



Full wwPDB EM Validation Report ⓘ

Oct 31, 2022 – 01:15 PM EDT

PDB ID : 7SOX
EMDB ID : EMD-25362
Title : Cryo-electron tomography structure of membrane-bound EHD4 complex
Authors : Melo, A.A.; Noel, J.K.; Daumke, O.
Deposited on : 2021-11-01
Resolution : 7.60 Å(reported)
Based on initial model : 4CID

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

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

EMDB validation analysis : 0.0.1.dev43
MolProbity : 4.02b-467
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ : 1.9.9
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.31.2

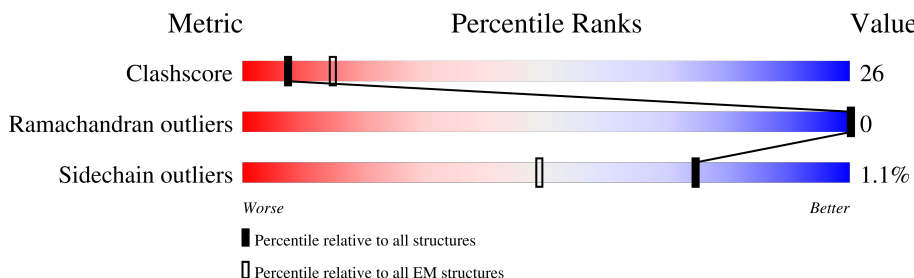
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 7.60 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	158937	4297
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826

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

Mol	Chain	Length	Quality of chain
1	A	514	<div> <div>41%</div> <div>53%</div> <div>46%</div> </div>
1	B	514	<div> <div>41%</div> <div>54%</div> <div>45%</div> </div>
1	C	514	<div> <div>40%</div> <div>54%</div> <div>45%</div> </div>
1	D	514	<div> <div>40%</div> <div>53%</div> <div>46%</div> </div>
1	E	514	<div> <div>41%</div> <div>53%</div> <div>46%</div> </div>
1	F	514	<div> <div>44%</div> <div>54%</div> <div>46%</div> </div>
1	G	514	<div> <div>51%</div> <div>54%</div> <div>45%</div> </div>
1	H	514	<div> <div>49%</div> <div>55%</div> <div>45%</div> </div>

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Mol	Chain	Length	Quality of chain
1	I	514	<div> <div>43%</div> <div>56%</div> <div>44%</div> </div>
1	J	514	<div> <div>39%</div> <div>54%</div> <div>46%</div> </div>
1	K	514	<div> <div>50%</div> <div>55%</div> <div>44%</div> </div>
1	L	514	<div> <div>49%</div> <div>54%</div> <div>46%</div> </div>
1	M	514	<div> <div>46%</div> <div>55%</div> <div>44%</div> </div>
1	N	514	<div> <div>47%</div> <div>55%</div> <div>44%</div> </div>
1	O	514	<div> <div>53%</div> <div>55%</div> <div>44%</div> </div>
1	P	514	<div> <div>59%</div> <div>52%</div> <div>47%</div> </div>

2 Entry composition

There is only 1 type of molecule in this entry. The entry contains 66016 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.

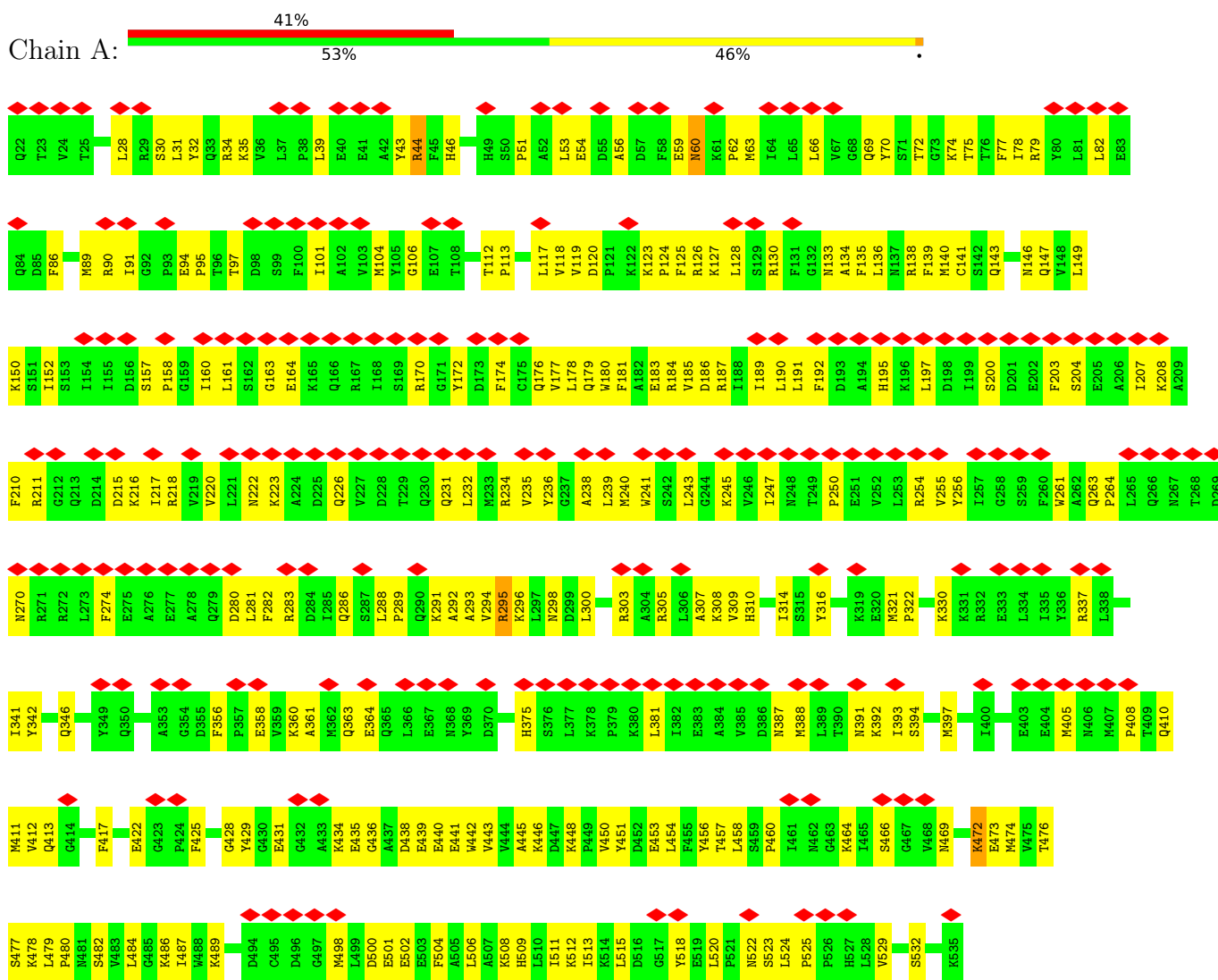
- Molecule 1 is a protein called EH domain-containing protein 4.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	514	Total	C	N	O	S	0	0
			4126	2636	701	769	20		
1	B	514	Total	C	N	O	S	0	0
			4126	2636	701	769	20		
1	C	514	Total	C	N	O	S	0	0
			4126	2636	701	769	20		
1	D	514	Total	C	N	O	S	0	0
			4126	2636	701	769	20		
1	E	514	Total	C	N	O	S	0	0
			4126	2636	701	769	20		
1	F	514	Total	C	N	O	S	0	0
			4126	2636	701	769	20		
1	G	514	Total	C	N	O	S	0	0
			4126	2636	701	769	20		
1	H	514	Total	C	N	O	S	0	0
			4126	2636	701	769	20		
1	I	514	Total	C	N	O	S	0	0
			4126	2636	701	769	20		
1	J	514	Total	C	N	O	S	0	0
			4126	2636	701	769	20		
1	K	514	Total	C	N	O	S	0	0
			4126	2636	701	769	20		
1	L	514	Total	C	N	O	S	0	0
			4126	2636	701	769	20		
1	M	514	Total	C	N	O	S	0	0
			4126	2636	701	769	20		
1	N	514	Total	C	N	O	S	0	0
			4126	2636	701	769	20		
1	O	514	Total	C	N	O	S	0	0
			4126	2636	701	769	20		
1	P	514	Total	C	N	O	S	0	0
			4126	2636	701	769	20		

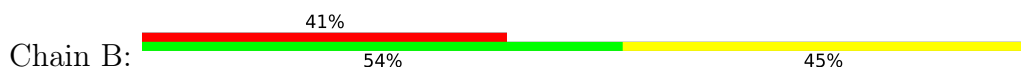
3 Residue-property plots

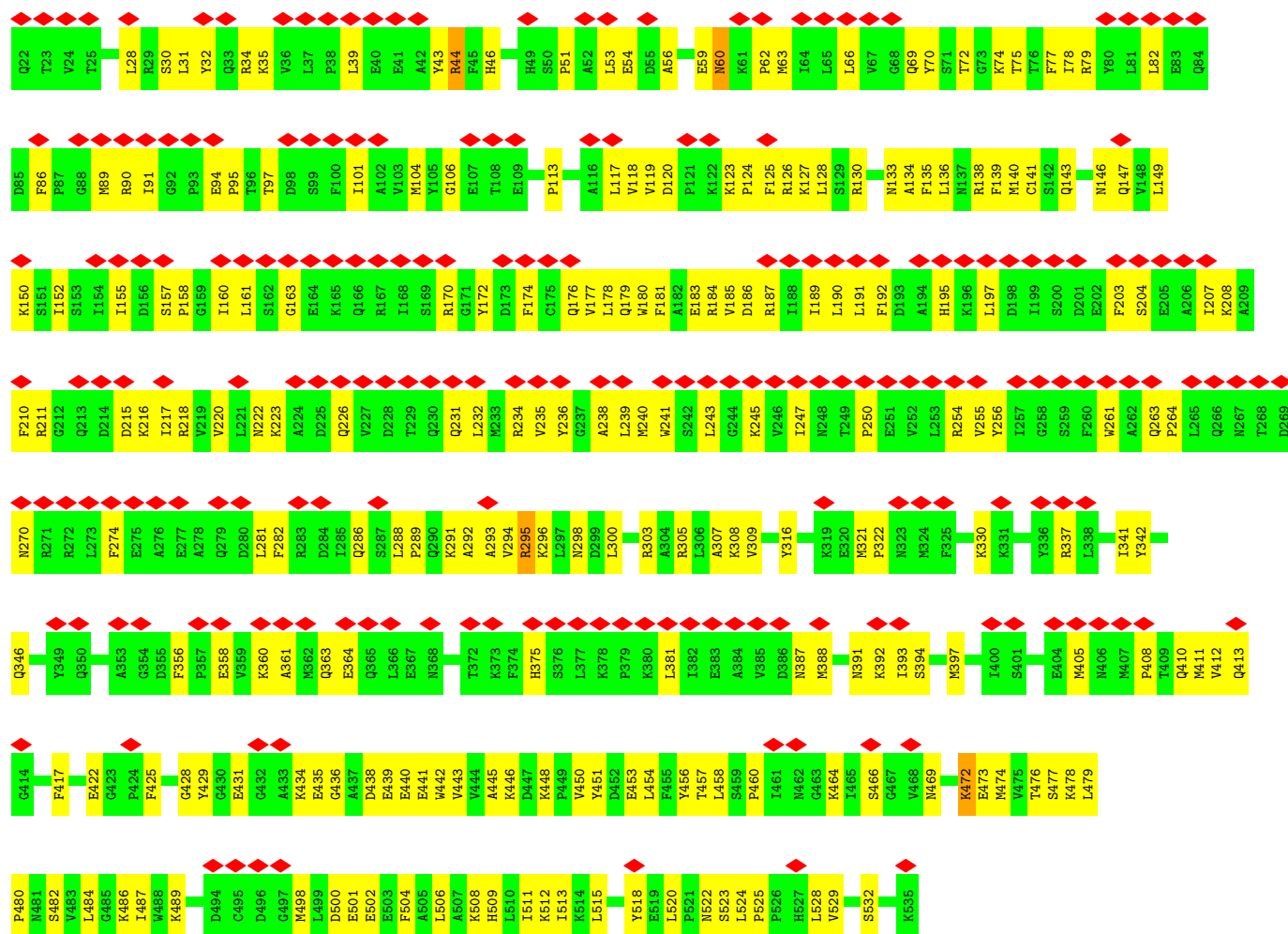
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion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

• Molecule 1: EH domain-containing protein 4

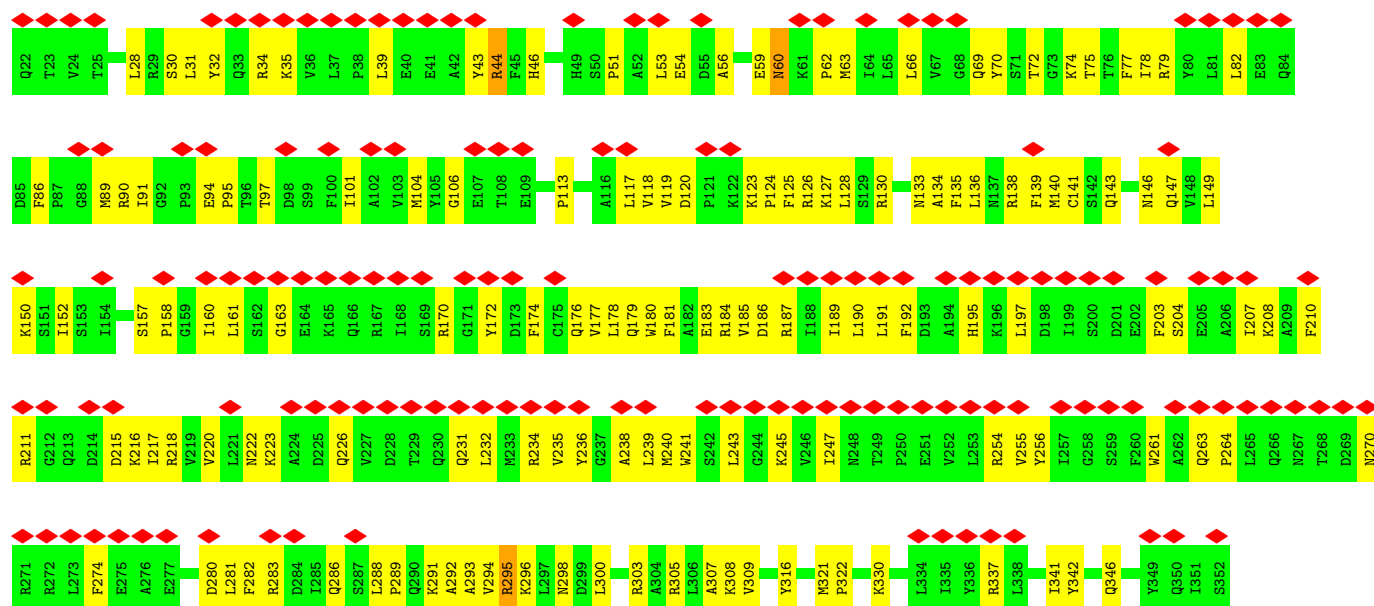
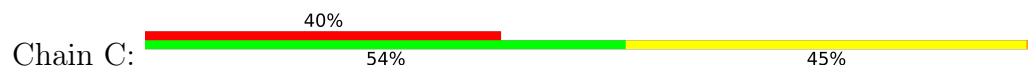


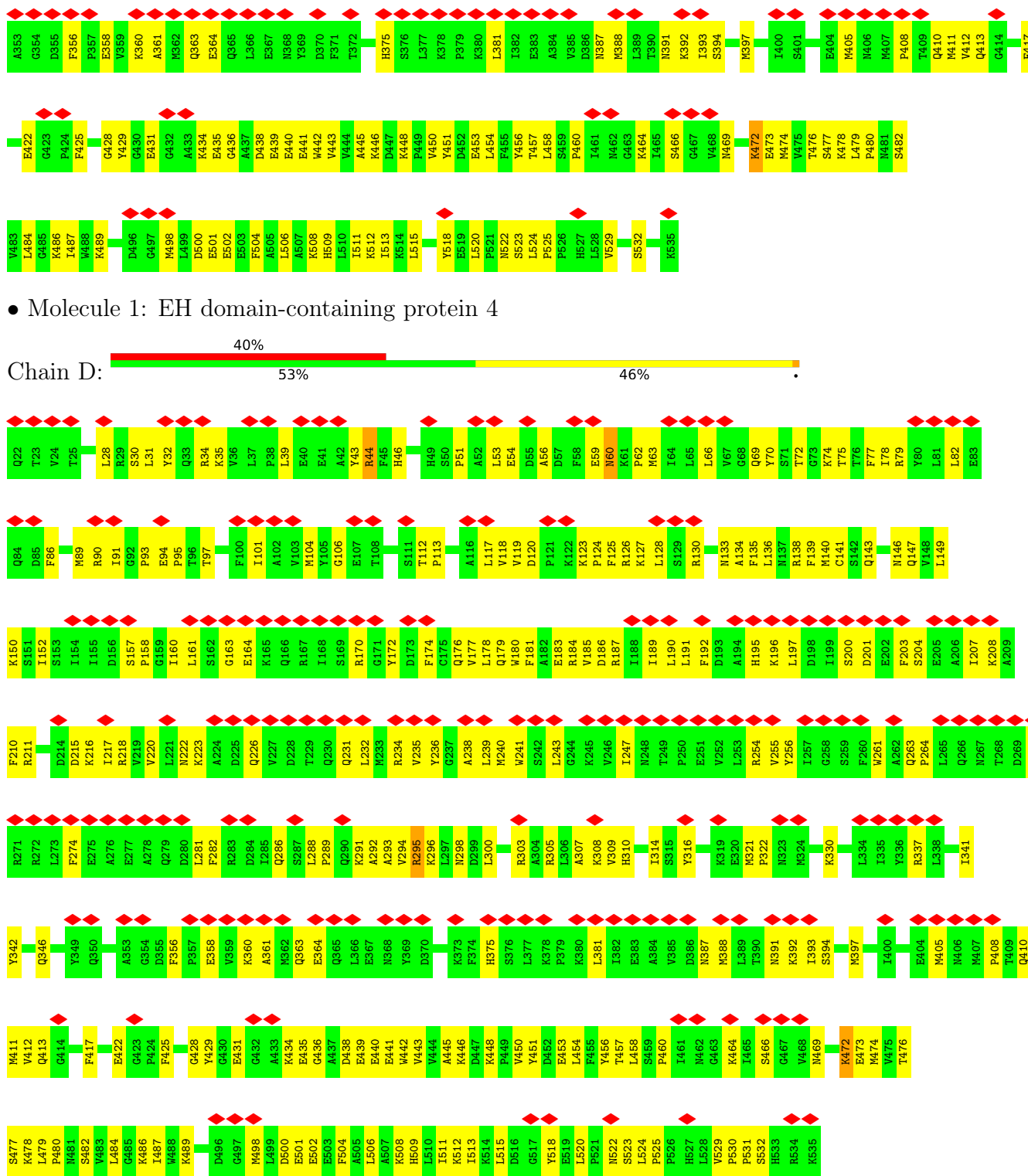
• Molecule 1: EH domain-containing protein 4



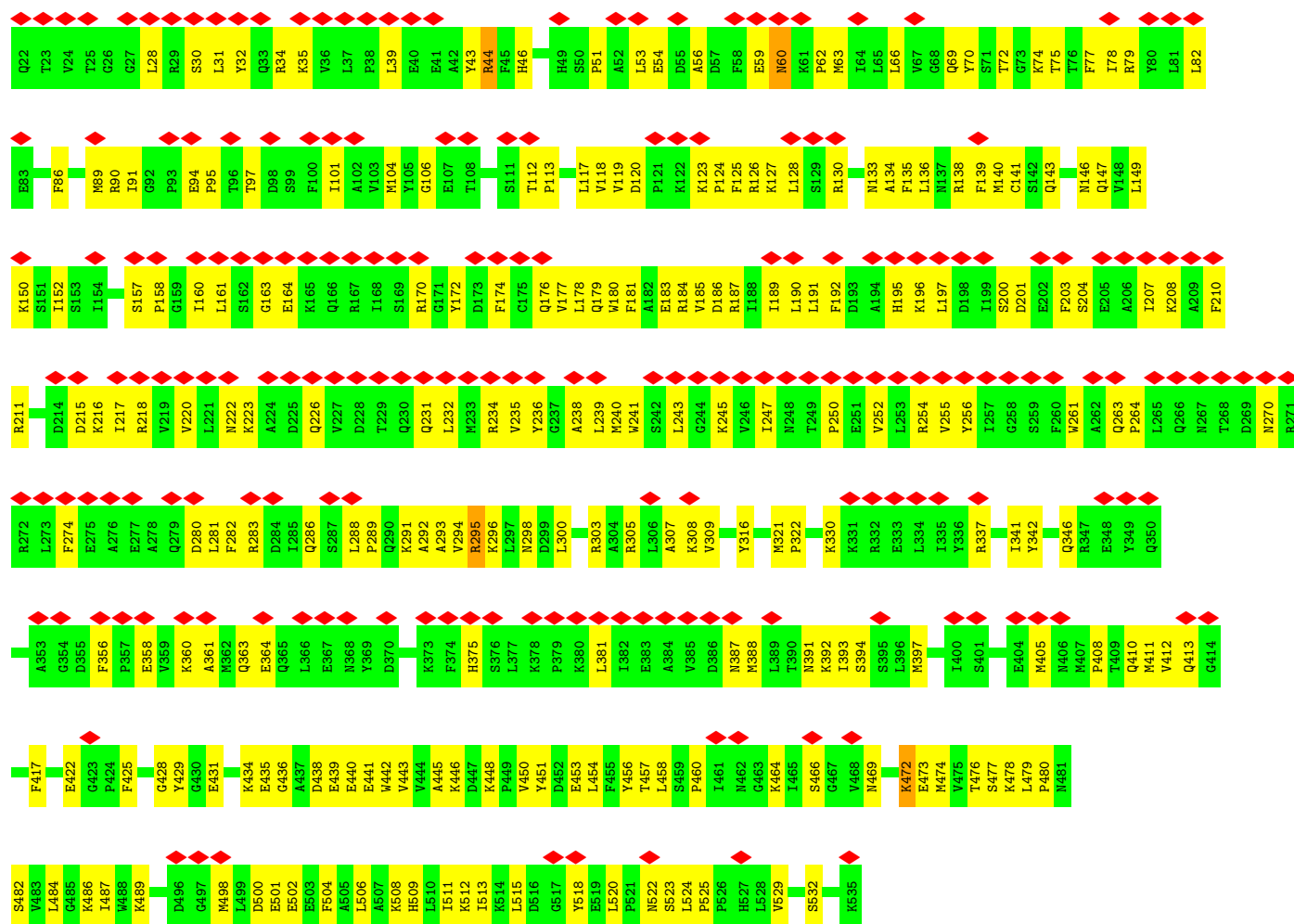


• Molecule 1: EH domain-containing protein 4

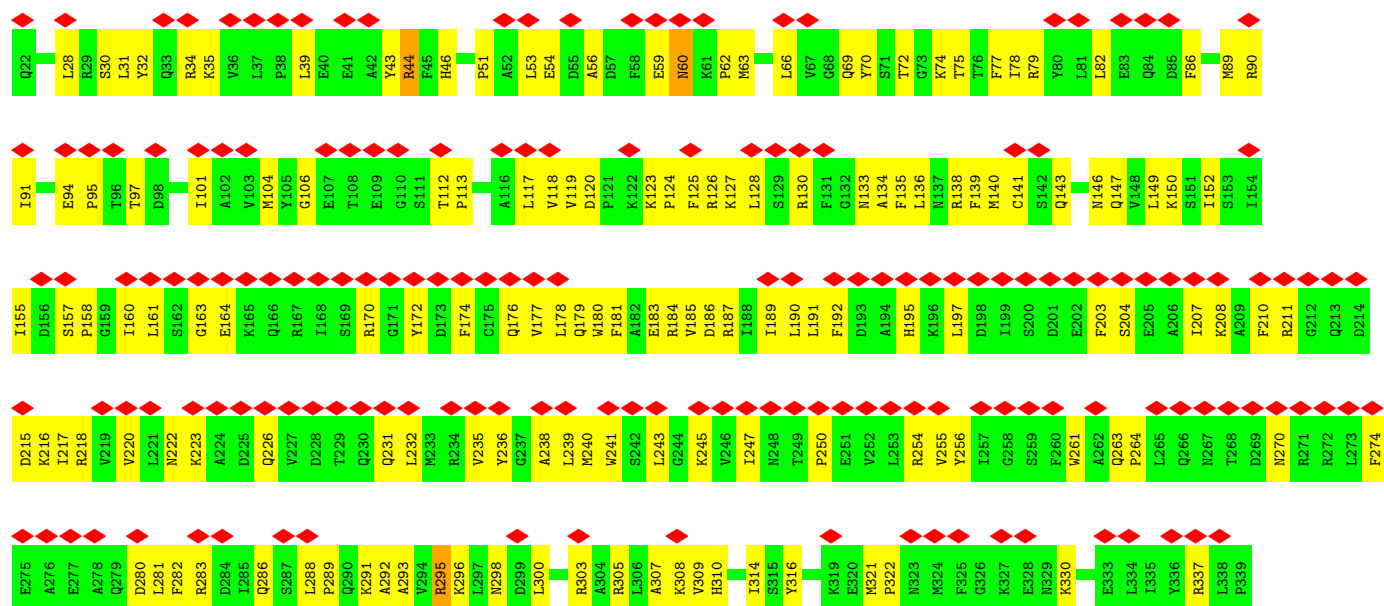
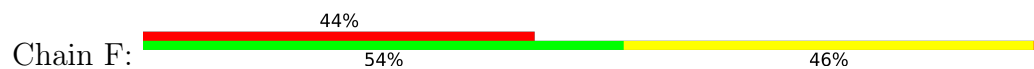


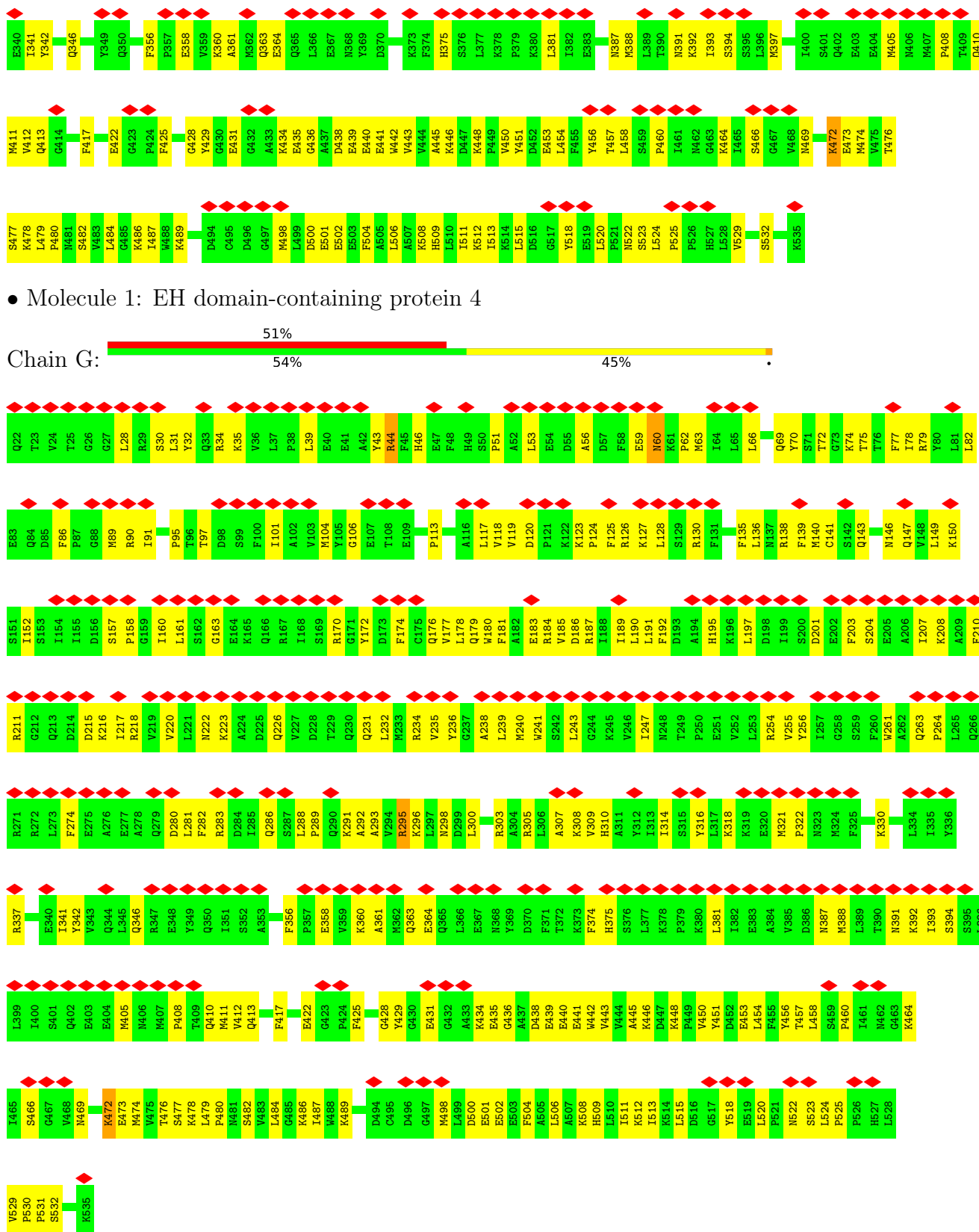


• Molecule 1: EH domain-containing protein 4

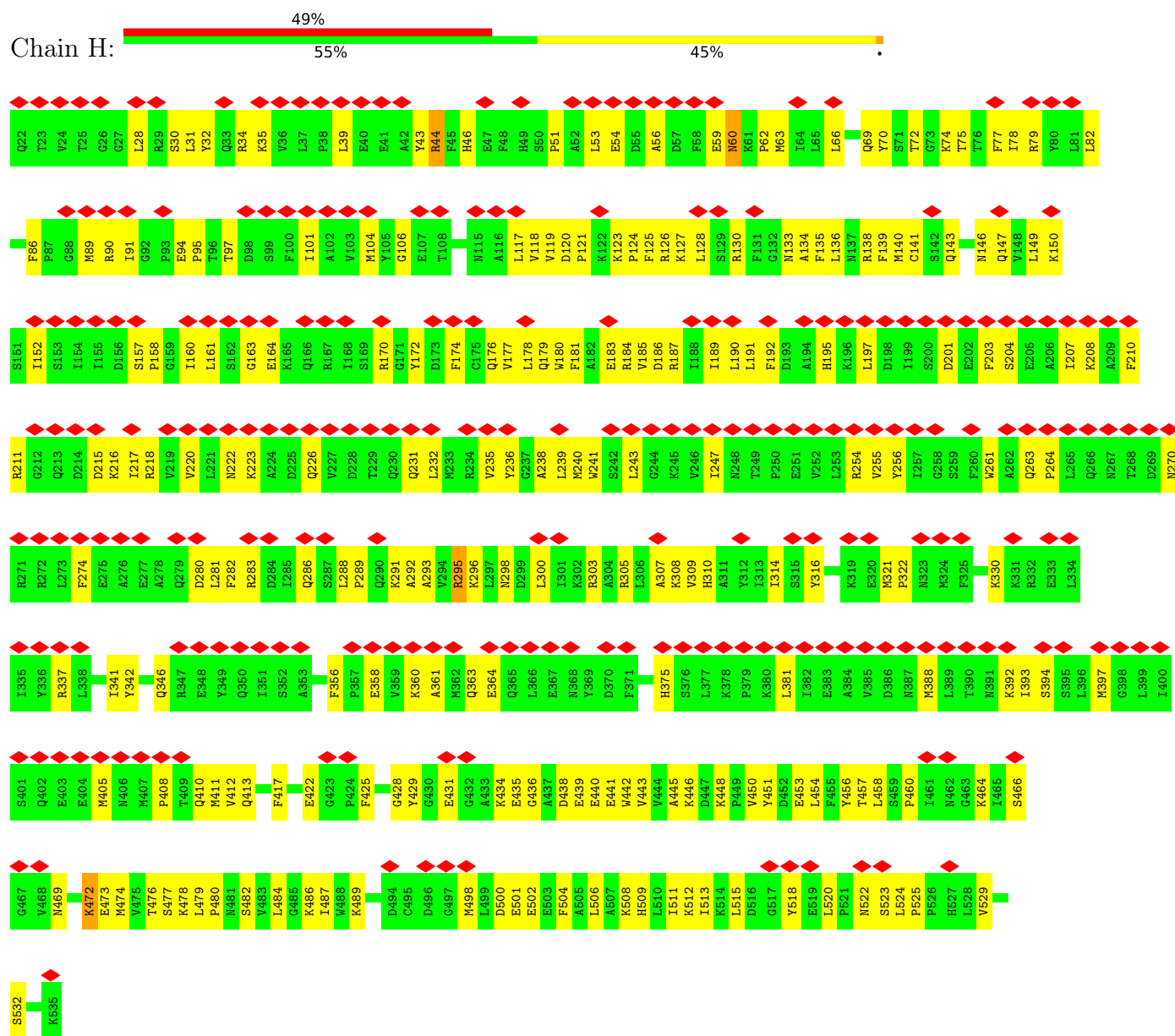


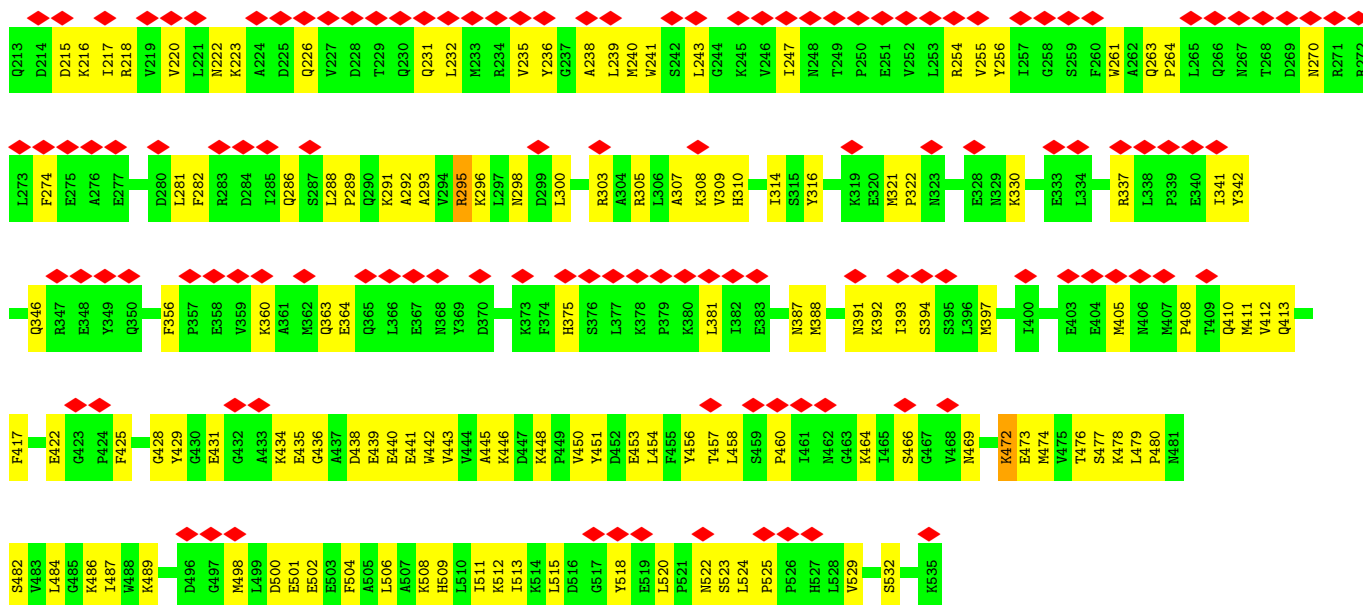
• Molecule 1: EH domain-containing protein 4





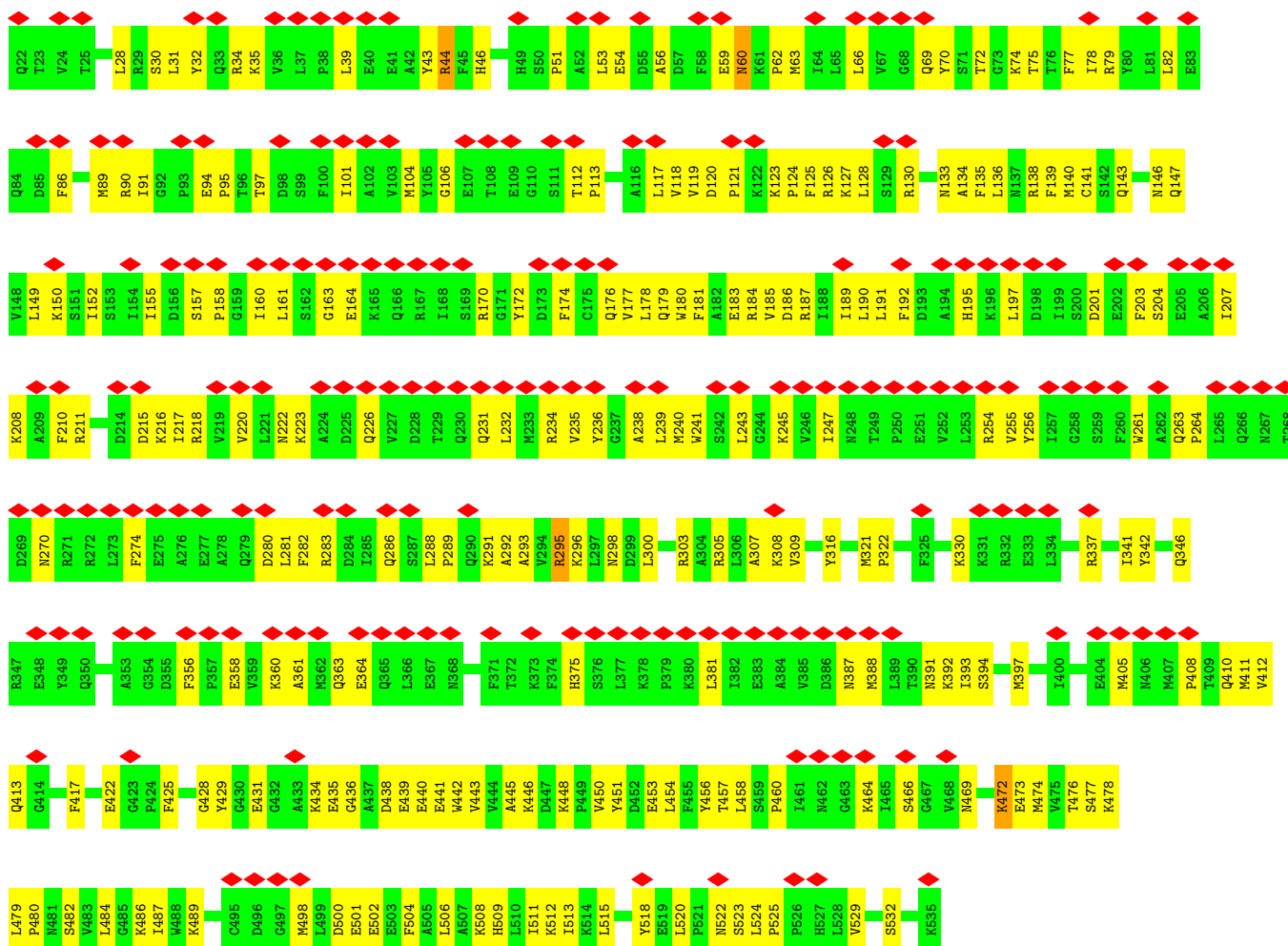
• Molecule 1: EH domain-containing protein 4





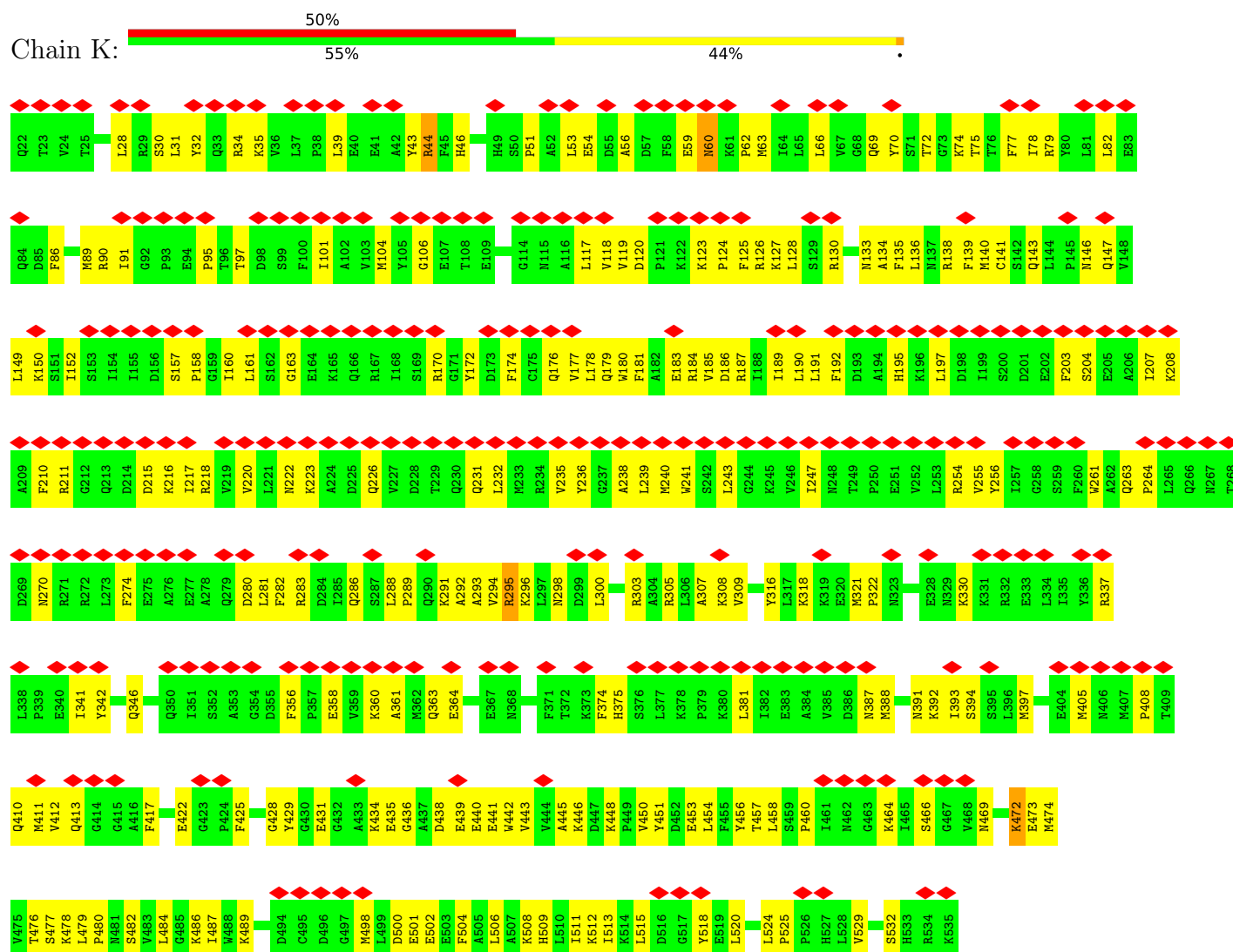
• Molecule 1: EH domain-containing protein 4

Chain J: 39% 54% 46% .



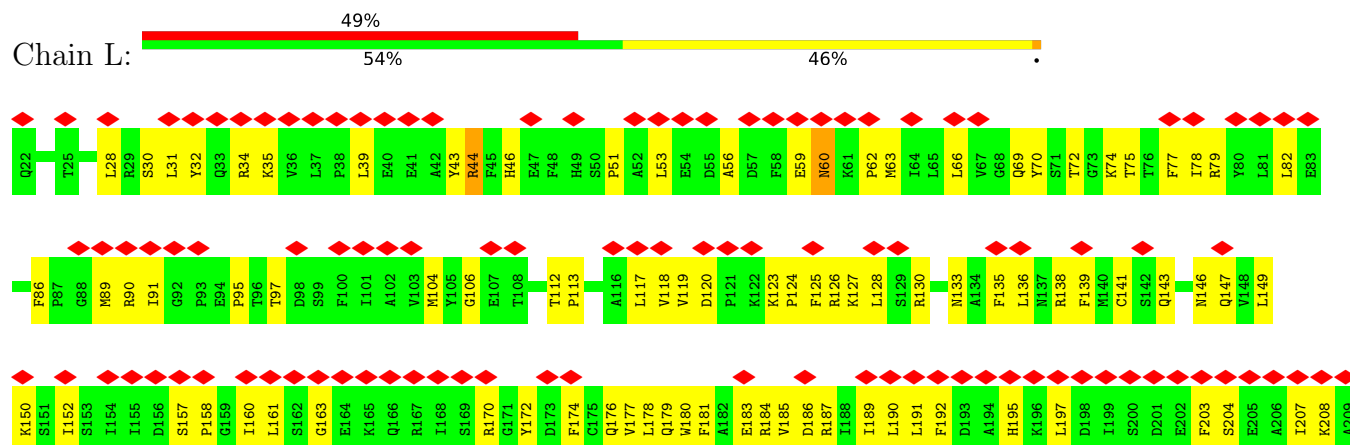
• Molecule 1: EH domain-containing protein 4

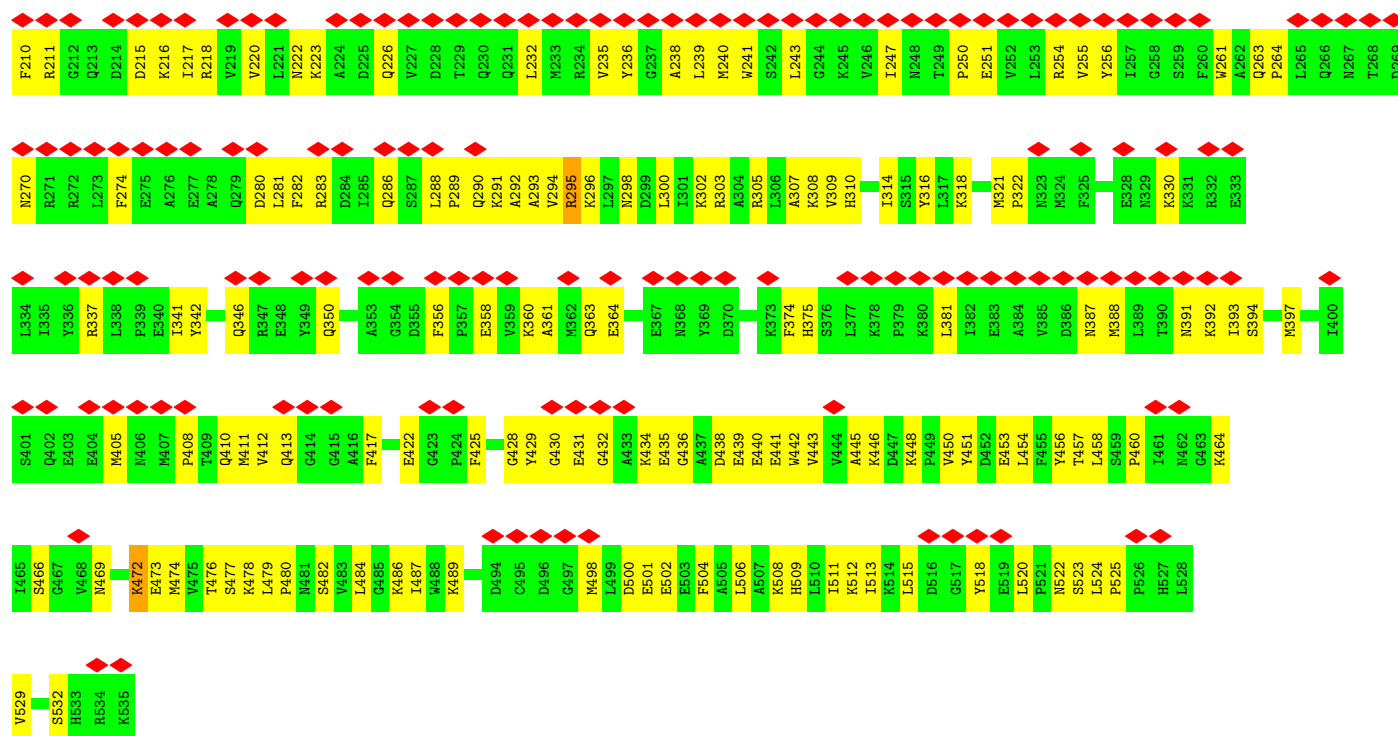
Chain K:



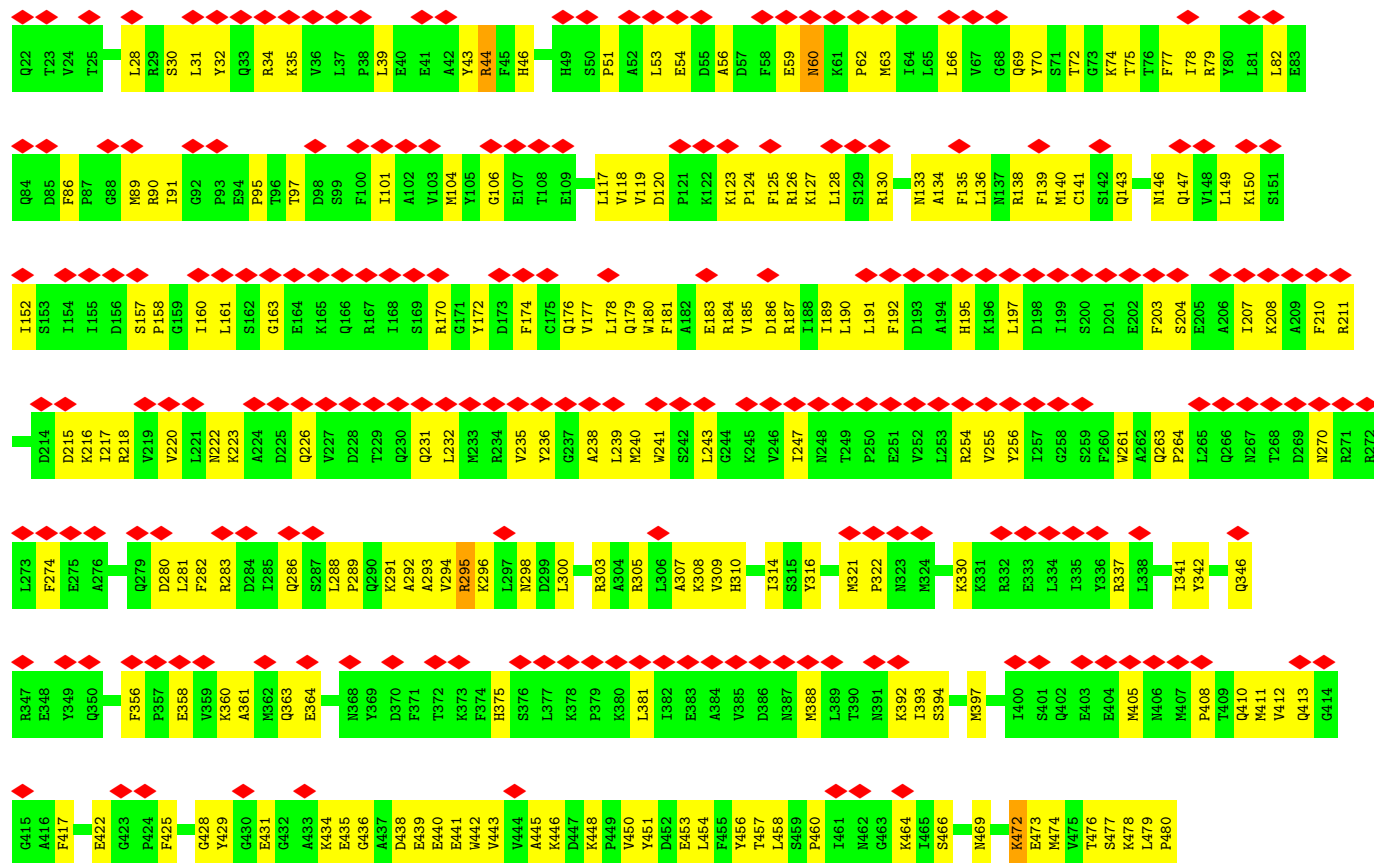
• Molecule 1: EH domain-containing protein 4

Chain L:



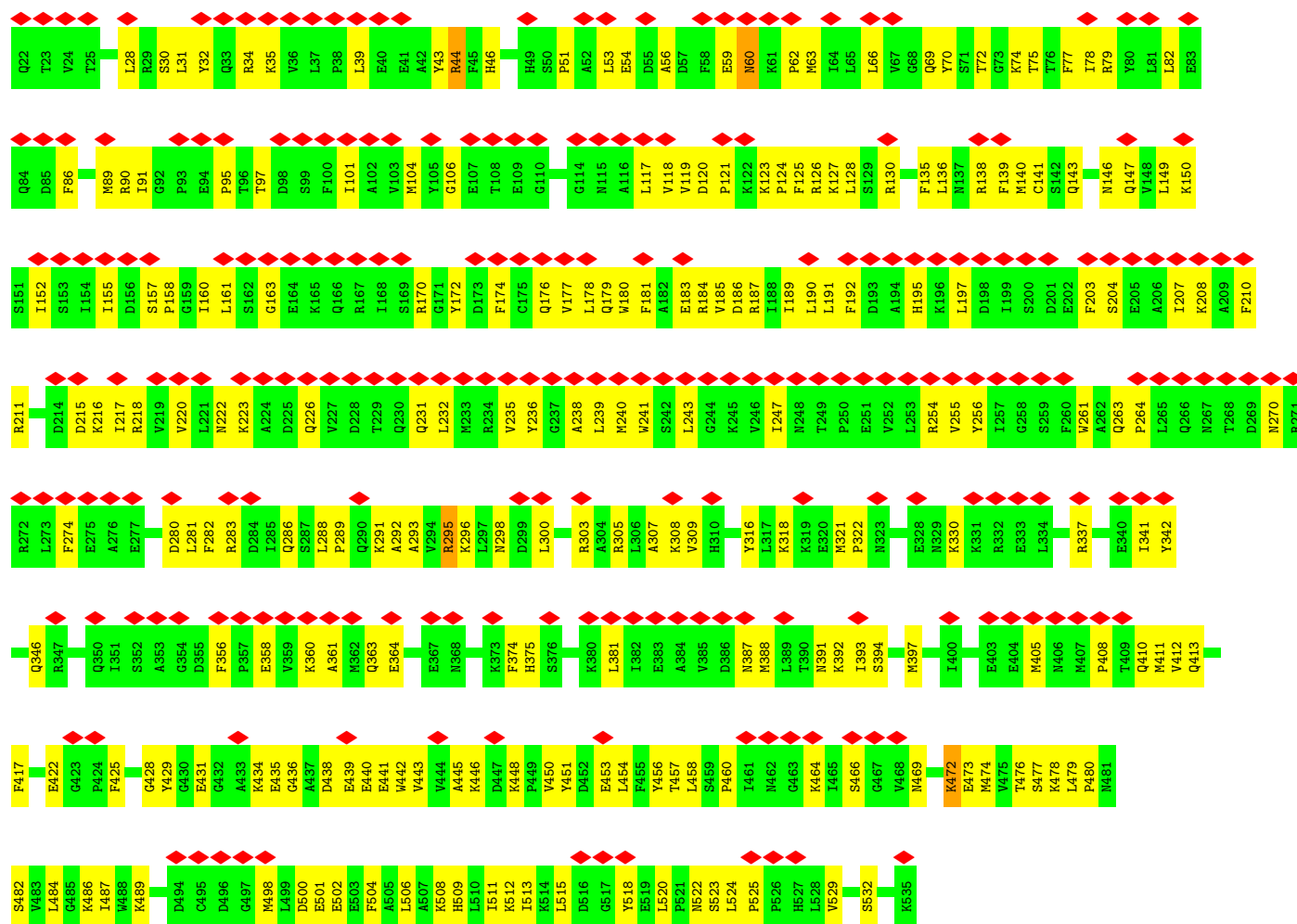


• Molecule 1: EH domain-containing protein 4

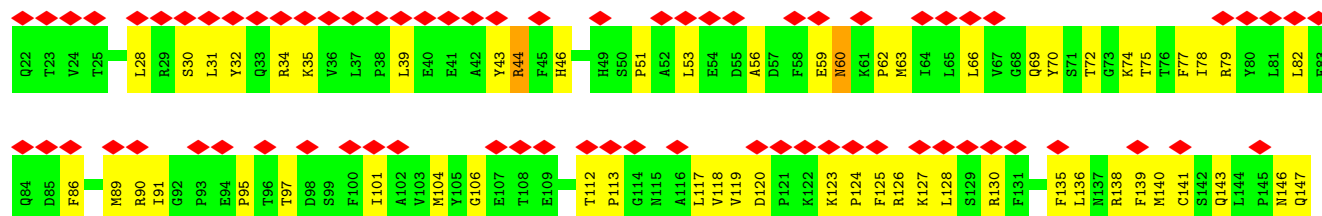


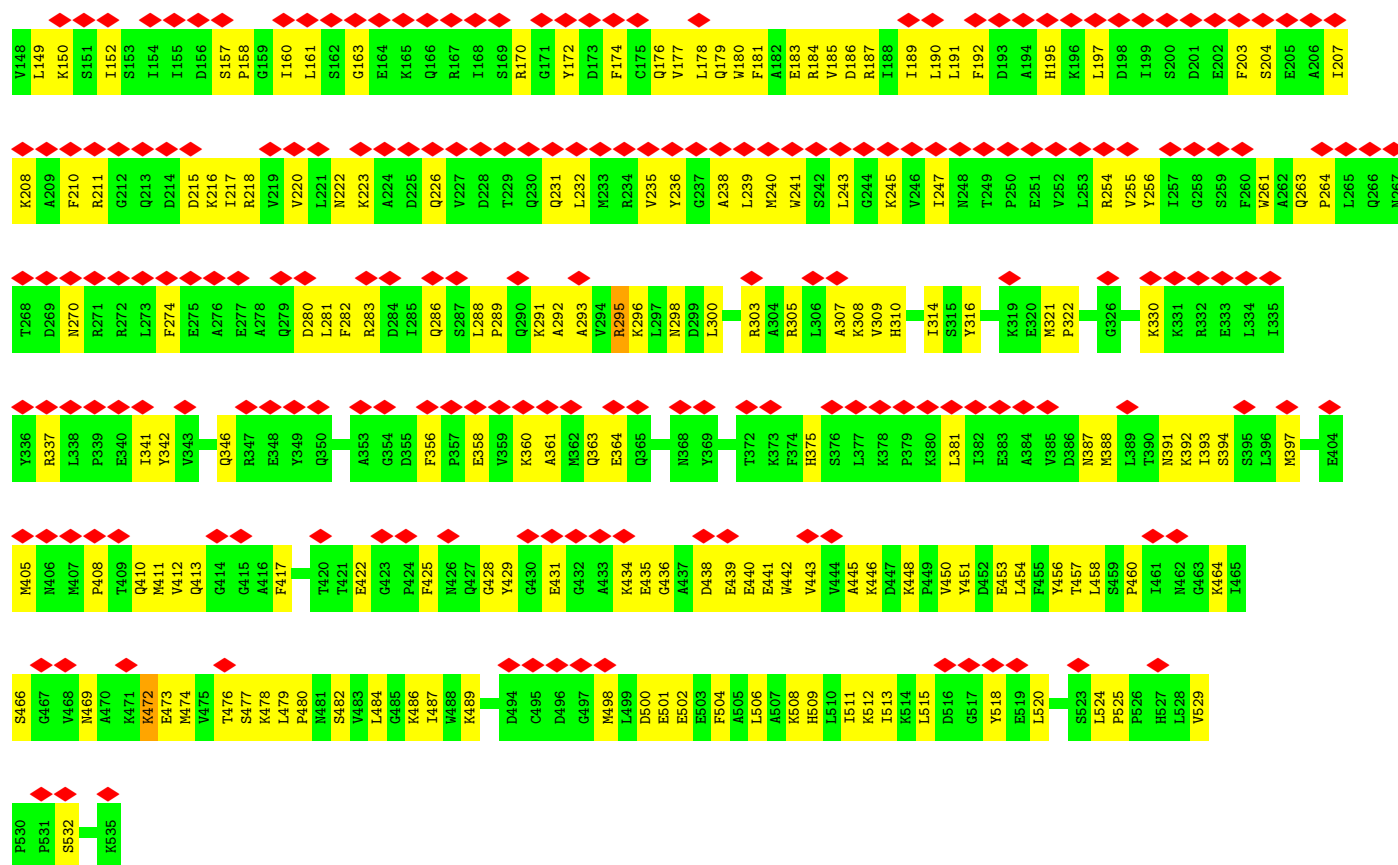


• Molecule 1: EH domain-containing protein 4

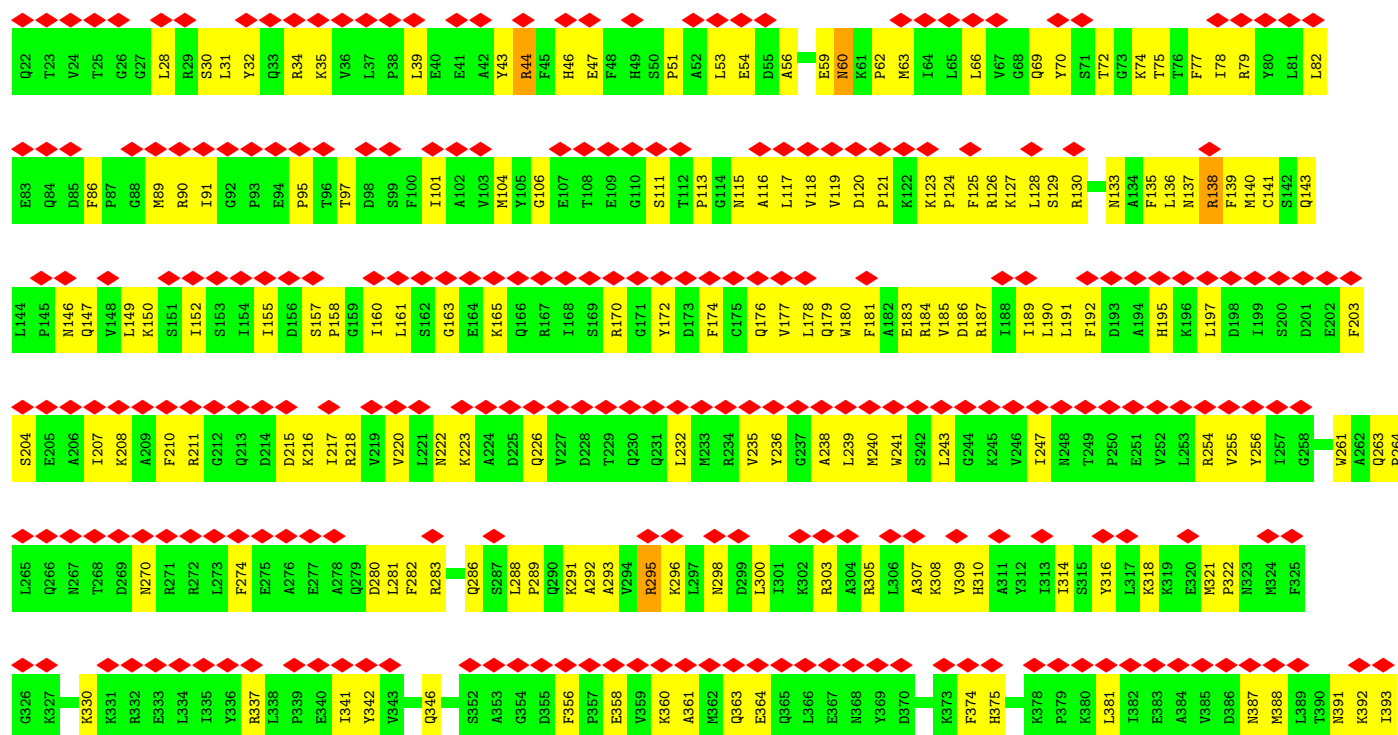


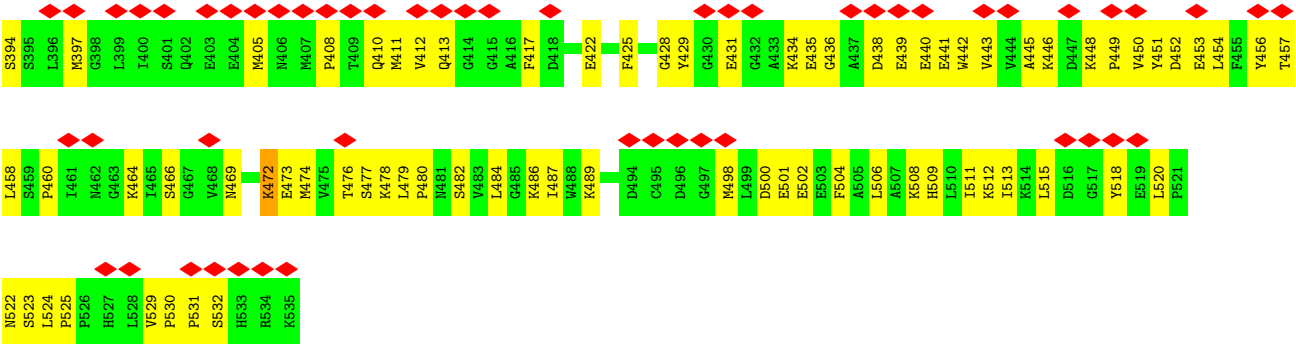
• Molecule 1: EH domain-containing protein 4





• Molecule 1: EH domain-containing protein 4





4 Experimental information

Property	Value	Source
EM reconstruction method	SUBTOMOGRAM AVERAGING	Depositor
Imposed symmetry	POINT, C2	Depositor
Number of subtomograms used	23813	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING ONLY	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	2.3	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K2 QUANTUM (4k x 4k)	Depositor
Maximum map value	6.947	Depositor
Minimum map value	-7.374	Depositor
Average map value	0.052	Depositor
Map value standard deviation	1.110	Depositor
Recommended contour level	2.22	Depositor
Map size (\AA)	252.288, 252.288, 252.288	wwPDB
Map dimensions	96, 96, 96	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (\AA)	2.628, 2.628, 2.628	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	0.27	0/4215	0.55	0/5686
1	B	0.27	0/4215	0.55	0/5686
1	C	0.27	0/4215	0.55	0/5686
1	D	0.27	0/4215	0.55	0/5686
1	E	0.27	0/4215	0.55	0/5686
1	F	0.27	0/4215	0.55	0/5686
1	G	0.27	0/4215	0.55	0/5686
1	H	0.27	0/4215	0.55	0/5686
1	I	0.27	0/4215	0.55	0/5686
1	J	0.27	0/4215	0.55	0/5686
1	K	0.27	0/4215	0.55	0/5686
1	L	0.27	0/4215	0.55	0/5686
1	M	0.27	0/4215	0.55	0/5686
1	N	0.27	0/4215	0.55	0/5686
1	O	0.27	0/4215	0.55	0/5686
1	P	0.27	0/4215	0.55	0/5686
All	All	0.27	0/67440	0.55	0/90976

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

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	4126	0	4136	216	0
1	B	4126	0	4136	212	0
1	C	4126	0	4136	212	0
1	D	4126	0	4136	220	0
1	E	4126	0	4136	224	0
1	F	4126	0	4136	212	0
1	G	4126	0	4136	212	0
1	H	4126	0	4136	215	0
1	I	4126	0	4136	216	0
1	J	4126	0	4136	225	0
1	K	4126	0	4136	206	0
1	L	4126	0	4136	285	0
1	M	4126	0	4136	209	0
1	N	4126	0	4136	206	0
1	O	4126	0	4136	209	0
1	P	4126	0	4136	284	0
All	All	66016	0	66176	3422	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 26.

All (3422) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:298:ASN:OD1	1:P:115:ASN:HB2	1.33	1.25
1:L:397:MET:HE1	1:P:121:PRO:HD3	1.33	1.11
1:L:397:MET:CE	1:P:121:PRO:HD3	1.86	1.05
1:L:291:LYS:HD2	1:P:113:PRO:HG3	1.38	1.05
1:L:291:LYS:HD2	1:P:113:PRO:CG	1.92	0.99
1:L:430:GLY:O	1:P:449:PRO:HA	1.65	0.97
1:L:397:MET:SD	1:P:121:PRO:HD3	2.06	0.96
1:L:397:MET:SD	1:P:119:VAL:O	2.24	0.95
1:L:251:GLU:HG3	1:P:165:LYS:NZ	1.81	0.95
1:E:56:ALA:HB1	1:E:124:PRO:HA	1.51	0.93
1:O:56:ALA:HB1	1:O:124:PRO:HA	1.51	0.93
1:H:56:ALA:HB1	1:H:124:PRO:HA	1.51	0.93
1:M:56:ALA:HB1	1:M:124:PRO:HA	1.51	0.93
1:F:56:ALA:HB1	1:F:124:PRO:HA	1.51	0.93
1:K:56:ALA:HB1	1:K:124:PRO:HA	1.51	0.93
1:I:56:ALA:HB1	1:I:124:PRO:HA	1.51	0.92
1:D:56:ALA:HB1	1:D:124:PRO:HA	1.51	0.92
1:L:56:ALA:HB1	1:L:124:PRO:HA	1.51	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:56:ALA:HB1	1:C:124:PRO:HA	1.51	0.92
1:G:56:ALA:HB1	1:G:124:PRO:HA	1.51	0.92
1:J:56:ALA:HB1	1:J:124:PRO:HA	1.51	0.91
1:L:291:LYS:CD	1:P:113:PRO:HG3	1.99	0.91
1:B:56:ALA:HB1	1:B:124:PRO:HA	1.51	0.91
1:N:56:ALA:HB1	1:N:124:PRO:HA	1.51	0.90
1:D:117:LEU:HD22	1:D:141:CYS:HB2	1.54	0.90
1:A:56:ALA:HB1	1:A:124:PRO:HA	1.51	0.90
1:I:117:LEU:HD22	1:I:141:CYS:HB2	1.54	0.90
1:P:56:ALA:HB1	1:P:124:PRO:HA	1.51	0.90
1:O:388:MET:HA	1:O:392:LYS:HE2	1.54	0.90
1:H:388:MET:HA	1:H:392:LYS:HE2	1.54	0.90
1:E:388:MET:HA	1:E:392:LYS:HE2	1.54	0.90
1:L:388:MET:HA	1:L:392:LYS:HE2	1.54	0.90
1:B:117:LEU:HD22	1:B:141:CYS:HB2	1.54	0.89
1:E:117:LEU:HD22	1:E:141:CYS:HB2	1.54	0.89
1:K:117:LEU:HD22	1:K:141:CYS:HB2	1.54	0.89
1:M:388:MET:HA	1:M:392:LYS:HE2	1.54	0.89
1:F:388:MET:HA	1:F:392:LYS:HE2	1.54	0.89
1:I:388:MET:HA	1:I:392:LYS:HE2	1.54	0.89
1:K:388:MET:HA	1:K:392:LYS:HE2	1.54	0.89
1:D:388:MET:HA	1:D:392:LYS:HE2	1.54	0.89
1:M:117:LEU:HD22	1:M:141:CYS:HB2	1.54	0.89
1:O:117:LEU:HD22	1:O:141:CYS:HB2	1.54	0.89
1:G:388:MET:HA	1:G:392:LYS:HE2	1.54	0.89
1:H:117:LEU:HD22	1:H:141:CYS:HB2	1.54	0.89
1:A:117:LEU:HD22	1:A:141:CYS:HB2	1.54	0.89
1:C:117:LEU:HD22	1:C:141:CYS:HB2	1.54	0.88
1:P:388:MET:HA	1:P:392:LYS:HE2	1.54	0.88
1:C:388:MET:HA	1:C:392:LYS:HE2	1.54	0.88
1:J:388:MET:HA	1:J:392:LYS:HE2	1.54	0.88
1:F:117:LEU:HD22	1:F:141:CYS:HB2	1.54	0.88
1:J:117:LEU:HD22	1:J:141:CYS:HB2	1.54	0.88
1:L:429:TYR:CE1	1:P:501:GLU:HG3	2.09	0.88
1:L:117:LEU:HD22	1:L:141:CYS:HB2	1.54	0.87
1:B:388:MET:HA	1:B:392:LYS:HE2	1.54	0.87
1:N:388:MET:HA	1:N:392:LYS:HE2	1.54	0.87
1:A:388:MET:HA	1:A:392:LYS:HE2	1.54	0.87
1:N:117:LEU:HD22	1:N:141:CYS:HB2	1.54	0.87
1:P:117:LEU:HD22	1:P:141:CYS:HB2	1.54	0.87
1:G:117:LEU:HD22	1:G:141:CYS:HB2	1.54	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:250:PRO:HG2	1:P:165:LYS:HG3	1.57	0.86
1:J:147:GLN:OE1	1:J:413:GLN:NE2	2.10	0.85
1:K:147:GLN:OE1	1:K:413:GLN:NE2	2.10	0.85
1:A:147:GLN:OE1	1:A:413:GLN:NE2	2.10	0.85
1:M:147:GLN:OE1	1:M:413:GLN:NE2	2.10	0.85
1:B:147:GLN:OE1	1:B:413:GLN:NE2	2.10	0.85
1:C:147:GLN:OE1	1:C:413:GLN:NE2	2.10	0.85
1:N:147:GLN:OE1	1:N:413:GLN:NE2	2.10	0.85
1:E:147:GLN:OE1	1:E:413:GLN:NE2	2.10	0.85
1:O:147:GLN:OE1	1:O:413:GLN:NE2	2.10	0.85
1:H:147:GLN:OE1	1:H:413:GLN:NE2	2.10	0.85
1:I:147:GLN:OE1	1:I:413:GLN:NE2	2.10	0.85
1:D:147:GLN:OE1	1:D:413:GLN:NE2	2.10	0.84
1:L:147:GLN:OE1	1:L:413:GLN:NE2	2.10	0.84
1:P:147:GLN:OE1	1:P:413:GLN:NE2	2.10	0.84
1:G:147:GLN:OE1	1:G:413:GLN:NE2	2.10	0.84
1:M:294:VAL:HG11	1:O:113:PRO:HG2	1.57	0.84
1:C:240:MET:SD	1:D:240:MET:SD	2.75	0.84
1:F:147:GLN:OE1	1:F:413:GLN:NE2	2.10	0.84
1:L:251:GLU:HG3	1:P:165:LYS:HZ3	1.42	0.83
1:D:94:GLU:CD	1:E:234:ARG:HB3	1.97	0.83
1:L:397:MET:SD	1:P:121:PRO:CD	2.67	0.82
1:L:350:GLN:CG	1:P:47:GLU:HG2	2.09	0.82
1:K:127:LYS:HE3	1:K:180:TRP:HE1	1.45	0.82
1:C:127:LYS:HE3	1:C:180:TRP:HE1	1.45	0.81
1:E:127:LYS:HE3	1:E:180:TRP:HE1	1.46	0.81
1:P:127:LYS:HE3	1:P:180:TRP:HE1	1.45	0.81
1:G:127:LYS:HE3	1:G:180:TRP:HE1	1.46	0.81
1:L:294:VAL:HG21	1:P:113:PRO:HD2	1.62	0.81
1:L:127:LYS:HE3	1:L:180:TRP:HE1	1.46	0.81
1:B:127:LYS:HE3	1:B:180:TRP:HE1	1.45	0.81
1:D:127:LYS:HE3	1:D:180:TRP:HE1	1.45	0.81
1:F:127:LYS:HE3	1:F:180:TRP:HE1	1.45	0.81
1:A:127:LYS:HE3	1:A:180:TRP:HE1	1.46	0.80
1:N:127:LYS:HE3	1:N:180:TRP:HE1	1.45	0.80
1:P:123:LYS:O	1:P:126:ARG:NH1	2.15	0.80
1:C:123:LYS:O	1:C:126:ARG:NH1	2.15	0.80
1:J:127:LYS:HE3	1:J:180:TRP:HE1	1.45	0.80
1:K:123:LYS:O	1:K:126:ARG:NH1	2.15	0.80
1:I:127:LYS:HE3	1:I:180:TRP:HE1	1.45	0.80
1:L:123:LYS:O	1:L:126:ARG:NH1	2.15	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:123:LYS:O	1:M:126:ARG:NH1	2.15	0.80
1:B:123:LYS:O	1:B:126:ARG:NH1	2.15	0.80
1:H:123:LYS:O	1:H:126:ARG:NH1	2.15	0.80
1:I:123:LYS:O	1:I:126:ARG:NH1	2.15	0.80
1:A:123:LYS:O	1:A:126:ARG:NH1	2.15	0.80
1:H:127:LYS:HE3	1:H:180:TRP:HE1	1.45	0.80
1:E:123:LYS:O	1:E:126:ARG:NH1	2.15	0.79
1:N:123:LYS:O	1:N:126:ARG:NH1	2.15	0.79
1:O:127:LYS:HE3	1:O:180:TRP:HE1	1.45	0.79
1:G:123:LYS:O	1:G:126:ARG:NH1	2.15	0.79
1:J:123:LYS:O	1:J:126:ARG:NH1	2.15	0.79
1:A:240:MET:SD	1:B:240:MET:SD	2.80	0.79
1:P:286:GLN:HG2	1:P:411:MET:HA	1.65	0.79
1:J:286:GLN:HG2	1:J:411:MET:HA	1.65	0.79
1:L:215:ASP:OD2	1:P:137:ASN:HB3	1.82	0.79
1:C:286:GLN:HG2	1:C:411:MET:HA	1.65	0.79
1:F:123:LYS:O	1:F:126:ARG:NH1	2.15	0.79
1:N:286:GLN:HG2	1:N:411:MET:HA	1.65	0.79
1:M:127:LYS:HE3	1:M:180:TRP:HE1	1.46	0.79
1:M:286:GLN:HG2	1:M:411:MET:HA	1.65	0.79
1:D:123:LYS:O	1:D:126:ARG:NH1	2.15	0.79
1:F:286:GLN:HG2	1:F:411:MET:HA	1.65	0.79
1:K:286:GLN:HG2	1:K:411:MET:HA	1.65	0.78
1:D:286:GLN:HG2	1:D:411:MET:HA	1.65	0.78
1:C:429:TYR:OH	1:E:456:TYR:CE2	2.36	0.78
1:E:286:GLN:HG2	1:E:411:MET:HA	1.65	0.78
1:H:286:GLN:HG2	1:H:411:MET:HA	1.65	0.78
1:A:286:GLN:HG2	1:A:411:MET:HA	1.65	0.78
1:I:286:GLN:HG2	1:I:411:MET:HA	1.65	0.78
1:O:123:LYS:O	1:O:126:ARG:NH1	2.15	0.78
1:B:286:GLN:HG2	1:B:411:MET:HA	1.65	0.78
1:L:432:GLY:HA3	1:P:453:GLU:OE1	1.84	0.78
1:L:286:GLN:HG2	1:L:411:MET:HA	1.65	0.77
1:N:450:VAL:HA	1:N:453:GLU:HG2	1.66	0.77
1:A:450:VAL:HA	1:A:453:GLU:HG2	1.66	0.77
1:B:450:VAL:HA	1:B:453:GLU:HG2	1.66	0.77
1:I:240:MET:HE1	1:J:241:TRP:CD1	2.20	0.77
1:P:450:VAL:HA	1:P:453:GLU:HG2	1.66	0.77
1:O:450:VAL:HA	1:O:453:GLU:HG2	1.66	0.77
1:J:450:VAL:HA	1:J:453:GLU:HG2	1.66	0.77
1:F:450:VAL:HA	1:F:453:GLU:HG2	1.66	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:450:VAL:HA	1:L:453:GLU:HG2	1.66	0.77
1:O:286:GLN:HG2	1:O:411:MET:HA	1.65	0.77
1:G:286:GLN:HG2	1:G:411:MET:HA	1.65	0.76
1:L:294:VAL:HB	1:P:113:PRO:HG2	1.65	0.76
1:C:86:PHE:O	1:C:90:ARG:NH2	2.17	0.76
1:C:450:VAL:HA	1:C:453:GLU:HG2	1.66	0.76
1:G:450:VAL:HA	1:G:453:GLU:HG2	1.66	0.76
1:I:450:VAL:HA	1:I:453:GLU:HG2	1.66	0.76
1:J:86:PHE:O	1:J:90:ARG:NH2	2.17	0.76
1:D:450:VAL:HA	1:D:453:GLU:HG2	1.66	0.75
1:K:86:PHE:O	1:K:90:ARG:NH2	2.17	0.75
1:L:250:PRO:HD2	1:P:165:LYS:HD2	1.66	0.75
1:L:441:GLU:HB3	1:L:515:LEU:HD11	1.69	0.75
1:G:30:SER:HB2	1:G:34:ARG:HH21	1.52	0.75
1:L:30:SER:HB2	1:L:34:ARG:HH21	1.52	0.75
1:M:450:VAL:HA	1:M:453:GLU:HG2	1.66	0.75
1:G:441:GLU:HB3	1:G:515:LEU:HD11	1.69	0.75
1:O:441:GLU:HB3	1:O:515:LEU:HD11	1.69	0.75
1:P:30:SER:HB2	1:P:34:ARG:HH21	1.52	0.75
1:D:234:ARG:HB3	1:E:94:GLU:CD	2.07	0.75
1:K:450:VAL:HA	1:K:453:GLU:HG2	1.66	0.75
1:B:441:GLU:HB3	1:B:515:LEU:HD11	1.69	0.74
1:E:30:SER:HB2	1:E:34:ARG:HH21	1.52	0.74
1:H:30:SER:HB2	1:H:34:ARG:HH21	1.52	0.74
1:N:441:GLU:HB3	1:N:515:LEU:HD11	1.69	0.74
1:A:441:GLU:HB3	1:A:515:LEU:HD11	1.69	0.74
1:E:86:PHE:O	1:E:90:ARG:NH2	2.17	0.74
1:O:30:SER:HB2	1:O:34:ARG:HH21	1.52	0.74
1:P:441:GLU:HB3	1:P:515:LEU:HD11	1.69	0.74
1:I:30:SER:HB2	1:I:34:ARG:HH21	1.52	0.74
1:N:30:SER:HB2	1:N:34:ARG:HH21	1.52	0.74
1:E:450:VAL:HA	1:E:453:GLU:HG2	1.66	0.74
1:H:450:VAL:HA	1:H:453:GLU:HG2	1.66	0.74
1:J:30:SER:HB2	1:J:34:ARG:HH21	1.52	0.74
1:L:298:ASN:OD1	1:P:115:ASN:CB	2.27	0.74
1:D:30:SER:HB2	1:D:34:ARG:HH21	1.52	0.74
1:J:441:GLU:HB3	1:J:515:LEU:HD11	1.69	0.74
1:K:30:SER:HB2	1:K:34:ARG:HH21	1.52	0.74
1:M:30:SER:HB2	1:M:34:ARG:HH21	1.52	0.74
1:M:86:PHE:O	1:M:90:ARG:NH2	2.17	0.74
1:C:429:TYR:OH	1:E:456:TYR:HE2	1.71	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:441:GLU:HB3	1:C:515:LEU:HD11	1.69	0.74
1:E:441:GLU:HB3	1:E:515:LEU:HD11	1.69	0.74
1:F:30:SER:HB2	1:F:34:ARG:HH21	1.52	0.74
1:H:441:GLU:HB3	1:H:515:LEU:HD11	1.69	0.74
1:B:30:SER:HB2	1:B:34:ARG:HH21	1.52	0.74
1:A:30:SER:HB2	1:A:34:ARG:HH21	1.52	0.73
1:L:305:ARG:NH2	1:P:130:ARG:O	2.21	0.73
1:F:441:GLU:HB3	1:F:515:LEU:HD11	1.69	0.73
1:I:441:GLU:HB3	1:I:515:LEU:HD11	1.69	0.73
1:M:441:GLU:HB3	1:M:515:LEU:HD11	1.69	0.73
1:O:86:PHE:O	1:O:90:ARG:NH2	2.17	0.73
1:A:86:PHE:O	1:A:90:ARG:NH2	2.17	0.73
1:D:441:GLU:HB3	1:D:515:LEU:HD11	1.69	0.73
1:H:86:PHE:O	1:H:90:ARG:NH2	2.17	0.73
1:K:441:GLU:HB3	1:K:515:LEU:HD11	1.69	0.73
1:C:30:SER:HB2	1:C:34:ARG:HH21	1.52	0.73
1:F:86:PHE:O	1:F:90:ARG:NH2	2.17	0.73
1:L:86:PHE:O	1:L:90:ARG:NH2	2.17	0.72
1:G:86:PHE:O	1:G:90:ARG:NH2	2.17	0.72
1:C:66:LEU:HD12	1:C:189:ILE:HB	1.73	0.71
1:M:66:LEU:HD12	1:M:189:ILE:HB	1.73	0.71
1:K:66:LEU:HD12	1:K:189:ILE:HB	1.73	0.71
1:H:66:LEU:HD12	1:H:189:ILE:HB	1.73	0.71
1:J:66:LEU:HD12	1:J:189:ILE:HB	1.73	0.71
1:D:66:LEU:HD12	1:D:189:ILE:HB	1.73	0.71
1:F:66:LEU:HD12	1:F:189:ILE:HB	1.73	0.71
1:E:66:LEU:HD12	1:E:189:ILE:HB	1.73	0.71
1:N:66:LEU:HD12	1:N:189:ILE:HB	1.73	0.71
1:O:458:LEU:HD21	1:O:473:GLU:HG2	1.73	0.71
1:P:86:PHE:O	1:P:90:ARG:NH2	2.17	0.71
1:I:66:LEU:HD12	1:I:189:ILE:HB	1.73	0.70
1:E:458:LEU:HD21	1:E:473:GLU:HG2	1.73	0.70
1:H:458:LEU:HD21	1:H:473:GLU:HG2	1.73	0.70
1:L:350:GLN:HG3	1:P:47:GLU:HG2	1.71	0.70
1:D:86:PHE:O	1:D:90:ARG:NH2	2.17	0.70
1:K:458:LEU:HD21	1:K:473:GLU:HG2	1.73	0.70
1:L:458:LEU:HD21	1:L:473:GLU:HG2	1.73	0.70
1:G:458:LEU:HD21	1:G:473:GLU:HG2	1.73	0.70
1:P:66:LEU:HD12	1:P:189:ILE:HB	1.73	0.70
1:F:295:ARG:NH1	1:F:296:LYS:HG3	2.07	0.70
1:M:458:LEU:HD21	1:M:473:GLU:HG2	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:66:LEU:HD12	1:A:189:ILE:HB	1.73	0.70
1:E:295:ARG:NH1	1:E:296:LYS:HG3	2.07	0.70
1:H:295:ARG:NH1	1:H:296:LYS:HG3	2.07	0.70
1:L:295:ARG:NH1	1:L:296:LYS:HG3	2.07	0.69
1:C:295:ARG:NH1	1:C:296:LYS:HG3	2.07	0.69
1:F:458:LEU:HD21	1:F:473:GLU:HG2	1.73	0.69
1:K:295:ARG:NH1	1:K:296:LYS:HG3	2.07	0.69
1:O:295:ARG:NH1	1:O:296:LYS:HG3	2.07	0.69
1:P:295:ARG:NH1	1:P:296:LYS:HG3	2.07	0.69
1:D:295:ARG:NH1	1:D:296:LYS:HG3	2.07	0.69
1:I:458:LEU:HD21	1:I:473:GLU:HG2	1.73	0.69
1:P:458:LEU:HD21	1:P:473:GLU:HG2	1.73	0.69
1:B:458:LEU:HD21	1:B:473:GLU:HG2	1.73	0.69
1:C:322:PRO:HD3	1:C:330:LYS:HG2	1.75	0.69
1:J:322:PRO:HD3	1:J:330:LYS:HG2	1.75	0.69
1:A:458:LEU:HD21	1:A:473:GLU:HG2	1.73	0.69
1:B:66:LEU:HD12	1:B:189:ILE:HB	1.73	0.69
1:G:295:ARG:NH1	1:G:296:LYS:HG3	2.07	0.69
1:I:295:ARG:NH1	1:I:296:LYS:HG3	2.07	0.69
1:M:295:ARG:NH1	1:M:296:LYS:HG3	2.07	0.69
1:N:322:PRO:HD3	1:N:330:LYS:HG2	1.75	0.69
1:C:458:LEU:HD21	1:C:473:GLU:HG2	1.73	0.69
1:D:31:LEU:HD11	1:D:300:LEU:HD21	1.75	0.69
1:D:458:LEU:HD21	1:D:473:GLU:HG2	1.73	0.69
1:G:31:LEU:HD11	1:G:300:LEU:HD21	1.75	0.69
1:G:66:LEU:HD12	1:G:189:ILE:HB	1.73	0.69
1:I:31:LEU:HD11	1:I:300:LEU:HD21	1.75	0.69
1:I:86:PHE:O	1:I:90:ARG:NH2	2.17	0.69
1:N:295:ARG:NH1	1:N:296:LYS:HG3	2.07	0.69
1:O:66:LEU:HD12	1:O:189:ILE:HB	1.73	0.69
1:P:31:LEU:HD11	1:P:300:LEU:HD21	1.75	0.69
1:K:322:PRO:HD3	1:K:330:LYS:HG2	1.75	0.69
1:L:31:LEU:HD11	1:L:300:LEU:HD21	1.75	0.69
1:A:322:PRO:HD3	1:A:330:LYS:HG2	1.75	0.69
1:F:322:PRO:HD3	1:F:330:LYS:HG2	1.75	0.69
1:M:322:PRO:HD3	1:M:330:LYS:HG2	1.75	0.69
1:B:295:ARG:NH1	1:B:296:LYS:HG3	2.07	0.68
1:B:322:PRO:HD3	1:B:330:LYS:HG2	1.75	0.68
1:J:295:ARG:NH1	1:J:296:LYS:HG3	2.07	0.68
1:A:31:LEU:HD11	1:A:300:LEU:HD21	1.75	0.68
1:B:31:LEU:HD11	1:B:300:LEU:HD21	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:422:GLU:HG2	1:G:489:LYS:HB3	1.76	0.68
1:N:458:LEU:HD21	1:N:473:GLU:HG2	1.73	0.68
1:P:322:PRO:HD3	1:P:330:LYS:HG2	1.75	0.68
1:A:295:ARG:NH1	1:A:296:LYS:HG3	2.07	0.68
1:F:31:LEU:HD11	1:F:300:LEU:HD21	1.75	0.68
1:F:197:LEU:HD11	1:F:239:LEU:HB2	1.76	0.68
1:H:322:PRO:HD3	1:H:330:LYS:HG2	1.75	0.68
1:B:439:GLU:HB3	1:B:478:LYS:HB3	1.75	0.68
1:C:197:LEU:HD11	1:C:239:LEU:HB2	1.76	0.68
1:E:322:PRO:HD3	1:E:330:LYS:HG2	1.75	0.68
1:G:322:PRO:HD3	1:G:330:LYS:HG2	1.75	0.68
1:I:439:GLU:HB3	1:I:478:LYS:HB3	1.75	0.68
1:L:66:LEU:HD12	1:L:189:ILE:HB	1.73	0.68
1:L:422:GLU:HG2	1:L:489:LYS:HB3	1.76	0.68
1:L:429:TYR:HE1	1:P:501:GLU:HB2	1.57	0.68
1:P:197:LEU:HD11	1:P:239:LEU:HB2	1.76	0.68
1:A:439:GLU:HB3	1:A:478:LYS:HB3	1.75	0.68
1:D:439:GLU:HB3	1:D:478:LYS:HB3	1.75	0.68
1:F:422:GLU:HG2	1:F:489:LYS:HB3	1.76	0.68
1:J:197:LEU:HD11	1:J:239:LEU:HB2	1.76	0.68
1:J:439:GLU:HB3	1:J:478:LYS:HB3	1.75	0.68
1:J:458:LEU:HD21	1:J:473:GLU:HG2	1.73	0.68
1:O:31:LEU:HD11	1:O:300:LEU:HD21	1.75	0.68
1:O:422:GLU:HG2	1:O:489:LYS:HB3	1.76	0.68
1:E:422:GLU:HG2	1:E:489:LYS:HB3	1.76	0.68
1:L:322:PRO:HD3	1:L:330:LYS:HG2	1.75	0.68
1:O:439:GLU:HB3	1:O:478:LYS:HB3	1.75	0.68
1:C:439:GLU:HB3	1:C:478:LYS:HB3	1.75	0.68
1:F:439:GLU:HB3	1:F:478:LYS:HB3	1.75	0.68
1:L:74:LYS:HG2	1:L:191:LEU:HD12	1.76	0.68
1:N:197:LEU:HD11	1:N:239:LEU:HB2	1.76	0.68
1:N:439:GLU:HB3	1:N:478:LYS:HB3	1.75	0.68
1:O:74:LYS:HG2	1:O:191:LEU:HD12	1.76	0.68
1:E:439:GLU:HB3	1:E:478:LYS:HB3	1.75	0.68
1:K:422:GLU:HG2	1:K:489:LYS:HB3	1.76	0.68
1:M:439:GLU:HB3	1:M:478:LYS:HB3	1.75	0.68
1:C:429:TYR:CE2	1:C:431:GLU:HG3	2.30	0.68
1:D:422:GLU:HG2	1:D:489:LYS:HB3	1.76	0.68
1:E:31:LEU:HD11	1:E:300:LEU:HD21	1.75	0.68
1:H:31:LEU:HD11	1:H:300:LEU:HD21	1.75	0.68
1:H:439:GLU:HB3	1:H:478:LYS:HB3	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:197:LEU:HD11	1:K:239:LEU:HB2	1.76	0.68
1:L:439:GLU:HB3	1:L:478:LYS:HB3	1.75	0.68
1:G:74:LYS:HG2	1:G:191:LEU:HD12	1.76	0.67
1:G:429:TYR:CE2	1:G:431:GLU:HG3	2.30	0.67
1:H:197:LEU:HD11	1:H:239:LEU:HB2	1.76	0.67
1:H:422:GLU:HG2	1:H:489:LYS:HB3	1.76	0.67
1:I:422:GLU:HG2	1:I:489:LYS:HB3	1.76	0.67
1:I:429:TYR:CE2	1:I:431:GLU:HG3	2.30	0.67
1:L:429:TYR:CE2	1:L:431:GLU:HG3	2.30	0.67
1:M:197:LEU:HD11	1:M:239:LEU:HB2	1.76	0.67
1:N:31:LEU:HD11	1:N:300:LEU:HD21	1.75	0.67
1:B:86:PHE:O	1:B:90:ARG:NH2	2.17	0.67
1:D:429:TYR:CE2	1:D:431:GLU:HG3	2.30	0.67
1:M:422:GLU:HG2	1:M:489:LYS:HB3	1.76	0.67
1:A:197:LEU:HD11	1:A:239:LEU:HB2	1.76	0.67
1:L:197:LEU:HD11	1:L:239:LEU:HB2	1.76	0.67
1:P:422:GLU:HG2	1:P:489:LYS:HB3	1.76	0.67
1:K:439:GLU:HB3	1:K:478:LYS:HB3	1.75	0.67
1:E:74:LYS:HG2	1:E:191:LEU:HD12	1.76	0.67
1:E:197:LEU:HD11	1:E:239:LEU:HB2	1.76	0.67
1:G:197:LEU:HD11	1:G:239:LEU:HB2	1.76	0.67
1:H:429:TYR:CE2	1:H:431:GLU:HG3	2.30	0.67
1:L:429:TYR:CE1	1:P:501:GLU:HB2	2.29	0.67
1:P:429:TYR:CE2	1:P:431:GLU:HG3	2.29	0.67
1:P:439:GLU:HB3	1:P:478:LYS:HB3	1.75	0.67
1:B:197:LEU:HD11	1:B:239:LEU:HB2	1.76	0.67
1:B:429:TYR:CE2	1:B:431:GLU:HG3	2.30	0.67
1:D:322:PRO:HD3	1:D:330:LYS:HG2	1.75	0.67
1:I:197:LEU:HD11	1:I:239:LEU:HB2	1.76	0.67
1:K:429:TYR:CE2	1:K:431:GLU:HG3	2.30	0.67
1:B:422:GLU:HG2	1:B:489:LYS:HB3	1.76	0.67
1:C:422:GLU:HG2	1:C:489:LYS:HB3	1.76	0.67
1:D:197:LEU:HD11	1:D:239:LEU:HB2	1.76	0.67
1:K:31:LEU:HD11	1:K:300:LEU:HD21	1.75	0.67
1:M:31:LEU:HD11	1:M:300:LEU:HD21	1.75	0.67
1:M:429:TYR:CE2	1:M:431:GLU:HG3	2.30	0.67
1:A:422:GLU:HG2	1:A:489:LYS:HB3	1.76	0.67
1:D:435:GLU:H	1:D:480:PRO:HA	1.60	0.67
1:E:429:TYR:CE2	1:E:431:GLU:HG3	2.30	0.67
1:G:439:GLU:HB3	1:G:478:LYS:HB3	1.75	0.67
1:I:435:GLU:H	1:I:480:PRO:HA	1.60	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:322:PRO:HD3	1:I:330:LYS:HG2	1.75	0.67
1:J:31:LEU:HD11	1:J:300:LEU:HD21	1.75	0.67
1:J:422:GLU:HG2	1:J:489:LYS:HB3	1.76	0.67
1:O:322:PRO:HD3	1:O:330:LYS:HG2	1.75	0.67
1:P:74:LYS:HG2	1:P:191:LEU:HD12	1.76	0.67
1:G:435:GLU:HG2	1:G:478:LYS:HD3	1.77	0.67
1:H:74:LYS:HG2	1:H:191:LEU:HD12	1.76	0.67
1:K:74:LYS:HG2	1:K:191:LEU:HD12	1.76	0.67
1:O:197:LEU:HD11	1:O:239:LEU:HB2	1.76	0.67
1:O:429:TYR:CE2	1:O:431:GLU:HG3	2.30	0.67
1:M:74:LYS:HG2	1:M:191:LEU:HD12	1.76	0.66
1:B:254:ARG:NH1	1:B:255:VAL:O	2.28	0.66
1:D:254:ARG:NH1	1:D:255:VAL:O	2.29	0.66
1:F:429:TYR:CE2	1:F:431:GLU:HG3	2.30	0.66
1:L:435:GLU:HG2	1:L:478:LYS:HD3	1.77	0.66
1:O:435:GLU:HG2	1:O:478:LYS:HD3	1.77	0.66
1:O:435:GLU:H	1:O:480:PRO:HA	1.60	0.66
1:P:435:GLU:HG2	1:P:478:LYS:HD3	1.77	0.66
1:A:435:GLU:H	1:A:480:PRO:HA	1.60	0.66
1:B:435:GLU:H	1:B:480:PRO:HA	1.60	0.66
1:N:422:GLU:HG2	1:N:489:LYS:HB3	1.76	0.66
1:G:254:ARG:NH1	1:G:255:VAL:O	2.29	0.66
1:G:435:GLU:H	1:G:480:PRO:HA	1.60	0.66
1:J:429:TYR:CE2	1:J:431:GLU:HG3	2.30	0.66
1:P:435:GLU:H	1:P:480:PRO:HA	1.60	0.66
1:A:74:LYS:HG2	1:A:191:LEU:HD12	1.76	0.66
1:B:74:LYS:HG2	1:B:191:LEU:HD12	1.76	0.66
1:C:31:LEU:HD11	1:C:300:LEU:HD21	1.75	0.66
1:E:435:GLU:H	1:E:480:PRO:HA	1.60	0.66
1:H:435:GLU:H	1:H:480:PRO:HA	1.60	0.66
1:L:294:VAL:HG11	1:P:113:PRO:HB2	1.78	0.66
1:L:435:GLU:H	1:L:480:PRO:HA	1.60	0.66
1:N:429:TYR:CE2	1:N:431:GLU:HG3	2.29	0.66
1:A:429:TYR:CE2	1:A:431:GLU:HG3	2.30	0.66
1:D:74:LYS:HG2	1:D:191:LEU:HD12	1.76	0.66
1:I:74:LYS:HG2	1:I:191:LEU:HD12	1.76	0.66
1:I:254:ARG:NH1	1:I:255:VAL:O	2.29	0.66
1:L:254:ARG:NH1	1:L:255:VAL:O	2.29	0.66
1:M:435:GLU:H	1:M:480:PRO:HA	1.60	0.66
1:A:435:GLU:HG2	1:A:478:LYS:HD3	1.77	0.66
1:B:435:GLU:HG2	1:B:478:LYS:HD3	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:254:ARG:NH1	1:N:255:VAL:O	2.29	0.66
1:N:435:GLU:HG2	1:N:478:LYS:HD3	1.77	0.66
1:F:74:LYS:HG2	1:F:191:LEU:HD12	1.76	0.66
1:J:435:GLU:HG2	1:J:478:LYS:HD3	1.77	0.66
1:N:86:PHE:O	1:N:90:ARG:NH2	2.17	0.66
1:P:254:ARG:NH1	1:P:255:VAL:O	2.29	0.66
1:F:435:GLU:H	1:F:480:PRO:HA	1.60	0.66
1:J:254:ARG:NH1	1:J:255:VAL:O	2.29	0.66
1:F:254:ARG:NH1	1:F:255:VAL:O	2.29	0.65
1:F:435:GLU:HG2	1:F:478:LYS:HD3	1.77	0.65
1:K:435:GLU:H	1:K:480:PRO:HA	1.60	0.65
1:N:435:GLU:H	1:N:480:PRO:HA	1.60	0.65
1:O:254:ARG:NH1	1:O:255:VAL:O	2.29	0.65
1:C:435:GLU:HG2	1:C:478:LYS:HD3	1.77	0.65
1:C:74:LYS:HG2	1:C:191:LEU:HD12	1.76	0.65
1:E:254:ARG:NH1	1:E:255:VAL:O	2.29	0.65
1:E:435:GLU:HG2	1:E:478:LYS:HD3	1.77	0.65
1:N:74:LYS:HG2	1:N:191:LEU:HD12	1.76	0.65
1:K:435:GLU:HG2	1:K:478:LYS:HD3	1.77	0.65
1:K:254:ARG:NH1	1:K:255:VAL:O	2.29	0.65
1:A:254:ARG:NH1	1:A:255:VAL:O	2.29	0.65
1:J:74:LYS:HG2	1:J:191:LEU:HD12	1.76	0.65
1:B:152:ILE:HG23	1:B:410:GLN:HG2	1.79	0.65
1:J:435:GLU:H	1:J:480:PRO:HA	1.60	0.65
1:P:152:ILE:HG23	1:P:410:GLN:HG2	1.79	0.65
1:A:152:ILE:HG23	1:A:410:GLN:HG2	1.79	0.65
1:C:435:GLU:H	1:C:480:PRO:HA	1.60	0.65
1:H:254:ARG:NH1	1:H:255:VAL:O	2.29	0.65
1:H:435:GLU:HG2	1:H:478:LYS:HD3	1.77	0.65
1:M:254:ARG:NH1	1:M:255:VAL:O	2.29	0.65
1:M:435:GLU:HG2	1:M:478:LYS:HD3	1.77	0.65
1:L:298:ASN:CG	1:P:115:ASN:HB2	2.16	0.65
1:C:254:ARG:NH1	1:C:255:VAL:O	2.29	0.64
1:I:435:GLU:HG2	1:I:478:LYS:HD3	1.77	0.64
1:N:152:ILE:HG23	1:N:410:GLN:HG2	1.79	0.64
1:I:240:MET:SD	1:J:240:MET:SD	2.95	0.64
1:I:152:ILE:HG23	1:I:410:GLN:HG2	1.79	0.64
1:J:152:ILE:HG23	1:J:410:GLN:HG2	1.79	0.64
1:D:435:GLU:HG2	1:D:478:LYS:HD3	1.77	0.64
1:D:152:ILE:HG23	1:D:410:GLN:HG2	1.79	0.64
1:C:152:ILE:HG23	1:C:410:GLN:HG2	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:152:ILE:HG23	1:F:410:GLN:HG2	1.79	0.64
1:F:161:LEU:HG	1:F:163:GLY:H	1.63	0.64
1:H:161:LEU:HG	1:H:163:GLY:H	1.63	0.64
1:M:161:LEU:HG	1:M:163:GLY:H	1.63	0.64
1:D:161:LEU:HG	1:D:163:GLY:H	1.63	0.63
1:H:152:ILE:HG23	1:H:410:GLN:HG2	1.79	0.63
1:A:164:GLU:HG2	1:J:201:ASP:HB3	1.80	0.63
1:E:161:LEU:HG	1:E:163:GLY:H	1.63	0.63
1:J:161:LEU:HG	1:J:163:GLY:H	1.63	0.63
1:M:152:ILE:HG23	1:M:410:GLN:HG2	1.79	0.63
1:I:161:LEU:HG	1:I:163:GLY:H	1.63	0.63
1:L:152:ILE:HG23	1:L:410:GLN:HG2	1.79	0.63
1:C:161:LEU:HG	1:C:163:GLY:H	1.63	0.63
1:K:152:ILE:HG23	1:K:410:GLN:HG2	1.79	0.63
1:L:294:VAL:CG1	1:P:113:PRO:HB2	2.28	0.63
1:N:161:LEU:HG	1:N:163:GLY:H	1.63	0.63
1:O:152:ILE:HG23	1:O:410:GLN:HG2	1.79	0.63
1:P:146:ASN:HB3	1:P:149:LEU:HD23	1.81	0.63
1:B:146:ASN:HB3	1:B:149:LEU:HD23	1.81	0.63
1:A:146:ASN:HB3	1:A:149:LEU:HD23	1.81	0.63
1:K:161:LEU:HG	1:K:163:GLY:H	1.63	0.63
1:A:161:LEU:HG	1:A:163:GLY:H	1.63	0.63
1:B:118:VAL:O	1:B:126:ARG:HA	1.99	0.63
1:G:152:ILE:HG23	1:G:410:GLN:HG2	1.79	0.63
1:E:152:ILE:HG23	1:E:410:GLN:HG2	1.79	0.62
1:G:146:ASN:HB3	1:G:149:LEU:HD23	1.81	0.62
1:N:146:ASN:HB3	1:N:149:LEU:HD23	1.81	0.62
1:P:161:LEU:HG	1:P:163:GLY:H	1.63	0.62
1:M:397:MET:SD	1:O:119:VAL:CG2	2.87	0.62
1:N:118:VAL:O	1:N:126:ARG:HA	1.99	0.62
1:D:118:VAL:O	1:D:126:ARG:HA	1.99	0.62
1:I:146:ASN:HB3	1:I:149:LEU:HD23	1.81	0.62
1:L:118:VAL:O	1:L:126:ARG:HA	1.99	0.62
1:L:298:ASN:CG	1:P:115:ASN:ND2	2.52	0.62
1:N:147:GLN:HA	1:N:150:LYS:HZ2	1.63	0.62
1:H:118:VAL:O	1:H:126:ARG:HA	1.99	0.62
1:L:146:ASN:HB3	1:L:149:LEU:HD23	1.81	0.62
1:O:161:LEU:HG	1:O:163:GLY:H	1.63	0.62
1:A:94:GLU:CD	1:J:234:ARG:HB3	2.20	0.62
1:B:161:LEU:HG	1:B:163:GLY:H	1.63	0.62
1:D:146:ASN:HB3	1:D:149:LEU:HD23	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:118:VAL:O	1:E:126:ARG:HA	1.99	0.62
1:J:118:VAL:O	1:J:126:ARG:HA	1.99	0.62
1:J:146:ASN:HB3	1:J:149:LEU:HD23	1.81	0.62
1:L:161:LEU:HG	1:L:163:GLY:H	1.63	0.62
1:L:302:LYS:NZ	1:P:137:ASN:OD1	2.32	0.62
1:O:146:ASN:HB3	1:O:149:LEU:HD23	1.81	0.62
1:G:118:VAL:O	1:G:126:ARG:HA	1.99	0.62
1:A:118:VAL:O	1:A:126:ARG:HA	1.99	0.62
1:B:208:LYS:HA	1:B:211:ARG:HD3	1.82	0.62
1:F:104:MET:HA	1:F:149:LEU:HD12	1.82	0.62
1:A:208:LYS:HA	1:A:211:ARG:HD3	1.82	0.62
1:N:208:LYS:HA	1:N:211:ARG:HD3	1.82	0.62
1:C:146:ASN:HB3	1:C:149:LEU:HD23	1.81	0.62
1:E:146:ASN:HB3	1:E:149:LEU:HD23	1.81	0.62
1:F:94:GLU:CD	1:G:234:ARG:HB3	2.20	0.62
1:F:118:VAL:O	1:F:126:ARG:HA	1.99	0.62
1:H:164:GLU:HG3	1:I:164:GLU:HG3	1.82	0.62
1:M:118:VAL:O	1:M:126:ARG:HA	1.99	0.62
1:O:118:VAL:O	1:O:126:ARG:HA	1.99	0.62
1:D:104:MET:HA	1:D:149:LEU:HD12	1.82	0.62
1:P:104:MET:HA	1:P:149:LEU:HD12	1.82	0.62
1:C:208:LYS:HA	1:C:211:ARG:HD3	1.82	0.61
1:I:208:LYS:HA	1:I:211:ARG:HD3	1.82	0.61
1:J:208:LYS:HA	1:J:211:ARG:HD3	1.82	0.61
1:K:118:VAL:O	1:K:126:ARG:HA	1.99	0.61
1:M:215:ASP:O	1:M:218:ARG:NH1	2.33	0.61
1:D:208:LYS:HA	1:D:211:ARG:HD3	1.82	0.61
1:G:161:LEU:HG	1:G:163:GLY:H	1.63	0.61
1:I:442:TRP:CD1	1:I:445:ALA:HB3	2.36	0.61
1:K:215:ASP:O	1:K:218:ARG:NH1	2.33	0.61
1:C:215:ASP:O	1:C:218:ARG:NH1	2.33	0.61
1:E:215:ASP:O	1:E:218:ARG:NH1	2.33	0.61
1:E:240:MET:SD	1:F:240:MET:SD	2.98	0.61
1:G:104:MET:HA	1:G:149:LEU:HD12	1.82	0.61
1:H:146:ASN:HB3	1:H:149:LEU:HD23	1.81	0.61
1:I:104:MET:HA	1:I:149:LEU:HD12	1.82	0.61
1:P:208:LYS:HA	1:P:211:ARG:HD3	1.82	0.61
1:B:442:TRP:CD1	1:B:445:ALA:HB3	2.36	0.61
1:G:56:ALA:HB2	1:G:126:ARG:CZ	2.31	0.61
1:H:215:ASP:O	1:H:218:ARG:NH1	2.33	0.61
1:I:118:VAL:O	1:I:126:ARG:HA	1.99	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:56:ALA:HB2	1:K:126:ARG:CZ	2.31	0.61
1:P:56:ALA:HB2	1:P:126:ARG:CZ	2.31	0.61
1:P:215:ASP:O	1:P:218:ARG:NH1	2.33	0.61
1:A:442:TRP:CD1	1:A:445:ALA:HB3	2.36	0.61
1:C:56:ALA:HB2	1:C:126:ARG:CZ	2.31	0.61
1:D:442:TRP:CD1	1:D:445:ALA:HB3	2.36	0.61
1:I:56:ALA:HB2	1:I:126:ARG:CZ	2.31	0.61
1:I:215:ASP:O	1:I:218:ARG:NH1	2.33	0.61
1:J:215:ASP:O	1:J:218:ARG:NH1	2.33	0.61
1:K:208:LYS:HA	1:K:211:ARG:HD3	1.82	0.61
1:L:56:ALA:HB2	1:L:126:ARG:CZ	2.31	0.61
1:M:146:ASN:HB3	1:M:149:LEU:HD23	1.81	0.61
1:D:215:ASP:O	1:D:218:ARG:NH1	2.33	0.61
1:L:104:MET:HA	1:L:149:LEU:HD12	1.82	0.61
1:N:104:MET:HA	1:N:149:LEU:HD12	1.82	0.61
1:O:442:TRP:CD1	1:O:445:ALA:HB3	2.36	0.61
1:O:504:PHE:O	1:O:508:LYS:HG2	2.01	0.61
1:E:56:ALA:HB2	1:E:126:ARG:CZ	2.31	0.61
1:G:215:ASP:O	1:G:218:ARG:NH1	2.33	0.61
1:H:208:LYS:HA	1:H:211:ARG:HD3	1.82	0.61
1:J:56:ALA:HB2	1:J:126:ARG:CZ	2.31	0.61
1:M:208:LYS:HA	1:M:211:ARG:HD3	1.82	0.61
1:P:118:VAL:O	1:P:126:ARG:HA	1.99	0.61
1:D:56:ALA:HB2	1:D:126:ARG:CZ	2.31	0.61
1:K:146:ASN:HB3	1:K:149:LEU:HD23	1.81	0.61
1:P:504:PHE:O	1:P:508:LYS:HG2	2.01	0.61
1:C:104:MET:HA	1:C:149:LEU:HD12	1.82	0.61
1:F:146:ASN:HB3	1:F:149:LEU:HD23	1.81	0.61
1:G:442:TRP:CD1	1:G:445:ALA:HB3	2.36	0.61
1:H:35:LYS:NZ	1:H:381:LEU:HA	2.16	0.61
1:J:104:MET:HA	1:J:149:LEU:HD12	1.82	0.61
1:J:442:TRP:CD1	1:J:445:ALA:HB3	2.36	0.61
1:L:504:PHE:O	1:L:508:LYS:HG2	2.01	0.61
1:N:56:ALA:HB2	1:N:126:ARG:CZ	2.31	0.61
1:N:215:ASP:O	1:N:218:ARG:NH1	2.33	0.61
1:N:442:TRP:CD1	1:N:445:ALA:HB3	2.36	0.61
1:D:35:LYS:HZ1	1:D:381:LEU:HA	1.65	0.61
1:D:504:PHE:O	1:D:508:LYS:HG2	2.01	0.61
1:G:35:LYS:NZ	1:G:381:LEU:HA	2.16	0.61
1:G:504:PHE:O	1:G:508:LYS:HG2	2.01	0.61
1:K:35:LYS:NZ	1:K:381:LEU:HA	2.16	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:429:TYR:HE1	1:P:501:GLU:HG3	1.61	0.61
1:C:118:VAL:O	1:C:126:ARG:HA	1.99	0.60
1:E:35:LYS:NZ	1:E:381:LEU:HA	2.16	0.60
1:E:504:PHE:O	1:E:508:LYS:HG2	2.01	0.60
1:F:176:GLN:NE2	1:F:179:GLN:OE1	2.34	0.60
1:H:176:GLN:NE2	1:H:179:GLN:OE1	2.35	0.60
1:L:35:LYS:NZ	1:L:381:LEU:HA	2.16	0.60
1:L:429:TYR:CE1	1:P:501:GLU:CG	2.83	0.60
1:M:35:LYS:NZ	1:M:381:LEU:HA	2.16	0.60
1:A:104:MET:HA	1:A:149:LEU:HD12	1.82	0.60
1:B:176:GLN:NE2	1:B:179:GLN:OE1	2.34	0.60
1:H:56:ALA:HB2	1:H:126:ARG:CZ	2.31	0.60
1:H:442:TRP:CD1	1:H:445:ALA:HB3	2.36	0.60
1:I:504:PHE:O	1:I:508:LYS:HG2	2.01	0.60
1:L:215:ASP:O	1:L:218:ARG:NH1	2.33	0.60
1:M:176:GLN:NE2	1:M:179:GLN:OE1	2.35	0.60
1:M:442:TRP:CD1	1:M:445:ALA:HB3	2.36	0.60
1:O:56:ALA:HB2	1:O:126:ARG:CZ	2.31	0.60
1:A:176:GLN:NE2	1:A:179:GLN:OE1	2.34	0.60
1:A:294:VAL:HG11	1:C:113:PRO:HG2	1.83	0.60
1:C:176:GLN:NE2	1:C:179:GLN:OE1	2.34	0.60
1:D:35:LYS:NZ	1:D:381:LEU:HA	2.16	0.60
1:G:176:GLN:NE2	1:G:179:GLN:OE1	2.34	0.60
1:P:442:TRP:CD1	1:P:445:ALA:HB3	2.36	0.60
1:B:104:MET:HA	1:B:149:LEU:HD12	1.82	0.60
1:B:215:ASP:O	1:B:218:ARG:NH1	2.33	0.60
1:C:35:LYS:NZ	1:C:381:LEU:HA	2.16	0.60
1:D:176:GLN:NE2	1:D:179:GLN:OE1	2.34	0.60
1:E:208:LYS:HA	1:E:211:ARG:HD3	1.82	0.60
1:H:504:PHE:O	1:H:508:LYS:HG2	2.01	0.60
1:K:104:MET:HA	1:K:149:LEU:HD12	1.82	0.60
1:N:190:LEU:HD13	1:N:217:ILE:HG23	1.84	0.60
1:O:35:LYS:NZ	1:O:381:LEU:HA	2.16	0.60
1:O:104:MET:HA	1:O:149:LEU:HD12	1.82	0.60
1:O:208:LYS:HA	1:O:211:ARG:HD3	1.82	0.60
1:A:56:ALA:HB2	1:A:126:ARG:CZ	2.31	0.60
1:C:190:LEU:HD13	1:C:217:ILE:HG23	1.84	0.60
1:C:442:TRP:CD1	1:C:445:ALA:HB3	2.36	0.60
1:E:294:VAL:HG11	1:G:113:PRO:HG2	1.82	0.60
1:F:208:LYS:HA	1:F:211:ARG:HD3	1.82	0.60
1:F:215:ASP:O	1:F:218:ARG:NH1	2.33	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:35:LYS:NZ	1:I:381:LEU:HA	2.16	0.60
1:J:190:LEU:HD13	1:J:217:ILE:HG23	1.84	0.60
1:J:504:PHE:O	1:J:508:LYS:HG2	2.01	0.60
1:M:56:ALA:HB2	1:M:126:ARG:CZ	2.31	0.60
1:A:215:ASP:O	1:A:218:ARG:NH1	2.33	0.60
1:F:190:LEU:HD13	1:F:217:ILE:HG23	1.84	0.60
1:L:176:GLN:NE2	1:L:179:GLN:OE1	2.34	0.60
1:L:442:TRP:CD1	1:L:445:ALA:HB3	2.36	0.60
1:O:176:GLN:NE2	1:O:179:GLN:OE1	2.34	0.60
1:C:504:PHE:O	1:C:508:LYS:HG2	2.01	0.60
1:F:504:PHE:O	1:F:508:LYS:HG2	2.01	0.60
1:M:504:PHE:O	1:M:508:LYS:HG2	2.01	0.60
1:P:176:GLN:NE2	1:P:179:GLN:OE1	2.34	0.60
1:F:56:ALA:HB2	1:F:126:ARG:CZ	2.31	0.60
1:F:442:TRP:CD1	1:F:445:ALA:HB3	2.35	0.60
1:J:35:LYS:NZ	1:J:381:LEU:HA	2.16	0.60
1:J:176:GLN:NE2	1:J:179:GLN:OE1	2.34	0.60
1:A:190:LEU:HD13	1:A:217:ILE:HG23	1.84	0.60
1:B:35:LYS:NZ	1:B:381:LEU:HA	2.16	0.60
1:E:442:TRP:CD1	1:E:445:ALA:HB3	2.36	0.60
1:F:473:GLU:O	1:F:476:THR:OG1	2.20	0.60
1:G:208:LYS:HA	1:G:211:ARG:HD3	1.82	0.60
1:K:442:TRP:CD1	1:K:445:ALA:HB3	2.36	0.60
1:K:504:PHE:O	1:K:508:LYS:HG2	2.01	0.60
1:L:208:LYS:HA	1:L:211:ARG:HD3	1.82	0.60
1:M:104:MET:HA	1:M:149:LEU:HD12	1.82	0.60
1:N:504:PHE:O	1:N:508:LYS:HG2	2.01	0.60
1:E:473:GLU:O	1:E:476:THR:OG1	2.19	0.60
1:I:176:GLN:NE2	1:I:179:GLN:OE1	2.34	0.60
1:L:397:MET:SD	1:P:119:VAL:C	2.79	0.60
1:A:504:PHE:O	1:A:508:LYS:HG2	2.01	0.59
1:B:504:PHE:O	1:B:508:LYS:HG2	2.01	0.59
1:E:104:MET:HA	1:E:149:LEU:HD12	1.82	0.59
1:M:190:LEU:HD13	1:M:217:ILE:HG23	1.84	0.59
1:N:176:GLN:NE2	1:N:179:GLN:OE1	2.35	0.59
1:B:294:VAL:HG11	1:J:113:PRO:HG2	1.83	0.59
1:E:261:TRP:NE1	1:E:263:GLN:HB2	2.18	0.59
1:G:473:GLU:O	1:G:476:THR:OG1	2.19	0.59
1:H:104:MET:HA	1:H:149:LEU:HD12	1.82	0.59
1:K:190:LEU:HD13	1:K:217:ILE:HG23	1.84	0.59
1:K:261:TRP:NE1	1:K:263:GLN:HB2	2.17	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:261:TRP:NE1	1:M:263:GLN:HB2	2.18	0.59
1:P:35:LYS:NZ	1:P:381:LEU:HA	2.16	0.59
1:B:190:LEU:HD13	1:B:217:ILE:HG23	1.84	0.59
1:E:176:GLN:NE2	1:E:179:GLN:OE1	2.34	0.59
1:F:35:LYS:NZ	1:F:381:LEU:HA	2.16	0.59
1:F:261:TRP:NE1	1:F:263:GLN:HB2	2.18	0.59
1:G:190:LEU:HD13	1:G:217:ILE:HG23	1.84	0.59
1:H:261:TRP:NE1	1:H:263:GLN:HB2	2.18	0.59
1:H:473:GLU:O	1:H:476:THR:OG1	2.20	0.59
1:K:176:GLN:NE2	1:K:179:GLN:OE1	2.35	0.59
1:N:35:LYS:NZ	1:N:381:LEU:HA	2.16	0.59
1:N:261:TRP:NE1	1:N:263:GLN:HB2	2.17	0.59
1:A:35:LYS:NZ	1:A:381:LEU:HA	2.16	0.59
1:B:56:ALA:HB2	1:B:126:ARG:CZ	2.31	0.59
1:J:473:GLU:O	1:J:476:THR:OG1	2.19	0.59
1:D:190:LEU:HD13	1:D:217:ILE:HG23	1.84	0.59
1:F:429:TYR:HE2	1:F:431:GLU:HG3	1.67	0.59
1:M:473:GLU:O	1:M:476:THR:OG1	2.19	0.59
1:A:261:TRP:NE1	1:A:263:GLN:HB2	2.18	0.59
1:H:190:LEU:HD13	1:H:217:ILE:HG23	1.84	0.59
1:O:215:ASP:O	1:O:218:ARG:NH1	2.33	0.59
1:A:429:TYR:HE2	1:A:431:GLU:HG3	1.67	0.59
1:B:261:TRP:NE1	1:B:263:GLN:HB2	2.17	0.59
1:C:261:TRP:NE1	1:C:263:GLN:HB2	2.17	0.59
1:F:502:GLU:OE1	1:F:532:SER:OG	2.19	0.59
1:O:261:TRP:NE1	1:O:263:GLN:HB2	2.18	0.59
1:P:261:TRP:NE1	1:P:263:GLN:HB2	2.17	0.59
1:B:429:TYR:HE2	1:B:431:GLU:HG3	1.68	0.59
1:E:190:LEU:HD13	1:E:217:ILE:HG23	1.84	0.59
1:J:261:TRP:NE1	1:J:263:GLN:HB2	2.18	0.59
1:O:429:TYR:HE2	1:O:431:GLU:HG3	1.67	0.59
1:P:35:LYS:HZ3	1:P:381:LEU:HA	1.68	0.59
1:I:190:LEU:HD13	1:I:217:ILE:HG23	1.84	0.59
1:K:473:GLU:O	1:K:476:THR:OG1	2.19	0.59
1:H:201:ASP:CG	1:I:164:GLU:HG2	2.23	0.59
1:N:429:TYR:HE2	1:N:431:GLU:HG3	1.67	0.59
1:P:190:LEU:HD13	1:P:217:ILE:HG23	1.84	0.59
1:D:261:TRP:NE1	1:D:263:GLN:HB2	2.18	0.58
1:L:190:LEU:HD13	1:L:217:ILE:HG23	1.84	0.58
1:F:147:GLN:HA	1:F:150:LYS:HZ2	1.67	0.58
1:G:261:TRP:NE1	1:G:263:GLN:HB2	2.18	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:261:TRP:NE1	1:L:263:GLN:HB2	2.17	0.58
1:L:294:VAL:HG13	1:P:116:ALA:HB2	1.85	0.58
1:L:429:TYR:HE2	1:L:431:GLU:HG3	1.67	0.58
1:D:502:GLU:OE1	1:D:532:SER:OG	2.19	0.58
1:J:429:TYR:HE2	1:J:431:GLU:HG3	1.67	0.58
1:B:113:PRO:HG2	1:D:294:VAL:HG11	1.85	0.58
1:G:123:LYS:HE3	1:G:125:PHE:CE2	2.39	0.58
1:H:123:LYS:HE3	1:H:125:PHE:CE2	2.39	0.58
1:K:123:LYS:HE3	1:K:125:PHE:CE2	2.39	0.58
1:C:123:LYS:HE3	1:C:125:PHE:CE2	2.39	0.58
1:J:123:LYS:HE3	1:J:125:PHE:CE2	2.39	0.58
1:M:123:LYS:HE3	1:M:125:PHE:CE2	2.39	0.58
1:P:429:TYR:HE2	1:P:431:GLU:HG3	1.67	0.58
1:A:123:LYS:HE3	1:A:125:PHE:CE2	2.39	0.58
1:A:220:VAL:HG22	1:A:256:TYR:HB2	1.86	0.58
1:D:473:GLU:O	1:D:476:THR:OG1	2.20	0.58
1:H:429:TYR:HE2	1:H:431:GLU:HG3	1.68	0.58
1:I:502:GLU:OE1	1:I:532:SER:OG	2.19	0.58
1:O:147:GLN:HA	1:O:150:LYS:HZ2	1.69	0.58
1:B:487:ILE:HD13	1:B:511:ILE:HG12	1.86	0.58
1:D:123:LYS:HE3	1:D:125:PHE:CE2	2.39	0.58
1:D:192:PHE:HD2	1:D:239:LEU:HD21	1.69	0.58
1:E:190:LEU:HD23	1:E:203:PHE:HZ	1.69	0.58
1:F:123:LYS:HE3	1:F:125:PHE:CE2	2.39	0.58
1:F:220:VAL:HG22	1:F:256:TYR:HB2	1.86	0.58
1:I:240:MET:CE	1:J:241:TRP:CE2	2.87	0.58
1:L:429:TYR:HE1	1:P:501:GLU:CG	2.17	0.58
1:B:220:VAL:HG22	1:B:256:TYR:HB2	1.86	0.58
1:E:123:LYS:HE3	1:E:125:PHE:CE2	2.39	0.58
1:I:261:TRP:NE1	1:I:263:GLN:HB2	2.17	0.58
1:I:487:ILE:HD13	1:I:511:ILE:HG12	1.86	0.58
1:K:190:LEU:HD23	1:K:203:PHE:HZ	1.69	0.58
1:N:123:LYS:HE3	1:N:125:PHE:CE2	2.39	0.58
1:N:220:VAL:HG22	1:N:256:TYR:HB2	1.86	0.58
1:P:487:ILE:HD13	1:P:511:ILE:HG12	1.86	0.58
1:C:190:LEU:HD23	1:C:203:PHE:HZ	1.69	0.58
1:C:429:TYR:HE2	1:C:431:GLU:HG3	1.67	0.58
1:D:190:LEU:HD23	1:D:203:PHE:HZ	1.69	0.58
1:D:487:ILE:HD13	1:D:511:ILE:HG12	1.86	0.58
1:F:190:LEU:HD23	1:F:203:PHE:HZ	1.69	0.58
1:H:192:PHE:HD2	1:H:239:LEU:HD21	1.69	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:473:GLU:O	1:I:476:THR:OG1	2.20	0.58
1:L:35:LYS:HZ3	1:L:381:LEU:HA	1.69	0.58
1:L:123:LYS:HE3	1:L:125:PHE:CE2	2.39	0.58
1:L:191:LEU:HD23	1:L:220:VAL:HB	1.86	0.58
1:L:429:TYR:CE1	1:P:448:LYS:NZ	2.72	0.58
1:O:220:VAL:HG22	1:O:256:TYR:HB2	1.86	0.58
1:P:473:GLU:O	1:P:476:THR:OG1	2.19	0.58
1:A:190:LEU:HD23	1:A:203:PHE:HZ	1.69	0.57
1:A:487:ILE:HD13	1:A:511:ILE:HG12	1.86	0.57
1:B:197:LEU:HD11	1:B:239:LEU:HD13	1.86	0.57
1:G:487:ILE:HD13	1:G:511:ILE:HG12	1.86	0.57
1:J:220:VAL:HG22	1:J:256:TYR:HB2	1.86	0.57
1:L:220:VAL:HG22	1:L:256:TYR:HB2	1.86	0.57
1:O:190:LEU:HD23	1:O:203:PHE:HZ	1.69	0.57
1:P:123:LYS:HE3	1:P:125:PHE:CE2	2.39	0.57
1:E:502:GLU:OE1	1:E:532:SER:OG	2.19	0.57
1:F:192:PHE:HD2	1:F:239:LEU:HD21	1.69	0.57
1:H:117:LEU:HD23	1:H:139:PHE:CE2	2.40	0.57
1:O:190:LEU:HD13	1:O:217:ILE:HG23	1.84	0.57
1:O:191:LEU:HD23	1:O:220:VAL:HB	1.86	0.57
1:P:117:LEU:HD23	1:P:139:PHE:CE2	2.40	0.57
1:A:191:LEU:HD23	1:A:220:VAL:HB	1.86	0.57
1:B:192:PHE:HD2	1:B:239:LEU:HD21	1.69	0.57
1:C:473:GLU:O	1:C:476:THR:OG1	2.20	0.57
1:G:191:LEU:HD23	1:G:220:VAL:HB	1.86	0.57
1:I:197:LEU:HD11	1:I:239:LEU:HD13	1.87	0.57
1:M:192:PHE:HD2	1:M:239:LEU:HD21	1.69	0.57
1:O:487:ILE:HD13	1:O:511:ILE:HG12	1.86	0.57
1:A:197:LEU:HD11	1:A:239:LEU:HD13	1.87	0.57
1:A:479:LEU:HD11	1:A:511:ILE:HG23	1.87	0.57
1:C:220:VAL:HG22	1:C:256:TYR:HB2	1.86	0.57
1:F:197:LEU:HD11	1:F:239:LEU:HD13	1.87	0.57
1:I:429:TYR:HE2	1:I:431:GLU:HG3	1.67	0.57
1:L:479:LEU:HD11	1:L:511:ILE:HG23	1.87	0.57
1:M:117:LEU:HD23	1:M:139:PHE:CE2	2.40	0.57
1:M:429:TYR:HE2	1:M:431:GLU:HG3	1.68	0.57
1:O:192:PHE:HD2	1:O:239:LEU:HD21	1.69	0.57
1:P:191:LEU:HD23	1:P:220:VAL:HB	1.86	0.57
1:A:70:TYR:CD1	1:A:95:PRO:HB3	2.40	0.57
1:A:117:LEU:HD23	1:A:139:PHE:CE2	2.40	0.57
1:B:190:LEU:HD23	1:B:203:PHE:HZ	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:479:LEU:HD11	1:B:511:ILE:HG23	1.87	0.57
1:C:117:LEU:HD23	1:C:139:PHE:CE2	2.40	0.57
1:D:197:LEU:HD11	1:D:239:LEU:HD13	1.87	0.57
1:E:192:PHE:HD2	1:E:239:LEU:HD21	1.69	0.57
1:G:117:LEU:HD23	1:G:139:PHE:CE2	2.40	0.57
1:G:190:LEU:HD23	1:G:203:PHE:HZ	1.69	0.57
1:G:429:TYR:HE2	1:G:431:GLU:HG3	1.68	0.57
1:G:479:LEU:HD11	1:G:511:ILE:HG23	1.87	0.57
1:H:164:GLU:HG3	1:I:164:GLU:CG	2.34	0.57
1:I:70:TYR:CD1	1:I:95:PRO:HB3	2.40	0.57
1:J:191:LEU:HD23	1:J:220:VAL:HB	1.86	0.57
1:L:117:LEU:HD23	1:L:139:PHE:CE2	2.40	0.57
1:L:487:ILE:HD13	1:L:511:ILE:HG12	1.86	0.57
1:N:191:LEU:HD23	1:N:220:VAL:HB	1.86	0.57
1:O:117:LEU:HD23	1:O:139:PHE:CE2	2.40	0.57
1:P:70:TYR:CD1	1:P:95:PRO:HB3	2.40	0.57
1:B:123:LYS:HE3	1:B:125:PHE:CE2	2.39	0.57
1:B:191:LEU:HD23	1:B:220:VAL:HB	1.86	0.57
1:C:191:LEU:HD23	1:C:220:VAL:HB	1.86	0.57
1:C:197:LEU:HD11	1:C:239:LEU:HD13	1.87	0.57
1:E:70:TYR:CD1	1:E:95:PRO:HB3	2.40	0.57
1:G:192:PHE:HD2	1:G:239:LEU:HD21	1.69	0.57
1:H:70:TYR:CD1	1:H:95:PRO:HB3	2.40	0.57
1:I:123:LYS:HE3	1:I:125:PHE:CE2	2.39	0.57
1:J:197:LEU:HD11	1:J:239:LEU:HD13	1.87	0.57
1:K:70:TYR:CD1	1:K:95:PRO:HB3	2.40	0.57
1:L:63:MET:HE3	1:L:185:VAL:HA	1.87	0.57
1:L:192:PHE:HD2	1:L:239:LEU:HD21	1.69	0.57
1:L:250:PRO:CG	1:P:165:LYS:HG3	2.32	0.57
1:N:197:LEU:HD11	1:N:239:LEU:HD13	1.87	0.57
1:N:487:ILE:HD13	1:N:511:ILE:HG12	1.86	0.57
1:O:123:LYS:HE3	1:O:125:PHE:CE2	2.39	0.57
1:G:220:VAL:HG22	1:G:256:TYR:HB2	1.86	0.57
1:I:192:PHE:HD2	1:I:239:LEU:HD21	1.69	0.57
1:K:117:LEU:HD23	1:K:139:PHE:CE2	2.39	0.57
1:L:429:TYR:CE1	1:P:501:GLU:CB	2.88	0.57
1:M:70:TYR:CD1	1:M:95:PRO:HB3	2.40	0.57
1:N:479:LEU:HD11	1:N:511:ILE:HG23	1.87	0.57
1:P:220:VAL:HG22	1:P:256:TYR:HB2	1.86	0.57
1:B:234:ARG:HB3	1:C:94:GLU:CD	2.25	0.57
1:D:429:TYR:HE2	1:D:431:GLU:HG3	1.68	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:117:LEU:HD23	1:F:139:PHE:CE2	2.40	0.57
1:O:300:LEU:HA	1:O:303:ARG:HE	1.70	0.57
1:O:479:LEU:HD11	1:O:511:ILE:HG23	1.87	0.57
1:C:70:TYR:CD1	1:C:95:PRO:HB3	2.40	0.57
1:E:117:LEU:HD23	1:E:139:PHE:CE2	2.40	0.57
1:F:70:TYR:CD1	1:F:95:PRO:HB3	2.40	0.57
1:H:94:GLU:OE2	1:I:231:GLN:HA	2.04	0.57
1:I:117:LEU:HD23	1:I:139:PHE:CE2	2.40	0.57
1:K:197:LEU:HD11	1:K:239:LEU:HD13	1.87	0.57
1:L:70:TYR:CD1	1:L:95:PRO:HB3	2.40	0.57
1:B:66:LEU:HD23	1:B:74:LYS:HB3	1.87	0.57
1:D:300:LEU:HA	1:D:303:ARG:HE	1.70	0.57
1:H:190:LEU:HD23	1:H:203:PHE:HZ	1.69	0.57
1:I:300:LEU:HA	1:I:303:ARG:HE	1.70	0.57
1:I:479:LEU:HD11	1:I:511:ILE:HG23	1.87	0.57
1:K:192:PHE:HD2	1:K:239:LEU:HD21	1.69	0.57
1:A:66:LEU:HD23	1:A:74:LYS:HB3	1.87	0.56
1:D:479:LEU:HD11	1:D:511:ILE:HG23	1.87	0.56
1:E:479:LEU:HD11	1:E:511:ILE:HG23	1.87	0.56
1:G:63:MET:HE3	1:G:185:VAL:HA	1.87	0.56
1:I:66:LEU:HD23	1:I:74:LYS:HB3	1.87	0.56
1:J:70:TYR:CD1	1:J:95:PRO:HB3	2.40	0.56
1:L:170:ARG:NH2	1:L:172:TYR:OH	2.38	0.56
1:L:283:ARG:NH1	1:P:90:ARG:HG3	2.20	0.56
1:L:432:GLY:CA	1:P:453:GLU:OE2	2.53	0.56
1:M:197:LEU:HD11	1:M:239:LEU:HD13	1.87	0.56
1:P:63:MET:HE3	1:P:185:VAL:HA	1.87	0.56
1:C:66:LEU:HD23	1:C:74:LYS:HB3	1.87	0.56
1:D:66:LEU:HD23	1:D:74:LYS:HB3	1.88	0.56
1:D:117:LEU:HD23	1:D:139:PHE:CE2	2.40	0.56
1:I:442:TRP:CE3	1:I:454:LEU:HD13	2.40	0.56
1:J:66:LEU:HD23	1:J:74:LYS:HB3	1.88	0.56
1:J:117:LEU:HD23	1:J:139:PHE:CE2	2.40	0.56
1:J:442:TRP:CE3	1:J:454:LEU:HD13	2.40	0.56
1:J:479:LEU:HD11	1:J:511:ILE:HG23	1.87	0.56
1:K:487:ILE:HD13	1:K:511:ILE:HG12	1.86	0.56
1:M:190:LEU:HD23	1:M:203:PHE:HZ	1.69	0.56
1:N:66:LEU:HD23	1:N:74:LYS:HB3	1.88	0.56
1:N:190:LEU:HD23	1:N:203:PHE:HZ	1.69	0.56
1:P:170:ARG:NH2	1:P:172:TYR:OH	2.38	0.56
1:B:70:TYR:CD1	1:B:95:PRO:HB3	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:117:LEU:HD23	1:B:139:PHE:CE2	2.40	0.56
1:B:300:LEU:HA	1:B:303:ARG:HE	1.70	0.56
1:C:236:TYR:O	1:C:240:MET:HG3	2.06	0.56
1:C:442:TRP:CE3	1:C:454:LEU:HD13	2.41	0.56
1:D:442:TRP:CE3	1:D:454:LEU:HD13	2.40	0.56
1:E:487:ILE:HD13	1:E:511:ILE:HG12	1.86	0.56
1:F:63:MET:HE3	1:F:185:VAL:HA	1.87	0.56
1:F:422:GLU:HB3	1:F:425:PHE:HB2	1.88	0.56
1:H:66:LEU:HD23	1:H:74:LYS:HB3	1.88	0.56
1:H:77:PHE:HZ	1:H:222:ASN:HB2	1.71	0.56
1:H:300:LEU:HA	1:H:303:ARG:HE	1.70	0.56
1:H:479:LEU:HD11	1:H:511:ILE:HG23	1.87	0.56
1:I:190:LEU:HD23	1:I:203:PHE:HZ	1.69	0.56
1:I:220:VAL:HG22	1:I:256:TYR:HB2	1.86	0.56
1:J:190:LEU:HD23	1:J:203:PHE:HZ	1.69	0.56
1:J:236:TYR:O	1:J:240:MET:HG3	2.06	0.56
1:J:487:ILE:HD13	1:J:511:ILE:HG12	1.86	0.56
1:K:66:LEU:HD23	1:K:74:LYS:HB3	1.87	0.56
1:K:442:TRP:CE3	1:K:454:LEU:HD13	2.41	0.56
1:L:190:LEU:HD23	1:L:203:PHE:HZ	1.69	0.56
1:L:429:TYR:HE1	1:P:501:GLU:CB	2.17	0.56
1:M:66:LEU:HD23	1:M:74:LYS:HB3	1.88	0.56
1:M:300:LEU:HA	1:M:303:ARG:HE	1.70	0.56
1:M:502:GLU:OE1	1:M:532:SER:OG	2.19	0.56
1:N:70:TYR:CD1	1:N:95:PRO:HB3	2.40	0.56
1:N:192:PHE:HD2	1:N:239:LEU:HD21	1.69	0.56
1:N:442:TRP:CE3	1:N:454:LEU:HD13	2.40	0.56
1:O:70:TYR:CD1	1:O:95:PRO:HB3	2.40	0.56
1:O:77:PHE:HZ	1:O:222:ASN:HB2	1.71	0.56
1:O:236:TYR:O	1:O:240:MET:HG3	2.06	0.56
1:P:442:TRP:CE3	1:P:454:LEU:HD13	2.40	0.56
1:P:479:LEU:HD11	1:P:511:ILE:HG23	1.87	0.56
1:A:192:PHE:HD2	1:A:239:LEU:HD21	1.69	0.56
1:C:192:PHE:HD2	1:C:239:LEU:HD21	1.69	0.56
1:D:422:GLU:HB3	1:D:425:PHE:HB2	1.88	0.56
1:E:197:LEU:HD11	1:E:239:LEU:HD13	1.87	0.56
1:E:442:TRP:CE3	1:E:454:LEU:HD13	2.41	0.56
1:F:66:LEU:HD23	1:F:74:LYS:HB3	1.87	0.56
1:F:77:PHE:HZ	1:F:222:ASN:HB2	1.71	0.56
1:G:70:TYR:CD1	1:G:95:PRO:HB3	2.40	0.56
1:G:170:ARG:NH2	1:G:172:TYR:OH	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:236:TYR:O	1:G:240:MET:HG3	2.06	0.56
1:H:197:LEU:HD11	1:H:239:LEU:HD13	1.87	0.56
1:I:422:GLU:HB3	1:I:425:PHE:HB2	1.88	0.56
1:M:442:TRP:CE3	1:M:454:LEU:HD13	2.41	0.56
1:N:236:TYR:O	1:N:240:MET:HG3	2.06	0.56
1:P:192:PHE:HD2	1:P:239:LEU:HD21	1.69	0.56
1:P:197:LEU:HD11	1:P:239:LEU:HD13	1.87	0.56
1:B:236:TYR:O	1:B:240:MET:HG3	2.06	0.56
1:C:479:LEU:HD11	1:C:511:ILE:HG23	1.87	0.56
1:D:220:VAL:HG22	1:D:256:TYR:HB2	1.86	0.56
1:E:66:LEU:HD23	1:E:74:LYS:HB3	1.88	0.56
1:E:170:ARG:NH2	1:E:172:TYR:OH	2.38	0.56
1:E:220:VAL:HG22	1:E:256:TYR:HB2	1.86	0.56
1:E:448:LYS:HA	1:E:451:TYR:HD2	1.71	0.56
1:F:191:LEU:HD23	1:F:220:VAL:HB	1.86	0.56
1:F:487:ILE:HD13	1:F:511:ILE:HG12	1.86	0.56
1:H:487:ILE:HD13	1:H:511:ILE:HG12	1.86	0.56
1:L:197:LEU:HD11	1:L:239:LEU:HD13	1.87	0.56
1:M:77:PHE:HZ	1:M:222:ASN:HB2	1.71	0.56
1:M:236:TYR:O	1:M:240:MET:HG3	2.06	0.56
1:M:487:ILE:HD13	1:M:511:ILE:HG12	1.86	0.56
1:O:66:LEU:HD23	1:O:74:LYS:HB3	1.87	0.56
1:O:448:LYS:HA	1:O:451:TYR:HD2	1.71	0.56
1:A:300:LEU:HA	1:A:303:ARG:HE	1.70	0.56
1:D:70:TYR:CD1	1:D:95:PRO:HB3	2.40	0.56
1:E:191:LEU:HD23	1:E:220:VAL:HB	1.86	0.56
1:F:236:TYR:O	1:F:240:MET:HG3	2.06	0.56
1:K:236:TYR:O	1:K:240:MET:HG3	2.06	0.56
1:K:300:LEU:HA	1:K:303:ARG:HE	1.70	0.56
1:K:479:LEU:HD11	1:K:511:ILE:HG23	1.87	0.56
1:L:430:GLY:O	1:P:452:ASP:HB2	2.06	0.56
1:M:220:VAL:HG22	1:M:256:TYR:HB2	1.86	0.56
1:M:479:LEU:HD11	1:M:511:ILE:HG23	1.87	0.56
1:N:117:LEU:HD23	1:N:139:PHE:CE2	2.40	0.56
1:P:236:TYR:O	1:P:240:MET:HG3	2.06	0.56
1:A:106:GLY:HA3	1:A:143:GLN:HB3	1.88	0.56
1:B:106:GLY:HA3	1:B:143:GLN:HB3	1.88	0.56
1:B:422:GLU:HB3	1:B:425:PHE:HB2	1.88	0.56
1:B:473:GLU:O	1:B:476:THR:OG1	2.20	0.56
1:D:236:TYR:O	1:D:240:MET:HG3	2.06	0.56
1:F:106:GLY:HA3	1:F:143:GLN:HB3	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:442:TRP:CE3	1:F:454:LEU:HD13	2.40	0.56
1:G:197:LEU:HD11	1:G:239:LEU:HD13	1.87	0.56
1:H:170:ARG:NH2	1:H:172:TYR:OH	2.38	0.56
1:J:192:PHE:HD2	1:J:239:LEU:HD21	1.69	0.56
1:O:63:MET:HE3	1:O:185:VAL:HA	1.87	0.56
1:O:170:ARG:NH2	1:O:172:TYR:OH	2.38	0.56
1:A:473:GLU:O	1:A:476:THR:OG1	2.20	0.56
1:D:448:LYS:HA	1:D:451:TYR:HD2	1.71	0.56
1:E:123:LYS:HD2	1:E:124:PRO:HD2	1.88	0.56
1:E:236:TYR:O	1:E:240:MET:HG3	2.06	0.56
1:E:300:LEU:HA	1:E:303:ARG:HE	1.70	0.56
1:G:66:LEU:HD23	1:G:74:LYS:HB3	1.88	0.56
1:G:448:LYS:HA	1:G:451:TYR:HD2	1.71	0.56
1:H:236:TYR:O	1:H:240:MET:HG3	2.06	0.56
1:I:191:LEU:HD23	1:I:220:VAL:HB	1.86	0.56
1:J:106:GLY:HA3	1:J:143:GLN:HB3	1.88	0.56
1:K:191:LEU:HD23	1:K:220:VAL:HB	1.86	0.56
1:K:220:VAL:HG22	1:K:256:TYR:HB2	1.86	0.56
1:K:448:LYS:HA	1:K:451:TYR:HD2	1.71	0.56
1:K:502:GLU:OE1	1:K:532:SER:OG	2.19	0.56
1:L:66:LEU:HD23	1:L:74:LYS:HB3	1.87	0.56
1:L:302:LYS:HE2	1:P:133:ASN:OD1	2.06	0.56
1:M:191:LEU:HD23	1:M:220:VAL:HB	1.86	0.56
1:N:106:GLY:HA3	1:N:143:GLN:HB3	1.88	0.56
1:A:422:GLU:HB3	1:A:425:PHE:HB2	1.88	0.56
1:B:442:TRP:CE3	1:B:454:LEU:HD13	2.40	0.56
1:C:106:GLY:HA3	1:C:143:GLN:HB3	1.88	0.56
1:D:106:GLY:HA3	1:D:143:GLN:HB3	1.88	0.56
1:E:63:MET:HE3	1:E:185:VAL:HA	1.87	0.56
1:E:106:GLY:HA3	1:E:143:GLN:HB3	1.88	0.56
1:H:123:LYS:HD2	1:H:124:PRO:HD2	1.88	0.56
1:H:191:LEU:HD23	1:H:220:VAL:HB	1.86	0.56
1:K:123:LYS:HD2	1:K:124:PRO:HD2	1.88	0.56
1:K:305:ARG:HH21	1:L:133:ASN:HB2	1.71	0.56
1:L:236:TYR:O	1:L:240:MET:HG3	2.06	0.56
1:L:448:LYS:HA	1:L:451:TYR:HD2	1.71	0.56
1:M:123:LYS:HD2	1:M:124:PRO:HD2	1.88	0.56
1:N:63:MET:HE3	1:N:185:VAL:HA	1.87	0.56
1:A:236:TYR:O	1:A:240:MET:HG3	2.06	0.56
1:A:442:TRP:CE3	1:A:454:LEU:HD13	2.40	0.56
1:C:487:ILE:HD13	1:C:511:ILE:HG12	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:429:TYR:HE2	1:E:431:GLU:HG3	1.68	0.56
1:F:170:ARG:NH2	1:F:172:TYR:OH	2.38	0.56
1:F:479:LEU:HD11	1:F:511:ILE:HG23	1.87	0.56
1:G:106:GLY:HA3	1:G:143:GLN:HB3	1.88	0.56
1:G:300:LEU:HA	1:G:303:ARG:HE	1.70	0.56
1:H:442:TRP:CE3	1:H:454:LEU:HD13	2.40	0.56
1:I:106:GLY:HA3	1:I:143:GLN:HB3	1.88	0.56
1:I:448:LYS:HA	1:I:451:TYR:HD2	1.71	0.56
1:L:442:TRP:CE3	1:L:454:LEU:HD13	2.40	0.56
1:O:106:GLY:HA3	1:O:143:GLN:HB3	1.88	0.56
1:A:63:MET:HE3	1:A:185:VAL:HA	1.87	0.55
1:B:35:LYS:HZ1	1:B:381:LEU:HA	1.69	0.55
1:B:63:MET:HE3	1:B:185:VAL:HA	1.87	0.55
1:B:502:GLU:OE1	1:B:532:SER:OG	2.19	0.55
1:C:170:ARG:NH2	1:C:172:TYR:OH	2.38	0.55
1:D:77:PHE:HZ	1:D:222:ASN:HB2	1.71	0.55
1:G:442:TRP:CE3	1:G:454:LEU:HD13	2.40	0.55
1:H:442:TRP:HZ2	1:H:508:LYS:HG3	1.71	0.55
1:K:170:ARG:NH2	1:K:172:TYR:OH	2.38	0.55
1:K:429:TYR:HE2	1:K:431:GLU:HG3	1.67	0.55
1:L:106:GLY:HA3	1:L:143:GLN:HB3	1.88	0.55
1:L:300:LEU:HA	1:L:303:ARG:HE	1.70	0.55
1:M:106:GLY:HA3	1:M:143:GLN:HB3	1.88	0.55
1:M:170:ARG:NH2	1:M:172:TYR:OH	2.38	0.55
1:O:197:LEU:HD11	1:O:239:LEU:HD13	1.87	0.55
1:B:442:TRP:HZ2	1:B:508:LYS:HG3	1.72	0.55
1:C:123:LYS:HD2	1:C:124:PRO:HD2	1.88	0.55
1:D:191:LEU:HD23	1:D:220:VAL:HB	1.86	0.55
1:H:106:GLY:HA3	1:H:143:GLN:HB3	1.88	0.55
1:H:220:VAL:HG22	1:H:256:TYR:HB2	1.86	0.55
1:H:282:PHE:O	1:H:286:GLN:HG3	2.07	0.55
1:I:123:LYS:HD2	1:I:124:PRO:HD2	1.88	0.55
1:I:147:GLN:HA	1:I:150:LYS:HZ2	1.71	0.55
1:J:77:PHE:HZ	1:J:222:ASN:HB2	1.71	0.55
1:K:106:GLY:HA3	1:K:143:GLN:HB3	1.88	0.55
1:P:77:PHE:HZ	1:P:222:ASN:HB2	1.71	0.55
1:P:190:LEU:HD23	1:P:203:PHE:HZ	1.69	0.55
1:A:417:PHE:CE1	1:A:524:LEU:HB2	2.42	0.55
1:B:417:PHE:CE1	1:B:524:LEU:HB2	2.42	0.55
1:C:300:LEU:HA	1:C:303:ARG:HE	1.70	0.55
1:D:123:LYS:HD2	1:D:124:PRO:HD2	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:442:TRP:HZ2	1:F:508:LYS:HG3	1.72	0.55
1:G:181:PHE:O	1:G:185:VAL:HG23	2.07	0.55
1:J:282:PHE:O	1:J:286:GLN:HG3	2.07	0.55
1:L:291:LYS:HD3	1:P:113:PRO:HG3	1.85	0.55
1:L:422:GLU:HB3	1:L:425:PHE:HB2	1.88	0.55
1:M:282:PHE:O	1:M:286:GLN:HG3	2.07	0.55
1:N:422:GLU:HB3	1:N:425:PHE:HB2	1.87	0.55
1:O:35:LYS:HZ3	1:O:381:LEU:HA	1.70	0.55
1:O:123:LYS:HD2	1:O:124:PRO:HD2	1.88	0.55
1:C:422:GLU:HB3	1:C:425:PHE:HB2	1.88	0.55
1:C:448:LYS:HA	1:C:451:TYR:HD2	1.71	0.55
1:F:181:PHE:O	1:F:185:VAL:HG23	2.07	0.55
1:F:300:LEU:HA	1:F:303:ARG:HE	1.70	0.55
1:F:417:PHE:CE1	1:F:524:LEU:HB2	2.42	0.55
1:G:422:GLU:HB3	1:G:425:PHE:HB2	1.88	0.55
1:H:63:MET:HE3	1:H:185:VAL:HA	1.87	0.55
1:J:63:MET:HE3	1:J:185:VAL:HA	1.87	0.55
1:J:300:LEU:HA	1:J:303:ARG:HE	1.70	0.55
1:L:181:PHE:O	1:L:185:VAL:HG23	2.07	0.55
1:N:282:PHE:O	1:N:286:GLN:HG3	2.07	0.55
1:O:442:TRP:CE3	1:O:454:LEU:HD13	2.40	0.55
1:A:170:ARG:NH2	1:A:172:TYR:OH	2.38	0.55
1:A:282:PHE:O	1:A:286:GLN:HG3	2.07	0.55
1:B:448:LYS:HA	1:B:451:TYR:HD2	1.71	0.55
1:D:170:ARG:NH2	1:D:172:TYR:OH	2.38	0.55
1:F:448:LYS:HA	1:F:451:TYR:HD2	1.71	0.55
1:J:422:GLU:HB3	1:J:425:PHE:HB2	1.87	0.55
1:L:215:ASP:OD2	1:P:137:ASN:CB	2.53	0.55
1:M:442:TRP:HZ2	1:M:508:LYS:HG3	1.72	0.55
1:N:300:LEU:HA	1:N:303:ARG:HE	1.70	0.55
1:I:63:MET:HE3	1:I:185:VAL:HA	1.87	0.55
1:K:417:PHE:CE1	1:K:524:LEU:HB2	2.42	0.55
1:L:77:PHE:HZ	1:L:222:ASN:HB2	1.71	0.55
1:M:397:MET:SD	1:O:119:VAL:HG23	2.46	0.55
1:N:77:PHE:HZ	1:N:222:ASN:HB2	1.71	0.55
1:N:417:PHE:CE1	1:N:524:LEU:HB2	2.42	0.55
1:N:442:TRP:HZ2	1:N:508:LYS:HG3	1.72	0.55
1:O:181:PHE:O	1:O:185:VAL:HG23	2.07	0.55
1:P:66:LEU:HD23	1:P:74:LYS:HB3	1.88	0.55
1:P:123:LYS:HD2	1:P:124:PRO:HD2	1.88	0.55
1:P:422:GLU:HB3	1:P:425:PHE:HB2	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:417:PHE:CE1	1:C:524:LEU:HB2	2.42	0.55
1:D:181:PHE:O	1:D:185:VAL:HG23	2.06	0.55
1:F:95:PRO:HD2	1:G:234:ARG:HH21	1.72	0.55
1:H:417:PHE:CE1	1:H:524:LEU:HB2	2.42	0.55
1:J:123:LYS:HD2	1:J:124:PRO:HD2	1.88	0.55
1:K:63:MET:HE3	1:K:185:VAL:HA	1.87	0.55
1:K:77:PHE:HZ	1:K:222:ASN:HB2	1.71	0.55
1:L:282:PHE:O	1:L:286:GLN:HG3	2.07	0.55
1:O:417:PHE:CE1	1:O:524:LEU:HB2	2.42	0.55
1:P:282:PHE:O	1:P:286:GLN:HG3	2.06	0.55
1:A:448:LYS:HA	1:A:451:TYR:HD2	1.71	0.55
1:B:123:LYS:HD2	1:B:124:PRO:HD2	1.88	0.55
1:C:63:MET:HE3	1:C:185:VAL:HA	1.87	0.55
1:D:442:TRP:HZ2	1:D:508:LYS:HG3	1.72	0.55
1:F:282:PHE:O	1:F:286:GLN:HG3	2.07	0.55
1:J:170:ARG:NH2	1:J:172:TYR:OH	2.38	0.55
1:L:251:GLU:OE2	1:P:170:ARG:HG2	2.07	0.55
1:M:417:PHE:CE1	1:M:524:LEU:HB2	2.42	0.55
1:N:473:GLU:O	1:N:476:THR:OG1	2.20	0.55
1:P:181:PHE:O	1:P:185:VAL:HG23	2.07	0.55
1:P:442:TRP:HZ2	1:P:508:LYS:HG3	1.71	0.55
1:C:282:PHE:O	1:C:286:GLN:HG3	2.07	0.55
1:E:77:PHE:HZ	1:E:222:ASN:HB2	1.71	0.55
1:F:243:LEU:O	1:F:247:ILE:HG12	2.07	0.55
1:G:77:PHE:HZ	1:G:222:ASN:HB2	1.71	0.55
1:G:282:PHE:O	1:G:286:GLN:HG3	2.06	0.55
1:H:240:MET:HA	1:H:243:LEU:HB2	1.89	0.55
1:I:181:PHE:O	1:I:185:VAL:HG23	2.06	0.55
1:I:282:PHE:O	1:I:286:GLN:HG3	2.07	0.55
1:I:442:TRP:HZ2	1:I:508:LYS:HG3	1.72	0.55
1:J:417:PHE:CE1	1:J:524:LEU:HB2	2.42	0.55
1:K:240:MET:HA	1:K:243:LEU:HB2	1.89	0.55
1:L:442:TRP:HZ2	1:L:508:LYS:HG3	1.72	0.55
1:B:170:ARG:NH2	1:B:172:TYR:OH	2.38	0.55
1:B:282:PHE:O	1:B:286:GLN:HG3	2.07	0.55
1:C:442:TRP:HZ2	1:C:508:LYS:HG3	1.72	0.55
1:E:181:PHE:O	1:E:185:VAL:HG23	2.06	0.55
1:E:240:MET:HA	1:E:243:LEU:HB2	1.89	0.55
1:E:417:PHE:CE1	1:E:524:LEU:HB2	2.42	0.55
1:I:170:ARG:NH2	1:I:172:TYR:OH	2.38	0.55
1:I:236:TYR:O	1:I:240:MET:HG3	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:422:GLU:HB3	1:K:425:PHE:HB2	1.88	0.55
1:L:123:LYS:HD2	1:L:124:PRO:HD2	1.88	0.55
1:M:63:MET:HE3	1:M:185:VAL:HA	1.87	0.55
1:M:240:MET:HA	1:M:243:LEU:HB2	1.90	0.55
1:N:170:ARG:NH2	1:N:172:TYR:OH	2.38	0.55
1:O:422:GLU:HB3	1:O:425:PHE:HB2	1.88	0.55
1:O:442:TRP:HZ2	1:O:508:LYS:HG3	1.72	0.55
1:P:300:LEU:HA	1:P:303:ARG:HE	1.70	0.55
1:C:77:PHE:HZ	1:C:222:ASN:HB2	1.71	0.54
1:D:63:MET:HE3	1:D:185:VAL:HA	1.88	0.54
1:D:243:LEU:O	1:D:247:ILE:HG12	2.07	0.54
1:F:123:LYS:HD2	1:F:124:PRO:HD2	1.88	0.54
1:G:360:LYS:O	1:G:363:GLN:HB2	2.07	0.54
1:H:181:PHE:O	1:H:185:VAL:HG23	2.06	0.54
1:J:181:PHE:O	1:J:185:VAL:HG23	2.07	0.54
1:J:442:TRP:HZ2	1:J:508:LYS:HG3	1.72	0.54
1:L:360:LYS:O	1:L:363:GLN:HB2	2.07	0.54
1:M:448:LYS:HA	1:M:451:TYR:HD2	1.71	0.54
1:O:282:PHE:O	1:O:286:GLN:HG3	2.07	0.54
1:P:106:GLY:HA3	1:P:143:GLN:HB3	1.88	0.54
1:P:360:LYS:O	1:P:363:GLN:HB2	2.07	0.54
1:B:35:LYS:HG3	1:B:35:LYS:O	2.08	0.54
1:B:60:ASN:HD22	1:B:60:ASN:C	2.11	0.54
1:D:35:LYS:O	1:D:35:LYS:HG3	2.08	0.54
1:D:282:PHE:O	1:D:286:GLN:HG3	2.07	0.54
1:E:282:PHE:O	1:E:286:GLN:HG3	2.07	0.54
1:F:35:LYS:HG3	1:F:35:LYS:O	2.08	0.54
1:F:295:ARG:HH12	1:F:296:LYS:HG3	1.73	0.54
1:F:360:LYS:O	1:F:363:GLN:HB2	2.08	0.54
1:G:123:LYS:HD2	1:G:124:PRO:HD2	1.88	0.54
1:I:417:PHE:CE1	1:I:524:LEU:HB2	2.42	0.54
1:N:181:PHE:O	1:N:185:VAL:HG23	2.07	0.54
1:O:240:MET:HA	1:O:243:LEU:HB2	1.89	0.54
1:A:123:LYS:HD2	1:A:124:PRO:HD2	1.88	0.54
1:A:295:ARG:HH12	1:A:296:LYS:HG3	1.73	0.54
1:A:442:TRP:HZ2	1:A:508:LYS:HG3	1.72	0.54
1:B:77:PHE:HZ	1:B:222:ASN:HB2	1.71	0.54
1:D:417:PHE:CE1	1:D:524:LEU:HB2	2.42	0.54
1:F:240:MET:HA	1:F:243:LEU:HB2	1.89	0.54
1:G:442:TRP:HZ2	1:G:508:LYS:HG3	1.72	0.54
1:H:448:LYS:HA	1:H:451:TYR:HD2	1.71	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:181:PHE:O	1:K:185:VAL:HG23	2.07	0.54
1:M:35:LYS:HG3	1:M:35:LYS:O	2.08	0.54
1:M:422:GLU:HB3	1:M:425:PHE:HB2	1.87	0.54
1:N:35:LYS:HG3	1:N:35:LYS:O	2.08	0.54
1:N:123:LYS:HD2	1:N:124:PRO:HD2	1.88	0.54
1:P:417:PHE:CE1	1:P:524:LEU:HB2	2.42	0.54
1:C:181:PHE:O	1:C:185:VAL:HG23	2.07	0.54
1:C:240:MET:HA	1:C:243:LEU:HB2	1.89	0.54
1:C:295:ARG:HH12	1:C:296:LYS:HG3	1.73	0.54
1:D:360:LYS:O	1:D:363:GLN:HB2	2.07	0.54
1:H:35:LYS:HG3	1:H:35:LYS:O	2.08	0.54
1:J:35:LYS:HG3	1:J:35:LYS:O	2.08	0.54
1:L:62:PRO:HA	1:L:295:ARG:HH21	1.73	0.54
1:L:417:PHE:CE1	1:L:524:LEU:HB2	2.42	0.54
1:O:62:PRO:HA	1:O:295:ARG:HH21	1.73	0.54
1:O:360:LYS:O	1:O:363:GLN:HB2	2.07	0.54
1:A:181:PHE:O	1:A:185:VAL:HG23	2.07	0.54
1:D:95:PRO:HD2	1:E:234:ARG:HH21	1.73	0.54
1:D:295:ARG:HH12	1:D:296:LYS:HG3	1.73	0.54
1:G:62:PRO:HA	1:G:295:ARG:HH21	1.73	0.54
1:G:417:PHE:CE1	1:G:524:LEU:HB2	2.42	0.54
1:I:77:PHE:HZ	1:I:222:ASN:HB2	1.71	0.54
1:I:240:MET:HA	1:I:243:LEU:HB2	1.89	0.54
1:I:243:LEU:O	1:I:247:ILE:HG12	2.07	0.54
1:I:293:ALA:HA	1:I:296:LYS:HD2	1.90	0.54
1:O:293:ALA:HA	1:O:296:LYS:HD2	1.90	0.54
1:A:70:TYR:HB3	1:A:95:PRO:HG3	1.90	0.54
1:B:70:TYR:HB3	1:B:95:PRO:HG3	1.90	0.54
1:B:243:LEU:O	1:B:247:ILE:HG12	2.07	0.54
1:D:240:MET:HA	1:D:243:LEU:HB2	1.89	0.54
1:D:293:ALA:HA	1:D:296:LYS:HD2	1.90	0.54
1:E:62:PRO:HA	1:E:295:ARG:HH21	1.73	0.54
1:E:243:LEU:O	1:E:247:ILE:HG12	2.07	0.54
1:G:243:LEU:O	1:G:247:ILE:HG12	2.07	0.54
1:I:295:ARG:HH12	1:I:296:LYS:HG3	1.73	0.54
1:L:294:VAL:HG11	1:P:113:PRO:CB	2.37	0.54
1:N:62:PRO:HA	1:N:295:ARG:HH21	1.73	0.54
1:O:204:SER:O	1:O:207:ILE:HG22	2.08	0.54
1:P:448:LYS:HA	1:P:451:TYR:HD2	1.71	0.54
1:A:243:LEU:O	1:A:247:ILE:HG12	2.07	0.54
1:A:502:GLU:OE1	1:A:532:SER:OG	2.19	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:181:PHE:O	1:B:185:VAL:HG23	2.07	0.54
1:C:243:LEU:O	1:C:247:ILE:HG12	2.07	0.54
1:C:360:LYS:O	1:C:363:GLN:HB2	2.07	0.54
1:C:502:GLU:OE1	1:C:532:SER:OG	2.19	0.54
1:F:204:SER:O	1:F:207:ILE:HG22	2.08	0.54
1:H:62:PRO:HA	1:H:295:ARG:HH21	1.73	0.54
1:H:295:ARG:HH12	1:H:296:LYS:HG3	1.73	0.54
1:H:422:GLU:HB3	1:H:425:PHE:HB2	1.88	0.54
1:I:35:LYS:HZ3	1:I:381:LEU:HA	1.72	0.54
1:I:360:LYS:O	1:I:363:GLN:HB2	2.07	0.54
1:J:62:PRO:HA	1:J:295:ARG:HH21	1.73	0.54
1:J:240:MET:HA	1:J:243:LEU:HB2	1.89	0.54
1:J:360:LYS:O	1:J:363:GLN:HB2	2.07	0.54
1:L:293:ALA:HA	1:L:296:LYS:HD2	1.90	0.54
1:L:350:GLN:CD	1:P:47:GLU:HG2	2.28	0.54
1:M:181:PHE:O	1:M:185:VAL:HG23	2.07	0.54
1:N:448:LYS:HA	1:N:451:TYR:HD2	1.71	0.54
1:P:60:ASN:HD22	1:P:60:ASN:C	2.11	0.54
1:A:147:GLN:HA	1:A:150:LYS:NZ	2.23	0.54
1:A:204:SER:O	1:A:207:ILE:HG22	2.08	0.54
1:C:147:GLN:HA	1:C:150:LYS:NZ	2.23	0.54
1:D:60:ASN:C	1:D:60:ASN:HD22	2.11	0.54
1:E:295:ARG:HH12	1:E:296:LYS:HG3	1.73	0.54
1:G:204:SER:O	1:G:207:ILE:HG22	2.08	0.54
1:G:293:ALA:HA	1:G:296:LYS:HD2	1.90	0.54
1:K:62:PRO:HA	1:K:295:ARG:HH21	1.73	0.54
1:K:282:PHE:O	1:K:286:GLN:HG3	2.07	0.54
1:K:442:TRP:HZ2	1:K:508:LYS:HG3	1.72	0.54
1:L:204:SER:O	1:L:207:ILE:HG22	2.08	0.54
1:L:243:LEU:O	1:L:247:ILE:HG12	2.07	0.54
1:N:70:TYR:HB3	1:N:95:PRO:HG3	1.90	0.54
1:O:35:LYS:O	1:O:35:LYS:HG3	2.08	0.54
1:P:70:TYR:HB3	1:P:95:PRO:HG3	1.90	0.54
1:B:147:GLN:HA	1:B:150:LYS:NZ	2.23	0.54
1:E:204:SER:O	1:E:207:ILE:HG22	2.08	0.54
1:E:293:ALA:HA	1:E:296:LYS:HD2	1.90	0.54
1:E:422:GLU:HB3	1:E:425:PHE:HB2	1.88	0.54
1:J:70:TYR:HB3	1:J:95:PRO:HG3	1.90	0.54
1:K:295:ARG:HH12	1:K:296:LYS:HG3	1.73	0.54
1:L:240:MET:HA	1:L:243:LEU:HB2	1.90	0.54
1:M:360:LYS:O	1:M:363:GLN:HB2	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:360:LYS:O	1:N:363:GLN:HB2	2.07	0.54
1:P:62:PRO:HA	1:P:295:ARG:HH21	1.73	0.54
1:A:62:PRO:HA	1:A:295:ARG:HH21	1.73	0.54
1:A:95:PRO:HD2	1:J:234:ARG:HH21	1.72	0.54
1:B:62:PRO:HA	1:B:295:ARG:HH21	1.73	0.54
1:B:293:ALA:HA	1:B:296:LYS:HD2	1.90	0.54
1:D:178:LEU:HB3	1:D:210:PHE:CE1	2.43	0.54
1:D:204:SER:O	1:D:207:ILE:HG22	2.08	0.54
1:F:35:LYS:HZ1	1:F:381:LEU:HA	1.73	0.54
1:H:243:LEU:O	1:H:247:ILE:HG12	2.07	0.54
1:I:35:LYS:HG3	1:I:35:LYS:O	2.08	0.54
1:K:147:GLN:HA	1:K:150:LYS:NZ	2.23	0.54
1:K:147:GLN:HA	1:K:150:LYS:HZ2	1.73	0.54
1:K:243:LEU:O	1:K:247:ILE:HG12	2.08	0.54
1:L:251:GLU:HG3	1:P:165:LYS:HZ1	1.70	0.54
1:M:62:PRO:HA	1:M:295:ARG:HH21	1.73	0.54
1:O:178:LEU:HB3	1:O:210:PHE:CE1	2.43	0.54
1:A:147:GLN:HA	1:A:150:LYS:HZ2	1.73	0.53
1:C:62:PRO:HA	1:C:295:ARG:HH21	1.73	0.53
1:E:442:TRP:HZ2	1:E:508:LYS:HG3	1.72	0.53
1:H:360:LYS:O	1:H:363:GLN:HB2	2.07	0.53
1:I:178:LEU:HB3	1:I:210:PHE:CE1	2.44	0.53
1:K:60:ASN:C	1:K:60:ASN:HD22	2.11	0.53
1:K:293:ALA:HA	1:K:296:LYS:HD2	1.90	0.53
1:L:70:TYR:HB3	1:L:95:PRO:HG3	1.90	0.53
1:L:178:LEU:HB3	1:L:210:PHE:CE1	2.43	0.53
1:M:204:SER:O	1:M:207:ILE:HG22	2.08	0.53
1:N:243:LEU:O	1:N:247:ILE:HG12	2.07	0.53
1:O:70:TYR:HB3	1:O:95:PRO:HG3	1.90	0.53
1:A:77:PHE:HZ	1:A:222:ASN:HB2	1.71	0.53
1:A:360:LYS:O	1:A:363:GLN:HB2	2.07	0.53
1:C:70:TYR:HB3	1:C:95:PRO:HG3	1.90	0.53
1:G:240:MET:HA	1:G:243:LEU:HB2	1.89	0.53
1:H:204:SER:O	1:H:207:ILE:HG22	2.08	0.53
1:J:147:GLN:HA	1:J:150:LYS:NZ	2.23	0.53
1:J:204:SER:O	1:J:207:ILE:HG22	2.08	0.53
1:J:243:LEU:O	1:J:247:ILE:HG12	2.07	0.53
1:L:295:ARG:HH12	1:L:296:LYS:HG3	1.73	0.53
1:M:295:ARG:HH12	1:M:296:LYS:HG3	1.73	0.53
1:N:240:MET:HA	1:N:243:LEU:HB2	1.89	0.53
1:O:295:ARG:HH12	1:O:296:LYS:HG3	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:35:LYS:HG3	1:A:35:LYS:O	2.08	0.53
1:A:293:ALA:HA	1:A:296:LYS:HD2	1.90	0.53
1:B:178:LEU:HB3	1:B:210:PHE:CE1	2.44	0.53
1:C:204:SER:O	1:C:207:ILE:HG22	2.08	0.53
1:C:288:LEU:HA	1:C:291:LYS:HB3	1.91	0.53
1:D:147:GLN:HA	1:D:150:LYS:NZ	2.23	0.53
1:E:147:GLN:HA	1:E:150:LYS:NZ	2.23	0.53
1:G:147:GLN:HA	1:G:150:LYS:NZ	2.23	0.53
1:I:288:LEU:HA	1:I:291:LYS:HB3	1.91	0.53
1:J:288:LEU:HA	1:J:291:LYS:HB3	1.91	0.53
1:J:448:LYS:HA	1:J:451:TYR:HD2	1.71	0.53
1:K:360:LYS:O	1:K:363:GLN:HB2	2.07	0.53
1:L:147:GLN:HA	1:L:150:LYS:NZ	2.23	0.53
1:M:178:LEU:HB3	1:M:210:PHE:CE1	2.43	0.53
1:A:234:ARG:HB3	1:J:94:GLU:CD	2.29	0.53
1:E:178:LEU:HB3	1:E:210:PHE:CE1	2.44	0.53
1:F:70:TYR:HB3	1:F:95:PRO:HG3	1.90	0.53
1:G:35:LYS:O	1:G:35:LYS:HG3	2.08	0.53
1:G:178:LEU:HB3	1:G:210:PHE:CE1	2.43	0.53
1:H:293:ALA:HA	1:H:296:LYS:HD2	1.90	0.53
1:I:62:PRO:HA	1:I:295:ARG:HH21	1.73	0.53
1:I:70:TYR:HB3	1:I:95:PRO:HG3	1.90	0.53
1:I:147:GLN:HA	1:I:150:LYS:NZ	2.23	0.53
1:J:502:GLU:OE1	1:J:532:SER:OG	2.19	0.53
1:K:35:LYS:HZ3	1:K:381:LEU:HA	1.73	0.53
1:K:204:SER:O	1:K:207:ILE:HG22	2.08	0.53
1:M:293:ALA:HA	1:M:296:LYS:HD2	1.90	0.53
1:N:502:GLU:OE1	1:N:532:SER:OG	2.19	0.53
1:O:243:LEU:O	1:O:247:ILE:HG12	2.08	0.53
1:B:360:LYS:O	1:B:363:GLN:HB2	2.08	0.53
1:D:288:LEU:HA	1:D:291:LYS:HB3	1.91	0.53
1:E:360:LYS:O	1:E:363:GLN:HB2	2.08	0.53
1:G:70:TYR:HB3	1:G:95:PRO:HG3	1.90	0.53
1:I:204:SER:O	1:I:207:ILE:HG22	2.08	0.53
1:K:35:LYS:HG3	1:K:35:LYS:O	2.07	0.53
1:M:243:LEU:O	1:M:247:ILE:HG12	2.07	0.53
1:N:204:SER:O	1:N:207:ILE:HG22	2.08	0.53
1:N:288:LEU:HA	1:N:291:LYS:HB3	1.91	0.53
1:P:147:GLN:HA	1:P:150:LYS:NZ	2.23	0.53
1:A:186:ASP:OD2	1:A:295:ARG:NE	2.28	0.53
1:B:288:LEU:HA	1:B:291:LYS:HB3	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:295:ARG:HH12	1:B:296:LYS:HG3	1.73	0.53
1:D:62:PRO:HA	1:D:295:ARG:HH21	1.73	0.53
1:D:70:TYR:HB3	1:D:95:PRO:HG3	1.90	0.53
1:E:60:ASN:HD22	1:E:60:ASN:C	2.11	0.53
1:H:178:LEU:HB3	1:H:210:PHE:CE1	2.44	0.53
1:K:178:LEU:HB3	1:K:210:PHE:CE1	2.43	0.53
1:L:290:GLN:HG3	1:P:111:SER:O	2.08	0.53
1:M:60:ASN:HD22	1:M:60:ASN:C	2.11	0.53
1:A:288:LEU:HA	1:A:291:LYS:HB3	1.91	0.53
1:B:240:MET:HA	1:B:243:LEU:HB2	1.89	0.53
1:F:288:LEU:HA	1:F:291:LYS:HB3	1.91	0.53
1:F:293:ALA:HA	1:F:296:LYS:HD2	1.90	0.53
1:I:104:MET:SD	1:I:143:GLN:HG2	2.49	0.53
1:J:60:ASN:HD22	1:J:60:ASN:C	2.11	0.53
1:K:288:LEU:HA	1:K:291:LYS:HB3	1.91	0.53
1:M:104:MET:SD	1:M:143:GLN:HG2	2.49	0.53
1:N:147:GLN:HA	1:N:150:LYS:NZ	2.23	0.53
1:P:243:LEU:O	1:P:247:ILE:HG12	2.07	0.53
1:C:35:LYS:HG3	1:C:35:LYS:O	2.08	0.53
1:C:293:ALA:HA	1:C:296:LYS:HD2	1.90	0.53
1:D:104:MET:SD	1:D:143:GLN:HG2	2.49	0.53
1:F:104:MET:SD	1:F:143:GLN:HG2	2.49	0.53
1:H:104:MET:SD	1:H:143:GLN:HG2	2.49	0.53
1:M:288:LEU:HA	1:M:291:LYS:HB3	1.91	0.53
1:P:240:MET:HA	1:P:243:LEU:HB2	1.89	0.53
1:P:295:ARG:HH12	1:P:296:LYS:HG3	1.73	0.53
1:C:51:PRO:HG2	1:C:127:LYS:NZ	2.24	0.53
1:C:60:ASN:C	1:C:60:ASN:HD22	2.11	0.53
1:E:35:LYS:HG3	1:E:35:LYS:O	2.08	0.53
1:E:288:LEU:HA	1:E:291:LYS:HB3	1.91	0.53
1:K:51:PRO:HG2	1:K:127:LYS:NZ	2.24	0.53
1:L:305:ARG:NH1	1:P:129:SER:O	2.41	0.53
1:O:51:PRO:HG2	1:O:127:LYS:NZ	2.24	0.53
1:A:51:PRO:HG2	1:A:127:LYS:NZ	2.24	0.53
1:A:178:LEU:HB3	1:A:210:PHE:CE1	2.43	0.53
1:C:56:ALA:HA	1:C:59:GLU:HG3	1.91	0.53
1:C:178:LEU:HB3	1:C:210:PHE:CE1	2.43	0.53
1:D:51:PRO:HG2	1:D:127:LYS:NZ	2.24	0.53
1:G:51:PRO:HG2	1:G:127:LYS:NZ	2.24	0.53
1:G:60:ASN:C	1:G:60:ASN:HD22	2.11	0.53
1:H:56:ALA:HA	1:H:59:GLU:HG3	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:60:ASN:HD22	1:H:60:ASN:C	2.11	0.53
1:L:35:LYS:O	1:L:35:LYS:HG3	2.08	0.53
1:M:51:PRO:HG2	1:M:127:LYS:NZ	2.24	0.53
1:M:70:TYR:HB3	1:M:95:PRO:HG3	1.90	0.53
1:N:178:LEU:HB3	1:N:210:PHE:CE1	2.43	0.53
1:P:35:LYS:HG3	1:P:35:LYS:O	2.07	0.53
1:P:51:PRO:HG2	1:P:127:LYS:NZ	2.24	0.53
1:A:240:MET:HA	1:A:243:LEU:HB2	1.89	0.52
1:F:178:LEU:HB3	1:F:210:PHE:CE1	2.43	0.52
1:J:56:ALA:HA	1:J:59:GLU:HG3	1.91	0.52
1:L:51:PRO:HG2	1:L:127:LYS:NZ	2.24	0.52
1:L:288:LEU:HA	1:L:291:LYS:HB3	1.90	0.52
1:M:56:ALA:HA	1:M:59:GLU:HG3	1.91	0.52
1:M:147:GLN:HA	1:M:150:LYS:NZ	2.23	0.52
1:O:147:GLN:HA	1:O:150:LYS:NZ	2.23	0.52
1:P:104:MET:SD	1:P:143:GLN:HG2	2.49	0.52
1:P:204:SER:O	1:P:207:ILE:HG22	2.08	0.52
1:B:51:PRO:HG2	1:B:127:LYS:NZ	2.24	0.52
1:E:51:PRO:HG2	1:E:127:LYS:NZ	2.24	0.52
1:G:82:LEU:HD11	1:G:149:LEU:CD2	2.39	0.52
1:G:288:LEU:HA	1:G:291:LYS:HB3	1.91	0.52
1:H:32:TYR:CE2	1:H:53:LEU:HB2	2.44	0.52
1:H:51:PRO:HG2	1:H:127:LYS:NZ	2.24	0.52
1:H:147:GLN:HA	1:H:150:LYS:NZ	2.23	0.52
1:J:104:MET:SD	1:J:143:GLN:HG2	2.49	0.52
1:J:178:LEU:HB3	1:J:210:PHE:CE1	2.43	0.52
1:L:60:ASN:C	1:L:60:ASN:HD22	2.11	0.52
1:N:60:ASN:C	1:N:60:ASN:HD22	2.11	0.52
1:N:293:ALA:HA	1:N:296:LYS:HD2	1.90	0.52
1:O:104:MET:SD	1:O:143:GLN:HG2	2.49	0.52
1:P:288:LEU:HA	1:P:291:LYS:HB3	1.91	0.52
1:A:56:ALA:HA	1:A:59:GLU:HG3	1.91	0.52
1:C:35:LYS:HZ3	1:C:381:LEU:HA	1.74	0.52
1:G:295:ARG:HH12	1:G:296:LYS:HG3	1.73	0.52
1:H:288:LEU:HA	1:H:291:LYS:HB3	1.91	0.52
1:N:56:ALA:HA	1:N:59:GLU:HG3	1.91	0.52
1:O:32:TYR:CE2	1:O:53:LEU:HB2	2.44	0.52
1:P:178:LEU:HB3	1:P:210:PHE:CE1	2.44	0.52
1:A:94:GLU:HB3	1:J:234:ARG:CZ	2.39	0.52
1:B:56:ALA:HA	1:B:59:GLU:HG3	1.91	0.52
1:F:62:PRO:HA	1:F:295:ARG:HH21	1.73	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:82:LEU:HD11	1:F:149:LEU:CD2	2.39	0.52
1:H:70:TYR:HB3	1:H:95:PRO:HG3	1.90	0.52
1:H:94:GLU:OE2	1:I:231:GLN:OE1	2.26	0.52
1:J:82:LEU:HD11	1:J:149:LEU:CD2	2.39	0.52
1:K:56:ALA:HA	1:K:59:GLU:HG3	1.91	0.52
1:K:70:TYR:HB3	1:K:95:PRO:HG3	1.90	0.52
1:L:397:MET:SD	1:P:121:PRO:HD2	2.47	0.52
1:O:288:LEU:HA	1:O:291:LYS:HB3	1.91	0.52
1:P:293:ALA:HA	1:P:296:LYS:HD2	1.90	0.52
1:B:104:MET:SD	1:B:143:GLN:HG2	2.49	0.52
1:B:204:SER:O	1:B:207:ILE:HG22	2.08	0.52
1:B:288:LEU:HB2	1:B:410:GLN:OE1	2.10	0.52
1:C:82:LEU:HD11	1:C:149:LEU:CD2	2.39	0.52
1:E:70:TYR:HB3	1:E:95:PRO:HG3	1.90	0.52
1:J:293:ALA:HA	1:J:296:LYS:HD2	1.90	0.52
1:M:32:TYR:CE2	1:M:53:LEU:HB2	2.44	0.52
1:N:82:LEU:HD11	1:N:149:LEU:CD2	2.39	0.52
1:N:295:ARG:HH12	1:N:296:LYS:HG3	1.73	0.52
1:P:82:LEU:HD11	1:P:149:LEU:CD2	2.39	0.52
1:A:32:TYR:CE2	1:A:53:LEU:HB2	2.44	0.52
1:A:82:LEU:HD11	1:A:149:LEU:CD2	2.39	0.52
1:B:32:TYR:CE2	1:B:53:LEU:HB2	2.44	0.52
1:C:32:TYR:CE2	1:C:53:LEU:HB2	2.44	0.52
1:D:82:LEU:HD11	1:D:149:LEU:CD2	2.39	0.52
1:E:32:TYR:CE2	1:E:53:LEU:HB2	2.44	0.52
1:E:56:ALA:HA	1:E:59:GLU:HG3	1.91	0.52
1:E:104:MET:SD	1:E:143:GLN:HG2	2.49	0.52
1:I:82:LEU:HD11	1:I:149:LEU:CD2	2.39	0.52
1:L:302:LYS:HE3	1:P:137:ASN:HD21	1.75	0.52
1:N:51:PRO:HG2	1:N:127:LYS:NZ	2.24	0.52
1:B:82:LEU:HD11	1:B:149:LEU:CD2	2.39	0.52
1:F:32:TYR:CE2	1:F:53:LEU:HB2	2.44	0.52
1:F:147:GLN:HA	1:F:150:LYS:NZ	2.23	0.52
1:J:51:PRO:HG2	1:J:127:LYS:NZ	2.24	0.52
1:J:288:LEU:HB2	1:J:410:GLN:OE1	2.10	0.52
1:M:82:LEU:HD11	1:M:149:LEU:CD2	2.40	0.52
1:N:104:MET:SD	1:N:143:GLN:HG2	2.49	0.52
1:N:288:LEU:HB2	1:N:410:GLN:OE1	2.10	0.52
1:P:118:VAL:HG11	1:P:136:LEU:HD22	1.91	0.52
1:A:60:ASN:C	1:A:60:ASN:HD22	2.11	0.52
1:A:104:MET:SD	1:A:143:GLN:HG2	2.49	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:104:MET:SD	1:C:143:GLN:HG2	2.49	0.52
1:C:288:LEU:HB2	1:C:410:GLN:OE1	2.10	0.52
1:D:32:TYR:CE2	1:D:53:LEU:HB2	2.44	0.52
1:F:288:LEU:HB2	1:F:410:GLN:OE1	2.10	0.52
1:G:104:MET:SD	1:G:143:GLN:HG2	2.49	0.52
1:K:104:MET:SD	1:K:143:GLN:HG2	2.49	0.52
1:L:32:TYR:CE2	1:L:53:LEU:HB2	2.44	0.52
1:L:104:MET:SD	1:L:143:GLN:HG2	2.49	0.52
1:P:56:ALA:HA	1:P:59:GLU:HG3	1.91	0.52
1:D:288:LEU:HB2	1:D:410:GLN:OE1	2.10	0.52
1:E:82:LEU:HD11	1:E:149:LEU:CD2	2.39	0.52
1:G:32:TYR:CE2	1:G:53:LEU:HB2	2.44	0.52
1:G:118:VAL:HG11	1:G:136:LEU:HD22	1.91	0.52
1:K:32:TYR:CE2	1:K:53:LEU:HB2	2.44	0.52
1:K:82:LEU:HD11	1:K:149:LEU:CD2	2.39	0.52
1:L:82:LEU:HD11	1:L:149:LEU:CD2	2.39	0.52
1:N:32:TYR:CE2	1:N:53:LEU:HB2	2.44	0.52
1:O:473:GLU:O	1:O:476:THR:OG1	2.19	0.52
1:B:431:GLU:HB2	1:B:434:LYS:HG3	1.92	0.52
1:C:147:GLN:HA	1:C:150:LYS:HZ2	1.75	0.52
1:I:32:TYR:CE2	1:I:53:LEU:HB2	2.44	0.52
1:N:431:GLU:HB2	1:N:434:LYS:HG3	1.92	0.52
1:O:82:LEU:HD11	1:O:149:LEU:CD2	2.39	0.52
1:C:431:GLU:HB2	1:C:434:LYS:HG3	1.92	0.51
1:H:82:LEU:HD11	1:H:149:LEU:CD2	2.39	0.51
1:I:240:MET:HE1	1:J:241:TRP:CG	2.45	0.51
1:J:295:ARG:HH12	1:J:296:LYS:HG3	1.73	0.51
1:J:431:GLU:HB2	1:J:434:LYS:HG3	1.92	0.51
1:O:118:VAL:HG11	1:O:136:LEU:HD22	1.91	0.51
1:A:288:LEU:HB2	1:A:410:GLN:OE1	2.10	0.51
1:A:431:GLU:HB2	1:A:434:LYS:HG3	1.92	0.51
1:G:288:LEU:HB2	1:G:410:GLN:OE1	2.10	0.51
1:L:118:VAL:HG11	1:L:136:LEU:HD22	1.91	0.51
1:L:429:TYR:CZ	1:P:452:ASP:CG	2.84	0.51
1:I:56:ALA:HA	1:I:59:GLU:HG3	1.91	0.51
1:I:240:MET:HE1	1:J:241:TRP:NE1	2.25	0.51
1:I:431:GLU:HB2	1:I:434:LYS:HG3	1.92	0.51
1:L:294:VAL:HG13	1:P:116:ALA:CB	2.40	0.51
1:O:60:ASN:C	1:O:60:ASN:HD22	2.11	0.51
1:P:32:TYR:CE2	1:P:53:LEU:HB2	2.44	0.51
1:D:431:GLU:HB2	1:D:434:LYS:HG3	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:147:GLN:HA	1:E:150:LYS:HZ2	1.75	0.51
1:F:51:PRO:HG2	1:F:127:LYS:NZ	2.24	0.51
1:F:56:ALA:HA	1:F:59:GLU:HG3	1.91	0.51
1:H:431:GLU:HB2	1:H:434:LYS:HG3	1.92	0.51
1:J:32:TYR:CE2	1:J:53:LEU:HB2	2.44	0.51
1:K:431:GLU:HB2	1:K:434:LYS:HG3	1.92	0.51
1:D:56:ALA:HA	1:D:59:GLU:HG3	1.91	0.51
1:D:94:GLU:OE1	1:E:234:ARG:HB3	2.10	0.51
1:D:118:VAL:HG11	1:D:136:LEU:HD22	1.91	0.51
1:H:502:GLU:OE1	1:H:532:SER:OG	2.19	0.51
1:I:51:PRO:HG2	1:I:127:LYS:NZ	2.24	0.51
1:K:118:VAL:HG11	1:K:136:LEU:HD22	1.92	0.51
1:P:431:GLU:HB2	1:P:434:LYS:HG3	1.92	0.51
1:A:118:VAL:HG11	1:A:136:LEU:HD22	1.92	0.51
1:B:118:VAL:HG11	1:B:136:LEU:HD22	1.91	0.51
1:E:118:VAL:HG11	1:E:136:LEU:HD22	1.91	0.51
1:I:118:VAL:HG11	1:I:136:LEU:HD22	1.91	0.51
1:L:288:LEU:HB2	1:L:410:GLN:OE1	2.10	0.51
1:A:187:ARG:HH21	1:A:218:ARG:HG3	1.76	0.51
1:J:118:VAL:HG11	1:J:136:LEU:HD22	1.91	0.51
1:L:298:ASN:ND2	1:P:115:ASN:HD22	2.09	0.51
1:M:288:LEU:HB2	1:M:410:GLN:OE1	2.10	0.51
1:M:431:GLU:HB2	1:M:434:LYS:HG3	1.92	0.51
1:D:164:GLU:HG2	1:E:201:ASP:HB3	1.92	0.51
1:E:186:ASP:OD2	1:E:295:ARG:NE	2.28	0.51
1:G:56:ALA:HA	1:G:59:GLU:HG3	1.91	0.51
1:M:118:VAL:HG11	1:M:136:LEU:HD22	1.91	0.51
1:N:118:VAL:HG11	1:N:136:LEU:HD22	1.91	0.51
1:N:479:LEU:HB2	1:N:484:LEU:HD21	1.93	0.51
1:O:56:ALA:HA	1:O:59:GLU:HG3	1.91	0.51
1:E:438:ASP:HB2	1:E:515:LEU:HD23	1.93	0.51
1:E:513:ILE:HG22	1:E:518:TYR:HB3	1.93	0.51
1:F:479:LEU:HB2	1:F:484:LEU:HD21	1.93	0.51
1:H:118:VAL:HG11	1:H:136:LEU:HD22	1.91	0.51
1:H:164:GLU:CG	1:I:164:GLU:HG3	2.40	0.51
1:J:479:LEU:HB2	1:J:484:LEU:HD21	1.93	0.51
1:J:509:HIS:O	1:J:513:ILE:HG12	2.11	0.51
1:K:288:LEU:HB2	1:K:410:GLN:OE1	2.10	0.51
1:L:56:ALA:HA	1:L:59:GLU:HG3	1.91	0.51
1:O:288:LEU:HB2	1:O:410:GLN:OE1	2.10	0.51
1:B:513:ILE:HG22	1:B:518:TYR:HB3	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:118:VAL:HG11	1:F:136:LEU:HD22	1.91	0.51
1:H:147:GLN:HA	1:H:150:LYS:HZ2	1.76	0.51
1:H:438:ASP:HB2	1:H:515:LEU:HD23	1.93	0.51
1:I:60:ASN:C	1:I:60:ASN:HD22	2.11	0.51
1:L:250:PRO:CD	1:P:165:LYS:HD2	2.40	0.51
1:M:187:ARG:HH21	1:M:218:ARG:HG3	1.76	0.51
1:M:509:HIS:O	1:M:513:ILE:HG12	2.11	0.51
1:N:509:HIS:O	1:N:513:ILE:HG12	2.11	0.51
1:P:288:LEU:HB2	1:P:410:GLN:OE1	2.10	0.51
1:A:479:LEU:HB2	1:A:484:LEU:HD21	1.93	0.50
1:A:513:ILE:HG22	1:A:518:TYR:HB3	1.93	0.50
1:B:479:LEU:HB2	1:B:484:LEU:HD21	1.93	0.50
1:C:118:VAL:HG11	1:C:136:LEU:HD22	1.92	0.50
1:C:300:LEU:HA	1:C:303:ARG:NE	2.27	0.50
1:E:431:GLU:HB2	1:E:434:LYS:HG3	1.92	0.50
1:F:94:GLU:HB3	1:G:234:ARG:CZ	2.41	0.50
1:H:513:ILE:HG22	1:H:518:TYR:HB3	1.93	0.50
1:I:288:LEU:HB2	1:I:410:GLN:OE1	2.10	0.50
1:I:438:ASP:HB2	1:I:515:LEU:HD23	1.93	0.50
1:J:187:ARG:HH21	1:J:218:ARG:HG3	1.76	0.50
1:K:438:ASP:HB2	1:K:515:LEU:HD23	1.93	0.50
1:L:479:LEU:HB2	1:L:484:LEU:HD21	1.93	0.50
1:M:438:ASP:HB2	1:M:515:LEU:HD23	1.93	0.50
1:O:127:LYS:HE2	1:O:184:ARG:HH21	1.76	0.50
1:O:431:GLU:HB2	1:O:434:LYS:HG3	1.92	0.50
1:O:513:ILE:HG22	1:O:518:TYR:HB3	1.93	0.50
1:P:479:LEU:HB2	1:P:484:LEU:HD21	1.93	0.50
1:B:509:HIS:O	1:B:513:ILE:HG12	2.11	0.50
1:C:479:LEU:HB2	1:C:484:LEU:HD21	1.93	0.50
1:C:509:HIS:O	1:C:513:ILE:HG12	2.11	0.50
1:D:119:VAL:HA	1:D:126:ARG:HG3	1.94	0.50
1:D:438:ASP:HB2	1:D:515:LEU:HD23	1.93	0.50
1:F:431:GLU:HB2	1:F:434:LYS:HG3	1.92	0.50
1:G:358:GLU:OE1	1:G:361:ALA:N	2.36	0.50
1:G:479:LEU:HB2	1:G:484:LEU:HD21	1.93	0.50
1:I:513:ILE:HG22	1:I:518:TYR:HB3	1.93	0.50
1:N:187:ARG:HH21	1:N:218:ARG:HG3	1.76	0.50
1:D:513:ILE:HG22	1:D:518:TYR:HB3	1.93	0.50
1:E:282:PHE:CD1	1:E:412:VAL:HG11	2.47	0.50
1:E:300:LEU:HA	1:E:303:ARG:NE	2.27	0.50
1:H:187:ARG:HH21	1:H:218:ARG:HG3	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:288:LEU:HB2	1:H:410:GLN:OE1	2.10	0.50
1:H:509:HIS:O	1:H:513:ILE:HG12	2.11	0.50
1:J:186:ASP:OD2	1:J:295:ARG:NE	2.28	0.50
1:M:513:ILE:HG22	1:M:518:TYR:HB3	1.93	0.50
1:N:442:TRP:CZ2	1:N:508:LYS:HG3	2.47	0.50
1:P:509:HIS:O	1:P:513:ILE:HG12	2.11	0.50
1:A:282:PHE:CD1	1:A:412:VAL:HG11	2.47	0.50
1:A:509:HIS:O	1:A:513:ILE:HG12	2.11	0.50
1:E:288:LEU:HB2	1:E:410:GLN:OE1	2.10	0.50
1:H:127:LYS:HE2	1:H:184:ARG:HH21	1.77	0.50
1:J:442:TRP:CZ2	1:J:508:LYS:HG3	2.47	0.50
1:K:300:LEU:HA	1:K:303:ARG:NE	2.27	0.50
1:K:513:ILE:HG22	1:K:518:TYR:HB3	1.93	0.50
1:L:513:ILE:HG22	1:L:518:TYR:HB3	1.93	0.50
1:O:438:ASP:HB2	1:O:515:LEU:HD23	1.93	0.50
1:O:479:LEU:HB2	1:O:484:LEU:HD21	1.93	0.50
1:A:300:LEU:HA	1:A:303:ARG:NE	2.27	0.50
1:A:442:TRP:CZ2	1:A:508:LYS:HG3	2.47	0.50
1:B:438:ASP:HB2	1:B:515:LEU:HD23	1.93	0.50
1:B:442:TRP:CZ2	1:B:508:LYS:HG3	2.47	0.50
1:C:442:TRP:CZ2	1:C:508:LYS:HG3	2.47	0.50
1:E:127:LYS:HE2	1:E:184:ARG:HH21	1.77	0.50
1:E:250:PRO:HG3	1:F:245:LYS:HD3	1.92	0.50
1:G:187:ARG:HH21	1:G:218:ARG:HG3	1.76	0.50
1:G:513:ILE:HG22	1:G:518:TYR:HB3	1.93	0.50
1:H:282:PHE:CD1	1:H:412:VAL:HG11	2.47	0.50
1:H:469:ASN:O	1:H:472:LYS:HG3	2.12	0.50
1:I:119:VAL:HA	1:I:126:ARG:HG3	1.94	0.50
1:K:509:HIS:O	1:K:513:ILE:HG12	2.11	0.50
1:L:431:GLU:HB2	1:L:434:LYS:HG3	1.92	0.50
1:L:469:ASN:O	1:L:472:LYS:HG3	2.12	0.50
1:M:300:LEU:HA	1:M:303:ARG:NE	2.27	0.50
1:M:469:ASN:O	1:M:472:LYS:HG3	2.12	0.50
1:F:125:PHE:HB3	1:F:128:LEU:HD12	1.94	0.50
1:F:469:ASN:O	1:F:472:LYS:HG3	2.12	0.50
1:G:125:PHE:HB3	1:G:128:LEU:HD12	1.94	0.50
1:G:127:LYS:HE2	1:G:184:ARG:HH21	1.76	0.50
1:I:282:PHE:CD1	1:I:412:VAL:HG11	2.47	0.50
1:L:127:LYS:HE2	1:L:184:ARG:HH21	1.76	0.50
1:M:282:PHE:CD1	1:M:412:VAL:HG11	2.47	0.50
1:O:119:VAL:HA	1:O:126:ARG:HG3	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:509:HIS:O	1:O:513:ILE:HG12	2.11	0.50
1:A:438:ASP:HB2	1:A:515:LEU:HD23	1.93	0.50
1:A:469:ASN:O	1:A:472:LYS:HG3	2.12	0.50
1:C:187:ARG:HH21	1:C:218:ARG:HG3	1.76	0.50
1:C:469:ASN:O	1:C:472:LYS:HG3	2.12	0.50
1:F:60:ASN:C	1:F:60:ASN:HD22	2.11	0.50
1:F:187:ARG:HH21	1:F:218:ARG:HG3	1.76	0.50
1:F:442:TRP:CZ2	1:F:508:LYS:HG3	2.47	0.50
1:F:509:HIS:O	1:F:513:ILE:HG12	2.11	0.50
1:I:125:PHE:HB3	1:I:128:LEU:HD12	1.94	0.50
1:I:469:ASN:O	1:I:472:LYS:HG3	2.12	0.50
1:K:127:LYS:HE2	1:K:184:ARG:HH21	1.77	0.50
1:M:127:LYS:HE2	1:M:184:ARG:HH21	1.76	0.50
1:N:35:LYS:HZ3	1:N:381:LEU:HA	1.77	0.50
1:N:513:ILE:HG22	1:N:518:TYR:HB3	1.93	0.50
1:P:300:LEU:HA	1:P:303:ARG:NE	2.27	0.50
1:C:282:PHE:CD1	1:C:412:VAL:HG11	2.47	0.50
1:C:438:ASP:HB2	1:C:515:LEU:HD23	1.93	0.50
1:D:469:ASN:O	1:D:472:LYS:HG3	2.12	0.50
1:H:300:LEU:HA	1:H:303:ARG:NE	2.27	0.50
1:J:35:LYS:HZ1	1:J:381:LEU:HA	1.75	0.50
1:K:282:PHE:CD1	1:K:412:VAL:HG11	2.47	0.50
1:O:300:LEU:HA	1:O:303:ARG:NE	2.27	0.50
1:P:438:ASP:HB2	1:P:515:LEU:HD23	1.93	0.50
1:B:119:VAL:HA	1:B:126:ARG:HG3	1.94	0.50
1:D:125:PHE:HB3	1:D:128:LEU:HD12	1.94	0.50
1:G:282:PHE:CD1	1:G:412:VAL:HG11	2.47	0.50
1:G:469:ASN:O	1:G:472:LYS:HG3	2.12	0.50
1:J:282:PHE:CD1	1:J:412:VAL:HG11	2.47	0.50
1:J:300:LEU:HA	1:J:303:ARG:NE	2.27	0.50
1:L:438:ASP:HB2	1:L:515:LEU:HD23	1.93	0.50
1:D:509:HIS:O	1:D:513:ILE:HG12	2.11	0.49
1:F:513:ILE:HG22	1:F:518:TYR:HB3	1.93	0.49
1:I:509:HIS:O	1:I:513:ILE:HG12	2.11	0.49
1:L:125:PHE:HB3	1:L:128:LEU:HD12	1.94	0.49
1:M:147:GLN:HA	1:M:150:LYS:HZ2	1.77	0.49
1:M:397:MET:SD	1:O:119:VAL:HG21	2.51	0.49
1:M:442:TRP:CZ2	1:M:508:LYS:HG3	2.47	0.49
1:P:282:PHE:CD1	1:P:412:VAL:HG11	2.47	0.49
1:P:442:TRP:CZ2	1:P:508:LYS:HG3	2.47	0.49
1:P:469:ASN:O	1:P:472:LYS:HG3	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:125:PHE:HB3	1:A:128:LEU:HD12	1.94	0.49
1:D:187:ARG:HH21	1:D:218:ARG:HG3	1.76	0.49
1:E:509:HIS:O	1:E:513:ILE:HG12	2.11	0.49
1:G:431:GLU:HB2	1:G:434:LYS:HG3	1.92	0.49
1:G:438:ASP:HB2	1:G:515:LEU:HD23	1.93	0.49
1:J:469:ASN:O	1:J:472:LYS:HG3	2.12	0.49
1:K:479:LEU:HB2	1:K:484:LEU:HD21	1.93	0.49
1:L:282:PHE:CD1	1:L:412:VAL:HG11	2.47	0.49
1:L:300:LEU:HA	1:L:303:ARG:NE	2.26	0.49
1:L:442:TRP:CZ2	1:L:508:LYS:HG3	2.47	0.49
1:L:473:GLU:O	1:L:476:THR:OG1	2.20	0.49
1:M:479:LEU:HB2	1:M:484:LEU:HD21	1.93	0.49
1:N:282:PHE:CD1	1:N:412:VAL:HG11	2.47	0.49
1:O:187:ARG:HH21	1:O:218:ARG:HG3	1.76	0.49
1:O:442:TRP:CZ2	1:O:508:LYS:HG3	2.47	0.49
1:O:469:ASN:O	1:O:472:LYS:HG3	2.12	0.49
1:A:119:VAL:HA	1:A:126:ARG:HG3	1.94	0.49
1:B:125:PHE:HB3	1:B:128:LEU:HD12	1.94	0.49
1:E:358:GLU:OE1	1:E:361:ALA:N	2.36	0.49
1:F:282:PHE:CD1	1:F:412:VAL:HG11	2.47	0.49
1:G:35:LYS:HZ1	1:G:381:LEU:HA	1.77	0.49
1:G:300:LEU:HA	1:G:303:ARG:NE	2.27	0.49
1:H:125:PHE:HB3	1:H:128:LEU:HD12	1.94	0.49
1:J:438:ASP:HB2	1:J:515:LEU:HD23	1.93	0.49
1:K:187:ARG:HH21	1:K:218:ARG:HG3	1.76	0.49
1:L:187:ARG:HH21	1:L:218:ARG:HG3	1.76	0.49
1:P:186:ASP:OD2	1:P:295:ARG:NE	2.28	0.49
1:B:187:ARG:HH21	1:B:218:ARG:HG3	1.76	0.49
1:C:294:VAL:HG11	1:E:113:PRO:HG2	1.93	0.49
1:E:119:VAL:HA	1:E:126:ARG:HG3	1.94	0.49
1:F:119:VAL:HA	1:F:126:ARG:HG3	1.94	0.49
1:G:442:TRP:CZ2	1:G:508:LYS:HG3	2.47	0.49
1:G:509:HIS:O	1:G:513:ILE:HG12	2.11	0.49
1:H:442:TRP:CZ2	1:H:508:LYS:HG3	2.47	0.49
1:J:513:ILE:HG22	1:J:518:TYR:HB3	1.93	0.49
1:K:442:TRP:CZ2	1:K:508:LYS:HG3	2.47	0.49
1:K:469:ASN:O	1:K:472:LYS:HG3	2.12	0.49
1:L:509:HIS:O	1:L:513:ILE:HG12	2.11	0.49
1:N:300:LEU:HA	1:N:303:ARG:NE	2.27	0.49
1:O:282:PHE:CD1	1:O:412:VAL:HG11	2.47	0.49
1:B:282:PHE:CD1	1:B:412:VAL:HG11	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:513:ILE:HG22	1:C:518:TYR:HB3	1.93	0.49
1:D:443:VAL:HG13	1:D:512:LYS:HE2	1.95	0.49
1:D:479:LEU:HB2	1:D:484:LEU:HD21	1.93	0.49
1:E:125:PHE:HB3	1:E:128:LEU:HD12	1.94	0.49
1:E:187:ARG:HH21	1:E:218:ARG:HG3	1.76	0.49
1:E:469:ASN:O	1:E:472:LYS:HG3	2.12	0.49
1:I:187:ARG:HH21	1:I:218:ARG:HG3	1.76	0.49
1:I:300:LEU:HA	1:I:303:ARG:NE	2.27	0.49
1:N:125:PHE:HB3	1:N:128:LEU:HD12	1.94	0.49
1:O:502:GLU:OE1	1:O:532:SER:OG	2.19	0.49
1:P:187:ARG:HH21	1:P:218:ARG:HG3	1.76	0.49
1:B:300:LEU:HA	1:B:303:ARG:NE	2.27	0.49
1:D:282:PHE:CD1	1:D:412:VAL:HG11	2.47	0.49
1:F:300:LEU:HA	1:F:303:ARG:NE	2.27	0.49
1:H:479:LEU:HB2	1:H:484:LEU:HD21	1.93	0.49
1:K:119:VAL:HA	1:K:126:ARG:HG3	1.94	0.49
1:K:186:ASP:OD2	1:K:295:ARG:NE	2.28	0.49
1:L:119:VAL:HA	1:L:126:ARG:HG3	1.94	0.49
1:L:397:MET:HE1	1:P:121:PRO:CD	2.24	0.49
1:M:119:VAL:HA	1:M:126:ARG:HG3	1.94	0.49
1:M:238:ALA:HA	1:M:241:TRP:HE3	1.78	0.49
1:N:469:ASN:O	1:N:472:LYS:HG3	2.12	0.49
1:B:469:ASN:O	1:B:472:LYS:HG3	2.12	0.49
1:C:441:GLU:HB3	1:C:515:LEU:CD1	2.42	0.49
1:E:120:ASP:O	1:E:126:ARG:NH1	2.46	0.49
1:E:252:VAL:HG23	1:F:241:TRP:CZ2	2.47	0.49
1:F:186:ASP:OD2	1:F:295:ARG:NE	2.28	0.49
1:F:238:ALA:HA	1:F:241:TRP:HE3	1.78	0.49
1:I:443:VAL:HG13	1:I:512:LYS:HE2	1.95	0.49
1:I:479:LEU:HB2	1:I:484:LEU:HD21	1.93	0.49
1:J:125:PHE:HB3	1:J:128:LEU:HD12	1.94	0.49
1:J:441:GLU:HB3	1:J:515:LEU:CD1	2.42	0.49
1:L:120:ASP:O	1:L:126:ARG:NH1	2.46	0.49
1:M:125:PHE:HB3	1:M:128:LEU:HD12	1.94	0.49
1:N:438:ASP:HB2	1:N:515:LEU:HD23	1.93	0.49
1:O:125:PHE:HB3	1:O:128:LEU:HD12	1.94	0.49
1:P:125:PHE:HB3	1:P:128:LEU:HD12	1.94	0.49
1:B:120:ASP:O	1:B:126:ARG:NH1	2.46	0.49
1:B:127:LYS:HE2	1:B:184:ARG:HH21	1.77	0.49
1:B:443:VAL:HG13	1:B:512:LYS:HE2	1.95	0.49
1:C:125:PHE:HB3	1:C:128:LEU:HD12	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:127:LYS:HE2	1:C:184:ARG:HH21	1.76	0.49
1:D:484:LEU:HA	1:D:487:ILE:HD12	1.94	0.49
1:F:120:ASP:O	1:F:126:ARG:NH1	2.46	0.49
1:F:174:PHE:HA	1:F:177:VAL:HG22	1.95	0.49
1:F:484:LEU:HA	1:F:487:ILE:HD12	1.94	0.49
1:H:119:VAL:HA	1:H:126:ARG:HG3	1.94	0.49
1:H:238:ALA:HA	1:H:241:TRP:HE3	1.78	0.49
1:L:432:GLY:N	1:P:453:GLU:OE2	2.46	0.49
1:P:119:VAL:HA	1:P:126:ARG:HG3	1.94	0.49
1:P:127:LYS:HE2	1:P:184:ARG:HH21	1.76	0.49
1:P:502:GLU:OE1	1:P:532:SER:OG	2.19	0.49
1:A:234:ARG:HB3	1:J:94:GLU:OE1	2.12	0.49
1:A:484:LEU:HA	1:A:487:ILE:HD12	1.94	0.49
1:D:127:LYS:HE2	1:D:184:ARG:HH21	1.76	0.49
1:E:35:LYS:HZ3	1:E:381:LEU:HA	1.77	0.49
1:E:479:LEU:HB2	1:E:484:LEU:HD21	1.93	0.49
1:F:438:ASP:HB2	1:F:515:LEU:HD23	1.93	0.49
1:H:484:LEU:HA	1:H:487:ILE:HD12	1.94	0.49
1:I:127:LYS:HE2	1:I:184:ARG:HH21	1.76	0.49
1:I:442:TRP:CZ2	1:I:508:LYS:HG3	2.47	0.49
1:J:127:LYS:HE2	1:J:184:ARG:HH21	1.76	0.49
1:J:484:LEU:HA	1:J:487:ILE:HD12	1.94	0.49
1:K:120:ASP:O	1:K:126:ARG:NH1	2.46	0.49
1:L:294:VAL:CB	1:P:113:PRO:HG2	2.42	0.49
1:L:484:LEU:HA	1:L:487:ILE:HD12	1.94	0.49
1:M:484:LEU:HA	1:M:487:ILE:HD12	1.94	0.49
1:N:120:ASP:O	1:N:126:ARG:NH1	2.46	0.49
1:O:120:ASP:O	1:O:126:ARG:NH1	2.46	0.49
1:P:174:PHE:HA	1:P:177:VAL:HG22	1.95	0.49
1:A:74:LYS:NZ	1:A:157:SER:O	2.44	0.49
1:A:443:VAL:HG13	1:A:512:LYS:HE2	1.95	0.49
1:B:484:LEU:HA	1:B:487:ILE:HD12	1.94	0.49
1:D:174:PHE:HA	1:D:177:VAL:HG22	1.95	0.49
1:E:484:LEU:HA	1:E:487:ILE:HD12	1.94	0.49
1:G:120:ASP:O	1:G:126:ARG:NH1	2.46	0.49
1:H:120:ASP:O	1:H:126:ARG:NH1	2.46	0.49
1:I:174:PHE:HA	1:I:177:VAL:HG22	1.95	0.49
1:I:484:LEU:HA	1:I:487:ILE:HD12	1.94	0.49
1:K:125:PHE:HB3	1:K:128:LEU:HD12	1.94	0.49
1:M:120:ASP:O	1:M:126:ARG:NH1	2.46	0.49
1:N:441:GLU:HB3	1:N:515:LEU:CD1	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:484:LEU:HA	1:N:487:ILE:HD12	1.94	0.49
1:A:135:PHE:O	1:A:139:PHE:HB2	2.13	0.48
1:A:174:PHE:HA	1:A:177:VAL:HG22	1.95	0.48
1:A:305:ARG:HA	1:A:308:LYS:NZ	2.28	0.48
1:B:135:PHE:O	1:B:139:PHE:HB2	2.13	0.48
1:D:238:ALA:HA	1:D:241:TRP:HE3	1.78	0.48
1:D:300:LEU:HA	1:D:303:ARG:NE	2.27	0.48
1:E:442:TRP:CZ2	1:E:508:LYS:HG3	2.47	0.48
1:J:120:ASP:O	1:J:126:ARG:NH1	2.46	0.48
1:J:238:ALA:HA	1:J:241:TRP:HE3	1.78	0.48
1:L:294:VAL:CG2	1:P:113:PRO:HD2	2.40	0.48
1:L:358:GLU:OE1	1:L:361:ALA:N	2.36	0.48
1:N:135:PHE:O	1:N:139:PHE:HB2	2.13	0.48
1:O:174:PHE:HA	1:O:177:VAL:HG22	1.95	0.48
1:O:484:LEU:HA	1:O:487:ILE:HD12	1.94	0.48
1:A:127:LYS:HE2	1:A:184:ARG:HH21	1.77	0.48
1:A:440:GLU:HB3	1:A:477:SER:HA	1.95	0.48
1:B:147:GLN:HA	1:B:150:LYS:HZ2	1.78	0.48
1:C:119:VAL:HA	1:C:126:ARG:HG3	1.94	0.48
1:C:174:PHE:HA	1:C:177:VAL:HG22	1.95	0.48
1:C:305:ARG:HA	1:C:308:LYS:NZ	2.28	0.48
1:C:484:LEU:HA	1:C:487:ILE:HD12	1.94	0.48
1:E:305:ARG:HA	1:E:308:LYS:NZ	2.28	0.48
1:F:443:VAL:HG13	1:F:512:LYS:HE2	1.95	0.48
1:G:342:TYR:O	1:G:346:GLN:HG3	2.13	0.48
1:G:484:LEU:HA	1:G:487:ILE:HD12	1.94	0.48
1:H:342:TYR:O	1:H:346:GLN:HG3	2.13	0.48
1:J:135:PHE:O	1:J:139:PHE:HB2	2.13	0.48
1:M:342:TYR:O	1:M:346:GLN:HG3	2.13	0.48
1:N:119:VAL:HA	1:N:126:ARG:HG3	1.94	0.48
1:N:174:PHE:HA	1:N:177:VAL:HG22	1.95	0.48
1:O:135:PHE:O	1:O:139:PHE:HB2	2.14	0.48
1:P:305:ARG:HA	1:P:308:LYS:NZ	2.28	0.48
1:B:174:PHE:HA	1:B:177:VAL:HG22	1.95	0.48
1:C:135:PHE:O	1:C:139:PHE:HB2	2.13	0.48
1:C:238:ALA:HA	1:C:241:TRP:HE3	1.78	0.48
1:D:442:TRP:CZ2	1:D:508:LYS:HG3	2.47	0.48
1:E:342:TYR:O	1:E:346:GLN:HG3	2.13	0.48
1:F:501:GLU:HG2	1:F:502:GLU:N	2.29	0.48
1:G:186:ASP:OD2	1:G:295:ARG:NE	2.28	0.48
1:H:305:ARG:HA	1:H:308:LYS:NZ	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:174:PHE:HA	1:K:177:VAL:HG22	1.95	0.48
1:L:342:TYR:O	1:L:346:GLN:HG3	2.13	0.48
1:L:501:GLU:HG2	1:L:502:GLU:N	2.29	0.48
1:L:502:GLU:OE1	1:L:532:SER:OG	2.19	0.48
1:N:186:ASP:OD2	1:N:295:ARG:NE	2.28	0.48
1:N:443:VAL:HG13	1:N:512:LYS:HE2	1.95	0.48
1:P:238:ALA:HA	1:P:241:TRP:HE3	1.78	0.48
1:P:342:TYR:O	1:P:346:GLN:HG3	2.13	0.48
1:A:35:LYS:HZ3	1:A:381:LEU:HA	1.78	0.48
1:A:441:GLU:HB3	1:A:515:LEU:CD1	2.42	0.48
1:B:440:GLU:HB3	1:B:477:SER:HA	1.95	0.48
1:D:43:TYR:C	1:D:44:ARG:HD3	2.34	0.48
1:D:234:ARG:HB3	1:E:94:GLU:OE1	2.11	0.48
1:F:127:LYS:HE2	1:F:184:ARG:HH21	1.77	0.48
1:G:119:VAL:HA	1:G:126:ARG:HG3	1.94	0.48
1:G:501:GLU:HG2	1:G:502:GLU:N	2.29	0.48
1:J:119:VAL:HA	1:J:126:ARG:HG3	1.94	0.48
1:K:238:ALA:HA	1:K:241:TRP:HE3	1.78	0.48
1:K:305:ARG:HA	1:K:308:LYS:NZ	2.28	0.48
1:L:174:PHE:HA	1:L:177:VAL:HG22	1.95	0.48
1:N:238:ALA:HA	1:N:241:TRP:HE3	1.78	0.48
1:N:440:GLU:HB3	1:N:477:SER:HA	1.95	0.48
1:P:43:TYR:C	1:P:44:ARG:HD3	2.34	0.48
1:A:501:GLU:HG2	1:A:502:GLU:N	2.29	0.48
1:E:174:PHE:HA	1:E:177:VAL:HG22	1.95	0.48
1:E:238:ALA:HA	1:E:241:TRP:HE3	1.78	0.48
1:G:174:PHE:HA	1:G:177:VAL:HG22	1.95	0.48
1:H:456:TYR:CE2	1:J:429:TYR:OH	2.67	0.48
1:I:43:TYR:C	1:I:44:ARG:HD3	2.34	0.48
1:J:174:PHE:HA	1:J:177:VAL:HG22	1.95	0.48
1:K:342:TYR:O	1:K:346:GLN:HG3	2.13	0.48
1:K:484:LEU:HA	1:K:487:ILE:HD12	1.94	0.48
1:L:305:ARG:HA	1:L:308:LYS:NZ	2.28	0.48
1:N:127:LYS:HE2	1:N:184:ARG:HH21	1.76	0.48
1:P:63:MET:O	1:P:186:ASP:HB2	2.14	0.48
1:P:135:PHE:O	1:P:139:PHE:HB2	2.13	0.48
1:P:484:LEU:HA	1:P:487:ILE:HD12	1.94	0.48
1:P:513:ILE:HG22	1:P:518:TYR:HB3	1.93	0.48
1:A:120:ASP:O	1:A:126:ARG:NH1	2.46	0.48
1:B:464:LYS:NZ	1:B:500:ASP:HB3	2.29	0.48
1:B:501:GLU:HG2	1:B:502:GLU:N	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:501:GLU:HG2	1:C:502:GLU:N	2.29	0.48
1:D:200:SER:HA	1:E:164:GLU:OE2	2.14	0.48
1:F:342:TYR:O	1:F:346:GLN:HG3	2.13	0.48
1:F:486:LYS:HA	1:F:489:LYS:HG2	1.96	0.48
1:G:147:GLN:HA	1:G:150:LYS:HZ2	1.78	0.48
1:G:486:LYS:HA	1:G:489:LYS:HG2	1.96	0.48
1:J:443:VAL:HG13	1:J:512:LYS:HE2	1.95	0.48
1:J:464:LYS:NZ	1:J:500:ASP:HB3	2.29	0.48
1:K:135:PHE:O	1:K:139:PHE:HB2	2.14	0.48
1:N:501:GLU:HG2	1:N:502:GLU:N	2.29	0.48
1:O:342:TYR:O	1:O:346:GLN:HG3	2.13	0.48
1:O:501:GLU:HG2	1:O:502:GLU:N	2.28	0.48
1:P:120:ASP:O	1:P:126:ARG:NH1	2.46	0.48
1:P:443:VAL:HG13	1:P:512:LYS:HE2	1.95	0.48
1:B:441:GLU:HB3	1:B:515:LEU:CD1	2.42	0.48
1:C:486:LYS:HA	1:C:489:LYS:HG2	1.96	0.48
1:D:135:PHE:O	1:D:139:PHE:HB2	2.13	0.48
1:I:135:PHE:O	1:I:139:PHE:HB2	2.13	0.48
1:J:305:ARG:HA	1:J:308:LYS:NZ	2.28	0.48
1:J:440:GLU:HB3	1:J:477:SER:HA	1.95	0.48
1:J:501:GLU:HG2	1:J:502:GLU:N	2.29	0.48
1:M:305:ARG:HA	1:M:308:LYS:NZ	2.28	0.48
1:N:464:LYS:NZ	1:N:500:ASP:HB3	2.29	0.48
1:P:464:LYS:NZ	1:P:500:ASP:HB3	2.29	0.48
1:P:486:LYS:HA	1:P:489:LYS:HG2	1.96	0.48
1:A:63:MET:O	1:A:186:ASP:HB2	2.14	0.48
1:G:464:LYS:NZ	1:G:500:ASP:HB3	2.29	0.48
1:H:174:PHE:HA	1:H:177:VAL:HG22	1.95	0.48
1:I:63:MET:O	1:I:186:ASP:HB2	2.14	0.48
1:K:43:TYR:C	1:K:44:ARG:HD3	2.34	0.48
1:K:464:LYS:NZ	1:K:500:ASP:HB3	2.29	0.48
1:L:63:MET:O	1:L:186:ASP:HB2	2.14	0.48
1:M:174:PHE:HA	1:M:177:VAL:HG22	1.95	0.48
1:N:305:ARG:HA	1:N:308:LYS:NZ	2.28	0.48
1:O:186:ASP:OD2	1:O:295:ARG:NE	2.28	0.48
1:O:464:LYS:NZ	1:O:500:ASP:HB3	2.29	0.48
1:P:441:GLU:HB3	1:P:515:LEU:CD1	2.42	0.48
1:P:501:GLU:HG2	1:P:502:GLU:N	2.29	0.48
1:B:63:MET:O	1:B:186:ASP:HB2	2.14	0.48
1:C:120:ASP:O	1:C:126:ARG:NH1	2.46	0.48
1:C:342:TYR:O	1:C:346:GLN:HG3	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:443:VAL:HG13	1:C:512:LYS:HE2	1.95	0.48
1:E:135:PHE:O	1:E:139:PHE:HB2	2.13	0.48
1:E:501:GLU:HG2	1:E:502:GLU:N	2.29	0.48
1:F:43:TYR:C	1:F:44:ARG:HD3	2.34	0.48
1:F:74:LYS:NZ	1:F:157:SER:O	2.44	0.48
1:H:135:PHE:O	1:H:139:PHE:HB2	2.13	0.48
1:I:238:ALA:HA	1:I:241:TRP:HE3	1.78	0.48
1:J:486:LYS:HA	1:J:489:LYS:HG2	1.96	0.48
1:L:486:LYS:HA	1:L:489:LYS:HG2	1.96	0.48
1:M:135:PHE:O	1:M:139:PHE:HB2	2.13	0.48
1:O:238:ALA:HA	1:O:241:TRP:HE3	1.78	0.48
1:C:289:PRO:HG3	1:C:410:GLN:HG3	1.96	0.48
1:D:63:MET:O	1:D:186:ASP:HB2	2.14	0.48
1:D:74:LYS:NZ	1:D:157:SER:O	2.44	0.48
1:D:120:ASP:O	1:D:126:ARG:NH1	2.46	0.48
1:D:440:GLU:HB3	1:D:477:SER:HA	1.95	0.48
1:D:464:LYS:NZ	1:D:500:ASP:HB3	2.29	0.48
1:D:486:LYS:HA	1:D:489:LYS:HG2	1.96	0.48
1:E:43:TYR:C	1:E:44:ARG:HD3	2.34	0.48
1:E:464:LYS:NZ	1:E:500:ASP:HB3	2.29	0.48
1:G:63:MET:O	1:G:186:ASP:HB2	2.14	0.48
1:G:305:ARG:HA	1:G:308:LYS:NZ	2.28	0.48
1:H:43:TYR:C	1:H:44:ARG:HD3	2.34	0.48
1:I:186:ASP:OD2	1:I:295:ARG:NE	2.28	0.48
1:I:440:GLU:HB3	1:I:477:SER:HA	1.95	0.48
1:K:289:PRO:HG3	1:K:410:GLN:HG3	1.96	0.48
1:L:464:LYS:NZ	1:L:500:ASP:HB3	2.29	0.48
1:M:43:TYR:C	1:M:44:ARG:HD3	2.34	0.48
1:M:464:LYS:NZ	1:M:500:ASP:HB3	2.29	0.48
1:N:486:LYS:HA	1:N:489:LYS:HG2	1.96	0.48
1:O:443:VAL:HG13	1:O:512:LYS:HE2	1.95	0.48
1:B:43:TYR:C	1:B:44:ARG:HD3	2.34	0.47
1:B:305:ARG:HA	1:B:308:LYS:NZ	2.28	0.47
1:C:440:GLU:HB3	1:C:477:SER:HA	1.95	0.47
1:D:501:GLU:HG2	1:D:502:GLU:N	2.29	0.47
1:E:289:PRO:HG3	1:E:410:GLN:HG3	1.96	0.47
1:G:117:LEU:HD21	1:G:123:LYS:HE2	1.96	0.47
1:I:305:ARG:HA	1:I:308:LYS:NZ	2.28	0.47
1:J:342:TYR:O	1:J:346:GLN:HG3	2.13	0.47
1:K:443:VAL:HG13	1:K:512:LYS:HE2	1.95	0.47
1:K:486:LYS:HA	1:K:489:LYS:HG2	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:192:PHE:CD2	1:L:239:LEU:HD11	2.49	0.47
1:L:298:ASN:CG	1:P:115:ASN:HD22	2.16	0.47
1:P:289:PRO:HG3	1:P:410:GLN:HG3	1.96	0.47
1:A:342:TYR:O	1:A:346:GLN:HG3	2.13	0.47
1:B:342:TYR:O	1:B:346:GLN:HG3	2.13	0.47
1:E:117:LEU:HD21	1:E:123:LYS:HE2	1.96	0.47
1:F:53:LEU:HD11	1:F:303:ARG:HD2	1.97	0.47
1:F:305:ARG:HA	1:F:308:LYS:NZ	2.28	0.47
1:G:192:PHE:CD2	1:G:239:LEU:HD11	2.49	0.47
1:G:238:ALA:HA	1:G:241:TRP:HE3	1.78	0.47
1:K:441:GLU:OE2	1:K:508:LYS:HB3	2.15	0.47
1:M:289:PRO:HG3	1:M:410:GLN:HG3	1.96	0.47
1:M:441:GLU:OE2	1:M:508:LYS:HB3	2.15	0.47
1:P:117:LEU:HD21	1:P:123:LYS:HE2	1.96	0.47
1:A:43:TYR:C	1:A:44:ARG:HD3	2.34	0.47
1:A:238:ALA:HA	1:A:241:TRP:HE3	1.78	0.47
1:A:486:LYS:HA	1:A:489:LYS:HG2	1.96	0.47
1:C:192:PHE:CD2	1:C:239:LEU:HD11	2.50	0.47
1:C:464:LYS:NZ	1:C:500:ASP:HB3	2.29	0.47
1:D:147:GLN:HA	1:D:150:LYS:HZ2	1.79	0.47
1:E:443:VAL:HG13	1:E:512:LYS:HE2	1.95	0.47
1:F:63:MET:O	1:F:186:ASP:HB2	2.14	0.47
1:F:192:PHE:CD2	1:F:239:LEU:HD11	2.49	0.47
1:H:186:ASP:OD2	1:H:295:ARG:NE	2.28	0.47
1:H:289:PRO:HG3	1:H:410:GLN:HG3	1.96	0.47
1:H:443:VAL:HG13	1:H:512:LYS:HE2	1.95	0.47
1:H:464:LYS:NZ	1:H:500:ASP:HB3	2.29	0.47
1:I:192:PHE:CD2	1:I:239:LEU:HD11	2.50	0.47
1:I:486:LYS:HA	1:I:489:LYS:HG2	1.96	0.47
1:K:117:LEU:HD21	1:K:123:LYS:HE2	1.96	0.47
1:L:117:LEU:HD21	1:L:123:LYS:HE2	1.96	0.47
1:L:135:PHE:O	1:L:139:PHE:HB2	2.13	0.47
1:M:443:VAL:HG13	1:M:512:LYS:HE2	1.95	0.47
1:O:117:LEU:HD21	1:O:123:LYS:HE2	1.96	0.47
1:O:192:PHE:CD2	1:O:239:LEU:HD11	2.50	0.47
1:P:358:GLU:OE1	1:P:361:ALA:N	2.36	0.47
1:P:436:GLY:O	1:P:479:LEU:HA	2.15	0.47
1:A:436:GLY:O	1:A:479:LEU:HA	2.15	0.47
1:B:238:ALA:HA	1:B:241:TRP:HE3	1.78	0.47
1:C:436:GLY:O	1:C:479:LEU:HA	2.15	0.47
1:C:441:GLU:OE2	1:C:508:LYS:HB3	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:342:TYR:O	1:D:346:GLN:HG3	2.13	0.47
1:F:135:PHE:O	1:F:139:PHE:HB2	2.13	0.47
1:G:441:GLU:HB3	1:G:515:LEU:CD1	2.42	0.47
1:H:117:LEU:HD21	1:H:123:LYS:HE2	1.96	0.47
1:H:441:GLU:OE2	1:H:508:LYS:HB3	2.15	0.47
1:I:120:ASP:O	1:I:126:ARG:NH1	2.46	0.47
1:I:342:TYR:O	1:I:346:GLN:HG3	2.13	0.47
1:I:501:GLU:HG2	1:I:502:GLU:N	2.29	0.47
1:J:147:GLN:HA	1:J:150:LYS:HZ2	1.79	0.47
1:J:289:PRO:HG3	1:J:410:GLN:HG3	1.96	0.47
1:K:192:PHE:CD2	1:K:239:LEU:HD11	2.50	0.47
1:K:436:GLY:O	1:K:479:LEU:HA	2.15	0.47
1:L:291:LYS:HE2	1:P:113:PRO:HB3	1.95	0.47
1:M:117:LEU:HD21	1:M:123:LYS:HE2	1.96	0.47
1:M:486:LYS:HA	1:M:489:LYS:HG2	1.96	0.47
1:N:63:MET:O	1:N:186:ASP:HB2	2.14	0.47
1:N:117:LEU:HD21	1:N:123:LYS:HE2	1.96	0.47
1:P:192:PHE:CD2	1:P:239:LEU:HD11	2.50	0.47
1:A:77:PHE:CZ	1:A:191:LEU:HD22	2.50	0.47
1:A:117:LEU:HD21	1:A:123:LYS:HE2	1.96	0.47
1:B:77:PHE:CZ	1:B:191:LEU:HD22	2.50	0.47
1:B:117:LEU:HD21	1:B:123:LYS:HE2	1.96	0.47
1:C:43:TYR:C	1:C:44:ARG:HD3	2.34	0.47
1:C:117:LEU:HD21	1:C:123:LYS:HE2	1.96	0.47
1:D:436:GLY:O	1:D:479:LEU:HA	2.15	0.47
1:E:441:GLU:OE2	1:E:508:LYS:HB3	2.15	0.47
1:F:436:GLY:O	1:F:479:LEU:HA	2.15	0.47
1:I:464:LYS:NZ	1:I:500:ASP:HB3	2.29	0.47
1:J:53:LEU:HD11	1:J:303:ARG:HD2	1.96	0.47
1:L:238:ALA:HA	1:L:241:TRP:HE3	1.78	0.47
1:M:436:GLY:O	1:M:479:LEU:HA	2.15	0.47
1:N:53:LEU:HD11	1:N:303:ARG:HD2	1.96	0.47
1:N:289:PRO:HG3	1:N:410:GLN:HG3	1.96	0.47
1:O:486:LYS:HA	1:O:489:LYS:HG2	1.96	0.47
1:P:440:GLU:HB3	1:P:477:SER:HA	1.95	0.47
1:A:53:LEU:HD11	1:A:303:ARG:HD2	1.96	0.47
1:A:250:PRO:HG3	1:B:245:LYS:NZ	2.29	0.47
1:B:321:MET:SD	1:B:322:PRO:HD2	2.55	0.47
1:C:53:LEU:HD11	1:C:303:ARG:HD2	1.97	0.47
1:C:360:LYS:O	1:C:364:GLU:OE1	2.33	0.47
1:D:77:PHE:CZ	1:D:191:LEU:HD22	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:192:PHE:CD2	1:D:239:LEU:HD11	2.49	0.47
1:E:192:PHE:CD2	1:E:239:LEU:HD11	2.50	0.47
1:G:135:PHE:O	1:G:139:PHE:HB2	2.13	0.47
1:G:440:GLU:HB3	1:G:477:SER:HA	1.95	0.47
1:H:486:LYS:HA	1:H:489:LYS:HG2	1.96	0.47
1:H:501:GLU:HG2	1:H:502:GLU:N	2.29	0.47
1:I:436:GLY:O	1:I:479:LEU:HA	2.15	0.47
1:J:63:MET:O	1:J:186:ASP:HB2	2.14	0.47
1:J:117:LEU:HD21	1:J:123:LYS:HE2	1.96	0.47
1:M:35:LYS:HZ1	1:M:381:LEU:HA	1.79	0.47
1:M:360:LYS:O	1:M:364:GLU:OE1	2.33	0.47
1:N:342:TYR:O	1:N:346:GLN:HG3	2.13	0.47
1:A:192:PHE:CD2	1:A:239:LEU:HD11	2.50	0.47
1:A:321:MET:SD	1:A:322:PRO:HD2	2.55	0.47
1:A:441:GLU:OE2	1:A:508:LYS:HB3	2.15	0.47
1:A:464:LYS:NZ	1:A:500:ASP:HB3	2.29	0.47
1:B:486:LYS:HA	1:B:489:LYS:HG2	1.96	0.47
1:C:63:MET:O	1:C:186:ASP:HB2	2.14	0.47
1:C:77:PHE:CD2	1:C:191:LEU:HD13	2.50	0.47
1:E:321:MET:SD	1:E:322:PRO:HD2	2.55	0.47
1:F:289:PRO:HG3	1:F:410:GLN:HG3	1.96	0.47
1:F:441:GLU:OE2	1:F:508:LYS:HB3	2.15	0.47
1:F:464:LYS:NZ	1:F:500:ASP:HB3	2.29	0.47
1:G:43:TYR:C	1:G:44:ARG:HD3	2.34	0.47
1:G:443:VAL:HG13	1:G:512:LYS:HE2	1.95	0.47
1:G:502:GLU:OE1	1:G:532:SER:OG	2.19	0.47
1:H:360:LYS:O	1:H:364:GLU:OE1	2.33	0.47
1:I:77:PHE:CZ	1:I:191:LEU:HD22	2.50	0.47
1:J:77:PHE:CD2	1:J:191:LEU:HD13	2.50	0.47
1:J:441:GLU:OE2	1:J:508:LYS:HB3	2.15	0.47
1:J:525:PRO:O	1:J:529:VAL:HG23	2.15	0.47
1:K:360:LYS:O	1:K:364:GLU:OE1	2.33	0.47
1:K:501:GLU:HG2	1:K:502:GLU:N	2.29	0.47
1:L:440:GLU:HB3	1:L:477:SER:HA	1.95	0.47
1:L:443:VAL:HG13	1:L:512:LYS:HE2	1.95	0.47
1:N:77:PHE:CZ	1:N:191:LEU:HD22	2.50	0.47
1:O:43:TYR:C	1:O:44:ARG:HD3	2.34	0.47
1:O:289:PRO:HG3	1:O:410:GLN:HG3	1.96	0.47
1:O:305:ARG:HA	1:O:308:LYS:NZ	2.28	0.47
1:O:321:MET:SD	1:O:322:PRO:HD2	2.55	0.47
1:P:53:LEU:HD11	1:P:303:ARG:HD2	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:77:PHE:CD2	1:A:191:LEU:HD13	2.50	0.47
1:B:53:LEU:HD11	1:B:303:ARG:HD2	1.97	0.47
1:B:441:GLU:OE2	1:B:508:LYS:HB3	2.15	0.47
1:C:186:ASP:OD2	1:C:295:ARG:NE	2.28	0.47
1:D:117:LEU:HD21	1:D:123:LYS:HE2	1.96	0.47
1:D:305:ARG:HA	1:D:308:LYS:NZ	2.28	0.47
1:E:63:MET:O	1:E:186:ASP:HB2	2.14	0.47
1:E:360:LYS:O	1:E:364:GLU:OE1	2.33	0.47
1:F:117:LEU:HD21	1:F:123:LYS:HE2	1.96	0.47
1:G:321:MET:SD	1:G:322:PRO:HD2	2.55	0.47
1:H:192:PHE:CD2	1:H:239:LEU:HD11	2.50	0.47
1:J:43:TYR:C	1:J:44:ARG:HD3	2.34	0.47
1:J:360:LYS:O	1:J:364:GLU:OE1	2.33	0.47
1:J:436:GLY:O	1:J:479:LEU:HA	2.15	0.47
1:K:321:MET:SD	1:K:322:PRO:HD2	2.55	0.47
1:M:192:PHE:CD2	1:M:239:LEU:HD11	2.50	0.47
1:M:501:GLU:HG2	1:M:502:GLU:N	2.29	0.47
1:N:43:TYR:C	1:N:44:ARG:HD3	2.34	0.47
1:N:525:PRO:O	1:N:529:VAL:HG23	2.15	0.47
1:O:441:GLU:OE2	1:O:508:LYS:HB3	2.15	0.47
1:P:186:ASP:OD1	1:P:295:ARG:NH2	2.48	0.47
1:B:77:PHE:CD2	1:B:191:LEU:HD13	2.50	0.47
1:B:186:ASP:OD2	1:B:295:ARG:NE	2.28	0.47
1:E:436:GLY:O	1:E:479:LEU:HA	2.15	0.47
1:F:186:ASP:OD1	1:F:295:ARG:NH2	2.48	0.47
1:G:77:PHE:CZ	1:G:191:LEU:HD22	2.50	0.47
1:G:436:GLY:O	1:G:479:LEU:HA	2.15	0.47
1:I:117:LEU:HD21	1:I:123:LYS:HE2	1.96	0.47
1:I:441:GLU:OE2	1:I:508:LYS:HB3	2.15	0.47
1:J:77:PHE:CZ	1:J:191:LEU:HD22	2.50	0.47
1:J:192:PHE:CD2	1:J:239:LEU:HD11	2.50	0.47
1:L:77:PHE:CZ	1:L:191:LEU:HD22	2.50	0.47
1:L:186:ASP:OD1	1:L:295:ARG:NH2	2.48	0.47
1:O:77:PHE:CD2	1:O:191:LEU:HD13	2.50	0.47
1:P:186:ASP:CG	1:P:295:ARG:HE	2.15	0.47
1:P:195:HIS:NE2	1:P:223:LYS:HB3	2.30	0.47
1:P:360:LYS:O	1:P:364:GLU:OE1	2.33	0.47
1:B:74:LYS:NZ	1:B:157:SER:O	2.44	0.47
1:D:441:GLU:OE2	1:D:508:LYS:HB3	2.15	0.47
1:G:186:ASP:OD1	1:G:295:ARG:NH2	2.48	0.47
1:H:436:GLY:O	1:H:479:LEU:HA	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:63:MET:O	1:K:186:ASP:HB2	2.14	0.47
1:L:186:ASP:OD2	1:L:295:ARG:NE	2.28	0.47
1:L:195:HIS:NE2	1:L:223:LYS:HB3	2.30	0.47
1:N:77:PHE:CD2	1:N:191:LEU:HD13	2.50	0.47
1:O:440:GLU:HB3	1:O:477:SER:HA	1.95	0.47
1:O:441:GLU:HB3	1:O:515:LEU:CD1	2.42	0.47
1:P:321:MET:SD	1:P:322:PRO:HD2	2.55	0.47
1:D:53:LEU:HD11	1:D:303:ARG:HD2	1.96	0.46
1:D:186:ASP:OD1	1:D:295:ARG:NH2	2.48	0.46
1:E:77:PHE:CZ	1:E:191:LEU:HD22	2.50	0.46
1:E:486:LYS:HA	1:E:489:LYS:HG2	1.96	0.46
1:G:77:PHE:CD2	1:G:191:LEU:HD13	2.50	0.46
1:G:195:HIS:NE2	1:G:223:LYS:HB3	2.30	0.46
1:H:63:MET:O	1:H:186:ASP:HB2	2.14	0.46
1:K:178:LEU:HB3	1:K:210:PHE:HE1	1.80	0.46
1:L:43:TYR:C	1:L:44:ARG:HD3	2.34	0.46
1:L:77:PHE:CD2	1:L:191:LEU:HD13	2.50	0.46
1:L:321:MET:SD	1:L:322:PRO:HD2	2.55	0.46
1:L:436:GLY:O	1:L:479:LEU:HA	2.15	0.46
1:L:441:GLU:HB3	1:L:515:LEU:CD1	2.42	0.46
1:M:440:GLU:HB3	1:M:477:SER:HA	1.95	0.46
1:N:321:MET:SD	1:N:322:PRO:HD2	2.55	0.46
1:N:360:LYS:O	1:N:364:GLU:OE1	2.33	0.46
1:O:77:PHE:CZ	1:O:191:LEU:HD22	2.50	0.46
1:A:289:PRO:HG3	1:A:410:GLN:HG3	1.96	0.46
1:B:525:PRO:O	1:B:529:VAL:HG23	2.15	0.46
1:C:77:PHE:CZ	1:C:191:LEU:HD22	2.50	0.46
1:F:360:LYS:O	1:F:364:GLU:OE1	2.33	0.46
1:G:441:GLU:OE2	1:G:508:LYS:HB3	2.15	0.46
1:H:77:PHE:CZ	1:H:191:LEU:HD22	2.50	0.46
1:H:195:HIS:NE2	1:H:223:LYS:HB3	2.30	0.46
1:K:53:LEU:HD11	1:K:303:ARG:HD2	1.96	0.46
1:K:442:TRP:HB2	1:K:445:ALA:HB3	1.98	0.46
1:M:525:PRO:O	1:M:529:VAL:HG23	2.15	0.46
1:N:192:PHE:CD2	1:N:239:LEU:HD11	2.49	0.46
1:N:441:GLU:OE2	1:N:508:LYS:HB3	2.15	0.46
1:P:525:PRO:O	1:P:529:VAL:HG23	2.15	0.46
1:C:56:ALA:HB1	1:C:124:PRO:CA	2.36	0.46
1:D:234:ARG:HH21	1:E:95:PRO:HD2	1.81	0.46
1:D:289:PRO:HG3	1:D:410:GLN:HG3	1.96	0.46
1:E:393:ILE:O	1:E:397:MET:HG3	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:77:PHE:CD2	1:F:191:LEU:HD13	2.50	0.46
1:F:321:MET:SD	1:F:322:PRO:HD2	2.55	0.46
1:I:178:LEU:HB3	1:I:210:PHE:HE1	1.80	0.46
1:K:195:HIS:NE2	1:K:223:LYS:HB3	2.30	0.46
1:K:440:GLU:HB3	1:K:477:SER:HA	1.95	0.46
1:L:289:PRO:HG3	1:L:410:GLN:HG3	1.96	0.46
1:M:53:LEU:HD11	1:M:303:ARG:HD2	1.96	0.46
1:M:77:PHE:CD2	1:M:191:LEU:HD13	2.50	0.46
1:M:321:MET:SD	1:M:322:PRO:HD2	2.55	0.46
1:N:436:GLY:O	1:N:479:LEU:HA	2.15	0.46
1:O:63:MET:O	1:O:186:ASP:HB2	2.14	0.46
1:O:195:HIS:NE2	1:O:223:LYS:HB3	2.30	0.46
1:P:441:GLU:OE2	1:P:508:LYS:HB3	2.15	0.46
1:A:39:LEU:HD11	1:A:307:ALA:HB1	1.98	0.46
1:E:56:ALA:HB1	1:E:124:PRO:CA	2.36	0.46
1:E:77:PHE:CD2	1:E:191:LEU:HD13	2.50	0.46
1:E:195:HIS:NE2	1:E:223:LYS:HB3	2.30	0.46
1:F:440:GLU:HB3	1:F:477:SER:HA	1.95	0.46
1:G:53:LEU:HD11	1:G:303:ARG:HD2	1.97	0.46
1:H:51:PRO:HG3	1:H:130:ARG:HD3	1.98	0.46
1:H:442:TRP:HB2	1:H:445:ALA:HB3	1.98	0.46
1:I:53:LEU:HD11	1:I:303:ARG:HD2	1.97	0.46
1:I:289:PRO:HG3	1:I:410:GLN:HG3	1.96	0.46
1:I:441:GLU:HB3	1:I:515:LEU:CD1	2.42	0.46
1:K:77:PHE:CD2	1:K:191:LEU:HD13	2.50	0.46
1:L:441:GLU:OE2	1:L:508:LYS:HB3	2.15	0.46
1:M:178:LEU:HB3	1:M:210:PHE:HE1	1.80	0.46
1:O:436:GLY:O	1:O:479:LEU:HA	2.15	0.46
1:P:77:PHE:CD2	1:P:191:LEU:HD13	2.50	0.46
1:P:165:LYS:HZ1	1:P:170:ARG:HG2	1.80	0.46
1:A:393:ILE:O	1:A:397:MET:HG3	2.16	0.46
1:C:442:TRP:HB2	1:C:445:ALA:HB3	1.98	0.46
1:D:337:ARG:O	1:D:341:ILE:HG12	2.16	0.46
1:D:441:GLU:HB3	1:D:515:LEU:CD1	2.42	0.46
1:E:178:LEU:HB3	1:E:210:PHE:HE1	1.81	0.46
1:E:429:TYR:CD2	1:E:431:GLU:HG3	2.51	0.46
1:E:440:GLU:HB3	1:E:477:SER:HA	1.95	0.46
1:F:442:TRP:HB2	1:F:445:ALA:HB3	1.98	0.46
1:G:525:PRO:O	1:G:529:VAL:HG23	2.15	0.46
1:H:178:LEU:HB3	1:H:210:PHE:HE1	1.80	0.46
1:H:270:ASN:HB2	1:H:274:PHE:CZ	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:39:LEU:HD11	1:I:307:ALA:HB1	1.98	0.46
1:I:51:PRO:HG3	1:I:130:ARG:HD3	1.98	0.46
1:I:360:LYS:O	1:I:364:GLU:OE1	2.33	0.46
1:J:295:ARG:HA	1:J:298:ASN:CG	2.36	0.46
1:J:442:TRP:HB2	1:J:445:ALA:HB3	1.98	0.46
1:K:429:TYR:CD2	1:K:431:GLU:HG3	2.51	0.46
1:M:63:MET:O	1:M:186:ASP:HB2	2.14	0.46
1:M:195:HIS:NE2	1:M:223:LYS:HB3	2.30	0.46
1:M:405:MET:SD	1:M:405:MET:N	2.89	0.46
1:M:442:TRP:HB2	1:M:445:ALA:HB3	1.98	0.46
1:N:295:ARG:HA	1:N:298:ASN:CG	2.36	0.46
1:O:51:PRO:HG3	1:O:130:ARG:HD3	1.98	0.46
1:O:53:LEU:HD11	1:O:303:ARG:HD2	1.97	0.46
1:A:337:ARG:O	1:A:341:ILE:HG12	2.16	0.46
1:A:525:PRO:O	1:A:529:VAL:HG23	2.15	0.46
1:B:39:LEU:HD11	1:B:307:ALA:HB1	1.98	0.46
1:B:337:ARG:O	1:B:341:ILE:HG12	2.16	0.46
1:D:39:LEU:HD11	1:D:307:ALA:HB1	1.98	0.46
1:D:51:PRO:HG3	1:D:130:ARG:HD3	1.98	0.46
1:D:270:ASN:HB2	1:D:274:PHE:CZ	2.51	0.46
1:D:360:LYS:O	1:D:364:GLU:OE1	2.33	0.46
1:E:51:PRO:HG3	1:E:130:ARG:HD3	1.98	0.46
1:E:295:ARG:HA	1:E:298:ASN:CG	2.36	0.46
1:E:442:TRP:HB2	1:E:445:ALA:HB3	1.98	0.46
1:H:77:PHE:CD2	1:H:191:LEU:HD13	2.50	0.46
1:H:405:MET:SD	1:H:405:MET:N	2.89	0.46
1:H:440:GLU:HB3	1:H:477:SER:HA	1.95	0.46
1:I:337:ARG:O	1:I:341:ILE:HG12	2.16	0.46
1:J:429:TYR:CD2	1:J:431:GLU:HG3	2.51	0.46
1:K:51:PRO:HG3	1:K:130:ARG:HD3	1.98	0.46
1:K:77:PHE:CZ	1:K:191:LEU:HD22	2.50	0.46
1:K:270:ASN:HB2	1:K:274:PHE:CZ	2.51	0.46
1:L:53:LEU:HD11	1:L:303:ARG:HD2	1.97	0.46
1:L:147:GLN:HA	1:L:150:LYS:HZ2	1.81	0.46
1:M:51:PRO:HG3	1:M:130:ARG:HD3	1.98	0.46
1:M:77:PHE:CZ	1:M:191:LEU:HD22	2.50	0.46
1:P:77:PHE:CZ	1:P:191:LEU:HD22	2.50	0.46
1:A:295:ARG:HA	1:A:298:ASN:CG	2.36	0.46
1:A:360:LYS:O	1:A:364:GLU:OE1	2.33	0.46
1:B:289:PRO:HG3	1:B:410:GLN:HG3	1.96	0.46
1:B:436:GLY:O	1:B:479:LEU:HA	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:321:MET:SD	1:C:322:PRO:HD2	2.55	0.46
1:C:525:PRO:O	1:C:529:VAL:HG23	2.15	0.46
1:D:195:HIS:NE2	1:D:223:LYS:HB3	2.30	0.46
1:E:270:ASN:HB2	1:E:274:PHE:CZ	2.51	0.46
1:F:77:PHE:CZ	1:F:191:LEU:HD22	2.50	0.46
1:F:195:HIS:NE2	1:F:223:LYS:HB3	2.30	0.46
1:G:295:ARG:HA	1:G:298:ASN:CG	2.36	0.46
1:H:53:LEU:HD11	1:H:303:ARG:HD2	1.97	0.46
1:H:295:ARG:HA	1:H:298:ASN:CG	2.36	0.46
1:H:525:PRO:O	1:H:529:VAL:HG23	2.15	0.46
1:J:321:MET:SD	1:J:322:PRO:HD2	2.55	0.46
1:K:393:ILE:O	1:K:397:MET:HG3	2.16	0.46
1:K:525:PRO:O	1:K:529:VAL:HG23	2.15	0.46
1:L:56:ALA:HB1	1:L:124:PRO:CA	2.36	0.46
1:L:360:LYS:O	1:L:364:GLU:OE1	2.33	0.46
1:M:270:ASN:HB2	1:M:274:PHE:CZ	2.51	0.46
1:N:39:LEU:HD11	1:N:307:ALA:HB1	1.98	0.46
1:N:195:HIS:NE2	1:N:223:LYS:HB3	2.30	0.46
1:N:337:ARG:O	1:N:341:ILE:HG12	2.16	0.46
1:O:360:LYS:O	1:O:364:GLU:OE1	2.33	0.46
1:O:525:PRO:O	1:O:529:VAL:HG23	2.15	0.46
1:P:195:HIS:NE2	1:P:226:GLN:HB2	2.31	0.46
1:B:186:ASP:OD1	1:B:295:ARG:NH2	2.48	0.46
1:B:195:HIS:NE2	1:B:223:LYS:HB3	2.30	0.46
1:B:195:HIS:NE2	1:B:226:GLN:HB2	2.31	0.46
1:C:195:HIS:NE2	1:C:223:LYS:HB3	2.30	0.46
1:C:270:ASN:HB2	1:C:274:PHE:CZ	2.51	0.46
1:D:525:PRO:O	1:D:529:VAL:HG23	2.15	0.46
1:E:289:PRO:HG3	1:E:410:GLN:CG	2.46	0.46
1:F:337:ARG:O	1:F:341:ILE:HG12	2.16	0.46
1:G:195:HIS:CE1	1:G:223:LYS:HB3	2.51	0.46
1:G:289:PRO:HG3	1:G:410:GLN:HG3	1.96	0.46
1:H:321:MET:SD	1:H:322:PRO:HD2	2.55	0.46
1:H:429:TYR:CD2	1:H:431:GLU:HG3	2.51	0.46
1:I:77:PHE:CD2	1:I:191:LEU:HD13	2.50	0.46
1:I:195:HIS:NE2	1:I:223:LYS:HB3	2.30	0.46
1:J:39:LEU:HD11	1:J:307:ALA:HB1	1.98	0.46
1:J:178:LEU:HB3	1:J:210:PHE:HE1	1.80	0.46
1:J:358:GLU:OE1	1:J:361:ALA:N	2.36	0.46
1:K:74:LYS:NZ	1:K:157:SER:O	2.44	0.46
1:K:289:PRO:HG3	1:K:410:GLN:CG	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:295:ARG:HA	1:K:298:ASN:CG	2.36	0.46
1:L:291:LYS:HD2	1:P:113:PRO:HG2	1.92	0.46
1:M:429:TYR:CD2	1:M:431:GLU:HG3	2.51	0.46
1:N:429:TYR:CD2	1:N:431:GLU:HG3	2.51	0.46
1:N:442:TRP:HB2	1:N:445:ALA:HB3	1.98	0.46
1:P:39:LEU:HD11	1:P:307:ALA:HB1	1.98	0.46
1:P:295:ARG:HA	1:P:298:ASN:CG	2.36	0.46
1:A:195:HIS:NE2	1:A:223:LYS:HB3	2.30	0.46
1:A:429:TYR:CD2	1:A:431:GLU:HG3	2.51	0.46
1:B:192:PHE:CD2	1:B:239:LEU:HD11	2.50	0.46
1:B:195:HIS:CE1	1:B:223:LYS:HB3	2.51	0.46
1:B:360:LYS:O	1:B:364:GLU:OE1	2.33	0.46
1:C:39:LEU:HD11	1:C:307:ALA:HB1	1.98	0.46
1:C:74:LYS:NZ	1:C:157:SER:O	2.44	0.46
1:C:178:LEU:HB3	1:C:210:PHE:HE1	1.81	0.46
1:D:77:PHE:CD2	1:D:191:LEU:HD13	2.50	0.46
1:D:289:PRO:HG3	1:D:410:GLN:CG	2.46	0.46
1:D:393:ILE:O	1:D:397:MET:HG3	2.16	0.46
1:D:446:LYS:HA	1:D:451:TYR:CZ	2.51	0.46
1:F:75:THR:HG21	1:F:89:MET:HE2	1.98	0.46
1:G:75:THR:HG21	1:G:89:MET:HE2	1.97	0.46
1:G:393:ILE:O	1:G:397:MET:HG3	2.16	0.46
1:H:195:HIS:CE1	1:H:223:LYS:HB3	2.51	0.46
1:I:195:HIS:CE1	1:I:223:LYS:HB3	2.51	0.46
1:I:393:ILE:O	1:I:397:MET:HG3	2.16	0.46
1:I:525:PRO:O	1:I:529:VAL:HG23	2.15	0.46
1:J:195:HIS:CE1	1:J:223:LYS:HB3	2.51	0.46
1:L:289:PRO:HG3	1:L:410:GLN:CG	2.46	0.46
1:L:525:PRO:O	1:L:529:VAL:HG23	2.15	0.46
1:N:195:HIS:CE1	1:N:223:LYS:HB3	2.51	0.46
1:O:79:ARG:HD3	1:O:91:ILE:HD11	1.98	0.46
1:O:446:LYS:HA	1:O:451:TYR:CZ	2.51	0.46
1:P:79:ARG:HD3	1:P:91:ILE:HD11	1.98	0.46
1:A:195:HIS:NE2	1:A:226:GLN:HB2	2.31	0.46
1:A:195:HIS:CE1	1:A:223:LYS:HB3	2.51	0.46
1:B:295:ARG:HA	1:B:298:ASN:CG	2.36	0.46
1:C:195:HIS:CE1	1:C:223:LYS:HB3	2.51	0.46
1:C:289:PRO:HG3	1:C:410:GLN:CG	2.46	0.46
1:C:295:ARG:HA	1:C:298:ASN:CG	2.36	0.46
1:E:53:LEU:HD11	1:E:303:ARG:HD2	1.96	0.46
1:E:446:LYS:HA	1:E:451:TYR:CZ	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:53:LEU:HA	1:F:127:LYS:HD2	1.98	0.46
1:F:393:ILE:O	1:F:397:MET:HG3	2.16	0.46
1:F:405:MET:SD	1:F:405:MET:N	2.89	0.46
1:G:79:ARG:HD3	1:G:91:ILE:HD11	1.98	0.46
1:G:178:LEU:HB3	1:G:210:PHE:HE1	1.81	0.46
1:G:195:HIS:NE2	1:G:226:GLN:HB2	2.31	0.46
1:G:337:ARG:O	1:G:341:ILE:HG12	2.16	0.46
1:G:360:LYS:O	1:G:364:GLU:OE1	2.33	0.46
1:I:289:PRO:HG3	1:I:410:GLN:CG	2.46	0.46
1:I:446:LYS:HA	1:I:451:TYR:CZ	2.51	0.46
1:J:195:HIS:NE2	1:J:223:LYS:HB3	2.30	0.46
1:J:337:ARG:O	1:J:341:ILE:HG12	2.16	0.46
1:L:51:PRO:HG3	1:L:130:ARG:HD3	1.98	0.46
1:L:295:ARG:HA	1:L:298:ASN:CG	2.36	0.46
1:L:405:MET:SD	1:L:405:MET:N	2.89	0.46
1:L:446:LYS:HA	1:L:451:TYR:CZ	2.51	0.46
1:M:195:HIS:CE1	1:M:223:LYS:HB3	2.51	0.46
1:A:289:PRO:HG3	1:A:410:GLN:CG	2.46	0.45
1:B:289:PRO:HG3	1:B:410:GLN:CG	2.46	0.45
1:C:337:ARG:O	1:C:341:ILE:HG12	2.16	0.45
1:C:393:ILE:O	1:C:397:MET:HG3	2.16	0.45
1:C:429:TYR:CD2	1:C:431:GLU:HG3	2.51	0.45
1:D:195:HIS:CE1	1:D:223:LYS:HB3	2.51	0.45
1:E:79:ARG:HD3	1:E:91:ILE:HD11	1.98	0.45
1:F:51:PRO:HG3	1:F:130:ARG:HD3	1.98	0.45
1:F:195:HIS:NE2	1:F:226:GLN:HB2	2.31	0.45
1:F:429:TYR:CD2	1:F:431:GLU:HG3	2.51	0.45
1:F:525:PRO:O	1:F:529:VAL:HG23	2.15	0.45
1:G:429:TYR:CD2	1:G:431:GLU:HG3	2.51	0.45
1:G:446:LYS:HA	1:G:451:TYR:CZ	2.51	0.45
1:H:74:LYS:NZ	1:H:157:SER:O	2.44	0.45
1:H:446:LYS:HA	1:H:451:TYR:CZ	2.51	0.45
1:I:186:ASP:OD1	1:I:295:ARG:NH2	2.48	0.45
1:I:195:HIS:NE2	1:I:226:GLN:HB2	2.31	0.45
1:I:321:MET:SD	1:I:322:PRO:HD2	2.55	0.45
1:J:270:ASN:HB2	1:J:274:PHE:CZ	2.51	0.45
1:K:195:HIS:CE1	1:K:223:LYS:HB3	2.51	0.45
1:K:405:MET:SD	1:K:405:MET:N	2.89	0.45
1:L:79:ARG:HD3	1:L:91:ILE:HD11	1.98	0.45
1:L:283:ARG:HD2	1:P:90:ARG:HD2	1.98	0.45
1:L:393:ILE:O	1:L:397:MET:HG3	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:186:ASP:OD2	1:M:295:ARG:NE	2.28	0.45
1:M:295:ARG:HA	1:M:298:ASN:CG	2.36	0.45
1:O:53:LEU:HA	1:O:127:LYS:HD2	1.98	0.45
1:O:270:ASN:HB2	1:O:274:PHE:CZ	2.51	0.45
1:O:295:ARG:HA	1:O:298:ASN:CG	2.36	0.45
1:O:393:ILE:O	1:O:397:MET:HG3	2.16	0.45
1:P:393:ILE:O	1:P:397:MET:HG3	2.16	0.45
1:P:405:MET:SD	1:P:405:MET:N	2.89	0.45
1:B:446:LYS:HA	1:B:451:TYR:CZ	2.51	0.45
1:C:51:PRO:HG3	1:C:130:ARG:HD3	1.98	0.45
1:E:195:HIS:CE1	1:E:223:LYS:HB3	2.51	0.45
1:F:178:LEU:HB3	1:F:210:PHE:HE1	1.81	0.45
1:G:289:PRO:HG3	1:G:410:GLN:CG	2.46	0.45
1:H:79:ARG:HD3	1:H:91:ILE:HD11	1.98	0.45
1:H:164:GLU:HG3	1:I:164:GLU:OE2	2.16	0.45
1:K:39:LEU:HD11	1:K:307:ALA:HB1	1.98	0.45
1:L:39:LEU:HD11	1:L:307:ALA:HB1	1.98	0.45
1:L:195:HIS:NE2	1:L:226:GLN:HB2	2.31	0.45
1:L:429:TYR:CD2	1:L:431:GLU:HG3	2.51	0.45
1:M:79:ARG:HD3	1:M:91:ILE:HD11	1.98	0.45
1:N:178:LEU:HB3	1:N:210:PHE:HE1	1.81	0.45
1:O:429:TYR:CD2	1:O:431:GLU:HG3	2.51	0.45
1:P:51:PRO:HG3	1:P:130:ARG:HD3	1.98	0.45
1:P:337:ARG:O	1:P:341:ILE:HG12	2.16	0.45
1:P:446:LYS:HA	1:P:451:TYR:CZ	2.51	0.45
1:A:186:ASP:OD1	1:A:295:ARG:NH2	2.48	0.45
1:A:446:LYS:HA	1:A:451:TYR:CZ	2.51	0.45
1:D:195:HIS:NE2	1:D:226:GLN:HB2	2.31	0.45
1:D:321:MET:SD	1:D:322:PRO:HD2	2.55	0.45
1:D:442:TRP:HB2	1:D:445:ALA:HB3	1.98	0.45
1:E:53:LEU:HA	1:E:127:LYS:HD2	1.98	0.45
1:F:270:ASN:HB2	1:F:274:PHE:CZ	2.51	0.45
1:J:51:PRO:HG3	1:J:130:ARG:HD3	1.98	0.45
1:J:79:ARG:HD3	1:J:91:ILE:HD11	1.98	0.45
1:J:195:HIS:NE2	1:J:226:GLN:HB2	2.31	0.45
1:J:393:ILE:O	1:J:397:MET:HG3	2.16	0.45
1:K:56:ALA:HB1	1:K:124:PRO:CA	2.36	0.45
1:K:79:ARG:HD3	1:K:91:ILE:HD11	1.98	0.45
1:L:195:HIS:CE1	1:L:223:LYS:HB3	2.51	0.45
1:M:53:LEU:HA	1:M:127:LYS:HD2	1.98	0.45
1:M:75:THR:HG21	1:M:89:MET:HE2	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:270:ASN:HB2	1:N:274:PHE:CZ	2.51	0.45
1:N:393:ILE:O	1:N:397:MET:HG3	2.16	0.45
1:O:39:LEU:HD11	1:O:307:ALA:HB1	1.98	0.45
1:B:51:PRO:HG3	1:B:130:ARG:HD3	1.98	0.45
1:B:429:TYR:CD2	1:B:431:GLU:HG3	2.51	0.45
1:C:75:THR:HG21	1:C:89:MET:HE2	1.98	0.45
1:C:79:ARG:HD3	1:C:91:ILE:HD11	1.99	0.45
1:F:195:HIS:CE1	1:F:223:LYS:HB3	2.51	0.45
1:G:51:PRO:HG3	1:G:130:ARG:HD3	1.98	0.45
1:H:75:THR:HG21	1:H:89:MET:HE2	1.98	0.45
1:H:195:HIS:NE2	1:H:226:GLN:HB2	2.31	0.45
1:H:289:PRO:HG3	1:H:410:GLN:CG	2.46	0.45
1:I:442:TRP:HB2	1:I:445:ALA:HB3	1.98	0.45
1:K:53:LEU:HA	1:K:127:LYS:HD2	1.98	0.45
1:K:195:HIS:NE2	1:K:226:GLN:HB2	2.31	0.45
1:L:53:LEU:HA	1:L:127:LYS:HD2	1.98	0.45
1:L:270:ASN:HB2	1:L:274:PHE:CZ	2.51	0.45
1:M:446:LYS:HA	1:M:451:TYR:CZ	2.51	0.45
1:N:74:LYS:NZ	1:N:157:SER:O	2.44	0.45
1:N:186:ASP:OD1	1:N:295:ARG:NH2	2.48	0.45
1:N:195:HIS:NE2	1:N:226:GLN:HB2	2.31	0.45
1:A:442:TRP:HB2	1:A:445:ALA:HB3	1.98	0.45
1:B:270:ASN:HB2	1:B:274:PHE:CZ	2.51	0.45
1:B:289:PRO:HB2	1:B:408:PRO:HA	1.99	0.45
1:C:53:LEU:HA	1:C:127:LYS:HD2	1.98	0.45
1:C:186:ASP:OD1	1:C:295:ARG:NH2	2.48	0.45
1:C:195:HIS:NE2	1:C:226:GLN:HB2	2.31	0.45
1:C:441:GLU:OE2	1:C:508:LYS:HE3	2.17	0.45
1:D:53:LEU:HA	1:D:127:LYS:HD2	1.98	0.45
1:E:195:HIS:NE2	1:E:226:GLN:HB2	2.31	0.45
1:E:405:MET:SD	1:E:405:MET:N	2.89	0.45
1:E:441:GLU:OE2	1:E:508:LYS:HE3	2.17	0.45
1:E:525:PRO:O	1:E:529:VAL:HG23	2.15	0.45
1:F:39:LEU:HD11	1:F:307:ALA:HB1	1.98	0.45
1:F:56:ALA:HB1	1:F:124:PRO:CA	2.36	0.45
1:G:405:MET:SD	1:G:405:MET:N	2.89	0.45
1:H:53:LEU:HA	1:H:127:LYS:HD2	1.98	0.45
1:H:441:GLU:HB3	1:H:515:LEU:CD1	2.42	0.45
1:I:53:LEU:HA	1:I:127:LYS:HD2	1.98	0.45
1:I:270:ASN:HB2	1:I:274:PHE:CZ	2.51	0.45
1:K:441:GLU:OE2	1:K:508:LYS:HE3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:337:ARG:O	1:L:341:ILE:HG12	2.16	0.45
1:O:195:HIS:CE1	1:O:223:LYS:HB3	2.51	0.45
1:O:289:PRO:HG3	1:O:410:GLN:CG	2.46	0.45
1:O:405:MET:SD	1:O:405:MET:N	2.89	0.45
1:P:441:GLU:OE2	1:P:508:LYS:HE3	2.17	0.45
1:A:51:PRO:HG3	1:A:130:ARG:HD3	1.98	0.45
1:A:289:PRO:HB2	1:A:408:PRO:HA	1.99	0.45
1:F:446:LYS:HA	1:F:451:TYR:CZ	2.51	0.45
1:G:442:TRP:HB2	1:G:445:ALA:HB3	1.98	0.45
1:I:289:PRO:HB2	1:I:408:PRO:HA	1.99	0.45
1:J:74:LYS:NZ	1:J:157:SER:O	2.44	0.45
1:K:75:THR:HG21	1:K:89:MET:HE2	1.99	0.45
1:K:337:ARG:O	1:K:341:ILE:HG12	2.16	0.45
1:K:446:LYS:HA	1:K:451:TYR:CZ	2.51	0.45
1:L:441:GLU:OE2	1:L:508:LYS:HE3	2.17	0.45
1:M:39:LEU:HD11	1:M:307:ALA:HB1	1.98	0.45
1:M:289:PRO:HG3	1:M:410:GLN:CG	2.46	0.45
1:A:178:LEU:HB3	1:A:210:PHE:HE1	1.80	0.45
1:B:393:ILE:O	1:B:397:MET:HG3	2.16	0.45
1:C:358:GLU:OE1	1:C:361:ALA:N	2.36	0.45
1:D:429:TYR:CD2	1:D:431:GLU:HG3	2.51	0.45
1:D:441:GLU:OE2	1:D:508:LYS:HE3	2.17	0.45
1:F:133:ASN:HB3	1:F:134:ALA:H	1.62	0.45
1:F:207:ILE:HD12	1:F:210:PHE:HB2	1.99	0.45
1:F:295:ARG:HA	1:F:298:ASN:CG	2.36	0.45
1:G:39:LEU:HD11	1:G:307:ALA:HB1	1.98	0.45
1:G:441:GLU:OE2	1:G:508:LYS:HE3	2.17	0.45
1:H:35:LYS:HZ1	1:H:381:LEU:HA	1.81	0.45
1:J:53:LEU:HA	1:J:127:LYS:HD2	1.98	0.45
1:K:207:ILE:HD12	1:K:210:PHE:HB2	1.99	0.45
1:M:337:ARG:O	1:M:341:ILE:HG12	2.16	0.45
1:N:51:PRO:HG3	1:N:130:ARG:HD3	1.98	0.45
1:N:53:LEU:HA	1:N:127:LYS:HD2	1.98	0.45
1:N:79:ARG:HD3	1:N:91:ILE:HD11	1.98	0.45
1:N:289:PRO:HB2	1:N:408:PRO:HA	1.99	0.45
1:P:270:ASN:HB2	1:P:274:PHE:CZ	2.51	0.45
1:P:293:ALA:O	1:P:296:LYS:HB2	2.17	0.45
1:P:429:TYR:CD2	1:P:431:GLU:HG3	2.51	0.45
1:A:200:SER:HA	1:J:164:GLU:OE2	2.16	0.45
1:B:441:GLU:OE2	1:B:508:LYS:HE3	2.17	0.45
1:B:442:TRP:HB2	1:B:445:ALA:HB3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:75:THR:HG21	1:D:89:MET:HE2	1.98	0.45
1:D:289:PRO:HB2	1:D:408:PRO:HA	1.99	0.45
1:F:79:ARG:HD3	1:F:91:ILE:HD11	1.99	0.45
1:F:289:PRO:HG3	1:F:410:GLN:CG	2.46	0.45
1:G:192:PHE:HZ	1:G:203:PHE:CZ	2.35	0.45
1:G:293:ALA:O	1:G:296:LYS:HB2	2.17	0.45
1:H:39:LEU:HD11	1:H:307:ALA:HB1	1.98	0.45
1:H:337:ARG:O	1:H:341:ILE:HG12	2.16	0.45
1:H:393:ILE:O	1:H:397:MET:HG3	2.16	0.45
1:I:429:TYR:CD2	1:I:431:GLU:HG3	2.51	0.45
1:J:186:ASP:OD1	1:J:295:ARG:NH2	2.48	0.45
1:L:178:LEU:HB3	1:L:210:PHE:HE1	1.80	0.45
1:L:442:TRP:HB2	1:L:445:ALA:HB3	1.98	0.45
1:M:74:LYS:NZ	1:M:157:SER:O	2.44	0.45
1:N:446:LYS:HA	1:N:451:TYR:CZ	2.51	0.45
1:O:195:HIS:NE2	1:O:226:GLN:HB2	2.31	0.45
1:O:337:ARG:O	1:O:341:ILE:HG12	2.16	0.45
1:P:195:HIS:CE1	1:P:223:LYS:HB3	2.51	0.45
1:A:270:ASN:HB2	1:A:274:PHE:CZ	2.51	0.45
1:C:293:ALA:O	1:C:296:LYS:HB2	2.17	0.45
1:D:405:MET:SD	1:D:405:MET:N	2.89	0.45
1:E:39:LEU:HD11	1:E:307:ALA:HB1	1.98	0.45
1:H:207:ILE:HD12	1:H:210:PHE:HB2	1.99	0.45
1:I:75:THR:HG21	1:I:89:MET:HE2	1.98	0.45
1:J:289:PRO:HB2	1:J:408:PRO:HA	1.99	0.45
1:L:293:ALA:O	1:L:296:LYS:HB2	2.17	0.45
1:M:195:HIS:NE2	1:M:226:GLN:HB2	2.31	0.45
1:M:393:ILE:O	1:M:397:MET:HG3	2.16	0.45
1:N:256:TYR:CD2	1:N:281:LEU:HB2	2.52	0.45
1:N:289:PRO:HG3	1:N:410:GLN:CG	2.46	0.45
1:O:178:LEU:HB3	1:O:210:PHE:HE1	1.80	0.45
1:O:442:TRP:HB2	1:O:445:ALA:HB3	1.98	0.45
1:P:56:ALA:HB1	1:P:124:PRO:CA	2.36	0.45
1:A:164:GLU:HG2	1:J:201:ASP:CB	2.47	0.45
1:A:256:TYR:CD2	1:A:281:LEU:HB2	2.52	0.45
1:A:293:ALA:O	1:A:296:LYS:HB2	2.17	0.45
1:A:316:TYR:CE1	1:A:341:ILE:HD12	2.52	0.45
1:B:178:LEU:HB3	1:B:210:PHE:HE1	1.80	0.45
1:B:293:ALA:O	1:B:296:LYS:HB2	2.17	0.45
1:C:316:TYR:CE1	1:C:341:ILE:HD12	2.52	0.45
1:D:256:TYR:CD2	1:D:281:LEU:HB2	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:316:TYR:CE1	1:D:341:ILE:HD12	2.52	0.45
1:E:207:ILE:HD12	1:E:210:PHE:HB2	1.99	0.45
1:F:186:ASP:CG	1:F:295:ARG:HE	2.15	0.45
1:F:441:GLU:OE2	1:F:508:LYS:HE3	2.17	0.45
1:G:53:LEU:HA	1:G:127:LYS:HD2	1.98	0.45
1:H:35:LYS:HZ3	1:H:381:LEU:HA	1.81	0.45
1:H:192:PHE:HZ	1:H:203:PHE:CZ	2.35	0.45
1:I:97:THR:HG22	1:I:158:PRO:HA	1.99	0.45
1:I:295:ARG:HA	1:I:298:ASN:CG	2.36	0.45
1:I:405:MET:SD	1:I:405:MET:N	2.89	0.45
1:O:192:PHE:HZ	1:O:203:PHE:CZ	2.35	0.45
1:P:192:PHE:HZ	1:P:203:PHE:CZ	2.35	0.45
1:P:442:TRP:HB2	1:P:445:ALA:HB3	1.98	0.45
1:A:79:ARG:HD3	1:A:91:ILE:HD11	1.98	0.44
1:B:256:TYR:CD2	1:B:281:LEU:HB2	2.52	0.44
1:D:93:PRO:HB2	1:E:231:GLN:OE1	2.18	0.44
1:D:97:THR:HG22	1:D:158:PRO:HA	1.99	0.44
1:F:316:TYR:CE1	1:F:341:ILE:HD12	2.52	0.44
1:I:316:TYR:CE1	1:I:341:ILE:HD12	2.52	0.44
1:J:441:GLU:OE2	1:J:508:LYS:HE3	2.17	0.44
1:K:186:ASP:OD1	1:K:295:ARG:NH2	2.48	0.44
1:L:256:TYR:CD2	1:L:281:LEU:HB2	2.52	0.44
1:L:302:LYS:CE	1:P:137:ASN:OD1	2.65	0.44
1:M:207:ILE:HD12	1:M:210:PHE:HB2	1.99	0.44
1:N:441:GLU:OE2	1:N:508:LYS:HE3	2.17	0.44
1:O:97:THR:HG22	1:O:158:PRO:HA	1.99	0.44
1:O:293:ALA:O	1:O:296:LYS:HB2	2.17	0.44
1:P:289:PRO:HG3	1:P:410:GLN:CG	2.46	0.44
1:A:192:PHE:HZ	1:A:203:PHE:CZ	2.35	0.44
1:A:441:GLU:OE2	1:A:508:LYS:HE3	2.17	0.44
1:B:358:GLU:OE1	1:B:361:ALA:N	2.36	0.44
1:C:289:PRO:HB2	1:C:408:PRO:HA	1.99	0.44
1:E:72:THR:HG21	1:E:191:LEU:O	2.18	0.44
1:E:74:LYS:NZ	1:E:157:SER:O	2.44	0.44
1:F:256:TYR:CD2	1:F:281:LEU:HB2	2.52	0.44
1:F:487:ILE:HG13	1:F:520:LEU:HD21	1.99	0.44
1:G:270:ASN:HB2	1:G:274:PHE:CZ	2.51	0.44
1:H:43:TYR:HE1	1:H:375:HIS:HB2	1.83	0.44
1:J:112:THR:HA	1:J:113:PRO:HD3	1.86	0.44
1:J:256:TYR:CD2	1:J:281:LEU:HB2	2.52	0.44
1:J:289:PRO:HG3	1:J:410:GLN:CG	2.46	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:72:THR:HG21	1:K:191:LEU:O	2.18	0.44
1:L:75:THR:HG21	1:L:89:MET:HE2	1.98	0.44
1:L:192:PHE:HZ	1:L:203:PHE:CZ	2.35	0.44
1:M:192:PHE:HZ	1:M:203:PHE:CZ	2.35	0.44
1:M:293:ALA:O	1:M:296:LYS:HB2	2.17	0.44
1:N:358:GLU:OE1	1:N:361:ALA:N	2.36	0.44
1:O:316:TYR:CE1	1:O:341:ILE:HD12	2.52	0.44
1:O:441:GLU:OE2	1:O:508:LYS:HE3	2.17	0.44
1:O:487:ILE:HG13	1:O:520:LEU:HD21	1.99	0.44
1:C:192:PHE:HZ	1:C:203:PHE:CZ	2.35	0.44
1:C:256:TYR:CD2	1:C:281:LEU:HB2	2.52	0.44
1:C:309:VAL:HG11	1:C:356:PHE:HA	2.00	0.44
1:D:56:ALA:HB1	1:D:124:PRO:CA	2.36	0.44
1:D:293:ALA:O	1:D:296:LYS:HB2	2.17	0.44
1:E:337:ARG:O	1:E:341:ILE:HG12	2.16	0.44
1:F:164:GLU:HG2	1:G:201:ASP:HB3	1.98	0.44
1:F:192:PHE:HZ	1:F:203:PHE:CZ	2.35	0.44
1:G:183:GLU:HB3	1:G:184:ARG:NH1	2.33	0.44
1:I:43:TYR:HE1	1:I:375:HIS:HB2	1.83	0.44
1:J:309:VAL:HG11	1:J:356:PHE:HA	2.00	0.44
1:J:446:LYS:HA	1:J:451:TYR:CZ	2.51	0.44
1:K:43:TYR:HE1	1:K:375:HIS:HB2	1.82	0.44
1:K:293:ALA:O	1:K:296:LYS:HB2	2.17	0.44
1:L:43:TYR:HE1	1:L:375:HIS:HB2	1.83	0.44
1:M:43:TYR:HE1	1:M:375:HIS:HB2	1.83	0.44
1:P:53:LEU:HA	1:P:127:LYS:HD2	1.98	0.44
1:P:75:THR:HG21	1:P:89:MET:HE2	1.99	0.44
1:P:508:LYS:HD2	1:P:511:ILE:HD12	2.00	0.44
1:A:43:TYR:HE1	1:A:375:HIS:HB2	1.83	0.44
1:A:72:THR:HG21	1:A:191:LEU:O	2.18	0.44
1:B:79:ARG:HD3	1:B:91:ILE:HD11	1.98	0.44
1:B:97:THR:HG22	1:B:158:PRO:HA	1.99	0.44
1:C:207:ILE:HD12	1:C:210:PHE:HB2	1.99	0.44
1:C:446:LYS:HA	1:C:451:TYR:CZ	2.51	0.44
1:D:192:PHE:HZ	1:D:203:PHE:CZ	2.36	0.44
1:D:295:ARG:HA	1:D:298:ASN:CG	2.36	0.44
1:E:43:TYR:HE1	1:E:375:HIS:HB2	1.83	0.44
1:E:97:THR:HG22	1:E:158:PRO:HA	1.99	0.44
1:E:487:ILE:HG13	1:E:520:LEU:HD21	1.99	0.44
1:F:293:ALA:O	1:F:296:LYS:HB2	2.17	0.44
1:G:43:TYR:HE1	1:G:375:HIS:HB2	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:316:TYR:CE1	1:G:341:ILE:HD12	2.52	0.44
1:K:309:VAL:HG11	1:K:356:PHE:HA	2.00	0.44
1:M:441:GLU:HB3	1:M:515:LEU:CD1	2.42	0.44
1:M:441:GLU:OE2	1:M:508:LYS:HE3	2.17	0.44
1:M:487:ILE:HG13	1:M:520:LEU:HD21	1.99	0.44
1:N:309:VAL:HG11	1:N:356:PHE:HA	2.00	0.44
1:P:43:TYR:HE1	1:P:375:HIS:HB2	1.83	0.44
1:P:256:TYR:CD2	1:P:281:LEU:HB2	2.53	0.44
1:A:53:LEU:HA	1:A:127:LYS:HD2	1.99	0.44
1:A:97:THR:HG22	1:A:158:PRO:HA	1.99	0.44
1:A:305:ARG:HA	1:A:308:LYS:HZ2	1.81	0.44
1:B:316:TYR:CE1	1:B:341:ILE:HD12	2.52	0.44
1:B:417:PHE:HZ	1:B:529:VAL:HG22	1.83	0.44
1:D:72:THR:HG21	1:D:191:LEU:O	2.18	0.44
1:E:75:THR:HG21	1:E:89:MET:HE2	2.00	0.44
1:E:441:GLU:HB3	1:E:515:LEU:CD1	2.42	0.44
1:F:72:THR:HG21	1:F:191:LEU:O	2.18	0.44
1:G:56:ALA:HB1	1:G:124:PRO:CA	2.36	0.44
1:G:207:ILE:HD12	1:G:210:PHE:HB2	1.99	0.44
1:G:256:TYR:CD2	1:G:281:LEU:HB2	2.52	0.44
1:I:183:GLU:HB3	1:I:184:ARG:NH1	2.33	0.44
1:J:293:ALA:O	1:J:296:LYS:HB2	2.17	0.44
1:K:289:PRO:HB2	1:K:408:PRO:HA	1.99	0.44
1:K:316:TYR:CE1	1:K:341:ILE:HD12	2.52	0.44
1:M:289:PRO:HB2	1:M:408:PRO:HA	1.99	0.44
1:M:309:VAL:HG11	1:M:356:PHE:HA	2.00	0.44
1:N:72:THR:HG21	1:N:191:LEU:O	2.18	0.44
1:N:293:ALA:O	1:N:296:LYS:HB2	2.17	0.44
1:O:207:ILE:HD12	1:O:210:PHE:HB2	1.99	0.44
1:B:53:LEU:HA	1:B:127:LYS:HD2	1.98	0.44
1:C:43:TYR:HE1	1:C:375:HIS:HB2	1.83	0.44
1:D:186:ASP:CG	1:D:295:ARG:HE	2.15	0.44
1:E:289:PRO:HB2	1:E:408:PRO:HA	1.99	0.44
1:F:289:PRO:HB2	1:F:408:PRO:HA	1.99	0.44
1:H:293:ALA:O	1:H:296:LYS:HB2	2.17	0.44
1:H:441:GLU:OE2	1:H:508:LYS:HE3	2.17	0.44
1:I:72:THR:HG21	1:I:191:LEU:O	2.18	0.44
1:J:43:TYR:HE1	1:J:375:HIS:HB2	1.82	0.44
1:J:72:THR:HG21	1:J:191:LEU:O	2.18	0.44
1:J:75:THR:HG21	1:J:89:MET:HE2	1.99	0.44
1:L:72:THR:HG21	1:L:191:LEU:O	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:183:GLU:HB3	1:L:184:ARG:NH1	2.33	0.44
1:L:207:ILE:HD12	1:L:210:PHE:HB2	1.99	0.44
1:N:417:PHE:HZ	1:N:529:VAL:HG22	1.83	0.44
1:O:75:THR:HG21	1:O:89:MET:HE2	1.99	0.44
1:P:316:TYR:CE1	1:P:341:ILE:HD12	2.52	0.44
1:A:207:ILE:HD12	1:A:210:PHE:HB2	1.99	0.44
1:A:309:VAL:HG11	1:A:356:PHE:HA	2.00	0.44
1:A:417:PHE:HZ	1:A:529:VAL:HG22	1.83	0.44
1:C:487:ILE:HG13	1:C:520:LEU:HD21	1.99	0.44
1:D:178:LEU:HB3	1:D:210:PHE:HE1	1.80	0.44
1:D:207:ILE:HD12	1:D:210:PHE:HB2	1.99	0.44
1:E:112:THR:HA	1:E:113:PRO:HD3	1.86	0.44
1:E:309:VAL:HG11	1:E:356:PHE:HA	2.00	0.44
1:E:316:TYR:CE1	1:E:341:ILE:HD12	2.52	0.44
1:F:43:TYR:HE1	1:F:375:HIS:HB2	1.83	0.44
1:G:512:LYS:HD2	1:G:515:LEU:HD12	1.99	0.44
1:H:289:PRO:HB2	1:H:408:PRO:HA	1.99	0.44
1:H:309:VAL:HG11	1:H:356:PHE:HA	2.00	0.44
1:H:316:TYR:CE1	1:H:341:ILE:HD12	2.52	0.44
1:H:487:ILE:HG13	1:H:520:LEU:HD21	1.99	0.44
1:J:183:GLU:HB3	1:J:184:ARG:NH1	2.33	0.44
1:J:417:PHE:HZ	1:J:529:VAL:HG22	1.83	0.44
1:K:78:ILE:HG22	1:K:86:PHE:HZ	1.83	0.44
1:K:97:THR:HG22	1:K:158:PRO:HA	1.99	0.44
1:K:192:PHE:HZ	1:K:203:PHE:CZ	2.35	0.44
1:M:78:ILE:HG22	1:M:86:PHE:HZ	1.83	0.44
1:M:97:THR:HG22	1:M:158:PRO:HA	1.99	0.44
1:M:316:TYR:CE1	1:M:341:ILE:HD12	2.52	0.44
1:N:183:GLU:HB3	1:N:184:ARG:NH1	2.33	0.44
1:A:183:GLU:HB3	1:A:184:ARG:NH1	2.33	0.44
1:B:207:ILE:HD12	1:B:210:PHE:HB2	1.99	0.44
1:B:309:VAL:HG11	1:B:356:PHE:HA	2.00	0.44
1:C:72:THR:HG21	1:C:191:LEU:O	2.18	0.44
1:D:79:ARG:HD3	1:D:91:ILE:HD11	1.98	0.44
1:D:183:GLU:HB3	1:D:184:ARG:NH1	2.33	0.44
1:D:358:GLU:OE1	1:D:361:ALA:N	2.36	0.44
1:D:417:PHE:HZ	1:D:529:VAL:HG22	1.83	0.44
1:E:192:PHE:HZ	1:E:203:PHE:CZ	2.35	0.44
1:I:186:ASP:CG	1:I:295:ARG:HE	2.15	0.44
1:I:192:PHE:HZ	1:I:203:PHE:CZ	2.35	0.44
1:I:207:ILE:HD12	1:I:210:PHE:HB2	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:487:ILE:HG13	1:J:520:LEU:HD21	1.99	0.44
1:K:487:ILE:HG13	1:K:520:LEU:HD21	1.99	0.44
1:L:97:THR:HG22	1:L:158:PRO:HA	2.00	0.44
1:L:429:TYR:CZ	1:P:452:ASP:OD2	2.71	0.44
1:L:512:LYS:HD2	1:L:515:LEU:HD12	1.99	0.44
1:M:417:PHE:HZ	1:M:529:VAL:HG22	1.83	0.44
1:N:316:TYR:CE1	1:N:341:ILE:HD12	2.52	0.44
1:O:512:LYS:HD2	1:O:515:LEU:HD12	1.99	0.44
1:P:178:LEU:HB3	1:P:210:PHE:HE1	1.80	0.44
1:P:512:LYS:HD2	1:P:515:LEU:HD12	1.99	0.44
1:B:72:THR:HG21	1:B:191:LEU:O	2.18	0.44
1:B:192:PHE:HZ	1:B:203:PHE:CZ	2.35	0.44
1:C:183:GLU:HB3	1:C:184:ARG:NH1	2.33	0.44
1:D:78:ILE:HG22	1:D:86:PHE:HZ	1.83	0.44
1:D:508:LYS:HD2	1:D:511:ILE:HD12	2.00	0.44
1:E:78:ILE:HG22	1:E:86:PHE:HZ	1.83	0.44
1:F:417:PHE:HZ	1:F:529:VAL:HG22	1.83	0.44
1:G:72:THR:HG21	1:G:191:LEU:O	2.18	0.44
1:H:97:THR:HG22	1:H:158:PRO:HA	2.00	0.44
1:H:256:TYR:CD2	1:H:281:LEU:HB2	2.52	0.44
1:I:79:ARG:HD3	1:I:91:ILE:HD11	1.98	0.44
1:I:305:ARG:HA	1:I:308:LYS:HZ2	1.81	0.44
1:I:309:VAL:HG11	1:I:356:PHE:HA	2.00	0.44
1:I:441:GLU:OE2	1:I:508:LYS:HE3	2.17	0.44
1:I:508:LYS:HD2	1:I:511:ILE:HD12	2.00	0.44
1:J:192:PHE:HZ	1:J:203:PHE:CZ	2.36	0.44
1:K:305:ARG:NH2	1:L:133:ASN:HB2	2.33	0.44
1:L:316:TYR:CE1	1:L:341:ILE:HD12	2.52	0.44
1:L:417:PHE:HZ	1:L:529:VAL:HG22	1.83	0.44
1:L:508:LYS:HD2	1:L:511:ILE:HD12	2.00	0.44
1:M:183:GLU:HB3	1:M:184:ARG:NH1	2.33	0.44
1:O:72:THR:HG21	1:O:191:LEU:O	2.18	0.44
1:P:183:GLU:HB3	1:P:184:ARG:NH1	2.33	0.44
1:A:358:GLU:OE1	1:A:361:ALA:N	2.36	0.43
1:D:43:TYR:HE1	1:D:375:HIS:HB2	1.83	0.43
1:D:309:VAL:HG11	1:D:356:PHE:HA	2.00	0.43
1:D:487:ILE:HG13	1:D:520:LEU:HD21	1.99	0.43
1:E:186:ASP:OD1	1:E:295:ARG:NH2	2.48	0.43
1:E:293:ALA:O	1:E:296:LYS:HB2	2.17	0.43
1:E:417:PHE:HZ	1:E:529:VAL:HG22	1.83	0.43
1:F:508:LYS:HD2	1:F:511:ILE:HD12	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:97:THR:HG22	1:G:158:PRO:HA	1.99	0.43
1:H:417:PHE:HZ	1:H:529:VAL:HG22	1.83	0.43
1:I:78:ILE:HG22	1:I:86:PHE:HZ	1.83	0.43
1:I:417:PHE:HZ	1:I:529:VAL:HG22	1.83	0.43
1:L:251:GLU:HG3	1:P:165:LYS:CE	2.47	0.43
1:L:487:ILE:HG13	1:L:520:LEU:HD21	1.99	0.43
1:N:207:ILE:HD12	1:N:210:PHE:HB2	1.99	0.43
1:O:256:TYR:CD2	1:O:281:LEU:HB2	2.53	0.43
1:O:289:PRO:HB2	1:O:408:PRO:HA	1.99	0.43
1:O:309:VAL:HG11	1:O:356:PHE:HA	2.00	0.43
1:O:417:PHE:HZ	1:O:529:VAL:HG22	1.83	0.43
1:P:207:ILE:HD12	1:P:210:PHE:HB2	1.99	0.43
1:B:183:GLU:HB3	1:B:184:ARG:NH1	2.33	0.43
1:C:78:ILE:HG22	1:C:86:PHE:HZ	1.83	0.43
1:C:417:PHE:HZ	1:C:529:VAL:HG22	1.83	0.43
1:E:183:GLU:HB3	1:E:184:ARG:NH1	2.33	0.43
1:E:512:LYS:HD2	1:E:515:LEU:HD12	1.99	0.43
1:F:112:THR:HA	1:F:113:PRO:HD3	1.86	0.43
1:F:512:LYS:HD2	1:F:515:LEU:HD12	1.99	0.43
1:G:508:LYS:HD2	1:G:511:ILE:HD12	2.00	0.43
1:H:78:ILE:HG22	1:H:86:PHE:HZ	1.83	0.43
1:I:256:TYR:CD2	1:I:281:LEU:HB2	2.52	0.43
1:I:293:ALA:O	1:I:296:LYS:HB2	2.17	0.43
1:J:207:ILE:HD12	1:J:210:PHE:HB2	1.99	0.43
1:J:316:TYR:CE1	1:J:341:ILE:HD12	2.52	0.43
1:L:466:SER:HA	1:L:498:MET:HG3	2.00	0.43
1:M:133:ASN:HB2	1:N:305:ARG:HH21	1.82	0.43
1:O:183:GLU:HB3	1:O:184:ARG:NH1	2.33	0.43
1:P:289:PRO:HB2	1:P:408:PRO:HA	1.99	0.43
1:P:417:PHE:HZ	1:P:529:VAL:HG22	1.83	0.43
1:B:186:ASP:CG	1:B:295:ARG:HE	2.15	0.43
1:D:133:ASN:HB3	1:D:134:ALA:H	1.63	0.43
1:F:456:TYR:HA	1:F:460:PRO:HD3	2.01	0.43
1:G:487:ILE:HG13	1:G:520:LEU:HD21	1.99	0.43
1:I:487:ILE:HG13	1:I:520:LEU:HD21	1.99	0.43
1:I:512:LYS:HD2	1:I:515:LEU:HD12	1.99	0.43
1:K:417:PHE:HZ	1:K:529:VAL:HG22	1.83	0.43
1:K:466:SER:HA	1:K:498:MET:HG3	2.01	0.43
1:K:512:LYS:HD2	1:K:515:LEU:HD12	1.99	0.43
1:L:74:LYS:NZ	1:L:157:SER:O	2.44	0.43
1:M:256:TYR:CD2	1:M:281:LEU:HB2	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:192:PHE:HZ	1:N:203:PHE:CZ	2.35	0.43
1:N:487:ILE:HG13	1:N:520:LEU:HD21	1.99	0.43
1:O:466:SER:HA	1:O:498:MET:HG3	2.01	0.43
1:P:487:ILE:HG13	1:P:520:LEU:HD21	1.99	0.43
1:B:94:GLU:CD	1:C:234:ARG:HB3	2.38	0.43
1:B:512:LYS:HD2	1:B:515:LEU:HD12	1.99	0.43
1:C:264:PRO:HG2	1:C:525:PRO:HG3	2.01	0.43
1:C:466:SER:HA	1:C:498:MET:HG3	2.01	0.43
1:D:164:GLU:OE2	1:E:200:SER:HA	2.18	0.43
1:D:512:LYS:HD2	1:D:515:LEU:HD12	2.00	0.43
1:G:417:PHE:HZ	1:G:529:VAL:HG22	1.83	0.43
1:G:466:SER:HA	1:G:498:MET:HG3	2.01	0.43
1:H:183:GLU:HB3	1:H:184:ARG:NH1	2.33	0.43
1:H:466:SER:HA	1:H:498:MET:HG3	2.01	0.43
1:J:78:ILE:HG22	1:J:86:PHE:HZ	1.83	0.43
1:J:245:LYS:HE2	1:J:245:LYS:HB3	1.93	0.43
1:K:183:GLU:HB3	1:K:184:ARG:NH1	2.33	0.43
1:K:256:TYR:CD2	1:K:281:LEU:HB2	2.52	0.43
1:K:294:VAL:HG11	1:L:113:PRO:HG2	2.00	0.43
1:L:289:PRO:HB2	1:L:408:PRO:HA	1.99	0.43
1:M:72:THR:HG21	1:M:191:LEU:O	2.18	0.43
1:M:186:ASP:OD1	1:M:295:ARG:NH2	2.48	0.43
1:M:466:SER:HA	1:M:498:MET:HG3	2.01	0.43
1:P:97:THR:HG22	1:P:158:PRO:HA	1.99	0.43
1:P:264:PRO:HG2	1:P:525:PRO:HG3	2.01	0.43
1:P:466:SER:HA	1:P:498:MET:HG3	2.01	0.43
1:A:454:LEU:HA	1:A:457:THR:OG1	2.19	0.43
1:C:454:LEU:HA	1:C:457:THR:OG1	2.19	0.43
1:E:256:TYR:CD2	1:E:281:LEU:HB2	2.53	0.43
1:E:466:SER:HA	1:E:498:MET:HG3	2.01	0.43
1:F:309:VAL:HG11	1:F:356:PHE:HA	2.00	0.43
1:F:441:GLU:HB3	1:F:515:LEU:CD1	2.42	0.43
1:G:289:PRO:HB2	1:G:408:PRO:HA	1.99	0.43
1:L:215:ASP:HB3	1:P:138:ARG:CD	2.49	0.43
1:M:264:PRO:HG2	1:M:525:PRO:HG3	2.01	0.43
1:M:512:LYS:HD2	1:M:515:LEU:HD12	1.99	0.43
1:N:43:TYR:HE1	1:N:375:HIS:HB2	1.83	0.43
1:N:97:THR:HG22	1:N:158:PRO:HA	1.99	0.43
1:O:43:TYR:HE1	1:O:375:HIS:HB2	1.83	0.43
1:O:454:LEU:HA	1:O:457:THR:OG1	2.19	0.43
1:A:512:LYS:HD2	1:A:515:LEU:HD12	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:456:TYR:HA	1:D:460:PRO:HD3	2.01	0.43
1:F:117:LEU:HD12	1:F:117:LEU:HA	1.84	0.43
1:H:264:PRO:HG2	1:H:525:PRO:HG3	2.01	0.43
1:H:512:LYS:HD2	1:H:515:LEU:HD12	1.99	0.43
1:I:456:TYR:HA	1:I:460:PRO:HD3	2.01	0.43
1:J:264:PRO:HG2	1:J:525:PRO:HG3	2.01	0.43
1:K:264:PRO:HG2	1:K:525:PRO:HG3	2.01	0.43
1:K:441:GLU:HB3	1:K:515:LEU:CD1	2.42	0.43
1:K:454:LEU:HA	1:K:457:THR:OG1	2.19	0.43
1:O:508:LYS:HD2	1:O:511:ILE:HD12	2.00	0.43
1:A:487:ILE:HG13	1:A:520:LEU:HD21	1.99	0.43
1:B:56:ALA:HB1	1:B:124:PRO:CA	2.36	0.43
1:E:117:LEU:HD12	1:E:117:LEU:HA	1.84	0.43
1:E:264:PRO:HG2	1:E:525:PRO:HG3	2.01	0.43
1:E:454:LEU:HA	1:E:457:THR:OG1	2.19	0.43
1:F:78:ILE:HG22	1:F:86:PHE:HZ	1.83	0.43
1:H:358:GLU:OE1	1:H:361:ALA:N	2.36	0.43
1:I:74:LYS:NZ	1:I:157:SER:O	2.44	0.43
1:J:466:SER:HA	1:J:498:MET:HG3	2.01	0.43
1:N:78:ILE:HG22	1:N:86:PHE:HZ	1.83	0.43
1:A:466:SER:HA	1:A:498:MET:HG3	2.01	0.43
1:C:405:MET:N	1:C:405:MET:SD	2.89	0.43
1:C:512:LYS:HD2	1:C:515:LEU:HD12	1.99	0.43
1:D:186:ASP:OD2	1:D:295:ARG:NE	2.28	0.43
1:F:97:THR:HG22	1:F:158:PRO:HA	2.00	0.43
1:F:183:GLU:HB3	1:F:184:ARG:NH1	2.33	0.43
1:H:72:THR:HG21	1:H:191:LEU:O	2.18	0.43
1:J:186:ASP:CG	1:J:295:ARG:HE	2.15	0.43
1:L:309:VAL:HG11	1:L:356:PHE:HA	2.00	0.43
1:M:186:ASP:CG	1:M:295:ARG:HE	2.15	0.43
1:A:428:GLY:HA2	1:A:482:SER:OG	2.19	0.43
1:B:428:GLY:HA2	1:B:482:SER:OG	2.19	0.43
1:B:466:SER:HA	1:B:498:MET:HG3	2.01	0.43
1:C:97:THR:HG22	1:C:158:PRO:HA	2.00	0.43
1:H:186:ASP:CG	1:H:295:ARG:HE	2.15	0.43
1:J:405:MET:N	1:J:405:MET:SD	2.89	0.43
1:N:186:ASP:CG	1:N:295:ARG:HE	2.15	0.43
1:O:112:THR:HA	1:O:113:PRO:HD3	1.86	0.43
1:A:186:ASP:CG	1:A:295:ARG:HE	2.15	0.43
1:B:232:LEU:HA	1:B:235:VAL:HG22	2.01	0.43
1:C:508:LYS:HD2	1:C:511:ILE:HD12	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:454:LEU:HA	1:G:457:THR:OG1	2.19	0.43
1:I:428:GLY:HA2	1:I:482:SER:OG	2.19	0.43
1:J:508:LYS:HD2	1:J:511:ILE:HD12	2.00	0.43
1:N:428:GLY:HA2	1:N:482:SER:OG	2.19	0.43
1:N:464:LYS:HD2	1:N:500:ASP:HA	2.01	0.43
1:N:466:SER:HA	1:N:498:MET:HG3	2.01	0.43
1:O:78:ILE:HG22	1:O:86:PHE:HZ	1.83	0.43
1:O:186:ASP:OD1	1:O:295:ARG:NH2	2.48	0.43
1:P:147:GLN:HA	1:P:150:LYS:HZ2	1.84	0.43
1:B:456:TYR:HA	1:B:460:PRO:HD3	2.01	0.42
1:B:487:ILE:HG13	1:B:520:LEU:HD21	1.99	0.42
1:D:428:GLY:HA2	1:D:482:SER:OG	2.19	0.42
1:G:309:VAL:HG11	1:G:356:PHE:HA	2.00	0.42
1:I:133:ASN:HB3	1:I:134:ALA:H	1.63	0.42
1:I:264:PRO:HG2	1:I:525:PRO:HG3	2.01	0.42
1:J:428:GLY:HA2	1:J:482:SER:OG	2.19	0.42
1:J:512:LYS:HD2	1:J:515:LEU:HD12	1.99	0.42
1:K:508:LYS:HD2	1:K:511:ILE:HD12	2.00	0.42
1:M:69:GLN:HA	1:M:160:ILE:N	2.34	0.42
1:M:508:LYS:HD2	1:M:511:ILE:HD12	2.00	0.42
1:N:264:PRO:HG2	1:N:525:PRO:HG3	2.01	0.42
1:N:512:LYS:HD2	1:N:515:LEU:HD12	2.00	0.42
1:O:428:GLY:HA2	1:O:482:SER:OG	2.19	0.42
1:P:72:THR:HG21	1:P:191:LEU:O	2.18	0.42
1:B:43:TYR:HE1	1:B:375:HIS:HB2	1.83	0.42
1:C:245:LYS:HE2	1:C:245:LYS:HB3	1.93	0.42
1:C:428:GLY:HA2	1:C:482:SER:OG	2.19	0.42
1:D:264:PRO:HG2	1:D:525:PRO:HG3	2.01	0.42
1:D:454:LEU:HA	1:D:457:THR:OG1	2.19	0.42
1:F:46:HIS:CB	1:F:51:PRO:HA	2.50	0.42
1:F:264:PRO:HG2	1:F:525:PRO:HG3	2.01	0.42
1:G:69:GLN:HA	1:G:160:ILE:N	2.34	0.42
1:G:78:ILE:HG22	1:G:86:PHE:HZ	1.83	0.42
1:H:69:GLN:HA	1:H:160:ILE:N	2.35	0.42
1:I:232:LEU:HA	1:I:235:VAL:HG22	2.01	0.42
1:I:454:LEU:HA	1:I:457:THR:OG1	2.19	0.42
1:J:97:THR:HG22	1:J:158:PRO:HA	1.99	0.42
1:K:133:ASN:HB3	1:K:134:ALA:H	1.63	0.42
1:L:78:ILE:HG22	1:L:86:PHE:HZ	1.83	0.42
1:L:291:LYS:CD	1:P:113:PRO:CG	2.73	0.42
1:M:31:LEU:HA	1:M:34:ARG:HG2	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:133:ASN:HB3	1:M:134:ALA:H	1.63	0.42
1:N:75:THR:HG21	1:N:89:MET:HE2	2.01	0.42
1:N:288:LEU:O	1:N:291:LYS:HB3	2.20	0.42
1:N:508:LYS:HD2	1:N:511:ILE:HD12	2.00	0.42
1:P:309:VAL:HG11	1:P:356:PHE:HA	2.00	0.42
1:P:464:LYS:HD2	1:P:500:ASP:HA	2.01	0.42
1:A:128:LEU:HD13	1:A:135:PHE:HE2	1.85	0.42
1:A:232:LEU:HA	1:A:235:VAL:HG22	2.01	0.42
1:A:456:TYR:HA	1:A:460:PRO:HD3	2.01	0.42
1:A:464:LYS:HD2	1:A:500:ASP:HA	2.01	0.42
1:C:241:TRP:CG	1:D:240:MET:HE1	2.54	0.42
1:C:464:LYS:HD2	1:C:500:ASP:HA	2.01	0.42
1:E:474:MET:SD	1:E:484:LEU:HD22	2.60	0.42
1:G:264:PRO:HG2	1:G:525:PRO:HG3	2.01	0.42
1:H:28:LEU:O	1:H:31:LEU:HG	2.20	0.42
1:H:31:LEU:HA	1:H:34:ARG:HG2	2.02	0.42
1:H:186:ASP:OD1	1:H:295:ARG:NH2	2.48	0.42
1:J:464:LYS:HD2	1:J:500:ASP:HA	2.01	0.42
1:M:28:LEU:O	1:M:31:LEU:HG	2.20	0.42
1:P:28:LEU:O	1:P:31:LEU:HG	2.20	0.42
1:P:454:LEU:HA	1:P:457:THR:OG1	2.19	0.42
1:D:201:ASP:HB3	1:E:164:GLU:HG2	2.02	0.42
1:D:232:LEU:HA	1:D:235:VAL:HG22	2.01	0.42
1:E:31:LEU:HA	1:E:34:ARG:HG2	2.02	0.42
1:F:428:GLY:HA2	1:F:482:SER:OG	2.19	0.42
1:F:454:LEU:HA	1:F:457:THR:OG1	2.19	0.42
1:F:464:LYS:HD2	1:F:500:ASP:HA	2.01	0.42
1:G:74:LYS:NZ	1:G:157:SER:O	2.44	0.42
1:H:288:LEU:O	1:H:291:LYS:HB3	2.20	0.42
1:I:466:SER:HA	1:I:498:MET:HG3	2.01	0.42
1:J:288:LEU:O	1:J:291:LYS:HB3	2.20	0.42
1:L:69:GLN:HA	1:L:160:ILE:N	2.34	0.42
1:L:82:LEU:HD13	1:L:82:LEU:HA	1.88	0.42
1:L:454:LEU:HA	1:L:457:THR:OG1	2.19	0.42
1:M:428:GLY:HA2	1:M:482:SER:OG	2.19	0.42
1:M:454:LEU:HA	1:M:457:THR:OG1	2.19	0.42
1:O:458:LEU:HD21	1:O:473:GLU:CG	2.48	0.42
1:P:232:LEU:HA	1:P:235:VAL:HG22	2.01	0.42
1:A:46:HIS:CB	1:A:51:PRO:HA	2.50	0.42
1:A:261:TRP:CD1	1:A:263:GLN:HB2	2.55	0.42
1:B:46:HIS:CB	1:B:51:PRO:HA	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:78:ILE:HG22	1:B:86:PHE:HZ	1.83	0.42
1:B:288:LEU:O	1:B:291:LYS:HB3	2.20	0.42
1:B:454:LEU:HA	1:B:457:THR:OG1	2.19	0.42
1:B:464:LYS:HD2	1:B:500:ASP:HA	2.01	0.42
1:D:69:GLN:HA	1:D:160:ILE:N	2.35	0.42
1:E:508:LYS:HD2	1:E:511:ILE:HD12	2.00	0.42
1:F:28:LEU:O	1:F:31:LEU:HG	2.20	0.42
1:F:128:LEU:HD13	1:F:135:PHE:HE2	1.85	0.42
1:G:288:LEU:O	1:G:291:LYS:HB3	2.20	0.42
1:H:508:LYS:HD2	1:H:511:ILE:HD12	2.00	0.42
1:J:28:LEU:O	1:J:31:LEU:HG	2.20	0.42
1:K:31:LEU:HA	1:K:34:ARG:HG2	2.02	0.42
1:K:394:SER:HA	1:K:397:MET:CE	2.50	0.42
1:K:464:LYS:HD2	1:K:500:ASP:HA	2.01	0.42
1:L:264:PRO:HG2	1:L:525:PRO:HG3	2.01	0.42
1:L:288:LEU:O	1:L:291:LYS:HB3	2.20	0.42
1:M:35:LYS:HZ3	1:M:381:LEU:HA	1.84	0.42
1:N:261:TRP:CD1	1:N:263:GLN:HB2	2.55	0.42
1:O:28:LEU:O	1:O:31:LEU:HG	2.20	0.42
1:O:69:GLN:HA	1:O:160:ILE:N	2.35	0.42
1:P:69:GLN:HA	1:P:160:ILE:N	2.34	0.42
1:P:74:LYS:NZ	1:P:157:SER:O	2.44	0.42
1:P:474:MET:SD	1:P:484:LEU:HD22	2.60	0.42
1:A:28:LEU:O	1:A:31:LEU:HG	2.20	0.42
1:A:264:PRO:HG2	1:A:525:PRO:HG3	2.01	0.42
1:C:69:GLN:HA	1:C:160:ILE:N	2.34	0.42
1:C:101:ILE:HD13	1:C:140:MET:HB2	2.02	0.42
1:D:466:SER:HA	1:D:498:MET:HG3	2.01	0.42
1:D:474:MET:SD	1:D:484:LEU:HD22	2.60	0.42
1:E:394:SER:HA	1:E:397:MET:CE	2.50	0.42
1:F:466:SER:HA	1:F:498:MET:HG3	2.01	0.42
1:F:474:MET:SD	1:F:484:LEU:HD22	2.60	0.42
1:G:456:TYR:HA	1:G:460:PRO:HD3	2.01	0.42
1:H:120:ASP:HA	1:H:121:PRO:HD2	1.93	0.42
1:H:215:ASP:OD1	1:H:216:LYS:HG3	2.20	0.42
1:H:394:SER:HA	1:H:397:MET:CE	2.50	0.42
1:H:428:GLY:HA2	1:H:482:SER:OG	2.19	0.42
1:H:454:LEU:HA	1:H:457:THR:OG1	2.19	0.42
1:I:128:LEU:HD13	1:I:135:PHE:HE2	1.85	0.42
1:J:82:LEU:HD13	1:J:82:LEU:HA	1.88	0.42
1:J:261:TRP:CD1	1:J:263:GLN:HB2	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:474:MET:SD	1:K:484:LEU:HD22	2.60	0.42
1:L:458:LEU:HD21	1:L:473:GLU:CG	2.48	0.42
1:M:128:LEU:HD13	1:M:135:PHE:HE2	1.85	0.42
1:M:288:LEU:O	1:M:291:LYS:HB3	2.20	0.42
1:M:358:GLU:OE1	1:M:361:ALA:N	2.36	0.42
1:M:394:SER:HA	1:M:397:MET:CE	2.50	0.42
1:N:405:MET:N	1:N:405:MET:SD	2.89	0.42
1:O:187:ARG:NH2	1:O:218:ARG:HG3	2.35	0.42
1:O:288:LEU:O	1:O:291:LYS:HB3	2.20	0.42
1:A:78:ILE:HG22	1:A:86:PHE:HZ	1.83	0.42
1:A:394:SER:HA	1:A:397:MET:CE	2.50	0.42
1:B:215:ASP:OD1	1:B:216:LYS:HG3	2.20	0.42
1:C:128:LEU:HD13	1:C:135:PHE:HE2	1.85	0.42
1:C:261:TRP:CD1	1:C:263:GLN:HB2	2.55	0.42
1:D:31:LEU:HA	1:D:34:ARG:HG2	2.02	0.42
1:D:394:SER:HA	1:D:397:MET:CE	2.50	0.42
1:E:46:HIS:HB2	1:E:51:PRO:HA	2.02	0.42
1:F:101:ILE:HD13	1:F:140:MET:HB2	2.02	0.42
1:F:187:ARG:NH2	1:F:218:ARG:HG3	2.35	0.42
1:F:288:LEU:O	1:F:291:LYS:HB3	2.20	0.42
1:F:394:SER:HA	1:F:397:MET:CE	2.50	0.42
1:G:186:ASP:CG	1:G:295:ARG:HE	2.15	0.42
1:G:261:TRP:CD1	1:G:263:GLN:HB2	2.55	0.42
1:H:46:HIS:HB2	1:H:51:PRO:HA	2.02	0.42
1:H:128:LEU:HD13	1:H:135:PHE:HE2	1.85	0.42
1:J:69:GLN:HA	1:J:160:ILE:N	2.35	0.42
1:J:456:TYR:HA	1:J:460:PRO:HD3	2.01	0.42
1:L:187:ARG:NH2	1:L:218:ARG:HG3	2.35	0.42
1:L:305:ARG:HA	1:L:308:LYS:HZ3	1.84	0.42
1:N:28:LEU:O	1:N:31:LEU:HG	2.20	0.42
1:N:82:LEU:HD13	1:N:82:LEU:HA	1.88	0.42
1:N:232:LEU:HA	1:N:235:VAL:HG22	2.01	0.42
1:N:394:SER:HA	1:N:397:MET:CE	2.50	0.42
1:N:456:TYR:HA	1:N:460:PRO:HD3	2.01	0.42
1:O:46:HIS:HB2	1:O:51:PRO:HA	2.02	0.42
1:O:128:LEU:HD13	1:O:135:PHE:HE2	1.85	0.42
1:O:394:SER:HA	1:O:397:MET:CE	2.50	0.42
1:P:288:LEU:O	1:P:291:LYS:HB3	2.20	0.42
1:B:133:ASN:HB3	1:B:134:ALA:H	1.62	0.42
1:B:187:ARG:NH2	1:B:218:ARG:HG3	2.35	0.42
1:C:31:LEU:HA	1:C:34:ARG:HG2	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:394:SER:HA	1:C:397:MET:CE	2.50	0.42
1:D:387:ASN:ND2	1:D:391:ASN:HD22	2.18	0.42
1:F:215:ASP:OD1	1:F:216:LYS:HG3	2.20	0.42
1:F:506:LEU:HD21	1:F:524:LEU:HD13	2.02	0.42
1:G:428:GLY:HA2	1:G:482:SER:OG	2.19	0.42
1:H:456:TYR:HA	1:H:460:PRO:HD3	2.01	0.42
1:H:522:ASN:OD1	1:H:523:SER:N	2.53	0.42
1:I:31:LEU:HA	1:I:34:ARG:HG2	2.02	0.42
1:I:46:HIS:HB2	1:I:51:PRO:HA	2.02	0.42
1:I:46:HIS:HA	1:I:51:PRO:HA	2.02	0.42
1:I:387:ASN:ND2	1:I:391:ASN:HD22	2.18	0.42
1:J:394:SER:HA	1:J:397:MET:CE	2.50	0.42
1:J:506:LEU:HD21	1:J:524:LEU:HD13	2.02	0.42
1:K:101:ILE:HD13	1:K:140:MET:HB2	2.02	0.42
1:L:261:TRP:CD1	1:L:263:GLN:HB2	2.55	0.42
1:M:46:HIS:HB2	1:M:51:PRO:HA	2.02	0.42
1:M:215:ASP:OD1	1:M:216:LYS:HG3	2.20	0.42
1:N:215:ASP:OD1	1:N:216:LYS:HG3	2.20	0.42
1:N:506:LEU:HD21	1:N:524:LEU:HD13	2.02	0.42
1:O:387:ASN:ND2	1:O:391:ASN:HD22	2.18	0.42
1:P:428:GLY:HA2	1:P:482:SER:OG	2.19	0.42
1:A:508:LYS:HD2	1:A:511:ILE:HD12	2.00	0.42
1:A:522:ASN:OD1	1:A:523:SER:N	2.53	0.42
1:B:387:ASN:ND2	1:B:391:ASN:HD22	2.18	0.42
1:B:394:SER:HA	1:B:397:MET:CE	2.50	0.42
1:B:458:LEU:HD21	1:B:473:GLU:CG	2.48	0.42
1:B:508:LYS:HD2	1:B:511:ILE:HD12	2.00	0.42
1:D:187:ARG:NH2	1:D:218:ARG:HG3	2.35	0.42
1:D:288:LEU:O	1:D:291:LYS:HB3	2.20	0.42
1:G:187:ARG:NH2	1:G:218:ARG:HG3	2.35	0.42
1:I:69:GLN:HA	1:I:160:ILE:N	2.35	0.42
1:J:46:HIS:CB	1:J:51:PRO:HA	2.50	0.42
1:J:101:ILE:HD13	1:J:140:MET:HB2	2.02	0.42
1:J:215:ASP:OD1	1:J:216:LYS:HG3	2.20	0.42
1:J:454:LEU:HA	1:J:457:THR:OG1	2.19	0.42
1:K:69:GLN:HA	1:K:160:ILE:N	2.34	0.42
1:K:428:GLY:HA2	1:K:482:SER:OG	2.19	0.42
1:M:46:HIS:CB	1:M:51:PRO:HA	2.50	0.42
1:M:101:ILE:HD13	1:M:140:MET:HB2	2.02	0.42
1:M:187:ARG:HG3	1:M:288:LEU:HD11	2.02	0.42
1:M:464:LYS:HD2	1:M:500:ASP:HA	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:522:ASN:OD1	1:M:523:SER:N	2.53	0.42
1:N:46:HIS:CB	1:N:51:PRO:HA	2.50	0.42
1:N:56:ALA:HB1	1:N:124:PRO:CA	2.36	0.42
1:N:454:LEU:HA	1:N:457:THR:OG1	2.19	0.42
1:O:186:ASP:CG	1:O:295:ARG:HE	2.15	0.42
1:O:245:LYS:HE2	1:O:245:LYS:HB3	1.93	0.42
1:O:264:PRO:HG2	1:O:525:PRO:HG3	2.01	0.42
1:P:506:LEU:HD21	1:P:524:LEU:HD13	2.02	0.42
1:A:75:THR:HG21	1:A:89:MET:HE2	2.00	0.42
1:A:387:ASN:ND2	1:A:391:ASN:HD22	2.18	0.42
1:A:405:MET:N	1:A:405:MET:SD	2.89	0.42
1:A:474:MET:SD	1:A:484:LEU:HD22	2.60	0.42
1:B:46:HIS:HB2	1:B:51:PRO:HA	2.02	0.42
1:B:474:MET:SD	1:B:484:LEU:HD22	2.60	0.42
1:B:522:ASN:OD1	1:B:523:SER:N	2.53	0.42
1:B:528:LEU:HD23	1:B:528:LEU:HA	1.91	0.42
1:C:506:LEU:HD21	1:C:524:LEU:HD13	2.02	0.42
1:D:46:HIS:HA	1:D:51:PRO:HA	2.02	0.42
1:E:186:ASP:CG	1:E:295:ARG:HE	2.15	0.42
1:E:428:GLY:HA2	1:E:482:SER:OG	2.19	0.42
1:F:54:GLU:HG3	1:F:56:ALA:HB3	2.02	0.42
1:F:358:GLU:OE1	1:F:361:ALA:N	2.36	0.42
1:G:46:HIS:CB	1:G:51:PRO:HA	2.50	0.42
1:H:46:HIS:CB	1:H:51:PRO:HA	2.50	0.42
1:H:46:HIS:HA	1:H:51:PRO:HA	2.02	0.42
1:H:101:ILE:HD13	1:H:140:MET:HB2	2.02	0.42
1:H:187:ARG:HG3	1:H:288:LEU:HD11	2.02	0.42
1:H:464:LYS:HD2	1:H:500:ASP:HA	2.01	0.42
1:I:187:ARG:NH2	1:I:218:ARG:HG3	2.35	0.42
1:J:31:LEU:HA	1:J:34:ARG:HG2	2.02	0.42
1:K:46:HIS:HB2	1:K:51:PRO:HA	2.02	0.42
1:K:187:ARG:HG3	1:K:288:LEU:HD11	2.02	0.42
1:L:46:HIS:HB2	1:L:51:PRO:HA	2.02	0.42
1:L:464:LYS:HD2	1:L:500:ASP:HA	2.01	0.42
1:O:74:LYS:NZ	1:O:157:SER:O	2.44	0.42
1:P:31:LEU:HA	1:P:34:ARG:HG2	2.02	0.42
1:P:78:ILE:HG22	1:P:86:PHE:HZ	1.83	0.42
1:P:215:ASP:OD1	1:P:216:LYS:HG3	2.20	0.42
1:A:60:ASN:C	1:A:60:ASN:ND2	2.74	0.41
1:B:46:HIS:HA	1:B:51:PRO:HA	2.02	0.41
1:C:46:HIS:CB	1:C:51:PRO:HA	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:187:ARG:HG3	1:C:288:LEU:HD11	2.02	0.41
1:C:456:TYR:HA	1:C:460:PRO:HD3	2.01	0.41
1:D:46:HIS:HB2	1:D:51:PRO:HA	2.02	0.41
1:D:101:ILE:HD13	1:D:140:MET:HB2	2.02	0.41
1:E:46:HIS:CB	1:E:51:PRO:HA	2.50	0.41
1:E:101:ILE:HD13	1:E:140:MET:HB2	2.02	0.41
1:E:464:LYS:HD2	1:E:500:ASP:HA	2.01	0.41
1:F:69:GLN:HA	1:F:160:ILE:N	2.35	0.41
1:G:28:LEU:O	1:G:31:LEU:HG	2.20	0.41
1:G:394:SER:HA	1:G:397:MET:CE	2.50	0.41
1:H:60:ASN:C	1:H:60:ASN:ND2	2.74	0.41
1:I:474:MET:SD	1:I:484:LEU:HD22	2.60	0.41
1:K:128:LEU:HD13	1:K:135:PHE:HE2	1.85	0.41
1:K:358:GLU:OE1	1:K:361:ALA:N	2.36	0.41
1:L:46:HIS:CB	1:L:51:PRO:HA	2.50	0.41
1:N:69:GLN:HA	1:N:160:ILE:N	2.35	0.41
1:N:101:ILE:HD13	1:N:140:MET:HB2	2.02	0.41
1:O:46:HIS:CB	1:O:51:PRO:HA	2.50	0.41
1:O:187:ARG:HG3	1:O:288:LEU:HD11	2.02	0.41
1:P:187:ARG:NH2	1:P:218:ARG:HG3	2.35	0.41
1:P:261:TRP:CD1	1:P:263:GLN:HB2	2.55	0.41
1:P:394:SER:HA	1:P:397:MET:CE	2.50	0.41
1:A:46:HIS:HB2	1:A:51:PRO:HA	2.02	0.41
1:B:28:LEU:O	1:B:31:LEU:HG	2.20	0.41
1:B:264:PRO:HG2	1:B:525:PRO:HG3	2.01	0.41
1:C:54:GLU:HG3	1:C:56:ALA:HB3	2.02	0.41
1:D:28:LEU:O	1:D:31:LEU:HG	2.20	0.41
1:E:60:ASN:C	1:E:60:ASN:ND2	2.74	0.41
1:E:187:ARG:HG3	1:E:288:LEU:HD11	2.02	0.41
1:E:232:LEU:HA	1:E:235:VAL:HG22	2.01	0.41
1:F:261:TRP:CD1	1:F:263:GLN:HB2	2.55	0.41
1:G:232:LEU:HA	1:G:235:VAL:HG22	2.01	0.41
1:G:387:ASN:ND2	1:G:391:ASN:HD22	2.18	0.41
1:H:474:MET:SD	1:H:484:LEU:HD22	2.60	0.41
1:I:28:LEU:O	1:I:31:LEU:HG	2.20	0.41
1:J:54:GLU:HG3	1:J:56:ALA:HB3	2.02	0.41
1:J:187:ARG:HG3	1:J:288:LEU:HD11	2.02	0.41
1:J:232:LEU:HA	1:J:235:VAL:HG22	2.01	0.41
1:K:186:ASP:CG	1:K:295:ARG:HE	2.15	0.41
1:K:232:LEU:HA	1:K:235:VAL:HG22	2.01	0.41
1:K:456:TYR:HA	1:K:460:PRO:HD3	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:186:ASP:CG	1:L:295:ARG:HE	2.15	0.41
1:L:394:SER:HA	1:L:397:MET:CE	2.50	0.41
1:L:428:GLY:HA2	1:L:482:SER:OG	2.19	0.41
1:M:117:LEU:HD12	1:M:117:LEU:HA	1.84	0.41
1:N:187:ARG:NH2	1:N:218:ARG:HG3	2.35	0.41
1:N:522:ASN:OD1	1:N:523:SER:N	2.53	0.41
1:O:31:LEU:HA	1:O:34:ARG:HG2	2.02	0.41
1:O:46:HIS:HA	1:O:51:PRO:HA	2.02	0.41
1:O:117:LEU:HD12	1:O:117:LEU:HA	1.84	0.41
1:O:232:LEU:HA	1:O:235:VAL:HG22	2.01	0.41
1:O:474:MET:SD	1:O:484:LEU:HD22	2.60	0.41
1:P:435:GLU:HG2	1:P:478:LYS:CD	2.49	0.41
1:P:456:TYR:HA	1:P:460:PRO:HD3	2.01	0.41
1:A:215:ASP:OD1	1:A:216:LYS:HG3	2.20	0.41
1:A:506:LEU:HD21	1:A:524:LEU:HD13	2.02	0.41
1:B:75:THR:HG21	1:B:89:MET:HE2	2.00	0.41
1:B:261:TRP:CD1	1:B:263:GLN:HB2	2.55	0.41
1:B:405:MET:N	1:B:405:MET:SD	2.89	0.41
1:C:186:ASP:CG	1:C:295:ARG:HE	2.15	0.41
1:C:474:MET:SD	1:C:484:LEU:HD22	2.60	0.41
1:D:128:LEU:HD13	1:D:135:PHE:HE2	1.85	0.41
1:D:215:ASP:OD1	1:D:216:LYS:HG3	2.20	0.41
1:E:46:HIS:HA	1:E:51:PRO:HA	2.02	0.41
1:E:187:ARG:NH2	1:E:218:ARG:HG3	2.35	0.41
1:E:456:TYR:HA	1:E:460:PRO:HD3	2.01	0.41
1:F:31:LEU:HA	1:F:34:ARG:HG2	2.02	0.41
1:F:187:ARG:HG3	1:F:288:LEU:HD11	2.02	0.41
1:G:46:HIS:HB2	1:G:51:PRO:HA	2.02	0.41
1:G:215:ASP:OD1	1:G:216:LYS:HG3	2.20	0.41
1:H:54:GLU:HG3	1:H:56:ALA:HB3	2.02	0.41
1:H:117:LEU:HD12	1:H:117:LEU:HA	1.84	0.41
1:I:394:SER:HA	1:I:397:MET:CE	2.50	0.41
1:K:46:HIS:CB	1:K:51:PRO:HA	2.50	0.41
1:K:60:ASN:C	1:K:60:ASN:ND2	2.74	0.41
1:L:28:LEU:O	1:L:31:LEU:HG	2.20	0.41
1:L:387:ASN:ND2	1:L:391:ASN:HD22	2.18	0.41
1:M:54:GLU:HG3	1:M:56:ALA:HB3	2.02	0.41
1:M:60:ASN:C	1:M:60:ASN:ND2	2.74	0.41
1:M:474:MET:SD	1:M:484:LEU:HD22	2.60	0.41
1:N:387:ASN:ND2	1:N:391:ASN:HD22	2.18	0.41
1:P:292:ALA:O	1:P:295:ARG:HD3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:46:HIS:HA	1:A:51:PRO:HA	2.02	0.41
1:A:292:ALA:O	1:A:295:ARG:HD3	2.21	0.41
1:B:506:LEU:HD21	1:B:524:LEU:HD13	2.02	0.41
1:C:28:LEU:O	1:C:31:LEU:HG	2.20	0.41
1:D:104:MET:CA	1:D:149:LEU:HD12	2.50	0.41
1:E:69:GLN:HA	1:E:160:ILE:N	2.35	0.41
1:E:288:LEU:O	1:E:291:LYS:HB3	2.20	0.41
1:E:387:ASN:ND2	1:E:391:ASN:HD22	2.18	0.41
1:G:464:LYS:HD2	1:G:500:ASP:HA	2.01	0.41
1:H:201:ASP:OD2	1:I:164:GLU:HG2	2.21	0.41
1:J:56:ALA:HB1	1:J:124:PRO:CA	2.36	0.41
1:J:128:LEU:HD13	1:J:135:PHE:HE2	1.85	0.41
1:K:28:LEU:O	1:K:31:LEU:HG	2.20	0.41
1:K:104:MET:CA	1:K:149:LEU:HD12	2.50	0.41
1:K:506:LEU:HD21	1:K:524:LEU:HD13	2.02	0.41
1:L:250:PRO:HB2	1:P:165:LYS:CD	2.50	0.41
1:L:456:TYR:HA	1:L:460:PRO:HD3	2.01	0.41
1:M:46:HIS:HA	1:M:51:PRO:HA	2.02	0.41
1:M:456:TYR:HA	1:M:460:PRO:HD3	2.01	0.41
1:P:128:LEU:HD13	1:P:135:PHE:HE2	1.85	0.41
1:A:69:GLN:HA	1:A:160:ILE:N	2.34	0.41
1:A:288:LEU:O	1:A:291:LYS:HB3	2.20	0.41
1:B:128:LEU:HD13	1:B:135:PHE:HE2	1.85	0.41
1:D:261:TRP:CD1	1:D:263:GLN:HB2	2.55	0.41
1:E:28:LEU:O	1:E:31:LEU:HG	2.20	0.41
1:E:54:GLU:HG3	1:E:56:ALA:HB3	2.02	0.41
1:E:215:ASP:OD1	1:E:216:LYS:HG3	2.20	0.41
1:I:46:HIS:CB	1:I:51:PRO:HA	2.50	0.41
1:I:101:ILE:HD13	1:I:140:MET:HB2	2.02	0.41
1:I:261:TRP:CD1	1:I:263:GLN:HB2	2.55	0.41
1:I:464:LYS:HD2	1:I:500:ASP:HA	2.01	0.41
1:J:522:ASN:OD1	1:J:523:SER:N	2.53	0.41
1:K:46:HIS:HA	1:K:51:PRO:HA	2.02	0.41
1:K:54:GLU:HG3	1:K:56:ALA:HB3	2.02	0.41
1:K:82:LEU:HD13	1:K:82:LEU:HA	1.88	0.41
1:L:232:LEU:HA	1:L:235:VAL:HG22	2.01	0.41
1:L:522:ASN:OD1	1:L:523:SER:N	2.53	0.41
1:N:54:GLU:HG3	1:N:56:ALA:HB3	2.03	0.41
1:O:261:TRP:CD1	1:O:263:GLN:HB2	2.55	0.41
1:O:292:ALA:O	1:O:295:ARG:HD3	2.21	0.41
1:O:456:TYR:HA	1:O:460:PRO:HD3	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:46:HIS:CB	1:P:51:PRO:HA	2.50	0.41
1:P:60:ASN:C	1:P:60:ASN:ND2	2.74	0.41
1:B:69:GLN:HA	1:B:160:ILE:N	2.35	0.41
1:B:234:ARG:HH21	1:C:95:PRO:HD2	1.85	0.41
1:D:46:HIS:CB	1:D:51:PRO:HA	2.50	0.41
1:D:464:LYS:HD2	1:D:500:ASP:HA	2.01	0.41
1:D:522:ASN:OD1	1:D:523:SER:N	2.53	0.41
1:D:530:PRO:HA	1:D:531:PRO:HD3	1.97	0.41
1:E:82:LEU:HD13	1:E:82:LEU:HA	1.88	0.41
1:E:128:LEU:HD13	1:E:135:PHE:HE2	1.85	0.41
1:F:522:ASN:OD1	1:F:523:SER:N	2.53	0.41
1:G:31:LEU:HA	1:G:34:ARG:HG2	2.02	0.41
1:G:431:GLU:O	1:G:434:LYS:HB2	2.21	0.41
1:H:187:ARG:NH2	1:H:218:ARG:HG3	2.35	0.41
1:H:431:GLU:O	1:H:434:LYS:HB2	2.21	0.41
1:I:506:LEU:HD21	1:I:524:LEU:HD13	2.02	0.41
1:J:387:ASN:ND2	1:J:391:ASN:HD22	2.18	0.41
1:J:474:MET:SD	1:J:484:LEU:HD22	2.60	0.41
1:K:387:ASN:ND2	1:K:391:ASN:HD22	2.18	0.41
1:L:128:LEU:HD13	1:L:135:PHE:HE2	1.85	0.41
1:L:394:SER:HA	1:L:397:MET:HE2	2.02	0.41
1:M:506:LEU:HD21	1:M:524:LEU:HD13	2.02	0.41
1:N:128:LEU:HD13	1:N:135:PHE:HE2	1.85	0.41
1:N:187:ARG:HG3	1:N:288:LEU:HD11	2.02	0.41
1:O:215:ASP:OD1	1:O:216:LYS:HG3	2.20	0.41
1:O:464:LYS:HD2	1:O:500:ASP:HA	2.01	0.41
1:P:387:ASN:ND2	1:P:391:ASN:HD22	2.18	0.41
1:P:522:ASN:OD1	1:P:523:SER:N	2.53	0.41
1:A:101:ILE:HD13	1:A:140:MET:HB2	2.02	0.41
1:A:133:ASN:HB3	1:A:134:ALA:H	1.63	0.41
1:B:429:TYR:OH	1:J:456:TYR:CE2	2.74	0.41
1:C:215:ASP:OD1	1:C:216:LYS:HG3	2.20	0.41
1:E:35:LYS:HZ1	1:E:381:LEU:HA	1.86	0.41
1:F:231:GLN:O	1:F:235:VAL:HG13	2.21	0.41
1:G:74:LYS:O	1:G:78:ILE:HG13	2.21	0.41
1:G:292:ALA:O	1:G:295:ARG:HD3	2.21	0.41
1:G:530:PRO:HA	1:G:531:PRO:HD3	1.97	0.41
1:H:104:MET:CA	1:H:149:LEU:HD12	2.50	0.41
1:H:232:LEU:HA	1:H:235:VAL:HG22	2.01	0.41
1:I:522:ASN:OD1	1:I:523:SER:N	2.53	0.41
1:J:187:ARG:NH2	1:J:218:ARG:HG3	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:261:TRP:CD1	1:K:263:GLN:HB2	2.55	0.41
1:L:31:LEU:HA	1:L:34:ARG:HG2	2.02	0.41
1:L:187:ARG:HG3	1:L:288:LEU:HD11	2.02	0.41
1:L:292:ALA:O	1:L:295:ARG:HD3	2.21	0.41
1:L:294:VAL:HG12	1:P:113:PRO:HB2	2.01	0.41
1:L:474:MET:SD	1:L:484:LEU:HD22	2.60	0.41
1:L:506:LEU:HD21	1:L:524:LEU:HD13	2.02	0.41
1:N:31:LEU:HA	1:N:34:ARG:HG2	2.02	0.41
1:N:46:HIS:HB2	1:N:51:PRO:HA	2.02	0.41
1:P:530:PRO:HA	1:P:531:PRO:HD3	1.97	0.41
1:A:54:GLU:HG3	1:A:56:ALA:HB3	2.02	0.41
1:A:310:HIS:O	1:A:314:ILE:HG12	2.21	0.41
1:B:54:GLU:HG3	1:B:56:ALA:HB3	2.02	0.41
1:C:46:HIS:HB2	1:C:51:PRO:HA	2.02	0.41
1:C:387:ASN:ND2	1:C:391:ASN:HD22	2.18	0.41
1:D:506:LEU:HD21	1:D:524:LEU:HD13	2.02	0.41
1:E:74:LYS:O	1:E:78:ILE:HG13	2.21	0.41
1:F:387:ASN:ND2	1:F:391:ASN:HD22	2.18	0.41
1:G:117:LEU:HA	1:G:117:LEU:HD12	1.84	0.41
1:G:187:ARG:HG3	1:G:288:LEU:HD11	2.02	0.41
1:H:506:LEU:HD21	1:H:524:LEU:HD13	2.02	0.41
1:I:431:GLU:O	1:I:434:LYS:HB2	2.21	0.41
1:J:292:ALA:O	1:J:295:ARG:HD3	2.21	0.41
1:K:215:ASP:OD1	1:K:216:LYS:HG3	2.20	0.41
1:K:288:LEU:O	1:K:291:LYS:HB3	2.20	0.41
1:L:74:LYS:O	1:L:78:ILE:HG13	2.21	0.41
1:M:232:LEU:HA	1:M:235:VAL:HG22	2.01	0.41
1:M:431:GLU:O	1:M:434:LYS:HB2	2.21	0.41
1:N:292:ALA:O	1:N:295:ARG:HD3	2.21	0.41
1:P:46:HIS:HB2	1:P:51:PRO:HA	2.02	0.41
1:A:231:GLN:O	1:A:235:VAL:HG13	2.21	0.41
1:A:431:GLU:O	1:A:434:LYS:HB2	2.21	0.41
1:B:31:LEU:HA	1:B:34:ARG:HG2	2.02	0.41
1:C:232:LEU:HA	1:C:235:VAL:HG22	2.01	0.41
1:C:288:LEU:O	1:C:291:LYS:HB3	2.20	0.41
1:C:292:ALA:O	1:C:295:ARG:HD3	2.21	0.41
1:C:522:ASN:OD1	1:C:523:SER:N	2.53	0.41
1:D:196:LYS:HA	1:E:196:LYS:HA	2.02	0.41
1:D:431:GLU:O	1:D:434:LYS:HB2	2.21	0.41
1:E:245:LYS:NZ	1:F:250:PRO:HG3	2.35	0.41
1:F:125:PHE:HZ	1:F:155:ILE:HD11	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:245:LYS:HE2	1:F:245:LYS:HB3	1.93	0.41
1:F:310:HIS:O	1:F:314:ILE:HG12	2.21	0.41
1:G:46:HIS:HA	1:G:51:PRO:HA	2.02	0.41
1:G:128:LEU:HD13	1:G:135:PHE:HE2	1.85	0.41
1:G:310:HIS:O	1:G:314:ILE:HG12	2.21	0.41
1:G:474:MET:SD	1:G:484:LEU:HD22	2.60	0.41
1:G:506:LEU:HD21	1:G:524:LEU:HD13	2.02	0.41
1:H:133:ASN:HB3	1:H:134:ALA:H	1.63	0.41
1:H:310:HIS:O	1:H:314:ILE:HG12	2.21	0.41
1:I:215:ASP:OD1	1:I:216:LYS:HG3	2.20	0.41
1:I:288:LEU:O	1:I:291:LYS:HB3	2.20	0.41
1:I:292:ALA:O	1:I:295:ARG:HD3	2.21	0.41
1:J:120:ASP:HA	1:J:121:PRO:HD2	1.93	0.41
1:J:431:GLU:O	1:J:434:LYS:HB2	2.21	0.41
1:J:435:GLU:HG2	1:J:478:LYS:CD	2.49	0.41
1:L:117:LEU:HA	1:L:117:LEU:HD12	1.84	0.41
1:L:215:ASP:OD1	1:L:216:LYS:HG3	2.20	0.41
1:L:310:HIS:O	1:L:314:ILE:HG12	2.21	0.41
1:L:431:GLU:O	1:L:434:LYS:HB2	2.21	0.41
1:M:104:MET:CA	1:M:149:LEU:HD12	2.50	0.41
1:M:187:ARG:NH2	1:M:218:ARG:HG3	2.35	0.41
1:M:310:HIS:O	1:M:314:ILE:HG12	2.21	0.41
1:N:231:GLN:O	1:N:235:VAL:HG13	2.21	0.41
1:N:431:GLU:O	1:N:434:LYS:HB2	2.21	0.41
1:N:474:MET:SD	1:N:484:LEU:HD22	2.60	0.41
1:O:231:GLN:O	1:O:235:VAL:HG13	2.21	0.41
1:O:305:ARG:HA	1:O:308:LYS:HZ2	1.85	0.41
1:O:431:GLU:O	1:O:434:LYS:HB2	2.21	0.41
1:O:506:LEU:HD21	1:O:524:LEU:HD13	2.02	0.41
1:P:101:ILE:HD13	1:P:140:MET:HB2	2.02	0.41
1:P:125:PHE:HZ	1:P:155:ILE:HD11	1.86	0.41
1:B:101:ILE:HD13	1:B:140:MET:HB2	2.02	0.41
1:B:282:PHE:CE1	1:B:412:VAL:HG11	2.56	0.41
1:B:292:ALA:O	1:B:295:ARG:HD3	2.21	0.41
1:C:46:HIS:HA	1:C:51:PRO:HA	2.02	0.41
1:C:74:LYS:O	1:C:78:ILE:HG13	2.21	0.41
1:D:54:GLU:HG3	1:D:56:ALA:HB3	2.02	0.41
1:D:231:GLN:O	1:D:235:VAL:HG13	2.21	0.41
1:E:261:TRP:CD1	1:E:263:GLN:HB2	2.55	0.41
1:F:60:ASN:C	1:F:60:ASN:ND2	2.74	0.41
1:G:318:LYS:HD3	1:G:374:PHE:HB2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:261:TRP:CD1	1:H:263:GLN:HB2	2.55	0.41
1:I:190:LEU:HD23	1:I:203:PHE:CZ	2.54	0.41
1:J:133:ASN:HB3	1:J:134:ALA:H	1.63	0.41
1:J:282:PHE:CE1	1:J:412:VAL:HG11	2.56	0.41
1:K:74:LYS:O	1:K:78:ILE:HG13	2.21	0.41
1:L:46:HIS:HA	1:L:51:PRO:HA	2.02	0.41
1:L:282:PHE:CE1	1:L:412:VAL:HG11	2.56	0.41
1:M:261:TRP:CD1	1:M:263:GLN:HB2	2.55	0.41
1:N:125:PHE:HZ	1:N:155:ILE:HD11	1.86	0.41
1:N:458:LEU:HD21	1:N:473:GLU:CG	2.48	0.41
1:O:74:LYS:O	1:O:78:ILE:HG13	2.21	0.41
1:P:46:HIS:HA	1:P:51:PRO:HA	2.02	0.41
1:P:54:GLU:HG3	1:P:56:ALA:HB3	2.03	0.41
1:P:74:LYS:O	1:P:78:ILE:HG13	2.21	0.41
1:A:74:LYS:O	1:A:78:ILE:HG13	2.21	0.40
1:A:282:PHE:CE1	1:A:412:VAL:HG11	2.56	0.40
1:C:60:ASN:C	1:C:60:ASN:ND2	2.74	0.40
1:C:104:MET:CA	1:C:149:LEU:HD12	2.50	0.40
1:C:133:ASN:HB3	1:C:134:ALA:H	1.63	0.40
1:D:187:ARG:HG3	1:D:288:LEU:HD11	2.02	0.40
1:F:232:LEU:HA	1:F:235:VAL:HG22	2.01	0.40
1:F:431:GLU:O	1:F:434:LYS:HB2	2.21	0.40
1:G:101:ILE:HD13	1:G:140:MET:HB2	2.02	0.40
1:G:280:ASP:HA	1:G:283:ARG:NH1	2.36	0.40
1:G:282:PHE:CE1	1:G:412:VAL:HG11	2.56	0.40
1:I:60:ASN:C	1:I:60:ASN:ND2	2.74	0.40
1:I:187:ARG:HG3	1:I:288:LEU:HD11	2.02	0.40
1:J:46:HIS:HB2	1:J:51:PRO:HA	2.02	0.40
1:K:187:ARG:NH2	1:K:218:ARG:HG3	2.35	0.40
1:K:231:GLN:O	1:K:235:VAL:HG13	2.21	0.40
1:L:280:ASP:HA	1:L:283:ARG:NH1	2.36	0.40
1:M:74:LYS:O	1:M:78:ILE:HG13	2.21	0.40
1:N:282:PHE:CE1	1:N:412:VAL:HG11	2.56	0.40
1:P:190:LEU:HD23	1:P:203:PHE:CZ	2.54	0.40
1:P:318:LYS:HD3	1:P:374:PHE:HB2	2.02	0.40
1:B:231:GLN:O	1:B:235:VAL:HG13	2.21	0.40
1:B:438:ASP:N	1:B:438:ASP:OD1	2.55	0.40
1:C:231:GLN:O	1:C:235:VAL:HG13	2.21	0.40
1:C:431:GLU:O	1:C:434:LYS:HB2	2.21	0.40
1:E:506:LEU:HD21	1:E:524:LEU:HD13	2.02	0.40
1:F:292:ALA:O	1:F:295:ARG:HD3	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:292:ALA:O	1:H:295:ARG:HD3	2.21	0.40
1:H:438:ASP:OD1	1:H:438:ASP:N	2.55	0.40
1:I:82:LEU:HA	1:I:82:LEU:HD13	1.88	0.40
1:I:282:PHE:CE1	1:I:412:VAL:HG11	2.56	0.40
1:J:117:LEU:HD12	1:J:117:LEU:HA	1.84	0.40
1:J:125:PHE:HZ	1:J:155:ILE:HD11	1.86	0.40
1:J:231:GLN:O	1:J:235:VAL:HG13	2.21	0.40
1:J:280:ASP:HA	1:J:283:ARG:NH1	2.36	0.40
1:L:112:THR:HA	1:L:113:PRO:HD3	1.86	0.40
1:O:280:ASP:HA	1:O:283:ARG:NH1	2.36	0.40
1:O:394:SER:HA	1:O:397:MET:HE1	2.03	0.40
1:P:104:MET:CA	1:P:149:LEU:HD12	2.50	0.40
1:P:305:ARG:HA	1:P:308:LYS:HZ3	1.87	0.40
1:A:112:THR:HA	1:A:113:PRO:HD3	1.86	0.40
1:A:245:LYS:HD3	1:B:250:PRO:HG3	2.03	0.40
1:A:280:ASP:HA	1:A:283:ARG:NH1	2.36	0.40
1:A:394:SER:O	1:A:397:MET:HE2	2.22	0.40
1:C:44:ARG:HA	1:C:46:HIS:CE1	2.57	0.40
1:C:280:ASP:HA	1:C:283:ARG:NH1	2.36	0.40
1:E:133:ASN:HB3	1:E:134:ALA:H	1.63	0.40
1:E:280:ASP:HA	1:E:283:ARG:NH1	2.36	0.40
1:E:292:ALA:O	1:E:295:ARG:HD3	2.21	0.40
1:G:435:GLU:HG2	1:G:478:LYS:CD	2.49	0.40
1:G:522:ASN:OD1	1:G:523:SER:N	2.53	0.40
1:H:74:LYS:O	1:H:78:ILE:HG13	2.21	0.40
1:H:280:ASP:HA	1:H:283:ARG:NH1	2.36	0.40
1:I:54:GLU:HG3	1:I:56:ALA:HB3	2.02	0.40
1:I:231:GLN:O	1:I:235:VAL:HG13	2.21	0.40
1:K:292:ALA:O	1:K:295:ARG:HD3	2.21	0.40
1:L:294:VAL:HG11	1:P:113:PRO:HD2	2.02	0.40
1:L:302:LYS:HE2	1:P:133:ASN:HA	2.04	0.40
1:L:318:LYS:HD3	1:L:374:PHE:HB2	2.02	0.40
1:M:280:ASP:HA	1:M:283:ARG:NH1	2.36	0.40
1:M:292:ALA:O	1:M:295:ARG:HD3	2.21	0.40
1:N:46:HIS:HA	1:N:51:PRO:HA	2.02	0.40
1:N:280:ASP:HA	1:N:283:ARG:NH1	2.36	0.40
1:O:101:ILE:HD13	1:O:140:MET:HB2	2.02	0.40
1:O:310:HIS:O	1:O:314:ILE:HG12	2.21	0.40
1:P:280:ASP:HA	1:P:283:ARG:NH1	2.36	0.40
1:P:282:PHE:CE1	1:P:412:VAL:HG11	2.56	0.40
1:P:310:HIS:O	1:P:314:ILE:HG12	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:502:GLU:HB3	1:P:530:PRO:HB3	2.04	0.40
1:A:31:LEU:HA	1:A:34:ARG:HG2	2.02	0.40
1:A:187:ARG:HG3	1:A:288:LEU:HD11	2.02	0.40
1:B:125:PHE:HZ	1:B:155:ILE:HD11	1.86	0.40
1:D:63:MET:HE1	1:D:185:VAL:HG22	2.03	0.40
1:D:112:THR:HA	1:D:113:PRO:HD3	1.86	0.40
1:D:282:PHE:CE1	1:D:412:VAL:HG11	2.56	0.40
1:D:292:ALA:O	1:D:295:ARG:HD3	2.21	0.40
1:D:310:HIS:O	1:D:314:ILE:HG12	2.21	0.40
1:D:438:ASP:OD1	1:D:438:ASP:N	2.55	0.40
1:E:522:ASN:OD1	1:E:523:SER:N	2.53	0.40
1:F:46:HIS:HA	1:F:51:PRO:HA	2.02	0.40
1:G:60:ASN:C	1:G:60:ASN:ND2	2.74	0.40
1:G:231:GLN:O	1:G:235:VAL:HG13	2.21	0.40
1:H:231:GLN:O	1:H:235:VAL:HG13	2.21	0.40
1:I:310:HIS:O	1:I:314:ILE:HG12	2.21	0.40
1:J:46:HIS:HA	1:J:51:PRO:HA	2.02	0.40
1:K:280:ASP:HA	1:K:283:ARG:NH1	2.36	0.40
1:L:44:ARG:HA	1:L:46:HIS:CE1	2.57	0.40
1:L:60:ASN:C	1:L:60:ASN:ND2	2.74	0.40
1:N:318:LYS:HD3	1:N:374:PHE:HB2	2.02	0.40
1:N:435:GLU:HG2	1:N:478:LYS:CD	2.49	0.40
1:O:56:ALA:HB1	1:O:124:PRO:CA	2.36	0.40
1:P:120:ASP:HA	1:P:121:PRO:HD2	1.93	0.40
1:B:82:LEU:HD13	1:B:82:LEU:HA	1.88	0.40
1:B:431:GLU:O	1:B:434:LYS:HB2	2.21	0.40
1:E:282:PHE:CE1	1:E:412:VAL:HG11	2.56	0.40
1:F:280:ASP:HA	1:F:283:ARG:NH1	2.36	0.40
1:G:44:ARG:HA	1:G:46:HIS:CE1	2.57	0.40
1:G:502:GLU:HB3	1:G:530:PRO:HB3	2.04	0.40
1:H:282:PHE:CE1	1:H:412:VAL:HG11	2.56	0.40
1:I:74:LYS:O	1:I:78:ILE:HG13	2.21	0.40
1:J:60:ASN:C	1:J:60:ASN:ND2	2.74	0.40
1:J:74:LYS:O	1:J:78:ILE:HG13	2.21	0.40
1:K:117:LEU:HD12	1:K:117:LEU:HA	1.84	0.40
1:K:318:LYS:HD3	1:K:374:PHE:HB2	2.02	0.40
1:L:429:TYR:CE2	1:P:452:ASP:OD2	2.74	0.40
1:M:82:LEU:HD13	1:M:82:LEU:HA	1.88	0.40
1:M:231:GLN:O	1:M:235:VAL:HG13	2.21	0.40
1:N:120:ASP:HA	1:N:121:PRO:HD2	1.93	0.40
1:O:82:LEU:HD13	1:O:82:LEU:HA	1.88	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:358:GLU:OE1	1:O:361:ALA:N	2.36	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	512/514 (100%)	478 (93%)	34 (7%)	0	100	100
1	B	512/514 (100%)	479 (94%)	33 (6%)	0	100	100
1	C	512/514 (100%)	478 (93%)	34 (7%)	0	100	100
1	D	512/514 (100%)	478 (93%)	34 (7%)	0	100	100
1	E	512/514 (100%)	480 (94%)	32 (6%)	0	100	100
1	F	512/514 (100%)	479 (94%)	33 (6%)	0	100	100
1	G	512/514 (100%)	478 (93%)	34 (7%)	0	100	100
1	H	512/514 (100%)	479 (94%)	33 (6%)	0	100	100
1	I	512/514 (100%)	479 (94%)	33 (6%)	0	100	100
1	J	512/514 (100%)	478 (93%)	34 (7%)	0	100	100
1	K	512/514 (100%)	478 (93%)	34 (7%)	0	100	100
1	L	512/514 (100%)	478 (93%)	34 (7%)	0	100	100
1	M	512/514 (100%)	478 (93%)	34 (7%)	0	100	100
1	N	512/514 (100%)	480 (94%)	32 (6%)	0	100	100
1	O	512/514 (100%)	479 (94%)	33 (6%)	0	100	100
1	P	512/514 (100%)	479 (94%)	33 (6%)	0	100	100
All	All	8192/8224 (100%)	7658 (94%)	534 (6%)	0	100	100

There are no Ramachandran outliers to report.

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	450/450 (100%)	445 (99%)	5 (1%)	73	84
1	B	450/450 (100%)	445 (99%)	5 (1%)	73	84
1	C	450/450 (100%)	445 (99%)	5 (1%)	73	84
1	D	450/450 (100%)	445 (99%)	5 (1%)	73	84
1	E	450/450 (100%)	445 (99%)	5 (1%)	73	84
1	F	450/450 (100%)	445 (99%)	5 (1%)	73	84
1	G	450/450 (100%)	445 (99%)	5 (1%)	73	84
1	H	450/450 (100%)	445 (99%)	5 (1%)	73	84
1	I	450/450 (100%)	445 (99%)	5 (1%)	73	84
1	J	450/450 (100%)	445 (99%)	5 (1%)	73	84
1	K	450/450 (100%)	445 (99%)	5 (1%)	73	84
1	L	450/450 (100%)	445 (99%)	5 (1%)	73	84
1	M	450/450 (100%)	445 (99%)	5 (1%)	73	84
1	N	450/450 (100%)	445 (99%)	5 (1%)	73	84
1	O	450/450 (100%)	445 (99%)	5 (1%)	73	84
1	P	450/450 (100%)	445 (99%)	5 (1%)	73	84
All	All	7200/7200 (100%)	7120 (99%)	80 (1%)	74	84

All (80) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	44	ARG
1	A	60	ASN
1	A	138	ARG
1	A	295	ARG
1	A	472	LYS
1	B	44	ARG
1	B	60	ASN
1	B	138	ARG

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Mol	Chain	Res	Type
1	B	295	ARG
1	B	472	LYS
1	C	44	ARG
1	C	60	ASN
1	C	138	ARG
1	C	295	ARG
1	C	472	LYS
1	D	44	ARG
1	D	60	ASN
1	D	138	ARG
1	D	295	ARG
1	D	472	LYS
1	E	44	ARG
1	E	60	ASN
1	E	138	ARG
1	E	295	ARG
1	E	472	LYS
1	F	44	ARG
1	F	60	ASN
1	F	138	ARG
1	F	295	ARG
1	F	472	LYS
1	G	44	ARG
1	G	60	ASN
1	G	138	ARG
1	G	295	ARG
1	G	472	LYS
1	H	44	ARG
1	H	60	ASN
1	H	138	ARG
1	H	295	ARG
1	H	472	LYS
1	I	44	ARG
1	I	60	ASN
1	I	138	ARG
1	I	295	ARG
1	I	472	LYS
1	J	44	ARG
1	J	60	ASN
1	J	138	ARG
1	J	295	ARG
1	J	472	LYS

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Mol	Chain	Res	Type
1	K	44	ARG
1	K	60	ASN
1	K	138	ARG
1	K	295	ARG
1	K	472	LYS
1	L	44	ARG
1	L	60	ASN
1	L	138	ARG
1	L	295	ARG
1	L	472	LYS
1	M	44	ARG
1	M	60	ASN
1	M	138	ARG
1	M	295	ARG
1	M	472	LYS
1	N	44	ARG
1	N	60	ASN
1	N	138	ARG
1	N	295	ARG
1	N	472	LYS
1	O	44	ARG
1	O	60	ASN
1	O	138	ARG
1	O	295	ARG
1	O	472	LYS
1	P	44	ARG
1	P	60	ASN
1	P	138	ARG
1	P	295	ARG
1	P	472	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (63) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	176	GLN
1	A	391	ASN
1	A	413	GLN
1	A	426	ASN
1	B	176	GLN
1	B	391	ASN
1	B	413	GLN
1	C	176	GLN

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Mol	Chain	Res	Type
1	C	391	ASN
1	C	413	GLN
1	C	426	ASN
1	D	60	ASN
1	D	176	GLN
1	D	391	ASN
1	D	413	GLN
1	E	176	GLN
1	E	391	ASN
1	E	413	GLN
1	F	60	ASN
1	F	176	GLN
1	F	391	ASN
1	F	413	GLN
1	G	60	ASN
1	G	176	GLN
1	G	391	ASN
1	G	413	GLN
1	G	426	ASN
1	H	176	GLN
1	H	391	ASN
1	H	413	GLN
1	I	60	ASN
1	I	176	GLN
1	I	391	ASN
1	I	413	GLN
1	J	176	GLN
1	J	391	ASN
1	J	413	GLN
1	J	426	ASN
1	K	176	GLN
1	K	391	ASN
1	K	413	GLN
1	K	426	ASN
1	L	60	ASN
1	L	176	GLN
1	L	391	ASN
1	L	413	GLN
1	L	426	ASN
1	M	176	GLN
1	M	391	ASN
1	M	413	GLN

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Mol	Chain	Res	Type
1	N	176	GLN
1	N	391	ASN
1	N	413	GLN
1	N	426	ASN
1	O	176	GLN
1	O	391	ASN
1	O	413	GLN
1	P	60	ASN
1	P	115	ASN
1	P	176	GLN
1	P	391	ASN
1	P	413	GLN
1	P	426	ASN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-25362. These allow visual inspection of the internal detail of the map and identification of artifacts.

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

6.1 Orthogonal projections [i](#)

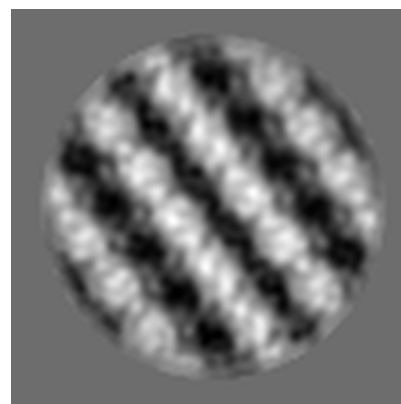
6.1.1 Primary map



X

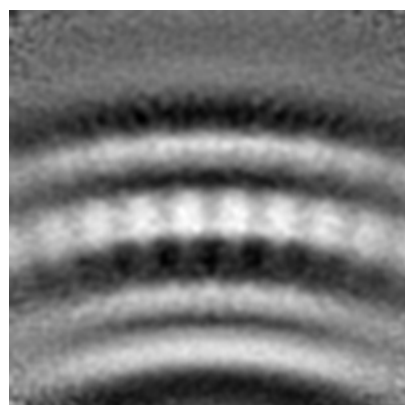


Y

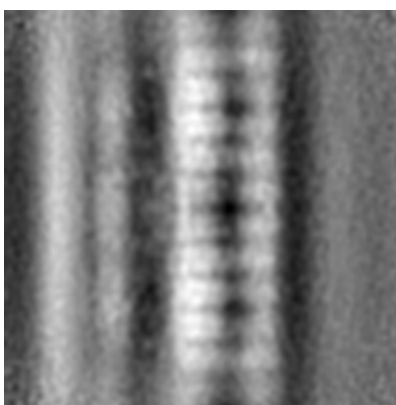


Z

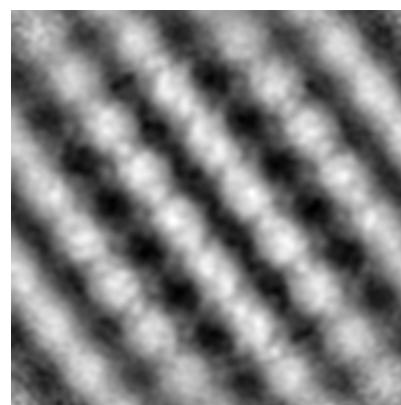
6.1.2 Raw map



X



Y

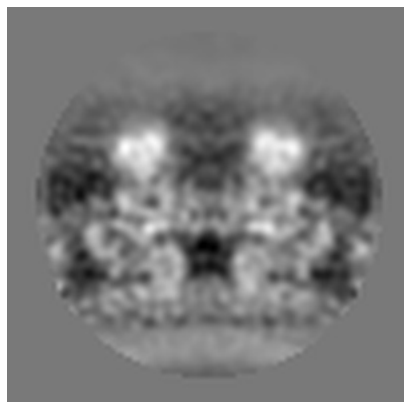


Z

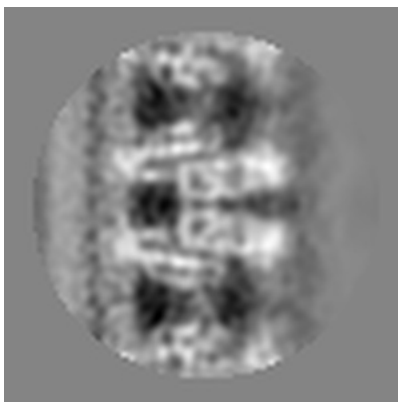
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

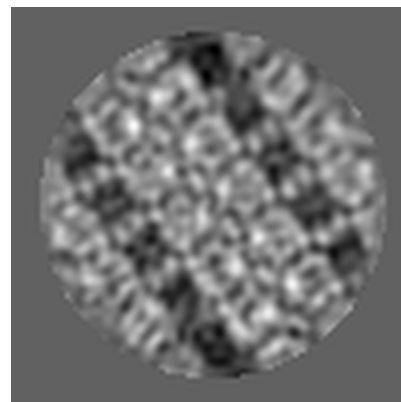
6.2.1 Primary map



X Index: 48



Y Index: 48

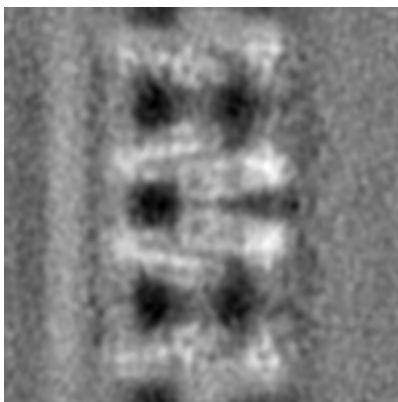


Z Index: 48

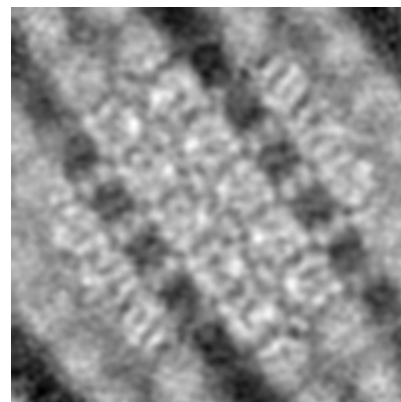
6.2.2 Raw map



X Index: 48



Y Index: 48

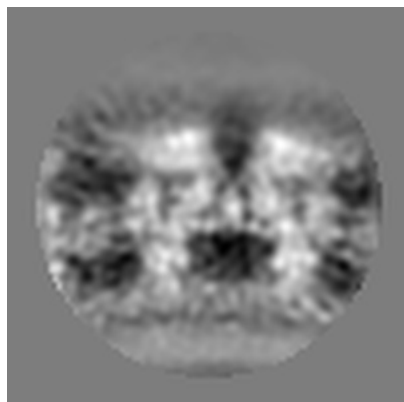


Z Index: 48

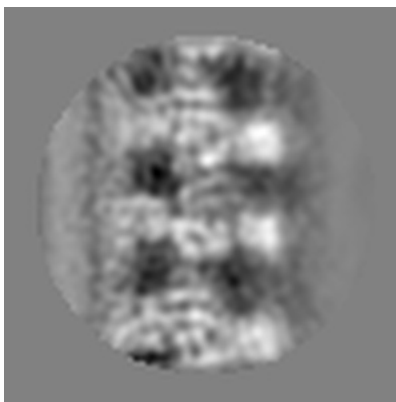
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

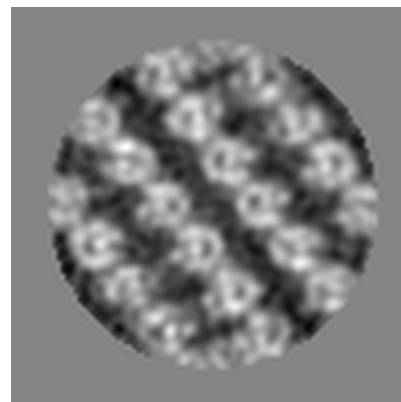
6.3.1 Primary map



X Index: 44



Y Index: 40

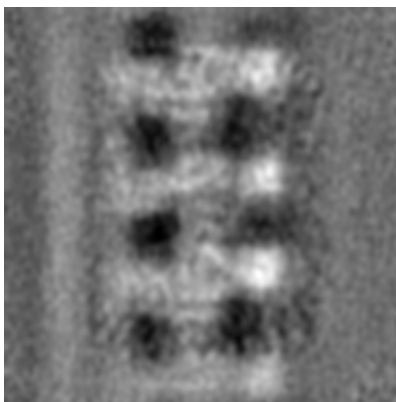


Z Index: 35

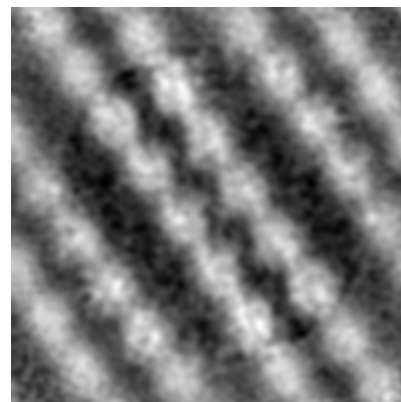
6.3.2 Raw map



X Index: 40



Y Index: 56

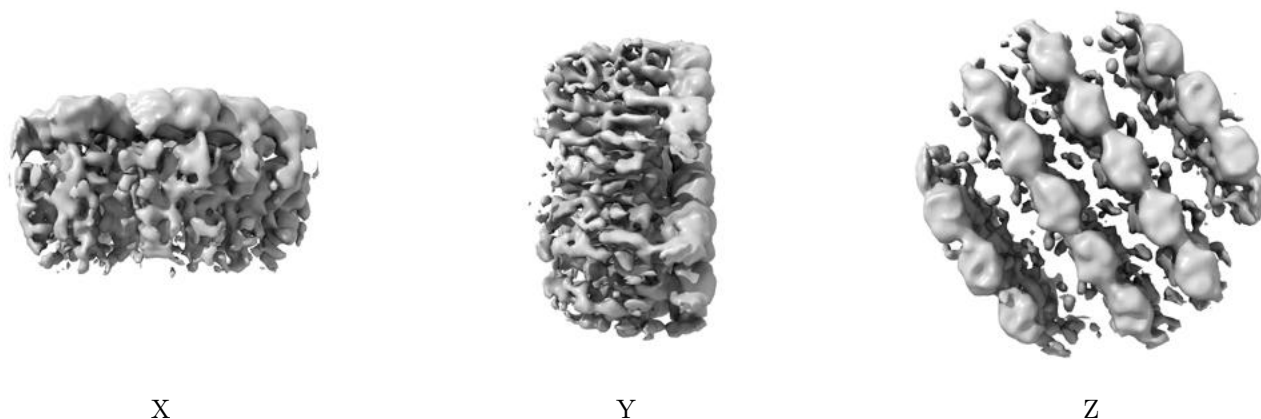


Z Index: 57

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

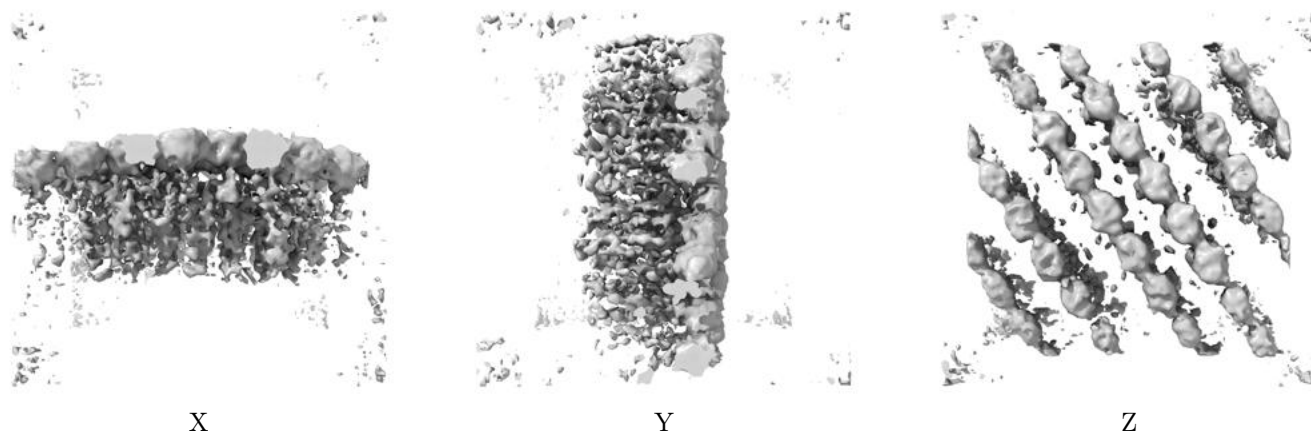
6.4 Orthogonal surface views [i](#)

6.4.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 2.22. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.4.2 Raw map



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

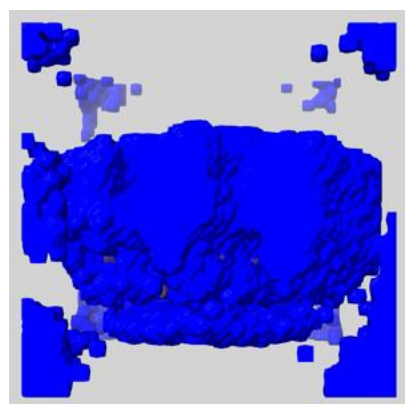
6.5 Mask visualisation [i](#)

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

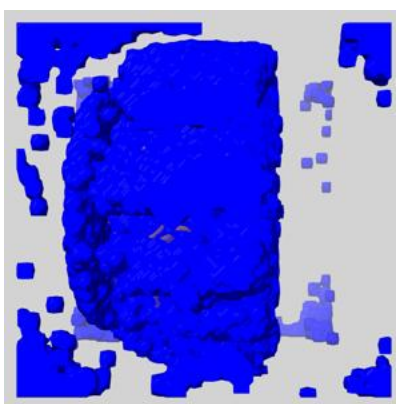
A mask typically either:

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

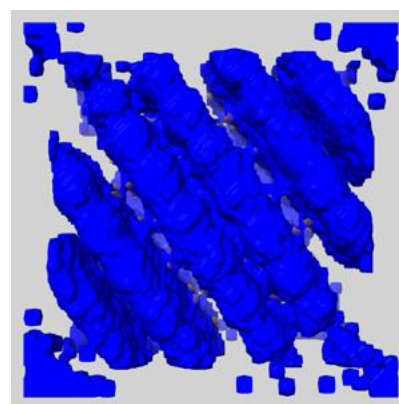
6.5.1 emd_25362_msk_1.map [i](#)



X



Y

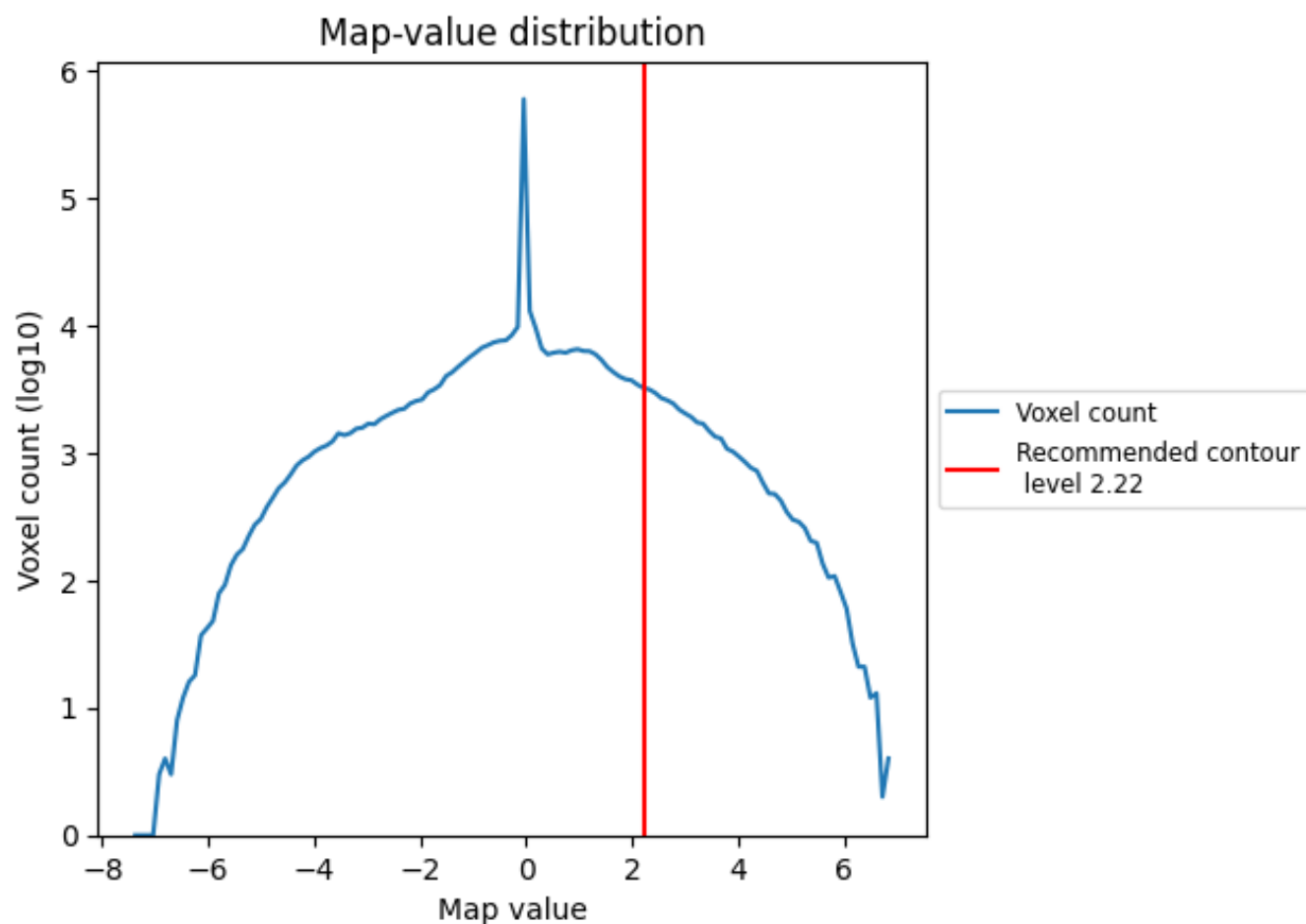


Z

7 Map analysis [i](#)

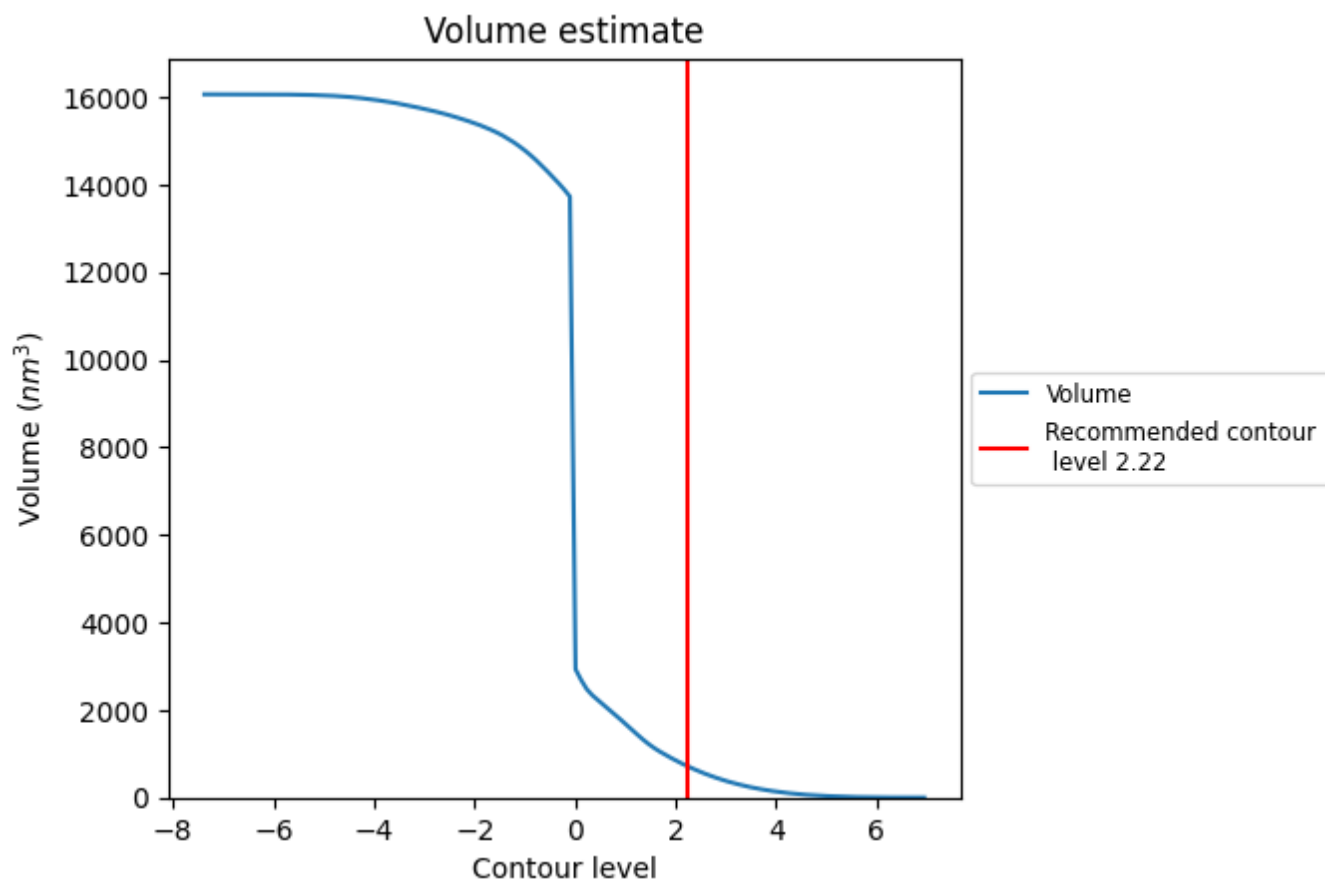
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

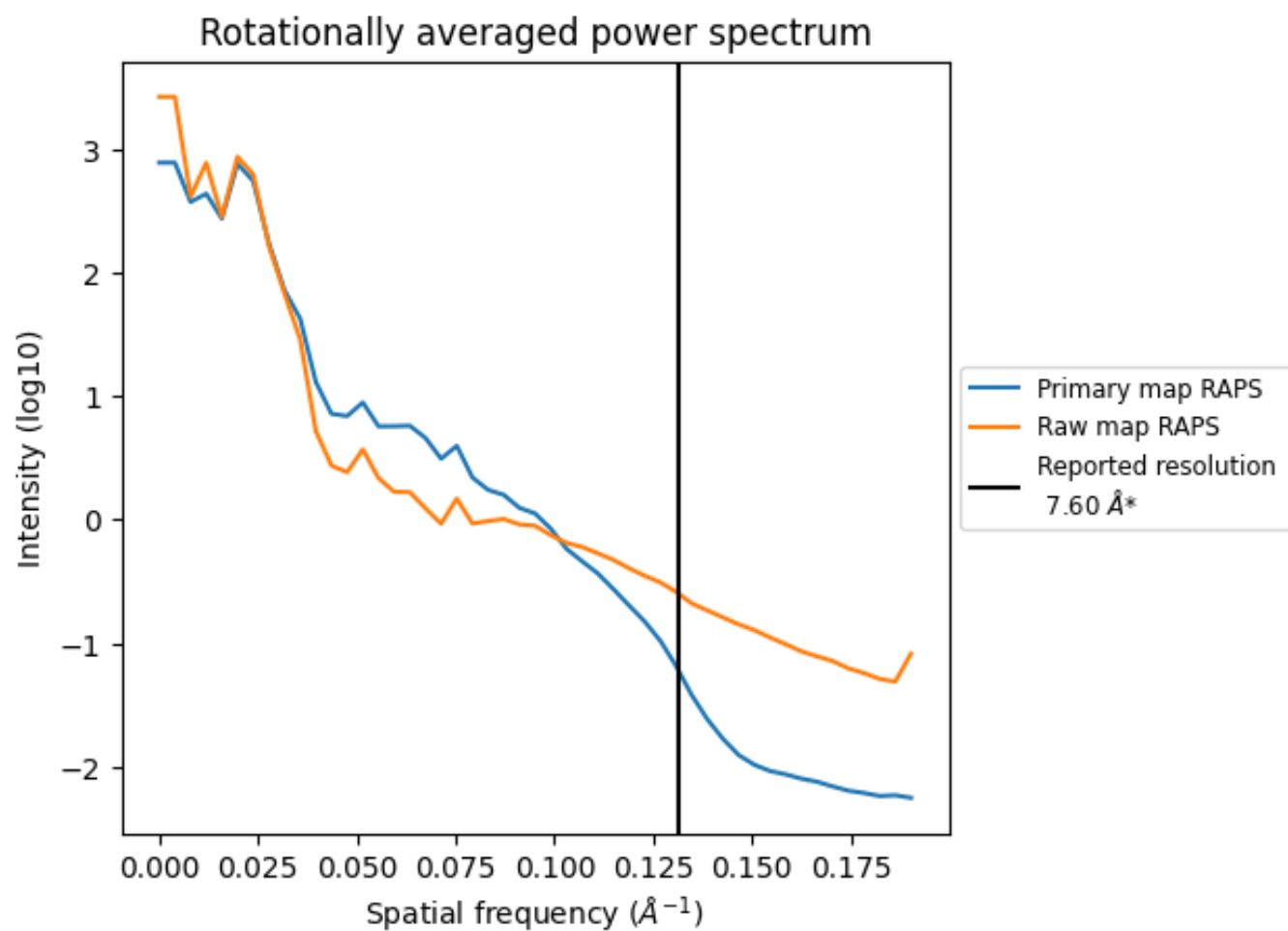
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 726 nm³; this corresponds to an approximate mass of 656 kDa.

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

7.3 Rotationally averaged power spectrum ⓘ

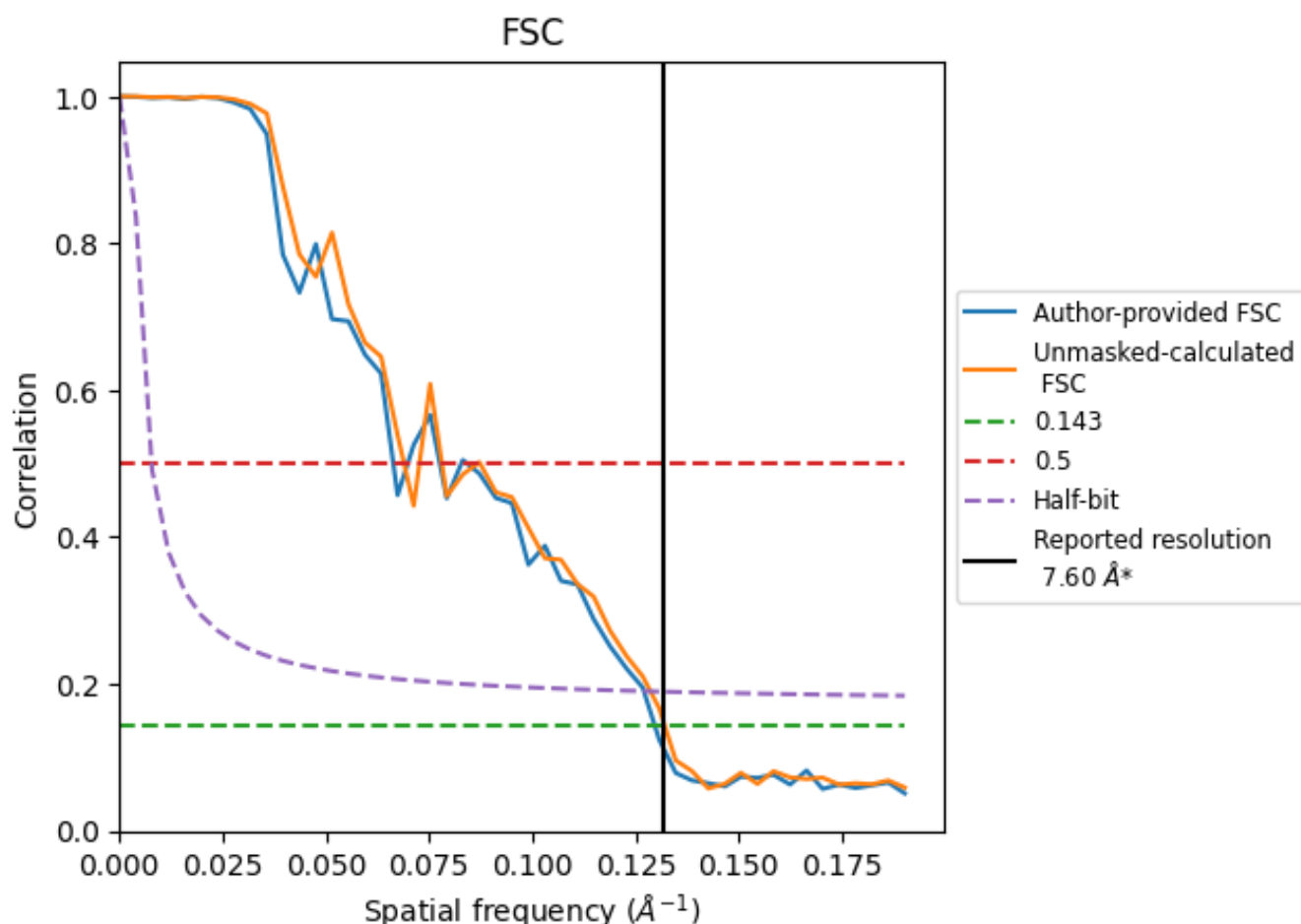


*Reported resolution corresponds to spatial frequency of 0.132 Å⁻¹

8 Fourier-Shell correlation [i](#)

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

8.1 FSC [i](#)



*Reported resolution corresponds to spatial frequency of 0.132 \AA^{-1}

8.2 Resolution estimates [i](#)

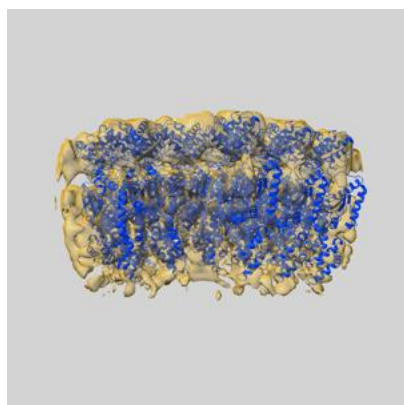
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	7.60	-	-
Author-provided FSC curve	7.71	15.06	7.87
Unmasked-calculated*	7.57	14.49	7.77

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

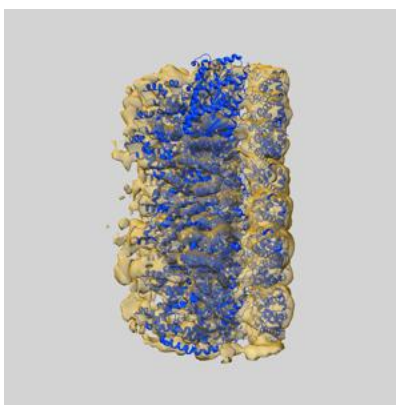
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-25362 and PDB model 7SOX. Per-residue inclusion information can be found in section 3 on page 5.

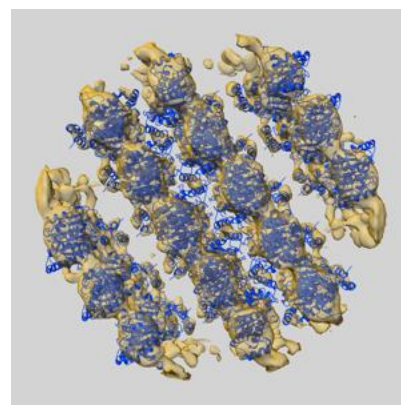
9.1 Map-model overlay [i](#)



X



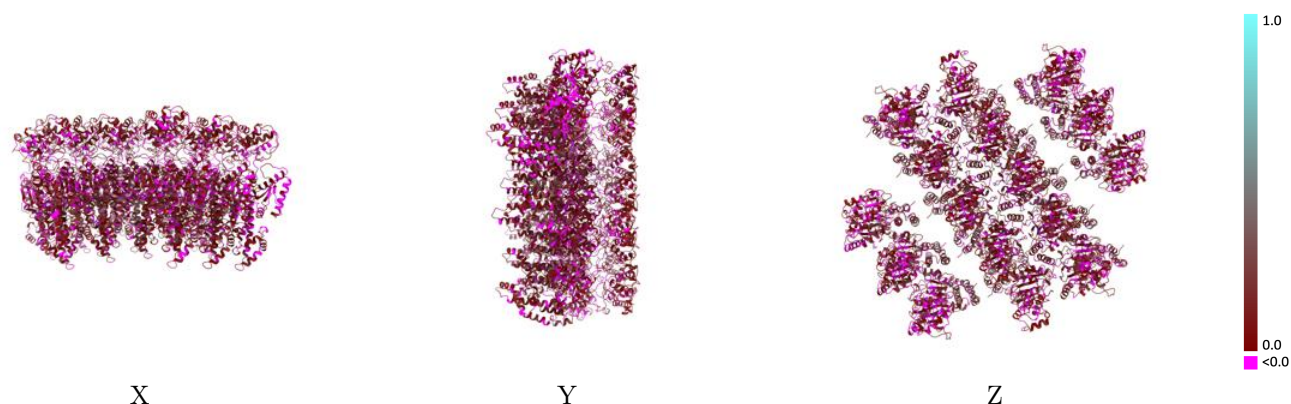
Y



Z

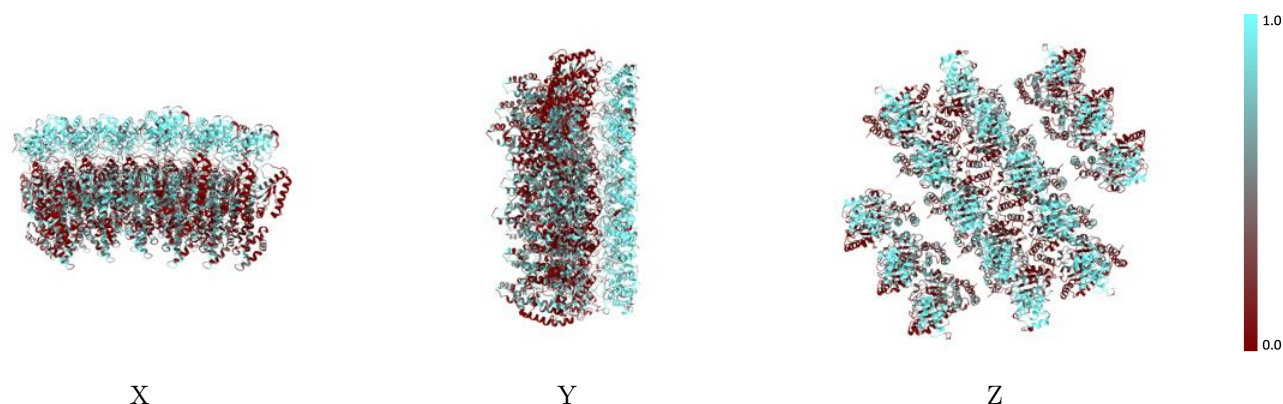
The images above show the 3D surface view of the map at the recommended contour level 2.22 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



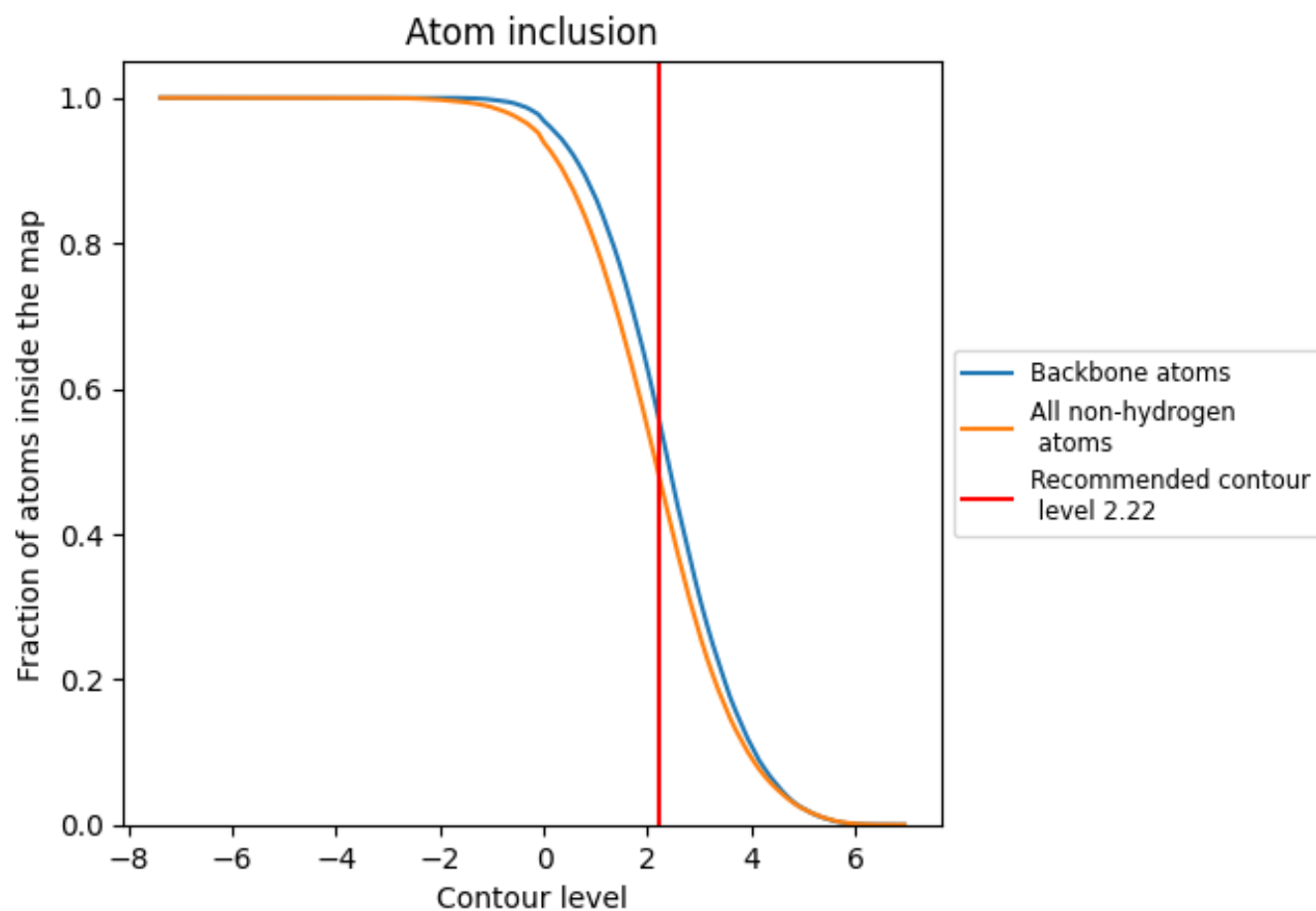
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (2.22).

9.4 Atom inclusion [i](#)



At the recommended contour level, 56% of all backbone atoms, 48% 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 (2.22) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	<div></div> 0.4809	<div></div> 0.0860
A	<div></div> 0.5285	<div></div> 0.1000
B	<div></div> 0.5258	<div></div> 0.0940
C	<div></div> 0.5344	<div></div> 0.0980
D	<div></div> 0.5263	<div></div> 0.1000
E	<div></div> 0.5105	<div></div> 0.0980
F	<div></div> 0.4851	<div></div> 0.0890
G	<div></div> 0.4527	<div></div> 0.0840
H	<div></div> 0.4653	<div></div> 0.0810
I	<div></div> 0.4996	<div></div> 0.0890
J	<div></div> 0.5347	<div></div> 0.0980
K	<div></div> 0.4500	<div></div> 0.0880
L	<div></div> 0.4488	<div></div> 0.0810
M	<div></div> 0.4735	<div></div> 0.0770
N	<div></div> 0.4777	<div></div> 0.0800
O	<div></div> 0.4071	<div></div> 0.0620
P	<div></div> 0.3747	<div></div> 0.0500

