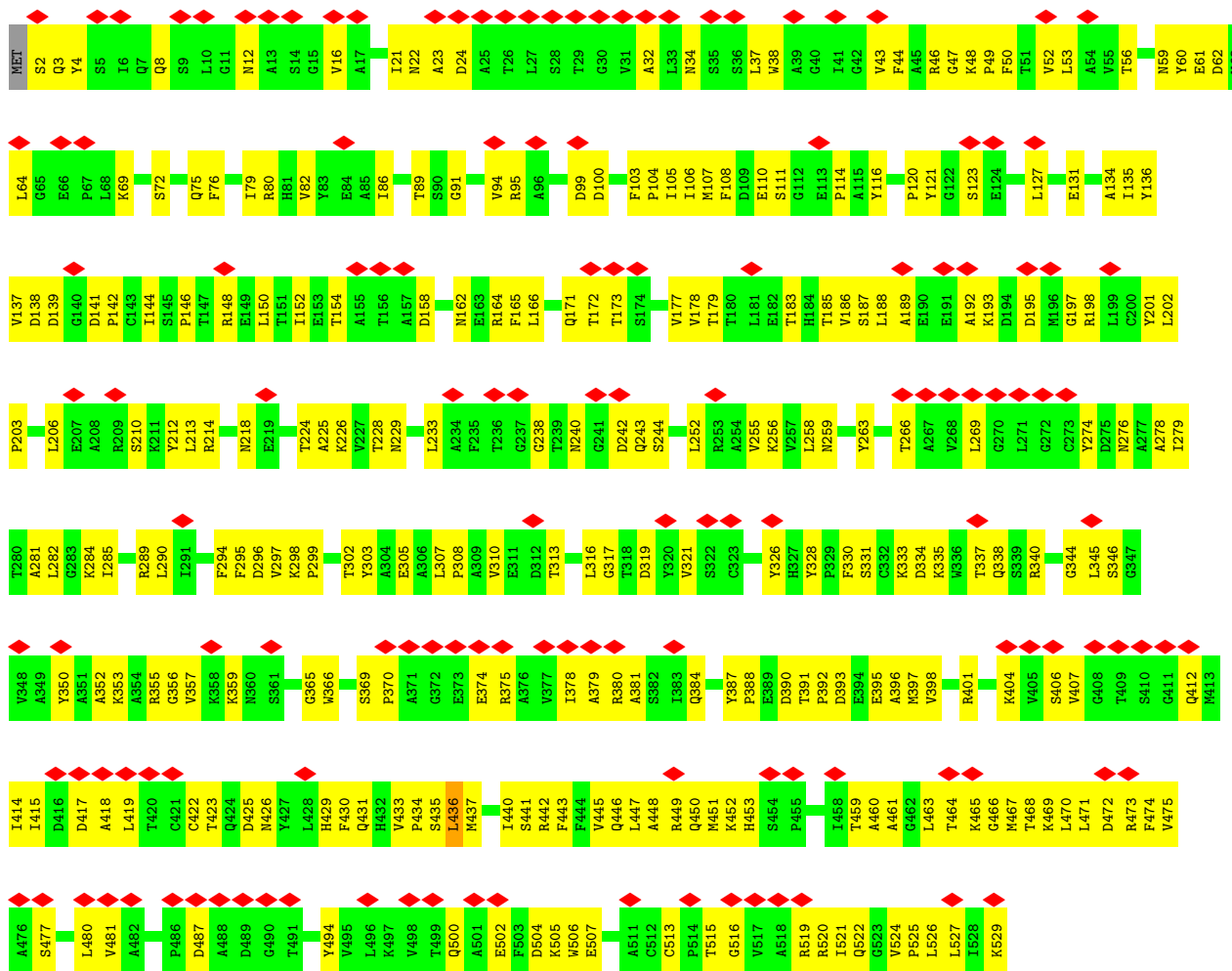


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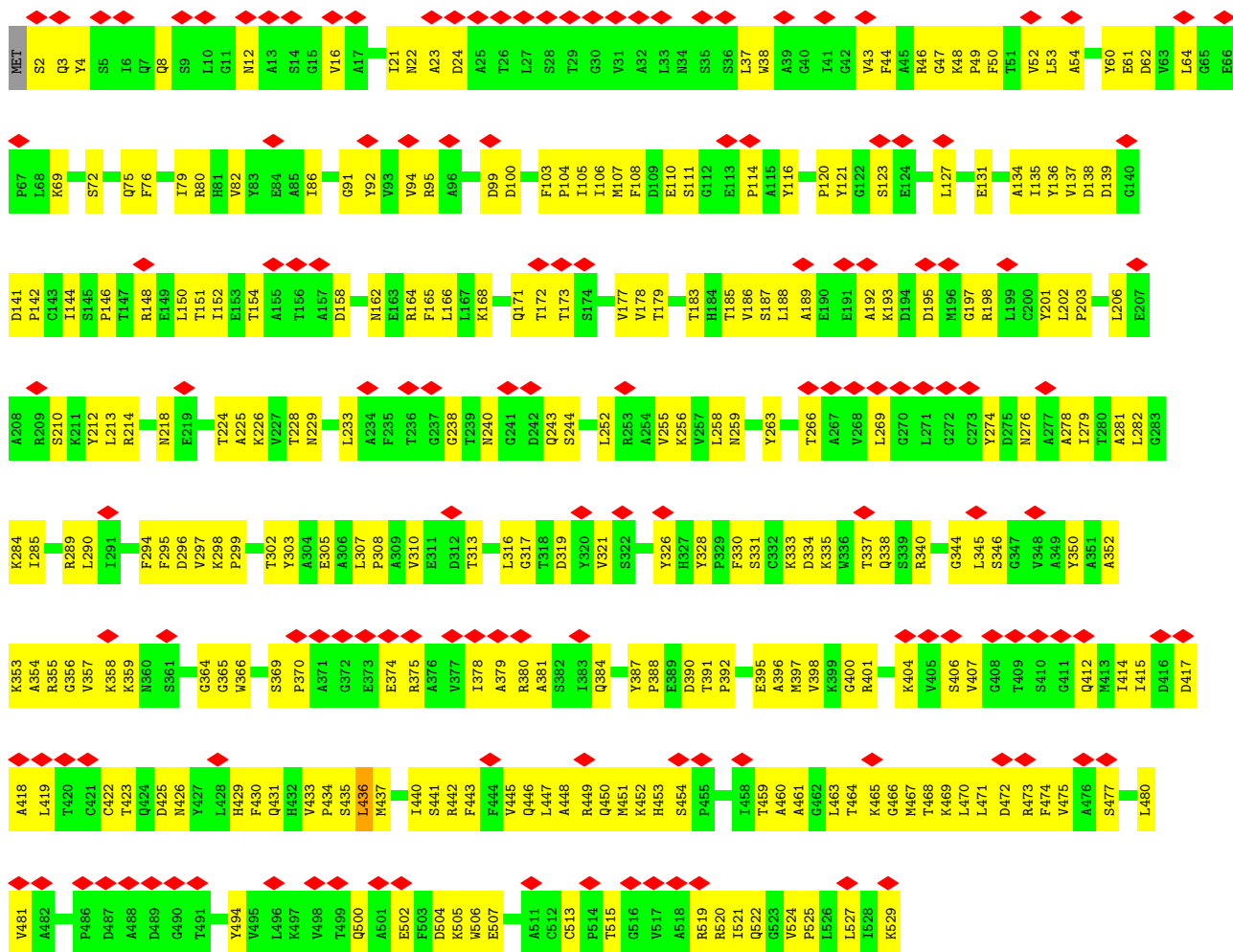


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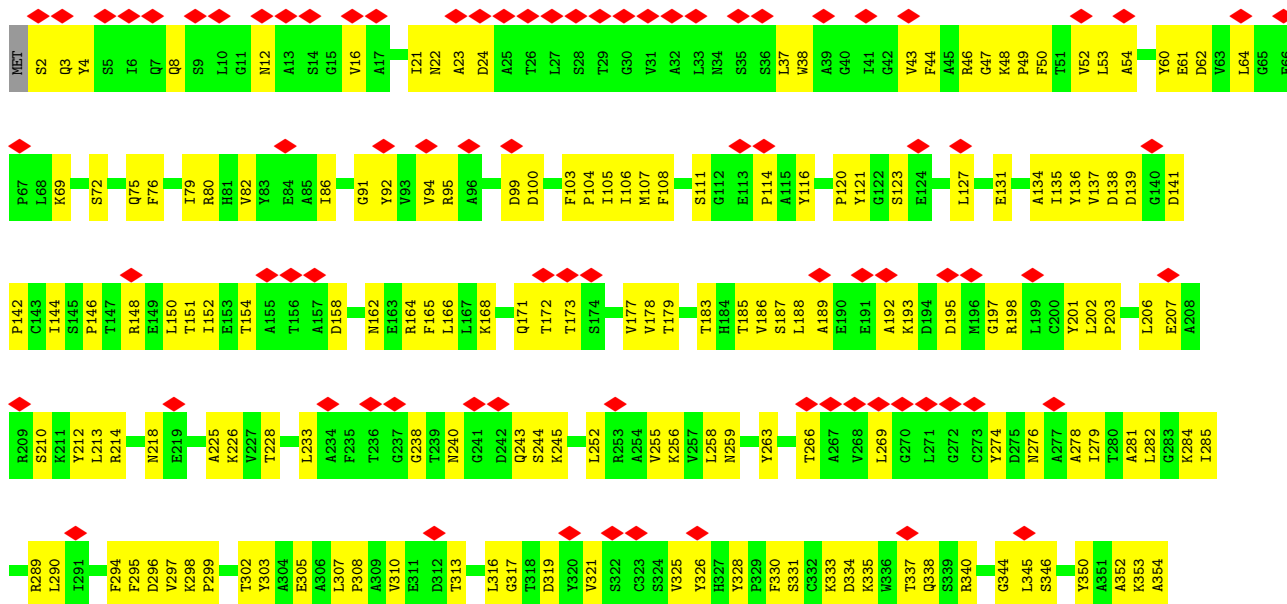


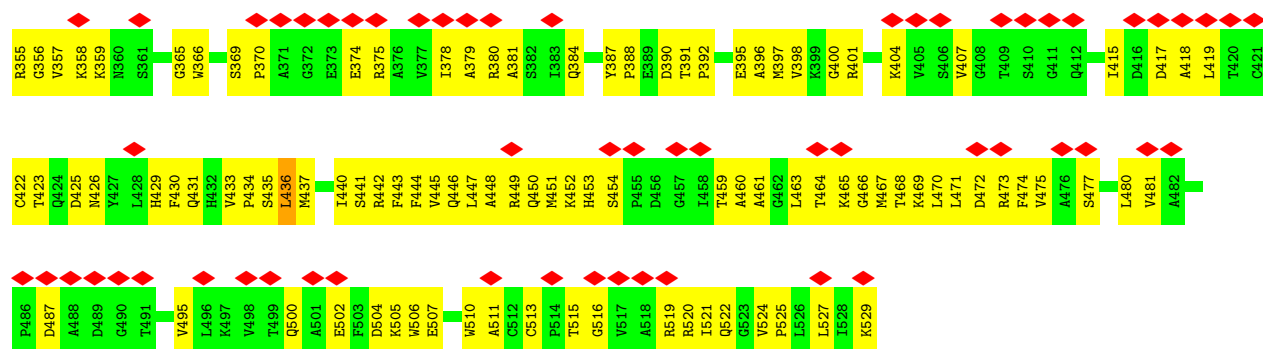
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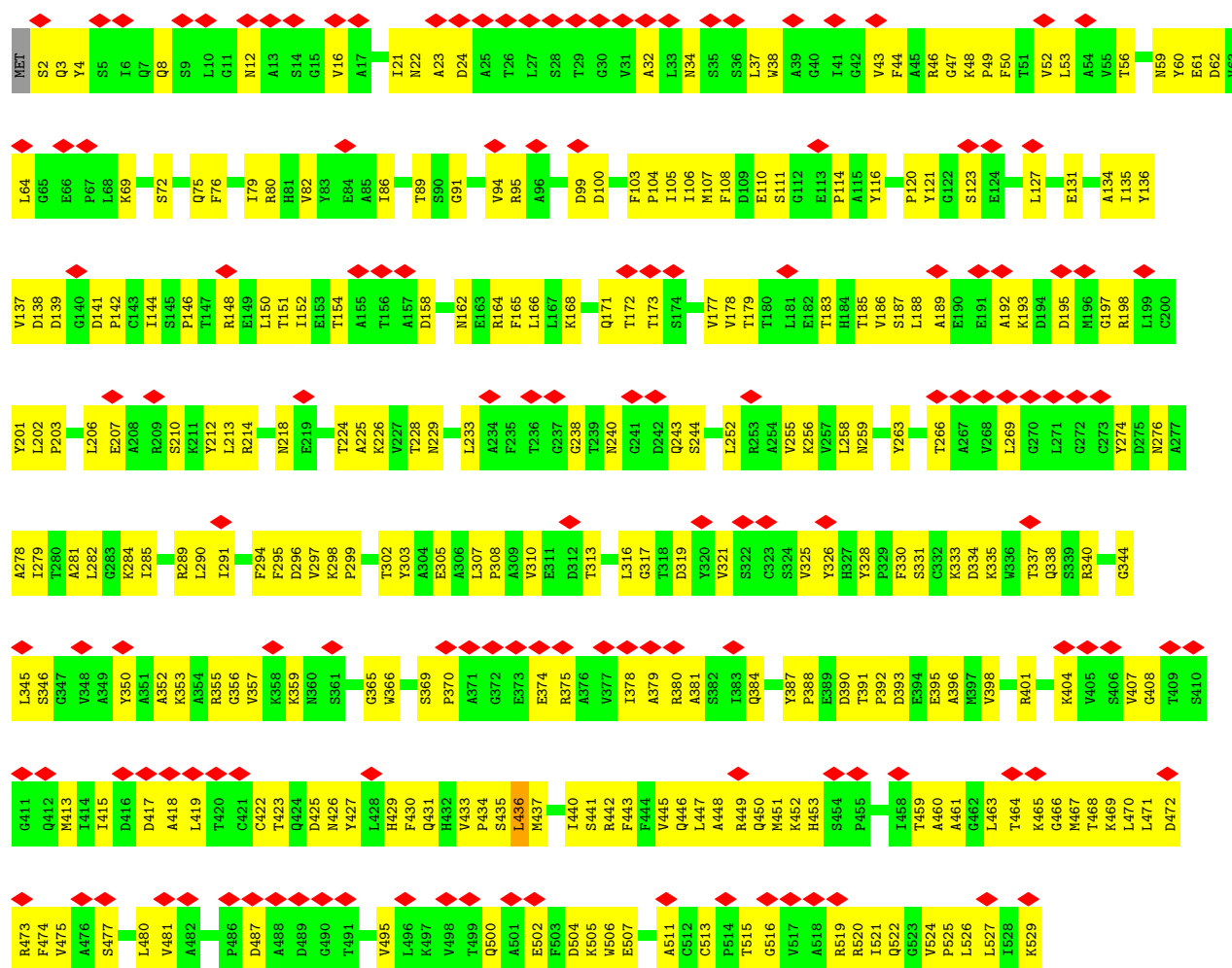


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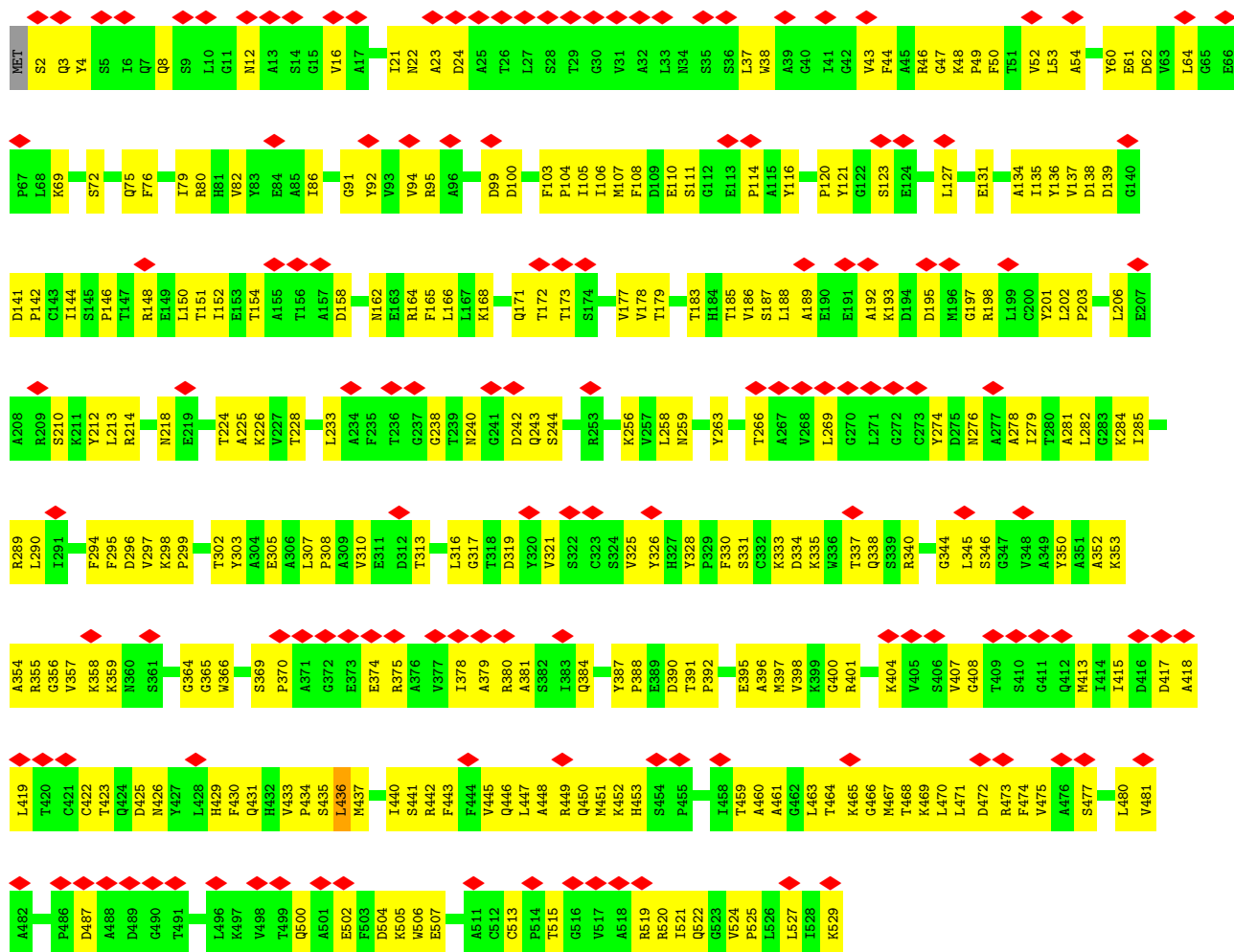


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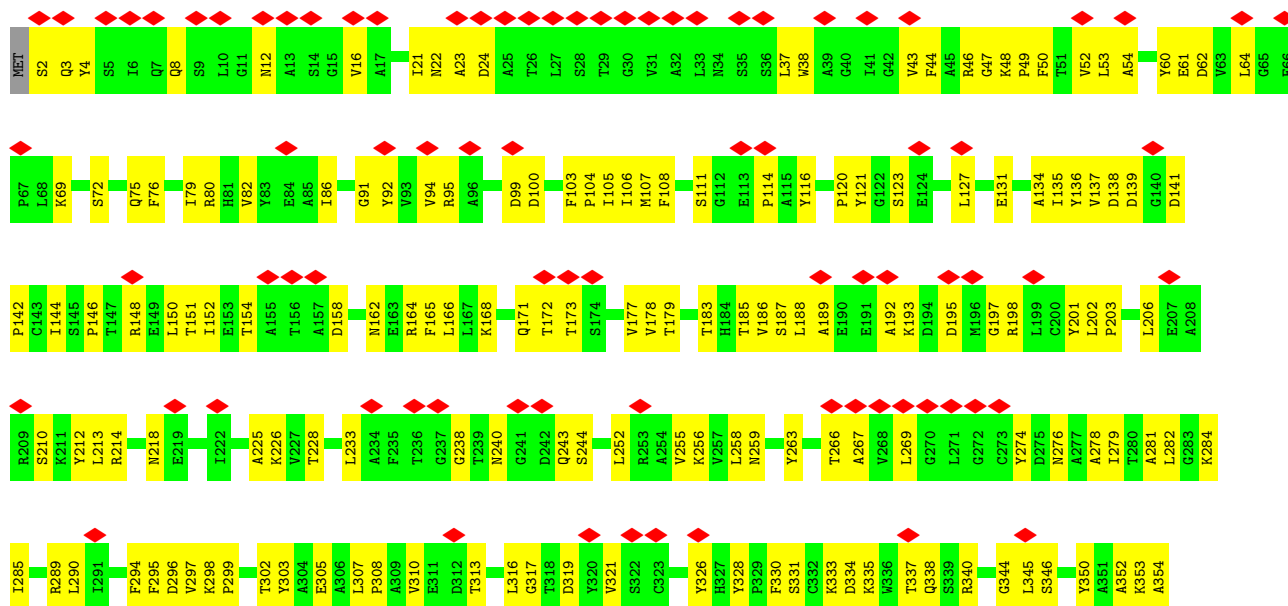


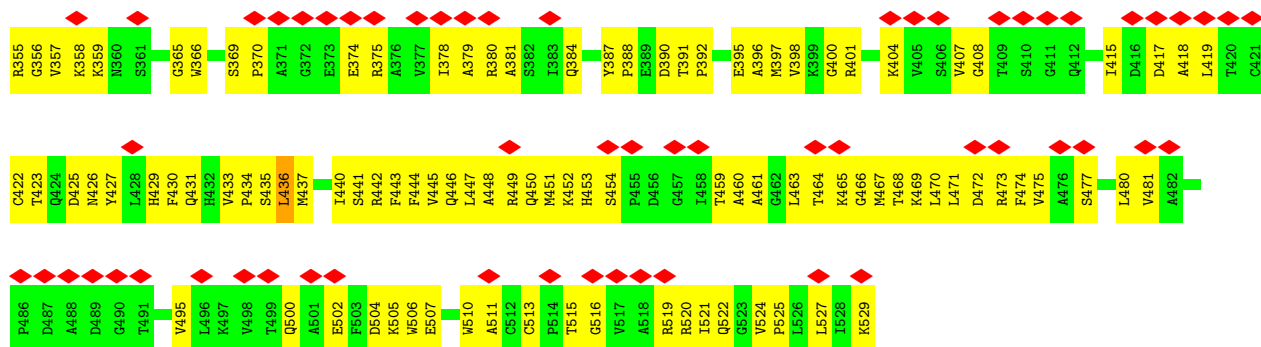
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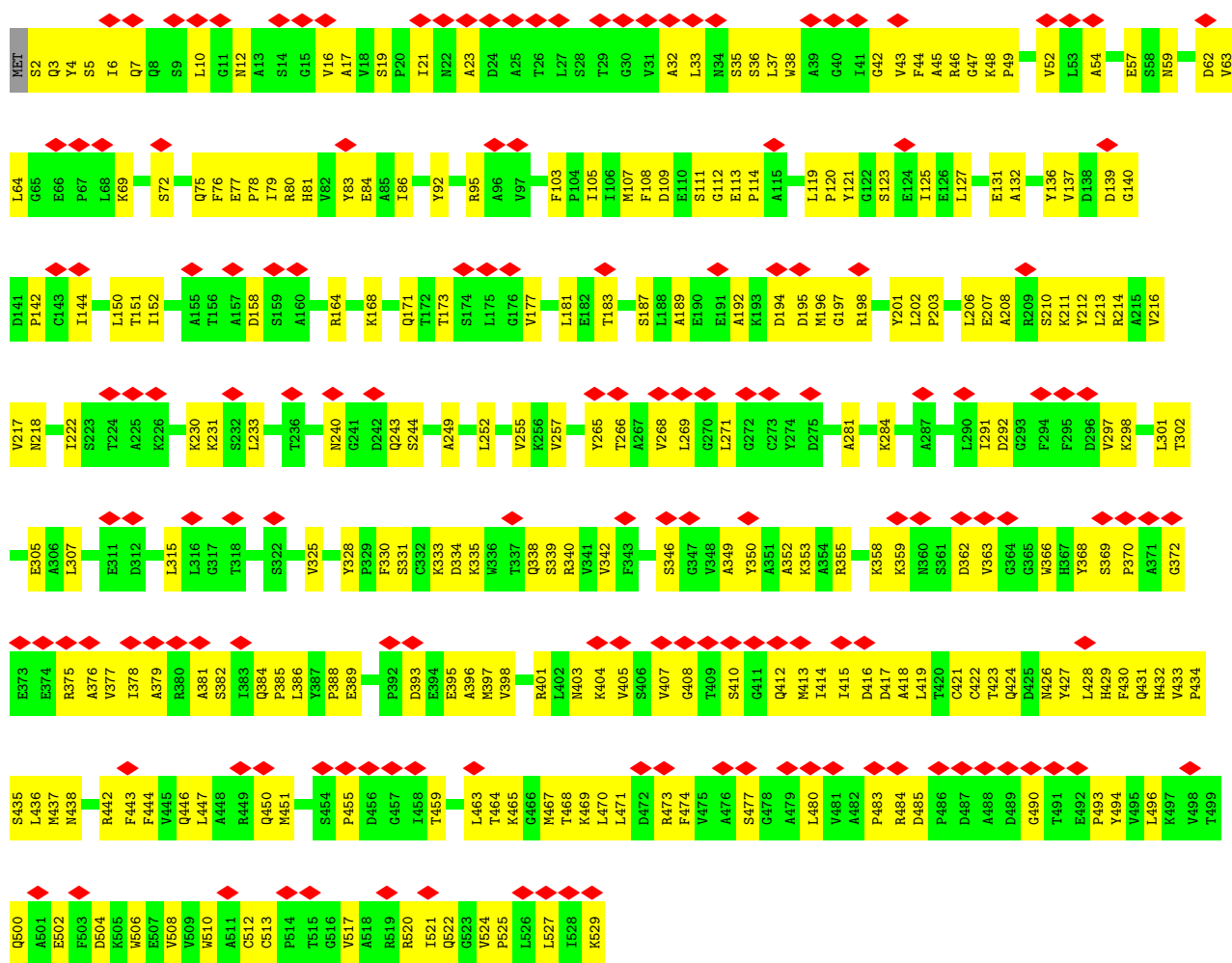


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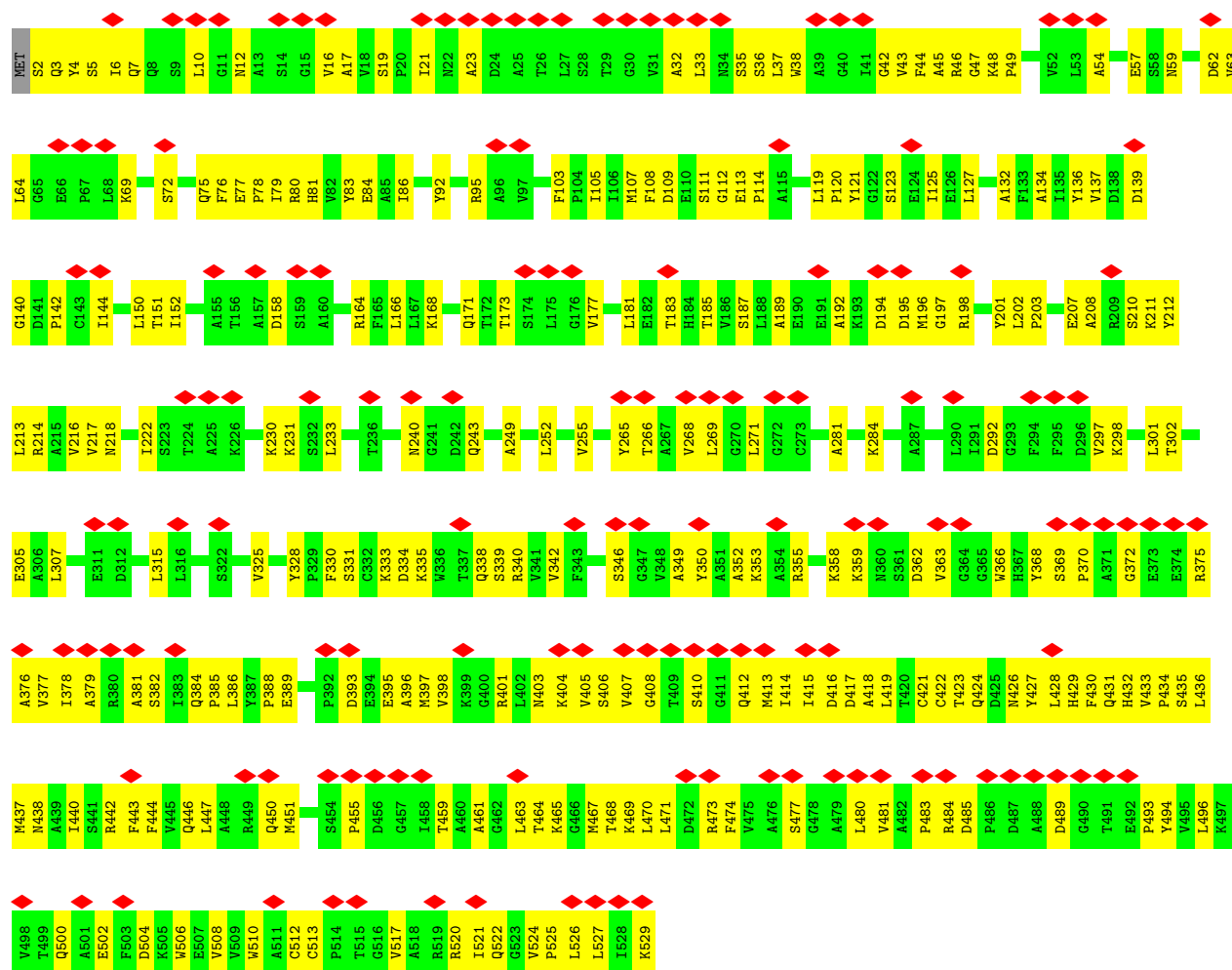


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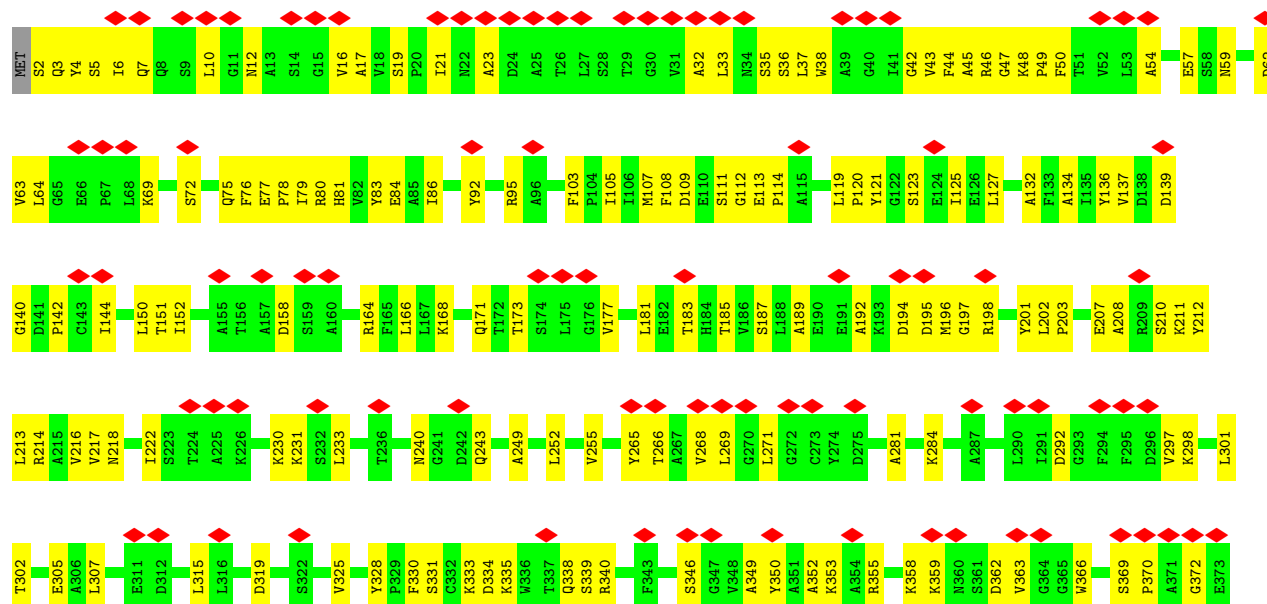


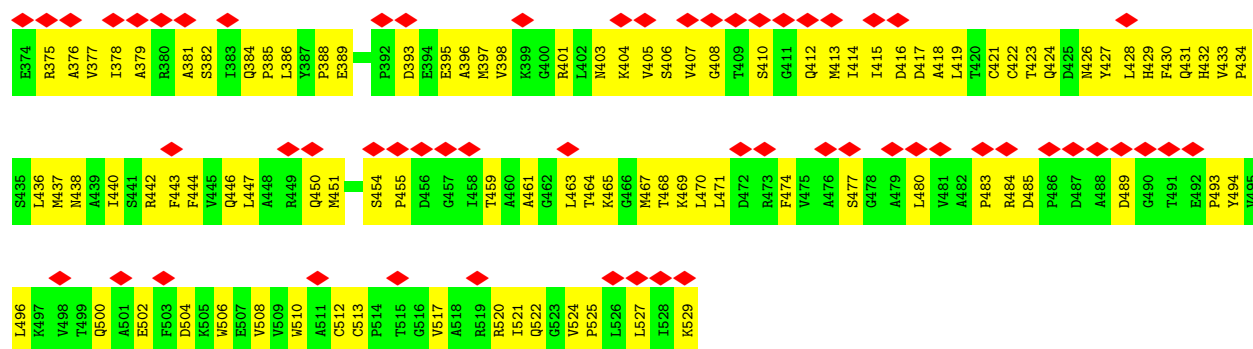
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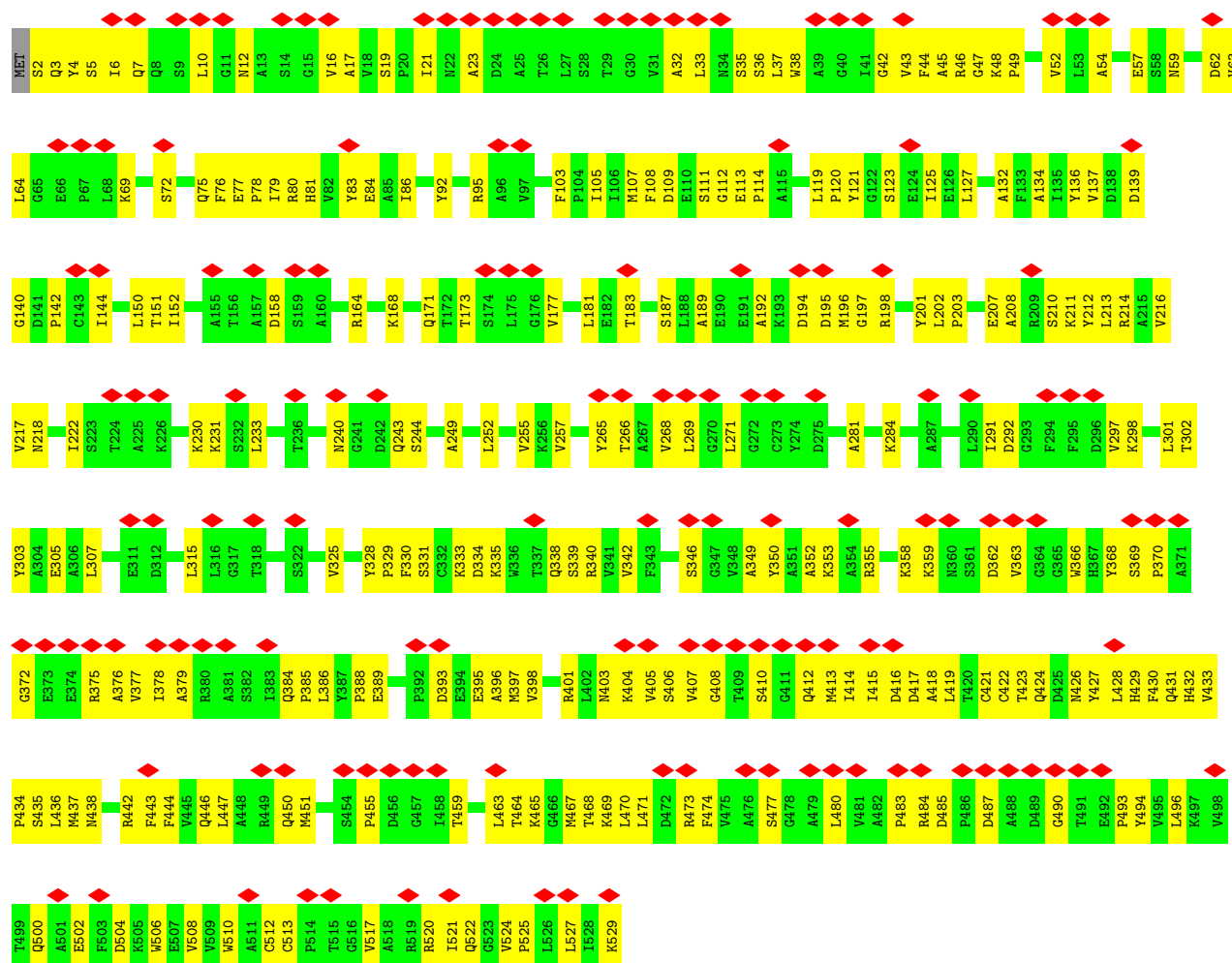


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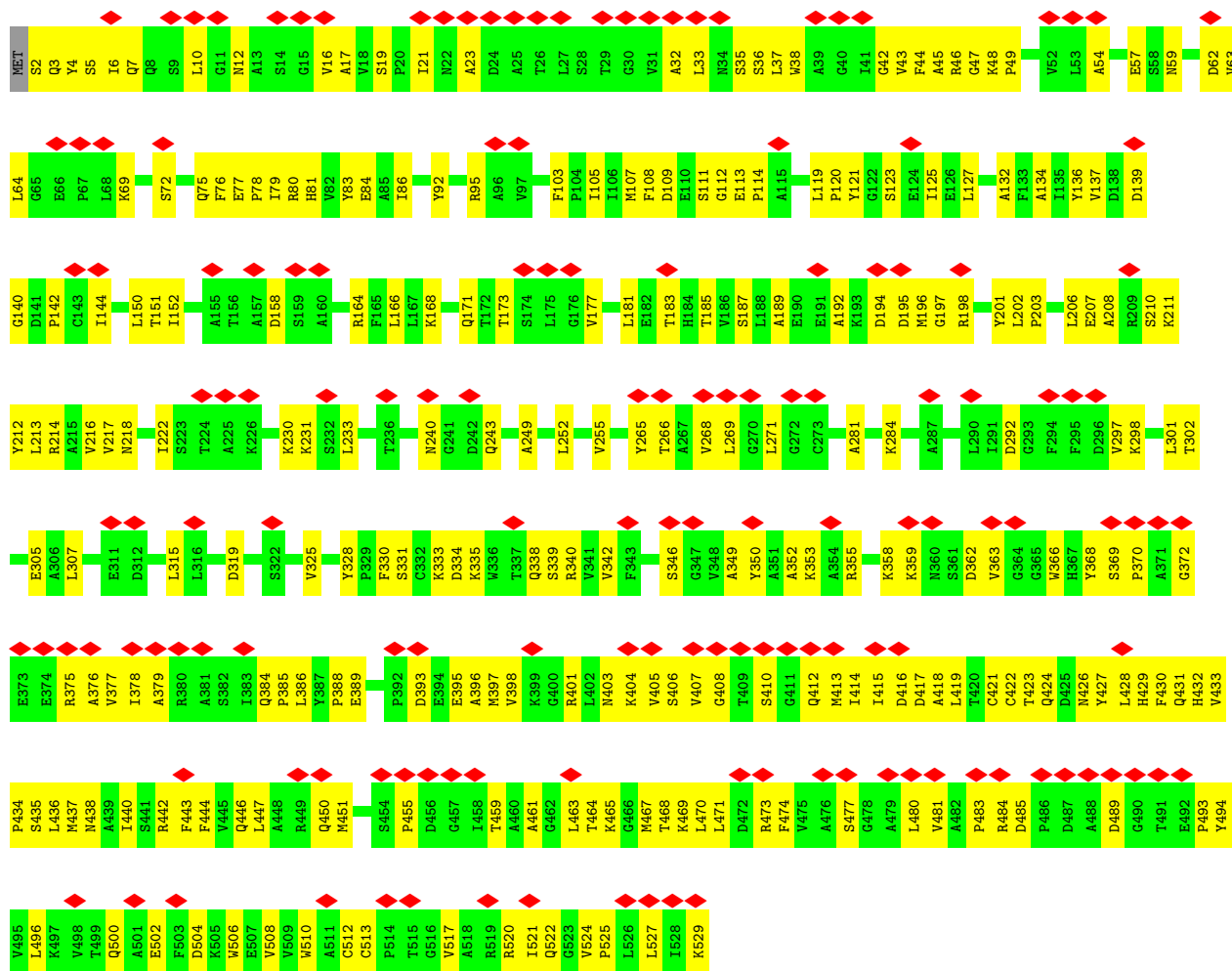


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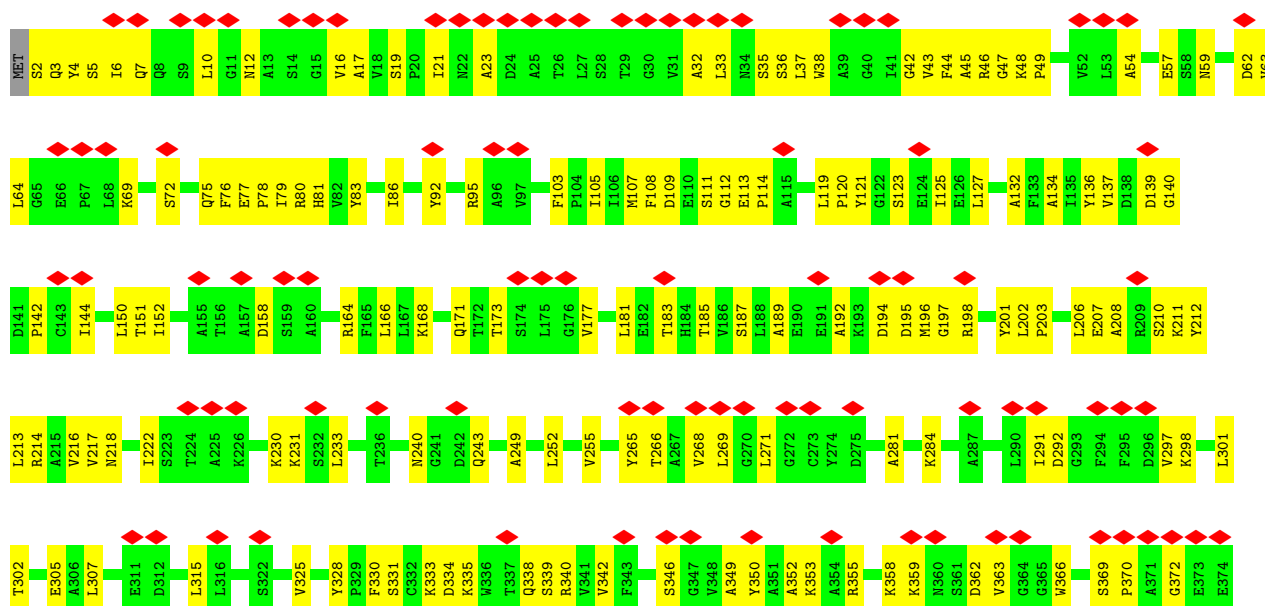


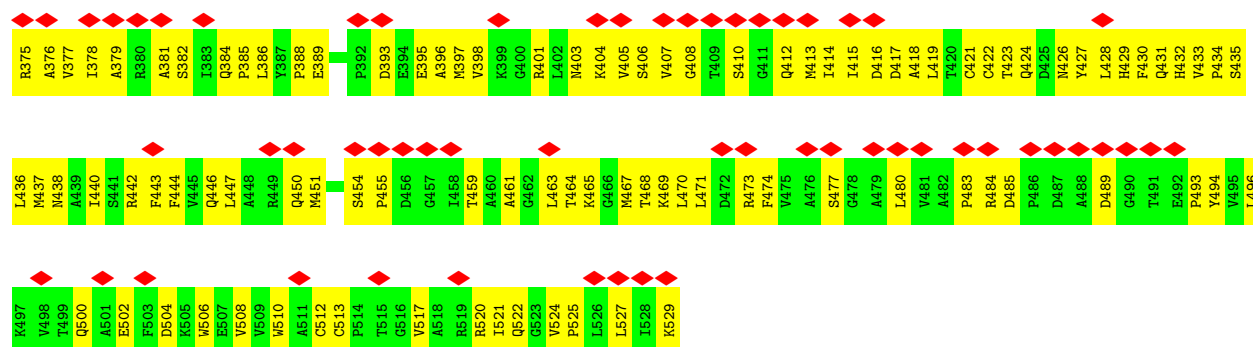
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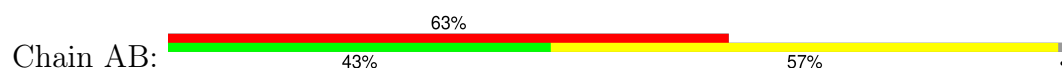


• Molecule 7: Gp22

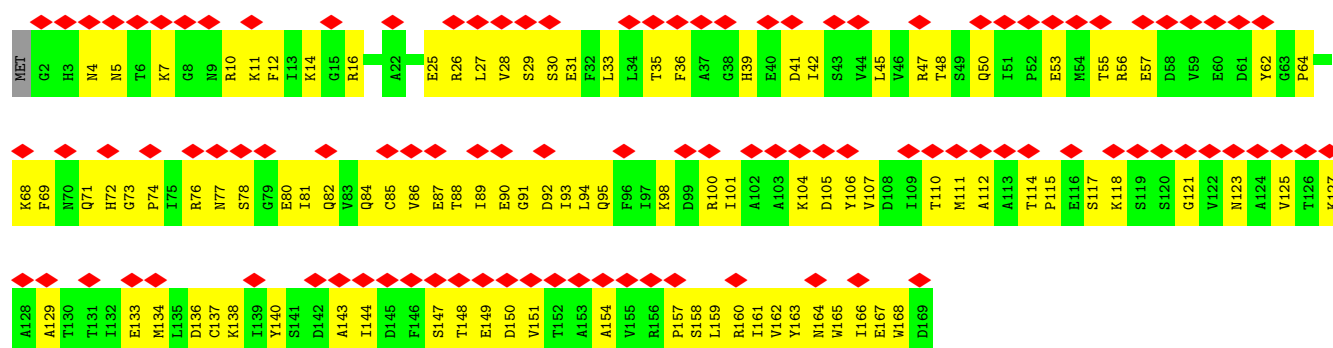




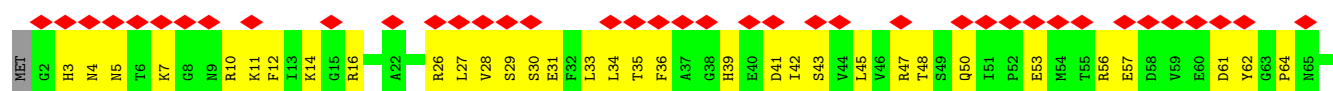
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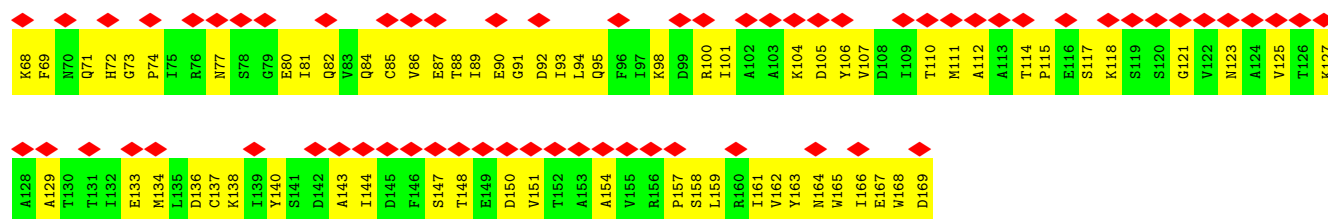


• Molecule 8: BplB

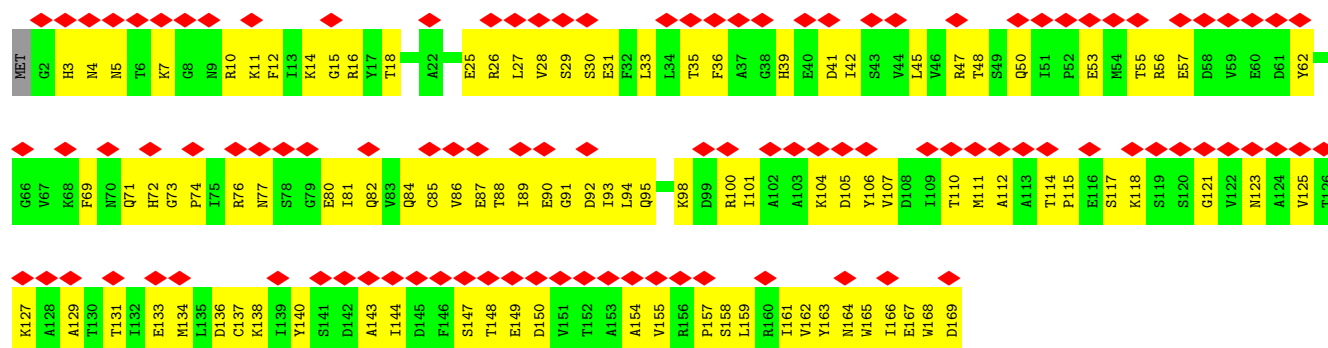


• Molecule 8: BplB

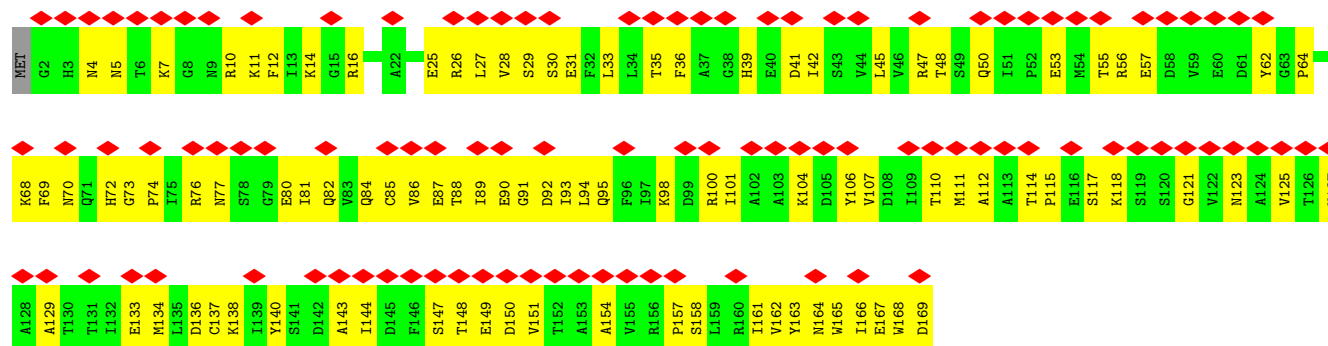
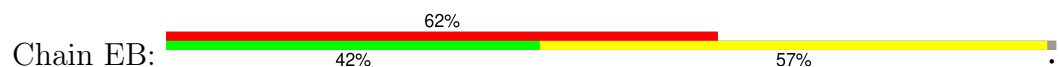




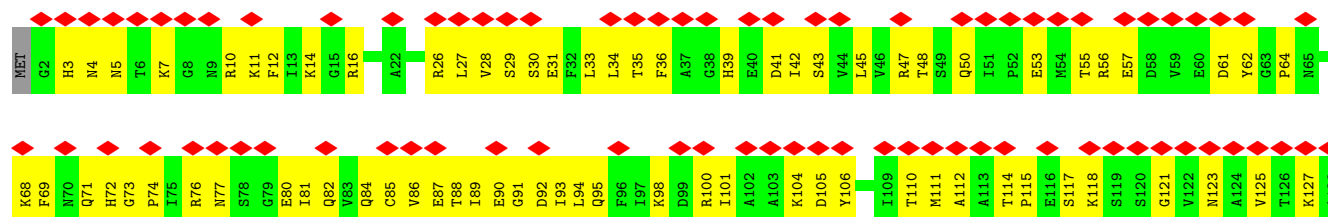
• Molecule 8: BplB



• Molecule 8: BplB

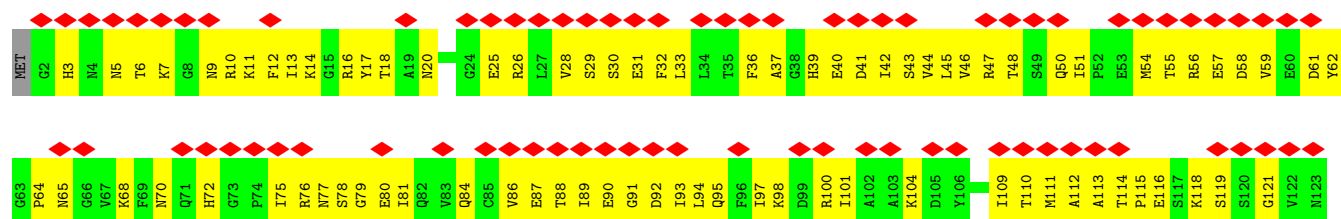


• Molecule 8: BplB

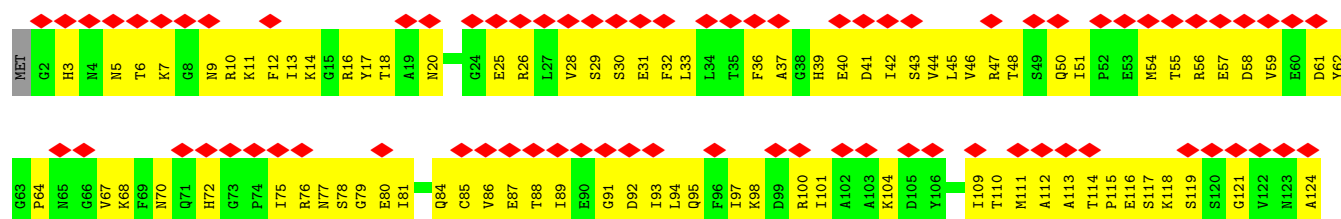




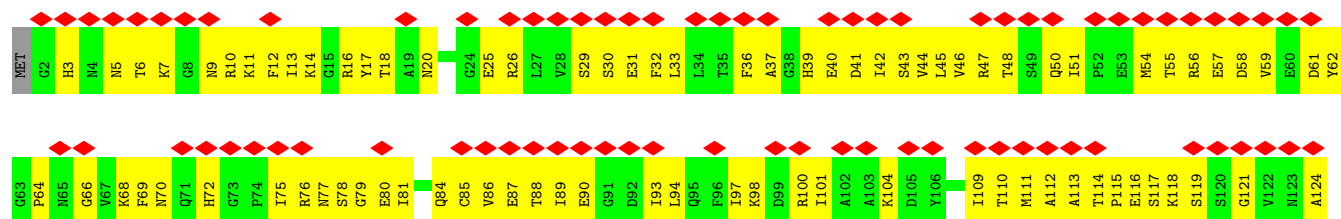
• Molecule 8: BplB



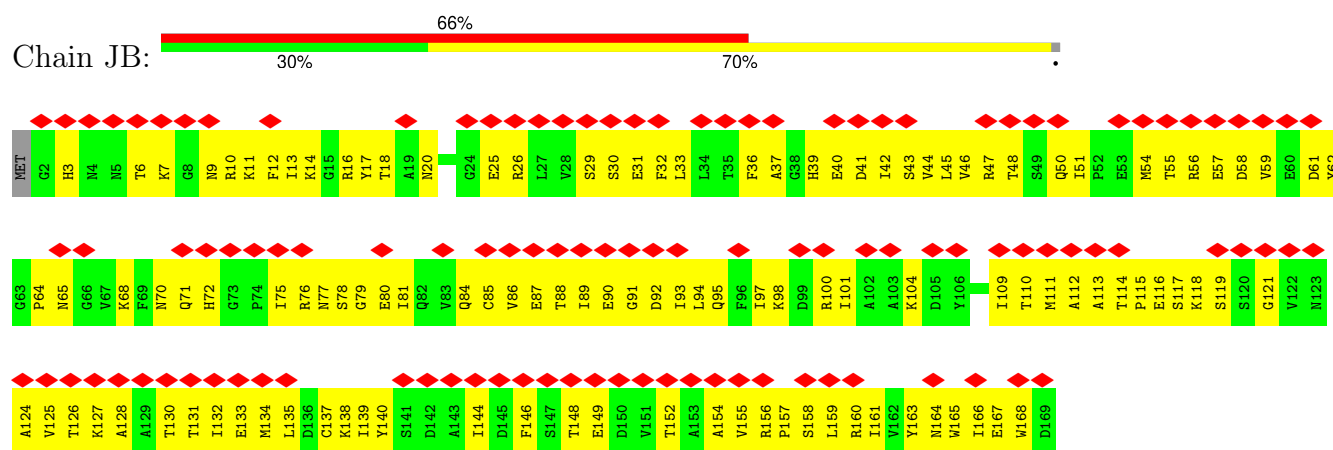
• Molecule 8: BplB



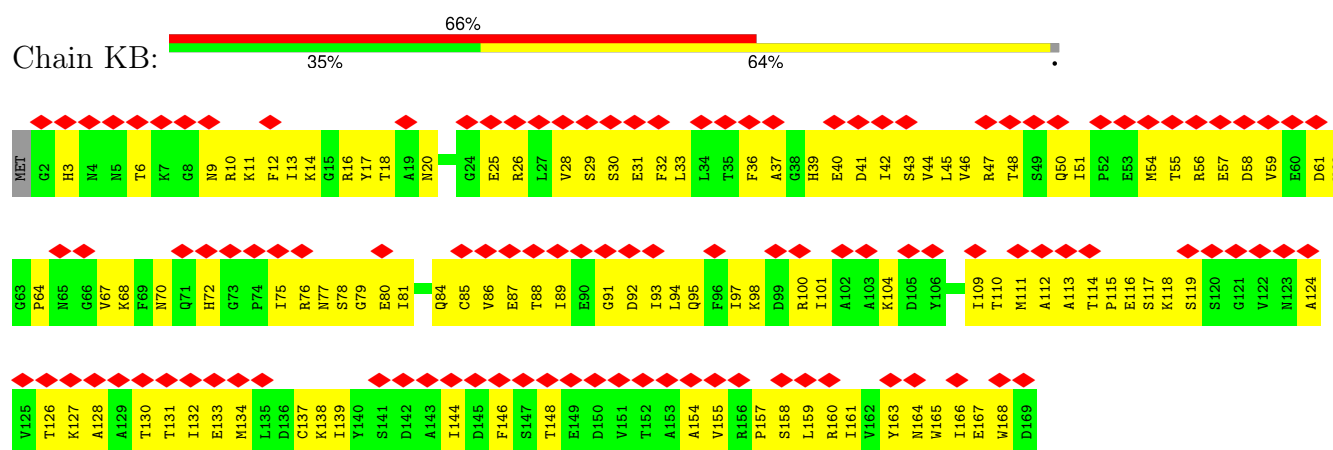
• Molecule 8: BplB



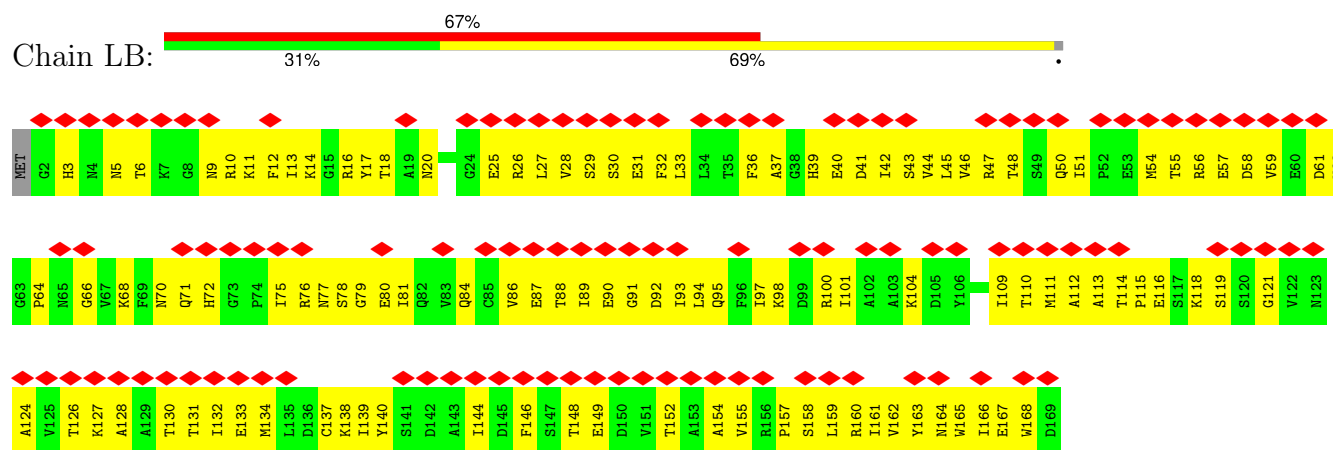
• Molecule 8: BplB



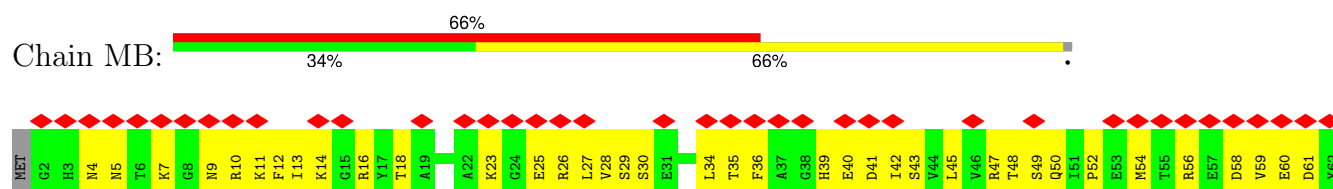
• Molecule 8: BplB

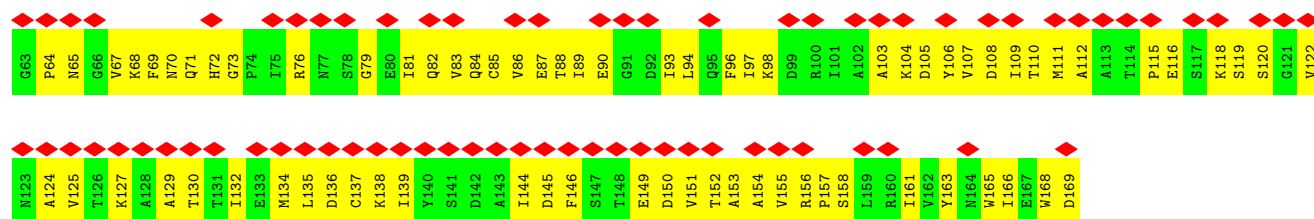


• Molecule 8: BplB

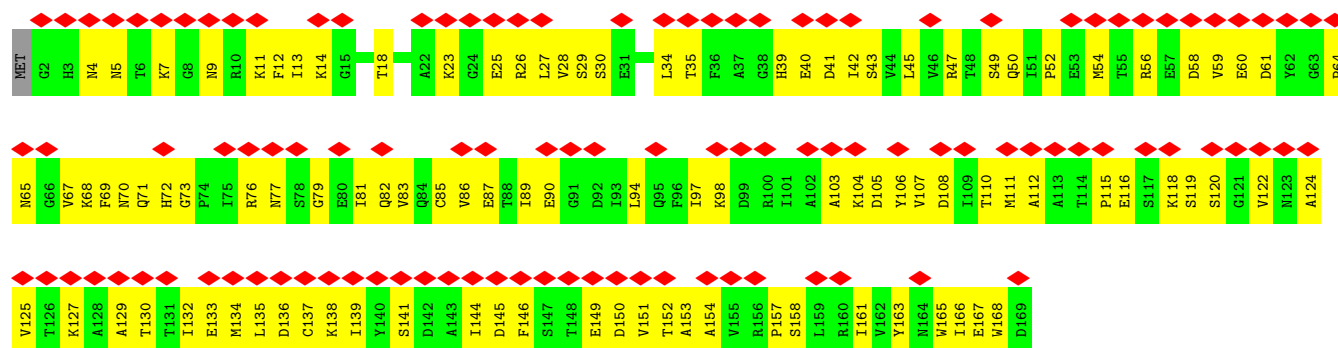


• Molecule 8: BplB

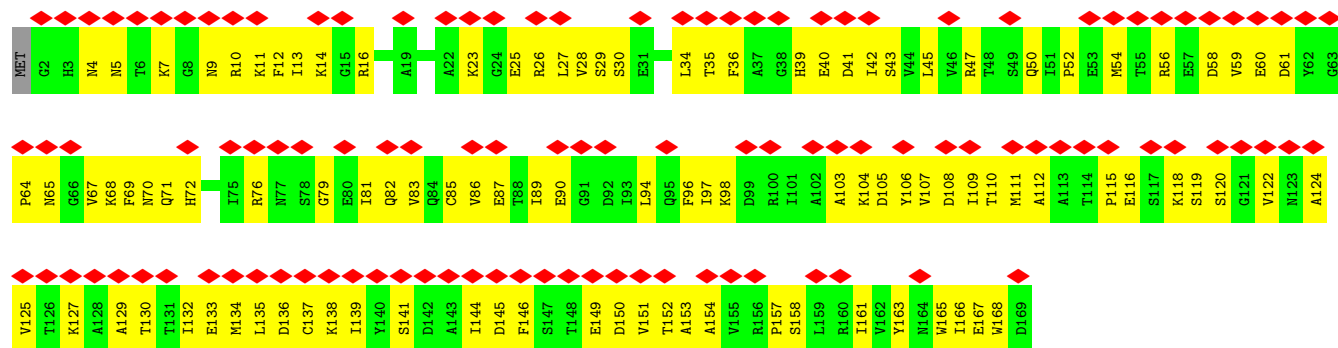




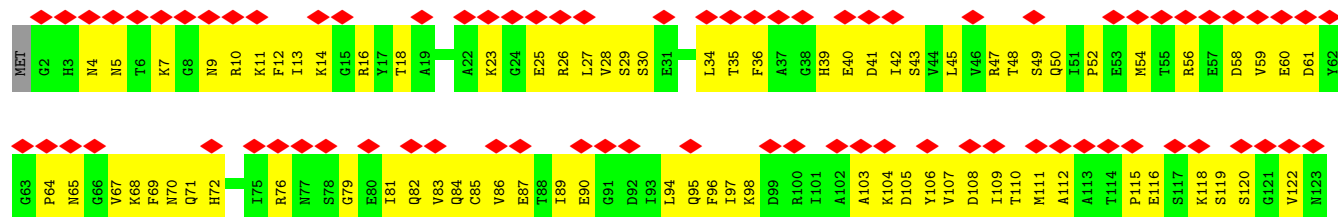
• Molecule 8: BplB



• Molecule 8: BplB

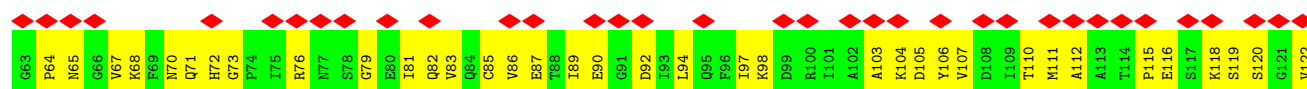
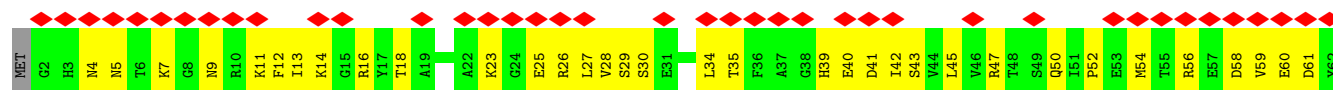
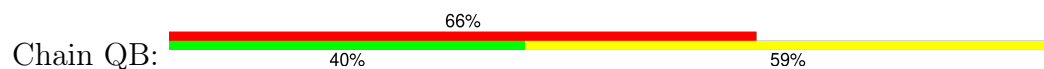


• Molecule 8: BplB

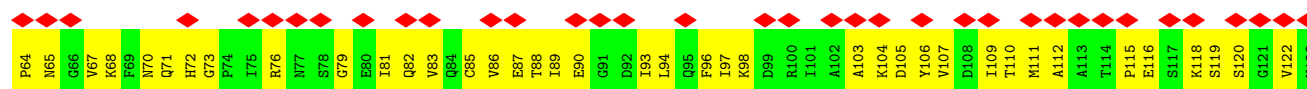
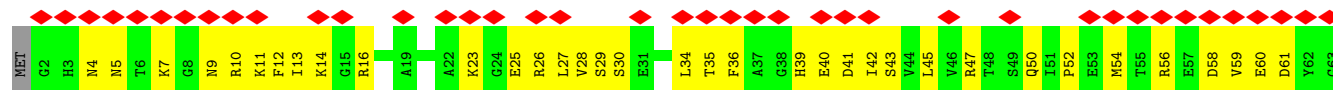




• Molecule 8: BplB



• Molecule 8: BplB



4 Experimental information

| Property | Value | Source |
|--------------------------------------|---|-----------|
| EM reconstruction method | SINGLE PARTICLE | Depositor |
| Imposed symmetry | POINT, Not provided | |
| Number of particles used | 12800 | Depositor |
| Resolution determination method | FSC 0.143 CUT-OFF | Depositor |
| CTF correction method | PHASE FLIPPING AND AMPLITUDE CORRECTION | Depositor |
| Microscope | TFS GLACIOS | Depositor |
| Voltage (kV) | 200 | Depositor |
| Electron dose ($e^-/\text{\AA}^2$) | 30 | Depositor |
| Minimum defocus (nm) | 500 | Depositor |
| Maximum defocus (nm) | 1500 | Depositor |
| Magnification | Not provided | |
| Image detector | FEI FALCON IV (4k x 4k) | Depositor |
| Maximum map value | 0.659 | Depositor |
| Minimum map value | -0.362 | Depositor |
| Average map value | -0.000 | Depositor |
| Map value standard deviation | 0.039 | Depositor |
| Recommended contour level | 0.22 | Depositor |
| Map size (Å) | 711.1168, 711.1168, 711.1168 | wwPDB |
| Map dimensions | 512, 512, 512 | wwPDB |
| Map angles (°) | 90.0, 90.0, 90.0 | wwPDB |
| Pixel spacing (Å) | 1.3889, 1.3889, 1.3889 | Depositor |

5 Model quality [i](#)

5.1 Standard geometry [i](#)

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

| Mol | Chain | Bond lengths | | Bond angles | |
|-----|-------|--------------|-------------|-------------|---------------|
| | | RMSZ | $\# Z > 5$ | RMSZ | $\# Z > 5$ |
| 1 | A | 0.20 | 0/1438 | 0.39 | 0/1945 |
| 1 | B | 0.19 | 0/1438 | 0.39 | 0/1945 |
| 1 | C | 0.20 | 0/1438 | 0.40 | 0/1945 |
| 1 | D | 0.20 | 0/1438 | 0.39 | 0/1945 |
| 1 | E | 0.19 | 0/1438 | 0.39 | 0/1945 |
| 1 | F | 0.20 | 0/1438 | 0.41 | 0/1945 |
| 2 | G | 0.20 | 0/1226 | 0.42 | 0/1673 |
| 2 | H | 0.20 | 0/1226 | 0.43 | 0/1673 |
| 2 | I | 0.20 | 0/1226 | 0.44 | 0/1673 |
| 2 | J | 0.20 | 0/1226 | 0.43 | 0/1673 |
| 2 | K | 0.20 | 0/1226 | 0.43 | 0/1673 |
| 2 | L | 0.20 | 0/1226 | 0.44 | 0/1673 |
| 3 | M | 0.22 | 0/907 | 0.59 | 0/1237 |
| 3 | N | 0.24 | 0/907 | 0.59 | 0/1237 |
| 3 | O | 0.22 | 0/907 | 0.60 | 0/1237 |
| 3 | P | 0.25 | 0/907 | 0.59 | 0/1237 |
| 3 | Q | 0.24 | 0/907 | 0.59 | 0/1237 |
| 3 | R | 0.22 | 0/907 | 0.60 | 0/1237 |
| 4 | S | 0.22 | 0/964 | 0.55 | 0/1305 |
| 4 | T | 0.22 | 0/964 | 0.53 | 0/1305 |
| 4 | U | 0.21 | 0/964 | 0.50 | 0/1305 |
| 4 | V | 0.23 | 0/964 | 0.56 | 0/1305 |
| 4 | W | 0.22 | 0/964 | 0.55 | 0/1305 |
| 4 | X | 0.21 | 0/964 | 0.51 | 0/1305 |
| 5 | 0 | 0.16 | 0/3864 | 0.35 | 0/5250 |
| 5 | 1 | 0.17 | 0/3864 | 0.38 | 2/5250 (0.0%) |
| 5 | 2 | 0.16 | 0/3864 | 0.35 | 0/5250 |
| 5 | 3 | 0.16 | 0/3864 | 0.35 | 0/5250 |
| 5 | 4 | 0.17 | 0/3864 | 0.35 | 0/5250 |
| 5 | 5 | 0.17 | 0/3864 | 0.35 | 0/5250 |
| 5 | 6 | 0.18 | 0/3864 | 0.36 | 0/5250 |
| 5 | 7 | 0.17 | 0/3864 | 0.35 | 0/5250 |
| 5 | 8 | 0.17 | 0/3864 | 0.35 | 0/5250 |
| 5 | 9 | 0.17 | 0/3864 | 0.36 | 0/5250 |

| Mol | Chain | Bond lengths | | Bond angles | |
|-----|-------|--------------|---------|-------------|---------------|
| | | RMSZ | # Z >5 | RMSZ | # Z >5 |
| 5 | Y | 0.17 | 0/3864 | 0.35 | 0/5250 |
| 5 | Z | 0.16 | 0/3864 | 0.34 | 0/5250 |
| 6 | a | 0.17 | 0/1688 | 0.41 | 0/2286 |
| 6 | b | 0.16 | 0/1688 | 0.39 | 0/2286 |
| 6 | c | 0.16 | 0/1688 | 0.41 | 0/2286 |
| 6 | d | 0.17 | 0/1688 | 0.41 | 0/2286 |
| 6 | e | 0.17 | 0/1688 | 0.40 | 0/2286 |
| 6 | f | 0.16 | 0/1688 | 0.39 | 0/2286 |
| 7 | AA | 0.19 | 0/4077 | 0.41 | 0/5549 |
| 7 | BA | 0.19 | 0/4077 | 0.42 | 0/5549 |
| 7 | CA | 0.19 | 0/4077 | 0.42 | 0/5549 |
| 7 | DA | 0.19 | 0/4077 | 0.41 | 0/5549 |
| 7 | EA | 0.19 | 0/4077 | 0.42 | 0/5549 |
| 7 | FA | 0.19 | 0/4077 | 0.42 | 0/5549 |
| 7 | GA | 0.18 | 0/4077 | 0.40 | 2/5549 (0.0%) |
| 7 | HA | 0.18 | 0/4077 | 0.40 | 2/5549 (0.0%) |
| 7 | IA | 0.18 | 0/4077 | 0.41 | 2/5549 (0.0%) |
| 7 | JA | 0.17 | 0/4077 | 0.39 | 2/5549 (0.0%) |
| 7 | KA | 0.17 | 0/4077 | 0.39 | 2/5549 (0.0%) |
| 7 | LA | 0.18 | 0/4077 | 0.41 | 2/5549 (0.0%) |
| 7 | MA | 0.18 | 0/4077 | 0.39 | 1/5549 (0.0%) |
| 7 | NA | 0.18 | 0/4077 | 0.39 | 1/5549 (0.0%) |
| 7 | OA | 0.18 | 0/4077 | 0.38 | 1/5549 (0.0%) |
| 7 | PA | 0.18 | 0/4077 | 0.39 | 1/5549 (0.0%) |
| 7 | QA | 0.18 | 0/4077 | 0.38 | 1/5549 (0.0%) |
| 7 | RA | 0.18 | 0/4077 | 0.38 | 1/5549 (0.0%) |
| 7 | g | 0.17 | 0/4077 | 0.35 | 0/5549 |
| 7 | h | 0.17 | 0/4077 | 0.35 | 0/5549 |
| 7 | i | 0.17 | 0/4077 | 0.34 | 0/5549 |
| 7 | j | 0.17 | 0/4077 | 0.35 | 0/5549 |
| 7 | k | 0.17 | 0/4077 | 0.35 | 0/5549 |
| 7 | l | 0.17 | 0/4077 | 0.35 | 0/5549 |
| 7 | m | 0.19 | 0/4077 | 0.40 | 0/5549 |
| 7 | n | 0.20 | 0/4077 | 0.42 | 0/5549 |
| 7 | o | 0.19 | 0/4077 | 0.38 | 0/5549 |
| 7 | p | 0.19 | 0/4077 | 0.40 | 0/5549 |
| 7 | q | 0.19 | 0/4077 | 0.40 | 0/5549 |
| 7 | r | 0.18 | 0/4077 | 0.38 | 0/5549 |
| 8 | AB | 0.20 | 0/1335 | 0.41 | 0/1806 |
| 8 | BB | 0.20 | 0/1335 | 0.41 | 0/1806 |
| 8 | CB | 0.20 | 0/1335 | 0.40 | 0/1806 |
| 8 | DB | 0.21 | 0/1335 | 0.41 | 0/1806 |
| 8 | EB | 0.20 | 0/1335 | 0.43 | 0/1806 |

| Mol | Chain | Bond lengths | | Bond angles | |
|-----|-------|--------------|-------------|-------------|------------------|
| | | RMSZ | $\# Z > 5$ | RMSZ | $\# Z > 5$ |
| 8 | FB | 0.21 | 0/1335 | 0.42 | 0/1806 |
| 8 | GB | 0.22 | 0/1335 | 0.51 | 0/1806 |
| 8 | HB | 0.20 | 0/1335 | 0.47 | 0/1806 |
| 8 | IB | 0.20 | 0/1335 | 0.47 | 0/1806 |
| 8 | JB | 0.20 | 0/1335 | 0.49 | 0/1806 |
| 8 | KB | 0.20 | 0/1335 | 0.49 | 0/1806 |
| 8 | LB | 0.23 | 0/1335 | 0.51 | 0/1806 |
| 8 | MB | 0.19 | 0/1335 | 0.46 | 0/1806 |
| 8 | NB | 0.20 | 0/1335 | 0.46 | 0/1806 |
| 8 | OB | 0.21 | 0/1335 | 0.46 | 0/1806 |
| 8 | PB | 0.20 | 0/1335 | 0.48 | 0/1806 |
| 8 | QB | 0.21 | 0/1335 | 0.49 | 0/1806 |
| 8 | RB | 0.19 | 0/1335 | 0.45 | 0/1806 |
| All | All | 0.18 | 0/230046 | 0.40 | 20/312654 (0.0%) |

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

| Mol | Chain | #Chirality outliers | #Planarity outliers |
|-----|-------|---------------------|---------------------|
| 1 | A | 0 | 1 |
| 1 | C | 0 | 1 |
| 1 | D | 0 | 1 |
| 1 | F | 0 | 1 |
| All | All | 0 | 4 |

There are no bond length outliers.

All (20) bond angle outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 7 | PA | 455 | PRO | CA-N-CD | -5.63 | 104.12 | 112.00 |
| 7 | MA | 455 | PRO | CA-N-CD | -5.62 | 104.13 | 112.00 |
| 7 | NA | 455 | PRO | CA-N-CD | -5.59 | 104.17 | 112.00 |
| 7 | QA | 455 | PRO | CA-N-CD | -5.58 | 104.18 | 112.00 |
| 7 | OA | 455 | PRO | CA-N-CD | -5.55 | 104.23 | 112.00 |
| 7 | RA | 455 | PRO | CA-N-CD | -5.54 | 104.24 | 112.00 |
| 7 | IA | 436 | LEU | CA-C-N | -5.47 | 111.57 | 121.14 |
| 7 | IA | 436 | LEU | C-N-CA | -5.47 | 111.57 | 121.14 |
| 7 | KA | 436 | LEU | CA-C-N | -5.44 | 111.61 | 121.14 |
| 7 | KA | 436 | LEU | C-N-CA | -5.44 | 111.61 | 121.14 |
| 7 | HA | 436 | LEU | CA-C-N | -5.42 | 111.66 | 121.14 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|--------|-------|-------------|----------|
| 7 | HA | 436 | LEU | C-N-CA | -5.42 | 111.66 | 121.14 |
| 7 | LA | 436 | LEU | CA-C-N | -5.41 | 111.67 | 121.14 |
| 7 | LA | 436 | LEU | C-N-CA | -5.41 | 111.67 | 121.14 |
| 7 | GA | 436 | LEU | CA-C-N | -5.32 | 111.84 | 121.14 |
| 7 | GA | 436 | LEU | C-N-CA | -5.32 | 111.84 | 121.14 |
| 5 | 1 | 15 | PHE | CA-C-N | -5.29 | 111.69 | 120.68 |
| 5 | 1 | 15 | PHE | C-N-CA | -5.29 | 111.69 | 120.68 |
| 7 | JA | 436 | LEU | CA-C-N | -5.28 | 111.90 | 121.14 |
| 7 | JA | 436 | LEU | C-N-CA | -5.28 | 111.90 | 121.14 |

There are no chirality outliers.

All (4) planarity outliers are listed below:

| Mol | Chain | Res | Type | Group |
|-----|-------|-----|------|---------|
| 1 | A | 89 | THR | Peptide |
| 1 | C | 89 | THR | Peptide |
| 1 | D | 89 | THR | Peptide |
| 1 | F | 89 | THR | Peptide |

5.2 Too-close contacts

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

| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 1 | A | 1409 | 0 | 1389 | 97 | 0 |
| 1 | B | 1409 | 0 | 1389 | 106 | 0 |
| 1 | C | 1409 | 0 | 1389 | 107 | 0 |
| 1 | D | 1409 | 0 | 1389 | 103 | 0 |
| 1 | E | 1409 | 0 | 1389 | 99 | 0 |
| 1 | F | 1409 | 0 | 1389 | 105 | 0 |
| 2 | G | 1202 | 0 | 1186 | 84 | 0 |
| 2 | H | 1202 | 0 | 1186 | 79 | 0 |
| 2 | I | 1202 | 0 | 1186 | 77 | 0 |
| 2 | J | 1202 | 0 | 1186 | 80 | 0 |
| 2 | K | 1202 | 0 | 1186 | 83 | 0 |
| 2 | L | 1202 | 0 | 1186 | 76 | 0 |
| 3 | M | 888 | 0 | 884 | 97 | 0 |
| 3 | N | 888 | 0 | 884 | 99 | 0 |

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| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|-------|----------|----------|---------|--------------|
| 3 | O | 888 | 0 | 884 | 98 | 0 |
| 3 | P | 888 | 0 | 884 | 97 | 0 |
| 3 | Q | 888 | 0 | 884 | 99 | 0 |
| 3 | R | 888 | 0 | 884 | 98 | 0 |
| 4 | S | 944 | 0 | 949 | 87 | 0 |
| 4 | T | 944 | 0 | 949 | 93 | 0 |
| 4 | U | 944 | 0 | 949 | 94 | 0 |
| 4 | V | 944 | 0 | 949 | 95 | 0 |
| 4 | W | 944 | 0 | 949 | 88 | 0 |
| 4 | X | 944 | 0 | 949 | 93 | 0 |
| 5 | 0 | 3780 | 0 | 3720 | 180 | 0 |
| 5 | 1 | 3780 | 0 | 3720 | 178 | 0 |
| 5 | 2 | 3780 | 0 | 3720 | 180 | 0 |
| 5 | 3 | 3780 | 0 | 3720 | 181 | 0 |
| 5 | 4 | 3780 | 0 | 3720 | 210 | 0 |
| 5 | 5 | 3780 | 0 | 3720 | 210 | 0 |
| 5 | 6 | 3780 | 0 | 3720 | 218 | 0 |
| 5 | 7 | 3780 | 0 | 3720 | 213 | 0 |
| 5 | 8 | 3780 | 0 | 3720 | 214 | 0 |
| 5 | 9 | 3780 | 0 | 3720 | 218 | 0 |
| 5 | Y | 3780 | 0 | 3720 | 187 | 0 |
| 5 | Z | 3780 | 0 | 3720 | 176 | 0 |
| 6 | a | 1652 | 0 | 1661 | 103 | 0 |
| 6 | b | 1652 | 0 | 1661 | 93 | 0 |
| 6 | c | 1652 | 0 | 1661 | 97 | 0 |
| 6 | d | 1652 | 0 | 1661 | 99 | 0 |
| 6 | e | 1652 | 0 | 1661 | 100 | 0 |
| 6 | f | 1652 | 0 | 1661 | 96 | 0 |
| 7 | AA | 3995 | 0 | 3951 | 252 | 0 |
| 7 | BA | 3995 | 0 | 3951 | 249 | 0 |
| 7 | CA | 3995 | 0 | 3951 | 262 | 0 |
| 7 | DA | 3995 | 0 | 3951 | 255 | 0 |
| 7 | EA | 3995 | 0 | 3951 | 247 | 0 |
| 7 | FA | 3995 | 0 | 3951 | 262 | 0 |
| 7 | GA | 3995 | 0 | 3951 | 228 | 0 |
| 7 | HA | 3995 | 0 | 3951 | 224 | 0 |
| 7 | IA | 3995 | 0 | 3951 | 229 | 0 |
| 7 | JA | 3995 | 0 | 3951 | 226 | 0 |
| 7 | KA | 3995 | 0 | 3951 | 224 | 0 |
| 7 | LA | 3995 | 0 | 3951 | 230 | 0 |
| 7 | MA | 3995 | 0 | 3951 | 218 | 0 |
| 7 | NA | 3995 | 0 | 3951 | 224 | 0 |

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| Mol | Chain | Non-H | H(model) | H(added) | Clashes | Symm-Clashes |
|-----|-------|--------|----------|----------|---------|--------------|
| 7 | OA | 3995 | 0 | 3951 | 219 | 0 |
| 7 | PA | 3995 | 0 | 3951 | 218 | 0 |
| 7 | QA | 3995 | 0 | 3951 | 222 | 0 |
| 7 | RA | 3995 | 0 | 3951 | 219 | 0 |
| 7 | g | 3995 | 0 | 3951 | 275 | 0 |
| 7 | h | 3995 | 0 | 3951 | 273 | 0 |
| 7 | i | 3995 | 0 | 3951 | 274 | 0 |
| 7 | j | 3995 | 0 | 3951 | 266 | 0 |
| 7 | k | 3995 | 0 | 3951 | 267 | 0 |
| 7 | l | 3995 | 0 | 3951 | 270 | 0 |
| 7 | m | 3995 | 0 | 3951 | 238 | 0 |
| 7 | n | 3995 | 0 | 3951 | 247 | 0 |
| 7 | o | 3995 | 0 | 3951 | 249 | 0 |
| 7 | p | 3995 | 0 | 3951 | 241 | 0 |
| 7 | q | 3995 | 0 | 3951 | 239 | 0 |
| 7 | r | 3995 | 0 | 3951 | 246 | 0 |
| 8 | AB | 1313 | 0 | 1286 | 110 | 0 |
| 8 | BB | 1313 | 0 | 1286 | 114 | 0 |
| 8 | CB | 1313 | 0 | 1286 | 111 | 0 |
| 8 | DB | 1313 | 0 | 1286 | 122 | 0 |
| 8 | EB | 1313 | 0 | 1286 | 118 | 0 |
| 8 | FB | 1313 | 0 | 1286 | 115 | 0 |
| 8 | GB | 1313 | 0 | 1286 | 151 | 0 |
| 8 | HB | 1313 | 0 | 1286 | 145 | 0 |
| 8 | IB | 1313 | 0 | 1286 | 149 | 0 |
| 8 | JB | 1313 | 0 | 1286 | 153 | 0 |
| 8 | KB | 1313 | 0 | 1286 | 150 | 0 |
| 8 | LB | 1313 | 0 | 1286 | 154 | 0 |
| 8 | MB | 1313 | 0 | 1286 | 143 | 0 |
| 8 | NB | 1313 | 0 | 1286 | 137 | 0 |
| 8 | OB | 1313 | 0 | 1286 | 139 | 0 |
| 8 | PB | 1313 | 0 | 1286 | 142 | 0 |
| 8 | QB | 1313 | 0 | 1286 | 129 | 0 |
| 8 | RB | 1313 | 0 | 1286 | 134 | 0 |
| All | All | 225414 | 0 | 222732 | 12747 | 0 |

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 28.

All (12747) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 8:FB:48:THR:HB | 8:FB:84:GLN:HB3 | 1.48 | 0.96 |
| 8:EB:48:THR:HB | 8:EB:84:GLN:HB3 | 1.48 | 0.95 |
| 8:BB:48:THR:HB | 8:BB:84:GLN:HB3 | 1.48 | 0.95 |
| 8:CB:48:THR:HB | 8:CB:84:GLN:HB3 | 1.48 | 0.94 |
| 8:DB:48:THR:HB | 8:DB:84:GLN:HB3 | 1.48 | 0.94 |
| 8:AB:48:THR:HB | 8:AB:84:GLN:HB3 | 1.48 | 0.94 |
| 8:NB:115:PRO:HG2 | 8:NB:118:LYS:HG2 | 1.51 | 0.92 |
| 8:OB:115:PRO:HG2 | 8:OB:118:LYS:HG2 | 1.49 | 0.92 |
| 8:RB:115:PRO:HG2 | 8:RB:118:LYS:HG2 | 1.50 | 0.92 |
| 8:PB:50:GLN:HB3 | 8:PB:81:ILE:HG23 | 1.53 | 0.91 |
| 8:NB:50:GLN:HB3 | 8:NB:81:ILE:HG23 | 1.53 | 0.91 |
| 8:MB:50:GLN:HB3 | 8:MB:81:ILE:HG23 | 1.53 | 0.91 |
| 7:p:433:VAL:HG12 | 7:p:437:MET:HE1 | 1.54 | 0.90 |
| 7:m:433:VAL:HG12 | 7:m:437:MET:HE1 | 1.54 | 0.89 |
| 7:n:433:VAL:HG12 | 7:n:437:MET:HE1 | 1.54 | 0.89 |
| 8:AB:16:ARG:NH2 | 8:GB:64:PRO:O | 2.05 | 0.89 |
| 7:q:433:VAL:HG12 | 7:q:437:MET:HE1 | 1.54 | 0.89 |
| 8:QB:115:PRO:HG2 | 8:QB:118:LYS:HG2 | 1.52 | 0.89 |
| 2:K:44:GLN:HG3 | 2:K:84:TRP:HE1 | 1.39 | 0.88 |
| 2:G:44:GLN:HG3 | 2:G:84:TRP:HE1 | 1.39 | 0.88 |
| 2:L:44:GLN:HG3 | 2:L:84:TRP:HE1 | 1.39 | 0.88 |
| 8:BB:16:ARG:NH2 | 8:HB:64:PRO:O | 2.06 | 0.88 |
| 2:H:44:GLN:HG3 | 2:H:84:TRP:HE1 | 1.39 | 0.87 |
| 4:U:45:ASP:OD1 | 5:5:27:LYS:NZ | 2.08 | 0.87 |
| 8:EB:16:ARG:NH2 | 8:KB:64:PRO:O | 2.06 | 0.87 |
| 4:V:117:GLN:HE21 | 5:1:160:LYS:HE2 | 1.40 | 0.87 |
| 4:V:100:PRO:HG2 | 4:V:105:ILE:HD11 | 1.56 | 0.86 |
| 2:J:44:GLN:HG3 | 2:J:84:TRP:HE1 | 1.39 | 0.86 |
| 7:DA:289:ARG:HH22 | 7:KA:2:SER:HB3 | 1.41 | 0.86 |
| 7:AA:289:ARG:HH22 | 7:HA:2:SER:HB3 | 1.41 | 0.86 |
| 7:EA:289:ARG:HH22 | 7:LA:2:SER:HB3 | 1.41 | 0.86 |
| 7:k:352:ALA:HB1 | 7:k:375:ARG:HB3 | 1.58 | 0.85 |
| 7:FA:289:ARG:HH22 | 7:GA:2:SER:HB3 | 1.41 | 0.85 |
| 7:MA:500:GLN:NE2 | 7:MA:504:ASP:O | 2.10 | 0.85 |
| 7:PA:500:GLN:NE2 | 7:PA:504:ASP:O | 2.10 | 0.85 |
| 7:RA:500:GLN:NE2 | 7:RA:504:ASP:O | 2.10 | 0.85 |
| 2:I:44:GLN:HG3 | 2:I:84:TRP:HE1 | 1.39 | 0.85 |
| 7:i:426:ASN:O | 7:i:429:HIS:ND1 | 2.09 | 0.84 |
| 7:BA:289:ARG:HH22 | 7:IA:2:SER:HB3 | 1.41 | 0.84 |
| 7:CA:289:ARG:HH22 | 7:JA:2:SER:HB3 | 1.41 | 0.84 |
| 7:EA:434:PRO:HA | 7:EA:437:MET:SD | 2.17 | 0.84 |
| 7:FA:434:PRO:HA | 7:FA:437:MET:SD | 2.18 | 0.84 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 7:h:426:ASN:O | 7:h:429:HIS:ND1 | 2.09 | 0.84 |
| 7:k:426:ASN:O | 7:k:429:HIS:ND1 | 2.09 | 0.84 |
| 7:l:426:ASN:O | 7:l:429:HIS:ND1 | 2.10 | 0.84 |
| 7:BA:434:PRO:HA | 7:BA:437:MET:SD | 2.17 | 0.84 |
| 7:OA:500:GLN:NE2 | 7:OA:504:ASP:O | 2.10 | 0.84 |
| 1:C:159:THR:HG22 | 1:C:161:GLY:H | 1.42 | 0.84 |
| 7:NA:502:GLU:HG2 | 7:NA:504:ASP:H | 1.42 | 0.84 |
| 7:g:426:ASN:O | 7:g:429:HIS:ND1 | 2.11 | 0.84 |
| 7:BA:469:LYS:HB3 | 7:BA:473:ARG:HH12 | 1.42 | 0.84 |
| 7:QA:500:GLN:NE2 | 7:QA:504:ASP:O | 2.10 | 0.84 |
| 2:H:25:ASN:ND2 | 2:H:118:MET:SD | 2.51 | 0.84 |
| 7:g:504:ASP:OD2 | 7:m:519:ARG:NH1 | 2.10 | 0.84 |
| 2:K:25:ASN:ND2 | 2:K:118:MET:SD | 2.51 | 0.83 |
| 7:MA:502:GLU:HG2 | 7:MA:504:ASP:H | 1.42 | 0.83 |
| 1:A:159:THR:HG22 | 1:A:161:GLY:H | 1.42 | 0.83 |
| 7:CA:434:PRO:HA | 7:CA:437:MET:SD | 2.17 | 0.83 |
| 7:CA:469:LYS:HB3 | 7:CA:473:ARG:HH12 | 1.42 | 0.83 |
| 8:RB:137:CYS:HB3 | 8:RB:161:ILE:HD11 | 1.61 | 0.83 |
| 3:M:19:LYS:HE2 | 5:4:27:LYS:HB2 | 1.61 | 0.83 |
| 7:KA:44:PHE:HB2 | 7:KA:95:ARG:HD2 | 1.61 | 0.83 |
| 8:OB:137:CYS:HB3 | 8:OB:161:ILE:HD11 | 1.61 | 0.83 |
| 2:I:25:ASN:ND2 | 2:I:118:MET:SD | 2.52 | 0.83 |
| 3:N:19:LYS:NZ | 5:5:23:SER:O | 2.11 | 0.83 |
| 7:m:426:ASN:O | 7:m:429:HIS:ND1 | 2.11 | 0.83 |
| 7:GA:44:PHE:HB2 | 7:GA:95:ARG:HD2 | 1.60 | 0.83 |
| 7:LA:44:PHE:HB2 | 7:LA:95:ARG:HD2 | 1.61 | 0.83 |
| 3:R:19:LYS:NZ | 5:9:23:SER:O | 2.11 | 0.83 |
| 7:NA:500:GLN:NE2 | 7:NA:504:ASP:O | 2.10 | 0.83 |
| 8:AB:134:MET:HE2 | 8:AB:163:TYR:HB2 | 1.60 | 0.83 |
| 7:p:426:ASN:O | 7:p:429:HIS:ND1 | 2.11 | 0.83 |
| 8:IB:32:PHE:HB2 | 8:IB:111:MET:HE1 | 1.61 | 0.83 |
| 1:F:159:THR:HG22 | 1:F:161:GLY:H | 1.42 | 0.83 |
| 1:D:159:THR:HG22 | 1:D:161:GLY:H | 1.43 | 0.83 |
| 3:O:19:LYS:NZ | 5:6:23:SER:O | 2.10 | 0.83 |
| 7:JA:44:PHE:HB2 | 7:JA:95:ARG:HD2 | 1.60 | 0.83 |
| 8:HB:16:ARG:NH1 | 8:NB:65:ASN:O | 2.11 | 0.83 |
| 8:MB:137:CYS:HB3 | 8:MB:161:ILE:HD11 | 1.60 | 0.83 |
| 2:L:25:ASN:ND2 | 2:L:118:MET:SD | 2.52 | 0.83 |
| 7:PA:502:GLU:HG2 | 7:PA:504:ASP:H | 1.42 | 0.82 |
| 8:DB:134:MET:HE2 | 8:DB:163:TYR:HB2 | 1.60 | 0.82 |
| 8:FB:134:MET:HE2 | 8:FB:163:TYR:HB2 | 1.60 | 0.82 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 8:PB:168:TRP:CZ3 | 8:QB:98:LYS:HD2 | 2.14 | 0.82 |
| 7:EA:469:LYS:HB3 | 7:EA:473:ARG:HH12 | 1.42 | 0.82 |
| 7:OA:502:GLU:HG2 | 7:OA:504:ASP:H | 1.42 | 0.82 |
| 8:MB:115:PRO:HG2 | 8:MB:118:LYS:HG2 | 1.61 | 0.82 |
| 8:PB:137:CYS:HB3 | 8:PB:161:ILE:HD11 | 1.60 | 0.82 |
| 2:J:25:ASN:ND2 | 2:J:118:MET:SD | 2.52 | 0.82 |
| 4:S:100:PRO:HG2 | 4:S:105:ILE:HD11 | 1.60 | 0.82 |
| 2:G:25:ASN:ND2 | 2:G:118:MET:SD | 2.52 | 0.82 |
| 5:3:160:LYS:NZ | 5:3:207:GLN:OE1 | 2.12 | 0.82 |
| 7:h:504:ASP:OD2 | 7:n:519:ARG:NH1 | 2.12 | 0.82 |
| 7:k:504:ASP:OD2 | 7:q:519:ARG:NH1 | 2.12 | 0.82 |
| 2:L:180:SER:HG | 2:L:183:TYR:HH | 1.28 | 0.82 |
| 8:IB:14:LYS:HE3 | 8:PB:165:TRP:HZ2 | 1.44 | 0.82 |
| 1:E:159:THR:HG22 | 1:E:161:GLY:H | 1.43 | 0.82 |
| 3:Q:19:LYS:NZ | 5:8:23:SER:O | 2.11 | 0.82 |
| 7:l:255:VAL:HG13 | 7:l:285:ILE:HD11 | 1.62 | 0.82 |
| 3:N:13:LEU:HD23 | 3:N:14:GLU:HG2 | 1.62 | 0.82 |
| 8:NB:168:TRP:CZ3 | 8:OB:98:LYS:HD2 | 2.15 | 0.82 |
| 7:i:255:VAL:HG13 | 7:i:285:ILE:HD11 | 1.62 | 0.82 |
| 7:QA:502:GLU:HG2 | 7:QA:504:ASP:H | 1.42 | 0.82 |
| 7:RA:502:GLU:HG2 | 7:RA:504:ASP:H | 1.42 | 0.82 |
| 8:AB:26:ARG:NH1 | 8:BB:87:GLU:O | 2.13 | 0.82 |
| 7:j:426:ASN:O | 7:j:429:HIS:ND1 | 2.11 | 0.82 |
| 7:o:426:ASN:O | 7:o:429:HIS:ND1 | 2.12 | 0.82 |
| 8:NB:137:CYS:HB3 | 8:NB:161:ILE:HD11 | 1.60 | 0.82 |
| 3:P:19:LYS:NZ | 5:7:23:SER:O | 2.12 | 0.81 |
| 7:j:255:VAL:HG13 | 7:j:285:ILE:HD11 | 1.62 | 0.81 |
| 8:BB:134:MET:HE2 | 8:BB:163:TYR:HB2 | 1.61 | 0.81 |
| 8:OB:168:TRP:CZ3 | 8:PB:98:LYS:HD2 | 2.15 | 0.81 |
| 8:QB:137:CYS:HB3 | 8:QB:161:ILE:HD11 | 1.60 | 0.81 |
| 1:B:159:THR:HG22 | 1:B:161:GLY:H | 1.43 | 0.81 |
| 4:T:100:PRO:HG2 | 4:T:105:ILE:HD11 | 1.61 | 0.81 |
| 4:U:100:PRO:HG2 | 4:U:105:ILE:HD11 | 1.60 | 0.81 |
| 4:W:100:PRO:HG2 | 4:W:105:ILE:HD11 | 1.60 | 0.81 |
| 4:X:100:PRO:HG2 | 4:X:105:ILE:HD11 | 1.60 | 0.81 |
| 7:k:255:VAL:HG13 | 7:k:285:ILE:HD11 | 1.62 | 0.81 |
| 7:FA:469:LYS:HB3 | 7:FA:473:ARG:HH12 | 1.45 | 0.81 |
| 7:HA:452:LYS:HD3 | 7:HA:453:HIS:HB3 | 1.63 | 0.81 |
| 7:JA:472:ASP:HB3 | 8:IB:18:THR:HG21 | 1.62 | 0.81 |
| 8:GB:16:ARG:NH2 | 8:MB:64:PRO:O | 2.13 | 0.81 |
| 8:LB:14:LYS:HE3 | 8:MB:165:TRP:HZ2 | 1.43 | 0.81 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:D:121:ASN:HD22 | 1:D:125:THR:HG22 | 1.44 | 0.81 |
| 7:g:255:VAL:HG13 | 7:g:285:ILE:HD11 | 1.62 | 0.81 |
| 8:EB:134:MET:HE2 | 8:EB:163:TYR:HB2 | 1.60 | 0.81 |
| 7:h:255:VAL:HG13 | 7:h:285:ILE:HD11 | 1.62 | 0.81 |
| 7:BA:369:SER:O | 7:BA:375:ARG:NH1 | 2.12 | 0.81 |
| 1:B:85:ILE:HD12 | 1:C:184:SER:HB2 | 1.62 | 0.81 |
| 7:j:504:ASP:OD2 | 7:p:519:ARG:NH1 | 2.13 | 0.81 |
| 7:HA:44:PHE:HB2 | 7:HA:95:ARG:HD2 | 1.60 | 0.81 |
| 7:QA:433:VAL:HG12 | 7:QA:437:MET:HE1 | 1.61 | 0.81 |
| 5:2:160:LYS:NZ | 5:2:207:GLN:OE1 | 2.12 | 0.81 |
| 5:4:240:LEU:HB2 | 5:4:267:ILE:HB | 1.63 | 0.81 |
| 7:DA:469:LYS:HB3 | 7:DA:473:ARG:HH12 | 1.45 | 0.81 |
| 7:GA:472:ASP:HB3 | 8:LB:18:THR:HG21 | 1.62 | 0.81 |
| 7:KA:472:ASP:HB3 | 8:JB:18:THR:HG21 | 1.62 | 0.81 |
| 8:BB:26:ARG:NH1 | 8:CB:87:GLU:O | 2.13 | 0.81 |
| 8:GB:14:LYS:HE3 | 8:NB:165:TRP:HZ2 | 1.46 | 0.81 |
| 7:IA:44:PHE:HB2 | 7:IA:95:ARG:HD2 | 1.61 | 0.81 |
| 7:JA:452:LYS:HD3 | 7:JA:453:HIS:HB3 | 1.63 | 0.81 |
| 7:KA:452:LYS:HD3 | 7:KA:453:HIS:HB3 | 1.63 | 0.81 |
| 8:LB:16:ARG:NH2 | 8:RB:64:PRO:O | 2.14 | 0.81 |
| 5:5:240:LEU:HB2 | 5:5:267:ILE:HB | 1.63 | 0.80 |
| 5:8:240:LEU:HB2 | 5:8:267:ILE:HB | 1.63 | 0.80 |
| 7:i:504:ASP:OD2 | 7:o:519:ARG:NH1 | 2.12 | 0.80 |
| 7:l:504:ASP:OD2 | 7:r:519:ARG:NH1 | 2.12 | 0.80 |
| 8:CB:134:MET:HE2 | 8:CB:163:TYR:HB2 | 1.60 | 0.80 |
| 8:JB:14:LYS:HE3 | 8:QB:165:TRP:HZ2 | 1.46 | 0.80 |
| 8:JB:16:ARG:NH2 | 8:PB:64:PRO:O | 2.13 | 0.80 |
| 3:Q:13:LEU:HD23 | 3:Q:14:GLU:HG2 | 1.61 | 0.80 |
| 7:HA:472:ASP:HB3 | 8:GB:18:THR:HG21 | 1.62 | 0.80 |
| 8:PB:115:PRO:HG2 | 8:PB:118:LYS:HG2 | 1.61 | 0.80 |
| 2:G:1:MET:HG2 | 7:g:374:GLU:HB3 | 1.64 | 0.80 |
| 5:5:386:ARG:HG2 | 5:5:473:SER:HB2 | 1.64 | 0.80 |
| 7:EA:369:SER:O | 7:EA:375:ARG:NH1 | 2.12 | 0.80 |
| 7:NA:433:VAL:HG12 | 7:NA:437:MET:HE1 | 1.61 | 0.80 |
| 8:KB:16:ARG:NH1 | 8:QB:65:ASN:O | 2.13 | 0.80 |
| 1:E:121:ASN:HD22 | 1:E:125:THR:HG22 | 1.44 | 0.80 |
| 3:P:13:LEU:HD23 | 3:P:14:GLU:HG2 | 1.63 | 0.80 |
| 5:6:386:ARG:HG2 | 5:6:473:SER:HB2 | 1.64 | 0.80 |
| 7:AA:469:LYS:HB3 | 7:AA:473:ARG:HH12 | 1.46 | 0.80 |
| 8:IB:16:ARG:NH2 | 8:OB:64:PRO:O | 2.14 | 0.80 |
| 8:EB:26:ARG:NH1 | 8:FB:87:GLU:O | 2.13 | 0.80 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 3:O:13:LEU:HD23 | 3:O:14:GLU:HG2 | 1.63 | 0.80 |
| 5:7:240:LEU:HB2 | 5:7:267:ILE:HB | 1.63 | 0.80 |
| 7:q:426:ASN:O | 7:q:429:HIS:ND1 | 2.12 | 0.80 |
| 4:U:50:ILE:HG23 | 4:U:96:LYS:HE2 | 1.63 | 0.79 |
| 5:1:160:LYS:NZ | 5:1:207:GLN:OE1 | 2.14 | 0.79 |
| 5:6:240:LEU:HB2 | 5:6:267:ILE:HB | 1.64 | 0.79 |
| 7:m:505:LYS:HE2 | 7:AA:522:GLN:HE22 | 1.45 | 0.79 |
| 7:n:504:ASP:HB3 | 7:BA:519:ARG:HG2 | 1.64 | 0.79 |
| 8:KB:16:ARG:NH2 | 8:QB:64:PRO:O | 2.16 | 0.79 |
| 5:4:386:ARG:HG2 | 5:4:473:SER:HB2 | 1.65 | 0.79 |
| 3:P:20:THR:OG1 | 3:P:22:GLU:OE2 | 2.00 | 0.79 |
| 5:8:262:LYS:NZ | 5:8:263:THR:O | 2.16 | 0.79 |
| 5:9:386:ARG:HG2 | 5:9:473:SER:HB2 | 1.65 | 0.79 |
| 1:D:85:ILE:HD12 | 1:E:184:SER:HB2 | 1.64 | 0.79 |
| 8:LB:32:PHE:HB2 | 8:LB:111:MET:HE1 | 1.62 | 0.79 |
| 1:E:85:ILE:HD12 | 1:F:184:SER:HB2 | 1.64 | 0.79 |
| 3:M:19:LYS:NZ | 5:4:23:SER:O | 2.16 | 0.79 |
| 5:9:240:LEU:HB2 | 5:9:267:ILE:HB | 1.64 | 0.79 |
| 7:o:504:ASP:HB3 | 7:CA:519:ARG:HG2 | 1.65 | 0.79 |
| 4:V:50:ILE:HG23 | 4:V:96:LYS:HE2 | 1.65 | 0.79 |
| 4:X:50:ILE:HG23 | 4:X:96:LYS:HE2 | 1.63 | 0.79 |
| 5:9:262:LYS:NZ | 5:9:263:THR:O | 2.16 | 0.79 |
| 5:7:110:LEU:HB2 | 5:7:118:TYR:HB2 | 1.65 | 0.79 |
| 7:i:164:ARG:HG2 | 7:i:187:SER:HB2 | 1.65 | 0.79 |
| 8:DB:26:ARG:NH1 | 8:EB:87:GLU:O | 2.13 | 0.79 |
| 2:H:1:MET:HG2 | 7:h:374:GLU:HB3 | 1.65 | 0.79 |
| 3:Q:20:THR:OG1 | 3:Q:22:GLU:OE2 | 2.01 | 0.79 |
| 3:R:13:LEU:HD23 | 3:R:14:GLU:HG2 | 1.63 | 0.79 |
| 4:S:50:ILE:HG23 | 4:S:96:LYS:HE2 | 1.64 | 0.79 |
| 5:7:262:LYS:NZ | 5:7:263:THR:O | 2.16 | 0.79 |
| 7:LA:472:ASP:HB3 | 8:KB:18:THR:HG21 | 1.64 | 0.79 |
| 6:c:79:MET:O | 6:c:83:GLN:NE2 | 2.16 | 0.79 |
| 7:BA:520:ARG:HG3 | 7:CA:16:VAL:HA | 1.64 | 0.79 |
| 1:A:184:SER:HB2 | 1:F:85:ILE:HD12 | 1.65 | 0.78 |
| 7:g:433:VAL:HG12 | 7:g:437:MET:HE1 | 1.65 | 0.78 |
| 7:n:426:ASN:O | 7:n:429:HIS:ND1 | 2.13 | 0.78 |
| 7:NA:230:LYS:HB3 | 7:NA:233:LEU:HD21 | 1.63 | 0.78 |
| 5:8:386:ARG:HG2 | 5:8:473:SER:HB2 | 1.64 | 0.78 |
| 2:J:1:MET:HG2 | 7:j:374:GLU:HB3 | 1.65 | 0.78 |
| 5:6:262:LYS:NZ | 5:6:263:THR:O | 2.16 | 0.78 |
| 5:7:386:ARG:HG2 | 5:7:473:SER:HB2 | 1.65 | 0.78 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 5:8:110:LEU:HB2 | 5:8:118:TYR:HB2 | 1.65 | 0.78 |
| 7:CA:520:ARG:HG3 | 7:DA:16:VAL:HA | 1.63 | 0.78 |
| 5:4:262:LYS:NZ | 5:4:263:THR:O | 2.16 | 0.78 |
| 7:h:164:ARG:HG2 | 7:h:187:SER:HB2 | 1.65 | 0.78 |
| 7:h:352:ALA:HB1 | 7:h:375:ARG:HB3 | 1.65 | 0.78 |
| 7:OA:433:VAL:HG12 | 7:OA:437:MET:HE1 | 1.65 | 0.78 |
| 7:QA:230:LYS:HB3 | 7:QA:233:LEU:HD21 | 1.63 | 0.78 |
| 8:QB:50:GLN:HB3 | 8:QB:81:ILE:HG23 | 1.66 | 0.78 |
| 2:L:1:MET:HG2 | 7:l:374:GLU:HB3 | 1.66 | 0.78 |
| 5:6:110:LEU:HB2 | 5:6:118:TYR:HB2 | 1.65 | 0.78 |
| 7:i:190:GLU:O | 7:o:69:LYS:NZ | 2.17 | 0.78 |
| 7:k:374:GLU:HG2 | 7:k:375:ARG:HG3 | 1.64 | 0.78 |
| 7:AA:449:ARG:NH1 | 7:GA:407:VAL:O | 2.15 | 0.78 |
| 4:T:50:ILE:HG23 | 4:T:96:LYS:HE2 | 1.64 | 0.78 |
| 7:i:433:VAL:HG12 | 7:i:437:MET:HE1 | 1.65 | 0.78 |
| 7:j:164:ARG:HG2 | 7:j:187:SER:HB2 | 1.65 | 0.78 |
| 7:p:355:ARG:HH21 | 7:p:375:ARG:HA | 1.48 | 0.78 |
| 8:RB:50:GLN:HB3 | 8:RB:81:ILE:HG23 | 1.66 | 0.78 |
| 6:f:79:MET:O | 6:f:83:GLN:NE2 | 2.16 | 0.78 |
| 7:g:352:ALA:HB1 | 7:g:375:ARG:HB3 | 1.65 | 0.78 |
| 5:5:262:LYS:NZ | 5:5:263:THR:O | 2.16 | 0.78 |
| 6:b:79:MET:O | 6:b:83:GLN:NE2 | 2.16 | 0.78 |
| 7:h:514:PRO:HD3 | 7:n:527:LEU:HD11 | 1.64 | 0.78 |
| 7:k:164:ARG:HG2 | 7:k:187:SER:HB2 | 1.65 | 0.78 |
| 1:A:85:ILE:HD12 | 1:B:184:SER:HB2 | 1.66 | 0.78 |
| 1:B:121:ASN:HD22 | 1:B:125:THR:HG22 | 1.48 | 0.78 |
| 3:R:20:THR:OG1 | 3:R:22:GLU:OE2 | 2.01 | 0.77 |
| 7:h:513:CYS:HB2 | 7:n:528:ILE:HD11 | 1.67 | 0.77 |
| 7:r:426:ASN:O | 7:r:429:HIS:ND1 | 2.12 | 0.77 |
| 8:EB:56:ARG:HD3 | 8:EB:73:GLY:H | 1.50 | 0.77 |
| 5:5:110:LEU:HB2 | 5:5:118:TYR:HB2 | 1.65 | 0.77 |
| 7:m:355:ARG:HH21 | 7:m:375:ARG:HA | 1.48 | 0.77 |
| 7:RA:433:VAL:HG12 | 7:RA:437:MET:HE1 | 1.65 | 0.77 |
| 5:0:203:LYS:HB3 | 5:0:207:GLN:HB2 | 1.66 | 0.77 |
| 7:IA:472:ASP:HB3 | 8:HB:18:THR:HG21 | 1.65 | 0.77 |
| 3:O:20:THR:OG1 | 3:O:22:GLU:OE2 | 2.02 | 0.77 |
| 5:Y:160:LYS:NZ | 5:Y:207:GLN:OE1 | 2.14 | 0.77 |
| 5:Z:160:LYS:NZ | 5:Z:207:GLN:OE1 | 2.14 | 0.77 |
| 5:Z:203:LYS:HB3 | 5:Z:207:GLN:HB2 | 1.66 | 0.77 |
| 7:AA:12:ASN:OD1 | 7:FA:519:ARG:NH1 | 2.17 | 0.77 |
| 7:BA:433:VAL:HG12 | 7:BA:437:MET:HE1 | 1.67 | 0.77 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 8:GB:154:ALA:HB1 | 8:LB:28:VAL:HA | 1.66 | 0.77 |
| 5:Z:140:ILE:HG23 | 5:Z:230:LYS:HE2 | 1.67 | 0.77 |
| 5:9:110:LEU:HB2 | 5:9:118:TYR:HB2 | 1.65 | 0.77 |
| 7:k:81:HIS:HD1 | 7:k:271:LEU:HA | 1.49 | 0.77 |
| 7:l:433:VAL:HG12 | 7:l:437:MET:HE1 | 1.65 | 0.77 |
| 7:j:433:VAL:HG12 | 7:j:437:MET:HE1 | 1.65 | 0.77 |
| 7:l:81:HIS:HD1 | 7:l:271:LEU:HA | 1.49 | 0.77 |
| 7:r:355:ARG:HH21 | 7:r:375:ARG:HA | 1.50 | 0.77 |
| 8:MB:150:ASP:HB2 | 8:MB:153:ALA:HB3 | 1.67 | 0.77 |
| 1:C:45:GLN:NE2 | 1:D:169:GLN:OE1 | 2.18 | 0.77 |
| 4:W:50:ILE:HG23 | 4:W:96:LYS:HE2 | 1.64 | 0.77 |
| 1:F:121:ASN:HD22 | 1:F:125:THR:HG22 | 1.50 | 0.76 |
| 3:M:13:LEU:HD23 | 3:M:14:GLU:HG2 | 1.64 | 0.76 |
| 4:U:54:LEU:HD23 | 4:U:56:ASP:H | 1.50 | 0.76 |
| 7:g:190:GLU:O | 7:m:69:LYS:NZ | 2.17 | 0.76 |
| 7:l:164:ARG:HG2 | 7:l:187:SER:HB2 | 1.65 | 0.76 |
| 1:A:169:GLN:OE1 | 1:F:45:GLN:NE2 | 2.18 | 0.76 |
| 4:U:87:GLU:OE1 | 4:U:87:GLU:N | 2.17 | 0.76 |
| 7:j:81:HIS:HD1 | 7:j:271:LEU:HA | 1.49 | 0.76 |
| 7:j:190:GLU:O | 7:p:69:LYS:NZ | 2.17 | 0.76 |
| 7:l:190:GLU:O | 7:r:69:LYS:NZ | 2.17 | 0.76 |
| 7:CA:433:VAL:HG12 | 7:CA:437:MET:HE1 | 1.67 | 0.76 |
| 7:CA:520:ARG:NH1 | 7:CA:522:GLN:HG3 | 2.01 | 0.76 |
| 7:EA:433:VAL:HG12 | 7:EA:437:MET:HE1 | 1.67 | 0.76 |
| 7:FA:433:VAL:HG12 | 7:FA:437:MET:HE1 | 1.67 | 0.76 |
| 1:A:121:ASN:HD22 | 1:A:125:THR:HG22 | 1.49 | 0.76 |
| 4:T:53:VAL:HB | 4:T:93:VAL:HA | 1.68 | 0.76 |
| 4:W:53:VAL:HB | 4:W:93:VAL:HA | 1.68 | 0.76 |
| 5:4:110:LEU:HB2 | 5:4:118:TYR:HB2 | 1.65 | 0.76 |
| 7:MA:433:VAL:HG12 | 7:MA:437:MET:HE1 | 1.66 | 0.76 |
| 8:GB:10:ARG:HD3 | 8:GB:14:LYS:HZ1 | 1.50 | 0.76 |
| 1:C:85:ILE:HD12 | 1:D:184:SER:HB2 | 1.65 | 0.76 |
| 5:1:203:LYS:HB3 | 5:1:207:GLN:HB2 | 1.68 | 0.76 |
| 5:4:168:LYS:HB2 | 5:4:232:TRP:HB2 | 1.67 | 0.76 |
| 5:8:168:LYS:HB2 | 5:8:232:TRP:HB2 | 1.67 | 0.76 |
| 7:g:164:ARG:HG2 | 7:g:187:SER:HB2 | 1.65 | 0.76 |
| 7:h:433:VAL:HG12 | 7:h:437:MET:HE1 | 1.66 | 0.76 |
| 7:j:352:ALA:HB1 | 7:j:375:ARG:HB3 | 1.65 | 0.76 |
| 5:3:140:ILE:HG23 | 5:3:230:LYS:HE2 | 1.66 | 0.76 |
| 8:OB:50:GLN:HB3 | 8:OB:81:ILE:HG23 | 1.66 | 0.76 |
| 2:L:190:ARG:HH22 | 3:R:107:ILE:HG23 | 1.51 | 0.76 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 5:Y:203:LYS:HB3 | 5:Y:207:GLN:HB2 | 1.66 | 0.76 |
| 7:p:374:GLU:HG2 | 7:p:375:ARG:HG3 | 1.67 | 0.76 |
| 7:q:374:GLU:HG2 | 7:q:375:ARG:HG3 | 1.68 | 0.76 |
| 3:M:97:ALA:HA | 7:g:484:ARG:HD3 | 1.65 | 0.76 |
| 8:PB:4:ASN:OD1 | 8:PB:5:ASN:N | 2.19 | 0.76 |
| 5:2:140:ILE:HG23 | 5:2:230:LYS:HE2 | 1.67 | 0.76 |
| 7:l:352:ALA:HB1 | 7:l:375:ARG:HB3 | 1.65 | 0.76 |
| 7:CA:520:ARG:HE | 7:DA:17:ALA:H | 1.34 | 0.76 |
| 7:NA:426:ASN:O | 7:NA:429:HIS:ND1 | 2.16 | 0.76 |
| 8:NB:106:TYR:HB3 | 8:NB:136:ASP:HA | 1.67 | 0.76 |
| 8:PB:150:ASP:HB2 | 8:PB:153:ALA:HB3 | 1.67 | 0.76 |
| 3:N:20:THR:OG1 | 3:N:22:GLU:OE2 | 2.01 | 0.76 |
| 7:o:355:ARG:HH21 | 7:o:375:ARG:HA | 1.50 | 0.76 |
| 8:HB:110:THR:HA | 8:HB:133:GLU:HA | 1.68 | 0.76 |
| 8:MB:35:THR:OG1 | 8:MB:110:THR:OG1 | 2.04 | 0.76 |
| 7:k:190:GLU:O | 7:q:69:LYS:NZ | 2.17 | 0.76 |
| 7:k:433:VAL:HG12 | 7:k:437:MET:HE1 | 1.66 | 0.76 |
| 8:NB:35:THR:OG1 | 8:NB:110:THR:OG1 | 2.04 | 0.76 |
| 1:C:121:ASN:HD22 | 1:C:125:THR:HG22 | 1.50 | 0.75 |
| 5:5:168:LYS:HB2 | 5:5:232:TRP:HB2 | 1.67 | 0.75 |
| 7:m:500:GLN:NE2 | 7:m:502:GLU:O | 2.20 | 0.75 |
| 7:QA:426:ASN:O | 7:QA:429:HIS:ND1 | 2.16 | 0.75 |
| 8:HB:32:PHE:HB2 | 8:HB:111:MET:HE1 | 1.67 | 0.75 |
| 8:RB:106:TYR:HB3 | 8:RB:136:ASP:HA | 1.67 | 0.75 |
| 5:7:168:LYS:HB2 | 5:7:232:TRP:HB2 | 1.67 | 0.75 |
| 7:l:513:CYS:HB2 | 7:r:528:ILE:HD11 | 1.68 | 0.75 |
| 8:JB:10:ARG:HD3 | 8:JB:14:LYS:NZ | 2.02 | 0.75 |
| 8:PB:35:THR:OG1 | 8:PB:110:THR:OG1 | 2.04 | 0.75 |
| 2:J:190:ARG:HH22 | 3:P:107:ILE:HG23 | 1.51 | 0.75 |
| 4:W:54:LEU:HD23 | 4:W:56:ASP:H | 1.50 | 0.75 |
| 4:X:54:LEU:HD23 | 4:X:56:ASP:H | 1.50 | 0.75 |
| 5:0:160:LYS:NZ | 5:0:207:GLN:OE1 | 2.12 | 0.75 |
| 7:PA:433:VAL:HG12 | 7:PA:437:MET:HE1 | 1.66 | 0.75 |
| 8:HB:16:ARG:NH2 | 8:NB:64:PRO:O | 2.20 | 0.75 |
| 8:OB:35:THR:OG1 | 8:OB:110:THR:OG1 | 2.04 | 0.75 |
| 8:PB:135:LEU:HB3 | 8:PB:165:TRP:HB3 | 1.69 | 0.75 |
| 5:0:140:ILE:HG23 | 5:0:230:LYS:HE2 | 1.68 | 0.75 |
| 5:6:29:VAL:HA | 5:6:34:VAL:HG21 | 1.67 | 0.75 |
| 5:6:168:LYS:HB2 | 5:6:232:TRP:HB2 | 1.67 | 0.75 |
| 7:BA:508:VAL:HG13 | 7:BA:510:TRP:HZ3 | 1.52 | 0.75 |
| 7:CA:508:VAL:HG13 | 7:CA:510:TRP:HZ3 | 1.52 | 0.75 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 8:OB:106:TYR:HB3 | 8:OB:136:ASP:HA | 1.67 | 0.75 |
| 7:AA:16:VAL:HA | 7:FA:520:ARG:HG3 | 1.68 | 0.75 |
| 8:GB:10:ARG:HD3 | 8:GB:14:LYS:NZ | 2.02 | 0.75 |
| 8:KB:32:PHE:HB2 | 8:KB:111:MET:HE1 | 1.67 | 0.75 |
| 4:V:54:LEU:HD23 | 4:V:56:ASP:H | 1.50 | 0.75 |
| 8:HB:56:ARG:HG2 | 8:HB:75:ILE:HD13 | 1.69 | 0.75 |
| 8:JB:32:PHE:HB2 | 8:JB:111:MET:HE1 | 1.68 | 0.75 |
| 8:QB:106:TYR:HB3 | 8:QB:136:ASP:HA | 1.67 | 0.75 |
| 4:S:54:LEU:HD23 | 4:S:56:ASP:H | 1.50 | 0.75 |
| 7:k:513:CYS:HB2 | 7:q:528:ILE:HD11 | 1.68 | 0.75 |
| 7:n:374:GLU:HG2 | 7:n:375:ARG:HG3 | 1.67 | 0.75 |
| 8:HB:109:ILE:N | 8:HB:134:MET:O | 2.18 | 0.75 |
| 5:2:203:LYS:HB3 | 5:2:207:GLN:HB2 | 1.68 | 0.75 |
| 7:m:69:LYS:HE2 | 7:m:71:SER:HB2 | 1.69 | 0.75 |
| 7:m:374:GLU:HG2 | 7:m:375:ARG:HG3 | 1.67 | 0.75 |
| 7:n:355:ARG:HH21 | 7:n:375:ARG:HA | 1.51 | 0.75 |
| 7:DA:508:VAL:HG13 | 7:DA:510:TRP:HZ3 | 1.52 | 0.75 |
| 7:KA:107:MET:HE2 | 7:KA:131:GLU:HB3 | 1.68 | 0.75 |
| 8:MB:135:LEU:HB3 | 8:MB:165:TRP:HB3 | 1.68 | 0.75 |
| 5:Y:140:ILE:HG23 | 5:Y:230:LYS:HE2 | 1.68 | 0.75 |
| 5:9:168:LYS:HB2 | 5:9:232:TRP:HB2 | 1.67 | 0.75 |
| 7:HA:355:ARG:HA | 7:HA:358:LYS:HE2 | 1.69 | 0.75 |
| 8:IB:109:ILE:N | 8:IB:134:MET:O | 2.18 | 0.75 |
| 8:IB:110:THR:HA | 8:IB:133:GLU:HA | 1.68 | 0.75 |
| 8:OB:27:LEU:HD23 | 8:PB:89:ILE:HG22 | 1.69 | 0.75 |
| 8:RB:35:THR:OG1 | 8:RB:110:THR:OG1 | 2.04 | 0.75 |
| 2:G:190:ARG:HH22 | 3:M:107:ILE:HG23 | 1.52 | 0.74 |
| 2:K:190:ARG:HH22 | 3:Q:107:ILE:HG23 | 1.52 | 0.74 |
| 4:V:53:VAL:HB | 4:V:93:VAL:HA | 1.69 | 0.74 |
| 7:g:513:CYS:HB2 | 7:m:528:ILE:HD11 | 1.69 | 0.74 |
| 7:AA:508:VAL:HG13 | 7:AA:510:TRP:HZ3 | 1.52 | 0.74 |
| 7:HA:107:MET:HE2 | 7:HA:131:GLU:HB3 | 1.68 | 0.74 |
| 7:KA:355:ARG:HA | 7:KA:358:LYS:HE2 | 1.69 | 0.74 |
| 7:LA:107:MET:HE2 | 7:LA:131:GLU:HB3 | 1.68 | 0.74 |
| 8:FB:35:THR:OG1 | 8:FB:110:THR:OG1 | 2.05 | 0.74 |
| 8:IB:56:ARG:HG2 | 8:IB:75:ILE:HD13 | 1.69 | 0.74 |
| 8:KB:110:THR:HA | 8:KB:133:GLU:HA | 1.68 | 0.74 |
| 2:I:190:ARG:HH22 | 3:O:107:ILE:HG23 | 1.51 | 0.74 |
| 7:i:513:CYS:HB2 | 7:o:528:ILE:HD11 | 1.68 | 0.74 |
| 7:o:503:PHE:HB3 | 7:CA:484:ARG:HH22 | 1.52 | 0.74 |
| 8:BB:35:THR:OG1 | 8:BB:110:THR:OG1 | 2.05 | 0.74 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 3:M:43:VAL:O | 6:a:9:ARG:NH2 | 2.21 | 0.74 |
| 3:O:97:ALA:HA | 7:i:484:ARG:HD3 | 1.69 | 0.74 |
| 4:S:53:VAL:HB | 4:S:93:VAL:HA | 1.69 | 0.74 |
| 4:T:60:ARG:HG3 | 6:b:9:ARG:HD3 | 1.69 | 0.74 |
| 7:FA:452:LYS:NZ | 7:LA:519:ARG:O | 2.20 | 0.74 |
| 7:FA:508:VAL:HG13 | 7:FA:510:TRP:HZ3 | 1.52 | 0.74 |
| 8:NB:127:LYS:HZ2 | 8:NB:129:ALA:HB3 | 1.51 | 0.74 |
| 8:PB:127:LYS:HZ2 | 8:PB:129:ALA:HB3 | 1.52 | 0.74 |
| 4:T:54:LEU:HD23 | 4:T:56:ASP:H | 1.51 | 0.74 |
| 6:e:42:ILE:HG13 | 6:e:46:LYS:HE2 | 1.70 | 0.74 |
| 7:r:374:GLU:HG2 | 7:r:375:ARG:HG3 | 1.67 | 0.74 |
| 8:CB:35:THR:OG1 | 8:CB:110:THR:OG1 | 2.05 | 0.74 |
| 8:IB:55:THR:HB | 8:IB:76:ARG:HH21 | 1.53 | 0.74 |
| 3:P:43:VAL:O | 6:d:9:ARG:NH2 | 2.20 | 0.74 |
| 3:R:97:ALA:HA | 7:l:484:ARG:HD3 | 1.69 | 0.74 |
| 4:S:87:GLU:OE1 | 4:S:87:GLU:N | 2.21 | 0.74 |
| 4:W:87:GLU:OE1 | 4:W:87:GLU:N | 2.21 | 0.74 |
| 6:f:42:ILE:HG13 | 6:f:46:LYS:HE2 | 1.70 | 0.74 |
| 7:l:44:PHE:H | 7:l:95:ARG:HE | 1.36 | 0.74 |
| 7:RA:331:SER:OG | 7:RA:340:ARG:NH2 | 2.21 | 0.74 |
| 8:DB:163:TYR:HE2 | 8:DB:166:ILE:HD11 | 1.52 | 0.74 |
| 8:EB:35:THR:OG1 | 8:EB:110:THR:OG1 | 2.05 | 0.74 |
| 8:MB:106:TYR:HB3 | 8:MB:136:ASP:HA | 1.68 | 0.74 |
| 3:Q:43:VAL:H | 6:e:9:ARG:HH21 | 1.35 | 0.74 |
| 5:7:191:ALA:HA | 6:d:102:TYR:HE1 | 1.53 | 0.74 |
| 7:JA:452:LYS:O | 7:JA:453:HIS:ND1 | 2.20 | 0.74 |
| 7:PA:426:ASN:O | 7:PA:429:HIS:ND1 | 2.16 | 0.74 |
| 8:KB:109:ILE:N | 8:KB:134:MET:O | 2.18 | 0.74 |
| 7:g:374:GLU:HG2 | 7:g:375:ARG:HG3 | 1.70 | 0.74 |
| 7:l:374:GLU:HG2 | 7:l:375:ARG:HG3 | 1.70 | 0.74 |
| 7:q:355:ARG:HH21 | 7:q:375:ARG:HA | 1.51 | 0.74 |
| 7:OA:426:ASN:O | 7:OA:429:HIS:ND1 | 2.16 | 0.74 |
| 8:BB:88:THR:HG22 | 8:BB:92:ASP:H | 1.52 | 0.74 |
| 8:EB:70:ASN:OD1 | 8:FB:164:ASN:ND2 | 2.21 | 0.74 |
| 8:PB:106:TYR:HB3 | 8:PB:136:ASP:HA | 1.67 | 0.74 |
| 8:RB:119:SER:HB2 | 8:RB:124:ALA:HA | 1.69 | 0.74 |
| 3:R:43:VAL:H | 6:f:9:ARG:HH21 | 1.36 | 0.74 |
| 5:2:387:ILE:HD11 | 5:2:440:TYR:HB3 | 1.70 | 0.74 |
| 7:j:374:GLU:HG2 | 7:j:375:ARG:HG3 | 1.70 | 0.74 |
| 7:o:374:GLU:HG2 | 7:o:375:ARG:HG3 | 1.67 | 0.74 |
| 7:r:69:LYS:HE2 | 7:r:71:SER:HB2 | 1.69 | 0.74 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:JA:107:MET:HE2 | 7:JA:131:GLU:HB3 | 1.68 | 0.74 |
| 8:GB:109:ILE:N | 8:GB:134:MET:O | 2.18 | 0.74 |
| 8:QB:27:LEU:HD23 | 8:RB:89:ILE:HG22 | 1.69 | 0.74 |
| 8:QB:35:THR:OG1 | 8:QB:110:THR:OG1 | 2.04 | 0.74 |
| 5:3:387:ILE:HD11 | 5:3:440:TYR:HB3 | 1.70 | 0.74 |
| 5:4:191:ALA:HA | 6:a:102:TYR:HE1 | 1.53 | 0.74 |
| 5:6:191:ALA:HA | 6:c:102:TYR:HE1 | 1.53 | 0.74 |
| 6:b:42:ILE:HG13 | 6:b:46:LYS:HE2 | 1.69 | 0.74 |
| 7:EA:508:VAL:HG13 | 7:EA:510:TRP:HZ3 | 1.52 | 0.74 |
| 8:FB:88:THR:HG22 | 8:FB:92:ASP:H | 1.52 | 0.74 |
| 8:JB:50:GLN:HB3 | 8:JB:81:ILE:HG23 | 1.70 | 0.74 |
| 8:LB:109:ILE:N | 8:LB:134:MET:O | 2.18 | 0.74 |
| 8:MB:89:ILE:HG22 | 8:RB:27:LEU:HD23 | 1.68 | 0.74 |
| 3:P:97:ALA:HA | 7:j:484:ARG:HD3 | 1.69 | 0.74 |
| 5:1:140:ILE:HG23 | 5:1:230:LYS:HE2 | 1.68 | 0.74 |
| 7:KA:452:LYS:O | 7:KA:453:HIS:ND1 | 2.20 | 0.74 |
| 8:OB:119:SER:HB2 | 8:OB:124:ALA:HA | 1.69 | 0.74 |
| 3:R:40:GLN:HE22 | 3:R:52:VAL:HG22 | 1.52 | 0.73 |
| 4:V:84:LEU:O | 5:7:51:TYR:OH | 2.05 | 0.73 |
| 7:n:503:PHE:HB3 | 7:BA:484:ARG:HH22 | 1.53 | 0.73 |
| 7:HA:108:PHE:HE1 | 7:HA:114:PRO:HB3 | 1.53 | 0.73 |
| 7:HA:404:LYS:N | 7:HA:417:ASP:OD2 | 2.21 | 0.73 |
| 7:IA:404:LYS:N | 7:IA:417:ASP:OD2 | 2.21 | 0.73 |
| 7:KA:108:PHE:HE1 | 7:KA:114:PRO:HB3 | 1.53 | 0.73 |
| 7:MA:500:GLN:NE2 | 7:MA:502:GLU:O | 2.21 | 0.73 |
| 8:NB:27:LEU:HD23 | 8:OB:89:ILE:HG22 | 1.68 | 0.73 |
| 8:QB:127:LYS:HZ2 | 8:QB:129:ALA:HB3 | 1.52 | 0.73 |
| 5:8:191:ALA:HA | 6:e:102:TYR:HE1 | 1.53 | 0.73 |
| 7:j:513:CYS:HB2 | 7:p:528:ILE:HD11 | 1.68 | 0.73 |
| 7:HA:452:LYS:O | 7:HA:453:HIS:ND1 | 2.20 | 0.73 |
| 7:LA:108:PHE:HE1 | 7:LA:114:PRO:HB3 | 1.53 | 0.73 |
| 8:DB:72:HIS:CE1 | 8:EB:100:ARG:HH22 | 2.06 | 0.73 |
| 3:M:20:THR:OG1 | 3:M:22:GLU:OE2 | 2.06 | 0.73 |
| 3:R:33:TYR:HE1 | 7:l:525:PRO:HB2 | 1.53 | 0.73 |
| 5:3:203:LYS:HB3 | 5:3:207:GLN:HB2 | 1.68 | 0.73 |
| 7:k:44:PHE:H | 7:k:95:ARG:HE | 1.36 | 0.73 |
| 7:p:69:LYS:HE2 | 7:p:71:SER:HB2 | 1.69 | 0.73 |
| 7:GA:108:PHE:HE1 | 7:GA:114:PRO:HB3 | 1.53 | 0.73 |
| 7:MA:331:SER:OG | 7:MA:340:ARG:NH2 | 2.21 | 0.73 |
| 8:CB:88:THR:HG22 | 8:CB:92:ASP:H | 1.52 | 0.73 |
| 8:CB:163:TYR:HE2 | 8:CB:166:ILE:HD11 | 1.53 | 0.73 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 8:EB:88:THR:HG22 | 8:EB:92:ASP:H | 1.52 | 0.73 |
| 8:KB:56:ARG:HG2 | 8:KB:75:ILE:HD13 | 1.69 | 0.73 |
| 8:MB:27:LEU:HD23 | 8:NB:89:ILE:HG22 | 1.68 | 0.73 |
| 3:N:40:GLN:HE22 | 3:N:52:VAL:HG22 | 1.53 | 0.73 |
| 5:4:55:ALA:O | 6:a:46:LYS:NZ | 2.22 | 0.73 |
| 6:d:42:ILE:HG13 | 6:d:46:LYS:HE2 | 1.69 | 0.73 |
| 7:g:521:ILE:HB | 7:h:14:SER:HB3 | 1.70 | 0.73 |
| 7:h:404:LYS:N | 7:h:417:ASP:OD2 | 2.18 | 0.73 |
| 7:i:352:ALA:HB1 | 7:i:375:ARG:HB3 | 1.68 | 0.73 |
| 7:n:500:GLN:NE2 | 7:n:502:GLU:O | 2.21 | 0.73 |
| 7:q:69:LYS:HE2 | 7:q:71:SER:HB2 | 1.69 | 0.73 |
| 7:GA:107:MET:HE2 | 7:GA:131:GLU:HB3 | 1.68 | 0.73 |
| 7:JA:108:PHE:HE1 | 7:JA:114:PRO:HB3 | 1.53 | 0.73 |
| 8:AB:35:THR:OG1 | 8:AB:110:THR:OG1 | 2.05 | 0.73 |
| 8:IB:16:ARG:NH1 | 8:OB:65:ASN:O | 2.22 | 0.73 |
| 6:c:42:ILE:HG13 | 6:c:46:LYS:HE2 | 1.70 | 0.73 |
| 7:h:374:GLU:HG2 | 7:h:375:ARG:HG3 | 1.70 | 0.73 |
| 7:BA:469:LYS:HB3 | 7:BA:473:ARG:NH1 | 2.04 | 0.73 |
| 7:CA:452:LYS:NZ | 7:IA:519:ARG:O | 2.20 | 0.73 |
| 8:GB:50:GLN:HB3 | 8:GB:81:ILE:HG23 | 1.71 | 0.73 |
| 8:LB:56:ARG:HG2 | 8:LB:75:ILE:HD13 | 1.69 | 0.73 |
| 8:MB:168:TRP:HZ3 | 8:NB:98:LYS:HD2 | 1.52 | 0.73 |
| 4:X:53:VAL:HB | 4:X:93:VAL:HA | 1.71 | 0.73 |
| 7:BA:520:ARG:HH12 | 7:BA:522:GLN:HB3 | 1.54 | 0.73 |
| 7:CA:469:LYS:HB3 | 7:CA:473:ARG:NH1 | 2.04 | 0.73 |
| 8:DB:35:THR:OG1 | 8:DB:110:THR:OG1 | 2.05 | 0.73 |
| 8:EB:163:TYR:HE2 | 8:EB:166:ILE:HD11 | 1.53 | 0.73 |
| 8:MB:127:LYS:HZ2 | 8:MB:129:ALA:HB3 | 1.52 | 0.73 |
| 4:T:87:GLU:N | 4:T:87:GLU:OE1 | 2.21 | 0.73 |
| 4:U:34:ARG:HA | 4:U:37:VAL:HG22 | 1.69 | 0.73 |
| 4:U:53:VAL:HB | 4:U:93:VAL:HA | 1.71 | 0.73 |
| 5:7:314:LYS:NZ | 5:7:315:ALA:O | 2.21 | 0.73 |
| 5:9:191:ALA:HA | 6:f:102:TYR:HE1 | 1.53 | 0.73 |
| 8:GB:32:PHE:HB2 | 8:GB:111:MET:HE1 | 1.68 | 0.73 |
| 8:GB:56:ARG:HG2 | 8:GB:75:ILE:HD13 | 1.71 | 0.73 |
| 8:OB:127:LYS:HZ2 | 8:OB:129:ALA:HB3 | 1.52 | 0.73 |
| 3:O:33:TYR:HE1 | 7:i:525:PRO:HB2 | 1.54 | 0.73 |
| 4:V:87:GLU:OE1 | 4:V:87:GLU:N | 2.21 | 0.73 |
| 5:4:29:VAL:HA | 5:4:34:VAL:HG21 | 1.69 | 0.73 |
| 7:m:57:GLU:HG3 | 7:m:86:ILE:HG13 | 1.70 | 0.73 |
| 7:p:503:PHE:HB3 | 7:DA:484:ARG:HH22 | 1.53 | 0.73 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 7:EA:469:LYS:HB3 | 7:EA:473:ARG:NH1 | 2.04 | 0.73 |
| 7:IA:107:MET:HE2 | 7:IA:131:GLU:HB3 | 1.68 | 0.73 |
| 7:PA:150:LEU:HB2 | 7:PA:233:LEU:HB2 | 1.70 | 0.73 |
| 8:LB:55:THR:HB | 8:LB:76:ARG:HH21 | 1.53 | 0.73 |
| 8:RB:127:LYS:HZ2 | 8:RB:129:ALA:HB3 | 1.52 | 0.73 |
| 2:H:190:ARG:HH22 | 3:N:107:ILE:HG23 | 1.52 | 0.73 |
| 3:O:43:VAL:H | 6:c:9:ARG:HH21 | 1.36 | 0.73 |
| 3:P:33:TYR:HE1 | 7:j:525:PRO:HB2 | 1.54 | 0.73 |
| 5:Y:387:ILE:HD11 | 5:Y:440:TYR:HB3 | 1.70 | 0.73 |
| 7:r:469:LYS:HB3 | 7:r:473:ARG:HH12 | 1.54 | 0.73 |
| 8:LB:110:THR:HA | 8:LB:133:GLU:HA | 1.68 | 0.73 |
| 4:T:46:LYS:N | 5:4:27:LYS:HZ3 | 1.86 | 0.73 |
| 7:n:57:GLU:HG3 | 7:n:86:ILE:HG13 | 1.70 | 0.73 |
| 7:p:57:GLU:HG3 | 7:p:86:ILE:HG13 | 1.70 | 0.73 |
| 7:GA:448:ALA:O | 7:GA:452:LYS:HG3 | 1.89 | 0.73 |
| 7:RA:500:GLN:NE2 | 7:RA:502:GLU:O | 2.21 | 0.73 |
| 8:AB:163:TYR:HE2 | 8:AB:166:ILE:HD11 | 1.52 | 0.73 |
| 2:K:193:GLN:HE22 | 3:Q:89:GLY:HA2 | 1.54 | 0.72 |
| 3:N:97:ALA:HA | 7:h:484:ARG:HD3 | 1.69 | 0.72 |
| 3:Q:97:ALA:HA | 7:k:484:ARG:HD3 | 1.69 | 0.72 |
| 4:V:58:GLN:NE2 | 4:V:88:SER:O | 2.22 | 0.72 |
| 4:W:58:GLN:NE2 | 4:W:88:SER:O | 2.22 | 0.72 |
| 5:Y:187:MET:HE1 | 5:Y:189:ARG:HH21 | 1.54 | 0.72 |
| 5:1:387:ILE:HD11 | 5:1:440:TYR:HB3 | 1.70 | 0.72 |
| 7:o:69:LYS:HE2 | 7:o:71:SER:HB2 | 1.69 | 0.72 |
| 7:r:57:GLU:HG3 | 7:r:86:ILE:HG13 | 1.70 | 0.72 |
| 7:KA:404:LYS:N | 7:KA:417:ASP:OD2 | 2.21 | 0.72 |
| 7:MA:150:LEU:HB2 | 7:MA:233:LEU:HB2 | 1.70 | 0.72 |
| 7:NA:331:SER:OG | 7:NA:340:ARG:NH2 | 2.21 | 0.72 |
| 8:JB:10:ARG:HD3 | 8:JB:14:LYS:HZ1 | 1.54 | 0.72 |
| 8:JB:56:ARG:HG2 | 8:JB:75:ILE:HD13 | 1.71 | 0.72 |
| 8:QB:150:ASP:HB2 | 8:QB:153:ALA:HB3 | 1.70 | 0.72 |
| 1:F:87:GLN:NE2 | 1:F:88:PRO:O | 2.23 | 0.72 |
| 5:9:314:LYS:NZ | 5:9:315:ALA:O | 2.21 | 0.72 |
| 6:e:79:MET:O | 6:e:83:GLN:NE2 | 2.22 | 0.72 |
| 7:j:44:PHE:H | 7:j:95:ARG:HE | 1.36 | 0.72 |
| 7:AA:10:LEU:HD11 | 7:AA:17:ALA:HB3 | 1.71 | 0.72 |
| 7:QA:500:GLN:NE2 | 7:QA:502:GLU:O | 2.22 | 0.72 |
| 4:U:87:GLU:HB2 | 6:c:5:TRP:HH2 | 1.53 | 0.72 |
| 4:X:34:ARG:HA | 4:X:37:VAL:HG22 | 1.70 | 0.72 |
| 7:g:44:PHE:H | 7:g:95:ARG:HE | 1.36 | 0.72 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 7:m:291:ILE:HG22 | 7:m:442:ARG:HH22 | 1.54 | 0.72 |
| 7:q:57:GLU:HG3 | 7:q:86:ILE:HG13 | 1.70 | 0.72 |
| 7:FA:487:ASP:O | 7:GA:335:LYS:NZ | 2.23 | 0.72 |
| 7:GA:404:LYS:N | 7:GA:417:ASP:OD2 | 2.22 | 0.72 |
| 7:NA:500:GLN:NE2 | 7:NA:502:GLU:O | 2.22 | 0.72 |
| 7:PA:43:VAL:HG12 | 7:PA:78:PRO:HG2 | 1.71 | 0.72 |
| 7:q:507:GLU:HB2 | 7:EA:522:GLN:HE21 | 1.54 | 0.72 |
| 7:HA:189:ALA:HB3 | 7:HA:192:ALA:HB2 | 1.71 | 0.72 |
| 7:LA:259:ASN:OD1 | 7:LA:289:ARG:NH2 | 2.23 | 0.72 |
| 8:EB:47:ARG:HH11 | 8:JB:64:PRO:HA | 1.54 | 0.72 |
| 8:JB:109:ILE:N | 8:JB:134:MET:O | 2.18 | 0.72 |
| 5:6:55:ALA:O | 6:c:46:LYS:NZ | 2.22 | 0.72 |
| 7:l:107:MET:HE2 | 7:l:131:GLU:HG3 | 1.71 | 0.72 |
| 7:o:57:GLU:HG3 | 7:o:86:ILE:HG13 | 1.70 | 0.72 |
| 7:MA:43:VAL:HG12 | 7:MA:78:PRO:HG2 | 1.71 | 0.72 |
| 8:BB:56:ARG:HD3 | 8:BB:73:GLY:H | 1.55 | 0.72 |
| 8:OB:150:ASP:HB2 | 8:OB:153:ALA:HB3 | 1.71 | 0.72 |
| 2:K:180:SER:HG | 2:K:183:TYR:HH | 1.33 | 0.72 |
| 4:X:87:GLU:OE1 | 4:X:87:GLU:N | 2.21 | 0.72 |
| 5:Z:387:ILE:HD11 | 5:Z:440:TYR:HB3 | 1.70 | 0.72 |
| 5:5:191:ALA:HA | 6:b:102:TYR:HE1 | 1.53 | 0.72 |
| 5:9:241:VAL:O | 5:9:244:GLN:NE2 | 2.23 | 0.72 |
| 6:a:42:ILE:HG13 | 6:a:46:LYS:HE2 | 1.70 | 0.72 |
| 7:i:374:GLU:HG2 | 7:i:375:ARG:HG3 | 1.72 | 0.72 |
| 7:l:6:ILE:HG21 | 7:l:18:VAL:HG22 | 1.72 | 0.72 |
| 7:AA:520:ARG:HG3 | 7:BA:16:VAL:HA | 1.69 | 0.72 |
| 7:CA:10:LEU:HD11 | 7:CA:17:ALA:HB3 | 1.70 | 0.72 |
| 7:IA:259:ASN:OD1 | 7:IA:289:ARG:NH2 | 2.23 | 0.72 |
| 7:OA:500:GLN:NE2 | 7:OA:502:GLU:O | 2.22 | 0.72 |
| 2:G:153:ASP:HB3 | 2:G:176:GLN:HB2 | 1.71 | 0.72 |
| 5:0:387:ILE:HD11 | 5:0:440:TYR:HB3 | 1.70 | 0.72 |
| 5:1:187:MET:HE1 | 5:1:189:ARG:HH21 | 1.54 | 0.72 |
| 5:4:241:VAL:O | 5:4:244:GLN:NE2 | 2.23 | 0.72 |
| 5:9:55:ALA:O | 6:f:46:LYS:NZ | 2.22 | 0.72 |
| 7:i:44:PHE:H | 7:i:95:ARG:HE | 1.36 | 0.72 |
| 7:k:107:MET:HE2 | 7:k:131:GLU:HG3 | 1.71 | 0.72 |
| 7:m:503:PHE:HB3 | 7:AA:484:ARG:HH22 | 1.53 | 0.72 |
| 7:IA:108:PHE:HE1 | 7:IA:114:PRO:HB3 | 1.54 | 0.72 |
| 7:IA:507:GLU:HA | 7:OA:522:GLN:HG3 | 1.72 | 0.72 |
| 8:GB:110:THR:HA | 8:GB:133:GLU:HA | 1.70 | 0.72 |
| 8:RB:135:LEU:HB3 | 8:RB:165:TRP:HB3 | 1.71 | 0.72 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 3:P:40:GLN:HE22 | 3:P:52:VAL:HG22 | 1.53 | 0.72 |
| 3:R:43:VAL:O | 6:f:9:ARG:NH2 | 2.22 | 0.72 |
| 4:S:58:GLN:NE2 | 4:S:88:SER:O | 2.22 | 0.72 |
| 7:h:107:MET:HE2 | 7:h:131:GLU:HG3 | 1.71 | 0.72 |
| 7:PA:500:GLN:NE2 | 7:PA:502:GLU:O | 2.21 | 0.72 |
| 1:C:87:GLN:NE2 | 1:C:88:PRO:O | 2.23 | 0.72 |
| 4:T:58:GLN:NE2 | 4:T:88:SER:O | 2.22 | 0.72 |
| 4:X:58:GLN:NE2 | 4:X:88:SER:O | 2.22 | 0.72 |
| 5:8:241:VAL:O | 5:8:244:GLN:NE2 | 2.23 | 0.72 |
| 7:p:291:ILE:HG22 | 7:p:442:ARG:HH22 | 1.54 | 0.72 |
| 7:FA:469:LYS:HB3 | 7:FA:473:ARG:NH1 | 2.05 | 0.72 |
| 8:GB:55:THR:HB | 8:GB:76:ARG:HH21 | 1.54 | 0.72 |
| 8:NB:135:LEU:HB3 | 8:NB:165:TRP:HB3 | 1.72 | 0.72 |
| 8:NB:150:ASP:HB2 | 8:NB:153:ALA:HB3 | 1.72 | 0.72 |
| 1:A:87:GLN:NE2 | 1:A:88:PRO:O | 2.23 | 0.71 |
| 1:C:71:TYR:OH | 1:D:116:LYS:NZ | 2.22 | 0.71 |
| 2:J:153:ASP:HB3 | 2:J:176:GLN:HB2 | 1.71 | 0.71 |
| 3:M:40:GLN:HE22 | 3:M:52:VAL:HG22 | 1.54 | 0.71 |
| 5:5:314:LYS:NZ | 5:5:315:ALA:O | 2.21 | 0.71 |
| 7:k:6:ILE:HG21 | 7:k:18:VAL:HG22 | 1.72 | 0.71 |
| 7:o:500:GLN:NE2 | 7:o:502:GLU:O | 2.23 | 0.71 |
| 7:AA:452:LYS:NZ | 7:GA:519:ARG:O | 2.23 | 0.71 |
| 7:BA:405:VAL:HG12 | 7:BA:413:MET:HE3 | 1.72 | 0.71 |
| 7:CA:164:ARG:HG2 | 7:CA:187:SER:HB2 | 1.72 | 0.71 |
| 8:GB:86:VAL:HG12 | 8:LB:26:ARG:HD2 | 1.72 | 0.71 |
| 8:PB:119:SER:HB2 | 8:PB:124:ALA:HA | 1.70 | 0.71 |
| 1:D:87:GLN:NE2 | 1:D:88:PRO:O | 2.23 | 0.71 |
| 5:4:314:LYS:NZ | 5:4:315:ALA:O | 2.21 | 0.71 |
| 5:8:55:ALA:O | 6:e:46:LYS:NZ | 2.22 | 0.71 |
| 7:n:350:TYR:HA | 7:n:353:LYS:HE2 | 1.72 | 0.71 |
| 7:q:503:PHE:HB3 | 7:EA:484:ARG:HH22 | 1.53 | 0.71 |
| 7:BA:189:ALA:HB3 | 7:BA:192:ALA:HB2 | 1.72 | 0.71 |
| 7:LA:189:ALA:HB3 | 7:LA:192:ALA:HB2 | 1.71 | 0.71 |
| 7:NA:405:VAL:HG22 | 7:NA:413:MET:HE3 | 1.72 | 0.71 |
| 7:RA:194:ASP:OD1 | 7:RA:198:ARG:N | 2.24 | 0.71 |
| 8:KB:55:THR:HB | 8:KB:76:ARG:HH21 | 1.55 | 0.71 |
| 8:RB:150:ASP:HB2 | 8:RB:153:ALA:HB3 | 1.72 | 0.71 |
| 3:O:40:GLN:HE22 | 3:O:52:VAL:HG22 | 1.54 | 0.71 |
| 4:X:18:ARG:O | 4:X:106:ARG:NH2 | 2.24 | 0.71 |
| 7:g:107:MET:HE2 | 7:g:131:GLU:HG3 | 1.71 | 0.71 |
| 7:i:107:MET:HE2 | 7:i:131:GLU:HG3 | 1.71 | 0.71 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:i:521:ILE:HB | 7:j:14:SER:HB3 | 1.73 | 0.71 |
| 7:k:521:ILE:HB | 7:l:14:SER:HB3 | 1.72 | 0.71 |
| 7:o:469:LYS:HB3 | 7:o:473:ARG:HH12 | 1.54 | 0.71 |
| 7:AA:405:VAL:HG12 | 7:AA:413:MET:HE3 | 1.73 | 0.71 |
| 7:CA:405:VAL:HG12 | 7:CA:413:MET:HE3 | 1.72 | 0.71 |
| 7:HA:259:ASN:OD1 | 7:HA:289:ARG:NH2 | 2.23 | 0.71 |
| 8:MB:98:LYS:HD2 | 8:RB:168:TRP:CZ3 | 2.25 | 0.71 |
| 8:MB:119:SER:HB2 | 8:MB:124:ALA:HA | 1.70 | 0.71 |
| 8:QB:134:MET:HE1 | 8:QB:166:ILE:HG23 | 1.71 | 0.71 |
| 1:B:46:GLY:O | 1:C:167:ARG:NH1 | 2.23 | 0.71 |
| 5:5:241:VAL:O | 5:5:244:GLN:NE2 | 2.23 | 0.71 |
| 5:7:55:ALA:O | 6:d:46:LYS:NZ | 2.22 | 0.71 |
| 7:g:452:LYS:NZ | 7:m:519:ARG:O | 2.22 | 0.71 |
| 7:n:291:ILE:HG22 | 7:n:442:ARG:HH22 | 1.54 | 0.71 |
| 7:BA:10:LEU:HD11 | 7:BA:17:ALA:HB3 | 1.71 | 0.71 |
| 7:DA:164:ARG:HG2 | 7:DA:187:SER:HB2 | 1.72 | 0.71 |
| 7:KA:189:ALA:HB3 | 7:KA:192:ALA:HB2 | 1.71 | 0.71 |
| 1:E:46:GLY:O | 1:F:167:ARG:NH1 | 2.23 | 0.71 |
| 3:O:43:VAL:O | 6:c:9:ARG:NH2 | 2.22 | 0.71 |
| 3:Q:43:VAL:O | 6:e:9:ARG:NH2 | 2.24 | 0.71 |
| 4:V:18:ARG:O | 4:V:106:ARG:NH2 | 2.24 | 0.71 |
| 5:4:390:SER:HA | 6:f:70:ARG:HD3 | 1.72 | 0.71 |
| 7:h:521:ILE:HB | 7:i:14:SER:HB3 | 1.73 | 0.71 |
| 7:p:507:GLU:HB2 | 7:DA:522:GLN:HE21 | 1.53 | 0.71 |
| 7:FA:405:VAL:HG12 | 7:FA:413:MET:HE3 | 1.72 | 0.71 |
| 7:GA:452:LYS:O | 7:GA:453:HIS:ND1 | 2.23 | 0.71 |
| 7:KA:259:ASN:OD1 | 7:KA:289:ARG:NH2 | 2.23 | 0.71 |
| 8:JB:55:THR:HB | 8:JB:76:ARG:HH21 | 1.54 | 0.71 |
| 8:MB:134:MET:HE1 | 8:MB:166:ILE:HG23 | 1.71 | 0.71 |
| 8:OB:135:LEU:HB3 | 8:OB:165:TRP:HB3 | 1.71 | 0.71 |
| 4:T:84:LEU:O | 5:5:51:TYR:OH | 2.05 | 0.71 |
| 5:5:55:ALA:O | 6:b:46:LYS:NZ | 2.23 | 0.71 |
| 5:7:241:VAL:O | 5:7:244:GLN:NE2 | 2.23 | 0.71 |
| 7:q:291:ILE:HG22 | 7:q:442:ARG:HH22 | 1.54 | 0.71 |
| 7:r:503:PHE:HB3 | 7:FA:484:ARG:HH22 | 1.54 | 0.71 |
| 7:BA:452:LYS:NZ | 7:HA:519:ARG:O | 2.23 | 0.71 |
| 7:EA:150:LEU:HB3 | 7:EA:233:LEU:HB2 | 1.73 | 0.71 |
| 7:EA:189:ALA:HB3 | 7:EA:192:ALA:HB2 | 1.72 | 0.71 |
| 7:JA:189:ALA:HB3 | 7:JA:192:ALA:HB2 | 1.71 | 0.71 |
| 7:JA:404:LYS:N | 7:JA:417:ASP:OD2 | 2.22 | 0.71 |
| 7:LA:404:LYS:N | 7:LA:417:ASP:OD2 | 2.22 | 0.71 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 7:MA:484:ARG:NH1 | 7:MA:513:CYS:SG | 2.63 | 0.71 |
| 7:OA:331:SER:OG | 7:OA:340:ARG:NH2 | 2.22 | 0.71 |
| 8:JB:110:THR:HA | 8:JB:133:GLU:HA | 1.70 | 0.71 |
| 2:I:108:VAL:HG11 | 2:I:168:PHE:HB2 | 1.73 | 0.71 |
| 5:7:390:SER:HA | 6:c:70:ARG:HD3 | 1.72 | 0.71 |
| 7:g:404:LYS:N | 7:g:417:ASP:OD2 | 2.18 | 0.71 |
| 7:h:6:ILE:HG21 | 7:h:18:VAL:HG22 | 1.71 | 0.71 |
| 7:h:44:PHE:H | 7:h:95:ARG:HE | 1.36 | 0.71 |
| 7:AA:378:ILE:HB | 7:AA:413:MET:HB3 | 1.73 | 0.71 |
| 7:AA:500:GLN:NE2 | 7:AA:502:GLU:O | 2.24 | 0.71 |
| 7:BA:500:GLN:NE2 | 7:BA:502:GLU:O | 2.24 | 0.71 |
| 7:DA:469:LYS:HB3 | 7:DA:473:ARG:NH1 | 2.06 | 0.71 |
| 7:FA:10:LEU:HD11 | 7:FA:17:ALA:HB3 | 1.70 | 0.71 |
| 7:JA:259:ASN:OD1 | 7:JA:289:ARG:NH2 | 2.23 | 0.71 |
| 7:MA:194:ASP:OD1 | 7:MA:198:ARG:N | 2.23 | 0.71 |
| 7:NA:325:VAL:O | 7:NA:403:ASN:ND2 | 2.23 | 0.71 |
| 7:NA:363:VAL:O | 7:NA:366:TRP:NE1 | 2.24 | 0.71 |
| 7:QA:484:ARG:NH1 | 7:QA:513:CYS:SG | 2.64 | 0.71 |
| 8:GB:16:ARG:NH1 | 8:MB:65:ASN:O | 2.22 | 0.71 |
| 8:HB:55:THR:HB | 8:HB:76:ARG:HH21 | 1.55 | 0.71 |
| 8:HB:58:ASP:OD1 | 8:IB:138:LYS:NZ | 2.22 | 0.71 |
| 3:M:33:TYR:HE1 | 7:g:525:PRO:HB2 | 1.54 | 0.71 |
| 5:6:241:VAL:O | 5:6:244:GLN:NE2 | 2.23 | 0.71 |
| 7:p:469:LYS:HB3 | 7:p:473:ARG:HH12 | 1.56 | 0.71 |
| 7:r:502:GLU:HG2 | 7:r:504:ASP:H | 1.56 | 0.71 |
| 7:AA:469:LYS:HB3 | 7:AA:473:ARG:NH1 | 2.06 | 0.71 |
| 7:DA:405:VAL:HG12 | 7:DA:413:MET:HE3 | 1.72 | 0.71 |
| 7:FA:189:ALA:HB3 | 7:FA:192:ALA:HB2 | 1.72 | 0.71 |
| 7:PA:194:ASP:OD1 | 7:PA:198:ARG:N | 2.24 | 0.71 |
| 8:LB:16:ARG:NH1 | 8:RB:65:ASN:O | 2.21 | 0.71 |
| 8:OB:72:HIS:NE2 | 8:PB:104:LYS:O | 2.24 | 0.71 |
| 8:PB:72:HIS:NE2 | 8:QB:104:LYS:O | 2.24 | 0.71 |
| 1:B:166:ALA:O | 1:B:169:GLN:NE2 | 2.23 | 0.71 |
| 1:E:87:GLN:NE2 | 1:E:88:PRO:O | 2.24 | 0.71 |
| 5:2:410:ARG:NH2 | 5:2:411:ASP:OD2 | 2.24 | 0.71 |
| 7:FA:150:LEU:HB3 | 7:FA:233:LEU:HB2 | 1.73 | 0.71 |
| 7:GA:259:ASN:OD1 | 7:GA:289:ARG:NH2 | 2.23 | 0.71 |
| 7:MA:363:VAL:O | 7:MA:366:TRP:NE1 | 2.24 | 0.71 |
| 7:OA:194:ASP:OD1 | 7:OA:198:ARG:N | 2.24 | 0.71 |
| 7:QA:109:ASP:HA | 7:QA:132:ALA:H | 1.56 | 0.71 |
| 8:NB:72:HIS:NE2 | 8:OB:104:LYS:O | 2.24 | 0.71 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 8:QB:168:TRP:CZ3 | 8:RB:98:LYS:HD2 | 2.25 | 0.71 |
| 1:B:87:GLN:NE2 | 1:B:88:PRO:O | 2.24 | 0.71 |
| 5:3:410:ARG:NH2 | 5:3:411:ASP:OD2 | 2.24 | 0.71 |
| 7:j:521:ILE:HB | 7:k:14:SER:HB3 | 1.73 | 0.71 |
| 7:p:502:GLU:HG2 | 7:p:504:ASP:H | 1.56 | 0.71 |
| 7:OA:405:VAL:HG22 | 7:OA:413:MET:HE3 | 1.73 | 0.71 |
| 7:QA:194:ASP:OD1 | 7:QA:198:ARG:N | 2.24 | 0.71 |
| 7:RA:484:ARG:NH1 | 7:RA:513:CYS:SG | 2.64 | 0.71 |
| 8:JB:32:PHE:H | 8:OB:65:ASN:HD21 | 1.37 | 0.71 |
| 8:QB:135:LEU:HB3 | 8:QB:165:TRP:HB3 | 1.73 | 0.71 |
| 5:5:101:PRO:HD2 | 5:5:259:ILE:HD11 | 1.73 | 0.70 |
| 7:EA:405:VAL:HG12 | 7:EA:413:MET:HE3 | 1.73 | 0.70 |
| 7:FA:193:LYS:NZ | 7:FA:194:ASP:O | 2.24 | 0.70 |
| 7:GA:189:ALA:HB3 | 7:GA:192:ALA:HB2 | 1.71 | 0.70 |
| 7:NA:194:ASP:OD1 | 7:NA:198:ARG:N | 2.24 | 0.70 |
| 8:NB:50:GLN:NE2 | 8:OB:145:ASP:OD1 | 2.24 | 0.70 |
| 8:OB:9:ASN:ND2 | 8:PB:119:SER:OG | 2.24 | 0.70 |
| 1:C:166:ALA:O | 1:C:169:GLN:NE2 | 2.23 | 0.70 |
| 3:M:99:ASP:HA | 7:g:518:ALA:HA | 1.73 | 0.70 |
| 5:Z:386:ARG:HG2 | 5:Z:473:SER:HB2 | 1.74 | 0.70 |
| 5:1:386:ARG:HG2 | 5:1:473:SER:HB2 | 1.74 | 0.70 |
| 5:1:410:ARG:NH2 | 5:1:411:ASP:OD2 | 2.24 | 0.70 |
| 5:6:390:SER:HA | 6:b:70:ARG:HD3 | 1.73 | 0.70 |
| 5:8:101:PRO:HD2 | 5:8:259:ILE:HD11 | 1.73 | 0.70 |
| 7:p:202:LEU:HB2 | 7:p:203:PRO:HD3 | 1.73 | 0.70 |
| 7:q:350:TYR:HA | 7:q:353:LYS:HE2 | 1.72 | 0.70 |
| 7:AA:189:ALA:HB3 | 7:AA:192:ALA:HB2 | 1.72 | 0.70 |
| 7:FA:500:GLN:NE2 | 7:FA:502:GLU:O | 2.24 | 0.70 |
| 7:IA:189:ALA:HB3 | 7:IA:192:ALA:HB2 | 1.71 | 0.70 |
| 7:LA:507:GLU:HA | 7:RA:522:GLN:HG3 | 1.72 | 0.70 |
| 7:PA:484:ARG:NH1 | 7:PA:513:CYS:SG | 2.64 | 0.70 |
| 8:FB:163:TYR:HE2 | 8:FB:166:ILE:HD11 | 1.54 | 0.70 |
| 1:B:72:SER:O | 1:B:92:SER:N | 2.24 | 0.70 |
| 3:Q:40:GLN:HE22 | 3:Q:52:VAL:HG22 | 1.54 | 0.70 |
| 5:5:390:SER:HA | 6:a:70:ARG:HD3 | 1.73 | 0.70 |
| 7:g:6:ILE:HG21 | 7:g:18:VAL:HG22 | 1.72 | 0.70 |
| 7:o:502:GLU:HG2 | 7:o:504:ASP:H | 1.56 | 0.70 |
| 7:CA:500:GLN:NE2 | 7:CA:502:GLU:O | 2.24 | 0.70 |
| 7:DA:150:LEU:HB3 | 7:DA:233:LEU:HB2 | 1.73 | 0.70 |
| 8:GB:47:ARG:HG3 | 8:GB:86:VAL:HG23 | 1.73 | 0.70 |
| 8:QB:9:ASN:ND2 | 8:RB:119:SER:OG | 2.23 | 0.70 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:E:72:SER:O | 1:E:92:SER:N | 2.24 | 0.70 |
| 4:W:18:ARG:O | 4:W:106:ARG:NH2 | 2.25 | 0.70 |
| 5:O:386:ARG:HG2 | 5:O:473:SER:HB2 | 1.73 | 0.70 |
| 7:AA:193:LYS:NZ | 7:AA:194:ASP:O | 2.25 | 0.70 |
| 7:OA:111:SER:OG | 7:OA:113:GLU:OE1 | 2.09 | 0.70 |
| 7:OA:480:LEU:HD21 | 7:OA:494:TYR:HB3 | 1.74 | 0.70 |
| 7:PA:405:VAL:HG22 | 7:PA:413:MET:HE3 | 1.73 | 0.70 |
| 8:EB:56:ARG:NH1 | 8:EB:57:GLU:O | 2.21 | 0.70 |
| 8:PB:50:GLN:NE2 | 8:QB:145:ASP:OD1 | 2.24 | 0.70 |
| 5:7:101:PRO:HD2 | 5:7:259:ILE:HD11 | 1.73 | 0.70 |
| 7:j:500:GLN:NE2 | 7:j:502:GLU:O | 2.25 | 0.70 |
| 7:AA:426:ASN:O | 7:AA:429:HIS:ND1 | 2.16 | 0.70 |
| 7:EA:452:LYS:NZ | 7:KA:519:ARG:O | 2.24 | 0.70 |
| 7:FA:378:ILE:HB | 7:FA:413:MET:HB3 | 1.73 | 0.70 |
| 7:MA:405:VAL:HG22 | 7:MA:413:MET:HE3 | 1.72 | 0.70 |
| 8:NB:9:ASN:ND2 | 8:OB:119:SER:OG | 2.23 | 0.70 |
| 1:E:166:ALA:O | 1:E:169:GLN:NE2 | 2.23 | 0.70 |
| 2:L:108:VAL:HG11 | 2:L:168:PHE:HB2 | 1.73 | 0.70 |
| 4:U:18:ARG:O | 4:U:106:ARG:NH2 | 2.24 | 0.70 |
| 7:i:6:ILE:HG21 | 7:i:18:VAL:HG22 | 1.72 | 0.70 |
| 7:i:500:GLN:NE2 | 7:i:502:GLU:O | 2.24 | 0.70 |
| 7:BA:193:LYS:NZ | 7:BA:194:ASP:O | 2.24 | 0.70 |
| 7:CA:189:ALA:HB3 | 7:CA:192:ALA:HB2 | 1.72 | 0.70 |
| 7:EA:193:LYS:NZ | 7:EA:194:ASP:O | 2.25 | 0.70 |
| 7:MA:426:ASN:O | 7:MA:429:HIS:ND1 | 2.16 | 0.70 |
| 8:EB:16:ARG:HH21 | 8:KB:64:PRO:HG2 | 1.56 | 0.70 |
| 8:MB:50:GLN:NE2 | 8:NB:145:ASP:OD1 | 2.24 | 0.70 |
| 1:A:71:TYR:OH | 1:B:116:LYS:NZ | 2.23 | 0.70 |
| 2:H:193:GLN:HE22 | 3:N:89:GLY:HA2 | 1.54 | 0.70 |
| 4:T:18:ARG:O | 4:T:106:ARG:NH2 | 2.24 | 0.70 |
| 7:g:11:GLY:O | 7:l:520:ARG:NH1 | 2.24 | 0.70 |
| 7:g:520:ARG:NH1 | 7:h:11:GLY:O | 2.25 | 0.70 |
| 7:AA:164:ARG:HG2 | 7:AA:187:SER:HB2 | 1.72 | 0.70 |
| 7:CA:150:LEU:HB3 | 7:CA:233:LEU:HB2 | 1.73 | 0.70 |
| 7:DA:452:LYS:NZ | 7:JA:519:ARG:O | 2.23 | 0.70 |
| 7:FA:164:ARG:HG2 | 7:FA:187:SER:HB2 | 1.72 | 0.70 |
| 7:LA:146:PRO:HG2 | 7:LA:148:ARG:HH12 | 1.57 | 0.70 |
| 7:OA:325:VAL:O | 7:OA:403:ASN:ND2 | 2.23 | 0.70 |
| 7:PA:111:SER:OG | 7:PA:113:GLU:OE1 | 2.09 | 0.70 |
| 3:M:43:VAL:H | 6:a:9:ARG:HH21 | 1.39 | 0.70 |
| 3:N:43:VAL:O | 6:b:9:ARG:NH2 | 2.25 | 0.70 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 5:8:314:LYS:NZ | 5:8:315:ALA:O | 2.21 | 0.70 |
| 7:j:452:LYS:NZ | 7:p:519:ARG:O | 2.24 | 0.70 |
| 7:AA:325:VAL:O | 7:AA:403:ASN:ND2 | 2.24 | 0.70 |
| 7:OA:109:ASP:HA | 7:OA:132:ALA:H | 1.56 | 0.70 |
| 7:OA:363:VAL:O | 7:OA:366:TRP:NE1 | 2.24 | 0.70 |
| 7:OA:484:ARG:NH1 | 7:OA:513:CYS:SG | 2.64 | 0.70 |
| 7:RA:109:ASP:HA | 7:RA:132:ALA:H | 1.56 | 0.70 |
| 2:H:180:SER:HG | 2:H:183:TYR:HH | 1.37 | 0.70 |
| 3:P:43:VAL:H | 6:d:9:ARG:HH21 | 1.39 | 0.70 |
| 5:9:390:SER:HA | 6:e:70:ARG:HD3 | 1.72 | 0.70 |
| 7:k:500:GLN:NE2 | 7:k:502:GLU:O | 2.24 | 0.70 |
| 7:m:202:LEU:HB2 | 7:m:203:PRO:HD3 | 1.73 | 0.70 |
| 7:n:202:LEU:HB2 | 7:n:203:PRO:HD3 | 1.73 | 0.70 |
| 7:o:350:TYR:HA | 7:o:353:LYS:HE2 | 1.74 | 0.70 |
| 7:DA:10:LEU:HD11 | 7:DA:17:ALA:HB3 | 1.74 | 0.70 |
| 7:DA:520:ARG:HG3 | 7:EA:16:VAL:HA | 1.73 | 0.70 |
| 7:NA:484:ARG:NH1 | 7:NA:513:CYS:SG | 2.64 | 0.70 |
| 7:PA:109:ASP:HA | 7:PA:132:ALA:H | 1.56 | 0.70 |
| 7:PA:363:VAL:O | 7:PA:366:TRP:NE1 | 2.24 | 0.70 |
| 7:QA:164:ARG:HG2 | 7:QA:187:SER:HB2 | 1.73 | 0.70 |
| 8:EB:80:GLU:OE2 | 8:EB:161:ILE:N | 2.24 | 0.70 |
| 2:L:98:PHE:HB2 | 2:L:171:ASN:OD1 | 1.92 | 0.70 |
| 4:T:34:ARG:HA | 4:T:37:VAL:HG22 | 1.73 | 0.70 |
| 5:6:101:PRO:HD2 | 5:6:259:ILE:HD11 | 1.73 | 0.70 |
| 5:6:314:LYS:NZ | 5:6:315:ALA:O | 2.21 | 0.70 |
| 7:g:114:PRO:HD3 | 7:g:230:LYS:HZ3 | 1.56 | 0.70 |
| 7:j:6:ILE:HG21 | 7:j:18:VAL:HG22 | 1.72 | 0.70 |
| 7:j:107:MET:HE2 | 7:j:131:GLU:HG3 | 1.71 | 0.70 |
| 7:p:350:TYR:HA | 7:p:353:LYS:HE2 | 1.73 | 0.70 |
| 7:BA:150:LEU:HB3 | 7:BA:233:LEU:HB2 | 1.72 | 0.70 |
| 7:BA:378:ILE:HB | 7:BA:413:MET:HB3 | 1.73 | 0.70 |
| 7:CA:325:VAL:O | 7:CA:403:ASN:ND2 | 2.24 | 0.70 |
| 7:DA:500:GLN:NE2 | 7:DA:502:GLU:O | 2.24 | 0.70 |
| 7:EA:164:ARG:HG2 | 7:EA:187:SER:HB2 | 1.72 | 0.70 |
| 7:JA:437:MET:HA | 7:JA:440:ILE:HG12 | 1.74 | 0.70 |
| 7:KA:146:PRO:HG2 | 7:KA:148:ARG:HH12 | 1.57 | 0.70 |
| 7:MA:109:ASP:HA | 7:MA:132:ALA:H | 1.57 | 0.70 |
| 7:NA:109:ASP:HA | 7:NA:132:ALA:H | 1.56 | 0.70 |
| 7:QA:363:VAL:O | 7:QA:366:TRP:NE1 | 2.24 | 0.70 |
| 7:RA:363:VAL:O | 7:RA:366:TRP:NE1 | 2.24 | 0.70 |
| 8:MB:72:HIS:NE2 | 8:NB:104:LYS:O | 2.24 | 0.70 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:D:71:TYR:OH | 1:E:116:LYS:NZ | 2.23 | 0.69 |
| 5:Y:386:ARG:HG2 | 5:Y:473:SER:HB2 | 1.73 | 0.69 |
| 5:2:386:ARG:HG2 | 5:2:473:SER:HB2 | 1.74 | 0.69 |
| 7:q:202:LEU:HB2 | 7:q:203:PRO:HD3 | 1.73 | 0.69 |
| 7:r:291:ILE:HG22 | 7:r:442:ARG:HH22 | 1.56 | 0.69 |
| 7:BA:449:ARG:NH2 | 7:HA:407:VAL:O | 2.25 | 0.69 |
| 7:MA:164:ARG:HG2 | 7:MA:187:SER:HB2 | 1.73 | 0.69 |
| 8:MB:119:SER:OG | 8:RB:9:ASN:ND2 | 2.24 | 0.69 |
| 8:QB:119:SER:HB2 | 8:QB:124:ALA:HA | 1.73 | 0.69 |
| 4:S:18:ARG:O | 4:S:106:ARG:NH2 | 2.24 | 0.69 |
| 5:6:268:THR:HG22 | 5:6:269:ALA:H | 1.57 | 0.69 |
| 5:8:390:SER:HA | 6:d:70:ARG:HD3 | 1.72 | 0.69 |
| 7:m:350:TYR:HA | 7:m:353:LYS:HE2 | 1.73 | 0.69 |
| 7:o:508:VAL:O | 7:CA:523:GLY:HA2 | 1.91 | 0.69 |
| 7:DA:189:ALA:HB3 | 7:DA:192:ALA:HB2 | 1.72 | 0.69 |
| 7:DA:378:ILE:HB | 7:DA:413:MET:HB3 | 1.73 | 0.69 |
| 7:FA:437:MET:HA | 7:FA:440:ILE:HG12 | 1.74 | 0.69 |
| 7:LA:527:LEU:HG | 7:LA:529:LYS:H | 1.57 | 0.69 |
| 7:MA:21:ILE:HA | 7:RA:525:PRO:HG2 | 1.74 | 0.69 |
| 8:BB:11:LYS:NZ | 8:CB:121:GLY:O | 2.25 | 0.69 |
| 7:l:325:VAL:O | 7:l:403:ASN:ND2 | 2.24 | 0.69 |
| 7:o:202:LEU:HB2 | 7:o:203:PRO:HD3 | 1.73 | 0.69 |
| 7:r:350:TYR:HA | 7:r:353:LYS:HE2 | 1.74 | 0.69 |
| 7:AA:150:LEU:HB3 | 7:AA:233:LEU:HB2 | 1.73 | 0.69 |
| 7:EA:520:ARG:HG3 | 7:FA:16:VAL:HA | 1.74 | 0.69 |
| 7:GA:437:MET:HA | 7:GA:440:ILE:HG12 | 1.73 | 0.69 |
| 7:JA:507:GLU:HA | 7:PA:522:GLN:HG3 | 1.74 | 0.69 |
| 7:KA:527:LEU:HG | 7:KA:529:LYS:H | 1.57 | 0.69 |
| 7:LA:433:VAL:HG12 | 7:LA:437:MET:HE1 | 1.74 | 0.69 |
| 7:QA:111:SER:OG | 7:QA:113:GLU:OE1 | 2.10 | 0.69 |
| 3:Q:19:LYS:HE2 | 5:8:27:LYS:HB2 | 1.74 | 0.69 |
| 7:q:502:GLU:HG2 | 7:q:504:ASP:H | 1.56 | 0.69 |
| 7:HA:146:PRO:HG2 | 7:HA:148:ARG:HH12 | 1.57 | 0.69 |
| 7:MA:418:ALA:HB1 | 7:MA:431:GLN:HG2 | 1.74 | 0.69 |
| 7:OA:525:PRO:HG2 | 7:PA:21:ILE:HA | 1.74 | 0.69 |
| 7:RA:405:VAL:HG22 | 7:RA:413:MET:HE3 | 1.73 | 0.69 |
| 8:BB:16:ARG:HH21 | 8:HB:64:PRO:HG2 | 1.56 | 0.69 |
| 8:JB:144:ILE:HG13 | 8:JB:158:SER:HB3 | 1.74 | 0.69 |
| 8:KB:6:THR:OG1 | 8:LB:25:GLU:OE2 | 2.06 | 0.69 |
| 8:MB:104:LYS:O | 8:RB:72:HIS:NE2 | 2.25 | 0.69 |
| 1:F:166:ALA:O | 1:F:169:GLN:NE2 | 2.23 | 0.69 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 2:L:153:ASP:HB3 | 2:L:176:GLN:HB2 | 1.74 | 0.69 |
| 5:0:285:TYR:HE2 | 5:0:301:TYR:HB2 | 1.58 | 0.69 |
| 7:i:452:LYS:NZ | 7:o:519:ARG:O | 2.24 | 0.69 |
| 7:i:520:ARG:NH2 | 7:j:13:ALA:O | 2.26 | 0.69 |
| 7:k:404:LYS:N | 7:k:417:ASP:OD2 | 2.18 | 0.69 |
| 7:m:469:LYS:HB3 | 7:m:473:ARG:HH12 | 1.56 | 0.69 |
| 7:BA:164:ARG:HG2 | 7:BA:187:SER:HB2 | 1.72 | 0.69 |
| 7:CA:437:MET:HA | 7:CA:440:ILE:HG12 | 1.75 | 0.69 |
| 7:KA:433:VAL:HG12 | 7:KA:437:MET:HE1 | 1.75 | 0.69 |
| 3:M:16:SER:O | 7:g:529:LYS:NZ | 2.26 | 0.69 |
| 3:N:43:VAL:H | 6:b:9:ARG:HH21 | 1.39 | 0.69 |
| 4:U:58:GLN:NE2 | 4:U:88:SER:O | 2.25 | 0.69 |
| 5:2:285:TYR:HE2 | 5:2:301:TYR:HB2 | 1.58 | 0.69 |
| 7:EA:437:MET:HA | 7:EA:440:ILE:HG12 | 1.75 | 0.69 |
| 7:GA:146:PRO:HG2 | 7:GA:148:ARG:HH12 | 1.57 | 0.69 |
| 7:HA:507:GLU:HA | 7:NA:522:GLN:HG3 | 1.75 | 0.69 |
| 7:IA:527:LEU:HG | 7:IA:529:LYS:H | 1.57 | 0.69 |
| 7:JA:281:ALA:HA | 7:JA:284:LYS:HD2 | 1.74 | 0.69 |
| 7:PA:480:LEU:HD21 | 7:PA:494:TYR:HB3 | 1.74 | 0.69 |
| 7:QA:405:VAL:HG22 | 7:QA:413:MET:HE3 | 1.73 | 0.69 |
| 8:GB:32:PHE:H | 8:RB:65:ASN:HD21 | 1.37 | 0.69 |
| 1:A:116:LYS:NZ | 1:F:71:TYR:OH | 2.22 | 0.69 |
| 5:4:101:PRO:HD2 | 5:4:259:ILE:HD11 | 1.74 | 0.69 |
| 5:4:268:THR:HG22 | 5:4:269:ALA:H | 1.57 | 0.69 |
| 7:BA:325:VAL:O | 7:BA:403:ASN:ND2 | 2.24 | 0.69 |
| 7:EA:378:ILE:HB | 7:EA:413:MET:HB3 | 1.73 | 0.69 |
| 7:OA:164:ARG:HG2 | 7:OA:187:SER:HB2 | 1.73 | 0.69 |
| 7:RA:164:ARG:HG2 | 7:RA:187:SER:HB2 | 1.73 | 0.69 |
| 8:CB:47:ARG:NH2 | 8:DB:148:THR:O | 2.26 | 0.69 |
| 8:JB:16:ARG:NH1 | 8:PB:65:ASN:O | 2.22 | 0.69 |
| 8:NB:119:SER:HB2 | 8:NB:124:ALA:HA | 1.73 | 0.69 |
| 8:NB:139:ILE:HG13 | 8:NB:161:ILE:HD13 | 1.75 | 0.69 |
| 2:I:153:ASP:HB3 | 2:I:176:GLN:HB2 | 1.74 | 0.69 |
| 4:X:85:GLU:O | 5:9:47:ARG:NH2 | 2.24 | 0.69 |
| 5:Y:285:TYR:HE2 | 5:Y:301:TYR:HB2 | 1.58 | 0.69 |
| 5:0:410:ARG:NH2 | 5:0:411:ASP:OD2 | 2.24 | 0.69 |
| 5:3:386:ARG:HG2 | 5:3:473:SER:HB2 | 1.74 | 0.69 |
| 5:8:268:THR:HG22 | 5:8:269:ALA:H | 1.58 | 0.69 |
| 5:8:292:GLN:HE21 | 6:e:89:HIS:HA | 1.57 | 0.69 |
| 5:9:268:THR:HG22 | 5:9:269:ALA:H | 1.58 | 0.69 |
| 6:d:2:GLN:HB3 | 6:d:5:TRP:HB2 | 1.75 | 0.69 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:g:520:ARG:NH2 | 7:h:13:ALA:O | 2.25 | 0.69 |
| 7:h:452:LYS:NZ | 7:n:519:ARG:O | 2.24 | 0.69 |
| 7:h:500:GLN:NE2 | 7:h:502:GLU:O | 2.24 | 0.69 |
| 7:j:404:LYS:N | 7:j:417:ASP:OD2 | 2.19 | 0.69 |
| 7:m:498:VAL:HG22 | 7:m:508:VAL:HG22 | 1.75 | 0.69 |
| 7:o:291:ILE:HG22 | 7:o:442:ARG:HH22 | 1.55 | 0.69 |
| 7:p:500:GLN:NE2 | 7:p:502:GLU:O | 2.26 | 0.69 |
| 7:r:356:GLY:HA2 | 7:r:359:LYS:HE3 | 1.75 | 0.69 |
| 7:BA:289:ARG:O | 7:BA:442:ARG:NH2 | 2.25 | 0.69 |
| 7:BA:520:ARG:HA | 7:CA:16:VAL:HG22 | 1.74 | 0.69 |
| 7:DA:289:ARG:O | 7:DA:442:ARG:NH2 | 2.24 | 0.69 |
| 7:GA:507:GLU:HA | 7:MA:522:GLN:HG3 | 1.73 | 0.69 |
| 7:GA:527:LEU:HG | 7:GA:529:LYS:H | 1.57 | 0.69 |
| 7:HA:527:LEU:HG | 7:HA:529:LYS:H | 1.57 | 0.69 |
| 7:NA:164:ARG:HG2 | 7:NA:187:SER:HB2 | 1.73 | 0.69 |
| 7:OA:418:ALA:HB1 | 7:OA:431:GLN:HG2 | 1.74 | 0.69 |
| 7:PA:164:ARG:HG2 | 7:PA:187:SER:HB2 | 1.73 | 0.69 |
| 7:PA:325:VAL:O | 7:PA:403:ASN:ND2 | 2.23 | 0.69 |
| 7:PA:418:ALA:HB1 | 7:PA:431:GLN:HG2 | 1.74 | 0.69 |
| 7:QA:418:ALA:HB1 | 7:QA:431:GLN:HG2 | 1.74 | 0.69 |
| 7:RA:111:SER:OG | 7:RA:113:GLU:OE1 | 2.09 | 0.69 |
| 8:BB:163:TYR:HE2 | 8:BB:166:ILE:HD11 | 1.55 | 0.69 |
| 8:CB:11:LYS:NZ | 8:DB:121:GLY:O | 2.26 | 0.69 |
| 8:GB:144:ILE:HG13 | 8:GB:158:SER:HB3 | 1.73 | 0.69 |
| 8:LB:101:ILE:O | 8:LB:104:LYS:NZ | 2.26 | 0.69 |
| 8:QB:72:HIS:NE2 | 8:RB:104:LYS:O | 2.25 | 0.69 |
| 5:5:170:GLU:OE2 | 5:5:232:TRP:NE1 | 2.25 | 0.69 |
| 7:r:202:LEU:HB2 | 7:r:203:PRO:HD3 | 1.73 | 0.69 |
| 7:AA:260:ASN:ND2 | 7:GA:388:PRO:O | 2.26 | 0.69 |
| 7:EA:500:GLN:NE2 | 7:EA:502:GLU:O | 2.24 | 0.69 |
| 7:IA:281:ALA:HA | 7:IA:284:LYS:HD2 | 1.75 | 0.69 |
| 8:AB:148:THR:O | 8:FB:47:ARG:NH2 | 2.26 | 0.69 |
| 8:GB:84:GLN:NE2 | 8:GB:157:PRO:O | 2.26 | 0.69 |
| 8:GB:101:ILE:O | 8:GB:104:LYS:NZ | 2.25 | 0.69 |
| 8:QB:139:ILE:HG13 | 8:QB:161:ILE:HD13 | 1.75 | 0.69 |
| 1:D:91:ARG:HH21 | 1:E:120:ILE:HG23 | 1.58 | 0.69 |
| 4:V:48:LEU:HD13 | 4:V:98:LYS:HB3 | 1.75 | 0.69 |
| 4:W:34:ARG:HA | 4:W:37:VAL:HG22 | 1.73 | 0.69 |
| 5:5:29:VAL:HA | 5:5:34:VAL:HG21 | 1.74 | 0.69 |
| 5:5:268:THR:HG22 | 5:5:269:ALA:H | 1.58 | 0.69 |
| 6:f:2:GLN:HB3 | 6:f:5:TRP:HB2 | 1.75 | 0.69 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:g:14:SER:HB3 | 7:l:521:ILE:HB | 1.75 | 0.69 |
| 7:m:502:GLU:HG2 | 7:m:504:ASP:H | 1.58 | 0.69 |
| 7:n:502:GLU:HG2 | 7:n:504:ASP:H | 1.57 | 0.69 |
| 7:EA:260:ASN:ND2 | 7:KA:388:PRO:O | 2.26 | 0.69 |
| 7:NA:418:ALA:HB1 | 7:NA:431:GLN:HG2 | 1.74 | 0.69 |
| 7:RA:426:ASN:O | 7:RA:429:HIS:ND1 | 2.16 | 0.69 |
| 8:AB:56:ARG:HD3 | 8:AB:73:GLY:H | 1.58 | 0.69 |
| 5:3:285:TYR:HE2 | 5:3:301:TYR:HB2 | 1.58 | 0.68 |
| 5:9:101:PRO:HD2 | 5:9:259:ILE:HD11 | 1.73 | 0.68 |
| 7:q:500:GLN:NE2 | 7:q:502:GLU:O | 2.26 | 0.68 |
| 7:CA:260:ASN:ND2 | 7:IA:388:PRO:O | 2.26 | 0.68 |
| 7:IA:146:PRO:HG2 | 7:IA:148:ARG:HH12 | 1.57 | 0.68 |
| 7:JA:146:PRO:HG2 | 7:JA:148:ARG:HH12 | 1.57 | 0.68 |
| 7:RA:418:ALA:HB1 | 7:RA:431:GLN:HG2 | 1.74 | 0.68 |
| 8:AB:154:ALA:HA | 8:FB:29:SER:H | 1.58 | 0.68 |
| 5:Z:285:TYR:HE2 | 5:Z:301:TYR:HB2 | 1.58 | 0.68 |
| 5:Z:410:ARG:NH2 | 5:Z:411:ASP:OD2 | 2.24 | 0.68 |
| 5:4:170:GLU:OE2 | 5:4:232:TRP:NE1 | 2.25 | 0.68 |
| 5:9:310:LEU:HB2 | 5:9:419:ARG:HH22 | 1.58 | 0.68 |
| 7:o:356:GLY:HA2 | 7:o:359:LYS:HE3 | 1.75 | 0.68 |
| 7:q:331:SER:N | 7:q:384:GLN:O | 2.22 | 0.68 |
| 7:r:500:GLN:NE2 | 7:r:502:GLU:O | 2.27 | 0.68 |
| 7:IA:433:VAL:HG12 | 7:IA:437:MET:HE1 | 1.74 | 0.68 |
| 7:JA:433:VAL:HG12 | 7:JA:437:MET:HE1 | 1.74 | 0.68 |
| 8:RB:134:MET:HE1 | 8:RB:166:ILE:HG23 | 1.73 | 0.68 |
| 3:Q:44:TYR:OH | 4:W:75:ARG:NH1 | 2.27 | 0.68 |
| 5:Y:410:ARG:NH2 | 5:Y:411:ASP:OD2 | 2.24 | 0.68 |
| 5:0:32:GLN:HG2 | 5:6:25:TRP:HH2 | 1.58 | 0.68 |
| 5:7:268:THR:HG22 | 5:7:269:ALA:H | 1.58 | 0.68 |
| 7:k:520:ARG:NH2 | 7:l:13:ALA:O | 2.26 | 0.68 |
| 7:n:498:VAL:HG22 | 7:n:508:VAL:HG22 | 1.76 | 0.68 |
| 8:AB:16:ARG:HH21 | 8:GB:64:PRO:HG2 | 1.58 | 0.68 |
| 8:IB:144:ILE:HG13 | 8:IB:158:SER:HB3 | 1.76 | 0.68 |
| 4:V:34:ARG:HA | 4:V:37:VAL:HG22 | 1.74 | 0.68 |
| 7:GA:433:VAL:HG12 | 7:GA:437:MET:HE1 | 1.74 | 0.68 |
| 7:RA:340:ARG:HH22 | 7:RA:384:GLN:HB3 | 1.58 | 0.68 |
| 8:AB:11:LYS:NZ | 8:BB:121:GLY:O | 2.25 | 0.68 |
| 8:AB:47:ARG:HH11 | 8:LB:64:PRO:HA | 1.57 | 0.68 |
| 8:CB:29:SER:H | 8:DB:154:ALA:HA | 1.58 | 0.68 |
| 8:EB:47:ARG:NH2 | 8:FB:148:THR:O | 2.26 | 0.68 |
| 8:PB:25:GLU:HB2 | 8:QB:89:ILE:HD13 | 1.73 | 0.68 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 2:G:108:VAL:HG11 | 2:G:168:PHE:HB2 | 1.75 | 0.68 |
| 5:3:170:GLU:HB2 | 5:3:230:LYS:HB3 | 1.75 | 0.68 |
| 7:i:520:ARG:NH1 | 7:j:11:GLY:O | 2.27 | 0.68 |
| 7:BA:260:ASN:ND2 | 7:HA:388:PRO:O | 2.27 | 0.68 |
| 7:BA:437:MET:HA | 7:BA:440:ILE:HG12 | 1.75 | 0.68 |
| 7:JA:527:LEU:HG | 7:JA:529:LYS:H | 1.57 | 0.68 |
| 7:KA:437:MET:HA | 7:KA:440:ILE:HG12 | 1.74 | 0.68 |
| 7:MA:340:ARG:HH22 | 7:MA:384:GLN:HB3 | 1.58 | 0.68 |
| 8:DB:26:ARG:HH21 | 8:DB:27:LEU:HB2 | 1.59 | 0.68 |
| 8:JB:84:GLN:NE2 | 8:JB:157:PRO:O | 2.27 | 0.68 |
| 2:I:98:PHE:HB2 | 2:I:171:ASN:OD1 | 1.92 | 0.68 |
| 2:L:190:ARG:HH21 | 3:R:88:SER:N | 1.92 | 0.68 |
| 4:S:34:ARG:HA | 4:S:37:VAL:HG22 | 1.74 | 0.68 |
| 5:9:170:GLU:OE2 | 5:9:232:TRP:NE1 | 2.25 | 0.68 |
| 6:d:193:PRO:HB2 | 6:d:194:LEU:HD23 | 1.76 | 0.68 |
| 7:g:500:GLN:NE2 | 7:g:502:GLU:O | 2.25 | 0.68 |
| 7:h:378:ILE:HB | 7:h:413:MET:HB2 | 1.76 | 0.68 |
| 7:CA:378:ILE:HB | 7:CA:413:MET:HB3 | 1.73 | 0.68 |
| 7:DA:260:ASN:ND2 | 7:JA:388:PRO:O | 2.26 | 0.68 |
| 7:IA:426:ASN:O | 7:IA:429:HIS:ND1 | 2.18 | 0.68 |
| 8:AB:80:GLU:OE2 | 8:AB:161:ILE:N | 2.26 | 0.68 |
| 8:JB:58:ASP:OD1 | 8:KB:138:LYS:NZ | 2.23 | 0.68 |
| 8:RB:139:ILE:HG13 | 8:RB:161:ILE:HD13 | 1.76 | 0.68 |
| 2:J:108:VAL:HG11 | 2:J:168:PHE:HB2 | 1.75 | 0.68 |
| 4:S:54:LEU:HB3 | 4:S:57:GLU:HG2 | 1.74 | 0.68 |
| 7:h:520:ARG:NH2 | 7:i:13:ALA:O | 2.26 | 0.68 |
| 7:i:378:ILE:HB | 7:i:413:MET:HB2 | 1.76 | 0.68 |
| 7:FA:260:ASN:ND2 | 7:LA:388:PRO:O | 2.26 | 0.68 |
| 7:FA:289:ARG:O | 7:FA:442:ARG:NH2 | 2.25 | 0.68 |
| 7:HA:433:VAL:HG12 | 7:HA:437:MET:HE1 | 1.75 | 0.68 |
| 7:NA:111:SER:OG | 7:NA:113:GLU:OE1 | 2.09 | 0.68 |
| 8:CB:80:GLU:OE2 | 8:CB:161:ILE:N | 2.26 | 0.68 |
| 8:KB:144:ILE:HG13 | 8:KB:158:SER:HB3 | 1.75 | 0.68 |
| 2:J:190:ARG:HH21 | 3:P:88:SER:N | 1.92 | 0.68 |
| 2:K:190:ARG:HH21 | 3:Q:88:SER:N | 1.92 | 0.68 |
| 5:5:417:PRO:HD2 | 5:5:422:LYS:HE3 | 1.76 | 0.68 |
| 5:8:29:VAL:HA | 5:8:34:VAL:HG21 | 1.76 | 0.68 |
| 7:k:30:GLY:HA3 | 7:k:57:GLU:HB2 | 1.76 | 0.68 |
| 7:GA:281:ALA:HA | 7:GA:284:LYS:HD2 | 1.74 | 0.68 |
| 8:BB:29:SER:H | 8:CB:154:ALA:HA | 1.58 | 0.68 |
| 1:A:46:GLY:O | 1:B:167:ARG:NH1 | 2.27 | 0.68 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 2:G:180:SER:HG | 2:G:183:TYR:HH | 1.36 | 0.68 |
| 7:l:30:GLY:HA3 | 7:l:57:GLU:HB2 | 1.76 | 0.68 |
| 7:p:331:SER:N | 7:p:384:GLN:O | 2.24 | 0.68 |
| 7:CA:357:VAL:HA | 7:CA:365:GLY:H | 1.59 | 0.68 |
| 7:EA:289:ARG:O | 7:EA:442:ARG:NH2 | 2.25 | 0.68 |
| 7:FA:329:PRO:HA | 7:FA:386:LEU:HD12 | 1.76 | 0.68 |
| 7:FA:357:VAL:HA | 7:FA:365:GLY:H | 1.59 | 0.68 |
| 7:HA:437:MET:HA | 7:HA:440:ILE:HG12 | 1.74 | 0.68 |
| 7:KA:281:ALA:HA | 7:KA:284:LYS:HD2 | 1.75 | 0.68 |
| 7:RA:480:LEU:HD21 | 7:RA:494:TYR:HB3 | 1.74 | 0.68 |
| 8:AB:26:ARG:HH21 | 8:AB:27:LEU:HB2 | 1.59 | 0.68 |
| 8:BB:47:ARG:NH2 | 8:CB:148:THR:O | 2.26 | 0.68 |
| 8:FB:136:ASP:OD2 | 8:FB:164:ASN:ND2 | 2.27 | 0.68 |
| 8:HB:144:ILE:HG13 | 8:HB:158:SER:HB3 | 1.75 | 0.68 |
| 8:KB:84:GLN:NE2 | 8:KB:157:PRO:O | 2.27 | 0.68 |
| 3:R:44:TYR:OH | 4:X:75:ARG:NH1 | 2.26 | 0.68 |
| 7:EA:325:VAL:O | 7:EA:403:ASN:ND2 | 2.24 | 0.68 |
| 7:MA:111:SER:OG | 7:MA:113:GLU:OE1 | 2.09 | 0.68 |
| 7:MA:480:LEU:HD21 | 7:MA:494:TYR:HB3 | 1.74 | 0.68 |
| 7:NA:355:ARG:HA | 7:NA:358:LYS:HG2 | 1.76 | 0.68 |
| 8:AB:88:THR:HG22 | 8:AB:92:ASP:H | 1.59 | 0.68 |
| 8:HB:101:ILE:O | 8:HB:104:LYS:NZ | 2.25 | 0.68 |
| 8:PB:27:LEU:HD23 | 8:QB:89:ILE:HG22 | 1.74 | 0.68 |
| 1:C:91:ARG:HH21 | 1:D:120:ILE:HG23 | 1.59 | 0.67 |
| 3:P:107:ILE:H | 3:P:110:ILE:HG22 | 1.59 | 0.67 |
| 5:Z:32:GLN:HG2 | 5:5:25:TRP:HH2 | 1.59 | 0.67 |
| 5:6:417:PRO:HD2 | 5:6:422:LYS:HE3 | 1.76 | 0.67 |
| 6:a:2:GLN:HB3 | 6:a:5:TRP:HB2 | 1.75 | 0.67 |
| 7:k:333:LYS:HB2 | 7:k:382:SER:HB3 | 1.76 | 0.67 |
| 7:LA:437:MET:HA | 7:LA:440:ILE:HG12 | 1.75 | 0.67 |
| 8:AB:29:SER:H | 8:BB:154:ALA:HA | 1.59 | 0.67 |
| 8:EB:29:SER:H | 8:FB:154:ALA:HA | 1.59 | 0.67 |
| 8:FB:80:GLU:OE2 | 8:FB:161:ILE:N | 2.25 | 0.67 |
| 8:HB:84:GLN:NE2 | 8:HB:157:PRO:O | 2.27 | 0.67 |
| 8:LB:10:ARG:HD3 | 8:LB:14:LYS:NZ | 2.09 | 0.67 |
| 8:NB:25:GLU:HB2 | 8:OB:89:ILE:HD13 | 1.75 | 0.67 |
| 8:OB:139:ILE:HG13 | 8:OB:161:ILE:HD13 | 1.76 | 0.67 |
| 8:OB:144:ILE:HG13 | 8:OB:157:PRO:HA | 1.76 | 0.67 |
| 1:D:46:GLY:O | 1:E:167:ARG:NH1 | 2.27 | 0.67 |
| 2:I:190:ARG:HH21 | 3:O:88:SER:N | 1.92 | 0.67 |
| 2:L:24:THR:HG23 | 2:L:29:GLN:HE21 | 1.60 | 0.67 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 5:Y:170:GLU:HB2 | 5:Y:230:LYS:HB3 | 1.77 | 0.67 |
| 5:Z:119:MET:HB3 | 5:Z:138:LEU:HB3 | 1.76 | 0.67 |
| 5:7:310:LEU:HB2 | 5:7:419:ARG:HH22 | 1.59 | 0.67 |
| 7:g:378:ILE:HB | 7:g:413:MET:HB2 | 1.76 | 0.67 |
| 7:h:135:ILE:HG22 | 7:h:213:LEU:HD12 | 1.76 | 0.67 |
| 7:j:333:LYS:HB2 | 7:j:382:SER:HB3 | 1.76 | 0.67 |
| 7:CA:289:ARG:O | 7:CA:442:ARG:NH2 | 2.24 | 0.67 |
| 7:DA:357:VAL:HA | 7:DA:365:GLY:H | 1.59 | 0.67 |
| 7:HA:281:ALA:HA | 7:HA:284:LYS:HD2 | 1.75 | 0.67 |
| 7:KA:507:GLU:HA | 7:QA:522:GLN:HG3 | 1.75 | 0.67 |
| 7:NA:340:ARG:HH22 | 7:NA:384:GLN:HB3 | 1.59 | 0.67 |
| 8:AB:121:GLY:O | 8:FB:11:LYS:NZ | 2.25 | 0.67 |
| 8:GB:138:LYS:NZ | 8:LB:58:ASP:OD1 | 2.22 | 0.67 |
| 1:A:120:ILE:HG23 | 1:F:91:ARG:HH21 | 1.60 | 0.67 |
| 1:F:72:SER:O | 1:F:92:SER:N | 2.27 | 0.67 |
| 2:G:24:THR:HG23 | 2:G:29:GLN:HE21 | 1.60 | 0.67 |
| 3:O:44:TYR:OH | 4:U:75:ARG:NH1 | 2.26 | 0.67 |
| 6:d:79:MET:O | 6:d:83:GLN:NE2 | 2.27 | 0.67 |
| 6:e:2:GLN:HB3 | 6:e:5:TRP:HB2 | 1.75 | 0.67 |
| 7:k:450:GLN:NE2 | 7:q:373:GLU:OE2 | 2.28 | 0.67 |
| 7:l:333:LYS:HB2 | 7:l:382:SER:HB3 | 1.76 | 0.67 |
| 7:n:331:SER:N | 7:n:384:GLN:O | 2.22 | 0.67 |
| 7:QA:325:VAL:O | 7:QA:403:ASN:ND2 | 2.23 | 0.67 |
| 8:EB:91:GLY:O | 8:EB:95:GLN:NE2 | 2.27 | 0.67 |
| 8:MB:168:TRP:CZ3 | 8:NB:98:LYS:HD2 | 2.29 | 0.67 |
| 7:g:450:GLN:NE2 | 7:m:373:GLU:OE2 | 2.27 | 0.67 |
| 7:j:378:ILE:HB | 7:j:413:MET:HB2 | 1.76 | 0.67 |
| 7:AA:412:GLN:OE1 | 7:AA:412:GLN:N | 2.28 | 0.67 |
| 7:HA:504:ASP:HA | 7:HA:506:TRP:HZ3 | 1.60 | 0.67 |
| 7:QA:340:ARG:NH2 | 7:QA:384:GLN:HB3 | 2.08 | 0.67 |
| 8:DB:11:LYS:NZ | 8:EB:121:GLY:O | 2.25 | 0.67 |
| 8:EB:26:ARG:HH21 | 8:EB:27:LEU:HB2 | 1.59 | 0.67 |
| 8:FB:91:GLY:O | 8:FB:95:GLN:NE2 | 2.27 | 0.67 |
| 8:JB:101:ILE:O | 8:JB:104:LYS:NZ | 2.25 | 0.67 |
| 8:MB:10:ARG:CZ | 8:MB:14:LYS:HZ1 | 2.08 | 0.67 |
| 8:MB:139:ILE:HG13 | 8:MB:161:ILE:HD13 | 1.77 | 0.67 |
| 8:NB:144:ILE:HG13 | 8:NB:157:PRO:HA | 1.76 | 0.67 |
| 2:I:24:THR:HG23 | 2:I:29:GLN:HE21 | 1.60 | 0.67 |
| 5:Y:32:GLN:HG2 | 5:4:25:TRP:HH2 | 1.60 | 0.67 |
| 7:h:30:GLY:HA3 | 7:h:57:GLU:HB2 | 1.76 | 0.67 |
| 7:k:520:ARG:NH1 | 7:l:11:GLY:O | 2.27 | 0.67 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:l:404:LYS:N | 7:l:417:ASP:OD2 | 2.20 | 0.67 |
| 7:l:500:GLN:NE2 | 7:l:502:GLU:O | 2.25 | 0.67 |
| 7:AA:12:ASN:O | 7:FA:519:ARG:NH1 | 2.28 | 0.67 |
| 7:DA:325:VAL:O | 7:DA:403:ASN:ND2 | 2.24 | 0.67 |
| 7:DA:426:ASN:O | 7:DA:429:HIS:ND1 | 2.16 | 0.67 |
| 7:LA:281:ALA:HA | 7:LA:284:LYS:HD2 | 1.75 | 0.67 |
| 7:RA:355:ARG:HH22 | 7:RA:370:PRO:HA | 1.60 | 0.67 |
| 8:DB:47:ARG:HH11 | 8:IB:64:PRO:HA | 1.57 | 0.67 |
| 8:EB:11:LYS:NZ | 8:FB:121:GLY:O | 2.25 | 0.67 |
| 8:IB:101:ILE:O | 8:IB:104:LYS:NZ | 2.25 | 0.67 |
| 6:a:79:MET:O | 6:a:83:GLN:NE2 | 2.27 | 0.67 |
| 6:c:45:ARG:HA | 6:c:51:MET:HG2 | 1.77 | 0.67 |
| 7:j:520:ARG:NH2 | 7:k:13:ALA:O | 2.27 | 0.67 |
| 7:r:2:SER:OG | 7:r:3:GLN:N | 2.28 | 0.67 |
| 7:CA:193:LYS:NZ | 7:CA:194:ASP:O | 2.25 | 0.67 |
| 7:GA:504:ASP:HA | 7:GA:506:TRP:HZ3 | 1.60 | 0.67 |
| 7:HA:426:ASN:O | 7:HA:429:HIS:ND1 | 2.18 | 0.67 |
| 7:JA:504:ASP:HA | 7:JA:506:TRP:HZ3 | 1.60 | 0.67 |
| 7:KA:504:ASP:HA | 7:KA:506:TRP:HZ3 | 1.60 | 0.67 |
| 8:IB:84:GLN:NE2 | 8:IB:157:PRO:O | 2.28 | 0.67 |
| 1:D:72:SER:O | 1:D:92:SER:N | 2.27 | 0.67 |
| 2:H:24:THR:HG23 | 2:H:29:GLN:HE21 | 1.60 | 0.67 |
| 5:1:285:TYR:HE2 | 5:1:301:TYR:HB2 | 1.58 | 0.67 |
| 5:2:342:HIS:HB2 | 5:2:350:LEU:HD21 | 1.76 | 0.67 |
| 5:3:342:HIS:HB2 | 5:3:350:LEU:HD21 | 1.77 | 0.67 |
| 5:4:417:PRO:HD2 | 5:4:422:LYS:HE3 | 1.76 | 0.67 |
| 5:8:310:LEU:HB2 | 5:8:419:ARG:HH22 | 1.59 | 0.67 |
| 6:c:115:ILE:HG13 | 6:c:152:GLY:HA2 | 1.77 | 0.67 |
| 6:e:45:ARG:HA | 6:e:51:MET:HG2 | 1.77 | 0.67 |
| 6:f:193:PRO:HB2 | 6:f:194:LEU:HD23 | 1.77 | 0.67 |
| 7:DA:329:PRO:HA | 7:DA:386:LEU:HD12 | 1.76 | 0.67 |
| 7:EA:72:SER:O | 7:EA:75:GLN:NE2 | 2.28 | 0.67 |
| 7:EA:329:PRO:HA | 7:EA:386:LEU:HD12 | 1.77 | 0.67 |
| 7:MA:355:ARG:HH22 | 7:MA:370:PRO:HA | 1.60 | 0.67 |
| 7:RA:325:VAL:O | 7:RA:403:ASN:ND2 | 2.23 | 0.67 |
| 8:BB:91:GLY:O | 8:BB:95:GLN:NE2 | 2.27 | 0.67 |
| 8:OB:25:GLU:HB2 | 8:PB:89:ILE:HD13 | 1.76 | 0.67 |
| 3:N:107:ILE:H | 3:N:110:ILE:HG22 | 1.60 | 0.67 |
| 5:3:32:GLN:HG2 | 5:9:25:TRP:HH2 | 1.60 | 0.67 |
| 5:4:310:LEU:HB2 | 5:4:419:ARG:HH22 | 1.59 | 0.67 |
| 6:b:45:ARG:HA | 6:b:51:MET:HG2 | 1.77 | 0.67 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:h:520:ARG:NH1 | 7:i:11:GLY:O | 2.27 | 0.67 |
| 7:j:450:GLN:NE2 | 7:p:373:GLU:OE2 | 2.27 | 0.67 |
| 7:k:378:ILE:HB | 7:k:413:MET:HB2 | 1.76 | 0.67 |
| 7:AA:329:PRO:HA | 7:AA:386:LEU:HD12 | 1.76 | 0.67 |
| 7:CA:412:GLN:N | 7:CA:412:GLN:OE1 | 2.28 | 0.67 |
| 7:DA:193:LYS:NZ | 7:DA:194:ASP:O | 2.25 | 0.67 |
| 7:EA:193:LYS:NZ | 7:KA:24:ASP:OD2 | 2.28 | 0.67 |
| 7:FA:325:VAL:O | 7:FA:403:ASN:ND2 | 2.24 | 0.67 |
| 7:FA:426:ASN:O | 7:FA:429:HIS:ND1 | 2.16 | 0.67 |
| 7:OA:355:ARG:HH22 | 7:OA:370:PRO:HA | 1.60 | 0.67 |
| 8:BB:26:ARG:NE | 8:BB:27:LEU:H | 1.92 | 0.67 |
| 8:PB:139:ILE:HG13 | 8:PB:161:ILE:HD13 | 1.77 | 0.67 |
| 3:Q:107:ILE:H | 3:Q:110:ILE:HG22 | 1.60 | 0.67 |
| 4:S:44:ASN:OD1 | 5:9:27:LYS:NZ | 2.27 | 0.67 |
| 4:V:54:LEU:HB3 | 4:V:57:GLU:HG2 | 1.74 | 0.67 |
| 5:1:170:GLU:HB2 | 5:1:230:LYS:HB3 | 1.77 | 0.67 |
| 5:6:310:LEU:HB2 | 5:6:419:ARG:HH22 | 1.59 | 0.67 |
| 7:g:30:GLY:HA3 | 7:g:57:GLU:HB2 | 1.76 | 0.67 |
| 7:BA:412:GLN:OE1 | 7:BA:412:GLN:N | 2.28 | 0.67 |
| 7:DA:412:GLN:OE1 | 7:DA:412:GLN:N | 2.28 | 0.67 |
| 7:FA:72:SER:O | 7:FA:75:GLN:NE2 | 2.28 | 0.67 |
| 7:GA:352:ALA:HA | 7:GA:355:ARG:HH11 | 1.60 | 0.67 |
| 7:IA:437:MET:HA | 7:IA:440:ILE:HG12 | 1.74 | 0.67 |
| 7:JA:352:ALA:HA | 7:JA:355:ARG:HH11 | 1.60 | 0.67 |
| 8:QB:144:ILE:HG13 | 8:QB:157:PRO:HA | 1.76 | 0.67 |
| 1:A:91:ARG:HH21 | 1:B:120:ILE:HG23 | 1.59 | 0.67 |
| 4:W:54:LEU:HB3 | 4:W:57:GLU:HG2 | 1.75 | 0.67 |
| 5:Y:376:LYS:HB3 | 5:Y:462:TYR:HE1 | 1.60 | 0.67 |
| 5:Z:376:LYS:HB3 | 5:Z:462:TYR:HE1 | 1.60 | 0.67 |
| 5:0:110:LEU:HD11 | 5:0:246:LEU:HB3 | 1.77 | 0.67 |
| 5:2:32:GLN:HG2 | 5:8:25:TRP:HH2 | 1.60 | 0.67 |
| 5:2:386:ARG:NH1 | 5:2:476:GLU:OE1 | 2.28 | 0.67 |
| 7:i:450:GLN:NE2 | 7:o:373:GLU:OE2 | 2.28 | 0.67 |
| 7:k:50:PHE:H | 7:k:96:ALA:HA | 1.60 | 0.67 |
| 7:m:2:SER:OG | 7:m:3:GLN:N | 2.28 | 0.67 |
| 7:AA:520:ARG:HE | 7:BA:17:ALA:H | 1.43 | 0.67 |
| 7:KA:369:SER:O | 7:KA:375:ARG:NE | 2.24 | 0.67 |
| 7:MA:404:LYS:N | 7:MA:417:ASP:OD2 | 2.28 | 0.67 |
| 7:OA:355:ARG:HA | 7:OA:358:LYS:HG2 | 1.76 | 0.67 |
| 7:QA:404:LYS:N | 7:QA:417:ASP:OD2 | 2.28 | 0.67 |
| 8:BB:26:ARG:HH21 | 8:BB:27:LEU:HB2 | 1.59 | 0.67 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 8:CB:91:GLY:O | 8:CB:95:GLN:NE2 | 2.27 | 0.67 |
| 8:LB:144:ILE:HG13 | 8:LB:158:SER:HB3 | 1.76 | 0.67 |
| 3:M:85:ILE:HD11 | 3:M:107:ILE:HG13 | 1.78 | 0.66 |
| 3:P:54:PRO:HA | 3:P:57:LYS:HE2 | 1.77 | 0.66 |
| 3:Q:54:PRO:HA | 3:Q:57:LYS:HE2 | 1.76 | 0.66 |
| 5:7:191:ALA:HA | 6:d:102:TYR:CE1 | 2.30 | 0.66 |
| 6:f:182:ARG:NH2 | 6:f:185:ASN:OD1 | 2.28 | 0.66 |
| 7:g:325:VAL:O | 7:g:403:ASN:ND2 | 2.25 | 0.66 |
| 7:AA:357:VAL:HA | 7:AA:365:GLY:H | 1.59 | 0.66 |
| 7:CA:72:SER:O | 7:CA:75:GLN:NE2 | 2.28 | 0.66 |
| 7:GA:48:LYS:HB2 | 7:GA:53:LEU:HD21 | 1.78 | 0.66 |
| 7:MA:355:ARG:HA | 7:MA:358:LYS:HG2 | 1.77 | 0.66 |
| 7:NA:369:SER:O | 7:NA:375:ARG:NH2 | 2.28 | 0.66 |
| 8:KB:101:ILE:O | 8:KB:104:LYS:NZ | 2.26 | 0.66 |
| 8:QB:50:GLN:NE2 | 8:RB:145:ASP:OD1 | 2.28 | 0.66 |
| 2:K:24:THR:HG23 | 2:K:29:GLN:HE21 | 1.60 | 0.66 |
| 3:O:107:ILE:H | 3:O:110:ILE:HG22 | 1.60 | 0.66 |
| 4:S:22:ARG:HH21 | 5:4:8:LYS:HD2 | 1.60 | 0.66 |
| 4:U:54:LEU:HB3 | 4:U:57:GLU:HG2 | 1.76 | 0.66 |
| 4:V:22:ARG:HH21 | 5:7:8:LYS:HD2 | 1.60 | 0.66 |
| 4:X:54:LEU:HB3 | 4:X:57:GLU:HG2 | 1.76 | 0.66 |
| 5:1:32:GLN:HG2 | 5:7:25:TRP:HH2 | 1.59 | 0.66 |
| 6:a:115:ILE:HG13 | 6:a:152:GLY:HA2 | 1.77 | 0.66 |
| 6:a:193:PRO:HB2 | 6:a:194:LEU:HD23 | 1.77 | 0.66 |
| 6:e:115:ILE:HG13 | 6:e:152:GLY:HA2 | 1.77 | 0.66 |
| 6:f:115:ILE:HG13 | 6:f:152:GLY:HA2 | 1.77 | 0.66 |
| 7:g:7:GLN:HE21 | 7:g:10:LEU:HD21 | 1.60 | 0.66 |
| 7:BA:72:SER:O | 7:BA:75:GLN:NE2 | 2.28 | 0.66 |
| 7:JA:48:LYS:HB2 | 7:JA:53:LEU:HD21 | 1.78 | 0.66 |
| 8:AB:26:ARG:NE | 8:AB:27:LEU:H | 1.92 | 0.66 |
| 8:AB:55:THR:OG1 | 8:BB:160:ARG:NH2 | 2.28 | 0.66 |
| 8:DB:88:THR:HG22 | 8:DB:92:ASP:H | 1.59 | 0.66 |
| 8:EB:26:ARG:NE | 8:EB:27:LEU:H | 1.92 | 0.66 |
| 1:A:72:SER:O | 1:A:92:SER:N | 2.27 | 0.66 |
| 2:I:180:SER:OG | 2:I:183:TYR:OH | 2.13 | 0.66 |
| 5:Z:170:GLU:HB2 | 5:Z:230:LYS:HB3 | 1.77 | 0.66 |
| 5:1:342:HIS:HB2 | 5:1:350:LEU:HD21 | 1.77 | 0.66 |
| 5:2:110:LEU:HD11 | 5:2:246:LEU:HB3 | 1.78 | 0.66 |
| 5:2:376:LYS:HB3 | 5:2:462:TYR:HE1 | 1.60 | 0.66 |
| 5:3:376:LYS:HB3 | 5:3:462:TYR:HE1 | 1.60 | 0.66 |
| 5:3:386:ARG:NH1 | 5:3:476:GLU:OE1 | 2.29 | 0.66 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:b:115:ILE:HG13 | 6:b:152:GLY:HA2 | 1.78 | 0.66 |
| 6:c:193:PRO:HB2 | 6:c:194:LEU:HD23 | 1.78 | 0.66 |
| 7:k:135:ILE:HG22 | 7:k:213:LEU:HD12 | 1.76 | 0.66 |
| 7:l:378:ILE:HB | 7:l:413:MET:HB2 | 1.76 | 0.66 |
| 7:m:331:SER:N | 7:m:384:GLN:O | 2.24 | 0.66 |
| 7:m:434:PRO:HA | 7:m:437:MET:HE2 | 1.78 | 0.66 |
| 7:n:426:ASN:HA | 7:o:196:MET:HE1 | 1.76 | 0.66 |
| 7:p:434:PRO:HA | 7:p:437:MET:HE2 | 1.78 | 0.66 |
| 7:AA:289:ARG:O | 7:AA:442:ARG:NH2 | 2.24 | 0.66 |
| 7:DA:72:SER:O | 7:DA:75:GLN:NE2 | 2.29 | 0.66 |
| 7:FA:412:GLN:OE1 | 7:FA:412:GLN:N | 2.28 | 0.66 |
| 7:QA:355:ARG:HH22 | 7:QA:370:PRO:HA | 1.59 | 0.66 |
| 1:E:79:LYS:NZ | 1:E:81:GLY:O | 2.23 | 0.66 |
| 2:G:120:SER:O | 2:L:185:SER:OG | 2.14 | 0.66 |
| 2:H:190:ARG:HH21 | 3:N:88:SER:N | 1.92 | 0.66 |
| 2:J:180:SER:OG | 2:J:183:TYR:OH | 2.13 | 0.66 |
| 2:K:143:ARG:HB2 | 2:K:193:GLN:HB2 | 1.78 | 0.66 |
| 5:Y:110:LEU:HD11 | 5:Y:246:LEU:HB3 | 1.77 | 0.66 |
| 5:0:376:LYS:HB3 | 5:0:462:TYR:HE1 | 1.61 | 0.66 |
| 5:2:119:MET:HB3 | 5:2:138:LEU:HB3 | 1.76 | 0.66 |
| 5:2:428:LYS:NZ | 5:2:453:GLU:OE2 | 2.29 | 0.66 |
| 7:i:30:GLY:HA3 | 7:i:57:GLU:HB2 | 1.76 | 0.66 |
| 7:j:325:VAL:O | 7:j:403:ASN:ND2 | 2.25 | 0.66 |
| 7:AA:72:SER:O | 7:AA:75:GLN:NE2 | 2.28 | 0.66 |
| 7:CA:329:PRO:HA | 7:CA:386:LEU:HD12 | 1.76 | 0.66 |
| 7:GA:127:LEU:HB2 | 7:GA:218:ASN:HD21 | 1.61 | 0.66 |
| 7:LA:127:LEU:HB2 | 7:LA:218:ASN:HD21 | 1.60 | 0.66 |
| 7:LA:504:ASP:HA | 7:LA:506:TRP:HZ3 | 1.60 | 0.66 |
| 7:QA:355:ARG:HA | 7:QA:358:LYS:HG2 | 1.76 | 0.66 |
| 8:AB:47:ARG:NH2 | 8:BB:148:THR:O | 2.29 | 0.66 |
| 8:DB:29:SER:H | 8:EB:154:ALA:HA | 1.60 | 0.66 |
| 8:MB:145:ASP:OD1 | 8:RB:50:GLN:NE2 | 2.28 | 0.66 |
| 8:OB:50:GLN:NE2 | 8:PB:145:ASP:OD1 | 2.28 | 0.66 |
| 1:A:173:PHE:HA | 1:F:45:GLN:HE22 | 1.61 | 0.66 |
| 5:Y:428:LYS:NZ | 5:Y:453:GLU:OE2 | 2.29 | 0.66 |
| 5:0:170:GLU:HB2 | 5:0:230:LYS:HB3 | 1.77 | 0.66 |
| 5:3:110:LEU:HD11 | 5:3:246:LEU:HB3 | 1.77 | 0.66 |
| 6:f:45:ARG:HA | 6:f:51:MET:HG2 | 1.77 | 0.66 |
| 7:j:50:PHE:H | 7:j:96:ALA:HA | 1.60 | 0.66 |
| 7:BA:426:ASN:O | 7:BA:429:HIS:ND1 | 2.17 | 0.66 |
| 7:CA:520:ARG:HA | 7:DA:16:VAL:HG22 | 1.77 | 0.66 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:IA:504:ASP:HA | 7:IA:506:TRP:HZ3 | 1.60 | 0.66 |
| 7:KA:127:LEU:HB2 | 7:KA:218:ASN:HD21 | 1.60 | 0.66 |
| 7:LA:452:LYS:O | 7:LA:453:HIS:ND1 | 2.29 | 0.66 |
| 7:MA:325:VAL:O | 7:MA:403:ASN:ND2 | 2.23 | 0.66 |
| 7:NA:355:ARG:HH22 | 7:NA:370:PRO:HA | 1.59 | 0.66 |
| 7:OA:369:SER:O | 7:OA:375:ARG:NH2 | 2.28 | 0.66 |
| 8:BB:98:LYS:HD3 | 8:BB:101:ILE:HD11 | 1.77 | 0.66 |
| 8:DB:72:HIS:CE1 | 8:EB:104:LYS:HD2 | 2.30 | 0.66 |
| 2:H:108:VAL:HG11 | 2:H:168:PHE:HB2 | 1.77 | 0.66 |
| 4:T:22:ARG:HH21 | 5:5:8:LYS:HD2 | 1.59 | 0.66 |
| 5:9:29:VAL:HA | 5:9:34:VAL:HG21 | 1.77 | 0.66 |
| 6:b:2:GLN:HB3 | 6:b:5:TRP:HB2 | 1.75 | 0.66 |
| 7:i:325:VAL:O | 7:i:403:ASN:ND2 | 2.23 | 0.66 |
| 7:AA:16:VAL:HG22 | 7:FA:520:ARG:HA | 1.78 | 0.66 |
| 7:BA:357:VAL:HA | 7:BA:365:GLY:H | 1.61 | 0.66 |
| 7:OA:150:LEU:HB2 | 7:OA:233:LEU:HB2 | 1.78 | 0.66 |
| 7:PA:340:ARG:NH2 | 7:PA:384:GLN:HB3 | 2.10 | 0.66 |
| 8:DB:80:GLU:OE2 | 8:DB:161:ILE:N | 2.26 | 0.66 |
| 8:FB:56:ARG:HD3 | 8:FB:73:GLY:H | 1.60 | 0.66 |
| 8:MB:98:LYS:HD2 | 8:RB:168:TRP:HZ3 | 1.61 | 0.66 |
| 8:PB:10:ARG:CZ | 8:PB:14:LYS:HZ1 | 2.09 | 0.66 |
| 3:O:16:SER:O | 7:i:529:LYS:NZ | 2.29 | 0.66 |
| 4:T:67:ARG:HG3 | 4:T:68:MET:SD | 2.36 | 0.66 |
| 4:W:85:GLU:O | 5:8:47:ARG:NH2 | 2.28 | 0.66 |
| 5:0:386:ARG:NH1 | 5:0:476:GLU:OE1 | 2.29 | 0.66 |
| 5:1:376:LYS:HB3 | 5:1:462:TYR:HE1 | 1.60 | 0.66 |
| 5:5:310:LEU:HB2 | 5:5:419:ARG:HH22 | 1.59 | 0.66 |
| 5:9:417:PRO:HD2 | 5:9:422:LYS:HE3 | 1.76 | 0.66 |
| 7:EA:259:ASN:O | 7:EA:289:ARG:NH2 | 2.29 | 0.66 |
| 7:IA:259:ASN:O | 7:IA:289:ARG:NH2 | 2.29 | 0.66 |
| 8:DB:26:ARG:NE | 8:DB:27:LEU:H | 1.92 | 0.66 |
| 8:DB:91:GLY:O | 8:DB:95:GLN:NE2 | 2.28 | 0.66 |
| 8:GB:58:ASP:OD1 | 8:HB:138:LYS:NZ | 2.23 | 0.66 |
| 8:OB:4:ASN:OD1 | 8:OB:5:ASN:N | 2.29 | 0.66 |
| 5:Z:428:LYS:NZ | 5:Z:453:GLU:OE2 | 2.29 | 0.66 |
| 5:3:387:ILE:O | 5:3:475:GLU:N | 2.23 | 0.66 |
| 6:b:193:PRO:HB2 | 6:b:194:LEU:HD23 | 1.77 | 0.66 |
| 7:i:333:LYS:HB2 | 7:i:382:SER:HB3 | 1.76 | 0.66 |
| 7:l:50:PHE:H | 7:l:96:ALA:HA | 1.60 | 0.66 |
| 7:l:450:GLN:NE2 | 7:r:373:GLU:OE2 | 2.28 | 0.66 |
| 7:n:259:ASN:O | 7:CA:2:SER:N | 2.29 | 0.66 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:n:434:PRO:HA | 7:n:437:MET:HE2 | 1.78 | 0.66 |
| 7:p:378:ILE:HG23 | 7:p:379:ALA:H | 1.60 | 0.66 |
| 7:BA:193:LYS:NZ | 7:HA:24:ASP:OD2 | 2.28 | 0.66 |
| 7:KA:259:ASN:O | 7:KA:289:ARG:NH2 | 2.29 | 0.66 |
| 8:MB:25:GLU:HB2 | 8:NB:89:ILE:HD13 | 1.76 | 0.66 |
| 8:MB:47:ARG:HG3 | 8:MB:86:VAL:HG13 | 1.78 | 0.66 |
| 8:MB:89:ILE:HD13 | 8:RB:25:GLU:HB2 | 1.76 | 0.66 |
| 2:H:143:ARG:HB2 | 2:H:193:GLN:HB2 | 1.78 | 0.66 |
| 2:I:1:MET:HG2 | 7:i:374:GLU:HB3 | 1.75 | 0.66 |
| 3:M:44:TYR:HB3 | 5:4:39:LEU:HD13 | 1.78 | 0.66 |
| 3:N:16:SER:O | 7:h:529:LYS:NZ | 2.29 | 0.66 |
| 3:Q:16:SER:O | 7:k:529:LYS:NZ | 2.29 | 0.66 |
| 3:R:16:SER:O | 7:l:529:LYS:NZ | 2.29 | 0.66 |
| 5:Y:17:GLU:HA | 5:Y:20:GLU:HG2 | 1.78 | 0.66 |
| 5:Y:386:ARG:NH1 | 5:Y:476:GLU:OE1 | 2.28 | 0.66 |
| 5:4:191:ALA:HA | 6:a:102:TYR:CE1 | 2.30 | 0.66 |
| 5:6:170:GLU:OE2 | 5:6:232:TRP:NE1 | 2.25 | 0.66 |
| 5:7:417:PRO:HD2 | 5:7:422:LYS:HE3 | 1.76 | 0.66 |
| 6:d:182:ARG:NH2 | 6:d:185:ASN:OD1 | 2.28 | 0.66 |
| 7:i:404:LYS:N | 7:i:417:ASP:OD2 | 2.18 | 0.66 |
| 7:j:135:ILE:HG22 | 7:j:213:LEU:HD12 | 1.76 | 0.66 |
| 7:j:213:LEU:O | 7:j:214:ARG:NH1 | 2.28 | 0.66 |
| 7:k:166:LEU:HB3 | 7:k:185:THR:HG22 | 1.77 | 0.66 |
| 7:k:189:ALA:HB3 | 7:k:192:ALA:HB2 | 1.78 | 0.66 |
| 7:l:120:PRO:O | 7:l:123:SER:OG | 2.14 | 0.66 |
| 7:q:259:ASN:O | 7:FA:2:SER:N | 2.29 | 0.66 |
| 7:FA:259:ASN:O | 7:FA:289:ARG:NH2 | 2.29 | 0.66 |
| 7:HA:142:PRO:HB2 | 7:HA:144:ILE:HG12 | 1.77 | 0.66 |
| 7:HA:259:ASN:O | 7:HA:289:ARG:NH2 | 2.29 | 0.66 |
| 7:JA:142:PRO:HB2 | 7:JA:144:ILE:HG12 | 1.77 | 0.66 |
| 7:NA:404:LYS:N | 7:NA:417:ASP:OD2 | 2.28 | 0.66 |
| 7:PA:355:ARG:HH22 | 7:PA:370:PRO:HA | 1.59 | 0.66 |
| 8:AB:91:GLY:O | 8:AB:95:GLN:NE2 | 2.28 | 0.66 |
| 8:NB:105:ASP:O | 8:NB:138:LYS:NZ | 2.29 | 0.66 |
| 8:QB:25:GLU:HB2 | 8:RB:89:ILE:HD13 | 1.76 | 0.66 |
| 1:B:91:ARG:HH21 | 1:C:120:ILE:HG23 | 1.61 | 0.66 |
| 5:Z:386:ARG:NH1 | 5:Z:476:GLU:OE1 | 2.28 | 0.66 |
| 5:Z:387:ILE:O | 5:Z:475:GLU:N | 2.23 | 0.66 |
| 5:1:386:ARG:NH1 | 5:1:476:GLU:OE1 | 2.29 | 0.66 |
| 7:g:50:PHE:H | 7:g:96:ALA:HA | 1.60 | 0.66 |
| 7:g:333:LYS:HB2 | 7:g:382:SER:HB3 | 1.76 | 0.66 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:h:333:LYS:HB2 | 7:h:382:SER:HB3 | 1.77 | 0.66 |
| 7:i:135:ILE:HG22 | 7:i:213:LEU:HD12 | 1.76 | 0.66 |
| 7:l:135:ILE:HG22 | 7:l:213:LEU:HD12 | 1.76 | 0.66 |
| 7:l:452:LYS:NZ | 7:r:519:ARG:O | 2.24 | 0.66 |
| 7:o:498:VAL:HG22 | 7:o:508:VAL:HG22 | 1.78 | 0.66 |
| 7:AA:371:ALA:O | 7:AA:375:ARG:NH1 | 2.27 | 0.66 |
| 7:DA:120:PRO:O | 7:DA:123:SER:OG | 2.14 | 0.66 |
| 7:MA:369:SER:O | 7:MA:375:ARG:NH2 | 2.28 | 0.66 |
| 7:NA:405:VAL:HG23 | 7:NA:415:ILE:HA | 1.77 | 0.66 |
| 7:RA:369:SER:O | 7:RA:375:ARG:NH2 | 2.28 | 0.66 |
| 8:BB:80:GLU:OE2 | 8:BB:161:ILE:N | 2.28 | 0.66 |
| 1:C:72:SER:O | 1:C:92:SER:N | 2.29 | 0.65 |
| 2:K:108:VAL:HG11 | 2:K:168:PHE:HB2 | 1.78 | 0.65 |
| 4:X:22:ARG:HH21 | 5:9:8:LYS:HD2 | 1.61 | 0.65 |
| 7:j:166:LEU:HB3 | 7:j:185:THR:HG22 | 1.78 | 0.65 |
| 7:DA:193:LYS:NZ | 7:JA:24:ASP:OD2 | 2.29 | 0.65 |
| 7:GA:142:PRO:HB2 | 7:GA:144:ILE:HG12 | 1.77 | 0.65 |
| 7:HA:127:LEU:HB2 | 7:HA:218:ASN:HD21 | 1.60 | 0.65 |
| 7:IA:502:GLU:HG2 | 7:IA:504:ASP:H | 1.61 | 0.65 |
| 7:JA:426:ASN:O | 7:JA:429:HIS:ND1 | 2.18 | 0.65 |
| 7:LA:142:PRO:HB2 | 7:LA:144:ILE:HG12 | 1.77 | 0.65 |
| 8:AB:118:LYS:NZ | 8:AB:125:VAL:O | 2.28 | 0.65 |
| 8:FB:118:LYS:NZ | 8:FB:125:VAL:O | 2.28 | 0.65 |
| 8:KB:58:ASP:OD1 | 8:LB:138:LYS:NZ | 2.22 | 0.65 |
| 8:NB:11:LYS:NZ | 8:OB:122:VAL:O | 2.28 | 0.65 |
| 2:G:190:ARG:HH21 | 3:M:88:SER:N | 1.94 | 0.65 |
| 5:0:342:HIS:HB2 | 5:0:350:LEU:HD21 | 1.77 | 0.65 |
| 5:1:428:LYS:NZ | 5:1:453:GLU:OE2 | 2.29 | 0.65 |
| 5:8:417:PRO:HD2 | 5:8:422:LYS:HE3 | 1.76 | 0.65 |
| 7:h:50:PHE:H | 7:h:96:ALA:HA | 1.60 | 0.65 |
| 7:h:120:PRO:O | 7:h:123:SER:OG | 2.14 | 0.65 |
| 7:k:325:VAL:O | 7:k:403:ASN:ND2 | 2.24 | 0.65 |
| 7:p:362:ASP:OD1 | 7:p:363:VAL:N | 2.30 | 0.65 |
| 7:r:259:ASN:O | 7:AA:2:SER:N | 2.28 | 0.65 |
| 7:PA:369:SER:O | 7:PA:375:ARG:NH2 | 2.28 | 0.65 |
| 7:QA:369:SER:O | 7:QA:375:ARG:NH2 | 2.29 | 0.65 |
| 8:MB:9:ASN:ND2 | 8:NB:119:SER:OG | 2.28 | 0.65 |
| 8:PB:29:SER:HB2 | 8:QB:146:PHE:HB2 | 1.78 | 0.65 |
| 1:E:128:ILE:HD12 | 1:E:129:PRO:HD2 | 1.79 | 0.65 |
| 2:G:153:ASP:HB3 | 2:G:176:GLN:HE21 | 1.60 | 0.65 |
| 2:G:185:SER:OG | 2:H:120:SER:O | 2.15 | 0.65 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 5:0:428:LYS:NZ | 5:0:453:GLU:OE2 | 2.29 | 0.65 |
| 5:2:170:GLU:HB2 | 5:2:230:LYS:HB3 | 1.77 | 0.65 |
| 5:3:428:LYS:NZ | 5:3:453:GLU:OE2 | 2.29 | 0.65 |
| 5:9:191:ALA:HA | 6:f:102:TYR:CE1 | 2.31 | 0.65 |
| 6:d:45:ARG:HA | 6:d:51:MET:HG2 | 1.77 | 0.65 |
| 7:g:135:ILE:HG22 | 7:g:213:LEU:HD12 | 1.76 | 0.65 |
| 7:CA:193:LYS:NZ | 7:IA:24:ASP:OD2 | 2.29 | 0.65 |
| 7:CA:259:ASN:O | 7:CA:289:ARG:NH2 | 2.29 | 0.65 |
| 7:CA:371:ALA:O | 7:CA:375:ARG:NH1 | 2.27 | 0.65 |
| 7:IA:452:LYS:O | 7:IA:453:HIS:ND1 | 2.29 | 0.65 |
| 7:JA:127:LEU:HB2 | 7:JA:218:ASN:HD21 | 1.61 | 0.65 |
| 7:RA:150:LEU:HB2 | 7:RA:233:LEU:HB2 | 1.78 | 0.65 |
| 7:RA:405:VAL:HG23 | 7:RA:415:ILE:HA | 1.77 | 0.65 |
| 2:H:185:SER:OG | 2:I:120:SER:O | 2.14 | 0.65 |
| 3:O:19:LYS:HE2 | 5:6:27:LYS:HB2 | 1.78 | 0.65 |
| 5:Y:342:HIS:HB2 | 5:Y:350:LEU:HD21 | 1.77 | 0.65 |
| 6:c:182:ARG:NH2 | 6:c:185:ASN:OD1 | 2.28 | 0.65 |
| 7:h:166:LEU:HB3 | 7:h:185:THR:HG22 | 1.77 | 0.65 |
| 7:k:239:THR:HG22 | 7:k:241:GLY:H | 1.61 | 0.65 |
| 7:r:362:ASP:OD1 | 7:r:363:VAL:N | 2.30 | 0.65 |
| 7:AA:259:ASN:O | 7:AA:289:ARG:NH2 | 2.30 | 0.65 |
| 7:FA:404:LYS:N | 7:FA:417:ASP:OD2 | 2.30 | 0.65 |
| 7:IA:127:LEU:HB2 | 7:IA:218:ASN:HD21 | 1.60 | 0.65 |
| 7:JA:369:SER:O | 7:JA:375:ARG:NE | 2.24 | 0.65 |
| 7:PA:405:VAL:HG23 | 7:PA:415:ILE:HA | 1.77 | 0.65 |
| 8:CB:56:ARG:NH1 | 8:CB:72:HIS:HA | 2.12 | 0.65 |
| 8:CB:98:LYS:HD3 | 8:CB:101:ILE:HD11 | 1.77 | 0.65 |
| 8:EB:56:ARG:NE | 8:FB:140:TYR:OH | 2.28 | 0.65 |
| 8:IB:10:ARG:HD3 | 8:IB:14:LYS:NZ | 2.11 | 0.65 |
| 8:OB:105:ASP:O | 8:OB:138:LYS:NZ | 2.29 | 0.65 |
| 1:D:45:GLN:HE22 | 1:E:173:PHE:HA | 1.61 | 0.65 |
| 2:K:185:SER:OG | 2:L:120:SER:O | 2.14 | 0.65 |
| 5:Z:110:LEU:HD11 | 5:Z:246:LEU:HB3 | 1.77 | 0.65 |
| 5:Z:342:HIS:HB2 | 5:Z:350:LEU:HD21 | 1.77 | 0.65 |
| 5:8:191:ALA:HA | 6:e:102:TYR:CE1 | 2.31 | 0.65 |
| 6:a:45:ARG:HA | 6:a:51:MET:HG2 | 1.77 | 0.65 |
| 6:e:193:PRO:HB2 | 6:e:194:LEU:HD23 | 1.77 | 0.65 |
| 7:h:450:GLN:NE2 | 7:n:373:GLU:OE2 | 2.28 | 0.65 |
| 7:j:189:ALA:HB3 | 7:j:192:ALA:HB2 | 1.78 | 0.65 |
| 7:k:355:ARG:NH2 | 7:k:374:GLU:O | 2.28 | 0.65 |
| 7:l:239:THR:HG22 | 7:l:241:GLY:H | 1.61 | 0.65 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:m:378:ILE:HG23 | 7:m:379:ALA:H | 1.60 | 0.65 |
| 7:p:50:PHE:N | 7:p:95:ARG:O | 2.25 | 0.65 |
| 7:BA:329:PRO:HA | 7:BA:386:LEU:HD12 | 1.77 | 0.65 |
| 7:BA:440:ILE:HA | 7:BA:443:PHE:CD2 | 2.32 | 0.65 |
| 7:BA:506:TRP:HB2 | 7:HA:521:ILE:HG22 | 1.79 | 0.65 |
| 7:HA:48:LYS:HB2 | 7:HA:53:LEU:HD21 | 1.79 | 0.65 |
| 7:IA:142:PRO:HB2 | 7:IA:144:ILE:HG12 | 1.77 | 0.65 |
| 7:IA:352:ALA:HA | 7:IA:355:ARG:HH11 | 1.62 | 0.65 |
| 8:DB:47:ARG:NH2 | 8:EB:148:THR:O | 2.29 | 0.65 |
| 8:KB:109:ILE:HB | 8:KB:134:MET:HB2 | 1.78 | 0.65 |
| 1:D:79:LYS:NZ | 1:D:81:GLY:O | 2.24 | 0.65 |
| 3:P:16:SER:O | 7:j:529:LYS:NZ | 2.30 | 0.65 |
| 5:2:413:THR:HG23 | 5:2:419:ARG:HH21 | 1.61 | 0.65 |
| 7:j:30:GLY:HA3 | 7:j:57:GLU:HB2 | 1.76 | 0.65 |
| 7:DA:259:ASN:O | 7:DA:289:ARG:NH2 | 2.29 | 0.65 |
| 7:DA:404:LYS:N | 7:DA:417:ASP:OD2 | 2.30 | 0.65 |
| 7:EA:10:LEU:HD11 | 7:EA:17:ALA:HB3 | 1.77 | 0.65 |
| 7:EA:404:LYS:N | 7:EA:417:ASP:OD2 | 2.30 | 0.65 |
| 7:KA:48:LYS:HB2 | 7:KA:53:LEU:HD21 | 1.79 | 0.65 |
| 7:RA:355:ARG:HA | 7:RA:358:LYS:HG2 | 1.76 | 0.65 |
| 8:AB:148:THR:HG1 | 8:FB:48:THR:HG1 | 1.41 | 0.65 |
| 8:HB:109:ILE:HB | 8:HB:134:MET:HB2 | 1.78 | 0.65 |
| 1:A:45:GLN:HE22 | 1:B:173:PHE:HA | 1.61 | 0.65 |
| 1:D:128:ILE:HD12 | 1:D:129:PRO:HD2 | 1.79 | 0.65 |
| 2:I:185:SER:OG | 2:J:120:SER:O | 2.14 | 0.65 |
| 3:N:54:PRO:HA | 3:N:57:LYS:HE2 | 1.77 | 0.65 |
| 4:W:22:ARG:HH21 | 5:8:8:LYS:HD2 | 1.62 | 0.65 |
| 7:i:68:LEU:HG | 7:i:79:ILE:HD13 | 1.79 | 0.65 |
| 7:i:120:PRO:O | 7:i:123:SER:OG | 2.14 | 0.65 |
| 7:k:68:LEU:HG | 7:k:79:ILE:HD13 | 1.79 | 0.65 |
| 7:l:68:LEU:HG | 7:l:79:ILE:HD13 | 1.79 | 0.65 |
| 7:q:434:PRO:HA | 7:q:437:MET:HE2 | 1.78 | 0.65 |
| 7:q:508:VAL:HG23 | 7:EA:521:ILE:HD11 | 1.79 | 0.65 |
| 7:CA:434:PRO:O | 7:CA:438:ASN:ND2 | 2.30 | 0.65 |
| 7:GA:426:ASN:O | 7:GA:429:HIS:ND1 | 2.18 | 0.65 |
| 7:LA:352:ALA:HA | 7:LA:355:ARG:HH11 | 1.62 | 0.65 |
| 7:MA:405:VAL:HG23 | 7:MA:415:ILE:HA | 1.77 | 0.65 |
| 7:PA:355:ARG:HA | 7:PA:358:LYS:HG2 | 1.77 | 0.65 |
| 8:IB:58:ASP:OD1 | 8:JB:138:LYS:NZ | 2.23 | 0.65 |
| 8:JB:109:ILE:O | 8:JB:134:MET:N | 2.28 | 0.65 |
| 8:LB:109:ILE:HB | 8:LB:134:MET:HB2 | 1.78 | 0.65 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 4:T:86:ASP:HA | 5:5:47:ARG:NH2 | 2.12 | 0.65 |
| 5:Z:413:THR:HG23 | 5:Z:419:ARG:HH21 | 1.62 | 0.65 |
| 7:h:189:ALA:HB3 | 7:h:192:ALA:HB2 | 1.79 | 0.65 |
| 7:i:50:PHE:H | 7:i:96:ALA:HA | 1.60 | 0.65 |
| 7:j:68:LEU:HG | 7:j:79:ILE:HD13 | 1.79 | 0.65 |
| 7:n:2:SER:OG | 7:n:3:GLN:N | 2.28 | 0.65 |
| 7:n:378:ILE:HG23 | 7:n:379:ALA:H | 1.61 | 0.65 |
| 7:o:259:ASN:O | 7:DA:2:SER:N | 2.29 | 0.65 |
| 7:CA:404:LYS:N | 7:CA:417:ASP:OD2 | 2.30 | 0.65 |
| 7:EA:357:VAL:HA | 7:EA:365:GLY:H | 1.61 | 0.65 |
| 7:JA:259:ASN:O | 7:JA:289:ARG:NH2 | 2.30 | 0.65 |
| 7:KA:464:THR:O | 7:KA:468:THR:HG23 | 1.97 | 0.65 |
| 7:OA:340:ARG:HH22 | 7:OA:384:GLN:HB3 | 1.60 | 0.65 |
| 7:OA:404:LYS:N | 7:OA:417:ASP:OD2 | 2.28 | 0.65 |
| 7:RA:404:LYS:N | 7:RA:417:ASP:OD2 | 2.28 | 0.65 |
| 8:CB:56:ARG:HD3 | 8:CB:73:GLY:H | 1.61 | 0.65 |
| 8:IB:109:ILE:O | 8:IB:134:MET:N | 2.30 | 0.65 |
| 4:U:22:ARG:HH21 | 5:6:8:LYS:HD2 | 1.61 | 0.65 |
| 5:1:110:LEU:HD11 | 5:1:246:LEU:HB3 | 1.77 | 0.65 |
| 5:7:75:GLU:HG3 | 5:7:202:TYR:HB2 | 1.79 | 0.65 |
| 6:b:118:PRO:HB3 | 6:b:143:PHE:HB3 | 1.79 | 0.65 |
| 6:b:182:ARG:NH2 | 6:b:185:ASN:OD1 | 2.30 | 0.65 |
| 6:f:118:PRO:HB3 | 6:f:143:PHE:HB3 | 1.79 | 0.65 |
| 7:i:401:ARG:NE | 7:i:422:CYS:O | 2.29 | 0.65 |
| 7:i:500:GLN:NE2 | 7:i:504:ASP:O | 2.30 | 0.65 |
| 7:p:469:LYS:HB3 | 7:p:473:ARG:NH1 | 2.12 | 0.65 |
| 7:q:378:ILE:HG23 | 7:q:379:ALA:H | 1.61 | 0.65 |
| 7:AA:120:PRO:O | 7:AA:123:SER:OG | 2.15 | 0.65 |
| 7:FA:440:ILE:HA | 7:FA:443:PHE:CD2 | 2.32 | 0.65 |
| 7:KA:120:PRO:O | 7:KA:123:SER:OG | 2.15 | 0.65 |
| 7:LA:259:ASN:O | 7:LA:289:ARG:NH2 | 2.29 | 0.65 |
| 7:RA:340:ARG:NH2 | 7:RA:384:GLN:HB3 | 2.12 | 0.65 |
| 8:OB:29:SER:H | 8:PB:154:ALA:HA | 1.62 | 0.65 |
| 8:PB:9:ASN:ND2 | 8:QB:119:SER:OG | 2.28 | 0.65 |
| 8:RB:105:ASP:O | 8:RB:138:LYS:NZ | 2.29 | 0.65 |
| 5:Y:13:ALA:O | 5:Y:16:GLU:HG3 | 1.97 | 0.65 |
| 5:2:418:ASN:HD21 | 5:2:422:LYS:HB3 | 1.62 | 0.65 |
| 6:d:88:ILE:HA | 6:d:91:LYS:HG2 | 1.79 | 0.65 |
| 7:g:166:LEU:HB3 | 7:g:185:THR:HG22 | 1.78 | 0.65 |
| 7:k:213:LEU:O | 7:k:214:ARG:NH1 | 2.28 | 0.65 |
| 7:l:166:LEU:HB3 | 7:l:185:THR:HG22 | 1.77 | 0.65 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:o:507:GLU:HB3 | 7:CA:522:GLN:OE1 | 1.96 | 0.65 |
| 7:BA:120:PRO:O | 7:BA:123:SER:OG | 2.14 | 0.65 |
| 7:DA:449:ARG:NH2 | 7:JA:408:GLY:HA2 | 2.11 | 0.65 |
| 7:DA:506:TRP:HB2 | 7:JA:521:ILE:HG22 | 1.79 | 0.65 |
| 7:FA:193:LYS:NZ | 7:LA:24:ASP:OD2 | 2.29 | 0.65 |
| 7:JA:502:GLU:HG2 | 7:JA:504:ASP:H | 1.62 | 0.65 |
| 8:IB:109:ILE:HB | 8:IB:134:MET:HB2 | 1.78 | 0.65 |
| 8:PB:47:ARG:HG3 | 8:PB:86:VAL:HG13 | 1.78 | 0.65 |
| 1:F:128:ILE:HD12 | 1:F:129:PRO:HD2 | 1.79 | 0.64 |
| 3:Q:73:MET:O | 3:Q:77:LYS:HG2 | 1.97 | 0.64 |
| 5:Y:413:THR:HG23 | 5:Y:419:ARG:HH21 | 1.62 | 0.64 |
| 5:Y:418:ASN:HD21 | 5:Y:422:LYS:HB3 | 1.62 | 0.64 |
| 5:6:191:ALA:HA | 6:c:102:TYR:CE1 | 2.30 | 0.64 |
| 6:a:118:PRO:HB3 | 6:a:143:PHE:HB3 | 1.79 | 0.64 |
| 6:c:118:PRO:HB3 | 6:c:143:PHE:HB3 | 1.79 | 0.64 |
| 7:h:68:LEU:HG | 7:h:79:ILE:HD13 | 1.79 | 0.64 |
| 7:l:213:LEU:O | 7:l:214:ARG:NH1 | 2.28 | 0.64 |
| 7:m:362:ASP:OD1 | 7:m:363:VAL:N | 2.30 | 0.64 |
| 7:m:469:LYS:HB3 | 7:m:473:ARG:NH1 | 2.12 | 0.64 |
| 7:o:378:ILE:HG23 | 7:o:379:ALA:H | 1.60 | 0.64 |
| 7:p:508:VAL:HG23 | 7:DA:521:ILE:HD11 | 1.79 | 0.64 |
| 7:r:378:ILE:HG23 | 7:r:379:ALA:H | 1.61 | 0.64 |
| 7:AA:404:LYS:N | 7:AA:417:ASP:OD2 | 2.30 | 0.64 |
| 7:BA:434:PRO:O | 7:BA:438:ASN:ND2 | 2.30 | 0.64 |
| 7:NA:340:ARG:NH2 | 7:NA:384:GLN:HB3 | 2.12 | 0.64 |
| 7:QA:405:VAL:HG23 | 7:QA:415:ILE:HA | 1.77 | 0.64 |
| 8:DB:48:THR:OG1 | 8:EB:148:THR:OG1 | 2.14 | 0.64 |
| 8:FB:144:ILE:HG13 | 8:FB:157:PRO:HA | 1.79 | 0.64 |
| 8:PB:105:ASP:O | 8:PB:138:LYS:NZ | 2.29 | 0.64 |
| 1:C:113:LYS:HZ2 | 1:C:116:LYS:HD3 | 1.62 | 0.64 |
| 5:1:418:ASN:HD21 | 5:1:422:LYS:HB3 | 1.62 | 0.64 |
| 5:6:243:GLY:N | 5:6:263:THR:OG1 | 2.31 | 0.64 |
| 7:g:68:LEU:HG | 7:g:79:ILE:HD13 | 1.79 | 0.64 |
| 7:h:401:ARG:NE | 7:h:422:CYS:O | 2.29 | 0.64 |
| 7:AA:193:LYS:NZ | 7:GA:24:ASP:OD2 | 2.29 | 0.64 |
| 7:BA:259:ASN:O | 7:BA:289:ARG:NH2 | 2.29 | 0.64 |
| 7:EA:426:ASN:O | 7:EA:429:HIS:ND1 | 2.16 | 0.64 |
| 7:GA:259:ASN:O | 7:GA:289:ARG:NH2 | 2.30 | 0.64 |
| 7:OA:404:LYS:NZ | 7:OA:416:ASP:OD2 | 2.27 | 0.64 |
| 8:BB:118:LYS:NZ | 8:BB:125:VAL:O | 2.28 | 0.64 |
| 8:CB:48:THR:OG1 | 8:DB:148:THR:OG1 | 2.15 | 0.64 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 8:GB:111:MET:N | 8:GB:132:ILE:O | 2.27 | 0.64 |
| 8:KB:111:MET:N | 8:KB:132:ILE:O | 2.28 | 0.64 |
| 8:MB:11:LYS:NZ | 8:NB:122:VAL:O | 2.30 | 0.64 |
| 8:MB:105:ASP:O | 8:MB:138:LYS:NZ | 2.29 | 0.64 |
| 8:QB:34:LEU:O | 8:QB:43:SER:OG | 2.15 | 0.64 |
| 1:C:46:GLY:O | 1:D:167:ARG:NH1 | 2.30 | 0.64 |
| 1:C:128:ILE:HD12 | 1:C:129:PRO:HD2 | 1.78 | 0.64 |
| 1:E:91:ARG:HH21 | 1:F:120:ILE:HG23 | 1.62 | 0.64 |
| 4:S:67:ARG:HG3 | 4:S:68:MET:SD | 2.38 | 0.64 |
| 5:0:413:THR:HG23 | 5:0:419:ARG:HH21 | 1.62 | 0.64 |
| 5:8:121:MET:HE2 | 5:8:134:GLU:HG3 | 1.80 | 0.64 |
| 5:9:85:THR:N | 5:9:271:THR:OG1 | 2.29 | 0.64 |
| 7:g:500:GLN:NE2 | 7:g:504:ASP:O | 2.30 | 0.64 |
| 7:CA:120:PRO:O | 7:CA:123:SER:OG | 2.14 | 0.64 |
| 7:CA:520:ARG:CZ | 7:DA:10:LEU:HG | 2.27 | 0.64 |
| 7:LA:47:GLY:N | 7:LA:139:ASP:O | 2.31 | 0.64 |
| 7:OA:37:LEU:O | 7:OA:266:THR:N | 2.29 | 0.64 |
| 7:OA:405:VAL:HG23 | 7:OA:415:ILE:HA | 1.78 | 0.64 |
| 8:CB:118:LYS:NZ | 8:CB:125:VAL:O | 2.28 | 0.64 |
| 8:KB:29:SER:H | 8:LB:154:ALA:HA | 1.62 | 0.64 |
| 1:B:79:LYS:NZ | 1:B:81:GLY:O | 2.24 | 0.64 |
| 2:J:153:ASP:HB3 | 2:J:176:GLN:HE21 | 1.60 | 0.64 |
| 2:J:185:SER:OG | 2:K:120:SER:O | 2.15 | 0.64 |
| 3:R:85:ILE:HD11 | 3:R:107:ILE:HG13 | 1.79 | 0.64 |
| 5:4:85:THR:N | 5:4:271:THR:OG1 | 2.29 | 0.64 |
| 5:4:121:MET:HE2 | 5:4:134:GLU:HG3 | 1.80 | 0.64 |
| 5:7:243:GLY:N | 5:7:263:THR:OG1 | 2.31 | 0.64 |
| 7:k:500:GLN:NE2 | 7:k:504:ASP:O | 2.30 | 0.64 |
| 7:l:189:ALA:HB3 | 7:l:192:ALA:HB2 | 1.79 | 0.64 |
| 7:l:401:ARG:HB3 | 7:l:421:CYS:HA | 1.79 | 0.64 |
| 7:o:469:LYS:HB3 | 7:o:473:ARG:NH1 | 2.12 | 0.64 |
| 7:r:433:VAL:HG12 | 7:r:437:MET:HE2 | 1.79 | 0.64 |
| 7:AA:506:TRP:HB2 | 7:GA:521:ILE:HG22 | 1.79 | 0.64 |
| 7:AA:520:ARG:HH12 | 7:AA:522:GLN:HB3 | 1.61 | 0.64 |
| 7:CA:440:ILE:HA | 7:CA:443:PHE:CD2 | 2.32 | 0.64 |
| 7:CA:506:TRP:HB2 | 7:IA:521:ILE:HG22 | 1.79 | 0.64 |
| 7:GA:138:ASP:OD2 | 7:GA:214:ARG:NH1 | 2.30 | 0.64 |
| 7:GA:502:GLU:HG2 | 7:GA:504:ASP:H | 1.61 | 0.64 |
| 7:KA:142:PRO:HB2 | 7:KA:144:ILE:HG12 | 1.77 | 0.64 |
| 7:MA:333:LYS:HG2 | 7:MA:382:SER:HB3 | 1.80 | 0.64 |
| 7:OA:340:ARG:NH2 | 7:OA:384:GLN:HB3 | 2.12 | 0.64 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 8:BB:72:HIS:CE1 | 8:CB:104:LYS:HD2 | 2.32 | 0.64 |
| 8:CB:144:ILE:HG13 | 8:CB:157:PRO:HA | 1.80 | 0.64 |
| 8:EB:136:ASP:OD2 | 8:EB:164:ASN:ND2 | 2.30 | 0.64 |
| 8:MB:146:PHE:HB2 | 8:RB:29:SER:HB2 | 1.80 | 0.64 |
| 8:NB:47:ARG:HG3 | 8:NB:86:VAL:HG13 | 1.79 | 0.64 |
| 1:C:45:GLN:HE22 | 1:D:173:PHE:HA | 1.61 | 0.64 |
| 1:E:45:GLN:HE22 | 1:F:173:PHE:HA | 1.63 | 0.64 |
| 3:P:73:MET:O | 3:P:77:LYS:HG2 | 1.98 | 0.64 |
| 4:V:67:ARG:HG3 | 4:V:68:MET:SD | 2.38 | 0.64 |
| 5:2:394:GLU:OE1 | 5:3:125:ARG:NH1 | 2.31 | 0.64 |
| 5:5:191:ALA:HA | 6:b:102:TYR:CE1 | 2.31 | 0.64 |
| 5:9:121:MET:HE2 | 5:9:134:GLU:HG3 | 1.80 | 0.64 |
| 7:g:239:THR:HG22 | 7:g:241:GLY:H | 1.61 | 0.64 |
| 7:i:166:LEU:HB3 | 7:i:185:THR:HG22 | 1.78 | 0.64 |
| 7:j:253:ARG:HG3 | 7:j:256:LYS:HE3 | 1.79 | 0.64 |
| 7:m:21:ILE:HG13 | 7:r:527:LEU:HD22 | 1.80 | 0.64 |
| 7:r:508:VAL:HG23 | 7:FA:521:ILE:HD11 | 1.80 | 0.64 |
| 7:EA:120:PRO:O | 7:EA:123:SER:OG | 2.15 | 0.64 |
| 7:HA:294:PHE:HB3 | 7:HA:346:SER:HB2 | 1.78 | 0.64 |
| 7:IA:138:ASP:OD2 | 7:IA:214:ARG:NH1 | 2.29 | 0.64 |
| 7:LA:369:SER:O | 7:LA:375:ARG:NE | 2.24 | 0.64 |
| 8:HB:25:GLU:HG2 | 8:IB:89:ILE:HD11 | 1.80 | 0.64 |
| 8:IB:13:ILE:HA | 8:IB:16:ARG:HG2 | 1.79 | 0.64 |
| 3:Q:85:ILE:HD11 | 3:Q:107:ILE:HG13 | 1.80 | 0.64 |
| 3:R:107:ILE:H | 3:R:110:ILE:HG22 | 1.60 | 0.64 |
| 5:Z:189:ARG:HG3 | 5:Z:190:LEU:HG | 1.80 | 0.64 |
| 5:0:394:GLU:OE1 | 5:1:125:ARG:NH1 | 2.31 | 0.64 |
| 5:1:413:THR:HG23 | 5:1:419:ARG:HH21 | 1.61 | 0.64 |
| 5:3:189:ARG:NH1 | 5:9:290:ASP:OD1 | 2.25 | 0.64 |
| 5:7:29:VAL:HA | 5:7:34:VAL:HG21 | 1.79 | 0.64 |
| 5:7:121:MET:HE2 | 5:7:134:GLU:HG3 | 1.80 | 0.64 |
| 6:a:136:LEU:HD11 | 6:a:146:MET:HG2 | 1.80 | 0.64 |
| 6:e:182:ARG:NH2 | 6:e:185:ASN:OD1 | 2.29 | 0.64 |
| 7:h:500:GLN:NE2 | 7:h:504:ASP:O | 2.30 | 0.64 |
| 7:j:239:THR:HG22 | 7:j:241:GLY:H | 1.61 | 0.64 |
| 7:j:500:GLN:NE2 | 7:j:504:ASP:O | 2.30 | 0.64 |
| 7:k:452:LYS:NZ | 7:q:519:ARG:O | 2.24 | 0.64 |
| 7:l:500:GLN:NE2 | 7:l:504:ASP:O | 2.30 | 0.64 |
| 7:m:527:LEU:HD22 | 7:n:21:ILE:HG13 | 1.80 | 0.64 |
| 7:p:527:LEU:HD22 | 7:q:21:ILE:HG13 | 1.80 | 0.64 |
| 7:EA:440:ILE:HA | 7:EA:443:PHE:CD2 | 2.32 | 0.64 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:GA:326:TYR:CE2 | 7:GA:328:TYR:HB2 | 2.31 | 0.64 |
| 7:GA:357:VAL:HA | 7:GA:365:GLY:H | 1.63 | 0.64 |
| 7:JA:326:TYR:CE2 | 7:JA:328:TYR:HB2 | 2.31 | 0.64 |
| 7:KA:47:GLY:N | 7:KA:139:ASP:O | 2.31 | 0.64 |
| 7:LA:326:TYR:CE2 | 7:LA:328:TYR:HB2 | 2.32 | 0.64 |
| 7:NA:37:LEU:O | 7:NA:266:THR:N | 2.30 | 0.64 |
| 8:CB:26:ARG:NH2 | 8:DB:87:GLU:OE2 | 2.26 | 0.64 |
| 3:M:73:MET:O | 3:M:77:LYS:HG2 | 1.97 | 0.64 |
| 5:6:75:GLU:HG3 | 5:6:202:TYR:HB2 | 1.79 | 0.64 |
| 6:e:118:PRO:HB3 | 6:e:143:PHE:HB3 | 1.79 | 0.64 |
| 7:l:401:ARG:NE | 7:l:422:CYS:O | 2.31 | 0.64 |
| 7:o:362:ASP:OD1 | 7:o:363:VAL:N | 2.30 | 0.64 |
| 7:p:259:ASN:OD1 | 7:p:289:ARG:NH2 | 2.30 | 0.64 |
| 7:r:469:LYS:HB3 | 7:r:473:ARG:NH1 | 2.12 | 0.64 |
| 7:AA:433:VAL:O | 7:AA:436:LEU:HG | 1.98 | 0.64 |
| 7:DA:433:VAL:O | 7:DA:436:LEU:HG | 1.98 | 0.64 |
| 7:FA:120:PRO:O | 7:FA:123:SER:OG | 2.14 | 0.64 |
| 7:FA:371:ALA:O | 7:FA:375:ARG:NH1 | 2.27 | 0.64 |
| 7:GA:47:GLY:N | 7:GA:139:ASP:O | 2.31 | 0.64 |
| 7:HA:502:GLU:HG2 | 7:HA:504:ASP:H | 1.61 | 0.64 |
| 7:JA:138:ASP:OD2 | 7:JA:214:ARG:NH1 | 2.30 | 0.64 |
| 7:KA:326:TYR:CE2 | 7:KA:328:TYR:HB2 | 2.33 | 0.64 |
| 7:NA:333:LYS:HG2 | 7:NA:382:SER:HB3 | 1.80 | 0.64 |
| 8:DB:98:LYS:HD3 | 8:DB:101:ILE:HD11 | 1.78 | 0.64 |
| 8:DB:136:ASP:OD2 | 8:DB:164:ASN:ND2 | 2.30 | 0.64 |
| 8:EB:144:ILE:HG13 | 8:EB:157:PRO:HA | 1.80 | 0.64 |
| 8:NB:34:LEU:O | 8:NB:43:SER:OG | 2.15 | 0.64 |
| 8:RB:47:ARG:HG3 | 8:RB:86:VAL:HG13 | 1.80 | 0.64 |
| 2:J:24:THR:HG23 | 2:J:29:GLN:HE21 | 1.61 | 0.64 |
| 4:U:67:ARG:HG3 | 4:U:68:MET:SD | 2.38 | 0.64 |
| 5:3:418:ASN:HD21 | 5:3:422:LYS:HB3 | 1.62 | 0.64 |
| 5:4:381:ILE:HB | 5:4:446:LEU:HD11 | 1.80 | 0.64 |
| 5:5:334:ASN:OD1 | 5:5:367:LYS:NZ | 2.29 | 0.64 |
| 5:5:381:ILE:HB | 5:5:446:LEU:HD11 | 1.80 | 0.64 |
| 6:f:136:LEU:HD11 | 6:f:146:MET:HG2 | 1.80 | 0.64 |
| 7:o:527:LEU:HD22 | 7:p:21:ILE:HG13 | 1.80 | 0.64 |
| 7:HA:138:ASP:OD2 | 7:HA:214:ARG:NH1 | 2.30 | 0.64 |
| 7:LA:502:GLU:HG2 | 7:LA:504:ASP:H | 1.61 | 0.64 |
| 7:RA:333:LYS:HG2 | 7:RA:382:SER:HB3 | 1.79 | 0.64 |
| 8:AB:136:ASP:OD2 | 8:AB:164:ASN:ND2 | 2.30 | 0.64 |
| 8:AB:148:THR:OG1 | 8:FB:48:THR:OG1 | 2.15 | 0.64 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 8:FB:28:VAL:HG22 | 8:FB:30:SER:H | 1.63 | 0.64 |
| 8:GB:109:ILE:O | 8:GB:134:MET:N | 2.28 | 0.64 |
| 8:LB:13:ILE:HG13 | 8:LB:14:LYS:HD2 | 1.80 | 0.64 |
| 8:OB:28:VAL:HG22 | 8:OB:30:SER:H | 1.63 | 0.64 |
| 1:F:113:LYS:HZ2 | 1:F:116:LYS:HD3 | 1.61 | 0.64 |
| 3:N:73:MET:O | 3:N:77:LYS:HG2 | 1.97 | 0.64 |
| 3:N:85:ILE:HD11 | 3:N:107:ILE:HG13 | 1.80 | 0.64 |
| 3:O:24:GLN:HB3 | 3:O:28:TRP:HZ3 | 1.63 | 0.64 |
| 5:1:376:LYS:HA | 5:1:460:PHE:HB3 | 1.80 | 0.64 |
| 5:1:394:GLU:OE1 | 5:2:125:ARG:NH1 | 2.31 | 0.64 |
| 5:4:89:GLY:HA3 | 5:4:267:ILE:HG12 | 1.80 | 0.64 |
| 5:6:86:PRO:HD3 | 5:6:234:THR:HG21 | 1.80 | 0.64 |
| 5:7:477:GLU:HB2 | 6:c:189:LYS:HE2 | 1.80 | 0.64 |
| 5:9:334:ASN:OD1 | 5:9:367:LYS:NZ | 2.28 | 0.64 |
| 6:c:2:GLN:HB3 | 6:c:5:TRP:HB2 | 1.80 | 0.64 |
| 7:r:331:SER:N | 7:r:384:GLN:O | 2.26 | 0.64 |
| 7:BA:44:PHE:O | 7:BA:95:ARG:NE | 2.31 | 0.64 |
| 7:EA:434:PRO:O | 7:EA:438:ASN:ND2 | 2.30 | 0.64 |
| 7:MA:340:ARG:NH2 | 7:MA:384:GLN:HB3 | 2.12 | 0.64 |
| 8:AB:28:VAL:HG22 | 8:AB:30:SER:H | 1.62 | 0.64 |
| 8:AB:87:GLU:OE2 | 8:FB:26:ARG:NH2 | 2.26 | 0.64 |
| 8:AB:98:LYS:HD3 | 8:AB:101:ILE:HD11 | 1.78 | 0.64 |
| 8:DB:28:VAL:HG22 | 8:DB:30:SER:H | 1.63 | 0.64 |
| 8:EB:118:LYS:NZ | 8:EB:125:VAL:O | 2.28 | 0.64 |
| 8:IB:77:ASN:HB2 | 8:IB:165:TRP:HA | 1.79 | 0.64 |
| 8:MB:144:ILE:HG13 | 8:MB:157:PRO:HA | 1.80 | 0.64 |
| 8:QB:105:ASP:O | 8:QB:138:LYS:NZ | 2.29 | 0.64 |
| 3:N:44:TYR:OH | 4:T:75:ARG:NH1 | 2.30 | 0.64 |
| 4:X:62:ASP:HB3 | 4:X:75:ARG:HB3 | 1.79 | 0.64 |
| 4:X:67:ARG:HG3 | 4:X:68:MET:SD | 2.38 | 0.64 |
| 5:Y:125:ARG:NH1 | 5:3:394:GLU:OE1 | 2.31 | 0.64 |
| 5:Y:394:GLU:OE1 | 5:Z:125:ARG:NH1 | 2.31 | 0.64 |
| 5:4:243:GLY:N | 5:4:263:THR:OG1 | 2.31 | 0.64 |
| 5:5:243:GLY:N | 5:5:263:THR:OG1 | 2.31 | 0.64 |
| 5:8:75:GLU:HG3 | 5:8:202:TYR:HB2 | 1.80 | 0.64 |
| 6:e:136:LEU:HD11 | 6:e:146:MET:HG2 | 1.80 | 0.64 |
| 7:i:189:ALA:HB3 | 7:i:192:ALA:HB2 | 1.79 | 0.64 |
| 7:i:213:LEU:O | 7:i:214:ARG:NH1 | 2.28 | 0.64 |
| 7:p:2:SER:OG | 7:p:3:GLN:N | 2.28 | 0.64 |
| 7:AA:44:PHE:O | 7:AA:95:ARG:NE | 2.31 | 0.64 |
| 7:JA:47:GLY:N | 7:JA:139:ASP:O | 2.31 | 0.64 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:JA:357:VAL:HA | 7:JA:365:GLY:H | 1.63 | 0.64 |
| 7:NA:362:ASP:OD1 | 7:NA:363:VAL:N | 2.31 | 0.64 |
| 8:BB:144:ILE:HG13 | 8:BB:157:PRO:HA | 1.80 | 0.64 |
| 8:MB:29:SER:HB2 | 8:NB:146:PHE:HB2 | 1.80 | 0.64 |
| 8:OB:29:SER:HB2 | 8:PB:146:PHE:HB2 | 1.80 | 0.64 |
| 8:RB:28:VAL:HG22 | 8:RB:30:SER:H | 1.63 | 0.64 |
| 1:B:128:ILE:HD12 | 1:B:129:PRO:HD2 | 1.79 | 0.63 |
| 3:P:24:GLN:HB3 | 3:P:28:TRP:HZ3 | 1.63 | 0.63 |
| 5:5:89:GLY:HA3 | 5:5:267:ILE:HG12 | 1.81 | 0.63 |
| 5:8:334:ASN:OD1 | 5:8:367:LYS:NZ | 2.29 | 0.63 |
| 6:b:136:LEU:HD11 | 6:b:146:MET:HG2 | 1.80 | 0.63 |
| 7:h:239:THR:HG22 | 7:h:241:GLY:H | 1.61 | 0.63 |
| 7:k:253:ARG:HG3 | 7:k:256:LYS:HE3 | 1.80 | 0.63 |
| 7:m:259:ASN:OD1 | 7:m:289:ARG:NH2 | 2.31 | 0.63 |
| 7:DA:371:ALA:O | 7:DA:375:ARG:NH1 | 2.27 | 0.63 |
| 7:EA:412:GLN:OE1 | 7:EA:412:GLN:N | 2.28 | 0.63 |
| 7:FA:434:PRO:O | 7:FA:438:ASN:ND2 | 2.30 | 0.63 |
| 7:HA:47:GLY:N | 7:HA:139:ASP:O | 2.31 | 0.63 |
| 7:HA:352:ALA:HA | 7:HA:355:ARG:HH11 | 1.64 | 0.63 |
| 7:IA:47:GLY:N | 7:IA:139:ASP:O | 2.31 | 0.63 |
| 7:IA:294:PHE:HB3 | 7:IA:346:SER:HB2 | 1.80 | 0.63 |
| 7:IA:326:TYR:CE2 | 7:IA:328:TYR:HB2 | 2.33 | 0.63 |
| 7:IA:357:VAL:HA | 7:IA:365:GLY:H | 1.63 | 0.63 |
| 7:IA:422:CYS:HB3 | 7:IA:429:HIS:HA | 1.80 | 0.63 |
| 7:JA:464:THR:O | 7:JA:468:THR:HG23 | 1.97 | 0.63 |
| 7:KA:138:ASP:OD2 | 7:KA:214:ARG:NH1 | 2.30 | 0.63 |
| 7:OA:362:ASP:OD1 | 7:OA:363:VAL:N | 2.31 | 0.63 |
| 8:BB:136:ASP:OD2 | 8:BB:164:ASN:ND2 | 2.31 | 0.63 |
| 8:DB:56:ARG:HD3 | 8:DB:73:GLY:H | 1.63 | 0.63 |
| 8:EB:28:VAL:HG22 | 8:EB:30:SER:H | 1.63 | 0.63 |
| 8:LB:77:ASN:HB2 | 8:LB:165:TRP:HA | 1.79 | 0.63 |
| 1:A:167:ARG:NH1 | 1:F:46:GLY:O | 2.30 | 0.63 |
| 1:F:79:LYS:NZ | 1:F:81:GLY:O | 2.25 | 0.63 |
| 3:N:24:GLN:HB3 | 3:N:28:TRP:HZ3 | 1.63 | 0.63 |
| 5:3:413:THR:HG23 | 5:3:419:ARG:HH21 | 1.61 | 0.63 |
| 5:5:86:PRO:HD3 | 5:5:234:THR:HG21 | 1.80 | 0.63 |
| 5:9:381:ILE:HB | 5:9:446:LEU:HD11 | 1.80 | 0.63 |
| 6:d:136:LEU:HD11 | 6:d:146:MET:HG2 | 1.80 | 0.63 |
| 6:e:88:ILE:HA | 6:e:91:LYS:HG2 | 1.80 | 0.63 |
| 7:k:401:ARG:NE | 7:k:422:CYS:O | 2.32 | 0.63 |
| 7:BA:404:LYS:N | 7:BA:417:ASP:OD2 | 2.30 | 0.63 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:DA:520:ARG:HE | 7:EA:17:ALA:H | 1.47 | 0.63 |
| 7:EA:506:TRP:HB2 | 7:KA:521:ILE:HG22 | 1.79 | 0.63 |
| 7:LA:357:VAL:HA | 7:LA:365:GLY:H | 1.63 | 0.63 |
| 7:PA:404:LYS:N | 7:PA:417:ASP:OD2 | 2.28 | 0.63 |
| 8:CB:28:VAL:HG22 | 8:CB:30:SER:H | 1.63 | 0.63 |
| 8:GB:13:ILE:HA | 8:GB:16:ARG:HG2 | 1.79 | 0.63 |
| 8:GB:154:ALA:HB2 | 8:RB:59:VAL:HG11 | 1.80 | 0.63 |
| 8:KB:77:ASN:HB2 | 8:KB:165:TRP:HA | 1.80 | 0.63 |
| 8:MB:154:ALA:HA | 8:RB:29:SER:H | 1.62 | 0.63 |
| 8:QB:11:LYS:NZ | 8:RB:122:VAL:O | 2.29 | 0.63 |
| 8:RB:144:ILE:HG13 | 8:RB:157:PRO:HA | 1.80 | 0.63 |
| 3:M:24:GLN:HB3 | 3:M:28:TRP:HZ3 | 1.63 | 0.63 |
| 3:O:85:ILE:HD11 | 3:O:107:ILE:HG13 | 1.79 | 0.63 |
| 4:W:67:ARG:HG3 | 4:W:68:MET:SD | 2.38 | 0.63 |
| 5:O:418:ASN:HD21 | 5:O:422:LYS:HB3 | 1.62 | 0.63 |
| 6:c:88:ILE:HA | 6:c:91:LYS:HG2 | 1.80 | 0.63 |
| 7:g:6:ILE:HG23 | 7:g:17:ALA:HA | 1.80 | 0.63 |
| 7:k:120:PRO:O | 7:k:123:SER:OG | 2.15 | 0.63 |
| 7:l:6:ILE:HG23 | 7:l:17:ALA:HA | 1.79 | 0.63 |
| 7:AA:404:LYS:NZ | 7:BA:14:SER:O | 2.26 | 0.63 |
| 7:BA:520:ARG:HE | 7:CA:17:ALA:H | 1.46 | 0.63 |
| 7:EA:520:ARG:HE | 7:FA:17:ALA:H | 1.47 | 0.63 |
| 7:FA:142:PRO:HB2 | 7:FA:144:ILE:HG12 | 1.80 | 0.63 |
| 7:MA:37:LEU:HB2 | 7:MA:265:TYR:HA | 1.80 | 0.63 |
| 8:EB:98:LYS:HD3 | 8:EB:101:ILE:HD11 | 1.79 | 0.63 |
| 3:P:44:TYR:HB3 | 5:7:39:LEU:HD13 | 1.81 | 0.63 |
| 4:S:60:ARG:HG3 | 6:a:9:ARG:HD3 | 1.81 | 0.63 |
| 5:2:376:LYS:HA | 5:2:460:PHE:HB3 | 1.80 | 0.63 |
| 5:5:121:MET:HE2 | 5:5:134:GLU:HG3 | 1.80 | 0.63 |
| 5:8:381:ILE:HB | 5:8:446:LEU:HD11 | 1.81 | 0.63 |
| 5:9:75:GLU:HG3 | 5:9:202:TYR:HB2 | 1.79 | 0.63 |
| 6:d:118:PRO:HB3 | 6:d:143:PHE:HB3 | 1.80 | 0.63 |
| 7:l:253:ARG:HG3 | 7:l:256:LYS:HE3 | 1.80 | 0.63 |
| 7:m:259:ASN:O | 7:BA:2:SER:N | 2.31 | 0.63 |
| 7:p:328:TYR:CE2 | 7:p:330:PHE:HB2 | 2.33 | 0.63 |
| 7:q:527:LEU:HD22 | 7:r:21:ILE:HG13 | 1.80 | 0.63 |
| 7:GA:464:THR:O | 7:GA:468:THR:HG23 | 1.97 | 0.63 |
| 7:HA:464:THR:O | 7:HA:468:THR:HG23 | 1.97 | 0.63 |
| 7:IA:495:VAL:HG12 | 7:IA:511:ALA:HB3 | 1.81 | 0.63 |
| 7:KA:294:PHE:HB3 | 7:KA:346:SER:HB2 | 1.80 | 0.63 |
| 7:MA:404:LYS:NZ | 7:MA:416:ASP:OD2 | 2.27 | 0.63 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 7:OA:451:MET:HE2 | 7:OA:459:THR:HA | 1.81 | 0.63 |
| 8:BB:28:VAL:HG22 | 8:BB:30:SER:H | 1.63 | 0.63 |
| 8:GB:13:ILE:HG13 | 8:GB:14:LYS:HD2 | 1.80 | 0.63 |
| 8:LB:84:GLN:NE2 | 8:LB:157:PRO:O | 2.32 | 0.63 |
| 3:N:28:TRP:CD1 | 3:N:85:ILE:HB | 2.34 | 0.63 |
| 5:Z:394:GLU:OE1 | 5:0:125:ARG:NH1 | 2.31 | 0.63 |
| 5:1:387:ILE:O | 5:1:475:GLU:N | 2.23 | 0.63 |
| 5:7:170:GLU:OE2 | 5:7:232:TRP:NE1 | 2.25 | 0.63 |
| 5:9:243:GLY:N | 5:9:263:THR:OG1 | 2.31 | 0.63 |
| 6:d:119:VAL:HG21 | 6:d:145:GLU:HB3 | 1.81 | 0.63 |
| 6:e:119:VAL:HG21 | 6:e:145:GLU:HB3 | 1.81 | 0.63 |
| 7:g:120:PRO:O | 7:g:123:SER:OG | 2.14 | 0.63 |
| 7:p:426:ASN:HA | 7:q:196:MET:HE1 | 1.80 | 0.63 |
| 8:BB:77:ASN:HD22 | 8:BB:165:TRP:HD1 | 1.47 | 0.63 |
| 8:CB:136:ASP:OD2 | 8:CB:164:ASN:ND2 | 2.30 | 0.63 |
| 8:JB:115:PRO:HG2 | 8:JB:118:LYS:HB3 | 1.80 | 0.63 |
| 8:LB:109:ILE:O | 8:LB:134:MET:N | 2.30 | 0.63 |
| 8:LB:111:MET:HE3 | 8:LB:112:ALA:N | 2.13 | 0.63 |
| 8:MB:122:VAL:O | 8:RB:11:LYS:NZ | 2.30 | 0.63 |
| 1:A:128:ILE:HD12 | 1:A:129:PRO:HD2 | 1.79 | 0.63 |
| 3:M:61:THR:HG23 | 7:g:517:VAL:HA | 1.80 | 0.63 |
| 3:N:36:LEU:O | 3:N:51:ASN:ND2 | 2.31 | 0.63 |
| 5:0:13:ALA:O | 5:0:16:GLU:HG3 | 1.99 | 0.63 |
| 5:1:9:ASP:OD1 | 5:1:10:SER:N | 2.32 | 0.63 |
| 5:4:75:GLU:HG3 | 5:4:202:TYR:HB2 | 1.79 | 0.63 |
| 5:6:381:ILE:HB | 5:6:446:LEU:HD11 | 1.80 | 0.63 |
| 5:7:381:ILE:HB | 5:7:446:LEU:HD11 | 1.80 | 0.63 |
| 6:a:88:ILE:HA | 6:a:91:LYS:HG2 | 1.79 | 0.63 |
| 6:c:136:LEU:HD11 | 6:c:146:MET:HG2 | 1.80 | 0.63 |
| 7:g:189:ALA:HB3 | 7:g:192:ALA:HB2 | 1.79 | 0.63 |
| 7:o:2:SER:OG | 7:o:3:GLN:N | 2.28 | 0.63 |
| 7:FA:44:PHE:O | 7:FA:95:ARG:NE | 2.32 | 0.63 |
| 7:JA:120:PRO:O | 7:JA:123:SER:OG | 2.15 | 0.63 |
| 7:MA:37:LEU:O | 7:MA:266:THR:N | 2.30 | 0.63 |
| 7:NA:37:LEU:HB2 | 7:NA:265:TYR:HA | 1.81 | 0.63 |
| 8:IB:13:ILE:HG13 | 8:IB:14:LYS:HD2 | 1.80 | 0.63 |
| 8:IB:111:MET:HE3 | 8:IB:112:ALA:N | 2.14 | 0.63 |
| 1:B:65:ASP:HB3 | 1:B:99:MET:HB3 | 1.81 | 0.63 |
| 3:Q:36:LEU:O | 3:Q:51:ASN:ND2 | 2.32 | 0.63 |
| 5:Z:13:ALA:O | 5:Z:16:GLU:HG3 | 1.99 | 0.63 |
| 5:6:220:ILE:HD12 | 5:6:221:PRO:HD2 | 1.81 | 0.63 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 5:8:85:THR:N | 5:8:271:THR:OG1 | 2.29 | 0.63 |
| 5:8:243:GLY:N | 5:8:263:THR:OG1 | 2.31 | 0.63 |
| 5:9:86:PRO:HD3 | 5:9:234:THR:HG21 | 1.80 | 0.63 |
| 6:a:182:ARG:NH2 | 6:a:185:ASN:OD1 | 2.29 | 0.63 |
| 7:i:239:THR:HG22 | 7:i:241:GLY:H | 1.61 | 0.63 |
| 7:m:426:ASN:HA | 7:n:196:MET:HE1 | 1.81 | 0.63 |
| 7:o:433:VAL:HG12 | 7:o:437:MET:HE2 | 1.79 | 0.63 |
| 7:p:352:ALA:HB1 | 7:p:375:ARG:HB3 | 1.81 | 0.63 |
| 7:CA:44:PHE:O | 7:CA:95:ARG:NE | 2.32 | 0.63 |
| 7:CA:354:ALA:O | 7:CA:358:LYS:HG2 | 1.99 | 0.63 |
| 7:CA:404:LYS:NZ | 7:DA:14:SER:O | 2.26 | 0.63 |
| 7:HA:422:CYS:HB3 | 7:HA:429:HIS:HA | 1.80 | 0.63 |
| 7:LA:294:PHE:HB3 | 7:LA:346:SER:HB2 | 1.80 | 0.63 |
| 7:LA:434:PRO:HA | 7:LA:437:MET:SD | 2.39 | 0.63 |
| 7:RA:362:ASP:OD1 | 7:RA:363:VAL:N | 2.31 | 0.63 |
| 7:RA:451:MET:HE2 | 7:RA:459:THR:HA | 1.81 | 0.63 |
| 8:LB:13:ILE:HA | 8:LB:16:ARG:HG2 | 1.78 | 0.63 |
| 8:MB:9:ASN:N | 8:NB:116:GLU:OE1 | 2.28 | 0.63 |
| 8:NB:29:SER:HB2 | 8:OB:146:PHE:HB2 | 1.81 | 0.63 |
| 8:RB:4:ASN:OD1 | 8:RB:5:ASN:N | 2.29 | 0.63 |
| 3:P:28:TRP:CD1 | 3:P:85:ILE:HB | 2.34 | 0.63 |
| 4:V:60:ARG:HG3 | 6:d:9:ARG:HD3 | 1.81 | 0.63 |
| 5:6:121:MET:HE2 | 5:6:134:GLU:HG3 | 1.80 | 0.63 |
| 7:h:6:ILE:HG23 | 7:h:17:ALA:HA | 1.80 | 0.63 |
| 7:i:6:ILE:HG23 | 7:i:17:ALA:HA | 1.80 | 0.63 |
| 7:m:397:MET:HE2 | 7:m:404:LYS:HG2 | 1.81 | 0.63 |
| 7:q:50:PHE:N | 7:q:95:ARG:O | 2.25 | 0.63 |
| 7:r:352:ALA:HB1 | 7:r:375:ARG:HB3 | 1.81 | 0.63 |
| 7:KA:502:GLU:HG2 | 7:KA:504:ASP:H | 1.61 | 0.63 |
| 7:LA:138:ASP:OD2 | 7:LA:214:ARG:NH1 | 2.30 | 0.63 |
| 8:AB:48:THR:OG1 | 8:BB:148:THR:OG1 | 2.15 | 0.63 |
| 8:FB:77:ASN:HD22 | 8:FB:165:TRP:HD1 | 1.47 | 0.63 |
| 8:JB:109:ILE:HB | 8:JB:134:MET:HB2 | 1.80 | 0.63 |
| 1:C:174:LYS:HZ3 | 1:C:176:PHE:HB3 | 1.63 | 0.63 |
| 1:F:53:VAL:HG22 | 1:F:136:VAL:HG12 | 1.81 | 0.63 |
| 3:Q:24:GLN:HB3 | 3:Q:28:TRP:HZ3 | 1.63 | 0.63 |
| 4:S:85:GLU:O | 5:4:47:ARG:NH2 | 2.32 | 0.63 |
| 4:U:62:ASP:HB3 | 4:U:75:ARG:HB3 | 1.78 | 0.63 |
| 5:Z:418:ASN:HD21 | 5:Z:422:LYS:HB3 | 1.62 | 0.63 |
| 5:3:13:ALA:O | 5:3:16:GLU:HG3 | 1.99 | 0.63 |
| 5:7:316:TRP:O | 5:7:321:GLN:NE2 | 2.32 | 0.63 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:f:119:VAL:HG21 | 6:f:145:GLU:HB3 | 1.81 | 0.63 |
| 7:i:253:ARG:HG3 | 7:i:256:LYS:HE3 | 1.80 | 0.63 |
| 7:HA:434:PRO:HA | 7:HA:437:MET:SD | 2.39 | 0.63 |
| 7:OA:37:LEU:HB2 | 7:OA:265:TYR:HA | 1.80 | 0.63 |
| 8:DB:144:ILE:HG13 | 8:DB:157:PRO:HA | 1.81 | 0.63 |
| 8:EB:48:THR:OG1 | 8:FB:148:THR:OG1 | 2.15 | 0.63 |
| 8:GB:109:ILE:HB | 8:GB:134:MET:HB2 | 1.79 | 0.63 |
| 8:GB:115:PRO:HG2 | 8:GB:118:LYS:HB3 | 1.80 | 0.63 |
| 8:KB:111:MET:HE3 | 8:KB:112:ALA:N | 2.14 | 0.63 |
| 8:OB:47:ARG:HG3 | 8:OB:86:VAL:HG13 | 1.79 | 0.63 |
| 8:PB:34:LEU:O | 8:PB:43:SER:OG | 2.16 | 0.63 |
| 1:C:79:LYS:NZ | 1:C:81:GLY:O | 2.25 | 0.62 |
| 3:M:28:TRP:CD1 | 3:M:85:ILE:HB | 2.33 | 0.62 |
| 4:T:112:PHE:HA | 4:T:116:GLY:HA3 | 1.81 | 0.62 |
| 4:W:14:TYR:HD2 | 4:W:16:LEU:HD22 | 1.63 | 0.62 |
| 5:4:294:VAL:HG23 | 5:4:295:TRP:CD1 | 2.35 | 0.62 |
| 5:4:334:ASN:OD1 | 5:4:367:LYS:NZ | 2.29 | 0.62 |
| 5:5:220:ILE:HD12 | 5:5:221:PRO:HD2 | 1.81 | 0.62 |
| 5:6:294:VAL:HG23 | 5:6:295:TRP:CD1 | 2.34 | 0.62 |
| 7:h:213:LEU:O | 7:h:214:ARG:NH1 | 2.28 | 0.62 |
| 7:m:352:ALA:HB1 | 7:m:375:ARG:HB3 | 1.81 | 0.62 |
| 7:BA:404:LYS:NZ | 7:CA:14:SER:O | 2.28 | 0.62 |
| 7:DA:519:ARG:NH1 | 7:EA:12:ASN:O | 2.32 | 0.62 |
| 7:KA:434:PRO:HA | 7:KA:437:MET:SD | 2.39 | 0.62 |
| 7:LA:495:VAL:HG12 | 7:LA:511:ALA:HB3 | 1.81 | 0.62 |
| 7:PA:37:LEU:HB2 | 7:PA:265:TYR:HA | 1.80 | 0.62 |
| 7:QA:480:LEU:HD21 | 7:QA:494:TYR:HB3 | 1.81 | 0.62 |
| 8:HB:111:MET:HE3 | 8:HB:112:ALA:N | 2.14 | 0.62 |
| 1:D:76:GLU:O | 1:D:86:LEU:HA | 1.99 | 0.62 |
| 3:M:33:TYR:CE1 | 7:g:525:PRO:HB2 | 2.34 | 0.62 |
| 5:3:29:VAL:HG21 | 5:4:266:PRO:HB3 | 1.81 | 0.62 |
| 5:4:477:GLU:HB2 | 6:f:189:LYS:HE2 | 1.80 | 0.62 |
| 5:6:255:LEU:HB3 | 5:6:259:ILE:HD13 | 1.81 | 0.62 |
| 5:8:86:PRO:HD3 | 5:8:234:THR:HG21 | 1.80 | 0.62 |
| 6:b:88:ILE:HA | 6:b:91:LYS:HG2 | 1.80 | 0.62 |
| 6:c:119:VAL:HG21 | 6:c:145:GLU:HB3 | 1.81 | 0.62 |
| 7:h:253:ARG:HG3 | 7:h:256:LYS:HE3 | 1.80 | 0.62 |
| 7:p:259:ASN:O | 7:EA:2:SER:N | 2.31 | 0.62 |
| 7:DA:449:ARG:NH1 | 7:JA:407:VAL:O | 2.32 | 0.62 |
| 7:EA:44:PHE:O | 7:EA:95:ARG:NE | 2.31 | 0.62 |
| 7:EA:142:PRO:HB2 | 7:EA:144:ILE:HG12 | 1.81 | 0.62 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:FA:506:TRP:HB2 | 7:LA:521:ILE:HG22 | 1.79 | 0.62 |
| 7:GA:302:THR:OG1 | 7:GA:305:GLU:OE1 | 2.17 | 0.62 |
| 7:HA:326:TYR:CE2 | 7:HA:328:TYR:HB2 | 2.33 | 0.62 |
| 7:KA:150:LEU:HB2 | 7:KA:233:LEU:HB2 | 1.81 | 0.62 |
| 7:OA:333:LYS:HG2 | 7:OA:382:SER:HB3 | 1.80 | 0.62 |
| 8:DB:16:ARG:NH2 | 8:JB:64:PRO:HG2 | 2.14 | 0.62 |
| 8:JB:13:ILE:HA | 8:JB:16:ARG:HG2 | 1.79 | 0.62 |
| 8:KB:109:ILE:O | 8:KB:134:MET:N | 2.30 | 0.62 |
| 1:A:65:ASP:HB3 | 1:A:99:MET:HB3 | 1.81 | 0.62 |
| 1:B:45:GLN:HE22 | 1:C:173:PHE:HA | 1.62 | 0.62 |
| 2:K:153:ASP:OD1 | 2:K:154:LEU:N | 2.32 | 0.62 |
| 3:P:85:ILE:HD11 | 3:P:107:ILE:HG13 | 1.81 | 0.62 |
| 3:R:24:GLN:HB3 | 3:R:28:TRP:HZ3 | 1.63 | 0.62 |
| 5:1:29:VAL:HG21 | 5:8:266:PRO:HB3 | 1.81 | 0.62 |
| 5:5:85:THR:N | 5:5:271:THR:OG1 | 2.29 | 0.62 |
| 5:8:89:GLY:HA3 | 5:8:267:ILE:HG12 | 1.80 | 0.62 |
| 5:9:32:GLN:HA | 5:9:35:SER:OG | 1.99 | 0.62 |
| 7:k:6:ILE:HG23 | 7:k:17:ALA:HA | 1.80 | 0.62 |
| 7:m:328:TYR:CE2 | 7:m:330:PHE:HB2 | 2.33 | 0.62 |
| 7:o:47:GLY:O | 7:o:95:ARG:NH1 | 2.32 | 0.62 |
| 7:AA:142:PRO:HB2 | 7:AA:144:ILE:HG12 | 1.81 | 0.62 |
| 7:DA:434:PRO:HA | 7:DA:437:MET:HE3 | 1.81 | 0.62 |
| 7:FA:354:ALA:O | 7:FA:358:LYS:HG2 | 1.99 | 0.62 |
| 8:AB:77:ASN:HD22 | 8:AB:165:TRP:HD1 | 1.47 | 0.62 |
| 1:D:65:ASP:HB3 | 1:D:99:MET:HB3 | 1.81 | 0.62 |
| 4:T:14:TYR:HD2 | 4:T:16:LEU:HD22 | 1.64 | 0.62 |
| 5:Y:280:ARG:HG2 | 5:Y:284:GLN:HE22 | 1.64 | 0.62 |
| 5:3:280:ARG:HG2 | 5:3:284:GLN:HE22 | 1.64 | 0.62 |
| 5:4:86:PRO:HD3 | 5:4:234:THR:HG21 | 1.80 | 0.62 |
| 5:7:255:LEU:HB3 | 5:7:259:ILE:HD13 | 1.82 | 0.62 |
| 6:f:44:ASN:HB3 | 6:f:51:MET:HA | 1.81 | 0.62 |
| 7:g:311:GLU:HB3 | 7:g:316:LEU:HD12 | 1.81 | 0.62 |
| 7:g:401:ARG:NE | 7:g:422:CYS:O | 2.32 | 0.62 |
| 7:o:352:ALA:HB1 | 7:o:375:ARG:HB3 | 1.81 | 0.62 |
| 7:AA:434:PRO:HA | 7:AA:437:MET:HE3 | 1.81 | 0.62 |
| 7:DA:44:PHE:O | 7:DA:95:ARG:NE | 2.31 | 0.62 |
| 7:LA:150:LEU:HB2 | 7:LA:233:LEU:HB2 | 1.81 | 0.62 |
| 7:NA:433:VAL:O | 7:NA:436:LEU:HG | 1.99 | 0.62 |
| 8:PB:144:ILE:HG13 | 8:PB:157:PRO:HA | 1.80 | 0.62 |
| 1:A:76:GLU:O | 1:A:86:LEU:HA | 2.00 | 0.62 |
| 5:0:280:ARG:HG2 | 5:0:284:GLN:HE22 | 1.64 | 0.62 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 5:0:376:LYS:HA | 5:0:460:PHE:HB3 | 1.80 | 0.62 |
| 5:2:189:ARG:HG3 | 5:2:190:LEU:HG | 1.80 | 0.62 |
| 5:4:255:LEU:HB3 | 5:4:259:ILE:HD13 | 1.81 | 0.62 |
| 5:5:294:VAL:HG23 | 5:5:295:TRP:CD1 | 2.35 | 0.62 |
| 5:7:86:PRO:HD3 | 5:7:234:THR:HG21 | 1.80 | 0.62 |
| 5:7:294:VAL:HG23 | 5:7:295:TRP:CD1 | 2.35 | 0.62 |
| 5:8:170:GLU:OE2 | 5:8:232:TRP:NE1 | 2.25 | 0.62 |
| 5:9:220:ILE:HD12 | 5:9:221:PRO:HD2 | 1.81 | 0.62 |
| 5:9:255:LEU:HB3 | 5:9:259:ILE:HD13 | 1.81 | 0.62 |
| 7:j:38:TRP:CE2 | 7:j:91:GLY:HA3 | 2.35 | 0.62 |
| 7:n:397:MET:HE2 | 7:n:404:LYS:HG2 | 1.81 | 0.62 |
| 7:p:102:LYS:HZ2 | 7:p:120:PRO:HD3 | 1.63 | 0.62 |
| 7:q:302:THR:OG1 | 7:q:305:GLU:OE1 | 2.15 | 0.62 |
| 7:CA:426:ASN:O | 7:CA:429:HIS:ND1 | 2.17 | 0.62 |
| 7:IA:434:PRO:HA | 7:IA:437:MET:SD | 2.39 | 0.62 |
| 7:KA:352:ALA:HA | 7:KA:355:ARG:HH11 | 1.64 | 0.62 |
| 7:KA:426:ASN:O | 7:KA:429:HIS:ND1 | 2.18 | 0.62 |
| 8:AB:144:ILE:HG13 | 8:AB:157:PRO:HA | 1.81 | 0.62 |
| 8:RB:34:LEU:O | 8:RB:43:SER:OG | 2.16 | 0.62 |
| 1:F:51:VAL:HG12 | 1:F:138:ILE:HG22 | 1.81 | 0.62 |
| 1:F:76:GLU:O | 1:F:86:LEU:HA | 2.00 | 0.62 |
| 3:R:28:TRP:CD1 | 3:R:85:ILE:HB | 2.34 | 0.62 |
| 4:T:64:LEU:HD23 | 4:T:67:ARG:HD2 | 1.81 | 0.62 |
| 5:4:220:ILE:HD12 | 5:4:221:PRO:HD2 | 1.81 | 0.62 |
| 5:6:316:TRP:O | 5:6:321:GLN:NE2 | 2.33 | 0.62 |
| 5:7:89:GLY:HA3 | 5:7:267:ILE:HG12 | 1.80 | 0.62 |
| 5:9:294:VAL:HG23 | 5:9:295:TRP:CD1 | 2.34 | 0.62 |
| 6:d:44:ASN:HB3 | 6:d:51:MET:HA | 1.81 | 0.62 |
| 6:e:44:ASN:HB3 | 6:e:51:MET:HA | 1.81 | 0.62 |
| 7:h:38:TRP:CE2 | 7:h:91:GLY:HA3 | 2.35 | 0.62 |
| 7:i:38:TRP:CE2 | 7:i:91:GLY:HA3 | 2.35 | 0.62 |
| 7:l:114:PRO:HD3 | 7:l:230:LYS:HZ3 | 1.62 | 0.62 |
| 7:GA:422:CYS:HB3 | 7:GA:429:HIS:HA | 1.80 | 0.62 |
| 7:IA:150:LEU:HB2 | 7:IA:233:LEU:HB2 | 1.81 | 0.62 |
| 7:JA:326:TYR:HE2 | 7:JA:328:TYR:HB2 | 1.64 | 0.62 |
| 8:JB:68:LYS:HE2 | 8:KB:78:SER:HB2 | 1.82 | 0.62 |
| 8:MB:28:VAL:HG22 | 8:MB:30:SER:H | 1.64 | 0.62 |
| 8:NB:151:VAL:HG13 | 8:NB:152:THR:HG23 | 1.81 | 0.62 |
| 8:QB:29:SER:HB2 | 8:RB:146:PHE:HB2 | 1.82 | 0.62 |
| 8:QB:166:ILE:HG22 | 8:QB:168:TRP:HD1 | 1.63 | 0.62 |
| 1:B:172:GLU:OE2 | 1:B:172:GLU:N | 2.33 | 0.62 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 3:P:36:LEU:O | 3:P:51:ASN:ND2 | 2.32 | 0.62 |
| 3:Q:28:TRP:CD1 | 3:Q:85:ILE:HB | 2.34 | 0.62 |
| 5:1:280:ARG:HG2 | 5:1:284:GLN:HE22 | 1.65 | 0.62 |
| 5:5:75:GLU:HG3 | 5:5:202:TYR:HB2 | 1.80 | 0.62 |
| 5:6:32:GLN:HA | 5:6:35:SER:OG | 1.99 | 0.62 |
| 5:9:292:GLN:HE21 | 6:f:89:HIS:HA | 1.64 | 0.62 |
| 7:g:38:TRP:CE2 | 7:g:91:GLY:HA3 | 2.35 | 0.62 |
| 7:p:302:THR:OG1 | 7:p:305:GLU:OE1 | 2.15 | 0.62 |
| 7:GA:434:PRO:HA | 7:GA:437:MET:SD | 2.39 | 0.62 |
| 7:LA:422:CYS:HB3 | 7:LA:429:HIS:HA | 1.80 | 0.62 |
| 8:GB:87:GLU:HB2 | 8:GB:93:ILE:HD12 | 1.82 | 0.62 |
| 8:HB:79:GLY:HA3 | 8:HB:163:TYR:CZ | 2.34 | 0.62 |
| 8:KB:25:GLU:HB2 | 8:LB:89:ILE:HD11 | 1.81 | 0.62 |
| 1:C:53:VAL:HG22 | 1:C:136:VAL:HG12 | 1.81 | 0.62 |
| 1:C:65:ASP:HB3 | 1:C:99:MET:HB3 | 1.82 | 0.62 |
| 5:Z:280:ARG:HG2 | 5:Z:284:GLN:HE22 | 1.64 | 0.62 |
| 5:0:29:VAL:HG21 | 5:7:266:PRO:HB3 | 1.80 | 0.62 |
| 5:2:29:VAL:HG21 | 5:9:266:PRO:HB3 | 1.81 | 0.62 |
| 5:3:376:LYS:HA | 5:3:460:PHE:HB3 | 1.80 | 0.62 |
| 7:q:47:GLY:O | 7:q:95:ARG:NH1 | 2.33 | 0.62 |
| 7:BA:142:PRO:HB2 | 7:BA:144:ILE:HG12 | 1.80 | 0.62 |
| 7:DA:142:PRO:HB2 | 7:DA:144:ILE:HG12 | 1.81 | 0.62 |
| 7:HA:302:THR:OG1 | 7:HA:305:GLU:OE1 | 2.16 | 0.62 |
| 7:OA:410:SER:OG | 7:OA:412:GLN:OE1 | 2.17 | 0.62 |
| 7:OA:465:LYS:HB3 | 7:OA:469:LYS:NZ | 2.14 | 0.62 |
| 8:FB:56:ARG:NH1 | 8:FB:72:HIS:HA | 2.14 | 0.62 |
| 8:NB:134:MET:HE1 | 8:NB:166:ILE:HG23 | 1.82 | 0.62 |
| 1:E:53:VAL:HG22 | 1:E:136:VAL:HG12 | 1.82 | 0.62 |
| 1:E:65:ASP:HB3 | 1:E:99:MET:HB3 | 1.81 | 0.62 |
| 1:E:172:GLU:N | 1:E:172:GLU:OE2 | 2.33 | 0.62 |
| 2:H:153:ASP:OD1 | 2:H:154:LEU:N | 2.32 | 0.62 |
| 5:Z:127:VAL:N | 5:Z:130:THR:O | 2.32 | 0.62 |
| 5:0:104:ILE:HB | 5:0:124:CYS:HB3 | 1.82 | 0.62 |
| 5:1:11:ILE:O | 5:1:14:GLU:HG2 | 2.00 | 0.62 |
| 5:8:32:GLN:HA | 5:8:35:SER:OG | 2.00 | 0.62 |
| 6:f:88:ILE:HA | 6:f:91:LYS:HG2 | 1.80 | 0.62 |
| 7:r:47:GLY:O | 7:r:95:ARG:NH1 | 2.32 | 0.62 |
| 7:NA:112:GLY:O | 7:NA:230:LYS:NZ | 2.31 | 0.62 |
| 7:NA:480:LEU:HD21 | 7:NA:494:TYR:HB3 | 1.81 | 0.62 |
| 7:RA:37:LEU:O | 7:RA:266:THR:N | 2.29 | 0.62 |
| 8:HB:77:ASN:HB2 | 8:HB:165:TRP:HA | 1.80 | 0.62 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 8:JB:13:ILE:HG13 | 8:JB:14:LYS:HD2 | 1.80 | 0.62 |
| 8:NB:28:VAL:HG22 | 8:NB:30:SER:H | 1.64 | 0.62 |
| 8:OB:10:ARG:CZ | 8:OB:14:LYS:HZ1 | 2.13 | 0.62 |
| 8:OB:11:LYS:NZ | 8:PB:122:VAL:O | 2.31 | 0.62 |
| 8:QB:28:VAL:HG22 | 8:QB:30:SER:H | 1.64 | 0.62 |
| 8:RB:151:VAL:HG13 | 8:RB:152:THR:HG23 | 1.81 | 0.62 |
| 1:C:51:VAL:HG12 | 1:C:138:ILE:HG22 | 1.81 | 0.62 |
| 2:L:27:GLN:OE1 | 2:L:27:GLN:N | 2.33 | 0.62 |
| 3:O:28:TRP:CD1 | 3:O:85:ILE:HB | 2.34 | 0.62 |
| 6:a:119:VAL:HG21 | 6:a:145:GLU:HB3 | 1.81 | 0.62 |
| 6:b:44:ASN:HB3 | 6:b:51:MET:HA | 1.81 | 0.62 |
| 7:g:88:GLN:OE1 | 7:g:88:GLN:N | 2.33 | 0.62 |
| 7:g:253:ARG:HG3 | 7:g:256:LYS:HE3 | 1.80 | 0.62 |
| 7:i:38:TRP:HB2 | 7:i:269:LEU:HD23 | 1.82 | 0.62 |
| 7:IA:120:PRO:O | 7:IA:123:SER:OG | 2.15 | 0.62 |
| 7:JA:150:LEU:HB2 | 7:JA:233:LEU:HB2 | 1.81 | 0.62 |
| 7:JA:434:PRO:HA | 7:JA:437:MET:SD | 2.39 | 0.62 |
| 7:PA:37:LEU:O | 7:PA:266:THR:N | 2.30 | 0.62 |
| 7:PA:465:LYS:O | 7:PA:468:THR:OG1 | 2.13 | 0.62 |
| 7:QA:37:LEU:HB2 | 7:QA:265:TYR:HA | 1.81 | 0.62 |
| 8:LB:115:PRO:HG2 | 8:LB:118:LYS:HB3 | 1.81 | 0.62 |
| 8:RB:10:ARG:CZ | 8:RB:14:LYS:HZ1 | 2.13 | 0.62 |
| 1:D:53:VAL:HG22 | 1:D:136:VAL:HG12 | 1.82 | 0.61 |
| 3:R:73:MET:CE | 3:R:77:LYS:HZ1 | 2.12 | 0.61 |
| 5:4:32:GLN:HA | 5:4:35:SER:OG | 2.00 | 0.61 |
| 5:4:40:PHE:O | 5:4:43:GLN:HG2 | 2.00 | 0.61 |
| 5:5:255:LEU:HB3 | 5:5:259:ILE:HD13 | 1.81 | 0.61 |
| 5:7:279:THR:HG22 | 5:7:282:ARG:HH22 | 1.66 | 0.61 |
| 5:8:477:GLU:HB2 | 6:d:189:LYS:HE2 | 1.81 | 0.61 |
| 7:g:213:LEU:O | 7:g:214:ARG:NH1 | 2.28 | 0.61 |
| 7:n:47:GLY:O | 7:n:95:ARG:NH1 | 2.33 | 0.61 |
| 7:AA:440:ILE:HA | 7:AA:443:PHE:CD2 | 2.35 | 0.61 |
| 7:KA:50:PHE:N | 7:KA:95:ARG:O | 2.30 | 0.61 |
| 7:KA:158:ASP:HB2 | 7:KA:162:ASN:HB2 | 1.82 | 0.61 |
| 7:RA:465:LYS:HB3 | 7:RA:469:LYS:NZ | 2.15 | 0.61 |
| 8:EB:77:ASN:HD22 | 8:EB:165:TRP:HD1 | 1.47 | 0.61 |
| 8:OB:151:VAL:HG13 | 8:OB:152:THR:HG23 | 1.81 | 0.61 |
| 8:PB:28:VAL:HG22 | 8:PB:30:SER:H | 1.65 | 0.61 |
| 2:J:27:GLN:N | 2:J:27:GLN:OE1 | 2.33 | 0.61 |
| 4:U:117:GLN:HE21 | 5:0:160:LYS:HB2 | 1.65 | 0.61 |
| 5:1:104:ILE:HB | 5:1:124:CYS:HB3 | 1.82 | 0.61 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 7:j:401:ARG:NE | 7:j:422:CYS:O | 2.32 | 0.61 |
| 7:r:397:MET:HE2 | 7:r:404:LYS:HG2 | 1.81 | 0.61 |
| 7:IA:369:SER:O | 7:IA:375:ARG:NE | 2.24 | 0.61 |
| 7:QA:331:SER:OG | 7:QA:340:ARG:NH2 | 2.34 | 0.61 |
| 8:IB:115:PRO:HG2 | 8:IB:118:LYS:HB3 | 1.81 | 0.61 |
| 8:KB:115:PRO:HG2 | 8:KB:118:LYS:HB3 | 1.81 | 0.61 |
| 1:A:53:VAL:HG22 | 1:A:136:VAL:HG12 | 1.82 | 0.61 |
| 1:A:152:GLU:O | 1:A:153:MET:HE2 | 2.01 | 0.61 |
| 2:I:27:GLN:OE1 | 2:I:27:GLN:N | 2.33 | 0.61 |
| 3:O:33:TYR:CE1 | 7:i:525:PRO:HB2 | 2.34 | 0.61 |
| 3:R:36:LEU:O | 3:R:51:ASN:ND2 | 2.32 | 0.61 |
| 4:W:86:ASP:HA | 5:8:47:ARG:NH2 | 2.16 | 0.61 |
| 5:Y:29:VAL:HG21 | 5:5:266:PRO:HB3 | 1.82 | 0.61 |
| 5:Z:442:ARG:NH1 | 5:Z:475:GLU:OE1 | 2.34 | 0.61 |
| 5:8:220:ILE:HD12 | 5:8:221:PRO:HD2 | 1.81 | 0.61 |
| 5:8:294:VAL:HG23 | 5:8:295:TRP:CD1 | 2.35 | 0.61 |
| 6:b:119:VAL:HG21 | 6:b:145:GLU:HB3 | 1.81 | 0.61 |
| 7:j:7:GLN:HE21 | 7:j:10:LEU:HD21 | 1.65 | 0.61 |
| 7:j:38:TRP:HB2 | 7:j:269:LEU:HD23 | 1.82 | 0.61 |
| 7:j:311:GLU:HB3 | 7:j:316:LEU:HD12 | 1.80 | 0.61 |
| 7:k:38:TRP:CE2 | 7:k:91:GLY:HA3 | 2.35 | 0.61 |
| 7:o:50:PHE:N | 7:o:95:ARG:O | 2.26 | 0.61 |
| 7:p:353:LYS:HB3 | 7:p:370:PRO:HB3 | 1.82 | 0.61 |
| 7:BA:303:TYR:OH | 7:BA:393:ASP:O | 2.19 | 0.61 |
| 7:CA:303:TYR:OH | 7:CA:393:ASP:O | 2.18 | 0.61 |
| 7:CA:366:TRP:HD1 | 7:CA:435:SER:HB2 | 1.65 | 0.61 |
| 7:IA:326:TYR:HE2 | 7:IA:328:TYR:HB2 | 1.65 | 0.61 |
| 7:KA:422:CYS:HB3 | 7:KA:429:HIS:HA | 1.80 | 0.61 |
| 7:QA:362:ASP:OD1 | 7:QA:363:VAL:N | 2.31 | 0.61 |
| 7:QA:525:PRO:HG2 | 7:RA:21:ILE:HA | 1.82 | 0.61 |
| 8:OB:134:MET:HE1 | 8:OB:166:ILE:HG23 | 1.82 | 0.61 |
| 8:PB:11:LYS:NZ | 8:QB:122:VAL:O | 2.30 | 0.61 |
| 8:QB:168:TRP:HZ3 | 8:RB:98:LYS:HD2 | 1.65 | 0.61 |
| 1:C:152:GLU:O | 1:C:153:MET:HE2 | 2.00 | 0.61 |
| 2:G:190:ARG:HH22 | 3:M:107:ILE:HD12 | 1.66 | 0.61 |
| 4:W:27:PRO:HG2 | 4:W:28:ILE:HD12 | 1.82 | 0.61 |
| 5:7:40:PHE:O | 5:7:43:GLN:HG2 | 2.00 | 0.61 |
| 5:9:89:GLY:HA3 | 5:9:267:ILE:HG12 | 1.82 | 0.61 |
| 7:DA:404:LYS:NZ | 7:EA:14:SER:O | 2.27 | 0.61 |
| 7:GA:150:LEU:HB2 | 7:GA:233:LEU:HB2 | 1.81 | 0.61 |
| 7:IA:353:LYS:HD3 | 7:IA:370:PRO:HD3 | 1.82 | 0.61 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:MA:465:LYS:HB3 | 7:MA:469:LYS:NZ | 2.15 | 0.61 |
| 7:NA:408:GLY:HA3 | 7:NA:412:GLN:HE22 | 1.65 | 0.61 |
| 7:OA:465:LYS:O | 7:OA:468:THR:OG1 | 2.16 | 0.61 |
| 8:FB:98:LYS:HD3 | 8:FB:101:ILE:HD11 | 1.81 | 0.61 |
| 8:HB:111:MET:N | 8:HB:132:ILE:O | 2.28 | 0.61 |
| 8:QB:151:VAL:HG13 | 8:QB:152:THR:HG23 | 1.80 | 0.61 |
| 2:H:27:GLN:OE1 | 2:H:27:GLN:N | 2.33 | 0.61 |
| 2:K:27:GLN:OE1 | 2:K:27:GLN:N | 2.33 | 0.61 |
| 3:O:61:THR:HG23 | 7:i:517:VAL:HA | 1.81 | 0.61 |
| 4:U:85:GLU:O | 5:6:47:ARG:NH2 | 2.33 | 0.61 |
| 5:Z:104:ILE:HB | 5:Z:124:CYS:HB3 | 1.82 | 0.61 |
| 5:2:280:ARG:HG2 | 5:2:284:GLN:HE22 | 1.64 | 0.61 |
| 7:m:10:LEU:HD22 | 7:m:17:ALA:HB3 | 1.83 | 0.61 |
| 7:p:10:LEU:HD22 | 7:p:17:ALA:HB3 | 1.83 | 0.61 |
| 7:q:498:VAL:HG22 | 7:q:508:VAL:HG22 | 1.82 | 0.61 |
| 7:AA:328:TYR:CZ | 7:AA:330:PHE:HB2 | 2.35 | 0.61 |
| 7:BA:328:TYR:CZ | 7:BA:330:PHE:HB2 | 2.35 | 0.61 |
| 7:FA:328:TYR:CZ | 7:FA:330:PHE:HB2 | 2.35 | 0.61 |
| 7:IA:447:LEU:O | 7:IA:450:GLN:HG3 | 2.00 | 0.61 |
| 7:OA:465:LYS:HB3 | 7:OA:469:LYS:HZ1 | 1.65 | 0.61 |
| 7:PA:465:LYS:HB3 | 7:PA:469:LYS:NZ | 2.15 | 0.61 |
| 7:QA:33:LEU:HD12 | 7:QA:35:SER:H | 1.65 | 0.61 |
| 7:QA:433:VAL:O | 7:QA:436:LEU:HG | 1.99 | 0.61 |
| 8:AB:72:HIS:CE1 | 8:BB:104:LYS:HD2 | 2.35 | 0.61 |
| 8:JB:32:PHE:N | 8:OB:65:ASN:HD21 | 1.98 | 0.61 |
| 8:PB:134:MET:HE1 | 8:PB:166:ILE:HG23 | 1.82 | 0.61 |
| 1:A:79:LYS:NZ | 1:A:81:GLY:O | 2.24 | 0.61 |
| 3:M:15:LEU:HD11 | 7:h:21:ILE:HG23 | 1.83 | 0.61 |
| 3:O:36:LEU:O | 3:O:51:ASN:ND2 | 2.32 | 0.61 |
| 5:Z:376:LYS:HA | 5:Z:460:PHE:HB3 | 1.80 | 0.61 |
| 5:9:279:THR:HG22 | 5:9:282:ARG:HH22 | 1.66 | 0.61 |
| 5:9:316:TRP:O | 5:9:321:GLN:NE2 | 2.33 | 0.61 |
| 7:h:38:TRP:HB2 | 7:h:269:LEU:HD23 | 1.82 | 0.61 |
| 7:h:88:GLN:OE1 | 7:h:88:GLN:N | 2.34 | 0.61 |
| 7:h:325:VAL:O | 7:h:403:ASN:ND2 | 2.24 | 0.61 |
| 7:j:6:ILE:HG23 | 7:j:17:ALA:HA | 1.80 | 0.61 |
| 7:k:7:GLN:HE21 | 7:k:10:LEU:HD21 | 1.66 | 0.61 |
| 7:k:259:ASN:O | 7:r:2:SER:N | 2.34 | 0.61 |
| 7:n:353:LYS:HB3 | 7:n:370:PRO:HB3 | 1.83 | 0.61 |
| 7:o:10:LEU:HD22 | 7:o:17:ALA:HB3 | 1.83 | 0.61 |
| 7:o:302:THR:OG1 | 7:o:305:GLU:OE1 | 2.15 | 0.61 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:AA:519:ARG:NH1 | 7:BA:12:ASN:O | 2.34 | 0.61 |
| 7:CA:328:TYR:CZ | 7:CA:330:PHE:HB2 | 2.35 | 0.61 |
| 7:IA:158:ASP:HB2 | 7:IA:162:ASN:HB2 | 1.83 | 0.61 |
| 7:IA:303:TYR:CZ | 7:IA:392:PRO:HA | 2.36 | 0.61 |
| 7:JA:158:ASP:HB2 | 7:JA:162:ASN:HB2 | 1.83 | 0.61 |
| 7:KA:164:ARG:HG2 | 7:KA:187:SER:HB2 | 1.82 | 0.61 |
| 7:LA:447:LEU:O | 7:LA:450:GLN:HG3 | 2.01 | 0.61 |
| 8:GB:77:ASN:HB2 | 8:GB:165:TRP:HA | 1.81 | 0.61 |
| 8:JB:77:ASN:HB2 | 8:JB:165:TRP:HA | 1.81 | 0.61 |
| 8:JB:111:MET:HE3 | 8:JB:112:ALA:N | 2.15 | 0.61 |
| 1:E:152:GLU:O | 1:E:153:MET:HE2 | 2.00 | 0.61 |
| 3:M:36:LEU:O | 3:M:51:ASN:ND2 | 2.32 | 0.61 |
| 5:4:279:THR:HG22 | 5:4:282:ARG:HH22 | 1.66 | 0.61 |
| 5:7:32:GLN:HA | 5:7:35:SER:OG | 2.00 | 0.61 |
| 6:c:44:ASN:HB3 | 6:c:51:MET:HA | 1.81 | 0.61 |
| 6:d:37:PRO:HG2 | 6:d:38:TRP:CZ3 | 2.36 | 0.61 |
| 7:h:259:ASN:O | 7:o:2:SER:N | 2.34 | 0.61 |
| 7:o:397:MET:HE2 | 7:o:404:LYS:HG2 | 1.81 | 0.61 |
| 7:q:397:MET:HE2 | 7:q:404:LYS:HG2 | 1.81 | 0.61 |
| 7:r:10:LEU:HD22 | 7:r:17:ALA:HB3 | 1.83 | 0.61 |
| 7:DA:328:TYR:CZ | 7:DA:330:PHE:HB2 | 2.35 | 0.61 |
| 7:JA:353:LYS:HD3 | 7:JA:370:PRO:HD3 | 1.82 | 0.61 |
| 7:KA:307:LEU:HD22 | 7:KA:396:ALA:HB1 | 1.83 | 0.61 |
| 8:KB:32:PHE:H | 8:PB:65:ASN:HD21 | 1.49 | 0.61 |
| 8:KB:79:GLY:HA3 | 8:KB:163:TYR:CZ | 2.34 | 0.61 |
| 8:QB:4:ASN:OD1 | 8:QB:5:ASN:N | 2.33 | 0.61 |
| 8:RB:120:SER:H | 8:RB:125:VAL:HG23 | 1.65 | 0.61 |
| 1:B:53:VAL:HG22 | 1:B:136:VAL:HG12 | 1.82 | 0.61 |
| 1:B:152:GLU:O | 1:B:153:MET:HE2 | 2.01 | 0.61 |
| 1:C:37:ILE:HA | 1:C:40:LYS:HZ2 | 1.66 | 0.61 |
| 1:F:152:GLU:O | 1:F:153:MET:HE2 | 2.00 | 0.61 |
| 4:S:112:PHE:HA | 4:S:116:GLY:HA3 | 1.82 | 0.61 |
| 5:5:32:GLN:HA | 5:5:35:SER:OG | 2.00 | 0.61 |
| 5:7:85:THR:N | 5:7:271:THR:OG1 | 2.29 | 0.61 |
| 5:7:220:ILE:HD12 | 5:7:221:PRO:HD2 | 1.81 | 0.61 |
| 5:8:316:TRP:O | 5:8:321:GLN:NE2 | 2.33 | 0.61 |
| 7:h:7:GLN:HE21 | 7:h:10:LEU:HD21 | 1.64 | 0.61 |
| 7:i:7:GLN:HE21 | 7:i:10:LEU:HD21 | 1.65 | 0.61 |
| 7:l:38:TRP:CE2 | 7:l:91:GLY:HA3 | 2.35 | 0.61 |
| 7:l:88:GLN:N | 7:l:88:GLN:OE1 | 2.34 | 0.61 |
| 7:m:47:GLY:O | 7:m:95:ARG:NH1 | 2.33 | 0.61 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:p:47:GLY:O | 7:p:95:ARG:NH1 | 2.33 | 0.61 |
| 7:q:10:LEU:HD22 | 7:q:17:ALA:HB3 | 1.83 | 0.61 |
| 7:r:156:THR:HG23 | 7:r:164:ARG:HH22 | 1.66 | 0.61 |
| 7:EA:328:TYR:CZ | 7:EA:330:PHE:HB2 | 2.35 | 0.61 |
| 7:EA:366:TRP:HD1 | 7:EA:435:SER:HB2 | 1.65 | 0.61 |
| 7:HA:150:LEU:HB2 | 7:HA:233:LEU:HB2 | 1.81 | 0.61 |
| 7:HA:353:LYS:HD3 | 7:HA:370:PRO:HD3 | 1.82 | 0.61 |
| 7:IA:302:THR:OG1 | 7:IA:305:GLU:OE1 | 2.17 | 0.61 |
| 7:JA:164:ARG:HG2 | 7:JA:187:SER:HB2 | 1.83 | 0.61 |
| 7:JA:422:CYS:HB3 | 7:JA:429:HIS:HA | 1.80 | 0.61 |
| 7:LA:158:ASP:HB2 | 7:LA:162:ASN:HB2 | 1.83 | 0.61 |
| 7:NA:465:LYS:HB3 | 7:NA:469:LYS:NZ | 2.16 | 0.61 |
| 7:PA:525:PRO:HG2 | 7:QA:21:ILE:HA | 1.83 | 0.61 |
| 8:IB:68:LYS:HE2 | 8:JB:78:SER:HB2 | 1.81 | 0.61 |
| 8:LB:111:MET:N | 8:LB:132:ILE:O | 2.28 | 0.61 |
| 8:OB:120:SER:H | 8:OB:125:VAL:HG23 | 1.66 | 0.61 |
| 1:A:172:GLU:N | 1:A:172:GLU:OE2 | 2.34 | 0.61 |
| 1:D:152:GLU:O | 1:D:153:MET:HE2 | 2.01 | 0.61 |
| 3:N:61:THR:HG23 | 7:h:517:VAL:HA | 1.83 | 0.61 |
| 5:Y:277:GLU:OE2 | 5:Y:280:ARG:NH2 | 2.32 | 0.61 |
| 5:Y:442:ARG:NH1 | 5:Y:475:GLU:OE1 | 2.34 | 0.61 |
| 5:4:316:TRP:O | 5:4:321:GLN:NE2 | 2.32 | 0.61 |
| 5:6:292:GLN:HE21 | 6:c:89:HIS:HA | 1.64 | 0.61 |
| 5:9:477:GLU:HB2 | 6:e:189:LYS:HE2 | 1.80 | 0.61 |
| 6:a:44:ASN:HB3 | 6:a:51:MET:HA | 1.81 | 0.61 |
| 7:g:402:LEU:HG | 7:g:403:ASN:H | 1.66 | 0.61 |
| 7:l:259:ASN:O | 7:m:2:SER:N | 2.34 | 0.61 |
| 7:n:158:ASP:OD1 | 7:n:164:ARG:NE | 2.28 | 0.61 |
| 7:BA:520:ARG:CZ | 7:CA:10:LEU:HG | 2.31 | 0.61 |
| 7:CA:142:PRO:HB2 | 7:CA:144:ILE:HG12 | 1.81 | 0.61 |
| 7:DA:520:ARG:HH12 | 7:DA:522:GLN:HB3 | 1.65 | 0.61 |
| 7:EA:520:ARG:HH12 | 7:EA:522:GLN:HB3 | 1.65 | 0.61 |
| 7:FA:196:MET:SD | 7:KA:529:LYS:NZ | 2.71 | 0.61 |
| 7:IA:164:ARG:HG2 | 7:IA:187:SER:HB2 | 1.82 | 0.61 |
| 7:LA:426:ASN:O | 7:LA:429:HIS:ND1 | 2.18 | 0.61 |
| 8:GB:111:MET:HE3 | 8:GB:112:ALA:N | 2.15 | 0.61 |
| 8:HB:109:ILE:O | 8:HB:134:MET:N | 2.30 | 0.61 |
| 1:F:65:ASP:HB3 | 1:F:99:MET:HB3 | 1.82 | 0.61 |
| 1:F:113:LYS:HA | 1:F:113:LYS:HE3 | 1.83 | 0.61 |
| 5:3:104:ILE:HB | 5:3:124:CYS:HB3 | 1.82 | 0.61 |
| 5:7:153:PHE:N | 5:7:212:PHE:O | 2.34 | 0.61 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 6:a:37:PRO:HG2 | 6:a:38:TRP:CZ3 | 2.36 | 0.61 |
| 7:h:525:PRO:HD2 | 7:i:18:VAL:HA | 1.83 | 0.61 |
| 7:i:88:GLN:N | 7:i:88:GLN:OE1 | 2.34 | 0.61 |
| 7:GA:164:ARG:HG2 | 7:GA:187:SER:HB2 | 1.82 | 0.61 |
| 7:IA:50:PHE:N | 7:IA:95:ARG:O | 2.30 | 0.61 |
| 7:JA:303:TYR:CZ | 7:JA:392:PRO:HA | 2.36 | 0.61 |
| 7:QA:465:LYS:HB3 | 7:QA:469:LYS:NZ | 2.15 | 0.61 |
| 8:GB:32:PHE:O | 8:RB:65:ASN:ND2 | 2.34 | 0.61 |
| 8:JB:3:HIS:HB2 | 8:KB:25:GLU:OE1 | 2.01 | 0.61 |
| 8:JB:125:VAL:HG23 | 8:JB:127:LYS:HZ1 | 1.65 | 0.61 |
| 8:QB:47:ARG:HG3 | 8:QB:86:VAL:HG13 | 1.82 | 0.61 |
| 2:G:27:GLN:OE1 | 2:G:27:GLN:N | 2.33 | 0.60 |
| 3:R:99:ASP:HA | 7:l:518:ALA:HA | 1.83 | 0.60 |
| 4:W:62:ASP:HB3 | 4:W:75:ARG:HB3 | 1.81 | 0.60 |
| 5:Z:29:VAL:HG21 | 5:6:266:PRO:HB3 | 1.81 | 0.60 |
| 5:0:442:ARG:NH1 | 5:0:475:GLU:OE1 | 2.34 | 0.60 |
| 5:1:442:ARG:NH1 | 5:1:475:GLU:OE1 | 2.34 | 0.60 |
| 5:2:127:VAL:N | 5:2:130:THR:O | 2.32 | 0.60 |
| 5:6:85:THR:N | 5:6:271:THR:OG1 | 2.29 | 0.60 |
| 5:6:279:THR:HG22 | 5:6:282:ARG:HH22 | 1.66 | 0.60 |
| 5:8:106:LYS:HG3 | 5:8:121:MET:HA | 1.83 | 0.60 |
| 5:8:255:LEU:HB3 | 5:8:259:ILE:HD13 | 1.81 | 0.60 |
| 7:i:357:VAL:HG13 | 7:i:358:LYS:HG2 | 1.83 | 0.60 |
| 7:j:88:GLN:OE1 | 7:j:88:GLN:N | 2.33 | 0.60 |
| 7:p:397:MET:HE2 | 7:p:404:LYS:HG2 | 1.82 | 0.60 |
| 7:AA:520:ARG:CZ | 7:BA:10:LEU:HG | 2.31 | 0.60 |
| 7:FA:303:TYR:OH | 7:FA:393:ASP:O | 2.18 | 0.60 |
| 7:GA:353:LYS:HD3 | 7:GA:370:PRO:HD3 | 1.82 | 0.60 |
| 7:HA:369:SER:O | 7:HA:375:ARG:NE | 2.24 | 0.60 |
| 7:LA:303:TYR:CZ | 7:LA:392:PRO:HA | 2.36 | 0.60 |
| 7:LA:307:LEU:HD22 | 7:LA:396:ALA:HB1 | 1.83 | 0.60 |
| 7:MA:465:LYS:O | 7:MA:468:THR:OG1 | 2.13 | 0.60 |
| 7:QA:37:LEU:O | 7:QA:266:THR:N | 2.30 | 0.60 |
| 8:CB:77:ASN:HD22 | 8:CB:165:TRP:HD1 | 1.47 | 0.60 |
| 8:NB:4:ASN:OD1 | 8:NB:5:ASN:N | 2.33 | 0.60 |
| 2:H:98:PHE:HB2 | 2:H:171:ASN:OD1 | 2.02 | 0.60 |
| 3:P:99:ASP:HA | 7:j:518:ALA:HA | 1.83 | 0.60 |
| 4:S:27:PRO:HG2 | 4:S:28:ILE:HD12 | 1.83 | 0.60 |
| 4:X:22:ARG:NH2 | 5:9:7:THR:HA | 2.16 | 0.60 |
| 5:Y:376:LYS:HA | 5:Y:460:PHE:HB3 | 1.81 | 0.60 |
| 5:5:316:TRP:O | 5:5:321:GLN:NE2 | 2.33 | 0.60 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 7:o:353:LYS:HB3 | 7:o:370:PRO:HB3 | 1.83 | 0.60 |
| 7:p:498:VAL:HG22 | 7:p:508:VAL:HG22 | 1.83 | 0.60 |
| 7:CA:110:GLU:O | 7:CA:226:LYS:N | 2.33 | 0.60 |
| 7:CA:520:ARG:HH21 | 7:DA:17:ALA:C | 2.08 | 0.60 |
| 7:HA:158:ASP:HB2 | 7:HA:162:ASN:HB2 | 1.83 | 0.60 |
| 7:KA:302:THR:OG1 | 7:KA:305:GLU:OE1 | 2.16 | 0.60 |
| 7:KA:353:LYS:HD3 | 7:KA:370:PRO:HD3 | 1.82 | 0.60 |
| 7:LA:99:ASP:OD2 | 7:LA:100:ASP:N | 2.35 | 0.60 |
| 7:LA:289:ARG:HA | 7:MA:5:SER:HA | 1.83 | 0.60 |
| 7:RA:37:LEU:HB2 | 7:RA:265:TYR:HA | 1.81 | 0.60 |
| 8:HB:115:PRO:HG2 | 8:HB:118:LYS:HB3 | 1.81 | 0.60 |
| 8:NB:168:TRP:CH2 | 8:OB:97:ILE:HG13 | 2.36 | 0.60 |
| 3:R:33:TYR:CE1 | 7:l:525:PRO:HB2 | 2.34 | 0.60 |
| 3:R:61:THR:HG23 | 7:l:517:VAL:HA | 1.83 | 0.60 |
| 4:T:27:PRO:HG2 | 4:T:28:ILE:HD12 | 1.82 | 0.60 |
| 4:T:46:LYS:H | 5:4:27:LYS:HZ3 | 1.47 | 0.60 |
| 5:Z:201:PHE:HE2 | 5:Z:211:ARG:HG3 | 1.66 | 0.60 |
| 5:0:189:ARG:NH1 | 5:6:290:ASP:OD1 | 2.25 | 0.60 |
| 5:2:104:ILE:HB | 5:2:124:CYS:HB3 | 1.82 | 0.60 |
| 5:2:387:ILE:O | 5:2:475:GLU:N | 2.23 | 0.60 |
| 7:j:120:PRO:O | 7:j:123:SER:OG | 2.14 | 0.60 |
| 7:k:88:GLN:OE1 | 7:k:88:GLN:N | 2.34 | 0.60 |
| 7:l:7:GLN:HE21 | 7:l:10:LEU:HD21 | 1.65 | 0.60 |
| 7:m:353:LYS:HB3 | 7:m:370:PRO:HB3 | 1.81 | 0.60 |
| 7:AA:520:ARG:HA | 7:BA:16:VAL:HG22 | 1.83 | 0.60 |
| 7:HA:307:LEU:HD22 | 7:HA:396:ALA:HB1 | 1.83 | 0.60 |
| 8:GB:125:VAL:HG23 | 8:GB:127:LYS:HZ1 | 1.66 | 0.60 |
| 8:RB:94:LEU:HA | 8:RB:97:ILE:HG12 | 1.82 | 0.60 |
| 1:C:76:GLU:O | 1:C:86:LEU:HA | 2.00 | 0.60 |
| 3:Q:99:ASP:HA | 7:k:518:ALA:HA | 1.83 | 0.60 |
| 4:V:86:ASP:HA | 5:7:47:ARG:NH2 | 2.16 | 0.60 |
| 5:3:442:ARG:NH1 | 5:3:475:GLU:OE1 | 2.35 | 0.60 |
| 5:5:106:LYS:HG3 | 5:5:121:MET:HA | 1.83 | 0.60 |
| 5:7:380:LYS:NZ | 5:7:450:GLU:OE1 | 2.30 | 0.60 |
| 5:8:153:PHE:N | 5:8:212:PHE:O | 2.34 | 0.60 |
| 7:g:18:VAL:HA | 7:l:525:PRO:HD2 | 1.84 | 0.60 |
| 7:g:226:LYS:NZ | 7:g:227:VAL:O | 2.28 | 0.60 |
| 7:o:420:THR:HG23 | 7:o:422:CYS:H | 1.66 | 0.60 |
| 7:q:156:THR:HG23 | 7:q:164:ARG:HH22 | 1.66 | 0.60 |
| 7:DA:39:ALA:HB2 | 7:DA:92:TYR:HB2 | 1.82 | 0.60 |
| 7:DA:440:ILE:HA | 7:DA:443:PHE:CD2 | 2.35 | 0.60 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 7:EA:303:TYR:OH | 7:EA:393:ASP:O | 2.19 | 0.60 |
| 7:GA:326:TYR:HE2 | 7:GA:328:TYR:HB2 | 1.64 | 0.60 |
| 7:KA:307:LEU:HD11 | 7:KA:400:GLY:HA3 | 1.84 | 0.60 |
| 7:MA:33:LEU:HD12 | 7:MA:35:SER:H | 1.65 | 0.60 |
| 7:OA:120:PRO:O | 7:OA:123:SER:OG | 2.18 | 0.60 |
| 7:PA:33:LEU:HD12 | 7:PA:35:SER:H | 1.65 | 0.60 |
| 8:BB:48:THR:OG1 | 8:CB:148:THR:OG1 | 2.15 | 0.60 |
| 8:GB:78:SER:HB2 | 8:LB:68:LYS:HE2 | 1.82 | 0.60 |
| 2:G:98:PHE:HB2 | 2:G:171:ASN:OD1 | 2.02 | 0.60 |
| 3:O:99:ASP:HA | 7:i:518:ALA:HA | 1.84 | 0.60 |
| 5:Y:201:PHE:HE2 | 5:Y:211:ARG:HG3 | 1.67 | 0.60 |
| 5:1:189:ARG:HG3 | 5:1:190:LEU:HG | 1.83 | 0.60 |
| 5:2:442:ARG:NH1 | 5:2:475:GLU:OE1 | 2.34 | 0.60 |
| 5:6:106:LYS:HG3 | 5:6:121:MET:HA | 1.84 | 0.60 |
| 6:c:37:PRO:HG2 | 6:c:38:TRP:CZ3 | 2.36 | 0.60 |
| 6:e:37:PRO:HG2 | 6:e:38:TRP:CZ3 | 2.36 | 0.60 |
| 7:i:259:ASN:O | 7:p:2:SER:N | 2.34 | 0.60 |
| 7:k:228:THR:HG21 | 7:k:230:LYS:HZ1 | 1.66 | 0.60 |
| 7:l:321:VAL:HG23 | 7:l:422:CYS:HB2 | 1.83 | 0.60 |
| 7:EA:519:ARG:NH1 | 7:FA:12:ASN:O | 2.34 | 0.60 |
| 7:FA:366:TRP:HD1 | 7:FA:435:SER:HB2 | 1.65 | 0.60 |
| 7:JA:50:PHE:N | 7:JA:95:ARG:O | 2.30 | 0.60 |
| 7:JA:207:GLU:OE2 | 7:PA:339:SER:OG | 2.19 | 0.60 |
| 7:LA:506:TRP:O | 7:RA:520:ARG:NH2 | 2.33 | 0.60 |
| 8:BB:56:ARG:NE | 8:CB:140:TYR:OH | 2.35 | 0.60 |
| 8:KB:68:LYS:HE2 | 8:LB:78:SER:HB2 | 1.83 | 0.60 |
| 8:NB:29:SER:H | 8:OB:154:ALA:HA | 1.66 | 0.60 |
| 1:D:37:ILE:HA | 1:D:40:LYS:HZ2 | 1.67 | 0.60 |
| 1:D:172:GLU:N | 1:D:172:GLU:OE2 | 2.34 | 0.60 |
| 2:J:98:PHE:HB2 | 2:J:171:ASN:OD1 | 2.02 | 0.60 |
| 2:K:98:PHE:HB2 | 2:K:171:ASN:OD1 | 2.02 | 0.60 |
| 3:M:107:ILE:H | 3:M:110:ILE:HG22 | 1.65 | 0.60 |
| 4:X:44:ASN:C | 5:8:27:LYS:HZ2 | 2.10 | 0.60 |
| 5:Y:104:ILE:HB | 5:Y:124:CYS:HB3 | 1.81 | 0.60 |
| 5:Y:189:ARG:HG3 | 5:Y:190:LEU:HG | 1.84 | 0.60 |
| 5:1:201:PHE:HE2 | 5:1:211:ARG:HG3 | 1.67 | 0.60 |
| 5:3:201:PHE:HE2 | 5:3:211:ARG:HG3 | 1.67 | 0.60 |
| 5:4:153:PHE:N | 5:4:212:PHE:O | 2.34 | 0.60 |
| 5:9:106:LYS:HG3 | 5:9:121:MET:HA | 1.84 | 0.60 |
| 7:g:13:ALA:O | 7:l:520:ARG:NH2 | 2.34 | 0.60 |
| 7:k:38:TRP:HB2 | 7:k:269:LEU:HD23 | 1.82 | 0.60 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 7:l:38:TRP:HB2 | 7:l:269:LEU:HD23 | 1.82 | 0.60 |
| 7:m:156:THR:HG23 | 7:m:164:ARG:HH22 | 1.66 | 0.60 |
| 7:o:480:LEU:HA | 7:o:514:PRO:HA | 1.83 | 0.60 |
| 7:r:492:GLU:OE1 | 7:r:492:GLU:N | 2.34 | 0.60 |
| 7:AA:39:ALA:HB2 | 7:AA:92:TYR:HB2 | 1.82 | 0.60 |
| 7:BA:433:VAL:O | 7:BA:436:LEU:HG | 2.02 | 0.60 |
| 7:GA:303:TYR:CZ | 7:GA:392:PRO:HA | 2.36 | 0.60 |
| 7:HA:166:LEU:HD11 | 7:HA:183:THR:HB | 1.83 | 0.60 |
| 7:HA:357:VAL:HA | 7:HA:365:GLY:H | 1.67 | 0.60 |
| 7:IA:166:LEU:HD11 | 7:IA:183:THR:HB | 1.84 | 0.60 |
| 8:BB:144:ILE:HD11 | 8:BB:158:SER:H | 1.67 | 0.60 |
| 8:CB:144:ILE:HD11 | 8:CB:158:SER:H | 1.67 | 0.60 |
| 8:HB:68:LYS:HE2 | 8:IB:78:SER:HB2 | 1.82 | 0.60 |
| 8:NB:94:LEU:HA | 8:NB:97:ILE:HG12 | 1.82 | 0.60 |
| 2:K:180:SER:OG | 2:K:183:TYR:OH | 2.13 | 0.60 |
| 3:M:88:SER:OG | 3:M:106:ARG:O | 2.19 | 0.60 |
| 4:V:27:PRO:HG2 | 4:V:28:ILE:HD12 | 1.84 | 0.60 |
| 5:Y:387:ILE:O | 5:Y:475:GLU:N | 2.23 | 0.60 |
| 7:i:301:LEU:HD12 | 7:i:305:GLU:HG3 | 1.83 | 0.60 |
| 7:k:401:ARG:HB3 | 7:k:421:CYS:HA | 1.83 | 0.60 |
| 7:n:156:THR:HG23 | 7:n:164:ARG:HH22 | 1.66 | 0.60 |
| 7:o:156:THR:HG23 | 7:o:164:ARG:HH22 | 1.66 | 0.60 |
| 7:p:480:LEU:HA | 7:p:514:PRO:HA | 1.83 | 0.60 |
| 7:AA:196:MET:SD | 7:LA:529:LYS:NZ | 2.71 | 0.60 |
| 7:BA:366:TRP:HD1 | 7:BA:435:SER:HB2 | 1.65 | 0.60 |
| 7:BA:520:ARG:NH1 | 7:BA:522:GLN:HB3 | 2.17 | 0.60 |
| 7:IA:307:LEU:HD22 | 7:IA:396:ALA:HB1 | 1.83 | 0.60 |
| 7:JA:166:LEU:HD11 | 7:JA:183:THR:HB | 1.84 | 0.60 |
| 8:HB:32:PHE:H | 8:MB:65:ASN:HD21 | 1.50 | 0.60 |
| 8:JB:32:PHE:O | 8:OB:65:ASN:ND2 | 2.34 | 0.60 |
| 2:H:190:ARG:HH22 | 3:N:107:ILE:HD12 | 1.67 | 0.60 |
| 4:T:54:LEU:HB3 | 4:T:57:GLU:HG2 | 1.82 | 0.60 |
| 5:2:201:PHE:HE2 | 5:2:211:ARG:HG3 | 1.67 | 0.60 |
| 7:h:434:PRO:HA | 7:h:437:MET:HE2 | 1.83 | 0.60 |
| 7:r:302:THR:OG1 | 7:r:305:GLU:OE1 | 2.15 | 0.60 |
| 7:BA:398:VAL:HG21 | 7:CA:13:ALA:HA | 1.84 | 0.60 |
| 7:HA:321:VAL:HG23 | 7:HA:422:CYS:HB2 | 1.84 | 0.60 |
| 7:KA:289:ARG:HA | 7:RA:5:SER:HA | 1.84 | 0.60 |
| 7:NA:33:LEU:HD12 | 7:NA:35:SER:H | 1.65 | 0.60 |
| 7:OA:33:LEU:HD12 | 7:OA:35:SER:H | 1.65 | 0.60 |
| 8:DB:118:LYS:NZ | 8:DB:125:VAL:O | 2.27 | 0.60 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 8:GB:68:LYS:HE2 | 8:HB:78:SER:HB2 | 1.82 | 0.60 |
| 8:KB:10:ARG:NH1 | 8:RB:168:TRP:O | 2.33 | 0.60 |
| 8:MB:29:SER:H | 8:NB:154:ALA:HA | 1.66 | 0.60 |
| 8:QB:29:SER:H | 8:RB:154:ALA:HA | 1.65 | 0.60 |
| 2:J:180:SER:HG | 2:J:183:TYR:HH | 1.49 | 0.60 |
| 5:4:106:LYS:HG3 | 5:4:121:MET:HA | 1.84 | 0.60 |
| 5:5:333:ILE:O | 5:5:335:LYS:NZ | 2.28 | 0.60 |
| 5:6:89:GLY:HA3 | 5:6:267:ILE:HG12 | 1.82 | 0.60 |
| 7:h:191:GLU:HA | 7:n:69:LYS:HZ1 | 1.67 | 0.60 |
| 7:j:321:VAL:HG23 | 7:j:422:CYS:HB2 | 1.83 | 0.60 |
| 7:j:434:PRO:HA | 7:j:437:MET:HE2 | 1.83 | 0.60 |
| 7:k:525:PRO:HD2 | 7:l:18:VAL:HA | 1.83 | 0.60 |
| 7:l:226:LYS:NZ | 7:l:227:VAL:O | 2.27 | 0.60 |
| 7:l:434:PRO:HA | 7:l:437:MET:HE2 | 1.83 | 0.60 |
| 7:n:302:THR:OG1 | 7:n:305:GLU:OE1 | 2.15 | 0.60 |
| 7:n:432:HIS:O | 7:n:435:SER:OG | 2.18 | 0.60 |
| 7:n:505:LYS:HE2 | 7:BA:522:GLN:NE2 | 2.17 | 0.60 |
| 7:q:480:LEU:HA | 7:q:514:PRO:HA | 1.83 | 0.60 |
| 7:r:480:LEU:HA | 7:r:514:PRO:HA | 1.83 | 0.60 |
| 7:GA:506:TRP:O | 7:MA:520:ARG:NH2 | 2.31 | 0.60 |
| 7:IA:105:ILE:HD11 | 7:IA:134:ALA:HB1 | 1.84 | 0.60 |
| 7:PA:423:THR:OG1 | 7:PA:424:GLN:OE1 | 2.19 | 0.60 |
| 7:RA:401:ARG:HB3 | 7:RA:421:CYS:HA | 1.84 | 0.60 |
| 8:CB:47:ARG:HE | 8:DB:148:THR:HG23 | 1.67 | 0.60 |
| 8:GB:50:GLN:HE22 | 8:HB:144:ILE:C | 2.10 | 0.60 |
| 8:GB:148:THR:HG23 | 8:LB:30:SER:HA | 1.84 | 0.60 |
| 8:KB:11:LYS:NZ | 8:LB:121:GLY:O | 2.25 | 0.60 |
| 8:OB:34:LEU:O | 8:OB:43:SER:OG | 2.16 | 0.60 |
| 1:C:184:SER:O | 1:C:188:GLN:NE2 | 2.35 | 0.60 |
| 2:G:153:ASP:OD1 | 2:G:154:LEU:N | 2.35 | 0.60 |
| 2:J:153:ASP:OD1 | 2:J:154:LEU:N | 2.35 | 0.60 |
| 2:K:165:ASN:OD1 | 2:K:166:GLY:N | 2.35 | 0.60 |
| 2:L:190:ARG:HH22 | 3:R:107:ILE:HD12 | 1.67 | 0.60 |
| 3:P:33:TYR:CE1 | 7:j:525:PRO:HB2 | 2.34 | 0.60 |
| 3:P:61:THR:HG23 | 7:j:517:VAL:HA | 1.83 | 0.60 |
| 4:S:22:ARG:NH2 | 5:4:7:THR:HA | 2.17 | 0.60 |
| 4:T:65:ALA:HA | 4:T:69:TRP:CE3 | 2.37 | 0.60 |
| 5:7:106:LYS:HG3 | 5:7:121:MET:HA | 1.84 | 0.60 |
| 7:g:259:ASN:O | 7:n:2:SER:N | 2.34 | 0.60 |
| 7:g:302:THR:N | 7:g:305:GLU:OE2 | 2.35 | 0.60 |
| 7:j:70:PRO:HA | 7:j:76:PHE:HB3 | 1.84 | 0.60 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:j:525:PRO:O | 7:k:19:SER:OG | 2.19 | 0.60 |
| 7:k:321:VAL:HG23 | 7:k:422:CYS:HB2 | 1.83 | 0.60 |
| 7:p:156:THR:HG23 | 7:p:164:ARG:HH22 | 1.66 | 0.60 |
| 7:q:353:LYS:HB3 | 7:q:370:PRO:HB3 | 1.83 | 0.60 |
| 7:r:498:VAL:HG22 | 7:r:508:VAL:HG22 | 1.83 | 0.60 |
| 7:CA:138:ASP:HB2 | 7:CA:214:ARG:HH21 | 1.67 | 0.60 |
| 7:FA:373:GLU:OE2 | 7:FA:409:THR:OG1 | 2.15 | 0.60 |
| 7:JA:302:THR:OG1 | 7:JA:305:GLU:OE1 | 2.17 | 0.60 |
| 7:KA:326:TYR:HE2 | 7:KA:328:TYR:HB2 | 1.66 | 0.60 |
| 7:LA:326:TYR:HE2 | 7:LA:328:TYR:HB2 | 1.64 | 0.60 |
| 7:NA:401:ARG:HB3 | 7:NA:421:CYS:HA | 1.84 | 0.60 |
| 7:RA:33:LEU:HD12 | 7:RA:35:SER:H | 1.65 | 0.60 |
| 7:RA:465:LYS:O | 7:RA:468:THR:OG1 | 2.16 | 0.60 |
| 8:DB:77:ASN:HD22 | 8:DB:165:TRP:HD1 | 1.47 | 0.60 |
| 8:GB:3:HIS:O | 8:GB:6:THR:OG1 | 2.17 | 0.60 |
| 8:NB:120:SER:H | 8:NB:125:VAL:HG23 | 1.66 | 0.60 |
| 8:QB:120:SER:H | 8:QB:125:VAL:HG23 | 1.67 | 0.60 |
| 1:A:184:SER:O | 1:A:188:GLN:NE2 | 2.35 | 0.59 |
| 1:F:172:GLU:N | 1:F:172:GLU:OE2 | 2.35 | 0.59 |
| 2:J:190:ARG:HH22 | 3:P:107:ILE:HD12 | 1.67 | 0.59 |
| 3:N:99:ASP:HA | 7:h:518:ALA:HA | 1.84 | 0.59 |
| 4:X:44:ASN:ND2 | 5:8:23:SER:O | 2.34 | 0.59 |
| 5:Z:184:SER:HB3 | 5:Z:198:TYR:CE2 | 2.37 | 0.59 |
| 5:0:201:PHE:HE2 | 5:0:211:ARG:HG3 | 1.66 | 0.59 |
| 5:0:377:LEU:N | 5:0:460:PHE:O | 2.29 | 0.59 |
| 5:2:286:TYR:HA | 5:2:289:TYR:HB3 | 1.84 | 0.59 |
| 5:8:279:THR:HG22 | 5:8:282:ARG:HH22 | 1.67 | 0.59 |
| 5:8:333:ILE:O | 5:8:335:LYS:NZ | 2.28 | 0.59 |
| 6:d:115:ILE:HG13 | 6:d:152:GLY:HA2 | 1.84 | 0.59 |
| 7:h:301:LEU:HD12 | 7:h:305:GLU:HG3 | 1.84 | 0.59 |
| 7:h:525:PRO:O | 7:i:19:SER:OG | 2.19 | 0.59 |
| 7:i:70:PRO:HA | 7:i:76:PHE:HB3 | 1.84 | 0.59 |
| 7:i:525:PRO:HD2 | 7:j:18:VAL:HA | 1.84 | 0.59 |
| 7:j:49:PRO:HB3 | 7:j:97:VAL:HG22 | 1.84 | 0.59 |
| 7:j:259:ASN:O | 7:q:2:SER:N | 2.34 | 0.59 |
| 7:n:420:THR:HG23 | 7:n:422:CYS:H | 1.67 | 0.59 |
| 7:FA:433:VAL:O | 7:FA:436:LEU:HG | 2.02 | 0.59 |
| 7:GA:166:LEU:HD11 | 7:GA:183:THR:HB | 1.84 | 0.59 |
| 7:GA:321:VAL:HG23 | 7:GA:422:CYS:HB2 | 1.84 | 0.59 |
| 7:GA:369:SER:O | 7:GA:375:ARG:NE | 2.24 | 0.59 |
| 7:HA:164:ARG:HG2 | 7:HA:187:SER:HB2 | 1.82 | 0.59 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:IA:99:ASP:OD2 | 7:IA:100:ASP:N | 2.34 | 0.59 |
| 7:KA:166:LEU:HD11 | 7:KA:183:THR:HB | 1.83 | 0.59 |
| 7:LA:164:ARG:HG2 | 7:LA:187:SER:HB2 | 1.82 | 0.59 |
| 7:OA:2:SER:OG | 7:OA:3:GLN:N | 2.35 | 0.59 |
| 7:PA:47:GLY:N | 7:PA:139:ASP:O | 2.35 | 0.59 |
| 8:AB:89:ILE:HA | 8:FB:27:LEU:HD11 | 1.83 | 0.59 |
| 8:AB:148:THR:HG23 | 8:FB:47:ARG:HE | 1.67 | 0.59 |
| 1:F:37:ILE:HA | 1:F:40:LYS:HZ2 | 1.67 | 0.59 |
| 5:2:395:ASN:OD1 | 5:3:125:ARG:NH1 | 2.35 | 0.59 |
| 5:5:111:ILE:HG23 | 5:5:115:GLN:HA | 1.84 | 0.59 |
| 6:b:37:PRO:HG2 | 6:b:38:TRP:CZ3 | 2.36 | 0.59 |
| 6:f:37:PRO:HG2 | 6:f:38:TRP:CZ3 | 2.36 | 0.59 |
| 7:g:321:VAL:HG23 | 7:g:422:CYS:HB2 | 1.83 | 0.59 |
| 7:h:357:VAL:HG13 | 7:h:358:LYS:HG2 | 1.83 | 0.59 |
| 7:l:357:VAL:HG13 | 7:l:358:LYS:HG2 | 1.83 | 0.59 |
| 7:m:420:THR:HG23 | 7:m:422:CYS:H | 1.67 | 0.59 |
| 7:q:420:THR:HG23 | 7:q:422:CYS:H | 1.66 | 0.59 |
| 7:r:50:PHE:N | 7:r:95:ARG:O | 2.26 | 0.59 |
| 7:DA:138:ASP:HB2 | 7:DA:214:ARG:HH21 | 1.67 | 0.59 |
| 7:EA:433:VAL:O | 7:EA:436:LEU:HG | 2.02 | 0.59 |
| 7:GA:158:ASP:HB2 | 7:GA:162:ASN:HB2 | 1.83 | 0.59 |
| 7:HA:326:TYR:HE2 | 7:HA:328:TYR:HB2 | 1.66 | 0.59 |
| 7:KA:506:TRP:O | 7:QA:520:ARG:NH2 | 2.32 | 0.59 |
| 7:LA:50:PHE:N | 7:LA:95:ARG:O | 2.30 | 0.59 |
| 7:MA:525:PRO:HG2 | 7:NA:21:ILE:HA | 1.83 | 0.59 |
| 8:DB:144:ILE:HD11 | 8:DB:158:SER:H | 1.67 | 0.59 |
| 1:C:50:SER:HB3 | 1:C:141:LEU:HD21 | 1.84 | 0.59 |
| 1:D:184:SER:O | 1:D:188:GLN:NE2 | 2.35 | 0.59 |
| 1:E:184:SER:O | 1:E:188:GLN:NE2 | 2.36 | 0.59 |
| 2:H:190:ARG:NH1 | 3:N:86:PRO:HG2 | 2.17 | 0.59 |
| 2:I:190:ARG:HH22 | 3:O:107:ILE:HD12 | 1.67 | 0.59 |
| 2:K:190:ARG:HH22 | 3:Q:107:ILE:HD12 | 1.67 | 0.59 |
| 5:Y:382:THR:HB | 5:Y:447:GLU:HB3 | 1.84 | 0.59 |
| 5:1:286:TYR:HA | 5:1:289:TYR:HB3 | 1.85 | 0.59 |
| 5:2:102:ALA:O | 5:2:126:LEU:N | 2.33 | 0.59 |
| 5:4:111:ILE:HG23 | 5:4:115:GLN:HA | 1.84 | 0.59 |
| 5:5:279:THR:HG22 | 5:5:282:ARG:HH22 | 1.67 | 0.59 |
| 7:g:38:TRP:HB2 | 7:g:269:LEU:HD23 | 1.82 | 0.59 |
| 7:g:301:LEU:HD12 | 7:g:305:GLU:HG3 | 1.84 | 0.59 |
| 7:h:228:THR:HG21 | 7:h:230:LYS:HZ1 | 1.67 | 0.59 |
| 7:k:70:PRO:HA | 7:k:76:PHE:HB3 | 1.84 | 0.59 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:k:301:LEU:HD12 | 7:k:305:GLU:HG3 | 1.84 | 0.59 |
| 7:l:69:LYS:O | 7:l:72:SER:OG | 2.17 | 0.59 |
| 7:r:420:THR:HG23 | 7:r:422:CYS:H | 1.66 | 0.59 |
| 7:AA:303:TYR:OH | 7:AA:393:ASP:O | 2.19 | 0.59 |
| 7:CA:433:VAL:O | 7:CA:436:LEU:HG | 2.02 | 0.59 |
| 7:GA:481:VAL:HG22 | 7:GA:515:THR:HG22 | 1.85 | 0.59 |
| 7:HA:481:VAL:HG22 | 7:HA:515:THR:HG22 | 1.84 | 0.59 |
| 7:IA:321:VAL:HG23 | 7:IA:422:CYS:HB2 | 1.84 | 0.59 |
| 7:IA:464:THR:O | 7:IA:468:THR:HG23 | 2.02 | 0.59 |
| 7:LA:166:LEU:HD11 | 7:LA:183:THR:HB | 1.84 | 0.59 |
| 7:MA:401:ARG:HB3 | 7:MA:421:CYS:HA | 1.84 | 0.59 |
| 7:PA:401:ARG:HB3 | 7:PA:421:CYS:HA | 1.84 | 0.59 |
| 7:QA:401:ARG:HB3 | 7:QA:421:CYS:HA | 1.84 | 0.59 |
| 7:RA:408:GLY:HA3 | 7:RA:412:GLN:HE22 | 1.66 | 0.59 |
| 8:EB:144:ILE:HD11 | 8:EB:158:SER:H | 1.67 | 0.59 |
| 8:GB:32:PHE:N | 8:RB:65:ASN:HD21 | 1.98 | 0.59 |
| 8:GB:90:GLU:OE2 | 8:GB:90:GLU:N | 2.24 | 0.59 |
| 1:A:50:SER:HB3 | 1:A:141:LEU:HD21 | 1.84 | 0.59 |
| 1:F:50:SER:HB3 | 1:F:141:LEU:HD21 | 1.84 | 0.59 |
| 2:G:44:GLN:HB2 | 2:G:86:GLY:O | 2.03 | 0.59 |
| 2:H:165:ASN:OD1 | 2:H:166:GLY:N | 2.35 | 0.59 |
| 3:P:101:LEU:HB3 | 3:P:116:VAL:HG23 | 1.85 | 0.59 |
| 5:Y:395:ASN:OD1 | 5:Z:125:ARG:NH1 | 2.35 | 0.59 |
| 5:Z:77:ASN:HD21 | 5:Z:287:LEU:N | 2.01 | 0.59 |
| 5:0:9:ASP:OD1 | 5:0:10:SER:N | 2.36 | 0.59 |
| 5:0:277:GLU:OE2 | 5:0:280:ARG:NH2 | 2.32 | 0.59 |
| 5:0:387:ILE:O | 5:0:475:GLU:N | 2.23 | 0.59 |
| 5:1:395:ASN:OD1 | 5:2:125:ARG:NH1 | 2.35 | 0.59 |
| 5:3:382:THR:HB | 5:3:447:GLU:HB3 | 1.84 | 0.59 |
| 7:g:19:SER:OG | 7:l:525:PRO:O | 2.20 | 0.59 |
| 7:g:49:PRO:HB3 | 7:g:97:VAL:HG22 | 1.84 | 0.59 |
| 7:g:434:PRO:HA | 7:g:437:MET:HE2 | 1.83 | 0.59 |
| 7:i:321:VAL:HG23 | 7:i:422:CYS:HB2 | 1.84 | 0.59 |
| 7:i:525:PRO:O | 7:j:19:SER:OG | 2.19 | 0.59 |
| 7:j:401:ARG:HB3 | 7:j:421:CYS:HA | 1.83 | 0.59 |
| 7:j:525:PRO:HD2 | 7:k:18:VAL:HA | 1.83 | 0.59 |
| 7:m:492:GLU:OE1 | 7:m:492:GLU:N | 2.34 | 0.59 |
| 7:o:508:VAL:HG23 | 7:CA:521:ILE:HD11 | 1.84 | 0.59 |
| 7:HA:307:LEU:HD11 | 7:HA:400:GLY:HA3 | 1.84 | 0.59 |
| 7:LA:448:ALA:HA | 7:LA:451:MET:HG3 | 1.84 | 0.59 |
| 7:PA:404:LYS:NZ | 7:PA:416:ASP:OD2 | 2.27 | 0.59 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 7:RA:2:SER:OG | 7:RA:3:GLN:N | 2.35 | 0.59 |
| 1:D:64:LYS:HZ1 | 1:D:175:SER:HB3 | 1.68 | 0.59 |
| 1:E:37:ILE:HA | 1:E:40:LYS:HZ2 | 1.67 | 0.59 |
| 1:F:184:SER:O | 1:F:188:GLN:NE2 | 2.35 | 0.59 |
| 4:T:96:LYS:NZ | 4:T:97:LEU:O | 2.36 | 0.59 |
| 4:U:96:LYS:NZ | 4:U:97:LEU:O | 2.36 | 0.59 |
| 5:1:151:LYS:HE2 | 5:6:21:LYS:HD2 | 1.83 | 0.59 |
| 5:2:9:ASP:OD1 | 5:2:10:SER:N | 2.36 | 0.59 |
| 5:3:184:SER:HB3 | 5:3:198:TYR:CE2 | 2.37 | 0.59 |
| 7:h:70:PRO:HA | 7:h:76:PHE:HB3 | 1.85 | 0.59 |
| 7:i:49:PRO:HB3 | 7:i:97:VAL:HG22 | 1.84 | 0.59 |
| 7:k:434:PRO:HA | 7:k:437:MET:HE2 | 1.83 | 0.59 |
| 7:l:70:PRO:HA | 7:l:76:PHE:HB3 | 1.84 | 0.59 |
| 7:m:158:ASP:OD1 | 7:m:164:ARG:NE | 2.28 | 0.59 |
| 7:r:418:ALA:HB1 | 7:r:431:GLN:HG2 | 1.84 | 0.59 |
| 7:FA:138:ASP:HB2 | 7:FA:214:ARG:HH21 | 1.67 | 0.59 |
| 7:IA:448:ALA:O | 7:IA:452:LYS:HD2 | 2.03 | 0.59 |
| 7:LA:353:LYS:HD3 | 7:LA:370:PRO:HD3 | 1.82 | 0.59 |
| 7:MA:108:PHE:HE1 | 7:MA:114:PRO:HB3 | 1.68 | 0.59 |
| 7:NA:493:PRO:HG2 | 7:NA:494:TYR:CD1 | 2.37 | 0.59 |
| 7:OA:401:ARG:HB3 | 7:OA:421:CYS:HA | 1.84 | 0.59 |
| 8:IB:133:GLU:O | 8:IB:167:GLU:HB2 | 2.02 | 0.59 |
| 8:LB:133:GLU:O | 8:LB:167:GLU:HB2 | 2.02 | 0.59 |
| 1:B:37:ILE:HA | 1:B:40:LYS:HZ2 | 1.67 | 0.59 |
| 3:Q:13:LEU:H | 7:k:527:LEU:HD11 | 1.68 | 0.59 |
| 4:X:96:LYS:NZ | 4:X:97:LEU:O | 2.36 | 0.59 |
| 5:Y:127:VAL:N | 5:Y:130:THR:O | 2.32 | 0.59 |
| 5:Y:184:SER:HB3 | 5:Y:198:TYR:CE2 | 2.37 | 0.59 |
| 5:Z:395:ASN:OD1 | 5:0:125:ARG:NH1 | 2.35 | 0.59 |
| 5:0:395:ASN:OD1 | 5:1:125:ARG:NH1 | 2.35 | 0.59 |
| 5:2:13:ALA:O | 5:2:16:GLU:HG3 | 2.02 | 0.59 |
| 5:5:187:MET:HE1 | 6:b:95:ARG:HH22 | 1.68 | 0.59 |
| 7:j:302:THR:N | 7:j:305:GLU:OE2 | 2.35 | 0.59 |
| 7:l:302:THR:N | 7:l:305:GLU:OE2 | 2.35 | 0.59 |
| 7:m:150:LEU:HB2 | 7:m:233:LEU:HB2 | 1.85 | 0.59 |
| 7:p:420:THR:HG23 | 7:p:422:CYS:H | 1.67 | 0.59 |
| 7:r:211:LYS:HA | 7:r:214:ARG:HH22 | 1.68 | 0.59 |
| 7:BA:348:VAL:HB | 7:BA:378:ILE:HD12 | 1.84 | 0.59 |
| 7:EA:110:GLU:O | 7:EA:226:LYS:N | 2.34 | 0.59 |
| 7:KA:357:VAL:HA | 7:KA:365:GLY:H | 1.67 | 0.59 |
| 7:OA:108:PHE:HE1 | 7:OA:114:PRO:HB3 | 1.68 | 0.59 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 8:HB:133:GLU:O | 8:HB:167:GLU:HB2 | 2.03 | 0.59 |
| 8:RB:166:ILE:HG22 | 8:RB:168:TRP:HD1 | 1.67 | 0.59 |
| 1:C:113:LYS:HE3 | 1:C:113:LYS:HA | 1.83 | 0.59 |
| 4:S:86:ASP:HA | 5:4:47:ARG:NH2 | 2.18 | 0.59 |
| 4:V:22:ARG:NH2 | 5:7:7:THR:HA | 2.17 | 0.59 |
| 5:Z:9:ASP:OD1 | 5:Z:10:SER:N | 2.36 | 0.59 |
| 5:1:382:THR:HB | 5:1:447:GLU:HB3 | 1.84 | 0.59 |
| 5:3:285:TYR:CE2 | 5:3:301:TYR:HB2 | 2.38 | 0.59 |
| 5:7:246:LEU:HB2 | 5:7:261:VAL:HB | 1.84 | 0.59 |
| 5:9:333:ILE:O | 5:9:335:LYS:NZ | 2.28 | 0.59 |
| 7:g:70:PRO:HA | 7:g:76:PHE:HB3 | 1.84 | 0.59 |
| 7:h:302:THR:OG1 | 7:h:305:GLU:OE1 | 2.21 | 0.59 |
| 7:l:2:SER:OG | 7:l:3:GLN:N | 2.35 | 0.59 |
| 7:n:480:LEU:HA | 7:n:514:PRO:HA | 1.83 | 0.59 |
| 7:BA:138:ASP:HB2 | 7:BA:214:ARG:HH21 | 1.67 | 0.59 |
| 7:JA:506:TRP:O | 7:PA:520:ARG:NH2 | 2.31 | 0.59 |
| 7:NA:465:LYS:O | 7:NA:468:THR:OG1 | 2.16 | 0.59 |
| 7:QA:112:GLY:O | 7:QA:230:LYS:NZ | 2.31 | 0.59 |
| 7:QA:408:GLY:HA3 | 7:QA:412:GLN:HE22 | 1.67 | 0.59 |
| 8:AB:47:ARG:HE | 8:BB:148:THR:HG23 | 1.67 | 0.59 |
| 8:KB:133:GLU:O | 8:KB:167:GLU:HB2 | 2.02 | 0.59 |
| 1:A:37:ILE:HA | 1:A:40:LYS:HZ2 | 1.68 | 0.59 |
| 1:B:44:ALA:HB2 | 1:C:104:VAL:HG22 | 1.85 | 0.59 |
| 1:C:40:LYS:HB3 | 8:CB:69:PHE:HZ | 1.68 | 0.59 |
| 2:L:44:GLN:HB2 | 2:L:86:GLY:O | 2.03 | 0.59 |
| 5:Y:9:ASP:OD1 | 5:Y:10:SER:N | 2.35 | 0.59 |
| 5:Y:285:TYR:CE2 | 5:Y:301:TYR:HB2 | 2.38 | 0.59 |
| 5:Z:382:THR:HB | 5:Z:447:GLU:HB3 | 1.84 | 0.59 |
| 5:1:172:PHE:HB2 | 5:1:228:THR:HB | 1.85 | 0.59 |
| 5:2:172:PHE:HB2 | 5:2:228:THR:HB | 1.85 | 0.59 |
| 5:2:285:TYR:CE2 | 5:2:301:TYR:HB2 | 2.38 | 0.59 |
| 5:8:104:ILE:HB | 5:8:124:CYS:HB3 | 1.84 | 0.59 |
| 5:8:246:LEU:HB2 | 5:8:261:VAL:HB | 1.84 | 0.59 |
| 5:9:111:ILE:HG23 | 5:9:115:GLN:HA | 1.84 | 0.59 |
| 5:9:187:MET:HE1 | 6:f:95:ARG:HH22 | 1.68 | 0.59 |
| 7:k:198:ARG:HH22 | 7:q:337:THR:HA | 1.68 | 0.59 |
| 7:k:525:PRO:O | 7:l:19:SER:OG | 2.19 | 0.59 |
| 7:l:198:ARG:HH22 | 7:r:337:THR:HA | 1.68 | 0.59 |
| 7:p:150:LEU:HB2 | 7:p:233:LEU:HB2 | 1.84 | 0.59 |
| 7:r:353:LYS:HB3 | 7:r:370:PRO:HB3 | 1.83 | 0.59 |
| 7:AA:328:TYR:HB2 | 7:AA:345:LEU:HD23 | 1.85 | 0.59 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:CA:348:VAL:HB | 7:CA:378:ILE:HD12 | 1.84 | 0.59 |
| 7:CA:408:GLY:HA3 | 7:CA:412:GLN:NE2 | 2.18 | 0.59 |
| 7:GA:294:PHE:HB3 | 7:GA:346:SER:HB2 | 1.84 | 0.59 |
| 7:JA:321:VAL:HG23 | 7:JA:422:CYS:HB2 | 1.84 | 0.59 |
| 7:KA:481:VAL:HG22 | 7:KA:515:THR:HG22 | 1.85 | 0.59 |
| 7:MA:47:GLY:N | 7:MA:139:ASP:O | 2.35 | 0.59 |
| 7:QA:493:PRO:HG2 | 7:QA:494:TYR:CD1 | 2.37 | 0.59 |
| 8:FB:144:ILE:HD11 | 8:FB:158:SER:H | 1.66 | 0.59 |
| 8:KB:30:SER:HA | 8:LB:148:THR:HG23 | 1.85 | 0.59 |
| 1:C:172:GLU:N | 1:C:172:GLU:OE2 | 2.36 | 0.59 |
| 2:K:44:GLN:HB2 | 2:K:86:GLY:O | 2.03 | 0.59 |
| 3:O:101:LEU:HB3 | 3:O:116:VAL:HG23 | 1.85 | 0.59 |
| 4:V:35:LYS:NZ | 5:7:62:SER:O | 2.30 | 0.59 |
| 4:W:45:ASP:OD1 | 5:7:27:LYS:NZ | 2.32 | 0.59 |
| 5:Z:138:LEU:HD11 | 5:Z:232:TRP:HB3 | 1.83 | 0.59 |
| 5:4:104:ILE:HB | 5:4:124:CYS:HB3 | 1.84 | 0.59 |
| 6:f:1:MET:N | 6:f:32:ASP:OD1 | 2.36 | 0.59 |
| 7:i:226:LYS:NZ | 7:i:227:VAL:O | 2.27 | 0.59 |
| 7:j:402:LEU:HG | 7:j:403:ASN:H | 1.68 | 0.59 |
| 7:m:480:LEU:HA | 7:m:514:PRO:HA | 1.83 | 0.59 |
| 7:n:8:GLN:OE1 | 7:n:20:PRO:HD3 | 2.03 | 0.59 |
| 7:o:150:LEU:HB2 | 7:o:233:LEU:HB2 | 1.85 | 0.59 |
| 7:o:158:ASP:OD1 | 7:o:164:ARG:NE | 2.29 | 0.59 |
| 7:BA:328:TYR:HB2 | 7:BA:345:LEU:HD23 | 1.84 | 0.59 |
| 7:EA:39:ALA:HB2 | 7:EA:92:TYR:HB2 | 1.84 | 0.59 |
| 7:IA:48:LYS:HB2 | 7:IA:53:LEU:HD11 | 1.85 | 0.59 |
| 7:IA:307:LEU:HD11 | 7:IA:400:GLY:HA3 | 1.84 | 0.59 |
| 7:LA:302:THR:OG1 | 7:LA:305:GLU:OE1 | 2.17 | 0.59 |
| 7:LA:464:THR:O | 7:LA:468:THR:HG23 | 2.02 | 0.59 |
| 7:PA:2:SER:OG | 7:PA:3:GLN:N | 2.35 | 0.59 |
| 7:QA:108:PHE:HE1 | 7:QA:114:PRO:HB3 | 1.67 | 0.59 |
| 8:HB:10:ARG:HH22 | 8:OB:168:TRP:CD1 | 2.21 | 0.59 |
| 8:IB:50:GLN:HB3 | 8:IB:81:ILE:HG23 | 1.85 | 0.59 |
| 1:B:184:SER:O | 1:B:188:GLN:NE2 | 2.35 | 0.59 |
| 2:H:44:GLN:HB2 | 2:H:86:GLY:O | 2.03 | 0.59 |
| 2:K:190:ARG:NH1 | 3:Q:86:PRO:HG2 | 2.17 | 0.59 |
| 3:M:117:VAL:HG21 | 7:g:521:ILE:HG23 | 1.85 | 0.59 |
| 4:S:96:LYS:NZ | 4:S:97:LEU:O | 2.36 | 0.59 |
| 4:U:112:PHE:HA | 4:U:116:GLY:HA3 | 1.84 | 0.59 |
| 5:0:184:SER:HB3 | 5:0:198:TYR:CE2 | 2.37 | 0.59 |
| 5:0:286:TYR:HA | 5:0:289:TYR:HB3 | 1.84 | 0.59 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 5:2:184:SER:HB3 | 5:2:198:TYR:CE2 | 2.37 | 0.59 |
| 5:3:286:TYR:HA | 5:3:289:TYR:HB3 | 1.84 | 0.59 |
| 5:4:246:LEU:HB2 | 5:4:261:VAL:HB | 1.84 | 0.59 |
| 5:9:246:LEU:HB2 | 5:9:261:VAL:HB | 1.84 | 0.59 |
| 7:h:321:VAL:HG23 | 7:h:422:CYS:HB2 | 1.84 | 0.59 |
| 7:k:302:THR:N | 7:k:305:GLU:OE2 | 2.35 | 0.59 |
| 7:l:49:PRO:HB3 | 7:l:97:VAL:HG22 | 1.84 | 0.59 |
| 7:n:372:GLY:O | 7:n:376:ALA:N | 2.36 | 0.59 |
| 7:q:492:GLU:N | 7:q:492:GLU:OE1 | 2.34 | 0.59 |
| 7:AA:110:GLU:O | 7:AA:226:LYS:N | 2.33 | 0.59 |
| 7:LA:461:ALA:O | 7:LA:464:THR:OG1 | 2.17 | 0.59 |
| 7:NA:451:MET:HE3 | 7:NA:459:THR:HA | 1.85 | 0.59 |
| 8:LB:90:GLU:OE2 | 8:LB:90:GLU:N | 2.25 | 0.59 |
| 8:NB:70:ASN:OD1 | 8:NB:71:GLN:N | 2.36 | 0.59 |
| 8:PB:168:TRP:CH2 | 8:QB:97:ILE:HG13 | 2.37 | 0.59 |
| 1:A:140:ARG:HD3 | 1:A:148:LYS:HZ3 | 1.67 | 0.58 |
| 2:J:190:ARG:NH1 | 3:P:86:PRO:HG2 | 2.17 | 0.58 |
| 2:L:190:ARG:NH1 | 3:R:86:PRO:HG2 | 2.18 | 0.58 |
| 5:1:184:SER:HB3 | 5:1:198:TYR:CE2 | 2.37 | 0.58 |
| 5:2:138:LEU:HD11 | 5:2:232:TRP:HB3 | 1.83 | 0.58 |
| 5:3:9:ASP:OD1 | 5:3:10:SER:N | 2.36 | 0.58 |
| 5:3:172:PHE:HB2 | 5:3:228:THR:HB | 1.85 | 0.58 |
| 5:6:187:MET:HE1 | 6:c:95:ARG:HH22 | 1.68 | 0.58 |
| 5:9:104:ILE:HB | 5:9:124:CYS:HB3 | 1.85 | 0.58 |
| 7:i:158:ASP:OD1 | 7:i:164:ARG:NE | 2.35 | 0.58 |
| 7:i:434:PRO:HA | 7:i:437:MET:HE2 | 1.83 | 0.58 |
| 7:n:211:LYS:HA | 7:n:214:ARG:HH22 | 1.68 | 0.58 |
| 7:n:333:LYS:HB2 | 7:n:382:SER:HB3 | 1.85 | 0.58 |
| 7:AA:138:ASP:HB2 | 7:AA:214:ARG:HH21 | 1.67 | 0.58 |
| 7:BA:39:ALA:HB2 | 7:BA:92:TYR:HB2 | 1.85 | 0.58 |
| 7:DA:303:TYR:OH | 7:DA:393:ASP:O | 2.19 | 0.58 |
| 7:FA:149:GLU:HB3 | 7:FA:232:SER:HA | 1.85 | 0.58 |
| 7:GA:289:ARG:HA | 7:NA:5:SER:HA | 1.85 | 0.58 |
| 7:HA:418:ALA:HB1 | 7:HA:431:GLN:HG2 | 1.85 | 0.58 |
| 7:IA:289:ARG:HA | 7:PA:5:SER:HA | 1.83 | 0.58 |
| 7:JA:105:ILE:HD11 | 7:JA:134:ALA:HB1 | 1.84 | 0.58 |
| 7:KA:321:VAL:HG23 | 7:KA:422:CYS:HB2 | 1.84 | 0.58 |
| 7:LA:321:VAL:HG23 | 7:LA:422:CYS:HB2 | 1.84 | 0.58 |
| 7:LA:461:ALA:HB1 | 7:LA:465:LYS:NZ | 2.18 | 0.58 |
| 7:MA:44:PHE:HB2 | 7:MA:95:ARG:HD2 | 1.85 | 0.58 |
| 7:NA:2:SER:OG | 7:NA:3:GLN:N | 2.35 | 0.58 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:PA:108:PHE:HE1 | 7:PA:114:PRO:HB3 | 1.68 | 0.58 |
| 7:PA:331:SER:O | 7:PA:340:ARG:NH2 | 2.35 | 0.58 |
| 7:PA:434:PRO:HA | 7:PA:437:MET:HE2 | 1.85 | 0.58 |
| 7:RA:433:VAL:O | 7:RA:436:LEU:HG | 2.04 | 0.58 |
| 8:GB:127:LYS:O | 8:GB:131:THR:HG23 | 2.03 | 0.58 |
| 1:D:50:SER:HB3 | 1:D:141:LEU:HD21 | 1.84 | 0.58 |
| 1:E:44:ALA:HB2 | 1:F:104:VAL:HG22 | 1.85 | 0.58 |
| 3:Q:61:THR:HG23 | 7:k:517:VAL:HA | 1.85 | 0.58 |
| 5:Y:67:ARG:HH12 | 5:Y:279:THR:HG21 | 1.68 | 0.58 |
| 5:Z:285:TYR:CE2 | 5:Z:301:TYR:HB2 | 2.38 | 0.58 |
| 5:0:189:ARG:HG3 | 5:0:190:LEU:HG | 1.86 | 0.58 |
| 5:0:382:THR:HB | 5:0:447:GLU:HB3 | 1.84 | 0.58 |
| 5:3:77:ASN:HD21 | 5:3:287:LEU:N | 2.01 | 0.58 |
| 7:i:76:PHE:HA | 7:i:79:ILE:HG12 | 1.86 | 0.58 |
| 7:j:196:MET:HE2 | 7:j:198:ARG:HG2 | 1.85 | 0.58 |
| 7:k:2:SER:OG | 7:k:3:GLN:N | 2.35 | 0.58 |
| 7:k:49:PRO:HB3 | 7:k:97:VAL:HG22 | 1.84 | 0.58 |
| 7:o:328:TYR:HD1 | 7:o:345:LEU:HD23 | 1.68 | 0.58 |
| 7:p:432:HIS:O | 7:p:435:SER:OG | 2.18 | 0.58 |
| 7:q:8:GLN:OE1 | 7:q:20:PRO:HD3 | 2.03 | 0.58 |
| 7:BA:149:GLU:HB3 | 7:BA:232:SER:HA | 1.85 | 0.58 |
| 7:DA:408:GLY:HA3 | 7:DA:412:GLN:NE2 | 2.18 | 0.58 |
| 7:EA:196:MET:SD | 7:JA:529:LYS:NZ | 2.72 | 0.58 |
| 7:KA:418:ALA:HB1 | 7:KA:431:GLN:HG2 | 1.85 | 0.58 |
| 7:LA:448:ALA:O | 7:LA:452:LYS:HD2 | 2.03 | 0.58 |
| 7:OA:69:LYS:HG2 | 7:OA:72:SER:H | 1.68 | 0.58 |
| 7:OA:408:GLY:HA3 | 7:OA:412:GLN:HE22 | 1.67 | 0.58 |
| 7:PA:44:PHE:HB2 | 7:PA:95:ARG:HD2 | 1.85 | 0.58 |
| 8:AB:144:ILE:HD11 | 8:AB:158:SER:H | 1.67 | 0.58 |
| 8:FB:47:ARG:HH11 | 8:KB:64:PRO:HA | 1.69 | 0.58 |
| 8:JB:50:GLN:HE22 | 8:KB:144:ILE:C | 2.11 | 0.58 |
| 1:B:140:ARG:HD3 | 1:B:148:LYS:HZ3 | 1.66 | 0.58 |
| 2:J:44:GLN:HB2 | 2:J:86:GLY:O | 2.03 | 0.58 |
| 3:Q:101:LEU:HB3 | 3:Q:116:VAL:HG23 | 1.85 | 0.58 |
| 4:U:60:ARG:HG3 | 6:c:9:ARG:HD3 | 1.85 | 0.58 |
| 4:X:60:ARG:HG3 | 6:f:9:ARG:HD3 | 1.85 | 0.58 |
| 5:Z:67:ARG:HH12 | 5:Z:279:THR:HG21 | 1.69 | 0.58 |
| 5:Z:172:PHE:HB2 | 5:Z:228:THR:HB | 1.85 | 0.58 |
| 5:5:104:ILE:HB | 5:5:124:CYS:HB3 | 1.84 | 0.58 |
| 5:5:246:LEU:HB2 | 5:5:261:VAL:HB | 1.84 | 0.58 |
| 5:6:111:ILE:HG23 | 5:6:115:GLN:HA | 1.84 | 0.58 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 5:7:160:LYS:HZ2 | 5:7:206:GLU:HB3 | 1.68 | 0.58 |
| 6:e:1:MET:N | 6:e:32:ASP:OD1 | 2.36 | 0.58 |
| 7:h:401:ARG:HB3 | 7:h:421:CYS:HA | 1.84 | 0.58 |
| 7:m:372:GLY:O | 7:m:376:ALA:N | 2.36 | 0.58 |
| 7:o:211:LYS:HA | 7:o:214:ARG:HH22 | 1.68 | 0.58 |
| 7:AA:149:GLU:HB3 | 7:AA:232:SER:HA | 1.85 | 0.58 |
| 7:EA:149:GLU:HB3 | 7:EA:232:SER:HA | 1.86 | 0.58 |
| 7:EA:348:VAL:HB | 7:EA:378:ILE:HD12 | 1.84 | 0.58 |
| 7:NA:525:PRO:HG2 | 7:OA:21:ILE:HA | 1.85 | 0.58 |
| 7:OA:434:PRO:HA | 7:OA:437:MET:HE2 | 1.85 | 0.58 |
| 7:PA:69:LYS:HG2 | 7:PA:72:SER:H | 1.68 | 0.58 |
| 7:QA:210:SER:OG | 7:QA:213:LEU:O | 2.18 | 0.58 |
| 8:DB:47:ARG:HE | 8:EB:148:THR:HG23 | 1.68 | 0.58 |
| 8:IB:90:GLU:OE2 | 8:IB:90:GLU:N | 2.22 | 0.58 |
| 8:IB:111:MET:N | 8:IB:132:ILE:O | 2.28 | 0.58 |
| 8:KB:26:ARG:CZ | 8:LB:86:VAL:HG13 | 2.33 | 0.58 |
| 8:QB:58:ASP:HB3 | 8:QB:70:ASN:HD21 | 1.69 | 0.58 |
| 2:I:190:ARG:NH1 | 3:O:86:PRO:HG2 | 2.18 | 0.58 |
| 2:L:180:SER:OG | 2:L:183:TYR:OH | 2.13 | 0.58 |
| 4:T:118:VAL:O | 4:T:120:GLY:N | 2.37 | 0.58 |
| 5:0:77:ASN:HD21 | 5:0:287:LEU:N | 2.01 | 0.58 |
| 5:0:172:PHE:HB2 | 5:0:228:THR:HB | 1.85 | 0.58 |
| 5:2:67:ARG:HH12 | 5:2:279:THR:HG21 | 1.68 | 0.58 |
| 5:2:77:ASN:HD21 | 5:2:287:LEU:N | 2.01 | 0.58 |
| 5:3:377:LEU:N | 5:3:460:PHE:O | 2.29 | 0.58 |
| 5:6:246:LEU:HB2 | 5:6:261:VAL:HB | 1.84 | 0.58 |
| 7:g:525:PRO:HD2 | 7:h:18:VAL:HA | 1.85 | 0.58 |
| 7:h:158:ASP:OD1 | 7:h:164:ARG:NE | 2.35 | 0.58 |
| 7:j:301:LEU:HD12 | 7:j:305:GLU:HG3 | 1.84 | 0.58 |
| 7:k:376:ALA:HB1 | 7:k:415:ILE:H | 1.68 | 0.58 |
| 7:AA:17:ALA:H | 7:FA:520:ARG:HE | 1.51 | 0.58 |
| 7:AA:348:VAL:HB | 7:AA:378:ILE:HD12 | 1.85 | 0.58 |
| 7:AA:465:LYS:O | 7:AA:468:THR:OG1 | 2.21 | 0.58 |
| 7:HA:289:ARG:HA | 7:OA:5:SER:HA | 1.84 | 0.58 |
| 7:KA:105:ILE:HD11 | 7:KA:134:ALA:HB1 | 1.85 | 0.58 |
| 7:RA:69:LYS:HG2 | 7:RA:72:SER:H | 1.68 | 0.58 |
| 8:IB:72:HIS:HA | 8:JB:138:LYS:HZ1 | 1.68 | 0.58 |
| 8:JB:127:LYS:O | 8:JB:131:THR:HG23 | 2.04 | 0.58 |
| 3:N:13:LEU:H | 7:h:527:LEU:HD11 | 1.68 | 0.58 |
| 3:Q:15:LEU:HD11 | 7:l:21:ILE:HG23 | 1.85 | 0.58 |
| 4:T:35:LYS:NZ | 5:5:62:SER:O | 2.29 | 0.58 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 4:T:117:GLN:HE21 | 5:Z:160:LYS:HE2 | 1.67 | 0.58 |
| 5:Y:125:ARG:NH1 | 5:3:395:ASN:OD1 | 2.35 | 0.58 |
| 5:Y:311:SER:HB2 | 5:Y:343:PRO:HD3 | 1.86 | 0.58 |
| 5:Z:286:TYR:HA | 5:Z:289:TYR:HB3 | 1.84 | 0.58 |
| 5:2:277:GLU:OE2 | 5:2:280:ARG:NH2 | 2.32 | 0.58 |
| 6:d:165:MET:HE2 | 6:d:167:ILE:HB | 1.85 | 0.58 |
| 7:i:302:THR:N | 7:i:305:GLU:OE2 | 2.35 | 0.58 |
| 7:k:357:VAL:HG13 | 7:k:358:LYS:HG2 | 1.84 | 0.58 |
| 7:m:211:LYS:HA | 7:m:214:ARG:HH22 | 1.68 | 0.58 |
| 7:n:264:MET:HA | 7:n:264:MET:HE3 | 1.85 | 0.58 |
| 7:o:372:GLY:O | 7:o:376:ALA:N | 2.36 | 0.58 |
| 7:p:8:GLN:OE1 | 7:p:20:PRO:HD3 | 2.03 | 0.58 |
| 7:r:150:LEU:HB2 | 7:r:233:LEU:HB2 | 1.85 | 0.58 |
| 7:DA:328:TYR:HB2 | 7:DA:345:LEU:HD23 | 1.85 | 0.58 |
| 7:FA:449:ARG:NH1 | 7:LA:407:VAL:O | 2.37 | 0.58 |
| 7:LA:105:ILE:HD11 | 7:LA:134:ALA:HB1 | 1.84 | 0.58 |
| 7:NA:108:PHE:HE1 | 7:NA:114:PRO:HB3 | 1.67 | 0.58 |
| 7:NA:469:LYS:HB3 | 7:NA:473:ARG:HH12 | 1.69 | 0.58 |
| 7:QA:428:LEU:HA | 7:QA:433:VAL:HG11 | 1.86 | 0.58 |
| 8:BB:47:ARG:HE | 8:CB:148:THR:HG23 | 1.68 | 0.58 |
| 8:CB:27:LEU:HD11 | 8:DB:89:ILE:HA | 1.84 | 0.58 |
| 8:FB:45:LEU:HD13 | 8:FB:86:VAL:O | 2.04 | 0.58 |
| 8:MB:34:LEU:O | 8:MB:43:SER:OG | 2.17 | 0.58 |
| 8:NB:39:HIS:HB3 | 8:NB:42:ILE:HD13 | 1.86 | 0.58 |
| 8:RB:58:ASP:HB3 | 8:RB:70:ASN:HD21 | 1.68 | 0.58 |
| 1:E:50:SER:HB3 | 1:E:141:LEU:HD21 | 1.85 | 0.58 |
| 2:H:123:LEU:O | 2:H:131:GLN:NE2 | 2.37 | 0.58 |
| 2:I:143:ARG:HB2 | 2:I:193:GLN:HB2 | 1.84 | 0.58 |
| 2:J:123:LEU:O | 2:J:131:GLN:NE2 | 2.37 | 0.58 |
| 4:V:102:ALA:O | 4:V:106:ARG:HG2 | 2.03 | 0.58 |
| 5:Y:172:PHE:HB2 | 5:Y:228:THR:HB | 1.85 | 0.58 |
| 5:1:127:VAL:N | 5:1:130:THR:O | 2.32 | 0.58 |
| 5:2:382:THR:HB | 5:2:447:GLU:HB3 | 1.84 | 0.58 |
| 7:h:49:PRO:HB3 | 7:h:97:VAL:HG22 | 1.84 | 0.58 |
| 7:i:196:MET:HE2 | 7:i:198:ARG:HG2 | 1.85 | 0.58 |
| 7:p:433:VAL:O | 7:p:436:LEU:HG | 2.03 | 0.58 |
| 7:q:189:ALA:HB3 | 7:q:192:ALA:HB2 | 1.85 | 0.58 |
| 7:q:211:LYS:HA | 7:q:214:ARG:HH22 | 1.68 | 0.58 |
| 7:q:264:MET:HA | 7:q:264:MET:HE3 | 1.85 | 0.58 |
| 7:q:333:LYS:HB2 | 7:q:382:SER:HB3 | 1.85 | 0.58 |
| 7:DA:196:MET:SD | 7:IA:529:LYS:NZ | 2.72 | 0.58 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:DA:465:LYS:O | 7:DA:468:THR:OG1 | 2.21 | 0.58 |
| 7:EA:138:ASP:HB2 | 7:EA:214:ARG:HH21 | 1.67 | 0.58 |
| 7:FA:240:ASN:O | 7:FA:243:GLN:NE2 | 2.37 | 0.58 |
| 7:GA:461:ALA:O | 7:GA:464:THR:OG1 | 2.16 | 0.58 |
| 7:JA:294:PHE:HB3 | 7:JA:346:SER:HB2 | 1.84 | 0.58 |
| 7:PA:408:GLY:HA3 | 7:PA:412:GLN:HE22 | 1.68 | 0.58 |
| 7:PA:433:VAL:O | 7:PA:436:LEU:HG | 2.04 | 0.58 |
| 2:I:44:GLN:HB2 | 2:I:86:GLY:O | 2.03 | 0.58 |
| 3:M:12:THR:HB | 7:g:527:LEU:HD22 | 1.85 | 0.58 |
| 4:X:117:GLN:HE22 | 5:3:160:LYS:H | 1.51 | 0.58 |
| 5:Y:77:ASN:HD21 | 5:Y:287:LEU:N | 2.01 | 0.58 |
| 5:7:449:VAL:HG12 | 5:7:450:GLU:HG3 | 1.86 | 0.58 |
| 5:8:111:ILE:HG23 | 5:8:115:GLN:HA | 1.84 | 0.58 |
| 7:h:302:THR:N | 7:h:305:GLU:OE2 | 2.35 | 0.58 |
| 7:l:76:PHE:HA | 7:l:79:ILE:HG12 | 1.86 | 0.58 |
| 7:p:333:LYS:HB2 | 7:p:382:SER:HB3 | 1.84 | 0.58 |
| 7:q:433:VAL:O | 7:q:436:LEU:HG | 2.04 | 0.58 |
| 7:r:328:TYR:HD1 | 7:r:345:LEU:HD23 | 1.68 | 0.58 |
| 7:r:333:LYS:HB2 | 7:r:382:SER:HB3 | 1.85 | 0.58 |
| 7:DA:348:VAL:HB | 7:DA:378:ILE:HD12 | 1.85 | 0.58 |
| 7:EA:423:THR:OG1 | 7:EA:424:GLN:OE1 | 2.22 | 0.58 |
| 7:FA:193:LYS:HB2 | 7:FA:199:LEU:HD13 | 1.86 | 0.58 |
| 7:FA:348:VAL:HB | 7:FA:378:ILE:HD12 | 1.84 | 0.58 |
| 7:FA:423:THR:OG1 | 7:FA:424:GLN:OE1 | 2.22 | 0.58 |
| 7:HA:480:LEU:HD11 | 7:HA:513:CYS:H | 1.66 | 0.58 |
| 7:MA:433:VAL:O | 7:MA:436:LEU:HG | 2.04 | 0.58 |
| 7:OA:433:VAL:O | 7:OA:436:LEU:HG | 2.03 | 0.58 |
| 7:PA:230:LYS:HB3 | 7:PA:233:LEU:HD21 | 1.86 | 0.58 |
| 7:QA:69:LYS:HG2 | 7:QA:72:SER:H | 1.68 | 0.58 |
| 7:QA:451:MET:HE3 | 7:QA:459:THR:HA | 1.85 | 0.58 |
| 7:RA:423:THR:OG1 | 7:RA:424:GLN:OE1 | 2.20 | 0.58 |
| 8:EB:72:HIS:CE1 | 8:FB:104:LYS:HD2 | 2.38 | 0.58 |
| 8:GB:133:GLU:O | 8:GB:167:GLU:HB2 | 2.04 | 0.58 |
| 8:HB:10:ARG:CG | 8:HB:14:LYS:HZ3 | 2.16 | 0.58 |
| 8:IB:56:ARG:CZ | 8:JB:104:LYS:HD2 | 2.34 | 0.58 |
| 8:IB:168:TRP:HB2 | 8:JB:98:LYS:NZ | 2.19 | 0.58 |
| 8:PB:29:SER:H | 8:QB:154:ALA:HA | 1.68 | 0.58 |
| 1:D:40:LYS:HB3 | 8:DB:69:PHE:HZ | 1.69 | 0.58 |
| 1:E:174:LYS:HZ3 | 1:E:176:PHE:HB3 | 1.68 | 0.58 |
| 2:I:44:GLN:NE2 | 2:J:152:GLN:HA | 2.19 | 0.58 |
| 3:M:115:ASP:OD1 | 7:g:524:VAL:N | 2.28 | 0.58 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 5:Y:286:TYR:HA | 5:Y:289:TYR:HB3 | 1.85 | 0.58 |
| 5:1:285:TYR:CE2 | 5:1:301:TYR:HB2 | 2.38 | 0.58 |
| 5:3:311:SER:HB2 | 5:3:343:PRO:HD3 | 1.86 | 0.58 |
| 7:j:520:ARG:NH1 | 7:k:11:GLY:O | 2.37 | 0.58 |
| 7:l:301:LEU:HD12 | 7:l:305:GLU:HG3 | 1.84 | 0.58 |
| 7:o:193:LYS:HZ1 | 7:CA:69:LYS:HD2 | 1.68 | 0.58 |
| 7:o:418:ALA:HB1 | 7:o:431:GLN:HG2 | 1.84 | 0.58 |
| 7:p:211:LYS:HA | 7:p:214:ARG:HH22 | 1.68 | 0.58 |
| 7:r:8:GLN:OE1 | 7:r:20:PRO:HD3 | 2.03 | 0.58 |
| 7:AA:240:ASN:O | 7:AA:243:GLN:NE2 | 2.37 | 0.58 |
| 7:AA:408:GLY:HA3 | 7:AA:412:GLN:NE2 | 2.18 | 0.58 |
| 7:DA:111:SER:OG | 7:DA:113:GLU:OE1 | 2.22 | 0.58 |
| 7:FA:328:TYR:HB2 | 7:FA:345:LEU:HD23 | 1.85 | 0.58 |
| 7:GA:340:ARG:NH2 | 7:GA:384:GLN:OE1 | 2.37 | 0.58 |
| 7:HA:120:PRO:O | 7:HA:123:SER:OG | 2.15 | 0.58 |
| 7:MA:451:MET:HE3 | 7:MA:459:THR:HA | 1.85 | 0.58 |
| 7:RA:108:PHE:HE1 | 7:RA:114:PRO:HB3 | 1.68 | 0.58 |
| 7:RA:378:ILE:HG13 | 7:RA:379:ALA:N | 2.19 | 0.58 |
| 8:EB:47:ARG:HE | 8:FB:148:THR:HG23 | 1.68 | 0.58 |
| 8:IB:50:GLN:HE22 | 8:JB:144:ILE:C | 2.12 | 0.58 |
| 8:MB:94:LEU:HA | 8:MB:97:ILE:HG12 | 1.85 | 0.58 |
| 8:NB:14:LYS:O | 8:NB:18:THR:HG23 | 2.04 | 0.58 |
| 1:B:50:SER:HB3 | 1:B:141:LEU:HD21 | 1.85 | 0.58 |
| 1:D:84:ASN:ND2 | 1:E:91:ARG:O | 2.37 | 0.58 |
| 3:N:15:LEU:HD11 | 7:i:21:ILE:HG23 | 1.85 | 0.58 |
| 3:R:101:LEU:HB3 | 3:R:116:VAL:HG23 | 1.85 | 0.58 |
| 4:W:96:LYS:NZ | 4:W:97:LEU:O | 2.36 | 0.58 |
| 4:W:117:GLN:HE22 | 5:2:160:LYS:H | 1.50 | 0.58 |
| 5:Y:138:LEU:HD11 | 5:Y:232:TRP:HB3 | 1.86 | 0.58 |
| 5:3:160:LYS:HA | 5:3:163:THR:OG1 | 2.04 | 0.58 |
| 5:4:449:VAL:HG12 | 5:4:450:GLU:HG3 | 1.86 | 0.58 |
| 5:5:449:VAL:HG12 | 5:5:450:GLU:HG3 | 1.86 | 0.58 |
| 6:b:1:MET:N | 6:b:32:ASP:OD1 | 2.36 | 0.58 |
| 7:i:281:ALA:O | 7:i:284:LYS:HG3 | 2.04 | 0.58 |
| 7:k:76:PHE:HA | 7:k:79:ILE:HG12 | 1.86 | 0.58 |
| 7:m:433:VAL:O | 7:m:436:LEU:HG | 2.03 | 0.58 |
| 7:AA:193:LYS:HB2 | 7:AA:199:LEU:HD13 | 1.86 | 0.58 |
| 7:CA:149:GLU:HB3 | 7:CA:232:SER:HA | 1.85 | 0.58 |
| 7:EA:356:GLY:HA2 | 7:EA:359:LYS:HE3 | 1.86 | 0.58 |
| 7:FA:408:GLY:HA3 | 7:FA:412:GLN:NE2 | 2.18 | 0.58 |
| 7:GA:120:PRO:O | 7:GA:123:SER:OG | 2.15 | 0.58 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:IA:418:ALA:HB1 | 7:IA:431:GLN:HG2 | 1.85 | 0.58 |
| 7:LA:418:ALA:HB1 | 7:LA:431:GLN:HG2 | 1.85 | 0.58 |
| 7:MA:120:PRO:O | 7:MA:123:SER:OG | 2.18 | 0.58 |
| 7:OA:47:GLY:N | 7:OA:139:ASP:O | 2.37 | 0.58 |
| 7:OA:508:VAL:HG13 | 7:OA:510:TRP:HZ3 | 1.69 | 0.58 |
| 7:QA:331:SER:O | 7:QA:340:ARG:NH2 | 2.36 | 0.58 |
| 7:RA:508:VAL:HG13 | 7:RA:510:TRP:HZ3 | 1.69 | 0.58 |
| 8:QB:14:LYS:O | 8:QB:18:THR:HG23 | 2.03 | 0.58 |
| 1:D:64:LYS:HZ3 | 1:D:99:MET:HG3 | 1.69 | 0.58 |
| 2:J:127:ASN:OD1 | 2:J:131:GLN:HG2 | 2.04 | 0.58 |
| 2:K:44:GLN:NE2 | 2:L:152:GLN:HA | 2.19 | 0.58 |
| 2:L:123:LEU:O | 2:L:131:GLN:NE2 | 2.37 | 0.58 |
| 5:Y:29:VAL:HG11 | 5:5:266:PRO:HB3 | 1.85 | 0.58 |
| 5:Z:102:ALA:O | 5:Z:126:LEU:N | 2.33 | 0.58 |
| 5:1:311:SER:H | 5:1:342:HIS:HA | 1.69 | 0.58 |
| 5:3:189:ARG:HG3 | 5:3:190:LEU:HG | 1.85 | 0.58 |
| 5:6:153:PHE:N | 5:6:212:PHE:O | 2.37 | 0.58 |
| 5:9:160:LYS:HZ2 | 5:9:206:GLU:HB3 | 1.69 | 0.58 |
| 6:c:5:TRP:HD1 | 6:c:6:PHE:CE1 | 2.22 | 0.58 |
| 7:g:401:ARG:HB3 | 7:g:421:CYS:HA | 1.84 | 0.58 |
| 7:h:198:ARG:HH22 | 7:n:337:THR:HA | 1.68 | 0.58 |
| 7:j:76:PHE:HA | 7:j:79:ILE:HG12 | 1.86 | 0.58 |
| 7:j:158:ASP:OD1 | 7:j:164:ARG:NE | 2.35 | 0.58 |
| 7:m:8:GLN:OE1 | 7:m:20:PRO:HD3 | 2.03 | 0.58 |
| 7:q:485:ASP:HB3 | 7:q:489:ASP:HB2 | 1.85 | 0.58 |
| 7:BA:196:MET:SD | 7:GA:529:LYS:NZ | 2.71 | 0.58 |
| 7:BA:408:GLY:HA3 | 7:BA:412:GLN:NE2 | 2.18 | 0.58 |
| 7:CA:47:GLY:N | 7:CA:139:ASP:O | 2.37 | 0.58 |
| 7:CA:328:TYR:HB2 | 7:CA:345:LEU:HD23 | 1.85 | 0.58 |
| 7:DA:47:GLY:N | 7:DA:139:ASP:O | 2.37 | 0.58 |
| 7:DA:149:GLU:HB3 | 7:DA:232:SER:HA | 1.85 | 0.58 |
| 7:IA:448:ALA:HA | 7:IA:451:MET:HG3 | 1.85 | 0.58 |
| 7:JA:461:ALA:O | 7:JA:464:THR:OG1 | 2.16 | 0.58 |
| 7:JA:481:VAL:HG22 | 7:JA:515:THR:HG22 | 1.85 | 0.58 |
| 7:LA:340:ARG:NH2 | 7:LA:384:GLN:OE1 | 2.37 | 0.58 |
| 7:MA:408:GLY:HA3 | 7:MA:412:GLN:HE22 | 1.69 | 0.58 |
| 7:OA:230:LYS:HB3 | 7:OA:233:LEU:HD21 | 1.86 | 0.58 |
| 7:PA:521:ILE:HD11 | 7:QA:16:VAL:HA | 1.86 | 0.58 |
| 8:BB:45:LEU:HD13 | 8:BB:86:VAL:O | 2.04 | 0.58 |
| 8:OB:41:ASP:OD1 | 8:OB:42:ILE:HD12 | 2.04 | 0.58 |
| 2:I:123:LEU:O | 2:I:131:GLN:NE2 | 2.37 | 0.57 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 2:I:127:ASN:OD1 | 2:I:131:GLN:HG2 | 2.04 | 0.57 |
| 2:K:1:MET:HA | 3:Q:55:GLN:OE1 | 2.04 | 0.57 |
| 2:K:123:LEU:O | 2:K:131:GLN:NE2 | 2.37 | 0.57 |
| 3:N:101:LEU:HB3 | 3:N:116:VAL:HG23 | 1.85 | 0.57 |
| 5:1:29:VAL:HG11 | 5:8:266:PRO:HB3 | 1.86 | 0.57 |
| 6:f:43:THR:HA | 6:f:46:LYS:HG2 | 1.86 | 0.57 |
| 7:l:281:ALA:O | 7:l:284:LYS:HG3 | 2.04 | 0.57 |
| 7:m:302:THR:OG1 | 7:m:305:GLU:OE1 | 2.15 | 0.57 |
| 7:n:150:LEU:HB2 | 7:n:233:LEU:HB2 | 1.85 | 0.57 |
| 7:q:352:ALA:HB1 | 7:q:375:ARG:HB3 | 1.86 | 0.57 |
| 7:r:372:GLY:O | 7:r:376:ALA:N | 2.36 | 0.57 |
| 7:AA:3:GLN:NE2 | 7:FA:405:VAL:O | 2.37 | 0.57 |
| 7:EA:328:TYR:HB2 | 7:EA:345:LEU:HD23 | 1.84 | 0.57 |
| 7:KA:461:ALA:HB1 | 7:KA:465:LYS:NZ | 2.19 | 0.57 |
| 7:LA:481:VAL:HG22 | 7:LA:515:THR:HG22 | 1.85 | 0.57 |
| 7:NA:69:LYS:HG2 | 7:NA:72:SER:H | 1.68 | 0.57 |
| 7:NA:521:ILE:HD11 | 7:OA:16:VAL:HA | 1.86 | 0.57 |
| 8:EB:45:LEU:HD13 | 8:EB:86:VAL:O | 2.04 | 0.57 |
| 8:GB:104:LYS:HD2 | 8:LB:56:ARG:CZ | 2.34 | 0.57 |
| 8:KB:3:HIS:O | 8:KB:6:THR:OG1 | 2.21 | 0.57 |
| 8:MB:116:GLU:HA | 8:MB:119:SER:OG | 2.04 | 0.57 |
| 1:C:44:ALA:HB2 | 1:D:104:VAL:HG22 | 1.86 | 0.57 |
| 1:E:45:GLN:HB3 | 1:E:47:TRP:CD1 | 2.39 | 0.57 |
| 2:K:127:ASN:OD1 | 2:K:131:GLN:HG2 | 2.04 | 0.57 |
| 2:K:163:ASP:OD1 | 2:K:169:LEU:HD21 | 2.04 | 0.57 |
| 3:M:101:LEU:HB3 | 3:M:116:VAL:HG23 | 1.85 | 0.57 |
| 3:O:21:TYR:O | 3:O:24:GLN:NE2 | 2.34 | 0.57 |
| 5:0:67:ARG:HH12 | 5:0:279:THR:HG21 | 1.69 | 0.57 |
| 5:1:29:VAL:HB | 5:8:241:VAL:HG22 | 1.86 | 0.57 |
| 5:1:77:ASN:HD21 | 5:1:287:LEU:N | 2.01 | 0.57 |
| 5:3:277:GLU:OE2 | 5:3:280:ARG:NH2 | 2.32 | 0.57 |
| 5:7:104:ILE:HB | 5:7:124:CYS:HB3 | 1.84 | 0.57 |
| 5:9:182:TRP:HZ2 | 5:9:219:GLN:HE21 | 1.52 | 0.57 |
| 6:b:43:THR:HA | 6:b:46:LYS:HG2 | 1.86 | 0.57 |
| 7:i:269:LEU:HD13 | 7:i:294:PHE:HB2 | 1.87 | 0.57 |
| 7:j:328:TYR:CE1 | 7:j:330:PHE:HB2 | 2.39 | 0.57 |
| 7:m:50:PHE:N | 7:m:95:ARG:O | 2.25 | 0.57 |
| 7:p:372:GLY:O | 7:p:376:ALA:N | 2.36 | 0.57 |
| 7:q:260:ASN:ND2 | 7:EA:390:ASP:O | 2.38 | 0.57 |
| 7:AA:47:GLY:N | 7:AA:139:ASP:O | 2.37 | 0.57 |
| 7:DA:432:HIS:O | 7:DA:435:SER:OG | 2.19 | 0.57 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:DA:520:ARG:HA | 7:EA:16:VAL:HG22 | 1.87 | 0.57 |
| 7:EA:47:GLY:N | 7:EA:139:ASP:O | 2.37 | 0.57 |
| 7:EA:240:ASN:O | 7:EA:243:GLN:NE2 | 2.37 | 0.57 |
| 7:GA:105:ILE:HD11 | 7:GA:134:ALA:HB1 | 1.84 | 0.57 |
| 7:GA:500:GLN:NE2 | 7:GA:506:TRP:HB3 | 2.19 | 0.57 |
| 7:HA:50:PHE:N | 7:HA:95:ARG:O | 2.30 | 0.57 |
| 7:LA:307:LEU:HD11 | 7:LA:400:GLY:HA3 | 1.84 | 0.57 |
| 7:MA:252:LEU:HA | 7:MA:255:VAL:HG22 | 1.86 | 0.57 |
| 7:MA:508:VAL:HG13 | 7:MA:510:TRP:HZ3 | 1.69 | 0.57 |
| 7:NA:428:LEU:HA | 7:NA:433:VAL:HG11 | 1.86 | 0.57 |
| 7:OA:252:LEU:HA | 7:OA:255:VAL:HG22 | 1.86 | 0.57 |
| 7:QA:47:GLY:N | 7:QA:139:ASP:O | 2.37 | 0.57 |
| 7:RA:230:LYS:HB3 | 7:RA:233:LEU:HD21 | 1.86 | 0.57 |
| 7:RA:404:LYS:NZ | 7:RA:416:ASP:OD2 | 2.27 | 0.57 |
| 8:GB:144:ILE:C | 8:LB:50:GLN:HE22 | 2.12 | 0.57 |
| 8:HB:56:ARG:CZ | 8:IB:104:LYS:HD2 | 2.34 | 0.57 |
| 8:MB:58:ASP:HB3 | 8:MB:70:ASN:HD21 | 1.69 | 0.57 |
| 8:QB:39:HIS:HB3 | 8:QB:42:ILE:HD13 | 1.86 | 0.57 |
| 1:D:44:ALA:HB2 | 1:E:104:VAL:HG22 | 1.87 | 0.57 |
| 2:H:190:ARG:NH2 | 3:N:107:ILE:HG23 | 2.19 | 0.57 |
| 2:J:190:ARG:NH2 | 3:P:107:ILE:HG23 | 2.19 | 0.57 |
| 2:K:190:ARG:NH2 | 3:Q:107:ILE:HG23 | 2.19 | 0.57 |
| 3:P:15:LEU:HD11 | 7:k:21:ILE:HG23 | 1.86 | 0.57 |
| 5:Y:189:ARG:NH1 | 5:4:290:ASP:OD1 | 2.28 | 0.57 |
| 5:8:449:VAL:HG12 | 5:8:450:GLU:HG3 | 1.86 | 0.57 |
| 6:a:165:MET:HE2 | 6:a:167:ILE:HB | 1.85 | 0.57 |
| 6:b:165:MET:HE2 | 6:b:167:ILE:HB | 1.85 | 0.57 |
| 7:g:76:PHE:HA | 7:g:79:ILE:HG12 | 1.86 | 0.57 |
| 7:g:198:ARG:HH22 | 7:m:337:THR:HA | 1.69 | 0.57 |
| 7:n:50:PHE:N | 7:n:95:ARG:O | 2.25 | 0.57 |
| 7:n:492:GLU:OE1 | 7:n:492:GLU:N | 2.34 | 0.57 |
| 7:n:529:LYS:HG2 | 7:o:23:ALA:HB1 | 1.84 | 0.57 |
| 7:q:362:ASP:OD1 | 7:q:363:VAL:N | 2.37 | 0.57 |
| 7:BA:193:LYS:HB2 | 7:BA:199:LEU:HD13 | 1.87 | 0.57 |
| 7:EA:408:GLY:HA3 | 7:EA:412:GLN:NE2 | 2.18 | 0.57 |
| 7:GA:50:PHE:N | 7:GA:95:ARG:O | 2.30 | 0.57 |
| 7:GA:418:ALA:HB1 | 7:GA:431:GLN:HG2 | 1.85 | 0.57 |
| 7:HA:340:ARG:NH2 | 7:HA:384:GLN:OE1 | 2.37 | 0.57 |
| 7:MA:230:LYS:HB3 | 7:MA:233:LEU:HD21 | 1.86 | 0.57 |
| 7:MA:378:ILE:HG13 | 7:MA:379:ALA:N | 2.19 | 0.57 |
| 8:GB:154:ALA:HA | 8:LB:29:SER:H | 1.69 | 0.57 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 8:RB:41:ASP:OD1 | 8:RB:42:ILE:HD12 | 2.04 | 0.57 |
| 1:A:44:ALA:HB2 | 1:B:104:VAL:HG22 | 1.87 | 0.57 |
| 2:G:123:LEU:O | 2:G:131:GLN:NE2 | 2.37 | 0.57 |
| 2:G:190:ARG:NH2 | 3:M:107:ILE:HG23 | 2.18 | 0.57 |
| 2:H:44:GLN:NE2 | 2:I:152:GLN:HA | 2.19 | 0.57 |
| 2:L:127:ASN:OD1 | 2:L:131:GLN:HG2 | 2.04 | 0.57 |
| 5:Z:277:GLU:OE2 | 5:Z:280:ARG:NH2 | 2.32 | 0.57 |
| 5:3:29:VAL:HG11 | 5:4:266:PRO:HB3 | 1.86 | 0.57 |
| 5:3:67:ARG:HH12 | 5:3:279:THR:HG21 | 1.69 | 0.57 |
| 7:g:281:ALA:O | 7:g:284:LYS:HG3 | 2.04 | 0.57 |
| 7:h:226:LYS:NZ | 7:h:227:VAL:O | 2.28 | 0.57 |
| 7:l:158:ASP:OD1 | 7:l:164:ARG:NE | 2.35 | 0.57 |
| 7:n:10:LEU:HD22 | 7:n:17:ALA:HB3 | 1.86 | 0.57 |
| 7:n:433:VAL:O | 7:n:436:LEU:HG | 2.04 | 0.57 |
| 7:BA:47:GLY:N | 7:BA:139:ASP:O | 2.37 | 0.57 |
| 7:BA:240:ASN:O | 7:BA:243:GLN:NE2 | 2.37 | 0.57 |
| 7:CA:193:LYS:HB2 | 7:CA:199:LEU:HD13 | 1.86 | 0.57 |
| 7:FA:47:GLY:N | 7:FA:139:ASP:O | 2.37 | 0.57 |
| 7:HA:506:TRP:O | 7:NA:520:ARG:NH2 | 2.32 | 0.57 |
| 7:JA:289:ARG:HA | 7:QA:5:SER:HA | 1.85 | 0.57 |
| 7:JA:461:ALA:HB1 | 7:JA:465:LYS:NZ | 2.19 | 0.57 |
| 7:LA:500:GLN:NE2 | 7:LA:506:TRP:HB3 | 2.20 | 0.57 |
| 7:MA:2:SER:OG | 7:MA:3:GLN:N | 2.35 | 0.57 |
| 7:MA:427:TYR:H | 7:NA:196:MET:HE1 | 1.70 | 0.57 |
| 7:PA:451:MET:HE3 | 7:PA:459:THR:HA | 1.85 | 0.57 |
| 8:CB:45:LEU:HD13 | 8:CB:86:VAL:O | 2.04 | 0.57 |
| 8:CB:47:ARG:HH11 | 8:HB:64:PRO:HA | 1.68 | 0.57 |
| 8:GB:56:ARG:CZ | 8:HB:104:LYS:HD2 | 2.34 | 0.57 |
| 8:GB:130:THR:HG22 | 8:HB:94:LEU:HD21 | 1.87 | 0.57 |
| 8:GB:168:TRP:HB2 | 8:HB:98:LYS:HZ2 | 1.70 | 0.57 |
| 8:HB:10:ARG:HG2 | 8:HB:14:LYS:HZ3 | 1.68 | 0.57 |
| 8:JB:133:GLU:O | 8:JB:167:GLU:HB2 | 2.03 | 0.57 |
| 8:NB:41:ASP:OD1 | 8:NB:42:ILE:HD12 | 2.04 | 0.57 |
| 1:F:174:LYS:HZ3 | 1:F:176:PHE:HB3 | 1.69 | 0.57 |
| 2:J:44:GLN:NE2 | 2:K:152:GLN:HA | 2.19 | 0.57 |
| 2:L:143:ARG:HB2 | 2:L:193:GLN:HB2 | 1.84 | 0.57 |
| 3:R:117:VAL:HG21 | 7:l:521:ILE:HG23 | 1.87 | 0.57 |
| 5:Z:29:VAL:HG11 | 5:6:266:PRO:HB3 | 1.86 | 0.57 |
| 5:0:29:VAL:HG11 | 5:7:266:PRO:HB3 | 1.87 | 0.57 |
| 5:1:138:LEU:HD11 | 5:1:232:TRP:HB3 | 1.86 | 0.57 |
| 5:1:311:SER:HB2 | 5:1:343:PRO:HD3 | 1.85 | 0.57 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 5:2:29:VAL:HB | 5:9:241:VAL:HG22 | 1.86 | 0.57 |
| 5:2:311:SER:H | 5:2:342:HIS:HA | 1.70 | 0.57 |
| 7:j:480:LEU:HD13 | 7:j:512:CYS:SG | 2.44 | 0.57 |
| 7:k:402:LEU:HG | 7:k:403:ASN:H | 1.68 | 0.57 |
| 7:m:333:LYS:HB2 | 7:m:382:SER:HB3 | 1.84 | 0.57 |
| 7:q:372:GLY:O | 7:q:376:ALA:N | 2.36 | 0.57 |
| 7:CA:405:VAL:O | 7:DA:3:GLN:NE2 | 2.37 | 0.57 |
| 7:EA:405:VAL:O | 7:FA:3:GLN:NE2 | 2.37 | 0.57 |
| 7:HA:105:ILE:HD11 | 7:HA:134:ALA:HB1 | 1.85 | 0.57 |
| 7:KA:340:ARG:NH2 | 7:KA:384:GLN:OE1 | 2.37 | 0.57 |
| 7:MA:434:PRO:HA | 7:MA:437:MET:HE2 | 1.85 | 0.57 |
| 7:NA:47:GLY:N | 7:NA:139:ASP:O | 2.37 | 0.57 |
| 7:NA:508:VAL:HG13 | 7:NA:510:TRP:HZ3 | 1.69 | 0.57 |
| 7:QA:378:ILE:HG13 | 7:QA:379:ALA:N | 2.20 | 0.57 |
| 8:GB:72:HIS:HA | 8:HB:138:LYS:HZ1 | 1.70 | 0.57 |
| 8:GB:75:ILE:HD11 | 8:HB:104:LYS:HE3 | 1.85 | 0.57 |
| 8:IB:10:ARG:HD3 | 8:IB:14:LYS:HZ1 | 1.68 | 0.57 |
| 8:KB:168:TRP:HB2 | 8:LB:98:LYS:HZ2 | 1.70 | 0.57 |
| 8:LB:3:HIS:O | 8:LB:6:THR:OG1 | 2.21 | 0.57 |
| 8:MB:41:ASP:OD1 | 8:MB:42:ILE:HD12 | 2.04 | 0.57 |
| 8:PB:58:ASP:HB3 | 8:PB:70:ASN:HD21 | 1.69 | 0.57 |
| 2:H:127:ASN:OD1 | 2:H:131:GLN:HG2 | 2.04 | 0.57 |
| 3:O:88:SER:OG | 3:O:106:ARG:O | 2.21 | 0.57 |
| 3:R:24:GLN:HB3 | 3:R:28:TRP:CZ3 | 2.40 | 0.57 |
| 4:T:102:ALA:O | 4:T:106:ARG:HG2 | 2.04 | 0.57 |
| 5:1:347:GLN:OE1 | 5:1:371:TYR:OH | 2.19 | 0.57 |
| 5:1:429:LYS:HE2 | 5:8:432:TRP:HE1 | 1.70 | 0.57 |
| 5:2:311:SER:HB2 | 5:2:343:PRO:HD3 | 1.86 | 0.57 |
| 5:3:311:SER:H | 5:3:342:HIS:HA | 1.69 | 0.57 |
| 5:4:182:TRP:HZ2 | 5:4:219:GLN:HE21 | 1.52 | 0.57 |
| 5:5:153:PHE:N | 5:5:212:PHE:O | 2.37 | 0.57 |
| 6:e:43:THR:HA | 6:e:46:LYS:HG2 | 1.86 | 0.57 |
| 7:g:328:TYR:CE1 | 7:g:330:PHE:HB2 | 2.40 | 0.57 |
| 7:h:331:SER:O | 7:h:340:ARG:NH1 | 2.38 | 0.57 |
| 7:i:2:SER:OG | 7:i:3:GLN:N | 2.35 | 0.57 |
| 7:i:401:ARG:HB3 | 7:i:421:CYS:HA | 1.84 | 0.57 |
| 7:l:331:SER:O | 7:l:340:ARG:NH1 | 2.38 | 0.57 |
| 7:o:189:ALA:HB3 | 7:o:192:ALA:HB2 | 1.86 | 0.57 |
| 7:r:363:VAL:O | 7:r:366:TRP:NE1 | 2.38 | 0.57 |
| 7:r:485:ASP:HB3 | 7:r:489:ASP:HB2 | 1.85 | 0.57 |
| 7:BA:468:THR:O | 7:BA:471:LEU:HG | 2.05 | 0.57 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:EA:193:LYS:HB2 | 7:EA:199:LEU:HD13 | 1.86 | 0.57 |
| 7:FA:60:TYR:HA | 7:FA:63:VAL:HG22 | 1.87 | 0.57 |
| 7:GA:480:LEU:HD11 | 7:GA:513:CYS:H | 1.68 | 0.57 |
| 7:HA:461:ALA:HB1 | 7:HA:465:LYS:NZ | 2.19 | 0.57 |
| 7:IA:461:ALA:HB1 | 7:IA:465:LYS:NZ | 2.18 | 0.57 |
| 7:LA:48:LYS:HB2 | 7:LA:53:LEU:HD11 | 1.85 | 0.57 |
| 7:MA:423:THR:OG1 | 7:MA:424:GLN:OE1 | 2.19 | 0.57 |
| 7:NA:427:TYR:H | 7:OA:196:MET:HE1 | 1.70 | 0.57 |
| 7:OA:334:ASP:HB3 | 7:OA:338:GLN:N | 2.20 | 0.57 |
| 7:OA:378:ILE:HG13 | 7:OA:379:ALA:N | 2.19 | 0.57 |
| 7:PA:120:PRO:O | 7:PA:123:SER:OG | 2.18 | 0.57 |
| 7:QA:469:LYS:HB3 | 7:QA:473:ARG:HH12 | 1.69 | 0.57 |
| 7:RA:252:LEU:HA | 7:RA:255:VAL:HG22 | 1.87 | 0.57 |
| 8:BB:47:ARG:HH11 | 8:GB:64:PRO:HA | 1.68 | 0.57 |
| 8:HB:11:LYS:NZ | 8:IB:121:GLY:O | 2.25 | 0.57 |
| 8:JB:111:MET:N | 8:JB:132:ILE:O | 2.27 | 0.57 |
| 8:KB:119:SER:HB2 | 8:KB:124:ALA:HA | 1.86 | 0.57 |
| 8:KB:127:LYS:O | 8:KB:131:THR:HG23 | 2.05 | 0.57 |
| 1:A:104:VAL:HG22 | 1:F:44:ALA:HB2 | 1.86 | 0.57 |
| 2:L:92:PHE:HB2 | 2:L:177:LEU:HB2 | 1.87 | 0.57 |
| 3:O:115:ASP:OD1 | 7:i:524:VAL:N | 2.30 | 0.57 |
| 4:X:102:ALA:O | 4:X:106:ARG:HG2 | 2.04 | 0.57 |
| 5:Z:29:VAL:HB | 5:6:241:VAL:HG22 | 1.86 | 0.57 |
| 5:1:67:ARG:HH12 | 5:1:279:THR:HG21 | 1.69 | 0.57 |
| 5:7:111:ILE:HG23 | 5:7:115:GLN:HA | 1.85 | 0.57 |
| 5:8:193:SER:HB2 | 5:8:196:GLN:HE22 | 1.70 | 0.57 |
| 5:9:153:PHE:N | 5:9:212:PHE:O | 2.37 | 0.57 |
| 5:9:381:ILE:HG12 | 5:9:463:LEU:HD11 | 1.87 | 0.57 |
| 7:h:76:PHE:HA | 7:h:79:ILE:HG12 | 1.86 | 0.57 |
| 7:h:328:TYR:CE1 | 7:h:330:PHE:HB2 | 2.40 | 0.57 |
| 7:i:328:TYR:CE1 | 7:i:330:PHE:HB2 | 2.40 | 0.57 |
| 7:j:281:ALA:O | 7:j:284:LYS:HG3 | 2.04 | 0.57 |
| 7:o:281:ALA:O | 7:o:285:ILE:HG12 | 2.05 | 0.57 |
| 7:r:189:ALA:HB3 | 7:r:192:ALA:HB2 | 1.86 | 0.57 |
| 7:r:281:ALA:O | 7:r:285:ILE:HG12 | 2.04 | 0.57 |
| 7:DA:366:TRP:HD1 | 7:DA:435:SER:HB2 | 1.70 | 0.57 |
| 7:EA:468:THR:O | 7:EA:471:LEU:HG | 2.05 | 0.57 |
| 7:HA:500:GLN:NE2 | 7:HA:506:TRP:HB3 | 2.19 | 0.57 |
| 7:OA:334:ASP:HB3 | 7:OA:338:GLN:H | 1.69 | 0.57 |
| 7:PA:508:VAL:HG13 | 7:PA:510:TRP:HZ3 | 1.69 | 0.57 |
| 7:QA:508:VAL:HG13 | 7:QA:510:TRP:HZ3 | 1.69 | 0.57 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 8:IB:130:THR:HG22 | 8:JB:94:LEU:HD21 | 1.87 | 0.57 |
| 8:JB:56:ARG:CZ | 8:KB:104:LYS:HD2 | 2.35 | 0.57 |
| 8:MB:98:LYS:NZ | 8:RB:169:ASP:HA | 2.19 | 0.57 |
| 8:OB:39:HIS:HB3 | 8:OB:42:ILE:HD13 | 1.87 | 0.57 |
| 1:A:40:LYS:HB3 | 8:AB:69:PHE:HZ | 1.68 | 0.57 |
| 2:I:92:PHE:HB2 | 2:I:177:LEU:HB2 | 1.87 | 0.57 |
| 3:P:19:LYS:HA | 5:7:28:PHE:CE1 | 2.39 | 0.57 |
| 5:0:311:SER:H | 5:0:342:HIS:HA | 1.69 | 0.57 |
| 5:1:187:MET:HE1 | 5:1:189:ARG:NH2 | 2.20 | 0.57 |
| 5:7:151:LYS:NZ | 5:7:155:GLU:OE2 | 2.37 | 0.57 |
| 6:c:43:THR:HA | 6:c:46:LYS:HG2 | 1.86 | 0.57 |
| 6:e:165:MET:HE2 | 6:e:167:ILE:HB | 1.85 | 0.57 |
| 7:g:480:LEU:HD13 | 7:g:512:CYS:SG | 2.45 | 0.57 |
| 7:i:402:LEU:HG | 7:i:403:ASN:H | 1.69 | 0.57 |
| 7:n:485:ASP:HB3 | 7:n:489:ASP:HB2 | 1.85 | 0.57 |
| 7:p:189:ALA:HB3 | 7:p:192:ALA:HB2 | 1.86 | 0.57 |
| 7:AA:373:GLU:OE2 | 7:AA:409:THR:OG1 | 2.15 | 0.57 |
| 7:CA:240:ASN:O | 7:CA:243:GLN:NE2 | 2.37 | 0.57 |
| 7:PA:427:TYR:H | 7:QA:196:MET:HE1 | 1.70 | 0.57 |
| 7:QA:125:ILE:HG21 | 7:QA:216:VAL:HG21 | 1.87 | 0.57 |
| 7:QA:427:TYR:H | 7:RA:196:MET:HE1 | 1.70 | 0.57 |
| 7:QA:465:LYS:O | 7:QA:468:THR:OG1 | 2.15 | 0.57 |
| 8:HB:13:ILE:HA | 8:HB:16:ARG:HG2 | 1.87 | 0.57 |
| 8:HB:168:TRP:HB2 | 8:IB:98:LYS:HZ2 | 1.70 | 0.57 |
| 8:MB:4:ASN:OD1 | 8:MB:5:ASN:N | 2.38 | 0.57 |
| 8:PB:39:HIS:HB3 | 8:PB:42:ILE:HD13 | 1.87 | 0.57 |
| 3:N:33:TYR:CE1 | 7:h:525:PRO:HB2 | 2.40 | 0.57 |
| 3:P:117:VAL:HG21 | 7:j:521:ILE:HG23 | 1.87 | 0.57 |
| 3:R:19:LYS:HA | 5:9:28:PHE:CE1 | 2.39 | 0.57 |
| 4:U:102:ALA:O | 4:U:106:ARG:HG2 | 2.04 | 0.57 |
| 5:Z:311:SER:HB2 | 5:Z:343:PRO:HD3 | 1.86 | 0.57 |
| 5:Z:377:LEU:N | 5:Z:460:PHE:O | 2.29 | 0.57 |
| 5:1:277:GLU:OE2 | 5:1:280:ARG:NH2 | 2.32 | 0.57 |
| 5:2:160:LYS:HA | 5:2:163:THR:OG1 | 2.04 | 0.57 |
| 5:3:347:GLN:OE1 | 5:3:371:TYR:OH | 2.19 | 0.57 |
| 5:7:193:SER:HB2 | 5:7:196:GLN:HE22 | 1.70 | 0.57 |
| 6:a:1:MET:N | 6:a:32:ASP:OD1 | 2.38 | 0.57 |
| 6:d:1:MET:N | 6:d:32:ASP:OD1 | 2.38 | 0.57 |
| 7:g:525:PRO:O | 7:h:19:SER:OG | 2.22 | 0.57 |
| 7:h:402:LEU:HG | 7:h:403:ASN:H | 1.68 | 0.57 |
| 7:j:269:LEU:HD13 | 7:j:294:PHE:HB2 | 1.87 | 0.57 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:k:331:SER:O | 7:k:340:ARG:NH1 | 2.38 | 0.57 |
| 7:o:485:ASP:HB3 | 7:o:489:ASP:HB2 | 1.86 | 0.57 |
| 7:p:485:ASP:HB3 | 7:p:489:ASP:HB2 | 1.85 | 0.57 |
| 7:r:260:ASN:ND2 | 7:FA:390:ASP:O | 2.38 | 0.57 |
| 7:BA:356:GLY:HA2 | 7:BA:359:LYS:HE3 | 1.86 | 0.57 |
| 7:DA:520:ARG:CZ | 7:EA:10:LEU:HG | 2.34 | 0.57 |
| 7:EA:520:ARG:HA | 7:FA:16:VAL:HG22 | 1.87 | 0.57 |
| 7:FA:111:SER:OG | 7:FA:113:GLU:OE1 | 2.22 | 0.57 |
| 7:FA:468:THR:O | 7:FA:471:LEU:HG | 2.05 | 0.57 |
| 7:GA:461:ALA:HB1 | 7:GA:465:LYS:NZ | 2.19 | 0.57 |
| 7:IA:481:VAL:HG22 | 7:IA:515:THR:HG22 | 1.85 | 0.57 |
| 7:JA:418:ALA:HB1 | 7:JA:431:GLN:HG2 | 1.85 | 0.57 |
| 7:JA:500:GLN:NE2 | 7:JA:506:TRP:HB3 | 2.19 | 0.57 |
| 7:KA:500:GLN:NE2 | 7:KA:506:TRP:HB3 | 2.19 | 0.57 |
| 7:MA:69:LYS:HG2 | 7:MA:72:SER:H | 1.69 | 0.57 |
| 7:MA:196:MET:HE1 | 7:RA:427:TYR:H | 1.70 | 0.57 |
| 7:NA:252:LEU:HA | 7:NA:255:VAL:HG22 | 1.86 | 0.57 |
| 7:PA:152:ILE:HB | 7:PA:230:LYS:H | 1.70 | 0.57 |
| 7:PA:207:GLU:O | 7:PA:211:LYS:NZ | 2.38 | 0.57 |
| 7:RA:112:GLY:O | 7:RA:230:LYS:NZ | 2.38 | 0.57 |
| 8:IB:133:GLU:O | 8:IB:134:MET:HE2 | 2.05 | 0.57 |
| 8:LB:127:LYS:O | 8:LB:131:THR:HG23 | 2.05 | 0.57 |
| 8:PB:41:ASP:OD1 | 8:PB:42:ILE:HD12 | 2.04 | 0.57 |
| 1:D:41:MET:HE1 | 7:q:362:ASP:HB3 | 1.86 | 0.57 |
| 2:G:127:ASN:OD1 | 2:G:131:GLN:HG2 | 2.04 | 0.57 |
| 3:R:87:ILE:HG23 | 3:R:105:ILE:HD11 | 1.86 | 0.57 |
| 4:S:118:VAL:O | 4:S:120:GLY:N | 2.38 | 0.57 |
| 4:V:34:ARG:NH2 | 5:7:58:GLU:OE2 | 2.35 | 0.57 |
| 4:W:64:LEU:HA | 4:W:67:ARG:HG2 | 1.87 | 0.57 |
| 5:2:203:LYS:O | 5:2:206:GLU:N | 2.38 | 0.57 |
| 5:6:104:ILE:HB | 5:6:124:CYS:HB3 | 1.85 | 0.57 |
| 5:8:124:CYS:HB2 | 5:8:133:VAL:HB | 1.87 | 0.57 |
| 5:9:193:SER:HB2 | 5:9:196:GLN:HE22 | 1.70 | 0.57 |
| 5:9:449:VAL:HG12 | 5:9:450:GLU:HG3 | 1.86 | 0.57 |
| 7:i:331:SER:O | 7:i:340:ARG:NH1 | 2.38 | 0.57 |
| 7:m:363:VAL:O | 7:m:366:TRP:NE1 | 2.37 | 0.57 |
| 7:m:508:VAL:O | 7:AA:523:GLY:HA2 | 2.04 | 0.57 |
| 7:n:281:ALA:O | 7:n:285:ILE:HG12 | 2.05 | 0.57 |
| 7:n:418:ALA:HB1 | 7:n:431:GLN:HG2 | 1.87 | 0.57 |
| 7:p:492:GLU:OE1 | 7:p:492:GLU:N | 2.34 | 0.57 |
| 7:AA:109:ASP:HA | 7:AA:131:GLU:HA | 1.87 | 0.57 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:AA:423:THR:OG1 | 7:AA:424:GLN:OE1 | 2.22 | 0.57 |
| 7:AA:468:THR:O | 7:AA:471:LEU:HG | 2.05 | 0.57 |
| 7:CA:269:LEU:HD21 | 7:CA:350:TYR:CD2 | 2.40 | 0.57 |
| 7:DA:193:LYS:HB2 | 7:DA:199:LEU:HD13 | 1.86 | 0.57 |
| 7:DA:240:ASN:O | 7:DA:243:GLN:NE2 | 2.37 | 0.57 |
| 7:EA:404:LYS:NZ | 7:FA:14:SER:O | 2.26 | 0.57 |
| 7:HA:279:ILE:HG23 | 7:HA:295:PHE:CD1 | 2.40 | 0.57 |
| 7:IA:505:LYS:HA | 7:OA:520:ARG:HH21 | 1.70 | 0.57 |
| 7:MA:125:ILE:HG21 | 7:MA:216:VAL:HG21 | 1.85 | 0.57 |
| 7:MA:331:SER:O | 7:MA:340:ARG:NH2 | 2.38 | 0.57 |
| 7:NA:331:SER:O | 7:NA:340:ARG:NH2 | 2.38 | 0.57 |
| 7:OA:331:SER:O | 7:OA:340:ARG:NH2 | 2.38 | 0.57 |
| 7:PA:125:ILE:HG21 | 7:PA:216:VAL:HG21 | 1.87 | 0.57 |
| 7:PA:474:PHE:O | 7:PA:477:SER:OG | 2.19 | 0.57 |
| 7:QA:207:GLU:O | 7:QA:211:LYS:NZ | 2.38 | 0.57 |
| 8:AB:27:LEU:HD11 | 8:BB:89:ILE:HA | 1.87 | 0.57 |
| 8:EB:56:ARG:HB3 | 8:FB:140:TYR:CE2 | 2.39 | 0.57 |
| 8:GB:98:LYS:HZ2 | 8:LB:168:TRP:HB2 | 1.70 | 0.57 |
| 8:HB:50:GLN:HE22 | 8:IB:144:ILE:C | 2.13 | 0.57 |
| 8:IB:119:SER:HB2 | 8:IB:124:ALA:HA | 1.86 | 0.57 |
| 8:JB:75:ILE:HD11 | 8:KB:104:LYS:HE3 | 1.86 | 0.57 |
| 8:LB:133:GLU:O | 8:LB:134:MET:HE2 | 2.05 | 0.57 |
| 1:A:41:MET:HE1 | 7:n:362:ASP:HB3 | 1.86 | 0.56 |
| 2:J:163:ASP:OD1 | 2:J:169:LEU:HD21 | 2.05 | 0.56 |
| 2:J:165:ASN:OD1 | 2:J:166:GLY:N | 2.38 | 0.56 |
| 3:O:12:THR:HB | 7:i:527:LEU:HD22 | 1.86 | 0.56 |
| 3:P:88:SER:OG | 3:P:106:ARG:O | 2.20 | 0.56 |
| 5:0:29:VAL:HB | 5:7:241:VAL:HG22 | 1.87 | 0.56 |
| 5:7:124:CYS:HB2 | 5:7:133:VAL:HB | 1.87 | 0.56 |
| 5:7:334:ASN:OD1 | 5:7:367:LYS:NZ | 2.29 | 0.56 |
| 7:g:103:PHE:HB3 | 7:g:121:TYR:CE2 | 2.40 | 0.56 |
| 7:h:269:LEU:HD13 | 7:h:294:PHE:HB2 | 1.86 | 0.56 |
| 7:j:103:PHE:HB3 | 7:j:121:TYR:CE2 | 2.40 | 0.56 |
| 7:k:226:LYS:NZ | 7:k:227:VAL:O | 2.28 | 0.56 |
| 7:o:8:GLN:OE1 | 7:o:20:PRO:HD3 | 2.05 | 0.56 |
| 7:o:61:GLU:CD | 7:o:61:GLU:H | 2.13 | 0.56 |
| 7:CA:520:ARG:HH12 | 7:CA:522:GLN:HG3 | 1.70 | 0.56 |
| 7:DA:423:THR:OG1 | 7:DA:424:GLN:OE1 | 2.22 | 0.56 |
| 7:EA:151:THR:HG23 | 7:EA:231:LYS:HG3 | 1.87 | 0.56 |
| 7:IA:340:ARG:NH2 | 7:IA:384:GLN:OE1 | 2.37 | 0.56 |
| 7:JA:340:ARG:NH2 | 7:JA:384:GLN:OE1 | 2.37 | 0.56 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:NA:378:ILE:HG13 | 7:NA:379:ALA:N | 2.19 | 0.56 |
| 7:NA:410:SER:OG | 7:NA:412:GLN:OE1 | 2.21 | 0.56 |
| 7:NA:423:THR:OG1 | 7:NA:424:GLN:OE1 | 2.20 | 0.56 |
| 7:RA:434:PRO:HA | 7:RA:437:MET:HE2 | 1.85 | 0.56 |
| 8:GB:30:SER:HA | 8:HB:148:THR:HG23 | 1.87 | 0.56 |
| 8:HB:50:GLN:HB3 | 8:HB:81:ILE:HG23 | 1.86 | 0.56 |
| 8:JB:25:GLU:HB2 | 8:KB:89:ILE:HD11 | 1.87 | 0.56 |
| 8:KB:26:ARG:NH2 | 8:LB:155:VAL:O | 2.20 | 0.56 |
| 8:KB:50:GLN:HB3 | 8:KB:81:ILE:HG23 | 1.87 | 0.56 |
| 8:LB:50:GLN:HB3 | 8:LB:81:ILE:HG23 | 1.85 | 0.56 |
| 1:B:45:GLN:HB3 | 1:B:47:TRP:CD1 | 2.39 | 0.56 |
| 1:F:40:LYS:HB3 | 8:FB:69:PHE:HZ | 1.68 | 0.56 |
| 2:G:190:ARG:NH1 | 3:M:86:PRO:HG2 | 2.20 | 0.56 |
| 3:M:24:GLN:HB3 | 3:M:28:TRP:CZ3 | 2.40 | 0.56 |
| 3:P:87:ILE:HG23 | 3:P:105:ILE:HD11 | 1.87 | 0.56 |
| 3:R:15:LEU:HD11 | 7:g:21:ILE:HG23 | 1.86 | 0.56 |
| 3:R:92:VAL:HG12 | 3:R:101:LEU:HD11 | 1.87 | 0.56 |
| 5:Y:187:MET:HE1 | 5:Y:189:ARG:NH2 | 2.20 | 0.56 |
| 5:O:285:TYR:CE2 | 5:O:301:TYR:HB2 | 2.38 | 0.56 |
| 5:O:311:SER:HB2 | 5:O:343:PRO:HD3 | 1.86 | 0.56 |
| 5:1:160:LYS:HA | 5:1:163:THR:OG1 | 2.05 | 0.56 |
| 5:6:449:VAL:HG12 | 5:6:450:GLU:HG3 | 1.86 | 0.56 |
| 7:h:511:ALA:HB1 | 7:n:528:ILE:HG23 | 1.87 | 0.56 |
| 7:j:331:SER:O | 7:j:340:ARG:NH1 | 2.38 | 0.56 |
| 7:m:149:GLU:HG3 | 7:m:234:ALA:HB2 | 1.88 | 0.56 |
| 7:m:189:ALA:HB3 | 7:m:192:ALA:HB2 | 1.86 | 0.56 |
| 7:m:213:LEU:O | 7:m:214:ARG:HD3 | 2.06 | 0.56 |
| 7:o:333:LYS:HB2 | 7:o:382:SER:HB3 | 1.85 | 0.56 |
| 7:p:363:VAL:O | 7:p:366:TRP:NE1 | 2.37 | 0.56 |
| 7:AA:14:SER:O | 7:FA:404:LYS:NZ | 2.27 | 0.56 |
| 7:DA:405:VAL:HG12 | 7:DA:413:MET:CE | 2.35 | 0.56 |
| 7:FA:471:LEU:HB2 | 7:FA:494:TYR:CD2 | 2.40 | 0.56 |
| 7:IA:506:TRP:O | 7:OA:520:ARG:NH2 | 2.33 | 0.56 |
| 7:LA:120:PRO:O | 7:LA:123:SER:OG | 2.15 | 0.56 |
| 7:LA:505:LYS:HA | 7:RA:520:ARG:HH21 | 1.70 | 0.56 |
| 7:RA:47:GLY:N | 7:RA:139:ASP:O | 2.37 | 0.56 |
| 8:HB:119:SER:HB2 | 8:HB:124:ALA:HA | 1.86 | 0.56 |
| 8:JB:26:ARG:HA | 8:KB:88:THR:HA | 1.87 | 0.56 |
| 8:LB:119:SER:HB2 | 8:LB:124:ALA:HA | 1.86 | 0.56 |
| 8:NB:25:GLU:O | 8:NB:26:ARG:NH1 | 2.37 | 0.56 |
| 1:B:40:LYS:HB3 | 8:BB:69:PHE:HZ | 1.69 | 0.56 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:B:56:LEU:HD21 | 1:B:111:TRP:CG | 2.40 | 0.56 |
| 1:C:140:ARG:HD3 | 1:C:148:LYS:HZ3 | 1.68 | 0.56 |
| 1:F:56:LEU:HD21 | 1:F:111:TRP:CG | 2.41 | 0.56 |
| 2:G:44:GLN:NE2 | 2:H:152:GLN:HA | 2.19 | 0.56 |
| 3:N:19:LYS:HA | 5:5:28:PHE:CE1 | 2.40 | 0.56 |
| 3:N:24:GLN:HB3 | 3:N:28:TRP:CZ3 | 2.39 | 0.56 |
| 3:O:24:GLN:HB3 | 3:O:28:TRP:CZ3 | 2.40 | 0.56 |
| 3:R:12:THR:HB | 7:l:527:LEU:HD22 | 1.86 | 0.56 |
| 3:R:88:SER:OG | 3:R:106:ARG:O | 2.21 | 0.56 |
| 4:V:73:GLU:O | 4:V:76:TRP:NE1 | 2.39 | 0.56 |
| 4:V:74:LEU:HD23 | 4:V:99:LEU:HD12 | 1.87 | 0.56 |
| 5:Z:1:MET:N | 6:b:33:THR:O | 2.38 | 0.56 |
| 5:8:182:TRP:HZ2 | 5:8:219:GLN:HE21 | 1.52 | 0.56 |
| 5:9:389:ALA:HB3 | 6:e:70:ARG:HH21 | 1.70 | 0.56 |
| 6:a:43:THR:HA | 6:a:46:LYS:HG2 | 1.86 | 0.56 |
| 7:g:331:SER:O | 7:g:340:ARG:NH1 | 2.38 | 0.56 |
| 7:h:103:PHE:HB3 | 7:h:121:TYR:CE2 | 2.41 | 0.56 |
| 7:i:480:LEU:HD13 | 7:i:512:CYS:SG | 2.45 | 0.56 |
| 7:j:198:ARG:HH22 | 7:p:337:THR:HA | 1.71 | 0.56 |
| 7:l:103:PHE:HB3 | 7:l:121:TYR:CE2 | 2.41 | 0.56 |
| 7:l:328:TYR:CE1 | 7:l:330:PHE:HB2 | 2.40 | 0.56 |
| 7:m:408:GLY:N | 7:m:412:GLN:O | 2.38 | 0.56 |
| 7:n:260:ASN:ND2 | 7:BA:390:ASP:O | 2.38 | 0.56 |
| 7:n:352:ALA:HB1 | 7:n:375:ARG:HB3 | 1.86 | 0.56 |
| 7:p:61:GLU:H | 7:p:61:GLU:CD | 2.14 | 0.56 |
| 7:p:158:ASP:OD1 | 7:p:164:ARG:NE | 2.28 | 0.56 |
| 7:p:408:GLY:N | 7:p:412:GLN:O | 2.38 | 0.56 |
| 7:q:150:LEU:HB2 | 7:q:233:LEU:HB2 | 1.85 | 0.56 |
| 7:q:213:LEU:O | 7:q:214:ARG:HD3 | 2.06 | 0.56 |
| 7:q:281:ALA:O | 7:q:285:ILE:HG12 | 2.05 | 0.56 |
| 7:DA:468:THR:O | 7:DA:471:LEU:HG | 2.05 | 0.56 |
| 7:DA:471:LEU:HB2 | 7:DA:494:TYR:CD2 | 2.40 | 0.56 |
| 7:EA:60:TYR:HA | 7:EA:63:VAL:HG22 | 1.87 | 0.56 |
| 7:FA:103:PHE:HB3 | 7:FA:121:TYR:CZ | 2.41 | 0.56 |
| 7:FA:405:VAL:HG12 | 7:FA:413:MET:CE | 2.35 | 0.56 |
| 7:MA:152:ILE:HB | 7:MA:230:LYS:H | 1.70 | 0.56 |
| 7:OA:125:ILE:HG21 | 7:OA:216:VAL:HG21 | 1.87 | 0.56 |
| 7:OA:427:TYR:H | 7:PA:196:MET:HE1 | 1.70 | 0.56 |
| 7:QA:38:TRP:HB3 | 7:QA:350:TYR:CE1 | 2.40 | 0.56 |
| 7:QA:410:SER:OG | 7:QA:412:GLN:OE1 | 2.19 | 0.56 |
| 7:RA:38:TRP:HB3 | 7:RA:350:TYR:CE1 | 2.41 | 0.56 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 7:RA:207:GLU:O | 7:RA:211:LYS:NZ | 2.39 | 0.56 |
| 7:RA:331:SER:O | 7:RA:340:ARG:NH2 | 2.38 | 0.56 |
| 7:RA:333:LYS:HB2 | 7:RA:381:ALA:HB3 | 1.88 | 0.56 |
| 7:RA:410:SER:OG | 7:RA:412:GLN:OE1 | 2.19 | 0.56 |
| 8:EB:47:ARG:NH1 | 8:JB:64:PRO:HA | 2.19 | 0.56 |
| 8:GB:133:GLU:O | 8:GB:134:MET:HE2 | 2.05 | 0.56 |
| 8:GB:134:MET:HE1 | 8:GB:166:ILE:HD12 | 1.87 | 0.56 |
| 8:HB:72:HIS:HA | 8:IB:138:LYS:HZ1 | 1.70 | 0.56 |
| 8:HB:133:GLU:O | 8:HB:134:MET:HE2 | 2.05 | 0.56 |
| 8:IB:127:LYS:O | 8:IB:131:THR:HG23 | 2.05 | 0.56 |
| 8:JB:79:GLY:HA3 | 8:JB:163:TYR:CZ | 2.41 | 0.56 |
| 8:JB:133:GLU:O | 8:JB:134:MET:HE2 | 2.05 | 0.56 |
| 8:LB:45:LEU:HD12 | 8:LB:86:VAL:O | 2.03 | 0.56 |
| 8:PB:9:ASN:N | 8:QB:116:GLU:OE2 | 2.30 | 0.56 |
| 8:PB:26:ARG:NH2 | 8:QB:87:GLU:O | 2.38 | 0.56 |
| 8:PB:120:SER:H | 8:PB:125:VAL:HG23 | 1.70 | 0.56 |
| 8:QB:41:ASP:OD1 | 8:QB:42:ILE:HD12 | 2.04 | 0.56 |
| 8:RB:39:HIS:HB3 | 8:RB:42:ILE:HD13 | 1.87 | 0.56 |
| 1:C:56:LEU:HD21 | 1:C:111:TRP:CG | 2.41 | 0.56 |
| 1:D:60:ASP:OD1 | 1:D:61:PHE:N | 2.39 | 0.56 |
| 2:J:92:PHE:HB2 | 2:J:177:LEU:HB2 | 1.87 | 0.56 |
| 3:O:87:ILE:HG23 | 3:O:105:ILE:HD11 | 1.86 | 0.56 |
| 3:Q:115:ASP:OD1 | 7:k:524:VAL:N | 2.30 | 0.56 |
| 3:R:13:LEU:H | 7:l:527:LEU:HD11 | 1.71 | 0.56 |
| 4:W:60:ARG:HG3 | 6:e:9:ARG:HD3 | 1.86 | 0.56 |
| 5:Y:311:SER:H | 5:Y:342:HIS:HA | 1.69 | 0.56 |
| 5:Z:160:LYS:HA | 5:Z:163:THR:OG1 | 2.06 | 0.56 |
| 5:0:138:LEU:HD11 | 5:0:232:TRP:HB3 | 1.86 | 0.56 |
| 5:2:377:LEU:N | 5:2:460:PHE:O | 2.29 | 0.56 |
| 5:3:102:ALA:O | 5:3:126:LEU:N | 2.33 | 0.56 |
| 5:3:203:LYS:O | 5:3:206:GLU:N | 2.39 | 0.56 |
| 5:4:151:LYS:NZ | 5:4:155:GLU:OE2 | 2.37 | 0.56 |
| 5:4:389:ALA:HB3 | 6:f:70:ARG:HH21 | 1.70 | 0.56 |
| 5:6:193:SER:HB2 | 5:6:196:GLN:HE22 | 1.70 | 0.56 |
| 5:8:151:LYS:NZ | 5:8:155:GLU:OE2 | 2.37 | 0.56 |
| 5:8:187:MET:HE1 | 6:e:95:ARG:HH22 | 1.70 | 0.56 |
| 5:9:203:LYS:HD3 | 5:9:205:SER:H | 1.71 | 0.56 |
| 7:g:158:ASP:OD1 | 7:g:164:ARG:NE | 2.35 | 0.56 |
| 7:k:103:PHE:HB3 | 7:k:121:TYR:CE2 | 2.41 | 0.56 |
| 7:n:362:ASP:OD1 | 7:n:363:VAL:N | 2.37 | 0.56 |
| 7:o:492:GLU:OE1 | 7:o:492:GLU:N | 2.34 | 0.56 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:r:408:GLY:N | 7:r:412:GLN:O | 2.38 | 0.56 |
| 7:AA:151:THR:HG23 | 7:AA:231:LYS:HG3 | 1.87 | 0.56 |
| 7:BA:109:ASP:HA | 7:BA:131:GLU:HA | 1.87 | 0.56 |
| 7:BA:423:THR:OG1 | 7:BA:424:GLN:OE1 | 2.22 | 0.56 |
| 7:DA:151:THR:HG23 | 7:DA:231:LYS:HG3 | 1.87 | 0.56 |
| 7:LA:256:LYS:NZ | 7:RA:389:GLU:O | 2.39 | 0.56 |
| 7:MA:38:TRP:HB3 | 7:MA:350:TYR:CE1 | 2.41 | 0.56 |
| 7:OA:171:GLN:HB2 | 7:OA:181:LEU:HD11 | 1.87 | 0.56 |
| 7:PA:334:ASP:HB3 | 7:PA:338:GLN:N | 2.20 | 0.56 |
| 7:QA:521:ILE:HD11 | 7:RA:16:VAL:HA | 1.87 | 0.56 |
| 7:RA:171:GLN:HB2 | 7:RA:181:LEU:HD11 | 1.87 | 0.56 |
| 8:DB:27:LEU:HD11 | 8:EB:89:ILE:HA | 1.86 | 0.56 |
| 1:A:56:LEU:HD21 | 1:A:111:TRP:CG | 2.41 | 0.56 |
| 3:M:87:ILE:HG23 | 3:M:105:ILE:HD11 | 1.87 | 0.56 |
| 3:Q:19:LYS:HA | 5:8:28:PHE:CE1 | 2.39 | 0.56 |
| 3:Q:33:TYR:CE1 | 7:k:525:PRO:HB2 | 2.40 | 0.56 |
| 4:S:102:ALA:O | 4:S:106:ARG:HG2 | 2.04 | 0.56 |
| 4:W:102:ALA:O | 4:W:106:ARG:HG2 | 2.05 | 0.56 |
| 5:3:112:SER:OG | 5:3:114:ASP:OD1 | 2.17 | 0.56 |
| 5:3:138:LEU:HD11 | 5:3:232:TRP:HB3 | 1.86 | 0.56 |
| 5:5:102:ALA:HA | 5:5:126:LEU:HD12 | 1.88 | 0.56 |
| 5:8:381:ILE:HG12 | 5:8:463:LEU:HD11 | 1.87 | 0.56 |
| 7:i:103:PHE:HB3 | 7:i:121:TYR:CE2 | 2.41 | 0.56 |
| 7:i:198:ARG:HH22 | 7:o:337:THR:HA | 1.70 | 0.56 |
| 7:k:480:LEU:HD13 | 7:k:512:CYS:SG | 2.45 | 0.56 |
| 7:l:480:LEU:HD13 | 7:l:512:CYS:SG | 2.45 | 0.56 |
| 7:m:485:ASP:HB3 | 7:m:489:ASP:HB2 | 1.85 | 0.56 |
| 7:o:331:SER:N | 7:o:384:GLN:O | 2.26 | 0.56 |
| 7:p:470:LEU:HD12 | 7:p:471:LEU:HD22 | 1.87 | 0.56 |
| 7:BA:405:VAL:O | 7:CA:3:GLN:NE2 | 2.38 | 0.56 |
| 7:CA:355:ARG:NH1 | 7:CA:375:ARG:HB2 | 2.21 | 0.56 |
| 7:NA:207:GLU:O | 7:NA:211:LYS:NZ | 2.38 | 0.56 |
| 7:OA:207:GLU:O | 7:OA:211:LYS:NZ | 2.39 | 0.56 |
| 7:PA:378:ILE:HG13 | 7:PA:379:ALA:N | 2.20 | 0.56 |
| 7:RA:408:GLY:HA3 | 7:RA:412:GLN:NE2 | 2.21 | 0.56 |
| 8:KB:50:GLN:HE22 | 8:LB:144:ILE:C | 2.13 | 0.56 |
| 8:KB:56:ARG:CZ | 8:LB:104:LYS:HD2 | 2.35 | 0.56 |
| 8:KB:139:ILE:HD11 | 8:KB:159:LEU:HB3 | 1.88 | 0.56 |
| 8:NB:58:ASP:HB3 | 8:NB:70:ASN:HD21 | 1.70 | 0.56 |
| 8:PB:116:GLU:HA | 8:PB:119:SER:OG | 2.04 | 0.56 |
| 1:B:47:TRP:HH2 | 8:BB:74:PRO:HA | 1.71 | 0.56 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:B:174:LYS:HZ3 | 1:B:176:PHE:HB3 | 1.71 | 0.56 |
| 1:C:62:PHE:O | 1:C:101:ARG:HD3 | 2.06 | 0.56 |
| 1:D:56:LEU:HD21 | 1:D:111:TRP:CG | 2.40 | 0.56 |
| 2:G:92:PHE:HB2 | 2:G:177:LEU:HB2 | 1.88 | 0.56 |
| 2:G:152:GLN:HA | 2:L:44:GLN:NE2 | 2.19 | 0.56 |
| 2:G:165:ASN:OD1 | 2:G:166:GLY:N | 2.38 | 0.56 |
| 2:I:165:ASN:OD1 | 2:I:166:GLY:N | 2.39 | 0.56 |
| 4:S:73:GLU:O | 4:S:76:TRP:NE1 | 2.39 | 0.56 |
| 4:V:118:VAL:O | 4:V:120:GLY:N | 2.37 | 0.56 |
| 4:X:15:PRO:HB2 | 5:9:9:ASP:OD2 | 2.06 | 0.56 |
| 4:X:118:VAL:O | 4:X:120:GLY:N | 2.37 | 0.56 |
| 5:Y:377:LEU:N | 5:Y:460:PHE:O | 2.29 | 0.56 |
| 5:Y:429:LYS:HE2 | 5:5:432:TRP:HE1 | 1.70 | 0.56 |
| 5:1:383:ILE:HD11 | 5:1:444:PHE:HB2 | 1.88 | 0.56 |
| 5:4:193:SER:HB2 | 5:4:196:GLN:HE22 | 1.70 | 0.56 |
| 5:5:40:PHE:O | 5:5:43:GLN:HG2 | 2.06 | 0.56 |
| 7:g:269:LEU:HD13 | 7:g:294:PHE:HB2 | 1.87 | 0.56 |
| 7:k:158:ASP:OD1 | 7:k:164:ARG:NE | 2.35 | 0.56 |
| 7:l:402:LEU:HG | 7:l:403:ASN:H | 1.71 | 0.56 |
| 7:l:406:SER:OG | 7:l:416:ASP:OD2 | 2.17 | 0.56 |
| 7:m:470:LEU:HD12 | 7:m:471:LEU:HD22 | 1.87 | 0.56 |
| 7:o:102:LYS:HZ2 | 7:o:120:PRO:HD3 | 1.71 | 0.56 |
| 7:p:213:LEU:O | 7:p:214:ARG:HD3 | 2.06 | 0.56 |
| 7:r:438:ASN:O | 7:r:441:SER:OG | 2.20 | 0.56 |
| 7:AA:471:LEU:HB2 | 7:AA:494:TYR:CD2 | 2.41 | 0.56 |
| 7:BA:446:GLN:HA | 7:BA:449:ARG:HG2 | 1.87 | 0.56 |
| 7:CA:423:THR:OG1 | 7:CA:424:GLN:OE1 | 2.22 | 0.56 |
| 7:EA:471:LEU:HB2 | 7:EA:494:TYR:CD2 | 2.40 | 0.56 |
| 7:FA:151:THR:HG23 | 7:FA:231:LYS:HG3 | 1.88 | 0.56 |
| 7:IA:500:GLN:NE2 | 7:IA:506:TRP:HB3 | 2.20 | 0.56 |
| 7:KA:256:LYS:NZ | 7:QA:389:GLU:O | 2.39 | 0.56 |
| 7:LA:2:SER:OG | 7:LA:3:GLN:N | 2.39 | 0.56 |
| 7:MA:171:GLN:HB2 | 7:MA:181:LEU:HD11 | 1.88 | 0.56 |
| 7:NA:171:GLN:HB2 | 7:NA:181:LEU:HD11 | 1.88 | 0.56 |
| 8:EB:30:SER:OG | 8:FB:150:ASP:O | 2.24 | 0.56 |
| 8:HB:127:LYS:O | 8:HB:131:THR:HG23 | 2.05 | 0.56 |
| 1:E:60:ASP:OD1 | 1:E:61:PHE:N | 2.39 | 0.56 |
| 3:O:73:MET:CE | 3:O:77:LYS:HZ1 | 2.19 | 0.56 |
| 5:Z:311:SER:H | 5:Z:342:HIS:HA | 1.69 | 0.56 |
| 5:5:193:SER:HB2 | 5:5:196:GLN:HE22 | 1.70 | 0.56 |
| 5:5:381:ILE:HG12 | 5:5:463:LEU:HD11 | 1.87 | 0.56 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 5:9:151:LYS:NZ | 5:9:155:GLU:OE2 | 2.37 | 0.56 |
| 7:g:432:HIS:O | 7:g:435:SER:OG | 2.18 | 0.56 |
| 7:j:107:MET:O | 7:j:114:PRO:HA | 2.06 | 0.56 |
| 7:k:107:MET:O | 7:k:114:PRO:HA | 2.06 | 0.56 |
| 7:n:189:ALA:HB3 | 7:n:192:ALA:HB2 | 1.85 | 0.56 |
| 7:p:218:ASN:HD22 | 7:p:221:LEU:HD12 | 1.71 | 0.56 |
| 7:AA:60:TYR:HA | 7:AA:63:VAL:HG22 | 1.87 | 0.56 |
| 7:AA:405:VAL:O | 7:BA:3:GLN:NE2 | 2.39 | 0.56 |
| 7:CA:103:PHE:HB3 | 7:CA:121:TYR:CZ | 2.41 | 0.56 |
| 7:CA:405:VAL:HG12 | 7:CA:413:MET:CE | 2.35 | 0.56 |
| 7:EA:109:ASP:HA | 7:EA:131:GLU:HA | 1.88 | 0.56 |
| 7:JA:256:LYS:NZ | 7:PA:389:GLU:O | 2.38 | 0.56 |
| 7:LA:46:ARG:HH22 | 7:LA:62:ASP:C | 2.14 | 0.56 |
| 7:LA:463:LEU:O | 7:LA:467:MET:HG2 | 2.06 | 0.56 |
| 7:MA:207:GLU:O | 7:MA:211:LYS:NZ | 2.38 | 0.56 |
| 7:QA:252:LEU:HA | 7:QA:255:VAL:HG22 | 1.86 | 0.56 |
| 7:RA:125:ILE:HG21 | 7:RA:216:VAL:HG21 | 1.87 | 0.56 |
| 8:JB:134:MET:HE1 | 8:JB:166:ILE:HD12 | 1.87 | 0.56 |
| 8:KB:133:GLU:O | 8:KB:134:MET:HE2 | 2.05 | 0.56 |
| 8:LB:10:ARG:HD3 | 8:LB:14:LYS:HZ1 | 1.69 | 0.56 |
| 8:MB:25:GLU:O | 8:MB:26:ARG:NH1 | 2.38 | 0.56 |
| 8:MB:87:GLU:O | 8:RB:26:ARG:NH2 | 2.38 | 0.56 |
| 8:MB:151:VAL:HG13 | 8:MB:152:THR:HG23 | 1.88 | 0.56 |
| 2:L:165:ASN:OD1 | 2:L:166:GLY:N | 2.39 | 0.56 |
| 3:N:92:VAL:HG12 | 3:N:101:LEU:HD11 | 1.88 | 0.56 |
| 3:N:117:VAL:HG21 | 7:h:521:ILE:HG23 | 1.88 | 0.56 |
| 5:1:203:LYS:O | 5:1:206:GLU:N | 2.39 | 0.56 |
| 5:4:188:PHE:HA | 5:4:194:LYS:HE2 | 1.87 | 0.56 |
| 5:5:182:TRP:HZ2 | 5:5:219:GLN:HE21 | 1.52 | 0.56 |
| 5:7:389:ALA:HB3 | 6:c:70:ARG:HH21 | 1.71 | 0.56 |
| 5:8:203:LYS:HD3 | 5:8:205:SER:H | 1.71 | 0.56 |
| 5:8:389:ALA:HB3 | 6:d:70:ARG:HH21 | 1.70 | 0.56 |
| 7:k:302:THR:OG1 | 7:k:305:GLU:OE1 | 2.21 | 0.56 |
| 7:l:269:LEU:HD13 | 7:l:294:PHE:HB2 | 1.87 | 0.56 |
| 7:m:218:ASN:HD22 | 7:m:221:LEU:HD12 | 1.71 | 0.56 |
| 7:n:328:TYR:CE1 | 7:n:330:PHE:HB2 | 2.41 | 0.56 |
| 7:n:505:LYS:HE2 | 7:BA:522:GLN:HE22 | 1.71 | 0.56 |
| 7:o:363:VAL:O | 7:o:366:TRP:NE1 | 2.38 | 0.56 |
| 7:p:418:ALA:HB1 | 7:p:431:GLN:HG2 | 1.87 | 0.56 |
| 7:p:529:LYS:HG2 | 7:q:23:ALA:HB1 | 1.88 | 0.56 |
| 7:q:408:GLY:N | 7:q:412:GLN:O | 2.39 | 0.56 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:AA:103:PHE:HB3 | 7:AA:121:TYR:CZ | 2.41 | 0.56 |
| 7:AA:355:ARG:NH1 | 7:AA:375:ARG:HB2 | 2.21 | 0.56 |
| 7:AA:405:VAL:HG12 | 7:AA:413:MET:CE | 2.35 | 0.56 |
| 7:BA:110:GLU:O | 7:BA:226:LYS:N | 2.34 | 0.56 |
| 7:BA:432:HIS:O | 7:BA:435:SER:OG | 2.22 | 0.56 |
| 7:CA:60:TYR:HA | 7:CA:63:VAL:HG22 | 1.87 | 0.56 |
| 7:FA:109:ASP:HA | 7:FA:131:GLU:HA | 1.87 | 0.56 |
| 7:FA:355:ARG:NH1 | 7:FA:375:ARG:HB2 | 2.21 | 0.56 |
| 7:IA:463:LEU:O | 7:IA:467:MET:HG2 | 2.05 | 0.56 |
| 7:KA:46:ARG:HH22 | 7:KA:62:ASP:C | 2.13 | 0.56 |
| 7:MA:333:LYS:HB2 | 7:MA:381:ALA:HB3 | 1.88 | 0.56 |
| 8:HB:134:MET:HE1 | 8:HB:166:ILE:HD12 | 1.88 | 0.56 |
| 8:JB:41:ASP:OD1 | 8:JB:42:ILE:HD12 | 2.06 | 0.56 |
| 8:JB:168:TRP:HB2 | 8:KB:98:LYS:HZ2 | 1.70 | 0.56 |
| 8:KB:28:VAL:HA | 8:LB:154:ALA:HB1 | 1.87 | 0.56 |
| 8:RB:45:LEU:HD23 | 8:RB:85:CYS:HB2 | 1.88 | 0.56 |
| 1:F:62:PHE:O | 1:F:101:ARG:HD3 | 2.06 | 0.56 |
| 2:H:163:ASP:OD1 | 2:H:169:LEU:HD21 | 2.04 | 0.56 |
| 2:I:186:SER:O | 2:I:190:ARG:HG2 | 2.06 | 0.56 |
| 2:L:186:SER:O | 2:L:190:ARG:HG2 | 2.06 | 0.56 |
| 2:L:190:ARG:NH2 | 3:R:107:ILE:HG23 | 2.18 | 0.56 |
| 3:P:13:LEU:H | 7:j:527:LEU:HD11 | 1.71 | 0.56 |
| 3:Q:92:VAL:HG12 | 3:Q:101:LEU:HD11 | 1.87 | 0.56 |
| 4:X:34:ARG:NH2 | 5:9:63:THR:O | 2.39 | 0.56 |
| 5:2:29:VAL:HG11 | 5:9:266:PRO:HB3 | 1.87 | 0.56 |
| 5:2:330:VAL:HA | 5:2:333:ILE:HD12 | 1.88 | 0.56 |
| 5:3:29:VAL:HB | 5:4:241:VAL:HG22 | 1.87 | 0.56 |
| 5:4:102:ALA:HA | 5:4:126:LEU:HD12 | 1.88 | 0.56 |
| 5:4:380:LYS:NZ | 5:4:450:GLU:OE1 | 2.31 | 0.56 |
| 5:6:389:ALA:HB3 | 6:b:70:ARG:HH21 | 1.71 | 0.56 |
| 5:9:102:ALA:HA | 5:9:126:LEU:HD12 | 1.88 | 0.56 |
| 6:d:43:THR:HA | 6:d:46:LYS:HG2 | 1.86 | 0.56 |
| 7:i:228:THR:HG21 | 7:i:230:LYS:HZ1 | 1.71 | 0.56 |
| 7:k:328:TYR:CE1 | 7:k:330:PHE:HB2 | 2.40 | 0.56 |
| 7:l:107:MET:O | 7:l:114:PRO:HA | 2.06 | 0.56 |
| 7:AA:111:SER:OG | 7:AA:113:GLU:OE1 | 2.22 | 0.56 |
| 7:DA:60:TYR:HA | 7:DA:63:VAL:HG22 | 1.87 | 0.56 |
| 7:DA:103:PHE:HB3 | 7:DA:121:TYR:CZ | 2.41 | 0.56 |
| 7:HA:303:TYR:CZ | 7:HA:392:PRO:HA | 2.41 | 0.56 |
| 7:MA:52:VAL:HG13 | 7:MA:257:VAL:HG12 | 1.87 | 0.56 |
| 7:PA:171:GLN:HB2 | 7:PA:181:LEU:HD11 | 1.88 | 0.56 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 8:BB:30:SER:OG | 8:CB:150:ASP:O | 2.23 | 0.56 |
| 8:DB:10:ARG:O | 8:DB:14:LYS:HG2 | 2.06 | 0.56 |
| 8:IB:25:GLU:HB2 | 8:JB:89:ILE:HD11 | 1.87 | 0.56 |
| 8:IB:29:SER:H | 8:JB:154:ALA:HA | 1.71 | 0.56 |
| 8:JB:79:GLY:HA3 | 8:JB:163:TYR:CE1 | 2.41 | 0.56 |
| 8:JB:130:THR:HG22 | 8:KB:94:LEU:HD21 | 1.87 | 0.56 |
| 2:G:163:ASP:OD1 | 2:G:169:LEU:HD21 | 2.05 | 0.56 |
| 2:H:186:SER:O | 2:H:190:ARG:HG2 | 2.06 | 0.56 |
| 2:J:186:SER:O | 2:J:190:ARG:HG2 | 2.06 | 0.56 |
| 3:P:24:GLN:HB3 | 3:P:28:TRP:CZ3 | 2.40 | 0.56 |
| 4:T:63:LEU:HB3 | 4:T:67:ARG:NH2 | 2.21 | 0.56 |
| 5:0:102:ALA:O | 5:0:126:LEU:N | 2.33 | 0.56 |
| 5:0:160:LYS:HA | 5:0:163:THR:OG1 | 2.06 | 0.56 |
| 5:4:124:CYS:HB2 | 5:4:133:VAL:HB | 1.87 | 0.56 |
| 5:7:182:TRP:HZ2 | 5:7:219:GLN:HE21 | 1.52 | 0.56 |
| 5:7:188:PHE:HA | 5:7:194:LYS:HE2 | 1.87 | 0.56 |
| 5:7:333:ILE:O | 5:7:335:LYS:NZ | 2.28 | 0.56 |
| 6:c:1:MET:N | 6:c:32:ASP:OD1 | 2.39 | 0.56 |
| 7:i:107:MET:O | 7:i:114:PRO:HA | 2.06 | 0.56 |
| 7:m:102:LYS:HZ2 | 7:m:120:PRO:HD3 | 1.70 | 0.56 |
| 7:n:48:LYS:HD2 | 7:n:49:PRO:HD2 | 1.88 | 0.56 |
| 7:n:196:MET:HB3 | 7:AA:529:LYS:HZ1 | 1.70 | 0.56 |
| 7:n:488:ALA:HB1 | 7:CA:335:LYS:HG2 | 1.88 | 0.56 |
| 7:o:260:ASN:ND2 | 7:CA:390:ASP:O | 2.39 | 0.56 |
| 7:o:488:ALA:HB1 | 7:DA:335:LYS:HG2 | 1.88 | 0.56 |
| 7:q:2:SER:OG | 7:q:3:GLN:N | 2.28 | 0.56 |
| 7:r:158:ASP:OD1 | 7:r:164:ARG:NE | 2.29 | 0.56 |
| 7:AA:366:TRP:HD1 | 7:AA:435:SER:HB2 | 1.70 | 0.56 |
| 7:CA:471:LEU:HB2 | 7:CA:494:TYR:CD2 | 2.40 | 0.56 |
| 7:GA:46:ARG:HH22 | 7:GA:62:ASP:C | 2.14 | 0.56 |
| 7:MA:302:THR:OG1 | 7:MA:305:GLU:OE1 | 2.24 | 0.56 |
| 7:MA:410:SER:OG | 7:MA:412:GLN:OE1 | 2.21 | 0.56 |
| 7:OA:408:GLY:HA3 | 7:OA:412:GLN:NE2 | 2.21 | 0.56 |
| 7:QA:422:CYS:HB3 | 7:QA:429:HIS:HB2 | 1.88 | 0.56 |
| 8:EB:27:LEU:HD11 | 8:FB:89:ILE:HA | 1.87 | 0.56 |
| 8:GB:79:GLY:HA3 | 8:GB:163:TYR:CZ | 2.41 | 0.56 |
| 8:MB:7:LYS:NZ | 8:NB:120:SER:OG | 2.39 | 0.56 |
| 8:OB:58:ASP:HB3 | 8:OB:70:ASN:HD21 | 1.69 | 0.56 |
| 3:M:92:VAL:HG12 | 3:M:101:LEU:HD11 | 1.87 | 0.55 |
| 5:Y:151:LYS:HG2 | 5:9:21:LYS:HE2 | 1.88 | 0.55 |
| 5:Y:383:ILE:HD11 | 5:Y:444:PHE:HB2 | 1.88 | 0.55 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 5:Z:330:VAL:HA | 5:Z:333:ILE:HD12 | 1.88 | 0.55 |
| 5:1:330:VAL:HA | 5:1:333:ILE:HD12 | 1.88 | 0.55 |
| 5:5:124:CYS:HB2 | 5:5:133:VAL:HB | 1.88 | 0.55 |
| 5:6:40:PHE:O | 5:6:43:GLN:HG2 | 2.06 | 0.55 |
| 5:6:334:ASN:OD1 | 5:6:367:LYS:NZ | 2.28 | 0.55 |
| 6:d:81:LEU:N | 6:d:84:ARG:HH21 | 2.04 | 0.55 |
| 6:f:98:ASN:HA | 6:f:101:ILE:HD12 | 1.89 | 0.55 |
| 7:h:107:MET:O | 7:h:114:PRO:HA | 2.06 | 0.55 |
| 7:i:152:ILE:O | 7:i:231:LYS:NZ | 2.24 | 0.55 |
| 7:n:61:GLU:H | 7:n:61:GLU:CD | 2.13 | 0.55 |
| 7:o:48:LYS:HD2 | 7:o:49:PRO:HD2 | 1.88 | 0.55 |
| 7:o:213:LEU:O | 7:o:214:ARG:HD3 | 2.06 | 0.55 |
| 7:p:260:ASN:ND2 | 7:DA:390:ASP:O | 2.39 | 0.55 |
| 7:q:529:LYS:HG2 | 7:r:23:ALA:HB1 | 1.88 | 0.55 |
| 7:r:213:LEU:O | 7:r:214:ARG:HD3 | 2.06 | 0.55 |
| 7:r:218:ASN:HD22 | 7:r:221:LEU:HD12 | 1.72 | 0.55 |
| 7:CA:151:THR:HG23 | 7:CA:231:LYS:HG3 | 1.88 | 0.55 |
| 7:CA:449:ARG:NH2 | 7:IA:407:VAL:O | 2.39 | 0.55 |
| 7:CA:468:THR:O | 7:CA:471:LEU:HG | 2.05 | 0.55 |
| 7:EA:405:VAL:HG12 | 7:EA:413:MET:CE | 2.35 | 0.55 |
| 7:MA:422:CYS:HB3 | 7:MA:429:HIS:HB2 | 1.88 | 0.55 |
| 7:NA:38:TRP:HB3 | 7:NA:350:TYR:CE1 | 2.40 | 0.55 |
| 7:NA:125:ILE:HG21 | 7:NA:216:VAL:HG21 | 1.87 | 0.55 |
| 7:OA:38:TRP:HB3 | 7:OA:350:TYR:CE1 | 2.41 | 0.55 |
| 7:QA:44:PHE:HB2 | 7:QA:95:ARG:HD2 | 1.88 | 0.55 |
| 8:BB:27:LEU:HD11 | 8:CB:89:ILE:HA | 1.87 | 0.55 |
| 8:CB:30:SER:OG | 8:DB:150:ASP:O | 2.23 | 0.55 |
| 8:HB:130:THR:HG22 | 8:IB:94:LEU:HD21 | 1.87 | 0.55 |
| 8:MB:120:SER:H | 8:MB:125:VAL:HG23 | 1.70 | 0.55 |
| 8:MB:120:SER:OG | 8:RB:7:LYS:NZ | 2.39 | 0.55 |
| 8:QB:25:GLU:O | 8:QB:26:ARG:NH1 | 2.39 | 0.55 |
| 1:E:47:TRP:HH2 | 8:EB:74:PRO:HA | 1.71 | 0.55 |
| 1:E:56:LEU:HD21 | 1:E:111:TRP:CG | 2.40 | 0.55 |
| 3:O:13:LEU:H | 7:i:527:LEU:HD11 | 1.71 | 0.55 |
| 3:O:58:HIS:ND1 | 3:O:118:LEU:OXT | 2.39 | 0.55 |
| 3:P:21:TYR:O | 3:P:24:GLN:NE2 | 2.34 | 0.55 |
| 3:P:115:ASP:OD1 | 7:j:524:VAL:N | 2.30 | 0.55 |
| 5:Y:330:VAL:HA | 5:Y:333:ILE:HD12 | 1.88 | 0.55 |
| 5:0:429:LYS:HE2 | 5:7:432:TRP:HE1 | 1.71 | 0.55 |
| 5:6:203:LYS:HD3 | 5:6:205:SER:H | 1.71 | 0.55 |
| 7:n:149:GLU:HG3 | 7:n:234:ALA:HB2 | 1.87 | 0.55 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 7:o:149:GLU:HG3 | 7:o:234:ALA:HB2 | 1.87 | 0.55 |
| 7:q:328:TYR:CE1 | 7:q:330:PHE:HB2 | 2.41 | 0.55 |
| 7:r:149:GLU:HG3 | 7:r:234:ALA:HB2 | 1.87 | 0.55 |
| 7:DA:405:VAL:O | 7:EA:3:GLN:NE2 | 2.38 | 0.55 |
| 7:EA:103:PHE:HB3 | 7:EA:121:TYR:CZ | 2.41 | 0.55 |
| 7:GA:256:LYS:NZ | 7:MA:389:GLU:O | 2.39 | 0.55 |
| 7:IA:460:ALA:O | 7:IA:464:THR:HG23 | 2.07 | 0.55 |
| 7:KA:2:SER:OG | 7:KA:3:GLN:N | 2.38 | 0.55 |
| 7:LA:449:ARG:NH2 | 7:RA:410:SER:OG | 2.32 | 0.55 |
| 7:LA:504:ASP:HA | 7:LA:506:TRP:CZ3 | 2.41 | 0.55 |
| 7:NA:408:GLY:HA3 | 7:NA:412:GLN:NE2 | 2.21 | 0.55 |
| 7:OA:112:GLY:O | 7:OA:230:LYS:NZ | 2.38 | 0.55 |
| 7:QA:2:SER:OG | 7:QA:3:GLN:N | 2.35 | 0.55 |
| 7:QA:103:PHE:HB3 | 7:QA:121:TYR:CZ | 2.42 | 0.55 |
| 8:IB:168:TRP:HB2 | 8:JB:98:LYS:HZ2 | 1.72 | 0.55 |
| 1:B:41:MET:HE1 | 7:o:362:ASP:HB3 | 1.88 | 0.55 |
| 2:J:162:ARG:HG3 | 2:J:168:PHE:HD1 | 1.71 | 0.55 |
| 3:M:58:HIS:ND1 | 3:M:118:LEU:OXT | 2.39 | 0.55 |
| 4:V:48:LEU:HB3 | 4:V:98:LYS:HB3 | 1.89 | 0.55 |
| 4:X:117:GLN:HE21 | 5:3:160:LYS:HB2 | 1.72 | 0.55 |
| 5:0:127:VAL:N | 5:0:130:THR:O | 2.32 | 0.55 |
| 5:2:151:LYS:HG2 | 5:7:21:LYS:HE2 | 1.87 | 0.55 |
| 5:3:330:VAL:HA | 5:3:333:ILE:HD12 | 1.89 | 0.55 |
| 5:6:381:ILE:HG12 | 5:6:463:LEU:HD11 | 1.87 | 0.55 |
| 7:g:151:THR:HB | 7:g:168:LYS:HE3 | 1.89 | 0.55 |
| 7:i:432:HIS:O | 7:i:435:SER:OG | 2.18 | 0.55 |
| 7:k:37:LEU:O | 7:k:266:THR:N | 2.39 | 0.55 |
| 7:l:311:GLU:HB3 | 7:l:316:LEU:HD12 | 1.89 | 0.55 |
| 7:m:365:GLY:HA3 | 7:m:368:TYR:CE2 | 2.42 | 0.55 |
| 7:n:213:LEU:O | 7:n:214:ARG:HD3 | 2.06 | 0.55 |
| 7:q:418:ALA:HB1 | 7:q:431:GLN:HG2 | 1.87 | 0.55 |
| 7:FA:449:ARG:NH2 | 7:LA:407:VAL:O | 2.39 | 0.55 |
| 7:HA:256:LYS:NZ | 7:NA:389:GLU:O | 2.39 | 0.55 |
| 7:HA:296:ASP:OD1 | 7:HA:297:VAL:N | 2.39 | 0.55 |
| 7:IA:256:LYS:NZ | 7:OA:389:GLU:O | 2.39 | 0.55 |
| 7:QA:171:GLN:HB2 | 7:QA:181:LEU:HD11 | 1.87 | 0.55 |
| 7:QA:423:THR:OG1 | 7:QA:424:GLN:OE1 | 2.20 | 0.55 |
| 7:RA:422:CYS:HB3 | 7:RA:429:HIS:HB2 | 1.89 | 0.55 |
| 8:IB:26:ARG:HA | 8:JB:88:THR:HA | 1.87 | 0.55 |
| 8:KB:75:ILE:HD11 | 8:LB:104:LYS:HE3 | 1.88 | 0.55 |
| 8:NB:45:LEU:HD23 | 8:NB:85:CYS:HB2 | 1.87 | 0.55 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 3:Q:24:GLN:HB3 | 3:Q:28:TRP:CZ3 | 2.40 | 0.55 |
| 3:Q:87:ILE:HG23 | 3:Q:105:ILE:HD11 | 1.88 | 0.55 |
| 5:Y:58:GLU:OE2 | 5:4:1:MET:N | 2.39 | 0.55 |
| 5:0:203:LYS:HD3 | 5:0:205:SER:H | 1.72 | 0.55 |
| 5:0:383:ILE:HD11 | 5:0:444:PHE:HB2 | 1.88 | 0.55 |
| 5:2:188:PHE:CE1 | 5:2:213:GLY:HA2 | 2.41 | 0.55 |
| 5:3:363:ASN:OD1 | 5:9:295:TRP:NE1 | 2.39 | 0.55 |
| 5:6:333:ILE:O | 5:6:335:LYS:NZ | 2.28 | 0.55 |
| 5:8:102:ALA:HA | 5:8:126:LEU:HD12 | 1.88 | 0.55 |
| 7:k:269:LEU:HD13 | 7:k:294:PHE:HB2 | 1.86 | 0.55 |
| 7:l:37:LEU:O | 7:l:266:THR:N | 2.40 | 0.55 |
| 7:q:218:ASN:HD22 | 7:q:221:LEU:HD12 | 1.72 | 0.55 |
| 7:BA:471:LEU:HB2 | 7:BA:494:TYR:CD2 | 2.40 | 0.55 |
| 7:CA:111:SER:OG | 7:CA:113:GLU:OE1 | 2.22 | 0.55 |
| 7:CA:196:MET:SD | 7:HA:529:LYS:NZ | 2.72 | 0.55 |
| 7:EA:520:ARG:CZ | 7:FA:10:LEU:HG | 2.35 | 0.55 |
| 7:FA:39:ALA:HB2 | 7:FA:92:TYR:HB2 | 1.89 | 0.55 |
| 7:FA:269:LEU:HD21 | 7:FA:350:TYR:CD2 | 2.40 | 0.55 |
| 7:HA:46:ARG:HH22 | 7:HA:62:ASP:C | 2.13 | 0.55 |
| 7:IA:2:SER:OG | 7:IA:3:GLN:N | 2.39 | 0.55 |
| 7:IA:207:GLU:OE2 | 7:OA:339:SER:OG | 2.22 | 0.55 |
| 7:JA:171:GLN:HE21 | 7:JA:179:THR:HB | 1.71 | 0.55 |
| 7:OA:302:THR:OG1 | 7:OA:305:GLU:OE1 | 2.24 | 0.55 |
| 7:PA:465:LYS:HB3 | 7:PA:469:LYS:HZ1 | 1.71 | 0.55 |
| 7:RA:44:PHE:HB2 | 7:RA:95:ARG:HD2 | 1.89 | 0.55 |
| 8:BB:10:ARG:O | 8:BB:14:LYS:HG2 | 2.07 | 0.55 |
| 8:FB:10:ARG:O | 8:FB:14:LYS:HG2 | 2.07 | 0.55 |
| 8:FB:106:TYR:CE1 | 8:FB:138:LYS:HE2 | 2.41 | 0.55 |
| 8:GB:25:GLU:HB2 | 8:HB:89:ILE:HD11 | 1.87 | 0.55 |
| 8:IB:79:GLY:HA3 | 8:IB:163:TYR:CZ | 2.41 | 0.55 |
| 8:MB:76:ARG:HH22 | 8:RB:68:LYS:HE3 | 1.71 | 0.55 |
| 8:PB:70:ASN:OD1 | 8:PB:71:GLN:N | 2.39 | 0.55 |
| 1:B:60:ASP:OD1 | 1:B:61:PHE:N | 2.38 | 0.55 |
| 1:C:45:GLN:NE2 | 1:D:173:PHE:HA | 2.22 | 0.55 |
| 1:C:65:ASP:OD1 | 1:C:66:ILE:N | 2.40 | 0.55 |
| 1:E:62:PHE:O | 1:E:101:ARG:HD3 | 2.06 | 0.55 |
| 2:H:162:ARG:HG3 | 2:H:168:PHE:HD1 | 1.71 | 0.55 |
| 2:K:186:SER:O | 2:K:190:ARG:HG2 | 2.06 | 0.55 |
| 3:O:15:LEU:HD11 | 7:j:21:ILE:HG23 | 1.87 | 0.55 |
| 4:S:34:ARG:NH2 | 5:4:58:GLU:OE2 | 2.39 | 0.55 |
| 4:V:64:LEU:HA | 4:V:67:ARG:HG2 | 1.89 | 0.55 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 5:1:303:LEU:HD13 | 5:1:354:ILE:HD11 | 1.88 | 0.55 |
| 5:4:187:MET:HE1 | 6:a:95:ARG:CZ | 2.37 | 0.55 |
| 5:4:203:LYS:HD3 | 5:4:205:SER:H | 1.71 | 0.55 |
| 5:4:381:ILE:HG12 | 5:4:463:LEU:HD11 | 1.87 | 0.55 |
| 5:6:182:TRP:HZ2 | 5:6:219:GLN:HE21 | 1.52 | 0.55 |
| 5:7:102:ALA:HA | 5:7:126:LEU:HD12 | 1.88 | 0.55 |
| 5:8:40:PHE:O | 5:8:43:GLN:HG2 | 2.06 | 0.55 |
| 6:a:81:LEU:N | 6:a:84:ARG:HH21 | 2.04 | 0.55 |
| 6:e:98:ASN:HA | 6:e:101:ILE:HD12 | 1.89 | 0.55 |
| 7:h:76:PHE:O | 7:h:80:ARG:HG2 | 2.07 | 0.55 |
| 7:i:151:THR:HB | 7:i:168:LYS:HE3 | 1.89 | 0.55 |
| 7:i:334:ASP:OD2 | 7:i:337:THR:OG1 | 2.22 | 0.55 |
| 7:j:503:PHE:CZ | 7:p:516:GLY:HA2 | 2.42 | 0.55 |
| 7:l:76:PHE:O | 7:l:80:ARG:HG2 | 2.07 | 0.55 |
| 7:m:61:GLU:H | 7:m:61:GLU:CD | 2.14 | 0.55 |
| 7:BA:192:ALA:O | 7:BA:200:CYS:N | 2.39 | 0.55 |
| 7:CA:447:LEU:O | 7:CA:450:GLN:NE2 | 2.39 | 0.55 |
| 7:DA:373:GLU:OE2 | 7:DA:409:THR:OG1 | 2.15 | 0.55 |
| 7:EA:449:ARG:NH2 | 7:KA:407:VAL:O | 2.40 | 0.55 |
| 7:HA:171:GLN:HE21 | 7:HA:179:THR:HB | 1.72 | 0.55 |
| 7:JA:210:SER:OG | 7:JA:214:ARG:NH2 | 2.39 | 0.55 |
| 7:JA:334:ASP:OD2 | 7:JA:337:THR:OG1 | 2.21 | 0.55 |
| 7:KA:328:TYR:CZ | 7:KA:330:PHE:HB2 | 2.42 | 0.55 |
| 8:AB:150:ASP:O | 8:FB:30:SER:OG | 2.24 | 0.55 |
| 8:HB:32:PHE:N | 8:MB:65:ASN:HD21 | 2.05 | 0.55 |
| 8:IB:41:ASP:OD1 | 8:IB:42:ILE:HD12 | 2.06 | 0.55 |
| 8:KB:13:ILE:HA | 8:KB:16:ARG:HG2 | 1.87 | 0.55 |
| 8:KB:48:THR:OG1 | 8:LB:149:GLU:OE2 | 2.25 | 0.55 |
| 8:MB:39:HIS:HB3 | 8:MB:42:ILE:HD13 | 1.88 | 0.55 |
| 8:OB:25:GLU:O | 8:OB:26:ARG:NH1 | 2.39 | 0.55 |
| 8:OB:70:ASN:OD1 | 8:OB:71:GLN:N | 2.40 | 0.55 |
| 8:QB:169:ASP:HA | 8:RB:98:LYS:NZ | 2.22 | 0.55 |
| 1:D:45:GLN:NE2 | 1:E:173:PHE:HA | 2.22 | 0.55 |
| 2:I:162:ARG:HG3 | 2:I:168:PHE:HD1 | 1.72 | 0.55 |
| 2:J:18:TYR:HE2 | 2:J:143:ARG:HE | 1.55 | 0.55 |
| 2:K:162:ARG:HG3 | 2:K:168:PHE:HD1 | 1.71 | 0.55 |
| 3:P:12:THR:HB | 7:j:527:LEU:HD22 | 1.87 | 0.55 |
| 3:P:92:VAL:HG12 | 3:P:101:LEU:HD11 | 1.87 | 0.55 |
| 3:P:117:VAL:HG11 | 7:j:522:GLN:H | 1.71 | 0.55 |
| 4:U:31:ALA:O | 4:U:34:ARG:HG3 | 2.06 | 0.55 |
| 4:U:52:TYR:HB3 | 4:U:94:GLY:HA2 | 1.88 | 0.55 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 4:V:33:LEU:HD11 | 4:V:112:PHE:HD2 | 1.71 | 0.55 |
| 4:X:65:ALA:HA | 4:X:69:TRP:CE3 | 2.41 | 0.55 |
| 5:Y:29:VAL:HB | 5:5:241:VAL:HG22 | 1.88 | 0.55 |
| 5:0:330:VAL:HA | 5:0:333:ILE:HD12 | 1.89 | 0.55 |
| 5:2:429:LYS:HE2 | 5:9:432:TRP:HE1 | 1.72 | 0.55 |
| 5:5:203:LYS:HD3 | 5:5:205:SER:H | 1.71 | 0.55 |
| 5:6:124:CYS:HB2 | 5:6:133:VAL:HB | 1.89 | 0.55 |
| 5:7:381:ILE:HG12 | 5:7:463:LEU:HD11 | 1.87 | 0.55 |
| 5:8:244:GLN:N | 5:8:263:THR:OG1 | 2.34 | 0.55 |
| 6:a:98:ASN:HA | 6:a:101:ILE:HD12 | 1.89 | 0.55 |
| 7:g:37:LEU:O | 7:g:266:THR:N | 2.39 | 0.55 |
| 7:m:33:LEU:HD11 | 7:m:358:LYS:HD2 | 1.89 | 0.55 |
| 7:n:510:TRP:HZ3 | 7:BA:523:GLY:HA3 | 1.71 | 0.55 |
| 7:BA:151:THR:HG23 | 7:BA:231:LYS:HG3 | 1.87 | 0.55 |
| 7:DA:109:ASP:HA | 7:DA:131:GLU:HA | 1.87 | 0.55 |
| 7:DA:110:GLU:O | 7:DA:226:LYS:N | 2.34 | 0.55 |
| 7:EA:192:ALA:O | 7:EA:200:CYS:N | 2.39 | 0.55 |
| 7:IA:210:SER:OG | 7:IA:214:ARG:NH2 | 2.39 | 0.55 |
| 7:IA:504:ASP:HA | 7:IA:506:TRP:CZ3 | 2.42 | 0.55 |
| 7:JA:202:LEU:HB2 | 7:JA:203:PRO:HD3 | 1.89 | 0.55 |
| 7:KA:171:GLN:HE21 | 7:KA:179:THR:HB | 1.72 | 0.55 |
| 7:NA:44:PHE:HB2 | 7:NA:95:ARG:HD2 | 1.89 | 0.55 |
| 7:PA:38:TRP:HB3 | 7:PA:350:TYR:CE1 | 2.41 | 0.55 |
| 7:RA:103:PHE:HB3 | 7:RA:121:TYR:CZ | 2.42 | 0.55 |
| 8:AB:140:TYR:OH | 8:FB:56:ARG:NE | 2.40 | 0.55 |
| 8:BB:56:ARG:NH1 | 8:BB:72:HIS:HA | 2.22 | 0.55 |
| 8:DB:30:SER:OG | 8:EB:150:ASP:O | 2.25 | 0.55 |
| 8:GB:26:ARG:HA | 8:HB:88:THR:HA | 1.87 | 0.55 |
| 8:LB:31:GLU:HA | 8:QB:65:ASN:OD1 | 2.05 | 0.55 |
| 8:LB:41:ASP:OD1 | 8:LB:42:ILE:HD12 | 2.06 | 0.55 |
| 8:OB:26:ARG:NH2 | 8:PB:87:GLU:O | 2.39 | 0.55 |
| 8:PB:94:LEU:HA | 8:PB:97:ILE:HG12 | 1.88 | 0.55 |
| 2:G:162:ARG:HG3 | 2:G:168:PHE:HD1 | 1.71 | 0.55 |
| 2:G:180:SER:OG | 2:G:183:TYR:OH | 2.13 | 0.55 |
| 3:N:58:HIS:CD2 | 7:h:371:ALA:HB3 | 2.41 | 0.55 |
| 3:O:117:VAL:HG21 | 7:i:521:ILE:HG23 | 1.88 | 0.55 |
| 5:Y:203:LYS:HD3 | 5:Y:205:SER:H | 1.72 | 0.55 |
| 5:Z:203:LYS:HD3 | 5:Z:205:SER:H | 1.72 | 0.55 |
| 5:2:383:ILE:HD11 | 5:2:444:PHE:HB2 | 1.88 | 0.55 |
| 5:6:102:ALA:HA | 5:6:126:LEU:HD12 | 1.88 | 0.55 |
| 7:g:69:LYS:O | 7:g:72:SER:OG | 2.17 | 0.55 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:i:503:PHE:CZ | 7:o:516:GLY:HA2 | 2.42 | 0.55 |
| 7:k:311:GLU:HB3 | 7:k:316:LEU:HD12 | 1.89 | 0.55 |
| 7:k:398:VAL:HG23 | 7:k:419:LEU:HD13 | 1.89 | 0.55 |
| 7:q:356:GLY:HA3 | 7:q:375:ARG:HD3 | 1.88 | 0.55 |
| 7:q:356:GLY:HA2 | 7:q:359:LYS:HE3 | 1.89 | 0.55 |
| 7:AA:8:GLN:HB3 | 7:AA:20:PRO:HG3 | 1.89 | 0.55 |
| 7:EA:355:ARG:HH12 | 7:EA:375:ARG:CZ | 2.20 | 0.55 |
| 7:EA:398:VAL:HG21 | 7:FA:13:ALA:HA | 1.88 | 0.55 |
| 7:MA:385:PRO:HG2 | 7:MA:388:PRO:HG3 | 1.89 | 0.55 |
| 7:QA:173:THR:HG22 | 7:QA:177:VAL:H | 1.72 | 0.55 |
| 7:RA:385:PRO:HG2 | 7:RA:388:PRO:HG3 | 1.89 | 0.55 |
| 8:AB:10:ARG:O | 8:AB:14:LYS:HG2 | 2.07 | 0.55 |
| 8:AB:168:TRP:CG | 8:BB:98:LYS:HZ3 | 2.25 | 0.55 |
| 8:HB:75:ILE:HD11 | 8:IB:104:LYS:HE3 | 1.88 | 0.55 |
| 8:IB:134:MET:HE1 | 8:IB:166:ILE:HD12 | 1.88 | 0.55 |
| 8:JB:90:GLU:OE2 | 8:JB:90:GLU:N | 2.25 | 0.55 |
| 8:OB:94:LEU:HA | 8:OB:97:ILE:HG12 | 1.87 | 0.55 |
| 1:F:65:ASP:OD1 | 1:F:66:ILE:N | 2.40 | 0.55 |
| 2:G:18:TYR:HE2 | 2:G:143:ARG:HE | 1.55 | 0.55 |
| 3:O:92:VAL:HG12 | 3:O:101:LEU:HD11 | 1.87 | 0.55 |
| 3:Q:117:VAL:HG11 | 7:k:522:GLN:H | 1.72 | 0.55 |
| 4:V:65:ALA:HA | 4:V:69:TRP:CE3 | 2.42 | 0.55 |
| 4:X:52:TYR:HB3 | 4:X:94:GLY:HA2 | 1.89 | 0.55 |
| 5:0:363:ASN:OD1 | 5:6:295:TRP:NE1 | 2.39 | 0.55 |
| 5:1:363:ASN:OD1 | 5:7:295:TRP:NE1 | 2.39 | 0.55 |
| 5:2:363:ASN:OD1 | 5:8:295:TRP:NE1 | 2.40 | 0.55 |
| 5:4:310:LEU:O | 5:4:419:ARG:NH1 | 2.40 | 0.55 |
| 5:9:40:PHE:O | 5:9:43:GLN:HG2 | 2.07 | 0.55 |
| 6:f:47:SER:HB3 | 6:f:50:SER:HB2 | 1.89 | 0.55 |
| 7:g:357:VAL:HG13 | 7:g:358:LYS:HG2 | 1.88 | 0.55 |
| 7:i:76:PHE:O | 7:i:80:ARG:HG2 | 2.07 | 0.55 |
| 7:l:151:THR:HB | 7:l:168:LYS:HE3 | 1.89 | 0.55 |
| 7:n:356:GLY:HA3 | 7:n:375:ARG:HD3 | 1.89 | 0.55 |
| 7:o:529:LYS:HG2 | 7:p:23:ALA:HB1 | 1.88 | 0.55 |
| 7:p:488:ALA:HB1 | 7:EA:335:LYS:HG2 | 1.88 | 0.55 |
| 7:BA:465:LYS:O | 7:BA:468:THR:OG1 | 2.22 | 0.55 |
| 7:HA:2:SER:OG | 7:HA:3:GLN:N | 2.39 | 0.55 |
| 7:HA:94:VAL:HG21 | 7:HA:258:LEU:HB3 | 1.88 | 0.55 |
| 7:JA:94:VAL:HG21 | 7:JA:258:LEU:HB3 | 1.88 | 0.55 |
| 7:JA:328:TYR:CZ | 7:JA:330:PHE:HB2 | 2.42 | 0.55 |
| 7:JA:504:ASP:HA | 7:JA:506:TRP:CZ3 | 2.41 | 0.55 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 7:KA:460:ALA:O | 7:KA:464:THR:HG23 | 2.07 | 0.55 |
| 7:NA:333:LYS:HB2 | 7:NA:381:ALA:HB3 | 1.88 | 0.55 |
| 8:OB:111:MET:HE3 | 8:OB:112:ALA:N | 2.22 | 0.55 |
| 8:QB:45:LEU:HD23 | 8:QB:85:CYS:HB2 | 1.88 | 0.55 |
| 8:RB:25:GLU:O | 8:RB:26:ARG:NH1 | 2.39 | 0.55 |
| 8:RB:111:MET:HE3 | 8:RB:112:ALA:N | 2.22 | 0.55 |
| 1:A:45:GLN:NE2 | 1:B:173:PHE:HA | 2.22 | 0.55 |
| 1:A:60:ASP:OD1 | 1:A:61:PHE:N | 2.39 | 0.55 |
| 1:A:78:ILE:HG12 | 1:A:85:ILE:O | 2.07 | 0.55 |
| 1:A:112:PHE:CZ | 1:A:116:LYS:HD2 | 2.42 | 0.55 |
| 1:C:155:VAL:HG12 | 1:C:182:LEU:HA | 1.89 | 0.55 |
| 1:E:40:LYS:HB3 | 8:EB:69:PHE:HZ | 1.70 | 0.55 |
| 1:E:112:PHE:CZ | 1:E:116:LYS:HD2 | 2.42 | 0.55 |
| 3:P:58:HIS:CD2 | 7:j:371:ALA:HB3 | 2.41 | 0.55 |
| 4:W:118:VAL:O | 4:W:120:GLY:N | 2.38 | 0.55 |
| 4:X:44:ASN:OD1 | 5:8:27:LYS:NZ | 2.38 | 0.55 |
| 5:Y:160:LYS:HA | 5:Y:163:THR:OG1 | 2.07 | 0.55 |
| 5:Y:363:ASN:OD1 | 5:4:295:TRP:NE1 | 2.39 | 0.55 |
| 5:Z:383:ILE:HD11 | 5:Z:444:PHE:HB2 | 1.88 | 0.55 |
| 5:1:377:LEU:N | 5:1:460:PHE:O | 2.28 | 0.55 |
| 5:3:383:ILE:HD11 | 5:3:444:PHE:HB2 | 1.88 | 0.55 |
| 5:5:90:MET:SD | 5:5:132:THR:HB | 2.47 | 0.55 |
| 5:5:389:ALA:HB3 | 6:a:70:ARG:HH21 | 1.71 | 0.55 |
| 5:7:187:MET:HE1 | 6:d:95:ARG:CZ | 2.37 | 0.55 |
| 5:7:203:LYS:HD3 | 5:7:205:SER:H | 1.71 | 0.55 |
| 6:b:98:ASN:HA | 6:b:101:ILE:HD12 | 1.89 | 0.55 |
| 6:c:38:TRP:O | 6:c:41:ARG:HG3 | 2.07 | 0.55 |
| 7:g:107:MET:O | 7:g:114:PRO:HA | 2.06 | 0.55 |
| 7:h:37:LEU:O | 7:h:266:THR:N | 2.39 | 0.55 |
| 7:i:311:GLU:HB3 | 7:i:316:LEU:HD12 | 1.89 | 0.55 |
| 7:j:76:PHE:O | 7:j:80:ARG:HG2 | 2.07 | 0.55 |
| 7:j:226:LYS:NZ | 7:j:227:VAL:O | 2.28 | 0.55 |
| 7:j:496:LEU:HD12 | 7:j:509:VAL:O | 2.07 | 0.55 |
| 7:m:418:ALA:HB1 | 7:m:431:GLN:HG2 | 1.87 | 0.55 |
| 7:m:449:ARG:HH21 | 7:AA:409:THR:HG23 | 1.72 | 0.55 |
| 7:m:488:ALA:HB1 | 7:BA:335:LYS:HG2 | 1.89 | 0.55 |
| 7:o:164:ARG:HG2 | 7:o:187:SER:HB2 | 1.89 | 0.55 |
| 7:q:149:GLU:HG3 | 7:q:234:ALA:HB2 | 1.87 | 0.55 |
| 7:q:158:ASP:OD1 | 7:q:164:ARG:NE | 2.29 | 0.55 |
| 7:r:61:GLU:CD | 7:r:61:GLU:H | 2.13 | 0.55 |
| 7:r:488:ALA:HB1 | 7:AA:335:LYS:HG2 | 1.88 | 0.55 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 7:AA:264:MET:HE1 | 7:HA:4:TYR:CZ | 2.42 | 0.55 |
| 7:BA:60:TYR:HA | 7:BA:63:VAL:HG22 | 1.87 | 0.55 |
| 7:BA:373:GLU:OE2 | 7:BA:409:THR:OG1 | 2.16 | 0.55 |
| 7:BA:405:VAL:HG12 | 7:BA:413:MET:CE | 2.35 | 0.55 |
| 7:DA:264:MET:HE1 | 7:KA:4:TYR:CZ | 2.42 | 0.55 |
| 7:DA:446:GLN:HA | 7:DA:449:ARG:HG2 | 1.86 | 0.55 |
| 7:KA:504:ASP:HA | 7:KA:506:TRP:CZ3 | 2.41 | 0.55 |
| 8:AB:30:SER:OG | 8:BB:150:ASP:O | 2.24 | 0.55 |
| 8:EB:10:ARG:O | 8:EB:14:LYS:HG2 | 2.06 | 0.55 |
| 8:GB:149:GLU:OE2 | 8:LB:48:THR:OG1 | 2.25 | 0.55 |
| 8:LB:79:GLY:HA3 | 8:LB:163:TYR:CZ | 2.41 | 0.55 |
| 8:LB:79:GLY:HA3 | 8:LB:163:TYR:CE1 | 2.42 | 0.55 |
| 8:MB:70:ASN:OD1 | 8:MB:71:GLN:N | 2.39 | 0.55 |
| 8:OB:45:LEU:HD23 | 8:OB:85:CYS:HB2 | 1.88 | 0.55 |
| 8:OB:116:GLU:HA | 8:OB:119:SER:OG | 2.07 | 0.55 |
| 1:C:64:LYS:HZ1 | 1:C:175:SER:HB3 | 1.72 | 0.55 |
| 1:C:78:ILE:HG12 | 1:C:85:ILE:O | 2.07 | 0.55 |
| 1:D:155:VAL:HG12 | 1:D:182:LEU:HA | 1.89 | 0.55 |
| 3:M:13:LEU:H | 7:g:527:LEU:HD11 | 1.72 | 0.55 |
| 3:M:57:LYS:HE2 | 7:h:3:GLN:HB3 | 1.89 | 0.55 |
| 3:N:40:GLN:NE2 | 3:N:52:VAL:HG22 | 2.22 | 0.55 |
| 3:N:87:ILE:HG23 | 3:N:105:ILE:HD11 | 1.88 | 0.55 |
| 3:N:117:VAL:HG11 | 7:h:522:GLN:H | 1.72 | 0.55 |
| 4:S:65:ALA:HA | 4:S:69:TRP:CE3 | 2.42 | 0.55 |
| 4:T:44:ASN:ND2 | 5:4:23:SER:O | 2.40 | 0.55 |
| 4:U:64:LEU:HA | 4:U:67:ARG:HG2 | 1.89 | 0.55 |
| 5:Z:378:PRO:HB3 | 5:Z:462:TYR:CZ | 2.42 | 0.55 |
| 5:Z:429:LYS:HE2 | 5:6:432:TRP:HE1 | 1.72 | 0.55 |
| 5:0:378:PRO:HB3 | 5:0:462:TYR:CZ | 2.42 | 0.55 |
| 5:1:102:ALA:O | 5:1:126:LEU:N | 2.33 | 0.55 |
| 5:3:151:LYS:HG2 | 5:8:21:LYS:HE2 | 1.88 | 0.55 |
| 5:9:380:LYS:NZ | 5:9:450:GLU:OE1 | 2.31 | 0.55 |
| 6:c:98:ASN:HA | 6:c:101:ILE:HD12 | 1.88 | 0.55 |
| 6:e:38:TRP:O | 6:e:41:ARG:HG3 | 2.07 | 0.55 |
| 7:g:76:PHE:O | 7:g:80:ARG:HG2 | 2.07 | 0.55 |
| 7:g:159:SER:HB2 | 7:m:175:LEU:HG | 1.89 | 0.55 |
| 7:i:69:LYS:O | 7:i:72:SER:OG | 2.16 | 0.55 |
| 7:k:503:PHE:CZ | 7:q:516:GLY:HA2 | 2.42 | 0.55 |
| 7:l:362:ASP:OD1 | 7:l:363:VAL:N | 2.37 | 0.55 |
| 7:p:136:TYR:CE2 | 7:p:214:ARG:HB2 | 2.42 | 0.55 |
| 7:q:488:ALA:HB1 | 7:FA:335:LYS:HG2 | 1.88 | 0.55 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:BA:103:PHE:HB3 | 7:BA:121:TYR:CZ | 2.41 | 0.55 |
| 7:DA:398:VAL:HG21 | 7:EA:13:ALA:HA | 1.88 | 0.55 |
| 7:FA:110:GLU:O | 7:FA:226:LYS:N | 2.33 | 0.55 |
| 7:HA:460:ALA:O | 7:HA:464:THR:HG23 | 2.07 | 0.55 |
| 7:KA:94:VAL:HG21 | 7:KA:258:LEU:HB3 | 1.88 | 0.55 |
| 7:RA:485:ASP:OD1 | 7:RA:489:ASP:HB2 | 2.07 | 0.55 |
| 8:DB:16:ARG:HH21 | 8:JB:64:PRO:HG2 | 1.70 | 0.55 |
| 8:HB:41:ASP:OD1 | 8:HB:42:ILE:HD12 | 2.06 | 0.55 |
| 8:IB:79:GLY:HA3 | 8:IB:163:TYR:CE1 | 2.42 | 0.55 |
| 8:OB:168:TRP:CH2 | 8:PB:97:ILE:HG13 | 2.41 | 0.55 |
| 1:B:62:PHE:O | 1:B:101:ARG:HD3 | 2.06 | 0.54 |
| 1:C:137:ARG:HB3 | 1:C:152:GLU:OE1 | 2.08 | 0.54 |
| 1:F:140:ARG:HD3 | 1:F:148:LYS:HZ3 | 1.71 | 0.54 |
| 2:I:190:ARG:NH2 | 3:O:107:ILE:HG23 | 2.18 | 0.54 |
| 3:M:58:HIS:CD2 | 7:g:371:ALA:HB3 | 2.41 | 0.54 |
| 3:O:96:ASP:OD1 | 3:O:96:ASP:N | 2.41 | 0.54 |
| 3:Q:58:HIS:CD2 | 7:k:371:ALA:HB3 | 2.42 | 0.54 |
| 3:Q:117:VAL:HG21 | 7:k:521:ILE:HG23 | 1.88 | 0.54 |
| 5:O:112:SER:OG | 5:O:114:ASP:OD1 | 2.16 | 0.54 |
| 5:O:303:LEU:HD13 | 5:O:354:ILE:HD11 | 1.88 | 0.54 |
| 5:1:203:LYS:HD3 | 5:1:205:SER:H | 1.72 | 0.54 |
| 5:3:58:GLU:OE2 | 5:9:1:MET:N | 2.39 | 0.54 |
| 5:3:203:LYS:HD3 | 5:3:205:SER:H | 1.72 | 0.54 |
| 5:3:429:LYS:HE2 | 5:4:432:TRP:HE1 | 1.72 | 0.54 |
| 5:7:147:VAL:HB | 5:7:223:GLU:HA | 1.90 | 0.54 |
| 7:g:398:VAL:HG23 | 7:g:419:LEU:HD13 | 1.89 | 0.54 |
| 7:h:311:GLU:HB3 | 7:h:316:LEU:HD12 | 1.89 | 0.54 |
| 7:i:46:ARG:O | 7:i:95:ARG:NH1 | 2.40 | 0.54 |
| 7:i:302:THR:OG1 | 7:i:305:GLU:OE1 | 2.21 | 0.54 |
| 7:i:355:ARG:NH2 | 7:i:375:ARG:HA | 2.22 | 0.54 |
| 7:k:76:PHE:O | 7:k:80:ARG:HG2 | 2.07 | 0.54 |
| 7:k:281:ALA:HA | 7:k:284:LYS:HE3 | 1.88 | 0.54 |
| 7:m:41:ILE:HG23 | 7:m:258:LEU:HD11 | 1.90 | 0.54 |
| 7:n:135:ILE:HG12 | 7:n:213:LEU:HD12 | 1.89 | 0.54 |
| 7:p:149:GLU:HG3 | 7:p:234:ALA:HB2 | 1.88 | 0.54 |
| 7:p:164:ARG:HG2 | 7:p:187:SER:HB2 | 1.90 | 0.54 |
| 7:q:136:TYR:CE2 | 7:q:214:ARG:HB2 | 2.42 | 0.54 |
| 7:q:362:ASP:HB2 | 7:q:473:ARG:HG2 | 1.90 | 0.54 |
| 7:r:38:TRP:HE1 | 7:r:89:THR:HG23 | 1.72 | 0.54 |
| 7:r:48:LYS:HD2 | 7:r:49:PRO:HD2 | 1.88 | 0.54 |
| 7:EA:465:LYS:O | 7:EA:468:THR:OG1 | 2.22 | 0.54 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:JA:2:SER:OG | 7:JA:3:GLN:N | 2.38 | 0.54 |
| 7:JA:46:ARG:HH22 | 7:JA:62:ASP:C | 2.14 | 0.54 |
| 7:KA:303:TYR:CZ | 7:KA:392:PRO:HA | 2.41 | 0.54 |
| 7:MA:103:PHE:HB3 | 7:MA:121:TYR:CZ | 2.42 | 0.54 |
| 7:NA:103:PHE:HB3 | 7:NA:121:TYR:CZ | 2.42 | 0.54 |
| 7:NA:334:ASP:HB3 | 7:NA:338:GLN:N | 2.22 | 0.54 |
| 7:NA:422:CYS:HB3 | 7:NA:429:HIS:HB2 | 1.88 | 0.54 |
| 7:OA:44:PHE:HB2 | 7:OA:95:ARG:HD2 | 1.89 | 0.54 |
| 7:PA:52:VAL:HG13 | 7:PA:257:VAL:HG12 | 1.89 | 0.54 |
| 7:PA:103:PHE:HB3 | 7:PA:121:TYR:CZ | 2.42 | 0.54 |
| 7:PA:302:THR:OG1 | 7:PA:305:GLU:OE1 | 2.24 | 0.54 |
| 7:QA:434:PRO:HA | 7:QA:437:MET:HE2 | 1.89 | 0.54 |
| 7:RA:334:ASP:HB3 | 7:RA:338:GLN:N | 2.22 | 0.54 |
| 8:HB:139:ILE:HD11 | 8:HB:159:LEU:HB3 | 1.88 | 0.54 |
| 8:IB:75:ILE:HD11 | 8:JB:104:LYS:HE3 | 1.89 | 0.54 |
| 8:KB:134:MET:HE1 | 8:KB:166:ILE:HD12 | 1.88 | 0.54 |
| 8:MB:45:LEU:HD23 | 8:MB:85:CYS:HB2 | 1.88 | 0.54 |
| 8:OB:68:LYS:HE3 | 8:PB:76:ARG:HH22 | 1.73 | 0.54 |
| 8:QB:68:LYS:HE3 | 8:RB:76:ARG:HH22 | 1.72 | 0.54 |
| 8:QB:111:MET:HE3 | 8:QB:112:ALA:N | 2.22 | 0.54 |
| 1:D:137:ARG:HB3 | 1:D:152:GLU:OE1 | 2.08 | 0.54 |
| 3:R:58:HIS:ND1 | 3:R:118:LEU:OXT | 2.40 | 0.54 |
| 4:W:49:THR:OG1 | 4:W:99:LEU:N | 2.40 | 0.54 |
| 5:Y:188:PHE:CE1 | 5:Y:213:GLY:HA2 | 2.42 | 0.54 |
| 5:Y:303:LEU:HD13 | 5:Y:354:ILE:HD11 | 1.88 | 0.54 |
| 5:8:187:MET:SD | 6:e:95:ARG:NH1 | 2.81 | 0.54 |
| 5:9:16:GLU:HA | 5:9:19:VAL:HG22 | 1.89 | 0.54 |
| 7:g:503:PHE:CZ | 7:m:516:GLY:HA2 | 2.42 | 0.54 |
| 7:i:325:VAL:HG13 | 7:i:402:LEU:HD12 | 1.88 | 0.54 |
| 7:j:37:LEU:O | 7:j:266:THR:N | 2.40 | 0.54 |
| 7:j:159:SER:HB2 | 7:p:175:LEU:HG | 1.89 | 0.54 |
| 7:k:362:ASP:OD1 | 7:k:363:VAL:N | 2.37 | 0.54 |
| 7:m:38:TRP:HE1 | 7:m:89:THR:HG23 | 1.72 | 0.54 |
| 7:o:218:ASN:HD22 | 7:o:221:LEU:HD12 | 1.72 | 0.54 |
| 7:CA:302:THR:N | 7:CA:305:GLU:OE2 | 2.40 | 0.54 |
| 7:EA:449:ARG:NH1 | 7:KA:407:VAL:O | 2.38 | 0.54 |
| 7:FA:264:MET:HE1 | 7:GA:4:TYR:CZ | 2.41 | 0.54 |
| 7:IA:46:ARG:HH22 | 7:IA:62:ASP:C | 2.14 | 0.54 |
| 7:IA:334:ASP:OD2 | 7:IA:337:THR:OG1 | 2.22 | 0.54 |
| 7:LA:460:ALA:O | 7:LA:464:THR:HG23 | 2.07 | 0.54 |
| 7:NA:150:LEU:HB2 | 7:NA:233:LEU:HB2 | 1.89 | 0.54 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:NA:173:THR:HG22 | 7:NA:177:VAL:H | 1.72 | 0.54 |
| 7:OA:173:THR:HG22 | 7:OA:177:VAL:H | 1.72 | 0.54 |
| 7:PA:331:SER:OG | 7:PA:340:ARG:NH2 | 2.37 | 0.54 |
| 7:PA:422:CYS:HB3 | 7:PA:429:HIS:HB2 | 1.88 | 0.54 |
| 7:QA:408:GLY:HA3 | 7:QA:412:GLN:NE2 | 2.21 | 0.54 |
| 8:BB:12:PHE:HE1 | 8:CB:123:ASN:C | 2.16 | 0.54 |
| 8:GB:164:ASN:ND2 | 8:LB:70:ASN:OD1 | 2.37 | 0.54 |
| 8:LB:55:THR:HB | 8:LB:76:ARG:NH2 | 2.21 | 0.54 |
| 8:PB:45:LEU:HD23 | 8:PB:85:CYS:HB2 | 1.88 | 0.54 |
| 1:D:112:PHE:CZ | 1:D:116:LYS:HD2 | 2.42 | 0.54 |
| 2:G:139:ASN:HD21 | 2:G:142:ARG:HA | 1.72 | 0.54 |
| 3:N:88:SER:OG | 3:N:106:ARG:O | 2.25 | 0.54 |
| 3:R:40:GLN:NE2 | 3:R:52:VAL:HG22 | 2.23 | 0.54 |
| 4:T:29:LEU:O | 4:T:33:LEU:HD23 | 2.08 | 0.54 |
| 4:W:29:LEU:O | 4:W:33:LEU:HD23 | 2.08 | 0.54 |
| 5:Z:58:GLU:OE2 | 5:5:1:MET:N | 2.40 | 0.54 |
| 5:4:90:MET:SD | 5:4:132:THR:HB | 2.47 | 0.54 |
| 5:5:151:LYS:NZ | 5:5:155:GLU:OE2 | 2.37 | 0.54 |
| 5:5:310:LEU:O | 5:5:419:ARG:NH1 | 2.40 | 0.54 |
| 6:c:1:MET:SD | 6:c:2:GLN:HG3 | 2.48 | 0.54 |
| 6:e:47:SER:HB3 | 6:e:50:SER:HB2 | 1.90 | 0.54 |
| 7:l:46:ARG:NH1 | 7:l:62:ASP:O | 2.40 | 0.54 |
| 7:m:23:ALA:HB1 | 7:r:529:LYS:HG2 | 1.88 | 0.54 |
| 7:m:48:LYS:HD2 | 7:m:49:PRO:HD2 | 1.88 | 0.54 |
| 7:m:260:ASN:ND2 | 7:AA:390:ASP:O | 2.40 | 0.54 |
| 7:n:102:LYS:HZ2 | 7:n:120:PRO:HD3 | 1.72 | 0.54 |
| 7:n:164:ARG:HG2 | 7:n:187:SER:HB2 | 1.89 | 0.54 |
| 7:n:362:ASP:HB2 | 7:n:473:ARG:HG2 | 1.90 | 0.54 |
| 7:q:164:ARG:HG2 | 7:q:187:SER:HB2 | 1.89 | 0.54 |
| 7:AA:302:THR:N | 7:AA:305:GLU:OE2 | 2.41 | 0.54 |
| 7:CA:264:MET:HE1 | 7:JA:4:TYR:CZ | 2.41 | 0.54 |
| 7:DA:355:ARG:NH1 | 7:DA:375:ARG:HB2 | 2.21 | 0.54 |
| 7:FA:447:LEU:O | 7:FA:450:GLN:NE2 | 2.40 | 0.54 |
| 7:GA:94:VAL:HG21 | 7:GA:258:LEU:HB3 | 1.88 | 0.54 |
| 7:GA:173:THR:OG1 | 7:GA:177:VAL:HG12 | 2.08 | 0.54 |
| 7:GA:328:TYR:CZ | 7:GA:330:PHE:HB2 | 2.42 | 0.54 |
| 7:IA:202:LEU:HB2 | 7:IA:203:PRO:HD3 | 1.89 | 0.54 |
| 7:LA:94:VAL:HG21 | 7:LA:258:LEU:HB3 | 1.89 | 0.54 |
| 7:PA:173:THR:HG22 | 7:PA:177:VAL:H | 1.73 | 0.54 |
| 7:QA:150:LEU:HB2 | 7:QA:233:LEU:HB2 | 1.90 | 0.54 |
| 7:RA:120:PRO:O | 7:RA:123:SER:OG | 2.18 | 0.54 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 8:AB:47:ARG:NH1 | 8:LB:64:PRO:HA | 2.23 | 0.54 |
| 8:AB:98:LYS:HZ3 | 8:FB:168:TRP:CG | 2.25 | 0.54 |
| 8:BB:50:GLN:HE22 | 8:BB:82:GLN:H | 1.54 | 0.54 |
| 8:GB:41:ASP:OD1 | 8:GB:42:ILE:HD12 | 2.06 | 0.54 |
| 8:JB:126:THR:C | 8:JB:127:LYS:HD3 | 2.32 | 0.54 |
| 1:B:112:PHE:CZ | 1:B:116:LYS:HD2 | 2.42 | 0.54 |
| 1:F:78:ILE:HG12 | 1:F:85:ILE:O | 2.07 | 0.54 |
| 2:I:1:MET:H1 | 2:I:1:MET:HE2 | 1.71 | 0.54 |
| 2:L:153:ASP:OD1 | 2:L:154:LEU:N | 2.40 | 0.54 |
| 3:M:40:GLN:NE2 | 3:M:52:VAL:HG22 | 2.21 | 0.54 |
| 3:O:60:PRO:O | 3:O:67:GLN:NE2 | 2.32 | 0.54 |
| 3:Q:96:ASP:OD1 | 3:Q:96:ASP:N | 2.41 | 0.54 |
| 4:U:65:ALA:HA | 4:U:69:TRP:CE3 | 2.42 | 0.54 |
| 4:V:45:ASP:HA | 5:6:27:LYS:CE | 2.38 | 0.54 |
| 4:W:117:GLN:HE21 | 5:2:160:LYS:HB2 | 1.72 | 0.54 |
| 5:Z:303:LEU:HD13 | 5:Z:354:ILE:HD11 | 1.89 | 0.54 |
| 5:1:378:PRO:HB3 | 5:1:462:TYR:CZ | 2.42 | 0.54 |
| 5:2:288:ALA:HB2 | 6:e:63:LEU:HD11 | 1.89 | 0.54 |
| 5:2:303:LEU:HD13 | 5:2:354:ILE:HD11 | 1.89 | 0.54 |
| 6:a:47:SER:HB3 | 6:a:50:SER:HB2 | 1.89 | 0.54 |
| 6:d:1:MET:SD | 6:d:2:GLN:HG3 | 2.48 | 0.54 |
| 7:h:151:THR:HB | 7:h:168:LYS:HE3 | 1.89 | 0.54 |
| 7:h:159:SER:HB2 | 7:n:175:LEU:HG | 1.90 | 0.54 |
| 7:m:281:ALA:O | 7:m:285:ILE:HG12 | 2.07 | 0.54 |
| 7:m:529:LYS:HG2 | 7:n:23:ALA:HB1 | 1.88 | 0.54 |
| 7:p:48:LYS:HD2 | 7:p:49:PRO:HD2 | 1.88 | 0.54 |
| 7:BA:264:MET:HE1 | 7:IA:4:TYR:CZ | 2.43 | 0.54 |
| 7:DA:482:ALA:HA | 7:DA:493:PRO:HB3 | 1.90 | 0.54 |
| 7:FA:192:ALA:O | 7:FA:200:CYS:N | 2.38 | 0.54 |
| 7:HA:173:THR:OG1 | 7:HA:177:VAL:HG12 | 2.08 | 0.54 |
| 7:NA:465:LYS:HB3 | 7:NA:469:LYS:HZ1 | 1.72 | 0.54 |
| 7:OA:103:PHE:HB3 | 7:OA:121:TYR:CZ | 2.42 | 0.54 |
| 7:RA:428:LEU:HA | 7:RA:433:VAL:HG11 | 1.90 | 0.54 |
| 8:DB:12:PHE:HE1 | 8:EB:123:ASN:C | 2.16 | 0.54 |
| 8:HB:79:GLY:HA3 | 8:HB:163:TYR:CE1 | 2.43 | 0.54 |
| 8:IB:16:ARG:NH2 | 8:OB:67:VAL:H | 2.06 | 0.54 |
| 8:KB:41:ASP:OD1 | 8:KB:42:ILE:HD12 | 2.06 | 0.54 |
| 8:PB:151:VAL:HG13 | 8:PB:152:THR:HG23 | 1.88 | 0.54 |
| 1:E:137:ARG:HB3 | 1:E:152:GLU:OE1 | 2.08 | 0.54 |
| 2:K:151:ILE:HA | 2:K:177:LEU:HD13 | 1.90 | 0.54 |
| 4:S:44:ASN:ND2 | 5:9:23:SER:O | 2.37 | 0.54 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 4:U:22:ARG:NH2 | 5:6:7:THR:HA | 2.23 | 0.54 |
| 4:U:74:LEU:HD23 | 4:U:99:LEU:HD12 | 1.90 | 0.54 |
| 4:W:65:ALA:HA | 4:W:69:TRP:CE3 | 2.43 | 0.54 |
| 4:X:64:LEU:HA | 4:X:67:ARG:HG2 | 1.89 | 0.54 |
| 5:Y:334:ASN:ND2 | 5:Y:366:ASN:O | 2.40 | 0.54 |
| 5:Y:378:PRO:HB3 | 5:Y:462:TYR:CZ | 2.42 | 0.54 |
| 5:Z:363:ASN:OD1 | 5:5:295:TRP:NE1 | 2.40 | 0.54 |
| 5:0:203:LYS:O | 5:0:206:GLU:N | 2.41 | 0.54 |
| 5:3:127:VAL:N | 5:3:130:THR:O | 2.32 | 0.54 |
| 5:7:90:MET:SD | 5:7:132:THR:HB | 2.47 | 0.54 |
| 5:7:310:LEU:O | 5:7:419:ARG:NH1 | 2.40 | 0.54 |
| 5:9:310:LEU:O | 5:9:419:ARG:NH1 | 2.40 | 0.54 |
| 6:e:1:MET:SD | 6:e:2:GLN:HG3 | 2.48 | 0.54 |
| 7:h:334:ASP:OD2 | 7:h:337:THR:OG1 | 2.22 | 0.54 |
| 7:i:299:PRO:HB3 | 7:i:328:TYR:O | 2.07 | 0.54 |
| 7:j:302:THR:OG1 | 7:j:305:GLU:OE1 | 2.21 | 0.54 |
| 7:k:406:SER:OG | 7:k:416:ASP:OD2 | 2.17 | 0.54 |
| 7:n:218:ASN:HD22 | 7:n:221:LEU:HD12 | 1.72 | 0.54 |
| 7:p:41:ILE:HG23 | 7:p:258:LEU:HD11 | 1.90 | 0.54 |
| 7:p:365:GLY:HA3 | 7:p:368:TYR:CE2 | 2.41 | 0.54 |
| 7:AA:292:ASP:OD1 | 7:AA:293:GLY:N | 2.41 | 0.54 |
| 7:CA:109:ASP:HA | 7:CA:131:GLU:HA | 1.87 | 0.54 |
| 7:GA:171:GLN:HE21 | 7:GA:179:THR:HB | 1.72 | 0.54 |
| 7:HA:504:ASP:HA | 7:HA:506:TRP:CZ3 | 2.42 | 0.54 |
| 7:IA:171:GLN:HE21 | 7:IA:179:THR:HB | 1.72 | 0.54 |
| 7:KA:461:ALA:O | 7:KA:464:THR:OG1 | 2.16 | 0.54 |
| 7:LA:480:LEU:HD11 | 7:LA:513:CYS:H | 1.72 | 0.54 |
| 7:MA:468:THR:O | 7:MA:471:LEU:HG | 2.07 | 0.54 |
| 7:NA:385:PRO:HG2 | 7:NA:388:PRO:HG3 | 1.89 | 0.54 |
| 7:OA:385:PRO:HG2 | 7:OA:388:PRO:HG3 | 1.89 | 0.54 |
| 7:OA:428:LEU:HA | 7:OA:433:VAL:HG11 | 1.89 | 0.54 |
| 7:PA:252:LEU:HA | 7:PA:255:VAL:HG22 | 1.88 | 0.54 |
| 8:CB:12:PHE:HE1 | 8:DB:123:ASN:C | 2.16 | 0.54 |
| 8:GB:94:LEU:HD21 | 8:LB:130:THR:HG22 | 1.90 | 0.54 |
| 8:GB:126:THR:C | 8:GB:127:LYS:HD3 | 2.32 | 0.54 |
| 8:QB:70:ASN:OD1 | 8:QB:71:GLN:N | 2.40 | 0.54 |
| 1:A:37:ILE:HD13 | 1:A:40:LYS:HZ2 | 1.73 | 0.54 |
| 1:A:173:PHE:HA | 1:F:45:GLN:NE2 | 2.22 | 0.54 |
| 1:C:112:PHE:CZ | 1:C:116:LYS:HD2 | 2.43 | 0.54 |
| 1:F:112:PHE:CZ | 1:F:116:LYS:HD2 | 2.43 | 0.54 |
| 2:I:153:ASP:OD1 | 2:I:154:LEU:N | 2.41 | 0.54 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:L:162:ARG:HG3 | 2:L:168:PHE:HD1 | 1.72 | 0.54 |
| 3:Q:21:TYR:O | 3:Q:24:GLN:NE2 | 2.33 | 0.54 |
| 4:X:49:THR:OG1 | 4:X:99:LEU:N | 2.41 | 0.54 |
| 5:2:11:ILE:O | 5:2:14:GLU:HG2 | 2.07 | 0.54 |
| 5:3:334:ASN:ND2 | 5:3:366:ASN:O | 2.41 | 0.54 |
| 5:4:147:VAL:HB | 5:4:223:GLU:HA | 1.89 | 0.54 |
| 5:6:147:VAL:HB | 5:6:223:GLU:HA | 1.90 | 0.54 |
| 5:7:355:LEU:HB3 | 5:7:359:LYS:NZ | 2.23 | 0.54 |
| 6:a:1:MET:SD | 6:a:2:GLN:HG3 | 2.48 | 0.54 |
| 6:b:1:MET:SD | 6:b:2:GLN:HG3 | 2.48 | 0.54 |
| 6:d:47:SER:HB3 | 6:d:50:SER:HB2 | 1.89 | 0.54 |
| 7:h:355:ARG:NH2 | 7:h:374:GLU:O | 2.41 | 0.54 |
| 7:j:151:THR:HB | 7:j:168:LYS:HE3 | 1.89 | 0.54 |
| 7:n:508:VAL:O | 7:BA:523:GLY:HA2 | 2.07 | 0.54 |
| 7:q:61:GLU:CD | 7:q:61:GLU:H | 2.13 | 0.54 |
| 7:r:136:TYR:CE2 | 7:r:214:ARG:HB2 | 2.42 | 0.54 |
| 7:NA:434:PRO:HA | 7:NA:437:MET:HE2 | 1.89 | 0.54 |
| 7:PA:468:THR:O | 7:PA:471:LEU:HG | 2.07 | 0.54 |
| 8:AB:4:ASN:OD1 | 8:AB:5:ASN:N | 2.41 | 0.54 |
| 8:AB:12:PHE:HE1 | 8:BB:123:ASN:C | 2.16 | 0.54 |
| 8:CB:10:ARG:O | 8:CB:14:LYS:HG2 | 2.07 | 0.54 |
| 8:CB:50:GLN:HE22 | 8:CB:82:GLN:H | 1.55 | 0.54 |
| 8:DB:168:TRP:CG | 8:EB:98:LYS:HZ3 | 2.26 | 0.54 |
| 8:KB:17:TYR:OH | 8:RB:136:ASP:OD2 | 2.26 | 0.54 |
| 8:KB:79:GLY:HA3 | 8:KB:163:TYR:CE1 | 2.43 | 0.54 |
| 1:B:51:VAL:HG12 | 1:B:138:ILE:HG22 | 1.90 | 0.54 |
| 2:J:139:ASN:HD21 | 2:J:142:ARG:HA | 1.72 | 0.54 |
| 4:S:64:LEU:HA | 4:S:67:ARG:HG2 | 1.89 | 0.54 |
| 5:3:378:PRO:HB3 | 5:3:462:TYR:CZ | 2.42 | 0.54 |
| 5:6:310:LEU:O | 5:6:419:ARG:NH1 | 2.40 | 0.54 |
| 5:6:355:LEU:HB3 | 5:6:359:LYS:NZ | 2.23 | 0.54 |
| 5:8:90:MET:SD | 5:8:132:THR:HB | 2.47 | 0.54 |
| 6:e:81:LEU:N | 6:e:84:ARG:HH21 | 2.06 | 0.54 |
| 7:h:480:LEU:HD13 | 7:h:512:CYS:SG | 2.47 | 0.54 |
| 7:h:503:PHE:CZ | 7:n:516:GLY:HA2 | 2.42 | 0.54 |
| 7:j:228:THR:HG21 | 7:j:230:LYS:HZ1 | 1.73 | 0.54 |
| 7:k:46:ARG:O | 7:k:95:ARG:NH1 | 2.41 | 0.54 |
| 7:k:69:LYS:O | 7:k:72:SER:OG | 2.17 | 0.54 |
| 7:m:135:ILE:HG12 | 7:m:213:LEU:HD12 | 1.89 | 0.54 |
| 7:m:136:TYR:CE2 | 7:m:214:ARG:HB2 | 2.42 | 0.54 |
| 7:o:349:ALA:O | 7:o:353:LYS:HG2 | 2.07 | 0.54 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:q:48:LYS:HD2 | 7:q:49:PRO:HD2 | 1.88 | 0.54 |
| 7:r:323:CYS:O | 7:r:420:THR:OG1 | 2.26 | 0.54 |
| 7:AA:398:VAL:HG21 | 7:BA:13:ALA:HA | 1.89 | 0.54 |
| 7:AA:446:GLN:HA | 7:AA:449:ARG:HG2 | 1.89 | 0.54 |
| 7:BA:302:THR:N | 7:BA:305:GLU:OE2 | 2.40 | 0.54 |
| 7:BA:355:ARG:HH12 | 7:BA:375:ARG:CZ | 2.20 | 0.54 |
| 7:FA:8:GLN:HB3 | 7:FA:20:PRO:HG3 | 1.90 | 0.54 |
| 7:FA:432:HIS:O | 7:FA:435:SER:OG | 2.21 | 0.54 |
| 7:HA:461:ALA:O | 7:HA:464:THR:OG1 | 2.16 | 0.54 |
| 7:IA:430:PHE:HE1 | 7:IA:519:ARG:HH11 | 1.56 | 0.54 |
| 7:KA:449:ARG:HH12 | 7:QA:410:SER:H | 1.56 | 0.54 |
| 7:LA:173:THR:OG1 | 7:LA:177:VAL:HG12 | 2.08 | 0.54 |
| 8:LB:134:MET:HE1 | 8:LB:166:ILE:HD12 | 1.88 | 0.54 |
| 1:B:78:ILE:HG12 | 1:B:85:ILE:O | 2.08 | 0.54 |
| 1:B:155:VAL:HG12 | 1:B:182:LEU:HA | 1.90 | 0.54 |
| 1:C:203:LEU:HD12 | 2:I:105:PHE:HB2 | 1.90 | 0.54 |
| 1:E:78:ILE:HG12 | 1:E:85:ILE:O | 2.08 | 0.54 |
| 4:S:29:LEU:O | 4:S:33:LEU:HD23 | 2.08 | 0.54 |
| 4:W:22:ARG:NH2 | 5:8:7:THR:HA | 2.22 | 0.54 |
| 5:0:288:ALA:HB2 | 6:c:63:LEU:HD11 | 1.89 | 0.54 |
| 5:1:288:ALA:HB2 | 6:d:63:LEU:HD11 | 1.89 | 0.54 |
| 5:2:203:LYS:HD3 | 5:2:205:SER:H | 1.72 | 0.54 |
| 5:3:288:ALA:HB2 | 6:f:63:LEU:HD11 | 1.89 | 0.54 |
| 5:6:342:HIS:HB3 | 5:6:345:LYS:HB2 | 1.90 | 0.54 |
| 5:8:16:GLU:HA | 5:8:19:VAL:HG22 | 1.89 | 0.54 |
| 6:c:47:SER:HB3 | 6:c:50:SER:HB2 | 1.89 | 0.54 |
| 6:f:38:TRP:O | 6:f:41:ARG:HG3 | 2.07 | 0.54 |
| 7:g:299:PRO:HB3 | 7:g:328:TYR:O | 2.08 | 0.54 |
| 7:j:46:ARG:O | 7:j:95:ARG:NH1 | 2.41 | 0.54 |
| 7:j:357:VAL:HG13 | 7:j:358:LYS:HG2 | 1.88 | 0.54 |
| 7:l:299:PRO:HB3 | 7:l:328:TYR:O | 2.07 | 0.54 |
| 7:l:355:ARG:NH2 | 7:l:374:GLU:O | 2.41 | 0.54 |
| 7:l:503:PHE:CZ | 7:r:516:GLY:HA2 | 2.42 | 0.54 |
| 7:m:323:CYS:O | 7:m:420:THR:OG1 | 2.26 | 0.54 |
| 7:m:519:ARG:NH1 | 7:m:520:ARG:HG3 | 2.22 | 0.54 |
| 7:AA:78:PRO:O | 7:AA:82:VAL:HG22 | 2.08 | 0.54 |
| 7:DA:488:ALA:O | 7:KA:335:LYS:NZ | 2.38 | 0.54 |
| 7:IA:453:HIS:CE1 | 7:OA:372:GLY:HA3 | 2.43 | 0.54 |
| 7:IA:461:ALA:O | 7:IA:464:THR:OG1 | 2.17 | 0.54 |
| 7:JA:460:ALA:O | 7:JA:464:THR:HG23 | 2.07 | 0.54 |
| 7:KA:443:PHE:HD1 | 7:KA:446:GLN:HE22 | 1.56 | 0.54 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:MA:521:ILE:HD11 | 7:NA:16:VAL:HA | 1.90 | 0.54 |
| 7:NA:120:PRO:O | 7:NA:123:SER:OG | 2.18 | 0.54 |
| 7:OA:529:LYS:HD2 | 7:PA:23:ALA:HB1 | 1.90 | 0.54 |
| 7:RA:333:LYS:HA | 7:RA:339:SER:O | 2.08 | 0.54 |
| 8:HB:30:SER:HA | 8:IB:148:THR:HG23 | 1.90 | 0.54 |
| 8:JB:119:SER:HB2 | 8:JB:124:ALA:HA | 1.88 | 0.54 |
| 8:KB:130:THR:HG22 | 8:LB:94:LEU:HD21 | 1.88 | 0.54 |
| 8:NB:111:MET:HE3 | 8:NB:112:ALA:N | 2.22 | 0.54 |
| 8:PB:7:LYS:NZ | 8:QB:120:SER:OG | 2.39 | 0.54 |
| 1:D:65:ASP:OD1 | 1:D:66:ILE:N | 2.41 | 0.54 |
| 2:L:18:TYR:HB2 | 2:L:142:ARG:HH21 | 1.73 | 0.54 |
| 3:O:117:VAL:HG11 | 7:i:522:GLN:H | 1.72 | 0.54 |
| 3:R:117:VAL:HG11 | 7:l:522:GLN:H | 1.72 | 0.54 |
| 4:U:49:THR:OG1 | 4:U:99:LEU:N | 2.41 | 0.54 |
| 4:U:105:ILE:HA | 4:U:108:MET:HE3 | 1.90 | 0.54 |
| 5:Z:347:GLN:OE1 | 5:Z:371:TYR:OH | 2.19 | 0.54 |
| 5:0:58:GLU:OE2 | 5:6:1:MET:N | 2.39 | 0.54 |
| 5:3:303:LEU:HD13 | 5:3:354:ILE:HD11 | 1.88 | 0.54 |
| 6:a:38:TRP:O | 6:a:41:ARG:HG3 | 2.07 | 0.54 |
| 6:b:47:SER:HB3 | 6:b:50:SER:HB2 | 1.89 | 0.54 |
| 6:d:98:ASN:HA | 6:d:101:ILE:HD12 | 1.89 | 0.54 |
| 7:i:37:LEU:O | 7:i:266:THR:N | 2.40 | 0.54 |
| 7:i:46:ARG:NH1 | 7:i:62:ASP:O | 2.41 | 0.54 |
| 7:j:299:PRO:HB3 | 7:j:328:TYR:O | 2.08 | 0.54 |
| 7:j:355:ARG:NH2 | 7:j:375:ARG:HA | 2.23 | 0.54 |
| 7:l:159:SER:HB2 | 7:r:175:LEU:HG | 1.90 | 0.54 |
| 7:p:323:CYS:O | 7:p:420:THR:OG1 | 2.26 | 0.54 |
| 7:r:102:LYS:HZ2 | 7:r:120:PRO:HD3 | 1.73 | 0.54 |
| 7:CA:292:ASP:OD1 | 7:CA:293:GLY:N | 2.41 | 0.54 |
| 7:DA:292:ASP:OD1 | 7:DA:293:GLY:N | 2.41 | 0.54 |
| 7:EA:102:LYS:HZ2 | 7:EA:120:PRO:HD3 | 1.73 | 0.54 |
| 7:FA:46:ARG:NE | 7:FA:62:ASP:O | 2.33 | 0.54 |
| 7:HA:328:TYR:CZ | 7:HA:330:PHE:HB2 | 2.42 | 0.54 |
| 7:LA:453:HIS:CE1 | 7:RA:372:GLY:HA3 | 2.43 | 0.54 |
| 7:MA:19:SER:HB2 | 7:RA:524:VAL:HA | 1.90 | 0.54 |
| 7:MA:465:LYS:HB3 | 7:MA:469:LYS:HZ1 | 1.72 | 0.54 |
| 7:OA:422:CYS:HB3 | 7:OA:429:HIS:HB2 | 1.89 | 0.54 |
| 7:PA:428:LEU:HA | 7:PA:433:VAL:HG11 | 1.90 | 0.54 |
| 7:QA:334:ASP:HB3 | 7:QA:338:GLN:N | 2.23 | 0.54 |
| 8:DB:16:ARG:HH22 | 8:JB:64:PRO:C | 2.16 | 0.54 |
| 8:DB:56:ARG:NE | 8:EB:140:TYR:OH | 2.39 | 0.54 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 8:EB:50:GLN:HE22 | 8:EB:82:GLN:H | 1.54 | 0.54 |
| 8:KB:32:PHE:N | 8:PB:65:ASN:HD21 | 2.04 | 0.54 |
| 8:RB:70:ASN:OD1 | 8:RB:71:GLN:N | 2.40 | 0.54 |
| 8:RB:116:GLU:HA | 8:RB:119:SER:OG | 2.07 | 0.54 |
| 1:E:155:VAL:HG12 | 1:E:182:LEU:HA | 1.90 | 0.54 |
| 2:K:25:ASN:OD1 | 2:K:28:TYR:N | 2.41 | 0.54 |
| 3:M:19:LYS:HA | 5:4:28:PHE:CE1 | 2.43 | 0.54 |
| 3:M:60:PRO:HA | 7:g:517:VAL:HG13 | 1.90 | 0.54 |
| 3:N:96:ASP:OD1 | 3:N:96:ASP:N | 2.41 | 0.54 |
| 4:T:105:ILE:HA | 4:T:108:MET:HE3 | 1.90 | 0.54 |
| 5:Y:288:ALA:HB2 | 6:a:63:LEU:HD11 | 1.89 | 0.54 |
| 5:0:176:ASP:O | 5:0:178:LYS:NZ | 2.41 | 0.54 |
| 5:5:147:VAL:HB | 5:5:223:GLU:HA | 1.90 | 0.54 |
| 5:7:16:GLU:HA | 5:7:19:VAL:HG22 | 1.89 | 0.54 |
| 5:9:124:CYS:HB2 | 5:9:133:VAL:HB | 1.89 | 0.54 |
| 5:9:349:GLU:HB3 | 5:9:353:MET:HE1 | 1.90 | 0.54 |
| 6:f:1:MET:SD | 6:f:2:GLN:HG3 | 2.48 | 0.54 |
| 7:h:281:ALA:HA | 7:h:284:LYS:HE3 | 1.88 | 0.54 |
| 7:h:420:THR:HG23 | 7:h:431:GLN:HA | 1.90 | 0.54 |
| 7:i:398:VAL:HG23 | 7:i:419:LEU:HD13 | 1.89 | 0.54 |
| 7:j:405:VAL:HG12 | 7:j:415:ILE:HG13 | 1.90 | 0.54 |
| 7:k:159:SER:HB2 | 7:q:175:LEU:HG | 1.90 | 0.54 |
| 7:n:522:GLN:HE22 | 7:n:524:VAL:HG13 | 1.73 | 0.54 |
| 7:p:449:ARG:HH21 | 7:DA:409:THR:HG23 | 1.72 | 0.54 |
| 7:q:107:MET:N | 7:q:107:MET:SD | 2.81 | 0.54 |
| 7:q:135:ILE:HG12 | 7:q:213:LEU:HD12 | 1.89 | 0.54 |
| 7:q:449:ARG:HH21 | 7:EA:409:THR:HG23 | 1.72 | 0.54 |
| 7:r:349:ALA:O | 7:r:353:LYS:HG2 | 2.07 | 0.54 |
| 7:EA:302:THR:N | 7:EA:305:GLU:OE2 | 2.40 | 0.54 |
| 7:FA:102:LYS:HZ2 | 7:FA:120:PRO:HD3 | 1.73 | 0.54 |
| 7:FA:302:THR:N | 7:FA:305:GLU:OE2 | 2.40 | 0.54 |
| 7:IA:326:TYR:OH | 7:IA:345:LEU:HD12 | 2.08 | 0.54 |
| 7:IA:480:LEU:HD11 | 7:IA:513:CYS:H | 1.73 | 0.54 |
| 7:JA:430:PHE:HE1 | 7:JA:519:ARG:HH11 | 1.56 | 0.54 |
| 7:KA:173:THR:OG1 | 7:KA:177:VAL:HG12 | 2.08 | 0.54 |
| 7:OA:333:LYS:HB2 | 7:OA:381:ALA:HB3 | 1.89 | 0.54 |
| 7:RA:465:LYS:HB3 | 7:RA:469:LYS:HZ1 | 1.72 | 0.54 |
| 8:AB:56:ARG:NH1 | 8:AB:72:HIS:HA | 2.23 | 0.54 |
| 8:BB:138:LYS:HB2 | 8:BB:162:VAL:HB | 1.90 | 0.54 |
| 8:DB:56:ARG:NH1 | 8:DB:72:HIS:HA | 2.23 | 0.54 |
| 8:GB:16:ARG:NH2 | 8:MB:67:VAL:H | 2.06 | 0.54 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 8:GB:79:GLY:HA3 | 8:GB:163:TYR:CE1 | 2.42 | 0.54 |
| 8:GB:119:SER:HB2 | 8:GB:124:ALA:HA | 1.88 | 0.54 |
| 8:JB:30:SER:HA | 8:KB:148:THR:HG23 | 1.90 | 0.54 |
| 1:B:137:ARG:HB3 | 1:B:152:GLU:OE1 | 2.08 | 0.53 |
| 1:C:169:GLN:O | 1:C:169:GLN:HG2 | 2.08 | 0.53 |
| 1:D:51:VAL:HG12 | 1:D:138:ILE:HG22 | 1.91 | 0.53 |
| 1:D:121:ASN:ND2 | 1:D:123:ASP:HB3 | 2.22 | 0.53 |
| 1:E:51:VAL:HG12 | 1:E:138:ILE:HG22 | 1.90 | 0.53 |
| 1:E:65:ASP:OD1 | 1:E:66:ILE:N | 2.42 | 0.53 |
| 1:F:137:ARG:HB3 | 1:F:152:GLU:OE1 | 2.08 | 0.53 |
| 3:M:117:VAL:HG11 | 7:g:522:GLN:H | 1.72 | 0.53 |
| 3:N:115:ASP:OD1 | 7:h:524:VAL:N | 2.30 | 0.53 |
| 3:R:21:TYR:O | 3:R:24:GLN:NE2 | 2.34 | 0.53 |
| 4:T:22:ARG:NH2 | 5:5:7:THR:HA | 2.22 | 0.53 |
| 4:X:74:LEU:HD23 | 4:X:99:LEU:HD12 | 1.90 | 0.53 |
| 4:X:112:PHE:HA | 4:X:116:GLY:HA3 | 1.90 | 0.53 |
| 5:Z:288:ALA:HB2 | 6:b:63:LEU:HD11 | 1.89 | 0.53 |
| 5:1:176:ASP:O | 5:1:178:LYS:NZ | 2.41 | 0.53 |
| 5:1:334:ASN:ND2 | 5:1:366:ASN:O | 2.40 | 0.53 |
| 5:3:176:ASP:O | 5:3:178:LYS:NZ | 2.41 | 0.53 |
| 5:4:16:GLU:HA | 5:4:19:VAL:HG22 | 1.89 | 0.53 |
| 5:6:244:GLN:N | 5:6:263:THR:OG1 | 2.34 | 0.53 |
| 6:e:97:ILE:O | 6:e:100:THR:OG1 | 2.24 | 0.53 |
| 7:g:46:ARG:O | 7:g:95:ARG:NH1 | 2.41 | 0.53 |
| 7:h:299:PRO:HB3 | 7:h:328:TYR:O | 2.07 | 0.53 |
| 7:j:334:ASP:OD2 | 7:j:337:THR:OG1 | 2.22 | 0.53 |
| 7:o:136:TYR:CE2 | 7:o:214:ARG:HB2 | 2.42 | 0.53 |
| 7:o:449:ARG:HH21 | 7:CA:409:THR:HG23 | 1.72 | 0.53 |
| 7:p:499:THR:HG23 | 7:p:507:GLU:OE2 | 2.07 | 0.53 |
| 7:q:38:TRP:HE1 | 7:q:89:THR:HG23 | 1.72 | 0.53 |
| 7:q:499:THR:HG23 | 7:q:507:GLU:OE2 | 2.07 | 0.53 |
| 7:r:449:ARG:HH21 | 7:FA:409:THR:HG23 | 1.72 | 0.53 |
| 7:AA:301:LEU:HD12 | 7:AA:305:GLU:HG3 | 1.90 | 0.53 |
| 7:BA:384:GLN:NE2 | 7:BA:385:PRO:O | 2.41 | 0.53 |
| 7:CA:384:GLN:NE2 | 7:CA:385:PRO:O | 2.41 | 0.53 |
| 7:EA:111:SER:OG | 7:EA:113:GLU:OE1 | 2.22 | 0.53 |
| 7:GA:449:ARG:NH2 | 7:MA:410:SER:OG | 2.22 | 0.53 |
| 7:HA:433:VAL:O | 7:HA:436:LEU:HG | 2.09 | 0.53 |
| 7:MA:334:ASP:HB3 | 7:MA:338:GLN:N | 2.22 | 0.53 |
| 7:OA:524:VAL:HA | 7:PA:19:SER:HB2 | 1.90 | 0.53 |
| 7:PA:385:PRO:HG2 | 7:PA:388:PRO:HG3 | 1.91 | 0.53 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:PA:408:GLY:HA3 | 7:PA:412:GLN:NE2 | 2.23 | 0.53 |
| 7:RA:59:ASN:OD1 | 7:RA:62:ASP:HB3 | 2.09 | 0.53 |
| 8:AB:123:ASN:C | 8:FB:12:PHE:HE1 | 2.16 | 0.53 |
| 8:KB:16:ARG:HH22 | 8:QB:67:VAL:H | 1.56 | 0.53 |
| 8:LB:16:ARG:NH2 | 8:RB:67:VAL:H | 2.05 | 0.53 |
| 8:NB:26:ARG:NH2 | 8:OB:87:GLU:O | 2.41 | 0.53 |
| 8:OB:7:LYS:NZ | 8:PB:120:SER:OG | 2.40 | 0.53 |
| 2:I:25:ASN:OD1 | 2:I:28:TYR:N | 2.41 | 0.53 |
| 3:M:96:ASP:N | 3:M:96:ASP:OD1 | 2.41 | 0.53 |
| 3:Q:88:SER:OG | 3:Q:106:ARG:O | 2.25 | 0.53 |
| 4:S:49:THR:OG1 | 4:S:99:LEU:N | 2.40 | 0.53 |
| 5:1:58:GLU:OE2 | 5:7:1:MET:N | 2.39 | 0.53 |
| 5:5:380:LYS:NZ | 5:5:450:GLU:OE1 | 2.31 | 0.53 |
| 5:9:307:ILE:HB | 5:9:310:LEU:HD11 | 1.91 | 0.53 |
| 7:k:299:PRO:HB3 | 7:k:328:TYR:O | 2.07 | 0.53 |
| 7:k:432:HIS:O | 7:k:435:SER:OG | 2.19 | 0.53 |
| 7:m:164:ARG:HG2 | 7:m:187:SER:HB2 | 1.90 | 0.53 |
| 7:n:107:MET:N | 7:n:107:MET:SD | 2.81 | 0.53 |
| 7:n:356:GLY:HA2 | 7:n:359:LYS:HE3 | 1.89 | 0.53 |
| 7:o:438:ASN:O | 7:o:441:SER:OG | 2.20 | 0.53 |
| 7:p:135:ILE:HG12 | 7:p:213:LEU:HD12 | 1.89 | 0.53 |
| 7:p:281:ALA:O | 7:p:285:ILE:HG12 | 2.07 | 0.53 |
| 7:r:103:PHE:HE1 | 7:r:121:TYR:HA | 1.73 | 0.53 |
| 7:AA:10:LEU:HG | 7:FA:520:ARG:CZ | 2.37 | 0.53 |
| 7:AA:520:ARG:NH2 | 7:BA:17:ALA:O | 2.41 | 0.53 |
| 7:CA:39:ALA:HB2 | 7:CA:92:TYR:HB2 | 1.89 | 0.53 |
| 7:CA:373:GLU:OE2 | 7:CA:409:THR:OG1 | 2.15 | 0.53 |
| 7:CA:488:ALA:O | 7:JA:335:LYS:NZ | 2.39 | 0.53 |
| 7:DA:299:PRO:HA | 7:DA:327:HIS:CD2 | 2.44 | 0.53 |
| 7:DA:384:GLN:NE2 | 7:DA:385:PRO:O | 2.41 | 0.53 |
| 7:FA:301:LEU:HD12 | 7:FA:305:GLU:HG3 | 1.90 | 0.53 |
| 7:FA:451:MET:HE2 | 7:FA:451:MET:HA | 1.91 | 0.53 |
| 7:GA:136:TYR:CE2 | 7:GA:214:ARG:HB2 | 2.44 | 0.53 |
| 7:HA:326:TYR:OH | 7:HA:345:LEU:HD12 | 2.09 | 0.53 |
| 7:IA:173:THR:OG1 | 7:IA:177:VAL:HG12 | 2.08 | 0.53 |
| 7:JA:38:TRP:HD1 | 7:JA:350:TYR:CE2 | 2.26 | 0.53 |
| 7:JA:173:THR:OG1 | 7:JA:177:VAL:HG12 | 2.08 | 0.53 |
| 7:KA:296:ASP:OD1 | 7:KA:297:VAL:N | 2.40 | 0.53 |
| 7:LA:171:GLN:HE21 | 7:LA:179:THR:HB | 1.72 | 0.53 |
| 7:LA:326:TYR:OH | 7:LA:345:LEU:HD12 | 2.09 | 0.53 |
| 7:MA:112:GLY:O | 7:MA:230:LYS:NZ | 2.39 | 0.53 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:MA:173:THR:HG22 | 7:MA:177:VAL:H | 1.73 | 0.53 |
| 7:MA:333:LYS:HA | 7:MA:339:SER:O | 2.08 | 0.53 |
| 7:PA:410:SER:OG | 7:PA:412:GLN:OE1 | 2.21 | 0.53 |
| 8:MB:111:MET:HE3 | 8:MB:112:ALA:N | 2.22 | 0.53 |
| 8:NB:68:LYS:HE3 | 8:OB:76:ARG:HH22 | 1.73 | 0.53 |
| 8:RB:127:LYS:HD2 | 8:RB:129:ALA:H | 1.74 | 0.53 |
| 1:A:65:ASP:OD1 | 1:A:66:ILE:N | 2.41 | 0.53 |
| 1:A:155:VAL:HG12 | 1:A:182:LEU:HA | 1.89 | 0.53 |
| 2:L:25:ASN:OD1 | 2:L:28:TYR:N | 2.41 | 0.53 |
| 3:N:12:THR:HB | 7:h:527:LEU:HD22 | 1.91 | 0.53 |
| 3:Q:40:GLN:NE2 | 3:Q:52:VAL:HG22 | 2.23 | 0.53 |
| 3:R:19:LYS:HE2 | 5:9:27:LYS:HB2 | 1.90 | 0.53 |
| 4:S:62:ASP:HB3 | 4:S:75:ARG:HB3 | 1.89 | 0.53 |
| 4:V:29:LEU:O | 4:V:33:LEU:HD23 | 2.08 | 0.53 |
| 4:V:96:LYS:NZ | 4:V:97:LEU:O | 2.41 | 0.53 |
| 5:0:334:ASN:ND2 | 5:0:366:ASN:O | 2.41 | 0.53 |
| 5:2:176:ASP:O | 5:2:178:LYS:NZ | 2.40 | 0.53 |
| 5:4:307:ILE:HB | 5:4:310:LEU:HD11 | 1.91 | 0.53 |
| 5:5:16:GLU:HA | 5:5:19:VAL:HG22 | 1.90 | 0.53 |
| 5:9:342:HIS:HB3 | 5:9:345:LYS:HB2 | 1.90 | 0.53 |
| 6:b:38:TRP:O | 6:b:41:ARG:HG3 | 2.08 | 0.53 |
| 7:g:362:ASP:OD1 | 7:g:363:VAL:N | 2.37 | 0.53 |
| 7:h:289:ARG:HA | 7:o:5:SER:HA | 1.90 | 0.53 |
| 7:h:496:LEU:HD12 | 7:h:509:VAL:O | 2.08 | 0.53 |
| 7:i:84:GLU:O | 7:i:88:GLN:NE2 | 2.40 | 0.53 |
| 7:i:405:VAL:HG12 | 7:i:415:ILE:HG13 | 1.90 | 0.53 |
| 7:m:443:PHE:HA | 7:m:446:GLN:NE2 | 2.24 | 0.53 |
| 7:o:135:ILE:HG12 | 7:o:213:LEU:HD12 | 1.90 | 0.53 |
| 7:o:328:TYR:CZ | 7:o:330:PHE:HB2 | 2.43 | 0.53 |
| 7:r:146:PRO:HB2 | 7:r:171:GLN:HE21 | 1.73 | 0.53 |
| 7:r:328:TYR:CZ | 7:r:330:PHE:HB2 | 2.43 | 0.53 |
| 7:AA:520:ARG:HH21 | 7:BA:17:ALA:C | 2.16 | 0.53 |
| 7:EA:292:ASP:OD1 | 7:EA:293:GLY:N | 2.41 | 0.53 |
| 7:EA:331:SER:OG | 7:EA:384:GLN:NE2 | 2.30 | 0.53 |
| 7:GA:460:ALA:O | 7:GA:464:THR:HG23 | 2.07 | 0.53 |
| 7:HA:451:MET:HB3 | 7:HA:463:LEU:HD21 | 1.91 | 0.53 |
| 7:IA:433:VAL:O | 7:IA:436:LEU:HG | 2.08 | 0.53 |
| 7:KA:334:ASP:OD2 | 7:KA:337:THR:OG1 | 2.22 | 0.53 |
| 7:KA:430:PHE:HE1 | 7:KA:519:ARG:HH11 | 1.56 | 0.53 |
| 7:LA:136:TYR:CE2 | 7:LA:214:ARG:HB2 | 2.44 | 0.53 |
| 7:LA:328:TYR:CZ | 7:LA:330:PHE:HB2 | 2.43 | 0.53 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:PA:529:LYS:HD2 | 7:QA:23:ALA:HB1 | 1.91 | 0.53 |
| 7:RA:173:THR:HG22 | 7:RA:177:VAL:H | 1.72 | 0.53 |
| 8:FB:26:ARG:NH2 | 8:FB:27:LEU:O | 2.38 | 0.53 |
| 8:GB:104:LYS:HE3 | 8:LB:75:ILE:HD11 | 1.89 | 0.53 |
| 8:HB:61:ASP:OD1 | 8:HB:62:TYR:N | 2.41 | 0.53 |
| 8:IB:3:HIS:O | 8:IB:6:THR:OG1 | 2.22 | 0.53 |
| 8:IB:47:ARG:N | 8:IB:84:GLN:O | 2.31 | 0.53 |
| 8:MB:81:ILE:HB | 8:MB:161:ILE:HG23 | 1.90 | 0.53 |
| 8:MB:169:ASP:HA | 8:NB:98:LYS:NZ | 2.24 | 0.53 |
| 8:PB:111:MET:HE3 | 8:PB:112:ALA:N | 2.22 | 0.53 |
| 1:C:41:MET:HE1 | 7:p:362:ASP:HB3 | 1.90 | 0.53 |
| 1:F:155:VAL:HG12 | 1:F:182:LEU:HA | 1.89 | 0.53 |
| 2:G:25:ASN:OD1 | 2:G:28:TYR:N | 2.40 | 0.53 |
| 4:S:94:GLY:HA3 | 7:g:382:SER:HB2 | 1.90 | 0.53 |
| 4:U:59:TYR:CE2 | 6:c:9:ARG:HG2 | 2.43 | 0.53 |
| 4:U:94:GLY:HA3 | 7:i:382:SER:HB2 | 1.90 | 0.53 |
| 4:X:105:ILE:HA | 4:X:108:MET:HE3 | 1.90 | 0.53 |
| 5:Y:176:ASP:O | 5:Y:178:LYS:NZ | 2.41 | 0.53 |
| 5:1:188:PHE:CE1 | 5:1:213:GLY:HA2 | 2.42 | 0.53 |
| 5:2:58:GLU:OE2 | 5:8:1:MET:N | 2.39 | 0.53 |
| 5:2:378:PRO:HB3 | 5:2:462:TYR:CZ | 2.42 | 0.53 |
| 5:8:310:LEU:O | 5:8:419:ARG:NH1 | 2.40 | 0.53 |
| 5:9:147:VAL:HB | 5:9:223:GLU:HA | 1.90 | 0.53 |
| 7:h:46:ARG:O | 7:h:95:ARG:NH1 | 2.41 | 0.53 |
| 7:i:289:ARG:HA | 7:p:5:SER:HA | 1.91 | 0.53 |
| 7:k:146:PRO:HG2 | 7:k:148:ARG:HH12 | 1.74 | 0.53 |
| 7:k:151:THR:HB | 7:k:168:LYS:HE3 | 1.89 | 0.53 |
| 7:m:100:ASP:OD2 | 7:m:242:ASP:N | 2.42 | 0.53 |
| 7:m:146:PRO:HB2 | 7:m:171:GLN:HE21 | 1.73 | 0.53 |
| 7:m:432:HIS:O | 7:m:435:SER:OG | 2.18 | 0.53 |
| 7:n:38:TRP:HE1 | 7:n:89:THR:HG23 | 1.72 | 0.53 |
| 7:n:100:ASP:OD2 | 7:n:242:ASP:N | 2.42 | 0.53 |
| 7:n:136:TYR:CE2 | 7:n:214:ARG:HB2 | 2.42 | 0.53 |
| 7:n:438:ASN:O | 7:n:441:SER:OG | 2.24 | 0.53 |
| 7:o:107:MET:SD | 7:o:107:MET:N | 2.82 | 0.53 |
| 7:p:107:MET:N | 7:p:107:MET:SD | 2.82 | 0.53 |
| 7:p:349:ALA:O | 7:p:353:LYS:HG2 | 2.09 | 0.53 |
| 7:CA:299:PRO:HA | 7:CA:327:HIS:CD2 | 2.44 | 0.53 |
| 7:DA:8:GLN:HB3 | 7:DA:20:PRO:HG3 | 1.90 | 0.53 |
| 7:FA:67:PRO:HB3 | 7:FA:79:ILE:HD12 | 1.90 | 0.53 |
| 7:FA:465:LYS:O | 7:FA:469:LYS:HG2 | 2.09 | 0.53 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 7:GA:448:ALA:HA | 7:GA:451:MET:HG3 | 1.91 | 0.53 |
| 7:HA:136:TYR:CE2 | 7:HA:214:ARG:HB2 | 2.44 | 0.53 |
| 7:HA:443:PHE:HD1 | 7:HA:446:GLN:HE22 | 1.55 | 0.53 |
| 7:IA:328:TYR:CZ | 7:IA:330:PHE:HB2 | 2.43 | 0.53 |
| 7:LA:356:GLY:O | 7:LA:359:LYS:HG2 | 2.09 | 0.53 |
| 8:FB:138:LYS:HB2 | 8:FB:162:VAL:HB | 1.89 | 0.53 |
| 8:GB:61:ASP:OD1 | 8:GB:62:TYR:N | 2.41 | 0.53 |
| 8:MB:68:LYS:HE3 | 8:NB:76:ARG:HH22 | 1.73 | 0.53 |
| 8:PB:81:ILE:HB | 8:PB:161:ILE:HG23 | 1.91 | 0.53 |
| 1:D:78:ILE:HG12 | 1:D:85:ILE:O | 2.08 | 0.53 |
| 1:D:140:ARG:HD3 | 1:D:148:LYS:HZ3 | 1.73 | 0.53 |
| 1:E:41:MET:HE1 | 7:r:362:ASP:HB3 | 1.88 | 0.53 |
| 1:F:203:LEU:HD12 | 2:L:105:PHE:HB2 | 1.90 | 0.53 |
| 2:G:143:ARG:NH2 | 2:H:165:ASN:O | 2.41 | 0.53 |
| 3:P:23:SER:OG | 3:P:26:GLU:OE2 | 2.27 | 0.53 |
| 3:P:73:MET:O | 3:P:76:GLN:HG3 | 2.08 | 0.53 |
| 3:P:96:ASP:OD1 | 3:P:96:ASP:N | 2.41 | 0.53 |
| 3:R:60:PRO:HA | 7:l:517:VAL:HG13 | 1.91 | 0.53 |
| 4:S:52:TYR:HB3 | 4:S:94:GLY:HA2 | 1.91 | 0.53 |
| 4:X:31:ALA:O | 4:X:34:ARG:HG3 | 2.07 | 0.53 |
| 5:5:33:PHE:O | 5:5:36:MET:HG3 | 2.09 | 0.53 |
| 5:5:342:HIS:HB3 | 5:5:345:LYS:HB2 | 1.91 | 0.53 |
| 5:8:147:VAL:HB | 5:8:223:GLU:HA | 1.90 | 0.53 |
| 7:g:112:GLY:O | 7:g:230:LYS:NZ | 2.42 | 0.53 |
| 7:g:313:THR:HG22 | 7:g:315:LEU:HD23 | 1.91 | 0.53 |
| 7:g:496:LEU:HD12 | 7:g:509:VAL:O | 2.07 | 0.53 |
| 7:h:112:GLY:O | 7:h:230:LYS:NZ | 2.42 | 0.53 |
| 7:h:398:VAL:HG23 | 7:h:419:LEU:HD13 | 1.89 | 0.53 |
| 7:i:112:GLY:O | 7:i:230:LYS:NZ | 2.42 | 0.53 |
| 7:i:496:LEU:HD12 | 7:i:509:VAL:O | 2.09 | 0.53 |
| 7:n:449:ARG:HH21 | 7:BA:409:THR:HG23 | 1.72 | 0.53 |
| 7:o:323:CYS:O | 7:o:420:THR:OG1 | 2.26 | 0.53 |
| 7:p:33:LEU:HD11 | 7:p:358:LYS:HD2 | 1.89 | 0.53 |
| 7:r:164:ARG:HG2 | 7:r:187:SER:HB2 | 1.89 | 0.53 |
| 7:BA:292:ASP:OD1 | 7:BA:293:GLY:N | 2.41 | 0.53 |
| 7:BA:488:ALA:O | 7:IA:335:LYS:NZ | 2.38 | 0.53 |
| 7:FA:384:GLN:NE2 | 7:FA:385:PRO:O | 2.41 | 0.53 |
| 7:IA:94:VAL:HG21 | 7:IA:258:LEU:HB3 | 1.89 | 0.53 |
| 7:JA:451:MET:HB3 | 7:JA:463:LEU:HD21 | 1.91 | 0.53 |
| 7:LA:269:LEU:HA | 7:LA:294:PHE:HB2 | 1.91 | 0.53 |
| 7:MA:408:GLY:HA3 | 7:MA:412:GLN:NE2 | 2.24 | 0.53 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:MA:428:LEU:HA | 7:MA:433:VAL:HG11 | 1.90 | 0.53 |
| 7:OA:485:ASP:OD1 | 7:OA:489:ASP:HB2 | 2.07 | 0.53 |
| 7:RA:474:PHE:O | 7:RA:477:SER:OG | 2.20 | 0.53 |
| 8:CB:56:ARG:NE | 8:DB:140:TYR:OH | 2.41 | 0.53 |
| 8:EB:12:PHE:HE1 | 8:FB:123:ASN:C | 2.16 | 0.53 |
| 8:MB:54:MET:HE3 | 8:NB:97:ILE:HB | 1.91 | 0.53 |
| 8:QB:94:LEU:HA | 8:QB:97:ILE:HG12 | 1.90 | 0.53 |
| 1:C:64:LYS:HZ3 | 1:C:99:MET:HG3 | 1.74 | 0.53 |
| 1:D:64:LYS:HB3 | 1:D:101:ARG:HH12 | 1.73 | 0.53 |
| 2:G:186:SER:O | 2:G:190:ARG:HG2 | 2.08 | 0.53 |
| 2:H:151:ILE:HA | 2:H:177:LEU:HD13 | 1.90 | 0.53 |
| 2:I:42:MET:HG3 | 2:I:90:PRO:HA | 1.90 | 0.53 |
| 3:Q:12:THR:HB | 7:k:527:LEU:HD22 | 1.89 | 0.53 |
| 3:Q:60:PRO:HA | 7:k:517:VAL:HG13 | 1.89 | 0.53 |
| 4:S:105:ILE:HA | 4:S:108:MET:HE3 | 1.90 | 0.53 |
| 5:Z:176:ASP:O | 5:Z:178:LYS:NZ | 2.41 | 0.53 |
| 5:Z:334:ASN:ND2 | 5:Z:366:ASN:O | 2.41 | 0.53 |
| 5:Z:347:GLN:CD | 5:Z:374:VAL:H | 2.17 | 0.53 |
| 5:1:112:SER:OG | 5:1:114:ASP:OD1 | 2.16 | 0.53 |
| 5:4:355:LEU:HB3 | 5:4:359:LYS:NZ | 2.23 | 0.53 |
| 5:6:33:PHE:O | 5:6:36:MET:HG3 | 2.09 | 0.53 |
| 5:9:355:LEU:HB3 | 5:9:359:LYS:NZ | 2.23 | 0.53 |
| 6:d:17:SER:HB2 | 7:k:21:ILE:HD13 | 1.89 | 0.53 |
| 6:d:38:TRP:O | 6:d:41:ARG:HG3 | 2.08 | 0.53 |
| 7:g:360:ASN:ND2 | 7:g:362:ASP:OD1 | 2.41 | 0.53 |
| 7:i:159:SER:HB2 | 7:o:175:LEU:HG | 1.90 | 0.53 |
| 7:l:46:ARG:O | 7:l:95:ARG:NH1 | 2.40 | 0.53 |
| 7:m:103:PHE:HE1 | 7:m:121:TYR:HA | 1.73 | 0.53 |
| 7:q:349:ALA:O | 7:q:353:LYS:HG2 | 2.09 | 0.53 |
| 7:BA:78:PRO:O | 7:BA:82:VAL:HG22 | 2.08 | 0.53 |
| 7:BA:188:LEU:HG | 7:BA:202:LEU:HD11 | 1.90 | 0.53 |
| 7:EA:301:LEU:HD12 | 7:EA:305:GLU:HG3 | 1.90 | 0.53 |
| 7:EA:384:GLN:NE2 | 7:EA:385:PRO:O | 2.41 | 0.53 |
| 7:GA:2:SER:OG | 7:GA:3:GLN:N | 2.39 | 0.53 |
| 7:GA:356:GLY:O | 7:GA:359:LYS:HG2 | 2.09 | 0.53 |
| 7:GA:430:PHE:HE1 | 7:GA:519:ARG:HH11 | 1.55 | 0.53 |
| 7:IA:136:TYR:CE2 | 7:IA:214:ARG:HB2 | 2.44 | 0.53 |
| 7:KA:202:LEU:HB2 | 7:KA:203:PRO:HD3 | 1.90 | 0.53 |
| 7:KA:269:LEU:HA | 7:KA:294:PHE:HB2 | 1.91 | 0.53 |
| 7:KA:480:LEU:HD11 | 7:KA:513:CYS:H | 1.73 | 0.53 |
| 7:MA:59:ASN:OD1 | 7:MA:62:ASP:HB3 | 2.09 | 0.53 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:OA:423:THR:OG1 | 7:OA:424:GLN:OE1 | 2.20 | 0.53 |
| 7:OA:493:PRO:HG2 | 7:OA:494:TYR:HD1 | 1.73 | 0.53 |
| 7:QA:269:LEU:HD12 | 7:QA:346:SER:HB2 | 1.91 | 0.53 |
| 7:RA:269:LEU:HD12 | 7:RA:346:SER:HB2 | 1.91 | 0.53 |
| 7:RA:493:PRO:HG2 | 7:RA:494:TYR:HD1 | 1.73 | 0.53 |
| 8:DB:4:ASN:OD1 | 8:DB:5:ASN:N | 2.41 | 0.53 |
| 8:DB:50:GLN:HE22 | 8:DB:82:GLN:H | 1.56 | 0.53 |
| 8:EB:56:ARG:NH2 | 8:FB:140:TYR:OH | 2.41 | 0.53 |
| 8:HB:17:TYR:OH | 8:OB:136:ASP:OD2 | 2.25 | 0.53 |
| 8:JB:16:ARG:NH2 | 8:PB:67:VAL:H | 2.06 | 0.53 |
| 8:JB:68:LYS:NZ | 8:KB:164:ASN:HA | 2.24 | 0.53 |
| 8:KB:55:THR:HB | 8:KB:76:ARG:NH2 | 2.22 | 0.53 |
| 8:LB:31:GLU:CD | 8:LB:115:PRO:HA | 2.33 | 0.53 |
| 8:MB:127:LYS:HD2 | 8:MB:129:ALA:H | 1.74 | 0.53 |
| 8:QB:79:GLY:HA3 | 8:QB:163:TYR:CZ | 2.43 | 0.53 |
| 1:E:121:ASN:ND2 | 1:E:123:ASP:HB3 | 2.23 | 0.53 |
| 1:F:115:ALA:O | 1:F:119:VAL:HG23 | 2.08 | 0.53 |
| 2:K:18:TYR:HB2 | 2:K:142:ARG:HH21 | 1.73 | 0.53 |
| 4:V:62:ASP:HB3 | 4:V:75:ARG:HB3 | 1.89 | 0.53 |
| 4:W:105:ILE:HA | 4:W:108:MET:HE3 | 1.90 | 0.53 |
| 5:Y:112:SER:OG | 5:Y:114:ASP:OD1 | 2.17 | 0.53 |
| 5:Z:31:SER:O | 5:Z:34:VAL:HG22 | 2.09 | 0.53 |
| 5:3:427:LYS:HD2 | 5:3:429:LYS:HB2 | 1.91 | 0.53 |
| 5:8:33:PHE:O | 5:8:36:MET:HG3 | 2.09 | 0.53 |
| 5:8:342:HIS:HB3 | 5:8:345:LYS:HB2 | 1.91 | 0.53 |
| 6:d:90:PHE:HB2 | 6:d:95:ARG:NH1 | 2.24 | 0.53 |
| 7:g:302:THR:OG1 | 7:g:305:GLU:OE1 | 2.21 | 0.53 |
| 7:h:405:VAL:HG12 | 7:h:415:ILE:HG13 | 1.90 | 0.53 |
| 7:h:432:HIS:O | 7:h:435:SER:OG | 2.19 | 0.53 |
| 7:j:376:ALA:HB1 | 7:j:415:ILE:H | 1.74 | 0.53 |
| 7:k:325:VAL:HG13 | 7:k:402:LEU:HD12 | 1.91 | 0.53 |
| 7:l:112:GLY:O | 7:l:230:LYS:NZ | 2.42 | 0.53 |
| 7:l:355:ARG:NH2 | 7:l:375:ARG:HA | 2.23 | 0.53 |
| 7:n:408:GLY:N | 7:n:412:GLN:O | 2.38 | 0.53 |
| 7:n:508:VAL:HG23 | 7:BA:521:ILE:HD11 | 1.91 | 0.53 |
| 7:o:38:TRP:HE1 | 7:o:89:THR:HG23 | 1.72 | 0.53 |
| 7:p:146:PRO:HB2 | 7:p:171:GLN:HE21 | 1.73 | 0.53 |
| 7:r:107:MET:N | 7:r:107:MET:SD | 2.82 | 0.53 |
| 7:CA:67:PRO:HB3 | 7:CA:79:ILE:HD12 | 1.90 | 0.53 |
| 7:CA:301:LEU:HD12 | 7:CA:305:GLU:HG3 | 1.90 | 0.53 |
| 7:DA:192:ALA:O | 7:DA:200:CYS:N | 2.39 | 0.53 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:DA:301:LEU:HD12 | 7:DA:305:GLU:HG3 | 1.90 | 0.53 |
| 7:IA:444:PHE:HE2 | 7:IA:510:TRP:CE2 | 2.27 | 0.53 |
| 7:JA:185:THR:OG1 | 7:JA:198:ARG:NH2 | 2.42 | 0.53 |
| 7:PA:269:LEU:HD12 | 7:PA:346:SER:HB2 | 1.91 | 0.53 |
| 7:RA:302:THR:OG1 | 7:RA:305:GLU:OE1 | 2.24 | 0.53 |
| 8:KB:72:HIS:HA | 8:LB:138:LYS:HZ1 | 1.73 | 0.53 |
| 8:OB:79:GLY:HA3 | 8:OB:163:TYR:CZ | 2.44 | 0.53 |
| 8:PB:68:LYS:HE3 | 8:QB:76:ARG:HH22 | 1.74 | 0.53 |
| 8:QB:127:LYS:HD2 | 8:QB:129:ALA:H | 1.74 | 0.53 |
| 1:A:137:ARG:HB3 | 1:A:152:GLU:OE1 | 2.08 | 0.53 |
| 1:B:45:GLN:NE2 | 1:C:173:PHE:HA | 2.24 | 0.53 |
| 1:F:41:MET:HE1 | 7:m:362:ASP:HB3 | 1.90 | 0.53 |
| 2:H:18:TYR:HB2 | 2:H:142:ARG:HH21 | 1.73 | 0.53 |
| 4:V:94:GLY:HA3 | 7:j:382:SER:HB2 | 1.89 | 0.53 |
| 5:Y:31:SER:O | 5:Y:34:VAL:HG22 | 2.09 | 0.53 |
| 5:Y:139:GLU:HG3 | 5:Y:233:CYS:HB2 | 1.91 | 0.53 |
| 5:2:36:MET:HA | 5:2:39:LEU:HD12 | 1.91 | 0.53 |
| 5:2:334:ASN:ND2 | 5:2:366:ASN:O | 2.41 | 0.53 |
| 5:2:427:LYS:HD2 | 5:2:429:LYS:HB2 | 1.91 | 0.53 |
| 5:5:386:ARG:CZ | 5:5:475:GLU:HA | 2.39 | 0.53 |
| 5:8:376:LYS:HA | 5:8:460:PHE:HB3 | 1.91 | 0.53 |
| 5:9:33:PHE:O | 5:9:36:MET:HG3 | 2.09 | 0.53 |
| 6:a:90:PHE:HB2 | 6:a:95:ARG:HH11 | 1.74 | 0.53 |
| 7:g:420:THR:HG23 | 7:g:431:GLN:HA | 1.91 | 0.53 |
| 7:i:420:THR:HG23 | 7:i:431:GLN:HA | 1.90 | 0.53 |
| 7:j:86:ILE:HA | 7:j:89:THR:O | 2.09 | 0.53 |
| 7:l:146:PRO:HG2 | 7:l:148:ARG:HH12 | 1.74 | 0.53 |
| 7:l:360:ASN:ND2 | 7:l:362:ASP:OD1 | 2.42 | 0.53 |
| 7:r:100:ASP:OD2 | 7:r:242:ASP:N | 2.42 | 0.53 |
| 7:AA:102:LYS:HZ2 | 7:AA:120:PRO:HD3 | 1.73 | 0.53 |
| 7:AA:192:ALA:O | 7:AA:200:CYS:N | 2.39 | 0.53 |
| 7:BA:46:ARG:NE | 7:BA:62:ASP:O | 2.33 | 0.53 |
| 7:EA:188:LEU:HG | 7:EA:202:LEU:HD11 | 1.90 | 0.53 |
| 7:EA:302:THR:OG1 | 7:EA:305:GLU:OE1 | 2.25 | 0.53 |
| 7:FA:292:ASP:OD1 | 7:FA:293:GLY:N | 2.41 | 0.53 |
| 7:HA:334:ASP:OD2 | 7:HA:337:THR:OG1 | 2.22 | 0.53 |
| 7:IA:185:THR:OG1 | 7:IA:198:ARG:NH2 | 2.42 | 0.53 |
| 7:IA:269:LEU:HA | 7:IA:294:PHE:HB2 | 1.91 | 0.53 |
| 7:JA:356:GLY:O | 7:JA:359:LYS:HG2 | 2.09 | 0.53 |
| 7:KA:451:MET:HB3 | 7:KA:463:LEU:HD21 | 1.91 | 0.53 |
| 7:NA:151:THR:HG23 | 7:NA:231:LYS:HG3 | 1.90 | 0.53 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:OA:269:LEU:HD12 | 7:OA:346:SER:HB2 | 1.91 | 0.53 |
| 8:BB:168:TRP:CG | 8:CB:98:LYS:HZ3 | 2.27 | 0.53 |
| 8:CB:168:TRP:CG | 8:DB:98:LYS:HZ3 | 2.27 | 0.53 |
| 1:D:174:LYS:HZ3 | 1:D:176:PHE:HB3 | 1.74 | 0.53 |
| 2:G:42:MET:HG3 | 2:G:90:PRO:HA | 1.90 | 0.53 |
| 2:I:18:TYR:HB2 | 2:I:142:ARG:HH21 | 1.73 | 0.53 |
| 3:R:23:SER:OG | 3:R:26:GLU:OE2 | 2.27 | 0.53 |
| 4:S:33:LEU:HD11 | 4:S:112:PHE:HD2 | 1.72 | 0.53 |
| 4:T:94:GLY:HA3 | 7:h:382:SER:HB2 | 1.91 | 0.53 |
| 4:V:105:ILE:HA | 4:V:108:MET:HE3 | 1.91 | 0.53 |
| 4:W:112:PHE:HA | 4:W:116:GLY:HA3 | 1.89 | 0.53 |
| 5:Y:11:ILE:O | 5:Y:14:GLU:HG2 | 2.08 | 0.53 |
| 5:Y:275:THR:HG23 | 5:Y:278:ILE:H | 1.74 | 0.53 |
| 5:1:139:GLU:HG3 | 5:1:233:CYS:HB2 | 1.91 | 0.53 |
| 5:2:347:GLN:OE1 | 5:2:371:TYR:OH | 2.18 | 0.53 |
| 5:3:188:PHE:CE1 | 5:3:213:GLY:HA2 | 2.44 | 0.53 |
| 5:6:16:GLU:HA | 5:6:19:VAL:HG22 | 1.91 | 0.53 |
| 5:8:307:ILE:HB | 5:8:310:LEU:HD11 | 1.91 | 0.53 |
| 5:9:258:LEU:HB2 | 5:9:259:ILE:HD12 | 1.91 | 0.53 |
| 7:g:289:ARG:HA | 7:n:5:SER:HA | 1.91 | 0.53 |
| 7:g:355:ARG:NH2 | 7:g:375:ARG:HA | 2.24 | 0.53 |
| 7:k:88:GLN:HG3 | 7:k:351:ALA:HB1 | 1.90 | 0.53 |
| 7:l:105:ILE:HD12 | 7:l:136:TYR:HB3 | 1.91 | 0.53 |
| 7:l:420:THR:HG23 | 7:l:431:GLN:HA | 1.91 | 0.53 |
| 7:n:41:ILE:HG23 | 7:n:258:LEU:HD11 | 1.91 | 0.53 |
| 7:p:38:TRP:HE1 | 7:p:89:THR:HG23 | 1.72 | 0.53 |
| 7:r:33:LEU:HD11 | 7:r:358:LYS:HD2 | 1.91 | 0.53 |
| 7:r:41:ILE:HG23 | 7:r:258:LEU:HD11 | 1.91 | 0.53 |
| 7:CA:8:GLN:HB3 | 7:CA:20:PRO:HG3 | 1.90 | 0.53 |
| 7:CA:78:PRO:O | 7:CA:82:VAL:HG22 | 2.08 | 0.53 |
| 7:DA:78:PRO:O | 7:DA:82:VAL:HG22 | 2.08 | 0.53 |
| 7:GA:152:ILE:HD11 | 7:GA:228:THR:HG23 | 1.91 | 0.53 |
| 7:JA:319:ASP:OD1 | 7:JA:319:ASP:N | 2.42 | 0.53 |
| 7:LA:444:PHE:HE2 | 7:LA:510:TRP:CE2 | 2.27 | 0.53 |
| 7:PA:419:LEU:HD12 | 7:PA:429:HIS:CD2 | 2.44 | 0.53 |
| 7:QA:151:THR:HG23 | 7:QA:231:LYS:HG3 | 1.90 | 0.53 |
| 7:QA:385:PRO:HG2 | 7:QA:388:PRO:HG3 | 1.91 | 0.53 |
| 7:QA:419:LEU:HD12 | 7:QA:429:HIS:CD2 | 2.44 | 0.53 |
| 8:AB:50:GLN:HE22 | 8:AB:82:GLN:H | 1.56 | 0.53 |
| 8:KB:10:ARG:CG | 8:KB:14:LYS:HZ3 | 2.22 | 0.53 |
| 8:MB:79:GLY:HA3 | 8:MB:163:TYR:CZ | 2.44 | 0.53 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:B:169:GLN:O | 1:B:169:GLN:HG2 | 2.09 | 0.53 |
| 1:F:169:GLN:HG2 | 1:F:169:GLN:O | 2.08 | 0.53 |
| 2:H:25:ASN:OD1 | 2:H:28:TYR:N | 2.41 | 0.53 |
| 3:N:23:SER:OG | 3:N:26:GLU:OE2 | 2.27 | 0.53 |
| 4:X:27:PRO:HG2 | 4:X:28:ILE:HD12 | 1.91 | 0.53 |
| 5:Y:150:ALA:O | 5:9:21:LYS:HE3 | 2.09 | 0.53 |
| 5:Y:203:LYS:O | 5:Y:206:GLU:N | 2.41 | 0.53 |
| 5:Y:347:GLN:CD | 5:Y:374:VAL:H | 2.17 | 0.53 |
| 5:Z:203:LYS:O | 5:Z:206:GLU:N | 2.42 | 0.53 |
| 5:0:139:GLU:HG3 | 5:0:233:CYS:HB2 | 1.91 | 0.53 |
| 5:8:258:LEU:HB2 | 5:8:259:ILE:HD12 | 1.91 | 0.53 |
| 5:8:355:LEU:HB3 | 5:8:359:LYS:NZ | 2.23 | 0.53 |
| 5:9:376:LYS:HA | 5:9:460:PHE:HB3 | 1.91 | 0.53 |
| 6:c:161:LEU:HA | 6:c:164:THR:HG22 | 1.91 | 0.53 |
| 7:g:105:ILE:HD12 | 7:g:136:TYR:HB3 | 1.91 | 0.53 |
| 7:g:334:ASP:HB3 | 7:g:338:GLN:N | 2.24 | 0.53 |
| 7:i:105:ILE:HD12 | 7:i:136:TYR:HB3 | 1.91 | 0.53 |
| 7:k:289:ARG:HA | 7:r:5:SER:HA | 1.90 | 0.53 |
| 7:m:107:MET:N | 7:m:107:MET:SD | 2.82 | 0.53 |
| 7:p:443:PHE:HA | 7:p:446:GLN:NE2 | 2.24 | 0.53 |
| 7:q:103:PHE:HE1 | 7:q:121:TYR:HA | 1.74 | 0.53 |
| 7:BA:67:PRO:HB3 | 7:BA:79:ILE:HD12 | 1.90 | 0.53 |
| 7:BA:299:PRO:HA | 7:BA:327:HIS:CD2 | 2.44 | 0.53 |
| 7:CA:188:LEU:HG | 7:CA:202:LEU:HD11 | 1.91 | 0.53 |
| 7:GA:326:TYR:OH | 7:GA:345:LEU:HD12 | 2.09 | 0.53 |
| 7:HA:430:PHE:HE1 | 7:HA:519:ARG:HH11 | 1.56 | 0.53 |
| 7:HA:472:ASP:OD1 | 7:HA:494:TYR:OH | 2.22 | 0.53 |
| 7:IA:344:GLY:O | 7:IA:380:ARG:NH2 | 2.42 | 0.53 |
| 7:IA:356:GLY:O | 7:IA:359:LYS:HG2 | 2.09 | 0.53 |
| 7:MA:23:ALA:HB1 | 7:RA:529:LYS:HD2 | 1.90 | 0.53 |
| 7:NA:269:LEU:HD12 | 7:NA:346:SER:HB2 | 1.91 | 0.53 |
| 7:NA:333:LYS:HA | 7:NA:339:SER:O | 2.08 | 0.53 |
| 7:QA:465:LYS:HB3 | 7:QA:469:LYS:HZ1 | 1.73 | 0.53 |
| 7:QA:529:LYS:HD2 | 7:RA:23:ALA:HB1 | 1.90 | 0.53 |
| 8:DB:149:GLU:OE2 | 8:DB:149:GLU:N | 2.30 | 0.53 |
| 8:IB:55:THR:HB | 8:IB:76:ARG:NH2 | 2.21 | 0.53 |
| 8:PB:79:GLY:HA3 | 8:PB:163:TYR:CZ | 2.44 | 0.53 |
| 1:B:65:ASP:OD1 | 1:B:66:ILE:N | 2.42 | 0.52 |
| 2:J:143:ARG:NH2 | 2:K:165:ASN:O | 2.41 | 0.52 |
| 2:K:193:GLN:HE22 | 3:Q:90:LEU:H | 1.57 | 0.52 |
| 3:R:115:ASP:OD1 | 7:l:524:VAL:N | 2.30 | 0.52 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 4:T:59:TYR:HA | 4:T:87:GLU:HB3 | 1.91 | 0.52 |
| 4:T:62:ASP:OD1 | 4:T:62:ASP:N | 2.40 | 0.52 |
| 4:U:27:PRO:HG2 | 4:U:28:ILE:HD12 | 1.91 | 0.52 |
| 4:U:118:VAL:O | 4:U:120:GLY:N | 2.39 | 0.52 |
| 4:X:94:GLY:HA3 | 7:l:382:SER:HB2 | 1.90 | 0.52 |
| 5:Z:11:ILE:O | 5:Z:14:GLU:HG2 | 2.08 | 0.52 |
| 5:2:347:GLN:CD | 5:2:374:VAL:H | 2.17 | 0.52 |
| 5:3:139:GLU:HG3 | 5:3:233:CYS:HB2 | 1.91 | 0.52 |
| 5:4:33:PHE:O | 5:4:36:MET:HG3 | 2.09 | 0.52 |
| 5:4:258:LEU:HB2 | 5:4:259:ILE:HD12 | 1.91 | 0.52 |
| 5:5:355:LEU:HB3 | 5:5:359:LYS:NZ | 2.23 | 0.52 |
| 5:6:151:LYS:NZ | 5:6:155:GLU:OE2 | 2.37 | 0.52 |
| 6:d:90:PHE:HB2 | 6:d:95:ARG:HH11 | 1.74 | 0.52 |
| 7:h:88:GLN:HG3 | 7:h:351:ALA:HB1 | 1.91 | 0.52 |
| 7:h:360:ASN:ND2 | 7:h:362:ASP:OD1 | 2.42 | 0.52 |
| 7:h:362:ASP:OD1 | 7:h:363:VAL:N | 2.37 | 0.52 |
| 7:i:86:ILE:HA | 7:i:89:THR:O | 2.09 | 0.52 |
| 7:j:313:THR:HG22 | 7:j:315:LEU:HD23 | 1.91 | 0.52 |
| 7:l:207:GLU:OE2 | 7:r:339:SER:OG | 2.25 | 0.52 |
| 7:n:443:PHE:HA | 7:n:446:GLN:CD | 2.34 | 0.52 |
| 7:o:100:ASP:OD2 | 7:o:242:ASP:N | 2.42 | 0.52 |
| 7:o:408:GLY:N | 7:o:412:GLN:O | 2.38 | 0.52 |
| 7:o:504:ASP:OD1 | 7:CA:518:ALA:N | 2.42 | 0.52 |
| 7:p:103:PHE:HE1 | 7:p:121:TYR:HA | 1.73 | 0.52 |
| 7:AA:331:SER:OG | 7:AA:384:GLN:NE2 | 2.31 | 0.52 |
| 7:BA:8:GLN:HB3 | 7:BA:20:PRO:HG3 | 1.90 | 0.52 |
| 7:BA:301:LEU:HD12 | 7:BA:305:GLU:HG3 | 1.90 | 0.52 |
| 7:CA:38:TRP:HB3 | 7:CA:350:TYR:CZ | 2.44 | 0.52 |
| 7:CA:192:ALA:O | 7:CA:200:CYS:N | 2.39 | 0.52 |
| 7:EA:38:TRP:HB3 | 7:EA:350:TYR:CE2 | 2.44 | 0.52 |
| 7:EA:67:PRO:HB3 | 7:EA:79:ILE:HD12 | 1.90 | 0.52 |
| 7:EA:299:PRO:HA | 7:EA:327:HIS:CD2 | 2.44 | 0.52 |
| 7:FA:188:LEU:HG | 7:FA:202:LEU:HD11 | 1.91 | 0.52 |
| 7:IA:449:ARG:NH2 | 7:OA:410:SER:OG | 2.29 | 0.52 |
| 7:LA:466:GLY:O | 7:LA:469:LYS:HG3 | 2.09 | 0.52 |
| 7:MA:419:LEU:HD12 | 7:MA:429:HIS:CD2 | 2.44 | 0.52 |
| 7:NA:526:LEU:HD12 | 7:NA:527:LEU:H | 1.74 | 0.52 |
| 7:OA:59:ASN:OD1 | 7:OA:62:ASP:HB3 | 2.09 | 0.52 |
| 7:OA:419:LEU:HD12 | 7:OA:429:HIS:CD2 | 2.44 | 0.52 |
| 8:DB:47:ARG:NH1 | 8:IB:64:PRO:HA | 2.22 | 0.52 |
| 8:GB:137:CYS:HB3 | 8:GB:161:ILE:HD11 | 1.90 | 0.52 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 8:HB:165:TRP:CE3 | 8:HB:167:GLU:HG3 | 2.44 | 0.52 |
| 8:LB:32:PHE:O | 8:QB:65:ASN:ND2 | 2.42 | 0.52 |
| 8:MB:26:ARG:NH2 | 8:NB:87:GLU:O | 2.42 | 0.52 |
| 8:NB:127:LYS:HD2 | 8:NB:129:ALA:H | 1.74 | 0.52 |
| 8:OB:127:LYS:HD2 | 8:OB:129:ALA:H | 1.74 | 0.52 |
| 8:PB:127:LYS:HD2 | 8:PB:129:ALA:H | 1.74 | 0.52 |
| 1:C:60:ASP:OD2 | 1:C:61:PHE:N | 2.42 | 0.52 |
| 1:E:140:ARG:HD3 | 1:E:148:LYS:HZ3 | 1.73 | 0.52 |
| 3:M:60:PRO:O | 3:M:67:GLN:NE2 | 2.34 | 0.52 |
| 3:P:40:GLN:NE2 | 3:P:52:VAL:HG22 | 2.21 | 0.52 |
| 4:V:117:GLN:NE2 | 5:1:160:LYS:H | 2.07 | 0.52 |
| 5:Z:83:LYS:HE2 | 5:Z:169:LEU:HD23 | 1.91 | 0.52 |
| 5:Z:201:PHE:CE2 | 5:Z:211:ARG:HG3 | 2.44 | 0.52 |
| 5:0:11:ILE:O | 5:0:14:GLU:HG2 | 2.08 | 0.52 |
| 5:3:31:SER:O | 5:3:34:VAL:HG22 | 2.09 | 0.52 |
| 5:3:275:THR:HG23 | 5:3:278:ILE:H | 1.74 | 0.52 |
| 5:3:347:GLN:CD | 5:3:374:VAL:H | 2.17 | 0.52 |
| 5:5:307:ILE:HB | 5:5:310:LEU:HD11 | 1.91 | 0.52 |
| 5:7:258:LEU:HB2 | 5:7:259:ILE:HD12 | 1.91 | 0.52 |
| 7:g:84:GLU:O | 7:g:88:GLN:NE2 | 2.40 | 0.52 |
| 7:g:259:ASN:O | 7:g:289:ARG:NH2 | 2.42 | 0.52 |
| 7:g:355:ARG:NH2 | 7:g:374:GLU:O | 2.40 | 0.52 |
| 7:g:405:VAL:HG12 | 7:g:415:ILE:HG13 | 1.90 | 0.52 |
| 7:h:105:ILE:HD12 | 7:h:136:TYR:HB3 | 1.92 | 0.52 |
| 7:j:259:ASN:O | 7:j:289:ARG:NH2 | 2.42 | 0.52 |
| 7:k:259:ASN:O | 7:k:289:ARG:NH2 | 2.42 | 0.52 |
| 7:k:405:VAL:HG12 | 7:k:415:ILE:HG13 | 1.90 | 0.52 |
| 7:n:357:VAL:HG21 | 7:n:366:TRP:CE3 | 2.45 | 0.52 |
| 7:p:44:PHE:HE1 | 7:p:78:PRO:HB2 | 1.75 | 0.52 |
| 7:AA:520:ARG:NH1 | 7:AA:522:GLN:HB3 | 2.23 | 0.52 |
| 7:BA:102:LYS:HZ2 | 7:BA:120:PRO:HD3 | 1.74 | 0.52 |
| 7:CA:451:MET:HE2 | 7:CA:451:MET:HA | 1.91 | 0.52 |
| 7:GA:447:LEU:O | 7:GA:450:GLN:HG3 | 2.08 | 0.52 |
| 7:JA:480:LEU:HD11 | 7:JA:513:CYS:H | 1.74 | 0.52 |
| 7:KA:136:TYR:CE2 | 7:KA:214:ARG:HB2 | 2.44 | 0.52 |
| 7:KA:210:SER:OG | 7:KA:214:ARG:NH2 | 2.42 | 0.52 |
| 7:KA:326:TYR:OH | 7:KA:345:LEU:HD12 | 2.09 | 0.52 |
| 7:RA:419:LEU:HD12 | 7:RA:429:HIS:CD2 | 2.44 | 0.52 |
| 8:EB:56:ARG:NH1 | 8:EB:72:HIS:HA | 2.24 | 0.52 |
| 8:EB:168:TRP:CG | 8:FB:98:LYS:HZ3 | 2.26 | 0.52 |
| 8:GB:168:TRP:HB2 | 8:HB:98:LYS:NZ | 2.25 | 0.52 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 8:JB:17:TYR:OH | 8:QB:136:ASP:OD2 | 2.26 | 0.52 |
| 8:JB:31:GLU:CD | 8:JB:115:PRO:HA | 2.35 | 0.52 |
| 8:JB:70:ASN:OD1 | 8:KB:164:ASN:ND2 | 2.40 | 0.52 |
| 8:LB:31:GLU:OE2 | 8:LB:116:GLU:N | 2.43 | 0.52 |
| 1:A:96:ILE:CG2 | 1:A:180:PHE:HB2 | 2.40 | 0.52 |
| 1:B:96:ILE:CG2 | 1:B:180:PHE:HB2 | 2.40 | 0.52 |
| 2:J:19:LEU:HD13 | 2:J:33:TYR:HD1 | 1.75 | 0.52 |
| 3:P:11:LEU:HD12 | 7:k:22:ASN:H | 1.75 | 0.52 |
| 3:P:75:LEU:O | 3:P:79:THR:HG23 | 2.09 | 0.52 |
| 3:R:96:ASP:N | 3:R:96:ASP:OD1 | 2.41 | 0.52 |
| 4:T:52:TYR:HB3 | 4:T:94:GLY:HA2 | 1.91 | 0.52 |
| 5:Z:36:MET:HA | 5:Z:39:LEU:HD12 | 1.91 | 0.52 |
| 5:0:17:GLU:HA | 5:0:20:GLU:HG2 | 1.91 | 0.52 |
| 5:0:83:LYS:HE2 | 5:0:169:LEU:HD23 | 1.92 | 0.52 |
| 5:1:427:LYS:HD2 | 5:1:429:LYS:HB2 | 1.91 | 0.52 |
| 5:2:159:SER:O | 5:2:163:THR:HG23 | 2.09 | 0.52 |
| 5:5:187:MET:SD | 6:b:95:ARG:NH1 | 2.82 | 0.52 |
| 5:5:258:LEU:HB2 | 5:5:259:ILE:HD12 | 1.91 | 0.52 |
| 7:j:112:GLY:O | 7:j:230:LYS:NZ | 2.42 | 0.52 |
| 7:j:334:ASP:HB3 | 7:j:338:GLN:N | 2.24 | 0.52 |
| 7:k:112:GLY:O | 7:k:230:LYS:NZ | 2.42 | 0.52 |
| 7:k:420:THR:HG23 | 7:k:431:GLN:HA | 1.91 | 0.52 |
| 7:m:349:ALA:O | 7:m:353:LYS:HG2 | 2.09 | 0.52 |
| 7:q:443:PHE:HA | 7:q:446:GLN:NE2 | 2.24 | 0.52 |
| 7:r:432:HIS:O | 7:r:435:SER:OG | 2.18 | 0.52 |
| 7:r:433:VAL:O | 7:r:436:LEU:HG | 2.09 | 0.52 |
| 7:AA:299:PRO:HA | 7:AA:327:HIS:CD2 | 2.44 | 0.52 |
| 7:AA:384:GLN:NE2 | 7:AA:385:PRO:O | 2.42 | 0.52 |
| 7:EA:38:TRP:HB3 | 7:EA:350:TYR:CZ | 2.45 | 0.52 |
| 7:NA:419:LEU:HD12 | 7:NA:429:HIS:CD2 | 2.44 | 0.52 |
| 7:PA:59:ASN:OD1 | 7:PA:62:ASP:HB3 | 2.09 | 0.52 |
| 8:GB:17:TYR:OH | 8:NB:136:ASP:OD2 | 2.27 | 0.52 |
| 8:IB:14:LYS:HE3 | 8:PB:165:TRP:CZ2 | 2.35 | 0.52 |
| 8:JB:168:TRP:HB2 | 8:KB:98:LYS:NZ | 2.25 | 0.52 |
| 8:LB:87:GLU:HB2 | 8:LB:93:ILE:HD12 | 1.92 | 0.52 |
| 8:NB:79:GLY:HA3 | 8:NB:163:TYR:CZ | 2.44 | 0.52 |
| 8:QB:26:ARG:NH2 | 8:RB:87:GLU:O | 2.42 | 0.52 |
| 8:RB:79:GLY:HA3 | 8:RB:163:TYR:CZ | 2.44 | 0.52 |
| 1:C:115:ALA:O | 1:C:119:VAL:HG23 | 2.08 | 0.52 |
| 1:E:169:GLN:O | 1:E:169:GLN:HG2 | 2.09 | 0.52 |
| 2:H:42:MET:HG3 | 2:H:90:PRO:HA | 1.92 | 0.52 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 3:M:115:ASP:OD1 | 3:M:115:ASP:N | 2.40 | 0.52 |
| 3:O:57:LYS:HE2 | 7:j:3:GLN:HB3 | 1.91 | 0.52 |
| 3:O:58:HIS:CD2 | 7:i:371:ALA:HB3 | 2.44 | 0.52 |
| 3:O:60:PRO:HA | 7:i:517:VAL:HG13 | 1.91 | 0.52 |
| 4:S:74:LEU:HD23 | 4:S:99:LEU:HD12 | 1.91 | 0.52 |
| 4:W:33:LEU:HD11 | 4:W:112:PHE:HD2 | 1.73 | 0.52 |
| 5:Y:83:LYS:HE2 | 5:Y:169:LEU:HD23 | 1.92 | 0.52 |
| 5:O:350:LEU:HA | 5:O:353:MET:HE2 | 1.91 | 0.52 |
| 5:2:31:SER:O | 5:2:34:VAL:HG22 | 2.09 | 0.52 |
| 5:3:83:LYS:HE2 | 5:3:169:LEU:HD23 | 1.92 | 0.52 |
| 5:6:258:LEU:HB2 | 5:6:259:ILE:HD12 | 1.91 | 0.52 |
| 6:f:161:LEU:HA | 6:f:164:THR:HG22 | 1.91 | 0.52 |
| 7:j:146:PRO:HG2 | 7:j:148:ARG:HH12 | 1.74 | 0.52 |
| 7:j:199:LEU:HD21 | 7:p:69:LYS:HZ1 | 1.74 | 0.52 |
| 7:k:360:ASN:ND2 | 7:k:362:ASP:OD1 | 2.42 | 0.52 |
| 7:m:510:TRP:HZ3 | 7:AA:523:GLY:HA3 | 1.74 | 0.52 |
| 7:n:349:ALA:O | 7:n:353:LYS:HG2 | 2.09 | 0.52 |
| 7:o:443:PHE:HA | 7:o:446:GLN:CD | 2.35 | 0.52 |
| 7:q:323:CYS:O | 7:q:420:THR:OG1 | 2.26 | 0.52 |
| 7:r:201:TYR:CD1 | 7:r:203:PRO:HD2 | 2.45 | 0.52 |
| 7:BA:331:SER:OG | 7:BA:384:GLN:NE2 | 2.30 | 0.52 |
| 7:BA:520:ARG:HH21 | 7:CA:17:ALA:C | 2.17 | 0.52 |
| 7:EA:8:GLN:HB3 | 7:EA:20:PRO:HG3 | 1.90 | 0.52 |
| 7:EA:373:GLU:OE2 | 7:EA:409:THR:OG1 | 2.17 | 0.52 |
| 7:FA:366:TRP:CD1 | 7:FA:435:SER:HB2 | 2.45 | 0.52 |
| 7:GA:38:TRP:HD1 | 7:GA:350:TYR:CE2 | 2.26 | 0.52 |
| 7:GA:210:SER:OG | 7:GA:214:ARG:NH2 | 2.42 | 0.52 |
| 7:GA:319:ASP:N | 7:GA:319:ASP:OD1 | 2.42 | 0.52 |
| 7:JA:136:TYR:CE2 | 7:JA:214:ARG:HB2 | 2.44 | 0.52 |
| 7:JA:152:ILE:HD11 | 7:JA:228:THR:HG23 | 1.91 | 0.52 |
| 7:KA:319:ASP:OD1 | 7:KA:319:ASP:N | 2.42 | 0.52 |
| 7:LA:344:GLY:O | 7:LA:380:ARG:NH2 | 2.42 | 0.52 |
| 7:LA:433:VAL:O | 7:LA:436:LEU:HG | 2.08 | 0.52 |
| 7:PA:48:LYS:HD2 | 7:PA:49:PRO:HD2 | 1.91 | 0.52 |
| 7:PA:334:ASP:HB3 | 7:PA:338:GLN:H | 1.73 | 0.52 |
| 7:QA:302:THR:OG1 | 7:QA:305:GLU:OE1 | 2.25 | 0.52 |
| 8:GB:68:LYS:NZ | 8:HB:164:ASN:HA | 2.24 | 0.52 |
| 8:GB:70:ASN:OD1 | 8:HB:164:ASN:ND2 | 2.40 | 0.52 |
| 8:IB:165:TRP:CE3 | 8:IB:167:GLU:HG3 | 2.45 | 0.52 |
| 8:JB:7:LYS:O | 8:KB:117:SER:OG | 2.18 | 0.52 |
| 1:A:51:VAL:HG12 | 1:A:138:ILE:HG22 | 1.91 | 0.52 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:B:86:LEU:HD11 | 1:C:181:ALA:HB1 | 1.91 | 0.52 |
| 1:C:119:VAL:HA | 1:C:132:TYR:CG | 2.45 | 0.52 |
| 1:D:86:LEU:HD11 | 1:E:181:ALA:HB1 | 1.92 | 0.52 |
| 1:F:60:ASP:OD2 | 1:F:61:PHE:N | 2.42 | 0.52 |
| 2:L:151:ILE:HA | 2:L:177:LEU:HD13 | 1.91 | 0.52 |
| 3:M:73:MET:O | 3:M:76:GLN:HG3 | 2.09 | 0.52 |
| 3:P:60:PRO:HA | 7:j:517:VAL:HG13 | 1.91 | 0.52 |
| 3:Q:63:LEU:O | 3:Q:66:VAL:HG22 | 2.10 | 0.52 |
| 5:0:93:ILE:HG13 | 5:0:261:VAL:HG13 | 1.92 | 0.52 |
| 5:0:347:GLN:CD | 5:0:374:VAL:H | 2.18 | 0.52 |
| 5:3:11:ILE:O | 5:3:14:GLU:HG2 | 2.08 | 0.52 |
| 5:6:386:ARG:CZ | 5:6:475:GLU:HA | 2.39 | 0.52 |
| 5:9:244:GLN:N | 5:9:263:THR:OG1 | 2.34 | 0.52 |
| 6:f:97:ILE:O | 6:f:100:THR:OG1 | 2.24 | 0.52 |
| 7:h:259:ASN:O | 7:h:289:ARG:NH2 | 2.42 | 0.52 |
| 7:h:334:ASP:HB3 | 7:h:338:GLN:N | 2.24 | 0.52 |
| 7:h:355:ARG:NH2 | 7:h:375:ARG:HA | 2.24 | 0.52 |
| 7:h:376:ALA:HB1 | 7:h:415:ILE:H | 1.74 | 0.52 |
| 7:k:334:ASP:HB3 | 7:k:338:GLN:N | 2.24 | 0.52 |
| 7:l:334:ASP:HB3 | 7:l:338:GLN:N | 2.24 | 0.52 |
| 7:m:201:TYR:CD1 | 7:m:203:PRO:HD2 | 2.45 | 0.52 |
| 7:m:510:TRP:CZ2 | 7:AA:525:PRO:HG3 | 2.45 | 0.52 |
| 7:m:522:GLN:HE22 | 7:m:524:VAL:HG13 | 1.75 | 0.52 |
| 7:n:201:TYR:CD1 | 7:n:203:PRO:HD2 | 2.45 | 0.52 |
| 7:n:443:PHE:HA | 7:n:446:GLN:NE2 | 2.24 | 0.52 |
| 7:o:146:PRO:HB2 | 7:o:171:GLN:HE21 | 1.73 | 0.52 |
| 7:o:443:PHE:HA | 7:o:446:GLN:NE2 | 2.24 | 0.52 |
| 7:o:510:TRP:CZ2 | 7:CA:525:PRO:HG3 | 2.44 | 0.52 |
| 7:q:41:ILE:HG23 | 7:q:258:LEU:HD11 | 1.91 | 0.52 |
| 7:r:135:ILE:HG12 | 7:r:213:LEU:HD12 | 1.90 | 0.52 |
| 7:AA:17:ALA:O | 7:FA:520:ARG:NH2 | 2.42 | 0.52 |
| 7:AA:378:ILE:HG12 | 7:AA:413:MET:O | 2.10 | 0.52 |
| 7:CA:465:LYS:O | 7:CA:469:LYS:HG2 | 2.09 | 0.52 |
| 7:CA:482:ALA:HA | 7:CA:493:PRO:HB3 | 1.92 | 0.52 |
| 7:EA:520:ARG:NH2 | 7:FA:17:ALA:O | 2.43 | 0.52 |
| 7:FA:78:PRO:O | 7:FA:82:VAL:HG22 | 2.08 | 0.52 |
| 7:GA:269:LEU:HA | 7:GA:294:PHE:HB2 | 1.92 | 0.52 |
| 7:HA:202:LEU:HB2 | 7:HA:203:PRO:HD3 | 1.90 | 0.52 |
| 7:JA:172:THR:OG1 | 7:JA:178:VAL:HG22 | 2.10 | 0.52 |
| 7:KA:152:ILE:HD11 | 7:KA:228:THR:HG23 | 1.92 | 0.52 |
| 7:KA:344:GLY:O | 7:KA:380:ARG:NH2 | 2.42 | 0.52 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:KA:356:GLY:O | 7:KA:359:LYS:HG2 | 2.10 | 0.52 |
| 7:LA:172:THR:OG1 | 7:LA:178:VAL:HG22 | 2.10 | 0.52 |
| 7:MA:527:LEU:HD23 | 7:NA:21:ILE:HD11 | 1.90 | 0.52 |
| 7:NA:59:ASN:OD1 | 7:NA:62:ASP:HB3 | 2.09 | 0.52 |
| 7:PA:493:PRO:HG2 | 7:PA:494:TYR:HD1 | 1.74 | 0.52 |
| 8:CB:57:GLU:OE2 | 8:CB:73:GLY:HA3 | 2.10 | 0.52 |
| 8:FB:50:GLN:HE22 | 8:FB:82:GLN:H | 1.56 | 0.52 |
| 8:IB:31:GLU:CD | 8:IB:115:PRO:HA | 2.34 | 0.52 |
| 8:IB:48:THR:OG1 | 8:JB:149:GLU:OE2 | 2.25 | 0.52 |
| 8:MB:14:LYS:O | 8:MB:18:THR:HG23 | 2.09 | 0.52 |
| 8:QB:45:LEU:HD21 | 8:QB:86:VAL:O | 2.10 | 0.52 |
| 1:A:115:ALA:O | 1:A:119:VAL:HG23 | 2.10 | 0.52 |
| 1:F:37:ILE:HD13 | 1:F:40:LYS:HZ2 | 1.75 | 0.52 |
| 3:P:77:LYS:HA | 3:P:80:VAL:HG22 | 1.92 | 0.52 |
| 3:R:63:LEU:O | 3:R:66:VAL:HG22 | 2.10 | 0.52 |
| 5:Y:451:TRP:NE1 | 5:Y:453:GLU:OE2 | 2.40 | 0.52 |
| 5:Z:93:ILE:HG13 | 5:Z:261:VAL:HG13 | 1.91 | 0.52 |
| 5:Z:275:THR:HG23 | 5:Z:278:ILE:H | 1.75 | 0.52 |
| 5:0:31:SER:O | 5:0:34:VAL:HG22 | 2.09 | 0.52 |
| 5:1:83:LYS:HE2 | 5:1:169:LEU:HD23 | 1.92 | 0.52 |
| 5:3:17:GLU:HA | 5:3:20:GLU:HG2 | 1.91 | 0.52 |
| 5:3:159:SER:O | 5:3:163:THR:HG23 | 2.09 | 0.52 |
| 5:5:153:PHE:O | 5:5:211:ARG:NE | 2.31 | 0.52 |
| 5:7:33:PHE:O | 5:7:36:MET:HG3 | 2.09 | 0.52 |
| 5:7:376:LYS:HA | 5:7:460:PHE:HB3 | 1.92 | 0.52 |
| 7:h:86:ILE:HA | 7:h:89:THR:O | 2.09 | 0.52 |
| 7:i:102:LYS:HG2 | 7:i:120:PRO:HA | 1.92 | 0.52 |
| 7:i:146:PRO:HG2 | 7:i:148:ARG:HH12 | 1.74 | 0.52 |
| 7:i:360:ASN:ND2 | 7:i:362:ASP:OD1 | 2.42 | 0.52 |
| 7:i:362:ASP:OD1 | 7:i:363:VAL:N | 2.37 | 0.52 |
| 7:k:105:ILE:HD12 | 7:k:136:TYR:HB3 | 1.92 | 0.52 |
| 7:k:496:LEU:HD12 | 7:k:509:VAL:O | 2.09 | 0.52 |
| 7:o:41:ILE:HG23 | 7:o:258:LEU:HD11 | 1.91 | 0.52 |
| 7:q:146:PRO:HB2 | 7:q:171:GLN:HE21 | 1.74 | 0.52 |
| 7:q:432:HIS:O | 7:q:435:SER:OG | 2.18 | 0.52 |
| 7:AA:482:ALA:HA | 7:AA:493:PRO:HB3 | 1.92 | 0.52 |
| 7:BA:269:LEU:HD21 | 7:BA:350:TYR:CD2 | 2.45 | 0.52 |
| 7:BA:447:LEU:O | 7:BA:450:GLN:NE2 | 2.42 | 0.52 |
| 7:DA:378:ILE:HG12 | 7:DA:413:MET:O | 2.10 | 0.52 |
| 7:DA:447:LEU:O | 7:DA:450:GLN:NE2 | 2.42 | 0.52 |
| 7:FA:38:TRP:HB3 | 7:FA:350:TYR:CZ | 2.44 | 0.52 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:GA:202:LEU:HB2 | 7:GA:203:PRO:HD3 | 1.90 | 0.52 |
| 7:GA:344:GLY:O | 7:GA:380:ARG:NH2 | 2.42 | 0.52 |
| 7:HA:185:THR:OG1 | 7:HA:198:ARG:NH2 | 2.42 | 0.52 |
| 7:HA:344:GLY:O | 7:HA:380:ARG:NH2 | 2.42 | 0.52 |
| 7:JA:326:TYR:OH | 7:JA:345:LEU:HD12 | 2.09 | 0.52 |
| 7:LA:152:ILE:HD11 | 7:LA:228:THR:HG23 | 1.92 | 0.52 |
| 7:MA:269:LEU:HD12 | 7:MA:346:SER:HB2 | 1.91 | 0.52 |
| 8:JB:47:ARG:N | 8:JB:84:GLN:O | 2.30 | 0.52 |
| 8:NB:116:GLU:HA | 8:NB:119:SER:OG | 2.10 | 0.52 |
| 1:B:115:ALA:O | 1:B:119:VAL:HG23 | 2.09 | 0.52 |
| 1:E:115:ALA:O | 1:E:119:VAL:HG23 | 2.10 | 0.52 |
| 2:H:193:GLN:HE22 | 3:N:90:LEU:H | 1.57 | 0.52 |
| 2:J:42:MET:HG3 | 2:J:90:PRO:HA | 1.90 | 0.52 |
| 3:O:74:LEU:HA | 3:O:77:LYS:HZ2 | 1.74 | 0.52 |
| 5:Y:102:ALA:O | 5:Y:126:LEU:N | 2.33 | 0.52 |
| 5:1:350:LEU:HA | 5:1:353:MET:HE2 | 1.91 | 0.52 |
| 5:2:29:VAL:HG23 | 5:9:241:VAL:HG13 | 1.92 | 0.52 |
| 6:e:75:SER:O | 6:e:78:PRO:HD2 | 2.10 | 0.52 |
| 7:g:334:ASP:OD2 | 7:g:337:THR:OG1 | 2.22 | 0.52 |
| 7:i:259:ASN:O | 7:i:289:ARG:NH2 | 2.42 | 0.52 |
| 7:i:376:ALA:HB1 | 7:i:415:ILE:H | 1.75 | 0.52 |
| 7:j:420:THR:HG23 | 7:j:431:GLN:HA | 1.91 | 0.52 |
| 7:l:357:VAL:HG23 | 7:l:365:GLY:C | 2.35 | 0.52 |
| 7:m:499:THR:HG23 | 7:m:507:GLU:OE2 | 2.10 | 0.52 |
| 7:o:433:VAL:O | 7:o:436:LEU:HG | 2.09 | 0.52 |
| 7:q:100:ASP:OD2 | 7:q:242:ASP:N | 2.42 | 0.52 |
| 7:q:443:PHE:HA | 7:q:446:GLN:CD | 2.34 | 0.52 |
| 7:DA:188:LEU:HG | 7:DA:202:LEU:HD11 | 1.91 | 0.52 |
| 7:EA:78:PRO:O | 7:EA:82:VAL:HG22 | 2.08 | 0.52 |
| 7:EA:527:LEU:HG | 7:EA:529:LYS:H | 1.74 | 0.52 |
| 7:FA:299:PRO:HA | 7:FA:327:HIS:CD2 | 2.44 | 0.52 |
| 7:FA:331:SER:OG | 7:FA:384:GLN:NE2 | 2.31 | 0.52 |
| 7:IA:466:GLY:O | 7:IA:469:LYS:HG3 | 2.09 | 0.52 |
| 7:JA:269:LEU:HA | 7:JA:294:PHE:HB2 | 1.92 | 0.52 |
| 7:KA:185:THR:OG1 | 7:KA:198:ARG:NH2 | 2.42 | 0.52 |
| 8:GB:164:ASN:HA | 8:LB:68:LYS:NZ | 2.24 | 0.52 |
| 1:B:203:LEU:HD12 | 2:H:105:PHE:HB2 | 1.92 | 0.52 |
| 3:M:75:LEU:O | 3:M:79:THR:HG23 | 2.10 | 0.52 |
| 3:N:106:ARG:HA | 3:N:110:ILE:HG22 | 1.92 | 0.52 |
| 3:P:99:ASP:HB2 | 3:P:100:LYS:HZ3 | 1.75 | 0.52 |
| 5:Y:350:LEU:HA | 5:Y:353:MET:HE2 | 1.91 | 0.52 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 5:1:29:VAL:HG23 | 5:8:241:VAL:HG13 | 1.92 | 0.52 |
| 5:1:347:GLN:CD | 5:1:374:VAL:H | 2.17 | 0.52 |
| 5:5:115:GLN:HE22 | 7:h:71:SER:HB2 | 1.75 | 0.52 |
| 5:6:153:PHE:O | 5:6:211:ARG:NE | 2.31 | 0.52 |
| 5:6:376:LYS:HA | 5:6:460:PHE:HB3 | 1.91 | 0.52 |
| 7:g:86:ILE:HA | 7:g:89:THR:O | 2.09 | 0.52 |
| 7:h:485:ASP:OD1 | 7:h:485:ASP:N | 2.42 | 0.52 |
| 7:i:88:GLN:HG3 | 7:i:351:ALA:HB1 | 1.92 | 0.52 |
| 7:i:137:VAL:HA | 7:i:213:LEU:HD13 | 1.92 | 0.52 |
| 7:i:334:ASP:HB3 | 7:i:338:GLN:N | 2.24 | 0.52 |
| 7:j:360:ASN:ND2 | 7:j:362:ASP:OD1 | 2.41 | 0.52 |
| 7:k:357:VAL:HG23 | 7:k:365:GLY:C | 2.35 | 0.52 |
| 7:l:313:THR:HG22 | 7:l:315:LEU:HD23 | 1.92 | 0.52 |
| 7:l:376:ALA:HB1 | 7:l:415:ILE:H | 1.74 | 0.52 |
| 7:p:100:ASP:OD2 | 7:p:242:ASP:N | 2.42 | 0.52 |
| 7:q:291:ILE:HA | 7:q:438:ASN:HD21 | 1.75 | 0.52 |
| 7:q:503:PHE:HB3 | 7:EA:484:ARG:NH2 | 2.24 | 0.52 |
| 7:r:503:PHE:HB3 | 7:FA:484:ARG:NH2 | 2.25 | 0.52 |
| 7:BA:38:TRP:HB3 | 7:BA:350:TYR:CZ | 2.45 | 0.52 |
| 7:BA:377:VAL:HG13 | 7:BA:412:GLN:HB2 | 1.92 | 0.52 |
| 7:CA:378:ILE:HG12 | 7:CA:413:MET:O | 2.10 | 0.52 |
| 7:EA:264:MET:HE1 | 7:LA:4:TYR:CZ | 2.43 | 0.52 |
| 7:EA:378:ILE:HG22 | 7:EA:380:ARG:HG3 | 1.92 | 0.52 |
| 7:GA:451:MET:HB3 | 7:GA:463:LEU:HD21 | 1.92 | 0.52 |
| 7:KA:505:LYS:HA | 7:QA:520:ARG:HH21 | 1.75 | 0.52 |
| 7:LA:202:LEU:HB2 | 7:LA:203:PRO:HD3 | 1.90 | 0.52 |
| 7:LA:296:ASP:OD1 | 7:LA:297:VAL:N | 2.43 | 0.52 |
| 7:LA:430:PHE:HE1 | 7:LA:519:ARG:HH11 | 1.56 | 0.52 |
| 7:MA:493:PRO:HG2 | 7:MA:494:TYR:HD1 | 1.74 | 0.52 |
| 7:QA:59:ASN:OD1 | 7:QA:62:ASP:HB3 | 2.09 | 0.52 |
| 7:QA:120:PRO:O | 7:QA:123:SER:OG | 2.18 | 0.52 |
| 8:GB:31:GLU:CD | 8:GB:115:PRO:HA | 2.35 | 0.52 |
| 8:GB:32:PHE:HA | 8:GB:113:ALA:HA | 1.92 | 0.52 |
| 8:JB:13:ILE:HD11 | 8:JB:14:LYS:HZ2 | 1.74 | 0.52 |
| 8:JB:165:TRP:CE3 | 8:JB:167:GLU:HG3 | 2.45 | 0.52 |
| 8:NB:81:ILE:HB | 8:NB:161:ILE:HG23 | 1.91 | 0.52 |
| 1:B:140:ARG:HD3 | 1:B:148:LYS:NZ | 2.25 | 0.52 |
| 1:F:96:ILE:CG2 | 1:F:180:PHE:HB2 | 2.40 | 0.52 |
| 2:G:19:LEU:HD13 | 2:G:33:TYR:HD1 | 1.75 | 0.52 |
| 2:H:193:GLN:NE2 | 3:N:90:LEU:H | 2.08 | 0.52 |
| 3:M:23:SER:OG | 3:M:26:GLU:OE2 | 2.27 | 0.52 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 3:Q:75:LEU:O | 3:Q:79:THR:HG23 | 2.10 | 0.52 |
| 4:V:105:ILE:H | 4:V:105:ILE:HD12 | 1.75 | 0.52 |
| 5:Y:93:ILE:HG13 | 5:Y:261:VAL:HG13 | 1.92 | 0.52 |
| 5:Y:427:LYS:HD2 | 5:Y:429:LYS:HB2 | 1.91 | 0.52 |
| 5:0:29:VAL:HG23 | 5:7:241:VAL:HG13 | 1.92 | 0.52 |
| 5:0:375:ARG:HE | 5:0:458:TYR:HE2 | 1.58 | 0.52 |
| 5:0:427:LYS:HD2 | 5:0:429:LYS:HB2 | 1.91 | 0.52 |
| 5:1:448:PHE:HB3 | 5:1:451:TRP:HB2 | 1.92 | 0.52 |
| 5:2:83:LYS:HE2 | 5:2:169:LEU:HD23 | 1.92 | 0.52 |
| 5:3:36:MET:HA | 5:3:39:LEU:HD12 | 1.91 | 0.52 |
| 5:3:150:ALA:O | 5:8:21:LYS:HE3 | 2.10 | 0.52 |
| 5:6:115:GLN:HE22 | 7:i:71:SER:HB2 | 1.75 | 0.52 |
| 5:7:342:HIS:HB3 | 5:7:345:LYS:HB2 | 1.91 | 0.52 |
| 5:9:119:MET:HA | 5:9:119:MET:HE2 | 1.92 | 0.52 |
| 7:j:105:ILE:HD12 | 7:j:136:TYR:HB3 | 1.92 | 0.52 |
| 7:k:86:ILE:HA | 7:k:89:THR:O | 2.09 | 0.52 |
| 7:k:102:LYS:HG2 | 7:k:120:PRO:HA | 1.92 | 0.52 |
| 7:o:201:TYR:CD1 | 7:o:203:PRO:HD2 | 2.45 | 0.52 |
| 7:q:357:VAL:HG21 | 7:q:366:TRP:CE3 | 2.45 | 0.52 |
| 7:AA:188:LEU:HG | 7:AA:202:LEU:HD11 | 1.90 | 0.52 |
| 7:CA:432:HIS:O | 7:CA:435:SER:OG | 2.21 | 0.52 |
| 7:DA:302:THR:N | 7:DA:305:GLU:OE2 | 2.41 | 0.52 |
| 7:GA:185:THR:OG1 | 7:GA:198:ARG:NH2 | 2.42 | 0.52 |
| 7:GA:505:LYS:HA | 7:MA:520:ARG:HH21 | 1.75 | 0.52 |
| 7:HA:505:LYS:HA | 7:NA:520:ARG:HH21 | 1.75 | 0.52 |
| 7:IA:46:ARG:HD3 | 7:IA:141:ASP:HB2 | 1.92 | 0.52 |
| 7:JA:449:ARG:NH2 | 7:PA:410:SER:OG | 2.25 | 0.52 |
| 7:KA:447:LEU:O | 7:KA:450:GLN:HG3 | 2.10 | 0.52 |
| 7:LA:185:THR:OG1 | 7:LA:198:ARG:NH2 | 2.42 | 0.52 |
| 7:LA:355:ARG:HH22 | 7:LA:375:ARG:HA | 1.74 | 0.52 |
| 8:FB:149:GLU:OE2 | 8:FB:149:GLU:N | 2.30 | 0.52 |
| 8:HB:70:ASN:OD1 | 8:IB:164:ASN:ND2 | 2.38 | 0.52 |
| 8:IB:29:SER:OG | 8:JB:146:PHE:HB2 | 2.08 | 0.52 |
| 8:JB:29:SER:H | 8:KB:154:ALA:HA | 1.75 | 0.52 |
| 8:JB:137:CYS:HB3 | 8:JB:161:ILE:HD11 | 1.91 | 0.52 |
| 8:KB:3:HIS:HB2 | 8:LB:25:GLU:OE2 | 2.10 | 0.52 |
| 8:MB:98:LYS:HZ2 | 8:RB:169:ASP:HA | 1.74 | 0.52 |
| 1:C:29:GLU:O | 1:C:32:LYS:HG3 | 2.11 | 0.52 |
| 1:C:96:ILE:CG2 | 1:C:180:PHE:HB2 | 2.40 | 0.52 |
| 2:I:151:ILE:HA | 2:I:177:LEU:HD13 | 1.91 | 0.52 |
| 2:L:42:MET:HG3 | 2:L:90:PRO:HA | 1.90 | 0.52 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 3:O:63:LEU:O | 3:O:66:VAL:HG22 | 2.10 | 0.52 |
| 4:V:52:TYR:HB3 | 4:V:94:GLY:HA2 | 1.91 | 0.52 |
| 5:6:307:ILE:HB | 5:6:310:LEU:HD11 | 1.91 | 0.52 |
| 5:7:115:GLN:HE22 | 7:j:71:SER:HB2 | 1.75 | 0.52 |
| 5:7:307:ILE:HB | 5:7:310:LEU:HD11 | 1.91 | 0.52 |
| 7:l:102:LYS:HG2 | 7:l:120:PRO:HA | 1.92 | 0.52 |
| 7:l:289:ARG:HA | 7:m:5:SER:HA | 1.91 | 0.52 |
| 7:l:496:LEU:HD12 | 7:l:509:VAL:O | 2.09 | 0.52 |
| 7:m:508:VAL:HG23 | 7:AA:521:ILE:HD11 | 1.92 | 0.52 |
| 7:o:503:PHE:HB3 | 7:CA:484:ARG:NH2 | 2.22 | 0.52 |
| 7:q:44:PHE:HE1 | 7:q:78:PRO:HB2 | 1.75 | 0.52 |
| 7:q:522:GLN:HE22 | 7:q:524:VAL:HG13 | 1.74 | 0.52 |
| 7:r:365:GLY:HA3 | 7:r:368:TYR:CE2 | 2.45 | 0.52 |
| 7:r:443:PHE:HA | 7:r:446:GLN:NE2 | 2.25 | 0.52 |
| 7:BA:448:ALA:O | 7:BA:452:LYS:HG3 | 2.10 | 0.52 |
| 7:BA:482:ALA:HA | 7:BA:493:PRO:HB3 | 1.92 | 0.52 |
| 7:CA:448:ALA:O | 7:CA:452:LYS:HG3 | 2.10 | 0.52 |
| 7:GA:504:ASP:HA | 7:GA:506:TRP:CZ3 | 2.41 | 0.52 |
| 7:HA:210:SER:OG | 7:HA:214:ARG:NH2 | 2.42 | 0.52 |
| 7:IA:172:THR:OG1 | 7:IA:178:VAL:HG22 | 2.10 | 0.52 |
| 7:JA:344:GLY:O | 7:JA:380:ARG:NH2 | 2.42 | 0.52 |
| 7:LA:210:SER:OG | 7:LA:214:ARG:NH2 | 2.42 | 0.52 |
| 7:OA:151:THR:HG23 | 7:OA:231:LYS:HG3 | 1.92 | 0.52 |
| 7:PA:210:SER:OG | 7:PA:213:LEU:O | 2.18 | 0.52 |
| 8:AB:53:GLU:HG2 | 8:BB:143:ALA:H | 1.75 | 0.52 |
| 8:AB:127:LYS:HE3 | 8:AB:129:ALA:HB3 | 1.92 | 0.52 |
| 8:BB:53:GLU:HG2 | 8:CB:143:ALA:H | 1.75 | 0.52 |
| 8:EB:127:LYS:HE3 | 8:EB:129:ALA:HB3 | 1.92 | 0.52 |
| 8:FB:127:LYS:HE3 | 8:FB:129:ALA:HB3 | 1.92 | 0.52 |
| 8:GB:112:ALA:HB2 | 8:GB:131:THR:HA | 1.92 | 0.52 |
| 8:MB:97:ILE:HB | 8:RB:54:MET:HE3 | 1.91 | 0.52 |
| 1:A:174:LYS:HZ3 | 1:A:176:PHE:HB3 | 1.74 | 0.51 |
| 1:E:96:ILE:CG2 | 1:E:180:PHE:HB2 | 2.39 | 0.51 |
| 1:F:121:ASN:ND2 | 1:F:123:ASP:HB3 | 2.25 | 0.51 |
| 3:N:53:LEU:O | 3:N:57:LYS:HG3 | 2.10 | 0.51 |
| 3:Q:106:ARG:HA | 3:Q:110:ILE:HG22 | 1.92 | 0.51 |
| 3:R:57:LYS:HE2 | 7:g:3:GLN:HB3 | 1.92 | 0.51 |
| 3:R:58:HIS:CD2 | 7:l:371:ALA:HB3 | 2.44 | 0.51 |
| 4:T:33:LEU:HD11 | 4:T:112:PHE:HD2 | 1.74 | 0.51 |
| 4:U:35:LYS:NZ | 5:6:62:SER:O | 2.31 | 0.51 |
| 4:U:44:ASN:OD1 | 5:5:27:LYS:HE3 | 2.10 | 0.51 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 5:Y:448:PHE:HB3 | 5:Y:451:TRP:HB2 | 1.92 | 0.51 |
| 5:Z:159:SER:O | 5:Z:163:THR:HG23 | 2.10 | 0.51 |
| 5:0:36:MET:HA | 5:0:39:LEU:HD12 | 1.91 | 0.51 |
| 5:2:139:GLU:HG3 | 5:2:233:CYS:HB2 | 1.92 | 0.51 |
| 5:3:174:THR:HB | 5:3:226:THR:OG1 | 2.10 | 0.51 |
| 5:4:115:GLN:HE22 | 7:g:71:SER:HB2 | 1.76 | 0.51 |
| 5:5:90:MET:HE2 | 5:5:90:MET:HA | 1.92 | 0.51 |
| 5:6:187:MET:SD | 6:c:95:ARG:NH1 | 2.83 | 0.51 |
| 5:8:68:SER:HB3 | 5:8:206:GLU:HG2 | 1.93 | 0.51 |
| 7:h:325:VAL:HG13 | 7:h:402:LEU:HD12 | 1.91 | 0.51 |
| 7:k:334:ASP:OD2 | 7:k:337:THR:OG1 | 2.22 | 0.51 |
| 7:n:146:PRO:HB2 | 7:n:171:GLN:HE21 | 1.74 | 0.51 |
| 7:o:365:GLY:HA3 | 7:o:368:TYR:CE2 | 2.45 | 0.51 |
| 7:o:441:SER:O | 7:o:445:VAL:HG23 | 2.10 | 0.51 |
| 7:p:522:GLN:HE22 | 7:p:524:VAL:HG13 | 1.75 | 0.51 |
| 7:q:150:LEU:N | 7:q:233:LEU:O | 2.43 | 0.51 |
| 7:q:201:TYR:CD1 | 7:q:203:PRO:HD2 | 2.45 | 0.51 |
| 7:q:522:GLN:HG2 | 7:r:10:LEU:HD23 | 1.93 | 0.51 |
| 7:DA:158:ASP:OD1 | 7:DA:164:ARG:NE | 2.42 | 0.51 |
| 7:DA:302:THR:OG1 | 7:DA:305:GLU:OE1 | 2.26 | 0.51 |
| 7:FA:527:LEU:HG | 7:FA:529:LYS:H | 1.74 | 0.51 |
| 7:GA:433:VAL:O | 7:GA:436:LEU:HG | 2.09 | 0.51 |
| 7:HA:356:GLY:O | 7:HA:359:LYS:HG2 | 2.10 | 0.51 |
| 7:JA:296:ASP:OD1 | 7:JA:297:VAL:N | 2.43 | 0.51 |
| 7:JA:433:VAL:O | 7:JA:436:LEU:HG | 2.09 | 0.51 |
| 7:KA:334:ASP:HB3 | 7:KA:338:GLN:H | 1.75 | 0.51 |
| 8:AB:87:GLU:CD | 8:FB:26:ARG:HH12 | 2.18 | 0.51 |
| 8:EB:163:TYR:CE2 | 8:EB:166:ILE:HD11 | 2.41 | 0.51 |
| 8:HB:55:THR:HB | 8:HB:76:ARG:NH2 | 2.22 | 0.51 |
| 8:JB:72:HIS:HA | 8:KB:138:LYS:HZ1 | 1.73 | 0.51 |
| 8:KB:165:TRP:CE3 | 8:KB:167:GLU:HG3 | 2.44 | 0.51 |
| 8:KB:168:TRP:HB2 | 8:LB:98:LYS:NZ | 2.25 | 0.51 |
| 1:B:121:ASN:ND2 | 1:B:123:ASP:HB3 | 2.25 | 0.51 |
| 1:C:121:ASN:ND2 | 1:C:123:ASP:HB3 | 2.25 | 0.51 |
| 1:D:29:GLU:O | 1:D:32:LYS:HG3 | 2.11 | 0.51 |
| 1:E:70:ASP:OD1 | 1:E:71:TYR:N | 2.40 | 0.51 |
| 2:G:143:ARG:HB2 | 2:G:193:GLN:HB2 | 1.92 | 0.51 |
| 3:P:46:ASP:OD1 | 4:V:66:TYR:OH | 2.27 | 0.51 |
| 3:P:57:LYS:HE3 | 7:k:3:GLN:HB3 | 1.92 | 0.51 |
| 3:Q:73:MET:O | 3:Q:76:GLN:HG3 | 2.09 | 0.51 |
| 4:S:59:TYR:CD2 | 6:a:8:HIS:HB2 | 2.45 | 0.51 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 4:V:59:TYR:CD2 | 6:d:8:HIS:HB2 | 2.46 | 0.51 |
| 4:V:62:ASP:OD1 | 4:V:62:ASP:N | 2.40 | 0.51 |
| 4:W:94:GLY:HA3 | 7:k:382:SER:HB2 | 1.90 | 0.51 |
| 5:1:356:ALA:C | 5:1:360:LYS:HZ3 | 2.19 | 0.51 |
| 5:5:376:LYS:HA | 5:5:460:PHE:HB3 | 1.91 | 0.51 |
| 6:b:185:ASN:O | 6:b:189:LYS:HB3 | 2.10 | 0.51 |
| 6:c:81:LEU:N | 6:c:84:ARG:HH21 | 2.09 | 0.51 |
| 6:f:162:ALA:HA | 6:f:165:MET:HE3 | 1.93 | 0.51 |
| 7:g:437:MET:HA | 7:g:440:ILE:HG12 | 1.93 | 0.51 |
| 7:j:102:LYS:HG2 | 7:j:120:PRO:HA | 1.92 | 0.51 |
| 7:l:405:VAL:HG12 | 7:l:415:ILE:HG13 | 1.90 | 0.51 |
| 7:m:150:LEU:N | 7:m:233:LEU:O | 2.43 | 0.51 |
| 7:n:323:CYS:O | 7:n:420:THR:OG1 | 2.26 | 0.51 |
| 7:o:103:PHE:HE1 | 7:o:121:TYR:HA | 1.73 | 0.51 |
| 7:CA:366:TRP:CD1 | 7:CA:435:SER:HB2 | 2.45 | 0.51 |
| 7:CA:519:ARG:NH2 | 7:DA:13:ALA:O | 2.41 | 0.51 |
| 7:JA:440:ILE:HA | 7:JA:443:PHE:HD2 | 1.75 | 0.51 |
| 7:JA:505:LYS:HA | 7:PA:520:ARG:HH21 | 1.76 | 0.51 |
| 7:KA:355:ARG:HH22 | 7:KA:375:ARG:HA | 1.75 | 0.51 |
| 8:EB:53:GLU:HG2 | 8:FB:143:ALA:H | 1.75 | 0.51 |
| 8:QB:7:LYS:NZ | 8:RB:120:SER:OG | 2.41 | 0.51 |
| 1:A:64:LYS:HB3 | 1:A:101:ARG:HH12 | 1.74 | 0.51 |
| 1:A:121:ASN:ND2 | 1:A:123:ASP:HB3 | 2.25 | 0.51 |
| 1:D:37:ILE:HD13 | 1:D:40:LYS:NZ | 2.25 | 0.51 |
| 1:E:203:LEU:HD12 | 2:K:105:PHE:HB2 | 1.92 | 0.51 |
| 2:G:18:TYR:HB2 | 2:G:142:ARG:HH21 | 1.76 | 0.51 |
| 2:I:1:MET:HA | 3:O:55:GLN:OE1 | 2.11 | 0.51 |
| 3:O:23:SER:OG | 3:O:26:GLU:OE2 | 2.27 | 0.51 |
| 5:Z:29:VAL:HG23 | 5:6:241:VAL:HG13 | 1.92 | 0.51 |
| 5:Z:427:LYS:HD2 | 5:Z:429:LYS:HB2 | 1.91 | 0.51 |
| 5:1:31:SER:O | 5:1:34:VAL:HG22 | 2.09 | 0.51 |
| 5:3:29:VAL:HG23 | 5:4:241:VAL:HG13 | 1.92 | 0.51 |
| 5:4:90:MET:HE2 | 5:4:90:MET:HA | 1.92 | 0.51 |
| 5:4:376:LYS:HA | 5:4:460:PHE:HB3 | 1.92 | 0.51 |
| 5:8:380:LYS:NZ | 5:8:450:GLU:OE1 | 2.30 | 0.51 |
| 5:9:115:GLN:HE22 | 7:l:71:SER:HB2 | 1.75 | 0.51 |
| 5:9:187:MET:SD | 6:f:95:ARG:NH1 | 2.82 | 0.51 |
| 6:a:90:PHE:HB2 | 6:a:95:ARG:NH1 | 2.24 | 0.51 |
| 6:b:81:LEU:N | 6:b:84:ARG:HH21 | 2.09 | 0.51 |
| 7:g:146:PRO:HG2 | 7:g:148:ARG:HH12 | 1.74 | 0.51 |
| 7:g:207:GLU:OE2 | 7:m:339:SER:OG | 2.25 | 0.51 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:j:289:ARG:HA | 7:q:5:SER:HA | 1.91 | 0.51 |
| 7:j:355:ARG:NH2 | 7:j:374:GLU:O | 2.41 | 0.51 |
| 7:j:362:ASP:OD1 | 7:j:363:VAL:N | 2.37 | 0.51 |
| 7:k:84:GLU:O | 7:k:88:GLN:NE2 | 2.39 | 0.51 |
| 7:l:325:VAL:HG13 | 7:l:402:LEU:HD12 | 1.91 | 0.51 |
| 7:m:193:LYS:HZ1 | 7:AA:69:LYS:HD2 | 1.73 | 0.51 |
| 7:n:44:PHE:HE1 | 7:n:78:PRO:HB2 | 1.75 | 0.51 |
| 7:n:103:PHE:HE1 | 7:n:121:TYR:HA | 1.74 | 0.51 |
| 7:n:196:MET:HB3 | 7:AA:529:LYS:NZ | 2.25 | 0.51 |
| 7:o:522:GLN:HE22 | 7:o:524:VAL:HG13 | 1.75 | 0.51 |
| 7:p:201:TYR:CD1 | 7:p:203:PRO:HD2 | 2.45 | 0.51 |
| 7:AA:464:THR:O | 7:AA:468:THR:HG23 | 2.11 | 0.51 |
| 7:BA:111:SER:OG | 7:BA:113:GLU:OE1 | 2.22 | 0.51 |
| 7:DA:334:ASP:OD2 | 7:DA:337:THR:OG1 | 2.29 | 0.51 |
| 7:DA:464:THR:O | 7:DA:468:THR:HG23 | 2.11 | 0.51 |
| 7:FA:378:ILE:HG22 | 7:FA:380:ARG:HG3 | 1.92 | 0.51 |
| 7:FA:378:ILE:HG12 | 7:FA:413:MET:O | 2.10 | 0.51 |
| 7:HA:46:ARG:HD3 | 7:HA:141:ASP:HB2 | 1.92 | 0.51 |
| 7:HA:319:ASP:OD1 | 7:HA:319:ASP:N | 2.42 | 0.51 |
| 7:JA:76:PHE:O | 7:JA:80:ARG:HG2 | 2.11 | 0.51 |
| 7:JA:355:ARG:HH22 | 7:JA:375:ARG:HA | 1.75 | 0.51 |
| 7:LA:334:ASP:HB3 | 7:LA:338:GLN:H | 1.75 | 0.51 |
| 7:NA:474:PHE:O | 7:NA:477:SER:OG | 2.21 | 0.51 |
| 7:OA:328:TYR:CZ | 7:OA:330:PHE:HB2 | 2.46 | 0.51 |
| 7:OA:485:ASP:OD1 | 7:OA:485:ASP:N | 2.44 | 0.51 |
| 7:RA:142:PRO:HB2 | 7:RA:144:ILE:HG12 | 1.93 | 0.51 |
| 8:CB:53:GLU:HG2 | 8:DB:143:ALA:H | 1.76 | 0.51 |
| 8:HB:16:ARG:HH22 | 8:NB:67:VAL:H | 1.58 | 0.51 |
| 1:A:115:ALA:HA | 1:A:118:ARG:HE | 1.76 | 0.51 |
| 1:B:29:GLU:O | 1:B:32:LYS:HG3 | 2.11 | 0.51 |
| 1:C:37:ILE:HD13 | 1:C:40:LYS:NZ | 2.26 | 0.51 |
| 1:D:115:ALA:O | 1:D:119:VAL:HG23 | 2.09 | 0.51 |
| 1:E:86:LEU:HD11 | 1:F:181:ALA:HB1 | 1.92 | 0.51 |
| 1:F:115:ALA:HA | 1:F:118:ARG:HE | 1.75 | 0.51 |
| 2:J:25:ASN:OD1 | 2:J:28:TYR:N | 2.41 | 0.51 |
| 2:K:33:TYR:O | 2:K:96:VAL:HG23 | 2.11 | 0.51 |
| 3:M:11:LEU:HD12 | 7:h:22:ASN:H | 1.74 | 0.51 |
| 5:Z:350:LEU:HA | 5:Z:353:MET:HE2 | 1.91 | 0.51 |
| 5:0:188:PHE:CE2 | 5:0:213:GLY:HA2 | 2.45 | 0.51 |
| 5:2:350:LEU:HA | 5:2:353:MET:HE2 | 1.91 | 0.51 |
| 5:3:356:ALA:C | 5:3:360:LYS:HZ2 | 2.19 | 0.51 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 5:3:389:ALA:N | 5:3:477:GLU:OE2 | 2.36 | 0.51 |
| 5:4:342:HIS:HB3 | 5:4:345:LYS:HB2 | 1.91 | 0.51 |
| 5:8:119:MET:HE2 | 5:8:119:MET:HA | 1.92 | 0.51 |
| 6:a:185:ASN:O | 6:a:189:LYS:HB3 | 2.10 | 0.51 |
| 7:g:357:VAL:HG23 | 7:g:365:GLY:C | 2.36 | 0.51 |
| 7:h:137:VAL:HA | 7:h:213:LEU:HD13 | 1.92 | 0.51 |
| 7:h:146:PRO:HG2 | 7:h:148:ARG:HH12 | 1.74 | 0.51 |
| 7:l:88:GLN:HG3 | 7:l:351:ALA:HB1 | 1.92 | 0.51 |
| 7:l:437:MET:HA | 7:l:440:ILE:HG12 | 1.93 | 0.51 |
| 7:m:503:PHE:HB3 | 7:AA:484:ARG:NH2 | 2.25 | 0.51 |
| 7:n:503:PHE:HB3 | 7:BA:484:ARG:NH2 | 2.23 | 0.51 |
| 7:o:150:LEU:N | 7:o:233:LEU:O | 2.43 | 0.51 |
| 7:r:441:SER:O | 7:r:445:VAL:HG23 | 2.10 | 0.51 |
| 7:AA:310:VAL:O | 7:AA:313:THR:OG1 | 2.27 | 0.51 |
| 7:CA:331:SER:OG | 7:CA:384:GLN:NE2 | 2.31 | 0.51 |
| 7:FA:148:ARG:HH11 | 7:FA:169:LEU:HD21 | 1.76 | 0.51 |
| 7:FA:482:ALA:HA | 7:FA:493:PRO:HB3 | 1.92 | 0.51 |
| 7:GA:38:TRP:CH2 | 7:GA:91:GLY:HA3 | 2.46 | 0.51 |
| 7:GA:76:PHE:O | 7:GA:80:ARG:HG2 | 2.10 | 0.51 |
| 7:HA:172:THR:OG1 | 7:HA:178:VAL:HG22 | 2.10 | 0.51 |
| 7:IA:296:ASP:OD1 | 7:IA:297:VAL:N | 2.43 | 0.51 |
| 8:AB:143:ALA:H | 8:FB:53:GLU:HG2 | 1.75 | 0.51 |
| 8:FB:34:LEU:O | 8:FB:43:SER:OG | 2.23 | 0.51 |
| 8:KB:70:ASN:OD1 | 8:LB:164:ASN:ND2 | 2.38 | 0.51 |
| 8:QB:116:GLU:HA | 8:QB:119:SER:OG | 2.09 | 0.51 |
| 1:D:96:ILE:CG2 | 1:D:180:PHE:HB2 | 2.40 | 0.51 |
| 1:F:101:ARG:HB2 | 1:F:173:PHE:HD2 | 1.76 | 0.51 |
| 2:G:97:THR:HG23 | 2:G:170:LYS:HE2 | 1.92 | 0.51 |
| 2:K:116:THR:HA | 2:K:119:ILE:HG22 | 1.93 | 0.51 |
| 3:N:21:TYR:O | 3:N:24:GLN:NE2 | 2.33 | 0.51 |
| 3:N:63:LEU:O | 3:N:66:VAL:HG22 | 2.10 | 0.51 |
| 3:P:53:LEU:O | 3:P:57:LYS:HG3 | 2.10 | 0.51 |
| 3:P:63:LEU:O | 3:P:66:VAL:HG22 | 2.11 | 0.51 |
| 3:Q:23:SER:OG | 3:Q:26:GLU:OE2 | 2.27 | 0.51 |
| 5:Y:159:SER:O | 5:Y:163:THR:HG23 | 2.11 | 0.51 |
| 5:Z:17:GLU:HA | 5:Z:20:GLU:HG2 | 1.91 | 0.51 |
| 5:Z:139:GLU:HG3 | 5:Z:233:CYS:HB2 | 1.91 | 0.51 |
| 5:0:159:SER:O | 5:0:163:THR:HG23 | 2.10 | 0.51 |
| 5:3:350:LEU:HA | 5:3:353:MET:HE2 | 1.91 | 0.51 |
| 7:g:150:LEU:HD12 | 7:g:168:LYS:O | 2.11 | 0.51 |
| 7:h:102:LYS:HG2 | 7:h:120:PRO:HA | 1.92 | 0.51 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:h:357:VAL:HG23 | 7:h:365:GLY:C | 2.35 | 0.51 |
| 7:k:299:PRO:HA | 7:k:327:HIS:CE1 | 2.46 | 0.51 |
| 7:k:437:MET:HA | 7:k:440:ILE:HG12 | 1.93 | 0.51 |
| 7:r:291:ILE:HA | 7:r:438:ASN:HD21 | 1.75 | 0.51 |
| 7:CA:398:VAL:HG21 | 7:DA:13:ALA:HA | 1.93 | 0.51 |
| 7:EA:377:VAL:HG13 | 7:EA:412:GLN:HB2 | 1.92 | 0.51 |
| 7:GA:520:ARG:NH1 | 7:HA:12:ASN:HA | 2.26 | 0.51 |
| 7:JA:334:ASP:HB3 | 7:JA:338:GLN:H | 1.76 | 0.51 |
| 7:KA:172:THR:OG1 | 7:KA:178:VAL:HG22 | 2.10 | 0.51 |
| 7:KA:303:TYR:CE2 | 7:KA:392:PRO:HA | 2.46 | 0.51 |
| 7:LA:46:ARG:HD3 | 7:LA:141:ASP:HB2 | 1.92 | 0.51 |
| 7:NA:485:ASP:OD1 | 7:NA:489:ASP:HB2 | 2.09 | 0.51 |
| 8:DB:53:GLU:HG2 | 8:EB:143:ALA:H | 1.76 | 0.51 |
| 1:A:29:GLU:O | 1:A:32:LYS:HG3 | 2.11 | 0.51 |
| 1:D:84:ASN:HD21 | 1:E:90:GLU:HG3 | 1.76 | 0.51 |
| 1:F:119:VAL:HA | 1:F:132:TYR:CG | 2.45 | 0.51 |
| 2:K:92:PHE:HD1 | 2:K:94:LEU:HD21 | 1.76 | 0.51 |
| 3:N:58:HIS:ND1 | 3:N:118:LEU:OXT | 2.44 | 0.51 |
| 3:O:11:LEU:HD12 | 7:j:22:ASN:H | 1.76 | 0.51 |
| 4:S:117:GLN:HE21 | 5:Y:160:LYS:HB2 | 1.76 | 0.51 |
| 4:U:59:TYR:CD2 | 6:c:8:HIS:HB2 | 2.46 | 0.51 |
| 4:V:71:ILE:HG13 | 4:V:73:GLU:H | 1.75 | 0.51 |
| 4:W:52:TYR:HB3 | 4:W:94:GLY:HA2 | 1.92 | 0.51 |
| 4:W:62:ASP:N | 4:W:62:ASP:OD1 | 2.43 | 0.51 |
| 5:Z:375:ARG:HE | 5:Z:458:TYR:HE2 | 1.59 | 0.51 |
| 5:0:174:THR:HB | 5:0:226:THR:OG1 | 2.10 | 0.51 |
| 5:1:159:SER:O | 5:1:163:THR:HG23 | 2.10 | 0.51 |
| 5:1:375:ARG:HE | 5:1:458:TYR:HE2 | 1.59 | 0.51 |
| 5:2:150:ALA:O | 5:7:21:LYS:HE3 | 2.09 | 0.51 |
| 5:3:375:ARG:HE | 5:3:458:TYR:HE2 | 1.58 | 0.51 |
| 5:3:448:PHE:HB3 | 5:3:451:TRP:HB2 | 1.92 | 0.51 |
| 5:4:119:MET:HE2 | 5:4:119:MET:HA | 1.92 | 0.51 |
| 5:5:68:SER:HB3 | 5:5:206:GLU:HG2 | 1.92 | 0.51 |
| 6:c:162:ALA:HA | 6:c:165:MET:HE3 | 1.93 | 0.51 |
| 6:f:81:LEU:N | 6:f:84:ARG:HH21 | 2.09 | 0.51 |
| 7:g:102:LYS:HG2 | 7:g:120:PRO:HA | 1.92 | 0.51 |
| 7:h:427:TYR:HD2 | 7:n:529:LYS:HB2 | 1.75 | 0.51 |
| 7:l:86:ILE:HA | 7:l:89:THR:O | 2.09 | 0.51 |
| 7:l:334:ASP:OD2 | 7:l:337:THR:OG1 | 2.22 | 0.51 |
| 7:n:291:ILE:HA | 7:n:438:ASN:HD21 | 1.75 | 0.51 |
| 7:n:499:THR:HG23 | 7:n:507:GLU:OE2 | 2.11 | 0.51 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:o:522:GLN:HG2 | 7:p:10:LEU:HD23 | 1.92 | 0.51 |
| 7:p:150:LEU:N | 7:p:233:LEU:O | 2.43 | 0.51 |
| 7:p:503:PHE:HB3 | 7:DA:484:ARG:NH2 | 2.24 | 0.51 |
| 7:AA:432:HIS:O | 7:AA:435:SER:OG | 2.19 | 0.51 |
| 7:BA:38:TRP:HB3 | 7:BA:350:TYR:CE2 | 2.45 | 0.51 |
| 7:BA:148:ARG:HH11 | 7:BA:169:LEU:HD21 | 1.76 | 0.51 |
| 7:DA:310:VAL:O | 7:DA:313:THR:OG1 | 2.27 | 0.51 |
| 7:DA:378:ILE:HG22 | 7:DA:380:ARG:HG3 | 1.92 | 0.51 |
| 7:EA:369:SER:OG | 7:EA:431:GLN:NE2 | 2.42 | 0.51 |
| 7:GA:466:GLY:O | 7:GA:469:LYS:HG3 | 2.11 | 0.51 |
| 7:HA:269:LEU:HA | 7:HA:294:PHE:HB2 | 1.93 | 0.51 |
| 7:HA:466:GLY:O | 7:HA:469:LYS:HG3 | 2.11 | 0.51 |
| 7:IA:104:PRO:HD3 | 7:IA:238:GLY:HA3 | 1.93 | 0.51 |
| 7:KA:104:PRO:HD3 | 7:KA:238:GLY:HA3 | 1.93 | 0.51 |
| 7:KA:433:VAL:O | 7:KA:436:LEU:HG | 2.08 | 0.51 |
| 7:LA:334:ASP:OD2 | 7:LA:337:THR:OG1 | 2.22 | 0.51 |
| 7:MA:328:TYR:CZ | 7:MA:330:PHE:HB2 | 2.45 | 0.51 |
| 7:MA:352:ALA:HB1 | 7:MA:370:PRO:HB3 | 1.93 | 0.51 |
| 7:MA:464:THR:O | 7:MA:468:THR:HG23 | 2.10 | 0.51 |
| 7:OA:463:LEU:O | 7:OA:467:MET:HG2 | 2.11 | 0.51 |
| 8:BB:127:LYS:HE3 | 8:BB:129:ALA:HB3 | 1.92 | 0.51 |
| 8:FB:139:ILE:O | 8:FB:140:TYR:HD1 | 1.93 | 0.51 |
| 8:GB:29:SER:OG | 8:HB:146:PHE:HB2 | 2.10 | 0.51 |
| 8:GB:165:TRP:CE3 | 8:GB:167:GLU:HG3 | 2.45 | 0.51 |
| 8:HB:29:SER:H | 8:IB:154:ALA:HA | 1.75 | 0.51 |
| 8:HB:168:TRP:HB2 | 8:IB:98:LYS:NZ | 2.24 | 0.51 |
| 8:IB:16:ARG:HH22 | 8:OB:67:VAL:H | 1.59 | 0.51 |
| 8:KB:31:GLU:CD | 8:KB:115:PRO:HA | 2.36 | 0.51 |
| 1:A:140:ARG:HD3 | 1:A:148:LYS:NZ | 2.26 | 0.51 |
| 1:C:115:ALA:HA | 1:C:118:ARG:HE | 1.75 | 0.51 |
| 2:H:33:TYR:O | 2:H:96:VAL:HG23 | 2.11 | 0.51 |
| 2:J:116:THR:HA | 2:J:119:ILE:HG22 | 1.93 | 0.51 |
| 3:N:11:LEU:HD12 | 7:i:22:ASN:H | 1.75 | 0.51 |
| 4:X:71:ILE:HG13 | 4:X:73:GLU:H | 1.75 | 0.51 |
| 5:Y:36:MET:HA | 5:Y:39:LEU:HD12 | 1.91 | 0.51 |
| 5:1:275:THR:HG23 | 5:1:278:ILE:H | 1.74 | 0.51 |
| 5:2:275:THR:HG23 | 5:2:278:ILE:H | 1.75 | 0.51 |
| 5:2:375:ARG:HE | 5:2:458:TYR:HE2 | 1.59 | 0.51 |
| 5:3:93:ILE:HG13 | 5:3:261:VAL:HG13 | 1.91 | 0.51 |
| 5:5:244:GLN:N | 5:5:263:THR:OG1 | 2.34 | 0.51 |
| 5:8:115:GLN:HE22 | 7:k:71:SER:HB2 | 1.75 | 0.51 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 6:a:75:SER:O | 6:a:78:PRO:HD2 | 2.11 | 0.51 |
| 7:g:485:ASP:OD1 | 7:g:485:ASP:N | 2.42 | 0.51 |
| 7:h:313:THR:HG22 | 7:h:315:LEU:HD23 | 1.92 | 0.51 |
| 7:i:313:THR:HG22 | 7:i:315:LEU:HD23 | 1.92 | 0.51 |
| 7:j:207:GLU:OE2 | 7:p:339:SER:OG | 2.24 | 0.51 |
| 7:j:437:MET:HA | 7:j:440:ILE:HG12 | 1.93 | 0.51 |
| 7:k:313:THR:HG22 | 7:k:315:LEU:HD23 | 1.92 | 0.51 |
| 7:l:319:ASP:N | 7:l:319:ASP:OD1 | 2.44 | 0.51 |
| 7:m:452:LYS:HZ2 | 7:m:453:HIS:H | 1.58 | 0.51 |
| 7:m:522:GLN:HG2 | 7:n:10:LEU:HD23 | 1.91 | 0.51 |
| 7:n:150:LEU:N | 7:n:233:LEU:O | 2.43 | 0.51 |
| 7:n:316:LEU:HD22 | 7:n:423:THR:HG22 | 1.93 | 0.51 |
| 7:o:196:MET:HB3 | 7:BA:529:LYS:HZ1 | 1.76 | 0.51 |
| 7:q:196:MET:HB3 | 7:DA:529:LYS:NZ | 2.26 | 0.51 |
| 7:r:522:GLN:HE22 | 7:r:524:VAL:HG13 | 1.75 | 0.51 |
| 7:BA:378:ILE:HG22 | 7:BA:380:ARG:HG3 | 1.92 | 0.51 |
| 7:CA:344:GLY:O | 7:CA:380:ARG:NH2 | 2.43 | 0.51 |
| 7:GA:355:ARG:HH22 | 7:GA:375:ARG:HA | 1.75 | 0.51 |
| 7:HA:76:PHE:O | 7:HA:80:ARG:HG2 | 2.11 | 0.51 |
| 7:IA:487:ASP:O | 7:PA:335:LYS:NZ | 2.32 | 0.51 |
| 7:JA:104:PRO:HD3 | 7:JA:238:GLY:HA3 | 1.93 | 0.51 |
| 7:JA:447:LEU:O | 7:JA:450:GLN:HG3 | 2.11 | 0.51 |
| 7:RA:152:ILE:N | 7:RA:230:LYS:O | 2.23 | 0.51 |
| 7:RA:463:LEU:O | 7:RA:467:MET:HG2 | 2.10 | 0.51 |
| 8:AB:149:GLU:OE2 | 8:AB:149:GLU:N | 2.30 | 0.51 |
| 8:CB:100:ARG:NH1 | 8:CB:105:ASP:O | 2.44 | 0.51 |
| 8:JB:29:SER:OG | 8:KB:146:PHE:HB2 | 2.10 | 0.51 |
| 8:KB:68:LYS:NZ | 8:LB:164:ASN:HA | 2.25 | 0.51 |
| 8:LB:16:ARG:HH22 | 8:RB:67:VAL:H | 1.59 | 0.51 |
| 8:RB:45:LEU:HD21 | 8:RB:86:VAL:O | 2.11 | 0.51 |
| 1:B:115:ALA:HA | 1:B:118:ARG:HE | 1.76 | 0.51 |
| 1:B:119:VAL:HA | 1:B:132:TYR:CG | 2.46 | 0.51 |
| 1:D:119:VAL:HA | 1:D:132:TYR:CG | 2.46 | 0.51 |
| 2:G:151:ILE:HA | 2:G:177:LEU:HD13 | 1.93 | 0.51 |
| 2:K:42:MET:HG3 | 2:K:90:PRO:HA | 1.92 | 0.51 |
| 3:N:73:MET:O | 3:N:76:GLN:HG3 | 2.09 | 0.51 |
| 3:Q:11:LEU:HD12 | 7:l:22:ASN:H | 1.76 | 0.51 |
| 4:S:62:ASP:OD1 | 4:S:62:ASP:N | 2.40 | 0.51 |
| 4:U:71:ILE:HG13 | 4:U:73:GLU:H | 1.75 | 0.51 |
| 4:V:117:GLN:HE22 | 5:1:160:LYS:H | 1.58 | 0.51 |
| 5:Y:375:ARG:HE | 5:Y:458:TYR:HE2 | 1.59 | 0.51 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 5:0:275:THR:HG23 | 5:0:278:ILE:H | 1.74 | 0.51 |
| 5:4:333:ILE:O | 5:4:335:LYS:NZ | 2.28 | 0.51 |
| 5:5:115:GLN:NE2 | 7:h:71:SER:HB2 | 2.26 | 0.51 |
| 7:g:100:ASP:OD2 | 7:g:242:ASP:N | 2.32 | 0.51 |
| 7:g:168:LYS:HB3 | 7:g:183:THR:HG23 | 1.93 | 0.51 |
| 7:g:370:PRO:HG3 | 7:g:431:GLN:HG2 | 1.91 | 0.51 |
| 7:i:357:VAL:HG23 | 7:i:365:GLY:C | 2.35 | 0.51 |
| 7:j:370:PRO:HG3 | 7:j:431:GLN:HG2 | 1.93 | 0.51 |
| 7:m:10:LEU:HD23 | 7:r:522:GLN:HG2 | 1.92 | 0.51 |
| 7:o:291:ILE:HA | 7:o:438:ASN:HD21 | 1.75 | 0.51 |
| 7:o:519:ARG:NH1 | 7:o:520:ARG:HG3 | 2.26 | 0.51 |
| 7:p:510:TRP:CZ2 | 7:DA:525:PRO:HG3 | 2.46 | 0.51 |
| 7:r:269:LEU:HD21 | 7:r:350:TYR:CD2 | 2.46 | 0.51 |
| 7:r:443:PHE:HA | 7:r:446:GLN:CD | 2.35 | 0.51 |
| 7:BA:378:ILE:HG12 | 7:BA:413:MET:O | 2.11 | 0.51 |
| 7:DA:148:ARG:HH11 | 7:DA:169:LEU:HD21 | 1.76 | 0.51 |
| 7:HA:152:ILE:HD11 | 7:HA:228:THR:HG23 | 1.92 | 0.51 |
| 7:HA:334:ASP:HB3 | 7:HA:338:GLN:H | 1.75 | 0.51 |
| 7:JA:38:TRP:CH2 | 7:JA:91:GLY:HA3 | 2.46 | 0.51 |
| 7:JA:520:ARG:NH1 | 7:KA:12:ASN:HA | 2.26 | 0.51 |
| 7:KA:46:ARG:HD3 | 7:KA:141:ASP:HB2 | 1.92 | 0.51 |
| 7:NA:43:VAL:HG11 | 7:NA:75:GLN:HE21 | 1.76 | 0.51 |
| 7:PA:464:THR:O | 7:PA:468:THR:HG23 | 2.10 | 0.51 |
| 7:QA:43:VAL:HG11 | 7:QA:75:GLN:HE21 | 1.76 | 0.51 |
| 8:FB:57:GLU:OE2 | 8:FB:73:GLY:HA3 | 2.10 | 0.51 |
| 8:HB:31:GLU:CD | 8:HB:115:PRO:HA | 2.36 | 0.51 |
| 8:KB:10:ARG:HG2 | 8:KB:14:LYS:HZ3 | 1.76 | 0.51 |
| 8:LB:47:ARG:N | 8:LB:84:GLN:O | 2.33 | 0.51 |
| 8:OB:45:LEU:HD21 | 8:OB:86:VAL:O | 2.11 | 0.51 |
| 8:PB:82:GLN:NE2 | 8:PB:158:SER:OG | 2.44 | 0.51 |
| 1:B:37:ILE:HD13 | 1:B:40:LYS:NZ | 2.26 | 0.51 |
| 2:H:116:THR:HA | 2:H:119:ILE:HG22 | 1.93 | 0.51 |
| 3:N:75:LEU:O | 3:N:79:THR:HG23 | 2.10 | 0.51 |
| 3:Q:60:PRO:O | 3:Q:67:GLN:NE2 | 2.35 | 0.51 |
| 3:R:39:TYR:HE1 | 7:g:6:ILE:HD11 | 1.76 | 0.51 |
| 4:T:48:LEU:HB3 | 4:T:98:LYS:HB3 | 1.92 | 0.51 |
| 4:T:85:GLU:O | 5:5:47:ARG:NH2 | 2.43 | 0.51 |
| 5:1:93:ILE:HG13 | 5:1:261:VAL:HG13 | 1.92 | 0.51 |
| 5:2:389:ALA:N | 5:2:477:GLU:OE2 | 2.37 | 0.51 |
| 5:2:448:PHE:HB3 | 5:2:451:TRP:HB2 | 1.93 | 0.51 |
| 5:6:115:GLN:NE2 | 7:i:71:SER:HB2 | 2.26 | 0.51 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 5:9:188:PHE:HA | 5:9:194:LYS:HE2 | 1.92 | 0.51 |
| 7:l:137:VAL:HA | 7:l:213:LEU:HD13 | 1.92 | 0.51 |
| 7:m:436:LEU:O | 7:m:440:ILE:HG12 | 2.10 | 0.51 |
| 7:m:461:ALA:HB1 | 7:m:465:LYS:HZ1 | 1.75 | 0.51 |
| 7:o:33:LEU:HD11 | 7:o:358:LYS:HD2 | 1.91 | 0.51 |
| 7:o:394:GLU:HG2 | 7:o:395:GLU:N | 2.25 | 0.51 |
| 7:p:291:ILE:HA | 7:p:438:ASN:HD21 | 1.76 | 0.51 |
| 7:q:519:ARG:NH1 | 7:q:520:ARG:HG3 | 2.26 | 0.51 |
| 7:AA:465:LYS:O | 7:AA:469:LYS:HG2 | 2.11 | 0.51 |
| 7:BA:302:THR:OG1 | 7:BA:305:GLU:OE1 | 2.25 | 0.51 |
| 7:GA:46:ARG:HD3 | 7:GA:141:ASP:HB2 | 1.92 | 0.51 |
| 7:HA:307:LEU:HB3 | 7:HA:308:PRO:HD3 | 1.93 | 0.51 |
| 7:IA:355:ARG:HH22 | 7:IA:375:ARG:HA | 1.74 | 0.51 |
| 7:IA:520:ARG:NH1 | 7:JA:12:ASN:HA | 2.26 | 0.51 |
| 7:JA:453:HIS:CE1 | 7:PA:372:GLY:HA3 | 2.46 | 0.51 |
| 7:NA:328:TYR:CZ | 7:NA:330:PHE:HB2 | 2.45 | 0.51 |
| 7:NA:352:ALA:HB1 | 7:NA:370:PRO:HB3 | 1.93 | 0.51 |
| 7:NA:426:ASN:HB3 | 7:OA:195:ASP:HB2 | 1.93 | 0.51 |
| 7:OA:464:THR:O | 7:OA:468:THR:HG23 | 2.11 | 0.51 |
| 8:BB:56:ARG:HB3 | 8:CB:140:TYR:CZ | 2.46 | 0.51 |
| 8:JB:58:ASP:OD1 | 8:JB:70:ASN:HB2 | 2.11 | 0.51 |
| 8:LB:165:TRP:CE3 | 8:LB:167:GLU:HG3 | 2.45 | 0.51 |
| 8:PB:14:LYS:O | 8:PB:18:THR:HG23 | 2.11 | 0.51 |
| 1:A:64:LYS:HZ1 | 1:A:175:SER:HB3 | 1.75 | 0.51 |
| 1:C:86:LEU:HD11 | 1:D:181:ALA:HB1 | 1.93 | 0.51 |
| 1:F:54:ASP:OD1 | 1:F:137:ARG:NH1 | 2.44 | 0.51 |
| 2:H:92:PHE:HD1 | 2:H:94:LEU:HD21 | 1.76 | 0.51 |
| 2:L:116:THR:HA | 2:L:119:ILE:HG22 | 1.93 | 0.51 |
| 3:Q:57:LYS:HE3 | 7:l:3:GLN:HB3 | 1.92 | 0.51 |
| 4:S:117:GLN:O | 5:Y:160:LYS:NZ | 2.41 | 0.51 |
| 4:X:59:TYR:CD2 | 6:f:8:HIS:HB2 | 2.46 | 0.51 |
| 5:Y:29:VAL:HG23 | 5:5:241:VAL:HG13 | 1.93 | 0.51 |
| 5:Z:448:PHE:HB3 | 5:Z:451:TRP:HB2 | 1.93 | 0.51 |
| 5:0:201:PHE:CE2 | 5:0:211:ARG:HG3 | 2.46 | 0.51 |
| 5:1:290:ASP:HB3 | 6:d:88:ILE:HB | 1.93 | 0.51 |
| 5:2:356:ALA:C | 5:2:360:LYS:HZ3 | 2.19 | 0.51 |
| 5:6:119:MET:HA | 5:6:119:MET:HE2 | 1.92 | 0.51 |
| 7:g:27:LEU:HD22 | 7:l:528:ILE:HA | 1.93 | 0.51 |
| 7:g:152:ILE:O | 7:g:231:LYS:NZ | 2.24 | 0.51 |
| 7:j:46:ARG:NH1 | 7:j:62:ASP:O | 2.44 | 0.51 |
| 7:j:357:VAL:HG23 | 7:j:365:GLY:C | 2.36 | 0.51 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:l:259:ASN:O | 7:l:289:ARG:NH2 | 2.42 | 0.51 |
| 7:l:302:THR:OG1 | 7:l:305:GLU:OE1 | 2.21 | 0.51 |
| 7:o:480:LEU:HD13 | 7:o:512:CYS:HB2 | 1.93 | 0.51 |
| 7:AA:377:VAL:HG13 | 7:AA:412:GLN:HB2 | 1.93 | 0.51 |
| 7:BA:464:THR:O | 7:BA:468:THR:HG23 | 2.11 | 0.51 |
| 7:GA:12:ASN:HA | 7:LA:520:ARG:NH1 | 2.26 | 0.51 |
| 7:GA:334:ASP:OD2 | 7:GA:337:THR:OG1 | 2.22 | 0.51 |
| 7:IA:76:PHE:O | 7:IA:80:ARG:HG2 | 2.11 | 0.51 |
| 7:IA:152:ILE:HD11 | 7:IA:228:THR:HG23 | 1.92 | 0.51 |
| 7:IA:449:ARG:HH12 | 7:OA:410:SER:H | 1.58 | 0.51 |
| 7:JA:212:TYR:N | 7:JA:214:ARG:HH22 | 2.09 | 0.51 |
| 7:LA:69:LYS:HG3 | 7:LA:72:SER:H | 1.75 | 0.51 |
| 8:CB:34:LEU:O | 8:CB:43:SER:OG | 2.24 | 0.51 |
| 8:CB:127:LYS:HE3 | 8:CB:129:ALA:HB3 | 1.92 | 0.51 |
| 8:FB:16:ARG:HH22 | 8:LB:64:PRO:C | 2.19 | 0.51 |
| 8:IB:30:SER:HA | 8:JB:148:THR:HG23 | 1.93 | 0.51 |
| 8:MB:11:LYS:HE3 | 8:MB:12:PHE:HE1 | 1.76 | 0.51 |
| 1:A:119:VAL:HA | 1:A:132:TYR:CG | 2.45 | 0.50 |
| 3:Q:53:LEU:O | 3:Q:57:LYS:HG3 | 2.10 | 0.50 |
| 7:g:88:GLN:HG3 | 7:g:351:ALA:HB1 | 1.92 | 0.50 |
| 7:g:149:GLU:HB3 | 7:g:232:SER:HA | 1.94 | 0.50 |
| 7:g:376:ALA:HB1 | 7:g:415:ILE:H | 1.74 | 0.50 |
| 7:h:149:GLU:HB3 | 7:h:232:SER:HA | 1.94 | 0.50 |
| 7:h:437:MET:HA | 7:h:440:ILE:HG12 | 1.93 | 0.50 |
| 7:h:512:CYS:O | 7:n:528:ILE:HG12 | 2.11 | 0.50 |
| 7:i:207:GLU:OE2 | 7:o:339:SER:OG | 2.25 | 0.50 |
| 7:l:150:LEU:HD12 | 7:l:168:LYS:O | 2.11 | 0.50 |
| 7:m:44:PHE:HE1 | 7:m:78:PRO:HB2 | 1.75 | 0.50 |
| 7:n:193:LYS:NZ | 7:BA:69:LYS:HD2 | 2.27 | 0.50 |
| 7:n:519:ARG:NH1 | 7:n:520:ARG:HG3 | 2.26 | 0.50 |
| 7:o:269:LEU:HD21 | 7:o:350:TYR:CD2 | 2.46 | 0.50 |
| 7:q:369:SER:O | 7:q:375:ARG:NE | 2.44 | 0.50 |
| 7:q:438:ASN:O | 7:q:441:SER:OG | 2.24 | 0.50 |
| 7:r:75:GLN:HE22 | 7:r:244:SER:HA | 1.77 | 0.50 |
| 7:r:394:GLU:HG2 | 7:r:395:GLU:N | 2.25 | 0.50 |
| 7:DA:102:LYS:HZ2 | 7:DA:120:PRO:HD3 | 1.76 | 0.50 |
| 7:DA:520:ARG:NH2 | 7:EA:17:ALA:O | 2.44 | 0.50 |
| 7:EA:46:ARG:NE | 7:EA:62:ASP:O | 2.33 | 0.50 |
| 7:EA:482:ALA:HA | 7:EA:493:PRO:HB3 | 1.92 | 0.50 |
| 7:FA:464:THR:O | 7:FA:468:THR:HG23 | 2.11 | 0.50 |
| 7:GA:296:ASP:OD1 | 7:GA:297:VAL:N | 2.43 | 0.50 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:GA:334:ASP:HB3 | 7:GA:338:GLN:H | 1.75 | 0.50 |
| 7:HA:447:LEU:O | 7:HA:450:GLN:HG3 | 2.11 | 0.50 |
| 7:HA:453:HIS:CE1 | 7:NA:372:GLY:HA3 | 2.46 | 0.50 |
| 7:HA:525:PRO:HG2 | 7:IA:21:ILE:HA | 1.93 | 0.50 |
| 7:IA:319:ASP:N | 7:IA:319:ASP:OD1 | 2.42 | 0.50 |
| 7:JA:46:ARG:HD3 | 7:JA:141:ASP:HB2 | 1.92 | 0.50 |
| 7:JA:466:GLY:O | 7:JA:469:LYS:HG3 | 2.11 | 0.50 |
| 7:JA:520:ARG:HH11 | 7:KA:12:ASN:HA | 1.76 | 0.50 |
| 7:KA:99:ASP:OD1 | 7:KA:100:ASP:N | 2.44 | 0.50 |
| 7:KA:449:ARG:NH2 | 7:QA:410:SER:OG | 2.36 | 0.50 |
| 7:MA:48:LYS:HD2 | 7:MA:49:PRO:HD2 | 1.91 | 0.50 |
| 7:MA:142:PRO:HB2 | 7:MA:144:ILE:HG12 | 1.92 | 0.50 |
| 7:NA:527:LEU:HD23 | 7:OA:21:ILE:HD11 | 1.92 | 0.50 |
| 7:PA:142:PRO:HB2 | 7:PA:144:ILE:HG12 | 1.92 | 0.50 |
| 7:RA:152:ILE:HB | 7:RA:230:LYS:H | 1.76 | 0.50 |
| 7:RA:464:THR:O | 7:RA:468:THR:HG23 | 2.10 | 0.50 |
| 8:HB:68:LYS:NZ | 8:IB:164:ASN:HA | 2.25 | 0.50 |
| 8:JB:55:THR:O | 8:JB:76:ARG:N | 2.44 | 0.50 |
| 8:KB:58:ASP:OD1 | 8:KB:70:ASN:HB2 | 2.11 | 0.50 |
| 8:PB:45:LEU:HD21 | 8:PB:86:VAL:O | 2.11 | 0.50 |
| 8:QB:54:MET:HE3 | 8:RB:97:ILE:HB | 1.92 | 0.50 |
| 1:F:186:PHE:HE2 | 2:L:15:VAL:HG22 | 1.76 | 0.50 |
| 2:H:97:THR:HG23 | 2:H:170:LYS:HE2 | 1.92 | 0.50 |
| 3:M:39:TYR:HE1 | 7:h:6:ILE:HD11 | 1.77 | 0.50 |
| 3:Q:52:VAL:HG12 | 3:Q:55:GLN:HB3 | 1.93 | 0.50 |
| 4:U:62:ASP:N | 4:U:62:ASP:OD1 | 2.43 | 0.50 |
| 4:X:62:ASP:N | 4:X:62:ASP:OD1 | 2.43 | 0.50 |
| 5:0:448:PHE:HB3 | 5:0:451:TRP:HB2 | 1.92 | 0.50 |
| 5:4:222:PRO:HG2 | 5:4:225:SER:HB3 | 1.93 | 0.50 |
| 5:4:244:GLN:N | 5:4:263:THR:OG1 | 2.34 | 0.50 |
| 5:4:349:GLU:HB3 | 5:4:353:MET:HE1 | 1.93 | 0.50 |
| 5:7:8:LYS:O | 5:7:12:ARG:HG3 | 2.11 | 0.50 |
| 5:7:222:PRO:HG2 | 5:7:225:SER:HB3 | 1.93 | 0.50 |
| 5:8:90:MET:HE2 | 5:8:90:MET:HA | 1.92 | 0.50 |
| 5:9:222:PRO:HG2 | 5:9:225:SER:HB3 | 1.93 | 0.50 |
| 7:l:63:VAL:HG23 | 7:l:64:LEU:HD22 | 1.94 | 0.50 |
| 7:l:100:ASP:OD2 | 7:l:242:ASP:N | 2.32 | 0.50 |
| 7:l:299:PRO:HA | 7:l:327:HIS:CE1 | 2.46 | 0.50 |
| 7:m:461:ALA:HB1 | 7:m:465:LYS:NZ | 2.26 | 0.50 |
| 7:n:331:SER:O | 7:n:384:GLN:N | 2.29 | 0.50 |
| 7:n:452:LYS:HZ2 | 7:n:453:HIS:H | 1.59 | 0.50 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:q:193:LYS:NZ | 7:EA:69:LYS:HD2 | 2.27 | 0.50 |
| 7:q:269:LEU:HD21 | 7:q:350:TYR:CD2 | 2.46 | 0.50 |
| 7:q:510:TRP:CZ2 | 7:EA:525:PRO:HG3 | 2.46 | 0.50 |
| 7:AA:378:ILE:HG22 | 7:AA:380:ARG:HG3 | 1.92 | 0.50 |
| 7:AA:448:ALA:O | 7:AA:452:LYS:HG3 | 2.11 | 0.50 |
| 7:BA:519:ARG:HG3 | 7:BA:520:ARG:N | 2.26 | 0.50 |
| 7:EA:148:ARG:HH11 | 7:EA:169:LEU:HD21 | 1.76 | 0.50 |
| 7:EA:334:ASP:OD2 | 7:EA:337:THR:OG1 | 2.29 | 0.50 |
| 7:FA:42:GLY:O | 7:FA:95:ARG:HA | 2.11 | 0.50 |
| 7:GA:440:ILE:HA | 7:GA:443:PHE:HD2 | 1.76 | 0.50 |
| 7:HA:52:VAL:HG11 | 7:HA:263:TYR:HE2 | 1.77 | 0.50 |
| 7:HA:69:LYS:HG3 | 7:HA:72:SER:H | 1.75 | 0.50 |
| 7:IA:307:LEU:HB3 | 7:IA:308:PRO:HD3 | 1.94 | 0.50 |
| 7:JA:525:PRO:HG2 | 7:KA:21:ILE:HA | 1.94 | 0.50 |
| 7:KA:69:LYS:HG3 | 7:KA:72:SER:H | 1.75 | 0.50 |
| 7:LA:52:VAL:HG11 | 7:LA:263:TYR:HE2 | 1.76 | 0.50 |
| 7:LA:319:ASP:N | 7:LA:319:ASP:OD1 | 2.42 | 0.50 |
| 7:MA:395:GLU:HA | 7:MA:398:VAL:HG12 | 1.93 | 0.50 |
| 7:NA:46:ARG:NE | 7:NA:140:GLY:O | 2.43 | 0.50 |
| 7:PA:265:TYR:HE1 | 7:PA:291:ILE:HG21 | 1.77 | 0.50 |
| 7:PA:297:VAL:HB | 7:PA:301:LEU:HD21 | 1.93 | 0.50 |
| 7:RA:297:VAL:HB | 7:RA:301:LEU:HD21 | 1.93 | 0.50 |
| 8:HB:47:ARG:N | 8:HB:84:GLN:O | 2.32 | 0.50 |
| 8:IB:61:ASP:OD1 | 8:IB:62:TYR:N | 2.42 | 0.50 |
| 8:KB:61:ASP:OD1 | 8:KB:62:TYR:N | 2.40 | 0.50 |
| 8:KB:80:GLU:OE2 | 8:KB:160:ARG:HG2 | 2.11 | 0.50 |
| 8:OB:13:ILE:HG13 | 8:OB:14:LYS:HD2 | 1.92 | 0.50 |
| 1:A:37:ILE:HD13 | 1:A:40:LYS:NZ | 2.25 | 0.50 |
| 1:A:64:LYS:HZ3 | 1:A:99:MET:HG3 | 1.76 | 0.50 |
| 1:C:140:ARG:HD3 | 1:C:148:LYS:NZ | 2.25 | 0.50 |
| 1:E:186:PHE:HE2 | 2:K:15:VAL:HG22 | 1.76 | 0.50 |
| 2:G:33:TYR:O | 2:G:96:VAL:HG23 | 2.11 | 0.50 |
| 2:J:18:TYR:HB2 | 2:J:142:ARG:HH21 | 1.75 | 0.50 |
| 2:J:97:THR:HG23 | 2:J:170:LYS:HE2 | 1.92 | 0.50 |
| 2:J:151:ILE:HA | 2:J:177:LEU:HD13 | 1.93 | 0.50 |
| 3:P:65:HIS:CD2 | 3:P:66:VAL:HG13 | 2.46 | 0.50 |
| 4:T:117:GLN:NE2 | 5:Z:160:LYS:H | 2.09 | 0.50 |
| 4:V:45:ASP:OD1 | 4:V:48:LEU:HG | 2.11 | 0.50 |
| 4:X:22:ARG:NH1 | 5:9:5:THR:HG23 | 2.27 | 0.50 |
| 5:1:254:ASN:OD1 | 5:1:255:LEU:N | 2.45 | 0.50 |
| 5:4:8:LYS:O | 5:4:12:ARG:HG3 | 2.12 | 0.50 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 5:5:67:ARG:HE | 5:5:71:LEU:HG | 1.76 | 0.50 |
| 5:5:477:GLU:HB2 | 6:a:189:LYS:HE2 | 1.92 | 0.50 |
| 5:6:380:LYS:NZ | 5:6:450:GLU:OE1 | 2.30 | 0.50 |
| 7:g:427:TYR:HD2 | 7:m:529:LYS:HB2 | 1.76 | 0.50 |
| 7:h:191:GLU:HA | 7:n:69:LYS:NZ | 2.25 | 0.50 |
| 7:j:137:VAL:HA | 7:j:213:LEU:HD13 | 1.93 | 0.50 |
| 7:j:299:PRO:HA | 7:j:327:HIS:CE1 | 2.47 | 0.50 |
| 7:k:373:GLU:H | 7:k:373:GLU:CD | 2.18 | 0.50 |
| 7:p:461:ALA:HB1 | 7:p:465:LYS:HZ1 | 1.76 | 0.50 |
| 7:CA:302:THR:OG1 | 7:CA:305:GLU:OE1 | 2.26 | 0.50 |
| 7:CA:355:ARG:HH12 | 7:CA:375:ARG:CZ | 2.25 | 0.50 |
| 7:DA:527:LEU:HG | 7:DA:529:LYS:H | 1.76 | 0.50 |
| 7:EA:158:ASP:OD1 | 7:EA:164:ARG:NE | 2.42 | 0.50 |
| 7:EA:366:TRP:CD1 | 7:EA:435:SER:HB2 | 2.45 | 0.50 |
| 7:FA:262:PRO:C | 7:FA:263:TYR:HD2 | 2.19 | 0.50 |
| 7:GA:12:ASN:HA | 7:LA:520:ARG:HH11 | 1.76 | 0.50 |
| 7:HA:99:ASP:OD1 | 7:HA:100:ASP:N | 2.44 | 0.50 |
| 7:KA:466:GLY:O | 7:KA:469:LYS:HG3 | 2.11 | 0.50 |
| 7:KA:525:PRO:HG2 | 7:LA:21:ILE:HA | 1.93 | 0.50 |
| 7:NA:395:GLU:HA | 7:NA:398:VAL:HG12 | 1.93 | 0.50 |
| 7:QA:426:ASN:HB3 | 7:RA:195:ASP:HB2 | 1.93 | 0.50 |
| 8:HB:80:GLU:OE2 | 8:HB:160:ARG:HG2 | 2.10 | 0.50 |
| 8:IB:31:GLU:HA | 8:NB:65:ASN:OD1 | 2.10 | 0.50 |
| 8:JB:61:ASP:OD1 | 8:JB:62:TYR:N | 2.41 | 0.50 |
| 8:NB:45:LEU:HD21 | 8:NB:86:VAL:O | 2.11 | 0.50 |
| 1:E:29:GLU:O | 1:E:32:LYS:HG3 | 2.11 | 0.50 |
| 1:E:45:GLN:NE2 | 1:F:173:PHE:HA | 2.24 | 0.50 |
| 1:F:140:ARG:HD3 | 1:F:148:LYS:NZ | 2.25 | 0.50 |
| 1:F:196:LEU:HA | 7:r:410:SER:HA | 1.94 | 0.50 |
| 2:K:193:GLN:NE2 | 3:Q:90:LEU:H | 2.08 | 0.50 |
| 3:N:57:LYS:HE3 | 7:i:3:GLN:HB3 | 1.92 | 0.50 |
| 3:O:19:LYS:HA | 5:6:28:PHE:CE1 | 2.46 | 0.50 |
| 3:O:39:TYR:HE1 | 7:j:6:ILE:HD11 | 1.76 | 0.50 |
| 3:R:11:LEU:HD12 | 7:g:22:ASN:H | 1.76 | 0.50 |
| 5:Z:112:SER:OG | 5:Z:114:ASP:OD1 | 2.17 | 0.50 |
| 5:4:115:GLN:NE2 | 7:g:71:SER:HB2 | 2.27 | 0.50 |
| 5:8:188:PHE:HA | 5:8:194:LYS:HE2 | 1.92 | 0.50 |
| 7:g:63:VAL:HG23 | 7:g:64:LEU:HD22 | 1.94 | 0.50 |
| 7:g:172:THR:HG22 | 7:g:178:VAL:HG22 | 1.94 | 0.50 |
| 7:i:150:LEU:HD12 | 7:i:168:LYS:O | 2.11 | 0.50 |
| 7:i:299:PRO:HA | 7:i:327:HIS:CE1 | 2.46 | 0.50 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:j:150:LEU:HD12 | 7:j:168:LYS:O | 2.11 | 0.50 |
| 7:k:150:LEU:HD12 | 7:k:168:LYS:O | 2.11 | 0.50 |
| 7:m:136:TYR:CZ | 7:m:214:ARG:HB2 | 2.47 | 0.50 |
| 7:m:318:THR:HA | 7:m:424:GLN:HE22 | 1.76 | 0.50 |
| 7:m:369:SER:O | 7:m:375:ARG:NE | 2.45 | 0.50 |
| 7:n:461:ALA:HB1 | 7:n:465:LYS:NZ | 2.26 | 0.50 |
| 7:n:510:TRP:CZ2 | 7:BA:525:PRO:HG3 | 2.45 | 0.50 |
| 7:q:102:LYS:HZ2 | 7:q:120:PRO:HD3 | 1.76 | 0.50 |
| 7:r:480:LEU:HD13 | 7:r:512:CYS:HB2 | 1.94 | 0.50 |
| 7:r:519:ARG:NH1 | 7:r:520:ARG:HG3 | 2.26 | 0.50 |
| 7:BA:465:LYS:O | 7:BA:469:LYS:HG2 | 2.11 | 0.50 |
| 7:EA:378:ILE:HG12 | 7:EA:413:MET:O | 2.11 | 0.50 |
| 7:EA:464:THR:O | 7:EA:468:THR:HG23 | 2.11 | 0.50 |
| 7:EA:465:LYS:O | 7:EA:469:LYS:HG2 | 2.11 | 0.50 |
| 7:FA:344:GLY:O | 7:FA:380:ARG:NH2 | 2.43 | 0.50 |
| 7:GA:172:THR:OG1 | 7:GA:178:VAL:HG22 | 2.10 | 0.50 |
| 7:GA:453:HIS:CE1 | 7:MA:372:GLY:HA3 | 2.45 | 0.50 |
| 7:HA:303:TYR:CE2 | 7:HA:392:PRO:HA | 2.46 | 0.50 |
| 7:IA:334:ASP:HB3 | 7:IA:338:GLN:H | 1.75 | 0.50 |
| 7:IA:525:PRO:HG2 | 7:JA:21:ILE:HA | 1.93 | 0.50 |
| 7:JA:69:LYS:HG3 | 7:JA:72:SER:H | 1.76 | 0.50 |
| 7:LA:104:PRO:HD3 | 7:LA:238:GLY:HA3 | 1.93 | 0.50 |
| 7:MA:195:ASP:HB2 | 7:RA:426:ASN:HB3 | 1.93 | 0.50 |
| 7:NA:142:PRO:HB2 | 7:NA:144:ILE:HG12 | 1.93 | 0.50 |
| 7:RA:328:TYR:CZ | 7:RA:330:PHE:HB2 | 2.45 | 0.50 |
| 8:BB:100:ARG:NH1 | 8:BB:105:ASP:O | 2.44 | 0.50 |
| 8:CB:26:ARG:HH12 | 8:DB:87:GLU:CD | 2.18 | 0.50 |
| 8:CB:163:TYR:CE2 | 8:CB:166:ILE:HD11 | 2.41 | 0.50 |
| 8:EB:114:THR:HG23 | 8:EB:118:LYS:HE3 | 1.93 | 0.50 |
| 8:FB:114:THR:HG23 | 8:FB:118:LYS:HE3 | 1.93 | 0.50 |
| 8:MB:82:GLN:NE2 | 8:MB:158:SER:OG | 2.44 | 0.50 |
| 8:OB:82:GLN:NE2 | 8:OB:158:SER:OG | 2.45 | 0.50 |
| 8:RB:13:ILE:HG13 | 8:RB:14:LYS:HD2 | 1.92 | 0.50 |
| 1:A:54:ASP:OD1 | 1:A:137:ARG:NH1 | 2.44 | 0.50 |
| 1:A:181:ALA:HB1 | 1:F:86:LEU:HD11 | 1.93 | 0.50 |
| 1:B:54:ASP:OD1 | 1:B:137:ARG:NH1 | 2.44 | 0.50 |
| 1:F:29:GLU:O | 1:F:32:LYS:HG3 | 2.11 | 0.50 |
| 2:G:121:PRO:HB3 | 2:G:133:PRO:HB3 | 1.93 | 0.50 |
| 2:H:153:ASP:HB3 | 2:H:176:GLN:HB2 | 1.94 | 0.50 |
| 2:K:97:THR:HG23 | 2:K:170:LYS:HE2 | 1.92 | 0.50 |
| 3:R:106:ARG:HA | 3:R:110:ILE:HG22 | 1.94 | 0.50 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 4:W:59:TYR:CD2 | 6:e:8:HIS:HB2 | 2.46 | 0.50 |
| 5:Y:19:VAL:HG13 | 5:Y:25:TRP:CD2 | 2.47 | 0.50 |
| 5:1:14:GLU:HA | 5:1:17:GLU:OE2 | 2.11 | 0.50 |
| 5:2:254:ASN:OD1 | 5:2:255:LEU:N | 2.45 | 0.50 |
| 5:6:234:THR:HG23 | 5:6:236:GLY:H | 1.77 | 0.50 |
| 5:8:67:ARG:HE | 5:8:71:LEU:HG | 1.76 | 0.50 |
| 7:g:137:VAL:HA | 7:g:213:LEU:HD13 | 1.93 | 0.50 |
| 7:g:528:ILE:HA | 7:h:27:LEU:HD22 | 1.93 | 0.50 |
| 7:h:22:ASN:HD21 | 7:h:173:THR:HG21 | 1.77 | 0.50 |
| 7:h:35:SER:C | 7:h:358:LYS:HZ1 | 2.20 | 0.50 |
| 7:i:437:MET:HA | 7:i:440:ILE:HG12 | 1.93 | 0.50 |
| 7:j:149:GLU:HB3 | 7:j:232:SER:HA | 1.94 | 0.50 |
| 7:l:168:LYS:HB3 | 7:l:183:THR:HG23 | 1.93 | 0.50 |
| 7:m:316:LEU:HD22 | 7:m:423:THR:HG22 | 1.94 | 0.50 |
| 7:n:269:LEU:HD21 | 7:n:350:TYR:CD2 | 2.46 | 0.50 |
| 7:p:316:LEU:HD22 | 7:p:423:THR:HG22 | 1.94 | 0.50 |
| 7:p:436:LEU:O | 7:p:440:ILE:HG12 | 2.10 | 0.50 |
| 7:r:150:LEU:N | 7:r:233:LEU:O | 2.43 | 0.50 |
| 7:r:193:LYS:HZ1 | 7:FA:69:LYS:HD2 | 1.76 | 0.50 |
| 7:r:495:VAL:HG12 | 7:r:511:ALA:HB3 | 1.94 | 0.50 |
| 7:AA:13:ALA:HA | 7:FA:398:VAL:HG21 | 1.93 | 0.50 |
| 7:AA:148:ARG:HH11 | 7:AA:169:LEU:HD21 | 1.76 | 0.50 |
| 7:BA:366:TRP:CD1 | 7:BA:435:SER:HB2 | 2.45 | 0.50 |
| 7:BA:371:ALA:O | 7:BA:375:ARG:NH1 | 2.35 | 0.50 |
| 7:CA:262:PRO:C | 7:CA:263:TYR:HD2 | 2.19 | 0.50 |
| 7:CA:378:ILE:HG22 | 7:CA:380:ARG:HG3 | 1.92 | 0.50 |
| 7:CA:527:LEU:HG | 7:CA:529:LYS:H | 1.75 | 0.50 |
| 7:EA:60:TYR:O | 7:EA:64:LEU:HB2 | 2.12 | 0.50 |
| 7:EA:447:LEU:O | 7:EA:450:GLN:NE2 | 2.43 | 0.50 |
| 7:FA:334:ASP:OD2 | 7:FA:337:THR:OG1 | 2.29 | 0.50 |
| 7:GA:69:LYS:HG3 | 7:GA:72:SER:H | 1.76 | 0.50 |
| 7:GA:453:HIS:CD2 | 7:MA:375:ARG:HH21 | 2.30 | 0.50 |
| 7:HA:108:PHE:CE1 | 7:HA:114:PRO:HB3 | 2.41 | 0.50 |
| 7:IA:453:HIS:CD2 | 7:OA:375:ARG:HH21 | 2.30 | 0.50 |
| 7:JA:99:ASP:OD1 | 7:JA:100:ASP:N | 2.45 | 0.50 |
| 7:KA:37:LEU:O | 7:KA:266:THR:N | 2.45 | 0.50 |
| 7:MA:398:VAL:HG21 | 7:NA:12:ASN:HB3 | 1.94 | 0.50 |
| 7:QA:63:VAL:HG13 | 7:QA:64:LEU:HD22 | 1.94 | 0.50 |
| 7:QA:464:THR:O | 7:QA:468:THR:HG23 | 2.12 | 0.50 |
| 8:CB:16:ARG:HH22 | 8:IB:64:PRO:C | 2.19 | 0.50 |
| 8:DB:57:GLU:OE2 | 8:DB:73:GLY:HA3 | 2.12 | 0.50 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 8:EB:138:LYS:HB2 | 8:EB:162:VAL:HB | 1.93 | 0.50 |
| 8:GB:11:LYS:NZ | 8:HB:121:GLY:O | 2.30 | 0.50 |
| 8:GB:29:SER:H | 8:HB:154:ALA:HA | 1.75 | 0.50 |
| 8:JB:32:PHE:HA | 8:JB:113:ALA:HA | 1.92 | 0.50 |
| 8:LB:13:ILE:HD11 | 8:LB:14:LYS:HZ2 | 1.76 | 0.50 |
| 8:QB:82:GLN:NE2 | 8:QB:158:SER:OG | 2.44 | 0.50 |
| 8:QB:82:GLN:NE2 | 8:QB:83:VAL:O | 2.44 | 0.50 |
| 1:C:54:ASP:OD1 | 1:C:137:ARG:NH1 | 2.44 | 0.50 |
| 1:D:196:LEU:HA | 7:p:410:SER:HA | 1.94 | 0.50 |
| 2:I:163:ASP:OD1 | 2:I:169:LEU:HD21 | 2.11 | 0.50 |
| 3:O:46:ASP:OD1 | 4:U:66:TYR:OH | 2.27 | 0.50 |
| 4:T:64:LEU:HD22 | 4:T:68:MET:HE1 | 1.93 | 0.50 |
| 4:U:22:ARG:NH1 | 5:6:5:THR:HG23 | 2.27 | 0.50 |
| 5:2:93:ILE:HG13 | 5:2:261:VAL:HG13 | 1.91 | 0.50 |
| 5:5:14:GLU:HA | 5:5:17:GLU:HG3 | 1.94 | 0.50 |
| 5:5:119:MET:HE2 | 5:5:119:MET:HA | 1.92 | 0.50 |
| 5:6:188:PHE:HA | 5:6:194:LYS:HE2 | 1.93 | 0.50 |
| 6:d:75:SER:O | 6:d:78:PRO:HD2 | 2.11 | 0.50 |
| 7:i:149:GLU:HB3 | 7:i:232:SER:HA | 1.94 | 0.50 |
| 7:i:370:PRO:HG3 | 7:i:431:GLN:HG2 | 1.94 | 0.50 |
| 7:m:441:SER:O | 7:m:445:VAL:HG23 | 2.12 | 0.50 |
| 7:n:136:TYR:CZ | 7:n:214:ARG:HB2 | 2.47 | 0.50 |
| 7:o:193:LYS:NZ | 7:CA:69:LYS:HD2 | 2.26 | 0.50 |
| 7:p:136:TYR:CZ | 7:p:214:ARG:HB2 | 2.47 | 0.50 |
| 7:p:318:THR:HA | 7:p:424:GLN:HE22 | 1.76 | 0.50 |
| 7:p:519:ARG:NH1 | 7:p:520:ARG:HG3 | 2.26 | 0.50 |
| 7:q:136:TYR:CZ | 7:q:214:ARG:HB2 | 2.47 | 0.50 |
| 7:r:510:TRP:CZ2 | 7:FA:525:PRO:HG3 | 2.46 | 0.50 |
| 7:CA:42:GLY:O | 7:CA:95:ARG:HA | 2.12 | 0.50 |
| 7:CA:377:VAL:HG13 | 7:CA:412:GLN:HB2 | 1.93 | 0.50 |
| 7:CA:464:THR:O | 7:CA:468:THR:HG23 | 2.12 | 0.50 |
| 7:DA:60:TYR:O | 7:DA:64:LEU:HB2 | 2.12 | 0.50 |
| 7:EA:42:GLY:O | 7:EA:95:ARG:HA | 2.12 | 0.50 |
| 7:GA:99:ASP:OD1 | 7:GA:100:ASP:N | 2.45 | 0.50 |
| 7:HA:212:TYR:N | 7:HA:214:ARG:HH22 | 2.10 | 0.50 |
| 7:HA:520:ARG:NH1 | 7:IA:12:ASN:HA | 2.27 | 0.50 |
| 7:IA:520:ARG:HH11 | 7:JA:12:ASN:HA | 1.76 | 0.50 |
| 7:KA:76:PHE:O | 7:KA:80:ARG:HG2 | 2.11 | 0.50 |
| 7:NA:158:ASP:OD1 | 7:NA:164:ARG:NE | 2.39 | 0.50 |
| 7:NA:198:ARG:HH21 | 7:NA:208:ALA:HB2 | 1.77 | 0.50 |
| 7:OA:43:VAL:HG11 | 7:OA:75:GLN:HE21 | 1.76 | 0.50 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:QA:48:LYS:HD2 | 7:QA:49:PRO:HD2 | 1.93 | 0.50 |
| 7:QA:404:LYS:NZ | 7:QA:416:ASP:OD2 | 2.27 | 0.50 |
| 8:AB:56:ARG:NE | 8:BB:140:TYR:OH | 2.44 | 0.50 |
| 8:CB:72:HIS:CD2 | 8:DB:104:LYS:HD2 | 2.47 | 0.50 |
| 8:GB:31:GLU:OE2 | 8:GB:116:GLU:N | 2.45 | 0.50 |
| 8:GB:58:ASP:OD1 | 8:GB:70:ASN:HB2 | 2.11 | 0.50 |
| 8:GB:98:LYS:NZ | 8:LB:168:TRP:HB2 | 2.25 | 0.50 |
| 8:HB:29:SER:OG | 8:IB:146:PHE:HB2 | 2.11 | 0.50 |
| 8:IB:32:PHE:O | 8:NB:65:ASN:ND2 | 2.45 | 0.50 |
| 8:MB:45:LEU:HD21 | 8:MB:86:VAL:O | 2.11 | 0.50 |
| 8:MB:103:ALA:O | 8:MB:104:LYS:HG2 | 2.12 | 0.50 |
| 8:NB:52:PRO:HA | 8:NB:81:ILE:HD11 | 1.94 | 0.50 |
| 1:D:115:ALA:HA | 1:D:118:ARG:HE | 1.76 | 0.50 |
| 1:D:140:ARG:HD3 | 1:D:148:LYS:NZ | 2.26 | 0.50 |
| 1:E:119:VAL:HA | 1:E:132:TYR:CG | 2.46 | 0.50 |
| 1:F:37:ILE:HD13 | 1:F:40:LYS:NZ | 2.26 | 0.50 |
| 2:H:121:PRO:HB3 | 2:H:133:PRO:HB3 | 1.94 | 0.50 |
| 2:J:121:PRO:HB3 | 2:J:133:PRO:HB3 | 1.93 | 0.50 |
| 3:O:99:ASP:HB2 | 3:O:100:LYS:HZ3 | 1.77 | 0.50 |
| 4:S:71:ILE:HG13 | 4:S:73:GLU:H | 1.75 | 0.50 |
| 5:5:188:PHE:HA | 5:5:194:LYS:HE2 | 1.93 | 0.50 |
| 5:9:153:PHE:O | 5:9:211:ARG:NE | 2.31 | 0.50 |
| 7:h:192:ALA:O | 7:h:199:LEU:HD12 | 2.11 | 0.50 |
| 7:j:2:SER:OG | 7:j:3:GLN:N | 2.45 | 0.50 |
| 7:j:88:GLN:HG3 | 7:j:351:ALA:HB1 | 1.92 | 0.50 |
| 7:j:398:VAL:HG23 | 7:j:419:LEU:HD13 | 1.92 | 0.50 |
| 7:m:193:LYS:NZ | 7:AA:69:LYS:HD2 | 2.26 | 0.50 |
| 7:o:75:GLN:HE22 | 7:o:244:SER:HA | 1.77 | 0.50 |
| 7:p:441:SER:O | 7:p:445:VAL:HG23 | 2.12 | 0.50 |
| 7:q:470:LEU:HD12 | 7:q:471:LEU:HD22 | 1.94 | 0.50 |
| 7:EA:269:LEU:HD21 | 7:EA:350:TYR:CD2 | 2.45 | 0.50 |
| 7:FA:355:ARG:HH12 | 7:FA:375:ARG:CZ | 2.25 | 0.50 |
| 7:FA:448:ALA:O | 7:FA:452:LYS:HG3 | 2.11 | 0.50 |
| 7:GA:331:SER:OG | 7:GA:384:GLN:NE2 | 2.45 | 0.50 |
| 7:GA:487:ASP:O | 7:NA:335:LYS:NZ | 2.33 | 0.50 |
| 7:IA:52:VAL:HG11 | 7:IA:263:TYR:HE2 | 1.76 | 0.50 |
| 7:IA:212:TYR:N | 7:IA:214:ARG:HH22 | 2.10 | 0.50 |
| 7:KA:453:HIS:CE1 | 7:QA:372:GLY:HA3 | 2.46 | 0.50 |
| 7:KA:520:ARG:HH11 | 7:LA:12:ASN:HA | 1.77 | 0.50 |
| 7:LA:331:SER:OG | 7:LA:384:GLN:NE2 | 2.45 | 0.50 |
| 7:LA:453:HIS:CD2 | 7:RA:375:ARG:HH21 | 2.30 | 0.50 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:MA:198:ARG:HH21 | 7:MA:208:ALA:HB2 | 1.77 | 0.50 |
| 7:QA:142:PRO:HB2 | 7:QA:144:ILE:HG12 | 1.93 | 0.50 |
| 8:AB:104:LYS:HD2 | 8:FB:72:HIS:CE1 | 2.47 | 0.50 |
| 8:FB:100:ARG:NH1 | 8:FB:105:ASP:O | 2.45 | 0.50 |
| 8:KB:10:ARG:HE | 8:KB:14:LYS:HZ3 | 1.59 | 0.50 |
| 8:KB:94:LEU:O | 8:KB:98:LYS:HB2 | 2.12 | 0.50 |
| 8:NB:64:PRO:O | 8:NB:67:VAL:HG12 | 2.11 | 0.50 |
| 8:OB:103:ALA:O | 8:OB:104:LYS:HG2 | 2.12 | 0.50 |
| 1:C:196:LEU:HA | 7:o:410:SER:HA | 1.94 | 0.50 |
| 2:J:143:ARG:HB2 | 2:J:193:GLN:HB2 | 1.93 | 0.50 |
| 2:L:163:ASP:OD1 | 2:L:169:LEU:HD21 | 2.11 | 0.50 |
| 3:O:75:LEU:O | 3:O:79:THR:HG23 | 2.12 | 0.50 |
| 4:S:22:ARG:NH1 | 5:4:5:THR:HG23 | 2.26 | 0.50 |
| 4:S:60:ARG:HG3 | 6:a:9:ARG:HH11 | 1.77 | 0.50 |
| 4:U:86:ASP:HA | 5:6:47:ARG:NH2 | 2.27 | 0.50 |
| 5:Z:389:ALA:N | 5:Z:477:GLU:OE2 | 2.36 | 0.50 |
| 5:5:349:GLU:HB3 | 5:5:353:MET:HE1 | 1.93 | 0.50 |
| 5:7:119:MET:HE2 | 5:7:119:MET:HA | 1.92 | 0.50 |
| 5:9:3:LYS:HE3 | 5:9:56:LEU:HD21 | 1.93 | 0.50 |
| 6:b:97:ILE:O | 6:b:100:THR:OG1 | 2.24 | 0.50 |
| 7:g:319:ASP:N | 7:g:319:ASP:OD1 | 2.44 | 0.50 |
| 7:h:299:PRO:HA | 7:h:327:HIS:CE1 | 2.46 | 0.50 |
| 7:k:137:VAL:HA | 7:k:213:LEU:HD13 | 1.93 | 0.50 |
| 7:m:291:ILE:HA | 7:m:438:ASN:HD21 | 1.76 | 0.50 |
| 7:p:452:LYS:HZ2 | 7:p:453:HIS:H | 1.59 | 0.50 |
| 7:p:522:GLN:HG2 | 7:q:10:LEU:HD23 | 1.93 | 0.50 |
| 7:AA:42:GLY:O | 7:AA:95:ARG:HA | 2.12 | 0.50 |
| 7:IA:206:LEU:HA | 7:IA:210:SER:HB3 | 1.93 | 0.50 |
| 7:KA:212:TYR:N | 7:KA:214:ARG:HH22 | 2.10 | 0.50 |
| 7:MA:107:MET:N | 7:MA:107:MET:SD | 2.84 | 0.50 |
| 7:OA:142:PRO:HB2 | 7:OA:144:ILE:HG12 | 1.93 | 0.50 |
| 7:PA:352:ALA:HB1 | 7:PA:370:PRO:HB3 | 1.93 | 0.50 |
| 7:RA:210:SER:O | 7:RA:214:ARG:NE | 2.45 | 0.50 |
| 8:CB:56:ARG:HH22 | 8:DB:138:LYS:HZ2 | 1.60 | 0.50 |
| 8:EB:56:ARG:HD2 | 8:EB:57:GLU:O | 2.11 | 0.50 |
| 8:JB:139:ILE:HB | 8:JB:161:ILE:HD13 | 1.94 | 0.50 |
| 8:KB:28:VAL:HG22 | 8:KB:30:SER:H | 1.76 | 0.50 |
| 8:LB:61:ASP:OD1 | 8:LB:62:TYR:N | 2.43 | 0.50 |
| 1:A:196:LEU:HA | 7:m:410:SER:HA | 1.94 | 0.50 |
| 1:C:101:ARG:HB2 | 1:C:173:PHE:HD2 | 1.76 | 0.50 |
| 1:D:67:THR:OG1 | 1:D:97:THR:HB | 2.12 | 0.50 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:E:196:LEU:HA | 7:q:410:SER:HA | 1.94 | 0.50 |
| 2:H:104:PRO:HB2 | 2:H:167:TYR:HB3 | 1.94 | 0.50 |
| 3:M:106:ARG:HA | 3:M:110:ILE:HG22 | 1.94 | 0.50 |
| 3:O:106:ARG:HA | 3:O:110:ILE:HG22 | 1.94 | 0.50 |
| 5:Y:347:GLN:OE1 | 5:Y:371:TYR:OH | 2.18 | 0.50 |
| 5:Y:356:ALA:C | 5:Y:360:LYS:HZ2 | 2.19 | 0.50 |
| 5:O:347:GLN:OE1 | 5:O:371:TYR:OH | 2.18 | 0.50 |
| 5:2:451:TRP:NE1 | 5:2:453:GLU:OE2 | 2.40 | 0.50 |
| 5:6:222:PRO:HG2 | 5:6:225:SER:HB3 | 1.93 | 0.50 |
| 5:6:281:ASN:HA | 5:6:284:GLN:HG2 | 1.94 | 0.50 |
| 5:6:477:GLU:HB2 | 6:b:189:LYS:HE2 | 1.93 | 0.50 |
| 7:k:46:ARG:NH1 | 7:k:62:ASP:O | 2.45 | 0.50 |
| 7:k:427:TYR:HD2 | 7:q:529:LYS:HB2 | 1.77 | 0.50 |
| 7:l:149:GLU:HB3 | 7:l:232:SER:HA | 1.93 | 0.50 |
| 7:l:426:ASN:ND2 | 7:l:428:LEU:HB2 | 2.27 | 0.50 |
| 7:n:522:GLN:HG2 | 7:o:10:LEU:HD23 | 1.93 | 0.50 |
| 7:o:495:VAL:HG12 | 7:o:511:ALA:HB3 | 1.94 | 0.50 |
| 7:p:269:LEU:HD21 | 7:p:350:TYR:CD2 | 2.47 | 0.50 |
| 7:p:461:ALA:HB1 | 7:p:465:LYS:NZ | 2.26 | 0.50 |
| 7:r:193:LYS:NZ | 7:FA:69:LYS:HD2 | 2.27 | 0.50 |
| 7:AA:344:GLY:O | 7:AA:380:ARG:NH2 | 2.44 | 0.50 |
| 7:AA:447:LEU:O | 7:AA:450:GLN:NE2 | 2.44 | 0.50 |
| 7:BA:62:ASP:OD1 | 7:BA:63:VAL:N | 2.45 | 0.50 |
| 7:CA:502:GLU:CD | 7:CA:504:ASP:H | 2.20 | 0.50 |
| 7:DA:377:VAL:HG13 | 7:DA:412:GLN:HB2 | 1.93 | 0.50 |
| 7:EA:62:ASP:OD1 | 7:EA:63:VAL:N | 2.45 | 0.50 |
| 7:EA:355:ARG:HA | 7:EA:358:LYS:HG2 | 1.93 | 0.50 |
| 7:GA:108:PHE:CE1 | 7:GA:114:PRO:HB3 | 2.41 | 0.50 |
| 7:GA:212:TYR:N | 7:GA:214:ARG:HH22 | 2.10 | 0.50 |
| 7:HA:104:PRO:HD3 | 7:HA:238:GLY:HA3 | 1.93 | 0.50 |
| 7:IA:193:LYS:HD3 | 7:IA:197:GLY:HA2 | 1.94 | 0.50 |
| 7:KA:52:VAL:HG11 | 7:KA:263:TYR:HE2 | 1.77 | 0.50 |
| 7:KA:440:ILE:HA | 7:KA:443:PHE:HD2 | 1.77 | 0.50 |
| 7:KA:520:ARG:NH1 | 7:LA:12:ASN:HA | 2.27 | 0.50 |
| 7:LA:76:PHE:O | 7:LA:80:ARG:HG2 | 2.11 | 0.50 |
| 7:NA:297:VAL:HB | 7:NA:301:LEU:HD21 | 1.93 | 0.50 |
| 7:OA:426:ASN:HB3 | 7:PA:195:ASP:HB2 | 1.93 | 0.50 |
| 7:RA:48:LYS:HD2 | 7:RA:49:PRO:HD2 | 1.93 | 0.50 |
| 7:RA:151:THR:HG23 | 7:RA:231:LYS:HG3 | 1.93 | 0.50 |
| 7:RA:395:GLU:HA | 7:RA:398:VAL:HG12 | 1.93 | 0.50 |
| 7:RA:485:ASP:OD1 | 7:RA:485:ASP:N | 2.44 | 0.50 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 8:AB:90:GLU:OE1 | 8:AB:95:GLN:NE2 | 2.45 | 0.50 |
| 8:MB:49:SER:HG | 8:NB:146:PHE:HZ | 1.60 | 0.50 |
| 8:PB:11:LYS:HE3 | 8:PB:12:PHE:HE1 | 1.76 | 0.50 |
| 1:B:196:LEU:HA | 7:n:410:SER:HA | 1.94 | 0.49 |
| 1:D:54:ASP:OD1 | 1:D:137:ARG:NH1 | 2.44 | 0.49 |
| 3:P:31:ARG:NH2 | 5:7:32:GLN:HG2 | 2.27 | 0.49 |
| 3:P:98:PHE:CZ | 7:j:515:THR:HA | 2.46 | 0.49 |
| 3:Q:31:ARG:NH2 | 5:8:32:GLN:HG2 | 2.28 | 0.49 |
| 5:Y:201:PHE:CE2 | 5:Y:211:ARG:HG3 | 2.46 | 0.49 |
| 5:O:254:ASN:OD1 | 5:O:255:LEU:N | 2.45 | 0.49 |
| 5:1:189:ARG:CZ | 5:7:292:GLN:HB3 | 2.42 | 0.49 |
| 5:3:254:ASN:OD1 | 5:3:255:LEU:N | 2.45 | 0.49 |
| 5:7:281:ASN:HA | 5:7:284:GLN:HG2 | 1.94 | 0.49 |
| 5:7:387:ILE:O | 5:7:475:GLU:N | 2.38 | 0.49 |
| 5:9:115:GLN:NE2 | 7:l:71:SER:HB2 | 2.26 | 0.49 |
| 6:a:76:SER:HB2 | 6:a:79:MET:HE2 | 1.94 | 0.49 |
| 6:a:133:GLU:HA | 6:a:136:LEU:HB2 | 1.95 | 0.49 |
| 7:i:355:ARG:NH2 | 7:i:374:GLU:O | 2.45 | 0.49 |
| 7:i:528:ILE:HA | 7:j:27:LEU:HD22 | 1.93 | 0.49 |
| 7:j:307:LEU:HB2 | 7:j:308:PRO:HD3 | 1.94 | 0.49 |
| 7:j:427:TYR:HD2 | 7:p:529:LYS:HB2 | 1.76 | 0.49 |
| 7:k:172:THR:HG22 | 7:k:178:VAL:HG22 | 1.94 | 0.49 |
| 7:l:370:PRO:HG3 | 7:l:431:GLN:HG2 | 1.93 | 0.49 |
| 7:o:136:TYR:CZ | 7:o:214:ARG:HB2 | 2.46 | 0.49 |
| 7:o:319:ASP:N | 7:o:319:ASP:OD1 | 2.45 | 0.49 |
| 7:p:193:LYS:NZ | 7:DA:69:LYS:HD2 | 2.26 | 0.49 |
| 7:q:33:LEU:HD11 | 7:q:358:LYS:HD2 | 1.94 | 0.49 |
| 7:BA:42:GLY:O | 7:BA:95:ARG:HA | 2.12 | 0.49 |
| 7:BA:469:LYS:O | 7:BA:472:ASP:HB2 | 2.12 | 0.49 |
| 7:CA:60:TYR:O | 7:CA:64:LEU:HB2 | 2.12 | 0.49 |
| 7:GA:520:ARG:HH11 | 7:HA:12:ASN:HA | 1.77 | 0.49 |
| 7:JA:331:SER:OG | 7:JA:384:GLN:NE2 | 2.45 | 0.49 |
| 7:KA:307:LEU:HB3 | 7:KA:308:PRO:HD3 | 1.93 | 0.49 |
| 7:NA:334:ASP:HB3 | 7:NA:338:GLN:H | 1.77 | 0.49 |
| 7:OA:352:ALA:HB1 | 7:OA:370:PRO:HB3 | 1.93 | 0.49 |
| 7:QA:463:LEU:O | 7:QA:467:MET:HG2 | 2.11 | 0.49 |
| 7:QA:474:PHE:O | 7:QA:477:SER:OG | 2.21 | 0.49 |
| 7:RA:42:GLY:HA3 | 7:RA:44:PHE:CE2 | 2.47 | 0.49 |
| 7:RA:352:ALA:HB1 | 7:RA:370:PRO:HB3 | 1.93 | 0.49 |
| 8:DB:100:ARG:NH1 | 8:DB:105:ASP:O | 2.45 | 0.49 |
| 8:JB:3:HIS:O | 8:JB:6:THR:OG1 | 2.27 | 0.49 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 8:JB:112:ALA:HB2 | 8:JB:131:THR:HA | 1.92 | 0.49 |
| 8:NB:82:GLN:NE2 | 8:NB:158:SER:OG | 2.44 | 0.49 |
| 8:OB:111:MET:HE3 | 8:OB:112:ALA:H | 1.77 | 0.49 |
| 8:QB:103:ALA:O | 8:QB:104:LYS:HG2 | 2.12 | 0.49 |
| 8:RB:11:LYS:HE3 | 8:RB:12:PHE:HE1 | 1.77 | 0.49 |
| 1:A:86:LEU:HD11 | 1:B:181:ALA:HB1 | 1.93 | 0.49 |
| 1:B:67:THR:OG1 | 1:B:97:THR:HB | 2.12 | 0.49 |
| 1:B:186:PHE:HE2 | 2:H:15:VAL:HG22 | 1.76 | 0.49 |
| 1:C:67:THR:OG1 | 1:C:97:THR:HB | 2.12 | 0.49 |
| 1:E:37:ILE:HD13 | 1:E:40:LYS:NZ | 2.26 | 0.49 |
| 1:E:67:THR:OG1 | 1:E:97:THR:HB | 2.12 | 0.49 |
| 1:E:86:LEU:H | 1:E:86:LEU:HD23 | 1.77 | 0.49 |
| 2:G:116:THR:HA | 2:G:119:ILE:HG22 | 1.93 | 0.49 |
| 2:H:180:SER:OG | 2:H:183:TYR:OH | 2.13 | 0.49 |
| 3:N:39:TYR:HE1 | 7:i:6:ILE:HD11 | 1.77 | 0.49 |
| 3:P:40:GLN:NE2 | 3:P:48:SER:O | 2.45 | 0.49 |
| 3:Q:39:TYR:HE1 | 7:l:6:ILE:HD11 | 1.77 | 0.49 |
| 3:R:98:PHE:CZ | 7:l:515:THR:HA | 2.47 | 0.49 |
| 4:V:22:ARG:NH1 | 5:7:5:THR:HG23 | 2.27 | 0.49 |
| 5:1:451:TRP:NE1 | 5:1:453:GLU:OE2 | 2.40 | 0.49 |
| 5:4:3:LYS:HE3 | 5:4:56:LEU:HD21 | 1.94 | 0.49 |
| 5:4:14:GLU:HA | 5:4:17:GLU:HG3 | 1.94 | 0.49 |
| 5:7:90:MET:HE2 | 5:7:90:MET:HA | 1.92 | 0.49 |
| 5:7:349:GLU:HB3 | 5:7:353:MET:HE1 | 1.94 | 0.49 |
| 5:9:8:LYS:O | 5:9:12:ARG:HG3 | 2.12 | 0.49 |
| 5:9:383:ILE:HG13 | 5:9:444:PHE:HD2 | 1.78 | 0.49 |
| 7:g:12:ASN:ND2 | 7:l:399:LYS:HE2 | 2.27 | 0.49 |
| 7:h:84:GLU:O | 7:h:88:GLN:NE2 | 2.39 | 0.49 |
| 7:h:168:LYS:HB3 | 7:h:183:THR:HG23 | 1.93 | 0.49 |
| 7:j:172:THR:HG22 | 7:j:178:VAL:HG22 | 1.94 | 0.49 |
| 7:j:446:GLN:O | 7:j:449:ARG:NH2 | 2.45 | 0.49 |
| 7:k:50:PHE:N | 7:k:95:ARG:O | 2.46 | 0.49 |
| 7:k:149:GLU:HB3 | 7:k:232:SER:HA | 1.94 | 0.49 |
| 7:m:269:LEU:HD21 | 7:m:350:TYR:CD2 | 2.47 | 0.49 |
| 7:n:44:PHE:C | 7:n:95:ARG:HE | 2.20 | 0.49 |
| 7:n:480:LEU:HD13 | 7:n:512:CYS:HB2 | 1.94 | 0.49 |
| 7:o:432:HIS:O | 7:o:435:SER:OG | 2.18 | 0.49 |
| 7:q:441:SER:O | 7:q:445:VAL:HG23 | 2.12 | 0.49 |
| 7:r:369:SER:O | 7:r:375:ARG:NE | 2.45 | 0.49 |
| 7:AA:62:ASP:OD1 | 7:AA:63:VAL:N | 2.45 | 0.49 |
| 7:AA:193:LYS:HA | 7:AA:199:LEU:HA | 1.95 | 0.49 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:AA:334:ASP:OD2 | 7:AA:337:THR:OG1 | 2.28 | 0.49 |
| 7:BA:213:LEU:C | 7:BA:214:ARG:HD3 | 2.38 | 0.49 |
| 7:DA:433:VAL:HG12 | 7:DA:437:MET:CE | 2.42 | 0.49 |
| 7:DA:520:ARG:HH21 | 7:EA:17:ALA:C | 2.19 | 0.49 |
| 7:FA:377:VAL:HG13 | 7:FA:412:GLN:HB2 | 1.93 | 0.49 |
| 7:GA:474:PHE:O | 7:GA:477:SER:OG | 2.27 | 0.49 |
| 7:KA:331:SER:OG | 7:KA:384:GLN:NE2 | 2.45 | 0.49 |
| 7:LA:212:TYR:N | 7:LA:214:ARG:HH22 | 2.10 | 0.49 |
| 7:OA:42:GLY:HA3 | 7:OA:44:PHE:CE2 | 2.47 | 0.49 |
| 7:OA:63:VAL:HG13 | 7:OA:64:LEU:HD22 | 1.94 | 0.49 |
| 7:OA:198:ARG:HH21 | 7:OA:208:ALA:HB2 | 1.77 | 0.49 |
| 7:PA:46:ARG:NE | 7:PA:140:GLY:O | 2.44 | 0.49 |
| 7:PA:63:VAL:HG13 | 7:PA:64:LEU:HD22 | 1.94 | 0.49 |
| 7:QA:352:ALA:HB1 | 7:QA:370:PRO:HB3 | 1.93 | 0.49 |
| 7:RA:43:VAL:HG11 | 7:RA:75:GLN:HE21 | 1.76 | 0.49 |
| 7:RA:63:VAL:HG13 | 7:RA:64:LEU:HD22 | 1.94 | 0.49 |
| 8:FB:111:MET:HE1 | 8:FB:134:MET:HB2 | 1.94 | 0.49 |
| 8:GB:138:LYS:HZ1 | 8:LB:72:HIS:HA | 1.76 | 0.49 |
| 8:IB:33:LEU:HD12 | 8:IB:114:THR:HG21 | 1.93 | 0.49 |
| 8:JB:31:GLU:OE2 | 8:JB:116:GLU:N | 2.45 | 0.49 |
| 8:NB:7:LYS:NZ | 8:OB:120:SER:OG | 2.42 | 0.49 |
| 1:A:87:GLN:HG2 | 1:A:88:PRO:HD2 | 1.94 | 0.49 |
| 1:D:186:PHE:HE2 | 2:J:15:VAL:HG22 | 1.77 | 0.49 |
| 1:E:54:ASP:OD1 | 1:E:137:ARG:NH1 | 2.44 | 0.49 |
| 1:E:115:ALA:HA | 1:E:118:ARG:HE | 1.76 | 0.49 |
| 1:E:140:ARG:HD3 | 1:E:148:LYS:NZ | 2.25 | 0.49 |
| 1:F:67:THR:OG1 | 1:F:97:THR:HB | 2.12 | 0.49 |
| 2:I:121:PRO:HB3 | 2:I:133:PRO:HB3 | 1.94 | 0.49 |
| 3:P:106:ARG:HA | 3:P:110:ILE:HG22 | 1.95 | 0.49 |
| 3:R:31:ARG:NH2 | 5:9:32:GLN:HG2 | 2.28 | 0.49 |
| 3:R:75:LEU:O | 3:R:79:THR:HG23 | 2.12 | 0.49 |
| 4:T:22:ARG:NH1 | 5:5:5:THR:HG23 | 2.26 | 0.49 |
| 4:X:60:ARG:HG3 | 6:f:9:ARG:HH11 | 1.76 | 0.49 |
| 5:Z:153:PHE:CE1 | 5:Z:214:ASP:HB3 | 2.47 | 0.49 |
| 5:1:201:PHE:CE2 | 5:1:211:ARG:HG3 | 2.46 | 0.49 |
| 5:1:389:ALA:N | 5:1:477:GLU:OE2 | 2.36 | 0.49 |
| 5:2:189:ARG:CZ | 5:8:292:GLN:HB3 | 2.42 | 0.49 |
| 5:2:445:TYR:OH | 5:2:447:GLU:OE1 | 2.31 | 0.49 |
| 5:4:383:ILE:HG13 | 5:4:444:PHE:HD2 | 1.77 | 0.49 |
| 5:5:281:ASN:HA | 5:5:284:GLN:HG2 | 1.94 | 0.49 |
| 5:7:14:GLU:HA | 5:7:17:GLU:HG3 | 1.94 | 0.49 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 5:8:234:THR:HG23 | 5:8:236:GLY:H | 1.77 | 0.49 |
| 7:g:46:ARG:NH1 | 7:g:62:ASP:O | 2.44 | 0.49 |
| 7:g:444:PHE:HZ | 7:g:508:VAL:HG11 | 1.77 | 0.49 |
| 7:g:446:GLN:O | 7:g:449:ARG:NH2 | 2.45 | 0.49 |
| 7:h:297:VAL:HG22 | 7:h:326:TYR:O | 2.13 | 0.49 |
| 7:h:370:PRO:HG3 | 7:h:431:GLN:HG2 | 1.94 | 0.49 |
| 7:i:297:VAL:HG22 | 7:i:326:TYR:O | 2.12 | 0.49 |
| 7:j:168:LYS:HB3 | 7:j:183:THR:HG23 | 1.93 | 0.49 |
| 7:k:297:VAL:HG22 | 7:k:326:TYR:O | 2.13 | 0.49 |
| 7:l:427:TYR:HD2 | 7:r:529:LYS:HB2 | 1.78 | 0.49 |
| 7:n:193:LYS:HZ1 | 7:BA:69:LYS:HD2 | 1.75 | 0.49 |
| 7:n:318:THR:HA | 7:n:424:GLN:HE22 | 1.76 | 0.49 |
| 7:n:495:VAL:HG12 | 7:n:511:ALA:HB3 | 1.95 | 0.49 |
| 7:o:461:ALA:HB1 | 7:o:465:LYS:NZ | 2.26 | 0.49 |
| 7:q:461:ALA:HB1 | 7:q:465:LYS:HZ1 | 1.76 | 0.49 |
| 7:r:136:TYR:CZ | 7:r:214:ARG:HB2 | 2.47 | 0.49 |
| 7:CA:148:ARG:HH11 | 7:CA:169:LEU:HD21 | 1.76 | 0.49 |
| 7:CA:213:LEU:C | 7:CA:214:ARG:HD3 | 2.37 | 0.49 |
| 7:DA:465:LYS:O | 7:DA:469:LYS:HG2 | 2.11 | 0.49 |
| 7:EA:502:GLU:CD | 7:EA:504:ASP:H | 2.21 | 0.49 |
| 7:FA:62:ASP:OD1 | 7:FA:63:VAL:N | 2.45 | 0.49 |
| 7:FA:109:ASP:OD1 | 7:FA:110:GLU:N | 2.41 | 0.49 |
| 7:HA:334:ASP:HB3 | 7:HA:338:GLN:N | 2.28 | 0.49 |
| 7:HA:355:ARG:HH22 | 7:HA:375:ARG:HA | 1.75 | 0.49 |
| 7:JA:38:TRP:CZ3 | 7:JA:91:GLY:HA3 | 2.47 | 0.49 |
| 7:KA:334:ASP:HB3 | 7:KA:338:GLN:N | 2.27 | 0.49 |
| 7:MA:152:ILE:N | 7:MA:230:LYS:O | 2.22 | 0.49 |
| 7:MA:334:ASP:HB3 | 7:MA:338:GLN:H | 1.77 | 0.49 |
| 7:MA:426:ASN:HB3 | 7:NA:195:ASP:HB2 | 1.93 | 0.49 |
| 7:NA:463:LEU:O | 7:NA:467:MET:HG2 | 2.11 | 0.49 |
| 7:OA:152:ILE:N | 7:OA:230:LYS:O | 2.23 | 0.49 |
| 7:OA:493:PRO:HG2 | 7:OA:494:TYR:CD1 | 2.48 | 0.49 |
| 7:PA:152:ILE:N | 7:PA:230:LYS:O | 2.22 | 0.49 |
| 8:BB:28:VAL:HG13 | 8:BB:31:GLU:H | 1.78 | 0.49 |
| 8:CB:114:THR:HG23 | 8:CB:118:LYS:HE3 | 1.93 | 0.49 |
| 8:HB:94:LEU:O | 8:HB:98:LYS:HB2 | 2.12 | 0.49 |
| 8:JB:90:GLU:H | 8:JB:90:GLU:CD | 2.18 | 0.49 |
| 8:KB:16:ARG:NH2 | 8:QB:67:VAL:H | 2.10 | 0.49 |
| 8:KB:31:GLU:OE2 | 8:KB:116:GLU:N | 2.45 | 0.49 |
| 8:LB:10:ARG:NH2 | 8:MB:168:TRP:O | 2.45 | 0.49 |
| 8:LB:94:LEU:O | 8:LB:98:LYS:HB2 | 2.12 | 0.49 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 8:QB:11:LYS:HE3 | 8:QB:12:PHE:HE1 | 1.77 | 0.49 |
| 2:J:33:TYR:O | 2:J:96:VAL:HG23 | 2.11 | 0.49 |
| 3:M:52:VAL:HG12 | 3:M:55:GLN:HB3 | 1.95 | 0.49 |
| 3:N:46:ASP:OD1 | 4:T:66:TYR:OH | 2.31 | 0.49 |
| 3:Q:58:HIS:ND1 | 3:Q:118:LEU:OXT | 2.44 | 0.49 |
| 3:Q:98:PHE:CZ | 7:k:515:THR:HA | 2.47 | 0.49 |
| 3:R:60:PRO:O | 3:R:67:GLN:NE2 | 2.36 | 0.49 |
| 4:T:19:TYR:HA | 4:T:106:ARG:HH12 | 1.78 | 0.49 |
| 5:Z:151:LYS:HE2 | 5:4:21:LYS:HE2 | 1.95 | 0.49 |
| 5:6:3:LYS:HE3 | 5:6:56:LEU:HD21 | 1.93 | 0.49 |
| 5:7:115:GLN:NE2 | 7:j:71:SER:HB2 | 2.27 | 0.49 |
| 5:8:281:ASN:HA | 5:8:284:GLN:HG2 | 1.94 | 0.49 |
| 5:8:383:ILE:HG13 | 5:8:444:PHE:HD2 | 1.78 | 0.49 |
| 6:b:133:GLU:HA | 6:b:136:LEU:HB2 | 1.94 | 0.49 |
| 6:c:4:SER:O | 6:c:7:ASN:HB2 | 2.13 | 0.49 |
| 7:g:2:SER:OG | 7:g:3:GLN:N | 2.45 | 0.49 |
| 7:h:150:LEU:HD12 | 7:h:168:LYS:O | 2.11 | 0.49 |
| 7:h:152:ILE:O | 7:h:231:LYS:NZ | 2.24 | 0.49 |
| 7:h:460:ALA:O | 7:h:464:THR:HG23 | 2.13 | 0.49 |
| 7:i:446:GLN:O | 7:i:449:ARG:NH2 | 2.46 | 0.49 |
| 7:j:63:VAL:HG23 | 7:j:64:LEU:HD22 | 1.94 | 0.49 |
| 7:j:444:PHE:HZ | 7:j:508:VAL:HG11 | 1.77 | 0.49 |
| 7:k:307:LEU:HB2 | 7:k:308:PRO:HD3 | 1.94 | 0.49 |
| 7:l:50:PHE:N | 7:l:95:ARG:O | 2.46 | 0.49 |
| 7:m:44:PHE:C | 7:m:95:ARG:HE | 2.21 | 0.49 |
| 7:o:196:MET:HB3 | 7:BA:529:LYS:NZ | 2.27 | 0.49 |
| 7:o:505:LYS:HG2 | 7:CA:522:GLN:NE2 | 2.26 | 0.49 |
| 7:p:402:LEU:HD23 | 7:p:403:ASN:N | 2.28 | 0.49 |
| 7:q:152:ILE:HD11 | 7:q:167:LEU:HD12 | 1.95 | 0.49 |
| 7:q:461:ALA:HB1 | 7:q:465:LYS:NZ | 2.26 | 0.49 |
| 7:q:480:LEU:HD13 | 7:q:512:CYS:HB2 | 1.95 | 0.49 |
| 7:r:378:ILE:HD11 | 7:r:380:ARG:NE | 2.28 | 0.49 |
| 7:AA:433:VAL:HG12 | 7:AA:437:MET:CE | 2.42 | 0.49 |
| 7:AA:527:LEU:HG | 7:AA:529:LYS:H | 1.77 | 0.49 |
| 7:BA:355:ARG:HA | 7:BA:358:LYS:HE2 | 1.94 | 0.49 |
| 7:BA:520:ARG:NH2 | 7:CA:17:ALA:O | 2.43 | 0.49 |
| 7:CA:487:ASP:OD1 | 7:CA:488:ALA:N | 2.46 | 0.49 |
| 7:DA:213:LEU:C | 7:DA:214:ARG:HD3 | 2.38 | 0.49 |
| 7:EA:263:TYR:C | 7:EA:264:MET:HE2 | 2.38 | 0.49 |
| 7:EA:469:LYS:O | 7:EA:472:ASP:HB2 | 2.12 | 0.49 |
| 7:GA:525:PRO:HG2 | 7:HA:21:ILE:HA | 1.93 | 0.49 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 7:LA:307:LEU:HB3 | 7:LA:308:PRO:HD3 | 1.94 | 0.49 |
| 7:MA:79:ILE:HG13 | 7:MA:80:ARG:N | 2.28 | 0.49 |
| 7:MA:297:VAL:HB | 7:MA:301:LEU:HD21 | 1.93 | 0.49 |
| 7:OA:48:LYS:HD2 | 7:OA:49:PRO:HD2 | 1.93 | 0.49 |
| 7:OA:395:GLU:HA | 7:OA:398:VAL:HG12 | 1.94 | 0.49 |
| 7:PA:210:SER:O | 7:PA:214:ARG:NE | 2.45 | 0.49 |
| 7:QA:42:GLY:HA3 | 7:QA:44:PHE:CE2 | 2.47 | 0.49 |
| 7:QA:297:VAL:HB | 7:QA:301:LEU:HD21 | 1.93 | 0.49 |
| 8:DB:127:LYS:O | 8:DB:131:THR:HG23 | 2.11 | 0.49 |
| 8:LB:80:GLU:OE2 | 8:LB:160:ARG:HB2 | 2.13 | 0.49 |
| 8:LB:100:ARG:NH1 | 8:LB:101:ILE:HB | 2.28 | 0.49 |
| 8:OB:11:LYS:HE3 | 8:OB:12:PHE:HE1 | 1.77 | 0.49 |
| 8:PB:103:ALA:O | 8:PB:104:LYS:HG2 | 2.12 | 0.49 |
| 8:RB:82:GLN:NE2 | 8:RB:158:SER:OG | 2.45 | 0.49 |
| 1:C:186:PHE:HE2 | 2:I:15:VAL:HG22 | 1.76 | 0.49 |
| 2:I:116:THR:HA | 2:I:119:ILE:HG22 | 1.93 | 0.49 |
| 2:K:153:ASP:HB3 | 2:K:176:GLN:HB2 | 1.94 | 0.49 |
| 3:P:39:TYR:HE1 | 7:k:6:ILE:HD11 | 1.78 | 0.49 |
| 4:U:60:ARG:HG3 | 6:c:9:ARG:HH11 | 1.77 | 0.49 |
| 5:Z:230:LYS:HZ1 | 5:Z:232:TRP:CG | 2.31 | 0.49 |
| 5:0:171:VAL:HG13 | 5:0:227:ILE:HD11 | 1.94 | 0.49 |
| 5:3:451:TRP:NE1 | 5:3:453:GLU:OE2 | 2.40 | 0.49 |
| 5:6:349:GLU:HB3 | 5:6:353:MET:HE1 | 1.94 | 0.49 |
| 5:7:234:THR:HG23 | 5:7:236:GLY:H | 1.77 | 0.49 |
| 5:8:222:PRO:HG2 | 5:8:225:SER:HB3 | 1.93 | 0.49 |
| 5:9:349:GLU:HA | 5:9:352:GLU:HG2 | 1.95 | 0.49 |
| 6:f:133:GLU:HA | 6:f:136:LEU:HB2 | 1.94 | 0.49 |
| 7:h:2:SER:OG | 7:h:3:GLN:N | 2.45 | 0.49 |
| 7:h:100:ASP:OD2 | 7:h:242:ASP:N | 2.32 | 0.49 |
| 7:h:207:GLU:OE2 | 7:n:339:SER:OG | 2.25 | 0.49 |
| 7:i:460:ALA:O | 7:i:464:THR:HG23 | 2.13 | 0.49 |
| 7:k:370:PRO:HG3 | 7:k:431:GLN:HG2 | 1.94 | 0.49 |
| 7:k:446:GLN:O | 7:k:449:ARG:NH2 | 2.46 | 0.49 |
| 7:l:172:THR:HG22 | 7:l:178:VAL:HG22 | 1.94 | 0.49 |
| 7:m:452:LYS:HZ2 | 7:m:453:HIS:N | 2.10 | 0.49 |
| 7:n:441:SER:O | 7:n:445:VAL:HG23 | 2.12 | 0.49 |
| 7:n:501:ALA:HB3 | 7:n:505:LYS:HD2 | 1.94 | 0.49 |
| 7:o:461:ALA:O | 7:o:464:THR:OG1 | 2.27 | 0.49 |
| 7:q:402:LEU:HD23 | 7:q:403:ASN:N | 2.28 | 0.49 |
| 7:BA:355:ARG:HA | 7:BA:358:LYS:HG2 | 1.93 | 0.49 |
| 7:BA:487:ASP:OD1 | 7:BA:488:ALA:N | 2.46 | 0.49 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:DA:42:GLY:O | 7:DA:95:ARG:HA | 2.12 | 0.49 |
| 7:DA:487:ASP:OD1 | 7:DA:488:ALA:N | 2.46 | 0.49 |
| 7:EA:213:LEU:C | 7:EA:214:ARG:HD3 | 2.38 | 0.49 |
| 7:EA:355:ARG:HA | 7:EA:358:LYS:HE2 | 1.94 | 0.49 |
| 7:KA:282:LEU:HA | 7:KA:285:ILE:HG12 | 1.95 | 0.49 |
| 7:KA:461:ALA:HB1 | 7:KA:465:LYS:HZ1 | 1.77 | 0.49 |
| 7:LA:474:PHE:O | 7:LA:477:SER:OG | 2.28 | 0.49 |
| 7:NA:210:SER:OG | 7:NA:213:LEU:O | 2.18 | 0.49 |
| 7:NA:529:LYS:HD2 | 7:OA:23:ALA:HB1 | 1.95 | 0.49 |
| 7:QA:152:ILE:N | 7:QA:230:LYS:O | 2.22 | 0.49 |
| 7:QA:496:LEU:HD13 | 7:QA:510:TRP:HB3 | 1.95 | 0.49 |
| 7:RA:334:ASP:HB3 | 7:RA:338:GLN:H | 1.77 | 0.49 |
| 8:DB:90:GLU:OE1 | 8:DB:95:GLN:NE2 | 2.45 | 0.49 |
| 8:FB:93:ILE:HG13 | 8:FB:94:LEU:HD22 | 1.95 | 0.49 |
| 8:GB:80:GLU:OE2 | 8:GB:160:ARG:HB2 | 2.13 | 0.49 |
| 8:GB:100:ARG:NH1 | 8:GB:101:ILE:HB | 2.28 | 0.49 |
| 8:JB:16:ARG:HH22 | 8:PB:67:VAL:H | 1.61 | 0.49 |
| 8:KB:29:SER:OG | 8:LB:146:PHE:HB2 | 2.11 | 0.49 |
| 8:PB:26:ARG:HH22 | 8:QB:87:GLU:C | 2.21 | 0.49 |
| 8:QB:111:MET:HE3 | 8:QB:112:ALA:H | 1.78 | 0.49 |
| 1:A:67:THR:OG1 | 1:A:97:THR:HB | 2.12 | 0.49 |
| 1:A:186:PHE:HE2 | 2:G:15:VAL:HG22 | 1.77 | 0.49 |
| 1:D:87:GLN:HG2 | 1:D:88:PRO:HD2 | 1.94 | 0.49 |
| 3:O:38:THR:O | 3:O:51:ASN:ND2 | 2.46 | 0.49 |
| 5:Y:290:ASP:HB3 | 6:a:88:ILE:HB | 1.93 | 0.49 |
| 5:Y:349:GLU:O | 5:Y:352:GLU:HG3 | 2.13 | 0.49 |
| 5:0:230:LYS:HZ1 | 5:0:232:TRP:CG | 2.30 | 0.49 |
| 5:0:356:ALA:C | 5:0:360:LYS:HZ3 | 2.20 | 0.49 |
| 5:0:389:ALA:N | 5:0:477:GLU:OE2 | 2.36 | 0.49 |
| 5:8:14:GLU:HA | 5:8:17:GLU:HG3 | 1.93 | 0.49 |
| 5:9:234:THR:HG23 | 5:9:236:GLY:H | 1.77 | 0.49 |
| 6:c:97:ILE:O | 6:c:100:THR:OG1 | 2.24 | 0.49 |
| 7:g:50:PHE:N | 7:g:95:ARG:O | 2.46 | 0.49 |
| 7:h:50:PHE:N | 7:h:95:ARG:O | 2.46 | 0.49 |
| 7:i:50:PHE:N | 7:i:95:ARG:O | 2.46 | 0.49 |
| 7:j:152:ILE:O | 7:j:231:LYS:NZ | 2.24 | 0.49 |
| 7:l:297:VAL:HG22 | 7:l:326:TYR:O | 2.12 | 0.49 |
| 7:l:460:ALA:O | 7:l:464:THR:HG23 | 2.13 | 0.49 |
| 7:o:402:LEU:HD23 | 7:o:403:ASN:N | 2.28 | 0.49 |
| 7:p:452:LYS:HZ2 | 7:p:453:HIS:N | 2.11 | 0.49 |
| 7:q:492:GLU:H | 7:q:492:GLU:CD | 2.21 | 0.49 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:q:495:VAL:HG12 | 7:q:511:ALA:HB3 | 1.94 | 0.49 |
| 7:r:402:LEU:HD23 | 7:r:403:ASN:N | 2.28 | 0.49 |
| 7:r:492:GLU:H | 7:r:492:GLU:CD | 2.21 | 0.49 |
| 7:BA:263:TYR:C | 7:BA:264:MET:HE2 | 2.38 | 0.49 |
| 7:BA:500:GLN:HB2 | 7:BA:506:TRP:CE2 | 2.48 | 0.49 |
| 7:CA:469:LYS:O | 7:CA:472:ASP:HB2 | 2.12 | 0.49 |
| 7:DA:355:ARG:HH12 | 7:DA:375:ARG:CZ | 2.26 | 0.49 |
| 7:EA:487:ASP:OD1 | 7:EA:488:ALA:N | 2.46 | 0.49 |
| 7:FA:193:LYS:HA | 7:FA:199:LEU:HA | 1.95 | 0.49 |
| 7:GA:38:TRP:CZ3 | 7:GA:91:GLY:HA3 | 2.48 | 0.49 |
| 7:GA:104:PRO:HD3 | 7:GA:238:GLY:HA3 | 1.93 | 0.49 |
| 7:IA:69:LYS:HG3 | 7:IA:72:SER:H | 1.75 | 0.49 |
| 7:JA:193:LYS:HD3 | 7:JA:197:GLY:HA2 | 1.95 | 0.49 |
| 7:LA:282:LEU:HA | 7:LA:285:ILE:HG12 | 1.95 | 0.49 |
| 7:NA:398:VAL:HG21 | 7:OA:12:ASN:HB3 | 1.94 | 0.49 |
| 7:OA:297:VAL:HB | 7:OA:301:LEU:HD21 | 1.93 | 0.49 |
| 7:PA:328:TYR:CZ | 7:PA:330:PHE:HB2 | 2.48 | 0.49 |
| 7:QA:398:VAL:HG21 | 7:RA:12:ASN:HB3 | 1.94 | 0.49 |
| 7:RA:265:TYR:HE1 | 7:RA:291:ILE:HG21 | 1.76 | 0.49 |
| 8:DB:114:THR:HG23 | 8:DB:118:LYS:HE3 | 1.93 | 0.49 |
| 8:FB:154:ALA:HB2 | 8:KB:59:VAL:HG11 | 1.95 | 0.49 |
| 8:GB:94:LEU:O | 8:GB:98:LYS:HB2 | 2.13 | 0.49 |
| 8:HB:58:ASP:OD1 | 8:HB:70:ASN:HB2 | 2.12 | 0.49 |
| 8:IB:7:LYS:O | 8:JB:117:SER:OG | 2.21 | 0.49 |
| 8:IB:94:LEU:O | 8:IB:98:LYS:HB2 | 2.12 | 0.49 |
| 8:LB:58:ASP:OD1 | 8:LB:70:ASN:HB2 | 2.12 | 0.49 |
| 8:NB:144:ILE:HD11 | 8:NB:158:SER:HB3 | 1.95 | 0.49 |
| 2:J:5:ALA:HB2 | 2:J:29:GLN:HB2 | 1.94 | 0.49 |
| 2:J:5:ALA:HA | 2:J:29:GLN:O | 2.12 | 0.49 |
| 3:Q:19:LYS:HG3 | 5:8:28:PHE:CE2 | 2.48 | 0.49 |
| 4:W:31:ALA:O | 4:W:34:ARG:HG3 | 2.13 | 0.49 |
| 4:W:60:ARG:HG3 | 6:e:9:ARG:HH11 | 1.76 | 0.49 |
| 5:Y:174:THR:HB | 5:Y:226:THR:OG1 | 2.13 | 0.49 |
| 5:0:151:LYS:HE2 | 5:5:21:LYS:HE2 | 1.95 | 0.49 |
| 5:0:451:TRP:NE1 | 5:0:453:GLU:OE2 | 2.40 | 0.49 |
| 6:c:5:TRP:CD1 | 6:c:6:PHE:CE1 | 3.00 | 0.49 |
| 7:h:172:THR:HG22 | 7:h:178:VAL:HG22 | 1.94 | 0.49 |
| 7:i:168:LYS:HB3 | 7:i:183:THR:HG23 | 1.93 | 0.49 |
| 7:k:63:VAL:HG23 | 7:k:64:LEU:HD22 | 1.94 | 0.49 |
| 7:k:504:ASP:HA | 7:k:506:TRP:CZ3 | 2.48 | 0.49 |
| 7:m:495:VAL:HG12 | 7:m:511:ALA:HB3 | 1.95 | 0.49 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:n:449:ARG:NH2 | 7:BA:409:THR:HG23 | 2.28 | 0.49 |
| 7:p:152:ILE:HD11 | 7:p:167:LEU:HD12 | 1.95 | 0.49 |
| 7:p:193:LYS:HZ1 | 7:DA:69:LYS:HD2 | 1.77 | 0.49 |
| 7:r:99:ASP:OD1 | 7:r:99:ASP:N | 2.46 | 0.49 |
| 7:AA:213:LEU:C | 7:AA:214:ARG:HD3 | 2.38 | 0.49 |
| 7:AA:469:LYS:O | 7:AA:472:ASP:HB2 | 2.12 | 0.49 |
| 7:CA:62:ASP:OD1 | 7:CA:63:VAL:N | 2.45 | 0.49 |
| 7:DA:62:ASP:OD1 | 7:DA:63:VAL:N | 2.45 | 0.49 |
| 7:DA:469:LYS:O | 7:DA:472:ASP:HB2 | 2.12 | 0.49 |
| 7:EA:344:GLY:O | 7:EA:380:ARG:NH2 | 2.44 | 0.49 |
| 7:EA:432:HIS:O | 7:EA:435:SER:OG | 2.22 | 0.49 |
| 7:EA:488:ALA:O | 7:LA:335:LYS:NZ | 2.38 | 0.49 |
| 7:FA:60:TYR:O | 7:FA:64:LEU:HB2 | 2.12 | 0.49 |
| 7:GA:334:ASP:HB3 | 7:GA:338:GLN:N | 2.28 | 0.49 |
| 7:GA:446:GLN:O | 7:GA:449:ARG:HB3 | 2.13 | 0.49 |
| 7:HA:193:LYS:HD3 | 7:HA:197:GLY:HA2 | 1.94 | 0.49 |
| 7:HA:331:SER:OG | 7:HA:384:GLN:NE2 | 2.45 | 0.49 |
| 7:HA:453:HIS:CD2 | 7:NA:375:ARG:HH21 | 2.31 | 0.49 |
| 7:IA:108:PHE:CE1 | 7:IA:114:PRO:HB3 | 2.42 | 0.49 |
| 7:IA:331:SER:OG | 7:IA:384:GLN:NE2 | 2.45 | 0.49 |
| 7:JA:206:LEU:HA | 7:JA:210:SER:HB3 | 1.93 | 0.49 |
| 7:LA:334:ASP:HB3 | 7:LA:338:GLN:N | 2.28 | 0.49 |
| 7:NA:42:GLY:HA3 | 7:NA:44:PHE:CE2 | 2.47 | 0.49 |
| 7:OA:152:ILE:HB | 7:OA:230:LYS:H | 1.76 | 0.49 |
| 7:PA:79:ILE:HG13 | 7:PA:80:ARG:N | 2.28 | 0.49 |
| 7:QA:79:ILE:HG13 | 7:QA:80:ARG:N | 2.28 | 0.49 |
| 7:RA:198:ARG:HH21 | 7:RA:208:ALA:HB2 | 1.77 | 0.49 |
| 7:RA:493:PRO:HG2 | 7:RA:494:TYR:CD1 | 2.48 | 0.49 |
| 8:AB:114:THR:HG23 | 8:AB:118:LYS:HE3 | 1.93 | 0.49 |
| 8:GB:139:ILE:HB | 8:GB:161:ILE:HD13 | 1.94 | 0.49 |
| 8:GB:146:PHE:HB2 | 8:LB:29:SER:OG | 2.12 | 0.49 |
| 8:NB:82:GLN:NE2 | 8:NB:83:VAL:O | 2.46 | 0.49 |
| 8:PB:111:MET:HE3 | 8:PB:112:ALA:H | 1.77 | 0.49 |
| 1:B:84:ASN:HD21 | 1:C:90:GLU:HG3 | 1.78 | 0.49 |
| 2:H:19:LEU:HD13 | 2:H:33:TYR:HD1 | 1.78 | 0.49 |
| 2:K:3:PRO:HD2 | 2:K:29:GLN:HE22 | 1.77 | 0.49 |
| 3:O:31:ARG:NH2 | 5:6:32:GLN:HG2 | 2.27 | 0.49 |
| 3:Q:38:THR:O | 3:Q:51:ASN:ND2 | 2.46 | 0.49 |
| 4:T:31:ALA:O | 4:T:34:ARG:HG3 | 2.13 | 0.49 |
| 4:V:19:TYR:HA | 4:V:106:ARG:HH12 | 1.78 | 0.49 |
| 5:Y:189:ARG:CZ | 5:4:292:GLN:HB3 | 2.42 | 0.49 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 5:Y:389:ALA:N | 5:Y:477:GLU:OE2 | 2.36 | 0.49 |
| 5:Z:95:ALA:HA | 5:Z:259:ILE:HA | 1.95 | 0.49 |
| 5:O:1:MET:N | 6:c:33:THR:OG1 | 2.44 | 0.49 |
| 5:3:111:ILE:HG22 | 5:3:247:THR:O | 2.13 | 0.49 |
| 5:3:445:TYR:OH | 5:3:447:GLU:OE1 | 2.31 | 0.49 |
| 5:6:26:SER:OG | 5:6:27:LYS:HG2 | 2.12 | 0.49 |
| 5:7:383:ILE:HG13 | 5:7:444:PHE:HD2 | 1.77 | 0.49 |
| 5:8:3:LYS:HE3 | 5:8:56:LEU:HD21 | 1.93 | 0.49 |
| 5:8:115:GLN:NE2 | 7:k:71:SER:HB2 | 2.26 | 0.49 |
| 6:d:133:GLU:HA | 6:d:136:LEU:HB2 | 1.95 | 0.49 |
| 7:g:8:GLN:OE1 | 7:g:20:PRO:HG3 | 2.13 | 0.49 |
| 7:g:299:PRO:HA | 7:g:327:HIS:CE1 | 2.47 | 0.49 |
| 7:k:355:ARG:NH2 | 7:k:375:ARG:HA | 2.27 | 0.49 |
| 7:n:369:SER:O | 7:n:375:ARG:NE | 2.44 | 0.49 |
| 7:o:378:ILE:HD11 | 7:o:380:ARG:NE | 2.28 | 0.49 |
| 7:p:495:VAL:HG12 | 7:p:511:ALA:HB3 | 1.94 | 0.49 |
| 7:r:44:PHE:C | 7:r:95:ARG:HE | 2.21 | 0.49 |
| 7:r:461:ALA:HB1 | 7:r:465:LYS:NZ | 2.27 | 0.49 |
| 7:r:470:LEU:HD12 | 7:r:471:LEU:HD22 | 1.95 | 0.49 |
| 7:AA:355:ARG:HH12 | 7:AA:375:ARG:CZ | 2.26 | 0.49 |
| 7:BA:502:GLU:CD | 7:BA:504:ASP:H | 2.20 | 0.49 |
| 7:CA:310:VAL:O | 7:CA:313:THR:OG1 | 2.27 | 0.49 |
| 7:DA:502:GLU:CD | 7:DA:504:ASP:H | 2.20 | 0.49 |
| 7:FA:469:LYS:O | 7:FA:472:ASP:HB2 | 2.12 | 0.49 |
| 7:FA:502:GLU:CD | 7:FA:504:ASP:H | 2.20 | 0.49 |
| 7:JA:282:LEU:HA | 7:JA:285:ILE:HG12 | 1.95 | 0.49 |
| 7:MA:474:PHE:O | 7:MA:477:SER:OG | 2.19 | 0.49 |
| 7:QA:395:GLU:HA | 7:QA:398:VAL:HG12 | 1.93 | 0.49 |
| 8:CB:93:ILE:HG13 | 8:CB:94:LEU:HD22 | 1.95 | 0.49 |
| 8:DB:71:GLN:OE1 | 8:EB:106:TYR:OH | 2.30 | 0.49 |
| 8:EB:111:MET:HE1 | 8:EB:134:MET:HB2 | 1.95 | 0.49 |
| 8:HB:3:HIS:O | 8:HB:6:THR:OG1 | 2.22 | 0.49 |
| 8:HB:16:ARG:NH2 | 8:NB:67:VAL:H | 2.10 | 0.49 |
| 8:JB:94:LEU:O | 8:JB:98:LYS:HB2 | 2.13 | 0.49 |
| 8:JB:100:ARG:NH1 | 8:JB:101:ILE:HB | 2.28 | 0.49 |
| 8:NB:11:LYS:HE3 | 8:NB:12:PHE:HE1 | 1.77 | 0.49 |
| 2:K:121:PRO:HB3 | 2:K:133:PRO:HB3 | 1.94 | 0.49 |
| 3:O:98:PHE:CZ | 7:i:515:THR:HA | 2.47 | 0.49 |
| 4:S:19:TYR:HA | 4:S:106:ARG:HH12 | 1.78 | 0.49 |
| 4:T:60:ARG:HB3 | 4:T:63:LEU:HG | 1.94 | 0.49 |
| 4:W:19:TYR:HA | 4:W:106:ARG:HH12 | 1.78 | 0.49 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 4:X:117:GLN:NE2 | 5:3:160:LYS:HB2 | 2.28 | 0.49 |
| 5:Z:356:ALA:C | 5:Z:360:LYS:HZ3 | 2.21 | 0.49 |
| 5:0:349:GLU:O | 5:0:352:GLU:HG3 | 2.13 | 0.49 |
| 5:1:95:ALA:HA | 5:1:259:ILE:HA | 1.93 | 0.49 |
| 5:2:174:THR:HB | 5:2:226:THR:OG1 | 2.13 | 0.49 |
| 5:3:1:MET:N | 6:f:33:THR:OG1 | 2.44 | 0.49 |
| 7:g:460:ALA:O | 7:g:464:THR:HG23 | 2.13 | 0.49 |
| 7:h:379:ALA:HB2 | 7:h:412:GLN:HA | 1.95 | 0.49 |
| 7:h:528:ILE:HA | 7:i:27:LEU:HD22 | 1.93 | 0.49 |
| 7:i:63:VAL:HG23 | 7:i:64:LEU:HD22 | 1.94 | 0.49 |
| 7:j:297:VAL:HG22 | 7:j:326:TYR:O | 2.13 | 0.49 |
| 7:k:528:ILE:HA | 7:l:27:LEU:HD22 | 1.93 | 0.49 |
| 7:m:152:ILE:HD11 | 7:m:167:LEU:HD12 | 1.95 | 0.49 |
| 7:m:449:ARG:NH2 | 7:AA:409:THR:HG23 | 2.28 | 0.49 |
| 7:n:378:ILE:HD11 | 7:n:380:ARG:NE | 2.28 | 0.49 |
| 7:n:452:LYS:HZ2 | 7:n:453:HIS:N | 2.11 | 0.49 |
| 7:q:44:PHE:C | 7:q:95:ARG:HE | 2.20 | 0.49 |
| 7:AA:17:ALA:C | 7:FA:520:ARG:HH21 | 2.20 | 0.49 |
| 7:FA:158:ASP:OD1 | 7:FA:164:ARG:NE | 2.42 | 0.49 |
| 7:FA:213:LEU:C | 7:FA:214:ARG:HD3 | 2.37 | 0.49 |
| 7:FA:310:VAL:O | 7:FA:313:THR:OG1 | 2.27 | 0.49 |
| 7:KA:303:TYR:OH | 7:KA:397:MET:SD | 2.69 | 0.49 |
| 7:LA:37:LEU:O | 7:LA:266:THR:N | 2.46 | 0.49 |
| 7:NA:48:LYS:HD2 | 7:NA:49:PRO:HD2 | 1.93 | 0.49 |
| 7:PA:151:THR:HG23 | 7:PA:231:LYS:HG3 | 1.95 | 0.49 |
| 7:PA:395:GLU:HA | 7:PA:398:VAL:HG12 | 1.94 | 0.49 |
| 7:QA:328:TYR:CZ | 7:QA:330:PHE:HB2 | 2.48 | 0.49 |
| 8:AB:100:ARG:NH1 | 8:AB:105:ASP:O | 2.46 | 0.49 |
| 8:BB:93:ILE:HG13 | 8:BB:94:LEU:HD22 | 1.95 | 0.49 |
| 8:CB:28:VAL:HG13 | 8:CB:31:GLU:H | 1.78 | 0.49 |
| 8:CB:138:LYS:HB2 | 8:CB:162:VAL:HB | 1.94 | 0.49 |
| 8:DB:111:MET:HE1 | 8:DB:134:MET:HB2 | 1.95 | 0.49 |
| 8:DB:163:TYR:CE2 | 8:DB:166:ILE:HD11 | 2.41 | 0.49 |
| 8:GB:13:ILE:HD11 | 8:GB:14:LYS:HZ2 | 1.77 | 0.49 |
| 8:KB:88:THR:OG1 | 8:KB:89:ILE:N | 2.45 | 0.49 |
| 8:NB:103:ALA:O | 8:NB:104:LYS:HG2 | 2.12 | 0.49 |
| 8:PB:155:VAL:C | 8:PB:156:ARG:HD3 | 2.37 | 0.49 |
| 1:F:29:GLU:OE1 | 1:F:29:GLU:N | 2.39 | 0.49 |
| 4:T:59:TYR:CD2 | 6:b:8:HIS:HB2 | 2.47 | 0.49 |
| 5:1:328:TYR:HB2 | 6:d:127:GLY:HA3 | 1.95 | 0.49 |
| 5:2:328:TYR:HB2 | 6:e:127:GLY:HA3 | 1.95 | 0.49 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 5:4:281:ASN:HA | 5:4:284:GLN:HG2 | 1.95 | 0.49 |
| 5:5:187:MET:HE2 | 5:5:187:MET:HA | 1.94 | 0.49 |
| 5:5:222:PRO:HG2 | 5:5:225:SER:HB3 | 1.93 | 0.49 |
| 6:d:76:SER:HB2 | 6:d:79:MET:HE2 | 1.94 | 0.49 |
| 7:g:511:ALA:HB1 | 7:m:528:ILE:HG23 | 1.95 | 0.49 |
| 7:h:319:ASP:OD1 | 7:h:319:ASP:N | 2.44 | 0.49 |
| 7:h:414:ILE:HG12 | 7:h:416:ASP:OD1 | 2.13 | 0.49 |
| 7:h:446:GLN:O | 7:h:449:ARG:NH2 | 2.46 | 0.49 |
| 7:i:504:ASP:HA | 7:i:506:TRP:CZ3 | 2.48 | 0.49 |
| 7:j:460:ALA:O | 7:j:464:THR:HG23 | 2.13 | 0.49 |
| 7:j:528:ILE:HA | 7:k:27:LEU:HD22 | 1.93 | 0.49 |
| 7:k:414:ILE:HG12 | 7:k:416:ASP:OD1 | 2.12 | 0.49 |
| 7:l:199:LEU:O | 7:l:209:ARG:NH2 | 2.45 | 0.49 |
| 7:m:438:ASN:O | 7:m:441:SER:OG | 2.25 | 0.49 |
| 7:o:449:ARG:NH2 | 7:CA:409:THR:HG23 | 2.28 | 0.49 |
| 7:p:443:PHE:HA | 7:p:446:GLN:CD | 2.38 | 0.49 |
| 7:q:452:LYS:HZ2 | 7:q:453:HIS:N | 2.11 | 0.49 |
| 7:r:152:ILE:HD11 | 7:r:167:LEU:HD12 | 1.95 | 0.49 |
| 7:AA:263:TYR:C | 7:AA:264:MET:HE2 | 2.38 | 0.49 |
| 7:BA:158:ASP:OD1 | 7:BA:164:ARG:NE | 2.42 | 0.49 |
| 7:BA:344:GLY:O | 7:BA:380:ARG:NH2 | 2.44 | 0.49 |
| 7:IA:303:TYR:N | 7:IA:387:TYR:OH | 2.46 | 0.49 |
| 7:IA:334:ASP:HB3 | 7:IA:338:GLN:N | 2.28 | 0.49 |
| 7:JA:334:ASP:HB3 | 7:JA:338:GLN:N | 2.28 | 0.49 |
| 7:JA:453:HIS:CD2 | 7:PA:375:ARG:HH21 | 2.31 | 0.49 |
| 7:MA:12:ASN:HB3 | 7:RA:398:VAL:HG21 | 1.94 | 0.49 |
| 7:MA:265:TYR:HE1 | 7:MA:291:ILE:HG21 | 1.77 | 0.49 |
| 7:NA:63:VAL:HG13 | 7:NA:64:LEU:HD22 | 1.94 | 0.49 |
| 7:NA:302:THR:OG1 | 7:NA:305:GLU:OE1 | 2.25 | 0.49 |
| 7:PA:496:LEU:HD13 | 7:PA:510:TRP:HB3 | 1.95 | 0.49 |
| 7:QA:485:ASP:OD1 | 7:QA:485:ASP:N | 2.44 | 0.49 |
| 8:FB:90:GLU:OE1 | 8:FB:95:GLN:NE2 | 2.46 | 0.49 |
| 8:HB:88:THR:OG1 | 8:HB:89:ILE:N | 2.45 | 0.49 |
| 8:MB:155:VAL:C | 8:MB:156:ARG:HD3 | 2.37 | 0.49 |
| 8:OB:144:ILE:HD11 | 8:OB:158:SER:HB3 | 1.94 | 0.49 |
| 8:QB:144:ILE:HD11 | 8:QB:158:SER:HB3 | 1.94 | 0.49 |
| 1:C:87:GLN:HG2 | 1:C:88:PRO:HD2 | 1.93 | 0.48 |
| 1:D:37:ILE:HD13 | 1:D:40:LYS:HZ2 | 1.78 | 0.48 |
| 1:E:56:LEU:HB3 | 1:E:59:ALA:HB2 | 1.95 | 0.48 |
| 1:F:87:GLN:HG2 | 1:F:88:PRO:HD2 | 1.94 | 0.48 |
| 2:I:19:LEU:HD13 | 2:I:33:TYR:HD1 | 1.79 | 0.48 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 2:K:104:PRO:HB2 | 2:K:167:TYR:HB3 | 1.94 | 0.48 |
| 3:N:60:PRO:HA | 7:h:517:VAL:HG13 | 1.93 | 0.48 |
| 3:P:53:LEU:HG | 3:P:57:LYS:HG2 | 1.95 | 0.48 |
| 4:T:62:ASP:HB3 | 4:T:75:ARG:HB3 | 1.94 | 0.48 |
| 4:V:105:ILE:O | 4:V:109:ILE:HG12 | 2.13 | 0.48 |
| 4:W:22:ARG:NH1 | 5:8:5:THR:HG23 | 2.27 | 0.48 |
| 5:Z:171:VAL:HG13 | 5:Z:227:ILE:HD11 | 1.94 | 0.48 |
| 5:Z:174:THR:HB | 5:Z:226:THR:OG1 | 2.13 | 0.48 |
| 5:1:111:ILE:HG22 | 5:1:247:THR:O | 2.13 | 0.48 |
| 5:1:445:TYR:OH | 5:1:447:GLU:OE1 | 2.31 | 0.48 |
| 5:4:234:THR:HG23 | 5:4:236:GLY:H | 1.77 | 0.48 |
| 5:6:14:GLU:HA | 5:6:17:GLU:HG3 | 1.94 | 0.48 |
| 5:7:3:LYS:HE3 | 5:7:56:LEU:HD21 | 1.94 | 0.48 |
| 5:9:187:MET:HA | 5:9:187:MET:HE2 | 1.94 | 0.48 |
| 7:g:307:LEU:HB2 | 7:g:308:PRO:HD3 | 1.94 | 0.48 |
| 7:g:517:VAL:O | 7:g:517:VAL:HG12 | 2.13 | 0.48 |
| 7:h:46:ARG:NH1 | 7:h:62:ASP:O | 2.45 | 0.48 |
| 7:h:369:SER:O | 7:h:375:ARG:NH2 | 2.36 | 0.48 |
| 7:h:494:TYR:CE2 | 7:h:496:LEU:HB2 | 2.48 | 0.48 |
| 7:h:504:ASP:HA | 7:h:506:TRP:CZ3 | 2.48 | 0.48 |
| 7:i:8:GLN:OE1 | 7:i:20:PRO:HG3 | 2.13 | 0.48 |
| 7:i:192:ALA:O | 7:i:199:LEU:HD12 | 2.13 | 0.48 |
| 7:i:444:PHE:HZ | 7:i:508:VAL:HG11 | 1.78 | 0.48 |
| 7:j:504:ASP:HA | 7:j:506:TRP:CZ3 | 2.47 | 0.48 |
| 7:l:446:GLN:O | 7:l:449:ARG:NH2 | 2.46 | 0.48 |
| 7:n:33:LEU:HD11 | 7:n:358:LYS:HD2 | 1.94 | 0.48 |
| 7:o:44:PHE:C | 7:o:95:ARG:HE | 2.21 | 0.48 |
| 7:p:331:SER:O | 7:p:384:GLN:N | 2.29 | 0.48 |
| 7:p:492:GLU:H | 7:p:492:GLU:CD | 2.21 | 0.48 |
| 7:q:452:LYS:HZ2 | 7:q:453:HIS:H | 1.60 | 0.48 |
| 7:DA:193:LYS:HA | 7:DA:199:LEU:HA | 1.95 | 0.48 |
| 7:EA:193:LYS:HA | 7:EA:199:LEU:HA | 1.95 | 0.48 |
| 7:EA:520:ARG:HH21 | 7:FA:17:ALA:C | 2.20 | 0.48 |
| 7:FA:500:GLN:HB2 | 7:FA:506:TRP:CE2 | 2.48 | 0.48 |
| 7:GA:21:ILE:HA | 7:LA:525:PRO:HG2 | 1.93 | 0.48 |
| 7:GA:526:LEU:HD12 | 7:GA:527:LEU:H | 1.78 | 0.48 |
| 7:HA:37:LEU:O | 7:HA:266:THR:N | 2.46 | 0.48 |
| 7:KA:38:TRP:HB3 | 7:KA:350:TYR:CZ | 2.48 | 0.48 |
| 7:KA:193:LYS:HD3 | 7:KA:197:GLY:HA2 | 1.94 | 0.48 |
| 7:KA:328:TYR:CE2 | 7:KA:330:PHE:HB2 | 2.48 | 0.48 |
| 7:KA:453:HIS:CD2 | 7:QA:375:ARG:HH21 | 2.31 | 0.48 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:MA:463:LEU:O | 7:MA:467:MET:HG2 | 2.13 | 0.48 |
| 7:PA:398:VAL:HG21 | 7:QA:12:ASN:HB3 | 1.95 | 0.48 |
| 7:RA:496:LEU:HD13 | 7:RA:510:TRP:HB3 | 1.95 | 0.48 |
| 8:AB:56:ARG:NH1 | 8:AB:57:GLU:O | 2.37 | 0.48 |
| 8:AB:56:ARG:HD2 | 8:AB:57:GLU:O | 2.13 | 0.48 |
| 8:CB:90:GLU:OE1 | 8:CB:95:GLN:NE2 | 2.46 | 0.48 |
| 8:GB:55:THR:HB | 8:GB:76:ARG:NH2 | 2.26 | 0.48 |
| 8:HB:26:ARG:HH12 | 8:NB:69:PHE:HE2 | 1.60 | 0.48 |
| 8:KB:100:ARG:NH1 | 8:KB:101:ILE:HB | 2.28 | 0.48 |
| 8:MB:52:PRO:HA | 8:MB:81:ILE:HD11 | 1.96 | 0.48 |
| 8:RB:82:GLN:NE2 | 8:RB:83:VAL:O | 2.46 | 0.48 |
| 1:B:86:LEU:HD23 | 1:B:86:LEU:H | 1.78 | 0.48 |
| 1:C:86:LEU:HD23 | 1:C:86:LEU:H | 1.78 | 0.48 |
| 2:K:27:GLN:HG2 | 2:K:28:TYR:CD2 | 2.48 | 0.48 |
| 3:N:31:ARG:NH2 | 5:5:32:GLN:HG2 | 2.28 | 0.48 |
| 3:N:52:VAL:HG12 | 3:N:55:GLN:HB3 | 1.96 | 0.48 |
| 4:T:74:LEU:HD23 | 4:T:99:LEU:HD12 | 1.95 | 0.48 |
| 5:Z:254:ASN:OD1 | 5:Z:255:LEU:N | 2.45 | 0.48 |
| 5:0:56:LEU:HD22 | 6:c:41:ARG:NH2 | 2.28 | 0.48 |
| 5:0:153:PHE:CE1 | 5:0:214:ASP:HB3 | 2.48 | 0.48 |
| 5:1:171:VAL:HG13 | 5:1:227:ILE:HD11 | 1.94 | 0.48 |
| 5:1:349:GLU:O | 5:1:352:GLU:HG3 | 2.13 | 0.48 |
| 5:9:161:ALA:O | 5:9:165:VAL:HG22 | 2.13 | 0.48 |
| 5:9:281:ASN:HA | 5:9:284:GLN:HG2 | 1.94 | 0.48 |
| 7:g:379:ALA:HB2 | 7:g:412:GLN:HA | 1.95 | 0.48 |
| 7:g:504:ASP:HA | 7:g:506:TRP:CZ3 | 2.48 | 0.48 |
| 7:i:307:LEU:HB2 | 7:i:308:PRO:HD3 | 1.94 | 0.48 |
| 7:i:379:ALA:HB2 | 7:i:412:GLN:HA | 1.96 | 0.48 |
| 7:i:427:TYR:HD2 | 7:o:529:LYS:HB2 | 1.77 | 0.48 |
| 7:k:460:ALA:O | 7:k:464:THR:HG23 | 2.13 | 0.48 |
| 7:n:152:ILE:HD11 | 7:n:167:LEU:HD12 | 1.95 | 0.48 |
| 7:o:328:TYR:CD1 | 7:o:345:LEU:HD23 | 2.48 | 0.48 |
| 7:q:334:ASP:HB3 | 7:q:339:SER:H | 1.78 | 0.48 |
| 7:AA:60:TYR:O | 7:AA:64:LEU:HB2 | 2.12 | 0.48 |
| 7:AA:500:GLN:HB2 | 7:AA:506:TRP:CE2 | 2.48 | 0.48 |
| 7:CA:500:GLN:HB2 | 7:CA:506:TRP:CE2 | 2.48 | 0.48 |
| 7:GA:52:VAL:HG11 | 7:GA:263:TYR:HE2 | 1.78 | 0.48 |
| 7:GA:303:TYR:N | 7:GA:387:TYR:OH | 2.46 | 0.48 |
| 7:HA:440:ILE:HA | 7:HA:443:PHE:HD2 | 1.76 | 0.48 |
| 7:LA:303:TYR:N | 7:LA:387:TYR:OH | 2.46 | 0.48 |
| 7:NA:464:THR:O | 7:NA:468:THR:HG23 | 2.12 | 0.48 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:PA:198:ARG:HH21 | 7:PA:208:ALA:HB2 | 1.77 | 0.48 |
| 8:BB:149:GLU:OE2 | 8:BB:149:GLU:N | 2.30 | 0.48 |
| 8:HB:10:ARG:NH1 | 8:OB:168:TRP:O | 2.46 | 0.48 |
| 8:IB:54:MET:HB3 | 8:IB:166:ILE:HG12 | 1.96 | 0.48 |
| 8:LB:14:LYS:HE3 | 8:MB:165:TRP:CZ2 | 2.33 | 0.48 |
| 8:OB:52:PRO:HA | 8:OB:81:ILE:HD11 | 1.95 | 0.48 |
| 8:RB:103:ALA:O | 8:RB:104:LYS:HG2 | 2.12 | 0.48 |
| 1:E:87:GLN:HG2 | 1:E:88:PRO:HD2 | 1.95 | 0.48 |
| 2:G:3:PRO:HD2 | 2:G:29:GLN:HE22 | 1.78 | 0.48 |
| 2:J:9:TYR:CZ | 3:P:65:HIS:HD2 | 2.32 | 0.48 |
| 2:L:121:PRO:HB3 | 2:L:133:PRO:HB3 | 1.94 | 0.48 |
| 4:V:96:LYS:HZ2 | 4:V:97:LEU:N | 2.10 | 0.48 |
| 4:W:105:ILE:HA | 4:W:108:MET:HG2 | 1.95 | 0.48 |
| 4:X:57:GLU:CD | 4:X:64:LEU:HG | 2.38 | 0.48 |
| 5:Y:95:ALA:HA | 5:Y:259:ILE:HA | 1.95 | 0.48 |
| 5:Y:254:ASN:OD1 | 5:Y:255:LEU:N | 2.45 | 0.48 |
| 5:Z:445:TYR:OH | 5:Z:447:GLU:OE1 | 2.31 | 0.48 |
| 5:1:153:PHE:CE1 | 5:1:214:ASP:HB3 | 2.48 | 0.48 |
| 5:3:230:LYS:HZ1 | 5:3:232:TRP:CG | 2.30 | 0.48 |
| 5:4:387:ILE:HG12 | 5:4:473:SER:O | 2.14 | 0.48 |
| 5:5:234:THR:HG23 | 5:5:236:GLY:H | 1.77 | 0.48 |
| 6:a:80:LEU:C | 6:a:84:ARG:HE | 2.21 | 0.48 |
| 6:e:184:PHE:CZ | 6:e:192:LEU:HD11 | 2.49 | 0.48 |
| 7:g:199:LEU:O | 7:g:209:ARG:NH2 | 2.45 | 0.48 |
| 7:j:50:PHE:N | 7:j:95:ARG:O | 2.46 | 0.48 |
| 7:j:379:ALA:HB2 | 7:j:412:GLN:HA | 1.95 | 0.48 |
| 7:l:414:ILE:HG12 | 7:l:416:ASP:OD1 | 2.13 | 0.48 |
| 7:m:269:LEU:HD13 | 7:m:294:PHE:HB2 | 1.95 | 0.48 |
| 7:m:334:ASP:HB3 | 7:m:339:SER:H | 1.78 | 0.48 |
| 7:n:186:VAL:HG22 | 7:n:202:LEU:HD23 | 1.96 | 0.48 |
| 7:o:369:SER:O | 7:o:375:ARG:NE | 2.45 | 0.48 |
| 7:r:449:ARG:NH2 | 7:FA:409:THR:HG23 | 2.28 | 0.48 |
| 7:r:499:THR:HG23 | 7:r:507:GLU:OE2 | 2.12 | 0.48 |
| 7:AA:158:ASP:OD1 | 7:AA:164:ARG:NE | 2.42 | 0.48 |
| 7:AA:487:ASP:OD1 | 7:AA:488:ALA:N | 2.46 | 0.48 |
| 7:CA:46:ARG:HG2 | 7:CA:141:ASP:HB2 | 1.96 | 0.48 |
| 7:CA:265:TYR:HE2 | 7:CA:289:ARG:HG3 | 1.78 | 0.48 |
| 7:DA:355:ARG:HD2 | 7:DA:356:GLY:N | 2.29 | 0.48 |
| 7:FA:267:ALA:HB3 | 7:FA:350:TYR:HE2 | 1.78 | 0.48 |
| 7:GA:43:VAL:HG13 | 7:GA:243:GLN:HB3 | 1.95 | 0.48 |
| 7:GA:282:LEU:HA | 7:GA:285:ILE:HG12 | 1.95 | 0.48 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:IA:395:GLU:HA | 7:IA:398:VAL:HG12 | 1.94 | 0.48 |
| 7:LA:290:LEU:O | 7:LA:290:LEU:HD23 | 2.13 | 0.48 |
| 7:MA:46:ARG:CZ | 7:MA:142:PRO:HD3 | 2.43 | 0.48 |
| 7:MA:496:LEU:HD13 | 7:MA:510:TRP:HB3 | 1.95 | 0.48 |
| 8:AB:28:VAL:HG13 | 8:AB:31:GLU:H | 1.78 | 0.48 |
| 8:AB:163:TYR:CE2 | 8:AB:166:ILE:HD11 | 2.41 | 0.48 |
| 8:EB:90:GLU:OE1 | 8:EB:95:GLN:NE2 | 2.46 | 0.48 |
| 8:EB:93:ILE:HG13 | 8:EB:94:LEU:HD22 | 1.95 | 0.48 |
| 8:GB:81:ILE:HB | 8:GB:161:ILE:CG2 | 2.43 | 0.48 |
| 8:PB:49:SER:HG | 8:QB:146:PHE:HZ | 1.60 | 0.48 |
| 8:RB:81:ILE:HB | 8:RB:161:ILE:HG23 | 1.96 | 0.48 |
| 8:RB:111:MET:HE3 | 8:RB:112:ALA:H | 1.77 | 0.48 |
| 1:A:86:LEU:HD23 | 1:A:86:LEU:H | 1.78 | 0.48 |
| 1:F:86:LEU:HD23 | 1:F:86:LEU:H | 1.78 | 0.48 |
| 2:G:27:GLN:HG2 | 2:G:28:TYR:CD2 | 2.48 | 0.48 |
| 2:G:149:VAL:HG22 | 2:G:177:LEU:HD12 | 1.96 | 0.48 |
| 2:I:1:MET:HE2 | 2:I:1:MET:N | 2.29 | 0.48 |
| 2:K:19:LEU:HD13 | 2:K:33:TYR:HD1 | 1.78 | 0.48 |
| 3:N:53:LEU:HG | 3:N:57:LYS:HG2 | 1.95 | 0.48 |
| 3:Q:53:LEU:HG | 3:Q:57:LYS:HG2 | 1.94 | 0.48 |
| 4:U:75:ARG:HD3 | 5:6:46:TYR:CZ | 2.49 | 0.48 |
| 5:Y:171:VAL:HG13 | 5:Y:227:ILE:HD11 | 1.94 | 0.48 |
| 5:Y:243:GLY:H | 5:Y:263:THR:HG23 | 1.79 | 0.48 |
| 5:Z:56:LEU:HD22 | 6:b:41:ARG:NH2 | 2.29 | 0.48 |
| 5:Z:349:GLU:O | 5:Z:352:GLU:HG3 | 2.13 | 0.48 |
| 5:2:1:MET:N | 6:e:33:THR:OG1 | 2.44 | 0.48 |
| 5:2:338:ILE:HG13 | 5:2:371:TYR:HA | 1.95 | 0.48 |
| 5:2:349:GLU:O | 5:2:352:GLU:HG3 | 2.13 | 0.48 |
| 5:3:171:VAL:HG13 | 5:3:227:ILE:HD11 | 1.95 | 0.48 |
| 5:5:3:LYS:HE3 | 5:5:56:LEU:HD21 | 1.95 | 0.48 |
| 5:6:187:MET:HE2 | 5:6:187:MET:HA | 1.94 | 0.48 |
| 5:8:349:GLU:HB3 | 5:8:353:MET:HE1 | 1.93 | 0.48 |
| 5:9:387:ILE:HG12 | 5:9:473:SER:O | 2.14 | 0.48 |
| 6:e:133:GLU:HA | 6:e:136:LEU:HB2 | 1.94 | 0.48 |
| 7:g:432:HIS:HD1 | 7:g:432:HIS:H | 1.60 | 0.48 |
| 7:g:483:PRO:HD2 | 7:g:491:THR:HA | 1.96 | 0.48 |
| 7:h:307:LEU:HB2 | 7:h:308:PRO:HD3 | 1.94 | 0.48 |
| 7:i:172:THR:HG22 | 7:i:178:VAL:HG22 | 1.95 | 0.48 |
| 7:j:41:ILE:HA | 7:j:94:VAL:HG23 | 1.95 | 0.48 |
| 7:k:8:GLN:OE1 | 7:k:20:PRO:HG3 | 2.12 | 0.48 |
| 7:o:152:ILE:HD11 | 7:o:167:LEU:HD12 | 1.95 | 0.48 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:o:334:ASP:HB3 | 7:o:339:SER:H | 1.79 | 0.48 |
| 7:q:378:ILE:HD11 | 7:q:380:ARG:NE | 2.28 | 0.48 |
| 7:AA:202:LEU:HB2 | 7:AA:203:PRO:HD3 | 1.96 | 0.48 |
| 7:BA:193:LYS:HA | 7:BA:199:LEU:HA | 1.95 | 0.48 |
| 7:CA:109:ASP:OD1 | 7:CA:110:GLU:N | 2.41 | 0.48 |
| 7:DA:265:TYR:HE2 | 7:DA:289:ARG:HG3 | 1.78 | 0.48 |
| 7:DA:500:GLN:HB2 | 7:DA:506:TRP:CE2 | 2.48 | 0.48 |
| 7:EA:446:GLN:HA | 7:EA:449:ARG:HG2 | 1.95 | 0.48 |
| 7:FA:265:TYR:HE2 | 7:FA:289:ARG:HG3 | 1.78 | 0.48 |
| 7:FA:302:THR:OG1 | 7:FA:305:GLU:OE1 | 2.26 | 0.48 |
| 7:FA:446:GLN:HA | 7:FA:449:ARG:HG2 | 1.96 | 0.48 |
| 7:GA:472:ASP:OD1 | 7:GA:494:TYR:OH | 2.22 | 0.48 |
| 7:HA:38:TRP:HB3 | 7:HA:350:TYR:CZ | 2.48 | 0.48 |
| 7:HA:328:TYR:CE2 | 7:HA:330:PHE:HB2 | 2.48 | 0.48 |
| 7:HA:520:ARG:HH11 | 7:IA:12:ASN:HA | 1.77 | 0.48 |
| 7:IA:37:LEU:O | 7:IA:266:THR:N | 2.46 | 0.48 |
| 7:JA:328:TYR:CE2 | 7:JA:330:PHE:HB2 | 2.49 | 0.48 |
| 7:JA:395:GLU:HA | 7:JA:398:VAL:HG12 | 1.96 | 0.48 |
| 7:LA:378:ILE:HG23 | 7:LA:379:ALA:H | 1.79 | 0.48 |
| 7:MA:63:VAL:HG13 | 7:MA:64:LEU:HD22 | 1.95 | 0.48 |
| 7:MA:81:HIS:HD1 | 7:MA:271:LEU:HA | 1.78 | 0.48 |
| 7:OA:201:TYR:CD2 | 7:OA:203:PRO:HD2 | 2.49 | 0.48 |
| 7:PA:201:TYR:CD2 | 7:PA:203:PRO:HD2 | 2.49 | 0.48 |
| 7:PA:426:ASN:HB3 | 7:QA:195:ASP:HB2 | 1.93 | 0.48 |
| 7:QA:198:ARG:HH21 | 7:QA:208:ALA:HB2 | 1.77 | 0.48 |
| 7:QA:334:ASP:OD1 | 7:QA:335:LYS:N | 2.46 | 0.48 |
| 7:RA:54:ALA:HB2 | 7:RA:92:TYR:CE1 | 2.48 | 0.48 |
| 7:RA:210:SER:OG | 7:RA:213:LEU:O | 2.18 | 0.48 |
| 8:AB:133:GLU:OE1 | 8:AB:133:GLU:N | 2.46 | 0.48 |
| 8:AB:138:LYS:HB2 | 8:AB:162:VAL:HB | 1.96 | 0.48 |
| 8:AB:154:ALA:HB2 | 8:LB:59:VAL:HG11 | 1.95 | 0.48 |
| 8:EB:28:VAL:HG13 | 8:EB:31:GLU:H | 1.78 | 0.48 |
| 8:EB:154:ALA:HB2 | 8:JB:59:VAL:HG11 | 1.96 | 0.48 |
| 8:FB:28:VAL:HG13 | 8:FB:31:GLU:H | 1.78 | 0.48 |
| 8:FB:56:ARG:HD2 | 8:FB:57:GLU:O | 2.14 | 0.48 |
| 8:GB:16:ARG:HH22 | 8:MB:67:VAL:H | 1.61 | 0.48 |
| 1:C:129:PRO:HA | 1:C:132:TYR:CZ | 2.49 | 0.48 |
| 2:H:27:GLN:HG2 | 2:H:28:TYR:CD2 | 2.48 | 0.48 |
| 2:I:27:GLN:HG2 | 2:I:28:TYR:CD2 | 2.48 | 0.48 |
| 2:J:149:VAL:HG22 | 2:J:177:LEU:HD12 | 1.96 | 0.48 |
| 3:P:58:HIS:ND1 | 3:P:118:LEU:OXT | 2.44 | 0.48 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 3:R:19:LYS:HG3 | 5:9:28:PHE:CE2 | 2.48 | 0.48 |
| 4:U:19:TYR:HA | 4:U:106:ARG:HH12 | 1.79 | 0.48 |
| 5:Y:111:ILE:HG22 | 5:Y:247:THR:O | 2.13 | 0.48 |
| 5:Z:276:THR:O | 5:Z:279:THR:OG1 | 2.29 | 0.48 |
| 5:0:328:TYR:HB2 | 6:c:127:GLY:HA3 | 1.96 | 0.48 |
| 5:1:56:LEU:HD22 | 6:d:41:ARG:NH2 | 2.28 | 0.48 |
| 5:1:189:ARG:NH1 | 5:7:290:ASP:OD1 | 2.28 | 0.48 |
| 5:2:201:PHE:CE2 | 5:2:211:ARG:HG3 | 2.46 | 0.48 |
| 5:5:138:LEU:HD23 | 5:5:234:THR:HB | 1.96 | 0.48 |
| 5:7:161:ALA:O | 5:7:165:VAL:HG22 | 2.13 | 0.48 |
| 5:8:387:ILE:HG12 | 5:8:473:SER:O | 2.14 | 0.48 |
| 6:b:31:MET:O | 6:b:35:VAL:HG12 | 2.14 | 0.48 |
| 6:b:184:PHE:CZ | 6:b:192:LEU:HD11 | 2.49 | 0.48 |
| 7:i:199:LEU:HG | 7:i:201:TYR:H | 1.79 | 0.48 |
| 7:j:414:ILE:HG12 | 7:j:416:ASP:OD1 | 2.13 | 0.48 |
| 7:k:199:LEU:O | 7:k:209:ARG:NH2 | 2.46 | 0.48 |
| 7:l:504:ASP:HA | 7:l:506:TRP:CZ3 | 2.48 | 0.48 |
| 7:m:99:ASP:OD1 | 7:m:99:ASP:N | 2.46 | 0.48 |
| 7:m:443:PHE:HA | 7:m:446:GLN:CD | 2.38 | 0.48 |
| 7:n:504:ASP:OD1 | 7:BA:518:ALA:N | 2.46 | 0.48 |
| 7:p:44:PHE:C | 7:p:95:ARG:HE | 2.21 | 0.48 |
| 7:p:369:SER:O | 7:p:375:ARG:NE | 2.45 | 0.48 |
| 7:AA:416:ASP:OD1 | 7:AA:416:ASP:N | 2.42 | 0.48 |
| 7:EA:500:GLN:HB2 | 7:EA:506:TRP:CE2 | 2.48 | 0.48 |
| 7:JA:43:VAL:HG13 | 7:JA:243:GLN:HB3 | 1.95 | 0.48 |
| 7:LA:395:GLU:HA | 7:LA:398:VAL:HG12 | 1.94 | 0.48 |
| 7:NA:54:ALA:HB2 | 7:NA:92:TYR:CE1 | 2.48 | 0.48 |
| 7:PA:43:VAL:HG11 | 7:PA:75:GLN:HE21 | 1.79 | 0.48 |
| 7:QA:201:TYR:CD2 | 7:QA:203:PRO:HD2 | 2.49 | 0.48 |
| 7:QA:334:ASP:CB | 7:QA:339:SER:H | 2.27 | 0.48 |
| 7:QA:485:ASP:OD1 | 7:QA:489:ASP:HB2 | 2.12 | 0.48 |
| 8:AB:106:TYR:OH | 8:FB:71:GLN:OE1 | 2.31 | 0.48 |
| 8:CB:45:LEU:HD12 | 8:CB:85:CYS:HB2 | 1.95 | 0.48 |
| 8:FB:163:TYR:CE2 | 8:FB:166:ILE:HD11 | 2.43 | 0.48 |
| 8:GB:37:ALA:O | 8:GB:39:HIS:ND1 | 2.47 | 0.48 |
| 8:HB:100:ARG:NH1 | 8:HB:101:ILE:HB | 2.28 | 0.48 |
| 8:IB:100:ARG:NH1 | 8:IB:101:ILE:HB | 2.28 | 0.48 |
| 8:KB:37:ALA:O | 8:KB:39:HIS:ND1 | 2.47 | 0.48 |
| 8:PB:144:ILE:HD11 | 8:PB:158:SER:HB3 | 1.96 | 0.48 |
| 1:C:56:LEU:HB3 | 1:C:59:ALA:HB2 | 1.95 | 0.48 |
| 1:F:33:LEU:O | 1:F:37:ILE:HG12 | 2.14 | 0.48 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 2:G:1:MET:HA | 3:M:55:GLN:OE1 | 2.14 | 0.48 |
| 2:J:22:THR:O | 2:J:138:LEU:HD12 | 2.13 | 0.48 |
| 2:L:19:LEU:HD13 | 2:L:33:TYR:HD1 | 1.79 | 0.48 |
| 2:L:22:THR:O | 2:L:138:LEU:HD12 | 2.13 | 0.48 |
| 4:S:105:ILE:HA | 4:S:108:MET:HG2 | 1.96 | 0.48 |
| 5:Z:311:SER:O | 5:Z:419:ARG:NH1 | 2.47 | 0.48 |
| 5:Z:328:TYR:HB2 | 6:b:127:GLY:HA3 | 1.95 | 0.48 |
| 5:0:338:ILE:HG13 | 5:0:371:TYR:HA | 1.95 | 0.48 |
| 5:3:201:PHE:CE2 | 5:3:211:ARG:HG3 | 2.46 | 0.48 |
| 5:6:9:ASP:HA | 5:6:12:ARG:CZ | 2.44 | 0.48 |
| 6:c:125:PRO:O | 6:c:128:THR:OG1 | 2.30 | 0.48 |
| 6:d:80:LEU:C | 6:d:84:ARG:HE | 2.21 | 0.48 |
| 6:e:76:SER:HB2 | 6:e:79:MET:HE2 | 1.94 | 0.48 |
| 7:i:319:ASP:N | 7:i:319:ASP:OD1 | 2.44 | 0.48 |
| 7:i:511:ALA:HB1 | 7:o:528:ILE:HG23 | 1.96 | 0.48 |
| 7:k:81:HIS:O | 7:k:84:GLU:HG2 | 2.14 | 0.48 |
| 7:k:319:ASP:OD1 | 7:k:319:ASP:N | 2.44 | 0.48 |
| 7:l:517:VAL:HG12 | 7:l:517:VAL:O | 2.14 | 0.48 |
| 7:n:470:LEU:HD12 | 7:n:471:LEU:HD22 | 1.94 | 0.48 |
| 7:p:449:ARG:NH2 | 7:DA:409:THR:HG23 | 2.28 | 0.48 |
| 7:q:196:MET:HB3 | 7:DA:529:LYS:HZ1 | 1.78 | 0.48 |
| 7:BA:46:ARG:HG2 | 7:BA:141:ASP:HB2 | 1.96 | 0.48 |
| 7:DA:263:TYR:C | 7:DA:264:MET:HE2 | 2.38 | 0.48 |
| 7:FA:202:LEU:HB2 | 7:FA:203:PRO:HD3 | 1.96 | 0.48 |
| 7:HA:378:ILE:HG23 | 7:HA:379:ALA:H | 1.79 | 0.48 |
| 7:LA:193:LYS:HD3 | 7:LA:197:GLY:HA2 | 1.94 | 0.48 |
| 7:MA:493:PRO:HG2 | 7:MA:494:TYR:CD1 | 2.49 | 0.48 |
| 7:NA:38:TRP:HB3 | 7:NA:350:TYR:CZ | 2.48 | 0.48 |
| 7:NA:210:SER:O | 7:NA:214:ARG:NE | 2.45 | 0.48 |
| 7:OA:7:GLN:NE2 | 7:OA:17:ALA:HB2 | 2.29 | 0.48 |
| 7:PA:46:ARG:CZ | 7:PA:142:PRO:HD3 | 2.44 | 0.48 |
| 7:QA:7:GLN:NE2 | 7:QA:17:ALA:HB2 | 2.29 | 0.48 |
| 8:BB:114:THR:HG23 | 8:BB:118:LYS:HE3 | 1.93 | 0.48 |
| 8:FB:139:ILE:O | 8:FB:140:TYR:CD1 | 2.66 | 0.48 |
| 8:GB:55:THR:O | 8:GB:76:ARG:N | 2.43 | 0.48 |
| 8:HB:31:GLU:OE2 | 8:HB:116:GLU:N | 2.47 | 0.48 |
| 8:LB:33:LEU:HD12 | 8:LB:114:THR:HG21 | 1.96 | 0.48 |
| 8:LB:88:THR:OG1 | 8:LB:89:ILE:N | 2.46 | 0.48 |
| 8:PB:52:PRO:HA | 8:PB:81:ILE:HD11 | 1.95 | 0.48 |
| 8:RB:52:PRO:HA | 8:RB:81:ILE:HD11 | 1.96 | 0.48 |
| 1:D:86:LEU:HD23 | 1:D:86:LEU:H | 1.79 | 0.48 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 1:D:129:PRO:HA | 1:D:132:TYR:CZ | 2.49 | 0.48 |
| 3:P:52:VAL:HG12 | 3:P:55:GLN:HB3 | 1.96 | 0.48 |
| 3:R:38:THR:O | 3:R:51:ASN:ND2 | 2.46 | 0.48 |
| 4:T:105:ILE:HA | 4:T:108:MET:HG2 | 1.96 | 0.48 |
| 4:U:57:GLU:CD | 4:U:64:LEU:HG | 2.38 | 0.48 |
| 5:Y:56:LEU:HD22 | 6:a:41:ARG:NH2 | 2.28 | 0.48 |
| 5:Y:230:LYS:HZ1 | 5:Y:232:TRP:CG | 2.31 | 0.48 |
| 5:Y:445:TYR:OH | 5:Y:447:GLU:OE1 | 2.31 | 0.48 |
| 5:O:95:ALA:HA | 5:O:259:ILE:HA | 1.95 | 0.48 |
| 5:1:174:THR:HB | 5:1:226:THR:OG1 | 2.13 | 0.48 |
| 5:3:349:GLU:O | 5:3:352:GLU:HG3 | 2.13 | 0.48 |
| 5:4:138:LEU:HD23 | 5:4:234:THR:HB | 1.96 | 0.48 |
| 5:9:138:LEU:HD23 | 5:9:234:THR:HB | 1.96 | 0.48 |
| 6:c:31:MET:O | 6:c:35:VAL:HG12 | 2.14 | 0.48 |
| 6:c:133:GLU:HA | 6:c:136:LEU:HB2 | 1.94 | 0.48 |
| 6:f:31:MET:O | 6:f:35:VAL:HG12 | 2.14 | 0.48 |
| 7:i:414:ILE:HG12 | 7:i:416:ASP:OD1 | 2.13 | 0.48 |
| 7:j:214:ARG:HD3 | 7:j:214:ARG:HA | 1.68 | 0.48 |
| 7:j:319:ASP:OD1 | 7:j:319:ASP:N | 2.44 | 0.48 |
| 7:k:35:SER:C | 7:k:358:LYS:HZ1 | 2.21 | 0.48 |
| 7:k:168:LYS:HB3 | 7:k:183:THR:HG23 | 1.93 | 0.48 |
| 7:l:494:TYR:CE2 | 7:l:496:LEU:HB2 | 2.49 | 0.48 |
| 7:m:114:PRO:HD3 | 7:m:230:LYS:HZ3 | 1.79 | 0.48 |
| 7:m:186:VAL:HG22 | 7:m:202:LEU:HD23 | 1.96 | 0.48 |
| 7:m:378:ILE:HD11 | 7:m:380:ARG:NE | 2.28 | 0.48 |
| 7:n:334:ASP:HB3 | 7:n:339:SER:H | 1.78 | 0.48 |
| 7:q:269:LEU:HD13 | 7:q:294:PHE:HB2 | 1.95 | 0.48 |
| 7:r:461:ALA:HB1 | 7:r:465:LYS:HZ1 | 1.79 | 0.48 |
| 7:BA:246:ILE:HB | 7:BA:251:TYR:CZ | 2.49 | 0.48 |
| 7:BA:527:LEU:HG | 7:BA:529:LYS:H | 1.79 | 0.48 |
| 7:FA:246:ILE:HB | 7:FA:251:TYR:CZ | 2.49 | 0.48 |
| 7:JA:52:VAL:HG11 | 7:JA:263:TYR:HE2 | 1.78 | 0.48 |
| 7:JA:378:ILE:HG23 | 7:JA:379:ALA:H | 1.79 | 0.48 |
| 7:JA:526:LEU:HD12 | 7:JA:527:LEU:H | 1.78 | 0.48 |
| 7:KA:110:GLU:OE2 | 7:KA:224:THR:OG1 | 2.31 | 0.48 |
| 7:LA:108:PHE:CE1 | 7:LA:114:PRO:HB3 | 2.41 | 0.48 |
| 7:LA:259:ASN:O | 7:MA:2:SER:N | 2.47 | 0.48 |
| 7:MA:6:ILE:HD12 | 7:MA:16:VAL:HG12 | 1.96 | 0.48 |
| 7:MA:189:ALA:HB3 | 7:MA:192:ALA:HB2 | 1.96 | 0.48 |
| 7:NA:480:LEU:HD13 | 7:NA:512:CYS:HB3 | 1.95 | 0.48 |
| 7:OA:46:ARG:NE | 7:OA:140:GLY:O | 2.45 | 0.48 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:OA:54:ALA:HB2 | 7:OA:92:TYR:CE1 | 2.48 | 0.48 |
| 7:OA:81:HIS:HD1 | 7:OA:271:LEU:HA | 1.78 | 0.48 |
| 7:PA:189:ALA:HB3 | 7:PA:192:ALA:HB2 | 1.96 | 0.48 |
| 8:BB:154:ALA:HB2 | 8:GB:59:VAL:HG11 | 1.94 | 0.48 |
| 8:CB:71:GLN:OE1 | 8:DB:106:TYR:OH | 2.31 | 0.48 |
| 8:DB:93:ILE:HG13 | 8:DB:94:LEU:HD22 | 1.95 | 0.48 |
| 8:GB:54:MET:HB3 | 8:GB:166:ILE:HG12 | 1.96 | 0.48 |
| 8:JB:81:ILE:HB | 8:JB:161:ILE:CG2 | 2.43 | 0.48 |
| 8:LB:139:ILE:HD11 | 8:LB:159:LEU:HB3 | 1.96 | 0.48 |
| 8:NB:111:MET:HE3 | 8:NB:112:ALA:H | 1.77 | 0.48 |
| 1:E:33:LEU:O | 1:E:37:ILE:HG12 | 2.14 | 0.48 |
| 2:K:22:THR:O | 2:K:138:LEU:HD12 | 2.14 | 0.48 |
| 2:L:185:SER:O | 2:L:189:VAL:HG12 | 2.14 | 0.48 |
| 4:T:71:ILE:HG13 | 4:T:73:GLU:H | 1.78 | 0.48 |
| 4:T:75:ARG:HD3 | 5:5:46:TYR:CZ | 2.49 | 0.48 |
| 4:U:48:LEU:HB3 | 4:U:98:LYS:HB3 | 1.96 | 0.48 |
| 4:V:31:ALA:O | 4:V:34:ARG:HG3 | 2.14 | 0.48 |
| 4:V:60:ARG:HG3 | 6:d:9:ARG:HH11 | 1.77 | 0.48 |
| 4:W:105:ILE:O | 4:W:109:ILE:HG12 | 2.14 | 0.48 |
| 5:Y:153:PHE:CE1 | 5:Y:214:ASP:HB3 | 2.49 | 0.48 |
| 5:0:111:ILE:HG22 | 5:0:247:THR:O | 2.13 | 0.48 |
| 5:0:432:TRP:HA | 5:0:435:ILE:HG12 | 1.96 | 0.48 |
| 5:2:432:TRP:HA | 5:2:435:ILE:HG12 | 1.96 | 0.48 |
| 5:3:328:TYR:HB2 | 6:f:127:GLY:HA3 | 1.95 | 0.48 |
| 5:5:383:ILE:HG13 | 5:5:444:PHE:HD2 | 1.78 | 0.48 |
| 5:6:383:ILE:HG13 | 5:6:444:PHE:HD2 | 1.78 | 0.48 |
| 5:7:25:TRP:HD1 | 5:7:28:PHE:CE2 | 2.32 | 0.48 |
| 6:f:113:ASP:CG | 6:f:133:GLU:H | 2.22 | 0.48 |
| 7:g:81:HIS:O | 7:g:84:GLU:HG2 | 2.14 | 0.48 |
| 7:i:206:LEU:O | 7:i:210:SER:HB3 | 2.13 | 0.48 |
| 7:j:511:ALA:HB1 | 7:p:528:ILE:HG23 | 1.95 | 0.48 |
| 7:k:41:ILE:HA | 7:k:94:VAL:HG23 | 1.96 | 0.48 |
| 7:k:207:GLU:OE2 | 7:q:339:SER:OG | 2.25 | 0.48 |
| 7:k:494:TYR:CE2 | 7:k:496:LEU:HB2 | 2.49 | 0.48 |
| 7:k:511:ALA:HB1 | 7:q:528:ILE:HG23 | 1.95 | 0.48 |
| 7:l:307:LEU:HB2 | 7:l:308:PRO:HD3 | 1.94 | 0.48 |
| 7:m:402:LEU:HD23 | 7:m:403:ASN:N | 2.28 | 0.48 |
| 7:m:520:ARG:HG2 | 7:n:14:SER:HA | 1.96 | 0.48 |
| 7:n:461:ALA:HB1 | 7:n:465:LYS:HZ1 | 1.79 | 0.48 |
| 7:o:59:ASN:O | 7:o:63:VAL:HG12 | 2.14 | 0.48 |
| 7:AA:46:ARG:HG2 | 7:AA:141:ASP:HB2 | 1.96 | 0.48 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:BA:369:SER:OG | 7:BA:431:GLN:NE2 | 2.42 | 0.48 |
| 7:CA:193:LYS:HA | 7:CA:199:LEU:HA | 1.95 | 0.48 |
| 7:DA:46:ARG:HG2 | 7:DA:141:ASP:HB2 | 1.96 | 0.48 |
| 7:EA:371:ALA:O | 7:EA:375:ARG:NH1 | 2.35 | 0.48 |
| 7:FA:303:TYR:CD2 | 7:FA:392:PRO:HA | 2.49 | 0.48 |
| 7:IA:282:LEU:HA | 7:IA:285:ILE:HG12 | 1.95 | 0.48 |
| 7:JA:303:TYR:N | 7:JA:387:TYR:OH | 2.46 | 0.48 |
| 7:KA:108:PHE:CE1 | 7:KA:114:PRO:HB3 | 2.41 | 0.48 |
| 7:RA:7:GLN:NE2 | 7:RA:17:ALA:HB2 | 2.29 | 0.48 |
| 7:RA:79:ILE:HG13 | 7:RA:80:ARG:N | 2.28 | 0.48 |
| 8:AB:140:TYR:CZ | 8:FB:56:ARG:HB3 | 2.49 | 0.48 |
| 8:DB:56:ARG:HB3 | 8:EB:140:TYR:CZ | 2.48 | 0.48 |
| 8:FB:45:LEU:HD12 | 8:FB:85:CYS:HB2 | 1.95 | 0.48 |
| 8:JB:14:LYS:HE3 | 8:QB:165:TRP:CZ2 | 2.37 | 0.48 |
| 8:JB:80:GLU:OE2 | 8:JB:160:ARG:HB2 | 2.12 | 0.48 |
| 8:KB:47:ARG:N | 8:KB:84:GLN:O | 2.31 | 0.48 |
| 8:MB:144:ILE:HD11 | 8:MB:158:SER:HB3 | 1.96 | 0.48 |
| 8:PB:26:ARG:NE | 8:PB:26:ARG:HA | 2.29 | 0.48 |
| 3:M:77:LYS:HA | 3:M:80:VAL:HG22 | 1.96 | 0.48 |
| 3:O:40:GLN:NE2 | 3:O:52:VAL:HG22 | 2.23 | 0.48 |
| 3:Q:9:PRO:HD2 | 7:l:23:ALA:HB1 | 1.96 | 0.48 |
| 4:U:105:ILE:HA | 4:U:108:MET:HG2 | 1.96 | 0.48 |
| 4:V:112:PHE:HA | 4:V:116:GLY:HA3 | 1.94 | 0.48 |
| 4:W:117:GLN:NE2 | 5:2:160:LYS:HB2 | 2.29 | 0.48 |
| 4:X:75:ARG:HD3 | 5:9:46:TYR:CZ | 2.49 | 0.48 |
| 4:X:96:LYS:HZ2 | 4:X:97:LEU:N | 2.11 | 0.48 |
| 5:Y:13:ALA:O | 5:Y:16:GLU:N | 2.47 | 0.48 |
| 5:Y:380:LYS:NZ | 5:Y:450:GLU:OE1 | 2.33 | 0.48 |
| 5:5:376:LYS:HB3 | 5:5:462:TYR:HE1 | 1.79 | 0.48 |
| 5:6:410:ARG:NH1 | 5:6:411:ASP:OD1 | 2.47 | 0.48 |
| 5:8:187:MET:HE2 | 5:8:187:MET:HA | 1.96 | 0.48 |
| 6:d:113:ASP:CG | 6:d:133:GLU:H | 2.22 | 0.48 |
| 6:e:31:MET:O | 6:e:35:VAL:HG12 | 2.14 | 0.48 |
| 7:h:28:SER:OG | 7:h:62:ASP:OD2 | 2.32 | 0.48 |
| 7:h:63:VAL:HG23 | 7:h:64:LEU:HD22 | 1.94 | 0.48 |
| 7:j:206:LEU:O | 7:j:210:SER:HB3 | 2.14 | 0.48 |
| 7:j:432:HIS:O | 7:j:435:SER:OG | 2.18 | 0.48 |
| 7:k:28:SER:OG | 7:k:62:ASP:OD2 | 2.32 | 0.48 |
| 7:n:402:LEU:HD23 | 7:n:403:ASN:N | 2.28 | 0.48 |
| 7:o:461:ALA:HB1 | 7:o:465:LYS:HZ1 | 1.79 | 0.48 |
| 7:o:470:LEU:HD12 | 7:o:471:LEU:HD22 | 1.95 | 0.48 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:p:39:ALA:HB2 | 7:p:92:TYR:HB2 | 1.96 | 0.48 |
| 7:q:449:ARG:NH2 | 7:EA:409:THR:HG23 | 2.28 | 0.48 |
| 7:r:186:VAL:HG22 | 7:r:202:LEU:HD23 | 1.96 | 0.48 |
| 7:r:452:LYS:HZ2 | 7:r:453:HIS:N | 2.12 | 0.48 |
| 7:AA:502:GLU:CD | 7:AA:504:ASP:H | 2.20 | 0.48 |
| 7:CA:263:TYR:C | 7:CA:264:MET:HE2 | 2.38 | 0.48 |
| 7:DA:100:ASP:OD2 | 7:DA:242:ASP:N | 2.47 | 0.48 |
| 7:EA:202:LEU:HB2 | 7:EA:203:PRO:HD3 | 1.96 | 0.48 |
| 7:FA:355:ARG:HD2 | 7:FA:356:GLY:N | 2.29 | 0.48 |
| 7:FA:487:ASP:OD1 | 7:FA:488:ALA:N | 2.47 | 0.48 |
| 7:GA:193:LYS:HD3 | 7:GA:197:GLY:HA2 | 1.95 | 0.48 |
| 7:HA:290:LEU:O | 7:HA:290:LEU:HD23 | 2.14 | 0.48 |
| 7:HA:395:GLU:HA | 7:HA:398:VAL:HG12 | 1.96 | 0.48 |
| 7:HA:448:ALA:HB1 | 7:NA:521:ILE:HG21 | 1.95 | 0.48 |
| 7:IA:378:ILE:HG23 | 7:IA:379:ALA:H | 1.79 | 0.48 |
| 7:JA:108:PHE:CE1 | 7:JA:114:PRO:HB3 | 2.41 | 0.48 |
| 7:NA:7:GLN:NE2 | 7:NA:17:ALA:HB2 | 2.29 | 0.48 |
| 7:OA:210:SER:O | 7:OA:214:ARG:NE | 2.45 | 0.48 |
| 7:PA:81:HIS:HD1 | 7:PA:271:LEU:HA | 1.78 | 0.48 |
| 7:PA:349:ALA:O | 7:PA:353:LYS:HG2 | 2.14 | 0.48 |
| 8:LB:54:MET:HB3 | 8:LB:166:ILE:HG12 | 1.96 | 0.48 |
| 1:B:33:LEU:O | 1:B:37:ILE:HG12 | 2.14 | 0.48 |
| 1:D:33:LEU:O | 1:D:37:ILE:HG12 | 2.14 | 0.48 |
| 2:H:22:THR:O | 2:H:138:LEU:HD12 | 2.14 | 0.48 |
| 2:K:1:MET:HG2 | 3:Q:59:GLU:HB3 | 1.96 | 0.48 |
| 3:O:52:VAL:HG12 | 3:O:55:GLN:HB3 | 1.96 | 0.48 |
| 3:P:38:THR:O | 3:P:51:ASN:ND2 | 2.47 | 0.48 |
| 4:T:45:ASP:HA | 5:4:27:LYS:CE | 2.44 | 0.48 |
| 4:V:57:GLU:CD | 4:V:64:LEU:HG | 2.39 | 0.48 |
| 5:Y:328:TYR:HB2 | 6:a:127:GLY:HA3 | 1.95 | 0.48 |
| 5:Z:432:TRP:HA | 5:Z:435:ILE:HG12 | 1.96 | 0.48 |
| 5:0:311:SER:O | 5:0:419:ARG:NH1 | 2.47 | 0.48 |
| 5:0:375:ARG:O | 5:0:460:PHE:N | 2.43 | 0.48 |
| 5:0:445:TYR:OH | 5:0:447:GLU:OE1 | 2.31 | 0.48 |
| 5:1:338:ILE:HG13 | 5:1:371:TYR:HA | 1.95 | 0.48 |
| 5:2:3:LYS:HZ3 | 5:2:56:LEU:HD11 | 1.79 | 0.48 |
| 5:2:17:GLU:HA | 5:2:20:GLU:HG2 | 1.95 | 0.48 |
| 5:2:56:LEU:HD22 | 6:e:41:ARG:NH2 | 2.28 | 0.48 |
| 5:7:189:ARG:H | 5:7:194:LYS:HD2 | 1.79 | 0.48 |
| 5:8:138:LEU:HD23 | 5:8:234:THR:HB | 1.96 | 0.48 |
| 5:8:161:ALA:O | 5:8:165:VAL:HG22 | 2.14 | 0.48 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:g:41:ILE:HA | 7:g:94:VAL:HG23 | 1.95 | 0.48 |
| 7:g:297:VAL:HG22 | 7:g:326:TYR:O | 2.13 | 0.48 |
| 7:g:414:ILE:HG12 | 7:g:416:ASP:OD1 | 2.13 | 0.48 |
| 7:h:493:PRO:HB2 | 7:h:513:CYS:HB3 | 1.95 | 0.48 |
| 7:j:483:PRO:HD2 | 7:j:491:THR:HA | 1.96 | 0.48 |
| 7:l:444:PHE:HZ | 7:l:508:VAL:HG11 | 1.78 | 0.48 |
| 7:m:480:LEU:HD13 | 7:m:512:CYS:HB2 | 1.96 | 0.48 |
| 7:r:28:SER:OG | 7:r:60:TYR:OH | 2.32 | 0.48 |
| 7:r:334:ASP:HB3 | 7:r:339:SER:H | 1.79 | 0.48 |
| 7:r:452:LYS:HZ2 | 7:r:453:HIS:H | 1.61 | 0.48 |
| 7:AA:148:ARG:HD3 | 7:AA:170:THR:O | 2.14 | 0.48 |
| 7:AA:355:ARG:HD2 | 7:AA:356:GLY:N | 2.29 | 0.48 |
| 7:BA:202:LEU:HB2 | 7:BA:203:PRO:HD3 | 1.96 | 0.48 |
| 7:DA:448:ALA:O | 7:DA:452:LYS:HG3 | 2.14 | 0.48 |
| 7:FA:46:ARG:HG2 | 7:FA:141:ASP:HB2 | 1.96 | 0.48 |
| 7:HA:474:PHE:O | 7:HA:477:SER:OG | 2.27 | 0.48 |
| 7:IA:303:TYR:HB3 | 7:IA:390:ASP:OD2 | 2.14 | 0.48 |
| 7:KA:290:LEU:O | 7:KA:290:LEU:HD23 | 2.14 | 0.48 |
| 7:KA:474:PHE:O | 7:KA:477:SER:OG | 2.27 | 0.48 |
| 7:NA:189:ALA:HB3 | 7:NA:192:ALA:HB2 | 1.96 | 0.48 |
| 7:OA:480:LEU:HD13 | 7:OA:512:CYS:HB3 | 1.95 | 0.48 |
| 7:PA:38:TRP:HB3 | 7:PA:350:TYR:CZ | 2.49 | 0.48 |
| 7:QA:38:TRP:HB3 | 7:QA:350:TYR:CZ | 2.48 | 0.48 |
| 7:QA:54:ALA:HB2 | 7:QA:92:TYR:CE1 | 2.48 | 0.48 |
| 8:CB:111:MET:HE1 | 8:CB:134:MET:HB2 | 1.95 | 0.48 |
| 8:IB:3:HIS:HB2 | 8:JB:25:GLU:OE2 | 2.14 | 0.48 |
| 8:IB:32:PHE:HA | 8:IB:113:ALA:HA | 1.95 | 0.48 |
| 8:OB:82:GLN:NE2 | 8:OB:83:VAL:O | 2.47 | 0.48 |
| 1:B:129:PRO:HA | 1:B:132:TYR:CZ | 2.49 | 0.47 |
| 2:L:132:ILE:HB | 2:L:135:ARG:HH12 | 1.79 | 0.47 |
| 3:N:19:LYS:HG3 | 5:5:28:PHE:CE2 | 2.49 | 0.47 |
| 4:W:71:ILE:HG13 | 4:W:73:GLU:H | 1.77 | 0.47 |
| 5:Y:147:VAL:HG13 | 5:Y:224:GLY:H | 1.79 | 0.47 |
| 5:2:95:ALA:HA | 5:2:259:ILE:HA | 1.95 | 0.47 |
| 5:4:189:ARG:H | 5:4:194:LYS:HD2 | 1.79 | 0.47 |
| 5:6:138:LEU:HD23 | 5:6:234:THR:HB | 1.96 | 0.47 |
| 5:6:154:LEU:O | 5:6:211:ARG:HA | 2.14 | 0.47 |
| 5:7:17:GLU:HA | 5:7:20:GLU:OE1 | 2.14 | 0.47 |
| 5:8:11:ILE:HA | 5:8:14:GLU:OE2 | 2.14 | 0.47 |
| 6:a:31:MET:O | 6:a:35:VAL:HG12 | 2.14 | 0.47 |
| 6:d:31:MET:O | 6:d:35:VAL:HG12 | 2.14 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:e:113:ASP:CG | 6:e:133:GLU:H | 2.22 | 0.47 |
| 7:g:206:LEU:O | 7:g:210:SER:HB3 | 2.13 | 0.47 |
| 7:g:275:ASP:OD2 | 7:g:278:ALA:N | 2.42 | 0.47 |
| 7:g:452:LYS:NZ | 7:n:14:SER:HB3 | 2.29 | 0.47 |
| 7:j:8:GLN:OE1 | 7:j:20:PRO:HG3 | 2.14 | 0.47 |
| 7:k:366:TRP:HB2 | 7:k:436:LEU:HD23 | 1.96 | 0.47 |
| 7:l:206:LEU:O | 7:l:210:SER:HB3 | 2.13 | 0.47 |
| 7:l:432:HIS:O | 7:l:435:SER:OG | 2.18 | 0.47 |
| 7:l:483:PRO:HD2 | 7:l:491:THR:HA | 1.96 | 0.47 |
| 7:m:328:TYR:CZ | 7:m:330:PHE:HB2 | 2.49 | 0.47 |
| 7:n:269:LEU:HD13 | 7:n:294:PHE:HB2 | 1.95 | 0.47 |
| 7:o:28:SER:OG | 7:o:60:TYR:OH | 2.32 | 0.47 |
| 7:o:505:LYS:HA | 7:CA:522:GLN:HE22 | 1.78 | 0.47 |
| 7:r:120:PRO:O | 7:r:123:SER:OG | 2.22 | 0.47 |
| 7:AA:152:ILE:HG23 | 7:AA:165:PHE:CD2 | 2.49 | 0.47 |
| 7:AA:265:TYR:HE2 | 7:AA:289:ARG:HG3 | 1.78 | 0.47 |
| 7:BA:148:ARG:HD3 | 7:BA:170:THR:O | 2.14 | 0.47 |
| 7:BA:190:GLU:OE2 | 7:BA:201:TYR:OH | 2.30 | 0.47 |
| 7:CA:100:ASP:OD2 | 7:CA:242:ASP:N | 2.47 | 0.47 |
| 7:DA:46:ARG:NE | 7:DA:62:ASP:O | 2.33 | 0.47 |
| 7:DA:367:HIS:HA | 7:DA:432:HIS:HB2 | 1.97 | 0.47 |
| 7:EA:448:ALA:O | 7:EA:452:LYS:HG3 | 2.14 | 0.47 |
| 7:GA:328:TYR:CE2 | 7:GA:330:PHE:HB2 | 2.48 | 0.47 |
| 7:IA:259:ASN:O | 7:PA:2:SER:N | 2.47 | 0.47 |
| 7:JA:461:ALA:HB1 | 7:JA:465:LYS:HZ1 | 1.79 | 0.47 |
| 7:MA:355:ARG:O | 7:MA:359:LYS:HG3 | 2.14 | 0.47 |
| 7:MA:480:LEU:HD13 | 7:MA:512:CYS:HB3 | 1.95 | 0.47 |
| 7:NA:496:LEU:HD13 | 7:NA:510:TRP:HB3 | 1.95 | 0.47 |
| 7:PA:334:ASP:OD1 | 7:PA:335:LYS:N | 2.47 | 0.47 |
| 7:PA:463:LEU:O | 7:PA:467:MET:HG2 | 2.13 | 0.47 |
| 7:QA:230:LYS:C | 7:QA:231:LYS:HD3 | 2.39 | 0.47 |
| 7:QA:349:ALA:O | 7:QA:353:LYS:HG2 | 2.14 | 0.47 |
| 8:BB:90:GLU:OE1 | 8:BB:95:GLN:NE2 | 2.46 | 0.47 |
| 8:BB:163:TYR:CE2 | 8:BB:166:ILE:HD11 | 2.43 | 0.47 |
| 8:CB:56:ARG:HD2 | 8:CB:57:GLU:O | 2.14 | 0.47 |
| 8:DB:56:ARG:HD2 | 8:DB:57:GLU:O | 2.13 | 0.47 |
| 8:PB:111:MET:O | 8:PB:132:ILE:HG22 | 2.14 | 0.47 |
| 1:A:33:LEU:O | 1:A:37:ILE:HG12 | 2.14 | 0.47 |
| 1:A:129:PRO:HA | 1:A:132:TYR:CZ | 2.49 | 0.47 |
| 2:K:3:PRO:HD2 | 2:K:29:GLN:NE2 | 2.29 | 0.47 |
| 2:L:27:GLN:HG2 | 2:L:28:TYR:CD2 | 2.48 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:M:38:THR:O | 3:M:51:ASN:ND2 | 2.46 | 0.47 |
| 3:O:73:MET:SD | 3:O:77:LYS:NZ | 2.88 | 0.47 |
| 3:P:19:LYS:HG3 | 5:7:28:PHE:CE2 | 2.50 | 0.47 |
| 3:R:115:ASP:OD1 | 3:R:115:ASP:N | 2.41 | 0.47 |
| 4:S:57:GLU:CD | 4:S:64:LEU:HG | 2.39 | 0.47 |
| 4:W:117:GLN:NE2 | 5:2:160:LYS:HE2 | 2.29 | 0.47 |
| 4:X:34:ARG:NH2 | 5:9:58:GLU:OE2 | 2.46 | 0.47 |
| 4:X:86:ASP:HA | 5:9:47:ARG:NH2 | 2.29 | 0.47 |
| 4:X:105:ILE:O | 4:X:109:ILE:HG12 | 2.14 | 0.47 |
| 5:Y:338:ILE:HG13 | 5:Y:371:TYR:HA | 1.95 | 0.47 |
| 5:Z:189:ARG:CZ | 5:5:292:GLN:HB3 | 2.44 | 0.47 |
| 5:Z:375:ARG:O | 5:Z:460:PHE:N | 2.43 | 0.47 |
| 5:0:40:PHE:CD2 | 5:6:19:VAL:HG12 | 2.49 | 0.47 |
| 5:0:290:ASP:HB3 | 6:c:88:ILE:HB | 1.96 | 0.47 |
| 5:2:171:VAL:HG13 | 5:2:227:ILE:HD11 | 1.95 | 0.47 |
| 5:3:3:LYS:HZ3 | 5:3:56:LEU:HD11 | 1.79 | 0.47 |
| 5:3:153:PHE:CE1 | 5:3:214:ASP:HB3 | 2.49 | 0.47 |
| 5:8:9:ASP:HA | 5:8:12:ARG:CZ | 2.43 | 0.47 |
| 5:9:68:SER:HB3 | 5:9:206:GLU:HG2 | 1.97 | 0.47 |
| 6:a:184:PHE:CZ | 6:a:192:LEU:HD11 | 2.49 | 0.47 |
| 6:d:97:ILE:O | 6:d:100:THR:OG1 | 2.26 | 0.47 |
| 7:g:22:ASN:HD21 | 7:g:173:THR:HG21 | 1.80 | 0.47 |
| 7:h:8:GLN:OE1 | 7:h:20:PRO:HG3 | 2.13 | 0.47 |
| 7:h:246:ILE:HB | 7:h:251:TYR:CZ | 2.49 | 0.47 |
| 7:h:517:VAL:O | 7:h:517:VAL:HG12 | 2.13 | 0.47 |
| 7:i:494:TYR:CE2 | 7:i:496:LEU:HB2 | 2.49 | 0.47 |
| 7:j:81:HIS:O | 7:j:84:GLU:HG2 | 2.14 | 0.47 |
| 7:k:517:VAL:O | 7:k:517:VAL:HG12 | 2.14 | 0.47 |
| 7:l:3:GLN:HG2 | 7:l:4:TYR:CD1 | 2.50 | 0.47 |
| 7:l:81:HIS:O | 7:l:84:GLU:HG2 | 2.14 | 0.47 |
| 7:l:379:ALA:HB2 | 7:l:412:GLN:HA | 1.96 | 0.47 |
| 7:l:511:ALA:HB1 | 7:r:528:ILE:HG23 | 1.96 | 0.47 |
| 7:o:76:PHE:HA | 7:o:79:ILE:HG12 | 1.96 | 0.47 |
| 7:p:59:ASN:O | 7:p:63:VAL:HG12 | 2.14 | 0.47 |
| 7:r:44:PHE:HE1 | 7:r:78:PRO:HB2 | 1.79 | 0.47 |
| 7:AA:246:ILE:HB | 7:AA:251:TYR:CZ | 2.49 | 0.47 |
| 7:AA:299:PRO:HA | 7:AA:327:HIS:NE2 | 2.29 | 0.47 |
| 7:BA:443:PHE:O | 7:BA:446:GLN:NE2 | 2.47 | 0.47 |
| 7:EA:148:ARG:HD3 | 7:EA:170:THR:O | 2.14 | 0.47 |
| 7:EA:246:ILE:HB | 7:EA:251:TYR:CZ | 2.49 | 0.47 |
| 7:FA:148:ARG:HD3 | 7:FA:170:THR:O | 2.14 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 7:FA:527:LEU:HG | 7:FA:529:LYS:N | 2.30 | 0.47 |
| 7:GA:259:ASN:O | 7:NA:2:SER:N | 2.47 | 0.47 |
| 7:IA:290:LEU:O | 7:IA:290:LEU:HD23 | 2.13 | 0.47 |
| 7:LA:38:TRP:HB3 | 7:LA:350:TYR:CZ | 2.48 | 0.47 |
| 7:LA:43:VAL:HG13 | 7:LA:243:GLN:HB3 | 1.96 | 0.47 |
| 7:LA:206:LEU:HA | 7:LA:210:SER:HB3 | 1.96 | 0.47 |
| 7:MA:7:GLN:NE2 | 7:MA:17:ALA:HB2 | 2.29 | 0.47 |
| 7:MA:529:LYS:HD2 | 7:NA:23:ALA:HB1 | 1.95 | 0.47 |
| 7:PA:7:GLN:NE2 | 7:PA:17:ALA:HB2 | 2.29 | 0.47 |
| 7:QA:139:ASP:OD2 | 7:QA:212:TYR:HA | 2.14 | 0.47 |
| 7:RA:6:ILE:HD12 | 7:RA:16:VAL:HG12 | 1.96 | 0.47 |
| 8:BB:56:ARG:HD2 | 8:BB:57:GLU:O | 2.14 | 0.47 |
| 8:EB:133:GLU:OE1 | 8:EB:133:GLU:N | 2.46 | 0.47 |
| 8:GB:25:GLU:OE2 | 8:LB:3:HIS:HB2 | 2.14 | 0.47 |
| 8:HB:87:GLU:HB2 | 8:HB:93:ILE:HD12 | 1.95 | 0.47 |
| 8:PB:82:GLN:NE2 | 8:PB:83:VAL:O | 2.47 | 0.47 |
| 1:C:33:LEU:O | 1:C:37:ILE:HG12 | 2.14 | 0.47 |
| 1:F:129:PRO:HA | 1:F:132:TYR:CZ | 2.49 | 0.47 |
| 2:I:149:VAL:HG22 | 2:I:177:LEU:HD12 | 1.96 | 0.47 |
| 2:K:185:SER:O | 2:K:189:VAL:HG12 | 2.14 | 0.47 |
| 3:O:9:PRO:HD2 | 7:j:23:ALA:HB1 | 1.96 | 0.47 |
| 3:R:9:PRO:HD2 | 7:g:23:ALA:HB1 | 1.95 | 0.47 |
| 4:U:105:ILE:O | 4:U:109:ILE:HG12 | 2.14 | 0.47 |
| 4:V:105:ILE:HA | 4:V:108:MET:HG2 | 1.96 | 0.47 |
| 5:Z:338:ILE:HG13 | 5:Z:371:TYR:HA | 1.95 | 0.47 |
| 5:3:432:TRP:HA | 5:3:435:ILE:HG12 | 1.96 | 0.47 |
| 5:9:410:ARG:NH1 | 5:9:411:ASP:OD1 | 2.47 | 0.47 |
| 6:a:113:ASP:CG | 6:a:133:GLU:H | 2.22 | 0.47 |
| 6:c:24:ALA:O | 6:c:28:GLN:HG2 | 2.15 | 0.47 |
| 6:f:184:PHE:CZ | 6:f:192:LEU:HD11 | 2.49 | 0.47 |
| 7:h:275:ASP:OD2 | 7:h:278:ALA:N | 2.42 | 0.47 |
| 7:i:41:ILE:HA | 7:i:94:VAL:HG23 | 1.95 | 0.47 |
| 7:i:81:HIS:O | 7:i:84:GLU:HG2 | 2.14 | 0.47 |
| 7:j:366:TRP:HB2 | 7:j:436:LEU:HD23 | 1.96 | 0.47 |
| 7:k:426:ASN:HA | 7:l:196:MET:SD | 2.55 | 0.47 |
| 7:l:22:ASN:HD21 | 7:l:173:THR:HG21 | 1.79 | 0.47 |
| 7:n:334:ASP:OD2 | 7:n:337:THR:OG1 | 2.27 | 0.47 |
| 7:n:436:LEU:O | 7:n:440:ILE:HG12 | 2.14 | 0.47 |
| 7:p:378:ILE:HD11 | 7:p:380:ARG:NE | 2.28 | 0.47 |
| 7:p:438:ASN:O | 7:p:441:SER:OG | 2.25 | 0.47 |
| 7:q:436:LEU:O | 7:q:440:ILE:HG12 | 2.14 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:q:440:ILE:HG22 | 7:q:474:PHE:CZ | 2.50 | 0.47 |
| 7:BA:60:TYR:O | 7:BA:64:LEU:HB2 | 2.12 | 0.47 |
| 7:CA:303:TYR:CD2 | 7:CA:392:PRO:HA | 2.49 | 0.47 |
| 7:CA:443:PHE:O | 7:CA:446:GLN:NE2 | 2.47 | 0.47 |
| 7:DA:152:ILE:HG23 | 7:DA:165:PHE:CD2 | 2.50 | 0.47 |
| 7:DA:202:LEU:HB2 | 7:DA:203:PRO:HD3 | 1.96 | 0.47 |
| 7:EA:46:ARG:HG2 | 7:EA:141:ASP:HB2 | 1.96 | 0.47 |
| 7:EA:152:ILE:HG23 | 7:EA:165:PHE:CD2 | 2.49 | 0.47 |
| 7:FA:449:ARG:NH2 | 7:LA:408:GLY:HA2 | 2.29 | 0.47 |
| 7:GA:303:TYR:HB3 | 7:GA:390:ASP:OD2 | 2.15 | 0.47 |
| 7:IA:38:TRP:HB3 | 7:IA:350:TYR:CZ | 2.49 | 0.47 |
| 7:IA:43:VAL:HG13 | 7:IA:243:GLN:HB3 | 1.96 | 0.47 |
| 7:IA:316:LEU:HG | 7:IA:423:THR:HG21 | 1.97 | 0.47 |
| 7:KA:307:LEU:O | 7:KA:310:VAL:HG12 | 2.14 | 0.47 |
| 7:MA:38:TRP:HB3 | 7:MA:350:TYR:CZ | 2.49 | 0.47 |
| 7:NA:6:ILE:HD12 | 7:NA:16:VAL:HG12 | 1.96 | 0.47 |
| 7:NA:79:ILE:HG13 | 7:NA:80:ARG:N | 2.28 | 0.47 |
| 7:NA:81:HIS:HD1 | 7:NA:271:LEU:HA | 1.78 | 0.47 |
| 7:OA:398:VAL:HG21 | 7:PA:12:ASN:HB3 | 1.95 | 0.47 |
| 7:PA:493:PRO:HG2 | 7:PA:494:TYR:CD1 | 2.49 | 0.47 |
| 7:QA:378:ILE:HG13 | 7:QA:379:ALA:H | 1.80 | 0.47 |
| 7:QA:480:LEU:HD13 | 7:QA:512:CYS:HB3 | 1.96 | 0.47 |
| 7:RA:38:TRP:HB3 | 7:RA:350:TYR:CZ | 2.49 | 0.47 |
| 7:RA:201:TYR:CD2 | 7:RA:203:PRO:HD2 | 2.49 | 0.47 |
| 7:RA:438:ASN:O | 7:RA:442:ARG:HG3 | 2.14 | 0.47 |
| 8:AB:111:MET:HE1 | 8:AB:134:MET:HB2 | 1.95 | 0.47 |
| 8:HB:54:MET:HB3 | 8:HB:166:ILE:HG12 | 1.96 | 0.47 |
| 8:IB:68:LYS:NZ | 8:JB:164:ASN:HA | 2.29 | 0.47 |
| 8:KB:76:ARG:HH22 | 8:LB:160:ARG:NH2 | 2.12 | 0.47 |
| 8:LB:5:ASN:OD1 | 8:LB:5:ASN:N | 2.47 | 0.47 |
| 8:MB:87:GLU:OE2 | 8:RB:27:LEU:HG | 2.15 | 0.47 |
| 1:E:129:PRO:HA | 1:E:132:TYR:CZ | 2.49 | 0.47 |
| 2:G:3:PRO:HD2 | 2:G:29:GLN:NE2 | 2.30 | 0.47 |
| 3:M:31:ARG:NH2 | 5:4:32:GLN:HG2 | 2.30 | 0.47 |
| 3:N:77:LYS:HA | 3:N:80:VAL:HG22 | 1.96 | 0.47 |
| 3:R:74:LEU:HA | 3:R:77:LYS:NZ | 2.29 | 0.47 |
| 4:S:22:ARG:HH12 | 5:4:5:THR:HG23 | 1.79 | 0.47 |
| 4:X:105:ILE:HA | 4:X:108:MET:HG2 | 1.96 | 0.47 |
| 4:X:117:GLN:NE2 | 5:3:160:LYS:HE2 | 2.29 | 0.47 |
| 5:Y:40:PHE:CD2 | 5:4:19:VAL:HG12 | 2.50 | 0.47 |
| 5:Z:14:GLU:HA | 5:Z:17:GLU:OE2 | 2.14 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 5:Z:40:PHE:CD2 | 5:5:19:VAL:HG12 | 2.50 | 0.47 |
| 5:Z:387:ILE:HG13 | 5:Z:441:PHE:HA | 1.97 | 0.47 |
| 5:1:432:TRP:HA | 5:1:435:ILE:HG12 | 1.96 | 0.47 |
| 5:3:95:ALA:HA | 5:3:259:ILE:HA | 1.95 | 0.47 |
| 5:3:387:ILE:HG13 | 5:3:441:PHE:HA | 1.97 | 0.47 |
| 5:7:138:LEU:HD23 | 5:7:234:THR:HB | 1.96 | 0.47 |
| 5:7:410:ARG:NH1 | 5:7:411:ASP:OD1 | 2.47 | 0.47 |
| 5:9:154:LEU:O | 5:9:211:ARG:HA | 2.14 | 0.47 |
| 7:g:310:VAL:HG22 | 7:g:316:LEU:HG | 1.97 | 0.47 |
| 7:h:47:GLY:N | 7:h:139:ASP:O | 2.47 | 0.47 |
| 7:h:199:LEU:O | 7:h:209:ARG:NH2 | 2.47 | 0.47 |
| 7:h:406:SER:OG | 7:h:416:ASP:OD2 | 2.17 | 0.47 |
| 7:i:22:ASN:HD21 | 7:i:173:THR:HG21 | 1.79 | 0.47 |
| 7:j:192:ALA:O | 7:j:199:LEU:HD12 | 2.14 | 0.47 |
| 7:l:8:GLN:OE1 | 7:l:20:PRO:HG3 | 2.13 | 0.47 |
| 7:l:152:ILE:O | 7:l:231:LYS:NZ | 2.24 | 0.47 |
| 7:l:246:ILE:HB | 7:l:251:TYR:CZ | 2.49 | 0.47 |
| 7:m:28:SER:OG | 7:m:60:TYR:OH | 2.33 | 0.47 |
| 7:n:59:ASN:O | 7:n:63:VAL:HG12 | 2.14 | 0.47 |
| 7:o:434:PRO:HA | 7:o:437:MET:HE3 | 1.97 | 0.47 |
| 7:AA:303:TYR:CD2 | 7:AA:392:PRO:HA | 2.49 | 0.47 |
| 7:CA:202:LEU:HB2 | 7:CA:203:PRO:HD3 | 1.96 | 0.47 |
| 7:CA:246:ILE:HB | 7:CA:251:TYR:CZ | 2.49 | 0.47 |
| 7:CA:519:ARG:NH1 | 7:DA:12:ASN:HA | 2.29 | 0.47 |
| 7:DA:246:ILE:HB | 7:DA:251:TYR:CZ | 2.49 | 0.47 |
| 7:EA:310:VAL:O | 7:EA:313:THR:OG1 | 2.27 | 0.47 |
| 7:FA:367:HIS:HA | 7:FA:432:HIS:HB2 | 1.97 | 0.47 |
| 7:HA:22:ASN:OD1 | 7:HA:23:ALA:N | 2.47 | 0.47 |
| 7:HA:459:THR:O | 7:HA:463:LEU:HD23 | 2.15 | 0.47 |
| 7:IA:274:TYR:HB3 | 7:IA:298:LYS:HD2 | 1.96 | 0.47 |
| 7:JA:8:GLN:OE1 | 7:JA:8:GLN:N | 2.33 | 0.47 |
| 7:JA:172:THR:HA | 7:JA:177:VAL:O | 2.15 | 0.47 |
| 7:JA:186:VAL:HB | 7:JA:202:LEU:HD23 | 1.97 | 0.47 |
| 7:JA:459:THR:O | 7:JA:463:LEU:HD23 | 2.15 | 0.47 |
| 7:LA:38:TRP:CE2 | 7:LA:91:GLY:HA3 | 2.50 | 0.47 |
| 7:LA:172:THR:HA | 7:LA:177:VAL:O | 2.15 | 0.47 |
| 7:LA:186:VAL:HB | 7:LA:202:LEU:HD23 | 1.97 | 0.47 |
| 7:LA:316:LEU:HG | 7:LA:423:THR:HG21 | 1.97 | 0.47 |
| 7:MA:43:VAL:HG11 | 7:MA:75:GLN:HE21 | 1.79 | 0.47 |
| 7:MA:151:THR:HG23 | 7:MA:231:LYS:HG3 | 1.95 | 0.47 |
| 7:MA:210:SER:O | 7:MA:214:ARG:NE | 2.45 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 7:MA:438:ASN:O | 7:MA:442:ARG:HG3 | 2.14 | 0.47 |
| 7:NA:201:TYR:CD2 | 7:NA:203:PRO:HD2 | 2.49 | 0.47 |
| 7:OA:79:ILE:HG13 | 7:OA:80:ARG:N | 2.28 | 0.47 |
| 7:OA:139:ASP:OD2 | 7:OA:212:TYR:HA | 2.15 | 0.47 |
| 7:PA:139:ASP:OD2 | 7:PA:212:TYR:HA | 2.15 | 0.47 |
| 8:AB:93:ILE:HG13 | 8:AB:94:LEU:HD22 | 1.95 | 0.47 |
| 8:CB:26:ARG:NH2 | 8:CB:27:LEU:O | 2.38 | 0.47 |
| 8:IB:11:LYS:NZ | 8:JB:121:GLY:O | 2.30 | 0.47 |
| 8:IB:80:GLU:OE2 | 8:IB:160:ARG:HB2 | 2.12 | 0.47 |
| 8:KB:87:GLU:HB2 | 8:KB:93:ILE:HD12 | 1.95 | 0.47 |
| 8:MB:111:MET:HE3 | 8:MB:112:ALA:H | 1.78 | 0.47 |
| 8:QB:132:ILE:HD12 | 8:QB:168:TRP:HB3 | 1.96 | 0.47 |
| 1:B:56:LEU:HB3 | 1:B:59:ALA:HB2 | 1.95 | 0.47 |
| 1:F:70:ASP:OD1 | 1:F:71:TYR:N | 2.41 | 0.47 |
| 2:G:22:THR:O | 2:G:138:LEU:HD12 | 2.13 | 0.47 |
| 3:N:38:THR:O | 3:N:51:ASN:ND2 | 2.47 | 0.47 |
| 3:O:74:LEU:HA | 3:O:77:LYS:NZ | 2.29 | 0.47 |
| 3:P:60:PRO:O | 3:P:67:GLN:NE2 | 2.39 | 0.47 |
| 4:S:35:LYS:NZ | 5:4:62:SER:O | 2.31 | 0.47 |
| 4:T:49:THR:OG1 | 4:T:99:LEU:N | 2.47 | 0.47 |
| 4:X:19:TYR:HA | 4:X:106:ARG:HH12 | 1.79 | 0.47 |
| 4:X:48:LEU:HB3 | 4:X:98:LYS:HB3 | 1.96 | 0.47 |
| 5:Y:432:TRP:HA | 5:Y:435:ILE:HG12 | 1.96 | 0.47 |
| 5:Z:243:GLY:H | 5:Z:263:THR:HG23 | 1.79 | 0.47 |
| 5:1:147:VAL:HG13 | 5:1:224:GLY:H | 1.80 | 0.47 |
| 5:2:14:GLU:HA | 5:2:17:GLU:OE2 | 2.14 | 0.47 |
| 5:3:292:GLN:OE1 | 6:f:91:LYS:HE3 | 2.15 | 0.47 |
| 5:4:25:TRP:HD1 | 5:4:28:PHE:CE2 | 2.32 | 0.47 |
| 5:4:88:SER:OG | 5:4:134:GLU:OE2 | 2.27 | 0.47 |
| 5:5:8:LYS:O | 5:5:12:ARG:HG3 | 2.14 | 0.47 |
| 5:8:376:LYS:HB3 | 5:8:462:TYR:HE1 | 1.79 | 0.47 |
| 6:a:97:ILE:O | 6:a:100:THR:OG1 | 2.26 | 0.47 |
| 7:h:41:ILE:HA | 7:h:94:VAL:HG23 | 1.96 | 0.47 |
| 7:h:81:HIS:O | 7:h:84:GLU:HG2 | 2.14 | 0.47 |
| 7:i:246:ILE:HB | 7:i:251:TYR:CZ | 2.49 | 0.47 |
| 7:j:199:LEU:HG | 7:j:201:TYR:H | 1.78 | 0.47 |
| 7:k:3:GLN:HG2 | 7:k:4:TYR:CD1 | 2.50 | 0.47 |
| 7:l:199:LEU:HG | 7:l:201:TYR:H | 1.80 | 0.47 |
| 7:m:67:PRO:HB3 | 7:m:79:ILE:HD12 | 1.97 | 0.47 |
| 7:n:326:TYR:HD2 | 7:n:346:SER:HA | 1.80 | 0.47 |
| 7:n:440:ILE:HG22 | 7:n:474:PHE:CZ | 2.50 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:o:186:VAL:HG22 | 7:o:202:LEU:HD23 | 1.96 | 0.47 |
| 7:p:67:PRO:HB3 | 7:p:79:ILE:HD12 | 1.97 | 0.47 |
| 7:p:326:TYR:HD2 | 7:p:346:SER:HA | 1.80 | 0.47 |
| 7:q:67:PRO:HB3 | 7:q:79:ILE:HD12 | 1.97 | 0.47 |
| 7:r:356:GLY:HA3 | 7:r:375:ARG:HD3 | 1.96 | 0.47 |
| 7:BA:100:ASP:OD2 | 7:BA:242:ASP:N | 2.47 | 0.47 |
| 7:BA:152:ILE:HG23 | 7:BA:165:PHE:CD2 | 2.50 | 0.47 |
| 7:BA:299:PRO:HA | 7:BA:327:HIS:NE2 | 2.29 | 0.47 |
| 7:CA:267:ALA:HB3 | 7:CA:350:TYR:HE2 | 1.78 | 0.47 |
| 7:CA:380:ARG:HB2 | 7:CA:383:ILE:HD11 | 1.97 | 0.47 |
| 7:CA:446:GLN:HA | 7:CA:449:ARG:HG2 | 1.96 | 0.47 |
| 7:DA:380:ARG:HB2 | 7:DA:383:ILE:HD11 | 1.96 | 0.47 |
| 7:EA:443:PHE:O | 7:EA:446:GLN:NE2 | 2.47 | 0.47 |
| 7:FA:152:ILE:HG23 | 7:FA:165:PHE:CD2 | 2.49 | 0.47 |
| 7:FA:263:TYR:C | 7:FA:264:MET:HE2 | 2.38 | 0.47 |
| 7:HA:172:THR:HA | 7:HA:177:VAL:O | 2.15 | 0.47 |
| 7:HA:333:LYS:HE2 | 7:HA:340:ARG:HH11 | 1.80 | 0.47 |
| 7:IA:401:ARG:NE | 7:IA:422:CYS:O | 2.48 | 0.47 |
| 7:MA:158:ASP:OD1 | 7:MA:164:ARG:NE | 2.39 | 0.47 |
| 7:NA:230:LYS:C | 7:NA:231:LYS:HD3 | 2.39 | 0.47 |
| 7:OA:38:TRP:HB3 | 7:OA:350:TYR:CZ | 2.49 | 0.47 |
| 7:OA:46:ARG:CZ | 7:OA:142:PRO:HD3 | 2.45 | 0.47 |
| 7:OA:189:ALA:HB3 | 7:OA:192:ALA:HB2 | 1.96 | 0.47 |
| 7:OA:496:LEU:HD13 | 7:OA:510:TRP:HB3 | 1.95 | 0.47 |
| 7:PA:6:ILE:HD12 | 7:PA:16:VAL:HG12 | 1.96 | 0.47 |
| 7:QA:81:HIS:HD1 | 7:QA:271:LEU:HA | 1.78 | 0.47 |
| 7:RA:81:HIS:HD1 | 7:RA:271:LEU:HA | 1.78 | 0.47 |
| 8:AB:71:GLN:OE1 | 8:BB:106:TYR:OH | 2.32 | 0.47 |
| 8:AB:115:PRO:HG2 | 8:AB:118:LYS:HG2 | 1.97 | 0.47 |
| 8:BB:111:MET:HE1 | 8:BB:134:MET:HB2 | 1.95 | 0.47 |
| 8:BB:115:PRO:HG2 | 8:BB:118:LYS:HG2 | 1.97 | 0.47 |
| 8:CB:154:ALA:HB2 | 8:HB:59:VAL:HG11 | 1.95 | 0.47 |
| 8:EB:115:PRO:HG2 | 8:EB:118:LYS:HG2 | 1.97 | 0.47 |
| 8:FB:115:PRO:HG2 | 8:FB:118:LYS:HG2 | 1.97 | 0.47 |
| 8:HB:37:ALA:O | 8:HB:39:HIS:ND1 | 2.47 | 0.47 |
| 8:KB:32:PHE:HA | 8:KB:113:ALA:HA | 1.96 | 0.47 |
| 8:LB:37:ALA:O | 8:LB:39:HIS:ND1 | 2.46 | 0.47 |
| 8:LB:47:ARG:NH2 | 8:QB:64:PRO:HG3 | 2.29 | 0.47 |
| 8:NB:13:ILE:HG13 | 8:NB:14:LYS:HD2 | 1.95 | 0.47 |
| 8:OB:81:ILE:HB | 8:OB:161:ILE:HG23 | 1.96 | 0.47 |
| 8:OB:116:GLU:HA | 8:OB:119:SER:HG | 1.79 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 8:PB:13:ILE:HG13 | 8:PB:14:LYS:HD2 | 1.96 | 0.47 |
| 8:QB:81:ILE:HB | 8:QB:161:ILE:HG23 | 1.95 | 0.47 |
| 1:B:84:ASN:ND2 | 1:C:91:ARG:O | 2.48 | 0.47 |
| 1:E:29:GLU:OE1 | 1:E:29:GLU:N | 2.39 | 0.47 |
| 2:H:185:SER:O | 2:H:189:VAL:HG12 | 2.14 | 0.47 |
| 2:I:22:THR:O | 2:I:138:LEU:HD12 | 2.13 | 0.47 |
| 2:I:156:PHE:HB3 | 2:I:173:VAL:HG22 | 1.97 | 0.47 |
| 2:J:132:ILE:HB | 2:J:135:ARG:HH12 | 1.80 | 0.47 |
| 4:S:31:ALA:O | 4:S:34:ARG:HG3 | 2.15 | 0.47 |
| 4:T:73:GLU:CD | 4:T:76:TRP:HE1 | 2.23 | 0.47 |
| 4:V:22:ARG:HH12 | 5:7:5:THR:HG23 | 1.80 | 0.47 |
| 4:X:33:LEU:HD11 | 4:X:112:PHE:HD2 | 1.79 | 0.47 |
| 5:Z:111:ILE:HG22 | 5:Z:247:THR:O | 2.15 | 0.47 |
| 5:2:292:GLN:OE1 | 6:e:91:LYS:HE3 | 2.14 | 0.47 |
| 5:3:56:LEU:HD22 | 6:f:41:ARG:NH2 | 2.28 | 0.47 |
| 5:4:376:LYS:HB3 | 5:4:462:TYR:HE1 | 1.80 | 0.47 |
| 5:6:376:LYS:HB3 | 5:6:462:TYR:HE1 | 1.79 | 0.47 |
| 5:9:14:GLU:HA | 5:9:17:GLU:HG3 | 1.95 | 0.47 |
| 5:9:36:MET:SD | 5:9:37:LEU:N | 2.88 | 0.47 |
| 5:9:62:SER:HA | 5:9:280:ARG:HD2 | 1.96 | 0.47 |
| 5:9:196:GLN:HB3 | 5:9:219:GLN:HG2 | 1.96 | 0.47 |
| 6:c:113:ASP:CG | 6:c:133:GLU:H | 2.22 | 0.47 |
| 7:i:44:PHE:O | 7:i:95:ARG:NH2 | 2.48 | 0.47 |
| 7:k:206:LEU:O | 7:k:210:SER:HB3 | 2.14 | 0.47 |
| 7:q:99:ASP:N | 7:q:99:ASP:OD1 | 2.46 | 0.47 |
| 7:DA:92:TYR:CE2 | 7:DA:263:TYR:HB3 | 2.50 | 0.47 |
| 7:DA:437:MET:HA | 7:DA:440:ILE:HG12 | 1.97 | 0.47 |
| 7:FA:299:PRO:HA | 7:FA:327:HIS:NE2 | 2.30 | 0.47 |
| 7:GA:172:THR:HA | 7:GA:177:VAL:O | 2.15 | 0.47 |
| 7:GA:206:LEU:HA | 7:GA:210:SER:HB3 | 1.96 | 0.47 |
| 7:HA:449:ARG:NH2 | 7:NA:410:SER:OG | 2.39 | 0.47 |
| 7:LA:333:LYS:HE2 | 7:LA:340:ARG:HH11 | 1.80 | 0.47 |
| 7:PA:355:ARG:O | 7:PA:359:LYS:HG3 | 2.14 | 0.47 |
| 7:PA:480:LEU:HD13 | 7:PA:512:CYS:HB3 | 1.95 | 0.47 |
| 7:RA:46:ARG:CZ | 7:RA:142:PRO:HD3 | 2.45 | 0.47 |
| 7:RA:281:ALA:HA | 7:RA:284:LYS:HG2 | 1.97 | 0.47 |
| 7:RA:378:ILE:HG13 | 7:RA:379:ALA:H | 1.79 | 0.47 |
| 8:CB:26:ARG:NE | 8:CB:27:LEU:H | 2.13 | 0.47 |
| 8:DB:28:VAL:HG13 | 8:DB:31:GLU:H | 1.78 | 0.47 |
| 8:EB:62:TYR:HB3 | 8:EB:68:LYS:NZ | 2.30 | 0.47 |
| 8:HB:3:HIS:HB2 | 8:IB:25:GLU:OE2 | 2.15 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 8:IB:26:ARG:HH12 | 8:OB:69:PHE:HE2 | 1.63 | 0.47 |
| 8:KB:33:LEU:HD12 | 8:KB:114:THR:HG21 | 1.96 | 0.47 |
| 8:LB:137:CYS:HB3 | 8:LB:161:ILE:HD11 | 1.95 | 0.47 |
| 8:MB:82:GLN:NE2 | 8:MB:83:VAL:O | 2.47 | 0.47 |
| 8:MB:116:GLU:OE2 | 8:RB:9:ASN:N | 2.35 | 0.47 |
| 8:NB:29:SER:OG | 8:OB:150:ASP:OD2 | 2.33 | 0.47 |
| 8:QB:52:PRO:HA | 8:QB:81:ILE:HD11 | 1.96 | 0.47 |
| 1:B:87:GLN:HG2 | 1:B:88:PRO:HD2 | 1.96 | 0.47 |
| 1:D:47:TRP:HA | 1:E:167:ARG:HH12 | 1.80 | 0.47 |
| 2:G:166:GLY:HA3 | 2:L:18:TYR:CE2 | 2.50 | 0.47 |
| 2:I:157:ASP:OD1 | 2:I:158:LEU:N | 2.48 | 0.47 |
| 2:J:185:SER:O | 2:J:189:VAL:HG12 | 2.14 | 0.47 |
| 2:K:18:TYR:CE2 | 2:L:166:GLY:HA3 | 2.50 | 0.47 |
| 2:L:149:VAL:HG22 | 2:L:177:LEU:HD12 | 1.96 | 0.47 |
| 3:N:117:VAL:HG21 | 7:h:521:ILE:HA | 1.97 | 0.47 |
| 3:O:74:LEU:HD12 | 3:O:75:LEU:N | 2.30 | 0.47 |
| 3:R:117:VAL:HG21 | 7:l:521:ILE:HA | 1.97 | 0.47 |
| 4:X:22:ARG:HH12 | 5:9:5:THR:HG23 | 1.79 | 0.47 |
| 5:Y:240:LEU:HB3 | 5:Y:267:ILE:HD12 | 1.97 | 0.47 |
| 5:Y:286:TYR:HD2 | 5:Y:301:TYR:HE2 | 1.62 | 0.47 |
| 5:Y:311:SER:O | 5:Y:419:ARG:NH1 | 2.47 | 0.47 |
| 5:Y:387:ILE:HG13 | 5:Y:441:PHE:HA | 1.97 | 0.47 |
| 5:Z:3:LYS:HZ3 | 5:Z:56:LEU:HD11 | 1.79 | 0.47 |
| 5:Z:292:GLN:OE1 | 6:b:91:LYS:HE3 | 2.14 | 0.47 |
| 5:0:66:ARG:HB2 | 5:6:1:MET:O | 2.15 | 0.47 |
| 5:1:375:ARG:O | 5:1:460:PHE:N | 2.43 | 0.47 |
| 5:2:184:SER:HB3 | 5:2:198:TYR:CZ | 2.50 | 0.47 |
| 5:3:40:PHE:CD2 | 5:9:19:VAL:HG12 | 2.50 | 0.47 |
| 5:3:243:GLY:H | 5:3:263:THR:HG23 | 1.79 | 0.47 |
| 5:3:338:ILE:HG13 | 5:3:371:TYR:HA | 1.95 | 0.47 |
| 5:4:167:TYR:CE1 | 5:4:168:LYS:HE2 | 2.50 | 0.47 |
| 5:5:196:GLN:HB3 | 5:5:219:GLN:HG2 | 1.96 | 0.47 |
| 5:5:316:TRP:HE3 | 5:5:320:GLN:HG2 | 1.80 | 0.47 |
| 5:5:387:ILE:O | 5:5:475:GLU:N | 2.30 | 0.47 |
| 5:6:8:LYS:O | 5:6:12:ARG:HG3 | 2.14 | 0.47 |
| 5:6:11:ILE:HA | 5:6:14:GLU:OE2 | 2.14 | 0.47 |
| 5:6:68:SER:HB3 | 5:6:206:GLU:HG2 | 1.96 | 0.47 |
| 5:6:316:TRP:HE3 | 5:6:320:GLN:HG2 | 1.80 | 0.47 |
| 5:7:36:MET:SD | 5:7:37:LEU:N | 2.88 | 0.47 |
| 5:7:68:SER:HB3 | 5:7:206:GLU:HG2 | 1.97 | 0.47 |
| 5:7:334:ASN:HB3 | 5:7:367:LYS:HD3 | 1.97 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 5:7:387:ILE:HG12 | 5:7:473:SER:O | 2.14 | 0.47 |
| 5:8:8:LYS:O | 5:8:12:ARG:HG3 | 2.14 | 0.47 |
| 5:8:36:MET:SD | 5:8:37:LEU:N | 2.88 | 0.47 |
| 5:8:196:GLN:HB3 | 5:8:219:GLN:HG2 | 1.96 | 0.47 |
| 5:9:90:MET:O | 5:9:265:THR:HB | 2.15 | 0.47 |
| 5:9:376:LYS:HB3 | 5:9:462:TYR:HE1 | 1.79 | 0.47 |
| 6:b:24:ALA:O | 6:b:28:GLN:HG2 | 2.15 | 0.47 |
| 6:d:125:PRO:O | 6:d:128:THR:OG1 | 2.30 | 0.47 |
| 6:d:151:ARG:HA | 6:d:197:VAL:HB | 1.96 | 0.47 |
| 6:e:47:SER:O | 6:e:51:MET:HG3 | 2.15 | 0.47 |
| 6:f:47:SER:O | 6:f:51:MET:HG3 | 2.15 | 0.47 |
| 7:g:47:GLY:N | 7:g:139:ASP:O | 2.47 | 0.47 |
| 7:g:305:GLU:C | 7:g:308:PRO:HD2 | 2.40 | 0.47 |
| 7:g:366:TRP:HB2 | 7:g:436:LEU:HD23 | 1.96 | 0.47 |
| 7:g:437:MET:HG2 | 7:n:21:ILE:HG12 | 1.97 | 0.47 |
| 7:h:69:LYS:O | 7:h:72:SER:OG | 2.17 | 0.47 |
| 7:h:427:TYR:CD2 | 7:n:529:LYS:HB2 | 2.49 | 0.47 |
| 7:j:84:GLU:O | 7:j:88:GLN:NE2 | 2.40 | 0.47 |
| 7:j:246:ILE:HB | 7:j:251:TYR:CZ | 2.49 | 0.47 |
| 7:j:310:VAL:HG22 | 7:j:316:LEU:HG | 1.97 | 0.47 |
| 7:k:47:GLY:N | 7:k:139:ASP:O | 2.47 | 0.47 |
| 7:k:483:PRO:HD2 | 7:k:491:THR:HA | 1.96 | 0.47 |
| 7:l:41:ILE:HA | 7:l:94:VAL:HG23 | 1.95 | 0.47 |
| 7:l:44:PHE:O | 7:l:95:ARG:NH2 | 2.48 | 0.47 |
| 7:m:39:ALA:HB2 | 7:m:92:TYR:HB2 | 1.96 | 0.47 |
| 7:n:39:ALA:HB2 | 7:n:92:TYR:HB2 | 1.97 | 0.47 |
| 7:n:67:PRO:HB3 | 7:n:79:ILE:HD12 | 1.97 | 0.47 |
| 7:o:99:ASP:OD1 | 7:o:99:ASP:N | 2.46 | 0.47 |
| 7:o:356:GLY:HA3 | 7:o:375:ARG:HD3 | 1.96 | 0.47 |
| 7:o:492:GLU:H | 7:o:492:GLU:CD | 2.21 | 0.47 |
| 7:p:99:ASP:OD1 | 7:p:99:ASP:N | 2.46 | 0.47 |
| 7:p:328:TYR:CZ | 7:p:330:PHE:HB2 | 2.49 | 0.47 |
| 7:p:334:ASP:HB3 | 7:p:339:SER:H | 1.78 | 0.47 |
| 7:p:480:LEU:HD13 | 7:p:512:CYS:HB2 | 1.97 | 0.47 |
| 7:q:39:ALA:HB2 | 7:q:92:TYR:HB2 | 1.97 | 0.47 |
| 7:q:186:VAL:HG22 | 7:q:202:LEU:HD23 | 1.96 | 0.47 |
| 7:q:318:THR:HA | 7:q:424:GLN:HE22 | 1.80 | 0.47 |
| 7:r:318:THR:HA | 7:r:424:GLN:HE22 | 1.80 | 0.47 |
| 7:AA:92:TYR:CE2 | 7:AA:263:TYR:HB3 | 2.50 | 0.47 |
| 7:AA:147:THR:O | 7:AA:171:GLN:NE2 | 2.48 | 0.47 |
| 7:AA:367:HIS:HA | 7:AA:432:HIS:HB2 | 1.96 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:BA:46:ARG:HH21 | 7:BA:63:VAL:HA | 1.80 | 0.47 |
| 7:BA:147:THR:O | 7:BA:171:GLN:NE2 | 2.48 | 0.47 |
| 7:BA:380:ARG:HB2 | 7:BA:383:ILE:HD11 | 1.96 | 0.47 |
| 7:CA:46:ARG:NE | 7:CA:62:ASP:O | 2.33 | 0.47 |
| 7:CA:152:ILE:HG23 | 7:CA:165:PHE:CD2 | 2.50 | 0.47 |
| 7:CA:355:ARG:HD2 | 7:CA:356:GLY:N | 2.29 | 0.47 |
| 7:CA:367:HIS:HA | 7:CA:432:HIS:HB2 | 1.97 | 0.47 |
| 7:DA:38:TRP:HB3 | 7:DA:350:TYR:CZ | 2.50 | 0.47 |
| 7:DA:147:THR:O | 7:DA:171:GLN:NE2 | 2.48 | 0.47 |
| 7:EA:100:ASP:OD2 | 7:EA:242:ASP:N | 2.47 | 0.47 |
| 7:GA:146:PRO:HG2 | 7:GA:148:ARG:NH1 | 2.28 | 0.47 |
| 7:HA:43:VAL:HG13 | 7:HA:243:GLN:HB3 | 1.97 | 0.47 |
| 7:HA:259:ASN:O | 7:OA:2:SER:N | 2.48 | 0.47 |
| 7:HA:282:LEU:HA | 7:HA:285:ILE:HG12 | 1.95 | 0.47 |
| 7:IA:328:TYR:CE2 | 7:IA:330:PHE:HB2 | 2.50 | 0.47 |
| 7:JA:274:TYR:HB3 | 7:JA:298:LYS:HD2 | 1.96 | 0.47 |
| 7:JA:495:VAL:HG12 | 7:JA:511:ALA:HB3 | 1.95 | 0.47 |
| 7:KA:43:VAL:HG13 | 7:KA:243:GLN:HB3 | 1.97 | 0.47 |
| 7:KA:172:THR:HA | 7:KA:177:VAL:O | 2.15 | 0.47 |
| 7:KA:186:VAL:HB | 7:KA:202:LEU:HD23 | 1.97 | 0.47 |
| 7:KA:206:LEU:HA | 7:KA:210:SER:HB3 | 1.96 | 0.47 |
| 7:KA:378:ILE:HG23 | 7:KA:379:ALA:H | 1.79 | 0.47 |
| 7:KA:448:ALA:HB1 | 7:QA:521:ILE:HG21 | 1.95 | 0.47 |
| 7:LA:146:PRO:HG2 | 7:LA:148:ARG:NH1 | 2.28 | 0.47 |
| 7:LA:201:TYR:CD2 | 7:LA:203:PRO:HD2 | 2.50 | 0.47 |
| 7:LA:307:LEU:O | 7:LA:310:VAL:HG12 | 2.14 | 0.47 |
| 7:MA:281:ALA:HA | 7:MA:284:LYS:HG2 | 1.97 | 0.47 |
| 7:NA:393:ASP:OD2 | 7:NA:395:GLU:HG3 | 2.15 | 0.47 |
| 7:NA:404:LYS:NZ | 7:NA:416:ASP:OD2 | 2.27 | 0.47 |
| 7:OA:349:ALA:O | 7:OA:353:LYS:HG2 | 2.14 | 0.47 |
| 7:PA:230:LYS:C | 7:PA:231:LYS:HD3 | 2.40 | 0.47 |
| 7:PA:281:ALA:HA | 7:PA:284:LYS:HG2 | 1.96 | 0.47 |
| 7:PA:416:ASP:OD1 | 7:PA:416:ASP:N | 2.47 | 0.47 |
| 7:QA:46:ARG:CZ | 7:QA:142:PRO:HD3 | 2.45 | 0.47 |
| 7:QA:189:ALA:HB3 | 7:QA:192:ALA:HB2 | 1.96 | 0.47 |
| 7:QA:281:ALA:HA | 7:QA:284:LYS:HG2 | 1.97 | 0.47 |
| 7:RA:480:LEU:HD13 | 7:RA:512:CYS:HB3 | 1.96 | 0.47 |
| 8:BB:45:LEU:HD12 | 8:BB:85:CYS:HB2 | 1.96 | 0.47 |
| 8:DB:138:LYS:HB2 | 8:DB:162:VAL:HB | 1.96 | 0.47 |
| 8:DB:154:ALA:HB2 | 8:IB:59:VAL:HG11 | 1.96 | 0.47 |
| 8:HB:7:LYS:O | 8:IB:117:SER:OG | 2.18 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 8:IB:13:ILE:HD11 | 8:IB:14:LYS:HZ2 | 1.79 | 0.47 |
| 8:IB:112:ALA:HB2 | 8:IB:131:THR:HA | 1.96 | 0.47 |
| 8:KB:54:MET:HB3 | 8:KB:166:ILE:HG12 | 1.96 | 0.47 |
| 8:NB:111:MET:O | 8:NB:132:ILE:HG22 | 2.15 | 0.47 |
| 1:C:42:LEU:O | 1:D:103:THR:OG1 | 2.29 | 0.47 |
| 1:E:37:ILE:HD13 | 1:E:40:LYS:HZ2 | 1.80 | 0.47 |
| 2:I:185:SER:O | 2:I:189:VAL:HG12 | 2.14 | 0.47 |
| 2:J:27:GLN:HG2 | 2:J:28:TYR:CD2 | 2.50 | 0.47 |
| 2:K:157:ASP:OD1 | 2:K:158:LEU:N | 2.48 | 0.47 |
| 3:M:11:LEU:HD21 | 7:h:24:ASP:C | 2.40 | 0.47 |
| 3:R:52:VAL:HG12 | 3:R:55:GLN:HB3 | 1.97 | 0.47 |
| 3:R:73:MET:C | 3:R:77:LYS:HZ2 | 2.23 | 0.47 |
| 5:Z:147:VAL:HG13 | 5:Z:224:GLY:H | 1.80 | 0.47 |
| 5:Z:451:TRP:NE1 | 5:Z:453:GLU:OE2 | 2.40 | 0.47 |
| 5:0:3:LYS:HZ3 | 5:0:56:LEU:HD11 | 1.80 | 0.47 |
| 5:0:292:GLN:OE1 | 6:c:91:LYS:HE3 | 2.15 | 0.47 |
| 5:0:387:ILE:HG13 | 5:0:441:PHE:HA | 1.97 | 0.47 |
| 5:2:112:SER:OG | 5:2:114:ASP:OD1 | 2.17 | 0.47 |
| 5:3:286:TYR:HD2 | 5:3:301:TYR:HE2 | 1.63 | 0.47 |
| 5:4:68:SER:HB3 | 5:4:206:GLU:HG2 | 1.97 | 0.47 |
| 5:5:9:ASP:HA | 5:5:12:ARG:CZ | 2.44 | 0.47 |
| 5:6:62:SER:HA | 5:6:280:ARG:HD2 | 1.97 | 0.47 |
| 5:6:90:MET:O | 5:6:265:THR:HB | 2.15 | 0.47 |
| 5:6:387:ILE:O | 5:6:475:GLU:N | 2.30 | 0.47 |
| 5:7:107:ASN:HA | 5:7:119:MET:SD | 2.55 | 0.47 |
| 5:9:45:VAL:O | 5:9:49:PHE:HD2 | 1.98 | 0.47 |
| 6:c:47:SER:O | 6:c:51:MET:HG3 | 2.15 | 0.47 |
| 7:h:206:LEU:O | 7:h:210:SER:HB3 | 2.14 | 0.47 |
| 7:i:483:PRO:HD2 | 7:i:491:THR:HA | 1.96 | 0.47 |
| 7:k:152:ILE:O | 7:k:231:LYS:NZ | 2.24 | 0.47 |
| 7:k:379:ALA:HB2 | 7:k:412:GLN:HA | 1.96 | 0.47 |
| 7:l:366:TRP:HB2 | 7:l:436:LEU:HD23 | 1.96 | 0.47 |
| 7:m:303:TYR:CD1 | 7:m:392:PRO:HB3 | 2.50 | 0.47 |
| 7:n:527:LEU:HG | 7:n:529:LYS:H | 1.80 | 0.47 |
| 7:o:355:ARG:HG3 | 7:o:358:LYS:HZ3 | 1.80 | 0.47 |
| 7:q:326:TYR:HD2 | 7:q:346:SER:HA | 1.80 | 0.47 |
| 7:AA:305:GLU:C | 7:AA:308:PRO:HD2 | 2.40 | 0.47 |
| 7:BA:303:TYR:CD2 | 7:BA:392:PRO:HA | 2.50 | 0.47 |
| 7:BA:367:HIS:HA | 7:BA:432:HIS:HB2 | 1.97 | 0.47 |
| 7:BA:405:VAL:HG13 | 7:BA:414:ILE:O | 2.15 | 0.47 |
| 7:CA:147:THR:O | 7:CA:171:GLN:NE2 | 2.48 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:DA:356:GLY:HA2 | 7:DA:359:LYS:HE3 | 1.96 | 0.47 |
| 7:DA:365:GLY:HA3 | 7:DA:368:TYR:HD2 | 1.80 | 0.47 |
| 7:EA:449:ARG:NH2 | 7:KA:408:GLY:HA2 | 2.30 | 0.47 |
| 7:GA:395:GLU:HA | 7:GA:398:VAL:HG12 | 1.96 | 0.47 |
| 7:HA:146:PRO:HG2 | 7:HA:148:ARG:NH1 | 2.28 | 0.47 |
| 7:IA:38:TRP:CE2 | 7:IA:91:GLY:HA3 | 2.50 | 0.47 |
| 7:IA:307:LEU:O | 7:IA:310:VAL:HG12 | 2.14 | 0.47 |
| 7:JA:154:THR:HA | 7:JA:165:PHE:HB3 | 1.97 | 0.47 |
| 7:JA:303:TYR:HB3 | 7:JA:390:ASP:OD2 | 2.15 | 0.47 |
| 7:JA:333:LYS:HB3 | 7:JA:381:ALA:HB3 | 1.97 | 0.47 |
| 7:KA:201:TYR:CD2 | 7:KA:203:PRO:HD2 | 2.50 | 0.47 |
| 7:KA:395:GLU:HA | 7:KA:398:VAL:HG12 | 1.96 | 0.47 |
| 7:KA:441:SER:O | 7:KA:445:VAL:HG23 | 2.15 | 0.47 |
| 7:LA:303:TYR:HB3 | 7:LA:390:ASP:OD2 | 2.14 | 0.47 |
| 7:OA:355:ARG:HH21 | 7:OA:376:ALA:HB2 | 1.80 | 0.47 |
| 7:PA:378:ILE:HG13 | 7:PA:379:ALA:H | 1.80 | 0.47 |
| 7:QA:355:ARG:O | 7:QA:359:LYS:HG3 | 2.14 | 0.47 |
| 7:QA:393:ASP:OD2 | 7:QA:395:GLU:HG3 | 2.15 | 0.47 |
| 7:RA:355:ARG:O | 7:RA:359:LYS:HG3 | 2.15 | 0.47 |
| 8:BB:62:TYR:HB3 | 8:BB:68:LYS:NZ | 2.30 | 0.47 |
| 8:DB:169:ASP:OD1 | 8:DB:169:ASP:N | 2.48 | 0.47 |
| 8:EB:26:ARG:NH2 | 8:EB:27:LEU:HB2 | 2.29 | 0.47 |
| 8:GB:7:LYS:O | 8:HB:117:SER:OG | 2.18 | 0.47 |
| 8:HB:76:ARG:HH22 | 8:IB:160:ARG:NH2 | 2.13 | 0.47 |
| 8:JB:54:MET:HB3 | 8:JB:166:ILE:HG12 | 1.97 | 0.47 |
| 8:KB:112:ALA:HB2 | 8:KB:131:THR:HA | 1.96 | 0.47 |
| 8:QB:27:LEU:HG | 8:RB:87:GLU:OE2 | 2.15 | 0.47 |
| 1:A:189:SER:HG | 7:g:473:ARG:HE | 1.59 | 0.47 |
| 2:G:132:ILE:HB | 2:G:135:ARG:HH12 | 1.80 | 0.47 |
| 2:G:185:SER:O | 2:G:189:VAL:HG12 | 2.14 | 0.47 |
| 2:H:132:ILE:HB | 2:H:135:ARG:HH12 | 1.79 | 0.47 |
| 2:L:3:PRO:HD2 | 2:L:29:GLN:NE2 | 2.30 | 0.47 |
| 3:M:63:LEU:O | 3:M:66:VAL:HG22 | 2.14 | 0.47 |
| 3:Q:77:LYS:HA | 3:Q:80:VAL:HG22 | 1.96 | 0.47 |
| 4:T:65:ALA:HA | 4:T:69:TRP:HE3 | 1.77 | 0.47 |
| 4:W:44:ASN:ND2 | 5:7:23:SER:O | 2.44 | 0.47 |
| 4:W:93:VAL:HG12 | 7:k:382:SER:HA | 1.97 | 0.47 |
| 5:Y:375:ARG:O | 5:Y:460:PHE:N | 2.43 | 0.47 |
| 5:Z:290:ASP:HB3 | 6:b:88:ILE:HB | 1.96 | 0.47 |
| 5:3:14:GLU:HA | 5:3:17:GLU:OE2 | 2.14 | 0.47 |
| 5:3:147:VAL:HG13 | 5:3:224:GLY:H | 1.80 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 5:4:410:ARG:NH1 | 5:4:411:ASP:OD1 | 2.47 | 0.47 |
| 5:5:11:ILE:HA | 5:5:14:GLU:OE2 | 2.14 | 0.47 |
| 5:6:36:MET:SD | 5:6:37:LEU:N | 2.88 | 0.47 |
| 5:6:137:GLN:OE1 | 5:6:234:THR:OG1 | 2.28 | 0.47 |
| 5:6:161:ALA:O | 5:6:165:VAL:HG22 | 2.14 | 0.47 |
| 5:7:142:GLU:HG3 | 5:7:230:LYS:HG2 | 1.97 | 0.47 |
| 5:7:376:LYS:HB3 | 5:7:462:TYR:HE1 | 1.79 | 0.47 |
| 5:8:25:TRP:HD1 | 5:8:28:PHE:CE2 | 2.32 | 0.47 |
| 6:b:113:ASP:CG | 6:b:133:GLU:H | 2.22 | 0.47 |
| 6:d:47:SER:O | 6:d:51:MET:HG3 | 2.15 | 0.47 |
| 6:d:108:ILE:HD11 | 6:d:164:THR:HB | 1.97 | 0.47 |
| 6:f:24:ALA:O | 6:f:28:GLN:HG2 | 2.14 | 0.47 |
| 7:h:286:CYS:SG | 7:h:291:ILE:HG13 | 2.55 | 0.47 |
| 7:h:483:PRO:HD2 | 7:h:491:THR:HA | 1.97 | 0.47 |
| 7:j:517:VAL:O | 7:j:517:VAL:HG12 | 2.14 | 0.47 |
| 7:k:22:ASN:HD21 | 7:k:173:THR:HG21 | 1.79 | 0.47 |
| 7:k:100:ASP:OD2 | 7:k:242:ASP:N | 2.32 | 0.47 |
| 7:k:192:ALA:O | 7:k:199:LEU:HD12 | 2.14 | 0.47 |
| 7:k:373:GLU:OE1 | 7:k:373:GLU:N | 2.38 | 0.47 |
| 7:k:426:ASN:ND2 | 7:k:428:LEU:HB2 | 2.30 | 0.47 |
| 7:l:192:ALA:O | 7:l:199:LEU:HD12 | 2.14 | 0.47 |
| 7:m:505:LYS:O | 7:m:505:LYS:HD3 | 2.15 | 0.47 |
| 7:n:99:ASP:N | 7:n:99:ASP:OD1 | 2.46 | 0.47 |
| 7:r:76:PHE:HA | 7:r:79:ILE:HG12 | 1.96 | 0.47 |
| 7:CA:148:ARG:HD3 | 7:CA:170:THR:O | 2.14 | 0.47 |
| 7:CA:334:ASP:OD2 | 7:CA:337:THR:OG1 | 2.29 | 0.47 |
| 7:CA:527:LEU:HG | 7:CA:529:LYS:N | 2.30 | 0.47 |
| 7:DA:527:LEU:HG | 7:DA:529:LYS:N | 2.30 | 0.47 |
| 7:EA:303:TYR:CD2 | 7:EA:392:PRO:HA | 2.50 | 0.47 |
| 7:EA:367:HIS:HA | 7:EA:432:HIS:HB2 | 1.97 | 0.47 |
| 7:FA:365:GLY:HA3 | 7:FA:368:TYR:HD2 | 1.80 | 0.47 |
| 7:GA:274:TYR:HB3 | 7:GA:298:LYS:HD2 | 1.96 | 0.47 |
| 7:GA:333:LYS:HE2 | 7:GA:340:ARG:HH11 | 1.80 | 0.47 |
| 7:IA:333:LYS:HB3 | 7:IA:381:ALA:HB3 | 1.97 | 0.47 |
| 7:MA:393:ASP:OD2 | 7:MA:395:GLU:HG3 | 2.15 | 0.47 |
| 7:MA:443:PHE:O | 7:MA:446:GLN:HG3 | 2.15 | 0.47 |
| 7:NA:355:ARG:HH21 | 7:NA:376:ALA:HB2 | 1.80 | 0.47 |
| 7:OA:281:ALA:HA | 7:OA:284:LYS:HG2 | 1.97 | 0.47 |
| 7:QA:355:ARG:HH21 | 7:QA:376:ALA:HB2 | 1.80 | 0.47 |
| 7:RA:349:ALA:O | 7:RA:353:LYS:HG2 | 2.14 | 0.47 |
| 8:DB:133:GLU:OE1 | 8:DB:133:GLU:N | 2.47 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 8:EB:45:LEU:HD12 | 8:EB:85:CYS:HB2 | 1.96 | 0.47 |
| 8:GB:50:GLN:CB | 8:GB:81:ILE:HG23 | 2.43 | 0.47 |
| 8:HB:139:ILE:HB | 8:HB:161:ILE:HD13 | 1.97 | 0.47 |
| 8:LB:44:VAL:HG13 | 8:LB:45:LEU:HD22 | 1.96 | 0.47 |
| 8:LB:154:ALA:HB2 | 8:QB:59:VAL:HG11 | 1.96 | 0.47 |
| 8:MB:27:LEU:HG | 8:NB:87:GLU:OE2 | 2.15 | 0.47 |
| 8:OB:111:MET:O | 8:OB:132:ILE:HG22 | 2.14 | 0.47 |
| 8:RB:144:ILE:HD11 | 8:RB:158:SER:HB3 | 1.96 | 0.47 |
| 1:C:29:GLU:OE1 | 1:C:29:GLU:N | 2.39 | 0.47 |
| 1:F:56:LEU:HB3 | 1:F:59:ALA:HB2 | 1.95 | 0.47 |
| 2:H:3:PRO:HD2 | 2:H:29:GLN:HE22 | 1.79 | 0.47 |
| 2:L:1:MET:HA | 3:R:55:GLN:OE1 | 2.15 | 0.47 |
| 3:N:98:PHE:CZ | 7:h:515:THR:HA | 2.50 | 0.47 |
| 4:S:96:LYS:HZ2 | 4:S:97:LEU:N | 2.13 | 0.47 |
| 5:0:14:GLU:HA | 5:0:17:GLU:OE2 | 2.14 | 0.47 |
| 5:1:40:PHE:CD2 | 5:7:19:VAL:HG12 | 2.50 | 0.47 |
| 5:1:243:GLY:H | 5:1:263:THR:HG23 | 1.79 | 0.47 |
| 5:2:316:TRP:NE1 | 5:2:457:PHE:HA | 2.31 | 0.47 |
| 5:2:387:ILE:HG13 | 5:2:441:PHE:HA | 1.97 | 0.47 |
| 5:3:290:ASP:HB3 | 6:f:88:ILE:HB | 1.96 | 0.47 |
| 5:4:160:LYS:HZ3 | 5:4:206:GLU:CD | 2.23 | 0.47 |
| 5:6:160:LYS:HZ3 | 5:6:206:GLU:CD | 2.23 | 0.47 |
| 5:7:196:GLN:HB3 | 5:7:219:GLN:HG2 | 1.96 | 0.47 |
| 5:7:316:TRP:HE3 | 5:7:320:GLN:HG2 | 1.80 | 0.47 |
| 5:8:107:ASN:HA | 5:8:119:MET:SD | 2.55 | 0.47 |
| 5:8:410:ARG:NH1 | 5:8:411:ASP:OD1 | 2.48 | 0.47 |
| 6:b:125:PRO:O | 6:b:128:THR:OG1 | 2.30 | 0.47 |
| 6:e:120:ASP:OD2 | 6:e:123:ARG:NH1 | 2.48 | 0.47 |
| 6:f:108:ILE:HD11 | 6:f:164:THR:HB | 1.97 | 0.47 |
| 7:g:199:LEU:HD21 | 7:m:69:LYS:HZ1 | 1.80 | 0.47 |
| 7:k:199:LEU:HG | 7:k:201:TYR:H | 1.80 | 0.47 |
| 7:k:437:MET:HG2 | 7:r:21:ILE:HG12 | 1.97 | 0.47 |
| 7:m:59:ASN:O | 7:m:63:VAL:HG12 | 2.14 | 0.47 |
| 7:p:187:SER:HB3 | 7:p:192:ALA:HB1 | 1.97 | 0.47 |
| 7:p:356:GLY:HA3 | 7:p:375:ARG:HD3 | 1.97 | 0.47 |
| 7:q:59:ASN:O | 7:q:63:VAL:HG12 | 2.14 | 0.47 |
| 7:DA:49:PRO:HA | 7:DA:95:ARG:HB3 | 1.97 | 0.47 |
| 7:DA:148:ARG:HD3 | 7:DA:170:THR:O | 2.14 | 0.47 |
| 7:DA:303:TYR:CD2 | 7:DA:392:PRO:HA | 2.49 | 0.47 |
| 7:EA:305:GLU:C | 7:EA:308:PRO:HD2 | 2.40 | 0.47 |
| 7:GA:378:ILE:HG23 | 7:GA:379:ALA:H | 1.79 | 0.47 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:HA:307:LEU:O | 7:HA:310:VAL:HG12 | 2.14 | 0.47 |
| 7:HA:333:LYS:HB3 | 7:HA:381:ALA:HB3 | 1.97 | 0.47 |
| 7:IA:22:ASN:OD1 | 7:IA:23:ALA:N | 2.48 | 0.47 |
| 7:IA:186:VAL:HB | 7:IA:202:LEU:HD23 | 1.96 | 0.47 |
| 7:JA:449:ARG:HH12 | 7:PA:410:SER:H | 1.62 | 0.47 |
| 7:KA:22:ASN:OD1 | 7:KA:23:ALA:N | 2.47 | 0.47 |
| 7:KA:154:THR:HA | 7:KA:165:PHE:HB3 | 1.97 | 0.47 |
| 7:KA:259:ASN:O | 7:RA:2:SER:N | 2.48 | 0.47 |
| 7:KA:459:THR:O | 7:KA:463:LEU:HD23 | 2.15 | 0.47 |
| 7:LA:328:TYR:CE2 | 7:LA:330:PHE:HB2 | 2.50 | 0.47 |
| 7:LA:401:ARG:NE | 7:LA:422:CYS:O | 2.48 | 0.47 |
| 7:MA:201:TYR:CD2 | 7:MA:203:PRO:HD2 | 2.49 | 0.47 |
| 7:OA:438:ASN:O | 7:OA:442:ARG:HG3 | 2.14 | 0.47 |
| 7:PA:158:ASP:OD1 | 7:PA:164:ARG:NE | 2.39 | 0.47 |
| 7:PA:393:ASP:OD2 | 7:PA:395:GLU:HG3 | 2.15 | 0.47 |
| 8:CB:56:ARG:HB3 | 8:DB:140:TYR:CZ | 2.50 | 0.47 |
| 8:DB:36:PHE:HD2 | 8:DB:39:HIS:HB2 | 1.80 | 0.47 |
| 8:FB:62:TYR:HB3 | 8:FB:68:LYS:NZ | 2.30 | 0.47 |
| 8:HB:33:LEU:HD12 | 8:HB:114:THR:HG21 | 1.96 | 0.47 |
| 8:IB:5:ASN:OD1 | 8:IB:5:ASN:N | 2.47 | 0.47 |
| 8:KB:139:ILE:HB | 8:KB:161:ILE:HD13 | 1.97 | 0.47 |
| 1:A:64:LYS:NZ | 1:A:99:MET:HG3 | 2.31 | 0.46 |
| 1:D:29:GLU:OE1 | 1:D:29:GLU:N | 2.39 | 0.46 |
| 1:D:137:ARG:HD2 | 1:D:139:TYR:OH | 2.15 | 0.46 |
| 2:J:95:PRO:HB3 | 2:J:174:ASN:ND2 | 2.30 | 0.46 |
| 2:K:132:ILE:HB | 2:K:135:ARG:HH12 | 1.79 | 0.46 |
| 2:L:139:ASN:HD21 | 2:L:142:ARG:HA | 1.80 | 0.46 |
| 4:S:105:ILE:O | 4:S:109:ILE:HG12 | 2.14 | 0.46 |
| 4:W:74:LEU:HD23 | 4:W:99:LEU:HD12 | 1.96 | 0.46 |
| 5:0:13:ALA:O | 5:0:16:GLU:N | 2.48 | 0.46 |
| 5:1:36:MET:HA | 5:1:39:LEU:HD12 | 1.97 | 0.46 |
| 5:1:311:SER:O | 5:1:419:ARG:NH1 | 2.47 | 0.46 |
| 5:4:142:GLU:HG3 | 5:4:230:LYS:HG2 | 1.97 | 0.46 |
| 5:4:316:TRP:HE3 | 5:4:320:GLN:HG2 | 1.80 | 0.46 |
| 5:5:61:ILE:HG13 | 5:5:62:SER:N | 2.30 | 0.46 |
| 5:5:154:LEU:O | 5:5:211:ARG:HA | 2.14 | 0.46 |
| 5:5:161:ALA:O | 5:5:165:VAL:HG22 | 2.14 | 0.46 |
| 5:5:386:ARG:NH1 | 5:5:476:GLU:H | 2.14 | 0.46 |
| 5:5:410:ARG:NH1 | 5:5:411:ASP:OD1 | 2.48 | 0.46 |
| 5:6:11:ILE:HA | 5:6:14:GLU:CD | 2.40 | 0.46 |
| 5:6:107:ASN:HA | 5:6:119:MET:SD | 2.55 | 0.46 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 5:6:334:ASN:HB3 | 5:6:367:LYS:HD3 | 1.97 | 0.46 |
| 5:7:9:ASP:HA | 5:7:12:ARG:CZ | 2.46 | 0.46 |
| 5:8:334:ASN:HB3 | 5:8:367:LYS:HD3 | 1.97 | 0.46 |
| 5:9:61:ILE:HG13 | 5:9:62:SER:N | 2.30 | 0.46 |
| 5:9:386:ARG:CZ | 5:9:475:GLU:HA | 2.45 | 0.46 |
| 6:a:120:ASP:OD2 | 6:a:123:ARG:NH1 | 2.48 | 0.46 |
| 6:d:184:PHE:CZ | 6:d:192:LEU:HD11 | 2.50 | 0.46 |
| 7:h:528:ILE:HG13 | 7:i:27:LEU:HD21 | 1.97 | 0.46 |
| 7:i:3:GLN:HG2 | 7:i:4:TYR:CD1 | 2.50 | 0.46 |
| 7:i:128:ASP:OD1 | 7:i:128:ASP:N | 2.48 | 0.46 |
| 7:j:437:MET:HG2 | 7:q:21:ILE:HG12 | 1.97 | 0.46 |
| 7:m:14:SER:HA | 7:r:520:ARG:HG2 | 1.97 | 0.46 |
| 7:n:492:GLU:H | 7:n:492:GLU:CD | 2.21 | 0.46 |
| 7:o:331:SER:O | 7:o:384:GLN:N | 2.30 | 0.46 |
| 7:p:269:LEU:HD13 | 7:p:294:PHE:HB2 | 1.95 | 0.46 |
| 7:q:319:ASP:OD1 | 7:q:319:ASP:N | 2.45 | 0.46 |
| 7:r:326:TYR:HD2 | 7:r:346:SER:HA | 1.80 | 0.46 |
| 7:AA:38:TRP:HB3 | 7:AA:350:TYR:CZ | 2.50 | 0.46 |
| 7:AA:302:THR:OG1 | 7:AA:305:GLU:OE1 | 2.26 | 0.46 |
| 7:AA:356:GLY:HA2 | 7:AA:359:LYS:HE3 | 1.96 | 0.46 |
| 7:AA:422:CYS:HB3 | 7:AA:429:HIS:HA | 1.97 | 0.46 |
| 7:CA:520:ARG:NH2 | 7:DA:17:ALA:O | 2.47 | 0.46 |
| 7:FA:443:PHE:O | 7:FA:446:GLN:NE2 | 2.48 | 0.46 |
| 7:GA:186:VAL:HB | 7:GA:202:LEU:HD23 | 1.97 | 0.46 |
| 7:GA:316:LEU:HG | 7:GA:423:THR:HG21 | 1.97 | 0.46 |
| 7:IA:146:PRO:HG2 | 7:IA:148:ARG:NH1 | 2.28 | 0.46 |
| 7:JA:259:ASN:O | 7:QA:2:SER:N | 2.48 | 0.46 |
| 7:JA:446:GLN:O | 7:JA:449:ARG:HB3 | 2.15 | 0.46 |
| 7:KA:303:TYR:N | 7:KA:387:TYR:OH | 2.48 | 0.46 |
| 7:LA:446:GLN:HA | 7:LA:449:ARG:HB3 | 1.96 | 0.46 |
| 7:OA:397:MET:SD | 7:OA:404:LYS:HG2 | 2.56 | 0.46 |
| 7:OA:443:PHE:O | 7:OA:446:GLN:HG3 | 2.15 | 0.46 |
| 7:PA:42:GLY:HA3 | 7:PA:44:PHE:CE2 | 2.50 | 0.46 |
| 7:PA:443:PHE:O | 7:PA:446:GLN:HG3 | 2.15 | 0.46 |
| 7:QA:334:ASP:HB2 | 7:QA:339:SER:H | 1.79 | 0.46 |
| 7:RA:189:ALA:HB3 | 7:RA:192:ALA:HB2 | 1.96 | 0.46 |
| 8:CB:133:GLU:OE1 | 8:CB:133:GLU:N | 2.46 | 0.46 |
| 8:DB:115:PRO:HG2 | 8:DB:118:LYS:HG2 | 1.97 | 0.46 |
| 8:HB:112:ALA:HB2 | 8:HB:131:THR:HA | 1.96 | 0.46 |
| 8:RB:11:LYS:HE3 | 8:RB:12:PHE:CE1 | 2.51 | 0.46 |
| 2:J:157:ASP:OD1 | 2:J:158:LEU:N | 2.48 | 0.46 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:K:149:VAL:HG22 | 2:K:177:LEU:HD12 | 1.96 | 0.46 |
| 3:O:11:LEU:HD21 | 7:j:24:ASP:C | 2.40 | 0.46 |
| 4:T:105:ILE:O | 4:T:109:ILE:HG12 | 2.14 | 0.46 |
| 4:W:22:ARG:HH12 | 5:8:5:THR:HG23 | 1.80 | 0.46 |
| 5:Y:14:GLU:HA | 5:Y:17:GLU:OE2 | 2.14 | 0.46 |
| 5:Y:316:TRP:NE1 | 5:Y:457:PHE:HA | 2.31 | 0.46 |
| 5:1:292:GLN:OE1 | 6:d:91:LYS:HE3 | 2.16 | 0.46 |
| 5:2:40:PHE:CD2 | 5:8:19:VAL:HG12 | 2.50 | 0.46 |
| 5:2:441:PHE:HZ | 5:2:472:ILE:HG12 | 1.80 | 0.46 |
| 5:3:276:THR:O | 5:3:279:THR:OG1 | 2.29 | 0.46 |
| 5:3:316:TRP:NE1 | 5:3:457:PHE:HA | 2.31 | 0.46 |
| 5:3:380:LYS:NZ | 5:3:450:GLU:OE1 | 2.33 | 0.46 |
| 5:4:9:ASP:HA | 5:4:12:ARG:CZ | 2.46 | 0.46 |
| 5:4:61:ILE:HG13 | 5:4:62:SER:N | 2.31 | 0.46 |
| 5:4:329:ASN:HB3 | 5:4:332:ASN:HB2 | 1.97 | 0.46 |
| 5:4:386:ARG:CZ | 5:4:475:GLU:HA | 2.46 | 0.46 |
| 5:5:36:MET:SD | 5:5:37:LEU:N | 2.88 | 0.46 |
| 5:5:90:MET:O | 5:5:265:THR:HB | 2.15 | 0.46 |
| 5:8:61:ILE:HG13 | 5:8:62:SER:N | 2.31 | 0.46 |
| 5:8:62:SER:HA | 5:8:280:ARG:HD2 | 1.97 | 0.46 |
| 5:8:90:MET:O | 5:8:265:THR:HB | 2.15 | 0.46 |
| 5:9:25:TRP:HD1 | 5:9:28:PHE:CE2 | 2.32 | 0.46 |
| 6:a:24:ALA:O | 6:a:28:GLN:HG2 | 2.15 | 0.46 |
| 6:a:47:SER:O | 6:a:51:MET:HG3 | 2.15 | 0.46 |
| 6:a:78:PRO:O | 6:a:81:LEU:HG | 2.15 | 0.46 |
| 6:e:99:GLN:HA | 6:e:102:TYR:CD2 | 2.50 | 0.46 |
| 6:f:99:GLN:HA | 6:f:102:TYR:CD2 | 2.51 | 0.46 |
| 7:g:246:ILE:HB | 7:g:251:TYR:CZ | 2.50 | 0.46 |
| 7:g:494:TYR:CE2 | 7:g:496:LEU:HB2 | 2.50 | 0.46 |
| 7:h:428:LEU:HD11 | 7:o:21:ILE:HG21 | 1.97 | 0.46 |
| 7:i:47:GLY:N | 7:i:139:ASP:O | 2.47 | 0.46 |
| 7:j:47:GLY:N | 7:j:139:ASP:O | 2.47 | 0.46 |
| 7:k:246:ILE:HB | 7:k:251:TYR:CZ | 2.49 | 0.46 |
| 7:k:286:CYS:SG | 7:k:291:ILE:HG13 | 2.55 | 0.46 |
| 7:l:146:PRO:HD2 | 7:l:148:ARG:HH22 | 1.80 | 0.46 |
| 7:m:260:ASN:ND2 | 7:AA:388:PRO:O | 2.48 | 0.46 |
| 7:n:75:GLN:HE22 | 7:n:244:SER:HA | 1.79 | 0.46 |
| 7:n:76:PHE:HA | 7:n:79:ILE:HG12 | 1.97 | 0.46 |
| 7:n:520:ARG:HG2 | 7:o:14:SER:HA | 1.96 | 0.46 |
| 7:r:187:SER:HB3 | 7:r:192:ALA:HB1 | 1.98 | 0.46 |
| 7:AA:46:ARG:NE | 7:AA:62:ASP:O | 2.33 | 0.46 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:AA:49:PRO:HA | 7:AA:95:ARG:HB3 | 1.97 | 0.46 |
| 7:BA:305:GLU:C | 7:BA:308:PRO:HD2 | 2.40 | 0.46 |
| 7:CA:365:GLY:HA3 | 7:CA:368:TYR:HD2 | 1.80 | 0.46 |
| 7:CA:467:MET:HA | 7:CA:470:LEU:HG | 1.97 | 0.46 |
| 7:DA:434:PRO:O | 7:DA:438:ASN:ND2 | 2.48 | 0.46 |
| 7:EA:46:ARG:HH21 | 7:EA:63:VAL:HA | 1.80 | 0.46 |
| 7:EA:299:PRO:HA | 7:EA:327:HIS:NE2 | 2.29 | 0.46 |
| 7:FA:100:ASP:OD2 | 7:FA:242:ASP:N | 2.47 | 0.46 |
| 7:GA:22:ASN:OD1 | 7:GA:23:ALA:N | 2.48 | 0.46 |
| 7:GA:154:THR:HA | 7:GA:165:PHE:HB3 | 1.97 | 0.46 |
| 7:GA:305:GLU:C | 7:GA:308:PRO:HD2 | 2.41 | 0.46 |
| 7:HA:201:TYR:CD2 | 7:HA:203:PRO:HD2 | 2.50 | 0.46 |
| 7:HA:401:ARG:NE | 7:HA:422:CYS:O | 2.49 | 0.46 |
| 7:IA:154:THR:HA | 7:IA:165:PHE:HB3 | 1.97 | 0.46 |
| 7:IA:172:THR:HA | 7:IA:177:VAL:O | 2.15 | 0.46 |
| 7:JA:22:ASN:OD1 | 7:JA:23:ALA:N | 2.48 | 0.46 |
| 7:JA:316:LEU:HG | 7:JA:423:THR:HG21 | 1.97 | 0.46 |
| 7:JA:448:ALA:HB1 | 7:PA:521:ILE:HG21 | 1.96 | 0.46 |
| 7:KA:8:GLN:OE1 | 7:KA:8:GLN:N | 2.33 | 0.46 |
| 7:KA:146:PRO:HG2 | 7:KA:148:ARG:NH1 | 2.28 | 0.46 |
| 7:KA:333:LYS:HE2 | 7:KA:340:ARG:HH11 | 1.80 | 0.46 |
| 7:KA:353:LYS:HD2 | 7:KA:353:LYS:HA | 1.76 | 0.46 |
| 7:MA:349:ALA:O | 7:MA:353:LYS:HG2 | 2.14 | 0.46 |
| 7:MA:405:VAL:HG22 | 7:MA:413:MET:CE | 2.44 | 0.46 |
| 7:NA:281:ALA:HA | 7:NA:284:LYS:HG2 | 1.97 | 0.46 |
| 7:NA:349:ALA:O | 7:NA:353:LYS:HG2 | 2.14 | 0.46 |
| 7:NA:443:PHE:O | 7:NA:446:GLN:HG3 | 2.15 | 0.46 |
| 7:NA:485:ASP:OD1 | 7:NA:485:ASP:N | 2.45 | 0.46 |
| 7:OA:230:LYS:C | 7:OA:231:LYS:HD3 | 2.41 | 0.46 |
| 7:PA:44:PHE:CD1 | 7:PA:79:ILE:HG22 | 2.50 | 0.46 |
| 7:PA:438:ASN:O | 7:PA:442:ARG:HG3 | 2.14 | 0.46 |
| 7:QA:443:PHE:O | 7:QA:446:GLN:HG3 | 2.15 | 0.46 |
| 7:RA:393:ASP:OD2 | 7:RA:395:GLU:HG3 | 2.15 | 0.46 |
| 7:RA:397:MET:SD | 7:RA:404:LYS:HG2 | 2.56 | 0.46 |
| 8:AB:56:ARG:HB3 | 8:BB:140:TYR:CZ | 2.50 | 0.46 |
| 8:CB:115:PRO:HG2 | 8:CB:118:LYS:HG2 | 1.97 | 0.46 |
| 8:DB:127:LYS:HE3 | 8:DB:129:ALA:HB3 | 1.97 | 0.46 |
| 8:FB:151:VAL:HB | 8:KB:57:GLU:HG2 | 1.97 | 0.46 |
| 8:IB:139:ILE:HB | 8:IB:161:ILE:HD13 | 1.98 | 0.46 |
| 8:LB:55:THR:O | 8:LB:76:ARG:N | 2.48 | 0.46 |
| 8:OB:11:LYS:HE3 | 8:OB:12:PHE:CE1 | 2.51 | 0.46 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:137:ARG:HD2 | 1:B:139:TYR:OH | 2.15 | 0.46 |
| 2:H:18:TYR:CE2 | 2:I:166:GLY:HA3 | 2.50 | 0.46 |
| 2:H:149:VAL:HG22 | 2:H:177:LEU:HD12 | 1.96 | 0.46 |
| 2:I:139:ASN:HD21 | 2:I:142:ARG:HA | 1.80 | 0.46 |
| 2:J:3:PRO:HD2 | 2:J:29:GLN:HE22 | 1.81 | 0.46 |
| 2:L:3:PRO:HD2 | 2:L:29:GLN:HE22 | 1.79 | 0.46 |
| 3:M:19:LYS:HG3 | 5:4:28:PHE:CZ | 2.51 | 0.46 |
| 3:R:11:LEU:HD21 | 7:g:24:ASP:C | 2.40 | 0.46 |
| 4:X:63:LEU:HD21 | 4:X:67:ARG:HH21 | 1.79 | 0.46 |
| 5:Y:441:PHE:HZ | 5:Y:472:ILE:HG12 | 1.80 | 0.46 |
| 5:0:243:GLY:H | 5:0:263:THR:HG23 | 1.79 | 0.46 |
| 5:0:304:VAL:HG23 | 5:0:310:LEU:HD11 | 1.97 | 0.46 |
| 5:1:316:TRP:NE1 | 5:1:457:PHE:HA | 2.31 | 0.46 |
| 5:3:311:SER:O | 5:3:419:ARG:NH1 | 2.47 | 0.46 |
| 5:4:36:MET:SD | 5:4:37:LEU:N | 2.88 | 0.46 |
| 5:4:161:ALA:O | 5:4:165:VAL:HG22 | 2.14 | 0.46 |
| 5:5:62:SER:HA | 5:5:280:ARG:HD2 | 1.98 | 0.46 |
| 5:6:196:GLN:HB3 | 5:6:219:GLN:HG2 | 1.96 | 0.46 |
| 5:7:62:SER:HA | 5:7:280:ARG:HD2 | 1.97 | 0.46 |
| 5:9:137:GLN:OE1 | 5:9:234:THR:OG1 | 2.28 | 0.46 |
| 6:d:24:ALA:O | 6:d:28:GLN:HG2 | 2.15 | 0.46 |
| 6:f:155:SER:HA | 6:f:202:THR:O | 2.15 | 0.46 |
| 7:j:44:PHE:O | 7:j:95:ARG:NH2 | 2.48 | 0.46 |
| 7:j:305:GLU:C | 7:j:308:PRO:HD2 | 2.40 | 0.46 |
| 7:j:494:TYR:CE2 | 7:j:496:LEU:HB2 | 2.50 | 0.46 |
| 7:p:75:GLN:HE22 | 7:p:244:SER:HA | 1.80 | 0.46 |
| 7:p:319:ASP:OD1 | 7:p:319:ASP:N | 2.45 | 0.46 |
| 7:q:75:GLN:HE22 | 7:q:244:SER:HA | 1.79 | 0.46 |
| 7:q:187:SER:HB3 | 7:q:192:ALA:HB1 | 1.98 | 0.46 |
| 7:r:59:ASN:O | 7:r:63:VAL:HG12 | 2.14 | 0.46 |
| 7:r:453:HIS:HB3 | 7:FA:369:SER:HB2 | 1.97 | 0.46 |
| 7:AA:100:ASP:OD2 | 7:AA:242:ASP:N | 2.47 | 0.46 |
| 7:AA:365:GLY:HA3 | 7:AA:368:TYR:HD2 | 1.79 | 0.46 |
| 7:AA:434:PRO:O | 7:AA:438:ASN:ND2 | 2.48 | 0.46 |
| 7:AA:443:PHE:O | 7:AA:446:GLN:NE2 | 2.47 | 0.46 |
| 7:BA:310:VAL:O | 7:BA:313:THR:OG1 | 2.27 | 0.46 |
| 7:CA:158:ASP:OD1 | 7:CA:164:ARG:NE | 2.42 | 0.46 |
| 7:DA:299:PRO:HA | 7:DA:327:HIS:NE2 | 2.29 | 0.46 |
| 7:DA:422:CYS:HB3 | 7:DA:429:HIS:HA | 1.98 | 0.46 |
| 7:FA:397:MET:HB2 | 7:FA:402:LEU:HB3 | 1.97 | 0.46 |
| 7:GA:201:TYR:CD2 | 7:GA:203:PRO:HD2 | 2.50 | 0.46 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:IA:103:PHE:HB3 | 7:IA:121:TYR:CE1 | 2.50 | 0.46 |
| 7:IA:305:GLU:C | 7:IA:308:PRO:HD2 | 2.40 | 0.46 |
| 7:KA:103:PHE:HB3 | 7:KA:121:TYR:CE1 | 2.50 | 0.46 |
| 7:MA:42:GLY:HA3 | 7:MA:44:PHE:CE2 | 2.50 | 0.46 |
| 7:MA:44:PHE:CD1 | 7:MA:79:ILE:HG22 | 2.50 | 0.46 |
| 7:NA:334:ASP:HB2 | 7:NA:339:SER:H | 1.81 | 0.46 |
| 7:OA:6:ILE:HD12 | 7:OA:16:VAL:HG12 | 1.96 | 0.46 |
| 7:PA:333:LYS:HE2 | 7:PA:340:ARG:HH11 | 1.81 | 0.46 |
| 7:RA:139:ASP:OD2 | 7:RA:212:TYR:HA | 2.15 | 0.46 |
| 7:RA:355:ARG:HH21 | 7:RA:376:ALA:HB2 | 1.79 | 0.46 |
| 8:CB:169:ASP:OD1 | 8:CB:169:ASP:N | 2.48 | 0.46 |
| 8:IB:139:ILE:HD11 | 8:IB:159:LEU:HB3 | 1.98 | 0.46 |
| 8:PB:81:ILE:HG12 | 8:PB:163:TYR:HE1 | 1.80 | 0.46 |
| 1:A:70:ASP:OD1 | 1:A:71:TYR:N | 2.40 | 0.46 |
| 1:B:29:GLU:OE1 | 1:B:29:GLU:N | 2.39 | 0.46 |
| 2:I:18:TYR:CE2 | 2:J:166:GLY:HA3 | 2.50 | 0.46 |
| 2:L:156:PHE:HB3 | 2:L:173:VAL:HG22 | 1.97 | 0.46 |
| 3:M:35:TRP:HA | 3:M:49:TRP:CH2 | 2.51 | 0.46 |
| 3:Q:11:LEU:HD21 | 7:l:24:ASP:C | 2.41 | 0.46 |
| 4:S:40:MET:HG3 | 4:S:104:TRP:HH2 | 1.81 | 0.46 |
| 4:S:47:ASN:OD1 | 4:S:47:ASN:N | 2.49 | 0.46 |
| 4:U:63:LEU:HD21 | 4:U:67:ARG:HH21 | 1.79 | 0.46 |
| 4:W:75:ARG:HD3 | 5:8:46:TYR:CZ | 2.50 | 0.46 |
| 5:Y:139:GLU:CG | 5:Y:233:CYS:HB2 | 2.45 | 0.46 |
| 5:Y:292:GLN:OE1 | 6:a:91:LYS:HE3 | 2.15 | 0.46 |
| 5:Z:316:TRP:NE1 | 5:Z:457:PHE:HA | 2.31 | 0.46 |
| 5:0:104:ILE:O | 5:0:123:VAL:HG13 | 2.16 | 0.46 |
| 5:2:111:ILE:HG22 | 5:2:247:THR:O | 2.15 | 0.46 |
| 5:2:243:GLY:H | 5:2:263:THR:HG23 | 1.79 | 0.46 |
| 5:3:13:ALA:O | 5:3:16:GLU:N | 2.48 | 0.46 |
| 5:3:66:ARG:HB2 | 5:9:1:MET:O | 2.15 | 0.46 |
| 5:3:104:ILE:O | 5:3:123:VAL:HG13 | 2.16 | 0.46 |
| 5:4:111:ILE:HB | 5:4:247:THR:O | 2.16 | 0.46 |
| 5:4:127:VAL:N | 5:4:130:THR:O | 2.38 | 0.46 |
| 5:5:111:ILE:HB | 5:5:247:THR:O | 2.15 | 0.46 |
| 5:9:142:GLU:HG3 | 5:9:230:LYS:HG2 | 1.97 | 0.46 |
| 6:b:47:SER:O | 6:b:51:MET:HG3 | 2.15 | 0.46 |
| 7:g:199:LEU:HG | 7:g:201:TYR:H | 1.80 | 0.46 |
| 7:h:190:GLU:O | 7:n:69:LYS:NZ | 2.48 | 0.46 |
| 7:h:404:LYS:HG3 | 7:h:417:ASP:OD2 | 2.16 | 0.46 |
| 7:i:214:ARG:HD3 | 7:i:214:ARG:HA | 1.68 | 0.46 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 7:j:114:PRO:HD3 | 7:j:230:LYS:HZ3 | 1.80 | 0.46 |
| 7:j:485:ASP:OD1 | 7:j:485:ASP:N | 2.42 | 0.46 |
| 7:l:84:GLU:O | 7:l:88:GLN:NE2 | 2.40 | 0.46 |
| 7:l:228:THR:HG21 | 7:l:230:LYS:HZ2 | 1.81 | 0.46 |
| 7:l:437:MET:HG2 | 7:m:21:ILE:HG12 | 1.98 | 0.46 |
| 7:n:497:LYS:HZ1 | 7:CA:28:SER:H | 1.63 | 0.46 |
| 7:o:326:TYR:HD2 | 7:o:346:SER:HA | 1.80 | 0.46 |
| 7:o:520:ARG:HG2 | 7:p:14:SER:HA | 1.97 | 0.46 |
| 7:p:28:SER:OG | 7:p:60:TYR:OH | 2.33 | 0.46 |
| 7:p:60:TYR:O | 7:p:64:LEU:HB3 | 2.16 | 0.46 |
| 7:p:186:VAL:HG22 | 7:p:202:LEU:HD23 | 1.96 | 0.46 |
| 7:q:303:TYR:CD1 | 7:q:392:PRO:HB3 | 2.51 | 0.46 |
| 7:AA:405:VAL:HG13 | 7:AA:414:ILE:O | 2.16 | 0.46 |
| 7:BA:265:TYR:HE2 | 7:BA:289:ARG:HG3 | 1.80 | 0.46 |
| 7:DA:305:GLU:C | 7:DA:308:PRO:HD2 | 2.40 | 0.46 |
| 7:GA:242:ASP:OD1 | 7:GA:242:ASP:N | 2.49 | 0.46 |
| 7:HA:303:TYR:N | 7:HA:387:TYR:OH | 2.49 | 0.46 |
| 7:JA:305:GLU:C | 7:JA:308:PRO:HD2 | 2.41 | 0.46 |
| 7:KA:274:TYR:HB3 | 7:KA:298:LYS:HD2 | 1.96 | 0.46 |
| 7:LA:103:PHE:HB3 | 7:LA:121:TYR:CE1 | 2.50 | 0.46 |
| 7:LA:305:GLU:C | 7:LA:308:PRO:HD2 | 2.40 | 0.46 |
| 7:MA:355:ARG:HH21 | 7:MA:376:ALA:HB2 | 1.80 | 0.46 |
| 7:OA:355:ARG:O | 7:OA:359:LYS:HG3 | 2.15 | 0.46 |
| 7:PA:355:ARG:HH21 | 7:PA:376:ALA:HB2 | 1.80 | 0.46 |
| 7:RA:268:VAL:HG22 | 7:RA:292:ASP:O | 2.16 | 0.46 |
| 8:AB:57:GLU:OE2 | 8:AB:73:GLY:HA3 | 2.15 | 0.46 |
| 8:GB:88:THR:OG1 | 8:GB:89:ILE:N | 2.47 | 0.46 |
| 8:MB:11:LYS:HE3 | 8:MB:12:PHE:CE1 | 2.51 | 0.46 |
| 8:NB:81:ILE:HG12 | 8:NB:163:TYR:HE1 | 1.80 | 0.46 |
| 8:PB:165:TRP:HD1 | 8:PB:167:GLU:CD | 2.23 | 0.46 |
| 1:B:138:ILE:HG12 | 1:B:151:ASN:HB3 | 1.97 | 0.46 |
| 1:C:137:ARG:HD2 | 1:C:139:TYR:OH | 2.15 | 0.46 |
| 1:E:138:ILE:HG12 | 1:E:151:ASN:HB3 | 1.97 | 0.46 |
| 1:F:101:ARG:HB2 | 1:F:173:PHE:CD2 | 2.51 | 0.46 |
| 2:I:132:ILE:HB | 2:I:135:ARG:HH12 | 1.79 | 0.46 |
| 3:Q:35:TRP:HA | 3:Q:49:TRP:CH2 | 2.51 | 0.46 |
| 3:R:73:MET:SD | 3:R:77:LYS:NZ | 2.88 | 0.46 |
| 3:R:74:LEU:HD12 | 3:R:75:LEU:N | 2.30 | 0.46 |
| 4:V:40:MET:HG3 | 4:V:104:TRP:HH2 | 1.80 | 0.46 |
| 4:V:63:LEU:HD21 | 4:V:67:ARG:HH21 | 1.81 | 0.46 |
| 5:Y:292:GLN:NE2 | 6:a:88:ILE:O | 2.28 | 0.46 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 5:Z:286:TYR:HD2 | 5:Z:301:TYR:HE2 | 1.62 | 0.46 |
| 5:1:184:SER:HB3 | 5:1:198:TYR:CZ | 2.51 | 0.46 |
| 5:2:147:VAL:HG13 | 5:2:224:GLY:H | 1.79 | 0.46 |
| 5:4:196:GLN:HB3 | 5:4:219:GLN:HG2 | 1.96 | 0.46 |
| 5:5:201:PHE:O | 5:5:208:LEU:HD12 | 2.15 | 0.46 |
| 5:6:111:ILE:HB | 5:6:247:THR:O | 2.16 | 0.46 |
| 5:7:167:TYR:CE1 | 5:7:168:LYS:HE2 | 2.50 | 0.46 |
| 5:8:11:ILE:HA | 5:8:14:GLU:CD | 2.40 | 0.46 |
| 5:9:11:ILE:HA | 5:9:14:GLU:CD | 2.41 | 0.46 |
| 5:9:107:ASN:HA | 5:9:119:MET:SD | 2.55 | 0.46 |
| 6:b:99:GLN:HA | 6:b:102:TYR:CD2 | 2.51 | 0.46 |
| 6:d:78:PRO:O | 6:d:81:LEU:HG | 2.15 | 0.46 |
| 6:e:80:LEU:C | 6:e:84:ARG:HE | 2.23 | 0.46 |
| 7:g:404:LYS:HG3 | 7:g:417:ASP:OD2 | 2.16 | 0.46 |
| 7:k:44:PHE:O | 7:k:95:ARG:NH2 | 2.48 | 0.46 |
| 7:k:528:ILE:HG13 | 7:l:27:LEU:HD21 | 1.97 | 0.46 |
| 7:m:399:LYS:HA | 7:m:401:ARG:NH1 | 2.30 | 0.46 |
| 7:n:260:ASN:ND2 | 7:BA:388:PRO:O | 2.49 | 0.46 |
| 7:o:60:TYR:O | 7:o:64:LEU:HB3 | 2.16 | 0.46 |
| 7:o:109:ASP:HA | 7:o:132:ALA:H | 1.81 | 0.46 |
| 7:o:260:ASN:ND2 | 7:CA:388:PRO:O | 2.49 | 0.46 |
| 7:p:260:ASN:ND2 | 7:DA:388:PRO:O | 2.49 | 0.46 |
| 7:BA:109:ASP:OD1 | 7:BA:110:GLU:N | 2.41 | 0.46 |
| 7:CA:405:VAL:HG13 | 7:CA:414:ILE:O | 2.16 | 0.46 |
| 7:EA:147:THR:O | 7:EA:171:GLN:NE2 | 2.48 | 0.46 |
| 7:GA:103:PHE:HB3 | 7:GA:121:TYR:CE1 | 2.50 | 0.46 |
| 7:GA:401:ARG:NE | 7:GA:422:CYS:O | 2.48 | 0.46 |
| 7:GA:459:THR:O | 7:GA:463:LEU:HD23 | 2.15 | 0.46 |
| 7:JA:103:PHE:HB3 | 7:JA:121:TYR:CE1 | 2.50 | 0.46 |
| 7:LA:137:VAL:HA | 7:LA:213:LEU:HD13 | 1.98 | 0.46 |
| 7:MA:397:MET:SD | 7:MA:404:LYS:HG2 | 2.56 | 0.46 |
| 7:NA:46:ARG:CZ | 7:NA:142:PRO:HD3 | 2.45 | 0.46 |
| 7:NA:397:MET:SD | 7:NA:404:LYS:HG2 | 2.56 | 0.46 |
| 7:QA:37:LEU:CB | 7:QA:265:TYR:HA | 2.44 | 0.46 |
| 7:RA:158:ASP:OD1 | 7:RA:164:ARG:NE | 2.39 | 0.46 |
| 8:DB:56:ARG:NH1 | 8:DB:57:GLU:O | 2.41 | 0.46 |
| 8:GB:139:ILE:HD11 | 8:GB:159:LEU:HB3 | 1.97 | 0.46 |
| 8:JB:87:GLU:HB2 | 8:JB:93:ILE:HD12 | 1.97 | 0.46 |
| 8:JB:165:TRP:CZ3 | 8:JB:167:GLU:HG3 | 2.51 | 0.46 |
| 8:KB:26:ARG:HA | 8:LB:88:THR:HA | 1.97 | 0.46 |
| 8:OB:27:LEU:HG | 8:PB:87:GLU:OE2 | 2.15 | 0.46 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:J:156:PHE:HB3 | 2:J:173:VAL:HG22 | 1.97 | 0.46 |
| 3:N:35:TRP:HA | 3:N:49:TRP:CH2 | 2.51 | 0.46 |
| 3:P:11:LEU:HD21 | 7:k:24:ASP:C | 2.41 | 0.46 |
| 4:W:44:ASN:C | 5:7:27:LYS:HZ2 | 2.23 | 0.46 |
| 5:Z:66:ARG:HB2 | 5:5:1:MET:O | 2.16 | 0.46 |
| 5:Z:184:SER:HB3 | 5:Z:198:TYR:CZ | 2.51 | 0.46 |
| 5:Z:240:LEU:HB3 | 5:Z:267:ILE:HD12 | 1.97 | 0.46 |
| 5:1:387:ILE:HG13 | 5:1:441:PHE:HA | 1.97 | 0.46 |
| 5:6:142:GLU:HG3 | 5:6:230:LYS:HG2 | 1.97 | 0.46 |
| 5:6:167:TYR:CE1 | 5:6:168:LYS:HE2 | 2.50 | 0.46 |
| 5:6:201:PHE:O | 5:6:208:LEU:HD12 | 2.16 | 0.46 |
| 5:8:142:GLU:HG3 | 5:8:230:LYS:HG2 | 1.97 | 0.46 |
| 5:8:386:ARG:CZ | 5:8:475:GLU:HA | 2.45 | 0.46 |
| 5:9:111:ILE:HB | 5:9:247:THR:O | 2.16 | 0.46 |
| 5:9:302:PHE:HA | 5:9:305:ARG:HG2 | 1.98 | 0.46 |
| 6:a:155:SER:HA | 6:a:202:THR:O | 2.16 | 0.46 |
| 6:b:48:ILE:HA | 6:b:51:MET:HE2 | 1.98 | 0.46 |
| 6:b:108:ILE:HD11 | 6:b:164:THR:HB | 1.96 | 0.46 |
| 6:c:99:GLN:HA | 6:c:102:TYR:CD2 | 2.51 | 0.46 |
| 6:d:4:SER:O | 6:d:7:ASN:HB2 | 2.16 | 0.46 |
| 6:e:125:PRO:O | 6:e:128:THR:OG1 | 2.30 | 0.46 |
| 7:g:192:ALA:O | 7:g:199:LEU:HD12 | 2.15 | 0.46 |
| 7:g:460:ALA:O | 7:g:463:LEU:HG | 2.16 | 0.46 |
| 7:h:37:LEU:HB2 | 7:h:265:TYR:HA | 1.97 | 0.46 |
| 7:h:44:PHE:O | 7:h:95:ARG:NH2 | 2.48 | 0.46 |
| 7:h:366:TRP:HB2 | 7:h:436:LEU:HD23 | 1.96 | 0.46 |
| 7:i:517:VAL:O | 7:i:517:VAL:HG12 | 2.14 | 0.46 |
| 7:j:69:LYS:HD2 | 7:j:70:PRO:HD2 | 1.98 | 0.46 |
| 7:j:199:LEU:O | 7:j:209:ARG:NH2 | 2.48 | 0.46 |
| 7:j:286:CYS:SG | 7:j:291:ILE:HG13 | 2.56 | 0.46 |
| 7:j:460:ALA:O | 7:j:463:LEU:HG | 2.16 | 0.46 |
| 7:k:146:PRO:HD2 | 7:k:148:ARG:HH22 | 1.80 | 0.46 |
| 7:l:460:ALA:O | 7:l:463:LEU:HG | 2.16 | 0.46 |
| 7:l:502:GLU:HG2 | 7:l:503:PHE:N | 2.31 | 0.46 |
| 7:m:187:SER:HB3 | 7:m:192:ALA:HB1 | 1.97 | 0.46 |
| 7:n:105:ILE:HG13 | 7:n:136:TYR:HB3 | 1.98 | 0.46 |
| 7:n:109:ASP:HA | 7:n:132:ALA:H | 1.81 | 0.46 |
| 7:n:303:TYR:CD1 | 7:n:392:PRO:HB3 | 2.51 | 0.46 |
| 7:p:76:PHE:HA | 7:p:79:ILE:HG12 | 1.98 | 0.46 |
| 7:r:60:TYR:O | 7:r:64:LEU:HB3 | 2.16 | 0.46 |
| 7:r:105:ILE:HG13 | 7:r:136:TYR:HB3 | 1.98 | 0.46 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:r:114:PRO:HD3 | 7:r:230:LYS:HZ3 | 1.80 | 0.46 |
| 7:DA:46:ARG:HH21 | 7:DA:63:VAL:HA | 1.80 | 0.46 |
| 7:EA:355:ARG:HD2 | 7:EA:356:GLY:N | 2.31 | 0.46 |
| 7:EA:527:LEU:HG | 7:EA:529:LYS:N | 2.30 | 0.46 |
| 7:FA:380:ARG:HB2 | 7:FA:383:ILE:HD11 | 1.97 | 0.46 |
| 7:GA:137:VAL:HA | 7:GA:213:LEU:HD13 | 1.98 | 0.46 |
| 7:GA:449:ARG:HH12 | 7:MA:410:SER:H | 1.62 | 0.46 |
| 7:HA:38:TRP:CE2 | 7:HA:91:GLY:HA3 | 2.50 | 0.46 |
| 7:HA:103:PHE:HB3 | 7:HA:121:TYR:CE1 | 2.50 | 0.46 |
| 7:HA:206:LEU:HA | 7:HA:210:SER:HB3 | 1.96 | 0.46 |
| 7:HA:441:SER:O | 7:HA:445:VAL:HG23 | 2.15 | 0.46 |
| 7:JA:307:LEU:HB3 | 7:JA:308:PRO:HD3 | 1.97 | 0.46 |
| 7:JA:307:LEU:O | 7:JA:310:VAL:HG12 | 2.16 | 0.46 |
| 7:OA:69:LYS:O | 7:OA:72:SER:OG | 2.26 | 0.46 |
| 7:QA:461:ALA:C | 7:QA:465:LYS:HZ3 | 2.24 | 0.46 |
| 8:BB:26:ARG:NH2 | 8:BB:27:LEU:HB2 | 2.29 | 0.46 |
| 8:CB:56:ARG:HH22 | 8:DB:138:LYS:NZ | 2.13 | 0.46 |
| 8:IB:58:ASP:OD1 | 8:IB:70:ASN:HB2 | 2.15 | 0.46 |
| 8:IB:137:CYS:HB3 | 8:IB:161:ILE:HD11 | 1.96 | 0.46 |
| 8:JB:37:ALA:O | 8:JB:39:HIS:ND1 | 2.47 | 0.46 |
| 8:LB:32:PHE:HA | 8:LB:113:ALA:HA | 1.98 | 0.46 |
| 8:PB:11:LYS:HE3 | 8:PB:12:PHE:CE1 | 2.51 | 0.46 |
| 1:E:137:ARG:HD2 | 1:E:139:TYR:OH | 2.15 | 0.46 |
| 3:N:44:TYR:HB3 | 5:5:39:LEU:HD13 | 1.97 | 0.46 |
| 3:Q:19:LYS:HG3 | 5:8:28:PHE:CZ | 2.51 | 0.46 |
| 3:Q:117:VAL:HG21 | 7:k:521:ILE:HA | 1.97 | 0.46 |
| 4:S:48:LEU:HB3 | 4:S:98:LYS:HB3 | 1.96 | 0.46 |
| 4:X:117:GLN:HE22 | 5:3:160:LYS:N | 2.13 | 0.46 |
| 5:0:337:PHE:HE1 | 5:0:372:LYS:HE2 | 1.81 | 0.46 |
| 5:1:168:LYS:HB3 | 5:1:232:TRP:HB2 | 1.98 | 0.46 |
| 5:1:441:PHE:HZ | 5:1:472:ILE:HG12 | 1.80 | 0.46 |
| 5:2:290:ASP:HB3 | 6:e:88:ILE:HB | 1.96 | 0.46 |
| 5:3:139:GLU:CG | 5:3:233:CYS:HB2 | 2.45 | 0.46 |
| 5:4:432:TRP:CD1 | 5:4:435:ILE:HD11 | 2.51 | 0.46 |
| 5:5:25:TRP:HD1 | 5:5:28:PHE:CE2 | 2.34 | 0.46 |
| 5:5:107:ASN:HA | 5:5:119:MET:SD | 2.56 | 0.46 |
| 5:5:414:PHE:O | 5:5:417:PRO:HD3 | 2.16 | 0.46 |
| 5:6:45:VAL:O | 5:6:49:PHE:HD2 | 1.98 | 0.46 |
| 5:6:61:ILE:HG13 | 5:6:62:SER:N | 2.31 | 0.46 |
| 5:6:386:ARG:NH1 | 5:6:476:GLU:H | 2.14 | 0.46 |
| 5:8:432:TRP:CD1 | 5:8:435:ILE:HD11 | 2.51 | 0.46 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 5:9:414:PHE:O | 5:9:417:PRO:HD3 | 2.16 | 0.46 |
| 6:d:48:ILE:HA | 6:d:51:MET:HE2 | 1.98 | 0.46 |
| 7:g:44:PHE:O | 7:g:95:ARG:NH2 | 2.48 | 0.46 |
| 7:g:356:GLY:HA2 | 7:g:359:LYS:HZ3 | 1.80 | 0.46 |
| 7:i:404:LYS:HG3 | 7:i:417:ASP:OD2 | 2.16 | 0.46 |
| 7:i:406:SER:OG | 7:i:416:ASP:OD2 | 2.17 | 0.46 |
| 7:l:47:GLY:N | 7:l:139:ASP:O | 2.47 | 0.46 |
| 7:l:286:CYS:SG | 7:l:291:ILE:HG13 | 2.56 | 0.46 |
| 7:m:60:TYR:O | 7:m:64:LEU:HB3 | 2.16 | 0.46 |
| 7:m:109:ASP:HA | 7:m:132:ALA:H | 1.81 | 0.46 |
| 7:o:316:LEU:HD22 | 7:o:423:THR:HG22 | 1.98 | 0.46 |
| 7:o:383:ILE:O | 7:o:384:GLN:NE2 | 2.49 | 0.46 |
| 7:p:461:ALA:O | 7:p:464:THR:OG1 | 2.29 | 0.46 |
| 7:q:260:ASN:ND2 | 7:EA:388:PRO:O | 2.49 | 0.46 |
| 7:r:399:LYS:HA | 7:r:401:ARG:NH1 | 2.31 | 0.46 |
| 7:r:434:PRO:HA | 7:r:437:MET:HE3 | 1.97 | 0.46 |
| 7:AA:109:ASP:OD1 | 7:AA:110:GLU:N | 2.41 | 0.46 |
| 7:AA:397:MET:HB2 | 7:AA:402:LEU:HB3 | 1.98 | 0.46 |
| 7:AA:527:LEU:HG | 7:AA:529:LYS:N | 2.31 | 0.46 |
| 7:CA:299:PRO:HA | 7:CA:327:HIS:NE2 | 2.30 | 0.46 |
| 7:DA:262:PRO:C | 7:DA:263:TYR:HD2 | 2.24 | 0.46 |
| 7:EA:380:ARG:HB2 | 7:EA:383:ILE:HD11 | 1.96 | 0.46 |
| 7:FA:147:THR:O | 7:FA:171:GLN:NE2 | 2.48 | 0.46 |
| 7:HA:186:VAL:HB | 7:HA:202:LEU:HD23 | 1.97 | 0.46 |
| 7:HA:274:TYR:HB3 | 7:HA:298:LYS:HD2 | 1.96 | 0.46 |
| 7:IA:333:LYS:HE2 | 7:IA:340:ARG:HH11 | 1.80 | 0.46 |
| 7:JA:401:ARG:NE | 7:JA:422:CYS:O | 2.48 | 0.46 |
| 7:KA:305:GLU:C | 7:KA:308:PRO:HD2 | 2.41 | 0.46 |
| 7:LA:274:TYR:HB3 | 7:LA:298:LYS:HD2 | 1.96 | 0.46 |
| 7:LA:333:LYS:HB3 | 7:LA:381:ALA:HB3 | 1.97 | 0.46 |
| 7:NA:355:ARG:O | 7:NA:359:LYS:HG3 | 2.15 | 0.46 |
| 7:NA:438:ASN:O | 7:NA:442:ARG:HG3 | 2.15 | 0.46 |
| 8:AB:48:THR:HG23 | 8:BB:147:SER:HA | 1.98 | 0.46 |
| 8:AB:56:ARG:HH22 | 8:BB:138:LYS:HD2 | 1.80 | 0.46 |
| 8:GB:33:LEU:HD12 | 8:GB:114:THR:HG21 | 1.97 | 0.46 |
| 8:IB:37:ALA:O | 8:IB:39:HIS:ND1 | 2.46 | 0.46 |
| 8:IB:88:THR:OG1 | 8:IB:89:ILE:N | 2.49 | 0.46 |
| 8:IB:89:ILE:HD12 | 8:IB:89:ILE:H | 1.81 | 0.46 |
| 8:JB:26:ARG:HH12 | 8:PB:69:PHE:HE2 | 1.63 | 0.46 |
| 8:PB:27:LEU:HG | 8:QB:87:GLU:CD | 2.40 | 0.46 |
| 1:D:138:ILE:HG12 | 1:D:151:ASN:HB3 | 1.97 | 0.46 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:G:95:PRO:HB3 | 2:G:174:ASN:ND2 | 2.30 | 0.46 |
| 2:L:157:ASP:OD1 | 2:L:158:LEU:N | 2.48 | 0.46 |
| 3:M:98:PHE:CZ | 7:g:515:THR:HA | 2.51 | 0.46 |
| 4:V:45:ASP:HA | 5:6:27:LYS:HE2 | 1.98 | 0.46 |
| 4:W:73:GLU:CD | 4:W:76:TRP:HE1 | 2.23 | 0.46 |
| 4:X:105:ILE:H | 4:X:105:ILE:HD12 | 1.81 | 0.46 |
| 5:Y:66:ARG:HB2 | 5:4:1:MET:O | 2.16 | 0.46 |
| 5:Y:184:SER:HB3 | 5:Y:198:TYR:CZ | 2.51 | 0.46 |
| 5:Z:304:VAL:HG23 | 5:Z:310:LEU:HD11 | 1.97 | 0.46 |
| 5:0:316:TRP:NE1 | 5:0:457:PHE:HA | 2.31 | 0.46 |
| 5:1:139:GLU:CG | 5:1:233:CYS:HB2 | 2.45 | 0.46 |
| 5:1:240:LEU:HB3 | 5:1:267:ILE:HD12 | 1.97 | 0.46 |
| 5:2:337:PHE:CE1 | 5:2:372:LYS:HE2 | 2.51 | 0.46 |
| 5:3:441:PHE:HZ | 5:3:472:ILE:HG12 | 1.80 | 0.46 |
| 5:4:62:SER:HA | 5:4:280:ARG:HD2 | 1.97 | 0.46 |
| 5:4:201:PHE:O | 5:4:208:LEU:HD12 | 2.16 | 0.46 |
| 5:5:167:TYR:CE1 | 5:5:168:LYS:HE2 | 2.50 | 0.46 |
| 5:5:334:ASN:HB3 | 5:5:367:LYS:HD3 | 1.97 | 0.46 |
| 5:5:432:TRP:CD1 | 5:5:435:ILE:HD11 | 2.51 | 0.46 |
| 5:7:61:ILE:HG13 | 5:7:62:SER:N | 2.31 | 0.46 |
| 5:8:111:ILE:HB | 5:8:247:THR:O | 2.16 | 0.46 |
| 5:8:375:ARG:O | 5:8:460:PHE:N | 2.31 | 0.46 |
| 5:9:17:GLU:HA | 5:9:20:GLU:OE1 | 2.15 | 0.46 |
| 5:9:167:TYR:CE1 | 5:9:168:LYS:HE2 | 2.50 | 0.46 |
| 5:9:334:ASN:HB3 | 5:9:367:LYS:HD3 | 1.96 | 0.46 |
| 6:b:4:SER:O | 6:b:7:ASN:HB2 | 2.16 | 0.46 |
| 6:d:120:ASP:OD2 | 6:d:123:ARG:NH1 | 2.49 | 0.46 |
| 6:f:120:ASP:OD2 | 6:f:123:ARG:NH1 | 2.49 | 0.46 |
| 7:g:69:LYS:HD2 | 7:g:70:PRO:HD2 | 1.98 | 0.46 |
| 7:g:286:CYS:SG | 7:g:291:ILE:HG13 | 2.56 | 0.46 |
| 7:h:402:LEU:HG | 7:h:403:ASN:N | 2.31 | 0.46 |
| 7:i:286:CYS:SG | 7:i:291:ILE:HG13 | 2.56 | 0.46 |
| 7:i:437:MET:HG2 | 7:p:21:ILE:HG12 | 1.98 | 0.46 |
| 7:m:75:GLN:HE22 | 7:m:244:SER:HA | 1.81 | 0.46 |
| 7:m:259:ASN:OD1 | 7:BA:2:SER:N | 2.49 | 0.46 |
| 7:m:326:TYR:HD2 | 7:m:346:SER:HA | 1.80 | 0.46 |
| 7:o:44:PHE:HE1 | 7:o:78:PRO:HB2 | 1.79 | 0.46 |
| 7:o:399:LYS:HA | 7:o:401:ARG:NH1 | 2.31 | 0.46 |
| 7:p:109:ASP:HA | 7:p:132:ALA:H | 1.81 | 0.46 |
| 7:p:303:TYR:CD1 | 7:p:392:PRO:HB3 | 2.51 | 0.46 |
| 7:p:453:HIS:HB3 | 7:DA:369:SER:HB2 | 1.98 | 0.46 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 7:q:76:PHE:HA | 7:q:79:ILE:HG12 | 1.98 | 0.46 |
| 7:r:7:GLN:NE2 | 7:r:17:ALA:HB2 | 2.30 | 0.46 |
| 7:CA:46:ARG:HH21 | 7:CA:63:VAL:HA | 1.80 | 0.46 |
| 7:CA:519:ARG:HG3 | 7:CA:520:ARG:N | 2.30 | 0.46 |
| 7:FA:49:PRO:HA | 7:FA:95:ARG:HB3 | 1.98 | 0.46 |
| 7:FA:305:GLU:C | 7:FA:308:PRO:HD2 | 2.40 | 0.46 |
| 7:GA:378:ILE:HG23 | 7:GA:379:ALA:N | 2.31 | 0.46 |
| 7:HA:378:ILE:HG23 | 7:HA:379:ALA:N | 2.31 | 0.46 |
| 7:KA:38:TRP:CE2 | 7:KA:91:GLY:HA3 | 2.50 | 0.46 |
| 7:NA:139:ASP:OD2 | 7:NA:212:TYR:HA | 2.15 | 0.46 |
| 7:OA:210:SER:OG | 7:OA:213:LEU:O | 2.18 | 0.46 |
| 7:OA:268:VAL:HG22 | 7:OA:292:ASP:O | 2.16 | 0.46 |
| 7:RA:230:LYS:C | 7:RA:231:LYS:HD3 | 2.41 | 0.46 |
| 8:BB:26:ARG:HE | 8:BB:27:LEU:H | 1.62 | 0.46 |
| 8:CB:62:TYR:HB3 | 8:CB:68:LYS:NZ | 2.30 | 0.46 |
| 8:CB:151:VAL:HB | 8:HB:57:GLU:HG2 | 1.98 | 0.46 |
| 8:GB:154:ALA:CB | 8:LB:28:VAL:HA | 2.43 | 0.46 |
| 8:JB:50:GLN:CB | 8:JB:81:ILE:HG23 | 2.43 | 0.46 |
| 8:KB:165:TRP:CZ3 | 8:KB:167:GLU:HG3 | 2.51 | 0.46 |
| 8:RB:119:SER:HA | 8:RB:125:VAL:H | 1.81 | 0.46 |
| 1:A:137:ARG:HD2 | 1:A:139:TYR:OH | 2.15 | 0.46 |
| 1:F:137:ARG:HD2 | 1:F:139:TYR:OH | 2.15 | 0.46 |
| 2:G:157:ASP:OD1 | 2:G:158:LEU:N | 2.48 | 0.46 |
| 3:M:74:LEU:HD12 | 3:M:75:LEU:N | 2.31 | 0.46 |
| 3:N:9:PRO:HD2 | 7:i:23:ALA:HB1 | 1.98 | 0.46 |
| 3:P:21:TYR:O | 4:W:46:LYS:NZ | 2.44 | 0.46 |
| 3:Q:33:TYR:HE1 | 7:k:525:PRO:HB2 | 1.80 | 0.46 |
| 4:T:32:GLU:O | 4:T:35:LYS:HB2 | 2.16 | 0.46 |
| 4:U:110:ARG:HG3 | 4:U:114:TYR:HE2 | 1.81 | 0.46 |
| 4:W:48:LEU:HB3 | 4:W:98:LYS:HB3 | 1.96 | 0.46 |
| 4:W:63:LEU:HD21 | 4:W:67:ARG:HH21 | 1.80 | 0.46 |
| 4:W:117:GLN:HE22 | 5:2:160:LYS:N | 2.12 | 0.46 |
| 4:X:40:MET:HG3 | 4:X:104:TRP:HH2 | 1.81 | 0.46 |
| 5:Z:13:ALA:O | 5:Z:16:GLU:N | 2.48 | 0.46 |
| 5:0:139:GLU:CG | 5:0:233:CYS:HB2 | 2.45 | 0.46 |
| 5:0:147:VAL:HG13 | 5:0:224:GLY:H | 1.80 | 0.46 |
| 5:0:240:LEU:HB3 | 5:0:267:ILE:HD12 | 1.97 | 0.46 |
| 5:1:45:VAL:HG11 | 6:d:30:MET:HE2 | 1.97 | 0.46 |
| 5:2:66:ARG:HB2 | 5:8:1:MET:O | 2.16 | 0.46 |
| 5:2:163:THR:HG21 | 5:2:208:LEU:HD23 | 1.98 | 0.46 |
| 5:2:168:LYS:HB3 | 5:2:232:TRP:HB2 | 1.98 | 0.46 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 5:2:240:LEU:HB3 | 5:2:267:ILE:HD12 | 1.97 | 0.46 |
| 5:2:286:TYR:HD2 | 5:2:301:TYR:HE2 | 1.63 | 0.46 |
| 5:3:25:TRP:O | 5:3:28:PHE:C | 2.59 | 0.46 |
| 5:3:316:TRP:HB2 | 5:3:337:PHE:HB3 | 1.98 | 0.46 |
| 5:7:414:PHE:O | 5:7:417:PRO:HD3 | 2.16 | 0.46 |
| 6:a:151:ARG:HA | 6:a:197:VAL:HB | 1.98 | 0.46 |
| 6:c:108:ILE:HD11 | 6:c:164:THR:HB | 1.97 | 0.46 |
| 7:i:356:GLY:HA2 | 7:i:359:LYS:NZ | 2.31 | 0.46 |
| 7:m:105:ILE:HG13 | 7:m:136:TYR:HB3 | 1.98 | 0.46 |
| 7:m:467:MET:HE2 | 7:m:496:LEU:HB2 | 1.98 | 0.46 |
| 7:p:259:ASN:OD1 | 7:EA:2:SER:N | 2.49 | 0.46 |
| 7:q:60:TYR:O | 7:q:64:LEU:HB3 | 2.16 | 0.46 |
| 7:q:201:TYR:HB2 | 7:EA:69:LYS:HZ1 | 1.81 | 0.46 |
| 7:AA:46:ARG:HH21 | 7:AA:63:VAL:HA | 1.80 | 0.46 |
| 7:DA:344:GLY:O | 7:DA:380:ARG:NH2 | 2.44 | 0.46 |
| 7:DA:397:MET:HB2 | 7:DA:402:LEU:HB3 | 1.97 | 0.46 |
| 7:EA:92:TYR:CE2 | 7:EA:263:TYR:HB3 | 2.51 | 0.46 |
| 7:FA:356:GLY:HA2 | 7:FA:359:LYS:HE3 | 1.98 | 0.46 |
| 7:HA:137:VAL:HA | 7:HA:213:LEU:HD13 | 1.98 | 0.46 |
| 7:HA:316:LEU:HG | 7:HA:423:THR:HG21 | 1.97 | 0.46 |
| 7:HA:448:ALA:HA | 7:HA:451:MET:HG3 | 1.97 | 0.46 |
| 7:IA:317:GLY:H | 7:IA:423:THR:HG21 | 1.81 | 0.46 |
| 7:KA:487:ASP:O | 7:RA:335:LYS:NZ | 2.33 | 0.46 |
| 7:LA:22:ASN:OD1 | 7:LA:23:ALA:N | 2.48 | 0.46 |
| 7:MA:36:SER:HA | 7:MA:266:THR:HG21 | 1.98 | 0.46 |
| 7:MA:139:ASP:OD2 | 7:MA:212:TYR:HA | 2.15 | 0.46 |
| 7:MA:230:LYS:C | 7:MA:231:LYS:HD3 | 2.40 | 0.46 |
| 7:MA:334:ASP:HB2 | 7:MA:339:SER:H | 1.81 | 0.46 |
| 7:MA:447:LEU:HA | 7:MA:450:GLN:HG3 | 1.98 | 0.46 |
| 7:OA:158:ASP:OD1 | 7:OA:164:ARG:NE | 2.39 | 0.46 |
| 7:OA:319:ASP:OD1 | 7:OA:319:ASP:N | 2.43 | 0.46 |
| 7:PA:45:ALA:HB1 | 7:PA:46:ARG:NH1 | 2.31 | 0.46 |
| 7:QA:334:ASP:HB3 | 7:QA:338:GLN:H | 1.81 | 0.46 |
| 7:RA:443:PHE:O | 7:RA:446:GLN:HG3 | 2.15 | 0.46 |
| 8:AB:36:PHE:HD2 | 8:AB:39:HIS:HB2 | 1.80 | 0.46 |
| 8:BB:7:LYS:O | 8:CB:117:SER:OG | 2.24 | 0.46 |
| 8:IB:165:TRP:CZ3 | 8:IB:167:GLU:HG3 | 2.51 | 0.46 |
| 8:JB:33:LEU:HD12 | 8:JB:114:THR:HG21 | 1.97 | 0.46 |
| 8:MB:26:ARG:NH2 | 8:NB:87:GLU:OE2 | 2.49 | 0.46 |
| 8:MB:115:PRO:HG2 | 8:MB:118:LYS:CG | 2.41 | 0.46 |
| 8:NB:119:SER:HA | 8:NB:125:VAL:H | 1.81 | 0.46 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 8:OB:81:ILE:HG12 | 8:OB:163:TYR:HE1 | 1.81 | 0.46 |
| 1:C:47:TRP:HZ2 | 8:CB:74:PRO:HA | 1.81 | 0.46 |
| 1:F:47:TRP:HZ2 | 8:FB:74:PRO:HA | 1.81 | 0.46 |
| 2:H:157:ASP:OD1 | 2:H:158:LEU:N | 2.48 | 0.46 |
| 3:N:11:LEU:HD21 | 7:i:24:ASP:C | 2.41 | 0.46 |
| 4:S:105:ILE:H | 4:S:105:ILE:HD12 | 1.81 | 0.46 |
| 4:W:40:MET:O | 4:W:43:SER:OG | 2.25 | 0.46 |
| 5:Y:346:SER:N | 5:Y:349:GLU:OE1 | 2.31 | 0.46 |
| 5:Z:139:GLU:CG | 5:Z:233:CYS:HB2 | 2.46 | 0.46 |
| 5:0:168:LYS:HB3 | 5:0:232:TRP:HB2 | 1.98 | 0.46 |
| 5:0:441:PHE:HZ | 5:0:472:ILE:HG12 | 1.81 | 0.46 |
| 5:4:137:GLN:OE1 | 5:4:234:THR:OG1 | 2.28 | 0.46 |
| 5:5:11:ILE:HA | 5:5:14:GLU:CD | 2.41 | 0.46 |
| 5:5:17:GLU:HA | 5:5:20:GLU:OE1 | 2.16 | 0.46 |
| 5:9:201:PHE:O | 5:9:208:LEU:HD12 | 2.16 | 0.46 |
| 6:a:108:ILE:HD11 | 6:a:164:THR:HB | 1.97 | 0.46 |
| 6:c:155:SER:HA | 6:c:202:THR:O | 2.15 | 0.46 |
| 6:e:48:ILE:HA | 6:e:51:MET:HE2 | 1.98 | 0.46 |
| 7:g:196:MET:SD | 7:l:426:ASN:HA | 2.55 | 0.46 |
| 7:g:369:SER:HB3 | 7:g:517:VAL:HG11 | 1.98 | 0.46 |
| 7:h:69:LYS:HD2 | 7:h:70:PRO:HD2 | 1.98 | 0.46 |
| 7:i:69:LYS:HD2 | 7:i:70:PRO:HD2 | 1.98 | 0.46 |
| 7:i:290:LEU:O | 7:i:290:LEU:HD23 | 2.16 | 0.46 |
| 7:k:37:LEU:HB2 | 7:k:265:TYR:HA | 1.97 | 0.46 |
| 7:k:404:LYS:HG3 | 7:k:417:ASP:OD2 | 2.16 | 0.46 |
| 7:l:263:TYR:C | 7:m:4:TYR:HE2 | 2.24 | 0.46 |
| 7:l:356:GLY:HA2 | 7:l:359:LYS:HZ3 | 1.81 | 0.46 |
| 7:o:7:GLN:NE2 | 7:o:17:ALA:HB2 | 2.30 | 0.46 |
| 7:q:7:GLN:NE2 | 7:q:17:ALA:HB2 | 2.31 | 0.46 |
| 7:q:109:ASP:HA | 7:q:132:ALA:H | 1.81 | 0.46 |
| 7:q:506:TRP:C | 7:EA:521:ILE:HD12 | 2.41 | 0.46 |
| 7:q:507:GLU:OE1 | 7:q:507:GLU:N | 2.49 | 0.46 |
| 7:q:520:ARG:HG2 | 7:r:14:SER:HA | 1.96 | 0.46 |
| 7:r:109:ASP:HA | 7:r:132:ALA:H | 1.81 | 0.46 |
| 7:BA:355:ARG:HD2 | 7:BA:356:GLY:N | 2.31 | 0.46 |
| 7:CA:305:GLU:C | 7:CA:308:PRO:HD2 | 2.40 | 0.46 |
| 7:DA:443:PHE:O | 7:DA:446:GLN:NE2 | 2.49 | 0.46 |
| 7:DA:467:MET:HA | 7:DA:470:LEU:HG | 1.98 | 0.46 |
| 7:KA:316:LEU:HG | 7:KA:423:THR:HG21 | 1.97 | 0.46 |
| 7:KA:401:ARG:HA | 7:KA:419:LEU:HD21 | 1.98 | 0.46 |
| 7:LA:154:THR:HA | 7:LA:165:PHE:HB3 | 1.97 | 0.46 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 7:PA:54:ALA:HB2 | 7:PA:92:TYR:CE1 | 2.51 | 0.46 |
| 8:AB:26:ARG:HE | 8:AB:27:LEU:H | 1.62 | 0.46 |
| 8:GB:6:THR:HG21 | 8:OB:105:ASP:HA | 1.97 | 0.46 |
| 8:IB:76:ARG:HH22 | 8:JB:160:ARG:NH2 | 2.14 | 0.46 |
| 8:IB:85:CYS:O | 8:IB:157:PRO:HD2 | 2.16 | 0.46 |
| 8:JB:45:LEU:O | 8:JB:47:ARG:NH1 | 2.49 | 0.46 |
| 8:LB:165:TRP:CZ3 | 8:LB:167:GLU:HG3 | 2.51 | 0.46 |
| 8:NB:49:SER:HG | 8:OB:146:PHE:HZ | 1.62 | 0.46 |
| 8:OB:119:SER:HA | 8:OB:125:VAL:H | 1.81 | 0.46 |
| 8:QB:26:ARG:NH2 | 8:RB:87:GLU:OE2 | 2.49 | 0.46 |
| 1:C:61:PHE:HA | 8:BB:64:PRO:HG2 | 1.98 | 0.45 |
| 1:C:101:ARG:HB2 | 1:C:173:PHE:CD2 | 2.51 | 0.45 |
| 2:H:3:PRO:HD2 | 2:H:29:GLN:NE2 | 2.30 | 0.45 |
| 3:M:65:HIS:CD2 | 3:M:66:VAL:HG13 | 2.50 | 0.45 |
| 4:S:110:ARG:HG3 | 4:S:114:TYR:HE2 | 1.81 | 0.45 |
| 5:Y:316:TRP:HB2 | 5:Y:337:PHE:HB3 | 1.99 | 0.45 |
| 5:Z:441:PHE:HZ | 5:Z:472:ILE:HG12 | 1.81 | 0.45 |
| 5:0:163:THR:HG21 | 5:0:208:LEU:HD23 | 1.98 | 0.45 |
| 5:2:104:ILE:O | 5:2:123:VAL:HG13 | 2.17 | 0.45 |
| 5:2:142:GLU:OE2 | 5:2:144:THR:OG1 | 2.30 | 0.45 |
| 5:2:311:SER:O | 5:2:419:ARG:NH1 | 2.48 | 0.45 |
| 5:3:304:VAL:HG23 | 5:3:310:LEU:HD11 | 1.97 | 0.45 |
| 5:3:316:TRP:HE3 | 5:3:320:GLN:HB3 | 1.82 | 0.45 |
| 5:4:107:ASN:HA | 5:4:119:MET:SD | 2.55 | 0.45 |
| 5:5:160:LYS:HZ3 | 5:5:206:GLU:CD | 2.23 | 0.45 |
| 5:7:11:ILE:HA | 5:7:14:GLU:OE2 | 2.16 | 0.45 |
| 5:7:302:PHE:HA | 5:7:305:ARG:HG2 | 1.98 | 0.45 |
| 5:8:160:LYS:HZ3 | 5:8:206:GLU:CD | 2.23 | 0.45 |
| 5:8:302:PHE:HA | 5:8:305:ARG:HG2 | 1.98 | 0.45 |
| 5:8:316:TRP:HE3 | 5:8:320:GLN:HG2 | 1.80 | 0.45 |
| 6:a:99:GLN:HA | 6:a:102:TYR:CD2 | 2.52 | 0.45 |
| 6:b:120:ASP:OD2 | 6:b:123:ARG:NH1 | 2.49 | 0.45 |
| 6:e:4:SER:O | 6:e:7:ASN:HB2 | 2.16 | 0.45 |
| 6:e:24:ALA:O | 6:e:28:GLN:HG2 | 2.15 | 0.45 |
| 7:g:146:PRO:HD2 | 7:g:148:ARG:HH22 | 1.81 | 0.45 |
| 7:g:356:GLY:HA2 | 7:g:359:LYS:NZ | 2.31 | 0.45 |
| 7:g:502:GLU:HG2 | 7:g:503:PHE:N | 2.31 | 0.45 |
| 7:h:310:VAL:HG22 | 7:h:316:LEU:HG | 1.99 | 0.45 |
| 7:j:356:GLY:HA2 | 7:j:359:LYS:NZ | 2.31 | 0.45 |
| 7:j:369:SER:O | 7:j:375:ARG:NH2 | 2.36 | 0.45 |
| 7:k:310:VAL:HG22 | 7:k:316:LEU:HG | 1.98 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:m:7:GLN:NE2 | 7:m:17:ALA:HB2 | 2.31 | 0.45 |
| 7:n:102:LYS:NZ | 7:n:120:PRO:HD3 | 2.32 | 0.45 |
| 7:p:325:VAL:HG13 | 7:p:402:LEU:HG | 1.99 | 0.45 |
| 7:p:506:TRP:C | 7:DA:521:ILE:HD12 | 2.41 | 0.45 |
| 7:q:316:LEU:HD22 | 7:q:423:THR:HG22 | 1.97 | 0.45 |
| 7:r:2:SER:HG | 7:r:3:GLN:H | 1.62 | 0.45 |
| 7:r:383:ILE:O | 7:r:384:GLN:NE2 | 2.49 | 0.45 |
| 7:BA:92:TYR:CE2 | 7:BA:263:TYR:HB3 | 2.51 | 0.45 |
| 7:BA:467:MET:HA | 7:BA:470:LEU:HG | 1.97 | 0.45 |
| 7:CA:507:GLU:HA | 7:IA:522:GLN:O | 2.16 | 0.45 |
| 7:DA:355:ARG:HA | 7:DA:358:LYS:HE2 | 1.97 | 0.45 |
| 7:DA:366:TRP:CD1 | 7:DA:435:SER:HB2 | 2.50 | 0.45 |
| 7:DA:507:GLU:HA | 7:JA:522:GLN:O | 2.16 | 0.45 |
| 7:EA:441:SER:O | 7:EA:445:VAL:HG23 | 2.16 | 0.45 |
| 7:GA:317:GLY:H | 7:GA:423:THR:HG21 | 1.81 | 0.45 |
| 7:IA:366:TRP:HB3 | 7:IA:435:SER:HB2 | 1.98 | 0.45 |
| 7:IA:378:ILE:HG23 | 7:IA:379:ALA:N | 2.31 | 0.45 |
| 7:JA:32:ALA:HB1 | 7:JA:89:THR:HA | 1.98 | 0.45 |
| 7:JA:326:TYR:HE1 | 7:JA:415:ILE:HD13 | 1.81 | 0.45 |
| 7:KA:137:VAL:HA | 7:KA:213:LEU:HD13 | 1.98 | 0.45 |
| 7:LA:317:GLY:H | 7:LA:423:THR:HG21 | 1.81 | 0.45 |
| 7:LA:366:TRP:HB3 | 7:LA:435:SER:HB2 | 1.98 | 0.45 |
| 7:MA:378:ILE:HG13 | 7:MA:379:ALA:H | 1.79 | 0.45 |
| 7:NA:508:VAL:HG13 | 7:NA:510:TRP:CZ3 | 2.50 | 0.45 |
| 7:OA:393:ASP:OD2 | 7:OA:395:GLU:HG3 | 2.15 | 0.45 |
| 8:FB:26:ARG:NE | 8:FB:27:LEU:H | 2.14 | 0.45 |
| 8:HB:10:ARG:O | 8:HB:13:ILE:HG12 | 2.17 | 0.45 |
| 8:QB:81:ILE:HG12 | 8:QB:163:TYR:HE1 | 1.81 | 0.45 |
| 8:QB:89:ILE:HG13 | 8:QB:90:GLU:N | 2.31 | 0.45 |
| 1:A:29:GLU:OE1 | 1:A:29:GLU:N | 2.39 | 0.45 |
| 1:C:167:ARG:HB3 | 8:AB:62:TYR:HE2 | 1.81 | 0.45 |
| 1:D:64:LYS:NZ | 1:D:99:MET:HG3 | 2.31 | 0.45 |
| 2:G:156:PHE:HB3 | 2:G:173:VAL:HG22 | 1.97 | 0.45 |
| 3:P:117:VAL:HG21 | 7:j:521:ILE:HA | 1.97 | 0.45 |
| 3:R:35:TRP:HA | 3:R:49:TRP:CH2 | 2.52 | 0.45 |
| 4:T:34:ARG:NH1 | 5:5:58:GLU:OE2 | 2.49 | 0.45 |
| 4:T:40:MET:O | 4:T:43:SER:OG | 2.26 | 0.45 |
| 4:T:105:ILE:HD12 | 4:T:105:ILE:H | 1.82 | 0.45 |
| 4:U:33:LEU:HD11 | 4:U:112:PHE:HD2 | 1.81 | 0.45 |
| 4:W:40:MET:HG3 | 4:W:104:TRP:HH2 | 1.80 | 0.45 |
| 5:1:275:THR:O | 5:1:279:THR:HG23 | 2.17 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 5:1:276:THR:O | 5:1:279:THR:OG1 | 2.29 | 0.45 |
| 5:1:292:GLN:NE2 | 6:d:88:ILE:O | 2.28 | 0.45 |
| 5:2:276:THR:O | 5:2:279:THR:OG1 | 2.29 | 0.45 |
| 5:2:316:TRP:HB2 | 5:2:337:PHE:HB3 | 1.99 | 0.45 |
| 5:3:337:PHE:CE1 | 5:3:372:LYS:HE2 | 2.51 | 0.45 |
| 5:4:17:GLU:HA | 5:4:20:GLU:OE1 | 2.15 | 0.45 |
| 5:4:302:PHE:HA | 5:4:305:ARG:HG2 | 1.98 | 0.45 |
| 5:5:329:ASN:HB3 | 5:5:332:ASN:HB2 | 1.98 | 0.45 |
| 5:7:386:ARG:CZ | 5:7:475:GLU:HA | 2.46 | 0.45 |
| 5:7:432:TRP:CD1 | 5:7:435:ILE:HD11 | 2.51 | 0.45 |
| 5:9:316:TRP:HE3 | 5:9:320:GLN:HG2 | 1.80 | 0.45 |
| 5:9:349:GLU:O | 5:9:352:GLU:HG2 | 2.16 | 0.45 |
| 6:a:48:ILE:HA | 6:a:51:MET:HE2 | 1.98 | 0.45 |
| 6:e:108:ILE:HD11 | 6:e:164:THR:HB | 1.97 | 0.45 |
| 6:e:151:ARG:HA | 6:e:197:VAL:HB | 1.98 | 0.45 |
| 7:j:404:LYS:HG3 | 7:j:417:ASP:OD2 | 2.16 | 0.45 |
| 7:m:102:LYS:NZ | 7:m:120:PRO:HD3 | 2.31 | 0.45 |
| 7:m:356:GLY:HA3 | 7:m:375:ARG:HD3 | 1.97 | 0.45 |
| 7:n:187:SER:HB3 | 7:n:192:ALA:HB1 | 1.97 | 0.45 |
| 7:p:7:GLN:NE2 | 7:p:17:ALA:HB2 | 2.31 | 0.45 |
| 7:p:507:GLU:OE1 | 7:p:507:GLU:N | 2.49 | 0.45 |
| 7:q:42:GLY:O | 7:q:95:ARG:HA | 2.16 | 0.45 |
| 7:q:325:VAL:HG13 | 7:q:402:LEU:HG | 1.99 | 0.45 |
| 7:r:260:ASN:ND2 | 7:FA:388:PRO:O | 2.50 | 0.45 |
| 7:r:497:LYS:HE2 | 7:AA:29:THR:HB | 1.98 | 0.45 |
| 7:AA:262:PRO:C | 7:AA:263:TYR:HD2 | 2.24 | 0.45 |
| 7:AA:380:ARG:HB2 | 7:AA:383:ILE:HD11 | 1.96 | 0.45 |
| 7:AA:507:GLU:HA | 7:GA:522:GLN:O | 2.17 | 0.45 |
| 7:BA:519:ARG:NH1 | 7:CA:12:ASN:HA | 2.30 | 0.45 |
| 7:DA:38:TRP:CZ2 | 7:DA:91:GLY:HA3 | 2.51 | 0.45 |
| 7:DA:447:LEU:HD12 | 7:DA:448:ALA:N | 2.31 | 0.45 |
| 7:EA:265:TYR:HE2 | 7:EA:289:ARG:HG3 | 1.80 | 0.45 |
| 7:GA:307:LEU:HB3 | 7:GA:308:PRO:HD3 | 1.97 | 0.45 |
| 7:GA:333:LYS:HB3 | 7:GA:381:ALA:HB3 | 1.97 | 0.45 |
| 7:GA:446:GLN:HG2 | 7:GA:447:LEU:HD22 | 1.98 | 0.45 |
| 7:JA:441:SER:O | 7:JA:445:VAL:HG23 | 2.16 | 0.45 |
| 7:LA:378:ILE:HG23 | 7:LA:379:ALA:N | 2.31 | 0.45 |
| 7:MA:202:LEU:HB2 | 7:MA:203:PRO:HD3 | 1.98 | 0.45 |
| 7:OA:508:VAL:HG13 | 7:OA:510:TRP:CZ3 | 2.50 | 0.45 |
| 7:QA:397:MET:SD | 7:QA:404:LYS:HG2 | 2.56 | 0.45 |
| 7:QA:438:ASN:O | 7:QA:442:ARG:HG3 | 2.15 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 7:RA:79:ILE:HD11 | 7:RA:80:ARG:NH1 | 2.32 | 0.45 |
| 7:RA:202:LEU:HB2 | 7:RA:203:PRO:HD3 | 1.98 | 0.45 |
| 8:BB:33:LEU:HD11 | 8:BB:112:ALA:HB3 | 1.98 | 0.45 |
| 8:BB:71:GLN:OE1 | 8:CB:106:TYR:OH | 2.33 | 0.45 |
| 8:DB:33:LEU:HD11 | 8:DB:112:ALA:HB3 | 1.98 | 0.45 |
| 8:GB:165:TRP:CZ3 | 8:GB:167:GLU:HG3 | 2.51 | 0.45 |
| 8:HB:85:CYS:O | 8:HB:157:PRO:HD2 | 2.16 | 0.45 |
| 8:NB:27:LEU:HG | 8:OB:87:GLU:OE2 | 2.15 | 0.45 |
| 1:A:47:TRP:HZ2 | 8:AB:74:PRO:HA | 1.82 | 0.45 |
| 1:A:138:ILE:HG12 | 1:A:151:ASN:HB3 | 1.97 | 0.45 |
| 1:B:76:GLU:O | 1:B:86:LEU:HA | 2.17 | 0.45 |
| 1:D:62:PHE:HB3 | 1:D:101:ARG:O | 2.16 | 0.45 |
| 1:F:167:ARG:HB3 | 8:DB:62:TYR:HE2 | 1.81 | 0.45 |
| 3:M:89:GLY:O | 3:M:105:ILE:HD12 | 2.17 | 0.45 |
| 3:O:35:TRP:HA | 3:O:49:TRP:CH2 | 2.51 | 0.45 |
| 4:T:40:MET:HG3 | 4:T:104:TRP:HH2 | 1.81 | 0.45 |
| 4:U:31:ALA:O | 4:U:35:LYS:HG2 | 2.16 | 0.45 |
| 4:U:40:MET:O | 4:U:43:SER:OG | 2.24 | 0.45 |
| 4:W:112:PHE:HA | 4:W:116:GLY:CA | 2.47 | 0.45 |
| 4:X:29:LEU:O | 4:X:32:GLU:HG3 | 2.16 | 0.45 |
| 4:X:93:VAL:HG12 | 7:l:382:SER:HA | 1.98 | 0.45 |
| 5:0:316:TRP:HE3 | 5:0:320:GLN:HB3 | 1.81 | 0.45 |
| 5:1:151:LYS:HE2 | 5:6:21:LYS:HZ2 | 1.82 | 0.45 |
| 5:1:337:PHE:CE1 | 5:1:372:LYS:HE2 | 2.51 | 0.45 |
| 5:2:304:VAL:HG23 | 5:2:310:LEU:HD11 | 1.97 | 0.45 |
| 5:3:168:LYS:HB3 | 5:3:232:TRP:HB2 | 1.98 | 0.45 |
| 5:3:275:THR:O | 5:3:279:THR:HG23 | 2.16 | 0.45 |
| 5:4:90:MET:O | 5:4:265:THR:HB | 2.15 | 0.45 |
| 5:4:414:PHE:O | 5:4:417:PRO:HD3 | 2.16 | 0.45 |
| 5:5:142:GLU:HG3 | 5:5:230:LYS:HG2 | 1.97 | 0.45 |
| 5:7:329:ASN:HB3 | 5:7:332:ASN:HB2 | 1.98 | 0.45 |
| 5:7:351:GLU:HB2 | 5:7:371:TYR:CG | 2.52 | 0.45 |
| 5:8:167:TYR:CE1 | 5:8:168:LYS:HE2 | 2.50 | 0.45 |
| 5:9:329:ASN:HB3 | 5:9:332:ASN:HB2 | 1.98 | 0.45 |
| 6:b:151:ARG:HA | 6:b:197:VAL:HB | 1.98 | 0.45 |
| 6:c:36:ASP:O | 6:c:39:LEU:N | 2.50 | 0.45 |
| 6:c:151:ARG:HA | 6:c:197:VAL:HB | 1.98 | 0.45 |
| 6:e:84:ARG:HA | 6:e:87:GLU:CD | 2.42 | 0.45 |
| 7:i:366:TRP:HB2 | 7:i:436:LEU:HD23 | 1.96 | 0.45 |
| 7:i:502:GLU:HG2 | 7:i:503:PHE:N | 2.31 | 0.45 |
| 7:i:528:ILE:HG13 | 7:j:27:LEU:HD21 | 1.99 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:k:69:LYS:HD2 | 7:k:70:PRO:HD2 | 1.98 | 0.45 |
| 7:k:432:HIS:CE1 | 7:k:433:VAL:HG23 | 2.52 | 0.45 |
| 7:k:502:GLU:HG2 | 7:k:503:PHE:N | 2.31 | 0.45 |
| 7:m:453:HIS:HB3 | 7:AA:369:SER:HB2 | 1.97 | 0.45 |
| 7:n:399:LYS:HA | 7:n:401:ARG:NH1 | 2.32 | 0.45 |
| 7:o:102:LYS:NZ | 7:o:120:PRO:HD3 | 2.31 | 0.45 |
| 7:o:187:SER:HB3 | 7:o:192:ALA:HB1 | 1.98 | 0.45 |
| 7:p:526:LEU:HA | 7:q:22:ASN:H | 1.82 | 0.45 |
| 7:q:505:LYS:O | 7:q:505:LYS:HD3 | 2.17 | 0.45 |
| 7:BA:483:PRO:HD3 | 7:BA:493:PRO:HA | 1.98 | 0.45 |
| 7:BA:526:LEU:HD11 | 7:CA:27:LEU:HD22 | 1.98 | 0.45 |
| 7:CA:49:PRO:HA | 7:CA:95:ARG:HB3 | 1.97 | 0.45 |
| 7:EA:507:GLU:HA | 7:KA:522:GLN:O | 2.16 | 0.45 |
| 7:FA:405:VAL:HG13 | 7:FA:414:ILE:O | 2.15 | 0.45 |
| 7:HA:8:GLN:OE1 | 7:HA:8:GLN:N | 2.33 | 0.45 |
| 7:IA:452:LYS:O | 7:IA:454:SER:N | 2.50 | 0.45 |
| 7:KA:46:ARG:NH2 | 7:KA:62:ASP:O | 2.44 | 0.45 |
| 7:KA:242:ASP:OD1 | 7:KA:242:ASP:N | 2.49 | 0.45 |
| 7:KA:378:ILE:HG23 | 7:KA:379:ALA:N | 2.31 | 0.45 |
| 7:KA:401:ARG:NE | 7:KA:422:CYS:O | 2.49 | 0.45 |
| 7:KA:446:GLN:HG2 | 7:KA:447:LEU:HD22 | 1.98 | 0.45 |
| 7:LA:461:ALA:HB1 | 7:LA:465:LYS:HZ1 | 1.78 | 0.45 |
| 7:MA:54:ALA:HB2 | 7:MA:92:TYR:CE1 | 2.51 | 0.45 |
| 7:MA:298:LYS:HB2 | 7:MA:301:LEU:HD23 | 1.99 | 0.45 |
| 7:NA:36:SER:HA | 7:NA:266:THR:HG21 | 1.98 | 0.45 |
| 7:NA:432:HIS:O | 7:NA:435:SER:OG | 2.22 | 0.45 |
| 7:QA:6:ILE:HD12 | 7:QA:16:VAL:HG12 | 1.96 | 0.45 |
| 7:RA:37:LEU:CB | 7:RA:265:TYR:HA | 2.45 | 0.45 |
| 7:RA:109:ASP:HB3 | 7:RA:113:GLU:CD | 2.42 | 0.45 |
| 8:AB:33:LEU:HD11 | 8:AB:112:ALA:HB3 | 1.98 | 0.45 |
| 8:AB:47:ARG:HH12 | 8:LB:66:GLY:H | 1.65 | 0.45 |
| 8:DB:56:ARG:HH22 | 8:EB:138:LYS:HD2 | 1.82 | 0.45 |
| 8:GB:26:ARG:HH12 | 8:MB:69:PHE:HE2 | 1.63 | 0.45 |
| 8:IB:94:LEU:HA | 8:IB:97:ILE:HG12 | 1.98 | 0.45 |
| 8:JB:139:ILE:HD11 | 8:JB:159:LEU:HB3 | 1.98 | 0.45 |
| 8:KB:10:ARG:O | 8:KB:13:ILE:HG12 | 2.16 | 0.45 |
| 8:MB:36:PHE:HD1 | 8:MB:109:ILE:HD12 | 1.82 | 0.45 |
| 8:MB:87:GLU:OE2 | 8:RB:26:ARG:NH2 | 2.50 | 0.45 |
| 8:MB:119:SER:HA | 8:MB:125:VAL:H | 1.82 | 0.45 |
| 8:NB:98:LYS:HA | 8:NB:98:LYS:HE3 | 1.98 | 0.45 |
| 1:A:47:TRP:HA | 1:B:167:ARG:HH12 | 1.80 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 1:A:62:PHE:HB3 | 1:A:101:ARG:O | 2.16 | 0.45 |
| 1:E:66:ILE:HG22 | 1:F:165:TYR:O | 2.17 | 0.45 |
| 2:H:169:LEU:HA | 2:H:169:LEU:HD23 | 1.80 | 0.45 |
| 3:O:117:VAL:HG21 | 7:i:521:ILE:HA | 1.97 | 0.45 |
| 3:P:44:TYR:OH | 4:V:75:ARG:NH2 | 2.47 | 0.45 |
| 3:R:44:TYR:HB3 | 5:9:39:LEU:HD13 | 1.98 | 0.45 |
| 5:Y:168:LYS:HB3 | 5:Y:232:TRP:HB2 | 1.98 | 0.45 |
| 5:Y:316:TRP:HE3 | 5:Y:320:GLN:HB3 | 1.82 | 0.45 |
| 5:Z:168:LYS:HB3 | 5:Z:232:TRP:HB2 | 1.98 | 0.45 |
| 5:1:304:VAL:HG23 | 5:1:310:LEU:HD11 | 1.97 | 0.45 |
| 5:1:316:TRP:HB2 | 5:1:337:PHE:HB3 | 1.98 | 0.45 |
| 5:1:337:PHE:HE1 | 5:1:372:LYS:HE2 | 1.81 | 0.45 |
| 5:6:17:GLU:HA | 5:6:20:GLU:OE1 | 2.17 | 0.45 |
| 5:7:111:ILE:HB | 5:7:247:THR:O | 2.16 | 0.45 |
| 5:8:17:GLU:HA | 5:8:20:GLU:OE1 | 2.16 | 0.45 |
| 6:a:36:ASP:O | 6:a:39:LEU:N | 2.50 | 0.45 |
| 6:d:84:ARG:HG3 | 6:d:99:GLN:HE22 | 1.81 | 0.45 |
| 6:d:99:GLN:HA | 6:d:102:TYR:CD2 | 2.51 | 0.45 |
| 6:f:36:ASP:O | 6:f:39:LEU:N | 2.50 | 0.45 |
| 7:h:290:LEU:O | 7:h:290:LEU:HD23 | 2.16 | 0.45 |
| 7:h:373:GLU:H | 7:h:373:GLU:CD | 2.23 | 0.45 |
| 7:i:310:VAL:HG22 | 7:i:316:LEU:HG | 1.99 | 0.45 |
| 7:l:275:ASP:OD2 | 7:l:278:ALA:N | 2.42 | 0.45 |
| 7:l:340:ARG:NH1 | 7:l:382:SER:O | 2.48 | 0.45 |
| 7:l:356:GLY:HA2 | 7:l:359:LYS:NZ | 2.31 | 0.45 |
| 7:l:404:LYS:HG3 | 7:l:417:ASP:OD2 | 2.17 | 0.45 |
| 7:m:69:LYS:O | 7:m:72:SER:OG | 2.34 | 0.45 |
| 7:m:76:PHE:HA | 7:m:79:ILE:HG12 | 1.98 | 0.45 |
| 7:m:365:GLY:HA3 | 7:m:368:TYR:CD2 | 2.52 | 0.45 |
| 7:o:467:MET:HE2 | 7:o:496:LEU:HB2 | 1.97 | 0.45 |
| 7:r:461:ALA:O | 7:r:464:THR:OG1 | 2.27 | 0.45 |
| 7:CA:43:VAL:HG22 | 7:CA:96:ALA:O | 2.17 | 0.45 |
| 7:CA:397:MET:HB2 | 7:CA:402:LEU:HB3 | 1.97 | 0.45 |
| 7:CA:447:LEU:HD12 | 7:CA:448:ALA:N | 2.31 | 0.45 |
| 7:DA:509:VAL:HA | 7:JA:524:VAL:O | 2.17 | 0.45 |
| 7:EA:389:GLU:OE1 | 7:EA:389:GLU:N | 2.47 | 0.45 |
| 7:FA:12:ASN:O | 7:FA:12:ASN:OD1 | 2.32 | 0.45 |
| 7:IA:38:TRP:CZ2 | 7:IA:91:GLY:HA3 | 2.52 | 0.45 |
| 7:JA:529:LYS:HA | 7:JA:529:LYS:HD2 | 1.80 | 0.45 |
| 7:LA:38:TRP:CZ2 | 7:LA:91:GLY:HA3 | 2.52 | 0.45 |
| 7:LA:446:GLN:HG2 | 7:LA:447:LEU:HD22 | 1.98 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:MA:416:ASP:OD1 | 7:MA:416:ASP:N | 2.47 | 0.45 |
| 7:PA:77:GLU:HB2 | 7:PA:78:PRO:HD3 | 1.99 | 0.45 |
| 7:QA:405:VAL:HG22 | 7:QA:413:MET:CE | 2.45 | 0.45 |
| 7:RA:57:GLU:HA | 7:RA:86:ILE:HD11 | 1.99 | 0.45 |
| 8:EB:45:LEU:CD1 | 8:EB:85:CYS:HB2 | 2.47 | 0.45 |
| 8:GB:160:ARG:NH2 | 8:LB:76:ARG:HH22 | 2.15 | 0.45 |
| 8:LB:139:ILE:HB | 8:LB:161:ILE:HD13 | 1.98 | 0.45 |
| 8:MB:81:ILE:HG12 | 8:MB:163:TYR:HE1 | 1.81 | 0.45 |
| 8:NB:9:ASN:ND2 | 8:OB:119:SER:O | 2.41 | 0.45 |
| 8:NB:52:PRO:HG2 | 8:NB:132:ILE:HG12 | 1.98 | 0.45 |
| 1:B:48:GLN:O | 1:B:140:ARG:HG3 | 2.16 | 0.45 |
| 3:Q:21:TYR:O | 4:X:46:LYS:NZ | 2.43 | 0.45 |
| 3:R:19:LYS:HG3 | 5:9:28:PHE:CZ | 2.51 | 0.45 |
| 4:U:22:ARG:HH12 | 5:6:5:THR:HG23 | 1.80 | 0.45 |
| 4:X:112:PHE:HA | 4:X:116:GLY:CA | 2.47 | 0.45 |
| 5:Y:25:TRP:O | 5:Y:28:PHE:C | 2.60 | 0.45 |
| 5:Y:155:GLU:OE1 | 5:Y:155:GLU:N | 2.50 | 0.45 |
| 5:Y:442:ARG:HH11 | 5:Y:475:GLU:HB3 | 1.82 | 0.45 |
| 5:Z:163:THR:HG21 | 5:Z:208:LEU:HD23 | 1.99 | 0.45 |
| 5:1:19:VAL:HG13 | 5:1:25:TRP:CD2 | 2.51 | 0.45 |
| 5:1:66:ARG:HB2 | 5:7:1:MET:O | 2.16 | 0.45 |
| 5:1:104:ILE:O | 5:1:123:VAL:HG13 | 2.16 | 0.45 |
| 5:1:286:TYR:HD2 | 5:1:301:TYR:HE2 | 1.62 | 0.45 |
| 5:2:275:THR:O | 5:2:279:THR:HG23 | 2.16 | 0.45 |
| 5:5:387:ILE:HG12 | 5:5:473:SER:O | 2.16 | 0.45 |
| 5:6:405:GLU:HA | 5:6:409:GLY:HA3 | 1.99 | 0.45 |
| 5:6:414:PHE:O | 5:6:417:PRO:HD3 | 2.16 | 0.45 |
| 5:7:201:PHE:O | 5:7:208:LEU:HD12 | 2.16 | 0.45 |
| 5:8:201:PHE:O | 5:8:208:LEU:HD12 | 2.16 | 0.45 |
| 6:a:4:SER:O | 6:a:7:ASN:HB2 | 2.16 | 0.45 |
| 6:c:120:ASP:OD2 | 6:c:123:ARG:NH1 | 2.49 | 0.45 |
| 7:h:340:ARG:NH1 | 7:h:382:SER:O | 2.49 | 0.45 |
| 7:h:422:CYS:HB3 | 7:h:429:HIS:HA | 1.99 | 0.45 |
| 7:j:22:ASN:HD21 | 7:j:173:THR:HG21 | 1.80 | 0.45 |
| 7:k:460:ALA:O | 7:k:463:LEU:HG | 2.16 | 0.45 |
| 7:m:42:GLY:O | 7:m:95:ARG:HA | 2.17 | 0.45 |
| 7:m:331:SER:O | 7:m:384:GLN:N | 2.29 | 0.45 |
| 7:m:383:ILE:O | 7:m:384:GLN:NE2 | 2.50 | 0.45 |
| 7:n:383:ILE:O | 7:n:384:GLN:NE2 | 2.50 | 0.45 |
| 7:p:399:LYS:HA | 7:p:401:ARG:NH1 | 2.32 | 0.45 |
| 7:p:520:ARG:HG2 | 7:q:14:SER:HA | 1.96 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:q:326:TYR:CD2 | 7:q:346:SER:HA | 2.52 | 0.45 |
| 7:r:303:TYR:CD1 | 7:r:392:PRO:HB3 | 2.51 | 0.45 |
| 7:r:355:ARG:HG3 | 7:r:358:LYS:HZ3 | 1.82 | 0.45 |
| 7:r:449:ARG:HH11 | 7:FA:414:ILE:HD13 | 1.82 | 0.45 |
| 7:AA:190:GLU:OE2 | 7:AA:201:TYR:OH | 2.31 | 0.45 |
| 7:AA:355:ARG:HA | 7:AA:358:LYS:HE2 | 1.97 | 0.45 |
| 7:AA:437:MET:HA | 7:AA:440:ILE:HG12 | 1.97 | 0.45 |
| 7:CA:228:THR:HG23 | 7:CA:230:LYS:HG2 | 1.99 | 0.45 |
| 7:EA:405:VAL:HG13 | 7:EA:414:ILE:O | 2.15 | 0.45 |
| 7:FA:447:LEU:HD12 | 7:FA:448:ALA:N | 2.31 | 0.45 |
| 7:GA:32:ALA:HB1 | 7:GA:89:THR:HA | 1.98 | 0.45 |
| 7:GA:52:VAL:HA | 7:GA:94:VAL:HG22 | 1.99 | 0.45 |
| 7:HA:154:THR:HA | 7:HA:165:PHE:HB3 | 1.97 | 0.45 |
| 7:HA:305:GLU:C | 7:HA:308:PRO:HD2 | 2.41 | 0.45 |
| 7:IA:303:TYR:CE2 | 7:IA:392:PRO:HA | 2.51 | 0.45 |
| 7:KA:38:TRP:CZ2 | 7:KA:91:GLY:HA3 | 2.52 | 0.45 |
| 7:NA:79:ILE:HD11 | 7:NA:80:ARG:NH1 | 2.31 | 0.45 |
| 7:NA:447:LEU:HA | 7:NA:450:GLN:HG3 | 1.99 | 0.45 |
| 7:OA:57:GLU:HA | 7:OA:86:ILE:HD11 | 1.99 | 0.45 |
| 7:PA:37:LEU:CB | 7:PA:265:TYR:HA | 2.45 | 0.45 |
| 7:QA:57:GLU:HA | 7:QA:86:ILE:HD11 | 1.99 | 0.45 |
| 7:QA:107:MET:HG3 | 7:QA:134:ALA:HB2 | 1.99 | 0.45 |
| 7:RA:108:PHE:CE1 | 7:RA:114:PRO:HB3 | 2.51 | 0.45 |
| 7:RA:298:LYS:HB2 | 7:RA:301:LEU:HD23 | 1.99 | 0.45 |
| 8:AB:45:LEU:HD13 | 8:AB:86:VAL:O | 2.17 | 0.45 |
| 8:CB:48:THR:HG23 | 8:DB:147:SER:HA | 1.98 | 0.45 |
| 8:CB:56:ARG:NH2 | 8:DB:138:LYS:HZ2 | 2.14 | 0.45 |
| 8:DB:16:ARG:NH2 | 8:JB:65:ASN:ND2 | 2.65 | 0.45 |
| 8:EB:36:PHE:HD2 | 8:EB:39:HIS:HB2 | 1.81 | 0.45 |
| 8:GB:94:LEU:HA | 8:GB:97:ILE:HG12 | 1.97 | 0.45 |
| 8:HB:5:ASN:N | 8:HB:5:ASN:OD1 | 2.48 | 0.45 |
| 8:IB:87:GLU:OE2 | 8:IB:94:LEU:HD23 | 2.17 | 0.45 |
| 8:LB:112:ALA:HB2 | 8:LB:131:THR:HA | 1.99 | 0.45 |
| 8:MB:29:SER:OG | 8:NB:150:ASP:OD2 | 2.34 | 0.45 |
| 8:MB:132:ILE:HD12 | 8:MB:168:TRP:HB3 | 1.97 | 0.45 |
| 8:RB:81:ILE:HG12 | 8:RB:163:TYR:HE1 | 1.81 | 0.45 |
| 1:A:28:ARG:HG2 | 1:A:29:GLU:OE1 | 2.17 | 0.45 |
| 1:F:72:SER:N | 1:F:92:SER:O | 2.48 | 0.45 |
| 2:L:16:SER:O | 2:L:19:LEU:HG | 2.17 | 0.45 |
| 3:M:117:VAL:HG21 | 7:g:521:ILE:HA | 1.97 | 0.45 |
| 4:S:63:LEU:HD21 | 4:S:67:ARG:HH21 | 1.81 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 4:S:93:VAL:HG12 | 7:g:382:SER:HA | 1.97 | 0.45 |
| 4:T:117:GLN:HE21 | 5:Z:160:LYS:HB2 | 1.81 | 0.45 |
| 4:U:96:LYS:HZ2 | 4:U:97:LEU:N | 2.15 | 0.45 |
| 4:U:112:PHE:HA | 4:U:116:GLY:CA | 2.46 | 0.45 |
| 4:W:32:GLU:O | 4:W:35:LYS:HB2 | 2.16 | 0.45 |
| 4:W:96:LYS:HZ2 | 4:W:97:LEU:N | 2.14 | 0.45 |
| 4:X:110:ARG:HG3 | 4:X:114:TYR:HE2 | 1.81 | 0.45 |
| 5:0:316:TRP:HB2 | 5:0:337:PHE:HB3 | 1.98 | 0.45 |
| 5:3:19:VAL:HG13 | 5:3:25:TRP:CD2 | 2.52 | 0.45 |
| 5:3:240:LEU:HB3 | 5:3:267:ILE:HD12 | 1.97 | 0.45 |
| 5:3:442:ARG:HH11 | 5:3:475:GLU:HB3 | 1.82 | 0.45 |
| 5:4:11:ILE:HA | 5:4:14:GLU:CD | 2.42 | 0.45 |
| 5:4:25:TRP:HD1 | 5:4:28:PHE:HE2 | 1.64 | 0.45 |
| 5:4:334:ASN:HB3 | 5:4:367:LYS:HD3 | 1.97 | 0.45 |
| 5:4:474:TYR:HB2 | 5:4:476:GLU:OE2 | 2.17 | 0.45 |
| 5:5:433:ALA:O | 5:5:437:THR:HG23 | 2.17 | 0.45 |
| 5:8:351:GLU:HB2 | 5:8:371:TYR:CG | 2.52 | 0.45 |
| 5:8:387:ILE:O | 5:8:475:GLU:N | 2.38 | 0.45 |
| 6:b:54:GLU:HA | 6:b:57:GLU:OE2 | 2.17 | 0.45 |
| 6:e:36:ASP:O | 6:e:39:LEU:N | 2.50 | 0.45 |
| 7:h:356:GLY:HA2 | 7:h:359:LYS:NZ | 2.31 | 0.45 |
| 7:i:100:ASP:OD2 | 7:i:242:ASP:N | 2.32 | 0.45 |
| 7:j:290:LEU:HD23 | 7:j:290:LEU:O | 2.16 | 0.45 |
| 7:k:485:ASP:OD1 | 7:k:485:ASP:N | 2.42 | 0.45 |
| 7:m:326:TYR:CD2 | 7:m:346:SER:HA | 2.52 | 0.45 |
| 7:m:492:GLU:H | 7:m:492:GLU:CD | 2.21 | 0.45 |
| 7:m:504:ASP:OD1 | 7:AA:518:ALA:N | 2.49 | 0.45 |
| 7:n:60:TYR:O | 7:n:64:LEU:HB3 | 2.16 | 0.45 |
| 7:n:326:TYR:CD2 | 7:n:346:SER:HA | 2.52 | 0.45 |
| 7:n:526:LEU:HA | 7:o:22:ASN:H | 1.82 | 0.45 |
| 7:o:325:VAL:HG13 | 7:o:402:LEU:HG | 1.98 | 0.45 |
| 7:r:269:LEU:HD13 | 7:r:294:PHE:HB2 | 1.99 | 0.45 |
| 7:r:325:VAL:HG13 | 7:r:402:LEU:HG | 1.99 | 0.45 |
| 7:r:328:TYR:CD1 | 7:r:345:LEU:HD23 | 2.48 | 0.45 |
| 7:r:505:LYS:O | 7:r:505:LYS:HD3 | 2.17 | 0.45 |
| 7:BA:527:LEU:HG | 7:BA:529:LYS:N | 2.31 | 0.45 |
| 7:CA:441:SER:O | 7:CA:445:VAL:HG23 | 2.17 | 0.45 |
| 7:EA:49:PRO:HA | 7:EA:95:ARG:HB3 | 1.97 | 0.45 |
| 7:GA:307:LEU:O | 7:GA:310:VAL:HG12 | 2.16 | 0.45 |
| 7:HA:317:GLY:H | 7:HA:423:THR:HG21 | 1.81 | 0.45 |
| 7:IA:446:GLN:HA | 7:IA:449:ARG:HB3 | 1.97 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:JA:303:TYR:CE2 | 7:JA:392:PRO:HA | 2.51 | 0.45 |
| 7:JA:378:ILE:HG23 | 7:JA:379:ALA:N | 2.31 | 0.45 |
| 7:NA:444:PHE:O | 7:NA:447:LEU:HG | 2.17 | 0.45 |
| 7:OA:407:VAL:HG23 | 7:PA:3:GLN:HE21 | 1.82 | 0.45 |
| 7:OA:474:PHE:O | 7:OA:477:SER:OG | 2.22 | 0.45 |
| 7:PA:397:MET:SD | 7:PA:404:LYS:HG2 | 2.56 | 0.45 |
| 7:PA:447:LEU:HA | 7:PA:450:GLN:HG3 | 1.98 | 0.45 |
| 7:QA:430:PHE:HB2 | 7:QA:433:VAL:HG23 | 1.99 | 0.45 |
| 7:RA:334:ASP:HB2 | 7:RA:339:SER:H | 1.81 | 0.45 |
| 7:RA:405:VAL:HG22 | 7:RA:413:MET:CE | 2.44 | 0.45 |
| 8:CB:33:LEU:HD11 | 8:CB:112:ALA:HB3 | 1.99 | 0.45 |
| 8:JB:85:CYS:O | 8:JB:157:PRO:HD2 | 2.16 | 0.45 |
| 8:LB:17:TYR:OH | 8:MB:136:ASP:OD2 | 2.33 | 0.45 |
| 8:MB:13:ILE:HG13 | 8:MB:14:LYS:HD2 | 1.98 | 0.45 |
| 8:OB:54:MET:O | 8:PB:141:SER:OG | 2.28 | 0.45 |
| 8:QB:119:SER:HA | 8:QB:125:VAL:H | 1.81 | 0.45 |
| 8:QB:168:TRP:CZ3 | 8:RB:97:ILE:HG13 | 2.51 | 0.45 |
| 2:H:16:SER:O | 2:H:19:LEU:HG | 2.16 | 0.45 |
| 2:I:104:PRO:HB2 | 2:I:167:TYR:HB3 | 1.99 | 0.45 |
| 3:M:37:ASN:OD1 | 3:M:38:THR:HG23 | 2.17 | 0.45 |
| 3:N:37:ASN:OD1 | 3:N:38:THR:HG23 | 2.17 | 0.45 |
| 4:U:117:GLN:HE21 | 5:0:160:LYS:HE2 | 1.81 | 0.45 |
| 4:X:62:ASP:HB3 | 4:X:75:ARG:CB | 2.46 | 0.45 |
| 5:Z:337:PHE:CE1 | 5:Z:372:LYS:HE2 | 2.51 | 0.45 |
| 5:Z:442:ARG:HH11 | 5:Z:475:GLU:HB3 | 1.81 | 0.45 |
| 5:1:442:ARG:HH11 | 5:1:475:GLU:HB3 | 1.81 | 0.45 |
| 5:5:53:ASP:O | 5:5:56:LEU:HG | 2.17 | 0.45 |
| 5:7:90:MET:O | 5:7:265:THR:HB | 2.15 | 0.45 |
| 5:8:414:PHE:O | 5:8:417:PRO:HD3 | 2.16 | 0.45 |
| 5:9:474:TYR:HB2 | 5:9:476:GLU:OE2 | 2.17 | 0.45 |
| 6:d:54:GLU:HA | 6:d:57:GLU:OE2 | 2.17 | 0.45 |
| 6:f:119:VAL:CG2 | 6:f:145:GLU:HB3 | 2.46 | 0.45 |
| 6:f:151:ARG:HA | 6:f:197:VAL:HB | 1.98 | 0.45 |
| 7:g:263:TYR:C | 7:n:4:TYR:HE2 | 2.24 | 0.45 |
| 7:g:373:GLU:H | 7:g:373:GLU:CD | 2.24 | 0.45 |
| 7:i:275:ASP:OD2 | 7:i:278:ALA:N | 2.42 | 0.45 |
| 7:j:146:PRO:HD2 | 7:j:148:ARG:HH22 | 1.81 | 0.45 |
| 7:j:502:GLU:HG2 | 7:j:503:PHE:N | 2.31 | 0.45 |
| 7:l:69:LYS:HD2 | 7:l:70:PRO:HD2 | 1.99 | 0.45 |
| 7:p:78:PRO:HA | 7:p:271:LEU:HD12 | 1.99 | 0.45 |
| 7:p:383:ILE:O | 7:p:384:GLN:NE2 | 2.50 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:q:2:SER:HG | 7:q:3:GLN:H | 1.62 | 0.45 |
| 7:q:102:LYS:NZ | 7:q:120:PRO:HD3 | 2.32 | 0.45 |
| 7:q:105:ILE:HG13 | 7:q:136:TYR:HB3 | 1.98 | 0.45 |
| 7:q:333:LYS:N | 7:q:381:ALA:O | 2.48 | 0.45 |
| 7:q:461:ALA:O | 7:q:464:THR:OG1 | 2.26 | 0.45 |
| 7:q:526:LEU:HA | 7:r:22:ASN:H | 1.82 | 0.45 |
| 7:r:316:LEU:HD22 | 7:r:423:THR:HG22 | 1.98 | 0.45 |
| 7:BA:397:MET:HB2 | 7:BA:402:LEU:HB3 | 1.97 | 0.45 |
| 7:CA:483:PRO:HD3 | 7:CA:493:PRO:HA | 1.98 | 0.45 |
| 7:DA:355:ARG:HH11 | 7:DA:359:LYS:HZ2 | 1.64 | 0.45 |
| 7:EA:334:ASP:HB3 | 7:EA:338:GLN:N | 2.32 | 0.45 |
| 7:EA:335:LYS:HD2 | 7:EA:336:TRP:CE2 | 2.52 | 0.45 |
| 7:FA:355:ARG:O | 7:FA:359:LYS:HE3 | 2.17 | 0.45 |
| 7:FA:441:SER:O | 7:FA:445:VAL:HG23 | 2.17 | 0.45 |
| 7:GA:303:TYR:OH | 7:GA:397:MET:SD | 2.69 | 0.45 |
| 7:GA:470:LEU:HD12 | 7:GA:471:LEU:HD22 | 1.99 | 0.45 |
| 7:IA:137:VAL:HA | 7:IA:213:LEU:HD13 | 1.98 | 0.45 |
| 7:JA:333:LYS:HE2 | 7:JA:340:ARG:HH11 | 1.80 | 0.45 |
| 7:JA:470:LEU:HB2 | 7:JA:473:ARG:NH1 | 2.32 | 0.45 |
| 7:NA:57:GLU:HA | 7:NA:86:ILE:HD11 | 1.99 | 0.45 |
| 7:NA:107:MET:HG3 | 7:NA:134:ALA:HB2 | 1.99 | 0.45 |
| 7:NA:202:LEU:HB2 | 7:NA:203:PRO:HD3 | 1.98 | 0.45 |
| 7:OA:37:LEU:CB | 7:OA:265:TYR:HA | 2.44 | 0.45 |
| 7:PA:36:SER:HA | 7:PA:266:THR:HG21 | 1.98 | 0.45 |
| 7:PA:57:GLU:HA | 7:PA:86:ILE:HD11 | 1.99 | 0.45 |
| 7:PA:108:PHE:CE1 | 7:PA:114:PRO:HB3 | 2.50 | 0.45 |
| 7:QA:105:ILE:HD11 | 7:QA:119:LEU:HB2 | 1.99 | 0.45 |
| 7:QA:152:ILE:HB | 7:QA:230:LYS:H | 1.82 | 0.45 |
| 7:QA:315:LEU:HD23 | 7:QA:315:LEU:H | 1.82 | 0.45 |
| 7:QA:432:HIS:O | 7:QA:435:SER:OG | 2.22 | 0.45 |
| 7:RA:107:MET:HG3 | 7:RA:134:ALA:HB2 | 1.99 | 0.45 |
| 8:AB:133:GLU:HG2 | 8:AB:167:GLU:HB3 | 1.99 | 0.45 |
| 8:GB:154:ALA:HB3 | 8:LB:26:ARG:NH2 | 2.32 | 0.45 |
| 8:HB:32:PHE:HA | 8:HB:113:ALA:HA | 1.97 | 0.45 |
| 8:HB:165:TRP:CZ3 | 8:HB:167:GLU:HG3 | 2.52 | 0.45 |
| 8:KB:26:ARG:NH1 | 8:LB:86:VAL:HG13 | 2.31 | 0.45 |
| 8:KB:28:VAL:HA | 8:LB:154:ALA:CB | 2.46 | 0.45 |
| 8:KB:154:ALA:HB2 | 8:PB:59:VAL:HG11 | 1.99 | 0.45 |
| 8:MB:68:LYS:O | 8:NB:77:ASN:ND2 | 2.26 | 0.45 |
| 8:NB:11:LYS:HE3 | 8:NB:12:PHE:CE1 | 2.52 | 0.45 |
| 8:PB:119:SER:HA | 8:PB:125:VAL:H | 1.82 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:28:ARG:HG2 | 1:E:29:GLU:OE1 | 2.17 | 0.45 |
| 1:E:64:LYS:HZ1 | 1:E:100:VAL:C | 2.24 | 0.45 |
| 3:P:9:PRO:HD2 | 7:k:23:ALA:HB1 | 1.98 | 0.45 |
| 4:T:29:LEU:HA | 4:T:32:GLU:OE1 | 2.17 | 0.45 |
| 5:Y:104:ILE:O | 5:Y:123:VAL:HG13 | 2.16 | 0.45 |
| 5:Y:275:THR:O | 5:Y:279:THR:HG23 | 2.16 | 0.45 |
| 5:Y:304:VAL:HG23 | 5:Y:310:LEU:HD11 | 1.96 | 0.45 |
| 5:Z:25:TRP:O | 5:Z:28:PHE:C | 2.60 | 0.45 |
| 5:Z:62:SER:HA | 5:Z:280:ARG:NH1 | 2.32 | 0.45 |
| 5:Z:104:ILE:O | 5:Z:123:VAL:HG13 | 2.17 | 0.45 |
| 5:Z:213:GLY:HA3 | 5:Z:218:GLY:HA3 | 1.99 | 0.45 |
| 5:Z:316:TRP:HE3 | 5:Z:320:GLN:HB3 | 1.82 | 0.45 |
| 5:Z:337:PHE:HE1 | 5:Z:372:LYS:HE2 | 1.81 | 0.45 |
| 5:0:286:TYR:HD2 | 5:0:301:TYR:HE2 | 1.62 | 0.45 |
| 5:0:337:PHE:CE1 | 5:0:372:LYS:HE2 | 2.51 | 0.45 |
| 5:1:13:ALA:HA | 5:1:16:GLU:OE1 | 2.17 | 0.45 |
| 5:1:329:ASN:HA | 6:d:126:TYR:HE2 | 1.82 | 0.45 |
| 5:2:25:TRP:O | 5:2:28:PHE:C | 2.59 | 0.45 |
| 5:2:316:TRP:HE3 | 5:2:320:GLN:HB3 | 1.82 | 0.45 |
| 5:4:53:ASP:O | 5:4:56:LEU:HG | 2.16 | 0.45 |
| 5:4:433:ALA:O | 5:4:437:THR:HG23 | 2.17 | 0.45 |
| 5:5:6:PRO:HB2 | 5:5:10:SER:OG | 2.16 | 0.45 |
| 5:5:351:GLU:HB2 | 5:5:371:TYR:CG | 2.52 | 0.45 |
| 5:6:10:SER:O | 5:6:13:ALA:N | 2.50 | 0.45 |
| 5:6:199:VAL:CG2 | 5:6:211:ARG:HB2 | 2.47 | 0.45 |
| 5:6:432:TRP:CD1 | 5:6:435:ILE:HD11 | 2.52 | 0.45 |
| 5:7:137:GLN:HB3 | 5:7:238:ILE:HG13 | 1.99 | 0.45 |
| 5:7:324:LEU:HD12 | 5:7:457:PHE:CG | 2.52 | 0.45 |
| 5:7:474:TYR:HB2 | 5:7:476:GLU:OE2 | 2.17 | 0.45 |
| 5:8:329:ASN:HB3 | 5:8:332:ASN:HB2 | 1.98 | 0.45 |
| 6:b:23:LEU:O | 6:b:26:LEU:HG | 2.17 | 0.45 |
| 6:b:69:ILE:HA | 6:b:187:PHE:CE1 | 2.52 | 0.45 |
| 6:c:84:ARG:HA | 6:c:87:GLU:CD | 2.42 | 0.45 |
| 6:f:4:SER:O | 6:f:7:ASN:HB2 | 2.16 | 0.45 |
| 6:f:48:ILE:HA | 6:f:51:MET:HE2 | 1.98 | 0.45 |
| 7:h:199:LEU:HG | 7:h:201:TYR:H | 1.81 | 0.45 |
| 7:i:199:LEU:HD21 | 7:o:69:LYS:HZ1 | 1.82 | 0.45 |
| 7:l:290:LEU:HD23 | 7:l:290:LEU:O | 2.16 | 0.45 |
| 7:l:432:HIS:CE1 | 7:l:433:VAL:HG23 | 2.52 | 0.45 |
| 7:n:282:LEU:HB3 | 7:n:295:PHE:HE1 | 1.82 | 0.45 |
| 7:o:105:ILE:HG13 | 7:o:136:TYR:HB3 | 1.98 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:o:440:ILE:HG22 | 7:o:474:PHE:CZ | 2.52 | 0.45 |
| 7:p:326:TYR:CD2 | 7:p:346:SER:HA | 2.52 | 0.45 |
| 7:q:386:LEU:HD23 | 7:q:386:LEU:HA | 1.85 | 0.45 |
| 7:q:399:LYS:HA | 7:q:401:ARG:NH1 | 2.32 | 0.45 |
| 7:q:464:THR:O | 7:q:468:THR:HG23 | 2.17 | 0.45 |
| 7:AA:38:TRP:CZ2 | 7:AA:91:GLY:HA3 | 2.51 | 0.45 |
| 7:BA:43:VAL:HG22 | 7:BA:96:ALA:O | 2.17 | 0.45 |
| 7:BA:334:ASP:HB3 | 7:BA:338:GLN:N | 2.32 | 0.45 |
| 7:CA:356:GLY:HA2 | 7:CA:359:LYS:HE3 | 1.98 | 0.45 |
| 7:CA:368:TYR:HB3 | 7:CA:375:ARG:HH22 | 1.82 | 0.45 |
| 7:DA:366:TRP:HB3 | 7:DA:435:SER:OG | 2.17 | 0.45 |
| 7:DA:483:PRO:HD3 | 7:DA:493:PRO:HA | 1.98 | 0.45 |
| 7:EA:43:VAL:HG22 | 7:EA:96:ALA:O | 2.17 | 0.45 |
| 7:EA:397:MET:HB2 | 7:EA:402:LEU:HB3 | 1.98 | 0.45 |
| 7:EA:467:MET:HA | 7:EA:470:LEU:HG | 1.98 | 0.45 |
| 7:FA:46:ARG:HH21 | 7:FA:63:VAL:HA | 1.80 | 0.45 |
| 7:FA:334:ASP:HB3 | 7:FA:338:GLN:N | 2.32 | 0.45 |
| 7:FA:467:MET:HA | 7:FA:470:LEU:HG | 1.97 | 0.45 |
| 7:HA:446:GLN:HG2 | 7:HA:447:LEU:HD22 | 1.98 | 0.45 |
| 7:IA:446:GLN:HG2 | 7:IA:447:LEU:HD22 | 1.98 | 0.45 |
| 7:JA:82:VAL:O | 7:JA:86:ILE:HB | 2.17 | 0.45 |
| 7:JA:474:PHE:O | 7:JA:477:SER:OG | 2.27 | 0.45 |
| 7:KA:470:LEU:HB2 | 7:KA:473:ARG:NH1 | 2.32 | 0.45 |
| 7:LA:303:TYR:CE2 | 7:LA:392:PRO:HA | 2.51 | 0.45 |
| 7:LA:459:THR:O | 7:LA:463:LEU:HD23 | 2.17 | 0.45 |
| 7:MA:57:GLU:HA | 7:MA:86:ILE:HD11 | 1.99 | 0.45 |
| 7:NA:298:LYS:HB2 | 7:NA:301:LEU:HD23 | 1.99 | 0.45 |
| 7:NA:416:ASP:OD1 | 7:NA:416:ASP:N | 2.47 | 0.45 |
| 7:PA:405:VAL:HG22 | 7:PA:413:MET:CE | 2.44 | 0.45 |
| 7:QA:75:GLN:O | 7:QA:78:PRO:HD2 | 2.17 | 0.45 |
| 8:BB:45:LEU:CD1 | 8:BB:85:CYS:HB2 | 2.47 | 0.45 |
| 8:JB:40:GLU:HA | 8:JB:43:SER:HB2 | 1.99 | 0.45 |
| 8:LB:9:ASN:OD1 | 8:LB:12:PHE:HD2 | 2.00 | 0.45 |
| 8:PB:149:GLU:O | 8:PB:151:VAL:N | 2.50 | 0.45 |
| 8:QB:9:ASN:ND2 | 8:RB:119:SER:O | 2.41 | 0.45 |
| 8:QB:29:SER:OG | 8:RB:150:ASP:OD2 | 2.34 | 0.45 |
| 1:D:70:ASP:OD1 | 1:D:71:TYR:N | 2.40 | 0.45 |
| 1:F:64:LYS:HZ1 | 1:F:175:SER:HB3 | 1.81 | 0.45 |
| 3:R:52:VAL:HG12 | 3:R:52:VAL:O | 2.17 | 0.45 |
| 4:S:32:GLU:O | 4:S:35:LYS:HB2 | 2.17 | 0.45 |
| 4:S:88:SER:HB3 | 6:a:5:TRP:CD1 | 2.52 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 4:T:35:LYS:HD3 | 5:5:63:THR:HA | 1.99 | 0.45 |
| 4:U:105:ILE:H | 4:U:105:ILE:HD12 | 1.81 | 0.45 |
| 4:V:32:GLU:O | 4:V:35:LYS:HB2 | 2.16 | 0.45 |
| 5:Y:337:PHE:CE1 | 5:Y:372:LYS:HE2 | 2.51 | 0.45 |
| 5:Z:51:TYR:HE1 | 5:5:3:LYS:HE2 | 1.82 | 0.45 |
| 5:Z:275:THR:O | 5:Z:279:THR:HG23 | 2.16 | 0.45 |
| 5:1:13:ALA:O | 5:1:16:GLU:N | 2.50 | 0.45 |
| 5:6:25:TRP:HD1 | 5:6:28:PHE:CE2 | 2.35 | 0.45 |
| 5:6:329:ASN:HB3 | 5:6:332:ASN:HB2 | 1.98 | 0.45 |
| 5:8:311:SER:OG | 5:8:343:PRO:HD3 | 2.17 | 0.45 |
| 5:8:433:ALA:O | 5:8:437:THR:HG23 | 2.17 | 0.45 |
| 6:a:54:GLU:HA | 6:a:57:GLU:OE2 | 2.17 | 0.45 |
| 6:b:114:PRO:HA | 6:b:152:GLY:HA3 | 1.99 | 0.45 |
| 6:d:10:LEU:HB2 | 6:d:15:GLN:HE21 | 1.82 | 0.45 |
| 6:d:23:LEU:O | 6:d:26:LEU:HG | 2.17 | 0.45 |
| 6:f:10:LEU:HG | 6:f:14:LYS:HZ2 | 1.82 | 0.45 |
| 6:f:84:ARG:HA | 6:f:87:GLU:CD | 2.42 | 0.45 |
| 7:g:41:ILE:HD13 | 7:g:254:ALA:HB1 | 1.99 | 0.45 |
| 7:h:146:PRO:HD2 | 7:h:148:ARG:HH22 | 1.80 | 0.45 |
| 7:h:444:PHE:O | 7:h:447:LEU:HG | 2.17 | 0.45 |
| 7:h:460:ALA:O | 7:h:463:LEU:HG | 2.16 | 0.45 |
| 7:i:402:LEU:HG | 7:i:403:ASN:N | 2.31 | 0.45 |
| 7:i:460:ALA:O | 7:i:463:LEU:HG | 2.16 | 0.45 |
| 7:j:444:PHE:O | 7:j:447:LEU:HG | 2.17 | 0.45 |
| 7:k:444:PHE:O | 7:k:447:LEU:HG | 2.17 | 0.45 |
| 7:l:310:VAL:HG22 | 7:l:316:LEU:HG | 1.98 | 0.45 |
| 7:m:144:ILE:HA | 7:m:147:THR:HG22 | 1.99 | 0.45 |
| 7:m:526:LEU:HA | 7:n:22:ASN:H | 1.82 | 0.45 |
| 7:n:7:GLN:NE2 | 7:n:17:ALA:HB2 | 2.31 | 0.45 |
| 7:n:449:ARG:HH11 | 7:BA:414:ILE:HD13 | 1.82 | 0.45 |
| 7:o:303:TYR:CD1 | 7:o:392:PRO:HB3 | 2.51 | 0.45 |
| 7:o:452:LYS:HZ2 | 7:o:453:HIS:N | 2.15 | 0.45 |
| 7:p:105:ILE:HG13 | 7:p:136:TYR:HB3 | 1.98 | 0.45 |
| 7:r:102:LYS:NZ | 7:r:120:PRO:HD3 | 2.31 | 0.45 |
| 7:r:440:ILE:HG22 | 7:r:474:PHE:CZ | 2.52 | 0.45 |
| 7:BA:81:HIS:ND1 | 7:BA:271:LEU:HA | 2.32 | 0.45 |
| 7:BA:228:THR:HG23 | 7:BA:230:LYS:HG2 | 1.99 | 0.45 |
| 7:BA:334:ASP:OD2 | 7:BA:337:THR:OG1 | 2.29 | 0.45 |
| 7:CA:334:ASP:HB3 | 7:CA:338:GLN:N | 2.32 | 0.45 |
| 7:CA:520:ARG:NE | 7:DA:17:ALA:H | 2.08 | 0.45 |
| 7:DA:43:VAL:HG22 | 7:DA:96:ALA:O | 2.17 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:DA:334:ASP:HB3 | 7:DA:338:GLN:N | 2.32 | 0.45 |
| 7:EA:447:LEU:HD12 | 7:EA:448:ALA:N | 2.31 | 0.45 |
| 7:FA:43:VAL:HG22 | 7:FA:96:ALA:O | 2.17 | 0.45 |
| 7:GA:110:GLU:OE2 | 7:GA:224:THR:OG1 | 2.31 | 0.45 |
| 7:JA:137:VAL:HA | 7:JA:213:LEU:HD13 | 1.98 | 0.45 |
| 7:KA:317:GLY:H | 7:KA:423:THR:HG21 | 1.82 | 0.45 |
| 7:MA:45:ALA:HB1 | 7:MA:46:ARG:NH1 | 2.31 | 0.45 |
| 7:NA:109:ASP:HB3 | 7:NA:113:GLU:CD | 2.42 | 0.45 |
| 7:NA:240:ASN:O | 7:NA:243:GLN:NE2 | 2.50 | 0.45 |
| 7:NA:405:VAL:HG22 | 7:NA:413:MET:CE | 2.44 | 0.45 |
| 7:NA:461:ALA:C | 7:NA:465:LYS:HZ3 | 2.24 | 0.45 |
| 7:OA:202:LEU:HB2 | 7:OA:203:PRO:HD3 | 1.98 | 0.45 |
| 7:OA:240:ASN:O | 7:OA:243:GLN:NE2 | 2.50 | 0.45 |
| 7:PA:103:PHE:HB3 | 7:PA:121:TYR:CE2 | 2.52 | 0.45 |
| 7:QA:340:ARG:HH22 | 7:QA:384:GLN:HB3 | 1.79 | 0.45 |
| 7:RA:315:LEU:HD23 | 7:RA:315:LEU:H | 1.82 | 0.45 |
| 8:BB:48:THR:HG23 | 8:CB:147:SER:HA | 1.99 | 0.45 |
| 8:BB:133:GLU:HG2 | 8:BB:167:GLU:HB3 | 1.99 | 0.45 |
| 8:DB:26:ARG:NE | 8:DB:27:LEU:N | 2.64 | 0.45 |
| 8:FB:45:LEU:CD1 | 8:FB:85:CYS:HB2 | 2.46 | 0.45 |
| 8:HB:36:PHE:HD1 | 8:HB:109:ILE:CD1 | 2.30 | 0.45 |
| 8:KB:45:LEU:O | 8:KB:47:ARG:NH1 | 2.50 | 0.45 |
| 8:NB:165:TRP:HD1 | 8:NB:167:GLU:CD | 2.25 | 0.45 |
| 8:PB:111:MET:HB3 | 8:PB:132:ILE:CG2 | 2.47 | 0.45 |
| 1:D:47:TRP:HZ2 | 8:DB:74:PRO:HA | 1.81 | 0.45 |
| 2:G:190:ARG:HD3 | 3:M:86:PRO:HG2 | 1.98 | 0.45 |
| 2:K:46:TRP:CH2 | 2:L:152:GLN:HB3 | 2.52 | 0.45 |
| 3:N:19:LYS:HG3 | 5:5:28:PHE:CZ | 2.52 | 0.45 |
| 3:Q:31:ARG:HA | 3:Q:34:GLU:OE2 | 2.17 | 0.45 |
| 3:R:37:ASN:OD1 | 3:R:38:THR:HG23 | 2.16 | 0.45 |
| 4:U:36:GLU:HA | 4:U:39:LEU:HD12 | 1.98 | 0.45 |
| 5:Z:316:TRP:HB2 | 5:Z:337:PHE:HB3 | 1.99 | 0.45 |
| 5:0:62:SER:HA | 5:0:280:ARG:NH1 | 2.32 | 0.45 |
| 5:0:184:SER:HB3 | 5:0:198:TYR:CZ | 2.52 | 0.45 |
| 5:0:442:ARG:HH11 | 5:0:475:GLU:HB3 | 1.82 | 0.45 |
| 5:2:139:GLU:CG | 5:2:233:CYS:HB2 | 2.46 | 0.45 |
| 5:3:155:GLU:OE1 | 5:3:155:GLU:N | 2.50 | 0.45 |
| 5:4:324:LEU:HD12 | 5:4:457:PHE:CG | 2.52 | 0.45 |
| 5:6:351:GLU:HB2 | 5:6:371:TYR:CG | 2.52 | 0.45 |
| 5:6:387:ILE:HG12 | 5:6:473:SER:O | 2.16 | 0.45 |
| 5:7:53:ASP:O | 5:7:56:LEU:HG | 2.16 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 5:7:433:ALA:O | 5:7:437:THR:HG23 | 2.17 | 0.45 |
| 5:9:9:ASP:HA | 5:9:12:ARG:CZ | 2.47 | 0.45 |
| 5:9:199:VAL:CG2 | 5:9:211:ARG:HB2 | 2.47 | 0.45 |
| 5:9:432:TRP:CD1 | 5:9:435:ILE:HD11 | 2.52 | 0.45 |
| 6:c:23:LEU:O | 6:c:26:LEU:HG | 2.17 | 0.45 |
| 6:c:48:ILE:HA | 6:c:51:MET:HE2 | 1.98 | 0.45 |
| 6:d:123:ARG:HE | 6:d:124:HIS:CD2 | 2.35 | 0.45 |
| 7:g:290:LEU:HD23 | 7:g:290:LEU:O | 2.16 | 0.45 |
| 7:g:406:SER:OG | 7:g:416:ASP:OD2 | 2.17 | 0.45 |
| 7:h:502:GLU:HG2 | 7:h:503:PHE:N | 2.31 | 0.45 |
| 7:i:146:PRO:HD2 | 7:i:148:ARG:HH22 | 1.80 | 0.45 |
| 7:i:199:LEU:O | 7:i:209:ARG:NH2 | 2.48 | 0.45 |
| 7:k:214:ARG:HD3 | 7:k:214:ARG:HA | 1.68 | 0.45 |
| 7:k:356:GLY:HA2 | 7:k:359:LYS:NZ | 2.31 | 0.45 |
| 7:o:114:PRO:HD3 | 7:o:230:LYS:HZ3 | 1.82 | 0.45 |
| 7:p:114:PRO:HD3 | 7:p:230:LYS:HZ3 | 1.82 | 0.45 |
| 7:p:505:LYS:O | 7:p:505:LYS:HD3 | 2.17 | 0.45 |
| 7:AA:334:ASP:HB3 | 7:AA:338:GLN:N | 2.32 | 0.45 |
| 7:AA:355:ARG:HA | 7:AA:358:LYS:HG2 | 1.99 | 0.45 |
| 7:BA:49:PRO:HA | 7:BA:95:ARG:HB3 | 1.97 | 0.45 |
| 7:BA:335:LYS:HD2 | 7:BA:336:TRP:CE2 | 2.52 | 0.45 |
| 7:BA:448:ALA:HB1 | 7:HA:521:ILE:HD12 | 1.99 | 0.45 |
| 7:DA:228:THR:HG23 | 7:DA:230:LYS:HG2 | 1.99 | 0.45 |
| 7:EA:340:ARG:HA | 7:EA:340:ARG:HD3 | 1.85 | 0.45 |
| 7:EA:526:LEU:HD11 | 7:FA:27:LEU:HD22 | 1.99 | 0.45 |
| 7:FA:368:TYR:HB3 | 7:FA:375:ARG:HH22 | 1.82 | 0.45 |
| 7:FA:422:CYS:HB3 | 7:FA:429:HIS:HA | 1.99 | 0.45 |
| 7:FA:483:PRO:HD3 | 7:FA:493:PRO:HA | 1.98 | 0.45 |
| 7:GA:374:GLU:HG2 | 7:GA:375:ARG:HG3 | 1.99 | 0.45 |
| 7:GA:441:SER:O | 7:GA:445:VAL:HG23 | 2.17 | 0.45 |
| 7:IA:240:ASN:HB2 | 7:IA:243:GLN:NE2 | 2.32 | 0.45 |
| 7:IA:459:THR:O | 7:IA:463:LEU:HD23 | 2.17 | 0.45 |
| 7:JA:201:TYR:CD2 | 7:JA:203:PRO:HD2 | 2.52 | 0.45 |
| 7:JA:448:ALA:HA | 7:JA:451:MET:HG3 | 1.98 | 0.45 |
| 7:KA:303:TYR:HB3 | 7:KA:390:ASP:OD2 | 2.17 | 0.45 |
| 7:MA:103:PHE:HB3 | 7:MA:121:TYR:CE2 | 2.52 | 0.45 |
| 7:MA:444:PHE:O | 7:MA:447:LEU:HG | 2.17 | 0.45 |
| 7:MA:485:ASP:OD1 | 7:MA:485:ASP:N | 2.48 | 0.45 |
| 7:MA:508:VAL:HG13 | 7:MA:510:TRP:CZ3 | 2.50 | 0.45 |
| 7:NA:526:LEU:HD12 | 7:NA:527:LEU:N | 2.31 | 0.45 |
| 7:OA:444:PHE:O | 7:OA:447:LEU:HG | 2.17 | 0.45 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:PA:240:ASN:O | 7:PA:243:GLN:NE2 | 2.51 | 0.45 |
| 7:QA:298:LYS:HB2 | 7:QA:301:LEU:HD23 | 1.99 | 0.45 |
| 7:RA:36:SER:HA | 7:RA:266:THR:HG21 | 1.98 | 0.45 |
| 7:RA:103:PHE:HB3 | 7:RA:121:TYR:CE2 | 2.52 | 0.45 |
| 7:RA:447:LEU:HA | 7:RA:450:GLN:HG3 | 1.99 | 0.45 |
| 8:AB:50:GLN:NE2 | 8:AB:81:ILE:HG23 | 2.32 | 0.45 |
| 8:EB:26:ARG:HE | 8:EB:27:LEU:H | 1.62 | 0.45 |
| 8:EB:56:ARG:HH22 | 8:FB:138:LYS:HD2 | 1.82 | 0.45 |
| 8:FB:133:GLU:HG2 | 8:FB:167:GLU:HB3 | 1.99 | 0.45 |
| 8:FB:138:LYS:O | 8:FB:161:ILE:HA | 2.17 | 0.45 |
| 8:HB:94:LEU:HA | 8:HB:97:ILE:HG12 | 1.98 | 0.45 |
| 8:JB:94:LEU:HA | 8:JB:97:ILE:HG12 | 1.98 | 0.45 |
| 8:KB:85:CYS:O | 8:KB:157:PRO:HD2 | 2.16 | 0.45 |
| 8:KB:94:LEU:HA | 8:KB:97:ILE:HG12 | 1.98 | 0.45 |
| 8:LB:94:LEU:HA | 8:LB:97:ILE:HG12 | 1.97 | 0.45 |
| 8:NB:26:ARG:NH2 | 8:OB:87:GLU:OE2 | 2.49 | 0.45 |
| 8:PB:23:LYS:HE3 | 8:QB:45:LEU:HB2 | 1.99 | 0.45 |
| 8:PB:52:PRO:HG2 | 8:PB:132:ILE:HG12 | 1.99 | 0.45 |
| 8:QB:56:ARG:HD2 | 8:QB:72:HIS:HB3 | 1.99 | 0.45 |
| 8:QB:107:VAL:HG12 | 8:QB:137:CYS:HB2 | 1.99 | 0.45 |
| 8:RB:132:ILE:HD12 | 8:RB:168:TRP:HB3 | 1.99 | 0.45 |
| 1:B:66:ILE:HG22 | 1:C:165:TYR:O | 2.17 | 0.44 |
| 1:C:28:ARG:HG2 | 1:C:29:GLU:OE1 | 2.17 | 0.44 |
| 1:D:61:PHE:HA | 8:CB:64:PRO:HG2 | 1.98 | 0.44 |
| 2:I:46:TRP:CH2 | 2:J:152:GLN:HB3 | 2.52 | 0.44 |
| 2:J:1:MET:HA | 3:P:55:GLN:OE1 | 2.17 | 0.44 |
| 3:N:52:VAL:HG12 | 3:N:52:VAL:O | 2.17 | 0.44 |
| 3:N:65:HIS:CD2 | 3:N:66:VAL:HG13 | 2.52 | 0.44 |
| 3:P:37:ASN:OD1 | 3:P:38:THR:HG23 | 2.17 | 0.44 |
| 3:Q:37:ASN:OD1 | 3:Q:38:THR:HG23 | 2.17 | 0.44 |
| 5:Y:163:THR:HG21 | 5:Y:208:LEU:HD23 | 1.99 | 0.44 |
| 5:1:25:TRP:O | 5:1:28:PHE:C | 2.59 | 0.44 |
| 5:2:19:VAL:HG13 | 5:2:25:TRP:CD2 | 2.52 | 0.44 |
| 5:2:442:ARG:HH11 | 5:2:475:GLU:HB3 | 1.82 | 0.44 |
| 5:3:163:THR:HG21 | 5:3:208:LEU:HD23 | 1.99 | 0.44 |
| 5:4:84:PRO:HB3 | 5:4:272:ASP:HA | 2.00 | 0.44 |
| 5:4:375:ARG:O | 5:4:460:PHE:N | 2.31 | 0.44 |
| 5:5:199:VAL:CG2 | 5:5:211:ARG:HB2 | 2.47 | 0.44 |
| 5:6:45:VAL:HA | 5:6:48:CYS:SG | 2.58 | 0.44 |
| 5:7:26:SER:OG | 5:7:27:LYS:HE3 | 2.18 | 0.44 |
| 5:8:474:TYR:HB2 | 5:8:476:GLU:OE2 | 2.17 | 0.44 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:d:76:SER:CB | 6:d:79:MET:HE2 | 2.47 | 0.44 |
| 6:e:23:LEU:O | 6:e:26:LEU:HG | 2.17 | 0.44 |
| 6:e:84:ARG:HG3 | 6:e:99:GLN:HE22 | 1.82 | 0.44 |
| 7:g:27:LEU:HD21 | 7:l:528:ILE:HG13 | 1.99 | 0.44 |
| 7:i:369:SER:O | 7:i:375:ARG:NH2 | 2.36 | 0.44 |
| 7:i:427:TYR:CD2 | 7:o:529:LYS:HB2 | 2.52 | 0.44 |
| 7:i:485:ASP:OD1 | 7:i:485:ASP:N | 2.42 | 0.44 |
| 7:j:432:HIS:CE1 | 7:j:433:VAL:HG23 | 2.52 | 0.44 |
| 7:k:290:LEU:O | 7:k:290:LEU:HD23 | 2.16 | 0.44 |
| 7:l:147:THR:OG1 | 7:l:172:THR:OG1 | 2.36 | 0.44 |
| 7:m:78:PRO:HA | 7:m:271:LEU:HD12 | 1.99 | 0.44 |
| 7:n:78:PRO:HA | 7:n:271:LEU:HD12 | 1.99 | 0.44 |
| 7:n:114:PRO:HD3 | 7:n:230:LYS:HZ3 | 1.81 | 0.44 |
| 7:n:467:MET:HE2 | 7:n:496:LEU:HB2 | 1.99 | 0.44 |
| 7:o:282:LEU:HB3 | 7:o:295:PHE:HE1 | 1.82 | 0.44 |
| 7:o:452:LYS:HZ2 | 7:o:453:HIS:H | 1.65 | 0.44 |
| 7:o:526:LEU:HA | 7:p:22:ASN:H | 1.83 | 0.44 |
| 7:p:365:GLY:HA3 | 7:p:368:TYR:CD2 | 2.52 | 0.44 |
| 7:q:78:PRO:HA | 7:q:271:LEU:HD12 | 1.99 | 0.44 |
| 7:q:282:LEU:HB3 | 7:q:295:PHE:HE1 | 1.82 | 0.44 |
| 7:r:282:LEU:HB3 | 7:r:295:PHE:HE1 | 1.82 | 0.44 |
| 7:r:449:ARG:NH2 | 7:FA:373:GLU:OE1 | 2.49 | 0.44 |
| 7:AA:81:HIS:ND1 | 7:AA:271:LEU:HA | 2.32 | 0.44 |
| 7:AA:368:TYR:HB3 | 7:AA:375:ARG:HH22 | 1.83 | 0.44 |
| 7:BA:507:GLU:HA | 7:HA:522:GLN:O | 2.16 | 0.44 |
| 7:CA:37:LEU:H | 7:CA:266:THR:HG23 | 1.82 | 0.44 |
| 7:CA:526:LEU:HD11 | 7:DA:27:LEU:HD22 | 1.99 | 0.44 |
| 7:DA:81:HIS:ND1 | 7:DA:271:LEU:HA | 2.32 | 0.44 |
| 7:EA:365:GLY:HA3 | 7:EA:368:TYR:HD2 | 1.83 | 0.44 |
| 7:EA:509:VAL:HA | 7:KA:524:VAL:O | 2.17 | 0.44 |
| 7:FA:335:LYS:HD2 | 7:FA:336:TRP:CE2 | 2.52 | 0.44 |
| 7:GA:302:THR:N | 7:GA:305:GLU:OE2 | 2.49 | 0.44 |
| 7:GA:442:ARG:O | 7:GA:445:VAL:HB | 2.17 | 0.44 |
| 7:HA:38:TRP:CZ2 | 7:HA:91:GLY:HA3 | 2.52 | 0.44 |
| 7:HA:303:TYR:HB3 | 7:HA:390:ASP:OD2 | 2.17 | 0.44 |
| 7:IA:201:TYR:CD2 | 7:IA:203:PRO:HD2 | 2.52 | 0.44 |
| 7:JA:240:ASN:HB2 | 7:JA:243:GLN:NE2 | 2.32 | 0.44 |
| 7:JA:446:GLN:HG2 | 7:JA:447:LEU:HD22 | 1.98 | 0.44 |
| 7:KA:333:LYS:HB3 | 7:KA:381:ALA:HB3 | 1.97 | 0.44 |
| 7:KA:442:ARG:O | 7:KA:445:VAL:HB | 2.17 | 0.44 |
| 7:LA:240:ASN:HB2 | 7:LA:243:GLN:NE2 | 2.32 | 0.44 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:LA:274:TYR:OH | 7:LA:299:PRO:HD3 | 2.17 | 0.44 |
| 7:LA:374:GLU:HG2 | 7:LA:375:ARG:HG3 | 1.99 | 0.44 |
| 7:LA:401:ARG:HA | 7:LA:419:LEU:HD21 | 1.99 | 0.44 |
| 7:MA:109:ASP:HB3 | 7:MA:113:GLU:CD | 2.42 | 0.44 |
| 7:NA:103:PHE:HB3 | 7:NA:121:TYR:CE2 | 2.52 | 0.44 |
| 7:NA:334:ASP:OD1 | 7:NA:335:LYS:N | 2.50 | 0.44 |
| 7:OA:378:ILE:HG13 | 7:OA:379:ALA:H | 1.79 | 0.44 |
| 7:PA:105:ILE:HD11 | 7:PA:119:LEU:HB2 | 1.99 | 0.44 |
| 7:QA:45:ALA:HB1 | 7:QA:46:ARG:NH1 | 2.32 | 0.44 |
| 7:QA:158:ASP:OD1 | 7:QA:164:ARG:NE | 2.39 | 0.44 |
| 8:DB:16:ARG:NH2 | 8:JB:64:PRO:O | 2.49 | 0.44 |
| 8:DB:26:ARG:NH2 | 8:DB:27:LEU:HB2 | 2.29 | 0.44 |
| 8:IB:46:VAL:O | 8:IB:47:ARG:NH2 | 2.50 | 0.44 |
| 8:KB:50:GLN:H | 8:KB:81:ILE:HG23 | 1.82 | 0.44 |
| 8:LB:36:PHE:HD1 | 8:LB:109:ILE:CD1 | 2.30 | 0.44 |
| 8:MB:13:ILE:HA | 8:MB:16:ARG:HG2 | 2.00 | 0.44 |
| 8:OB:26:ARG:NH2 | 8:PB:87:GLU:OE2 | 2.50 | 0.44 |
| 8:RB:56:ARG:HD2 | 8:RB:72:HIS:HB3 | 1.99 | 0.44 |
| 8:RB:85:CYS:O | 8:RB:157:PRO:HD2 | 2.17 | 0.44 |
| 1:B:28:ARG:HG2 | 1:B:29:GLU:OE1 | 2.17 | 0.44 |
| 1:C:47:TRP:HA | 1:D:167:ARG:HH12 | 1.81 | 0.44 |
| 1:E:48:GLN:O | 1:E:140:ARG:HG3 | 2.16 | 0.44 |
| 2:K:1:MET:SD | 7:k:374:GLU:HB3 | 2.58 | 0.44 |
| 2:K:16:SER:O | 2:K:19:LEU:HG | 2.16 | 0.44 |
| 3:M:52:VAL:HG12 | 3:M:52:VAL:O | 2.17 | 0.44 |
| 3:O:37:ASN:OD1 | 3:O:38:THR:HG23 | 2.16 | 0.44 |
| 3:O:65:HIS:CD2 | 3:O:66:VAL:HG13 | 2.53 | 0.44 |
| 3:Q:59:GLU:O | 3:Q:118:LEU:HB3 | 2.18 | 0.44 |
| 3:Q:65:HIS:CD2 | 3:Q:66:VAL:HG13 | 2.53 | 0.44 |
| 3:R:31:ARG:HA | 3:R:34:GLU:OE2 | 2.17 | 0.44 |
| 4:U:29:LEU:O | 4:U:32:GLU:HG3 | 2.16 | 0.44 |
| 4:X:34:ARG:HA | 4:X:37:VAL:CG2 | 2.44 | 0.44 |
| 5:Y:62:SER:HA | 5:Y:280:ARG:NH1 | 2.32 | 0.44 |
| 5:Y:147:VAL:HG12 | 5:Y:225:SER:O | 2.18 | 0.44 |
| 5:Z:47:ARG:HA | 5:Z:50:GLN:OE1 | 2.17 | 0.44 |
| 5:0:275:THR:O | 5:0:279:THR:HG23 | 2.16 | 0.44 |
| 5:1:147:VAL:HG12 | 5:1:225:SER:O | 2.17 | 0.44 |
| 5:2:47:ARG:HA | 5:2:50:GLN:OE1 | 2.17 | 0.44 |
| 5:2:337:PHE:HE1 | 5:2:372:LYS:HE2 | 1.81 | 0.44 |
| 5:3:375:ARG:O | 5:3:460:PHE:N | 2.43 | 0.44 |
| 5:4:351:GLU:HB2 | 5:4:371:TYR:CG | 2.52 | 0.44 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 5:6:137:GLN:HB3 | 5:6:238:ILE:HG13 | 1.99 | 0.44 |
| 5:6:302:PHE:HA | 5:6:305:ARG:HG2 | 1.98 | 0.44 |
| 5:9:189:ARG:H | 5:9:194:LYS:HD2 | 1.83 | 0.44 |
| 5:9:324:LEU:HD12 | 5:9:457:PHE:CG | 2.52 | 0.44 |
| 6:b:155:SER:HA | 6:b:202:THR:O | 2.16 | 0.44 |
| 6:c:54:GLU:HA | 6:c:57:GLU:OE2 | 2.17 | 0.44 |
| 7:j:100:ASP:OD2 | 7:j:242:ASP:N | 2.32 | 0.44 |
| 7:j:356:GLY:HA2 | 7:j:359:LYS:HZ3 | 1.82 | 0.44 |
| 7:m:325:VAL:HG13 | 7:m:402:LEU:HG | 1.99 | 0.44 |
| 7:n:42:GLY:O | 7:n:95:ARG:HA | 2.16 | 0.44 |
| 7:n:325:VAL:HG13 | 7:n:402:LEU:HG | 1.99 | 0.44 |
| 7:n:464:THR:O | 7:n:468:THR:HG23 | 2.17 | 0.44 |
| 7:o:318:THR:HA | 7:o:424:GLN:HE22 | 1.80 | 0.44 |
| 7:p:42:GLY:O | 7:p:95:ARG:HA | 2.17 | 0.44 |
| 7:q:383:ILE:O | 7:q:384:GLN:NE2 | 2.50 | 0.44 |
| 7:r:275:ASP:O | 7:r:279:ILE:HG12 | 2.18 | 0.44 |
| 7:AA:228:THR:HG23 | 7:AA:230:LYS:HG2 | 1.99 | 0.44 |
| 7:AA:467:MET:HA | 7:AA:470:LEU:HG | 1.97 | 0.44 |
| 7:BA:422:CYS:HB3 | 7:BA:429:HIS:HA | 1.99 | 0.44 |
| 7:CA:509:VAL:HA | 7:IA:524:VAL:O | 2.17 | 0.44 |
| 7:DA:405:VAL:HG13 | 7:DA:414:ILE:O | 2.16 | 0.44 |
| 7:GA:470:LEU:HB2 | 7:GA:473:ARG:NH1 | 2.32 | 0.44 |
| 7:KA:374:GLU:HG2 | 7:KA:375:ARG:HG3 | 1.99 | 0.44 |
| 7:LA:452:LYS:O | 7:LA:454:SER:N | 2.50 | 0.44 |
| 7:MA:217:VAL:HG11 | 7:MA:222:ILE:HD13 | 1.99 | 0.44 |
| 7:MA:334:ASP:OD1 | 7:MA:335:LYS:N | 2.50 | 0.44 |
| 7:NA:105:ILE:HD11 | 7:NA:119:LEU:HB2 | 1.99 | 0.44 |
| 7:NA:152:ILE:N | 7:NA:230:LYS:O | 2.22 | 0.44 |
| 7:NA:378:ILE:HG13 | 7:NA:379:ALA:H | 1.80 | 0.44 |
| 7:OA:105:ILE:HD11 | 7:OA:119:LEU:HB2 | 1.98 | 0.44 |
| 7:OA:107:MET:HG3 | 7:OA:134:ALA:HB2 | 1.99 | 0.44 |
| 7:PA:508:VAL:HG13 | 7:PA:510:TRP:CZ3 | 2.50 | 0.44 |
| 7:QA:470:LEU:HD12 | 7:QA:471:LEU:N | 2.32 | 0.44 |
| 8:AB:147:SER:HA | 8:FB:48:THR:HG23 | 1.99 | 0.44 |
| 8:BB:133:GLU:OE1 | 8:BB:133:GLU:N | 2.46 | 0.44 |
| 8:BB:151:VAL:HB | 8:GB:57:GLU:HG2 | 1.98 | 0.44 |
| 8:DB:48:THR:HG23 | 8:EB:147:SER:HA | 1.99 | 0.44 |
| 8:EB:26:ARG:NE | 8:EB:27:LEU:N | 2.64 | 0.44 |
| 8:EB:151:VAL:HB | 8:JB:57:GLU:HG2 | 1.98 | 0.44 |
| 8:FB:133:GLU:OE1 | 8:FB:133:GLU:N | 2.46 | 0.44 |
| 8:HB:40:GLU:HA | 8:HB:43:SER:HB2 | 1.99 | 0.44 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 8:IB:9:ASN:OD1 | 8:IB:12:PHE:HD2 | 2.00 | 0.44 |
| 8:IB:90:GLU:H | 8:IB:90:GLU:CD | 2.16 | 0.44 |
| 8:IB:154:ALA:HB2 | 8:NB:59:VAL:HG11 | 1.99 | 0.44 |
| 8:KB:14:LYS:O | 8:KB:18:THR:HG23 | 2.18 | 0.44 |
| 8:NB:54:MET:O | 8:OB:141:SER:OG | 2.28 | 0.44 |
| 1:A:167:ARG:HH12 | 1:F:47:TRP:HA | 1.81 | 0.44 |
| 2:G:152:GLN:HB3 | 2:L:46:TRP:CH2 | 2.52 | 0.44 |
| 2:I:190:ARG:HH11 | 3:O:86:PRO:HG2 | 1.83 | 0.44 |
| 3:O:44:TYR:HB3 | 5:6:39:LEU:HD13 | 1.98 | 0.44 |
| 3:P:35:TRP:HA | 3:P:49:TRP:CH2 | 2.53 | 0.44 |
| 4:S:29:LEU:HA | 4:S:32:GLU:OE1 | 2.18 | 0.44 |
| 4:S:86:ASP:HB3 | 4:S:89:GLN:OE1 | 2.17 | 0.44 |
| 4:V:110:ARG:HG3 | 4:V:114:TYR:HE2 | 1.81 | 0.44 |
| 4:W:57:GLU:CD | 4:W:64:LEU:HG | 2.43 | 0.44 |
| 4:W:105:ILE:HD12 | 4:W:105:ILE:H | 1.81 | 0.44 |
| 5:Z:32:GLN:CD | 5:Z:32:GLN:H | 2.26 | 0.44 |
| 5:2:13:ALA:O | 5:2:16:GLU:N | 2.50 | 0.44 |
| 5:2:375:ARG:O | 5:2:460:PHE:N | 2.43 | 0.44 |
| 5:3:184:SER:HB3 | 5:3:198:TYR:CZ | 2.52 | 0.44 |
| 5:5:10:SER:O | 5:5:13:ALA:N | 2.50 | 0.44 |
| 5:5:302:PHE:HA | 5:5:305:ARG:HG2 | 1.98 | 0.44 |
| 5:7:189:ARG:HG3 | 5:7:190:LEU:HG | 2.00 | 0.44 |
| 5:8:10:SER:O | 5:8:13:ALA:N | 2.50 | 0.44 |
| 5:8:137:GLN:HB3 | 5:8:238:ILE:HG13 | 1.99 | 0.44 |
| 5:8:405:GLU:HA | 5:8:409:GLY:HA3 | 1.99 | 0.44 |
| 5:9:6:PRO:HB2 | 5:9:10:SER:OG | 2.17 | 0.44 |
| 5:9:311:SER:OG | 5:9:343:PRO:HD3 | 2.18 | 0.44 |
| 6:a:84:ARG:HG3 | 6:a:99:GLN:HE22 | 1.81 | 0.44 |
| 6:c:114:PRO:HA | 6:c:152:GLY:HA3 | 1.99 | 0.44 |
| 6:f:54:GLU:HA | 6:f:57:GLU:OE2 | 2.17 | 0.44 |
| 7:g:452:LYS:HZ1 | 7:n:14:SER:HB3 | 1.80 | 0.44 |
| 7:h:305:GLU:C | 7:h:308:PRO:HD2 | 2.43 | 0.44 |
| 7:j:263:TYR:C | 7:q:4:TYR:HE2 | 2.24 | 0.44 |
| 7:j:311:GLU:OE1 | 7:j:311:GLU:N | 2.37 | 0.44 |
| 7:k:108:PHE:HB2 | 7:k:133:PHE:CZ | 2.53 | 0.44 |
| 7:k:199:LEU:HD21 | 7:q:69:LYS:HZ1 | 1.82 | 0.44 |
| 7:m:282:LEU:HB3 | 7:m:295:PHE:HE1 | 1.82 | 0.44 |
| 7:m:356:GLY:O | 7:m:359:LYS:HG2 | 2.18 | 0.44 |
| 7:n:461:ALA:O | 7:n:464:THR:OG1 | 2.27 | 0.44 |
| 7:o:326:TYR:CD2 | 7:o:346:SER:HA | 2.52 | 0.44 |
| 7:o:449:ARG:HH11 | 7:CA:414:ILE:HD13 | 1.82 | 0.44 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:p:196:MET:HB3 | 7:CA:529:LYS:HZ1 | 1.83 | 0.44 |
| 7:r:83:TYR:CE2 | 7:r:335:LYS:HE2 | 2.52 | 0.44 |
| 7:CA:355:ARG:HH11 | 7:CA:359:LYS:NZ | 2.16 | 0.44 |
| 7:CA:520:ARG:CG | 7:DA:16:VAL:HA | 2.42 | 0.44 |
| 7:DA:335:LYS:HD2 | 7:DA:336:TRP:CE2 | 2.52 | 0.44 |
| 7:DA:441:SER:O | 7:DA:445:VAL:HG23 | 2.18 | 0.44 |
| 7:DA:526:LEU:HD11 | 7:EA:27:LEU:HD22 | 1.99 | 0.44 |
| 7:JA:317:GLY:H | 7:JA:423:THR:HG21 | 1.81 | 0.44 |
| 7:LA:8:GLN:OE1 | 7:LA:8:GLN:N | 2.33 | 0.44 |
| 7:MA:210:SER:OG | 7:MA:213:LEU:O | 2.18 | 0.44 |
| 7:NA:44:PHE:CD1 | 7:NA:79:ILE:HG22 | 2.53 | 0.44 |
| 7:NA:166:LEU:HB3 | 7:NA:185:THR:HG22 | 1.99 | 0.44 |
| 7:OA:44:PHE:CD1 | 7:OA:79:ILE:HG22 | 2.53 | 0.44 |
| 7:PA:202:LEU:HB2 | 7:PA:203:PRO:HD3 | 1.98 | 0.44 |
| 7:QA:103:PHE:HB3 | 7:QA:121:TYR:CE2 | 2.52 | 0.44 |
| 7:QA:407:VAL:HG23 | 7:RA:3:GLN:HE21 | 1.82 | 0.44 |
| 7:RA:46:ARG:NE | 7:RA:140:GLY:O | 2.44 | 0.44 |
| 8:AB:87:GLU:OE2 | 8:AB:155:VAL:HB | 2.17 | 0.44 |
| 8:CB:77:ASN:HD22 | 8:CB:165:TRP:CD1 | 2.33 | 0.44 |
| 8:GB:154:ALA:HB3 | 8:LB:26:ARG:HH21 | 1.82 | 0.44 |
| 8:IB:51:ILE:HG23 | 8:JB:146:PHE:CD1 | 2.53 | 0.44 |
| 8:JB:154:ALA:HB2 | 8:OB:59:VAL:HG11 | 2.00 | 0.44 |
| 8:KB:14:LYS:NZ | 8:RB:165:TRP:HZ2 | 2.15 | 0.44 |
| 8:KB:44:VAL:HG13 | 8:KB:45:LEU:HD22 | 1.99 | 0.44 |
| 8:NB:56:ARG:HD2 | 8:NB:72:HIS:HB3 | 2.00 | 0.44 |
| 8:PB:54:MET:O | 8:QB:141:SER:OG | 2.29 | 0.44 |
| 8:QB:85:CYS:O | 8:QB:157:PRO:HD2 | 2.18 | 0.44 |
| 8:RB:26:ARG:HA | 8:RB:26:ARG:NE | 2.33 | 0.44 |
| 1:B:189:SER:HG | 7:h:473:ARG:HE | 1.61 | 0.44 |
| 2:G:21:VAL:HG12 | 2:G:32:GLY:C | 2.43 | 0.44 |
| 2:I:21:VAL:HG12 | 2:I:32:GLY:C | 2.43 | 0.44 |
| 2:L:21:VAL:HG12 | 2:L:32:GLY:C | 2.43 | 0.44 |
| 3:N:89:GLY:O | 3:N:105:ILE:HD12 | 2.18 | 0.44 |
| 3:O:52:VAL:HG12 | 3:O:52:VAL:O | 2.17 | 0.44 |
| 3:R:39:TYR:CE1 | 7:g:6:ILE:HD11 | 2.53 | 0.44 |
| 3:R:73:MET:O | 3:R:76:GLN:HG3 | 2.17 | 0.44 |
| 4:U:93:VAL:HG11 | 7:i:383:ILE:HG22 | 1.99 | 0.44 |
| 4:W:86:ASP:HB3 | 4:W:89:GLN:OE1 | 2.17 | 0.44 |
| 5:0:25:TRP:O | 5:0:28:PHE:C | 2.59 | 0.44 |
| 5:1:316:TRP:HE3 | 5:1:320:GLN:HB3 | 1.82 | 0.44 |
| 5:2:329:ASN:HA | 6:e:126:TYR:HE2 | 1.82 | 0.44 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 5:3:62:SER:HA | 5:3:280:ARG:NH1 | 2.32 | 0.44 |
| 5:4:137:GLN:HB3 | 5:4:238:ILE:HG13 | 1.99 | 0.44 |
| 5:4:311:SER:OG | 5:4:343:PRO:HD3 | 2.17 | 0.44 |
| 5:5:137:GLN:HB3 | 5:5:238:ILE:HG13 | 2.00 | 0.44 |
| 5:5:312:TRP:HB3 | 5:5:415:PHE:HB2 | 1.99 | 0.44 |
| 5:6:433:ALA:O | 5:6:437:THR:HG23 | 2.17 | 0.44 |
| 5:8:88:SER:OG | 5:8:134:GLU:OE2 | 2.27 | 0.44 |
| 5:9:137:GLN:HB3 | 5:9:238:ILE:HG13 | 1.99 | 0.44 |
| 6:b:123:ARG:HE | 6:b:124:HIS:CD2 | 2.35 | 0.44 |
| 6:c:73:ASN:O | 6:c:77:VAL:HG23 | 2.17 | 0.44 |
| 7:g:432:HIS:CE1 | 7:g:433:VAL:HG23 | 2.52 | 0.44 |
| 7:h:432:HIS:CE1 | 7:h:433:VAL:HG23 | 2.52 | 0.44 |
| 7:h:512:CYS:SG | 7:h:513:CYS:N | 2.90 | 0.44 |
| 7:i:422:CYS:HB3 | 7:i:429:HIS:HA | 1.99 | 0.44 |
| 7:k:402:LEU:HG | 7:k:403:ASN:N | 2.31 | 0.44 |
| 7:l:395:GLU:HG2 | 7:l:396:ALA:N | 2.33 | 0.44 |
| 7:o:83:TYR:CE2 | 7:o:335:LYS:HE2 | 2.52 | 0.44 |
| 7:p:56:THR:N | 7:p:59:ASN:OD1 | 2.51 | 0.44 |
| 7:q:144:ILE:HA | 7:q:147:THR:HG22 | 1.99 | 0.44 |
| 7:q:397:MET:CE | 7:q:402:LEU:HB3 | 2.48 | 0.44 |
| 7:r:326:TYR:CD2 | 7:r:346:SER:HA | 2.52 | 0.44 |
| 7:r:467:MET:HE2 | 7:r:496:LEU:HB2 | 1.99 | 0.44 |
| 7:AA:170:THR:OG1 | 7:AA:179:THR:O | 2.30 | 0.44 |
| 7:CA:422:CYS:HB3 | 7:CA:429:HIS:HA | 2.00 | 0.44 |
| 7:HA:240:ASN:HB2 | 7:HA:243:GLN:NE2 | 2.32 | 0.44 |
| 7:HA:401:ARG:HA | 7:HA:419:LEU:HD21 | 1.98 | 0.44 |
| 7:HA:470:LEU:HB2 | 7:HA:473:ARG:NH1 | 2.32 | 0.44 |
| 7:IA:443:PHE:HA | 7:IA:446:GLN:NE2 | 2.33 | 0.44 |
| 7:JA:60:TYR:O | 7:JA:64:LEU:HG | 2.18 | 0.44 |
| 7:JA:110:GLU:OE2 | 7:JA:224:THR:OG1 | 2.31 | 0.44 |
| 7:JA:401:ARG:HA | 7:JA:419:LEU:HD21 | 1.99 | 0.44 |
| 7:MA:315:LEU:HD23 | 7:MA:315:LEU:H | 1.83 | 0.44 |
| 7:MA:432:HIS:O | 7:MA:435:SER:OG | 2.22 | 0.44 |
| 7:NA:37:LEU:CB | 7:NA:265:TYR:HA | 2.45 | 0.44 |
| 7:NA:430:PHE:HB2 | 7:NA:433:VAL:HG23 | 1.99 | 0.44 |
| 7:OA:166:LEU:HB3 | 7:OA:185:THR:HG22 | 2.00 | 0.44 |
| 7:PA:315:LEU:HD23 | 7:PA:315:LEU:H | 1.82 | 0.44 |
| 7:QA:240:ASN:O | 7:QA:243:GLN:NE2 | 2.50 | 0.44 |
| 7:RA:217:VAL:HG11 | 7:RA:222:ILE:HD13 | 1.98 | 0.44 |
| 7:RA:240:ASN:O | 7:RA:243:GLN:NE2 | 2.50 | 0.44 |
| 8:DB:26:ARG:HE | 8:DB:27:LEU:H | 1.62 | 0.44 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 8:HB:45:LEU:O | 8:HB:47:ARG:NH1 | 2.50 | 0.44 |
| 8:JB:88:THR:OG1 | 8:JB:89:ILE:N | 2.47 | 0.44 |
| 8:KB:16:ARG:HG3 | 8:KB:17:TYR:N | 2.32 | 0.44 |
| 8:MB:26:ARG:NE | 8:MB:26:ARG:HA | 2.33 | 0.44 |
| 8:MB:149:GLU:O | 8:MB:151:VAL:N | 2.50 | 0.44 |
| 8:OB:26:ARG:HA | 8:OB:26:ARG:NE | 2.33 | 0.44 |
| 8:OB:111:MET:HB3 | 8:OB:132:ILE:CG2 | 2.47 | 0.44 |
| 8:PB:56:ARG:HD2 | 8:PB:72:HIS:HB3 | 2.00 | 0.44 |
| 8:PB:166:ILE:HG22 | 8:PB:168:TRP:HD1 | 1.82 | 0.44 |
| 1:A:66:ILE:HG22 | 1:B:165:TYR:O | 2.17 | 0.44 |
| 1:F:28:ARG:HG2 | 1:F:29:GLU:OE1 | 2.17 | 0.44 |
| 1:F:64:LYS:HZ3 | 1:F:99:MET:HG3 | 1.82 | 0.44 |
| 1:F:167:ARG:HB3 | 8:DB:62:TYR:CE2 | 2.53 | 0.44 |
| 2:H:1:MET:HA | 3:N:55:GLN:OE1 | 2.17 | 0.44 |
| 2:H:190:ARG:HH11 | 3:N:86:PRO:HG2 | 1.83 | 0.44 |
| 2:I:16:SER:O | 2:I:19:LEU:HG | 2.16 | 0.44 |
| 2:J:46:TRP:CH2 | 2:K:152:GLN:HB3 | 2.53 | 0.44 |
| 3:O:89:GLY:O | 3:O:105:ILE:HD12 | 2.18 | 0.44 |
| 3:Q:52:VAL:HG12 | 3:Q:52:VAL:O | 2.18 | 0.44 |
| 4:U:40:MET:HG3 | 4:U:104:TRP:HH2 | 1.81 | 0.44 |
| 5:O:147:VAL:HG12 | 5:O:225:SER:O | 2.17 | 0.44 |
| 5:O:329:ASN:HA | 6:c:126:TYR:HE2 | 1.83 | 0.44 |
| 5:1:47:ARG:HA | 5:1:50:GLN:OE1 | 2.18 | 0.44 |
| 5:1:62:SER:HA | 5:1:280:ARG:NH1 | 2.32 | 0.44 |
| 5:3:147:VAL:HG12 | 5:3:225:SER:O | 2.18 | 0.44 |
| 5:6:312:TRP:HB3 | 5:6:415:PHE:HB2 | 2.00 | 0.44 |
| 5:6:324:LEU:HD12 | 5:6:457:PHE:CG | 2.52 | 0.44 |
| 5:8:6:PRO:HB2 | 5:8:10:SER:OG | 2.18 | 0.44 |
| 5:8:53:ASP:O | 5:8:56:LEU:HG | 2.17 | 0.44 |
| 5:9:11:ILE:HA | 5:9:14:GLU:OE2 | 2.16 | 0.44 |
| 6:a:69:ILE:HA | 6:a:187:PHE:CE1 | 2.52 | 0.44 |
| 6:a:123:ARG:HE | 6:a:124:HIS:CD2 | 2.35 | 0.44 |
| 6:b:73:ASN:O | 6:b:77:VAL:HG23 | 2.17 | 0.44 |
| 6:f:125:PRO:O | 6:f:128:THR:OG1 | 2.30 | 0.44 |
| 7:h:108:PHE:HB2 | 7:h:133:PHE:CZ | 2.53 | 0.44 |
| 7:i:432:HIS:CE1 | 7:i:433:VAL:HG23 | 2.52 | 0.44 |
| 7:i:444:PHE:O | 7:i:447:LEU:HG | 2.18 | 0.44 |
| 7:j:427:TYR:CD2 | 7:p:529:LYS:HB2 | 2.52 | 0.44 |
| 7:j:508:VAL:HG13 | 7:j:510:TRP:HZ3 | 1.83 | 0.44 |
| 7:j:528:ILE:HG13 | 7:k:27:LEU:HD21 | 2.00 | 0.44 |
| 7:k:41:ILE:HD13 | 7:k:254:ALA:HB1 | 2.00 | 0.44 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:k:60:TYR:O | 7:k:64:LEU:HB2 | 2.18 | 0.44 |
| 7:l:373:GLU:H | 7:l:373:GLU:CD | 2.24 | 0.44 |
| 7:m:201:TYR:CE1 | 7:m:203:PRO:HD2 | 2.53 | 0.44 |
| 7:m:406:SER:HB2 | 7:m:416:ASP:OD2 | 2.18 | 0.44 |
| 7:m:449:ARG:NH2 | 7:AA:373:GLU:OE1 | 2.49 | 0.44 |
| 7:n:201:TYR:CE1 | 7:n:203:PRO:HD2 | 2.53 | 0.44 |
| 7:o:499:THR:HG23 | 7:o:507:GLU:OE2 | 2.18 | 0.44 |
| 7:p:194:ASP:N | 7:p:198:ARG:O | 2.47 | 0.44 |
| 7:p:504:ASP:OD1 | 7:DA:518:ALA:N | 2.51 | 0.44 |
| 7:q:449:ARG:HH11 | 7:EA:414:ILE:HD13 | 1.82 | 0.44 |
| 7:r:386:LEU:HD23 | 7:r:386:LEU:HA | 1.84 | 0.44 |
| 7:AA:509:VAL:HA | 7:GA:524:VAL:O | 2.17 | 0.44 |
| 7:CA:102:LYS:HZ2 | 7:CA:120:PRO:HD3 | 1.83 | 0.44 |
| 7:DA:368:TYR:HB3 | 7:DA:375:ARG:HH22 | 1.83 | 0.44 |
| 7:EA:81:HIS:ND1 | 7:EA:271:LEU:HA | 2.32 | 0.44 |
| 7:EA:483:PRO:HD3 | 7:EA:493:PRO:HA | 1.98 | 0.44 |
| 7:FA:509:VAL:HA | 7:LA:524:VAL:O | 2.17 | 0.44 |
| 7:HA:297:VAL:HG12 | 7:HA:326:TYR:O | 2.18 | 0.44 |
| 7:HA:374:GLU:HG2 | 7:HA:375:ARG:HG3 | 1.99 | 0.44 |
| 7:IA:274:TYR:OH | 7:IA:299:PRO:HD3 | 2.17 | 0.44 |
| 7:JA:274:TYR:OH | 7:JA:299:PRO:HD3 | 2.18 | 0.44 |
| 7:KA:240:ASN:HB2 | 7:KA:243:GLN:NE2 | 2.32 | 0.44 |
| 7:LA:401:ARG:HH22 | 7:LA:425:ASP:HA | 1.83 | 0.44 |
| 7:NA:45:ALA:HB1 | 7:NA:46:ARG:NH1 | 2.32 | 0.44 |
| 7:NA:217:VAL:HG11 | 7:NA:222:ILE:HD13 | 1.99 | 0.44 |
| 7:NA:315:LEU:HD23 | 7:NA:315:LEU:H | 1.82 | 0.44 |
| 7:OA:75:GLN:O | 7:OA:78:PRO:HD2 | 2.18 | 0.44 |
| 7:OA:79:ILE:HD11 | 7:OA:80:ARG:NH1 | 2.32 | 0.44 |
| 7:PA:80:ARG:O | 7:PA:83:TYR:HB3 | 2.18 | 0.44 |
| 7:PA:107:MET:HG3 | 7:PA:134:ALA:HB2 | 1.99 | 0.44 |
| 7:QA:46:ARG:NE | 7:QA:140:GLY:O | 2.45 | 0.44 |
| 7:QA:202:LEU:HB2 | 7:QA:203:PRO:HD3 | 1.98 | 0.44 |
| 7:QA:217:VAL:HG11 | 7:QA:222:ILE:HD13 | 1.99 | 0.44 |
| 7:QA:447:LEU:HA | 7:QA:450:GLN:HG3 | 1.99 | 0.44 |
| 7:RA:386:LEU:HD23 | 7:RA:386:LEU:HA | 1.89 | 0.44 |
| 8:BB:26:ARG:CZ | 8:BB:27:LEU:H | 2.30 | 0.44 |
| 8:CB:45:LEU:CD1 | 8:CB:85:CYS:HB2 | 2.46 | 0.44 |
| 8:DB:45:LEU:HD13 | 8:DB:86:VAL:O | 2.17 | 0.44 |
| 8:DB:50:GLN:NE2 | 8:DB:81:ILE:HG23 | 2.32 | 0.44 |
| 8:DB:133:GLU:HG2 | 8:DB:167:GLU:HB3 | 1.98 | 0.44 |
| 8:EB:33:LEU:HD11 | 8:EB:112:ALA:HB3 | 1.98 | 0.44 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 8:EB:55:THR:HG23 | 8:EB:76:ARG:HB2 | 1.99 | 0.44 |
| 8:FB:50:GLN:NE2 | 8:FB:81:ILE:HG23 | 2.33 | 0.44 |
| 8:GB:9:ASN:OD1 | 8:GB:12:PHE:HD2 | 2.01 | 0.44 |
| 8:HB:16:ARG:HG3 | 8:HB:17:TYR:N | 2.33 | 0.44 |
| 8:HB:50:GLN:H | 8:HB:81:ILE:HG23 | 1.83 | 0.44 |
| 8:IB:36:PHE:HD1 | 8:IB:109:ILE:CD1 | 2.30 | 0.44 |
| 8:IB:47:ARG:NH2 | 8:NB:64:PRO:HG3 | 2.32 | 0.44 |
| 8:IB:55:THR:O | 8:IB:76:ARG:N | 2.48 | 0.44 |
| 8:IB:87:GLU:HB2 | 8:IB:93:ILE:HD12 | 1.99 | 0.44 |
| 8:JB:9:ASN:OD1 | 8:JB:12:PHE:HD2 | 2.01 | 0.44 |
| 8:LB:46:VAL:O | 8:LB:47:ARG:NH2 | 2.51 | 0.44 |
| 8:MB:56:ARG:HD2 | 8:MB:72:HIS:HB3 | 2.00 | 0.44 |
| 8:NB:85:CYS:O | 8:NB:157:PRO:HD2 | 2.18 | 0.44 |
| 8:OB:42:ILE:HG21 | 8:OB:96:PHE:CD1 | 2.52 | 0.44 |
| 8:PB:13:ILE:HA | 8:PB:16:ARG:HG2 | 2.00 | 0.44 |
| 8:QB:11:LYS:HE3 | 8:QB:12:PHE:CE1 | 2.52 | 0.44 |
| 1:A:33:LEU:HD23 | 1:A:36:ILE:HD11 | 2.00 | 0.44 |
| 1:C:167:ARG:HB3 | 8:AB:62:TYR:CE2 | 2.53 | 0.44 |
| 2:H:46:TRP:CH2 | 2:I:152:GLN:HB3 | 2.52 | 0.44 |
| 2:H:156:PHE:HB3 | 2:H:173:VAL:HG22 | 1.98 | 0.44 |
| 2:I:5:ALA:HA | 2:I:29:GLN:O | 2.17 | 0.44 |
| 3:Q:74:LEU:HD12 | 3:Q:75:LEU:N | 2.33 | 0.44 |
| 3:Q:89:GLY:O | 3:Q:105:ILE:HD12 | 2.18 | 0.44 |
| 4:S:14:TYR:HD2 | 4:S:16:LEU:HD22 | 1.83 | 0.44 |
| 4:S:20:ASP:N | 4:S:20:ASP:OD1 | 2.51 | 0.44 |
| 4:V:54:LEU:HG | 4:V:55:PRO:HD2 | 2.00 | 0.44 |
| 4:V:85:GLU:O | 5:7:47:ARG:NH2 | 2.51 | 0.44 |
| 4:V:93:VAL:HG12 | 7:j:382:SER:HA | 1.98 | 0.44 |
| 4:W:20:ASP:OD1 | 4:W:20:ASP:N | 2.50 | 0.44 |
| 5:1:155:GLU:OE1 | 5:1:155:GLU:N | 2.50 | 0.44 |
| 5:1:163:THR:HG21 | 5:1:208:LEU:HD23 | 2.00 | 0.44 |
| 5:3:346:SER:N | 5:3:349:GLU:OE1 | 2.31 | 0.44 |
| 5:5:311:SER:OG | 5:5:343:PRO:HD3 | 2.17 | 0.44 |
| 5:5:405:GLU:HA | 5:5:409:GLY:HA3 | 2.00 | 0.44 |
| 5:7:11:ILE:HA | 5:7:14:GLU:CD | 2.42 | 0.44 |
| 5:7:199:VAL:CG2 | 5:7:211:ARG:HB2 | 2.48 | 0.44 |
| 5:7:405:GLU:HA | 5:7:409:GLY:HA3 | 1.98 | 0.44 |
| 5:8:199:VAL:CG2 | 5:8:211:ARG:HB2 | 2.48 | 0.44 |
| 5:9:10:SER:OG | 5:9:11:ILE:N | 2.51 | 0.44 |
| 5:9:84:PRO:HB3 | 5:9:272:ASP:HA | 2.00 | 0.44 |
| 6:a:23:LEU:O | 6:a:26:LEU:HG | 2.17 | 0.44 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:c:33:THR:HG23 | 6:c:34:PHE:CD2 | 2.53 | 0.44 |
| 6:e:54:GLU:HA | 6:e:57:GLU:OE2 | 2.17 | 0.44 |
| 7:g:108:PHE:HB2 | 7:g:133:PHE:CZ | 2.53 | 0.44 |
| 7:i:81:HIS:HE2 | 7:i:344:GLY:H | 1.66 | 0.44 |
| 7:i:305:GLU:C | 7:i:308:PRO:HD2 | 2.43 | 0.44 |
| 7:i:340:ARG:NH1 | 7:i:382:SER:O | 2.48 | 0.44 |
| 7:j:497:LYS:HZ2 | 7:q:27:LEU:HD12 | 1.83 | 0.44 |
| 7:k:305:GLU:C | 7:k:308:PRO:HD2 | 2.43 | 0.44 |
| 7:k:520:ARG:HH21 | 7:l:14:SER:HA | 1.83 | 0.44 |
| 7:n:279:ILE:HG23 | 7:n:295:PHE:CD1 | 2.53 | 0.44 |
| 7:n:371:ALA:HA | 7:n:376:ALA:HB2 | 2.00 | 0.44 |
| 7:o:201:TYR:CE1 | 7:o:203:PRO:HD2 | 2.52 | 0.44 |
| 7:r:406:SER:HB2 | 7:r:416:ASP:OD2 | 2.18 | 0.44 |
| 7:AA:43:VAL:HG22 | 7:AA:96:ALA:O | 2.17 | 0.44 |
| 7:AA:447:LEU:HD12 | 7:AA:448:ALA:N | 2.32 | 0.44 |
| 7:CA:355:ARG:O | 7:CA:359:LYS:HE3 | 2.17 | 0.44 |
| 7:DA:434:PRO:CA | 7:DA:437:MET:HE3 | 2.47 | 0.44 |
| 7:EA:422:CYS:HB3 | 7:EA:429:HIS:HA | 1.99 | 0.44 |
| 7:FA:507:GLU:HA | 7:LA:522:GLN:O | 2.17 | 0.44 |
| 7:GA:290:LEU:HD23 | 7:GA:290:LEU:O | 2.18 | 0.44 |
| 7:HA:442:ARG:O | 7:HA:445:VAL:HB | 2.17 | 0.44 |
| 7:IA:297:VAL:HG12 | 7:IA:326:TYR:O | 2.18 | 0.44 |
| 7:IA:302:THR:N | 7:IA:305:GLU:OE2 | 2.49 | 0.44 |
| 7:IA:374:GLU:HG2 | 7:IA:375:ARG:HG3 | 1.99 | 0.44 |
| 7:JA:52:VAL:HA | 7:JA:94:VAL:HG22 | 1.99 | 0.44 |
| 7:JA:470:LEU:HD12 | 7:JA:471:LEU:HD22 | 1.99 | 0.44 |
| 7:LA:358:LYS:HD3 | 7:LA:358:LYS:C | 2.43 | 0.44 |
| 7:LA:443:PHE:HA | 7:LA:446:GLN:NE2 | 2.32 | 0.44 |
| 7:LA:470:LEU:HD12 | 7:LA:471:LEU:HD22 | 1.99 | 0.44 |
| 7:MA:77:GLU:HB2 | 7:MA:78:PRO:HD3 | 1.99 | 0.44 |
| 7:MA:240:ASN:O | 7:MA:243:GLN:NE2 | 2.50 | 0.44 |
| 7:NA:75:GLN:O | 7:NA:78:PRO:HD2 | 2.17 | 0.44 |
| 7:OA:315:LEU:HD23 | 7:OA:315:LEU:H | 1.82 | 0.44 |
| 7:PA:46:ARG:NE | 7:PA:142:PRO:HD3 | 2.33 | 0.44 |
| 7:QA:342:VAL:HG21 | 7:QA:386:LEU:HD11 | 1.98 | 0.44 |
| 7:RA:334:ASP:OD1 | 7:RA:335:LYS:N | 2.50 | 0.44 |
| 8:CB:50:GLN:NE2 | 8:CB:81:ILE:HG23 | 2.33 | 0.44 |
| 8:EB:7:LYS:O | 8:FB:117:SER:OG | 2.24 | 0.44 |
| 8:HB:154:ALA:HB2 | 8:MB:59:VAL:HG11 | 1.99 | 0.44 |
| 8:LB:47:ARG:HG3 | 8:LB:86:VAL:HG23 | 2.00 | 0.44 |
| 8:MB:107:VAL:HG12 | 8:MB:137:CYS:HB2 | 2.00 | 0.44 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 8:MB:111:MET:O | 8:MB:132:ILE:HG22 | 2.17 | 0.44 |
| 8:NB:26:ARG:NE | 8:NB:26:ARG:HA | 2.32 | 0.44 |
| 8:OB:85:CYS:O | 8:OB:157:PRO:HD2 | 2.17 | 0.44 |
| 8:PB:42:ILE:HG21 | 8:PB:96:PHE:CD1 | 2.52 | 0.44 |
| 8:QB:13:ILE:HA | 8:QB:16:ARG:HG2 | 1.98 | 0.44 |
| 2:H:162:ARG:HG3 | 2:H:168:PHE:CD1 | 2.52 | 0.44 |
| 2:K:5:ALA:HA | 2:K:29:GLN:O | 2.18 | 0.44 |
| 3:N:74:LEU:HD12 | 3:N:75:LEU:N | 2.33 | 0.44 |
| 3:R:65:HIS:CD2 | 3:R:66:VAL:HG13 | 2.53 | 0.44 |
| 4:T:22:ARG:HH12 | 5:5:5:THR:HG23 | 1.82 | 0.44 |
| 4:T:88:SER:HB3 | 6:b:5:TRP:CD1 | 2.52 | 0.44 |
| 4:U:20:ASP:OD1 | 4:U:20:ASP:N | 2.51 | 0.44 |
| 4:V:14:TYR:HD2 | 4:V:16:LEU:HD22 | 1.83 | 0.44 |
| 4:X:36:GLU:HA | 4:X:39:LEU:HD12 | 1.99 | 0.44 |
| 5:Y:32:GLN:CD | 5:Y:32:GLN:H | 2.26 | 0.44 |
| 5:2:147:VAL:HG12 | 5:2:225:SER:O | 2.18 | 0.44 |
| 5:4:301:TYR:OH | 5:4:305:ARG:NH1 | 2.51 | 0.44 |
| 5:5:84:PRO:HB3 | 5:5:272:ASP:HA | 2.00 | 0.44 |
| 5:5:324:LEU:HD12 | 5:5:457:PHE:CG | 2.52 | 0.44 |
| 5:8:324:LEU:HD12 | 5:8:457:PHE:CG | 2.52 | 0.44 |
| 5:9:405:GLU:HA | 5:9:409:GLY:HA3 | 1.99 | 0.44 |
| 5:9:433:ALA:O | 5:9:437:THR:HG23 | 2.17 | 0.44 |
| 6:b:36:ASP:O | 6:b:39:LEU:N | 2.51 | 0.44 |
| 6:f:10:LEU:HB2 | 6:f:15:GLN:HE21 | 1.83 | 0.44 |
| 6:f:73:ASN:O | 6:f:77:VAL:HG23 | 2.17 | 0.44 |
| 7:g:520:ARG:HH21 | 7:h:14:SER:HA | 1.83 | 0.44 |
| 7:h:147:THR:OG1 | 7:h:172:THR:OG1 | 2.36 | 0.44 |
| 7:l:305:GLU:C | 7:l:308:PRO:HD2 | 2.42 | 0.44 |
| 7:l:444:PHE:O | 7:l:447:LEU:HG | 2.18 | 0.44 |
| 7:m:275:ASP:O | 7:m:279:ILE:HG12 | 2.18 | 0.44 |
| 7:n:397:MET:CE | 7:n:402:LEU:HB3 | 2.48 | 0.44 |
| 7:o:453:HIS:HB3 | 7:CA:369:SER:HB2 | 1.98 | 0.44 |
| 7:p:397:MET:CE | 7:p:402:LEU:HB3 | 2.48 | 0.44 |
| 7:AA:27:LEU:HD22 | 7:FA:526:LEU:HD11 | 1.99 | 0.44 |
| 7:AA:264:MET:HE2 | 7:AA:264:MET:N | 2.33 | 0.44 |
| 7:AA:386:LEU:HD23 | 7:AA:386:LEU:HA | 1.87 | 0.44 |
| 7:BA:365:GLY:HA3 | 7:BA:368:TYR:HD2 | 1.83 | 0.44 |
| 7:CA:12:ASN:O | 7:CA:12:ASN:OD1 | 2.35 | 0.44 |
| 7:CA:80:ARG:HE | 7:CA:84:GLU:HG3 | 1.83 | 0.44 |
| 7:CA:81:HIS:ND1 | 7:CA:271:LEU:HA | 2.33 | 0.44 |
| 7:CA:135:ILE:HG13 | 7:CA:215:ALA:HB2 | 2.00 | 0.44 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:DA:269:LEU:HD13 | 7:DA:294:PHE:HB2 | 2.00 | 0.44 |
| 7:EA:311:GLU:HG3 | 7:EA:316:LEU:HD21 | 2.00 | 0.44 |
| 7:FA:228:THR:HG23 | 7:FA:230:LYS:HG2 | 1.99 | 0.44 |
| 7:GA:82:VAL:O | 7:GA:86:ILE:HB | 2.17 | 0.44 |
| 7:GA:303:TYR:CE2 | 7:GA:392:PRO:HA | 2.52 | 0.44 |
| 7:IA:8:GLN:OE1 | 7:IA:8:GLN:N | 2.33 | 0.44 |
| 7:IA:54:ALA:HB2 | 7:IA:92:TYR:CE1 | 2.53 | 0.44 |
| 7:IA:353:LYS:HD2 | 7:IA:353:LYS:HA | 1.77 | 0.44 |
| 7:JA:34:ASN:HA | 7:JA:89:THR:OG1 | 2.18 | 0.44 |
| 7:KA:60:TYR:O | 7:KA:64:LEU:HG | 2.18 | 0.44 |
| 7:NA:137:VAL:HA | 7:NA:213:LEU:HD12 | 2.00 | 0.44 |
| 7:NA:500:GLN:HE21 | 7:NA:502:GLU:N | 2.16 | 0.44 |
| 7:OA:109:ASP:HB3 | 7:OA:113:GLU:CD | 2.42 | 0.44 |
| 7:OA:137:VAL:HA | 7:OA:213:LEU:HD12 | 2.00 | 0.44 |
| 7:OA:470:LEU:HD12 | 7:OA:471:LEU:N | 2.32 | 0.44 |
| 7:PA:524:VAL:HA | 7:QA:19:SER:HB2 | 2.00 | 0.44 |
| 7:QA:109:ASP:HB3 | 7:QA:113:GLU:CD | 2.42 | 0.44 |
| 7:RA:105:ILE:HD11 | 7:RA:119:LEU:HB2 | 1.99 | 0.44 |
| 7:RA:137:VAL:HA | 7:RA:213:LEU:HD12 | 2.00 | 0.44 |
| 7:RA:412:GLN:HG2 | 7:RA:414:ILE:HG23 | 2.00 | 0.44 |
| 8:BB:4:ASN:OD1 | 8:BB:5:ASN:N | 2.51 | 0.44 |
| 8:BB:36:PHE:HD2 | 8:BB:39:HIS:HB2 | 1.81 | 0.44 |
| 8:CB:3:HIS:CD2 | 8:DB:25:GLU:HA | 2.53 | 0.44 |
| 8:CB:133:GLU:HG2 | 8:CB:167:GLU:HB3 | 1.99 | 0.44 |
| 8:EB:50:GLN:NE2 | 8:EB:81:ILE:HG23 | 2.33 | 0.44 |
| 8:IB:10:ARG:O | 8:IB:13:ILE:HG12 | 2.18 | 0.44 |
| 8:KB:40:GLU:HA | 8:KB:43:SER:HB2 | 1.99 | 0.44 |
| 8:NB:107:VAL:HG12 | 8:NB:137:CYS:HB2 | 2.00 | 0.44 |
| 8:NB:111:MET:HB3 | 8:NB:132:ILE:CG2 | 2.48 | 0.44 |
| 8:QB:85:CYS:SG | 8:QB:157:PRO:HG2 | 2.58 | 0.44 |
| 1:A:101:ARG:NE | 8:FB:61:ASP:OD2 | 2.51 | 0.44 |
| 1:D:28:ARG:HG2 | 1:D:29:GLU:OE1 | 2.17 | 0.44 |
| 2:G:46:TRP:CH2 | 2:H:152:GLN:HB3 | 2.53 | 0.44 |
| 2:L:44:GLN:HG3 | 2:L:84:TRP:NE1 | 2.21 | 0.44 |
| 3:N:31:ARG:HA | 3:N:34:GLU:OE2 | 2.18 | 0.44 |
| 3:O:31:ARG:HA | 3:O:34:GLU:OE2 | 2.18 | 0.44 |
| 3:O:39:TYR:CE1 | 7:j:6:ILE:HD11 | 2.53 | 0.44 |
| 3:P:52:VAL:HG12 | 3:P:52:VAL:O | 2.17 | 0.44 |
| 3:R:89:GLY:O | 3:R:105:ILE:HD12 | 2.18 | 0.44 |
| 4:U:93:VAL:HG12 | 7:i:382:SER:HA | 1.99 | 0.44 |
| 4:V:44:ASN:ND2 | 5:6:23:SER:O | 2.46 | 0.44 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 4:V:88:SER:HB3 | 6:d:5:TRP:CD1 | 2.53 | 0.44 |
| 4:X:31:ALA:O | 4:X:35:LYS:HG2 | 2.17 | 0.44 |
| 4:X:35:LYS:NZ | 5:9:62:SER:O | 2.32 | 0.44 |
| 5:2:274:GLU:OE1 | 5:2:274:GLU:N | 2.43 | 0.44 |
| 5:4:405:GLU:HA | 5:4:409:GLY:HA3 | 1.99 | 0.44 |
| 5:5:115:GLN:NE2 | 7:h:69:LYS:HG2 | 2.33 | 0.44 |
| 5:6:93:ILE:HD11 | 5:6:133:VAL:HG12 | 2.00 | 0.44 |
| 5:7:311:SER:OG | 5:7:343:PRO:HD3 | 2.17 | 0.44 |
| 5:8:137:GLN:OE1 | 5:8:234:THR:OG1 | 2.28 | 0.44 |
| 5:8:383:ILE:HG13 | 5:8:444:PHE:CD2 | 2.53 | 0.44 |
| 5:9:45:VAL:HA | 5:9:48:CYS:SG | 2.58 | 0.44 |
| 5:9:301:TYR:OH | 5:9:305:ARG:NH1 | 2.51 | 0.44 |
| 6:a:76:SER:CB | 6:a:79:MET:HE2 | 2.47 | 0.44 |
| 6:a:125:PRO:O | 6:a:128:THR:OG1 | 2.30 | 0.44 |
| 6:c:123:ARG:HE | 6:c:124:HIS:CD2 | 2.35 | 0.44 |
| 6:d:4:SER:OG | 6:d:7:ASN:HB2 | 2.18 | 0.44 |
| 6:d:161:LEU:HA | 6:d:164:THR:HG22 | 2.00 | 0.44 |
| 6:e:33:THR:HG23 | 6:e:34:PHE:CD2 | 2.53 | 0.44 |
| 6:e:101:ILE:HG23 | 6:e:105:PHE:HB2 | 2.00 | 0.44 |
| 6:e:114:PRO:HA | 6:e:152:GLY:HA3 | 1.99 | 0.44 |
| 6:e:119:VAL:CG2 | 6:e:145:GLU:HB3 | 2.46 | 0.44 |
| 6:e:161:LEU:HA | 6:e:164:THR:HG22 | 2.00 | 0.44 |
| 6:f:37:PRO:HG2 | 6:f:38:TRP:CE3 | 2.53 | 0.44 |
| 7:i:263:TYR:C | 7:p:4:TYR:HE2 | 2.24 | 0.44 |
| 7:m:371:ALA:HA | 7:m:376:ALA:HB2 | 2.00 | 0.44 |
| 7:m:449:ARG:HH11 | 7:AA:414:ILE:HD13 | 1.82 | 0.44 |
| 7:n:2:SER:HG | 7:n:3:GLN:H | 1.62 | 0.44 |
| 7:n:144:ILE:HA | 7:n:147:THR:HG22 | 1.99 | 0.44 |
| 7:n:275:ASP:O | 7:n:279:ILE:HG12 | 2.18 | 0.44 |
| 7:o:42:GLY:O | 7:o:95:ARG:HA | 2.18 | 0.44 |
| 7:o:497:LYS:HE2 | 7:DA:29:THR:HB | 1.99 | 0.44 |
| 7:p:201:TYR:CE1 | 7:p:203:PRO:HD2 | 2.53 | 0.44 |
| 7:p:275:ASP:O | 7:p:279:ILE:HG12 | 2.18 | 0.44 |
| 7:p:334:ASP:OD2 | 7:p:337:THR:OG1 | 2.27 | 0.44 |
| 7:p:449:ARG:HH11 | 7:DA:414:ILE:HD13 | 1.82 | 0.44 |
| 7:q:275:ASP:O | 7:q:279:ILE:HG12 | 2.18 | 0.44 |
| 7:q:279:ILE:HG23 | 7:q:295:PHE:CD1 | 2.53 | 0.44 |
| 7:r:201:TYR:HB2 | 7:FA:69:LYS:HZ1 | 1.83 | 0.44 |
| 7:AA:335:LYS:HD2 | 7:AA:336:TRP:CE2 | 2.52 | 0.44 |
| 7:BA:311:GLU:HG3 | 7:BA:316:LEU:HD21 | 2.00 | 0.44 |
| 7:BA:509:VAL:HA | 7:HA:524:VAL:O | 2.17 | 0.44 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:CA:328:TYR:CE2 | 7:CA:330:PHE:HB2 | 2.53 | 0.44 |
| 7:CA:331:SER:HG | 7:CA:384:GLN:HG3 | 1.83 | 0.44 |
| 7:DA:328:TYR:CE2 | 7:DA:330:PHE:HB2 | 2.53 | 0.44 |
| 7:EA:520:ARG:NH1 | 7:EA:522:GLN:HB3 | 2.32 | 0.44 |
| 7:FA:190:GLU:OE2 | 7:FA:201:TYR:OH | 2.31 | 0.44 |
| 7:GA:8:GLN:OE1 | 7:GA:8:GLN:N | 2.33 | 0.44 |
| 7:GA:49:PRO:HB2 | 7:GA:50:PHE:HD1 | 1.83 | 0.44 |
| 7:JA:38:TRP:CD1 | 7:JA:350:TYR:CE2 | 3.05 | 0.44 |
| 7:JA:146:PRO:HG2 | 7:JA:148:ARG:NH1 | 2.28 | 0.44 |
| 7:JA:443:PHE:HA | 7:JA:446:GLN:OE1 | 2.18 | 0.44 |
| 7:LA:54:ALA:HB2 | 7:LA:92:TYR:CE1 | 2.53 | 0.44 |
| 7:LA:60:TYR:O | 7:LA:64:LEU:HG | 2.18 | 0.44 |
| 7:LA:276:ASN:OD1 | 7:LA:313:THR:HG22 | 2.18 | 0.44 |
| 7:LA:442:ARG:O | 7:LA:445:VAL:HB | 2.18 | 0.44 |
| 7:LA:529:LYS:HD2 | 7:LA:529:LYS:HA | 1.81 | 0.44 |
| 7:MA:37:LEU:CB | 7:MA:265:TYR:HA | 2.45 | 0.44 |
| 7:MA:137:VAL:HA | 7:MA:213:LEU:HD12 | 2.00 | 0.44 |
| 7:NA:407:VAL:HG23 | 7:OA:3:GLN:HE21 | 1.83 | 0.44 |
| 7:OA:447:LEU:HA | 7:OA:450:GLN:HG3 | 1.99 | 0.44 |
| 7:PA:109:ASP:HB3 | 7:PA:113:GLU:CD | 2.42 | 0.44 |
| 7:PA:217:VAL:HG11 | 7:PA:222:ILE:HD13 | 1.99 | 0.44 |
| 7:PA:298:LYS:HB2 | 7:PA:301:LEU:HD23 | 1.99 | 0.44 |
| 7:QA:137:VAL:HA | 7:QA:213:LEU:HD12 | 2.00 | 0.44 |
| 8:AB:53:GLU:HG2 | 8:BB:143:ALA:N | 2.33 | 0.44 |
| 8:HB:48:THR:H | 8:HB:84:GLN:HB3 | 1.83 | 0.44 |
| 8:HB:137:CYS:HB3 | 8:HB:161:ILE:HD11 | 2.00 | 0.44 |
| 8:IB:10:ARG:NH2 | 8:PB:168:TRP:O | 2.50 | 0.44 |
| 8:JB:10:ARG:O | 8:JB:13:ILE:HG12 | 2.18 | 0.44 |
| 8:JB:84:GLN:CD | 8:JB:156:ARG:HE | 2.26 | 0.44 |
| 8:OB:29:SER:OG | 8:PB:150:ASP:OD2 | 2.35 | 0.44 |
| 8:OB:85:CYS:SG | 8:OB:157:PRO:HG2 | 2.58 | 0.44 |
| 8:RB:107:VAL:HG12 | 8:RB:137:CYS:HB2 | 2.00 | 0.44 |
| 2:G:16:SER:O | 2:G:19:LEU:HG | 2.18 | 0.44 |
| 2:I:3:PRO:HD2 | 2:I:29:GLN:HE22 | 1.83 | 0.44 |
| 2:K:156:PHE:HB3 | 2:K:173:VAL:HG22 | 1.98 | 0.44 |
| 3:M:21:TYR:O | 3:M:24:GLN:NE2 | 2.42 | 0.44 |
| 3:O:73:MET:O | 3:O:76:GLN:HG3 | 2.17 | 0.44 |
| 4:W:110:ARG:HG3 | 4:W:114:TYR:HE2 | 1.83 | 0.44 |
| 5:Y:337:PHE:HE1 | 5:Y:372:LYS:HE2 | 1.81 | 0.44 |
| 5:Z:19:VAL:HG13 | 5:Z:25:TRP:CD2 | 2.52 | 0.44 |
| 5:0:155:GLU:N | 5:0:155:GLU:OE1 | 2.50 | 0.44 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 5:0:374:VAL:HA | 5:0:458:TYR:HB2 | 2.00 | 0.44 |
| 5:1:427:LYS:NZ | 5:8:442:ARG:O | 2.51 | 0.44 |
| 5:2:32:GLN:H | 5:2:32:GLN:CD | 2.26 | 0.44 |
| 5:2:274:GLU:H | 5:2:274:GLU:CD | 2.26 | 0.44 |
| 5:3:427:LYS:NZ | 5:4:442:ARG:O | 2.51 | 0.44 |
| 5:4:11:ILE:HA | 5:4:14:GLU:OE2 | 2.16 | 0.44 |
| 5:5:93:ILE:HD11 | 5:5:133:VAL:HG12 | 2.00 | 0.44 |
| 5:5:386:ARG:HB3 | 5:5:474:TYR:C | 2.43 | 0.44 |
| 5:6:92:GLU:OE2 | 5:6:130:THR:HG23 | 2.18 | 0.44 |
| 5:6:301:TYR:OH | 5:6:305:ARG:NH1 | 2.51 | 0.44 |
| 5:7:312:TRP:HB3 | 5:7:415:PHE:HB2 | 2.00 | 0.44 |
| 5:9:92:GLU:OE2 | 5:9:130:THR:HG23 | 2.18 | 0.44 |
| 6:f:123:ARG:HE | 6:f:124:HIS:CD2 | 2.35 | 0.44 |
| 7:g:432:HIS:O | 7:g:436:LEU:HG | 2.18 | 0.44 |
| 7:g:444:PHE:O | 7:g:447:LEU:HG | 2.17 | 0.44 |
| 7:g:497:LYS:HZ2 | 7:n:27:LEU:HD12 | 1.83 | 0.44 |
| 7:h:7:GLN:NE2 | 7:h:15:GLY:O | 2.51 | 0.44 |
| 7:h:60:TYR:O | 7:h:64:LEU:HB2 | 2.18 | 0.44 |
| 7:h:81:HIS:HE2 | 7:h:344:GLY:H | 1.65 | 0.44 |
| 7:h:292:ASP:OD1 | 7:h:293:GLY:N | 2.51 | 0.44 |
| 7:i:41:ILE:HD12 | 7:i:94:VAL:O | 2.18 | 0.44 |
| 7:j:41:ILE:HD13 | 7:j:254:ALA:HB1 | 1.99 | 0.44 |
| 7:j:69:LYS:O | 7:j:72:SER:OG | 2.17 | 0.44 |
| 7:j:520:ARG:HH21 | 7:k:14:SER:HA | 1.83 | 0.44 |
| 7:m:22:ASN:H | 7:r:526:LEU:HA | 1.83 | 0.44 |
| 7:m:56:THR:N | 7:m:59:ASN:OD1 | 2.51 | 0.44 |
| 7:m:519:ARG:HH12 | 7:m:520:ARG:NH1 | 2.15 | 0.44 |
| 7:n:83:TYR:CE2 | 7:n:335:LYS:HE2 | 2.53 | 0.44 |
| 7:n:406:SER:HB2 | 7:n:416:ASP:OD2 | 2.18 | 0.44 |
| 7:o:371:ALA:HA | 7:o:376:ALA:HB2 | 2.00 | 0.44 |
| 7:o:397:MET:CE | 7:o:402:LEU:HB3 | 2.48 | 0.44 |
| 7:p:198:ARG:HB3 | 7:p:209:ARG:NH2 | 2.33 | 0.44 |
| 7:p:464:THR:O | 7:p:468:THR:HG23 | 2.18 | 0.44 |
| 7:r:42:GLY:O | 7:r:95:ARG:HA | 2.18 | 0.44 |
| 7:r:504:ASP:OD1 | 7:FA:518:ALA:N | 2.51 | 0.44 |
| 7:AA:355:ARG:HH11 | 7:AA:359:LYS:NZ | 2.16 | 0.44 |
| 7:AA:488:ALA:O | 7:HA:335:LYS:NZ | 2.38 | 0.44 |
| 7:CA:103:PHE:HE1 | 7:CA:121:TYR:HA | 1.83 | 0.44 |
| 7:CA:264:MET:HE2 | 7:CA:264:MET:N | 2.33 | 0.44 |
| 7:EA:228:THR:HG23 | 7:EA:230:LYS:HG2 | 1.99 | 0.44 |
| 7:FA:481:VAL:O | 7:FA:513:CYS:HB3 | 2.18 | 0.44 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:GA:38:TRP:CD1 | 7:GA:350:TYR:CE2 | 3.05 | 0.44 |
| 7:GA:401:ARG:HA | 7:GA:419:LEU:HD21 | 1.99 | 0.44 |
| 7:HA:60:TYR:O | 7:HA:64:LEU:HG | 2.18 | 0.44 |
| 7:IA:60:TYR:O | 7:IA:64:LEU:HG | 2.18 | 0.44 |
| 7:IA:461:ALA:HB1 | 7:IA:465:LYS:HZ1 | 1.81 | 0.44 |
| 7:JA:290:LEU:HD23 | 7:JA:290:LEU:O | 2.18 | 0.44 |
| 7:JA:307:LEU:HD22 | 7:JA:396:ALA:HB1 | 2.00 | 0.44 |
| 7:KA:49:PRO:HB2 | 7:KA:50:PHE:HD1 | 1.83 | 0.44 |
| 7:KA:79:ILE:HA | 7:KA:82:VAL:HG22 | 2.00 | 0.44 |
| 7:KA:276:ASN:OD1 | 7:KA:313:THR:HG22 | 2.18 | 0.44 |
| 7:KA:448:ALA:HA | 7:KA:451:MET:HG3 | 1.98 | 0.44 |
| 7:OA:36:SER:HA | 7:OA:266:THR:HG21 | 1.99 | 0.44 |
| 7:OA:353:LYS:NZ | 7:OA:370:PRO:HG2 | 2.33 | 0.44 |
| 7:PA:249:ALA:O | 7:PA:252:LEU:HG | 2.18 | 0.44 |
| 7:RA:461:ALA:C | 7:RA:465:LYS:HZ3 | 2.24 | 0.44 |
| 8:BB:53:GLU:HG2 | 8:CB:143:ALA:N | 2.33 | 0.44 |
| 8:EB:4:ASN:OD1 | 8:EB:5:ASN:N | 2.50 | 0.44 |
| 8:EB:133:GLU:HG2 | 8:EB:167:GLU:HB3 | 1.99 | 0.44 |
| 8:FB:33:LEU:HD11 | 8:FB:112:ALA:HB3 | 1.99 | 0.44 |
| 8:GB:84:GLN:CD | 8:GB:156:ARG:HE | 2.26 | 0.44 |
| 8:IB:44:VAL:HG13 | 8:IB:45:LEU:HD22 | 2.00 | 0.44 |
| 8:KB:138:LYS:O | 8:KB:161:ILE:HD12 | 2.18 | 0.44 |
| 8:RB:127:LYS:HE3 | 8:RB:127:LYS:HB3 | 1.83 | 0.44 |
| 1:D:103:THR:OG1 | 1:D:104:VAL:N | 2.51 | 0.43 |
| 2:J:153:ASP:CB | 2:J:176:GLN:HE21 | 2.29 | 0.43 |
| 3:M:59:GLU:CD | 3:M:118:LEU:HD22 | 2.43 | 0.43 |
| 4:S:32:GLU:O | 4:S:36:GLU:OE1 | 2.36 | 0.43 |
| 4:W:32:GLU:O | 4:W:36:GLU:OE1 | 2.36 | 0.43 |
| 5:Z:155:GLU:OE1 | 5:Z:155:GLU:N | 2.51 | 0.43 |
| 5:0:19:VAL:HG13 | 5:0:25:TRP:CD2 | 2.52 | 0.43 |
| 5:0:32:GLN:H | 5:0:32:GLN:CD | 2.26 | 0.43 |
| 5:0:105:PRO:HG2 | 5:0:108:MET:SD | 2.58 | 0.43 |
| 5:2:62:SER:HA | 5:2:280:ARG:NH1 | 2.32 | 0.43 |
| 5:3:337:PHE:HE1 | 5:3:372:LYS:HE2 | 1.81 | 0.43 |
| 5:4:199:VAL:CG2 | 5:4:211:ARG:HB2 | 2.48 | 0.43 |
| 5:6:6:PRO:HB2 | 5:6:10:SER:OG | 2.18 | 0.43 |
| 5:6:311:SER:OG | 5:6:343:PRO:HD3 | 2.18 | 0.43 |
| 5:6:383:ILE:HG13 | 5:6:444:PHE:CD2 | 2.53 | 0.43 |
| 5:8:84:PRO:HB3 | 5:8:272:ASP:HA | 2.00 | 0.43 |
| 5:9:274:GLU:HG2 | 5:9:279:THR:HG23 | 2.00 | 0.43 |
| 6:a:37:PRO:HG2 | 6:a:38:TRP:CE3 | 2.53 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:a:114:PRO:HA | 6:a:152:GLY:HA3 | 1.99 | 0.43 |
| 6:b:84:ARG:HA | 6:b:87:GLU:CD | 2.42 | 0.43 |
| 6:c:84:ARG:HG3 | 6:c:99:GLN:HE22 | 1.82 | 0.43 |
| 6:f:23:LEU:O | 6:f:26:LEU:HG | 2.17 | 0.43 |
| 6:f:116:TYR:OH | 6:f:133:GLU:OE2 | 2.31 | 0.43 |
| 7:g:501:ALA:HB3 | 7:g:505:LYS:HB2 | 2.00 | 0.43 |
| 7:h:333:LYS:HG2 | 7:h:338:GLN:HA | 2.00 | 0.43 |
| 7:i:108:PHE:HB2 | 7:i:133:PHE:CZ | 2.53 | 0.43 |
| 7:i:292:ASP:OD1 | 7:i:293:GLY:N | 2.51 | 0.43 |
| 7:i:333:LYS:HG2 | 7:i:338:GLN:HA | 2.00 | 0.43 |
| 7:i:520:ARG:HH21 | 7:j:14:SER:HA | 1.83 | 0.43 |
| 7:j:501:ALA:HB3 | 7:j:505:LYS:HB2 | 2.00 | 0.43 |
| 7:k:501:ALA:HB3 | 7:k:505:LYS:HB2 | 2.00 | 0.43 |
| 7:l:41:ILE:HD13 | 7:l:254:ALA:HB1 | 1.99 | 0.43 |
| 7:l:214:ARG:HD3 | 7:l:214:ARG:HA | 1.68 | 0.43 |
| 7:l:353:LYS:HA | 7:l:353:LYS:HE2 | 2.00 | 0.43 |
| 7:l:398:VAL:HG23 | 7:l:419:LEU:HD13 | 1.99 | 0.43 |
| 7:l:427:TYR:CD2 | 7:r:529:LYS:HB2 | 2.52 | 0.43 |
| 7:m:394:GLU:HG2 | 7:n:13:ALA:HB2 | 1.99 | 0.43 |
| 7:n:69:LYS:HB2 | 7:n:70:PRO:HD2 | 1.99 | 0.43 |
| 7:n:319:ASP:N | 7:n:319:ASP:OD1 | 2.46 | 0.43 |
| 7:AA:389:GLU:OE1 | 7:AA:389:GLU:N | 2.46 | 0.43 |
| 7:AA:526:LEU:HD11 | 7:BA:27:LEU:HD22 | 1.99 | 0.43 |
| 7:BA:80:ARG:HE | 7:BA:84:GLU:HG3 | 1.83 | 0.43 |
| 7:BA:481:VAL:O | 7:BA:513:CYS:HB3 | 2.18 | 0.43 |
| 7:DA:355:ARG:HA | 7:DA:358:LYS:HG2 | 1.99 | 0.43 |
| 7:EA:449:ARG:HH22 | 7:KA:407:VAL:C | 2.26 | 0.43 |
| 7:GA:56:THR:OG1 | 7:GA:59:ASN:OD1 | 2.19 | 0.43 |
| 7:GA:240:ASN:HB2 | 7:GA:243:GLN:NE2 | 2.32 | 0.43 |
| 7:HA:401:ARG:HH22 | 7:HA:425:ASP:HA | 1.83 | 0.43 |
| 7:JA:297:VAL:HG12 | 7:JA:326:TYR:O | 2.18 | 0.43 |
| 7:LA:106:ILE:HG12 | 7:LA:116:TYR:CD1 | 2.53 | 0.43 |
| 7:LA:206:LEU:HD13 | 7:LA:214:ARG:HA | 2.00 | 0.43 |
| 7:MA:80:ARG:O | 7:MA:83:TYR:HB3 | 2.18 | 0.43 |
| 7:NA:46:ARG:NE | 7:NA:142:PRO:HD3 | 2.33 | 0.43 |
| 7:NA:152:ILE:HB | 7:NA:230:LYS:H | 1.82 | 0.43 |
| 7:NA:412:GLN:HG2 | 7:NA:414:ILE:HG23 | 1.99 | 0.43 |
| 7:NA:470:LEU:HA | 7:NA:473:ARG:CZ | 2.48 | 0.43 |
| 7:NA:470:LEU:HD12 | 7:NA:471:LEU:N | 2.32 | 0.43 |
| 7:OA:103:PHE:HB3 | 7:OA:121:TYR:CE2 | 2.52 | 0.43 |
| 7:OA:500:GLN:HE21 | 7:OA:502:GLU:N | 2.16 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 7:PA:368:TYR:HB3 | 7:PA:375:ARG:HH22 | 1.83 | 0.43 |
| 7:QA:168:LYS:HG2 | 7:QA:183:THR:HG23 | 2.00 | 0.43 |
| 7:QA:416:ASP:OD1 | 7:QA:416:ASP:N | 2.47 | 0.43 |
| 8:AB:117:SER:OG | 8:FB:7:LYS:O | 2.25 | 0.43 |
| 8:EB:48:THR:HG23 | 8:FB:147:SER:HA | 1.98 | 0.43 |
| 8:GB:40:GLU:HA | 8:GB:43:SER:HB2 | 1.99 | 0.43 |
| 8:GB:146:PHE:CD1 | 8:LB:51:ILE:HG23 | 2.53 | 0.43 |
| 8:HB:138:LYS:O | 8:HB:161:ILE:HD12 | 2.18 | 0.43 |
| 8:JB:44:VAL:HG13 | 8:JB:45:LEU:HD22 | 2.00 | 0.43 |
| 8:KB:10:ARG:HE | 8:KB:14:LYS:NZ | 2.16 | 0.43 |
| 8:KB:51:ILE:HG23 | 8:LB:146:PHE:CD1 | 2.53 | 0.43 |
| 8:LB:91:GLY:O | 8:LB:94:LEU:HG | 2.18 | 0.43 |
| 8:OB:35:THR:HB | 8:OB:40:GLU:HG3 | 2.00 | 0.43 |
| 8:OB:56:ARG:HD2 | 8:OB:72:HIS:HB3 | 2.00 | 0.43 |
| 1:A:61:PHE:HA | 8:FB:64:PRO:HG2 | 1.99 | 0.43 |
| 1:D:66:ILE:HG22 | 1:E:165:TYR:O | 2.17 | 0.43 |
| 2:H:18:TYR:HE2 | 2:H:143:ARG:NE | 2.16 | 0.43 |
| 2:I:184:ASN:HB3 | 2:J:122:GLU:OE1 | 2.18 | 0.43 |
| 3:M:39:TYR:CE1 | 7:h:6:ILE:HD11 | 2.53 | 0.43 |
| 3:N:33:TYR:HE1 | 7:h:525:PRO:HB2 | 1.80 | 0.43 |
| 3:P:12:THR:OG1 | 3:P:17:GLY:HA2 | 2.18 | 0.43 |
| 4:T:20:ASP:OD1 | 4:T:20:ASP:N | 2.50 | 0.43 |
| 4:T:54:LEU:HG | 4:T:55:PRO:HD2 | 1.99 | 0.43 |
| 4:X:20:ASP:N | 4:X:20:ASP:OD1 | 2.51 | 0.43 |
| 5:Y:51:TYR:HE1 | 5:4:3:LYS:HE2 | 1.83 | 0.43 |
| 5:Z:7:THR:O | 5:Z:11:ILE:HG12 | 2.19 | 0.43 |
| 5:Z:76:THR:HG23 | 5:5:61:ILE:HD13 | 2.01 | 0.43 |
| 5:1:274:GLU:H | 5:1:274:GLU:CD | 2.26 | 0.43 |
| 5:2:155:GLU:OE1 | 5:2:155:GLU:N | 2.51 | 0.43 |
| 5:3:32:GLN:H | 5:3:32:GLN:CD | 2.26 | 0.43 |
| 5:3:329:ASN:HA | 6:f:126:TYR:HE2 | 1.83 | 0.43 |
| 5:6:14:GLU:O | 5:6:17:GLU:HG3 | 2.18 | 0.43 |
| 5:7:301:TYR:OH | 5:7:305:ARG:NH1 | 2.51 | 0.43 |
| 5:8:312:TRP:HB3 | 5:8:415:PHE:HB2 | 1.99 | 0.43 |
| 5:9:26:SER:OG | 5:9:27:LYS:HE3 | 2.18 | 0.43 |
| 6:a:101:ILE:HG23 | 6:a:105:PHE:HB2 | 2.01 | 0.43 |
| 6:b:119:VAL:CG2 | 6:b:145:GLU:HB3 | 2.46 | 0.43 |
| 6:e:4:SER:OG | 6:e:7:ASN:HB2 | 2.18 | 0.43 |
| 6:e:198:PHE:HZ | 6:e:201:LEU:HB2 | 1.83 | 0.43 |
| 7:g:292:ASP:OD1 | 7:g:293:GLY:N | 2.51 | 0.43 |
| 7:g:427:TYR:CD2 | 7:m:529:LYS:HB2 | 2.52 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:h:41:ILE:HD12 | 7:h:94:VAL:O | 2.18 | 0.43 |
| 7:h:103:PHE:HB3 | 7:h:121:TYR:CZ | 2.53 | 0.43 |
| 7:h:108:PHE:HE1 | 7:h:114:PRO:HB3 | 1.83 | 0.43 |
| 7:h:246:ILE:HB | 7:h:251:TYR:OH | 2.19 | 0.43 |
| 7:i:41:ILE:HD13 | 7:i:254:ALA:HB1 | 1.99 | 0.43 |
| 7:i:114:PRO:HD3 | 7:i:230:LYS:HZ3 | 1.83 | 0.43 |
| 7:k:333:LYS:HG2 | 7:k:338:GLN:HA | 2.00 | 0.43 |
| 7:l:333:LYS:HG2 | 7:l:338:GLN:HA | 2.00 | 0.43 |
| 7:m:501:ALA:HB3 | 7:m:505:LYS:HD2 | 2.00 | 0.43 |
| 7:o:406:SER:HB2 | 7:o:416:ASP:OD2 | 2.18 | 0.43 |
| 7:o:464:THR:O | 7:o:468:THR:HG23 | 2.18 | 0.43 |
| 7:p:144:ILE:HA | 7:p:147:THR:HG22 | 1.99 | 0.43 |
| 7:p:282:LEU:HB3 | 7:p:295:PHE:HE1 | 1.82 | 0.43 |
| 7:q:75:GLN:O | 7:q:78:PRO:HD2 | 2.19 | 0.43 |
| 7:r:156:THR:HG23 | 7:r:164:ARG:NH2 | 2.33 | 0.43 |
| 7:r:201:TYR:CE1 | 7:r:203:PRO:HD2 | 2.53 | 0.43 |
| 7:r:319:ASP:OD1 | 7:r:319:ASP:N | 2.45 | 0.43 |
| 7:r:397:MET:CE | 7:r:402:LEU:HB3 | 2.48 | 0.43 |
| 7:AA:83:TYR:O | 7:AA:87:GLN:NE2 | 2.52 | 0.43 |
| 7:AA:269:LEU:HD13 | 7:AA:294:PHE:HB2 | 2.00 | 0.43 |
| 7:BA:103:PHE:HE1 | 7:BA:121:TYR:HA | 1.83 | 0.43 |
| 7:BA:328:TYR:CE2 | 7:BA:330:PHE:HB2 | 2.53 | 0.43 |
| 7:CA:335:LYS:HD2 | 7:CA:336:TRP:CE2 | 2.52 | 0.43 |
| 7:DA:264:MET:HE2 | 7:DA:264:MET:N | 2.33 | 0.43 |
| 7:EA:333:LYS:HD3 | 7:EA:333:LYS:HA | 1.83 | 0.43 |
| 7:FA:80:ARG:HE | 7:FA:84:GLU:HG3 | 1.83 | 0.43 |
| 7:FA:355:ARG:HH11 | 7:FA:359:LYS:NZ | 2.16 | 0.43 |
| 7:GA:34:ASN:HA | 7:GA:89:THR:OG1 | 2.18 | 0.43 |
| 7:GA:60:TYR:O | 7:GA:64:LEU:HG | 2.18 | 0.43 |
| 7:GA:206:LEU:HD13 | 7:GA:214:ARG:HA | 2.00 | 0.43 |
| 7:HA:366:TRP:HB3 | 7:HA:435:SER:HB2 | 2.00 | 0.43 |
| 7:IA:442:ARG:O | 7:IA:445:VAL:HB | 2.18 | 0.43 |
| 7:JA:49:PRO:HB2 | 7:JA:50:PHE:HD1 | 1.83 | 0.43 |
| 7:JA:374:GLU:HG2 | 7:JA:375:ARG:HG3 | 1.99 | 0.43 |
| 7:KA:470:LEU:HD12 | 7:KA:471:LEU:HD22 | 1.99 | 0.43 |
| 7:MA:105:ILE:HD11 | 7:MA:119:LEU:HB2 | 1.98 | 0.43 |
| 7:MA:500:GLN:HE21 | 7:MA:502:GLU:N | 2.16 | 0.43 |
| 7:OA:45:ALA:HB1 | 7:OA:46:ARG:NH1 | 2.33 | 0.43 |
| 7:OA:217:VAL:HG11 | 7:OA:222:ILE:HD13 | 1.98 | 0.43 |
| 7:OA:298:LYS:HB2 | 7:OA:301:LEU:HD23 | 1.99 | 0.43 |
| 7:OA:521:ILE:HD11 | 7:PA:16:VAL:HA | 2.00 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:PA:112:GLY:O | 7:PA:230:LYS:NZ | 2.38 | 0.43 |
| 7:PA:342:VAL:HG21 | 7:PA:386:LEU:HD11 | 2.00 | 0.43 |
| 8:CB:165:TRP:HZ3 | 8:CB:167:GLU:HB2 | 1.84 | 0.43 |
| 8:DB:7:LYS:O | 8:EB:117:SER:OG | 2.24 | 0.43 |
| 8:DB:47:ARG:HH12 | 8:IB:66:GLY:H | 1.66 | 0.43 |
| 8:GB:47:ARG:N | 8:GB:84:GLN:O | 2.36 | 0.43 |
| 8:IB:68:LYS:HZ1 | 8:JB:164:ASN:HA | 1.82 | 0.43 |
| 8:LB:40:GLU:HA | 8:LB:43:SER:HB2 | 1.99 | 0.43 |
| 8:MB:89:ILE:HG13 | 8:MB:90:GLU:N | 2.33 | 0.43 |
| 8:OB:68:LYS:CE | 8:PB:76:ARG:HH22 | 2.32 | 0.43 |
| 8:OB:130:THR:HG22 | 8:OB:130:THR:O | 2.18 | 0.43 |
| 8:PB:107:VAL:HG12 | 8:PB:137:CYS:HB2 | 2.00 | 0.43 |
| 8:RB:35:THR:HB | 8:RB:40:GLU:HG3 | 2.00 | 0.43 |
| 1:D:101:ARG:NE | 8:CB:61:ASP:OD2 | 2.51 | 0.43 |
| 1:E:76:GLU:O | 1:E:86:LEU:HA | 2.17 | 0.43 |
| 2:K:18:TYR:HE2 | 2:K:143:ARG:NE | 2.16 | 0.43 |
| 2:L:5:ALA:HA | 2:L:29:GLN:O | 2.17 | 0.43 |
| 3:M:9:PRO:HD2 | 7:h:23:ALA:HB1 | 2.00 | 0.43 |
| 3:O:12:THR:OG1 | 3:O:17:GLY:HA2 | 2.19 | 0.43 |
| 3:P:89:GLY:O | 3:P:105:ILE:HD12 | 2.18 | 0.43 |
| 4:T:32:GLU:O | 4:T:36:GLU:OE1 | 2.36 | 0.43 |
| 4:U:34:ARG:HA | 4:U:37:VAL:CG2 | 2.43 | 0.43 |
| 5:Y:178:LYS:HA | 5:Y:178:LYS:HD3 | 1.86 | 0.43 |
| 5:Z:355:LEU:O | 5:Z:359:LYS:HG3 | 2.18 | 0.43 |
| 5:0:380:LYS:NZ | 5:0:450:GLU:OE1 | 2.34 | 0.43 |
| 5:1:58:GLU:HA | 5:1:64:ALA:HB2 | 2.00 | 0.43 |
| 5:1:76:THR:HG23 | 5:7:61:ILE:HD13 | 2.01 | 0.43 |
| 5:3:58:GLU:HA | 5:3:64:ALA:HB2 | 2.00 | 0.43 |
| 5:5:189:ARG:H | 5:5:194:LYS:HD2 | 1.83 | 0.43 |
| 5:5:383:ILE:HG13 | 5:5:444:PHE:CD2 | 2.53 | 0.43 |
| 5:6:189:ARG:H | 5:6:194:LYS:HD2 | 1.83 | 0.43 |
| 5:7:42:THR:HA | 5:7:45:VAL:HG22 | 2.00 | 0.43 |
| 5:7:93:ILE:HD11 | 5:7:133:VAL:HG12 | 2.00 | 0.43 |
| 5:7:355:LEU:HB3 | 5:7:359:LYS:HZ1 | 1.82 | 0.43 |
| 5:8:14:GLU:O | 5:8:17:GLU:HG3 | 2.18 | 0.43 |
| 5:8:189:ARG:H | 5:8:194:LYS:HD2 | 1.82 | 0.43 |
| 5:8:274:GLU:HG2 | 5:8:279:THR:HG23 | 2.00 | 0.43 |
| 5:8:301:TYR:OH | 5:8:305:ARG:NH1 | 2.51 | 0.43 |
| 5:9:7:THR:HG23 | 5:9:10:SER:H | 1.83 | 0.43 |
| 5:9:175:THR:HG22 | 5:9:225:SER:HB2 | 2.01 | 0.43 |
| 5:9:383:ILE:HG13 | 5:9:444:PHE:CD2 | 2.53 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:d:36:ASP:O | 6:d:39:LEU:N | 2.50 | 0.43 |
| 7:g:333:LYS:HG2 | 7:g:338:GLN:HA | 2.00 | 0.43 |
| 7:g:353:LYS:HA | 7:g:353:LYS:HE2 | 2.00 | 0.43 |
| 7:g:508:VAL:HG13 | 7:g:510:TRP:HZ3 | 1.83 | 0.43 |
| 7:h:385:PRO:HG2 | 7:h:388:PRO:HG3 | 2.01 | 0.43 |
| 7:h:432:HIS:O | 7:h:436:LEU:HG | 2.18 | 0.43 |
| 7:h:520:ARG:HH21 | 7:i:14:SER:HA | 1.83 | 0.43 |
| 7:i:45:ALA:HB3 | 7:i:65:GLY:HA3 | 2.00 | 0.43 |
| 7:k:385:PRO:HG2 | 7:k:388:PRO:HG3 | 2.01 | 0.43 |
| 7:l:108:PHE:HB2 | 7:l:133:PHE:CZ | 2.53 | 0.43 |
| 7:l:369:SER:O | 7:l:375:ARG:NH2 | 2.36 | 0.43 |
| 7:n:56:THR:N | 7:n:59:ASN:OD1 | 2.51 | 0.43 |
| 7:r:333:LYS:N | 7:r:381:ALA:O | 2.48 | 0.43 |
| 7:r:365:GLY:HA3 | 7:r:368:TYR:CD2 | 2.53 | 0.43 |
| 7:r:508:VAL:O | 7:FA:523:GLY:HA2 | 2.17 | 0.43 |
| 7:AA:355:ARG:O | 7:AA:359:LYS:HE3 | 2.18 | 0.43 |
| 7:AA:366:TRP:CD1 | 7:AA:435:SER:HB2 | 2.50 | 0.43 |
| 7:AA:483:PRO:HD3 | 7:AA:493:PRO:HA | 1.98 | 0.43 |
| 7:BA:264:MET:HE2 | 7:BA:264:MET:N | 2.33 | 0.43 |
| 7:CA:311:GLU:HG3 | 7:CA:316:LEU:HD21 | 2.00 | 0.43 |
| 7:EA:80:ARG:HE | 7:EA:84:GLU:HG3 | 1.83 | 0.43 |
| 7:EA:460:ALA:O | 7:EA:463:LEU:HG | 2.19 | 0.43 |
| 7:HA:278:ALA:O | 7:HA:282:LEU:HG | 2.19 | 0.43 |
| 7:HA:354:ALA:HA | 7:HA:357:VAL:HG12 | 2.00 | 0.43 |
| 7:HA:433:VAL:HA | 7:HA:436:LEU:HG | 2.00 | 0.43 |
| 7:IA:106:ILE:HG12 | 7:IA:116:TYR:CD1 | 2.53 | 0.43 |
| 7:IA:401:ARG:HA | 7:IA:419:LEU:HD21 | 1.99 | 0.43 |
| 7:JA:56:THR:OG1 | 7:JA:59:ASN:OD1 | 2.19 | 0.43 |
| 7:KA:206:LEU:HD13 | 7:KA:214:ARG:HA | 2.00 | 0.43 |
| 7:LA:357:VAL:HA | 7:LA:365:GLY:N | 2.32 | 0.43 |
| 7:MA:46:ARG:NE | 7:MA:142:PRO:HD3 | 2.33 | 0.43 |
| 7:MA:107:MET:HB3 | 7:MA:131:GLU:HB2 | 2.00 | 0.43 |
| 7:MA:407:VAL:HG23 | 7:NA:3:GLN:HE21 | 1.83 | 0.43 |
| 7:MA:412:GLN:HG2 | 7:MA:414:ILE:HG23 | 2.00 | 0.43 |
| 7:OA:46:ARG:NE | 7:OA:142:PRO:HD3 | 2.34 | 0.43 |
| 7:PA:369:SER:HA | 7:PA:370:PRO:HD3 | 1.86 | 0.43 |
| 7:QA:36:SER:HA | 7:QA:266:THR:HG21 | 1.98 | 0.43 |
| 7:QA:444:PHE:O | 7:QA:447:LEU:HG | 2.17 | 0.43 |
| 7:QA:470:LEU:HA | 7:QA:473:ARG:CZ | 2.48 | 0.43 |
| 7:RA:127:LEU:HB3 | 7:RA:218:ASN:HD21 | 1.84 | 0.43 |
| 7:RA:168:LYS:HG2 | 7:RA:183:THR:HG23 | 2.00 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 7:RA:451:MET:HE3 | 7:RA:454:SER:OG | 2.19 | 0.43 |
| 7:RA:508:VAL:HG13 | 7:RA:510:TRP:CZ3 | 2.50 | 0.43 |
| 8:AB:140:TYR:OH | 8:FB:56:ARG:HB3 | 2.18 | 0.43 |
| 8:EB:16:ARG:HH12 | 8:KB:67:VAL:HG11 | 1.84 | 0.43 |
| 8:EB:53:GLU:HG2 | 8:FB:143:ALA:N | 2.33 | 0.43 |
| 8:EB:56:ARG:HD2 | 8:EB:57:GLU:N | 2.34 | 0.43 |
| 8:EB:149:GLU:OE2 | 8:EB:149:GLU:N | 2.30 | 0.43 |
| 8:HB:87:GLU:OE2 | 8:HB:94:LEU:HD23 | 2.18 | 0.43 |
| 8:IB:17:TYR:OH | 8:PB:136:ASP:OD2 | 2.33 | 0.43 |
| 8:JB:91:GLY:O | 8:JB:94:LEU:HG | 2.19 | 0.43 |
| 8:KB:36:PHE:HD1 | 8:KB:109:ILE:CD1 | 2.30 | 0.43 |
| 1:B:37:ILE:HD13 | 1:B:40:LYS:HZ3 | 1.83 | 0.43 |
| 1:B:64:LYS:NZ | 1:B:99:MET:HG3 | 2.34 | 0.43 |
| 1:C:64:LYS:HG2 | 1:C:99:MET:O | 2.19 | 0.43 |
| 1:F:64:LYS:NZ | 1:F:99:MET:HG3 | 2.33 | 0.43 |
| 2:H:21:VAL:HG12 | 2:H:32:GLY:C | 2.43 | 0.43 |
| 3:P:19:LYS:HG3 | 5:7:28:PHE:CZ | 2.53 | 0.43 |
| 3:P:31:ARG:HA | 3:P:34:GLU:OE2 | 2.18 | 0.43 |
| 3:P:74:LEU:HD12 | 3:P:75:LEU:N | 2.33 | 0.43 |
| 3:Q:44:TYR:HB3 | 5:8:39:LEU:HD13 | 2.00 | 0.43 |
| 3:R:12:THR:OG1 | 3:R:17:GLY:HA2 | 2.19 | 0.43 |
| 4:V:68:MET:HB2 | 4:V:69:TRP:CZ3 | 2.54 | 0.43 |
| 4:V:86:ASP:HB3 | 4:V:89:GLN:OE1 | 2.19 | 0.43 |
| 4:V:97:LEU:C | 4:V:98:LYS:HD3 | 2.44 | 0.43 |
| 4:W:88:SER:HB3 | 6:e:5:TRP:CD1 | 2.53 | 0.43 |
| 4:X:14:TYR:CE2 | 4:X:16:LEU:HB3 | 2.53 | 0.43 |
| 5:Y:45:VAL:HG11 | 6:a:30:MET:HE2 | 1.99 | 0.43 |
| 5:Z:105:PRO:HG2 | 5:Z:108:MET:SD | 2.59 | 0.43 |
| 5:Z:329:ASN:HA | 6:b:126:TYR:HE2 | 1.83 | 0.43 |
| 5:0:274:GLU:H | 5:0:274:GLU:CD | 2.26 | 0.43 |
| 5:1:331:GLN:HG2 | 5:1:332:ASN:N | 2.34 | 0.43 |
| 5:1:374:VAL:HA | 5:1:458:TYR:HB2 | 2.01 | 0.43 |
| 5:2:331:GLN:HG2 | 5:2:332:ASN:N | 2.34 | 0.43 |
| 5:3:194:LYS:C | 5:3:219:GLN:HB2 | 2.43 | 0.43 |
| 5:3:317:GLY:HA2 | 6:f:194:LEU:HD13 | 2.00 | 0.43 |
| 5:4:115:GLN:NE2 | 7:g:69:LYS:HG2 | 2.33 | 0.43 |
| 5:4:162:LEU:O | 5:4:166:CYS:HB3 | 2.19 | 0.43 |
| 5:4:383:ILE:HG13 | 5:4:444:PHE:CD2 | 2.53 | 0.43 |
| 5:6:53:ASP:O | 5:6:56:LEU:HG | 2.18 | 0.43 |
| 5:6:115:GLN:NE2 | 7:i:69:LYS:HG2 | 2.33 | 0.43 |
| 5:7:274:GLU:HG2 | 5:7:279:THR:HG23 | 2.00 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:a:161:LEU:HA | 6:a:164:THR:HG22 | 2.00 | 0.43 |
| 6:d:155:SER:HA | 6:d:202:THR:O | 2.17 | 0.43 |
| 6:f:33:THR:HG23 | 6:f:34:PHE:CD2 | 2.53 | 0.43 |
| 7:g:103:PHE:HB3 | 7:g:121:TYR:CZ | 2.53 | 0.43 |
| 7:g:147:THR:OG1 | 7:g:172:THR:OG1 | 2.36 | 0.43 |
| 7:g:246:ILE:HB | 7:g:251:TYR:OH | 2.19 | 0.43 |
| 7:g:373:GLU:OE1 | 7:g:373:GLU:N | 2.43 | 0.43 |
| 7:j:103:PHE:HB3 | 7:j:121:TYR:CZ | 2.53 | 0.43 |
| 7:j:395:GLU:HG2 | 7:j:396:ALA:N | 2.33 | 0.43 |
| 7:j:493:PRO:HB2 | 7:j:513:CYS:HB3 | 2.01 | 0.43 |
| 7:l:108:PHE:HE1 | 7:l:114:PRO:HB3 | 1.84 | 0.43 |
| 7:l:512:CYS:SG | 7:l:513:CYS:N | 2.91 | 0.43 |
| 7:m:198:ARG:HB3 | 7:m:209:ARG:NH2 | 2.33 | 0.43 |
| 7:o:190:GLU:O | 7:CA:69:LYS:NZ | 2.45 | 0.43 |
| 7:p:230:LYS:HB3 | 7:p:233:LEU:HD21 | 2.01 | 0.43 |
| 7:q:406:SER:HB2 | 7:q:416:ASP:OD2 | 2.18 | 0.43 |
| 7:AA:103:PHE:HE1 | 7:AA:121:TYR:HA | 1.82 | 0.43 |
| 7:AA:366:TRP:HB3 | 7:AA:435:SER:OG | 2.17 | 0.43 |
| 7:AA:481:VAL:O | 7:AA:513:CYS:HB3 | 2.19 | 0.43 |
| 7:BA:500:GLN:HB2 | 7:BA:506:TRP:CD2 | 2.54 | 0.43 |
| 7:CA:427:TYR:HD1 | 7:CA:430:PHE:HE2 | 1.67 | 0.43 |
| 7:CA:481:VAL:O | 7:CA:513:CYS:HB3 | 2.18 | 0.43 |
| 7:DA:83:TYR:O | 7:DA:87:GLN:NE2 | 2.52 | 0.43 |
| 7:DA:135:ILE:HG13 | 7:DA:215:ALA:HB2 | 2.00 | 0.43 |
| 7:DA:311:GLU:HG3 | 7:DA:316:LEU:HD21 | 2.00 | 0.43 |
| 7:DA:355:ARG:O | 7:DA:359:LYS:HE3 | 2.18 | 0.43 |
| 7:DA:500:GLN:HB2 | 7:DA:506:TRP:CD2 | 2.54 | 0.43 |
| 7:EA:481:VAL:O | 7:EA:513:CYS:HB3 | 2.18 | 0.43 |
| 7:FA:34:ASN:HB3 | 7:FA:37:LEU:HD21 | 2.00 | 0.43 |
| 7:FA:460:ALA:O | 7:FA:463:LEU:HG | 2.18 | 0.43 |
| 7:GA:303:TYR:OH | 7:GA:393:ASP:N | 2.48 | 0.43 |
| 7:GA:475:VAL:HG12 | 7:GA:480:LEU:HB3 | 2.00 | 0.43 |
| 7:HA:364:GLY:HA3 | 7:HA:366:TRP:CZ3 | 2.53 | 0.43 |
| 7:HA:390:ASP:OD1 | 7:HA:391:THR:N | 2.51 | 0.43 |
| 7:JA:401:ARG:HH22 | 7:JA:425:ASP:HA | 1.84 | 0.43 |
| 7:KA:326:TYR:HE1 | 7:KA:415:ILE:HD13 | 1.84 | 0.43 |
| 7:KA:364:GLY:HA3 | 7:KA:366:TRP:CZ3 | 2.53 | 0.43 |
| 7:KA:366:TRP:HB3 | 7:KA:435:SER:HB2 | 2.00 | 0.43 |
| 7:LA:297:VAL:HG12 | 7:LA:326:TYR:O | 2.17 | 0.43 |
| 7:LA:441:SER:O | 7:LA:445:VAL:HG23 | 2.19 | 0.43 |
| 7:MA:108:PHE:CE1 | 7:MA:114:PRO:HB3 | 2.50 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:MA:207:GLU:HA | 7:MA:214:ARG:NH1 | 2.34 | 0.43 |
| 7:MA:353:LYS:NZ | 7:MA:370:PRO:HG2 | 2.33 | 0.43 |
| 7:MA:405:VAL:HG23 | 7:MA:415:ILE:CA | 2.46 | 0.43 |
| 7:MA:470:LEU:HA | 7:MA:473:ARG:HG2 | 2.01 | 0.43 |
| 7:NA:32:ALA:HB2 | 7:NA:57:GLU:HG2 | 2.01 | 0.43 |
| 7:NA:268:VAL:HG22 | 7:NA:292:ASP:O | 2.18 | 0.43 |
| 7:OA:211:LYS:HA | 7:OA:211:LYS:HD3 | 1.83 | 0.43 |
| 7:PA:137:VAL:HA | 7:PA:213:LEU:HD12 | 2.00 | 0.43 |
| 7:PA:268:VAL:HG22 | 7:PA:292:ASP:O | 2.19 | 0.43 |
| 7:QA:79:ILE:HD11 | 7:QA:80:ARG:NH1 | 2.33 | 0.43 |
| 7:RA:42:GLY:HA3 | 7:RA:44:PHE:HE2 | 1.84 | 0.43 |
| 7:RA:45:ALA:HB1 | 7:RA:46:ARG:NH1 | 2.33 | 0.43 |
| 7:RA:353:LYS:NZ | 7:RA:370:PRO:HG2 | 2.33 | 0.43 |
| 7:RA:444:PHE:O | 7:RA:447:LEU:HG | 2.17 | 0.43 |
| 8:CB:53:GLU:HG2 | 8:DB:143:ALA:N | 2.34 | 0.43 |
| 8:DB:50:GLN:OE1 | 8:DB:50:GLN:N | 2.52 | 0.43 |
| 8:DB:53:GLU:HG2 | 8:EB:143:ALA:N | 2.33 | 0.43 |
| 8:DB:165:TRP:HZ3 | 8:DB:167:GLU:HB2 | 1.83 | 0.43 |
| 8:FB:26:ARG:NE | 8:FB:27:LEU:N | 2.67 | 0.43 |
| 8:FB:50:GLN:OE1 | 8:FB:50:GLN:N | 2.52 | 0.43 |
| 8:FB:139:ILE:HD13 | 8:FB:161:ILE:HG23 | 2.00 | 0.43 |
| 8:HB:44:VAL:HG13 | 8:HB:45:LEU:HD22 | 1.99 | 0.43 |
| 8:IB:40:GLU:HA | 8:IB:43:SER:HB2 | 1.99 | 0.43 |
| 8:NB:89:ILE:HG13 | 8:NB:90:GLU:N | 2.34 | 0.43 |
| 8:NB:118:LYS:HE2 | 8:NB:125:VAL:O | 2.19 | 0.43 |
| 8:NB:130:THR:O | 8:NB:130:THR:HG22 | 2.19 | 0.43 |
| 1:A:103:THR:OG1 | 1:A:104:VAL:N | 2.51 | 0.43 |
| 1:B:114:THR:O | 1:B:118:ARG:HG3 | 2.19 | 0.43 |
| 1:C:103:THR:OG1 | 1:C:104:VAL:N | 2.52 | 0.43 |
| 2:H:5:ALA:HA | 2:H:29:GLN:O | 2.18 | 0.43 |
| 2:J:3:PRO:HD2 | 2:J:29:GLN:NE2 | 2.33 | 0.43 |
| 2:J:16:SER:O | 2:J:19:LEU:HG | 2.18 | 0.43 |
| 2:J:21:VAL:HG12 | 2:J:32:GLY:C | 2.43 | 0.43 |
| 2:K:21:VAL:HG12 | 2:K:32:GLY:C | 2.43 | 0.43 |
| 2:L:104:PRO:HB2 | 2:L:167:TYR:HB3 | 1.99 | 0.43 |
| 3:O:59:GLU:O | 3:O:118:LEU:HB3 | 2.18 | 0.43 |
| 3:O:70:VAL:HA | 3:O:73:MET:HG3 | 2.01 | 0.43 |
| 3:P:82:LEU:HB3 | 3:P:84:ASP:OD1 | 2.18 | 0.43 |
| 3:Q:12:THR:OG1 | 3:Q:17:GLY:HA2 | 2.19 | 0.43 |
| 3:Q:84:ASP:OD1 | 3:Q:85:ILE:HG22 | 2.19 | 0.43 |
| 3:R:70:VAL:HA | 3:R:73:MET:HG3 | 2.01 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:R:84:ASP:OD1 | 3:R:85:ILE:HG22 | 2.19 | 0.43 |
| 4:S:68:MET:HB2 | 4:S:69:TRP:CZ3 | 2.54 | 0.43 |
| 4:T:110:ARG:HG3 | 4:T:114:TYR:HE2 | 1.83 | 0.43 |
| 4:U:32:GLU:O | 4:U:35:LYS:HB2 | 2.18 | 0.43 |
| 4:V:22:ARG:HD3 | 5:7:50:GLN:HE21 | 1.82 | 0.43 |
| 4:V:93:VAL:HG11 | 7:j:383:ILE:HG22 | 2.01 | 0.43 |
| 5:Y:428:LYS:HG3 | 5:Y:448:PHE:CE2 | 2.54 | 0.43 |
| 5:Z:194:LYS:C | 5:Z:219:GLN:HB2 | 2.43 | 0.43 |
| 5:2:51:TYR:HE1 | 5:8:3:LYS:HE2 | 1.84 | 0.43 |
| 5:2:58:GLU:HA | 5:2:64:ALA:HB2 | 2.00 | 0.43 |
| 5:2:374:VAL:HA | 5:2:458:TYR:HB2 | 2.01 | 0.43 |
| 5:2:427:LYS:NZ | 5:9:442:ARG:O | 2.52 | 0.43 |
| 5:3:105:PRO:HG2 | 5:3:108:MET:SD | 2.58 | 0.43 |
| 5:3:374:VAL:HA | 5:3:458:TYR:HB2 | 2.00 | 0.43 |
| 5:4:92:GLU:OE2 | 5:4:130:THR:HG23 | 2.19 | 0.43 |
| 5:5:14:GLU:O | 5:5:17:GLU:HG3 | 2.19 | 0.43 |
| 5:5:92:GLU:OE2 | 5:5:130:THR:HG23 | 2.18 | 0.43 |
| 5:7:383:ILE:HG13 | 5:7:444:PHE:CD2 | 2.53 | 0.43 |
| 5:8:93:ILE:HD11 | 5:8:133:VAL:HG12 | 2.01 | 0.43 |
| 5:9:14:GLU:O | 5:9:17:GLU:HG3 | 2.18 | 0.43 |
| 5:9:312:TRP:HB3 | 5:9:415:PHE:HB2 | 2.00 | 0.43 |
| 6:a:119:VAL:CG2 | 6:a:145:GLU:HB3 | 2.46 | 0.43 |
| 7:h:501:ALA:HB3 | 7:h:505:LYS:HB2 | 2.00 | 0.43 |
| 7:i:81:HIS:ND1 | 7:i:271:LEU:HA | 2.34 | 0.43 |
| 7:i:103:PHE:HB3 | 7:i:121:TYR:CZ | 2.53 | 0.43 |
| 7:i:395:GLU:HG2 | 7:i:396:ALA:N | 2.34 | 0.43 |
| 7:j:333:LYS:HG2 | 7:j:338:GLN:HA | 2.00 | 0.43 |
| 7:j:402:LEU:HG | 7:j:403:ASN:N | 2.32 | 0.43 |
| 7:k:340:ARG:NH1 | 7:k:382:SER:O | 2.48 | 0.43 |
| 7:l:501:ALA:HB3 | 7:l:505:LYS:HB2 | 2.00 | 0.43 |
| 7:m:319:ASP:OD1 | 7:m:319:ASP:N | 2.45 | 0.43 |
| 7:m:469:LYS:O | 7:m:472:ASP:HB2 | 2.18 | 0.43 |
| 7:o:333:LYS:N | 7:o:381:ALA:O | 2.48 | 0.43 |
| 7:p:279:ILE:HG23 | 7:p:295:PHE:CD1 | 2.53 | 0.43 |
| 7:p:356:GLY:O | 7:p:359:LYS:HG2 | 2.18 | 0.43 |
| 7:p:406:SER:HB2 | 7:p:416:ASP:OD2 | 2.18 | 0.43 |
| 7:q:201:TYR:CE1 | 7:q:203:PRO:HD2 | 2.53 | 0.43 |
| 7:r:302:THR:HG1 | 7:r:305:GLU:CD | 2.21 | 0.43 |
| 7:r:464:THR:O | 7:r:468:THR:HG23 | 2.18 | 0.43 |
| 7:AA:330:PHE:CD1 | 7:AA:385:PRO:HA | 2.54 | 0.43 |
| 7:BA:427:TYR:HD1 | 7:BA:430:PHE:HE2 | 1.67 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:BA:441:SER:O | 7:BA:445:VAL:HG23 | 2.18 | 0.43 |
| 7:BA:447:LEU:HD12 | 7:BA:448:ALA:N | 2.33 | 0.43 |
| 7:FA:81:HIS:ND1 | 7:FA:271:LEU:HA | 2.33 | 0.43 |
| 7:FA:500:GLN:HB2 | 7:FA:506:TRP:CD2 | 2.54 | 0.43 |
| 7:GA:274:TYR:OH | 7:GA:299:PRO:HD3 | 2.18 | 0.43 |
| 7:GA:307:LEU:HD22 | 7:GA:396:ALA:HB1 | 2.00 | 0.43 |
| 7:HA:206:LEU:HD13 | 7:HA:214:ARG:HA | 2.00 | 0.43 |
| 7:HA:475:VAL:HG12 | 7:HA:480:LEU:HB3 | 2.01 | 0.43 |
| 7:IA:326:TYR:HE1 | 7:IA:415:ILE:HD13 | 1.83 | 0.43 |
| 7:IA:475:VAL:HG12 | 7:IA:480:LEU:HB3 | 2.01 | 0.43 |
| 7:KA:106:ILE:HG12 | 7:KA:116:TYR:CD1 | 2.53 | 0.43 |
| 7:LA:79:ILE:HA | 7:LA:82:VAL:HG22 | 2.01 | 0.43 |
| 7:MA:268:VAL:HG22 | 7:MA:292:ASP:O | 2.18 | 0.43 |
| 7:OA:405:VAL:HG22 | 7:OA:413:MET:CE | 2.45 | 0.43 |
| 7:PA:352:ALA:CB | 7:PA:370:PRO:HB3 | 2.49 | 0.43 |
| 7:PA:444:PHE:O | 7:PA:447:LEU:HG | 2.17 | 0.43 |
| 7:QA:32:ALA:HB2 | 7:QA:57:GLU:HG2 | 2.01 | 0.43 |
| 7:QA:268:VAL:HG22 | 7:QA:292:ASP:O | 2.19 | 0.43 |
| 7:QA:508:VAL:HG13 | 7:QA:510:TRP:CZ3 | 2.50 | 0.43 |
| 7:QA:524:VAL:HA | 7:RA:19:SER:HB2 | 2.00 | 0.43 |
| 7:RA:44:PHE:CD1 | 7:RA:79:ILE:HG22 | 2.53 | 0.43 |
| 8:AB:50:GLN:OE1 | 8:AB:50:GLN:N | 2.52 | 0.43 |
| 8:DB:87:GLU:OE2 | 8:DB:155:VAL:HB | 2.17 | 0.43 |
| 8:GB:87:GLU:O | 8:LB:26:ARG:NH1 | 2.51 | 0.43 |
| 8:HB:51:ILE:HG23 | 8:IB:146:PHE:CD1 | 2.53 | 0.43 |
| 8:IB:26:ARG:NH2 | 8:OB:71:GLN:HB2 | 2.34 | 0.43 |
| 8:LB:128:ALA:HA | 8:LB:131:THR:OG1 | 2.19 | 0.43 |
| 8:MB:130:THR:O | 8:MB:130:THR:HG22 | 2.19 | 0.43 |
| 8:PB:25:GLU:O | 8:PB:26:ARG:NH1 | 2.51 | 0.43 |
| 8:RB:111:MET:O | 8:RB:132:ILE:HG22 | 2.18 | 0.43 |
| 8:RB:130:THR:HG22 | 8:RB:130:THR:O | 2.19 | 0.43 |
| 8:RB:149:GLU:O | 8:RB:151:VAL:N | 2.52 | 0.43 |
| 1:E:142:LEU:HD12 | 1:E:146:LEU:HB2 | 2.00 | 0.43 |
| 2:G:5:ALA:HA | 2:G:29:GLN:O | 2.18 | 0.43 |
| 2:G:18:TYR:CE2 | 2:H:166:GLY:HA3 | 2.54 | 0.43 |
| 2:G:190:ARG:HH21 | 3:M:88:SER:HB3 | 1.84 | 0.43 |
| 2:J:44:GLN:HG2 | 2:J:46:TRP:CZ3 | 2.54 | 0.43 |
| 2:J:90:PRO:HG2 | 2:J:179:GLY:HA3 | 2.01 | 0.43 |
| 2:L:100:ALA:HB3 | 2:L:169:LEU:HA | 2.01 | 0.43 |
| 3:N:21:TYR:O | 4:U:46:LYS:NZ | 2.42 | 0.43 |
| 3:R:71:GLU:O | 3:R:74:LEU:HG | 2.19 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:R:77:LYS:HA | 3:R:80:VAL:HG22 | 2.00 | 0.43 |
| 4:V:29:LEU:HA | 4:V:32:GLU:OE1 | 2.18 | 0.43 |
| 4:W:29:LEU:HA | 4:W:32:GLU:OE1 | 2.17 | 0.43 |
| 4:X:65:ALA:HA | 4:X:69:TRP:HE3 | 1.83 | 0.43 |
| 5:Z:58:GLU:HA | 5:Z:64:ALA:HB2 | 2.00 | 0.43 |
| 5:Z:147:VAL:HG12 | 5:Z:225:SER:O | 2.18 | 0.43 |
| 5:0:427:LYS:NZ | 5:7:442:ARG:O | 2.51 | 0.43 |
| 5:0:428:LYS:HG3 | 5:0:448:PHE:CE2 | 2.54 | 0.43 |
| 5:1:51:TYR:HE1 | 5:7:3:LYS:HE2 | 1.83 | 0.43 |
| 5:1:255:LEU:HD13 | 5:1:258:LEU:HD12 | 2.00 | 0.43 |
| 5:3:274:GLU:H | 5:3:274:GLU:CD | 2.26 | 0.43 |
| 5:5:301:TYR:OH | 5:5:305:ARG:NH1 | 2.51 | 0.43 |
| 5:6:175:THR:HG22 | 5:6:225:SER:HB2 | 2.01 | 0.43 |
| 5:7:40:PHE:HA | 5:7:43:GLN:OE1 | 2.19 | 0.43 |
| 5:7:92:GLU:OE2 | 5:7:130:THR:HG23 | 2.19 | 0.43 |
| 5:8:162:LEU:O | 5:8:166:CYS:HB3 | 2.19 | 0.43 |
| 6:b:37:PRO:HG2 | 6:b:38:TRP:CE3 | 2.54 | 0.43 |
| 6:b:116:TYR:CE2 | 6:b:148:LEU:HD13 | 2.54 | 0.43 |
| 6:b:161:LEU:HA | 6:b:164:THR:HG22 | 2.00 | 0.43 |
| 6:b:198:PHE:HZ | 6:b:201:LEU:HB2 | 1.83 | 0.43 |
| 6:c:116:TYR:CE2 | 6:c:148:LEU:HD13 | 2.54 | 0.43 |
| 6:e:32:ASP:HA | 6:e:36:ASP:OD2 | 2.19 | 0.43 |
| 6:e:123:ARG:HE | 6:e:124:HIS:CD2 | 2.35 | 0.43 |
| 6:e:155:SER:HA | 6:e:202:THR:O | 2.19 | 0.43 |
| 7:g:60:TYR:O | 7:g:64:LEU:HB2 | 2.18 | 0.43 |
| 7:h:395:GLU:HG2 | 7:h:396:ALA:N | 2.34 | 0.43 |
| 7:i:327:HIS:HE2 | 7:i:329:PRO:HB3 | 1.84 | 0.43 |
| 7:i:432:HIS:O | 7:i:436:LEU:HG | 2.18 | 0.43 |
| 7:j:41:ILE:HD12 | 7:j:94:VAL:O | 2.19 | 0.43 |
| 7:j:45:ALA:HB3 | 7:j:65:GLY:HA3 | 2.01 | 0.43 |
| 7:j:108:PHE:HB2 | 7:j:133:PHE:CZ | 2.53 | 0.43 |
| 7:j:373:GLU:H | 7:j:373:GLU:CD | 2.23 | 0.43 |
| 7:j:426:ASN:ND2 | 7:j:428:LEU:HB2 | 2.33 | 0.43 |
| 7:k:353:LYS:HE2 | 7:k:353:LYS:HA | 2.01 | 0.43 |
| 7:k:512:CYS:SG | 7:k:513:CYS:N | 2.91 | 0.43 |
| 7:l:292:ASP:OD1 | 7:l:293:GLY:N | 2.51 | 0.43 |
| 7:m:279:ILE:HG23 | 7:m:295:PHE:CD1 | 2.53 | 0.43 |
| 7:m:355:ARG:HG3 | 7:m:358:LYS:HZ3 | 1.84 | 0.43 |
| 7:m:447:LEU:O | 7:m:450:GLN:HG3 | 2.19 | 0.43 |
| 7:o:2:SER:HG | 7:o:3:GLN:H | 1.61 | 0.43 |
| 7:o:269:LEU:HA | 7:o:294:PHE:HB2 | 2.01 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:o:269:LEU:HD13 | 7:o:294:PHE:HB2 | 1.99 | 0.43 |
| 7:o:275:ASP:O | 7:o:279:ILE:HG12 | 2.18 | 0.43 |
| 7:o:365:GLY:HA3 | 7:o:368:TYR:CD2 | 2.54 | 0.43 |
| 7:p:371:ALA:HA | 7:p:376:ALA:HB2 | 1.99 | 0.43 |
| 7:p:497:LYS:HE2 | 7:EA:29:THR:HB | 2.00 | 0.43 |
| 7:CA:500:GLN:HB2 | 7:CA:506:TRP:CD2 | 2.54 | 0.43 |
| 7:FA:37:LEU:H | 7:FA:266:THR:HG23 | 1.83 | 0.43 |
| 7:GA:106:ILE:HG12 | 7:GA:116:TYR:CD1 | 2.53 | 0.43 |
| 7:GA:276:ASN:OD1 | 7:GA:313:THR:HG22 | 2.19 | 0.43 |
| 7:GA:297:VAL:HG12 | 7:GA:326:TYR:O | 2.18 | 0.43 |
| 7:HA:52:VAL:HA | 7:HA:94:VAL:HG22 | 2.01 | 0.43 |
| 7:KA:60:TYR:CG | 7:KA:61:GLU:N | 2.87 | 0.43 |
| 7:KA:354:ALA:HA | 7:KA:357:VAL:HG12 | 2.00 | 0.43 |
| 7:LA:302:THR:N | 7:LA:305:GLU:OE2 | 2.49 | 0.43 |
| 7:MA:79:ILE:HD11 | 7:MA:80:ARG:NH1 | 2.34 | 0.43 |
| 7:OA:32:ALA:HB2 | 7:OA:57:GLU:HG2 | 2.01 | 0.43 |
| 7:OA:42:GLY:HA3 | 7:OA:44:PHE:HE2 | 1.84 | 0.43 |
| 7:OA:334:ASP:OD1 | 7:OA:335:LYS:N | 2.51 | 0.43 |
| 7:PA:353:LYS:NZ | 7:PA:370:PRO:HG2 | 2.33 | 0.43 |
| 7:PA:432:HIS:O | 7:PA:435:SER:OG | 2.22 | 0.43 |
| 7:QA:127:LEU:HB3 | 7:QA:218:ASN:HD21 | 1.84 | 0.43 |
| 7:QA:353:LYS:NZ | 7:QA:370:PRO:HG2 | 2.33 | 0.43 |
| 7:RA:77:GLU:H | 7:RA:77:GLU:CD | 2.26 | 0.43 |
| 7:RA:166:LEU:HB3 | 7:RA:185:THR:HG22 | 2.00 | 0.43 |
| 7:RA:500:GLN:HE21 | 7:RA:502:GLU:N | 2.16 | 0.43 |
| 8:AB:26:ARG:NH2 | 8:AB:27:LEU:HB2 | 2.29 | 0.43 |
| 8:CB:26:ARG:NE | 8:CB:27:LEU:N | 2.66 | 0.43 |
| 8:CB:56:ARG:HB3 | 8:DB:140:TYR:OH | 2.18 | 0.43 |
| 8:DB:26:ARG:CZ | 8:DB:27:LEU:H | 2.30 | 0.43 |
| 8:EB:26:ARG:CZ | 8:EB:27:LEU:H | 2.30 | 0.43 |
| 8:GB:26:ARG:NH2 | 8:MB:71:GLN:HB2 | 2.34 | 0.43 |
| 8:GB:44:VAL:HG13 | 8:GB:45:LEU:HD22 | 2.00 | 0.43 |
| 8:HB:14:LYS:O | 8:HB:18:THR:HG23 | 2.18 | 0.43 |
| 8:IB:31:GLU:OE2 | 8:IB:116:GLU:N | 2.51 | 0.43 |
| 8:IB:45:LEU:O | 8:IB:47:ARG:NH1 | 2.51 | 0.43 |
| 8:MB:85:CYS:SG | 8:MB:157:PRO:HG2 | 2.59 | 0.43 |
| 8:OB:52:PRO:HG2 | 8:OB:132:ILE:HG12 | 2.00 | 0.43 |
| 8:PB:85:CYS:SG | 8:PB:157:PRO:HG2 | 2.59 | 0.43 |
| 8:PB:168:TRP:CZ3 | 8:QB:97:ILE:HG13 | 2.54 | 0.43 |
| 8:RB:85:CYS:SG | 8:RB:157:PRO:HG2 | 2.59 | 0.43 |
| 1:A:127:ASN:HB3 | 1:A:131:GLN:HE21 | 1.84 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:A:142:LEU:HD12 | 1:A:146:LEU:HB2 | 2.00 | 0.43 |
| 1:B:64:LYS:HZ1 | 1:B:175:SER:HB3 | 1.84 | 0.43 |
| 1:B:64:LYS:HG2 | 1:B:99:MET:O | 2.19 | 0.43 |
| 1:D:142:LEU:HD12 | 1:D:146:LEU:HB2 | 2.00 | 0.43 |
| 1:F:61:PHE:HA | 8:EB:64:PRO:HG2 | 2.00 | 0.43 |
| 2:G:122:GLU:OE1 | 2:L:184:ASN:HB3 | 2.18 | 0.43 |
| 2:G:169:LEU:HA | 2:G:169:LEU:HD23 | 1.82 | 0.43 |
| 2:H:190:ARG:NH2 | 3:N:88:SER:HB3 | 2.34 | 0.43 |
| 2:I:44:GLN:HG3 | 2:I:84:TRP:NE1 | 2.21 | 0.43 |
| 2:L:18:TYR:HE2 | 2:L:143:ARG:NE | 2.16 | 0.43 |
| 3:M:12:THR:OG1 | 3:M:17:GLY:HA2 | 2.18 | 0.43 |
| 4:S:77:VAL:O | 4:S:80:LEU:HG | 2.19 | 0.43 |
| 4:T:117:GLN:O | 5:Z:160:LYS:NZ | 2.45 | 0.43 |
| 4:U:59:TYR:HE2 | 6:c:9:ARG:HG2 | 1.82 | 0.43 |
| 4:U:68:MET:HB2 | 4:U:69:TRP:CZ3 | 2.54 | 0.43 |
| 4:V:32:GLU:O | 4:V:36:GLU:OE1 | 2.36 | 0.43 |
| 4:V:34:ARG:HA | 4:V:37:VAL:CG2 | 2.46 | 0.43 |
| 4:V:65:ALA:HA | 4:V:69:TRP:HE3 | 1.83 | 0.43 |
| 4:X:32:GLU:O | 4:X:35:LYS:HB2 | 2.18 | 0.43 |
| 4:X:86:ASP:HB3 | 4:X:89:GLN:OE1 | 2.19 | 0.43 |
| 5:Y:105:PRO:HG2 | 5:Y:108:MET:SD | 2.58 | 0.43 |
| 5:Y:329:ASN:HA | 6:a:126:TYR:HE2 | 1.83 | 0.43 |
| 5:Z:142:GLU:OE2 | 5:Z:228:THR:HG23 | 2.19 | 0.43 |
| 5:0:355:LEU:O | 5:0:359:LYS:HG3 | 2.18 | 0.43 |
| 5:1:1:MET:HG2 | 6:d:33:THR:OG1 | 2.19 | 0.43 |
| 5:1:428:LYS:HG3 | 5:1:448:PHE:CE2 | 2.54 | 0.43 |
| 5:2:355:LEU:O | 5:2:359:LYS:HG3 | 2.18 | 0.43 |
| 5:3:88:SER:OG | 5:3:134:GLU:OE2 | 2.30 | 0.43 |
| 5:4:201:PHE:HB2 | 5:4:211:ARG:HG2 | 2.01 | 0.43 |
| 5:5:277:GLU:HG2 | 5:5:278:ILE:N | 2.34 | 0.43 |
| 5:7:6:PRO:HB2 | 5:7:10:SER:OG | 2.18 | 0.43 |
| 5:9:90:MET:SD | 5:9:132:THR:HB | 2.59 | 0.43 |
| 5:9:201:PHE:HB2 | 5:9:211:ARG:HG2 | 2.01 | 0.43 |
| 6:a:198:PHE:HZ | 6:a:201:LEU:HB2 | 1.84 | 0.43 |
| 6:b:33:THR:HG23 | 6:b:34:PHE:CD2 | 2.54 | 0.43 |
| 6:c:58:THR:O | 6:c:62:GLU:HG3 | 2.19 | 0.43 |
| 6:d:101:ILE:HG23 | 6:d:105:PHE:HB2 | 2.01 | 0.43 |
| 7:h:41:ILE:HD13 | 7:h:254:ALA:HB1 | 1.99 | 0.43 |
| 7:h:81:HIS:ND1 | 7:h:271:LEU:HA | 2.34 | 0.43 |
| 7:i:246:ILE:HB | 7:i:251:TYR:OH | 2.18 | 0.43 |
| 7:i:373:GLU:H | 7:i:373:GLU:CD | 2.24 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:i:501:ALA:HB3 | 7:i:505:LYS:HB2 | 2.00 | 0.43 |
| 7:j:353:LYS:HE2 | 7:j:353:LYS:HA | 2.01 | 0.43 |
| 7:l:432:HIS:O | 7:l:436:LEU:HG | 2.18 | 0.43 |
| 7:m:461:ALA:O | 7:m:464:THR:OG1 | 2.29 | 0.43 |
| 7:o:194:ASP:N | 7:o:198:ARG:O | 2.46 | 0.43 |
| 7:o:279:ILE:HG23 | 7:o:295:PHE:CD1 | 2.54 | 0.43 |
| 7:q:69:LYS:O | 7:q:72:SER:OG | 2.34 | 0.43 |
| 7:q:83:TYR:CE2 | 7:q:335:LYS:HE2 | 2.53 | 0.43 |
| 7:q:527:LEU:HD22 | 7:r:21:ILE:CG1 | 2.48 | 0.43 |
| 7:DA:103:PHE:HE1 | 7:DA:121:TYR:HA | 1.82 | 0.43 |
| 7:EA:275:ASP:O | 7:EA:279:ILE:HG12 | 2.19 | 0.43 |
| 7:FA:103:PHE:HE1 | 7:FA:121:TYR:HA | 1.83 | 0.43 |
| 7:GA:357:VAL:HA | 7:GA:365:GLY:N | 2.32 | 0.43 |
| 7:HA:106:ILE:HG12 | 7:HA:116:TYR:CD1 | 2.53 | 0.43 |
| 7:IA:443:PHE:HA | 7:IA:446:GLN:CD | 2.44 | 0.43 |
| 7:JA:106:ILE:HG12 | 7:JA:116:TYR:CD1 | 2.53 | 0.43 |
| 7:JA:442:ARG:O | 7:JA:445:VAL:HB | 2.18 | 0.43 |
| 7:KA:54:ALA:HB2 | 7:KA:92:TYR:CE1 | 2.54 | 0.43 |
| 7:KA:82:VAL:O | 7:KA:86:ILE:HB | 2.19 | 0.43 |
| 7:KA:274:TYR:OH | 7:KA:299:PRO:HD3 | 2.18 | 0.43 |
| 7:KA:390:ASP:OD1 | 7:KA:391:THR:N | 2.52 | 0.43 |
| 7:LA:52:VAL:HA | 7:LA:94:VAL:HG22 | 2.01 | 0.43 |
| 7:MA:127:LEU:HB3 | 7:MA:218:ASN:HD21 | 1.84 | 0.43 |
| 7:MA:208:ALA:C | 7:MA:211:LYS:HZ1 | 2.26 | 0.43 |
| 7:NA:432:HIS:CD2 | 7:NA:517:VAL:HG11 | 2.54 | 0.43 |
| 7:PA:340:ARG:HH22 | 7:PA:384:GLN:HB3 | 1.83 | 0.43 |
| 7:PA:470:LEU:HA | 7:PA:473:ARG:HG2 | 2.01 | 0.43 |
| 7:QA:46:ARG:NE | 7:QA:142:PRO:HD3 | 2.33 | 0.43 |
| 7:QA:249:ALA:O | 7:QA:252:LEU:HG | 2.19 | 0.43 |
| 7:QA:352:ALA:CB | 7:QA:370:PRO:HB3 | 2.49 | 0.43 |
| 8:AB:56:ARG:O | 8:BB:160:ARG:NH2 | 2.48 | 0.43 |
| 8:AB:143:ALA:N | 8:FB:53:GLU:HG2 | 2.34 | 0.43 |
| 8:BB:107:VAL:HG13 | 8:BB:137:CYS:HB2 | 2.00 | 0.43 |
| 8:FB:106:TYR:HE1 | 8:FB:138:LYS:HE2 | 1.83 | 0.43 |
| 8:GB:14:LYS:HE3 | 8:NB:165:TRP:CZ2 | 2.37 | 0.43 |
| 8:HB:128:ALA:HA | 8:HB:131:THR:OG1 | 2.19 | 0.43 |
| 8:PB:130:THR:O | 8:PB:130:THR:HG22 | 2.19 | 0.43 |
| 8:RB:36:PHE:HD1 | 8:RB:109:ILE:HD12 | 1.83 | 0.43 |
| 1:B:127:ASN:HB3 | 1:B:131:GLN:HE21 | 1.84 | 0.43 |
| 1:C:66:ILE:HG13 | 1:C:96:ILE:HD11 | 2.01 | 0.43 |
| 1:D:194:ALA:HB1 | 7:p:409:THR:HG21 | 2.01 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:E:64:LYS:HG2 | 1:E:99:MET:O | 2.19 | 0.43 |
| 1:E:114:THR:O | 1:E:118:ARG:HG3 | 2.19 | 0.43 |
| 1:E:127:ASN:HB3 | 1:E:131:GLN:HE21 | 1.84 | 0.43 |
| 1:E:194:ALA:HB1 | 7:q:409:THR:HG21 | 2.00 | 0.43 |
| 1:F:62:PHE:C | 1:F:100:VAL:HG23 | 2.44 | 0.43 |
| 2:I:44:GLN:HG2 | 2:I:46:TRP:CZ3 | 2.54 | 0.43 |
| 3:O:71:GLU:O | 3:O:74:LEU:HG | 2.19 | 0.43 |
| 4:U:62:ASP:HB3 | 4:U:75:ARG:CB | 2.46 | 0.43 |
| 4:V:20:ASP:N | 4:V:20:ASP:OD1 | 2.51 | 0.43 |
| 4:V:45:ASP:HA | 5:6:27:LYS:HE3 | 2.01 | 0.43 |
| 4:V:59:TYR:HA | 4:V:87:GLU:HB3 | 2.00 | 0.43 |
| 4:W:54:LEU:HG | 4:W:55:PRO:HD2 | 2.00 | 0.43 |
| 5:Y:7:THR:O | 5:Y:11:ILE:HG12 | 2.19 | 0.43 |
| 5:Y:47:ARG:HA | 5:Y:50:GLN:OE1 | 2.18 | 0.43 |
| 5:0:47:ARG:HA | 5:0:50:GLN:OE1 | 2.19 | 0.43 |
| 5:0:47:ARG:NH2 | 5:6:6:PRO:HD3 | 2.33 | 0.43 |
| 5:2:428:LYS:HG3 | 5:2:448:PHE:CE2 | 2.53 | 0.43 |
| 5:3:119:MET:HB3 | 5:3:138:LEU:HB3 | 2.01 | 0.43 |
| 5:4:6:PRO:HB2 | 5:4:10:SER:OG | 2.18 | 0.43 |
| 5:7:10:SER:O | 5:7:13:ALA:N | 2.52 | 0.43 |
| 5:8:92:GLU:OE2 | 5:8:130:THR:HG23 | 2.18 | 0.43 |
| 5:8:415:PHE:HB3 | 5:8:423:TYR:HD1 | 1.84 | 0.43 |
| 5:9:93:ILE:HD11 | 5:9:133:VAL:HG12 | 2.00 | 0.43 |
| 6:a:4:SER:OG | 6:a:7:ASN:HB2 | 2.18 | 0.43 |
| 6:b:101:ILE:HG23 | 6:b:105:PHE:HB2 | 2.01 | 0.43 |
| 6:d:82:GLN:O | 6:d:85:LEU:HG | 2.19 | 0.43 |
| 6:f:101:ILE:HG23 | 6:f:105:PHE:HB2 | 2.01 | 0.43 |
| 6:f:198:PHE:HZ | 6:f:201:LEU:HB2 | 1.84 | 0.43 |
| 7:g:402:LEU:HG | 7:g:403:ASN:N | 2.30 | 0.43 |
| 7:g:428:LEU:HD11 | 7:n:21:ILE:HG21 | 2.01 | 0.43 |
| 7:h:45:ALA:HB3 | 7:h:65:GLY:HA3 | 2.01 | 0.43 |
| 7:j:60:TYR:O | 7:j:64:LEU:HB2 | 2.18 | 0.43 |
| 7:j:399:LYS:HE2 | 7:j:399:LYS:HA | 2.01 | 0.43 |
| 7:k:60:TYR:HB3 | 7:k:86:ILE:HG12 | 2.01 | 0.43 |
| 7:k:355:ARG:HH21 | 7:k:375:ARG:HA | 1.83 | 0.43 |
| 7:k:395:GLU:HG2 | 7:k:396:ALA:N | 2.34 | 0.43 |
| 7:l:246:ILE:HB | 7:l:251:TYR:OH | 2.18 | 0.43 |
| 7:n:75:GLN:O | 7:n:78:PRO:HD2 | 2.19 | 0.43 |
| 7:n:405:VAL:HG22 | 7:n:413:MET:HE3 | 2.01 | 0.43 |
| 7:n:447:LEU:O | 7:n:450:GLN:HG3 | 2.19 | 0.43 |
| 7:o:33:LEU:HD23 | 7:o:33:LEU:H | 1.84 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:p:2:SER:HG | 7:p:3:GLN:H | 1.62 | 0.43 |
| 7:p:201:TYR:HB2 | 7:DA:69:LYS:HZ1 | 1.84 | 0.43 |
| 7:q:56:THR:N | 7:q:59:ASN:OD1 | 2.51 | 0.43 |
| 7:q:497:LYS:HE2 | 7:FA:29:THR:HB | 1.99 | 0.43 |
| 7:q:519:ARG:HH12 | 7:q:520:ARG:NH1 | 2.17 | 0.43 |
| 7:r:279:ILE:HG23 | 7:r:295:PHE:CD1 | 2.54 | 0.43 |
| 7:AA:328:TYR:CE2 | 7:AA:330:PHE:HB2 | 2.53 | 0.43 |
| 7:BA:135:ILE:HG13 | 7:BA:215:ALA:HB2 | 2.00 | 0.43 |
| 7:BA:471:LEU:HA | 7:BA:474:PHE:CD1 | 2.54 | 0.43 |
| 7:CA:452:LYS:HD2 | 7:JA:16:VAL:HG23 | 2.01 | 0.43 |
| 7:DA:330:PHE:CD1 | 7:DA:385:PRO:HA | 2.54 | 0.43 |
| 7:EA:10:LEU:HD21 | 7:EA:17:ALA:HB3 | 2.01 | 0.43 |
| 7:EA:500:GLN:HB2 | 7:EA:506:TRP:CD2 | 2.54 | 0.43 |
| 7:HA:49:PRO:HB2 | 7:HA:50:PHE:HD1 | 1.83 | 0.43 |
| 7:HA:470:LEU:HD12 | 7:HA:471:LEU:HD22 | 1.99 | 0.43 |
| 7:IA:358:LYS:HD3 | 7:IA:358:LYS:C | 2.43 | 0.43 |
| 7:IA:401:ARG:HH22 | 7:IA:425:ASP:HA | 1.83 | 0.43 |
| 7:JA:276:ASN:OD1 | 7:JA:313:THR:HG22 | 2.19 | 0.43 |
| 7:LA:440:ILE:HA | 7:LA:443:PHE:HD2 | 1.84 | 0.43 |
| 7:LA:443:PHE:HA | 7:LA:446:GLN:CD | 2.44 | 0.43 |
| 7:MA:77:GLU:H | 7:MA:77:GLU:CD | 2.26 | 0.43 |
| 7:NA:352:ALA:CB | 7:NA:370:PRO:HB3 | 2.49 | 0.43 |
| 7:NA:353:LYS:NZ | 7:NA:370:PRO:HG2 | 2.33 | 0.43 |
| 7:NA:405:VAL:HG23 | 7:NA:415:ILE:CA | 2.46 | 0.43 |
| 7:OA:352:ALA:CB | 7:OA:370:PRO:HB3 | 2.49 | 0.43 |
| 7:OA:405:VAL:HG23 | 7:OA:415:ILE:CA | 2.47 | 0.43 |
| 7:PA:32:ALA:HB2 | 7:PA:57:GLU:HG2 | 2.01 | 0.43 |
| 7:RA:32:ALA:HB2 | 7:RA:57:GLU:HG2 | 2.01 | 0.43 |
| 7:RA:405:VAL:HG23 | 7:RA:415:ILE:CA | 2.47 | 0.43 |
| 7:RA:470:LEU:HA | 7:RA:473:ARG:HG2 | 2.01 | 0.43 |
| 8:BB:165:TRP:HZ3 | 8:BB:167:GLU:HB2 | 1.84 | 0.43 |
| 8:CB:4:ASN:OD1 | 8:CB:5:ASN:N | 2.52 | 0.43 |
| 8:EB:56:ARG:CD | 8:EB:73:GLY:H | 2.26 | 0.43 |
| 8:FB:77:ASN:HD22 | 8:FB:165:TRP:CD1 | 2.33 | 0.43 |
| 8:GB:10:ARG:O | 8:GB:13:ILE:HG12 | 2.18 | 0.43 |
| 8:GB:11:LYS:HE3 | 8:GB:12:PHE:CE2 | 2.54 | 0.43 |
| 8:GB:45:LEU:O | 8:GB:47:ARG:NH1 | 2.51 | 0.43 |
| 8:GB:86:VAL:HA | 8:GB:157:PRO:HD2 | 1.99 | 0.43 |
| 8:HB:32:PHE:O | 8:MB:65:ASN:ND2 | 2.51 | 0.43 |
| 8:NB:85:CYS:SG | 8:NB:157:PRO:HG2 | 2.58 | 0.43 |
| 8:OB:89:ILE:HG13 | 8:OB:90:GLU:N | 2.34 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 8:OB:149:GLU:O | 8:OB:151:VAL:N | 2.52 | 0.43 |
| 8:OB:165:TRP:HD1 | 8:OB:167:GLU:CD | 2.27 | 0.43 |
| 8:PB:27:LEU:HG | 8:QB:87:GLU:OE2 | 2.18 | 0.43 |
| 8:PB:68:LYS:CE | 8:QB:76:ARG:HH22 | 2.32 | 0.43 |
| 8:QB:118:LYS:HE2 | 8:QB:125:VAL:O | 2.18 | 0.43 |
| 1:A:66:ILE:HG13 | 1:A:96:ILE:HD11 | 2.01 | 0.43 |
| 1:A:114:THR:O | 1:A:118:ARG:HG3 | 2.19 | 0.43 |
| 1:A:193:LEU:HB2 | 1:A:199:PHE:CE2 | 2.54 | 0.43 |
| 1:C:64:LYS:NZ | 1:C:99:MET:HG3 | 2.33 | 0.43 |
| 1:C:193:LEU:HB2 | 1:C:199:PHE:CE2 | 2.54 | 0.43 |
| 1:F:103:THR:OG1 | 1:F:104:VAL:N | 2.51 | 0.43 |
| 2:H:44:GLN:HG2 | 2:H:46:TRP:CZ3 | 2.54 | 0.43 |
| 2:H:44:GLN:HG2 | 2:H:46:TRP:HZ3 | 1.84 | 0.43 |
| 2:I:3:PRO:HD2 | 2:I:29:GLN:NE2 | 2.33 | 0.43 |
| 2:I:44:GLN:HG2 | 2:I:46:TRP:HZ3 | 1.84 | 0.43 |
| 2:J:104:PRO:HB2 | 2:J:167:TYR:HB3 | 2.01 | 0.43 |
| 2:J:184:ASN:HB3 | 2:K:122:GLU:OE1 | 2.19 | 0.43 |
| 2:K:190:ARG:NH2 | 3:Q:88:SER:HB3 | 2.34 | 0.43 |
| 3:N:39:TYR:CE1 | 7:i:6:ILE:HD11 | 2.54 | 0.43 |
| 3:N:75:LEU:HD12 | 3:N:76:GLN:N | 2.34 | 0.43 |
| 4:U:14:TYR:HD2 | 4:U:16:LEU:HD22 | 1.84 | 0.43 |
| 4:U:54:LEU:HG | 4:U:55:PRO:HD2 | 2.00 | 0.43 |
| 4:V:98:LYS:HE2 | 4:V:98:LYS:HB2 | 1.82 | 0.43 |
| 5:Y:276:THR:O | 5:Y:279:THR:OG1 | 2.29 | 0.43 |
| 5:Y:374:VAL:HA | 5:Y:458:TYR:HB2 | 2.00 | 0.43 |
| 5:Z:40:PHE:CE2 | 5:5:19:VAL:HG12 | 2.54 | 0.43 |
| 5:0:331:GLN:HG2 | 5:0:332:ASN:N | 2.34 | 0.43 |
| 5:1:14:GLU:HA | 5:1:17:GLU:CD | 2.44 | 0.43 |
| 5:2:317:GLY:HA2 | 6:e:194:LEU:HD13 | 2.00 | 0.43 |
| 5:4:14:GLU:O | 5:4:17:GLU:HG3 | 2.19 | 0.43 |
| 5:4:274:GLU:HG2 | 5:4:279:THR:HG23 | 2.00 | 0.43 |
| 5:5:274:GLU:HG2 | 5:5:279:THR:HG23 | 2.00 | 0.43 |
| 5:6:277:GLU:HG2 | 5:6:278:ILE:N | 2.34 | 0.43 |
| 5:6:309:GLY:O | 5:6:343:PRO:HD2 | 2.19 | 0.43 |
| 5:7:14:GLU:O | 5:7:17:GLU:HG3 | 2.19 | 0.43 |
| 5:8:115:GLN:NE2 | 7:k:69:LYS:HG2 | 2.33 | 0.43 |
| 5:8:304:VAL:HA | 5:8:310:LEU:HD12 | 2.01 | 0.43 |
| 5:9:122:ASP:HB2 | 5:9:133:VAL:HG23 | 2.01 | 0.43 |
| 6:a:58:THR:O | 6:a:62:GLU:HG3 | 2.19 | 0.43 |
| 6:b:10:LEU:HG | 6:b:14:LYS:HZ2 | 1.82 | 0.43 |
| 6:c:119:VAL:HG22 | 6:c:147:PHE:CE2 | 2.54 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:e:78:PRO:O | 6:e:81:LEU:HG | 2.19 | 0.43 |
| 6:e:158:ILE:HA | 6:e:161:LEU:HG | 2.00 | 0.43 |
| 6:f:4:SER:OG | 6:f:7:ASN:HB2 | 2.18 | 0.43 |
| 6:f:116:TYR:CE2 | 6:f:148:LEU:HD13 | 2.54 | 0.43 |
| 7:g:311:GLU:OE1 | 7:g:311:GLU:N | 2.37 | 0.43 |
| 7:g:426:ASN:ND2 | 7:g:428:LEU:HB2 | 2.33 | 0.43 |
| 7:i:60:TYR:O | 7:i:64:LEU:HB2 | 2.19 | 0.43 |
| 7:k:45:ALA:HB3 | 7:k:65:GLY:HA3 | 2.01 | 0.43 |
| 7:k:147:THR:OG1 | 7:k:172:THR:OG1 | 2.36 | 0.43 |
| 7:k:508:VAL:HG13 | 7:k:510:TRP:HZ3 | 1.84 | 0.43 |
| 7:m:2:SER:HG | 7:m:3:GLN:H | 1.65 | 0.43 |
| 7:m:83:TYR:CE2 | 7:m:335:LYS:HE2 | 2.53 | 0.43 |
| 7:m:397:MET:CE | 7:m:402:LEU:HB3 | 2.49 | 0.43 |
| 7:m:497:LYS:HE2 | 7:BA:29:THR:HB | 2.01 | 0.43 |
| 7:n:249:ALA:O | 7:n:252:LEU:HG | 2.19 | 0.43 |
| 7:o:39:ALA:HB2 | 7:o:92:TYR:HB2 | 2.01 | 0.43 |
| 7:p:33:LEU:HD23 | 7:p:33:LEU:H | 1.84 | 0.43 |
| 7:p:447:LEU:O | 7:p:450:GLN:HG3 | 2.19 | 0.43 |
| 7:p:467:MET:HE2 | 7:p:496:LEU:HB2 | 2.00 | 0.43 |
| 7:q:460:ALA:O | 7:q:464:THR:HG23 | 2.19 | 0.43 |
| 7:r:269:LEU:HA | 7:r:294:PHE:HB2 | 2.01 | 0.43 |
| 7:r:398:VAL:O | 7:r:401:ARG:HD3 | 2.19 | 0.43 |
| 7:AA:275:ASP:O | 7:AA:279:ILE:HG12 | 2.19 | 0.43 |
| 7:AA:311:GLU:HG3 | 7:AA:316:LEU:HD21 | 2.00 | 0.43 |
| 7:BA:83:TYR:O | 7:BA:87:GLN:NE2 | 2.52 | 0.43 |
| 7:BA:331:SER:HG | 7:BA:384:GLN:HE21 | 1.61 | 0.43 |
| 7:BA:519:ARG:HH12 | 7:CA:12:ASN:HA | 1.84 | 0.43 |
| 7:CA:460:ALA:O | 7:CA:463:LEU:HG | 2.18 | 0.43 |
| 7:EA:135:ILE:HG13 | 7:EA:215:ALA:HB2 | 2.00 | 0.43 |
| 7:HA:54:ALA:HB2 | 7:HA:92:TYR:CE1 | 2.54 | 0.43 |
| 7:HA:79:ILE:HA | 7:HA:82:VAL:HG22 | 2.01 | 0.43 |
| 7:HA:274:TYR:OH | 7:HA:299:PRO:HD3 | 2.18 | 0.43 |
| 7:HA:326:TYR:HE1 | 7:HA:415:ILE:HD13 | 1.84 | 0.43 |
| 7:IA:390:ASP:OD1 | 7:IA:391:THR:N | 2.52 | 0.43 |
| 7:IA:440:ILE:HA | 7:IA:443:PHE:HD2 | 1.84 | 0.43 |
| 7:IA:444:PHE:HE2 | 7:IA:510:TRP:CZ2 | 2.37 | 0.43 |
| 7:IA:470:LEU:HD12 | 7:IA:471:LEU:HD22 | 1.99 | 0.43 |
| 7:JA:203:PRO:O | 7:JA:206:LEU:HG | 2.19 | 0.43 |
| 7:JA:487:ASP:O | 7:QA:335:LYS:NZ | 2.31 | 0.43 |
| 7:KA:401:ARG:HH22 | 7:KA:425:ASP:HA | 1.83 | 0.43 |
| 7:MA:3:GLN:HE21 | 7:RA:407:VAL:HG23 | 1.83 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:MA:334:ASP:CB | 7:MA:339:SER:H | 2.32 | 0.43 |
| 7:NA:386:LEU:HD23 | 7:NA:386:LEU:HA | 1.89 | 0.43 |
| 7:PA:407:VAL:HG23 | 7:QA:3:GLN:HE21 | 1.83 | 0.43 |
| 7:PA:412:GLN:HG2 | 7:PA:414:ILE:HG23 | 2.01 | 0.43 |
| 7:QA:77:GLU:H | 7:QA:77:GLU:CD | 2.26 | 0.43 |
| 7:QA:500:GLN:HE21 | 7:QA:502:GLU:N | 2.16 | 0.43 |
| 7:RA:46:ARG:NE | 7:RA:142:PRO:HD3 | 2.33 | 0.43 |
| 8:AB:138:LYS:NZ | 8:FB:56:ARG:HH22 | 2.17 | 0.43 |
| 8:BB:50:GLN:N | 8:BB:50:GLN:OE1 | 2.52 | 0.43 |
| 8:CB:41:ASP:OD1 | 8:CB:42:ILE:N | 2.52 | 0.43 |
| 8:DB:107:VAL:HG13 | 8:DB:137:CYS:HB2 | 2.00 | 0.43 |
| 8:GB:138:LYS:HZ1 | 8:LB:71:GLN:C | 2.27 | 0.43 |
| 8:HB:45:LEU:HD12 | 8:HB:86:VAL:O | 2.19 | 0.43 |
| 8:JB:87:GLU:OE2 | 8:JB:94:LEU:HD23 | 2.18 | 0.43 |
| 8:KB:116:GLU:O | 8:KB:119:SER:OG | 2.34 | 0.43 |
| 8:MB:68:LYS:CE | 8:NB:76:ARG:HH22 | 2.32 | 0.43 |
| 8:MB:76:ARG:HH22 | 8:RB:68:LYS:CE | 2.30 | 0.43 |
| 8:OB:107:VAL:HG12 | 8:OB:137:CYS:HB2 | 2.00 | 0.43 |
| 8:OB:118:LYS:HE2 | 8:OB:125:VAL:O | 2.19 | 0.43 |
| 8:QB:35:THR:HB | 8:QB:40:GLU:HG3 | 2.00 | 0.43 |
| 8:RB:116:GLU:HA | 8:RB:119:SER:HG | 1.83 | 0.43 |
| 1:C:194:ALA:HB1 | 7:O:409:THR:HG21 | 2.01 | 0.43 |
| 1:F:142:LEU:HD12 | 1:F:146:LEU:HB2 | 2.00 | 0.43 |
| 2:K:44:GLN:HG2 | 2:K:46:TRP:CZ3 | 2.54 | 0.43 |
| 3:O:77:LYS:HA | 3:O:80:VAL:HG22 | 2.00 | 0.43 |
| 3:Q:75:LEU:HD12 | 3:Q:76:GLN:N | 2.34 | 0.43 |
| 4:T:86:ASP:HB3 | 4:T:89:GLN:OE1 | 2.19 | 0.43 |
| 4:U:32:GLU:O | 4:U:36:GLU:OE1 | 2.37 | 0.43 |
| 4:U:35:LYS:HD3 | 5:6:63:THR:HA | 2.00 | 0.43 |
| 5:Y:194:LYS:C | 5:Y:219:GLN:HB2 | 2.43 | 0.43 |
| 5:Y:331:GLN:HG2 | 5:Y:332:ASN:N | 2.34 | 0.43 |
| 5:Z:274:GLU:H | 5:Z:274:GLU:CD | 2.26 | 0.43 |
| 5:Z:374:VAL:HA | 5:Z:458:TYR:HB2 | 2.01 | 0.43 |
| 5:0:58:GLU:HA | 5:0:64:ALA:HB2 | 2.00 | 0.43 |
| 5:0:142:GLU:OE2 | 5:0:228:THR:HG23 | 2.19 | 0.43 |
| 5:1:32:GLN:CD | 5:1:32:GLN:H | 2.26 | 0.43 |
| 5:1:105:PRO:HG2 | 5:1:108:MET:SD | 2.58 | 0.43 |
| 5:2:47:ARG:NH2 | 5:8:6:PRO:HD3 | 2.34 | 0.43 |
| 5:2:105:PRO:HG2 | 5:2:108:MET:SD | 2.59 | 0.43 |
| 5:2:194:LYS:C | 5:2:219:GLN:HB2 | 2.43 | 0.43 |
| 5:3:331:GLN:HG2 | 5:3:332:ASN:N | 2.34 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 5:4:93:ILE:HD11 | 5:4:133:VAL:HG12 | 2.00 | 0.43 |
| 5:4:189:ARG:HG3 | 5:4:190:LEU:HG | 2.00 | 0.43 |
| 5:4:312:TRP:HB3 | 5:4:415:PHE:HB2 | 1.99 | 0.43 |
| 5:4:342:HIS:HB2 | 5:4:350:LEU:HD21 | 2.01 | 0.43 |
| 5:5:201:PHE:HB2 | 5:5:211:ARG:HG2 | 2.01 | 0.43 |
| 5:6:342:HIS:HB2 | 5:6:350:LEU:HD21 | 2.01 | 0.43 |
| 5:7:84:PRO:HB3 | 5:7:272:ASP:HA | 2.00 | 0.43 |
| 5:9:53:ASP:O | 5:9:56:LEU:HG | 2.18 | 0.43 |
| 5:9:127:VAL:N | 5:9:130:THR:O | 2.39 | 0.43 |
| 6:a:10:LEU:HB2 | 6:a:15:GLN:HE21 | 1.83 | 0.43 |
| 6:a:82:GLN:O | 6:a:85:LEU:HG | 2.19 | 0.43 |
| 6:a:116:TYR:CE2 | 6:a:148:LEU:HD13 | 2.54 | 0.43 |
| 6:a:119:VAL:HG22 | 6:a:147:PHE:CE2 | 2.54 | 0.43 |
| 6:b:32:ASP:HA | 6:b:36:ASP:OD2 | 2.19 | 0.43 |
| 6:c:119:VAL:CG2 | 6:c:145:GLU:HB3 | 2.46 | 0.43 |
| 6:f:32:ASP:HA | 6:f:36:ASP:OD2 | 2.19 | 0.43 |
| 6:f:114:PRO:HA | 6:f:152:GLY:HA3 | 1.99 | 0.43 |
| 7:g:81:HIS:ND1 | 7:g:271:LEU:HA | 2.34 | 0.43 |
| 7:g:281:ALA:O | 7:g:285:ILE:HG13 | 2.19 | 0.43 |
| 7:i:84:GLU:OE2 | 7:i:348:VAL:HG13 | 2.19 | 0.43 |
| 7:i:147:THR:OG1 | 7:i:172:THR:OG1 | 2.36 | 0.43 |
| 7:i:335:LYS:HD2 | 7:i:336:TRP:CH2 | 2.54 | 0.43 |
| 7:i:428:LEU:HD11 | 7:p:21:ILE:HG21 | 2.00 | 0.43 |
| 7:j:108:PHE:HE1 | 7:j:114:PRO:HB3 | 1.84 | 0.43 |
| 7:j:432:HIS:O | 7:j:436:LEU:HG | 2.18 | 0.43 |
| 7:k:275:ASP:OD2 | 7:k:278:ALA:N | 2.42 | 0.43 |
| 7:k:292:ASP:OD1 | 7:k:293:GLY:N | 2.51 | 0.43 |
| 7:k:408:GLY:HA3 | 7:k:412:GLN:NE2 | 2.34 | 0.43 |
| 7:l:199:LEU:HD21 | 7:r:69:LYS:HZ1 | 1.83 | 0.43 |
| 7:m:153:GLU:HB2 | 7:m:166:LEU:HD11 | 2.01 | 0.43 |
| 7:m:249:ALA:O | 7:m:252:LEU:HG | 2.19 | 0.43 |
| 7:m:487:ASP:OD1 | 7:m:487:ASP:N | 2.52 | 0.43 |
| 7:n:497:LYS:HE2 | 7:CA:29:THR:HB | 2.00 | 0.43 |
| 7:o:398:VAL:O | 7:o:401:ARG:HD3 | 2.19 | 0.43 |
| 7:o:487:ASP:N | 7:o:487:ASP:OD1 | 2.52 | 0.43 |
| 7:o:497:LYS:HZ1 | 7:DA:28:SER:H | 1.67 | 0.43 |
| 7:p:355:ARG:HG3 | 7:p:358:LYS:HZ3 | 1.83 | 0.43 |
| 7:p:382:SER:OG | 7:p:384:GLN:OE1 | 2.34 | 0.43 |
| 7:r:198:ARG:HB3 | 7:r:209:ARG:NH2 | 2.33 | 0.43 |
| 7:r:371:ALA:HA | 7:r:376:ALA:HB2 | 2.00 | 0.43 |
| 7:r:460:ALA:O | 7:r:464:THR:HG23 | 2.19 | 0.43 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:AA:434:PRO:CA | 7:AA:437:MET:HE3 | 2.47 | 0.43 |
| 7:BA:59:ASN:O | 7:BA:63:VAL:HG22 | 2.19 | 0.43 |
| 7:BA:330:PHE:CD1 | 7:BA:385:PRO:HA | 2.54 | 0.43 |
| 7:DA:355:ARG:HH11 | 7:DA:359:LYS:NZ | 2.16 | 0.43 |
| 7:DA:460:ALA:O | 7:DA:463:LEU:HG | 2.19 | 0.43 |
| 7:EA:83:TYR:O | 7:EA:87:GLN:NE2 | 2.52 | 0.43 |
| 7:EA:328:TYR:CE2 | 7:EA:330:PHE:HB2 | 2.53 | 0.43 |
| 7:EA:330:PHE:CD1 | 7:EA:385:PRO:HA | 2.54 | 0.43 |
| 7:FA:264:MET:HE2 | 7:FA:264:MET:N | 2.33 | 0.43 |
| 7:FA:448:ALA:HB1 | 7:LA:521:ILE:HD12 | 2.00 | 0.43 |
| 7:IA:49:PRO:HB2 | 7:IA:50:PHE:HD1 | 1.84 | 0.43 |
| 7:IA:79:ILE:HA | 7:IA:82:VAL:HG22 | 2.01 | 0.43 |
| 7:IA:203:PRO:O | 7:IA:206:LEU:HG | 2.19 | 0.43 |
| 7:IA:276:ASN:OD1 | 7:IA:313:THR:HG22 | 2.18 | 0.43 |
| 7:MA:32:ALA:HB2 | 7:MA:57:GLU:HG2 | 2.01 | 0.43 |
| 7:NA:76:PHE:O | 7:NA:80:ARG:HG2 | 2.19 | 0.43 |
| 7:NA:127:LEU:HB3 | 7:NA:218:ASN:HD21 | 1.84 | 0.43 |
| 7:NA:211:LYS:HA | 7:NA:211:LYS:HD3 | 1.83 | 0.43 |
| 7:OA:249:ALA:O | 7:OA:252:LEU:HG | 2.19 | 0.43 |
| 7:OA:305:GLU:OE1 | 7:OA:305:GLU:N | 2.52 | 0.43 |
| 7:PA:485:ASP:OD1 | 7:PA:485:ASP:N | 2.48 | 0.43 |
| 7:RA:75:GLN:O | 7:RA:78:PRO:HD2 | 2.18 | 0.43 |
| 8:AB:41:ASP:OD1 | 8:AB:42:ILE:N | 2.52 | 0.43 |
| 8:CB:107:VAL:HG13 | 8:CB:137:CYS:HB2 | 2.00 | 0.43 |
| 8:DB:41:ASP:OD1 | 8:DB:42:ILE:N | 2.52 | 0.43 |
| 8:DB:77:ASN:HD22 | 8:DB:165:TRP:CD1 | 2.33 | 0.43 |
| 8:EB:50:GLN:N | 8:EB:50:GLN:OE1 | 2.52 | 0.43 |
| 8:GB:91:GLY:O | 8:GB:94:LEU:HG | 2.19 | 0.43 |
| 8:IB:56:ARG:O | 8:IB:76:ARG:NH2 | 2.51 | 0.43 |
| 8:JB:17:TYR:HA | 8:JB:20:ASN:HD21 | 1.84 | 0.43 |
| 8:JB:26:ARG:NH2 | 8:PB:71:GLN:HB2 | 2.34 | 0.43 |
| 8:KB:32:PHE:O | 8:PB:65:ASN:ND2 | 2.51 | 0.43 |
| 8:KB:87:GLU:OE2 | 8:KB:94:LEU:HD23 | 2.19 | 0.43 |
| 8:NB:127:LYS:HE3 | 8:NB:127:LYS:HB3 | 1.83 | 0.43 |
| 8:PB:29:SER:OG | 8:QB:150:ASP:OD2 | 2.34 | 0.43 |
| 8:QB:130:THR:O | 8:QB:130:THR:HG22 | 2.19 | 0.43 |
| 8:RB:89:ILE:HG13 | 8:RB:90:GLU:N | 2.34 | 0.43 |
| 1:C:142:LEU:HD12 | 1:C:146:LEU:HB2 | 2.00 | 0.42 |
| 1:D:66:ILE:HG13 | 1:D:96:ILE:HD11 | 2.01 | 0.42 |
| 1:D:114:THR:O | 1:D:118:ARG:HG3 | 2.19 | 0.42 |
| 2:G:44:GLN:HG2 | 2:G:46:TRP:CZ3 | 2.54 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 2:H:184:ASN:HB3 | 2:I:122:GLU:OE1 | 2.19 | 0.42 |
| 2:J:44:GLN:HG2 | 2:J:46:TRP:HZ3 | 1.84 | 0.42 |
| 2:J:190:ARG:NH2 | 3:P:88:SER:HB3 | 2.34 | 0.42 |
| 2:K:119:ILE:HD12 | 2:K:151:ILE:HG22 | 2.01 | 0.42 |
| 2:L:44:GLN:HG2 | 2:L:46:TRP:CZ3 | 2.54 | 0.42 |
| 3:M:31:ARG:HA | 3:M:34:GLU:OE2 | 2.19 | 0.42 |
| 3:M:84:ASP:OD1 | 3:M:85:ILE:HG22 | 2.19 | 0.42 |
| 3:N:12:THR:OG1 | 3:N:17:GLY:HA2 | 2.19 | 0.42 |
| 3:R:46:ASP:OD1 | 4:X:66:TYR:OH | 2.27 | 0.42 |
| 4:S:54:LEU:HG | 4:S:55:PRO:HD2 | 2.00 | 0.42 |
| 4:X:32:GLU:O | 4:X:36:GLU:OE1 | 2.37 | 0.42 |
| 4:X:88:SER:HB3 | 6:f:5:TRP:CD1 | 2.53 | 0.42 |
| 5:Y:119:MET:HB3 | 5:Y:138:LEU:HB3 | 2.01 | 0.42 |
| 5:Y:274:GLU:H | 5:Y:274:GLU:CD | 2.26 | 0.42 |
| 5:Z:88:SER:HA | 5:Z:136:ALA:HA | 2.01 | 0.42 |
| 5:Z:427:LYS:NZ | 5:6:442:ARG:O | 2.52 | 0.42 |
| 5:0:194:LYS:C | 5:0:219:GLN:HB2 | 2.43 | 0.42 |
| 5:1:88:SER:HA | 5:1:136:ALA:HA | 2.01 | 0.42 |
| 5:3:428:LYS:HG3 | 5:3:448:PHE:CE2 | 2.54 | 0.42 |
| 5:4:309:GLY:O | 5:4:343:PRO:HD2 | 2.19 | 0.42 |
| 5:4:387:ILE:O | 5:4:475:GLU:N | 2.38 | 0.42 |
| 5:4:415:PHE:HB3 | 5:4:423:TYR:HD1 | 1.84 | 0.42 |
| 5:5:162:LEU:O | 5:5:166:CYS:HB3 | 2.19 | 0.42 |
| 5:6:41:ILE:HA | 5:6:44:ILE:HG12 | 2.01 | 0.42 |
| 5:6:84:PRO:HB3 | 5:6:272:ASP:HA | 2.00 | 0.42 |
| 5:6:90:MET:SD | 5:6:132:THR:HB | 2.59 | 0.42 |
| 5:7:304:VAL:HA | 5:7:310:LEU:HD12 | 2.01 | 0.42 |
| 5:8:335:LYS:HD3 | 5:8:368:LYS:HB2 | 2.02 | 0.42 |
| 5:9:171:VAL:HB | 5:9:182:TRP:O | 2.19 | 0.42 |
| 5:9:335:LYS:HD3 | 5:9:368:LYS:HB2 | 2.01 | 0.42 |
| 6:b:119:VAL:HG22 | 6:b:147:PHE:CE2 | 2.54 | 0.42 |
| 6:c:37:PRO:HG2 | 6:c:38:TRP:CE3 | 2.53 | 0.42 |
| 6:e:58:THR:O | 6:e:62:GLU:HG3 | 2.19 | 0.42 |
| 6:e:76:SER:CB | 6:e:79:MET:HE2 | 2.48 | 0.42 |
| 7:g:45:ALA:HB3 | 7:g:65:GLY:HA3 | 2.01 | 0.42 |
| 7:g:84:GLU:OE2 | 7:g:348:VAL:HG13 | 2.19 | 0.42 |
| 7:g:395:GLU:HG2 | 7:g:396:ALA:N | 2.34 | 0.42 |
| 7:g:528:ILE:HG13 | 7:h:27:LEU:HD21 | 2.01 | 0.42 |
| 7:i:408:GLY:HA3 | 7:i:412:GLN:NE2 | 2.34 | 0.42 |
| 7:j:292:ASP:OD1 | 7:j:293:GLY:N | 2.51 | 0.42 |
| 7:k:41:ILE:HD12 | 7:k:94:VAL:O | 2.18 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:k:84:GLU:OE2 | 7:k:348:VAL:HG13 | 2.19 | 0.42 |
| 7:k:335:LYS:HD2 | 7:k:336:TRP:CH2 | 2.54 | 0.42 |
| 7:l:408:GLY:HA3 | 7:l:412:GLN:NE2 | 2.34 | 0.42 |
| 7:m:230:LYS:HB3 | 7:m:233:LEU:HD21 | 2.01 | 0.42 |
| 7:m:464:THR:O | 7:m:468:THR:HG23 | 2.18 | 0.42 |
| 7:o:56:THR:N | 7:o:59:ASN:OD1 | 2.51 | 0.42 |
| 7:o:198:ARG:HB3 | 7:o:209:ARG:NH2 | 2.34 | 0.42 |
| 7:p:211:LYS:HA | 7:p:211:LYS:HD3 | 1.87 | 0.42 |
| 7:q:198:ARG:HB3 | 7:q:209:ARG:NH2 | 2.34 | 0.42 |
| 7:q:249:ALA:O | 7:q:252:LEU:HG | 2.19 | 0.42 |
| 7:q:447:LEU:O | 7:q:450:GLN:HG3 | 2.19 | 0.42 |
| 7:r:144:ILE:HA | 7:r:147:THR:HG22 | 2.00 | 0.42 |
| 7:r:340:ARG:HD2 | 7:r:340:ARG:HA | 1.81 | 0.42 |
| 7:r:447:LEU:O | 7:r:450:GLN:HG3 | 2.19 | 0.42 |
| 7:AA:500:GLN:HB2 | 7:AA:506:TRP:CD2 | 2.54 | 0.42 |
| 7:CA:330:PHE:CD1 | 7:CA:385:PRO:HA | 2.54 | 0.42 |
| 7:DA:331:SER:OG | 7:DA:384:GLN:NE2 | 2.31 | 0.42 |
| 7:EA:448:ALA:HB1 | 7:KA:521:ILE:HD12 | 2.00 | 0.42 |
| 7:FA:328:TYR:CE2 | 7:FA:330:PHE:HB2 | 2.53 | 0.42 |
| 7:FA:330:PHE:CD1 | 7:FA:385:PRO:HA | 2.54 | 0.42 |
| 7:HA:406:SER:OG | 7:HA:407:VAL:N | 2.52 | 0.42 |
| 7:JA:60:TYR:CG | 7:JA:61:GLU:N | 2.87 | 0.42 |
| 7:JA:366:TRP:HB3 | 7:JA:435:SER:HB2 | 2.01 | 0.42 |
| 7:KA:151:THR:HB | 7:KA:168:LYS:HE3 | 2.01 | 0.42 |
| 7:LA:444:PHE:HE2 | 7:LA:510:TRP:CZ2 | 2.37 | 0.42 |
| 7:NA:42:GLY:HA3 | 7:NA:44:PHE:HE2 | 1.84 | 0.42 |
| 7:NA:493:PRO:O | 7:NA:512:CYS:HA | 2.19 | 0.42 |
| 7:OA:136:TYR:CZ | 7:OA:214:ARG:HB2 | 2.54 | 0.42 |
| 7:OA:307:LEU:HD11 | 7:OA:396:ALA:HB1 | 2.01 | 0.42 |
| 7:OA:527:LEU:HD21 | 7:PA:23:ALA:HB2 | 2.01 | 0.42 |
| 7:PA:305:GLU:OE1 | 7:PA:305:GLU:N | 2.52 | 0.42 |
| 7:QA:42:GLY:HA3 | 7:QA:44:PHE:HE2 | 1.84 | 0.42 |
| 7:QA:44:PHE:CD1 | 7:QA:79:ILE:HG22 | 2.53 | 0.42 |
| 7:QA:166:LEU:HB3 | 7:QA:185:THR:HG22 | 1.99 | 0.42 |
| 7:QA:307:LEU:HD11 | 7:QA:396:ALA:HB1 | 2.01 | 0.42 |
| 8:AB:107:VAL:HG13 | 8:AB:137:CYS:HB2 | 2.00 | 0.42 |
| 8:FB:41:ASP:OD1 | 8:FB:42:ILE:N | 2.52 | 0.42 |
| 8:GB:17:TYR:HA | 8:GB:20:ASN:HD21 | 1.84 | 0.42 |
| 8:GB:51:ILE:HG23 | 8:HB:146:PHE:CD1 | 2.54 | 0.42 |
| 8:IB:48:THR:H | 8:IB:84:GLN:HB3 | 1.83 | 0.42 |
| 8:JB:55:THR:HB | 8:JB:76:ARG:NH2 | 2.26 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 8:JB:92:ASP:O | 8:JB:95:GLN:HG3 | 2.19 | 0.42 |
| 8:KB:45:LEU:HD12 | 8:KB:86:VAL:O | 2.19 | 0.42 |
| 8:KB:47:ARG:NH2 | 8:PB:64:PRO:HG3 | 2.34 | 0.42 |
| 8:NB:68:LYS:CE | 8:OB:76:ARG:HH22 | 2.32 | 0.42 |
| 8:QB:26:ARG:NE | 8:QB:26:ARG:HA | 2.33 | 0.42 |
| 8:QB:149:GLU:O | 8:QB:151:VAL:N | 2.52 | 0.42 |
| 1:B:103:THR:OG1 | 1:B:104:VAL:N | 2.52 | 0.42 |
| 1:F:66:ILE:HG13 | 1:F:96:ILE:HD11 | 2.01 | 0.42 |
| 2:L:111:ALA:O | 2:L:115:LEU:HG | 2.20 | 0.42 |
| 3:P:115:ASP:OD2 | 7:j:524:VAL:HG12 | 2.19 | 0.42 |
| 4:W:31:ALA:O | 4:W:35:LYS:HG2 | 2.19 | 0.42 |
| 5:Y:1:MET:HG2 | 6:a:33:THR:OG1 | 2.19 | 0.42 |
| 5:Y:355:LEU:O | 5:Y:359:LYS:HG3 | 2.19 | 0.42 |
| 5:Y:413:THR:HG23 | 5:Y:419:ARG:NH2 | 2.33 | 0.42 |
| 5:Y:427:LYS:NZ | 5:5:442:ARG:O | 2.52 | 0.42 |
| 5:0:317:GLY:HA2 | 6:c:194:LEU:HD13 | 2.00 | 0.42 |
| 5:3:90:MET:HE3 | 5:3:132:THR:HB | 2.01 | 0.42 |
| 5:4:171:VAL:HB | 5:4:182:TRP:O | 2.19 | 0.42 |
| 5:5:24:PHE:HD2 | 5:5:25:TRP:CE2 | 2.38 | 0.42 |
| 5:6:316:TRP:CE2 | 5:6:457:PHE:HA | 2.54 | 0.42 |
| 5:7:115:GLN:NE2 | 7:j:69:LYS:HG2 | 2.33 | 0.42 |
| 5:7:316:TRP:CE2 | 5:7:457:PHE:HA | 2.54 | 0.42 |
| 5:7:415:PHE:HB3 | 5:7:423:TYR:HD1 | 1.84 | 0.42 |
| 5:8:342:HIS:HB2 | 5:8:350:LEU:HD21 | 2.01 | 0.42 |
| 5:9:274:GLU:OE1 | 5:9:274:GLU:N | 2.50 | 0.42 |
| 6:b:158:ILE:HA | 6:b:161:LEU:HG | 2.02 | 0.42 |
| 6:f:119:VAL:HG22 | 6:f:147:PHE:CE2 | 2.54 | 0.42 |
| 7:i:281:ALA:O | 7:i:285:ILE:HG13 | 2.20 | 0.42 |
| 7:i:355:ARG:HH21 | 7:i:375:ARG:HA | 1.83 | 0.42 |
| 7:i:385:PRO:HG2 | 7:i:388:PRO:HG3 | 2.01 | 0.42 |
| 7:j:327:HIS:HE2 | 7:j:329:PRO:HB3 | 1.84 | 0.42 |
| 7:l:60:TYR:O | 7:l:64:LEU:HB2 | 2.19 | 0.42 |
| 7:l:128:ASP:OD1 | 7:l:128:ASP:N | 2.48 | 0.42 |
| 7:l:367:HIS:NE2 | 7:l:368:TYR:HE1 | 2.17 | 0.42 |
| 7:n:153:GLU:HB2 | 7:n:166:LEU:HD11 | 2.01 | 0.42 |
| 7:n:198:ARG:HB3 | 7:n:209:ARG:NH2 | 2.34 | 0.42 |
| 7:n:460:ALA:O | 7:n:464:THR:HG23 | 2.19 | 0.42 |
| 7:n:505:LYS:O | 7:n:505:LYS:HD3 | 2.19 | 0.42 |
| 7:o:153:GLU:HB2 | 7:o:166:LEU:HD11 | 2.02 | 0.42 |
| 7:p:83:TYR:CE2 | 7:p:335:LYS:HE2 | 2.53 | 0.42 |
| 7:p:386:LEU:HD23 | 7:p:386:LEU:HA | 1.85 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:r:249:ALA:O | 7:r:252:LEU:HG | 2.19 | 0.42 |
| 7:r:519:ARG:HH12 | 7:r:520:ARG:NH1 | 2.17 | 0.42 |
| 7:AA:63:VAL:HG23 | 7:AA:64:LEU:HD22 | 2.01 | 0.42 |
| 7:AA:441:SER:O | 7:AA:445:VAL:HG23 | 2.19 | 0.42 |
| 7:AA:460:ALA:O | 7:AA:463:LEU:HG | 2.18 | 0.42 |
| 7:CA:353:LYS:NZ | 7:CA:370:PRO:HD3 | 2.34 | 0.42 |
| 7:CA:471:LEU:HA | 7:CA:474:PHE:CD1 | 2.54 | 0.42 |
| 7:DA:80:ARG:HE | 7:DA:84:GLU:HG3 | 1.84 | 0.42 |
| 7:FA:63:VAL:HG23 | 7:FA:64:LEU:HD22 | 2.01 | 0.42 |
| 7:GA:443:PHE:HA | 7:GA:446:GLN:OE1 | 2.19 | 0.42 |
| 7:HA:60:TYR:CG | 7:HA:61:GLU:N | 2.87 | 0.42 |
| 7:HA:82:VAL:O | 7:HA:86:ILE:HB | 2.19 | 0.42 |
| 7:IA:60:TYR:CG | 7:IA:61:GLU:N | 2.87 | 0.42 |
| 7:IA:436:LEU:HD12 | 7:IA:437:MET:N | 2.35 | 0.42 |
| 7:KA:52:VAL:HA | 7:KA:94:VAL:HG22 | 2.01 | 0.42 |
| 7:KA:111:SER:HA | 7:KA:226:LYS:NZ | 2.34 | 0.42 |
| 7:LA:390:ASP:OD1 | 7:LA:391:THR:N | 2.52 | 0.42 |
| 7:LA:452:LYS:C | 7:LA:454:SER:H | 2.27 | 0.42 |
| 7:LA:475:VAL:HG12 | 7:LA:480:LEU:HB3 | 2.01 | 0.42 |
| 7:MA:432:HIS:CD2 | 7:MA:517:VAL:HG11 | 2.54 | 0.42 |
| 7:NA:368:TYR:HB3 | 7:NA:375:ARG:HH22 | 1.84 | 0.42 |
| 7:NA:469:LYS:HB3 | 7:NA:473:ARG:NH1 | 2.33 | 0.42 |
| 7:OA:127:LEU:HB3 | 7:OA:218:ASN:HD21 | 1.84 | 0.42 |
| 7:OA:377:VAL:HG22 | 7:OA:414:ILE:HG22 | 2.00 | 0.42 |
| 7:RA:307:LEU:HD11 | 7:RA:396:ALA:HB1 | 2.00 | 0.42 |
| 8:AB:26:ARG:CZ | 8:AB:27:LEU:H | 2.30 | 0.42 |
| 8:CB:50:GLN:OE1 | 8:CB:50:GLN:N | 2.52 | 0.42 |
| 8:EB:41:ASP:OD1 | 8:EB:42:ILE:N | 2.52 | 0.42 |
| 8:HB:26:ARG:NH1 | 8:NB:71:GLN:HE21 | 2.17 | 0.42 |
| 8:HB:91:GLY:O | 8:HB:94:LEU:HG | 2.19 | 0.42 |
| 8:KB:9:ASN:OD1 | 8:KB:12:PHE:HD2 | 2.03 | 0.42 |
| 8:KB:48:THR:H | 8:KB:84:GLN:HB3 | 1.82 | 0.42 |
| 8:KB:91:GLY:O | 8:KB:94:LEU:HG | 2.19 | 0.42 |
| 8:LB:57:GLU:OE1 | 8:LB:57:GLU:N | 2.46 | 0.42 |
| 8:MB:87:GLU:CD | 8:RB:27:LEU:HG | 2.45 | 0.42 |
| 8:PB:60:GLU:HG2 | 8:PB:70:ASN:HB2 | 2.01 | 0.42 |
| 1:B:62:PHE:C | 1:B:100:VAL:HG23 | 2.44 | 0.42 |
| 1:B:64:LYS:HZ3 | 1:B:99:MET:HG3 | 1.84 | 0.42 |
| 1:B:70:ASP:OD1 | 1:B:71:TYR:N | 2.40 | 0.42 |
| 1:C:37:ILE:HD13 | 1:C:40:LYS:HZ2 | 1.84 | 0.42 |
| 1:E:193:LEU:HB2 | 1:E:199:PHE:CE2 | 2.54 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:F:64:LYS:HG2 | 1:F:99:MET:O | 2.19 | 0.42 |
| 2:I:18:TYR:HE2 | 2:I:143:ARG:NE | 2.16 | 0.42 |
| 2:I:111:ALA:O | 2:I:115:LEU:HG | 2.20 | 0.42 |
| 2:I:190:ARG:NH2 | 3:O:88:SER:HB3 | 2.34 | 0.42 |
| 2:J:9:TYR:CZ | 3:P:65:HIS:CD2 | 3.08 | 0.42 |
| 2:J:9:TYR:CE1 | 3:P:65:HIS:HB2 | 2.54 | 0.42 |
| 2:K:44:GLN:HG2 | 2:K:46:TRP:HZ3 | 1.84 | 0.42 |
| 2:L:90:PRO:HG2 | 2:L:179:GLY:HA3 | 2.01 | 0.42 |
| 3:M:75:LEU:HD12 | 3:M:76:GLN:N | 2.34 | 0.42 |
| 4:S:85:GLU:HG2 | 5:4:51:TYR:OH | 2.19 | 0.42 |
| 4:W:68:MET:HB2 | 4:W:69:TRP:CZ3 | 2.54 | 0.42 |
| 5:Z:331:GLN:HG2 | 5:Z:332:ASN:N | 2.34 | 0.42 |
| 5:1:158:LEU:HB2 | 5:1:208:LEU:HB2 | 2.01 | 0.42 |
| 5:2:7:THR:O | 5:2:11:ILE:HG12 | 2.19 | 0.42 |
| 5:3:142:GLU:OE2 | 5:3:228:THR:HG23 | 2.19 | 0.42 |
| 5:5:137:GLN:OE1 | 5:5:234:THR:OG1 | 2.28 | 0.42 |
| 5:5:171:VAL:HB | 5:5:182:TRP:O | 2.19 | 0.42 |
| 5:5:316:TRP:CE2 | 5:5:457:PHE:HA | 2.54 | 0.42 |
| 5:6:162:LEU:O | 5:6:166:CYS:HB3 | 2.19 | 0.42 |
| 5:7:162:LEU:O | 5:7:166:CYS:HB3 | 2.19 | 0.42 |
| 5:7:335:LYS:HD3 | 5:7:368:LYS:HB2 | 2.01 | 0.42 |
| 5:8:201:PHE:HB2 | 5:8:211:ARG:HG2 | 2.01 | 0.42 |
| 5:9:162:LEU:O | 5:9:166:CYS:HB3 | 2.18 | 0.42 |
| 5:9:415:PHE:HB3 | 5:9:423:TYR:HD1 | 1.84 | 0.42 |
| 6:b:4:SER:OG | 6:b:7:ASN:HB2 | 2.18 | 0.42 |
| 6:d:37:PRO:HG2 | 6:d:38:TRP:CE3 | 2.53 | 0.42 |
| 6:f:58:THR:O | 6:f:62:GLU:HG3 | 2.19 | 0.42 |
| 7:g:41:ILE:HD12 | 7:g:94:VAL:O | 2.19 | 0.42 |
| 7:g:327:HIS:HE2 | 7:g:329:PRO:HB3 | 1.85 | 0.42 |
| 7:h:281:ALA:O | 7:h:284:LYS:HG2 | 2.19 | 0.42 |
| 7:h:335:LYS:HB3 | 7:h:336:TRP:CE3 | 2.55 | 0.42 |
| 7:h:353:LYS:HE2 | 7:h:353:LYS:HA | 2.00 | 0.42 |
| 7:i:108:PHE:HE1 | 7:i:114:PRO:HB3 | 1.84 | 0.42 |
| 7:i:493:PRO:HB2 | 7:i:513:CYS:HB3 | 2.02 | 0.42 |
| 7:j:106:ILE:HG13 | 7:j:235:PHE:CD1 | 2.55 | 0.42 |
| 7:j:335:LYS:HD2 | 7:j:336:TRP:CH2 | 2.55 | 0.42 |
| 7:k:356:GLY:HA2 | 7:k:359:LYS:HZ3 | 1.85 | 0.42 |
| 7:l:41:ILE:HD12 | 7:l:94:VAL:O | 2.18 | 0.42 |
| 7:l:281:ALA:O | 7:l:285:ILE:HG13 | 2.19 | 0.42 |
| 7:l:335:LYS:HD2 | 7:l:336:TRP:CH2 | 2.54 | 0.42 |
| 7:n:230:LYS:HB3 | 7:n:233:LEU:HD21 | 2.01 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:n:331:SER:HA | 7:n:342:VAL:HG22 | 2.01 | 0.42 |
| 7:n:507:GLU:OE1 | 7:n:507:GLU:N | 2.52 | 0.42 |
| 7:o:75:GLN:O | 7:o:78:PRO:HD2 | 2.20 | 0.42 |
| 7:p:331:SER:HA | 7:p:342:VAL:HG22 | 2.01 | 0.42 |
| 7:p:398:VAL:O | 7:p:401:ARG:HD3 | 2.19 | 0.42 |
| 7:q:405:VAL:HG22 | 7:q:413:MET:HE3 | 2.01 | 0.42 |
| 7:q:467:MET:HE2 | 7:q:496:LEU:HB2 | 2.00 | 0.42 |
| 7:q:504:ASP:OD1 | 7:EA:518:ALA:N | 2.52 | 0.42 |
| 7:r:382:SER:OG | 7:r:384:GLN:OE1 | 2.35 | 0.42 |
| 7:r:487:ASP:OD1 | 7:r:487:ASP:N | 2.52 | 0.42 |
| 7:AA:59:ASN:O | 7:AA:63:VAL:HG22 | 2.20 | 0.42 |
| 7:BA:460:ALA:O | 7:BA:463:LEU:HG | 2.18 | 0.42 |
| 7:BA:471:LEU:HB2 | 7:BA:494:TYR:HD2 | 1.83 | 0.42 |
| 7:CA:34:ASN:HB3 | 7:CA:37:LEU:HD21 | 2.00 | 0.42 |
| 7:EA:471:LEU:HA | 7:EA:474:PHE:CD1 | 2.54 | 0.42 |
| 7:FA:311:GLU:HG3 | 7:FA:316:LEU:HD21 | 2.00 | 0.42 |
| 7:FA:471:LEU:HA | 7:FA:474:PHE:CD1 | 2.54 | 0.42 |
| 7:GA:390:ASP:OD1 | 7:GA:391:THR:N | 2.52 | 0.42 |
| 7:IA:82:VAL:O | 7:IA:86:ILE:HB | 2.20 | 0.42 |
| 7:IA:278:ALA:O | 7:IA:282:LEU:HG | 2.19 | 0.42 |
| 7:KA:203:PRO:O | 7:KA:206:LEU:HG | 2.19 | 0.42 |
| 7:KA:297:VAL:HG12 | 7:KA:326:TYR:O | 2.18 | 0.42 |
| 7:KA:433:VAL:HA | 7:KA:436:LEU:HG | 2.00 | 0.42 |
| 7:LA:278:ALA:O | 7:LA:282:LEU:HG | 2.19 | 0.42 |
| 7:MA:46:ARG:NE | 7:MA:140:GLY:O | 2.44 | 0.42 |
| 7:MA:307:LEU:HD11 | 7:MA:396:ALA:HB1 | 2.00 | 0.42 |
| 7:NA:249:ALA:O | 7:NA:252:LEU:HG | 2.18 | 0.42 |
| 7:NA:307:LEU:HD11 | 7:NA:396:ALA:HB1 | 2.01 | 0.42 |
| 7:OA:451:MET:HE3 | 7:OA:454:SER:OG | 2.19 | 0.42 |
| 7:OA:461:ALA:C | 7:OA:465:LYS:HZ3 | 2.27 | 0.42 |
| 7:PA:136:TYR:CE2 | 7:PA:214:ARG:HB2 | 2.54 | 0.42 |
| 7:PA:333:LYS:HD3 | 7:PA:339:SER:O | 2.19 | 0.42 |
| 7:PA:432:HIS:CD2 | 7:PA:517:VAL:HG11 | 2.54 | 0.42 |
| 7:QA:377:VAL:HG22 | 7:QA:414:ILE:HG22 | 2.00 | 0.42 |
| 7:QA:493:PRO:O | 7:QA:512:CYS:HA | 2.19 | 0.42 |
| 7:RA:334:ASP:CB | 7:RA:339:SER:H | 2.32 | 0.42 |
| 8:BB:50:GLN:NE2 | 8:BB:81:ILE:HG23 | 2.35 | 0.42 |
| 8:FB:4:ASN:OD1 | 8:FB:5:ASN:N | 2.53 | 0.42 |
| 8:GB:128:ALA:HA | 8:GB:131:THR:OG1 | 2.18 | 0.42 |
| 8:GB:138:LYS:O | 8:GB:161:ILE:HD12 | 2.20 | 0.42 |
| 8:HB:14:LYS:NZ | 8:OB:165:TRP:HZ2 | 2.16 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 8:IB:138:LYS:O | 8:IB:161:ILE:HD12 | 2.19 | 0.42 |
| 8:IB:140:TYR:HD2 | 8:IB:160:ARG:CZ | 2.32 | 0.42 |
| 8:JB:140:TYR:HD2 | 8:JB:160:ARG:CZ | 2.32 | 0.42 |
| 8:KB:128:ALA:HA | 8:KB:131:THR:OG1 | 2.19 | 0.42 |
| 8:LB:10:ARG:O | 8:LB:13:ILE:HG12 | 2.19 | 0.42 |
| 8:NB:35:THR:HB | 8:NB:40:GLU:HG3 | 2.00 | 0.42 |
| 8:QB:111:MET:O | 8:QB:132:ILE:HG22 | 2.19 | 0.42 |
| 8:RB:118:LYS:HE2 | 8:RB:125:VAL:O | 2.19 | 0.42 |
| 1:A:56:LEU:HD23 | 1:A:56:LEU:HA | 1.93 | 0.42 |
| 1:C:70:ASP:OD1 | 1:C:71:TYR:N | 2.41 | 0.42 |
| 1:D:56:LEU:HD23 | 1:D:56:LEU:HA | 1.93 | 0.42 |
| 2:G:184:ASN:HB3 | 2:H:122:GLU:OE1 | 2.18 | 0.42 |
| 3:Q:115:ASP:OD1 | 3:Q:115:ASP:N | 2.41 | 0.42 |
| 4:S:110:ARG:HG3 | 4:S:114:TYR:CE2 | 2.55 | 0.42 |
| 4:T:49:THR:O | 4:T:98:LYS:HA | 2.19 | 0.42 |
| 4:T:93:VAL:HG11 | 7:h:383:ILE:HG22 | 2.01 | 0.42 |
| 4:U:28:ILE:HD13 | 5:0:68:SER:OG | 2.20 | 0.42 |
| 4:V:100:PRO:CG | 4:V:105:ILE:HD11 | 2.40 | 0.42 |
| 4:W:93:VAL:HG11 | 7:k:383:ILE:HG22 | 2.00 | 0.42 |
| 5:Y:142:GLU:OE2 | 5:Y:228:THR:HG23 | 2.20 | 0.42 |
| 5:Y:187:MET:O | 5:Y:187:MET:SD | 2.77 | 0.42 |
| 5:Z:274:GLU:OE1 | 5:Z:274:GLU:N | 2.43 | 0.42 |
| 5:Z:317:GLY:HA2 | 6:b:194:LEU:HD13 | 2.00 | 0.42 |
| 5:Z:428:LYS:HG3 | 5:Z:448:PHE:CE2 | 2.53 | 0.42 |
| 5:1:40:PHE:CE2 | 5:7:19:VAL:HG12 | 2.54 | 0.42 |
| 5:1:355:LEU:O | 5:1:359:LYS:HG3 | 2.19 | 0.42 |
| 5:3:7:THR:O | 5:3:11:ILE:HG12 | 2.19 | 0.42 |
| 5:3:40:PHE:CE2 | 5:9:19:VAL:HG12 | 2.54 | 0.42 |
| 5:3:88:SER:HA | 5:3:136:ALA:HA | 2.01 | 0.42 |
| 5:3:158:LEU:HB2 | 5:3:208:LEU:HB2 | 2.01 | 0.42 |
| 5:3:355:LEU:O | 5:3:359:LYS:HG3 | 2.18 | 0.42 |
| 5:4:316:TRP:CE2 | 5:4:457:PHE:HA | 2.54 | 0.42 |
| 5:5:40:PHE:HA | 5:5:43:GLN:OE1 | 2.19 | 0.42 |
| 5:5:115:GLN:HE22 | 7:h:69:LYS:HG2 | 1.85 | 0.42 |
| 5:5:396:VAL:O | 5:5:400:LEU:HD23 | 2.19 | 0.42 |
| 5:5:415:PHE:HB3 | 5:5:423:TYR:HD1 | 1.84 | 0.42 |
| 5:6:45:VAL:HB | 5:6:49:PHE:CE2 | 2.54 | 0.42 |
| 5:6:386:ARG:HB3 | 5:6:474:TYR:C | 2.43 | 0.42 |
| 5:7:175:THR:HG22 | 5:7:225:SER:HB2 | 2.01 | 0.42 |
| 5:8:316:TRP:CE2 | 5:8:457:PHE:HA | 2.54 | 0.42 |
| 5:9:115:GLN:NE2 | 7:l:69:LYS:HG2 | 2.34 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:a:116:TYR:OH | 6:a:133:GLU:OE2 | 2.32 | 0.42 |
| 6:a:158:ILE:HA | 6:a:161:LEU:HG | 2.01 | 0.42 |
| 6:b:84:ARG:HG3 | 6:b:99:GLN:HE22 | 1.83 | 0.42 |
| 7:g:108:PHE:HE1 | 7:g:114:PRO:HB3 | 1.84 | 0.42 |
| 7:h:408:GLY:HA3 | 7:h:412:GLN:NE2 | 2.34 | 0.42 |
| 7:i:353:LYS:HE2 | 7:i:353:LYS:HA | 2.00 | 0.42 |
| 7:i:373:GLU:OE1 | 7:i:373:GLU:N | 2.43 | 0.42 |
| 7:i:512:CYS:SG | 7:i:513:CYS:N | 2.92 | 0.42 |
| 7:j:355:ARG:HH21 | 7:j:375:ARG:HA | 1.83 | 0.42 |
| 7:k:103:PHE:HB3 | 7:k:121:TYR:CZ | 2.53 | 0.42 |
| 7:k:106:ILE:HG13 | 7:k:235:PHE:CD1 | 2.55 | 0.42 |
| 7:k:281:ALA:O | 7:k:284:LYS:HG2 | 2.19 | 0.42 |
| 7:k:327:HIS:HE2 | 7:k:329:PRO:HB3 | 1.84 | 0.42 |
| 7:k:367:HIS:NE2 | 7:k:368:TYR:HE1 | 2.18 | 0.42 |
| 7:k:432:HIS:O | 7:k:436:LEU:HG | 2.18 | 0.42 |
| 7:m:331:SER:HA | 7:m:342:VAL:HG22 | 2.01 | 0.42 |
| 7:n:33:LEU:HD23 | 7:n:33:LEU:H | 1.84 | 0.42 |
| 7:p:102:LYS:NZ | 7:p:120:PRO:HD3 | 2.31 | 0.42 |
| 7:p:153:GLU:HB2 | 7:p:166:LEU:HD11 | 2.01 | 0.42 |
| 7:p:469:LYS:O | 7:p:472:ASP:HB2 | 2.18 | 0.42 |
| 7:q:331:SER:HA | 7:q:342:VAL:HG22 | 2.02 | 0.42 |
| 7:r:98:PRO:HG2 | 7:r:242:ASP:O | 2.19 | 0.42 |
| 7:AA:190:GLU:O | 7:GA:69:LYS:NZ | 2.52 | 0.42 |
| 7:AA:333:LYS:HB2 | 7:AA:382:SER:HB3 | 2.01 | 0.42 |
| 7:BA:333:LYS:HB2 | 7:BA:382:SER:HB3 | 2.02 | 0.42 |
| 7:CA:389:GLU:OE1 | 7:CA:389:GLU:N | 2.47 | 0.42 |
| 7:DA:333:LYS:HB2 | 7:DA:382:SER:HB3 | 2.01 | 0.42 |
| 7:EA:352:ALA:HA | 7:EA:355:ARG:HE | 1.84 | 0.42 |
| 7:EA:427:TYR:HD1 | 7:EA:430:PHE:HE2 | 1.67 | 0.42 |
| 7:FA:230:LYS:C | 7:FA:231:LYS:HD3 | 2.45 | 0.42 |
| 7:GA:366:TRP:HB3 | 7:GA:435:SER:HB2 | 2.02 | 0.42 |
| 7:HA:353:LYS:HD2 | 7:HA:353:LYS:HA | 1.76 | 0.42 |
| 7:HA:451:MET:O | 7:HA:454:SER:OG | 2.23 | 0.42 |
| 7:IA:441:SER:O | 7:IA:445:VAL:HG23 | 2.19 | 0.42 |
| 7:KA:475:VAL:HG12 | 7:KA:480:LEU:HB3 | 2.01 | 0.42 |
| 7:LA:60:TYR:CG | 7:LA:61:GLU:N | 2.87 | 0.42 |
| 7:LA:105:ILE:HG13 | 7:LA:135:ILE:O | 2.19 | 0.42 |
| 7:LA:470:LEU:HB2 | 7:LA:473:ARG:NH1 | 2.35 | 0.42 |
| 7:MA:16:VAL:HA | 7:RA:521:ILE:HD11 | 2.01 | 0.42 |
| 7:MA:136:TYR:CZ | 7:MA:214:ARG:HB2 | 2.54 | 0.42 |
| 7:MA:342:VAL:HG21 | 7:MA:386:LEU:HD11 | 2.02 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:MA:352:ALA:CB | 7:MA:370:PRO:HB3 | 2.49 | 0.42 |
| 7:MA:377:VAL:HG22 | 7:MA:414:ILE:HG22 | 2.02 | 0.42 |
| 7:NA:207:GLU:HA | 7:NA:214:ARG:NH1 | 2.34 | 0.42 |
| 7:PA:207:GLU:HA | 7:PA:214:ARG:NH1 | 2.34 | 0.42 |
| 7:PA:362:ASP:OD1 | 7:PA:362:ASP:N | 2.52 | 0.42 |
| 7:QA:136:TYR:CE2 | 7:QA:214:ARG:HB2 | 2.54 | 0.42 |
| 7:QA:207:GLU:HA | 7:QA:214:ARG:NH1 | 2.34 | 0.42 |
| 7:QA:405:VAL:HG23 | 7:QA:415:ILE:CA | 2.47 | 0.42 |
| 7:RA:249:ALA:O | 7:RA:252:LEU:HG | 2.19 | 0.42 |
| 8:AB:165:TRP:HZ3 | 8:AB:167:GLU:HB2 | 1.84 | 0.42 |
| 8:FB:16:ARG:NH2 | 8:LB:64:PRO:HG2 | 2.34 | 0.42 |
| 8:FB:36:PHE:HD2 | 8:FB:39:HIS:HB2 | 1.84 | 0.42 |
| 8:GB:46:VAL:O | 8:GB:47:ARG:NH2 | 2.53 | 0.42 |
| 8:GB:140:TYR:HD2 | 8:GB:160:ARG:CZ | 2.32 | 0.42 |
| 8:JB:51:ILE:HG23 | 8:KB:146:PHE:CD1 | 2.54 | 0.42 |
| 8:LB:92:ASP:O | 8:LB:95:GLN:HG3 | 2.19 | 0.42 |
| 8:MB:35:THR:HB | 8:MB:40:GLU:HG3 | 2.00 | 0.42 |
| 8:MB:61:ASP:O | 8:MB:68:LYS:HG2 | 2.20 | 0.42 |
| 8:MB:166:ILE:HG22 | 8:MB:168:TRP:HD1 | 1.84 | 0.42 |
| 8:NB:54:MET:HE3 | 8:OB:97:ILE:HB | 2.01 | 0.42 |
| 8:NB:149:GLU:O | 8:NB:151:VAL:N | 2.52 | 0.42 |
| 8:OB:36:PHE:HD1 | 8:OB:109:ILE:HD12 | 1.83 | 0.42 |
| 8:PB:85:CYS:O | 8:PB:157:PRO:HD2 | 2.19 | 0.42 |
| 1:E:103:THR:OG1 | 1:E:104:VAL:N | 2.52 | 0.42 |
| 2:G:145:ASN:ND2 | 3:M:75:LEU:HD11 | 2.33 | 0.42 |
| 2:G:190:ARG:NH2 | 3:M:88:SER:HB3 | 2.34 | 0.42 |
| 2:J:18:TYR:CE2 | 2:K:166:GLY:HA3 | 2.54 | 0.42 |
| 3:N:115:ASP:OD1 | 3:N:115:ASP:N | 2.41 | 0.42 |
| 3:O:84:ASP:OD1 | 3:O:85:ILE:HG22 | 2.19 | 0.42 |
| 3:Q:39:TYR:CE1 | 7:l:6:ILE:HD11 | 2.54 | 0.42 |
| 4:S:45:ASP:HA | 5:9:27:LYS:HD2 | 2.02 | 0.42 |
| 4:T:31:ALA:O | 4:T:35:LYS:HG2 | 2.19 | 0.42 |
| 4:X:52:TYR:CE2 | 7:l:333:LYS:HE3 | 2.55 | 0.42 |
| 5:Y:158:LEU:HB2 | 5:Y:208:LEU:HB2 | 2.01 | 0.42 |
| 5:Y:384:THR:HA | 5:Y:471:ASN:HB2 | 2.01 | 0.42 |
| 5:Z:47:ARG:NH2 | 5:5:6:PRO:HD3 | 2.34 | 0.42 |
| 5:Z:158:LEU:HB2 | 5:Z:208:LEU:HB2 | 2.01 | 0.42 |
| 5:0:40:PHE:CE2 | 5:6:19:VAL:HG12 | 2.54 | 0.42 |
| 5:0:76:THR:HG23 | 5:6:61:ILE:HD13 | 2.01 | 0.42 |
| 5:1:178:LYS:HA | 5:1:178:LYS:HD3 | 1.86 | 0.42 |
| 5:1:187:MET:SD | 5:1:187:MET:O | 2.77 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 5:1:194:LYS:C | 5:1:219:GLN:HB2 | 2.43 | 0.42 |
| 5:3:47:ARG:HA | 5:3:50:GLN:OE1 | 2.18 | 0.42 |
| 5:6:189:ARG:HG3 | 5:6:190:LEU:HG | 2.01 | 0.42 |
| 5:7:277:GLU:HG2 | 5:7:278:ILE:N | 2.34 | 0.42 |
| 5:7:396:VAL:O | 5:7:400:LEU:HD23 | 2.20 | 0.42 |
| 5:8:122:ASP:HB2 | 5:8:133:VAL:HG23 | 2.01 | 0.42 |
| 5:8:171:VAL:HB | 5:8:182:TRP:O | 2.19 | 0.42 |
| 5:8:309:GLY:O | 5:8:343:PRO:HD2 | 2.19 | 0.42 |
| 5:9:304:VAL:HA | 5:9:310:LEU:HD12 | 2.01 | 0.42 |
| 6:b:58:THR:O | 6:b:62:GLU:HG3 | 2.19 | 0.42 |
| 6:c:32:ASP:HA | 6:c:36:ASP:OD2 | 2.19 | 0.42 |
| 6:d:58:THR:O | 6:d:62:GLU:HG3 | 2.19 | 0.42 |
| 6:d:114:PRO:HA | 6:d:152:GLY:HA3 | 2.01 | 0.42 |
| 6:f:84:ARG:HG3 | 6:f:99:GLN:HE22 | 1.83 | 0.42 |
| 7:g:81:HIS:HE2 | 7:g:344:GLY:H | 1.66 | 0.42 |
| 7:i:146:PRO:HG2 | 7:i:148:ARG:NH1 | 2.35 | 0.42 |
| 7:i:184:HIS:CD2 | 7:i:209:ARG:HD2 | 2.55 | 0.42 |
| 7:i:508:VAL:HG13 | 7:i:510:TRP:HZ3 | 1.84 | 0.42 |
| 7:j:28:SER:OG | 7:j:62:ASP:OD2 | 2.37 | 0.42 |
| 7:k:335:LYS:HB3 | 7:k:336:TRP:CE3 | 2.55 | 0.42 |
| 7:l:327:HIS:HE2 | 7:l:329:PRO:HB3 | 1.84 | 0.42 |
| 7:n:36:SER:O | 7:n:38:TRP:HD1 | 2.03 | 0.42 |
| 7:o:230:LYS:HB3 | 7:o:233:LEU:HD21 | 2.01 | 0.42 |
| 7:o:249:ALA:O | 7:o:252:LEU:HG | 2.19 | 0.42 |
| 7:p:75:GLN:O | 7:p:78:PRO:HD2 | 2.20 | 0.42 |
| 7:q:371:ALA:HA | 7:q:376:ALA:HB2 | 2.00 | 0.42 |
| 7:r:153:GLU:HB2 | 7:r:166:LEU:HD11 | 2.02 | 0.42 |
| 7:BA:230:LYS:C | 7:BA:231:LYS:HD3 | 2.45 | 0.42 |
| 7:BA:433:VAL:HA | 7:BA:436:LEU:CD2 | 2.50 | 0.42 |
| 7:EA:386:LEU:HD23 | 7:EA:386:LEU:HA | 1.87 | 0.42 |
| 7:EA:452:LYS:HD2 | 7:LA:16:VAL:HG23 | 2.01 | 0.42 |
| 7:FA:452:LYS:HD2 | 7:GA:16:VAL:HG23 | 2.01 | 0.42 |
| 7:GA:443:PHE:HA | 7:GA:446:GLN:CD | 2.45 | 0.42 |
| 7:HA:203:PRO:O | 7:HA:206:LEU:HG | 2.19 | 0.42 |
| 7:HA:436:LEU:HD12 | 7:HA:437:MET:N | 2.35 | 0.42 |
| 7:IA:52:VAL:HA | 7:IA:94:VAL:HG22 | 2.01 | 0.42 |
| 7:JA:79:ILE:HA | 7:JA:82:VAL:HG22 | 2.02 | 0.42 |
| 7:JA:443:PHE:HA | 7:JA:446:GLN:CD | 2.44 | 0.42 |
| 7:LA:326:TYR:HE1 | 7:LA:415:ILE:HD13 | 1.84 | 0.42 |
| 7:NA:108:PHE:CE1 | 7:NA:114:PRO:HB3 | 2.50 | 0.42 |
| 7:NA:334:ASP:CB | 7:NA:339:SER:H | 2.32 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:OA:207:GLU:HA | 7:OA:214:ARG:NH1 | 2.34 | 0.42 |
| 7:PA:500:GLN:HE21 | 7:PA:502:GLU:N | 2.16 | 0.42 |
| 7:QA:305:GLU:OE1 | 7:QA:305:GLU:N | 2.52 | 0.42 |
| 7:QA:386:LEU:HD23 | 7:QA:386:LEU:HA | 1.88 | 0.42 |
| 7:QA:412:GLN:HG2 | 7:QA:414:ILE:HG23 | 2.02 | 0.42 |
| 7:RA:207:GLU:HA | 7:RA:214:ARG:NH1 | 2.34 | 0.42 |
| 7:RA:352:ALA:CB | 7:RA:370:PRO:HB3 | 2.49 | 0.42 |
| 7:RA:432:HIS:CD2 | 7:RA:517:VAL:HG11 | 2.54 | 0.42 |
| 7:RA:470:LEU:HD12 | 7:RA:471:LEU:N | 2.34 | 0.42 |
| 8:BB:56:ARG:NH1 | 8:BB:57:GLU:O | 2.43 | 0.42 |
| 8:EB:107:VAL:HG13 | 8:EB:137:CYS:HB2 | 2.00 | 0.42 |
| 8:FB:136:ASP:HB3 | 8:FB:164:ASN:HB2 | 2.01 | 0.42 |
| 8:GB:48:THR:H | 8:GB:84:GLN:HB3 | 1.84 | 0.42 |
| 8:HB:9:ASN:OD1 | 8:HB:12:PHE:HD2 | 2.02 | 0.42 |
| 8:IB:128:ALA:HA | 8:IB:131:THR:OG1 | 2.19 | 0.42 |
| 8:KB:47:ARG:HG2 | 8:KB:85:CYS:HA | 2.01 | 0.42 |
| 8:PB:89:ILE:HG13 | 8:PB:90:GLU:N | 2.34 | 0.42 |
| 1:A:119:VAL:HG22 | 1:A:132:TYR:CD1 | 2.55 | 0.42 |
| 1:D:127:ASN:HB3 | 1:D:131:GLN:HE21 | 1.84 | 0.42 |
| 1:F:127:ASN:HB3 | 1:F:131:GLN:HE21 | 1.84 | 0.42 |
| 1:F:193:LEU:HB2 | 1:F:199:PHE:CE2 | 2.54 | 0.42 |
| 2:G:44:GLN:HG2 | 2:G:46:TRP:HZ3 | 1.84 | 0.42 |
| 2:G:104:PRO:HB2 | 2:G:167:TYR:HB3 | 2.01 | 0.42 |
| 2:G:111:ALA:O | 2:G:115:LEU:HG | 2.20 | 0.42 |
| 2:K:44:GLN:HG3 | 2:K:84:TRP:NE1 | 2.21 | 0.42 |
| 2:K:184:ASN:HB3 | 2:L:122:GLU:OE1 | 2.19 | 0.42 |
| 2:L:119:ILE:HD12 | 2:L:151:ILE:HG22 | 2.02 | 0.42 |
| 3:O:61:THR:HG22 | 3:O:118:LEU:HB2 | 2.02 | 0.42 |
| 3:O:115:ASP:OD1 | 3:O:115:ASP:N | 2.41 | 0.42 |
| 3:R:115:ASP:OD2 | 7:l:524:VAL:HG12 | 2.19 | 0.42 |
| 4:T:58:GLN:HG3 | 4:T:89:GLN:O | 2.20 | 0.42 |
| 4:U:59:TYR:CE2 | 6:c:8:HIS:HB2 | 2.54 | 0.42 |
| 4:V:75:ARG:HD3 | 5:7:46:TYR:CZ | 2.55 | 0.42 |
| 4:V:77:VAL:O | 4:V:80:LEU:HG | 2.19 | 0.42 |
| 4:W:60:ARG:CG | 6:e:9:ARG:HD3 | 2.50 | 0.42 |
| 4:W:62:ASP:HB3 | 4:W:75:ARG:CB | 2.47 | 0.42 |
| 5:Z:90:MET:HE3 | 5:Z:132:THR:HB | 2.01 | 0.42 |
| 5:Z:387:ILE:N | 5:Z:473:SER:O | 2.48 | 0.42 |
| 5:1:3:LYS:HZ3 | 5:1:56:LEU:HD11 | 1.84 | 0.42 |
| 5:2:90:MET:HE3 | 5:2:132:THR:HB | 2.01 | 0.42 |
| 5:3:294:VAL:HG21 | 6:f:91:LYS:NZ | 2.35 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 5:4:10:SER:OG | 5:4:11:ILE:N | 2.53 | 0.42 |
| 5:4:42:THR:HA | 5:4:45:VAL:HG22 | 2.01 | 0.42 |
| 5:4:175:THR:HG22 | 5:4:225:SER:HB2 | 2.01 | 0.42 |
| 5:4:441:PHE:C | 5:4:442:ARG:HH11 | 2.28 | 0.42 |
| 5:6:335:LYS:HD3 | 5:6:368:LYS:HB2 | 2.01 | 0.42 |
| 5:7:95:ALA:HB2 | 5:7:126:LEU:HD13 | 2.01 | 0.42 |
| 5:7:171:VAL:HB | 5:7:182:TRP:O | 2.19 | 0.42 |
| 5:9:42:THR:HA | 5:9:45:VAL:HG22 | 2.01 | 0.42 |
| 5:9:316:TRP:CE2 | 5:9:457:PHE:HA | 2.54 | 0.42 |
| 6:e:37:PRO:HG2 | 6:e:38:TRP:CE3 | 2.53 | 0.42 |
| 6:e:116:TYR:CE2 | 6:e:148:LEU:HD13 | 2.54 | 0.42 |
| 7:g:69:LYS:HE2 | 7:g:337:THR:HG21 | 2.02 | 0.42 |
| 7:h:84:GLU:OE2 | 7:h:348:VAL:HG13 | 2.19 | 0.42 |
| 7:h:355:ARG:HH21 | 7:h:375:ARG:HA | 1.83 | 0.42 |
| 7:j:84:GLU:OE2 | 7:j:348:VAL:HG13 | 2.19 | 0.42 |
| 7:l:45:ALA:HB3 | 7:l:65:GLY:HA3 | 2.01 | 0.42 |
| 7:l:330:PHE:HB3 | 7:l:383:ILE:HD11 | 2.02 | 0.42 |
| 7:m:33:LEU:HD23 | 7:m:33:LEU:H | 1.84 | 0.42 |
| 7:n:276:ASN:O | 7:n:280:THR:HG23 | 2.20 | 0.42 |
| 7:o:108:PHE:HB2 | 7:o:133:PHE:CE1 | 2.55 | 0.42 |
| 7:o:289:ARG:O | 7:o:291:ILE:HG23 | 2.20 | 0.42 |
| 7:o:447:LEU:O | 7:o:450:GLN:HG3 | 2.19 | 0.42 |
| 7:o:469:LYS:O | 7:o:472:ASP:HB2 | 2.19 | 0.42 |
| 7:o:519:ARG:HH12 | 7:o:520:ARG:NH1 | 2.17 | 0.42 |
| 7:q:33:LEU:H | 7:q:33:LEU:HD23 | 1.84 | 0.42 |
| 7:q:38:TRP:NE1 | 7:q:89:THR:HG23 | 2.34 | 0.42 |
| 7:q:153:GLU:HB2 | 7:q:166:LEU:HD11 | 2.01 | 0.42 |
| 7:r:75:GLN:O | 7:r:78:PRO:HD2 | 2.20 | 0.42 |
| 7:AA:230:LYS:C | 7:AA:231:LYS:HD3 | 2.45 | 0.42 |
| 7:AA:471:LEU:HA | 7:AA:474:PHE:CD1 | 2.54 | 0.42 |
| 7:CA:471:LEU:HB2 | 7:CA:494:TYR:HD2 | 1.83 | 0.42 |
| 7:DA:63:VAL:HG23 | 7:DA:64:LEU:HD22 | 2.01 | 0.42 |
| 7:DA:275:ASP:O | 7:DA:279:ILE:HG12 | 2.19 | 0.42 |
| 7:DA:452:LYS:HD2 | 7:KA:16:VAL:HG23 | 2.02 | 0.42 |
| 7:DA:520:ARG:NH1 | 7:DA:522:GLN:HB3 | 2.33 | 0.42 |
| 7:EA:264:MET:HE2 | 7:EA:264:MET:N | 2.34 | 0.42 |
| 7:EA:433:VAL:HA | 7:EA:436:LEU:CD2 | 2.50 | 0.42 |
| 7:EA:462:GLY:O | 7:EA:465:LYS:HG2 | 2.20 | 0.42 |
| 7:FA:83:TYR:O | 7:FA:87:GLN:NE2 | 2.52 | 0.42 |
| 7:GA:278:ALA:O | 7:GA:282:LEU:HG | 2.19 | 0.42 |
| 7:HA:105:ILE:HG13 | 7:HA:135:ILE:O | 2.20 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:HA:111:SER:HA | 7:HA:226:LYS:NZ | 2.35 | 0.42 |
| 7:HA:412:GLN:O | 7:HA:414:ILE:HG23 | 2.19 | 0.42 |
| 7:HA:461:ALA:HB1 | 7:HA:465:LYS:HZ1 | 1.83 | 0.42 |
| 7:IA:105:ILE:HG13 | 7:IA:135:ILE:O | 2.19 | 0.42 |
| 7:IA:470:LEU:HB2 | 7:IA:473:ARG:NH1 | 2.35 | 0.42 |
| 7:JA:105:ILE:HG13 | 7:JA:135:ILE:O | 2.19 | 0.42 |
| 7:LA:510:TRP:CE2 | 7:RA:525:PRO:HA | 2.55 | 0.42 |
| 7:MA:368:TYR:HB3 | 7:MA:375:ARG:HH22 | 1.84 | 0.42 |
| 7:OA:80:ARG:O | 7:OA:83:TYR:HB3 | 2.20 | 0.42 |
| 7:PA:527:LEU:HD21 | 7:QA:23:ALA:HB2 | 2.02 | 0.42 |
| 7:QA:432:HIS:CD2 | 7:QA:517:VAL:HG11 | 2.54 | 0.42 |
| 7:QA:500:GLN:HB2 | 7:QA:506:TRP:CZ3 | 2.55 | 0.42 |
| 8:CB:85:CYS:O | 8:CB:157:PRO:HD2 | 2.20 | 0.42 |
| 8:DB:56:ARG:HB3 | 8:EB:140:TYR:OH | 2.18 | 0.42 |
| 8:HB:55:THR:O | 8:HB:76:ARG:N | 2.48 | 0.42 |
| 8:JB:6:THR:HG21 | 8:RB:105:ASP:HA | 2.01 | 0.42 |
| 8:JB:128:ALA:HA | 8:JB:131:THR:OG1 | 2.18 | 0.42 |
| 8:MB:85:CYS:O | 8:MB:157:PRO:HD2 | 2.20 | 0.42 |
| 1:A:194:ALA:HB1 | 7:m:409:THR:HG21 | 2.01 | 0.42 |
| 1:B:119:VAL:HG22 | 1:B:132:TYR:CD1 | 2.55 | 0.42 |
| 1:B:142:LEU:HD12 | 1:B:146:LEU:HB2 | 2.00 | 0.42 |
| 1:B:193:LEU:HB2 | 1:B:199:PHE:CE2 | 2.54 | 0.42 |
| 1:D:119:VAL:HG22 | 1:D:132:TYR:CD1 | 2.55 | 0.42 |
| 1:E:62:PHE:C | 1:E:100:VAL:HG23 | 2.44 | 0.42 |
| 2:K:111:ALA:O | 2:K:115:LEU:HG | 2.20 | 0.42 |
| 2:K:189:VAL:HA | 2:K:192:PHE:HE2 | 1.85 | 0.42 |
| 2:K:193:GLN:NE2 | 3:Q:89:GLY:HA2 | 2.30 | 0.42 |
| 2:L:189:VAL:HA | 2:L:192:PHE:HE2 | 1.85 | 0.42 |
| 3:M:58:HIS:HD2 | 7:g:371:ALA:HB3 | 1.85 | 0.42 |
| 3:M:99:ASP:HB3 | 7:g:520:ARG:HB3 | 2.02 | 0.42 |
| 3:N:84:ASP:OD1 | 3:N:85:ILE:HG22 | 2.19 | 0.42 |
| 3:O:115:ASP:OD2 | 7:i:524:VAL:HG12 | 2.19 | 0.42 |
| 3:R:21:TYR:O | 4:S:46:LYS:NZ | 2.44 | 0.42 |
| 4:W:65:ALA:HA | 4:W:69:TRP:HE3 | 1.84 | 0.42 |
| 4:X:28:ILE:HD13 | 5:3:68:SER:OG | 2.19 | 0.42 |
| 5:Y:58:GLU:HA | 5:Y:64:ALA:HB2 | 2.00 | 0.42 |
| 5:Z:172:PHE:O | 5:Z:227:ILE:HD12 | 2.20 | 0.42 |
| 5:0:119:MET:HB3 | 5:0:138:LEU:HB3 | 2.01 | 0.42 |
| 5:2:33:PHE:HA | 5:2:36:MET:SD | 2.60 | 0.42 |
| 5:2:40:PHE:CE2 | 5:8:19:VAL:HG12 | 2.54 | 0.42 |
| 5:2:76:THR:HG23 | 5:8:61:ILE:HD13 | 2.01 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 5:2:88:SER:HA | 5:2:136:ALA:HA | 2.01 | 0.42 |
| 5:4:10:SER:O | 5:4:13:ALA:N | 2.52 | 0.42 |
| 5:4:122:ASP:HB2 | 5:4:133:VAL:HG23 | 2.01 | 0.42 |
| 5:4:335:LYS:HD3 | 5:4:368:LYS:HB2 | 2.01 | 0.42 |
| 5:5:45:VAL:HA | 5:5:48:CYS:SG | 2.60 | 0.42 |
| 5:5:316:TRP:CZ2 | 5:5:457:PHE:HA | 2.55 | 0.42 |
| 5:6:171:VAL:HB | 5:6:182:TRP:O | 2.19 | 0.42 |
| 5:7:10:SER:OG | 5:7:11:ILE:N | 2.52 | 0.42 |
| 5:7:322:GLU:OE1 | 5:7:328:TYR:HA | 2.20 | 0.42 |
| 5:9:94:THR:HA | 5:9:129:GLY:O | 2.20 | 0.42 |
| 5:9:441:PHE:C | 5:9:442:ARG:HH11 | 2.28 | 0.42 |
| 6:d:119:VAL:HG22 | 6:d:147:PHE:CE2 | 2.54 | 0.42 |
| 6:d:119:VAL:CG2 | 6:d:145:GLU:HB3 | 2.46 | 0.42 |
| 7:g:136:TYR:CE2 | 7:g:214:ARG:HB2 | 2.55 | 0.42 |
| 7:h:60:TYR:HB3 | 7:h:86:ILE:HG12 | 2.01 | 0.42 |
| 7:h:327:HIS:HE2 | 7:h:329:PRO:HB3 | 1.84 | 0.42 |
| 7:h:335:LYS:HD2 | 7:h:336:TRP:CH2 | 2.54 | 0.42 |
| 7:j:128:ASP:N | 7:j:128:ASP:OD1 | 2.48 | 0.42 |
| 7:j:147:THR:OG1 | 7:j:172:THR:OG1 | 2.36 | 0.42 |
| 7:j:335:LYS:HB3 | 7:j:336:TRP:CE3 | 2.55 | 0.42 |
| 7:j:340:ARG:NH1 | 7:j:382:SER:O | 2.48 | 0.42 |
| 7:k:427:TYR:CD2 | 7:q:529:LYS:HB2 | 2.53 | 0.42 |
| 7:k:493:PRO:HB2 | 7:k:513:CYS:HB3 | 2.01 | 0.42 |
| 7:l:103:PHE:HB3 | 7:l:121:TYR:CZ | 2.53 | 0.42 |
| 7:l:106:ILE:HG13 | 7:l:235:PHE:CD1 | 2.55 | 0.42 |
| 7:l:146:PRO:HG2 | 7:l:148:ARG:NH1 | 2.35 | 0.42 |
| 7:l:335:LYS:HB3 | 7:l:336:TRP:CE3 | 2.55 | 0.42 |
| 7:l:395:GLU:HA | 7:l:398:VAL:HG12 | 2.01 | 0.42 |
| 7:m:75:GLN:O | 7:m:78:PRO:HD2 | 2.20 | 0.42 |
| 7:m:386:LEU:HD23 | 7:m:386:LEU:HA | 1.85 | 0.42 |
| 7:o:382:SER:OG | 7:o:384:GLN:OE1 | 2.35 | 0.42 |
| 7:p:38:TRP:NE1 | 7:p:89:THR:HG23 | 2.35 | 0.42 |
| 7:q:398:VAL:O | 7:q:401:ARG:HD3 | 2.19 | 0.42 |
| 7:q:487:ASP:N | 7:q:487:ASP:OD1 | 2.52 | 0.42 |
| 7:BA:275:ASP:O | 7:BA:279:ILE:HG12 | 2.19 | 0.42 |
| 7:CA:83:TYR:O | 7:CA:87:GLN:NE2 | 2.52 | 0.42 |
| 7:CA:230:LYS:C | 7:CA:231:LYS:HD3 | 2.45 | 0.42 |
| 7:CA:433:VAL:HA | 7:CA:436:LEU:CD2 | 2.50 | 0.42 |
| 7:DA:389:GLU:OE1 | 7:DA:389:GLU:N | 2.46 | 0.42 |
| 7:EA:103:PHE:HE1 | 7:EA:121:TYR:HA | 1.83 | 0.42 |
| 7:EA:230:LYS:C | 7:EA:231:LYS:HD3 | 2.45 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:FA:135:ILE:HG13 | 7:FA:215:ALA:HB2 | 2.00 | 0.42 |
| 7:FA:449:ARG:HH22 | 7:LA:407:VAL:C | 2.26 | 0.42 |
| 7:GA:430:PHE:HE1 | 7:GA:519:ARG:HD3 | 1.85 | 0.42 |
| 7:GA:448:ALA:HB1 | 7:MA:521:ILE:HG21 | 2.02 | 0.42 |
| 7:HA:463:LEU:O | 7:HA:467:MET:HG2 | 2.20 | 0.42 |
| 7:IA:111:SER:HA | 7:IA:226:LYS:NZ | 2.35 | 0.42 |
| 7:LA:49:PRO:HB2 | 7:LA:50:PHE:HD1 | 1.83 | 0.42 |
| 7:LA:105:ILE:HD12 | 7:LA:136:TYR:HB3 | 2.02 | 0.42 |
| 7:LA:203:PRO:O | 7:LA:206:LEU:HG | 2.19 | 0.42 |
| 7:MA:328:TYR:CE1 | 7:MA:330:PHE:HB2 | 2.55 | 0.42 |
| 7:NA:168:LYS:HG2 | 7:NA:183:THR:HG23 | 2.00 | 0.42 |
| 7:OA:76:PHE:O | 7:OA:80:ARG:HG2 | 2.19 | 0.42 |
| 7:PA:75:GLN:CD | 7:PA:244:SER:HA | 2.45 | 0.42 |
| 7:QA:333:LYS:HD3 | 7:QA:339:SER:O | 2.20 | 0.42 |
| 7:RA:76:PHE:O | 7:RA:80:ARG:HG2 | 2.19 | 0.42 |
| 7:RA:430:PHE:HB2 | 7:RA:433:VAL:HG23 | 2.02 | 0.42 |
| 8:BB:41:ASP:OD1 | 8:BB:42:ILE:N | 2.52 | 0.42 |
| 8:BB:56:ARG:HH22 | 8:CB:138:LYS:HD2 | 1.85 | 0.42 |
| 8:CB:7:LYS:O | 8:DB:117:SER:OG | 2.25 | 0.42 |
| 8:HB:47:ARG:NH2 | 8:MB:64:PRO:HG3 | 2.35 | 0.42 |
| 8:LB:140:TYR:HD2 | 8:LB:160:ARG:CZ | 2.32 | 0.42 |
| 8:OB:54:MET:HE3 | 8:PB:97:ILE:HB | 2.01 | 0.42 |
| 1:A:114:THR:OG1 | 1:A:118:ARG:NH2 | 2.53 | 0.42 |
| 1:A:165:TYR:O | 1:F:66:ILE:HG22 | 2.20 | 0.42 |
| 1:C:127:ASN:HB3 | 1:C:131:GLN:HE21 | 1.84 | 0.42 |
| 1:D:193:LEU:HB2 | 1:D:199:PHE:CE2 | 2.54 | 0.42 |
| 2:G:44:GLN:HG3 | 2:G:84:TRP:NE1 | 2.21 | 0.42 |
| 2:G:189:VAL:HA | 2:G:192:PHE:HE2 | 1.85 | 0.42 |
| 2:H:111:ALA:O | 2:H:115:LEU:HG | 2.20 | 0.42 |
| 2:I:100:ALA:HB3 | 2:I:169:LEU:HA | 2.01 | 0.42 |
| 3:M:40:GLN:NE2 | 3:M:48:SER:O | 2.53 | 0.42 |
| 3:M:44:TYR:OH | 4:S:75:ARG:NH2 | 2.48 | 0.42 |
| 3:M:71:GLU:O | 3:M:74:LEU:HG | 2.20 | 0.42 |
| 3:Q:115:ASP:OD2 | 7:k:524:VAL:HG12 | 2.19 | 0.42 |
| 4:S:91:MET:SD | 4:S:91:MET:N | 2.91 | 0.42 |
| 4:T:77:VAL:O | 4:T:80:LEU:HG | 2.20 | 0.42 |
| 4:U:14:TYR:CE2 | 4:U:16:LEU:HB3 | 2.54 | 0.42 |
| 4:U:65:ALA:HA | 4:U:69:TRP:HE3 | 1.83 | 0.42 |
| 4:X:68:MET:HB2 | 4:X:69:TRP:CZ3 | 2.54 | 0.42 |
| 4:X:77:VAL:O | 4:X:80:LEU:HG | 2.20 | 0.42 |
| 5:Y:40:PHE:CE2 | 5:4:19:VAL:HG12 | 2.54 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 5:Y:317:GLY:HA2 | 6:a:194:LEU:HD13 | 2.01 | 0.42 |
| 5:0:7:THR:O | 5:0:11:ILE:HG12 | 2.19 | 0.42 |
| 5:2:158:LEU:HB2 | 5:2:208:LEU:HB2 | 2.01 | 0.42 |
| 5:4:277:GLU:HG2 | 5:4:278:ILE:N | 2.34 | 0.42 |
| 5:6:40:PHE:HA | 5:6:43:GLN:OE1 | 2.20 | 0.42 |
| 5:6:42:THR:HA | 5:6:45:VAL:HG22 | 2.02 | 0.42 |
| 5:6:115:GLN:HE22 | 7:i:69:LYS:HG2 | 1.85 | 0.42 |
| 5:6:274:GLU:HG2 | 5:6:279:THR:HG23 | 2.00 | 0.42 |
| 5:8:175:THR:HG22 | 5:8:225:SER:HB2 | 2.02 | 0.42 |
| 5:8:355:LEU:HB3 | 5:8:359:LYS:HZ3 | 1.84 | 0.42 |
| 5:8:428:LYS:HE3 | 5:8:451:TRP:CD2 | 2.55 | 0.42 |
| 5:9:45:VAL:HB | 5:9:49:PHE:CE2 | 2.55 | 0.42 |
| 5:9:309:GLY:O | 5:9:343:PRO:HD2 | 2.19 | 0.42 |
| 5:9:322:GLU:OE1 | 5:9:328:TYR:HA | 2.20 | 0.42 |
| 6:a:33:THR:HG23 | 6:a:34:PHE:CD2 | 2.55 | 0.42 |
| 6:b:116:TYR:OH | 6:b:133:GLU:OE2 | 2.32 | 0.42 |
| 6:c:101:ILE:HG23 | 6:c:105:PHE:HB2 | 2.01 | 0.42 |
| 6:c:198:PHE:HZ | 6:c:201:LEU:HB2 | 1.84 | 0.42 |
| 6:d:116:TYR:CE2 | 6:d:148:LEU:HD13 | 2.54 | 0.42 |
| 6:e:10:LEU:HB2 | 6:e:15:GLN:HE21 | 1.83 | 0.42 |
| 7:h:508:VAL:HG13 | 7:h:510:TRP:HZ3 | 1.85 | 0.42 |
| 7:j:79:ILE:HA | 7:j:82:VAL:HG22 | 2.02 | 0.42 |
| 7:j:105:ILE:HB | 7:j:136:TYR:HB3 | 2.02 | 0.42 |
| 7:j:246:ILE:HB | 7:j:251:TYR:OH | 2.19 | 0.42 |
| 7:j:281:ALA:O | 7:j:285:ILE:HG13 | 2.19 | 0.42 |
| 7:k:7:GLN:NE2 | 7:k:15:GLY:O | 2.51 | 0.42 |
| 7:k:246:ILE:HB | 7:k:251:TYR:OH | 2.19 | 0.42 |
| 7:l:84:GLU:OE2 | 7:l:348:VAL:HG13 | 2.19 | 0.42 |
| 7:l:136:TYR:CE2 | 7:l:214:ARG:HB2 | 2.55 | 0.42 |
| 7:l:385:PRO:HG2 | 7:l:388:PRO:HG3 | 2.01 | 0.42 |
| 7:l:508:VAL:HG13 | 7:l:510:TRP:HZ3 | 1.84 | 0.42 |
| 7:n:211:LYS:HA | 7:n:211:LYS:HD3 | 1.87 | 0.42 |
| 7:n:289:ARG:O | 7:n:291:ILE:HG23 | 2.20 | 0.42 |
| 7:n:365:GLY:HA3 | 7:n:368:TYR:CE2 | 2.55 | 0.42 |
| 7:n:398:VAL:O | 7:n:401:ARG:HD3 | 2.19 | 0.42 |
| 7:n:519:ARG:HH12 | 7:n:520:ARG:NH1 | 2.17 | 0.42 |
| 7:n:525:PRO:HD3 | 7:o:18:VAL:HB | 2.01 | 0.42 |
| 7:o:276:ASN:O | 7:o:280:THR:HG23 | 2.20 | 0.42 |
| 7:o:460:ALA:O | 7:o:464:THR:HG23 | 2.19 | 0.42 |
| 7:p:108:PHE:HB2 | 7:p:133:PHE:CE1 | 2.55 | 0.42 |
| 7:p:519:ARG:HH12 | 7:p:520:ARG:NH1 | 2.18 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:q:98:PRO:HG2 | 7:q:242:ASP:O | 2.20 | 0.42 |
| 7:q:193:LYS:HZ1 | 7:EA:69:LYS:HD2 | 1.85 | 0.42 |
| 7:q:367:HIS:HE1 | 7:q:477:SER:OG | 2.03 | 0.42 |
| 7:r:128:ASP:OD1 | 7:r:128:ASP:N | 2.53 | 0.42 |
| 7:AA:118:ALA:HB2 | 7:AA:237:GLY:HA3 | 2.01 | 0.42 |
| 7:BA:190:GLU:O | 7:HA:69:LYS:NZ | 2.52 | 0.42 |
| 7:CA:63:VAL:HG23 | 7:CA:64:LEU:HD22 | 2.02 | 0.42 |
| 7:DA:135:ILE:HG12 | 7:DA:213:LEU:HD12 | 2.02 | 0.42 |
| 7:DA:471:LEU:HA | 7:DA:474:PHE:CD1 | 2.54 | 0.42 |
| 7:FA:340:ARG:HA | 7:FA:340:ARG:HD3 | 1.85 | 0.42 |
| 7:GA:75:GLN:OE1 | 7:GA:244:SER:N | 2.53 | 0.42 |
| 7:GA:105:ILE:HG13 | 7:GA:135:ILE:O | 2.19 | 0.42 |
| 7:GA:188:LEU:HD21 | 7:GA:225:ALA:HB3 | 2.02 | 0.42 |
| 7:GA:401:ARG:HH22 | 7:GA:425:ASP:HA | 1.84 | 0.42 |
| 7:HA:75:GLN:OE1 | 7:HA:244:SER:N | 2.53 | 0.42 |
| 7:HA:188:LEU:HD21 | 7:HA:225:ALA:HB3 | 2.02 | 0.42 |
| 7:IA:52:VAL:C | 7:IA:53:LEU:HD12 | 2.45 | 0.42 |
| 7:IA:510:TRP:CE2 | 7:OA:525:PRO:HA | 2.55 | 0.42 |
| 7:JA:105:ILE:HD12 | 7:JA:136:TYR:HB3 | 2.02 | 0.42 |
| 7:JA:302:THR:N | 7:JA:305:GLU:OE2 | 2.49 | 0.42 |
| 7:JA:390:ASP:OD1 | 7:JA:391:THR:N | 2.52 | 0.42 |
| 7:MA:23:ALA:HB2 | 7:RA:527:LEU:HD21 | 2.01 | 0.42 |
| 7:MA:493:PRO:O | 7:MA:512:CYS:HA | 2.20 | 0.42 |
| 7:MA:524:VAL:HA | 7:NA:19:SER:HB2 | 2.02 | 0.42 |
| 7:NA:77:GLU:H | 7:NA:77:GLU:CD | 2.26 | 0.42 |
| 7:NA:136:TYR:CZ | 7:NA:214:ARG:HB2 | 2.55 | 0.42 |
| 7:PA:77:GLU:H | 7:PA:77:GLU:CD | 2.26 | 0.42 |
| 7:QA:10:LEU:HD13 | 7:QA:17:ALA:HB3 | 2.02 | 0.42 |
| 7:QA:437:MET:HA | 7:QA:440:ILE:HG12 | 2.02 | 0.42 |
| 7:RA:432:HIS:O | 7:RA:435:SER:OG | 2.23 | 0.42 |
| 8:CB:16:ARG:NH2 | 8:IB:64:PRO:HG2 | 2.34 | 0.42 |
| 8:DB:168:TRP:CE2 | 8:EB:98:LYS:HD2 | 2.54 | 0.42 |
| 8:FB:165:TRP:HZ3 | 8:FB:167:GLU:HB2 | 1.84 | 0.42 |
| 8:JB:11:LYS:HE3 | 8:JB:12:PHE:CE2 | 2.54 | 0.42 |
| 8:JB:47:ARG:HG3 | 8:JB:86:VAL:HG23 | 2.00 | 0.42 |
| 8:MB:48:THR:HB | 8:MB:84:GLN:HG3 | 2.02 | 0.42 |
| 8:MB:88:THR:HG22 | 8:MB:93:ILE:HG12 | 2.02 | 0.42 |
| 8:MB:145:ASP:HA | 8:RB:50:GLN:HE22 | 1.85 | 0.42 |
| 8:PB:36:PHE:HD1 | 8:PB:109:ILE:HD12 | 1.83 | 0.42 |
| 8:PB:61:ASP:O | 8:PB:68:LYS:HG2 | 2.20 | 0.42 |
| 8:QB:60:GLU:HG2 | 8:QB:70:ASN:HB2 | 2.01 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 1:B:194:ALA:HB1 | 7:n:409:THR:HG21 | 2.00 | 0.42 |
| 1:C:66:ILE:HG22 | 1:D:165:TYR:O | 2.20 | 0.42 |
| 2:J:18:TYR:HA | 2:J:142:ARG:HE | 1.84 | 0.42 |
| 2:L:44:GLN:HG2 | 2:L:46:TRP:HZ3 | 1.84 | 0.42 |
| 3:M:59:GLU:O | 3:M:118:LEU:HB3 | 2.19 | 0.42 |
| 3:N:115:ASP:OD2 | 7:h:524:VAL:HG12 | 2.19 | 0.42 |
| 3:P:39:TYR:CE1 | 7:k:6:ILE:HD11 | 2.54 | 0.42 |
| 3:P:75:LEU:HD12 | 3:P:76:GLN:N | 2.35 | 0.42 |
| 3:P:84:ASP:OD1 | 3:P:85:ILE:HG22 | 2.20 | 0.42 |
| 4:V:110:ARG:HG3 | 4:V:114:TYR:CE2 | 2.54 | 0.42 |
| 4:X:54:LEU:HG | 4:X:55:PRO:HD2 | 2.00 | 0.42 |
| 5:Y:76:THR:HG23 | 5:4:61:ILE:HD13 | 2.01 | 0.42 |
| 5:Y:90:MET:HE3 | 5:Y:132:THR:HB | 2.01 | 0.42 |
| 5:Z:87:SER:HB3 | 5:Z:237:ASP:HA | 2.02 | 0.42 |
| 5:1:142:GLU:OE2 | 5:1:228:THR:HG23 | 2.19 | 0.42 |
| 5:2:172:PHE:O | 5:2:227:ILE:HD12 | 2.20 | 0.42 |
| 5:4:40:PHE:HA | 5:4:43:GLN:OE1 | 2.20 | 0.42 |
| 5:4:396:VAL:O | 5:4:400:LEU:HD23 | 2.19 | 0.42 |
| 5:5:428:LYS:HE3 | 5:5:451:TRP:CD2 | 2.55 | 0.42 |
| 5:6:95:ALA:HB2 | 5:6:126:LEU:HD13 | 2.01 | 0.42 |
| 5:8:189:ARG:HG3 | 5:8:190:LEU:HG | 2.02 | 0.42 |
| 5:8:441:PHE:C | 5:8:442:ARG:HH11 | 2.28 | 0.42 |
| 5:9:277:GLU:HG2 | 5:9:278:ILE:N | 2.34 | 0.42 |
| 6:a:84:ARG:HA | 6:a:87:GLU:CD | 2.45 | 0.42 |
| 6:c:41:ARG:HD2 | 6:c:42:ILE:N | 2.35 | 0.42 |
| 6:f:59:ARG:HA | 6:f:59:ARG:HD3 | 1.92 | 0.42 |
| 7:g:155:ALA:HB2 | 7:g:166:LEU:HD23 | 2.02 | 0.42 |
| 7:g:184:HIS:CD2 | 7:g:209:ARG:HD2 | 2.55 | 0.42 |
| 7:g:335:LYS:HB3 | 7:g:336:TRP:CE3 | 2.55 | 0.42 |
| 7:i:173:THR:HG22 | 7:i:177:VAL:H | 1.85 | 0.42 |
| 7:j:385:PRO:HG2 | 7:j:388:PRO:HG3 | 2.01 | 0.42 |
| 7:k:108:PHE:HE1 | 7:k:114:PRO:HB3 | 1.83 | 0.42 |
| 7:k:253:ARG:O | 7:k:256:LYS:HG3 | 2.20 | 0.42 |
| 7:l:173:THR:HG22 | 7:l:177:VAL:H | 1.85 | 0.42 |
| 7:l:184:HIS:CD2 | 7:l:209:ARG:HD2 | 2.55 | 0.42 |
| 7:l:485:ASP:OD1 | 7:l:485:ASP:N | 2.42 | 0.42 |
| 7:m:201:TYR:HB2 | 7:AA:69:LYS:HZ1 | 1.85 | 0.42 |
| 7:m:289:ARG:O | 7:m:291:ILE:HG23 | 2.20 | 0.42 |
| 7:o:144:ILE:HA | 7:o:147:THR:HG22 | 2.00 | 0.42 |
| 7:p:249:ALA:O | 7:p:252:LEU:HG | 2.19 | 0.42 |
| 7:r:33:LEU:HD23 | 7:r:33:LEU:H | 1.84 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:r:276:ASN:O | 7:r:280:THR:HG23 | 2.20 | 0.42 |
| 7:r:506:TRP:C | 7:FA:521:ILE:HD12 | 2.45 | 0.42 |
| 7:BA:135:ILE:HG12 | 7:BA:213:LEU:HD12 | 2.02 | 0.42 |
| 7:FA:59:ASN:O | 7:FA:63:VAL:HG22 | 2.20 | 0.42 |
| 7:FA:118:ALA:HB2 | 7:FA:237:GLY:HA3 | 2.01 | 0.42 |
| 7:FA:267:ALA:HB3 | 7:FA:350:TYR:CE2 | 2.55 | 0.42 |
| 7:FA:427:TYR:HD1 | 7:FA:430:PHE:HE2 | 1.67 | 0.42 |
| 7:JA:475:VAL:HG12 | 7:JA:480:LEU:HB3 | 2.00 | 0.42 |
| 7:KA:105:ILE:HD12 | 7:KA:136:TYR:HB3 | 2.02 | 0.42 |
| 7:KA:463:LEU:O | 7:KA:467:MET:HG2 | 2.20 | 0.42 |
| 7:LA:436:LEU:HD12 | 7:LA:437:MET:N | 2.35 | 0.42 |
| 7:MA:500:GLN:HB2 | 7:MA:506:TRP:CZ3 | 2.55 | 0.42 |
| 7:OA:108:PHE:CE1 | 7:OA:114:PRO:HB3 | 2.51 | 0.42 |
| 7:OA:168:LYS:HG2 | 7:OA:183:THR:HG23 | 2.00 | 0.42 |
| 7:OA:430:PHE:HB2 | 7:OA:433:VAL:HG23 | 2.02 | 0.42 |
| 7:PA:10:LEU:HD13 | 7:PA:17:ALA:HB3 | 2.02 | 0.42 |
| 7:PA:80:ARG:O | 7:PA:84:GLU:OE1 | 2.38 | 0.42 |
| 7:PA:127:LEU:HB3 | 7:PA:218:ASN:HD21 | 1.84 | 0.42 |
| 7:PA:307:LEU:HD11 | 7:PA:396:ALA:HB1 | 2.01 | 0.42 |
| 7:PA:430:PHE:HB2 | 7:PA:433:VAL:HG23 | 2.02 | 0.42 |
| 7:QA:369:SER:HA | 7:QA:370:PRO:HD3 | 1.86 | 0.42 |
| 7:QA:481:VAL:C | 7:QA:493:PRO:HB3 | 2.44 | 0.42 |
| 8:AB:25:GLU:HA | 8:FB:3:HIS:CD2 | 2.55 | 0.42 |
| 8:BB:56:ARG:HB3 | 8:CB:140:TYR:OH | 2.20 | 0.42 |
| 8:CB:53:GLU:O | 8:CB:163:TYR:OH | 2.34 | 0.42 |
| 8:EB:165:TRP:HZ3 | 8:EB:167:GLU:HB2 | 1.84 | 0.42 |
| 8:HB:92:ASP:O | 8:HB:95:GLN:HG3 | 2.20 | 0.42 |
| 8:IB:6:THR:HG21 | 8:QB:105:ASP:HA | 2.02 | 0.42 |
| 8:KB:10:ARG:NE | 8:KB:14:LYS:HZ3 | 2.17 | 0.42 |
| 8:LB:11:LYS:HE3 | 8:LB:12:PHE:CE2 | 2.54 | 0.42 |
| 8:MB:23:LYS:HE2 | 8:NB:41:ASP:O | 2.20 | 0.42 |
| 8:NB:168:TRP:CZ3 | 8:OB:97:ILE:HG13 | 2.54 | 0.42 |
| 1:C:62:PHE:C | 1:C:100:VAL:HG23 | 2.44 | 0.42 |
| 1:E:78:ILE:HD11 | 1:E:85:ILE:HB | 2.01 | 0.42 |
| 1:E:119:VAL:HG22 | 1:E:132:TYR:CD1 | 2.55 | 0.42 |
| 1:F:194:ALA:HB1 | 7:r:409:THR:HG21 | 2.01 | 0.42 |
| 2:G:18:TYR:HA | 2:G:142:ARG:HE | 1.84 | 0.42 |
| 2:G:119:ILE:HD12 | 2:G:151:ILE:HG22 | 2.02 | 0.42 |
| 2:H:189:VAL:HA | 2:H:192:PHE:HE2 | 1.85 | 0.42 |
| 2:I:189:VAL:HA | 2:I:192:PHE:HE2 | 1.85 | 0.42 |
| 2:L:190:ARG:HH11 | 3:R:86:PRO:HG2 | 1.83 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:M:93:ALA:O | 3:M:101:LEU:HD12 | 2.20 | 0.42 |
| 3:M:115:ASP:OD2 | 7:g:524:VAL:HG12 | 2.20 | 0.42 |
| 3:R:59:GLU:O | 3:R:118:LEU:HB3 | 2.20 | 0.42 |
| 4:V:23:ASN:OD1 | 4:V:24:ILE:N | 2.53 | 0.42 |
| 4:W:59:TYR:HA | 4:W:87:GLU:HB3 | 2.02 | 0.42 |
| 5:Y:172:PHE:O | 5:Y:227:ILE:HD12 | 2.20 | 0.42 |
| 5:Y:244:GLN:O | 5:Y:263:THR:HG22 | 2.20 | 0.42 |
| 5:Y:294:VAL:HG21 | 6:a:91:LYS:HZ2 | 1.83 | 0.42 |
| 5:Z:384:THR:HA | 5:Z:471:ASN:HB2 | 2.01 | 0.42 |
| 5:0:88:SER:HA | 5:0:136:ALA:HA | 2.01 | 0.42 |
| 5:3:257:ASN:OD1 | 5:3:258:LEU:HG | 2.20 | 0.42 |
| 5:4:322:GLU:OE1 | 5:4:328:TYR:HA | 2.20 | 0.42 |
| 5:4:337:PHE:HB3 | 5:4:372:LYS:HB2 | 2.02 | 0.42 |
| 5:5:175:THR:HG22 | 5:5:225:SER:HB2 | 2.02 | 0.42 |
| 5:5:342:HIS:HB2 | 5:5:350:LEU:HD21 | 2.01 | 0.42 |
| 5:6:316:TRP:CZ2 | 5:6:457:PHE:HA | 2.55 | 0.42 |
| 5:6:396:VAL:O | 5:6:400:LEU:HD23 | 2.20 | 0.42 |
| 5:7:201:PHE:HB2 | 5:7:211:ARG:HG2 | 2.00 | 0.42 |
| 5:7:309:GLY:O | 5:7:343:PRO:HD2 | 2.19 | 0.42 |
| 5:7:337:PHE:HB3 | 5:7:372:LYS:HB2 | 2.02 | 0.42 |
| 5:8:40:PHE:HA | 5:8:43:GLN:OE1 | 2.20 | 0.42 |
| 5:8:94:THR:HA | 5:8:129:GLY:O | 2.20 | 0.42 |
| 5:8:277:GLU:HG2 | 5:8:278:ILE:N | 2.34 | 0.42 |
| 5:8:396:VAL:O | 5:8:400:LEU:HD23 | 2.19 | 0.42 |
| 5:9:40:PHE:HA | 5:9:43:GLN:OE1 | 2.19 | 0.42 |
| 5:9:41:ILE:HA | 5:9:44:ILE:HG12 | 2.02 | 0.42 |
| 7:g:146:PRO:HG2 | 7:g:148:ARG:NH1 | 2.35 | 0.42 |
| 7:g:173:THR:HG22 | 7:g:177:VAL:H | 1.85 | 0.42 |
| 7:g:330:PHE:HB3 | 7:g:383:ILE:HD11 | 2.02 | 0.42 |
| 7:h:69:LYS:HE2 | 7:h:337:THR:HG21 | 2.01 | 0.42 |
| 7:h:146:PRO:HG2 | 7:h:148:ARG:NH1 | 2.35 | 0.42 |
| 7:h:155:ALA:HB2 | 7:h:166:LEU:HD23 | 2.02 | 0.42 |
| 7:h:184:HIS:CD2 | 7:h:209:ARG:HD2 | 2.55 | 0.42 |
| 7:h:253:ARG:O | 7:h:256:LYS:HG3 | 2.20 | 0.42 |
| 7:i:79:ILE:HA | 7:i:82:VAL:HG22 | 2.02 | 0.42 |
| 7:i:295:PHE:O | 7:i:325:VAL:HA | 2.20 | 0.42 |
| 7:k:79:ILE:HA | 7:k:82:VAL:HG22 | 2.02 | 0.42 |
| 7:k:173:THR:HG22 | 7:k:177:VAL:H | 1.85 | 0.42 |
| 7:n:98:PRO:HG2 | 7:n:242:ASP:O | 2.20 | 0.42 |
| 7:o:36:SER:O | 7:o:38:TRP:HD1 | 2.03 | 0.42 |
| 7:o:98:PRO:HG2 | 7:o:242:ASP:O | 2.20 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:o:331:SER:HA | 7:o:342:VAL:HG22 | 2.02 | 0.42 |
| 7:p:37:LEU:HB2 | 7:p:265:TYR:HA | 2.02 | 0.42 |
| 7:p:196:MET:HB3 | 7:CA:529:LYS:NZ | 2.35 | 0.42 |
| 7:p:367:HIS:HA | 7:p:432:HIS:HB2 | 2.02 | 0.42 |
| 7:q:168:LYS:HE3 | 7:q:168:LYS:HB3 | 1.91 | 0.42 |
| 7:AA:135:ILE:HG12 | 7:AA:213:LEU:HD12 | 2.02 | 0.42 |
| 7:AA:448:ALA:HB1 | 7:GA:521:ILE:HD12 | 2.01 | 0.42 |
| 7:CA:59:ASN:O | 7:CA:63:VAL:HG22 | 2.20 | 0.42 |
| 7:CA:366:TRP:HB3 | 7:CA:435:SER:OG | 2.20 | 0.42 |
| 7:DA:331:SER:HG | 7:DA:384:GLN:HG3 | 1.85 | 0.42 |
| 7:DA:416:ASP:OD1 | 7:DA:416:ASP:N | 2.42 | 0.42 |
| 7:DA:462:GLY:O | 7:DA:465:LYS:HG2 | 2.20 | 0.42 |
| 7:EA:59:ASN:O | 7:EA:63:VAL:HG22 | 2.19 | 0.42 |
| 7:EA:135:ILE:HG12 | 7:EA:213:LEU:HD12 | 2.02 | 0.42 |
| 7:EA:438:ASN:O | 7:EA:441:SER:OG | 2.33 | 0.42 |
| 7:EA:471:LEU:HB2 | 7:EA:494:TYR:HD2 | 1.83 | 0.42 |
| 7:FA:77:GLU:HB2 | 7:FA:78:PRO:HD3 | 2.02 | 0.42 |
| 7:FA:135:ILE:HG12 | 7:FA:213:LEU:HD12 | 2.02 | 0.42 |
| 7:FA:275:ASP:O | 7:FA:279:ILE:HG12 | 2.19 | 0.42 |
| 7:FA:433:VAL:HA | 7:FA:436:LEU:CD2 | 2.50 | 0.42 |
| 7:FA:528:ILE:H | 7:FA:528:ILE:HD12 | 1.85 | 0.42 |
| 7:GA:60:TYR:CG | 7:GA:61:GLU:N | 2.87 | 0.42 |
| 7:GA:79:ILE:HA | 7:GA:82:VAL:HG22 | 2.02 | 0.42 |
| 7:GA:105:ILE:HD12 | 7:GA:136:TYR:HB3 | 2.02 | 0.42 |
| 7:HA:276:ASN:OD1 | 7:HA:313:THR:HG22 | 2.19 | 0.42 |
| 7:IA:188:LEU:HD21 | 7:IA:225:ALA:HB3 | 2.02 | 0.42 |
| 7:JA:75:GLN:OE1 | 7:JA:244:SER:N | 2.53 | 0.42 |
| 7:KA:75:GLN:OE1 | 7:KA:244:SER:N | 2.53 | 0.42 |
| 7:LA:52:VAL:C | 7:LA:53:LEU:HD12 | 2.45 | 0.42 |
| 7:LA:111:SER:HA | 7:LA:226:LYS:NZ | 2.35 | 0.42 |
| 7:LA:353:LYS:HD2 | 7:LA:353:LYS:HA | 1.77 | 0.42 |
| 7:MA:362:ASP:OD1 | 7:MA:362:ASP:N | 2.53 | 0.42 |
| 7:NA:305:GLU:OE1 | 7:NA:305:GLU:N | 2.52 | 0.42 |
| 7:NA:328:TYR:CE1 | 7:NA:330:PHE:HB2 | 2.55 | 0.42 |
| 7:OA:136:TYR:CE2 | 7:OA:214:ARG:HB2 | 2.54 | 0.42 |
| 7:OA:328:TYR:CE1 | 7:OA:330:PHE:HB2 | 2.55 | 0.42 |
| 7:OA:493:PRO:O | 7:OA:512:CYS:HA | 2.20 | 0.42 |
| 7:PA:493:PRO:O | 7:PA:512:CYS:HA | 2.20 | 0.42 |
| 7:RA:136:TYR:CE2 | 7:RA:214:ARG:HB2 | 2.54 | 0.42 |
| 7:RA:500:GLN:HB2 | 7:RA:506:TRP:CZ3 | 2.55 | 0.42 |
| 8:EB:26:ARG:HH22 | 8:FB:87:GLU:HG2 | 1.85 | 0.42 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 8:EB:62:TYR:HB3 | 8:EB:68:LYS:HZ3 | 1.85 | 0.42 |
| 8:EB:169:ASP:OD1 | 8:EB:169:ASP:N | 2.48 | 0.42 |
| 8:GB:92:ASP:O | 8:GB:95:GLN:HG3 | 2.20 | 0.42 |
| 8:JB:135:LEU:HG | 8:JB:167:GLU:HG2 | 2.02 | 0.42 |
| 8:LB:56:ARG:O | 8:LB:76:ARG:NH2 | 2.52 | 0.42 |
| 8:NB:166:ILE:HG22 | 8:NB:168:TRP:HD1 | 1.84 | 0.42 |
| 1:B:78:ILE:O | 1:B:84:ASN:HA | 2.20 | 0.41 |
| 1:E:114:THR:OG1 | 1:E:118:ARG:NH2 | 2.52 | 0.41 |
| 1:F:128:ILE:HD13 | 1:F:201:PHE:HE2 | 1.85 | 0.41 |
| 2:G:19:LEU:HD13 | 2:G:33:TYR:CD1 | 2.54 | 0.41 |
| 2:I:162:ARG:HG3 | 2:I:168:PHE:CD1 | 2.52 | 0.41 |
| 3:N:32:LEU:HD11 | 3:N:85:ILE:HG12 | 2.02 | 0.41 |
| 3:O:58:HIS:HD2 | 7:i:371:ALA:HB3 | 1.83 | 0.41 |
| 3:O:75:LEU:HD12 | 3:O:76:GLN:N | 2.34 | 0.41 |
| 4:T:22:ARG:NH2 | 5:5:8:LYS:HD2 | 2.32 | 0.41 |
| 4:T:96:LYS:HZ2 | 4:T:97:LEU:N | 2.18 | 0.41 |
| 4:V:98:LYS:C | 4:V:99:LEU:HD22 | 2.44 | 0.41 |
| 4:X:110:ARG:HG3 | 4:X:114:TYR:CE2 | 2.55 | 0.41 |
| 5:Y:3:LYS:HZ3 | 5:Y:56:LEU:HD11 | 1.85 | 0.41 |
| 5:Y:88:SER:HA | 5:Y:136:ALA:HA | 2.01 | 0.41 |
| 5:Z:33:PHE:HA | 5:Z:36:MET:SD | 2.60 | 0.41 |
| 5:1:75:GLU:OE2 | 5:1:202:TYR:HB2 | 2.20 | 0.41 |
| 5:1:119:MET:HB3 | 5:1:138:LEU:HB3 | 2.01 | 0.41 |
| 5:1:154:LEU:HB2 | 5:1:212:PHE:HB2 | 2.01 | 0.41 |
| 5:2:142:GLU:OE2 | 5:2:228:THR:HG23 | 2.19 | 0.41 |
| 5:3:244:GLN:O | 5:3:263:THR:HG22 | 2.20 | 0.41 |
| 5:3:384:THR:HA | 5:3:471:ASN:HB2 | 2.01 | 0.41 |
| 5:4:316:TRP:CZ2 | 5:4:457:PHE:HA | 2.55 | 0.41 |
| 5:5:127:VAL:N | 5:5:130:THR:O | 2.39 | 0.41 |
| 5:5:309:GLY:O | 5:5:343:PRO:HD2 | 2.19 | 0.41 |
| 5:6:201:PHE:HB2 | 5:6:211:ARG:HG2 | 2.01 | 0.41 |
| 5:6:337:PHE:CD2 | 5:6:372:LYS:HE2 | 2.55 | 0.41 |
| 5:7:441:PHE:C | 5:7:442:ARG:HH11 | 2.28 | 0.41 |
| 5:9:10:SER:O | 5:9:13:ALA:N | 2.52 | 0.41 |
| 6:b:41:ARG:HD2 | 6:b:42:ILE:N | 2.35 | 0.41 |
| 6:d:10:LEU:HG | 6:d:14:LYS:HZ2 | 1.85 | 0.41 |
| 6:d:33:THR:HG23 | 6:d:34:PHE:CD2 | 2.55 | 0.41 |
| 6:d:84:ARG:HA | 6:d:87:GLU:CD | 2.44 | 0.41 |
| 6:d:94:GLU:O | 6:d:98:ASN:ND2 | 2.53 | 0.41 |
| 7:g:106:ILE:HG13 | 7:g:235:PHE:CD1 | 2.55 | 0.41 |
| 7:g:253:ARG:O | 7:g:256:LYS:HG3 | 2.20 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:g:335:LYS:HD2 | 7:g:336:TRP:CH2 | 2.55 | 0.41 |
| 7:h:75:GLN:O | 7:h:78:PRO:HD2 | 2.20 | 0.41 |
| 7:i:106:ILE:HG13 | 7:i:235:PHE:CD1 | 2.55 | 0.41 |
| 7:m:269:LEU:HA | 7:m:294:PHE:HB2 | 2.02 | 0.41 |
| 7:p:103:PHE:HB3 | 7:p:121:TYR:CZ | 2.55 | 0.41 |
| 7:q:36:SER:O | 7:q:38:TRP:HD1 | 2.03 | 0.41 |
| 7:q:156:THR:HG23 | 7:q:164:ARG:NH2 | 2.33 | 0.41 |
| 7:q:230:LYS:HB3 | 7:q:233:LEU:HD21 | 2.01 | 0.41 |
| 7:q:289:ARG:O | 7:q:291:ILE:HG23 | 2.20 | 0.41 |
| 7:r:331:SER:HA | 7:r:342:VAL:HG22 | 2.02 | 0.41 |
| 7:AA:333:LYS:HD3 | 7:AA:333:LYS:HA | 1.84 | 0.41 |
| 7:BA:34:ASN:HB3 | 7:BA:37:LEU:HD21 | 2.02 | 0.41 |
| 7:CA:333:LYS:HB2 | 7:CA:382:SER:HB3 | 2.01 | 0.41 |
| 7:CA:449:ARG:NH1 | 7:IA:407:VAL:O | 2.53 | 0.41 |
| 7:EA:190:GLU:O | 7:KA:69:LYS:NZ | 2.53 | 0.41 |
| 7:FA:265:TYR:OH | 7:FA:289:ARG:NE | 2.49 | 0.41 |
| 7:FA:353:LYS:NZ | 7:FA:370:PRO:HD3 | 2.34 | 0.41 |
| 7:GA:203:PRO:O | 7:GA:206:LEU:HG | 2.20 | 0.41 |
| 7:GA:289:ARG:NH1 | 7:NA:4:TYR:HB2 | 2.35 | 0.41 |
| 7:IA:75:GLN:OE1 | 7:IA:244:SER:N | 2.53 | 0.41 |
| 7:IA:105:ILE:HD12 | 7:IA:136:TYR:HB3 | 2.02 | 0.41 |
| 7:JA:188:LEU:HD21 | 7:JA:225:ALA:HB3 | 2.02 | 0.41 |
| 7:KA:107:MET:SD | 7:KA:134:ALA:HB2 | 2.60 | 0.41 |
| 7:LA:82:VAL:O | 7:LA:86:ILE:HB | 2.20 | 0.41 |
| 7:LA:151:THR:HB | 7:LA:168:LYS:HE3 | 2.02 | 0.41 |
| 7:MA:249:ALA:O | 7:MA:252:LEU:HG | 2.19 | 0.41 |
| 7:NA:10:LEU:HD13 | 7:NA:17:ALA:HB3 | 2.01 | 0.41 |
| 7:OA:432:HIS:CD2 | 7:OA:517:VAL:HG11 | 2.54 | 0.41 |
| 7:PA:471:LEU:HD13 | 7:PA:494:TYR:CZ | 2.55 | 0.41 |
| 7:QA:136:TYR:CZ | 7:QA:214:ARG:HB2 | 2.55 | 0.41 |
| 7:RA:10:LEU:HD13 | 7:RA:17:ALA:HB3 | 2.02 | 0.41 |
| 8:AB:98:LYS:HD2 | 8:FB:168:TRP:CE2 | 2.55 | 0.41 |
| 8:AB:168:TRP:CE2 | 8:BB:98:LYS:HD2 | 2.55 | 0.41 |
| 8:CB:36:PHE:HD2 | 8:CB:39:HIS:HB2 | 1.84 | 0.41 |
| 8:DB:85:CYS:O | 8:DB:157:PRO:HD2 | 2.20 | 0.41 |
| 8:GB:5:ASN:OD1 | 8:GB:5:ASN:N | 2.49 | 0.41 |
| 8:IB:17:TYR:HA | 8:IB:20:ASN:HD21 | 1.85 | 0.41 |
| 8:JB:138:LYS:O | 8:JB:161:ILE:HD12 | 2.20 | 0.41 |
| 8:KB:17:TYR:HA | 8:KB:20:ASN:HD21 | 1.85 | 0.41 |
| 8:KB:92:ASP:O | 8:KB:95:GLN:HG3 | 2.20 | 0.41 |
| 8:OB:60:GLU:HG2 | 8:OB:70:ASN:HB2 | 2.01 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|------------------|--------------------------|-------------------|
| 8:PB:35:THR:HB | 8:PB:40:GLU:HG3 | 2.00 | 0.41 |
| 8:PB:64:PRO:O | 8:PB:67:VAL:HG12 | 2.20 | 0.41 |
| 8:QB:27:LEU:HG | 8:RB:87:GLU:CD | 2.45 | 0.41 |
| 8:QB:166:ILE:HG22 | 8:QB:168:TRP:CD1 | 2.50 | 0.41 |
| 1:B:101:ARG:HD3 | 1:B:101:ARG:H | 1.85 | 0.41 |
| 1:B:114:THR:OG1 | 1:B:118:ARG:NH2 | 2.52 | 0.41 |
| 1:B:128:ILE:HD13 | 1:B:201:PHE:HE2 | 1.85 | 0.41 |
| 1:C:101:ARG:HD3 | 1:C:101:ARG:H | 1.86 | 0.41 |
| 1:D:114:THR:OG1 | 1:D:118:ARG:NH2 | 2.53 | 0.41 |
| 1:F:119:VAL:HG22 | 1:F:132:TYR:CD1 | 2.56 | 0.41 |
| 2:G:90:PRO:HG2 | 2:G:179:GLY:HA3 | 2.01 | 0.41 |
| 2:H:90:PRO:HG2 | 2:H:179:GLY:HA3 | 2.01 | 0.41 |
| 2:H:119:ILE:HD12 | 2:H:151:ILE:HG22 | 2.01 | 0.41 |
| 2:K:90:PRO:HG2 | 2:K:179:GLY:HA3 | 2.01 | 0.41 |
| 3:M:21:TYR:O | 4:T:46:LYS:NZ | 2.41 | 0.41 |
| 3:N:60:PRO:O | 3:N:67:GLN:NE2 | 2.36 | 0.41 |
| 4:U:53:VAL:HG11 | 4:U:91:MET:HG2 | 2.03 | 0.41 |
| 4:U:77:VAL:O | 4:U:80:LEU:HG | 2.20 | 0.41 |
| 4:V:36:GLU:HA | 4:V:39:LEU:HD12 | 2.02 | 0.41 |
| 5:Z:257:ASN:OD1 | 5:Z:258:LEU:HG | 2.20 | 0.41 |
| 5:Z:294:VAL:HG21 | 6:b:91:LYS:NZ | 2.35 | 0.41 |
| 5:0:87:SER:HB3 | 5:0:237:ASP:HA | 2.02 | 0.41 |
| 5:0:158:LEU:HB2 | 5:0:208:LEU:HB2 | 2.01 | 0.41 |
| 5:0:172:PHE:O | 5:0:227:ILE:HD12 | 2.20 | 0.41 |
| 5:2:294:VAL:HG21 | 6:e:91:LYS:NZ | 2.35 | 0.41 |
| 5:2:380:LYS:NZ | 5:2:450:GLU:OE1 | 2.34 | 0.41 |
| 5:3:76:THR:HG23 | 5:9:61:ILE:HD13 | 2.00 | 0.41 |
| 5:4:20:GLU:HA | 5:4:26:SER:HA | 2.02 | 0.41 |
| 5:5:10:SER:OG | 5:5:11:ILE:N | 2.53 | 0.41 |
| 5:5:95:ALA:HB2 | 5:5:126:LEU:HD13 | 2.02 | 0.41 |
| 5:5:375:ARG:O | 5:5:460:PHE:N | 2.31 | 0.41 |
| 5:6:304:VAL:HA | 5:6:310:LEU:HD12 | 2.01 | 0.41 |
| 5:6:415:PHE:HB3 | 5:6:423:TYR:HD1 | 1.84 | 0.41 |
| 5:7:244:GLN:N | 5:7:263:THR:OG1 | 2.34 | 0.41 |
| 5:7:342:HIS:HB2 | 5:7:350:LEU:HD21 | 2.01 | 0.41 |
| 5:8:41:ILE:HA | 5:8:44:ILE:HG12 | 2.02 | 0.41 |
| 5:9:95:ALA:HB2 | 5:9:126:LEU:HD13 | 2.02 | 0.41 |
| 6:a:189:LYS:N | 6:a:190:PRO:HD2 | 2.35 | 0.41 |
| 6:d:189:LYS:N | 6:d:190:PRO:HD2 | 2.35 | 0.41 |
| 6:e:116:TYR:OH | 6:e:133:GLU:OE2 | 2.31 | 0.41 |
| 6:f:111:LEU:HD11 | 6:f:155:SER:HB3 | 2.02 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:g:493:PRO:HB2 | 7:g:513:CYS:HB3 | 2.01 | 0.41 |
| 7:h:108:PHE:HA | 7:h:113:GLU:O | 2.21 | 0.41 |
| 7:h:330:PHE:HB3 | 7:h:383:ILE:HD11 | 2.02 | 0.41 |
| 7:j:155:ALA:HB2 | 7:j:166:LEU:HD23 | 2.02 | 0.41 |
| 7:j:408:GLY:HA3 | 7:j:412:GLN:NE2 | 2.34 | 0.41 |
| 7:k:268:VAL:HG13 | 7:k:291:ILE:HD12 | 2.02 | 0.41 |
| 7:l:105:ILE:HB | 7:l:136:TYR:HB3 | 2.02 | 0.41 |
| 7:l:268:VAL:HG13 | 7:l:291:ILE:HD12 | 2.02 | 0.41 |
| 7:m:36:SER:O | 7:m:38:TRP:HD1 | 2.03 | 0.41 |
| 7:n:367:HIS:HE1 | 7:n:477:SER:OG | 2.03 | 0.41 |
| 7:n:407:VAL:HB | 7:o:3:GLN:HE21 | 1.85 | 0.41 |
| 7:o:505:LYS:O | 7:o:505:LYS:HD3 | 2.20 | 0.41 |
| 7:p:269:LEU:HA | 7:p:294:PHE:HB2 | 2.02 | 0.41 |
| 7:p:289:ARG:O | 7:p:291:ILE:HG23 | 2.20 | 0.41 |
| 7:r:469:LYS:O | 7:r:472:ASP:HB2 | 2.19 | 0.41 |
| 7:r:507:GLU:N | 7:r:507:GLU:OE1 | 2.53 | 0.41 |
| 7:AA:110:GLU:HA | 7:AA:132:ALA:HB2 | 2.02 | 0.41 |
| 7:AA:462:GLY:O | 7:AA:465:LYS:HG2 | 2.20 | 0.41 |
| 7:BA:269:LEU:HD13 | 7:BA:294:PHE:HB2 | 2.02 | 0.41 |
| 7:CA:190:GLU:O | 7:IA:69:LYS:NZ | 2.53 | 0.41 |
| 7:DA:59:ASN:O | 7:DA:63:VAL:HG22 | 2.20 | 0.41 |
| 7:DA:481:VAL:O | 7:DA:513:CYS:HB3 | 2.19 | 0.41 |
| 7:GA:461:ALA:HB1 | 7:GA:465:LYS:HZ1 | 1.84 | 0.41 |
| 7:HA:110:GLU:OE2 | 7:HA:224:THR:OG1 | 2.30 | 0.41 |
| 7:IA:426:ASN:HB3 | 7:JA:195:ASP:HB2 | 2.02 | 0.41 |
| 7:IA:433:VAL:HA | 7:IA:436:LEU:HG | 2.01 | 0.41 |
| 7:IA:474:PHE:O | 7:IA:477:SER:OG | 2.28 | 0.41 |
| 7:KA:105:ILE:HG13 | 7:KA:135:ILE:O | 2.20 | 0.41 |
| 7:LA:75:GLN:OE1 | 7:LA:244:SER:N | 2.53 | 0.41 |
| 7:LA:188:LEU:HD21 | 7:LA:225:ALA:HB3 | 2.02 | 0.41 |
| 7:OA:369:SER:HA | 7:OA:370:PRO:HD3 | 1.86 | 0.41 |
| 7:OA:412:GLN:HG2 | 7:OA:414:ILE:HG23 | 2.02 | 0.41 |
| 7:PA:136:TYR:CZ | 7:PA:214:ARG:HB2 | 2.55 | 0.41 |
| 7:PA:194:ASP:OD1 | 7:PA:197:GLY:N | 2.54 | 0.41 |
| 7:QA:368:TYR:HB3 | 7:QA:375:ARG:HH22 | 1.84 | 0.41 |
| 7:RA:328:TYR:CE1 | 7:RA:330:PHE:HB2 | 2.55 | 0.41 |
| 7:RA:377:VAL:HG22 | 7:RA:414:ILE:HG22 | 2.01 | 0.41 |
| 8:AB:3:HIS:CD2 | 8:BB:25:GLU:HA | 2.55 | 0.41 |
| 8:CB:168:TRP:CE2 | 8:DB:98:LYS:HD2 | 2.55 | 0.41 |
| 8:IB:11:LYS:HE3 | 8:IB:12:PHE:CE2 | 2.54 | 0.41 |
| 8:KB:56:ARG:O | 8:KB:76:ARG:NH2 | 2.53 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 8:KB:126:THR:C | 8:KB:127:LYS:HD3 | 2.45 | 0.41 |
| 8:LB:87:GLU:OE2 | 8:LB:94:LEU:HD23 | 2.20 | 0.41 |
| 8:OB:23:LYS:HE2 | 8:PB:41:ASP:O | 2.21 | 0.41 |
| 8:PB:48:THR:HB | 8:PB:84:GLN:HG3 | 2.02 | 0.41 |
| 8:QB:68:LYS:CE | 8:RB:76:ARG:HH22 | 2.31 | 0.41 |
| 8:RB:60:GLU:HG2 | 8:RB:70:ASN:HB2 | 2.01 | 0.41 |
| 8:RB:61:ASP:O | 8:RB:68:LYS:HG2 | 2.21 | 0.41 |
| 1:B:115:ALA:HB1 | 1:B:157:PRO:HG3 | 2.02 | 0.41 |
| 1:D:33:LEU:HD23 | 1:D:36:ILE:HD11 | 2.02 | 0.41 |
| 2:L:190:ARG:NH2 | 3:R:88:SER:HB3 | 2.34 | 0.41 |
| 3:M:63:LEU:HD22 | 3:M:65:HIS:CE1 | 2.55 | 0.41 |
| 3:M:70:VAL:HA | 3:M:73:MET:HG3 | 2.03 | 0.41 |
| 3:P:73:MET:SD | 3:P:74:LEU:N | 2.93 | 0.41 |
| 3:Q:43:VAL:H | 6:e:9:ARG:NH2 | 2.11 | 0.41 |
| 3:Q:73:MET:SD | 3:Q:74:LEU:N | 2.93 | 0.41 |
| 3:R:75:LEU:HD12 | 3:R:76:GLN:N | 2.34 | 0.41 |
| 4:W:35:LYS:NZ | 5:8:62:SER:O | 2.31 | 0.41 |
| 4:W:49:THR:O | 4:W:98:LYS:HA | 2.20 | 0.41 |
| 5:0:33:PHE:HA | 5:0:36:MET:SD | 2.60 | 0.41 |
| 5:2:1:MET:N | 6:e:33:THR:O | 2.53 | 0.41 |
| 5:4:115:GLN:HE22 | 7:g:69:LYS:HG2 | 1.85 | 0.41 |
| 5:4:304:VAL:HA | 5:4:310:LEU:HD12 | 2.01 | 0.41 |
| 5:5:304:VAL:HA | 5:5:310:LEU:HD12 | 2.01 | 0.41 |
| 5:5:322:GLU:OE1 | 5:5:328:TYR:HA | 2.20 | 0.41 |
| 5:5:335:LYS:HD3 | 5:5:368:LYS:HB2 | 2.02 | 0.41 |
| 5:6:38:THR:O | 5:6:41:ILE:HG13 | 2.20 | 0.41 |
| 5:6:68:SER:HB2 | 5:6:204:PRO:HA | 2.02 | 0.41 |
| 5:7:68:SER:HB2 | 5:7:204:PRO:HA | 2.03 | 0.41 |
| 5:7:115:GLN:HE22 | 7:j:69:LYS:HG2 | 1.86 | 0.41 |
| 5:7:428:LYS:HE3 | 5:7:451:TRP:CD2 | 2.55 | 0.41 |
| 5:8:222:PRO:O | 5:8:225:SER:OG | 2.38 | 0.41 |
| 5:8:337:PHE:CD2 | 5:8:372:LYS:HE2 | 2.55 | 0.41 |
| 6:a:41:ARG:HD2 | 6:a:42:ILE:N | 2.35 | 0.41 |
| 6:e:111:LEU:HD11 | 6:e:155:SER:HB3 | 2.02 | 0.41 |
| 6:f:41:ARG:HD2 | 6:f:42:ILE:N | 2.35 | 0.41 |
| 7:g:79:ILE:HA | 7:g:82:VAL:HG22 | 2.02 | 0.41 |
| 7:g:81:HIS:HA | 7:g:84:GLU:OE1 | 2.20 | 0.41 |
| 7:h:81:HIS:HA | 7:h:84:GLU:OE1 | 2.20 | 0.41 |
| 7:h:136:TYR:CE2 | 7:h:214:ARG:HB2 | 2.55 | 0.41 |
| 7:i:335:LYS:HB3 | 7:i:336:TRP:CE3 | 2.55 | 0.41 |
| 7:i:433:VAL:HA | 7:i:436:LEU:HD12 | 2.03 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:j:60:TYR:HB3 | 7:j:86:ILE:HG12 | 2.02 | 0.41 |
| 7:j:253:ARG:O | 7:j:256:LYS:HG3 | 2.20 | 0.41 |
| 7:j:268:VAL:HG13 | 7:j:291:ILE:HD12 | 2.02 | 0.41 |
| 7:j:373:GLU:OE1 | 7:j:373:GLU:N | 2.43 | 0.41 |
| 7:k:330:PHE:HB3 | 7:k:383:ILE:HD11 | 2.02 | 0.41 |
| 7:l:81:HIS:HA | 7:l:84:GLU:OE1 | 2.20 | 0.41 |
| 7:l:402:LEU:HG | 7:l:403:ASN:N | 2.33 | 0.41 |
| 7:m:355:ARG:HG3 | 7:m:358:LYS:NZ | 2.35 | 0.41 |
| 7:m:528:ILE:O | 7:m:529:LYS:HG3 | 2.21 | 0.41 |
| 7:n:452:LYS:HA | 7:n:452:LYS:HD2 | 1.95 | 0.41 |
| 7:p:276:ASN:O | 7:p:280:THR:HG23 | 2.20 | 0.41 |
| 7:p:460:ALA:O | 7:p:464:THR:HG23 | 2.20 | 0.41 |
| 7:p:527:LEU:HD22 | 7:q:21:ILE:CG1 | 2.48 | 0.41 |
| 7:q:276:ASN:O | 7:q:280:THR:HG23 | 2.20 | 0.41 |
| 7:r:67:PRO:HB3 | 7:r:79:ILE:HD12 | 2.03 | 0.41 |
| 7:r:230:LYS:HB3 | 7:r:233:LEU:HD21 | 2.01 | 0.41 |
| 7:r:452:LYS:HE2 | 7:FA:519:ARG:O | 2.20 | 0.41 |
| 7:BA:150:LEU:HD12 | 7:BA:168:LYS:O | 2.20 | 0.41 |
| 7:BA:255:VAL:HG11 | 7:BA:281:ALA:HB1 | 2.03 | 0.41 |
| 7:BA:462:GLY:O | 7:BA:465:LYS:HG2 | 2.20 | 0.41 |
| 7:CA:275:ASP:O | 7:CA:279:ILE:HG12 | 2.19 | 0.41 |
| 7:DA:110:GLU:HA | 7:DA:132:ALA:HB2 | 2.02 | 0.41 |
| 7:DA:118:ALA:HB2 | 7:DA:237:GLY:HA3 | 2.01 | 0.41 |
| 7:FA:110:GLU:HA | 7:FA:132:ALA:HB2 | 2.02 | 0.41 |
| 7:GA:195:ASP:HB2 | 7:LA:426:ASN:HB3 | 2.01 | 0.41 |
| 7:GA:252:LEU:HA | 7:GA:255:VAL:HG22 | 2.02 | 0.41 |
| 7:JA:107:MET:SD | 7:JA:134:ALA:HB2 | 2.61 | 0.41 |
| 7:JA:111:SER:HA | 7:JA:226:LYS:NZ | 2.34 | 0.41 |
| 7:JA:278:ALA:O | 7:JA:282:LEU:HG | 2.19 | 0.41 |
| 7:JA:289:ARG:NH1 | 7:QA:4:TYR:HB2 | 2.35 | 0.41 |
| 7:KA:188:LEU:HD21 | 7:KA:225:ALA:HB3 | 2.02 | 0.41 |
| 7:KA:289:ARG:NH1 | 7:RA:4:TYR:HB2 | 2.35 | 0.41 |
| 7:KA:436:LEU:HD12 | 7:KA:437:MET:N | 2.35 | 0.41 |
| 7:LA:354:ALA:HA | 7:LA:357:VAL:HG12 | 2.02 | 0.41 |
| 7:MA:10:LEU:HD13 | 7:MA:17:ALA:HB3 | 2.02 | 0.41 |
| 7:MA:369:SER:HA | 7:MA:370:PRO:HD3 | 1.86 | 0.41 |
| 7:NA:481:VAL:C | 7:NA:493:PRO:HB3 | 2.44 | 0.41 |
| 7:PA:168:LYS:HG2 | 7:PA:183:THR:HG23 | 2.02 | 0.41 |
| 7:QA:76:PHE:O | 7:QA:80:ARG:HG2 | 2.20 | 0.41 |
| 7:QA:108:PHE:CE1 | 7:QA:114:PRO:HB3 | 2.50 | 0.41 |
| 7:QA:210:SER:O | 7:QA:214:ARG:NE | 2.45 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 8:BB:85:CYS:O | 8:BB:157:PRO:HD2 | 2.20 | 0.41 |
| 8:GB:68:LYS:HZ2 | 8:HB:164:ASN:HA | 1.85 | 0.41 |
| 8:HB:17:TYR:HA | 8:HB:20:ASN:HD21 | 1.85 | 0.41 |
| 8:HB:28:VAL:HG22 | 8:HB:30:SER:H | 1.85 | 0.41 |
| 8:IB:116:GLU:O | 8:IB:119:SER:OG | 2.34 | 0.41 |
| 8:LB:45:LEU:O | 8:LB:47:ARG:NH1 | 2.53 | 0.41 |
| 8:MB:97:ILE:HG13 | 8:RB:168:TRP:CZ3 | 2.55 | 0.41 |
| 8:MB:98:LYS:HA | 8:MB:98:LYS:HE3 | 2.02 | 0.41 |
| 8:PB:23:LYS:NZ | 8:QB:92:ASP:OD2 | 2.50 | 0.41 |
| 8:PB:138:LYS:O | 8:PB:161:ILE:HD12 | 2.21 | 0.41 |
| 1:B:64:LYS:HZ1 | 1:B:100:VAL:C | 2.29 | 0.41 |
| 1:E:64:LYS:NZ | 1:E:99:MET:HG3 | 2.34 | 0.41 |
| 1:E:101:ARG:HD3 | 1:E:101:ARG:H | 1.85 | 0.41 |
| 2:L:169:LEU:HA | 2:L:169:LEU:HD23 | 1.88 | 0.41 |
| 3:M:99:ASP:HB2 | 3:M:100:LYS:NZ | 2.35 | 0.41 |
| 4:S:49:THR:O | 4:S:98:LYS:HA | 2.21 | 0.41 |
| 4:S:59:TYR:HA | 4:S:87:GLU:HB3 | 2.02 | 0.41 |
| 4:S:93:VAL:HG11 | 7:g:383:ILE:HG22 | 2.01 | 0.41 |
| 4:T:86:ASP:HA | 5:5:47:ARG:HH22 | 1.85 | 0.41 |
| 4:U:52:TYR:CE2 | 7:i:333:LYS:HE3 | 2.55 | 0.41 |
| 4:U:79:THR:HG23 | 4:U:84:LEU:HG | 2.01 | 0.41 |
| 4:U:110:ARG:HG3 | 4:U:114:TYR:CE2 | 2.55 | 0.41 |
| 4:V:31:ALA:O | 4:V:35:LYS:HG2 | 2.20 | 0.41 |
| 4:V:85:GLU:HA | 5:7:51:TYR:OH | 2.20 | 0.41 |
| 4:X:49:THR:O | 4:X:98:LYS:HA | 2.21 | 0.41 |
| 5:Z:174:THR:HB | 5:Z:226:THR:HG1 | 1.84 | 0.41 |
| 5:0:257:ASN:OD1 | 5:0:258:LEU:HG | 2.20 | 0.41 |
| 5:3:33:PHE:HA | 5:3:36:MET:SD | 2.60 | 0.41 |
| 5:3:75:GLU:OE2 | 5:3:202:TYR:HB2 | 2.20 | 0.41 |
| 5:4:245:ASN:HA | 5:4:261:VAL:O | 2.21 | 0.41 |
| 5:5:337:PHE:CD2 | 5:5:372:LYS:HE2 | 2.56 | 0.41 |
| 5:6:94:THR:HA | 5:6:129:GLY:O | 2.20 | 0.41 |
| 5:6:322:GLU:OE1 | 5:6:328:TYR:HA | 2.20 | 0.41 |
| 5:6:337:PHE:HB3 | 5:6:372:LYS:HB2 | 2.03 | 0.41 |
| 5:7:122:ASP:HB2 | 5:7:133:VAL:HG23 | 2.01 | 0.41 |
| 5:9:106:LYS:HG3 | 5:9:120:THR:O | 2.20 | 0.41 |
| 5:9:319:GLY:C | 5:9:323:LYS:HZ2 | 2.29 | 0.41 |
| 5:9:337:PHE:HB3 | 5:9:372:LYS:HB2 | 2.02 | 0.41 |
| 5:9:337:PHE:CD2 | 5:9:372:LYS:HE2 | 2.55 | 0.41 |
| 7:g:28:SER:OG | 7:g:62:ASP:OD2 | 2.37 | 0.41 |
| 7:g:167:LEU:HD23 | 7:g:184:HIS:O | 2.21 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:g:355:ARG:HH21 | 7:g:375:ARG:HA | 1.83 | 0.41 |
| 7:i:253:ARG:O | 7:i:256:LYS:HG3 | 2.20 | 0.41 |
| 7:i:356:GLY:HA2 | 7:i:359:LYS:HZ3 | 1.85 | 0.41 |
| 7:i:367:HIS:NE2 | 7:i:368:TYR:HE1 | 2.17 | 0.41 |
| 7:j:184:HIS:CD2 | 7:j:209:ARG:HD2 | 2.55 | 0.41 |
| 7:k:69:LYS:HE2 | 7:k:337:THR:HG21 | 2.01 | 0.41 |
| 7:k:81:HIS:HA | 7:k:84:GLU:OE1 | 2.20 | 0.41 |
| 7:l:79:ILE:HA | 7:l:82:VAL:HG22 | 2.02 | 0.41 |
| 7:m:333:LYS:N | 7:m:381:ALA:O | 2.48 | 0.41 |
| 7:m:367:HIS:HA | 7:m:432:HIS:HB2 | 2.02 | 0.41 |
| 7:m:527:LEU:HD23 | 7:n:22:ASN:O | 2.21 | 0.41 |
| 7:n:333:LYS:N | 7:n:381:ALA:O | 2.48 | 0.41 |
| 7:n:469:LYS:O | 7:n:472:ASP:HB2 | 2.21 | 0.41 |
| 7:o:78:PRO:HB3 | 7:o:271:LEU:HG | 2.03 | 0.41 |
| 7:p:168:LYS:HE3 | 7:p:168:LYS:HB3 | 1.91 | 0.41 |
| 7:q:128:ASP:OD1 | 7:q:128:ASP:N | 2.53 | 0.41 |
| 7:q:369:SER:HA | 7:q:431:GLN:NE2 | 2.36 | 0.41 |
| 7:r:39:ALA:HB2 | 7:r:92:TYR:HB2 | 2.01 | 0.41 |
| 7:r:108:PHE:HB2 | 7:r:133:PHE:CE1 | 2.55 | 0.41 |
| 7:AA:80:ARG:HE | 7:AA:84:GLU:HG3 | 1.85 | 0.41 |
| 7:AA:135:ILE:HG13 | 7:AA:215:ALA:HB2 | 2.01 | 0.41 |
| 7:CA:377:VAL:HG22 | 7:CA:412:GLN:HG3 | 2.03 | 0.41 |
| 7:DA:109:ASP:OD1 | 7:DA:110:GLU:N | 2.41 | 0.41 |
| 7:DA:137:VAL:HG22 | 7:DA:139:ASP:H | 1.86 | 0.41 |
| 7:DA:150:LEU:HD11 | 7:DA:167:LEU:HB2 | 2.02 | 0.41 |
| 7:EA:255:VAL:HG11 | 7:EA:281:ALA:HB1 | 2.03 | 0.41 |
| 7:EA:333:LYS:HB2 | 7:EA:382:SER:HB3 | 2.01 | 0.41 |
| 7:EA:416:ASP:OD1 | 7:EA:416:ASP:N | 2.42 | 0.41 |
| 7:GA:107:MET:SD | 7:GA:134:ALA:HB2 | 2.61 | 0.41 |
| 7:GA:111:SER:HA | 7:GA:226:LYS:NZ | 2.34 | 0.41 |
| 7:GA:353:LYS:HA | 7:GA:353:LYS:HD2 | 1.76 | 0.41 |
| 7:HA:252:LEU:HA | 7:HA:255:VAL:HG22 | 2.02 | 0.41 |
| 7:IA:279:ILE:HG23 | 7:IA:295:PHE:CD1 | 2.56 | 0.41 |
| 7:JA:279:ILE:HG23 | 7:JA:295:PHE:CD1 | 2.56 | 0.41 |
| 7:JA:357:VAL:HA | 7:JA:365:GLY:N | 2.32 | 0.41 |
| 7:LA:107:MET:SD | 7:LA:134:ALA:HB2 | 2.61 | 0.41 |
| 7:LA:433:VAL:HA | 7:LA:436:LEU:HG | 2.01 | 0.41 |
| 7:MA:136:TYR:CE2 | 7:MA:214:ARG:HB2 | 2.54 | 0.41 |
| 7:NA:136:TYR:CE2 | 7:NA:214:ARG:HB2 | 2.54 | 0.41 |
| 7:NA:377:VAL:HG22 | 7:NA:414:ILE:HG22 | 2.01 | 0.41 |
| 7:OA:10:LEU:HD13 | 7:OA:17:ALA:HB3 | 2.02 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 7:OA:500:GLN:HB2 | 7:OA:506:TRP:CZ3 | 2.55 | 0.41 |
| 7:PA:500:GLN:HB2 | 7:PA:506:TRP:CZ3 | 2.55 | 0.41 |
| 8:AB:26:ARG:NE | 8:AB:27:LEU:N | 2.64 | 0.41 |
| 8:BB:168:TRP:CE2 | 8:CB:98:LYS:HD2 | 2.55 | 0.41 |
| 8:EB:85:CYS:O | 8:EB:157:PRO:HD2 | 2.20 | 0.41 |
| 8:IB:69:PHE:HA | 8:JB:164:ASN:HD21 | 1.84 | 0.41 |
| 8:JB:127:LYS:HD3 | 8:JB:127:LYS:N | 2.36 | 0.41 |
| 8:KB:46:VAL:O | 8:KB:47:ARG:NH2 | 2.53 | 0.41 |
| 8:LB:138:LYS:O | 8:LB:161:ILE:HD12 | 2.19 | 0.41 |
| 8:OB:27:LEU:HG | 8:PB:87:GLU:CD | 2.44 | 0.41 |
| 8:OB:61:ASP:O | 8:OB:68:LYS:HG2 | 2.20 | 0.41 |
| 8:OB:138:LYS:O | 8:OB:161:ILE:HD12 | 2.21 | 0.41 |
| 8:PB:165:TRP:CG | 8:PB:166:ILE:N | 2.88 | 0.41 |
| 8:RB:42:ILE:HG21 | 8:RB:96:PHE:CD1 | 2.56 | 0.41 |
| 1:C:114:THR:O | 1:C:118:ARG:HG3 | 2.20 | 0.41 |
| 1:C:127:ASN:HB3 | 1:C:131:GLN:NE2 | 2.36 | 0.41 |
| 1:F:127:ASN:HB3 | 1:F:131:GLN:NE2 | 2.36 | 0.41 |
| 2:I:90:PRO:HG2 | 2:I:179:GLY:HA3 | 2.01 | 0.41 |
| 3:M:73:MET:SD | 3:M:74:LEU:N | 2.94 | 0.41 |
| 3:N:99:ASP:HB2 | 3:N:100:LYS:NZ | 2.35 | 0.41 |
| 4:S:79:THR:HG23 | 4:S:84:LEU:HG | 2.03 | 0.41 |
| 4:S:112:PHE:HA | 4:S:116:GLY:CA | 2.48 | 0.41 |
| 4:U:34:ARG:NH1 | 5:6:58:GLU:OE2 | 2.44 | 0.41 |
| 4:W:36:GLU:HA | 4:W:39:LEU:HD12 | 2.03 | 0.41 |
| 4:X:23:ASN:OD1 | 4:X:24:ILE:N | 2.53 | 0.41 |
| 4:X:59:TYR:HA | 4:X:87:GLU:HB3 | 2.01 | 0.41 |
| 5:Y:13:ALA:O | 5:Y:14:GLU:C | 2.64 | 0.41 |
| 5:Y:394:GLU:HB3 | 5:Z:125:ARG:HH12 | 1.86 | 0.41 |
| 5:0:387:ILE:N | 5:0:473:SER:O | 2.48 | 0.41 |
| 5:1:257:ASN:OD1 | 5:1:258:LEU:HG | 2.21 | 0.41 |
| 5:4:68:SER:HB2 | 5:4:204:PRO:HA | 2.02 | 0.41 |
| 5:4:94:THR:HA | 5:4:129:GLY:O | 2.20 | 0.41 |
| 5:4:106:LYS:HG3 | 5:4:120:THR:O | 2.20 | 0.41 |
| 5:4:319:GLY:C | 5:4:323:LYS:HZ2 | 2.29 | 0.41 |
| 5:5:94:THR:HA | 5:5:129:GLY:O | 2.20 | 0.41 |
| 5:6:10:SER:OG | 5:6:11:ILE:N | 2.53 | 0.41 |
| 5:6:122:ASP:HB2 | 5:6:133:VAL:HG23 | 2.01 | 0.41 |
| 5:6:274:GLU:OE1 | 5:6:274:GLU:N | 2.50 | 0.41 |
| 5:6:310:LEU:HD23 | 5:6:342:HIS:HD2 | 1.85 | 0.41 |
| 5:7:366:ASN:ND2 | 6:d:150:SER:O | 2.54 | 0.41 |
| 5:8:115:GLN:HE22 | 7:k:69:LYS:HG2 | 1.86 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 5:8:278:ILE:HD12 | 5:8:278:ILE:HA | 1.93 | 0.41 |
| 5:9:25:TRP:HD1 | 5:9:28:PHE:HE2 | 1.69 | 0.41 |
| 6:a:94:GLU:O | 6:a:98:ASN:ND2 | 2.53 | 0.41 |
| 6:c:189:LYS:N | 6:c:190:PRO:HD2 | 2.35 | 0.41 |
| 6:d:41:ARG:HD2 | 6:d:42:ILE:N | 2.35 | 0.41 |
| 6:e:41:ARG:HD2 | 6:e:42:ILE:N | 2.35 | 0.41 |
| 6:e:70:ARG:HG3 | 6:e:187:PHE:CE1 | 2.56 | 0.41 |
| 7:h:81:HIS:HE2 | 7:h:344:GLY:N | 2.18 | 0.41 |
| 7:h:128:ASP:OD1 | 7:h:128:ASP:N | 2.48 | 0.41 |
| 7:h:281:ALA:O | 7:h:285:ILE:HG13 | 2.20 | 0.41 |
| 7:h:368:TYR:HB3 | 7:h:375:ARG:CZ | 2.51 | 0.41 |
| 7:i:81:HIS:HE2 | 7:i:344:GLY:N | 2.19 | 0.41 |
| 7:j:136:TYR:CE2 | 7:j:214:ARG:HB2 | 2.55 | 0.41 |
| 7:j:275:ASP:OD2 | 7:j:278:ALA:N | 2.42 | 0.41 |
| 7:k:155:ALA:HB2 | 7:k:166:LEU:HD23 | 2.02 | 0.41 |
| 7:l:69:LYS:HE2 | 7:l:337:THR:HG21 | 2.02 | 0.41 |
| 7:l:427:TYR:OH | 7:l:484:ARG:NH1 | 2.54 | 0.41 |
| 7:l:428:LEU:HD11 | 7:m:21:ILE:HG21 | 2.02 | 0.41 |
| 7:l:433:VAL:HA | 7:l:436:LEU:HD12 | 2.03 | 0.41 |
| 7:l:493:PRO:HB2 | 7:l:513:CYS:HB3 | 2.02 | 0.41 |
| 7:m:98:PRO:HG2 | 7:m:242:ASP:O | 2.20 | 0.41 |
| 7:m:108:PHE:HB2 | 7:m:133:PHE:CE1 | 2.55 | 0.41 |
| 7:o:195:ASP:OD1 | 7:o:196:MET:HE2 | 2.21 | 0.41 |
| 7:o:527:LEU:HD22 | 7:p:21:ILE:CG1 | 2.48 | 0.41 |
| 7:q:103:PHE:HB3 | 7:q:121:TYR:CZ | 2.55 | 0.41 |
| 7:r:103:PHE:HB3 | 7:r:121:TYR:CZ | 2.56 | 0.41 |
| 7:r:528:ILE:O | 7:r:529:LYS:HG3 | 2.21 | 0.41 |
| 7:AA:135:ILE:HD11 | 7:AA:213:LEU:HB3 | 2.02 | 0.41 |
| 7:BA:63:VAL:HG23 | 7:BA:64:LEU:HD22 | 2.02 | 0.41 |
| 7:BA:110:GLU:HA | 7:BA:132:ALA:HB2 | 2.03 | 0.41 |
| 7:BA:366:TRP:HB3 | 7:BA:435:SER:OG | 2.20 | 0.41 |
| 7:BA:389:GLU:OE1 | 7:BA:389:GLU:N | 2.46 | 0.41 |
| 7:CA:135:ILE:HG12 | 7:CA:213:LEU:HD12 | 2.02 | 0.41 |
| 7:CA:137:VAL:HG22 | 7:CA:139:ASP:H | 1.86 | 0.41 |
| 7:CA:503:PHE:CE1 | 7:IA:516:GLY:HA2 | 2.55 | 0.41 |
| 7:DA:80:ARG:HH21 | 7:DA:84:GLU:HG3 | 1.86 | 0.41 |
| 7:DA:190:GLU:O | 7:JA:69:LYS:NZ | 2.53 | 0.41 |
| 7:DA:386:LEU:HA | 7:DA:386:LEU:HD23 | 1.87 | 0.41 |
| 7:FA:38:TRP:CZ2 | 7:FA:91:GLY:HA3 | 2.56 | 0.41 |
| 7:FA:92:TYR:CD1 | 7:FA:263:TYR:HD1 | 2.39 | 0.41 |
| 7:GA:279:ILE:HG23 | 7:GA:295:PHE:CD1 | 2.56 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:GA:412:GLN:O | 7:GA:414:ILE:HG23 | 2.20 | 0.41 |
| 7:HA:303:TYR:OH | 7:HA:397:MET:SD | 2.68 | 0.41 |
| 7:IA:252:LEU:HA | 7:IA:255:VAL:HG22 | 2.02 | 0.41 |
| 7:IA:295:PHE:HB2 | 7:IA:325:VAL:HG22 | 2.02 | 0.41 |
| 7:IA:452:LYS:C | 7:IA:454:SER:H | 2.27 | 0.41 |
| 7:JA:463:LEU:O | 7:JA:467:MET:HG2 | 2.20 | 0.41 |
| 7:KA:443:PHE:HA | 7:KA:446:GLN:OE1 | 2.20 | 0.41 |
| 7:KA:470:LEU:O | 7:KA:473:ARG:HG2 | 2.21 | 0.41 |
| 7:NA:69:LYS:O | 7:NA:72:SER:OG | 2.27 | 0.41 |
| 7:NA:80:ARG:O | 7:NA:83:TYR:HB3 | 2.20 | 0.41 |
| 7:NA:194:ASP:OD1 | 7:NA:197:GLY:N | 2.54 | 0.41 |
| 7:QA:469:LYS:HB3 | 7:QA:473:ARG:NH1 | 2.33 | 0.41 |
| 7:QA:500:GLN:HE21 | 7:QA:502:GLU:H | 1.68 | 0.41 |
| 7:RA:194:ASP:OD1 | 7:RA:197:GLY:N | 2.54 | 0.41 |
| 7:RA:201:TYR:CE2 | 7:RA:203:PRO:HD2 | 2.56 | 0.41 |
| 7:RA:500:GLN:HE21 | 7:RA:502:GLU:H | 1.68 | 0.41 |
| 8:AB:26:ARG:HH22 | 8:BB:87:GLU:HG2 | 1.85 | 0.41 |
| 8:EB:56:ARG:CZ | 8:FB:140:TYR:OH | 2.68 | 0.41 |
| 8:FB:169:ASP:OD1 | 8:FB:169:ASP:N | 2.48 | 0.41 |
| 8:GB:135:LEU:HG | 8:GB:167:GLU:HG2 | 2.01 | 0.41 |
| 8:IB:47:ARG:HG2 | 8:IB:85:CYS:HA | 2.00 | 0.41 |
| 8:IB:79:GLY:O | 8:IB:162:VAL:HA | 2.21 | 0.41 |
| 8:IB:126:THR:C | 8:IB:127:LYS:HD3 | 2.45 | 0.41 |
| 8:JB:47:ARG:HG2 | 8:JB:85:CYS:HA | 2.01 | 0.41 |
| 8:JB:48:THR:H | 8:JB:84:GLN:HB3 | 1.84 | 0.41 |
| 8:LB:17:TYR:HA | 8:LB:20:ASN:HD21 | 1.85 | 0.41 |
| 8:MB:36:PHE:HD2 | 8:MB:39:HIS:HB2 | 1.86 | 0.41 |
| 8:MB:150:ASP:OD2 | 8:RB:29:SER:OG | 2.36 | 0.41 |
| 1:B:33:LEU:HD23 | 1:B:36:ILE:HD11 | 2.02 | 0.41 |
| 1:C:128:ILE:HD13 | 1:C:201:PHE:HE2 | 1.85 | 0.41 |
| 2:G:153:ASP:CB | 2:G:176:GLN:HE21 | 2.29 | 0.41 |
| 2:J:111:ALA:O | 2:J:115:LEU:HG | 2.20 | 0.41 |
| 2:J:119:ILE:HD12 | 2:J:151:ILE:HG22 | 2.02 | 0.41 |
| 3:M:40:GLN:HE21 | 3:M:48:SER:HA | 1.85 | 0.41 |
| 3:N:70:VAL:HA | 3:N:73:MET:HG3 | 2.03 | 0.41 |
| 3:P:93:ALA:O | 3:P:101:LEU:HD12 | 2.20 | 0.41 |
| 3:Q:57:LYS:NZ | 7:I:3:GLN:HB2 | 2.36 | 0.41 |
| 3:R:32:LEU:HD11 | 3:R:85:ILE:HG12 | 2.02 | 0.41 |
| 3:R:93:ALA:O | 3:R:101:LEU:HD12 | 2.20 | 0.41 |
| 4:V:60:ARG:HA | 4:V:60:ARG:HD2 | 1.89 | 0.41 |
| 5:O:90:MET:HE3 | 5:O:132:THR:HB | 2.02 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 5:0:294:VAL:HG21 | 6:c:91:LYS:NZ | 2.35 | 0.41 |
| 5:1:435:ILE:HD13 | 5:1:446:LEU:HD11 | 2.03 | 0.41 |
| 5:3:47:ARG:NH2 | 5:9:6:PRO:HD3 | 2.35 | 0.41 |
| 5:4:337:PHE:CD2 | 5:4:372:LYS:HE2 | 2.56 | 0.41 |
| 5:5:245:ASN:HA | 5:5:261:VAL:O | 2.21 | 0.41 |
| 5:5:310:LEU:HD23 | 5:5:342:HIS:HD2 | 1.86 | 0.41 |
| 5:5:337:PHE:HB3 | 5:5:372:LYS:HB2 | 2.02 | 0.41 |
| 5:6:310:LEU:HD23 | 5:6:342:HIS:CD2 | 2.56 | 0.41 |
| 5:7:39:LEU:HA | 5:7:42:THR:OG1 | 2.20 | 0.41 |
| 5:7:94:THR:HA | 5:7:129:GLY:O | 2.21 | 0.41 |
| 5:8:20:GLU:HA | 5:8:26:SER:HA | 2.03 | 0.41 |
| 5:9:13:ALA:O | 5:9:16:GLU:HG2 | 2.20 | 0.41 |
| 5:9:396:VAL:O | 5:9:400:LEU:HD23 | 2.19 | 0.41 |
| 5:9:428:LYS:HE3 | 5:9:451:TRP:CD2 | 2.56 | 0.41 |
| 6:a:111:LEU:HD11 | 6:a:155:SER:HB3 | 2.03 | 0.41 |
| 6:c:154:ILE:O | 6:c:201:LEU:HD12 | 2.21 | 0.41 |
| 6:d:115:ILE:N | 6:d:151:ARG:O | 2.35 | 0.41 |
| 6:e:119:VAL:HG22 | 6:e:147:PHE:CE2 | 2.54 | 0.41 |
| 7:g:75:GLN:O | 7:g:78:PRO:HD2 | 2.20 | 0.41 |
| 7:g:198:ARG:HA | 7:g:198:ARG:NE | 2.36 | 0.41 |
| 7:g:408:GLY:HA3 | 7:g:412:GLN:NE2 | 2.34 | 0.41 |
| 7:h:367:HIS:NE2 | 7:h:368:TYR:HE1 | 2.18 | 0.41 |
| 7:h:433:VAL:HA | 7:h:436:LEU:HD12 | 2.03 | 0.41 |
| 7:h:512:CYS:O | 7:n:527:LEU:HD12 | 2.19 | 0.41 |
| 7:i:37:LEU:HB2 | 7:i:265:TYR:HA | 2.03 | 0.41 |
| 7:i:105:ILE:HB | 7:i:136:TYR:HB3 | 2.02 | 0.41 |
| 7:k:184:HIS:CD2 | 7:k:209:ARG:HD2 | 2.55 | 0.41 |
| 7:k:368:TYR:HB3 | 7:k:375:ARG:CZ | 2.50 | 0.41 |
| 7:k:433:VAL:HA | 7:k:436:LEU:HD12 | 2.03 | 0.41 |
| 7:l:75:GLN:O | 7:l:78:PRO:HD2 | 2.20 | 0.41 |
| 7:l:295:PHE:O | 7:l:325:VAL:HA | 2.20 | 0.41 |
| 7:l:355:ARG:HH21 | 7:l:375:ARG:HA | 1.83 | 0.41 |
| 7:m:103:PHE:HB3 | 7:m:121:TYR:CZ | 2.55 | 0.41 |
| 7:n:269:LEU:HA | 7:n:294:PHE:HB2 | 2.03 | 0.41 |
| 7:o:38:TRP:NE1 | 7:o:89:THR:HG23 | 2.35 | 0.41 |
| 7:o:142:PRO:HB3 | 7:o:239:THR:HA | 2.02 | 0.41 |
| 7:p:142:PRO:HB3 | 7:p:239:THR:HA | 2.02 | 0.41 |
| 7:p:305:GLU:C | 7:p:308:PRO:HD2 | 2.46 | 0.41 |
| 7:p:369:SER:HA | 7:p:431:GLN:NE2 | 2.36 | 0.41 |
| 7:q:220:GLU:HG2 | 7:q:221:LEU:HG | 2.03 | 0.41 |
| 7:AA:331:SER:HG | 7:AA:384:GLN:HE21 | 1.62 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:CA:118:ALA:HB2 | 7:CA:237:GLY:HA3 | 2.01 | 0.41 |
| 7:DA:333:LYS:HA | 7:DA:333:LYS:HD3 | 1.83 | 0.41 |
| 7:EA:110:GLU:HA | 7:EA:132:ALA:HB2 | 2.03 | 0.41 |
| 7:FA:150:LEU:HD12 | 7:FA:168:LYS:O | 2.20 | 0.41 |
| 7:FA:190:GLU:O | 7:LA:69:LYS:NZ | 2.53 | 0.41 |
| 7:FA:366:TRP:HB3 | 7:FA:435:SER:OG | 2.20 | 0.41 |
| 7:FA:471:LEU:HB2 | 7:FA:494:TYR:HD2 | 1.83 | 0.41 |
| 7:GA:426:ASN:HB3 | 7:HA:195:ASP:HB2 | 2.02 | 0.41 |
| 7:GA:463:LEU:O | 7:GA:467:MET:HG2 | 2.20 | 0.41 |
| 7:HA:500:GLN:CD | 7:HA:506:TRP:HB3 | 2.46 | 0.41 |
| 7:JA:151:THR:HB | 7:JA:168:LYS:HE3 | 2.02 | 0.41 |
| 7:JA:500:GLN:CD | 7:JA:506:TRP:HB3 | 2.46 | 0.41 |
| 7:KA:295:PHE:HB2 | 7:KA:325:VAL:HG22 | 2.02 | 0.41 |
| 7:LA:279:ILE:HG23 | 7:LA:295:PHE:CD1 | 2.56 | 0.41 |
| 7:NA:500:GLN:HB2 | 7:NA:506:TRP:CZ3 | 2.55 | 0.41 |
| 7:OA:50:PHE:N | 7:OA:95:ARG:O | 2.45 | 0.41 |
| 7:OA:208:ALA:C | 7:OA:211:LYS:HZ1 | 2.29 | 0.41 |
| 7:PA:377:VAL:HG22 | 7:PA:414:ILE:HG22 | 2.02 | 0.41 |
| 7:QA:527:LEU:HD21 | 7:RA:23:ALA:HB2 | 2.02 | 0.41 |
| 7:RA:119:LEU:HD23 | 7:RA:119:LEU:HA | 1.88 | 0.41 |
| 8:AB:158:SER:C | 8:AB:159:LEU:HD12 | 2.46 | 0.41 |
| 8:BB:26:ARG:HH22 | 8:CB:87:GLU:HG2 | 1.85 | 0.41 |
| 8:BB:78:SER:HA | 8:BB:163:TYR:O | 2.21 | 0.41 |
| 8:IB:133:GLU:OE1 | 8:IB:133:GLU:N | 2.54 | 0.41 |
| 8:KB:133:GLU:OE1 | 8:KB:133:GLU:N | 2.54 | 0.41 |
| 8:LB:79:GLY:O | 8:LB:162:VAL:HA | 2.21 | 0.41 |
| 8:MB:87:GLU:C | 8:RB:26:ARG:HH22 | 2.28 | 0.41 |
| 8:MB:138:LYS:O | 8:MB:161:ILE:HD12 | 2.20 | 0.41 |
| 8:OB:168:TRP:CZ3 | 8:PB:97:ILE:HG13 | 2.54 | 0.41 |
| 8:QB:61:ASP:O | 8:QB:68:LYS:HG2 | 2.20 | 0.41 |
| 1:A:54:ASP:OD2 | 1:A:135:ASN:HB2 | 2.21 | 0.41 |
| 1:A:127:ASN:HB3 | 1:A:131:GLN:NE2 | 2.36 | 0.41 |
| 1:B:54:ASP:OD2 | 1:B:135:ASN:HB2 | 2.21 | 0.41 |
| 1:B:127:ASN:HB3 | 1:B:131:GLN:NE2 | 2.35 | 0.41 |
| 1:C:119:VAL:HG22 | 1:C:132:TYR:CD1 | 2.55 | 0.41 |
| 1:D:72:SER:N | 1:D:92:SER:O | 2.50 | 0.41 |
| 1:D:160:THR:OG1 | 1:D:177:PRO:O | 2.30 | 0.41 |
| 2:K:190:ARG:HH11 | 3:Q:86:PRO:HG2 | 1.83 | 0.41 |
| 2:L:190:ARG:HH21 | 3:R:88:SER:HB3 | 1.86 | 0.41 |
| 3:N:93:ALA:O | 3:N:101:LEU:HD12 | 2.21 | 0.41 |
| 4:S:75:ARG:HD3 | 5:4:46:TYR:CZ | 2.55 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:U:105:ILE:O | 4:U:108:MET:HG2 | 2.21 | 0.41 |
| 4:X:105:ILE:O | 4:X:108:MET:HG2 | 2.21 | 0.41 |
| 5:Y:125:ARG:HH12 | 5:3:394:GLU:HB3 | 1.86 | 0.41 |
| 5:Y:154:LEU:HB2 | 5:Y:212:PHE:HB2 | 2.01 | 0.41 |
| 5:Y:257:ASN:OD1 | 5:Y:258:LEU:HG | 2.20 | 0.41 |
| 5:2:435:ILE:HD13 | 5:2:446:LEU:HD11 | 2.03 | 0.41 |
| 5:3:244:GLN:H | 5:3:263:THR:HG22 | 1.86 | 0.41 |
| 5:4:95:ALA:HB2 | 5:4:126:LEU:HD13 | 2.01 | 0.41 |
| 5:4:310:LEU:HD23 | 5:4:342:HIS:CD2 | 2.56 | 0.41 |
| 5:5:122:ASP:HB2 | 5:5:133:VAL:HG23 | 2.01 | 0.41 |
| 5:6:24:PHE:HD2 | 5:6:25:TRP:CE2 | 2.39 | 0.41 |
| 5:7:137:GLN:OE1 | 5:7:234:THR:OG1 | 2.28 | 0.41 |
| 5:8:337:PHE:HB3 | 5:8:372:LYS:HB2 | 2.02 | 0.41 |
| 5:9:68:SER:HB2 | 5:9:204:PRO:HA | 2.03 | 0.41 |
| 5:9:310:LEU:HD23 | 5:9:342:HIS:HD2 | 1.85 | 0.41 |
| 6:b:75:SER:O | 6:b:78:PRO:HD2 | 2.21 | 0.41 |
| 6:b:178:GLU:O | 6:b:181:LEU:HG | 2.21 | 0.41 |
| 6:b:189:LYS:N | 6:b:190:PRO:HD2 | 2.36 | 0.41 |
| 6:c:10:LEU:HG | 6:c:14:LYS:HZ2 | 1.85 | 0.41 |
| 6:d:70:ARG:HG3 | 6:d:187:PHE:CE1 | 2.56 | 0.41 |
| 6:d:84:ARG:HG3 | 6:d:99:GLN:NE2 | 2.36 | 0.41 |
| 7:g:305:GLU:OE1 | 7:g:305:GLU:N | 2.47 | 0.41 |
| 7:h:79:ILE:HA | 7:h:82:VAL:HG22 | 2.02 | 0.41 |
| 7:i:136:TYR:CE2 | 7:i:214:ARG:HB2 | 2.55 | 0.41 |
| 7:i:268:VAL:HG13 | 7:i:291:ILE:HD12 | 2.02 | 0.41 |
| 7:i:330:PHE:HB3 | 7:i:383:ILE:HD11 | 2.02 | 0.41 |
| 7:j:69:LYS:HE2 | 7:j:337:THR:HG21 | 2.01 | 0.41 |
| 7:j:81:HIS:HA | 7:j:84:GLU:OE1 | 2.20 | 0.41 |
| 7:j:108:PHE:HA | 7:j:113:GLU:O | 2.21 | 0.41 |
| 7:j:367:HIS:NE2 | 7:j:368:TYR:HE1 | 2.18 | 0.41 |
| 7:j:428:LEU:HD11 | 7:q:21:ILE:HG21 | 2.01 | 0.41 |
| 7:j:433:VAL:HA | 7:j:436:LEU:HD12 | 2.02 | 0.41 |
| 7:k:75:GLN:O | 7:k:78:PRO:HD2 | 2.20 | 0.41 |
| 7:k:136:TYR:CE2 | 7:k:214:ARG:HB2 | 2.55 | 0.41 |
| 7:k:255:VAL:HG11 | 7:k:281:ALA:HB1 | 2.03 | 0.41 |
| 7:k:281:ALA:O | 7:k:285:ILE:HG13 | 2.20 | 0.41 |
| 7:k:369:SER:O | 7:k:375:ARG:NH2 | 2.38 | 0.41 |
| 7:m:196:MET:HB3 | 7:FA:529:LYS:NZ | 2.35 | 0.41 |
| 7:m:394:GLU:OE2 | 7:m:395:GLU:N | 2.54 | 0.41 |
| 7:n:369:SER:HA | 7:n:431:GLN:NE2 | 2.36 | 0.41 |
| 7:n:528:ILE:O | 7:n:529:LYS:HG3 | 2.21 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:o:436:LEU:O | 7:o:440:ILE:HG12 | 2.20 | 0.41 |
| 7:p:190:GLU:O | 7:DA:69:LYS:NZ | 2.46 | 0.41 |
| 7:p:220:GLU:HG2 | 7:p:221:LEU:HG | 2.03 | 0.41 |
| 7:q:107:MET:HG3 | 7:q:134:ALA:HB2 | 2.03 | 0.41 |
| 7:q:108:PHE:HB2 | 7:q:133:PHE:CE1 | 2.55 | 0.41 |
| 7:q:267:ALA:HB1 | 7:q:294:PHE:CE2 | 2.56 | 0.41 |
| 7:q:331:SER:O | 7:q:384:GLN:N | 2.29 | 0.41 |
| 7:r:194:ASP:N | 7:r:198:ARG:O | 2.47 | 0.41 |
| 7:r:436:LEU:O | 7:r:440:ILE:HG12 | 2.20 | 0.41 |
| 7:AA:77:GLU:HB2 | 7:AA:78:PRO:HD3 | 2.02 | 0.41 |
| 7:AA:80:ARG:HH21 | 7:AA:84:GLU:HG3 | 1.86 | 0.41 |
| 7:AA:255:VAL:HG11 | 7:AA:281:ALA:HB1 | 2.03 | 0.41 |
| 7:AA:452:LYS:HD2 | 7:HA:16:VAL:HG23 | 2.02 | 0.41 |
| 7:AA:471:LEU:HB2 | 7:AA:494:TYR:HD2 | 1.84 | 0.41 |
| 7:BA:133:PHE:HB2 | 7:BA:216:VAL:O | 2.21 | 0.41 |
| 7:BA:352:ALA:HA | 7:BA:355:ARG:HE | 1.84 | 0.41 |
| 7:CA:77:GLU:HB2 | 7:CA:78:PRO:HD3 | 2.02 | 0.41 |
| 7:DA:150:LEU:HD12 | 7:DA:168:LYS:O | 2.20 | 0.41 |
| 7:EA:150:LEU:HD12 | 7:EA:168:LYS:O | 2.20 | 0.41 |
| 7:EA:366:TRP:HB3 | 7:EA:435:SER:OG | 2.20 | 0.41 |
| 7:FA:133:PHE:HB2 | 7:FA:216:VAL:O | 2.21 | 0.41 |
| 7:FA:255:VAL:HG11 | 7:FA:281:ALA:HB1 | 2.03 | 0.41 |
| 7:HA:105:ILE:HD12 | 7:HA:136:TYR:HB3 | 2.02 | 0.41 |
| 7:HA:228:THR:OG1 | 7:HA:229:ASN:N | 2.54 | 0.41 |
| 7:HA:289:ARG:NH1 | 7:OA:4:TYR:HB2 | 2.35 | 0.41 |
| 7:HA:297:VAL:HG22 | 7:HA:298:LYS:N | 2.36 | 0.41 |
| 7:IA:289:ARG:NH1 | 7:PA:4:TYR:HB2 | 2.36 | 0.41 |
| 7:JA:37:LEU:O | 7:JA:266:THR:N | 2.54 | 0.41 |
| 7:KA:297:VAL:HG22 | 7:KA:298:LYS:N | 2.36 | 0.41 |
| 7:LA:303:TYR:OH | 7:LA:397:MET:SD | 2.70 | 0.41 |
| 7:MA:75:GLN:CD | 7:MA:244:SER:HA | 2.45 | 0.41 |
| 7:MA:430:PHE:HB2 | 7:MA:433:VAL:HG23 | 2.02 | 0.41 |
| 7:MA:471:LEU:HD13 | 7:MA:494:TYR:CZ | 2.55 | 0.41 |
| 7:NA:80:ARG:O | 7:NA:84:GLU:OE1 | 2.38 | 0.41 |
| 7:NA:524:VAL:HA | 7:OA:19:SER:HB2 | 2.03 | 0.41 |
| 7:PA:405:VAL:HG23 | 7:PA:415:ILE:CA | 2.46 | 0.41 |
| 7:QA:80:ARG:O | 7:QA:83:TYR:HB3 | 2.20 | 0.41 |
| 7:QA:201:TYR:CE2 | 7:QA:203:PRO:HD2 | 2.56 | 0.41 |
| 7:QA:406:SER:OG | 7:QA:407:VAL:N | 2.54 | 0.41 |
| 8:BB:5:ASN:N | 8:BB:5:ASN:OD1 | 2.51 | 0.41 |
| 8:DB:3:HIS:CD2 | 8:EB:25:GLU:HA | 2.56 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 8:FB:158:SER:C | 8:FB:159:LEU:HD12 | 2.46 | 0.41 |
| 8:IB:57:GLU:OE2 | 8:IB:57:GLU:N | 2.47 | 0.41 |
| 8:JB:32:PHE:H | 8:OB:65:ASN:ND2 | 2.13 | 0.41 |
| 8:KB:47:ARG:HG3 | 8:KB:86:VAL:HG23 | 2.02 | 0.41 |
| 8:KB:137:CYS:HB3 | 8:KB:161:ILE:HD11 | 2.02 | 0.41 |
| 8:LB:126:THR:C | 8:LB:127:LYS:HD3 | 2.45 | 0.41 |
| 8:NB:27:LEU:HG | 8:OB:87:GLU:CD | 2.45 | 0.41 |
| 8:NB:61:ASP:O | 8:NB:68:LYS:HG2 | 2.20 | 0.41 |
| 1:A:155:VAL:HA | 1:A:182:LEU:HA | 2.02 | 0.41 |
| 1:A:167:ARG:NH1 | 1:F:47:TRP:HA | 2.36 | 0.41 |
| 1:B:155:VAL:HA | 1:B:182:LEU:HA | 2.03 | 0.41 |
| 1:C:33:LEU:HD23 | 1:C:36:ILE:HD11 | 2.02 | 0.41 |
| 1:C:34:THR:O | 1:C:38:MET:HG3 | 2.21 | 0.41 |
| 1:D:138:ILE:C | 1:D:139:TYR:HD2 | 2.29 | 0.41 |
| 1:E:127:ASN:HB3 | 1:E:131:GLN:NE2 | 2.35 | 0.41 |
| 1:F:101:ARG:HD3 | 1:F:101:ARG:H | 1.85 | 0.41 |
| 1:F:114:THR:O | 1:F:118:ARG:HG3 | 2.20 | 0.41 |
| 2:J:190:ARG:HH11 | 3:P:86:PRO:HG2 | 1.83 | 0.41 |
| 2:K:162:ARG:HG3 | 2:K:168:PHE:CD1 | 2.53 | 0.41 |
| 3:N:73:MET:SD | 3:N:74:LEU:N | 2.93 | 0.41 |
| 3:O:99:ASP:HB2 | 3:O:100:LYS:NZ | 2.35 | 0.41 |
| 3:P:52:VAL:HG21 | 3:P:77:LYS:HE3 | 2.03 | 0.41 |
| 3:R:31:ARG:HB3 | 5:9:32:GLN:HE22 | 1.85 | 0.41 |
| 4:S:22:ARG:HD3 | 5:4:50:GLN:HE21 | 1.85 | 0.41 |
| 4:S:23:ASN:OD1 | 4:S:24:ILE:N | 2.53 | 0.41 |
| 4:T:53:VAL:O | 4:T:93:VAL:HG13 | 2.20 | 0.41 |
| 4:U:23:ASN:OD1 | 4:U:24:ILE:N | 2.53 | 0.41 |
| 4:U:49:THR:O | 4:U:98:LYS:HA | 2.21 | 0.41 |
| 4:W:23:ASN:OD1 | 4:W:24:ILE:N | 2.53 | 0.41 |
| 4:X:26:ASP:HB3 | 4:X:29:LEU:HB2 | 2.03 | 0.41 |
| 5:Z:75:GLU:OE2 | 5:Z:202:TYR:HB2 | 2.20 | 0.41 |
| 5:0:75:GLU:OE2 | 5:0:202:TYR:HB2 | 2.20 | 0.41 |
| 5:0:274:GLU:OE1 | 5:0:274:GLU:N | 2.43 | 0.41 |
| 5:2:244:GLN:O | 5:2:263:THR:HG22 | 2.20 | 0.41 |
| 5:2:257:ASN:OD1 | 5:2:258:LEU:HG | 2.20 | 0.41 |
| 5:2:384:THR:HA | 5:2:471:ASN:HB2 | 2.01 | 0.41 |
| 5:3:154:LEU:O | 5:3:211:ARG:HA | 2.21 | 0.41 |
| 5:3:413:THR:HG23 | 5:3:419:ARG:NH2 | 2.32 | 0.41 |
| 5:3:435:ILE:HD13 | 5:3:446:LEU:HD11 | 2.03 | 0.41 |
| 5:4:389:ALA:HB3 | 6:f:70:ARG:NH2 | 2.35 | 0.41 |
| 5:5:42:THR:HA | 5:5:45:VAL:HG22 | 2.02 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 5:7:245:ASN:HA | 5:7:261:VAL:O | 2.20 | 0.41 |
| 5:7:337:PHE:CD2 | 5:7:372:LYS:HE2 | 2.56 | 0.41 |
| 5:8:25:TRP:HD1 | 5:8:28:PHE:HE2 | 1.68 | 0.41 |
| 5:8:42:THR:HA | 5:8:45:VAL:HG22 | 2.03 | 0.41 |
| 5:8:118:TYR:HB3 | 5:8:135:VAL:HG13 | 2.02 | 0.41 |
| 5:9:316:TRP:CZ2 | 5:9:457:PHE:HA | 2.55 | 0.41 |
| 6:a:32:ASP:HA | 6:a:36:ASP:OD2 | 2.21 | 0.41 |
| 6:b:154:ILE:O | 6:b:201:LEU:HD12 | 2.21 | 0.41 |
| 6:c:75:SER:O | 6:c:78:PRO:HD2 | 2.21 | 0.41 |
| 7:g:60:TYR:HB3 | 7:g:86:ILE:HG12 | 2.02 | 0.41 |
| 7:g:105:ILE:HB | 7:g:136:TYR:HB3 | 2.02 | 0.41 |
| 7:g:128:ASP:OD1 | 7:g:128:ASP:N | 2.48 | 0.41 |
| 7:g:385:PRO:HG2 | 7:g:388:PRO:HG3 | 2.01 | 0.41 |
| 7:g:433:VAL:HA | 7:g:436:LEU:HD12 | 2.02 | 0.41 |
| 7:h:199:LEU:HD23 | 7:h:204:THR:HG21 | 2.02 | 0.41 |
| 7:h:335:LYS:HD2 | 7:h:336:TRP:CZ2 | 2.56 | 0.41 |
| 7:h:374:GLU:OE2 | 7:h:375:ARG:NH2 | 2.54 | 0.41 |
| 7:i:7:GLN:NE2 | 7:i:15:GLY:O | 2.51 | 0.41 |
| 7:i:155:ALA:HB2 | 7:i:166:LEU:HD23 | 2.02 | 0.41 |
| 7:j:146:PRO:HG2 | 7:j:148:ARG:NH1 | 2.35 | 0.41 |
| 7:k:108:PHE:HA | 7:k:113:GLU:O | 2.21 | 0.41 |
| 7:k:374:GLU:OE2 | 7:k:375:ARG:NH2 | 2.54 | 0.41 |
| 7:l:60:TYR:CE1 | 7:l:61:GLU:HB2 | 2.56 | 0.41 |
| 7:l:155:ALA:HB2 | 7:l:166:LEU:HD23 | 2.02 | 0.41 |
| 7:m:142:PRO:HB3 | 7:m:239:THR:HA | 2.02 | 0.41 |
| 7:m:407:VAL:HB | 7:n:3:GLN:HE21 | 1.85 | 0.41 |
| 7:n:452:LYS:HE2 | 7:BA:519:ARG:O | 2.21 | 0.41 |
| 7:n:487:ASP:N | 7:n:487:ASP:OD1 | 2.52 | 0.41 |
| 7:o:107:MET:HG3 | 7:o:134:ALA:HB2 | 2.03 | 0.41 |
| 7:o:527:LEU:HD23 | 7:p:22:ASN:O | 2.21 | 0.41 |
| 7:p:355:ARG:HG3 | 7:p:358:LYS:NZ | 2.35 | 0.41 |
| 7:q:307:LEU:HB2 | 7:q:308:PRO:HD3 | 2.03 | 0.41 |
| 7:AA:34:ASN:HB3 | 7:AA:37:LEU:HD21 | 2.02 | 0.41 |
| 7:AA:150:LEU:HD12 | 7:AA:168:LYS:O | 2.20 | 0.41 |
| 7:AA:528:ILE:HD12 | 7:AA:528:ILE:H | 1.85 | 0.41 |
| 7:BA:118:ALA:HB2 | 7:BA:237:GLY:HA3 | 2.01 | 0.41 |
| 7:CA:133:PHE:HB2 | 7:CA:216:VAL:O | 2.21 | 0.41 |
| 7:CA:448:ALA:HB1 | 7:IA:521:ILE:HD12 | 2.02 | 0.41 |
| 7:DA:230:LYS:C | 7:DA:231:LYS:HD3 | 2.45 | 0.41 |
| 7:DA:377:VAL:HG22 | 7:DA:412:GLN:HG3 | 2.03 | 0.41 |
| 7:DA:503:PHE:CE1 | 7:JA:516:GLY:HA2 | 2.55 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:EA:83:TYR:O | 7:EA:86:ILE:HG22 | 2.21 | 0.41 |
| 7:GA:406:SER:OG | 7:GA:407:VAL:N | 2.54 | 0.41 |
| 7:KA:302:THR:N | 7:KA:305:GLU:OE2 | 2.51 | 0.41 |
| 7:MA:80:ARG:O | 7:MA:84:GLU:OE1 | 2.38 | 0.41 |
| 7:MA:194:ASP:OD1 | 7:MA:197:GLY:N | 2.54 | 0.41 |
| 7:OA:500:GLN:HE21 | 7:OA:502:GLU:H | 1.68 | 0.41 |
| 7:PA:79:ILE:HD11 | 7:PA:80:ARG:NH1 | 2.36 | 0.41 |
| 7:PA:208:ALA:C | 7:PA:211:LYS:HZ1 | 2.29 | 0.41 |
| 7:QA:194:ASP:OD1 | 7:QA:197:GLY:N | 2.54 | 0.41 |
| 8:BB:26:ARG:NE | 8:BB:27:LEU:N | 2.64 | 0.41 |
| 8:BB:31:GLU:HA | 8:GB:65:ASN:HB3 | 2.02 | 0.41 |
| 8:BB:55:THR:HG23 | 8:BB:76:ARG:HB2 | 2.01 | 0.41 |
| 8:CB:158:SER:C | 8:CB:159:LEU:HD12 | 2.46 | 0.41 |
| 8:DB:55:THR:HG23 | 8:DB:76:ARG:HB2 | 2.03 | 0.41 |
| 8:FB:85:CYS:O | 8:FB:157:PRO:HD2 | 2.20 | 0.41 |
| 8:JB:47:ARG:NH2 | 8:OB:64:PRO:HG3 | 2.36 | 0.41 |
| 8:JB:155:VAL:C | 8:JB:157:PRO:HD3 | 2.45 | 0.41 |
| 8:MB:42:ILE:HG21 | 8:MB:96:PHE:CD1 | 2.56 | 0.41 |
| 8:MB:60:GLU:HG2 | 8:MB:70:ASN:HB2 | 2.01 | 0.41 |
| 8:NB:52:PRO:CG | 8:NB:132:ILE:HG12 | 2.51 | 0.41 |
| 8:NB:138:LYS:O | 8:NB:161:ILE:HD12 | 2.21 | 0.41 |
| 8:OB:144:ILE:HD11 | 8:OB:158:SER:CB | 2.51 | 0.41 |
| 8:QB:50:GLN:HE22 | 8:RB:145:ASP:HA | 1.86 | 0.41 |
| 8:RB:13:ILE:HA | 8:RB:16:ARG:HG2 | 2.02 | 0.41 |
| 8:RB:56:ARG:HD3 | 8:RB:73:GLY:O | 2.21 | 0.41 |
| 8:RB:88:THR:HG22 | 8:RB:93:ILE:HG12 | 2.02 | 0.41 |
| 8:RB:98:LYS:HA | 8:RB:98:LYS:HE3 | 2.02 | 0.41 |
| 1:A:56:LEU:HB3 | 1:A:59:ALA:HB2 | 2.02 | 0.41 |
| 1:B:45:GLN:NE2 | 1:C:172:GLU:O | 2.53 | 0.41 |
| 1:B:80:ILE:HA | 2:I:33:TYR:CZ | 2.56 | 0.41 |
| 1:C:52:GLU:OE2 | 1:C:137:ARG:HG3 | 2.21 | 0.41 |
| 1:D:52:GLU:OE2 | 1:D:137:ARG:HG3 | 2.21 | 0.41 |
| 1:D:56:LEU:HB3 | 1:D:59:ALA:HB2 | 2.02 | 0.41 |
| 1:E:33:LEU:HD23 | 1:E:36:ILE:HD11 | 2.02 | 0.41 |
| 1:E:54:ASP:OD2 | 1:E:135:ASN:HB2 | 2.21 | 0.41 |
| 1:E:155:VAL:HA | 1:E:182:LEU:HA | 2.03 | 0.41 |
| 1:F:54:ASP:OD2 | 1:F:135:ASN:HB2 | 2.21 | 0.41 |
| 2:H:190:ARG:HH21 | 3:N:88:SER:HB3 | 1.86 | 0.41 |
| 2:L:162:ARG:HG3 | 2:L:168:PHE:CD1 | 2.53 | 0.41 |
| 3:O:12:THR:H | 7:i:527:LEU:HD13 | 1.85 | 0.41 |
| 3:O:32:LEU:HD11 | 3:O:85:ILE:HG12 | 2.02 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:O:71:GLU:HA | 3:O:74:LEU:CD2 | 2.51 | 0.41 |
| 3:P:63:LEU:HD22 | 3:P:65:HIS:CE1 | 2.56 | 0.41 |
| 3:Q:12:THR:H | 7:k:527:LEU:HD13 | 1.85 | 0.41 |
| 3:Q:31:ARG:HB3 | 5:8:32:GLN:HE22 | 1.86 | 0.41 |
| 3:Q:93:ALA:O | 3:Q:101:LEU:HD12 | 2.20 | 0.41 |
| 3:Q:99:ASP:HB2 | 3:Q:100:LYS:NZ | 2.35 | 0.41 |
| 3:R:12:THR:H | 7:l:527:LEU:HD13 | 1.86 | 0.41 |
| 3:R:59:GLU:CD | 3:R:118:LEU:HD22 | 2.46 | 0.41 |
| 3:R:68:ILE:O | 3:R:71:GLU:HG3 | 2.21 | 0.41 |
| 4:T:23:ASN:OD1 | 4:T:24:ILE:N | 2.54 | 0.41 |
| 4:T:110:ARG:HG3 | 4:T:114:TYR:CE2 | 2.56 | 0.41 |
| 4:U:14:TYR:CD2 | 4:U:16:LEU:HD22 | 2.56 | 0.41 |
| 4:U:51:TYR:HE1 | 4:U:64:LEU:HD22 | 1.85 | 0.41 |
| 4:V:105:ILE:O | 4:V:108:MET:HG2 | 2.21 | 0.41 |
| 4:W:53:VAL:O | 4:W:93:VAL:HG13 | 2.21 | 0.41 |
| 4:X:79:THR:HG23 | 4:X:84:LEU:HG | 2.03 | 0.41 |
| 5:Y:87:SER:HB3 | 5:Y:237:ASP:HA | 2.02 | 0.41 |
| 5:Y:294:VAL:HG21 | 6:a:91:LYS:NZ | 2.35 | 0.41 |
| 5:0:40:PHE:O | 5:0:44:ILE:HG12 | 2.21 | 0.41 |
| 5:0:142:GLU:OE2 | 5:0:144:THR:OG1 | 2.31 | 0.41 |
| 5:0:244:GLN:H | 5:0:263:THR:HG22 | 1.86 | 0.41 |
| 5:0:276:THR:O | 5:0:279:THR:OG1 | 2.29 | 0.41 |
| 5:0:435:ILE:HD13 | 5:0:446:LEU:HD11 | 2.03 | 0.41 |
| 5:1:90:MET:HE3 | 5:1:132:THR:HB | 2.01 | 0.41 |
| 5:1:106:LYS:HE2 | 5:1:122:ASP:HA | 2.03 | 0.41 |
| 5:1:244:GLN:H | 5:1:263:THR:HG22 | 1.86 | 0.41 |
| 5:1:429:LYS:O | 5:8:432:TRP:HH2 | 2.04 | 0.41 |
| 5:2:13:ALA:O | 5:2:14:GLU:C | 2.64 | 0.41 |
| 5:2:87:SER:HB3 | 5:2:237:ASP:HA | 2.02 | 0.41 |
| 5:2:394:GLU:HB3 | 5:3:125:ARG:HH12 | 1.86 | 0.41 |
| 5:3:172:PHE:O | 5:3:227:ILE:HD12 | 2.20 | 0.41 |
| 5:4:39:LEU:HA | 5:4:42:THR:OG1 | 2.20 | 0.41 |
| 5:4:222:PRO:O | 5:4:225:SER:OG | 2.38 | 0.41 |
| 5:5:189:ARG:HG3 | 5:5:190:LEU:HG | 2.02 | 0.41 |
| 5:5:319:GLY:C | 5:5:323:LYS:HZ2 | 2.29 | 0.41 |
| 5:6:108:MET:HG3 | 5:6:120:THR:OG1 | 2.21 | 0.41 |
| 5:6:428:LYS:HE3 | 5:6:451:TRP:CD2 | 2.56 | 0.41 |
| 5:7:24:PHE:HD2 | 5:7:25:TRP:CE2 | 2.38 | 0.41 |
| 5:7:34:VAL:O | 5:7:38:THR:OG1 | 2.36 | 0.41 |
| 5:7:36:MET:O | 5:7:39:LEU:HG | 2.21 | 0.41 |
| 5:7:108:MET:HG3 | 5:7:120:THR:OG1 | 2.21 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 5:7:127:VAL:N | 5:7:130:THR:O | 2.39 | 0.41 |
| 5:8:95:ALA:HB2 | 5:8:126:LEU:HD13 | 2.02 | 0.41 |
| 5:8:188:PHE:CD2 | 5:8:194:LYS:HD3 | 2.56 | 0.41 |
| 5:8:316:TRP:CZ2 | 5:8:457:PHE:HA | 2.55 | 0.41 |
| 5:8:319:GLY:C | 5:8:323:LYS:HZ2 | 2.29 | 0.41 |
| 5:9:108:MET:HG3 | 5:9:120:THR:OG1 | 2.21 | 0.41 |
| 5:9:189:ARG:HG3 | 5:9:190:LEU:HG | 2.02 | 0.41 |
| 5:9:245:ASN:HA | 5:9:261:VAL:O | 2.20 | 0.41 |
| 5:9:310:LEU:HD23 | 5:9:342:HIS:CD2 | 2.56 | 0.41 |
| 6:a:178:GLU:O | 6:a:181:LEU:HG | 2.21 | 0.41 |
| 6:b:25:ASP:OD1 | 6:b:26:LEU:N | 2.54 | 0.41 |
| 6:c:25:ASP:OD1 | 6:c:26:LEU:N | 2.54 | 0.41 |
| 6:d:158:ILE:HA | 6:d:161:LEU:HG | 2.01 | 0.41 |
| 6:e:82:GLN:O | 6:e:85:LEU:HG | 2.20 | 0.41 |
| 6:e:189:LYS:N | 6:e:190:PRO:HD2 | 2.36 | 0.41 |
| 6:f:25:ASP:OD1 | 6:f:26:LEU:N | 2.54 | 0.41 |
| 6:f:53:LYS:O | 6:f:56:LEU:N | 2.54 | 0.41 |
| 6:f:70:ARG:HG3 | 6:f:187:PHE:CE1 | 2.56 | 0.41 |
| 6:f:189:LYS:N | 6:f:190:PRO:HD2 | 2.35 | 0.41 |
| 7:g:7:GLN:NE2 | 7:g:15:GLY:O | 2.51 | 0.41 |
| 7:g:81:HIS:HE2 | 7:g:344:GLY:N | 2.19 | 0.41 |
| 7:g:335:LYS:HD2 | 7:g:336:TRP:CZ2 | 2.56 | 0.41 |
| 7:h:106:ILE:HG13 | 7:h:235:PHE:CD1 | 2.55 | 0.41 |
| 7:h:173:THR:HG22 | 7:h:177:VAL:H | 1.85 | 0.41 |
| 7:i:69:LYS:HE2 | 7:i:337:THR:HG21 | 2.02 | 0.41 |
| 7:i:335:LYS:HD2 | 7:i:336:TRP:CZ2 | 2.56 | 0.41 |
| 7:i:368:TYR:HB3 | 7:i:375:ARG:CZ | 2.51 | 0.41 |
| 7:j:37:LEU:HB2 | 7:j:265:TYR:HA | 2.03 | 0.41 |
| 7:j:173:THR:HG22 | 7:j:177:VAL:H | 1.85 | 0.41 |
| 7:k:199:LEU:HD23 | 7:k:204:THR:HG21 | 2.03 | 0.41 |
| 7:l:255:VAL:HG11 | 7:l:281:ALA:HB1 | 2.03 | 0.41 |
| 7:l:373:GLU:OE1 | 7:l:373:GLU:N | 2.43 | 0.41 |
| 7:m:460:ALA:O | 7:m:464:THR:HG23 | 2.20 | 0.41 |
| 7:m:507:GLU:N | 7:m:507:GLU:OE1 | 2.54 | 0.41 |
| 7:n:38:TRP:NE1 | 7:n:89:THR:HG23 | 2.34 | 0.41 |
| 7:n:527:LEU:N | 7:o:22:ASN:O | 2.34 | 0.41 |
| 7:o:67:PRO:HB3 | 7:o:79:ILE:HD12 | 2.03 | 0.41 |
| 7:o:77:GLU:HB2 | 7:o:78:PRO:HD3 | 2.03 | 0.41 |
| 7:o:220:GLU:HG2 | 7:o:221:LEU:HG | 2.03 | 0.41 |
| 7:o:305:GLU:C | 7:o:308:PRO:HD2 | 2.46 | 0.41 |
| 7:o:327:HIS:HE1 | 7:o:329:PRO:HB3 | 1.85 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:o:334:ASP:OD2 | 7:o:337:THR:OG1 | 2.27 | 0.41 |
| 7:o:340:ARG:HD2 | 7:o:340:ARG:HA | 1.81 | 0.41 |
| 7:o:501:ALA:CB | 7:o:505:LYS:HD2 | 2.50 | 0.41 |
| 7:p:69:LYS:O | 7:p:72:SER:OG | 2.34 | 0.41 |
| 7:p:98:PRO:HG2 | 7:p:242:ASP:O | 2.20 | 0.41 |
| 7:p:307:LEU:HB2 | 7:p:308:PRO:HD3 | 2.03 | 0.41 |
| 7:p:487:ASP:OD1 | 7:p:487:ASP:N | 2.52 | 0.41 |
| 7:p:528:ILE:O | 7:p:529:LYS:HG3 | 2.21 | 0.41 |
| 7:q:37:LEU:HB2 | 7:q:265:TYR:HA | 2.03 | 0.41 |
| 7:q:365:GLY:HA3 | 7:q:368:TYR:CE2 | 2.55 | 0.41 |
| 7:r:220:GLU:HG2 | 7:r:221:LEU:HG | 2.03 | 0.41 |
| 7:r:289:ARG:O | 7:r:291:ILE:HG23 | 2.21 | 0.41 |
| 7:r:378:ILE:HG23 | 7:r:379:ALA:N | 2.33 | 0.41 |
| 7:r:404:LYS:O | 7:r:415:ILE:HD12 | 2.21 | 0.41 |
| 7:AA:150:LEU:HD11 | 7:AA:167:LEU:HB2 | 2.02 | 0.41 |
| 7:AA:330:PHE:HD1 | 7:AA:385:PRO:HA | 1.86 | 0.41 |
| 7:AA:427:TYR:HD1 | 7:AA:430:PHE:HE2 | 1.69 | 0.41 |
| 7:BA:83:TYR:O | 7:BA:86:ILE:HG22 | 2.21 | 0.41 |
| 7:BA:307:LEU:HD21 | 7:BA:397:MET:HA | 2.03 | 0.41 |
| 7:BA:510:TRP:CE2 | 7:HA:525:PRO:HA | 2.56 | 0.41 |
| 7:BA:519:ARG:NH2 | 7:CA:13:ALA:O | 2.53 | 0.41 |
| 7:CA:330:PHE:HD1 | 7:CA:385:PRO:HA | 1.86 | 0.41 |
| 7:CA:467:MET:HA | 7:CA:470:LEU:CG | 2.51 | 0.41 |
| 7:EA:37:LEU:H | 7:EA:266:THR:HG23 | 1.86 | 0.41 |
| 7:EA:63:VAL:HG23 | 7:EA:64:LEU:HD22 | 2.02 | 0.41 |
| 7:EA:152:ILE:HD12 | 7:EA:165:PHE:CE2 | 2.56 | 0.41 |
| 7:EA:269:LEU:HD13 | 7:EA:294:PHE:HB2 | 2.02 | 0.41 |
| 7:EA:355:ARG:HH11 | 7:EA:359:LYS:NZ | 2.19 | 0.41 |
| 7:EA:502:GLU:OE1 | 7:EA:503:PHE:N | 2.54 | 0.41 |
| 7:EA:528:ILE:HD12 | 7:EA:528:ILE:H | 1.85 | 0.41 |
| 7:FA:135:ILE:HD11 | 7:FA:213:LEU:HB3 | 2.03 | 0.41 |
| 7:GA:37:LEU:O | 7:GA:266:THR:N | 2.54 | 0.41 |
| 7:GA:46:ARG:NH2 | 7:GA:62:ASP:O | 2.46 | 0.41 |
| 7:HA:151:THR:HB | 7:HA:168:LYS:HE3 | 2.02 | 0.41 |
| 7:HA:430:PHE:HE1 | 7:HA:519:ARG:HD3 | 1.86 | 0.41 |
| 7:HA:470:LEU:O | 7:HA:473:ARG:HG2 | 2.21 | 0.41 |
| 7:IA:107:MET:SD | 7:IA:134:ALA:HB2 | 2.61 | 0.41 |
| 7:IA:245:LYS:HE2 | 7:IA:245:LYS:HB2 | 1.91 | 0.41 |
| 7:IA:289:ARG:HH22 | 7:PA:2:SER:N | 2.19 | 0.41 |
| 7:IA:297:VAL:HG22 | 7:IA:298:LYS:N | 2.36 | 0.41 |
| 7:IA:451:MET:HB3 | 7:IA:463:LEU:HD21 | 2.03 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:IA:500:GLN:CD | 7:IA:506:TRP:HB3 | 2.46 | 0.41 |
| 7:IA:529:LYS:HA | 7:IA:529:LYS:HD2 | 1.81 | 0.41 |
| 7:JA:297:VAL:HG22 | 7:JA:298:LYS:N | 2.36 | 0.41 |
| 7:JA:328:TYR:HE1 | 7:JA:413:MET:HE2 | 1.86 | 0.41 |
| 7:JA:345:LEU:HD23 | 7:JA:380:ARG:NH2 | 2.36 | 0.41 |
| 7:KA:278:ALA:O | 7:KA:282:LEU:HG | 2.20 | 0.41 |
| 7:KA:328:TYR:HE1 | 7:KA:413:MET:HE2 | 1.86 | 0.41 |
| 7:KA:426:ASN:HB3 | 7:LA:195:ASP:HB2 | 2.02 | 0.41 |
| 7:KA:500:GLN:CD | 7:KA:506:TRP:HB3 | 2.46 | 0.41 |
| 7:LA:38:TRP:HA | 7:LA:267:ALA:O | 2.21 | 0.41 |
| 7:LA:44:PHE:C | 7:LA:95:ARG:HE | 2.29 | 0.41 |
| 7:LA:297:VAL:HG22 | 7:LA:298:LYS:N | 2.36 | 0.41 |
| 7:MA:76:PHE:O | 7:MA:80:ARG:HG2 | 2.20 | 0.41 |
| 7:MA:207:GLU:HA | 7:MA:214:ARG:CZ | 2.51 | 0.41 |
| 7:NA:437:MET:HA | 7:NA:440:ILE:HG12 | 2.02 | 0.41 |
| 7:NA:500:GLN:HE21 | 7:NA:502:GLU:H | 1.68 | 0.41 |
| 7:OA:194:ASP:OD1 | 7:OA:197:GLY:N | 2.53 | 0.41 |
| 7:OA:207:GLU:HA | 7:OA:214:ARG:CZ | 2.51 | 0.41 |
| 7:PA:201:TYR:CE2 | 7:PA:203:PRO:HD2 | 2.56 | 0.41 |
| 7:QA:80:ARG:O | 7:QA:84:GLU:OE1 | 2.38 | 0.41 |
| 7:QA:207:GLU:HA | 7:QA:214:ARG:CZ | 2.51 | 0.41 |
| 7:QA:319:ASP:OD1 | 7:QA:319:ASP:N | 2.44 | 0.41 |
| 7:RA:80:ARG:O | 7:RA:83:TYR:HB3 | 2.20 | 0.41 |
| 7:RA:207:GLU:HA | 7:RA:214:ARG:CZ | 2.51 | 0.41 |
| 7:RA:342:VAL:HG21 | 7:RA:386:LEU:HD11 | 2.02 | 0.41 |
| 7:RA:483:PRO:HB2 | 7:RA:485:ASP:OD1 | 2.21 | 0.41 |
| 8:BB:136:ASP:HB3 | 8:BB:164:ASN:HB2 | 2.02 | 0.41 |
| 8:DB:26:ARG:HH22 | 8:EB:87:GLU:HG2 | 1.85 | 0.41 |
| 8:EB:136:ASP:HB3 | 8:EB:164:ASN:HB2 | 2.03 | 0.41 |
| 8:FB:55:THR:HG23 | 8:FB:76:ARG:HB2 | 2.03 | 0.41 |
| 8:GB:28:VAL:HG22 | 8:GB:30:SER:H | 1.86 | 0.41 |
| 8:HB:11:LYS:HE3 | 8:HB:12:PHE:CE2 | 2.56 | 0.41 |
| 8:HB:47:ARG:HG2 | 8:HB:85:CYS:HA | 2.01 | 0.41 |
| 8:HB:126:THR:C | 8:HB:127:LYS:HD3 | 2.45 | 0.41 |
| 8:IB:47:ARG:HG3 | 8:IB:86:VAL:HG23 | 2.02 | 0.41 |
| 8:IB:155:VAL:C | 8:IB:157:PRO:HD3 | 2.46 | 0.41 |
| 8:JB:133:GLU:N | 8:JB:133:GLU:OE1 | 2.54 | 0.41 |
| 8:KB:3:HIS:HB2 | 8:LB:25:GLU:CD | 2.46 | 0.41 |
| 8:KB:6:THR:HG21 | 8:MB:105:ASP:HA | 2.02 | 0.41 |
| 8:KB:55:THR:O | 8:KB:76:ARG:N | 2.48 | 0.41 |
| 8:MB:27:LEU:HG | 8:NB:87:GLU:CD | 2.45 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 8:NB:23:LYS:HE2 | 8:OB:41:ASP:O | 2.20 | 0.41 |
| 8:OB:42:ILE:HG21 | 8:OB:96:PHE:HD1 | 1.86 | 0.41 |
| 8:OB:127:LYS:HB3 | 8:OB:127:LYS:HE3 | 1.83 | 0.41 |
| 8:PB:9:ASN:ND2 | 8:QB:119:SER:O | 2.47 | 0.41 |
| 8:PB:42:ILE:HG21 | 8:PB:96:PHE:HD1 | 1.86 | 0.41 |
| 8:PB:115:PRO:HG2 | 8:PB:118:LYS:CG | 2.41 | 0.41 |
| 8:QB:13:ILE:HG13 | 8:QB:14:LYS:HD2 | 2.03 | 0.41 |
| 8:QB:56:ARG:HD3 | 8:QB:73:GLY:O | 2.21 | 0.41 |
| 1:A:52:GLU:OE2 | 1:A:137:ARG:HG3 | 2.21 | 0.41 |
| 1:B:66:ILE:HG13 | 1:B:96:ILE:HD11 | 2.02 | 0.41 |
| 1:F:34:THR:O | 1:F:38:MET:HG3 | 2.21 | 0.41 |
| 2:H:124:LYS:HD3 | 2:H:124:LYS:HA | 1.95 | 0.41 |
| 2:H:193:GLN:OE1 | 2:H:193:GLN:HA | 2.21 | 0.41 |
| 2:I:119:ILE:HD12 | 2:I:151:ILE:HG22 | 2.02 | 0.41 |
| 2:K:190:ARG:HH21 | 3:Q:88:SER:HB3 | 1.86 | 0.41 |
| 3:M:61:THR:HG22 | 3:M:118:LEU:HB2 | 2.02 | 0.41 |
| 3:O:31:ARG:HB3 | 5:6:32:GLN:NE2 | 2.36 | 0.41 |
| 3:O:71:GLU:HA | 3:O:74:LEU:HG | 2.03 | 0.41 |
| 3:O:93:ALA:O | 3:O:101:LEU:HD12 | 2.20 | 0.41 |
| 3:P:31:ARG:HB3 | 5:7:32:GLN:HE22 | 1.86 | 0.41 |
| 3:R:72:ALA:O | 3:R:75:LEU:HG | 2.21 | 0.41 |
| 4:T:22:ARG:HA | 4:T:30:ARG:HD3 | 2.03 | 0.41 |
| 4:T:98:LYS:HE2 | 4:T:98:LYS:HB2 | 1.86 | 0.41 |
| 4:U:33:LEU:HA | 4:U:36:GLU:OE1 | 2.21 | 0.41 |
| 4:V:22:ARG:HA | 4:V:30:ARG:HD3 | 2.03 | 0.41 |
| 4:V:62:ASP:HB3 | 4:V:75:ARG:CB | 2.51 | 0.41 |
| 5:Z:394:GLU:HB3 | 5:0:125:ARG:HH12 | 1.86 | 0.41 |
| 5:Z:428:LYS:HE2 | 5:Z:428:LYS:HB2 | 1.95 | 0.41 |
| 5:0:384:THR:HA | 5:0:471:ASN:HB2 | 2.01 | 0.41 |
| 5:1:33:PHE:HA | 5:1:36:MET:SD | 2.61 | 0.41 |
| 5:1:394:GLU:HB3 | 5:2:125:ARG:HH12 | 1.86 | 0.41 |
| 5:2:75:GLU:OE2 | 5:2:202:TYR:HB2 | 2.20 | 0.41 |
| 5:4:118:TYR:HB3 | 5:4:135:VAL:HG13 | 2.03 | 0.41 |
| 5:5:118:TYR:HB3 | 5:5:135:VAL:HG13 | 2.02 | 0.41 |
| 5:5:441:PHE:C | 5:5:442:ARG:HH11 | 2.30 | 0.41 |
| 5:6:13:ALA:O | 5:6:16:GLU:HG2 | 2.21 | 0.41 |
| 5:6:441:PHE:C | 5:6:442:ARG:HH11 | 2.29 | 0.41 |
| 5:7:38:THR:O | 5:7:41:ILE:HG13 | 2.21 | 0.41 |
| 5:9:24:PHE:HD2 | 5:9:25:TRP:CE2 | 2.38 | 0.41 |
| 6:a:53:LYS:O | 6:a:56:LEU:N | 2.54 | 0.41 |
| 6:b:111:LEU:HD11 | 6:b:155:SER:HB3 | 2.03 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 6:c:53:LYS:O | 6:c:56:LEU:N | 2.54 | 0.41 |
| 6:c:111:LEU:HD11 | 6:c:155:SER:HB3 | 2.03 | 0.41 |
| 6:c:158:ILE:HA | 6:c:161:LEU:HG | 2.03 | 0.41 |
| 6:e:25:ASP:OD1 | 6:e:26:LEU:N | 2.54 | 0.41 |
| 6:f:158:ILE:HA | 6:f:161:LEU:HG | 2.03 | 0.41 |
| 7:g:108:PHE:HA | 7:g:113:GLU:O | 2.21 | 0.41 |
| 7:g:368:TYR:HB3 | 7:g:375:ARG:CZ | 2.51 | 0.41 |
| 7:g:374:GLU:OE2 | 7:g:375:ARG:NH2 | 2.54 | 0.41 |
| 7:h:105:ILE:HB | 7:h:136:TYR:HB3 | 2.02 | 0.41 |
| 7:h:268:VAL:HG13 | 7:h:291:ILE:HD12 | 2.02 | 0.41 |
| 7:i:456:ASP:OD2 | 7:o:516:GLY:HA3 | 2.21 | 0.41 |
| 7:j:368:TYR:HB3 | 7:j:375:ARG:CZ | 2.51 | 0.41 |
| 7:k:105:ILE:HB | 7:k:136:TYR:HB3 | 2.02 | 0.41 |
| 7:k:198:ARG:NE | 7:k:198:ARG:HA | 2.36 | 0.41 |
| 7:l:199:LEU:HD23 | 7:l:204:THR:HG21 | 2.03 | 0.41 |
| 7:n:103:PHE:HB3 | 7:n:121:TYR:CZ | 2.55 | 0.41 |
| 7:n:108:PHE:HB2 | 7:n:133:PHE:CE1 | 2.55 | 0.41 |
| 7:o:503:PHE:HB3 | 7:CA:484:ARG:HH12 | 1.86 | 0.41 |
| 7:q:407:VAL:HB | 7:r:3:GLN:HE21 | 1.85 | 0.41 |
| 7:r:69:LYS:O | 7:r:72:SER:OG | 2.34 | 0.41 |
| 7:r:75:GLN:NE2 | 7:r:244:SER:HA | 2.35 | 0.41 |
| 7:r:196:MET:HB3 | 7:EA:529:LYS:NZ | 2.36 | 0.41 |
| 7:r:282:LEU:HD23 | 7:r:295:PHE:CE1 | 2.56 | 0.41 |
| 7:r:307:LEU:HB2 | 7:r:308:PRO:HD3 | 2.03 | 0.41 |
| 7:AA:70:PRO:HA | 7:AA:76:PHE:HB3 | 2.03 | 0.41 |
| 7:AA:307:LEU:HD21 | 7:AA:397:MET:HA | 2.03 | 0.41 |
| 7:AA:464:THR:O | 7:AA:467:MET:HG2 | 2.21 | 0.41 |
| 7:AA:503:PHE:CE1 | 7:GA:516:GLY:HA2 | 2.56 | 0.41 |
| 7:BA:355:ARG:HH11 | 7:BA:359:LYS:NZ | 2.19 | 0.41 |
| 7:CA:150:LEU:HD12 | 7:CA:168:LYS:O | 2.21 | 0.41 |
| 7:CA:510:TRP:CE2 | 7:IA:525:PRO:HA | 2.56 | 0.41 |
| 7:DA:133:PHE:HB2 | 7:DA:216:VAL:O | 2.21 | 0.41 |
| 7:DA:255:VAL:HG11 | 7:DA:281:ALA:HB1 | 2.03 | 0.41 |
| 7:DA:340:ARG:HA | 7:DA:340:ARG:HD3 | 1.85 | 0.41 |
| 7:EA:133:PHE:HB2 | 7:EA:216:VAL:O | 2.21 | 0.41 |
| 7:EA:255:VAL:O | 7:EA:258:LEU:HG | 2.21 | 0.41 |
| 7:EA:519:ARG:NH1 | 7:FA:12:ASN:OD1 | 2.54 | 0.41 |
| 7:FA:52:VAL:HA | 7:FA:94:VAL:HG22 | 2.03 | 0.41 |
| 7:FA:83:TYR:O | 7:FA:86:ILE:HG22 | 2.21 | 0.41 |
| 7:FA:333:LYS:HB2 | 7:FA:382:SER:HB3 | 2.01 | 0.41 |
| 7:GA:44:PHE:C | 7:GA:95:ARG:HE | 2.29 | 0.41 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:GA:228:THR:OG1 | 7:GA:229:ASN:N | 2.54 | 0.41 |
| 7:GA:449:ARG:NH1 | 7:MA:412:GLN:HE22 | 2.19 | 0.41 |
| 7:GA:470:LEU:O | 7:GA:473:ARG:HG2 | 2.21 | 0.41 |
| 7:GA:500:GLN:CD | 7:GA:506:TRP:HB3 | 2.46 | 0.41 |
| 7:HA:426:ASN:HB3 | 7:IA:195:ASP:HB2 | 2.02 | 0.41 |
| 7:IA:354:ALA:HA | 7:IA:357:VAL:HG12 | 2.02 | 0.41 |
| 7:JA:266:THR:O | 7:JA:291:ILE:HB | 2.21 | 0.41 |
| 7:KA:279:ILE:HG23 | 7:KA:295:PHE:CD1 | 2.56 | 0.41 |
| 7:LA:252:LEU:HA | 7:LA:255:VAL:HG22 | 2.02 | 0.41 |
| 7:MA:52:VAL:HG13 | 7:MA:257:VAL:CG1 | 2.50 | 0.41 |
| 7:MA:168:LYS:HG2 | 7:MA:183:THR:HG23 | 2.02 | 0.41 |
| 7:OA:77:GLU:H | 7:OA:77:GLU:CD | 2.26 | 0.41 |
| 7:OA:80:ARG:O | 7:OA:84:GLU:OE1 | 2.38 | 0.41 |
| 7:QA:352:ALA:O | 7:QA:355:ARG:HG3 | 2.21 | 0.41 |
| 8:GB:32:PHE:H | 8:RB:65:ASN:ND2 | 2.13 | 0.41 |
| 8:HB:56:ARG:O | 8:HB:76:ARG:NH2 | 2.54 | 0.41 |
| 8:JB:46:VAL:O | 8:JB:47:ARG:NH2 | 2.54 | 0.41 |
| 8:KB:155:VAL:C | 8:KB:157:PRO:HD3 | 2.47 | 0.41 |
| 8:LB:58:ASP:CG | 8:LB:70:ASN:HB2 | 2.46 | 0.41 |
| 8:LB:81:ILE:HB | 8:LB:161:ILE:CG2 | 2.51 | 0.41 |
| 8:MB:64:PRO:O | 8:MB:67:VAL:HG12 | 2.20 | 0.41 |
| 8:PB:54:MET:HE3 | 8:QB:97:ILE:HB | 2.02 | 0.41 |
| 8:QB:23:LYS:HE2 | 8:RB:41:ASP:O | 2.20 | 0.41 |
| 8:QB:23:LYS:HE3 | 8:RB:45:LEU:HB2 | 2.03 | 0.41 |
| 8:QB:54:MET:O | 8:RB:141:SER:OG | 2.29 | 0.41 |
| 8:QB:138:LYS:O | 8:QB:161:ILE:HD12 | 2.21 | 0.41 |
| 1:C:91:ARG:NH2 | 1:D:120:ILE:HG23 | 2.32 | 0.40 |
| 1:C:110:ASP:O | 1:C:114:THR:HG23 | 2.21 | 0.40 |
| 1:D:128:ILE:HD13 | 1:D:201:PHE:HE2 | 1.86 | 0.40 |
| 1:E:101:ARG:HB2 | 1:E:173:PHE:HD2 | 1.86 | 0.40 |
| 1:E:128:ILE:HD13 | 1:E:201:PHE:HE2 | 1.85 | 0.40 |
| 2:I:124:LYS:HD3 | 2:I:124:LYS:HA | 1.95 | 0.40 |
| 2:J:189:VAL:HA | 2:J:192:PHE:HE2 | 1.85 | 0.40 |
| 2:L:47:GLU:O | 2:L:83:VAL:HB | 2.22 | 0.40 |
| 3:P:7:ILE:N | 5:8:241:VAL:H | 2.19 | 0.40 |
| 3:P:99:ASP:HB2 | 3:P:100:LYS:NZ | 2.35 | 0.40 |
| 3:R:99:ASP:HB2 | 3:R:100:LYS:NZ | 2.35 | 0.40 |
| 4:S:36:GLU:HA | 4:S:39:LEU:HD12 | 2.03 | 0.40 |
| 4:T:105:ILE:O | 4:T:108:MET:HG2 | 2.21 | 0.40 |
| 4:T:112:PHE:HA | 4:T:116:GLY:CA | 2.48 | 0.40 |
| 4:U:53:VAL:O | 4:U:93:VAL:HG13 | 2.21 | 0.40 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:W:34:ARG:HA | 4:W:37:VAL:CG2 | 2.46 | 0.40 |
| 4:W:77:VAL:O | 4:W:80:LEU:HG | 2.20 | 0.40 |
| 4:W:110:ARG:HG3 | 4:W:114:TYR:CE2 | 2.56 | 0.40 |
| 4:X:27:PRO:HD2 | 5:3:66:ARG:NH1 | 2.36 | 0.40 |
| 4:X:35:LYS:HD3 | 5:9:63:THR:HA | 2.03 | 0.40 |
| 5:Y:33:PHE:HA | 5:Y:36:MET:SD | 2.60 | 0.40 |
| 5:Y:429:LYS:O | 5:5:432:TRP:HH2 | 2.04 | 0.40 |
| 5:Y:435:ILE:HD13 | 5:Y:446:LEU:HD11 | 2.03 | 0.40 |
| 5:Z:1:MET:N | 6:b:33:THR:OG1 | 2.40 | 0.40 |
| 5:Z:244:GLN:O | 5:Z:263:THR:HG22 | 2.20 | 0.40 |
| 5:1:47:ARG:NH2 | 5:7:6:PRO:HD3 | 2.36 | 0.40 |
| 5:1:172:PHE:O | 5:1:227:ILE:HD12 | 2.20 | 0.40 |
| 5:1:294:VAL:HG21 | 6:d:91:LYS:NZ | 2.36 | 0.40 |
| 5:1:384:THR:HA | 5:1:471:ASN:HB2 | 2.01 | 0.40 |
| 5:2:3:LYS:NZ | 6:e:41:ARG:HG2 | 2.36 | 0.40 |
| 5:2:106:LYS:HE2 | 5:2:122:ASP:HA | 2.03 | 0.40 |
| 5:2:244:GLN:H | 5:2:263:THR:HG22 | 1.86 | 0.40 |
| 5:3:38:THR:HA | 5:3:41:ILE:HG22 | 2.03 | 0.40 |
| 5:4:38:THR:O | 5:4:41:ILE:HG13 | 2.21 | 0.40 |
| 5:5:106:LYS:HG3 | 5:5:120:THR:O | 2.21 | 0.40 |
| 5:5:188:PHE:CD2 | 5:5:194:LYS:HD3 | 2.56 | 0.40 |
| 5:6:25:TRP:HD1 | 5:6:28:PHE:HE2 | 1.67 | 0.40 |
| 5:6:188:PHE:CD2 | 5:6:194:LYS:HD3 | 2.56 | 0.40 |
| 5:6:366:ASN:ND2 | 6:c:150:SER:O | 2.54 | 0.40 |
| 5:7:112:SER:HB3 | 5:7:118:TYR:CE2 | 2.57 | 0.40 |
| 5:7:244:GLN:H | 5:7:263:THR:HG1 | 1.65 | 0.40 |
| 5:7:316:TRP:CZ2 | 5:7:457:PHE:HA | 2.55 | 0.40 |
| 6:d:198:PHE:HZ | 6:d:201:LEU:HB2 | 1.85 | 0.40 |
| 6:e:94:GLU:HG3 | 6:e:98:ASN:ND2 | 2.37 | 0.40 |
| 6:f:19:LEU:O | 6:f:22:SER:OG | 2.25 | 0.40 |
| 6:f:31:MET:SD | 6:f:32:ASP:N | 2.94 | 0.40 |
| 6:f:75:SER:O | 6:f:78:PRO:HD2 | 2.21 | 0.40 |
| 7:g:367:HIS:NE2 | 7:g:368:TYR:HE1 | 2.18 | 0.40 |
| 7:g:456:ASP:OD2 | 7:m:516:GLY:HA3 | 2.22 | 0.40 |
| 7:h:295:PHE:O | 7:h:325:VAL:HA | 2.21 | 0.40 |
| 7:h:305:GLU:OE1 | 7:h:305:GLU:N | 2.47 | 0.40 |
| 7:i:60:TYR:CE1 | 7:i:61:GLU:HB2 | 2.56 | 0.40 |
| 7:l:108:PHE:HA | 7:l:113:GLU:O | 2.21 | 0.40 |
| 7:l:198:ARG:HA | 7:l:198:ARG:NE | 2.36 | 0.40 |
| 7:l:253:ARG:O | 7:l:256:LYS:HG3 | 2.20 | 0.40 |
| 7:m:3:GLN:HE21 | 7:r:407:VAL:HB | 1.86 | 0.40 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:m:276:ASN:O | 7:m:280:THR:HG23 | 2.20 | 0.40 |
| 7:n:382:SER:OG | 7:n:384:GLN:OE1 | 2.34 | 0.40 |
| 7:o:75:GLN:NE2 | 7:o:244:SER:HA | 2.35 | 0.40 |
| 7:q:190:GLU:HA | 7:q:201:TYR:HE2 | 1.85 | 0.40 |
| 7:q:378:ILE:HG23 | 7:q:379:ALA:N | 2.33 | 0.40 |
| 7:r:36:SER:O | 7:r:38:TRP:HD1 | 2.03 | 0.40 |
| 7:r:38:TRP:NE1 | 7:r:89:THR:HG23 | 2.34 | 0.40 |
| 7:r:510:TRP:HZ3 | 7:FA:523:GLY:HA3 | 1.87 | 0.40 |
| 7:BA:137:VAL:HG22 | 7:BA:139:ASP:H | 1.86 | 0.40 |
| 7:BA:330:PHE:HD1 | 7:BA:385:PRO:HA | 1.86 | 0.40 |
| 7:BA:467:MET:HA | 7:BA:470:LEU:CG | 2.52 | 0.40 |
| 7:CA:38:TRP:CZ2 | 7:CA:91:GLY:HA3 | 2.56 | 0.40 |
| 7:CA:92:TYR:CD1 | 7:CA:263:TYR:HD1 | 2.39 | 0.40 |
| 7:CA:110:GLU:HA | 7:CA:132:ALA:HB2 | 2.02 | 0.40 |
| 7:CA:255:VAL:HG11 | 7:CA:281:ALA:HB1 | 2.03 | 0.40 |
| 7:CA:433:VAL:N | 7:CA:434:PRO:HD2 | 2.36 | 0.40 |
| 7:DA:255:VAL:O | 7:DA:258:LEU:HG | 2.21 | 0.40 |
| 7:DA:353:LYS:NZ | 7:DA:370:PRO:HD3 | 2.36 | 0.40 |
| 7:DA:427:TYR:HD1 | 7:DA:430:PHE:HE2 | 1.69 | 0.40 |
| 7:FA:152:ILE:HD12 | 7:FA:165:PHE:CE2 | 2.56 | 0.40 |
| 7:FA:330:PHE:HD1 | 7:FA:385:PRO:HA | 1.86 | 0.40 |
| 7:FA:467:MET:HA | 7:FA:470:LEU:CG | 2.51 | 0.40 |
| 7:FA:503:PHE:CE1 | 7:LA:516:GLY:HA2 | 2.56 | 0.40 |
| 7:FA:510:TRP:CE2 | 7:LA:525:PRO:HA | 2.56 | 0.40 |
| 7:GA:297:VAL:HG22 | 7:GA:298:LYS:N | 2.36 | 0.40 |
| 7:HA:443:PHE:HA | 7:HA:446:GLN:OE1 | 2.21 | 0.40 |
| 7:KA:302:THR:HA | 7:KA:387:TYR:CZ | 2.56 | 0.40 |
| 7:LA:289:ARG:NH1 | 7:MA:4:TYR:HB2 | 2.35 | 0.40 |
| 7:MA:201:TYR:CE2 | 7:MA:203:PRO:HD2 | 2.56 | 0.40 |
| 7:MA:352:ALA:O | 7:MA:355:ARG:HG3 | 2.22 | 0.40 |
| 7:NA:342:VAL:HG21 | 7:NA:386:LEU:HD11 | 2.02 | 0.40 |
| 7:OA:201:TYR:CE2 | 7:OA:203:PRO:HD2 | 2.56 | 0.40 |
| 7:OA:386:LEU:HA | 7:OA:386:LEU:HD23 | 1.89 | 0.40 |
| 7:OA:416:ASP:OD1 | 7:OA:416:ASP:N | 2.47 | 0.40 |
| 7:PA:76:PHE:O | 7:PA:80:ARG:HG2 | 2.21 | 0.40 |
| 7:PA:406:SER:OG | 7:PA:407:VAL:N | 2.54 | 0.40 |
| 7:PA:483:PRO:HG2 | 7:PA:490:GLY:O | 2.21 | 0.40 |
| 7:PA:500:GLN:HE21 | 7:PA:502:GLU:H | 1.68 | 0.40 |
| 7:QA:483:PRO:HB2 | 7:QA:485:ASP:OD1 | 2.22 | 0.40 |
| 7:RA:406:SER:OG | 7:RA:407:VAL:N | 2.54 | 0.40 |
| 8:BB:16:ARG:HH12 | 8:HB:67:VAL:HG11 | 1.85 | 0.40 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 8:EB:16:ARG:NH1 | 8:KB:67:VAL:HG11 | 2.36 | 0.40 |
| 8:GB:36:PHE:HD1 | 8:GB:109:ILE:HD12 | 1.86 | 0.40 |
| 8:HB:135:LEU:HG | 8:HB:167:GLU:HG2 | 2.03 | 0.40 |
| 8:IB:135:LEU:HG | 8:IB:167:GLU:HG2 | 2.04 | 0.40 |
| 8:IB:152:THR:O | 8:NB:59:VAL:HG13 | 2.21 | 0.40 |
| 8:KB:11:LYS:HE3 | 8:KB:12:PHE:CE2 | 2.56 | 0.40 |
| 8:MB:118:LYS:NZ | 8:MB:125:VAL:O | 2.53 | 0.40 |
| 8:MB:165:TRP:CG | 8:MB:166:ILE:N | 2.89 | 0.40 |
| 8:NB:133:GLU:O | 8:NB:134:MET:HE2 | 2.21 | 0.40 |
| 8:OB:25:GLU:OE1 | 8:OB:25:GLU:N | 2.55 | 0.40 |
| 8:OB:107:VAL:HG22 | 8:OB:108:ASP:H | 1.86 | 0.40 |
| 8:PB:23:LYS:HE2 | 8:QB:41:ASP:O | 2.20 | 0.40 |
| 8:PB:95:GLN:O | 8:PB:98:LYS:HB2 | 2.21 | 0.40 |
| 8:PB:107:VAL:HG22 | 8:PB:108:ASP:H | 1.86 | 0.40 |
| 8:RB:138:LYS:O | 8:RB:161:ILE:HD12 | 2.21 | 0.40 |
| 1:C:43:PHE:HD2 | 8:CB:71:GLN:HE21 | 1.69 | 0.40 |
| 1:D:64:LYS:HG2 | 1:D:99:MET:O | 2.21 | 0.40 |
| 1:E:115:ALA:HB1 | 1:E:157:PRO:HG3 | 2.03 | 0.40 |
| 1:F:110:ASP:O | 1:F:114:THR:HG23 | 2.21 | 0.40 |
| 2:G:47:GLU:O | 2:G:83:VAL:HB | 2.22 | 0.40 |
| 2:G:128:VAL:HA | 2:G:131:GLN:HG3 | 2.03 | 0.40 |
| 2:K:18:TYR:HA | 2:K:142:ARG:HE | 1.86 | 0.40 |
| 2:K:47:GLU:O | 2:K:83:VAL:HB | 2.22 | 0.40 |
| 3:N:98:PHE:CE1 | 7:h:515:THR:HA | 2.56 | 0.40 |
| 3:N:99:ASP:HB2 | 3:N:100:LYS:HZ3 | 1.85 | 0.40 |
| 3:Q:32:LEU:HD11 | 3:Q:85:ILE:HG12 | 2.02 | 0.40 |
| 3:Q:58:HIS:HD2 | 7:k:371:ALA:HB3 | 1.83 | 0.40 |
| 4:S:31:ALA:O | 4:S:35:LYS:HG2 | 2.20 | 0.40 |
| 4:T:50:ILE:HA | 4:T:96:LYS:HZ1 | 1.85 | 0.40 |
| 4:U:98:LYS:C | 4:U:99:LEU:HD22 | 2.46 | 0.40 |
| 4:V:53:VAL:O | 4:V:93:VAL:HG13 | 2.22 | 0.40 |
| 4:W:35:LYS:HD3 | 5:8:63:THR:HA | 2.03 | 0.40 |
| 4:X:51:TYR:HE1 | 4:X:64:LEU:HD22 | 1.85 | 0.40 |
| 5:Y:47:ARG:NH2 | 5:4:6:PRO:HD3 | 2.36 | 0.40 |
| 5:Y:75:GLU:OE2 | 5:Y:202:TYR:HB2 | 2.20 | 0.40 |
| 5:0:95:ALA:HA | 5:0:259:ILE:HG23 | 2.03 | 0.40 |
| 5:0:359:LYS:HE3 | 5:0:359:LYS:HB3 | 1.91 | 0.40 |
| 5:4:108:MET:HG3 | 5:4:120:THR:OG1 | 2.21 | 0.40 |
| 5:6:375:ARG:O | 5:6:460:PHE:N | 2.31 | 0.40 |
| 5:7:25:TRP:HA | 5:7:28:PHE:CD2 | 2.56 | 0.40 |
| 5:7:153:PHE:O | 5:7:211:ARG:NE | 2.37 | 0.40 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 5:7:310:LEU:HD23 | 5:7:342:HIS:CD2 | 2.56 | 0.40 |
| 5:8:245:ASN:HA | 5:8:261:VAL:O | 2.21 | 0.40 |
| 5:8:322:GLU:OE1 | 5:8:328:TYR:HA | 2.20 | 0.40 |
| 5:8:366:ASN:ND2 | 6:e:150:SER:O | 2.55 | 0.40 |
| 5:9:115:GLN:HE22 | 7:l:69:LYS:HG2 | 1.86 | 0.40 |
| 5:9:387:ILE:O | 5:9:475:GLU:N | 2.38 | 0.40 |
| 6:b:59:ARG:HD3 | 6:b:59:ARG:HA | 1.92 | 0.40 |
| 6:c:94:GLU:O | 6:c:98:ASN:ND2 | 2.54 | 0.40 |
| 6:d:110:VAL:HG13 | 6:d:154:ILE:HG23 | 2.03 | 0.40 |
| 6:e:31:MET:SD | 6:e:32:ASP:N | 2.94 | 0.40 |
| 7:g:255:VAL:HG11 | 7:g:281:ALA:HB1 | 2.03 | 0.40 |
| 7:g:367:HIS:HA | 7:g:432:HIS:HB2 | 2.03 | 0.40 |
| 7:h:426:ASN:ND2 | 7:h:428:LEU:HB2 | 2.36 | 0.40 |
| 7:i:357:VAL:HG21 | 7:i:366:TRP:CE2 | 2.57 | 0.40 |
| 7:j:508:VAL:HG13 | 7:j:510:TRP:CZ3 | 2.57 | 0.40 |
| 7:m:22:ASN:O | 7:r:527:LEU:HD23 | 2.21 | 0.40 |
| 7:m:37:LEU:HB2 | 7:m:265:TYR:HA | 2.02 | 0.40 |
| 7:m:282:LEU:HD23 | 7:m:295:PHE:CE1 | 2.56 | 0.40 |
| 7:m:305:GLU:C | 7:m:308:PRO:HD2 | 2.46 | 0.40 |
| 7:m:527:LEU:HD22 | 7:n:21:ILE:CG1 | 2.48 | 0.40 |
| 7:o:37:LEU:HB2 | 7:o:265:TYR:HA | 2.03 | 0.40 |
| 7:o:103:PHE:HB3 | 7:o:121:TYR:CZ | 2.56 | 0.40 |
| 7:o:506:TRP:C | 7:CA:521:ILE:HD12 | 2.46 | 0.40 |
| 7:o:506:TRP:O | 7:CA:521:ILE:HA | 2.21 | 0.40 |
| 7:p:36:SER:O | 7:p:38:TRP:HD1 | 2.03 | 0.40 |
| 7:q:269:LEU:HA | 7:q:294:PHE:HB2 | 2.03 | 0.40 |
| 7:q:382:SER:OG | 7:q:384:GLN:OE1 | 2.34 | 0.40 |
| 7:q:469:LYS:O | 7:q:472:ASP:HB2 | 2.21 | 0.40 |
| 7:r:56:THR:N | 7:r:59:ASN:OD1 | 2.51 | 0.40 |
| 7:BA:37:LEU:H | 7:BA:266:THR:HG23 | 1.86 | 0.40 |
| 7:BA:452:LYS:HD2 | 7:IA:16:VAL:HG23 | 2.02 | 0.40 |
| 7:CA:255:VAL:O | 7:CA:258:LEU:HG | 2.22 | 0.40 |
| 7:DA:135:ILE:HD11 | 7:DA:213:LEU:HB3 | 2.02 | 0.40 |
| 7:DA:152:ILE:HD12 | 7:DA:165:PHE:CE2 | 2.56 | 0.40 |
| 7:DA:464:THR:O | 7:DA:467:MET:HG2 | 2.21 | 0.40 |
| 7:DA:528:ILE:H | 7:DA:528:ILE:HD12 | 1.85 | 0.40 |
| 7:EA:464:THR:O | 7:EA:467:MET:HG2 | 2.21 | 0.40 |
| 7:FA:255:VAL:O | 7:FA:258:LEU:HG | 2.22 | 0.40 |
| 7:FA:331:SER:HG | 7:FA:384:GLN:HG3 | 1.86 | 0.40 |
| 7:FA:386:LEU:HD23 | 7:FA:386:LEU:HA | 1.87 | 0.40 |
| 7:IA:44:PHE:C | 7:IA:95:ARG:HE | 2.29 | 0.40 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:IA:303:TYR:OH | 7:IA:397:MET:SD | 2.70 | 0.40 |
| 7:JA:148:ARG:HD3 | 7:JA:148:ARG:HA | 1.91 | 0.40 |
| 7:JA:252:LEU:HA | 7:JA:255:VAL:HG22 | 2.02 | 0.40 |
| 7:JA:295:PHE:HB2 | 7:JA:325:VAL:HG22 | 2.03 | 0.40 |
| 7:JA:303:TYR:OH | 7:JA:393:ASP:N | 2.48 | 0.40 |
| 7:JA:447:LEU:O | 7:JA:451:MET:HG3 | 2.22 | 0.40 |
| 7:LA:345:LEU:HD23 | 7:LA:380:ARG:NH2 | 2.37 | 0.40 |
| 7:LA:470:LEU:O | 7:LA:473:ARG:HG2 | 2.22 | 0.40 |
| 7:MA:203:PRO:HA | 7:MA:206:LEU:HG | 2.04 | 0.40 |
| 7:OA:483:PRO:HB2 | 7:OA:485:ASP:OD1 | 2.21 | 0.40 |
| 7:QA:214:ARG:HA | 7:QA:214:ARG:HD3 | 1.90 | 0.40 |
| 7:RA:136:TYR:CZ | 7:RA:214:ARG:HB2 | 2.55 | 0.40 |
| 7:RA:493:PRO:O | 7:RA:512:CYS:HA | 2.20 | 0.40 |
| 8:AB:7:LYS:O | 8:BB:117:SER:OG | 2.24 | 0.40 |
| 8:BB:158:SER:C | 8:BB:159:LEU:HD12 | 2.46 | 0.40 |
| 8:CB:16:ARG:CZ | 8:IB:64:PRO:HG2 | 2.52 | 0.40 |
| 8:DB:136:ASP:HB3 | 8:DB:164:ASN:HB2 | 2.04 | 0.40 |
| 8:EB:100:ARG:O | 8:EB:100:ARG:NH1 | 2.37 | 0.40 |
| 8:GB:45:LEU:HD12 | 8:GB:86:VAL:O | 2.21 | 0.40 |
| 8:GB:89:ILE:HA | 8:LB:27:LEU:HG | 2.03 | 0.40 |
| 8:GB:121:GLY:O | 8:LB:11:LYS:NZ | 2.30 | 0.40 |
| 8:GB:164:ASN:HA | 8:LB:68:LYS:HZ2 | 1.86 | 0.40 |
| 8:HB:6:THR:HG21 | 8:PB:105:ASP:HA | 2.02 | 0.40 |
| 8:HB:10:ARG:HE | 8:HB:14:LYS:NZ | 2.19 | 0.40 |
| 8:LB:152:THR:O | 8:QB:59:VAL:HG13 | 2.22 | 0.40 |
| 8:MB:107:VAL:HG22 | 8:MB:108:ASP:H | 1.86 | 0.40 |
| 8:OB:13:ILE:HA | 8:OB:16:ARG:HG2 | 2.02 | 0.40 |
| 1:A:64:LYS:HG2 | 1:A:99:MET:O | 2.21 | 0.40 |
| 1:C:54:ASP:OD2 | 1:C:135:ASN:HB2 | 2.21 | 0.40 |
| 1:E:78:ILE:O | 1:E:84:ASN:HA | 2.21 | 0.40 |
| 1:F:64:LYS:HZ1 | 1:F:100:VAL:C | 2.30 | 0.40 |
| 2:G:190:ARG:HH11 | 3:M:86:PRO:HG2 | 1.85 | 0.40 |
| 2:I:8:VAL:O | 2:I:8:VAL:HG23 | 2.22 | 0.40 |
| 3:M:12:THR:H | 7:g:527:LEU:HD13 | 1.87 | 0.40 |
| 3:M:32:LEU:HD11 | 3:M:85:ILE:HG12 | 2.03 | 0.40 |
| 3:N:31:ARG:HA | 3:N:34:GLU:CD | 2.47 | 0.40 |
| 3:N:57:LYS:NZ | 7:i:3:GLN:HB2 | 2.36 | 0.40 |
| 3:O:72:ALA:O | 3:O:75:LEU:HG | 2.21 | 0.40 |
| 4:S:19:TYR:HA | 4:S:106:ARG:NH1 | 2.36 | 0.40 |
| 4:S:28:ILE:O | 4:S:31:ALA:HB3 | 2.21 | 0.40 |
| 4:S:62:ASP:HB3 | 4:S:75:ARG:CB | 2.51 | 0.40 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 4:V:48:LEU:HD13 | 4:V:98:LYS:CB | 2.48 | 0.40 |
| 5:Y:12:ARG:HD3 | 5:Y:39:LEU:HD23 | 2.03 | 0.40 |
| 5:Y:95:ALA:HA | 5:Y:259:ILE:HG23 | 2.03 | 0.40 |
| 5:Y:387:ILE:N | 5:Y:473:SER:O | 2.48 | 0.40 |
| 5:Z:3:LYS:NZ | 6:b:41:ARG:HG2 | 2.36 | 0.40 |
| 5:0:106:LYS:HE2 | 5:0:122:ASP:HA | 2.04 | 0.40 |
| 5:0:244:GLN:O | 5:0:263:THR:HG22 | 2.20 | 0.40 |
| 5:0:318:GLU:HG3 | 5:0:335:LYS:O | 2.22 | 0.40 |
| 5:3:3:LYS:NZ | 6:f:41:ARG:HG2 | 2.36 | 0.40 |
| 5:4:24:PHE:HD2 | 5:4:25:TRP:CE2 | 2.39 | 0.40 |
| 5:4:36:MET:O | 5:4:39:LEU:HG | 2.21 | 0.40 |
| 5:4:428:LYS:HE3 | 5:4:451:TRP:CD2 | 2.55 | 0.40 |
| 5:6:34:VAL:HA | 5:6:37:LEU:HG | 2.04 | 0.40 |
| 5:6:106:LYS:HG3 | 5:6:120:THR:O | 2.21 | 0.40 |
| 5:6:299:TYR:O | 5:6:303:LEU:HD23 | 2.22 | 0.40 |
| 5:6:378:PRO:HA | 5:6:462:TYR:O | 2.22 | 0.40 |
| 5:7:118:TYR:HB3 | 5:7:135:VAL:HG13 | 2.02 | 0.40 |
| 5:8:24:PHE:HD2 | 5:8:25:TRP:CE2 | 2.38 | 0.40 |
| 5:8:106:LYS:HG3 | 5:8:120:THR:O | 2.21 | 0.40 |
| 5:9:159:SER:OG | 5:9:162:LEU:HD23 | 2.21 | 0.40 |
| 5:9:351:GLU:HB2 | 5:9:371:TYR:CG | 2.56 | 0.40 |
| 6:a:115:ILE:N | 6:a:151:ARG:O | 2.36 | 0.40 |
| 6:c:31:MET:SD | 6:c:32:ASP:N | 2.94 | 0.40 |
| 6:d:25:ASP:OD1 | 6:d:26:LEU:N | 2.54 | 0.40 |
| 7:g:316:LEU:HD22 | 7:g:423:THR:HG22 | 2.03 | 0.40 |
| 7:g:508:VAL:HG13 | 7:g:510:TRP:CZ3 | 2.57 | 0.40 |
| 7:h:153:GLU:HB3 | 7:h:231:LYS:NZ | 2.37 | 0.40 |
| 7:i:75:GLN:O | 7:i:78:PRO:HD2 | 2.20 | 0.40 |
| 7:i:165:PHE:CZ | 7:i:186:VAL:HG23 | 2.57 | 0.40 |
| 7:i:210:SER:O | 7:i:214:ARG:NH2 | 2.54 | 0.40 |
| 7:j:75:GLN:O | 7:j:78:PRO:HD2 | 2.20 | 0.40 |
| 7:j:153:GLU:HB3 | 7:j:231:LYS:NZ | 2.37 | 0.40 |
| 7:j:330:PHE:HB3 | 7:j:383:ILE:HD11 | 2.02 | 0.40 |
| 7:j:335:LYS:HD2 | 7:j:336:TRP:CZ2 | 2.56 | 0.40 |
| 7:k:146:PRO:HG2 | 7:k:148:ARG:NH1 | 2.35 | 0.40 |
| 7:l:368:TYR:HB3 | 7:l:375:ARG:CZ | 2.51 | 0.40 |
| 7:l:374:GLU:OE2 | 7:l:375:ARG:NH2 | 2.54 | 0.40 |
| 7:m:220:GLU:HG2 | 7:m:221:LEU:HG | 2.03 | 0.40 |
| 7:n:220:GLU:HG2 | 7:n:221:LEU:HG | 2.03 | 0.40 |
| 7:n:267:ALA:HB1 | 7:n:294:PHE:CE2 | 2.56 | 0.40 |
| 7:o:103:PHE:CE1 | 7:o:121:TYR:HA | 2.54 | 0.40 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:o:407:VAL:HB | 7:p:3:GLN:HE21 | 1.86 | 0.40 |
| 7:o:447:LEU:O | 7:o:451:MET:HG2 | 2.21 | 0.40 |
| 7:p:156:THR:HG23 | 7:p:164:ARG:NH2 | 2.33 | 0.40 |
| 7:q:355:ARG:HG3 | 7:q:358:LYS:HZ3 | 1.87 | 0.40 |
| 7:q:371:ALA:H | 7:q:375:ARG:HE | 1.69 | 0.40 |
| 7:r:80:ARG:O | 7:r:84:GLU:OE1 | 2.39 | 0.40 |
| 7:r:327:HIS:HE1 | 7:r:329:PRO:HB3 | 1.85 | 0.40 |
| 7:r:507:GLU:HA | 7:FA:522:GLN:HG3 | 2.04 | 0.40 |
| 7:AA:206:LEU:HD12 | 7:AA:210:SER:HB3 | 2.04 | 0.40 |
| 7:AA:474:PHE:HB2 | 7:AA:494:TYR:OH | 2.22 | 0.40 |
| 7:BA:255:VAL:O | 7:BA:258:LEU:HG | 2.21 | 0.40 |
| 7:BA:433:VAL:N | 7:BA:434:PRO:HD2 | 2.37 | 0.40 |
| 7:CA:79:ILE:HG13 | 7:CA:80:ARG:N | 2.37 | 0.40 |
| 7:DA:34:ASN:HB3 | 7:DA:37:LEU:HD21 | 2.02 | 0.40 |
| 7:DA:37:LEU:H | 7:DA:266:THR:HG23 | 1.87 | 0.40 |
| 7:DA:353:LYS:HA | 7:DA:353:LYS:HE2 | 2.03 | 0.40 |
| 7:DA:368:TYR:HB3 | 7:DA:375:ARG:NH2 | 2.36 | 0.40 |
| 7:EA:34:ASN:HB3 | 7:EA:37:LEU:HD21 | 2.02 | 0.40 |
| 7:FA:389:GLU:OE1 | 7:FA:389:GLU:N | 2.47 | 0.40 |
| 7:FA:460:ALA:O | 7:FA:464:THR:HG23 | 2.22 | 0.40 |
| 7:FA:474:PHE:HB2 | 7:FA:494:TYR:OH | 2.22 | 0.40 |
| 7:FA:502:GLU:OE1 | 7:FA:503:PHE:N | 2.55 | 0.40 |
| 7:GA:326:TYR:HE1 | 7:GA:415:ILE:HD13 | 1.87 | 0.40 |
| 7:GA:345:LEU:HD23 | 7:GA:380:ARG:NH2 | 2.36 | 0.40 |
| 7:HA:44:PHE:C | 7:HA:95:ARG:HE | 2.29 | 0.40 |
| 7:HA:107:MET:SD | 7:HA:134:ALA:HB2 | 2.61 | 0.40 |
| 7:HA:269:LEU:HD13 | 7:HA:294:PHE:CB | 2.52 | 0.40 |
| 7:IA:345:LEU:HD23 | 7:IA:380:ARG:NH2 | 2.37 | 0.40 |
| 7:IA:430:PHE:CE1 | 7:IA:519:ARG:HD3 | 2.57 | 0.40 |
| 7:JA:201:TYR:CE2 | 7:JA:203:PRO:HD2 | 2.57 | 0.40 |
| 7:JA:228:THR:OG1 | 7:JA:229:ASN:N | 2.54 | 0.40 |
| 7:LA:427:TYR:HB2 | 7:RA:529:LYS:HE3 | 2.04 | 0.40 |
| 7:MA:483:PRO:HG2 | 7:MA:490:GLY:O | 2.21 | 0.40 |
| 7:NA:406:SER:OG | 7:NA:407:VAL:N | 2.54 | 0.40 |
| 7:NA:483:PRO:HB2 | 7:NA:485:ASP:OD1 | 2.21 | 0.40 |
| 7:OA:333:LYS:HA | 7:OA:339:SER:O | 2.19 | 0.40 |
| 7:OA:352:ALA:O | 7:OA:355:ARG:HG3 | 2.21 | 0.40 |
| 7:PA:207:GLU:HA | 7:PA:214:ARG:CZ | 2.51 | 0.40 |
| 7:QA:77:GLU:HB2 | 7:QA:78:PRO:HD3 | 2.04 | 0.40 |
| 7:RA:437:MET:HA | 7:RA:440:ILE:HG12 | 2.03 | 0.40 |
| 8:BB:16:ARG:NH1 | 8:HB:67:VAL:HG11 | 2.37 | 0.40 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|-------------------|--------------------------|-------------------|
| 8:DB:47:ARG:NE | 8:EB:148:THR:HG23 | 2.36 | 0.40 |
| 8:HB:46:VAL:O | 8:HB:47:ARG:NH2 | 2.54 | 0.40 |
| 8:HB:47:ARG:HG3 | 8:HB:86:VAL:HG23 | 2.02 | 0.40 |
| 8:IB:81:ILE:HB | 8:IB:161:ILE:CG2 | 2.51 | 0.40 |
| 8:JB:152:THR:O | 8:OB:59:VAL:HG13 | 2.22 | 0.40 |
| 8:LB:6:THR:HG21 | 8:NB:105:ASP:HA | 2.02 | 0.40 |
| 8:MB:41:ASP:O | 8:RB:23:LYS:HE2 | 2.20 | 0.40 |
| 8:NB:56:ARG:HD3 | 8:NB:73:GLY:O | 2.21 | 0.40 |
| 8:NB:60:GLU:HG2 | 8:NB:70:ASN:HB2 | 2.02 | 0.40 |
| 8:NB:106:TYR:CE2 | 8:NB:138:LYS:HE2 | 2.57 | 0.40 |
| 8:OB:133:GLU:O | 8:OB:134:MET:HE2 | 2.21 | 0.40 |
| 8:PB:133:GLU:O | 8:PB:134:MET:HE2 | 2.21 | 0.40 |
| 1:B:52:GLU:OE2 | 1:B:137:ARG:HG3 | 2.21 | 0.40 |
| 1:B:64:LYS:NZ | 1:B:175:SER:HB3 | 2.37 | 0.40 |
| 1:D:127:ASN:HB3 | 1:D:131:GLN:NE2 | 2.36 | 0.40 |
| 1:F:33:LEU:HD23 | 1:F:36:ILE:HD11 | 2.02 | 0.40 |
| 1:F:80:ILE:HA | 2:G:33:TYR:CZ | 2.57 | 0.40 |
| 1:F:114:THR:OG1 | 1:F:118:ARG:NH2 | 2.54 | 0.40 |
| 2:K:8:VAL:HG23 | 2:K:8:VAL:O | 2.22 | 0.40 |
| 2:L:8:VAL:HG23 | 2:L:8:VAL:O | 2.22 | 0.40 |
| 3:N:58:HIS:HA | 3:N:118:LEU:C | 2.47 | 0.40 |
| 3:O:31:ARG:HB3 | 5:6:32:GLN:HE22 | 1.86 | 0.40 |
| 3:P:31:ARG:HB3 | 5:7:32:GLN:NE2 | 2.36 | 0.40 |
| 3:P:58:HIS:HD2 | 7:j:371:ALA:HB3 | 1.84 | 0.40 |
| 3:R:71:GLU:HA | 3:R:74:LEU:HG | 2.03 | 0.40 |
| 3:R:71:GLU:HA | 3:R:74:LEU:CD2 | 2.51 | 0.40 |
| 4:T:63:LEU:HB3 | 4:T:67:ARG:CZ | 2.52 | 0.40 |
| 4:T:98:LYS:C | 4:T:99:LEU:HD22 | 2.47 | 0.40 |
| 4:U:29:LEU:O | 4:U:33:LEU:HD23 | 2.21 | 0.40 |
| 4:V:28:ILE:O | 4:V:31:ALA:HB3 | 2.21 | 0.40 |
| 4:W:85:GLU:HG2 | 5:8:51:TYR:OH | 2.22 | 0.40 |
| 4:W:105:ILE:O | 4:W:108:MET:HG2 | 2.21 | 0.40 |
| 5:Y:169:LEU:HD13 | 5:Y:231:VAL:HG22 | 2.04 | 0.40 |
| 5:0:231:VAL:HG12 | 5:0:233:CYS:SG | 2.62 | 0.40 |
| 5:0:394:GLU:HB3 | 5:1:125:ARG:HH12 | 1.86 | 0.40 |
| 5:1:189:ARG:HH22 | 5:7:290:ASP:CG | 2.30 | 0.40 |
| 5:2:95:ALA:HA | 5:2:259:ILE:HG23 | 2.03 | 0.40 |
| 5:3:12:ARG:HD3 | 5:3:39:LEU:HD23 | 2.03 | 0.40 |
| 5:3:40:PHE:O | 5:3:44:ILE:HG12 | 2.21 | 0.40 |
| 5:5:203:LYS:HA | 5:5:204:PRO:HD3 | 1.97 | 0.40 |
| 5:6:245:ASN:HA | 5:6:261:VAL:O | 2.20 | 0.40 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 5:8:10:SER:OG | 5:8:11:ILE:N | 2.53 | 0.40 |
| 5:8:108:MET:HG3 | 5:8:120:THR:OG1 | 2.21 | 0.40 |
| 5:9:278:ILE:HD12 | 5:9:278:ILE:HA | 1.93 | 0.40 |
| 5:9:366:ASN:ND2 | 6:f:150:SER:O | 2.55 | 0.40 |
| 6:c:33:THR:HG23 | 6:c:34:PHE:HD2 | 1.87 | 0.40 |
| 6:c:70:ARG:HG3 | 6:c:187:PHE:CE1 | 2.57 | 0.40 |
| 7:h:394:GLU:OE1 | 7:h:394:GLU:N | 2.44 | 0.40 |
| 7:h:456:ASP:OD2 | 7:n:516:GLY:HA3 | 2.22 | 0.40 |
| 7:h:508:VAL:HG13 | 7:h:510:TRP:CZ3 | 2.57 | 0.40 |
| 7:i:108:PHE:HA | 7:i:113:GLU:O | 2.21 | 0.40 |
| 7:j:141:ASP:OD2 | 7:j:148:ARG:NH2 | 2.55 | 0.40 |
| 7:k:428:LEU:HD11 | 7:r:21:ILE:HG21 | 2.02 | 0.40 |
| 7:l:367:HIS:HA | 7:l:432:HIS:HB2 | 2.03 | 0.40 |
| 7:m:506:TRP:C | 7:AA:521:ILE:HD12 | 2.47 | 0.40 |
| 7:n:404:LYS:HE2 | 7:n:404:LYS:HA | 2.04 | 0.40 |
| 7:o:307:LEU:HB2 | 7:o:308:PRO:HD3 | 2.03 | 0.40 |
| 7:o:404:LYS:O | 7:o:415:ILE:HD12 | 2.21 | 0.40 |
| 7:p:77:GLU:OE2 | 7:p:343:PHE:HA | 2.22 | 0.40 |
| 7:q:142:PRO:HB3 | 7:q:239:THR:HA | 2.02 | 0.40 |
| 7:q:305:GLU:C | 7:q:308:PRO:HD2 | 2.46 | 0.40 |
| 7:q:406:SER:O | 7:q:414:ILE:N | 2.53 | 0.40 |
| 7:r:77:GLU:HB2 | 7:r:78:PRO:HD3 | 2.03 | 0.40 |
| 7:r:190:GLU:O | 7:FA:69:LYS:NZ | 2.47 | 0.40 |
| 7:r:355:ARG:HG3 | 7:r:358:LYS:NZ | 2.36 | 0.40 |
| 7:AA:83:TYR:O | 7:AA:86:ILE:HG22 | 2.21 | 0.40 |
| 7:AA:152:ILE:HD12 | 7:AA:165:PHE:CE2 | 2.57 | 0.40 |
| 7:AA:467:MET:HA | 7:AA:470:LEU:CG | 2.52 | 0.40 |
| 7:CA:52:VAL:HA | 7:CA:94:VAL:HG22 | 2.03 | 0.40 |
| 7:CA:83:TYR:O | 7:CA:86:ILE:HG22 | 2.21 | 0.40 |
| 7:CA:148:ARG:O | 7:CA:234:ALA:HA | 2.22 | 0.40 |
| 7:CA:333:LYS:HD2 | 7:CA:338:GLN:C | 2.47 | 0.40 |
| 7:CA:460:ALA:O | 7:CA:464:THR:HG23 | 2.21 | 0.40 |
| 7:DA:206:LEU:HD12 | 7:DA:210:SER:HB3 | 2.04 | 0.40 |
| 7:DA:502:GLU:OE1 | 7:DA:503:PHE:N | 2.54 | 0.40 |
| 7:EA:137:VAL:HG22 | 7:EA:139:ASP:H | 1.86 | 0.40 |
| 7:EA:510:TRP:CE2 | 7:KA:525:PRO:HA | 2.56 | 0.40 |
| 7:FA:80:ARG:HH21 | 7:FA:84:GLU:HG3 | 1.87 | 0.40 |
| 7:FA:447:LEU:O | 7:FA:450:GLN:HG3 | 2.22 | 0.40 |
| 7:GA:443:PHE:HA | 7:GA:446:GLN:NE2 | 2.37 | 0.40 |
| 7:HA:302:THR:HA | 7:HA:387:TYR:CZ | 2.56 | 0.40 |
| 7:HA:426:ASN:HB2 | 7:NA:529:LYS:NZ | 2.37 | 0.40 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:IA:151:THR:HB | 7:IA:168:LYS:HE3 | 2.02 | 0.40 |
| 7:JA:426:ASN:HB3 | 7:KA:195:ASP:HB2 | 2.02 | 0.40 |
| 7:JA:470:LEU:O | 7:JA:473:ARG:HG2 | 2.21 | 0.40 |
| 7:KA:447:LEU:O | 7:KA:451:MET:HG3 | 2.22 | 0.40 |
| 7:LA:48:LYS:HZ3 | 7:LA:138:ASP:HB2 | 1.86 | 0.40 |
| 7:LA:269:LEU:HD13 | 7:LA:294:PHE:CB | 2.52 | 0.40 |
| 7:LA:500:GLN:CD | 7:LA:506:TRP:HB3 | 2.46 | 0.40 |
| 7:NA:214:ARG:HD3 | 7:NA:214:ARG:HA | 1.90 | 0.40 |
| 7:NA:440:ILE:HG22 | 7:NA:474:PHE:CE2 | 2.56 | 0.40 |
| 7:OA:333:LYS:HE3 | 7:OA:340:ARG:HH11 | 1.86 | 0.40 |
| 7:OA:437:MET:HA | 7:OA:440:ILE:HG12 | 2.03 | 0.40 |
| 7:PA:303:TYR:CE2 | 7:PA:329:PRO:HG3 | 2.56 | 0.40 |
| 7:QA:203:PRO:HA | 7:QA:206:LEU:HG | 2.04 | 0.40 |
| 7:RA:305:GLU:OE1 | 7:RA:305:GLU:N | 2.52 | 0.40 |
| 8:AB:85:CYS:O | 8:AB:157:PRO:HD2 | 2.20 | 0.40 |
| 8:DB:15:GLY:O | 8:DB:18:THR:OG1 | 2.32 | 0.40 |
| 8:DB:72:HIS:HE1 | 8:EB:100:ARG:HH22 | 1.61 | 0.40 |
| 8:DB:158:SER:C | 8:DB:159:LEU:HD12 | 2.46 | 0.40 |
| 8:GB:127:LYS:HD3 | 8:GB:127:LYS:N | 2.36 | 0.40 |
| 8:MB:9:ASN:ND2 | 8:NB:119:SER:O | 2.44 | 0.40 |
| 8:MB:54:MET:O | 8:NB:141:SER:OG | 2.29 | 0.40 |
| 8:NB:23:LYS:HE3 | 8:OB:45:LEU:HB2 | 2.03 | 0.40 |
| 8:NB:107:VAL:HG22 | 8:NB:108:ASP:H | 1.86 | 0.40 |
| 8:OB:9:ASN:N | 8:PB:116:GLU:OE2 | 2.34 | 0.40 |
| 8:OB:50:GLN:HE22 | 8:PB:145:ASP:HA | 1.85 | 0.40 |
| 8:RB:106:TYR:CE2 | 8:RB:138:LYS:HE2 | 2.57 | 0.40 |
| 1:A:128:ILE:HD13 | 1:A:201:PHE:HE2 | 1.86 | 0.40 |
| 1:B:78:ILE:HD11 | 1:B:85:ILE:HB | 2.02 | 0.40 |
| 1:B:138:ILE:C | 1:B:139:TYR:HD2 | 2.29 | 0.40 |
| 1:C:114:THR:OG1 | 1:C:118:ARG:NH2 | 2.54 | 0.40 |
| 1:D:47:TRP:HA | 1:E:167:ARG:NH1 | 2.37 | 0.40 |
| 1:D:54:ASP:OD2 | 1:D:135:ASN:HB2 | 2.21 | 0.40 |
| 1:D:80:ILE:HA | 2:K:33:TYR:CZ | 2.56 | 0.40 |
| 1:F:64:LYS:NZ | 1:F:175:SER:HB3 | 2.36 | 0.40 |
| 2:G:156:PHE:HB3 | 2:G:173:VAL:HA | 2.03 | 0.40 |
| 2:H:47:GLU:O | 2:H:83:VAL:HB | 2.22 | 0.40 |
| 2:I:190:ARG:HH21 | 3:O:88:SER:HB3 | 1.86 | 0.40 |
| 2:I:190:ARG:HD3 | 3:O:86:PRO:HG2 | 2.04 | 0.40 |
| 2:J:47:GLU:O | 2:J:83:VAL:HB | 2.22 | 0.40 |
| 2:J:128:VAL:HA | 2:J:131:GLN:HG3 | 2.03 | 0.40 |
| 2:K:193:GLN:O | 2:L:167:TYR:OH | 2.39 | 0.40 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|------------------|------------------|--------------------------|-------------------|
| 3:N:71:GLU:HA | 3:N:74:LEU:HG | 2.04 | 0.40 |
| 3:N:71:GLU:O | 3:N:74:LEU:HG | 2.21 | 0.40 |
| 4:S:40:MET:O | 4:S:43:SER:OG | 2.27 | 0.40 |
| 4:S:60:ARG:CG | 6:a:9:ARG:HD3 | 2.49 | 0.40 |
| 4:T:28:ILE:O | 4:T:31:ALA:HB3 | 2.22 | 0.40 |
| 4:U:19:TYR:HA | 4:U:106:ARG:NH1 | 2.36 | 0.40 |
| 4:V:49:THR:O | 4:V:98:LYS:HG3 | 2.21 | 0.40 |
| 4:X:19:TYR:HA | 4:X:106:ARG:NH1 | 2.37 | 0.40 |
| 4:X:33:LEU:HA | 4:X:36:GLU:OE1 | 2.22 | 0.40 |
| 5:Y:244:GLN:H | 5:Y:263:THR:HG22 | 1.86 | 0.40 |
| 5:Z:106:LYS:HE2 | 5:Z:122:ASP:HA | 2.03 | 0.40 |
| 5:Z:318:GLU:HG3 | 5:Z:335:LYS:O | 2.22 | 0.40 |
| 5:0:13:ALA:O | 5:0:14:GLU:C | 2.64 | 0.40 |
| 5:0:310:LEU:HA | 5:0:342:HIS:CD2 | 2.57 | 0.40 |
| 5:1:317:GLY:HA2 | 6:d:194:LEU:HD13 | 2.03 | 0.40 |
| 5:2:231:VAL:HG12 | 5:2:233:CYS:SG | 2.62 | 0.40 |
| 5:2:413:THR:HG23 | 5:2:419:ARG:NH2 | 2.32 | 0.40 |
| 5:4:310:LEU:HD23 | 5:4:342:HIS:HD2 | 1.85 | 0.40 |
| 5:5:310:LEU:HD23 | 5:5:342:HIS:CD2 | 2.56 | 0.40 |
| 5:5:389:ALA:HB3 | 6:a:70:ARG:NH2 | 2.36 | 0.40 |
| 5:6:389:ALA:HB3 | 6:b:70:ARG:NH2 | 2.35 | 0.40 |
| 5:8:45:VAL:HA | 5:8:48:CYS:SG | 2.61 | 0.40 |
| 6:a:25:ASP:OD1 | 6:a:26:LEU:N | 2.54 | 0.40 |
| 6:a:84:ARG:HG3 | 6:a:99:GLN:NE2 | 2.36 | 0.40 |
| 6:c:117:ALA:N | 6:c:146:MET:HE3 | 2.37 | 0.40 |
| 6:d:53:LYS:O | 6:d:56:LEU:N | 2.54 | 0.40 |
| 6:e:59:ARG:HD3 | 6:e:59:ARG:HA | 1.92 | 0.40 |
| 7:g:199:LEU:HD23 | 7:g:204:THR:HG21 | 2.03 | 0.40 |
| 7:h:198:ARG:HA | 7:h:198:ARG:NE | 2.36 | 0.40 |
| 7:h:357:VAL:HG21 | 7:h:366:TRP:CE2 | 2.57 | 0.40 |
| 7:i:81:HIS:HA | 7:i:84:GLU:OE1 | 2.20 | 0.40 |
| 7:i:255:VAL:HG11 | 7:i:281:ALA:HB1 | 2.03 | 0.40 |
| 7:i:374:GLU:OE2 | 7:i:375:ARG:NH2 | 2.54 | 0.40 |
| 7:j:165:PHE:CZ | 7:j:186:VAL:HG23 | 2.57 | 0.40 |
| 7:j:357:VAL:HG21 | 7:j:366:TRP:CE2 | 2.57 | 0.40 |
| 7:k:165:PHE:CZ | 7:k:186:VAL:HG23 | 2.57 | 0.40 |
| 7:l:456:ASP:OD2 | 7:r:516:GLY:HA3 | 2.22 | 0.40 |
| 7:m:404:LYS:HE2 | 7:m:404:LYS:HA | 2.04 | 0.40 |
| 7:n:77:GLU:OE2 | 7:n:343:PHE:HA | 2.21 | 0.40 |
| 7:n:103:PHE:CE1 | 7:n:121:TYR:HA | 2.54 | 0.40 |
| 7:n:305:GLU:C | 7:n:308:PRO:HD2 | 2.46 | 0.40 |

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| Atom-1 | Atom-2 | Interatomic distance (Å) | Clash overlap (Å) |
|-------------------|-------------------|--------------------------|-------------------|
| 7:o:80:ARG:O | 7:o:84:GLU:OE1 | 2.39 | 0.40 |
| 7:o:497:LYS:O | 7:o:508:VAL:HA | 2.21 | 0.40 |
| 7:p:527:LEU:HD23 | 7:q:22:ASN:O | 2.21 | 0.40 |
| 7:q:282:LEU:HD23 | 7:q:295:PHE:CE1 | 2.56 | 0.40 |
| 7:q:528:ILE:O | 7:q:529:LYS:HG3 | 2.21 | 0.40 |
| 7:r:107:MET:HG3 | 7:r:134:ALA:HB2 | 2.03 | 0.40 |
| 7:r:305:GLU:C | 7:r:308:PRO:HD2 | 2.46 | 0.40 |
| 7:BA:77:GLU:HB2 | 7:BA:78:PRO:HD3 | 2.02 | 0.40 |
| 7:BA:79:ILE:HG13 | 7:BA:80:ARG:N | 2.37 | 0.40 |
| 7:BA:319:ASP:OD1 | 7:BA:319:ASP:N | 2.44 | 0.40 |
| 7:CA:206:LEU:HD12 | 7:CA:210:SER:HB3 | 2.04 | 0.40 |
| 7:DA:471:LEU:HB2 | 7:DA:494:TYR:HD2 | 1.83 | 0.40 |
| 7:EA:118:ALA:HB2 | 7:EA:237:GLY:HA3 | 2.01 | 0.40 |
| 7:EA:307:LEU:HD21 | 7:EA:397:MET:HA | 2.03 | 0.40 |
| 7:FA:79:ILE:HG13 | 7:FA:80:ARG:N | 2.37 | 0.40 |
| 7:FA:206:LEU:HD12 | 7:FA:210:SER:HB3 | 2.04 | 0.40 |
| 7:GA:201:TYR:CE2 | 7:GA:203:PRO:HD2 | 2.57 | 0.40 |
| 7:HA:345:LEU:HD23 | 7:HA:380:ARG:NH2 | 2.37 | 0.40 |
| 7:JA:427:TYR:HB2 | 7:PA:529:LYS:HE3 | 2.03 | 0.40 |
| 7:NA:77:GLU:HB2 | 7:NA:78:PRO:HD3 | 2.04 | 0.40 |
| 7:NA:207:GLU:HA | 7:NA:214:ARG:CZ | 2.51 | 0.40 |
| 7:OA:406:SER:OG | 7:OA:407:VAL:N | 2.54 | 0.40 |
| 7:PA:487:ASP:OD1 | 7:PA:487:ASP:N | 2.55 | 0.40 |
| 7:QA:500:GLN:NE2 | 7:QA:502:GLU:H | 2.19 | 0.40 |
| 7:RA:77:GLU:HB2 | 7:RA:78:PRO:HD3 | 2.04 | 0.40 |
| 7:RA:203:PRO:HA | 7:RA:206:LEU:HG | 2.04 | 0.40 |
| 7:RA:369:SER:HA | 7:RA:370:PRO:HD3 | 1.86 | 0.40 |
| 8:EB:31:GLU:HA | 8:JB:65:ASN:HB3 | 2.03 | 0.40 |
| 8:GB:133:GLU:N | 8:GB:133:GLU:OE1 | 2.54 | 0.40 |
| 8:HB:26:ARG:NH2 | 8:NB:71:GLN:HB2 | 2.37 | 0.40 |
| 8:HB:81:ILE:HB | 8:HB:161:ILE:CG2 | 2.52 | 0.40 |
| 8:HB:152:THR:O | 8:MB:59:VAL:HG13 | 2.22 | 0.40 |
| 8:JB:36:PHE:HD1 | 8:JB:109:ILE:HD12 | 1.86 | 0.40 |
| 8:JB:71:GLN:C | 8:KB:138:LYS:HZ1 | 2.30 | 0.40 |
| 8:MB:56:ARG:HD3 | 8:MB:73:GLY:O | 2.21 | 0.40 |
| 8:OB:26:ARG:HH22 | 8:PB:87:GLU:C | 2.28 | 0.40 |

There are no symmetry-related clashes.

5.3 Torsion angles

5.3.1 Protein backbone

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

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

| Mol | Chain | Analysed | Favoured | Allowed | Outliers | Percentiles | |
|-----|-------|----------------|-----------|----------|----------|-------------|-----|
| 1 | A | 178/203 (88%) | 165 (93%) | 13 (7%) | 0 | 100 | 100 |
| 1 | B | 178/203 (88%) | 164 (92%) | 14 (8%) | 0 | 100 | 100 |
| 1 | C | 178/203 (88%) | 164 (92%) | 14 (8%) | 0 | 100 | 100 |
| 1 | D | 178/203 (88%) | 165 (93%) | 13 (7%) | 0 | 100 | 100 |
| 1 | E | 178/203 (88%) | 164 (92%) | 14 (8%) | 0 | 100 | 100 |
| 1 | F | 178/203 (88%) | 164 (92%) | 14 (8%) | 0 | 100 | 100 |
| 2 | G | 154/193 (80%) | 140 (91%) | 14 (9%) | 0 | 100 | 100 |
| 2 | H | 154/193 (80%) | 141 (92%) | 13 (8%) | 0 | 100 | 100 |
| 2 | I | 154/193 (80%) | 142 (92%) | 12 (8%) | 0 | 100 | 100 |
| 2 | J | 154/193 (80%) | 140 (91%) | 14 (9%) | 0 | 100 | 100 |
| 2 | K | 154/193 (80%) | 141 (92%) | 13 (8%) | 0 | 100 | 100 |
| 2 | L | 154/193 (80%) | 141 (92%) | 13 (8%) | 0 | 100 | 100 |
| 3 | M | 110/118 (93%) | 97 (88%) | 13 (12%) | 0 | 100 | 100 |
| 3 | N | 110/118 (93%) | 95 (86%) | 15 (14%) | 0 | 100 | 100 |
| 3 | O | 110/118 (93%) | 96 (87%) | 14 (13%) | 0 | 100 | 100 |
| 3 | P | 110/118 (93%) | 95 (86%) | 15 (14%) | 0 | 100 | 100 |
| 3 | Q | 110/118 (93%) | 95 (86%) | 15 (14%) | 0 | 100 | 100 |
| 3 | R | 110/118 (93%) | 96 (87%) | 14 (13%) | 0 | 100 | 100 |
| 4 | S | 113/125 (90%) | 102 (90%) | 11 (10%) | 0 | 100 | 100 |
| 4 | T | 113/125 (90%) | 102 (90%) | 10 (9%) | 1 (1%) | 14 | 51 |
| 4 | U | 113/125 (90%) | 103 (91%) | 10 (9%) | 0 | 100 | 100 |
| 4 | V | 113/125 (90%) | 104 (92%) | 9 (8%) | 0 | 100 | 100 |
| 4 | W | 113/125 (90%) | 102 (90%) | 11 (10%) | 0 | 100 | 100 |
| 4 | X | 113/125 (90%) | 103 (91%) | 10 (9%) | 0 | 100 | 100 |
| 5 | 0 | 475/477 (100%) | 462 (97%) | 13 (3%) | 0 | 100 | 100 |

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| Mol | Chain | Analysed | Favoured | Allowed | Outliers | Percentiles | |
|-----|-------|----------------|-----------|---------|----------|-------------|-----|
| 5 | 1 | 475/477 (100%) | 462 (97%) | 13 (3%) | 0 | 100 | 100 |
| 5 | 2 | 475/477 (100%) | 461 (97%) | 14 (3%) | 0 | 100 | 100 |
| 5 | 3 | 475/477 (100%) | 462 (97%) | 13 (3%) | 0 | 100 | 100 |
| 5 | 4 | 475/477 (100%) | 450 (95%) | 25 (5%) | 0 | 100 | 100 |
| 5 | 5 | 475/477 (100%) | 451 (95%) | 24 (5%) | 0 | 100 | 100 |
| 5 | 6 | 475/477 (100%) | 451 (95%) | 24 (5%) | 0 | 100 | 100 |
| 5 | 7 | 475/477 (100%) | 450 (95%) | 25 (5%) | 0 | 100 | 100 |
| 5 | 8 | 475/477 (100%) | 451 (95%) | 24 (5%) | 0 | 100 | 100 |
| 5 | 9 | 475/477 (100%) | 452 (95%) | 23 (5%) | 0 | 100 | 100 |
| 5 | Y | 475/477 (100%) | 462 (97%) | 13 (3%) | 0 | 100 | 100 |
| 5 | Z | 475/477 (100%) | 461 (97%) | 14 (3%) | 0 | 100 | 100 |
| 6 | a | 202/278 (73%) | 191 (95%) | 11 (5%) | 0 | 100 | 100 |
| 6 | b | 202/278 (73%) | 193 (96%) | 9 (4%) | 0 | 100 | 100 |
| 6 | c | 202/278 (73%) | 191 (95%) | 11 (5%) | 0 | 100 | 100 |
| 6 | d | 202/278 (73%) | 190 (94%) | 12 (6%) | 0 | 100 | 100 |
| 6 | e | 202/278 (73%) | 191 (95%) | 11 (5%) | 0 | 100 | 100 |
| 6 | f | 202/278 (73%) | 191 (95%) | 11 (5%) | 0 | 100 | 100 |
| 7 | AA | 526/529 (99%) | 497 (94%) | 29 (6%) | 0 | 100 | 100 |
| 7 | BA | 526/529 (99%) | 497 (94%) | 29 (6%) | 0 | 100 | 100 |
| 7 | CA | 526/529 (99%) | 497 (94%) | 29 (6%) | 0 | 100 | 100 |
| 7 | DA | 526/529 (99%) | 497 (94%) | 29 (6%) | 0 | 100 | 100 |
| 7 | EA | 526/529 (99%) | 498 (95%) | 28 (5%) | 0 | 100 | 100 |
| 7 | FA | 526/529 (99%) | 498 (95%) | 28 (5%) | 0 | 100 | 100 |
| 7 | GA | 526/529 (99%) | 498 (95%) | 28 (5%) | 0 | 100 | 100 |
| 7 | HA | 526/529 (99%) | 500 (95%) | 26 (5%) | 0 | 100 | 100 |
| 7 | IA | 526/529 (99%) | 500 (95%) | 26 (5%) | 0 | 100 | 100 |
| 7 | JA | 526/529 (99%) | 498 (95%) | 28 (5%) | 0 | 100 | 100 |
| 7 | KA | 526/529 (99%) | 500 (95%) | 26 (5%) | 0 | 100 | 100 |
| 7 | LA | 526/529 (99%) | 500 (95%) | 26 (5%) | 0 | 100 | 100 |
| 7 | MA | 526/529 (99%) | 493 (94%) | 33 (6%) | 0 | 100 | 100 |
| 7 | NA | 526/529 (99%) | 494 (94%) | 32 (6%) | 0 | 100 | 100 |

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| Mol | Chain | Analysed | Favoured | Allowed | Outliers | Percentiles | |
|-----|-------|---------------|-----------|---------|----------|-------------|-----|
| 7 | OA | 526/529 (99%) | 493 (94%) | 33 (6%) | 0 | 100 | 100 |
| 7 | PA | 526/529 (99%) | 492 (94%) | 34 (6%) | 0 | 100 | 100 |
| 7 | QA | 526/529 (99%) | 494 (94%) | 32 (6%) | 0 | 100 | 100 |
| 7 | RA | 526/529 (99%) | 493 (94%) | 33 (6%) | 0 | 100 | 100 |
| 7 | g | 526/529 (99%) | 488 (93%) | 38 (7%) | 0 | 100 | 100 |
| 7 | h | 526/529 (99%) | 488 (93%) | 38 (7%) | 0 | 100 | 100 |
| 7 | i | 526/529 (99%) | 489 (93%) | 37 (7%) | 0 | 100 | 100 |
| 7 | j | 526/529 (99%) | 488 (93%) | 38 (7%) | 0 | 100 | 100 |
| 7 | k | 526/529 (99%) | 488 (93%) | 38 (7%) | 0 | 100 | 100 |
| 7 | l | 526/529 (99%) | 490 (93%) | 36 (7%) | 0 | 100 | 100 |
| 7 | m | 526/529 (99%) | 492 (94%) | 34 (6%) | 0 | 100 | 100 |
| 7 | n | 526/529 (99%) | 490 (93%) | 36 (7%) | 0 | 100 | 100 |
| 7 | o | 526/529 (99%) | 490 (93%) | 36 (7%) | 0 | 100 | 100 |
| 7 | p | 526/529 (99%) | 491 (93%) | 35 (7%) | 0 | 100 | 100 |
| 7 | q | 526/529 (99%) | 490 (93%) | 36 (7%) | 0 | 100 | 100 |
| 7 | r | 526/529 (99%) | 491 (93%) | 35 (7%) | 0 | 100 | 100 |
| 8 | AB | 166/169 (98%) | 159 (96%) | 7 (4%) | 0 | 100 | 100 |
| 8 | BB | 166/169 (98%) | 159 (96%) | 7 (4%) | 0 | 100 | 100 |
| 8 | CB | 166/169 (98%) | 159 (96%) | 7 (4%) | 0 | 100 | 100 |
| 8 | DB | 166/169 (98%) | 159 (96%) | 7 (4%) | 0 | 100 | 100 |
| 8 | EB | 166/169 (98%) | 159 (96%) | 7 (4%) | 0 | 100 | 100 |
| 8 | FB | 166/169 (98%) | 159 (96%) | 7 (4%) | 0 | 100 | 100 |
| 8 | GB | 166/169 (98%) | 158 (95%) | 8 (5%) | 0 | 100 | 100 |
| 8 | HB | 166/169 (98%) | 158 (95%) | 8 (5%) | 0 | 100 | 100 |
| 8 | IB | 166/169 (98%) | 156 (94%) | 10 (6%) | 0 | 100 | 100 |
| 8 | JB | 166/169 (98%) | 158 (95%) | 8 (5%) | 0 | 100 | 100 |
| 8 | KB | 166/169 (98%) | 156 (94%) | 10 (6%) | 0 | 100 | 100 |
| 8 | LB | 166/169 (98%) | 156 (94%) | 10 (6%) | 0 | 100 | 100 |
| 8 | MB | 166/169 (98%) | 155 (93%) | 11 (7%) | 0 | 100 | 100 |
| 8 | NB | 166/169 (98%) | 153 (92%) | 13 (8%) | 0 | 100 | 100 |
| 8 | OB | 166/169 (98%) | 155 (93%) | 11 (7%) | 0 | 100 | 100 |

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| Mol | Chain | Analysed | Favoured | Allowed | Outliers | Percentiles | |
|-----|-------|-------------------|-------------|-----------|----------|-------------|-----|
| 8 | PB | 166/169 (98%) | 155 (93%) | 11 (7%) | 0 | 100 | 100 |
| 8 | QB | 166/169 (98%) | 154 (93%) | 12 (7%) | 0 | 100 | 100 |
| 8 | RB | 166/169 (98%) | 156 (94%) | 10 (6%) | 0 | 100 | 100 |
| All | All | 29010/30138 (96%) | 27281 (94%) | 1728 (6%) | 1 (0%) | 100 | 100 |

All (1) Ramachandran outliers are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 4 | T | 119 | ILE |

5.3.2 Protein sidechains ⓘ

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

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

| Mol | Chain | Analysed | Rotameric | Outliers | Percentiles | |
|-----|-------|---------------|------------|----------|-------------|-----|
| 1 | A | 157/176 (89%) | 157 (100%) | 0 | 100 | 100 |
| 1 | B | 157/176 (89%) | 157 (100%) | 0 | 100 | 100 |
| 1 | C | 157/176 (89%) | 157 (100%) | 0 | 100 | 100 |
| 1 | D | 157/176 (89%) | 157 (100%) | 0 | 100 | 100 |
| 1 | E | 157/176 (89%) | 157 (100%) | 0 | 100 | 100 |
| 1 | F | 157/176 (89%) | 157 (100%) | 0 | 100 | 100 |
| 2 | G | 130/156 (83%) | 130 (100%) | 0 | 100 | 100 |
| 2 | H | 130/156 (83%) | 130 (100%) | 0 | 100 | 100 |
| 2 | I | 130/156 (83%) | 130 (100%) | 0 | 100 | 100 |
| 2 | J | 130/156 (83%) | 130 (100%) | 0 | 100 | 100 |
| 2 | K | 130/156 (83%) | 130 (100%) | 0 | 100 | 100 |
| 2 | L | 130/156 (83%) | 130 (100%) | 0 | 100 | 100 |
| 3 | M | 99/104 (95%) | 99 (100%) | 0 | 100 | 100 |
| 3 | N | 99/104 (95%) | 99 (100%) | 0 | 100 | 100 |
| 3 | O | 99/104 (95%) | 99 (100%) | 0 | 100 | 100 |

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| Mol | Chain | Analysed | Rotameric | Outliers | Percentiles | |
|-----|-------|----------------|------------|----------|-------------|-----|
| 3 | P | 99/104 (95%) | 99 (100%) | 0 | 100 | 100 |
| 3 | Q | 99/104 (95%) | 99 (100%) | 0 | 100 | 100 |
| 3 | R | 99/104 (95%) | 99 (100%) | 0 | 100 | 100 |
| 4 | S | 101/110 (92%) | 101 (100%) | 0 | 100 | 100 |
| 4 | T | 101/110 (92%) | 101 (100%) | 0 | 100 | 100 |
| 4 | U | 101/110 (92%) | 101 (100%) | 0 | 100 | 100 |
| 4 | V | 101/110 (92%) | 101 (100%) | 0 | 100 | 100 |
| 4 | W | 101/110 (92%) | 101 (100%) | 0 | 100 | 100 |
| 4 | X | 101/110 (92%) | 101 (100%) | 0 | 100 | 100 |
| 5 | 0 | 416/416 (100%) | 416 (100%) | 0 | 100 | 100 |
| 5 | 1 | 416/416 (100%) | 416 (100%) | 0 | 100 | 100 |
| 5 | 2 | 416/416 (100%) | 416 (100%) | 0 | 100 | 100 |
| 5 | 3 | 416/416 (100%) | 416 (100%) | 0 | 100 | 100 |
| 5 | 4 | 416/416 (100%) | 416 (100%) | 0 | 100 | 100 |
| 5 | 5 | 416/416 (100%) | 416 (100%) | 0 | 100 | 100 |
| 5 | 6 | 416/416 (100%) | 416 (100%) | 0 | 100 | 100 |
| 5 | 7 | 416/416 (100%) | 416 (100%) | 0 | 100 | 100 |
| 5 | 8 | 416/416 (100%) | 416 (100%) | 0 | 100 | 100 |
| 5 | 9 | 416/416 (100%) | 416 (100%) | 0 | 100 | 100 |
| 5 | Y | 416/416 (100%) | 416 (100%) | 0 | 100 | 100 |
| 5 | Z | 416/416 (100%) | 416 (100%) | 0 | 100 | 100 |
| 6 | a | 188/252 (75%) | 188 (100%) | 0 | 100 | 100 |
| 6 | b | 188/252 (75%) | 188 (100%) | 0 | 100 | 100 |
| 6 | c | 188/252 (75%) | 188 (100%) | 0 | 100 | 100 |
| 6 | d | 188/252 (75%) | 188 (100%) | 0 | 100 | 100 |
| 6 | e | 188/252 (75%) | 188 (100%) | 0 | 100 | 100 |
| 6 | f | 188/252 (75%) | 188 (100%) | 0 | 100 | 100 |
| 7 | AA | 429/430 (100%) | 429 (100%) | 0 | 100 | 100 |
| 7 | BA | 429/430 (100%) | 429 (100%) | 0 | 100 | 100 |
| 7 | CA | 429/430 (100%) | 429 (100%) | 0 | 100 | 100 |
| 7 | DA | 429/430 (100%) | 429 (100%) | 0 | 100 | 100 |

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| Mol | Chain | Analysed | Rotameric | Outliers | Percentiles | |
|-----|-------|----------------|------------|----------|-------------|-----|
| 7 | EA | 429/430 (100%) | 429 (100%) | 0 | 100 | 100 |
| 7 | FA | 429/430 (100%) | 429 (100%) | 0 | 100 | 100 |
| 7 | GA | 429/430 (100%) | 429 (100%) | 0 | 100 | 100 |
| 7 | HA | 429/430 (100%) | 429 (100%) | 0 | 100 | 100 |
| 7 | IA | 429/430 (100%) | 429 (100%) | 0 | 100 | 100 |
| 7 | JA | 429/430 (100%) | 429 (100%) | 0 | 100 | 100 |
| 7 | KA | 429/430 (100%) | 429 (100%) | 0 | 100 | 100 |
| 7 | LA | 429/430 (100%) | 429 (100%) | 0 | 100 | 100 |
| 7 | MA | 429/430 (100%) | 429 (100%) | 0 | 100 | 100 |
| 7 | NA | 429/430 (100%) | 429 (100%) | 0 | 100 | 100 |
| 7 | OA | 429/430 (100%) | 429 (100%) | 0 | 100 | 100 |
| 7 | PA | 429/430 (100%) | 429 (100%) | 0 | 100 | 100 |
| 7 | QA | 429/430 (100%) | 429 (100%) | 0 | 100 | 100 |
| 7 | RA | 429/430 (100%) | 429 (100%) | 0 | 100 | 100 |
| 7 | g | 429/430 (100%) | 429 (100%) | 0 | 100 | 100 |
| 7 | h | 429/430 (100%) | 429 (100%) | 0 | 100 | 100 |
| 7 | i | 429/430 (100%) | 429 (100%) | 0 | 100 | 100 |
| 7 | j | 429/430 (100%) | 429 (100%) | 0 | 100 | 100 |
| 7 | k | 429/430 (100%) | 429 (100%) | 0 | 100 | 100 |
| 7 | l | 429/430 (100%) | 429 (100%) | 0 | 100 | 100 |
| 7 | m | 429/430 (100%) | 429 (100%) | 0 | 100 | 100 |
| 7 | n | 429/430 (100%) | 429 (100%) | 0 | 100 | 100 |
| 7 | o | 429/430 (100%) | 429 (100%) | 0 | 100 | 100 |
| 7 | p | 429/430 (100%) | 429 (100%) | 0 | 100 | 100 |
| 7 | q | 429/430 (100%) | 429 (100%) | 0 | 100 | 100 |
| 7 | r | 429/430 (100%) | 429 (100%) | 0 | 100 | 100 |
| 8 | AB | 143/144 (99%) | 143 (100%) | 0 | 100 | 100 |
| 8 | BB | 143/144 (99%) | 143 (100%) | 0 | 100 | 100 |
| 8 | CB | 143/144 (99%) | 143 (100%) | 0 | 100 | 100 |
| 8 | DB | 143/144 (99%) | 143 (100%) | 0 | 100 | 100 |
| 8 | EB | 143/144 (99%) | 143 (100%) | 0 | 100 | 100 |

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| Mol | Chain | Analysed | Rotameric | Outliers | Percentiles | |
|-----|-------|-------------------|--------------|----------|-------------|-----|
| 8 | FB | 143/144 (99%) | 143 (100%) | 0 | 100 | 100 |
| 8 | GB | 143/144 (99%) | 143 (100%) | 0 | 100 | 100 |
| 8 | HB | 143/144 (99%) | 143 (100%) | 0 | 100 | 100 |
| 8 | IB | 143/144 (99%) | 143 (100%) | 0 | 100 | 100 |
| 8 | JB | 143/144 (99%) | 143 (100%) | 0 | 100 | 100 |
| 8 | KB | 143/144 (99%) | 143 (100%) | 0 | 100 | 100 |
| 8 | LB | 143/144 (99%) | 143 (100%) | 0 | 100 | 100 |
| 8 | MB | 143/144 (99%) | 143 (100%) | 0 | 100 | 100 |
| 8 | NB | 143/144 (99%) | 143 (100%) | 0 | 100 | 100 |
| 8 | OB | 143/144 (99%) | 143 (100%) | 0 | 100 | 100 |
| 8 | PB | 143/144 (99%) | 143 (100%) | 0 | 100 | 100 |
| 8 | QB | 143/144 (99%) | 143 (100%) | 0 | 100 | 100 |
| 8 | RB | 143/144 (99%) | 143 (100%) | 0 | 100 | 100 |
| All | All | 24486/25272 (97%) | 24486 (100%) | 0 | 100 | 100 |

There are no protein residues with a non-rotameric sidechain to report.

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (225) such sidechains are listed below:

| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1 | A | 69 | HIS |
| 1 | A | 87 | GLN |
| 1 | A | 127 | ASN |
| 1 | A | 131 | GLN |
| 1 | B | 84 | ASN |
| 1 | B | 127 | ASN |
| 1 | B | 131 | GLN |
| 1 | C | 87 | GLN |
| 1 | C | 127 | ASN |
| 1 | C | 131 | GLN |
| 1 | D | 69 | HIS |
| 1 | D | 87 | GLN |
| 1 | D | 127 | ASN |
| 1 | D | 131 | GLN |
| 1 | E | 127 | ASN |
| 1 | E | 131 | GLN |
| 1 | F | 127 | ASN |

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| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 1 | F | 131 | GLN |
| 2 | G | 29 | GLN |
| 2 | G | 131 | GLN |
| 2 | G | 139 | ASN |
| 2 | G | 176 | GLN |
| 2 | H | 29 | GLN |
| 2 | H | 131 | GLN |
| 2 | H | 193 | GLN |
| 2 | I | 29 | GLN |
| 2 | I | 131 | GLN |
| 2 | I | 139 | ASN |
| 2 | J | 29 | GLN |
| 2 | J | 131 | GLN |
| 2 | J | 139 | ASN |
| 2 | J | 176 | GLN |
| 2 | K | 29 | GLN |
| 2 | K | 131 | GLN |
| 2 | K | 193 | GLN |
| 2 | L | 29 | GLN |
| 2 | L | 131 | GLN |
| 2 | L | 139 | ASN |
| 3 | M | 40 | GLN |
| 3 | M | 62 | ASN |
| 3 | N | 40 | GLN |
| 3 | N | 62 | ASN |
| 3 | O | 40 | GLN |
| 3 | O | 62 | ASN |
| 3 | P | 62 | ASN |
| 3 | Q | 40 | GLN |
| 3 | Q | 62 | ASN |
| 3 | R | 40 | GLN |
| 3 | R | 62 | ASN |
| 4 | S | 117 | GLN |
| 4 | T | 117 | GLN |
| 4 | U | 117 | GLN |
| 4 | V | 117 | GLN |
| 4 | W | 117 | GLN |
| 4 | X | 117 | GLN |
| 5 | Y | 334 | ASN |
| 5 | Z | 334 | ASN |
| 5 | 0 | 334 | ASN |
| 5 | 1 | 334 | ASN |

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| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 5 | 2 | 334 | ASN |
| 5 | 3 | 334 | ASN |
| 5 | 3 | 471 | ASN |
| 5 | 4 | 181 | GLN |
| 5 | 4 | 196 | GLN |
| 5 | 4 | 219 | GLN |
| 5 | 5 | 196 | GLN |
| 5 | 5 | 219 | GLN |
| 5 | 5 | 245 | ASN |
| 5 | 6 | 196 | GLN |
| 5 | 6 | 219 | GLN |
| 5 | 6 | 292 | GLN |
| 5 | 7 | 196 | GLN |
| 5 | 7 | 219 | GLN |
| 5 | 8 | 196 | GLN |
| 5 | 8 | 219 | GLN |
| 5 | 8 | 245 | ASN |
| 5 | 8 | 292 | GLN |
| 5 | 9 | 196 | GLN |
| 5 | 9 | 219 | GLN |
| 5 | 9 | 245 | ASN |
| 5 | 9 | 292 | GLN |
| 6 | a | 7 | ASN |
| 6 | a | 15 | GLN |
| 6 | a | 28 | GLN |
| 6 | a | 73 | ASN |
| 6 | a | 83 | GLN |
| 6 | b | 7 | ASN |
| 6 | b | 15 | GLN |
| 6 | b | 28 | GLN |
| 6 | b | 83 | GLN |
| 6 | c | 7 | ASN |
| 6 | c | 15 | GLN |
| 6 | c | 28 | GLN |
| 6 | c | 83 | GLN |
| 6 | d | 15 | GLN |
| 6 | d | 28 | GLN |
| 6 | d | 83 | GLN |
| 6 | e | 15 | GLN |
| 6 | e | 28 | GLN |
| 6 | e | 73 | ASN |
| 6 | e | 83 | GLN |

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| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 6 | e | 98 | ASN |
| 6 | f | 15 | GLN |
| 6 | f | 28 | GLN |
| 6 | f | 83 | GLN |
| 7 | g | 12 | ASN |
| 7 | g | 327 | HIS |
| 7 | g | 446 | GLN |
| 7 | h | 446 | GLN |
| 7 | i | 327 | HIS |
| 7 | i | 446 | GLN |
| 7 | j | 446 | GLN |
| 7 | k | 446 | GLN |
| 7 | l | 327 | HIS |
| 7 | l | 446 | GLN |
| 7 | m | 88 | GLN |
| 7 | m | 171 | GLN |
| 7 | m | 184 | HIS |
| 7 | m | 403 | ASN |
| 7 | m | 412 | GLN |
| 7 | m | 522 | GLN |
| 7 | n | 88 | GLN |
| 7 | n | 171 | GLN |
| 7 | n | 403 | ASN |
| 7 | n | 438 | ASN |
| 7 | n | 522 | GLN |
| 7 | o | 171 | GLN |
| 7 | o | 403 | ASN |
| 7 | o | 412 | GLN |
| 7 | o | 438 | ASN |
| 7 | o | 522 | GLN |
| 7 | p | 88 | GLN |
| 7 | p | 171 | GLN |
| 7 | p | 184 | HIS |
| 7 | p | 403 | ASN |
| 7 | p | 412 | GLN |
| 7 | p | 522 | GLN |
| 7 | q | 88 | GLN |
| 7 | q | 171 | GLN |
| 7 | q | 184 | HIS |
| 7 | q | 403 | ASN |
| 7 | q | 522 | GLN |
| 7 | r | 171 | GLN |

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| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 7 | r | 403 | ASN |
| 7 | r | 412 | GLN |
| 7 | r | 522 | GLN |
| 7 | AA | 162 | ASN |
| 7 | AA | 243 | GLN |
| 7 | AA | 522 | GLN |
| 7 | BA | 162 | ASN |
| 7 | BA | 243 | GLN |
| 7 | CA | 12 | ASN |
| 7 | CA | 162 | ASN |
| 7 | CA | 243 | GLN |
| 7 | DA | 162 | ASN |
| 7 | DA | 243 | GLN |
| 7 | DA | 522 | GLN |
| 7 | EA | 162 | ASN |
| 7 | EA | 243 | GLN |
| 7 | EA | 522 | GLN |
| 7 | FA | 162 | ASN |
| 7 | FA | 243 | GLN |
| 7 | GA | 171 | GLN |
| 7 | GA | 218 | ASN |
| 7 | GA | 243 | GLN |
| 7 | GA | 327 | HIS |
| 7 | GA | 450 | GLN |
| 7 | HA | 171 | GLN |
| 7 | HA | 218 | ASN |
| 7 | HA | 260 | ASN |
| 7 | HA | 327 | HIS |
| 7 | IA | 171 | GLN |
| 7 | IA | 218 | ASN |
| 7 | IA | 327 | HIS |
| 7 | JA | 171 | GLN |
| 7 | JA | 218 | ASN |
| 7 | JA | 327 | HIS |
| 7 | KA | 171 | GLN |
| 7 | KA | 218 | ASN |
| 7 | KA | 243 | GLN |
| 7 | KA | 327 | HIS |
| 7 | LA | 171 | GLN |
| 7 | LA | 218 | ASN |
| 7 | LA | 327 | HIS |
| 7 | MA | 3 | GLN |

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| Mol | Chain | Res | Type |
|-----|-------|-----|------|
| 7 | MA | 162 | ASN |
| 7 | MA | 327 | HIS |
| 7 | NA | 3 | GLN |
| 7 | NA | 162 | ASN |
| 7 | NA | 327 | HIS |
| 7 | OA | 3 | GLN |
| 7 | OA | 162 | ASN |
| 7 | OA | 327 | HIS |
| 7 | PA | 3 | GLN |
| 7 | PA | 162 | ASN |
| 7 | PA | 327 | HIS |
| 7 | QA | 3 | GLN |
| 7 | QA | 162 | ASN |
| 7 | QA | 327 | HIS |
| 7 | RA | 3 | GLN |
| 7 | RA | 162 | ASN |
| 8 | AB | 3 | HIS |
| 8 | AB | 95 | GLN |
| 8 | BB | 3 | HIS |
| 8 | BB | 95 | GLN |
| 8 | CB | 3 | HIS |
| 8 | CB | 72 | HIS |
| 8 | CB | 95 | GLN |
| 8 | DB | 3 | HIS |
| 8 | DB | 20 | ASN |
| 8 | DB | 72 | HIS |
| 8 | DB | 95 | GLN |
| 8 | EB | 3 | HIS |
| 8 | EB | 95 | GLN |
| 8 | FB | 3 | HIS |
| 8 | FB | 95 | GLN |
| 8 | MB | 65 | ASN |
| 8 | MB | 82 | GLN |
| 8 | NB | 82 | GLN |
| 8 | OB | 65 | ASN |
| 8 | OB | 82 | GLN |
| 8 | PB | 82 | GLN |
| 8 | QB | 82 | GLN |
| 8 | RB | 65 | ASN |
| 8 | RB | 82 | GLN |

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

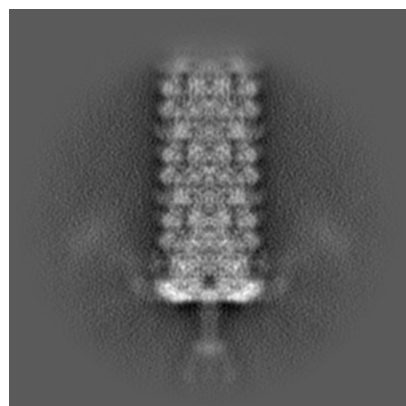
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-43960. These allow visual inspection of the internal detail of the map and identification of artifacts.

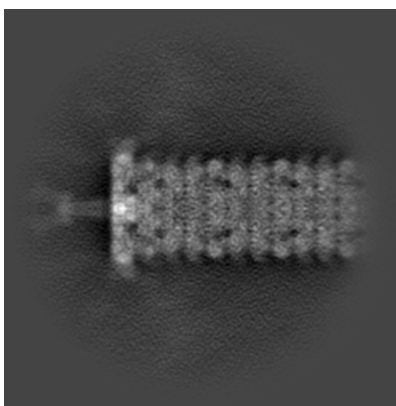
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections [i](#)

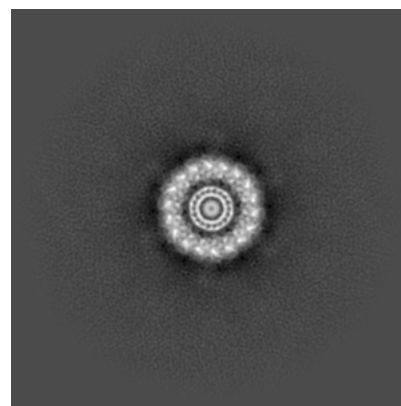
6.1.1 Primary map



X

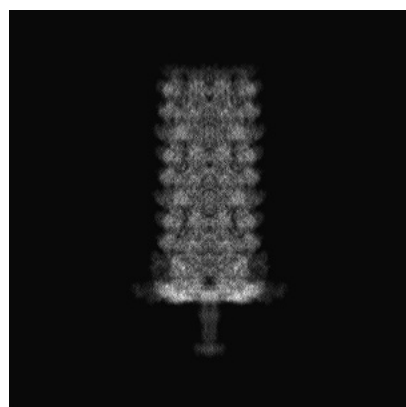


Y

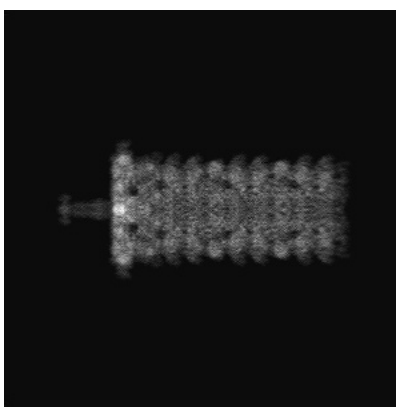


Z

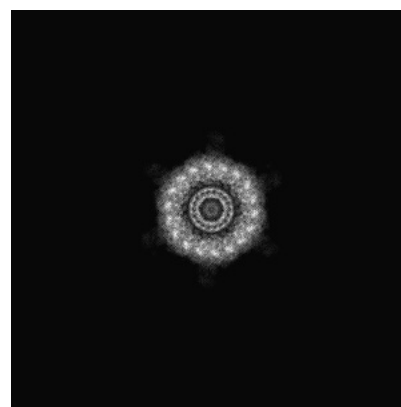
6.1.2 Raw map



X



Y

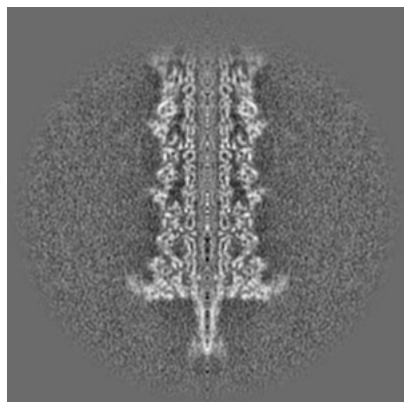


Z

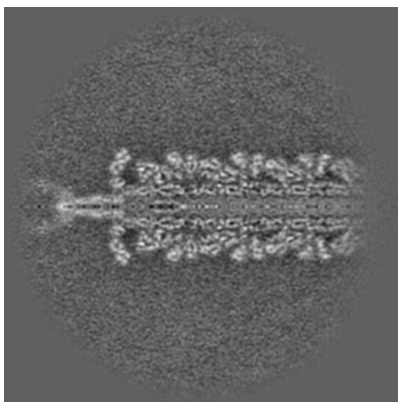
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

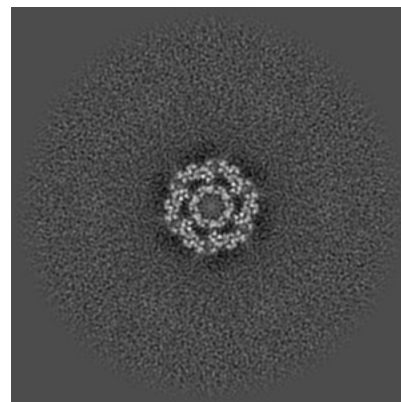
6.2.1 Primary map



X Index: 256

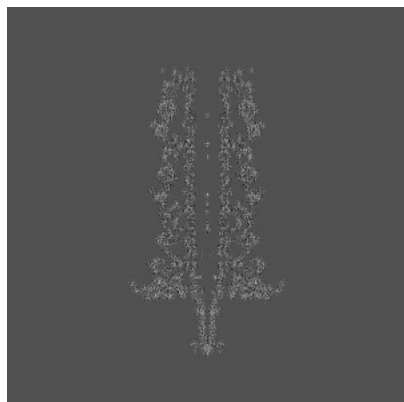


Y Index: 256

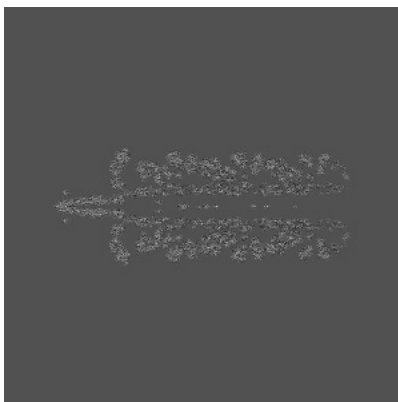


Z Index: 256

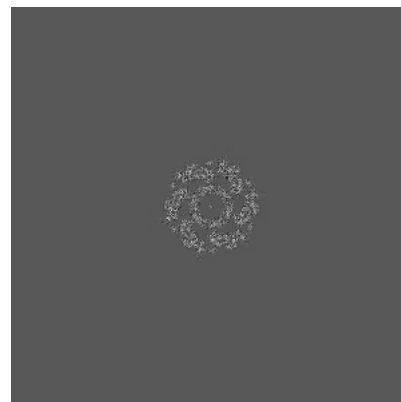
6.2.2 Raw map



X Index: 256



Y Index: 256

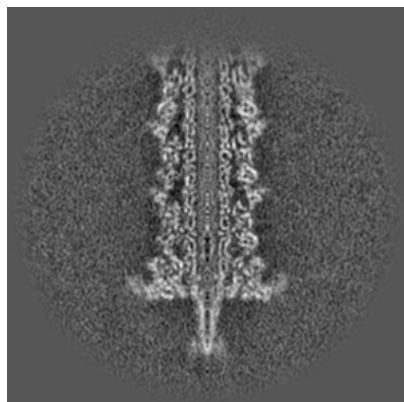


Z Index: 256

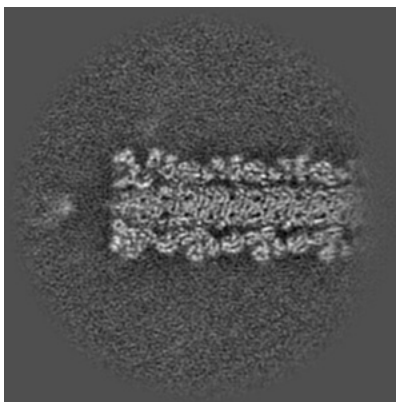
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

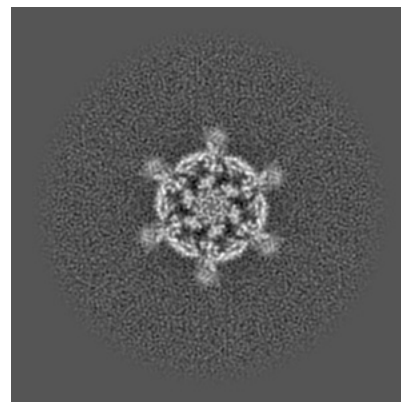
6.3.1 Primary map



X Index: 255



Y Index: 238

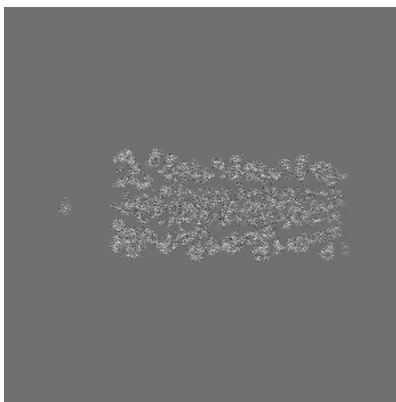


Z Index: 151

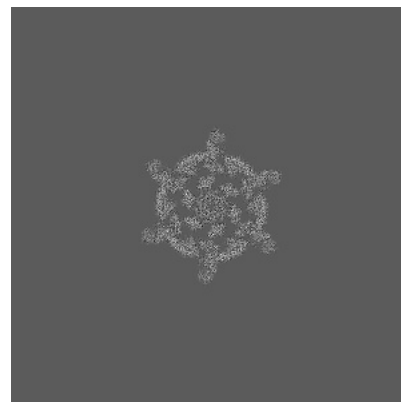
6.3.2 Raw map



X Index: 272



Y Index: 238

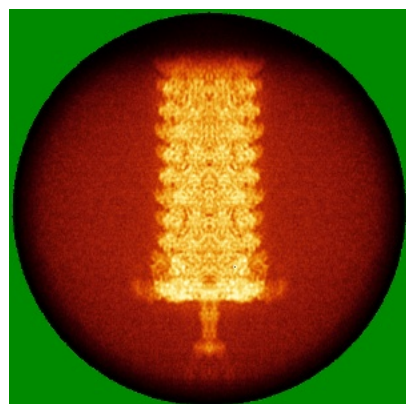


Z Index: 150

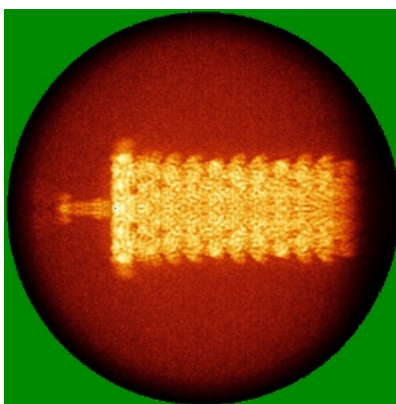
The images above show the largest variance slices of the map in three orthogonal directions.

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

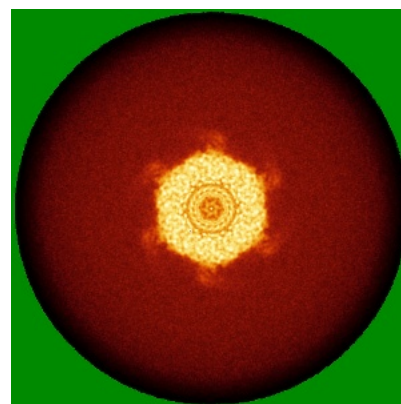
6.4.1 Primary map



X

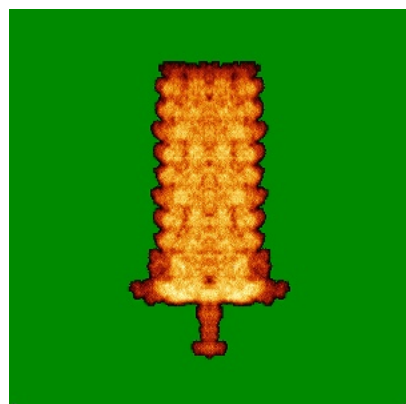


Y

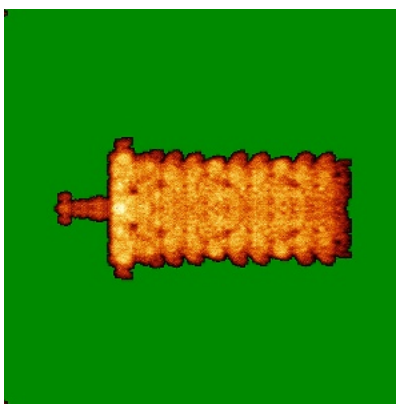


Z

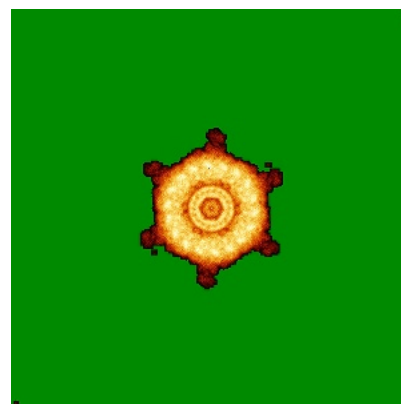
6.4.2 Raw map



X



Y

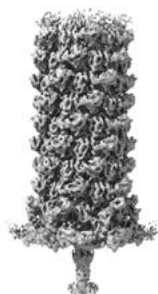


Z

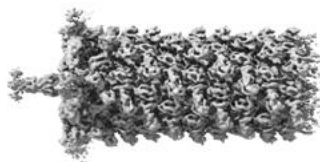
The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.22. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.5.2 Raw map



X



Y



Z

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

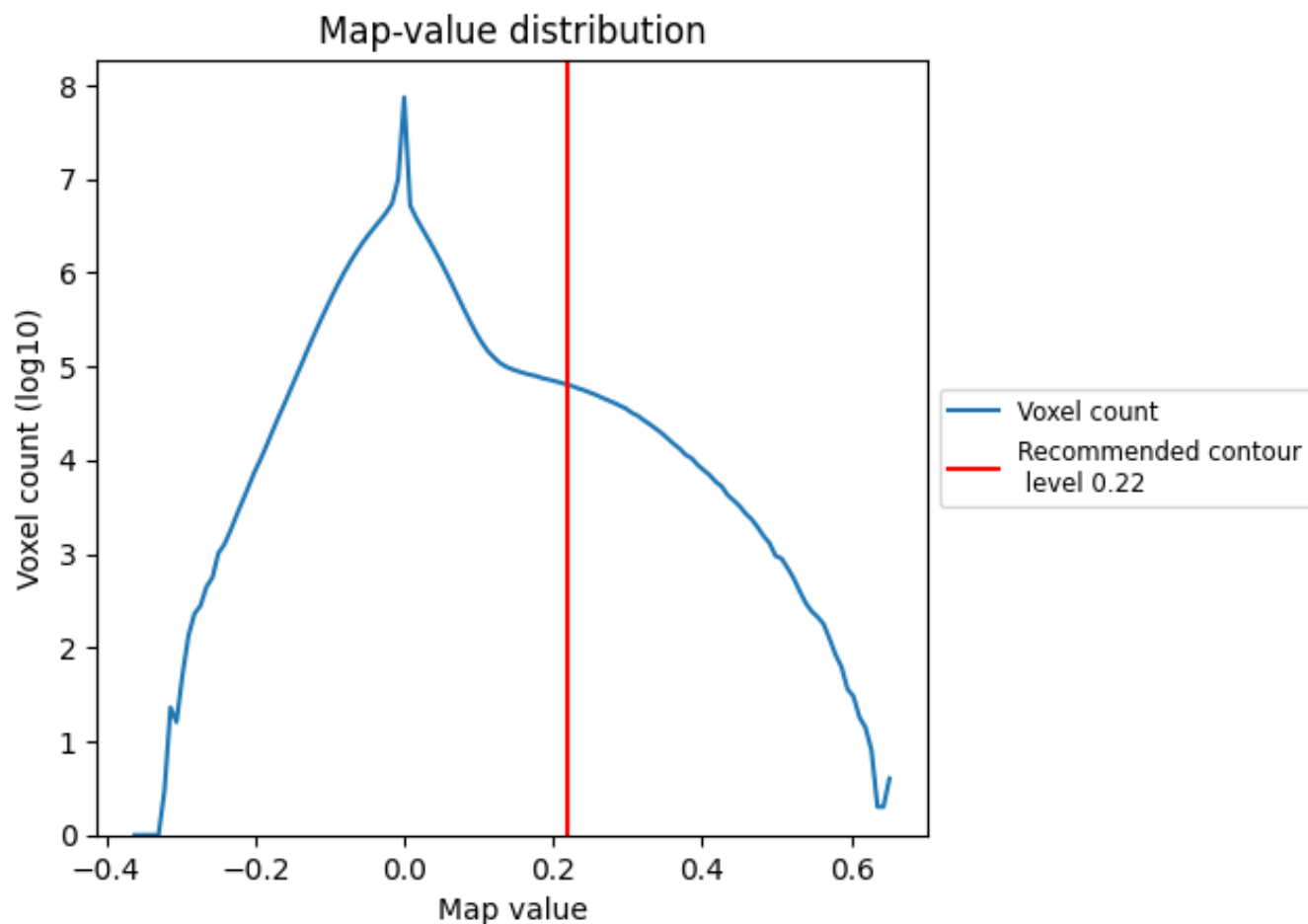
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

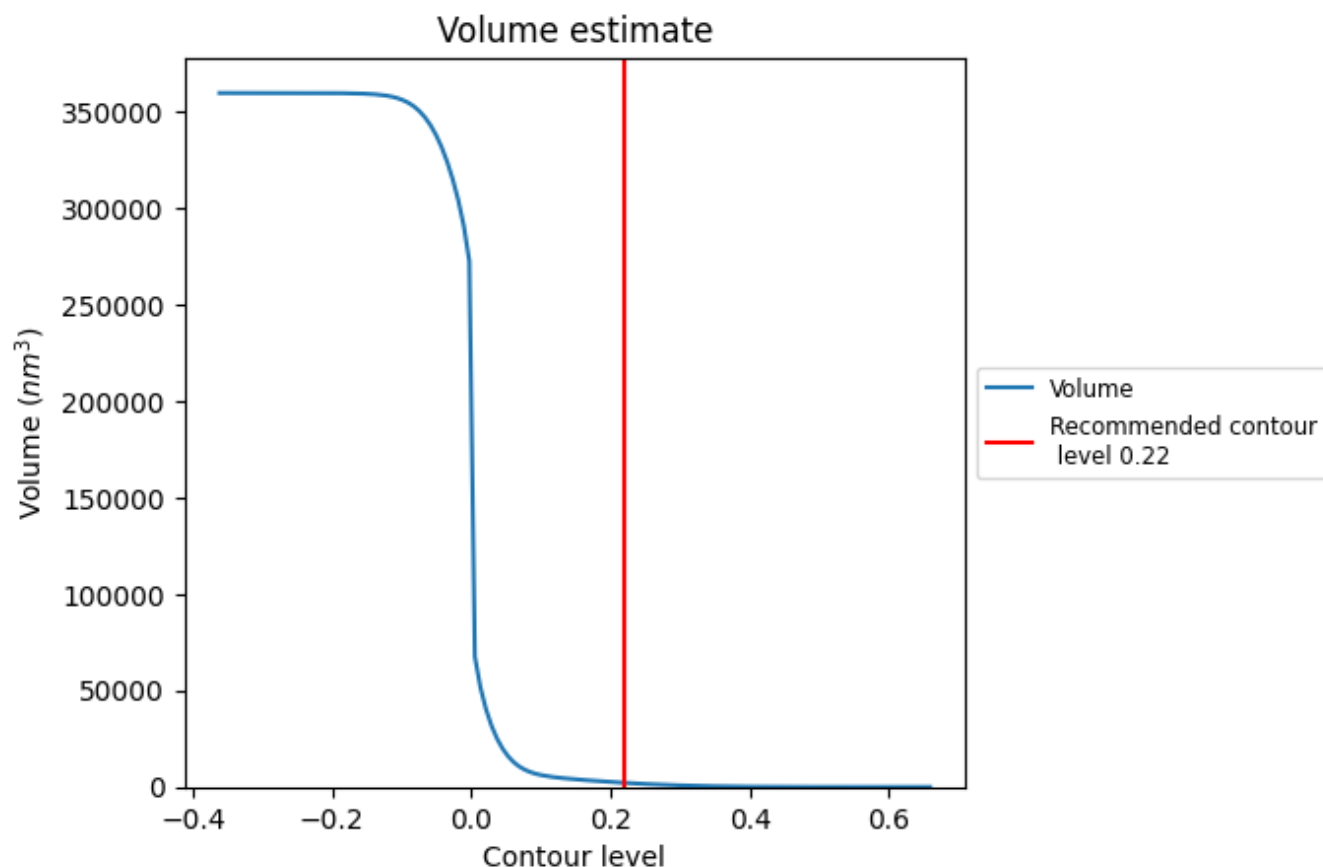
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

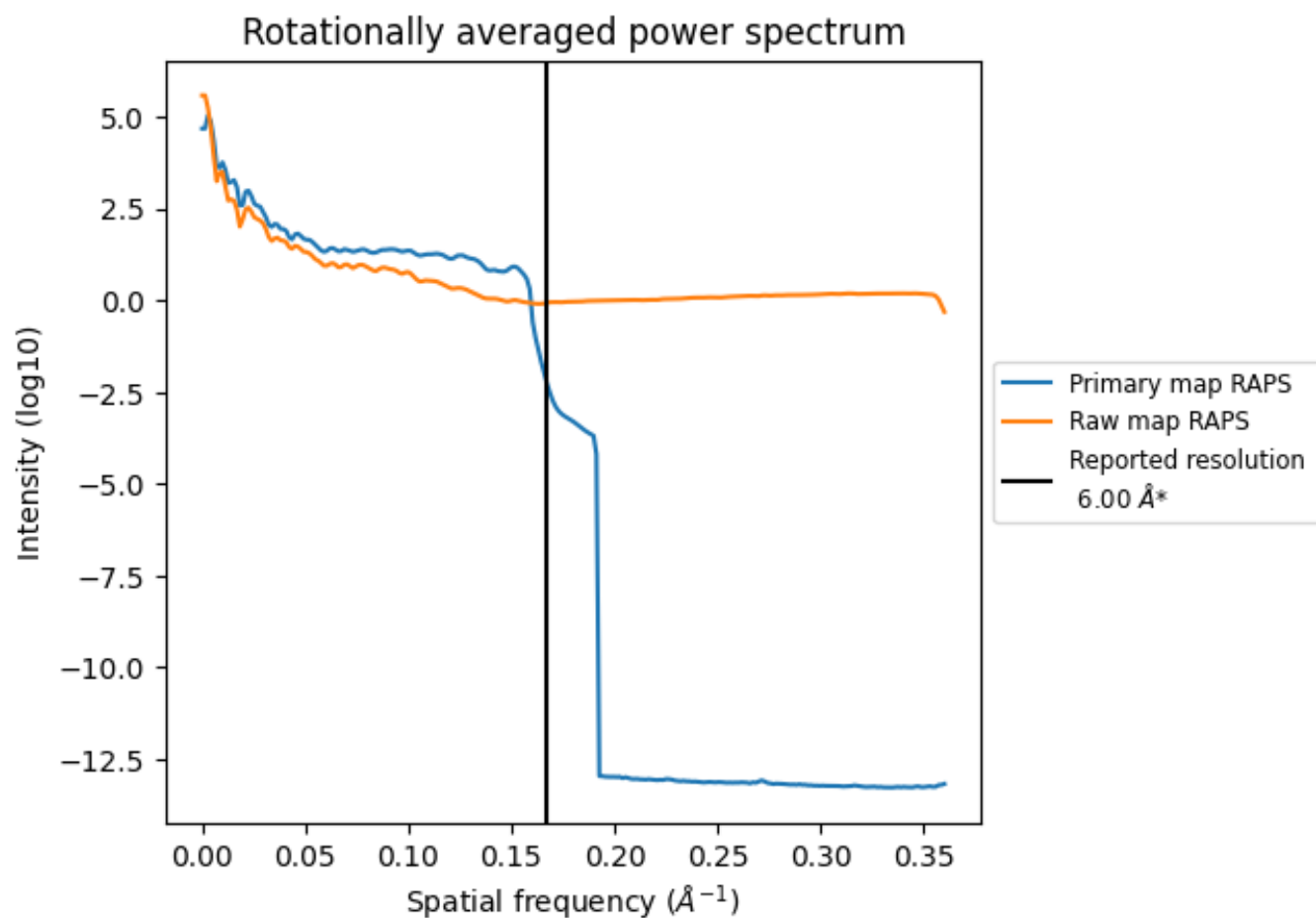
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 2145 nm^3 ; this corresponds to an approximate mass of 1938 kDa.

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

7.3 Rotationally averaged power spectrum ⓘ

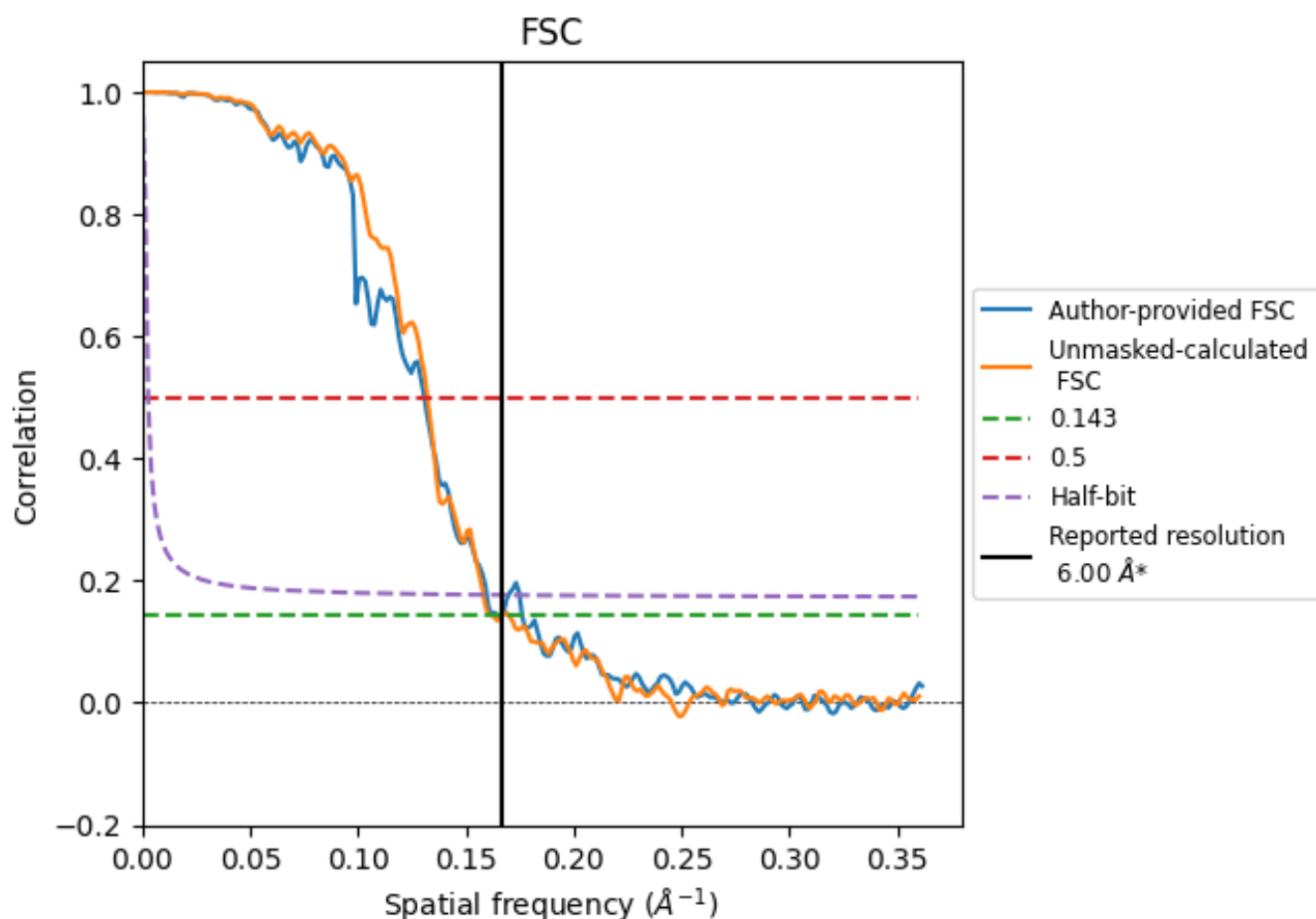


*Reported resolution corresponds to spatial frequency of 0.167 Å⁻¹

8 Fourier-Shell correlation [i](#)

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

8.1 FSC [i](#)



*Reported resolution corresponds to spatial frequency of 0.167 \AA^{-1}

8.2 Resolution estimates [i](#)

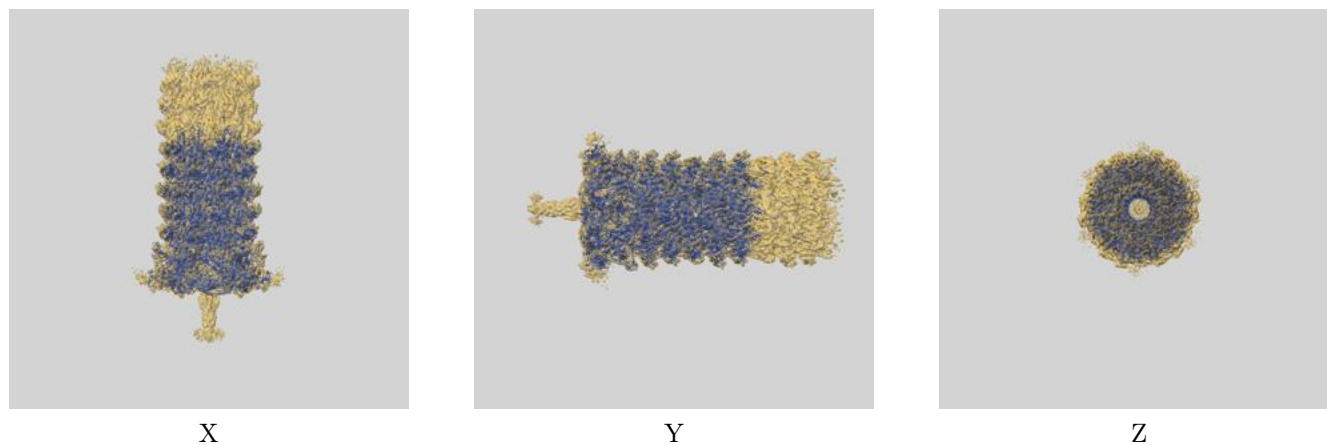
| Resolution estimate (Å) | Estimation criterion (FSC cut-off) | | |
|---------------------------|------------------------------------|------|----------|
| | 0.143 | 0.5 | Half-bit |
| Reported by author | 6.00 | - | - |
| Author-provided FSC curve | 6.07 | 7.65 | 6.27 |
| Unmasked-calculated* | 6.18 | 7.56 | 6.33 |

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps.

9 Map-model fit [i](#)

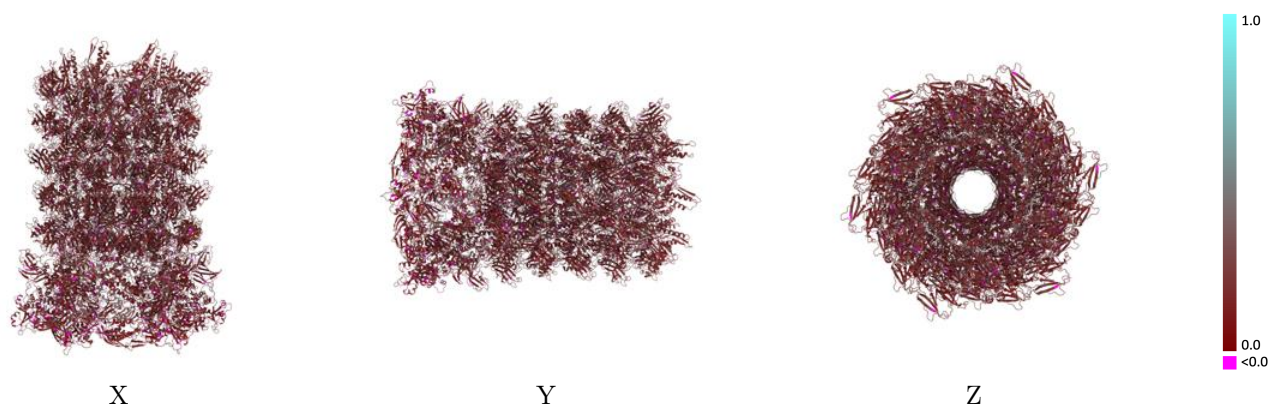
This section contains information regarding the fit between EMDB map EMD-43960 and PDB model 9AY5. Per-residue inclusion information can be found in section [3](#) on page [13](#).

9.1 Map-model overlay [i](#)



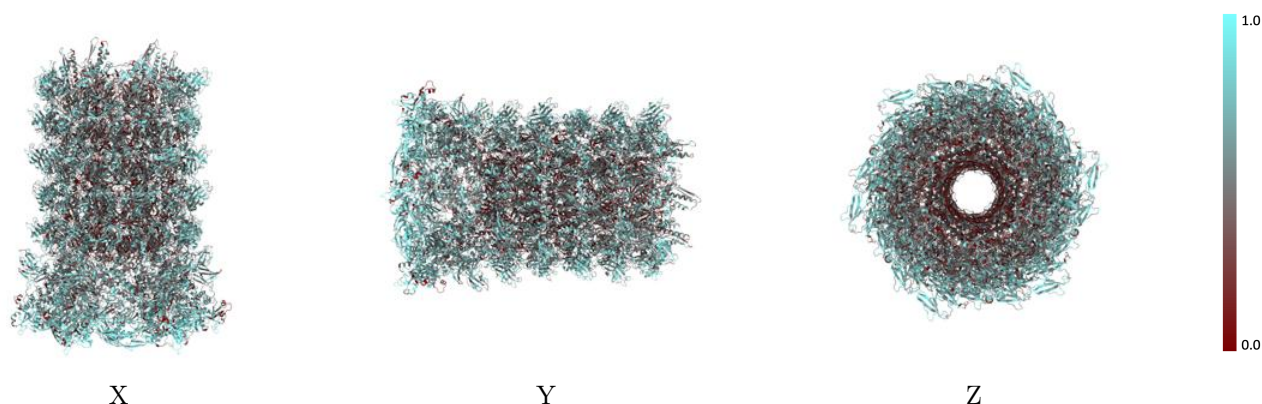
The images above show the 3D surface view of the map at the recommended contour level 0.22 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



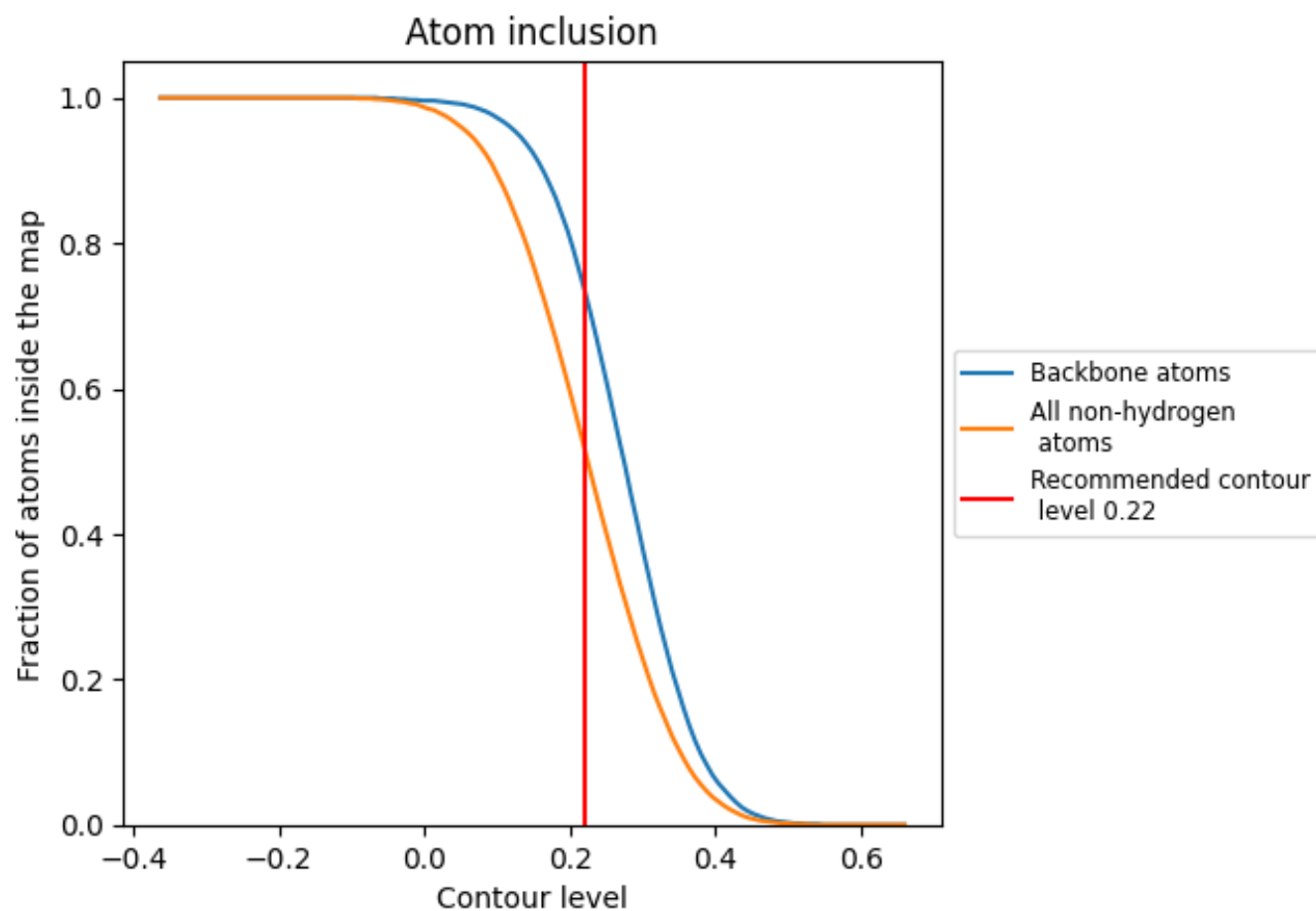
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

9.3 Atom inclusion mapped to coordinate model [i](#)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.22).







































































9.4 Atom inclusion [i](#)



At the recommended contour level, 74% of all backbone atoms, 52% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary





















































































The table lists the average atom inclusion at the recommended contour level (0.22) and Q-score for the entire model and for each chain.

| Chain | Atom inclusion | Q-score |
|-------|--|--|
| All |  0.5170 |  0.2000 |
| 0 |  0.6340 |  0.1920 |
| 1 |  0.6330 |  0.1920 |
| 2 |  0.6320 |  0.1920 |
| 3 |  0.6310 |  0.1920 |
| 4 |  0.6420 |  0.1830 |
| 5 |  0.6400 |  0.1830 |
| 6 |  0.6410 |  0.1830 |
| 7 |  0.6440 |  0.1830 |
| 8 |  0.6410 |  0.1830 |
| 9 |  0.6420 |  0.1840 |
| A |  0.3290 |  0.1980 |
| AA |  0.5470 |  0.2090 |
| AB |  0.3180 |  0.2000 |
| B |  0.3300 |  0.1970 |
| BA |  0.5440 |  0.2080 |
| BB |  0.3210 |  0.1970 |
| C |  0.3300 |  0.1990 |
| CA |  0.5470 |  0.2090 |
| CB |  0.3240 |  0.2000 |
| D |  0.3290 |  0.1980 |
| DA |  0.5460 |  0.2090 |
| DB |  0.3190 |  0.2010 |
| E |  0.3300 |  0.1990 |
| EA |  0.5450 |  0.2090 |
| EB |  0.3220 |  0.2000 |
| F |  0.3300 |  0.1960 |
| FA |  0.5460 |  0.2100 |
| FB |  0.3240 |  0.2020 |
| G |  0.3240 |  0.1960 |
| GA |  0.5400 |  0.2100 |
| GB |  0.3060 |  0.2010 |
| H |  0.3230 |  0.1950 |
| HA |  0.5400 |  0.2100 |
| HB |  0.3030 |  0.2000 |































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| Chain | Atom inclusion | Q-score |
|-------|--|--|
| I |  0.3220 |  0.1930 |
| IA |  0.5390 |  0.2100 |
| IB |  0.3010 |  0.2010 |
| J |  0.3240 |  0.1940 |
| JA |  0.5410 |  0.2090 |
| JB |  0.3060 |  0.2030 |
| K |  0.3240 |  0.1940 |
| KA |  0.5400 |  0.2090 |
| KB |  0.3040 |  0.2010 |
| L |  0.3210 |  0.1940 |
| LA |  0.5400 |  0.2090 |
| LB |  0.3040 |  0.2000 |
| M |  0.4050 |  0.1920 |
| MA |  0.5510 |  0.2130 |
| MB |  0.3000 |  0.2010 |
| N |  0.4110 |  0.1920 |
| NA |  0.5550 |  0.2140 |
| NB |  0.3030 |  0.2010 |
| O |  0.4090 |  0.1930 |
| OA |  0.5520 |  0.2140 |
| OB |  0.3030 |  0.2010 |
| P |  0.4050 |  0.1920 |
| PA |  0.5520 |  0.2140 |
| PB |  0.3000 |  0.2020 |
| Q |  0.4110 |  0.1890 |
| QA |  0.5550 |  0.2150 |
| QB |  0.3020 |  0.2040 |
| R |  0.4090 |  0.1920 |
| RA |  0.5510 |  0.2130 |
| RB |  0.3020 |  0.2010 |
| S |  0.4800 |  0.2150 |
| T |  0.4880 |  0.2110 |
| U |  0.4840 |  0.2120 |
| V |  0.4790 |  0.2100 |
| W |  0.4880 |  0.2110 |
| X |  0.4850 |  0.2130 |
| Y |  0.6300 |  0.1920 |
| Z |  0.6310 |  0.1930 |
| a |  0.5890 |  0.1760 |
| b |  0.5940 |  0.1750 |
| c |  0.5960 |  0.1780 |
| d |  0.5890 |  0.1780 |

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| Chain | Atom inclusion | Q-score |
|-------|--|--|
| e |  0.5950 |  0.1760 |
| f |  0.5960 |  0.1770 |
| g |  0.5160 |  0.1950 |
| h |  0.5170 |  0.1940 |
| i |  0.5170 |  0.1940 |
| j |  0.5160 |  0.1940 |
| k |  0.5170 |  0.1930 |
| l |  0.5170 |  0.1940 |
| m |  0.5330 |  0.2110 |
| n |  0.5340 |  0.2100 |
| o |  0.5330 |  0.2110 |
| p |  0.5330 |  0.2110 |
| q |  0.5340 |  0.2110 |
| r |  0.5330 |  0.2110 |