Full wwPDB EM Validation Report

Nov 17, 2026 – 02:30 PM JST

PDB ID	:	9W91 / pdb_00009w91
EMDB ID	:	EMD-65762
Title	:	poxvirus central pore composed of E8, E6 and L3
Authors	:	Hong, Y.; Liang, R.; Wang, K.; Zhang, J.; Peng, C.; Zhu, Z.; Zhang, Z.; Zhang, W.; Song, C.; Li, S.
Deposited on	:	2025-08-08
Resolution	:	4.40 Å(reported)

This is a Full wwPDB EM Validation Report for a publicly released PDB entry.

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/EMValidationReportHelp
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

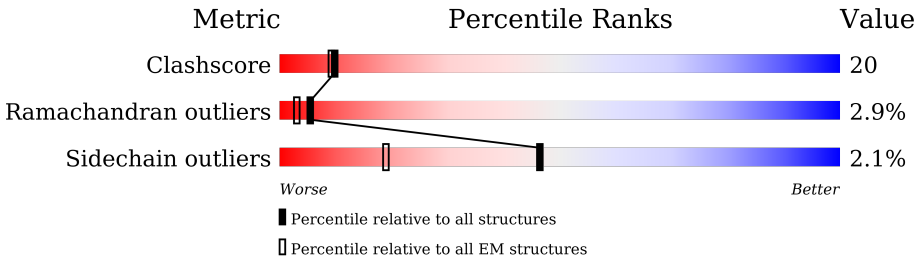
EMDB validation analysis	:	0.0.1.dev133
MolProbity	:	4-5-2 with Phenix2.2
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics	:	202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.51

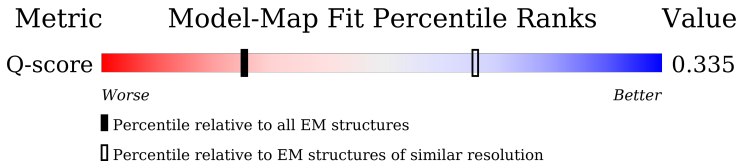
1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 4.40 Å.

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





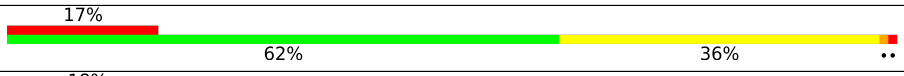
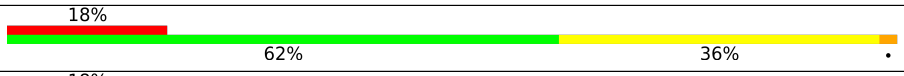
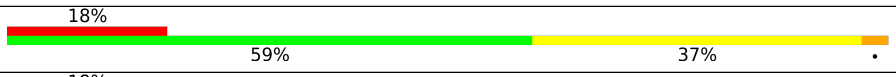
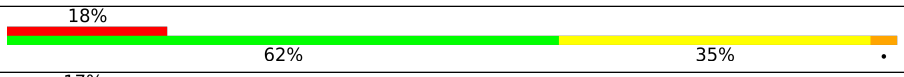
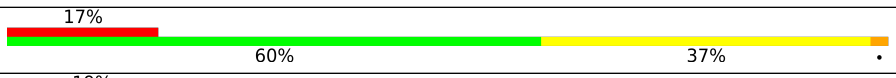
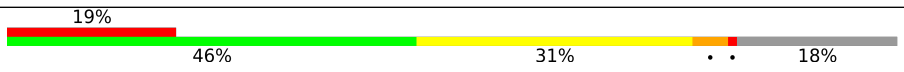
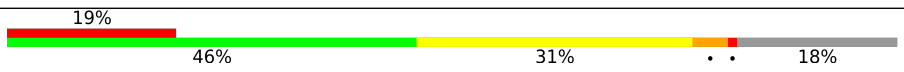
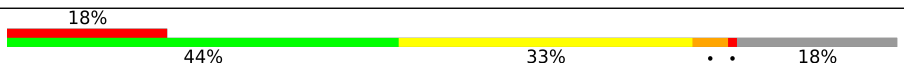
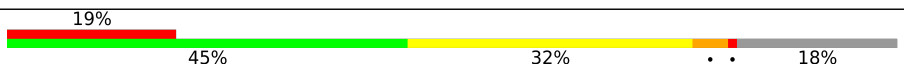
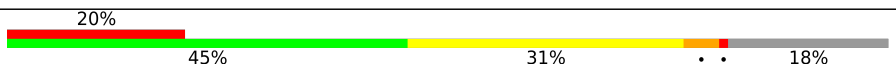
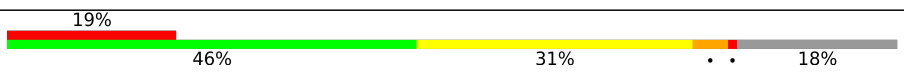
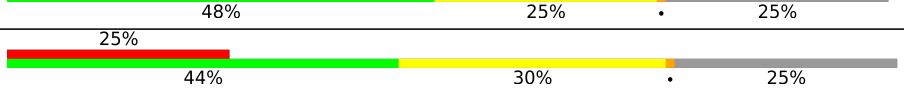
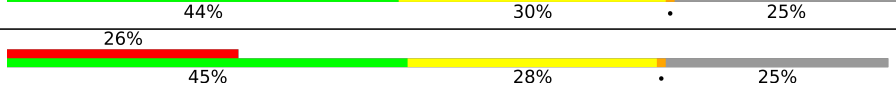
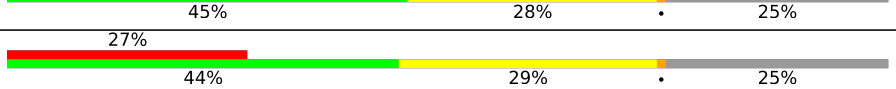
Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	3132 (3.91 - 4.90)

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	273	17% 66% 32%
1	B	273	17% 59% 38%
1	C	273	21% 60% 36%
1	D	273	18% 59% 37%

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Mol	Chain	Length	Quality of chain
1	E	273	
1	F	273	
2	G	567	
2	H	567	
2	I	567	
2	J	567	
2	K	567	
2	L	567	
3	M	350	
3	N	350	
3	O	350	
3	P	350	
3	Q	350	
3	R	350	
3	S	350	
3	T	350	
3	U	350	
3	V	350	
3	W	350	
3	X	350	

2 Entry composition (i)

There are 3 unique types of molecules in this entry. The entry contains 68544 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 Protein OPG070.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	270	Total	C	N	O	S	0	0
			2244	1480	357	402	5		
1	B	270	Total	C	N	O	S	0	0
			2244	1480	357	402	5		
1	C	270	Total	C	N	O	S	0	0
			2244	1480	357	402	5		
1	D	270	Total	C	N	O	S	0	0
			2244	1480	357	402	5		
1	E	270	Total	C	N	O	S	0	0
			2244	1480	357	402	5		
1	F	270	Total	C	N	O	S	0	0
			2244	1480	357	402	5		

- Molecule 2 is a protein called Protein OPG068.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	G	566	Total	C	N	O	S	0	0
			4708	3061	765	869	13		
2	H	566	Total	C	N	O	S	0	0
			4708	3061	765	869	13		
2	I	566	Total	C	N	O	S	0	0
			4708	3061	765	869	13		
2	J	566	Total	C	N	O	S	0	0
			4708	3061	765	869	13		
2	K	566	Total	C	N	O	S	0	0
			4708	3061	765	869	13		
2	L	566	Total	C	N	O	S	0	0
			4708	3061	765	869	13		

- Molecule 3 is a protein called Protein OPG097.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	M	288	Total	C	N	O	S	0	0
			2343	1515	386	426	16		

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Mol	Chain	Residues	Atoms					AltConf	Trace
3	N	288	Total	C	N	O	S	0	0
			2343	1515	386	426	16		
3	O	288	Total	C	N	O	S	0	0
			2343	1515	386	426	16		
3	P	288	Total	C	N	O	S	0	0
			2343	1515	386	426	16		
3	Q	288	Total	C	N	O	S	0	0
			2343	1515	386	426	16		
3	R	288	Total	C	N	O	S	0	0
			2343	1515	386	426	16		
3	S	261	Total	C	N	O	S	0	0
			2129	1383	352	380	14		
3	T	261	Total	C	N	O	S	0	0
			2129	1383	352	380	14		
3	U	261	Total	C	N	O	S	0	0
			2129	1383	352	380	14		
3	V	261	Total	C	N	O	S	0	0
			2129	1383	352	380	14		
3	W	261	Total	C	N	O	S	0	0
			2129	1383	352	380	14		
3	X	261	Total	C	N	O	S	0	0
			2129	1383	352	380	14		

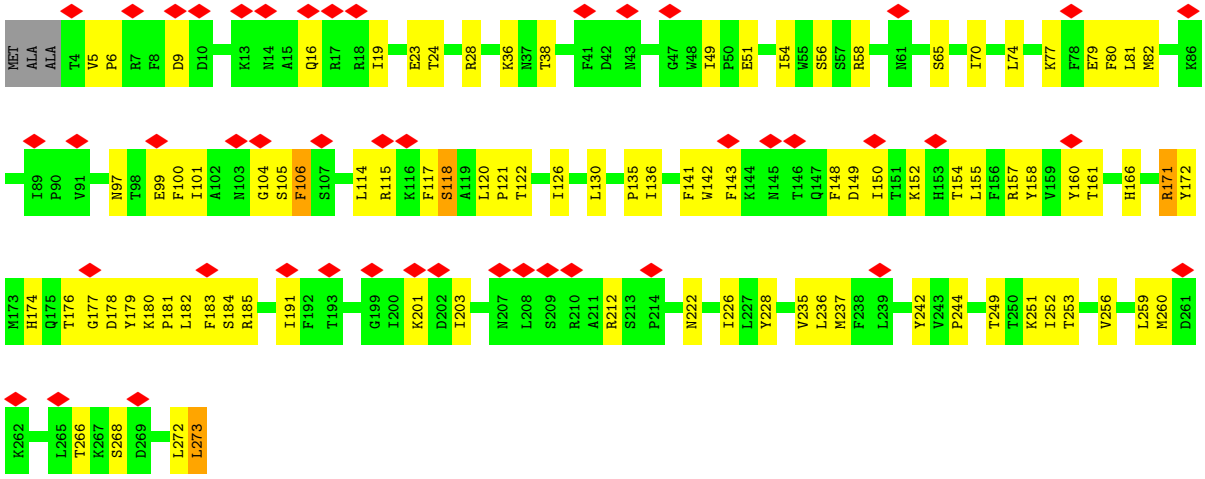
3 Residue-property plots (i)

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

• Molecule 1: Protein OPG070

Chain A:

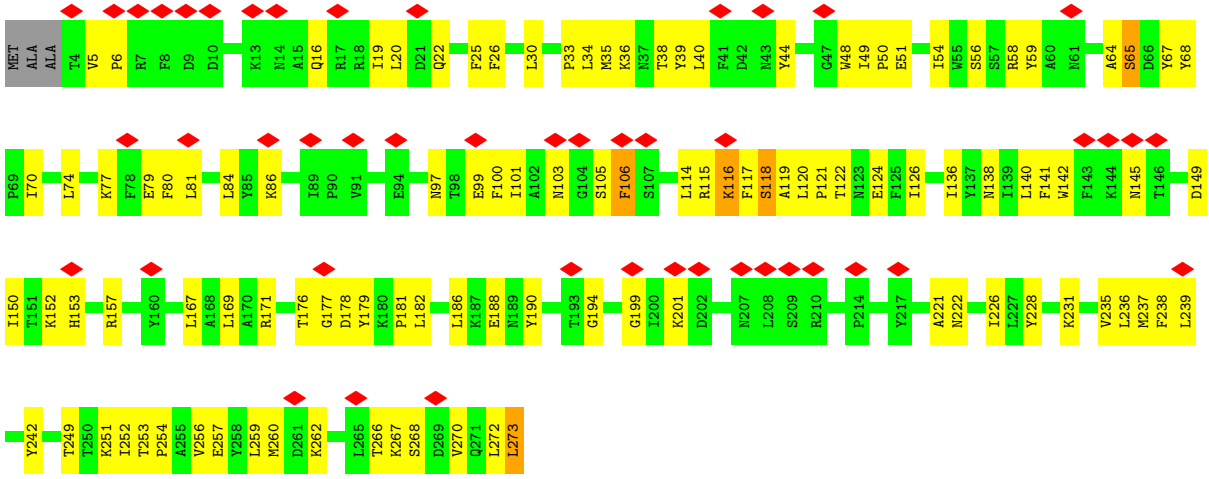




• Molecule 1: Protein OPG070

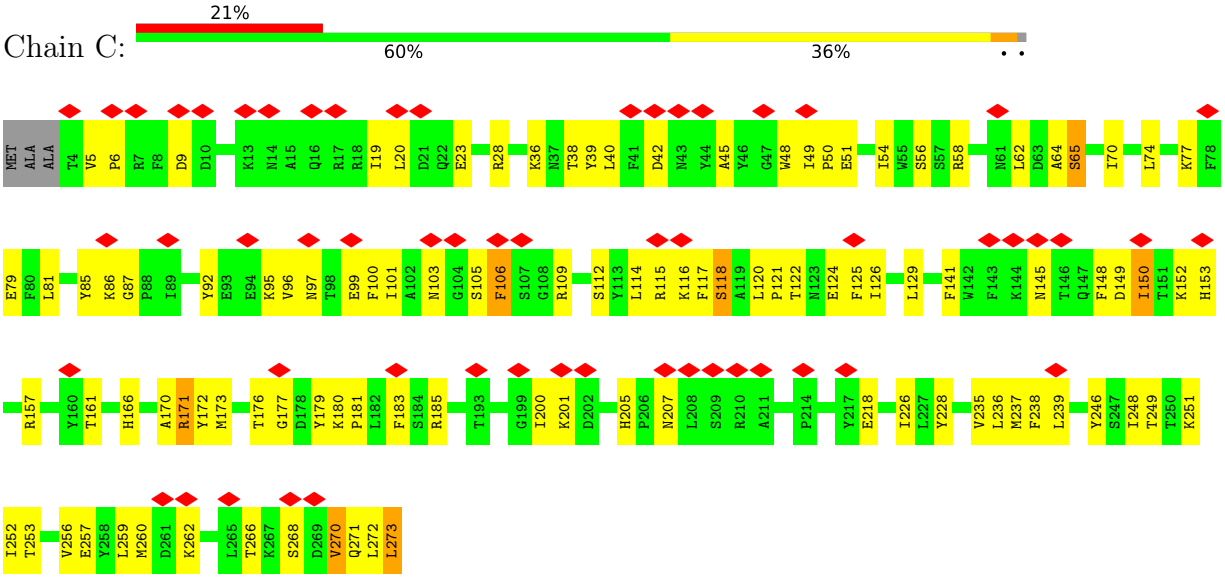
Chain B:





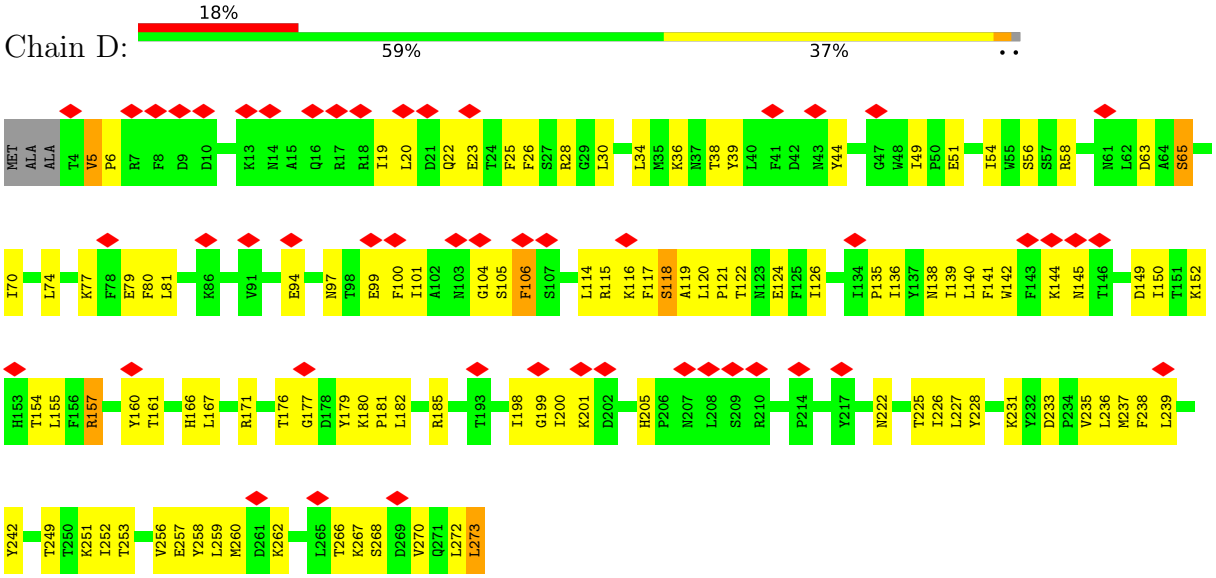
• Molecule 1: Protein OPG070

Chain C:



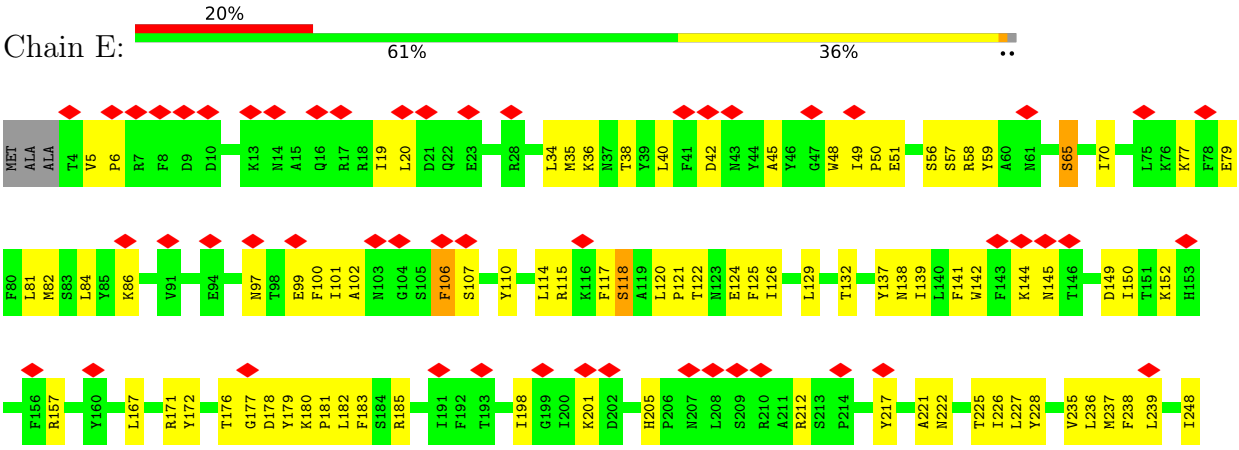
• Molecule 1: Protein OPG070

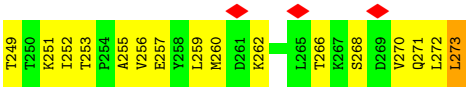
Chain D:



• Molecule 1: Protein OPG070

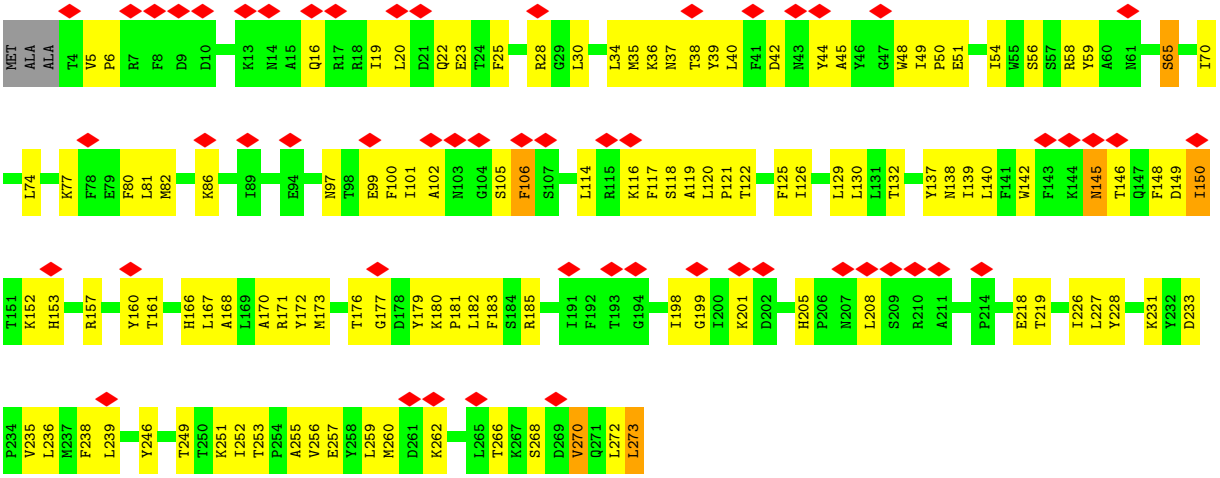
Chain E:





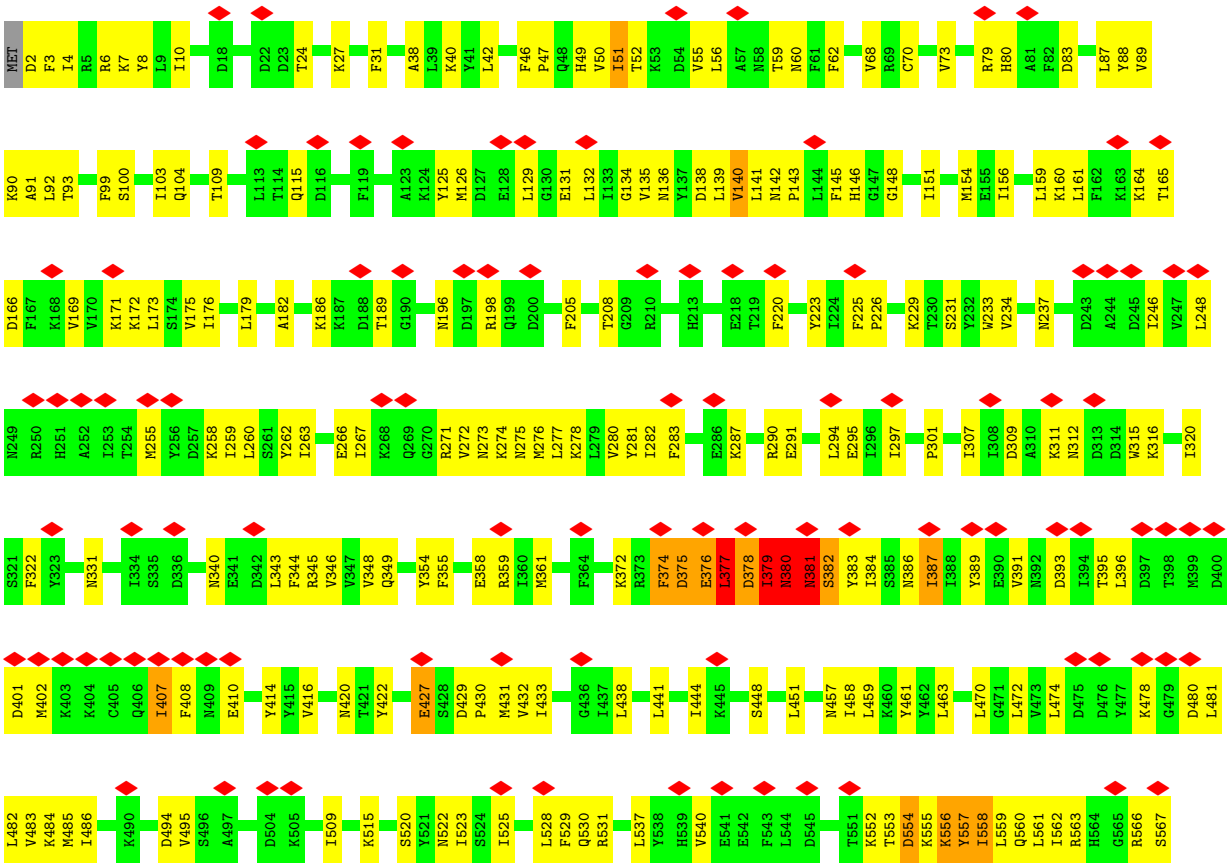
• Molecule 1: Protein OPG070





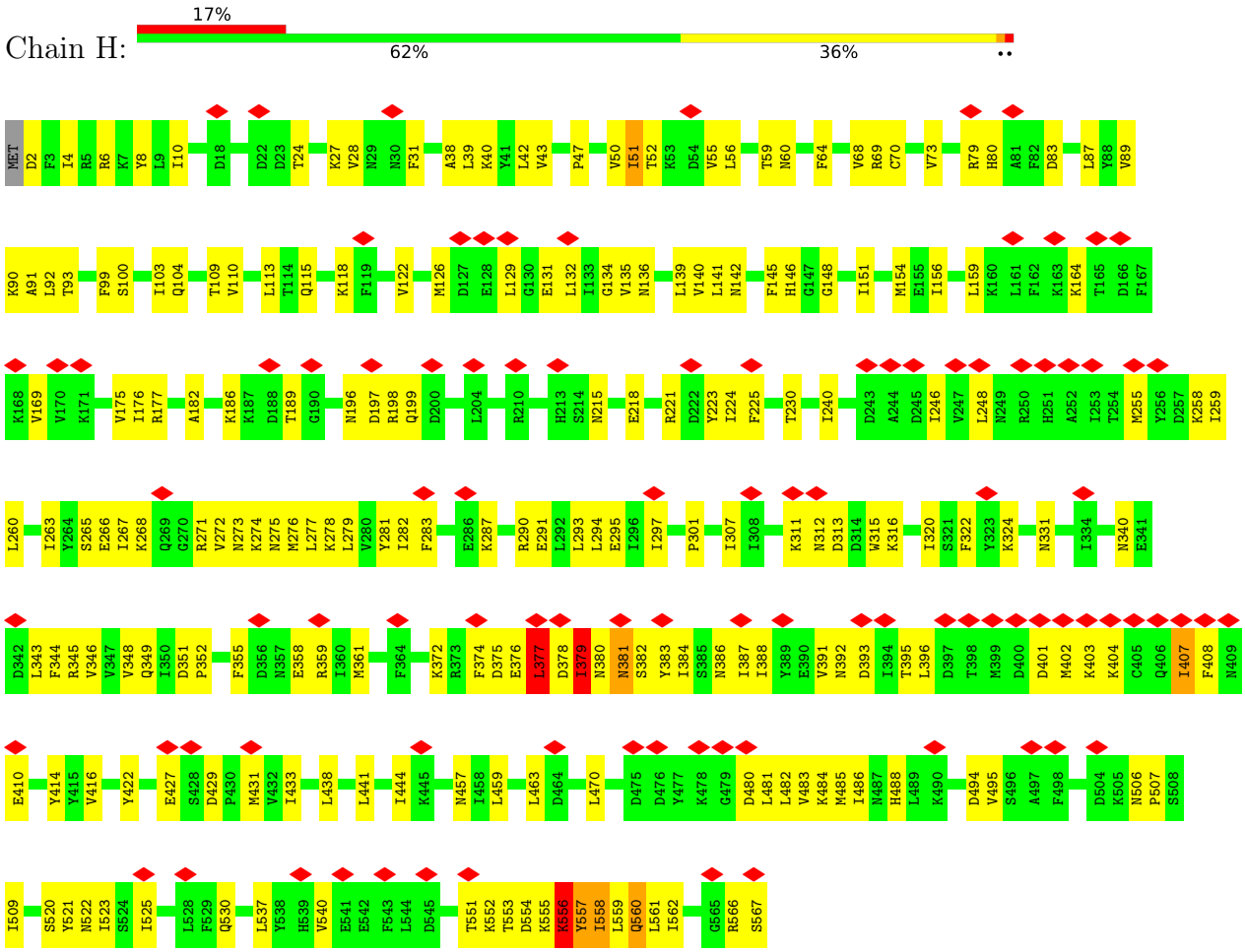
• Molecule 2: Protein OPG068





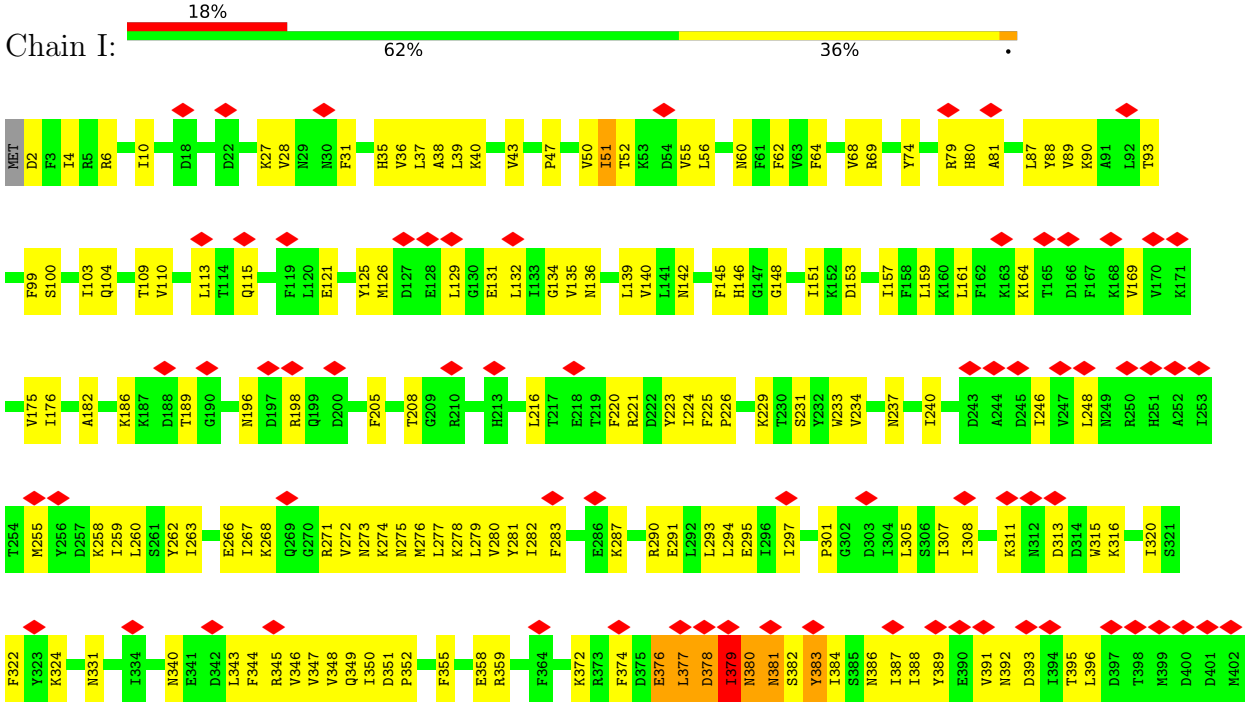
• Molecule 2: Protein OPG068

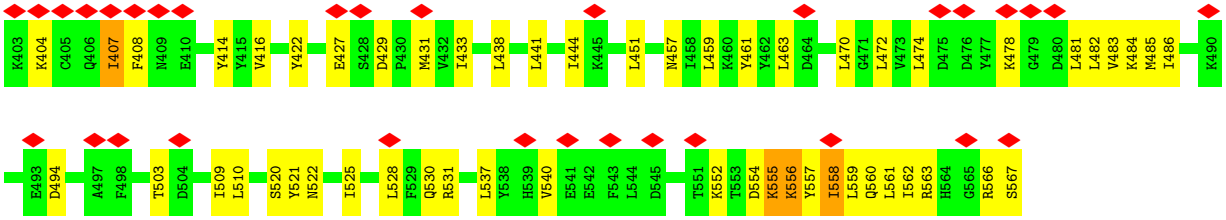
Chain H:



• Molecule 2: Protein OPG068

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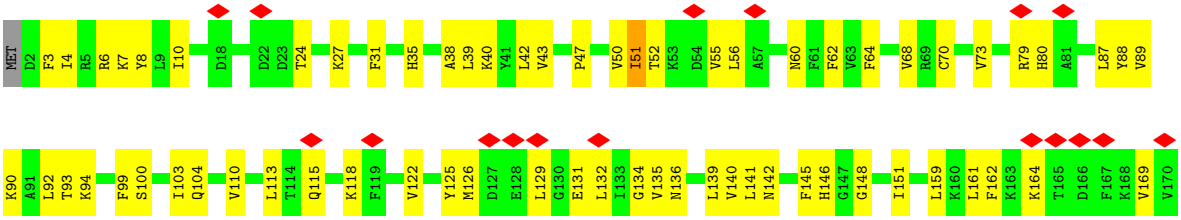




• Molecule 2: Protein OPG068

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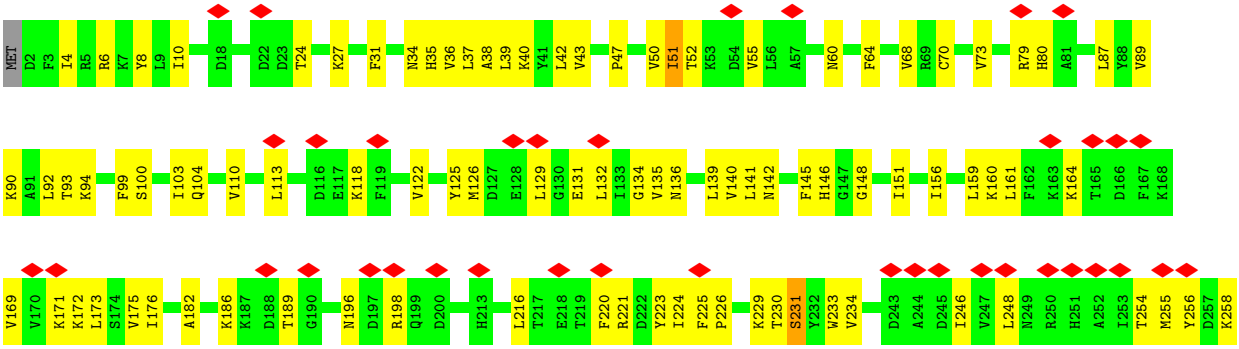


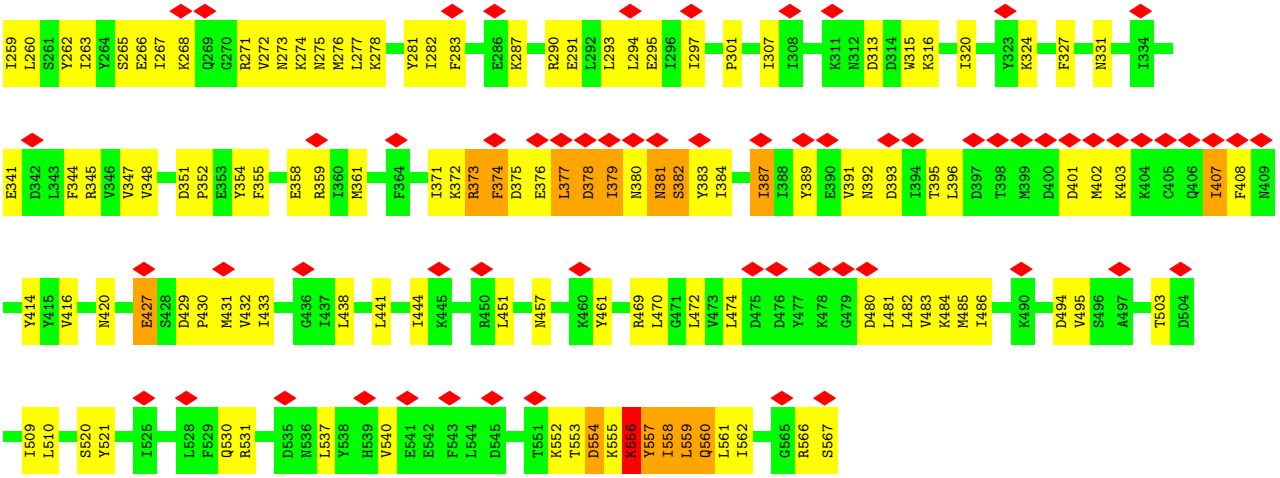


• Molecule 2: Protein OPG068

Chain K:



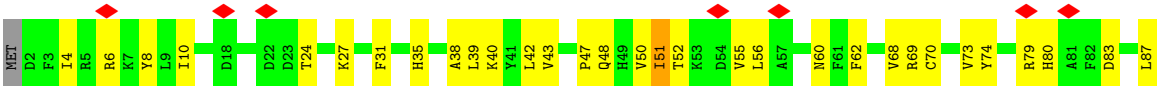


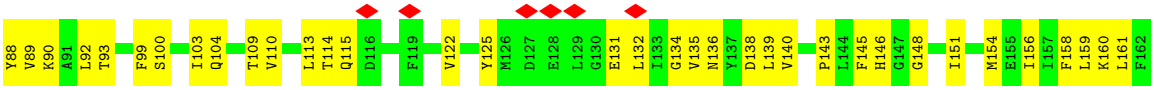


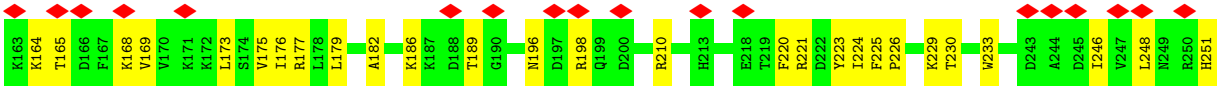
- Molecule 2: Protein OPG068

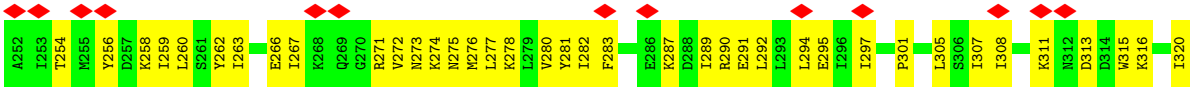
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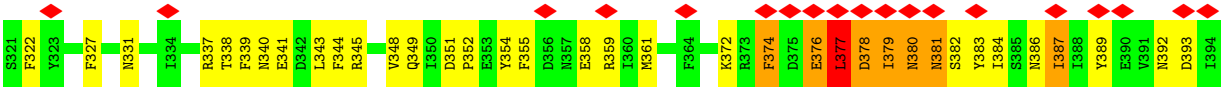


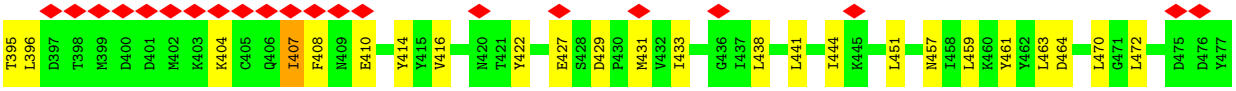


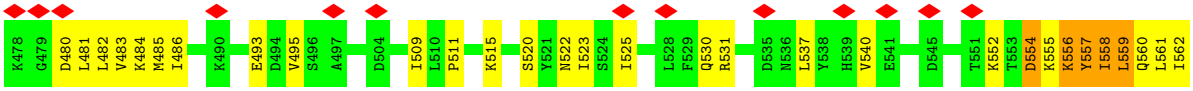










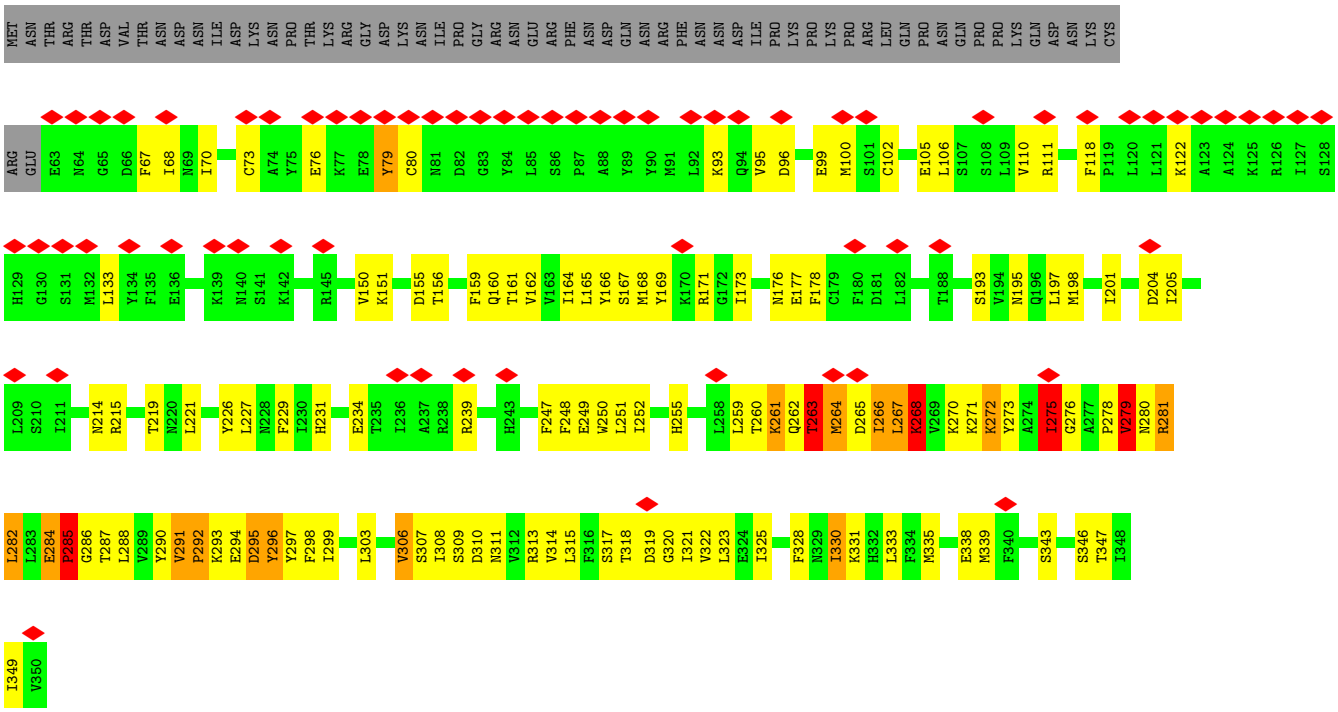




- Molecule 3: Protein OPG097

Chain M:

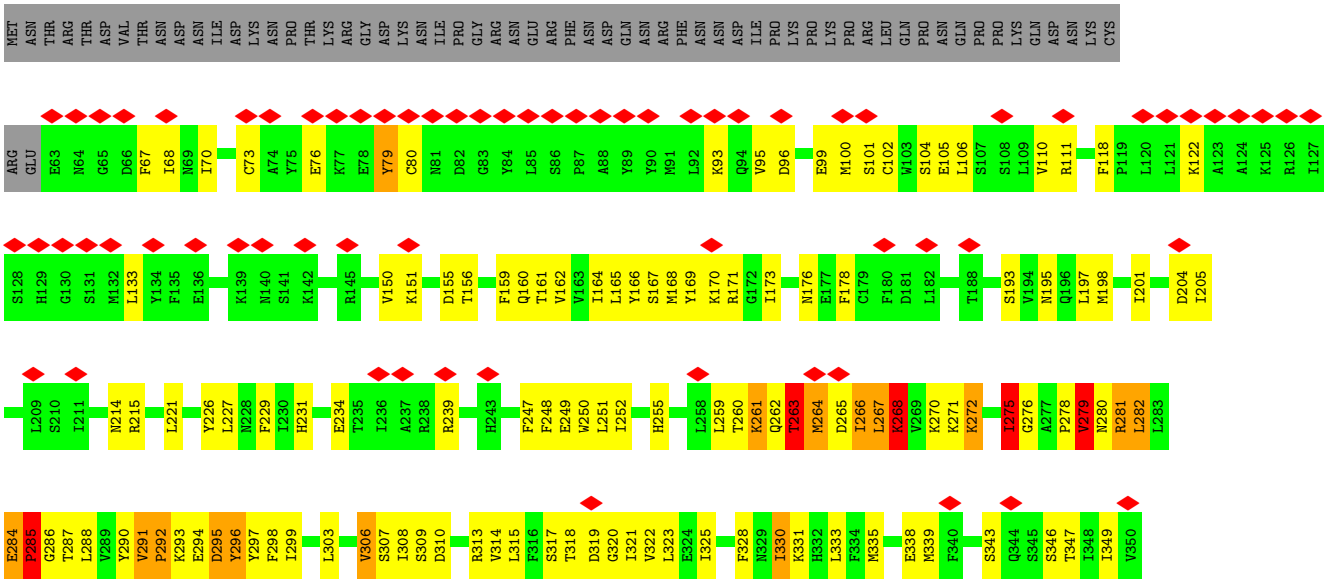




• Molecule 3: Protein OPG097

Chain N:

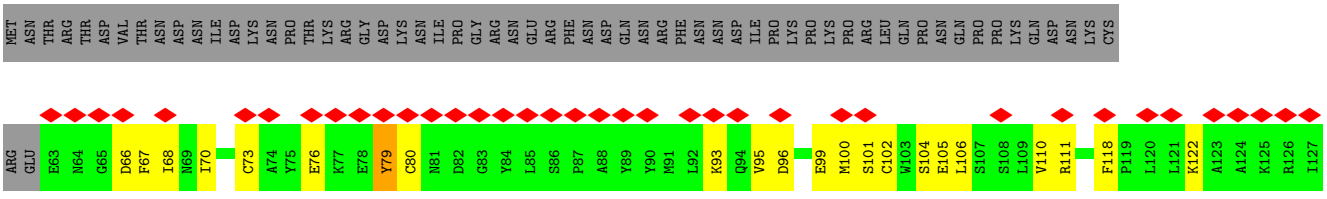


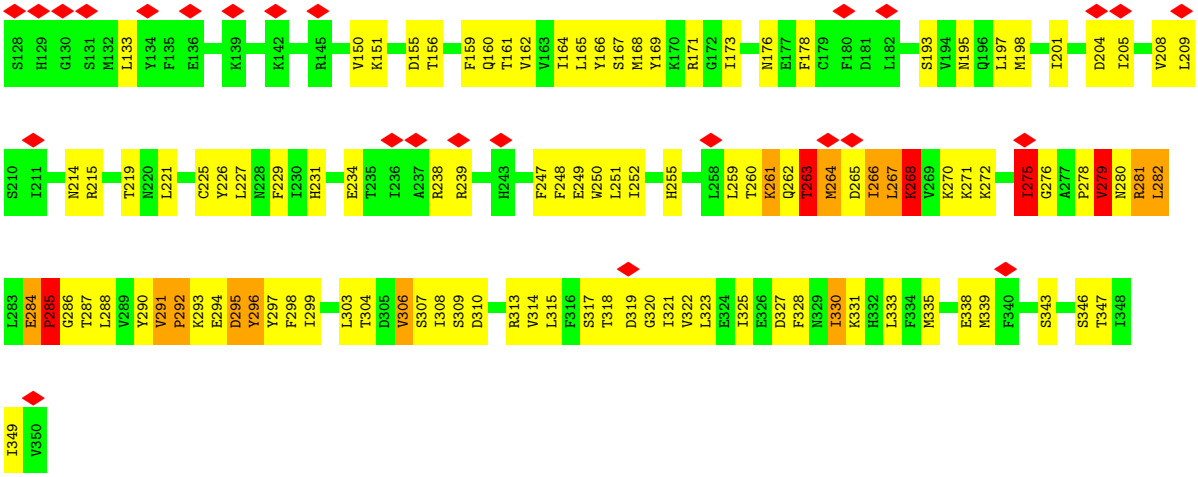


• Molecule 3: Protein OPG097

Chain O:





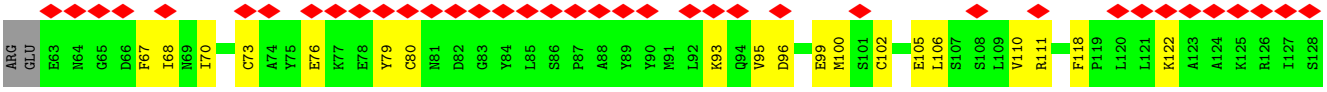


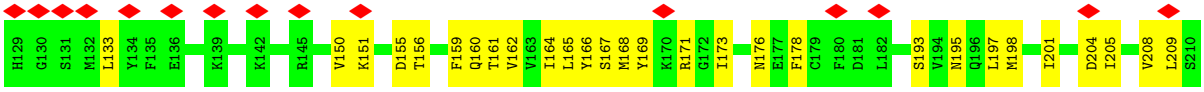
- Molecule 3: Protein OPG097

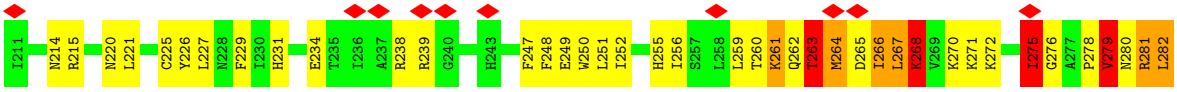
Chain P:

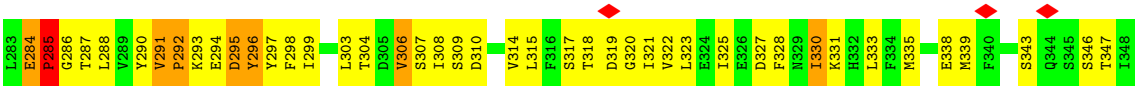












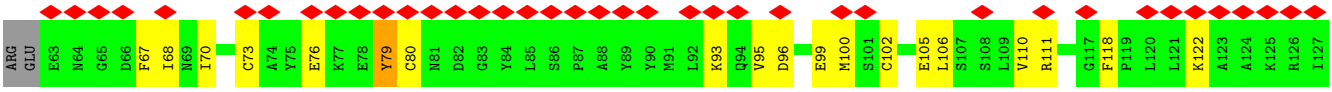


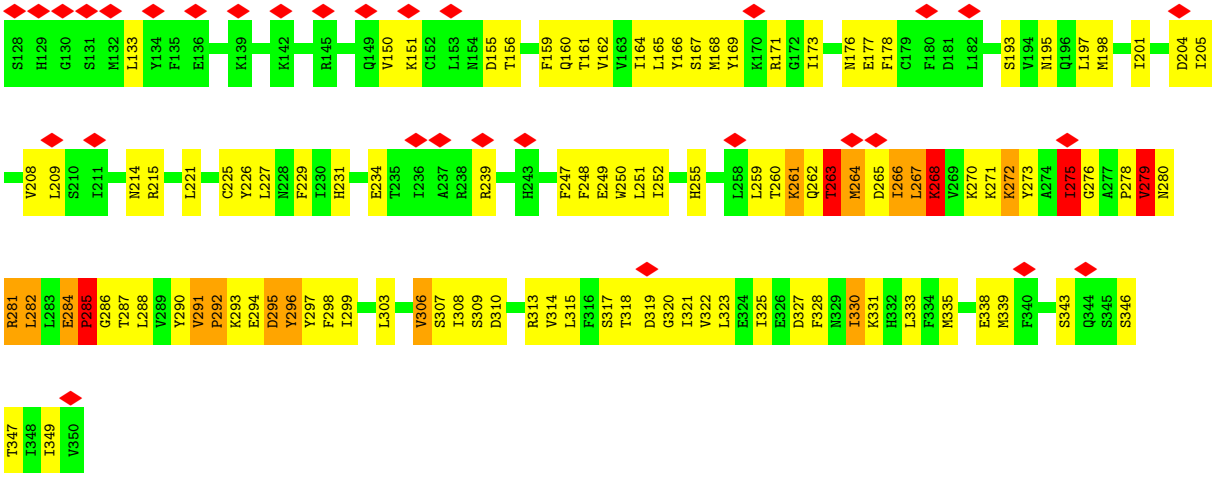
- Molecule 3: Protein OPG097

Chain Q:







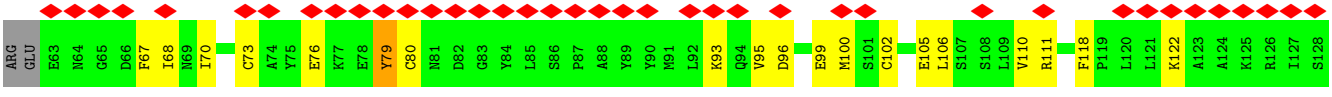


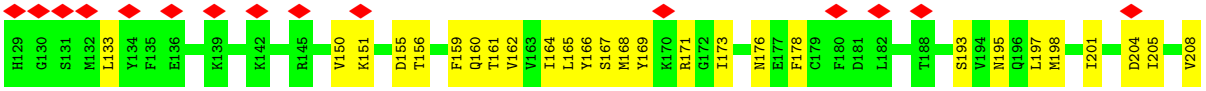
• Molecule 3: Protein OPG097

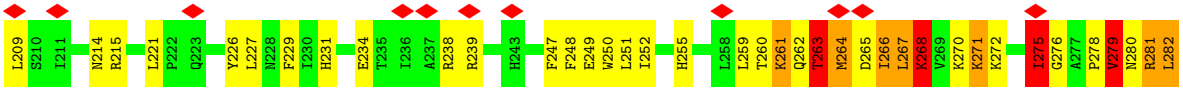
Chain R:

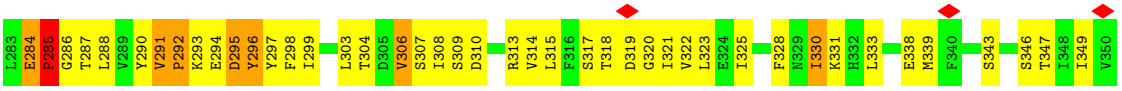










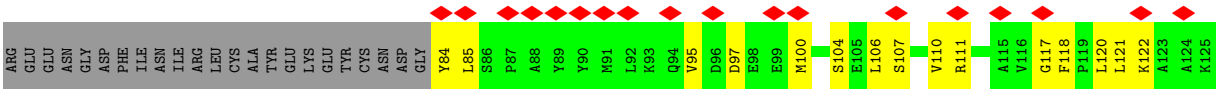


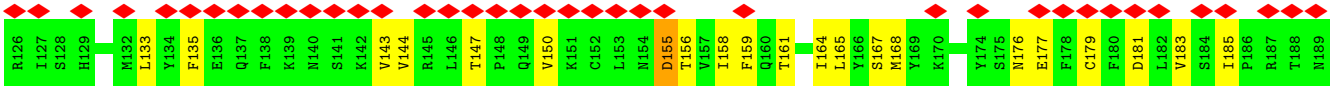
• Molecule 3: Protein OPG097

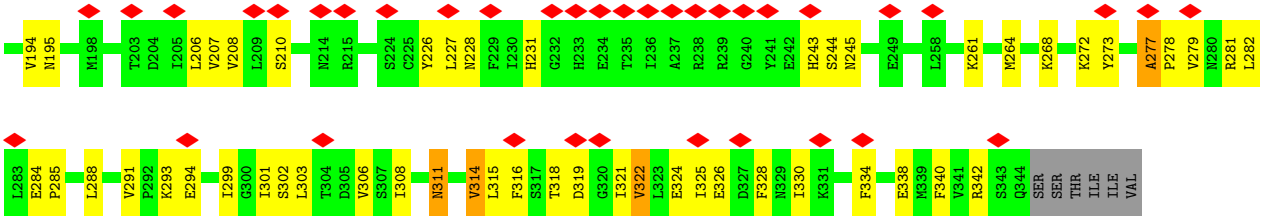
Chain S:





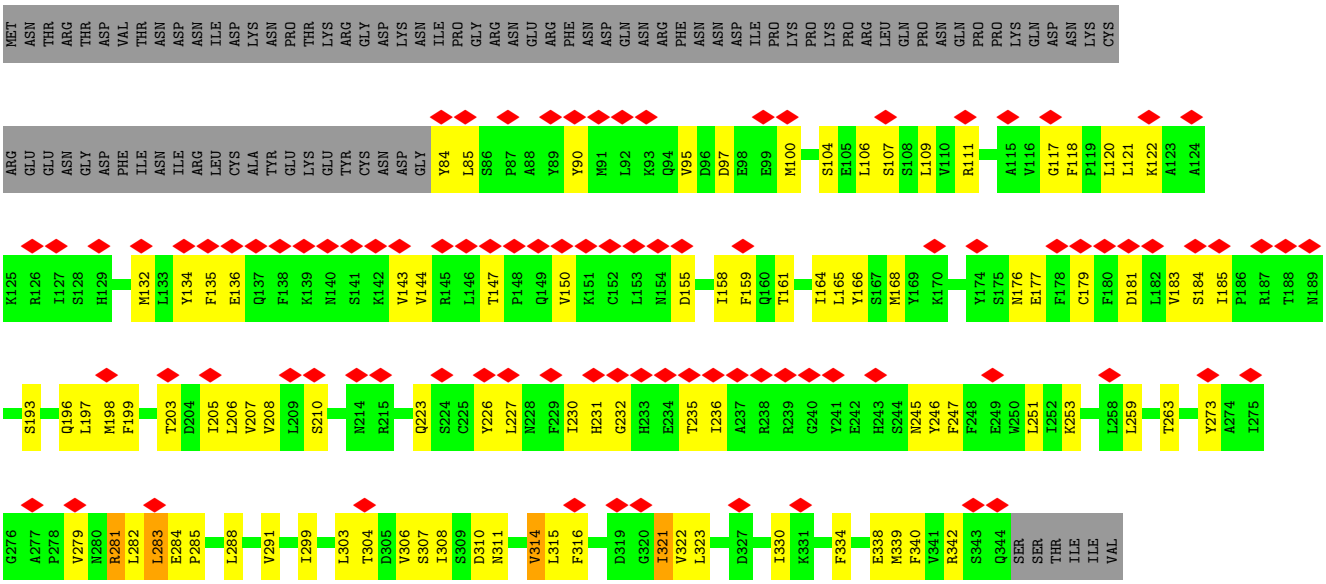






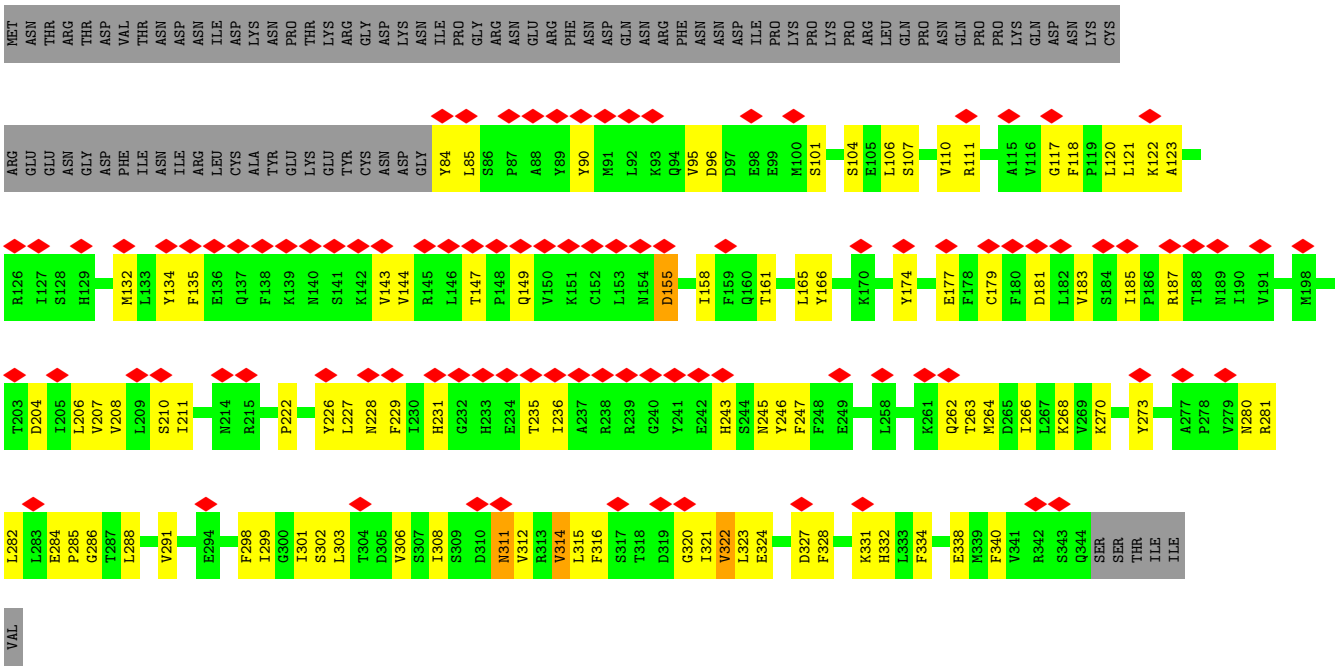
• Molecule 3: Protein OPG097





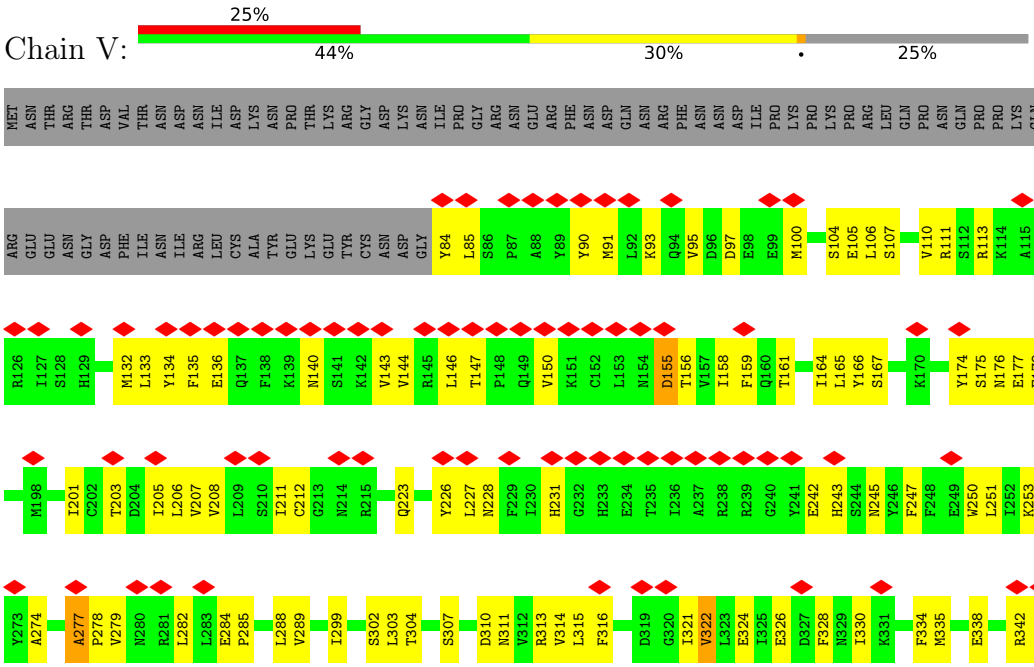
• Molecule 3: Protein OPG097





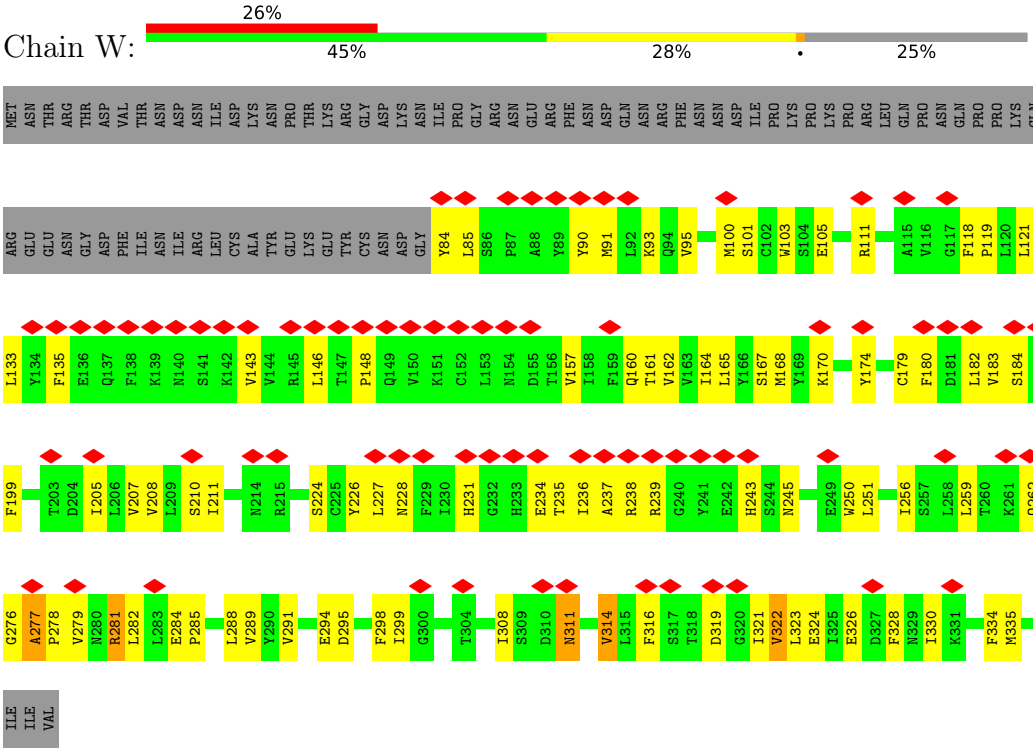
• Molecule 3: Protein OPG097

Chain V:



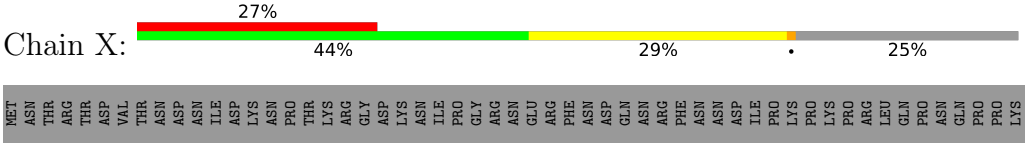
• Molecule 3: Protein OPG097

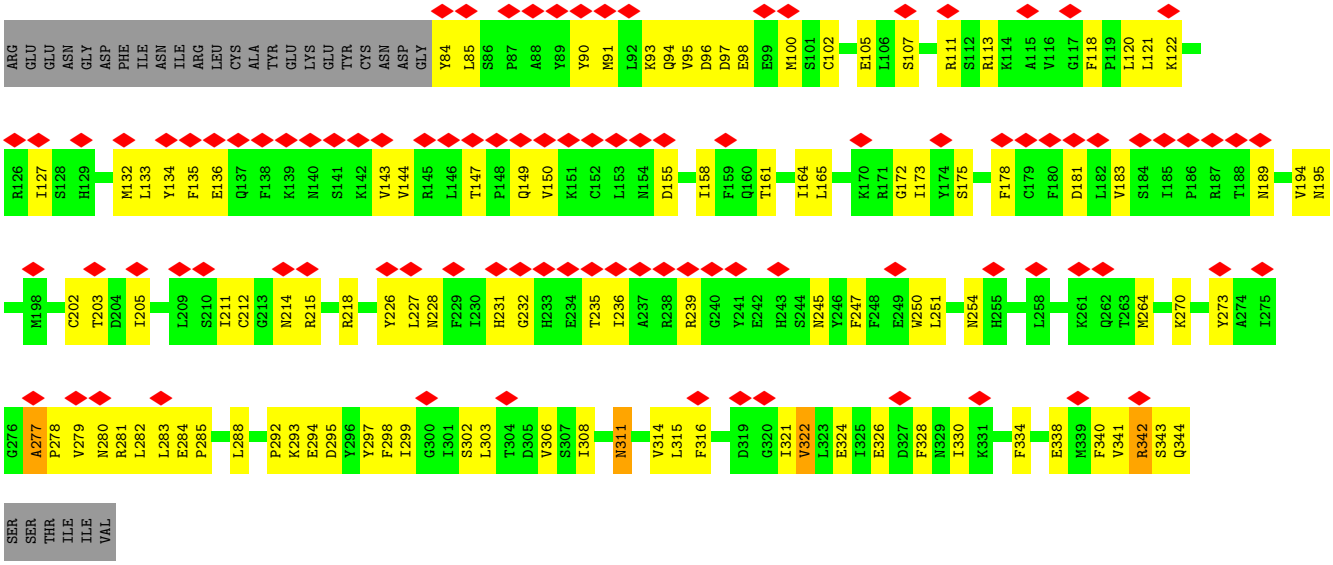
Chain W:



• Molecule 3: Protein OPG097

Chain X:




ARG GLU GLU ASN GLY ASP PHE ILE ASN ILE ARG LEU CYS ALA TYR GLU LYS GLU TYR CYS ASN ASP GLY
Y84 L85 S86 P87 A88 Y89 Y90 M91 L92 K93 Q94 V95 D96 D97 E98 E99 M100 S101 C102 E105 L106 S107 R111 S112 R113 K114 A115 V116 G117 F118 P119 L120 L121 K122
R126 I127 S128 H129 M132 L133 Y134 F135 E136 Q137 F138 K139 N140 S141 K142 V143 V144 R145 L146 T147 P148 Q149 V150 K151 C152 L153 N154 D155 I158 F159 Q160 T161 I164 L165 K170 R171 G172 I173 Y174 S175 F178 C179 F180 D181 L182 V183 S184 I185 P186 R187 T188 N189 V194 N195
M198 C202 T203 D204 I205 L209 S210 I211 C212 G213 N214 R215 R218 Y226 L227 N228 F229 I230 H231 G232 H233 E234 T235 I236 A237 R238 R239 G240 Y241 E242 H243 S244 N245 Y246 F247 F248 E249 W250 L251 N254 H255 L258 K261 Q262 T263 M264 K270 Y273 A274 I275
G276 A277 P278 V279 N280 R281 L282 L283 E284 P285 L288 P292 K293 E294 D295 Y296 Y297 F298 I299 G300 I301 S302 L303 T304 D305 V306 S307 I308 N311 V314 L315 F316 D319 G320 I321 V322 L323 E324 I325 E326 D327 F328 N329 I330 K331 F334 E338 M339 F340 V341 R342 S343 Q344
SER SER THR ILE ILE VAL

4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SUBTOMOGRAM AVERAGING	Depositor
Imposed symmetry	POINT, C6	Depositor
Number of subtomograms used	15102	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING ONLY	Depositor
Microscope	TFS KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	161.6	Depositor
Minimum defocus (nm)	2000	Depositor
Maximum defocus (nm)	5500	Depositor
Magnification	Not provided	
Image detector	GATAN K3 (6k x 4k)	Depositor
Maximum map value	6.057	Depositor
Minimum map value	-4.311	Depositor
Average map value	-0.000	Depositor
Map value standard deviation	0.349	Depositor
Recommended contour level	1.45	Depositor
Map size (Å)	348.16, 348.16, 348.16	wwPDB
Map dimensions	256, 256, 256	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.36, 1.36, 1.36	Depositor

5 Model quality (i)

5.1 Standard geometry (i)

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	A	0.19	0/2312	0.56	0/3142
1	B	0.21	0/2312	0.58	2/3142 (0.1%)
1	C	0.17	0/2312	0.54	0/3142
1	D	0.22	1/2312 (0.0%)	0.54	0/3142
1	E	0.18	0/2312	0.54	0/3142
1	F	0.21	0/2312	0.59	0/3142
2	G	0.20	0/4808	0.54	2/6497 (0.0%)
2	H	0.19	0/4808	0.53	1/6497 (0.0%)
2	I	0.20	0/4808	0.55	1/6497 (0.0%)
2	J	0.21	0/4808	0.53	0/6497
2	K	0.19	0/4808	0.53	1/6497 (0.0%)
2	L	0.19	0/4808	0.53	1/6497 (0.0%)
3	M	0.34	0/2394	0.68	4/3236 (0.1%)
3	N	0.34	0/2394	0.68	4/3236 (0.1%)
3	O	0.35	0/2394	0.71	4/3236 (0.1%)
3	P	0.34	0/2394	0.68	4/3236 (0.1%)
3	Q	0.34	0/2394	0.68	4/3236 (0.1%)
3	R	0.34	0/2394	0.68	4/3236 (0.1%)
3	S	0.19	0/2177	0.50	0/2944
3	T	0.18	0/2177	0.52	0/2944
3	U	0.15	0/2177	0.47	0/2944
3	V	0.16	0/2177	0.49	0/2944
3	W	0.18	0/2177	0.54	0/2944
3	X	0.17	0/2177	0.53	0/2944
All	All	0.23	1/70146 (0.0%)	0.57	32/94914 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
1	C	0	1
1	D	0	2
1	E	0	2
1	F	0	2
2	G	0	1
2	I	0	1
2	J	0	1
2	K	0	1
2	L	0	1
3	T	0	2
3	W	0	1
3	X	0	3
All	All	0	19

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	D	5	VAL	CA-CB	-6.19	1.51	1.54

All (32) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	K	554	ASP	N-CA-C	-5.81	104.14	111.11
2	G	554	ASP	N-CA-C	-5.80	104.15	111.11
2	I	379	ILE	N-CA-C	-5.64	105.67	113.00
3	M	80	CYS	CB-CA-C	-5.38	110.36	116.54
3	O	80	CYS	CB-CA-C	-5.38	110.36	116.54
3	N	80	CYS	CB-CA-C	-5.37	110.37	116.54
3	Q	80	CYS	CB-CA-C	-5.37	110.37	116.54
3	R	80	CYS	CB-CA-C	-5.36	110.38	116.54
3	P	80	CYS	CB-CA-C	-5.35	110.38	116.54
2	L	554	ASP	N-CA-C	-5.29	104.77	111.11
2	H	379	ILE	N-CA-C	-5.27	106.15	113.00
3	N	263	THR	N-CA-C	-5.26	104.80	111.11
3	P	263	THR	N-CA-C	-5.26	104.80	111.11
3	Q	263	THR	N-CA-C	-5.24	104.82	111.11
3	R	263	THR	N-CA-C	-5.23	104.83	111.11
3	M	263	THR	N-CA-C	-5.21	104.86	111.11
3	O	263	THR	N-CA-C	-5.21	104.85	111.11
1	B	116	LYS	CB-CG-CD	5.18	123.21	111.30
1	B	116	LYS	CG-CD-CE	5.07	122.95	111.30
3	O	268	LYS	CA-C-N	-5.04	115.87	122.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	O	268	LYS	C-N-CA	-5.04	115.87	122.37
3	P	268	LYS	CA-C-N	-5.03	115.88	122.37
3	P	268	LYS	C-N-CA	-5.03	115.88	122.37
3	R	268	LYS	CA-C-N	-5.03	115.89	122.37
3	R	268	LYS	C-N-CA	-5.03	115.89	122.37
3	N	268	LYS	CA-C-N	-5.02	115.89	122.37
3	N	268	LYS	C-N-CA	-5.02	115.89	122.37
3	Q	268	LYS	CA-C-N	-5.02	115.89	122.37
3	Q	268	LYS	C-N-CA	-5.02	115.89	122.37
3	M	268	LYS	CA-C-N	-5.02	115.90	122.37
3	M	268	LYS	C-N-CA	-5.02	115.90	122.37
2	G	379	ILE	N-CA-C	-5.01	107.55	113.42

There are no chirality outliers.

All (19) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	171	ARG	Sidechain
1	C	171	ARG	Sidechain
1	D	227	LEU	Peptide
1	D	65	SER	Peptide
1	E	227	LEU	Peptide
1	E	65	SER	Peptide
1	F	227	LEU	Peptide
1	F	65	SER	Peptide
2	G	161	LEU	Mainchain
2	I	161	LEU	Mainchain
2	J	225	PHE	Mainchain
2	K	161	LEU	Mainchain
2	L	161	LEU	Mainchain
3	T	281	ARG	Sidechain
3	T	283	LEU	Peptide
3	W	281	ARG	Sidechain
3	X	283	LEU	Peptide
3	X	342	ARG	Sidechain
3	X	96	ASP	Peptide

5.2 Too-close contacts (i)

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen

atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	2244	0	2228	85	0
1	B	2244	0	2231	88	0
1	C	2244	0	2230	82	0
1	D	2244	0	2231	90	0
1	E	2244	0	2230	77	0
1	F	2244	0	2230	102	0
2	G	4708	0	4750	206	0
2	H	4708	0	4750	191	0
2	I	4708	0	4750	201	0
2	J	4708	0	4750	208	0
2	K	4708	0	4750	195	0
2	L	4708	0	4750	192	0
3	M	2343	0	2355	133	0
3	N	2343	0	2356	146	0
3	O	2343	0	2357	162	0
3	P	2343	0	2357	126	0
3	Q	2343	0	2357	135	0
3	R	2343	0	2357	116	0
3	S	2129	0	2155	79	0
3	T	2129	0	2155	95	0
3	U	2129	0	2152	88	0
3	V	2129	0	2153	90	0
3	W	2129	0	2156	106	0
3	X	2129	0	2156	105	0
All	All	68544	0	68946	2695	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 20.

All (2695) 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)
3:N:79:TYR:HD2	3:P:151:LYS:NZ	1.03	1.47
3:M:151:LYS:NZ	3:Q:79:TYR:HD2	0.99	1.47
3:Q:151:LYS:NZ	3:R:79:TYR:HD2	1.05	1.46
3:M:79:TYR:HD2	3:N:151:LYS:NZ	1.08	1.45
3:O:151:LYS:NZ	3:P:79:TYR:HD2	1.11	1.45
3:O:79:TYR:HD2	3:R:151:LYS:NZ	1.13	1.42
3:N:79:TYR:CD2	3:P:151:LYS:NZ	1.88	1.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:O:101:SER:CA	3:T:342:ARG:HH21	1.39	1.36
3:N:101:SER:CA	3:X:342:ARG:NH1	1.87	1.35
3:N:101:SER:HA	3:X:342:ARG:NH1	1.05	1.35
3:Q:176:ASN:OD1	3:V:111:ARG:NH2	1.59	1.30
3:O:101:SER:N	3:T:342:ARG:HH21	1.30	1.27
1:A:273:LEU:OXT	1:B:116:LYS:NZ	1.70	1.22
3:P:225:CYS:SG	3:X:105:GLU:OE2	1.97	1.22
3:O:101:SER:HA	3:T:342:ARG:NH2	1.54	1.21
3:N:101:SER:CB	3:X:342:ARG:HH12	1.54	1.19
3:O:100:MET:C	3:T:342:ARG:NH2	1.99	1.19
3:O:225:CYS:SG	3:W:105:GLU:OE2	2.03	1.16
3:O:225:CYS:SG	3:W:105:GLU:CD	2.29	1.16
3:N:101:SER:CA	3:X:342:ARG:HH12	1.52	1.15
3:O:171:ARG:HH12	3:T:338:GLU:HA	1.03	1.15
3:N:284:GLU:HG2	3:X:273:TYR:HB3	1.21	1.13
3:Q:284:GLU:HG2	3:U:273:TYR:CB	1.78	1.12
3:Q:176:ASN:OD1	3:V:111:ARG:CZ	1.96	1.12
3:O:79:TYR:CD2	3:R:151:LYS:NZ	1.94	1.11
1:D:273:LEU:O	2:I:345:ARG:NH2	1.82	1.11
1:A:273:LEU:O	2:H:345:ARG:NH2	1.83	1.10
3:Q:284:GLU:HG2	3:U:273:TYR:HB3	1.30	1.09
3:P:284:GLU:HG2	3:W:273:TYR:HB3	1.27	1.08
3:M:79:TYR:CD2	3:N:151:LYS:NZ	1.93	1.08
3:O:101:SER:HA	3:T:342:ARG:CZ	1.84	1.07
3:Q:176:ASN:OD1	3:V:111:ARG:NH1	1.87	1.07
3:O:284:GLU:HG2	3:T:273:TYR:HB3	1.38	1.06
3:N:309:SER:HB3	3:S:308:ILE:HD12	1.38	1.05
3:O:100:MET:C	3:T:342:ARG:HH21	1.62	1.05
1:E:273:LEU:O	2:G:345:ARG:NH2	1.88	1.04
3:O:101:SER:CA	3:T:342:ARG:NH2	2.14	1.03
3:Q:225:CYS:SG	3:V:105:GLU:OE1	2.16	1.02
3:Q:327:ASP:OD2	3:V:279:VAL:HG12	1.59	1.02
3:O:100:MET:O	3:T:342:ARG:NH2	1.93	1.02
3:O:313:ARG:HG3	3:W:281:ARG:HH21	1.23	1.02
3:M:151:LYS:NZ	3:Q:79:TYR:CD2	1.85	1.01
1:C:273:LEU:O	2:K:345:ARG:NH2	1.94	1.00
3:O:284:GLU:HG2	3:T:273:TYR:CB	1.91	1.00
3:Q:177:GLU:H	3:V:111:ARG:NH2	1.59	1.00
3:O:101:SER:HA	3:T:342:ARG:HH21	1.14	0.99
1:C:273:LEU:OXT	1:D:116:LYS:NZ	1.94	0.99
3:O:225:CYS:HG	3:W:105:GLU:CD	1.65	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:327:ASP:OD2	3:X:279:VAL:HG12	1.63	0.99
3:Q:151:LYS:NZ	3:R:79:TYR:CD2	1.92	0.98
3:N:101:SER:HA	3:X:342:ARG:CZ	1.93	0.98
3:P:284:GLU:HG2	3:W:273:TYR:CB	1.93	0.97
3:O:101:SER:N	3:T:342:ARG:NH2	2.10	0.96
3:V:277:ALA:H	3:V:278:PRO:HD3	1.31	0.95
3:N:313:ARG:HD3	3:S:281:ARG:NH2	1.83	0.94
3:O:176:ASN:ND2	3:W:122:LYS:HA	1.83	0.94
3:O:101:SER:HA	3:T:342:ARG:NE	1.83	0.93
2:H:376:GLU:HA	2:H:379:ILE:HG22	1.49	0.93
3:Q:177:GLU:N	3:V:111:ARG:NH2	2.17	0.93
1:A:9:ASP:HB3	1:B:20:LEU:HD21	1.50	0.92
3:O:304:THR:HG21	3:W:281:ARG:NH1	1.86	0.91
3:O:304:THR:HG21	3:W:281:ARG:CZ	1.98	0.91
3:O:171:ARG:NH1	3:T:338:GLU:HA	1.85	0.91
3:N:309:SER:HB3	3:S:308:ILE:CD1	2.01	0.90
2:I:379:ILE:CD1	2:I:386:ASN:HA	2.02	0.90
3:Q:176:ASN:CG	3:V:111:ARG:HH12	1.78	0.90
2:I:379:ILE:HG21	2:I:387:ILE:HD11	1.53	0.89
3:M:176:ASN:CG	3:U:111:ARG:NH1	2.17	0.88
3:N:101:SER:HA	3:X:342:ARG:HH11	1.34	0.88
2:I:379:ILE:HD11	2:I:386:ASN:HA	1.56	0.87
3:O:151:LYS:NZ	3:P:79:TYR:CD2	1.99	0.86
1:E:171:ARG:HE	1:F:116:LYS:HG3	1.40	0.86
1:C:9:ASP:HB3	1:D:20:LEU:HD21	1.56	0.85
3:N:284:GLU:HG2	3:X:273:TYR:CB	2.04	0.85
3:O:335:MET:HE3	3:T:334:PHE:CZ	2.11	0.85
3:S:165:LEU:HD21	3:S:226:TYR:HB3	1.59	0.85
3:O:111:ARG:NH2	3:R:239:ARG:HG3	1.92	0.85
3:M:79:TYR:HD2	3:N:151:LYS:CE	1.90	0.85
3:R:313:ARG:HG3	3:T:281:ARG:HH22	1.40	0.85
3:N:79:TYR:HD2	3:P:151:LYS:CE	1.89	0.84
3:P:262:GLN:HA	3:P:265:ASP:HB2	1.59	0.84
3:M:151:LYS:CE	3:Q:79:TYR:HD2	1.91	0.84
3:O:79:TYR:HD2	3:R:151:LYS:CE	1.91	0.84
3:S:228:ASN:HA	3:S:231:HIS:HB2	1.59	0.84
1:F:273:LEU:O	2:J:345:ARG:CZ	2.26	0.83
2:K:557:TYR:OH	2:L:457:ASN:ND2	2.11	0.83
3:O:262:GLN:HA	3:O:265:ASP:HB2	1.59	0.83
3:O:335:MET:HE3	3:T:334:PHE:HZ	1.39	0.83
3:Q:151:LYS:CE	3:R:79:TYR:HD2	1.90	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Q:284:GLU:HG2	3:U:273:TYR:HB2	1.58	0.83
3:M:262:GLN:HA	3:M:265:ASP:HB2	1.59	0.83
3:N:262:GLN:HA	3:N:265:ASP:HB2	1.59	0.83
1:F:273:LEU:O	2:J:345:ARG:NH2	2.11	0.83
3:T:316:PHE:O	3:T:323:LEU:HA	1.79	0.83
1:B:273:LEU:O	2:L:345:ARG:NH1	2.11	0.83
3:P:284:GLU:CG	3:W:273:TYR:HB3	2.09	0.82
2:L:374:PHE:HB2	2:L:387:ILE:HD11	1.62	0.82
3:N:309:SER:CB	3:S:308:ILE:HD12	2.10	0.82
3:R:262:GLN:HA	3:R:265:ASP:HB2	1.59	0.82
3:Q:262:GLN:HA	3:Q:265:ASP:HB2	1.59	0.82
1:C:86:LYS:HG3	2:L:340:ASN:HD21	1.42	0.81
3:P:335:MET:HE3	3:W:334:PHE:HZ	1.45	0.81
1:E:77:LYS:HA	2:I:355:PHE:HE2	1.45	0.81
3:O:100:MET:C	3:T:342:ARG:HH22	1.85	0.81
3:O:327:ASP:OD2	3:W:279:VAL:HG12	1.80	0.81
1:A:77:LYS:HA	2:J:355:PHE:HE2	1.45	0.81
2:H:376:GLU:HB3	2:H:380:ASN:HA	1.63	0.81
3:Q:279:VAL:HG21	3:Q:333:LEU:HD23	1.64	0.80
3:M:165:LEU:HA	3:M:168:MET:HE3	1.64	0.80
3:Q:335:MET:HE3	3:U:334:PHE:CZ	2.17	0.80
2:K:260:LEU:O	2:K:263:ILE:HB	1.81	0.80
3:Q:291:VAL:HG11	3:Q:314:VAL:HG11	1.64	0.80
2:G:557:TYR:OH	2:I:457:ASN:ND2	2.15	0.80
3:M:279:VAL:HG21	3:M:333:LEU:HD23	1.64	0.80
3:R:291:VAL:HG11	3:R:314:VAL:HG11	1.64	0.80
3:R:279:VAL:HG21	3:R:333:LEU:HD23	1.64	0.79
3:M:291:VAL:HG11	3:M:314:VAL:HG11	1.64	0.79
3:Q:165:LEU:HA	3:Q:168:MET:HE3	1.64	0.79
3:O:291:VAL:HG11	3:O:314:VAL:HG11	1.64	0.79
3:N:335:MET:HE3	3:X:334:PHE:HZ	1.48	0.79
3:P:291:VAL:HG11	3:P:314:VAL:HG11	1.64	0.79
3:Q:335:MET:HE3	3:U:334:PHE:HZ	1.47	0.79
3:S:288:LEU:HB3	3:S:299:ILE:HD11	1.65	0.79
3:O:225:CYS:SG	3:W:105:GLU:OE1	2.39	0.79
3:P:279:VAL:HG21	3:P:333:LEU:HD23	1.64	0.79
3:N:291:VAL:HG11	3:N:314:VAL:HG11	1.64	0.78
2:L:27:LYS:HB2	2:L:35:HIS:HE1	1.48	0.78
3:M:335:MET:HE3	3:S:334:PHE:CZ	2.19	0.78
2:J:159:LEU:HA	2:J:164:LYS:HB2	1.66	0.78
3:O:165:LEU:HA	3:O:168:MET:HE3	1.64	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:O:309:SER:OG	3:W:308:ILE:HG22	1.83	0.78
3:O:279:VAL:HG21	3:O:333:LEU:HD23	1.64	0.78
3:R:165:LEU:HA	3:R:168:MET:HE3	1.64	0.78
2:G:156:ILE:HD11	2:G:160:LYS:HE3	1.63	0.78
3:N:279:VAL:HG21	3:N:333:LEU:HD23	1.64	0.78
3:P:165:LEU:HA	3:P:168:MET:HE3	1.64	0.78
3:O:151:LYS:CE	3:P:79:TYR:HD2	1.97	0.78
3:Q:284:GLU:CG	3:U:273:TYR:HB3	2.11	0.77
3:N:101:SER:CB	3:X:342:ARG:NH1	2.33	0.77
3:Q:176:ASN:ND2	3:V:111:ARG:HH12	1.81	0.77
1:D:177:GLY:HA3	1:E:56:SER:HA	1.67	0.77
3:M:176:ASN:ND2	3:U:111:ARG:NH1	2.32	0.77
3:N:101:SER:HB2	3:X:342:ARG:HH22	1.48	0.77
1:F:272:LEU:HG	2:J:345:ARG:HH22	1.49	0.77
3:N:165:LEU:HA	3:N:168:MET:HE3	1.64	0.77
3:T:281:ARG:HG3	3:T:283:LEU:H	1.50	0.77
2:L:254:THR:H	2:L:258:LYS:HZ1	1.33	0.76
3:M:335:MET:HE3	3:S:334:PHE:HZ	1.50	0.76
3:N:284:GLU:CG	3:X:273:TYR:HB3	2.11	0.76
1:C:177:GLY:HA3	1:D:56:SER:HA	1.66	0.76
2:G:229:LYS:HE3	2:G:233:TRP:HE3	1.49	0.76
3:M:111:ARG:NH2	3:N:239:ARG:HG3	2.01	0.76
2:L:254:THR:HG22	2:L:256:TYR:H	1.50	0.76
1:C:273:LEU:O	2:K:345:ARG:CZ	2.33	0.76
2:J:260:LEU:O	2:J:263:ILE:HB	1.85	0.75
3:N:100:MET:CE	3:X:344:GLN:HA	2.16	0.75
1:F:39:TYR:HB3	1:F:50:PRO:HG3	1.67	0.75
3:O:313:ARG:HG3	3:W:281:ARG:NH2	2.00	0.75
3:O:79:TYR:CD2	3:R:151:LYS:CE	2.69	0.75
3:S:291:VAL:HG21	3:S:314:VAL:HG11	1.69	0.75
2:H:557:TYR:OH	2:J:457:ASN:ND2	2.20	0.74
3:P:327:ASP:OD2	3:X:279:VAL:CG1	2.36	0.74
2:J:255:MET:H	2:J:258:LYS:HE3	1.52	0.74
3:T:111:ARG:HH21	3:T:120:LEU:HD13	1.52	0.74
3:P:335:MET:HE3	3:W:334:PHE:CZ	2.21	0.74
3:Q:327:ASP:OD2	3:V:279:VAL:CG1	2.34	0.74
3:N:111:ARG:NH2	3:P:239:ARG:HG3	2.03	0.74
3:O:304:THR:HG21	3:W:281:ARG:NH2	2.02	0.74
2:G:131:GLU:HG3	2:G:132:LEU:H	1.52	0.74
2:H:159:LEU:HA	2:H:164:LYS:HB2	1.69	0.74
3:N:79:TYR:HD2	3:P:151:LYS:HZ2	0.76	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:327:ASP:HB2	3:X:280:ASN:HD21	1.53	0.74
1:C:272:LEU:HG	2:K:345:ARG:HH22	1.53	0.73
2:I:159:LEU:HA	2:I:164:LYS:HB2	1.67	0.73
2:K:380:ASN:O	2:K:382:SER:N	2.20	0.73
3:N:309:SER:CB	3:S:308:ILE:CD1	2.66	0.73
3:U:165:LEU:HD21	3:U:226:TYR:HB3	1.69	0.73
1:B:149:ASP:HB3	1:B:152:LYS:HB2	1.70	0.73
2:G:229:LYS:HZ3	2:I:313:ASP:HB2	1.52	0.73
3:X:155:ASP:O	3:X:158:ILE:HG22	1.88	0.73
2:K:131:GLU:HG3	2:K:132:LEU:H	1.54	0.73
1:F:256:VAL:HG13	1:F:260:MET:HE1	1.70	0.73
2:G:407:ILE:HG23	2:G:408:PHE:H	1.51	0.73
3:W:291:VAL:HG21	3:W:314:VAL:HG11	1.71	0.73
2:I:566:ARG:O	2:I:567:SER:OXT	2.07	0.73
3:M:151:LYS:CE	3:Q:79:TYR:CD2	2.68	0.73
1:A:272:LEU:HG	2:H:345:ARG:HH22	1.54	0.73
2:G:159:LEU:HA	2:G:164:LYS:HB2	1.71	0.73
2:G:561:LEU:HD13	2:G:566:ARG:HA	1.69	0.73
3:N:79:TYR:CD2	3:P:151:LYS:CE	2.67	0.73
2:K:254:THR:HG22	2:K:256:TYR:H	1.54	0.72
3:M:219:THR:CG2	3:U:101:SER:HB3	2.19	0.72
3:R:304:THR:HG21	3:T:281:ARG:NH1	2.03	0.72
2:L:92:LEU:HD21	2:L:495:VAL:HG21	1.71	0.72
1:F:161:THR:H	1:F:166:HIS:HE1	1.37	0.72
2:I:561:LEU:HD13	2:I:566:ARG:HA	1.71	0.72
3:N:100:MET:HE2	3:X:344:GLN:HA	1.70	0.72
3:P:304:THR:HG21	3:X:281:ARG:NH1	2.04	0.72
2:L:156:ILE:HD11	2:L:160:LYS:HE3	1.72	0.72
2:I:224:ILE:HG13	2:I:225:PHE:H	1.54	0.72
2:K:255:MET:H	2:K:258:LYS:HE3	1.55	0.72
2:J:344:PHE:O	2:J:348:VAL:HG23	1.89	0.71
2:K:295:GLU:HB2	2:K:301:PRO:HA	1.70	0.71
1:E:256:VAL:HG13	1:E:260:MET:HE1	1.71	0.71
2:L:175:VAL:HG21	2:L:260:LEU:HD13	1.72	0.71
2:G:255:MET:H	2:G:258:LYS:HE3	1.55	0.71
2:G:291:GLU:HA	2:G:294:LEU:HD23	1.73	0.71
2:G:374:PHE:HB2	2:G:387:ILE:HD11	1.72	0.71
2:H:380:ASN:O	2:H:382:SER:N	2.24	0.71
2:K:376:GLU:N	2:K:379:ILE:HG12	2.06	0.70
3:T:203:THR:HG22	3:T:205:ILE:H	1.55	0.70
2:K:291:GLU:HA	2:K:294:LEU:HD23	1.72	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:T:303:LEU:HD11	3:T:315:LEU:HD12	1.73	0.70
3:W:236:ILE:HA	3:W:238:ARG:NH1	2.07	0.70
3:Q:151:LYS:CE	3:R:79:TYR:CD2	2.71	0.70
2:H:92:LEU:HD21	2:H:495:VAL:HG21	1.72	0.70
2:H:295:GLU:HB2	2:H:301:PRO:HA	1.74	0.70
3:R:313:ARG:HG3	3:T:281:ARG:NH2	2.05	0.70
2:G:481:LEU:HA	2:G:484:LYS:HD2	1.74	0.70
2:J:295:GLU:HB2	2:J:301:PRO:HA	1.72	0.70
3:V:165:LEU:HD21	3:V:226:TYR:HB3	1.73	0.70
2:L:131:GLU:HG3	2:L:132:LEU:H	1.55	0.70
2:L:380:ASN:O	2:L:382:SER:N	2.25	0.70
3:O:111:ARG:CZ	3:R:239:ARG:HG3	2.22	0.70
2:G:92:LEU:HD21	2:G:495:VAL:HG21	1.74	0.70
2:G:295:GLU:HB2	2:G:301:PRO:HA	1.72	0.70
2:J:27:LYS:HE3	2:J:35:HIS:HE1	1.56	0.70
3:S:277:ALA:H	3:S:278:PRO:CD	2.04	0.70
3:N:335:MET:HE3	3:X:334:PHE:CZ	2.26	0.69
1:B:97:ASN:HA	1:B:105:SER:HB3	1.74	0.69
2:G:384:ILE:HD13	2:G:396:LEU:HD11	1.73	0.69
2:J:27:LYS:HE3	2:J:35:HIS:CE1	2.27	0.69
2:L:376:GLU:HA	2:L:379:ILE:HG22	1.72	0.69
1:B:50:PRO:HD2	1:B:97:ASN:HD21	1.56	0.69
2:K:27:LYS:HE3	2:K:35:HIS:CE1	2.26	0.69
1:C:149:ASP:HB3	1:C:152:LYS:HB2	1.74	0.69
1:F:49:ILE:HD12	1:F:97:ASN:HD22	1.57	0.69
2:H:416:VAL:HG23	2:H:433:ILE:HG23	1.74	0.69
2:J:126:MET:HA	2:J:129:LEU:HD23	1.75	0.69
3:P:262:GLN:CA	3:P:265:ASP:HB2	2.23	0.69
3:W:294:GLU:HG2	3:W:295:ASP:H	1.58	0.69
2:I:481:LEU:HA	2:I:484:LYS:HD3	1.74	0.69
2:J:407:ILE:HG23	2:J:408:PHE:H	1.57	0.69
2:K:27:LYS:HE3	2:K:35:HIS:HE1	1.56	0.69
2:L:159:LEU:HA	2:L:164:LYS:HB2	1.75	0.69
3:V:288:LEU:HB3	3:V:299:ILE:HD11	1.75	0.69
1:C:161:THR:H	1:C:166:HIS:HE1	1.41	0.69
2:K:432:VAL:HG21	2:K:441:LEU:HD13	1.75	0.69
2:G:260:LEU:O	2:G:263:ILE:HB	1.92	0.69
1:A:99:GLU:HG2	1:A:100:PHE:H	1.58	0.68
1:A:120:LEU:HD12	1:A:121:PRO:HD2	1.73	0.68
1:A:256:VAL:HG23	1:A:259:LEU:HD12	1.76	0.68
1:D:114:LEU:O	1:D:117:PHE:HB2	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:255:MET:H	2:I:258:LYS:HE3	1.58	0.68
2:I:407:ILE:HG23	2:I:408:PHE:H	1.58	0.68
3:M:262:GLN:CA	3:M:265:ASP:HB2	2.23	0.68
3:O:101:SER:HA	3:T:342:ARG:HE	1.56	0.68
2:J:566:ARG:O	2:J:567:SER:OXT	2.11	0.68
2:K:374:PHE:HB3	2:K:379:ILE:CG2	2.23	0.68
3:N:101:SER:HB3	3:X:342:ARG:HH12	1.51	0.68
1:E:171:ARG:NE	1:F:116:LYS:HG3	2.08	0.68
3:O:262:GLN:CA	3:O:265:ASP:HB2	2.23	0.68
3:V:161:THR:HG22	3:V:207:VAL:HG21	1.76	0.68
1:C:120:LEU:HD12	1:C:121:PRO:HD2	1.75	0.68
3:M:79:TYR:CD2	3:N:151:LYS:CE	2.70	0.68
3:V:203:THR:HG22	3:V:205:ILE:H	1.59	0.68
3:W:288:LEU:HD13	3:W:299:ILE:HD12	1.76	0.68
1:D:256:VAL:HG13	1:D:260:MET:HE1	1.74	0.68
2:H:379:ILE:HG13	2:H:387:ILE:HG13	1.76	0.68
3:R:262:GLN:CA	3:R:265:ASP:HB2	2.23	0.68
3:X:284:GLU:HG2	3:X:306:VAL:HG12	1.75	0.68
1:B:177:GLY:HA3	1:C:56:SER:HA	1.76	0.68
2:L:407:ILE:HG23	2:L:408:PHE:H	1.59	0.68
3:N:262:GLN:CA	3:N:265:ASP:HB2	2.23	0.68
3:Q:262:GLN:CA	3:Q:265:ASP:HB2	2.23	0.68
3:X:277:ALA:H	3:X:278:PRO:CD	2.07	0.68
1:A:77:LYS:HA	2:J:355:PHE:CE2	2.29	0.67
3:O:101:SER:CB	3:T:342:ARG:HE	2.07	0.67
1:A:115:ARG:O	1:A:118:SER:HB3	1.94	0.67
2:I:382:SER:HB2	2:I:384:ILE:HG13	1.76	0.67
2:I:295:GLU:HB2	2:I:301:PRO:HA	1.74	0.67
2:J:254:THR:HG22	2:J:256:TYR:H	1.59	0.67
2:K:159:LEU:HA	2:K:164:LYS:HB2	1.76	0.67
3:Q:239:ARG:HG3	3:R:111:ARG:NH2	2.09	0.67
3:S:161:THR:HG22	3:S:207:VAL:HG11	1.75	0.67
1:A:23:GLU:HB3	1:A:28:ARG:HH11	1.59	0.67
3:T:165:LEU:HD21	3:T:226:TYR:HB3	1.75	0.67
3:U:284:GLU:HG2	3:U:306:VAL:HG12	1.75	0.67
1:F:120:LEU:HD12	1:F:121:PRO:HD2	1.75	0.67
3:V:277:ALA:H	3:V:278:PRO:CD	2.06	0.67
2:L:557:TYR:O	2:L:558:ILE:C	2.38	0.67
2:J:416:VAL:HG23	2:J:433:ILE:HG23	1.76	0.67
2:L:260:LEU:O	2:L:263:ILE:HB	1.94	0.67
3:M:219:THR:HG21	3:U:101:SER:HB3	1.75	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:114:LEU:O	1:C:117:PHE:HB2	1.94	0.67
3:O:239:ARG:HG3	3:P:111:ARG:NH2	2.08	0.67
2:K:27:LYS:HB2	2:K:35:HIS:HE1	1.59	0.67
3:V:279:VAL:HG23	3:V:330:ILE:HD13	1.77	0.67
2:L:27:LYS:HB2	2:L:35:HIS:CE1	2.29	0.67
3:M:171:ARG:HH12	3:S:338:GLU:HA	1.60	0.67
3:T:121:LEU:HA	3:T:135:PHE:HA	1.77	0.67
3:T:161:THR:HA	3:T:164:ILE:HD12	1.78	0.66
1:A:171:ARG:CZ	1:B:116:LYS:HB2	2.24	0.66
2:G:380:ASN:O	2:G:382:SER:N	2.28	0.66
2:K:566:ARG:O	2:K:567:SER:OXT	2.13	0.66
3:R:294:GLU:O	3:R:295:ASP:C	2.38	0.66
1:A:256:VAL:HG13	1:A:260:MET:HE1	1.77	0.66
1:E:34:LEU:HD12	1:E:36:LYS:H	1.59	0.66
2:L:295:GLU:HB2	2:L:301:PRO:HA	1.76	0.66
3:Q:294:GLU:O	3:Q:295:ASP:C	2.38	0.66
3:S:185:ILE:HD13	3:S:206:LEU:HB2	1.76	0.66
2:H:481:LEU:HA	2:H:484:LYS:HD2	1.77	0.66
2:K:557:TYR:O	2:K:558:ILE:C	2.38	0.66
3:M:309:SER:HB3	3:U:308:ILE:HD12	1.77	0.66
2:I:260:LEU:O	2:I:263:ILE:HB	1.95	0.66
2:L:481:LEU:HA	2:L:484:LYS:HD2	1.76	0.66
3:M:239:ARG:HG3	3:Q:111:ARG:NH2	2.11	0.66
2:H:407:ILE:HG23	2:H:408:PHE:H	1.60	0.66
2:K:374:PHE:HB3	2:K:379:ILE:HG22	1.78	0.66
2:L:259:ILE:HG21	2:L:383:TYR:HD2	1.60	0.66
3:M:294:GLU:O	3:M:295:ASP:C	2.38	0.66
3:O:161:THR:O	3:O:164:ILE:HB	1.96	0.66
3:O:294:GLU:O	3:O:295:ASP:C	2.38	0.66
3:V:121:LEU:HA	3:V:135:PHE:HA	1.77	0.66
3:M:219:THR:HG21	3:U:101:SER:CB	2.25	0.66
1:A:177:GLY:HA3	1:B:56:SER:HA	1.78	0.66
2:K:376:GLU:H	2:K:379:ILE:HG12	1.59	0.66
2:K:481:LEU:HA	2:K:484:LYS:HD2	1.78	0.66
2:I:416:VAL:HG23	2:I:433:ILE:HG23	1.76	0.66
3:P:161:THR:O	3:P:164:ILE:HB	1.96	0.66
3:P:171:ARG:HH12	3:W:338:GLU:HA	1.60	0.66
3:Q:161:THR:O	3:Q:164:ILE:HB	1.96	0.66
3:R:161:THR:O	3:R:164:ILE:HB	1.96	0.66
3:U:227:LEU:HD23	3:U:245:ASN:HA	1.77	0.66
1:C:272:LEU:HG	2:K:345:ARG:NH2	2.11	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:566:ARG:O	2:L:567:SER:OXT	2.14	0.65
3:P:294:GLU:O	3:P:295:ASP:C	2.38	0.65
3:R:171:ARG:HH12	3:V:338:GLU:HA	1.59	0.65
2:G:382:SER:O	2:G:383:TYR:C	2.39	0.65
3:N:294:GLU:O	3:N:295:ASP:C	2.38	0.65
3:M:161:THR:O	3:M:164:ILE:HB	1.96	0.65
1:B:70:ILE:HG21	1:B:235:VAL:HG11	1.78	0.65
1:D:120:LEU:HD12	1:D:121:PRO:HD2	1.79	0.65
3:Q:176:ASN:ND2	3:V:122:LYS:HA	2.11	0.65
2:K:126:MET:HA	2:K:129:LEU:HD23	1.79	0.65
1:E:149:ASP:HB3	1:E:152:LYS:HB2	1.79	0.65
2:I:482:LEU:HA	2:I:485:MET:SD	2.37	0.65
3:O:151:LYS:CE	3:P:79:TYR:CD2	2.78	0.65
1:F:176:THR:HG21	1:F:228:TYR:HB2	1.78	0.65
1:E:272:LEU:HG	2:G:345:ARG:HH22	1.61	0.65
2:K:407:ILE:HG23	2:K:408:PHE:H	1.62	0.65
2:J:376:GLU:N	2:J:379:ILE:HG12	2.11	0.65
2:L:416:VAL:HG23	2:L:433:ILE:HG23	1.79	0.65
3:V:261:LYS:HE3	3:V:262:GLN:HE21	1.62	0.65
1:E:77:LYS:HA	2:I:355:PHE:CE2	2.29	0.64
2:H:260:LEU:O	2:H:263:ILE:HB	1.96	0.64
3:N:161:THR:O	3:N:164:ILE:HB	1.96	0.64
3:S:277:ALA:H	3:S:278:PRO:HD3	1.62	0.64
2:G:382:SER:HB2	2:G:384:ILE:HG13	1.79	0.64
2:G:416:VAL:HG23	2:G:433:ILE:HG23	1.79	0.64
2:H:553:THR:O	2:H:554:ASP:C	2.40	0.64
2:I:377:LEU:O	2:I:380:ASN:HB2	1.97	0.64
2:I:382:SER:O	2:I:383:TYR:C	2.38	0.64
2:L:482:LEU:HA	2:L:485:MET:SD	2.38	0.64
2:G:566:ARG:O	2:G:567:SER:OXT	2.15	0.64
2:H:126:MET:HA	2:H:129:LEU:HD23	1.77	0.64
3:M:111:ARG:CZ	3:N:239:ARG:HG3	2.28	0.64
2:H:255:MET:H	2:H:258:LYS:HE3	1.61	0.64
2:I:126:MET:HA	2:I:129:LEU:HD23	1.77	0.64
1:A:97:ASN:HA	1:A:105:SER:HB3	1.80	0.64
1:A:171:ARG:NE	1:B:116:LYS:HB2	2.12	0.64
1:F:49:ILE:HG13	1:F:51:GLU:HG3	1.78	0.64
2:H:566:ARG:O	2:H:567:SER:OXT	2.15	0.64
2:I:379:ILE:HD13	2:I:386:ASN:HA	1.80	0.64
2:L:50:VAL:HG22	2:L:51:ILE:H	1.62	0.64
3:R:304:THR:HG21	3:T:281:ARG:HH12	1.61	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:U:185:ILE:HD13	3:U:206:LEU:HB2	1.80	0.64
3:U:291:VAL:HG21	3:U:314:VAL:HG11	1.79	0.64
1:C:115:ARG:O	1:C:118:SER:HB3	1.96	0.64
2:I:291:GLU:HA	2:I:294:LEU:HD23	1.78	0.64
3:N:104:SER:OG	3:X:342:ARG:HD3	1.98	0.64
1:A:101:ILE:H	1:A:101:ILE:HD12	1.62	0.64
1:D:161:THR:H	1:D:166:HIS:HE1	1.46	0.64
2:G:376:GLU:H	2:G:379:ILE:HG12	1.63	0.64
3:O:284:GLU:CG	3:T:273:TYR:HB3	2.20	0.64
1:C:23:GLU:HB3	1:C:28:ARG:HH11	1.63	0.63
2:I:567:SER:O	2:K:414:TYR:OH	2.12	0.63
2:K:374:PHE:C	2:K:379:ILE:HG21	2.23	0.63
2:K:416:VAL:HG23	2:K:433:ILE:HG23	1.78	0.63
3:N:111:ARG:CZ	3:P:239:ARG:HG3	2.28	0.63
1:D:256:VAL:HG23	1:D:259:LEU:HD12	1.80	0.63
3:U:161:THR:HG22	3:U:207:VAL:HG11	1.80	0.63
1:C:256:VAL:HG13	1:C:260:MET:HE1	1.80	0.63
2:H:431:MET:HB3	2:H:438:LEU:HD12	1.78	0.63
2:G:379:ILE:O	2:G:380:ASN:C	2.40	0.63
1:A:160:TYR:HA	1:A:166:HIS:HE1	1.63	0.63
3:S:110:VAL:HG21	3:S:118:PHE:HB2	1.79	0.63
2:K:92:LEU:HD21	2:K:495:VAL:HG21	1.80	0.63
1:F:205:HIS:HB3	1:F:208:LEU:HD13	1.79	0.63
2:H:291:GLU:HA	2:H:294:LEU:HD23	1.81	0.63
2:J:482:LEU:HA	2:J:485:MET:SD	2.39	0.63
1:D:149:ASP:HB3	1:D:152:LYS:HB2	1.79	0.63
2:J:40:LYS:HG3	2:J:68:VAL:HG21	1.80	0.63
2:K:229:LYS:HG3	2:K:233:TRP:HB2	1.80	0.63
3:M:168:MET:HB2	3:M:173:ILE:HG22	1.81	0.63
3:T:118:PHE:CE1	3:T:164:ILE:HG23	2.33	0.63
2:J:291:GLU:HA	2:J:294:LEU:HD23	1.80	0.63
3:W:316:PHE:O	3:W:323:LEU:HA	1.99	0.63
1:B:256:VAL:HG13	1:B:260:MET:HE1	1.81	0.62
1:F:99:GLU:HG2	1:F:100:PHE:H	1.64	0.62
2:H:557:TYR:O	2:H:558:ILE:C	2.42	0.62
2:J:27:LYS:HB2	2:J:35:HIS:HE1	1.64	0.62
3:U:303:LEU:HD11	3:U:315:LEU:HD12	1.80	0.62
1:C:99:GLU:HG2	1:C:100:PHE:H	1.65	0.62
2:J:226:PRO:O	2:J:227:GLY:C	2.42	0.62
3:N:168:MET:HB2	3:N:173:ILE:HG22	1.81	0.62
3:R:266:ILE:O	3:R:299:ILE:HD11	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:229:LYS:HE3	2:G:233:TRP:CE3	2.34	0.62
3:Q:168:MET:HB2	3:Q:173:ILE:HG22	1.81	0.62
3:S:107:SER:HB2	3:S:120:LEU:HA	1.81	0.62
2:G:482:LEU:HA	2:G:485:MET:SD	2.40	0.62
2:J:259:ILE:HG21	2:J:383:TYR:HD2	1.63	0.62
2:K:40:LYS:HG3	2:K:68:VAL:HG21	1.81	0.62
3:M:266:ILE:O	3:M:299:ILE:HD11	1.99	0.62
3:R:168:MET:HB2	3:R:173:ILE:HG22	1.81	0.62
1:D:23:GLU:HB3	1:D:28:ARG:HH11	1.64	0.62
3:P:220:ASN:HB3	3:W:271:LYS:HZ1	1.64	0.62
3:T:288:LEU:HB3	3:T:299:ILE:HD11	1.80	0.62
3:V:182:LEU:HD23	3:V:205:ILE:HG12	1.80	0.62
2:H:555:LYS:O	2:H:556:LYS:C	2.42	0.62
2:I:380:ASN:O	2:I:382:SER:N	2.32	0.62
3:P:168:MET:HB2	3:P:173:ILE:HG22	1.81	0.62
2:J:161:LEU:O	2:J:162:PHE:HD1	1.83	0.62
2:L:344:PHE:O	2:L:348:VAL:HG23	2.00	0.62
3:Q:249:GLU:HB2	3:Q:303:LEU:HD12	1.82	0.62
3:R:249:GLU:HB2	3:R:303:LEU:HD12	1.82	0.62
2:H:551:THR:O	2:H:554:ASP:HB2	2.00	0.62
2:J:380:ASN:O	2:J:382:SER:N	2.33	0.62
3:O:168:MET:HB2	3:O:173:ILE:HG22	1.81	0.62
1:D:257:GLU:HA	1:D:260:MET:SD	2.40	0.62
2:I:196:ASN:HA	2:I:273:ASN:HD21	1.65	0.62
3:N:266:ILE:O	3:N:299:ILE:HD11	1.99	0.62
3:O:266:ILE:O	3:O:299:ILE:HD11	1.99	0.62
3:Q:260:THR:C	3:Q:262:GLN:H	2.07	0.62
1:A:104:GLY:HA3	1:F:201:LYS:HZ1	1.65	0.62
3:Q:266:ILE:O	3:Q:299:ILE:HD11	1.99	0.62
3:R:317:SER:HA	3:R:323:LEU:HA	1.82	0.62
1:D:49:ILE:HD12	1:D:97:ASN:HD22	1.65	0.61
1:E:114:LEU:O	1:E:117:PHE:HB2	2.00	0.61
2:J:382:SER:O	2:J:383:TYR:C	2.43	0.61
3:P:220:ASN:HB3	3:W:271:LYS:NZ	2.14	0.61
3:Q:171:ARG:HH12	3:U:338:GLU:HA	1.65	0.61
3:S:303:LEU:HD11	3:S:315:LEU:HD12	1.82	0.61
2:I:481:LEU:HG	2:I:485:MET:HE1	1.82	0.61
3:M:219:THR:CG2	3:U:101:SER:CB	2.78	0.61
3:Q:122:LYS:HA	3:Q:122:LYS:HE3	1.82	0.61
3:R:122:LYS:HA	3:R:122:LYS:HE3	1.82	0.61
3:V:316:PHE:HB3	3:V:324:GLU:HB2	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:120:LEU:HD12	1:B:121:PRO:HD2	1.82	0.61
2:I:376:GLU:O	2:I:378:ASP:N	2.34	0.61
3:O:101:SER:CA	3:T:342:ARG:HE	2.12	0.61
3:P:266:ILE:O	3:P:299:ILE:HD11	1.99	0.61
2:H:374:PHE:O	2:H:376:GLU:N	2.33	0.61
2:I:494:ASP:HA	2:K:408:PHE:HE2	1.65	0.61
2:J:134:GLY:HA2	2:J:457:ASN:HB2	1.83	0.61
2:K:555:LYS:O	2:K:556:LYS:C	2.44	0.61
2:L:27:LYS:HE3	2:L:35:HIS:CE1	2.35	0.61
3:N:317:SER:HA	3:N:323:LEU:HA	1.82	0.61
1:F:149:ASP:HB3	1:F:152:LYS:HB2	1.82	0.61
2:K:482:LEU:HA	2:K:485:MET:SD	2.40	0.61
2:G:143:PRO:HB3	2:G:160:LYS:HD3	1.83	0.61
2:G:483:VAL:HA	2:G:486:ILE:HG22	1.80	0.61
2:K:27:LYS:HB2	2:K:35:HIS:CE1	2.36	0.61
2:L:555:LYS:O	2:L:556:LYS:C	2.43	0.61
1:D:135:PRO:HD3	1:D:155:LEU:HD23	1.83	0.61
2:G:40:LYS:HG3	2:G:68:VAL:HG21	1.82	0.61
2:H:40:LYS:HG3	2:H:68:VAL:HG21	1.81	0.61
2:K:125:TYR:CD2	2:K:451:LEU:HB3	2.35	0.61
3:O:122:LYS:HA	3:O:122:LYS:HE3	1.82	0.61
3:O:317:SER:HA	3:O:323:LEU:HA	1.82	0.61
3:Q:225:CYS:SG	3:V:105:GLU:CD	2.83	0.61
3:Q:317:SER:HA	3:Q:323:LEU:HA	1.82	0.61
3:S:261:LYS:HA	3:S:264:MET:HE1	1.83	0.61
3:U:288:LEU:HB3	3:U:299:ILE:HD11	1.83	0.61
2:L:291:GLU:HA	2:L:294:LEU:HD23	1.81	0.61
2:L:537:LEU:HA	2:L:540:VAL:HG12	1.83	0.61
3:M:249:GLU:HB2	3:M:303:LEU:HD12	1.82	0.61
3:N:260:THR:C	3:N:262:GLN:H	2.07	0.61
3:P:225:CYS:SG	3:X:105:GLU:CD	2.81	0.61
3:Q:176:ASN:HD21	3:V:111:ARG:HH12	1.47	0.61
3:R:260:THR:C	3:R:262:GLN:H	2.07	0.61
1:A:56:SER:HA	1:F:177:GLY:HA3	1.82	0.61
2:G:126:MET:HA	2:G:129:LEU:HD23	1.81	0.61
3:M:122:LYS:HE3	3:M:122:LYS:HA	1.82	0.61
3:M:176:ASN:HD21	3:U:111:ARG:NH1	1.98	0.61
3:V:228:ASN:HA	3:V:231:HIS:HB3	1.83	0.61
3:X:303:LEU:HD11	3:X:315:LEU:HG	1.83	0.61
2:G:6:ARG:HG2	2:J:521:TYR:HE2	1.66	0.61
3:O:260:THR:C	3:O:262:GLN:H	2.07	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:249:GLU:HB2	3:P:303:LEU:HD12	1.82	0.61
3:U:231:HIS:CE1	3:U:243:HIS:HA	2.36	0.61
1:A:81:LEU:HD11	2:J:348:VAL:HG22	1.82	0.60
1:E:115:ARG:O	1:E:118:SER:HB3	2.01	0.60
3:N:249:GLU:HB2	3:N:303:LEU:HD12	1.82	0.60
3:P:260:THR:C	3:P:262:GLN:H	2.07	0.60
1:B:99:GLU:HG2	1:B:100:PHE:H	1.66	0.60
1:E:272:LEU:HG	2:G:345:ARG:NH2	2.16	0.60
2:I:115:GLN:HE22	2:K:391:VAL:H	1.49	0.60
3:M:317:SER:HA	3:M:323:LEU:HA	1.82	0.60
3:O:249:GLU:HB2	3:O:303:LEU:HD12	1.82	0.60
3:R:318:THR:HG23	3:R:319:ASP:H	1.66	0.60
2:H:482:LEU:HA	2:H:485:MET:SD	2.40	0.60
2:I:559:LEU:O	2:I:560:GLN:C	2.44	0.60
3:P:317:SER:HA	3:P:323:LEU:HA	1.82	0.60
1:C:180:LYS:HA	1:C:183:PHE:HD2	1.66	0.60
2:J:122:VAL:HA	2:J:125:TYR:HD2	1.66	0.60
2:L:379:ILE:O	2:L:380:ASN:C	2.45	0.60
3:X:175:SER:HB3	3:X:178:PHE:HE1	1.65	0.60
3:X:288:LEU:HB3	3:X:299:ILE:HD11	1.82	0.60
1:E:179:TYR:CE1	1:E:181:PRO:HG2	2.37	0.60
2:J:276:MET:HE1	2:J:386:ASN:HD21	1.67	0.60
2:L:341:GLU:O	2:L:344:PHE:HB3	2.01	0.60
3:N:104:SER:OG	3:X:342:ARG:CD	2.50	0.60
3:P:122:LYS:HE3	3:P:122:LYS:HA	1.82	0.60
3:T:107:SER:HB2	3:T:120:LEU:HA	1.83	0.60
2:H:224:ILE:HG12	2:H:225:PHE:H	1.66	0.60
2:H:311:LYS:HA	2:H:311:LYS:HE3	1.84	0.60
3:M:318:THR:HG23	3:M:319:ASP:H	1.66	0.60
3:T:321:ILE:HG23	3:T:322:VAL:HG13	1.83	0.60
3:V:166:TYR:HD1	3:V:247:PHE:HD2	1.49	0.60
1:E:177:GLY:HA3	1:F:56:SER:HA	1.82	0.60
2:L:376:GLU:CA	2:L:379:ILE:HG22	2.31	0.60
2:L:384:ILE:HD13	2:L:396:LEU:HD11	1.84	0.60
3:Q:318:THR:HG23	3:Q:319:ASP:H	1.65	0.60
1:B:114:LEU:O	1:B:117:PHE:HB2	2.00	0.60
1:E:120:LEU:HD12	1:E:121:PRO:HD2	1.83	0.60
2:H:376:GLU:O	2:H:378:ASP:N	2.34	0.60
2:K:135:VAL:HG23	2:K:136:ASN:H	1.67	0.60
2:K:229:LYS:HZ2	2:L:313:ASP:N	2.00	0.60
3:N:318:THR:HG23	3:N:319:ASP:H	1.65	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:392:ASN:O	2:H:392:ASN:ND2	2.35	0.59
2:J:27:LYS:HB2	2:J:35:HIS:CE1	2.37	0.59
1:D:80:PHE:HZ	2:K:361:MET:HE3	1.66	0.59
1:D:179:TYR:HD2	1:D:182:LEU:HB2	1.65	0.59
2:I:240:ILE:HD12	2:I:267:ILE:HG22	1.84	0.59
3:M:260:THR:C	3:M:262:GLN:H	2.07	0.59
3:M:280:ASN:C	3:M:282:LEU:H	2.10	0.59
3:O:176:ASN:HD22	3:W:122:LYS:HA	1.62	0.59
3:P:318:THR:HG23	3:P:319:ASP:H	1.66	0.59
1:E:99:GLU:HG2	1:E:100:PHE:H	1.67	0.59
2:I:275:ASN:HA	2:I:278:LYS:HD3	1.82	0.59
2:I:483:VAL:HA	2:I:486:ILE:HG22	1.85	0.59
2:J:135:VAL:HG23	2:J:136:ASN:H	1.67	0.59
2:J:381:ASN:O	2:J:382:SER:C	2.45	0.59
3:N:264:MET:HG2	3:N:320:GLY:O	2.03	0.59
3:R:280:ASN:C	3:R:282:LEU:H	2.10	0.59
3:V:261:LYS:HA	3:V:264:MET:HE1	1.83	0.59
1:F:168:ALA:HA	1:F:171:ARG:HG2	1.84	0.59
2:K:196:ASN:HA	2:K:273:ASN:HD21	1.67	0.59
2:K:376:GLU:O	2:K:379:ILE:HG23	2.01	0.59
2:L:40:LYS:HG3	2:L:68:VAL:HG21	1.83	0.59
3:N:122:LYS:HA	3:N:122:LYS:HE3	1.82	0.59
3:O:214:ASN:C	3:O:215:ARG:HD2	2.28	0.59
3:O:318:THR:HG23	3:O:319:ASP:H	1.65	0.59
3:R:214:ASN:C	3:R:215:ARG:HD2	2.28	0.59
1:F:145:ASN:CG	1:F:146:THR:H	2.11	0.59
3:M:264:MET:HG2	3:M:320:GLY:O	2.03	0.59
1:D:70:ILE:HG21	1:D:235:VAL:HG11	1.83	0.59
2:G:287:LYS:HA	2:G:290:ARG:HE	1.67	0.59
2:I:134:GLY:HA2	2:I:457:ASN:HB2	1.84	0.59
3:P:280:ASN:C	3:P:282:LEU:H	2.10	0.59
3:Q:280:ASN:C	3:Q:282:LEU:H	2.10	0.59
3:W:227:LEU:HD23	3:W:245:ASN:HA	1.85	0.59
1:A:135:PRO:HD3	1:A:155:LEU:HD23	1.84	0.59
1:F:256:VAL:HG23	1:F:259:LEU:HD12	1.85	0.59
2:I:259:ILE:HG21	2:I:383:TYR:HD2	1.68	0.59
2:I:287:LYS:HA	2:I:290:ARG:HE	1.67	0.59
2:J:142:ASN:OD1	2:J:145:PHE:HB2	2.02	0.59
2:J:561:LEU:HD13	2:J:566:ARG:HA	1.85	0.59
3:N:280:ASN:C	3:N:282:LEU:H	2.10	0.59
3:Q:264:MET:HG2	3:Q:320:GLY:O	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:275:ASN:HA	2:G:278:LYS:HD3	1.85	0.59
2:K:537:LEU:HA	2:K:540:VAL:HG12	1.85	0.59
3:M:151:LYS:HZ2	3:Q:79:TYR:HD2	1.34	0.59
3:P:264:MET:HG2	3:P:320:GLY:O	2.03	0.59
3:T:95:VAL:HB	3:T:100:MET:HB3	1.85	0.59
1:E:256:VAL:HG23	1:E:259:LEU:HD12	1.84	0.59
2:G:125:TYR:HE2	2:G:451:LEU:HB3	1.68	0.59
2:L:134:GLY:HA2	2:L:457:ASN:HB2	1.85	0.59
3:Q:214:ASN:C	3:Q:215:ARG:HD2	2.28	0.59
3:T:291:VAL:HG21	3:T:314:VAL:HG11	1.83	0.59
3:W:161:THR:HG22	3:W:207:VAL:HG11	1.84	0.59
3:W:277:ALA:H	3:W:278:PRO:HD2	1.67	0.59
3:X:227:LEU:HD23	3:X:245:ASN:HA	1.85	0.59
1:C:81:LEU:HD21	2:L:344:PHE:HE1	1.67	0.59
2:J:287:LYS:HA	2:J:290:ARG:HE	1.67	0.59
2:K:384:ILE:HD13	2:K:396:LEU:HD11	1.84	0.59
3:M:214:ASN:C	3:M:215:ARG:HD2	2.28	0.59
3:O:280:ASN:C	3:O:282:LEU:H	2.10	0.59
2:G:311:LYS:HA	2:G:311:LYS:HE3	1.84	0.58
3:Q:176:ASN:CG	3:V:111:ARG:NH1	2.51	0.58
2:G:50:VAL:HG22	2:G:51:ILE:H	1.67	0.58
3:T:227:LEU:HD23	3:T:245:ASN:HA	1.85	0.58
2:G:135:VAL:HG23	2:G:136:ASN:H	1.68	0.58
2:G:557:TYR:O	2:G:558:ILE:C	2.45	0.58
2:I:109:THR:HG23	2:I:470:LEU:HD11	1.85	0.58
3:X:316:PHE:HB3	3:X:324:GLU:HB2	1.85	0.58
3:N:315:LEU:HD13	3:N:325:ILE:HG12	1.86	0.58
2:G:196:ASN:HA	2:G:273:ASN:HD21	1.68	0.58
2:H:287:LYS:HA	2:H:290:ARG:HE	1.69	0.58
2:I:376:GLU:HA	2:I:379:ILE:CG1	2.33	0.58
2:K:134:GLY:HA2	2:K:457:ASN:HB2	1.84	0.58
2:L:198:ARG:HA	2:L:271:ARG:HH21	1.68	0.58
3:N:214:ASN:C	3:N:215:ARG:HD2	2.28	0.58
3:O:111:ARG:HH22	3:R:239:ARG:HG3	1.67	0.58
3:P:118:PHE:CE1	3:P:164:ILE:HG23	2.39	0.58
3:P:315:LEU:HD13	3:P:325:ILE:HG12	1.86	0.58
1:D:77:LYS:HA	2:K:355:PHE:CE2	2.38	0.58
2:I:135:VAL:HG23	2:I:136:ASN:H	1.68	0.58
2:K:341:GLU:O	2:K:344:PHE:HB3	2.03	0.58
2:K:494:ASP:HA	2:L:408:PHE:HE2	1.69	0.58
1:B:179:TYR:CE1	1:B:181:PRO:HG2	2.39	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:275:ASN:HA	2:H:278:LYS:HD3	1.84	0.58
2:J:8:TYR:HD2	2:J:42:LEU:HD21	1.68	0.58
2:L:109:THR:HG23	2:L:470:LEU:HD11	1.84	0.58
3:M:118:PHE:CE1	3:M:164:ILE:HG23	2.39	0.58
3:M:177:GLU:N	3:U:111:ARG:NH2	2.51	0.58
1:D:167:LEU:O	1:D:171:ARG:HG2	2.04	0.58
1:E:179:TYR:HD1	1:E:182:LEU:HB2	1.68	0.58
2:H:145:PHE:HZ	2:H:422:TYR:HD2	1.52	0.58
2:H:537:LEU:HA	2:H:540:VAL:HG12	1.86	0.58
2:I:125:TYR:CD2	2:I:451:LEU:HB3	2.39	0.58
3:O:264:MET:HG2	3:O:320:GLY:O	2.03	0.58
1:E:257:GLU:HA	1:E:260:MET:SD	2.44	0.58
2:J:376:GLU:O	2:J:379:ILE:HG23	2.04	0.58
3:O:265:ASP:HB3	3:R:321:ILE:HD11	1.86	0.58
3:O:315:LEU:HD13	3:O:325:ILE:HG12	1.86	0.58
3:P:214:ASN:C	3:P:215:ARG:HD2	2.28	0.58
3:S:227:LEU:HD23	3:S:245:ASN:HA	1.85	0.58
1:E:81:LEU:HD21	2:I:344:PHE:HE1	1.68	0.58
2:G:427:GLU:HG3	2:G:430:PRO:HG3	1.86	0.58
2:J:275:ASN:HA	2:J:278:LYS:HD3	1.86	0.58
3:Q:239:ARG:HG3	3:R:111:ARG:CZ	2.32	0.58
3:T:223:GLN:HG3	3:T:304:THR:HG21	1.86	0.58
3:V:95:VAL:HG22	3:V:133:LEU:HD21	1.86	0.58
3:N:118:PHE:CE1	3:N:164:ILE:HG23	2.39	0.57
3:O:118:PHE:CE1	3:O:164:ILE:HG23	2.39	0.57
3:S:321:ILE:HG13	3:S:322:VAL:H	1.69	0.57
3:X:135:PHE:CZ	3:X:211:ILE:HG12	2.39	0.57
1:F:70:ILE:HG21	1:F:235:VAL:HG11	1.85	0.57
2:J:161:LEU:O	2:J:162:PHE:CD1	2.57	0.57
3:U:121:LEU:HA	3:U:135:PHE:HA	1.85	0.57
1:A:176:THR:HG21	1:A:228:TYR:HB2	1.86	0.57
1:B:70:ILE:HD13	1:B:74:LEU:HD23	1.85	0.57
3:M:315:LEU:HD13	3:M:325:ILE:HG12	1.86	0.57
3:Q:118:PHE:CE1	3:Q:164:ILE:HG23	2.39	0.57
3:S:340:PHE:O	3:S:342:ARG:HD2	2.04	0.57
1:C:249:THR:HG22	1:C:251:LYS:H	1.68	0.57
1:F:257:GLU:HA	1:F:260:MET:SD	2.44	0.57
2:G:537:LEU:HA	2:G:540:VAL:HG12	1.86	0.57
2:J:384:ILE:HD13	2:J:396:LEU:HD11	1.86	0.57
2:L:196:ASN:HA	2:L:273:ASN:HD21	1.69	0.57
3:M:118:PHE:HE1	3:M:164:ILE:HG23	1.70	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Q:118:PHE:HE1	3:Q:164:ILE:HG23	1.70	0.57
1:B:19:ILE:H	1:B:22:GLN:HE22	1.51	0.57
2:G:312:ASN:HA	2:J:229:LYS:HG3	1.85	0.57
2:H:494:ASP:HA	2:J:408:PHE:HE2	1.68	0.57
2:K:125:TYR:HD2	2:K:451:LEU:HB3	1.69	0.57
2:L:135:VAL:HG23	2:L:136:ASN:H	1.69	0.57
3:R:264:MET:HG2	3:R:320:GLY:O	2.03	0.57
2:H:24:THR:HA	2:H:27:LYS:HG2	1.86	0.57
2:J:196:ASN:HA	2:J:273:ASN:HD21	1.69	0.57
2:L:31:PHE:HE1	2:L:60:ASN:HB2	1.69	0.57
2:L:275:ASN:HA	2:L:278:LYS:HD3	1.85	0.57
2:L:287:LYS:HA	2:L:290:ARG:HE	1.70	0.57
2:L:559:LEU:HD12	2:L:562:ILE:HD11	1.87	0.57
3:N:118:PHE:HE1	3:N:164:ILE:HG23	1.70	0.57
3:R:315:LEU:HD13	3:R:325:ILE:HG12	1.86	0.57
1:E:222:ASN:O	1:E:225:THR:HG22	2.04	0.57
1:E:252:ILE:HG23	2:G:331:ASN:HB3	1.87	0.57
2:G:552:LYS:O	2:G:555:LYS:HB2	2.05	0.57
3:R:118:PHE:CE1	3:R:164:ILE:HG23	2.39	0.57
3:R:118:PHE:HE1	3:R:164:ILE:HG23	1.70	0.57
3:X:165:LEU:HD23	3:X:247:PHE:HE1	1.70	0.57
1:A:70:ILE:HG21	1:A:235:VAL:HG11	1.86	0.57
1:A:272:LEU:HG	2:H:345:ARG:NH2	2.18	0.57
2:H:109:THR:HG23	2:H:470:LEU:HD11	1.87	0.57
2:H:457:ASN:ND2	2:L:557:TYR:OH	2.38	0.57
2:J:377:LEU:O	2:J:380:ASN:HB2	2.04	0.57
3:M:176:ASN:ND2	3:U:122:LYS:HA	2.19	0.57
3:N:156:THR:O	3:N:159:PHE:HB3	2.05	0.57
3:T:118:PHE:HE1	3:T:164:ILE:HG23	1.70	0.57
1:A:160:TYR:HA	1:A:166:HIS:CE1	2.40	0.57
1:D:97:ASN:HA	1:D:105:SER:HB3	1.86	0.57
1:E:249:THR:O	1:E:272:LEU:HD12	2.05	0.57
2:G:555:LYS:O	2:G:556:LYS:C	2.48	0.57
2:I:431:MET:HB3	2:I:438:LEU:HD12	1.85	0.57
2:J:351:ASP:HB2	2:J:352:PRO:HD2	1.87	0.57
2:K:24:THR:HA	2:K:27:LYS:HG2	1.87	0.57
2:L:27:LYS:HE3	2:L:35:HIS:HE1	1.69	0.57
3:P:156:THR:O	3:P:159:PHE:HB3	2.05	0.57
3:Q:177:GLU:N	3:V:111:ARG:HH21	2.03	0.57
3:Q:315:LEU:HD13	3:Q:325:ILE:HG12	1.86	0.57
3:W:284:GLU:HB2	3:W:285:PRO:HD3	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:51:GLU:HG3	1:C:106:PHE:HA	1.87	0.57
1:F:171:ARG:HH11	1:F:171:ARG:HG3	1.70	0.57
2:G:175:VAL:HG23	2:G:176:ILE:HD12	1.86	0.57
2:G:433:ILE:HD13	2:G:438:LEU:HD22	1.87	0.57
2:J:374:PHE:HB2	2:J:379:ILE:HG22	1.87	0.57
3:O:239:ARG:HG3	3:P:111:ARG:CZ	2.35	0.57
3:P:176:ASN:ND2	3:X:122:LYS:HA	2.20	0.57
3:W:95:VAL:HG23	3:W:100:MET:HB2	1.86	0.57
1:C:77:LYS:HA	2:L:355:PHE:CE2	2.39	0.56
2:G:374:PHE:O	2:G:375:ASP:HB3	2.04	0.56
2:I:345:ARG:HA	2:I:348:VAL:HG12	1.86	0.56
2:I:376:GLU:O	2:I:379:ILE:HG23	2.05	0.56
3:O:118:PHE:HE1	3:O:164:ILE:HG23	1.70	0.56
2:H:481:LEU:HG	2:H:485:MET:HE1	1.87	0.56
3:O:304:THR:CG2	3:W:281:ARG:NH2	2.67	0.56
3:T:263:THR:HG22	3:T:340:PHE:CZ	2.40	0.56
1:C:39:TYR:HB3	1:C:50:PRO:HG3	1.87	0.56
2:I:381:ASN:O	2:I:382:SER:C	2.48	0.56
2:K:8:TYR:HD2	2:K:42:LEU:HD21	1.69	0.56
2:K:483:VAL:HA	2:K:486:ILE:HG22	1.87	0.56
2:L:154:MET:O	2:L:154:MET:HE3	2.06	0.56
3:M:156:THR:O	3:M:159:PHE:HB3	2.05	0.56
3:N:100:MET:HE1	3:X:344:GLN:HA	1.87	0.56
3:N:101:SER:HB2	3:X:342:ARG:NH2	2.19	0.56
3:N:104:SER:OG	3:X:342:ARG:NE	2.38	0.56
3:P:118:PHE:HE1	3:P:164:ILE:HG23	1.70	0.56
3:T:185:ILE:HD13	3:T:206:LEU:HB2	1.87	0.56
3:T:321:ILE:HG13	3:T:322:VAL:H	1.71	0.56
3:V:156:THR:HB	3:V:201:ILE:HD11	1.87	0.56
2:I:220:PHE:HA	2:I:223:TYR:HD2	1.69	0.56
2:J:374:PHE:C	2:J:379:ILE:HG21	2.29	0.56
3:M:177:GLU:H	3:U:111:ARG:NH2	2.04	0.56
3:Q:176:ASN:CG	3:V:111:ARG:NH2	2.57	0.56
3:W:180:PHE:HD2	3:W:207:VAL:HG21	1.70	0.56
1:B:252:ILE:HG23	2:L:331:ASN:HB3	1.88	0.56
2:G:559:LEU:O	2:G:560:GLN:C	2.48	0.56
2:H:379:ILE:O	2:H:380:ASN:C	2.47	0.56
2:K:379:ILE:C	2:K:381:ASN:N	2.62	0.56
2:L:511:PRO:HD2	3:S:325:ILE:HD11	1.86	0.56
3:O:156:THR:O	3:O:159:PHE:HB3	2.05	0.56
3:Q:93:LYS:HB3	3:Q:133:LEU:HD21	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:T:279:VAL:HG13	3:T:330:ILE:HG21	1.87	0.56
2:H:135:VAL:HG23	2:H:136:ASN:H	1.70	0.56
3:M:284:GLU:HG2	3:S:273:TYR:HA	1.86	0.56
3:O:264:MET:C	3:O:266:ILE:N	2.63	0.56
3:R:280:ASN:O	3:R:282:LEU:N	2.37	0.56
1:B:179:TYR:HD1	1:B:182:LEU:HB2	1.69	0.56
2:K:275:ASN:HA	2:K:278:LYS:HD3	1.87	0.56
2:K:431:MET:HB3	2:K:438:LEU:HD12	1.87	0.56
2:L:379:ILE:HG13	2:L:387:ILE:CD1	2.36	0.56
3:N:280:ASN:O	3:N:282:LEU:N	2.37	0.56
3:M:93:LYS:HB3	3:M:133:LEU:HD21	1.88	0.56
3:O:93:LYS:HB3	3:O:133:LEU:HD21	1.88	0.56
3:X:326:GLU:HG3	3:X:328:PHE:HE1	1.71	0.56
2:G:486:ILE:HD13	2:I:395:THR:HB	1.87	0.56
2:J:374:PHE:HB2	2:J:379:ILE:CG2	2.36	0.56
2:J:431:MET:HB3	2:J:438:LEU:HD12	1.88	0.56
2:K:559:LEU:O	2:K:560:GLN:C	2.49	0.56
3:P:93:LYS:HB3	3:P:133:LEU:HD21	1.88	0.56
3:W:311:ASN:HA	3:W:328:PHE:O	2.06	0.56
2:G:381:ASN:O	2:G:382:SER:C	2.48	0.56
2:J:294:LEU:O	2:J:297:ILE:HG12	2.06	0.56
2:L:263:ILE:O	2:L:266:GLU:HG2	2.06	0.56
3:O:284:GLU:HG2	3:T:273:TYR:HB2	1.81	0.56
3:Q:156:THR:O	3:Q:159:PHE:HB3	2.05	0.56
1:F:179:TYR:CE1	1:F:181:PRO:HG2	2.41	0.55
1:F:249:THR:HG22	1:F:251:LYS:H	1.71	0.55
2:G:8:TYR:HD2	2:G:42:LEU:HD21	1.72	0.55
2:H:134:GLY:HA2	2:H:457:ASN:HB2	1.88	0.55
2:K:221:ARG:HE	2:K:230:THR:HG22	1.72	0.55
3:R:156:THR:O	3:R:159:PHE:HB3	2.05	0.55
3:W:227:LEU:O	3:W:231:HIS:HB2	2.06	0.55
2:I:231:SER:O	2:I:234:VAL:HG12	2.06	0.55
2:J:92:LEU:HD21	2:J:495:VAL:HG21	1.88	0.55
3:M:239:ARG:HG3	3:Q:111:ARG:CZ	2.35	0.55
3:M:264:MET:C	3:M:266:ILE:N	2.63	0.55
1:C:257:GLU:HA	1:C:260:MET:SD	2.47	0.55
2:H:240:ILE:HD12	2:H:267:ILE:HG22	1.88	0.55
2:I:522:ASN:HB3	2:I:525:ILE:HG22	1.88	0.55
2:J:79:ARG:HG2	2:J:80:HIS:CD2	2.42	0.55
2:K:182:ALA:HB1	2:K:272:VAL:HG21	1.87	0.55
1:B:256:VAL:HG23	1:B:259:LEU:HD12	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:279:LEU:HD22	2:I:386:ASN:HB3	1.87	0.55
2:I:379:ILE:O	2:I:380:ASN:C	2.50	0.55
2:J:24:THR:HA	2:J:27:LYS:HG2	1.87	0.55
3:N:171:ARG:HH12	3:X:338:GLU:HA	1.71	0.55
3:T:284:GLU:HG2	3:T:306:VAL:HG12	1.89	0.55
2:G:376:GLU:N	2:G:379:ILE:HG12	2.21	0.55
2:J:379:ILE:O	2:J:380:ASN:C	2.47	0.55
3:O:304:THR:HG21	3:W:281:ARG:HH12	1.67	0.55
3:U:110:VAL:HG21	3:U:118:PHE:HB2	1.88	0.55
1:E:167:LEU:O	1:E:171:ARG:HG2	2.07	0.55
2:G:494:ASP:HA	2:I:408:PHE:HE2	1.71	0.55
2:H:263:ILE:O	2:H:266:GLU:HG2	2.07	0.55
2:K:552:LYS:O	2:K:555:LYS:HB2	2.06	0.55
2:L:294:LEU:O	2:L:297:ILE:HG12	2.06	0.55
2:L:431:MET:HB3	2:L:438:LEU:HD12	1.88	0.55
3:M:265:ASP:HB3	3:N:321:ILE:HD11	1.89	0.55
3:N:214:ASN:O	3:N:215:ARG:HD2	2.07	0.55
3:O:280:ASN:O	3:O:282:LEU:N	2.37	0.55
3:X:147:THR:HB	3:X:150:VAL:HG13	1.89	0.55
2:G:431:MET:HB3	2:G:438:LEU:HD12	1.89	0.55
2:H:115:GLN:NE2	2:J:391:VAL:HG13	2.20	0.55
3:P:260:THR:O	3:P:262:GLN:N	2.40	0.55
3:R:93:LYS:HB3	3:R:133:LEU:HD21	1.88	0.55
3:R:197:LEU:HD22	3:R:248:PHE:HZ	1.72	0.55
1:C:42:ASP:O	1:C:97:ASN:HB3	2.06	0.55
1:C:235:VAL:HG13	1:C:236:LEU:HD22	1.89	0.55
1:F:19:ILE:HG22	1:F:20:LEU:H	1.72	0.55
1:F:253:THR:HG23	1:F:255:ALA:H	1.71	0.55
2:H:559:LEU:O	2:H:560:GLN:C	2.50	0.55
2:I:263:ILE:O	2:I:266:GLU:HG2	2.07	0.55
2:I:374:PHE:HB2	2:I:387:ILE:HD11	1.89	0.55
3:N:250:TRP:CZ3	3:N:255:HIS:HE1	2.25	0.55
3:N:260:THR:O	3:N:262:GLN:N	2.40	0.55
3:Q:197:LEU:HD22	3:Q:248:PHE:HZ	1.72	0.55
3:V:262:GLN:CD	3:V:342:ARG:HG2	2.31	0.55
2:G:182:ALA:HB1	2:G:272:VAL:HG21	1.88	0.55
2:J:100:SER:O	2:J:104:GLN:HG2	2.06	0.55
3:M:260:THR:O	3:M:262:GLN:N	2.40	0.55
3:S:156:THR:O	3:S:159:PHE:HB3	2.07	0.55
1:D:222:ASN:O	1:D:225:THR:HG22	2.06	0.55
2:G:263:ILE:O	2:G:266:GLU:HG2	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:141:LEU:HD22	2:L:493:GLU:HG3	1.87	0.55
2:H:522:ASN:HB3	2:H:525:ILE:HG22	1.88	0.55
2:L:377:LEU:O	2:L:380:ASN:HB3	2.06	0.55
3:N:197:LEU:HD22	3:N:248:PHE:HZ	1.72	0.55
1:A:171:ARG:CZ	1:B:116:LYS:CB	2.85	0.54
1:B:257:GLU:HA	1:B:260:MET:SD	2.46	0.54
1:C:256:VAL:HG23	1:C:259:LEU:HD12	1.88	0.54
2:H:379:ILE:C	2:H:381:ASN:N	2.62	0.54
2:K:100:SER:O	2:K:104:GLN:HG2	2.07	0.54
3:M:250:TRP:CZ3	3:M:255:HIS:HE1	2.25	0.54
3:Q:280:ASN:O	3:Q:282:LEU:N	2.37	0.54
3:V:143:VAL:HG12	3:V:183:VAL:HG12	1.89	0.54
3:V:303:LEU:HD11	3:V:315:LEU:HD12	1.89	0.54
1:B:79:GLU:HG2	1:B:141:PHE:CE2	2.42	0.54
2:J:376:GLU:O	2:J:379:ILE:N	2.39	0.54
2:K:287:LYS:HA	2:K:290:ARG:HE	1.70	0.54
2:L:559:LEU:O	2:L:562:ILE:HG12	2.07	0.54
3:O:197:LEU:HD22	3:O:248:PHE:HZ	1.72	0.54
3:O:304:THR:CB	3:W:281:ARG:HH12	2.20	0.54
3:Q:291:VAL:HG23	3:Q:298:PHE:O	2.07	0.54
3:U:311:ASN:HA	3:U:328:PHE:O	2.07	0.54
3:W:277:ALA:H	3:W:278:PRO:CD	2.20	0.54
2:G:125:TYR:CE2	2:G:451:LEU:HB3	2.42	0.54
2:H:50:VAL:HG22	2:H:51:ILE:H	1.71	0.54
2:H:294:LEU:O	2:H:297:ILE:HG12	2.06	0.54
2:J:177:ARG:HD3	2:J:223:TYR:HB3	1.89	0.54
2:J:263:ILE:O	2:J:266:GLU:HG2	2.08	0.54
3:M:260:THR:C	3:M:262:GLN:N	2.65	0.54
3:N:291:VAL:HG23	3:N:298:PHE:O	2.07	0.54
3:O:260:THR:O	3:O:262:GLN:N	2.40	0.54
3:P:264:MET:C	3:P:266:ILE:N	2.63	0.54
3:R:260:THR:O	3:R:262:GLN:N	2.40	0.54
3:W:316:PHE:HB2	3:W:326:GLU:OE2	2.07	0.54
1:A:201:LYS:HZ2	1:B:103:ASN:C	2.15	0.54
1:C:50:PRO:HD2	1:C:97:ASN:HD21	1.71	0.54
1:D:249:THR:HG22	1:D:251:LYS:H	1.71	0.54
1:F:122:THR:O	1:F:126:ILE:HG13	2.08	0.54
2:G:414:TYR:CE1	2:J:567:SER:O	2.61	0.54
2:J:282:ILE:HG13	2:J:283:PHE:H	1.73	0.54
2:J:537:LEU:HA	2:J:540:VAL:HG12	1.90	0.54
3:N:264:MET:C	3:N:266:ILE:N	2.63	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:260:THR:C	3:P:262:GLN:N	2.65	0.54
2:G:408:PHE:HE2	2:J:494:ASP:HA	1.73	0.54
2:G:522:ASN:HB3	2:G:525:ILE:HG22	1.89	0.54
2:I:182:ALA:HB1	2:I:272:VAL:HG21	1.88	0.54
2:I:294:LEU:O	2:I:297:ILE:HG12	2.08	0.54
2:I:554:ASP:O	2:I:558:ILE:HB	2.07	0.54
3:M:197:LEU:HD22	3:M:248:PHE:HZ	1.72	0.54
3:M:291:VAL:HG23	3:M:298:PHE:O	2.07	0.54
3:N:265:ASP:HB3	3:P:321:ILE:HD11	1.90	0.54
3:Q:260:THR:O	3:Q:262:GLN:N	2.40	0.54
2:K:50:VAL:HG22	2:K:51:ILE:H	1.73	0.54
2:L:47:PRO:HB2	2:L:80:HIS:ND1	2.22	0.54
3:Q:214:ASN:O	3:Q:215:ARG:HD2	2.07	0.54
3:V:185:ILE:HD13	3:V:206:LEU:HB2	1.90	0.54
3:V:303:LEU:HD13	3:V:313:ARG:HB2	1.89	0.54
1:A:49:ILE:HD12	1:A:97:ASN:HD22	1.73	0.54
1:B:51:GLU:HA	1:B:54:ILE:HG12	1.90	0.54
2:K:142:ASN:OD1	2:K:145:PHE:HB2	2.07	0.54
3:M:214:ASN:O	3:M:215:ARG:HD2	2.07	0.54
3:N:93:LYS:HB3	3:N:133:LEU:HD21	1.88	0.54
3:O:214:ASN:O	3:O:215:ARG:HD2	2.07	0.54
3:V:227:LEU:HB2	3:V:247:PHE:HE1	1.73	0.54
1:C:161:THR:H	1:C:166:HIS:CE1	2.23	0.54
2:J:131:GLU:HG3	2:J:132:LEU:H	1.73	0.54
3:P:291:VAL:HG23	3:P:298:PHE:O	2.07	0.54
3:X:294:GLU:HG2	3:X:295:ASP:H	1.73	0.54
1:B:115:ARG:O	1:B:118:SER:HB3	2.08	0.54
1:F:38:THR:HB	1:F:226:ILE:HD11	1.89	0.54
2:I:559:LEU:HD12	2:I:562:ILE:HD11	1.89	0.54
2:J:393:ASP:C	2:J:395:THR:H	2.16	0.54
3:P:214:ASN:O	3:P:215:ARG:HD2	2.07	0.54
3:R:214:ASN:O	3:R:215:ARG:HD2	2.07	0.54
2:G:432:VAL:HG21	2:G:441:LEU:HD13	1.88	0.54
2:I:379:ILE:C	2:I:381:ASN:N	2.63	0.54
3:P:197:LEU:HD22	3:P:248:PHE:HZ	1.72	0.54
3:P:264:MET:HB3	3:P:268:LYS:HD3	1.90	0.54
3:Q:264:MET:HB3	3:Q:268:LYS:HD3	1.90	0.54
3:R:291:VAL:HG23	3:R:298:PHE:O	2.07	0.54
3:V:117:GLY:O	3:V:208:VAL:HA	2.07	0.54
2:G:343:LEU:HA	2:G:346:VAL:HG12	1.90	0.53
2:H:282:ILE:HG13	2:H:283:PHE:H	1.72	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:50:VAL:HG22	2:I:51:ILE:H	1.73	0.53
2:J:376:GLU:O	2:J:377:LEU:C	2.51	0.53
2:K:294:LEU:O	2:K:297:ILE:HG12	2.07	0.53
2:L:282:ILE:HG13	2:L:283:PHE:H	1.73	0.53
3:N:176:ASN:ND2	3:S:122:LYS:HA	2.23	0.53
3:O:291:VAL:HG23	3:O:298:PHE:O	2.07	0.53
3:Q:323:LEU:O	3:R:339:MET:HG3	2.06	0.53
3:V:307:SER:HB3	3:V:310:ASP:HA	1.90	0.53
1:A:237:MET:SD	1:A:249:THR:HA	2.49	0.53
2:G:457:ASN:ND2	2:J:557:TYR:OH	2.42	0.53
2:H:345:ARG:HA	2:H:348:VAL:HG12	1.90	0.53
2:I:240:ILE:HD11	2:I:268:LYS:HA	1.90	0.53
2:K:259:ILE:O	2:K:262:TYR:HB3	2.08	0.53
2:K:263:ILE:O	2:K:266:GLU:HG2	2.08	0.53
3:S:284:GLU:HB2	3:S:285:PRO:HD3	1.91	0.53
3:V:106:LEU:HB3	3:V:118:PHE:HD2	1.71	0.53
3:W:282:LEU:O	3:W:282:LEU:HD23	2.08	0.53
1:A:179:TYR:HD2	1:A:182:LEU:HB2	1.73	0.53
1:C:38:THR:HB	1:C:226:ILE:HD11	1.91	0.53
1:F:77:LYS:HD2	2:G:355:PHE:CD2	2.43	0.53
2:G:281:TYR:HE1	2:G:290:ARG:HD3	1.73	0.53
3:N:264:MET:HB3	3:N:268:LYS:HD3	1.91	0.53
3:P:250:TRP:CZ3	3:P:255:HIS:HE1	2.25	0.53
3:R:250:TRP:CZ3	3:R:255:HIS:HE1	2.25	0.53
3:R:264:MET:HB3	3:R:268:LYS:HD3	1.90	0.53
3:V:97:ASP:O	3:V:100:MET:HG3	2.08	0.53
3:W:95:VAL:HG22	3:W:133:LEU:HD21	1.90	0.53
1:D:199:GLY:H	1:E:106:PHE:HZ	1.55	0.53
2:H:265:SER:HA	2:H:268:LYS:HZ2	1.72	0.53
2:H:274:LYS:HG2	2:H:278:LYS:HD2	1.89	0.53
2:H:380:ASN:O	2:H:381:ASN:C	2.51	0.53
2:I:282:ILE:HG13	2:I:283:PHE:H	1.73	0.53
2:J:50:VAL:HG22	2:J:51:ILE:H	1.73	0.53
3:M:264:MET:HB3	3:M:268:LYS:HD3	1.90	0.53
3:Q:260:THR:C	3:Q:262:GLN:N	2.65	0.53
3:S:342:ARG:CZ	3:S:342:ARG:HA	2.38	0.53
1:B:235:VAL:HG13	1:B:236:LEU:HD22	1.89	0.53
1:D:249:THR:O	1:D:272:LEU:HD12	2.08	0.53
2:J:470:LEU:HB3	2:J:472:LEU:HD23	1.90	0.53
2:K:376:GLU:O	2:K:380:ASN:N	2.41	0.53
2:L:289:ILE:O	2:L:292:LEU:HG	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:259:LEU:HD13	3:N:263:THR:HB	1.91	0.53
3:O:264:MET:HB3	3:O:268:LYS:HD3	1.90	0.53
3:Q:264:MET:C	3:Q:266:ILE:N	2.63	0.53
3:R:260:THR:C	3:R:262:GLN:N	2.65	0.53
3:T:155:ASP:O	3:T:158:ILE:HG22	2.07	0.53
3:V:250:TRP:HE3	3:V:251:LEU:HD22	1.74	0.53
2:G:282:ILE:HG13	2:G:283:PHE:H	1.72	0.53
2:H:559:LEU:O	2:H:561:LEU:N	2.41	0.53
2:I:164:LYS:HD2	2:I:164:LYS:C	2.34	0.53
2:I:382:SER:O	2:I:384:ILE:N	2.40	0.53
2:I:537:LEU:HA	2:I:540:VAL:HG12	1.91	0.53
2:J:146:HIS:HB3	2:J:151:ILE:HD11	1.91	0.53
3:Q:250:TRP:CZ3	3:Q:255:HIS:HE1	2.25	0.53
3:V:135:PHE:CZ	3:V:211:ILE:HG12	2.44	0.53
2:H:196:ASN:HA	2:H:273:ASN:HD21	1.73	0.53
2:J:432:VAL:HG21	2:J:441:LEU:HD13	1.90	0.53
2:L:379:ILE:HG13	2:L:387:ILE:HD12	1.91	0.53
3:O:309:SER:CB	3:W:308:ILE:HG22	2.38	0.53
3:V:95:VAL:CG2	3:V:100:MET:HB3	2.39	0.53
3:V:261:LYS:HE3	3:V:262:GLN:NE2	2.24	0.53
1:C:19:ILE:HG22	1:C:20:LEU:H	1.72	0.53
1:D:138:ASN:O	1:D:142:TRP:HB3	2.09	0.53
2:H:47:PRO:HB2	2:H:80:HIS:ND1	2.24	0.53
2:H:164:LYS:HD2	2:H:164:LYS:C	2.34	0.53
3:M:259:LEU:HD13	3:M:263:THR:HB	1.91	0.53
3:N:310:ASP:HB2	3:N:330:ILE:HD13	1.91	0.53
3:O:250:TRP:CZ3	3:O:255:HIS:HE1	2.25	0.53
3:O:306:VAL:HG22	3:O:307:SER:H	1.74	0.53
3:S:155:ASP:O	3:S:158:ILE:HG22	2.09	0.53
3:T:315:LEU:HD23	3:T:323:LEU:HD12	1.90	0.53
3:X:326:GLU:HG3	3:X:328:PHE:CE1	2.44	0.53
1:C:70:ILE:HG21	1:C:235:VAL:HG11	1.89	0.53
2:H:131:GLU:HG3	2:H:132:LEU:H	1.73	0.53
2:H:182:ALA:HB1	2:H:272:VAL:HG21	1.90	0.53
2:H:277:LEU:HG	2:H:293:LEU:HD23	1.91	0.53
2:I:131:GLU:HG3	2:I:132:LEU:H	1.72	0.53
2:I:145:PHE:HZ	2:I:422:TYR:HD2	1.54	0.53
2:L:481:LEU:HG	2:L:485:MET:HE1	1.90	0.53
3:Q:306:VAL:HG22	3:Q:307:SER:H	1.74	0.53
3:U:284:GLU:HB2	3:U:285:PRO:HD3	1.91	0.53
2:G:294:LEU:O	2:G:297:ILE:HG12	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:259:LEU:HD13	3:P:263:THR:HB	1.91	0.53
3:P:310:ASP:HB2	3:P:330:ILE:HD13	1.91	0.53
3:Q:250:TRP:HE3	3:Q:251:LEU:HD22	1.74	0.53
1:E:42:ASP:HB3	1:E:45:ALA:HB2	1.90	0.52
2:I:233:TRP:HE1	2:I:237:ASN:HB2	1.73	0.52
2:K:47:PRO:HB2	2:K:80:HIS:ND1	2.24	0.52
2:L:87:LEU:HA	2:L:90:LYS:HG2	1.91	0.52
3:U:315:LEU:HA	3:U:324:GLU:O	2.09	0.52
3:V:91:MET:HB3	3:V:135:PHE:CZ	2.43	0.52
2:G:220:PHE:HA	2:G:223:TYR:HD2	1.73	0.52
2:H:79:ARG:HG2	2:H:80:HIS:CD2	2.44	0.52
3:O:260:THR:C	3:O:262:GLN:N	2.65	0.52
3:T:199:PHE:CE1	3:T:259:LEU:HB3	2.44	0.52
3:W:231:HIS:NE2	3:W:243:HIS:HA	2.24	0.52
3:W:234:GLU:HA	3:W:237:ALA:HB2	1.91	0.52
2:H:343:LEU:HA	2:H:346:VAL:HG12	1.91	0.52
2:K:376:GLU:O	2:K:379:ILE:N	2.42	0.52
2:L:274:LYS:HG2	2:L:278:LYS:HD2	1.91	0.52
3:P:306:VAL:HG22	3:P:307:SER:H	1.74	0.52
3:W:224:SER:HB3	3:W:245:ASN:HD22	1.73	0.52
1:D:81:LEU:HD21	2:K:344:PHE:HE1	1.75	0.52
2:I:374:PHE:HB2	2:I:379:ILE:HG21	1.92	0.52
2:L:175:VAL:HG23	2:L:176:ILE:HD12	1.89	0.52
2:L:376:GLU:HG2	2:L:380:ASN:CB	2.40	0.52
3:O:304:THR:CG2	3:W:281:ARG:HH12	2.22	0.52
3:S:340:PHE:HD1	3:S:342:ARG:HG2	1.74	0.52
3:T:106:LEU:HD12	3:T:118:PHE:CE2	2.44	0.52
3:V:316:PHE:HB2	3:V:326:GLU:OE2	2.09	0.52
1:A:136:ILE:HG12	1:A:242:TYR:CD2	2.44	0.52
1:C:181:PRO:O	1:C:185:ARG:HG2	2.09	0.52
2:J:559:LEU:O	2:J:560:GLN:C	2.52	0.52
2:K:470:LEU:HB3	2:K:472:LEU:HD23	1.91	0.52
2:L:139:LEU:HD11	2:L:148:GLY:HA2	1.91	0.52
3:M:310:ASP:HB2	3:M:330:ILE:HD13	1.91	0.52
3:N:306:VAL:HG22	3:N:307:SER:H	1.74	0.52
3:O:259:LEU:HD13	3:O:263:THR:HB	1.91	0.52
3:Q:259:LEU:HD13	3:Q:263:THR:HB	1.91	0.52
3:R:264:MET:C	3:R:266:ILE:N	2.63	0.52
1:A:180:LYS:HA	1:A:183:PHE:HD2	1.74	0.52
2:H:169:VAL:HG23	2:H:248:LEU:HB3	1.91	0.52
2:K:282:ILE:HG13	2:K:283:PHE:H	1.73	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:276:MET:HE1	2:L:386:ASN:HD21	1.74	0.52
2:L:379:ILE:C	2:L:381:ASN:N	2.65	0.52
3:V:155:ASP:O	3:V:158:ILE:HG22	2.10	0.52
3:X:292:PRO:HG3	3:X:297:TYR:HE1	1.74	0.52
1:E:176:THR:HG21	1:E:228:TYR:HB2	1.90	0.52
1:F:233:ASP:OD2	1:F:236:LEU:HD23	2.10	0.52
1:F:273:LEU:O	2:J:345:ARG:NE	2.42	0.52
2:G:274:LYS:HG2	2:G:278:LYS:HD2	1.91	0.52
2:I:79:ARG:HG2	2:I:80:HIS:CD2	2.45	0.52
2:J:292:LEU:HD12	2:J:293:LEU:HD12	1.91	0.52
2:K:146:HIS:HB3	2:K:151:ILE:HD11	1.91	0.52
2:H:31:PHE:CE1	2:H:60:ASN:HB2	2.45	0.52
2:H:115:GLN:HE22	2:J:391:VAL:HG13	1.74	0.52
2:J:31:PHE:HE1	2:J:60:ASN:HB2	1.75	0.52
2:J:556:LYS:O	2:J:557:TYR:C	2.52	0.52
2:L:100:SER:O	2:L:104:GLN:HG2	2.10	0.52
2:L:182:ALA:HB1	2:L:272:VAL:HG21	1.91	0.52
2:L:281:TYR:HE1	2:L:290:ARG:HD3	1.74	0.52
2:L:554:ASP:O	2:L:555:LYS:C	2.53	0.52
3:P:280:ASN:O	3:P:282:LEU:N	2.37	0.52
3:R:259:LEU:HD13	3:R:263:THR:HB	1.91	0.52
2:G:70:CYS:HB3	2:G:73:VAL:HG12	1.92	0.52
3:M:250:TRP:HE3	3:M:251:LEU:HD22	1.75	0.52
3:M:306:VAL:HG22	3:M:307:SER:H	1.74	0.52
3:O:323:LEU:O	3:P:339:MET:HG3	2.10	0.52
3:Q:310:ASP:HB2	3:Q:330:ILE:HD13	1.91	0.52
3:R:250:TRP:HE3	3:R:251:LEU:HD22	1.75	0.52
3:X:316:PHE:HB2	3:X:326:GLU:OE1	2.09	0.52
1:B:167:LEU:O	1:B:171:ARG:HG2	2.10	0.52
2:H:70:CYS:HB3	2:H:73:VAL:HG12	1.92	0.52
2:H:146:HIS:HB3	2:H:151:ILE:HD11	1.92	0.52
2:H:240:ILE:HD11	2:H:268:LYS:HA	1.91	0.52
3:M:111:ARG:HH22	3:N:239:ARG:HG3	1.72	0.52
3:O:310:ASP:HB2	3:O:330:ILE:HD13	1.91	0.52
3:X:90:TYR:HD1	3:X:136:GLU:HA	1.75	0.52
1:E:122:THR:O	1:E:126:ILE:HG13	2.10	0.51
2:G:276:MET:HE1	2:G:386:ASN:HD21	1.75	0.51
2:H:379:ILE:HA	2:H:381:ASN:ND2	2.24	0.51
2:J:231:SER:O	2:J:234:VAL:HG12	2.10	0.51
2:J:483:VAL:HA	2:J:486:ILE:HG22	1.92	0.51
2:K:559:LEU:O	2:K:561:LEU:N	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:483:VAL:HA	2:L:486:ILE:HG22	1.92	0.51
3:S:97:ASP:O	3:S:100:MET:HG3	2.10	0.51
3:X:282:LEU:HD23	3:X:282:LEU:O	2.10	0.51
1:E:70:ILE:HG21	1:E:235:VAL:HG11	1.92	0.51
2:G:410:GLU:HG3	2:J:566:ARG:HB2	1.92	0.51
2:I:351:ASP:HB2	2:I:352:PRO:HD2	1.90	0.51
2:I:433:ILE:HD13	2:I:438:LEU:HD22	1.92	0.51
3:V:282:LEU:O	3:V:282:LEU:HD23	2.10	0.51
2:H:351:ASP:HB2	2:H:352:PRO:HD2	1.91	0.51
2:I:221:ARG:HA	2:I:224:ILE:HG22	1.93	0.51
2:I:274:LYS:HG2	2:I:278:LYS:HD2	1.92	0.51
2:J:374:PHE:O	2:J:379:ILE:HG21	2.10	0.51
2:K:351:ASP:HB2	2:K:352:PRO:HD2	1.93	0.51
3:R:294:GLU:O	3:R:296:TYR:HB2	2.10	0.51
3:S:121:LEU:HA	3:S:135:PHE:HA	1.93	0.51
3:T:143:VAL:HG12	3:T:183:VAL:HG13	1.92	0.51
3:U:268:LYS:HE3	3:U:320:GLY:HA2	1.92	0.51
2:G:382:SER:O	2:G:384:ILE:N	2.44	0.51
2:J:169:VAL:HG23	2:J:248:LEU:HB3	1.93	0.51
2:K:31:PHE:HE1	2:K:60:ASN:HB2	1.76	0.51
2:K:156:ILE:HD11	2:K:160:LYS:HE3	1.92	0.51
3:O:304:THR:CG2	3:W:281:ARG:HH22	2.23	0.51
3:Q:294:GLU:O	3:Q:296:TYR:HB2	2.10	0.51
3:R:306:VAL:HG22	3:R:307:SER:H	1.74	0.51
3:T:106:LEU:HA	3:T:109:LEU:HD13	1.92	0.51
1:D:34:LEU:HB3	1:D:63:ASP:HA	1.92	0.51
2:G:229:LYS:NZ	2:I:313:ASP:HB2	2.25	0.51
2:G:378:ASP:O	2:G:381:ASN:ND2	2.39	0.51
2:H:177:ARG:HD3	2:H:223:TYR:HB3	1.92	0.51
3:N:260:THR:C	3:N:262:GLN:N	2.65	0.51
3:O:219:THR:CG2	3:W:101:SER:HB3	2.41	0.51
3:T:282:LEU:O	3:T:282:LEU:HD23	2.10	0.51
3:X:172:GLY:O	3:X:173:ILE:HD13	2.10	0.51
3:X:228:ASN:HA	3:X:231:HIS:HB3	1.92	0.51
1:F:161:THR:H	1:F:166:HIS:CE1	2.25	0.51
2:G:87:LEU:HA	2:G:90:LYS:HG2	1.91	0.51
2:I:281:TYR:HE1	2:I:290:ARG:HD3	1.76	0.51
2:I:563:ARG:HG3	2:I:563:ARG:O	2.11	0.51
3:M:294:GLU:O	3:M:296:TYR:HB2	2.10	0.51
3:N:259:LEU:HD13	3:N:263:THR:CB	2.41	0.51
3:N:294:GLU:O	3:N:296:TYR:HB2	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:250:TRP:HE3	3:P:251:LEU:HD22	1.75	0.51
3:P:259:LEU:HD13	3:P:263:THR:CB	2.41	0.51
3:R:259:LEU:HD13	3:R:263:THR:CB	2.41	0.51
3:U:316:PHE:O	3:U:323:LEU:HA	2.10	0.51
1:C:252:ILE:HG23	2:K:331:ASN:HB3	1.93	0.51
2:G:376:GLU:O	2:G:379:ILE:HG23	2.10	0.51
2:H:429:ASP:OD1	2:H:441:LEU:HB3	2.11	0.51
3:N:313:ARG:CD	3:S:281:ARG:NH2	2.65	0.51
3:O:259:LEU:HD13	3:O:263:THR:CB	2.41	0.51
1:D:99:GLU:HG2	1:D:100:PHE:H	1.76	0.51
1:F:34:LEU:HG	1:F:36:LYS:H	1.75	0.51
2:G:169:VAL:HG23	2:G:248:LEU:HB3	1.93	0.51
2:G:391:VAL:HG23	2:G:393:ASP:H	1.76	0.51
2:H:381:ASN:O	2:H:384:ILE:HD12	2.11	0.51
2:I:169:VAL:HG23	2:I:248:LEU:HB3	1.92	0.51
2:J:559:LEU:O	2:J:562:ILE:HG12	2.11	0.51
3:U:174:TYR:HD1	3:U:226:TYR:HE1	1.59	0.51
2:G:567:SER:O	2:I:414:TYR:CE1	2.64	0.51
3:N:101:SER:CA	3:X:342:ARG:CZ	2.71	0.51
3:O:250:TRP:HE3	3:O:251:LEU:HD22	1.75	0.51
3:R:310:ASP:HB2	3:R:330:ILE:HD13	1.91	0.51
3:U:117:GLY:O	3:U:208:VAL:HA	2.10	0.51
1:A:114:LEU:O	1:A:117:PHE:HB2	2.10	0.51
1:B:80:PHE:HZ	2:H:361:MET:HE3	1.75	0.51
1:C:171:ARG:NH1	1:D:116:LYS:HD3	2.09	0.51
1:D:115:ARG:O	1:D:118:SER:HB3	2.11	0.51
2:I:552:LYS:O	2:I:555:LYS:HB2	2.11	0.51
2:K:254:THR:H	2:K:258:LYS:HZ1	1.59	0.51
3:M:280:ASN:O	3:M:282:LEU:N	2.37	0.51
3:Q:95:VAL:HG12	3:Q:96:ASP:N	2.26	0.51
1:A:172:TYR:HE2	1:A:183:PHE:CZ	2.29	0.50
2:I:343:LEU:HA	2:I:346:VAL:HG12	1.94	0.50
2:J:376:GLU:O	2:J:380:ASN:N	2.39	0.50
2:L:379:ILE:HD11	2:L:392:ASN:HD21	1.77	0.50
3:N:250:TRP:HE3	3:N:251:LEU:HD22	1.75	0.50
3:P:95:VAL:HG12	3:P:96:ASP:N	2.26	0.50
3:S:342:ARG:HA	3:S:342:ARG:NH1	2.25	0.50
1:B:81:LEU:HD21	2:H:344:PHE:HE1	1.76	0.50
1:C:42:ASP:HB3	1:C:45:ALA:HB2	1.92	0.50
1:E:84:LEU:O	1:E:86:LYS:HD2	2.10	0.50
2:G:379:ILE:O	2:G:381:ASN:N	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:557:TYR:O	2:J:558:ILE:C	2.54	0.50
2:K:554:ASP:O	2:K:555:LYS:C	2.54	0.50
1:E:249:THR:HG22	1:E:251:LYS:H	1.75	0.50
2:G:344:PHE:O	2:G:348:VAL:HG23	2.11	0.50
2:I:555:LYS:O	2:I:556:LYS:C	2.54	0.50
2:K:393:ASP:C	2:K:395:THR:H	2.19	0.50
2:K:559:LEU:O	2:K:562:ILE:HG12	2.11	0.50
3:M:95:VAL:HG12	3:M:96:ASP:N	2.26	0.50
3:M:259:LEU:HD13	3:M:263:THR:CB	2.41	0.50
3:N:95:VAL:HG12	3:N:96:ASP:N	2.26	0.50
3:N:170:LYS:O	3:X:273:TYR:OH	2.19	0.50
3:O:95:VAL:HG12	3:O:96:ASP:N	2.26	0.50
3:R:95:VAL:HG12	3:R:96:ASP:N	2.26	0.50
3:U:143:VAL:HG12	3:U:183:VAL:HG13	1.93	0.50
3:U:282:LEU:HD23	3:U:282:LEU:O	2.10	0.50
1:B:122:THR:O	1:B:126:ILE:HG13	2.11	0.50
2:G:186:LYS:O	2:G:189:THR:HG22	2.12	0.50
2:H:259:ILE:HG21	2:H:383:TYR:HD2	1.76	0.50
2:H:279:LEU:HD22	2:H:386:ASN:HB3	1.94	0.50
3:P:294:GLU:O	3:P:296:TYR:HB2	2.11	0.50
3:T:263:THR:HG22	3:T:340:PHE:HZ	1.75	0.50
3:W:263:THR:HG22	3:W:340:PHE:HZ	1.77	0.50
1:D:237:MET:SD	1:D:249:THR:HA	2.52	0.50
1:E:138:ASN:OD1	1:E:139:ILE:HD12	2.12	0.50
2:H:27:LYS:HD3	2:H:39:LEU:HD13	1.93	0.50
2:H:379:ILE:HG21	2:H:387:ILE:CD1	2.42	0.50
2:I:376:GLU:HA	2:I:379:ILE:HG12	1.94	0.50
2:K:376:GLU:O	2:K:378:ASP:N	2.44	0.50
2:L:122:VAL:HA	2:L:125:TYR:HD2	1.75	0.50
3:P:67:PHE:HA	3:P:70:ILE:HB	1.94	0.50
3:Q:259:LEU:HD13	3:Q:263:THR:CB	2.41	0.50
3:X:121:LEU:HA	3:X:135:PHE:HA	1.92	0.50
1:A:106:PHE:HZ	1:F:199:GLY:H	1.58	0.50
2:G:109:THR:HG23	2:G:470:LEU:HD11	1.94	0.50
2:I:139:LEU:HD11	2:I:148:GLY:HA2	1.93	0.50
2:I:146:HIS:HB3	2:I:151:ILE:HD11	1.94	0.50
2:I:470:LEU:HB3	2:I:472:LEU:HD23	1.94	0.50
2:J:139:LEU:HD11	2:J:148:GLY:HA2	1.94	0.50
2:J:552:LYS:O	2:J:555:LYS:HB2	2.11	0.50
2:K:567:SER:O	2:L:414:TYR:CE1	2.65	0.50
3:O:111:ARG:NH1	3:R:239:ARG:HA	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S:318:THR:HG23	3:S:319:ASP:H	1.76	0.50
2:I:100:SER:O	2:I:104:GLN:HG2	2.12	0.50
2:L:27:LYS:HE2	2:L:39:LEU:HB2	1.94	0.50
3:T:117:GLY:O	3:T:208:VAL:HA	2.10	0.50
3:U:262:GLN:O	3:U:266:ILE:HG12	2.11	0.50
3:X:93:LYS:NZ	3:X:212:CYS:HA	2.27	0.50
3:X:342:ARG:HD2	3:X:343:SER:O	2.12	0.50
1:C:23:GLU:HB3	1:C:28:ARG:NH1	2.27	0.50
1:D:79:GLU:HG2	1:D:141:PHE:CE2	2.47	0.50
1:E:81:LEU:HD21	2:I:344:PHE:CE1	2.47	0.50
2:G:47:PRO:HB2	2:G:80:HIS:ND1	2.27	0.50
2:G:520:SER:HA	2:I:10:ILE:HD11	1.94	0.50
2:H:483:VAL:HA	2:H:486:ILE:HG22	1.93	0.50
2:L:351:ASP:HB2	2:L:352:PRO:HD2	1.94	0.50
3:N:68:ILE:HG21	3:N:346:SER:HB2	1.93	0.50
3:O:294:GLU:O	3:O:296:TYR:HB2	2.11	0.50
3:X:107:SER:HB2	3:X:120:LEU:HA	1.94	0.50
1:B:38:THR:HA	1:B:222:ASN:HD21	1.76	0.50
1:F:179:TYR:HD1	1:F:182:LEU:HB2	1.77	0.50
2:H:559:LEU:O	2:H:562:ILE:HG12	2.11	0.50
2:L:281:TYR:CE1	2:L:290:ARG:HD3	2.47	0.50
2:L:522:ASN:HB3	2:L:525:ILE:HG22	1.94	0.50
3:P:275:ILE:O	3:P:276:GLY:C	2.54	0.50
3:R:67:PHE:HA	3:R:70:ILE:HB	1.94	0.50
3:U:84:TYR:CD2	3:U:85:LEU:HG	2.46	0.50
3:W:224:SER:HA	3:W:245:ASN:HB2	1.93	0.50
3:X:111:ARG:HH22	3:X:120:LEU:HD13	1.76	0.50
1:D:198:ILE:HD12	1:E:106:PHE:CZ	2.47	0.49
2:G:259:ILE:O	2:G:262:TYR:HB3	2.12	0.49
2:J:186:LYS:O	2:J:189:THR:HG22	2.12	0.49
3:N:67:PHE:HA	3:N:70:ILE:HB	1.94	0.49
3:N:275:ILE:O	3:N:276:GLY:C	2.54	0.49
3:O:67:PHE:HA	3:O:70:ILE:HB	1.94	0.49
3:S:106:LEU:HD12	3:S:118:PHE:CE2	2.46	0.49
3:V:164:ILE:O	3:V:167:SER:HB3	2.11	0.49
1:A:70:ILE:HD13	1:A:74:LEU:HD23	1.92	0.49
1:A:235:VAL:HG13	1:A:236:LEU:HD22	1.94	0.49
1:F:19:ILE:HG12	1:F:22:GLN:HE22	1.77	0.49
2:G:407:ILE:HG12	2:J:494:ASP:CG	2.37	0.49
2:G:481:LEU:HG	2:G:485:MET:HE1	1.94	0.49
2:J:259:ILE:O	2:J:262:TYR:HB3	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:K:196:ASN:HD21	2:K:389:TYR:N	2.10	0.49
2:L:224:ILE:HG13	2:L:225:PHE:H	1.78	0.49
2:L:229:LYS:HG3	2:L:233:TRP:HB2	1.93	0.49
3:S:106:LEU:HD12	3:S:118:PHE:HE2	1.77	0.49
3:U:95:VAL:HG12	3:U:96:ASP:N	2.27	0.49
3:W:174:TYR:HD1	3:W:226:TYR:HE1	1.59	0.49
3:W:228:ASN:HA	3:W:231:HIS:HB3	1.92	0.49
1:A:249:THR:HG22	1:A:251:LYS:H	1.77	0.49
1:A:252:ILE:HG23	2:H:331:ASN:HB3	1.92	0.49
1:D:185:ARG:CZ	1:D:205:HIS:HB2	2.43	0.49
2:G:309:ASP:OD2	2:G:311:LYS:HG2	2.12	0.49
2:H:559:LEU:HD12	2:H:562:ILE:HD11	1.94	0.49
2:L:322:PHE:HE1	2:L:349:GLN:HG3	1.77	0.49
3:P:68:ILE:HG21	3:P:346:SER:HB2	1.94	0.49
3:S:316:PHE:HB3	3:S:324:GLU:HB2	1.94	0.49
3:U:321:ILE:HG23	3:U:322:VAL:HG13	1.94	0.49
3:W:321:ILE:HG23	3:W:322:VAL:HG13	1.94	0.49
1:A:135:PRO:HG2	1:A:154:THR:HA	1.94	0.49
1:D:161:THR:H	1:D:166:HIS:CE1	2.27	0.49
2:I:69:ARG:HA	2:I:74:TYR:OH	2.13	0.49
2:L:79:ARG:HG2	2:L:80:HIS:CD2	2.47	0.49
2:L:559:LEU:O	2:L:560:GLN:C	2.55	0.49
3:N:227:LEU:HG	3:N:231:HIS:CE1	2.47	0.49
3:O:275:ILE:O	3:O:276:GLY:C	2.54	0.49
1:A:49:ILE:HG13	1:A:51:GLU:HG3	1.94	0.49
1:A:81:LEU:HD21	2:J:344:PHE:HE1	1.77	0.49
1:C:95:LYS:HG2	1:C:96:VAL:H	1.78	0.49
2:G:375:ASP:H	2:G:379:ILE:HG21	1.77	0.49
2:H:433:ILE:HD13	2:H:438:LEU:HD22	1.94	0.49
2:I:380:ASN:O	2:I:381:ASN:C	2.55	0.49
2:K:175:VAL:HG21	2:K:260:LEU:HD13	1.95	0.49
2:K:481:LEU:HG	2:K:485:MET:HE1	1.93	0.49
2:L:24:THR:HA	2:L:27:LYS:HG2	1.93	0.49
2:L:378:ASP:O	2:L:381:ASN:ND2	2.46	0.49
3:O:68:ILE:HG21	3:O:346:SER:HB2	1.93	0.49
3:T:339:MET:HG2	3:T:339:MET:O	2.12	0.49
3:V:95:VAL:HG23	3:V:100:MET:HB3	1.95	0.49
3:V:274:ALA:HB1	3:V:334:PHE:HB3	1.93	0.49
1:B:176:THR:HG21	1:B:228:TYR:HB2	1.94	0.49
1:C:112:SER:N	1:C:115:ARG:HH22	2.10	0.49
2:G:31:PHE:CE1	2:G:60:ASN:HB2	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:131:GLU:HG3	2:G:132:LEU:N	2.26	0.49
2:G:554:ASP:O	2:G:555:LYS:C	2.54	0.49
2:H:52:THR:H	2:H:55:VAL:HG12	1.77	0.49
2:H:186:LYS:O	2:H:189:THR:HG22	2.12	0.49
2:K:79:ARG:HG2	2:K:80:HIS:CD2	2.47	0.49
2:K:387:ILE:H	2:K:392:ASN:ND2	2.11	0.49
3:M:68:ILE:HG21	3:M:346:SER:HB2	1.93	0.49
3:P:227:LEU:HG	3:P:231:HIS:CE1	2.47	0.49
3:U:95:VAL:HG12	3:U:96:ASP:H	1.77	0.49
1:B:19:ILE:H	1:B:22:GLN:NE2	2.09	0.49
1:C:176:THR:HG21	1:C:228:TYR:HB2	1.95	0.49
1:D:19:ILE:HD11	1:E:102:ALA:HB2	1.95	0.49
1:D:233:ASP:OD2	1:D:236:LEU:HD23	2.11	0.49
1:F:272:LEU:HG	2:J:345:ARG:NH2	2.22	0.49
2:G:231:SER:O	2:G:234:VAL:HG12	2.13	0.49
2:G:281:TYR:CE1	2:G:290:ARG:HD3	2.47	0.49
2:L:376:GLU:HG2	2:L:380:ASN:HB2	1.94	0.49
3:M:193:SER:HB3	3:M:349:ILE:HA	1.95	0.49
3:N:193:SER:HB3	3:N:349:ILE:HA	1.95	0.49
1:F:272:LEU:HG	2:J:345:ARG:HH12	1.77	0.49
2:G:52:THR:H	2:G:55:VAL:HG12	1.78	0.49
2:G:470:LEU:HB3	2:G:472:LEU:HD23	1.94	0.49
2:H:89:VAL:O	2:H:93:THR:HG23	2.13	0.49
2:I:486:ILE:HD13	2:K:395:THR:HB	1.93	0.49
2:K:259:ILE:HD12	2:K:259:ILE:H	1.78	0.49
3:Q:193:SER:HB3	3:Q:349:ILE:HA	1.95	0.49
3:Q:227:LEU:HG	3:Q:231:HIS:CE1	2.47	0.49
3:Q:239:ARG:HG3	3:R:111:ARG:NH1	2.28	0.49
3:X:214:ASN:OD1	3:X:215:ARG:HG2	2.12	0.49
3:X:277:ALA:H	3:X:278:PRO:HD2	1.77	0.49
1:A:80:PHE:HZ	2:J:361:MET:HE3	1.77	0.49
1:E:235:VAL:HG13	1:E:236:LEU:HD22	1.95	0.49
2:J:175:VAL:HG23	2:J:176:ILE:HD12	1.95	0.49
3:M:275:ILE:O	3:M:276:GLY:C	2.54	0.49
3:O:239:ARG:HG3	3:P:111:ARG:HH22	1.76	0.49
3:Q:67:PHE:HA	3:Q:70:ILE:HB	1.94	0.49
3:R:176:ASN:HD21	3:T:111:ARG:NH2	2.11	0.49
3:U:246:TYR:HD2	3:U:303:LEU:HD23	1.77	0.49
3:W:199:PHE:CZ	3:W:251:LEU:HD21	2.47	0.49
1:B:81:LEU:HD21	2:H:344:PHE:CE1	2.48	0.49
1:F:97:ASN:HA	1:F:105:SER:HB3	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:6:ARG:HG2	2:J:521:TYR:CE2	2.48	0.49
2:G:377:LEU:O	2:G:380:ASN:N	2.46	0.49
2:G:379:ILE:C	2:G:381:ASN:N	2.69	0.49
2:J:382:SER:O	2:J:384:ILE:N	2.45	0.49
3:O:104:SER:OG	3:T:342:ARG:CZ	2.61	0.49
3:O:318:THR:HG23	3:O:319:ASP:N	2.28	0.49
3:P:96:ASP:O	3:P:99:GLU:HG2	2.13	0.49
3:Q:68:ILE:HG21	3:Q:346:SER:HB2	1.93	0.49
3:R:193:SER:HB3	3:R:349:ILE:HA	1.95	0.49
3:R:275:ILE:O	3:R:276:GLY:C	2.54	0.49
3:U:155:ASP:O	3:U:158:ILE:HG22	2.13	0.49
3:V:107:SER:HB2	3:V:120:LEU:HD12	1.95	0.49
3:V:289:VAL:HG23	3:V:335:MET:HA	1.93	0.49
3:X:284:GLU:HB2	3:X:285:PRO:HD3	1.95	0.49
1:E:50:PRO:HD2	1:E:97:ASN:HD21	1.76	0.48
1:E:266:THR:HG23	1:E:268:SER:H	1.78	0.48
2:H:135:VAL:HG23	2:H:136:ASN:N	2.28	0.48
2:I:186:LYS:O	2:I:189:THR:HG22	2.13	0.48
2:I:263:ILE:O	2:I:267:ILE:HD12	2.13	0.48
2:I:561:LEU:O	2:I:562:ILE:C	2.55	0.48
2:J:379:ILE:C	2:J:381:ASN:N	2.69	0.48
2:K:52:THR:H	2:K:55:VAL:HG12	1.78	0.48
2:K:376:GLU:C	2:K:380:ASN:H	2.21	0.48
3:M:67:PHE:HA	3:M:70:ILE:HB	1.94	0.48
3:N:318:THR:HG23	3:N:319:ASP:N	2.28	0.48
3:O:106:LEU:HD11	3:O:118:PHE:CD2	2.48	0.48
3:O:193:SER:HB3	3:O:349:ILE:HA	1.95	0.48
3:Q:275:ILE:O	3:Q:276:GLY:C	2.54	0.48
3:R:68:ILE:HG21	3:R:346:SER:HB2	1.94	0.48
3:R:227:LEU:HG	3:R:231:HIS:CE1	2.47	0.48
1:B:237:MET:SD	1:B:249:THR:HA	2.53	0.48
1:B:249:THR:HG22	1:B:251:LYS:H	1.76	0.48
1:C:62:LEU:HD21	1:C:126:ILE:HG12	1.95	0.48
1:D:19:ILE:HG22	1:D:20:LEU:H	1.78	0.48
1:F:30:LEU:HG	1:F:37:ASN:ND2	2.29	0.48
2:H:139:LEU:HD11	2:H:148:GLY:HA2	1.94	0.48
2:K:221:ARG:HD3	2:K:230:THR:HA	1.95	0.48
2:L:376:GLU:O	2:L:379:ILE:N	2.45	0.48
3:M:96:ASP:O	3:M:99:GLU:HG2	2.13	0.48
3:M:227:LEU:HG	3:M:231:HIS:CE1	2.47	0.48
3:N:96:ASP:O	3:N:99:GLU:HG2	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:318:THR:HG23	3:P:319:ASP:N	2.28	0.48
3:Q:96:ASP:O	3:Q:99:GLU:HG2	2.13	0.48
3:Q:106:LEU:HD11	3:Q:118:PHE:CD2	2.48	0.48
3:S:165:LEU:HA	3:S:168:MET:HE1	1.95	0.48
3:W:164:ILE:HG22	3:W:168:MET:HE1	1.95	0.48
3:W:294:GLU:HG2	3:W:295:ASP:N	2.25	0.48
2:G:376:GLU:O	2:G:377:LEU:C	2.55	0.48
2:I:51:ILE:HG23	2:I:56:LEU:HD23	1.95	0.48
2:K:254:THR:HG22	2:K:256:TYR:N	2.27	0.48
2:K:379:ILE:C	2:K:381:ASN:H	2.20	0.48
2:L:557:TYR:CD2	2:L:561:LEU:HD21	2.48	0.48
3:P:193:SER:HB3	3:P:349:ILE:HA	1.95	0.48
3:R:318:THR:HG23	3:R:319:ASP:N	2.28	0.48
3:T:165:LEU:HA	3:T:168:MET:HE2	1.95	0.48
3:U:132:MET:HE1	3:U:134:TYR:HB2	1.95	0.48
1:A:266:THR:HG23	1:A:268:SER:H	1.78	0.48
2:I:125:TYR:HD2	2:I:451:LEU:HB3	1.77	0.48
2:I:216:LEU:HD23	2:I:220:PHE:HE2	1.78	0.48
2:L:393:ASP:C	2:L:395:THR:H	2.21	0.48
3:P:106:LEU:HD11	3:P:118:PHE:CD2	2.48	0.48
3:R:96:ASP:O	3:R:99:GLU:HG2	2.13	0.48
3:U:235:THR:HB	3:U:236:ILE:HD12	1.95	0.48
3:W:162:VAL:HG21	3:W:250:TRP:CH2	2.49	0.48
3:W:167:SER:O	3:W:170:LYS:HB2	2.14	0.48
3:X:95:VAL:HG23	3:X:100:MET:HB3	1.96	0.48
3:X:147:THR:HG22	3:X:149:GLN:H	1.79	0.48
3:X:189:ASN:HA	3:X:202:CYS:HA	1.94	0.48
1:E:237:MET:SD	1:E:249:THR:HA	2.53	0.48
1:F:80:PHE:HZ	2:G:361:MET:HE3	1.78	0.48
2:H:10:ILE:HD11	2:L:520:SER:HA	1.94	0.48
2:I:31:PHE:HE1	2:I:60:ASN:HD22	1.61	0.48
2:I:47:PRO:HB2	2:I:80:HIS:ND1	2.27	0.48
2:L:259:ILE:O	2:L:262:TYR:HB3	2.13	0.48
3:M:339:MET:HG3	3:N:323:LEU:O	2.14	0.48
3:U:302:SER:C	3:U:303:LEU:HD12	2.38	0.48
3:V:321:ILE:HG12	3:V:322:VAL:H	1.79	0.48
3:W:91:MET:HB3	3:W:135:PHE:CE2	2.48	0.48
3:X:97:ASP:HB3	3:X:98:GLU:OE2	2.14	0.48
1:B:249:THR:O	1:B:272:LEU:HD12	2.12	0.48
2:G:134:GLY:HA2	2:G:457:ASN:HB2	1.95	0.48
2:H:374:PHE:HB2	2:H:387:ILE:HD11	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:198:ARG:HD3	2:I:271:ARG:NH2	2.29	0.48
2:J:215:ASN:O	2:J:218:GLU:HG3	2.13	0.48
2:J:376:GLU:HB3	2:J:377:LEU:H	1.44	0.48
2:K:87:LEU:HA	2:K:90:LYS:HG2	1.94	0.48
3:M:106:LEU:HD11	3:M:118:PHE:CD2	2.48	0.48
3:M:313:ARG:NE	3:U:281:ARG:HH22	2.11	0.48
3:O:176:ASN:HD21	3:W:111:ARG:HH21	1.61	0.48
3:R:106:LEU:HD11	3:R:118:PHE:CD2	2.48	0.48
3:T:253:LYS:HD2	3:T:323:LEU:HD11	1.94	0.48
2:G:377:LEU:O	2:G:378:ASP:C	2.57	0.48
2:H:567:SER:O	2:J:414:TYR:CE1	2.66	0.48
2:J:110:VAL:HA	2:J:113:LEU:HG	1.94	0.48
3:M:318:THR:HG23	3:M:319:ASP:N	2.28	0.48
3:O:227:LEU:HG	3:O:231:HIS:CE1	2.47	0.48
3:S:231:HIS:CE1	3:S:243:HIS:HA	2.48	0.48
3:T:193:SER:HB2	3:T:198:MET:HG3	1.95	0.48
3:V:161:THR:O	3:V:164:ILE:HG22	2.14	0.48
1:B:201:LYS:HZ2	1:C:103:ASN:C	2.22	0.48
1:E:35:MET:HE3	1:E:59:TYR:HB3	1.95	0.48
2:H:316:LYS:O	2:H:320:ILE:HG12	2.14	0.48
2:I:28:VAL:HG11	2:I:55:VAL:HG23	1.96	0.48
2:J:378:ASP:O	2:J:381:ASN:ND2	2.47	0.48
2:K:27:LYS:HE2	2:K:39:LEU:HB2	1.96	0.48
2:K:224:ILE:HG13	2:K:225:PHE:H	1.78	0.48
2:L:381:ASN:O	2:L:383:TYR:N	2.46	0.48
2:L:552:LYS:O	2:L:555:LYS:HB2	2.13	0.48
3:N:106:LEU:HD11	3:N:118:PHE:CD2	2.48	0.48
3:N:176:ASN:HD21	3:S:111:ARG:HH22	1.62	0.48
3:X:132:MET:HE1	3:X:134:TYR:CE1	2.47	0.48
1:A:249:THR:O	1:A:272:LEU:HD12	2.14	0.48
1:B:36:LYS:HA	1:B:39:TYR:CE2	2.49	0.48
1:F:77:LYS:HA	2:G:355:PHE:CE2	2.49	0.48
2:I:378:ASP:O	2:I:381:ASN:ND2	2.47	0.48
2:J:281:TYR:CE1	2:J:290:ARG:HD3	2.49	0.48
2:K:274:LYS:HG2	2:K:278:LYS:HD2	1.95	0.48
3:O:96:ASP:O	3:O:99:GLU:HG2	2.13	0.48
3:P:284:GLU:O	3:P:285:PRO:C	2.57	0.48
3:Q:239:ARG:HG3	3:R:111:ARG:HH22	1.78	0.48
3:S:121:LEU:HD13	3:S:133:LEU:HD13	1.95	0.48
3:S:206:LEU:HD23	3:S:207:VAL:N	2.29	0.48
3:W:103:TRP:HZ3	3:W:119:PRO:HG2	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:X:235:THR:HB	3:X:236:ILE:HD12	1.95	0.48
1:D:253:THR:O	1:D:256:VAL:HG12	2.14	0.48
2:I:379:ILE:O	2:I:379:ILE:HG13	2.12	0.48
2:J:315:TRP:CH2	2:J:359:ARG:HB3	2.49	0.48
2:K:327:PHE:CE2	2:K:345:ARG:HB3	2.49	0.48
2:L:186:LYS:O	2:L:189:THR:HG22	2.14	0.48
3:T:165:LEU:HD22	3:T:247:PHE:HZ	1.78	0.48
2:H:215:ASN:O	2:H:218:GLU:HG3	2.14	0.47
2:H:255:MET:H	2:H:258:LYS:CE	2.26	0.47
2:I:307:ILE:H	2:I:307:ILE:HD12	1.78	0.47
3:P:268:LYS:HB3	3:P:268:LYS:HE3	1.72	0.47
3:T:179:CYS:O	3:T:210:SER:HB3	2.14	0.47
1:D:49:ILE:HG13	1:D:51:GLU:HG3	1.95	0.47
1:D:160:TYR:HA	1:D:166:HIS:CE1	2.50	0.47
2:G:79:ARG:HG2	2:G:80:HIS:CD2	2.49	0.47
2:J:289:ILE:O	2:J:292:LEU:HG	2.14	0.47
2:K:142:ASN:HD21	2:K:145:PHE:HD2	1.62	0.47
2:K:169:VAL:HG23	2:K:248:LEU:HB3	1.95	0.47
2:L:254:THR:N	2:L:258:LYS:HZ1	2.08	0.47
3:N:335:MET:CE	3:X:334:PHE:HZ	2.22	0.47
3:R:268:LYS:HB3	3:R:268:LYS:HE3	1.72	0.47
1:E:172:TYR:HE2	1:E:183:PHE:HE1	1.61	0.47
2:H:28:VAL:HG11	2:H:55:VAL:HG23	1.97	0.47
2:H:507:PRO:HG2	3:U:243:HIS:HD2	1.79	0.47
2:I:115:GLN:NE2	2:K:391:VAL:H	2.11	0.47
2:I:301:PRO:HD2	2:I:324:LYS:HD2	1.96	0.47
3:Q:284:GLU:O	3:Q:285:PRO:C	2.57	0.47
3:S:117:GLY:O	3:S:208:VAL:HA	2.14	0.47
3:V:223:GLN:HG3	3:V:304:THR:HG21	1.96	0.47
1:B:77:LYS:HA	2:H:355:PHE:CE2	2.49	0.47
1:C:79:GLU:HG2	1:C:141:PHE:CE2	2.49	0.47
2:G:24:THR:HA	2:G:27:LYS:HG2	1.96	0.47
2:J:218:GLU:HB3	2:J:230:THR:HG21	1.97	0.47
2:J:255:MET:H	2:J:258:LYS:CE	2.26	0.47
2:J:343:LEU:HA	2:J:346:VAL:HG12	1.96	0.47
2:L:169:VAL:HG23	2:L:248:LEU:HB3	1.95	0.47
2:L:307:ILE:HD12	2:L:307:ILE:H	1.78	0.47
3:X:143:VAL:HG12	3:X:183:VAL:HG22	1.97	0.47
3:X:294:GLU:HG2	3:X:295:ASP:N	2.29	0.47
1:B:86:LYS:HD3	2:H:340:ASN:HD21	1.79	0.47
1:D:135:PRO:HG2	1:D:154:THR:HA	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:377:LEU:N	2:H:380:ASN:HB2	2.29	0.47
2:I:40:LYS:HG3	2:I:68:VAL:HG21	1.97	0.47
2:J:459:LEU:O	2:J:463:LEU:HD23	2.14	0.47
2:K:198:ARG:HD3	2:K:271:ARG:NH2	2.29	0.47
2:L:69:ARG:HA	2:L:74:TYR:OH	2.15	0.47
3:M:284:GLU:O	3:M:285:PRO:C	2.57	0.47
3:M:291:VAL:O	3:M:297:TYR:HA	2.15	0.47
3:M:313:ARG:HD3	3:U:281:ARG:NH2	2.29	0.47
3:O:284:GLU:O	3:O:285:PRO:C	2.57	0.47
3:P:291:VAL:O	3:P:297:TYR:HA	2.15	0.47
3:T:281:ARG:HG2	3:T:282:LEU:N	2.30	0.47
3:X:97:ASP:O	3:X:100:MET:HG3	2.14	0.47
3:X:121:LEU:HD13	3:X:133:LEU:HD22	1.96	0.47
1:C:101:ILE:HD12	1:C:101:ILE:H	1.80	0.47
1:C:237:MET:SD	1:C:249:THR:HA	2.54	0.47
2:G:136:ASN:OD1	2:G:138:ASP:HB2	2.15	0.47
2:G:396:LEU:HD23	2:G:396:LEU:H	1.79	0.47
2:K:474:LEU:HD21	2:K:484:LYS:HD3	1.97	0.47
2:L:8:TYR:HD2	2:L:42:LEU:HD21	1.80	0.47
2:L:305:LEU:O	2:L:308:ILE:HG12	2.14	0.47
2:L:379:ILE:O	2:L:381:ASN:N	2.48	0.47
3:T:90:TYR:HD2	3:T:136:GLU:HA	1.79	0.47
3:W:165:LEU:HA	3:W:168:MET:HE2	1.97	0.47
1:B:5:VAL:N	1:B:6:PRO:HD2	2.30	0.47
1:B:121:PRO:HG2	1:B:124:GLU:OE1	2.14	0.47
1:C:171:ARG:HH11	1:C:171:ARG:HG3	1.79	0.47
1:D:176:THR:HG21	1:D:228:TYR:HD1	1.79	0.47
1:F:140:LEU:HD11	1:F:262:LYS:HB3	1.97	0.47
1:F:266:THR:HG23	1:F:268:SER:H	1.80	0.47
2:G:307:ILE:HD12	2:G:307:ILE:H	1.80	0.47
2:G:382:SER:HB2	2:G:384:ILE:CG1	2.45	0.47
2:G:558:ILE:HG22	2:G:559:LEU:N	2.29	0.47
2:H:100:SER:O	2:H:104:GLN:HG2	2.15	0.47
2:I:255:MET:H	2:I:258:LYS:CE	2.26	0.47
2:J:70:CYS:HB3	2:J:73:VAL:HG12	1.97	0.47
2:J:380:ASN:O	2:J:381:ASN:C	2.57	0.47
2:K:229:LYS:HG2	2:K:233:TRP:HE3	1.80	0.47
2:K:378:ASP:C	2:K:380:ASN:N	2.70	0.47
2:L:221:ARG:HD3	2:L:230:THR:HA	1.96	0.47
3:N:291:VAL:O	3:N:297:TYR:HA	2.15	0.47
3:O:309:SER:HB3	3:W:308:ILE:CG2	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:284:GLU:O	3:P:286:GLY:N	2.48	0.47
3:Q:291:VAL:O	3:Q:297:TYR:HA	2.15	0.47
3:Q:318:THR:HG23	3:Q:319:ASP:N	2.28	0.47
3:V:321:ILE:HG23	3:V:322:VAL:HG13	1.96	0.47
3:W:121:LEU:HA	3:W:135:PHE:HA	1.97	0.47
3:W:276:GLY:HA3	3:W:335:MET:SD	2.54	0.47
1:D:122:THR:O	1:D:126:ILE:HG13	2.14	0.47
2:H:307:ILE:H	2:H:307:ILE:HD12	1.79	0.47
2:H:393:ASP:C	2:H:395:THR:H	2.23	0.47
2:I:557:TYR:OH	2:K:457:ASN:ND2	2.47	0.47
3:M:284:GLU:O	3:M:286:GLY:N	2.48	0.47
3:O:284:GLU:O	3:O:286:GLY:N	2.48	0.47
3:R:284:GLU:O	3:R:285:PRO:C	2.57	0.47
3:R:284:GLU:O	3:R:286:GLY:N	2.48	0.47
3:S:268:LYS:HD2	3:S:319:ASP:O	2.14	0.47
3:W:157:VAL:O	3:W:160:GLN:HG2	2.14	0.47
3:X:95:VAL:CG2	3:X:100:MET:HB3	2.44	0.47
1:A:16:GLN:HA	1:B:36:LYS:NZ	2.30	0.47
1:A:79:GLU:HG2	1:A:141:PHE:CE2	2.49	0.47
1:C:180:LYS:HD2	1:C:218:GLU:HB2	1.97	0.47
1:D:36:LYS:HA	1:D:39:TYR:CE2	2.49	0.47
2:G:381:ASN:O	2:G:383:TYR:N	2.48	0.47
2:H:154:MET:HE2	2:H:438:LEU:HD23	1.96	0.47
2:H:175:VAL:HG23	2:H:176:ILE:HD12	1.97	0.47
2:J:27:LYS:HE2	2:J:39:LEU:HB2	1.96	0.47
2:J:47:PRO:HB2	2:J:80:HIS:ND1	2.30	0.47
2:J:307:ILE:H	2:J:307:ILE:HD12	1.80	0.47
2:L:145:PHE:HZ	2:L:422:TYR:HD2	1.62	0.47
2:L:316:LYS:O	2:L:320:ILE:HG12	2.15	0.47
3:M:111:ARG:NH1	3:N:239:ARG:HG3	2.29	0.47
3:R:291:VAL:O	3:R:297:TYR:HA	2.15	0.47
3:T:104:SER:HA	3:T:121:LEU:HD21	1.97	0.47
3:W:184:SER:HA	3:W:205:ILE:HD12	1.97	0.47
3:X:113:ARG:O	3:X:113:ARG:HD3	2.15	0.47
1:C:40:LEU:HD12	1:C:40:LEU:O	2.15	0.47
1:F:238:PHE:HD2	1:F:239:LEU:HD22	1.80	0.47
2:G:376:GLU:C	2:G:380:ASN:H	2.24	0.47
2:I:350:ILE:HG22	2:I:351:ASP:O	2.15	0.47
2:I:379:ILE:O	2:I:381:ASN:N	2.48	0.47
2:J:274:LYS:HG2	2:J:278:LYS:HD2	1.96	0.47
2:J:281:TYR:HE1	2:J:290:ARG:HD3	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:311:LYS:HE2	2:L:311:LYS:HA	1.97	0.47
3:T:159:PHE:CE1	3:T:251:LEU:HD11	2.50	0.47
3:X:308:ILE:H	3:X:308:ILE:HD12	1.80	0.47
1:E:19:ILE:HG22	1:E:20:LEU:H	1.80	0.46
2:G:420:ASN:OD1	2:G:432:VAL:HG13	2.15	0.46
2:I:382:SER:C	2:I:384:ILE:N	2.73	0.46
2:J:375:ASP:O	2:J:376:GLU:C	2.58	0.46
2:K:307:ILE:H	2:K:307:ILE:HD12	1.80	0.46
2:K:374:PHE:HB3	2:K:379:ILE:HG21	1.94	0.46
3:M:252:ILE:HD11	3:M:323:LEU:HD11	1.98	0.46
3:N:252:ILE:HD11	3:N:323:LEU:HD11	1.98	0.46
3:N:309:SER:OG	3:S:308:ILE:CD1	2.63	0.46
3:P:171:ARG:NH1	3:W:338:GLU:HA	2.29	0.46
3:P:252:ILE:HD11	3:P:323:LEU:HD11	1.98	0.46
3:S:321:ILE:HG23	3:S:322:VAL:HG13	1.97	0.46
3:T:246:TYR:CD2	3:T:303:LEU:HD23	2.50	0.46
3:X:264:MET:HE2	3:X:264:MET:HA	1.96	0.46
1:A:80:PHE:CZ	2:J:361:MET:HE3	2.49	0.46
1:A:184:SER:OG	1:A:203:ILE:HD11	2.15	0.46
1:D:54:ILE:HD11	1:D:106:PHE:HB3	1.97	0.46
1:E:86:LYS:HD3	2:I:340:ASN:HD21	1.79	0.46
1:E:101:ILE:H	1:E:101:ILE:HD12	1.79	0.46
2:G:89:VAL:O	2:G:93:THR:HG23	2.16	0.46
2:G:316:LYS:O	2:G:320:ILE:HG12	2.15	0.46
2:G:448:SER:O	2:G:451:LEU:HG	2.16	0.46
2:H:312:ASN:ND2	2:H:359:ARG:HH21	2.12	0.46
2:J:382:SER:C	2:J:384:ILE:N	2.73	0.46
2:K:94:LYS:HB3	2:K:94:LYS:HE2	1.75	0.46
2:K:557:TYR:C	2:K:561:LEU:HD23	2.40	0.46
2:L:381:ASN:C	2:L:383:TYR:N	2.70	0.46
3:N:111:ARG:HH22	3:P:239:ARG:HG3	1.77	0.46
3:N:284:GLU:O	3:N:285:PRO:C	2.57	0.46
3:O:291:VAL:O	3:O:297:TYR:HA	2.15	0.46
3:W:268:LYS:HD2	3:W:319:ASP:O	2.15	0.46
3:X:239:ARG:NE	3:X:239:ARG:HA	2.30	0.46
1:B:179:TYR:HB2	1:C:54:ILE:O	2.15	0.46
1:C:85:TYR:CZ	1:C:87:GLY:HA3	2.49	0.46
1:F:23:GLU:HB3	1:F:28:ARG:HH11	1.79	0.46
1:F:172:TYR:HE2	1:F:183:PHE:HE1	1.64	0.46
2:H:263:ILE:O	2:H:267:ILE:HD12	2.15	0.46
2:H:552:LYS:O	2:H:555:LYS:HB2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:52:THR:H	2:I:55:VAL:HG12	1.80	0.46
2:I:384:ILE:HG22	2:I:392:ASN:HD21	1.81	0.46
2:J:427:GLU:HG3	2:J:430:PRO:HG3	1.97	0.46
2:K:89:VAL:O	2:K:93:THR:HG23	2.14	0.46
2:K:256:TYR:OH	2:K:283:PHE:HB2	2.15	0.46
3:S:293:LYS:HG3	3:S:294:GLU:OE1	2.15	0.46
3:U:166:TYR:HD2	3:U:247:PHE:HD2	1.60	0.46
3:U:282:LEU:HD23	3:U:286:GLY:HA3	1.97	0.46
1:C:226:ILE:H	1:C:226:ILE:HD12	1.81	0.46
1:D:121:PRO:HG2	1:D:124:GLU:OE1	2.14	0.46
1:E:40:LEU:HD12	1:E:40:LEU:O	2.16	0.46
1:F:201:LYS:HE2	1:F:201:LYS:HA	1.98	0.46
2:G:141:LEU:HD22	2:J:493:GLU:HG3	1.96	0.46
2:H:4:ILE:HG21	2:H:38:ALA:HA	1.96	0.46
2:H:69:ARG:HH21	2:H:488:HIS:CD2	2.33	0.46
3:Q:284:GLU:O	3:Q:286:GLY:N	2.48	0.46
3:W:262:GLN:O	3:W:266:ILE:HG12	2.15	0.46
3:X:90:TYR:HB3	3:X:135:PHE:O	2.15	0.46
1:A:74:LEU:O	1:A:77:LYS:HB2	2.15	0.46
2:G:31:PHE:HE1	2:G:60:ASN:HB2	1.81	0.46
2:G:145:PHE:HZ	2:G:422:TYR:HD2	1.62	0.46
2:H:379:ILE:O	2:H:381:ASN:N	2.48	0.46
2:I:81:ALA:HA	3:W:308:ILE:HD11	1.97	0.46
2:L:378:ASP:C	2:L:380:ASN:N	2.73	0.46
3:N:284:GLU:O	3:N:286:GLY:N	2.48	0.46
3:S:95:VAL:CG1	3:S:100:MET:HB3	2.45	0.46
1:E:238:PHE:HD2	1:E:239:LEU:HD22	1.80	0.46
2:H:281:TYR:CG	2:H:281:TYR:O	2.69	0.46
2:H:507:PRO:HG2	3:U:243:HIS:CD2	2.51	0.46
2:I:316:LYS:O	2:I:320:ILE:HG12	2.15	0.46
2:J:87:LEU:HA	2:J:90:LYS:HG2	1.97	0.46
2:J:256:TYR:OH	2:J:283:PHE:HB2	2.16	0.46
3:Q:252:ILE:HD11	3:Q:323:LEU:HD11	1.98	0.46
3:U:303:LEU:HD13	3:U:314:VAL:H	1.81	0.46
2:G:263:ILE:O	2:G:267:ILE:HD12	2.16	0.46
2:H:50:VAL:HG13	2:H:51:ILE:HG13	1.98	0.46
2:J:141:LEU:HD23	2:J:141:LEU:H	1.81	0.46
2:J:376:GLU:H	2:J:379:ILE:HG12	1.79	0.46
2:J:481:LEU:HA	2:J:484:LYS:HD3	1.97	0.46
2:K:132:LEU:HG	2:K:457:ASN:HB3	1.98	0.46
2:K:481:LEU:HD23	2:K:481:LEU:H	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:338:THR:O	2:L:341:GLU:HG3	2.15	0.46
3:R:252:ILE:HD11	3:R:323:LEU:HD11	1.98	0.46
3:V:156:THR:O	3:V:159:PHE:HB3	2.15	0.46
3:W:294:GLU:CG	3:W:295:ASP:H	2.26	0.46
1:C:70:ILE:HD13	1:C:74:LEU:HD23	1.98	0.46
1:D:136:ILE:HG12	1:D:242:TYR:CD2	2.51	0.46
2:G:382:SER:C	2:G:384:ILE:N	2.73	0.46
2:G:553:THR:O	2:G:554:ASP:C	2.57	0.46
2:H:27:LYS:HB2	2:H:27:LYS:HE3	1.77	0.46
2:H:521:TYR:CE2	2:J:6:ARG:HG2	2.51	0.46
2:I:322:PHE:HZ	2:I:349:GLN:HB3	1.80	0.46
2:J:316:LYS:O	2:J:320:ILE:HG12	2.16	0.46
2:K:347:VAL:HG12	2:K:355:PHE:HE1	1.79	0.46
2:K:553:THR:O	2:K:554:ASP:C	2.58	0.46
3:M:343:SER:HB2	3:M:347:THR:HG21	1.98	0.46
3:N:280:ASN:C	3:N:282:LEU:N	2.74	0.46
3:N:343:SER:HB2	3:N:347:THR:HG21	1.98	0.46
3:O:111:ARG:NH1	3:R:239:ARG:HG3	2.30	0.46
3:O:343:SER:HB2	3:O:347:THR:HG21	1.98	0.46
3:S:284:GLU:HG2	3:S:306:VAL:HG12	1.97	0.46
3:W:148:PRO:HB3	3:W:235:THR:HG23	1.98	0.46
1:B:226:ILE:H	1:B:226:ILE:HD12	1.81	0.46
1:D:251:LYS:O	1:D:253:THR:HG23	2.16	0.46
2:I:233:TRP:NE1	2:I:237:ASN:HB2	2.30	0.46
2:K:175:VAL:HG23	2:K:176:ILE:HD12	1.96	0.46
2:L:158:PHE:HE2	2:L:165:THR:H	1.64	0.46
3:O:252:ILE:HD11	3:O:323:LEU:HD11	1.98	0.46
3:O:321:ILE:HD11	3:P:265:ASP:HB3	1.98	0.46
3:P:343:SER:HB2	3:P:347:THR:HG21	1.98	0.46
3:T:97:ASP:O	3:T:100:MET:HG3	2.16	0.46
3:V:90:TYR:HB3	3:V:135:PHE:O	2.16	0.46
3:W:95:VAL:CG2	3:W:100:MET:HB2	2.45	0.46
3:X:102:CYS:HA	3:X:105:GLU:HB2	1.97	0.46
1:B:35:MET:HG2	1:B:59:TYR:HB2	1.98	0.46
1:B:101:ILE:H	1:B:101:ILE:HD12	1.80	0.46
1:B:194:GLY:HA2	1:C:109:ARG:HH12	1.81	0.46
1:C:201:LYS:HE2	1:C:201:LYS:HA	1.98	0.46
1:D:70:ILE:HD13	1:D:74:LEU:HD23	1.96	0.46
2:G:381:ASN:C	2:G:383:TYR:N	2.73	0.46
2:H:377:LEU:C	2:H:380:ASN:HB2	2.41	0.46
2:H:557:TYR:O	2:H:561:LEU:HD23	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:K:171:LYS:HD2	2:K:172:LYS:O	2.16	0.46
2:L:429:ASP:OD1	2:L:441:LEU:HB3	2.15	0.46
3:N:79:TYR:CG	3:P:151:LYS:NZ	2.70	0.46
3:T:176:ASN:HB3	3:T:177:GLU:OE2	2.15	0.46
3:T:284:GLU:HB2	3:T:285:PRO:HD3	1.98	0.46
1:D:34:LEU:HD12	1:D:36:LYS:H	1.80	0.45
1:D:266:THR:HG23	1:D:268:SER:H	1.81	0.45
1:E:179:TYR:HB2	1:F:54:ILE:O	2.15	0.45
2:K:70:CYS:HB3	2:K:73:VAL:HG12	1.98	0.45
2:L:52:THR:H	2:L:55:VAL:HG12	1.81	0.45
3:N:164:ILE:O	3:N:167:SER:HB3	2.16	0.45
3:O:164:ILE:O	3:O:167:SER:HB3	2.16	0.45
3:Q:343:SER:HB2	3:Q:347:THR:HG21	1.98	0.45
3:S:143:VAL:HG12	3:S:183:VAL:HG13	1.98	0.45
3:X:279:VAL:HA	3:X:330:ILE:HG21	1.97	0.45
1:C:252:ILE:CG2	2:K:331:ASN:HB3	2.46	0.45
2:H:301:PRO:HD2	2:H:324:LYS:HD2	1.98	0.45
2:H:414:TYR:CE1	2:L:567:SER:O	2.69	0.45
2:K:50:VAL:HG13	2:K:51:ILE:HG13	1.98	0.45
2:K:186:LYS:O	2:K:189:THR:HG22	2.16	0.45
2:K:316:LYS:O	2:K:320:ILE:HG12	2.16	0.45
3:M:264:MET:O	3:M:268:LYS:HB2	2.17	0.45
3:N:268:LYS:HB3	3:N:268:LYS:HE3	1.72	0.45
3:P:221:LEU:HD11	3:P:226:TYR:CZ	2.51	0.45
3:R:343:SER:HB2	3:R:347:THR:HG21	1.98	0.45
3:S:84:TYR:CD2	3:S:85:LEU:HG	2.51	0.45
3:S:302:SER:C	3:S:303:LEU:HD12	2.40	0.45
3:W:270:LYS:HE2	3:W:298:PHE:HE1	1.81	0.45
3:X:293:LYS:HG3	3:X:294:GLU:OE1	2.16	0.45
1:E:179:TYR:CD1	1:E:182:LEU:HB2	2.48	0.45
2:G:59:THR:OG1	2:G:91:ALA:HB1	2.16	0.45
2:H:197:ASP:OD1	2:H:199:GLN:HG3	2.16	0.45
2:H:509:ILE:O	2:H:509:ILE:HG22	2.16	0.45
2:I:145:PHE:HZ	2:I:422:TYR:CD2	2.35	0.45
2:K:315:TRP:CH2	2:K:359:ARG:HB3	2.51	0.45
2:L:196:ASN:HD21	2:L:389:TYR:N	2.14	0.45
3:M:268:LYS:HB3	3:M:268:LYS:HE3	1.72	0.45
3:N:221:LEU:HD11	3:N:226:TYR:CZ	2.51	0.45
3:P:198:MET:HE2	3:P:198:MET:H	1.82	0.45
3:Q:221:LEU:HD11	3:Q:226:TYR:CZ	2.51	0.45
3:S:176:ASN:HB3	3:S:177:GLU:OE1	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:X:218:ARG:HG3	3:X:218:ARG:HH11	1.81	0.45
1:B:252:ILE:CG2	2:L:331:ASN:HB3	2.46	0.45
1:D:80:PHE:CZ	2:K:361:MET:HE3	2.48	0.45
1:E:253:THR:HG23	1:E:255:ALA:H	1.82	0.45
2:G:164:LYS:HE2	2:G:165:THR:O	2.17	0.45
2:H:558:ILE:HG22	2:H:559:LEU:N	2.31	0.45
2:I:87:LEU:HA	2:I:90:LYS:HG2	1.98	0.45
2:I:225:PHE:HA	2:I:226:PRO:HD3	1.81	0.45
2:I:281:TYR:CE1	2:I:290:ARG:HD3	2.51	0.45
2:I:429:ASP:OD1	2:I:441:LEU:HB3	2.17	0.45
2:J:52:THR:H	2:J:55:VAL:HG12	1.82	0.45
2:J:254:THR:HB	2:J:258:LYS:HE3	1.97	0.45
2:K:172:LYS:HG3	2:K:173:LEU:H	1.81	0.45
2:K:281:TYR:CG	2:K:281:TYR:O	2.70	0.45
2:K:531:ARG:NH2	2:L:407:ILE:HD12	2.31	0.45
2:L:31:PHE:CE1	2:L:60:ASN:HB2	2.50	0.45
3:O:198:MET:H	3:O:198:MET:HE2	1.82	0.45
3:O:339:MET:HG3	3:R:323:LEU:O	2.17	0.45
3:P:164:ILE:O	3:P:167:SER:HB3	2.16	0.45
3:P:264:MET:O	3:P:268:LYS:HB2	2.17	0.45
3:T:196:GLN:O	3:T:197:LEU:HD23	2.17	0.45
3:T:307:SER:HB3	3:T:310:ASP:HA	1.99	0.45
3:U:228:ASN:HA	3:U:231:HIS:HB2	1.98	0.45
3:V:106:LEU:HB3	3:V:118:PHE:CD2	2.51	0.45
3:V:146:LEU:HD23	3:V:180:PHE:CE2	2.51	0.45
3:V:231:HIS:HD2	3:V:243:HIS:CD2	2.35	0.45
1:B:40:LEU:O	1:B:40:LEU:HD12	2.16	0.45
1:E:253:THR:O	1:E:256:VAL:HG12	2.17	0.45
1:F:40:LEU:HD12	1:F:40:LEU:O	2.16	0.45
1:F:180:LYS:HD2	1:F:218:GLU:HB2	1.98	0.45
2:H:31:PHE:HE1	2:H:60:ASN:HB2	1.81	0.45
2:H:156:ILE:HD13	2:H:396:LEU:HD12	1.99	0.45
2:I:27:LYS:HD2	2:I:35:HIS:CE1	2.52	0.45
2:I:509:ILE:HG22	2:I:509:ILE:O	2.17	0.45
2:J:522:ASN:HB3	2:J:525:ILE:HG22	1.97	0.45
2:L:220:PHE:HA	2:L:223:TYR:HD2	1.80	0.45
3:Q:264:MET:O	3:Q:268:LYS:HB2	2.17	0.45
3:R:221:LEU:HD11	3:R:226:TYR:CZ	2.51	0.45
3:S:321:ILE:HG23	3:S:322:VAL:HG22	1.99	0.45
1:B:54:ILE:HD11	1:B:106:PHE:HB3	1.99	0.45
1:E:42:ASP:O	1:E:97:ASN:HB3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:178:ASP:HB2	1:E:221:ALA:HB1	1.98	0.45
2:G:474:LEU:HD21	2:G:484:LYS:HD3	1.99	0.45
2:G:494:ASP:OD1	2:I:407:ILE:HG12	2.16	0.45
2:H:407:ILE:HD12	2:L:531:ARG:NH2	2.32	0.45
2:I:132:LEU:HG	2:I:457:ASN:HB3	1.98	0.45
2:J:99:PHE:O	2:J:103:ILE:HG12	2.17	0.45
2:K:229:LYS:HG2	2:K:233:TRP:CE3	2.51	0.45
2:K:378:ASP:O	2:K:381:ASN:ND2	2.50	0.45
2:K:520:SER:HA	2:L:10:ILE:HD11	1.99	0.45
2:K:558:ILE:HG22	2:K:559:LEU:N	2.30	0.45
3:M:221:LEU:HD11	3:M:226:TYR:CZ	2.51	0.45
3:W:199:PHE:CE1	3:W:259:LEU:HB3	2.52	0.45
1:A:226:ILE:H	1:A:226:ILE:HD12	1.82	0.45
1:C:54:ILE:HD11	1:C:106:PHE:HB3	1.98	0.45
1:C:246:TYR:HB2	1:C:270:VAL:HA	1.98	0.45
1:E:38:THR:HB	1:E:226:ILE:HD11	1.99	0.45
1:E:262:LYS:HD2	1:E:262:LYS:HA	1.78	0.45
2:G:175:VAL:HG21	2:G:260:LEU:HD13	1.98	0.45
2:G:380:ASN:O	2:G:381:ASN:C	2.60	0.45
2:G:393:ASP:C	2:G:395:THR:H	2.25	0.45
2:G:523:ILE:H	2:G:523:ILE:HD12	1.82	0.45
2:J:51:ILE:HG23	2:J:56:LEU:HD23	1.99	0.45
3:R:164:ILE:O	3:R:167:SER:HB3	2.16	0.45
3:S:104:SER:HA	3:S:121:LEU:HD21	1.99	0.45
3:X:280:ASN:HB2	3:X:281:ARG:HD3	1.98	0.45
1:A:179:TYR:CE2	1:A:181:PRO:HG2	2.52	0.45
1:F:140:LEU:HD11	1:F:262:LYS:CB	2.47	0.45
1:F:249:THR:O	1:F:272:LEU:HD12	2.17	0.45
2:G:480:ASP:OD2	2:G:482:LEU:HB2	2.16	0.45
2:H:87:LEU:HA	2:H:90:LYS:HG2	1.99	0.45
2:H:381:ASN:O	2:H:383:TYR:N	2.49	0.45
2:I:196:ASN:HD21	2:I:389:TYR:N	2.15	0.45
2:I:521:TYR:CE2	2:K:6:ARG:HG2	2.52	0.45
2:J:31:PHE:CE1	2:J:60:ASN:HB2	2.52	0.45
2:J:89:VAL:O	2:J:93:THR:HG23	2.16	0.45
2:J:265:SER:HA	2:J:268:LYS:HZ3	1.81	0.45
2:L:224:ILE:HD12	2:L:224:ILE:HA	1.89	0.45
2:L:377:LEU:HB3	2:L:378:ASP:H	1.64	0.45
3:N:198:MET:HE2	3:N:198:MET:H	1.82	0.45
3:O:165:LEU:HD12	3:O:226:TYR:HB3	1.99	0.45
3:O:239:ARG:HG3	3:P:111:ARG:NH1	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:S:303:LEU:HD13	3:S:314:VAL:H	1.82	0.45
3:U:179:CYS:O	3:U:210:SER:HB3	2.17	0.45
3:V:132:MET:HE1	3:V:134:TYR:CE1	2.52	0.45
3:X:84:TYR:CD2	3:X:85:LEU:HG	2.52	0.45
1:B:136:ILE:HG12	1:B:242:TYR:CD2	2.52	0.45
1:E:35:MET:HE1	1:E:48:TRP:CZ3	2.52	0.45
1:E:179:TYR:CZ	1:E:181:PRO:HG2	2.52	0.45
1:F:185:ARG:CZ	1:F:205:HIS:HB2	2.47	0.45
2:H:83:ASP:HB3	2:H:87:LEU:HD13	1.97	0.45
2:I:175:VAL:HG23	2:I:176:ILE:HD12	1.97	0.45
2:I:377:LEU:C	2:I:380:ASN:HB2	2.42	0.45
2:J:254:THR:H	2:J:258:LYS:HZ1	1.64	0.45
2:K:403:LYS:HA	2:K:403:LYS:HD2	1.72	0.45
2:K:480:ASP:OD2	2:K:482:LEU:HB2	2.17	0.45
2:K:566:ARG:HB2	2:L:410:GLU:HG3	1.99	0.45
2:L:89:VAL:O	2:L:93:THR:HG23	2.17	0.45
2:L:229:LYS:HG3	2:L:233:TRP:CB	2.47	0.45
3:M:198:MET:H	3:M:198:MET:HE2	1.82	0.45
3:W:146:LEU:HD23	3:W:180:PHE:CE2	2.52	0.45
1:A:148:PHE:HE2	1:A:244:PRO:HD3	1.82	0.45
2:G:46:PHE:HB3	2:G:49:HIS:HB2	1.98	0.45
2:G:139:LEU:HD11	2:G:148:GLY:HA2	1.98	0.45
2:K:344:PHE:O	2:K:348:VAL:HG23	2.17	0.45
2:L:313:ASP:C	2:L:315:TRP:H	2.25	0.45
3:O:95:VAL:HG12	3:O:96:ASP:H	1.82	0.45
3:O:221:LEU:HD11	3:O:226:TYR:CZ	2.51	0.45
3:O:264:MET:O	3:O:268:LYS:HB2	2.17	0.45
3:P:165:LEU:HD12	3:P:226:TYR:HB3	1.99	0.45
3:R:95:VAL:HG12	3:R:96:ASP:H	1.82	0.45
3:S:111:ARG:HH21	3:S:120:LEU:HD12	1.82	0.45
3:S:288:LEU:HD23	3:S:301:ILE:HD13	1.99	0.45
1:A:252:ILE:CG2	2:H:331:ASN:HB3	2.47	0.44
1:B:49:ILE:HB	1:B:97:ASN:ND2	2.32	0.44
1:D:5:VAL:N	1:D:6:PRO:HD2	2.32	0.44
1:E:252:ILE:CG2	2:G:331:ASN:HB3	2.46	0.44
1:F:125:PHE:O	1:F:129:LEU:HD23	2.18	0.44
1:F:138:ASN:OD1	1:F:139:ILE:HD12	2.17	0.44
2:G:198:ARG:HA	2:G:271:ARG:HH21	1.80	0.44
2:G:233:TRP:O	2:G:233:TRP:HD1	1.99	0.44
2:G:374:PHE:HB3	2:G:379:ILE:CG2	2.47	0.44
2:H:2:ASP:O	2:H:6:ARG:HG3	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:520:SER:HA	2:J:10:ILE:HD11	1.99	0.44
2:I:259:ILE:O	2:I:262:TYR:HB3	2.17	0.44
2:K:231:SER:O	2:K:234:VAL:HG12	2.17	0.44
2:K:420:ASN:OD1	2:K:432:VAL:HG13	2.17	0.44
2:L:143:PRO:HB3	2:L:160:LYS:HD3	1.99	0.44
3:M:309:SER:HB3	3:U:308:ILE:CD1	2.44	0.44
3:R:166:TYR:HD2	3:R:247:PHE:HD2	1.65	0.44
3:R:204:ASP:OD1	3:R:205:ILE:HD12	2.17	0.44
3:U:246:TYR:CD2	3:U:303:LEU:HD23	2.52	0.44
3:W:194:VAL:HG13	3:W:197:LEU:HB2	1.99	0.44
3:X:250:TRP:CE2	3:X:254:ASN:ND2	2.85	0.44
1:A:54:ILE:HD11	1:A:106:PHE:HB3	1.99	0.44
1:B:138:ASN:O	1:B:142:TRP:HB3	2.17	0.44
1:F:25:PHE:CE1	1:F:30:LEU:HB2	2.52	0.44
1:F:226:ILE:HD12	1:F:226:ILE:H	1.81	0.44
1:F:253:THR:O	1:F:256:VAL:HG12	2.17	0.44
2:G:560:GLN:O	2:G:561:LEU:C	2.61	0.44
2:H:198:ARG:HD3	2:H:271:ARG:NH2	2.32	0.44
2:H:494:ASP:CG	2:J:407:ILE:HG12	2.42	0.44
2:I:520:SER:HA	2:K:10:ILE:HD11	1.99	0.44
2:J:182:ALA:HB1	2:J:272:VAL:HG21	1.98	0.44
2:J:198:ARG:HD3	2:J:271:ARG:NH2	2.32	0.44
2:L:99:PHE:O	2:L:103:ILE:HG12	2.18	0.44
3:M:164:ILE:O	3:M:167:SER:HB3	2.16	0.44
3:N:166:TYR:HD2	3:N:247:PHE:HD2	1.64	0.44
3:R:264:MET:O	3:R:268:LYS:HB2	2.17	0.44
1:A:106:PHE:CZ	1:F:198:ILE:HD12	2.52	0.44
1:B:33:PRO:HB2	1:B:64:ALA:HB3	1.99	0.44
1:B:266:THR:HG23	1:B:268:SER:H	1.82	0.44
1:C:251:LYS:O	1:C:253:THR:HG23	2.17	0.44
2:G:179:LEU:HD12	2:G:263:ILE:HG21	1.99	0.44
2:I:31:PHE:CE1	2:I:60:ASN:HB2	2.52	0.44
2:I:281:TYR:CG	2:I:281:TYR:O	2.70	0.44
2:J:172:LYS:HG3	2:J:173:LEU:H	1.82	0.44
2:J:233:TRP:CD1	2:J:237:ASN:HB2	2.52	0.44
2:K:31:PHE:CE1	2:K:60:ASN:HB2	2.52	0.44
3:M:280:ASN:C	3:M:282:LEU:N	2.74	0.44
3:N:264:MET:O	3:N:268:LYS:HB2	2.16	0.44
3:Q:198:MET:H	3:Q:198:MET:HE2	1.82	0.44
3:U:263:THR:HG22	3:U:340:PHE:CZ	2.52	0.44
3:V:147:THR:H	3:V:150:VAL:HG22	1.80	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:X:231:HIS:CG	3:X:232:GLY:N	2.86	0.44
1:A:36:LYS:HG3	1:F:16:GLN:HE22	1.82	0.44
1:A:38:THR:HA	1:A:222:ASN:HD21	1.82	0.44
1:C:238:PHE:HD2	1:C:239:LEU:HD22	1.81	0.44
1:D:25:PHE:HE1	1:D:30:LEU:HB2	1.82	0.44
1:D:25:PHE:CE1	1:D:30:LEU:HB2	2.52	0.44
1:E:185:ARG:CZ	1:E:205:HIS:HB2	2.48	0.44
1:E:212:ARG:HG2	1:E:217:TYR:CE2	2.52	0.44
1:F:77:LYS:HD2	2:G:355:PHE:HD2	1.81	0.44
2:J:221:ARG:HD3	2:J:230:THR:HA	1.99	0.44
3:M:264:MET:O	3:M:268:LYS:N	2.50	0.44
3:N:204:ASP:OD1	3:N:205:ILE:HD12	2.17	0.44
3:O:204:ASP:OD1	3:O:205:ILE:HD12	2.17	0.44
3:O:309:SER:HG	3:W:308:ILE:HG22	1.80	0.44
3:Q:164:ILE:O	3:Q:167:SER:HB3	2.16	0.44
3:Q:321:ILE:HD11	3:R:265:ASP:HB3	1.99	0.44
3:T:147:THR:HB	3:T:150:VAL:HG13	1.99	0.44
3:U:187:ARG:HB2	3:U:204:ASP:HB3	1.99	0.44
3:U:264:MET:HE2	3:U:264:MET:HA	1.99	0.44
1:C:266:THR:HG23	1:C:268:SER:H	1.82	0.44
1:F:86:LYS:HG2	2:G:340:ASN:HD21	1.82	0.44
2:G:525:ILE:HD12	2:G:528:LEU:HD12	1.99	0.44
2:J:379:ILE:O	2:J:381:ASN:N	2.51	0.44
2:K:99:PHE:O	2:K:103:ILE:HG12	2.17	0.44
2:K:301:PRO:HD2	2:K:324:LYS:HD2	1.99	0.44
3:M:204:ASP:OD1	3:M:205:ILE:HD12	2.17	0.44
3:N:99:GLU:HG3	3:N:100:MET:N	2.33	0.44
3:P:166:TYR:HD2	3:P:247:PHE:HD2	1.64	0.44
3:Q:166:TYR:HD2	3:Q:247:PHE:HD2	1.64	0.44
3:R:165:LEU:HD12	3:R:226:TYR:HB3	1.99	0.44
3:R:198:MET:H	3:R:198:MET:HE2	1.82	0.44
3:S:281:ARG:HH11	3:S:281:ARG:HG3	1.83	0.44
3:T:161:THR:O	3:T:164:ILE:HB	2.17	0.44
1:A:122:THR:O	1:A:126:ILE:HG13	2.18	0.44
1:B:254:PRO:HA	1:B:257:GLU:HG3	2.00	0.44
1:D:81:LEU:HD22	1:D:117:PHE:CZ	2.53	0.44
2:H:379:ILE:HA	2:H:381:ASN:HD21	1.82	0.44
2:I:62:PHE:CD2	2:I:88:TYR:HA	2.52	0.44
2:I:99:PHE:O	2:I:103:ILE:HG12	2.17	0.44
2:I:503:THR:OG1	2:I:510:LEU:HD21	2.18	0.44
2:J:282:ILE:HG13	2:J:283:PHE:N	2.31	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:558:ILE:HG22	2:J:559:LEU:N	2.32	0.44
2:L:131:GLU:HG3	2:L:132:LEU:N	2.30	0.44
2:L:378:ASP:OD1	2:L:378:ASP:N	2.48	0.44
3:O:176:ASN:HD21	3:W:111:ARG:NH2	2.15	0.44
1:A:19:ILE:H	1:A:19:ILE:HD12	1.83	0.44
1:C:262:LYS:HA	1:C:262:LYS:HD2	1.73	0.44
2:G:322:PHE:HZ	2:G:349:GLN:HB3	1.83	0.44
2:H:553:THR:OG1	2:H:554:ASP:N	2.51	0.44
2:J:281:TYR:O	2:J:281:TYR:CG	2.71	0.44
2:K:282:ILE:HG13	2:K:283:PHE:N	2.32	0.44
2:K:377:LEU:O	2:K:380:ASN:HB2	2.18	0.44
2:L:480:ASP:OD2	2:L:482:LEU:HB2	2.17	0.44
3:N:162:VAL:HG21	3:N:250:TRP:CZ3	2.53	0.44
3:O:304:THR:CG2	3:W:281:ARG:NH1	2.66	0.44
3:P:162:VAL:HG21	3:P:250:TRP:CZ3	2.53	0.44
3:Q:204:ASP:OD1	3:Q:205:ILE:HD12	2.17	0.44
3:R:176:ASN:ND2	3:T:122:LYS:HA	2.33	0.44
3:S:110:VAL:CG2	3:S:118:PHE:HB2	2.47	0.44
3:U:147:THR:HG22	3:U:149:GLN:H	1.83	0.44
3:W:90:TYR:HB3	3:W:135:PHE:O	2.17	0.44
3:W:119:PRO:HD3	3:W:208:VAL:HB	2.00	0.44
3:X:321:ILE:HG23	3:X:322:VAL:HG13	1.99	0.44
1:A:5:VAL:N	1:A:6:PRO:HD2	2.32	0.44
1:A:174:HIS:ND1	1:A:273:LEU:HD11	2.33	0.44
1:C:116:LYS:HG3	2:L:344:PHE:CZ	2.53	0.44
1:D:272:LEU:HG	2:I:345:ARG:NH2	2.33	0.44
2:H:246:ILE:HD12	2:H:246:ILE:H	1.83	0.44
2:H:523:ILE:HD12	2:H:523:ILE:H	1.82	0.44
2:I:393:ASP:C	2:I:395:THR:H	2.26	0.44
2:I:441:LEU:O	2:I:444:ILE:HG22	2.17	0.44
2:J:441:LEU:O	2:J:444:ILE:HG22	2.18	0.44
2:L:263:ILE:O	2:L:267:ILE:HD12	2.18	0.44
2:L:441:LEU:O	2:L:444:ILE:HG22	2.18	0.44
2:L:509:ILE:O	2:L:509:ILE:HG22	2.18	0.44
2:L:523:ILE:H	2:L:523:ILE:HD12	1.83	0.44
3:N:169:TYR:HB2	3:N:226:TYR:HE2	1.83	0.44
3:P:95:VAL:HG12	3:P:96:ASP:H	1.82	0.44
3:S:264:MET:O	3:S:268:LYS:HG2	2.18	0.44
3:V:302:SER:C	3:V:303:LEU:HD12	2.42	0.44
1:A:141:PHE:C	1:A:143:PHE:H	2.26	0.44
1:C:122:THR:O	1:C:126:ILE:HG13	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:248:ILE:HA	1:E:271:GLN:O	2.18	0.44
2:H:313:ASP:C	2:H:315:TRP:H	2.26	0.44
2:I:142:ASN:OD1	2:I:145:PHE:HB2	2.18	0.44
2:J:132:LEU:HG	2:J:457:ASN:HB3	2.00	0.44
2:L:327:PHE:HE2	2:L:345:ARG:HB3	1.83	0.44
2:L:380:ASN:O	2:L:381:ASN:C	2.60	0.44
2:L:470:LEU:HB3	2:L:472:LEU:HD23	2.00	0.44
3:M:99:GLU:HG3	3:M:100:MET:N	2.33	0.44
3:M:165:LEU:HD12	3:M:226:TYR:HB3	1.99	0.44
3:M:169:TYR:HB2	3:M:226:TYR:HE2	1.83	0.44
3:N:309:SER:OG	3:S:308:ILE:HD13	2.18	0.44
3:Q:335:MET:CE	3:U:334:PHE:CZ	2.95	0.44
3:R:160:GLN:HE21	3:R:201:ILE:HD12	1.83	0.44
3:R:178:PHE:HB2	3:R:229:PHE:CE2	2.53	0.44
3:T:166:TYR:HB2	3:T:247:PHE:CD2	2.52	0.44
1:B:140:LEU:HD11	1:B:262:LYS:HB3	1.99	0.43
2:G:132:LEU:HG	2:G:457:ASN:HB3	1.99	0.43
2:G:481:LEU:HD23	2:G:481:LEU:H	1.82	0.43
2:I:110:VAL:HA	2:I:113:LEU:HG	2.00	0.43
2:J:175:VAL:HG21	2:J:260:LEU:HD13	2.00	0.43
2:J:196:ASN:HD21	2:J:389:TYR:N	2.15	0.43
2:K:379:ILE:O	2:K:381:ASN:N	2.50	0.43
3:M:95:VAL:HG12	3:M:96:ASP:H	1.82	0.43
3:N:111:ARG:NH1	3:P:239:ARG:HG3	2.32	0.43
3:O:162:VAL:HG21	3:O:250:TRP:CZ3	2.53	0.43
3:P:169:TYR:HB2	3:P:226:TYR:HE2	1.83	0.43
3:P:290:TYR:CE1	3:P:299:ILE:HG22	2.53	0.43
3:Q:264:MET:O	3:Q:268:LYS:N	2.50	0.43
3:R:176:ASN:HD21	3:T:111:ARG:HH22	1.64	0.43
3:V:264:MET:O	3:V:268:LYS:HG3	2.17	0.43
1:C:201:LYS:HZ1	1:D:104:GLY:HA3	1.83	0.43
1:D:257:GLU:HG2	1:D:258:TYR:N	2.32	0.43
1:E:82:MET:HE1	1:E:142:TRP:HA	1.99	0.43
1:E:226:ILE:H	1:E:226:ILE:HD12	1.83	0.43
1:F:40:LEU:HB2	1:F:219:THR:HG23	1.99	0.43
2:G:10:ILE:CD1	2:J:520:SER:HA	2.47	0.43
2:G:100:SER:O	2:G:104:GLN:HG2	2.17	0.43
2:G:246:ILE:H	2:G:246:ILE:HD12	1.84	0.43
2:H:355:PHE:CD2	2:H:355:PHE:O	2.71	0.43
2:I:379:ILE:CD1	2:I:386:ASN:CA	2.87	0.43
2:J:233:TRP:CD1	2:J:233:TRP:C	2.96	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:K:396:LEU:H	2:K:396:LEU:HD23	1.83	0.43
2:K:427:GLU:HG3	2:K:430:PRO:HG3	2.00	0.43
3:N:178:PHE:HB2	3:N:229:PHE:CE2	2.53	0.43
3:O:267:LEU:HB3	3:O:317:SER:OG	2.19	0.43
3:P:99:GLU:HG3	3:P:100:MET:N	2.33	0.43
3:Q:160:GLN:HE21	3:Q:201:ILE:HD12	1.83	0.43
3:S:282:LEU:O	3:S:282:LEU:HD23	2.18	0.43
3:T:132:MET:SD	3:T:134:TYR:HB2	2.58	0.43
3:U:104:SER:HA	3:U:121:LEU:HD21	1.99	0.43
3:V:110:VAL:HG21	3:V:118:PHE:HB2	2.00	0.43
3:W:316:PHE:HB3	3:W:324:GLU:HB2	2.00	0.43
3:X:270:LYS:HE2	3:X:298:PHE:HE1	1.83	0.43
3:X:311:ASN:HA	3:X:328:PHE:O	2.19	0.43
1:A:201:LYS:HE2	1:A:201:LYS:HA	2.00	0.43
1:D:140:LEU:HD11	1:D:262:LYS:HB3	2.01	0.43
1:D:154:THR:O	1:D:157:ARG:HB2	2.17	0.43
1:F:101:ILE:HD12	1:F:101:ILE:H	1.83	0.43
2:G:62:PHE:CD2	2:G:88:TYR:HA	2.54	0.43
2:G:225:PHE:HA	2:G:226:PRO:HD3	1.82	0.43
2:G:441:LEU:O	2:G:444:ILE:HG22	2.18	0.43
2:I:79:ARG:HG2	2:I:80:HIS:HD2	1.83	0.43
2:J:378:ASP:C	2:J:380:ASN:N	2.74	0.43
2:K:246:ILE:HD12	2:K:246:ILE:H	1.83	0.43
3:M:162:VAL:HG21	3:M:250:TRP:CZ3	2.53	0.43
3:O:166:TYR:HD2	3:O:247:PHE:HD2	1.65	0.43
3:O:290:TYR:CE1	3:O:299:ILE:HG22	2.53	0.43
3:Q:95:VAL:HG12	3:Q:96:ASP:H	1.82	0.43
3:Q:169:TYR:HB2	3:Q:226:TYR:HE2	1.83	0.43
1:D:114:LEU:HA	1:D:117:PHE:HD1	1.83	0.43
1:F:180:LYS:HD2	1:F:218:GLU:CB	2.48	0.43
2:G:172:LYS:HG3	2:G:173:LEU:H	1.83	0.43
2:H:175:VAL:HG21	2:H:260:LEU:HD13	2.01	0.43
2:K:220:PHE:HA	2:K:223:TYR:HD2	1.83	0.43
2:K:441:LEU:O	2:K:444:ILE:HG22	2.18	0.43
2:L:246:ILE:H	2:L:246:ILE:HD12	1.83	0.43
3:M:166:TYR:HD2	3:M:247:PHE:HD2	1.65	0.43
3:M:292:PRO:HD2	3:M:328:PHE:CE2	2.54	0.43
3:O:178:PHE:HB2	3:O:229:PHE:CE2	2.53	0.43
3:O:321:ILE:HG13	3:O:322:VAL:N	2.33	0.43
3:Q:162:VAL:HG21	3:Q:250:TRP:CZ3	2.53	0.43
3:Q:178:PHE:HB2	3:Q:229:PHE:CE2	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Q:335:MET:CE	3:U:334:PHE:HZ	2.26	0.43
3:R:267:LEU:HB3	3:R:317:SER:OG	2.19	0.43
3:V:132:MET:HE1	3:V:134:TYR:HE1	1.82	0.43
1:B:19:ILE:HD12	1:B:22:GLN:HE22	1.83	0.43
1:B:49:ILE:HB	1:B:97:ASN:HD21	1.83	0.43
1:B:171:ARG:HG3	1:B:171:ARG:HH11	1.82	0.43
1:D:252:ILE:CG2	2:I:331:ASN:HB3	2.48	0.43
1:F:59:TYR:HH	1:F:125:PHE:HE2	1.65	0.43
2:G:165:THR:O	2:G:166:ASP:HB2	2.19	0.43
2:H:8:TYR:CD2	2:H:42:LEU:HD21	2.53	0.43
2:J:221:ARG:NH1	2:J:227:GLY:O	2.52	0.43
2:J:305:LEU:O	2:J:308:ILE:HG12	2.18	0.43
2:K:276:MET:HE2	2:K:276:MET:N	2.34	0.43
2:K:371:ILE:O	2:K:373:ARG:N	2.52	0.43
2:L:136:ASN:OD1	2:L:138:ASP:HB2	2.19	0.43
3:M:160:GLN:HE21	3:M:201:ILE:HD12	1.83	0.43
3:M:321:ILE:HG13	3:M:322:VAL:N	2.33	0.43
3:N:264:MET:O	3:N:268:LYS:N	2.50	0.43
3:O:327:ASP:OD2	3:W:279:VAL:CG1	2.59	0.43
3:P:178:PHE:HB2	3:P:229:PHE:CE2	2.53	0.43
3:R:195:ASN:HB3	3:R:288:LEU:HD21	2.01	0.43
3:S:111:ARG:NH2	3:S:120:LEU:HD12	2.33	0.43
3:T:144:VAL:O	3:T:181:ASP:HB2	2.19	0.43
2:G:233:TRP:CD1	2:G:233:TRP:C	2.97	0.43
2:G:315:TRP:CH2	2:G:359:ARG:HB3	2.54	0.43
2:G:377:LEU:O	2:G:380:ASN:HB2	2.19	0.43
2:I:4:ILE:HD13	2:I:37:LEU:HG	2.01	0.43
2:J:50:VAL:HG13	2:J:51:ILE:HG13	2.00	0.43
2:K:376:GLU:O	2:K:377:LEU:C	2.62	0.43
3:M:178:PHE:HB2	3:M:229:PHE:CE2	2.53	0.43
3:O:292:PRO:HD2	3:O:328:PHE:CE2	2.54	0.43
3:P:338:GLU:HG3	3:P:339:MET:H	1.84	0.43
3:Q:264:MET:HB3	3:Q:268:LYS:HG3	2.00	0.43
3:Q:292:PRO:HD2	3:Q:328:PHE:CE2	2.54	0.43
3:S:144:VAL:O	3:S:181:ASP:HB2	2.19	0.43
3:U:312:VAL:O	3:U:327:ASP:HA	2.18	0.43
3:X:321:ILE:HG12	3:X:322:VAL:H	1.83	0.43
1:D:101:ILE:H	1:D:101:ILE:HD12	1.83	0.43
1:D:252:ILE:HG23	2:I:331:ASN:HB3	2.01	0.43
1:F:80:PHE:CZ	2:G:361:MET:HE3	2.54	0.43
2:G:196:ASN:HD21	2:G:389:TYR:N	2.15	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:99:PHE:O	2:H:103:ILE:HG12	2.18	0.43
2:H:403:LYS:HA	2:H:403:LYS:HD2	1.85	0.43
2:J:302:GLY:HA2	2:J:329:ASN:HB3	2.01	0.43
2:K:381:ASN:C	2:K:383:TYR:N	2.75	0.43
2:L:179:LEU:HD12	2:L:263:ILE:HG21	2.00	0.43
3:O:169:TYR:HB2	3:O:226:TYR:HE2	1.83	0.43
3:O:338:GLU:HG3	3:O:339:MET:H	1.84	0.43
3:P:234:GLU:OE1	3:P:234:GLU:N	2.52	0.43
3:P:267:LEU:HB3	3:P:317:SER:OG	2.19	0.43
3:Q:321:ILE:HG13	3:Q:322:VAL:N	2.33	0.43
3:R:162:VAL:HG21	3:R:250:TRP:CZ3	2.53	0.43
3:R:169:TYR:HB2	3:R:226:TYR:HE2	1.83	0.43
3:U:90:TYR:HB3	3:U:135:PHE:O	2.19	0.43
3:V:184:SER:HA	3:V:205:ILE:HD12	1.99	0.43
3:W:182:LEU:HD23	3:W:205:ILE:HG12	2.00	0.43
1:A:171:ARG:HA	1:A:171:ARG:HD2	1.53	0.43
1:D:226:ILE:H	1:D:226:ILE:HD12	1.83	0.43
1:F:81:LEU:HD22	1:F:117:PHE:CE2	2.53	0.43
1:F:251:LYS:HB3	1:F:251:LYS:HE2	1.83	0.43
2:G:51:ILE:HG23	2:G:56:LEU:HD23	2.01	0.43
2:G:136:ASN:HA	2:G:461:TYR:CE2	2.54	0.43
2:H:554:ASP:O	2:H:555:LYS:C	2.62	0.43
2:K:521:TYR:CE2	2:L:6:ARG:HG2	2.54	0.43
2:L:396:LEU:HD23	2:L:396:LEU:H	1.84	0.43
3:M:321:ILE:HD11	3:Q:265:ASP:HB3	1.99	0.43
3:N:160:GLN:HE21	3:N:201:ILE:HD12	1.83	0.43
3:N:165:LEU:HD12	3:N:226:TYR:HB3	1.99	0.43
3:N:234:GLU:N	3:N:234:GLU:OE1	2.52	0.43
3:Q:165:LEU:HD12	3:Q:226:TYR:HB3	1.99	0.43
3:R:99:GLU:HG3	3:R:100:MET:N	2.33	0.43
3:R:264:MET:HB3	3:R:268:LYS:HG3	2.00	0.43
3:W:282:LEU:HD11	3:W:289:VAL:HG11	2.01	0.43
1:B:80:PHE:CZ	2:H:361:MET:HE3	2.53	0.43
1:B:84:LEU:HB3	2:H:340:ASN:OD1	2.19	0.43
1:B:179:TYR:CD1	1:B:182:LEU:HB2	2.53	0.43
1:B:231:LYS:HA	1:B:231:LYS:HD3	1.76	0.43
1:E:106:PHE:HD2	1:E:107:SER:H	1.66	0.43
2:G:559:LEU:O	2:G:562:ILE:HG12	2.19	0.43
2:H:110:VAL:O	2:H:113:LEU:HG	2.19	0.43
2:H:377:LEU:CA	2:H:380:ASN:HB2	2.49	0.43
2:I:27:LYS:HZ1	2:I:39:LEU:H	1.67	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:89:VAL:O	2:I:93:THR:HG23	2.19	0.43
2:I:559:LEU:O	2:I:562:ILE:HG12	2.18	0.43
2:J:287:LYS:O	2:J:290:ARG:HG2	2.18	0.43
2:J:376:GLU:C	2:J:380:ASN:H	2.26	0.43
2:K:433:ILE:HD13	2:K:438:LEU:HD22	2.01	0.43
2:K:520:SER:HA	2:L:10:ILE:CD1	2.48	0.43
3:N:292:PRO:HD2	3:N:328:PHE:CE2	2.54	0.43
3:N:321:ILE:HG13	3:N:322:VAL:N	2.33	0.43
3:O:73:CYS:O	3:O:76:GLU:HG2	2.19	0.43
3:O:160:GLN:HE21	3:O:201:ILE:HD12	1.83	0.43
3:P:280:ASN:C	3:P:282:LEU:N	2.74	0.43
3:Q:195:ASN:HB3	3:Q:288:LEU:HD21	2.01	0.43
3:T:84:TYR:CD2	3:T:85:LEU:HG	2.54	0.43
1:F:145:ASN:CG	1:F:146:THR:N	2.75	0.43
1:F:171:ARG:HG3	1:F:171:ARG:NH1	2.34	0.43
2:G:229:LYS:HD3	2:G:229:LYS:HA	1.86	0.43
2:I:376:GLU:HB3	2:I:380:ASN:HA	2.01	0.43
2:K:164:LYS:HD2	2:K:164:LYS:C	2.44	0.43
2:L:79:ARG:HG2	2:L:80:HIS:HD2	1.83	0.43
2:L:566:ARG:NH1	2:L:567:SER:OXT	2.52	0.43
3:M:219:THR:CG2	3:U:101:SER:HB2	2.49	0.43
3:M:267:LEU:HB3	3:M:317:SER:OG	2.19	0.43
3:N:290:TYR:CE1	3:N:299:ILE:HG22	2.53	0.43
3:O:195:ASN:HB3	3:O:288:LEU:HD21	2.00	0.43
3:R:197:LEU:HD22	3:R:248:PHE:CZ	2.53	0.43
3:S:118:PHE:CE1	3:S:164:ILE:HG23	2.54	0.43
3:W:190:ILE:HG13	3:W:192:PHE:HD1	1.84	0.43
3:W:279:VAL:HA	3:W:330:ILE:HG21	2.01	0.43
1:B:16:GLN:NE2	1:C:36:LYS:HE3	2.34	0.42
1:C:170:ALA:HA	1:C:173:MET:HB3	2.01	0.42
1:C:179:TYR:CD1	1:C:181:PRO:HD2	2.54	0.42
1:D:138:ASN:OD1	1:D:139:ILE:HD12	2.18	0.42
1:E:201:LYS:HA	1:E:201:LYS:HE2	2.00	0.42
2:G:115:GLN:NE2	2:I:391:VAL:HG13	2.34	0.42
2:G:142:ASN:OD1	2:G:145:PHE:HB2	2.18	0.42
2:G:171:LYS:HD2	2:G:172:LYS:O	2.19	0.42
2:H:59:THR:OG1	2:H:91:ALA:HB1	2.19	0.42
2:H:391:VAL:HG21	2:L:114:THR:O	2.19	0.42
2:I:305:LEU:O	2:I:308:ILE:HG12	2.19	0.42
2:I:531:ARG:HD2	2:K:407:ILE:O	2.19	0.42
2:J:429:ASP:OD1	2:J:441:LEU:HB3	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:K:509:ILE:HG22	2:K:509:ILE:O	2.19	0.42
2:L:135:VAL:HG23	2:L:136:ASN:N	2.34	0.42
2:L:387:ILE:H	2:L:392:ASN:ND2	2.17	0.42
3:N:73:CYS:O	3:N:76:GLU:HG2	2.19	0.42
3:O:99:GLU:HG3	3:O:100:MET:N	2.33	0.42
3:O:234:GLU:OE1	3:O:234:GLU:N	2.52	0.42
3:O:309:SER:HB3	3:W:308:ILE:HG21	2.00	0.42
3:P:73:CYS:O	3:P:76:GLU:HG2	2.19	0.42
3:P:204:ASP:OD1	3:P:205:ILE:HD12	2.17	0.42
3:Q:99:GLU:HG3	3:Q:100:MET:N	2.33	0.42
3:R:338:GLU:HG3	3:R:339:MET:H	1.84	0.42
1:C:148:PHE:CD2	1:C:150:ILE:HD13	2.54	0.42
1:D:182:LEU:HD21	1:E:110:TYR:CE1	2.54	0.42
2:H:145:PHE:HZ	2:H:422:TYR:CD2	2.34	0.42
2:H:376:GLU:C	2:H:380:ASN:H	2.27	0.42
2:H:559:LEU:C	2:H:561:LEU:N	2.77	0.42
2:I:121:GLU:O	2:I:125:TYR:HD1	2.02	0.42
2:J:62:PHE:CD2	2:J:88:TYR:HA	2.54	0.42
2:J:561:LEU:HD22	2:J:565:GLY:O	2.19	0.42
3:M:311:ASN:OD1	3:U:280:ASN:ND2	2.51	0.42
3:N:338:GLU:HG3	3:N:339:MET:H	1.84	0.42
3:P:160:GLN:HE21	3:P:201:ILE:HD12	1.83	0.42
3:P:292:PRO:HD2	3:P:328:PHE:CE2	2.54	0.42
3:Q:197:LEU:HD22	3:Q:248:PHE:CZ	2.53	0.42
3:T:235:THR:HB	3:T:236:ILE:HD12	2.01	0.42
3:U:107:SER:HB2	3:U:120:LEU:HD12	2.01	0.42
3:W:91:MET:HB3	3:W:135:PHE:CZ	2.54	0.42
1:A:81:LEU:HD21	2:J:344:PHE:CE1	2.53	0.42
1:D:238:PHE:HD2	1:D:239:LEU:HD22	1.84	0.42
1:E:198:ILE:HA	1:F:106:PHE:CZ	2.54	0.42
2:G:281:TYR:O	2:G:281:TYR:CG	2.72	0.42
2:I:282:ILE:HG13	2:I:283:PHE:N	2.33	0.42
2:K:4:ILE:HD13	2:K:37:LEU:HG	2.01	0.42
2:K:327:PHE:CZ	2:K:345:ARG:HB3	2.55	0.42
2:L:563:ARG:HG3	2:L:563:ARG:O	2.18	0.42
3:M:234:GLU:OE1	3:M:234:GLU:N	2.52	0.42
3:M:313:ARG:NE	3:U:281:ARG:NH2	2.67	0.42
3:N:95:VAL:HG12	3:N:96:ASP:H	1.82	0.42
3:N:264:MET:HB3	3:N:268:LYS:HG3	2.00	0.42
3:N:267:LEU:HB3	3:N:317:SER:OG	2.19	0.42
3:O:219:THR:HG21	3:W:101:SER:HB3	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Q:267:LEU:HB3	3:Q:317:SER:OG	2.19	0.42
3:R:321:ILE:HG13	3:R:322:VAL:N	2.33	0.42
3:V:84:TYR:CD2	3:V:85:LEU:HG	2.54	0.42
1:B:238:PHE:HD2	1:B:239:LEU:HD22	1.84	0.42
1:D:38:THR:HA	1:D:222:ASN:HD21	1.84	0.42
1:F:81:LEU:HD21	2:G:344:PHE:HE1	1.84	0.42
2:G:377:LEU:C	2:G:379:ILE:N	2.75	0.42
2:G:563:ARG:HG3	2:G:563:ARG:O	2.20	0.42
2:I:4:ILE:HG12	2:I:38:ALA:HA	2.00	0.42
2:I:347:VAL:HB	2:I:355:PHE:CE1	2.54	0.42
2:J:4:ILE:HG12	2:J:38:ALA:HA	2.01	0.42
2:J:115:GLN:NE2	2:J:115:GLN:HA	2.33	0.42
2:K:136:ASN:HA	2:K:461:TYR:CE2	2.54	0.42
2:K:277:LEU:HG	2:K:293:LEU:HD23	2.02	0.42
2:L:146:HIS:HB3	2:L:151:ILE:HD11	2.00	0.42
2:L:281:TYR:O	2:L:281:TYR:CG	2.73	0.42
2:L:315:TRP:CH2	2:L:359:ARG:HB3	2.55	0.42
2:L:337:ARG:HG3	2:L:338:THR:HG23	2.02	0.42
3:O:197:LEU:HD22	3:O:248:PHE:CZ	2.53	0.42
3:Q:225:CYS:HG	3:V:105:GLU:CD	2.21	0.42
3:R:238:ARG:HD2	3:R:238:ARG:HA	1.87	0.42
3:R:292:PRO:HD2	3:R:328:PHE:CE2	2.54	0.42
3:V:104:SER:HA	3:V:121:LEU:HD21	2.01	0.42
3:X:94:GLN:HA	3:X:132:MET:HA	2.01	0.42
3:X:203:THR:HG22	3:X:205:ILE:H	1.84	0.42
1:A:115:ARG:O	1:A:118:SER:CB	2.64	0.42
1:D:44:TYR:HB3	1:D:94:GLU:HG2	2.01	0.42
1:D:201:LYS:HE2	1:D:201:LYS:HA	2.01	0.42
1:D:231:LYS:HA	1:D:231:LYS:HD3	1.75	0.42
1:F:35:MET:HG3	1:F:39:TYR:CE1	2.55	0.42
2:G:50:VAL:O	2:G:51:ILE:HB	2.19	0.42
2:G:99:PHE:O	2:G:103:ILE:HG12	2.18	0.42
2:G:154:MET:HE2	2:G:438:LEU:HD23	2.00	0.42
2:G:205:PHE:HA	2:G:208:THR:HG22	2.00	0.42
2:H:39:LEU:O	2:H:43:VAL:HG22	2.18	0.42
2:H:441:LEU:O	2:H:444:ILE:HG22	2.18	0.42
2:J:322:PHE:CE1	2:J:349:GLN:HG3	2.55	0.42
2:K:139:LEU:HD11	2:K:148:GLY:HA2	2.01	0.42
2:L:50:VAL:O	2:L:51:ILE:HB	2.19	0.42
2:L:136:ASN:HA	2:L:461:TYR:CE2	2.54	0.42
2:L:361:MET:HA	2:L:361:MET:HE3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:M:195:ASN:HB3	3:M:288:LEU:HD21	2.00	0.42
3:N:195:ASN:HB3	3:N:288:LEU:HD21	2.01	0.42
3:Q:335:MET:HE3	3:U:334:PHE:CE2	2.54	0.42
3:R:73:CYS:O	3:R:76:GLU:HG2	2.19	0.42
3:R:264:MET:O	3:R:268:LYS:N	2.50	0.42
3:S:311:ASN:H	3:S:330:ILE:HG13	1.84	0.42
3:V:121:LEU:HD23	3:V:121:LEU:H	1.84	0.42
3:X:165:LEU:HD21	3:X:226:TYR:C	2.44	0.42
1:A:23:GLU:HB3	1:A:28:ARG:NH1	2.33	0.42
1:B:25:PHE:CD2	1:B:26:PHE:HD1	2.38	0.42
1:C:92:TYR:HE2	1:C:153:HIS:CD2	2.37	0.42
1:C:172:TYR:HE2	1:C:183:PHE:CZ	2.38	0.42
1:C:248:ILE:HA	1:C:271:GLN:O	2.19	0.42
1:F:170:ALA:HA	1:F:173:MET:HB3	2.02	0.42
1:F:231:LYS:HA	1:F:231:LYS:HD3	1.76	0.42
2:G:229:LYS:HE2	2:I:311:LYS:C	2.45	0.42
2:H:315:TRP:CH2	2:H:359:ARG:HB3	2.54	0.42
2:I:246:ILE:H	2:I:246:ILE:HD12	1.84	0.42
2:J:136:ASN:HA	2:J:461:TYR:CE2	2.55	0.42
2:L:404:LYS:HA	2:L:404:LYS:HD3	1.83	0.42
3:M:73:CYS:O	3:M:76:GLU:HG2	2.19	0.42
3:O:226:TYR:HD2	3:O:247:PHE:HZ	1.67	0.42
3:O:262:GLN:C	3:O:265:ASP:H	2.28	0.42
3:P:262:GLN:C	3:P:265:ASP:H	2.28	0.42
3:P:321:ILE:HG13	3:P:322:VAL:N	2.33	0.42
3:R:290:TYR:CE1	3:R:299:ILE:HG22	2.53	0.42
3:U:121:LEU:HB2	3:U:134:TYR:O	2.19	0.42
3:U:231:HIS:HE1	3:U:243:HIS:HA	1.83	0.42
3:U:270:LYS:HE2	3:U:298:PHE:CE1	2.55	0.42
2:G:138:ASP:OD1	2:G:140:VAL:HG13	2.19	0.42
2:I:404:LYS:HD3	2:I:404:LYS:HA	1.85	0.42
2:I:557:TYR:O	2:I:558:ILE:C	2.62	0.42
2:J:94:LYS:HB3	2:J:94:LYS:HE2	1.75	0.42
2:J:301:PRO:HD2	2:J:324:LYS:HD2	2.02	0.42
2:K:110:VAL:HA	2:K:113:LEU:HG	2.01	0.42
2:L:173:LEU:O	2:L:177:ARG:HG3	2.19	0.42
3:M:79:TYR:CG	3:N:151:LYS:NZ	2.73	0.42
3:M:264:MET:HB3	3:M:268:LYS:HG3	2.00	0.42
3:M:290:TYR:CE1	3:M:299:ILE:HG22	2.53	0.42
3:Q:102:CYS:O	3:Q:105:GLU:HG3	2.20	0.42
3:Q:290:TYR:CE1	3:Q:299:ILE:HG22	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:R:226:TYR:HD2	3:R:247:PHE:HZ	1.67	0.42
3:R:234:GLU:OE1	3:R:234:GLU:N	2.52	0.42
3:T:342:ARG:HA	3:T:342:ARG:HD2	1.82	0.42
3:U:123:ALA:HB3	3:U:134:TYR:CD2	2.54	0.42
3:W:118:PHE:CE2	3:W:164:ILE:HG23	2.55	0.42
3:X:340:PHE:CG	3:X:341:VAL:N	2.87	0.42
1:A:171:ARG:HD3	1:B:116:LYS:HE2	2.01	0.42
1:A:203:ILE:HG23	1:A:203:ILE:O	2.19	0.42
1:B:262:LYS:HA	1:B:262:LYS:HD2	1.74	0.42
1:C:205:HIS:HD2	1:C:207:ASN:HB3	1.84	0.42
1:D:81:LEU:HD21	2:K:344:PHE:CE1	2.54	0.42
1:E:79:GLU:HG2	1:E:141:PHE:CE2	2.55	0.42
1:F:262:LYS:HA	1:F:262:LYS:HD2	1.87	0.42
2:G:459:LEU:O	2:G:463:LEU:HD23	2.20	0.42
2:J:118:LYS:O	2:J:122:VAL:HG22	2.20	0.42
2:K:375:ASP:O	2:K:376:GLU:C	2.62	0.42
2:K:401:ASP:O	2:K:402:MET:HE2	2.20	0.42
2:K:429:ASP:OD1	2:K:441:LEU:HB3	2.20	0.42
3:Q:234:GLU:OE1	3:Q:234:GLU:N	2.52	0.42
3:R:262:GLN:O	3:R:263:THR:C	2.63	0.42
3:R:308:ILE:HG13	3:R:309:SER:N	2.35	0.42
3:S:301:ILE:HD12	3:S:301:ILE:HA	1.87	0.42
3:U:144:VAL:O	3:U:181:ASP:HB2	2.19	0.42
3:V:175:SER:HB3	3:V:178:PHE:HE1	1.85	0.42
3:W:179:CYS:O	3:W:210:SER:HB3	2.18	0.42
3:X:144:VAL:O	3:X:181:ASP:HB2	2.20	0.42
3:X:158:ILE:HD12	3:X:161:THR:OG1	2.20	0.42
1:A:149:ASP:HB3	1:A:152:LYS:HB3	2.01	0.42
1:E:19:ILE:HD11	1:F:102:ALA:HB2	2.02	0.42
1:F:5:VAL:N	1:F:6:PRO:HD2	2.35	0.42
1:F:179:TYR:CZ	1:F:181:PRO:HG2	2.54	0.42
2:G:146:HIS:HB3	2:G:151:ILE:HD11	2.01	0.42
2:H:142:ASN:OD1	2:H:145:PHE:HB2	2.19	0.42
2:H:410:GLU:HG3	2:L:566:ARG:HB2	2.02	0.42
2:J:381:ASN:C	2:J:383:TYR:N	2.76	0.42
2:K:255:MET:H	2:K:258:LYS:CE	2.30	0.42
2:L:110:VAL:HA	2:L:113:LEU:HG	2.01	0.42
3:N:102:CYS:O	3:N:105:GLU:HG3	2.20	0.42
3:N:272:LYS:HB2	3:N:272:LYS:HE3	1.24	0.42
3:O:309:SER:CB	3:W:308:ILE:CG2	2.98	0.42
3:P:264:MET:HB3	3:P:268:LYS:HG3	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:264:MET:O	3:P:268:LYS:N	2.50	0.42
3:Q:338:GLU:HG3	3:Q:339:MET:H	1.84	0.42
3:R:102:CYS:O	3:R:105:GLU:HG3	2.20	0.42
3:R:262:GLN:C	3:R:265:ASP:H	2.28	0.42
3:U:106:LEU:HD13	3:U:106:LEU:HA	1.94	0.42
3:U:321:ILE:HG12	3:U:322:VAL:H	1.83	0.42
3:V:326:GLU:HG3	3:V:328:PHE:CE2	2.55	0.42
3:X:161:THR:HA	3:X:164:ILE:HD12	2.02	0.42
1:A:126:ILE:O	1:A:130:LEU:HD23	2.20	0.42
1:A:180:LYS:HE2	1:A:180:LYS:HB2	1.95	0.42
1:F:54:ILE:HD11	1:F:106:PHE:HB3	2.02	0.42
2:G:509:ILE:O	2:G:509:ILE:HG22	2.19	0.42
2:G:520:SER:HA	2:I:10:ILE:CD1	2.50	0.42
2:H:4:ILE:HG12	2:H:38:ALA:HA	2.02	0.42
2:H:282:ILE:HG13	2:H:283:PHE:N	2.34	0.42
2:H:404:LYS:HA	2:H:404:LYS:HD3	1.84	0.42
2:I:39:LEU:O	2:I:43:VAL:HG22	2.20	0.42
2:I:343:LEU:O	2:I:347:VAL:HG22	2.20	0.42
2:J:376:GLU:HG2	2:J:383:TYR:CE1	2.55	0.42
2:J:433:ILE:HD13	2:J:438:LEU:HD22	2.02	0.42
2:K:36:VAL:HG13	2:K:64:PHE:CE1	2.55	0.42
2:K:225:PHE:HA	2:K:226:PRO:HD3	1.83	0.42
2:L:132:LEU:HG	2:L:457:ASN:HB3	2.01	0.42
3:M:102:CYS:O	3:M:105:GLU:HG3	2.20	0.42
3:M:197:LEU:HD22	3:M:248:PHE:CZ	2.53	0.42
3:M:338:GLU:HG3	3:M:339:MET:H	1.84	0.42
3:Q:106:LEU:O	3:Q:110:VAL:HG23	2.20	0.42
3:V:174:TYR:HD1	3:V:226:TYR:HE1	1.68	0.42
1:B:64:ALA:O	1:B:65:SER:O	2.38	0.41
1:B:169:LEU:HD13	1:B:186:LEU:HD23	2.02	0.41
1:C:97:ASN:HA	1:C:105:SER:HB3	2.01	0.41
1:C:200:ILE:H	1:D:106:PHE:HZ	1.68	0.41
1:E:5:VAL:N	1:E:6:PRO:HD2	2.35	0.41
2:G:156:ILE:HD13	2:G:396:LEU:HD12	2.02	0.41
2:G:525:ILE:HG13	2:G:529:PHE:CE2	2.55	0.41
2:H:51:ILE:HG23	2:H:56:LEU:HD23	2.01	0.41
2:H:459:LEU:O	2:H:463:LEU:HD23	2.19	0.41
2:I:31:PHE:HE1	2:I:60:ASN:HB2	1.84	0.41
2:I:384:ILE:HD13	2:I:396:LEU:HD11	2.02	0.41
2:I:474:LEU:HD21	2:I:484:LYS:HG2	2.02	0.41
2:J:276:MET:HE2	2:J:276:MET:N	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:309:ASP:OD2	2:J:311:LYS:HG2	2.18	0.41
2:J:322:PHE:HE1	2:J:349:GLN:HG3	1.85	0.41
2:K:118:LYS:O	2:K:122:VAL:HG22	2.20	0.41
2:K:265:SER:HA	2:K:268:LYS:HZ2	1.85	0.41
2:L:125:TYR:CD1	2:L:451:LEU:HB3	2.55	0.41
2:L:196:ASN:HD21	2:L:389:TYR:H	1.68	0.41
2:L:343:LEU:O	2:L:344:PHE:C	2.63	0.41
2:L:459:LEU:O	2:L:463:LEU:HD23	2.20	0.41
3:M:239:ARG:HG3	3:Q:111:ARG:HH22	1.84	0.41
3:N:308:ILE:HG13	3:N:309:SER:N	2.35	0.41
3:O:264:MET:HB3	3:O:268:LYS:HG3	2.00	0.41
3:P:226:TYR:HD2	3:P:247:PHE:HZ	1.67	0.41
3:Q:308:ILE:HG13	3:Q:309:SER:N	2.35	0.41
3:S:279:VAL:HG13	3:S:330:ILE:HG21	2.02	0.41
3:T:306:VAL:HG23	3:T:308:ILE:HG13	2.02	0.41
1:A:82:MET:HE3	1:A:142:TRP:HE3	1.86	0.41
1:C:64:ALA:O	1:C:65:SER:O	2.37	0.41
1:D:200:ILE:O	1:D:201:LYS:HE2	2.20	0.41
1:F:42:ASP:HB3	1:F:45:ALA:HB2	2.02	0.41
1:F:160:TYR:HA	1:F:166:HIS:CE1	2.55	0.41
2:G:10:ILE:HD11	2:J:520:SER:HA	2.01	0.41
2:H:377:LEU:O	2:H:380:ASN:HB2	2.20	0.41
2:I:4:ILE:HG21	2:I:38:ALA:HA	2.01	0.41
2:I:276:MET:N	2:I:276:MET:HE2	2.35	0.41
2:J:39:LEU:O	2:J:43:VAL:HG22	2.21	0.41
2:J:246:ILE:H	2:J:246:ILE:HD12	1.84	0.41
2:J:381:ASN:O	2:J:384:ILE:N	2.36	0.41
2:J:540:VAL:HG22	2:J:544:LEU:HD23	2.02	0.41
2:K:263:ILE:O	2:K:267:ILE:HD12	2.21	0.41
3:N:262:GLN:C	3:N:265:ASP:H	2.28	0.41
3:O:264:MET:O	3:O:268:LYS:N	2.50	0.41
3:O:308:ILE:HG13	3:O:309:SER:N	2.35	0.41
3:P:106:LEU:O	3:P:110:VAL:HG23	2.20	0.41
3:P:195:ASN:HB3	3:P:288:LEU:HD21	2.01	0.41
3:Q:262:GLN:O	3:Q:263:THR:C	2.63	0.41
3:T:184:SER:HA	3:T:205:ILE:HD12	2.02	0.41
3:T:236:ILE:HG22	3:T:236:ILE:O	2.20	0.41
3:V:113:ARG:O	3:V:113:ARG:HD3	2.20	0.41
3:W:238:ARG:HG2	3:W:239:ARG:N	2.34	0.41
3:X:302:SER:C	3:X:303:LEU:HD12	2.45	0.41
1:A:158:TYR:CE2	1:A:212:ARG:HD2	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:178:ASP:HB2	1:B:221:ALA:HB1	2.01	0.41
1:D:179:TYR:CE2	1:D:181:PRO:HG2	2.54	0.41
2:G:83:ASP:OD2	2:G:87:LEU:HD13	2.20	0.41
2:G:478:LYS:HA	2:G:478:LYS:HD2	1.86	0.41
2:G:561:LEU:O	2:G:562:ILE:C	2.62	0.41
2:H:374:PHE:C	2:H:376:GLU:N	2.78	0.41
2:H:566:ARG:NH1	2:H:567:SER:OXT	2.52	0.41
2:I:50:VAL:O	2:I:51:ILE:HB	2.21	0.41
2:J:263:ILE:O	2:J:267:ILE:HD12	2.21	0.41
2:L:4:ILE:HG21	2:L:38:ALA:HA	2.02	0.41
3:N:339:MET:HG3	3:P:323:LEU:O	2.21	0.41
3:O:102:CYS:O	3:O:105:GLU:HG3	2.20	0.41
3:O:106:LEU:O	3:O:110:VAL:HG23	2.20	0.41
3:P:290:TYR:CD1	3:P:299:ILE:HG22	2.56	0.41
3:W:84:TYR:CD2	3:W:85:LEU:HG	2.55	0.41
1:A:82:MET:HE2	1:A:142:TRP:HA	2.02	0.41
1:A:251:LYS:O	1:A:253:THR:HG23	2.20	0.41
1:A:253:THR:O	1:A:256:VAL:HG12	2.20	0.41
1:E:121:PRO:HG2	1:E:124:GLU:OE1	2.20	0.41
2:H:481:LEU:HD23	2:H:481:LEU:H	1.85	0.41
2:L:62:PHE:CD2	2:L:88:TYR:HA	2.55	0.41
3:M:262:GLN:O	3:M:263:THR:C	2.63	0.41
3:M:262:GLN:C	3:M:265:ASP:H	2.28	0.41
3:M:272:LYS:HE3	3:M:272:LYS:HB2	1.24	0.41
3:M:311:ASN:CG	3:U:280:ASN:CG	2.88	0.41
3:O:101:SER:CA	3:T:342:ARG:NE	2.64	0.41
3:O:290:TYR:CD1	3:O:299:ILE:HG22	2.56	0.41
3:P:197:LEU:HD22	3:P:248:PHE:CZ	2.53	0.41
3:Q:262:GLN:C	3:Q:265:ASP:H	2.28	0.41
3:V:284:GLU:HB2	3:V:285:PRO:HD3	2.02	0.41
3:W:339:MET:HG2	3:W:339:MET:O	2.20	0.41
1:B:19:ILE:HG22	1:B:20:LEU:N	2.36	0.41
1:B:35:MET:HE1	1:B:48:TRP:CE3	2.55	0.41
1:B:140:LEU:HD11	1:B:262:LYS:CB	2.50	0.41
1:D:140:LEU:HD11	1:D:262:LYS:CB	2.50	0.41
1:E:144:LYS:HG3	1:E:145:ASN:N	2.35	0.41
1:F:252:ILE:CG2	2:J:331:ASN:HB3	2.50	0.41
2:G:233:TRP:CD1	2:G:237:ASN:HB2	2.55	0.41
2:H:10:ILE:CD1	2:L:520:SER:HA	2.50	0.41
2:H:39:LEU:HD23	2:H:64:PHE:CD1	2.55	0.41
2:H:118:LYS:O	2:H:122:VAL:HG22	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:376:GLU:O	2:H:379:ILE:N	2.53	0.41
2:I:315:TRP:CH2	2:I:359:ARG:HB3	2.55	0.41
2:J:220:PHE:HA	2:J:223:TYR:HD2	1.85	0.41
2:J:277:LEU:HG	2:J:293:LEU:HD23	2.03	0.41
2:J:515:LYS:HA	2:J:515:LYS:HD2	1.90	0.41
2:K:4:ILE:HG21	2:K:38:ALA:HA	2.02	0.41
2:K:287:LYS:O	2:K:290:ARG:HG2	2.21	0.41
2:K:503:THR:OG1	2:K:510:LEU:HD21	2.20	0.41
2:L:221:ARG:HA	2:L:224:ILE:HG22	2.02	0.41
2:L:327:PHE:CE2	2:L:345:ARG:HB3	2.55	0.41
3:P:308:ILE:HG13	3:P:309:SER:N	2.35	0.41
3:R:106:LEU:O	3:R:110:VAL:HG23	2.20	0.41
3:T:230:ILE:HG13	3:T:236:ILE:HD11	2.03	0.41
3:U:135:PHE:CZ	3:U:211:ILE:HG21	2.55	0.41
3:W:143:VAL:HG12	3:W:183:VAL:HG13	2.03	0.41
1:B:44:TYR:CE2	1:B:153:HIS:HA	2.55	0.41
1:B:67:TYR:O	1:B:68:TYR:HB2	2.21	0.41
1:D:22:GLN:O	1:D:22:GLN:HG2	2.20	0.41
1:D:51:GLU:H	1:D:97:ASN:HD21	1.66	0.41
1:F:19:ILE:HG22	1:F:20:LEU:N	2.35	0.41
1:F:70:ILE:HD13	1:F:74:LEU:HD23	2.03	0.41
2:G:136:ASN:O	2:G:458:ILE:HD12	2.19	0.41
2:I:36:VAL:HG13	2:I:64:PHE:CE1	2.56	0.41
2:I:229:LYS:NZ	2:K:313:ASP:H	2.18	0.41
2:J:3:PHE:CZ	2:J:7:LYS:HD3	2.56	0.41
2:J:396:LEU:HD23	2:J:396:LEU:H	1.85	0.41
2:J:439:LYS:HE3	2:J:439:LYS:HB3	1.80	0.41
2:K:39:LEU:O	2:K:43:VAL:HG22	2.20	0.41
2:L:39:LEU:O	2:L:43:VAL:HG22	2.20	0.41
3:M:106:LEU:O	3:M:110:VAL:HG23	2.20	0.41
3:M:226:TYR:HD2	3:M:247:PHE:HZ	1.67	0.41
3:N:197:LEU:HD22	3:N:248:PHE:CZ	2.53	0.41
3:Q:208:VAL:HG12	3:Q:209:LEU:O	2.21	0.41
3:Q:268:LYS:HB3	3:Q:268:LYS:HE3	1.72	0.41
3:Q:272:LYS:HB3	3:Q:273:TYR:H	1.75	0.41
3:S:231:HIS:CE1	3:S:244:SER:H	2.39	0.41
3:V:176:ASN:HB3	3:V:177:GLU:OE2	2.21	0.41
3:W:321:ILE:HG12	3:W:322:VAL:H	1.84	0.41
3:X:218:ARG:HG3	3:X:218:ARG:NH1	2.34	0.41
1:A:161:THR:H	1:A:166:HIS:HE1	1.68	0.41
1:B:25:PHE:CE1	1:B:30:LEU:HB2	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:26:PHE:HB2	1:E:57:SER:HB2	2.03	0.41
1:E:125:PHE:O	1:E:129:LEU:HD23	2.21	0.41
1:F:82:MET:HE3	1:F:142:TRP:HE3	1.85	0.41
1:F:132:THR:HG22	1:F:137:TYR:HE2	1.85	0.41
2:G:31:PHE:HE1	2:G:60:ASN:HD22	1.68	0.41
2:I:276:MET:HE1	2:I:386:ASN:HD21	1.86	0.41
2:I:277:LEU:HA	2:I:280:VAL:HG12	2.02	0.41
2:I:520:SER:HA	2:K:10:ILE:CD1	2.50	0.41
2:J:50:VAL:O	2:J:51:ILE:HB	2.20	0.41
2:J:401:ASP:O	2:J:402:MET:HE2	2.20	0.41
2:L:168:LYS:HA	2:L:251:HIS:HB2	2.02	0.41
3:N:290:TYR:CD1	3:N:299:ILE:HG22	2.56	0.41
3:N:335:MET:CE	3:X:334:PHE:CZ	2.99	0.41
3:P:327:ASP:HB2	3:X:280:ASN:ND2	2.28	0.41
3:Q:73:CYS:O	3:Q:76:GLU:HG2	2.19	0.41
3:R:290:TYR:CD1	3:R:299:ILE:HG22	2.56	0.41
3:S:179:CYS:O	3:S:210:SER:HB3	2.20	0.41
3:X:127:ILE:O	3:X:127:ILE:HG23	2.20	0.41
1:A:185:ARG:HB3	1:A:191:ILE:HD11	2.02	0.41
1:B:267:LYS:HB2	1:B:267:LYS:HE3	1.86	0.41
1:C:5:VAL:N	1:C:6:PRO:HD2	2.36	0.41
1:D:144:LYS:HG3	1:D:145:ASN:N	2.34	0.41
1:E:49:ILE:HD12	1:E:51:GLU:OE2	2.20	0.41
1:E:132:THR:HG22	1:E:137:TYR:HE2	1.86	0.41
1:F:44:TYR:CE2	1:F:153:HIS:HA	2.55	0.41
1:F:48:TRP:HZ3	1:F:126:ILE:HG23	1.85	0.41
2:G:276:MET:HE2	2:G:276:MET:N	2.35	0.41
2:G:277:LEU:HA	2:G:280:VAL:HG12	2.03	0.41
2:G:515:LYS:HD2	2:G:515:LYS:HA	1.87	0.41
2:H:221:ARG:HD3	2:H:230:THR:HG22	2.02	0.41
2:H:276:MET:HE2	2:H:276:MET:N	2.35	0.41
2:I:378:ASP:C	2:I:380:ASN:N	2.77	0.41
2:J:312:ASN:HB3	2:J:315:TRP:HB3	2.02	0.41
2:L:70:CYS:HB3	2:L:73:VAL:HG12	2.03	0.41
2:L:339:PHE:O	2:L:340:ASN:C	2.64	0.41
3:P:102:CYS:O	3:P:105:GLU:HG3	2.20	0.41
3:P:208:VAL:HG12	3:P:209:LEU:O	2.21	0.41
3:Q:226:TYR:HD2	3:Q:247:PHE:HZ	1.67	0.41
3:R:150:VAL:O	3:R:151:LYS:HD2	2.21	0.41
3:W:93:LYS:HZ1	3:W:211:ILE:HG23	1.85	0.41
3:W:165:LEU:HD21	3:W:226:TYR:C	2.46	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:X:118:PHE:CZ	3:X:164:ILE:HG23	2.55	0.41
1:D:180:LYS:HE2	1:D:180:LYS:HB2	1.93	0.41
2:G:135:VAL:HG23	2:G:136:ASN:N	2.34	0.41
2:H:376:GLU:C	2:H:380:ASN:N	2.79	0.41
2:I:62:PHE:HB3	2:I:88:TYR:CD1	2.56	0.41
2:J:277:LEU:HA	2:J:280:VAL:HG12	2.03	0.41
2:K:34:ASN:HA	2:K:469:ARG:HA	2.03	0.41
2:K:555:LYS:HD2	2:K:555:LYS:HA	1.83	0.41
2:L:83:ASP:OD2	2:L:87:LEU:HD13	2.21	0.41
2:L:210:ARG:HA	2:L:210:ARG:HD2	1.86	0.41
3:M:151:LYS:NZ	3:Q:79:TYR:CG	2.71	0.41
3:M:282:LEU:HD21	3:S:272:LYS:HG2	2.02	0.41
3:M:308:ILE:HG13	3:M:309:SER:N	2.35	0.41
3:N:226:TYR:HD2	3:N:247:PHE:HZ	1.67	0.41
3:O:150:VAL:O	3:O:151:LYS:HD2	2.21	0.41
3:O:304:THR:HB	3:W:281:ARG:HH12	1.85	0.41
3:Q:290:TYR:CD1	3:Q:299:ILE:HG22	2.56	0.41
3:R:208:VAL:HG12	3:R:209:LEU:O	2.21	0.41
3:S:164:ILE:O	3:S:167:SER:HB3	2.20	0.41
3:T:206:LEU:HD23	3:T:207:VAL:N	2.36	0.41
3:U:301:ILE:HD12	3:U:301:ILE:HA	1.87	0.41
3:U:303:LEU:HD11	3:U:315:LEU:CD1	2.50	0.41
3:V:90:TYR:HD1	3:V:136:GLU:HA	1.85	0.41
3:V:146:LEU:HB2	3:V:182:LEU:HD13	2.03	0.41
3:V:227:LEU:HD23	3:V:245:ASN:HA	2.02	0.41
3:W:256:ILE:O	3:W:256:ILE:HG13	2.21	0.41
3:X:250:TRP:HE3	3:X:251:LEU:HD22	1.85	0.41
1:E:180:LYS:HE2	1:E:180:LYS:HB2	1.93	0.41
1:F:114:LEU:HA	1:F:117:PHE:CD1	2.55	0.41
1:F:148:PHE:CD2	1:F:150:ILE:HD13	2.56	0.41
2:H:355:PHE:O	2:H:355:PHE:CG	2.74	0.41
2:I:478:LYS:HD2	2:I:478:LYS:HA	1.84	0.41
2:J:376:GLU:O	2:J:378:ASP:N	2.54	0.41
3:M:290:TYR:CD1	3:M:299:ILE:HG22	2.56	0.41
3:N:106:LEU:O	3:N:110:VAL:HG23	2.20	0.41
3:U:331:LYS:HE3	3:U:332:HIS:CE1	2.56	0.41
3:V:93:LYS:NZ	3:V:212:CYS:HA	2.36	0.41
3:V:144:VAL:O	3:V:181:ASP:HB2	2.21	0.41
3:V:342:ARG:HG3	3:V:343:SER:O	2.21	0.41
3:W:179:CYS:C	3:W:210:SER:HB3	2.46	0.41
3:X:194:VAL:HG22	3:X:195:ASN:H	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:252:ILE:HD12	1:A:256:VAL:HG11	2.03	0.40
1:B:199:GLY:H	1:C:106:PHE:HZ	1.68	0.40
1:B:251:LYS:O	1:B:253:THR:HG23	2.22	0.40
1:C:48:TRP:HZ3	1:C:126:ILE:HG23	1.86	0.40
1:C:51:GLU:O	1:C:54:ILE:HG12	2.21	0.40
1:D:74:LEU:O	1:D:77:LYS:HB2	2.20	0.40
1:F:51:GLU:O	1:F:54:ILE:HG12	2.22	0.40
1:F:167:LEU:O	1:F:171:ARG:HG2	2.21	0.40
2:G:3:PHE:CZ	2:G:7:LYS:HD3	2.55	0.40
2:G:4:ILE:HG21	2:G:38:ALA:HA	2.03	0.40
2:H:50:VAL:O	2:H:51:ILE:HB	2.21	0.40
2:H:79:ARG:NE	3:U:222:PRO:HG3	2.36	0.40
2:I:50:VAL:HG13	2:I:51:ILE:HG13	2.03	0.40
3:O:208:VAL:HG12	3:O:209:LEU:O	2.21	0.40
3:S:326:GLU:HG3	3:S:328:PHE:CE2	2.56	0.40
1:A:24:THR:HG21	1:A:178:ASP:OD1	2.22	0.40
1:C:49:ILE:HB	1:C:97:ASN:HD21	1.85	0.40
1:C:125:PHE:O	1:C:129:LEU:HD23	2.20	0.40
1:D:38:THR:HB	1:D:226:ILE:HD11	2.04	0.40
1:F:22:GLN:O	1:F:22:GLN:HG2	2.21	0.40
1:F:45:ALA:HB3	1:F:49:ILE:HG21	2.03	0.40
2:G:2:ASP:O	2:G:6:ARG:HG3	2.21	0.40
2:H:287:LYS:O	2:H:290:ARG:HG2	2.21	0.40
2:I:27:LYS:NZ	2:I:39:LEU:H	2.19	0.40
2:I:136:ASN:HA	2:I:461:TYR:CE2	2.57	0.40
2:I:277:LEU:HG	2:I:293:LEU:HD23	2.02	0.40
2:I:528:LEU:HD21	2:K:141:LEU:HD21	2.03	0.40
2:J:300:ILE:HG12	2:J:320:ILE:HG21	2.04	0.40
2:J:425:LEU:HB3	2:J:426:HIS:ND1	2.36	0.40
2:L:254:THR:HG22	2:L:256:TYR:N	2.28	0.40
3:N:150:VAL:O	3:N:151:LYS:HD2	2.21	0.40
3:P:150:VAL:O	3:P:151:LYS:HD2	2.21	0.40
3:Q:313:ARG:HA	3:Q:327:ASP:HA	2.03	0.40
3:S:147:THR:HB	3:S:150:VAL:HG13	2.02	0.40
3:V:159:PHE:HB2	3:V:255:HIS:NE2	2.36	0.40
3:X:91:MET:HB3	3:X:135:PHE:CE2	2.56	0.40
1:B:34:LEU:HD12	1:B:36:LYS:H	1.87	0.40
1:C:121:PRO:HG2	1:C:124:GLU:OE1	2.21	0.40
2:G:273:ASN:ND2	2:G:275:ASN:HB2	2.37	0.40
2:G:401:ASP:O	2:G:402:MET:HE2	2.21	0.40
2:I:176:ILE:HD12	2:I:176:ILE:H	1.87	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:459:LEU:O	2:I:463:LEU:HD23	2.21	0.40
2:J:39:LEU:HD23	2:J:64:PHE:CD1	2.57	0.40
2:J:474:LEU:HG	2:J:475:ASP:O	2.21	0.40
2:J:481:LEU:HG	2:J:485:MET:HE3	2.03	0.40
2:L:515:LYS:HD2	2:L:515:LYS:HA	1.88	0.40
3:M:111:ARG:NH1	3:N:239:ARG:HA	2.37	0.40
3:M:272:LYS:HB3	3:M:273:TYR:H	1.75	0.40
3:P:238:ARG:HD2	3:P:238:ARG:HA	1.87	0.40
3:Q:150:VAL:O	3:Q:151:LYS:HD2	2.21	0.40
3:R:271:LYS:HB2	3:R:271:LYS:HE3	1.92	0.40
3:T:90:TYR:CD2	3:T:136:GLU:HA	2.56	0.40
3:V:242:GLU:OE2	3:V:253:LYS:HB3	2.21	0.40
3:W:227:LEU:O	3:W:231:HIS:CB	2.68	0.40
1:A:51:GLU:H	1:A:97:ASN:HD21	1.68	0.40
1:A:272:LEU:HD23	2:H:345:ARG:HH12	1.85	0.40
1:D:115:ARG:N	1:D:115:ARG:HD2	2.36	0.40
1:D:176:THR:HG21	1:D:228:TYR:CD1	2.56	0.40
1:F:246:TYR:HB2	1:F:270:VAL:HA	2.03	0.40
2:G:531:ARG:HD2	2:I:407:ILE:O	2.21	0.40
2:H:391:VAL:HG13	2:L:115:GLN:NE2	2.36	0.40
2:H:401:ASP:O	2:H:402:MET:HE2	2.21	0.40
2:H:480:ASP:OD2	2:H:482:LEU:HB2	2.21	0.40
2:I:205:PHE:HA	2:I:208:THR:HG22	2.02	0.40
2:I:374:PHE:HB2	2:I:379:ILE:CG2	2.51	0.40
2:I:554:ASP:O	2:I:555:LYS:C	2.63	0.40
2:K:486:ILE:HD13	2:L:395:THR:HB	2.03	0.40
2:K:557:TYR:O	2:K:561:LEU:HD23	2.20	0.40
2:L:376:GLU:C	2:L:380:ASN:H	2.30	0.40
2:L:461:TYR:HA	2:L:464:ASP:OD2	2.22	0.40
3:N:306:VAL:HG13	3:N:307:SER:N	2.37	0.40
3:O:93:LYS:HB2	3:O:93:LYS:HE2	1.87	0.40
3:S:147:THR:H	3:S:150:VAL:HG22	1.87	0.40
3:S:194:VAL:HG22	3:S:195:ASN:H	1.87	0.40
3:U:177:GLU:HA	3:U:229:PHE:CZ	2.57	0.40
3:X:121:LEU:H	3:X:121:LEU:HD23	1.86	0.40
1:B:84:LEU:O	1:B:86:LYS:HD2	2.21	0.40
1:B:188:GLU:OE1	1:B:190:TYR:HD1	2.05	0.40
1:D:267:LYS:HB2	1:D:267:LYS:HE3	1.85	0.40
1:F:116:LYS:O	1:F:116:LYS:HD2	2.22	0.40
1:F:126:ILE:O	1:F:130:LEU:HD23	2.21	0.40
2:G:429:ASP:OD1	2:G:441:LEU:HB3	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:322:PHE:HZ	2:H:349:GLN:HB3	1.86	0.40
2:H:379:ILE:HG21	2:H:387:ILE:HD12	2.02	0.40
2:H:381:ASN:C	2:H:383:TYR:H	2.30	0.40
2:I:2:ASP:O	2:I:6:ARG:HG3	2.22	0.40
2:I:153:ASP:O	2:I:157:ILE:HG12	2.22	0.40
2:I:379:ILE:HD13	2:I:386:ASN:CA	2.51	0.40
2:I:382:SER:HB2	2:I:384:ILE:CG1	2.47	0.40
2:J:227:GLY:C	2:J:228:ASP:O	2.61	0.40
2:J:393:ASP:C	2:J:395:THR:N	2.80	0.40
2:K:216:LEU:HD13	2:K:220:PHE:HE2	1.85	0.40
2:K:281:TYR:CE1	2:K:290:ARG:HD3	2.57	0.40
2:K:373:ARG:H	2:K:373:ARG:HG2	1.46	0.40
2:L:51:ILE:HG23	2:L:56:LEU:HD23	2.02	0.40
2:L:225:PHE:HA	2:L:226:PRO:HD3	1.86	0.40
2:L:277:LEU:HA	2:L:280:VAL:HG12	2.04	0.40
3:M:150:VAL:O	3:M:151:LYS:HD2	2.21	0.40
3:M:239:ARG:HG3	3:Q:111:ARG:NH1	2.36	0.40
3:O:66:ASP:O	3:O:70:ILE:HG12	2.22	0.40
3:O:313:ARG:HA	3:O:327:ASP:HA	2.03	0.40
3:P:256:ILE:HG13	3:P:256:ILE:O	2.21	0.40
3:T:231:HIS:CG	3:T:232:GLY:N	2.89	0.40
3:T:321:ILE:HG13	3:T:322:VAL:N	2.36	0.40
3:U:228:ASN:HA	3:U:231:HIS:CB	2.52	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
1	A	268/273 (98%)	219 (82%)	43 (16%)	6 (2%)	5 29
1	B	268/273 (98%)	217 (81%)	42 (16%)	9 (3%)	3 20

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	C	268/273 (98%)	214 (80%)	46 (17%)	8 (3%)	3	22
1	D	268/273 (98%)	220 (82%)	40 (15%)	8 (3%)	3	22
1	E	268/273 (98%)	217 (81%)	44 (16%)	7 (3%)	4	25
1	F	268/273 (98%)	212 (79%)	47 (18%)	9 (3%)	3	20
2	G	564/567 (100%)	449 (80%)	99 (18%)	16 (3%)	4	24
2	H	564/567 (100%)	452 (80%)	98 (17%)	14 (2%)	4	26
2	I	564/567 (100%)	453 (80%)	99 (18%)	12 (2%)	5	29
2	J	564/567 (100%)	447 (79%)	101 (18%)	16 (3%)	4	24
2	K	564/567 (100%)	453 (80%)	95 (17%)	16 (3%)	4	24
2	L	564/567 (100%)	449 (80%)	102 (18%)	13 (2%)	5	28
3	M	286/350 (82%)	229 (80%)	43 (15%)	14 (5%)	1	16
3	N	286/350 (82%)	229 (80%)	43 (15%)	14 (5%)	1	16
3	O	286/350 (82%)	228 (80%)	44 (15%)	14 (5%)	1	16
3	P	286/350 (82%)	229 (80%)	44 (15%)	13 (4%)	2	17
3	Q	286/350 (82%)	229 (80%)	43 (15%)	14 (5%)	1	16
3	R	286/350 (82%)	229 (80%)	43 (15%)	14 (5%)	1	16
3	S	259/350 (74%)	212 (82%)	42 (16%)	5 (2%)	6	32
3	T	259/350 (74%)	215 (83%)	41 (16%)	3 (1%)	10	42
3	U	259/350 (74%)	210 (81%)	45 (17%)	4 (2%)	8	38
3	V	259/350 (74%)	208 (80%)	45 (17%)	6 (2%)	5	28
3	W	259/350 (74%)	211 (82%)	44 (17%)	4 (2%)	8	38
3	X	259/350 (74%)	214 (83%)	41 (16%)	4 (2%)	8	38
All	All	8262/9240 (89%)	6645 (80%)	1374 (17%)	243 (3%)	5	23

All (243) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	58	ARG
1	A	65	SER
1	A	118	SER
1	B	58	ARG
1	B	65	SER
1	B	106	PHE
1	B	119	ALA

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Mol	Chain	Res	Type
1	C	58	ARG
1	C	65	SER
1	D	65	SER
1	D	119	ALA
1	E	58	ARG
1	E	65	SER
1	E	118	SER
1	F	58	ARG
1	F	65	SER
1	F	119	ALA
2	G	358	GLU
2	G	372	LYS
2	G	381	ASN
2	G	407	ILE
2	H	358	GLU
2	H	372	LYS
2	H	381	ASN
2	I	358	GLU
2	I	372	LYS
2	I	381	ASN
2	I	407	ILE
2	J	228	ASP
2	J	358	GLU
2	J	372	LYS
2	J	381	ASN
2	J	407	ILE
2	K	358	GLU
2	K	372	LYS
2	K	381	ASN
2	K	407	ILE
2	L	358	GLU
2	L	372	LYS
2	L	381	ASN
2	L	558	ILE
3	M	155	ASP
3	M	331	LYS
3	N	155	ASP
3	N	331	LYS
3	O	155	ASP
3	O	331	LYS
3	P	155	ASP
3	P	331	LYS

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Mol	Chain	Res	Type
3	Q	155	ASP
3	Q	331	LYS
3	R	155	ASP
3	R	331	LYS
3	S	277	ALA
3	T	321	ILE
3	V	140	ASN
3	V	277	ALA
3	W	277	ALA
3	W	314	VAL
3	X	277	ALA
1	A	106	PHE
1	A	150	ILE
1	A	157	ARG
1	B	150	ILE
1	B	157	ARG
1	C	106	PHE
1	C	118	SER
1	C	150	ILE
1	C	157	ARG
1	D	58	ARG
1	D	150	ILE
1	D	157	ARG
1	E	150	ILE
1	E	157	ARG
1	F	106	PHE
1	F	150	ILE
1	F	157	ARG
2	G	140	VAL
2	G	374	PHE
2	G	382	SER
2	G	427	GLU
2	G	530	GLN
2	H	140	VAL
2	H	375	ASP
2	H	377	LEU
2	H	407	ILE
2	H	427	GLU
2	H	530	GLN
2	I	140	VAL
2	I	377	LEU
2	I	427	GLU

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Mol	Chain	Res	Type
2	I	530	GLN
2	J	140	VAL
2	J	383	TYR
2	J	427	GLU
2	J	530	GLN
2	J	556	LYS
2	K	140	VAL
2	K	427	GLU
2	K	530	GLN
2	K	558	ILE
2	L	140	VAL
2	L	407	ILE
2	L	427	GLU
2	L	530	GLN
3	M	281	ARG
3	M	285	PRO
3	M	292	PRO
3	M	295	ASP
3	M	330	ILE
3	N	281	ARG
3	N	285	PRO
3	N	292	PRO
3	N	295	ASP
3	N	330	ILE
3	O	281	ARG
3	O	285	PRO
3	O	292	PRO
3	O	295	ASP
3	O	330	ILE
3	P	281	ARG
3	P	285	PRO
3	P	292	PRO
3	P	295	ASP
3	P	330	ILE
3	Q	281	ARG
3	Q	285	PRO
3	Q	292	PRO
3	Q	295	ASP
3	Q	330	ILE
3	R	281	ARG
3	R	285	PRO
3	R	292	PRO

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Mol	Chain	Res	Type
3	R	295	ASP
3	R	330	ILE
3	S	314	VAL
3	T	314	VAL
3	U	314	VAL
3	V	314	VAL
3	X	314	VAL
1	B	145	ASN
1	C	145	ASN
1	D	106	PHE
1	E	106	PHE
1	F	145	ASN
2	G	556	LYS
2	H	558	ILE
2	I	556	LYS
2	J	382	SER
2	K	354	TYR
2	K	377	LEU
2	L	374	PHE
3	M	261	LYS
3	M	306	VAL
3	N	261	LYS
3	N	306	VAL
3	O	261	LYS
3	O	306	VAL
3	P	261	LYS
3	P	306	VAL
3	Q	261	LYS
3	Q	306	VAL
3	R	261	LYS
3	R	306	VAL
3	X	322	VAL
1	B	118	SER
2	G	51	ILE
2	G	354	TYR
2	G	558	ILE
2	H	51	ILE
2	H	560	GLN
2	I	51	ILE
2	I	383	TYR
2	J	51	ILE
2	J	377	LEU

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Mol	Chain	Res	Type
2	K	51	ILE
2	K	560	GLN
2	L	51	ILE
2	L	354	TYR
3	S	155	ASP
3	S	322	VAL
3	U	155	ASP
3	U	322	VAL
3	V	155	ASP
1	F	118	SER
2	G	377	LEU
2	G	380	ASN
2	H	556	LYS
2	J	558	ILE
2	K	231	SER
2	K	382	SER
2	K	556	LYS
2	L	377	LEU
3	M	275	ILE
3	N	275	ILE
3	O	275	ILE
3	P	275	ILE
3	Q	275	ILE
3	R	275	ILE
3	W	311	ASN
1	D	118	SER
2	J	231	SER
3	M	79	TYR
3	M	282	LEU
3	N	79	TYR
3	N	282	LEU
3	O	79	TYR
3	O	282	LEU
3	P	282	LEU
3	Q	79	TYR
3	Q	282	LEU
3	R	79	TYR
3	R	282	LEU
3	S	311	ASN
3	T	311	ASN
3	U	311	ASN
3	V	311	ASN

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Mol	Chain	Res	Type
3	V	322	VAL
3	X	311	ASN
2	J	387	ILE
2	G	387	ILE
2	K	387	ILE
3	M	279	VAL
3	N	279	VAL
3	O	279	VAL
3	P	279	VAL
3	Q	279	VAL
3	R	279	VAL
3	W	322	VAL
2	L	387	ILE
3	M	278	PRO
3	N	278	PRO
3	O	278	PRO
3	P	278	PRO
3	Q	278	PRO
3	R	278	PRO
1	B	270	VAL
1	C	270	VAL
1	D	270	VAL
1	E	270	VAL
1	F	270	VAL
2	H	388	ILE
2	I	388	ILE

5.3.2 Protein sidechains (i)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all 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	247/248 (100%)	246 (100%)	1 (0%)	84 82
1	B	247/248 (100%)	246 (100%)	1 (0%)	84 82
1	C	247/248 (100%)	246 (100%)	1 (0%)	84 82
1	D	247/248 (100%)	246 (100%)	1 (0%)	84 82

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	E	247/248 (100%)	246 (100%)	1 (0%)	84 82
1	F	247/248 (100%)	246 (100%)	1 (0%)	84 82
2	G	532/533 (100%)	524 (98%)	8 (2%)	57 70
2	H	532/533 (100%)	527 (99%)	5 (1%)	70 76
2	I	532/533 (100%)	526 (99%)	6 (1%)	65 74
2	J	532/533 (100%)	523 (98%)	9 (2%)	53 67
2	K	532/533 (100%)	525 (99%)	7 (1%)	61 72
2	L	532/533 (100%)	523 (98%)	9 (2%)	53 67
3	M	266/326 (82%)	248 (93%)	18 (7%)	14 36
3	N	266/326 (82%)	248 (93%)	18 (7%)	14 36
3	O	266/326 (82%)	247 (93%)	19 (7%)	13 35
3	P	266/326 (82%)	248 (93%)	18 (7%)	14 36
3	Q	266/326 (82%)	248 (93%)	18 (7%)	14 36
3	R	266/326 (82%)	248 (93%)	18 (7%)	14 36
3	S	242/326 (74%)	242 (100%)	0	100 100
3	T	242/326 (74%)	242 (100%)	0	100 100
3	U	242/326 (74%)	242 (100%)	0	100 100
3	V	242/326 (74%)	242 (100%)	0	100 100
3	W	242/326 (74%)	241 (100%)	1 (0%)	84 82
3	X	242/326 (74%)	242 (100%)	0	100 100
All	All	7722/8598 (90%)	7562 (98%)	160 (2%)	46 65

All (160) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	273	LEU
1	B	273	LEU
1	C	273	LEU
1	D	273	LEU
1	E	273	LEU
1	F	273	LEU
2	G	375	ASP
2	G	376	GLU
2	G	377	LEU
2	G	378	ASP

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Mol	Chain	Res	Type
2	G	379	ILE
2	G	380	ASN
2	G	381	ASN
2	G	557	TYR
2	H	377	LEU
2	H	379	ILE
2	H	506	ASN
2	H	556	LYS
2	H	557	TYR
2	I	376	GLU
2	I	378	ASP
2	I	379	ILE
2	I	380	ASN
2	I	555	LYS
2	I	558	ILE
2	J	229	LYS
2	J	374	PHE
2	J	377	LEU
2	J	378	ASP
2	J	379	ILE
2	J	380	ASN
2	J	557	TYR
2	J	560	GLN
2	J	561	LEU
2	K	373	ARG
2	K	374	PHE
2	K	378	ASP
2	K	379	ILE
2	K	556	LYS
2	K	557	TYR
2	K	559	LEU
2	L	48	GLN
2	L	376	GLU
2	L	377	LEU
2	L	378	ASP
2	L	379	ILE
2	L	380	ASN
2	L	556	LYS
2	L	557	TYR
2	L	559	LEU
3	M	261	LYS
3	M	263	THR

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Mol	Chain	Res	Type
3	M	264	MET
3	M	266	ILE
3	M	267	LEU
3	M	268	LYS
3	M	270	LYS
3	M	271	LYS
3	M	272	LYS
3	M	275	ILE
3	M	279	VAL
3	M	281	ARG
3	M	284	GLU
3	M	285	PRO
3	M	287	THR
3	M	291	VAL
3	M	293	LYS
3	M	296	TYR
3	N	261	LYS
3	N	263	THR
3	N	264	MET
3	N	266	ILE
3	N	267	LEU
3	N	268	LYS
3	N	270	LYS
3	N	271	LYS
3	N	272	LYS
3	N	275	ILE
3	N	279	VAL
3	N	281	ARG
3	N	284	GLU
3	N	285	PRO
3	N	287	THR
3	N	291	VAL
3	N	293	LYS
3	N	296	TYR
3	O	238	ARG
3	O	261	LYS
3	O	263	THR
3	O	264	MET
3	O	266	ILE
3	O	267	LEU
3	O	268	LYS
3	O	270	LYS

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Mol	Chain	Res	Type
3	O	271	LYS
3	O	272	LYS
3	O	275	ILE
3	O	279	VAL
3	O	281	ARG
3	O	284	GLU
3	O	285	PRO
3	O	287	THR
3	O	291	VAL
3	O	293	LYS
3	O	296	TYR
3	P	261	LYS
3	P	263	THR
3	P	264	MET
3	P	266	ILE
3	P	267	LEU
3	P	268	LYS
3	P	270	LYS
3	P	271	LYS
3	P	272	LYS
3	P	275	ILE
3	P	279	VAL
3	P	281	ARG
3	P	284	GLU
3	P	285	PRO
3	P	287	THR
3	P	291	VAL
3	P	293	LYS
3	P	296	TYR
3	Q	261	LYS
3	Q	263	THR
3	Q	264	MET
3	Q	266	ILE
3	Q	267	LEU
3	Q	268	LYS
3	Q	270	LYS
3	Q	271	LYS
3	Q	272	LYS
3	Q	275	ILE
3	Q	279	VAL
3	Q	281	ARG
3	Q	284	GLU

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Mol	Chain	Res	Type
3	Q	285	PRO
3	Q	287	THR
3	Q	291	VAL
3	Q	293	LYS
3	Q	296	TYR
3	R	261	LYS
3	R	263	THR
3	R	264	MET
3	R	266	ILE
3	R	267	LEU
3	R	268	LYS
3	R	270	LYS
3	R	271	LYS
3	R	272	LYS
3	R	275	ILE
3	R	279	VAL
3	R	281	ARG
3	R	284	GLU
3	R	285	PRO
3	R	287	THR
3	R	291	VAL
3	R	293	LYS
3	R	296	TYR
3	W	129	HIS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (94) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	16	GLN
1	A	97	ASN
1	A	103	ASN
1	A	166	HIS
1	A	222	ASN
1	B	97	ASN
1	C	37	ASN
1	C	97	ASN
1	C	153	HIS
1	C	166	HIS
1	D	97	ASN
1	D	166	HIS
1	E	97	ASN
1	E	175	GLN

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Mol	Chain	Res	Type
1	F	97	ASN
1	F	166	HIS
2	G	29	ASN
2	G	66	HIS
2	G	115	GLN
2	G	237	ASN
2	G	251	HIS
2	G	349	GLN
2	G	380	ASN
2	G	386	ASN
2	H	48	GLN
2	H	66	HIS
2	H	196	ASN
2	H	237	ASN
2	H	251	HIS
2	H	381	ASN
2	H	392	ASN
2	I	30	ASN
2	I	35	HIS
2	I	48	GLN
2	I	115	GLN
2	I	251	HIS
2	I	381	ASN
2	I	530	GLN
2	J	29	ASN
2	J	35	HIS
2	J	237	ASN
2	J	251	HIS
2	J	349	GLN
2	J	357	ASN
2	J	381	ASN
2	J	386	ASN
2	K	29	ASN
2	K	35	HIS
2	K	196	ASN
2	K	251	HIS
2	K	381	ASN
2	K	392	ASN
2	L	29	ASN
2	L	35	HIS
2	L	251	HIS
2	L	340	ASN

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Mol	Chain	Res	Type
2	L	386	ASN
2	L	392	ASN
2	L	506	ASN
2	L	560	GLN
3	M	81	ASN
3	M	255	HIS
3	N	81	ASN
3	N	255	HIS
3	O	81	ASN
3	O	255	HIS
3	P	81	ASN
3	P	255	HIS
3	P	311	ASN
3	Q	81	ASN
3	Q	255	HIS
3	R	81	ASN
3	R	176	ASN
3	R	255	HIS
3	R	280	ASN
3	S	243	HIS
3	S	332	HIS
3	T	149	GLN
3	T	160	GLN
3	T	280	ASN
3	T	311	ASN
3	U	154	ASN
3	U	231	HIS
3	U	280	ASN
3	U	332	HIS
3	V	149	GLN
3	V	231	HIS
3	V	243	HIS
3	W	149	GLN
3	W	311	ASN
3	W	329	ASN
3	X	129	HIS
3	X	149	GLN
3	X	280	ASN

5.3.3 RNA

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

There are no ligands in this entry.

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

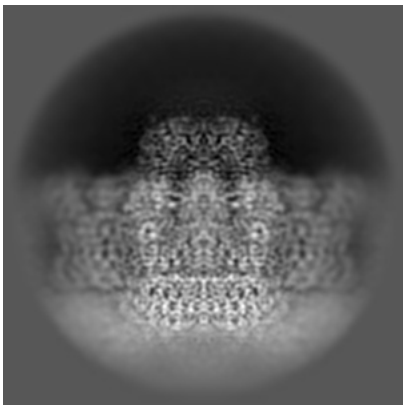
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-65762. These allow visual inspection of the internal detail of the map and identification of artifacts.

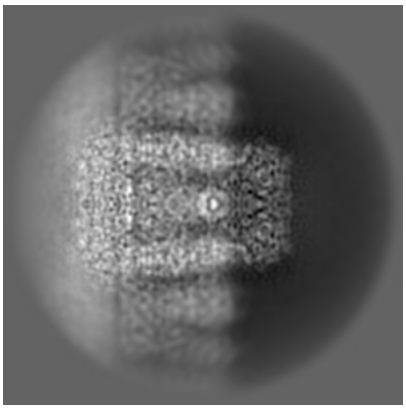
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections

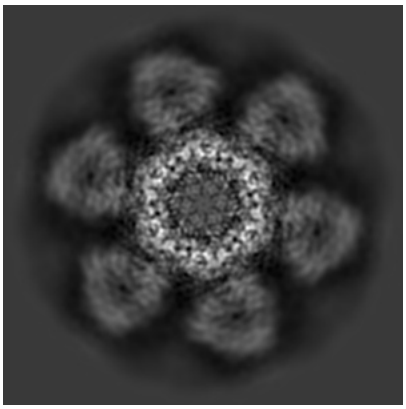
6.1.1 Primary map



X

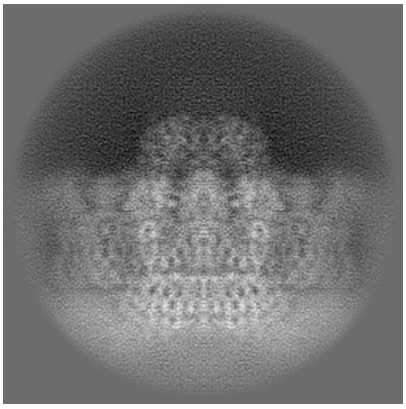


Y

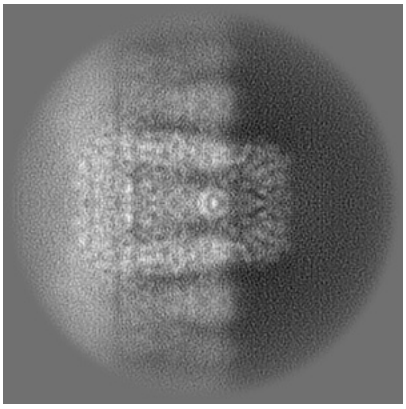


Z

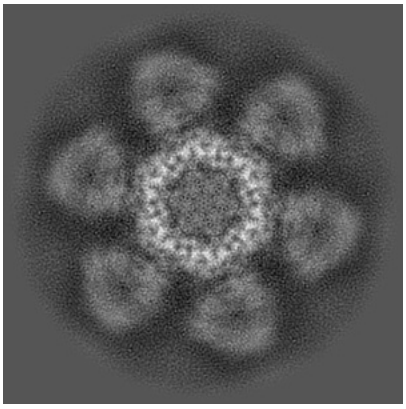
6.1.2 Raw map



X



Y



Z

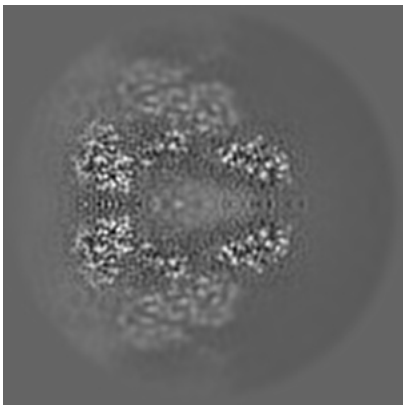
The images above show the map projected in three orthogonal directions.

6.2 Central slices (i)

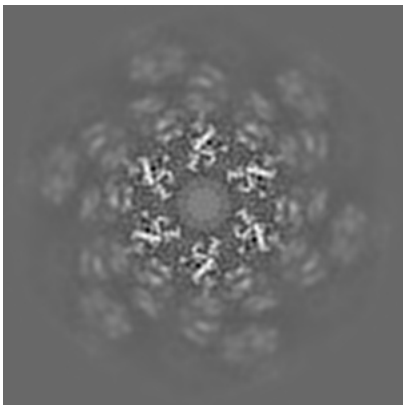
6.2.1 Primary map



X Index: 128

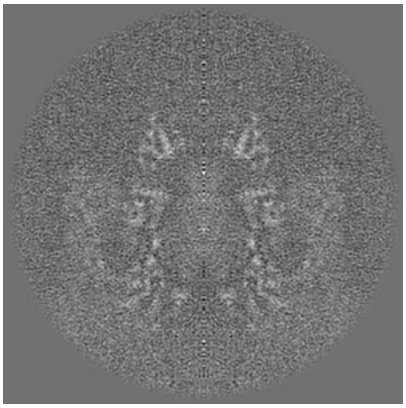


Y Index: 128

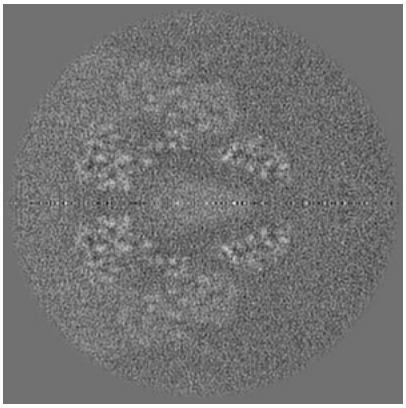


Z Index: 128

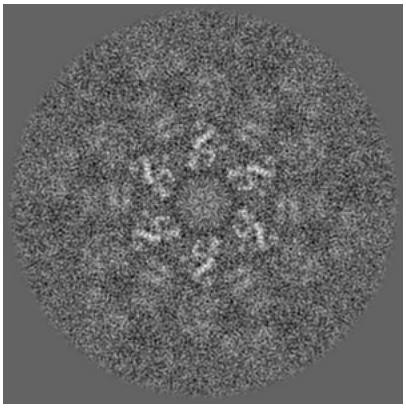
6.2.2 Raw map



X Index: 128



Y Index: 128

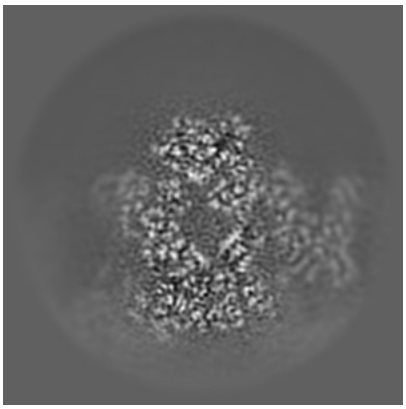


Z Index: 128

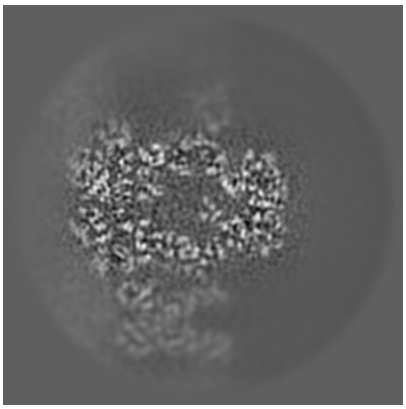
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

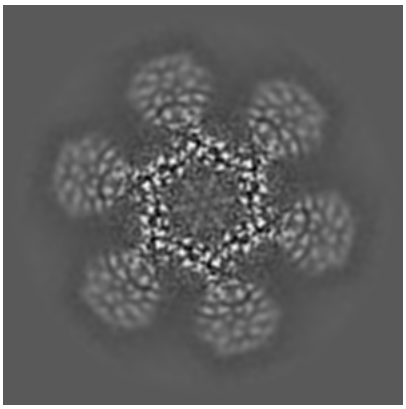
6.3.1 Primary map



X Index: 102

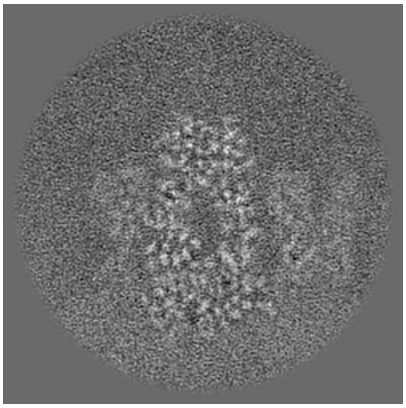


Y Index: 153

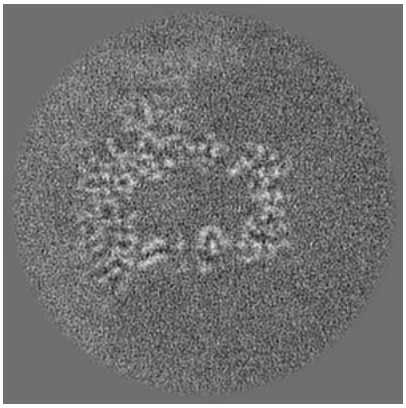


Z Index: 94

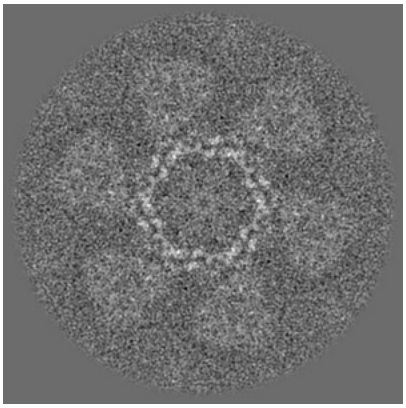
6.3.2 Raw map



X Index: 99



Y Index: 110

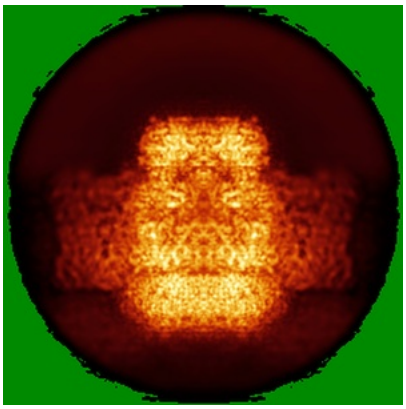


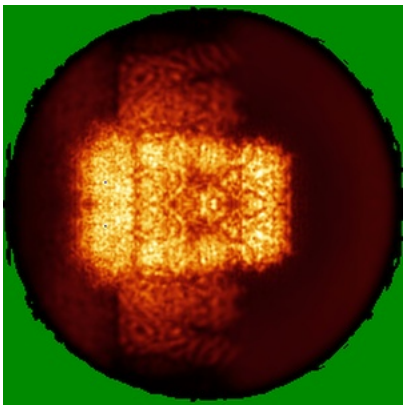
Z Index: 107

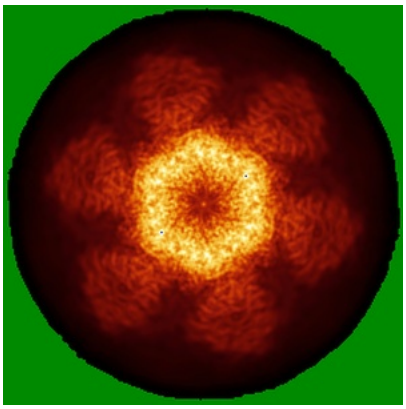
The images above show the largest variance slices of the map in three orthogonal directions.

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

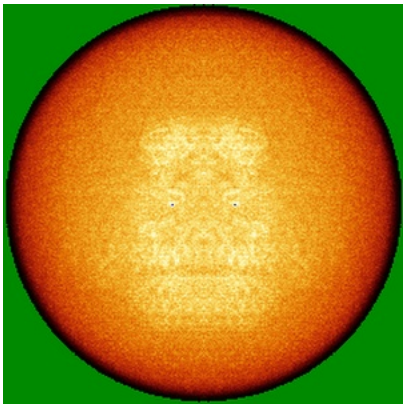
6.4.1 Primary map

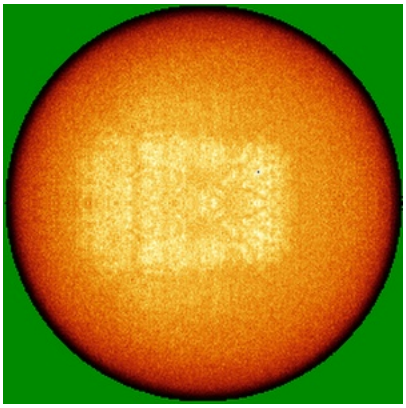

X

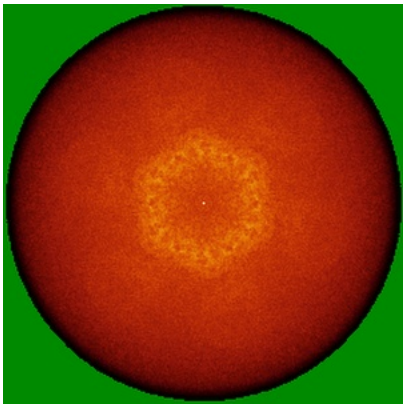

Y


Z

6.4.2 Raw map


X


Y


Z

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

6.5 Orthogonal surface views (i)

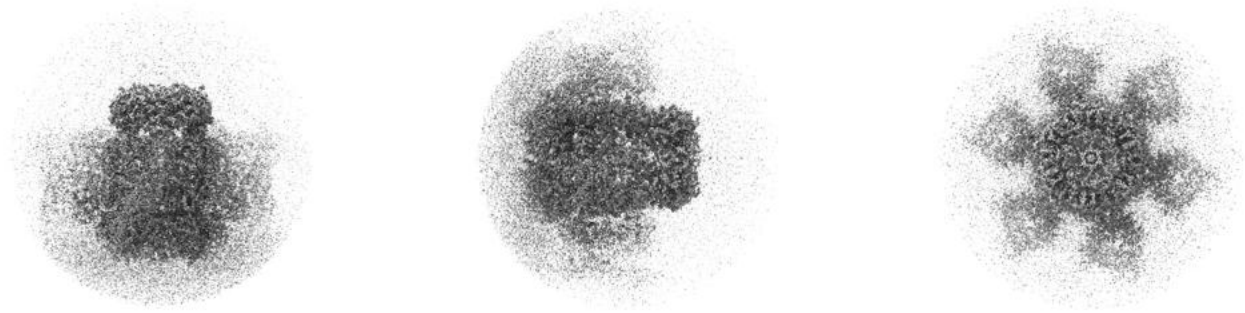
6.5.1 Primary map



X Y Z

The images above show the 3D surface view of the map at the recommended contour level 1.45. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.5.2 Raw map



X Y Z

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

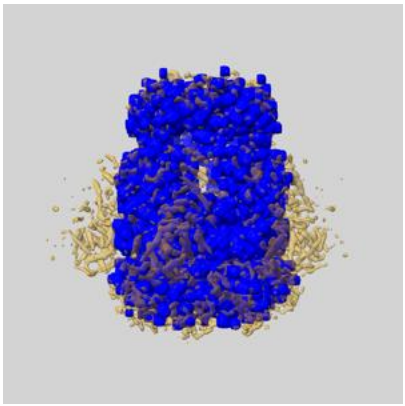
6.6 Mask visualisation (i)

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

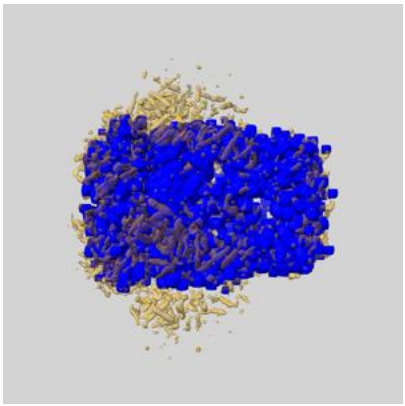
A mask typically either:

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

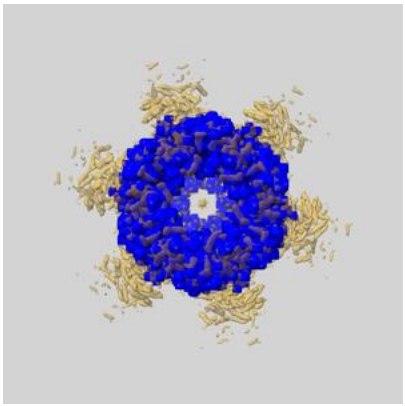
6.6.1 emd_65762_msk_1.map (i)



X



Y

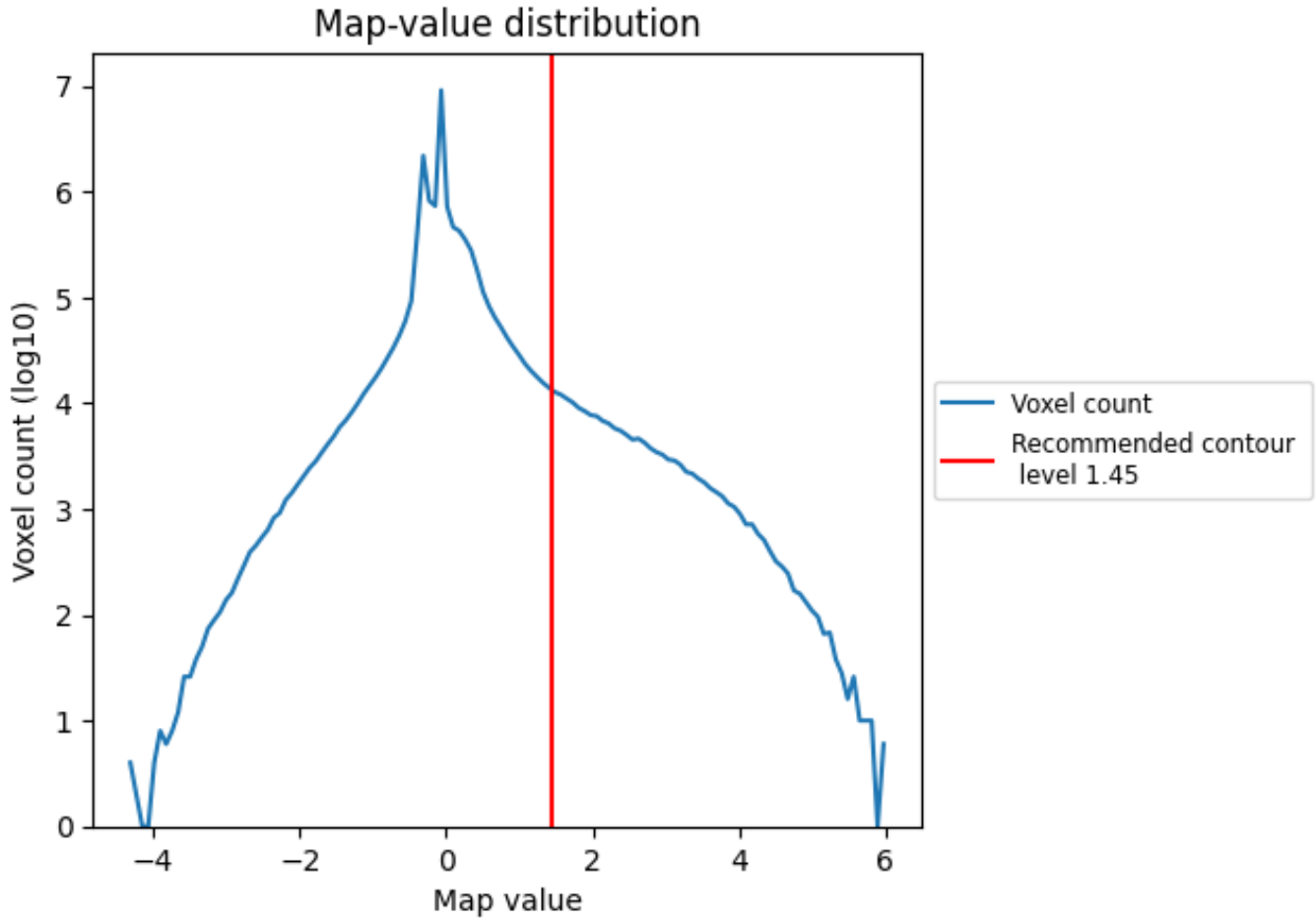


Z

7 Map analysis

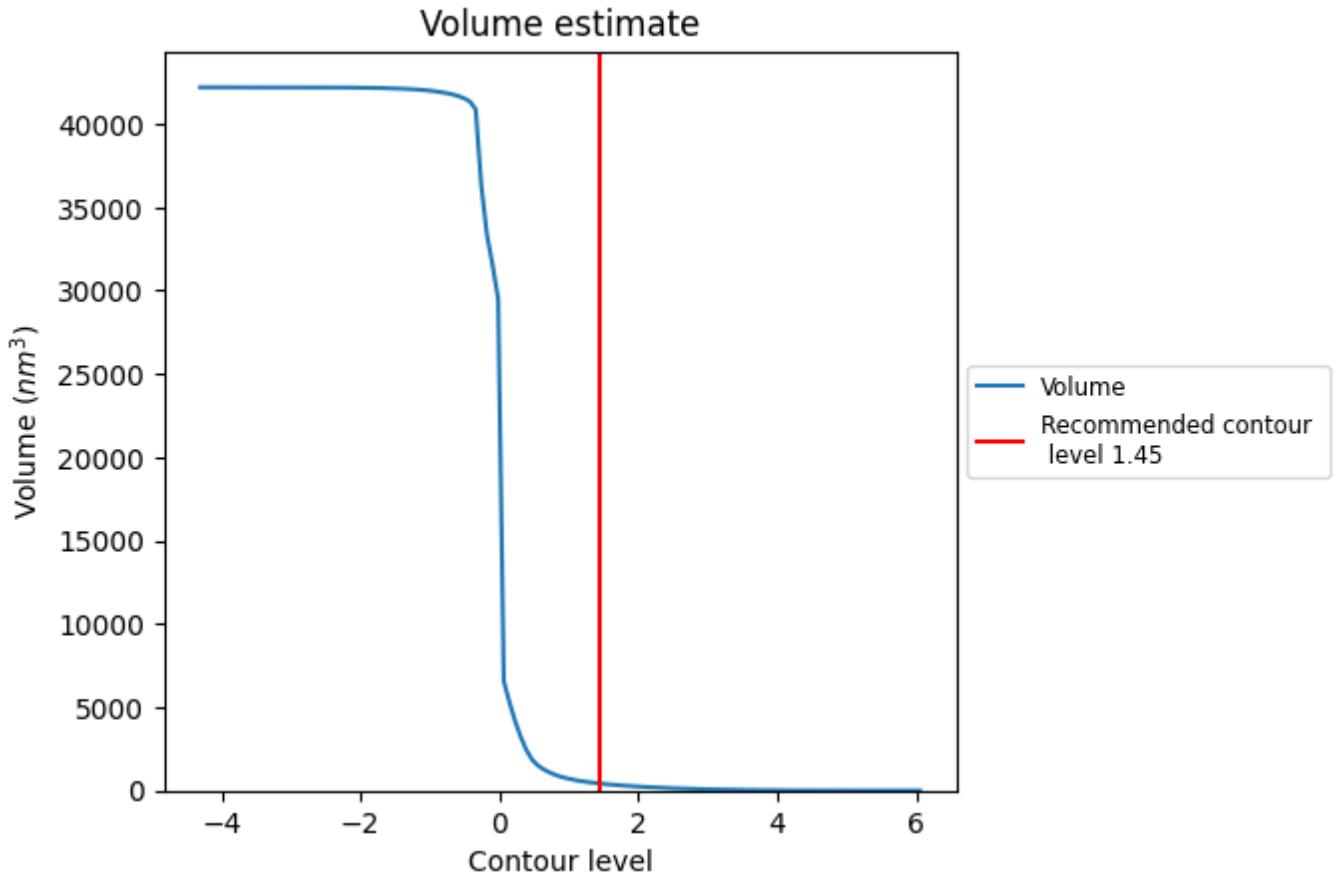
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



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

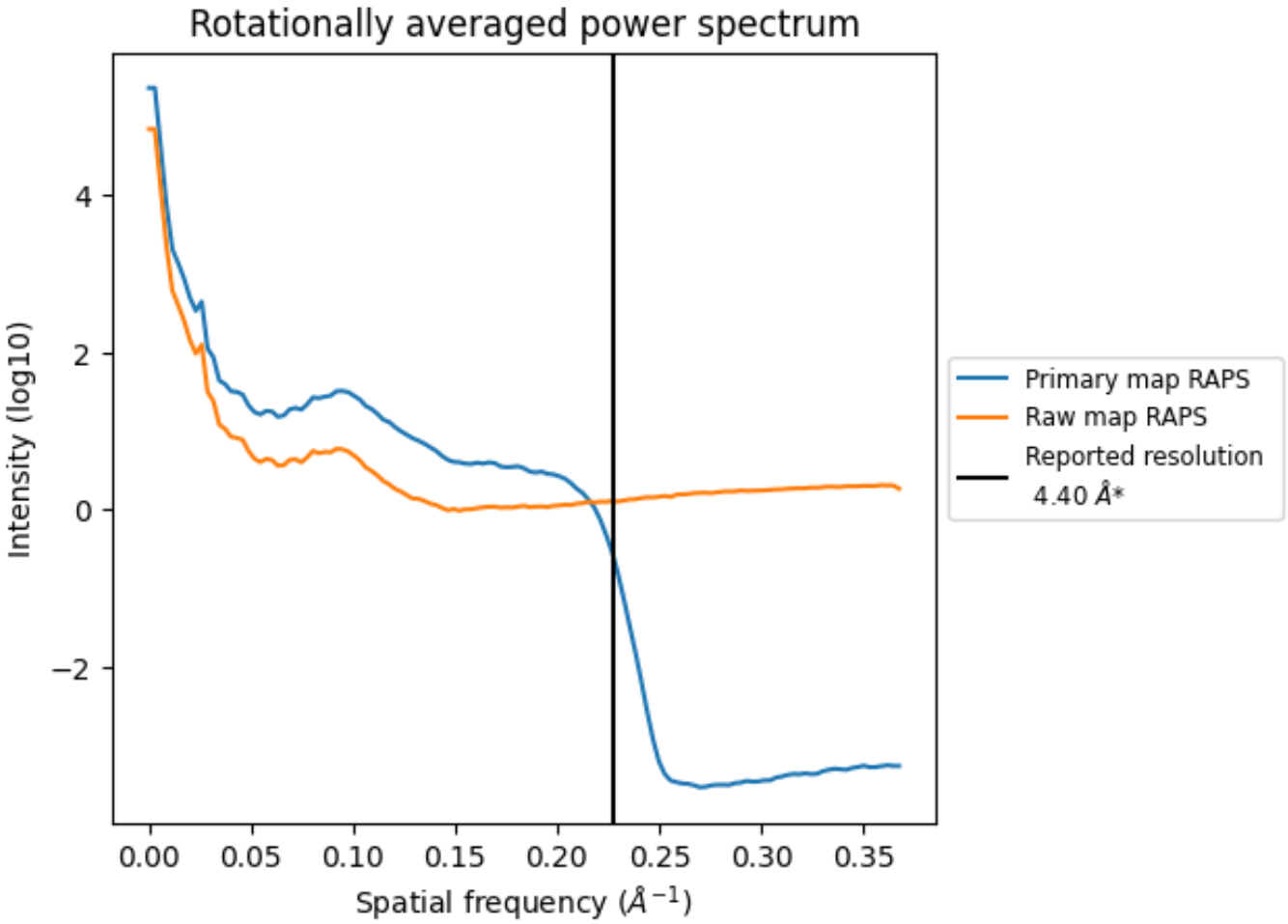
7.2 Volume estimate



The volume at the recommended contour level is 421 nm^3; this corresponds to an approximate mass of 380 kDa.

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

7.3 Rotationally averaged power spectrum (i)

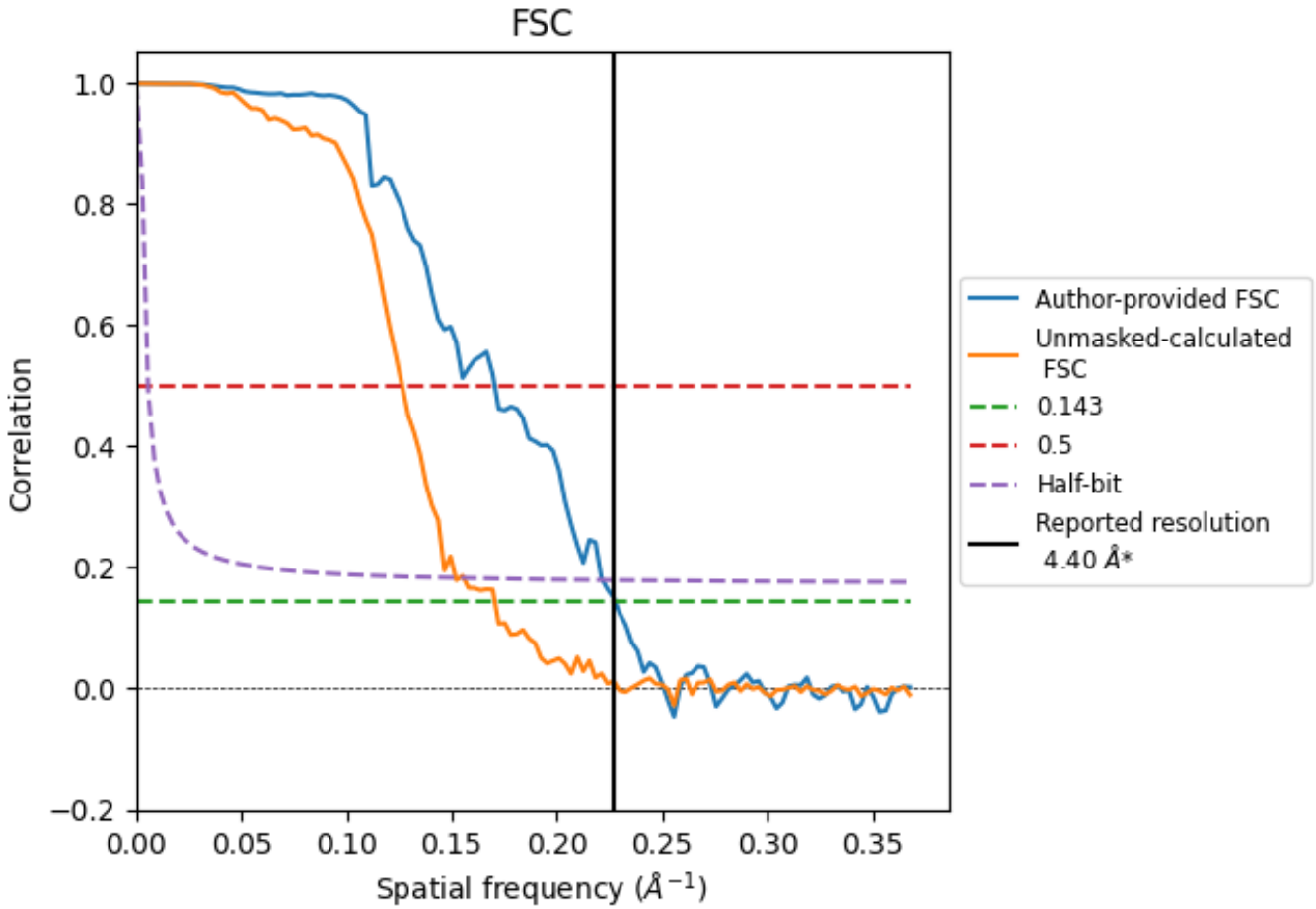


*Reported resolution corresponds to spatial frequency of 0.227 Å^{-1}

8 Fourier-Shell correlation

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

8.1 FSC



*Reported resolution corresponds to spatial frequency of 0.227 Å^{-1}

8.2 Resolution estimates (i)

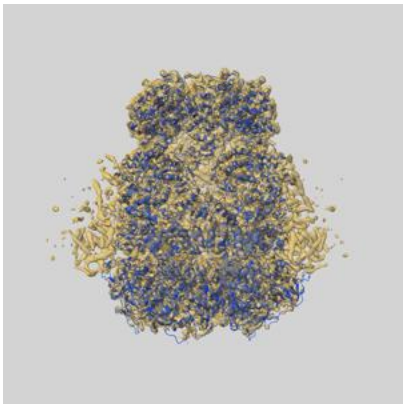
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	4.40	-	-
Author-provided FSC curve	4.39	5.87	4.51
Unmasked-calculated*	5.87	7.91	6.58

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 5.87 differs from the reported value 4.4 by more than 10 %

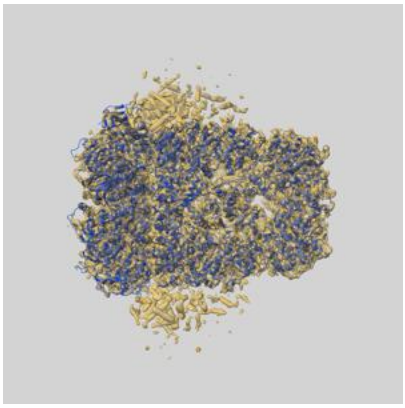
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-65762 and PDB model 9W91. Per-residue inclusion information can be found in section 3 on page 6.

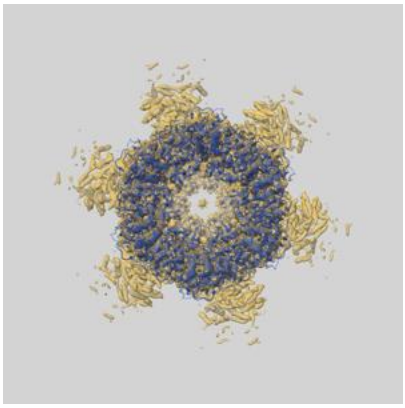
9.1 Map-model overlay



X



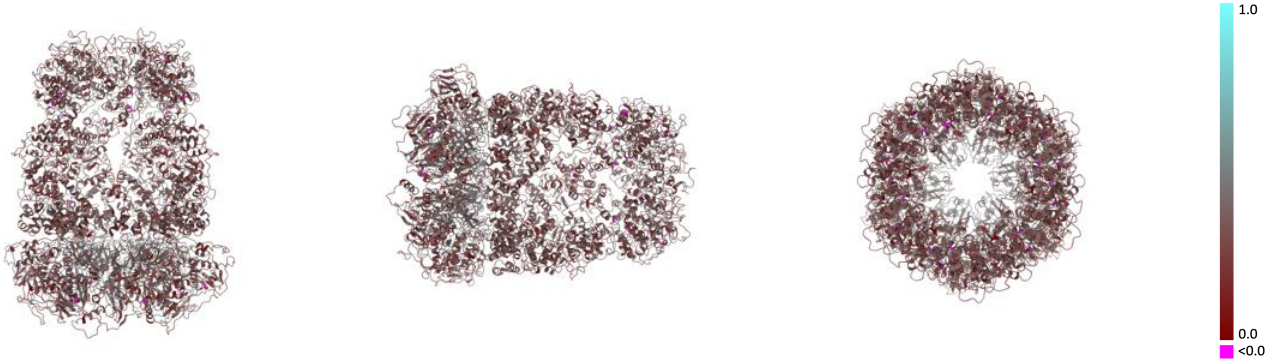
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 1.45 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.

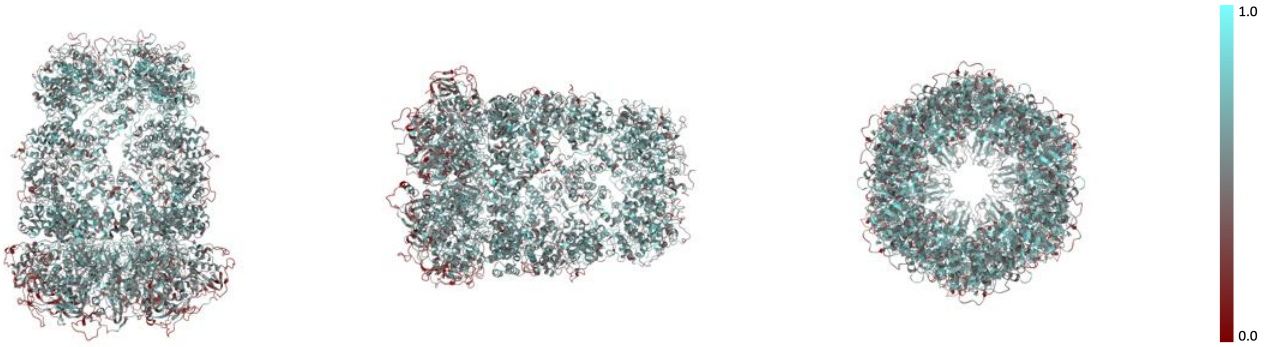
9.2 Q-score mapped to coordinate model (i)



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.

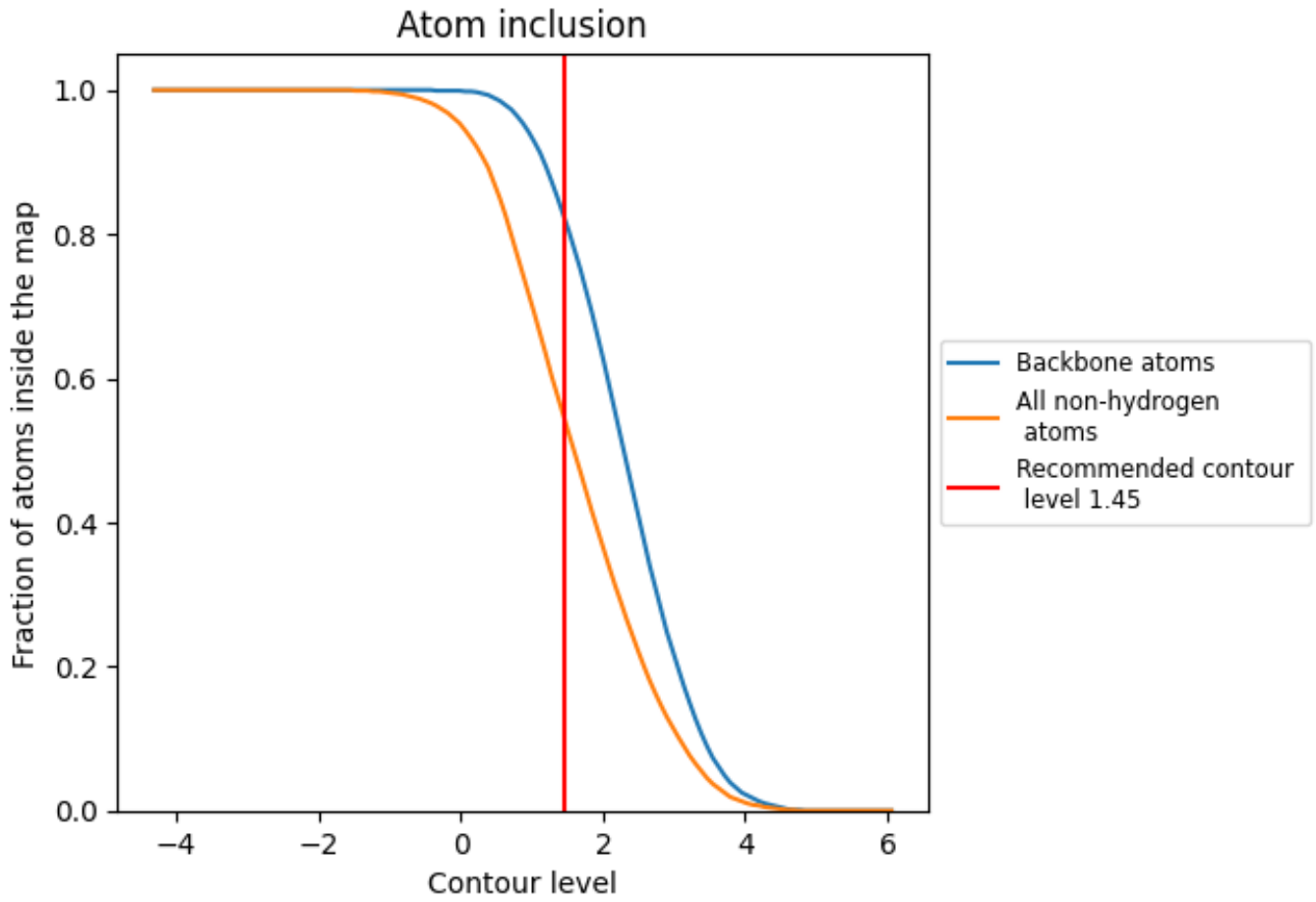
9.3 Atom inclusion mapped to coordinate model (i)



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 (1.45).

9.4 Atom inclusion (i)



At the recommended contour level, 82% of all backbone atoms, 55% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (1.45) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.5460	0.3350
A	0.5680	0.3290
B	0.5770	0.3320
C	0.5700	0.3290
D	0.5640	0.3300
E	0.5690	0.3300
F	0.5660	0.3340
G	0.5720	0.3200
H	0.5670	0.3210
I	0.5680	0.3190
J	0.5720	0.3210
K	0.5720	0.3230
L	0.5720	0.3220
M	0.5440	0.3670
N	0.5490	0.3680
O	0.5480	0.3670
P	0.5500	0.3660
Q	0.5450	0.3670
R	0.5480	0.3700
S	0.4600	0.3400
T	0.4640	0.3320
U	0.4660	0.3380
V	0.4660	0.3380
W	0.4690	0.3360
X	0.4670	0.3390

