Full wwPDB EM Validation Report ⓘ

Dec 11, 2022 – 11:15 am GMT

PDB ID	:	6SB5
EMDB ID	:	EMD-10135
Title	:	CryoEM structure of murine perforin-2 ectodomain in a pore form
Authors	:	Ni, T.; Yu, X.; Gilbert, R.J.C.
Deposited on	:	2019-07-18
Resolution	:	5.00 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:

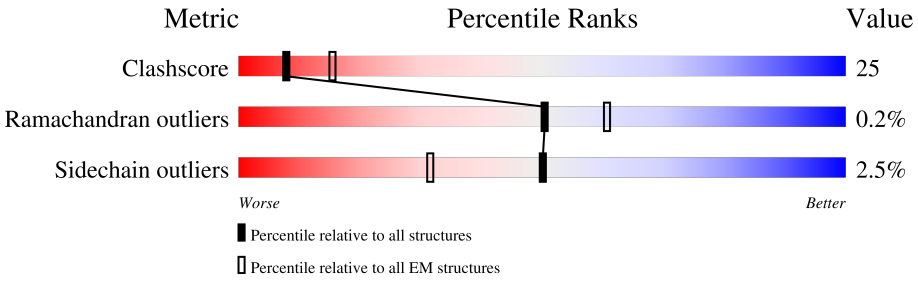
EMDB validation analysis	:	0.0.1.dev43
Mogul	:	1.8.4, CSD as541be (2020)
MolProbity	:	4.02b-467
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	1.9.9
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.31.3

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 5.00 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	158937	4297
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826

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

Mol	Chain	Length	Quality of chain
1	A	646	16% 43% 39% · 16%
1	B	646	16% 43% 39% · 16%
1	C	646	16% 43% 39% · 16%
1	D	646	16% 43% 39% · 16%
1	E	646	15% 44% 38% · 16%
1	F	646	16% 43% 39% · 16%
1	G	646	16% 44% 38% · 16%
1	H	646	15% 42% 39% · 16%

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Mol	Chain	Length	Quality of chain
1	I	646	15% 42% 40% 16%
1	J	646	15% 43% 39% 16%
1	K	646	15% 42% 40% 16%
1	L	646	16% 42% 40% 16%
1	M	646	15% 44% 37% 16%
1	N	646	15% 44% 38% 16%
1	O	646	15% 43% 39% 16%
1	P	646	15% 43% 39% 16%

2 Entry composition (i)

There are 2 unique types of molecules in this entry. The entry contains 67760 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 Macrophage-expressed gene 1 protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	543	Total 4207	C 2668	N 701	O 809	S 29	0	0
1	B	543	Total 4207	C 2668	N 701	O 809	S 29	0	0
1	C	543	Total 4207	C 2668	N 701	O 809	S 29	0	0
1	D	543	Total 4207	C 2668	N 701	O 809	S 29	0	0
1	E	543	Total 4207	C 2668	N 701	O 809	S 29	0	0
1	F	543	Total 4207	C 2668	N 701	O 809	S 29	0	0
1	G	543	Total 4207	C 2668	N 701	O 809	S 29	0	0
1	H	543	Total 4207	C 2668	N 701	O 809	S 29	0	0
1	I	543	Total 4207	C 2668	N 701	O 809	S 29	0	0
1	J	543	Total 4207	C 2668	N 701	O 809	S 29	0	0
1	K	543	Total 4207	C 2668	N 701	O 809	S 29	0	0
1	L	543	Total 4207	C 2668	N 701	O 809	S 29	0	0
1	M	543	Total 4207	C 2668	N 701	O 809	S 29	0	0
1	N	543	Total 4207	C 2668	N 701	O 809	S 29	0	0
1	O	543	Total 4207	C 2668	N 701	O 809	S 29	0	0
1	P	543	Total 4207	C 2668	N 701	O 809	S 29	0	0

There are 208 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	17	GLU	-	expression tag	UNP A1L314
A	18	THR	-	expression tag	UNP A1L314
A	19	GLY	-	expression tag	UNP A1L314
A	653	GLY	-	expression tag	UNP A1L314
A	654	THR	-	expression tag	UNP A1L314
A	655	GLU	-	expression tag	UNP A1L314
A	656	THR	-	expression tag	UNP A1L314
A	657	SER	-	expression tag	UNP A1L314
A	658	GLN	-	expression tag	UNP A1L314
A	659	VAL	-	expression tag	UNP A1L314
A	660	ALA	-	expression tag	UNP A1L314
A	661	PRO	-	expression tag	UNP A1L314
A	662	ALA	-	expression tag	UNP A1L314
B	17	GLU	-	expression tag	UNP A1L314
B	18	THR	-	expression tag	UNP A1L314
B	19	GLY	-	expression tag	UNP A1L314
B	653	GLY	-	expression tag	UNP A1L314
B	654	THR	-	expression tag	UNP A1L314
B	655	GLU	-	expression tag	UNP A1L314
B	656	THR	-	expression tag	UNP A1L314
B	657	SER	-	expression tag	UNP A1L314
B	658	GLN	-	expression tag	UNP A1L314
B	659	VAL	-	expression tag	UNP A1L314
B	660	ALA	-	expression tag	UNP A1L314
B	661	PRO	-	expression tag	UNP A1L314
B	662	ALA	-	expression tag	UNP A1L314
C	17	GLU	-	expression tag	UNP A1L314
C	18	THR	-	expression tag	UNP A1L314
C	19	GLY	-	expression tag	UNP A1L314
C	653	GLY	-	expression tag	UNP A1L314
C	654	THR	-	expression tag	UNP A1L314
C	655	GLU	-	expression tag	UNP A1L314
C	656	THR	-	expression tag	UNP A1L314
C	657	SER	-	expression tag	UNP A1L314
C	658	GLN	-	expression tag	UNP A1L314
C	659	VAL	-	expression tag	UNP A1L314
C	660	ALA	-	expression tag	UNP A1L314
C	661	PRO	-	expression tag	UNP A1L314
C	662	ALA	-	expression tag	UNP A1L314
D	17	GLU	-	expression tag	UNP A1L314
D	18	THR	-	expression tag	UNP A1L314
D	19	GLY	-	expression tag	UNP A1L314
D	653	GLY	-	expression tag	UNP A1L314

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Chain	Residue	Modelled	Actual	Comment	Reference
D	654	THR	-	expression tag	UNP A1L314
D	655	GLU	-	expression tag	UNP A1L314
D	656	THR	-	expression tag	UNP A1L314
D	657	SER	-	expression tag	UNP A1L314
D	658	GLN	-	expression tag	UNP A1L314
D	659	VAL	-	expression tag	UNP A1L314
D	660	ALA	-	expression tag	UNP A1L314
D	661	PRO	-	expression tag	UNP A1L314
D	662	ALA	-	expression tag	UNP A1L314
E	17	GLU	-	expression tag	UNP A1L314
E	18	THR	-	expression tag	UNP A1L314
E	19	GLY	-	expression tag	UNP A1L314
E	653	GLY	-	expression tag	UNP A1L314
E	654	THR	-	expression tag	UNP A1L314
E	655	GLU	-	expression tag	UNP A1L314
E	656	THR	-	expression tag	UNP A1L314
E	657	SER	-	expression tag	UNP A1L314
E	658	GLN	-	expression tag	UNP A1L314
E	659	VAL	-	expression tag	UNP A1L314
E	660	ALA	-	expression tag	UNP A1L314
E	661	PRO	-	expression tag	UNP A1L314
E	662	ALA	-	expression tag	UNP A1L314
F	17	GLU	-	expression tag	UNP A1L314
F	18	THR	-	expression tag	UNP A1L314
F	19	GLY	-	expression tag	UNP A1L314
F	653	GLY	-	expression tag	UNP A1L314
F	654	THR	-	expression tag	UNP A1L314
F	655	GLU	-	expression tag	UNP A1L314
F	656	THR	-	expression tag	UNP A1L314
F	657	SER	-	expression tag	UNP A1L314
F	658	GLN	-	expression tag	UNP A1L314
F	659	VAL	-	expression tag	UNP A1L314
F	660	ALA	-	expression tag	UNP A1L314
F	661	PRO	-	expression tag	UNP A1L314
F	662	ALA	-	expression tag	UNP A1L314
G	17	GLU	-	expression tag	UNP A1L314
G	18	THR	-	expression tag	UNP A1L314
G	19	GLY	-	expression tag	UNP A1L314
G	653	GLY	-	expression tag	UNP A1L314
G	654	THR	-	expression tag	UNP A1L314
G	655	GLU	-	expression tag	UNP A1L314
G	656	THR	-	expression tag	UNP A1L314

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Chain	Residue	Modelled	Actual	Comment	Reference
G	657	SER	-	expression tag	UNP A1L314
G	658	GLN	-	expression tag	UNP A1L314
G	659	VAL	-	expression tag	UNP A1L314
G	660	ALA	-	expression tag	UNP A1L314
G	661	PRO	-	expression tag	UNP A1L314
G	662	ALA	-	expression tag	UNP A1L314
H	17	GLU	-	expression tag	UNP A1L314
H	18	THR	-	expression tag	UNP A1L314
H	19	GLY	-	expression tag	UNP A1L314
H	653	GLY	-	expression tag	UNP A1L314
H	654	THR	-	expression tag	UNP A1L314
H	655	GLU	-	expression tag	UNP A1L314
H	656	THR	-	expression tag	UNP A1L314
H	657	SER	-	expression tag	UNP A1L314
H	658	GLN	-	expression tag	UNP A1L314
H	659	VAL	-	expression tag	UNP A1L314
H	660	ALA	-	expression tag	UNP A1L314
H	661	PRO	-	expression tag	UNP A1L314
H	662	ALA	-	expression tag	UNP A1L314
I	17	GLU	-	expression tag	UNP A1L314
I	18	THR	-	expression tag	UNP A1L314
I	19	GLY	-	expression tag	UNP A1L314
I	653	GLY	-	expression tag	UNP A1L314
I	654	THR	-	expression tag	UNP A1L314
I	655	GLU	-	expression tag	UNP A1L314
I	656	THR	-	expression tag	UNP A1L314
I	657	SER	-	expression tag	UNP A1L314
I	658	GLN	-	expression tag	UNP A1L314
I	659	VAL	-	expression tag	UNP A1L314
I	660	ALA	-	expression tag	UNP A1L314
I	661	PRO	-	expression tag	UNP A1L314
I	662	ALA	-	expression tag	UNP A1L314
J	17	GLU	-	expression tag	UNP A1L314
J	18	THR	-	expression tag	UNP A1L314
J	19	GLY	-	expression tag	UNP A1L314
J	653	GLY	-	expression tag	UNP A1L314
J	654	THR	-	expression tag	UNP A1L314
J	655	GLU	-	expression tag	UNP A1L314
J	656	THR	-	expression tag	UNP A1L314
J	657	SER	-	expression tag	UNP A1L314
J	658	GLN	-	expression tag	UNP A1L314
J	659	VAL	-	expression tag	UNP A1L314

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Chain	Residue	Modelled	Actual	Comment	Reference
J	660	ALA	-	expression tag	UNP A1L314
J	661	PRO	-	expression tag	UNP A1L314
J	662	ALA	-	expression tag	UNP A1L314
K	17	GLU	-	expression tag	UNP A1L314
K	18	THR	-	expression tag	UNP A1L314
K	19	GLY	-	expression tag	UNP A1L314
K	653	GLY	-	expression tag	UNP A1L314
K	654	THR	-	expression tag	UNP A1L314
K	655	GLU	-	expression tag	UNP A1L314
K	656	THR	-	expression tag	UNP A1L314
K	657	SER	-	expression tag	UNP A1L314
K	658	GLN	-	expression tag	UNP A1L314
K	659	VAL	-	expression tag	UNP A1L314
K	660	ALA	-	expression tag	UNP A1L314
K	661	PRO	-	expression tag	UNP A1L314
K	662	ALA	-	expression tag	UNP A1L314
L	17	GLU	-	expression tag	UNP A1L314
L	18	THR	-	expression tag	UNP A1L314
L	19	GLY	-	expression tag	UNP A1L314
L	653	GLY	-	expression tag	UNP A1L314
L	654	THR	-	expression tag	UNP A1L314
L	655	GLU	-	expression tag	UNP A1L314
L	656	THR	-	expression tag	UNP A1L314
L	657	SER	-	expression tag	UNP A1L314
L	658	GLN	-	expression tag	UNP A1L314
L	659	VAL	-	expression tag	UNP A1L314
L	660	ALA	-	expression tag	UNP A1L314
L	661	PRO	-	expression tag	UNP A1L314
L	662	ALA	-	expression tag	UNP A1L314
M	17	GLU	-	expression tag	UNP A1L314
M	18	THR	-	expression tag	UNP A1L314
M	19	GLY	-	expression tag	UNP A1L314
M	653	GLY	-	expression tag	UNP A1L314
M	654	THR	-	expression tag	UNP A1L314
M	655	GLU	-	expression tag	UNP A1L314
M	656	THR	-	expression tag	UNP A1L314
M	657	SER	-	expression tag	UNP A1L314
M	658	GLN	-	expression tag	UNP A1L314
M	659	VAL	-	expression tag	UNP A1L314
M	660	ALA	-	expression tag	UNP A1L314
M	661	PRO	-	expression tag	UNP A1L314
M	662	ALA	-	expression tag	UNP A1L314

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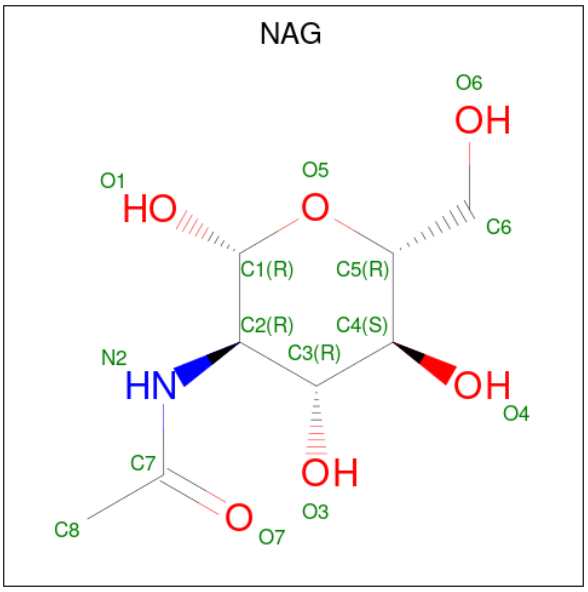
Chain	Residue	Modelled	Actual	Comment	Reference
N	17	GLU	-	expression tag	UNP A1L314
N	18	THR	-	expression tag	UNP A1L314
N	19	GLY	-	expression tag	UNP A1L314
N	653	GLY	-	expression tag	UNP A1L314
N	654	THR	-	expression tag	UNP A1L314
N	655	GLU	-	expression tag	UNP A1L314
N	656	THR	-	expression tag	UNP A1L314
N	657	SER	-	expression tag	UNP A1L314
N	658	GLN	-	expression tag	UNP A1L314
N	659	VAL	-	expression tag	UNP A1L314
N	660	ALA	-	expression tag	UNP A1L314
N	661	PRO	-	expression tag	UNP A1L314
N	662	ALA	-	expression tag	UNP A1L314
O	17	GLU	-	expression tag	UNP A1L314
O	18	THR	-	expression tag	UNP A1L314
O	19	GLY	-	expression tag	UNP A1L314
O	653	GLY	-	expression tag	UNP A1L314
O	654	THR	-	expression tag	UNP A1L314
O	655	GLU	-	expression tag	UNP A1L314
O	656	THR	-	expression tag	UNP A1L314
O	657	SER	-	expression tag	UNP A1L314
O	658	GLN	-	expression tag	UNP A1L314
O	659	VAL	-	expression tag	UNP A1L314
O	660	ALA	-	expression tag	UNP A1L314
O	661	PRO	-	expression tag	UNP A1L314
O	662	ALA	-	expression tag	UNP A1L314
P	17	GLU	-	expression tag	UNP A1L314
P	18	THR	-	expression tag	UNP A1L314
P	19	GLY	-	expression tag	UNP A1L314
P	653	GLY	-	expression tag	UNP A1L314
P	654	THR	-	expression tag	UNP A1L314
P	655	GLU	-	expression tag	UNP A1L314
P	656	THR	-	expression tag	UNP A1L314
P	657	SER	-	expression tag	UNP A1L314
P	658	GLN	-	expression tag	UNP A1L314
P	659	VAL	-	expression tag	UNP A1L314
P	660	ALA	-	expression tag	UNP A1L314
P	661	PRO	-	expression tag	UNP A1L314
P	662	ALA	-	expression tag	UNP A1L314

- Molecule 2 is 2-acetamido-2-deoxy-beta-D-glucopyranose (three-letter code: NAG) (formula: $C_8H_{15}NO_6$).



Mol	Chain	Residues	Atoms				AltConf
2	A	1	Total	C	N	O	0
			28	16	2	10	
2	A	1	Total	C	N	O	0
			28	16	2	10	
2	B	1	Total	C	N	O	0
			28	16	2	10	
2	B	1	Total	C	N	O	0
			28	16	2	10	
2	C	1	Total	C	N	O	0
			28	16	2	10	
2	C	1	Total	C	N	O	0
			28	16	2	10	
2	D	1	Total	C	N	O	0
			28	16	2	10	
2	D	1	Total	C	N	O	0
			28	16	2	10	
2	E	1	Total	C	N	O	0
			28	16	2	10	
2	E	1	Total	C	N	O	0
			28	16	2	10	
2	F	1	Total	C	N	O	0
			28	16	2	10	
2	F	1	Total	C	N	O	0
			28	16	2	10	
2	G	1	Total	C	N	O	0
			28	16	2	10	
2	G	1	Total	C	N	O	0
			28	16	2	10	

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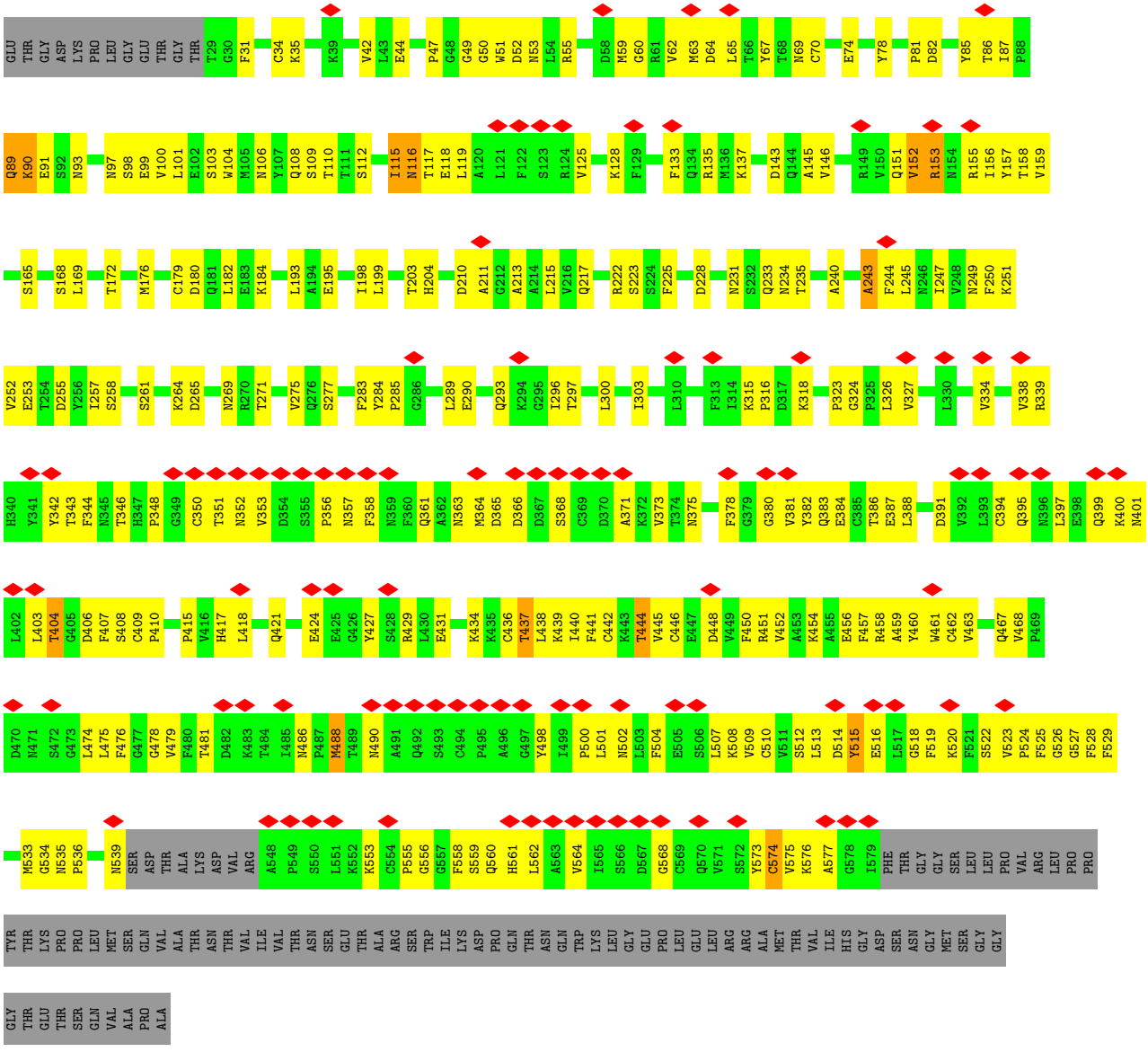
Mol	Chain	Residues	Atoms				AltConf
2	H	1	Total	C	N	O	0
			28	16	2	10	
2	H	1	Total	C	N	O	0
			28	16	2	10	
2	I	1	Total	C	N	O	0
			28	16	2	10	
2	I	1	Total	C	N	O	0
			28	16	2	10	
2	J	1	Total	C	N	O	0
			28	16	2	10	
2	J	1	Total	C	N	O	0
			28	16	2	10	
2	K	1	Total	C	N	O	0
			28	16	2	10	
2	K	1	Total	C	N	O	0
			28	16	2	10	
2	L	1	Total	C	N	O	0
			28	16	2	10	
2	L	1	Total	C	N	O	0
			28	16	2	10	
2	M	1	Total	C	N	O	0
			28	16	2	10	
2	M	1	Total	C	N	O	0
			28	16	2	10	
2	N	1	Total	C	N	O	0
			28	16	2	10	
2	N	1	Total	C	N	O	0
			28	16	2	10	
2	O	1	Total	C	N	O	0
			28	16	2	10	
2	O	1	Total	C	N	O	0
			28	16	2	10	
2	P	1	Total	C	N	O	0
			28	16	2	10	
2	P	1	Total	C	N	O	0
			28	16	2	10	

3 Residue-property plots (i)

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

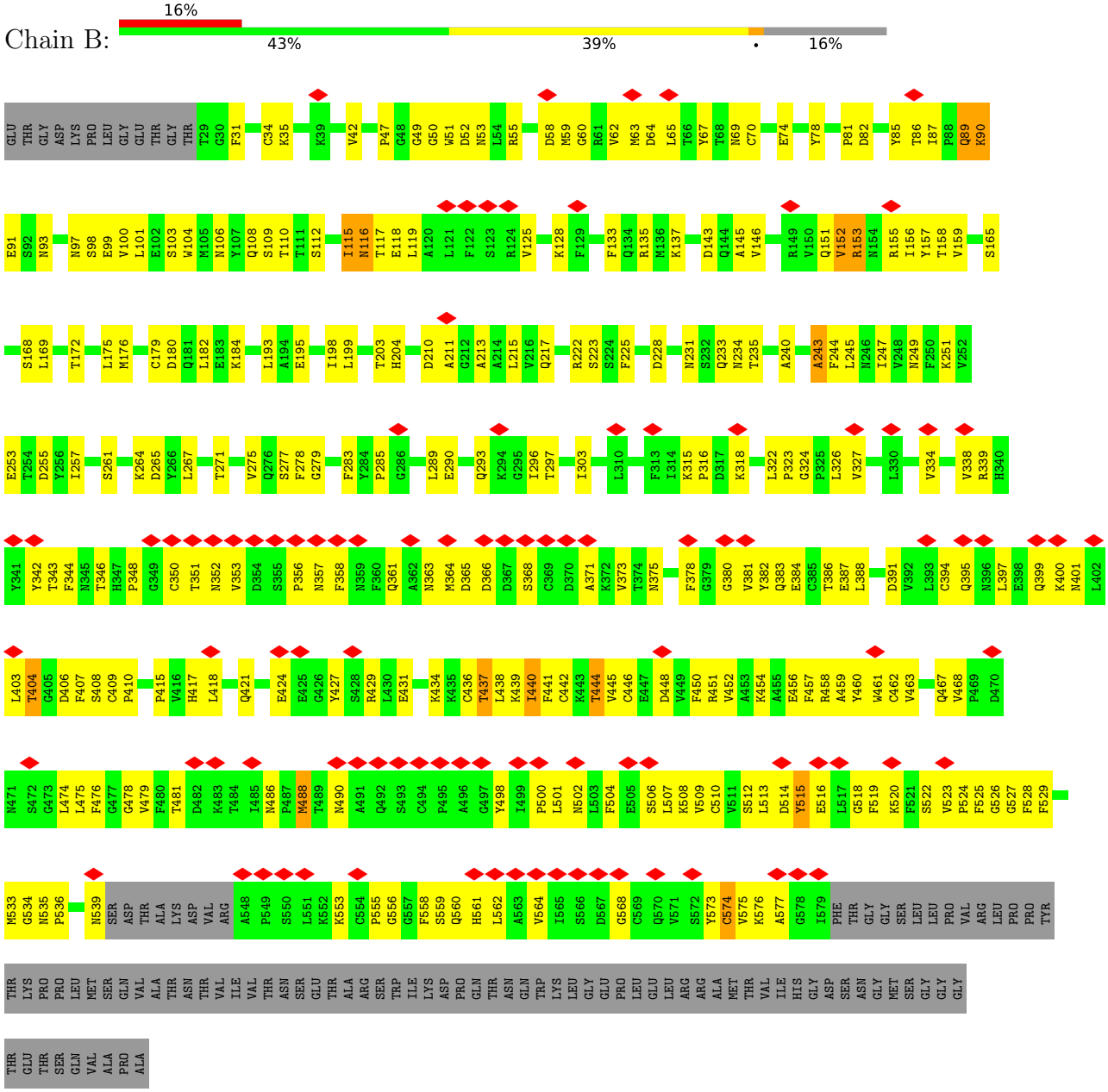
- Molecule 1: Macrophage-expressed gene 1 protein

Chain A:



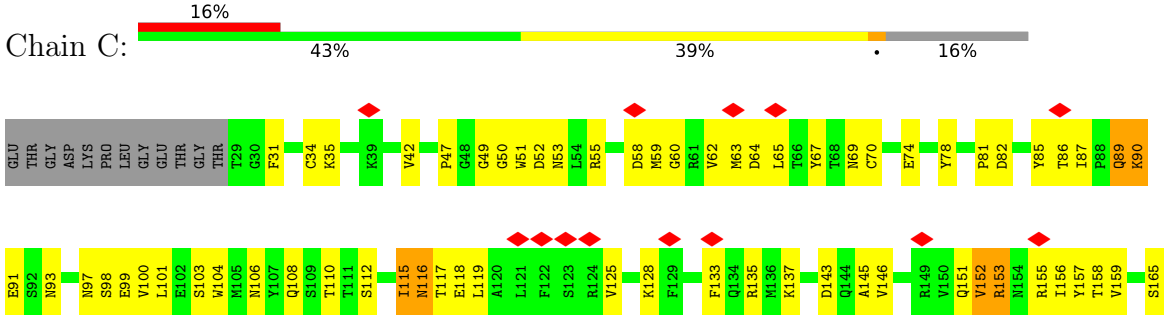
• Molecule 1: Macrophage-expressed gene 1 protein

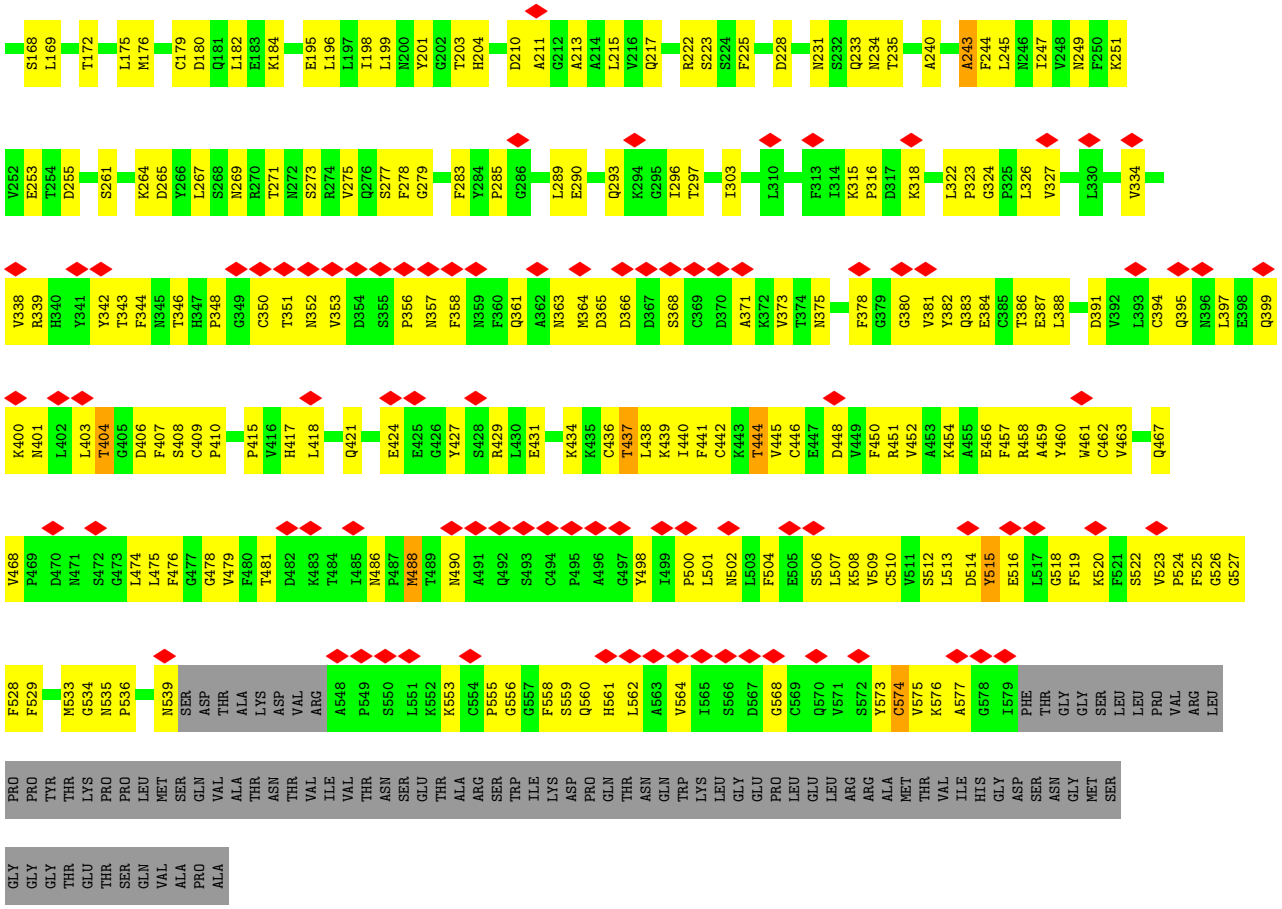
Chain B:



• Molecule 1: Macrophage-expressed gene 1 protein

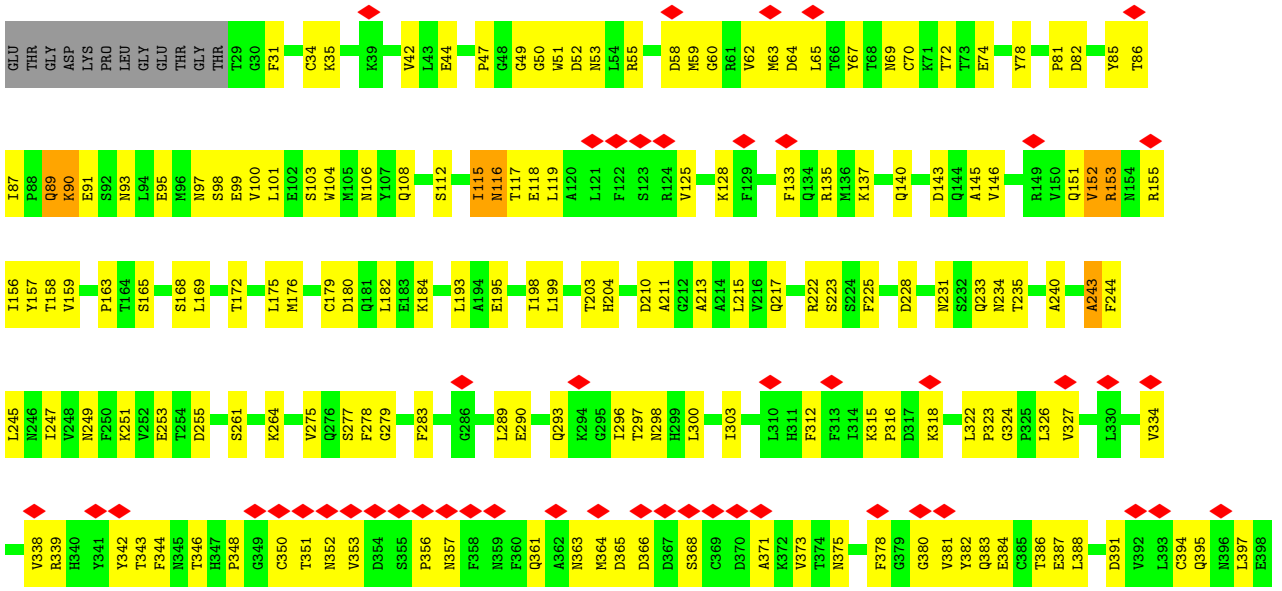
Chain C:

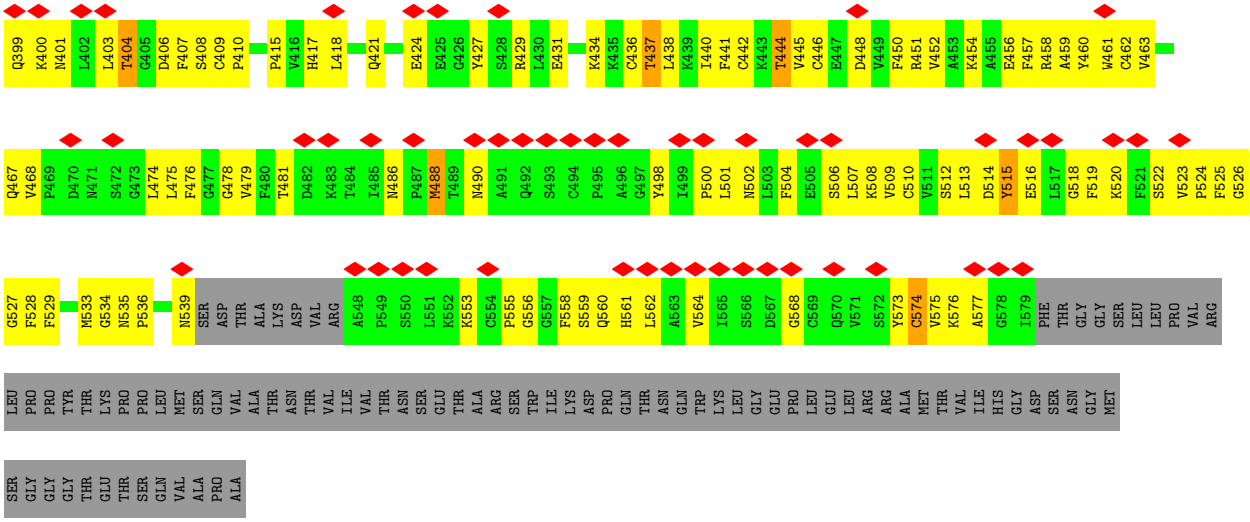




• Molecule 1: Macrophage-expressed gene 1 protein

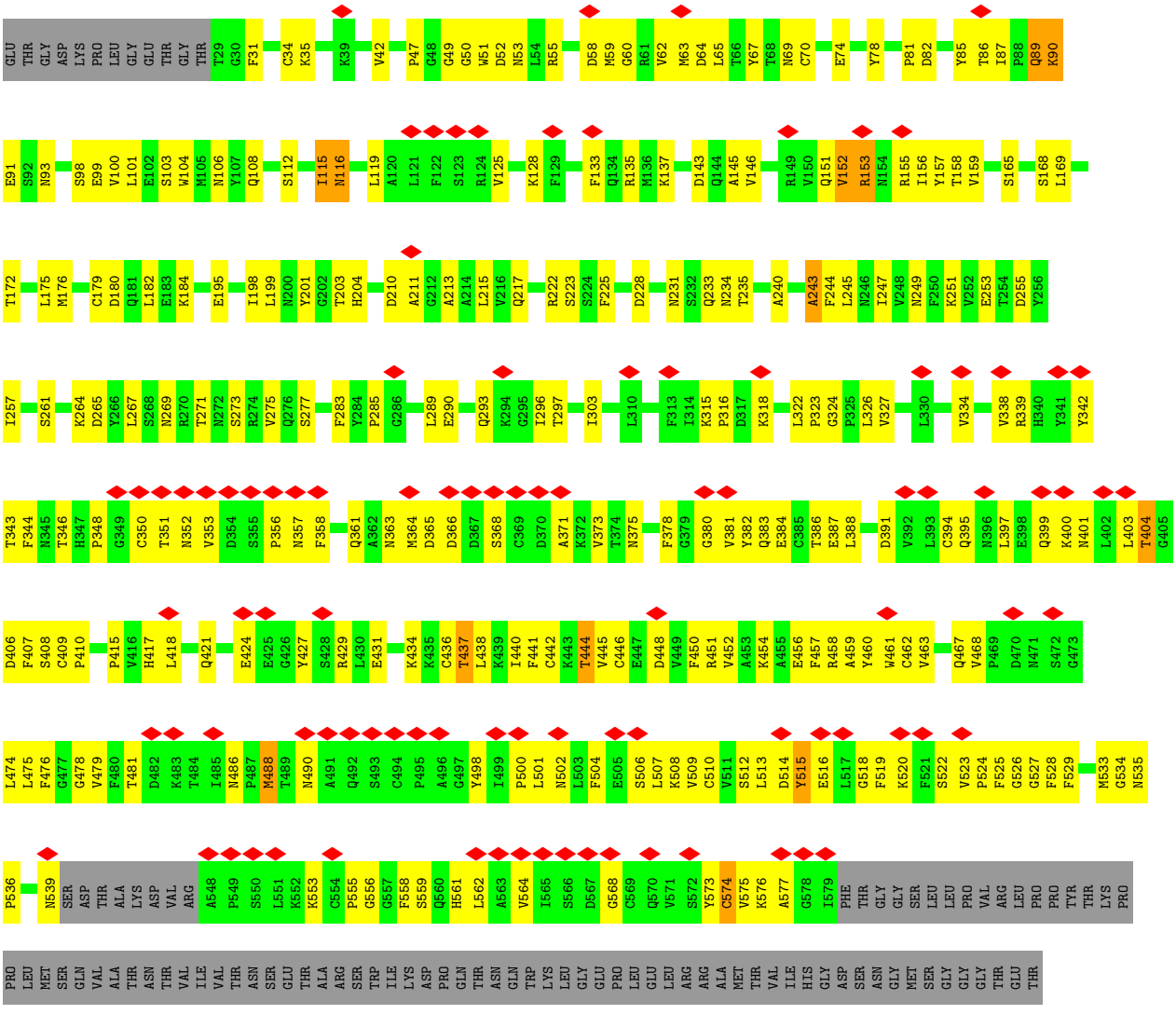
Chain D:





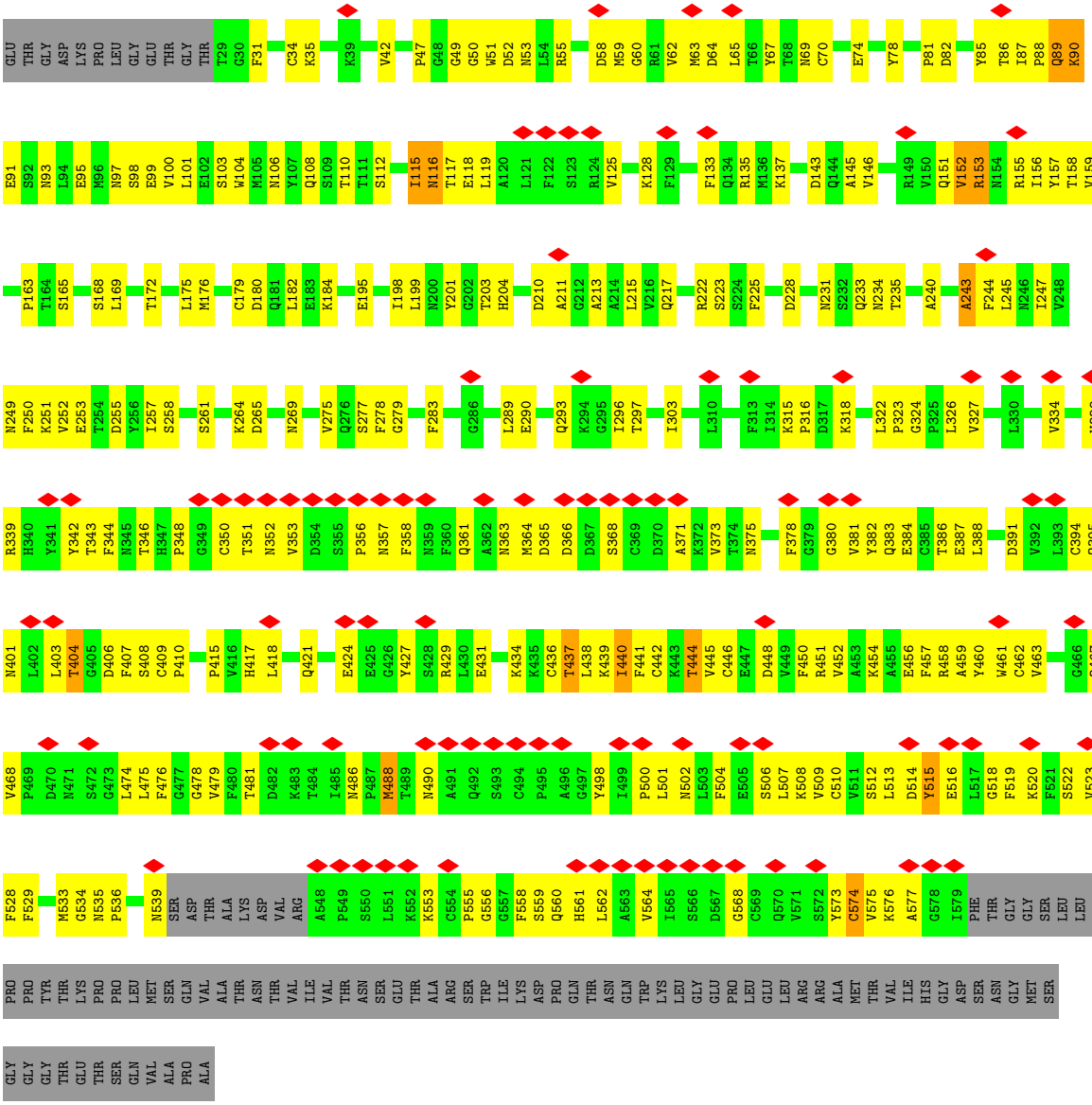
• Molecule 1: Macrophage-expressed gene 1 protein

Chain E:



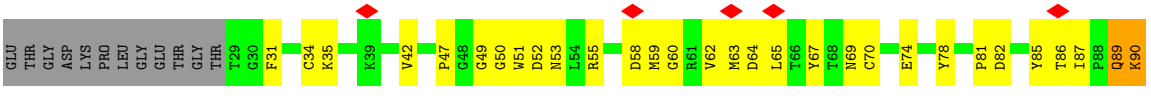
• Molecule 1: Macrophage-expressed gene 1 protein

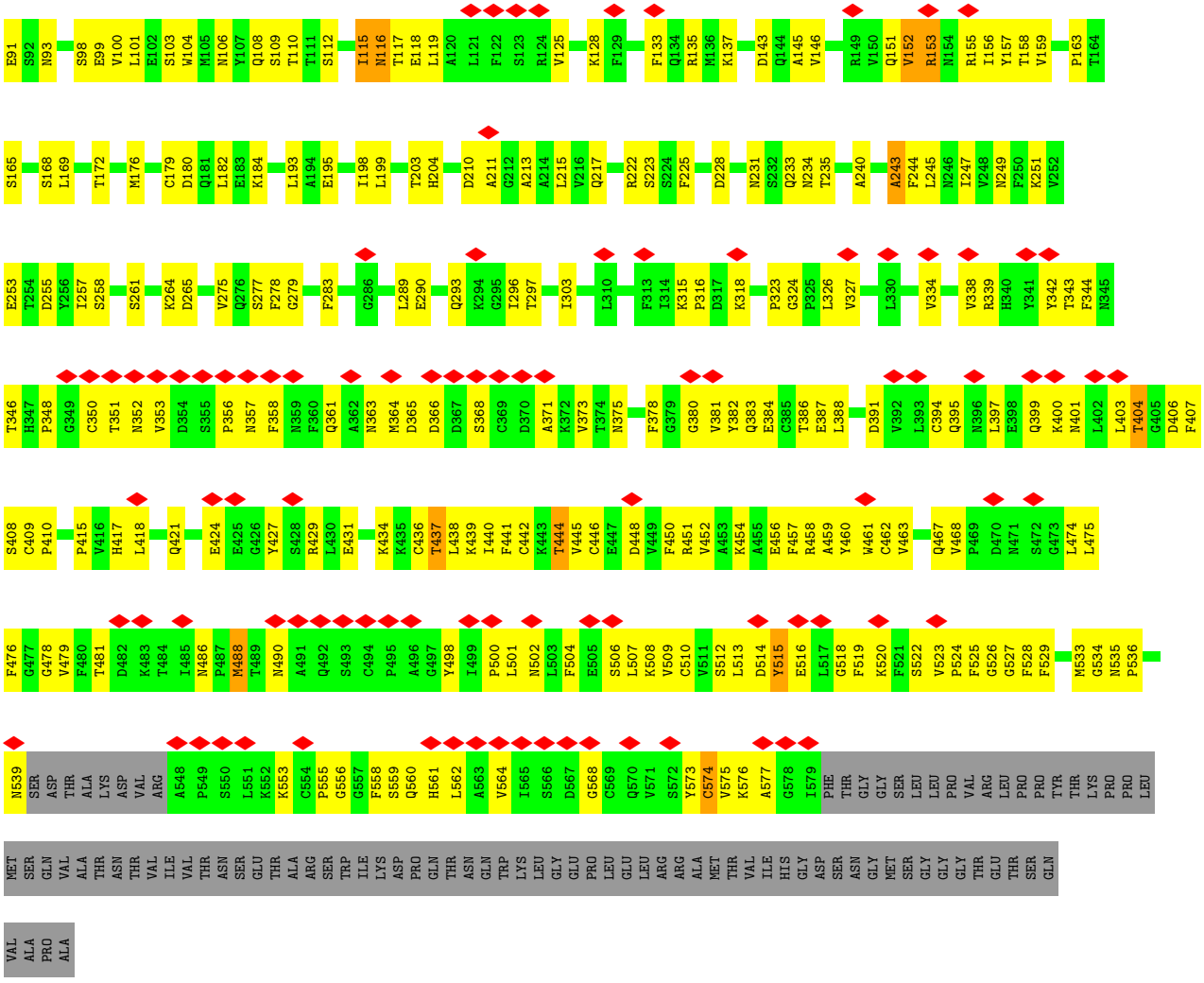
Chain F:



• Molecule 1: Macrophage-expressed gene 1 protein

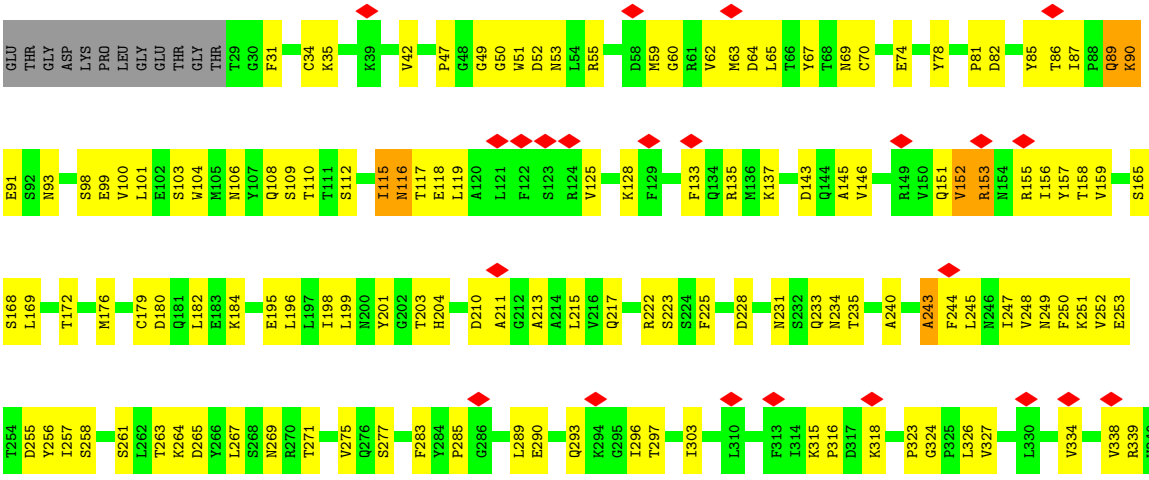
Chain G:

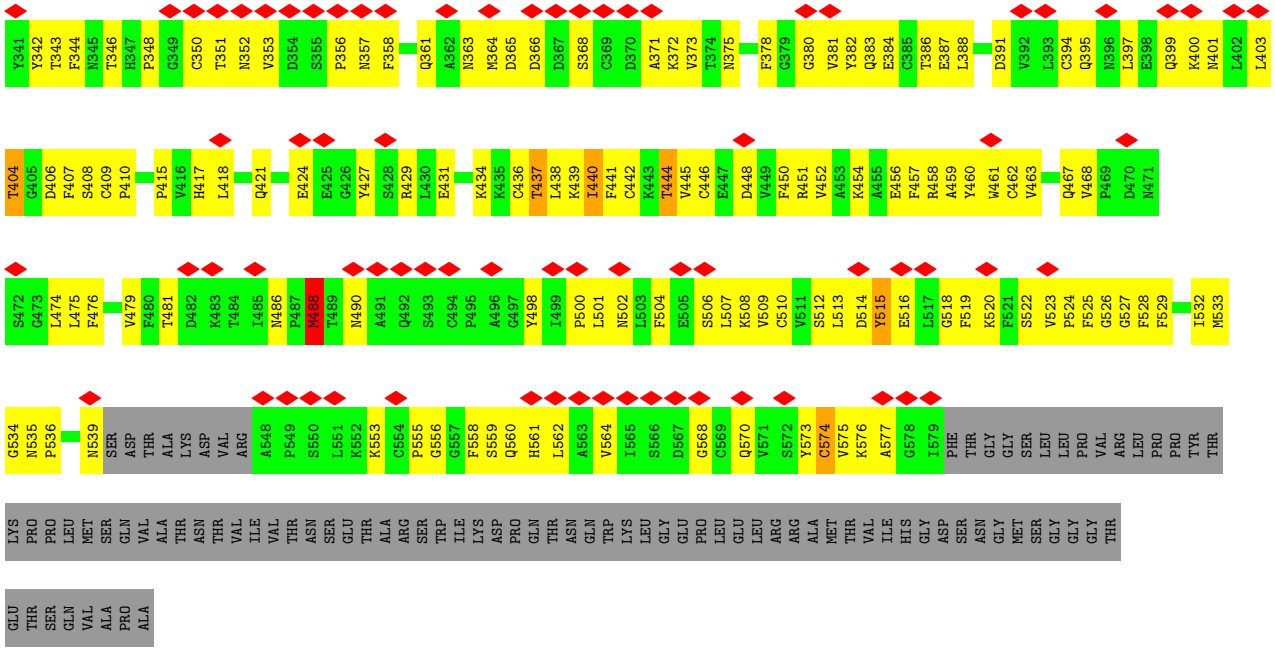




• Molecule 1: Macrophage-expressed gene 1 protein

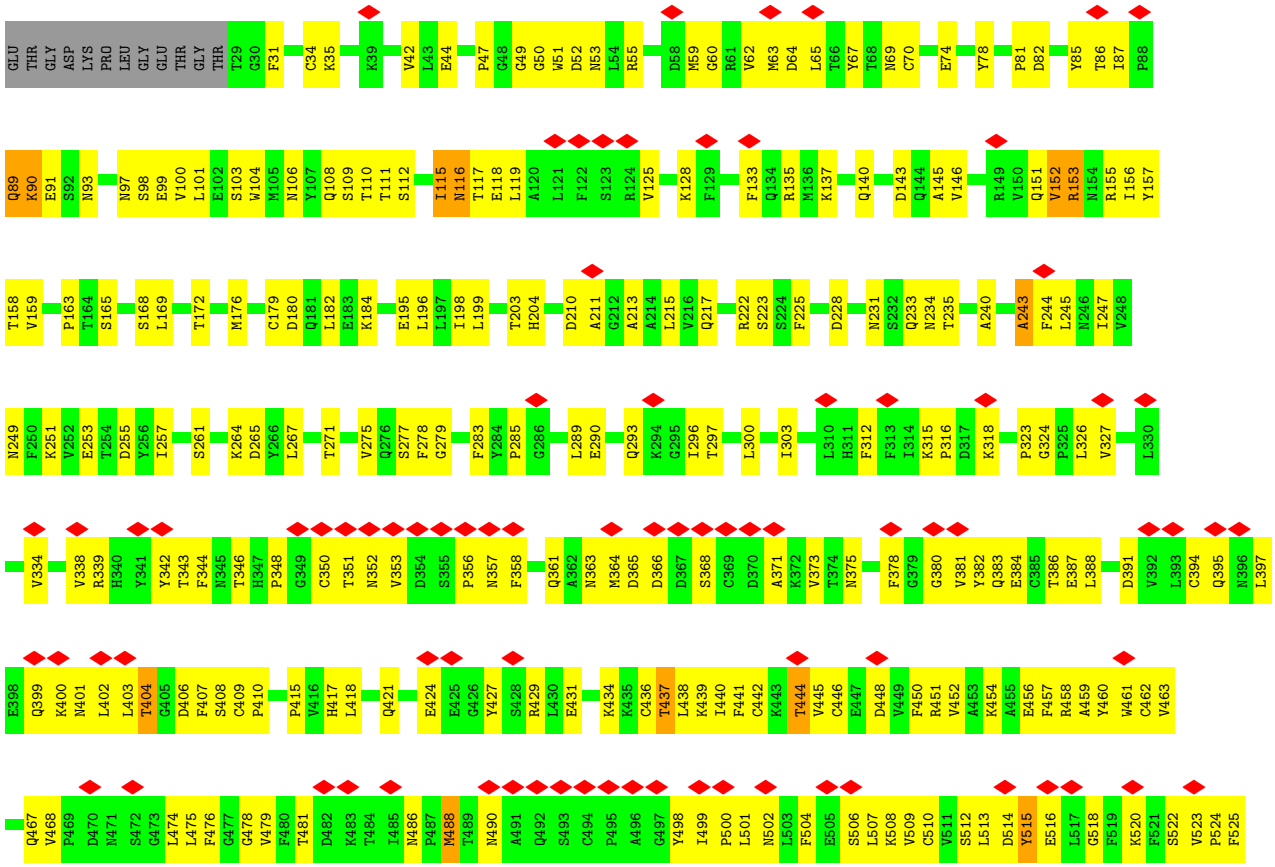
Chain H:

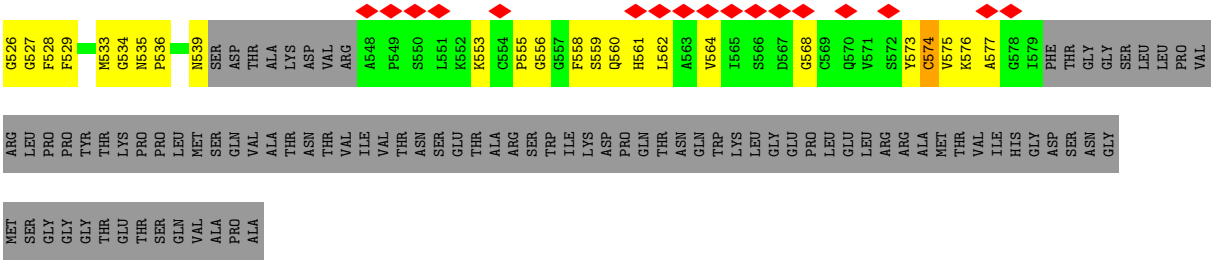




• Molecule 1: Macrophage-expressed gene 1 protein

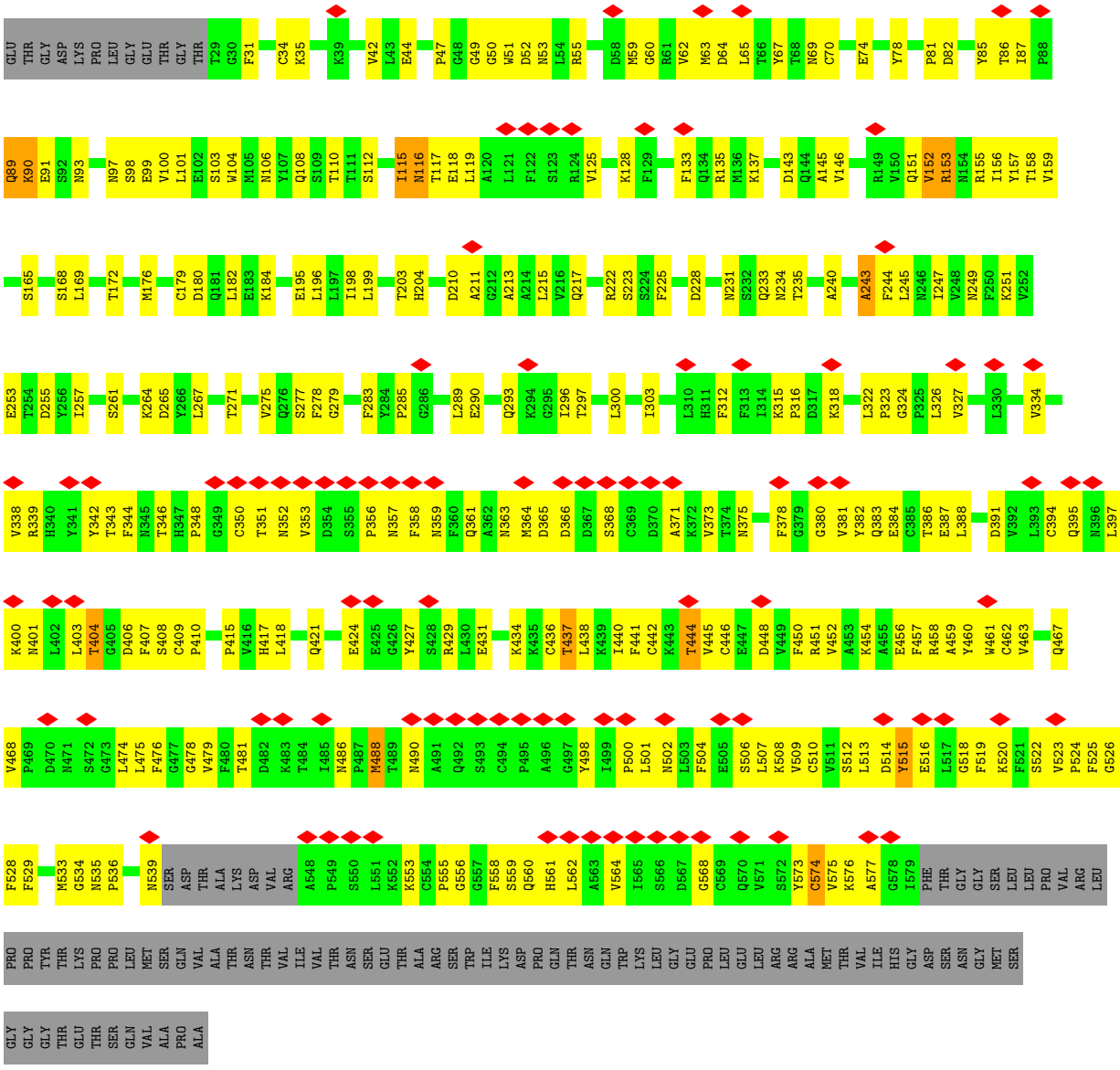
Chain I:





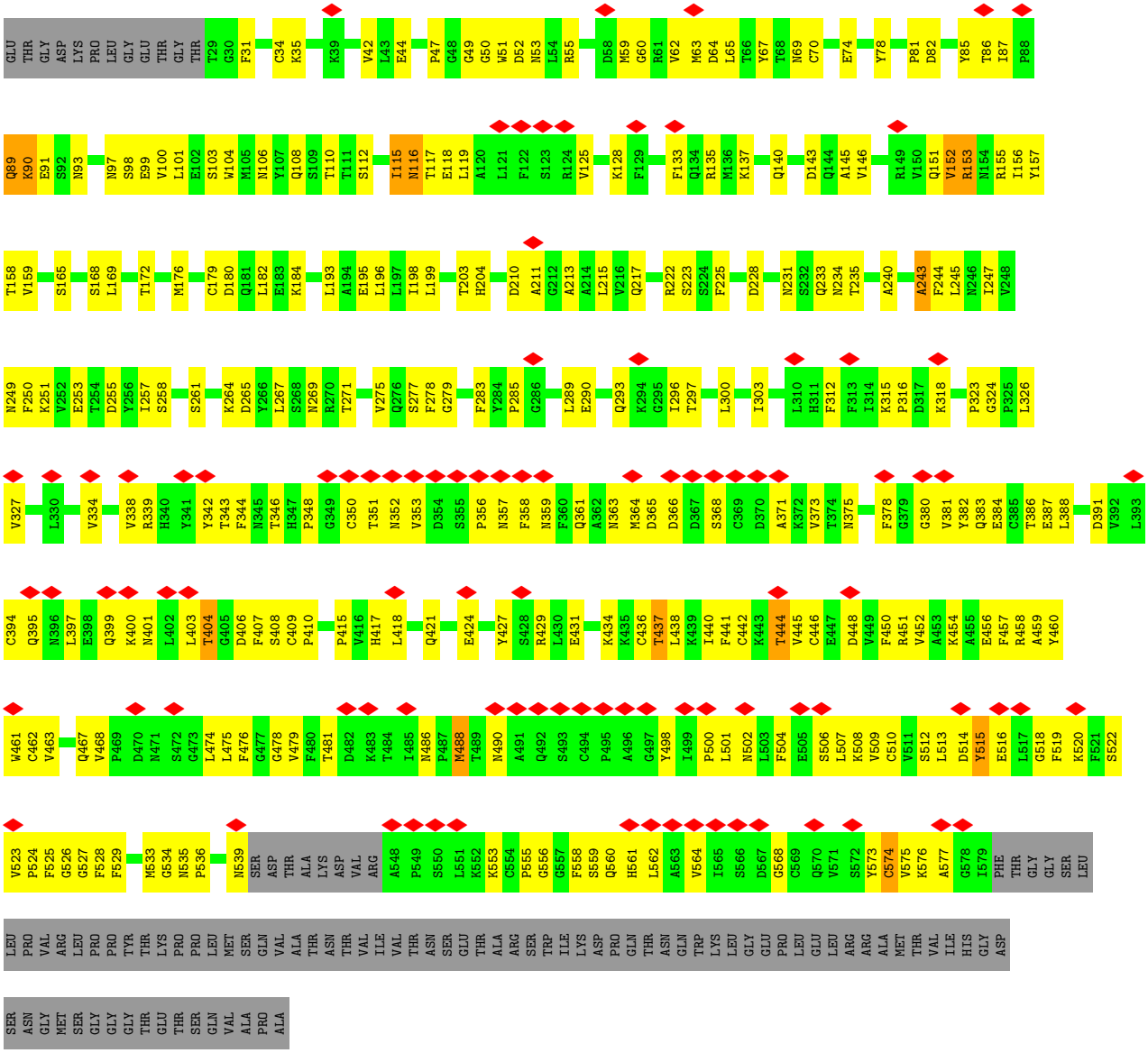
• Molecule 1: Macrophage-expressed gene 1 protein

Chain J:



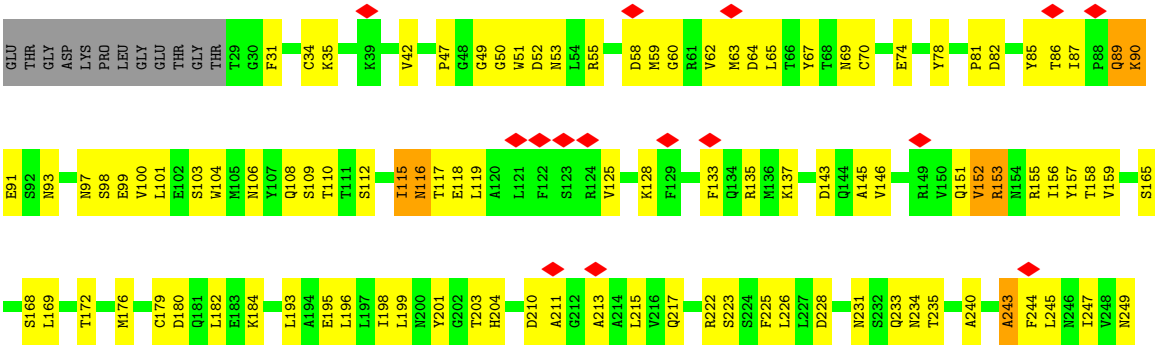
• Molecule 1: Macrophage-expressed gene 1 protein

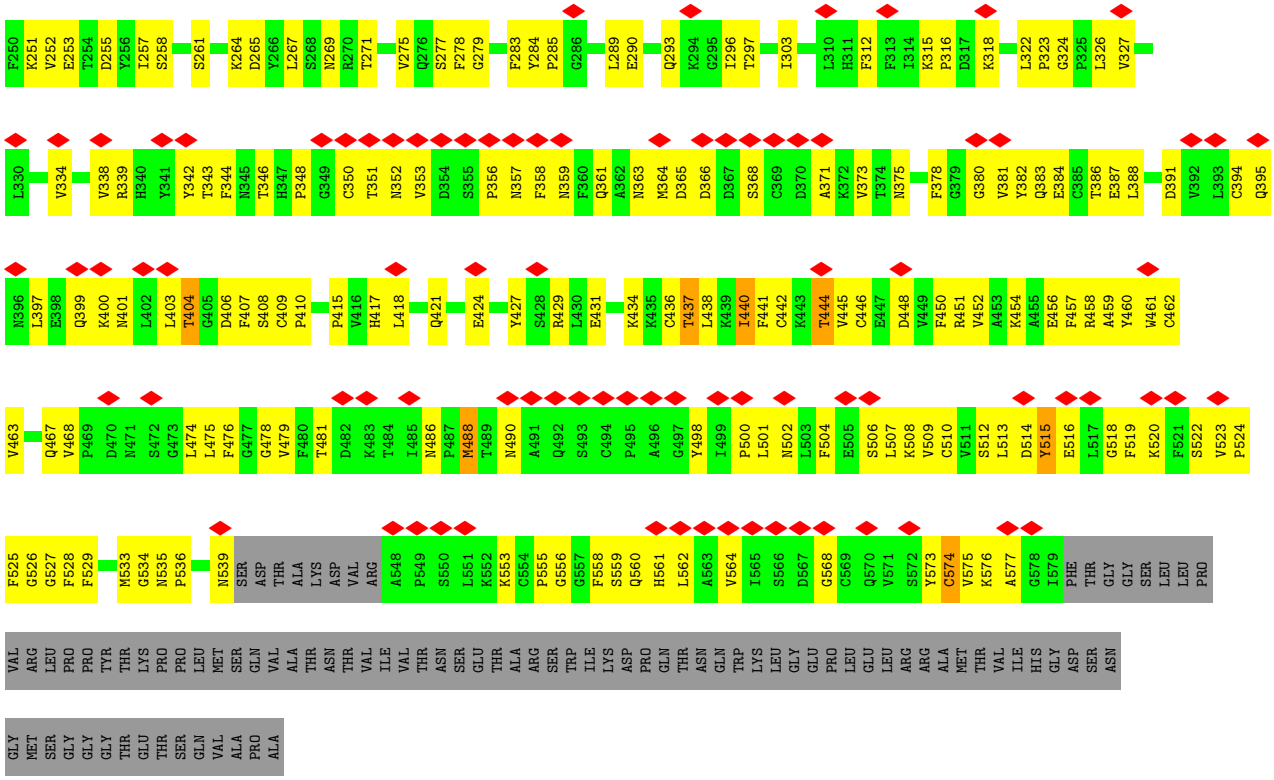
Chain K:



• Molecule 1: Macrophage-expressed gene 1 protein

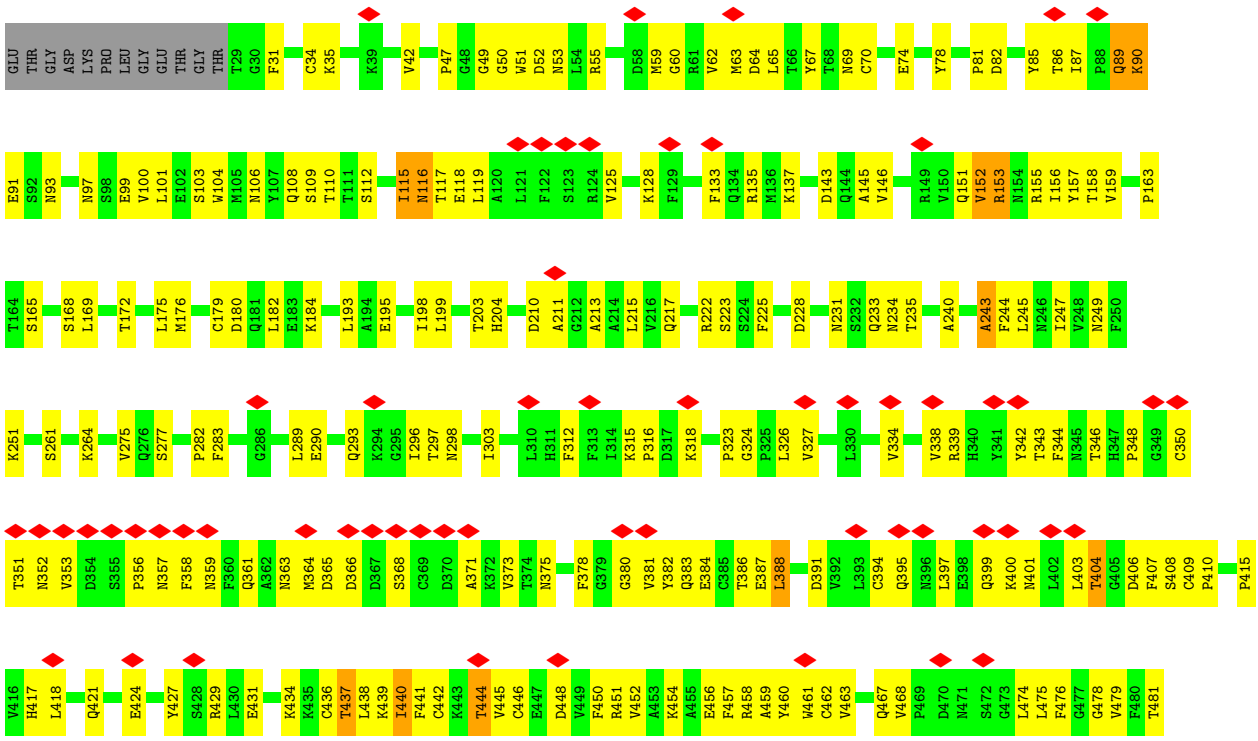
Chain L:

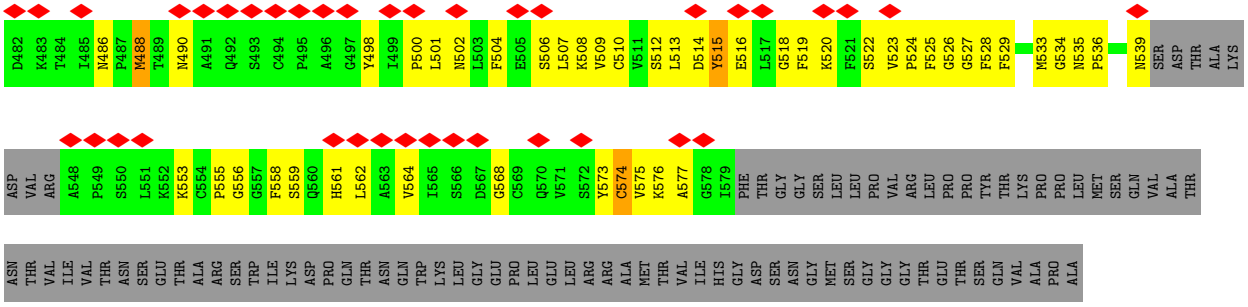




• Molecule 1: Macrophage-expressed gene 1 protein

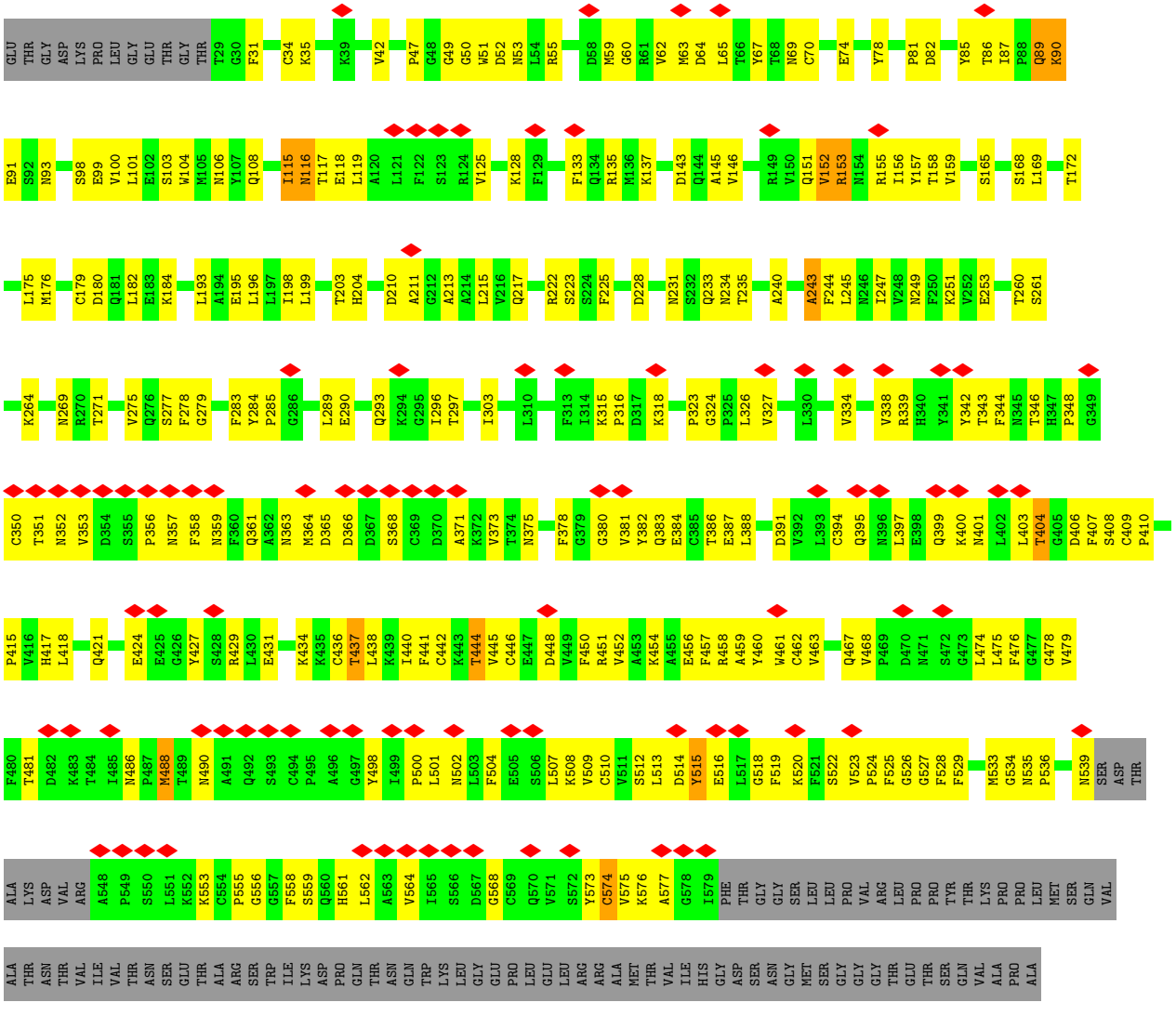
Chain M:





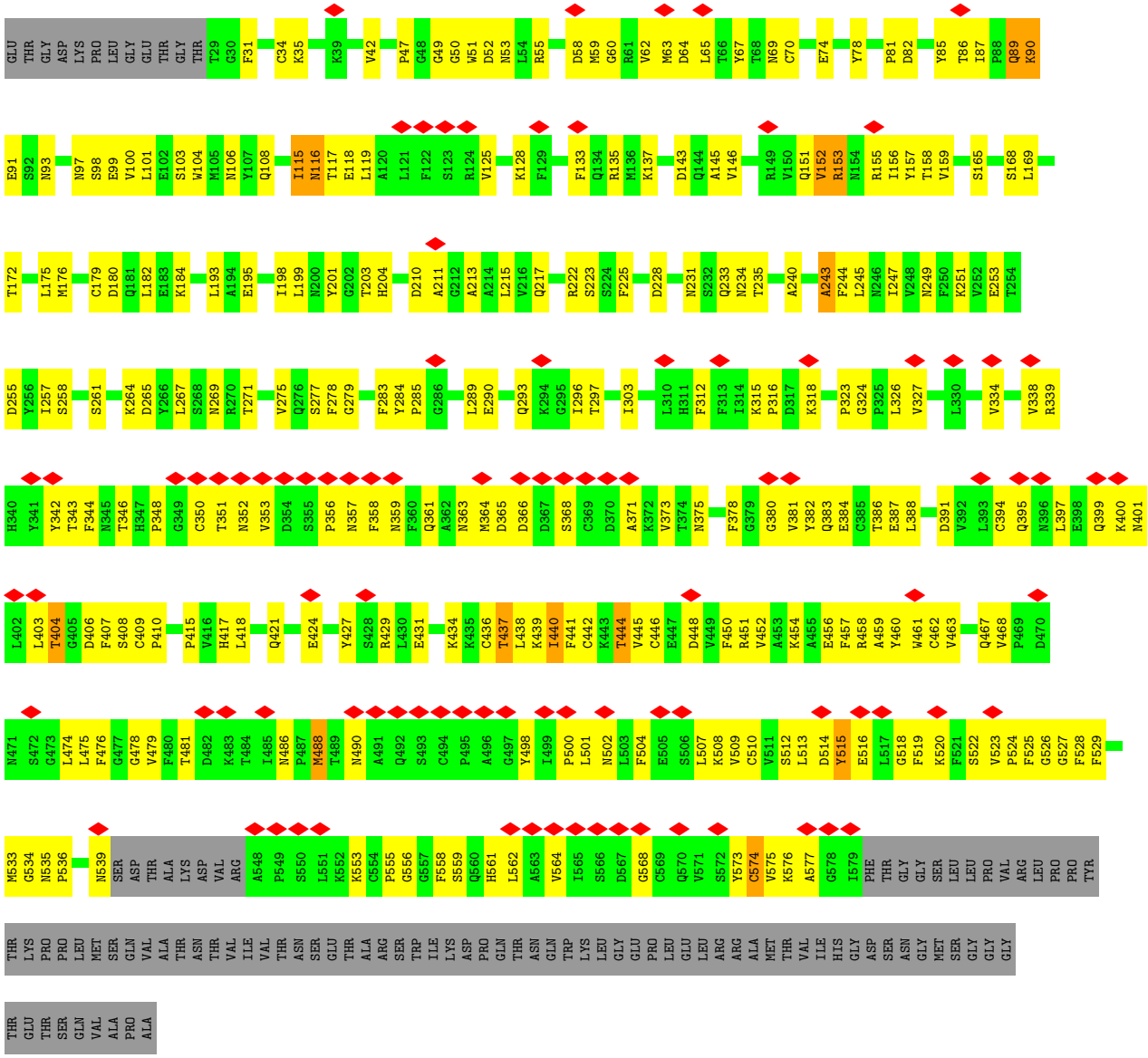
• Molecule 1: Macrophage-expressed gene 1 protein

Chain N:



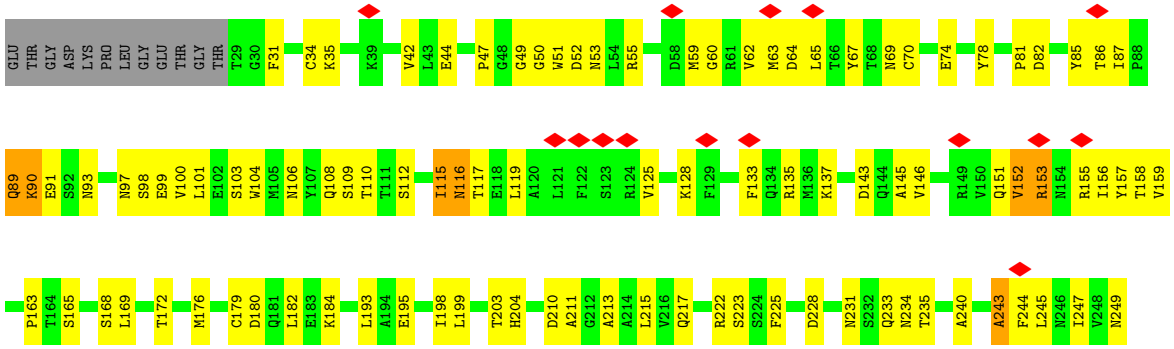
• Molecule 1: Macrophage-expressed gene 1 protein

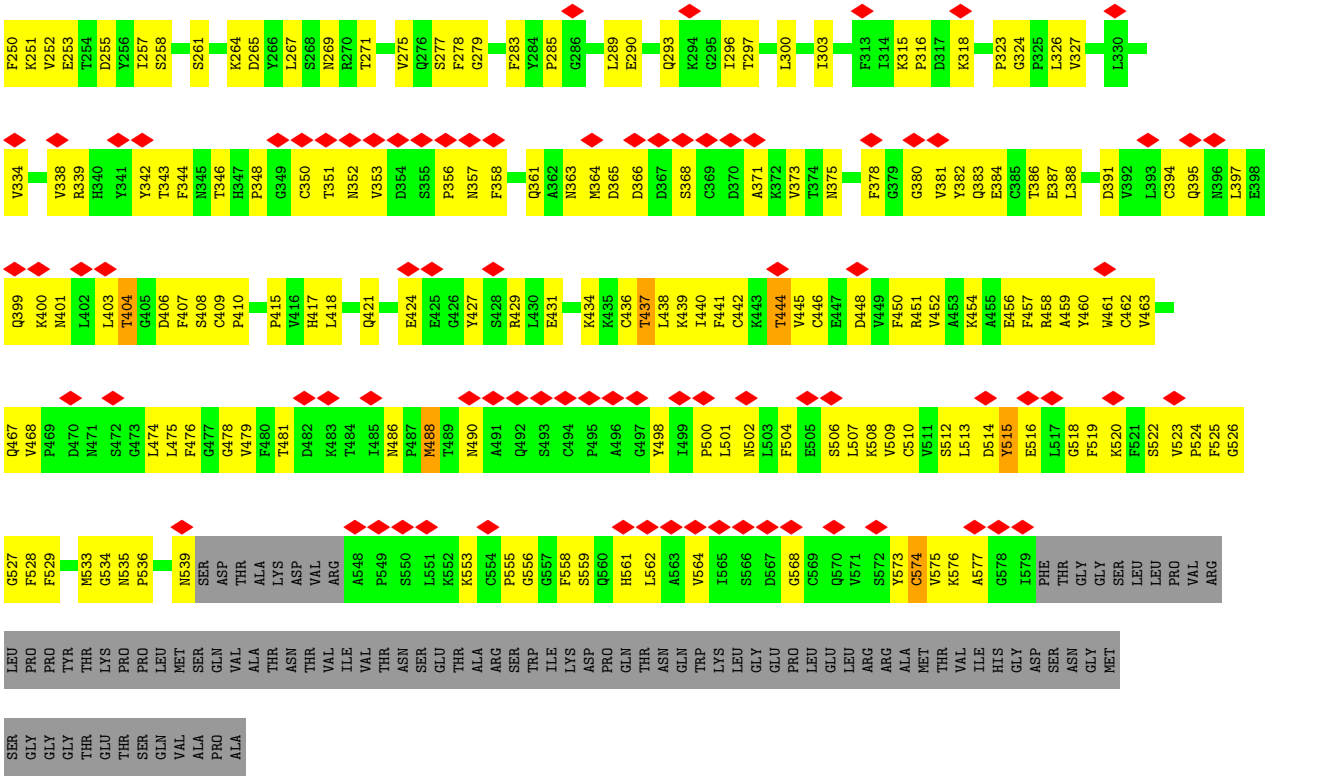
Chain O:



• Molecule 1: Macrophage-expressed gene 1 protein

Chain P:




F250 K251 V252 E253 T254 D255 Y256 I257 S258 S261 K264 D265 Y266 L267 S268 N269 R270 T271 V275 Q276 S277 F278 G279 F283 Y284 P285 G286 L289 E290 Q293 K294 G295 I296 T297 L300 I303 F313 I314 K315 P316 D317 K318 P323 G324 P325 L326 V327 L330
V334 V338 R339 H340 Y341 Y342 T343 F344 N345 T346 H347 P348 G349 C350 T351 N352 V353 D354 S355 P356 N357 F358 Q361 A362 N363 M364 D365 D366 D367 S368 C369 D370 A371 K372 V373 T374 N375 F378 G379 G380 V381 Y382 Q383 E384 C385 T386 E387 L388 D391 V392 L393 C394 Q395 N396 L397 E398
Q399 K400 N401 L402 L403 T404 G405 D406 F407 S408 C409 P410 P415 V416 H417 L418 Q421 E424 E425 G426 Y427 S428 R429 L430 E431 K434 K435 C436 T437 L438 K439 I440 F441 C442 K443 T444 V445 C446 E447 D448 V449 F450 R451 V452 A453 K454 A455 E456 F457 R458 A459 Y460 W461 C462 V463
Q467 V468 P469 D470 N471 S472 G473 L474 L475 F476 G477 G478 V479 F480 T481 D482 K483 T484 I485 N486 P487 M488 T489 N490 A491 Q492 S493 C494 P495 A496 G497 Y498 I499 P500 L501 N502 L503 F504 E505 S506 L507 K508 V509 C510 V511 S512 L513 D514 Y515 E516 L517 G518 F519 K520 F521 S522 V523 P524 F525 G526
G527 F528 F529 M533 G534 N535 P536 N539 SER ASP THR ALA LYS ASP VAL ARG A548 P549 S550 L551 K552 K553 C554 P555 G556 G557 F558 S559 Q560 H561 L562 A563 V564 I565 S566 D567 G568 C569 Q570 V571 S572 Y573 C574 V575 K576 A577 G578 I579 PHE THR GLY GLY SER LEU LEU PRO VAL ARG
LEU PRO PRO TYR THR LYS PRO PRO LEU MET SER GLN VAL ALA THR ASN THR VAL ILE VAL THR ASN SER GLU THR ALA ARG SER TRP ILE LYS ASP PRO GLN THR ASN GLN TRP LYS LEU GLY GLU PRO LEU GLU LEU ARG ARG ALA MET THR VAL ILE HIS GLY ASP SER ASN GLY MET
SER GLY GLY GLY THR GLU THR SER GLN VAL ALA PRO ALA

4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C16	Depositor
Number of particles used	24936	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TALOS ARCTICA	Depositor
Voltage (kV)	200	Depositor
Electron dose ($e^-/Å^2$)	50, 50	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	FEI FALCON III (4k x 4k), FEI FALCON III (4k x 4k)	Depositor
Maximum map value	0.156	Depositor
Minimum map value	-0.050	Depositor
Average map value	0.001	Depositor
Map value standard deviation	0.008	Depositor
Recommended contour level	0.048	Depositor
Map size (Å)	439.2, 439.2, 439.2	wwPDB
Map dimensions	360, 360, 360	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.22, 1.22, 1.22	Depositor

5 Model quality (i)

5.1 Standard geometry (i)

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

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	0.41	0/4295	0.53	0/5831
1	B	0.41	0/4295	0.53	0/5831
1	C	0.41	0/4295	0.53	0/5831
1	D	0.41	0/4295	0.53	0/5831
1	E	0.41	0/4295	0.53	0/5831
1	F	0.41	0/4295	0.53	0/5831
1	G	0.41	0/4295	0.53	0/5831
1	H	0.41	0/4295	0.53	1/5831 (0.0%)
1	I	0.41	0/4295	0.53	0/5831
1	J	0.41	0/4295	0.53	0/5831
1	K	0.41	0/4295	0.53	0/5831
1	L	0.41	0/4295	0.53	0/5831
1	M	0.41	0/4295	0.53	0/5831
1	N	0.41	0/4295	0.53	0/5831
1	O	0.41	0/4295	0.53	0/5831
1	P	0.41	0/4295	0.53	0/5831
All	All	0.41	0/68720	0.53	1/93296 (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	6
1	B	0	6
1	C	0	6
1	D	0	6
1	E	0	6
1	F	0	6
1	G	0	6

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Mol	Chain	#Chirality outliers	#Planarity outliers
1	H	0	6
1	I	0	6
1	J	0	6
1	K	0	6
1	L	0	6
1	M	0	6
1	N	0	6
1	O	0	6
1	P	0	6
All	All	0	96

There are no bond length outliers.

All (1) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	H	488	MET	CB-CG-SD	5.00	127.41	112.40

There are no chirality outliers.

All (96) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	115	ILE	Peptide
1	A	243	ALA	Peptide
1	A	515	TYR	Peptide
1	A	69	ASN	Peptide
1	A	89	GLN	Peptide
1	A	90	LYS	Peptide
1	B	115	ILE	Peptide
1	B	243	ALA	Peptide
1	B	515	TYR	Peptide
1	B	69	ASN	Peptide
1	B	89	GLN	Peptide
1	B	90	LYS	Peptide
1	C	115	ILE	Peptide
1	C	243	ALA	Peptide
1	C	515	TYR	Peptide
1	C	69	ASN	Peptide
1	C	89	GLN	Peptide
1	C	90	LYS	Peptide
1	D	115	ILE	Peptide
1	D	243	ALA	Peptide

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Mol	Chain	Res	Type	Group
1	D	515	TYR	Peptide
1	D	69	ASN	Peptide
1	D	89	GLN	Peptide
1	D	90	LYS	Peptide
1	E	115	ILE	Peptide
1	E	243	ALA	Peptide
1	E	515	TYR	Peptide
1	E	69	ASN	Peptide
1	E	89	GLN	Peptide
1	E	90	LYS	Peptide
1	F	115	ILE	Peptide
1	F	243	ALA	Peptide
1	F	515	TYR	Peptide
1	F	69	ASN	Peptide
1	F	89	GLN	Peptide
1	F	90	LYS	Peptide
1	G	115	ILE	Peptide
1	G	243	ALA	Peptide
1	G	515	TYR	Peptide
1	G	69	ASN	Peptide
1	G	89	GLN	Peptide
1	G	90	LYS	Peptide
1	H	115	ILE	Peptide
1	H	243	ALA	Peptide
1	H	515	TYR	Peptide
1	H	69	ASN	Peptide
1	H	89	GLN	Peptide
1	H	90	LYS	Peptide
1	I	115	ILE	Peptide
1	I	243	ALA	Peptide
1	I	515	TYR	Peptide
1	I	69	ASN	Peptide
1	I	89	GLN	Peptide
1	I	90	LYS	Peptide
1	J	115	ILE	Peptide
1	J	243	ALA	Peptide
1	J	515	TYR	Peptide
1	J	69	ASN	Peptide
1	J	89	GLN	Peptide
1	J	90	LYS	Peptide
1	K	115	ILE	Peptide
1	K	243	ALA	Peptide

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Mol	Chain	Res	Type	Group
1	K	515	TYR	Peptide
1	K	69	ASN	Peptide
1	K	89	GLN	Peptide
1	K	90	LYS	Peptide
1	L	115	ILE	Peptide
1	L	243	ALA	Peptide
1	L	515	TYR	Peptide
1	L	69	ASN	Peptide
1	L	89	GLN	Peptide
1	L	90	LYS	Peptide
1	M	115	ILE	Peptide
1	M	243	ALA	Peptide
1	M	515	TYR	Peptide
1	M	69	ASN	Peptide
1	M	89	GLN	Peptide
1	M	90	LYS	Peptide
1	N	115	ILE	Peptide
1	N	243	ALA	Peptide
1	N	515	TYR	Peptide
1	N	69	ASN	Peptide
1	N	89	GLN	Peptide
1	N	90	LYS	Peptide
1	O	115	ILE	Peptide
1	O	243	ALA	Peptide
1	O	515	TYR	Peptide
1	O	69	ASN	Peptide
1	O	89	GLN	Peptide
1	O	90	LYS	Peptide
1	P	115	ILE	Peptide
1	P	243	ALA	Peptide
1	P	515	TYR	Peptide
1	P	69	ASN	Peptide
1	P	89	GLN	Peptide
1	P	90	LYS	Peptide

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	4207	0	4140	227	0
1	B	4207	0	4140	229	0
1	C	4207	0	4140	229	0
1	D	4207	0	4140	228	0
1	E	4207	0	4140	222	0
1	F	4207	0	4140	237	0
1	G	4207	0	4140	226	0
1	H	4207	0	4140	254	0
1	I	4207	0	4140	256	0
1	J	4207	0	4140	223	0
1	K	4207	0	4140	224	0
1	L	4207	0	4140	233	0
1	M	4207	0	4140	226	0
1	N	4207	0	4140	212	0
1	O	4207	0	4140	227	0
1	P	4207	0	4140	230	0
2	A	28	0	26	0	0
2	B	28	0	26	0	0
2	C	28	0	26	0	0
2	D	28	0	26	0	0
2	E	28	0	26	0	0
2	F	28	0	26	0	0
2	G	28	0	26	0	0
2	H	28	0	26	0	0
2	I	28	0	26	0	0
2	J	28	0	26	0	0
2	K	28	0	26	0	0
2	L	28	0	26	0	0
2	M	28	0	26	0	0
2	N	28	0	26	0	0
2	O	28	0	26	0	0
2	P	28	0	26	0	0
All	All	67760	0	66656	3386	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 25.

All (3386) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:59:MET:O	1:D:85:TYR:OH	1.92	0.86
1:H:253:GLU:H	1:I:115:ILE:HG22	1.42	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:59:MET:O	1:F:85:TYR:OH	1.95	0.85
1:G:427:TYR:H	1:G:429:ARG:HH21	1.25	0.84
1:H:427:TYR:H	1:H:429:ARG:HH21	1.25	0.84
1:C:427:TYR:H	1:C:429:ARG:HH21	1.25	0.84
1:F:427:TYR:H	1:F:429:ARG:HH21	1.25	0.84
1:I:427:TYR:H	1:I:429:ARG:HH21	1.25	0.84
1:E:427:TYR:H	1:E:429:ARG:HH21	1.25	0.83
1:B:427:TYR:H	1:B:429:ARG:HH21	1.25	0.83
1:D:427:TYR:H	1:D:429:ARG:HH21	1.25	0.83
1:E:78:TYR:OH	1:E:297:THR:O	1.97	0.83
1:G:78:TYR:OH	1:G:297:THR:O	1.97	0.83
1:C:78:TYR:OH	1:C:297:THR:O	1.97	0.83
1:F:59:MET:O	1:G:85:TYR:OH	1.96	0.83
1:G:59:MET:O	1:H:85:TYR:OH	1.97	0.83
1:J:427:TYR:H	1:J:429:ARG:HH21	1.25	0.83
1:A:427:TYR:H	1:A:429:ARG:HH21	1.25	0.83
1:I:78:TYR:OH	1:I:297:THR:O	1.97	0.82
1:D:78:TYR:OH	1:D:297:THR:O	1.97	0.82
1:F:78:TYR:OH	1:F:297:THR:O	1.97	0.82
1:H:78:TYR:OH	1:H:297:THR:O	1.97	0.82
1:A:78:TYR:OH	1:A:297:THR:O	1.97	0.82
1:J:78:TYR:OH	1:J:297:THR:O	1.97	0.82
1:K:427:TYR:H	1:K:429:ARG:HH21	1.25	0.82
1:P:427:TYR:H	1:P:429:ARG:HH21	1.25	0.82
1:N:78:TYR:OH	1:N:297:THR:O	1.97	0.82
1:B:78:TYR:OH	1:B:297:THR:O	1.96	0.81
1:M:78:TYR:OH	1:M:297:THR:O	1.97	0.81
1:L:78:TYR:OH	1:L:297:THR:O	1.97	0.81
1:L:427:TYR:H	1:L:429:ARG:HH21	1.25	0.81
1:N:217:GLN:HB2	1:N:275:VAL:HG12	1.62	0.81
1:O:217:GLN:HB2	1:O:275:VAL:HG12	1.62	0.81
1:P:78:TYR:OH	1:P:297:THR:O	1.97	0.81
1:K:78:TYR:OH	1:K:297:THR:O	1.97	0.81
1:O:78:TYR:OH	1:O:297:THR:O	1.97	0.81
1:M:217:GLN:HB2	1:M:275:VAL:HG12	1.63	0.81
1:O:427:TYR:H	1:O:429:ARG:HH21	1.25	0.81
1:A:217:GLN:HB2	1:A:275:VAL:HG12	1.63	0.81
1:N:427:TYR:H	1:N:429:ARG:HH21	1.25	0.80
1:B:217:GLN:HB2	1:B:275:VAL:HG12	1.63	0.80
1:P:217:GLN:HB2	1:P:275:VAL:HG12	1.63	0.80
1:L:217:GLN:HB2	1:L:275:VAL:HG12	1.63	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:427:TYR:H	1:M:429:ARG:HH21	1.25	0.80
1:C:217:GLN:HB2	1:C:275:VAL:HG12	1.62	0.80
1:H:255:ASP:N	1:I:112:SER:O	2.14	0.80
1:G:217:GLN:HB2	1:G:275:VAL:HG12	1.63	0.80
1:D:59:MET:O	1:E:85:TYR:OH	1.99	0.79
1:K:217:GLN:HB2	1:K:275:VAL:HG12	1.63	0.79
1:D:217:GLN:HB2	1:D:275:VAL:HG12	1.62	0.79
1:F:217:GLN:HB2	1:F:275:VAL:HG12	1.63	0.79
1:I:217:GLN:HB2	1:I:275:VAL:HG12	1.62	0.79
1:J:217:GLN:HB2	1:J:275:VAL:HG12	1.63	0.79
1:H:217:GLN:HB2	1:H:275:VAL:HG12	1.62	0.79
1:E:217:GLN:HB2	1:E:275:VAL:HG12	1.62	0.78
1:B:91:GLU:HG2	1:B:155:ARG:HH21	1.50	0.77
1:H:91:GLU:HG2	1:H:155:ARG:HH21	1.50	0.77
1:D:91:GLU:HG2	1:D:155:ARG:HH21	1.50	0.77
1:K:91:GLU:HG2	1:K:155:ARG:HH21	1.50	0.77
1:E:91:GLU:HG2	1:E:155:ARG:HH21	1.50	0.77
1:P:91:GLU:HG2	1:P:155:ARG:HH21	1.50	0.77
1:N:91:GLU:HG2	1:N:155:ARG:HH21	1.50	0.77
1:F:91:GLU:HG2	1:F:155:ARG:HH21	1.49	0.77
1:O:108:GLN:HB3	1:O:137:LYS:HA	1.68	0.76
1:I:91:GLU:HG2	1:I:155:ARG:HH21	1.50	0.76
1:M:91:GLU:HG2	1:M:155:ARG:HH21	1.50	0.76
1:C:108:GLN:HB3	1:C:137:LYS:HA	1.68	0.76
1:P:108:GLN:HB3	1:P:137:LYS:HA	1.68	0.76
1:D:108:GLN:HB3	1:D:137:LYS:HA	1.68	0.76
1:L:91:GLU:HG2	1:L:155:ARG:HH21	1.50	0.76
1:H:562:LEU:HB2	1:I:513:LEU:HD22	1.65	0.76
1:G:91:GLU:HG2	1:G:155:ARG:HH21	1.50	0.76
1:J:91:GLU:HG2	1:J:155:ARG:HH21	1.50	0.76
1:N:108:GLN:HB3	1:N:137:LYS:HA	1.68	0.76
1:O:91:GLU:HG2	1:O:155:ARG:HH21	1.50	0.76
1:C:91:GLU:HG2	1:C:155:ARG:HH21	1.50	0.75
1:A:108:GLN:HB3	1:A:137:LYS:HA	1.68	0.75
1:B:108:GLN:HB3	1:B:137:LYS:HA	1.68	0.75
1:K:108:GLN:HB3	1:K:137:LYS:HA	1.68	0.75
1:L:108:GLN:HB3	1:L:137:LYS:HA	1.68	0.75
1:H:357:ASN:HA	1:I:339:ARG:HE	1.51	0.75
1:E:108:GLN:HB3	1:E:137:LYS:HA	1.68	0.75
1:A:91:GLU:HG2	1:A:155:ARG:HH21	1.50	0.75
1:G:108:GLN:HB3	1:G:137:LYS:HA	1.68	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:108:GLN:HB3	1:H:137:LYS:HA	1.68	0.74
1:B:59:MET:O	1:C:85:TYR:OH	2.04	0.74
1:J:108:GLN:HB3	1:J:137:LYS:HA	1.68	0.74
1:M:108:GLN:HB3	1:M:137:LYS:HA	1.68	0.74
1:F:108:GLN:HB3	1:F:137:LYS:HA	1.68	0.73
1:I:108:GLN:HB3	1:I:137:LYS:HA	1.68	0.73
1:J:371:ALA:HB2	1:J:577:ALA:HB3	1.70	0.73
1:M:64:ASP:HB3	1:M:168:SER:HA	1.71	0.73
1:J:64:ASP:HB3	1:J:168:SER:HA	1.71	0.73
1:H:64:ASP:HB3	1:H:168:SER:HA	1.71	0.73
1:H:371:ALA:HB2	1:H:577:ALA:HB3	1.70	0.73
1:I:371:ALA:HB2	1:I:577:ALA:HB3	1.70	0.73
1:K:64:ASP:HB3	1:K:168:SER:HA	1.71	0.73
1:K:371:ALA:HB2	1:K:577:ALA:HB3	1.70	0.73
1:N:64:ASP:HB3	1:N:168:SER:HA	1.71	0.73
1:I:64:ASP:HB3	1:I:168:SER:HA	1.71	0.73
1:L:371:ALA:HB2	1:L:577:ALA:HB3	1.70	0.73
1:M:371:ALA:HB2	1:M:577:ALA:HB3	1.70	0.73
1:G:64:ASP:HB3	1:G:168:SER:HA	1.71	0.72
1:L:64:ASP:HB3	1:L:168:SER:HA	1.71	0.72
1:O:64:ASP:HB3	1:O:168:SER:HA	1.71	0.72
1:F:64:ASP:HB3	1:F:168:SER:HA	1.71	0.72
1:C:371:ALA:HB2	1:C:577:ALA:HB3	1.70	0.72
1:P:64:ASP:HB3	1:P:168:SER:HA	1.71	0.72
1:E:64:ASP:HB3	1:E:168:SER:HA	1.71	0.72
1:D:371:ALA:HB2	1:D:577:ALA:HB3	1.70	0.72
1:F:371:ALA:HB2	1:F:577:ALA:HB3	1.70	0.72
1:G:371:ALA:HB2	1:G:577:ALA:HB3	1.70	0.72
1:P:371:ALA:HB2	1:P:577:ALA:HB3	1.70	0.72
1:C:64:ASP:HB3	1:C:168:SER:HA	1.71	0.72
1:N:371:ALA:HB2	1:N:577:ALA:HB3	1.70	0.72
1:A:64:ASP:HB3	1:A:168:SER:HA	1.71	0.71
1:B:64:ASP:HB3	1:B:168:SER:HA	1.71	0.71
1:B:371:ALA:HB2	1:B:577:ALA:HB3	1.70	0.71
1:O:371:ALA:HB2	1:O:577:ALA:HB3	1.70	0.71
1:D:64:ASP:HB3	1:D:168:SER:HA	1.71	0.71
1:E:371:ALA:HB2	1:E:577:ALA:HB3	1.70	0.71
1:H:568:GLY:HA3	1:I:400:LYS:HD2	1.72	0.71
1:I:568:GLY:HA3	1:J:400:LYS:HD2	1.72	0.71
1:A:371:ALA:HB2	1:A:577:ALA:HB3	1.70	0.71
1:E:52:ASP:OD2	1:E:55:ARG:N	2.24	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:52:ASP:OD2	1:F:55:ARG:N	2.24	0.70
1:O:52:ASP:OD2	1:O:55:ARG:N	2.24	0.70
1:N:52:ASP:OD2	1:N:55:ARG:N	2.24	0.70
1:J:52:ASP:OD2	1:J:55:ARG:N	2.24	0.70
1:K:52:ASP:OD2	1:K:55:ARG:N	2.24	0.70
1:K:525:PHE:HA	1:K:575:VAL:HA	1.74	0.70
1:N:106:ASN:ND2	1:N:446:CYS:O	2.25	0.70
1:B:52:ASP:OD2	1:B:55:ARG:N	2.25	0.70
1:I:52:ASP:OD2	1:I:55:ARG:N	2.24	0.70
1:K:106:ASN:ND2	1:K:446:CYS:O	2.25	0.70
1:M:106:ASN:ND2	1:M:446:CYS:O	2.25	0.70
1:F:525:PHE:HA	1:F:575:VAL:HA	1.74	0.70
1:L:106:ASN:ND2	1:L:446:CYS:O	2.25	0.70
1:C:525:PHE:HA	1:C:575:VAL:HA	1.74	0.70
1:E:525:PHE:HA	1:E:575:VAL:HA	1.74	0.70
1:I:106:ASN:ND2	1:I:446:CYS:O	2.25	0.70
1:I:525:PHE:HA	1:I:575:VAL:HA	1.74	0.70
1:J:106:ASN:ND2	1:J:446:CYS:O	2.25	0.70
1:G:106:ASN:ND2	1:G:446:CYS:O	2.25	0.70
1:H:106:ASN:ND2	1:H:446:CYS:O	2.25	0.70
1:L:52:ASP:OD2	1:L:55:ARG:N	2.24	0.70
1:P:52:ASP:OD2	1:P:55:ARG:N	2.24	0.70
1:C:52:ASP:OD2	1:C:55:ARG:N	2.24	0.70
1:C:153:ARG:HH22	1:C:289:LEU:HB3	1.56	0.70
1:D:525:PHE:HA	1:D:575:VAL:HA	1.74	0.70
1:F:106:ASN:ND2	1:F:446:CYS:O	2.25	0.70
1:F:153:ARG:HH22	1:F:289:LEU:HB3	1.56	0.70
1:J:525:PHE:HA	1:J:575:VAL:HA	1.74	0.70
1:L:525:PHE:HA	1:L:575:VAL:HA	1.74	0.70
1:N:525:PHE:HA	1:N:575:VAL:HA	1.74	0.70
1:O:106:ASN:ND2	1:O:446:CYS:O	2.25	0.70
1:A:52:ASP:OD2	1:A:55:ARG:N	2.24	0.70
1:G:525:PHE:HA	1:G:575:VAL:HA	1.74	0.70
1:H:52:ASP:OD2	1:H:55:ARG:N	2.24	0.70
1:H:525:PHE:HA	1:H:575:VAL:HA	1.74	0.70
1:J:153:ARG:HH22	1:J:289:LEU:HB3	1.56	0.70
1:M:525:PHE:HA	1:M:575:VAL:HA	1.74	0.70
1:D:153:ARG:HH22	1:D:289:LEU:HB3	1.56	0.69
1:E:153:ARG:HH22	1:E:289:LEU:HB3	1.56	0.69
1:G:153:ARG:HH22	1:G:289:LEU:HB3	1.56	0.69
1:D:52:ASP:OD2	1:D:55:ARG:N	2.24	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:153:ARG:HH22	1:H:289:LEU:HB3	1.56	0.69
1:I:153:ARG:HH22	1:I:289:LEU:HB3	1.57	0.69
1:A:525:PHE:HA	1:A:575:VAL:HA	1.74	0.69
1:D:106:ASN:ND2	1:D:446:CYS:O	2.25	0.69
1:G:52:ASP:OD2	1:G:55:ARG:N	2.25	0.69
1:K:153:ARG:HH22	1:K:289:LEU:HB3	1.56	0.69
1:M:52:ASP:OD2	1:M:55:ARG:N	2.24	0.69
1:B:153:ARG:HH22	1:B:289:LEU:HB3	1.56	0.69
1:C:106:ASN:ND2	1:C:446:CYS:O	2.25	0.69
1:E:106:ASN:ND2	1:E:446:CYS:O	2.25	0.69
1:P:525:PHE:HA	1:P:575:VAL:HA	1.74	0.69
1:B:106:ASN:ND2	1:B:446:CYS:O	2.25	0.69
1:B:525:PHE:HA	1:B:575:VAL:HA	1.74	0.69
1:H:275:VAL:HG22	1:I:93:ASN:OD1	1.93	0.69
1:O:275:VAL:HG22	1:P:93:ASN:OD1	1.91	0.69
1:P:106:ASN:ND2	1:P:446:CYS:O	2.25	0.69
1:K:253:GLU:H	1:L:115:ILE:HG22	1.55	0.69
1:O:525:PHE:HA	1:O:575:VAL:HA	1.74	0.69
1:A:153:ARG:HH22	1:A:289:LEU:HB3	1.56	0.69
1:K:275:VAL:HG22	1:L:93:ASN:OD1	1.92	0.69
1:L:153:ARG:HH22	1:L:289:LEU:HB3	1.56	0.69
1:A:106:ASN:ND2	1:A:446:CYS:O	2.25	0.69
1:E:275:VAL:HG22	1:F:93:ASN:OD1	1.93	0.69
1:P:153:ARG:HH22	1:P:289:LEU:HB3	1.56	0.69
1:H:535:ASN:ND2	1:H:553:LYS:O	2.27	0.68
1:I:535:ASN:ND2	1:I:553:LYS:O	2.27	0.68
1:M:153:ARG:HH22	1:M:289:LEU:HB3	1.56	0.68
1:O:59:MET:O	1:P:85:TYR:OH	2.10	0.68
1:E:133:PHE:HB2	1:E:235:THR:HB	1.76	0.68
1:G:133:PHE:HB2	1:G:235:THR:HB	1.76	0.68
1:G:535:ASN:ND2	1:G:553:LYS:O	2.27	0.68
1:N:153:ARG:HH22	1:N:289:LEU:HB3	1.56	0.68
1:O:153:ARG:HH22	1:O:289:LEU:HB3	1.57	0.68
1:D:133:PHE:HB2	1:D:235:THR:HB	1.76	0.68
1:J:535:ASN:ND2	1:J:553:LYS:O	2.27	0.68
1:H:133:PHE:HB2	1:H:235:THR:HB	1.76	0.68
1:I:133:PHE:HB2	1:I:235:THR:HB	1.76	0.68
1:J:133:PHE:HB2	1:J:235:THR:HB	1.76	0.68
1:F:535:ASN:ND2	1:F:553:LYS:O	2.27	0.68
1:K:535:ASN:ND2	1:K:553:LYS:O	2.26	0.68
1:L:59:MET:O	1:M:85:TYR:OH	2.11	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:275:VAL:HG22	1:M:93:ASN:OD1	1.94	0.68
1:B:133:PHE:HB2	1:B:235:THR:HB	1.76	0.68
1:F:133:PHE:HB2	1:F:235:THR:HB	1.76	0.68
1:D:535:ASN:ND2	1:D:553:LYS:O	2.27	0.68
1:C:133:PHE:HB2	1:C:235:THR:HB	1.76	0.68
1:L:133:PHE:HB2	1:L:235:THR:HB	1.76	0.68
1:N:535:ASN:ND2	1:N:553:LYS:O	2.27	0.68
1:A:133:PHE:HB2	1:A:235:THR:HB	1.76	0.67
1:K:133:PHE:HB2	1:K:235:THR:HB	1.76	0.67
1:O:535:ASN:ND2	1:O:553:LYS:O	2.27	0.67
1:B:153:ARG:HH12	1:B:289:LEU:HA	1.60	0.67
1:B:535:ASN:ND2	1:B:553:LYS:O	2.26	0.67
1:E:535:ASN:ND2	1:E:553:LYS:O	2.27	0.67
1:F:153:ARG:HH12	1:F:289:LEU:HA	1.60	0.67
1:A:535:ASN:ND2	1:A:553:LYS:O	2.27	0.67
1:C:535:ASN:ND2	1:C:553:LYS:O	2.27	0.67
1:F:352:ASN:ND2	1:F:363:ASN:O	2.28	0.67
1:H:59:MET:O	1:I:85:TYR:OH	2.12	0.67
1:D:153:ARG:HH12	1:D:289:LEU:HA	1.60	0.67
1:D:352:ASN:ND2	1:D:363:ASN:O	2.28	0.67
1:H:352:ASN:ND2	1:H:363:ASN:O	2.28	0.67
1:J:153:ARG:HH12	1:J:289:LEU:HA	1.60	0.67
1:J:352:ASN:ND2	1:J:363:ASN:O	2.28	0.67
1:G:153:ARG:HH12	1:G:289:LEU:HA	1.60	0.67
1:H:153:ARG:HH12	1:H:289:LEU:HA	1.60	0.67
1:L:352:ASN:ND2	1:L:363:ASN:O	2.28	0.67
1:L:535:ASN:ND2	1:L:553:LYS:O	2.27	0.67
1:M:133:PHE:HB2	1:M:235:THR:HB	1.76	0.67
1:P:535:ASN:ND2	1:P:553:LYS:O	2.27	0.67
1:O:133:PHE:HB2	1:O:235:THR:HB	1.76	0.67
1:P:133:PHE:HB2	1:P:235:THR:HB	1.76	0.67
1:P:352:ASN:ND2	1:P:363:ASN:O	2.28	0.67
1:P:421:GLN:O	1:P:457:PHE:N	2.28	0.67
1:O:421:GLN:O	1:O:457:PHE:N	2.28	0.67
1:B:352:ASN:ND2	1:B:363:ASN:O	2.28	0.67
1:C:275:VAL:HG22	1:D:93:ASN:OD1	1.94	0.67
1:E:153:ARG:HH12	1:E:289:LEU:HA	1.60	0.67
1:N:133:PHE:HB2	1:N:235:THR:HB	1.76	0.67
1:A:153:ARG:HH12	1:A:289:LEU:HA	1.60	0.67
1:A:421:GLN:O	1:A:457:PHE:N	2.28	0.67
1:I:352:ASN:ND2	1:I:363:ASN:O	2.28	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:535:ASN:ND2	1:M:553:LYS:O	2.27	0.67
1:O:352:ASN:ND2	1:O:363:ASN:O	2.28	0.67
1:I:153:ARG:HH12	1:I:289:LEU:HA	1.60	0.66
1:J:275:VAL:HG22	1:K:93:ASN:OD1	1.95	0.66
1:M:352:ASN:ND2	1:M:363:ASN:O	2.28	0.66
1:N:421:GLN:O	1:N:457:PHE:N	2.28	0.66
1:C:153:ARG:HH12	1:C:289:LEU:HA	1.60	0.66
1:A:352:ASN:ND2	1:A:363:ASN:O	2.28	0.66
1:G:352:ASN:ND2	1:G:363:ASN:O	2.28	0.66
1:C:352:ASN:ND2	1:C:363:ASN:O	2.28	0.66
1:K:352:ASN:ND2	1:K:363:ASN:O	2.28	0.66
1:N:153:ARG:HH12	1:N:289:LEU:HA	1.60	0.66
1:N:352:ASN:ND2	1:N:363:ASN:O	2.28	0.66
1:B:421:GLN:O	1:B:457:PHE:N	2.28	0.66
1:J:568:GLY:HA3	1:K:400:LYS:HD2	1.77	0.66
1:K:153:ARG:HH12	1:K:289:LEU:HA	1.60	0.66
1:M:421:GLN:O	1:M:457:PHE:N	2.28	0.66
1:E:352:ASN:ND2	1:E:363:ASN:O	2.28	0.66
1:E:421:GLN:O	1:E:457:PHE:N	2.28	0.66
1:D:421:GLN:O	1:D:457:PHE:N	2.28	0.66
1:F:421:GLN:O	1:F:457:PHE:N	2.28	0.66
1:N:401:ASN:ND2	1:N:408:SER:O	2.29	0.66
1:M:401:ASN:ND2	1:M:408:SER:O	2.29	0.66
1:P:153:ARG:HH12	1:P:289:LEU:HA	1.60	0.66
1:B:244:PHE:HB3	1:B:245:LEU:HD12	1.78	0.65
1:D:244:PHE:HB3	1:D:245:LEU:HD12	1.78	0.65
1:E:244:PHE:HB3	1:E:245:LEU:HD12	1.78	0.65
1:G:421:GLN:O	1:G:457:PHE:N	2.28	0.65
1:I:275:VAL:HG22	1:J:93:ASN:OD1	1.95	0.65
1:M:153:ARG:HH12	1:M:289:LEU:HA	1.60	0.65
1:C:244:PHE:HB3	1:C:245:LEU:HD12	1.78	0.65
1:H:421:GLN:O	1:H:457:PHE:N	2.28	0.65
1:C:421:GLN:O	1:C:457:PHE:N	2.28	0.65
1:F:244:PHE:HB3	1:F:245:LEU:HD12	1.78	0.65
1:K:244:PHE:HB3	1:K:245:LEU:HD12	1.78	0.65
1:L:153:ARG:HH12	1:L:289:LEU:HA	1.60	0.65
1:O:153:ARG:HH12	1:O:289:LEU:HA	1.60	0.65
1:O:401:ASN:ND2	1:O:408:SER:O	2.29	0.65
1:G:244:PHE:HB3	1:G:245:LEU:HD12	1.78	0.65
1:H:258:SER:HA	1:I:109:SER:HA	1.79	0.65
1:A:244:PHE:HB3	1:A:245:LEU:HD12	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:356:PRO:O	1:A:361:GLN:NE2	2.29	0.65
1:B:198:ILE:HD11	1:B:203:THR:HA	1.79	0.65
1:C:434:LYS:HA	1:C:444:THR:HA	1.79	0.65
1:I:401:ASN:ND2	1:I:408:SER:O	2.29	0.65
1:I:421:GLN:O	1:I:457:PHE:N	2.28	0.65
1:J:421:GLN:O	1:J:457:PHE:N	2.28	0.65
1:L:421:GLN:O	1:L:457:PHE:N	2.28	0.65
1:A:198:ILE:HD11	1:A:203:THR:HA	1.79	0.65
1:C:198:ILE:HD11	1:C:203:THR:HA	1.79	0.65
1:E:434:LYS:HA	1:E:444:THR:HA	1.79	0.65
1:F:434:LYS:HA	1:F:444:THR:HA	1.79	0.65
1:G:198:ILE:HD11	1:G:203:THR:HA	1.79	0.65
1:J:401:ASN:ND2	1:J:408:SER:O	2.29	0.65
1:L:401:ASN:ND2	1:L:408:SER:O	2.29	0.65
1:D:434:LYS:HA	1:D:444:THR:HA	1.79	0.65
1:F:198:ILE:HD11	1:F:203:THR:HA	1.79	0.65
1:H:257:ILE:HG13	1:I:110:THR:HB	1.79	0.65
1:M:244:PHE:HB3	1:M:245:LEU:HD12	1.78	0.65
1:A:115:ILE:HG22	1:P:253:GLU:H	1.60	0.65
1:B:203:THR:O	1:B:204:HIS:ND1	2.30	0.65
1:B:356:PRO:O	1:B:361:GLN:NE2	2.29	0.65
1:H:401:ASN:ND2	1:H:408:SER:O	2.29	0.65
1:H:434:LYS:HA	1:H:444:THR:HA	1.79	0.65
1:K:421:GLN:O	1:K:457:PHE:N	2.28	0.65
1:N:198:ILE:HD11	1:N:203:THR:HA	1.79	0.65
1:O:198:ILE:HD11	1:O:203:THR:HA	1.79	0.65
1:P:244:PHE:HB3	1:P:245:LEU:HD12	1.78	0.65
1:C:203:THR:O	1:C:204:HIS:ND1	2.30	0.65
1:E:198:ILE:HD11	1:E:203:THR:HA	1.79	0.65
1:H:198:ILE:HD11	1:H:203:THR:HA	1.79	0.65
1:I:244:PHE:HB3	1:I:245:LEU:HD12	1.78	0.65
1:M:198:ILE:HD11	1:M:203:THR:HA	1.79	0.65
1:P:198:ILE:HD11	1:P:203:THR:HA	1.79	0.65
1:B:434:LYS:HA	1:B:444:THR:HA	1.79	0.65
1:D:198:ILE:HD11	1:D:203:THR:HA	1.79	0.65
1:H:203:THR:O	1:H:204:HIS:ND1	2.30	0.65
1:K:568:GLY:HA3	1:L:400:LYS:HD2	1.79	0.65
1:L:198:ILE:HD11	1:L:203:THR:HA	1.79	0.65
1:P:475:LEU:HD21	1:P:524:PRO:HB3	1.79	0.65
1:C:356:PRO:O	1:C:361:GLN:NE2	2.29	0.64
1:C:401:ASN:ND2	1:C:408:SER:O	2.29	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:203:THR:O	1:J:204:HIS:ND1	2.30	0.64
1:A:55:ARG:NH2	1:A:366:ASP:OD2	2.31	0.64
1:A:434:LYS:HA	1:A:444:THR:HA	1.79	0.64
1:D:475:LEU:HD21	1:D:524:PRO:HB3	1.79	0.64
1:F:401:ASN:ND2	1:F:408:SER:O	2.29	0.64
1:G:203:THR:O	1:G:204:HIS:ND1	2.30	0.64
1:G:434:LYS:HA	1:G:444:THR:HA	1.79	0.64
1:K:203:THR:O	1:K:204:HIS:ND1	2.30	0.64
1:N:203:THR:O	1:N:204:HIS:ND1	2.30	0.64
1:O:244:PHE:HB3	1:O:245:LEU:HD12	1.78	0.64
1:P:401:ASN:ND2	1:P:408:SER:O	2.29	0.64
1:P:434:LYS:HA	1:P:444:THR:HA	1.79	0.64
1:E:401:ASN:ND2	1:E:408:SER:O	2.29	0.64
1:G:401:ASN:ND2	1:G:408:SER:O	2.29	0.64
1:H:244:PHE:HB3	1:H:245:LEU:HD12	1.78	0.64
1:I:198:ILE:HD11	1:I:203:THR:HA	1.79	0.64
1:K:401:ASN:ND2	1:K:408:SER:O	2.29	0.64
1:M:203:THR:O	1:M:204:HIS:ND1	2.30	0.64
1:A:85:TYR:OH	1:P:59:MET:O	2.14	0.64
1:A:203:THR:O	1:A:204:HIS:ND1	2.30	0.64
1:A:475:LEU:HD21	1:A:524:PRO:HB3	1.79	0.64
1:B:55:ARG:NH2	1:B:366:ASP:OD2	2.31	0.64
1:I:434:LYS:HA	1:I:444:THR:HA	1.79	0.64
1:J:198:ILE:HD11	1:J:203:THR:HA	1.79	0.64
1:K:198:ILE:HD11	1:K:203:THR:HA	1.79	0.64
1:P:55:ARG:NH2	1:P:366:ASP:OD2	2.31	0.64
1:C:55:ARG:NH2	1:C:366:ASP:OD2	2.31	0.64
1:D:203:THR:O	1:D:204:HIS:ND1	2.30	0.64
1:D:356:PRO:O	1:D:361:GLN:NE2	2.29	0.64
1:O:203:THR:O	1:O:204:HIS:ND1	2.30	0.64
1:D:401:ASN:ND2	1:D:408:SER:O	2.29	0.64
1:J:434:LYS:HA	1:J:444:THR:HA	1.79	0.64
1:M:391:ASP:OD1	1:M:395:GLN:NE2	2.31	0.64
1:N:244:PHE:HB3	1:N:245:LEU:HD12	1.78	0.64
1:C:475:LEU:HD21	1:C:524:PRO:HB3	1.79	0.64
1:E:475:LEU:HD21	1:E:524:PRO:HB3	1.79	0.64
1:L:203:THR:O	1:L:204:HIS:ND1	2.30	0.64
1:L:253:GLU:H	1:M:115:ILE:HG22	1.62	0.64
1:N:391:ASP:OD1	1:N:395:GLN:NE2	2.31	0.64
1:O:475:LEU:HD21	1:O:524:PRO:HB3	1.79	0.64
1:L:391:ASP:OD1	1:L:395:GLN:NE2	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:59:MET:O	1:B:85:TYR:OH	2.14	0.64
1:A:112:SER:O	1:P:255:ASP:N	2.31	0.64
1:A:255:ASP:N	1:B:112:SER:O	2.28	0.64
1:D:55:ARG:NH2	1:D:366:ASP:OD2	2.31	0.64
1:E:356:PRO:O	1:E:361:GLN:NE2	2.29	0.64
1:J:244:PHE:HB3	1:J:245:LEU:HD12	1.78	0.64
1:O:391:ASP:OD1	1:O:395:GLN:NE2	2.31	0.64
1:K:391:ASP:OD1	1:K:395:GLN:NE2	2.31	0.64
1:K:434:LYS:HA	1:K:444:THR:HA	1.79	0.64
1:L:244:PHE:HB3	1:L:245:LEU:HD12	1.78	0.64
1:M:356:PRO:O	1:M:361:GLN:NE2	2.29	0.64
1:N:356:PRO:O	1:N:361:GLN:NE2	2.29	0.64
1:O:55:ARG:NH2	1:O:366:ASP:OD2	2.31	0.64
1:B:401:ASN:ND2	1:B:408:SER:O	2.29	0.63
1:F:203:THR:O	1:F:204:HIS:ND1	2.30	0.63
1:G:55:ARG:NH2	1:G:366:ASP:OD2	2.31	0.63
1:H:55:ARG:NH2	1:H:366:ASP:OD2	2.31	0.63
1:I:475:LEU:HD21	1:I:524:PRO:HB3	1.79	0.63
1:K:356:PRO:O	1:K:361:GLN:NE2	2.29	0.63
1:L:356:PRO:O	1:L:361:GLN:NE2	2.29	0.63
1:M:323:PRO:HG2	1:M:326:LEU:HD12	1.81	0.63
1:N:434:LYS:HA	1:N:444:THR:HA	1.79	0.63
1:P:391:ASP:OD1	1:P:395:GLN:NE2	2.31	0.63
1:A:253:GLU:H	1:B:115:ILE:HG22	1.62	0.63
1:A:391:ASP:OD1	1:A:395:GLN:NE2	2.31	0.63
1:A:401:ASN:ND2	1:A:408:SER:O	2.29	0.63
1:F:391:ASP:OD1	1:F:395:GLN:NE2	2.31	0.63
1:G:391:ASP:OD1	1:G:395:GLN:NE2	2.31	0.63
1:H:323:PRO:HG2	1:H:326:LEU:HD12	1.81	0.63
1:K:323:PRO:HG2	1:K:326:LEU:HD12	1.81	0.63
1:O:434:LYS:HA	1:O:444:THR:HA	1.79	0.63
1:D:153:ARG:NH2	1:D:289:LEU:HB3	2.13	0.63
1:E:203:THR:O	1:E:204:HIS:ND1	2.30	0.63
1:F:356:PRO:O	1:F:361:GLN:NE2	2.29	0.63
1:I:203:THR:O	1:I:204:HIS:ND1	2.30	0.63
1:J:59:MET:O	1:K:85:TYR:OH	2.14	0.63
1:J:356:PRO:O	1:J:361:GLN:NE2	2.29	0.63
1:K:475:LEU:HD21	1:K:524:PRO:HB3	1.79	0.63
1:M:434:LYS:HA	1:M:444:THR:HA	1.79	0.63
1:N:153:ARG:NH2	1:N:289:LEU:HB3	2.13	0.63
1:O:356:PRO:O	1:O:361:GLN:NE2	2.29	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:203:THR:O	1:P:204:HIS:ND1	2.30	0.63
1:F:55:ARG:NH2	1:F:366:ASP:OD2	2.31	0.63
1:F:153:ARG:NH2	1:F:289:LEU:HB3	2.13	0.63
1:G:153:ARG:NH2	1:G:289:LEU:HB3	2.13	0.63
1:B:391:ASP:OD1	1:B:395:GLN:NE2	2.31	0.63
1:E:55:ARG:NH2	1:E:366:ASP:OD2	2.31	0.63
1:E:391:ASP:OD1	1:E:395:GLN:NE2	2.31	0.63
1:H:391:ASP:OD1	1:H:395:GLN:NE2	2.31	0.63
1:I:55:ARG:NH2	1:I:366:ASP:OD2	2.31	0.63
1:I:356:PRO:O	1:I:361:GLN:NE2	2.29	0.63
1:L:434:LYS:HA	1:L:444:THR:HA	1.79	0.63
1:O:323:PRO:HG2	1:O:326:LEU:HD12	1.80	0.63
1:I:323:PRO:HG2	1:I:326:LEU:HD12	1.80	0.63
1:J:55:ARG:NH2	1:J:366:ASP:OD2	2.31	0.63
1:J:323:PRO:HG2	1:J:326:LEU:HD12	1.80	0.63
1:L:153:ARG:NH2	1:L:289:LEU:HB3	2.13	0.63
1:P:153:ARG:NH2	1:P:289:LEU:HB3	2.13	0.63
1:P:323:PRO:HG2	1:P:326:LEU:HD12	1.80	0.63
1:B:475:LEU:HD21	1:B:524:PRO:HB3	1.79	0.63
1:C:391:ASP:OD1	1:C:395:GLN:NE2	2.31	0.63
1:G:356:PRO:O	1:G:361:GLN:NE2	2.29	0.63
1:H:356:PRO:O	1:H:361:GLN:NE2	2.29	0.63
1:I:153:ARG:NH2	1:I:289:LEU:HB3	2.13	0.63
1:J:475:LEU:HD21	1:J:524:PRO:HB3	1.79	0.63
1:L:475:LEU:HD21	1:L:524:PRO:HB3	1.79	0.63
1:O:253:GLU:H	1:P:115:ILE:HG22	1.63	0.63
1:L:568:GLY:HA3	1:M:400:LYS:HD2	1.81	0.63
1:P:356:PRO:O	1:P:361:GLN:NE2	2.29	0.63
1:B:153:ARG:NH2	1:B:289:LEU:HB3	2.13	0.63
1:D:391:ASP:OD1	1:D:395:GLN:NE2	2.31	0.63
1:I:233:GLN:O	1:I:234:ASN:ND2	2.32	0.63
1:J:391:ASP:OD1	1:J:395:GLN:NE2	2.31	0.63
1:K:55:ARG:NH2	1:K:366:ASP:OD2	2.31	0.63
1:M:475:LEU:HD21	1:M:524:PRO:HB3	1.79	0.63
1:N:55:ARG:NH2	1:N:366:ASP:OD2	2.31	0.63
1:O:529:PHE:HB3	1:O:533:MET:HB3	1.81	0.63
1:P:233:GLN:O	1:P:234:ASN:ND2	2.32	0.63
1:A:233:GLN:O	1:A:234:ASN:ND2	2.32	0.62
1:E:153:ARG:NH2	1:E:289:LEU:HB3	2.13	0.62
1:G:475:LEU:HD21	1:G:524:PRO:HB3	1.79	0.62
1:H:233:GLN:O	1:H:234:ASN:ND2	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:475:LEU:HD21	1:H:524:PRO:HB3	1.79	0.62
1:J:233:GLN:O	1:J:234:ASN:ND2	2.32	0.62
1:K:233:GLN:O	1:K:234:ASN:ND2	2.32	0.62
1:L:233:GLN:O	1:L:234:ASN:ND2	2.32	0.62
1:B:529:PHE:HB3	1:B:533:MET:HB3	1.82	0.62
1:C:240:ALA:O	1:C:251:LYS:NZ	2.27	0.62
1:F:323:PRO:HG2	1:F:326:LEU:HD12	1.81	0.62
1:G:233:GLN:O	1:G:234:ASN:ND2	2.32	0.62
1:L:55:ARG:NH2	1:L:366:ASP:OD2	2.31	0.62
1:M:233:GLN:O	1:M:234:ASN:ND2	2.32	0.62
1:N:275:VAL:HG22	1:O:93:ASN:OD1	1.97	0.62
1:B:233:GLN:O	1:B:234:ASN:ND2	2.32	0.62
1:E:323:PRO:HG2	1:E:326:LEU:HD12	1.81	0.62
1:F:475:LEU:HD21	1:F:524:PRO:HB3	1.79	0.62
1:I:391:ASP:OD1	1:I:395:GLN:NE2	2.31	0.62
1:L:529:PHE:HB3	1:L:533:MET:HB3	1.82	0.62
1:O:233:GLN:O	1:O:234:ASN:ND2	2.32	0.62
1:B:323:PRO:HG2	1:B:326:LEU:HD12	1.81	0.62
1:E:529:PHE:HB3	1:E:533:MET:HB3	1.82	0.62
1:J:384:GLU:N	1:J:458:ARG:O	2.33	0.62
1:N:323:PRO:HG2	1:N:326:LEU:HD12	1.81	0.62
1:N:475:LEU:HD21	1:N:524:PRO:HB3	1.79	0.62
1:P:467:GLN:NE2	1:P:468:VAL:O	2.33	0.62
1:D:467:GLN:NE2	1:D:468:VAL:O	2.33	0.62
1:F:233:GLN:O	1:F:234:ASN:ND2	2.32	0.62
1:H:153:ARG:NH2	1:H:289:LEU:HB3	2.13	0.62
1:H:384:GLU:N	1:H:458:ARG:O	2.33	0.62
1:H:560:GLN:HB2	1:I:513:LEU:O	2.00	0.62
1:J:153:ARG:NH2	1:J:289:LEU:HB3	2.13	0.62
1:K:467:GLN:NE2	1:K:468:VAL:O	2.33	0.62
1:N:233:GLN:O	1:N:234:ASN:ND2	2.32	0.62
1:A:93:ASN:OD1	1:P:275:VAL:HG22	1.98	0.62
1:C:233:GLN:O	1:C:234:ASN:ND2	2.32	0.62
1:M:55:ARG:NH2	1:M:366:ASP:OD2	2.31	0.62
1:D:529:PHE:HB3	1:D:533:MET:HB3	1.82	0.62
1:I:384:GLU:N	1:I:458:ARG:O	2.33	0.62
1:J:529:PHE:HB3	1:J:533:MET:HB3	1.81	0.62
1:K:384:GLU:N	1:K:458:ARG:O	2.33	0.62
1:L:323:PRO:HG2	1:L:326:LEU:HD12	1.81	0.62
1:M:153:ARG:NH2	1:M:289:LEU:HB3	2.13	0.62
1:N:479:VAL:HG12	1:N:509:VAL:HG22	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:153:ARG:NH2	1:A:289:LEU:HB3	2.13	0.62
1:C:323:PRO:HG2	1:C:326:LEU:HD12	1.81	0.62
1:C:467:GLN:NE2	1:C:468:VAL:O	2.33	0.62
1:D:233:GLN:O	1:D:234:ASN:ND2	2.32	0.62
1:E:384:GLU:N	1:E:458:ARG:O	2.33	0.62
1:G:384:GLU:N	1:G:458:ARG:O	2.33	0.62
1:I:467:GLN:NE2	1:I:468:VAL:O	2.33	0.62
1:O:467:GLN:NE2	1:O:468:VAL:O	2.33	0.62
1:P:479:VAL:HG12	1:P:509:VAL:HG22	1.82	0.62
1:A:384:GLU:N	1:A:458:ARG:O	2.33	0.62
1:A:399:GLN:HG2	1:A:502:ASN:O	2.00	0.62
1:A:529:PHE:HB3	1:A:533:MET:HB3	1.82	0.62
1:G:529:PHE:HB3	1:G:533:MET:HB3	1.82	0.62
1:H:467:GLN:NE2	1:H:468:VAL:O	2.33	0.62
1:N:529:PHE:HB3	1:N:533:MET:HB3	1.82	0.62
1:P:399:GLN:HG2	1:P:502:ASN:O	2.00	0.62
1:A:467:GLN:NE2	1:A:468:VAL:O	2.33	0.62
1:C:153:ARG:NH2	1:C:289:LEU:HB3	2.13	0.62
1:E:233:GLN:O	1:E:234:ASN:ND2	2.32	0.62
1:F:384:GLU:N	1:F:458:ARG:O	2.33	0.62
1:G:467:GLN:NE2	1:G:468:VAL:O	2.33	0.62
1:H:560:GLN:CD	1:I:474:LEU:HD22	2.20	0.62
1:I:346:THR:O	1:I:348:PRO:HD3	2.00	0.62
1:J:346:THR:O	1:J:348:PRO:HD3	2.00	0.62
1:A:275:VAL:HG22	1:B:93:ASN:OD1	2.00	0.61
1:B:384:GLU:N	1:B:458:ARG:O	2.33	0.61
1:E:346:THR:O	1:E:348:PRO:HD3	2.00	0.61
1:G:323:PRO:HG2	1:G:326:LEU:HD12	1.81	0.61
1:I:529:PHE:HB3	1:I:533:MET:HB3	1.81	0.61
1:K:153:ARG:NH2	1:K:289:LEU:HB3	2.13	0.61
1:L:479:VAL:HG12	1:L:509:VAL:HG22	1.82	0.61
1:M:467:GLN:NE2	1:M:468:VAL:O	2.33	0.61
1:M:529:PHE:HB3	1:M:533:MET:HB3	1.82	0.61
1:N:399:GLN:HG2	1:N:502:ASN:O	2.00	0.61
1:O:399:GLN:HG2	1:O:502:ASN:O	2.00	0.61
1:P:346:THR:O	1:P:348:PRO:HD3	2.00	0.61
1:B:399:GLN:HG2	1:B:502:ASN:O	2.00	0.61
1:C:346:THR:O	1:C:348:PRO:HD3	2.01	0.61
1:C:529:PHE:HB3	1:C:533:MET:HB3	1.82	0.61
1:E:467:GLN:NE2	1:E:468:VAL:O	2.33	0.61
1:F:467:GLN:NE2	1:F:468:VAL:O	2.33	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:255:ASP:N	1:M:112:SER:O	2.31	0.61
1:L:384:GLU:N	1:L:458:ARG:O	2.33	0.61
1:N:346:THR:O	1:N:348:PRO:HD3	2.00	0.61
1:N:467:GLN:NE2	1:N:468:VAL:O	2.33	0.61
1:O:153:ARG:NH2	1:O:289:LEU:HB3	2.13	0.61
1:P:384:GLU:N	1:P:458:ARG:O	2.33	0.61
1:P:529:PHE:HB3	1:P:533:MET:HB3	1.81	0.61
1:C:384:GLU:N	1:C:458:ARG:O	2.33	0.61
1:C:399:GLN:HG2	1:C:502:ASN:O	2.00	0.61
1:H:346:THR:O	1:H:348:PRO:HD3	2.00	0.61
1:J:467:GLN:NE2	1:J:468:VAL:O	2.33	0.61
1:K:346:THR:O	1:K:348:PRO:HD3	2.00	0.61
1:L:467:GLN:NE2	1:L:468:VAL:O	2.33	0.61
1:M:399:GLN:HG2	1:M:502:ASN:O	2.00	0.61
1:B:467:GLN:NE2	1:B:468:VAL:O	2.33	0.61
1:B:479:VAL:HG12	1:B:509:VAL:HG22	1.82	0.61
1:C:479:VAL:HG12	1:C:509:VAL:HG22	1.82	0.61
1:H:399:GLN:HG2	1:H:502:ASN:O	2.00	0.61
1:I:399:GLN:HG2	1:I:502:ASN:O	2.00	0.61
1:O:384:GLU:N	1:O:458:ARG:O	2.33	0.61
1:A:479:VAL:HG12	1:A:509:VAL:HG22	1.82	0.61
1:K:479:VAL:HG12	1:K:509:VAL:HG22	1.82	0.61
1:K:529:PHE:HB3	1:K:533:MET:HB3	1.82	0.61
1:L:346:THR:O	1:L:348:PRO:HD3	2.00	0.61
1:N:59:MET:O	1:O:85:TYR:OH	2.17	0.61
1:N:562:LEU:HB2	1:O:513:LEU:HD22	1.83	0.61
1:D:399:GLN:HG2	1:D:502:ASN:O	2.00	0.61
1:J:399:GLN:HG2	1:J:502:ASN:O	2.00	0.61
1:A:346:THR:O	1:A:348:PRO:HD3	2.00	0.61
1:E:399:GLN:HG2	1:E:502:ASN:O	2.00	0.61
1:F:346:THR:O	1:F:348:PRO:HD3	2.00	0.61
1:G:346:THR:O	1:G:348:PRO:HD3	2.00	0.61
1:G:399:GLN:HG2	1:G:502:ASN:O	2.00	0.61
1:N:384:GLU:N	1:N:458:ARG:O	2.33	0.61
1:D:384:GLU:N	1:D:458:ARG:O	2.33	0.61
1:F:399:GLN:HG2	1:F:502:ASN:O	2.00	0.61
1:A:323:PRO:HG2	1:A:326:LEU:HD12	1.81	0.61
1:B:346:THR:O	1:B:348:PRO:HD3	2.00	0.61
1:H:250:PHE:HB2	1:I:116:ASN:OD1	2.01	0.61
1:M:384:GLU:N	1:M:458:ARG:O	2.33	0.61
1:F:529:PHE:HB3	1:F:533:MET:HB3	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:529:PHE:HB3	1:H:533:MET:HB3	1.82	0.61
1:I:479:VAL:HG12	1:I:509:VAL:HG22	1.82	0.61
1:L:399:GLN:HG2	1:L:502:ASN:O	2.00	0.61
1:E:479:VAL:HG12	1:E:509:VAL:HG22	1.82	0.60
1:D:323:PRO:HG2	1:D:326:LEU:HD12	1.81	0.60
1:K:399:GLN:HG2	1:K:502:ASN:O	2.00	0.60
1:M:346:THR:O	1:M:348:PRO:HD3	2.00	0.60
1:O:479:VAL:HG12	1:O:509:VAL:HG22	1.82	0.60
1:B:275:VAL:HG22	1:C:93:ASN:OD1	2.00	0.60
1:K:507:LEU:HD21	1:K:564:VAL:HG11	1.83	0.60
1:F:479:VAL:HG12	1:F:509:VAL:HG22	1.82	0.60
1:J:507:LEU:HD21	1:J:564:VAL:HG11	1.83	0.60
1:M:479:VAL:HG12	1:M:509:VAL:HG22	1.82	0.60
1:D:346:THR:O	1:D:348:PRO:HD3	2.00	0.60
1:H:479:VAL:HG12	1:H:509:VAL:HG22	1.82	0.60
1:A:240:ALA:O	1:A:251:LYS:NZ	2.27	0.60
1:C:418:LEU:H	1:C:460:TYR:HA	1.67	0.60
1:C:507:LEU:HD21	1:C:564:VAL:HG11	1.83	0.60
1:F:253:GLU:H	1:G:115:ILE:HG22	1.66	0.60
1:I:507:LEU:HD21	1:I:564:VAL:HG11	1.83	0.60
1:K:89:GLN:OE1	1:K:89:GLN:N	2.35	0.60
1:O:418:LEU:H	1:O:460:TYR:HA	1.67	0.60
1:P:418:LEU:HD12	1:P:529:PHE:HA	1.84	0.60
1:A:418:LEU:H	1:A:460:TYR:HA	1.67	0.60
1:A:418:LEU:HD12	1:A:529:PHE:HA	1.84	0.60
1:A:507:LEU:HD21	1:A:564:VAL:HG11	1.83	0.60
1:D:418:LEU:HD12	1:D:529:PHE:HA	1.84	0.60
1:D:507:LEU:HD21	1:D:564:VAL:HG11	1.83	0.60
1:H:507:LEU:HD21	1:H:564:VAL:HG11	1.83	0.60
1:I:89:GLN:N	1:I:89:GLN:OE1	2.35	0.60
1:J:89:GLN:OE1	1:J:89:GLN:N	2.35	0.60
1:K:418:LEU:H	1:K:460:TYR:HA	1.67	0.60
1:M:418:LEU:H	1:M:460:TYR:HA	1.67	0.60
1:N:89:GLN:N	1:N:89:GLN:OE1	2.35	0.60
1:O:346:THR:O	1:O:348:PRO:HD3	2.00	0.60
1:P:507:LEU:HD21	1:P:564:VAL:HG11	1.83	0.60
1:A:89:GLN:N	1:A:89:GLN:OE1	2.35	0.60
1:B:507:LEU:HD21	1:B:564:VAL:HG11	1.83	0.60
1:L:507:LEU:HD21	1:L:564:VAL:HG11	1.83	0.60
1:N:418:LEU:H	1:N:460:TYR:HA	1.67	0.60
1:D:418:LEU:H	1:D:460:TYR:HA	1.67	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:59:MET:O	1:L:85:TYR:OH	2.18	0.60
1:L:89:GLN:OE1	1:L:89:GLN:N	2.35	0.60
1:E:418:LEU:HD12	1:E:529:PHE:HA	1.84	0.60
1:H:89:GLN:OE1	1:H:89:GLN:N	2.35	0.60
1:M:507:LEU:HD21	1:M:564:VAL:HG11	1.83	0.60
1:B:89:GLN:OE1	1:B:89:GLN:N	2.35	0.59
1:E:507:LEU:HD21	1:E:564:VAL:HG11	1.83	0.59
1:G:418:LEU:H	1:G:460:TYR:HA	1.67	0.59
1:O:418:LEU:HD12	1:O:529:PHE:HA	1.84	0.59
1:F:255:ASP:N	1:G:112:SER:O	2.28	0.59
1:G:479:VAL:HG12	1:G:509:VAL:HG22	1.82	0.59
1:I:427:TYR:O	1:I:429:ARG:NE	2.35	0.59
1:J:418:LEU:H	1:J:460:TYR:HA	1.67	0.59
1:K:255:ASP:N	1:L:112:SER:O	2.31	0.59
1:O:89:GLN:OE1	1:O:89:GLN:N	2.35	0.59
1:P:89:GLN:OE1	1:P:89:GLN:N	2.35	0.59
1:B:418:LEU:H	1:B:460:TYR:HA	1.67	0.59
1:L:562:LEU:HB2	1:M:513:LEU:HD22	1.84	0.59
1:M:89:GLN:OE1	1:M:89:GLN:N	2.35	0.59
1:P:418:LEU:H	1:P:460:TYR:HA	1.67	0.59
1:A:427:TYR:O	1:A:429:ARG:NE	2.35	0.59
1:B:243:ALA:HB1	1:B:249:ASN:HA	1.85	0.59
1:C:418:LEU:HD12	1:C:529:PHE:HA	1.84	0.59
1:F:507:LEU:HD21	1:F:564:VAL:HG11	1.83	0.59
1:G:507:LEU:HD21	1:G:564:VAL:HG11	1.83	0.59
1:M:243:ALA:HB1	1:M:249:ASN:HA	1.85	0.59
1:N:243:ALA:HB1	1:N:249:ASN:HA	1.85	0.59
1:N:507:LEU:HD21	1:N:564:VAL:HG11	1.83	0.59
1:A:243:ALA:HB1	1:A:249:ASN:HA	1.85	0.59
1:C:89:GLN:OE1	1:C:89:GLN:N	2.35	0.59
1:G:427:TYR:O	1:G:429:ARG:NE	2.35	0.59
1:H:404:THR:OG1	1:H:406:ASP:OD1	2.21	0.59
1:H:427:TYR:O	1:H:429:ARG:NE	2.35	0.59
1:L:243:ALA:HB1	1:L:249:ASN:HA	1.85	0.59
1:G:89:GLN:OE1	1:G:89:GLN:N	2.35	0.59
1:J:479:VAL:HG12	1:J:509:VAL:HG22	1.82	0.59
1:L:418:LEU:H	1:L:460:TYR:HA	1.67	0.59
1:B:427:TYR:O	1:B:429:ARG:NE	2.35	0.59
1:C:243:ALA:HB1	1:C:249:ASN:HA	1.85	0.59
1:E:418:LEU:H	1:E:460:TYR:HA	1.67	0.59
1:E:151:GLN:HE21	1:E:217:GLN:HG2	1.68	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:418:LEU:H	1:F:460:TYR:HA	1.67	0.59
1:F:427:TYR:O	1:F:429:ARG:NE	2.35	0.59
1:J:427:TYR:O	1:J:429:ARG:NE	2.35	0.59
1:K:404:THR:OG1	1:K:406:ASP:OD1	2.21	0.59
1:N:151:GLN:HE21	1:N:217:GLN:HG2	1.68	0.59
1:O:243:ALA:HB1	1:O:249:ASN:HA	1.85	0.59
1:O:507:LEU:HD21	1:O:564:VAL:HG11	1.83	0.59
1:O:562:LEU:HB2	1:P:513:LEU:HD22	1.84	0.59
1:B:418:LEU:HD12	1:B:529:PHE:HA	1.84	0.59
1:C:53:ASN:H	1:C:203:THR:HG22	1.68	0.59
1:C:427:TYR:O	1:C:429:ARG:NE	2.35	0.59
1:G:53:ASN:H	1:G:203:THR:HG22	1.68	0.59
1:H:252:VAL:HG13	1:I:115:ILE:HG21	1.85	0.59
1:L:418:LEU:HD12	1:L:529:PHE:HA	1.84	0.59
1:P:243:ALA:HB1	1:P:249:ASN:HA	1.85	0.59
1:B:53:ASN:H	1:B:203:THR:HG22	1.68	0.59
1:D:89:GLN:OE1	1:D:89:GLN:N	2.35	0.59
1:D:243:ALA:HB1	1:D:249:ASN:HA	1.85	0.59
1:E:404:THR:OG1	1:E:406:ASP:OD1	2.21	0.59
1:F:151:GLN:HE21	1:F:217:GLN:HG2	1.68	0.59
1:F:252:VAL:HG13	1:G:115:ILE:HG21	1.85	0.59
1:H:53:ASN:H	1:H:203:THR:HG22	1.68	0.59
1:H:418:LEU:H	1:H:460:TYR:HA	1.67	0.59
1:K:243:ALA:HB1	1:K:249:ASN:HA	1.85	0.59
1:K:562:LEU:HB2	1:L:513:LEU:HD22	1.84	0.59
1:L:115:ILE:HG13	1:L:115:ILE:O	2.03	0.59
1:L:427:TYR:O	1:L:429:ARG:NE	2.35	0.59
1:M:418:LEU:HD12	1:M:529:PHE:HA	1.84	0.59
1:P:151:GLN:HE21	1:P:217:GLN:HG2	1.68	0.59
1:C:151:GLN:HE21	1:C:217:GLN:HG2	1.68	0.58
1:D:479:VAL:HG12	1:D:509:VAL:HG22	1.82	0.58
1:I:418:LEU:HD12	1:I:529:PHE:HA	1.84	0.58
1:I:418:LEU:H	1:I:460:TYR:HA	1.67	0.58
1:K:115:ILE:O	1:K:115:ILE:HG13	2.03	0.58
1:K:151:GLN:HE21	1:K:217:GLN:HG2	1.68	0.58
1:L:151:GLN:HE21	1:L:217:GLN:HG2	1.68	0.58
1:M:115:ILE:O	1:M:115:ILE:HG13	2.03	0.58
1:O:427:TYR:O	1:O:429:ARG:NE	2.35	0.58
1:P:427:TYR:O	1:P:429:ARG:NE	2.35	0.58
1:D:427:TYR:O	1:D:429:ARG:NE	2.35	0.58
1:E:89:GLN:OE1	1:E:89:GLN:N	2.35	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:404:THR:OG1	1:F:406:ASP:OD1	2.21	0.58
1:F:418:LEU:HD12	1:F:529:PHE:HA	1.84	0.58
1:G:151:GLN:HE21	1:G:217:GLN:HG2	1.68	0.58
1:H:418:LEU:HD12	1:H:529:PHE:HA	1.84	0.58
1:K:427:TYR:O	1:K:429:ARG:NE	2.35	0.58
1:M:427:TYR:O	1:M:429:ARG:NE	2.35	0.58
1:N:115:ILE:HG13	1:N:115:ILE:O	2.03	0.58
1:N:427:TYR:O	1:N:429:ARG:NE	2.35	0.58
1:F:89:GLN:N	1:F:89:GLN:OE1	2.35	0.58
1:H:63:MET:SD	1:H:165:SER:OG	2.61	0.58
1:I:404:THR:OG1	1:I:406:ASP:OD1	2.21	0.58
1:J:151:GLN:HE21	1:J:217:GLN:HG2	1.68	0.58
1:O:115:ILE:HG13	1:O:115:ILE:O	2.03	0.58
1:O:151:GLN:HE21	1:O:217:GLN:HG2	1.68	0.58
1:P:240:ALA:O	1:P:251:LYS:NZ	2.27	0.58
1:A:151:GLN:HE21	1:A:217:GLN:HG2	1.68	0.58
1:D:53:ASN:H	1:D:203:THR:HG22	1.68	0.58
1:E:243:ALA:HB1	1:E:249:ASN:HA	1.85	0.58
1:E:427:TYR:O	1:E:429:ARG:NE	2.35	0.58
1:J:243:ALA:HB1	1:J:249:ASN:HA	1.85	0.58
1:D:63:MET:SD	1:D:165:SER:OG	2.61	0.58
1:G:253:GLU:H	1:H:115:ILE:HG22	1.68	0.58
1:K:418:LEU:HD12	1:K:529:PHE:HA	1.84	0.58
1:M:53:ASN:H	1:M:203:THR:HG22	1.68	0.58
1:O:53:ASN:H	1:O:203:THR:HG22	1.68	0.58
1:P:115:ILE:O	1:P:115:ILE:HG13	2.03	0.58
1:I:243:ALA:HB1	1:I:249:ASN:HA	1.85	0.58
1:J:115:ILE:O	1:J:115:ILE:HG13	2.03	0.58
1:J:418:LEU:HD12	1:J:529:PHE:HA	1.84	0.58
1:L:53:ASN:H	1:L:203:THR:HG22	1.68	0.58
1:L:404:THR:OG1	1:L:406:ASP:OD1	2.21	0.58
1:B:115:ILE:O	1:B:115:ILE:HG13	2.03	0.58
1:E:383:GLN:HG2	1:E:399:GLN:HB2	1.86	0.58
1:F:53:ASN:H	1:F:203:THR:HG22	1.68	0.58
1:G:418:LEU:HD12	1:G:529:PHE:HA	1.84	0.58
1:H:151:GLN:HE21	1:H:217:GLN:HG2	1.68	0.58
1:I:151:GLN:HE21	1:I:217:GLN:HG2	1.68	0.58
1:K:53:ASN:H	1:K:203:THR:HG22	1.68	0.58
1:K:386:THR:OG1	1:K:456:GLU:O	2.22	0.58
1:M:386:THR:OG1	1:M:456:GLU:O	2.22	0.58
1:N:53:ASN:H	1:N:203:THR:HG22	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:53:ASN:H	1:A:203:THR:HG22	1.68	0.58
1:B:383:GLN:HG2	1:B:399:GLN:HB2	1.86	0.58
1:C:383:GLN:HG2	1:C:399:GLN:HB2	1.86	0.58
1:D:404:THR:OG1	1:D:406:ASP:OD1	2.21	0.58
1:F:243:ALA:HB1	1:F:249:ASN:HA	1.85	0.58
1:N:418:LEU:HD12	1:N:529:PHE:HA	1.84	0.58
1:H:243:ALA:HB1	1:H:249:ASN:HA	1.85	0.58
1:B:151:GLN:HE21	1:B:217:GLN:HG2	1.68	0.58
1:F:383:GLN:HG2	1:F:399:GLN:HB2	1.86	0.58
1:J:53:ASN:H	1:J:203:THR:HG22	1.68	0.58
1:L:143:ASP:HB3	1:L:225:PHE:HB3	1.86	0.58
1:E:58:ASP:HB2	1:F:87:ILE:HD13	1.85	0.57
1:G:143:ASP:HB3	1:G:225:PHE:HB3	1.87	0.57
1:G:243:ALA:HB1	1:G:249:ASN:HA	1.85	0.57
1:I:143:ASP:HB3	1:I:225:PHE:HB3	1.86	0.57
1:P:383:GLN:HG2	1:P:399:GLN:HB2	1.86	0.57
1:A:115:ILE:HG13	1:A:115:ILE:O	2.03	0.57
1:A:383:GLN:HG2	1:A:399:GLN:HB2	1.86	0.57
1:G:165:SER:O	1:G:318:LYS:NZ	2.30	0.57
1:G:383:GLN:HG2	1:G:399:GLN:HB2	1.86	0.57
1:O:63:MET:SD	1:O:165:SER:OG	2.61	0.57
1:D:383:GLN:HG2	1:D:399:GLN:HB2	1.86	0.57
1:E:143:ASP:HB3	1:E:225:PHE:HB3	1.86	0.57
1:E:155:ARG:NH1	1:E:293:GLN:OE1	2.38	0.57
1:F:143:ASP:HB3	1:F:225:PHE:HB3	1.86	0.57
1:F:155:ARG:NH1	1:F:293:GLN:OE1	2.38	0.57
1:G:115:ILE:HG13	1:G:115:ILE:O	2.03	0.57
1:I:115:ILE:HG13	1:I:115:ILE:O	2.03	0.57
1:I:155:ARG:NH1	1:I:293:GLN:OE1	2.37	0.57
1:J:143:ASP:HB3	1:J:225:PHE:HB3	1.87	0.57
1:G:155:ARG:NH1	1:G:293:GLN:OE1	2.37	0.57
1:H:143:ASP:HB3	1:H:225:PHE:HB3	1.86	0.57
1:H:383:GLN:HG2	1:H:399:GLN:HB2	1.86	0.57
1:I:253:GLU:H	1:J:115:ILE:HG22	1.68	0.57
1:K:143:ASP:HB3	1:K:225:PHE:HB3	1.87	0.57
1:N:143:ASP:HB3	1:N:225:PHE:HB3	1.86	0.57
1:D:155:ARG:NH1	1:D:293:GLN:OE1	2.37	0.57
1:D:568:GLY:HA3	1:E:400:LYS:HD2	1.86	0.57
1:I:53:ASN:H	1:I:203:THR:HG22	1.68	0.57
1:I:62:VAL:O	1:I:168:SER:N	2.35	0.57
1:M:151:GLN:HE21	1:M:217:GLN:HG2	1.68	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:290:GLU:O	1:N:293:GLN:N	2.38	0.57
1:O:383:GLN:HG2	1:O:399:GLN:HB2	1.86	0.57
1:D:143:ASP:HB3	1:D:225:PHE:HB3	1.86	0.57
1:D:165:SER:O	1:D:318:LYS:NZ	2.30	0.57
1:E:53:ASN:H	1:E:203:THR:HG22	1.68	0.57
1:E:115:ILE:O	1:E:115:ILE:HG13	2.03	0.57
1:F:115:ILE:HG13	1:F:115:ILE:O	2.03	0.57
1:F:240:ALA:O	1:F:251:LYS:NZ	2.27	0.57
1:H:115:ILE:O	1:H:115:ILE:HG13	2.03	0.57
1:H:155:ARG:NH1	1:H:293:GLN:OE1	2.37	0.57
1:J:155:ARG:NH1	1:J:293:GLN:OE1	2.37	0.57
1:L:290:GLU:O	1:L:293:GLN:N	2.38	0.57
1:M:143:ASP:HB3	1:M:225:PHE:HB3	1.86	0.57
1:M:290:GLU:O	1:M:293:GLN:N	2.38	0.57
1:N:404:THR:OG1	1:N:406:ASP:OD1	2.21	0.57
1:P:53:ASN:H	1:P:203:THR:HG22	1.68	0.57
1:A:404:THR:OG1	1:A:406:ASP:OD1	2.21	0.57
1:B:404:THR:OG1	1:B:406:ASP:OD1	2.21	0.57
1:K:290:GLU:O	1:K:293:GLN:N	2.38	0.57
1:O:143:ASP:HB3	1:O:225:PHE:HB3	1.87	0.57
1:O:290:GLU:O	1:O:293:GLN:N	2.38	0.57
1:C:58:ASP:HB2	1:D:87:ILE:HD13	1.85	0.57
1:C:404:THR:OG1	1:C:406:ASP:OD1	2.21	0.57
1:D:151:GLN:HE21	1:D:217:GLN:HG2	1.68	0.57
1:L:386:THR:OG1	1:L:456:GLU:O	2.22	0.57
1:N:386:THR:OG1	1:N:456:GLU:O	2.22	0.57
1:N:429:ARG:NH2	1:N:451:ARG:O	2.38	0.57
1:O:404:THR:OG1	1:O:406:ASP:OD1	2.21	0.57
1:P:155:ARG:NH1	1:P:293:GLN:OE1	2.37	0.57
1:D:62:VAL:O	1:D:168:SER:N	2.36	0.57
1:J:386:THR:OG1	1:J:456:GLU:O	2.22	0.57
1:M:429:ARG:NH2	1:M:451:ARG:O	2.38	0.57
1:O:429:ARG:NH2	1:O:451:ARG:O	2.38	0.57
1:P:290:GLU:O	1:P:293:GLN:N	2.38	0.57
1:P:404:THR:OG1	1:P:406:ASP:OD1	2.21	0.57
1:B:143:ASP:HB3	1:B:225:PHE:HB3	1.86	0.57
1:D:115:ILE:HG13	1:D:115:ILE:O	2.03	0.57
1:D:290:GLU:O	1:D:293:GLN:N	2.38	0.57
1:D:386:THR:OG1	1:D:456:GLU:O	2.22	0.57
1:J:290:GLU:O	1:J:293:GLN:N	2.38	0.57
1:L:155:ARG:NH1	1:L:293:GLN:OE1	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:429:ARG:NH2	1:L:451:ARG:O	2.38	0.57
1:M:155:ARG:NH1	1:M:293:GLN:OE1	2.37	0.57
1:M:383:GLN:HG2	1:M:399:GLN:HB2	1.86	0.57
1:M:404:THR:OG1	1:M:406:ASP:OD1	2.21	0.57
1:O:240:ALA:O	1:O:251:LYS:NZ	2.27	0.57
1:A:143:ASP:HB3	1:A:225:PHE:HB3	1.87	0.56
1:A:155:ARG:NH1	1:A:293:GLN:OE1	2.37	0.56
1:C:155:ARG:NH1	1:C:293:GLN:OE1	2.37	0.56
1:C:290:GLU:O	1:C:293:GLN:N	2.38	0.56
1:E:290:GLU:O	1:E:293:GLN:N	2.38	0.56
1:F:380:GLY:H	1:F:476:PHE:HE2	1.53	0.56
1:G:404:THR:OG1	1:G:406:ASP:OD1	2.21	0.56
1:I:290:GLU:O	1:I:293:GLN:N	2.38	0.56
1:K:155:ARG:NH1	1:K:293:GLN:OE1	2.37	0.56
1:O:380:GLY:H	1:O:476:PHE:HE2	1.53	0.56
1:A:86:THR:HG22	1:A:159:VAL:HG22	1.87	0.56
1:C:86:THR:HG22	1:C:159:VAL:HG22	1.87	0.56
1:C:143:ASP:HB3	1:C:225:PHE:HB3	1.86	0.56
1:J:383:GLN:HG2	1:J:399:GLN:HB2	1.86	0.56
1:N:383:GLN:HG2	1:N:399:GLN:HB2	1.86	0.56
1:P:386:THR:OG1	1:P:456:GLU:O	2.22	0.56
1:P:429:ARG:NH2	1:P:451:ARG:O	2.38	0.56
1:P:506:SER:O	1:P:508:LYS:NZ	2.29	0.56
1:A:290:GLU:O	1:A:293:GLN:N	2.38	0.56
1:A:429:ARG:NH2	1:A:451:ARG:O	2.38	0.56
1:B:86:THR:HG22	1:B:159:VAL:HG22	1.87	0.56
1:B:290:GLU:O	1:B:293:GLN:N	2.38	0.56
1:B:380:GLY:H	1:B:476:PHE:HE2	1.53	0.56
1:C:115:ILE:O	1:C:115:ILE:HG13	2.03	0.56
1:C:380:GLY:H	1:C:476:PHE:HE2	1.53	0.56
1:D:86:THR:HG22	1:D:159:VAL:HG22	1.87	0.56
1:D:458:ARG:HB3	1:D:460:TYR:HE2	1.70	0.56
1:E:63:MET:SD	1:E:165:SER:OG	2.61	0.56
1:E:213:ALA:HB3	1:E:296:ILE:HD11	1.87	0.56
1:F:213:ALA:HB3	1:F:296:ILE:HD11	1.88	0.56
1:F:290:GLU:O	1:F:293:GLN:N	2.38	0.56
1:G:62:VAL:O	1:G:168:SER:N	2.35	0.56
1:G:386:THR:OG1	1:G:456:GLU:O	2.22	0.56
1:H:213:ALA:HB3	1:H:296:ILE:HD11	1.88	0.56
1:H:429:ARG:NH2	1:H:451:ARG:O	2.38	0.56
1:H:458:ARG:HB3	1:H:460:TYR:HE2	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:532:ILE:HB	1:I:404:THR:O	2.05	0.56
1:I:383:GLN:HG2	1:I:399:GLN:HB2	1.86	0.56
1:I:562:LEU:HB2	1:J:513:LEU:HD22	1.88	0.56
1:K:429:ARG:NH2	1:K:451:ARG:O	2.38	0.56
1:N:155:ARG:NH1	1:N:293:GLN:OE1	2.37	0.56
1:P:143:ASP:HB3	1:P:225:PHE:HB3	1.86	0.56
1:A:63:MET:SD	1:A:165:SER:OG	2.61	0.56
1:F:386:THR:OG1	1:F:456:GLU:O	2.22	0.56
1:F:429:ARG:NH2	1:F:451:ARG:O	2.38	0.56
1:G:213:ALA:HB3	1:G:296:ILE:HD11	1.88	0.56
1:G:429:ARG:NH2	1:G:451:ARG:O	2.38	0.56
1:I:213:ALA:HB3	1:I:296:ILE:HD11	1.88	0.56
1:J:404:THR:OG1	1:J:406:ASP:OD1	2.21	0.56
1:K:383:GLN:HG2	1:K:399:GLN:HB2	1.86	0.56
1:M:213:ALA:HB3	1:M:296:ILE:HD11	1.88	0.56
1:N:213:ALA:HB3	1:N:296:ILE:HD11	1.88	0.56
1:O:213:ALA:HB3	1:O:296:ILE:HD11	1.88	0.56
1:P:62:VAL:O	1:P:168:SER:N	2.35	0.56
1:P:380:GLY:H	1:P:476:PHE:HE2	1.54	0.56
1:B:253:GLU:H	1:C:115:ILE:HG22	1.69	0.56
1:D:378:PHE:HB3	1:D:463:VAL:HG23	1.88	0.56
1:E:86:THR:HG22	1:E:159:VAL:HG22	1.87	0.56
1:G:290:GLU:O	1:G:293:GLN:N	2.38	0.56
1:H:357:ASN:CB	1:I:339:ARG:HG3	2.34	0.56
1:J:253:GLU:H	1:K:115:ILE:HG22	1.69	0.56
1:L:383:GLN:HG2	1:L:399:GLN:HB2	1.86	0.56
1:O:62:VAL:O	1:O:168:SER:N	2.35	0.56
1:P:86:THR:HG22	1:P:159:VAL:HG22	1.87	0.56
1:B:506:SER:O	1:B:508:LYS:NZ	2.29	0.56
1:C:213:ALA:HB3	1:C:296:ILE:HD11	1.88	0.56
1:E:378:PHE:HB3	1:E:463:VAL:HG23	1.88	0.56
1:E:380:GLY:H	1:E:476:PHE:HE2	1.53	0.56
1:E:429:ARG:NH2	1:E:451:ARG:O	2.38	0.56
1:F:378:PHE:HB3	1:F:463:VAL:HG23	1.88	0.56
1:H:290:GLU:O	1:H:293:GLN:N	2.38	0.56
1:J:63:MET:SD	1:J:165:SER:OG	2.61	0.56
1:J:429:ARG:NH2	1:J:451:ARG:O	2.38	0.56
1:L:213:ALA:HB3	1:L:296:ILE:HD11	1.88	0.56
1:N:62:VAL:O	1:N:168:SER:N	2.35	0.56
1:A:213:ALA:HB3	1:A:296:ILE:HD11	1.88	0.56
1:B:213:ALA:HB3	1:B:296:ILE:HD11	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:429:ARG:NH2	1:B:451:ARG:O	2.38	0.56
1:C:458:ARG:HB3	1:C:460:TYR:HE2	1.70	0.56
1:D:213:ALA:HB3	1:D:296:ILE:HD11	1.88	0.56
1:E:386:THR:OG1	1:E:456:GLU:O	2.22	0.56
1:G:378:PHE:HB3	1:G:463:VAL:HG23	1.88	0.56
1:G:458:ARG:HB3	1:G:460:TYR:HE2	1.70	0.56
1:I:429:ARG:NH2	1:I:451:ARG:O	2.38	0.56
1:J:213:ALA:HB3	1:J:296:ILE:HD11	1.88	0.56
1:M:62:VAL:O	1:M:168:SER:N	2.35	0.56
1:O:155:ARG:NH1	1:O:293:GLN:OE1	2.38	0.56
1:B:378:PHE:HB3	1:B:463:VAL:HG23	1.88	0.56
1:C:378:PHE:HB3	1:C:463:VAL:HG23	1.88	0.56
1:C:506:SER:O	1:C:508:LYS:NZ	2.29	0.56
1:D:429:ARG:NH2	1:D:451:ARG:O	2.38	0.56
1:G:380:GLY:H	1:G:476:PHE:HE2	1.54	0.56
1:H:165:SER:O	1:H:318:LYS:NZ	2.30	0.56
1:H:196:LEU:HD13	1:I:312:PHE:HZ	1.71	0.56
1:I:59:MET:O	1:J:85:TYR:OH	2.21	0.56
1:K:213:ALA:HB3	1:K:296:ILE:HD11	1.88	0.56
1:M:458:ARG:HB3	1:M:460:TYR:HE2	1.70	0.56
1:O:86:THR:HG22	1:O:159:VAL:HG22	1.87	0.56
1:P:213:ALA:HB3	1:P:296:ILE:HD11	1.88	0.56
1:P:378:PHE:HB3	1:P:463:VAL:HG23	1.88	0.56
1:B:155:ARG:NH1	1:B:293:GLN:OE1	2.37	0.56
1:C:429:ARG:NH2	1:C:451:ARG:O	2.38	0.56
1:H:560:GLN:O	1:I:513:LEU:HD23	2.06	0.56
1:J:62:VAL:O	1:J:168:SER:N	2.35	0.56
1:K:380:GLY:H	1:K:476:PHE:HE2	1.54	0.56
1:L:380:GLY:H	1:L:476:PHE:HE2	1.54	0.56
1:O:378:PHE:HB3	1:O:463:VAL:HG23	1.88	0.56
1:O:458:ARG:HB3	1:O:460:TYR:HE2	1.71	0.56
1:A:62:VAL:O	1:A:168:SER:N	2.35	0.56
1:E:458:ARG:HB3	1:E:460:TYR:HE2	1.70	0.56
1:F:86:THR:HG22	1:F:159:VAL:HG22	1.87	0.56
1:F:165:SER:O	1:F:318:LYS:NZ	2.30	0.56
1:H:378:PHE:HB3	1:H:463:VAL:HG23	1.88	0.56
1:K:458:ARG:HB3	1:K:460:TYR:HE2	1.70	0.56
1:L:436:CYS:HA	1:L:442:CYS:HA	1.88	0.56
1:N:378:PHE:HB3	1:N:463:VAL:HG23	1.88	0.56
1:N:380:GLY:H	1:N:476:PHE:HE2	1.53	0.56
1:A:378:PHE:HB3	1:A:463:VAL:HG23	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:386:THR:OG1	1:B:456:GLU:O	2.22	0.55
1:C:386:THR:OG1	1:C:456:GLU:O	2.22	0.55
1:D:436:CYS:HA	1:D:442:CYS:HA	1.88	0.55
1:F:560:GLN:HB2	1:G:513:LEU:O	2.06	0.55
1:K:86:THR:HG22	1:K:159:VAL:HG22	1.87	0.55
1:B:436:CYS:HA	1:B:442:CYS:HA	1.88	0.55
1:C:436:CYS:HA	1:C:442:CYS:HA	1.88	0.55
1:I:86:THR:HG22	1:I:159:VAL:HG22	1.87	0.55
1:I:378:PHE:HB3	1:I:463:VAL:HG23	1.88	0.55
1:I:436:CYS:HA	1:I:442:CYS:HA	1.88	0.55
1:J:380:GLY:H	1:J:476:PHE:HE2	1.53	0.55
1:M:378:PHE:HB3	1:M:463:VAL:HG23	1.88	0.55
1:M:436:CYS:HA	1:M:442:CYS:HA	1.88	0.55
1:A:252:VAL:HG13	1:B:115:ILE:HG21	1.89	0.55
1:C:324:GLY:O	1:C:327:VAL:HG22	2.07	0.55
1:K:257:ILE:HG13	1:L:110:THR:HB	1.88	0.55
1:N:50:GLY:N	1:N:60:GLY:O	2.38	0.55
1:A:568:GLY:HA3	1:B:400:LYS:HD2	1.87	0.55
1:F:275:VAL:HG22	1:G:93:ASN:OD1	2.07	0.55
1:H:324:GLY:O	1:H:327:VAL:HG22	2.07	0.55
1:L:357:ASN:HA	1:M:339:ARG:HE	1.72	0.55
1:L:368:SER:HB3	1:L:577:ALA:HB1	1.89	0.55
1:M:324:GLY:O	1:M:327:VAL:HG22	2.07	0.55
1:A:324:GLY:O	1:A:327:VAL:HG22	2.07	0.55
1:I:458:ARG:HB3	1:I:460:TYR:HE2	1.70	0.55
1:L:378:PHE:HB3	1:L:463:VAL:HG23	1.88	0.55
1:A:436:CYS:HA	1:A:442:CYS:HA	1.88	0.55
1:E:436:CYS:HA	1:E:442:CYS:HA	1.88	0.55
1:H:86:THR:HG22	1:H:159:VAL:HG22	1.87	0.55
1:I:386:THR:OG1	1:I:456:GLU:O	2.22	0.55
1:J:368:SER:HB3	1:J:577:ALA:HB1	1.89	0.55
1:N:86:THR:HG22	1:N:159:VAL:HG22	1.87	0.55
1:N:240:ALA:O	1:N:251:LYS:NZ	2.27	0.55
1:N:368:SER:HB3	1:N:577:ALA:HB1	1.89	0.55
1:O:50:GLY:N	1:O:60:GLY:O	2.38	0.55
1:P:324:GLY:O	1:P:327:VAL:HG22	2.07	0.55
1:A:50:GLY:N	1:A:60:GLY:O	2.38	0.55
1:A:386:THR:OG1	1:A:456:GLU:O	2.22	0.55
1:A:458:ARG:HB3	1:A:460:TYR:HE2	1.70	0.55
1:D:380:GLY:H	1:D:476:PHE:HE2	1.54	0.55
1:E:324:GLY:O	1:E:327:VAL:HG22	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:240:ALA:O	1:G:251:LYS:NZ	2.27	0.55
1:G:275:VAL:HG22	1:H:93:ASN:OD1	2.06	0.55
1:J:324:GLY:O	1:J:327:VAL:HG22	2.07	0.55
1:K:63:MET:SD	1:K:165:SER:OG	2.61	0.55
1:K:324:GLY:O	1:K:327:VAL:HG22	2.07	0.55
1:N:458:ARG:HB3	1:N:460:TYR:HE2	1.70	0.55
1:P:458:ARG:HB3	1:P:460:TYR:HE2	1.70	0.55
1:F:324:GLY:O	1:F:327:VAL:HG22	2.07	0.55
1:F:436:CYS:HA	1:F:442:CYS:HA	1.88	0.55
1:G:86:THR:HG22	1:G:159:VAL:HG22	1.87	0.55
1:I:368:SER:HB3	1:I:577:ALA:HB1	1.89	0.55
1:J:378:PHE:HB3	1:J:463:VAL:HG23	1.88	0.55
1:M:86:THR:HG22	1:M:159:VAL:HG22	1.87	0.55
1:D:87:ILE:HG13	1:D:158:THR:HG23	1.89	0.55
1:H:380:GLY:H	1:H:476:PHE:HE2	1.53	0.55
1:H:436:CYS:HA	1:H:442:CYS:HA	1.88	0.55
1:K:378:PHE:HB3	1:K:463:VAL:HG23	1.88	0.55
1:M:380:GLY:H	1:M:476:PHE:HE2	1.54	0.55
1:N:436:CYS:HA	1:N:442:CYS:HA	1.88	0.55
1:B:50:GLY:N	1:B:60:GLY:O	2.38	0.55
1:B:568:GLY:HA3	1:C:400:LYS:HD2	1.88	0.55
1:C:568:GLY:HA3	1:D:400:LYS:HD2	1.88	0.55
1:E:240:ALA:O	1:E:251:LYS:NZ	2.27	0.55
1:G:368:SER:HB3	1:G:577:ALA:HB1	1.89	0.55
1:J:86:THR:HG22	1:J:159:VAL:HG22	1.87	0.55
1:J:436:CYS:HA	1:J:442:CYS:HA	1.88	0.55
1:K:436:CYS:HA	1:K:442:CYS:HA	1.88	0.55
1:L:87:ILE:HG13	1:L:158:THR:HG23	1.89	0.55
1:O:368:SER:HB3	1:O:577:ALA:HB1	1.89	0.55
1:P:87:ILE:HG13	1:P:158:THR:HG23	1.89	0.55
1:A:380:GLY:H	1:A:476:PHE:HE2	1.53	0.54
1:A:400:LYS:HD2	1:P:568:GLY:HA3	1.87	0.54
1:B:63:MET:SD	1:B:165:SER:OG	2.61	0.54
1:F:252:VAL:HG22	1:G:115:ILE:HB	1.90	0.54
1:F:458:ARG:HB3	1:F:460:TYR:HE2	1.70	0.54
1:G:436:CYS:HA	1:G:442:CYS:HA	1.88	0.54
1:H:386:THR:OG1	1:H:456:GLU:O	2.22	0.54
1:I:380:GLY:H	1:I:476:PHE:HE2	1.54	0.54
1:M:87:ILE:HG13	1:M:158:THR:HG23	1.89	0.54
1:N:324:GLY:O	1:N:327:VAL:HG22	2.07	0.54
1:A:368:SER:HB3	1:A:577:ALA:HB1	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:87:ILE:HG13	1:C:158:THR:HG23	1.89	0.54
1:F:63:MET:SD	1:F:165:SER:OG	2.60	0.54
1:G:324:GLY:O	1:G:327:VAL:HG22	2.07	0.54
1:H:87:ILE:HG13	1:H:158:THR:HG23	1.89	0.54
1:L:458:ARG:HB3	1:L:460:TYR:HE2	1.70	0.54
1:M:50:GLY:N	1:M:60:GLY:O	2.38	0.54
1:O:324:GLY:O	1:O:327:VAL:HG22	2.07	0.54
1:A:87:ILE:HG13	1:A:158:THR:HG23	1.89	0.54
1:B:458:ARG:HB3	1:B:460:TYR:HE2	1.70	0.54
1:D:324:GLY:O	1:D:327:VAL:HG22	2.07	0.54
1:G:568:GLY:HA3	1:H:400:LYS:HD2	1.90	0.54
1:H:240:ALA:O	1:H:251:LYS:NZ	2.27	0.54
1:L:86:THR:HG22	1:L:159:VAL:HG22	1.87	0.54
1:O:87:ILE:HG13	1:O:158:THR:HG23	1.89	0.54
1:G:87:ILE:HG13	1:G:158:THR:HG23	1.89	0.54
1:L:63:MET:SD	1:L:165:SER:OG	2.61	0.54
1:P:50:GLY:N	1:P:60:GLY:O	2.38	0.54
1:E:87:ILE:HG13	1:E:158:THR:HG23	1.89	0.54
1:I:165:SER:O	1:I:318:LYS:NZ	2.30	0.54
1:J:458:ARG:HB3	1:J:460:TYR:HE2	1.70	0.54
1:K:62:VAL:O	1:K:168:SER:N	2.35	0.54
1:K:87:ILE:HG13	1:K:158:THR:HG23	1.89	0.54
1:K:368:SER:HB3	1:K:577:ALA:HB1	1.89	0.54
1:O:255:ASP:N	1:P:112:SER:O	2.40	0.54
1:P:436:CYS:HA	1:P:442:CYS:HA	1.88	0.54
1:B:324:GLY:O	1:B:327:VAL:HG22	2.07	0.54
1:E:62:VAL:O	1:E:168:SER:N	2.36	0.54
1:I:324:GLY:O	1:I:327:VAL:HG22	2.07	0.54
1:K:424:GLU:HB3	1:K:454:LYS:HE2	1.90	0.54
1:M:240:ALA:O	1:M:251:LYS:NZ	2.27	0.54
1:A:513:LEU:HD22	1:P:562:LEU:HB2	1.89	0.54
1:E:506:SER:O	1:E:508:LYS:NZ	2.29	0.54
1:J:562:LEU:HB2	1:K:513:LEU:HD22	1.90	0.54
1:B:62:VAL:O	1:B:168:SER:N	2.36	0.54
1:C:58:ASP:HB2	1:D:87:ILE:CD1	2.38	0.54
1:F:368:SER:HB3	1:F:577:ALA:HB1	1.89	0.54
1:G:380:GLY:HA2	1:G:403:LEU:HD12	1.90	0.54
1:H:368:SER:HB3	1:H:577:ALA:HB1	1.89	0.54
1:J:424:GLU:HB3	1:J:454:LYS:HE2	1.90	0.54
1:L:324:GLY:O	1:L:327:VAL:HG22	2.07	0.54
1:L:424:GLU:HB3	1:L:454:LYS:HE2	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:368:SER:HB3	1:M:577:ALA:HB1	1.89	0.54
1:M:424:GLU:HB3	1:M:454:LYS:HE2	1.90	0.54
1:N:424:GLU:HB3	1:N:454:LYS:HE2	1.90	0.54
1:O:436:CYS:HA	1:O:442:CYS:HA	1.88	0.54
1:P:165:SER:O	1:P:318:LYS:NZ	2.30	0.54
1:P:368:SER:HB3	1:P:577:ALA:HB1	1.89	0.54
1:E:275:VAL:HG11	1:E:283:PHE:CE1	2.43	0.54
1:G:560:GLN:HB2	1:H:513:LEU:O	2.08	0.54
1:I:87:ILE:HG13	1:I:158:THR:HG23	1.89	0.54
1:I:380:GLY:HA2	1:I:403:LEU:HD12	1.90	0.54
1:I:424:GLU:HB3	1:I:454:LYS:HE2	1.90	0.54
1:C:158:THR:HA	1:C:210:ASP:HA	1.90	0.54
1:D:368:SER:HB3	1:D:577:ALA:HB1	1.89	0.54
1:D:560:GLN:HB2	1:E:513:LEU:O	2.08	0.54
1:H:62:VAL:O	1:H:168:SER:N	2.35	0.54
1:O:257:ILE:HG13	1:P:110:THR:HB	1.89	0.54
1:O:424:GLU:HB3	1:O:454:LYS:HE2	1.90	0.54
1:A:158:THR:HA	1:A:210:ASP:HA	1.91	0.53
1:B:158:THR:HA	1:B:210:ASP:HA	1.91	0.53
1:C:165:SER:O	1:C:318:LYS:NZ	2.30	0.53
1:C:275:VAL:HG11	1:C:283:PHE:CE1	2.43	0.53
1:D:240:ALA:O	1:D:251:LYS:NZ	2.27	0.53
1:D:275:VAL:HG11	1:D:283:PHE:CE1	2.43	0.53
1:E:158:THR:HA	1:E:210:ASP:HA	1.90	0.53
1:F:275:VAL:HG11	1:F:283:PHE:CE1	2.43	0.53
1:F:380:GLY:HA2	1:F:403:LEU:HD12	1.90	0.53
1:H:271:THR:HB	1:I:97:ASN:OD1	2.08	0.53
1:H:275:VAL:HG11	1:H:283:PHE:CE1	2.43	0.53
1:J:50:GLY:N	1:J:60:GLY:O	2.38	0.53
1:N:568:GLY:HA3	1:O:400:LYS:HD2	1.89	0.53
1:P:158:THR:HA	1:P:210:ASP:HA	1.91	0.53
1:A:275:VAL:HG11	1:A:283:PHE:CE1	2.43	0.53
1:D:158:THR:HA	1:D:210:ASP:HA	1.91	0.53
1:H:257:ILE:O	1:I:110:THR:N	2.40	0.53
1:J:380:GLY:HA2	1:J:403:LEU:HD12	1.90	0.53
1:M:63:MET:SD	1:M:165:SER:OG	2.61	0.53
1:N:146:VAL:HG22	1:N:222:ARG:HG2	1.91	0.53
1:A:146:VAL:HG22	1:A:222:ARG:HG2	1.91	0.53
1:C:352:ASN:HB2	1:C:361:GLN:HA	1.91	0.53
1:F:146:VAL:HG22	1:F:222:ARG:HG2	1.91	0.53
1:G:146:VAL:HG22	1:G:222:ARG:HG2	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:380:GLY:HA2	1:H:403:LEU:HD12	1.90	0.53
1:H:424:GLU:HB3	1:H:454:LYS:HE2	1.90	0.53
1:I:240:ALA:O	1:I:251:LYS:NZ	2.27	0.53
1:J:275:VAL:HG11	1:J:283:PHE:CE1	2.43	0.53
1:K:50:GLY:N	1:K:60:GLY:O	2.38	0.53
1:L:240:ALA:O	1:L:251:LYS:NZ	2.27	0.53
1:M:82:ASP:N	1:M:82:ASP:OD1	2.42	0.53
1:M:146:VAL:HG22	1:M:222:ARG:HG2	1.91	0.53
1:O:275:VAL:HG11	1:O:283:PHE:CE1	2.43	0.53
1:P:424:GLU:HB3	1:P:454:LYS:HE2	1.90	0.53
1:B:146:VAL:HG22	1:B:222:ARG:HG2	1.91	0.53
1:C:401:ASN:OD1	1:C:403:LEU:N	2.41	0.53
1:F:87:ILE:HG13	1:F:158:THR:HG23	1.89	0.53
1:G:424:GLU:HB3	1:G:454:LYS:HE2	1.90	0.53
1:K:380:GLY:HA2	1:K:403:LEU:HD12	1.90	0.53
1:O:158:THR:HA	1:O:210:ASP:HA	1.91	0.53
1:A:156:ILE:HG22	1:A:303:ILE:HD11	1.91	0.53
1:B:87:ILE:HG13	1:B:158:THR:HG23	1.89	0.53
1:B:275:VAL:HG11	1:B:283:PHE:CE1	2.43	0.53
1:C:146:VAL:HG22	1:C:222:ARG:HG2	1.91	0.53
1:C:368:SER:HB3	1:C:577:ALA:HB1	1.89	0.53
1:D:156:ILE:HG22	1:D:303:ILE:HD11	1.91	0.53
1:D:380:GLY:HA2	1:D:403:LEU:HD12	1.90	0.53
1:E:146:VAL:HG22	1:E:222:ARG:HG2	1.91	0.53
1:F:82:ASP:OD1	1:F:82:ASP:N	2.42	0.53
1:G:275:VAL:HG11	1:G:283:PHE:CE1	2.43	0.53
1:I:528:PHE:HB3	1:I:573:TYR:HA	1.91	0.53
1:L:146:VAL:HG22	1:L:222:ARG:HG2	1.91	0.53
1:L:528:PHE:HB3	1:L:573:TYR:HA	1.91	0.53
1:N:87:ILE:HG13	1:N:158:THR:HG23	1.89	0.53
1:O:146:VAL:HG22	1:O:222:ARG:HG2	1.91	0.53
1:P:146:VAL:HG22	1:P:222:ARG:HG2	1.91	0.53
1:A:424:GLU:HB3	1:A:454:LYS:HE2	1.90	0.53
1:B:156:ILE:HG22	1:B:303:ILE:HD11	1.91	0.53
1:B:401:ASN:OD1	1:B:403:LEU:N	2.41	0.53
1:C:50:GLY:N	1:C:60:GLY:O	2.38	0.53
1:C:156:ILE:HG22	1:C:303:ILE:HD11	1.91	0.53
1:D:401:ASN:OD1	1:D:403:LEU:N	2.41	0.53
1:E:352:ASN:HB2	1:E:361:GLN:HA	1.91	0.53
1:E:380:GLY:HA2	1:E:403:LEU:HD12	1.90	0.53
1:F:158:THR:HA	1:F:210:ASP:HA	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:528:PHE:HB3	1:G:573:TYR:HA	1.91	0.53
1:H:146:VAL:HG22	1:H:222:ARG:HG2	1.91	0.53
1:I:63:MET:SD	1:I:165:SER:OG	2.60	0.53
1:I:146:VAL:HG22	1:I:222:ARG:HG2	1.91	0.53
1:I:275:VAL:HG11	1:I:283:PHE:CE1	2.43	0.53
1:J:82:ASP:N	1:J:82:ASP:OD1	2.42	0.53
1:K:146:VAL:HG22	1:K:222:ARG:HG2	1.91	0.53
1:O:165:SER:O	1:O:318:LYS:NZ	2.30	0.53
1:D:146:VAL:HG22	1:D:222:ARG:HG2	1.91	0.53
1:F:424:GLU:HB3	1:F:454:LYS:HE2	1.90	0.53
1:G:255:ASP:N	1:H:112:SER:O	2.40	0.53
1:J:240:ALA:O	1:J:251:LYS:NZ	2.27	0.53
1:K:240:ALA:O	1:K:251:LYS:NZ	2.27	0.53
1:L:50:GLY:N	1:L:60:GLY:O	2.38	0.53
1:N:158:THR:HA	1:N:210:ASP:HA	1.91	0.53
1:N:528:PHE:HB3	1:N:573:TYR:HA	1.91	0.53
1:B:368:SER:HB3	1:B:577:ALA:HB1	1.89	0.53
1:E:253:GLU:H	1:F:115:ILE:HG22	1.74	0.53
1:E:368:SER:HB3	1:E:577:ALA:HB1	1.89	0.53
1:J:146:VAL:HG22	1:J:222:ARG:HG2	1.91	0.53
1:L:62:VAL:O	1:L:168:SER:N	2.36	0.53
1:L:275:VAL:HG11	1:L:283:PHE:CE1	2.43	0.53
1:L:380:GLY:HA2	1:L:403:LEU:HD12	1.90	0.53
1:N:401:ASN:OD1	1:N:403:LEU:N	2.41	0.53
1:O:315:LYS:HE3	1:O:316:PRO:HD2	1.91	0.53
1:P:179:CYS:O	1:P:182:LEU:HG	2.09	0.53
1:A:380:GLY:HA2	1:A:403:LEU:HD12	1.90	0.53
1:D:560:GLN:O	1:E:513:LEU:HD23	2.08	0.53
1:E:165:SER:O	1:E:318:LYS:NZ	2.30	0.53
1:E:424:GLU:HB3	1:E:454:LYS:HE2	1.90	0.53
1:F:528:PHE:HB3	1:F:573:TYR:HA	1.91	0.53
1:G:158:THR:HA	1:G:210:ASP:HA	1.91	0.53
1:I:179:CYS:O	1:I:182:LEU:HG	2.09	0.53
1:K:528:PHE:HB3	1:K:573:TYR:HA	1.91	0.53
1:L:179:CYS:O	1:L:182:LEU:HG	2.09	0.53
1:N:357:ASN:HA	1:O:339:ARG:HE	1.74	0.53
1:O:401:ASN:OD1	1:O:403:LEU:N	2.41	0.53
1:P:315:LYS:HE3	1:P:316:PRO:HD2	1.91	0.53
1:P:352:ASN:HB2	1:P:361:GLN:HA	1.91	0.53
1:A:179:CYS:O	1:A:182:LEU:HG	2.09	0.53
1:D:50:GLY:N	1:D:60:GLY:O	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:401:ASN:OD1	1:E:403:LEU:N	2.41	0.53
1:F:156:ILE:HG22	1:F:303:ILE:HD11	1.91	0.53
1:F:506:SER:O	1:F:508:LYS:NZ	2.29	0.53
1:G:352:ASN:HB2	1:G:361:GLN:HA	1.91	0.53
1:H:352:ASN:HB2	1:H:361:GLN:HA	1.91	0.53
1:I:50:GLY:N	1:I:60:GLY:O	2.38	0.53
1:J:87:ILE:HG13	1:J:158:THR:HG23	1.89	0.53
1:K:315:LYS:HE3	1:K:316:PRO:HD2	1.91	0.53
1:M:275:VAL:HG11	1:M:283:PHE:CE1	2.43	0.53
1:O:380:GLY:HA2	1:O:403:LEU:HD12	1.90	0.53
1:P:82:ASP:OD1	1:P:82:ASP:N	2.42	0.53
1:P:156:ILE:HG22	1:P:303:ILE:HD11	1.91	0.53
1:P:380:GLY:HA2	1:P:403:LEU:HD12	1.90	0.53
1:P:401:ASN:OD1	1:P:403:LEU:N	2.41	0.53
1:A:165:SER:O	1:A:318:LYS:NZ	2.30	0.52
1:A:315:LYS:HE3	1:A:316:PRO:HD2	1.91	0.52
1:A:352:ASN:HB2	1:A:361:GLN:HA	1.91	0.52
1:B:424:GLU:HB3	1:B:454:LYS:HE2	1.90	0.52
1:C:179:CYS:O	1:C:182:LEU:HG	2.09	0.52
1:C:380:GLY:HA2	1:C:403:LEU:HD12	1.90	0.52
1:C:424:GLU:HB3	1:C:454:LYS:HE2	1.90	0.52
1:D:424:GLU:HB3	1:D:454:LYS:HE2	1.90	0.52
1:H:255:ASP:HB3	1:I:112:SER:OG	2.09	0.52
1:I:82:ASP:N	1:I:82:ASP:OD1	2.42	0.52
1:N:380:GLY:HA2	1:N:403:LEU:HD12	1.90	0.52
1:O:386:THR:OG1	1:O:456:GLU:O	2.22	0.52
1:D:179:CYS:O	1:D:182:LEU:HG	2.09	0.52
1:D:528:PHE:HB3	1:D:573:TYR:HA	1.91	0.52
1:E:156:ILE:HG22	1:E:303:ILE:HD11	1.91	0.52
1:F:58:ASP:HB2	1:G:87:ILE:HD13	1.90	0.52
1:J:528:PHE:HB3	1:J:573:TYR:HA	1.91	0.52
1:L:82:ASP:N	1:L:82:ASP:OD1	2.42	0.52
1:L:315:LYS:HE3	1:L:316:PRO:HD2	1.91	0.52
1:M:179:CYS:O	1:M:182:LEU:HG	2.09	0.52
1:M:401:ASN:OD1	1:M:403:LEU:N	2.41	0.52
1:P:275:VAL:HG11	1:P:283:PHE:CE1	2.43	0.52
1:E:50:GLY:N	1:E:60:GLY:O	2.38	0.52
1:L:158:THR:HA	1:L:210:ASP:HA	1.91	0.52
1:N:275:VAL:HG11	1:N:283:PHE:CE1	2.43	0.52
1:A:528:PHE:HB3	1:A:573:TYR:HA	1.91	0.52
1:B:380:GLY:HA2	1:B:403:LEU:HD12	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:315:LYS:HE3	1:D:316:PRO:HD2	1.91	0.52
1:E:82:ASP:OD1	1:E:82:ASP:N	2.42	0.52
1:F:568:GLY:HA3	1:G:400:LYS:HD2	1.92	0.52
1:K:275:VAL:HG11	1:K:283:PHE:CE1	2.43	0.52
1:O:156:ILE:HG22	1:O:303:ILE:HD11	1.91	0.52
1:O:179:CYS:O	1:O:182:LEU:HG	2.09	0.52
1:P:151:GLN:NE2	1:P:217:GLN:HG2	2.25	0.52
1:A:151:GLN:NE2	1:A:217:GLN:HG2	2.25	0.52
1:B:352:ASN:HB2	1:B:361:GLN:HA	1.91	0.52
1:E:151:GLN:NE2	1:E:217:GLN:HG2	2.25	0.52
1:F:151:GLN:NE2	1:F:217:GLN:HG2	2.25	0.52
1:F:179:CYS:O	1:F:182:LEU:HG	2.09	0.52
1:F:352:ASN:HB2	1:F:361:GLN:HA	1.91	0.52
1:F:401:ASN:OD1	1:F:403:LEU:N	2.41	0.52
1:G:156:ILE:HG22	1:G:303:ILE:HD11	1.91	0.52
1:H:158:THR:HA	1:H:210:ASP:HA	1.91	0.52
1:J:165:SER:O	1:J:318:LYS:NZ	2.30	0.52
1:M:59:MET:O	1:N:85:TYR:OH	2.24	0.52
1:M:158:THR:HA	1:M:210:ASP:HA	1.91	0.52
1:A:401:ASN:OD1	1:A:403:LEU:N	2.41	0.52
1:H:474:LEU:HB3	1:H:476:PHE:CZ	2.45	0.52
1:J:179:CYS:O	1:J:182:LEU:HG	2.09	0.52
1:J:315:LYS:HE3	1:J:316:PRO:HD2	1.91	0.52
1:K:158:THR:HA	1:K:210:ASP:HA	1.91	0.52
1:N:156:ILE:HG22	1:N:303:ILE:HD11	1.91	0.52
1:N:179:CYS:O	1:N:182:LEU:HG	2.09	0.52
1:N:315:LYS:HE3	1:N:316:PRO:HD2	1.91	0.52
1:N:352:ASN:HB2	1:N:361:GLN:HA	1.91	0.52
1:C:63:MET:SD	1:C:165:SER:OG	2.60	0.52
1:G:397:LEU:O	1:G:399:GLN:NE2	2.43	0.52
1:H:315:LYS:HE3	1:H:316:PRO:HD2	1.91	0.52
1:I:474:LEU:HB3	1:I:476:PHE:CZ	2.45	0.52
1:J:158:THR:HA	1:J:210:ASP:HA	1.91	0.52
1:J:352:ASN:HB2	1:J:361:GLN:HA	1.91	0.52
1:J:397:LEU:O	1:J:399:GLN:NE2	2.43	0.52
1:K:156:ILE:HG22	1:K:303:ILE:HD11	1.91	0.52
1:L:401:ASN:OD1	1:L:403:LEU:N	2.41	0.52
1:M:380:GLY:HA2	1:M:403:LEU:HD12	1.90	0.52
1:O:528:PHE:HB3	1:O:573:TYR:HA	1.91	0.52
1:P:528:PHE:HB3	1:P:573:TYR:HA	1.91	0.52
1:D:397:LEU:O	1:D:399:GLN:NE2	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:528:PHE:HB3	1:E:573:TYR:HA	1.91	0.52
1:G:63:MET:SD	1:G:165:SER:OG	2.61	0.52
1:G:151:GLN:NE2	1:G:217:GLN:HG2	2.25	0.52
1:G:179:CYS:O	1:G:182:LEU:HG	2.09	0.52
1:I:158:THR:HA	1:I:210:ASP:HA	1.91	0.52
1:J:156:ILE:HG22	1:J:303:ILE:HD11	1.91	0.52
1:K:179:CYS:O	1:K:182:LEU:HG	2.09	0.52
1:L:151:GLN:NE2	1:L:217:GLN:HG2	2.25	0.52
1:L:156:ILE:HG22	1:L:303:ILE:HD11	1.91	0.52
1:M:528:PHE:HB3	1:M:573:TYR:HA	1.91	0.52
1:N:151:GLN:NE2	1:N:217:GLN:HG2	2.25	0.52
1:P:397:LEU:O	1:P:399:GLN:NE2	2.43	0.52
1:B:151:GLN:NE2	1:B:217:GLN:HG2	2.25	0.52
1:C:528:PHE:HB3	1:C:573:TYR:HA	1.91	0.52
1:E:315:LYS:HE3	1:E:316:PRO:HD2	1.91	0.52
1:F:474:LEU:HB3	1:F:476:PHE:CZ	2.45	0.52
1:H:179:CYS:O	1:H:182:LEU:HG	2.09	0.52
1:L:397:LEU:O	1:L:399:GLN:NE2	2.43	0.52
1:N:63:MET:SD	1:N:165:SER:OG	2.61	0.52
1:O:151:GLN:NE2	1:O:217:GLN:HG2	2.25	0.52
1:C:315:LYS:HE3	1:C:316:PRO:HD2	1.91	0.52
1:G:315:LYS:HE3	1:G:316:PRO:HD2	1.91	0.52
1:G:401:ASN:OD1	1:G:403:LEU:N	2.41	0.52
1:G:506:SER:O	1:G:508:LYS:NZ	2.29	0.52
1:I:156:ILE:HG22	1:I:303:ILE:HD11	1.91	0.52
1:J:474:LEU:HB3	1:J:476:PHE:CZ	2.45	0.52
1:K:151:GLN:NE2	1:K:217:GLN:HG2	2.25	0.52
1:K:352:ASN:HB2	1:K:361:GLN:HA	1.91	0.52
1:O:397:LEU:O	1:O:399:GLN:NE2	2.43	0.52
1:A:476:PHE:HA	1:A:512:SER:HB2	1.93	0.51
1:B:315:LYS:HE3	1:B:316:PRO:HD2	1.91	0.51
1:E:285:PRO:HG2	1:F:289:LEU:HD13	1.92	0.51
1:F:397:LEU:O	1:F:399:GLN:NE2	2.43	0.51
1:G:474:LEU:HB3	1:G:476:PHE:CZ	2.45	0.51
1:H:50:GLY:N	1:H:60:GLY:O	2.38	0.51
1:H:156:ILE:HG22	1:H:303:ILE:HD11	1.91	0.51
1:H:518:GLY:O	1:H:522:SER:HB3	2.11	0.51
1:M:352:ASN:HB2	1:M:361:GLN:HA	1.91	0.51
1:B:474:LEU:HB3	1:B:476:PHE:CZ	2.45	0.51
1:B:476:PHE:HA	1:B:512:SER:HB2	1.93	0.51
1:B:528:PHE:HB3	1:B:573:TYR:HA	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:474:LEU:HB3	1:C:476:PHE:CZ	2.45	0.51
1:H:351:THR:HA	1:H:365:ASP:HB3	1.93	0.51
1:H:528:PHE:HB3	1:H:573:TYR:HA	1.91	0.51
1:I:397:LEU:O	1:I:399:GLN:NE2	2.43	0.51
1:J:151:GLN:NE2	1:J:217:GLN:HG2	2.25	0.51
1:J:384:GLU:HA	1:J:407:PHE:HE1	1.76	0.51
1:K:401:ASN:OD1	1:K:403:LEU:N	2.41	0.51
1:M:151:GLN:NE2	1:M:217:GLN:HG2	2.25	0.51
1:M:518:GLY:O	1:M:522:SER:HB3	2.11	0.51
1:N:474:LEU:HB3	1:N:476:PHE:CZ	2.45	0.51
1:O:474:LEU:HB3	1:O:476:PHE:CZ	2.45	0.51
1:O:476:PHE:HA	1:O:512:SER:HB2	1.92	0.51
1:O:568:GLY:HA3	1:P:400:LYS:HD2	1.91	0.51
1:P:476:PHE:HA	1:P:512:SER:HB2	1.93	0.51
1:B:397:LEU:O	1:B:399:GLN:NE2	2.43	0.51
1:C:476:PHE:HA	1:C:512:SER:HB2	1.93	0.51
1:D:151:GLN:NE2	1:D:217:GLN:HG2	2.25	0.51
1:D:352:ASN:HB2	1:D:361:GLN:HA	1.91	0.51
1:D:474:LEU:HB3	1:D:476:PHE:CZ	2.45	0.51
1:E:357:ASN:HA	1:F:339:ARG:HE	1.75	0.51
1:E:397:LEU:O	1:E:399:GLN:NE2	2.43	0.51
1:F:518:GLY:O	1:F:522:SER:HB3	2.11	0.51
1:H:252:VAL:HA	1:I:115:ILE:HB	1.93	0.51
1:H:397:LEU:O	1:H:399:GLN:NE2	2.43	0.51
1:I:384:GLU:HA	1:I:407:PHE:HE1	1.76	0.51
1:K:518:GLY:O	1:K:522:SER:HB3	2.11	0.51
1:M:156:ILE:HG22	1:M:303:ILE:HD11	1.91	0.51
1:M:351:THR:HA	1:M:365:ASP:HB3	1.93	0.51
1:P:518:GLY:O	1:P:522:SER:HB3	2.11	0.51
1:A:397:LEU:O	1:A:399:GLN:NE2	2.43	0.51
1:A:518:GLY:O	1:A:522:SER:HB3	2.11	0.51
1:F:384:GLU:HA	1:F:407:PHE:HE1	1.76	0.51
1:J:351:THR:HA	1:J:365:ASP:HB3	1.93	0.51
1:K:474:LEU:HB3	1:K:476:PHE:CZ	2.45	0.51
1:M:474:LEU:HB3	1:M:476:PHE:CZ	2.45	0.51
1:N:476:PHE:HA	1:N:512:SER:HB2	1.92	0.51
1:O:518:GLY:O	1:O:522:SER:HB3	2.11	0.51
1:P:474:LEU:HB3	1:P:476:PHE:CZ	2.45	0.51
1:B:179:CYS:O	1:B:182:LEU:HG	2.09	0.51
1:F:50:GLY:N	1:F:60:GLY:O	2.38	0.51
1:J:518:GLY:O	1:J:522:SER:HB3	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:352:ASN:HB2	1:L:361:GLN:HA	1.91	0.51
1:M:315:LYS:HE3	1:M:316:PRO:HD2	1.91	0.51
1:N:518:GLY:O	1:N:522:SER:HB3	2.11	0.51
1:D:476:PHE:HA	1:D:512:SER:HB2	1.93	0.51
1:E:474:LEU:HB3	1:E:476:PHE:CZ	2.45	0.51
1:G:50:GLY:N	1:G:60:GLY:O	2.38	0.51
1:H:115:ILE:O	1:H:116:ASN:HB2	2.11	0.51
1:I:196:LEU:HD13	1:J:312:PHE:HZ	1.75	0.51
1:J:401:ASN:OD1	1:J:403:LEU:N	2.41	0.51
1:K:165:SER:O	1:K:318:LYS:NZ	2.30	0.51
1:M:115:ILE:O	1:M:116:ASN:HB2	2.11	0.51
1:N:397:LEU:O	1:N:399:GLN:NE2	2.43	0.51
1:B:518:GLY:O	1:B:522:SER:HB3	2.11	0.51
1:C:151:GLN:NE2	1:C:217:GLN:HG2	2.25	0.51
1:D:115:ILE:O	1:D:116:ASN:HB2	2.11	0.51
1:E:476:PHE:HA	1:E:512:SER:HB2	1.92	0.51
1:G:115:ILE:O	1:G:116:ASN:HB2	2.11	0.51
1:H:401:ASN:OD1	1:H:403:LEU:N	2.41	0.51
1:I:488:MET:HA	1:I:488:MET:CE	2.41	0.51
1:L:115:ILE:O	1:L:116:ASN:HB2	2.11	0.51
1:N:488:MET:HA	1:N:488:MET:CE	2.41	0.51
1:O:357:ASN:HA	1:P:339:ARG:HE	1.75	0.51
1:P:115:ILE:O	1:P:116:ASN:HB2	2.11	0.51
1:A:474:LEU:HB3	1:A:476:PHE:CZ	2.45	0.51
1:C:62:VAL:O	1:C:168:SER:N	2.35	0.51
1:C:115:ILE:O	1:C:116:ASN:HB2	2.11	0.51
1:C:488:MET:HA	1:C:488:MET:CE	2.41	0.51
1:E:488:MET:HA	1:E:488:MET:CE	2.41	0.51
1:H:151:GLN:NE2	1:H:217:GLN:HG2	2.25	0.51
1:K:351:THR:HA	1:K:365:ASP:HB3	1.93	0.51
1:L:351:THR:HA	1:L:365:ASP:HB3	1.93	0.51
1:L:474:LEU:HB3	1:L:476:PHE:CZ	2.45	0.51
1:M:488:MET:HA	1:M:488:MET:CE	2.41	0.51
1:O:351:THR:HA	1:O:365:ASP:HB3	1.93	0.51
1:C:285:PRO:HG2	1:D:289:LEU:HD13	1.93	0.51
1:D:518:GLY:O	1:D:522:SER:HB3	2.11	0.51
1:E:179:CYS:O	1:E:182:LEU:HG	2.09	0.51
1:E:384:GLU:HA	1:E:407:PHE:HE1	1.76	0.51
1:I:151:GLN:NE2	1:I:217:GLN:HG2	2.25	0.51
1:I:401:ASN:OD1	1:I:403:LEU:N	2.41	0.51
1:J:488:MET:CE	1:J:488:MET:HA	2.41	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:82:ASP:OD1	1:K:82:ASP:N	2.42	0.51
1:K:384:GLU:HA	1:K:407:PHE:HE1	1.76	0.51
1:M:476:PHE:HA	1:M:512:SER:HB2	1.92	0.51
1:A:110:THR:HB	1:P:257:ILE:HG13	1.93	0.51
1:C:518:GLY:O	1:C:522:SER:HB3	2.11	0.51
1:E:351:THR:HA	1:E:365:ASP:HB3	1.93	0.51
1:F:62:VAL:O	1:F:168:SER:N	2.35	0.51
1:F:115:ILE:O	1:F:116:ASN:HB2	2.11	0.51
1:G:384:GLU:HA	1:G:407:PHE:HE1	1.76	0.51
1:I:560:GLN:O	1:J:513:LEU:HD23	2.11	0.51
1:N:384:GLU:HA	1:N:407:PHE:HE1	1.76	0.51
1:O:488:MET:HA	1:O:488:MET:CE	2.41	0.51
1:A:115:ILE:O	1:A:116:ASN:HB2	2.11	0.50
1:G:351:THR:HA	1:G:365:ASP:HB3	1.93	0.50
1:H:372:LYS:HZ2	1:I:515:TYR:HE1	1.59	0.50
1:H:488:MET:HA	1:H:488:MET:CE	2.41	0.50
1:I:518:GLY:O	1:I:522:SER:HB3	2.11	0.50
1:J:215:LEU:HD13	1:J:277:SER:HB3	1.93	0.50
1:M:384:GLU:HA	1:M:407:PHE:HE1	1.76	0.50
1:M:397:LEU:O	1:M:399:GLN:NE2	2.43	0.50
1:B:165:SER:O	1:B:318:LYS:NZ	2.30	0.50
1:C:201:TYR:CE1	1:D:163:PRO:HG3	2.46	0.50
1:C:253:GLU:H	1:D:115:ILE:HG22	1.75	0.50
1:C:397:LEU:O	1:C:399:GLN:NE2	2.43	0.50
1:F:351:THR:HA	1:F:365:ASP:HB3	1.93	0.50
1:I:486:ASN:O	1:I:490:ASN:N	2.44	0.50
1:K:115:ILE:O	1:K:116:ASN:HB2	2.11	0.50
1:K:215:LEU:HD13	1:K:277:SER:HB3	1.93	0.50
1:K:271:THR:HB	1:L:97:ASN:OD1	2.11	0.50
1:K:397:LEU:O	1:K:399:GLN:NE2	2.43	0.50
1:K:488:MET:HA	1:K:488:MET:CE	2.41	0.50
1:N:115:ILE:O	1:N:116:ASN:HB2	2.11	0.50
1:B:240:ALA:O	1:B:251:LYS:NZ	2.27	0.50
1:F:476:PHE:HA	1:F:512:SER:HB2	1.92	0.50
1:G:357:ASN:HA	1:H:339:ARG:HE	1.76	0.50
1:H:486:ASN:O	1:H:490:ASN:N	2.45	0.50
1:I:115:ILE:O	1:I:116:ASN:HB2	2.11	0.50
1:I:315:LYS:HE3	1:I:316:PRO:HD2	1.91	0.50
1:I:351:THR:HA	1:I:365:ASP:HB3	1.93	0.50
1:J:417:HIS:HA	1:J:460:TYR:HA	1.93	0.50
1:K:417:HIS:HA	1:K:460:TYR:HA	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:271:THR:HB	1:P:97:ASN:OD1	2.10	0.50
1:O:410:PRO:HD2	1:O:462:CYS:SG	2.52	0.50
1:A:562:LEU:HB2	1:B:513:LEU:HD22	1.94	0.50
1:B:384:GLU:HA	1:B:407:PHE:HE1	1.76	0.50
1:B:410:PRO:HD2	1:B:462:CYS:SG	2.52	0.50
1:C:410:PRO:HD2	1:C:462:CYS:SG	2.52	0.50
1:C:418:LEU:N	1:C:459:ALA:O	2.45	0.50
1:G:373:VAL:HG13	1:G:558:PHE:HB2	1.94	0.50
1:L:488:MET:HA	1:L:488:MET:CE	2.41	0.50
1:M:215:LEU:HD13	1:M:277:SER:HB3	1.93	0.50
1:O:352:ASN:HB2	1:O:361:GLN:HA	1.91	0.50
1:P:351:THR:HA	1:P:365:ASP:HB3	1.93	0.50
1:A:488:MET:HA	1:A:488:MET:CE	2.41	0.50
1:D:488:MET:HA	1:D:488:MET:CE	2.41	0.50
1:E:518:GLY:O	1:E:522:SER:HB3	2.11	0.50
1:K:410:PRO:HD2	1:K:462:CYS:SG	2.52	0.50
1:K:418:LEU:N	1:K:459:ALA:O	2.45	0.50
1:L:518:GLY:O	1:L:522:SER:HB3	2.11	0.50
1:M:486:ASN:O	1:M:490:ASN:N	2.45	0.50
1:N:410:PRO:HD2	1:N:462:CYS:SG	2.52	0.50
1:P:384:GLU:HA	1:P:407:PHE:HE1	1.76	0.50
1:P:410:PRO:HD2	1:P:462:CYS:SG	2.52	0.50
1:A:352:ASN:OD1	1:A:365:ASP:N	2.45	0.50
1:A:410:PRO:HD2	1:A:462:CYS:SG	2.52	0.50
1:A:418:LEU:N	1:A:459:ALA:O	2.45	0.50
1:B:351:THR:HA	1:B:365:ASP:HB3	1.93	0.50
1:B:352:ASN:OD1	1:B:365:ASP:N	2.45	0.50
1:C:417:HIS:HA	1:C:460:TYR:HA	1.93	0.50
1:D:410:PRO:HD2	1:D:462:CYS:SG	2.52	0.50
1:E:373:VAL:HG13	1:E:558:PHE:HB2	1.94	0.50
1:E:418:LEU:N	1:E:459:ALA:O	2.45	0.50
1:G:486:ASN:O	1:G:490:ASN:N	2.44	0.50
1:G:488:MET:CE	1:G:488:MET:HA	2.41	0.50
1:H:252:VAL:HA	1:I:115:ILE:CG2	2.41	0.50
1:H:384:GLU:HA	1:H:407:PHE:HE1	1.76	0.50
1:I:352:ASN:HB2	1:I:361:GLN:HA	1.91	0.50
1:L:417:HIS:HA	1:L:460:TYR:HA	1.93	0.50
1:L:486:ASN:O	1:L:490:ASN:N	2.44	0.50
1:N:486:ASN:O	1:N:490:ASN:N	2.44	0.50
1:O:115:ILE:O	1:O:116:ASN:HB2	2.11	0.50
1:P:352:ASN:OD1	1:P:365:ASP:N	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:488:MET:HA	1:P:488:MET:CE	2.41	0.50
1:B:373:VAL:HG13	1:B:558:PHE:HB2	1.94	0.50
1:B:417:HIS:HA	1:B:460:TYR:HA	1.93	0.50
1:C:82:ASP:OD1	1:C:82:ASP:N	2.42	0.50
1:C:352:ASN:OD1	1:C:365:ASP:N	2.45	0.50
1:D:215:LEU:HD13	1:D:277:SER:HB3	1.93	0.50
1:D:275:VAL:HG22	1:E:93:ASN:OD1	2.11	0.50
1:D:526:GLY:N	1:D:574:CYS:O	2.45	0.50
1:E:115:ILE:O	1:E:116:ASN:HB2	2.11	0.50
1:E:410:PRO:HD2	1:E:462:CYS:SG	2.52	0.50
1:F:315:LYS:HE3	1:F:316:PRO:HD2	1.91	0.50
1:G:215:LEU:HD13	1:G:277:SER:HB3	1.93	0.50
1:G:518:GLY:O	1:G:522:SER:HB3	2.11	0.50
1:H:265:ASP:OD1	1:I:103:SER:HB3	2.12	0.50
1:H:418:LEU:N	1:H:459:ALA:O	2.45	0.50
1:J:373:VAL:HG13	1:J:558:PHE:HB2	1.94	0.50
1:L:410:PRO:HD2	1:L:462:CYS:SG	2.52	0.50
1:L:476:PHE:HA	1:L:512:SER:HB2	1.93	0.50
1:M:410:PRO:HD2	1:M:462:CYS:SG	2.52	0.50
1:M:526:GLY:N	1:M:574:CYS:O	2.45	0.50
1:N:418:LEU:N	1:N:459:ALA:O	2.45	0.50
1:P:373:VAL:HG13	1:P:558:PHE:HB2	1.94	0.50
1:A:82:ASP:N	1:A:82:ASP:OD1	2.42	0.50
1:A:252:VAL:HG22	1:B:115:ILE:HB	1.94	0.50
1:A:526:GLY:N	1:A:574:CYS:O	2.45	0.50
1:B:486:ASN:O	1:B:490:ASN:N	2.44	0.50
1:B:488:MET:CE	1:B:488:MET:HA	2.41	0.50
1:B:562:LEU:HB2	1:C:513:LEU:HD22	1.94	0.50
1:C:215:LEU:HD13	1:C:277:SER:HB3	1.93	0.50
1:C:373:VAL:HG13	1:C:558:PHE:HB2	1.94	0.50
1:C:526:GLY:N	1:C:574:CYS:O	2.45	0.50
1:F:488:MET:HA	1:F:488:MET:CE	2.41	0.50
1:G:418:LEU:N	1:G:459:ALA:O	2.45	0.50
1:G:476:PHE:HA	1:G:512:SER:HB2	1.93	0.50
1:H:476:PHE:HA	1:H:512:SER:HB2	1.92	0.50
1:I:417:HIS:HA	1:I:460:TYR:HA	1.93	0.50
1:I:418:LEU:N	1:I:459:ALA:O	2.45	0.50
1:J:255:ASP:N	1:K:112:SER:O	2.43	0.50
1:J:476:PHE:HA	1:J:512:SER:HB2	1.93	0.50
1:J:486:ASN:O	1:J:490:ASN:N	2.45	0.50
1:K:476:PHE:HA	1:K:512:SER:HB2	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:384:GLU:HA	1:L:407:PHE:HE1	1.76	0.50
1:L:526:GLY:N	1:L:574:CYS:O	2.45	0.50
1:N:526:GLY:N	1:N:574:CYS:O	2.45	0.50
1:O:352:ASN:OD1	1:O:365:ASP:N	2.45	0.50
1:O:418:LEU:N	1:O:459:ALA:O	2.45	0.50
1:C:351:THR:HA	1:C:365:ASP:HB3	1.93	0.50
1:E:271:THR:HB	1:F:97:ASN:OD1	2.12	0.50
1:E:526:GLY:N	1:E:574:CYS:O	2.45	0.50
1:F:357:ASN:HA	1:G:339:ARG:HE	1.75	0.50
1:H:215:LEU:HD13	1:H:277:SER:HB3	1.93	0.50
1:H:373:VAL:HG13	1:H:558:PHE:HB2	1.94	0.50
1:J:410:PRO:HD2	1:J:462:CYS:SG	2.52	0.50
1:M:357:ASN:HA	1:N:339:ARG:HE	1.76	0.50
1:P:526:GLY:N	1:P:574:CYS:O	2.45	0.50
1:A:215:LEU:HD13	1:A:277:SER:HB3	1.93	0.49
1:B:115:ILE:O	1:B:116:ASN:HB2	2.11	0.49
1:B:526:GLY:N	1:B:574:CYS:O	2.45	0.49
1:E:199:LEU:HD22	1:E:364:MET:HG2	1.94	0.49
1:E:201:TYR:CE1	1:F:163:PRO:HG3	2.47	0.49
1:G:410:PRO:HD2	1:G:462:CYS:SG	2.52	0.49
1:H:357:ASN:HB2	1:I:339:ARG:HG3	1.94	0.49
1:I:91:GLU:HG2	1:I:155:ARG:NH2	2.25	0.49
1:M:373:VAL:HG13	1:M:558:PHE:HB2	1.94	0.49
1:M:417:HIS:HA	1:M:460:TYR:HA	1.93	0.49
1:M:418:LEU:N	1:M:459:ALA:O	2.45	0.49
1:N:215:LEU:HD13	1:N:277:SER:HB3	1.93	0.49
1:A:199:LEU:HD22	1:A:364:MET:HG2	1.95	0.49
1:B:199:LEU:HD22	1:B:364:MET:HG2	1.95	0.49
1:B:215:LEU:HD13	1:B:277:SER:HB3	1.93	0.49
1:D:384:GLU:HA	1:D:407:PHE:HE1	1.76	0.49
1:D:506:SER:O	1:D:508:LYS:NZ	2.29	0.49
1:H:91:GLU:HG2	1:H:155:ARG:NH2	2.25	0.49
1:I:199:LEU:HD22	1:I:364:MET:HG2	1.94	0.49
1:I:215:LEU:HD13	1:I:277:SER:HB3	1.93	0.49
1:I:476:PHE:HA	1:I:512:SER:HB2	1.93	0.49
1:J:115:ILE:O	1:J:116:ASN:HB2	2.11	0.49
1:N:351:THR:HA	1:N:365:ASP:HB3	1.93	0.49
1:O:526:GLY:N	1:O:574:CYS:O	2.45	0.49
1:A:384:GLU:HA	1:A:407:PHE:HE1	1.76	0.49
1:A:486:ASN:O	1:A:490:ASN:N	2.44	0.49
1:D:486:ASN:O	1:D:490:ASN:N	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:215:LEU:HD13	1:E:277:SER:HB3	1.93	0.49
1:H:410:PRO:HD2	1:H:462:CYS:SG	2.52	0.49
1:J:91:GLU:HG2	1:J:155:ARG:NH2	2.25	0.49
1:K:526:GLY:N	1:K:574:CYS:O	2.45	0.49
1:L:271:THR:HB	1:M:97:ASN:OD1	2.12	0.49
1:O:427:TYR:N	1:O:429:ARG:HH21	2.04	0.49
1:P:215:LEU:HD13	1:P:277:SER:HB3	1.93	0.49
1:F:199:LEU:HD22	1:F:364:MET:HG2	1.95	0.49
1:H:417:HIS:HA	1:H:460:TYR:HA	1.94	0.49
1:J:418:LEU:N	1:J:459:ALA:O	2.45	0.49
1:K:486:ASN:O	1:K:490:ASN:N	2.45	0.49
1:L:257:ILE:HG13	1:M:110:THR:HB	1.95	0.49
1:N:352:ASN:OD1	1:N:365:ASP:N	2.45	0.49
1:O:486:ASN:O	1:O:490:ASN:N	2.45	0.49
1:C:384:GLU:HA	1:C:407:PHE:HE1	1.76	0.49
1:E:375:ASN:HB3	1:E:378:PHE:HE2	1.78	0.49
1:F:417:HIS:HA	1:F:460:TYR:HA	1.93	0.49
1:F:418:LEU:N	1:F:459:ALA:O	2.45	0.49
1:F:526:GLY:N	1:F:574:CYS:O	2.45	0.49
1:H:199:LEU:HD22	1:H:364:MET:HG2	1.94	0.49
1:L:418:LEU:N	1:L:459:ALA:O	2.45	0.49
1:O:285:PRO:HG2	1:P:289:LEU:HD13	1.92	0.49
1:O:384:GLU:HA	1:O:407:PHE:HE1	1.76	0.49
1:B:375:ASN:HB3	1:B:378:PHE:HE2	1.78	0.49
1:D:373:VAL:HG13	1:D:558:PHE:HB2	1.94	0.49
1:E:417:HIS:HA	1:E:460:TYR:HA	1.93	0.49
1:F:250:PHE:HA	1:G:117:THR:HB	1.93	0.49
1:F:375:ASN:HB3	1:F:378:PHE:HE2	1.78	0.49
1:I:373:VAL:HG13	1:I:558:PHE:HB2	1.94	0.49
1:K:373:VAL:HG13	1:K:558:PHE:HB2	1.94	0.49
1:L:375:ASN:HB3	1:L:378:PHE:HE2	1.78	0.49
1:M:375:ASN:HB3	1:M:378:PHE:HE2	1.78	0.49
1:A:351:THR:HA	1:A:365:ASP:HB3	1.93	0.49
1:A:373:VAL:HG13	1:A:558:PHE:HB2	1.94	0.49
1:F:410:PRO:HD2	1:F:462:CYS:SG	2.52	0.49
1:G:91:GLU:HG2	1:G:155:ARG:NH2	2.25	0.49
1:H:375:ASN:HB3	1:H:378:PHE:HE2	1.78	0.49
1:L:215:LEU:HD13	1:L:277:SER:HB3	1.93	0.49
1:N:373:VAL:HG13	1:N:558:PHE:HB2	1.94	0.49
1:O:373:VAL:HG13	1:O:558:PHE:HB2	1.94	0.49
1:O:417:HIS:HA	1:O:460:TYR:HA	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:418:LEU:N	1:P:459:ALA:O	2.45	0.49
1:A:375:ASN:HB3	1:A:378:PHE:HE2	1.78	0.49
1:D:351:THR:HA	1:D:365:ASP:HB3	1.93	0.49
1:D:417:HIS:HA	1:D:460:TYR:HA	1.93	0.49
1:D:418:LEU:N	1:D:459:ALA:O	2.45	0.49
1:E:58:ASP:HB2	1:F:87:ILE:CD1	2.41	0.49
1:E:486:ASN:O	1:E:490:ASN:N	2.44	0.49
1:I:116:ASN:HD22	1:I:128:LYS:HD3	1.78	0.49
1:I:375:ASN:HB3	1:I:378:PHE:HE2	1.78	0.49
1:I:506:SER:O	1:I:508:LYS:NZ	2.29	0.49
1:J:560:GLN:O	1:K:513:LEU:HD23	2.13	0.49
1:L:165:SER:O	1:L:318:LYS:NZ	2.30	0.49
1:L:373:VAL:HG13	1:L:558:PHE:HB2	1.94	0.49
1:N:199:LEU:HD22	1:N:364:MET:HG2	1.94	0.49
1:P:417:HIS:HA	1:P:460:TYR:HA	1.93	0.49
1:A:417:HIS:HA	1:A:460:TYR:HA	1.93	0.49
1:B:418:LEU:N	1:B:459:ALA:O	2.45	0.49
1:D:199:LEU:HD22	1:D:364:MET:HG2	1.94	0.49
1:F:215:LEU:HD13	1:F:277:SER:HB3	1.93	0.49
1:G:417:HIS:HA	1:G:460:TYR:HA	1.93	0.49
1:G:445:VAL:O	1:G:445:VAL:HG13	2.13	0.49
1:G:526:GLY:N	1:G:574:CYS:O	2.45	0.49
1:I:255:ASP:N	1:J:112:SER:O	2.44	0.49
1:J:526:GLY:N	1:J:574:CYS:O	2.45	0.49
1:M:199:LEU:HD22	1:M:364:MET:HG2	1.94	0.49
1:N:417:HIS:HA	1:N:460:TYR:HA	1.93	0.49
1:O:215:LEU:HD13	1:O:277:SER:HB3	1.93	0.49
1:O:501:LEU:O	1:O:509:VAL:N	2.46	0.49
1:B:116:ASN:HD22	1:B:128:LYS:HD3	1.78	0.49
1:F:445:VAL:HG13	1:F:445:VAL:O	2.13	0.49
1:I:382:TYR:HD1	1:I:401:ASN:HB2	1.78	0.49
1:J:196:LEU:HD13	1:K:312:PHE:HZ	1.78	0.49
1:J:199:LEU:HD22	1:J:364:MET:HG2	1.94	0.49
1:J:352:ASN:OD1	1:J:365:ASP:N	2.45	0.49
1:M:282:PRO:HA	1:N:91:GLU:OE2	2.13	0.49
1:M:352:ASN:OD1	1:M:365:ASP:N	2.45	0.49
1:P:486:ASN:O	1:P:490:ASN:N	2.44	0.49
1:C:199:LEU:HD22	1:C:364:MET:HG2	1.94	0.48
1:C:437:THR:OG1	1:C:438:LEU:N	2.46	0.48
1:C:486:ASN:O	1:C:490:ASN:N	2.44	0.48
1:D:90:LYS:O	1:D:91:GLU:HG3	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:373:VAL:HG13	1:F:558:PHE:HB2	1.94	0.48
1:G:153:ARG:HE	1:G:215:LEU:HD23	1.78	0.48
1:H:445:VAL:HG13	1:H:445:VAL:O	2.13	0.48
1:K:90:LYS:O	1:K:91:GLU:HG3	2.13	0.48
1:K:116:ASN:HD22	1:K:128:LYS:HD3	1.78	0.48
1:K:352:ASN:OD1	1:K:365:ASP:N	2.45	0.48
1:M:506:SER:O	1:M:508:LYS:NZ	2.29	0.48
1:N:445:VAL:HG13	1:N:445:VAL:O	2.13	0.48
1:P:90:LYS:O	1:P:91:GLU:HG3	2.13	0.48
1:P:437:THR:OG1	1:P:438:LEU:N	2.46	0.48
1:B:375:ASN:HB3	1:B:378:PHE:CE2	2.48	0.48
1:B:445:VAL:O	1:B:445:VAL:HG13	2.13	0.48
1:D:51:TRP:N	1:D:204:HIS:O	2.46	0.48
1:G:382:TYR:HD1	1:G:401:ASN:HB2	1.78	0.48
1:H:526:GLY:N	1:H:574:CYS:O	2.45	0.48
1:I:90:LYS:O	1:I:91:GLU:HG3	2.13	0.48
1:I:153:ARG:HE	1:I:215:LEU:HD23	1.78	0.48
1:I:352:ASN:OD1	1:I:365:ASP:N	2.45	0.48
1:J:437:THR:OG1	1:J:438:LEU:N	2.46	0.48
1:K:91:GLU:HG2	1:K:155:ARG:NH2	2.25	0.48
1:K:267:LEU:HD23	1:L:101:LEU:HD12	1.95	0.48
1:K:375:ASN:HB3	1:K:378:PHE:CE2	2.48	0.48
1:K:375:ASN:HB3	1:K:378:PHE:HE2	1.78	0.48
1:N:375:ASN:HB3	1:N:378:PHE:CE2	2.48	0.48
1:N:501:LEU:O	1:N:509:VAL:N	2.46	0.48
1:P:199:LEU:HD22	1:P:364:MET:HG2	1.94	0.48
1:A:116:ASN:HD22	1:A:128:LYS:HD3	1.78	0.48
1:C:51:TRP:N	1:C:204:HIS:O	2.46	0.48
1:C:153:ARG:HE	1:C:215:LEU:HD23	1.78	0.48
1:C:375:ASN:HB3	1:C:378:PHE:CE2	2.48	0.48
1:D:375:ASN:HB3	1:D:378:PHE:CE2	2.48	0.48
1:E:51:TRP:N	1:E:204:HIS:O	2.47	0.48
1:E:153:ARG:HE	1:E:215:LEU:HD23	1.79	0.48
1:E:562:LEU:HB2	1:F:513:LEU:HD22	1.94	0.48
1:F:51:TRP:N	1:F:204:HIS:O	2.46	0.48
1:F:437:THR:OG1	1:F:438:LEU:N	2.46	0.48
1:G:116:ASN:HD22	1:G:128:LYS:HD3	1.78	0.48
1:I:410:PRO:HD2	1:I:462:CYS:SG	2.52	0.48
1:J:153:ARG:HE	1:J:215:LEU:HD23	1.78	0.48
1:J:382:TYR:HD1	1:J:401:ASN:HB2	1.78	0.48
1:K:382:TYR:HD1	1:K:401:ASN:HB2	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:153:ARG:HE	1:L:215:LEU:HD23	1.78	0.48
1:L:258:SER:HA	1:M:109:SER:HA	1.95	0.48
1:L:352:ASN:OD1	1:L:365:ASP:N	2.45	0.48
1:L:375:ASN:HB3	1:L:378:PHE:CE2	2.49	0.48
1:M:90:LYS:O	1:M:91:GLU:HG3	2.13	0.48
1:M:445:VAL:O	1:M:445:VAL:HG13	2.13	0.48
1:N:82:ASP:OD1	1:N:82:ASP:N	2.42	0.48
1:N:382:TYR:HD1	1:N:401:ASN:HB2	1.78	0.48
1:O:90:LYS:O	1:O:91:GLU:HG3	2.14	0.48
1:P:375:ASN:HB3	1:P:378:PHE:CE2	2.48	0.48
1:A:47:PRO:O	1:A:49:GLY:N	2.47	0.48
1:A:90:LYS:O	1:A:91:GLU:HG3	2.14	0.48
1:A:445:VAL:O	1:A:445:VAL:HG13	2.13	0.48
1:C:445:VAL:HG13	1:C:445:VAL:O	2.13	0.48
1:D:253:GLU:H	1:E:115:ILE:HG22	1.77	0.48
1:D:445:VAL:O	1:D:445:VAL:HG13	2.13	0.48
1:D:533:MET:HG3	1:D:534:GLY:H	1.79	0.48
1:F:91:GLU:HG2	1:F:155:ARG:NH2	2.24	0.48
1:G:153:ARG:HH12	1:G:289:LEU:CA	2.27	0.48
1:H:153:ARG:HE	1:H:215:LEU:HD23	1.78	0.48
1:H:352:ASN:OD1	1:H:365:ASP:N	2.45	0.48
1:I:153:ARG:HH12	1:I:289:LEU:CA	2.27	0.48
1:I:437:THR:OG1	1:I:438:LEU:N	2.46	0.48
1:J:375:ASN:HB3	1:J:378:PHE:CE2	2.48	0.48
1:K:533:MET:HG3	1:K:534:GLY:H	1.78	0.48
1:M:47:PRO:O	1:M:49:GLY:N	2.47	0.48
1:M:375:ASN:HB3	1:M:378:PHE:CE2	2.48	0.48
1:N:90:LYS:O	1:N:91:GLU:HG3	2.13	0.48
1:N:375:ASN:HB3	1:N:378:PHE:HE2	1.78	0.48
1:P:63:MET:SD	1:P:165:SER:OG	2.61	0.48
1:A:375:ASN:HB3	1:A:378:PHE:CE2	2.48	0.48
1:A:418:LEU:HA	1:A:529:PHE:CD1	2.49	0.48
1:B:51:TRP:N	1:B:204:HIS:O	2.46	0.48
1:B:82:ASP:N	1:B:82:ASP:OD1	2.42	0.48
1:B:90:LYS:O	1:B:91:GLU:HG3	2.14	0.48
1:B:533:MET:HG3	1:B:534:GLY:H	1.78	0.48
1:C:153:ARG:HH12	1:C:289:LEU:CA	2.27	0.48
1:C:375:ASN:HB3	1:C:378:PHE:HE2	1.78	0.48
1:C:418:LEU:HA	1:C:529:PHE:CD1	2.49	0.48
1:D:382:TYR:HD1	1:D:401:ASN:HB2	1.78	0.48
1:D:437:THR:OG1	1:D:438:LEU:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:153:ARG:HH12	1:E:289:LEU:CA	2.27	0.48
1:E:375:ASN:HB3	1:E:378:PHE:CE2	2.48	0.48
1:E:445:VAL:O	1:E:445:VAL:HG13	2.13	0.48
1:F:90:LYS:O	1:F:91:GLU:HG3	2.14	0.48
1:F:382:TYR:HD1	1:F:401:ASN:HB2	1.78	0.48
1:G:51:TRP:N	1:G:204:HIS:O	2.47	0.48
1:G:58:ASP:HB2	1:H:87:ILE:HD13	1.95	0.48
1:G:199:LEU:HD22	1:G:364:MET:HG2	1.94	0.48
1:G:437:THR:OG1	1:G:438:LEU:N	2.46	0.48
1:I:51:TRP:N	1:I:204:HIS:O	2.46	0.48
1:I:445:VAL:HG13	1:I:445:VAL:O	2.13	0.48
1:I:526:GLY:N	1:I:574:CYS:O	2.45	0.48
1:K:153:ARG:HE	1:K:215:LEU:HD23	1.78	0.48
1:L:199:LEU:HD22	1:L:364:MET:HG2	1.95	0.48
1:L:382:TYR:HD1	1:L:401:ASN:HB2	1.78	0.48
1:M:533:MET:HG3	1:M:534:GLY:H	1.78	0.48
1:N:153:ARG:HE	1:N:215:LEU:HD23	1.78	0.48
1:P:382:TYR:HD1	1:P:401:ASN:HB2	1.78	0.48
1:P:418:LEU:HA	1:P:529:PHE:CD1	2.49	0.48
1:P:501:LEU:O	1:P:509:VAL:N	2.46	0.48
1:B:382:TYR:HD1	1:B:401:ASN:HB2	1.78	0.48
1:C:90:LYS:CB	1:C:156:ILE:HG12	2.44	0.48
1:C:157:TYR:N	1:C:211:ALA:O	2.47	0.48
1:D:90:LYS:CB	1:D:156:ILE:HG12	2.44	0.48
1:D:157:TYR:N	1:D:211:ALA:O	2.47	0.48
1:E:47:PRO:O	1:E:49:GLY:N	2.47	0.48
1:F:375:ASN:HB3	1:F:378:PHE:CE2	2.48	0.48
1:F:486:ASN:O	1:F:490:ASN:N	2.44	0.48
1:G:375:ASN:HB3	1:G:378:PHE:CE2	2.48	0.48
1:H:51:TRP:N	1:H:204:HIS:O	2.47	0.48
1:H:375:ASN:HB3	1:H:378:PHE:CE2	2.48	0.48
1:I:375:ASN:HB3	1:I:378:PHE:CE2	2.48	0.48
1:I:533:MET:HG3	1:I:534:GLY:H	1.79	0.48
1:L:445:VAL:O	1:L:445:VAL:HG13	2.13	0.48
1:L:506:SER:O	1:L:508:LYS:NZ	2.29	0.48
1:M:437:THR:OG1	1:M:438:LEU:N	2.46	0.48
1:O:445:VAL:O	1:O:445:VAL:HG13	2.13	0.48
1:O:533:MET:HG3	1:O:534:GLY:H	1.78	0.48
1:P:375:ASN:HB3	1:P:378:PHE:HE2	1.78	0.48
1:A:153:ARG:HH12	1:A:289:LEU:CA	2.27	0.48
1:A:533:MET:HG3	1:A:534:GLY:H	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:437:THR:OG1	1:B:438:LEU:N	2.46	0.48
1:E:352:ASN:OD1	1:E:365:ASP:N	2.45	0.48
1:F:90:LYS:CB	1:F:156:ILE:HG12	2.44	0.48
1:H:253:GLU:N	1:I:115:ILE:HG22	2.21	0.48
1:J:51:TRP:N	1:J:204:HIS:O	2.47	0.48
1:M:157:TYR:N	1:M:211:ALA:O	2.47	0.48
1:M:501:LEU:O	1:M:509:VAL:N	2.46	0.48
1:O:51:TRP:N	1:O:204:HIS:O	2.46	0.48
1:O:199:LEU:HD22	1:O:364:MET:HG2	1.95	0.48
1:P:445:VAL:HG13	1:P:445:VAL:O	2.13	0.48
1:A:90:LYS:CB	1:A:156:ILE:HG12	2.44	0.48
1:A:153:ARG:HE	1:A:215:LEU:HD23	1.78	0.48
1:A:437:THR:OG1	1:A:438:LEU:N	2.46	0.48
1:B:418:LEU:HA	1:B:529:PHE:CD1	2.49	0.48
1:D:375:ASN:HB3	1:D:378:PHE:HE2	1.78	0.48
1:E:157:TYR:N	1:E:211:ALA:O	2.47	0.48
1:E:437:THR:OG1	1:E:438:LEU:N	2.46	0.48
1:F:116:ASN:HD22	1:F:128:LYS:HD3	1.78	0.48
1:F:157:TYR:N	1:F:211:ALA:O	2.47	0.48
1:F:560:GLN:O	1:G:513:LEU:HD23	2.14	0.48
1:I:427:TYR:N	1:I:429:ARG:HH21	2.04	0.48
1:I:501:LEU:O	1:I:509:VAL:N	2.46	0.48
1:L:91:GLU:HG2	1:L:155:ARG:NH2	2.25	0.48
1:L:157:TYR:N	1:L:211:ALA:O	2.47	0.48
1:M:116:ASN:HD22	1:M:128:LYS:HD3	1.78	0.48
1:M:153:ARG:HE	1:M:215:LEU:HD23	1.78	0.48
1:M:282:PRO:HA	1:N:91:GLU:CD	2.34	0.48
1:M:382:TYR:HD1	1:M:401:ASN:HB2	1.78	0.48
1:N:116:ASN:HD22	1:N:128:LYS:HD3	1.78	0.48
1:O:437:THR:OG1	1:O:438:LEU:N	2.46	0.48
1:A:51:TRP:N	1:A:204:HIS:O	2.47	0.48
1:B:93:ASN:HB3	1:B:153:ARG:HG3	1.96	0.48
1:B:157:TYR:N	1:B:211:ALA:O	2.47	0.48
1:B:501:LEU:O	1:B:509:VAL:N	2.46	0.48
1:E:93:ASN:HB3	1:E:153:ARG:HG3	1.96	0.48
1:E:269:ASN:HB2	1:F:99:GLU:HG3	1.96	0.48
1:G:90:LYS:O	1:G:91:GLU:HG3	2.14	0.48
1:I:157:TYR:N	1:I:211:ALA:O	2.47	0.48
1:J:375:ASN:HB3	1:J:378:PHE:HE2	1.78	0.48
1:K:51:TRP:N	1:K:204:HIS:O	2.46	0.48
1:K:153:ARG:HH12	1:K:289:LEU:CA	2.27	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:157:TYR:N	1:K:211:ALA:O	2.47	0.48
1:K:445:VAL:HG13	1:K:445:VAL:O	2.13	0.48
1:L:93:ASN:HB3	1:L:153:ARG:HG3	1.96	0.48
1:N:157:TYR:N	1:N:211:ALA:O	2.47	0.48
1:O:153:ARG:HH12	1:O:289:LEU:CA	2.27	0.48
1:O:418:LEU:HA	1:O:529:PHE:CD1	2.49	0.48
1:P:153:ARG:HE	1:P:215:LEU:HD23	1.78	0.48
1:B:47:PRO:O	1:B:49:GLY:N	2.47	0.48
1:B:153:ARG:HE	1:B:215:LEU:HD23	1.78	0.48
1:B:357:ASN:HA	1:C:339:ARG:HE	1.79	0.48
1:C:116:ASN:HD22	1:C:128:LYS:HD3	1.78	0.48
1:C:427:TYR:N	1:C:429:ARG:HH21	2.04	0.48
1:C:501:LEU:O	1:C:509:VAL:N	2.46	0.48
1:F:153:ARG:HE	1:F:215:LEU:HD23	1.79	0.48
1:F:418:LEU:HA	1:F:529:PHE:CD1	2.49	0.48
1:F:501:LEU:O	1:F:509:VAL:N	2.46	0.48
1:G:47:PRO:O	1:G:49:GLY:N	2.47	0.48
1:G:352:ASN:OD1	1:G:365:ASP:N	2.45	0.48
1:G:418:LEU:HA	1:G:529:PHE:CD1	2.49	0.48
1:G:560:GLN:O	1:H:513:LEU:HD23	2.14	0.48
1:H:90:LYS:CB	1:H:156:ILE:HG12	2.44	0.48
1:H:116:ASN:HB3	1:H:128:LYS:HB3	1.96	0.48
1:H:248:VAL:HG22	1:I:119:LEU:O	2.14	0.48
1:H:357:ASN:HA	1:I:339:ARG:NE	2.24	0.48
1:H:382:TYR:HD1	1:H:401:ASN:HB2	1.78	0.48
1:I:93:ASN:HB3	1:I:153:ARG:HG3	1.96	0.48
1:J:47:PRO:O	1:J:49:GLY:N	2.47	0.48
1:L:437:THR:OG1	1:L:438:LEU:N	2.46	0.48
1:M:153:ARG:HH12	1:M:289:LEU:CA	2.27	0.48
1:O:82:ASP:N	1:O:82:ASP:OD1	2.42	0.48
1:O:93:ASN:HB3	1:O:153:ARG:HG3	1.96	0.48
1:O:153:ARG:HE	1:O:215:LEU:HD23	1.78	0.48
1:A:93:ASN:HB3	1:A:153:ARG:HG3	1.96	0.47
1:A:109:SER:HA	1:P:258:SER:HA	1.96	0.47
1:A:343:THR:O	1:A:520:LYS:HD3	2.14	0.47
1:C:180:ASP:O	1:C:184:LYS:HB2	2.14	0.47
1:D:93:ASN:HB3	1:D:153:ARG:HG3	1.96	0.47
1:D:153:ARG:HE	1:D:215:LEU:HD23	1.78	0.47
1:D:357:ASN:HA	1:E:339:ARG:HE	1.79	0.47
1:E:90:LYS:CB	1:E:156:ILE:HG12	2.44	0.47
1:E:116:ASN:HD22	1:E:128:LYS:HD3	1.78	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:382:TYR:HD1	1:E:401:ASN:HB2	1.78	0.47
1:G:90:LYS:CB	1:G:156:ILE:HG12	2.44	0.47
1:G:375:ASN:HB3	1:G:378:PHE:HE2	1.78	0.47
1:H:90:LYS:O	1:H:91:GLU:HG3	2.14	0.47
1:H:116:ASN:HD22	1:H:128:LYS:HD3	1.78	0.47
1:J:93:ASN:HB3	1:J:153:ARG:HG3	1.96	0.47
1:J:116:ASN:HD22	1:J:128:LYS:HD3	1.78	0.47
1:K:93:ASN:HB3	1:K:153:ARG:HG3	1.96	0.47
1:M:93:ASN:HB3	1:M:153:ARG:HG3	1.96	0.47
1:N:47:PRO:O	1:N:49:GLY:N	2.47	0.47
1:N:418:LEU:HA	1:N:529:PHE:CD1	2.49	0.47
1:N:437:THR:OG1	1:N:438:LEU:N	2.46	0.47
1:O:116:ASN:HD22	1:O:128:LYS:HD3	1.78	0.47
1:O:375:ASN:HB3	1:O:378:PHE:CE2	2.48	0.47
1:A:180:ASP:O	1:A:184:LYS:HB2	2.14	0.47
1:A:339:ARG:HE	1:P:357:ASN:HA	1.79	0.47
1:C:90:LYS:O	1:C:91:GLU:HG3	2.14	0.47
1:D:352:ASN:OD1	1:D:365:ASP:N	2.45	0.47
1:D:418:LEU:HA	1:D:529:PHE:CD1	2.49	0.47
1:E:255:ASP:N	1:F:112:SER:O	2.45	0.47
1:E:418:LEU:HA	1:E:529:PHE:CD1	2.49	0.47
1:F:258:SER:HA	1:G:109:SER:HA	1.96	0.47
1:F:533:MET:HG3	1:F:534:GLY:H	1.79	0.47
1:G:93:ASN:HB3	1:G:153:ARG:HG3	1.96	0.47
1:H:418:LEU:HA	1:H:529:PHE:CD1	2.49	0.47
1:J:157:TYR:N	1:J:211:ALA:O	2.47	0.47
1:L:90:LYS:O	1:L:91:GLU:HG3	2.14	0.47
1:L:116:ASN:HB3	1:L:128:LYS:HB3	1.96	0.47
1:N:93:ASN:HB3	1:N:153:ARG:HG3	1.96	0.47
1:O:157:TYR:N	1:O:211:ALA:O	2.47	0.47
1:P:51:TRP:N	1:P:204:HIS:O	2.47	0.47
1:P:343:THR:O	1:P:520:LYS:HD3	2.14	0.47
1:C:93:ASN:HB3	1:C:153:ARG:HG3	1.96	0.47
1:D:116:ASN:HD22	1:D:128:LYS:HD3	1.78	0.47
1:E:228:ASP:N	1:E:264:LYS:O	2.48	0.47
1:F:352:ASN:OD1	1:F:365:ASP:N	2.45	0.47
1:G:533:MET:HG3	1:G:534:GLY:H	1.78	0.47
1:H:47:PRO:O	1:H:49:GLY:N	2.47	0.47
1:H:437:THR:OG1	1:H:438:LEU:N	2.46	0.47
1:H:506:SER:O	1:H:508:LYS:NZ	2.29	0.47
1:H:533:MET:HG3	1:H:534:GLY:H	1.78	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:445:VAL:O	1:J:445:VAL:HG13	2.13	0.47
1:K:116:ASN:HB3	1:K:128:LYS:HB3	1.96	0.47
1:K:199:LEU:HD22	1:K:364:MET:HG2	1.94	0.47
1:K:418:LEU:HA	1:K:529:PHE:CD1	2.49	0.47
1:L:90:LYS:CB	1:L:156:ILE:HG12	2.44	0.47
1:L:116:ASN:HD22	1:L:128:LYS:HD3	1.78	0.47
1:L:343:THR:O	1:L:520:LYS:HD3	2.14	0.47
1:N:228:ASP:N	1:N:264:LYS:O	2.48	0.47
1:N:343:THR:O	1:N:520:LYS:HD3	2.14	0.47
1:P:93:ASN:HB3	1:P:153:ARG:HG3	1.96	0.47
1:P:157:TYR:N	1:P:211:ALA:O	2.47	0.47
1:A:501:LEU:O	1:A:509:VAL:N	2.46	0.47
1:B:116:ASN:O	1:B:117:THR:OG1	2.32	0.47
1:B:228:ASP:N	1:B:264:LYS:O	2.48	0.47
1:D:501:LEU:O	1:D:509:VAL:N	2.46	0.47
1:E:180:ASP:O	1:E:184:LYS:HB2	2.14	0.47
1:F:93:ASN:HB3	1:F:153:ARG:HG3	1.96	0.47
1:F:180:ASP:O	1:F:184:LYS:HB2	2.14	0.47
1:H:93:ASN:HB3	1:H:153:ARG:HG3	1.96	0.47
1:H:157:TYR:N	1:H:211:ALA:O	2.47	0.47
1:H:180:ASP:O	1:H:184:LYS:HB2	2.14	0.47
1:I:116:ASN:HB3	1:I:128:LYS:HB3	1.96	0.47
1:I:418:LEU:HA	1:I:529:PHE:CD1	2.49	0.47
1:K:228:ASP:N	1:K:264:LYS:O	2.48	0.47
1:M:165:SER:O	1:M:318:LYS:NZ	2.30	0.47
1:O:90:LYS:CB	1:O:156:ILE:HG12	2.44	0.47
1:O:343:THR:O	1:O:520:LYS:HD3	2.14	0.47
1:O:375:ASN:HB3	1:O:378:PHE:HE2	1.78	0.47
1:P:116:ASN:HD22	1:P:128:LYS:HD3	1.78	0.47
1:A:195:GLU:O	1:A:198:ILE:HG22	2.15	0.47
1:A:258:SER:HA	1:B:109:SER:HA	1.95	0.47
1:B:90:LYS:CB	1:B:156:ILE:HG12	2.44	0.47
1:C:533:MET:HG3	1:C:534:GLY:H	1.78	0.47
1:G:180:ASP:O	1:G:184:LYS:HB2	2.14	0.47
1:M:343:THR:O	1:M:520:LYS:HD3	2.14	0.47
1:M:418:LEU:HA	1:M:529:PHE:CD1	2.49	0.47
1:N:90:LYS:CB	1:N:156:ILE:HG12	2.44	0.47
1:A:93:ASN:CB	1:A:153:ARG:HG3	2.45	0.47
1:G:116:ASN:HB3	1:G:128:LYS:HB3	1.96	0.47
1:G:409:CYS:SG	1:G:415:PRO:HD3	2.55	0.47
1:H:228:ASP:N	1:H:264:LYS:O	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:409:CYS:SG	1:H:415:PRO:HD3	2.55	0.47
1:J:533:MET:HG3	1:J:534:GLY:H	1.79	0.47
1:K:47:PRO:O	1:K:49:GLY:N	2.47	0.47
1:K:90:LYS:CB	1:K:156:ILE:HG12	2.44	0.47
1:K:258:SER:HA	1:L:109:SER:HA	1.95	0.47
1:K:437:THR:OG1	1:K:438:LEU:N	2.47	0.47
1:L:501:LEU:O	1:L:509:VAL:N	2.46	0.47
1:M:51:TRP:N	1:M:204:HIS:O	2.46	0.47
1:N:51:TRP:N	1:N:204:HIS:O	2.46	0.47
1:O:195:GLU:O	1:O:198:ILE:HG22	2.15	0.47
1:O:267:LEU:HD23	1:P:101:LEU:HD12	1.97	0.47
1:P:93:ASN:CB	1:P:153:ARG:HG3	2.45	0.47
1:A:157:TYR:N	1:A:211:ALA:O	2.47	0.47
1:A:257:ILE:HG13	1:B:110:THR:HB	1.97	0.47
1:A:382:TYR:HD1	1:A:401:ASN:HB2	1.78	0.47
1:A:409:CYS:SG	1:A:415:PRO:HD3	2.54	0.47
1:B:180:ASP:O	1:B:184:LYS:HB2	2.14	0.47
1:B:409:CYS:SG	1:B:415:PRO:HD3	2.55	0.47
1:C:228:ASP:N	1:C:264:LYS:O	2.48	0.47
1:C:382:TYR:HD1	1:C:401:ASN:HB2	1.78	0.47
1:C:498:TYR:CD1	1:C:510:CYS:HB3	2.50	0.47
1:D:180:ASP:O	1:D:184:LYS:HB2	2.14	0.47
1:D:195:GLU:O	1:D:198:ILE:HG22	2.15	0.47
1:E:90:LYS:O	1:E:91:GLU:HG3	2.14	0.47
1:E:91:GLU:HG2	1:E:155:ARG:NH2	2.25	0.47
1:E:343:THR:O	1:E:520:LYS:HD3	2.14	0.47
1:F:228:ASP:N	1:F:264:LYS:O	2.48	0.47
1:F:343:THR:O	1:F:520:LYS:HD3	2.14	0.47
1:F:476:PHE:HA	1:F:512:SER:CB	2.45	0.47
1:G:157:TYR:N	1:G:211:ALA:O	2.47	0.47
1:G:195:GLU:O	1:G:198:ILE:HG22	2.15	0.47
1:H:195:GLU:O	1:H:198:ILE:HG22	2.15	0.47
1:H:263:THR:O	1:I:104:TRP:HA	2.14	0.47
1:H:269:ASN:HB2	1:I:99:GLU:HG3	1.96	0.47
1:I:180:ASP:O	1:I:184:LYS:HB2	2.14	0.47
1:I:195:GLU:O	1:I:198:ILE:HG22	2.15	0.47
1:J:90:LYS:CB	1:J:156:ILE:HG12	2.44	0.47
1:J:90:LYS:O	1:J:91:GLU:HG3	2.14	0.47
1:J:195:GLU:O	1:J:198:ILE:HG22	2.15	0.47
1:J:409:CYS:SG	1:J:415:PRO:HD3	2.55	0.47
1:K:93:ASN:CB	1:K:153:ARG:HG3	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:195:GLU:O	1:K:198:ILE:HG22	2.15	0.47
1:K:343:THR:O	1:K:520:LYS:HD3	2.14	0.47
1:K:409:CYS:SG	1:K:415:PRO:HD3	2.55	0.47
1:L:51:TRP:N	1:L:204:HIS:O	2.46	0.47
1:L:180:ASP:O	1:L:184:LYS:HB2	2.14	0.47
1:L:418:LEU:HA	1:L:529:PHE:CD1	2.49	0.47
1:L:560:GLN:O	1:M:513:LEU:HD23	2.15	0.47
1:M:91:GLU:HG2	1:M:155:ARG:NH2	2.25	0.47
1:M:93:ASN:CB	1:M:153:ARG:HG3	2.45	0.47
1:M:100:VAL:O	1:M:101:LEU:HD23	2.15	0.47
1:M:562:LEU:HB2	1:N:513:LEU:HD22	1.96	0.47
1:N:93:ASN:CB	1:N:153:ARG:HG3	2.45	0.47
1:P:180:ASP:O	1:P:184:LYS:HB2	2.14	0.47
1:P:501:LEU:HD23	1:P:501:LEU:HA	1.82	0.47
1:P:533:MET:HG3	1:P:534:GLY:H	1.78	0.47
1:A:228:ASP:N	1:A:264:LYS:O	2.48	0.47
1:B:93:ASN:CB	1:B:153:ARG:HG3	2.45	0.47
1:B:427:TYR:N	1:B:429:ARG:HH21	2.04	0.47
1:C:560:GLN:O	1:D:513:LEU:HD23	2.15	0.47
1:D:498:TYR:CD1	1:D:510:CYS:HB3	2.50	0.47
1:I:409:CYS:SG	1:I:415:PRO:HD3	2.55	0.47
1:J:180:ASP:O	1:J:184:LYS:HB2	2.14	0.47
1:J:386:THR:O	1:J:456:GLU:N	2.47	0.47
1:K:285:PRO:HG2	1:L:289:LEU:HD13	1.96	0.47
1:L:100:VAL:O	1:L:101:LEU:HD23	2.15	0.47
1:L:533:MET:HG3	1:L:534:GLY:H	1.78	0.47
1:M:116:ASN:HB3	1:M:128:LYS:HB3	1.96	0.47
1:M:476:PHE:HA	1:M:512:SER:CB	2.45	0.47
1:N:476:PHE:HA	1:N:512:SER:CB	2.45	0.47
1:N:498:TYR:CD1	1:N:510:CYS:HB3	2.50	0.47
1:O:228:ASP:N	1:O:264:LYS:O	2.48	0.47
1:A:116:ASN:HB3	1:A:128:LYS:HB3	1.96	0.47
1:B:343:THR:O	1:B:520:LYS:HD3	2.14	0.47
1:C:427:TYR:HB3	1:C:429:ARG:HE	1.80	0.47
1:D:343:THR:O	1:D:520:LYS:HD3	2.14	0.47
1:E:100:VAL:O	1:E:101:LEU:HD23	2.15	0.47
1:E:498:TYR:CD1	1:E:510:CYS:HB3	2.50	0.47
1:E:501:LEU:O	1:E:509:VAL:N	2.46	0.47
1:F:47:PRO:O	1:F:49:GLY:N	2.47	0.47
1:F:450:PHE:CE2	1:F:452:VAL:HG23	2.50	0.47
1:G:427:TYR:HB3	1:G:429:ARG:HE	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:450:PHE:CE2	1:G:452:VAL:HG23	2.50	0.47
1:H:476:PHE:HA	1:H:512:SER:CB	2.45	0.47
1:H:498:TYR:CD1	1:H:510:CYS:HB3	2.50	0.47
1:J:418:LEU:HA	1:J:529:PHE:CD1	2.49	0.47
1:J:498:TYR:CD1	1:J:510:CYS:HB3	2.50	0.47
1:K:180:ASP:O	1:K:184:LYS:HB2	2.14	0.47
1:L:195:GLU:O	1:L:198:ILE:HG22	2.15	0.47
1:L:196:LEU:HD13	1:M:312:PHE:HZ	1.79	0.47
1:L:409:CYS:SG	1:L:415:PRO:HD3	2.54	0.47
1:N:409:CYS:SG	1:N:415:PRO:HD3	2.55	0.47
1:O:180:ASP:O	1:O:184:LYS:HB2	2.14	0.47
1:O:382:TYR:HD1	1:O:401:ASN:HB2	1.78	0.47
1:O:476:PHE:HA	1:O:512:SER:CB	2.45	0.47
1:P:90:LYS:CB	1:P:156:ILE:HG12	2.44	0.47
1:P:100:VAL:O	1:P:101:LEU:HD23	2.15	0.47
1:A:498:TYR:CD1	1:A:510:CYS:HB3	2.50	0.47
1:B:195:GLU:O	1:B:198:ILE:HG22	2.15	0.47
1:B:498:TYR:CD1	1:B:510:CYS:HB3	2.50	0.47
1:C:265:ASP:OD1	1:D:103:SER:HB3	2.15	0.47
1:C:343:THR:O	1:C:520:LYS:HD3	2.14	0.47
1:E:533:MET:HG3	1:E:534:GLY:H	1.79	0.47
1:F:100:VAL:O	1:F:101:LEU:HD23	2.15	0.47
1:F:195:GLU:O	1:F:198:ILE:HG22	2.15	0.47
1:I:90:LYS:CB	1:I:156:ILE:HG12	2.44	0.47
1:I:343:THR:O	1:I:520:LYS:HD3	2.14	0.47
1:I:498:TYR:CD1	1:I:510:CYS:HB3	2.50	0.47
1:K:498:TYR:CD1	1:K:510:CYS:HB3	2.50	0.47
1:L:228:ASP:N	1:L:264:LYS:O	2.48	0.47
1:M:195:GLU:O	1:M:198:ILE:HG22	2.15	0.47
1:M:498:TYR:CD1	1:M:510:CYS:HB3	2.50	0.47
1:N:195:GLU:O	1:N:198:ILE:HG22	2.15	0.47
1:N:427:TYR:N	1:N:429:ARG:HH21	2.04	0.47
1:O:409:CYS:SG	1:O:415:PRO:HD3	2.55	0.47
1:B:116:ASN:HB3	1:B:128:LYS:HB3	1.96	0.46
1:D:427:TYR:HB3	1:D:429:ARG:HE	1.80	0.46
1:D:476:PHE:HA	1:D:512:SER:CB	2.45	0.46
1:E:450:PHE:CE2	1:E:452:VAL:HG23	2.50	0.46
1:F:427:TYR:N	1:F:429:ARG:HH21	2.04	0.46
1:F:498:TYR:CD1	1:F:510:CYS:HB3	2.50	0.46
1:G:100:VAL:O	1:G:101:LEU:HD23	2.15	0.46
1:G:476:PHE:HA	1:G:512:SER:CB	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:93:ASN:CB	1:I:153:ARG:HG3	2.45	0.46
1:I:100:VAL:O	1:I:101:LEU:HD23	2.15	0.46
1:J:427:TYR:HB3	1:J:429:ARG:HE	1.80	0.46
1:K:476:PHE:HA	1:K:512:SER:CB	2.45	0.46
1:M:90:LYS:CB	1:M:156:ILE:HG12	2.44	0.46
1:M:536:PRO:HD2	1:M:555:PRO:HG3	1.98	0.46
1:N:180:ASP:O	1:N:184:LYS:HB2	2.14	0.46
1:O:93:ASN:CB	1:O:153:ARG:HG3	2.45	0.46
1:P:116:ASN:HB3	1:P:128:LYS:HB3	1.96	0.46
1:P:409:CYS:SG	1:P:415:PRO:HD3	2.55	0.46
1:A:427:TYR:HB3	1:A:429:ARG:HE	1.80	0.46
1:B:450:PHE:CE2	1:B:452:VAL:HG23	2.50	0.46
1:C:93:ASN:CB	1:C:153:ARG:HG3	2.45	0.46
1:C:195:GLU:O	1:C:198:ILE:HG22	2.15	0.46
1:D:91:GLU:HG2	1:D:155:ARG:NH2	2.25	0.46
1:D:100:VAL:O	1:D:101:LEU:HD23	2.15	0.46
1:D:116:ASN:HB3	1:D:128:LYS:HB3	1.96	0.46
1:D:450:PHE:CE2	1:D:452:VAL:HG23	2.50	0.46
1:E:409:CYS:SG	1:E:415:PRO:HD3	2.55	0.46
1:F:427:TYR:HB3	1:F:429:ARG:HE	1.80	0.46
1:G:343:THR:O	1:G:520:LYS:HD3	2.14	0.46
1:H:153:ARG:HH12	1:H:289:LEU:CA	2.27	0.46
1:H:343:THR:O	1:H:520:LYS:HD3	2.14	0.46
1:I:267:LEU:HD23	1:J:101:LEU:HD12	1.98	0.46
1:K:357:ASN:HA	1:L:339:ARG:HE	1.80	0.46
1:L:498:TYR:CD1	1:L:510:CYS:HB3	2.50	0.46
1:M:180:ASP:O	1:M:184:LYS:HB2	2.14	0.46
1:A:137:LYS:HB2	1:A:231:ASN:HB3	1.98	0.46
1:A:476:PHE:HA	1:A:512:SER:CB	2.45	0.46
1:A:524:PRO:O	1:A:576:LYS:HB3	2.16	0.46
1:B:476:PHE:HA	1:B:512:SER:CB	2.45	0.46
1:B:536:PRO:HD2	1:B:555:PRO:HG3	1.98	0.46
1:C:47:PRO:O	1:C:49:GLY:N	2.47	0.46
1:C:100:VAL:O	1:C:101:LEU:HD23	2.15	0.46
1:C:116:ASN:HB3	1:C:128:LYS:HB3	1.96	0.46
1:C:271:THR:HB	1:D:97:ASN:OD1	2.15	0.46
1:E:93:ASN:CB	1:E:153:ARG:HG3	2.45	0.46
1:E:116:ASN:HB3	1:E:128:LYS:HB3	1.96	0.46
1:E:195:GLU:O	1:E:198:ILE:HG22	2.15	0.46
1:F:153:ARG:HH12	1:F:289:LEU:CA	2.27	0.46
1:H:450:PHE:CE2	1:H:452:VAL:HG23	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:228:ASP:N	1:I:264:LYS:O	2.48	0.46
1:J:100:VAL:O	1:J:101:LEU:HD23	2.15	0.46
1:J:116:ASN:HB3	1:J:128:LYS:HB3	1.96	0.46
1:L:536:PRO:HD2	1:L:555:PRO:HG3	1.98	0.46
1:N:536:PRO:HD2	1:N:555:PRO:HG3	1.98	0.46
1:O:47:PRO:O	1:O:49:GLY:N	2.47	0.46
1:P:427:TYR:HB3	1:P:429:ARG:HE	1.80	0.46
1:P:450:PHE:CE2	1:P:452:VAL:HG23	2.50	0.46
1:A:100:VAL:O	1:A:101:LEU:HD23	2.15	0.46
1:A:135:ARG:NH1	1:A:233:GLN:OE1	2.49	0.46
1:C:91:GLU:HG2	1:C:155:ARG:NH2	2.25	0.46
1:C:135:ARG:NH1	1:C:233:GLN:OE1	2.49	0.46
1:C:409:CYS:SG	1:C:415:PRO:HD3	2.55	0.46
1:D:409:CYS:SG	1:D:415:PRO:HD3	2.55	0.46
1:E:568:GLY:HA3	1:F:400:LYS:HD2	1.97	0.46
1:F:87:ILE:HG13	1:F:158:THR:CG2	2.46	0.46
1:F:135:ARG:NH1	1:F:233:GLN:OE1	2.49	0.46
1:G:93:ASN:CB	1:G:153:ARG:HG3	2.45	0.46
1:H:100:VAL:O	1:H:101:LEU:HD23	2.15	0.46
1:H:135:ARG:NH1	1:H:233:GLN:OE1	2.49	0.46
1:H:386:THR:O	1:H:456:GLU:N	2.47	0.46
1:I:386:THR:O	1:I:456:GLU:N	2.47	0.46
1:J:343:THR:O	1:J:520:LYS:HD3	2.14	0.46
1:J:476:PHE:HA	1:J:512:SER:CB	2.45	0.46
1:K:135:ARG:NH1	1:K:233:GLN:OE1	2.49	0.46
1:K:501:LEU:O	1:K:509:VAL:N	2.46	0.46
1:L:427:TYR:HB3	1:L:429:ARG:HE	1.80	0.46
1:N:135:ARG:NH1	1:N:233:GLN:OE1	2.49	0.46
1:O:116:ASN:HB3	1:O:128:LYS:HB3	1.96	0.46
1:P:476:PHE:HA	1:P:512:SER:CB	2.45	0.46
1:P:536:PRO:HD2	1:P:555:PRO:HG3	1.98	0.46
1:A:31:PHE:CD2	1:A:42:VAL:HG21	2.51	0.46
1:A:536:PRO:HD2	1:A:555:PRO:HG3	1.98	0.46
1:B:137:LYS:HB2	1:B:231:ASN:HB3	1.98	0.46
1:D:93:ASN:CB	1:D:153:ARG:HG3	2.45	0.46
1:E:476:PHE:HA	1:E:512:SER:CB	2.45	0.46
1:F:386:THR:O	1:F:456:GLU:N	2.47	0.46
1:G:87:ILE:HG13	1:G:158:THR:CG2	2.46	0.46
1:G:461:TRP:CE2	1:G:527:GLY:HA3	2.51	0.46
1:H:501:LEU:O	1:H:509:VAL:N	2.46	0.46
1:I:87:ILE:HG13	1:I:158:THR:CG2	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:135:ARG:NH1	1:I:233:GLN:OE1	2.49	0.46
1:I:450:PHE:CE2	1:I:452:VAL:HG23	2.50	0.46
1:J:501:LEU:O	1:J:509:VAL:N	2.46	0.46
1:J:524:PRO:O	1:J:576:LYS:HB3	2.16	0.46
1:K:31:PHE:CD2	1:K:42:VAL:HG21	2.51	0.46
1:K:196:LEU:HD13	1:L:312:PHE:HZ	1.81	0.46
1:K:427:TYR:N	1:K:429:ARG:HH21	2.04	0.46
1:L:87:ILE:HG13	1:L:158:THR:CG2	2.46	0.46
1:M:409:CYS:SG	1:M:415:PRO:HD3	2.55	0.46
1:N:100:VAL:O	1:N:101:LEU:HD23	2.15	0.46
1:N:533:MET:HG3	1:N:534:GLY:H	1.78	0.46
1:O:100:VAL:O	1:O:101:LEU:HD23	2.15	0.46
1:O:450:PHE:CE2	1:O:452:VAL:HG23	2.50	0.46
1:P:498:TYR:CD1	1:P:510:CYS:HB3	2.50	0.46
1:A:250:PHE:HA	1:B:117:THR:HB	1.97	0.46
1:A:450:PHE:CE2	1:A:452:VAL:HG23	2.50	0.46
1:B:31:PHE:CD2	1:B:42:VAL:HG21	2.51	0.46
1:C:476:PHE:HA	1:C:512:SER:CB	2.45	0.46
1:D:386:THR:O	1:D:456:GLU:N	2.47	0.46
1:E:500:PRO:HB2	1:E:508:LYS:HB3	1.98	0.46
1:F:58:ASP:HB2	1:G:87:ILE:CD1	2.45	0.46
1:G:31:PHE:CD2	1:G:42:VAL:HG21	2.51	0.46
1:G:386:THR:O	1:G:456:GLU:N	2.47	0.46
1:H:31:PHE:CD2	1:H:42:VAL:HG21	2.51	0.46
1:H:252:VAL:HA	1:I:115:ILE:HG22	1.97	0.46
1:H:357:ASN:O	1:I:339:ARG:CZ	2.63	0.46
1:J:500:PRO:HB2	1:J:508:LYS:HB3	1.98	0.46
1:K:536:PRO:HD2	1:K:555:PRO:HG3	1.98	0.46
1:L:137:LYS:HB2	1:L:231:ASN:HB3	1.98	0.46
1:L:252:VAL:HG13	1:M:115:ILE:HG21	1.97	0.46
1:L:285:PRO:HG2	1:M:289:LEU:HD13	1.98	0.46
1:M:137:LYS:HB2	1:M:231:ASN:HB3	1.98	0.46
1:N:91:GLU:HG2	1:N:155:ARG:NH2	2.25	0.46
1:O:498:TYR:CD1	1:O:510:CYS:HB3	2.50	0.46
1:O:536:PRO:HD2	1:O:555:PRO:HG3	1.98	0.46
1:P:135:ARG:NH1	1:P:233:GLN:OE1	2.49	0.46
1:P:137:LYS:HB2	1:P:231:ASN:HB3	1.98	0.46
1:C:255:ASP:N	1:D:112:SER:O	2.43	0.46
1:C:450:PHE:CE2	1:C:452:VAL:HG23	2.50	0.46
1:C:536:PRO:HD2	1:C:555:PRO:HG3	1.98	0.46
1:D:135:ARG:NH1	1:D:233:GLN:OE1	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:31:PHE:CD2	1:E:42:VAL:HG21	2.51	0.46
1:E:386:THR:O	1:E:456:GLU:N	2.47	0.46
1:F:409:CYS:SG	1:F:415:PRO:HD3	2.55	0.46
1:G:498:TYR:CD1	1:G:510:CYS:HB3	2.50	0.46
1:I:427:TYR:HB3	1:I:429:ARG:HE	1.81	0.46
1:I:461:TRP:CE2	1:I:527:GLY:HA3	2.51	0.46
1:I:476:PHE:HA	1:I:512:SER:CB	2.45	0.46
1:J:93:ASN:CB	1:J:153:ARG:HG3	2.45	0.46
1:J:478:GLY:O	1:J:510:CYS:N	2.47	0.46
1:K:100:VAL:O	1:K:101:LEU:HD23	2.15	0.46
1:K:387:GLU:HG2	1:K:394:CYS:HB2	1.98	0.46
1:K:450:PHE:CE2	1:K:452:VAL:HG23	2.50	0.46
1:K:500:PRO:HB2	1:K:508:LYS:HB3	1.98	0.46
1:L:93:ASN:CB	1:L:153:ARG:HG3	2.45	0.46
1:M:135:ARG:NH1	1:M:233:GLN:OE1	2.49	0.46
1:M:500:PRO:HB2	1:M:508:LYS:HB3	1.98	0.46
1:N:137:LYS:HB2	1:N:231:ASN:HB3	1.98	0.46
1:P:31:PHE:CD2	1:P:42:VAL:HG21	2.51	0.46
1:P:228:ASP:N	1:P:264:LYS:O	2.48	0.46
1:P:524:PRO:O	1:P:576:LYS:HB3	2.16	0.46
1:B:100:VAL:O	1:B:101:LEU:HD23	2.15	0.46
1:B:135:ARG:NH1	1:B:233:GLN:OE1	2.49	0.46
1:C:137:LYS:HB2	1:C:231:ASN:HB3	1.98	0.46
1:D:31:PHE:CD2	1:D:42:VAL:HG21	2.51	0.46
1:D:153:ARG:HH12	1:D:289:LEU:CA	2.27	0.46
1:D:524:PRO:O	1:D:576:LYS:HB3	2.16	0.46
1:E:135:ARG:NH1	1:E:233:GLN:OE1	2.49	0.46
1:E:461:TRP:CE2	1:E:527:GLY:HA3	2.51	0.46
1:E:524:PRO:O	1:E:576:LYS:HB3	2.16	0.46
1:G:500:PRO:HB2	1:G:508:LYS:HB3	1.98	0.46
1:G:501:LEU:O	1:G:509:VAL:N	2.46	0.46
1:H:252:VAL:HG22	1:I:115:ILE:HB	1.98	0.46
1:H:500:PRO:HB2	1:H:508:LYS:HB3	1.98	0.46
1:H:524:PRO:O	1:H:576:LYS:HB3	2.16	0.46
1:I:387:GLU:HG2	1:I:394:CYS:HB2	1.98	0.46
1:J:31:PHE:CD2	1:J:42:VAL:HG21	2.51	0.46
1:J:87:ILE:HG13	1:J:158:THR:CG2	2.46	0.46
1:K:87:ILE:HG13	1:K:158:THR:CG2	2.46	0.46
1:L:135:ARG:NH1	1:L:233:GLN:OE1	2.49	0.46
1:M:31:PHE:CD2	1:M:42:VAL:HG21	2.51	0.46
1:N:165:SER:O	1:N:318:LYS:NZ	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:427:TYR:HB3	1:N:429:ARG:HE	1.81	0.46
1:N:450:PHE:CE2	1:N:452:VAL:HG23	2.50	0.46
1:O:135:ARG:NH1	1:O:233:GLN:OE1	2.49	0.46
1:O:137:LYS:HB2	1:O:231:ASN:HB3	1.98	0.46
1:P:195:GLU:O	1:P:198:ILE:HG22	2.15	0.46
1:B:524:PRO:O	1:B:576:LYS:HB3	2.16	0.46
1:D:58:ASP:HB2	1:E:87:ILE:HD13	1.98	0.46
1:D:82:ASP:N	1:D:82:ASP:OD1	2.42	0.46
1:D:228:ASP:N	1:D:264:LYS:O	2.48	0.46
1:F:269:ASN:HB2	1:G:99:GLU:HG3	1.98	0.46
1:F:387:GLU:HG2	1:F:394:CYS:HB2	1.98	0.46
1:F:500:PRO:HB2	1:F:508:LYS:HB3	1.98	0.46
1:H:87:ILE:HG13	1:H:158:THR:CG2	2.46	0.46
1:H:93:ASN:CB	1:H:153:ARG:HG3	2.45	0.46
1:H:387:GLU:HG2	1:H:394:CYS:HB2	1.98	0.46
1:H:427:TYR:HB3	1:H:429:ARG:HE	1.80	0.46
1:J:135:ARG:NH1	1:J:233:GLN:OE1	2.49	0.46
1:J:153:ARG:HH12	1:J:289:LEU:CA	2.27	0.46
1:K:137:LYS:HB2	1:K:231:ASN:HB3	1.98	0.46
1:K:461:TRP:CE2	1:K:527:GLY:HA3	2.51	0.46
1:L:461:TRP:CE2	1:L:527:GLY:HA3	2.51	0.46
1:L:476:PHE:HA	1:L:512:SER:CB	2.45	0.46
1:L:500:PRO:HB2	1:L:508:LYS:HB3	1.98	0.46
1:L:501:LEU:HD23	1:L:501:LEU:HA	1.81	0.46
1:L:524:PRO:O	1:L:576:LYS:HB3	2.16	0.46
1:M:450:PHE:CE2	1:M:452:VAL:HG23	2.50	0.46
1:N:87:ILE:HG13	1:N:158:THR:CG2	2.46	0.46
1:O:74:GLU:OE1	1:O:74:GLU:N	2.49	0.46
1:B:91:GLU:HG2	1:B:155:ARG:NH2	2.25	0.46
1:C:31:PHE:CD2	1:C:42:VAL:HG21	2.51	0.46
1:C:386:THR:O	1:C:456:GLU:N	2.47	0.46
1:C:500:PRO:HB2	1:C:508:LYS:HB3	1.98	0.46
1:D:501:LEU:HD23	1:D:501:LEU:HA	1.81	0.46
1:F:116:ASN:HB3	1:F:128:LYS:HB3	1.96	0.46
1:H:82:ASP:OD1	1:H:82:ASP:N	2.42	0.46
1:H:461:TRP:CE2	1:H:527:GLY:HA3	2.51	0.46
1:I:501:LEU:HD23	1:I:501:LEU:HA	1.81	0.46
1:J:267:LEU:HD23	1:K:101:LEU:HD12	1.98	0.46
1:J:450:PHE:CE2	1:J:452:VAL:HG23	2.50	0.46
1:J:461:TRP:CE2	1:J:527:GLY:HA3	2.51	0.46
1:L:47:PRO:O	1:L:49:GLY:N	2.47	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:524:PRO:O	1:M:576:LYS:HB3	2.16	0.46
1:N:74:GLU:OE1	1:N:74:GLU:N	2.49	0.46
1:O:31:PHE:CD2	1:O:42:VAL:HG21	2.51	0.46
1:B:500:PRO:HB2	1:B:508:LYS:HB3	1.98	0.45
1:D:87:ILE:HG13	1:D:158:THR:CG2	2.46	0.45
1:F:524:PRO:O	1:F:576:LYS:HB3	2.16	0.45
1:G:103:SER:C	1:G:104:TRP:HD1	2.20	0.45
1:G:228:ASP:N	1:G:264:LYS:O	2.48	0.45
1:I:103:SER:C	1:I:104:TRP:HD1	2.20	0.45
1:J:536:PRO:HD2	1:J:555:PRO:HG3	1.98	0.45
1:N:31:PHE:CD2	1:N:42:VAL:HG21	2.51	0.45
1:N:116:ASN:HB3	1:N:128:LYS:HB3	1.96	0.45
1:N:524:PRO:O	1:N:576:LYS:HB3	2.16	0.45
1:O:91:GLU:HG2	1:O:155:ARG:NH2	2.25	0.45
1:O:500:PRO:HB2	1:O:508:LYS:HB3	1.98	0.45
1:A:103:SER:C	1:A:104:TRP:HD1	2.20	0.45
1:B:153:ARG:HH12	1:B:289:LEU:CA	2.27	0.45
1:C:103:SER:C	1:C:104:TRP:HD1	2.20	0.45
1:D:137:LYS:HB2	1:D:231:ASN:HB3	1.98	0.45
1:D:278:PHE:HA	1:D:279:GLY:HA2	1.64	0.45
1:D:500:PRO:HB2	1:D:508:LYS:HB3	1.98	0.45
1:D:536:PRO:HD2	1:D:555:PRO:HG3	1.98	0.45
1:E:168:SER:OG	1:E:169:LEU:N	2.50	0.45
1:E:427:TYR:HB3	1:E:429:ARG:HE	1.80	0.45
1:F:93:ASN:CB	1:F:153:ARG:HG3	2.45	0.45
1:G:168:SER:OG	1:G:169:LEU:N	2.50	0.45
1:H:267:LEU:HD23	1:I:101:LEU:HD12	1.97	0.45
1:J:137:LYS:HB2	1:J:231:ASN:HB3	1.98	0.45
1:M:461:TRP:CE2	1:M:527:GLY:HA3	2.51	0.45
1:N:168:SER:OG	1:N:169:LEU:N	2.50	0.45
1:N:253:GLU:H	1:O:115:ILE:HG22	1.80	0.45
1:N:500:PRO:HB2	1:N:508:LYS:HB3	1.98	0.45
1:P:461:TRP:CE2	1:P:527:GLY:HA3	2.51	0.45
1:P:500:PRO:HB2	1:P:508:LYS:HB3	1.98	0.45
1:A:97:ASN:OD1	1:P:271:THR:HB	2.16	0.45
1:C:269:ASN:HB2	1:D:99:GLU:HG3	1.97	0.45
1:E:87:ILE:HG13	1:E:158:THR:CG2	2.46	0.45
1:E:436:CYS:SG	1:E:442:CYS:HB3	2.57	0.45
1:F:436:CYS:SG	1:F:442:CYS:HB3	2.57	0.45
1:H:436:CYS:SG	1:H:442:CYS:HB3	2.57	0.45
1:I:47:PRO:O	1:I:49:GLY:N	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:116:ASN:O	1:I:117:THR:OG1	2.33	0.45
1:I:559:SER:O	1:I:561:HIS:N	2.50	0.45
1:K:265:ASP:OD1	1:L:103:SER:HB3	2.16	0.45
1:K:278:PHE:HA	1:K:279:GLY:HA2	1.64	0.45
1:L:153:ARG:HH12	1:L:289:LEU:CA	2.27	0.45
1:M:74:GLU:OE1	1:M:74:GLU:N	2.49	0.45
1:A:87:ILE:HG13	1:A:158:THR:CG2	2.46	0.45
1:A:436:CYS:SG	1:A:442:CYS:HB3	2.57	0.45
1:B:436:CYS:SG	1:B:442:CYS:HB3	2.57	0.45
1:C:461:TRP:CE2	1:C:527:GLY:HA3	2.51	0.45
1:E:501:LEU:HD23	1:E:501:LEU:HA	1.81	0.45
1:E:536:PRO:HD2	1:E:555:PRO:HG3	1.98	0.45
1:G:243:ALA:CB	1:G:249:ASN:HA	2.47	0.45
1:H:536:PRO:HD2	1:H:555:PRO:HG3	1.98	0.45
1:H:559:SER:O	1:H:561:HIS:N	2.50	0.45
1:I:31:PHE:CD2	1:I:42:VAL:HG21	2.51	0.45
1:I:500:PRO:HB2	1:I:508:LYS:HB3	1.98	0.45
1:K:478:GLY:O	1:K:510:CYS:N	2.47	0.45
1:L:450:PHE:CE2	1:L:452:VAL:HG23	2.50	0.45
1:O:87:ILE:HG13	1:O:158:THR:CG2	2.46	0.45
1:O:427:TYR:HB3	1:O:429:ARG:HE	1.80	0.45
1:O:478:GLY:O	1:O:510:CYS:N	2.47	0.45
1:A:91:GLU:HG2	1:A:155:ARG:NH2	2.25	0.45
1:A:168:SER:OG	1:A:169:LEU:N	2.49	0.45
1:B:278:PHE:HA	1:B:279:GLY:HA2	1.64	0.45
1:B:386:THR:O	1:B:456:GLU:N	2.47	0.45
1:C:436:CYS:SG	1:C:442:CYS:HB3	2.57	0.45
1:D:436:CYS:SG	1:D:442:CYS:HB3	2.57	0.45
1:E:103:SER:C	1:E:104:TRP:HD1	2.20	0.45
1:E:137:LYS:HB2	1:E:231:ASN:HB3	1.98	0.45
1:F:137:LYS:HB2	1:F:231:ASN:HB3	1.98	0.45
1:F:243:ALA:CB	1:F:249:ASN:HA	2.47	0.45
1:G:135:ARG:NH1	1:G:233:GLN:OE1	2.49	0.45
1:I:436:CYS:SG	1:I:442:CYS:HB3	2.57	0.45
1:J:285:PRO:HG2	1:K:289:LEU:HD13	1.98	0.45
1:J:559:SER:O	1:J:561:HIS:N	2.50	0.45
1:L:436:CYS:SG	1:L:442:CYS:HB3	2.57	0.45
1:M:387:GLU:HG2	1:M:394:CYS:HB2	1.98	0.45
1:M:436:CYS:SG	1:M:442:CYS:HB3	2.57	0.45
1:N:461:TRP:CE2	1:N:527:GLY:HA3	2.51	0.45
1:P:153:ARG:HH12	1:P:289:LEU:CA	2.27	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:436:CYS:SG	1:P:442:CYS:HB3	2.57	0.45
1:A:427:TYR:N	1:A:429:ARG:HH21	2.04	0.45
1:A:461:TRP:CE2	1:A:527:GLY:HA3	2.51	0.45
1:A:500:PRO:HB2	1:A:508:LYS:HB3	1.98	0.45
1:E:243:ALA:CB	1:E:249:ASN:HA	2.47	0.45
1:F:252:VAL:HA	1:G:115:ILE:HG22	1.98	0.45
1:F:265:ASP:OD1	1:G:103:SER:HB3	2.17	0.45
1:F:536:PRO:HD2	1:F:555:PRO:HG3	1.98	0.45
1:G:58:ASP:HB2	1:H:87:ILE:CD1	2.47	0.45
1:G:536:PRO:HD2	1:G:555:PRO:HG3	1.98	0.45
1:H:357:ASN:O	1:I:339:ARG:NE	2.50	0.45
1:I:524:PRO:O	1:I:576:LYS:HB3	2.16	0.45
1:I:536:PRO:HD2	1:I:555:PRO:HG3	1.98	0.45
1:K:65:LEU:HD13	1:K:81:PRO:HG3	1.99	0.45
1:K:403:LEU:HD13	1:K:410:PRO:HG3	1.99	0.45
1:K:524:PRO:O	1:K:576:LYS:HB3	2.16	0.45
1:M:175:LEU:HD23	1:M:175:LEU:HA	1.79	0.45
1:O:103:SER:C	1:O:104:TRP:HD1	2.20	0.45
1:O:559:SER:O	1:O:561:HIS:N	2.50	0.45
1:P:116:ASN:O	1:P:117:THR:OG1	2.33	0.45
1:P:559:SER:O	1:P:561:HIS:N	2.50	0.45
1:A:387:GLU:HG2	1:A:394:CYS:HB2	1.98	0.45
1:A:559:SER:O	1:A:561:HIS:N	2.50	0.45
1:B:387:GLU:HG2	1:B:394:CYS:HB2	1.98	0.45
1:B:427:TYR:HB3	1:B:429:ARG:HE	1.80	0.45
1:B:461:TRP:CE2	1:B:527:GLY:HA3	2.51	0.45
1:F:31:PHE:CD2	1:F:42:VAL:HG21	2.51	0.45
1:F:461:TRP:CE2	1:F:527:GLY:HA3	2.51	0.45
1:G:137:LYS:HB2	1:G:231:ASN:HB3	1.98	0.45
1:G:559:SER:O	1:G:561:HIS:N	2.50	0.45
1:H:137:LYS:HB2	1:H:231:ASN:HB3	1.98	0.45
1:H:427:TYR:N	1:H:429:ARG:HH21	2.04	0.45
1:H:562:LEU:HD21	1:I:499:ILE:HD11	1.99	0.45
1:I:137:LYS:HB2	1:I:231:ASN:HB3	1.98	0.45
1:J:387:GLU:HG2	1:J:394:CYS:HB2	1.98	0.45
1:J:403:LEU:HD13	1:J:410:PRO:HG3	1.98	0.45
1:K:103:SER:C	1:K:104:TRP:HD1	2.20	0.45
1:K:348:PRO:HD2	1:K:363:ASN:ND2	2.32	0.45
1:L:31:PHE:CD2	1:L:42:VAL:HG21	2.51	0.45
1:M:403:LEU:HD13	1:M:410:PRO:HG3	1.98	0.45
1:N:153:ARG:HH12	1:N:289:LEU:CA	2.27	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:403:LEU:HD13	1:B:410:PRO:HG3	1.98	0.45
1:F:103:SER:C	1:F:104:TRP:HD1	2.20	0.45
1:G:348:PRO:HD2	1:G:363:ASN:ND2	2.32	0.45
1:G:524:PRO:O	1:G:576:LYS:HB3	2.16	0.45
1:H:403:LEU:HD13	1:H:410:PRO:HG3	1.99	0.45
1:I:65:LEU:HD13	1:I:81:PRO:HG3	1.99	0.45
1:J:103:SER:C	1:J:104:TRP:HD1	2.20	0.45
1:J:243:ALA:CB	1:J:249:ASN:HA	2.47	0.45
1:K:168:SER:OG	1:K:169:LEU:N	2.50	0.45
1:K:243:ALA:CB	1:K:249:ASN:HA	2.47	0.45
1:K:559:SER:O	1:K:561:HIS:N	2.50	0.45
1:L:65:LEU:HD13	1:L:81:PRO:HG3	1.99	0.45
1:L:103:SER:C	1:L:104:TRP:HD1	2.20	0.45
1:M:103:SER:C	1:M:104:TRP:HD1	2.20	0.45
1:M:228:ASP:N	1:M:264:LYS:O	2.48	0.45
1:N:278:PHE:HA	1:N:279:GLY:HA2	1.64	0.45
1:N:387:GLU:HG2	1:N:394:CYS:HB2	1.98	0.45
1:P:91:GLU:HG2	1:P:155:ARG:NH2	2.25	0.45
1:P:387:GLU:HG2	1:P:394:CYS:HB2	1.98	0.45
1:B:87:ILE:HG13	1:B:158:THR:CG2	2.46	0.45
1:C:403:LEU:HD13	1:C:410:PRO:HG3	1.99	0.45
1:D:255:ASP:N	1:E:112:SER:O	2.45	0.45
1:F:175:LEU:HD23	1:F:175:LEU:HA	1.79	0.45
1:G:436:CYS:SG	1:G:442:CYS:HB3	2.57	0.45
1:H:243:ALA:CB	1:H:249:ASN:HA	2.47	0.45
1:I:168:SER:OG	1:I:169:LEU:N	2.50	0.45
1:J:271:THR:HB	1:K:97:ASN:OD1	2.16	0.45
1:K:427:TYR:HB3	1:K:429:ARG:HE	1.80	0.45
1:L:74:GLU:OE1	1:L:74:GLU:N	2.49	0.45
1:L:168:SER:OG	1:L:169:LEU:N	2.50	0.45
1:M:87:ILE:HG13	1:M:158:THR:CG2	2.46	0.45
1:M:103:SER:O	1:M:104:TRP:HD1	2.00	0.45
1:M:427:TYR:HB3	1:M:429:ARG:HE	1.80	0.45
1:P:168:SER:OG	1:P:169:LEU:N	2.50	0.45
1:A:243:ALA:CB	1:A:249:ASN:HA	2.47	0.45
1:A:481:THR:HG22	1:A:507:LEU:HD22	1.99	0.45
1:B:243:ALA:CB	1:B:249:ASN:HA	2.47	0.45
1:C:387:GLU:HG2	1:C:394:CYS:HB2	1.98	0.45
1:C:524:PRO:O	1:C:576:LYS:HB3	2.16	0.45
1:D:403:LEU:HD13	1:D:410:PRO:HG3	1.99	0.45
1:F:348:PRO:HD2	1:F:363:ASN:ND2	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:559:SER:O	1:F:561:HIS:N	2.50	0.45
1:G:387:GLU:HG2	1:G:394:CYS:HB2	1.98	0.45
1:H:103:SER:C	1:H:104:TRP:HD1	2.20	0.45
1:J:65:LEU:HD13	1:J:81:PRO:HG3	1.99	0.45
1:J:348:PRO:HD2	1:J:363:ASN:ND2	2.32	0.45
1:K:103:SER:O	1:K:104:TRP:HD1	2.00	0.45
1:K:436:CYS:SG	1:K:442:CYS:HB3	2.57	0.45
1:L:243:ALA:CB	1:L:249:ASN:HA	2.47	0.45
1:M:65:LEU:HD13	1:M:81:PRO:HG3	1.99	0.45
1:M:168:SER:OG	1:M:169:LEU:N	2.50	0.45
1:N:559:SER:O	1:N:561:HIS:N	2.50	0.45
1:O:103:SER:O	1:O:104:TRP:HD1	2.00	0.45
1:P:103:SER:C	1:P:104:TRP:HD1	2.20	0.45
1:A:403:LEU:HD13	1:A:410:PRO:HG3	1.99	0.44
1:B:103:SER:C	1:B:104:TRP:HD1	2.20	0.44
1:B:255:ASP:N	1:C:112:SER:O	2.42	0.44
1:B:559:SER:O	1:B:561:HIS:N	2.50	0.44
1:C:168:SER:OG	1:C:169:LEU:N	2.50	0.44
1:C:559:SER:O	1:C:561:HIS:N	2.50	0.44
1:D:103:SER:C	1:D:104:TRP:HD1	2.20	0.44
1:D:559:SER:O	1:D:561:HIS:N	2.50	0.44
1:E:559:SER:O	1:E:561:HIS:N	2.50	0.44
1:H:65:LEU:HD13	1:H:81:PRO:HG3	1.99	0.44
1:H:169:LEU:HD12	1:H:169:LEU:HA	1.81	0.44
1:H:348:PRO:HD2	1:H:363:ASN:ND2	2.32	0.44
1:I:103:SER:O	1:I:104:TRP:HD1	2.00	0.44
1:I:348:PRO:HD2	1:I:363:ASN:ND2	2.32	0.44
1:L:103:SER:O	1:L:104:TRP:HD1	2.00	0.44
1:L:348:PRO:HD2	1:L:363:ASN:ND2	2.32	0.44
1:L:559:SER:O	1:L:561:HIS:N	2.50	0.44
1:N:436:CYS:SG	1:N:442:CYS:HB3	2.57	0.44
1:O:168:SER:OG	1:O:169:LEU:N	2.50	0.44
1:O:436:CYS:SG	1:O:442:CYS:HB3	2.57	0.44
1:A:386:THR:O	1:A:456:GLU:N	2.47	0.44
1:B:348:PRO:HD2	1:B:363:ASN:ND2	2.32	0.44
1:C:478:GLY:O	1:C:510:CYS:N	2.47	0.44
1:D:387:GLU:HG2	1:D:394:CYS:HB2	1.98	0.44
1:E:348:PRO:HD2	1:E:363:ASN:ND2	2.32	0.44
1:E:427:TYR:N	1:E:429:ARG:HH21	2.04	0.44
1:F:458:ARG:HB3	1:F:460:TYR:CE2	2.52	0.44
1:G:562:LEU:HB2	1:H:513:LEU:HD22	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:373:VAL:HG23	1:H:576:LYS:HB2	2.00	0.44
1:I:169:LEU:HD12	1:I:169:LEU:HA	1.81	0.44
1:J:103:SER:O	1:J:104:TRP:HD1	2.00	0.44
1:J:168:SER:OG	1:J:169:LEU:N	2.50	0.44
1:K:481:THR:HG22	1:K:507:LEU:HD22	2.00	0.44
1:L:387:GLU:HG2	1:L:394:CYS:HB2	1.98	0.44
1:L:478:GLY:O	1:L:510:CYS:N	2.47	0.44
1:N:65:LEU:HD13	1:N:81:PRO:HG3	1.99	0.44
1:O:461:TRP:CE2	1:O:527:GLY:HA3	2.51	0.44
1:O:524:PRO:O	1:O:576:LYS:HB3	2.16	0.44
1:P:87:ILE:HG13	1:P:158:THR:CG2	2.46	0.44
1:P:481:THR:HG22	1:P:507:LEU:HD22	2.00	0.44
1:A:348:PRO:HD2	1:A:363:ASN:ND2	2.32	0.44
1:B:58:ASP:HB2	1:C:87:ILE:HD13	1.99	0.44
1:B:168:SER:OG	1:B:169:LEU:N	2.50	0.44
1:C:243:ALA:CB	1:C:249:ASN:HA	2.47	0.44
1:E:257:ILE:HG13	1:F:110:THR:HB	2.00	0.44
1:G:373:VAL:HG23	1:G:576:LYS:HB2	2.00	0.44
1:H:103:SER:O	1:H:104:TRP:HD1	2.00	0.44
1:I:243:ALA:CB	1:I:249:ASN:HA	2.47	0.44
1:I:403:LEU:HD13	1:I:410:PRO:HG3	1.98	0.44
1:J:228:ASP:N	1:J:264:LYS:O	2.48	0.44
1:J:278:PHE:HA	1:J:279:GLY:HA2	1.64	0.44
1:N:103:SER:C	1:N:104:TRP:HD1	2.20	0.44
1:O:258:SER:HA	1:P:109:SER:HA	1.99	0.44
1:O:387:GLU:HG2	1:O:394:CYS:HB2	1.98	0.44
1:P:47:PRO:O	1:P:49:GLY:N	2.47	0.44
1:P:403:LEU:HD13	1:P:410:PRO:HG3	1.99	0.44
1:B:481:THR:HG22	1:B:507:LEU:HD22	2.00	0.44
1:C:65:LEU:HD13	1:C:81:PRO:HG3	1.99	0.44
1:C:87:ILE:HG13	1:C:158:THR:CG2	2.46	0.44
1:C:348:PRO:HD2	1:C:363:ASN:ND2	2.32	0.44
1:D:47:PRO:O	1:D:49:GLY:N	2.47	0.44
1:D:168:SER:OG	1:D:169:LEU:N	2.50	0.44
1:D:461:TRP:CE2	1:D:527:GLY:HA3	2.51	0.44
1:E:403:LEU:HD13	1:E:410:PRO:HG3	1.99	0.44
1:F:103:SER:O	1:F:104:TRP:HD1	2.00	0.44
1:F:373:VAL:HG23	1:F:576:LYS:HB2	2.00	0.44
1:G:119:LEU:HA	1:G:125:VAL:HG23	2.00	0.44
1:H:201:TYR:CE1	1:I:163:PRO:HG3	2.51	0.44
1:H:560:GLN:NE2	1:I:474:LEU:HD22	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:373:VAL:HG23	1:I:576:LYS:HB2	2.00	0.44
1:J:373:VAL:HG23	1:J:576:LYS:HB2	2.00	0.44
1:L:403:LEU:HD13	1:L:410:PRO:HG3	1.98	0.44
1:L:481:THR:HG22	1:L:507:LEU:HD22	2.00	0.44
1:M:559:SER:O	1:M:561:HIS:N	2.50	0.44
1:O:193:LEU:HD12	1:O:193:LEU:HA	1.82	0.44
1:A:255:ASP:HB3	1:B:112:SER:OG	2.17	0.44
1:A:271:THR:HB	1:B:97:ASN:OD1	2.17	0.44
1:D:65:LEU:HD13	1:D:81:PRO:HG3	1.99	0.44
1:D:119:LEU:HA	1:D:125:VAL:HG23	2.00	0.44
1:D:458:ARG:HB3	1:D:460:TYR:CE2	2.52	0.44
1:E:31:PHE:HB3	1:E:67:TYR:CD2	2.53	0.44
1:G:82:ASP:N	1:G:82:ASP:OD1	2.42	0.44
1:G:169:LEU:HD12	1:G:169:LEU:HA	1.81	0.44
1:H:168:SER:OG	1:H:169:LEU:N	2.50	0.44
1:H:458:ARG:HB3	1:H:460:TYR:CE2	2.52	0.44
1:J:436:CYS:SG	1:J:442:CYS:HB3	2.57	0.44
1:J:481:THR:HG22	1:J:507:LEU:HD22	2.00	0.44
1:L:265:ASP:OD1	1:M:103:SER:HB3	2.17	0.44
1:L:373:VAL:HG23	1:L:576:LYS:HB2	2.00	0.44
1:M:481:THR:HG22	1:M:507:LEU:HD22	2.00	0.44
1:N:193:LEU:HD12	1:N:193:LEU:HA	1.82	0.44
1:N:481:THR:HG22	1:N:507:LEU:HD22	2.00	0.44
1:P:243:ALA:CB	1:P:249:ASN:HA	2.47	0.44
1:C:481:THR:HG22	1:C:507:LEU:HD22	2.00	0.44
1:D:193:LEU:HD12	1:D:193:LEU:HA	1.82	0.44
1:D:243:ALA:CB	1:D:249:ASN:HA	2.47	0.44
1:E:387:GLU:HG2	1:E:394:CYS:HB2	1.98	0.44
1:F:278:PHE:HA	1:F:279:GLY:HA2	1.64	0.44
1:G:65:LEU:HD13	1:G:81:PRO:HG3	1.99	0.44
1:G:172:THR:O	1:G:176:MET:HG2	2.18	0.44
1:G:278:PHE:HA	1:G:279:GLY:HA2	1.64	0.44
1:I:119:LEU:HA	1:I:125:VAL:HG23	2.00	0.44
1:I:481:THR:HG22	1:I:507:LEU:HD22	2.00	0.44
1:J:74:GLU:OE1	1:J:74:GLU:N	2.49	0.44
1:K:373:VAL:HG23	1:K:576:LYS:HB2	2.00	0.44
1:M:523:VAL:HG12	1:M:575:VAL:HG12	2.00	0.44
1:N:260:THR:HG21	1:O:444:THR:HG23	2.00	0.44
1:A:343:THR:OG1	1:A:344:PHE:N	2.51	0.44
1:B:560:GLN:O	1:C:513:LEU:HD23	2.18	0.44
1:C:458:ARG:HB3	1:C:460:TYR:CE2	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:90:LYS:CB	1:D:156:ILE:H	2.31	0.44
1:E:119:LEU:HA	1:E:125:VAL:HG23	2.00	0.44
1:E:373:VAL:HG23	1:E:576:LYS:HB2	2.00	0.44
1:F:119:LEU:HA	1:F:125:VAL:HG23	2.00	0.44
1:F:523:VAL:HG12	1:F:575:VAL:HG12	2.00	0.44
1:G:31:PHE:HB3	1:G:67:TYR:CD2	2.53	0.44
1:G:103:SER:O	1:G:104:TRP:HD1	2.00	0.44
1:G:193:LEU:HD12	1:G:193:LEU:HA	1.82	0.44
1:H:31:PHE:HB3	1:H:67:TYR:CD2	2.53	0.44
1:H:269:ASN:HB2	1:I:99:GLU:HB2	2.00	0.44
1:J:119:LEU:HA	1:J:125:VAL:HG23	2.00	0.44
1:J:172:THR:O	1:J:176:MET:HG2	2.18	0.44
1:K:90:LYS:CB	1:K:156:ILE:H	2.31	0.44
1:K:172:THR:O	1:K:176:MET:HG2	2.18	0.44
1:K:523:VAL:HG12	1:K:575:VAL:HG12	2.00	0.44
1:L:269:ASN:HB2	1:M:99:GLU:HG3	1.98	0.44
1:M:90:LYS:CB	1:M:156:ILE:H	2.31	0.44
1:M:243:ALA:CB	1:M:249:ASN:HA	2.47	0.44
1:M:348:PRO:HD2	1:M:363:ASN:ND2	2.32	0.44
1:M:373:VAL:HG23	1:M:576:LYS:HB2	2.00	0.44
1:O:348:PRO:HD2	1:O:363:ASN:ND2	2.32	0.44
1:P:193:LEU:HD12	1:P:193:LEU:HA	1.82	0.44
1:P:343:THR:OG1	1:P:344:PHE:N	2.51	0.44
1:P:348:PRO:HD2	1:P:363:ASN:ND2	2.32	0.44
1:A:103:SER:O	1:A:104:TRP:HD1	2.00	0.44
1:A:269:ASN:HB2	1:B:99:GLU:HG3	1.99	0.44
1:A:417:HIS:CE1	1:A:458:ARG:HD3	2.53	0.44
1:B:343:THR:OG1	1:B:344:PHE:N	2.51	0.44
1:C:373:VAL:HG23	1:C:576:LYS:HB2	2.00	0.44
1:D:103:SER:O	1:D:104:TRP:HD1	2.00	0.44
1:D:481:THR:HG22	1:D:507:LEU:HD22	2.00	0.44
1:F:90:LYS:CB	1:F:156:ILE:H	2.31	0.44
1:F:172:THR:O	1:F:176:MET:HG2	2.18	0.44
1:G:481:THR:HG22	1:G:507:LEU:HD22	2.00	0.44
1:H:172:THR:O	1:H:176:MET:HG2	2.18	0.44
1:H:481:THR:HG22	1:H:507:LEU:HD22	2.00	0.44
1:H:523:VAL:HG12	1:H:575:VAL:HG12	2.00	0.44
1:I:90:LYS:CB	1:I:156:ILE:H	2.31	0.44
1:J:31:PHE:HB3	1:J:67:TYR:CD2	2.53	0.44
1:K:119:LEU:HA	1:K:125:VAL:HG23	2.00	0.44
1:K:417:HIS:CE1	1:K:458:ARG:HD3	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:119:LEU:HA	1:L:125:VAL:HG23	2.00	0.44
1:L:172:THR:O	1:L:176:MET:HG2	2.18	0.44
1:N:498:TYR:HD1	1:N:510:CYS:HB3	1.83	0.44
1:O:481:THR:HG22	1:O:507:LEU:HD22	2.00	0.44
1:P:523:VAL:HG12	1:P:575:VAL:HG12	2.00	0.44
1:A:65:LEU:HD13	1:A:81:PRO:HG3	1.99	0.44
1:A:265:ASP:OD1	1:B:103:SER:HB3	2.17	0.44
1:A:439:LYS:HE3	1:A:439:LYS:HB2	1.83	0.44
1:A:498:TYR:HD1	1:A:510:CYS:HB3	1.83	0.44
1:B:31:PHE:HB3	1:B:67:TYR:CD2	2.53	0.44
1:B:65:LEU:HD13	1:B:81:PRO:HG3	1.99	0.44
1:B:90:LYS:CB	1:B:156:ILE:H	2.31	0.44
1:C:31:PHE:HB3	1:C:67:TYR:CD2	2.53	0.44
1:C:523:VAL:HG12	1:C:575:VAL:HG12	2.00	0.44
1:D:348:PRO:HD2	1:D:363:ASN:ND2	2.32	0.44
1:D:373:VAL:HG23	1:D:576:LYS:HB2	2.00	0.44
1:D:417:HIS:CE1	1:D:458:ARG:HD3	2.53	0.44
1:E:175:LEU:HD23	1:E:175:LEU:HA	1.79	0.44
1:E:481:THR:HG22	1:E:507:LEU:HD22	2.00	0.44
1:F:168:SER:OG	1:F:169:LEU:N	2.50	0.44
1:F:403:LEU:HD13	1:F:410:PRO:HG3	1.99	0.44
1:F:481:THR:HG22	1:F:507:LEU:HD22	2.00	0.44
1:G:90:LYS:CB	1:G:156:ILE:H	2.31	0.44
1:H:90:LYS:CB	1:H:156:ILE:H	2.31	0.44
1:H:119:LEU:HA	1:H:125:VAL:HG23	2.00	0.44
1:I:172:THR:O	1:I:176:MET:HG2	2.18	0.44
1:J:169:LEU:HD12	1:J:169:LEU:HA	1.81	0.44
1:K:74:GLU:OE1	1:K:74:GLU:N	2.49	0.44
1:M:152:VAL:HA	1:M:215:LEU:O	2.18	0.44
1:M:478:GLY:O	1:M:510:CYS:N	2.47	0.44
1:N:116:ASN:O	1:N:117:THR:OG1	2.33	0.44
1:N:373:VAL:HG23	1:N:576:LYS:HB2	2.00	0.44
1:O:90:LYS:CB	1:O:156:ILE:H	2.31	0.44
1:O:343:THR:OG1	1:O:344:PHE:N	2.51	0.44
1:P:386:THR:O	1:P:456:GLU:N	2.47	0.44
1:A:172:THR:O	1:A:176:MET:HG2	2.18	0.43
1:A:357:ASN:HA	1:B:339:ARG:HE	1.82	0.43
1:B:103:SER:O	1:B:104:TRP:HD1	2.00	0.43
1:B:119:LEU:HA	1:B:125:VAL:HG23	2.00	0.43
1:B:172:THR:O	1:B:176:MET:HG2	2.18	0.43
1:B:373:VAL:HG23	1:B:576:LYS:HB2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:119:LEU:HA	1:C:125:VAL:HG23	2.00	0.43
1:C:343:THR:OG1	1:C:344:PHE:N	2.51	0.43
1:D:116:ASN:O	1:D:117:THR:OG1	2.33	0.43
1:E:65:LEU:HD13	1:E:81:PRO:HG3	1.99	0.43
1:F:31:PHE:HB3	1:F:67:TYR:CD2	2.53	0.43
1:F:65:LEU:HD13	1:F:81:PRO:HG3	1.99	0.43
1:G:403:LEU:HD13	1:G:410:PRO:HG3	1.98	0.43
1:I:31:PHE:HB3	1:I:67:TYR:CD2	2.53	0.43
1:I:74:GLU:OE1	1:I:74:GLU:N	2.49	0.43
1:I:458:ARG:HB3	1:I:460:TYR:CE2	2.52	0.43
1:I:523:VAL:HG12	1:I:575:VAL:HG12	2.00	0.43
1:J:417:HIS:CE1	1:J:458:ARG:HD3	2.53	0.43
1:K:152:VAL:HA	1:K:215:LEU:O	2.18	0.43
1:K:498:TYR:HD1	1:K:510:CYS:HB3	1.83	0.43
1:L:152:VAL:HA	1:L:215:LEU:O	2.18	0.43
1:M:172:THR:O	1:M:176:MET:HG2	2.18	0.43
1:N:152:VAL:HA	1:N:215:LEU:O	2.18	0.43
1:N:343:THR:OG1	1:N:344:PHE:N	2.51	0.43
1:N:523:VAL:HG12	1:N:575:VAL:HG12	2.00	0.43
1:O:65:LEU:HD13	1:O:81:PRO:HG3	1.99	0.43
1:O:403:LEU:HD13	1:O:410:PRO:HG3	1.99	0.43
1:P:103:SER:O	1:P:104:TRP:HD1	2.00	0.43
1:A:458:ARG:HB3	1:A:460:TYR:CE2	2.52	0.43
1:A:501:LEU:HD23	1:A:501:LEU:HA	1.81	0.43
1:B:152:VAL:HA	1:B:215:LEU:O	2.18	0.43
1:B:498:TYR:HD1	1:B:510:CYS:HB3	1.83	0.43
1:C:103:SER:O	1:C:104:TRP:HD1	2.00	0.43
1:D:152:VAL:HA	1:D:215:LEU:O	2.18	0.43
1:F:152:VAL:HA	1:F:215:LEU:O	2.18	0.43
1:F:381:VAL:HG11	1:F:501:LEU:HD13	2.00	0.43
1:G:439:LYS:HE3	1:G:439:LYS:HB2	1.83	0.43
1:G:458:ARG:HB3	1:G:460:TYR:CE2	2.52	0.43
1:I:271:THR:HB	1:J:97:ASN:OD1	2.17	0.43
1:L:31:PHE:HB3	1:L:67:TYR:CD2	2.53	0.43
1:L:201:TYR:CE1	1:M:163:PRO:HG3	2.53	0.43
1:L:277:SER:OG	1:M:91:GLU:HB2	2.18	0.43
1:M:198:ILE:HD12	1:M:198:ILE:HA	1.86	0.43
1:M:498:TYR:HD1	1:M:510:CYS:HB3	1.83	0.43
1:N:196:LEU:HD13	1:O:312:PHE:HZ	1.84	0.43
1:N:417:HIS:CE1	1:N:458:ARG:HD3	2.53	0.43
1:O:373:VAL:HG23	1:O:576:LYS:HB2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:90:LYS:CB	1:P:156:ILE:H	2.31	0.43
1:A:152:VAL:HA	1:A:215:LEU:O	2.18	0.43
1:B:417:HIS:CE1	1:B:458:ARG:HD3	2.53	0.43
1:C:338:VAL:O	1:C:342:TYR:N	2.51	0.43
1:D:523:VAL:HG12	1:D:575:VAL:HG12	2.00	0.43
1:E:103:SER:O	1:E:104:TRP:HD1	2.00	0.43
1:E:152:VAL:HA	1:E:215:LEU:O	2.18	0.43
1:F:255:ASP:HB3	1:G:112:SER:OG	2.18	0.43
1:G:152:VAL:HA	1:G:215:LEU:O	2.18	0.43
1:H:152:VAL:HA	1:H:215:LEU:O	2.18	0.43
1:J:90:LYS:CB	1:J:156:ILE:H	2.31	0.43
1:J:152:VAL:HA	1:J:215:LEU:O	2.18	0.43
1:J:381:VAL:HG11	1:J:501:LEU:HD13	2.00	0.43
1:J:506:SER:O	1:J:508:LYS:NZ	2.29	0.43
1:M:381:VAL:HG11	1:M:501:LEU:HD13	2.00	0.43
1:N:172:THR:O	1:N:176:MET:HG2	2.18	0.43
1:O:243:ALA:CB	1:O:249:ASN:HA	2.47	0.43
1:P:65:LEU:HD13	1:P:81:PRO:HG3	1.99	0.43
1:P:278:PHE:HA	1:P:279:GLY:HA2	1.64	0.43
1:P:373:VAL:HG23	1:P:576:LYS:HB2	2.00	0.43
1:P:417:HIS:CE1	1:P:458:ARG:HD3	2.53	0.43
1:P:478:GLY:O	1:P:510:CYS:N	2.47	0.43
1:A:90:LYS:CB	1:A:156:ILE:H	2.31	0.43
1:A:338:VAL:O	1:A:342:TYR:N	2.51	0.43
1:B:338:VAL:O	1:B:342:TYR:N	2.51	0.43
1:C:502:ASN:HA	1:C:508:LYS:HA	2.01	0.43
1:D:31:PHE:HB3	1:D:67:TYR:CD2	2.53	0.43
1:D:322:LEU:HD23	1:D:322:LEU:HA	1.91	0.43
1:D:338:VAL:O	1:D:342:TYR:N	2.51	0.43
1:D:343:THR:OG1	1:D:344:PHE:N	2.51	0.43
1:E:90:LYS:CB	1:E:156:ILE:H	2.31	0.43
1:E:322:LEU:HD23	1:E:322:LEU:HA	1.90	0.43
1:E:523:VAL:HG12	1:E:575:VAL:HG12	2.00	0.43
1:G:417:HIS:CE1	1:G:458:ARG:HD3	2.53	0.43
1:I:338:VAL:O	1:I:342:TYR:N	2.51	0.43
1:I:381:VAL:HG11	1:I:501:LEU:HD13	2.01	0.43
1:M:119:LEU:HA	1:M:125:VAL:HG23	2.00	0.43
1:M:343:THR:OG1	1:M:344:PHE:N	2.51	0.43
1:N:381:VAL:HG11	1:N:501:LEU:HD13	2.01	0.43
1:N:403:LEU:HD13	1:N:410:PRO:HG3	1.99	0.43
1:P:31:PHE:HB3	1:P:67:TYR:CD2	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:115:ILE:HG21	1:P:252:VAL:HG13	2.01	0.43
1:A:119:LEU:HA	1:A:125:VAL:HG23	2.00	0.43
1:A:373:VAL:HG23	1:A:576:LYS:HB2	2.00	0.43
1:A:381:VAL:HG11	1:A:501:LEU:HD13	2.01	0.43
1:A:523:VAL:HG12	1:A:575:VAL:HG12	2.00	0.43
1:B:381:VAL:HG11	1:B:501:LEU:HD13	2.01	0.43
1:B:458:ARG:HB3	1:B:460:TYR:CE2	2.52	0.43
1:C:152:VAL:HA	1:C:215:LEU:O	2.18	0.43
1:D:502:ASN:HA	1:D:508:LYS:HA	2.01	0.43
1:E:172:THR:O	1:E:176:MET:HG2	2.18	0.43
1:E:417:HIS:CE1	1:E:458:ARG:HD3	2.53	0.43
1:F:502:ASN:HA	1:F:508:LYS:HA	2.01	0.43
1:G:502:ASN:HA	1:G:508:LYS:HA	2.01	0.43
1:H:74:GLU:OE1	1:H:74:GLU:N	2.49	0.43
1:H:252:VAL:HG22	1:I:115:ILE:HD12	2.01	0.43
1:H:417:HIS:CE1	1:H:458:ARG:HD3	2.53	0.43
1:H:440:ILE:H	1:H:440:ILE:HG12	1.58	0.43
1:H:498:TYR:HD1	1:H:510:CYS:HB3	1.83	0.43
1:I:152:VAL:HA	1:I:215:LEU:O	2.18	0.43
1:I:285:PRO:HG2	1:J:289:LEU:HD13	2.00	0.43
1:J:338:VAL:O	1:J:342:TYR:N	2.51	0.43
1:J:523:VAL:HG12	1:J:575:VAL:HG12	2.00	0.43
1:N:31:PHE:HB3	1:N:67:TYR:CD2	2.53	0.43
1:N:103:SER:O	1:N:104:TRP:HD1	2.00	0.43
1:N:175:LEU:HD23	1:N:175:LEU:HA	1.79	0.43
1:O:152:VAL:HA	1:O:215:LEU:O	2.18	0.43
1:O:172:THR:O	1:O:176:MET:HG2	2.18	0.43
1:O:417:HIS:CE1	1:O:458:ARG:HD3	2.53	0.43
1:P:217:GLN:CB	1:P:275:VAL:HG12	2.43	0.43
1:P:338:VAL:O	1:P:342:TYR:N	2.51	0.43
1:A:250:PHE:HB2	1:B:116:ASN:OD1	2.18	0.43
1:E:338:VAL:O	1:E:342:TYR:N	2.51	0.43
1:E:498:TYR:HD1	1:E:510:CYS:HB3	1.83	0.43
1:F:169:LEU:HD12	1:F:169:LEU:HA	1.81	0.43
1:F:334:VAL:O	1:F:338:VAL:HG23	2.19	0.43
1:G:381:VAL:HG11	1:G:501:LEU:HD13	2.01	0.43
1:J:458:ARG:HB3	1:J:460:TYR:CE2	2.52	0.43
1:K:457:PHE:CZ	1:K:504:PHE:HA	2.54	0.43
1:K:560:GLN:O	1:L:513:LEU:HD23	2.17	0.43
1:L:457:PHE:CZ	1:L:504:PHE:HA	2.54	0.43
1:M:193:LEU:HD12	1:M:193:LEU:HA	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:431:GLU:N	1:M:448:ASP:OD1	2.52	0.43
1:M:457:PHE:CZ	1:M:504:PHE:HA	2.54	0.43
1:N:431:GLU:N	1:N:448:ASP:OD1	2.52	0.43
1:O:119:LEU:HA	1:O:125:VAL:HG23	2.00	0.43
1:O:498:TYR:HD1	1:O:510:CYS:HB3	1.83	0.43
1:P:172:THR:O	1:P:176:MET:HG2	2.18	0.43
1:A:31:PHE:HB3	1:A:67:TYR:CD2	2.53	0.43
1:C:172:THR:O	1:C:176:MET:HG2	2.18	0.43
1:E:334:VAL:O	1:E:338:VAL:HG23	2.19	0.43
1:E:381:VAL:HG11	1:E:501:LEU:HD13	2.01	0.43
1:F:478:GLY:O	1:F:510:CYS:N	2.47	0.43
1:G:334:VAL:O	1:G:338:VAL:HG23	2.19	0.43
1:I:439:LYS:HB2	1:I:439:LYS:HE3	1.83	0.43
1:J:502:ASN:HA	1:J:508:LYS:HA	2.01	0.43
1:K:458:ARG:HB3	1:K:460:TYR:CE2	2.52	0.43
1:L:417:HIS:CE1	1:L:458:ARG:HD3	2.53	0.43
1:M:417:HIS:CE1	1:M:458:ARG:HD3	2.53	0.43
1:N:90:LYS:CB	1:N:156:ILE:H	2.31	0.43
1:N:119:LEU:HA	1:N:125:VAL:HG23	2.00	0.43
1:O:417:HIS:ND1	1:O:459:ALA:O	2.52	0.43
1:A:417:HIS:ND1	1:A:459:ALA:O	2.52	0.43
1:C:498:TYR:HD1	1:C:510:CYS:HB3	1.83	0.43
1:E:343:THR:OG1	1:E:344:PHE:N	2.51	0.43
1:F:417:HIS:ND1	1:F:459:ALA:O	2.52	0.43
1:F:431:GLU:N	1:F:448:ASP:OD1	2.52	0.43
1:G:498:TYR:HD1	1:G:510:CYS:HB3	1.83	0.43
1:H:431:GLU:N	1:H:448:ASP:OD1	2.52	0.43
1:I:417:HIS:ND1	1:I:459:ALA:O	2.52	0.43
1:K:31:PHE:HB3	1:K:67:TYR:CD2	2.53	0.43
1:L:343:THR:OG1	1:L:344:PHE:N	2.51	0.43
1:M:501:LEU:HD23	1:M:501:LEU:HA	1.81	0.43
1:N:243:ALA:CB	1:N:249:ASN:HA	2.47	0.43
1:N:348:PRO:HD2	1:N:363:ASN:ND2	2.32	0.43
1:N:457:PHE:CZ	1:N:504:PHE:HA	2.54	0.43
1:N:478:GLY:O	1:N:510:CYS:N	2.47	0.43
1:O:431:GLU:N	1:O:448:ASP:OD1	2.52	0.43
1:P:106:ASN:HD21	1:P:446:CYS:HB3	1.84	0.43
1:P:381:VAL:HG11	1:P:501:LEU:HD13	2.00	0.43
1:A:431:GLU:N	1:A:448:ASP:OD1	2.52	0.43
1:B:523:VAL:HG12	1:B:575:VAL:HG12	2.00	0.43
1:C:196:LEU:HD13	1:D:312:PHE:HZ	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:334:VAL:O	1:D:338:VAL:HG23	2.19	0.43
1:F:343:THR:OG1	1:F:344:PHE:N	2.51	0.43
1:F:498:TYR:HD1	1:F:510:CYS:HB3	1.83	0.43
1:G:74:GLU:OE1	1:G:74:GLU:N	2.49	0.43
1:G:343:THR:OG1	1:G:344:PHE:N	2.51	0.43
1:G:523:VAL:HG12	1:G:575:VAL:HG12	2.00	0.43
1:H:343:THR:OG1	1:H:344:PHE:N	2.51	0.43
1:I:502:ASN:HA	1:I:508:LYS:HA	2.01	0.43
1:J:457:PHE:CZ	1:J:504:PHE:HA	2.54	0.43
1:K:106:ASN:HD21	1:K:446:CYS:HB3	1.84	0.43
1:L:334:VAL:O	1:L:338:VAL:HG23	2.19	0.43
1:M:106:ASN:HD21	1:M:446:CYS:HB3	1.84	0.43
1:M:417:HIS:ND1	1:M:459:ALA:O	2.52	0.43
1:N:334:VAL:O	1:N:338:VAL:HG23	2.19	0.43
1:N:338:VAL:O	1:N:342:TYR:N	2.51	0.43
1:O:106:ASN:HD21	1:O:446:CYS:HB3	1.84	0.43
1:O:338:VAL:O	1:O:342:TYR:N	2.51	0.43
1:O:523:VAL:HG12	1:O:575:VAL:HG12	2.00	0.43
1:P:431:GLU:N	1:P:448:ASP:OD1	2.52	0.43
1:A:103:SER:HB3	1:P:265:ASP:OD1	2.19	0.43
1:A:252:VAL:HA	1:B:115:ILE:HG22	1.99	0.43
1:D:175:LEU:HD23	1:D:175:LEU:HA	1.79	0.43
1:D:417:HIS:ND1	1:D:459:ALA:O	2.52	0.43
1:D:461:TRP:NE1	1:D:527:GLY:HA3	2.34	0.43
1:F:338:VAL:O	1:F:342:TYR:N	2.51	0.43
1:G:353:VAL:HG22	1:G:365:ASP:O	2.19	0.43
1:G:431:GLU:N	1:G:448:ASP:OD1	2.52	0.43
1:H:252:VAL:HA	1:I:115:ILE:CB	2.49	0.43
1:H:334:VAL:O	1:H:338:VAL:HG23	2.19	0.43
1:I:343:THR:OG1	1:I:344:PHE:N	2.51	0.43
1:J:343:THR:OG1	1:J:344:PHE:N	2.51	0.43
1:K:417:HIS:ND1	1:K:459:ALA:O	2.52	0.43
1:M:31:PHE:HB3	1:M:67:TYR:CD2	2.53	0.43
1:M:440:ILE:H	1:M:440:ILE:HG12	1.58	0.43
1:N:271:THR:HB	1:O:97:ASN:OD1	2.18	0.43
1:O:31:PHE:HB3	1:O:67:TYR:CD2	2.53	0.43
1:O:58:ASP:HB2	1:P:87:ILE:HD13	2.00	0.43
1:O:350:CYS:SG	1:O:351:THR:N	2.92	0.43
1:P:119:LEU:HA	1:P:125:VAL:HG23	2.00	0.43
1:P:152:VAL:HA	1:P:215:LEU:O	2.18	0.43
1:A:461:TRP:NE1	1:A:527:GLY:HA3	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:350:CYS:SG	1:B:351:THR:N	2.92	0.42
1:C:175:LEU:HD23	1:C:175:LEU:HA	1.79	0.42
1:C:278:PHE:HA	1:C:279:GLY:HA2	1.64	0.42
1:C:353:VAL:HG22	1:C:365:ASP:O	2.19	0.42
1:C:417:HIS:ND1	1:C:459:ALA:O	2.52	0.42
1:C:539:ASN:HA	1:C:556:GLY:HA2	2.01	0.42
1:D:106:ASN:HD21	1:D:446:CYS:HB3	1.84	0.42
1:D:350:CYS:SG	1:D:351:THR:N	2.92	0.42
1:E:350:CYS:SG	1:E:351:THR:N	2.92	0.42
1:F:74:GLU:OE1	1:F:74:GLU:N	2.49	0.42
1:F:461:TRP:NE1	1:F:527:GLY:HA3	2.34	0.42
1:F:501:LEU:HD23	1:F:501:LEU:HA	1.82	0.42
1:G:417:HIS:ND1	1:G:459:ALA:O	2.52	0.42
1:H:116:ASN:O	1:H:117:THR:OG1	2.33	0.42
1:H:256:TYR:HA	1:I:111:THR:HA	2.00	0.42
1:H:338:VAL:O	1:H:342:TYR:N	2.51	0.42
1:H:417:HIS:ND1	1:H:459:ALA:O	2.52	0.42
1:H:461:TRP:NE1	1:H:527:GLY:HA3	2.34	0.42
1:I:431:GLU:N	1:I:448:ASP:OD1	2.52	0.42
1:I:457:PHE:CZ	1:I:504:PHE:HA	2.54	0.42
1:J:350:CYS:SG	1:J:351:THR:N	2.92	0.42
1:J:417:HIS:ND1	1:J:459:ALA:O	2.52	0.42
1:J:461:TRP:NE1	1:J:527:GLY:HA3	2.34	0.42
1:K:169:LEU:HD12	1:K:169:LEU:HA	1.81	0.42
1:K:343:THR:OG1	1:K:344:PHE:N	2.51	0.42
1:L:90:LYS:CB	1:L:156:ILE:H	2.31	0.42
1:L:461:TRP:NE1	1:L:527:GLY:HA3	2.34	0.42
1:N:461:TRP:NE1	1:N:527:GLY:HA3	2.34	0.42
1:O:277:SER:OG	1:P:91:GLU:HB2	2.19	0.42
1:O:457:PHE:CZ	1:O:504:PHE:HA	2.54	0.42
1:O:458:ARG:HB3	1:O:460:TYR:CE2	2.52	0.42
1:P:439:LYS:HE3	1:P:439:LYS:HB2	1.83	0.42
1:A:106:ASN:HD21	1:A:446:CYS:HB3	1.84	0.42
1:A:560:GLN:O	1:B:513:LEU:HD23	2.19	0.42
1:C:74:GLU:OE1	1:C:74:GLU:N	2.49	0.42
1:C:90:LYS:CB	1:C:156:ILE:H	2.31	0.42
1:C:106:ASN:HD21	1:C:446:CYS:HB3	1.84	0.42
1:C:381:VAL:HG11	1:C:501:LEU:HD13	2.01	0.42
1:C:417:HIS:CE1	1:C:458:ARG:HD3	2.53	0.42
1:D:74:GLU:OE1	1:D:74:GLU:N	2.49	0.42
1:D:353:VAL:HG22	1:D:365:ASP:O	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:457:PHE:CZ	1:D:504:PHE:HA	2.54	0.42
1:E:74:GLU:OE1	1:E:74:GLU:N	2.49	0.42
1:I:350:CYS:SG	1:I:351:THR:N	2.92	0.42
1:J:257:ILE:HG13	1:K:110:THR:HB	2.01	0.42
1:J:357:ASN:HA	1:K:339:ARG:HE	1.84	0.42
1:K:350:CYS:SG	1:K:351:THR:N	2.92	0.42
1:K:381:VAL:HG11	1:K:501:LEU:HD13	2.01	0.42
1:L:417:HIS:ND1	1:L:459:ALA:O	2.52	0.42
1:L:523:VAL:HG12	1:L:575:VAL:HG12	2.00	0.42
1:M:458:ARG:HB3	1:M:460:TYR:CE2	2.52	0.42
1:M:461:TRP:NE1	1:M:527:GLY:HA3	2.34	0.42
1:O:269:ASN:HB2	1:P:99:GLU:HG3	2.00	0.42
1:O:461:TRP:NE1	1:O:527:GLY:HA3	2.34	0.42
1:A:350:CYS:SG	1:A:351:THR:N	2.92	0.42
1:B:461:TRP:NE1	1:B:527:GLY:HA3	2.34	0.42
1:C:267:LEU:HD23	1:D:101:LEU:HD12	2.02	0.42
1:C:431:GLU:N	1:C:448:ASP:OD1	2.52	0.42
1:D:298:ASN:OD1	1:D:298:ASN:N	2.50	0.42
1:E:273:SER:HB3	1:F:95:GLU:HB2	2.01	0.42
1:F:417:HIS:CE1	1:F:458:ARG:HD3	2.53	0.42
1:F:529:PHE:HB2	1:F:534:GLY:O	2.20	0.42
1:H:560:GLN:O	1:I:513:LEU:O	2.36	0.42
1:I:334:VAL:O	1:I:338:VAL:HG23	2.19	0.42
1:J:431:GLU:N	1:J:448:ASP:OD1	2.52	0.42
1:K:334:VAL:O	1:K:338:VAL:HG23	2.19	0.42
1:K:338:VAL:O	1:K:342:TYR:N	2.51	0.42
1:M:427:TYR:N	1:M:429:ARG:HH21	2.04	0.42
1:N:350:CYS:SG	1:N:351:THR:N	2.92	0.42
1:O:386:THR:O	1:O:456:GLU:N	2.47	0.42
1:P:145:ALA:HB3	1:P:223:SER:HB2	2.01	0.42
1:P:461:TRP:NE1	1:P:527:GLY:HA3	2.34	0.42
1:A:502:ASN:HA	1:A:508:LYS:HA	2.01	0.42
1:B:74:GLU:OE1	1:B:74:GLU:N	2.49	0.42
1:B:431:GLU:N	1:B:448:ASP:OD1	2.52	0.42
1:B:478:GLY:O	1:B:510:CYS:N	2.47	0.42
1:C:322:LEU:HD23	1:C:322:LEU:HA	1.91	0.42
1:C:529:PHE:HB2	1:C:534:GLY:O	2.20	0.42
1:D:478:GLY:O	1:D:510:CYS:N	2.47	0.42
1:E:458:ARG:HB3	1:E:460:TYR:CE2	2.52	0.42
1:G:529:PHE:HB2	1:G:534:GLY:O	2.20	0.42
1:H:145:ALA:HB3	1:H:223:SER:HB2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:285:PRO:HG2	1:I:289:LEU:HD13	2.01	0.42
1:H:353:VAL:HG22	1:H:365:ASP:O	2.19	0.42
1:H:457:PHE:CZ	1:H:504:PHE:HA	2.54	0.42
1:I:417:HIS:CE1	1:I:458:ARG:HD3	2.53	0.42
1:J:498:TYR:HD1	1:J:510:CYS:HB3	1.83	0.42
1:K:257:ILE:O	1:L:110:THR:N	2.53	0.42
1:L:106:ASN:HD21	1:L:446:CYS:HB3	1.84	0.42
1:L:278:PHE:HA	1:L:279:GLY:HA2	1.64	0.42
1:L:284:TYR:HB3	1:M:293:GLN:HG3	2.01	0.42
1:L:338:VAL:O	1:L:342:TYR:N	2.51	0.42
1:L:381:VAL:HG11	1:L:501:LEU:HD13	2.00	0.42
1:N:417:HIS:ND1	1:N:459:ALA:O	2.52	0.42
1:O:284:TYR:HB3	1:P:293:GLN:HG3	2.01	0.42
1:O:334:VAL:O	1:O:338:VAL:HG23	2.19	0.42
1:O:381:VAL:HG11	1:O:501:LEU:HD13	2.01	0.42
1:A:289:LEU:HD13	1:P:285:PRO:HG2	2.01	0.42
1:B:175:LEU:HD23	1:B:175:LEU:HA	1.79	0.42
1:B:417:HIS:ND1	1:B:459:ALA:O	2.52	0.42
1:B:502:ASN:HA	1:B:508:LYS:HA	2.01	0.42
1:C:461:TRP:NE1	1:C:527:GLY:HA3	2.34	0.42
1:E:277:SER:OG	1:F:91:GLU:HB2	2.19	0.42
1:E:457:PHE:CZ	1:E:504:PHE:HA	2.54	0.42
1:E:529:PHE:CD2	1:E:533:MET:HG3	2.55	0.42
1:F:322:LEU:HD23	1:F:322:LEU:HA	1.90	0.42
1:F:529:PHE:CD2	1:F:533:MET:HG3	2.55	0.42
1:H:277:SER:OG	1:I:91:GLU:HB2	2.20	0.42
1:H:350:CYS:SG	1:H:351:THR:N	2.92	0.42
1:H:502:ASN:HA	1:H:508:LYS:HA	2.00	0.42
1:I:145:ALA:HB3	1:I:223:SER:HB2	2.01	0.42
1:J:198:ILE:HD12	1:J:198:ILE:HA	1.86	0.42
1:J:265:ASP:OD1	1:K:103:SER:HB3	2.20	0.42
1:K:461:TRP:NE1	1:K:527:GLY:HA3	2.35	0.42
1:L:322:LEU:HD23	1:L:322:LEU:HA	1.91	0.42
1:L:431:GLU:N	1:L:448:ASP:OD1	2.52	0.42
1:L:498:TYR:HD1	1:L:510:CYS:HB3	1.83	0.42
1:O:198:ILE:HD12	1:O:198:ILE:HA	1.86	0.42
1:P:502:ASN:HA	1:P:508:LYS:HA	2.01	0.42
1:A:74:GLU:OE1	1:A:74:GLU:N	2.49	0.42
1:A:145:ALA:HB3	1:A:223:SER:HB2	2.01	0.42
1:A:193:LEU:HD12	1:A:193:LEU:HA	1.82	0.42
1:A:478:GLY:O	1:A:510:CYS:N	2.47	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:529:PHE:HB2	1:A:534:GLY:O	2.20	0.42
1:B:539:ASN:HA	1:B:556:GLY:HA2	2.01	0.42
1:C:145:ALA:HB3	1:C:223:SER:HB2	2.01	0.42
1:C:334:VAL:O	1:C:338:VAL:HG23	2.19	0.42
1:C:357:ASN:HA	1:D:339:ARG:HE	1.84	0.42
1:C:439:LYS:HB2	1:C:439:LYS:HE3	1.83	0.42
1:D:172:THR:O	1:D:176:MET:HG2	2.18	0.42
1:D:529:PHE:CD2	1:D:533:MET:HG3	2.55	0.42
1:D:539:ASN:HA	1:D:556:GLY:HA2	2.01	0.42
1:E:529:PHE:HB2	1:E:534:GLY:O	2.20	0.42
1:F:440:ILE:H	1:F:440:ILE:HG12	1.58	0.42
1:G:529:PHE:CD2	1:G:533:MET:HG3	2.55	0.42
1:G:539:ASN:HA	1:G:556:GLY:HA2	2.01	0.42
1:H:269:ASN:H	1:I:99:GLU:HB2	1.85	0.42
1:H:529:PHE:HB2	1:H:534:GLY:O	2.20	0.42
1:K:145:ALA:HB3	1:K:223:SER:HB2	2.01	0.42
1:K:431:GLU:N	1:K:448:ASP:OD1	2.52	0.42
1:K:502:ASN:HA	1:K:508:LYS:HA	2.01	0.42
1:L:350:CYS:SG	1:L:351:THR:N	2.92	0.42
1:M:357:ASN:OD1	1:M:358:PHE:HD1	2.03	0.42
1:N:106:ASN:HD21	1:N:446:CYS:HB3	1.84	0.42
1:O:502:ASN:HA	1:O:508:LYS:HA	2.01	0.42
1:P:44:GLU:OE2	1:P:300:LEU:N	2.50	0.42
1:P:457:PHE:CZ	1:P:504:PHE:HA	2.54	0.42
1:D:58:ASP:HB2	1:E:87:ILE:CD1	2.49	0.42
1:D:169:LEU:HD12	1:D:169:LEU:HA	1.81	0.42
1:D:431:GLU:N	1:D:448:ASP:OD1	2.52	0.42
1:E:431:GLU:N	1:E:448:ASP:OD1	2.52	0.42
1:F:350:CYS:SG	1:F:351:THR:N	2.92	0.42
1:F:539:ASN:HA	1:F:556:GLY:HA2	2.01	0.42
1:G:427:TYR:N	1:G:429:ARG:HH21	2.04	0.42
1:G:457:PHE:CZ	1:G:504:PHE:HA	2.54	0.42
1:H:106:ASN:HD21	1:H:446:CYS:HB3	1.84	0.42
1:H:198:ILE:HD12	1:H:198:ILE:HA	1.86	0.42
1:I:257:ILE:HG13	1:J:110:THR:HB	2.02	0.42
1:J:106:ASN:HD21	1:J:446:CYS:HB3	1.84	0.42
1:J:145:ALA:HB3	1:J:223:SER:HB2	2.01	0.42
1:J:501:LEU:HD23	1:J:501:LEU:HA	1.82	0.42
1:L:357:ASN:OD1	1:L:358:PHE:HD1	2.03	0.42
1:L:458:ARG:HB3	1:L:460:TYR:CE2	2.52	0.42
1:M:388:LEU:HD22	1:M:388:LEU:HA	1.94	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:269:ASN:HB2	1:P:99:GLU:HB2	2.00	0.42
1:P:529:PHE:HB2	1:P:534:GLY:O	2.20	0.42
1:A:334:VAL:O	1:A:338:VAL:HG23	2.19	0.42
1:A:457:PHE:CZ	1:A:504:PHE:HA	2.54	0.42
1:B:145:ALA:HB3	1:B:223:SER:HB2	2.01	0.42
1:B:384:GLU:HB3	1:B:458:ARG:HB2	2.02	0.42
1:D:381:VAL:HG11	1:D:501:LEU:HD13	2.01	0.42
1:E:384:GLU:HB3	1:E:458:ARG:HB2	2.02	0.42
1:E:417:HIS:ND1	1:E:459:ALA:O	2.52	0.42
1:F:277:SER:OG	1:G:91:GLU:OE1	2.33	0.42
1:F:514:ASP:OD2	1:F:516:GLU:HB2	2.20	0.42
1:G:350:CYS:SG	1:G:351:THR:N	2.93	0.42
1:H:570:GLN:OE1	1:I:402:LEU:O	2.37	0.42
1:I:529:PHE:CD2	1:I:533:MET:HG3	2.55	0.42
1:J:334:VAL:O	1:J:338:VAL:HG23	2.19	0.42
1:J:384:GLU:HB3	1:J:458:ARG:HB2	2.02	0.42
1:K:357:ASN:OD1	1:K:358:PHE:HD1	2.03	0.42
1:L:145:ALA:HB3	1:L:223:SER:HB2	2.01	0.42
1:N:357:ASN:OD1	1:N:358:PHE:HD1	2.03	0.42
1:O:217:GLN:CB	1:O:275:VAL:HG12	2.43	0.42
1:O:437:THR:HG23	1:O:441:PHE:O	2.20	0.42
1:O:529:PHE:HB2	1:O:534:GLY:O	2.20	0.42
1:P:350:CYS:SG	1:P:351:THR:N	2.92	0.42
1:P:353:VAL:HG22	1:P:365:ASP:O	2.19	0.42
1:A:384:GLU:HB3	1:A:458:ARG:HB2	2.02	0.42
1:C:350:CYS:SG	1:C:351:THR:N	2.92	0.42
1:C:514:ASP:OD2	1:C:516:GLU:HB2	2.20	0.42
1:D:427:TYR:N	1:D:429:ARG:HH21	2.04	0.42
1:D:529:PHE:HB2	1:D:534:GLY:O	2.20	0.42
1:D:562:LEU:HB2	1:E:513:LEU:HD22	2.02	0.42
1:E:502:ASN:HA	1:E:508:LYS:HA	2.01	0.42
1:F:353:VAL:HG22	1:F:365:ASP:O	2.20	0.42
1:F:439:LYS:HB2	1:F:439:LYS:HE3	1.83	0.42
1:H:257:ILE:CG1	1:I:110:THR:HB	2.47	0.42
1:H:381:VAL:HG11	1:H:501:LEU:HD13	2.01	0.42
1:H:561:HIS:HA	1:I:514:ASP:OD1	2.19	0.42
1:I:529:PHE:HB2	1:I:534:GLY:O	2.20	0.42
1:J:353:VAL:HG22	1:J:365:ASP:O	2.19	0.42
1:J:357:ASN:OD1	1:J:358:PHE:HD1	2.03	0.42
1:L:440:ILE:H	1:L:440:ILE:HG12	1.58	0.42
1:N:285:PRO:HG2	1:O:289:LEU:HD13	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:502:ASN:HA	1:N:508:LYS:HA	2.01	0.42
1:O:245:LEU:C	1:O:247:ILE:H	2.24	0.42
1:O:440:ILE:H	1:O:440:ILE:HG12	1.58	0.42
1:P:417:HIS:ND1	1:P:459:ALA:O	2.52	0.42
1:P:437:THR:HG23	1:P:441:PHE:O	2.20	0.42
1:A:158:THR:OG1	1:A:159:VAL:N	2.53	0.42
1:A:285:PRO:HG2	1:B:289:LEU:HD13	2.02	0.42
1:A:437:THR:HG23	1:A:441:PHE:O	2.20	0.42
1:B:457:PHE:CZ	1:B:504:PHE:HA	2.54	0.42
1:B:529:PHE:HB2	1:B:534:GLY:O	2.20	0.42
1:D:145:ALA:HB3	1:D:223:SER:HB2	2.01	0.42
1:E:353:VAL:HG22	1:E:365:ASP:O	2.20	0.42
1:E:478:GLY:O	1:E:510:CYS:N	2.47	0.42
1:F:145:ALA:HB3	1:F:223:SER:HB2	2.01	0.42
1:F:384:GLU:HB3	1:F:458:ARG:HB2	2.02	0.42
1:F:457:PHE:CZ	1:F:504:PHE:HA	2.54	0.42
1:G:106:ASN:HD21	1:G:446:CYS:HB3	1.84	0.42
1:G:145:ALA:HB3	1:G:223:SER:HB2	2.01	0.42
1:H:439:LYS:HE3	1:H:439:LYS:HB2	1.83	0.42
1:H:529:PHE:CD2	1:H:533:MET:HG3	2.55	0.42
1:I:384:GLU:HB3	1:I:458:ARG:HB2	2.02	0.42
1:I:461:TRP:NE1	1:I:527:GLY:HA3	2.34	0.42
1:J:437:THR:HG23	1:J:441:PHE:O	2.20	0.42
1:K:353:VAL:HG22	1:K:365:ASP:O	2.19	0.42
1:K:437:THR:HG23	1:K:441:PHE:O	2.20	0.42
1:L:267:LEU:HD23	1:M:101:LEU:HD12	2.02	0.42
1:L:514:ASP:OD2	1:L:516:GLU:HB2	2.20	0.42
1:M:275:VAL:HG22	1:N:93:ASN:OD1	2.20	0.42
1:M:353:VAL:HG22	1:M:365:ASP:O	2.19	0.42
1:M:384:GLU:HB3	1:M:458:ARG:HB2	2.02	0.42
1:M:439:LYS:HB2	1:M:439:LYS:HE3	1.83	0.42
1:M:539:ASN:HA	1:M:556:GLY:HA2	2.01	0.42
1:N:145:ALA:HB3	1:N:223:SER:HB2	2.01	0.42
1:N:353:VAL:HG22	1:N:365:ASP:O	2.20	0.42
1:O:145:ALA:HB3	1:O:223:SER:HB2	2.01	0.42
1:O:353:VAL:HG22	1:O:365:ASP:O	2.19	0.42
1:O:357:ASN:OD1	1:O:358:PHE:HD1	2.03	0.42
1:P:427:TYR:N	1:P:429:ARG:HH21	2.04	0.42
1:P:458:ARG:HB3	1:P:460:TYR:CE2	2.52	0.42
1:P:539:ASN:HA	1:P:556:GLY:HA2	2.01	0.42
1:A:353:VAL:HG22	1:A:365:ASP:O	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:35:LYS:HD2	1:B:42:VAL:HG23	2.03	0.41
1:B:98:SER:O	1:B:99:GLU:HG2	2.20	0.41
1:B:106:ASN:HD21	1:B:446:CYS:HB3	1.84	0.41
1:B:257:ILE:HG13	1:C:110:THR:HB	2.01	0.41
1:B:334:VAL:O	1:B:338:VAL:HG23	2.19	0.41
1:C:116:ASN:O	1:C:117:THR:OG1	2.33	0.41
1:C:529:PHE:CD2	1:C:533:MET:HG3	2.55	0.41
1:F:98:SER:O	1:F:99:GLU:HG2	2.20	0.41
1:G:257:ILE:HG13	1:H:110:THR:HB	2.02	0.41
1:I:357:ASN:OD1	1:I:358:PHE:HD1	2.03	0.41
1:K:506:SER:O	1:K:508:LYS:NZ	2.29	0.41
1:K:539:ASN:HA	1:K:556:GLY:HA2	2.01	0.41
1:L:35:LYS:HD2	1:L:42:VAL:HG23	2.02	0.41
1:L:539:ASN:HA	1:L:556:GLY:HA2	2.01	0.41
1:M:338:VAL:O	1:M:342:TYR:N	2.51	0.41
1:N:245:LEU:C	1:N:247:ILE:H	2.24	0.41
1:O:529:PHE:CD2	1:O:533:MET:HG3	2.55	0.41
1:P:245:LEU:C	1:P:247:ILE:H	2.24	0.41
1:P:334:VAL:O	1:P:338:VAL:HG23	2.19	0.41
1:C:457:PHE:CZ	1:C:504:PHE:HA	2.54	0.41
1:D:384:GLU:HB3	1:D:458:ARG:HB2	2.02	0.41
1:E:169:LEU:HD12	1:E:169:LEU:HA	1.81	0.41
1:G:461:TRP:NE1	1:G:527:GLY:HA3	2.35	0.41
1:I:35:LYS:HD2	1:I:42:VAL:HG23	2.02	0.41
1:I:106:ASN:HD21	1:I:446:CYS:HB3	1.84	0.41
1:I:514:ASP:OD2	1:I:516:GLU:HB2	2.20	0.41
1:J:35:LYS:HD2	1:J:42:VAL:HG23	2.03	0.41
1:K:35:LYS:HD2	1:K:42:VAL:HG23	2.02	0.41
1:K:117:THR:HG22	1:K:118:GLU:N	2.36	0.41
1:K:245:LEU:C	1:K:247:ILE:H	2.24	0.41
1:K:514:ASP:OD2	1:K:516:GLU:HB2	2.20	0.41
1:L:158:THR:OG1	1:L:159:VAL:N	2.53	0.41
1:L:169:LEU:HD12	1:L:169:LEU:HA	1.81	0.41
1:L:193:LEU:HD12	1:L:193:LEU:HA	1.82	0.41
1:L:353:VAL:HG22	1:L:365:ASP:O	2.19	0.41
1:M:158:THR:OG1	1:M:159:VAL:N	2.53	0.41
1:M:334:VAL:O	1:M:338:VAL:HG23	2.19	0.41
1:N:384:GLU:HB3	1:N:458:ARG:HB2	2.02	0.41
1:N:437:THR:HG23	1:N:441:PHE:O	2.20	0.41
1:N:458:ARG:HB3	1:N:460:TYR:CE2	2.52	0.41
1:N:529:PHE:HB2	1:N:534:GLY:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:98:SER:O	1:O:99:GLU:HG2	2.20	0.41
1:O:539:ASN:HA	1:O:556:GLY:HA2	2.01	0.41
1:P:357:ASN:OD1	1:P:358:PHE:HD1	2.03	0.41
1:P:529:PHE:CD2	1:P:533:MET:HG3	2.55	0.41
1:A:35:LYS:HD2	1:A:42:VAL:HG23	2.03	0.41
1:A:245:LEU:C	1:A:247:ILE:H	2.24	0.41
1:A:514:ASP:OD2	1:A:516:GLU:HB2	2.20	0.41
1:B:245:LEU:C	1:B:247:ILE:H	2.24	0.41
1:B:353:VAL:HG22	1:B:365:ASP:O	2.19	0.41
1:D:35:LYS:HD2	1:D:42:VAL:HG23	2.02	0.41
1:D:158:THR:OG1	1:D:159:VAL:N	2.53	0.41
1:E:245:LEU:C	1:E:247:ILE:H	2.24	0.41
1:E:277:SER:OG	1:F:91:GLU:OE1	2.29	0.41
1:E:437:THR:HG23	1:E:441:PHE:O	2.20	0.41
1:E:539:ASN:HA	1:E:556:GLY:HA2	2.01	0.41
1:F:257:ILE:HG13	1:G:110:THR:HB	2.02	0.41
1:H:117:THR:HG22	1:H:118:GLU:N	2.35	0.41
1:H:245:LEU:C	1:H:247:ILE:H	2.24	0.41
1:H:514:ASP:OD2	1:H:516:GLU:HB2	2.20	0.41
1:J:158:THR:OG1	1:J:159:VAL:N	2.53	0.41
1:J:529:PHE:HB2	1:J:534:GLY:O	2.20	0.41
1:J:539:ASN:HA	1:J:556:GLY:HA2	2.01	0.41
1:L:58:ASP:HB2	1:M:87:ILE:HD13	2.01	0.41
1:M:145:ALA:HB3	1:M:223:SER:HB2	2.01	0.41
1:M:350:CYS:SG	1:M:351:THR:N	2.92	0.41
1:N:386:THR:O	1:N:456:GLU:N	2.47	0.41
1:N:539:ASN:HA	1:N:556:GLY:HA2	2.01	0.41
1:O:35:LYS:HD2	1:O:42:VAL:HG23	2.02	0.41
1:O:278:PHE:HA	1:O:279:GLY:HA2	1.64	0.41
1:O:501:LEU:HA	1:O:501:LEU:HD23	1.81	0.41
1:P:74:GLU:OE1	1:P:74:GLU:N	2.49	0.41
1:B:529:PHE:CD2	1:B:533:MET:HG3	2.55	0.41
1:D:437:THR:HG23	1:D:441:PHE:O	2.20	0.41
1:E:145:ALA:HB3	1:E:223:SER:HB2	2.01	0.41
1:E:158:THR:OG1	1:E:159:VAL:N	2.53	0.41
1:E:461:TRP:NE1	1:E:527:GLY:HA3	2.34	0.41
1:F:158:THR:OG1	1:F:159:VAL:N	2.53	0.41
1:F:515:TYR:HB2	1:F:519:PHE:CZ	2.56	0.41
1:G:35:LYS:HD2	1:G:42:VAL:HG23	2.02	0.41
1:H:158:THR:OG1	1:H:159:VAL:N	2.53	0.41
1:H:357:ASN:OD1	1:H:358:PHE:HD1	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:98:SER:O	1:I:99:GLU:HG2	2.21	0.41
1:I:158:THR:OG1	1:I:159:VAL:N	2.53	0.41
1:I:498:TYR:HD1	1:I:510:CYS:HB3	1.83	0.41
1:L:117:THR:HG22	1:L:118:GLU:N	2.36	0.41
1:L:245:LEU:C	1:L:247:ILE:H	2.24	0.41
1:M:117:THR:HG22	1:M:118:GLU:N	2.35	0.41
1:M:245:LEU:C	1:M:247:ILE:H	2.24	0.41
1:M:502:ASN:HA	1:M:508:LYS:HA	2.01	0.41
1:M:514:ASP:OD2	1:M:516:GLU:HB2	2.20	0.41
1:N:117:THR:HG22	1:N:118:GLU:N	2.35	0.41
1:P:158:THR:OG1	1:P:159:VAL:N	2.53	0.41
1:P:498:TYR:HD1	1:P:510:CYS:HB3	1.83	0.41
1:A:99:GLU:HG3	1:P:269:ASN:HB2	2.01	0.41
1:A:515:TYR:HB2	1:A:519:PHE:CZ	2.56	0.41
1:A:529:PHE:CD2	1:A:533:MET:HG3	2.55	0.41
1:B:58:ASP:HB2	1:C:87:ILE:CD1	2.51	0.41
1:B:158:THR:OG1	1:B:159:VAL:N	2.53	0.41
1:B:271:THR:HB	1:C:97:ASN:OD1	2.19	0.41
1:C:35:LYS:HD2	1:C:42:VAL:HG23	2.02	0.41
1:C:273:SER:HB3	1:D:95:GLU:HB2	2.02	0.41
1:D:515:TYR:HB2	1:D:519:PHE:CZ	2.56	0.41
1:E:35:LYS:HD2	1:E:42:VAL:HG23	2.03	0.41
1:E:106:ASN:HD21	1:E:446:CYS:HB3	1.84	0.41
1:E:357:ASN:OD1	1:E:358:PHE:HD1	2.03	0.41
1:E:514:ASP:OD2	1:E:516:GLU:HB2	2.20	0.41
1:F:198:ILE:HD12	1:F:198:ILE:HA	1.86	0.41
1:F:250:PHE:HB2	1:G:116:ASN:OD1	2.20	0.41
1:F:562:LEU:HB2	1:G:513:LEU:HD22	2.01	0.41
1:G:158:THR:OG1	1:G:159:VAL:N	2.53	0.41
1:I:198:ILE:HA	1:I:198:ILE:HD12	1.86	0.41
1:I:278:PHE:HA	1:I:279:GLY:HA2	1.64	0.41
1:J:322:LEU:HD23	1:J:322:LEU:HA	1.90	0.41
1:J:514:ASP:OD2	1:J:516:GLU:HB2	2.20	0.41
1:K:384:GLU:HB3	1:K:458:ARG:HB2	2.02	0.41
1:L:437:THR:HG23	1:L:441:PHE:O	2.20	0.41
1:M:35:LYS:HD2	1:M:42:VAL:HG23	2.02	0.41
1:M:437:THR:HG23	1:M:441:PHE:O	2.20	0.41
1:N:35:LYS:HD2	1:N:42:VAL:HG23	2.03	0.41
1:P:35:LYS:HD2	1:P:42:VAL:HG23	2.03	0.41
1:A:98:SER:O	1:A:99:GLU:HG2	2.20	0.41
1:A:539:ASN:HA	1:A:556:GLY:HA2	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:437:THR:HG23	1:B:441:PHE:O	2.20	0.41
1:C:98:SER:O	1:C:99:GLU:HG2	2.20	0.41
1:C:515:TYR:HB2	1:C:519:PHE:CZ	2.56	0.41
1:D:514:ASP:OD2	1:D:516:GLU:HB2	2.20	0.41
1:G:338:VAL:O	1:G:342:TYR:N	2.51	0.41
1:H:35:LYS:HD2	1:H:42:VAL:HG23	2.02	0.41
1:I:265:ASP:OD1	1:J:103:SER:HB3	2.21	0.41
1:I:539:ASN:HA	1:I:556:GLY:HA2	2.01	0.41
1:J:427:TYR:N	1:J:429:ARG:HH21	2.04	0.41
1:K:269:ASN:HB2	1:L:99:GLU:HB2	2.01	0.41
1:K:529:PHE:HB2	1:K:534:GLY:O	2.20	0.41
1:L:98:SER:O	1:L:99:GLU:HG2	2.20	0.41
1:L:359:ASN:O	1:L:361:GLN:NE2	2.53	0.41
1:L:384:GLU:HB3	1:L:458:ARG:HB2	2.02	0.41
1:L:502:ASN:HA	1:L:508:LYS:HA	2.01	0.41
1:L:529:PHE:CD2	1:L:533:MET:HG3	2.55	0.41
1:M:116:ASN:O	1:M:117:THR:OG1	2.32	0.41
1:N:158:THR:OG1	1:N:159:VAL:N	2.53	0.41
1:O:158:THR:OG1	1:O:159:VAL:N	2.53	0.41
1:O:175:LEU:HD23	1:O:175:LEU:HA	1.79	0.41
1:A:101:LEU:HD12	1:P:267:LEU:HD23	2.03	0.41
1:B:285:PRO:HG2	1:C:289:LEU:HD13	2.02	0.41
1:C:357:ASN:OD1	1:C:358:PHE:HD1	2.03	0.41
1:E:98:SER:O	1:E:99:GLU:HG2	2.21	0.41
1:F:35:LYS:HD2	1:F:42:VAL:HG23	2.02	0.41
1:F:437:THR:HG23	1:F:441:PHE:O	2.20	0.41
1:G:98:SER:O	1:G:99:GLU:HG2	2.21	0.41
1:G:265:ASP:OD1	1:H:103:SER:HB3	2.20	0.41
1:G:384:GLU:HB3	1:G:458:ARG:HB2	2.02	0.41
1:H:380:GLY:C	1:H:462:CYS:HB3	2.41	0.41
1:I:117:THR:HG22	1:I:118:GLU:N	2.35	0.41
1:I:217:GLN:CB	1:I:275:VAL:HG12	2.43	0.41
1:I:353:VAL:HG22	1:I:365:ASP:O	2.19	0.41
1:I:437:THR:HG23	1:I:441:PHE:O	2.20	0.41
1:I:478:GLY:O	1:I:510:CYS:N	2.47	0.41
1:J:44:GLU:OE2	1:J:300:LEU:N	2.50	0.41
1:K:529:PHE:CD2	1:K:533:MET:HG3	2.55	0.41
1:L:529:PHE:HB2	1:L:534:GLY:O	2.20	0.41
1:M:359:ASN:O	1:M:361:GLN:NE2	2.53	0.41
1:M:380:GLY:C	1:M:462:CYS:HB3	2.41	0.41
1:M:529:PHE:CD2	1:M:533:MET:HG3	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:529:PHE:HB2	1:M:534:GLY:O	2.20	0.41
1:N:277:SER:OG	1:O:91:GLU:HB2	2.21	0.41
1:N:475:LEU:O	1:N:512:SER:HB2	2.21	0.41
1:P:384:GLU:HB3	1:P:458:ARG:HB2	2.02	0.41
1:A:357:ASN:OD1	1:A:358:PHE:HD1	2.03	0.41
1:A:380:GLY:C	1:A:462:CYS:HB3	2.41	0.41
1:C:437:THR:HG23	1:C:441:PHE:O	2.20	0.41
1:D:44:GLU:OE2	1:D:300:LEU:N	2.50	0.41
1:D:98:SER:O	1:D:99:GLU:HG2	2.20	0.41
1:D:245:LEU:C	1:D:247:ILE:H	2.24	0.41
1:D:498:TYR:HD1	1:D:510:CYS:HB3	1.83	0.41
1:F:245:LEU:C	1:F:247:ILE:H	2.24	0.41
1:F:380:GLY:C	1:F:462:CYS:HB3	2.41	0.41
1:G:117:THR:HG22	1:G:118:GLU:N	2.35	0.41
1:H:384:GLU:HB3	1:H:458:ARG:HB2	2.02	0.41
1:M:386:THR:O	1:M:456:GLU:N	2.47	0.41
1:M:475:LEU:O	1:M:512:SER:HB2	2.21	0.41
1:O:475:LEU:O	1:O:512:SER:HB2	2.21	0.41
1:O:515:TYR:HB2	1:O:519:PHE:CZ	2.56	0.41
1:A:421:GLN:N	1:A:457:PHE:O	2.54	0.41
1:B:117:THR:HG22	1:B:118:GLU:N	2.35	0.41
1:C:158:THR:OG1	1:C:159:VAL:N	2.53	0.41
1:C:277:SER:O	1:D:91:GLU:HB2	2.20	0.41
1:C:296:ILE:HG21	1:C:296:ILE:HD13	1.85	0.41
1:C:384:GLU:HB3	1:C:458:ARG:HB2	2.02	0.41
1:C:562:LEU:HB2	1:D:513:LEU:HD22	2.02	0.41
1:E:265:ASP:OD1	1:F:103:SER:HB3	2.21	0.41
1:G:357:ASN:OD1	1:G:358:PHE:HD1	2.03	0.41
1:G:380:GLY:C	1:G:462:CYS:HB3	2.41	0.41
1:H:98:SER:O	1:H:99:GLU:HG2	2.20	0.41
1:H:217:GLN:CB	1:H:275:VAL:HG12	2.43	0.41
1:H:515:TYR:HB2	1:H:519:PHE:CZ	2.56	0.41
1:H:539:ASN:HA	1:H:556:GLY:HA2	2.01	0.41
1:I:245:LEU:C	1:I:247:ILE:H	2.24	0.41
1:J:98:SER:O	1:J:99:GLU:HG2	2.20	0.41
1:J:117:THR:HG22	1:J:118:GLU:N	2.35	0.41
1:J:245:LEU:C	1:J:247:ILE:H	2.24	0.41
1:J:380:GLY:C	1:J:462:CYS:HB3	2.42	0.41
1:J:529:PHE:CD2	1:J:533:MET:HG3	2.55	0.41
1:K:359:ASN:O	1:K:361:GLN:NE2	2.53	0.41
1:M:298:ASN:OD1	1:M:298:ASN:N	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:568:GLY:HA3	1:N:400:LYS:HD2	2.02	0.41
1:N:98:SER:O	1:N:99:GLU:HG2	2.21	0.41
1:N:359:ASN:O	1:N:361:GLN:NE2	2.53	0.41
1:N:514:ASP:OD2	1:N:516:GLU:HB2	2.20	0.41
1:N:529:PHE:CD2	1:N:533:MET:HG3	2.55	0.41
1:O:117:THR:HG22	1:O:118:GLU:N	2.35	0.41
1:O:265:ASP:OD1	1:P:103:SER:HB3	2.21	0.41
1:O:380:GLY:C	1:O:462:CYS:HB3	2.42	0.41
1:P:380:GLY:C	1:P:462:CYS:HB3	2.42	0.41
1:P:421:GLN:N	1:P:457:PHE:O	2.54	0.41
1:B:421:GLN:N	1:B:457:PHE:O	2.54	0.41
1:C:31:PHE:CZ	1:D:72:THR:HG23	2.56	0.41
1:F:106:ASN:HD21	1:F:446:CYS:HB3	1.84	0.41
1:G:514:ASP:OD2	1:G:516:GLU:HB2	2.20	0.41
1:H:437:THR:HG23	1:H:441:PHE:O	2.20	0.41
1:K:44:GLU:OE2	1:K:300:LEU:N	2.50	0.41
1:K:269:ASN:HB2	1:L:99:GLU:HG3	2.02	0.41
1:L:475:LEU:O	1:L:512:SER:HB2	2.21	0.41
1:O:384:GLU:HB3	1:O:458:ARG:HB2	2.02	0.41
1:O:514:ASP:OD2	1:O:516:GLU:HB2	2.20	0.41
1:A:44:GLU:OE2	1:A:300:LEU:N	2.50	0.40
1:B:265:ASP:OD1	1:C:103:SER:HB3	2.21	0.40
1:B:322:LEU:HD23	1:B:322:LEU:HA	1.91	0.40
1:B:440:ILE:H	1:B:440:ILE:HG12	1.58	0.40
1:B:514:ASP:OD2	1:B:516:GLU:HB2	2.20	0.40
1:B:515:TYR:HB2	1:B:519:PHE:CZ	2.56	0.40
1:C:475:LEU:O	1:C:512:SER:HB2	2.21	0.40
1:D:198:ILE:HD12	1:D:198:ILE:HA	1.86	0.40
1:E:380:GLY:C	1:E:462:CYS:HB3	2.41	0.40
1:F:87:ILE:HA	1:F:88:PRO:HD3	1.96	0.40
1:F:217:GLN:CB	1:F:275:VAL:HG12	2.43	0.40
1:G:437:THR:HG23	1:G:441:PHE:O	2.20	0.40
1:G:515:TYR:HB2	1:G:519:PHE:CZ	2.56	0.40
1:H:264:LYS:HA	1:I:103:SER:O	2.20	0.40
1:I:44:GLU:OE2	1:I:300:LEU:N	2.50	0.40
1:I:357:ASN:HA	1:J:339:ARG:HE	1.87	0.40
1:K:158:THR:OG1	1:K:159:VAL:N	2.53	0.40
1:K:475:LEU:O	1:K:512:SER:HB2	2.21	0.40
1:K:515:TYR:HB2	1:K:519:PHE:CZ	2.56	0.40
1:N:284:TYR:HB3	1:O:293:GLN:HG3	2.03	0.40
1:P:98:SER:O	1:P:99:GLU:HG2	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:198:ILE:HA	1:P:198:ILE:HD12	1.86	0.40
1:P:475:LEU:O	1:P:512:SER:HB2	2.21	0.40
1:P:514:ASP:OD2	1:P:516:GLU:HB2	2.20	0.40
1:A:116:ASN:OD1	1:P:250:PHE:HB2	2.20	0.40
1:B:193:LEU:HD12	1:B:193:LEU:HA	1.82	0.40
1:B:357:ASN:OD1	1:B:358:PHE:HD1	2.03	0.40
1:B:380:GLY:C	1:B:462:CYS:HB3	2.41	0.40
1:B:439:LYS:HB2	1:B:439:LYS:HE3	1.83	0.40
1:C:117:THR:HG22	1:C:118:GLU:N	2.36	0.40
1:C:169:LEU:HD12	1:C:169:LEU:HA	1.81	0.40
1:D:117:THR:HG22	1:D:118:GLU:N	2.35	0.40
1:D:475:LEU:O	1:D:512:SER:HB2	2.21	0.40
1:E:108:GLN:CB	1:E:137:LYS:HA	2.46	0.40
1:E:267:LEU:HD23	1:F:101:LEU:HD12	2.03	0.40
1:E:515:TYR:HB2	1:E:519:PHE:CZ	2.56	0.40
1:G:258:SER:HA	1:H:109:SER:HA	2.03	0.40
1:J:359:ASN:O	1:J:361:GLN:NE2	2.53	0.40
1:J:475:LEU:O	1:J:512:SER:HB2	2.21	0.40
1:K:380:GLY:C	1:K:462:CYS:HB3	2.41	0.40
1:N:501:LEU:HD23	1:N:501:LEU:HA	1.81	0.40
1:O:201:TYR:CE1	1:P:163:PRO:HG3	2.56	0.40
1:P:515:TYR:HB2	1:P:519:PHE:CZ	2.56	0.40
1:A:117:THR:HG22	1:A:118:GLU:N	2.35	0.40
1:C:245:LEU:C	1:C:247:ILE:H	2.24	0.40
1:D:380:GLY:C	1:D:462:CYS:HB3	2.41	0.40
1:E:217:GLN:CB	1:E:275:VAL:HG12	2.43	0.40
1:F:357:ASN:OD1	1:F:358:PHE:HD1	2.03	0.40
1:G:245:LEU:C	1:G:247:ILE:H	2.24	0.40
1:J:116:ASN:O	1:J:117:THR:OG1	2.32	0.40
1:J:515:TYR:HB2	1:J:519:PHE:CZ	2.56	0.40
1:L:380:GLY:C	1:L:462:CYS:HB3	2.41	0.40
1:M:108:GLN:CB	1:M:137:LYS:HA	2.47	0.40
1:M:169:LEU:HD12	1:M:169:LEU:HA	1.81	0.40
1:M:515:TYR:HB2	1:M:519:PHE:CZ	2.56	0.40
1:N:515:TYR:HB2	1:N:519:PHE:CZ	2.56	0.40
1:O:421:GLN:N	1:O:457:PHE:O	2.54	0.40
1:B:267:LEU:HD23	1:C:101:LEU:HD12	2.03	0.40
1:D:560:GLN:NE2	1:E:474:LEU:HD22	2.37	0.40
1:E:555:PRO:HG2	1:E:574:CYS:SG	2.62	0.40
1:F:201:TYR:CE1	1:G:163:PRO:HG3	2.55	0.40
1:G:478:GLY:O	1:G:510:CYS:N	2.47	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:98:SER:O	1:K:99:GLU:HG2	2.21	0.40
1:N:217:GLN:CB	1:N:275:VAL:HG12	2.43	0.40
1:N:269:ASN:HB2	1:O:99:GLU:HB2	2.03	0.40
1:N:555:PRO:HG2	1:N:574:CYS:SG	2.62	0.40
1:O:359:ASN:O	1:O:361:GLN:NE2	2.53	0.40
1:A:284:TYR:HB3	1:B:293:GLN:HG3	2.02	0.40
1:A:555:PRO:HG2	1:A:574:CYS:SG	2.62	0.40
1:C:380:GLY:C	1:C:462:CYS:HB3	2.41	0.40
1:C:421:GLN:N	1:C:457:PHE:O	2.54	0.40
1:D:140:GLN:HE22	1:D:448:ASP:N	2.20	0.40
1:F:117:THR:HG22	1:F:118:GLU:N	2.35	0.40
1:I:140:GLN:HE22	1:I:448:ASP:N	2.20	0.40
1:J:217:GLN:CB	1:J:275:VAL:HG12	2.43	0.40
1:K:140:GLN:HE22	1:K:448:ASP:N	2.20	0.40
1:K:193:LEU:HD12	1:K:193:LEU:HA	1.82	0.40
1:K:250:PHE:HB2	1:L:116:ASN:OD1	2.22	0.40
1:L:108:GLN:CB	1:L:137:LYS:HA	2.47	0.40
1:L:226:LEU:O	1:L:265:ASP:HA	2.22	0.40
1:L:515:TYR:HB2	1:L:519:PHE:CZ	2.56	0.40
1:M:296:ILE:HG21	1:M:296:ILE:HD13	1.85	0.40
1:O:439:LYS:HE3	1:O:439:LYS:HB2	1.83	0.40
1:P:296:ILE:HD13	1:P:296:ILE:HG21	1.85	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	539/646 (83%)	443 (82%)	95 (18%)	1 (0%)	47	81
1	B	539/646 (83%)	442 (82%)	96 (18%)	1 (0%)	47	81
1	C	539/646 (83%)	444 (82%)	94 (17%)	1 (0%)	47	81

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	D	539/646 (83%)	444 (82%)	94 (17%)	1 (0%)	47	81
1	E	539/646 (83%)	443 (82%)	95 (18%)	1 (0%)	47	81
1	F	539/646 (83%)	443 (82%)	95 (18%)	1 (0%)	47	81
1	G	539/646 (83%)	442 (82%)	96 (18%)	1 (0%)	47	81
1	H	539/646 (83%)	443 (82%)	95 (18%)	1 (0%)	47	81
1	I	539/646 (83%)	443 (82%)	95 (18%)	1 (0%)	47	81
1	J	539/646 (83%)	443 (82%)	95 (18%)	1 (0%)	47	81
1	K	539/646 (83%)	443 (82%)	95 (18%)	1 (0%)	47	81
1	L	539/646 (83%)	442 (82%)	96 (18%)	1 (0%)	47	81
1	M	539/646 (83%)	443 (82%)	95 (18%)	1 (0%)	47	81
1	N	539/646 (83%)	442 (82%)	96 (18%)	1 (0%)	47	81
1	O	539/646 (83%)	443 (82%)	95 (18%)	1 (0%)	47	81
1	P	539/646 (83%)	442 (82%)	96 (18%)	1 (0%)	47	81
All	All	8624/10336 (83%)	7085 (82%)	1523 (18%)	16 (0%)	50	81

All (16) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	116	ASN
1	B	116	ASN
1	C	116	ASN
1	D	116	ASN
1	E	116	ASN
1	F	116	ASN
1	G	116	ASN
1	H	116	ASN
1	I	116	ASN
1	J	116	ASN
1	K	116	ASN
1	L	116	ASN
1	M	116	ASN
1	N	116	ASN
1	O	116	ASN
1	P	116	ASN

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	475/564 (84%)	463 (98%)	12 (2%)	47	68
1	B	475/564 (84%)	463 (98%)	12 (2%)	47	68
1	C	475/564 (84%)	463 (98%)	12 (2%)	47	68
1	D	475/564 (84%)	463 (98%)	12 (2%)	47	68
1	E	475/564 (84%)	463 (98%)	12 (2%)	47	68
1	F	475/564 (84%)	463 (98%)	12 (2%)	47	68
1	G	475/564 (84%)	463 (98%)	12 (2%)	47	68
1	H	475/564 (84%)	463 (98%)	12 (2%)	47	68
1	I	475/564 (84%)	463 (98%)	12 (2%)	47	68
1	J	475/564 (84%)	463 (98%)	12 (2%)	47	68
1	K	475/564 (84%)	463 (98%)	12 (2%)	47	68
1	L	475/564 (84%)	463 (98%)	12 (2%)	47	68
1	M	475/564 (84%)	463 (98%)	12 (2%)	47	68
1	N	475/564 (84%)	463 (98%)	12 (2%)	47	68
1	O	475/564 (84%)	463 (98%)	12 (2%)	47	68
1	P	475/564 (84%)	463 (98%)	12 (2%)	47	68
All	All	7600/9024 (84%)	7408 (98%)	192 (2%)	50	68

All (192) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	34	CYS
1	A	70	CYS
1	A	152	VAL
1	A	153	ARG
1	A	261	SER
1	A	388	LEU
1	A	404	THR
1	A	437	THR

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Mol	Chain	Res	Type
1	A	440	ILE
1	A	444	THR
1	A	488	MET
1	A	574	CYS
1	B	34	CYS
1	B	70	CYS
1	B	152	VAL
1	B	153	ARG
1	B	261	SER
1	B	388	LEU
1	B	404	THR
1	B	437	THR
1	B	440	ILE
1	B	444	THR
1	B	488	MET
1	B	574	CYS
1	C	34	CYS
1	C	70	CYS
1	C	152	VAL
1	C	153	ARG
1	C	261	SER
1	C	388	LEU
1	C	404	THR
1	C	437	THR
1	C	440	ILE
1	C	444	THR
1	C	488	MET
1	C	574	CYS
1	D	34	CYS
1	D	70	CYS
1	D	152	VAL
1	D	153	ARG
1	D	261	SER
1	D	388	LEU
1	D	404	THR
1	D	437	THR
1	D	440	ILE
1	D	444	THR
1	D	488	MET
1	D	574	CYS
1	E	34	CYS
1	E	70	CYS

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Mol	Chain	Res	Type
1	E	152	VAL
1	E	153	ARG
1	E	261	SER
1	E	388	LEU
1	E	404	THR
1	E	437	THR
1	E	440	ILE
1	E	444	THR
1	E	488	MET
1	E	574	CYS
1	F	34	CYS
1	F	70	CYS
1	F	152	VAL
1	F	153	ARG
1	F	261	SER
1	F	388	LEU
1	F	404	THR
1	F	437	THR
1	F	440	ILE
1	F	444	THR
1	F	488	MET
1	F	574	CYS
1	G	34	CYS
1	G	70	CYS
1	G	152	VAL
1	G	153	ARG
1	G	261	SER
1	G	388	LEU
1	G	404	THR
1	G	437	THR
1	G	440	ILE
1	G	444	THR
1	G	488	MET
1	G	574	CYS
1	H	34	CYS
1	H	70	CYS
1	H	152	VAL
1	H	153	ARG
1	H	261	SER
1	H	388	LEU
1	H	404	THR
1	H	437	THR

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Mol	Chain	Res	Type
1	H	440	ILE
1	H	444	THR
1	H	488	MET
1	H	574	CYS
1	I	34	CYS
1	I	70	CYS
1	I	152	VAL
1	I	153	ARG
1	I	261	SER
1	I	388	LEU
1	I	404	THR
1	I	437	THR
1	I	440	ILE
1	I	444	THR
1	I	488	MET
1	I	574	CYS
1	J	34	CYS
1	J	70	CYS
1	J	152	VAL
1	J	153	ARG
1	J	261	SER
1	J	388	LEU
1	J	404	THR
1	J	437	THR
1	J	440	ILE
1	J	444	THR
1	J	488	MET
1	J	574	CYS
1	K	34	CYS
1	K	70	CYS
1	K	152	VAL
1	K	153	ARG
1	K	261	SER
1	K	388	LEU
1	K	404	THR
1	K	437	THR
1	K	440	ILE
1	K	444	THR
1	K	488	MET
1	K	574	CYS
1	L	34	CYS
1	L	70	CYS

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Mol	Chain	Res	Type
1	L	152	VAL
1	L	153	ARG
1	L	261	SER
1	L	388	LEU
1	L	404	THR
1	L	437	THR
1	L	440	ILE
1	L	444	THR
1	L	488	MET
1	L	574	CYS
1	M	34	CYS
1	M	70	CYS
1	M	152	VAL
1	M	153	ARG
1	M	261	SER
1	M	388	LEU
1	M	404	THR
1	M	437	THR
1	M	440	ILE
1	M	444	THR
1	M	488	MET
1	M	574	CYS
1	N	34	CYS
1	N	70	CYS
1	N	152	VAL
1	N	153	ARG
1	N	261	SER
1	N	388	LEU
1	N	404	THR
1	N	437	THR
1	N	440	ILE
1	N	444	THR
1	N	488	MET
1	N	574	CYS
1	O	34	CYS
1	O	70	CYS
1	O	152	VAL
1	O	153	ARG
1	O	261	SER
1	O	388	LEU
1	O	404	THR
1	O	437	THR

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Mol	Chain	Res	Type
1	O	440	ILE
1	O	444	THR
1	O	488	MET
1	O	574	CYS
1	P	34	CYS
1	P	70	CYS
1	P	152	VAL
1	P	153	ARG
1	P	261	SER
1	P	388	LEU
1	P	404	THR
1	P	437	THR
1	P	440	ILE
1	P	444	THR
1	P	488	MET
1	P	574	CYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (83) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	144	GLN
1	A	217	GLN
1	A	234	ASN
1	A	276	GLN
1	A	395	GLN
1	B	144	GLN
1	B	217	GLN
1	B	234	ASN
1	B	276	GLN
1	B	395	GLN
1	C	144	GLN
1	C	217	GLN
1	C	234	ASN
1	C	276	GLN
1	C	395	GLN
1	D	144	GLN
1	D	217	GLN
1	D	234	ASN
1	D	276	GLN
1	E	144	GLN
1	E	217	GLN
1	E	234	ASN

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Mol	Chain	Res	Type
1	E	276	GLN
1	E	311	HIS
1	F	144	GLN
1	F	217	GLN
1	F	234	ASN
1	F	276	GLN
1	F	311	HIS
1	G	144	GLN
1	G	217	GLN
1	G	234	ASN
1	G	276	GLN
1	G	311	HIS
1	G	395	GLN
1	H	144	GLN
1	H	217	GLN
1	H	234	ASN
1	H	276	GLN
1	H	311	HIS
1	I	32	GLN
1	I	144	GLN
1	I	217	GLN
1	I	234	ASN
1	I	276	GLN
1	J	144	GLN
1	J	217	GLN
1	J	234	ASN
1	J	276	GLN
1	J	359	ASN
1	J	395	GLN
1	K	144	GLN
1	K	217	GLN
1	K	234	ASN
1	K	276	GLN
1	K	395	GLN
1	L	144	GLN
1	L	217	GLN
1	L	234	ASN
1	L	276	GLN
1	L	395	GLN
1	M	144	GLN
1	M	217	GLN
1	M	234	ASN

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Mol	Chain	Res	Type
1	M	276	GLN
1	M	395	GLN
1	N	144	GLN
1	N	217	GLN
1	N	234	ASN
1	N	276	GLN
1	N	311	HIS
1	N	395	GLN
1	O	144	GLN
1	O	217	GLN
1	O	234	ASN
1	O	276	GLN
1	O	395	GLN
1	P	144	GLN
1	P	217	GLN
1	P	234	ASN
1	P	276	GLN
1	P	359	ASN
1	P	395	GLN

5.3.3 RNA

There are no RNA molecules in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains

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

5.5 Carbohydrates

There are no monosaccharides in this entry.

5.6 Ligand geometry

32 ligands are modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the

expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
2	NAG	I	702	1	14,14,15	0.18	0	17,19,21	0.54	0
2	NAG	B	702	1	14,14,15	0.18	0	17,19,21	0.55	0
2	NAG	E	701	1	14,14,15	0.47	0	17,19,21	0.41	0
2	NAG	O	701	1	14,14,15	0.45	0	17,19,21	0.41	0
2	NAG	E	702	1	14,14,15	0.19	0	17,19,21	0.54	0
2	NAG	J	701	1	14,14,15	0.45	0	17,19,21	0.40	0
2	NAG	N	702	1	14,14,15	0.17	0	17,19,21	0.54	0
2	NAG	H	702	1	14,14,15	0.19	0	17,19,21	0.55	0
2	NAG	F	702	1	14,14,15	0.21	0	17,19,21	0.56	0
2	NAG	I	701	1	14,14,15	0.47	0	17,19,21	0.41	0
2	NAG	A	702	1	14,14,15	0.18	0	17,19,21	0.54	0
2	NAG	F	701	1	14,14,15	0.45	0	17,19,21	0.41	0
2	NAG	C	701	1	14,14,15	0.46	0	17,19,21	0.41	0
2	NAG	L	701	1	14,14,15	0.46	0	17,19,21	0.40	0
2	NAG	K	701	1	14,14,15	0.44	0	17,19,21	0.41	0
2	NAG	G	701	1	14,14,15	0.45	0	17,19,21	0.40	0
2	NAG	P	702	1	14,14,15	0.19	0	17,19,21	0.54	0
2	NAG	N	701	1	14,14,15	0.46	0	17,19,21	0.40	0
2	NAG	P	701	1	14,14,15	0.46	0	17,19,21	0.41	0
2	NAG	C	702	1	14,14,15	0.18	0	17,19,21	0.55	0
2	NAG	K	702	1	14,14,15	0.20	0	17,19,21	0.54	0
2	NAG	L	702	1	14,14,15	0.19	0	17,19,21	0.54	0
2	NAG	G	702	1	14,14,15	0.21	0	17,19,21	0.54	0
2	NAG	D	701	1	14,14,15	0.46	0	17,19,21	0.41	0
2	NAG	M	702	1	14,14,15	0.18	0	17,19,21	0.54	0
2	NAG	H	701	1	14,14,15	0.46	0	17,19,21	0.41	0
2	NAG	M	701	1	14,14,15	0.46	0	17,19,21	0.41	0
2	NAG	J	702	1	14,14,15	0.18	0	17,19,21	0.54	0
2	NAG	A	701	1	14,14,15	0.46	0	17,19,21	0.41	0
2	NAG	D	702	1	14,14,15	0.20	0	17,19,21	0.54	0
2	NAG	B	701	1	14,14,15	0.44	0	17,19,21	0.40	0
2	NAG	O	702	1	14,14,15	0.18	0	17,19,21	0.54	0

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	NAG	I	702	1	-	1/6/23/26	0/1/1/1

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	NAG	B	702	1	-	1/6/23/26	0/1/1/1
2	NAG	E	701	1	-	1/6/23/26	0/1/1/1
2	NAG	O	701	1	-	1/6/23/26	0/1/1/1
2	NAG	E	702	1	-	1/6/23/26	0/1/1/1
2	NAG	J	701	1	-	1/6/23/26	0/1/1/1
2	NAG	N	702	1	-	1/6/23/26	0/1/1/1
2	NAG	H	702	1	-	1/6/23/26	0/1/1/1
2	NAG	F	702	1	-	1/6/23/26	0/1/1/1
2	NAG	I	701	1	-	1/6/23/26	0/1/1/1
2	NAG	A	702	1	-	1/6/23/26	0/1/1/1
2	NAG	F	701	1	-	1/6/23/26	0/1/1/1
2	NAG	C	701	1	-	1/6/23/26	0/1/1/1
2	NAG	L	701	1	-	1/6/23/26	0/1/1/1
2	NAG	K	701	1	-	1/6/23/26	0/1/1/1
2	NAG	G	701	1	-	1/6/23/26	0/1/1/1
2	NAG	P	702	1	-	1/6/23/26	0/1/1/1
2	NAG	N	701	1	-	1/6/23/26	0/1/1/1
2	NAG	P	701	1	-	1/6/23/26	0/1/1/1
2	NAG	C	702	1	-	1/6/23/26	0/1/1/1
2	NAG	K	702	1	-	1/6/23/26	0/1/1/1
2	NAG	L	702	1	-	1/6/23/26	0/1/1/1
2	NAG	G	702	1	-	1/6/23/26	0/1/1/1
2	NAG	D	701	1	-	1/6/23/26	0/1/1/1
2	NAG	M	702	1	-	1/6/23/26	0/1/1/1
2	NAG	H	701	1	-	1/6/23/26	0/1/1/1
2	NAG	M	701	1	-	1/6/23/26	0/1/1/1
2	NAG	J	702	1	-	1/6/23/26	0/1/1/1
2	NAG	A	701	1	-	1/6/23/26	0/1/1/1
2	NAG	D	702	1	-	1/6/23/26	0/1/1/1
2	NAG	B	701	1	-	1/6/23/26	0/1/1/1
2	NAG	O	702	1	-	1/6/23/26	0/1/1/1

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

All (32) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	A	701	NAG	C3-C2-N2-C7
2	A	702	NAG	C3-C2-N2-C7
2	B	701	NAG	C3-C2-N2-C7

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Mol	Chain	Res	Type	Atoms
2	B	702	NAG	C3-C2-N2-C7
2	C	701	NAG	C3-C2-N2-C7
2	C	702	NAG	C3-C2-N2-C7
2	D	701	NAG	C3-C2-N2-C7
2	D	702	NAG	C3-C2-N2-C7
2	E	701	NAG	C3-C2-N2-C7
2	E	702	NAG	C3-C2-N2-C7
2	F	701	NAG	C3-C2-N2-C7
2	F	702	NAG	C3-C2-N2-C7
2	G	701	NAG	C3-C2-N2-C7
2	G	702	NAG	C3-C2-N2-C7
2	H	701	NAG	C3-C2-N2-C7
2	H	702	NAG	C3-C2-N2-C7
2	I	701	NAG	C3-C2-N2-C7
2	I	702	NAG	C3-C2-N2-C7
2	J	701	NAG	C3-C2-N2-C7
2	J	702	NAG	C3-C2-N2-C7
2	K	701	NAG	C3-C2-N2-C7
2	K	702	NAG	C3-C2-N2-C7
2	L	701	NAG	C3-C2-N2-C7
2	L	702	NAG	C3-C2-N2-C7
2	M	701	NAG	C3-C2-N2-C7
2	M	702	NAG	C3-C2-N2-C7
2	N	701	NAG	C3-C2-N2-C7
2	N	702	NAG	C3-C2-N2-C7
2	O	701	NAG	C3-C2-N2-C7
2	O	702	NAG	C3-C2-N2-C7
2	P	701	NAG	C3-C2-N2-C7
2	P	702	NAG	C3-C2-N2-C7

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

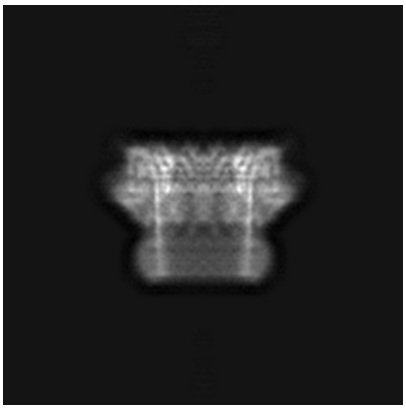
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-10135. These allow visual inspection of the internal detail of the map and identification of artifacts.

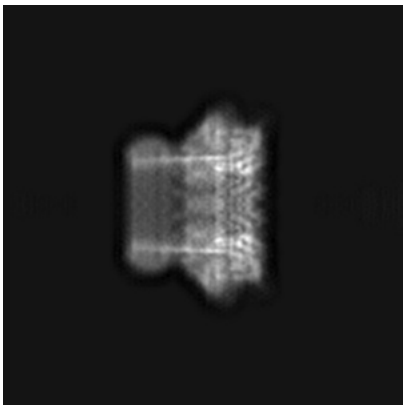
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections

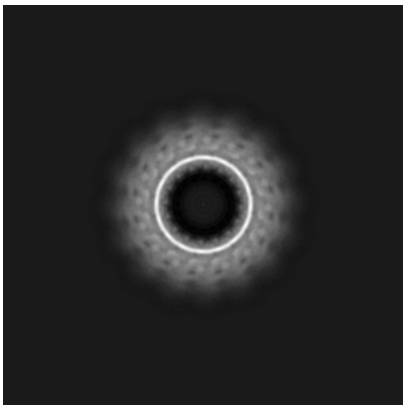
6.1.1 Primary map



X

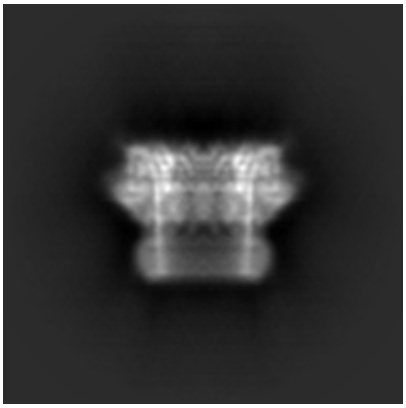


Y

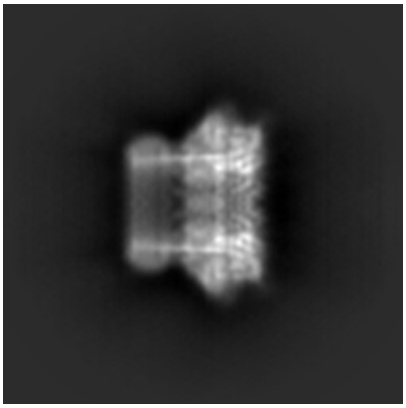


Z

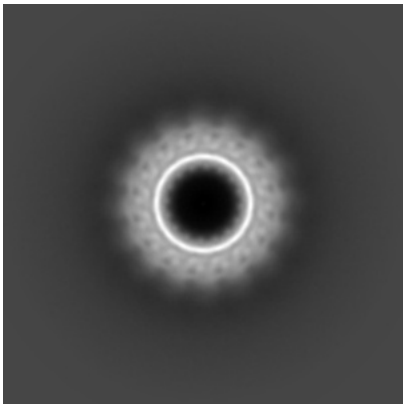
6.1.2 Raw map



X



Y

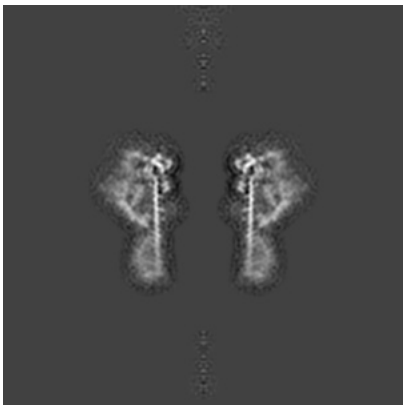


Z

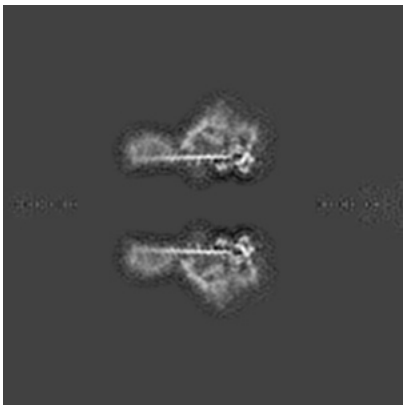
The images above show the map projected in three orthogonal directions.

6.2 Central slices (i)

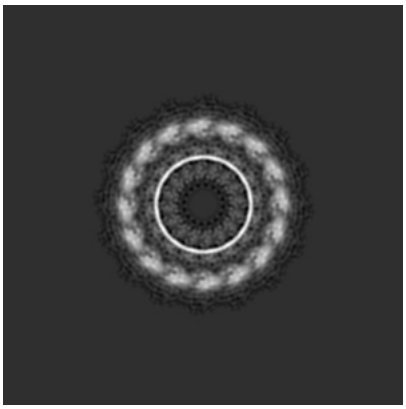
6.2.1 Primary map



X Index: 180

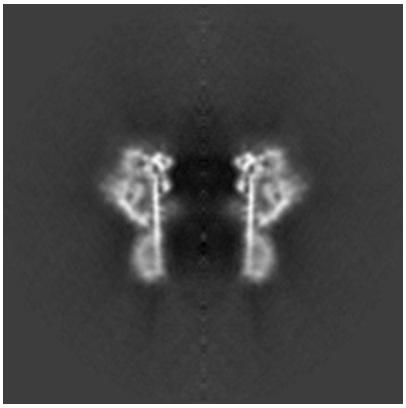


Y Index: 180

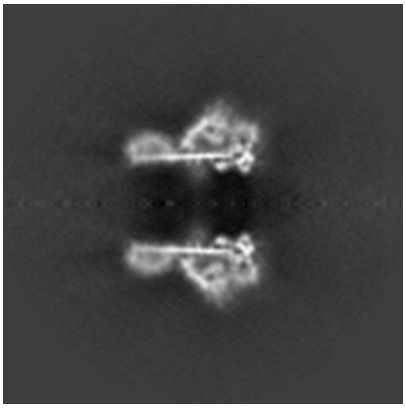


Z Index: 180

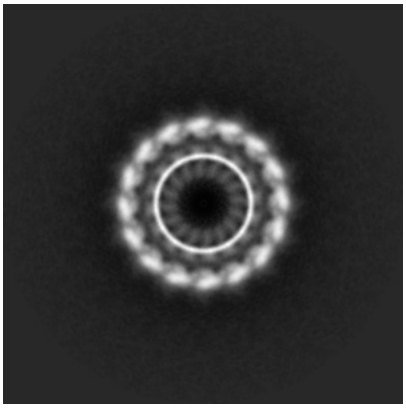
6.2.2 Raw map



X Index: 180



Y Index: 180

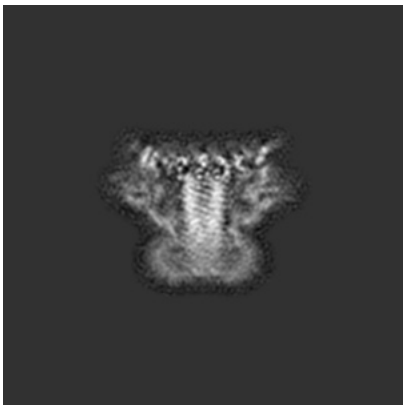


Z Index: 180

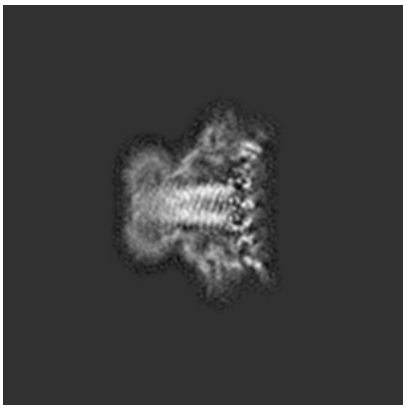
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

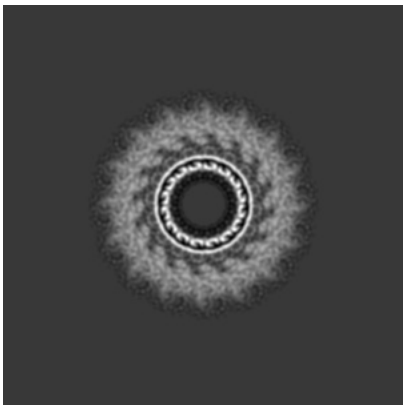
6.3.1 Primary map



X Index: 221

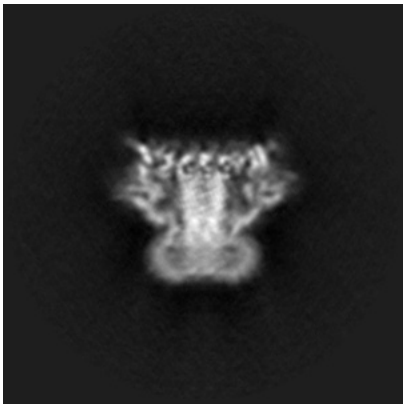


Y Index: 221

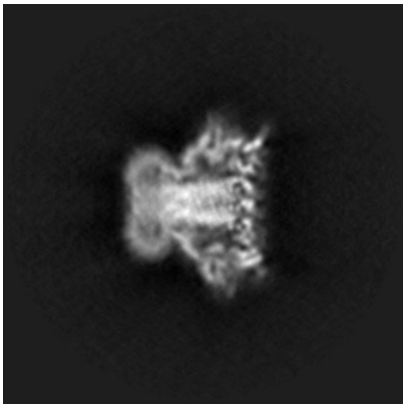


Z Index: 193

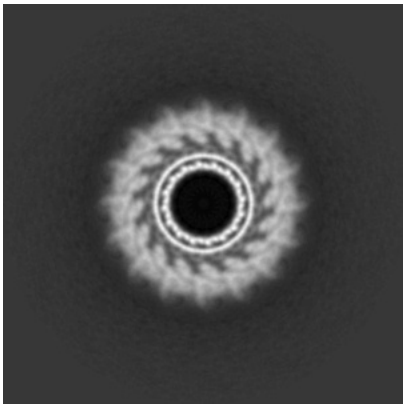
6.3.2 Raw map



X Index: 139



Y Index: 139

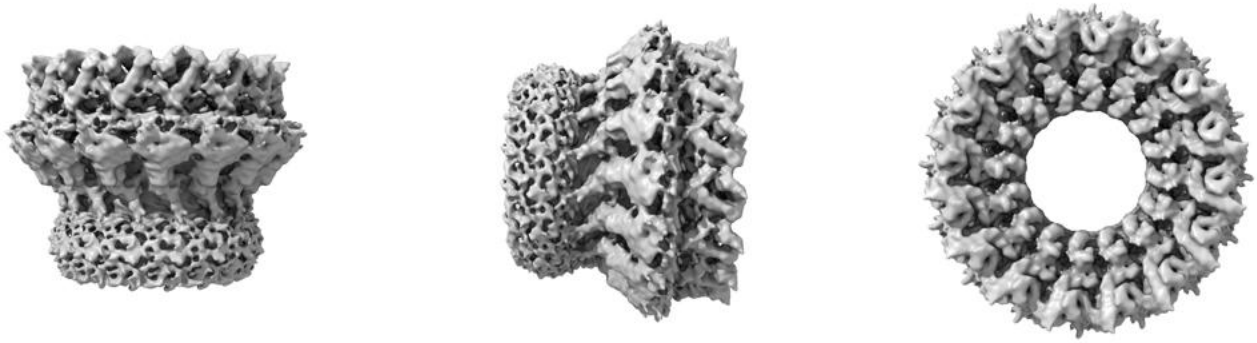


Z Index: 193

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

6.4 Orthogonal surface views (i)

6.4.1 Primary map



X Y Z

The images above show the 3D surface view of the map at the recommended contour level 0.048. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.4.2 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.

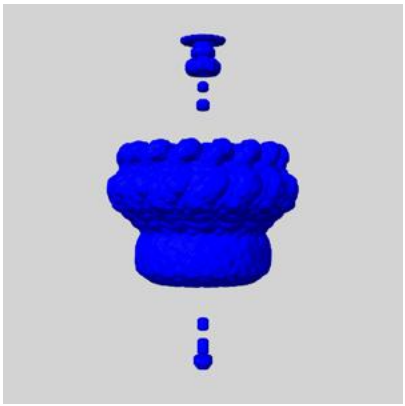
6.5 Mask visualisation (i)

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

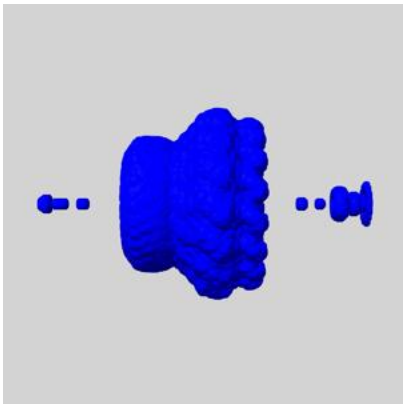
A mask typically either:

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

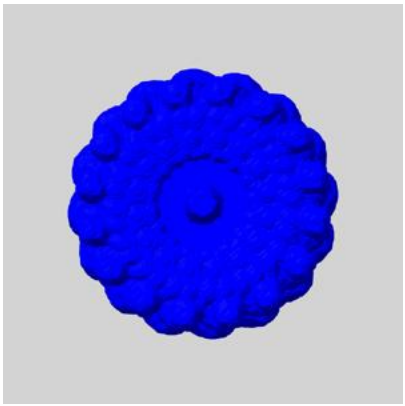
6.5.1 emd_10135_msk_1.map (i)



X



Y

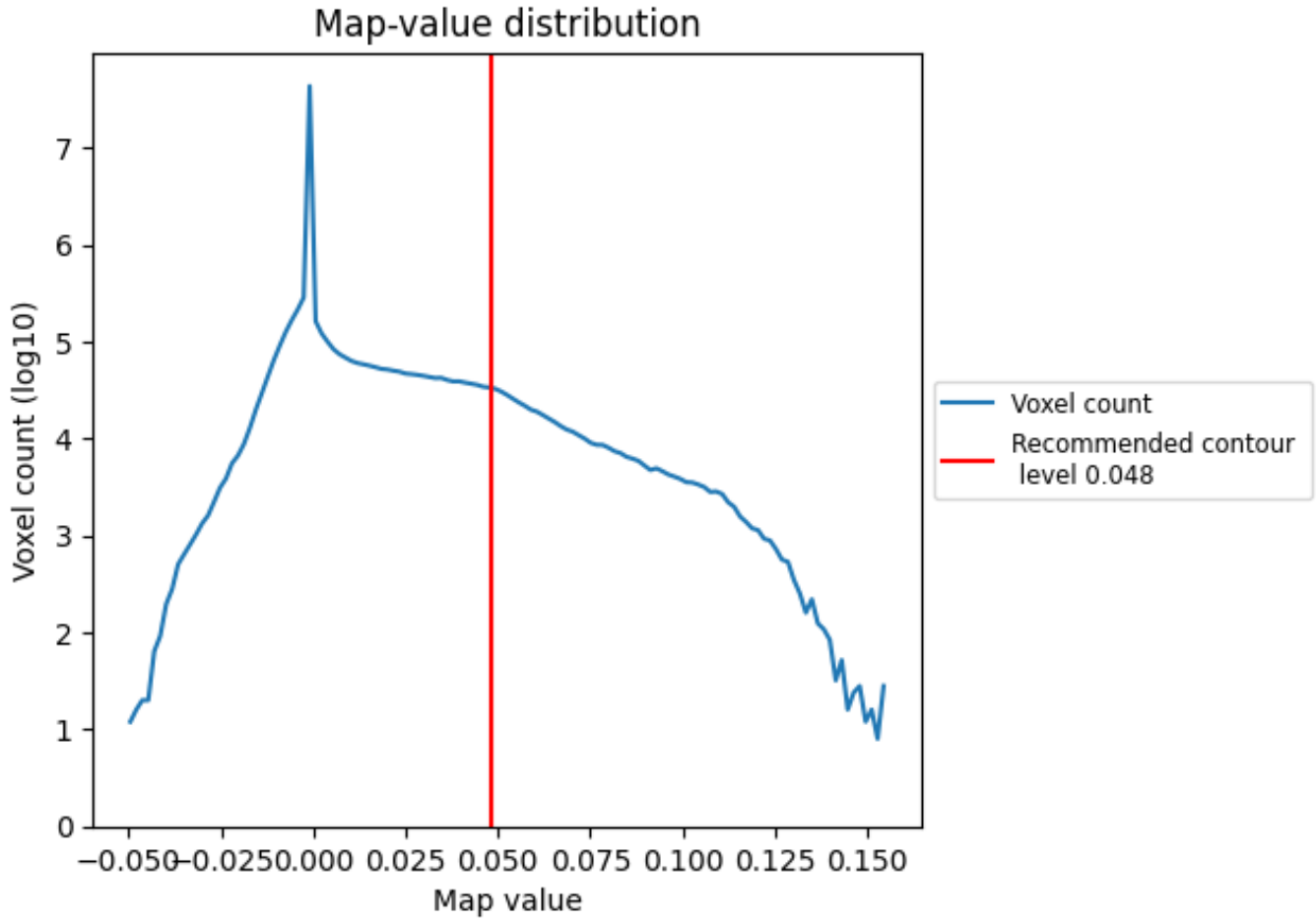


Z

7 Map analysis

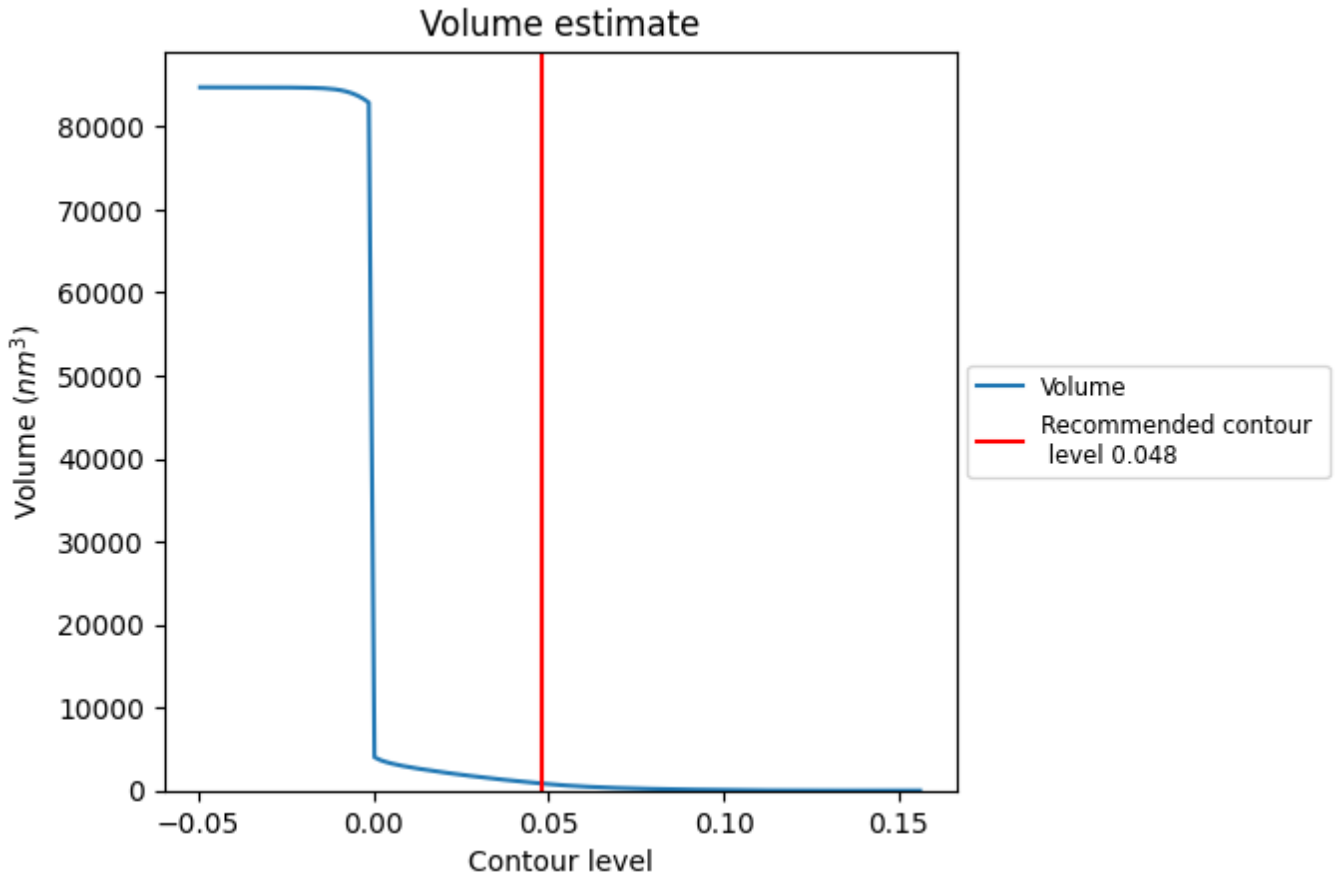
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



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

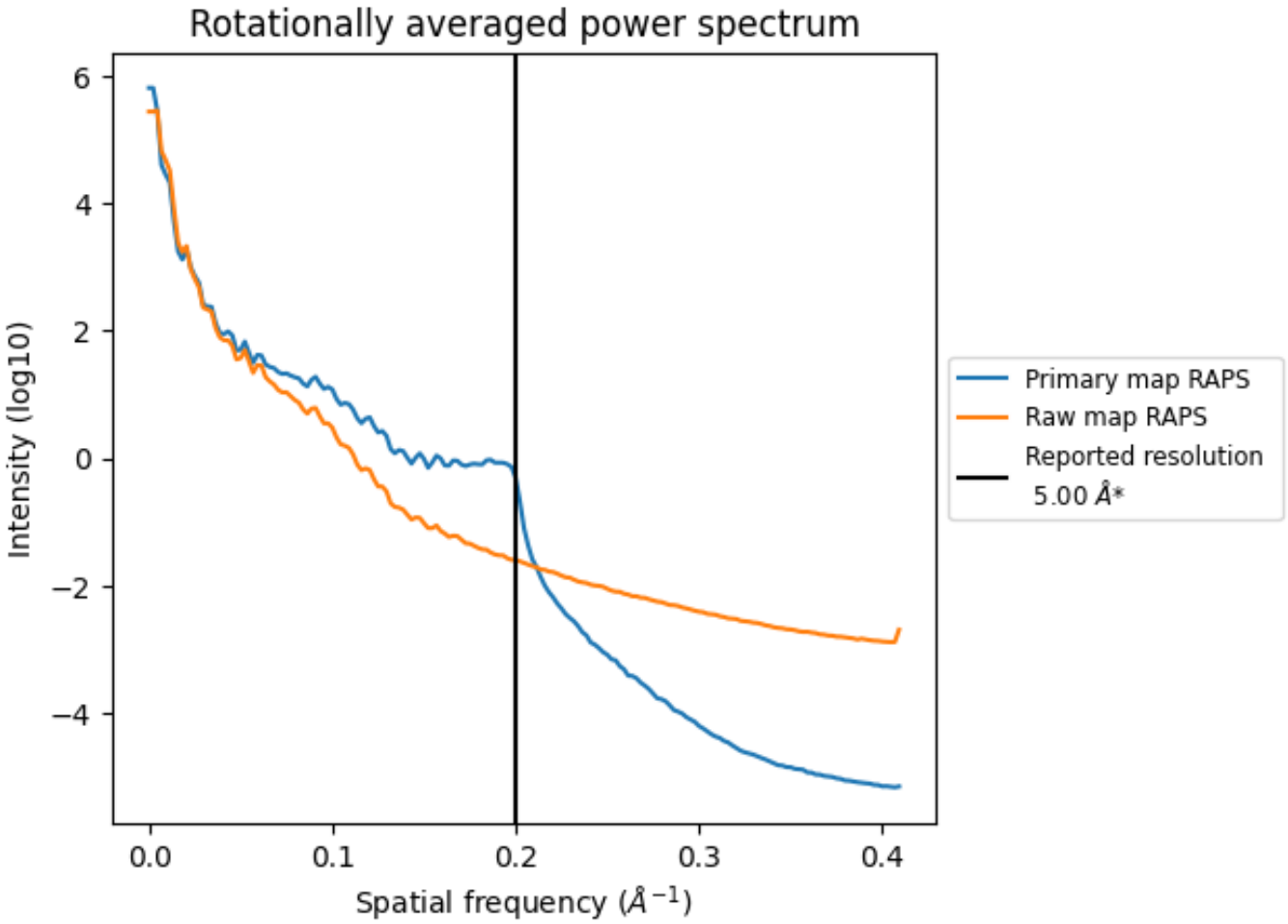
7.2 Volume estimate



The volume at the recommended contour level is 853 nm^3; this corresponds to an approximate mass of 771 kDa.

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

7.3 Rotationally averaged power spectrum (i)

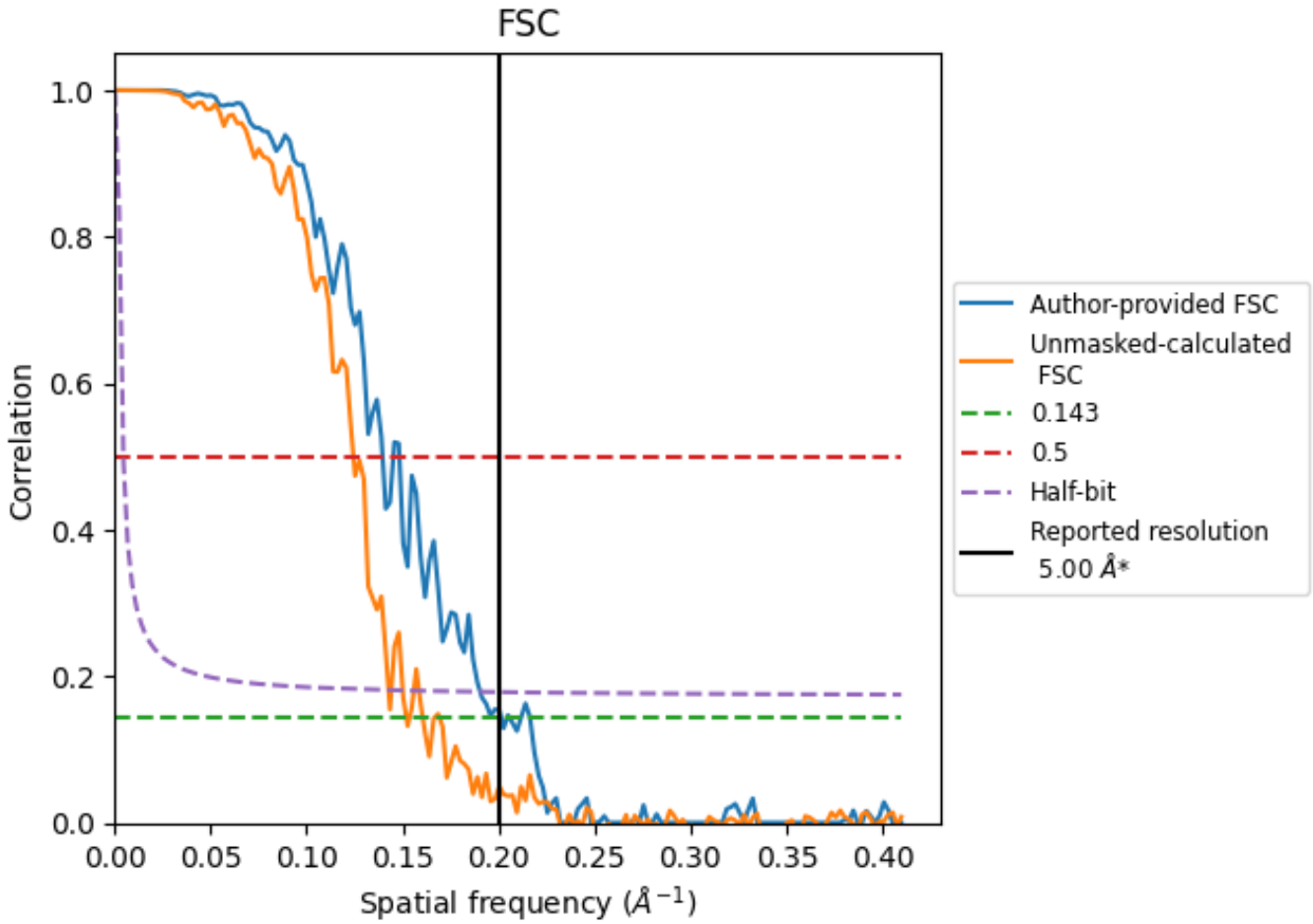


*Reported resolution corresponds to spatial frequency of 0.200 Å^{-1}

8 Fourier-Shell correlation

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

8.1 FSC



*Reported resolution corresponds to spatial frequency of 0.200 Å^{-1}

8.2 Resolution estimates (i)

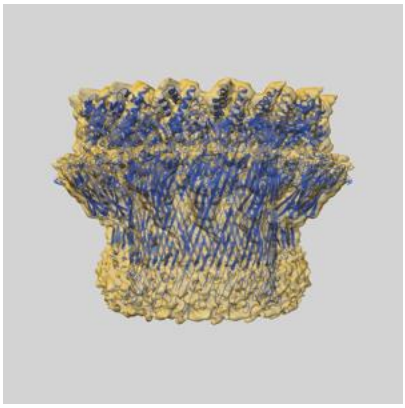
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	5.00	-	-
Author-provided FSC curve	4.97	7.17	5.25
Unmasked-calculated*	6.58	8.05	7.01

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 6.58 differs from the reported value 5.0 by more than 10 %

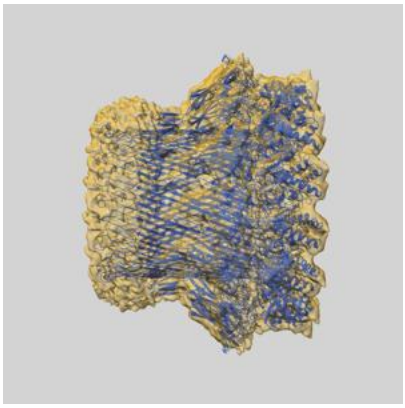
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-10135 and PDB model 6SB5. Per-residue inclusion information can be found in section 3 on page 12.

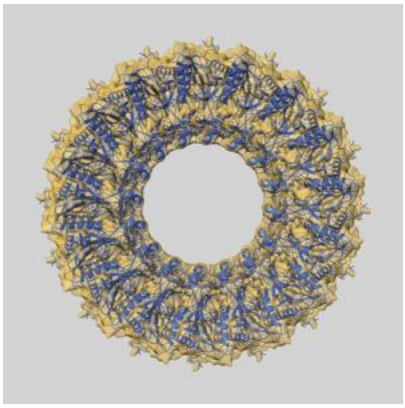
9.1 Map-model overlay



X



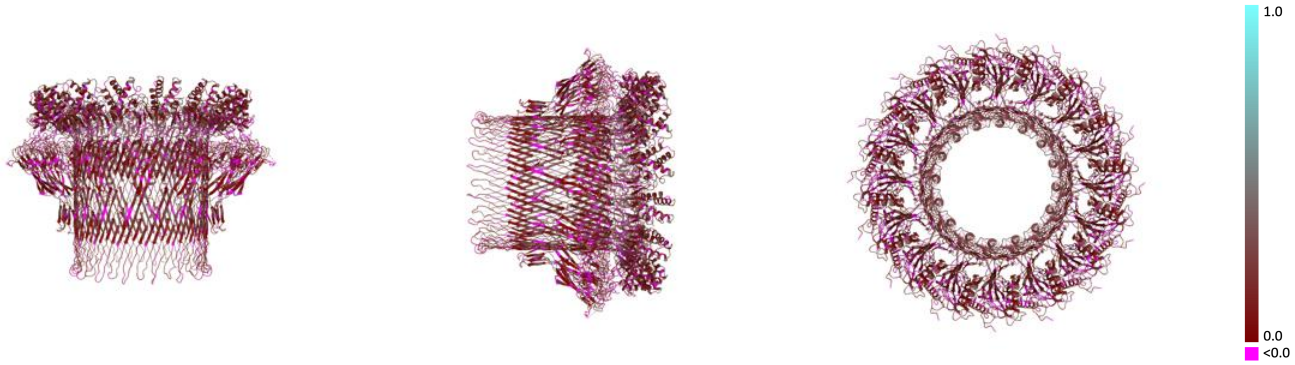
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.048 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.

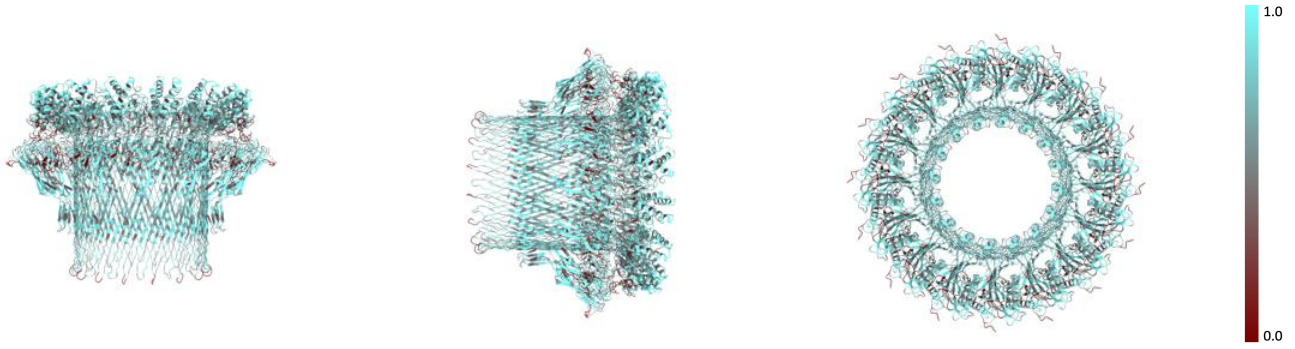
9.2 Q-score mapped to coordinate model (i)



X Y Z

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

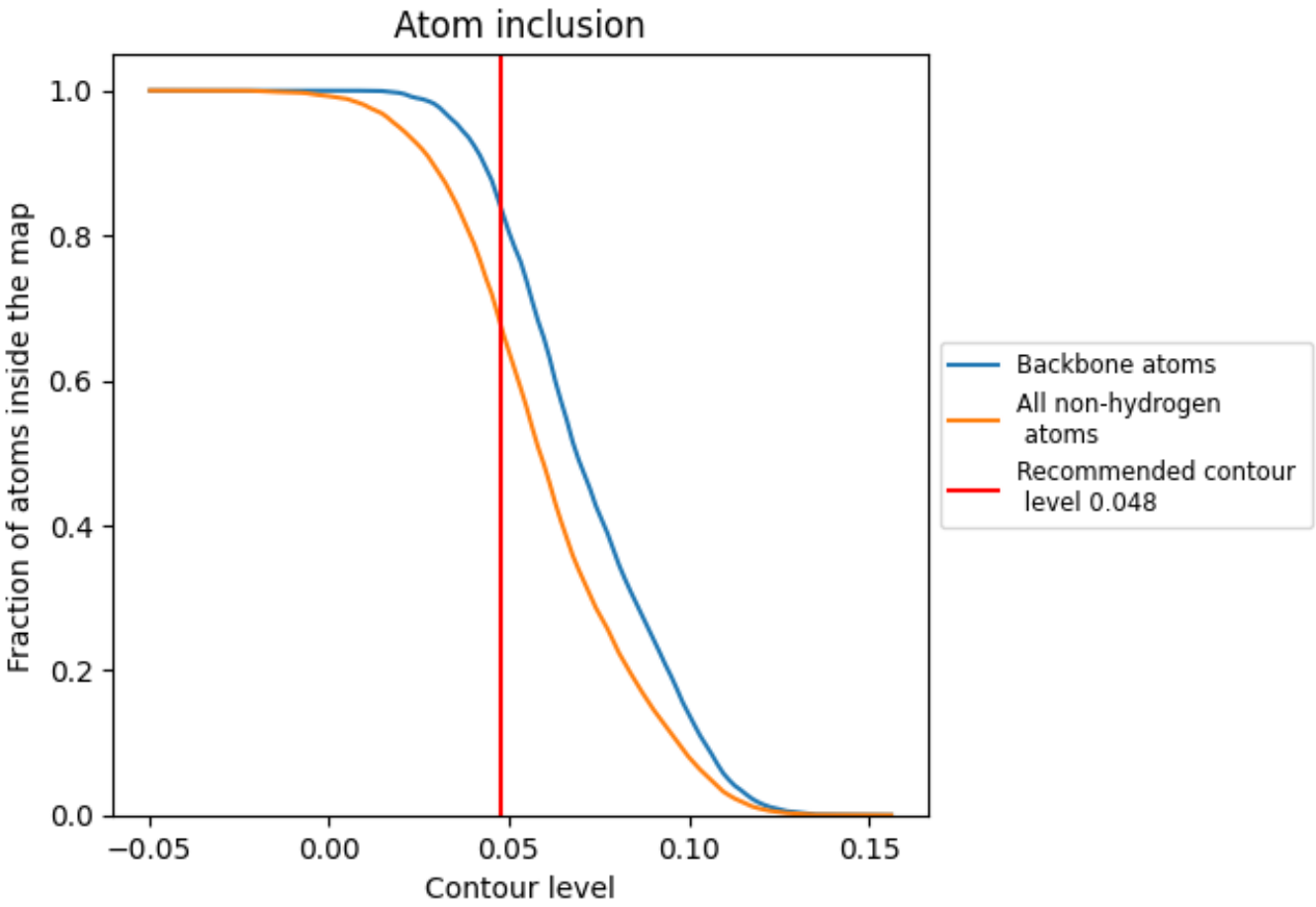
9.3 Atom inclusion mapped to coordinate model (i)



X Y Z

The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.048).

9.4 Atom inclusion (i)



At the recommended contour level, 83% of all backbone atoms, 67% 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 (0.048) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.6727	0.1520
A	0.6734	0.1530
B	0.6703	0.1520
C	0.6687	0.1500
D	0.6687	0.1500
E	0.6701	0.1530
F	0.6684	0.1470
G	0.6682	0.1500
H	0.6732	0.1520
I	0.6756	0.1500
J	0.6725	0.1490
K	0.6744	0.1520
L	0.6715	0.1500
M	0.6744	0.1520
N	0.6761	0.1570
O	0.6792	0.1570
P	0.6785	0.1550