WORLD WIDE
wwPDB
PROTEIN DATA BANK

Full wwPDB EM Validation Report (i)

Feb 13, 2024 – 11:41 AM EST

PDB ID	:	3JA7
EMDB ID	:	EMD-6324
Title	:	Cryo-EM structure of the bacteriophage T4 portal protein assembly at near-atomic resolution
Authors	:	Sun, L.; Zhang, X.; Gao, S.; Rao, P.A.; Padilla-Sanchez, V.; Chen, Z.; Sun, S.; Xiang, Y.; Subramaniam, S.; Rao, V.B.; Rossmann, M.G.
Deposited on	:	2015-04-21
Resolution	:	3.60 Å(reported)

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

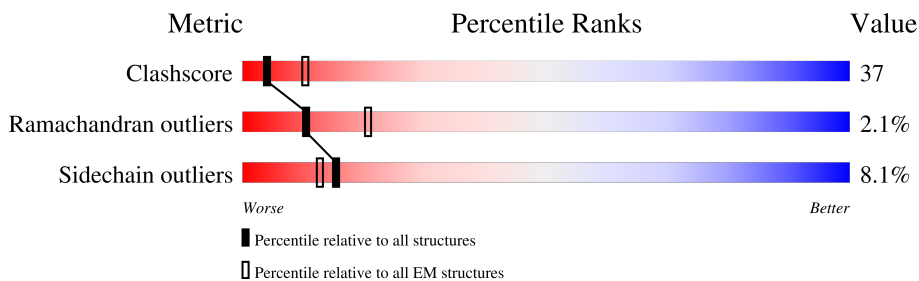|		
EMDB validation analysis	:	0.0.1.dev70
MolProbity	:	4.02b-467
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	1.9.9
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.36

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 3.60 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.
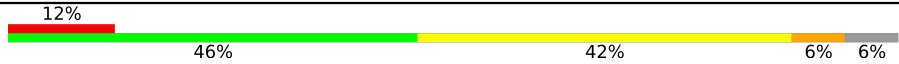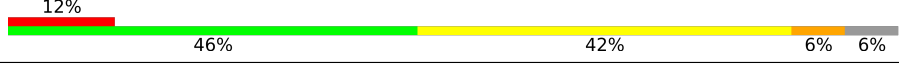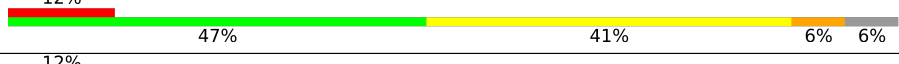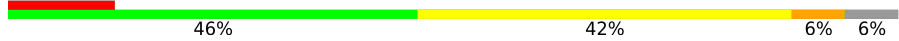
Metric	Percentile Ranks	Value
Clashscore		37
Ramachandran outliers		2.1%
Sidechain outliers		8.1%

Worse   *Better*

▮ Percentile relative to all structures

▯ Percentile relative to all EM structures

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	455	12% / 46% 42% 6% 6%
1	B	455	12% / 46% 42% 6% 6%
1	C	455	12% / 47% 41% 6% 6%
1	D	455	12% / 46% 42% 6% 6%
1	E	455	12% / 46% 42% 6% 6%
1	F	455	12% / 46% 42% 6% 6%
1	G	455	12% / 46% 42% 6% 6%
1	H	455	12% / 45% 43% 6% 6%

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Mol	Chain	Length	Quality of chain
1	I	455	12% 46% 42% 6% 6%
1	J	455	12% 46% 42% 6% 6%
1	K	455	12% 47% 41% 6% 6%
1	L	455	12% 46% 42% 6% 6%

2 Entry composition ⓘ

There is only 1 type of molecule in this entry. The entry contains 41280 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 Portal protein gp20.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	428	Total	C	N	O	S	0	0
			3440	2164	608	649	19		
1	B	428	Total	C	N	O	S	0	0
			3440	2164	608	649	19		
1	C	428	Total	C	N	O	S	0	0
			3440	2164	608	649	19		
1	D	428	Total	C	N	O	S	0	0
			3440	2164	608	649	19		
1	E	428	Total	C	N	O	S	0	0
			3440	2164	608	649	19		
1	F	428	Total	C	N	O	S	0	0
			3440	2164	608	649	19		
1	G	428	Total	C	N	O	S	0	0
			3440	2164	608	649	19		
1	H	428	Total	C	N	O	S	0	0
			3440	2164	608	649	19		
1	I	428	Total	C	N	O	S	0	0
			3440	2164	608	649	19		
1	J	428	Total	C	N	O	S	0	0
			3440	2164	608	649	19		
1	K	428	Total	C	N	O	S	0	0
			3440	2164	608	649	19		
1	L	428	Total	C	N	O	S	0	0
			3440	2164	608	649	19		

There are 48 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	70	ASN	-	expression tag	UNP P13334
A	71	TRP	-	expression tag	UNP P13334
A	72	ILE	-	expression tag	UNP P13334
A	73	SER	-	expression tag	UNP P13334
B	70	ASN	-	expression tag	UNP P13334
B	71	TRP	-	expression tag	UNP P13334

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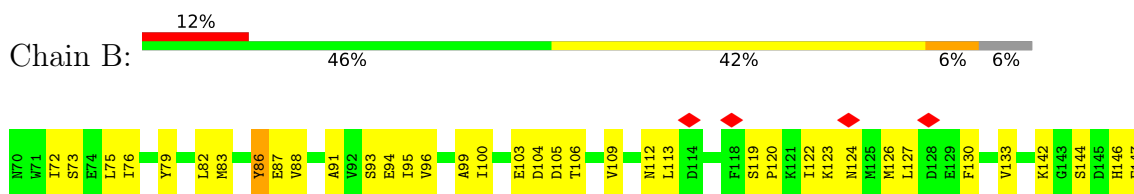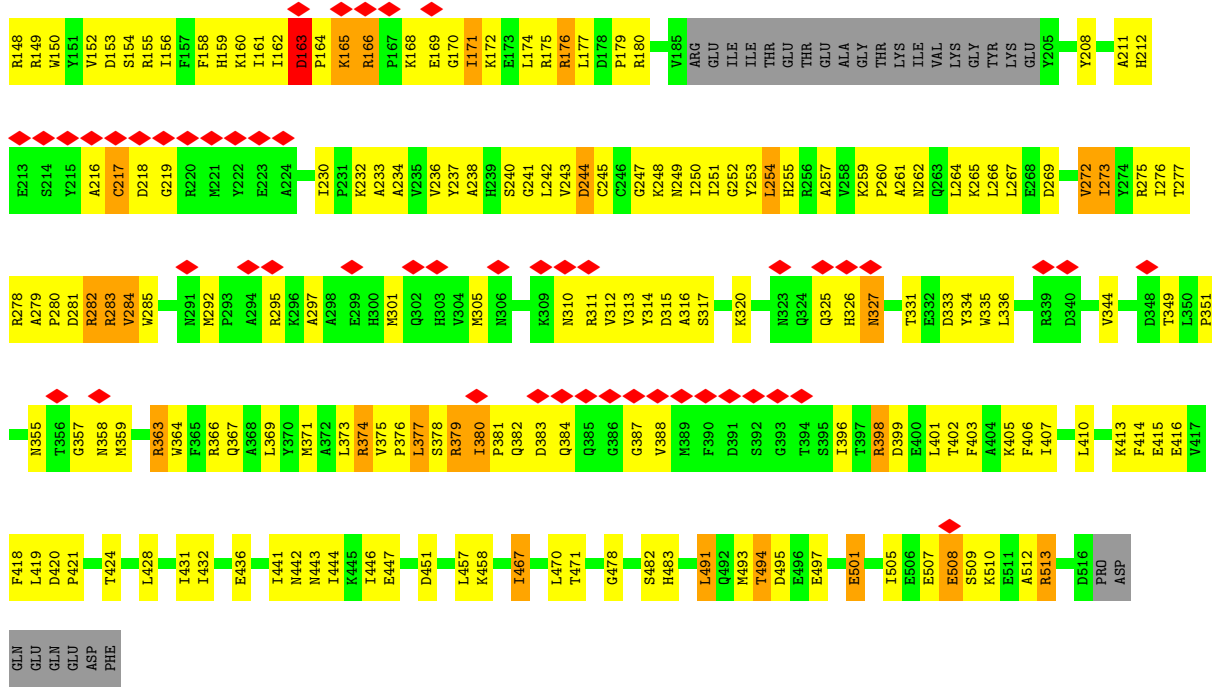| Chain	Residue	Modelled	Actual	Comment	Reference
B	72	ILE	-	expression tag	UNP P13334
B	73	SER	-	expression tag	UNP P13334
C	70	ASN	-	expression tag	UNP P13334
C	71	TRP	-	expression tag	UNP P13334
C	72	ILE	-	expression tag	UNP P13334
C	73	SER	-	expression tag	UNP P13334
D	70	ASN	-	expression tag	UNP P13334
D	71	TRP	-	expression tag	UNP P13334
D	72	ILE	-	expression tag	UNP P13334
D	73	SER	-	expression tag	UNP P13334
E	70	ASN	-	expression tag	UNP P13334
E	71	TRP	-	expression tag	UNP P13334
E	72	ILE	-	expression tag	UNP P13334
E	73	SER	-	expression tag	UNP P13334
F	70	ASN	-	expression tag	UNP P13334
F	71	TRP	-	expression tag	UNP P13334
F	72	ILE	-	expression tag	UNP P13334
F	73	SER	-	expression tag	UNP P13334
G	70	ASN	-	expression tag	UNP P13334
G	71	TRP	-	expression tag	UNP P13334
G	72	ILE	-	expression tag	UNP P13334
G	73	SER	-	expression tag	UNP P13334
H	70	ASN	-	expression tag	UNP P13334
H	71	TRP	-	expression tag	UNP P13334
H	72	ILE	-	expression tag	UNP P13334
H	73	SER	-	expression tag	UNP P13334
I	70	ASN	-	expression tag	UNP P13334
I	71	TRP	-	expression tag	UNP P13334
I	72	ILE	-	expression tag	UNP P13334
I	73	SER	-	expression tag	UNP P13334
J	70	ASN	-	expression tag	UNP P13334
J	71	TRP	-	expression tag	UNP P13334
J	72	ILE	-	expression tag	UNP P13334
J	73	SER	-	expression tag	UNP P13334
K	70	ASN	-	expression tag	UNP P13334
K	71	TRP	-	expression tag	UNP P13334
K	72	ILE	-	expression tag	UNP P13334
K	73	SER	-	expression tag	UNP P13334
L	70	ASN	-	expression tag	UNP P13334
L	71	TRP	-	expression tag	UNP P13334
L	72	ILE	-	expression tag	UNP P13334
L	73	SER	-	expression tag	UNP P13334

3 Residue-property plots ⓘ

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

• Molecule 1: Portal protein gp20
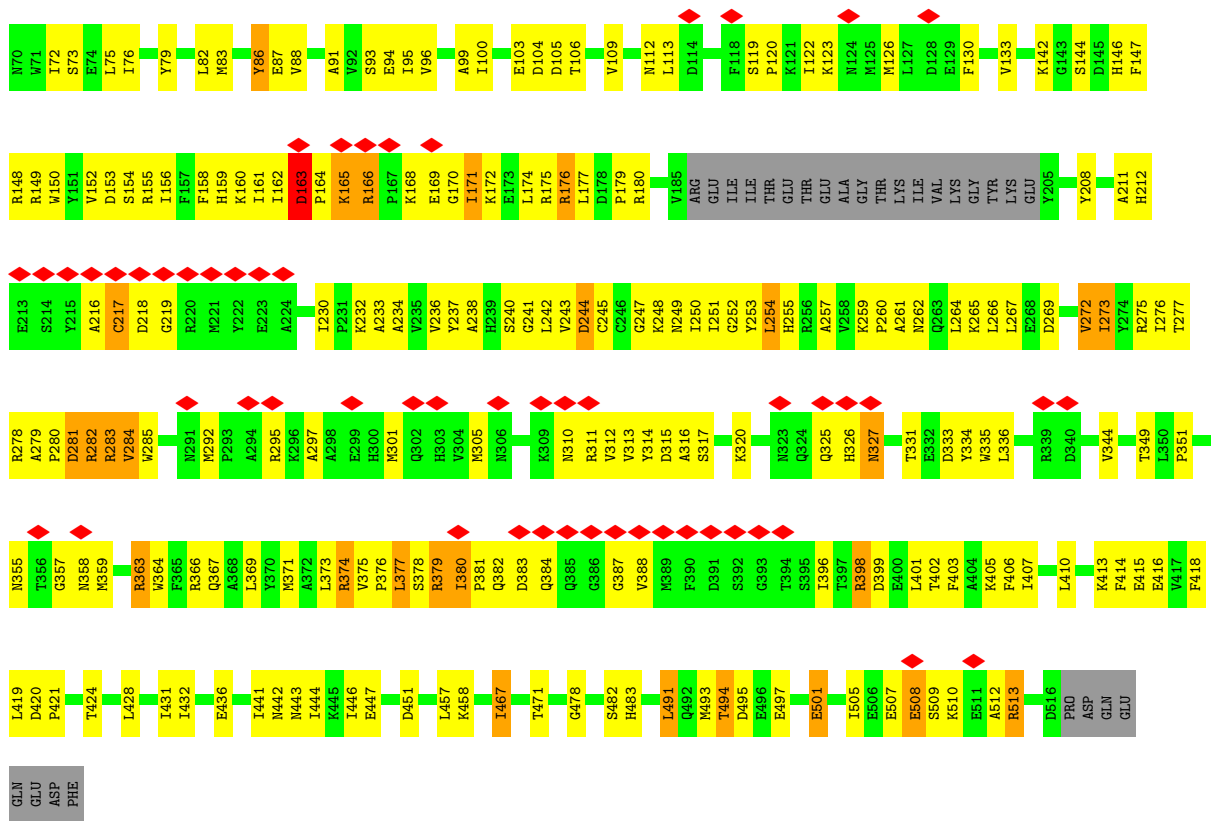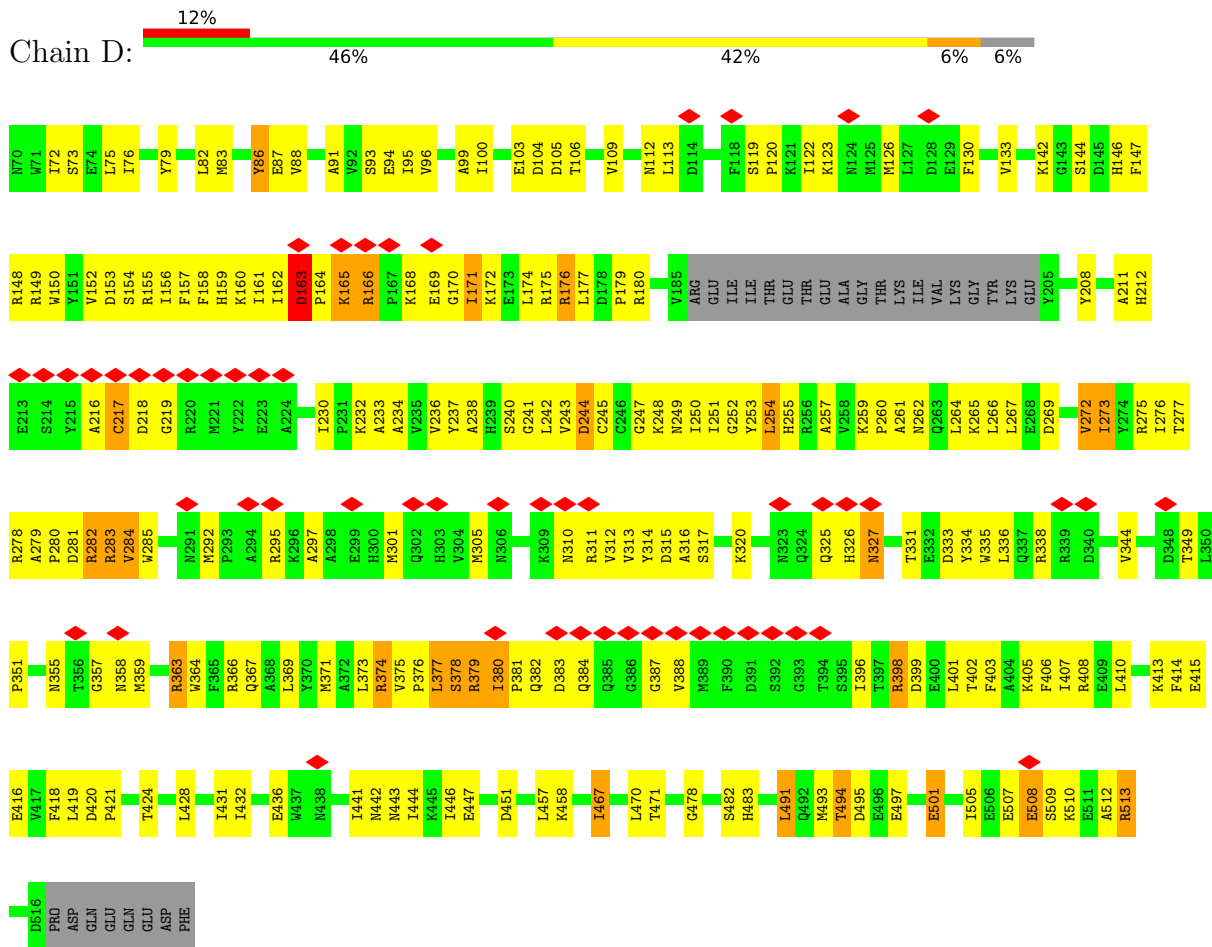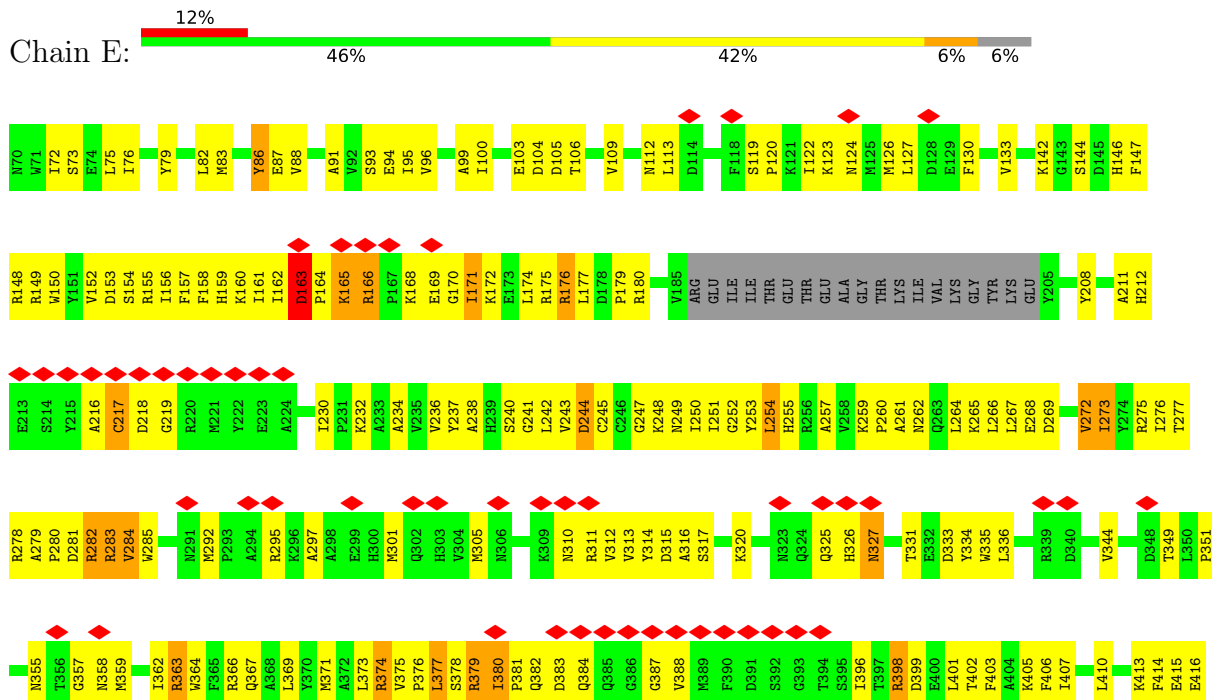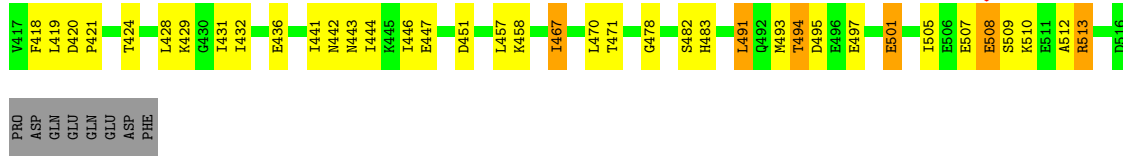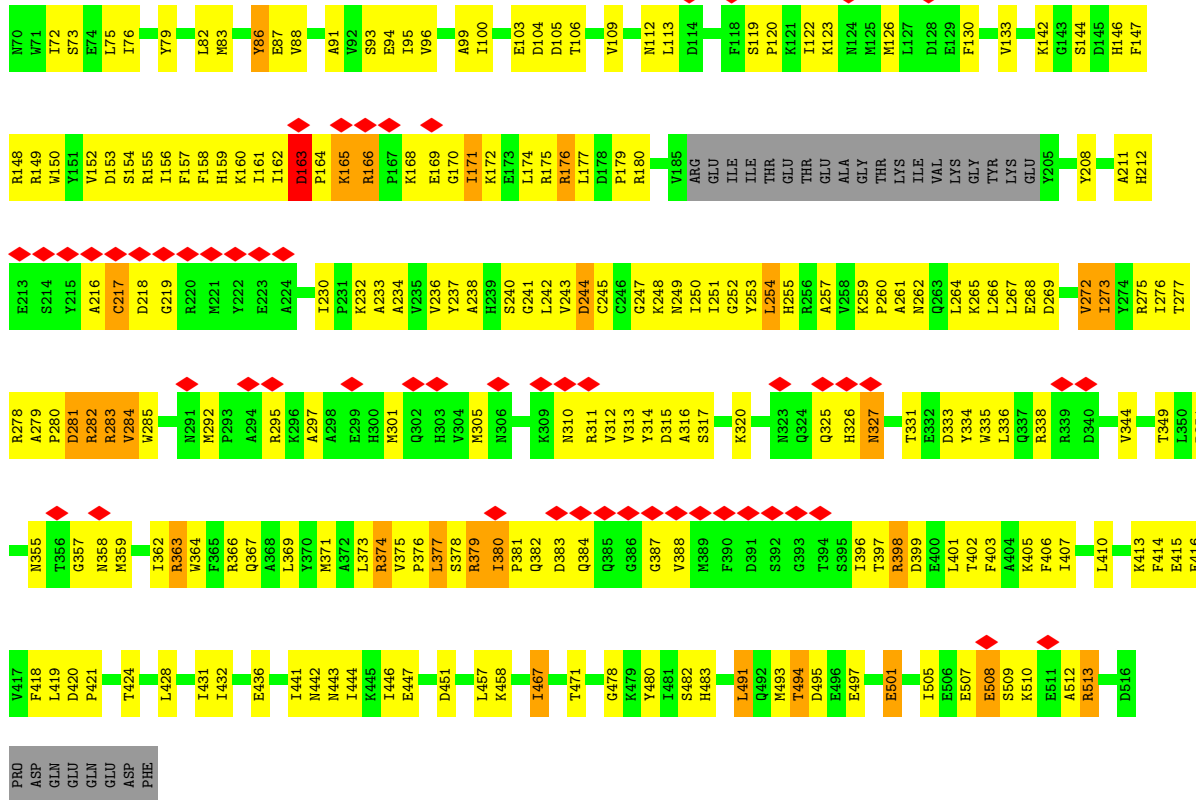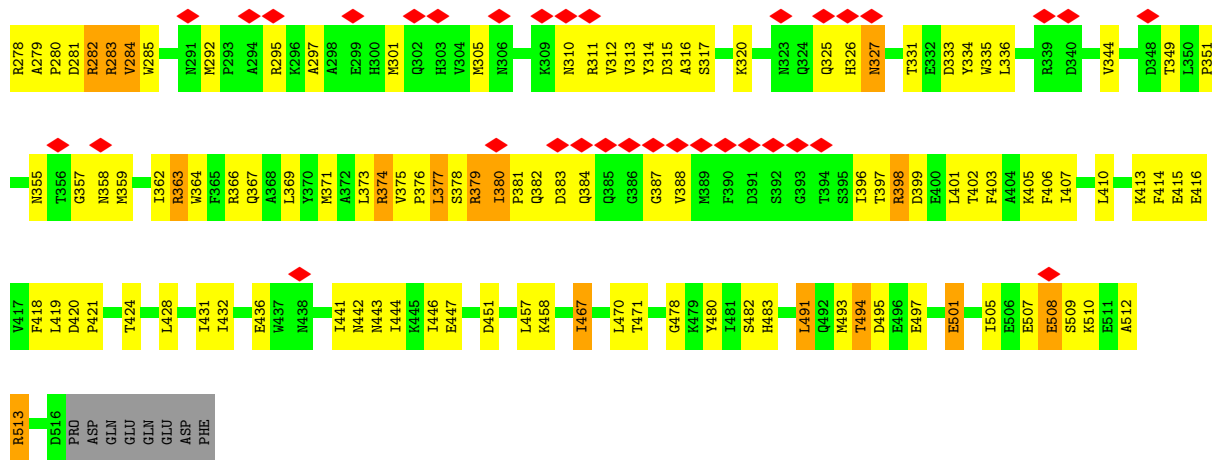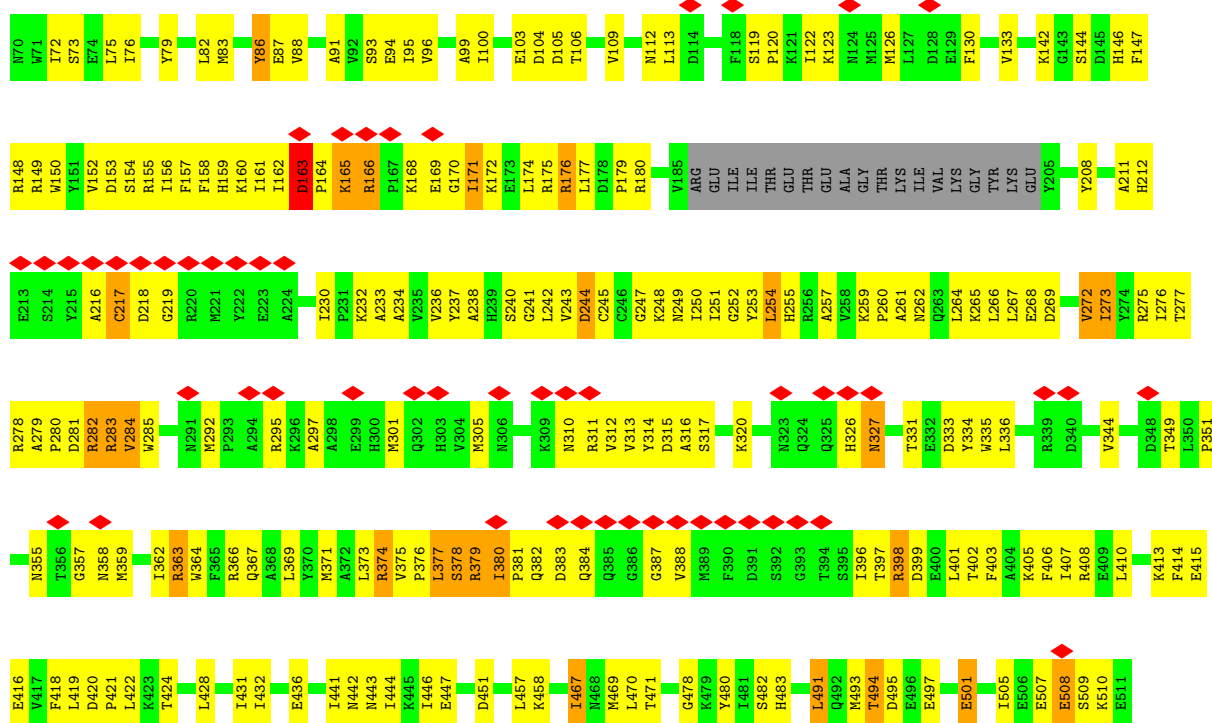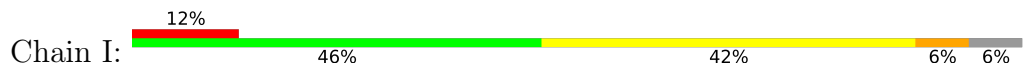

• Molecule 1: Portal protein gp20

• Molecule 1: Portal protein gp20

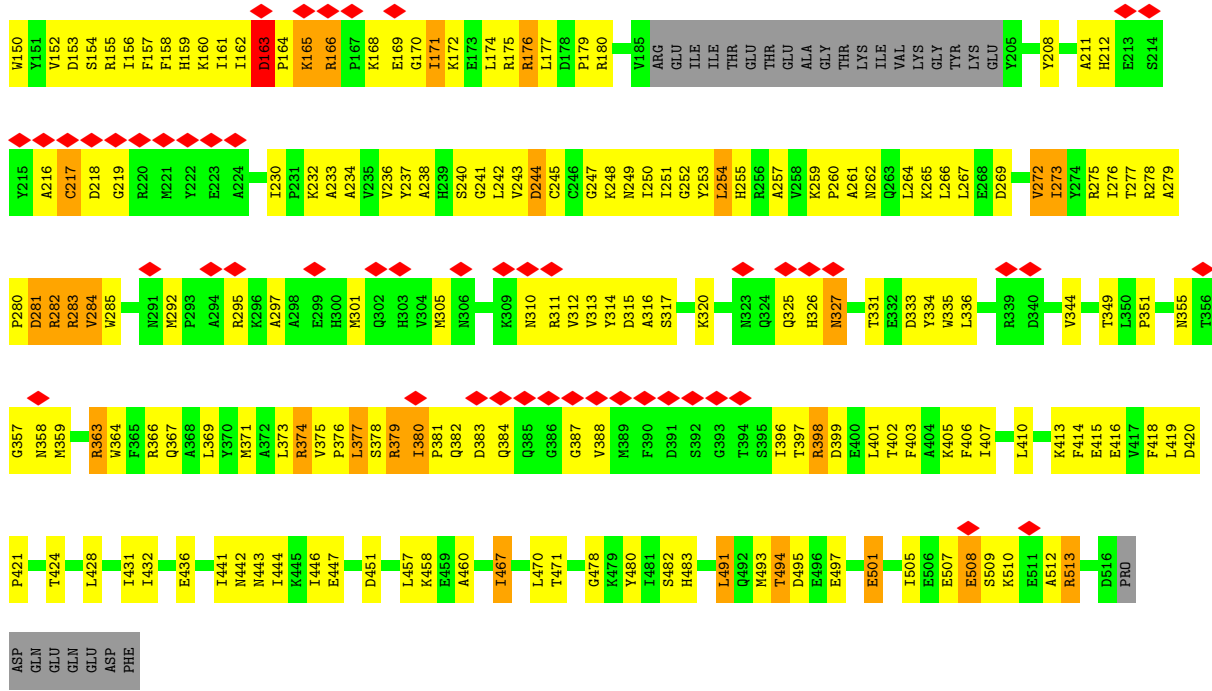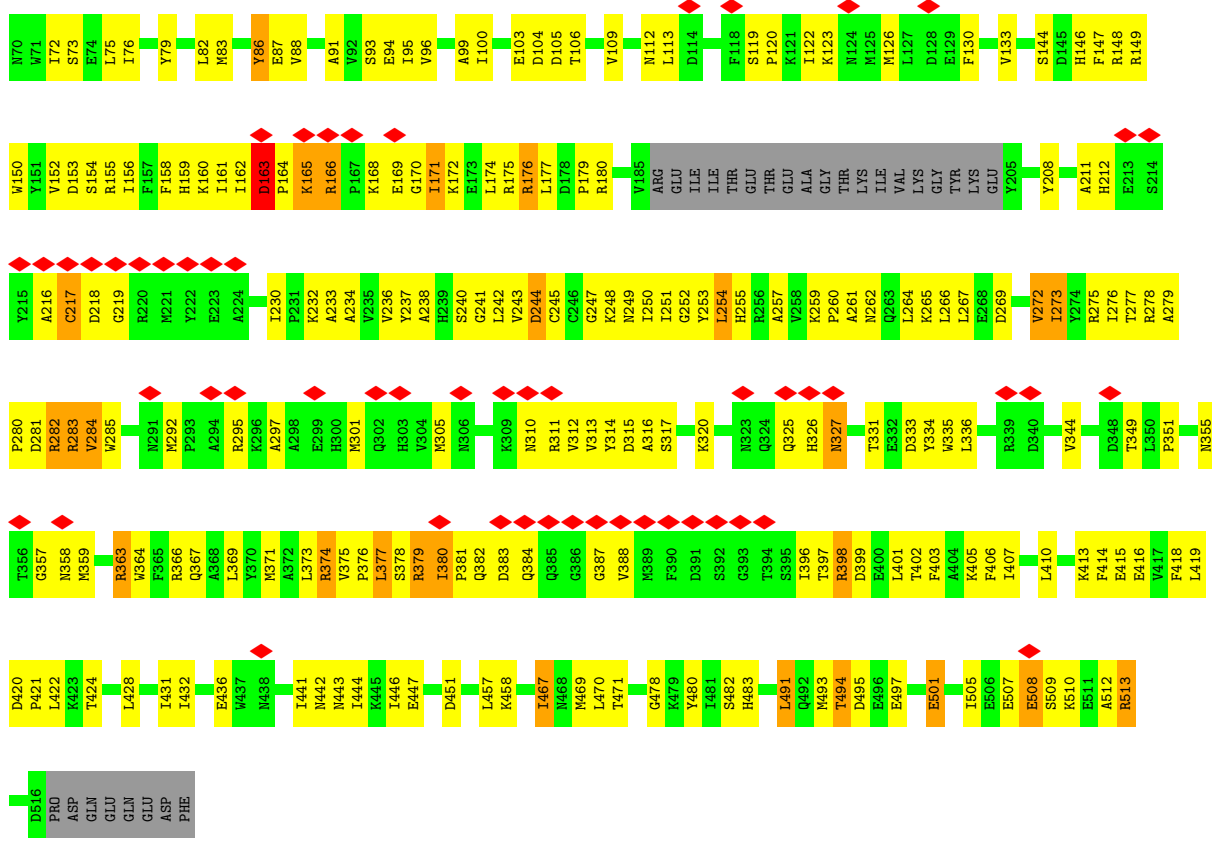• Molecule 1: Portal protein gp20

Chain D:

• Molecule 1: Portal protein gp20

Chain E:

• Molecule 1: Portal protein gp20

Chain F:

12%

46% 42% 6% 6%

• Molecule 1: Portal protein gp20

Chain G:

12%

46% 42% 6% 6%

• Molecule 1: Portal protein gp20

Chain H:

• Molecule 1: Portal protein gp20

Chain I:

W150 Y151 V152 D153 S154 R155 I156 F157 F158 H159 K160 I161 I162 D163 P164 K165 R166 P167 K168 E169 G170 I171 K172 E173 L174 R175 R176 L177 D178 P179 R180 V185 ARG GLU ILE ILE THR GLU THR GLU ALA GLY THR LYS ILE VAL LYS GLY TYR LYS GLU Y205 Y208 A211 H212 E213 S214

Y215 A216 C217 D218 G219 R220 M221 Y222 E223 A224 I230 P231 K232 A233 A234 V235 V236 Y237 A238 H239 S240 G241 L242 V243 D244 C245 C246 G247 K248 N249 I250 I251 G252 Y253 L254 H255 R256 A257 V258 K259 P260 A261 N262 Q263 L264 K265 L266 L267 E268 D269 V272 I273 Y274 R275 I276 T277 R278 A279

P280 D281 R282 R283 V284 W285 N291 M292 P293 A294 R295 K296 A297 A298 E299 H300 M301 Q302 H303 V304 M305 N306 K309 N310 R311 V312 V313 Y314 D315 A316 S317 K320 N323 Q324 Q325 H326 N327 T331 E332 D333 Y334 W335 L336 R339 D340 V344 T349 L350 P351 N355 T356

G357 N358 M359 R363 W364 F365 R366 Q367 A368 L369 Y370 M371 A372 L373 R374 V375 P376 L377 S378 R379 I380 P381 Q382 D383 Q384 Q385 G386 G387 V388 M389 F390 D391 S392 G393 T394 S395 I396 T397 R398 D399 E400 L401 T402 F403 A404 K405 F406 I407 L410 K413 F414 E415 E416 V417 F418 L419 D420

P421 T424 L428 I431 I432 E436 I441 N442 N443 I444 K445 I446 E447 D451 L457 K458 E459 A460 I467 L470 T471 G478 K479 Y480 I481 S482 H483 L491 Q492 M493 T494 D495 E496 E497 E501 I505 E506 E507 E508 S509 K510 E511 A512 R513 D516 PRO

ASP GLN GLU GLN ASP PHE

• Molecule 1: Portal protein gp20

12%

Chain J:

46% 42% 6% 6%

N70 W71 I72 S73 E74 L75 I76 Y79 L82 M83 Y86 E87 V88 A91 V92 S93 E94 I95 V96 A99 I100 E103 D104 D105 T106 V109 N112 L113 D114 F118 S119 P120 K121 I122 K123 N124 M125 M126 L127 D128 E129 F130 V133 S144 D145 H146 F147 R148 R149

W150 Y151 V152 D153 S154 R155 I156 F157 F158 H159 K160 I161 I162 D163 P164 K165 R166 P167 K168 E169 G170 I171 K172 E173 L174 R175 R176 L177 D178 P179 R180 V185 ARG GLU ILE ILE THR GLU THR GLU ALA GLY THR LYS ILE VAL LYS GLY TYR LYS GLU Y205 Y208 A211 H212 E213 S214

Y215 A216 C217 D218 G219 R220 M221 Y222 E223 A224 I230 P231 K232 A233 A234 V235 V236 Y237 A238 H239 S240 G241 L242 V243 D244 C245 C246 G247 K248 N249 I250 I251 G252 Y253 L254 H255 R256 A257 V258 K259 P260 A261 N262 Q263 L264 K265 L266 L267 E268 D269 V272 I273 Y274 R275 I276 T277 R278 A279

P280 D281 R282 R283 V284 W285 N291 M292 P293 A294 R295 K296 A297 A298 E299 H300 M301 Q302 H303 V304 M305 N306 K309 N310 R311 V312 V313 Y314 D315 A316 S317 K320 N323 Q324 Q325 H326 N327 T331 E332 D333 Y334 W335 L336 R339 D340 V344 D348 T349 L350 P351 N355

T356 G357 N358 M359 R363 W364 F365 R366 Q367 A368 L369 Y370 M371 A372 L373 R374 V375 P376 L377 S378 R379 I380 P381 Q382 D383 Q384 Q385 G386 G387 V388 M389 F390 D391 S392 G393 T394 S395 I396 T397 R398 D399 E400 L401 T402 F403 A404 K405 F406 I407 L410 K413 F414 E415 E416 V417 F418 L419

D420 P421 L422 K423 T424 L428 I431 I432 E436 W437 N438 I441 N442 N443 I444 K445 I446 E447 D451 L457 K458 I467 M468 M469 L470 T471 G478 K479 Y480 I481 S482 H483 L491 Q492 M493 T494 D495 E496 E497 E501 I505 E506 E507 E508 S509 K510 E511 A512 R513

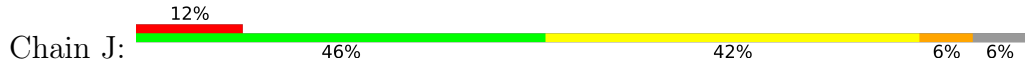D516 PRO ASP GLN GLU GLN GLU ASP PHE

• Molecule 1: Portal protein gp20
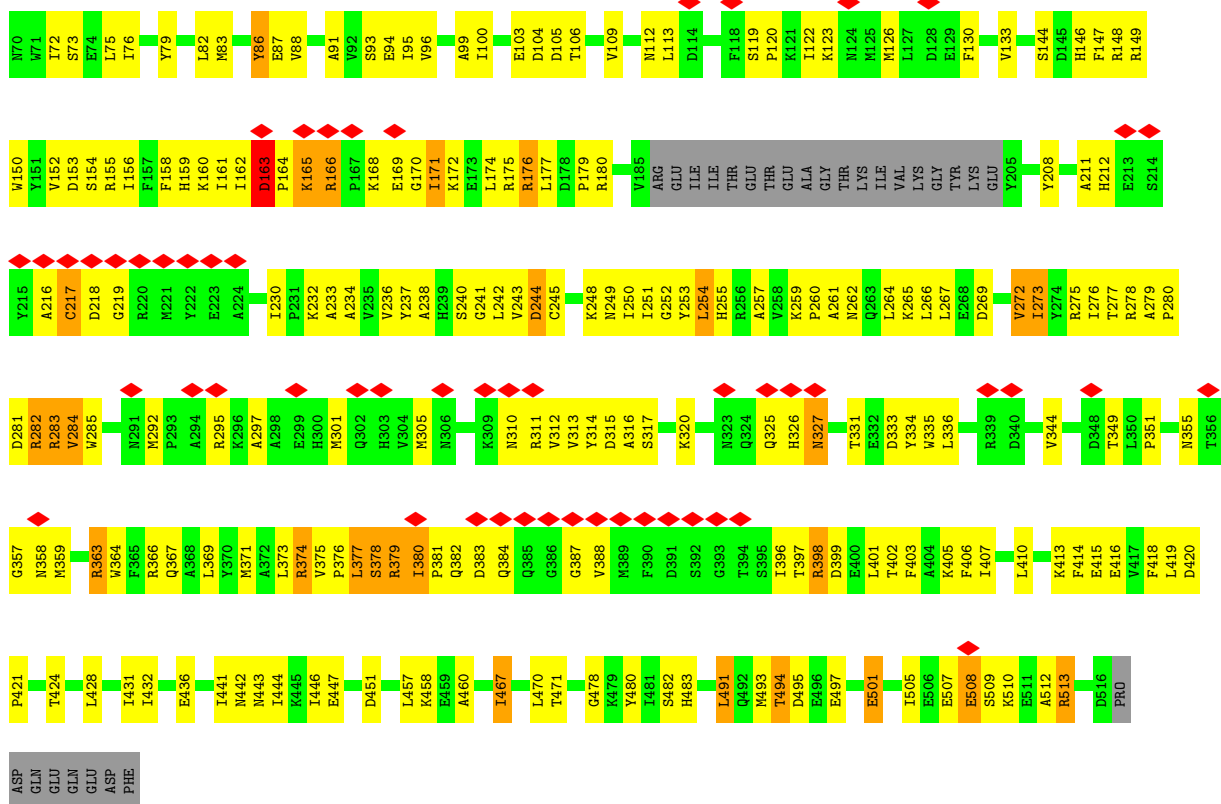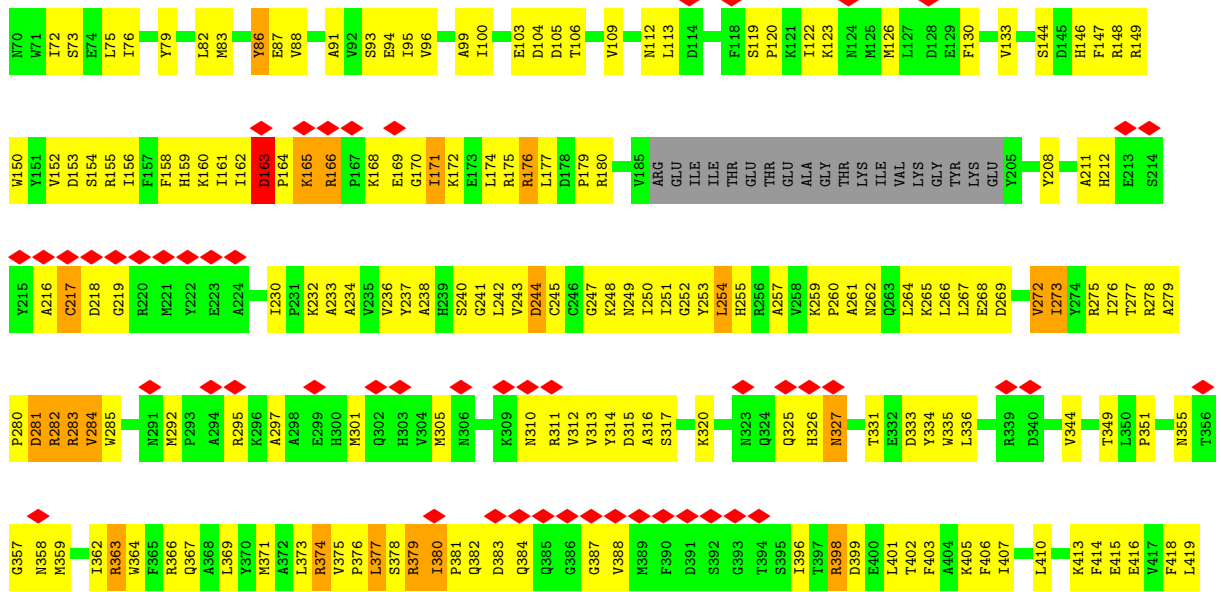
Chain K:
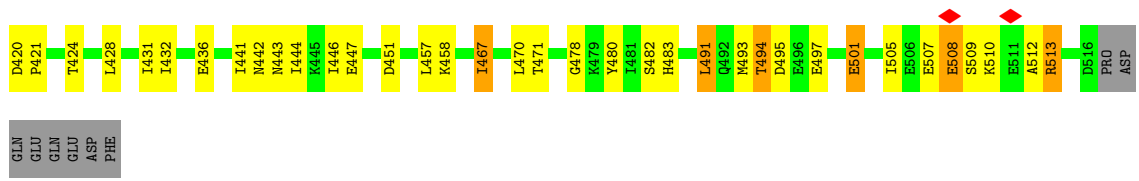

• Molecule 1: Portal protein gp20

Chain L:

4 Experimental information ⓘ

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C12	Depositor
Number of particles used	98000	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	each particle	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose $(e^-/\text{Å}^2)$	2	Depositor
Minimum defocus (nm)	1500	Depositor
Maximum defocus (nm)	2500	Depositor
Magnification	50000	Depositor
Image detector	GATAN K2 (4k x 4k)	Depositor
Maximum map value	0.139	Depositor
Minimum map value	-0.092	Depositor
Average map value	0.001	Depositor
Map value standard deviation	0.005	Depositor
Recommended contour level	0.016	Depositor
Map size (Å)	272.0, 272.0, 272.0	wwPDB
Map dimensions	272, 272, 272	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.0, 1.0, 1.0	Depositor

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$|Z|$ >5	RMSZ	#$|Z|$ >5
1	A	0.46	0/3504	0.64	2/4730 (0.0%)
1	B	0.46	0/3504	0.64	2/4730 (0.0%)
1	C	0.46	0/3504	0.64	2/4730 (0.0%)
1	D	0.46	0/3504	0.64	2/4730 (0.0%)
1	E	0.46	0/3504	0.64	2/4730 (0.0%)
1	F	0.46	0/3504	0.64	2/4730 (0.0%)
1	G	0.46	0/3504	0.64	2/4730 (0.0%)
1	H	0.46	0/3504	0.64	2/4730 (0.0%)
1	I	0.46	0/3504	0.64	2/4730 (0.0%)
1	J	0.46	0/3504	0.64	2/4730 (0.0%)
1	K	0.46	0/3504	0.64	2/4730 (0.0%)
1	L	0.46	0/3504	0.64	2/4730 (0.0%)
All	All	0.46	0/42048	0.64	24/56760 (0.0%)

There are no bond length outliers.

All (24) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	379	ARG	N-CA-C	-7.33	91.21	111.00
1	D	379	ARG	N-CA-C	-7.33	91.21	111.00
1	G	379	ARG	N-CA-C	-7.33	91.21	111.00
1	J	379	ARG	N-CA-C	-7.33	91.21	111.00
1	C	379	ARG	N-CA-C	-7.33	91.21	111.00
1	F	379	ARG	N-CA-C	-7.33	91.21	111.00
1	L	379	ARG	N-CA-C	-7.33	91.21	111.00
1	B	379	ARG	N-CA-C	-7.32	91.23	111.00
1	H	379	ARG	N-CA-C	-7.32	91.23	111.00
1	K	379	ARG	N-CA-C	-7.32	91.23	111.00
1	E	379	ARG	N-CA-C	-7.32	91.23	111.00
1	I	379	ARG	N-CA-C	-7.31	91.26	111.00
1	B	163	ASP	CB-CG-OD2	5.22	123.00	118.30
1	A	163	ASP	CB-CG-OD2	5.20	122.98	118.30
1	D	163	ASP	CB-CG-OD2	5.20	122.98	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	G	163	ASP	CB-CG-OD2	5.20	122.98	118.30
1	J	163	ASP	CB-CG-OD2	5.20	122.98	118.30
1	E	163	ASP	CB-CG-OD2	5.15	122.94	118.30
1	H	163	ASP	CB-CG-OD2	5.15	122.94	118.30
1	K	163	ASP	CB-CG-OD2	5.15	122.94	118.30
1	C	163	ASP	CB-CG-OD2	5.14	122.93	118.30
1	F	163	ASP	CB-CG-OD2	5.14	122.93	118.30
1	I	163	ASP	CB-CG-OD2	5.14	122.93	118.30
1	L	163	ASP	CB-CG-OD2	5.14	122.93	118.30

There are no chirality outliers.

There are no planarity outliers.

5.2   Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	3440	0	3344	285	0
1	B	3440	0	3344	282	0
1	C	3440	0	3344	272	0
1	D	3440	0	3344	280	0
1	E	3440	0	3344	278	0
1	F	3440	0	3344	281	0
1	G	3440	0	3344	276	0
1	H	3440	0	3344	285	0
1	I	3440	0	3344	285	0
1	J	3440	0	3344	278	0
1	K	3440	0	3344	285	0
1	L	3440	0	3344	278	0
All	All	41280	0	40128	3003	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 37.

All (3003) 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:G:162:ILE:CG2	1:G:171:ILE:HG13	1.39	1.52
1:F:162:ILE:CG2	1:F:171:ILE:HG13	1.39	1.52
1:A:162:ILE:CG2	1:A:171:ILE:HG13	1.39	1.51
1:H:162:ILE:CG2	1:H:171:ILE:HG13	1.39	1.51
1:E:162:ILE:CG2	1:E:171:ILE:HG13	1.39	1.51
1:B:162:ILE:CG2	1:B:171:ILE:HG13	1.39	1.50
1:L:162:ILE:CG2	1:L:171:ILE:HG13	1.39	1.49
1:D:162:ILE:CG2	1:D:171:ILE:HG13	1.39	1.49
1:C:162:ILE:CG2	1:C:171:ILE:HG13	1.39	1.49
1:I:162:ILE:CG2	1:I:171:ILE:HG13	1.39	1.48
1:J:162:ILE:CG2	1:J:171:ILE:HG13	1.39	1.48
1:K:162:ILE:CG2	1:K:171:ILE:HG13	1.39	1.47
1:A:162:ILE:HB	1:A:163:ASP:OD1	1.29	1.33
1:L:162:ILE:HB	1:L:163:ASP:OD1	1.29	1.32
1:B:316:ALA:C	1:L:259:LYS:HZ3	1.32	1.32
1:A:259:LYS:HZ3	1:C:316:ALA:C	1.32	1.32
1:K:162:ILE:HB	1:K:163:ASP:OD1	1.29	1.31
1:G:86:TYR:O	1:G:87:GLU:CG	1.79	1.31
1:C:86:TYR:O	1:C:87:GLU:CG	1.79	1.31
1:H:86:TYR:O	1:H:87:GLU:CG	1.79	1.31
1:D:86:TYR:O	1:D:87:GLU:CG	1.79	1.30
1:F:86:TYR:O	1:F:87:GLU:CG	1.79	1.30
1:C:259:LYS:HZ3	1:E:316:ALA:C	1.33	1.30
1:D:259:LYS:HZ3	1:F:316:ALA:C	1.35	1.30
1:J:162:ILE:HB	1:J:163:ASP:OD1	1.29	1.30
1:B:86:TYR:O	1:B:87:GLU:CG	1.79	1.30
1:A:316:ALA:C	1:K:259:LYS:HZ3	1.33	1.29
1:K:86:TYR:O	1:K:87:GLU:CG	1.79	1.29
1:J:86:TYR:O	1:J:87:GLU:CG	1.79	1.29
1:I:86:TYR:O	1:I:87:GLU:CG	1.79	1.29
1:E:86:TYR:O	1:E:87:GLU:CG	1.79	1.29
1:L:86:TYR:O	1:L:87:GLU:CG	1.79	1.29
1:E:259:LYS:HZ3	1:G:316:ALA:C	1.34	1.28
1:F:162:ILE:HB	1:F:163:ASP:OD1	1.29	1.28
1:A:86:TYR:O	1:A:87:GLU:CG	1.79	1.27
1:G:162:ILE:HB	1:G:163:ASP:OD1	1.29	1.27
1:D:162:ILE:CG2	1:D:171:ILE:CG1	2.13	1.27
1:I:162:ILE:HB	1:I:163:ASP:OD1	1.29	1.27
1:C:162:ILE:CG2	1:C:171:ILE:CG1	2.13	1.26
1:E:162:ILE:HB	1:E:163:ASP:OD1	1.29	1.26
1:G:162:ILE:CG2	1:G:171:ILE:CG1	2.13	1.26
1:A:162:ILE:CG2	1:A:171:ILE:CG1	2.14	1.26

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:162:ILE:HB	1:C:163:ASP:OD1	1.29	1.26
1:E:162:ILE:CG2	1:E:171:ILE:CG1	2.13	1.26
1:L:162:ILE:CG2	1:L:171:ILE:CG1	2.13	1.25
1:B:162:ILE:CG2	1:B:171:ILE:CG1	2.13	1.25
1:B:162:ILE:HB	1:B:163:ASP:OD1	1.32	1.25
1:F:162:ILE:CG2	1:F:171:ILE:CG1	2.13	1.25
1:H:162:ILE:HB	1:H:163:ASP:OD1	1.29	1.25
1:I:162:ILE:CG2	1:I:171:ILE:CG1	2.13	1.25
1:J:162:ILE:CG2	1:J:171:ILE:CG1	2.13	1.25
1:K:162:ILE:CG2	1:K:171:ILE:CG1	2.13	1.24
1:H:162:ILE:CG2	1:H:171:ILE:CG1	2.13	1.24
1:D:162:ILE:HB	1:D:163:ASP:OD1	1.29	1.23
1:J:259:LYS:HZ3	1:L:316:ALA:C	1.48	1.17
1:G:259:LYS:HZ3	1:I:316:ALA:C	1.49	1.15
1:L:162:ILE:HG22	1:L:171:ILE:HA	1.18	1.14
1:A:162:ILE:HG22	1:A:171:ILE:HA	1.21	1.14
1:B:149:ARG:HD2	1:B:153:ASP:OD2	1.48	1.14
1:K:162:ILE:HG22	1:K:171:ILE:HA	1.18	1.14
1:A:149:ARG:HD2	1:A:153:ASP:OD2	1.48	1.13
1:C:149:ARG:HD2	1:C:153:ASP:OD2	1.48	1.13
1:E:162:ILE:HG22	1:E:171:ILE:HA	1.18	1.13
1:D:149:ARG:HD2	1:D:153:ASP:OD2	1.48	1.12
1:F:149:ARG:HD2	1:F:153:ASP:OD2	1.48	1.12
1:J:162:ILE:HG22	1:J:171:ILE:HA	1.18	1.12
1:E:149:ARG:HD2	1:E:153:ASP:OD2	1.48	1.12
1:K:149:ARG:HD2	1:K:153:ASP:OD2	1.48	1.12
1:B:162:ILE:HG22	1:B:171:ILE:HA	1.18	1.11
1:F:162:ILE:HG22	1:F:171:ILE:HA	1.18	1.11
1:D:162:ILE:HG22	1:D:171:ILE:HA	1.18	1.10
1:H:149:ARG:HD2	1:H:153:ASP:OD2	1.48	1.10
1:L:149:ARG:HD2	1:L:153:ASP:OD2	1.48	1.10
1:J:149:ARG:HD2	1:J:153:ASP:OD2	1.48	1.10
1:I:162:ILE:HG22	1:I:171:ILE:HA	1.18	1.09
1:H:162:ILE:HG22	1:H:171:ILE:HA	1.18	1.09
1:I:149:ARG:HD2	1:I:153:ASP:OD2	1.48	1.09
1:F:259:LYS:HZ3	1:H:316:ALA:C	1.57	1.08
1:G:149:ARG:HD2	1:G:153:ASP:OD2	1.48	1.08
1:C:162:ILE:HG22	1:C:171:ILE:HA	1.18	1.08
1:I:259:LYS:HZ3	1:K:316:ALA:C	1.57	1.08
1:G:162:ILE:HG22	1:G:171:ILE:HA	1.18	1.07
1:J:86:TYR:O	1:J:87:GLU:HG2	0.89	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:86:TYR:O	1:L:87:GLU:HG2	0.89	1.07
1:A:86:TYR:O	1:A:87:GLU:HG2	0.89	1.07
1:B:259:LYS:HZ3	1:D:316:ALA:C	1.58	1.06
1:H:259:LYS:HZ3	1:J:316:ALA:C	1.57	1.06
1:C:86:TYR:O	1:C:87:GLU:HG2	0.89	1.06
1:K:86:TYR:O	1:K:87:GLU:HG2	0.89	1.06
1:H:86:TYR:O	1:H:87:GLU:HG2	0.89	1.06
1:B:86:TYR:O	1:B:87:GLU:HG2	0.89	1.06
1:E:86:TYR:O	1:E:87:GLU:HG2	0.89	1.06
1:B:374:ARG:HD3	1:B:406:PHE:CZ	1.92	1.05
1:F:86:TYR:O	1:F:87:GLU:HG2	0.89	1.05
1:G:86:TYR:O	1:G:87:GLU:HG2	0.89	1.05
1:I:86:TYR:O	1:I:87:GLU:HG2	0.89	1.05
1:D:374:ARG:HD3	1:D:406:PHE:CZ	1.92	1.05
1:E:374:ARG:HD3	1:E:406:PHE:CZ	1.92	1.05
1:B:278:ARG:HG2	1:B:282:ARG:NH2	1.72	1.04
1:H:374:ARG:HD3	1:H:406:PHE:CZ	1.92	1.04
1:I:278:ARG:HG2	1:I:282:ARG:NH2	1.72	1.04
1:J:374:ARG:HD3	1:J:406:PHE:CZ	1.92	1.04
1:F:259:LYS:CE	1:H:316:ALA:O	2.05	1.04
1:F:374:ARG:HD3	1:F:406:PHE:CZ	1.92	1.04
1:H:259:LYS:CE	1:J:316:ALA:O	2.06	1.04
1:J:259:LYS:CE	1:L:316:ALA:O	2.05	1.04
1:A:316:ALA:O	1:K:259:LYS:CE	2.06	1.04
1:C:374:ARG:HD3	1:C:406:PHE:CZ	1.92	1.04
1:D:86:TYR:O	1:D:87:GLU:HG2	0.89	1.04
1:K:374:ARG:HD3	1:K:406:PHE:CZ	1.92	1.04
1:L:278:ARG:HG2	1:L:282:ARG:NH2	1.72	1.04
1:I:374:ARG:HD3	1:I:406:PHE:CZ	1.92	1.04
1:K:278:ARG:HG2	1:K:282:ARG:NH2	1.72	1.04
1:L:374:ARG:HD3	1:L:406:PHE:CZ	1.92	1.04
1:A:278:ARG:HG2	1:A:282:ARG:NH2	1.72	1.04
1:I:259:LYS:CE	1:K:316:ALA:O	2.05	1.04
1:A:374:ARG:HD3	1:A:406:PHE:CZ	1.92	1.03
1:E:259:LYS:CE	1:G:316:ALA:O	2.06	1.03
1:G:259:LYS:CE	1:I:316:ALA:O	2.05	1.03
1:G:278:ARG:HG2	1:G:282:ARG:NH2	1.72	1.03
1:E:278:ARG:HG2	1:E:282:ARG:NH2	1.72	1.03
1:J:278:ARG:HG2	1:J:282:ARG:NH2	1.72	1.03
1:B:259:LYS:CE	1:D:316:ALA:O	2.06	1.03
1:C:259:LYS:CE	1:E:316:ALA:O	2.05	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:374:ARG:HD3	1:G:406:PHE:CZ	1.92	1.03
1:A:259:LYS:CE	1:C:316:ALA:O	2.05	1.03
1:D:259:LYS:CE	1:F:316:ALA:O	2.05	1.03
1:D:278:ARG:HG2	1:D:282:ARG:NH2	1.72	1.03
1:A:259:LYS:HE2	1:C:316:ALA:O	1.60	1.02
1:B:316:ALA:O	1:L:259:LYS:CE	2.05	1.02
1:C:259:LYS:HE2	1:E:316:ALA:O	1.60	1.02
1:C:278:ARG:HG2	1:C:282:ARG:NH2	1.72	1.02
1:E:149:ARG:HD2	1:E:153:ASP:CG	1.80	1.02
1:E:259:LYS:HE2	1:G:316:ALA:O	1.60	1.02
1:H:149:ARG:HD2	1:H:153:ASP:CG	1.80	1.02
1:I:149:ARG:HD2	1:I:153:ASP:CG	1.80	1.02
1:F:149:ARG:HD2	1:F:153:ASP:CG	1.80	1.02
1:F:278:ARG:HG2	1:F:282:ARG:NH2	1.72	1.02
1:G:259:LYS:HE2	1:I:316:ALA:O	1.60	1.02
1:H:278:ARG:HG2	1:H:282:ARG:NH2	1.72	1.02
1:C:259:LYS:NZ	1:E:316:ALA:O	1.92	1.02
1:G:259:LYS:NZ	1:I:316:ALA:O	1.92	1.02
1:J:259:LYS:HE2	1:L:316:ALA:O	1.60	1.02
1:B:259:LYS:NZ	1:D:316:ALA:O	1.92	1.01
1:D:259:LYS:NZ	1:F:316:ALA:O	1.92	1.01
1:H:259:LYS:NZ	1:J:316:ALA:O	1.92	1.01
1:K:149:ARG:HD2	1:K:153:ASP:CG	1.80	1.01
1:B:316:ALA:O	1:L:259:LYS:NZ	1.92	1.01
1:F:259:LYS:NZ	1:H:316:ALA:O	1.92	1.01
1:I:259:LYS:NZ	1:K:316:ALA:O	1.92	1.01
1:L:149:ARG:HD2	1:L:153:ASP:CG	1.80	1.01
1:A:316:ALA:O	1:K:259:LYS:NZ	1.92	1.01
1:B:149:ARG:HD2	1:B:153:ASP:CG	1.80	1.01
1:C:149:ARG:HD2	1:C:153:ASP:CG	1.80	1.01
1:J:259:LYS:NZ	1:L:316:ALA:O	1.92	1.01
1:B:259:LYS:HE2	1:D:316:ALA:O	1.60	1.01
1:A:259:LYS:NZ	1:C:316:ALA:O	1.92	1.01
1:D:149:ARG:HD2	1:D:153:ASP:CG	1.80	1.01
1:D:259:LYS:HE2	1:F:316:ALA:O	1.60	1.01
1:G:149:ARG:HD2	1:G:153:ASP:CG	1.80	1.01
1:B:316:ALA:O	1:L:259:LYS:HE2	1.60	1.00
1:E:259:LYS:NZ	1:G:316:ALA:O	1.92	1.00
1:J:149:ARG:HD2	1:J:153:ASP:CG	1.80	1.00
1:A:316:ALA:O	1:K:259:LYS:HE2	1.60	1.00
1:I:259:LYS:HE2	1:K:316:ALA:O	1.60	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:149:ARG:HD2	1:A:153:ASP:CG	1.80	0.99
1:C:162:ILE:HG21	1:C:171:ILE:CG1	1.88	0.99
1:F:259:LYS:HE2	1:H:316:ALA:O	1.60	0.99
1:E:357:GLY:HA2	1:E:358:ASN:HB2	1.46	0.97
1:F:357:GLY:HA2	1:F:358:ASN:HB2	1.46	0.97
1:D:162:ILE:HG21	1:D:171:ILE:CG1	1.88	0.97
1:H:162:ILE:HG22	1:H:171:ILE:CA	1.95	0.96
1:H:259:LYS:HE2	1:J:316:ALA:O	1.60	0.96
1:K:357:GLY:HA2	1:K:358:ASN:HB2	1.46	0.96
1:E:162:ILE:HG22	1:E:171:ILE:CA	1.95	0.96
1:G:357:GLY:HA2	1:G:358:ASN:HB2	1.46	0.96
1:G:162:ILE:HG22	1:G:171:ILE:CA	1.95	0.96
1:L:162:ILE:HG22	1:L:171:ILE:CA	1.95	0.96
1:B:162:ILE:HG22	1:B:171:ILE:CA	1.95	0.96
1:D:357:GLY:HA2	1:D:358:ASN:HB2	1.46	0.96
1:F:162:ILE:HG22	1:F:171:ILE:CA	1.95	0.95
1:K:162:ILE:HG22	1:K:171:ILE:CA	1.95	0.95
1:C:162:ILE:HG22	1:C:171:ILE:CA	1.95	0.95
1:J:162:ILE:HG22	1:J:171:ILE:CA	1.95	0.95
1:H:357:GLY:HA2	1:H:358:ASN:HB2	1.46	0.95
1:I:162:ILE:HG22	1:I:171:ILE:CA	1.95	0.95
1:B:357:GLY:HA2	1:B:358:ASN:HB2	1.46	0.95
1:E:162:ILE:HG21	1:E:171:ILE:CG1	1.88	0.95
1:D:162:ILE:HG22	1:D:171:ILE:CA	1.95	0.95
1:L:357:GLY:HA2	1:L:358:ASN:HB2	1.46	0.95
1:J:357:GLY:HA2	1:J:358:ASN:HB2	1.46	0.95
1:B:259:LYS:NZ	1:D:316:ALA:C	2.21	0.94
1:C:357:GLY:HA2	1:C:358:ASN:HB2	1.46	0.94
1:I:357:GLY:HA2	1:I:358:ASN:HB2	1.46	0.94
1:J:162:ILE:CB	1:J:163:ASP:OD1	2.16	0.94
1:K:162:ILE:CB	1:K:163:ASP:OD1	2.16	0.94
1:A:162:ILE:CB	1:A:163:ASP:OD1	2.16	0.94
1:A:357:GLY:HA2	1:A:358:ASN:HB2	1.46	0.94
1:C:259:LYS:NZ	1:E:316:ALA:C	2.21	0.94
1:I:162:ILE:CB	1:I:163:ASP:OD1	2.16	0.94
1:L:162:ILE:CB	1:L:163:ASP:OD1	2.16	0.94
1:H:162:ILE:CB	1:H:163:ASP:OD1	2.16	0.94
1:A:259:LYS:NZ	1:C:316:ALA:C	2.21	0.94
1:A:162:ILE:HG22	1:A:171:ILE:CA	1.97	0.94
1:A:316:ALA:C	1:K:259:LYS:NZ	2.21	0.94
1:A:162:ILE:HG22	1:A:171:ILE:CG1	1.98	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:162:ILE:CB	1:C:163:ASP:OD1	2.16	0.93
1:G:162:ILE:CB	1:G:163:ASP:OD1	2.16	0.93
1:H:162:ILE:HG21	1:H:171:ILE:CG1	1.88	0.93
1:B:316:ALA:C	1:L:259:LYS:NZ	2.21	0.93
1:K:75:LEU:HD21	1:K:251:ILE:HD13	1.50	0.93
1:B:75:LEU:HD21	1:B:251:ILE:HD13	1.50	0.93
1:L:75:LEU:HD21	1:L:251:ILE:HD13	1.50	0.93
1:F:162:ILE:HG21	1:F:171:ILE:CG1	1.88	0.93
1:I:259:LYS:NZ	1:K:316:ALA:C	2.21	0.93
1:C:75:LEU:HD21	1:C:251:ILE:HD13	1.50	0.93
1:B:162:ILE:CB	1:B:163:ASP:OD1	2.17	0.93
1:D:162:ILE:CB	1:D:163:ASP:OD1	2.16	0.93
1:D:259:LYS:NZ	1:F:316:ALA:C	2.21	0.93
1:B:162:ILE:HG22	1:B:171:ILE:CG1	2.00	0.93
1:H:259:LYS:NZ	1:J:316:ALA:C	2.21	0.93
1:F:279:ALA:HB3	1:F:280:PRO:HD3	1.51	0.92
1:G:279:ALA:HB3	1:G:280:PRO:HD3	1.51	0.92
1:J:259:LYS:NZ	1:L:316:ALA:C	2.21	0.92
1:E:162:ILE:CB	1:E:163:ASP:OD1	2.16	0.92
1:F:162:ILE:HG22	1:F:171:ILE:CG1	1.99	0.92
1:F:162:ILE:CB	1:F:163:ASP:OD1	2.16	0.92
1:I:162:ILE:HG21	1:I:171:ILE:HG13	0.92	0.92
1:E:279:ALA:HB3	1:E:280:PRO:HD3	1.51	0.92
1:E:162:ILE:HG22	1:E:171:ILE:CG1	2.00	0.92
1:C:162:ILE:HG22	1:C:171:ILE:CG1	1.99	0.92
1:F:162:ILE:HG21	1:F:171:ILE:HG13	0.92	0.92
1:G:259:LYS:NZ	1:I:316:ALA:C	2.21	0.92
1:H:279:ALA:HB3	1:H:280:PRO:HD3	1.51	0.92
1:L:162:ILE:HG21	1:L:171:ILE:HG13	0.92	0.92
1:I:162:ILE:HG22	1:I:171:ILE:CG1	1.99	0.91
1:F:259:LYS:NZ	1:H:316:ALA:C	2.21	0.91
1:H:162:ILE:HG21	1:H:171:ILE:HG13	0.92	0.91
1:A:279:ALA:HB3	1:A:280:PRO:HD3	1.51	0.91
1:J:162:ILE:HG22	1:J:171:ILE:CG1	1.99	0.91
1:J:162:ILE:HG21	1:J:171:ILE:HG13	0.92	0.91
1:D:279:ALA:HB3	1:D:280:PRO:HD3	1.51	0.91
1:F:75:LEU:HD21	1:F:251:ILE:HD13	1.50	0.91
1:H:162:ILE:HG22	1:H:171:ILE:CG1	2.00	0.91
1:L:279:ALA:HB3	1:L:280:PRO:HD3	1.51	0.91
1:G:162:ILE:HG21	1:G:171:ILE:CG1	1.88	0.91
1:E:259:LYS:NZ	1:G:316:ALA:C	2.21	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:162:ILE:HG21	1:K:171:ILE:HG13	0.92	0.91
1:C:162:ILE:HG21	1:C:171:ILE:HG13	0.92	0.91
1:E:162:ILE:HG21	1:E:171:ILE:HG13	0.92	0.91
1:I:75:LEU:HD21	1:I:251:ILE:HD13	1.50	0.91
1:I:279:ALA:HB3	1:I:280:PRO:HD3	1.51	0.91
1:A:75:LEU:HD21	1:A:251:ILE:HD13	1.50	0.90
1:G:162:ILE:HG22	1:G:171:ILE:CG1	1.99	0.90
1:G:162:ILE:HG21	1:G:171:ILE:HG13	0.92	0.90
1:J:75:LEU:HD21	1:J:251:ILE:HD13	1.50	0.90
1:B:279:ALA:HB3	1:B:280:PRO:HD3	1.51	0.90
1:E:75:LEU:HD21	1:E:251:ILE:HD13	1.50	0.90
1:G:75:LEU:HD21	1:G:251:ILE:HD13	1.50	0.90
1:H:75:LEU:HD21	1:H:251:ILE:HD13	1.50	0.90
1:B:162:ILE:HG21	1:B:171:ILE:CG1	1.88	0.90
1:K:162:ILE:HG22	1:K:171:ILE:CG1	2.00	0.90
1:C:279:ALA:HB3	1:C:280:PRO:HD3	1.51	0.90
1:K:279:ALA:HB3	1:K:280:PRO:HD3	1.51	0.90
1:B:162:ILE:HG21	1:B:171:ILE:HG13	0.92	0.90
1:A:162:ILE:HG21	1:A:171:ILE:HG13	0.92	0.90
1:D:162:ILE:HG22	1:D:171:ILE:CG1	1.99	0.90
1:D:75:LEU:HD21	1:D:251:ILE:HD13	1.50	0.89
1:D:162:ILE:HG21	1:D:171:ILE:HG13	0.92	0.89
1:J:279:ALA:HB3	1:J:280:PRO:HD3	1.51	0.89
1:A:162:ILE:HG21	1:A:171:ILE:CG1	1.88	0.89
1:L:162:ILE:HG21	1:L:171:ILE:CG1	1.88	0.89
1:L:162:ILE:HG22	1:L:171:ILE:CG1	1.99	0.89
1:L:326:HIS:ND1	1:L:327:ASN:OD1	2.06	0.89
1:J:326:HIS:ND1	1:J:327:ASN:OD1	2.06	0.88
1:I:162:ILE:HG21	1:I:171:ILE:CG1	1.88	0.88
1:I:326:HIS:ND1	1:I:327:ASN:OD1	2.06	0.88
1:G:154:SER:O	1:G:155:ARG:HG3	1.74	0.88
1:H:154:SER:O	1:H:155:ARG:HG3	1.74	0.88
1:L:154:SER:O	1:L:155:ARG:HG3	1.74	0.88
1:A:154:SER:O	1:A:155:ARG:HG3	1.74	0.88
1:F:154:SER:O	1:F:155:ARG:HG3	1.74	0.88
1:J:162:ILE:HG21	1:J:171:ILE:CG1	1.88	0.88
1:K:162:ILE:HG21	1:K:171:ILE:CG1	1.88	0.88
1:A:326:HIS:ND1	1:A:327:ASN:OD1	2.06	0.88
1:G:326:HIS:ND1	1:G:327:ASN:OD1	2.06	0.88
1:B:326:HIS:ND1	1:B:327:ASN:OD1	2.06	0.88
1:K:154:SER:O	1:K:155:ARG:HG3	1.74	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:326:HIS:ND1	1:K:327:ASN:OD1	2.06	0.87
1:E:154:SER:O	1:E:155:ARG:HG3	1.74	0.87
1:I:154:SER:O	1:I:155:ARG:HG3	1.74	0.87
1:C:326:HIS:ND1	1:C:327:ASN:OD1	2.06	0.87
1:B:154:SER:O	1:B:155:ARG:HG3	1.74	0.87
1:H:326:HIS:ND1	1:H:327:ASN:OD1	2.06	0.87
1:D:154:SER:O	1:D:155:ARG:HG3	1.74	0.87
1:E:326:HIS:ND1	1:E:327:ASN:OD1	2.06	0.87
1:C:153:ASP:O	1:C:154:SER:OG	1.93	0.86
1:F:326:HIS:ND1	1:F:327:ASN:OD1	2.06	0.86
1:C:154:SER:O	1:C:155:ARG:HG3	1.74	0.86
1:D:326:HIS:ND1	1:D:327:ASN:OD1	2.06	0.86
1:B:153:ASP:O	1:B:154:SER:OG	1.93	0.86
1:K:153:ASP:O	1:K:154:SER:OG	1.93	0.86
1:A:396:ILE:HD11	1:A:458:LYS:HA	1.58	0.86
1:J:154:SER:O	1:J:155:ARG:HG3	1.74	0.86
1:L:153:ASP:O	1:L:154:SER:OG	1.93	0.86
1:B:396:ILE:HD11	1:B:458:LYS:HA	1.58	0.85
1:G:396:ILE:HD11	1:G:458:LYS:HA	1.58	0.85
1:J:153:ASP:O	1:J:154:SER:OG	1.93	0.85
1:G:153:ASP:O	1:G:154:SER:OG	1.93	0.85
1:H:153:ASP:O	1:H:154:SER:OG	1.93	0.85
1:D:153:ASP:O	1:D:154:SER:OG	1.93	0.85
1:A:153:ASP:O	1:A:154:SER:OG	1.93	0.85
1:L:396:ILE:HD11	1:L:458:LYS:HA	1.58	0.85
1:F:396:ILE:HD11	1:F:458:LYS:HA	1.58	0.85
1:H:396:ILE:HD11	1:H:458:LYS:HA	1.58	0.85
1:H:405:LYS:NZ	1:I:451:ASP:OD2	2.10	0.85
1:C:405:LYS:NZ	1:D:451:ASP:OD2	2.10	0.84
1:C:396:ILE:HD11	1:C:458:LYS:HA	1.58	0.84
1:E:405:LYS:NZ	1:F:451:ASP:OD2	2.10	0.84
1:I:153:ASP:O	1:I:154:SER:OG	1.93	0.84
1:K:396:ILE:HD11	1:K:458:LYS:HA	1.58	0.84
1:F:153:ASP:O	1:F:154:SER:OG	1.93	0.84
1:F:405:LYS:NZ	1:G:451:ASP:OD2	2.10	0.84
1:G:149:ARG:HD2	1:G:153:ASP:OD1	1.78	0.84
1:J:405:LYS:NZ	1:K:451:ASP:OD2	2.10	0.84
1:F:149:ARG:HD2	1:F:153:ASP:OD1	1.78	0.84
1:H:149:ARG:HD2	1:H:153:ASP:OD1	1.78	0.84
1:I:396:ILE:HD11	1:I:458:LYS:HA	1.58	0.84
1:E:149:ARG:HD2	1:E:153:ASP:OD1	1.78	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:244:ASP:OD1	1:H:245:CYS:N	2.11	0.84
1:I:149:ARG:HD2	1:I:153:ASP:OD1	1.78	0.84
1:I:244:ASP:OD1	1:I:245:CYS:N	2.11	0.84
1:A:405:LYS:NZ	1:B:451:ASP:OD2	2.10	0.84
1:D:149:ARG:HD2	1:D:153:ASP:OD1	1.78	0.84
1:E:244:ASP:OD1	1:E:245:CYS:N	2.11	0.84
1:E:396:ILE:HD11	1:E:458:LYS:HA	1.58	0.84
1:G:405:LYS:NZ	1:H:451:ASP:OD2	2.10	0.84
1:D:405:LYS:NZ	1:E:451:ASP:OD2	2.10	0.83
1:J:396:ILE:HD11	1:J:458:LYS:HA	1.58	0.83
1:L:86:TYR:C	1:L:87:GLU:HG2	1.98	0.83
1:A:86:TYR:C	1:A:87:GLU:HG2	1.98	0.83
1:D:244:ASP:OD1	1:D:245:CYS:N	2.11	0.83
1:K:86:TYR:C	1:K:87:GLU:HG2	1.98	0.83
1:B:155:ARG:NH1	1:B:250:ILE:HB	1.94	0.83
1:J:149:ARG:HD2	1:J:153:ASP:OD1	1.78	0.83
1:K:155:ARG:NH1	1:K:250:ILE:HB	1.94	0.83
1:L:155:ARG:NH1	1:L:250:ILE:HB	1.94	0.83
1:A:451:ASP:OD2	1:L:405:LYS:NZ	2.10	0.83
1:B:405:LYS:NZ	1:C:451:ASP:OD2	2.10	0.83
1:C:149:ARG:HD2	1:C:153:ASP:OD1	1.78	0.83
1:I:155:ARG:NH1	1:I:250:ILE:HB	1.94	0.83
1:I:405:LYS:NZ	1:J:451:ASP:OD2	2.10	0.83
1:E:153:ASP:O	1:E:154:SER:OG	1.93	0.83
1:G:244:ASP:OD1	1:G:245:CYS:N	2.11	0.83
1:K:405:LYS:NZ	1:L:451:ASP:OD2	2.10	0.83
1:A:155:ARG:NH1	1:A:250:ILE:HB	1.94	0.83
1:B:86:TYR:C	1:B:87:GLU:HG2	1.98	0.83
1:C:155:ARG:NH1	1:C:250:ILE:HB	1.94	0.83
1:F:244:ASP:OD1	1:F:245:CYS:N	2.11	0.83
1:G:155:ARG:NH1	1:G:250:ILE:HB	1.94	0.83
1:J:244:ASP:OD1	1:J:245:CYS:N	2.11	0.83
1:J:86:TYR:C	1:J:87:GLU:HG2	1.98	0.82
1:K:149:ARG:HD2	1:K:153:ASP:OD1	1.78	0.82
1:C:237:TYR:OH	1:C:250:ILE:HD11	1.80	0.82
1:D:396:ILE:HD11	1:D:458:LYS:HA	1.58	0.82
1:E:75:LEU:HD21	1:E:251:ILE:CD1	2.09	0.82
1:L:75:LEU:HD21	1:L:251:ILE:CD1	2.09	0.82
1:A:237:TYR:OH	1:A:250:ILE:HD11	1.80	0.82
1:E:155:ARG:NH1	1:E:250:ILE:HB	1.94	0.82
1:B:149:ARG:HD2	1:B:153:ASP:OD1	1.78	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:237:TYR:OH	1:B:250:ILE:HD11	1.80	0.82
1:E:237:TYR:OH	1:E:250:ILE:HD11	1.80	0.82
1:G:75:LEU:HD21	1:G:251:ILE:CD1	2.09	0.82
1:C:244:ASP:OD1	1:C:245:CYS:N	2.11	0.82
1:D:155:ARG:NH1	1:D:250:ILE:HB	1.94	0.82
1:L:237:TYR:OH	1:L:250:ILE:HD11	1.80	0.82
1:L:244:ASP:OD1	1:L:245:CYS:N	2.11	0.82
1:A:244:ASP:OD1	1:A:245:CYS:N	2.11	0.82
1:G:237:TYR:OH	1:G:250:ILE:HD11	1.80	0.82
1:H:75:LEU:HD21	1:H:251:ILE:CD1	2.09	0.82
1:H:155:ARG:NH1	1:H:250:ILE:HB	1.94	0.82
1:C:86:TYR:C	1:C:87:GLU:HG2	1.98	0.82
1:J:155:ARG:NH1	1:J:250:ILE:HB	1.94	0.82
1:L:149:ARG:HD2	1:L:153:ASP:OD1	1.78	0.82
1:B:75:LEU:HD21	1:B:251:ILE:CD1	2.09	0.82
1:F:75:LEU:HD21	1:F:251:ILE:CD1	2.09	0.82
1:J:75:LEU:HD21	1:J:251:ILE:CD1	2.09	0.82
1:A:75:LEU:HD21	1:A:251:ILE:CD1	2.09	0.81
1:K:237:TYR:OH	1:K:250:ILE:HD11	1.80	0.81
1:K:244:ASP:OD1	1:K:245:CYS:N	2.11	0.81
1:C:75:LEU:HD21	1:C:251:ILE:CD1	2.09	0.81
1:H:237:TYR:OH	1:H:250:ILE:HD11	1.80	0.81
1:I:86:TYR:C	1:I:87:GLU:HG2	1.98	0.81
1:B:244:ASP:OD1	1:B:245:CYS:N	2.11	0.81
1:F:155:ARG:NH1	1:F:250:ILE:HB	1.94	0.81
1:A:149:ARG:HD2	1:A:153:ASP:OD1	1.78	0.81
1:D:237:TYR:OH	1:D:250:ILE:HD11	1.80	0.81
1:F:237:TYR:OH	1:F:250:ILE:HD11	1.80	0.81
1:J:237:TYR:OH	1:J:250:ILE:HD11	1.80	0.81
1:I:75:LEU:HD21	1:I:251:ILE:CD1	2.09	0.81
1:I:237:TYR:OH	1:I:250:ILE:HD11	1.80	0.81
1:K:75:LEU:HD21	1:K:251:ILE:CD1	2.09	0.81
1:D:86:TYR:C	1:D:87:GLU:HG2	1.98	0.81
1:D:75:LEU:HD21	1:D:251:ILE:CD1	2.09	0.80
1:H:86:TYR:C	1:H:87:GLU:HG2	1.98	0.80
1:D:259:LYS:HD2	1:F:317:SER:O	1.82	0.80
1:E:86:TYR:C	1:E:87:GLU:HG2	1.98	0.80
1:F:278:ARG:HG2	1:F:282:ARG:CZ	2.12	0.80
1:B:317:SER:O	1:L:259:LYS:HD2	1.82	0.79
1:A:259:LYS:HD2	1:C:317:SER:O	1.82	0.79
1:A:278:ARG:HG2	1:A:282:ARG:CZ	2.13	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:317:SER:O	1:K:259:LYS:HD2	1.82	0.79
1:C:278:ARG:HG2	1:C:282:ARG:CZ	2.12	0.79
1:D:278:ARG:HG2	1:D:282:ARG:CZ	2.13	0.79
1:G:86:TYR:C	1:G:87:GLU:HG2	1.98	0.79
1:G:259:LYS:HD2	1:I:317:SER:O	1.82	0.79
1:C:259:LYS:HD2	1:E:317:SER:O	1.82	0.79
1:L:278:ARG:HG2	1:L:282:ARG:CZ	2.12	0.79
1:B:259:LYS:HD2	1:D:317:SER:O	1.82	0.79
1:E:259:LYS:HD2	1:G:317:SER:O	1.82	0.79
1:J:259:LYS:HD2	1:L:317:SER:O	1.82	0.79
1:J:278:ARG:HG2	1:J:282:ARG:CZ	2.13	0.79
1:H:278:ARG:HG2	1:H:282:ARG:CZ	2.12	0.79
1:I:259:LYS:HD2	1:K:317:SER:O	1.82	0.79
1:F:86:TYR:C	1:F:87:GLU:HG2	1.98	0.79
1:F:259:LYS:HD2	1:H:317:SER:O	1.82	0.79
1:K:278:ARG:HG2	1:K:282:ARG:CZ	2.12	0.79
1:H:259:LYS:HD2	1:J:317:SER:O	1.82	0.78
1:A:369:LEU:O	1:A:373:LEU:HG	1.83	0.78
1:A:376:PRO:HD3	1:A:403:PHE:CD1	2.19	0.78
1:C:376:PRO:HD3	1:C:403:PHE:CD2	2.19	0.78
1:E:376:PRO:HD3	1:E:403:PHE:CD2	2.19	0.78
1:L:369:LEU:O	1:L:373:LEU:HG	1.84	0.78
1:F:243:VAL:HG21	1:G:149:ARG:NH2	1.99	0.78
1:G:278:ARG:HG2	1:G:282:ARG:CZ	2.13	0.78
1:K:369:LEU:O	1:K:373:LEU:HG	1.84	0.78
1:E:278:ARG:HG2	1:E:282:ARG:CZ	2.12	0.78
1:F:91:ALA:CB	1:F:373:LEU:HD13	2.14	0.78
1:I:278:ARG:HG2	1:I:282:ARG:CZ	2.12	0.78
1:J:369:LEU:O	1:J:373:LEU:HG	1.83	0.78
1:A:91:ALA:CB	1:A:373:LEU:HD13	2.14	0.78
1:B:149:ARG:CD	1:B:153:ASP:OD1	2.32	0.78
1:F:369:LEU:O	1:F:373:LEU:HG	1.84	0.78
1:K:149:ARG:CD	1:K:153:ASP:OD1	2.32	0.78
1:B:369:LEU:O	1:B:373:LEU:HG	1.84	0.78
1:B:376:PRO:HD3	1:B:403:PHE:CD2	2.19	0.78
1:E:369:LEU:O	1:E:373:LEU:HG	1.84	0.78
1:G:149:ARG:CD	1:G:153:ASP:OD1	2.32	0.78
1:K:91:ALA:CB	1:K:373:LEU:HD13	2.14	0.78
1:A:149:ARG:CD	1:A:153:ASP:OD1	2.32	0.78
1:A:316:ALA:CA	1:K:259:LYS:HZ3	1.97	0.78
1:B:278:ARG:HG2	1:B:282:ARG:CZ	2.12	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:376:PRO:HD3	1:D:403:PHE:CD1	2.19	0.78
1:E:243:VAL:HG21	1:F:149:ARG:NH2	1.99	0.78
1:F:376:PRO:HD3	1:F:403:PHE:CD2	2.19	0.78
1:G:91:ALA:CB	1:G:373:LEU:HD13	2.14	0.78
1:L:149:ARG:CD	1:L:153:ASP:OD1	2.32	0.78
1:C:149:ARG:CD	1:C:153:ASP:OD1	2.32	0.78
1:H:149:ARG:CD	1:H:153:ASP:OD1	2.32	0.78
1:I:369:LEU:O	1:I:373:LEU:HG	1.84	0.78
1:C:91:ALA:CB	1:C:373:LEU:HD13	2.14	0.78
1:G:243:VAL:HG21	1:H:149:ARG:NH2	1.99	0.78
1:G:369:LEU:O	1:G:373:LEU:HG	1.83	0.78
1:K:243:VAL:HG21	1:L:149:ARG:NH2	1.99	0.78
1:L:376:PRO:HD3	1:L:403:PHE:CD2	2.19	0.78
1:H:376:PRO:HD3	1:H:403:PHE:CD2	2.19	0.77
1:J:243:VAL:HG21	1:K:149:ARG:NH2	1.99	0.77
1:G:376:PRO:HD3	1:G:403:PHE:CD1	2.19	0.77
1:D:369:LEU:O	1:D:373:LEU:HG	1.83	0.77
1:E:91:ALA:CB	1:E:373:LEU:HD13	2.14	0.77
1:I:243:VAL:HG21	1:J:149:ARG:NH2	1.99	0.77
1:I:149:ARG:CD	1:I:153:ASP:OD1	2.32	0.77
1:J:149:ARG:CD	1:J:153:ASP:OD1	2.32	0.77
1:K:376:PRO:HD3	1:K:403:PHE:CD2	2.19	0.77
1:D:257:ALA:C	1:D:260:PRO:HD2	2.05	0.77
1:I:91:ALA:CB	1:I:373:LEU:HD13	2.14	0.77
1:A:149:ARG:NH2	1:L:243:VAL:HG21	1.99	0.77
1:C:257:ALA:C	1:C:260:PRO:HD2	2.05	0.77
1:B:257:ALA:C	1:B:260:PRO:HD2	2.05	0.77
1:C:243:VAL:HG21	1:D:149:ARG:NH2	1.99	0.77
1:H:257:ALA:C	1:H:260:PRO:HD2	2.05	0.77
1:I:376:PRO:HD3	1:I:403:PHE:CD2	2.19	0.77
1:J:376:PRO:HD3	1:J:403:PHE:CD1	2.19	0.77
1:B:243:VAL:HG21	1:C:149:ARG:NH2	1.99	0.77
1:C:369:LEU:O	1:C:373:LEU:HG	1.84	0.77
1:G:257:ALA:C	1:G:260:PRO:HD2	2.05	0.77
1:H:369:LEU:O	1:H:373:LEU:HG	1.84	0.77
1:G:441:ILE:HD12	1:G:442:ASN:O	1.85	0.77
1:H:91:ALA:CB	1:H:373:LEU:HD13	2.14	0.77
1:H:243:VAL:HG21	1:I:149:ARG:NH2	1.99	0.77
1:I:257:ALA:C	1:I:260:PRO:HD2	2.05	0.77
1:J:91:ALA:CB	1:J:373:LEU:HD13	2.14	0.77
1:A:257:ALA:C	1:A:260:PRO:HD2	2.05	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:259:LYS:HZ3	1:E:316:ALA:CA	1.98	0.77
1:D:149:ARG:CD	1:D:153:ASP:OD1	2.32	0.77
1:E:257:ALA:C	1:E:260:PRO:HD2	2.05	0.77
1:D:243:VAL:HG21	1:E:149:ARG:NH2	1.99	0.76
1:F:149:ARG:CD	1:F:153:ASP:OD1	2.32	0.76
1:F:257:ALA:C	1:F:260:PRO:HD2	2.05	0.76
1:F:441:ILE:HD12	1:F:442:ASN:O	1.85	0.76
1:B:91:ALA:CB	1:B:373:LEU:HD13	2.14	0.76
1:D:91:ALA:CB	1:D:373:LEU:HD13	2.14	0.76
1:J:257:ALA:C	1:J:260:PRO:HD2	2.05	0.76
1:L:91:ALA:CB	1:L:373:LEU:HD13	2.14	0.76
1:E:149:ARG:CD	1:E:153:ASP:OD1	2.32	0.76
1:A:243:VAL:HG21	1:B:149:ARG:NH2	1.99	0.76
1:E:441:ILE:HD12	1:E:442:ASN:O	1.85	0.76
1:L:257:ALA:C	1:L:260:PRO:HD2	2.05	0.76
1:L:441:ILE:HD12	1:L:442:ASN:O	1.85	0.76
1:B:441:ILE:HD12	1:B:442:ASN:O	1.85	0.76
1:K:257:ALA:C	1:K:260:PRO:HD2	2.05	0.76
1:B:316:ALA:CA	1:L:259:LYS:HZ3	1.99	0.76
1:H:441:ILE:HD12	1:H:442:ASN:O	1.85	0.76
1:K:441:ILE:HD12	1:K:442:ASN:O	1.85	0.76
1:A:259:LYS:HZ3	1:C:316:ALA:CA	1.99	0.75
1:D:441:ILE:HD12	1:D:442:ASN:O	1.85	0.75
1:K:154:SER:O	1:K:155:ARG:CG	2.34	0.75
1:C:441:ILE:HD12	1:C:442:ASN:O	1.85	0.75
1:E:154:SER:O	1:E:155:ARG:CG	2.34	0.75
1:H:154:SER:O	1:H:155:ARG:CG	2.34	0.75
1:L:154:SER:O	1:L:155:ARG:CG	2.34	0.75
1:A:441:ILE:HD12	1:A:442:ASN:O	1.85	0.75
1:B:259:LYS:HZ1	1:D:316:ALA:HA	1.51	0.75
1:J:441:ILE:HD12	1:J:442:ASN:O	1.85	0.75
1:C:154:SER:O	1:C:155:ARG:CG	2.34	0.74
1:I:441:ILE:HD12	1:I:442:ASN:O	1.85	0.74
1:J:154:SER:O	1:J:155:ARG:CG	2.34	0.74
1:B:154:SER:O	1:B:155:ARG:CG	2.34	0.74
1:D:154:SER:O	1:D:155:ARG:CG	2.34	0.74
1:F:162:ILE:CG2	1:F:171:ILE:HA	2.11	0.74
1:I:154:SER:O	1:I:155:ARG:CG	2.34	0.74
1:F:374:ARG:HD3	1:F:406:PHE:CE1	2.23	0.74
1:H:374:ARG:HD3	1:H:406:PHE:CE1	2.23	0.74
1:J:374:ARG:HD3	1:J:406:PHE:CE1	2.23	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:279:ALA:HB3	1:K:280:PRO:CD	2.18	0.74
1:A:279:ALA:HB3	1:A:280:PRO:CD	2.18	0.74
1:F:279:ALA:HB3	1:F:280:PRO:CD	2.18	0.74
1:G:154:SER:O	1:G:155:ARG:CG	2.34	0.74
1:G:162:ILE:CG2	1:G:171:ILE:HA	2.11	0.74
1:I:259:LYS:HZ1	1:K:316:ALA:HA	1.52	0.74
1:E:162:ILE:CG2	1:E:171:ILE:HA	2.11	0.74
1:F:154:SER:O	1:F:155:ARG:CG	2.34	0.74
1:K:374:ARG:HD3	1:K:406:PHE:CE1	2.23	0.74
1:D:374:ARG:HD3	1:D:406:PHE:CE1	2.23	0.74
1:I:279:ALA:HB3	1:I:280:PRO:CD	2.18	0.74
1:I:374:ARG:HD3	1:I:406:PHE:CE1	2.23	0.74
1:A:374:ARG:HD3	1:A:406:PHE:CE1	2.23	0.74
1:C:279:ALA:HB3	1:C:280:PRO:CD	2.18	0.74
1:D:279:ALA:HB3	1:D:280:PRO:CD	2.18	0.74
1:G:374:ARG:HD3	1:G:406:PHE:CE1	2.23	0.74
1:C:311:ARG:O	1:C:313:VAL:HG23	1.88	0.74
1:F:311:ARG:O	1:F:313:VAL:HG23	1.88	0.74
1:I:311:ARG:O	1:I:313:VAL:HG23	1.88	0.74
1:H:259:LYS:HZ1	1:J:316:ALA:HA	1.52	0.73
1:H:162:ILE:CG2	1:H:171:ILE:HA	2.11	0.73
1:H:279:ALA:HB3	1:H:280:PRO:CD	2.18	0.73
1:E:279:ALA:HB3	1:E:280:PRO:CD	2.18	0.73
1:G:236:VAL:HG11	1:G:421:PRO:HG3	1.71	0.73
1:H:236:VAL:HG11	1:H:421:PRO:HG3	1.71	0.73
1:E:236:VAL:HG11	1:E:421:PRO:HG3	1.71	0.73
1:G:279:ALA:HB3	1:G:280:PRO:CD	2.18	0.73
1:H:311:ARG:O	1:H:313:VAL:HG23	1.88	0.73
1:K:311:ARG:O	1:K:313:VAL:HG23	1.88	0.73
1:L:311:ARG:O	1:L:313:VAL:HG23	1.88	0.73
1:L:374:ARG:HD3	1:L:406:PHE:CE1	2.23	0.73
1:A:154:SER:O	1:A:155:ARG:CG	2.34	0.73
1:B:279:ALA:HB3	1:B:280:PRO:CD	2.18	0.73
1:D:162:ILE:CG2	1:D:171:ILE:HA	2.11	0.73
1:D:236:VAL:HG11	1:D:421:PRO:HG3	1.71	0.73
1:G:311:ARG:O	1:G:313:VAL:HG23	1.88	0.73
1:J:236:VAL:HG11	1:J:421:PRO:HG3	1.71	0.73
1:B:311:ARG:O	1:B:313:VAL:HG23	1.88	0.73
1:C:374:ARG:HD3	1:C:406:PHE:CE1	2.23	0.73
1:E:311:ARG:O	1:E:313:VAL:HG23	1.88	0.73
1:I:236:VAL:HG11	1:I:421:PRO:HG3	1.71	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:311:ARG:O	1:A:313:VAL:HG23	1.88	0.73
1:F:236:VAL:HG11	1:F:421:PRO:HG3	1.71	0.73
1:K:236:VAL:HG11	1:K:421:PRO:HG3	1.71	0.73
1:E:374:ARG:HD3	1:E:406:PHE:CE1	2.23	0.73
1:F:259:LYS:HZ1	1:H:316:ALA:HA	1.52	0.73
1:J:311:ARG:O	1:J:313:VAL:HG23	1.88	0.73
1:C:170:GLY:O	1:C:171:ILE:HG22	1.89	0.73
1:C:236:VAL:HG11	1:C:421:PRO:HG3	1.71	0.73
1:I:170:GLY:O	1:I:171:ILE:HG22	1.89	0.73
1:L:236:VAL:HG11	1:L:421:PRO:HG3	1.71	0.73
1:B:374:ARG:HD3	1:B:406:PHE:CE1	2.23	0.73
1:E:170:GLY:O	1:E:171:ILE:HG22	1.89	0.73
1:J:279:ALA:HB3	1:J:280:PRO:CD	2.18	0.73
1:L:279:ALA:HB3	1:L:280:PRO:CD	2.18	0.73
1:C:162:ILE:CG2	1:C:171:ILE:HA	2.11	0.72
1:J:170:GLY:O	1:J:171:ILE:HG22	1.89	0.72
1:D:311:ARG:O	1:D:313:VAL:HG23	1.88	0.72
1:H:170:GLY:O	1:H:171:ILE:HG22	1.89	0.72
1:K:170:GLY:O	1:K:171:ILE:HG22	1.89	0.72
1:A:170:GLY:O	1:A:171:ILE:HG22	1.89	0.72
1:A:236:VAL:HG11	1:A:421:PRO:HG3	1.71	0.72
1:B:236:VAL:HG11	1:B:421:PRO:HG3	1.71	0.72
1:G:170:GLY:O	1:G:171:ILE:HG22	1.89	0.72
1:I:162:ILE:CG2	1:I:171:ILE:HG12	2.19	0.72
1:I:162:ILE:CG2	1:I:171:ILE:HA	2.11	0.72
1:L:170:GLY:O	1:L:171:ILE:HG22	1.89	0.72
1:B:162:ILE:CG2	1:B:171:ILE:HA	2.11	0.72
1:C:237:TYR:OH	1:C:250:ILE:CD1	2.38	0.71
1:F:126:MET:O	1:F:130:PHE:N	2.21	0.71
1:I:126:MET:O	1:I:130:PHE:N	2.21	0.71
1:E:237:TYR:OH	1:E:250:ILE:CD1	2.38	0.71
1:H:126:MET:O	1:H:130:PHE:N	2.21	0.71
1:H:383:ASP:OD1	1:H:384:GLN:N	2.24	0.71
1:F:170:GLY:O	1:F:171:ILE:HG22	1.89	0.71
1:A:383:ASP:OD1	1:A:384:GLN:N	2.24	0.71
1:E:126:MET:O	1:E:130:PHE:N	2.21	0.71
1:F:237:TYR:OH	1:F:250:ILE:CD1	2.38	0.71
1:J:383:ASP:OD1	1:J:384:GLN:N	2.24	0.71
1:A:237:TYR:OH	1:A:250:ILE:CD1	2.38	0.71
1:B:374:ARG:CD	1:B:406:PHE:CZ	2.73	0.71
1:G:237:TYR:OH	1:G:250:ILE:CD1	2.38	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:126:MET:O	1:J:130:PHE:N	2.21	0.71
1:K:383:ASP:OD1	1:K:384:GLN:N	2.24	0.71
1:B:170:GLY:O	1:B:171:ILE:HG22	1.89	0.71
1:D:237:TYR:OH	1:D:250:ILE:CD1	2.38	0.71
1:F:162:ILE:CG2	1:F:171:ILE:HG12	2.19	0.71
1:F:283:ARG:HH12	1:F:310:ASN:ND2	1.89	0.71
1:F:383:ASP:OD1	1:F:384:GLN:N	2.24	0.71
1:H:162:ILE:CG2	1:H:171:ILE:HG12	2.19	0.71
1:H:237:TYR:OH	1:H:250:ILE:CD1	2.38	0.71
1:E:283:ARG:HH12	1:E:310:ASN:ND2	1.89	0.71
1:E:383:ASP:OD1	1:E:384:GLN:N	2.24	0.71
1:G:126:MET:O	1:G:130:PHE:N	2.21	0.71
1:J:374:ARG:CD	1:J:406:PHE:CZ	2.73	0.71
1:L:162:ILE:CG2	1:L:171:ILE:HG12	2.19	0.71
1:L:383:ASP:OD1	1:L:384:GLN:N	2.24	0.71
1:C:374:ARG:CD	1:C:406:PHE:CZ	2.73	0.70
1:D:170:GLY:O	1:D:171:ILE:HG22	1.89	0.70
1:B:237:TYR:OH	1:B:250:ILE:CD1	2.38	0.70
1:C:383:ASP:OD1	1:C:384:GLN:N	2.24	0.70
1:D:383:ASP:OD1	1:D:384:GLN:N	2.24	0.70
1:B:383:ASP:OD1	1:B:384:GLN:N	2.24	0.70
1:I:383:ASP:OD1	1:I:384:GLN:N	2.24	0.70
1:J:237:TYR:OH	1:J:250:ILE:CD1	2.38	0.70
1:D:126:MET:O	1:D:130:PHE:N	2.21	0.70
1:G:283:ARG:HH12	1:G:310:ASN:ND2	1.89	0.70
1:I:248:LYS:O	1:I:249:ASN:ND2	2.25	0.70
1:H:283:ARG:HH12	1:H:310:ASN:ND2	1.89	0.70
1:K:126:MET:O	1:K:130:PHE:N	2.21	0.70
1:K:248:LYS:O	1:K:249:ASN:ND2	2.25	0.70
1:J:162:ILE:CG2	1:J:171:ILE:HA	2.11	0.70
1:K:237:TYR:OH	1:K:250:ILE:CD1	2.38	0.70
1:L:374:ARG:CD	1:L:406:PHE:CZ	2.73	0.70
1:G:383:ASP:OD1	1:G:384:GLN:N	2.24	0.70
1:H:248:LYS:O	1:H:249:ASN:ND2	2.25	0.70
1:I:237:TYR:OH	1:I:250:ILE:CD1	2.38	0.70
1:L:237:TYR:OH	1:L:250:ILE:CD1	2.38	0.70
1:D:374:ARG:CD	1:D:406:PHE:CZ	2.73	0.70
1:F:248:LYS:O	1:F:249:ASN:ND2	2.25	0.70
1:I:283:ARG:HH12	1:I:310:ASN:ND2	1.89	0.70
1:K:162:ILE:CG2	1:K:171:ILE:HG12	2.19	0.70
1:D:283:ARG:HH12	1:D:310:ASN:ND2	1.89	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:248:LYS:O	1:G:249:ASN:ND2	2.25	0.69
1:H:374:ARG:CD	1:H:406:PHE:CZ	2.73	0.69
1:F:387:GLY:N	1:F:388:VAL:HA	2.08	0.69
1:C:283:ARG:HH12	1:C:310:ASN:ND2	1.89	0.69
1:D:387:GLY:N	1:D:388:VAL:HA	2.08	0.69
1:G:374:ARG:CD	1:G:406:PHE:CZ	2.73	0.69
1:J:283:ARG:HH12	1:J:310:ASN:ND2	1.89	0.69
1:L:253:TYR:OH	1:L:413:LYS:NZ	2.24	0.69
1:A:248:LYS:O	1:A:249:ASN:ND2	2.25	0.69
1:I:162:ILE:HG23	1:I:171:ILE:HG13	1.67	0.69
1:K:283:ARG:HH12	1:K:310:ASN:ND2	1.89	0.69
1:B:283:ARG:HH12	1:B:310:ASN:ND2	1.89	0.69
1:F:253:TYR:OH	1:F:413:LYS:NZ	2.24	0.69
1:I:387:GLY:N	1:I:388:VAL:HA	2.08	0.69
1:A:162:ILE:CG2	1:A:171:ILE:HG12	2.19	0.69
1:C:126:MET:O	1:C:130:PHE:N	2.21	0.69
1:J:248:LYS:O	1:J:249:ASN:ND2	2.25	0.69
1:A:283:ARG:HH12	1:A:310:ASN:ND2	1.89	0.69
1:C:248:LYS:O	1:C:249:ASN:ND2	2.25	0.69
1:E:374:ARG:CD	1:E:406:PHE:CZ	2.73	0.69
1:H:162:ILE:HG23	1:H:171:ILE:CG1	2.22	0.69
1:H:387:GLY:N	1:H:388:VAL:HA	2.08	0.69
1:L:126:MET:O	1:L:130:PHE:N	2.21	0.69
1:B:162:ILE:CG2	1:B:171:ILE:HG12	2.19	0.69
1:E:248:LYS:O	1:E:249:ASN:ND2	2.25	0.69
1:K:374:ARG:CD	1:K:406:PHE:CZ	2.73	0.69
1:D:248:LYS:O	1:D:249:ASN:ND2	2.25	0.69
1:E:162:ILE:CG2	1:E:171:ILE:HG12	2.19	0.69
1:B:387:GLY:N	1:B:388:VAL:HA	2.08	0.68
1:G:387:GLY:N	1:G:388:VAL:HA	2.08	0.68
1:A:387:GLY:N	1:A:388:VAL:HA	2.08	0.68
1:L:283:ARG:HH12	1:L:310:ASN:ND2	1.89	0.68
1:B:248:LYS:O	1:B:249:ASN:ND2	2.25	0.68
1:D:162:ILE:CG2	1:D:171:ILE:HG12	2.19	0.68
1:F:374:ARG:CD	1:F:406:PHE:CZ	2.73	0.68
1:J:387:GLY:N	1:J:388:VAL:HA	2.08	0.68
1:K:162:ILE:HG23	1:K:171:ILE:CG1	2.22	0.68
1:E:387:GLY:N	1:E:388:VAL:HA	2.08	0.68
1:K:387:GLY:N	1:K:388:VAL:HA	2.08	0.68
1:L:248:LYS:O	1:L:249:ASN:ND2	2.25	0.68
1:C:162:ILE:CG2	1:C:171:ILE:HG12	2.19	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:374:ARG:CD	1:I:406:PHE:CZ	2.73	0.68
1:B:126:MET:O	1:B:130:PHE:N	2.21	0.68
1:K:162:ILE:CG2	1:K:171:ILE:HA	2.11	0.68
1:L:387:GLY:N	1:L:388:VAL:HA	2.08	0.68
1:A:126:MET:O	1:A:130:PHE:N	2.21	0.68
1:D:162:ILE:HG23	1:D:171:ILE:HG13	1.68	0.68
1:H:441:ILE:HA	1:H:442:ASN:C	2.15	0.68
1:J:259:LYS:HZ1	1:L:316:ALA:HA	1.59	0.68
1:H:253:TYR:OH	1:H:413:LYS:NZ	2.24	0.68
1:J:162:ILE:HG23	1:J:171:ILE:CG1	2.22	0.68
1:L:441:ILE:HA	1:L:442:ASN:C	2.15	0.68
1:A:441:ILE:HA	1:A:442:ASN:C	2.15	0.67
1:C:387:GLY:N	1:C:388:VAL:HA	2.08	0.67
1:G:162:ILE:CG2	1:G:171:ILE:HG12	2.19	0.67
1:A:250:ILE:O	1:A:251:ILE:HD13	1.95	0.67
1:G:250:ILE:O	1:G:251:ILE:HD13	1.95	0.67
1:G:259:LYS:HZ1	1:I:316:ALA:HA	1.58	0.67
1:F:250:ILE:O	1:F:251:ILE:HD13	1.95	0.67
1:J:250:ILE:O	1:J:251:ILE:HD13	1.95	0.67
1:K:441:ILE:HA	1:K:442:ASN:C	2.15	0.67
1:A:374:ARG:CD	1:A:406:PHE:CZ	2.73	0.67
1:B:162:ILE:HG23	1:B:171:ILE:CG1	2.22	0.67
1:F:162:ILE:HG23	1:F:171:ILE:HG13	1.67	0.67
1:I:441:ILE:HA	1:I:442:ASN:C	2.15	0.67
1:G:441:ILE:HA	1:G:442:ASN:C	2.15	0.67
1:B:250:ILE:O	1:B:251:ILE:HD13	1.95	0.67
1:A:103:GLU:HB2	1:A:106:THR:OG1	1.95	0.67
1:D:103:GLU:HB2	1:D:106:THR:OG1	1.95	0.67
1:D:441:ILE:HA	1:D:442:ASN:C	2.15	0.67
1:G:162:ILE:HG23	1:G:171:ILE:CG1	2.22	0.67
1:G:103:GLU:HB2	1:G:106:THR:OG1	1.95	0.67
1:K:250:ILE:O	1:K:251:ILE:HD13	1.95	0.67
1:L:103:GLU:HB2	1:L:106:THR:OG1	1.95	0.67
1:B:155:ARG:HH11	1:B:250:ILE:HB	1.60	0.67
1:C:441:ILE:HA	1:C:442:ASN:C	2.15	0.67
1:I:103:GLU:HB2	1:I:106:THR:OG1	1.95	0.67
1:I:162:ILE:HG23	1:I:171:ILE:CG1	2.21	0.67
1:I:250:ILE:O	1:I:251:ILE:HD13	1.95	0.67
1:J:103:GLU:HB2	1:J:106:THR:OG1	1.95	0.67
1:J:162:ILE:CG2	1:J:171:ILE:HG12	2.19	0.67
1:L:250:ILE:O	1:L:251:ILE:HD13	1.95	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:155:ARG:HH11	1:F:250:ILE:HB	1.60	0.66
1:K:93:SER:HA	1:K:96:VAL:HG22	1.77	0.66
1:B:103:GLU:HB2	1:B:106:THR:OG1	1.95	0.66
1:I:253:TYR:OH	1:I:413:LYS:NZ	2.24	0.66
1:K:103:GLU:HB2	1:K:106:THR:OG1	1.95	0.66
1:L:93:SER:HA	1:L:96:VAL:HG22	1.77	0.66
1:D:155:ARG:HH11	1:D:250:ILE:HB	1.60	0.66
1:E:441:ILE:HA	1:E:442:ASN:C	2.15	0.66
1:F:103:GLU:HB2	1:F:106:THR:OG1	1.95	0.66
1:H:155:ARG:HH11	1:H:250:ILE:HB	1.60	0.66
1:B:441:ILE:HA	1:B:442:ASN:C	2.15	0.66
1:C:253:TYR:OH	1:C:413:LYS:NZ	2.24	0.66
1:E:103:GLU:HB2	1:E:106:THR:OG1	1.95	0.66
1:E:250:ILE:O	1:E:251:ILE:HD13	1.95	0.66
1:J:93:SER:HA	1:J:96:VAL:HG22	1.77	0.66
1:C:103:GLU:HB2	1:C:106:THR:OG1	1.95	0.66
1:H:250:ILE:O	1:H:251:ILE:HD13	1.95	0.66
1:K:155:ARG:HH11	1:K:250:ILE:HB	1.60	0.66
1:C:250:ILE:O	1:C:251:ILE:HD13	1.95	0.66
1:J:441:ILE:HA	1:J:442:ASN:C	2.15	0.66
1:L:162:ILE:CG2	1:L:171:ILE:HA	2.11	0.66
1:L:162:ILE:HG23	1:L:171:ILE:CG1	2.21	0.66
1:A:93:SER:HA	1:A:96:VAL:HG22	1.77	0.66
1:I:155:ARG:HH11	1:I:250:ILE:HB	1.60	0.66
1:H:103:GLU:HB2	1:H:106:THR:OG1	1.95	0.66
1:J:72:ILE:HG23	1:J:155:ARG:NH2	2.11	0.66
1:L:155:ARG:HH11	1:L:250:ILE:HB	1.60	0.66
1:D:250:ILE:O	1:D:251:ILE:HD13	1.95	0.65
1:F:441:ILE:HA	1:F:442:ASN:C	2.15	0.65
1:I:93:SER:HA	1:I:96:VAL:HG22	1.77	0.65
1:B:100:ILE:HD11	1:B:144:SER:HA	1.78	0.65
1:D:93:SER:HA	1:D:96:VAL:HG22	1.77	0.65
1:I:72:ILE:HG23	1:I:155:ARG:NH2	2.11	0.65
1:K:72:ILE:HG23	1:K:155:ARG:NH2	2.11	0.65
1:E:93:SER:HA	1:E:96:VAL:HG22	1.77	0.65
1:B:158:PHE:HB2	1:B:236:VAL:HG22	1.79	0.65
1:C:93:SER:HA	1:C:96:VAL:HG22	1.77	0.65
1:I:100:ILE:HD11	1:I:144:SER:HA	1.78	0.65
1:J:91:ALA:HB3	1:J:373:LEU:HD13	1.79	0.65
1:A:100:ILE:HD11	1:A:144:SER:HA	1.78	0.65
1:A:158:PHE:HB2	1:A:236:VAL:HG22	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:100:ILE:HD11	1:C:144:SER:HA	1.78	0.65
1:D:72:ILE:HG23	1:D:155:ARG:NH2	2.11	0.65
1:I:91:ALA:HB3	1:I:373:LEU:HD13	1.79	0.65
1:C:158:PHE:HB2	1:C:236:VAL:HG22	1.79	0.65
1:D:100:ILE:HD11	1:D:144:SER:HA	1.78	0.65
1:F:93:SER:HA	1:F:96:VAL:HG22	1.77	0.65
1:G:93:SER:HA	1:G:96:VAL:HG22	1.77	0.65
1:H:72:ILE:HG23	1:H:155:ARG:NH2	2.11	0.65
1:H:100:ILE:HD11	1:H:144:SER:HA	1.78	0.65
1:K:91:ALA:HB3	1:K:373:LEU:HD13	1.79	0.65
1:A:155:ARG:HH11	1:A:250:ILE:HB	1.60	0.65
1:G:155:ARG:HH11	1:G:250:ILE:HB	1.60	0.65
1:J:100:ILE:HD11	1:J:144:SER:HA	1.78	0.65
1:B:162:ILE:HG23	1:B:171:ILE:HG13	1.68	0.65
1:B:93:SER:HA	1:B:96:VAL:HG22	1.77	0.64
1:E:72:ILE:HG23	1:E:155:ARG:NH2	2.11	0.64
1:K:158:PHE:HB2	1:K:236:VAL:HG22	1.79	0.64
1:L:100:ILE:HD11	1:L:144:SER:HA	1.78	0.64
1:L:158:PHE:HB2	1:L:236:VAL:HG22	1.79	0.64
1:D:158:PHE:HB2	1:D:236:VAL:HG22	1.79	0.64
1:A:72:ILE:HG23	1:A:155:ARG:NH2	2.11	0.64
1:B:72:ILE:HG23	1:B:155:ARG:NH2	2.11	0.64
1:E:100:ILE:HD11	1:E:144:SER:HA	1.78	0.64
1:G:100:ILE:HD11	1:G:144:SER:HA	1.78	0.64
1:H:91:ALA:HB3	1:H:373:LEU:HD13	1.79	0.64
1:H:93:SER:HA	1:H:96:VAL:HG22	1.77	0.64
1:C:91:ALA:HB3	1:C:373:LEU:HD13	1.79	0.64
1:F:72:ILE:HG23	1:F:155:ARG:NH2	2.11	0.64
1:G:72:ILE:HG23	1:G:155:ARG:NH2	2.11	0.64
1:G:171:ILE:HG12	1:G:172:LYS:H	1.62	0.64
1:J:158:PHE:HB2	1:J:236:VAL:HG22	1.79	0.64
1:L:72:ILE:HG23	1:L:155:ARG:NH2	2.11	0.64
1:B:91:ALA:HB3	1:B:373:LEU:HD13	1.79	0.64
1:C:72:ILE:HG23	1:C:155:ARG:NH2	2.11	0.64
1:C:155:ARG:HH11	1:C:250:ILE:HB	1.60	0.64
1:G:253:TYR:OH	1:G:413:LYS:NZ	2.24	0.64
1:I:171:ILE:HG12	1:I:172:LYS:H	1.62	0.64
1:E:155:ARG:HH11	1:E:250:ILE:HB	1.60	0.64
1:K:100:ILE:HD11	1:K:144:SER:HA	1.78	0.64
1:L:91:ALA:HB3	1:L:373:LEU:HD13	1.79	0.64
1:D:91:ALA:HB3	1:D:373:LEU:HD13	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:91:ALA:HB3	1:G:373:LEU:HD13	1.79	0.64
1:F:171:ILE:HG12	1:F:172:LYS:H	1.62	0.64
1:D:171:ILE:HG12	1:D:172:LYS:H	1.62	0.64
1:I:158:PHE:HB2	1:I:236:VAL:HG22	1.79	0.64
1:J:155:ARG:HH11	1:J:250:ILE:HB	1.60	0.64
1:A:91:ALA:HB3	1:A:373:LEU:HD13	1.79	0.63
1:E:91:ALA:HB3	1:E:373:LEU:HD13	1.79	0.63
1:F:91:ALA:HB3	1:F:373:LEU:HD13	1.79	0.63
1:F:100:ILE:HD11	1:F:144:SER:HA	1.78	0.63
1:H:162:ILE:HG23	1:H:171:ILE:HG13	1.68	0.63
1:H:171:ILE:HG12	1:H:172:LYS:H	1.62	0.63
1:E:158:PHE:HB2	1:E:236:VAL:HG22	1.79	0.63
1:J:171:ILE:HG12	1:J:172:LYS:H	1.62	0.63
1:E:279:ALA:N	1:E:280:PRO:HD2	2.14	0.63
1:I:359:MET:O	1:I:363:ARG:NH2	2.32	0.63
1:J:279:ALA:N	1:J:280:PRO:HD2	2.14	0.63
1:K:279:ALA:N	1:K:280:PRO:HD2	2.14	0.63
1:B:359:MET:O	1:B:363:ARG:NH2	2.32	0.63
1:D:359:MET:O	1:D:363:ARG:NH2	2.32	0.63
1:F:279:ALA:N	1:F:280:PRO:HD2	2.14	0.63
1:F:359:MET:O	1:F:363:ARG:NH2	2.32	0.63
1:K:359:MET:O	1:K:363:ARG:NH2	2.32	0.63
1:A:169:GLU:HB3	1:A:170:GLY:HA2	1.81	0.63
1:D:279:ALA:N	1:D:280:PRO:HD2	2.14	0.63
1:E:171:ILE:HG12	1:E:172:LYS:H	1.62	0.63
1:F:158:PHE:HB2	1:F:236:VAL:HG22	1.79	0.63
1:H:158:PHE:HB2	1:H:236:VAL:HG22	1.79	0.63
1:L:169:GLU:HB3	1:L:170:GLY:HA2	1.81	0.63
1:G:279:ALA:N	1:G:280:PRO:HD2	2.14	0.63
1:J:169:GLU:HB3	1:J:170:GLY:HA2	1.81	0.63
1:K:171:ILE:HG12	1:K:172:LYS:H	1.62	0.63
1:A:171:ILE:HG12	1:A:172:LYS:H	1.62	0.63
1:A:359:MET:O	1:A:363:ARG:NH2	2.32	0.63
1:B:169:GLU:HB3	1:B:170:GLY:HA2	1.81	0.63
1:C:162:ILE:HG23	1:C:171:ILE:CG1	2.21	0.63
1:D:162:ILE:HG23	1:D:171:ILE:CG1	2.22	0.63
1:G:82:LEU:HG	1:G:88:VAL:HG11	1.81	0.63
1:G:158:PHE:HB2	1:G:236:VAL:HG22	1.79	0.63
1:G:359:MET:O	1:G:363:ARG:NH2	2.32	0.63
1:B:279:ALA:N	1:B:280:PRO:HD2	2.14	0.63
1:K:169:GLU:HB3	1:K:170:GLY:HA2	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:171:ILE:HG12	1:L:172:LYS:H	1.62	0.63
1:C:279:ALA:N	1:C:280:PRO:HD2	2.14	0.62
1:H:82:LEU:HG	1:H:88:VAL:HG11	1.81	0.62
1:H:359:MET:O	1:H:363:ARG:NH2	2.32	0.62
1:L:359:MET:O	1:L:363:ARG:NH2	2.32	0.62
1:B:171:ILE:HG12	1:B:172:LYS:H	1.62	0.62
1:J:82:LEU:HG	1:J:88:VAL:HG11	1.81	0.62
1:C:171:ILE:HG12	1:C:172:LYS:H	1.62	0.62
1:F:82:LEU:HG	1:F:88:VAL:HG11	1.81	0.62
1:I:82:LEU:HG	1:I:88:VAL:HG11	1.81	0.62
1:I:169:GLU:HB3	1:I:170:GLY:HA2	1.81	0.62
1:I:279:ALA:N	1:I:280:PRO:HD2	2.14	0.62
1:L:279:ALA:N	1:L:280:PRO:HD2	2.14	0.62
1:E:82:LEU:HG	1:E:88:VAL:HG11	1.81	0.62
1:E:359:MET:O	1:E:363:ARG:NH2	2.32	0.62
1:H:279:ALA:N	1:H:280:PRO:HD2	2.14	0.62
1:C:169:GLU:HB3	1:C:170:GLY:HA2	1.81	0.62
1:F:441:ILE:HG23	1:F:441:ILE:O	2.00	0.62
1:J:359:MET:O	1:J:363:ARG:NH2	2.32	0.62
1:K:82:LEU:HG	1:K:88:VAL:HG11	1.81	0.62
1:D:82:LEU:HG	1:D:88:VAL:HG11	1.81	0.62
1:E:169:GLU:HB3	1:E:170:GLY:HA2	1.81	0.62
1:L:119:SER:HB3	1:L:122:ILE:HG12	1.82	0.62
1:A:279:ALA:N	1:A:280:PRO:HD2	2.14	0.62
1:C:359:MET:O	1:C:363:ARG:NH2	2.32	0.62
1:G:441:ILE:HG23	1:G:441:ILE:O	2.00	0.62
1:J:119:SER:HB3	1:J:122:ILE:HG12	1.82	0.62
1:K:119:SER:HB3	1:K:122:ILE:HG12	1.82	0.62
1:H:169:GLU:HB3	1:H:170:GLY:HA2	1.81	0.62
1:I:119:SER:HB3	1:I:122:ILE:HG12	1.82	0.62
1:A:119:SER:HB3	1:A:122:ILE:HG12	1.82	0.61
1:C:82:LEU:HG	1:C:88:VAL:HG11	1.81	0.61
1:A:162:ILE:CG2	1:A:171:ILE:HA	2.13	0.61
1:E:162:ILE:HG23	1:E:171:ILE:CG1	2.22	0.61
1:E:441:ILE:O	1:E:441:ILE:HG23	2.00	0.61
1:G:169:GLU:HB3	1:G:170:GLY:HA2	1.81	0.61
1:H:217:CYS:SG	1:H:218:ASP:N	2.74	0.61
1:H:441:ILE:O	1:H:441:ILE:HG23	2.00	0.61
1:L:82:LEU:HG	1:L:88:VAL:HG11	1.81	0.61
1:L:441:ILE:HG23	1:L:441:ILE:O	2.00	0.61
1:L:162:ILE:HG23	1:L:171:ILE:HG13	1.67	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:82:LEU:HG	1:A:88:VAL:HG11	1.81	0.61
1:B:82:LEU:HG	1:B:88:VAL:HG11	1.81	0.61
1:D:169:GLU:HB3	1:D:170:GLY:HA2	1.81	0.61
1:H:119:SER:HB3	1:H:122:ILE:HG12	1.82	0.61
1:B:441:ILE:HG23	1:B:441:ILE:O	2.00	0.61
1:C:217:CYS:SG	1:C:218:ASP:N	2.74	0.61
1:E:217:CYS:SG	1:E:218:ASP:N	2.74	0.61
1:B:119:SER:HB3	1:B:122:ILE:HG12	1.82	0.61
1:J:162:ILE:HG23	1:J:171:ILE:HG13	1.68	0.61
1:A:315:ASP:HA	1:B:327:ASN:HB3	1.83	0.61
1:D:109:VAL:O	1:D:109:VAL:HG12	2.01	0.61
1:E:109:VAL:O	1:E:109:VAL:HG12	2.01	0.61
1:F:169:GLU:HB3	1:F:170:GLY:HA2	1.81	0.61
1:G:217:CYS:SG	1:G:218:ASP:N	2.74	0.61
1:J:217:CYS:SG	1:J:218:ASP:N	2.74	0.61
1:J:441:ILE:HG23	1:J:441:ILE:O	2.00	0.61
1:C:441:ILE:HG23	1:C:441:ILE:O	2.00	0.61
1:F:109:VAL:O	1:F:109:VAL:HG12	2.01	0.61
1:J:253:TYR:OH	1:J:413:LYS:NZ	2.24	0.61
1:K:441:ILE:HG23	1:K:441:ILE:O	2.00	0.61
1:A:327:ASN:HB3	1:L:315:ASP:HA	1.83	0.60
1:C:109:VAL:O	1:C:109:VAL:HG12	2.01	0.60
1:C:315:ASP:HA	1:D:327:ASN:HB3	1.83	0.60
1:D:315:ASP:HA	1:E:327:ASN:HB3	1.83	0.60
1:E:315:ASP:HA	1:F:327:ASN:HB3	1.83	0.60
1:F:315:ASP:HA	1:G:327:ASN:HB3	1.83	0.60
1:G:315:ASP:HA	1:H:327:ASN:HB3	1.83	0.60
1:K:253:TYR:OH	1:K:413:LYS:NZ	2.24	0.60
1:E:119:SER:HB3	1:E:122:ILE:HG12	1.82	0.60
1:G:109:VAL:O	1:G:109:VAL:HG12	2.01	0.60
1:I:441:ILE:HG23	1:I:441:ILE:O	2.00	0.60
1:B:315:ASP:HA	1:C:327:ASN:HB3	1.83	0.60
1:D:119:SER:HB3	1:D:122:ILE:HG12	1.82	0.60
1:K:315:ASP:HA	1:L:327:ASN:HB3	1.83	0.60
1:A:217:CYS:SG	1:A:218:ASP:N	2.74	0.60
1:C:82:LEU:HD23	1:C:254:LEU:HG	1.84	0.60
1:C:119:SER:HB3	1:C:122:ILE:HG12	1.82	0.60
1:D:82:LEU:HD23	1:D:254:LEU:HG	1.84	0.60
1:J:315:ASP:HA	1:K:327:ASN:HB3	1.83	0.60
1:B:82:LEU:HD23	1:B:254:LEU:HG	1.84	0.60
1:E:82:LEU:HD23	1:E:254:LEU:HG	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:109:VAL:O	1:H:109:VAL:HG12	2.01	0.60
1:I:217:CYS:SG	1:I:218:ASP:N	2.74	0.60
1:B:109:VAL:HG12	1:B:109:VAL:O	2.01	0.60
1:F:119:SER:HB3	1:F:122:ILE:HG12	1.82	0.60
1:G:119:SER:HB3	1:G:122:ILE:HG12	1.82	0.60
1:H:315:ASP:HA	1:I:327:ASN:HB3	1.83	0.60
1:A:82:LEU:HD23	1:A:254:LEU:HG	1.84	0.60
1:B:160:LYS:NZ	1:B:424:THR:HG21	2.17	0.60
1:D:441:ILE:HG23	1:D:441:ILE:O	2.00	0.60
1:G:160:LYS:NZ	1:G:424:THR:HG21	2.17	0.60
1:H:218:ASP:OD1	1:H:219:GLY:N	2.35	0.60
1:I:160:LYS:NZ	1:I:424:THR:HG21	2.17	0.60
1:K:160:LYS:NZ	1:K:424:THR:HG21	2.17	0.60
1:B:217:CYS:SG	1:B:218:ASP:N	2.74	0.60
1:C:160:LYS:NZ	1:C:424:THR:HG21	2.17	0.60
1:F:82:LEU:HD23	1:F:254:LEU:HG	1.84	0.60
1:K:217:CYS:SG	1:K:218:ASP:N	2.74	0.60
1:L:218:ASP:OD1	1:L:219:GLY:N	2.35	0.60
1:A:160:LYS:NZ	1:A:424:THR:HG21	2.17	0.60
1:A:441:ILE:HG23	1:A:441:ILE:O	2.00	0.60
1:E:218:ASP:OD1	1:E:219:GLY:N	2.35	0.60
1:K:218:ASP:OD1	1:K:219:GLY:N	2.35	0.60
1:D:218:ASP:OD1	1:D:219:GLY:N	2.35	0.59
1:I:109:VAL:O	1:I:109:VAL:HG12	2.01	0.59
1:L:82:LEU:HD23	1:L:254:LEU:HG	1.84	0.59
1:A:109:VAL:O	1:A:109:VAL:HG12	2.01	0.59
1:C:218:ASP:OD1	1:C:219:GLY:N	2.35	0.59
1:F:218:ASP:OD1	1:F:219:GLY:N	2.35	0.59
1:G:82:LEU:HD23	1:G:254:LEU:HG	1.84	0.59
1:H:160:LYS:NZ	1:H:424:THR:HG21	2.17	0.59
1:L:217:CYS:SG	1:L:218:ASP:N	2.74	0.59
1:D:160:LYS:NZ	1:D:424:THR:HG21	2.17	0.59
1:K:82:LEU:HD23	1:K:254:LEU:HG	1.84	0.59
1:E:160:LYS:HZ3	1:E:424:THR:HG21	1.66	0.59
1:F:162:ILE:HG23	1:F:171:ILE:CG1	2.21	0.59
1:I:315:ASP:HA	1:J:327:ASN:HB3	1.83	0.59
1:J:218:ASP:OD1	1:J:219:GLY:N	2.35	0.59
1:H:82:LEU:HD23	1:H:254:LEU:HG	1.84	0.59
1:L:160:LYS:NZ	1:L:424:THR:HG21	2.17	0.59
1:A:218:ASP:OD1	1:A:219:GLY:N	2.35	0.59
1:E:160:LYS:NZ	1:E:424:THR:HG21	2.17	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:82:LEU:HD23	1:J:254:LEU:HG	1.84	0.59
1:J:109:VAL:HG12	1:J:109:VAL:O	2.01	0.59
1:J:160:LYS:NZ	1:J:424:THR:HG21	2.17	0.59
1:G:218:ASP:OD1	1:G:219:GLY:N	2.35	0.59
1:I:82:LEU:HD23	1:I:254:LEU:HG	1.84	0.59
1:I:218:ASP:OD1	1:I:219:GLY:N	2.35	0.59
1:K:109:VAL:O	1:K:109:VAL:HG12	2.01	0.59
1:L:109:VAL:O	1:L:109:VAL:HG12	2.01	0.59
1:D:217:CYS:SG	1:D:218:ASP:N	2.74	0.59
1:D:373:LEU:O	1:D:374:ARG:HB2	2.03	0.58
1:E:373:LEU:O	1:E:374:ARG:HB2	2.03	0.58
1:F:160:LYS:NZ	1:F:424:THR:HG21	2.17	0.58
1:A:420:ASP:OD1	1:A:421:PRO:HD3	2.03	0.58
1:B:420:ASP:OD1	1:B:421:PRO:HD3	2.03	0.58
1:F:373:LEU:O	1:F:374:ARG:HB2	2.03	0.58
1:I:278:ARG:CG	1:I:282:ARG:NH2	2.59	0.58
1:K:295:ARG:NH1	1:K:295:ARG:O	2.36	0.58
1:B:253:TYR:OH	1:B:413:LYS:NZ	2.24	0.58
1:C:373:LEU:O	1:C:374:ARG:HB2	2.03	0.58
1:E:162:ILE:HG23	1:E:171:ILE:HG13	1.68	0.58
1:J:295:ARG:NH1	1:J:295:ARG:O	2.36	0.58
1:B:218:ASP:OD1	1:B:219:GLY:N	2.35	0.58
1:F:279:ALA:N	1:F:280:PRO:CD	2.66	0.58
1:G:373:LEU:O	1:G:374:ARG:HB2	2.03	0.58
1:A:160:LYS:HZ3	1:A:424:THR:HG21	1.67	0.58
1:L:295:ARG:NH1	1:L:295:ARG:O	2.37	0.58
1:I:295:ARG:O	1:I:295:ARG:NH1	2.37	0.58
1:K:420:ASP:OD1	1:K:421:PRO:HD3	2.03	0.58
1:A:379:ARG:HH11	1:L:398:ARG:HD2	1.69	0.58
1:B:373:LEU:O	1:B:374:ARG:HB2	2.03	0.58
1:I:398:ARG:HD2	1:J:379:ARG:HH11	1.69	0.58
1:J:420:ASP:OD1	1:J:421:PRO:HD3	2.03	0.58
1:K:398:ARG:HD2	1:L:379:ARG:HH11	1.69	0.58
1:A:162:ILE:HG23	1:A:171:ILE:CG1	2.24	0.58
1:D:251:ILE:HG22	1:D:252:GLY:N	2.19	0.58
1:E:295:ARG:NH1	1:E:295:ARG:O	2.36	0.58
1:E:420:ASP:OD1	1:E:421:PRO:HD3	2.03	0.58
1:F:217:CYS:SG	1:F:218:ASP:N	2.74	0.58
1:F:357:GLY:HA2	1:G:355:ASN:HB2	1.86	0.58
1:F:420:ASP:OD1	1:F:421:PRO:HD3	2.03	0.58
1:G:279:ALA:N	1:G:280:PRO:CD	2.66	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:398:ARG:HD2	1:H:379:ARG:HH11	1.69	0.58
1:I:165:LYS:HG2	1:I:166:ARG:HA	1.86	0.58
1:J:162:ILE:HG22	1:J:171:ILE:CB	2.34	0.58
1:J:357:GLY:HA2	1:K:355:ASN:HB2	1.86	0.58
1:A:398:ARG:HD2	1:B:379:ARG:HH11	1.69	0.58
1:B:398:ARG:HD2	1:C:379:ARG:HH11	1.69	0.58
1:D:420:ASP:OD1	1:D:421:PRO:HD3	2.03	0.58
1:G:420:ASP:OD1	1:G:421:PRO:HD3	2.03	0.58
1:H:251:ILE:HG22	1:H:252:GLY:N	2.19	0.58
1:H:373:LEU:O	1:H:374:ARG:HB2	2.03	0.58
1:A:253:TYR:OH	1:A:413:LYS:NZ	2.24	0.58
1:A:373:LEU:O	1:A:374:ARG:HB2	2.03	0.58
1:B:72:ILE:HD12	1:B:155:ARG:NH1	2.19	0.58
1:D:398:ARG:HD2	1:E:379:ARG:HH11	1.69	0.58
1:E:357:GLY:HA2	1:F:355:ASN:HB2	1.86	0.58
1:E:398:ARG:HD2	1:F:379:ARG:HH11	1.69	0.58
1:G:72:ILE:HD12	1:G:155:ARG:NH1	2.19	0.58
1:G:251:ILE:HG22	1:G:252:GLY:N	2.19	0.58
1:J:165:LYS:HG2	1:J:166:ARG:HA	1.86	0.58
1:J:398:ARG:HD2	1:K:379:ARG:HH11	1.69	0.58
1:J:512:ALA:HB1	1:J:513:ARG:HA	1.86	0.58
1:K:357:GLY:HA2	1:L:355:ASN:HB2	1.86	0.58
1:K:512:ALA:HB1	1:K:513:ARG:HA	1.86	0.58
1:L:512:ALA:HB1	1:L:513:ARG:HA	1.86	0.58
1:B:251:ILE:HG22	1:B:252:GLY:N	2.19	0.57
1:C:251:ILE:HG22	1:C:252:GLY:N	2.19	0.57
1:C:398:ARG:HD2	1:D:379:ARG:HH11	1.69	0.57
1:C:420:ASP:OD1	1:C:421:PRO:HD3	2.03	0.57
1:D:295:ARG:NH1	1:D:295:ARG:O	2.36	0.57
1:E:253:TYR:HH	1:E:413:LYS:HZ3	1.46	0.57
1:H:295:ARG:NH1	1:H:295:ARG:O	2.36	0.57
1:H:420:ASP:OD1	1:H:421:PRO:HD3	2.03	0.57
1:A:262:ASN:HD22	1:C:320:LYS:HG3	1.69	0.57
1:A:295:ARG:NH1	1:A:295:ARG:O	2.36	0.57
1:A:512:ALA:HB1	1:A:513:ARG:HA	1.86	0.57
1:C:75:LEU:HG	1:C:79:TYR:CE2	2.39	0.57
1:E:75:LEU:HG	1:E:79:TYR:CE2	2.39	0.57
1:F:295:ARG:NH1	1:F:295:ARG:O	2.37	0.57
1:I:357:GLY:HA2	1:J:355:ASN:HB2	1.86	0.57
1:K:162:ILE:HG22	1:K:171:ILE:CB	2.34	0.57
1:A:75:LEU:HG	1:A:79:TYR:CE2	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:72:ILE:HD12	1:E:155:ARG:NH1	2.19	0.57
1:F:251:ILE:HG22	1:F:252:GLY:N	2.19	0.57
1:H:75:LEU:HG	1:H:79:TYR:CE2	2.39	0.57
1:I:75:LEU:HG	1:I:79:TYR:CE2	2.39	0.57
1:K:373:LEU:O	1:K:374:ARG:CB	2.53	0.57
1:A:281:ASP:O	1:B:331:THR:OG1	2.23	0.57
1:B:320:LYS:HG3	1:L:262:ASN:HD22	1.69	0.57
1:C:165:LYS:HG2	1:C:166:ARG:HA	1.86	0.57
1:C:402:THR:O	1:C:405:LYS:HB2	2.05	0.57
1:D:72:ILE:HD12	1:D:155:ARG:NH1	2.19	0.57
1:G:162:ILE:HG22	1:G:171:ILE:CB	2.34	0.57
1:G:357:GLY:HA2	1:H:355:ASN:HB2	1.86	0.57
1:H:162:ILE:HG22	1:H:171:ILE:CB	2.34	0.57
1:I:420:ASP:OD1	1:I:421:PRO:HD3	2.03	0.57
1:J:373:LEU:O	1:J:374:ARG:CB	2.53	0.57
1:L:72:ILE:HD12	1:L:155:ARG:NH1	2.19	0.57
1:B:165:LYS:HG2	1:B:166:ARG:HA	1.86	0.57
1:C:373:LEU:O	1:C:374:ARG:CB	2.53	0.57
1:D:165:LYS:HG2	1:D:166:ARG:HA	1.86	0.57
1:D:373:LEU:O	1:D:374:ARG:CB	2.53	0.57
1:E:262:ASN:HD22	1:G:320:LYS:HG3	1.69	0.57
1:I:373:LEU:O	1:I:374:ARG:HB2	2.03	0.57
1:I:402:THR:O	1:I:405:LYS:HB2	2.05	0.57
1:I:512:ALA:HB1	1:I:513:ARG:HA	1.86	0.57
1:K:251:ILE:HG22	1:K:252:GLY:N	2.19	0.57
1:C:162:ILE:HG22	1:C:171:ILE:CB	2.34	0.57
1:C:262:ASN:HD22	1:E:320:LYS:HG3	1.69	0.57
1:D:262:ASN:HD22	1:F:320:LYS:HG3	1.69	0.57
1:F:72:ILE:HD12	1:F:155:ARG:NH1	2.19	0.57
1:G:295:ARG:NH1	1:G:295:ARG:O	2.36	0.57
1:H:279:ALA:N	1:H:280:PRO:CD	2.66	0.57
1:L:278:ARG:CG	1:L:282:ARG:NH2	2.59	0.57
1:A:278:ARG:CG	1:A:282:ARG:NH2	2.59	0.57
1:B:75:LEU:HG	1:B:79:TYR:CE2	2.39	0.57
1:D:75:LEU:HG	1:D:79:TYR:CE2	2.39	0.57
1:D:162:ILE:HG22	1:D:171:ILE:CB	2.34	0.57
1:D:357:GLY:HA2	1:E:355:ASN:HB2	1.86	0.57
1:E:373:LEU:O	1:E:374:ARG:CB	2.53	0.57
1:G:75:LEU:HG	1:G:79:TYR:CE2	2.39	0.57
1:H:165:LYS:HG2	1:H:166:ARG:HA	1.86	0.57
1:I:162:ILE:HG22	1:I:171:ILE:CB	2.34	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:373:LEU:O	1:I:374:ARG:CB	2.53	0.57
1:L:373:LEU:O	1:L:374:ARG:CB	2.53	0.57
1:A:355:ASN:HB2	1:L:357:GLY:HA2	1.86	0.57
1:H:398:ARG:HD2	1:I:379:ARG:HH11	1.69	0.57
1:I:72:ILE:HD12	1:I:155:ARG:NH1	2.19	0.57
1:J:262:ASN:HD22	1:L:320:LYS:HG3	1.69	0.57
1:K:75:LEU:HG	1:K:79:TYR:CE2	2.39	0.57
1:L:75:LEU:HG	1:L:79:TYR:CE2	2.39	0.57
1:L:420:ASP:OD1	1:L:421:PRO:HD3	2.03	0.57
1:B:373:LEU:O	1:B:374:ARG:CB	2.53	0.57
1:C:72:ILE:HD12	1:C:155:ARG:NH1	2.19	0.57
1:C:162:ILE:HG23	1:C:171:ILE:HG13	1.67	0.57
1:E:251:ILE:HG22	1:E:252:GLY:N	2.19	0.57
1:F:262:ASN:HD22	1:H:320:LYS:HG3	1.69	0.57
1:J:251:ILE:HG22	1:J:252:GLY:N	2.19	0.57
1:L:162:ILE:HG22	1:L:171:ILE:CB	2.34	0.57
1:C:295:ARG:NH1	1:C:295:ARG:O	2.37	0.57
1:D:402:THR:O	1:D:405:LYS:HB2	2.05	0.57
1:E:165:LYS:HG2	1:E:166:ARG:HA	1.86	0.57
1:F:398:ARG:HD2	1:G:379:ARG:HH11	1.69	0.57
1:F:402:THR:O	1:F:405:LYS:HB2	2.05	0.57
1:H:373:LEU:O	1:H:374:ARG:CB	2.53	0.57
1:H:402:THR:O	1:H:405:LYS:HB2	2.05	0.57
1:I:251:ILE:HG22	1:I:252:GLY:N	2.19	0.57
1:J:75:LEU:HG	1:J:79:TYR:CE2	2.39	0.57
1:K:72:ILE:HD12	1:K:155:ARG:NH1	2.19	0.57
1:L:402:THR:O	1:L:405:LYS:HB2	2.05	0.57
1:A:165:LYS:HG2	1:A:166:ARG:HA	1.86	0.56
1:B:162:ILE:HG22	1:B:171:ILE:CB	2.34	0.56
1:B:295:ARG:NH1	1:B:295:ARG:O	2.36	0.56
1:B:512:ALA:HB1	1:B:513:ARG:HA	1.86	0.56
1:E:162:ILE:HG22	1:E:171:ILE:CB	2.34	0.56
1:E:512:ALA:HB1	1:E:513:ARG:HA	1.86	0.56
1:F:164:PRO:HB3	1:F:218:ASP:HB2	1.87	0.56
1:F:373:LEU:O	1:F:374:ARG:CB	2.53	0.56
1:G:240:SER:O	1:G:242:LEU:N	2.37	0.56
1:H:164:PRO:HB3	1:H:218:ASP:HB2	1.87	0.56
1:H:262:ASN:HD22	1:J:320:LYS:HG3	1.69	0.56
1:I:262:ASN:HD22	1:K:320:LYS:HG3	1.69	0.56
1:J:373:LEU:O	1:J:374:ARG:HB2	2.03	0.56
1:K:165:LYS:HG2	1:K:166:ARG:HA	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:251:ILE:HG22	1:A:252:GLY:N	2.19	0.56
1:A:320:LYS:HG3	1:K:262:ASN:HD22	1.69	0.56
1:F:240:SER:O	1:F:242:LEU:N	2.37	0.56
1:G:94:GLU:HG2	1:G:375:VAL:HG23	1.87	0.56
1:G:164:PRO:HB3	1:G:218:ASP:HB2	1.88	0.56
1:G:373:LEU:O	1:G:374:ARG:CB	2.53	0.56
1:I:164:PRO:HB3	1:I:218:ASP:HB2	1.87	0.56
1:J:164:PRO:HB3	1:J:218:ASP:HB2	1.88	0.56
1:K:373:LEU:O	1:K:374:ARG:HB2	2.03	0.56
1:K:402:THR:O	1:K:405:LYS:HB2	2.05	0.56
1:A:162:ILE:HG22	1:A:171:ILE:CB	2.35	0.56
1:A:373:LEU:O	1:A:374:ARG:CB	2.53	0.56
1:B:259:LYS:HZ1	1:D:316:ALA:CA	2.17	0.56
1:B:402:THR:O	1:B:405:LYS:HB2	2.05	0.56
1:D:161:ILE:O	1:D:162:ILE:HG23	2.06	0.56
1:D:512:ALA:HB1	1:D:513:ARG:HA	1.86	0.56
1:E:164:PRO:HB3	1:E:218:ASP:HB2	1.87	0.56
1:E:259:LYS:HZ3	1:G:316:ALA:CA	2.15	0.56
1:F:75:LEU:HG	1:F:79:TYR:CE2	2.39	0.56
1:F:165:LYS:HG2	1:F:166:ARG:HA	1.86	0.56
1:F:259:LYS:HZ1	1:H:316:ALA:CA	2.19	0.56
1:F:278:ARG:CG	1:F:282:ARG:NH2	2.59	0.56
1:F:512:ALA:HB1	1:F:513:ARG:HA	1.86	0.56
1:I:156:ILE:HD11	1:I:158:PHE:CZ	2.41	0.56
1:I:259:LYS:HZ1	1:K:316:ALA:CA	2.19	0.56
1:J:72:ILE:HD12	1:J:155:ARG:NH1	2.19	0.56
1:K:164:PRO:HB3	1:K:218:ASP:HB2	1.87	0.56
1:K:278:ARG:CG	1:K:282:ARG:NH2	2.59	0.56
1:L:251:ILE:HG22	1:L:252:GLY:N	2.19	0.56
1:L:279:ALA:N	1:L:280:PRO:CD	2.66	0.56
1:A:402:THR:O	1:A:405:LYS:HB2	2.05	0.56
1:B:156:ILE:HD11	1:B:158:PHE:CZ	2.41	0.56
1:C:156:ILE:HD11	1:C:158:PHE:CZ	2.41	0.56
1:C:357:GLY:HA2	1:D:355:ASN:HB2	1.86	0.56
1:E:156:ILE:HD11	1:E:158:PHE:CZ	2.41	0.56
1:F:94:GLU:HG2	1:F:375:VAL:HG23	1.87	0.56
1:G:161:ILE:O	1:G:162:ILE:HG23	2.06	0.56
1:G:402:THR:O	1:G:405:LYS:HB2	2.05	0.56
1:H:72:ILE:HD12	1:H:155:ARG:NH1	2.19	0.56
1:H:512:ALA:HB1	1:H:513:ARG:HA	1.86	0.56
1:I:161:ILE:O	1:I:162:ILE:HG23	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:161:ILE:O	1:J:162:ILE:HG23	2.06	0.56
1:L:161:ILE:O	1:L:162:ILE:HG23	2.06	0.56
1:B:262:ASN:HD22	1:D:320:LYS:HG3	1.69	0.56
1:D:156:ILE:HD11	1:D:158:PHE:CZ	2.41	0.56
1:F:156:ILE:HD11	1:F:158:PHE:CZ	2.41	0.56
1:G:262:ASN:HD22	1:I:320:LYS:HG3	1.69	0.56
1:H:357:GLY:HA2	1:I:355:ASN:HB2	1.86	0.56
1:J:240:SER:O	1:J:242:LEU:N	2.37	0.56
1:A:357:GLY:HA2	1:B:355:ASN:HB2	1.86	0.56
1:E:158:PHE:HD1	1:E:176:ARG:HA	1.71	0.56
1:F:162:ILE:HG22	1:F:171:ILE:CB	2.34	0.56
1:G:86:TYR:CD1	1:G:87:GLU:N	2.74	0.56
1:G:165:LYS:HG2	1:G:166:ARG:HA	1.86	0.56
1:I:158:PHE:HD1	1:I:176:ARG:HA	1.71	0.56
1:J:86:TYR:CD1	1:J:87:GLU:N	2.74	0.56
1:K:86:TYR:CD1	1:K:87:GLU:N	2.74	0.56
1:L:164:PRO:HB3	1:L:218:ASP:HB2	1.87	0.56
1:L:165:LYS:HG2	1:L:166:ARG:HA	1.86	0.56
1:L:373:LEU:O	1:L:374:ARG:HB2	2.03	0.56
1:A:72:ILE:HD12	1:A:155:ARG:NH1	2.19	0.56
1:A:94:GLU:HG2	1:A:375:VAL:HG23	1.87	0.56
1:B:164:PRO:HB3	1:B:218:ASP:HB2	1.87	0.56
1:B:278:ARG:CG	1:B:282:ARG:NH2	2.59	0.56
1:E:86:TYR:CD1	1:E:87:GLU:N	2.74	0.56
1:E:161:ILE:O	1:E:162:ILE:HG23	2.06	0.56
1:F:161:ILE:O	1:F:162:ILE:HG23	2.06	0.56
1:G:156:ILE:HD11	1:G:158:PHE:CZ	2.41	0.56
1:H:86:TYR:CD1	1:H:87:GLU:N	2.74	0.56
1:H:156:ILE:HD11	1:H:158:PHE:CZ	2.41	0.56
1:H:240:SER:O	1:H:242:LEU:N	2.37	0.56
1:I:86:TYR:CD1	1:I:87:GLU:N	2.74	0.56
1:I:120:PRO:HA	1:I:123:LYS:HE2	1.88	0.56
1:J:120:PRO:HA	1:J:123:LYS:HE2	1.88	0.56
1:K:94:GLU:HG2	1:K:375:VAL:HG23	1.87	0.56
1:K:374:ARG:NH1	1:K:406:PHE:HE1	2.04	0.56
1:L:94:GLU:HG2	1:L:375:VAL:HG23	1.87	0.56
1:L:158:PHE:HD1	1:L:176:ARG:HA	1.71	0.56
1:A:164:PRO:HB3	1:A:218:ASP:HB2	1.88	0.56
1:A:374:ARG:NH1	1:A:406:PHE:HE1	2.04	0.56
1:B:94:GLU:HG2	1:B:375:VAL:HG23	1.87	0.56
1:B:158:PHE:HD1	1:B:176:ARG:HA	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:158:PHE:HD1	1:C:176:ARG:HA	1.71	0.56
1:D:160:LYS:HZ3	1:D:424:THR:HG21	1.70	0.56
1:G:158:PHE:HD1	1:G:176:ARG:HA	1.71	0.56
1:G:512:ALA:HB1	1:G:513:ARG:HA	1.86	0.56
1:I:279:ALA:N	1:I:280:PRO:CD	2.66	0.56
1:K:120:PRO:HA	1:K:123:LYS:HE2	1.88	0.56
1:K:281:ASP:O	1:L:331:THR:OG1	2.23	0.56
1:A:86:TYR:CD1	1:A:87:GLU:N	2.74	0.56
1:C:161:ILE:O	1:C:162:ILE:HG23	2.06	0.56
1:C:164:PRO:HB3	1:C:218:ASP:HB2	1.87	0.56
1:C:279:ALA:N	1:C:280:PRO:CD	2.66	0.56
1:D:113:LEU:CD1	1:D:123:LYS:O	2.54	0.56
1:D:164:PRO:HB3	1:D:218:ASP:HB2	1.88	0.56
1:E:240:SER:O	1:E:242:LEU:N	2.37	0.56
1:F:86:TYR:CD1	1:F:87:GLU:N	2.74	0.56
1:G:160:LYS:HZ3	1:G:424:THR:HG21	1.70	0.56
1:I:113:LEU:CD1	1:I:123:LYS:O	2.54	0.56
1:J:402:THR:O	1:J:405:LYS:HB2	2.05	0.56
1:K:158:PHE:HD1	1:K:176:ARG:HA	1.71	0.56
1:L:120:PRO:HA	1:L:123:LYS:HE2	1.88	0.56
1:A:109:VAL:HG11	1:A:418:PHE:CE2	2.41	0.56
1:A:279:ALA:N	1:A:280:PRO:CD	2.66	0.56
1:F:113:LEU:CD1	1:F:123:LYS:O	2.54	0.56
1:F:158:PHE:HD1	1:F:176:ARG:HA	1.71	0.56
1:G:113:LEU:CD1	1:G:123:LYS:O	2.54	0.56
1:H:120:PRO:HA	1:H:123:LYS:HE2	1.88	0.56
1:H:154:SER:C	1:H:155:ARG:HG3	2.26	0.56
1:H:161:ILE:O	1:H:162:ILE:HG23	2.06	0.56
1:I:154:SER:C	1:I:155:ARG:HG3	2.26	0.56
1:B:109:VAL:HG11	1:B:418:PHE:CE2	2.41	0.55
1:B:113:LEU:CD1	1:B:123:LYS:O	2.54	0.55
1:B:357:GLY:HA2	1:C:355:ASN:HB2	1.86	0.55
1:C:512:ALA:HB1	1:C:513:ARG:HA	1.86	0.55
1:D:94:GLU:HG2	1:D:375:VAL:HG23	1.87	0.55
1:E:402:THR:O	1:E:405:LYS:HB2	2.05	0.55
1:G:154:SER:C	1:G:155:ARG:HG3	2.26	0.55
1:H:158:PHE:HD1	1:H:176:ARG:HA	1.71	0.55
1:J:154:SER:C	1:J:155:ARG:HG3	2.26	0.55
1:L:86:TYR:CD1	1:L:87:GLU:N	2.74	0.55
1:L:156:ILE:HD11	1:L:158:PHE:CZ	2.41	0.55
1:A:357:GLY:HA2	1:A:358:ASN:CB	2.29	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:374:ARG:NH1	1:B:406:PHE:HE1	2.04	0.55
1:C:109:VAL:HG11	1:C:418:PHE:CE2	2.41	0.55
1:C:278:ARG:CG	1:C:282:ARG:NH2	2.59	0.55
1:E:113:LEU:CD1	1:E:123:LYS:O	2.54	0.55
1:H:113:LEU:CD1	1:H:123:LYS:O	2.54	0.55
1:K:109:VAL:HG11	1:K:418:PHE:CE2	2.41	0.55
1:L:374:ARG:NH1	1:L:406:PHE:HE1	2.04	0.55
1:C:86:TYR:CD1	1:C:87:GLU:N	2.74	0.55
1:F:154:SER:C	1:F:155:ARG:HG3	2.26	0.55
1:G:120:PRO:HA	1:G:123:LYS:HE2	1.88	0.55
1:I:374:ARG:NH1	1:I:406:PHE:HE1	2.04	0.55
1:J:147:PHE:HD2	1:J:414:PHE:CD2	2.24	0.55
1:A:113:LEU:CD1	1:A:123:LYS:O	2.54	0.55
1:A:120:PRO:HA	1:A:123:LYS:HE2	1.88	0.55
1:A:156:ILE:HD11	1:A:158:PHE:CZ	2.41	0.55
1:B:161:ILE:O	1:B:162:ILE:HG23	2.06	0.55
1:C:94:GLU:HG2	1:C:375:VAL:HG23	1.87	0.55
1:G:278:ARG:CG	1:G:282:ARG:NH2	2.59	0.55
1:J:94:GLU:HG2	1:J:375:VAL:HG23	1.87	0.55
1:K:154:SER:C	1:K:155:ARG:HG3	2.26	0.55
1:K:161:ILE:O	1:K:162:ILE:HG23	2.06	0.55
1:C:113:LEU:CD1	1:C:123:LYS:O	2.54	0.55
1:C:374:ARG:NH1	1:C:406:PHE:HE1	2.04	0.55
1:E:281:ASP:O	1:F:331:THR:OG1	2.23	0.55
1:F:120:PRO:HA	1:F:123:LYS:HE2	1.88	0.55
1:H:94:GLU:HG2	1:H:375:VAL:HG23	1.87	0.55
1:I:94:GLU:HG2	1:I:375:VAL:HG23	1.87	0.55
1:J:156:ILE:HD11	1:J:158:PHE:CZ	2.41	0.55
1:K:113:LEU:CD1	1:K:123:LYS:O	2.54	0.55
1:K:156:ILE:HD11	1:K:158:PHE:CZ	2.41	0.55
1:B:120:PRO:HA	1:B:123:LYS:HE2	1.88	0.55
1:C:147:PHE:HD2	1:C:414:PHE:CD2	2.24	0.55
1:D:109:VAL:HG11	1:D:418:PHE:CE2	2.41	0.55
1:G:109:VAL:HG11	1:G:418:PHE:CE2	2.41	0.55
1:H:160:LYS:HZ3	1:H:424:THR:HG21	1.71	0.55
1:J:158:PHE:HD1	1:J:176:ARG:HA	1.71	0.55
1:J:374:ARG:NH1	1:J:406:PHE:HE1	2.04	0.55
1:K:279:ALA:N	1:K:280:PRO:CD	2.66	0.55
1:B:279:ALA:N	1:B:280:PRO:CD	2.66	0.55
1:C:154:SER:C	1:C:155:ARG:HG3	2.26	0.55
1:D:158:PHE:HD1	1:D:176:ARG:HA	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:120:PRO:HA	1:E:123:LYS:HE2	1.88	0.55
1:I:160:LYS:HZ3	1:I:424:THR:HG21	1.71	0.55
1:K:240:SER:O	1:K:242:LEU:N	2.37	0.55
1:L:109:VAL:HG11	1:L:418:PHE:CE2	2.41	0.55
1:L:113:LEU:CD1	1:L:123:LYS:O	2.54	0.55
1:L:147:PHE:HD2	1:L:414:PHE:CD2	2.24	0.55
1:A:161:ILE:O	1:A:162:ILE:HG23	2.07	0.55
1:C:120:PRO:HA	1:C:123:LYS:HE2	1.88	0.55
1:D:86:TYR:CD1	1:D:87:GLU:N	2.74	0.55
1:D:120:PRO:HA	1:D:123:LYS:HE2	1.88	0.55
1:E:154:SER:C	1:E:155:ARG:HG3	2.26	0.55
1:E:264:LEU:HD23	1:E:265:LYS:HE2	1.89	0.55
1:E:364:TRP:HH2	1:F:366:ARG:HE	1.55	0.55
1:G:281:ASP:O	1:H:331:THR:OG1	2.23	0.55
1:J:279:ALA:N	1:J:280:PRO:CD	2.66	0.55
1:K:147:PHE:HD2	1:K:414:PHE:CD2	2.24	0.55
1:A:366:ARG:HE	1:L:364:TRP:HH2	1.55	0.55
1:C:364:TRP:HH2	1:D:366:ARG:HE	1.55	0.55
1:D:154:SER:C	1:D:155:ARG:HG3	2.26	0.55
1:D:374:ARG:NH1	1:D:406:PHE:HE1	2.04	0.55
1:F:264:LEU:HD23	1:F:265:LYS:HE2	1.89	0.55
1:I:147:PHE:HD2	1:I:414:PHE:CD2	2.24	0.55
1:I:376:PRO:HG3	1:I:403:PHE:HB2	1.89	0.55
1:J:278:ARG:CG	1:J:282:ARG:NH2	2.59	0.55
1:L:154:SER:C	1:L:155:ARG:HG3	2.26	0.55
1:A:147:PHE:HD2	1:A:414:PHE:CD2	2.24	0.55
1:A:331:THR:OG1	1:L:281:ASP:O	2.23	0.55
1:A:364:TRP:HH2	1:B:366:ARG:HE	1.55	0.55
1:D:264:LEU:HD23	1:D:265:LYS:HE2	1.89	0.55
1:E:94:GLU:HG2	1:E:375:VAL:HG23	1.87	0.55
1:G:364:TRP:HH2	1:H:366:ARG:HE	1.55	0.55
1:H:278:ARG:CG	1:H:282:ARG:NH2	2.59	0.55
1:H:374:ARG:NH1	1:H:406:PHE:HE1	2.04	0.55
1:J:113:LEU:CD1	1:J:123:LYS:O	2.54	0.55
1:A:158:PHE:HD1	1:A:176:ARG:HA	1.71	0.54
1:E:109:VAL:HG11	1:E:418:PHE:CE2	2.41	0.54
1:G:264:LEU:HD23	1:G:265:LYS:HE2	1.89	0.54
1:H:147:PHE:HD2	1:H:414:PHE:CD2	2.24	0.54
1:I:240:SER:O	1:I:242:LEU:N	2.37	0.54
1:J:364:TRP:HH2	1:K:366:ARG:HE	1.55	0.54
1:J:376:PRO:HG3	1:J:403:PHE:HB2	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:364:TRP:HH2	1:L:366:ARG:HE	1.55	0.54
1:B:86:TYR:CD1	1:B:87:GLU:N	2.74	0.54
1:B:154:SER:C	1:B:155:ARG:HG3	2.26	0.54
1:B:364:TRP:HH2	1:C:366:ARG:HE	1.55	0.54
1:C:264:LEU:HD23	1:C:265:LYS:HE2	1.89	0.54
1:F:364:TRP:HH2	1:G:366:ARG:HE	1.55	0.54
1:G:374:ARG:NH1	1:G:406:PHE:HE1	2.04	0.54
1:H:109:VAL:HG11	1:H:418:PHE:CE2	2.41	0.54
1:I:211:ALA:O	1:I:212:HIS:HB2	2.08	0.54
1:A:351:PRO:HD2	1:B:349:THR:HG21	1.90	0.54
1:D:240:SER:O	1:D:242:LEU:N	2.37	0.54
1:E:351:PRO:HD2	1:F:349:THR:HG21	1.90	0.54
1:F:109:VAL:HG11	1:F:418:PHE:CE2	2.41	0.54
1:G:211:ALA:O	1:G:212:HIS:HB2	2.08	0.54
1:H:376:PRO:HG3	1:H:403:PHE:HB2	1.89	0.54
1:I:364:TRP:HH2	1:J:366:ARG:HE	1.55	0.54
1:J:211:ALA:O	1:J:212:HIS:HB2	2.08	0.54
1:K:264:LEU:HD23	1:K:265:LYS:HE2	1.89	0.54
1:A:349:THR:HG21	1:L:351:PRO:HD2	1.90	0.54
1:B:147:PHE:HD2	1:B:414:PHE:CD2	2.24	0.54
1:B:351:PRO:HD2	1:C:349:THR:HG21	1.90	0.54
1:D:211:ALA:O	1:D:212:HIS:HB2	2.08	0.54
1:E:374:ARG:NH1	1:E:406:PHE:HE1	2.04	0.54
1:F:351:PRO:HD2	1:G:349:THR:HG21	1.90	0.54
1:G:147:PHE:HD2	1:G:414:PHE:CD2	2.24	0.54
1:C:211:ALA:O	1:C:212:HIS:HB2	2.08	0.54
1:D:253:TYR:OH	1:D:413:LYS:NZ	2.24	0.54
1:D:351:PRO:HD2	1:E:349:THR:HG21	1.90	0.54
1:D:364:TRP:HH2	1:E:366:ARG:HE	1.55	0.54
1:F:147:PHE:HD2	1:F:414:PHE:CD2	2.24	0.54
1:H:211:ALA:O	1:H:212:HIS:HB2	2.08	0.54
1:H:264:LEU:HD23	1:H:265:LYS:HE2	1.89	0.54
1:I:357:GLY:HA2	1:I:358:ASN:CB	2.29	0.54
1:L:264:LEU:HD23	1:L:265:LYS:HE2	1.89	0.54
1:D:147:PHE:HD2	1:D:414:PHE:CD2	2.24	0.54
1:D:281:ASP:O	1:E:331:THR:OG1	2.23	0.54
1:E:147:PHE:HD2	1:E:414:PHE:CD2	2.24	0.54
1:E:211:ALA:O	1:E:212:HIS:HB2	2.08	0.54
1:I:109:VAL:HG11	1:I:418:PHE:CE2	2.41	0.54
1:J:109:VAL:HG11	1:J:418:PHE:CE2	2.41	0.54
1:B:211:ALA:O	1:B:212:HIS:HB2	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:253:TYR:HH	1:B:413:LYS:HZ3	1.54	0.54
1:E:277:THR:O	1:E:278:ARG:HB2	2.08	0.54
1:F:374:ARG:NH1	1:F:406:PHE:HE1	2.04	0.54
1:J:281:ASP:O	1:K:331:THR:OG1	2.23	0.54
1:K:211:ALA:O	1:K:212:HIS:HB2	2.08	0.54
1:K:376:PRO:HG3	1:K:403:PHE:HB2	1.89	0.54
1:A:154:SER:C	1:A:155:ARG:HG3	2.26	0.54
1:C:86:TYR:O	1:C:87:GLU:CB	2.54	0.54
1:C:351:PRO:HD2	1:D:349:THR:HG21	1.90	0.54
1:D:86:TYR:O	1:D:87:GLU:CB	2.54	0.54
1:D:277:THR:O	1:D:278:ARG:HB2	2.08	0.54
1:E:86:TYR:O	1:E:87:GLU:CB	2.54	0.54
1:F:86:TYR:O	1:F:87:GLU:CB	2.54	0.54
1:F:211:ALA:O	1:F:212:HIS:HB2	2.08	0.54
1:G:351:PRO:HD2	1:H:349:THR:HG21	1.90	0.54
1:H:364:TRP:HH2	1:I:366:ARG:HE	1.55	0.54
1:J:277:THR:O	1:J:278:ARG:HB2	2.08	0.54
1:K:351:PRO:HD2	1:L:349:THR:HG21	1.90	0.54
1:L:277:THR:O	1:L:278:ARG:HB2	2.08	0.54
1:B:264:LEU:HD23	1:B:265:LYS:HE2	1.89	0.54
1:B:478:GLY:O	1:C:505:ILE:HD11	2.08	0.54
1:E:478:GLY:O	1:F:505:ILE:HD11	2.08	0.54
1:G:376:PRO:HG3	1:G:403:PHE:HB2	1.89	0.54
1:J:264:LEU:HD23	1:J:265:LYS:HE2	1.89	0.54
1:K:160:LYS:HZ3	1:K:424:THR:HG21	1.71	0.54
1:L:376:PRO:HG3	1:L:403:PHE:HB2	1.89	0.54
1:C:240:SER:O	1:C:242:LEU:N	2.37	0.54
1:D:478:GLY:O	1:E:505:ILE:HD11	2.08	0.54
1:F:478:GLY:O	1:G:505:ILE:HD11	2.08	0.53
1:G:86:TYR:O	1:G:87:GLU:CB	2.54	0.53
1:G:478:GLY:O	1:H:505:ILE:HD11	2.08	0.53
1:I:277:THR:O	1:I:278:ARG:HB2	2.08	0.53
1:J:351:PRO:HD2	1:K:349:THR:HG21	1.90	0.53
1:L:211:ALA:O	1:L:212:HIS:HB2	2.08	0.53
1:L:240:SER:O	1:L:242:LEU:N	2.37	0.53
1:D:376:PRO:HG3	1:D:403:PHE:HB2	1.89	0.53
1:F:376:PRO:HG3	1:F:403:PHE:HB2	1.89	0.53
1:H:351:PRO:HD2	1:I:349:THR:HG21	1.90	0.53
1:I:351:PRO:HD2	1:J:349:THR:HG21	1.90	0.53
1:A:264:LEU:HD23	1:A:265:LYS:HE2	1.89	0.53
1:B:277:THR:O	1:B:278:ARG:HB2	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:376:PRO:HG3	1:A:403:PHE:HB2	1.89	0.53
1:A:478:GLY:O	1:B:505:ILE:HD11	2.08	0.53
1:E:104:ASP:O	1:E:105:ASP:HB3	2.09	0.53
1:E:278:ARG:CG	1:E:282:ARG:NH2	2.59	0.53
1:F:104:ASP:O	1:F:105:ASP:HB3	2.09	0.53
1:H:441:ILE:HB	1:H:444:ILE:HG12	1.91	0.53
1:A:505:ILE:HD11	1:L:478:GLY:O	2.08	0.53
1:B:240:SER:O	1:B:242:LEU:N	2.37	0.53
1:B:357:GLY:HA2	1:B:358:ASN:CB	2.29	0.53
1:C:376:PRO:HG3	1:C:403:PHE:HB2	1.89	0.53
1:H:104:ASP:O	1:H:105:ASP:HB3	2.09	0.53
1:I:478:GLY:O	1:J:505:ILE:HD11	2.08	0.53
1:D:104:ASP:O	1:D:105:ASP:HB3	2.09	0.53
1:F:281:ASP:O	1:G:331:THR:OG1	2.23	0.53
1:G:104:ASP:O	1:G:105:ASP:HB3	2.09	0.53
1:G:277:THR:O	1:G:278:ARG:HB2	2.08	0.53
1:G:441:ILE:HB	1:G:444:ILE:HG12	1.91	0.53
1:I:104:ASP:O	1:I:105:ASP:HB3	2.09	0.53
1:K:478:GLY:O	1:L:505:ILE:HD11	2.08	0.53
1:L:87:GLU:HG3	1:L:88:VAL:N	2.24	0.53
1:A:161:ILE:O	1:A:162:ILE:CG2	2.57	0.53
1:A:277:THR:O	1:A:278:ARG:HB2	2.08	0.53
1:E:376:PRO:HG3	1:E:403:PHE:HB2	1.89	0.53
1:F:277:THR:O	1:F:278:ARG:HB2	2.08	0.53
1:J:104:ASP:O	1:J:105:ASP:HB3	2.09	0.53
1:K:87:GLU:HG3	1:K:88:VAL:N	2.24	0.53
1:A:87:GLU:HG3	1:A:88:VAL:N	2.24	0.53
1:A:211:ALA:O	1:A:212:HIS:HB2	2.08	0.53
1:C:104:ASP:O	1:C:105:ASP:HB3	2.09	0.53
1:I:264:LEU:HD23	1:I:265:LYS:HE2	1.89	0.53
1:J:149:ARG:O	1:J:153:ASP:CG	2.48	0.53
1:K:104:ASP:O	1:K:105:ASP:HB3	2.09	0.53
1:K:441:ILE:HB	1:K:444:ILE:HG12	1.91	0.53
1:A:240:SER:O	1:A:242:LEU:N	2.37	0.53
1:D:315:ASP:HA	1:E:327:ASN:CB	2.39	0.53
1:E:279:ALA:N	1:E:280:PRO:CD	2.66	0.53
1:E:441:ILE:HB	1:E:444:ILE:HG12	1.91	0.53
1:F:149:ARG:O	1:F:153:ASP:CG	2.48	0.53
1:H:149:ARG:O	1:H:153:ASP:CG	2.48	0.53
1:J:87:GLU:HG3	1:J:88:VAL:N	2.24	0.53
1:K:149:ARG:O	1:K:153:ASP:CG	2.48	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:376:PRO:HG3	1:B:403:PHE:HB2	1.89	0.53
1:C:277:THR:O	1:C:278:ARG:HB2	2.08	0.53
1:I:149:ARG:O	1:I:153:ASP:CG	2.48	0.53
1:K:277:THR:O	1:K:278:ARG:HB2	2.08	0.53
1:L:104:ASP:O	1:L:105:ASP:HB3	2.09	0.53
1:A:104:ASP:O	1:A:105:ASP:HB3	2.09	0.52
1:A:501:GLU:OE1	1:L:482:SER:HB2	2.10	0.52
1:B:104:ASP:O	1:B:105:ASP:HB3	2.09	0.52
1:B:482:SER:HB2	1:C:501:GLU:OE1	2.10	0.52
1:C:242:LEU:HB2	1:C:251:ILE:O	2.10	0.52
1:D:87:GLU:HG3	1:D:88:VAL:N	2.24	0.52
1:E:149:ARG:O	1:E:153:ASP:CG	2.48	0.52
1:I:242:LEU:HB2	1:I:251:ILE:O	2.10	0.52
1:J:261:ALA:HA	1:J:369:LEU:HD12	1.91	0.52
1:J:441:ILE:HB	1:J:444:ILE:HG12	1.91	0.52
1:J:482:SER:HB2	1:K:501:GLU:OE1	2.09	0.52
1:C:149:ARG:O	1:C:153:ASP:CG	2.48	0.52
1:C:161:ILE:O	1:C:162:ILE:CG2	2.58	0.52
1:C:478:GLY:O	1:D:505:ILE:HD11	2.08	0.52
1:C:482:SER:HB2	1:D:501:GLU:OE1	2.10	0.52
1:D:279:ALA:N	1:D:280:PRO:CD	2.66	0.52
1:L:75:LEU:CD2	1:L:251:ILE:CD1	2.86	0.52
1:A:242:LEU:HB2	1:A:251:ILE:O	2.10	0.52
1:B:149:ARG:O	1:B:153:ASP:CG	2.48	0.52
1:D:149:ARG:O	1:D:153:ASP:CG	2.48	0.52
1:D:278:ARG:CG	1:D:282:ARG:NH2	2.59	0.52
1:D:441:ILE:HB	1:D:444:ILE:HG12	1.91	0.52
1:D:482:SER:HB2	1:E:501:GLU:OE1	2.09	0.52
1:G:261:ALA:HA	1:G:369:LEU:HD12	1.91	0.52
1:H:261:ALA:HA	1:H:369:LEU:HD12	1.91	0.52
1:H:277:THR:O	1:H:278:ARG:HB2	2.08	0.52
1:I:380:ILE:O	1:I:380:ILE:HG22	2.09	0.52
1:J:242:LEU:HB2	1:J:251:ILE:O	2.10	0.52
1:K:242:LEU:HB2	1:K:251:ILE:O	2.10	0.52
1:L:380:ILE:O	1:L:380:ILE:HG22	2.09	0.52
1:A:162:ILE:HG23	1:A:171:ILE:HG13	1.70	0.52
1:F:87:GLU:HG3	1:F:88:VAL:N	2.24	0.52
1:H:259:LYS:NZ	1:J:316:ALA:CA	2.73	0.52
1:I:441:ILE:HB	1:I:444:ILE:HG12	1.91	0.52
1:J:380:ILE:HG22	1:J:380:ILE:O	2.09	0.52
1:B:87:GLU:HG3	1:B:88:VAL:N	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:161:ILE:O	1:E:162:ILE:CG2	2.57	0.52
1:E:242:LEU:HB2	1:E:251:ILE:O	2.10	0.52
1:G:269:ASP:O	1:G:273:ILE:HB	2.10	0.52
1:H:242:LEU:HB2	1:H:251:ILE:O	2.10	0.52
1:H:242:LEU:HD12	1:H:251:ILE:O	2.10	0.52
1:H:259:LYS:HZ1	1:J:316:ALA:CA	2.19	0.52
1:I:87:GLU:HG3	1:I:88:VAL:N	2.24	0.52
1:I:259:LYS:NZ	1:K:316:ALA:CA	2.73	0.52
1:I:482:SER:HB2	1:J:501:GLU:OE1	2.10	0.52
1:K:161:ILE:O	1:K:162:ILE:CG2	2.57	0.52
1:K:380:ILE:O	1:K:380:ILE:HG22	2.09	0.52
1:K:482:SER:HB2	1:L:501:GLU:OE1	2.10	0.52
1:A:242:LEU:HD12	1:A:251:ILE:O	2.10	0.52
1:A:279:ALA:CB	1:A:280:PRO:CD	2.85	0.52
1:C:100:ILE:HD11	1:C:144:SER:CA	2.40	0.52
1:C:281:ASP:O	1:D:331:THR:OG1	2.23	0.52
1:D:161:ILE:O	1:D:162:ILE:CG2	2.58	0.52
1:E:253:TYR:OH	1:E:413:LYS:NZ	2.24	0.52
1:F:269:ASP:O	1:F:273:ILE:HB	2.10	0.52
1:H:269:ASP:O	1:H:273:ILE:HB	2.10	0.52
1:I:269:ASP:O	1:I:273:ILE:HB	2.10	0.52
1:J:478:GLY:O	1:K:505:ILE:HD11	2.08	0.52
1:L:149:ARG:O	1:L:153:ASP:CG	2.48	0.52
1:L:261:ALA:HA	1:L:369:LEU:HD12	1.91	0.52
1:D:100:ILE:HD11	1:D:144:SER:CA	2.40	0.52
1:G:259:LYS:NZ	1:I:316:ALA:CA	2.73	0.52
1:G:315:ASP:HA	1:H:327:ASN:CB	2.39	0.52
1:G:380:ILE:HG22	1:G:380:ILE:O	2.09	0.52
1:H:87:GLU:HG3	1:H:88:VAL:N	2.24	0.52
1:H:478:GLY:O	1:I:505:ILE:HD11	2.08	0.52
1:J:100:ILE:HD11	1:J:144:SER:CA	2.40	0.52
1:K:100:ILE:HD11	1:K:144:SER:CA	2.40	0.52
1:B:168:LYS:HG2	1:B:428:LEU:O	2.10	0.52
1:B:441:ILE:HB	1:B:444:ILE:HG12	1.91	0.52
1:D:380:ILE:O	1:D:380:ILE:HG22	2.09	0.52
1:E:261:ALA:HA	1:E:369:LEU:HD12	1.91	0.52
1:E:269:ASP:O	1:E:273:ILE:HB	2.10	0.52
1:G:242:LEU:HD12	1:G:251:ILE:O	2.10	0.52
1:L:242:LEU:HD12	1:L:251:ILE:O	2.10	0.52
1:A:315:ASP:HA	1:B:327:ASN:CB	2.39	0.52
1:D:168:LYS:HG2	1:D:428:LEU:O	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:259:LYS:NZ	1:F:316:ALA:CA	2.73	0.52
1:E:315:ASP:HA	1:F:327:ASN:CB	2.39	0.52
1:F:161:ILE:O	1:F:162:ILE:CG2	2.58	0.52
1:F:242:LEU:HB2	1:F:251:ILE:O	2.10	0.52
1:G:87:GLU:HG3	1:G:88:VAL:N	2.24	0.52
1:H:380:ILE:HG22	1:H:380:ILE:O	2.09	0.52
1:I:261:ALA:HA	1:I:369:LEU:HD12	1.91	0.52
1:J:269:ASP:O	1:J:273:ILE:HB	2.10	0.52
1:A:149:ARG:O	1:A:153:ASP:CG	2.48	0.52
1:B:380:ILE:HG22	1:B:380:ILE:O	2.09	0.52
1:E:87:GLU:HG3	1:E:88:VAL:N	2.24	0.52
1:F:441:ILE:HB	1:F:444:ILE:HG12	1.91	0.52
1:G:149:ARG:O	1:G:153:ASP:CG	2.48	0.52
1:G:242:LEU:HB2	1:G:251:ILE:O	2.10	0.52
1:H:168:LYS:HG2	1:H:428:LEU:O	2.10	0.52
1:I:160:LYS:HG2	1:I:174:LEU:HD22	1.92	0.52
1:I:168:LYS:HG2	1:I:428:LEU:O	2.10	0.52
1:I:242:LEU:HD12	1:I:251:ILE:O	2.10	0.52
1:J:169:GLU:N	1:J:170:GLY:CA	2.73	0.52
1:J:259:LYS:NZ	1:L:316:ALA:CA	2.73	0.52
1:K:168:LYS:HG2	1:K:428:LEU:O	2.10	0.52
1:L:100:ILE:HD11	1:L:144:SER:CA	2.40	0.52
1:L:161:ILE:O	1:L:162:ILE:CG2	2.58	0.52
1:L:441:ILE:HB	1:L:444:ILE:HG12	1.91	0.52
1:A:327:ASN:CB	1:L:315:ASP:HA	2.39	0.51
1:A:441:ILE:HB	1:A:444:ILE:HG12	1.91	0.51
1:B:161:ILE:O	1:B:162:ILE:CG2	2.57	0.51
1:B:242:LEU:HD12	1:B:251:ILE:O	2.10	0.51
1:B:281:ASP:O	1:C:331:THR:OG1	2.23	0.51
1:D:269:ASP:O	1:D:273:ILE:HB	2.10	0.51
1:E:168:LYS:HG2	1:E:428:LEU:O	2.10	0.51
1:E:259:LYS:NZ	1:G:316:ALA:CA	2.73	0.51
1:E:482:SER:HB2	1:F:501:GLU:OE1	2.10	0.51
1:F:261:ALA:HA	1:F:369:LEU:HD12	1.91	0.51
1:F:315:ASP:HA	1:G:327:ASN:CB	2.39	0.51
1:G:482:SER:HB2	1:H:501:GLU:OE1	2.09	0.51
1:H:161:ILE:O	1:H:162:ILE:CG2	2.57	0.51
1:I:100:ILE:HD11	1:I:144:SER:CA	2.40	0.51
1:I:169:GLU:N	1:I:170:GLY:CA	2.74	0.51
1:J:160:LYS:HG2	1:J:174:LEU:HD22	1.92	0.51
1:J:161:ILE:O	1:J:162:ILE:CG2	2.58	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:242:LEU:HB2	1:L:251:ILE:O	2.10	0.51
1:B:100:ILE:HD11	1:B:144:SER:CA	2.40	0.51
1:F:168:LYS:HG2	1:F:428:LEU:O	2.10	0.51
1:G:160:LYS:HG2	1:G:174:LEU:HD22	1.92	0.51
1:H:160:LYS:HG2	1:H:174:LEU:HD22	1.92	0.51
1:J:242:LEU:HD12	1:J:251:ILE:O	2.10	0.51
1:A:155:ARG:HE	1:A:250:ILE:HD12	1.76	0.51
1:A:380:ILE:O	1:A:380:ILE:HG22	2.09	0.51
1:A:482:SER:HB2	1:B:501:GLU:OE1	2.09	0.51
1:E:100:ILE:HD11	1:E:144:SER:CA	2.40	0.51
1:E:160:LYS:HG2	1:E:174:LEU:HD22	1.92	0.51
1:F:160:LYS:HG2	1:F:174:LEU:HD22	1.92	0.51
1:G:168:LYS:HG2	1:G:428:LEU:O	2.10	0.51
1:H:169:GLU:N	1:H:170:GLY:CA	2.73	0.51
1:K:169:GLU:N	1:K:170:GLY:CA	2.73	0.51
1:K:261:ALA:HA	1:K:369:LEU:HD12	1.91	0.51
1:K:269:ASP:O	1:K:273:ILE:HB	2.10	0.51
1:L:168:LYS:HG2	1:L:428:LEU:O	2.10	0.51
1:A:168:LYS:HG2	1:A:428:LEU:O	2.10	0.51
1:B:155:ARG:HE	1:B:250:ILE:HD12	1.76	0.51
1:C:168:LYS:HG2	1:C:428:LEU:O	2.10	0.51
1:C:269:ASP:O	1:C:273:ILE:HB	2.10	0.51
1:D:242:LEU:HB2	1:D:251:ILE:O	2.10	0.51
1:F:155:ARG:HE	1:F:250:ILE:HD12	1.76	0.51
1:F:242:LEU:HD12	1:F:251:ILE:O	2.10	0.51
1:F:259:LYS:NZ	1:H:316:ALA:CA	2.73	0.51
1:I:161:ILE:O	1:I:162:ILE:CG2	2.58	0.51
1:K:242:LEU:HD12	1:K:251:ILE:O	2.10	0.51
1:B:269:ASP:O	1:B:273:ILE:HB	2.10	0.51
1:D:242:LEU:HD12	1:D:251:ILE:O	2.10	0.51
1:E:380:ILE:HG22	1:E:380:ILE:O	2.09	0.51
1:F:75:LEU:CD2	1:F:251:ILE:CD1	2.86	0.51
1:G:75:LEU:CD2	1:G:251:ILE:CD1	2.86	0.51
1:G:161:ILE:O	1:G:162:ILE:CG2	2.58	0.51
1:H:482:SER:HB2	1:I:501:GLU:OE1	2.10	0.51
1:L:269:ASP:O	1:L:273:ILE:HB	2.10	0.51
1:A:269:ASP:O	1:A:273:ILE:HB	2.10	0.51
1:B:259:LYS:NZ	1:D:316:ALA:CA	2.73	0.51
1:B:261:ALA:HA	1:B:369:LEU:HD12	1.91	0.51
1:C:251:ILE:CG2	1:C:255:HIS:CG	2.94	0.51
1:D:160:LYS:HG2	1:D:174:LEU:HD22	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:251:ILE:CG2	1:D:255:HIS:CG	2.94	0.51
1:E:155:ARG:HE	1:E:250:ILE:HD12	1.76	0.51
1:E:242:LEU:HD12	1:E:251:ILE:O	2.10	0.51
1:H:251:ILE:CG2	1:H:255:HIS:CG	2.94	0.51
1:I:146:HIS:HD2	1:I:176:ARG:NH2	2.09	0.51
1:I:251:ILE:CG2	1:I:255:HIS:CG	2.94	0.51
1:J:153:ASP:C	1:J:154:SER:HG	2.04	0.51
1:L:279:ALA:CB	1:L:280:PRO:CD	2.85	0.51
1:L:326:HIS:O	1:L:327:ASN:HB2	2.11	0.51
1:B:242:LEU:HB2	1:B:251:ILE:O	2.10	0.51
1:C:87:GLU:HG3	1:C:88:VAL:N	2.24	0.51
1:C:357:GLY:HA2	1:C:358:ASN:CB	2.29	0.51
1:G:155:ARG:HE	1:G:250:ILE:HD12	1.76	0.51
1:H:100:ILE:HD11	1:H:144:SER:CA	2.40	0.51
1:J:146:HIS:HD2	1:J:176:ARG:NH2	2.09	0.51
1:K:251:ILE:CG2	1:K:255:HIS:CG	2.94	0.51
1:A:261:ALA:HA	1:A:369:LEU:HD12	1.91	0.51
1:B:238:ALA:HA	1:B:416:GLU:OE1	2.11	0.51
1:C:242:LEU:HD12	1:C:251:ILE:O	2.10	0.51
1:H:146:HIS:HD2	1:H:176:ARG:NH2	2.09	0.51
1:J:155:ARG:HE	1:J:250:ILE:HD12	1.76	0.51
1:J:251:ILE:CG2	1:J:255:HIS:CG	2.94	0.51
1:K:75:LEU:CD2	1:K:251:ILE:CD1	2.86	0.51
1:K:160:LYS:HG2	1:K:174:LEU:HD22	1.92	0.51
1:L:251:ILE:CG2	1:L:255:HIS:CG	2.94	0.51
1:B:251:ILE:CG2	1:B:255:HIS:CG	2.94	0.51
1:C:238:ALA:HA	1:C:416:GLU:OE1	2.11	0.51
1:C:261:ALA:HA	1:C:369:LEU:HD12	1.91	0.51
1:C:380:ILE:O	1:C:380:ILE:HG22	2.09	0.51
1:C:441:ILE:HB	1:C:444:ILE:HG12	1.91	0.51
1:D:261:ALA:HA	1:D:369:LEU:HD12	1.91	0.51
1:F:100:ILE:HD11	1:F:144:SER:CA	2.40	0.51
1:F:482:SER:HB2	1:G:501:GLU:OE1	2.10	0.51
1:G:169:GLU:N	1:G:170:GLY:CA	2.73	0.51
1:G:251:ILE:CG2	1:G:255:HIS:CG	2.94	0.51
1:I:326:HIS:O	1:I:327:ASN:HB2	2.11	0.51
1:K:146:HIS:HD2	1:K:176:ARG:NH2	2.09	0.51
1:K:326:HIS:O	1:K:327:ASN:HB2	2.11	0.51
1:L:169:GLU:N	1:L:170:GLY:CA	2.74	0.51
1:A:100:ILE:HD11	1:A:144:SER:CA	2.40	0.51
1:A:238:ALA:HA	1:A:416:GLU:OE1	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:155:ARG:HE	1:D:250:ILE:HD12	1.76	0.51
1:D:259:LYS:HZ3	1:F:316:ALA:CA	2.18	0.51
1:G:100:ILE:HD11	1:G:144:SER:CA	2.40	0.51
1:K:155:ARG:HE	1:K:250:ILE:HD12	1.76	0.51
1:K:160:LYS:NZ	1:K:234:ALA:HB1	2.26	0.51
1:L:95:ILE:HG23	1:L:407:ILE:HD11	1.93	0.51
1:B:160:LYS:HZ3	1:B:424:THR:HG21	1.75	0.50
1:D:238:ALA:HA	1:D:416:GLU:OE1	2.11	0.50
1:D:326:HIS:O	1:D:327:ASN:HB2	2.11	0.50
1:E:251:ILE:CG2	1:E:255:HIS:CG	2.94	0.50
1:G:238:ALA:HA	1:G:416:GLU:OE1	2.11	0.50
1:I:160:LYS:NZ	1:I:234:ALA:HB1	2.26	0.50
1:J:326:HIS:O	1:J:327:ASN:HB2	2.11	0.50
1:B:75:LEU:CD2	1:B:251:ILE:CD1	2.86	0.50
1:B:146:HIS:HD2	1:B:176:ARG:NH2	2.09	0.50
1:B:326:HIS:O	1:B:327:ASN:HB2	2.11	0.50
1:C:160:LYS:HG2	1:C:174:LEU:HD22	1.92	0.50
1:F:380:ILE:O	1:F:380:ILE:HG22	2.09	0.50
1:G:146:HIS:HD2	1:G:176:ARG:NH2	2.09	0.50
1:H:155:ARG:HE	1:H:250:ILE:HD12	1.76	0.50
1:I:238:ALA:HA	1:I:416:GLU:OE1	2.11	0.50
1:A:251:ILE:CG2	1:A:255:HIS:CG	2.94	0.50
1:D:292:MET:HG3	1:D:297:ALA:HB2	1.94	0.50
1:E:292:MET:HG3	1:E:297:ALA:HB2	1.94	0.50
1:F:251:ILE:CG2	1:F:255:HIS:CG	2.94	0.50
1:G:326:HIS:O	1:G:327:ASN:HB2	2.11	0.50
1:L:146:HIS:HD2	1:L:176:ARG:NH2	2.09	0.50
1:L:160:LYS:HG2	1:L:174:LEU:HD22	1.92	0.50
1:A:95:ILE:HG23	1:A:407:ILE:HD11	1.93	0.50
1:B:100:ILE:O	1:B:100:ILE:HG13	2.12	0.50
1:C:146:HIS:HD2	1:C:176:ARG:NH2	2.09	0.50
1:C:326:HIS:O	1:C:327:ASN:HB2	2.11	0.50
1:F:146:HIS:HD2	1:F:176:ARG:NH2	2.09	0.50
1:I:155:ARG:HE	1:I:250:ILE:HD12	1.76	0.50
1:J:168:LYS:HG2	1:J:428:LEU:O	2.10	0.50
1:J:315:ASP:HA	1:K:327:ASN:CB	2.39	0.50
1:K:95:ILE:HG23	1:K:407:ILE:HD11	1.93	0.50
1:K:279:ALA:CB	1:K:280:PRO:CD	2.85	0.50
1:B:169:GLU:N	1:B:170:GLY:CA	2.73	0.50
1:B:315:ASP:HA	1:C:327:ASN:CB	2.39	0.50
1:C:292:MET:HG3	1:C:297:ALA:HB2	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:100:ILE:O	1:D:100:ILE:HG13	2.12	0.50
1:D:259:LYS:HZ1	1:F:316:ALA:HA	1.77	0.50
1:E:160:LYS:NZ	1:E:234:ALA:HB1	2.26	0.50
1:E:259:LYS:NZ	1:G:316:ALA:HA	2.27	0.50
1:F:100:ILE:HG13	1:F:100:ILE:O	2.12	0.50
1:F:292:MET:HG3	1:F:297:ALA:HB2	1.94	0.50
1:F:326:HIS:O	1:F:327:ASN:HB2	2.11	0.50
1:H:315:ASP:HA	1:I:327:ASN:CB	2.39	0.50
1:L:238:ALA:HA	1:L:416:GLU:OE1	2.11	0.50
1:A:160:LYS:NZ	1:A:234:ALA:HB1	2.26	0.50
1:A:259:LYS:NZ	1:C:316:ALA:HA	2.27	0.50
1:B:160:LYS:HG2	1:B:174:LEU:HD22	1.92	0.50
1:C:169:GLU:N	1:C:170:GLY:CA	2.74	0.50
1:D:169:GLU:N	1:D:170:GLY:CA	2.73	0.50
1:E:146:HIS:HD2	1:E:176:ARG:NH2	2.09	0.50
1:E:169:GLU:N	1:E:170:GLY:CA	2.73	0.50
1:E:238:ALA:HA	1:E:416:GLU:OE1	2.11	0.50
1:G:292:MET:HG3	1:G:297:ALA:HB2	1.94	0.50
1:I:315:ASP:HA	1:J:327:ASN:CB	2.39	0.50
1:L:155:ARG:HE	1:L:250:ILE:HD12	1.76	0.50
1:A:160:LYS:HG2	1:A:174:LEU:HD22	1.92	0.50
1:B:292:MET:HG3	1:B:297:ALA:HB2	1.94	0.50
1:E:326:HIS:O	1:E:327:ASN:HB2	2.11	0.50
1:F:160:LYS:NZ	1:F:234:ALA:HB1	2.26	0.50
1:G:243:VAL:O	1:G:244:ASP:HB3	2.12	0.50
1:I:243:VAL:O	1:I:244:ASP:HB3	2.12	0.50
1:I:279:ALA:CB	1:I:280:PRO:CD	2.85	0.50
1:L:100:ILE:O	1:L:100:ILE:HG13	2.12	0.50
1:A:146:HIS:HD2	1:A:176:ARG:NH2	2.09	0.50
1:A:169:GLU:N	1:A:170:GLY:CA	2.73	0.50
1:D:75:LEU:CD2	1:D:251:ILE:CD1	2.86	0.50
1:D:160:LYS:NZ	1:D:234:ALA:HB1	2.26	0.50
1:E:75:LEU:CD2	1:E:251:ILE:CD1	2.86	0.50
1:H:75:LEU:CD2	1:H:251:ILE:CD1	2.86	0.50
1:H:326:HIS:O	1:H:327:ASN:HB2	2.11	0.50
1:J:279:ALA:CB	1:J:280:PRO:CD	2.85	0.50
1:E:243:VAL:O	1:E:244:ASP:HB3	2.12	0.50
1:H:100:ILE:HG13	1:H:100:ILE:O	2.12	0.50
1:K:243:VAL:O	1:K:244:ASP:HB3	2.12	0.50
1:A:177:LEU:HB3	1:A:208:TYR:HE2	1.78	0.49
1:B:316:ALA:HA	1:L:259:LYS:NZ	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:155:ARG:HE	1:C:250:ILE:HD12	1.76	0.49
1:D:259:LYS:NZ	1:F:316:ALA:HA	2.27	0.49
1:F:238:ALA:HA	1:F:416:GLU:OE1	2.11	0.49
1:G:160:LYS:NZ	1:G:234:ALA:HB1	2.26	0.49
1:G:259:LYS:NZ	1:I:316:ALA:HA	2.27	0.49
1:H:160:LYS:NZ	1:H:234:ALA:HB1	2.26	0.49
1:I:100:ILE:HG13	1:I:100:ILE:O	2.12	0.49
1:I:281:ASP:O	1:J:331:THR:OG1	2.23	0.49
1:J:160:LYS:NZ	1:J:234:ALA:HB1	2.26	0.49
1:J:238:ALA:HA	1:J:416:GLU:OE1	2.11	0.49
1:A:243:VAL:O	1:A:244:ASP:HB3	2.12	0.49
1:A:292:MET:HG3	1:A:297:ALA:HB2	1.94	0.49
1:F:169:GLU:N	1:F:170:GLY:CA	2.74	0.49
1:I:177:LEU:HB3	1:I:208:TYR:HE2	1.78	0.49
1:J:160:LYS:HZ3	1:J:234:ALA:HB1	1.77	0.49
1:K:162:ILE:HG23	1:K:171:ILE:HG13	1.68	0.49
1:K:238:ALA:HA	1:K:416:GLU:OE1	2.11	0.49
1:A:316:ALA:HA	1:K:259:LYS:NZ	2.27	0.49
1:A:326:HIS:O	1:A:327:ASN:HB2	2.11	0.49
1:C:333:ASP:OD2	1:C:335:TRP:NE1	2.46	0.49
1:E:95:ILE:HG23	1:E:407:ILE:HD11	1.93	0.49
1:E:149:ARG:O	1:E:153:ASP:CB	2.61	0.49
1:F:95:ILE:HG23	1:F:407:ILE:HD11	1.93	0.49
1:G:149:ARG:O	1:G:153:ASP:CB	2.61	0.49
1:H:177:LEU:HB3	1:H:208:TYR:HE2	1.77	0.49
1:H:292:MET:HG3	1:H:297:ALA:HB2	1.94	0.49
1:I:95:ILE:HG23	1:I:407:ILE:HD11	1.93	0.49
1:K:315:ASP:HA	1:L:327:ASN:CB	2.39	0.49
1:L:149:ARG:O	1:L:153:ASP:CB	2.61	0.49
1:B:243:VAL:O	1:B:244:ASP:HB3	2.12	0.49
1:C:160:LYS:NZ	1:C:234:ALA:HB1	2.26	0.49
1:D:333:ASP:OD2	1:D:335:TRP:NE1	2.46	0.49
1:H:95:ILE:HG23	1:H:407:ILE:HD11	1.93	0.49
1:H:238:ALA:HA	1:H:416:GLU:OE1	2.11	0.49
1:K:100:ILE:HG13	1:K:100:ILE:O	2.12	0.49
1:K:113:LEU:HD12	1:K:123:LYS:O	2.13	0.49
1:L:160:LYS:NZ	1:L:234:ALA:HB1	2.26	0.49
1:B:149:ARG:O	1:B:153:ASP:CB	2.61	0.49
1:B:177:LEU:HB3	1:B:208:TYR:HE2	1.77	0.49
1:B:333:ASP:OD2	1:B:335:TRP:NE1	2.46	0.49
1:C:259:LYS:NZ	1:E:316:ALA:HA	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:146:HIS:HD2	1:D:176:ARG:NH2	2.09	0.49
1:D:357:GLY:HA2	1:D:358:ASN:CB	2.29	0.49
1:E:113:LEU:HD12	1:E:123:LYS:O	2.13	0.49
1:G:95:ILE:HG23	1:G:407:ILE:HD11	1.93	0.49
1:G:100:ILE:O	1:G:100:ILE:HG13	2.12	0.49
1:I:251:ILE:HG21	1:I:255:HIS:CG	2.48	0.49
1:L:243:VAL:O	1:L:244:ASP:HB3	2.12	0.49
1:L:292:MET:HG3	1:L:297:ALA:HB2	1.94	0.49
1:D:251:ILE:HG21	1:D:255:HIS:CG	2.48	0.49
1:E:100:ILE:O	1:E:100:ILE:HG13	2.12	0.49
1:E:177:LEU:HB3	1:E:208:TYR:HE2	1.77	0.49
1:F:432:ILE:HG23	1:F:436:GLU:HB2	1.95	0.49
1:H:243:VAL:O	1:H:244:ASP:HB3	2.12	0.49
1:J:113:LEU:HD12	1:J:123:LYS:O	2.13	0.49
1:J:243:VAL:O	1:J:244:ASP:HB3	2.12	0.49
1:L:177:LEU:HB3	1:L:208:TYR:HE2	1.78	0.49
1:L:251:ILE:HG21	1:L:255:HIS:CG	2.48	0.49
1:C:149:ARG:O	1:C:153:ASP:CB	2.61	0.49
1:D:441:ILE:HD12	1:D:442:ASN:C	2.32	0.49
1:E:333:ASP:OD2	1:E:335:TRP:NE1	2.46	0.49
1:F:251:ILE:HG21	1:F:255:HIS:CG	2.48	0.49
1:G:251:ILE:HG21	1:G:255:HIS:CG	2.48	0.49
1:G:432:ILE:HG23	1:G:436:GLU:HB2	1.95	0.49
1:I:149:ARG:O	1:I:153:ASP:CB	2.61	0.49
1:J:259:LYS:NZ	1:L:316:ALA:HA	2.27	0.49
1:K:292:MET:HG3	1:K:297:ALA:HB2	1.94	0.49
1:A:316:ALA:HA	1:K:259:LYS:HZ3	1.77	0.49
1:A:441:ILE:HD12	1:A:442:ASN:C	2.32	0.49
1:B:95:ILE:HG23	1:B:407:ILE:HD11	1.93	0.49
1:B:441:ILE:HD12	1:B:442:ASN:C	2.32	0.49
1:C:441:ILE:HD12	1:C:442:ASN:C	2.32	0.49
1:D:243:VAL:O	1:D:244:ASP:HB3	2.12	0.49
1:F:160:LYS:HZ3	1:F:424:THR:HG21	1.77	0.49
1:G:177:LEU:HB3	1:G:208:TYR:HE2	1.78	0.49
1:H:262:ASN:HD22	1:J:320:LYS:CG	2.26	0.49
1:J:100:ILE:O	1:J:100:ILE:HG13	2.12	0.49
1:A:149:ARG:O	1:A:153:ASP:CB	2.61	0.49
1:A:333:ASP:OD2	1:A:335:TRP:NE1	2.46	0.49
1:C:100:ILE:HG13	1:C:100:ILE:O	2.12	0.49
1:F:149:ARG:O	1:F:153:ASP:CB	2.61	0.49
1:F:179:PRO:O	1:F:180:ARG:HB2	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:262:ASN:HD22	1:I:320:LYS:CG	2.26	0.49
1:J:95:ILE:HG23	1:J:407:ILE:HD11	1.93	0.49
1:J:177:LEU:HB3	1:J:208:TYR:HE2	1.78	0.49
1:J:251:ILE:HG21	1:J:255:HIS:CG	2.48	0.49
1:J:292:MET:HG3	1:J:297:ALA:HB2	1.94	0.49
1:A:251:ILE:HG21	1:A:255:HIS:CG	2.48	0.49
1:C:75:LEU:CD2	1:C:251:ILE:CD1	2.86	0.49
1:C:95:ILE:HG23	1:C:407:ILE:HD11	1.93	0.49
1:D:95:ILE:HG23	1:D:407:ILE:HD11	1.93	0.49
1:D:177:LEU:HB3	1:D:208:TYR:HE2	1.78	0.49
1:D:179:PRO:O	1:D:180:ARG:HB2	2.13	0.49
1:E:441:ILE:HD12	1:E:442:ASN:C	2.32	0.49
1:G:377:LEU:HA	1:G:377:LEU:HD13	1.62	0.49
1:H:432:ILE:HG23	1:H:436:GLU:HB2	1.95	0.49
1:I:262:ASN:HD22	1:K:320:LYS:CG	2.26	0.49
1:I:432:ILE:HG23	1:I:436:GLU:HB2	1.95	0.49
1:K:149:ARG:O	1:K:153:ASP:CB	2.61	0.49
1:A:100:ILE:HG13	1:A:100:ILE:O	2.12	0.48
1:B:251:ILE:HG21	1:B:255:HIS:CG	2.48	0.48
1:C:251:ILE:HG21	1:C:255:HIS:CG	2.48	0.48
1:E:432:ILE:HG23	1:E:436:GLU:HB2	1.95	0.48
1:F:243:VAL:O	1:F:244:ASP:HB3	2.12	0.48
1:F:262:ASN:HD22	1:H:320:LYS:CG	2.26	0.48
1:H:179:PRO:O	1:H:180:ARG:HB2	2.13	0.48
1:I:292:MET:HG3	1:I:297:ALA:HB2	1.94	0.48
1:J:432:ILE:HG23	1:J:436:GLU:HB2	1.95	0.48
1:K:251:ILE:HG21	1:K:255:HIS:CG	2.48	0.48
1:L:113:LEU:HD12	1:L:123:LYS:O	2.12	0.48
1:L:441:ILE:HD12	1:L:442:ASN:C	2.32	0.48
1:A:113:LEU:HD12	1:A:123:LYS:O	2.13	0.48
1:C:113:LEU:HD12	1:C:123:LYS:O	2.12	0.48
1:D:149:ARG:O	1:D:153:ASP:CB	2.61	0.48
1:F:177:LEU:HB3	1:F:208:TYR:HE2	1.78	0.48
1:F:333:ASP:OD2	1:F:335:TRP:NE1	2.46	0.48
1:F:441:ILE:HD12	1:F:442:ASN:C	2.32	0.48
1:J:149:ARG:O	1:J:153:ASP:CB	2.61	0.48
1:J:262:ASN:HD22	1:L:320:LYS:CG	2.26	0.48
1:K:333:ASP:OD2	1:K:335:TRP:NE1	2.46	0.48
1:C:76:ILE:HG23	1:C:153:ASP:O	2.14	0.48
1:C:177:LEU:HB3	1:C:208:TYR:HE2	1.78	0.48
1:G:441:ILE:HD12	1:G:442:ASN:C	2.32	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:75:LEU:CD2	1:J:251:ILE:CD1	2.86	0.48
1:J:76:ILE:HG23	1:J:153:ASP:O	2.14	0.48
1:A:179:PRO:O	1:A:180:ARG:HB2	2.13	0.48
1:A:508:GLU:CD	1:L:483:HIS:HD2	2.17	0.48
1:B:76:ILE:HG23	1:B:153:ASP:O	2.14	0.48
1:B:160:LYS:NZ	1:B:234:ALA:HB1	2.26	0.48
1:C:179:PRO:O	1:C:180:ARG:HB2	2.13	0.48
1:C:243:VAL:O	1:C:244:ASP:HB3	2.12	0.48
1:C:483:HIS:HD2	1:D:508:GLU:CD	2.17	0.48
1:D:113:LEU:HD12	1:D:123:LYS:O	2.13	0.48
1:E:262:ASN:HD22	1:G:320:LYS:CG	2.26	0.48
1:H:113:LEU:HD12	1:H:123:LYS:O	2.13	0.48
1:H:251:ILE:HG21	1:H:255:HIS:CG	2.48	0.48
1:H:333:ASP:OD2	1:H:335:TRP:NE1	2.46	0.48
1:I:75:LEU:CD2	1:I:251:ILE:CD1	2.86	0.48
1:J:333:ASP:OD2	1:J:335:TRP:NE1	2.46	0.48
1:J:441:ILE:HD12	1:J:442:ASN:C	2.32	0.48
1:K:432:ILE:HG23	1:K:436:GLU:HB2	1.95	0.48
1:K:483:HIS:HD2	1:L:508:GLU:CD	2.17	0.48
1:A:163:ASP:H	1:A:164:PRO:HA	1.78	0.48
1:A:320:LYS:CG	1:K:262:ASN:HD22	2.26	0.48
1:B:113:LEU:HD12	1:B:123:LYS:O	2.13	0.48
1:B:179:PRO:O	1:B:180:ARG:HB2	2.13	0.48
1:D:483:HIS:HD2	1:E:508:GLU:CD	2.17	0.48
1:F:113:LEU:HD12	1:F:123:LYS:O	2.12	0.48
1:G:79:TYR:OH	1:G:251:ILE:HG23	2.13	0.48
1:H:79:TYR:OH	1:H:251:ILE:HG23	2.13	0.48
1:H:441:ILE:HD12	1:H:442:ASN:C	2.32	0.48
1:I:441:ILE:HD12	1:I:442:ASN:C	2.32	0.48
1:K:86:TYR:O	1:K:87:GLU:CB	2.54	0.48
1:K:441:ILE:HD12	1:K:442:ASN:C	2.32	0.48
1:L:333:ASP:OD2	1:L:335:TRP:NE1	2.46	0.48
1:D:432:ILE:HG23	1:D:436:GLU:HB2	1.95	0.48
1:E:79:TYR:OH	1:E:251:ILE:HG23	2.13	0.48
1:G:179:PRO:O	1:G:180:ARG:HB2	2.13	0.48
1:L:163:ASP:H	1:L:164:PRO:HA	1.78	0.48
1:A:325:GLN:HA	1:A:326:HIS:HA	1.52	0.48
1:A:374:ARG:NH1	1:A:406:PHE:CE1	2.82	0.48
1:B:163:ASP:H	1:B:164:PRO:HA	1.78	0.48
1:D:262:ASN:HD22	1:F:320:LYS:CG	2.26	0.48
1:G:113:LEU:HD12	1:G:123:LYS:O	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:333:ASP:OD2	1:G:335:TRP:NE1	2.46	0.48
1:H:149:ARG:O	1:H:153:ASP:CB	2.61	0.48
1:J:179:PRO:O	1:J:180:ARG:HB2	2.13	0.48
1:J:325:GLN:HA	1:J:326:HIS:HA	1.52	0.48
1:L:432:ILE:HG23	1:L:436:GLU:HB2	1.95	0.48
1:C:160:LYS:HZ3	1:C:424:THR:HG21	1.78	0.48
1:D:76:ILE:HG23	1:D:153:ASP:O	2.14	0.48
1:E:251:ILE:HG21	1:E:255:HIS:CG	2.48	0.48
1:E:483:HIS:HD2	1:F:508:GLU:CD	2.17	0.48
1:F:79:TYR:OH	1:F:251:ILE:HG23	2.13	0.48
1:F:374:ARG:NH1	1:F:406:PHE:CE1	2.82	0.48
1:G:265:LYS:C	1:G:267:LEU:H	2.17	0.48
1:G:483:HIS:HD2	1:H:508:GLU:CD	2.17	0.48
1:H:483:HIS:HD2	1:I:508:GLU:CD	2.17	0.48
1:I:76:ILE:HG23	1:I:153:ASP:O	2.14	0.48
1:I:79:TYR:OH	1:I:251:ILE:HG23	2.13	0.48
1:I:113:LEU:HD12	1:I:123:LYS:O	2.12	0.48
1:I:259:LYS:NZ	1:K:316:ALA:HA	2.27	0.48
1:J:382:GLN:HA	1:J:382:GLN:NE2	2.29	0.48
1:K:76:ILE:HG23	1:K:153:ASP:O	2.14	0.48
1:K:163:ASP:H	1:K:164:PRO:HA	1.78	0.48
1:K:382:GLN:HA	1:K:382:GLN:NE2	2.29	0.48
1:B:265:LYS:C	1:B:267:LEU:H	2.17	0.48
1:B:320:LYS:CG	1:L:262:ASN:HD22	2.26	0.48
1:C:262:ASN:HD22	1:E:320:LYS:CG	2.26	0.48
1:C:315:ASP:HA	1:D:327:ASN:CB	2.39	0.48
1:E:247:GLY:HA2	1:E:248:LYS:HA	1.65	0.48
1:G:374:ARG:NH1	1:G:406:PHE:CE1	2.82	0.48
1:I:179:PRO:O	1:I:180:ARG:HB2	2.13	0.48
1:K:177:LEU:HB3	1:K:208:TYR:HE2	1.77	0.48
1:L:179:PRO:O	1:L:180:ARG:HB2	2.13	0.48
1:L:382:GLN:NE2	1:L:382:GLN:HA	2.29	0.48
1:A:76:ILE:HG23	1:A:153:ASP:O	2.14	0.48
1:A:262:ASN:HD22	1:C:320:LYS:CG	2.26	0.48
1:B:96:VAL:HG11	1:B:148:ARG:HB2	1.96	0.48
1:B:262:ASN:HD22	1:D:320:LYS:CG	2.26	0.48
1:B:491:LEU:HA	1:B:491:LEU:HD12	1.68	0.48
1:C:149:ARG:HD3	1:C:149:ARG:HA	1.54	0.48
1:C:265:LYS:C	1:C:267:LEU:H	2.18	0.48
1:D:265:LYS:C	1:D:267:LEU:H	2.17	0.48
1:F:76:ILE:HG23	1:F:153:ASP:O	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:163:ASP:H	1:G:164:PRO:HA	1.78	0.48
1:H:76:ILE:HG23	1:H:153:ASP:O	2.14	0.48
1:J:79:TYR:OH	1:J:251:ILE:HG23	2.13	0.48
1:J:163:ASP:H	1:J:164:PRO:HA	1.78	0.48
1:A:483:HIS:HD2	1:B:508:GLU:CD	2.17	0.47
1:A:491:LEU:HD12	1:A:491:LEU:HA	1.68	0.47
1:B:483:HIS:HD2	1:C:508:GLU:CD	2.17	0.47
1:C:163:ASP:H	1:C:164:PRO:HA	1.78	0.47
1:C:432:ILE:HG23	1:C:436:GLU:HB2	1.95	0.47
1:D:79:TYR:OH	1:D:251:ILE:HG23	2.13	0.47
1:E:265:LYS:C	1:E:267:LEU:H	2.17	0.47
1:F:301:MET:O	1:F:305:MET:HG2	2.14	0.47
1:F:483:HIS:HD2	1:G:508:GLU:CD	2.17	0.47
1:G:76:ILE:HG23	1:G:153:ASP:O	2.14	0.47
1:L:79:TYR:OH	1:L:251:ILE:HG23	2.13	0.47
1:L:160:LYS:HZ3	1:L:424:THR:HG21	1.77	0.47
1:L:273:ILE:HD12	1:L:273:ILE:HA	1.57	0.47
1:A:79:TYR:OH	1:A:251:ILE:HG23	2.13	0.47
1:A:251:ILE:CG2	1:A:252:GLY:N	2.77	0.47
1:A:382:GLN:NE2	1:A:382:GLN:HA	2.29	0.47
1:A:432:ILE:HG23	1:A:436:GLU:HB2	1.95	0.47
1:C:160:LYS:HZ3	1:C:234:ALA:HB1	1.78	0.47
1:E:284:VAL:HG13	1:F:334:TYR:HB2	1.96	0.47
1:E:301:MET:O	1:E:305:MET:HG2	2.15	0.47
1:E:357:GLY:HA2	1:E:358:ASN:CB	2.29	0.47
1:F:160:LYS:HZ3	1:F:234:ALA:HB1	1.79	0.47
1:G:284:VAL:HG13	1:H:334:TYR:HB2	1.96	0.47
1:G:301:MET:O	1:G:305:MET:HG2	2.14	0.47
1:H:96:VAL:HG11	1:H:148:ARG:HB2	1.96	0.47
1:H:265:LYS:C	1:H:267:LEU:H	2.17	0.47
1:I:382:GLN:NE2	1:I:382:GLN:HA	2.29	0.47
1:I:483:HIS:HD2	1:J:508:GLU:CD	2.17	0.47
1:K:96:VAL:HG11	1:K:148:ARG:HB2	1.96	0.47
1:L:149:ARG:HD3	1:L:149:ARG:HA	1.54	0.47
1:A:159:HIS:CE1	1:A:230:ILE:HD13	2.49	0.47
1:B:382:GLN:HA	1:B:382:GLN:NE2	2.29	0.47
1:D:284:VAL:HG13	1:E:334:TYR:HB2	1.96	0.47
1:E:76:ILE:HG23	1:E:153:ASP:O	2.14	0.47
1:E:96:VAL:HG11	1:E:148:ARG:HB2	1.96	0.47
1:E:179:PRO:O	1:E:180:ARG:HB2	2.13	0.47
1:F:163:ASP:H	1:F:164:PRO:HA	1.78	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:163:ASP:H	1:H:164:PRO:HA	1.78	0.47
1:H:374:ARG:NH1	1:H:406:PHE:CE1	2.82	0.47
1:I:163:ASP:H	1:I:164:PRO:HA	1.78	0.47
1:K:357:GLY:CA	1:K:358:ASN:HB2	2.33	0.47
1:A:75:LEU:CD2	1:A:251:ILE:CD1	2.86	0.47
1:A:273:ILE:HD12	1:A:273:ILE:HA	1.57	0.47
1:B:432:ILE:HG23	1:B:436:GLU:HB2	1.95	0.47
1:C:79:TYR:OH	1:C:251:ILE:HG23	2.13	0.47
1:C:279:ALA:H	1:C:280:PRO:HD2	1.80	0.47
1:D:247:GLY:HA2	1:D:248:LYS:HA	1.65	0.47
1:E:251:ILE:CG2	1:E:252:GLY:N	2.77	0.47
1:E:491:LEU:HD12	1:E:491:LEU:HA	1.68	0.47
1:H:251:ILE:CG2	1:H:252:GLY:N	2.77	0.47
1:H:301:MET:O	1:H:305:MET:HG2	2.15	0.47
1:I:333:ASP:OD2	1:I:335:TRP:NE1	2.46	0.47
1:K:251:ILE:CG2	1:K:252:GLY:N	2.77	0.47
1:K:284:VAL:HG13	1:L:334:TYR:HB2	1.96	0.47
1:L:160:LYS:HZ3	1:L:234:ALA:HB1	1.79	0.47
1:B:149:ARG:CD	1:B:153:ASP:CG	2.68	0.47
1:B:279:ALA:H	1:B:280:PRO:HD2	1.80	0.47
1:D:301:MET:O	1:D:305:MET:HG2	2.14	0.47
1:E:159:HIS:CE1	1:E:230:ILE:HD13	2.49	0.47
1:F:159:HIS:CE1	1:F:230:ILE:HD13	2.49	0.47
1:F:265:LYS:C	1:F:267:LEU:H	2.18	0.47
1:G:482:SER:OG	1:G:483:HIS:N	2.48	0.47
1:H:281:ASP:O	1:I:331:THR:OG1	2.23	0.47
1:H:284:VAL:HG13	1:I:334:TYR:HB2	1.96	0.47
1:I:83:MET:HG3	1:I:152:VAL:HG11	1.97	0.47
1:I:251:ILE:CG2	1:I:252:GLY:N	2.77	0.47
1:J:83:MET:HG3	1:J:152:VAL:HG11	1.97	0.47
1:J:96:VAL:HG11	1:J:148:ARG:HB2	1.96	0.47
1:K:179:PRO:O	1:K:180:ARG:HB2	2.13	0.47
1:K:265:LYS:C	1:K:267:LEU:H	2.17	0.47
1:K:482:SER:OG	1:K:483:HIS:N	2.48	0.47
1:L:159:HIS:CE1	1:L:230:ILE:HD13	2.49	0.47
1:C:382:GLN:HA	1:C:382:GLN:NE2	2.29	0.47
1:D:163:ASP:H	1:D:164:PRO:HA	1.78	0.47
1:D:254:LEU:HD12	1:D:254:LEU:HA	1.81	0.47
1:D:279:ALA:H	1:D:280:PRO:HD2	1.80	0.47
1:E:382:GLN:HA	1:E:382:GLN:NE2	2.29	0.47
1:G:159:HIS:CE1	1:G:230:ILE:HD13	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:83:MET:HG3	1:H:152:VAL:HG11	1.97	0.47
1:I:374:ARG:NH1	1:I:406:PHE:CE1	2.82	0.47
1:J:94:GLU:HG2	1:J:375:VAL:CG2	2.45	0.47
1:J:483:HIS:HD2	1:K:508:GLU:CD	2.17	0.47
1:K:159:HIS:CE1	1:K:230:ILE:HD13	2.49	0.47
1:A:279:ALA:H	1:A:280:PRO:HD2	1.80	0.47
1:A:284:VAL:HG13	1:B:334:TYR:HB2	1.96	0.47
1:A:334:TYR:HB2	1:L:284:VAL:HG13	1.96	0.47
1:B:79:TYR:OH	1:B:251:ILE:HG23	2.13	0.47
1:B:159:HIS:CE1	1:B:230:ILE:HD13	2.49	0.47
1:B:251:ILE:CG2	1:B:252:GLY:N	2.77	0.47
1:C:73:SER:HA	1:C:180:ARG:HG2	1.97	0.47
1:C:96:VAL:HG11	1:C:148:ARG:HB2	1.96	0.47
1:D:251:ILE:CG2	1:D:252:GLY:N	2.77	0.47
1:D:377:LEU:HD13	1:D:377:LEU:HA	1.62	0.47
1:D:382:GLN:NE2	1:D:382:GLN:HA	2.29	0.47
1:E:273:ILE:HA	1:E:273:ILE:HD12	1.57	0.47
1:F:251:ILE:CG2	1:F:252:GLY:N	2.77	0.47
1:F:254:LEU:HD12	1:F:254:LEU:HA	1.80	0.47
1:G:83:MET:HG3	1:G:152:VAL:HG11	1.97	0.47
1:G:96:VAL:HG11	1:G:148:ARG:HB2	1.96	0.47
1:G:149:ARG:O	1:G:153:ASP:HB2	2.15	0.47
1:G:325:GLN:HA	1:G:326:HIS:HA	1.52	0.47
1:H:149:ARG:O	1:H:153:ASP:HB2	2.15	0.47
1:I:301:MET:O	1:I:305:MET:HG2	2.14	0.47
1:J:284:VAL:HG13	1:K:334:TYR:HB2	1.96	0.47
1:K:79:TYR:OH	1:K:251:ILE:HG23	2.13	0.47
1:K:94:GLU:HG2	1:K:375:VAL:CG2	2.45	0.47
1:L:279:ALA:H	1:L:280:PRO:HD2	1.80	0.47
1:L:482:SER:OG	1:L:483:HIS:N	2.48	0.47
1:A:96:VAL:HG11	1:A:148:ARG:HB2	1.96	0.47
1:B:284:VAL:HG13	1:C:334:TYR:HB2	1.96	0.47
1:B:285:TRP:CZ3	1:B:336:LEU:HD21	2.50	0.47
1:C:285:TRP:CZ3	1:C:336:LEU:HD21	2.50	0.47
1:C:301:MET:O	1:C:305:MET:HG2	2.14	0.47
1:D:159:HIS:CE1	1:D:230:ILE:HD13	2.49	0.47
1:D:216:ALA:O	1:D:217:CYS:O	2.33	0.47
1:F:382:GLN:NE2	1:F:382:GLN:HA	2.29	0.47
1:G:251:ILE:CG2	1:G:252:GLY:N	2.77	0.47
1:H:377:LEU:HD13	1:H:377:LEU:HA	1.62	0.47
1:H:382:GLN:HA	1:H:382:GLN:NE2	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:374:ARG:NH1	1:J:406:PHE:CE1	2.82	0.47
1:A:301:MET:O	1:A:305:MET:HG2	2.14	0.47
1:D:96:VAL:HG11	1:D:148:ARG:HB2	1.96	0.47
1:D:285:TRP:CZ3	1:D:336:LEU:HD21	2.50	0.47
1:D:357:GLY:CA	1:D:358:ASN:HB2	2.33	0.47
1:E:163:ASP:H	1:E:164:PRO:HA	1.78	0.47
1:E:279:ALA:H	1:E:280:PRO:HD2	1.80	0.47
1:F:216:ALA:O	1:F:217:CYS:O	2.33	0.47
1:I:285:TRP:CZ3	1:I:336:LEU:HD21	2.50	0.47
1:J:73:SER:HA	1:J:180:ARG:HG2	1.97	0.47
1:J:159:HIS:CE1	1:J:230:ILE:HD13	2.49	0.47
1:J:265:LYS:C	1:J:267:LEU:H	2.17	0.47
1:J:285:TRP:CZ3	1:J:336:LEU:HD21	2.50	0.47
1:K:149:ARG:O	1:K:153:ASP:HB2	2.15	0.47
1:K:216:ALA:O	1:K:217:CYS:O	2.33	0.47
1:K:301:MET:O	1:K:305:MET:HG2	2.15	0.47
1:L:73:SER:HA	1:L:180:ARG:HG2	1.97	0.47
1:L:94:GLU:HG2	1:L:375:VAL:CG2	2.45	0.47
1:L:149:ARG:O	1:L:153:ASP:HB2	2.15	0.47
1:A:73:SER:HA	1:A:180:ARG:HG2	1.97	0.47
1:A:285:TRP:CZ3	1:A:336:LEU:HD21	2.50	0.47
1:A:482:SER:OG	1:A:483:HIS:N	2.48	0.47
1:B:216:ALA:O	1:B:217:CYS:O	2.33	0.47
1:C:251:ILE:CG2	1:C:252:GLY:N	2.77	0.47
1:E:482:SER:OG	1:E:483:HIS:N	2.48	0.47
1:I:94:GLU:HG2	1:I:375:VAL:CG2	2.45	0.47
1:J:251:ILE:CG2	1:J:252:GLY:N	2.77	0.47
1:K:83:MET:HG3	1:K:152:VAL:HG11	1.97	0.47
1:L:76:ILE:HG23	1:L:153:ASP:O	2.14	0.47
1:L:265:LYS:C	1:L:267:LEU:H	2.18	0.47
1:F:73:SER:HA	1:F:180:ARG:HG2	1.97	0.46
1:I:216:ALA:O	1:I:217:CYS:O	2.33	0.46
1:J:301:MET:O	1:J:305:MET:HG2	2.14	0.46
1:L:96:VAL:HG11	1:L:148:ARG:HB2	1.96	0.46
1:B:301:MET:O	1:B:305:MET:HG2	2.15	0.46
1:D:73:SER:HA	1:D:180:ARG:HG2	1.97	0.46
1:D:482:SER:OG	1:D:483:HIS:N	2.48	0.46
1:E:285:TRP:CZ3	1:E:336:LEU:HD21	2.50	0.46
1:F:83:MET:HG3	1:F:152:VAL:HG11	1.97	0.46
1:F:284:VAL:HG13	1:G:334:TYR:HB2	1.96	0.46
1:H:159:HIS:CE1	1:H:230:ILE:HD13	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:216:ALA:O	1:H:217:CYS:O	2.33	0.46
1:H:482:SER:OG	1:H:483:HIS:N	2.48	0.46
1:I:73:SER:HA	1:I:180:ARG:HG2	1.97	0.46
1:J:160:LYS:HZ3	1:J:424:THR:HG21	1.79	0.46
1:K:285:TRP:CZ3	1:K:336:LEU:HD21	2.50	0.46
1:L:251:ILE:CG2	1:L:252:GLY:N	2.77	0.46
1:A:94:GLU:HG2	1:A:375:VAL:CG2	2.45	0.46
1:A:265:LYS:C	1:A:267:LEU:H	2.17	0.46
1:B:160:LYS:HZ3	1:B:234:ALA:HB1	1.81	0.46
1:C:159:HIS:CE1	1:C:230:ILE:HD13	2.49	0.46
1:C:491:LEU:HD12	1:C:491:LEU:HA	1.68	0.46
1:F:96:VAL:HG11	1:F:148:ARG:HB2	1.96	0.46
1:F:325:GLN:HA	1:F:326:HIS:HA	1.52	0.46
1:H:162:ILE:HA	1:H:163:ASP:HA	1.41	0.46
1:H:285:TRP:CZ3	1:H:336:LEU:HD21	2.50	0.46
1:I:96:VAL:HG11	1:I:148:ARG:HB2	1.96	0.46
1:I:284:VAL:HG13	1:J:334:TYR:HB2	1.96	0.46
1:L:216:ALA:O	1:L:217:CYS:O	2.33	0.46
1:L:285:TRP:CZ3	1:L:336:LEU:HD21	2.50	0.46
1:L:491:LEU:HD12	1:L:491:LEU:HA	1.68	0.46
1:A:149:ARG:O	1:A:153:ASP:HB2	2.15	0.46
1:B:482:SER:OG	1:B:483:HIS:N	2.48	0.46
1:C:247:GLY:HA2	1:C:248:LYS:HA	1.65	0.46
1:F:149:ARG:O	1:F:153:ASP:HB2	2.15	0.46
1:G:382:GLN:HA	1:G:382:GLN:NE2	2.29	0.46
1:I:149:ARG:O	1:I:153:ASP:HB2	2.15	0.46
1:J:216:ALA:O	1:J:217:CYS:O	2.33	0.46
1:K:374:ARG:NH1	1:K:406:PHE:CE1	2.82	0.46
1:C:149:ARG:O	1:C:153:ASP:HB2	2.15	0.46
1:C:284:VAL:HG13	1:D:334:TYR:HB2	1.96	0.46
1:C:374:ARG:NH1	1:C:406:PHE:CE1	2.82	0.46
1:C:482:SER:OG	1:C:483:HIS:N	2.48	0.46
1:F:285:TRP:CZ3	1:F:336:LEU:HD21	2.50	0.46
1:G:73:SER:HA	1:G:180:ARG:HG2	1.97	0.46
1:G:161:ILE:HD11	1:G:175:ARG:HH12	1.80	0.46
1:I:159:HIS:CE1	1:I:230:ILE:HD13	2.49	0.46
1:J:86:TYR:O	1:J:87:GLU:CB	2.54	0.46
1:K:233:ALA:HA	1:K:234:ALA:HA	1.65	0.46
1:K:254:LEU:HD12	1:K:254:LEU:HA	1.80	0.46
1:L:83:MET:HG3	1:L:152:VAL:HG11	1.97	0.46
1:A:216:ALA:O	1:A:217:CYS:O	2.33	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:357:GLY:CA	1:A:358:ASN:HB2	2.33	0.46
1:B:149:ARG:O	1:B:153:ASP:HB2	2.15	0.46
1:C:94:GLU:HG2	1:C:375:VAL:CG2	2.45	0.46
1:D:94:GLU:HG2	1:D:375:VAL:CG2	2.45	0.46
1:D:149:ARG:O	1:D:153:ASP:HB2	2.15	0.46
1:E:83:MET:HG3	1:E:152:VAL:HG11	1.97	0.46
1:E:149:ARG:O	1:E:153:ASP:HB2	2.15	0.46
1:E:259:LYS:HZ1	1:G:316:ALA:HA	1.81	0.46
1:F:161:ILE:HD11	1:F:175:ARG:HH12	1.80	0.46
1:F:279:ALA:H	1:F:280:PRO:HD2	1.80	0.46
1:H:161:ILE:HD11	1:H:175:ARG:HH12	1.80	0.46
1:I:169:GLU:N	1:I:170:GLY:HA2	2.31	0.46
1:J:149:ARG:O	1:J:153:ASP:HB2	2.15	0.46
1:L:301:MET:O	1:L:305:MET:HG2	2.14	0.46
1:A:149:ARG:HD3	1:A:149:ARG:HA	1.54	0.46
1:B:112:ASN:ND2	1:B:447:GLU:OE2	2.49	0.46
1:C:216:ALA:O	1:C:217:CYS:O	2.33	0.46
1:C:259:LYS:NZ	1:E:316:ALA:CA	2.73	0.46
1:F:130:PHE:O	1:F:133:VAL:HG12	2.16	0.46
1:H:247:GLY:HA2	1:H:248:LYS:HA	1.65	0.46
1:I:325:GLN:HA	1:I:326:HIS:HA	1.52	0.46
1:A:83:MET:HG3	1:A:152:VAL:HG11	1.97	0.46
1:B:160:LYS:HD2	1:B:236:VAL:HG13	1.98	0.46
1:C:112:ASN:ND2	1:C:447:GLU:OE2	2.49	0.46
1:C:160:LYS:HD2	1:C:236:VAL:HG13	1.98	0.46
1:D:160:LYS:HD2	1:D:236:VAL:HG13	1.98	0.46
1:E:73:SER:HA	1:E:180:ARG:HG2	1.97	0.46
1:E:112:ASN:ND2	1:E:447:GLU:OE2	2.49	0.46
1:F:357:GLY:HA2	1:F:358:ASN:CB	2.29	0.46
1:G:130:PHE:O	1:G:133:VAL:HG12	2.16	0.46
1:G:285:TRP:CZ3	1:G:336:LEU:HD21	2.50	0.46
1:B:73:SER:HA	1:B:180:ARG:HG2	1.97	0.46
1:B:94:GLU:HG2	1:B:375:VAL:CG2	2.45	0.46
1:B:161:ILE:HD11	1:B:175:ARG:HH12	1.80	0.46
1:D:83:MET:HG3	1:D:152:VAL:HG11	1.97	0.46
1:D:266:LEU:HD12	1:D:266:LEU:HA	1.80	0.46
1:E:75:LEU:CD2	1:E:251:ILE:HD13	2.36	0.46
1:E:160:LYS:HD2	1:E:236:VAL:HG13	1.98	0.46
1:H:94:GLU:HG2	1:H:375:VAL:CG2	2.45	0.46
1:H:233:ALA:HA	1:H:234:ALA:HA	1.65	0.46
1:I:265:LYS:C	1:I:267:LEU:H	2.18	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:112:ASN:ND2	1:A:447:GLU:OE2	2.49	0.46
1:A:161:ILE:HD11	1:A:175:ARG:HH12	1.80	0.46
1:B:233:ALA:HA	1:B:234:ALA:HA	1.65	0.46
1:C:83:MET:HG3	1:C:152:VAL:HG11	1.97	0.46
1:D:112:ASN:ND2	1:D:447:GLU:OE2	2.49	0.46
1:E:130:PHE:O	1:E:133:VAL:HG12	2.16	0.46
1:E:216:ALA:O	1:E:217:CYS:O	2.33	0.46
1:F:112:ASN:ND2	1:F:447:GLU:OE2	2.49	0.46
1:G:160:LYS:HD2	1:G:236:VAL:HG13	1.98	0.46
1:H:160:LYS:HD2	1:H:236:VAL:HG13	1.98	0.46
1:I:160:LYS:HD2	1:I:236:VAL:HG13	1.98	0.46
1:A:160:LYS:HD2	1:A:236:VAL:HG13	1.98	0.45
1:A:233:ALA:HA	1:A:234:ALA:HA	1.65	0.45
1:B:75:LEU:CD2	1:B:251:ILE:HD13	2.36	0.45
1:B:83:MET:HG3	1:B:152:VAL:HG11	1.97	0.45
1:B:130:PHE:O	1:B:133:VAL:HG12	2.16	0.45
1:B:163:ASP:OD2	1:B:428:LEU:HD21	2.16	0.45
1:B:374:ARG:NH1	1:B:406:PHE:CE1	2.82	0.45
1:C:161:ILE:HD11	1:C:175:ARG:HH12	1.80	0.45
1:E:94:GLU:HG2	1:E:375:VAL:CG2	2.45	0.45
1:F:160:LYS:HD2	1:F:236:VAL:HG13	1.98	0.45
1:G:216:ALA:O	1:G:217:CYS:O	2.33	0.45
1:H:142:LYS:HE3	1:H:142:LYS:HB3	1.80	0.45
1:J:160:LYS:HD2	1:J:236:VAL:HG13	1.98	0.45
1:J:169:GLU:N	1:J:170:GLY:HA2	2.31	0.45
1:J:285:TRP:HZ3	1:J:336:LEU:HD21	1.81	0.45
1:K:73:SER:HA	1:K:180:ARG:HG2	1.97	0.45
1:L:161:ILE:HD11	1:L:175:ARG:HH12	1.80	0.45
1:A:142:LYS:HE3	1:A:142:LYS:HB3	1.80	0.45
1:B:95:ILE:O	1:B:99:ALA:N	2.50	0.45
1:B:316:ALA:CA	1:L:259:LYS:NZ	2.73	0.45
1:D:95:ILE:O	1:D:99:ALA:N	2.50	0.45
1:G:94:GLU:HG2	1:G:375:VAL:CG2	2.45	0.45
1:K:149:ARG:HD3	1:K:149:ARG:HA	1.54	0.45
1:K:285:TRP:HZ3	1:K:336:LEU:HD21	1.81	0.45
1:L:169:GLU:N	1:L:170:GLY:HA2	2.31	0.45
1:D:130:PHE:O	1:D:133:VAL:HG12	2.16	0.45
1:E:161:ILE:HD11	1:E:175:ARG:HH12	1.80	0.45
1:F:94:GLU:HG2	1:F:375:VAL:CG2	2.45	0.45
1:G:272:VAL:HG11	1:H:314:TYR:CE2	2.52	0.45
1:H:130:PHE:O	1:H:133:VAL:HG12	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:285:TRP:HZ3	1:I:336:LEU:HD21	1.81	0.45
1:K:130:PHE:O	1:K:133:VAL:HG12	2.16	0.45
1:K:160:LYS:HD2	1:K:236:VAL:HG13	1.98	0.45
1:L:160:LYS:HD2	1:L:236:VAL:HG13	1.98	0.45
1:A:103:GLU:HB2	1:A:106:THR:HG1	1.80	0.45
1:A:272:VAL:HG11	1:B:314:TYR:CE2	2.52	0.45
1:B:357:GLY:CA	1:B:358:ASN:HB2	2.33	0.45
1:D:272:VAL:HG11	1:E:314:TYR:CE2	2.52	0.45
1:G:279:ALA:H	1:G:280:PRO:HD2	1.80	0.45
1:I:161:ILE:HD11	1:I:175:ARG:HH12	1.80	0.45
1:J:150:TRP:HZ3	1:J:410:LEU:HD13	1.81	0.45
1:L:285:TRP:HZ3	1:L:336:LEU:HD21	1.81	0.45
1:A:130:PHE:O	1:A:133:VAL:HG12	2.16	0.45
1:B:247:GLY:HA2	1:B:248:LYS:HA	1.65	0.45
1:D:161:ILE:HD11	1:D:175:ARG:HH12	1.80	0.45
1:F:95:ILE:O	1:F:99:ALA:N	2.50	0.45
1:I:150:TRP:HZ3	1:I:410:LEU:HD13	1.81	0.45
1:I:253:TYR:HH	1:I:413:LYS:HZ3	1.55	0.45
1:I:482:SER:OG	1:I:483:HIS:N	2.48	0.45
1:J:272:VAL:HG11	1:K:314:TYR:CE2	2.52	0.45
1:K:161:ILE:HD11	1:K:175:ARG:HH12	1.80	0.45
1:L:112:ASN:ND2	1:L:447:GLU:OE2	2.49	0.45
1:L:130:PHE:O	1:L:133:VAL:HG12	2.16	0.45
1:B:272:VAL:HG11	1:C:314:TYR:CE2	2.52	0.45
1:C:130:PHE:O	1:C:133:VAL:HG12	2.16	0.45
1:D:169:GLU:N	1:D:170:GLY:HA2	2.31	0.45
1:F:162:ILE:HD12	1:F:428:LEU:HD12	1.99	0.45
1:F:233:ALA:HA	1:F:234:ALA:HA	1.65	0.45
1:G:357:GLY:CA	1:G:358:ASN:HB2	2.33	0.45
1:H:73:SER:HA	1:H:180:ARG:HG2	1.97	0.45
1:H:162:ILE:HD12	1:H:428:LEU:HD12	1.99	0.45
1:J:112:ASN:ND2	1:J:447:GLU:OE2	2.49	0.45
1:J:130:PHE:O	1:J:133:VAL:HG12	2.16	0.45
1:D:233:ALA:HA	1:D:234:ALA:HA	1.65	0.45
1:E:95:ILE:O	1:E:99:ALA:N	2.50	0.45
1:E:162:ILE:HA	1:E:163:ASP:HA	1.41	0.45
1:F:272:VAL:HG11	1:G:314:TYR:CE2	2.52	0.45
1:H:169:GLU:N	1:H:170:GLY:HA2	2.31	0.45
1:H:285:TRP:HZ3	1:H:336:LEU:HD21	1.81	0.45
1:K:112:ASN:ND2	1:K:447:GLU:OE2	2.49	0.45
1:K:150:TRP:HZ3	1:K:410:LEU:HD13	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:95:ILE:O	1:L:99:ALA:N	2.50	0.45
1:A:95:ILE:O	1:A:99:ALA:N	2.50	0.45
1:A:169:GLU:N	1:A:170:GLY:HA2	2.31	0.45
1:B:149:ARG:HD3	1:B:149:ARG:HA	1.54	0.45
1:B:244:ASP:CG	1:B:245:CYS:H	2.15	0.45
1:F:482:SER:OG	1:F:483:HIS:N	2.48	0.45
1:H:150:TRP:HZ3	1:H:410:LEU:HD13	1.81	0.45
1:I:112:ASN:ND2	1:I:447:GLU:OE2	2.49	0.45
1:K:169:GLU:N	1:K:170:GLY:HA2	2.31	0.45
1:A:75:LEU:CD2	1:A:251:ILE:HD13	2.36	0.45
1:D:162:ILE:HD12	1:D:428:LEU:HD12	1.99	0.45
1:F:150:TRP:HZ3	1:F:410:LEU:HD13	1.81	0.45
1:F:169:GLU:N	1:F:170:GLY:HA2	2.31	0.45
1:F:357:GLY:CA	1:F:358:ASN:HB2	2.33	0.45
1:G:169:GLU:N	1:G:170:GLY:HA2	2.31	0.45
1:I:272:VAL:HG11	1:J:314:TYR:CE2	2.52	0.45
1:J:357:GLY:CA	1:J:358:ASN:HB2	2.33	0.45
1:L:325:GLN:HA	1:L:326:HIS:HA	1.52	0.45
1:A:512:ALA:CB	1:A:513:ARG:HA	2.47	0.45
1:B:169:GLU:N	1:B:170:GLY:HA2	2.31	0.45
1:D:150:TRP:HZ3	1:D:410:LEU:HD13	1.81	0.45
1:E:272:VAL:HG11	1:F:314:TYR:CE2	2.52	0.45
1:F:75:LEU:CD2	1:F:251:ILE:HD13	2.36	0.45
1:G:273:ILE:HD12	1:G:273:ILE:HA	1.57	0.45
1:H:95:ILE:O	1:H:99:ALA:N	2.50	0.45
1:J:161:ILE:HD11	1:J:175:ARG:HH12	1.80	0.45
1:L:150:TRP:HZ3	1:L:410:LEU:HD13	1.81	0.45
1:A:357:GLY:CA	1:B:355:ASN:HB2	2.48	0.44
1:B:162:ILE:HD12	1:B:428:LEU:HD12	1.99	0.44
1:C:169:GLU:N	1:C:170:GLY:HA2	2.31	0.44
1:C:377:LEU:HA	1:C:377:LEU:HD13	1.62	0.44
1:E:266:LEU:HD12	1:E:266:LEU:HA	1.80	0.44
1:F:491:LEU:HD12	1:F:491:LEU:HA	1.68	0.44
1:G:112:ASN:ND2	1:G:447:GLU:OE2	2.49	0.44
1:G:285:TRP:HZ3	1:G:336:LEU:HD21	1.81	0.44
1:H:252:GLY:HA3	1:H:253:TYR:HA	1.85	0.44
1:H:254:LEU:HD12	1:H:254:LEU:HA	1.80	0.44
1:H:272:VAL:HG11	1:I:314:TYR:CE2	2.52	0.44
1:H:279:ALA:H	1:H:280:PRO:HD2	1.80	0.44
1:I:95:ILE:O	1:I:99:ALA:N	2.50	0.44
1:J:95:ILE:O	1:J:99:ALA:N	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:272:VAL:HG11	1:L:314:TYR:CE2	2.52	0.44
1:L:374:ARG:NH1	1:L:406:PHE:CE1	2.82	0.44
1:C:162:ILE:HD12	1:C:428:LEU:HD12	1.99	0.44
1:C:272:VAL:HG11	1:D:314:TYR:CE2	2.52	0.44
1:D:491:LEU:HA	1:D:491:LEU:HD12	1.68	0.44
1:H:112:ASN:ND2	1:H:447:GLU:OE2	2.49	0.44
1:A:285:TRP:HZ3	1:A:336:LEU:HD21	1.81	0.44
1:A:314:TYR:CE2	1:L:272:VAL:HG11	2.52	0.44
1:A:355:ASN:HB2	1:L:357:GLY:CA	2.48	0.44
1:B:357:GLY:CA	1:C:355:ASN:HB2	2.48	0.44
1:C:150:TRP:HZ3	1:C:410:LEU:HD13	1.81	0.44
1:E:169:GLU:N	1:E:170:GLY:HA2	2.31	0.44
1:E:326:HIS:CE1	1:E:327:ASN:OD1	2.70	0.44
1:G:150:TRP:HZ3	1:G:410:LEU:HD13	1.81	0.44
1:G:494:THR:OG1	1:G:495:ASP:N	2.51	0.44
1:I:130:PHE:O	1:I:133:VAL:HG12	2.16	0.44
1:I:252:GLY:HA3	1:I:253:TYR:HA	1.85	0.44
1:J:419:LEU:HD21	1:J:446:ILE:HD11	1.99	0.44
1:K:491:LEU:HD12	1:K:491:LEU:HA	1.68	0.44
1:B:494:THR:OG1	1:B:495:ASP:N	2.51	0.44
1:C:95:ILE:O	1:C:99:ALA:N	2.50	0.44
1:C:285:TRP:HZ3	1:C:336:LEU:HD21	1.81	0.44
1:E:162:ILE:HD12	1:E:428:LEU:HD12	1.99	0.44
1:F:326:HIS:CE1	1:F:327:ASN:OD1	2.70	0.44
1:G:419:LEU:HD21	1:G:446:ILE:HD11	1.99	0.44
1:I:377:LEU:HD13	1:I:377:LEU:HA	1.62	0.44
1:A:86:TYR:O	1:A:87:GLU:CB	2.54	0.44
1:B:419:LEU:HD21	1:B:446:ILE:HD11	1.99	0.44
1:C:419:LEU:HD21	1:C:446:ILE:HD11	1.99	0.44
1:D:162:ILE:HA	1:D:163:ASP:HA	1.41	0.44
1:D:325:GLN:HA	1:D:326:HIS:HA	1.52	0.44
1:D:407:ILE:HD13	1:D:407:ILE:HA	1.84	0.44
1:E:325:GLN:HA	1:E:326:HIS:HA	1.52	0.44
1:E:494:THR:OG1	1:E:495:ASP:N	2.51	0.44
1:F:285:TRP:HZ3	1:F:336:LEU:HD21	1.81	0.44
1:I:494:THR:OG1	1:I:495:ASP:N	2.51	0.44
1:J:482:SER:OG	1:J:483:HIS:N	2.48	0.44
1:L:75:LEU:CD2	1:L:251:ILE:HD13	2.36	0.44
1:A:150:TRP:HZ3	1:A:410:LEU:HD13	1.81	0.44
1:D:253:TYR:HH	1:D:413:LYS:HZ3	1.52	0.44
1:D:509:SER:O	1:D:510:LYS:HD3	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:326:HIS:CE1	1:G:327:ASN:OD1	2.70	0.44
1:H:419:LEU:HD21	1:H:446:ILE:HD11	1.99	0.44
1:J:162:ILE:HD12	1:J:428:LEU:HD12	1.99	0.44
1:J:233:ALA:HA	1:J:234:ALA:HA	1.65	0.44
1:K:95:ILE:O	1:K:99:ALA:N	2.50	0.44
1:A:244:ASP:CG	1:A:245:CYS:H	2.15	0.44
1:C:509:SER:O	1:C:510:LYS:HD3	2.18	0.44
1:E:285:TRP:HZ3	1:E:336:LEU:HD21	1.81	0.44
1:G:441:ILE:HD13	1:G:444:ILE:H	1.83	0.44
1:K:162:ILE:HA	1:K:163:ASP:HA	1.41	0.44
1:L:162:ILE:HD12	1:L:428:LEU:HD12	1.99	0.44
1:L:279:ALA:CB	1:L:280:PRO:HD3	2.35	0.44
1:A:177:LEU:HD13	1:A:208:TYR:CD2	2.53	0.44
1:A:252:GLY:HA3	1:A:253:TYR:HA	1.85	0.44
1:D:177:LEU:HD13	1:D:208:TYR:CD2	2.53	0.44
1:D:494:THR:OG1	1:D:495:ASP:N	2.51	0.44
1:E:177:LEU:HD13	1:E:208:TYR:CD2	2.53	0.44
1:F:441:ILE:HD13	1:F:444:ILE:H	1.83	0.44
1:G:357:GLY:HA2	1:G:358:ASN:CB	2.29	0.44
1:H:326:HIS:CE1	1:H:327:ASN:OD1	2.70	0.44
1:I:491:LEU:HB3	1:I:493:MET:HG3	2.00	0.44
1:J:252:GLY:HA3	1:J:253:TYR:HA	1.85	0.44
1:J:509:SER:O	1:J:510:LYS:HD3	2.18	0.44
1:K:357:GLY:CA	1:L:355:ASN:HB2	2.48	0.44
1:L:177:LEU:HD13	1:L:208:TYR:CD2	2.53	0.44
1:A:247:GLY:HA2	1:A:248:LYS:HA	1.65	0.44
1:A:419:LEU:HD21	1:A:446:ILE:HD11	1.99	0.44
1:B:177:LEU:HD13	1:B:208:TYR:CD2	2.53	0.44
1:D:285:TRP:HZ3	1:D:336:LEU:HD21	1.81	0.44
1:E:512:ALA:CB	1:E:513:ARG:HA	2.47	0.44
1:G:142:LYS:HB3	1:G:142:LYS:HE3	1.80	0.44
1:H:441:ILE:HD13	1:H:444:ILE:H	1.83	0.44
1:I:279:ALA:H	1:I:280:PRO:HD2	1.80	0.44
1:I:509:SER:O	1:I:510:LYS:HD3	2.18	0.44
1:K:494:THR:OG1	1:K:495:ASP:N	2.51	0.44
1:K:509:SER:O	1:K:510:LYS:HD3	2.18	0.44
1:L:491:LEU:HB3	1:L:493:MET:HG3	2.00	0.44
1:L:494:THR:OG1	1:L:495:ASP:N	2.51	0.44
1:L:509:SER:O	1:L:510:LYS:HD3	2.18	0.44
1:A:149:ARG:CD	1:A:153:ASP:CG	2.68	0.43
1:A:509:SER:O	1:A:510:LYS:HD3	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:285:TRP:HZ3	1:B:336:LEU:HD21	1.81	0.43
1:C:441:ILE:HD13	1:C:444:ILE:H	1.83	0.43
1:D:419:LEU:HD21	1:D:446:ILE:HD11	1.99	0.43
1:G:162:ILE:HD12	1:G:428:LEU:HD12	1.99	0.43
1:H:509:SER:O	1:H:510:LYS:HD3	2.18	0.43
1:I:419:LEU:HD21	1:I:446:ILE:HD11	1.99	0.43
1:K:75:LEU:CD2	1:K:251:ILE:HD13	2.36	0.43
1:L:326:HIS:CE1	1:L:327:ASN:OD1	2.70	0.43
1:L:377:LEU:HA	1:L:377:LEU:HD13	1.62	0.43
1:B:150:TRP:HZ3	1:B:410:LEU:HD13	1.81	0.43
1:C:311:ARG:O	1:C:313:VAL:CG2	2.64	0.43
1:C:494:THR:OG1	1:C:495:ASP:N	2.51	0.43
1:E:149:ARG:HD3	1:E:149:ARG:HA	1.54	0.43
1:J:273:ILE:HA	1:J:273:ILE:HD12	1.57	0.43
1:K:325:GLN:HA	1:K:326:HIS:HA	1.52	0.43
1:L:233:ALA:HA	1:L:234:ALA:HA	1.65	0.43
1:A:326:HIS:CE1	1:A:327:ASN:OD1	2.70	0.43
1:C:177:LEU:HD13	1:C:208:TYR:CD2	2.53	0.43
1:C:325:GLN:HA	1:C:326:HIS:HA	1.52	0.43
1:E:82:LEU:HD12	1:E:82:LEU:HA	1.86	0.43
1:E:441:ILE:HD13	1:E:444:ILE:H	1.83	0.43
1:F:95:ILE:HG23	1:F:407:ILE:CD1	2.49	0.43
1:F:149:ARG:HD3	1:F:149:ARG:HA	1.54	0.43
1:F:177:LEU:HD13	1:F:208:TYR:CD2	2.53	0.43
1:G:149:ARG:HD3	1:G:149:ARG:HA	1.54	0.43
1:G:279:ALA:CB	1:G:280:PRO:CD	2.85	0.43
1:H:95:ILE:HG23	1:H:407:ILE:CD1	2.49	0.43
1:I:86:TYR:O	1:I:87:GLU:CB	2.54	0.43
1:J:95:ILE:HG23	1:J:407:ILE:CD1	2.49	0.43
1:J:149:ARG:HD3	1:J:149:ARG:HA	1.54	0.43
1:K:177:LEU:HD13	1:K:208:TYR:CD2	2.53	0.43
1:L:311:ARG:O	1:L:313:VAL:CG2	2.64	0.43
1:D:95:ILE:HG23	1:D:407:ILE:CD1	2.49	0.43
1:E:509:SER:O	1:E:510:LYS:HD3	2.18	0.43
1:H:357:GLY:CA	1:I:355:ASN:HB2	2.48	0.43
1:J:357:GLY:CA	1:K:355:ASN:HB2	2.48	0.43
1:J:491:LEU:HB3	1:J:493:MET:HG3	2.00	0.43
1:B:509:SER:O	1:B:510:LYS:HD3	2.18	0.43
1:E:171:ILE:O	1:E:172:LYS:HG3	2.19	0.43
1:E:419:LEU:HD21	1:E:446:ILE:HD11	1.99	0.43
1:G:509:SER:O	1:G:510:LYS:HD3	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:378:SER:C	1:K:379:ARG:O	2.53	0.43
1:K:419:LEU:HD21	1:K:446:ILE:HD11	1.99	0.43
1:K:512:ALA:CB	1:K:513:ARG:HA	2.47	0.43
1:A:380:ILE:HG22	1:A:382:GLN:O	2.19	0.43
1:A:494:THR:OG1	1:A:495:ASP:N	2.51	0.43
1:B:86:TYR:O	1:B:87:GLU:CB	2.54	0.43
1:E:150:TRP:HZ3	1:E:410:LEU:HD13	1.81	0.43
1:F:494:THR:OG1	1:F:495:ASP:N	2.51	0.43
1:I:380:ILE:HG22	1:I:382:GLN:O	2.19	0.43
1:I:441:ILE:HD13	1:I:444:ILE:H	1.83	0.43
1:K:252:GLY:HA3	1:K:253:TYR:HA	1.85	0.43
1:K:380:ILE:HG22	1:K:382:GLN:O	2.19	0.43
1:L:380:ILE:HG22	1:L:382:GLN:O	2.19	0.43
1:A:171:ILE:O	1:A:172:LYS:HG3	2.19	0.43
1:A:441:ILE:HD13	1:A:444:ILE:H	1.83	0.43
1:B:142:LYS:HE3	1:B:142:LYS:HB3	1.80	0.43
1:C:171:ILE:O	1:C:172:LYS:HG3	2.19	0.43
1:D:380:ILE:HG22	1:D:382:GLN:O	2.19	0.43
1:E:93:SER:HB2	1:E:148:ARG:NH1	2.34	0.43
1:G:95:ILE:HG23	1:G:407:ILE:CD1	2.49	0.43
1:G:491:LEU:HB3	1:G:493:MET:HG3	2.00	0.43
1:H:171:ILE:O	1:H:172:LYS:HG3	2.19	0.43
1:H:380:ILE:HG22	1:H:382:GLN:O	2.19	0.43
1:I:233:ALA:HA	1:I:234:ALA:HA	1.65	0.43
1:I:357:GLY:CA	1:I:358:ASN:HB2	2.33	0.43
1:J:75:LEU:CD2	1:J:251:ILE:HD13	2.36	0.43
1:J:171:ILE:O	1:J:172:LYS:HG3	2.19	0.43
1:J:177:LEU:HD13	1:J:208:TYR:CD2	2.53	0.43
1:J:380:ILE:HG22	1:J:382:GLN:O	2.19	0.43
1:J:494:THR:OG1	1:J:495:ASP:N	2.51	0.43
1:K:491:LEU:HB3	1:K:493:MET:HG3	2.00	0.43
1:L:171:ILE:O	1:L:172:LYS:HG3	2.19	0.43
1:L:419:LEU:HD21	1:L:446:ILE:HD11	1.99	0.43
1:A:95:ILE:HG23	1:A:407:ILE:CD1	2.49	0.43
1:A:398:ARG:CD	1:B:379:ARG:HH11	2.32	0.43
1:B:380:ILE:HG22	1:B:382:GLN:O	2.19	0.43
1:B:424:THR:O	1:B:428:LEU:HB2	2.19	0.43
1:C:95:ILE:HG23	1:C:407:ILE:CD1	2.49	0.43
1:C:419:LEU:HD23	1:C:419:LEU:HA	1.82	0.43
1:D:93:SER:HB2	1:D:148:ARG:NH1	2.34	0.43
1:D:273:ILE:HD12	1:D:273:ILE:HA	1.57	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:93:SER:HB2	1:F:148:ARG:NH1	2.34	0.43
1:G:171:ILE:O	1:G:172:LYS:HG3	2.19	0.43
1:G:467:ILE:O	1:G:471:THR:HG23	2.19	0.43
1:J:93:SER:HB2	1:J:148:ARG:NH1	2.34	0.43
1:J:279:ALA:H	1:J:280:PRO:HD2	1.80	0.43
1:K:467:ILE:O	1:K:471:THR:HG23	2.19	0.43
1:L:467:ILE:O	1:L:471:THR:HG23	2.19	0.43
1:A:93:SER:HB2	1:A:148:ARG:NH1	2.34	0.43
1:A:379:ARG:HH11	1:L:398:ARG:CD	2.32	0.43
1:A:491:LEU:HB3	1:A:493:MET:HG3	2.00	0.43
1:B:266:LEU:HD23	1:C:276:ILE:HD11	2.01	0.43
1:B:279:ALA:CB	1:B:280:PRO:CD	2.85	0.43
1:B:441:ILE:HD13	1:B:444:ILE:H	1.83	0.43
1:C:380:ILE:HG22	1:C:382:GLN:O	2.19	0.43
1:D:441:ILE:HD13	1:D:444:ILE:H	1.83	0.43
1:F:247:GLY:HA2	1:F:248:LYS:HA	1.65	0.43
1:F:266:LEU:HD12	1:F:266:LEU:HA	1.80	0.43
1:F:467:ILE:O	1:F:471:THR:HG23	2.19	0.43
1:F:491:LEU:HB3	1:F:493:MET:HG3	2.00	0.43
1:G:75:LEU:CD2	1:G:251:ILE:HD13	2.36	0.43
1:G:357:GLY:CA	1:H:355:ASN:HB2	2.48	0.43
1:G:424:THR:O	1:G:428:LEU:HB2	2.19	0.43
1:H:424:THR:O	1:H:428:LEU:HB2	2.19	0.43
1:J:247:GLY:HA2	1:J:248:LYS:HA	1.65	0.43
1:L:357:GLY:HA2	1:L:358:ASN:CB	2.29	0.43
1:B:326:HIS:CE1	1:B:327:ASN:OD1	2.70	0.43
1:C:491:LEU:HB3	1:C:493:MET:HG3	2.00	0.43
1:D:357:GLY:CA	1:E:355:ASN:HB2	2.48	0.43
1:E:95:ILE:HG23	1:E:407:ILE:CD1	2.49	0.43
1:F:509:SER:O	1:F:510:LYS:HD3	2.18	0.43
1:G:177:LEU:HD13	1:G:208:TYR:CD2	2.53	0.43
1:G:266:LEU:HD23	1:H:276:ILE:HD11	2.01	0.43
1:H:160:LYS:HZ3	1:H:234:ALA:HB1	1.84	0.43
1:I:93:SER:HB2	1:I:148:ARG:NH1	2.34	0.43
1:I:162:ILE:HD12	1:I:428:LEU:HD12	1.99	0.43
1:I:177:LEU:HD13	1:I:208:TYR:CD2	2.53	0.43
1:I:357:GLY:CA	1:J:355:ASN:HB2	2.48	0.43
1:J:216:ALA:O	1:J:217:CYS:C	2.58	0.43
1:J:266:LEU:HD12	1:J:266:LEU:HA	1.80	0.43
1:K:162:ILE:HD12	1:K:428:LEU:HD12	1.99	0.43
1:K:216:ALA:O	1:K:217:CYS:C	2.58	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:244:ASP:CG	1:L:245:CYS:H	2.15	0.43
1:A:266:LEU:HA	1:A:266:LEU:HD12	1.80	0.42
1:A:424:THR:O	1:A:428:LEU:HB2	2.19	0.42
1:B:398:ARG:CD	1:C:379:ARG:HH11	2.32	0.42
1:C:93:SER:HB2	1:C:148:ARG:NH1	2.34	0.42
1:E:374:ARG:NH1	1:E:406:PHE:CE1	2.82	0.42
1:F:266:LEU:HD23	1:G:276:ILE:HD11	2.01	0.42
1:F:419:LEU:HD21	1:F:446:ILE:HD11	1.99	0.42
1:G:380:ILE:HG22	1:G:382:GLN:O	2.19	0.42
1:H:494:THR:OG1	1:H:495:ASP:N	2.51	0.42
1:I:171:ILE:O	1:I:172:LYS:HG3	2.19	0.42
1:I:424:THR:O	1:I:428:LEU:HB2	2.19	0.42
1:L:216:ALA:O	1:L:217:CYS:C	2.58	0.42
1:L:357:GLY:CA	1:L:358:ASN:HB2	2.33	0.42
1:L:424:THR:O	1:L:428:LEU:HB2	2.19	0.42
1:A:266:LEU:HD23	1:B:276:ILE:HD11	2.01	0.42
1:A:378:SER:C	1:A:379:ARG:O	2.53	0.42
1:C:266:LEU:HD23	1:D:276:ILE:HD11	2.01	0.42
1:C:424:THR:O	1:C:428:LEU:HB2	2.19	0.42
1:E:380:ILE:HG22	1:E:382:GLN:O	2.19	0.42
1:H:467:ILE:O	1:H:471:THR:HG23	2.19	0.42
1:I:95:ILE:HG23	1:I:407:ILE:CD1	2.49	0.42
1:I:216:ALA:O	1:I:217:CYS:C	2.58	0.42
1:J:441:ILE:HD13	1:J:444:ILE:H	1.83	0.42
1:K:253:TYR:HH	1:K:413:LYS:HZ3	1.55	0.42
1:L:93:SER:HB2	1:L:148:ARG:NH1	2.34	0.42
1:L:441:ILE:HD13	1:L:444:ILE:H	1.83	0.42
1:A:216:ALA:O	1:A:217:CYS:C	2.58	0.42
1:A:467:ILE:O	1:A:471:THR:HG23	2.19	0.42
1:B:248:LYS:C	1:B:249:ASN:HD22	2.22	0.42
1:B:491:LEU:HB3	1:B:493:MET:HG3	2.00	0.42
1:C:467:ILE:O	1:C:471:THR:HG23	2.19	0.42
1:E:357:GLY:CA	1:F:355:ASN:HB2	2.48	0.42
1:E:424:THR:O	1:E:428:LEU:HB2	2.19	0.42
1:F:142:LYS:HE3	1:F:142:LYS:HB3	1.80	0.42
1:F:424:THR:O	1:F:428:LEU:HB2	2.19	0.42
1:H:491:LEU:HB3	1:H:493:MET:HG3	2.00	0.42
1:I:266:LEU:HD12	1:I:266:LEU:HA	1.80	0.42
1:J:248:LYS:C	1:J:249:ASN:ND2	2.73	0.42
1:L:95:ILE:HG23	1:L:407:ILE:CD1	2.49	0.42
1:A:407:ILE:HD13	1:A:407:ILE:HA	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:95:ILE:HG23	1:B:407:ILE:CD1	2.49	0.42
1:B:467:ILE:O	1:B:471:THR:HG23	2.19	0.42
1:C:248:LYS:C	1:C:249:ASN:ND2	2.73	0.42
1:C:441:ILE:HA	1:C:443:ASN:N	2.35	0.42
1:D:149:ARG:HD3	1:D:149:ARG:HA	1.54	0.42
1:D:424:THR:O	1:D:428:LEU:HB2	2.19	0.42
1:D:467:ILE:O	1:D:471:THR:HG23	2.19	0.42
1:E:248:LYS:C	1:E:249:ASN:ND2	2.73	0.42
1:F:171:ILE:O	1:F:172:LYS:HG3	2.19	0.42
1:G:93:SER:HB2	1:G:148:ARG:NH1	2.34	0.42
1:G:95:ILE:O	1:G:99:ALA:N	2.50	0.42
1:H:177:LEU:HD13	1:H:208:TYR:CD2	2.53	0.42
1:I:82:LEU:HA	1:I:82:LEU:HD12	1.86	0.42
1:J:424:THR:O	1:J:428:LEU:HB2	2.19	0.42
1:J:467:ILE:O	1:J:471:THR:HG23	2.19	0.42
1:J:491:LEU:HD12	1:J:491:LEU:HA	1.68	0.42
1:K:95:ILE:HG23	1:K:407:ILE:CD1	2.49	0.42
1:K:160:LYS:HZ3	1:K:234:ALA:HB1	1.84	0.42
1:K:266:LEU:HD12	1:K:266:LEU:HA	1.80	0.42
1:K:470:LEU:HD12	1:K:470:LEU:HA	1.88	0.42
1:A:242:LEU:HD12	1:A:252:GLY:HA3	2.02	0.42
1:B:311:ARG:O	1:B:313:VAL:CG2	2.64	0.42
1:B:441:ILE:HA	1:B:443:ASN:N	2.35	0.42
1:C:242:LEU:HD12	1:C:252:GLY:HA3	2.02	0.42
1:C:273:ILE:HA	1:C:273:ILE:HD12	1.57	0.42
1:D:374:ARG:NH1	1:D:406:PHE:CE1	2.82	0.42
1:E:467:ILE:O	1:E:471:THR:HG23	2.19	0.42
1:F:357:GLY:CA	1:G:355:ASN:HB2	2.48	0.42
1:G:247:GLY:HA2	1:G:248:LYS:HA	1.65	0.42
1:H:216:ALA:O	1:H:217:CYS:C	2.58	0.42
1:H:266:LEU:HD23	1:I:276:ILE:HD11	2.01	0.42
1:I:470:LEU:HD12	1:I:470:LEU:HA	1.88	0.42
1:J:244:ASP:CG	1:J:245:CYS:N	2.73	0.42
1:K:93:SER:HB2	1:K:148:ARG:NH1	2.34	0.42
1:K:244:ASP:CG	1:K:245:CYS:N	2.73	0.42
1:K:279:ALA:H	1:K:280:PRO:HD2	1.80	0.42
1:K:441:ILE:HD13	1:K:444:ILE:H	1.83	0.42
1:L:248:LYS:C	1:L:249:ASN:ND2	2.73	0.42
1:B:93:SER:HB2	1:B:148:ARG:NH1	2.34	0.42
1:B:216:ALA:O	1:B:217:CYS:C	2.58	0.42
1:B:242:LEU:HD12	1:B:252:GLY:HA3	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:371:MET:HG3	1:B:377:LEU:CD2	2.50	0.42
1:B:377:LEU:HA	1:B:377:LEU:HD13	1.62	0.42
1:D:242:LEU:HD12	1:D:252:GLY:HA3	2.02	0.42
1:H:248:LYS:C	1:H:249:ASN:ND2	2.73	0.42
1:I:244:ASP:CG	1:I:245:CYS:N	2.73	0.42
1:I:371:MET:HG3	1:I:377:LEU:CD2	2.50	0.42
1:J:371:MET:HG3	1:J:377:LEU:CD2	2.50	0.42
1:K:171:ILE:O	1:K:172:LYS:HG3	2.19	0.42
1:L:242:LEU:HD12	1:L:252:GLY:HA3	2.02	0.42
1:L:371:MET:HG3	1:L:377:LEU:CD2	2.50	0.42
1:A:161:ILE:C	1:A:162:ILE:HG23	2.40	0.42
1:A:276:ILE:HD11	1:L:266:LEU:HD23	2.01	0.42
1:A:408:ARG:HE	1:A:408:ARG:HB3	1.71	0.42
1:D:161:ILE:C	1:D:162:ILE:HG23	2.40	0.42
1:D:441:ILE:HA	1:D:443:ASN:N	2.35	0.42
1:E:149:ARG:CD	1:E:153:ASP:CG	2.68	0.42
1:E:266:LEU:HD23	1:F:276:ILE:HD11	2.01	0.42
1:E:371:MET:HG3	1:E:377:LEU:CD2	2.50	0.42
1:F:371:MET:HG3	1:F:377:LEU:CD2	2.50	0.42
1:H:408:ARG:HE	1:H:408:ARG:HB3	1.71	0.42
1:I:75:LEU:CD2	1:I:251:ILE:HD13	2.36	0.42
1:I:160:LYS:HZ3	1:I:234:ALA:HB1	1.84	0.42
1:I:160:LYS:HD3	1:I:234:ALA:C	2.40	0.42
1:I:311:ARG:O	1:I:313:VAL:CG2	2.64	0.42
1:J:311:ARG:O	1:J:313:VAL:CG2	2.64	0.42
1:K:162:ILE:HG23	1:K:171:ILE:HG12	1.96	0.42
1:K:248:LYS:C	1:K:249:ASN:HD22	2.22	0.42
1:K:424:THR:O	1:K:428:LEU:HB2	2.19	0.42
1:A:441:ILE:HA	1:A:443:ASN:N	2.35	0.42
1:B:161:ILE:C	1:B:162:ILE:HG23	2.40	0.42
1:B:254:LEU:HD12	1:B:254:LEU:HA	1.80	0.42
1:C:233:ALA:HA	1:C:234:ALA:HA	1.65	0.42
1:D:142:LYS:HE3	1:D:142:LYS:HB3	1.80	0.42
1:D:171:ILE:O	1:D:172:LYS:HG3	2.19	0.42
1:D:491:LEU:HB3	1:D:493:MET:HG3	2.00	0.42
1:E:163:ASP:OD2	1:E:428:LEU:HD21	2.20	0.42
1:E:398:ARG:CD	1:F:379:ARG:HH11	2.32	0.42
1:H:160:LYS:HD3	1:H:234:ALA:C	2.40	0.42
1:H:378:SER:C	1:H:379:ARG:O	2.53	0.42
1:I:161:ILE:C	1:I:162:ILE:HG23	2.40	0.42
1:I:163:ASP:OD2	1:I:428:LEU:HD21	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:161:ILE:C	1:K:162:ILE:HG23	2.40	0.42
1:L:247:GLY:HA2	1:L:248:LYS:HA	1.65	0.42
1:B:248:LYS:C	1:B:249:ASN:ND2	2.73	0.42
1:D:378:SER:C	1:D:379:ARG:O	2.53	0.42
1:D:398:ARG:CD	1:E:379:ARG:HH11	2.32	0.42
1:E:142:LYS:HE3	1:E:142:LYS:HB3	1.80	0.42
1:F:248:LYS:C	1:F:249:ASN:ND2	2.73	0.42
1:F:380:ILE:HG22	1:F:382:GLN:O	2.19	0.42
1:G:93:SER:HB2	1:G:148:ARG:HH12	1.85	0.42
1:H:163:ASP:OD2	1:H:428:LEU:HD21	2.20	0.42
1:I:441:ILE:HA	1:I:443:ASN:N	2.35	0.42
1:I:467:ILE:O	1:I:471:THR:HG23	2.19	0.42
1:J:161:ILE:C	1:J:162:ILE:HG23	2.40	0.42
1:J:163:ASP:OD2	1:J:428:LEU:HD21	2.20	0.42
1:K:119:SER:HB3	1:K:122:ILE:HG23	2.02	0.42
1:K:311:ARG:O	1:K:313:VAL:CG2	2.64	0.42
1:K:398:ARG:CD	1:L:379:ARG:HH11	2.32	0.42
1:L:82:LEU:HD12	1:L:82:LEU:HA	1.86	0.42
1:B:171:ILE:O	1:B:172:LYS:HG3	2.19	0.42
1:B:273:ILE:HD12	1:B:273:ILE:HA	1.57	0.42
1:C:161:ILE:C	1:C:162:ILE:HG23	2.40	0.42
1:C:371:MET:HG3	1:C:377:LEU:CD2	2.50	0.42
1:D:216:ALA:O	1:D:217:CYS:C	2.58	0.42
1:E:441:ILE:HA	1:E:443:ASN:N	2.35	0.42
1:E:491:LEU:HB3	1:E:493:MET:HG3	2.00	0.42
1:G:162:ILE:HA	1:G:163:ASP:HA	1.41	0.42
1:G:163:ASP:OD2	1:G:428:LEU:HD21	2.20	0.42
1:H:93:SER:HB2	1:H:148:ARG:HH12	1.85	0.42
1:H:244:ASP:CG	1:H:245:CYS:N	2.73	0.42
1:H:469:MET:HE1	1:I:460:ALA:HA	2.02	0.42
1:I:398:ARG:CD	1:J:379:ARG:HH11	2.32	0.42
1:J:377:LEU:HD13	1:J:377:LEU:HA	1.62	0.42
1:K:266:LEU:HD23	1:L:276:ILE:HD11	2.01	0.42
1:K:273:ILE:HD11	1:L:314:TYR:HB3	2.02	0.42
1:K:371:MET:HG3	1:K:377:LEU:CD2	2.50	0.42
1:C:163:ASP:OD2	1:C:428:LEU:HD21	2.20	0.41
1:C:494:THR:HG23	1:C:497:GLU:HG3	2.03	0.41
1:D:248:LYS:C	1:D:249:ASN:ND2	2.73	0.41
1:E:242:LEU:HD12	1:E:252:GLY:HA3	2.02	0.41
1:F:93:SER:HB2	1:F:148:ARG:HH12	1.85	0.41
1:F:273:ILE:HA	1:F:273:ILE:HD12	1.57	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:233:ALA:HA	1:G:234:ALA:HA	1.65	0.41
1:G:248:LYS:C	1:G:249:ASN:ND2	2.73	0.41
1:H:93:SER:HB2	1:H:148:ARG:NH1	2.34	0.41
1:H:311:ARG:O	1:H:313:VAL:CG2	2.64	0.41
1:H:441:ILE:HA	1:H:443:ASN:N	2.35	0.41
1:I:407:ILE:HD13	1:I:407:ILE:HA	1.84	0.41
1:J:160:LYS:HD3	1:J:234:ALA:C	2.40	0.41
1:J:162:ILE:HA	1:J:163:ASP:HA	1.41	0.41
1:K:242:LEU:HD12	1:K:252:GLY:HA3	2.02	0.41
1:L:119:SER:HB3	1:L:122:ILE:HG23	2.02	0.41
1:A:149:ARG:HD3	1:A:153:ASP:OD1	2.19	0.41
1:A:162:ILE:HA	1:A:163:ASP:HA	1.41	0.41
1:A:248:LYS:C	1:A:249:ASN:ND2	2.73	0.41
1:B:162:ILE:HG23	1:B:171:ILE:HG12	1.96	0.41
1:C:216:ALA:O	1:C:217:CYS:C	2.58	0.41
1:D:162:ILE:HG23	1:D:171:ILE:HG12	1.96	0.41
1:D:266:LEU:HD23	1:E:276:ILE:HD11	2.01	0.41
1:D:371:MET:HG3	1:D:377:LEU:CD2	2.50	0.41
1:E:160:LYS:HD3	1:E:234:ALA:C	2.40	0.41
1:E:429:LYS:HE3	1:E:429:LYS:HB2	1.87	0.41
1:F:512:ALA:CB	1:F:513:ARG:HA	2.47	0.41
1:G:371:MET:HG3	1:G:377:LEU:CD2	2.50	0.41
1:G:491:LEU:HD12	1:G:491:LEU:HA	1.68	0.41
1:H:371:MET:HG3	1:H:377:LEU:CD2	2.50	0.41
1:L:160:LYS:HD3	1:L:234:ALA:C	2.40	0.41
1:L:252:GLY:HA3	1:L:253:TYR:HA	1.85	0.41
1:L:266:LEU:HD12	1:L:266:LEU:HA	1.80	0.41
1:A:163:ASP:OD2	1:A:428:LEU:HD21	2.20	0.41
1:A:253:TYR:HH	1:A:413:LYS:HZ3	1.57	0.41
1:A:494:THR:HG23	1:A:497:GLU:HG3	2.03	0.41
1:B:149:ARG:HD3	1:B:153:ASP:OD1	2.19	0.41
1:B:273:ILE:HD11	1:C:314:TYR:HB3	2.02	0.41
1:B:494:THR:HG23	1:B:497:GLU:HG3	2.03	0.41
1:C:252:GLY:HA3	1:C:253:TYR:HA	1.85	0.41
1:C:326:HIS:CE1	1:C:327:ASN:OD1	2.70	0.41
1:C:398:ARG:CD	1:D:379:ARG:HH11	2.32	0.41
1:D:149:ARG:HD3	1:D:153:ASP:OD1	2.19	0.41
1:D:248:LYS:C	1:D:249:ASN:HD22	2.22	0.41
1:E:149:ARG:HD3	1:E:153:ASP:OD1	2.19	0.41
1:F:149:ARG:HD3	1:F:153:ASP:OD1	2.19	0.41
1:G:160:LYS:HD3	1:G:234:ALA:C	2.40	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:93:SER:HB2	1:I:148:ARG:HH12	1.85	0.41
1:K:244:ASP:CG	1:K:245:CYS:H	2.15	0.41
1:L:494:THR:HG23	1:L:497:GLU:HG3	2.03	0.41
1:A:254:LEU:HD12	1:A:254:LEU:HA	1.81	0.41
1:B:160:LYS:HD3	1:B:234:ALA:C	2.40	0.41
1:C:149:ARG:HD3	1:C:153:ASP:OD1	2.19	0.41
1:C:357:GLY:CA	1:D:355:ASN:HB2	2.48	0.41
1:D:470:LEU:HD12	1:D:470:LEU:HA	1.88	0.41
1:D:491:LEU:HD23	1:D:493:MET:CE	2.51	0.41
1:D:494:THR:HG23	1:D:497:GLU:HG3	2.03	0.41
1:F:160:LYS:HD3	1:F:234:ALA:C	2.40	0.41
1:F:377:LEU:HA	1:F:377:LEU:HD13	1.62	0.41
1:G:441:ILE:HA	1:G:443:ASN:N	2.35	0.41
1:H:273:ILE:HD11	1:I:314:TYR:HB3	2.02	0.41
1:H:407:ILE:HA	1:H:407:ILE:HD13	1.84	0.41
1:I:248:LYS:C	1:I:249:ASN:ND2	2.73	0.41
1:J:266:LEU:HD23	1:K:276:ILE:HD11	2.01	0.41
1:J:273:ILE:HD11	1:K:314:TYR:HB3	2.02	0.41
1:J:441:ILE:HA	1:J:443:ASN:N	2.35	0.41
1:J:494:THR:HG23	1:J:497:GLU:HG3	2.03	0.41
1:K:248:LYS:C	1:K:249:ASN:ND2	2.73	0.41
1:K:326:HIS:CE1	1:K:327:ASN:OD1	2.70	0.41
1:F:161:ILE:C	1:F:162:ILE:HG23	2.40	0.41
1:F:162:ILE:HG23	1:F:171:ILE:HG12	1.96	0.41
1:F:441:ILE:HA	1:F:443:ASN:N	2.35	0.41
1:G:367:GLN:NE2	1:G:382:GLN:OE1	2.54	0.41
1:H:161:ILE:C	1:H:162:ILE:HG23	2.40	0.41
1:H:259:LYS:NZ	1:J:316:ALA:HA	2.27	0.41
1:H:266:LEU:HD12	1:H:266:LEU:HA	1.80	0.41
1:H:398:ARG:CD	1:I:379:ARG:HH11	2.32	0.41
1:I:266:LEU:HD23	1:J:276:ILE:HD11	2.01	0.41
1:I:367:GLN:NE2	1:I:382:GLN:OE1	2.54	0.41
1:J:119:SER:HB3	1:J:122:ILE:HG23	2.02	0.41
1:J:398:ARG:CD	1:K:379:ARG:HH11	2.32	0.41
1:K:160:LYS:HD3	1:K:234:ALA:C	2.40	0.41
1:K:367:GLN:NE2	1:K:382:GLN:OE1	2.54	0.41
1:K:491:LEU:HD23	1:K:493:MET:CE	2.51	0.41
1:L:149:ARG:HD3	1:L:153:ASP:OD1	2.19	0.41
1:L:161:ILE:C	1:L:162:ILE:HG23	2.40	0.41
1:A:371:MET:HG3	1:A:377:LEU:CD2	2.50	0.41
1:C:119:SER:HB3	1:C:122:ILE:HG23	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:160:LYS:HZ3	1:D:234:ALA:HB1	1.86	0.41
1:E:93:SER:HB2	1:E:148:ARG:HH12	1.85	0.41
1:G:244:ASP:CG	1:G:245:CYS:N	2.73	0.41
1:I:494:THR:HG23	1:I:497:GLU:HG3	2.03	0.41
1:K:163:ASP:OD2	1:K:428:LEU:HD21	2.20	0.41
1:L:441:ILE:HA	1:L:443:ASN:N	2.35	0.41
1:A:169:GLU:CB	1:A:170:GLY:HA2	2.46	0.41
1:C:162:ILE:HA	1:C:163:ASP:HA	1.41	0.41
1:D:160:LYS:HD3	1:D:234:ALA:C	2.40	0.41
1:E:158:PHE:HE1	1:E:176:ARG:HG3	1.85	0.41
1:F:242:LEU:HD12	1:F:252:GLY:HA3	2.02	0.41
1:F:398:ARG:CD	1:G:379:ARG:HH11	2.32	0.41
1:F:491:LEU:HD23	1:F:493:MET:CE	2.51	0.41
1:G:161:ILE:C	1:G:162:ILE:HG23	2.40	0.41
1:G:253:TYR:HH	1:G:413:LYS:HZ3	1.58	0.41
1:H:82:LEU:HD12	1:H:82:LEU:HA	1.86	0.41
1:H:149:ARG:HA	1:H:149:ARG:HD3	1.54	0.41
1:I:491:LEU:HD23	1:I:493:MET:CE	2.51	0.41
1:J:242:LEU:HD12	1:J:252:GLY:HA3	2.02	0.41
1:J:326:HIS:CE1	1:J:327:ASN:OD1	2.70	0.41
1:K:494:THR:HG23	1:K:497:GLU:HG3	2.03	0.41
1:A:273:ILE:HD11	1:B:314:TYR:HB3	2.02	0.41
1:A:314:TYR:HB3	1:L:273:ILE:HD11	2.02	0.41
1:A:367:GLN:NE2	1:A:382:GLN:OE1	2.54	0.41
1:B:237:TYR:HH	1:B:250:ILE:HD11	1.83	0.41
1:C:379:ARG:O	1:C:381:PRO:CD	2.69	0.41
1:D:158:PHE:HE1	1:D:176:ARG:HG3	1.85	0.41
1:D:279:ALA:CB	1:D:280:PRO:HD3	2.35	0.41
1:D:379:ARG:O	1:D:381:PRO:CD	2.69	0.41
1:D:419:LEU:HD23	1:D:419:LEU:HA	1.82	0.41
1:E:150:TRP:HH2	1:E:410:LEU:HD22	1.86	0.41
1:E:494:THR:HG23	1:E:497:GLU:HG3	2.03	0.41
1:F:279:ALA:CB	1:F:280:PRO:HD3	2.35	0.41
1:G:216:ALA:O	1:G:217:CYS:C	2.58	0.41
1:G:491:LEU:HD23	1:G:493:MET:CE	2.51	0.41
1:I:242:LEU:HD12	1:I:252:GLY:HA3	2.02	0.41
1:L:491:LEU:HD23	1:L:493:MET:CE	2.51	0.41
1:A:377:LEU:HD13	1:A:377:LEU:HA	1.62	0.41
1:A:407:ILE:O	1:A:410:LEU:N	2.54	0.41
1:A:470:LEU:HD21	1:L:480:TYR:CE2	2.56	0.41
1:B:119:SER:HB3	1:B:122:ILE:HG23	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:379:ARG:O	1:B:381:PRO:CD	2.69	0.41
1:B:491:LEU:HD23	1:B:493:MET:CE	2.51	0.41
1:C:266:LEU:HD12	1:C:266:LEU:HA	1.80	0.41
1:C:367:GLN:NE2	1:C:382:GLN:OE1	2.54	0.41
1:C:512:ALA:CB	1:C:513:ARG:HA	2.47	0.41
1:D:119:SER:HB3	1:D:122:ILE:HG23	2.02	0.41
1:D:163:ASP:OD2	1:D:428:LEU:HD21	2.20	0.41
1:D:407:ILE:O	1:D:410:LEU:N	2.54	0.41
1:E:161:ILE:C	1:E:162:ILE:HG23	2.40	0.41
1:E:357:GLY:CA	1:E:358:ASN:HB2	2.33	0.41
1:E:379:ARG:O	1:E:381:PRO:CD	2.69	0.41
1:E:407:ILE:O	1:E:410:LEU:N	2.54	0.41
1:F:248:LYS:C	1:F:249:ASN:HD22	2.22	0.41
1:F:494:THR:HG23	1:F:497:GLU:HG3	2.03	0.41
1:G:242:LEU:HD12	1:G:252:GLY:HA3	2.02	0.41
1:G:273:ILE:HD11	1:H:314:TYR:HB3	2.02	0.41
1:G:311:ARG:O	1:G:313:VAL:CG2	2.64	0.41
1:G:379:ARG:O	1:G:381:PRO:CD	2.69	0.41
1:G:494:THR:HG23	1:G:497:GLU:HG3	2.03	0.41
1:H:158:PHE:HE1	1:H:176:ARG:HG3	1.85	0.41
1:H:162:ILE:O	1:H:162:ILE:HG13	2.21	0.41
1:H:242:LEU:HD12	1:H:252:GLY:HA3	2.02	0.41
1:H:357:GLY:HA2	1:H:358:ASN:CB	2.29	0.41
1:H:367:GLN:NE2	1:H:382:GLN:OE1	2.54	0.41
1:H:379:ARG:O	1:H:381:PRO:CD	2.69	0.41
1:H:407:ILE:O	1:H:410:LEU:N	2.54	0.41
1:H:494:THR:HG23	1:H:497:GLU:HG3	2.03	0.41
1:I:326:HIS:CE1	1:I:327:ASN:OD1	2.70	0.41
1:I:379:ARG:O	1:I:381:PRO:CD	2.69	0.41
1:I:407:ILE:O	1:I:410:LEU:N	2.54	0.41
1:I:491:LEU:HD12	1:I:491:LEU:HA	1.68	0.41
1:J:93:SER:HB2	1:J:148:ARG:HH12	1.85	0.41
1:J:407:ILE:O	1:J:410:LEU:N	2.54	0.41
1:K:93:SER:HB2	1:K:148:ARG:HH12	1.85	0.41
1:K:441:ILE:HA	1:K:443:ASN:N	2.35	0.41
1:K:480:TYR:CE2	1:L:470:LEU:HD21	2.56	0.41
1:L:93:SER:HB2	1:L:148:ARG:HH12	1.85	0.41
1:L:158:PHE:HE1	1:L:176:ARG:HG3	1.85	0.41
1:A:119:SER:HB3	1:A:122:ILE:HG23	2.02	0.41
1:A:158:PHE:HE1	1:A:176:ARG:HG3	1.85	0.41
1:A:379:ARG:O	1:A:381:PRO:CD	2.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:162:ILE:O	1:C:162:ILE:HG13	2.21	0.41
1:D:367:GLN:NE2	1:D:382:GLN:OE1	2.54	0.41
1:D:408:ARG:HE	1:D:408:ARG:HB3	1.71	0.41
1:E:268:GLU:OE2	1:E:362:ILE:HG12	2.21	0.41
1:F:158:PHE:HE1	1:F:176:ARG:HG3	1.85	0.41
1:F:163:ASP:OD2	1:F:428:LEU:HD21	2.20	0.41
1:F:367:GLN:NE2	1:F:382:GLN:OE1	2.54	0.41
1:F:379:ARG:O	1:F:381:PRO:CD	2.69	0.41
1:G:150:TRP:HH2	1:G:410:LEU:HD22	1.86	0.41
1:G:157:PHE:CE2	1:G:237:TYR:HD1	2.39	0.41
1:G:513:ARG:H	1:G:513:ARG:HG3	1.75	0.41
1:H:248:LYS:C	1:H:249:ASN:HD22	2.22	0.41
1:I:158:PHE:HE1	1:I:176:ARG:HG3	1.85	0.41
1:I:162:ILE:O	1:I:162:ILE:HG13	2.21	0.41
1:I:480:TYR:CE2	1:J:470:LEU:HD21	2.56	0.41
1:J:162:ILE:HG13	1:J:162:ILE:O	2.21	0.41
1:J:379:ARG:O	1:J:381:PRO:CD	2.69	0.41
1:J:469:MET:HE1	1:K:460:ALA:HA	2.03	0.41
1:J:512:ALA:CB	1:J:513:ARG:HA	2.47	0.41
1:L:163:ASP:OD2	1:L:428:LEU:HD21	2.20	0.41
1:A:93:SER:HB2	1:A:148:ARG:HH12	1.85	0.40
1:A:160:LYS:HD3	1:A:234:ALA:C	2.40	0.40
1:A:480:TYR:CE2	1:B:470:LEU:HD21	2.56	0.40
1:B:325:GLN:HA	1:B:326:HIS:HA	1.52	0.40
1:B:367:GLN:NE2	1:B:382:GLN:OE1	2.54	0.40
1:C:93:SER:HB2	1:C:148:ARG:HH12	1.85	0.40
1:E:157:PHE:CE2	1:E:237:TYR:HD1	2.39	0.40
1:E:273:ILE:HD11	1:F:314:TYR:HB3	2.02	0.40
1:F:157:PHE:CE2	1:F:237:TYR:HD1	2.39	0.40
1:G:162:ILE:HG13	1:G:162:ILE:O	2.21	0.40
1:G:397:THR:HG22	1:G:398:ARG:H	1.86	0.40
1:H:397:THR:HG22	1:H:398:ARG:H	1.86	0.40
1:H:491:LEU:HD23	1:H:493:MET:CE	2.51	0.40
1:I:419:LEU:HD23	1:I:419:LEU:HA	1.82	0.40
1:J:480:TYR:CE2	1:K:470:LEU:HD21	2.56	0.40
1:K:149:ARG:HD3	1:K:153:ASP:OD1	2.19	0.40
1:K:162:ILE:O	1:K:162:ILE:HG13	2.21	0.40
1:L:162:ILE:HG23	1:L:171:ILE:HG12	1.96	0.40
1:B:162:ILE:HG13	1:B:162:ILE:O	2.21	0.40
1:B:266:LEU:HD12	1:B:266:LEU:HA	1.80	0.40
1:B:407:ILE:O	1:B:410:LEU:N	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:158:PHE:HE1	1:C:176:ARG:HG3	1.85	0.40
1:C:160:LYS:HD3	1:C:234:ALA:C	2.40	0.40
1:C:273:ILE:HD11	1:D:314:TYR:HB3	2.02	0.40
1:C:407:ILE:O	1:C:410:LEU:N	2.54	0.40
1:E:119:SER:HB3	1:E:122:ILE:HG23	2.02	0.40
1:E:216:ALA:O	1:E:217:CYS:C	2.58	0.40
1:E:367:GLN:NE2	1:E:382:GLN:OE1	2.54	0.40
1:E:491:LEU:HD23	1:E:493:MET:CE	2.51	0.40
1:G:268:GLU:OE2	1:G:362:ILE:HG12	2.21	0.40
1:K:379:ARG:O	1:K:381:PRO:CD	2.69	0.40
1:K:397:THR:HG22	1:K:398:ARG:H	1.86	0.40
1:L:367:GLN:NE2	1:L:382:GLN:OE1	2.54	0.40
1:A:311:ARG:O	1:A:313:VAL:CG2	2.64	0.40
1:B:162:ILE:HA	1:B:163:ASP:HA	1.41	0.40
1:B:382:GLN:HA	1:B:382:GLN:HE21	1.86	0.40
1:C:142:LYS:HE3	1:C:142:LYS:HB3	1.80	0.40
1:D:93:SER:HB2	1:D:148:ARG:HH12	1.85	0.40
1:D:338:ARG:H	1:D:338:ARG:HG3	1.65	0.40
1:E:470:LEU:HD12	1:E:470:LEU:HA	1.88	0.40
1:F:91:ALA:O	1:F:94:GLU:HB3	2.22	0.40
1:F:407:ILE:O	1:F:410:LEU:N	2.54	0.40
1:G:470:LEU:HD12	1:G:470:LEU:HA	1.88	0.40
1:H:75:LEU:CD2	1:H:251:ILE:HD13	2.36	0.40
1:H:86:TYR:O	1:H:87:GLU:CB	2.54	0.40
1:H:157:PHE:CE2	1:H:237:TYR:HD1	2.39	0.40
1:I:149:ARG:HD3	1:I:149:ARG:HA	1.54	0.40
1:I:273:ILE:HD11	1:J:314:TYR:HB3	2.02	0.40
1:I:397:THR:HG22	1:I:398:ARG:H	1.86	0.40
1:K:158:PHE:HE1	1:K:176:ARG:HG3	1.85	0.40
1:K:419:LEU:HD23	1:K:419:LEU:HA	1.82	0.40
1:K:491:LEU:HD23	1:K:493:MET:HE3	2.03	0.40
1:L:162:ILE:HG13	1:L:162:ILE:O	2.21	0.40
1:L:268:GLU:OE2	1:L:362:ILE:HG12	2.21	0.40
1:L:379:ARG:O	1:L:381:PRO:CD	2.69	0.40
1:L:407:ILE:O	1:L:410:LEU:N	2.54	0.40
1:A:91:ALA:O	1:A:94:GLU:HB3	2.22	0.40
1:A:273:ILE:HD11	1:B:314:TYR:CB	2.52	0.40
1:A:279:ALA:CB	1:A:280:PRO:HD3	2.35	0.40
1:A:382:GLN:HA	1:A:382:GLN:HE21	1.86	0.40
1:A:491:LEU:HD23	1:A:493:MET:CE	2.51	0.40
1:B:93:SER:HB2	1:B:148:ARG:HH12	1.85	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:150:TRP:HH2	1:C:410:LEU:HD22	1.86	0.40
1:D:150:TRP:HH2	1:D:410:LEU:HD22	1.86	0.40
1:D:157:PHE:CE2	1:D:237:TYR:HD1	2.39	0.40
1:E:124:ASN:O	1:E:127:LEU:HG	2.22	0.40
1:E:153:ASP:O	1:E:154:SER:CB	2.70	0.40
1:F:177:LEU:O	1:F:179:PRO:HD3	2.22	0.40
1:F:268:GLU:OE2	1:F:362:ILE:HG12	2.21	0.40
1:F:273:ILE:HD11	1:G:314:TYR:CB	2.52	0.40
1:F:338:ARG:H	1:F:338:ARG:HG3	1.65	0.40
1:F:397:THR:HG22	1:F:398:ARG:H	1.86	0.40
1:F:513:ARG:H	1:F:513:ARG:HG3	1.75	0.40
1:G:119:SER:HB3	1:G:122:ILE:HG23	2.02	0.40
1:H:119:SER:HB3	1:H:122:ILE:HG23	2.02	0.40
1:H:273:ILE:HD11	1:I:314:TYR:CB	2.52	0.40
1:H:382:GLN:HA	1:H:382:GLN:HE21	1.86	0.40
1:H:513:ARG:H	1:H:513:ARG:HG3	1.75	0.40
1:I:247:GLY:HA2	1:I:248:LYS:HA	1.65	0.40
1:I:273:ILE:HD12	1:I:273:ILE:HA	1.57	0.40
1:J:130:PHE:HD1	1:J:422:LEU:HD12	1.87	0.40
1:J:397:THR:HG22	1:J:398:ARG:H	1.86	0.40
1:J:407:ILE:HA	1:J:407:ILE:HD13	1.84	0.40
1:K:377:LEU:HD13	1:K:377:LEU:HA	1.62	0.40
1:A:268:GLU:OE2	1:A:362:ILE:HG12	2.21	0.40
1:B:124:ASN:O	1:B:127:LEU:HG	2.22	0.40
1:B:150:TRP:HH2	1:B:410:LEU:HD22	1.86	0.40
1:C:382:GLN:HA	1:C:382:GLN:HE21	1.86	0.40
1:C:491:LEU:HD23	1:C:493:MET:CE	2.51	0.40
1:D:273:ILE:HD11	1:E:314:TYR:HB3	2.02	0.40
1:E:377:LEU:HD13	1:E:377:LEU:HA	1.62	0.40
1:F:119:SER:HB3	1:F:122:ILE:HG23	2.02	0.40
1:F:153:ASP:O	1:F:154:SER:CB	2.70	0.40
1:F:480:TYR:CE2	1:G:470:LEU:HD21	2.56	0.40
1:G:407:ILE:O	1:G:410:LEU:N	2.54	0.40
1:G:480:TYR:CE2	1:H:470:LEU:HD21	2.56	0.40
1:H:130:PHE:HD1	1:H:422:LEU:HD12	1.87	0.40
1:H:149:ARG:CD	1:H:153:ASP:CG	2.68	0.40
1:H:268:GLU:OE2	1:H:362:ILE:HG12	2.21	0.40
1:H:279:ALA:CB	1:H:280:PRO:HD3	2.35	0.40
1:H:480:TYR:CE2	1:I:470:LEU:HD21	2.56	0.40
1:I:91:ALA:O	1:I:94:GLU:HB3	2.22	0.40
1:I:157:PHE:CE2	1:I:237:TYR:HD1	2.39	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:243:VAL:O	1:I:244:ASP:CB	2.70	0.40
1:I:326:HIS:O	1:I:327:ASN:CB	2.70	0.40
1:I:382:GLN:HA	1:I:382:GLN:HE21	1.86	0.40
1:J:244:ASP:CG	1:J:245:CYS:H	2.15	0.40
1:J:367:GLN:NE2	1:J:382:GLN:OE1	2.54	0.40
1:K:382:GLN:HA	1:K:382:GLN:HE21	1.86	0.40
1:K:407:ILE:O	1:K:410:LEU:N	2.54	0.40
1:L:162:ILE:CG2	1:L:171:ILE:CB	2.92	0.40
1:L:162:ILE:HA	1:L:163:ASP:HA	1.41	0.40

There are no symmetry-related clashes.

5.3　Torsion angles　ⓘ

5.3.1　Protein backbone　ⓘ

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	424/455 (93%)	368 (87%)	47 (11%)	9 (2%)	7	40
1	B	424/455 (93%)	369 (87%)	46 (11%)	9 (2%)	7	40
1	C	424/455 (93%)	368 (87%)	47 (11%)	9 (2%)	7	40
1	D	424/455 (93%)	368 (87%)	47 (11%)	9 (2%)	7	40
1	E	424/455 (93%)	368 (87%)	47 (11%)	9 (2%)	7	40
1	F	424/455 (93%)	368 (87%)	47 (11%)	9 (2%)	7	40
1	G	424/455 (93%)	368 (87%)	47 (11%)	9 (2%)	7	40
1	H	424/455 (93%)	369 (87%)	46 (11%)	9 (2%)	7	40
1	I	424/455 (93%)	368 (87%)	47 (11%)	9 (2%)	7	40
1	J	424/455 (93%)	368 (87%)	47 (11%)	9 (2%)	7	40
1	K	424/455 (93%)	368 (87%)	47 (11%)	9 (2%)	7	40
1	L	424/455 (93%)	368 (87%)	47 (11%)	9 (2%)	7	40
All	All	5088/5460 (93%)	4418 (87%)	562 (11%)	108 (2%)	10	40

All (108) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	171	ILE
1	A	380	ILE
1	B	171	ILE
1	B	380	ILE
1	C	171	ILE
1	C	380	ILE
1	D	171	ILE
1	D	380	ILE
1	E	171	ILE
1	E	380	ILE
1	F	171	ILE
1	F	380	ILE
1	G	171	ILE
1	G	380	ILE
1	H	171	ILE
1	H	380	ILE
1	I	171	ILE
1	I	380	ILE
1	J	171	ILE
1	J	380	ILE
1	K	171	ILE
1	K	380	ILE
1	L	171	ILE
1	L	380	ILE
1	A	217	CYS
1	A	241	GLY
1	B	217	CYS
1	B	241	GLY
1	C	217	CYS
1	C	241	GLY
1	D	217	CYS
1	D	241	GLY
1	E	217	CYS
1	E	241	GLY
1	F	217	CYS
1	F	241	GLY
1	G	217	CYS
1	G	241	GLY
1	H	217	CYS
1	H	241	GLY
1	I	217	CYS
1	I	241	GLY

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Mol	Chain	Res	Type
1	J	217	CYS
1	J	241	GLY
1	K	217	CYS
1	K	241	GLY
1	L	217	CYS
1	L	241	GLY
1	A	244	ASP
1	A	374	ARG
1	B	244	ASP
1	B	374	ARG
1	C	244	ASP
1	C	374	ARG
1	D	244	ASP
1	D	374	ARG
1	E	244	ASP
1	E	374	ARG
1	F	244	ASP
1	F	374	ARG
1	G	244	ASP
1	G	374	ARG
1	H	244	ASP
1	H	374	ARG
1	I	244	ASP
1	I	374	ARG
1	J	244	ASP
1	J	374	ARG
1	K	244	ASP
1	K	374	ARG
1	L	244	ASP
1	L	374	ARG
1	A	327	ASN
1	A	431	ILE
1	B	327	ASN
1	B	431	ILE
1	C	327	ASN
1	C	431	ILE
1	D	327	ASN
1	D	431	ILE
1	E	327	ASN
1	E	431	ILE
1	F	327	ASN
1	F	431	ILE

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Mol	Chain	Res	Type
1	G	327	ASN
1	G	431	ILE
1	H	327	ASN
1	H	431	ILE
1	I	327	ASN
1	I	431	ILE
1	J	327	ASN
1	J	431	ILE
1	K	327	ASN
1	K	431	ILE
1	L	327	ASN
1	L	431	ILE
1	A	163	ASP
1	B	163	ASP
1	C	163	ASP
1	D	163	ASP
1	E	163	ASP
1	F	163	ASP
1	G	163	ASP
1	H	163	ASP
1	I	163	ASP
1	J	163	ASP
1	K	163	ASP
1	L	163	ASP

5.3.2　Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	364/407 (89%)	335 (92%)	29 (8%)	12	43
1	B	364/407 (89%)	335 (92%)	29 (8%)	12	43
1	C	364/407 (89%)	334 (92%)	30 (8%)	11	42
1	D	364/407 (89%)	335 (92%)	29 (8%)	12	43
1	E	364/407 (89%)	335 (92%)	29 (8%)	12	43

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	F	364/407 (89%)	334 (92%)	30 (8%)	11	42
1	G	364/407 (89%)	335 (92%)	29 (8%)	12	43
1	H	364/407 (89%)	335 (92%)	29 (8%)	12	43
1	I	364/407 (89%)	334 (92%)	30 (8%)	11	42
1	J	364/407 (89%)	335 (92%)	29 (8%)	12	43
1	K	364/407 (89%)	335 (92%)	29 (8%)	12	43
1	L	364/407 (89%)	334 (92%)	30 (8%)	11	42
All	All	4368/4884 (89%)	4016 (92%)	352 (8%)	15	43

All (352) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	86	TYR
1	A	165	LYS
1	A	166	ARG
1	A	176	ARG
1	A	232	LYS
1	A	254	LEU
1	A	272	VAL
1	A	273	ILE
1	A	275	ARG
1	A	282	ARG
1	A	283	ARG
1	A	284	VAL
1	A	312	VAL
1	A	344	VAL
1	A	363	ARG
1	A	377	LEU
1	A	378	SER
1	A	398	ARG
1	A	399	ASP
1	A	401	LEU
1	A	415	GLU
1	A	457	LEU
1	A	467	ILE
1	A	491	LEU
1	A	494	THR
1	A	501	GLU
1	A	507	GLU
1	A	508	GLU

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Mol	Chain	Res	Type
1	A	513	ARG
1	B	86	TYR
1	B	165	LYS
1	B	166	ARG
1	B	176	ARG
1	B	232	LYS
1	B	254	LEU
1	B	272	VAL
1	B	273	ILE
1	B	275	ARG
1	B	282	ARG
1	B	283	ARG
1	B	284	VAL
1	B	312	VAL
1	B	344	VAL
1	B	363	ARG
1	B	377	LEU
1	B	378	SER
1	B	398	ARG
1	B	399	ASP
1	B	401	LEU
1	B	415	GLU
1	B	457	LEU
1	B	467	ILE
1	B	491	LEU
1	B	494	THR
1	B	501	GLU
1	B	507	GLU
1	B	508	GLU
1	B	513	ARG
1	C	86	TYR
1	C	165	LYS
1	C	166	ARG
1	C	176	ARG
1	C	232	LYS
1	C	254	LEU
1	C	272	VAL
1	C	273	ILE
1	C	275	ARG
1	C	281	ASP
1	C	282	ARG
1	C	283	ARG

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Mol	Chain	Res	Type
1	C	284	VAL
1	C	312	VAL
1	C	344	VAL
1	C	363	ARG
1	C	377	LEU
1	C	378	SER
1	C	398	ARG
1	C	399	ASP
1	C	401	LEU
1	C	415	GLU
1	C	457	LEU
1	C	467	ILE
1	C	491	LEU
1	C	494	THR
1	C	501	GLU
1	C	507	GLU
1	C	508	GLU
1	C	513	ARG
1	D	86	TYR
1	D	165	LYS
1	D	166	ARG
1	D	176	ARG
1	D	232	LYS
1	D	254	LEU
1	D	272	VAL
1	D	273	ILE
1	D	275	ARG
1	D	282	ARG
1	D	283	ARG
1	D	284	VAL
1	D	312	VAL
1	D	344	VAL
1	D	363	ARG
1	D	377	LEU
1	D	378	SER
1	D	398	ARG
1	D	399	ASP
1	D	401	LEU
1	D	415	GLU
1	D	457	LEU
1	D	467	ILE
1	D	491	LEU

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Mol	Chain	Res	Type
1	D	494	THR
1	D	501	GLU
1	D	507	GLU
1	D	508	GLU
1	D	513	ARG
1	E	86	TYR
1	E	165	LYS
1	E	166	ARG
1	E	176	ARG
1	E	232	LYS
1	E	254	LEU
1	E	272	VAL
1	E	273	ILE
1	E	275	ARG
1	E	282	ARG
1	E	283	ARG
1	E	284	VAL
1	E	312	VAL
1	E	344	VAL
1	E	363	ARG
1	E	377	LEU
1	E	378	SER
1	E	398	ARG
1	E	399	ASP
1	E	401	LEU
1	E	415	GLU
1	E	457	LEU
1	E	467	ILE
1	E	491	LEU
1	E	494	THR
1	E	501	GLU
1	E	507	GLU
1	E	508	GLU
1	E	513	ARG
1	F	86	TYR
1	F	165	LYS
1	F	166	ARG
1	F	176	ARG
1	F	232	LYS
1	F	254	LEU
1	F	272	VAL
1	F	273	ILE

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Mol	Chain	Res	Type
1	F	275	ARG
1	F	281	ASP
1	F	282	ARG
1	F	283	ARG
1	F	284	VAL
1	F	312	VAL
1	F	344	VAL
1	F	363	ARG
1	F	377	LEU
1	F	378	SER
1	F	398	ARG
1	F	399	ASP
1	F	401	LEU
1	F	415	GLU
1	F	457	LEU
1	F	467	ILE
1	F	491	LEU
1	F	494	THR
1	F	501	GLU
1	F	507	GLU
1	F	508	GLU
1	F	513	ARG
1	G	86	TYR
1	G	165	LYS
1	G	166	ARG
1	G	176	ARG
1	G	232	LYS
1	G	254	LEU
1	G	272	VAL
1	G	273	ILE
1	G	275	ARG
1	G	282	ARG
1	G	283	ARG
1	G	284	VAL
1	G	312	VAL
1	G	344	VAL
1	G	363	ARG
1	G	377	LEU
1	G	378	SER
1	G	398	ARG
1	G	399	ASP
1	G	401	LEU

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Mol	Chain	Res	Type
1	G	415	GLU
1	G	457	LEU
1	G	467	ILE
1	G	491	LEU
1	G	494	THR
1	G	501	GLU
1	G	507	GLU
1	G	508	GLU
1	G	513	ARG
1	H	86	TYR
1	H	165	LYS
1	H	166	ARG
1	H	176	ARG
1	H	232	LYS
1	H	254	LEU
1	H	272	VAL
1	H	273	ILE
1	H	275	ARG
1	H	282	ARG
1	H	283	ARG
1	H	284	VAL
1	H	312	VAL
1	H	344	VAL
1	H	363	ARG
1	H	377	LEU
1	H	378	SER
1	H	398	ARG
1	H	399	ASP
1	H	401	LEU
1	H	415	GLU
1	H	457	LEU
1	H	467	ILE
1	H	491	LEU
1	H	494	THR
1	H	501	GLU
1	H	507	GLU
1	H	508	GLU
1	H	513	ARG
1	I	86	TYR
1	I	165	LYS
1	I	166	ARG
1	I	176	ARG

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Mol	Chain	Res	Type
1	I	232	LYS
1	I	254	LEU
1	I	272	VAL
1	I	273	ILE
1	I	275	ARG
1	I	281	ASP
1	I	282	ARG
1	I	283	ARG
1	I	284	VAL
1	I	312	VAL
1	I	344	VAL
1	I	363	ARG
1	I	377	LEU
1	I	378	SER
1	I	398	ARG
1	I	399	ASP
1	I	401	LEU
1	I	415	GLU
1	I	457	LEU
1	I	467	ILE
1	I	491	LEU
1	I	494	THR
1	I	501	GLU
1	I	507	GLU
1	I	508	GLU
1	I	513	ARG
1	J	86	TYR
1	J	165	LYS
1	J	166	ARG
1	J	176	ARG
1	J	232	LYS
1	J	254	LEU
1	J	272	VAL
1	J	273	ILE
1	J	275	ARG
1	J	282	ARG
1	J	283	ARG
1	J	284	VAL
1	J	312	VAL
1	J	344	VAL
1	J	363	ARG
1	J	377	LEU

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Mol	Chain	Res	Type
1	J	378	SER
1	J	398	ARG
1	J	399	ASP
1	J	401	LEU
1	J	415	GLU
1	J	457	LEU
1	J	467	ILE
1	J	491	LEU
1	J	494	THR
1	J	501	GLU
1	J	507	GLU
1	J	508	GLU
1	J	513	ARG
1	K	86	TYR
1	K	165	LYS
1	K	166	ARG
1	K	176	ARG
1	K	232	LYS
1	K	254	LEU
1	K	272	VAL
1	K	273	ILE
1	K	275	ARG
1	K	282	ARG
1	K	283	ARG
1	K	284	VAL
1	K	312	VAL
1	K	344	VAL
1	K	363	ARG
1	K	377	LEU
1	K	378	SER
1	K	398	ARG
1	K	399	ASP
1	K	401	LEU
1	K	415	GLU
1	K	457	LEU
1	K	467	ILE
1	K	491	LEU
1	K	494	THR
1	K	501	GLU
1	K	507	GLU
1	K	508	GLU
1	K	513	ARG

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Mol	Chain	Res	Type
1	L	86	TYR
1	L	165	LYS
1	L	166	ARG
1	L	176	ARG
1	L	232	LYS
1	L	254	LEU
1	L	272	VAL
1	L	273	ILE
1	L	275	ARG
1	L	281	ASP
1	L	282	ARG
1	L	283	ARG
1	L	284	VAL
1	L	312	VAL
1	L	344	VAL
1	L	363	ARG
1	L	377	LEU
1	L	378	SER
1	L	398	ARG
1	L	399	ASP
1	L	401	LEU
1	L	415	GLU
1	L	457	LEU
1	L	467	ILE
1	L	491	LEU
1	L	494	THR
1	L	501	GLU
1	L	507	GLU
1	L	508	GLU
1	L	513	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (132) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	90	ASN
1	A	146	HIS
1	A	183	GLN
1	A	249	ASN
1	A	262	ASN
1	A	310	ASN
1	A	355	ASN
1	A	358	ASN

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Mol	Chain	Res	Type
1	A	367	GLN
1	A	382	GLN
1	A	412	HIS
1	B	90	ASN
1	B	146	HIS
1	B	183	GLN
1	B	249	ASN
1	B	262	ASN
1	B	310	ASN
1	B	355	ASN
1	B	358	ASN
1	B	367	GLN
1	B	382	GLN
1	B	412	HIS
1	C	90	ASN
1	C	146	HIS
1	C	183	GLN
1	C	249	ASN
1	C	262	ASN
1	C	310	ASN
1	C	355	ASN
1	C	358	ASN
1	C	367	GLN
1	C	382	GLN
1	C	412	HIS
1	D	90	ASN
1	D	146	HIS
1	D	183	GLN
1	D	249	ASN
1	D	262	ASN
1	D	310	ASN
1	D	355	ASN
1	D	358	ASN
1	D	367	GLN
1	D	382	GLN
1	D	412	HIS
1	E	90	ASN
1	E	146	HIS
1	E	183	GLN
1	E	249	ASN
1	E	262	ASN
1	E	310	ASN

Continued from previous page...

Mol	Chain	Res	Type
1	E	355	ASN
1	E	358	ASN
1	E	367	GLN
1	E	382	GLN
1	E	412	HIS
1	F	90	ASN
1	F	146	HIS
1	F	183	GLN
1	F	249	ASN
1	F	262	ASN
1	F	310	ASN
1	F	355	ASN
1	F	358	ASN
1	F	367	GLN
1	F	382	GLN
1	F	412	HIS
1	G	90	ASN
1	G	146	HIS
1	G	183	GLN
1	G	249	ASN
1	G	262	ASN
1	G	310	ASN
1	G	355	ASN
1	G	358	ASN
1	G	367	GLN
1	G	382	GLN
1	G	412	HIS
1	H	90	ASN
1	H	146	HIS
1	H	183	GLN
1	H	249	ASN
1	H	262	ASN
1	H	310	ASN
1	H	355	ASN
1	H	358	ASN
1	H	367	GLN
1	H	382	GLN
1	H	412	HIS
1	I	90	ASN
1	I	146	HIS
1	I	183	GLN
1	I	249	ASN

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Mol	Chain	Res	Type
1	I	262	ASN
1	I	310	ASN
1	I	355	ASN
1	I	358	ASN
1	I	367	GLN
1	I	382	GLN
1	I	412	HIS
1	J	90	ASN
1	J	146	HIS
1	J	183	GLN
1	J	249	ASN
1	J	262	ASN
1	J	310	ASN
1	J	355	ASN
1	J	358	ASN
1	J	367	GLN
1	J	382	GLN
1	J	412	HIS
1	K	90	ASN
1	K	146	HIS
1	K	183	GLN
1	K	249	ASN
1	K	262	ASN
1	K	310	ASN
1	K	355	ASN
1	K	358	ASN
1	K	367	GLN
1	K	382	GLN
1	K	412	HIS
1	L	90	ASN
1	L	146	HIS
1	L	183	GLN
1	L	249	ASN
1	L	262	ASN
1	L	310	ASN
1	L	355	ASN
1	L	358	ASN
1	L	367	GLN
1	L	382	GLN
1	L	412	HIS

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 ⓘ

There are no ligands in this entry.

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-6324. These allow visual inspection of the internal detail of the map and identification of artifacts.

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

6.1 Orthogonal projections ⓘ

6.1.1 Primary map

| X | Y | Z |
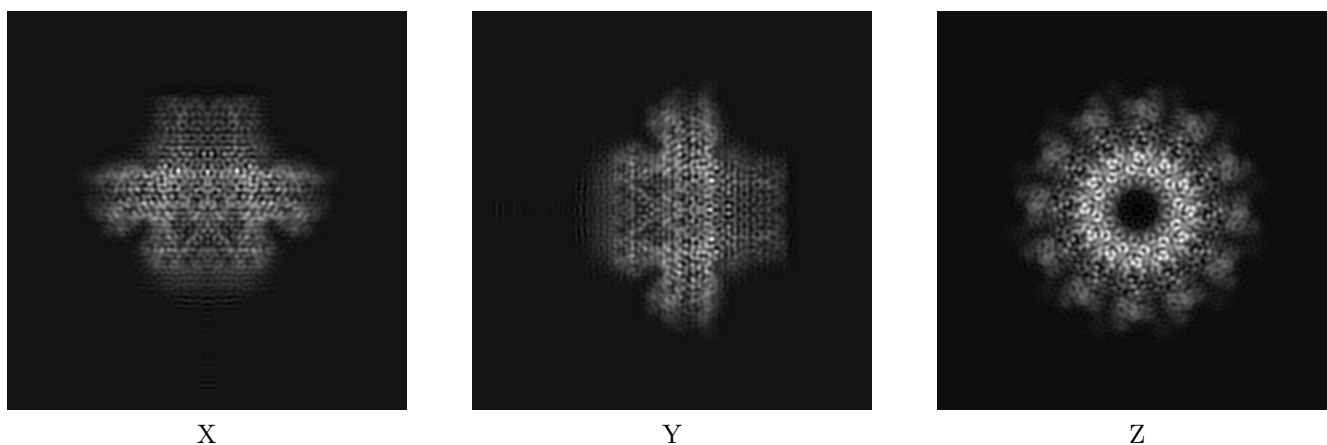
The images above show the map projected in three orthogonal directions.

6.2 Central slices ⓘ

6.2.1 Primary map

| X Index: 136 | Y Index: 136 | Z Index: 136 |
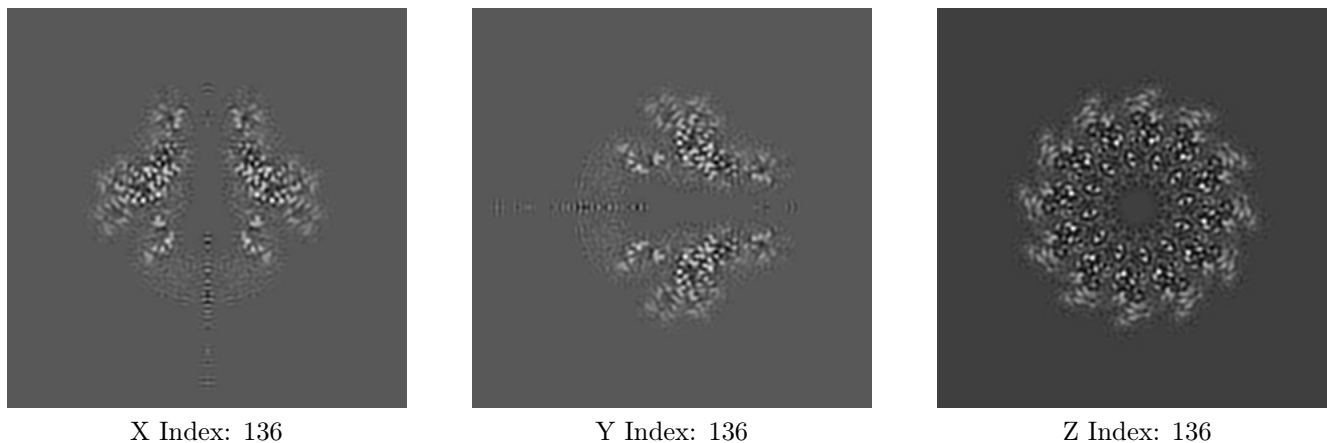
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

6.3.1 Primary map
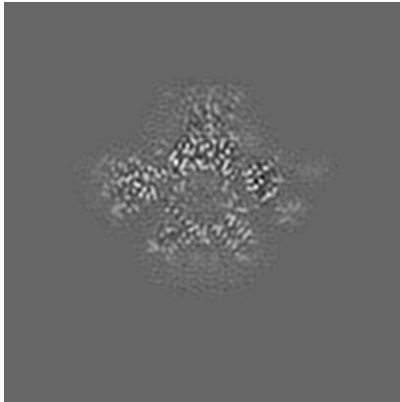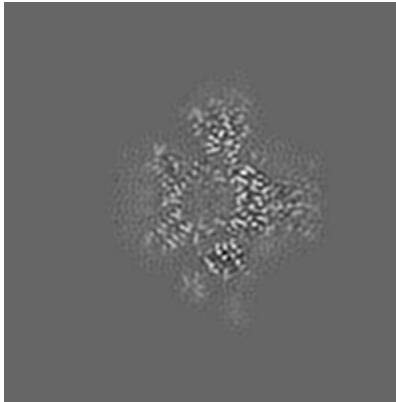
| X Index: 161 | Y Index: 161 | Z Index: 150 |
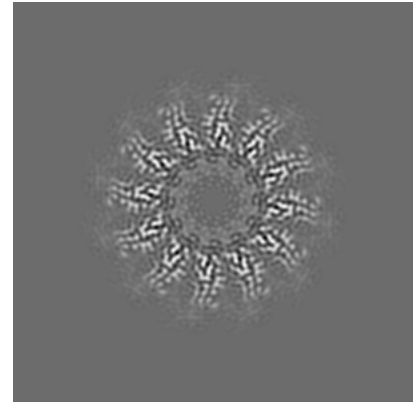
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) (i)

6.4.1 Primary map

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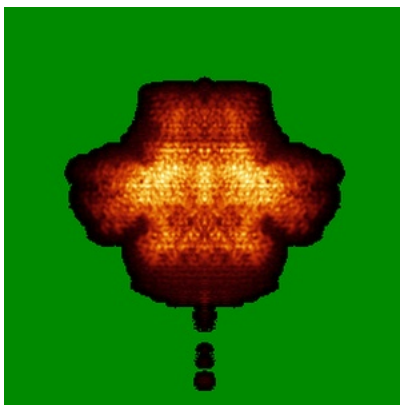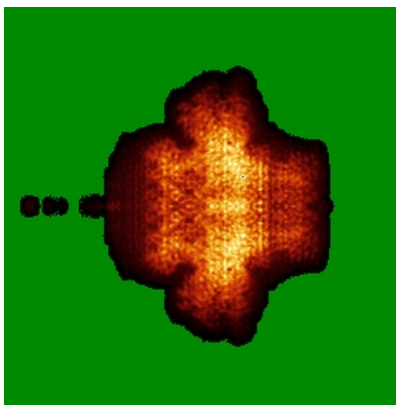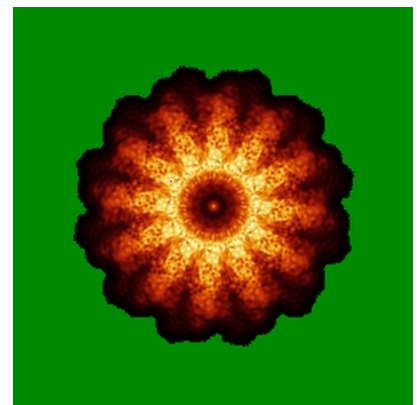
The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views ⓘ

6.5.1 Primary map

X   Y   Z
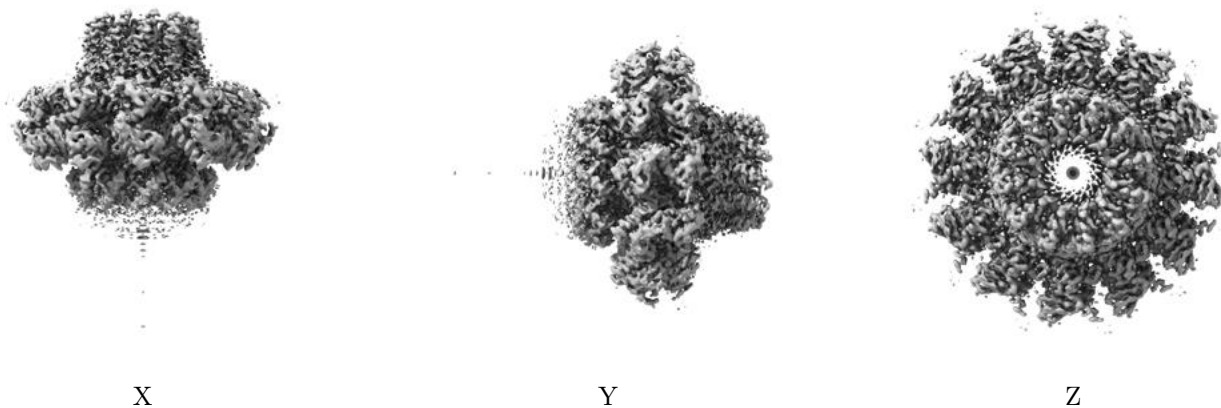
The images above show the 3D surface view of the map at the recommended contour level 0.016. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.6 Mask visualisation ⓘ

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

7 Map analysis ⓘ

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

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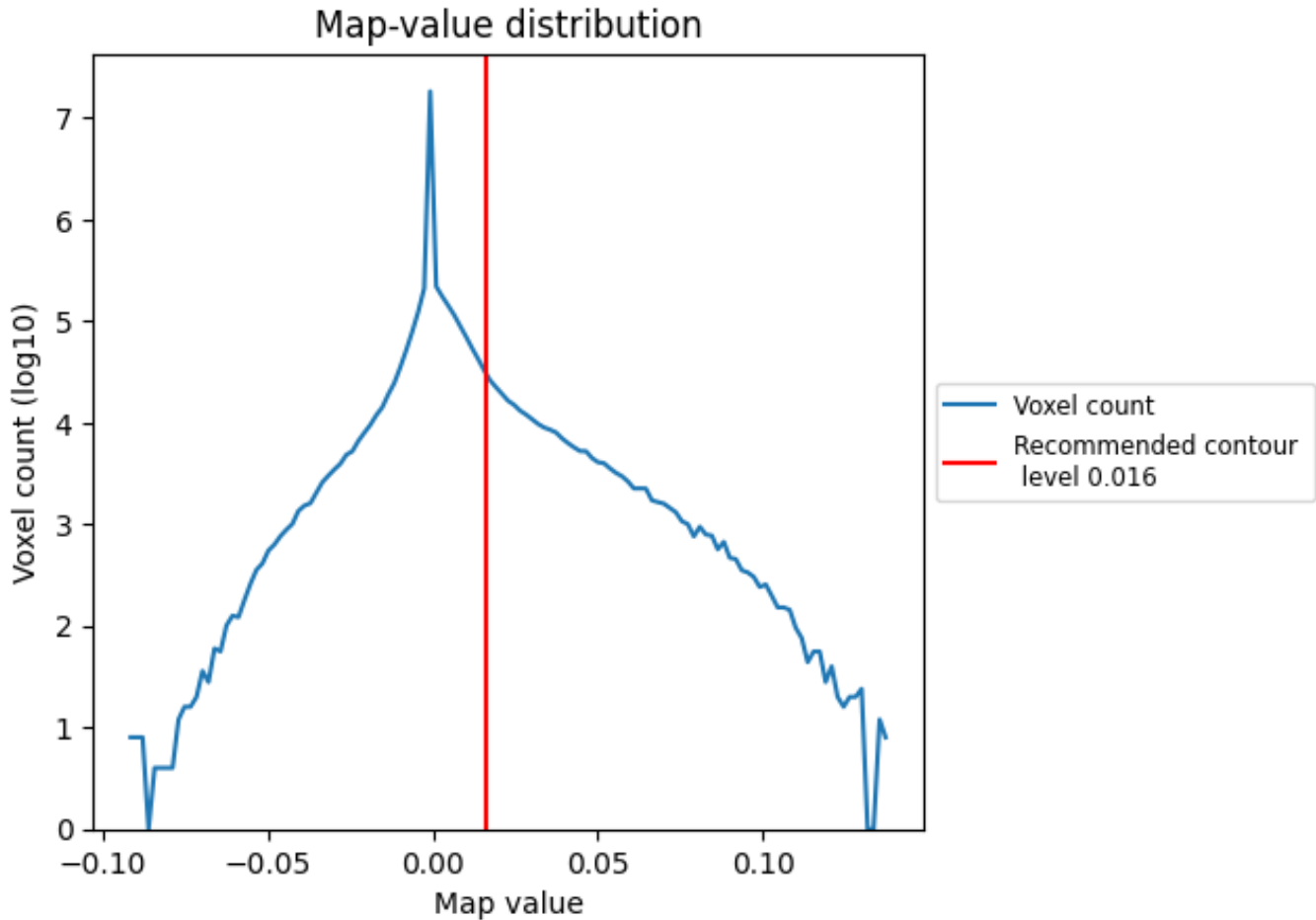
The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

7.2 Volume estimate (i)
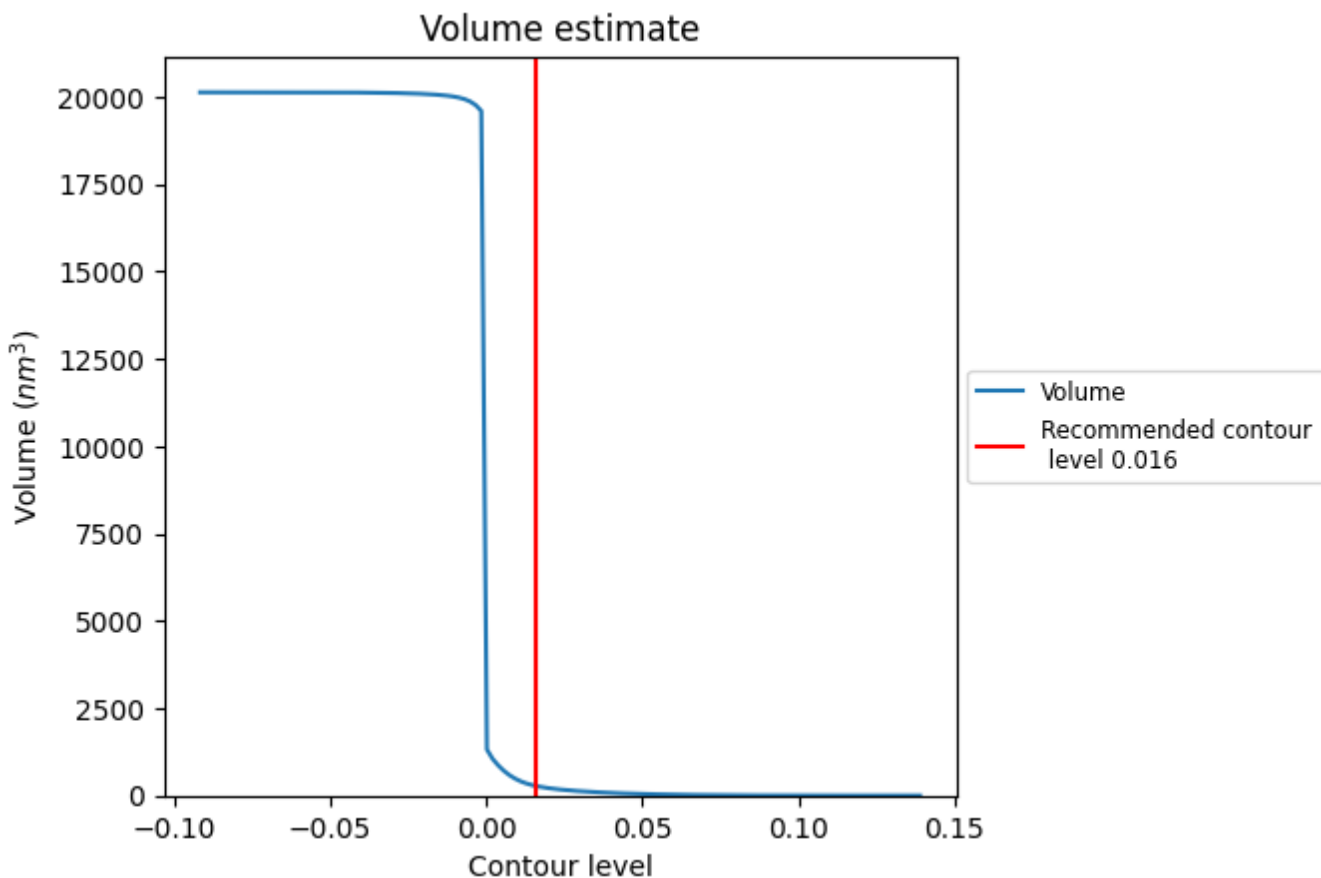
The volume at the recommended contour level is 273 nm^3; this corresponds to an approximate mass of 247 kDa.

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

7.3 Rotationally averaged power spectrum ⓘ
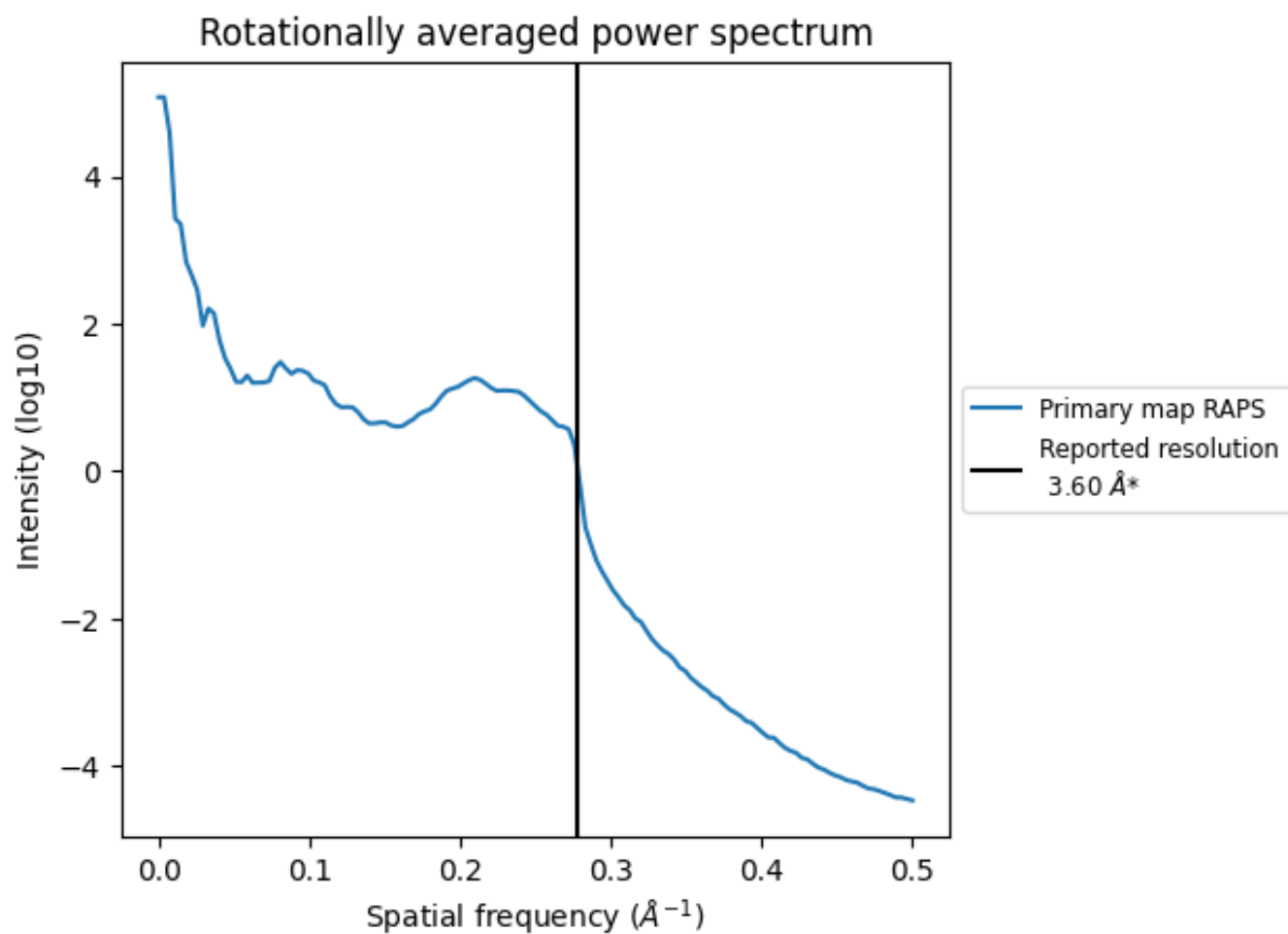
*Reported resolution corresponds to spatial frequency of 0.278 Å^{-1}

8 Fourier-Shell correlation ⓘ

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

9 Map-model fit (i)

This section contains information regarding the fit between EMDB map EMD-6324 and PDB model 3JA7. Per-residue inclusion information can be found in section 3 on page 6.

9.1 Map-model overlay (i)

| X | Y | Z |
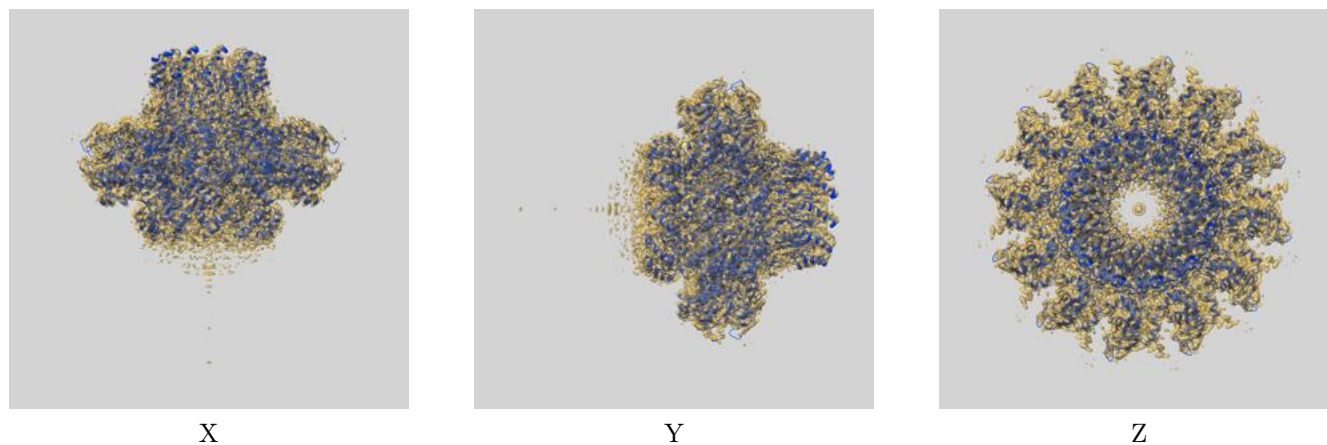
The images above show the 3D surface view of the map at the recommended contour level 0.016 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2   Q-score mapped to coordinate model (i)

X   Y   Z
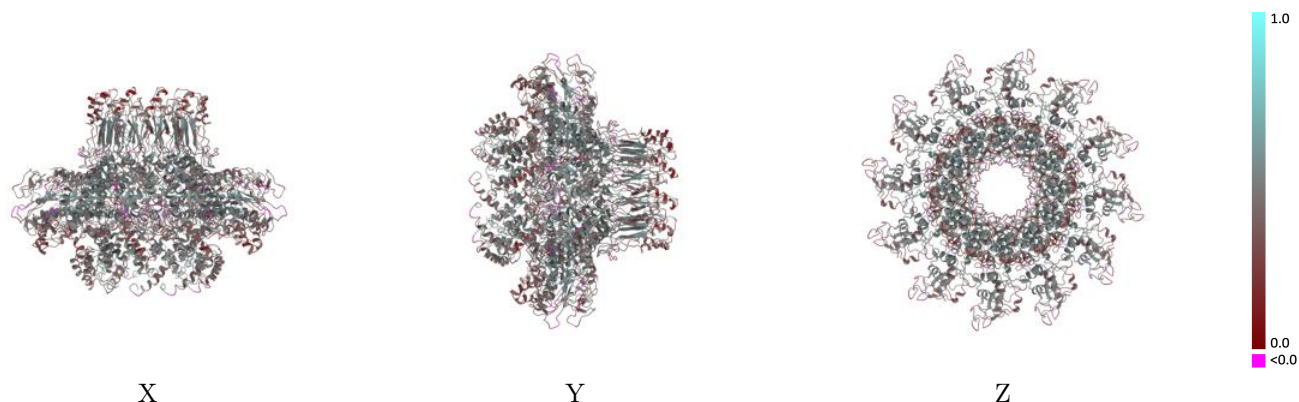
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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
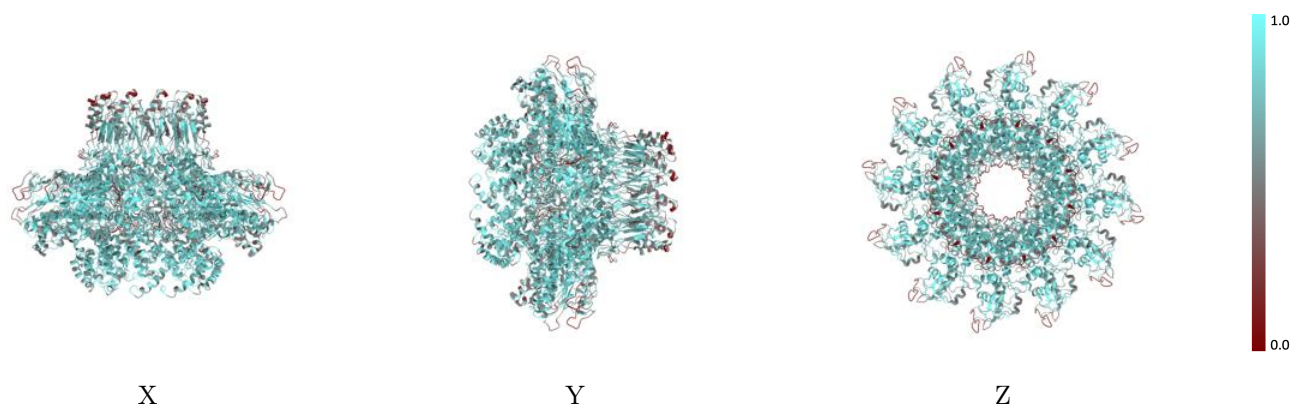
The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.016).

9.4 Atom inclusion ⓘ
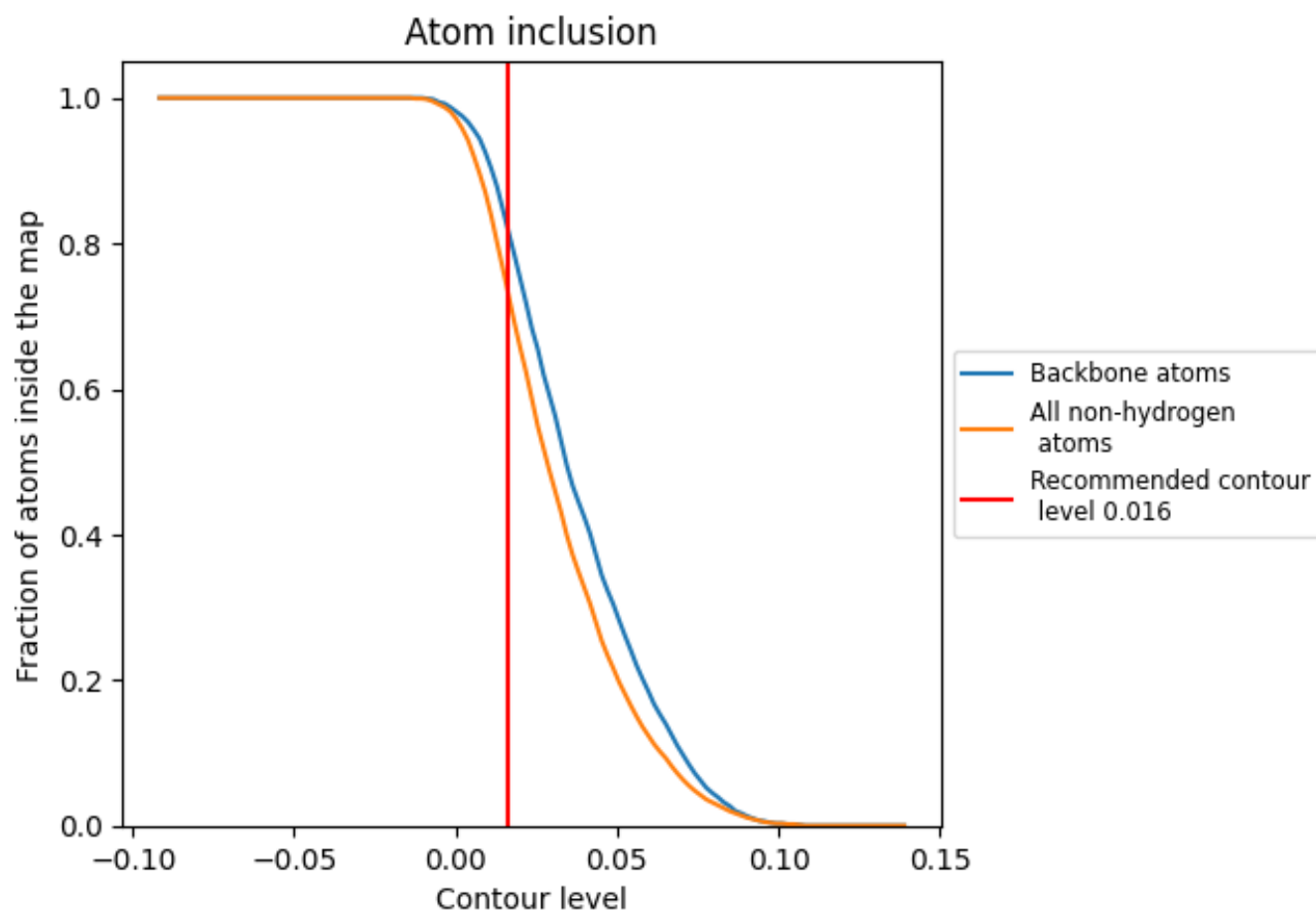
At the recommended contour level, 82% of all backbone atoms, 74% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary (i)

The table lists the average atom inclusion at the recommended contour level (0.016) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.7380	0.4270
A	0.7360	0.4270
B	0.7390	0.4270
C	0.7380	0.4270
D	0.7360	0.4270
E	0.7390	0.4260
F	0.7380	0.4270
G	0.7360	0.4270
H	0.7390	0.4270
I	0.7380	0.4260
J	0.7360	0.4270
K	0.7390	0.4260
L	0.7380	0.4260

1.0

0.0
<0.0