wwPDB EM Map/Model Validation Report (i)

Aug 31, 2016 – 03:32 PM BST

PDB ID	:	1gr5
EMDB ID:	:	EMD-1042
Title	:	Solution Structure of apo GroEL by Cryo-Electron microscopy
Authors	:	Ranson, N.A.; Farr, G.W.; Roseman, A.M.; Gowen, B.; Fenton, W.A.; Horwich, A.L.; Saibil, H.R.
Deposited on	:	2001-12-14
Resolution	:	7.90 Å(reported)
Based on PDB ID	:	1DER

This is a wwPDB EM Map/Model Validation Report for a publicly released PDB/EMDB entry.
For rigid body fitted models, validation errors reported here could
stem from errors in the original structure(s) used in the fitting.
We welcome your comments at validation@mail.wwpdb.org
A user guide is available at
http://wwpdb.org/validation/2016/EMValidationReportHelp

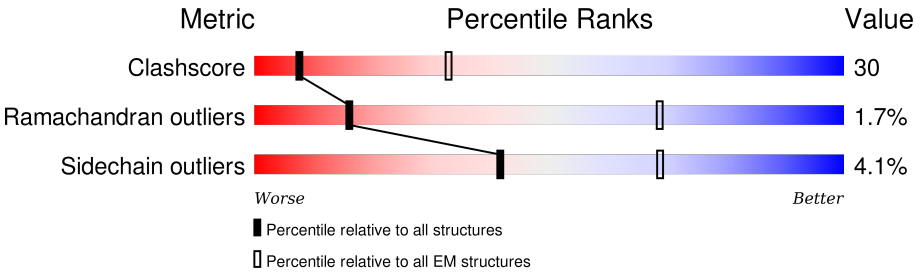
MolProbity	:	4.02b-467
Mogul	:	NOT EXECUTED
Percentile statistics	:	20151230.v01 (using entries in the PDB archive December 30th 2015)
EM map analysis	:	Beta 0.1
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et. al. (1996)
Validation Pipeline (wwPDB-VP)	:	trunk27980

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 7.90 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	114402	924
Ramachandran outliers	111179	726
Sidechain outliers	111093	686

The table below summarises the geometric issues observed across the polymeric chains. The red, orange, yellow and green segments on the bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5%

Mol	Chain	Length	Quality of chain
1	A	547	59% 33% • 5%
1	B	547	60% 33% • 5%
1	C	547	61% 32% • 5%
1	D	547	60% 33% • 5%
1	E	547	60% 33% • 5%
1	F	547	60% 33% • 5%
1	G	547	60% 33% • 5%
1	H	547	59% 34% • 5%
1	I	547	58% 34% • 5%

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Mol	Chain	Length	Quality of chain
1	J	547	58% 35% • 5%
1	K	547	58% 34% • 5%
1	L	547	58% 35% • 5%
1	M	547	58% 35% • 5%
1	N	547	58% 35% • 5%

2 Entry composition

There is only 1 type of molecule in this entry. The entry contains 52668 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 60 KDA CHAPERONIN.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	517	Total	C	N	O	S	0	0
			3762	2372	614	757	19		
1	B	517	Total	C	N	O	S	0	0
			3762	2372	614	757	19		
1	C	517	Total	C	N	O	S	0	0
			3762	2372	614	757	19		
1	D	517	Total	C	N	O	S	0	0
			3762	2372	614	757	19		
1	E	517	Total	C	N	O	S	0	0
			3762	2372	614	757	19		
1	F	517	Total	C	N	O	S	0	0
			3762	2372	614	757	19		
1	G	517	Total	C	N	O	S	0	0
			3762	2372	614	757	19		
1	H	517	Total	C	N	O	S	0	0
			3762	2372	614	757	19		
1	I	517	Total	C	N	O	S	0	0
			3762	2372	614	757	19		
1	J	517	Total	C	N	O	S	0	0
			3762	2372	614	757	19		
1	K	517	Total	C	N	O	S	0	0
			3762	2372	614	757	19		
1	L	517	Total	C	N	O	S	0	0
			3762	2372	614	757	19		
1	M	517	Total	C	N	O	S	0	0
			3762	2372	614	757	19		
1	N	517	Total	C	N	O	S	0	0
			3762	2372	614	757	19		

There are 28 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	13	GLY	ARG	ENGINEERED MUTATION	UNP P0A6F6
A	126	VAL	ALA	ENGINEERED MUTATION	UNP P0A6F6

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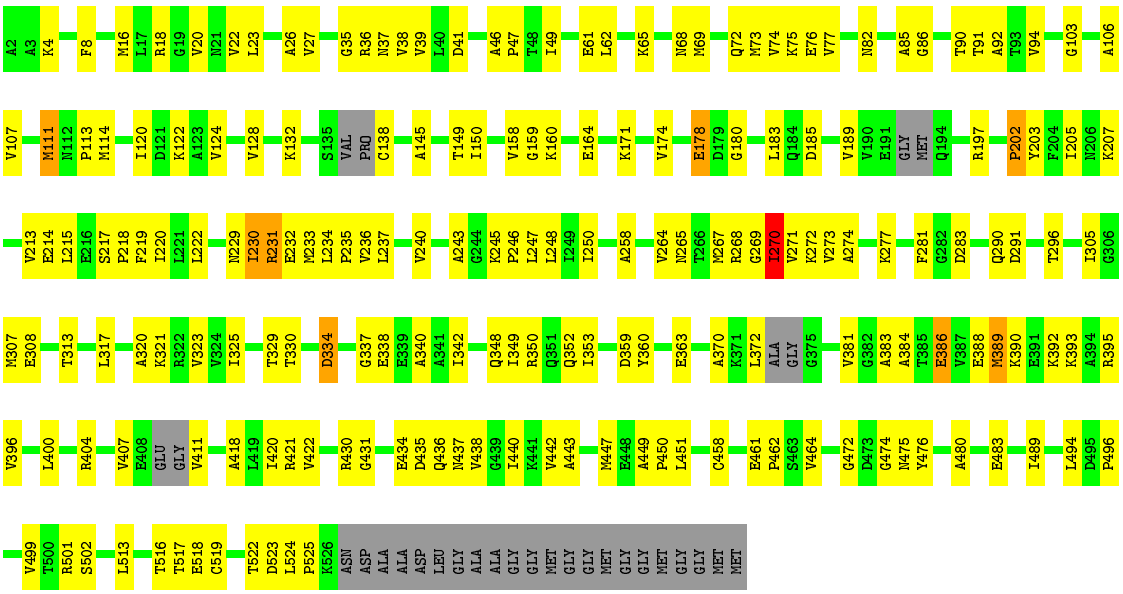
Chain	Residue	Modelled	Actual	Comment	Reference
B	13	GLY	ARG	ENGINEERED MUTATION	UNP P0A6F6
B	126	VAL	ALA	ENGINEERED MUTATION	UNP P0A6F6
C	13	GLY	ARG	ENGINEERED MUTATION	UNP P0A6F6
C	126	VAL	ALA	ENGINEERED MUTATION	UNP P0A6F6
D	13	GLY	ARG	ENGINEERED MUTATION	UNP P0A6F6
D	126	VAL	ALA	ENGINEERED MUTATION	UNP P0A6F6
E	13	GLY	ARG	ENGINEERED MUTATION	UNP P0A6F6
E	126	VAL	ALA	ENGINEERED MUTATION	UNP P0A6F6
F	13	GLY	ARG	ENGINEERED MUTATION	UNP P0A6F6
F	126	VAL	ALA	ENGINEERED MUTATION	UNP P0A6F6
G	13	GLY	ARG	ENGINEERED MUTATION	UNP P0A6F6
G	126	VAL	ALA	ENGINEERED MUTATION	UNP P0A6F6
H	13	GLY	ARG	ENGINEERED MUTATION	UNP P0A6F6
H	126	VAL	ALA	ENGINEERED MUTATION	UNP P0A6F6
I	13	GLY	ARG	ENGINEERED MUTATION	UNP P0A6F6
I	126	VAL	ALA	ENGINEERED MUTATION	UNP P0A6F6
J	13	GLY	ARG	ENGINEERED MUTATION	UNP P0A6F6
J	126	VAL	ALA	ENGINEERED MUTATION	UNP P0A6F6
K	13	GLY	ARG	ENGINEERED MUTATION	UNP P0A6F6
K	126	VAL	ALA	ENGINEERED MUTATION	UNP P0A6F6
L	13	GLY	ARG	ENGINEERED MUTATION	UNP P0A6F6
L	126	VAL	ALA	ENGINEERED MUTATION	UNP P0A6F6
M	13	GLY	ARG	ENGINEERED MUTATION	UNP P0A6F6
M	126	VAL	ALA	ENGINEERED MUTATION	UNP P0A6F6
N	13	GLY	ARG	ENGINEERED MUTATION	UNP P0A6F6
N	126	VAL	ALA	ENGINEERED MUTATION	UNP P0A6F6

3 Residue-property plots (i)

These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry. 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. 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.

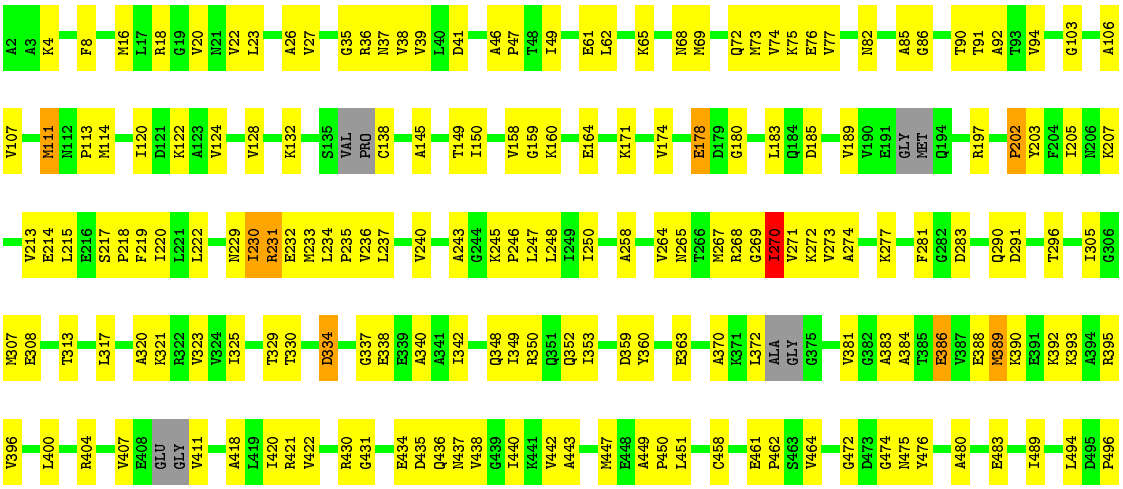
- Molecule 1: 60 KDA CHAPERONIN

Chain A:



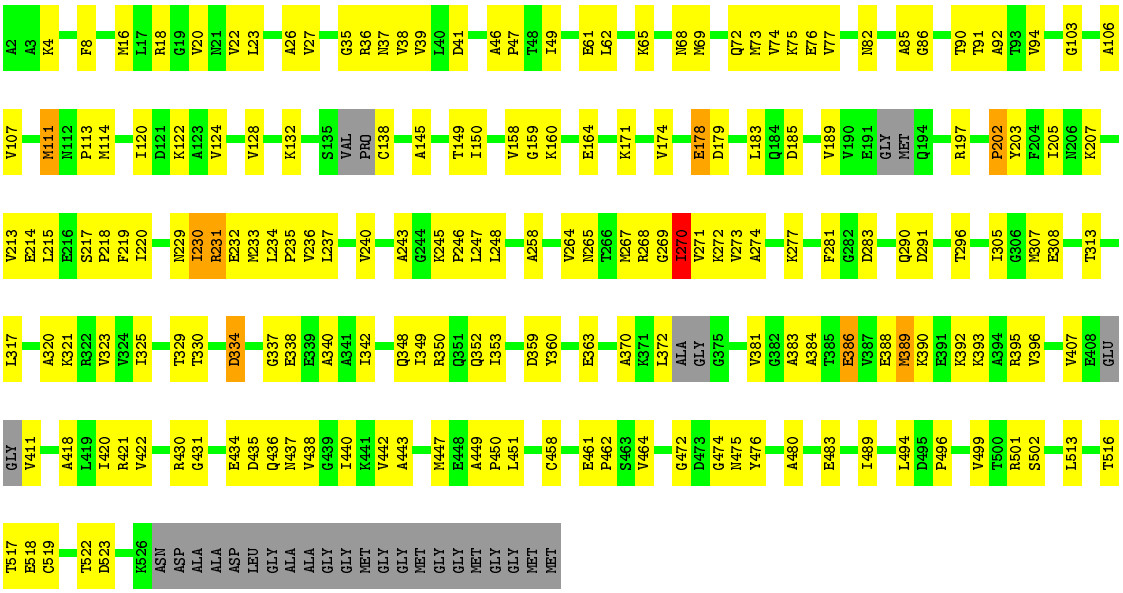
- Molecule 1: 60 KDA CHAPERONIN

Chain B:



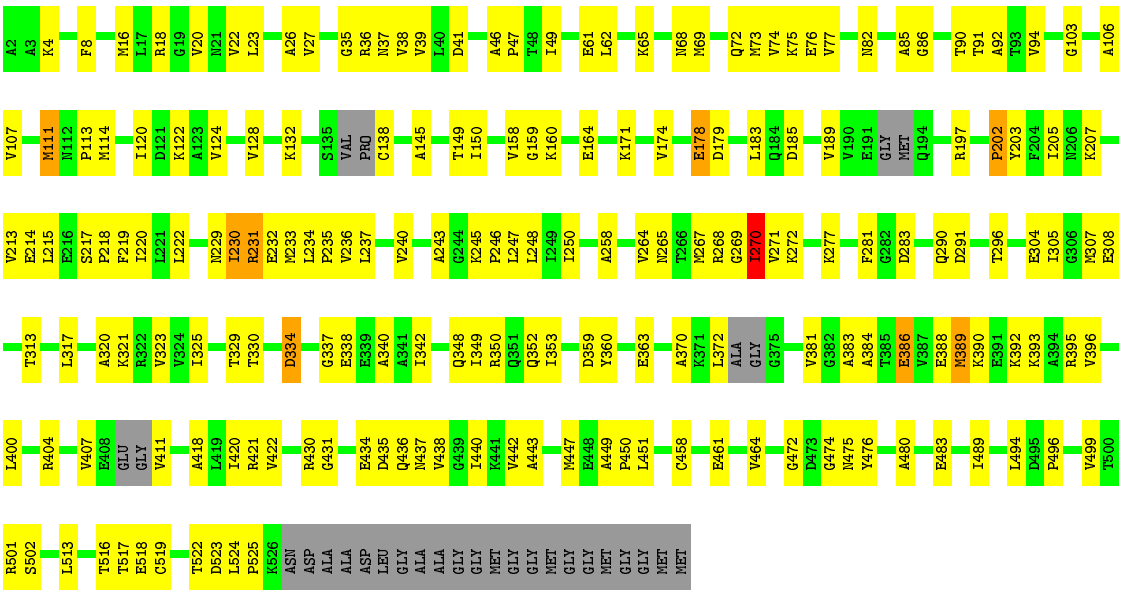
• Molecule 1: 60 KDA CHAPERONIN

Chain C:



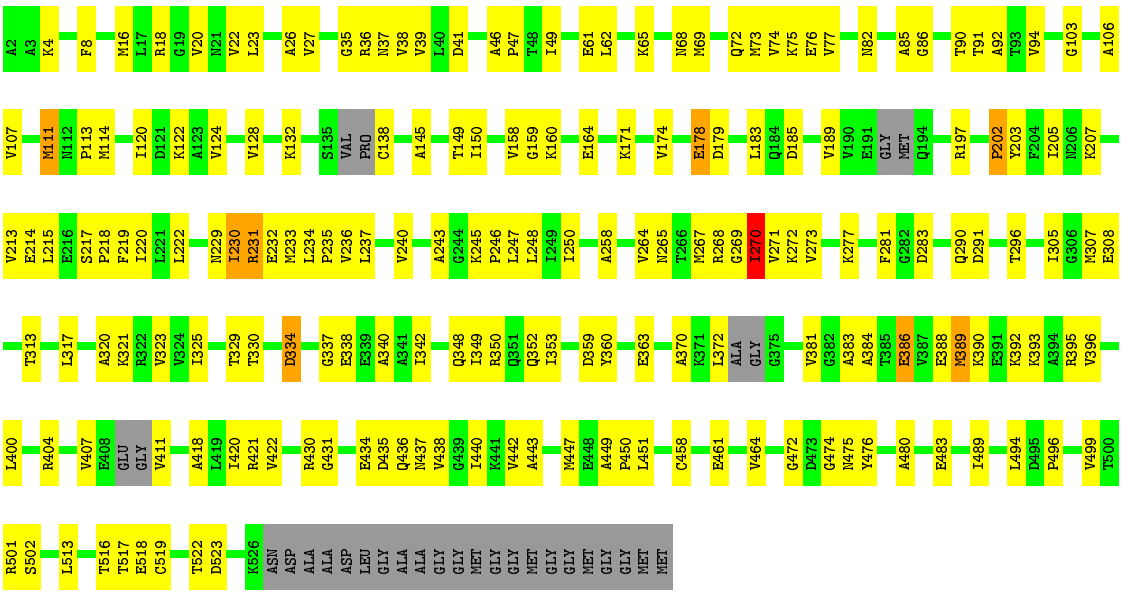
• Molecule 1: 60 KDA CHAPERONIN

Chain D:



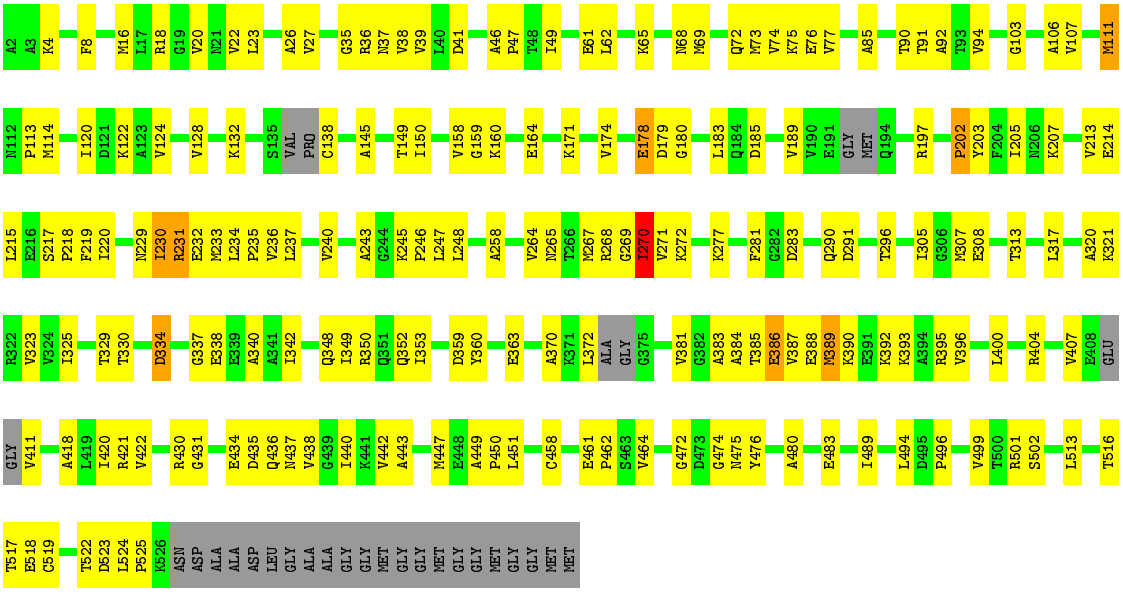
• Molecule 1: 60 KDA CHAPERONIN

Chain E:



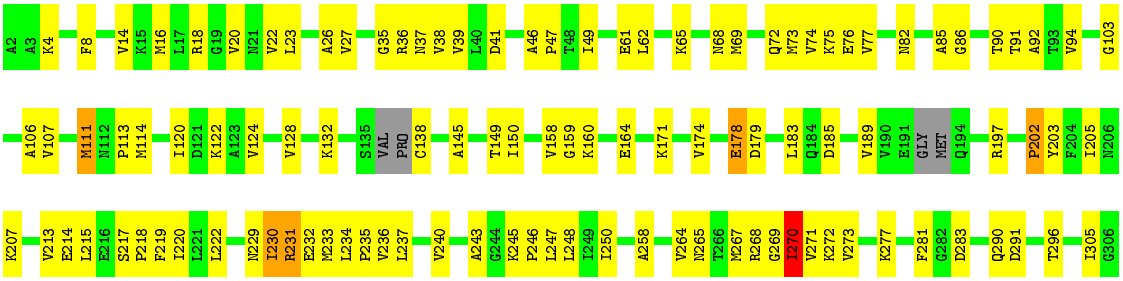
• Molecule 1: 60 KDA CHAPERONIN

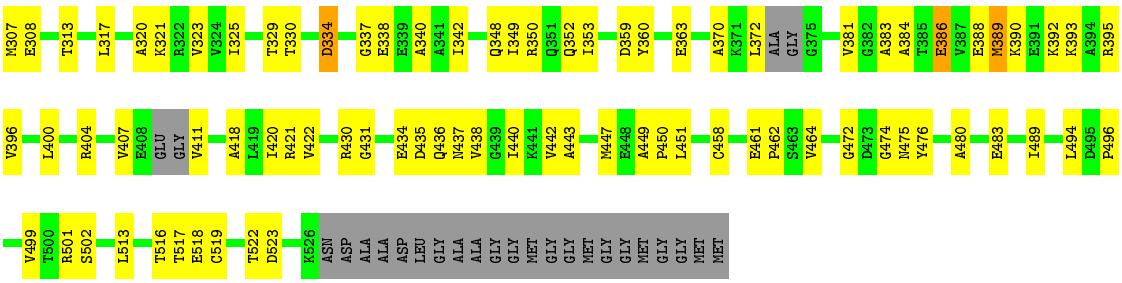
Chain F:



• Molecule 1: 60 KDA CHAPERONIN

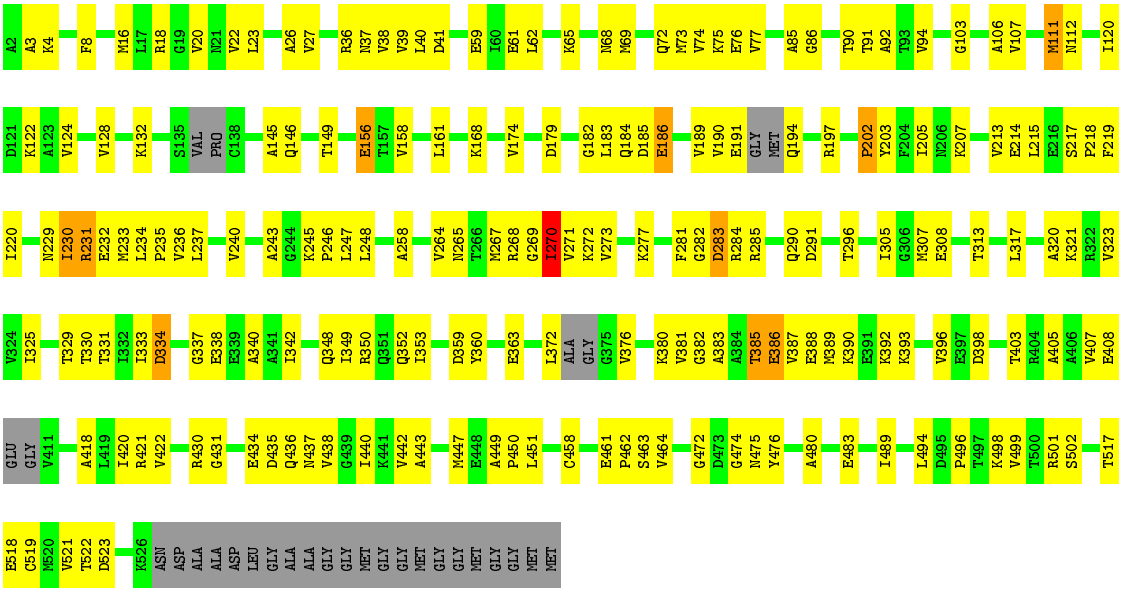
Chain G:





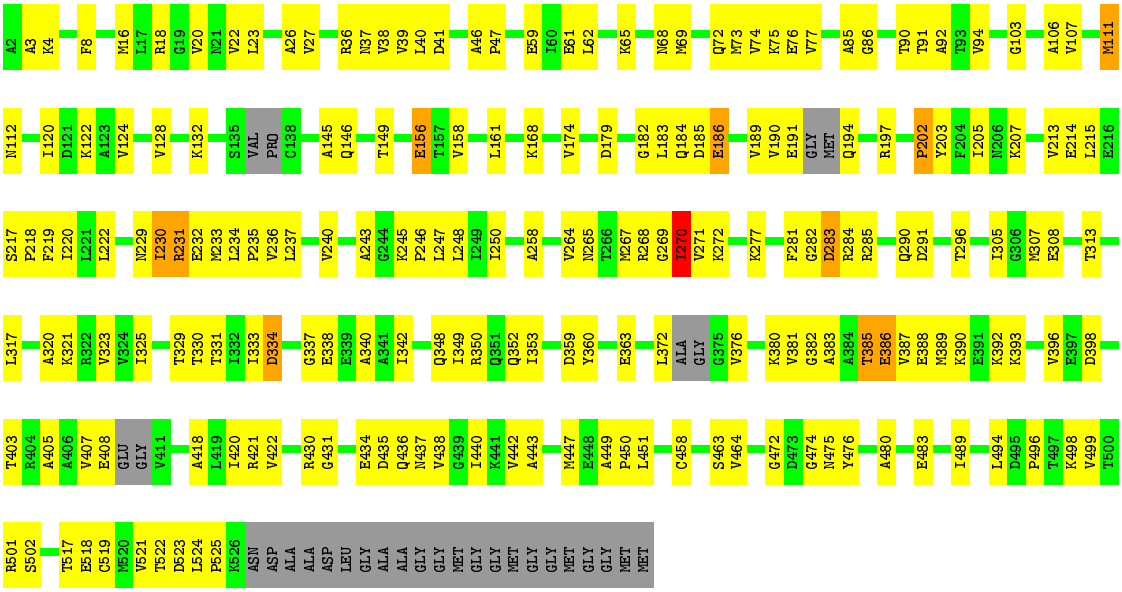
• Molecule 1: 60 KDA CHAPERONIN

Chain H:



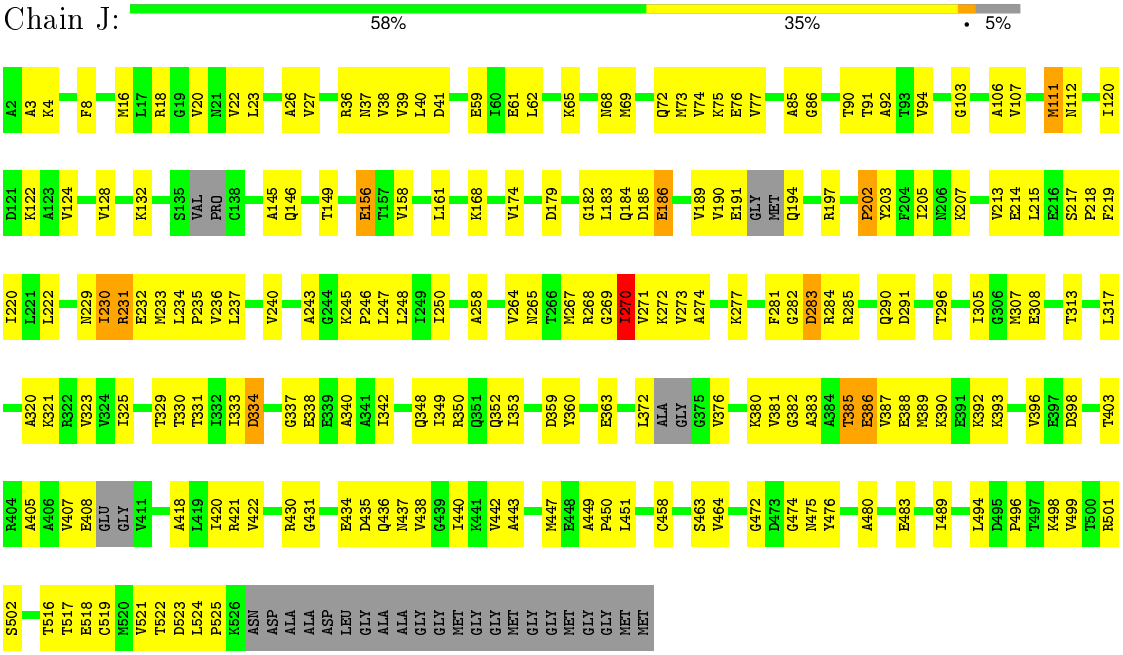
• Molecule 1: 60 KDA CHAPERONIN

Chain I:



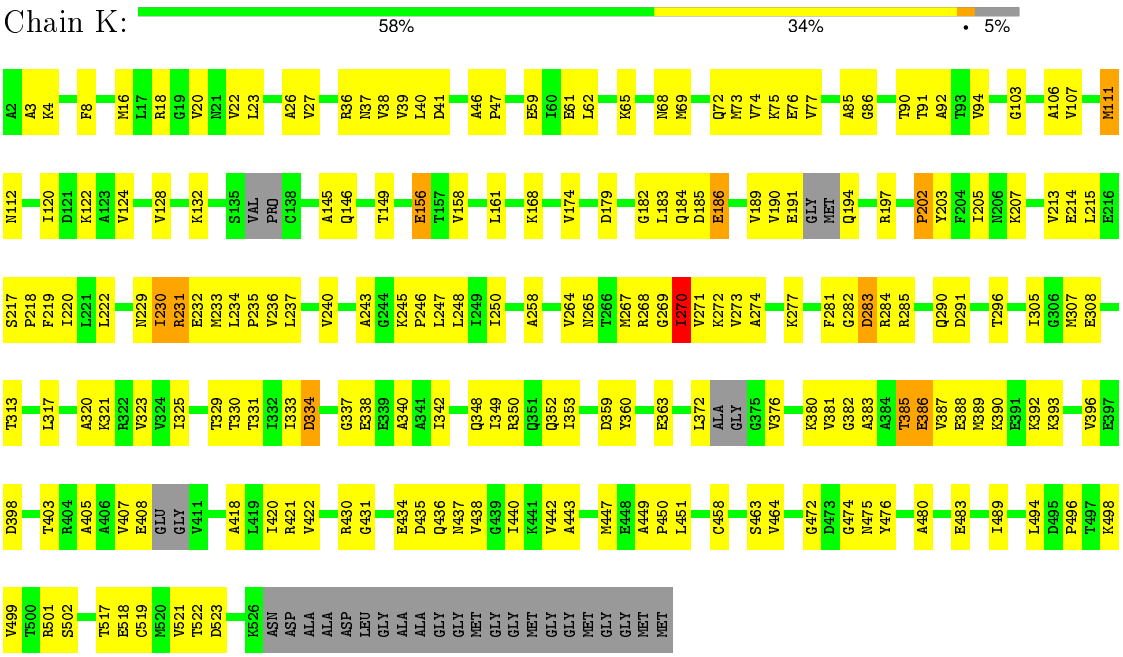
- Molecule 1: 60 KDA CHAPERONIN

Chain J:



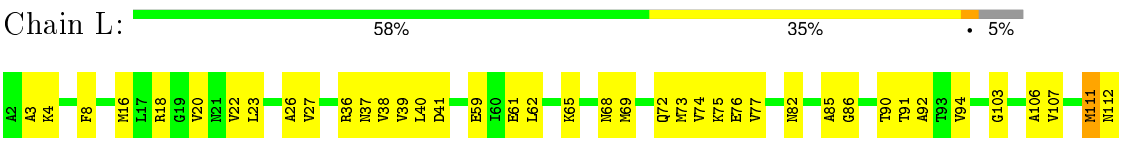
- Molecule 1: 60 KDA CHAPERONIN

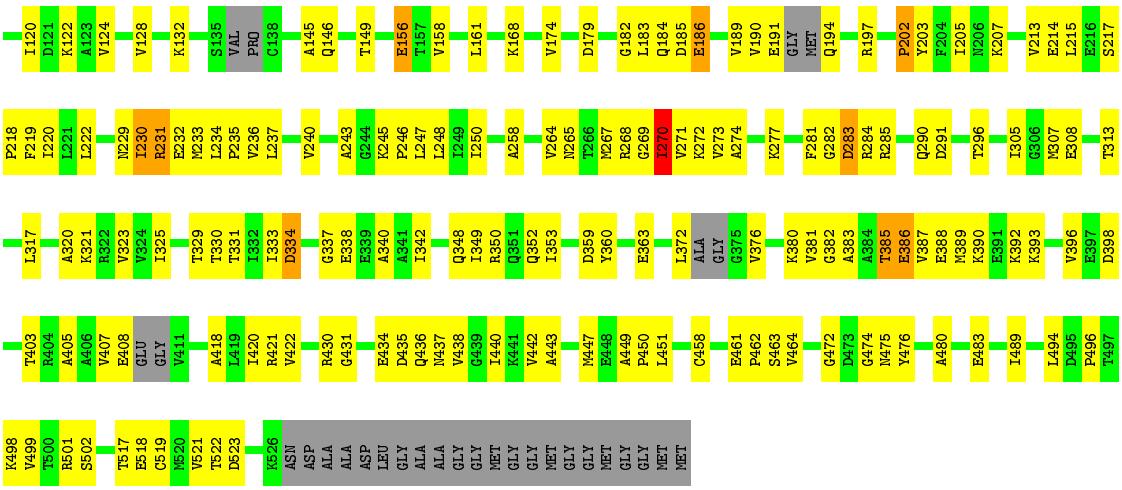
Chain K:



- Molecule 1: 60 KDA CHAPERONIN

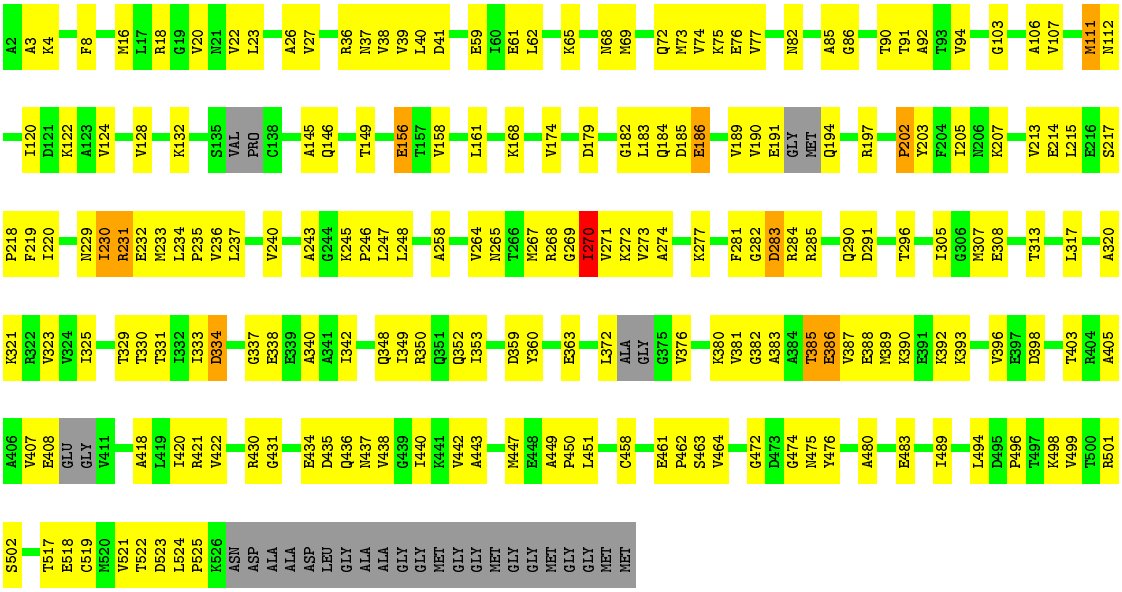
Chain L:





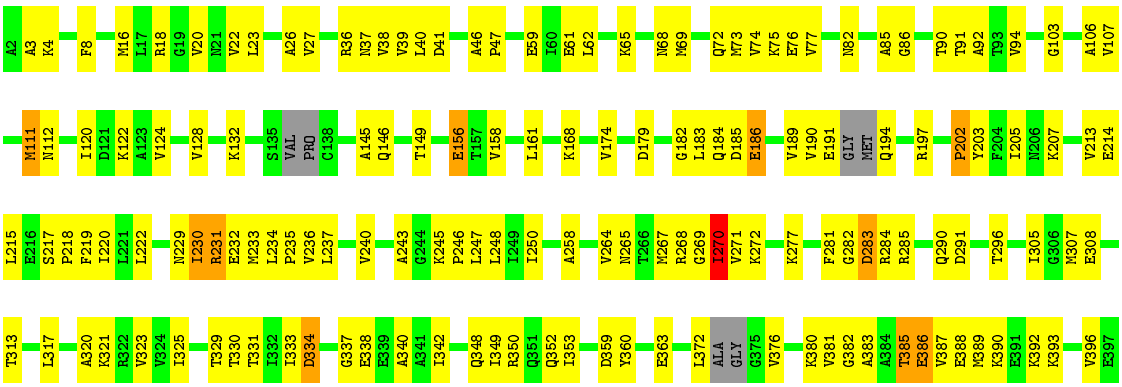
• Molecule 1: 60 KDA CHAPERONIN

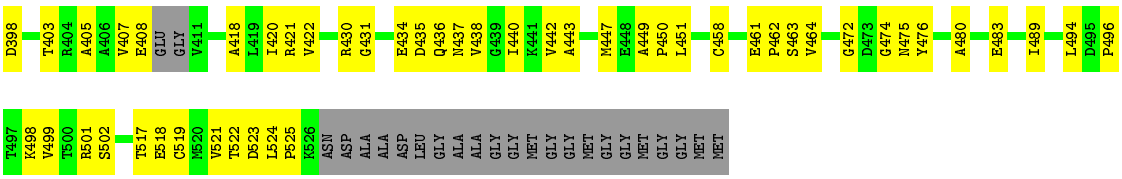
Chain M:



• Molecule 1: 60 KDA CHAPERONIN

Chain N:

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R404
A405
A406
V407
E408
GLU
GLY
V411
A418
L419
T420
R421
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E434
D435
Q436
N437
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G439
I440
K441
V442
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C458
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T517
E518
C519
M520
V521
T522
D523
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P525
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ASP
ALA
ALA
ASP
LEU
GLY
ALA
ALA
GLY
GLY
MET
GLY
GLY
MET
GLY
GLY
MET
GLY
GLY
MET
MET

4 Experimental information (i)

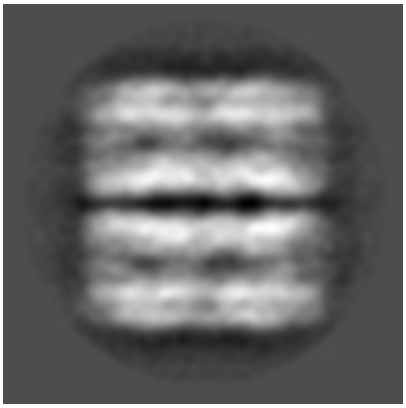
Property	Value	Source
Reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	Depositor
Number of particles used	Not provided	Depositor
Resolution determination method	Not provided	Depositor
CTF correction method	CLASS AVERAGES	Depositor
Microscope	FEI CM200	Depositor
Voltage (kV)	200	Depositor
Electron dose ($e^-/Å^2$)	Not provided	Depositor
Minimum defocus (nm)	800	Depositor
Maximum defocus (nm)	1900	Depositor
Magnification	40200	Depositor
Image detector	KODAK SO-163 FILM	Depositor

5 Visual analysis

5.1 Map parameters

Property	Value
Endianness	big-endian
Voxel size (Å)	1.74
Axis order	XYZ
Grid points in X	128
Grid points in Y	128
Grid points in Z	128
Minimum density	-0.319
Maximum density	0.646
Average density	0.0243
Standard deviation of density	0.102
Range of density values	0.965
Recommended contour level	0.285

5.2 Orthogonal projections



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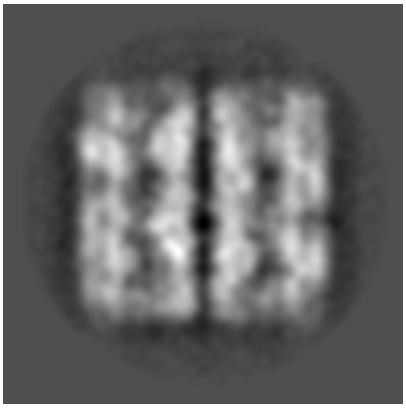
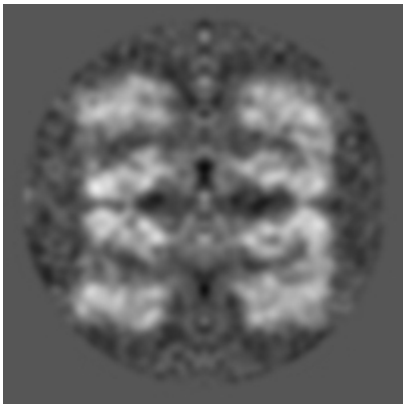


Y

Z

5.3 Central slices (i)



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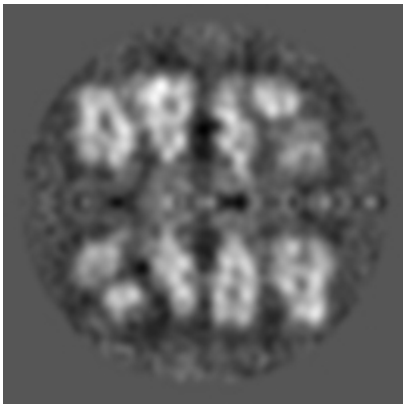

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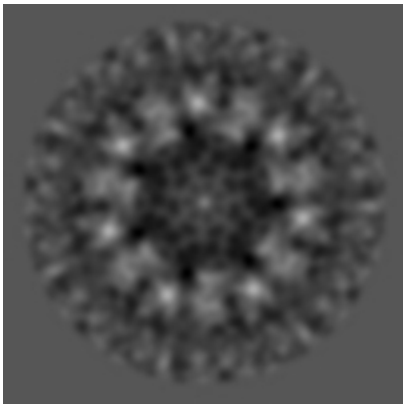
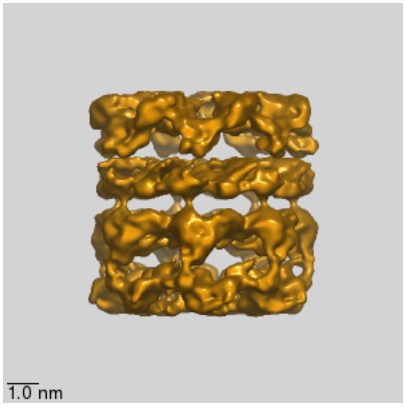


Z

5.4 Orthogonal surface views (i)



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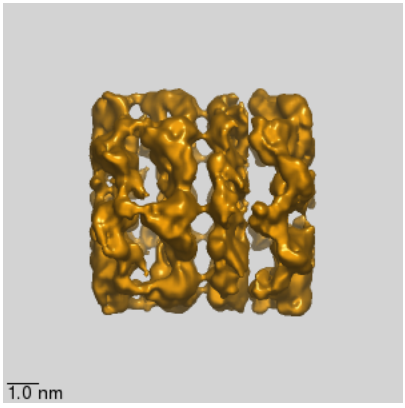

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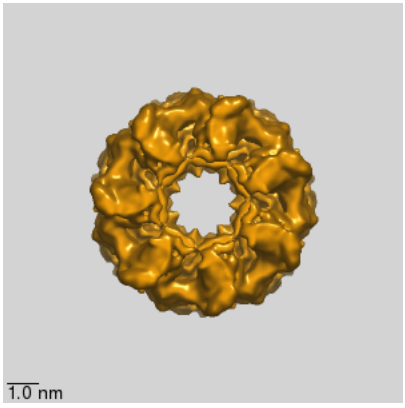
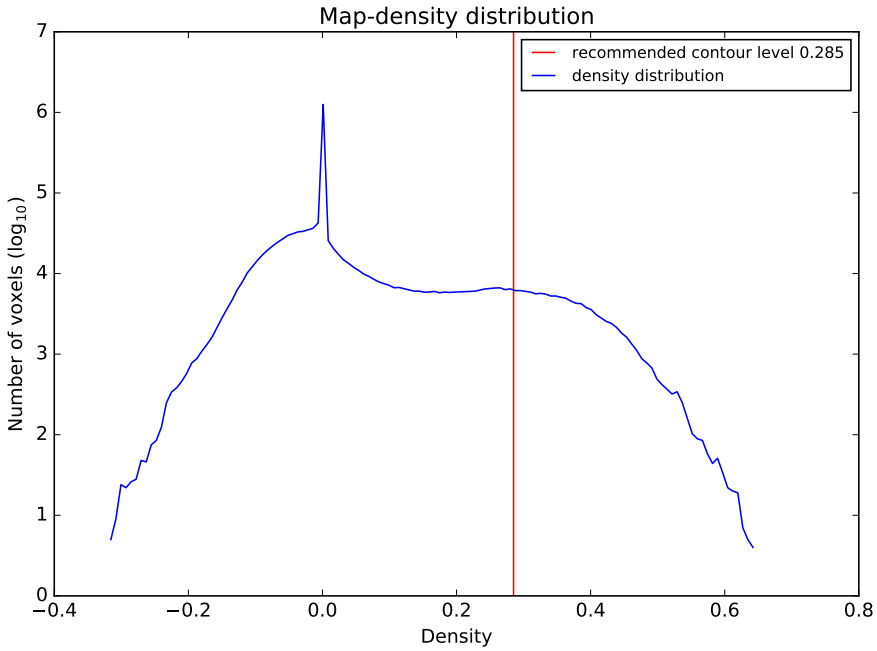
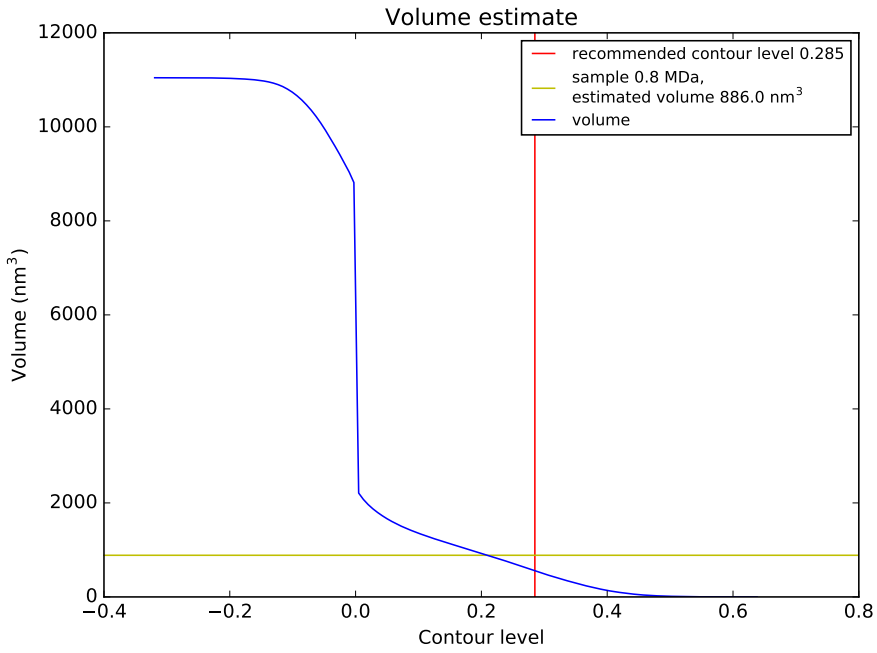


Z

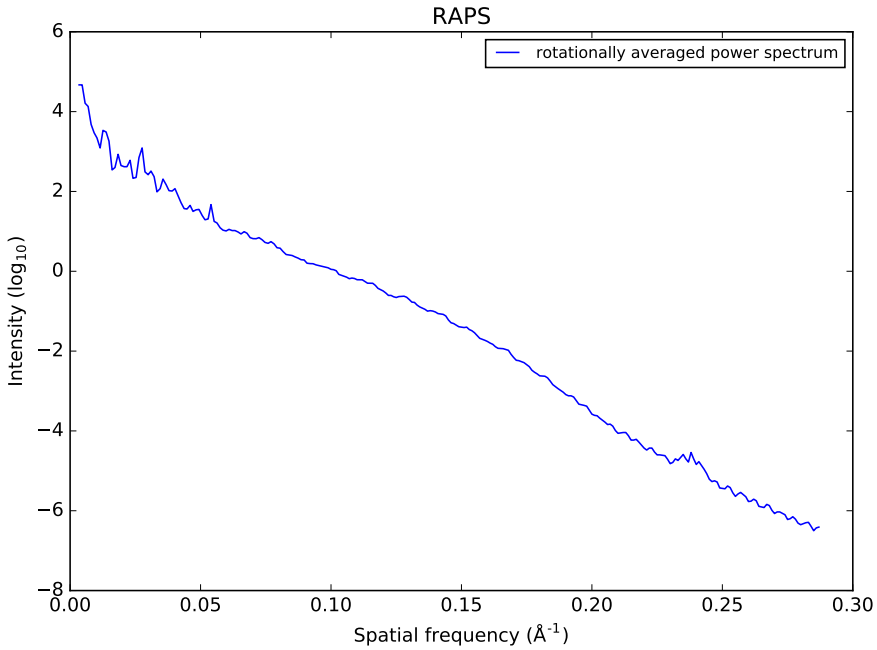
5.5 Map-density distribution (i)



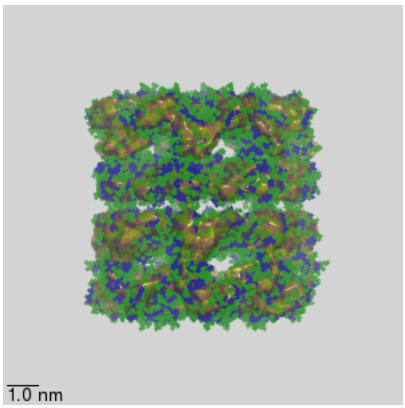
5.6 Volume estimate versus contour level (i)



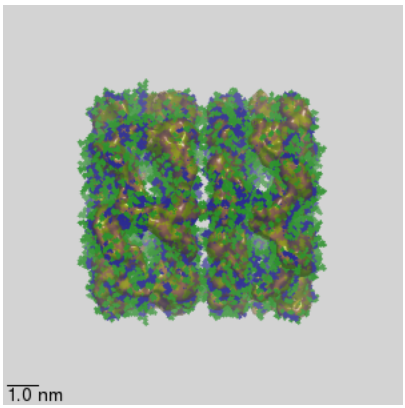
5.7 Rotationally-averaged power spectrum (i)



5.8 Model-to-map fit (i)



X



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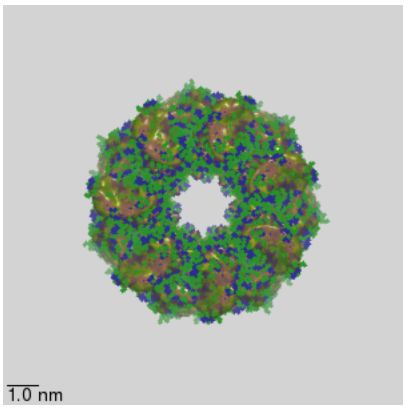
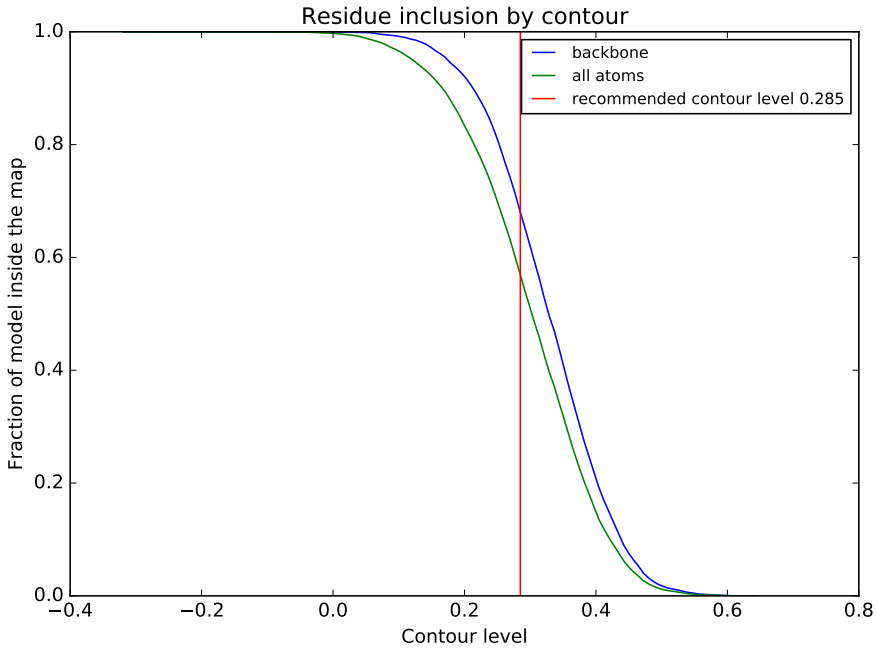
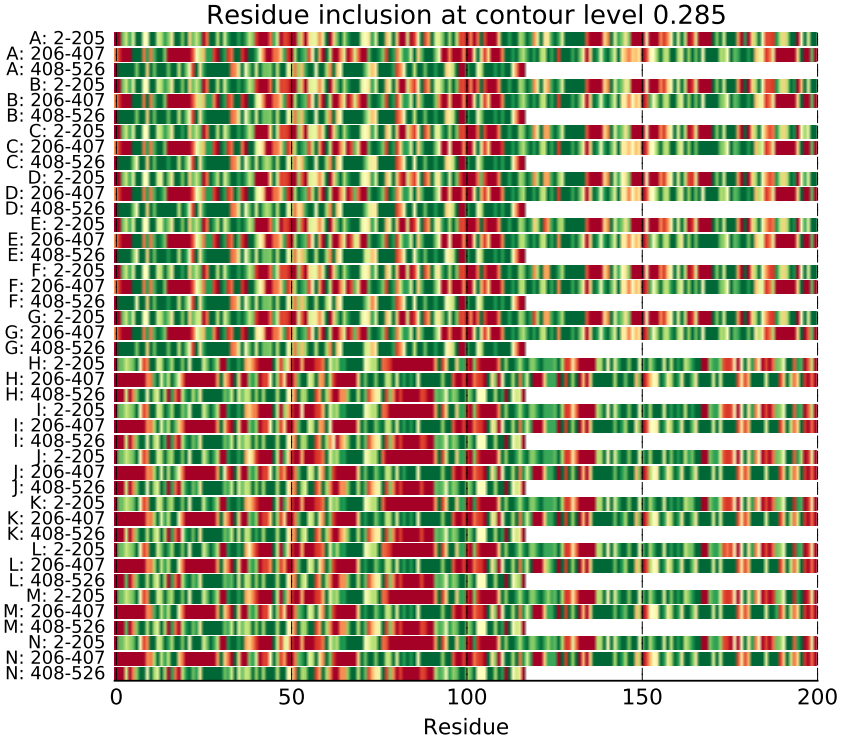


Z

5.9 Residue inclusion versus contour level



5.10 Residue inclusion at recommended contour level



6 Model quality

6.1 Standard geometry

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|>2$	RMSZ	#$\|Z\|>2$
1	A	1.43	2/7570 (0.0%)	0.56	2/10186 (0.0%)
1	B	1.43	2/7570 (0.0%)	0.56	2/10186 (0.0%)
1	C	1.43	2/7570 (0.0%)	0.56	2/10186 (0.0%)
1	D	1.43	2/7570 (0.0%)	0.56	2/10186 (0.0%)
1	E	1.43	2/7570 (0.0%)	0.56	2/10186 (0.0%)
1	F	1.43	2/7570 (0.0%)	0.56	2/10186 (0.0%)
1	G	1.43	2/7570 (0.0%)	0.56	2/10186 (0.0%)
1	H	0.27	0/7570	0.55	0/10186
1	I	0.27	0/7570	0.55	0/10186
1	J	0.27	0/7570	0.55	0/10186
1	K	0.27	0/7570	0.55	0/10186
1	L	0.27	0/7570	0.55	0/10186
1	M	0.27	0/7570	0.55	0/10186
1	N	0.27	0/7570	0.55	0/10186
All	All	1.03	14/105980 (0.0%)	0.55	14/142604 (0.0%)

All (14) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	E	386	GLU	CB-CG	86.48	3.16	1.52
1	E	386	GLU	CB-CG	86.48	3.16	1.52
1	G	386	GLU	CB-CG	86.47	3.16	1.52
1	G	386	GLU	CB-CG	86.47	3.16	1.52
1	A	386	GLU	CB-CG	86.47	3.16	1.52
1	A	386	GLU	CB-CG	86.47	3.16	1.52
1	C	386	GLU	CB-CG	86.46	3.16	1.52
1	C	386	GLU	CB-CG	86.46	3.16	1.52
1	D	386	GLU	CB-CG	86.46	3.16	1.52
1	D	386	GLU	CB-CG	86.46	3.16	1.52
1	B	386	GLU	CB-CG	86.45	3.16	1.52
1	B	386	GLU	CB-CG	86.45	3.16	1.52
1	F	386	GLU	CB-CG	86.45	3.16	1.52
1	F	386	GLU	CB-CG	86.45	3.16	1.52

All (14) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	D	386	GLU	CA-CB-CG	7.43	129.74	113.40
1	D	386	GLU	CA-CB-CG	7.43	129.74	113.40
1	F	386	GLU	CA-CB-CG	7.43	129.74	113.40
1	F	386	GLU	CA-CB-CG	7.43	129.74	113.40
1	B	386	GLU	CA-CB-CG	7.42	129.73	113.40
1	B	386	GLU	CA-CB-CG	7.42	129.73	113.40
1	A	386	GLU	CA-CB-CG	7.42	129.73	113.40
1	A	386	GLU	CA-CB-CG	7.42	129.73	113.40
1	C	386	GLU	CA-CB-CG	7.42	129.72	113.40
1	C	386	GLU	CA-CB-CG	7.42	129.72	113.40
1	G	386	GLU	CA-CB-CG	7.42	129.72	113.40
1	G	386	GLU	CA-CB-CG	7.42	129.72	113.40
1	E	386	GLU	CA-CB-CG	7.41	129.70	113.40
1	E	386	GLU	CA-CB-CG	7.41	129.70	113.40

There are no chirality outliers.

There are no planarity outliers.

6.2 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	3762	0	3841	341	0
1	B	3762	0	3841	339	0
1	C	3762	0	3841	342	0
1	D	3762	0	3841	338	0
1	E	3762	0	3841	339	0
1	F	3762	0	3841	338	0
1	G	3762	0	3841	340	0
1	H	3762	0	3837	317	0
1	I	3762	0	3837	318	0
1	J	3762	0	3837	318	0
1	K	3762	0	3837	314	0
1	L	3762	0	3837	319	0
1	M	3762	0	3837	326	0
1	N	3762	0	3837	321	0
All	All	52668	0	53746	3163	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 30.

All (3163) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:47:PRO:CD	1:D:73:MET:HG2	1.20	1.64
1:D:47:PRO:CD	1:E:73:MET:HG2	1.20	1.63
1:A:150:ILE:CD1	1:A:411:VAL:HG11	1.15	1.62
1:B:150:ILE:CD1	1:B:411:VAL:HG11	1.15	1.62
1:B:47:PRO:CD	1:C:73:MET:HG2	1.20	1.62
1:E:47:PRO:CD	1:F:73:MET:HG2	1.20	1.59
1:G:150:ILE:CD1	1:G:411:VAL:HG11	1.16	1.59
1:C:150:ILE:CD1	1:C:411:VAL:HG11	1.15	1.59
1:A:47:PRO:CD	1:B:73:MET:HG2	1.20	1.58
1:A:73:MET:CG	1:G:47:PRO:HD2	1.33	1.58
1:F:47:PRO:HD2	1:G:73:MET:CG	1.33	1.58
1:F:47:PRO:CD	1:G:73:MET:HG2	1.20	1.57
1:A:73:MET:HG2	1:G:47:PRO:CD	1.20	1.56
1:F:150:ILE:CD1	1:F:411:VAL:HG11	1.15	1.56
1:D:150:ILE:CD1	1:D:411:VAL:HG11	1.15	1.55
1:A:47:PRO:HD2	1:B:73:MET:CG	1.33	1.55
1:E:47:PRO:HD2	1:F:73:MET:CG	1.33	1.55
1:E:150:ILE:CD1	1:E:411:VAL:HG11	1.15	1.55
1:D:47:PRO:HD2	1:E:73:MET:CG	1.33	1.54
1:B:47:PRO:HD2	1:C:73:MET:CG	1.33	1.54
1:C:46:ALA:HB2	1:D:76:GLU:CG	1.39	1.53
1:A:46:ALA:HB2	1:B:76:GLU:CG	1.39	1.53
1:A:37:ASN:HB2	1:B:516:THR:C	1.29	1.53
1:F:37:ASN:HB2	1:G:516:THR:C	1.29	1.52
1:C:47:PRO:HD2	1:D:73:MET:CG	1.33	1.52
1:E:46:ALA:HB2	1:F:76:GLU:CG	1.39	1.51
1:C:37:ASN:HB2	1:D:516:THR:C	1.29	1.50
1:D:37:ASN:HB2	1:E:516:THR:C	1.29	1.50
1:B:46:ALA:HB2	1:C:76:GLU:CG	1.39	1.49
1:A:76:GLU:CG	1:G:46:ALA:HB2	1.39	1.49
1:F:46:ALA:HB2	1:G:76:GLU:CG	1.39	1.49
1:D:46:ALA:HB2	1:E:76:GLU:CG	1.39	1.48
1:B:46:ALA:CB	1:C:76:GLU:HG3	1.43	1.48
1:A:516:THR:C	1:G:37:ASN:HB2	1.29	1.48
1:A:46:ALA:CB	1:B:76:GLU:HG3	1.43	1.48
1:C:46:ALA:CB	1:D:76:GLU:HG3	1.43	1.47
1:B:37:ASN:HB2	1:C:516:THR:C	1.29	1.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:386:GLU:CB	1:M:284:ARG:HE	1.05	1.46
1:D:46:ALA:CB	1:E:76:GLU:HG3	1.43	1.46
1:E:37:ASN:HB2	1:F:516:THR:C	1.29	1.46
1:A:76:GLU:HG3	1:G:46:ALA:CB	1.43	1.46
1:F:46:ALA:CB	1:G:76:GLU:HG3	1.43	1.46
1:J:386:GLU:CB	1:K:284:ARG:HE	1.05	1.45
1:E:46:ALA:CB	1:F:76:GLU:HG3	1.43	1.44
1:H:284:ARG:HE	1:N:386:GLU:CB	1.05	1.43
1:H:386:GLU:CB	1:I:284:ARG:HE	1.05	1.43
1:B:47:PRO:CD	1:C:73:MET:CG	1.89	1.43
1:D:386:GLU:CG	1:E:281:PHE:CE2	2.03	1.42
1:C:386:GLU:CG	1:D:281:PHE:CE2	2.03	1.42
1:E:386:GLU:CG	1:F:281:PHE:CE2	2.03	1.42
1:C:47:PRO:CD	1:D:73:MET:CG	1.89	1.42
1:B:386:GLU:CG	1:C:281:PHE:CE2	2.03	1.42
1:D:47:PRO:CD	1:E:73:MET:CG	1.89	1.41
1:A:386:GLU:CG	1:B:281:PHE:CE2	2.03	1.41
1:A:47:PRO:CD	1:B:73:MET:CG	1.89	1.40
1:A:281:PHE:CE2	1:G:386:GLU:CG	2.03	1.40
1:F:386:GLU:CG	1:G:281:PHE:CE2	2.03	1.39
1:M:386:GLU:CB	1:N:284:ARG:HE	1.05	1.38
1:E:47:PRO:CD	1:F:73:MET:CG	1.89	1.38
1:A:69:MET:HG2	1:G:41:ASP:OD1	1.20	1.36
1:I:386:GLU:CB	1:J:284:ARG:HE	1.05	1.36
1:K:386:GLU:CB	1:L:284:ARG:HE	1.05	1.36
1:A:41:ASP:CG	1:B:69:MET:HG2	1.46	1.35
1:F:47:PRO:CD	1:G:73:MET:CG	1.89	1.35
1:A:73:MET:CG	1:G:47:PRO:CD	1.89	1.35
1:A:69:MET:HG2	1:G:41:ASP:CG	1.46	1.35
1:E:41:ASP:OD1	1:F:69:MET:HG2	1.20	1.34
1:I:270:ILE:CG2	1:J:229:ASN:O	1.76	1.34
1:B:41:ASP:OD1	1:C:69:MET:HG2	1.20	1.33
1:J:270:ILE:CG2	1:K:229:ASN:O	1.76	1.33
1:B:41:ASP:CG	1:C:69:MET:HG2	1.46	1.33
1:H:270:ILE:CG2	1:I:229:ASN:O	1.76	1.33
1:K:270:ILE:CG2	1:L:229:ASN:O	1.76	1.32
1:H:229:ASN:O	1:N:270:ILE:CG2	1.76	1.32
1:C:41:ASP:CG	1:D:69:MET:HG2	1.46	1.32
1:F:41:ASP:CG	1:G:69:MET:HG2	1.46	1.32
1:L:270:ILE:CG2	1:M:229:ASN:O	1.76	1.32
1:A:516:THR:O	1:G:37:ASN:HB2	1.30	1.31

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:270:ILE:HG23	1:L:229:ASN:O	1.23	1.31
1:L:270:ILE:HG23	1:M:229:ASN:O	1.23	1.31
1:M:270:ILE:CG2	1:N:229:ASN:O	1.76	1.31
1:D:41:ASP:CG	1:E:69:MET:HG2	1.46	1.31
1:D:37:ASN:HB2	1:E:516:THR:O	1.30	1.31
1:H:284:ARG:NE	1:N:386:GLU:CB	1.80	1.31
1:H:270:ILE:HG23	1:I:229:ASN:O	1.23	1.31
1:E:41:ASP:CG	1:F:69:MET:HG2	1.46	1.30
1:A:37:ASN:HB2	1:B:516:THR:O	1.30	1.30
1:A:41:ASP:OD1	1:B:69:MET:HG2	1.20	1.30
1:I:270:ILE:HG23	1:J:229:ASN:O	1.23	1.30
1:C:37:ASN:HB2	1:D:516:THR:O	1.30	1.29
1:E:47:PRO:CG	1:F:73:MET:CG	2.11	1.29
1:A:73:MET:CG	1:G:47:PRO:CG	2.11	1.29
1:L:386:GLU:CB	1:M:284:ARG:NE	1.80	1.29
1:F:150:ILE:CD1	1:F:411:VAL:CG1	2.11	1.28
1:D:41:ASP:OD1	1:E:69:MET:HG2	1.20	1.28
1:B:37:ASN:HB2	1:C:516:THR:O	1.30	1.28
1:E:150:ILE:CD1	1:E:411:VAL:CG1	2.11	1.28
1:K:386:GLU:CB	1:L:284:ARG:NE	1.80	1.28
1:H:229:ASN:O	1:N:270:ILE:HG23	1.23	1.28
1:F:47:PRO:CG	1:G:73:MET:CG	2.11	1.28
1:E:37:ASN:HB2	1:F:516:THR:O	1.30	1.28
1:M:39:VAL:HG12	1:N:69:MET:CE	1.63	1.28
1:G:150:ILE:CD1	1:G:411:VAL:CG1	2.12	1.28
1:H:69:MET:CE	1:N:39:VAL:HG12	1.63	1.28
1:F:37:ASN:HB2	1:G:516:THR:O	1.29	1.27
1:F:41:ASP:OD1	1:G:69:MET:HG2	1.20	1.27
1:L:39:VAL:HG12	1:M:69:MET:CE	1.63	1.27
1:B:47:PRO:CG	1:C:73:MET:CG	2.11	1.27
1:D:47:PRO:CG	1:E:73:MET:CG	2.11	1.27
1:H:386:GLU:CB	1:I:284:ARG:NE	1.80	1.27
1:J:270:ILE:HG23	1:K:229:ASN:O	1.23	1.27
1:A:47:PRO:CG	1:B:73:MET:CG	2.11	1.27
1:M:270:ILE:HG23	1:N:229:ASN:O	1.22	1.27
1:C:47:PRO:CG	1:D:73:MET:CG	2.11	1.27
1:D:150:ILE:CD1	1:D:411:VAL:CG1	2.11	1.27
1:K:39:VAL:HG12	1:L:69:MET:CE	1.63	1.26
1:H:39:VAL:HG12	1:I:69:MET:CE	1.63	1.26
1:J:39:VAL:HG12	1:K:69:MET:CE	1.63	1.26
1:C:41:ASP:OD1	1:D:69:MET:HG2	1.20	1.25

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:150:ILE:CD1	1:A:411:VAL:CG1	2.11	1.25
1:C:150:ILE:CD1	1:C:411:VAL:CG1	2.11	1.25
1:B:150:ILE:CD1	1:B:411:VAL:CG1	2.11	1.25
1:I:39:VAL:HG12	1:J:69:MET:CE	1.63	1.25
1:M:386:GLU:CB	1:N:284:ARG:NE	1.80	1.25
1:E:37:ASN:CB	1:F:516:THR:O	1.85	1.24
1:I:85:ALA:O	1:I:405:ALA:HB1	1.36	1.24
1:L:85:ALA:C	1:L:405:ALA:HB1	1.57	1.24
1:F:37:ASN:CB	1:G:516:THR:O	1.85	1.24
1:A:49:ILE:CG1	1:B:513:LEU:HB3	1.68	1.24
1:A:513:LEU:HB3	1:G:49:ILE:CG1	1.68	1.24
1:D:37:ASN:CB	1:E:516:THR:O	1.85	1.24
1:H:85:ALA:O	1:H:405:ALA:HB1	1.36	1.24
1:E:49:ILE:CG1	1:F:513:LEU:HB3	1.68	1.24
1:F:49:ILE:CG1	1:G:513:LEU:HB3	1.68	1.24
1:D:49:ILE:CG1	1:E:513:LEU:HB3	1.68	1.23
1:B:37:ASN:CB	1:C:516:THR:O	1.85	1.23
1:A:37:ASN:CB	1:B:516:THR:O	1.85	1.23
1:M:85:ALA:C	1:M:405:ALA:HB1	1.57	1.23
1:A:516:THR:O	1:G:37:ASN:CB	1.85	1.23
1:H:85:ALA:C	1:H:405:ALA:HB1	1.57	1.23
1:J:85:ALA:C	1:J:405:ALA:HB1	1.57	1.23
1:K:85:ALA:C	1:K:405:ALA:HB1	1.57	1.23
1:B:49:ILE:CG1	1:C:513:LEU:HB3	1.68	1.23
1:I:85:ALA:C	1:I:405:ALA:HB1	1.57	1.23
1:A:270:ILE:CG2	1:B:229:ASN:O	1.87	1.22
1:C:270:ILE:CG2	1:D:229:ASN:O	1.88	1.22
1:B:270:ILE:CG2	1:C:229:ASN:O	1.88	1.22
1:A:229:ASN:O	1:G:270:ILE:CG2	1.88	1.22
1:C:49:ILE:CG1	1:D:513:LEU:HB3	1.68	1.22
1:C:37:ASN:CB	1:D:516:THR:O	1.85	1.22
1:I:386:GLU:CB	1:J:284:ARG:NE	1.80	1.21
1:N:85:ALA:C	1:N:405:ALA:HB1	1.57	1.21
1:M:85:ALA:O	1:M:405:ALA:HB1	1.36	1.21
1:E:270:ILE:CG2	1:F:229:ASN:O	1.88	1.21
1:F:270:ILE:CG2	1:G:229:ASN:O	1.88	1.20
1:K:85:ALA:O	1:K:405:ALA:HB1	1.36	1.20
1:J:85:ALA:O	1:J:405:ALA:HB1	1.36	1.20
1:D:270:ILE:CG2	1:E:229:ASN:O	1.87	1.20
1:N:85:ALA:O	1:N:405:ALA:HB1	1.36	1.19
1:L:85:ALA:O	1:L:405:ALA:HB1	1.36	1.19

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:150:ILE:HD13	1:F:411:VAL:CG1	1.73	1.18
1:E:150:ILE:HD13	1:E:411:VAL:CG1	1.73	1.18
1:J:386:GLU:CB	1:K:284:ARG:NE	1.80	1.18
1:G:150:ILE:HD13	1:G:411:VAL:CG1	1.73	1.17
1:D:150:ILE:HD13	1:D:411:VAL:CG1	1.73	1.17
1:I:39:VAL:CG1	1:J:69:MET:HE2	1.75	1.17
1:J:36:ARG:HG3	1:K:518:GLU:HG3	1.21	1.17
1:E:47:PRO:HG2	1:F:73:MET:CG	1.74	1.16
1:A:150:ILE:HD13	1:A:411:VAL:CG1	1.73	1.16
1:E:47:PRO:CG	1:F:73:MET:HG3	1.75	1.16
1:C:150:ILE:HD13	1:C:411:VAL:CG1	1.73	1.16
1:A:73:MET:HG3	1:G:47:PRO:CG	1.75	1.15
1:H:281:PHE:CD2	1:N:390:LYS:N	2.03	1.15
1:C:47:PRO:CG	1:D:73:MET:HG3	1.75	1.15
1:B:150:ILE:HD13	1:B:411:VAL:CG1	1.73	1.15
1:B:47:PRO:HG2	1:C:73:MET:HG3	1.23	1.15
1:I:390:LYS:HG2	1:J:281:PHE:CB	1.77	1.15
1:C:37:ASN:CA	1:D:516:THR:O	1.95	1.15
1:E:37:ASN:CA	1:F:516:THR:O	1.95	1.15
1:A:47:PRO:HG2	1:B:73:MET:HG3	1.23	1.15
1:D:37:ASN:CA	1:E:516:THR:O	1.95	1.15
1:M:390:LYS:HG2	1:N:281:PHE:CB	1.77	1.15
1:L:85:ALA:O	1:L:405:ALA:CB	1.95	1.15
1:H:85:ALA:O	1:H:405:ALA:CB	1.95	1.15
1:M:85:ALA:O	1:M:405:ALA:CB	1.95	1.15
1:C:49:ILE:HG13	1:D:513:LEU:HB3	1.15	1.15
1:N:85:ALA:O	1:N:405:ALA:CB	1.95	1.15
1:J:390:LYS:HG2	1:K:281:PHE:CB	1.77	1.14
1:C:47:PRO:HG2	1:D:73:MET:CG	1.74	1.14
1:B:49:ILE:HG13	1:C:513:LEU:HB3	1.15	1.14
1:H:281:PHE:CB	1:N:390:LYS:HG2	1.77	1.14
1:A:516:THR:O	1:G:37:ASN:CA	1.95	1.14
1:F:49:ILE:HG13	1:G:513:LEU:CB	1.78	1.14
1:I:36:ARG:HG3	1:J:518:GLU:HG3	1.21	1.14
1:B:47:PRO:HG2	1:C:73:MET:CG	1.74	1.14
1:L:390:LYS:HG2	1:M:281:PHE:CB	1.77	1.14
1:A:513:LEU:CB	1:G:49:ILE:HG13	1.78	1.14
1:K:85:ALA:O	1:K:405:ALA:CB	1.95	1.14
1:D:47:PRO:HG2	1:E:73:MET:CG	1.74	1.13
1:I:85:ALA:O	1:I:405:ALA:CB	1.95	1.13
1:A:49:ILE:HG13	1:B:513:LEU:HB3	1.15	1.13

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:49:ILE:HG13	1:F:513:LEU:CB	1.78	1.13
1:B:37:ASN:CA	1:C:516:THR:O	1.95	1.13
1:A:37:ASN:CA	1:B:516:THR:O	1.95	1.13
1:M:390:LYS:CE	1:N:281:PHE:HB2	1.78	1.13
1:A:49:ILE:HG13	1:B:513:LEU:CB	1.78	1.13
1:A:47:PRO:HG2	1:B:73:MET:CG	1.74	1.13
1:F:37:ASN:CA	1:G:516:THR:O	1.95	1.13
1:F:47:PRO:HG2	1:G:73:MET:CG	1.74	1.13
1:L:390:LYS:CE	1:M:281:PHE:HB2	1.78	1.13
1:H:390:LYS:HG2	1:I:281:PHE:CB	1.77	1.13
1:H:281:PHE:HB2	1:N:390:LYS:CE	1.78	1.13
1:K:390:LYS:CE	1:L:281:PHE:HB2	1.78	1.13
1:D:49:ILE:HG13	1:E:513:LEU:HB3	1.15	1.13
1:E:47:PRO:HG2	1:F:73:MET:HG3	1.23	1.13
1:J:390:LYS:CE	1:K:281:PHE:HB2	1.78	1.13
1:K:390:LYS:HG2	1:L:281:PHE:CB	1.77	1.12
1:D:49:ILE:HG13	1:E:513:LEU:CB	1.78	1.12
1:B:49:ILE:HG13	1:C:513:LEU:CB	1.78	1.12
1:H:390:LYS:CE	1:I:281:PHE:HB2	1.78	1.12
1:B:47:PRO:CG	1:C:73:MET:HG3	1.75	1.12
1:A:73:MET:CG	1:G:47:PRO:HG2	1.74	1.12
1:K:36:ARG:HG3	1:L:518:GLU:HG3	1.21	1.12
1:B:150:ILE:HD12	1:B:411:VAL:CG1	1.76	1.11
1:E:41:ASP:CG	1:F:69:MET:CG	2.18	1.11
1:F:46:ALA:CB	1:G:76:GLU:CG	2.13	1.11
1:L:390:LYS:N	1:M:281:PHE:CD2	2.03	1.11
1:I:390:LYS:CE	1:J:281:PHE:HB2	1.78	1.11
1:M:36:ARG:HG3	1:N:518:GLU:HG3	1.21	1.11
1:F:41:ASP:CG	1:G:69:MET:CG	2.18	1.11
1:C:49:ILE:HG13	1:D:513:LEU:CB	1.78	1.11
1:A:76:GLU:HG2	1:G:46:ALA:HB2	1.14	1.11
1:M:390:LYS:N	1:N:281:PHE:CD2	2.03	1.11
1:J:85:ALA:O	1:J:405:ALA:CB	1.95	1.11
1:C:47:PRO:HG2	1:D:73:MET:HG3	1.23	1.11
1:D:41:ASP:CG	1:E:69:MET:CG	2.18	1.11
1:C:150:ILE:HD12	1:C:411:VAL:CG1	1.76	1.11
1:F:47:PRO:CG	1:G:73:MET:HG3	1.75	1.11
1:F:46:ALA:HB2	1:G:76:GLU:HG2	1.15	1.11
1:D:47:PRO:CG	1:E:73:MET:HG3	1.75	1.11
1:A:150:ILE:HD12	1:A:411:VAL:CG1	1.76	1.11
1:F:47:PRO:HG2	1:G:73:MET:HG3	1.23	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:69:MET:HE2	1:N:39:VAL:CG1	1.80	1.11
1:H:518:GLU:HG3	1:N:36:ARG:HG3	1.21	1.10
1:A:46:ALA:HB2	1:B:76:GLU:HG2	1.15	1.10
1:B:37:ASN:CB	1:C:516:THR:C	2.20	1.10
1:A:73:MET:HG3	1:G:47:PRO:HG2	1.23	1.10
1:A:69:MET:CG	1:G:41:ASP:CG	2.18	1.10
1:J:390:LYS:N	1:K:281:PHE:CD2	2.03	1.10
1:A:513:LEU:HB3	1:G:49:ILE:HG13	1.15	1.10
1:D:150:ILE:HD12	1:D:411:VAL:CG1	1.76	1.09
1:L:36:ARG:HG3	1:M:518:GLU:HG3	1.21	1.09
1:D:47:PRO:HG2	1:E:73:MET:HG3	1.23	1.09
1:H:39:VAL:CG1	1:I:69:MET:HE2	1.81	1.09
1:F:37:ASN:CB	1:G:516:THR:C	2.20	1.09
1:I:386:GLU:HB2	1:J:284:ARG:NE	1.51	1.09
1:C:46:ALA:HB2	1:D:76:GLU:HG2	1.15	1.09
1:B:46:ALA:HB2	1:C:76:GLU:HG2	1.15	1.09
1:E:46:ALA:HB2	1:F:76:GLU:HG2	1.14	1.09
1:A:516:THR:C	1:G:37:ASN:CB	2.20	1.09
1:H:284:ARG:CZ	1:N:386:GLU:HB3	1.83	1.09
1:H:390:LYS:HE2	1:I:281:PHE:CB	1.83	1.09
1:I:390:LYS:HE2	1:J:281:PHE:CB	1.83	1.09
1:I:390:LYS:HG2	1:J:281:PHE:CG	1.88	1.09
1:C:41:ASP:CG	1:D:69:MET:CG	2.18	1.09
1:H:281:PHE:CB	1:N:390:LYS:HE2	1.83	1.09
1:H:386:GLU:HB3	1:I:284:ARG:CZ	1.83	1.09
1:I:386:GLU:HB3	1:J:284:ARG:CZ	1.83	1.09
1:D:46:ALA:HB2	1:E:76:GLU:HG2	1.15	1.08
1:G:150:ILE:HD12	1:G:411:VAL:CG1	1.76	1.08
1:J:390:LYS:HE2	1:K:281:PHE:CB	1.83	1.08
1:M:386:GLU:HB3	1:N:284:ARG:CZ	1.83	1.08
1:I:388:GLU:N	1:J:281:PHE:CE1	2.21	1.08
1:C:46:ALA:CB	1:D:76:GLU:CG	2.13	1.08
1:B:41:ASP:CG	1:C:69:MET:CG	2.18	1.08
1:J:386:GLU:HB2	1:K:284:ARG:NE	1.51	1.08
1:A:183:LEU:HA	1:A:383:ALA:HB3	1.36	1.08
1:A:47:PRO:CG	1:B:73:MET:HG3	1.75	1.08
1:L:388:GLU:N	1:M:281:PHE:CE1	2.21	1.08
1:H:386:GLU:HB2	1:I:284:ARG:NE	1.51	1.08
1:A:46:ALA:CB	1:B:76:GLU:CG	2.13	1.08
1:J:386:GLU:HB3	1:K:284:ARG:CZ	1.83	1.08
1:H:281:PHE:CG	1:N:390:LYS:HG2	1.88	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:388:GLU:N	1:N:281:PHE:CE1	2.21	1.08
1:M:390:LYS:HE2	1:N:281:PHE:CB	1.83	1.08
1:J:39:VAL:CG1	1:K:69:MET:HE2	1.82	1.08
1:F:183:LEU:HA	1:F:383:ALA:HB3	1.36	1.08
1:G:183:LEU:HA	1:G:383:ALA:HB3	1.36	1.08
1:L:386:GLU:HB3	1:M:284:ARG:CZ	1.83	1.08
1:J:390:LYS:HG2	1:K:281:PHE:CG	1.88	1.08
1:K:39:VAL:CG1	1:L:69:MET:HE2	1.81	1.08
1:H:281:PHE:CE1	1:N:388:GLU:N	2.21	1.07
1:H:390:LYS:HG2	1:I:281:PHE:CG	1.88	1.07
1:K:390:LYS:HE2	1:L:281:PHE:CB	1.83	1.07
1:E:49:ILE:HG13	1:F:513:LEU:HB3	1.15	1.07
1:E:183:LEU:HA	1:E:383:ALA:HB3	1.36	1.07
1:A:37:ASN:CB	1:B:516:THR:C	2.20	1.07
1:E:150:ILE:HD12	1:E:411:VAL:CG1	1.76	1.07
1:L:390:LYS:HE2	1:M:281:PHE:CB	1.83	1.07
1:H:388:GLU:N	1:I:281:PHE:CE1	2.21	1.07
1:J:388:GLU:N	1:K:281:PHE:CE1	2.21	1.07
1:H:36:ARG:HG3	1:I:518:GLU:HG3	1.21	1.07
1:C:37:ASN:CB	1:D:516:THR:C	2.20	1.07
1:D:37:ASN:CB	1:E:516:THR:C	2.20	1.07
1:A:41:ASP:CG	1:B:69:MET:CG	2.18	1.07
1:K:386:GLU:HB3	1:L:284:ARG:CZ	1.83	1.07
1:K:388:GLU:N	1:L:281:PHE:CE1	2.21	1.07
1:K:390:LYS:HG2	1:L:281:PHE:CG	1.88	1.07
1:K:36:ARG:CB	1:L:518:GLU:HB2	1.84	1.07
1:B:183:LEU:HA	1:B:383:ALA:HB3	1.36	1.07
1:F:150:ILE:HD12	1:F:411:VAL:CG1	1.76	1.07
1:H:36:ARG:CB	1:I:518:GLU:HB2	1.84	1.07
1:L:390:LYS:HG2	1:M:281:PHE:CG	1.88	1.06
1:M:390:LYS:HG2	1:N:281:PHE:CG	1.88	1.06
1:D:183:LEU:HA	1:D:383:ALA:HB3	1.36	1.06
1:E:37:ASN:CB	1:F:516:THR:C	2.20	1.06
1:I:390:LYS:HE2	1:J:281:PHE:HB2	1.08	1.06
1:M:36:ARG:CB	1:N:518:GLU:HB2	1.85	1.06
1:H:390:LYS:HE2	1:I:281:PHE:HB2	1.08	1.06
1:H:69:MET:CE	1:N:39:VAL:CG1	2.33	1.06
1:L:39:VAL:CG1	1:M:69:MET:HE2	1.84	1.06
1:H:390:LYS:N	1:I:281:PHE:CD2	2.03	1.06
1:H:518:GLU:HB2	1:N:36:ARG:CB	1.85	1.06
1:J:390:LYS:HE2	1:K:281:PHE:HB2	1.08	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:36:ARG:CB	1:K:518:GLU:HB2	1.84	1.06
1:D:39:VAL:H	1:E:517:THR:HG23	1.18	1.05
1:H:39:VAL:CG1	1:I:69:MET:CE	2.34	1.05
1:J:39:VAL:CG1	1:K:69:MET:CE	2.34	1.05
1:F:49:ILE:HG13	1:G:513:LEU:HB3	1.15	1.05
1:E:39:VAL:H	1:F:517:THR:HG23	1.18	1.05
1:K:386:GLU:HB2	1:L:284:ARG:NE	1.51	1.05
1:M:39:VAL:CG1	1:N:69:MET:CE	2.34	1.05
1:M:39:VAL:CG1	1:N:69:MET:HE2	1.86	1.05
1:L:36:ARG:CB	1:M:518:GLU:HB2	1.85	1.05
1:L:386:GLU:HB2	1:M:284:ARG:HE	0.88	1.05
1:C:183:LEU:HA	1:C:383:ALA:HB3	1.36	1.05
1:E:46:ALA:CB	1:F:76:GLU:CG	2.13	1.05
1:H:284:ARG:NE	1:N:386:GLU:HB2	1.51	1.05
1:M:39:VAL:HG12	1:N:69:MET:HE2	1.36	1.05
1:A:39:VAL:H	1:B:517:THR:HG23	1.18	1.05
1:H:281:PHE:HB2	1:N:390:LYS:HE2	1.08	1.05
1:K:386:GLU:HB2	1:L:284:ARG:HE	0.88	1.05
1:I:36:ARG:CB	1:J:518:GLU:HB2	1.85	1.05
1:F:46:ALA:HB3	1:G:76:GLU:HG3	1.38	1.04
1:M:386:GLU:HB2	1:N:284:ARG:HE	0.88	1.04
1:A:76:GLU:CG	1:G:46:ALA:CB	2.13	1.04
1:L:39:VAL:CG1	1:M:69:MET:CE	2.33	1.04
1:I:390:LYS:N	1:J:281:PHE:CD2	2.03	1.04
1:L:390:LYS:HE2	1:M:281:PHE:HB2	1.08	1.04
1:J:386:GLU:HB2	1:K:284:ARG:HE	0.88	1.04
1:H:284:ARG:HE	1:N:386:GLU:HB2	0.88	1.04
1:M:390:LYS:HE2	1:N:281:PHE:HB2	1.08	1.04
1:E:46:ALA:HB3	1:F:76:GLU:HG3	1.38	1.04
1:C:39:VAL:H	1:D:517:THR:HG23	1.18	1.03
1:H:386:GLU:HB2	1:I:284:ARG:HE	0.88	1.03
1:I:386:GLU:HB2	1:J:284:ARG:HE	0.89	1.03
1:K:390:LYS:HE2	1:L:281:PHE:HB2	1.08	1.03
1:I:174:VAL:HG11	1:I:331:THR:OG1	1.59	1.03
1:F:39:VAL:H	1:G:517:THR:HG23	1.18	1.03
1:C:270:ILE:HG22	1:D:229:ASN:HA	1.37	1.03
1:E:270:ILE:HG23	1:F:229:ASN:O	1.58	1.03
1:J:174:VAL:HG11	1:J:331:THR:OG1	1.58	1.03
1:H:174:VAL:HG11	1:H:331:THR:OG1	1.58	1.03
1:B:150:ILE:HD13	1:B:411:VAL:HG11	1.03	1.03
1:I:38:VAL:HG22	1:J:519:CYS:HB3	1.39	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:76:GLU:HG3	1:G:46:ALA:HB3	1.38	1.03
1:K:39:VAL:CG1	1:L:69:MET:CE	2.34	1.03
1:L:386:GLU:HB2	1:M:284:ARG:NE	1.51	1.02
1:A:41:ASP:OD1	1:B:69:MET:CG	2.07	1.02
1:M:386:GLU:HB2	1:N:284:ARG:NE	1.51	1.02
1:K:386:GLU:CB	1:L:284:ARG:CZ	2.38	1.02
1:B:270:ILE:HG22	1:C:229:ASN:HA	1.37	1.02
1:M:38:VAL:HG22	1:N:519:CYS:HB3	1.39	1.02
1:B:41:ASP:OD1	1:C:69:MET:CG	2.07	1.02
1:M:386:GLU:CB	1:N:284:ARG:CZ	2.38	1.02
1:D:270:ILE:HG22	1:E:229:ASN:HA	1.37	1.02
1:M:36:ARG:HB3	1:N:518:GLU:HB2	1.42	1.02
1:L:36:ARG:HB3	1:M:518:GLU:HB2	1.42	1.02
1:J:386:GLU:CB	1:K:284:ARG:CZ	2.38	1.02
1:A:229:ASN:O	1:G:270:ILE:HG23	1.58	1.02
1:K:174:VAL:HG11	1:K:331:THR:OG1	1.58	1.02
1:D:41:ASP:OD1	1:E:69:MET:CG	2.07	1.02
1:E:41:ASP:OD1	1:F:69:MET:CG	2.07	1.02
1:G:150:ILE:HD13	1:G:411:VAL:HG11	1.03	1.02
1:A:69:MET:CG	1:G:41:ASP:OD1	2.07	1.02
1:L:39:VAL:HG12	1:M:69:MET:HE2	1.35	1.02
1:H:38:VAL:HG22	1:I:519:CYS:HB3	1.39	1.02
1:B:39:VAL:H	1:C:517:THR:HG23	1.18	1.01
1:K:39:VAL:HG12	1:L:69:MET:HE2	1.33	1.01
1:A:49:ILE:HB	1:B:513:LEU:HD22	1.39	1.01
1:A:229:ASN:HA	1:G:270:ILE:HG22	1.37	1.01
1:K:36:ARG:HB3	1:L:518:GLU:HB2	1.42	1.01
1:N:174:VAL:HG11	1:N:331:THR:OG1	1.58	1.01
1:H:386:GLU:CB	1:I:284:ARG:CZ	2.38	1.01
1:K:390:LYS:N	1:L:281:PHE:CD2	2.03	1.01
1:H:519:CYS:HB3	1:N:38:VAL:HG22	1.39	1.01
1:J:38:VAL:HG22	1:K:519:CYS:HB3	1.39	1.01
1:B:46:ALA:CB	1:C:76:GLU:CG	2.13	1.01
1:F:41:ASP:OD1	1:G:69:MET:CG	2.07	1.01
1:D:49:ILE:HB	1:E:513:LEU:HD22	1.39	1.01
1:B:49:ILE:HB	1:C:513:LEU:HD22	1.39	1.01
1:F:270:ILE:HG22	1:G:229:ASN:HA	1.37	1.01
1:L:38:VAL:HG22	1:M:519:CYS:HB3	1.39	1.01
1:D:46:ALA:HB3	1:E:76:GLU:HG3	1.38	1.01
1:A:150:ILE:HD13	1:A:411:VAL:HG11	1.03	1.01
1:A:517:THR:HG23	1:G:39:VAL:H	1.18	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:150:ILE:HD13	1:D:411:VAL:HG11	1.03	1.01
1:H:69:MET:HE2	1:N:39:VAL:HG12	1.33	1.01
1:C:49:ILE:HB	1:D:513:LEU:HD22	1.39	1.01
1:J:39:VAL:HG12	1:K:69:MET:HE2	1.34	1.01
1:E:49:ILE:CD1	1:F:513:LEU:HB3	1.91	1.01
1:H:518:GLU:HB2	1:N:36:ARG:HB3	1.42	1.01
1:L:386:GLU:CB	1:M:284:ARG:CZ	2.38	1.00
1:A:513:LEU:HD22	1:G:49:ILE:HB	1.39	1.00
1:F:49:ILE:CD1	1:G:513:LEU:HB3	1.91	1.00
1:M:174:VAL:HG11	1:M:331:THR:OG1	1.58	1.00
1:D:49:ILE:CD1	1:E:513:LEU:HB3	1.91	1.00
1:B:270:ILE:HG23	1:C:229:ASN:O	1.58	1.00
1:F:270:ILE:HG23	1:G:229:ASN:O	1.58	1.00
1:A:270:ILE:HG22	1:B:229:ASN:HA	1.37	1.00
1:A:270:ILE:HG23	1:B:229:ASN:O	1.58	1.00
1:L:270:ILE:HG22	1:M:229:ASN:HA	1.43	1.00
1:C:150:ILE:HD13	1:C:411:VAL:HG11	1.03	1.00
1:A:513:LEU:HB3	1:G:49:ILE:CD1	1.91	1.00
1:C:41:ASP:OD1	1:D:69:MET:CG	2.07	1.00
1:L:174:VAL:HG11	1:L:331:THR:OG1	1.58	1.00
1:M:270:ILE:HG22	1:N:229:ASN:HA	1.43	0.99
1:E:49:ILE:HB	1:F:513:LEU:HD22	1.39	0.99
1:E:270:ILE:HG22	1:F:229:ASN:HA	1.37	0.99
1:J:36:ARG:HB3	1:K:518:GLU:HB2	1.42	0.99
1:A:8:PHE:CE2	1:G:26:ALA:HB2	1.97	0.99
1:E:150:ILE:HD13	1:E:411:VAL:HG11	1.03	0.99
1:K:388:GLU:N	1:L:281:PHE:CZ	2.29	0.99
1:B:49:ILE:CB	1:C:513:LEU:HD22	1.92	0.99
1:B:46:ALA:HB3	1:C:76:GLU:HG3	1.38	0.99
1:A:49:ILE:CB	1:B:513:LEU:HD22	1.92	0.99
1:A:26:ALA:HB2	1:B:8:PHE:CE2	1.97	0.99
1:A:46:ALA:HB3	1:B:76:GLU:HG3	1.38	0.99
1:C:270:ILE:HG23	1:D:229:ASN:O	1.58	0.99
1:C:49:ILE:CD1	1:D:513:LEU:HB3	1.91	0.99
1:D:270:ILE:HG23	1:E:229:ASN:O	1.58	0.99
1:K:38:VAL:HG22	1:L:519:CYS:HB3	1.39	0.99
1:F:26:ALA:HB2	1:G:8:PHE:CE2	1.97	0.99
1:C:49:ILE:CB	1:D:513:LEU:HD22	1.92	0.99
1:H:36:ARG:HB3	1:I:518:GLU:HB2	1.42	0.99
1:D:26:ALA:HB2	1:E:8:PHE:CE2	1.97	0.99
1:B:49:ILE:CD1	1:C:513:LEU:HB3	1.91	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:26:ALA:HB2	1:C:8:PHE:CE2	1.97	0.99
1:C:46:ALA:HB3	1:D:76:GLU:HG3	1.38	0.99
1:H:284:ARG:CZ	1:N:386:GLU:CB	2.38	0.99
1:A:49:ILE:CD1	1:B:513:LEU:HB3	1.91	0.99
1:F:49:ILE:HB	1:G:513:LEU:HD22	1.39	0.99
1:J:388:GLU:N	1:K:281:PHE:CZ	2.29	0.98
1:F:150:ILE:HD13	1:F:411:VAL:HG11	1.03	0.98
1:A:513:LEU:HD22	1:G:49:ILE:CB	1.92	0.98
1:D:47:PRO:CD	1:E:73:MET:HG3	1.87	0.98
1:K:270:ILE:HG22	1:L:229:ASN:HA	1.43	0.98
1:I:39:VAL:CG1	1:J:69:MET:CE	2.34	0.98
1:H:39:VAL:HG12	1:I:69:MET:HE2	1.33	0.98
1:I:386:GLU:CB	1:J:284:ARG:CZ	2.38	0.98
1:I:39:VAL:HG12	1:J:69:MET:HE2	1.31	0.98
1:I:36:ARG:HB3	1:J:518:GLU:HB2	1.42	0.98
1:B:47:PRO:CD	1:C:73:MET:HG3	1.87	0.98
1:D:49:ILE:CB	1:E:513:LEU:HD22	1.92	0.98
1:C:26:ALA:HB2	1:D:8:PHE:CE2	1.97	0.98
1:F:49:ILE:CB	1:G:513:LEU:HD22	1.92	0.98
1:E:270:ILE:HG21	1:F:229:ASN:O	1.64	0.98
1:H:281:PHE:CZ	1:N:388:GLU:N	2.29	0.98
1:E:49:ILE:CB	1:F:513:LEU:HD22	1.92	0.98
1:L:388:GLU:N	1:M:281:PHE:CZ	2.29	0.98
1:E:26:ALA:HB2	1:F:8:PHE:CE2	1.97	0.98
1:D:270:ILE:HG21	1:E:229:ASN:O	1.64	0.98
1:F:47:PRO:CD	1:G:73:MET:HG3	1.87	0.97
1:H:229:ASN:HA	1:N:270:ILE:HG22	1.43	0.97
1:D:46:ALA:CB	1:E:76:GLU:CG	2.13	0.97
1:F:270:ILE:HG21	1:G:229:ASN:O	1.64	0.97
1:H:388:GLU:N	1:I:281:PHE:CZ	2.29	0.97
1:H:270:ILE:HG22	1:I:229:ASN:HA	1.43	0.97
1:A:73:MET:HG3	1:G:47:PRO:CD	1.87	0.97
1:A:114:MET:CE	1:G:35:GLY:O	2.13	0.97
1:D:35:GLY:O	1:E:114:MET:CE	2.13	0.96
1:B:35:GLY:O	1:C:114:MET:CE	2.13	0.96
1:E:26:ALA:HB2	1:F:8:PHE:HE2	1.30	0.96
1:I:270:ILE:HG22	1:J:229:ASN:HA	1.43	0.96
1:C:35:GLY:O	1:D:114:MET:CE	2.13	0.96
1:I:388:GLU:N	1:J:281:PHE:CZ	2.29	0.96
1:J:270:ILE:HG22	1:K:229:ASN:HA	1.43	0.96
1:A:26:ALA:HB2	1:B:8:PHE:HE2	1.30	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:35:GLY:O	1:B:114:MET:CE	2.13	0.96
1:B:37:ASN:HB2	1:C:516:THR:CA	1.87	0.96
1:A:517:THR:HG23	1:G:39:VAL:N	1.80	0.96
1:M:388:GLU:N	1:N:281:PHE:CZ	2.29	0.96
1:F:35:GLY:O	1:G:114:MET:CE	2.13	0.96
1:E:35:GLY:O	1:F:114:MET:CE	2.13	0.96
1:E:39:VAL:N	1:F:517:THR:HG23	1.80	0.96
1:C:39:VAL:N	1:D:517:THR:HG23	1.80	0.95
1:A:39:VAL:N	1:B:517:THR:HG23	1.80	0.95
1:F:39:VAL:N	1:G:517:THR:HG23	1.80	0.95
1:C:270:ILE:HG21	1:D:229:ASN:O	1.64	0.95
1:A:47:PRO:CD	1:B:73:MET:HG3	1.87	0.95
1:K:405:ALA:O	1:K:498:LYS:CE	2.15	0.95
1:B:39:VAL:N	1:C:517:THR:HG23	1.80	0.95
1:D:39:VAL:N	1:E:517:THR:HG23	1.80	0.94
1:H:387:VAL:C	1:I:281:PHE:CE1	2.41	0.94
1:B:26:ALA:HB2	1:C:8:PHE:HE2	1.30	0.94
1:L:405:ALA:O	1:L:498:LYS:CE	2.15	0.94
1:N:405:ALA:O	1:N:498:LYS:CE	2.15	0.94
1:J:387:VAL:C	1:K:281:PHE:CE1	2.41	0.94
1:I:387:VAL:C	1:J:281:PHE:CE1	2.41	0.94
1:J:405:ALA:O	1:J:498:LYS:CE	2.15	0.94
1:A:229:ASN:O	1:G:270:ILE:HG21	1.64	0.94
1:H:405:ALA:O	1:H:498:LYS:CE	2.15	0.94
1:H:281:PHE:CE1	1:N:387:VAL:C	2.41	0.94
1:F:47:PRO:CG	1:G:73:MET:HG2	1.88	0.94
1:L:387:VAL:C	1:M:281:PHE:CE1	2.41	0.94
1:M:405:ALA:O	1:M:498:LYS:CE	2.15	0.94
1:E:37:ASN:HB2	1:F:516:THR:CA	1.87	0.94
1:E:39:VAL:HB	1:F:517:THR:HG21	1.51	0.93
1:A:517:THR:HG21	1:G:39:VAL:HB	1.50	0.93
1:A:39:VAL:HB	1:B:517:THR:HG21	1.50	0.93
1:C:26:ALA:HB2	1:D:8:PHE:HE2	1.30	0.93
1:B:150:ILE:HD12	1:B:411:VAL:HG11	0.95	0.93
1:G:150:ILE:HD12	1:G:411:VAL:HG11	0.95	0.93
1:A:516:THR:CA	1:G:37:ASN:HB2	1.87	0.93
1:B:270:ILE:HG21	1:C:229:ASN:O	1.64	0.93
1:C:150:ILE:HD12	1:C:411:VAL:HG11	0.95	0.93
1:K:387:VAL:C	1:L:281:PHE:CE1	2.41	0.93
1:B:49:ILE:HG13	1:C:513:LEU:HD13	1.51	0.93
1:F:150:ILE:HD12	1:F:411:VAL:HG11	0.95	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:387:VAL:C	1:N:281:PHE:CE1	2.41	0.93
1:F:26:ALA:HB2	1:G:8:PHE:HE2	1.30	0.93
1:A:49:ILE:HG13	1:B:513:LEU:HD13	1.51	0.93
1:C:49:ILE:HG13	1:D:513:LEU:HD13	1.51	0.93
1:A:150:ILE:HD12	1:A:411:VAL:HG11	0.95	0.93
1:D:386:GLU:CG	1:E:281:PHE:CD2	2.52	0.93
1:I:405:ALA:O	1:I:498:LYS:CE	2.15	0.93
1:E:47:PRO:CG	1:F:73:MET:HG2	1.88	0.93
1:A:513:LEU:HD13	1:G:49:ILE:HG13	1.51	0.93
1:F:39:VAL:HB	1:G:517:THR:HG21	1.50	0.93
1:B:386:GLU:CG	1:C:281:PHE:CD2	2.52	0.93
1:F:49:ILE:HG13	1:G:513:LEU:CG	1.99	0.92
1:E:150:ILE:HD12	1:E:411:VAL:HG11	0.95	0.92
1:C:386:GLU:CG	1:D:281:PHE:CD2	2.52	0.92
1:D:150:ILE:HD12	1:D:411:VAL:HG11	0.95	0.92
1:D:37:ASN:HB2	1:E:516:THR:CA	1.87	0.92
1:D:47:PRO:CG	1:E:73:MET:HG2	1.88	0.92
1:E:49:ILE:HG13	1:F:513:LEU:CG	1.99	0.92
1:A:8:PHE:HE2	1:G:26:ALA:HB2	1.30	0.92
1:C:39:VAL:HB	1:D:517:THR:HG21	1.50	0.92
1:E:386:GLU:CG	1:F:281:PHE:CD2	2.52	0.92
1:A:513:LEU:CG	1:G:49:ILE:HG13	1.99	0.92
1:A:270:ILE:HG21	1:B:229:ASN:O	1.64	0.92
1:A:281:PHE:CD2	1:G:386:GLU:CG	2.52	0.92
1:F:386:GLU:CG	1:G:281:PHE:CD2	2.52	0.91
1:A:386:GLU:CG	1:B:281:PHE:CD2	2.52	0.91
1:D:49:ILE:HG13	1:E:513:LEU:HD13	1.51	0.91
1:F:49:ILE:HG13	1:G:513:LEU:HD13	1.51	0.91
1:C:49:ILE:HG13	1:D:513:LEU:CG	1.99	0.91
1:D:49:ILE:HG13	1:E:513:LEU:CG	1.99	0.91
1:L:408:GLU:CG	1:L:498:LYS:HE2	2.01	0.91
1:B:39:VAL:HB	1:C:517:THR:HG21	1.50	0.91
1:H:408:GLU:CG	1:H:498:LYS:HE2	2.01	0.91
1:D:26:ALA:HB2	1:E:8:PHE:HE2	1.30	0.91
1:I:408:GLU:CG	1:I:498:LYS:HE2	2.01	0.90
1:E:49:ILE:HG13	1:F:513:LEU:HD13	1.51	0.90
1:B:49:ILE:HG13	1:C:513:LEU:CG	1.99	0.90
1:A:49:ILE:HG13	1:B:513:LEU:CG	1.99	0.90
1:N:408:GLU:CG	1:N:498:LYS:HE2	2.01	0.90
1:B:49:ILE:HG13	1:C:513:LEU:CD1	2.02	0.90
1:M:39:VAL:HG12	1:N:69:MET:HE1	1.52	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:408:GLU:CG	1:J:498:LYS:HE2	2.01	0.90
1:C:47:PRO:CG	1:D:73:MET:HG2	1.88	0.90
1:D:39:VAL:HB	1:E:517:THR:HG21	1.51	0.90
1:B:47:PRO:CG	1:C:73:MET:HG2	1.88	0.90
1:H:232:GLU:HG3	1:N:245:LYS:HE2	1.54	0.90
1:M:408:GLU:CG	1:M:498:LYS:HE2	2.01	0.90
1:B:37:ASN:C	1:C:516:THR:O	2.11	0.89
1:L:39:VAL:HG12	1:M:69:MET:HE1	1.53	0.89
1:A:513:LEU:CD1	1:G:49:ILE:HG13	2.02	0.89
1:D:49:ILE:HG13	1:E:513:LEU:CD1	2.02	0.89
1:C:39:VAL:CB	1:D:517:THR:HG21	1.94	0.89
1:A:37:ASN:C	1:B:516:THR:O	2.11	0.89
1:C:37:ASN:C	1:D:516:THR:O	2.11	0.89
1:H:245:LYS:HE2	1:I:232:GLU:HG3	1.54	0.89
1:A:49:ILE:HG13	1:B:513:LEU:CD1	2.02	0.89
1:C:49:ILE:HG13	1:D:513:LEU:CD1	2.02	0.89
1:I:245:LYS:HE2	1:J:232:GLU:HG3	1.54	0.89
1:F:49:ILE:HG13	1:G:513:LEU:CD1	2.02	0.89
1:K:408:GLU:CG	1:K:498:LYS:HE2	2.01	0.89
1:M:36:ARG:HG3	1:N:518:GLU:CG	2.03	0.89
1:A:516:THR:O	1:G:37:ASN:C	2.11	0.89
1:M:245:LYS:HE2	1:N:232:GLU:HG3	1.54	0.89
1:H:518:GLU:CG	1:N:36:ARG:HG3	2.03	0.89
1:L:36:ARG:HG3	1:M:518:GLU:CG	2.03	0.88
1:H:284:ARG:CZ	1:N:385:THR:HB	2.04	0.88
1:L:270:ILE:HG22	1:M:229:ASN:CA	2.04	0.88
1:J:39:VAL:HG12	1:K:69:MET:HE1	1.54	0.88
1:E:49:ILE:HG13	1:F:513:LEU:CD1	2.02	0.88
1:D:37:ASN:C	1:E:516:THR:O	2.11	0.88
1:M:270:ILE:HG22	1:N:229:ASN:CA	2.04	0.88
1:F:39:VAL:CB	1:G:517:THR:HG21	1.94	0.88
1:K:270:ILE:HG22	1:L:229:ASN:CA	2.04	0.88
1:K:245:LYS:HE2	1:L:232:GLU:HG3	1.54	0.88
1:F:150:ILE:HG12	1:F:494:LEU:HD12	1.56	0.88
1:H:36:ARG:HG3	1:I:518:GLU:CG	2.03	0.88
1:I:174:VAL:HG22	1:I:194:GLN:CB	2.04	0.88
1:J:174:VAL:HG22	1:J:194:GLN:CB	2.04	0.88
1:G:150:ILE:HG12	1:G:494:LEU:HD12	1.56	0.88
1:H:390:LYS:CG	1:I:281:PHE:CB	2.52	0.88
1:N:174:VAL:HG22	1:N:194:GLN:CB	2.04	0.88
1:K:385:THR:HB	1:L:284:ARG:CZ	2.04	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:36:ARG:HG3	1:L:518:GLU:CG	2.03	0.88
1:C:37:ASN:HB2	1:D:516:THR:CA	1.87	0.88
1:A:150:ILE:HG12	1:A:494:LEU:HD12	1.56	0.88
1:H:385:THR:HB	1:I:284:ARG:CZ	2.04	0.88
1:E:37:ASN:C	1:F:516:THR:O	2.11	0.87
1:E:150:ILE:HG12	1:E:494:LEU:HD12	1.56	0.87
1:I:385:THR:HB	1:J:284:ARG:CZ	2.04	0.87
1:J:245:LYS:HE2	1:K:232:GLU:HG3	1.54	0.87
1:L:245:LYS:HE2	1:M:232:GLU:HG3	1.54	0.87
1:H:174:VAL:HG22	1:H:194:GLN:CB	2.04	0.87
1:F:37:ASN:C	1:G:516:THR:O	2.11	0.87
1:K:39:VAL:HG12	1:L:69:MET:HE1	1.55	0.87
1:A:37:ASN:HB2	1:B:516:THR:CA	1.87	0.87
1:H:39:VAL:HG12	1:I:69:MET:HE1	1.55	0.87
1:B:39:VAL:CB	1:C:517:THR:CG2	2.43	0.87
1:L:385:THR:HB	1:M:284:ARG:CZ	2.04	0.87
1:I:36:ARG:HG3	1:J:518:GLU:CG	2.03	0.87
1:K:174:VAL:HG22	1:K:194:GLN:CB	2.04	0.87
1:E:47:PRO:CD	1:F:73:MET:HG3	1.87	0.87
1:J:270:ILE:HG22	1:K:229:ASN:CA	2.04	0.87
1:H:229:ASN:CA	1:N:270:ILE:HG22	2.04	0.87
1:J:36:ARG:HG3	1:K:518:GLU:CG	2.03	0.87
1:J:385:THR:HB	1:K:284:ARG:CZ	2.04	0.87
1:J:390:LYS:CG	1:K:281:PHE:CB	2.52	0.87
1:L:390:LYS:CG	1:M:281:PHE:CB	2.52	0.87
1:N:408:GLU:HG3	1:N:498:LYS:CE	2.05	0.87
1:I:408:GLU:HG3	1:I:498:LYS:CE	2.05	0.87
1:H:408:GLU:HG3	1:H:498:LYS:CE	2.05	0.87
1:M:408:GLU:HG3	1:M:498:LYS:CE	2.05	0.87
1:H:281:PHE:CB	1:N:390:LYS:CG	2.52	0.86
1:J:408:GLU:HG3	1:J:498:LYS:CE	2.05	0.86
1:M:385:THR:HB	1:N:284:ARG:CZ	2.04	0.86
1:M:174:VAL:HG22	1:M:194:GLN:CB	2.04	0.86
1:H:69:MET:HE1	1:N:39:VAL:HG12	1.55	0.86
1:I:390:LYS:CG	1:J:281:PHE:CB	2.52	0.86
1:K:390:LYS:CG	1:L:281:PHE:CB	2.52	0.86
1:D:150:ILE:HG12	1:D:494:LEU:HD12	1.56	0.86
1:M:390:LYS:CG	1:N:281:PHE:CB	2.52	0.86
1:L:174:VAL:HG22	1:L:194:GLN:CB	2.04	0.86
1:B:150:ILE:HG12	1:B:494:LEU:HD12	1.56	0.86
1:E:39:VAL:CB	1:F:517:THR:CG2	2.43	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:270:ILE:HG22	1:I:229:ASN:CA	2.04	0.86
1:I:270:ILE:HG22	1:J:229:ASN:CA	2.04	0.86
1:K:408:GLU:HG3	1:K:498:LYS:CE	2.05	0.86
1:D:39:VAL:CB	1:E:517:THR:HG21	1.94	0.85
1:L:408:GLU:HG3	1:L:498:LYS:CE	2.05	0.85
1:I:39:VAL:HG11	1:J:69:MET:HE2	1.56	0.85
1:A:281:PHE:CZ	1:G:386:GLU:CG	2.60	0.85
1:C:386:GLU:CG	1:D:281:PHE:CZ	2.60	0.85
1:B:386:GLU:CG	1:C:281:PHE:CZ	2.60	0.85
1:I:39:VAL:HG12	1:J:69:MET:HE1	1.58	0.85
1:A:47:PRO:CG	1:B:73:MET:HG2	1.88	0.85
1:F:386:GLU:CG	1:G:281:PHE:CZ	2.60	0.85
1:E:39:VAL:CB	1:F:517:THR:HG21	1.94	0.84
1:D:386:GLU:CG	1:E:281:PHE:CZ	2.60	0.84
1:A:386:GLU:CG	1:B:281:PHE:CZ	2.60	0.84
1:H:232:GLU:CG	1:N:245:LYS:HE2	2.08	0.84
1:F:39:VAL:CB	1:G:517:THR:CG2	2.43	0.84
1:E:386:GLU:CG	1:F:281:PHE:CZ	2.60	0.83
1:C:150:ILE:HG12	1:C:494:LEU:HD12	1.56	0.83
1:I:245:LYS:HE2	1:J:232:GLU:CG	2.08	0.83
1:A:517:THR:CG2	1:G:39:VAL:CB	2.43	0.83
1:H:245:LYS:HE2	1:I:232:GLU:CG	2.08	0.83
1:M:39:VAL:CG1	1:N:69:MET:HE1	2.07	0.83
1:E:270:ILE:CG2	1:F:229:ASN:C	2.47	0.83
1:J:245:LYS:HE2	1:K:232:GLU:CG	2.08	0.83
1:K:245:LYS:HE2	1:L:232:GLU:CG	2.08	0.83
1:M:38:VAL:HA	1:N:519:CYS:O	1.79	0.83
1:C:47:PRO:CD	1:D:73:MET:HG3	1.87	0.83
1:I:405:ALA:O	1:I:498:LYS:HE2	1.79	0.83
1:M:405:ALA:O	1:M:498:LYS:HE2	1.79	0.83
1:F:270:ILE:CG2	1:G:229:ASN:C	2.47	0.83
1:D:39:VAL:CB	1:E:517:THR:CG2	2.43	0.82
1:L:245:LYS:HE2	1:M:232:GLU:CG	2.08	0.82
1:D:270:ILE:CG2	1:E:229:ASN:C	2.47	0.82
1:C:39:VAL:CB	1:D:517:THR:CG2	2.43	0.82
1:M:245:LYS:HE2	1:N:232:GLU:CG	2.08	0.82
1:K:405:ALA:O	1:K:498:LYS:HE2	1.79	0.82
1:M:405:ALA:O	1:M:498:LYS:HD3	1.80	0.82
1:A:270:ILE:CG2	1:B:229:ASN:C	2.47	0.82
1:H:38:VAL:HA	1:I:519:CYS:O	1.79	0.82
1:E:26:ALA:CB	1:F:8:PHE:HE2	1.93	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:38:VAL:HG13	1:D:519:CYS:HB3	1.62	0.82
1:B:38:VAL:HG13	1:C:519:CYS:HB3	1.62	0.82
1:H:405:ALA:O	1:H:498:LYS:HE2	1.79	0.82
1:N:405:ALA:O	1:N:498:LYS:HD3	1.80	0.82
1:H:65:LYS:HB3	1:H:522:THR:HG21	1.62	0.81
1:L:405:ALA:O	1:L:498:LYS:HD3	1.80	0.81
1:B:270:ILE:CG2	1:C:229:ASN:C	2.47	0.81
1:N:65:LYS:HB3	1:N:522:THR:HG21	1.62	0.81
1:M:65:LYS:HB3	1:M:522:THR:HG21	1.62	0.81
1:E:65:LYS:HB3	1:E:522:THR:HG21	1.62	0.81
1:H:69:MET:HE2	1:N:39:VAL:HG11	1.61	0.81
1:L:39:VAL:CG1	1:M:69:MET:HE1	2.09	0.81
1:I:65:LYS:HB3	1:I:522:THR:HG21	1.62	0.81
1:I:405:ALA:O	1:I:498:LYS:HD3	1.80	0.81
1:K:405:ALA:O	1:K:498:LYS:HD3	1.80	0.81
1:A:229:ASN:C	1:G:270:ILE:CG2	2.47	0.81
1:L:38:VAL:HA	1:M:519:CYS:O	1.79	0.81
1:K:38:VAL:HA	1:L:519:CYS:O	1.79	0.81
1:C:26:ALA:CB	1:D:8:PHE:HE2	1.93	0.81
1:F:65:LYS:HB3	1:F:522:THR:HG21	1.62	0.81
1:I:38:VAL:HA	1:J:519:CYS:O	1.79	0.81
1:H:405:ALA:O	1:H:498:LYS:HD3	1.80	0.81
1:C:270:ILE:CG2	1:D:229:ASN:C	2.47	0.81
1:H:519:CYS:O	1:N:38:VAL:HA	1.79	0.81
1:D:35:GLY:O	1:E:114:MET:HE2	1.81	0.81
1:D:38:VAL:HG13	1:E:519:CYS:HB3	1.62	0.81
1:A:38:VAL:HG13	1:B:519:CYS:HB3	1.61	0.81
1:A:73:MET:HG2	1:G:47:PRO:CG	1.88	0.81
1:F:37:ASN:N	1:G:516:THR:HG22	1.84	0.81
1:J:38:VAL:HA	1:K:519:CYS:O	1.79	0.81
1:D:26:ALA:CB	1:E:8:PHE:HE2	1.93	0.81
1:D:65:LYS:HB3	1:D:522:THR:HG21	1.62	0.81
1:L:405:ALA:O	1:L:498:LYS:HE2	1.79	0.81
1:J:405:ALA:O	1:J:498:LYS:HD3	1.80	0.81
1:N:405:ALA:O	1:N:498:LYS:HE2	1.79	0.81
1:M:174:VAL:CG2	1:M:194:GLN:HB2	2.11	0.81
1:B:26:ALA:CB	1:C:8:PHE:HE2	1.93	0.81
1:G:65:LYS:HB3	1:G:522:THR:HG21	1.62	0.81
1:B:35:GLY:O	1:C:114:MET:HE2	1.81	0.81
1:L:65:LYS:HB3	1:L:522:THR:HG21	1.62	0.80
1:J:405:ALA:O	1:J:498:LYS:HE2	1.79	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:26:ALA:CB	1:G:8:PHE:HE2	1.93	0.80
1:A:519:CYS:HB3	1:G:38:VAL:HG13	1.62	0.80
1:H:174:VAL:CG2	1:H:194:GLN:HB2	2.11	0.80
1:J:65:LYS:HB3	1:J:522:THR:HG21	1.62	0.80
1:I:174:VAL:CG2	1:I:194:GLN:HB2	2.11	0.80
1:L:174:VAL:CG2	1:L:194:GLN:HB2	2.11	0.80
1:A:8:PHE:HE2	1:G:26:ALA:CB	1.93	0.80
1:A:26:ALA:CB	1:B:8:PHE:HE2	1.93	0.80
1:H:182:GLY:N	1:I:283:ASP:CB	2.29	0.80
1:F:38:VAL:HG13	1:G:519:CYS:HB3	1.62	0.80
1:L:385:THR:CB	1:M:284:ARG:CZ	2.60	0.80
1:J:174:VAL:CG2	1:J:194:GLN:HB2	2.11	0.80
1:F:35:GLY:O	1:G:114:MET:HE2	1.79	0.80
1:E:37:ASN:N	1:F:516:THR:HG22	1.84	0.80
1:H:39:VAL:HG11	1:I:69:MET:HE2	1.63	0.80
1:N:174:VAL:CG2	1:N:194:GLN:HB2	2.11	0.80
1:J:59:GLU:O	1:K:4:LYS:HG3	1.83	0.79
1:B:65:LYS:HB3	1:B:522:THR:HG21	1.62	0.79
1:M:385:THR:CB	1:N:284:ARG:CZ	2.60	0.79
1:K:174:VAL:CG2	1:K:194:GLN:HB2	2.11	0.79
1:H:59:GLU:O	1:I:4:LYS:HG3	1.83	0.79
1:H:4:LYS:HG3	1:N:59:GLU:O	1.83	0.79
1:L:36:ARG:HB2	1:M:518:GLU:HB2	1.65	0.79
1:M:182:GLY:N	1:N:283:ASP:CB	2.29	0.79
1:F:47:PRO:HD2	1:G:73:MET:CB	2.11	0.79
1:K:385:THR:CB	1:L:284:ARG:CZ	2.60	0.79
1:N:408:GLU:CG	1:N:498:LYS:CE	2.61	0.79
1:H:518:GLU:HB2	1:N:36:ARG:HB2	1.65	0.79
1:C:65:LYS:HB3	1:C:522:THR:HG21	1.62	0.79
1:E:47:PRO:HD2	1:F:73:MET:CB	2.11	0.79
1:E:49:ILE:CG1	1:F:513:LEU:HD13	2.12	0.79
1:D:37:ASN:N	1:E:516:THR:HG22	1.84	0.79
1:D:47:PRO:HD2	1:E:73:MET:CB	2.11	0.79
1:E:38:VAL:HG13	1:F:519:CYS:HB3	1.62	0.79
1:A:73:MET:CB	1:G:47:PRO:HD2	2.11	0.79
1:I:390:LYS:HG2	1:J:281:PHE:HB2	1.64	0.79
1:I:36:ARG:HB2	1:J:518:GLU:HB2	1.65	0.79
1:C:291:ASP:HB3	1:C:372:LEU:HD11	1.65	0.79
1:C:178:GLU:HA	1:C:393:LYS:HE2	1.65	0.79
1:F:49:ILE:CG1	1:G:513:LEU:HD13	2.12	0.79
1:M:408:GLU:CG	1:M:498:LYS:CE	2.61	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:49:ILE:CG1	1:C:513:LEU:HD13	2.12	0.79
1:L:182:GLY:N	1:M:283:ASP:CB	2.29	0.79
1:L:59:GLU:O	1:M:4:LYS:HG3	1.83	0.79
1:H:291:ASP:HB3	1:H:372:LEU:HD11	1.65	0.79
1:I:291:ASP:HB3	1:I:372:LEU:HD11	1.65	0.79
1:K:39:VAL:HG11	1:L:69:MET:HE2	1.63	0.79
1:M:59:GLU:O	1:N:4:LYS:HG3	1.83	0.79
1:C:47:PRO:HD2	1:D:73:MET:CB	2.11	0.79
1:A:47:PRO:HD2	1:B:73:MET:CB	2.11	0.79
1:A:65:LYS:HB3	1:A:522:THR:HG21	1.62	0.79
1:I:385:THR:CB	1:J:284:ARG:CZ	2.60	0.79
1:K:65:LYS:HB3	1:K:522:THR:HG21	1.62	0.79
1:L:408:GLU:CG	1:L:498:LYS:CE	2.61	0.79
1:K:408:GLU:CG	1:K:498:LYS:CE	2.61	0.79
1:D:178:GLU:HA	1:D:393:LYS:HE2	1.65	0.79
1:B:291:ASP:HB3	1:B:372:LEU:HD11	1.65	0.79
1:D:47:PRO:HG2	1:E:73:MET:SD	2.23	0.78
1:B:47:PRO:HD2	1:C:73:MET:CB	2.11	0.78
1:H:385:THR:CB	1:I:284:ARG:CZ	2.60	0.78
1:C:49:ILE:CG1	1:D:513:LEU:HD13	2.12	0.78
1:K:36:ARG:HB2	1:L:518:GLU:HB2	1.65	0.78
1:E:178:GLU:HA	1:E:393:LYS:HE2	1.65	0.78
1:C:47:PRO:HG2	1:D:73:MET:SD	2.23	0.78
1:H:281:PHE:HB2	1:N:390:LYS:HG2	1.64	0.78
1:D:270:ILE:CG2	1:E:229:ASN:HA	2.13	0.78
1:D:291:ASP:HB3	1:D:372:LEU:HD11	1.65	0.78
1:A:39:VAL:CB	1:B:517:THR:CG2	2.43	0.78
1:A:49:ILE:CG1	1:B:513:LEU:HD13	2.12	0.78
1:H:36:ARG:HB2	1:I:518:GLU:HB2	1.65	0.78
1:B:178:GLU:HA	1:B:393:LYS:HE2	1.65	0.78
1:A:47:PRO:HG2	1:B:73:MET:SD	2.24	0.78
1:F:47:PRO:HG2	1:G:73:MET:SD	2.23	0.78
1:A:270:ILE:CG2	1:B:229:ASN:HA	2.13	0.78
1:E:270:ILE:CG2	1:F:229:ASN:HA	2.13	0.78
1:M:36:ARG:HB2	1:N:518:GLU:HB2	1.65	0.78
1:I:174:VAL:HG22	1:I:194:GLN:HB2	1.66	0.78
1:J:174:VAL:HG22	1:J:194:GLN:HB2	1.66	0.78
1:K:182:GLY:N	1:L:283:ASP:CB	2.29	0.78
1:J:385:THR:CB	1:K:284:ARG:CZ	2.60	0.78
1:D:49:ILE:CG1	1:E:513:LEU:HD13	2.12	0.78
1:H:390:LYS:HG2	1:I:281:PHE:HB2	1.64	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:39:VAL:HG11	1:K:69:MET:HE2	1.64	0.78
1:M:86:GLY:HA3	1:M:405:ALA:CB	2.14	0.78
1:J:291:ASP:HB3	1:J:372:LEU:HD11	1.65	0.78
1:F:270:ILE:CG2	1:G:229:ASN:HA	2.13	0.78
1:I:59:GLU:O	1:J:4:LYS:HG3	1.83	0.78
1:I:191:GLU:O	1:I:334:ASP:HA	1.84	0.78
1:A:291:ASP:HB3	1:A:372:LEU:HD11	1.65	0.78
1:J:86:GLY:HA3	1:J:405:ALA:CB	2.14	0.77
1:A:229:ASN:HA	1:G:270:ILE:CG2	2.13	0.77
1:B:47:PRO:HG2	1:C:73:MET:SD	2.23	0.77
1:J:390:LYS:HG2	1:K:281:PHE:HB2	1.64	0.77
1:A:513:LEU:HD13	1:G:49:ILE:CG1	2.13	0.77
1:K:59:GLU:O	1:L:4:LYS:HG3	1.83	0.77
1:L:191:GLU:O	1:L:334:ASP:HA	1.84	0.77
1:N:291:ASP:HB3	1:N:372:LEU:HD11	1.65	0.77
1:I:182:GLY:N	1:J:283:ASP:CB	2.29	0.77
1:M:390:LYS:HG2	1:N:281:PHE:HB2	1.64	0.77
1:H:174:VAL:HG22	1:H:194:GLN:HB2	1.66	0.77
1:E:47:PRO:HG2	1:F:73:MET:SD	2.23	0.77
1:H:284:ARG:CZ	1:N:385:THR:CB	2.60	0.77
1:H:408:GLU:CG	1:H:498:LYS:CE	2.61	0.77
1:B:270:ILE:CD1	1:C:231:ARG:HG3	2.15	0.77
1:L:291:ASP:HB3	1:L:372:LEU:HD11	1.65	0.77
1:N:86:GLY:HA3	1:N:405:ALA:CB	2.14	0.77
1:G:178:GLU:HA	1:G:393:LYS:HE2	1.65	0.77
1:F:291:ASP:HB3	1:F:372:LEU:HD11	1.65	0.77
1:I:405:ALA:O	1:I:498:LYS:CD	2.33	0.77
1:H:86:GLY:HA3	1:H:405:ALA:CB	2.14	0.77
1:I:174:VAL:HG22	1:I:194:GLN:HB3	1.66	0.77
1:H:174:VAL:HG22	1:H:194:GLN:HB3	1.66	0.77
1:K:174:VAL:HG22	1:K:194:GLN:HB2	1.66	0.77
1:F:178:GLU:HA	1:F:393:LYS:HE2	1.65	0.77
1:E:291:ASP:HB3	1:E:372:LEU:HD11	1.65	0.77
1:G:291:ASP:HB3	1:G:372:LEU:HD11	1.65	0.77
1:D:39:VAL:O	1:E:519:CYS:O	2.03	0.77
1:I:408:GLU:CG	1:I:498:LYS:CE	2.61	0.77
1:F:270:ILE:CD1	1:G:231:ARG:HG3	2.15	0.77
1:M:191:GLU:O	1:M:334:ASP:HA	1.84	0.77
1:B:37:ASN:N	1:C:516:THR:O	2.17	0.77
1:A:37:ASN:N	1:B:516:THR:O	2.17	0.77
1:K:191:GLU:O	1:K:334:ASP:HA	1.84	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:178:GLU:HA	1:A:393:LYS:HE2	1.65	0.77
1:M:291:ASP:HB3	1:M:372:LEU:HD11	1.65	0.77
1:M:390:LYS:CD	1:N:281:PHE:HB2	2.15	0.77
1:K:390:LYS:CD	1:L:281:PHE:HB2	2.15	0.77
1:D:270:ILE:CD1	1:E:231:ARG:HG3	2.15	0.77
1:K:291:ASP:HB3	1:K:372:LEU:HD11	1.65	0.77
1:H:191:GLU:O	1:H:334:ASP:HA	1.84	0.77
1:A:231:ARG:HG3	1:G:270:ILE:CD1	2.15	0.76
1:J:191:GLU:O	1:J:334:ASP:HA	1.84	0.76
1:N:191:GLU:O	1:N:334:ASP:HA	1.84	0.76
1:C:37:ASN:N	1:D:516:THR:O	2.17	0.76
1:D:37:ASN:N	1:E:516:THR:O	2.17	0.76
1:I:86:GLY:HA3	1:I:405:ALA:CB	2.14	0.76
1:L:86:GLY:HA3	1:L:405:ALA:CB	2.14	0.76
1:J:408:GLU:CG	1:J:498:LYS:CE	2.61	0.76
1:J:405:ALA:O	1:J:498:LYS:CD	2.33	0.76
1:E:270:ILE:CD1	1:F:231:ARG:HG3	2.15	0.76
1:J:174:VAL:HG22	1:J:194:GLN:HB3	1.66	0.76
1:C:270:ILE:CD1	1:D:231:ARG:HG3	2.15	0.76
1:N:405:ALA:O	1:N:498:LYS:CD	2.33	0.76
1:N:174:VAL:HG22	1:N:194:GLN:HB3	1.66	0.76
1:A:73:MET:SD	1:G:47:PRO:HG2	2.23	0.76
1:M:36:ARG:CG	1:N:518:GLU:HG3	2.12	0.76
1:F:37:ASN:N	1:G:516:THR:O	2.17	0.76
1:K:39:VAL:CG1	1:L:69:MET:HE1	2.12	0.76
1:M:405:ALA:O	1:M:498:LYS:CD	2.33	0.76
1:K:86:GLY:HA3	1:K:405:ALA:CB	2.14	0.76
1:H:283:ASP:CB	1:N:182:GLY:N	2.29	0.76
1:C:39:VAL:O	1:D:519:CYS:O	2.03	0.76
1:E:39:VAL:O	1:F:519:CYS:O	2.03	0.76
1:A:516:THR:O	1:G:37:ASN:N	2.17	0.76
1:H:405:ALA:O	1:H:498:LYS:CD	2.33	0.76
1:L:36:ARG:CG	1:M:518:GLU:HG3	2.12	0.76
1:C:150:ILE:HD11	1:C:494:LEU:HD13	1.67	0.76
1:E:150:ILE:HD11	1:E:494:LEU:HD13	1.67	0.76
1:L:408:GLU:HG2	1:L:498:LYS:HE2	1.67	0.76
1:C:37:ASN:N	1:D:516:THR:HG22	1.84	0.76
1:F:39:VAL:O	1:G:519:CYS:O	2.03	0.76
1:C:270:ILE:HG22	1:D:229:ASN:CA	2.16	0.76
1:B:150:ILE:HD11	1:B:494:LEU:HD13	1.67	0.76
1:I:390:LYS:CD	1:J:281:PHE:HB2	2.15	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:408:GLU:HG2	1:H:498:LYS:HE2	1.67	0.76
1:J:408:GLU:HG2	1:J:498:LYS:HE2	1.67	0.76
1:A:270:ILE:CD1	1:B:231:ARG:HG3	2.15	0.76
1:A:519:CYS:O	1:G:39:VAL:O	2.03	0.76
1:L:390:LYS:HG2	1:M:281:PHE:HB2	1.64	0.76
1:D:270:ILE:HG22	1:E:229:ASN:CA	2.16	0.76
1:M:174:VAL:HG22	1:M:194:GLN:HB2	1.66	0.76
1:L:174:VAL:HG22	1:L:194:GLN:HB2	1.66	0.76
1:K:390:LYS:HG2	1:L:281:PHE:HB2	1.64	0.75
1:H:232:GLU:OE2	1:N:245:LYS:HD3	1.87	0.75
1:C:270:ILE:CG2	1:D:229:ASN:HA	2.13	0.75
1:B:37:ASN:N	1:C:516:THR:HG22	1.84	0.75
1:E:37:ASN:N	1:F:516:THR:O	2.17	0.75
1:A:37:ASN:N	1:B:516:THR:HG22	1.84	0.75
1:F:150:ILE:HD11	1:F:494:LEU:HD13	1.67	0.75
1:J:245:LYS:HD3	1:K:232:GLU:OE2	1.86	0.75
1:K:245:LYS:HD3	1:L:232:GLU:OE2	1.86	0.75
1:K:408:GLU:HG2	1:K:498:LYS:HE2	1.67	0.75
1:H:36:ARG:CG	1:I:518:GLU:HG3	2.12	0.75
1:N:174:VAL:HG22	1:N:194:GLN:HB2	1.66	0.75
1:H:390:LYS:CD	1:I:281:PHE:HB2	2.15	0.75
1:L:405:ALA:O	1:L:498:LYS:CD	2.33	0.75
1:K:405:ALA:O	1:K:498:LYS:CD	2.33	0.75
1:N:408:GLU:HG2	1:N:498:LYS:HE2	1.67	0.75
1:J:36:ARG:HB2	1:K:518:GLU:HB2	1.65	0.75
1:J:182:GLY:N	1:K:283:ASP:CB	2.29	0.75
1:L:245:LYS:HD3	1:M:232:GLU:OE2	1.86	0.75
1:K:36:ARG:CG	1:L:518:GLU:HG3	2.12	0.75
1:K:174:VAL:HG22	1:K:194:GLN:HB3	1.66	0.75
1:B:39:VAL:O	1:C:519:CYS:O	2.03	0.75
1:L:390:LYS:CD	1:M:281:PHE:HB2	2.16	0.75
1:M:408:GLU:HG2	1:M:498:LYS:HE2	1.67	0.75
1:M:174:VAL:HG22	1:M:194:GLN:HB3	1.66	0.75
1:A:39:VAL:O	1:B:519:CYS:O	2.03	0.75
1:H:281:PHE:HB2	1:N:390:LYS:CD	2.16	0.75
1:I:245:LYS:HD3	1:J:232:GLU:OE2	1.86	0.75
1:M:245:LYS:HD3	1:N:232:GLU:OE2	1.86	0.75
1:B:270:ILE:CG2	1:C:229:ASN:HA	2.13	0.75
1:J:390:LYS:CD	1:K:281:PHE:HB2	2.15	0.75
1:D:150:ILE:HD11	1:D:494:LEU:HD13	1.67	0.74
1:H:245:LYS:HD3	1:I:232:GLU:OE2	1.87	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:150:ILE:HD11	1:G:494:LEU:HD13	1.67	0.74
1:F:38:VAL:HA	1:G:518:GLU:H	1.51	0.74
1:L:39:VAL:HG11	1:M:69:MET:HE2	1.66	0.74
1:I:408:GLU:HG2	1:I:498:LYS:HE2	1.66	0.74
1:A:245:LYS:HE2	1:B:232:GLU:HG3	1.69	0.74
1:C:245:LYS:HE2	1:D:232:GLU:HG3	1.69	0.74
1:B:245:LYS:HE2	1:C:232:GLU:HG3	1.69	0.74
1:L:174:VAL:HG22	1:L:194:GLN:HB3	1.66	0.74
1:A:150:ILE:HD11	1:A:494:LEU:HD13	1.67	0.74
1:A:518:GLU:H	1:G:38:VAL:HA	1.51	0.74
1:E:38:VAL:HA	1:F:518:GLU:H	1.51	0.74
1:C:39:VAL:HB	1:D:517:THR:CG2	2.15	0.74
1:B:38:VAL:HA	1:C:518:GLU:H	1.51	0.74
1:M:146:GLN:NE2	1:M:494:LEU:HD12	2.03	0.74
1:A:38:VAL:HA	1:B:518:GLU:H	1.51	0.74
1:A:232:GLU:HG3	1:G:245:LYS:HE2	1.69	0.74
1:F:270:ILE:HG22	1:G:229:ASN:CA	2.16	0.73
1:A:516:THR:HG22	1:G:37:ASN:N	1.84	0.73
1:E:270:ILE:HG22	1:F:229:ASN:CA	2.16	0.73
1:K:390:LYS:CG	1:L:281:PHE:HB2	2.18	0.73
1:K:146:GLN:NE2	1:K:494:LEU:HD12	2.03	0.73
1:C:38:VAL:HA	1:D:518:GLU:H	1.51	0.73
1:D:38:VAL:HA	1:E:518:GLU:H	1.51	0.73
1:H:231:ARG:HG3	1:N:270:ILE:HG12	1.70	0.73
1:D:47:PRO:HB2	1:E:73:MET:SD	2.29	0.73
1:B:47:PRO:HB2	1:C:73:MET:SD	2.29	0.73
1:J:390:LYS:CG	1:K:281:PHE:HB2	2.18	0.73
1:H:270:ILE:HG12	1:I:231:ARG:HG3	1.70	0.73
1:I:146:GLN:NE2	1:I:494:LEU:HD12	2.03	0.73
1:D:245:LYS:HE2	1:E:232:GLU:HG3	1.69	0.73
1:H:146:GLN:NE2	1:H:494:LEU:HD12	2.03	0.73
1:A:73:MET:SD	1:G:47:PRO:HB2	2.29	0.73
1:K:270:ILE:CG2	1:L:229:ASN:C	2.57	0.73
1:F:245:LYS:HE2	1:G:232:GLU:HG3	1.69	0.73
1:E:47:PRO:HB2	1:F:73:MET:SD	2.29	0.73
1:L:390:LYS:CG	1:M:281:PHE:HB2	2.18	0.73
1:N:146:GLN:NE2	1:N:494:LEU:HD12	2.03	0.73
1:H:281:PHE:HB2	1:N:390:LYS:CG	2.18	0.73
1:J:36:ARG:CG	1:K:518:GLU:HG3	2.12	0.73
1:E:245:LYS:HE2	1:F:232:GLU:HG3	1.69	0.72
1:J:146:GLN:NE2	1:J:494:LEU:HD12	2.03	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:39:VAL:HB	1:E:517:THR:CG2	2.15	0.72
1:E:39:VAL:HB	1:F:517:THR:CG2	2.15	0.72
1:A:47:PRO:HB2	1:B:73:MET:SD	2.29	0.72
1:I:390:LYS:CG	1:J:281:PHE:HB2	2.18	0.72
1:I:270:ILE:CG2	1:J:229:ASN:C	2.57	0.72
1:I:270:ILE:HG12	1:J:231:ARG:HG3	1.70	0.72
1:M:270:ILE:HG12	1:N:231:ARG:HG3	1.70	0.72
1:J:270:ILE:CG2	1:K:229:ASN:C	2.57	0.72
1:C:47:PRO:HB2	1:D:73:MET:SD	2.29	0.72
1:C:150:ILE:HD13	1:C:411:VAL:CB	2.20	0.72
1:D:150:ILE:HD13	1:D:411:VAL:CB	2.20	0.72
1:H:390:LYS:CG	1:I:281:PHE:HB2	2.18	0.72
1:L:270:ILE:CG2	1:M:229:ASN:C	2.57	0.72
1:M:39:VAL:HG11	1:N:69:MET:HE2	1.69	0.72
1:A:270:ILE:HG22	1:B:229:ASN:CA	2.16	0.72
1:M:168:LYS:HD3	1:M:189:VAL:HG23	1.70	0.72
1:I:168:LYS:HD3	1:I:189:VAL:HG23	1.70	0.72
1:E:150:ILE:HD13	1:E:411:VAL:CB	2.20	0.72
1:K:270:ILE:HG12	1:L:231:ARG:HG3	1.71	0.72
1:L:168:LYS:HD3	1:L:189:VAL:HG23	1.70	0.72
1:N:168:LYS:HD3	1:N:189:VAL:HG23	1.70	0.72
1:G:150:ILE:HD13	1:G:411:VAL:CB	2.20	0.72
1:F:47:PRO:HB2	1:G:73:MET:SD	2.29	0.72
1:F:150:ILE:HD13	1:F:411:VAL:CB	2.20	0.72
1:H:270:ILE:CG2	1:I:229:ASN:C	2.57	0.72
1:L:146:GLN:NE2	1:L:494:LEU:HD12	2.03	0.72
1:A:150:ILE:HD13	1:A:411:VAL:CB	2.20	0.72
1:B:150:ILE:HD13	1:B:411:VAL:CB	2.20	0.72
1:J:168:LYS:HD3	1:J:189:VAL:HG23	1.70	0.72
1:J:270:ILE:HG12	1:K:231:ARG:HG3	1.70	0.71
1:L:270:ILE:HG12	1:M:231:ARG:HG3	1.70	0.71
1:H:39:VAL:CG1	1:I:69:MET:HE1	2.12	0.71
1:I:36:ARG:CG	1:J:518:GLU:HG3	2.12	0.71
1:K:37:ASN:HB2	1:L:517:THR:HA	1.72	0.71
1:H:37:ASN:HB2	1:I:517:THR:HA	1.72	0.71
1:H:168:LYS:HD3	1:H:189:VAL:HG23	1.70	0.71
1:K:168:LYS:HD3	1:K:189:VAL:HG23	1.70	0.71
1:I:37:ASN:HB2	1:J:517:THR:HA	1.72	0.71
1:J:37:ASN:HB2	1:K:517:THR:HA	1.72	0.71
1:B:39:VAL:HB	1:C:517:THR:CG2	2.15	0.71
1:M:270:ILE:CG2	1:N:229:ASN:C	2.57	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:150:ILE:CD1	1:B:494:LEU:HD13	2.21	0.71
1:M:218:PRO:HB3	1:M:246:PRO:HB2	1.73	0.71
1:J:174:VAL:CG2	1:J:194:GLN:CB	2.69	0.71
1:N:174:VAL:CG2	1:N:194:GLN:CB	2.69	0.71
1:L:37:ASN:HB2	1:M:517:THR:HA	1.72	0.71
1:N:218:PRO:HB3	1:N:246:PRO:HB2	1.73	0.71
1:C:150:ILE:CD1	1:C:494:LEU:HD13	2.21	0.71
1:L:390:LYS:CE	1:M:281:PHE:CB	2.56	0.71
1:B:49:ILE:HD12	1:C:513:LEU:HB3	1.73	0.71
1:E:218:PRO:HB3	1:E:246:PRO:HB2	1.73	0.71
1:D:150:ILE:CD1	1:D:494:LEU:HD13	2.21	0.71
1:J:39:VAL:CG1	1:K:69:MET:HE1	2.11	0.71
1:D:49:ILE:HD12	1:E:513:LEU:HB3	1.73	0.71
1:H:218:PRO:HB3	1:H:246:PRO:HB2	1.73	0.70
1:H:229:ASN:C	1:N:270:ILE:CG2	2.57	0.70
1:L:218:PRO:HB3	1:L:246:PRO:HB2	1.73	0.70
1:C:218:PRO:HB3	1:C:246:PRO:HB2	1.73	0.70
1:A:229:ASN:CA	1:G:270:ILE:HG22	2.16	0.70
1:D:218:PRO:HB3	1:D:246:PRO:HB2	1.73	0.70
1:L:174:VAL:CG2	1:L:194:GLN:CB	2.69	0.70
1:C:35:GLY:O	1:D:114:MET:HE2	1.91	0.70
1:F:150:ILE:CD1	1:F:494:LEU:HD13	2.21	0.70
1:A:513:LEU:HB3	1:G:49:ILE:HD12	1.73	0.70
1:K:390:LYS:CE	1:L:281:PHE:CB	2.56	0.70
1:F:218:PRO:HB3	1:F:246:PRO:HB2	1.73	0.70
1:H:517:THR:HA	1:N:37:ASN:HB2	1.72	0.70
1:A:150:ILE:CD1	1:A:494:LEU:HD13	2.21	0.70
1:C:381:VAL:HG11	1:C:393:LYS:HA	1.73	0.70
1:G:150:ILE:CD1	1:G:494:LEU:HD13	2.21	0.70
1:M:390:LYS:HG2	1:N:281:PHE:CD2	2.26	0.70
1:I:390:LYS:HG2	1:J:281:PHE:CD2	2.26	0.70
1:I:174:VAL:CG2	1:I:194:GLN:CB	2.69	0.70
1:F:381:VAL:HG11	1:F:393:LYS:HA	1.73	0.70
1:F:39:VAL:HB	1:G:517:THR:CG2	2.15	0.70
1:B:381:VAL:HG11	1:B:393:LYS:HA	1.73	0.70
1:J:390:LYS:HG2	1:K:281:PHE:CD2	2.26	0.70
1:H:281:PHE:CD2	1:N:390:LYS:HG2	2.26	0.70
1:H:390:LYS:HG2	1:I:281:PHE:CD2	2.26	0.70
1:I:218:PRO:HB3	1:I:246:PRO:HB2	1.73	0.70
1:G:381:VAL:HG11	1:G:393:LYS:HA	1.73	0.70
1:M:390:LYS:CE	1:N:281:PHE:CB	2.56	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:381:VAL:HG11	1:D:393:LYS:HA	1.73	0.70
1:E:150:ILE:CD1	1:E:494:LEU:HD13	2.21	0.69
1:H:390:LYS:CE	1:I:281:PHE:CB	2.56	0.69
1:M:390:LYS:CG	1:N:281:PHE:HB2	2.18	0.69
1:B:218:PRO:HB3	1:B:246:PRO:HB2	1.73	0.69
1:A:35:GLY:O	1:B:114:MET:HE2	1.91	0.69
1:H:518:GLU:HG3	1:N:36:ARG:CG	2.12	0.69
1:J:458:CYS:O	1:K:112:ASN:ND2	2.25	0.69
1:L:390:LYS:HG2	1:M:281:PHE:CD2	2.26	0.69
1:A:41:ASP:OD2	1:B:69:MET:HG2	1.93	0.69
1:K:218:PRO:HB3	1:K:246:PRO:HB2	1.73	0.69
1:M:37:ASN:HB2	1:N:517:THR:HA	1.72	0.69
1:K:458:CYS:O	1:L:112:ASN:ND2	2.24	0.69
1:K:390:LYS:HG2	1:L:281:PHE:CD2	2.26	0.69
1:C:183:LEU:HA	1:C:383:ALA:CB	2.20	0.69
1:L:458:CYS:O	1:M:112:ASN:ND2	2.24	0.69
1:C:41:ASP:OD2	1:D:69:MET:HG2	1.93	0.69
1:J:218:PRO:HB3	1:J:246:PRO:HB2	1.73	0.69
1:A:270:ILE:HD13	1:B:231:ARG:HG3	1.75	0.69
1:B:270:ILE:HG22	1:C:229:ASN:CA	2.16	0.69
1:A:231:ARG:HG3	1:G:270:ILE:HD13	1.75	0.69
1:F:270:ILE:HD13	1:G:231:ARG:HG3	1.75	0.69
1:K:174:VAL:CG2	1:K:194:GLN:CB	2.69	0.69
1:C:37:ASN:O	1:D:516:THR:O	2.11	0.69
1:A:69:MET:HG2	1:G:41:ASP:OD2	1.93	0.69
1:E:49:ILE:HD12	1:F:513:LEU:HB3	1.73	0.69
1:A:218:PRO:HB3	1:A:246:PRO:HB2	1.73	0.69
1:E:41:ASP:OD2	1:F:69:MET:HG2	1.93	0.69
1:G:218:PRO:HB3	1:G:246:PRO:HB2	1.73	0.69
1:J:174:VAL:CG1	1:J:331:THR:OG1	2.40	0.69
1:M:174:VAL:CG2	1:M:194:GLN:CB	2.69	0.69
1:E:37:ASN:O	1:F:516:THR:O	2.10	0.69
1:B:270:ILE:HD13	1:C:231:ARG:HG3	1.75	0.69
1:C:49:ILE:HD12	1:D:513:LEU:HB3	1.73	0.69
1:B:37:ASN:O	1:C:516:THR:O	2.11	0.68
1:E:381:VAL:HG11	1:E:393:LYS:HA	1.73	0.68
1:F:37:ASN:O	1:G:516:THR:O	2.11	0.68
1:A:49:ILE:HD12	1:B:513:LEU:HB3	1.73	0.68
1:H:85:ALA:O	1:H:405:ALA:HB3	1.91	0.68
1:A:381:VAL:HG11	1:A:393:LYS:HA	1.73	0.68
1:M:270:ILE:HG22	1:N:229:ASN:O	1.91	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:37:ASN:O	1:E:516:THR:O	2.11	0.68
1:H:174:VAL:CG2	1:H:194:GLN:CB	2.69	0.68
1:A:114:MET:HE2	1:G:35:GLY:O	1.91	0.68
1:H:270:ILE:HG22	1:I:229:ASN:O	1.91	0.68
1:E:270:ILE:HD13	1:F:231:ARG:HG3	1.75	0.68
1:I:458:CYS:O	1:J:112:ASN:ND2	2.24	0.68
1:M:383:ALA:HB1	1:N:283:ASP:HB2	1.76	0.68
1:K:383:ALA:HB1	1:L:283:ASP:HB2	1.76	0.68
1:E:183:LEU:HA	1:E:383:ALA:CB	2.20	0.68
1:E:35:GLY:O	1:F:114:MET:HE2	1.94	0.68
1:L:383:ALA:HB1	1:M:283:ASP:HB2	1.76	0.68
1:K:390:LYS:HG2	1:L:281:PHE:HB3	1.74	0.68
1:K:387:VAL:CA	1:L:281:PHE:CD1	2.52	0.68
1:K:85:ALA:O	1:K:405:ALA:HB3	1.91	0.68
1:A:183:LEU:HA	1:A:383:ALA:CB	2.20	0.68
1:F:183:LEU:HA	1:F:383:ALA:CB	2.20	0.68
1:H:283:ASP:HB2	1:N:383:ALA:HB1	1.76	0.68
1:J:383:ALA:HB1	1:K:283:ASP:HB2	1.76	0.68
1:B:41:ASP:OD2	1:C:69:MET:HG2	1.93	0.67
1:F:35:GLY:O	1:G:114:MET:SD	2.53	0.67
1:G:183:LEU:HA	1:G:383:ALA:CB	2.20	0.67
1:A:37:ASN:O	1:B:516:THR:O	2.11	0.67
1:D:35:GLY:O	1:E:114:MET:SD	2.52	0.67
1:F:37:ASN:HB2	1:G:516:THR:CA	1.87	0.67
1:J:85:ALA:O	1:J:405:ALA:HB3	1.91	0.67
1:A:516:THR:O	1:G:37:ASN:O	2.11	0.67
1:C:270:ILE:HD13	1:D:231:ARG:HG3	1.75	0.67
1:I:174:VAL:CG1	1:I:331:THR:OG1	2.40	0.67
1:C:35:GLY:O	1:D:114:MET:SD	2.52	0.67
1:A:114:MET:SD	1:G:35:GLY:O	2.53	0.67
1:E:35:GLY:O	1:F:114:MET:SD	2.53	0.67
1:B:39:VAL:CB	1:C:517:THR:HG23	2.25	0.67
1:H:69:MET:HE1	1:N:39:VAL:CG1	2.13	0.67
1:N:174:VAL:HG11	1:N:331:THR:HG1	1.60	0.67
1:M:458:CYS:O	1:N:112:ASN:ND2	2.25	0.67
1:A:517:THR:HG23	1:G:39:VAL:CB	2.25	0.67
1:I:390:LYS:CE	1:J:281:PHE:CB	2.56	0.67
1:H:112:ASN:ND2	1:N:458:CYS:O	2.24	0.67
1:C:47:PRO:CG	1:D:73:MET:SD	2.83	0.66
1:J:390:LYS:HG2	1:K:281:PHE:HB3	1.74	0.66
1:H:281:PHE:HB3	1:N:390:LYS:HG2	1.74	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:270:ILE:HD13	1:E:231:ARG:HG3	1.75	0.66
1:A:39:VAL:CB	1:B:517:THR:HG23	2.25	0.66
1:A:517:THR:CG2	1:G:39:VAL:HB	2.15	0.66
1:L:85:ALA:O	1:L:405:ALA:HB3	1.91	0.66
1:I:383:ALA:HB1	1:J:283:ASP:HB2	1.76	0.66
1:J:390:LYS:CE	1:K:281:PHE:CB	2.56	0.66
1:M:174:VAL:CG1	1:M:331:THR:OG1	2.40	0.66
1:H:458:CYS:O	1:I:112:ASN:ND2	2.25	0.66
1:I:390:LYS:HG2	1:J:281:PHE:HB3	1.74	0.66
1:I:387:VAL:CA	1:J:281:PHE:CD1	2.52	0.66
1:K:270:ILE:HG22	1:L:229:ASN:O	1.91	0.66
1:H:270:ILE:CD1	1:I:231:ARG:HG3	2.26	0.66
1:A:245:LYS:HD3	1:B:232:GLU:CD	2.16	0.66
1:C:245:LYS:HD3	1:D:232:GLU:CD	2.16	0.66
1:B:245:LYS:HD3	1:C:232:GLU:CD	2.16	0.66
1:I:270:ILE:CD1	1:J:231:ARG:HG3	2.26	0.66
1:A:232:GLU:CD	1:G:245:LYS:HD3	2.16	0.66
1:K:174:VAL:CG1	1:K:331:THR:OG1	2.40	0.66
1:B:35:GLY:O	1:C:114:MET:SD	2.53	0.66
1:F:47:PRO:CG	1:G:73:MET:SD	2.83	0.66
1:B:49:ILE:CG2	1:C:513:LEU:HD22	2.26	0.66
1:H:383:ALA:HB1	1:I:283:ASP:HB2	1.76	0.66
1:D:47:PRO:CG	1:E:73:MET:SD	2.83	0.66
1:D:245:LYS:HD3	1:E:232:GLU:CD	2.16	0.66
1:A:35:GLY:O	1:B:114:MET:SD	2.53	0.66
1:H:231:ARG:HG3	1:N:270:ILE:CD1	2.26	0.66
1:A:49:ILE:CG2	1:B:513:LEU:HD22	2.26	0.66
1:C:49:ILE:CG2	1:D:513:LEU:HD22	2.26	0.66
1:D:270:ILE:CG2	1:E:229:ASN:CA	2.74	0.66
1:L:390:LYS:HG2	1:M:281:PHE:HB3	1.74	0.65
1:F:245:LYS:HD3	1:G:232:GLU:CD	2.16	0.65
1:A:39:VAL:CB	1:B:517:THR:HG21	1.94	0.65
1:L:270:ILE:CD1	1:M:231:ARG:HG3	2.26	0.65
1:I:85:ALA:O	1:I:405:ALA:HB3	1.91	0.65
1:A:513:LEU:HD22	1:G:49:ILE:CG2	2.26	0.65
1:N:85:ALA:O	1:N:405:ALA:HB3	1.91	0.65
1:D:41:ASP:OD2	1:E:69:MET:HG2	1.93	0.65
1:J:270:ILE:CD1	1:K:231:ARG:HG3	2.26	0.65
1:M:270:ILE:CD1	1:N:231:ARG:HG3	2.26	0.65
1:M:85:ALA:O	1:M:405:ALA:HB3	1.91	0.65
1:E:245:LYS:HD3	1:F:232:GLU:CD	2.16	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:47:PRO:CG	1:B:73:MET:SD	2.83	0.65
1:H:281:PHE:CD1	1:N:387:VAL:CA	2.52	0.65
1:C:270:ILE:CG2	1:D:229:ASN:CA	2.74	0.65
1:D:39:VAL:CB	1:E:517:THR:HG23	2.25	0.65
1:A:73:MET:SD	1:G:47:PRO:CG	2.83	0.65
1:F:39:VAL:CB	1:G:517:THR:HG23	2.24	0.65
1:M:146:GLN:HE22	1:M:494:LEU:CD1	2.10	0.65
1:A:37:ASN:O	1:B:518:GLU:N	2.30	0.65
1:F:37:ASN:O	1:G:518:GLU:N	2.30	0.65
1:F:270:ILE:CG2	1:G:229:ASN:CA	2.74	0.65
1:C:36:ARG:HD3	1:D:114:MET:HG2	1.78	0.65
1:C:39:VAL:CB	1:D:517:THR:HG23	2.25	0.65
1:D:37:ASN:O	1:E:518:GLU:N	2.30	0.65
1:K:270:ILE:CD1	1:L:231:ARG:HG3	2.26	0.65
1:B:270:ILE:CG2	1:C:229:ASN:CA	2.74	0.65
1:N:146:GLN:HE22	1:N:494:LEU:CD1	2.10	0.65
1:B:37:ASN:O	1:C:518:GLU:N	2.30	0.65
1:I:408:GLU:HG3	1:I:498:LYS:NZ	2.12	0.65
1:F:49:ILE:HD12	1:G:513:LEU:HB3	1.73	0.65
1:D:49:ILE:CG2	1:E:513:LEU:HD22	2.26	0.65
1:K:408:GLU:HG3	1:K:498:LYS:NZ	2.12	0.65
1:E:270:ILE:CG2	1:F:229:ASN:CA	2.74	0.65
1:H:174:VAL:CG1	1:H:331:THR:OG1	2.40	0.65
1:E:37:ASN:O	1:F:518:GLU:N	2.30	0.65
1:F:49:ILE:CG2	1:G:513:LEU:HD22	2.26	0.65
1:B:183:LEU:HA	1:B:383:ALA:CB	2.20	0.65
1:B:36:ARG:HD3	1:C:114:MET:HG2	1.78	0.65
1:H:86:GLY:N	1:H:405:ALA:HB1	2.12	0.65
1:D:36:ARG:HD3	1:E:114:MET:HG2	1.78	0.65
1:J:146:GLN:HE22	1:J:494:LEU:CD1	2.10	0.65
1:C:37:ASN:O	1:D:518:GLU:N	2.30	0.64
1:F:41:ASP:OD2	1:G:69:MET:HG2	1.93	0.64
1:J:387:VAL:C	1:K:281:PHE:CZ	2.69	0.64
1:H:281:PHE:CB	1:N:390:LYS:CE	2.56	0.64
1:N:408:GLU:HG3	1:N:498:LYS:NZ	2.12	0.64
1:I:146:GLN:HE22	1:I:494:LEU:CD1	2.10	0.64
1:H:146:GLN:HE22	1:H:494:LEU:CD1	2.10	0.64
1:A:518:GLU:N	1:G:37:ASN:O	2.30	0.64
1:L:146:GLN:HE22	1:L:494:LEU:CD1	2.10	0.64
1:E:47:PRO:CG	1:F:73:MET:SD	2.83	0.64
1:A:39:VAL:HB	1:B:517:THR:CG2	2.15	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:49:ILE:CG2	1:F:513:LEU:HD22	2.26	0.64
1:M:408:GLU:HG3	1:M:498:LYS:NZ	2.12	0.64
1:B:305:ILE:HG22	1:B:308:GLU:HB2	1.80	0.64
1:G:305:ILE:HG22	1:G:308:GLU:HB2	1.79	0.64
1:A:305:ILE:HG22	1:A:308:GLU:HB2	1.80	0.64
1:H:387:VAL:CA	1:I:281:PHE:CD1	2.52	0.64
1:M:390:LYS:HG2	1:N:281:PHE:HB3	1.74	0.64
1:H:408:GLU:HG3	1:H:498:LYS:NZ	2.12	0.64
1:A:270:ILE:CG2	1:B:229:ASN:CA	2.74	0.64
1:M:36:ARG:CB	1:N:518:GLU:CB	2.71	0.64
1:D:183:LEU:HA	1:D:383:ALA:CB	2.20	0.64
1:A:36:ARG:HD3	1:B:114:MET:HG2	1.78	0.64
1:K:146:GLN:HE22	1:K:494:LEU:CD1	2.10	0.64
1:I:245:LYS:HD3	1:J:232:GLU:CD	2.18	0.64
1:F:36:ARG:HD3	1:G:114:MET:HG2	1.78	0.64
1:F:305:ILE:HG22	1:F:308:GLU:HB2	1.80	0.64
1:H:386:GLU:OE2	1:I:285:ARG:HA	1.98	0.64
1:I:386:GLU:OE2	1:J:285:ARG:HA	1.98	0.64
1:H:245:LYS:HD3	1:I:232:GLU:CD	2.18	0.64
1:I:86:GLY:N	1:I:405:ALA:HB1	2.12	0.64
1:K:245:LYS:HD3	1:L:232:GLU:CD	2.18	0.64
1:L:408:GLU:HG3	1:L:498:LYS:NZ	2.12	0.64
1:L:387:VAL:C	1:M:281:PHE:CZ	2.69	0.64
1:I:387:VAL:C	1:J:281:PHE:CZ	2.69	0.64
1:K:387:VAL:C	1:L:281:PHE:CZ	2.69	0.64
1:J:245:LYS:HD3	1:K:232:GLU:CD	2.18	0.64
1:H:232:GLU:CD	1:N:245:LYS:HD3	2.18	0.64
1:M:245:LYS:HD3	1:N:232:GLU:CD	2.18	0.64
1:E:36:ARG:HD3	1:F:114:MET:HG2	1.78	0.64
1:E:39:VAL:CB	1:F:517:THR:HG23	2.25	0.63
1:H:285:ARG:HA	1:N:386:GLU:OE2	1.98	0.63
1:G:383:ALA:HA	1:G:389:MET:HG2	1.80	0.63
1:C:305:ILE:HG22	1:C:308:GLU:HB2	1.80	0.63
1:L:390:LYS:CG	1:M:281:PHE:HB3	2.28	0.63
1:J:386:GLU:OE2	1:K:285:ARG:HA	1.98	0.63
1:H:305:ILE:HG22	1:H:308:GLU:HB2	1.80	0.63
1:E:305:ILE:HG22	1:E:308:GLU:HB2	1.80	0.63
1:J:390:LYS:CG	1:K:281:PHE:HB3	2.28	0.63
1:H:390:LYS:HG2	1:I:281:PHE:HB3	1.74	0.63
1:J:270:ILE:HG22	1:K:229:ASN:O	1.91	0.63
1:J:408:GLU:HG3	1:J:498:LYS:NZ	2.12	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:383:ALA:HA	1:F:389:MET:HG2	1.80	0.63
1:H:229:ASN:O	1:N:270:ILE:HG22	1.91	0.63
1:L:174:VAL:CG1	1:L:331:THR:OG1	2.40	0.63
1:A:114:MET:HG2	1:G:36:ARG:HD3	1.78	0.63
1:A:383:ALA:HA	1:A:389:MET:HG2	1.80	0.63
1:I:305:ILE:HG22	1:I:308:GLU:HB2	1.80	0.63
1:D:305:ILE:HG22	1:D:308:GLU:HB2	1.80	0.63
1:K:231:ARG:CZ	1:K:231:ARG:HB3	2.29	0.63
1:H:518:GLU:CB	1:N:36:ARG:CB	2.71	0.63
1:I:231:ARG:HB3	1:I:231:ARG:CZ	2.29	0.63
1:L:245:LYS:HD3	1:M:232:GLU:CD	2.18	0.63
1:N:174:VAL:CG1	1:N:331:THR:OG1	2.40	0.63
1:E:37:ASN:N	1:F:516:THR:CG2	2.62	0.63
1:L:36:ARG:CB	1:M:518:GLU:CB	2.71	0.63
1:E:383:ALA:HA	1:E:389:MET:HG2	1.80	0.63
1:N:305:ILE:HG22	1:N:308:GLU:HB2	1.80	0.63
1:L:386:GLU:OE2	1:M:285:ARG:HA	1.98	0.63
1:G:231:ARG:CZ	1:G:231:ARG:HB3	2.29	0.63
1:J:305:ILE:HG22	1:J:308:GLU:HB2	1.80	0.63
1:B:47:PRO:CG	1:C:73:MET:SD	2.83	0.62
1:M:386:GLU:OE2	1:N:285:ARG:HA	1.98	0.62
1:K:305:ILE:HG22	1:K:308:GLU:HB2	1.80	0.62
1:I:431:GLY:H	1:I:437:ASN:HD21	1.47	0.62
1:I:270:ILE:HG22	1:J:229:ASN:O	1.91	0.62
1:A:231:ARG:CZ	1:A:231:ARG:HB3	2.29	0.62
1:C:383:ALA:HA	1:C:389:MET:HG2	1.80	0.62
1:F:431:GLY:H	1:F:437:ASN:HD21	1.48	0.62
1:N:431:GLY:H	1:N:437:ASN:HD21	1.47	0.62
1:H:26:ALA:HA	1:I:8:PHE:CE2	2.34	0.62
1:J:270:ILE:CG1	1:K:231:ARG:HG3	2.30	0.62
1:L:270:ILE:CG1	1:M:231:ARG:HG3	2.30	0.62
1:M:26:ALA:HA	1:N:8:PHE:CE2	2.35	0.62
1:J:431:GLY:H	1:J:437:ASN:HD21	1.47	0.62
1:A:229:ASN:CA	1:G:270:ILE:CG2	2.74	0.62
1:G:150:ILE:HG12	1:G:494:LEU:CD1	2.29	0.62
1:J:86:GLY:N	1:J:405:ALA:HB1	2.13	0.62
1:D:85:ALA:HB1	1:D:499:VAL:HG12	1.81	0.62
1:M:305:ILE:HG22	1:M:308:GLU:HB2	1.80	0.62
1:L:305:ILE:HG22	1:L:308:GLU:HB2	1.80	0.62
1:D:150:ILE:HG12	1:D:494:LEU:CD1	2.28	0.62
1:J:387:VAL:CA	1:K:281:PHE:CD1	2.52	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:387:VAL:C	1:N:281:PHE:CZ	2.69	0.62
1:L:270:ILE:HG22	1:M:229:ASN:O	1.91	0.62
1:B:383:ALA:HA	1:B:389:MET:HG2	1.80	0.62
1:A:150:ILE:HG12	1:A:494:LEU:CD1	2.29	0.62
1:F:37:ASN:N	1:G:516:THR:CG2	2.62	0.62
1:F:150:ILE:HG12	1:F:494:LEU:CD1	2.29	0.62
1:H:270:ILE:CG1	1:I:231:ARG:HG3	2.30	0.62
1:H:41:ASP:CB	1:I:522:THR:HG23	2.30	0.62
1:B:231:ARG:CZ	1:B:231:ARG:HB3	2.29	0.62
1:M:431:GLY:H	1:M:437:ASN:HD21	1.47	0.62
1:E:85:ALA:HB1	1:E:499:VAL:HG12	1.81	0.62
1:F:231:ARG:CZ	1:F:231:ARG:HB3	2.29	0.62
1:C:35:GLY:O	1:D:114:MET:HE1	2.00	0.62
1:D:431:GLY:H	1:D:437:ASN:HD21	1.48	0.62
1:H:281:PHE:CZ	1:N:387:VAL:C	2.69	0.62
1:K:386:GLU:OE2	1:L:285:ARG:HA	1.98	0.62
1:D:383:ALA:HA	1:D:389:MET:HG2	1.80	0.62
1:I:41:ASP:CB	1:J:522:THR:HG23	2.30	0.62
1:I:26:ALA:HA	1:J:8:PHE:CE2	2.34	0.62
1:F:85:ALA:HB1	1:F:499:VAL:HG12	1.81	0.62
1:E:35:GLY:O	1:F:114:MET:HE1	1.97	0.61
1:C:85:ALA:HB1	1:C:499:VAL:HG12	1.81	0.61
1:L:26:ALA:HA	1:M:8:PHE:CE2	2.34	0.61
1:B:160:LYS:O	1:B:164:GLU:HG2	2.00	0.61
1:G:85:ALA:HB1	1:G:499:VAL:HG12	1.81	0.61
1:B:150:ILE:HG12	1:B:494:LEU:CD1	2.29	0.61
1:E:150:ILE:HG12	1:E:494:LEU:CD1	2.29	0.61
1:N:231:ARG:HB3	1:N:231:ARG:CZ	2.29	0.61
1:B:85:ALA:HB1	1:B:499:VAL:HG12	1.81	0.61
1:K:26:ALA:HA	1:L:8:PHE:CE2	2.34	0.61
1:H:8:PHE:CE2	1:N:26:ALA:HA	2.34	0.61
1:C:431:GLY:H	1:C:437:ASN:HD21	1.48	0.61
1:A:516:THR:CG2	1:G:37:ASN:N	2.62	0.61
1:H:387:VAL:C	1:I:281:PHE:CZ	2.69	0.61
1:H:231:ARG:HG3	1:N:270:ILE:CG1	2.30	0.61
1:M:41:ASP:CB	1:N:522:THR:HG23	2.30	0.61
1:A:85:ALA:HB1	1:A:499:VAL:HG12	1.81	0.61
1:H:231:ARG:HB3	1:H:231:ARG:CZ	2.29	0.61
1:I:39:VAL:CG1	1:J:69:MET:HE1	2.19	0.61
1:D:49:ILE:HG21	1:E:513:LEU:CD2	2.31	0.61
1:J:85:ALA:HB1	1:J:499:VAL:HG12	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:85:ALA:HB1	1:K:499:VAL:HG12	1.82	0.61
1:B:49:ILE:HG21	1:C:513:LEU:CD2	2.31	0.61
1:C:160:LYS:O	1:C:164:GLU:HG2	2.00	0.61
1:K:41:ASP:CB	1:L:522:THR:HG23	2.30	0.61
1:C:231:ARG:CZ	1:C:231:ARG:HB3	2.29	0.61
1:E:231:ARG:CZ	1:E:231:ARG:HB3	2.29	0.61
1:K:431:GLY:H	1:K:437:ASN:HD21	1.47	0.61
1:H:390:LYS:CG	1:I:281:PHE:HB3	2.28	0.61
1:J:231:ARG:CZ	1:J:231:ARG:HB3	2.29	0.61
1:M:231:ARG:CZ	1:M:231:ARG:HB3	2.29	0.61
1:M:86:GLY:N	1:M:405:ALA:HB1	2.12	0.61
1:D:231:ARG:HB3	1:D:231:ARG:CZ	2.29	0.61
1:E:431:GLY:H	1:E:437:ASN:HD21	1.48	0.61
1:H:281:PHE:HB3	1:N:390:LYS:CG	2.28	0.61
1:K:390:LYS:CG	1:L:281:PHE:HB3	2.28	0.61
1:I:270:ILE:CG1	1:J:231:ARG:HG3	2.30	0.61
1:K:270:ILE:CG1	1:L:231:ARG:HG3	2.30	0.61
1:M:270:ILE:CG1	1:N:231:ARG:HG3	2.30	0.61
1:C:49:ILE:HG21	1:D:513:LEU:CD2	2.31	0.61
1:L:85:ALA:HB1	1:L:499:VAL:HG12	1.81	0.61
1:A:49:ILE:HG21	1:B:513:LEU:CD2	2.31	0.61
1:E:49:ILE:HG21	1:F:513:LEU:CD2	2.31	0.61
1:D:160:LYS:O	1:D:164:GLU:HG2	2.00	0.61
1:L:41:ASP:CB	1:M:522:THR:HG23	2.30	0.61
1:J:26:ALA:HA	1:K:8:PHE:CE2	2.35	0.61
1:I:390:LYS:CG	1:J:281:PHE:HB3	2.28	0.60
1:L:231:ARG:CZ	1:L:231:ARG:HB3	2.29	0.60
1:I:85:ALA:HB1	1:I:499:VAL:HG12	1.81	0.60
1:L:86:GLY:N	1:L:405:ALA:HB1	2.12	0.60
1:M:85:ALA:HB1	1:M:499:VAL:HG12	1.82	0.60
1:H:36:ARG:CB	1:I:518:GLU:CB	2.71	0.60
1:G:431:GLY:H	1:G:437:ASN:HD21	1.48	0.60
1:E:160:LYS:O	1:E:164:GLU:HG2	2.00	0.60
1:H:522:THR:HG23	1:N:41:ASP:CB	2.30	0.60
1:K:86:GLY:N	1:K:405:ALA:HB1	2.12	0.60
1:N:85:ALA:HB1	1:N:499:VAL:HG12	1.81	0.60
1:A:8:PHE:HE2	1:G:26:ALA:CA	2.14	0.60
1:L:230:ILE:HG12	1:L:258:ALA:HA	1.83	0.60
1:N:230:ILE:HG12	1:N:258:ALA:HA	1.83	0.60
1:M:230:ILE:HG12	1:M:258:ALA:HA	1.83	0.60
1:B:230:ILE:HG12	1:B:258:ALA:HA	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:160:LYS:O	1:A:164:GLU:HG2	2.00	0.60
1:B:431:GLY:H	1:B:437:ASN:HD21	1.48	0.60
1:A:37:ASN:N	1:B:516:THR:CG2	2.62	0.60
1:A:26:ALA:CA	1:B:8:PHE:HE2	2.14	0.60
1:F:160:LYS:O	1:F:164:GLU:HG2	2.00	0.60
1:G:438:VAL:O	1:G:442:VAL:HG23	2.02	0.60
1:A:438:VAL:O	1:A:442:VAL:HG23	2.02	0.60
1:A:230:ILE:HG12	1:A:258:ALA:HA	1.83	0.60
1:B:37:ASN:N	1:C:516:THR:CG2	2.62	0.60
1:J:41:ASP:CB	1:K:522:THR:HG23	2.30	0.60
1:D:26:ALA:CA	1:E:8:PHE:HE2	2.14	0.60
1:L:431:GLY:H	1:L:437:ASN:HD21	1.47	0.60
1:A:431:GLY:H	1:A:437:ASN:HD21	1.48	0.60
1:B:438:VAL:O	1:B:442:VAL:HG23	2.02	0.60
1:H:85:ALA:HB1	1:H:499:VAL:HG12	1.81	0.60
1:G:230:ILE:HG12	1:G:258:ALA:HA	1.83	0.60
1:A:513:LEU:CD2	1:G:49:ILE:HG21	2.31	0.60
1:E:26:ALA:CA	1:F:8:PHE:HE2	2.14	0.60
1:H:230:ILE:HG12	1:H:258:ALA:HA	1.83	0.60
1:G:160:LYS:O	1:G:164:GLU:HG2	2.00	0.60
1:H:431:GLY:H	1:H:437:ASN:HD21	1.47	0.60
1:C:230:ILE:HG12	1:C:258:ALA:HA	1.83	0.60
1:F:230:ILE:HG12	1:F:258:ALA:HA	1.83	0.60
1:N:86:GLY:N	1:N:405:ALA:HB1	2.12	0.60
1:F:26:ALA:CA	1:G:8:PHE:HE2	2.14	0.60
1:L:387:VAL:CA	1:M:281:PHE:CD1	2.52	0.60
1:F:49:ILE:HG21	1:G:513:LEU:CD2	2.31	0.60
1:K:36:ARG:CB	1:L:518:GLU:CB	2.71	0.60
1:A:114:MET:HE1	1:G:35:GLY:O	2.00	0.60
1:F:438:VAL:O	1:F:442:VAL:HG23	2.02	0.60
1:K:438:VAL:O	1:K:442:VAL:HG23	2.02	0.60
1:B:26:ALA:CA	1:C:8:PHE:HE2	2.14	0.60
1:D:230:ILE:HG12	1:D:258:ALA:HA	1.83	0.60
1:K:230:ILE:HG12	1:K:258:ALA:HA	1.83	0.60
1:C:438:VAL:O	1:C:442:VAL:HG23	2.02	0.59
1:C:26:ALA:CA	1:D:8:PHE:HE2	2.14	0.59
1:N:438:VAL:O	1:N:442:VAL:HG23	2.02	0.59
1:I:230:ILE:HG12	1:I:258:ALA:HA	1.83	0.59
1:J:438:VAL:O	1:J:442:VAL:HG23	2.02	0.59
1:J:386:GLU:CA	1:K:281:PHE:N	2.65	0.59
1:L:438:VAL:O	1:L:442:VAL:HG23	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:390:LYS:CG	1:N:281:PHE:HB3	2.28	0.59
1:J:230:ILE:HG12	1:J:258:ALA:HA	1.83	0.59
1:A:49:ILE:HG21	1:B:513:LEU:HA	1.84	0.59
1:E:41:ASP:OD2	1:F:69:MET:CG	2.51	0.59
1:M:387:VAL:CA	1:N:281:PHE:CD1	2.52	0.59
1:M:270:ILE:HG22	1:N:229:ASN:C	2.22	0.59
1:M:438:VAL:O	1:M:442:VAL:HG23	2.02	0.59
1:E:230:ILE:HG12	1:E:258:ALA:HA	1.83	0.59
1:C:37:ASN:N	1:D:516:THR:CG2	2.62	0.59
1:H:386:GLU:CA	1:I:281:PHE:N	2.65	0.59
1:G:349:ILE:HA	1:G:352:GLN:CG	2.33	0.59
1:H:281:PHE:N	1:N:386:GLU:CA	2.65	0.59
1:I:36:ARG:CB	1:J:518:GLU:CB	2.71	0.59
1:K:349:ILE:HA	1:K:352:GLN:CG	2.33	0.59
1:F:47:PRO:CB	1:G:73:MET:SD	2.91	0.59
1:I:386:GLU:CA	1:J:281:PHE:N	2.65	0.59
1:L:349:ILE:HA	1:L:352:GLN:CG	2.33	0.59
1:C:349:ILE:HA	1:C:352:GLN:CG	2.33	0.59
1:J:161:LEU:HD21	1:J:185:ASP:HB3	1.85	0.59
1:D:349:ILE:HA	1:D:352:GLN:CG	2.33	0.59
1:E:47:PRO:CB	1:F:73:MET:SD	2.91	0.59
1:J:36:ARG:CB	1:K:518:GLU:CB	2.71	0.59
1:F:349:ILE:HA	1:F:352:GLN:CG	2.33	0.59
1:K:161:LEU:HD21	1:K:185:ASP:HB3	1.85	0.59
1:M:349:ILE:HA	1:M:352:GLN:CG	2.33	0.58
1:B:349:ILE:HA	1:B:352:GLN:CG	2.33	0.58
1:E:438:VAL:O	1:E:442:VAL:HG23	2.02	0.58
1:C:150:ILE:HG12	1:C:494:LEU:CD1	2.29	0.58
1:A:73:MET:SD	1:G:47:PRO:CB	2.91	0.58
1:H:36:ARG:CG	1:I:518:GLU:CG	2.79	0.58
1:I:438:VAL:O	1:I:442:VAL:HG23	2.02	0.58
1:D:438:VAL:O	1:D:442:VAL:HG23	2.02	0.58
1:J:349:ILE:HA	1:J:352:GLN:CG	2.33	0.58
1:D:41:ASP:OD2	1:E:69:MET:CG	2.51	0.58
1:B:47:PRO:CB	1:C:73:MET:SD	2.91	0.58
1:E:49:ILE:HG21	1:F:513:LEU:HA	1.84	0.58
1:F:49:ILE:HG21	1:G:513:LEU:HA	1.84	0.58
1:B:49:ILE:HG21	1:C:513:LEU:HA	1.84	0.58
1:L:161:LEU:HD21	1:L:185:ASP:HB3	1.85	0.58
1:A:513:LEU:HA	1:G:49:ILE:HG21	1.84	0.58
1:C:49:ILE:HG21	1:D:513:LEU:HA	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:161:LEU:HD21	1:N:185:ASP:HB3	1.84	0.58
1:L:386:GLU:OE2	1:M:285:ARG:HB2	2.04	0.58
1:H:229:ASN:C	1:N:270:ILE:HG22	2.22	0.58
1:D:47:PRO:CB	1:E:73:MET:SD	2.91	0.58
1:H:386:GLU:OE2	1:I:285:ARG:HB2	2.04	0.58
1:D:49:ILE:HG21	1:E:513:LEU:HA	1.84	0.58
1:A:35:GLY:O	1:B:114:MET:HE1	2.00	0.58
1:A:349:ILE:HA	1:A:352:GLN:CG	2.33	0.58
1:H:438:VAL:O	1:H:442:VAL:HG23	2.02	0.58
1:H:161:LEU:HD21	1:H:185:ASP:HB3	1.84	0.58
1:E:349:ILE:HA	1:E:352:GLN:CG	2.33	0.58
1:I:36:ARG:CG	1:J:518:GLU:CG	2.79	0.58
1:I:161:LEU:HD21	1:I:185:ASP:HB3	1.84	0.58
1:I:386:GLU:OE2	1:J:285:ARG:HB2	2.04	0.58
1:H:285:ARG:HB2	1:N:386:GLU:OE2	2.04	0.58
1:A:69:MET:CG	1:G:41:ASP:OD2	2.51	0.58
1:J:386:GLU:OE2	1:K:285:ARG:HB2	2.04	0.58
1:I:349:ILE:HA	1:I:352:GLN:CG	2.33	0.57
1:D:37:ASN:N	1:E:516:THR:CG2	2.62	0.57
1:A:47:PRO:CB	1:B:73:MET:SD	2.91	0.57
1:M:386:GLU:CA	1:N:281:PHE:N	2.65	0.57
1:M:161:LEU:HD21	1:M:185:ASP:HB3	1.84	0.57
1:C:47:PRO:CB	1:D:73:MET:SD	2.91	0.57
1:C:392:LYS:O	1:C:396:VAL:HG23	2.05	0.57
1:D:392:LYS:O	1:D:396:VAL:HG23	2.05	0.57
1:N:349:ILE:HA	1:N:352:GLN:CG	2.33	0.57
1:K:270:ILE:HG22	1:L:229:ASN:C	2.22	0.57
1:H:174:VAL:HG11	1:H:331:THR:HG1	1.67	0.57
1:K:431:GLY:H	1:K:437:ASN:ND2	2.03	0.57
1:B:392:LYS:O	1:B:396:VAL:HG23	2.05	0.57
1:M:386:GLU:OE2	1:N:285:ARG:HB2	2.04	0.57
1:E:392:LYS:O	1:E:396:VAL:HG23	2.05	0.57
1:H:174:VAL:HG21	1:H:194:GLN:HB2	1.86	0.57
1:H:59:GLU:O	1:I:4:LYS:CG	2.53	0.57
1:C:41:ASP:OD2	1:D:69:MET:CG	2.51	0.57
1:K:386:GLU:OE2	1:L:285:ARG:HB2	2.04	0.57
1:I:431:GLY:H	1:I:437:ASN:ND2	2.03	0.57
1:E:431:GLY:H	1:E:437:ASN:ND2	2.03	0.57
1:A:431:GLY:H	1:A:437:ASN:ND2	2.03	0.57
1:A:41:ASP:OD2	1:B:69:MET:CG	2.51	0.57
1:F:41:ASP:OD2	1:G:69:MET:CG	2.51	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:270:ILE:HG22	1:I:229:ASN:C	2.22	0.57
1:D:26:ALA:HB2	1:E:8:PHE:CZ	2.40	0.57
1:C:26:ALA:HB2	1:D:8:PHE:CZ	2.40	0.57
1:L:59:GLU:O	1:M:4:LYS:CG	2.53	0.57
1:B:431:GLY:H	1:B:437:ASN:ND2	2.03	0.57
1:A:392:LYS:O	1:A:396:VAL:HG23	2.05	0.57
1:N:220:ILE:HD12	1:N:296:THR:HG21	1.87	0.57
1:J:270:ILE:HG22	1:K:229:ASN:C	2.22	0.57
1:H:408:GLU:CG	1:H:498:LYS:NZ	2.68	0.57
1:G:431:GLY:H	1:G:437:ASN:ND2	2.03	0.57
1:B:240:VAL:HG11	1:B:247:LEU:HB2	1.87	0.57
1:I:59:GLU:O	1:J:4:LYS:CG	2.53	0.56
1:K:59:GLU:O	1:L:4:LYS:CG	2.53	0.56
1:J:383:ALA:CB	1:K:283:ASP:HB2	2.35	0.56
1:M:431:GLY:H	1:M:437:ASN:ND2	2.03	0.56
1:D:220:ILE:HD12	1:D:296:THR:HG21	1.87	0.56
1:M:220:ILE:HD12	1:M:296:THR:HG21	1.87	0.56
1:H:220:ILE:HD12	1:H:296:THR:HG21	1.87	0.56
1:N:174:VAL:HG21	1:N:194:GLN:HB2	1.86	0.56
1:K:383:ALA:CB	1:L:283:ASP:HB2	2.35	0.56
1:C:431:GLY:H	1:C:437:ASN:ND2	2.03	0.56
1:C:220:ILE:HD12	1:C:296:THR:HG21	1.87	0.56
1:H:349:ILE:HA	1:H:352:GLN:CG	2.33	0.56
1:L:270:ILE:HG22	1:M:229:ASN:C	2.22	0.56
1:N:408:GLU:CG	1:N:498:LYS:NZ	2.68	0.56
1:B:26:ALA:HB2	1:C:8:PHE:CZ	2.40	0.56
1:E:26:ALA:HB2	1:F:8:PHE:CZ	2.40	0.56
1:J:59:GLU:O	1:K:4:LYS:CG	2.53	0.56
1:I:183:LEU:H	1:I:383:ALA:HB3	1.70	0.56
1:D:431:GLY:H	1:D:437:ASN:ND2	2.03	0.56
1:G:392:LYS:O	1:G:396:VAL:HG23	2.05	0.56
1:J:390:LYS:HE2	1:K:281:PHE:CA	2.35	0.56
1:K:388:GLU:H	1:L:281:PHE:HE1	1.53	0.56
1:K:174:VAL:HG21	1:K:194:GLN:HB2	1.86	0.56
1:C:68:ASN:O	1:C:72:GLN:HG2	2.05	0.56
1:E:220:ILE:HD12	1:E:296:THR:HG21	1.87	0.56
1:B:68:ASN:O	1:B:72:GLN:HG2	2.05	0.56
1:A:68:ASN:O	1:A:72:GLN:HG2	2.05	0.56
1:L:408:GLU:CG	1:L:498:LYS:NZ	2.68	0.56
1:M:408:GLU:CG	1:M:498:LYS:NZ	2.68	0.56
1:K:408:GLU:CG	1:K:498:LYS:NZ	2.68	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:431:GLY:H	1:F:437:ASN:ND2	2.03	0.56
1:G:240:VAL:HG11	1:G:247:LEU:HB2	1.87	0.56
1:F:220:ILE:HD12	1:F:296:THR:HG21	1.87	0.56
1:E:68:ASN:O	1:E:72:GLN:HG2	2.05	0.56
1:F:392:LYS:O	1:F:396:VAL:HG23	2.05	0.56
1:F:68:ASN:O	1:F:72:GLN:HG2	2.05	0.56
1:B:41:ASP:OD2	1:C:69:MET:CG	2.51	0.56
1:A:37:ASN:H	1:B:516:THR:HG22	1.70	0.56
1:K:390:LYS:HE2	1:L:281:PHE:CA	2.35	0.56
1:M:174:VAL:HG21	1:M:194:GLN:HB2	1.86	0.56
1:M:59:GLU:O	1:N:4:LYS:CG	2.53	0.56
1:H:283:ASP:HB2	1:N:383:ALA:CB	2.35	0.56
1:J:240:VAL:HG11	1:J:247:LEU:HB2	1.87	0.56
1:I:390:LYS:HE2	1:J:281:PHE:CA	2.35	0.56
1:F:383:ALA:HA	1:F:389:MET:CG	2.36	0.56
1:G:383:ALA:HA	1:G:389:MET:CG	2.36	0.56
1:J:431:GLY:H	1:J:437:ASN:ND2	2.03	0.56
1:A:240:VAL:HG11	1:A:247:LEU:HB2	1.87	0.56
1:M:36:ARG:CG	1:N:518:GLU:CG	2.79	0.56
1:H:183:LEU:H	1:H:383:ALA:HB3	1.70	0.56
1:H:383:ALA:CB	1:I:283:ASP:HB2	2.35	0.56
1:M:383:ALA:CB	1:N:283:ASP:HB2	2.35	0.56
1:N:431:GLY:H	1:N:437:ASN:ND2	2.03	0.56
1:H:68:ASN:O	1:H:72:GLN:HG2	2.05	0.56
1:D:68:ASN:O	1:D:72:GLN:HG2	2.05	0.56
1:L:220:ILE:HD12	1:L:296:THR:HG21	1.87	0.56
1:B:220:ILE:HD12	1:B:296:THR:HG21	1.87	0.56
1:L:390:LYS:HE2	1:M:281:PHE:CA	2.35	0.56
1:B:386:GLU:HG2	1:C:281:PHE:CD2	2.41	0.56
1:M:390:LYS:HE2	1:N:281:PHE:CA	2.35	0.56
1:M:270:ILE:CG2	1:N:229:ASN:CA	2.82	0.56
1:J:36:ARG:CG	1:K:518:GLU:CG	2.79	0.56
1:L:174:VAL:HG21	1:L:194:GLN:HB2	1.86	0.56
1:L:240:VAL:HG11	1:L:247:LEU:HB2	1.87	0.56
1:J:68:ASN:O	1:J:72:GLN:HG2	2.05	0.56
1:K:68:ASN:O	1:K:72:GLN:HG2	2.05	0.56
1:A:383:ALA:HA	1:A:389:MET:CG	2.36	0.56
1:I:68:ASN:O	1:I:72:GLN:HG2	2.05	0.56
1:H:281:PHE:CA	1:N:390:LYS:HE2	2.35	0.55
1:H:390:LYS:HE2	1:I:281:PHE:CA	2.35	0.55
1:E:386:GLU:HG2	1:F:281:PHE:CD2	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:183:LEU:H	1:L:383:ALA:HB3	1.70	0.55
1:I:383:ALA:CB	1:J:283:ASP:HB2	2.35	0.55
1:N:183:LEU:H	1:N:383:ALA:HB3	1.70	0.55
1:L:431:GLY:H	1:L:437:ASN:ND2	2.03	0.55
1:N:240:VAL:HG11	1:N:247:LEU:HB2	1.87	0.55
1:M:359:ASP:O	1:M:363:GLU:HG2	2.07	0.55
1:N:359:ASP:O	1:N:363:GLU:HG2	2.07	0.55
1:C:359:ASP:O	1:C:363:GLU:HG2	2.07	0.55
1:K:240:VAL:HG11	1:K:247:LEU:HB2	1.87	0.55
1:B:37:ASN:H	1:C:516:THR:HG22	1.70	0.55
1:I:270:ILE:HG22	1:J:229:ASN:C	2.22	0.55
1:B:383:ALA:HA	1:B:389:MET:CG	2.36	0.55
1:A:26:ALA:HB2	1:B:8:PHE:CZ	2.40	0.55
1:I:220:ILE:HD12	1:I:296:THR:HG21	1.87	0.55
1:E:359:ASP:O	1:E:363:GLU:HG2	2.07	0.55
1:N:68:ASN:O	1:N:72:GLN:HG2	2.05	0.55
1:H:240:VAL:HG11	1:H:247:LEU:HB2	1.87	0.55
1:G:359:ASP:O	1:G:363:GLU:HG2	2.07	0.55
1:K:220:ILE:HD12	1:K:296:THR:HG21	1.87	0.55
1:J:359:ASP:O	1:J:363:GLU:HG2	2.07	0.55
1:E:69:MET:O	1:E:73:MET:HG3	2.07	0.55
1:H:431:GLY:H	1:H:437:ASN:ND2	2.03	0.55
1:G:220:ILE:HD12	1:G:296:THR:HG21	1.87	0.55
1:F:240:VAL:HG11	1:F:247:LEU:HB2	1.87	0.55
1:G:68:ASN:O	1:G:72:GLN:HG2	2.05	0.55
1:F:386:GLU:HG2	1:G:281:PHE:CD2	2.41	0.55
1:L:69:MET:O	1:L:73:MET:HG3	2.07	0.55
1:I:69:MET:O	1:I:73:MET:HG3	2.07	0.55
1:E:383:ALA:HA	1:E:389:MET:CG	2.36	0.55
1:J:183:LEU:H	1:J:383:ALA:HB3	1.70	0.55
1:J:220:ILE:HD12	1:J:296:THR:HG21	1.87	0.55
1:N:338:GLU:HA	1:N:342:ILE:HD12	1.88	0.55
1:B:338:GLU:HA	1:B:342:ILE:HD12	1.89	0.55
1:H:338:GLU:HA	1:H:342:ILE:HD12	1.88	0.55
1:F:386:GLU:CG	1:G:281:PHE:HE2	2.07	0.55
1:K:183:LEU:H	1:K:383:ALA:HB3	1.70	0.55
1:L:146:GLN:HE22	1:L:494:LEU:HD12	1.70	0.55
1:K:359:ASP:O	1:K:363:GLU:HG2	2.07	0.55
1:H:359:ASP:O	1:H:363:GLU:HG2	2.07	0.55
1:L:386:GLU:CA	1:M:281:PHE:N	2.65	0.55
1:J:69:MET:O	1:J:73:MET:HG3	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:26:ALA:HB2	1:G:8:PHE:CZ	2.40	0.55
1:A:220:ILE:HD12	1:A:296:THR:HG21	1.87	0.55
1:A:338:GLU:HA	1:A:342:ILE:HD12	1.89	0.55
1:H:420:ILE:HD12	1:H:451:LEU:HD13	1.89	0.55
1:I:240:VAL:HG11	1:I:247:LEU:HB2	1.87	0.55
1:N:420:ILE:HD12	1:N:451:LEU:HD13	1.89	0.55
1:I:359:ASP:O	1:I:363:GLU:HG2	2.07	0.55
1:M:68:ASN:O	1:M:72:GLN:HG2	2.05	0.55
1:M:69:MET:O	1:M:73:MET:HG3	2.07	0.55
1:K:69:MET:O	1:K:73:MET:HG3	2.07	0.55
1:B:420:ILE:HD12	1:B:451:LEU:HD13	1.89	0.55
1:D:240:VAL:HG11	1:D:247:LEU:HB2	1.87	0.55
1:J:388:GLU:H	1:K:281:PHE:HE1	1.53	0.55
1:I:229:ASN:ND2	1:I:232:GLU:HB2	2.22	0.55
1:N:229:ASN:ND2	1:N:232:GLU:HB2	2.22	0.55
1:H:69:MET:O	1:H:73:MET:HG3	2.07	0.55
1:H:145:ALA:O	1:H:149:THR:HG23	2.07	0.55
1:C:240:VAL:HG11	1:C:247:LEU:HB2	1.87	0.55
1:C:338:GLU:HA	1:C:342:ILE:HD12	1.89	0.55
1:I:338:GLU:HA	1:I:342:ILE:HD12	1.88	0.55
1:D:386:GLU:HG2	1:E:281:PHE:CD2	2.41	0.55
1:A:420:ILE:HD12	1:A:451:LEU:HD13	1.89	0.55
1:L:68:ASN:O	1:L:72:GLN:HG2	2.05	0.55
1:C:386:GLU:HG2	1:D:281:PHE:CD2	2.41	0.55
1:B:229:ASN:ND2	1:B:232:GLU:HB2	2.22	0.55
1:F:229:ASN:ND2	1:F:232:GLU:HB2	2.22	0.55
1:M:183:LEU:N	1:M:383:ALA:HB3	2.22	0.55
1:L:183:LEU:N	1:L:383:ALA:HB3	2.22	0.55
1:L:383:ALA:CB	1:M:283:ASP:HB2	2.35	0.55
1:A:38:VAL:CG1	1:B:519:CYS:HB3	2.37	0.54
1:M:229:ASN:ND2	1:M:232:GLU:HB2	2.22	0.54
1:C:383:ALA:HA	1:C:389:MET:CG	2.36	0.54
1:M:240:VAL:HG11	1:M:247:LEU:HB2	1.87	0.54
1:A:359:ASP:O	1:A:363:GLU:HG2	2.07	0.54
1:I:420:ILE:HD12	1:I:451:LEU:HD13	1.89	0.54
1:E:338:GLU:HA	1:E:342:ILE:HD12	1.88	0.54
1:N:392:LYS:O	1:N:396:VAL:HG23	2.07	0.54
1:K:338:GLU:HA	1:K:342:ILE:HD12	1.88	0.54
1:E:240:VAL:HG11	1:E:247:LEU:HB2	1.87	0.54
1:D:69:MET:O	1:D:73:MET:HG3	2.07	0.54
1:F:69:MET:O	1:F:73:MET:HG3	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:229:ASN:ND2	1:H:232:GLU:HB2	2.22	0.54
1:H:4:LYS:CG	1:N:59:GLU:O	2.53	0.54
1:C:348:GLN:O	1:C:352:GLN:HG2	2.08	0.54
1:B:348:GLN:O	1:B:352:GLN:HG2	2.08	0.54
1:L:338:GLU:HA	1:L:342:ILE:HD12	1.88	0.54
1:I:145:ALA:O	1:I:149:THR:HG23	2.07	0.54
1:H:269:GLY:O	1:H:272:LYS:HG2	2.08	0.54
1:I:269:GLY:O	1:I:272:LYS:HG2	2.08	0.54
1:D:269:GLY:O	1:D:272:LYS:HG2	2.08	0.54
1:C:69:MET:O	1:C:73:MET:HG3	2.07	0.54
1:L:36:ARG:CG	1:M:518:GLU:CG	2.79	0.54
1:D:383:ALA:HA	1:D:389:MET:CG	2.36	0.54
1:D:348:GLN:O	1:D:352:GLN:HG2	2.08	0.54
1:J:348:GLN:O	1:J:352:GLN:HG2	2.08	0.54
1:F:359:ASP:O	1:F:363:GLU:HG2	2.07	0.54
1:M:338:GLU:HA	1:M:342:ILE:HD12	1.88	0.54
1:H:392:LYS:O	1:H:396:VAL:HG23	2.07	0.54
1:L:359:ASP:O	1:L:363:GLU:HG2	2.07	0.54
1:N:145:ALA:O	1:N:149:THR:HG23	2.07	0.54
1:M:269:GLY:O	1:M:272:LYS:HG2	2.08	0.54
1:M:392:LYS:O	1:M:396:VAL:HG23	2.07	0.54
1:C:420:ILE:HD12	1:C:451:LEU:HD13	1.89	0.54
1:A:229:ASN:ND2	1:A:232:GLU:HB2	2.22	0.54
1:E:229:ASN:ND2	1:E:232:GLU:HB2	2.22	0.54
1:A:8:PHE:CZ	1:G:26:ALA:HB2	2.40	0.54
1:I:183:LEU:N	1:I:383:ALA:HB3	2.22	0.54
1:F:305:ILE:O	1:F:308:GLU:HB2	2.08	0.54
1:M:305:ILE:O	1:M:308:GLU:HB2	2.08	0.54
1:G:348:GLN:O	1:G:352:GLN:HG2	2.08	0.54
1:E:269:GLY:O	1:E:272:LYS:HG2	2.08	0.54
1:M:145:ALA:O	1:M:149:THR:HG23	2.07	0.54
1:G:338:GLU:HA	1:G:342:ILE:HD12	1.89	0.54
1:M:420:ILE:HD12	1:M:451:LEU:HD13	1.89	0.54
1:N:269:GLY:O	1:N:272:LYS:HG2	2.08	0.54
1:C:18:ARG:O	1:C:22:VAL:HG23	2.08	0.54
1:D:18:ARG:O	1:D:22:VAL:HG23	2.08	0.54
1:C:269:GLY:O	1:C:272:LYS:HG2	2.08	0.54
1:D:359:ASP:O	1:D:363:GLU:HG2	2.07	0.54
1:C:37:ASN:H	1:D:516:THR:HG22	1.70	0.54
1:D:38:VAL:CG1	1:E:519:CYS:HB3	2.37	0.54
1:B:69:MET:O	1:B:73:MET:HG3	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:386:GLU:CA	1:L:281:PHE:N	2.65	0.54
1:D:229:ASN:ND2	1:D:232:GLU:HB2	2.22	0.54
1:M:183:LEU:H	1:M:383:ALA:HB3	1.70	0.54
1:N:183:LEU:N	1:N:383:ALA:HB3	2.23	0.54
1:H:305:ILE:O	1:H:308:GLU:HB2	2.08	0.54
1:J:305:ILE:O	1:J:308:GLU:HB2	2.08	0.54
1:A:348:GLN:O	1:A:352:GLN:HG2	2.08	0.54
1:N:348:GLN:O	1:N:352:GLN:HG2	2.08	0.54
1:H:348:GLN:O	1:H:352:GLN:HG2	2.08	0.54
1:F:338:GLU:HA	1:F:342:ILE:HD12	1.89	0.54
1:F:269:GLY:O	1:F:272:LYS:HG2	2.08	0.54
1:M:18:ARG:O	1:M:22:VAL:HG23	2.08	0.54
1:L:269:GLY:O	1:L:272:LYS:HG2	2.08	0.54
1:B:359:ASP:O	1:B:363:GLU:HG2	2.07	0.54
1:J:269:GLY:O	1:J:272:LYS:HG2	2.08	0.54
1:H:518:GLU:CG	1:N:36:ARG:CG	2.79	0.54
1:K:183:LEU:N	1:K:383:ALA:HB3	2.22	0.54
1:D:305:ILE:O	1:D:308:GLU:HB2	2.08	0.54
1:L:18:ARG:O	1:L:22:VAL:HG23	2.08	0.54
1:N:18:ARG:O	1:N:22:VAL:HG23	2.08	0.54
1:N:69:MET:O	1:N:73:MET:HG3	2.07	0.54
1:N:146:GLN:NE2	1:N:494:LEU:CD1	2.70	0.54
1:K:305:ILE:O	1:K:308:GLU:HB2	2.08	0.54
1:M:158:VAL:HG22	1:M:396:VAL:HG22	1.89	0.54
1:K:269:GLY:O	1:K:272:LYS:HG2	2.08	0.54
1:H:18:ARG:O	1:H:22:VAL:HG23	2.08	0.54
1:J:338:GLU:HA	1:J:342:ILE:HD12	1.88	0.54
1:I:18:ARG:O	1:I:22:VAL:HG23	2.08	0.54
1:A:386:GLU:CG	1:B:281:PHE:HE2	2.07	0.54
1:K:229:ASN:ND2	1:K:232:GLU:HB2	2.22	0.54
1:A:305:ILE:O	1:A:308:GLU:HB2	2.08	0.54
1:E:18:ARG:O	1:E:22:VAL:HG23	2.08	0.54
1:G:69:MET:O	1:G:73:MET:HG3	2.07	0.54
1:J:270:ILE:CG2	1:K:229:ASN:CA	2.82	0.54
1:J:183:LEU:N	1:J:383:ALA:HB3	2.23	0.54
1:B:305:ILE:O	1:B:308:GLU:HB2	2.08	0.54
1:E:348:GLN:O	1:E:352:GLN:HG2	2.08	0.54
1:A:18:ARG:O	1:A:22:VAL:HG23	2.08	0.54
1:G:420:ILE:HD12	1:G:451:LEU:HD13	1.89	0.54
1:G:269:GLY:O	1:G:272:LYS:HG2	2.08	0.54
1:L:158:VAL:HG22	1:L:396:VAL:HG22	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:18:ARG:O	1:B:22:VAL:HG23	2.08	0.54
1:I:305:ILE:O	1:I:308:GLU:HB2	2.08	0.54
1:G:18:ARG:O	1:G:22:VAL:HG23	2.08	0.54
1:J:420:ILE:HD12	1:J:451:LEU:HD13	1.89	0.54
1:D:420:ILE:HD12	1:D:451:LEU:HD13	1.89	0.54
1:A:69:MET:O	1:A:73:MET:HG3	2.07	0.53
1:K:348:GLN:O	1:K:352:GLN:HG2	2.08	0.53
1:F:348:GLN:O	1:F:352:GLN:HG2	2.08	0.53
1:L:145:ALA:O	1:L:149:THR:HG23	2.07	0.53
1:K:420:ILE:HD12	1:K:451:LEU:HD13	1.89	0.53
1:B:269:GLY:O	1:B:272:LYS:HG2	2.08	0.53
1:K:145:ALA:O	1:K:149:THR:HG23	2.07	0.53
1:D:338:GLU:HA	1:D:342:ILE:HD12	1.89	0.53
1:L:420:ILE:HD12	1:L:451:LEU:HD13	1.89	0.53
1:J:229:ASN:ND2	1:J:232:GLU:HB2	2.22	0.53
1:L:229:ASN:ND2	1:L:232:GLU:HB2	2.22	0.53
1:J:174:VAL:HG21	1:J:194:GLN:HB2	1.86	0.53
1:N:305:ILE:O	1:N:308:GLU:HB2	2.08	0.53
1:I:348:GLN:O	1:I:352:GLN:HG2	2.08	0.53
1:L:392:LYS:O	1:L:396:VAL:HG23	2.07	0.53
1:I:392:LYS:O	1:I:396:VAL:HG23	2.07	0.53
1:E:420:ILE:HD12	1:E:451:LEU:HD13	1.89	0.53
1:M:85:ALA:C	1:M:405:ALA:CB	2.50	0.53
1:G:229:ASN:ND2	1:G:232:GLU:HB2	2.22	0.53
1:H:183:LEU:N	1:H:383:ALA:HB3	2.22	0.53
1:E:305:ILE:O	1:E:308:GLU:HB2	2.08	0.53
1:J:392:LYS:O	1:J:396:VAL:HG23	2.08	0.53
1:A:269:GLY:O	1:A:272:LYS:HG2	2.08	0.53
1:J:18:ARG:O	1:J:22:VAL:HG23	2.08	0.53
1:H:158:VAL:HG22	1:H:396:VAL:HG22	1.89	0.53
1:K:18:ARG:O	1:K:22:VAL:HG23	2.08	0.53
1:C:229:ASN:ND2	1:C:232:GLU:HB2	2.22	0.53
1:L:305:ILE:O	1:L:308:GLU:HB2	2.08	0.53
1:L:348:GLN:O	1:L:352:GLN:HG2	2.08	0.53
1:M:348:GLN:O	1:M:352:GLN:HG2	2.08	0.53
1:I:158:VAL:HG22	1:I:396:VAL:HG22	1.90	0.53
1:F:420:ILE:HD12	1:F:451:LEU:HD13	1.89	0.53
1:F:18:ARG:O	1:F:22:VAL:HG23	2.08	0.53
1:J:145:ALA:O	1:J:149:THR:HG23	2.07	0.53
1:G:305:ILE:O	1:G:308:GLU:HB2	2.08	0.53
1:N:158:VAL:HG22	1:N:396:VAL:HG22	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:388:GLU:H	1:J:281:PHE:HE1	1.53	0.53
1:A:281:PHE:CD2	1:G:386:GLU:HG2	2.41	0.53
1:B:215:LEU:HD22	1:B:246:PRO:HB3	1.91	0.53
1:C:305:ILE:O	1:C:308:GLU:HB2	2.08	0.53
1:A:4:LYS:HB2	1:G:61:GLU:O	2.09	0.53
1:A:61:GLU:O	1:B:4:LYS:HB2	2.09	0.53
1:G:215:LEU:HD22	1:G:246:PRO:HB3	1.91	0.53
1:L:215:LEU:HD22	1:L:246:PRO:HB3	1.91	0.53
1:C:215:LEU:HD22	1:C:246:PRO:HB3	1.91	0.53
1:F:160:LYS:HB3	1:F:160:LYS:NZ	2.24	0.53
1:L:184:GLN:O	1:L:382:GLY:HA2	2.09	0.53
1:K:392:LYS:O	1:K:396:VAL:HG23	2.07	0.53
1:M:184:GLN:O	1:M:382:GLY:HA2	2.09	0.53
1:N:184:GLN:O	1:N:382:GLY:HA2	2.09	0.53
1:H:184:GLN:O	1:H:382:GLY:HA2	2.09	0.53
1:K:333:ILE:HA	1:K:376:VAL:HG21	1.91	0.53
1:E:38:VAL:CG1	1:F:519:CYS:HB3	2.37	0.52
1:J:158:VAL:HG22	1:J:396:VAL:HG22	1.89	0.52
1:K:158:VAL:HG22	1:K:396:VAL:HG22	1.89	0.52
1:J:215:LEU:HD22	1:J:246:PRO:HB3	1.91	0.52
1:I:174:VAL:HG21	1:I:194:GLN:HB2	1.86	0.52
1:J:333:ILE:HA	1:J:376:VAL:HG21	1.91	0.52
1:I:333:ILE:HA	1:I:376:VAL:HG21	1.91	0.52
1:L:333:ILE:HA	1:L:376:VAL:HG21	1.91	0.52
1:E:160:LYS:HB3	1:E:160:LYS:NZ	2.24	0.52
1:N:23:LEU:HD22	1:N:74:VAL:HG23	1.92	0.52
1:B:61:GLU:O	1:C:4:LYS:HB2	2.09	0.52
1:F:61:GLU:O	1:G:4:LYS:HB2	2.09	0.52
1:I:23:LEU:HD22	1:I:74:VAL:HG23	1.92	0.52
1:H:229:ASN:CA	1:N:270:ILE:CG2	2.82	0.52
1:L:85:ALA:C	1:L:405:ALA:CB	2.50	0.52
1:A:215:LEU:HD22	1:A:246:PRO:HB3	1.91	0.52
1:C:160:LYS:HB3	1:C:160:LYS:NZ	2.24	0.52
1:D:160:LYS:NZ	1:D:160:LYS:HB3	2.24	0.52
1:H:23:LEU:HD22	1:H:74:VAL:HG23	1.92	0.52
1:A:519:CYS:HB3	1:G:38:VAL:CG1	2.37	0.52
1:F:23:LEU:HD22	1:F:74:VAL:HG23	1.92	0.52
1:K:184:GLN:O	1:K:382:GLY:HA2	2.09	0.52
1:M:23:LEU:HD22	1:M:74:VAL:HG23	1.92	0.52
1:J:184:GLN:O	1:J:382:GLY:HA2	2.09	0.52
1:B:38:VAL:CG1	1:C:519:CYS:HB3	2.37	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:36:ARG:HB3	1:I:518:GLU:CB	2.28	0.52
1:E:23:LEU:HD22	1:E:74:VAL:HG23	1.92	0.52
1:J:23:LEU:HD22	1:J:74:VAL:HG23	1.92	0.52
1:I:184:GLN:O	1:I:382:GLY:HA2	2.09	0.52
1:K:36:ARG:CG	1:L:518:GLU:CG	2.79	0.52
1:B:160:LYS:NZ	1:B:160:LYS:HB3	2.24	0.52
1:H:270:ILE:CG2	1:I:229:ASN:CA	2.82	0.52
1:K:215:LEU:HD22	1:K:246:PRO:HB3	1.91	0.52
1:M:215:LEU:HD22	1:M:246:PRO:HB3	1.91	0.52
1:I:408:GLU:CG	1:I:498:LYS:NZ	2.68	0.52
1:F:215:LEU:HD22	1:F:246:PRO:HB3	1.91	0.52
1:A:114:MET:SD	1:G:36:ARG:HA	2.50	0.52
1:A:36:ARG:HA	1:B:114:MET:SD	2.50	0.52
1:A:160:LYS:NZ	1:A:160:LYS:HB3	2.24	0.52
1:M:333:ILE:HA	1:M:376:VAL:HG21	1.91	0.52
1:H:281:PHE:HE1	1:N:388:GLU:H	1.53	0.52
1:F:36:ARG:HA	1:G:114:MET:SD	2.50	0.52
1:E:36:ARG:HA	1:F:114:MET:SD	2.50	0.52
1:C:61:GLU:O	1:D:4:LYS:HB2	2.09	0.52
1:E:61:GLU:O	1:F:4:LYS:HB2	2.09	0.52
1:H:333:ILE:HA	1:H:376:VAL:HG21	1.91	0.52
1:E:234:LEU:N	1:E:235:PRO:HD2	2.25	0.52
1:D:36:ARG:HA	1:E:114:MET:SD	2.50	0.51
1:B:36:ARG:HA	1:C:114:MET:SD	2.50	0.51
1:B:171:LYS:HB2	1:B:407:VAL:HG11	1.92	0.51
1:G:23:LEU:HD22	1:G:74:VAL:HG23	1.92	0.51
1:E:215:LEU:HD22	1:E:246:PRO:HB3	1.91	0.51
1:D:215:LEU:HD22	1:D:246:PRO:HB3	1.91	0.51
1:G:234:LEU:N	1:G:235:PRO:HD2	2.25	0.51
1:C:171:LYS:HB2	1:C:407:VAL:HG11	1.92	0.51
1:C:36:ARG:HA	1:D:114:MET:SD	2.50	0.51
1:J:59:GLU:O	1:K:4:LYS:HE3	2.11	0.51
1:A:171:LYS:HB2	1:A:407:VAL:HG11	1.92	0.51
1:A:234:LEU:N	1:A:235:PRO:HD2	2.25	0.51
1:M:174:VAL:HG11	1:M:331:THR:HG1	1.71	0.51
1:M:59:GLU:O	1:N:4:LYS:HE3	2.11	0.51
1:G:171:LYS:HB2	1:G:407:VAL:HG11	1.92	0.51
1:N:234:LEU:N	1:N:235:PRO:HD2	2.26	0.51
1:D:171:LYS:HB2	1:D:407:VAL:HG11	1.92	0.51
1:H:86:GLY:CA	1:H:405:ALA:CB	2.88	0.51
1:J:36:ARG:HB3	1:K:518:GLU:CB	2.28	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:59:GLU:O	1:I:4:LYS:HE3	2.11	0.51
1:G:160:LYS:HB3	1:G:160:LYS:NZ	2.24	0.51
1:K:23:LEU:HD22	1:K:74:VAL:HG23	1.92	0.51
1:D:61:GLU:O	1:E:4:LYS:HB2	2.09	0.51
1:I:234:LEU:N	1:I:235:PRO:HD2	2.26	0.51
1:J:234:LEU:N	1:J:235:PRO:HD2	2.26	0.51
1:B:384:ALA:HB3	1:B:388:GLU:HB2	1.93	0.51
1:L:23:LEU:HD22	1:L:74:VAL:HG23	1.92	0.51
1:H:388:GLU:H	1:I:281:PHE:HE1	1.53	0.51
1:C:384:ALA:HB3	1:C:388:GLU:HB2	1.93	0.51
1:D:384:ALA:HB3	1:D:388:GLU:HB2	1.93	0.51
1:L:234:LEU:N	1:L:235:PRO:HD2	2.26	0.51
1:E:384:ALA:HB3	1:E:388:GLU:HB2	1.93	0.51
1:D:234:LEU:N	1:D:235:PRO:HD2	2.25	0.51
1:E:171:LYS:HB2	1:E:407:VAL:HG11	1.93	0.51
1:A:384:ALA:HB3	1:A:388:GLU:HB2	1.93	0.51
1:H:215:LEU:HD22	1:H:246:PRO:HB3	1.91	0.51
1:K:59:GLU:O	1:L:4:LYS:HE3	2.11	0.51
1:F:384:ALA:HB3	1:F:388:GLU:HB2	1.93	0.51
1:B:23:LEU:HD22	1:B:74:VAL:HG23	1.92	0.51
1:K:234:LEU:N	1:K:235:PRO:HD2	2.26	0.51
1:I:215:LEU:HD22	1:I:246:PRO:HB3	1.91	0.51
1:N:215:LEU:HD22	1:N:246:PRO:HB3	1.91	0.51
1:I:86:GLY:CA	1:I:405:ALA:CB	2.88	0.51
1:B:234:LEU:N	1:B:235:PRO:HD2	2.25	0.51
1:D:23:LEU:HD22	1:D:74:VAL:HG23	1.92	0.51
1:N:333:ILE:HA	1:N:376:VAL:HG21	1.91	0.51
1:F:171:LYS:HB2	1:F:407:VAL:HG11	1.92	0.51
1:A:281:PHE:HE2	1:G:386:GLU:CG	2.07	0.51
1:L:59:GLU:O	1:M:4:LYS:HE3	2.11	0.51
1:C:234:LEU:N	1:C:235:PRO:HD2	2.25	0.51
1:G:384:ALA:HB3	1:G:388:GLU:HB2	1.93	0.51
1:H:285:ARG:CA	1:N:386:GLU:OE2	2.59	0.51
1:I:59:GLU:O	1:J:4:LYS:HE3	2.11	0.51
1:J:75:LYS:O	1:J:75:LYS:HD3	2.11	0.51
1:F:75:LYS:O	1:F:75:LYS:HD3	2.11	0.51
1:G:75:LYS:HD3	1:G:75:LYS:O	2.11	0.51
1:D:47:PRO:CB	1:E:73:MET:HG2	2.41	0.50
1:I:270:ILE:CG2	1:J:229:ASN:CA	2.82	0.50
1:M:39:VAL:CB	1:N:69:MET:HE1	2.41	0.50
1:C:23:LEU:HD22	1:C:74:VAL:HG23	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:75:LYS:O	1:A:75:LYS:HD3	2.11	0.50
1:K:75:LYS:HD3	1:K:75:LYS:O	2.11	0.50
1:I:386:GLU:CA	1:J:284:ARG:CZ	2.62	0.50
1:H:41:ASP:OD2	1:I:522:THR:HG23	2.12	0.50
1:F:26:ALA:CB	1:G:8:PHE:CE2	2.77	0.50
1:B:75:LYS:HD3	1:B:75:LYS:O	2.11	0.50
1:L:75:LYS:O	1:L:75:LYS:HD3	2.11	0.50
1:L:386:GLU:OE2	1:M:285:ARG:CA	2.59	0.50
1:M:386:GLU:OE2	1:N:285:ARG:CA	2.59	0.50
1:K:86:GLY:HA3	1:K:405:ALA:HB2	1.93	0.50
1:H:234:LEU:N	1:H:235:PRO:HD2	2.26	0.50
1:A:23:LEU:HD22	1:A:74:VAL:HG23	1.92	0.50
1:F:234:LEU:N	1:F:235:PRO:HD2	2.25	0.50
1:M:388:GLU:H	1:N:281:PHE:HE1	1.53	0.50
1:M:41:ASP:OD2	1:N:522:THR:HG23	2.11	0.50
1:L:381:VAL:HB	1:L:392:LYS:HG2	1.93	0.50
1:K:381:VAL:HB	1:K:392:LYS:HG2	1.93	0.50
1:C:75:LYS:HD3	1:C:75:LYS:O	2.11	0.50
1:C:47:PRO:CB	1:D:73:MET:HG2	2.42	0.50
1:H:4:LYS:HE3	1:N:59:GLU:O	2.11	0.50
1:D:248:LEU:HD22	1:D:323:VAL:HG11	1.94	0.50
1:J:41:ASP:OD2	1:K:522:THR:HG23	2.12	0.50
1:F:349:ILE:HA	1:F:352:GLN:HG2	1.93	0.50
1:E:349:ILE:HA	1:E:352:GLN:HG2	1.93	0.50
1:I:381:VAL:HB	1:I:392:LYS:HG2	1.93	0.50
1:D:75:LYS:HD3	1:D:75:LYS:O	2.11	0.50
1:E:75:LYS:HD3	1:E:75:LYS:O	2.11	0.50
1:K:386:GLU:OE2	1:L:285:ARG:CA	2.59	0.50
1:H:522:THR:HG23	1:N:41:ASP:OD2	2.12	0.50
1:I:86:GLY:HA3	1:I:405:ALA:HB2	1.93	0.50
1:F:229:ASN:O	1:F:231:ARG:N	2.45	0.50
1:E:229:ASN:O	1:E:231:ARG:N	2.45	0.50
1:I:36:ARG:HB3	1:J:518:GLU:CB	2.28	0.50
1:H:381:VAL:HB	1:H:392:LYS:HG2	1.93	0.50
1:M:234:LEU:N	1:M:235:PRO:HD2	2.26	0.50
1:C:248:LEU:HD22	1:C:323:VAL:HG11	1.94	0.50
1:K:41:ASP:OD2	1:L:522:THR:HG23	2.12	0.50
1:M:86:GLY:CA	1:M:405:ALA:CB	2.88	0.50
1:J:408:GLU:CG	1:J:498:LYS:NZ	2.68	0.50
1:C:49:ILE:HG21	1:D:513:LEU:HD22	1.94	0.50
1:K:62:LEU:HD12	1:K:62:LEU:N	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:75:LYS:HD3	1:M:75:LYS:O	2.11	0.50
1:D:47:PRO:HD2	1:E:73:MET:HG2	0.51	0.50
1:L:388:GLU:H	1:M:281:PHE:HE1	1.53	0.50
1:H:386:GLU:OE2	1:I:285:ARG:CA	2.59	0.50
1:I:386:GLU:OE2	1:J:285:ARG:CA	2.59	0.50
1:C:49:ILE:CG1	1:D:513:LEU:HD22	2.42	0.50
1:D:349:ILE:HA	1:D:352:GLN:HG2	1.93	0.50
1:I:75:LYS:O	1:I:75:LYS:HD3	2.11	0.50
1:I:229:ASN:O	1:I:231:ARG:N	2.45	0.49
1:B:49:ILE:HG21	1:C:513:LEU:HD22	1.94	0.49
1:I:41:ASP:OD2	1:J:522:THR:HG23	2.12	0.49
1:A:349:ILE:HA	1:A:352:GLN:HG2	1.93	0.49
1:E:62:LEU:N	1:E:62:LEU:HD12	2.27	0.49
1:L:62:LEU:HD12	1:L:62:LEU:N	2.27	0.49
1:A:47:PRO:CB	1:B:73:MET:CG	2.88	0.49
1:L:41:ASP:OD2	1:M:522:THR:HG23	2.11	0.49
1:J:86:GLY:HA3	1:J:405:ALA:HB2	1.93	0.49
1:I:248:LEU:HD22	1:I:323:VAL:HG11	1.94	0.49
1:K:248:LEU:HD22	1:K:323:VAL:HG11	1.94	0.49
1:J:386:GLU:CA	1:K:284:ARG:CZ	2.62	0.49
1:J:386:GLU:OE2	1:K:285:ARG:CA	2.59	0.49
1:M:386:GLU:OE2	1:N:285:ARG:CB	2.61	0.49
1:L:86:GLY:CA	1:L:405:ALA:CB	2.88	0.49
1:B:49:ILE:CG1	1:C:513:LEU:HD22	2.41	0.49
1:D:229:ASN:O	1:D:231:ARG:N	2.45	0.49
1:C:229:ASN:O	1:C:231:ARG:N	2.45	0.49
1:A:248:LEU:HD22	1:A:323:VAL:HG11	1.94	0.49
1:H:248:LEU:HD22	1:H:323:VAL:HG11	1.94	0.49
1:E:248:LEU:HD22	1:E:323:VAL:HG11	1.94	0.49
1:F:62:LEU:N	1:F:62:LEU:HD12	2.27	0.49
1:C:39:VAL:CA	1:D:517:THR:HG23	2.43	0.49
1:D:39:VAL:CA	1:E:517:THR:HG23	2.43	0.49
1:B:39:VAL:CA	1:C:517:THR:HG23	2.43	0.49
1:B:47:PRO:CB	1:C:73:MET:HG2	2.42	0.49
1:E:39:VAL:CA	1:F:517:THR:HG23	2.43	0.49
1:H:285:ARG:CB	1:N:386:GLU:OE2	2.61	0.49
1:D:49:ILE:CG1	1:E:513:LEU:HD22	2.42	0.49
1:J:86:GLY:CA	1:J:405:ALA:CB	2.88	0.49
1:K:36:ARG:HB3	1:L:518:GLU:CB	2.28	0.49
1:B:349:ILE:HA	1:B:352:GLN:HG2	1.93	0.49
1:H:349:ILE:HA	1:H:352:GLN:HG2	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:475:ASN:ND2	1:A:489:ILE:HD12	2.28	0.49
1:M:62:LEU:HD12	1:M:62:LEU:N	2.27	0.49
1:D:47:PRO:CB	1:E:73:MET:CG	2.88	0.49
1:F:47:PRO:HD2	1:G:73:MET:HG2	0.51	0.49
1:H:281:PHE:HD2	1:N:389:MET:SD	2.36	0.49
1:H:389:MET:SD	1:I:281:PHE:HD2	2.36	0.49
1:A:386:GLU:HG2	1:B:281:PHE:CD2	2.41	0.49
1:G:229:ASN:O	1:G:231:ARG:N	2.45	0.49
1:G:349:ILE:HA	1:G:352:GLN:HG2	1.93	0.49
1:M:381:VAL:HB	1:M:392:LYS:HG2	1.93	0.49
1:J:381:VAL:HB	1:J:392:LYS:HG2	1.93	0.49
1:N:62:LEU:N	1:N:62:LEU:HD12	2.27	0.49
1:J:62:LEU:HD12	1:J:62:LEU:N	2.27	0.49
1:D:62:LEU:N	1:D:62:LEU:HD12	2.27	0.49
1:B:47:PRO:HD2	1:C:73:MET:HG2	0.51	0.49
1:A:47:PRO:HD2	1:B:73:MET:HG2	0.51	0.49
1:H:386:GLU:OE2	1:I:285:ARG:CB	2.61	0.49
1:M:389:MET:SD	1:N:281:PHE:HD2	2.36	0.49
1:J:229:ASN:O	1:J:231:ARG:N	2.45	0.49
1:K:229:ASN:O	1:K:231:ARG:N	2.45	0.49
1:H:229:ASN:O	1:H:231:ARG:N	2.45	0.49
1:M:229:ASN:O	1:M:231:ARG:N	2.45	0.49
1:A:229:ASN:O	1:A:231:ARG:N	2.45	0.49
1:I:349:ILE:HA	1:I:352:GLN:HG2	1.94	0.49
1:N:381:VAL:HB	1:N:392:LYS:HG2	1.93	0.49
1:N:75:LYS:O	1:N:75:LYS:HD3	2.11	0.49
1:A:73:MET:HG2	1:G:47:PRO:HD2	0.51	0.49
1:I:389:MET:SD	1:J:281:PHE:HD2	2.36	0.49
1:L:229:ASN:O	1:L:231:ARG:N	2.45	0.49
1:N:229:ASN:O	1:N:231:ARG:N	2.45	0.49
1:N:349:ILE:HA	1:N:352:GLN:HG2	1.93	0.49
1:L:248:LEU:HD22	1:L:323:VAL:HG11	1.94	0.49
1:G:248:LEU:HD22	1:G:323:VAL:HG11	1.94	0.49
1:F:475:ASN:ND2	1:F:489:ILE:HD12	2.28	0.49
1:J:186:GLU:HB2	1:J:380:LYS:HB2	1.95	0.49
1:I:62:LEU:HD12	1:I:62:LEU:N	2.27	0.49
1:A:517:THR:HG21	1:G:39:VAL:CB	1.94	0.49
1:F:47:PRO:CB	1:G:73:MET:CG	2.88	0.49
1:L:389:MET:SD	1:M:281:PHE:HD2	2.36	0.49
1:I:475:ASN:ND2	1:I:489:ILE:HD12	2.28	0.49
1:I:186:GLU:HB2	1:I:380:LYS:HB2	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:62:LEU:HD12	1:C:62:LEU:N	2.27	0.49
1:C:38:VAL:CG1	1:D:519:CYS:HB3	2.37	0.49
1:L:386:GLU:OE2	1:M:285:ARG:CB	2.61	0.49
1:J:386:GLU:OE2	1:K:285:ARG:CB	2.61	0.49
1:J:389:MET:SD	1:K:281:PHE:HD2	2.36	0.49
1:I:386:GLU:OE2	1:J:285:ARG:CB	2.61	0.49
1:K:386:GLU:OE2	1:L:285:ARG:CB	2.61	0.49
1:B:248:LEU:HD22	1:B:323:VAL:HG11	1.94	0.49
1:F:248:LEU:HD22	1:F:323:VAL:HG11	1.94	0.49
1:H:62:LEU:N	1:H:62:LEU:HD12	2.27	0.49
1:H:75:LYS:O	1:H:75:LYS:HD3	2.11	0.49
1:G:62:LEU:N	1:G:62:LEU:HD12	2.27	0.49
1:E:47:PRO:HD2	1:F:73:MET:HG2	0.51	0.49
1:K:389:MET:SD	1:L:281:PHE:HD2	2.36	0.49
1:J:245:LYS:CD	1:K:232:GLU:CD	2.81	0.49
1:L:245:LYS:CD	1:M:232:GLU:CD	2.81	0.49
1:H:85:ALA:C	1:H:405:ALA:CB	2.50	0.49
1:F:49:ILE:CG1	1:G:513:LEU:HD22	2.42	0.49
1:N:496:PRO:O	1:N:499:VAL:HG22	2.13	0.49
1:K:349:ILE:HA	1:K:352:GLN:HG2	1.93	0.49
1:M:349:ILE:HA	1:M:352:GLN:HG2	1.93	0.49
1:A:39:VAL:CA	1:B:517:THR:HG23	2.43	0.48
1:A:513:LEU:HD22	1:G:49:ILE:CG1	2.42	0.48
1:C:349:ILE:HA	1:C:352:GLN:HG2	1.93	0.48
1:M:248:LEU:HD22	1:M:323:VAL:HG11	1.94	0.48
1:N:248:LEU:HD22	1:N:323:VAL:HG11	1.94	0.48
1:J:248:LEU:HD22	1:J:323:VAL:HG11	1.94	0.48
1:A:62:LEU:N	1:A:62:LEU:HD12	2.27	0.48
1:A:47:PRO:CB	1:B:73:MET:HG2	2.41	0.48
1:K:245:LYS:CD	1:L:232:GLU:CD	2.81	0.48
1:M:245:LYS:CD	1:N:232:GLU:CD	2.81	0.48
1:M:496:PRO:O	1:M:499:VAL:HG22	2.13	0.48
1:N:86:GLY:HA3	1:N:405:ALA:HB2	1.93	0.48
1:J:321:LYS:HB3	1:J:334:ASP:HB3	1.95	0.48
1:B:349:ILE:HA	1:B:352:GLN:HG3	1.96	0.48
1:A:349:ILE:HA	1:A:352:GLN:HG3	1.96	0.48
1:G:449:ALA:HB3	1:G:450:PRO:HD3	1.95	0.48
1:N:207:LYS:HE2	1:N:214:GLU:HB2	1.95	0.48
1:C:47:PRO:HD2	1:D:73:MET:HG2	0.51	0.48
1:L:86:GLY:HA3	1:L:405:ALA:HB2	1.93	0.48
1:N:86:GLY:CA	1:N:405:ALA:CB	2.88	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:217:SER:HA	1:E:320:ALA:O	2.13	0.48
1:I:321:LYS:HB3	1:I:334:ASP:HB3	1.95	0.48
1:K:321:LYS:HB3	1:K:334:ASP:HB3	1.95	0.48
1:K:475:ASN:ND2	1:K:489:ILE:HD12	2.28	0.48
1:D:217:SER:HA	1:D:320:ALA:O	2.13	0.48
1:G:475:ASN:ND2	1:G:489:ILE:HD12	2.28	0.48
1:B:62:LEU:HD12	1:B:62:LEU:N	2.27	0.48
1:M:270:ILE:HG21	1:N:229:ASN:O	2.00	0.48
1:L:39:VAL:CB	1:M:69:MET:HE1	2.43	0.48
1:A:49:ILE:CG1	1:B:513:LEU:HD22	2.42	0.48
1:K:349:ILE:HA	1:K:352:GLN:HG3	1.95	0.48
1:L:349:ILE:HA	1:L:352:GLN:HG3	1.96	0.48
1:D:349:ILE:HA	1:D:352:GLN:HG3	1.95	0.48
1:L:421:ARG:CZ	1:L:474:GLY:HA2	2.44	0.48
1:C:449:ALA:HB3	1:C:450:PRO:HD3	1.95	0.48
1:L:496:PRO:O	1:L:499:VAL:HG22	2.13	0.48
1:G:496:PRO:O	1:G:499:VAL:HG22	2.13	0.48
1:C:349:ILE:HA	1:C:352:GLN:HG3	1.96	0.48
1:J:349:ILE:HA	1:J:352:GLN:HG2	1.93	0.48
1:M:217:SER:HA	1:M:320:ALA:O	2.14	0.48
1:J:475:ASN:ND2	1:J:489:ILE:HD12	2.28	0.48
1:K:421:ARG:CZ	1:K:474:GLY:HA2	2.44	0.48
1:H:475:ASN:ND2	1:H:489:ILE:HD12	2.28	0.48
1:E:475:ASN:ND2	1:E:489:ILE:HD12	2.28	0.48
1:M:475:ASN:ND2	1:M:489:ILE:HD12	2.28	0.48
1:H:186:GLU:HB2	1:H:380:LYS:HB2	1.95	0.48
1:G:421:ARG:CZ	1:G:474:GLY:HA2	2.44	0.48
1:A:421:ARG:CZ	1:A:474:GLY:HA2	2.44	0.48
1:D:449:ALA:HB3	1:D:450:PRO:HD3	1.95	0.48
1:F:150:ILE:CD1	1:F:411:VAL:CB	2.87	0.48
1:E:49:ILE:CG1	1:F:513:LEU:HD22	2.42	0.48
1:A:496:PRO:O	1:A:499:VAL:HG22	2.13	0.48
1:N:475:ASN:ND2	1:N:489:ILE:HD12	2.28	0.48
1:N:217:SER:HA	1:N:320:ALA:O	2.13	0.48
1:D:475:ASN:ND2	1:D:489:ILE:HD12	2.28	0.48
1:J:449:ALA:HB3	1:J:450:PRO:HD3	1.95	0.48
1:M:421:ARG:CZ	1:M:474:GLY:HA2	2.44	0.48
1:H:421:ARG:CZ	1:H:474:GLY:HA2	2.44	0.48
1:F:47:PRO:HD2	1:G:73:MET:CA	2.44	0.48
1:D:386:GLU:CD	1:E:281:PHE:CZ	2.87	0.48
1:A:386:GLU:CD	1:B:281:PHE:CZ	2.87	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:270:ILE:HD13	1:I:231:ARG:HG3	1.96	0.48
1:H:496:PRO:O	1:H:499:VAL:HG22	2.13	0.48
1:M:86:GLY:HA3	1:M:405:ALA:HB2	1.93	0.48
1:A:26:ALA:CB	1:B:8:PHE:CE2	2.77	0.48
1:G:349:ILE:HA	1:G:352:GLN:HG3	1.95	0.48
1:E:349:ILE:HA	1:E:352:GLN:HG3	1.96	0.48
1:J:421:ARG:CZ	1:J:474:GLY:HA2	2.44	0.48
1:D:421:ARG:CZ	1:D:474:GLY:HA2	2.44	0.48
1:L:449:ALA:HB3	1:L:450:PRO:HD3	1.95	0.48
1:K:186:GLU:HB2	1:K:380:LYS:HB2	1.95	0.48
1:M:449:ALA:HB3	1:M:450:PRO:HD3	1.95	0.48
1:E:207:LYS:HE2	1:E:214:GLU:HB2	1.95	0.48
1:L:475:ASN:ND2	1:L:489:ILE:HD12	2.28	0.48
1:I:421:ARG:CZ	1:I:474:GLY:HA2	2.44	0.48
1:E:421:ARG:CZ	1:E:474:GLY:HA2	2.44	0.48
1:H:86:GLY:HA3	1:H:405:ALA:HB2	1.93	0.48
1:D:49:ILE:HG21	1:E:513:LEU:HD22	1.94	0.48
1:D:496:PRO:O	1:D:499:VAL:HG22	2.13	0.48
1:E:496:PRO:O	1:E:499:VAL:HG22	2.13	0.48
1:C:496:PRO:O	1:C:499:VAL:HG22	2.13	0.48
1:L:349:ILE:HA	1:L:352:GLN:HG2	1.93	0.48
1:C:475:ASN:ND2	1:C:489:ILE:HD12	2.28	0.48
1:K:179:ASP:HB3	1:L:282:GLY:HA2	1.96	0.48
1:H:207:LYS:HE2	1:H:214:GLU:HB2	1.95	0.48
1:H:179:ASP:HB3	1:I:282:GLY:HA2	1.96	0.48
1:D:207:LYS:HE2	1:D:214:GLU:HB2	1.95	0.48
1:C:217:SER:HA	1:C:320:ALA:O	2.13	0.48
1:I:449:ALA:HB3	1:I:450:PRO:HD3	1.95	0.48
1:H:282:GLY:HA2	1:N:179:ASP:HB3	1.96	0.48
1:M:207:LYS:HE2	1:M:214:GLU:HB2	1.95	0.48
1:A:207:LYS:HE2	1:A:214:GLU:HB2	1.95	0.48
1:B:39:VAL:CB	1:C:517:THR:HG21	1.94	0.48
1:A:281:PHE:CZ	1:G:386:GLU:CD	2.87	0.48
1:B:496:PRO:O	1:B:499:VAL:HG22	2.13	0.48
1:B:233:MET:O	1:B:237:LEU:HG	2.14	0.48
1:E:233:MET:O	1:E:237:LEU:HG	2.14	0.48
1:J:349:ILE:HA	1:J:352:GLN:HG3	1.96	0.48
1:A:475:ASN:HD21	1:A:489:ILE:HD12	1.79	0.48
1:B:475:ASN:ND2	1:B:489:ILE:HD12	2.28	0.48
1:E:47:PRO:HD2	1:F:73:MET:CA	2.44	0.48
1:F:37:ASN:H	1:G:516:THR:HG22	1.70	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:522:THR:HG22	1:L:523:ASP:N	2.29	0.48
1:L:321:LYS:HB3	1:L:334:ASP:HB3	1.95	0.48
1:D:233:MET:O	1:D:237:LEU:HG	2.14	0.48
1:C:421:ARG:CZ	1:C:474:GLY:HA2	2.44	0.48
1:G:207:LYS:HE2	1:G:214:GLU:HB2	1.95	0.48
1:A:449:ALA:HB3	1:A:450:PRO:HD3	1.95	0.48
1:B:449:ALA:HB3	1:B:450:PRO:HD3	1.95	0.48
1:N:449:ALA:HB3	1:N:450:PRO:HD3	1.95	0.48
1:A:73:MET:HG2	1:G:47:PRO:CB	2.41	0.47
1:F:386:GLU:CD	1:G:281:PHE:CZ	2.87	0.47
1:J:245:LYS:HB2	1:J:246:PRO:HD3	1.96	0.47
1:M:522:THR:HG22	1:M:523:ASP:N	2.29	0.47
1:K:522:THR:HG22	1:K:523:ASP:N	2.29	0.47
1:A:245:LYS:HB2	1:A:246:PRO:HD3	1.96	0.47
1:B:229:ASN:O	1:B:231:ARG:N	2.45	0.47
1:G:245:LYS:HB2	1:G:246:PRO:HD3	1.96	0.47
1:C:233:MET:O	1:C:237:LEU:HG	2.14	0.47
1:A:321:LYS:HB3	1:A:334:ASP:HB3	1.95	0.47
1:F:449:ALA:HB3	1:F:450:PRO:HD3	1.95	0.47
1:L:217:SER:HA	1:L:320:ALA:O	2.14	0.47
1:B:47:PRO:HD2	1:C:73:MET:CA	2.44	0.47
1:A:73:MET:CA	1:G:47:PRO:HD2	2.44	0.47
1:C:386:GLU:CD	1:D:281:PHE:CZ	2.87	0.47
1:E:386:GLU:CD	1:F:281:PHE:CZ	2.87	0.47
1:B:386:GLU:CD	1:C:281:PHE:CZ	2.87	0.47
1:I:245:LYS:HB2	1:I:246:PRO:HD3	1.96	0.47
1:H:231:ARG:HG3	1:N:270:ILE:HD13	1.96	0.47
1:M:41:ASP:CG	1:N:522:THR:HG23	2.35	0.47
1:E:270:ILE:HG22	1:F:229:ASN:C	2.31	0.47
1:F:245:LYS:HB2	1:F:246:PRO:HD3	1.96	0.47
1:K:146:GLN:NE2	1:K:494:LEU:CD1	2.70	0.47
1:H:233:MET:O	1:H:237:LEU:HG	2.14	0.47
1:B:475:ASN:HD21	1:B:489:ILE:HD12	1.79	0.47
1:F:217:SER:HA	1:F:320:ALA:O	2.13	0.47
1:J:207:LYS:HE2	1:J:214:GLU:HB2	1.95	0.47
1:J:179:ASP:HB3	1:K:282:GLY:HA2	1.95	0.47
1:A:47:PRO:HD2	1:B:73:MET:CA	2.44	0.47
1:H:232:GLU:CD	1:N:245:LYS:CD	2.82	0.47
1:H:522:THR:HG23	1:N:41:ASP:CG	2.35	0.47
1:F:49:ILE:HG21	1:G:513:LEU:CA	2.45	0.47
1:D:49:ILE:HG21	1:E:513:LEU:CA	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:41:ASP:CG	1:J:522:THR:HG23	2.35	0.47
1:H:321:LYS:HB3	1:H:334:ASP:HB3	1.95	0.47
1:L:475:ASN:HD21	1:L:489:ILE:HD12	1.79	0.47
1:I:207:LYS:HE2	1:I:214:GLU:HB2	1.95	0.47
1:L:179:ASP:HB3	1:M:282:GLY:HA2	1.95	0.47
1:F:207:LYS:HE2	1:F:214:GLU:HB2	1.95	0.47
1:F:38:VAL:CG1	1:G:519:CYS:HB3	2.37	0.47
1:L:41:ASP:CG	1:M:522:THR:HG23	2.35	0.47
1:K:496:PRO:O	1:K:499:VAL:HG22	2.13	0.47
1:B:36:ARG:CZ	1:C:113:PRO:HD2	2.45	0.47
1:F:496:PRO:O	1:F:499:VAL:HG22	2.13	0.47
1:N:233:MET:O	1:N:237:LEU:HG	2.14	0.47
1:I:349:ILE:HA	1:I:352:GLN:HG3	1.96	0.47
1:E:449:ALA:HB3	1:E:450:PRO:HD3	1.95	0.47
1:G:321:LYS:HB3	1:G:334:ASP:HB3	1.95	0.47
1:N:421:ARG:CZ	1:N:474:GLY:HA2	2.44	0.47
1:B:321:LYS:HB3	1:B:334:ASP:HB3	1.95	0.47
1:L:186:GLU:HB2	1:L:380:LYS:HB2	1.95	0.47
1:A:217:SER:HA	1:A:320:ALA:O	2.13	0.47
1:D:321:LYS:HB3	1:D:334:ASP:HB3	1.95	0.47
1:B:421:ARG:CZ	1:B:474:GLY:HA2	2.44	0.47
1:B:37:ASN:O	1:C:518:GLU:HB2	2.15	0.47
1:H:245:LYS:CD	1:I:232:GLU:CD	2.81	0.47
1:M:270:ILE:HD13	1:N:231:ARG:HG3	1.96	0.47
1:E:49:ILE:HG13	1:F:513:LEU:CD2	2.45	0.47
1:A:113:PRO:HD2	1:G:36:ARG:CZ	2.45	0.47
1:C:36:ARG:CZ	1:D:113:PRO:HD2	2.45	0.47
1:A:36:ARG:CZ	1:B:113:PRO:HD2	2.45	0.47
1:M:321:LYS:HB3	1:M:334:ASP:HB3	1.95	0.47
1:I:233:MET:O	1:I:237:LEU:HG	2.14	0.47
1:E:475:ASN:HD21	1:E:489:ILE:HD12	1.79	0.47
1:C:207:LYS:HE2	1:C:214:GLU:HB2	1.95	0.47
1:K:217:SER:HA	1:K:320:ALA:O	2.13	0.47
1:C:39:VAL:HG11	1:D:73:MET:SD	2.55	0.47
1:B:39:VAL:HG11	1:C:73:MET:SD	2.55	0.47
1:F:37:ASN:O	1:G:518:GLU:HB2	2.15	0.47
1:K:41:ASP:CG	1:L:522:THR:HG23	2.35	0.47
1:J:41:ASP:CG	1:K:522:THR:HG23	2.35	0.47
1:N:321:LYS:HB3	1:N:334:ASP:HB3	1.95	0.47
1:A:233:MET:O	1:A:237:LEU:HG	2.14	0.47
1:I:475:ASN:HD21	1:I:489:ILE:HD12	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:475:ASN:HD21	1:D:489:ILE:HD12	1.79	0.47
1:M:186:GLU:HB2	1:M:380:LYS:HB2	1.95	0.47
1:K:207:LYS:HE2	1:K:214:GLU:HB2	1.95	0.47
1:J:217:SER:HA	1:J:320:ALA:O	2.13	0.47
1:D:47:PRO:HD2	1:E:73:MET:CA	2.44	0.47
1:A:39:VAL:HG11	1:B:73:MET:SD	2.55	0.47
1:A:73:MET:SD	1:G:39:VAL:HG11	2.55	0.47
1:G:522:THR:HG22	1:G:523:ASP:N	2.30	0.47
1:A:517:THR:HG23	1:G:39:VAL:CA	2.43	0.47
1:A:518:GLU:HB2	1:G:37:ASN:O	2.15	0.47
1:A:73:MET:CG	1:G:47:PRO:CB	2.88	0.47
1:A:73:MET:HE2	1:G:47:PRO:HG2	1.97	0.47
1:H:217:SER:HA	1:H:320:ALA:O	2.14	0.47
1:K:245:LYS:HB2	1:K:246:PRO:HD3	1.96	0.47
1:H:41:ASP:CG	1:I:522:THR:HG23	2.35	0.47
1:A:49:ILE:HG21	1:B:513:LEU:CA	2.45	0.47
1:B:245:LYS:HB2	1:B:246:PRO:HD3	1.96	0.47
1:F:522:THR:HG22	1:F:523:ASP:N	2.30	0.47
1:J:522:THR:HG22	1:J:523:ASP:N	2.29	0.47
1:M:26:ALA:HA	1:N:8:PHE:HE2	1.80	0.47
1:L:233:MET:O	1:L:237:LEU:HG	2.14	0.47
1:F:349:ILE:HA	1:F:352:GLN:HG3	1.95	0.47
1:G:272:LYS:HB3	1:G:273:VAL:H	1.51	0.47
1:F:475:ASN:HD21	1:F:489:ILE:HD12	1.79	0.47
1:J:475:ASN:HD21	1:J:489:ILE:HD12	1.79	0.47
1:M:475:ASN:HD21	1:M:489:ILE:HD12	1.79	0.47
1:B:217:SER:HA	1:B:320:ALA:O	2.13	0.47
1:K:449:ALA:HB3	1:K:450:PRO:HD3	1.95	0.47
1:F:421:ARG:CZ	1:F:474:GLY:HA2	2.44	0.47
1:E:321:LYS:HB3	1:E:334:ASP:HB3	1.95	0.47
1:I:179:ASP:HB3	1:J:282:GLY:HA2	1.96	0.47
1:G:217:SER:HA	1:G:320:ALA:O	2.13	0.47
1:G:174:VAL:CG2	1:G:370:ALA:O	2.63	0.47
1:M:179:ASP:HB3	1:N:282:GLY:HA2	1.96	0.47
1:L:207:LYS:HE2	1:L:214:GLU:HB2	1.95	0.47
1:E:522:THR:HG22	1:E:523:ASP:N	2.30	0.47
1:F:39:VAL:HG11	1:G:73:MET:SD	2.55	0.47
1:I:245:LYS:CD	1:J:232:GLU:CD	2.81	0.47
1:N:522:THR:HG22	1:N:523:ASP:N	2.30	0.47
1:I:522:THR:HG22	1:I:523:ASP:N	2.29	0.47
1:I:496:PRO:O	1:I:499:VAL:HG22	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:36:ARG:HB3	1:M:518:GLU:CB	2.28	0.47
1:M:233:MET:O	1:M:237:LEU:HG	2.14	0.47
1:G:233:MET:O	1:G:237:LEU:HG	2.14	0.47
1:F:233:MET:O	1:F:237:LEU:HG	2.14	0.47
1:B:207:LYS:HE2	1:B:214:GLU:HB2	1.95	0.47
1:C:47:PRO:HD2	1:D:73:MET:CA	2.44	0.47
1:A:37:ASN:O	1:B:518:GLU:HB2	2.15	0.47
1:H:245:LYS:HB2	1:H:246:PRO:HD3	1.96	0.47
1:F:49:ILE:HG13	1:G:513:LEU:CD2	2.44	0.47
1:J:496:PRO:O	1:J:499:VAL:HG22	2.13	0.47
1:B:49:ILE:HG21	1:C:513:LEU:CA	2.45	0.47
1:C:245:LYS:HB2	1:C:246:PRO:HD3	1.96	0.47
1:D:245:LYS:HB2	1:D:246:PRO:HD3	1.96	0.47
1:D:36:ARG:CZ	1:E:113:PRO:HD2	2.45	0.47
1:N:458:CYS:SG	1:N:480:ALA:HB1	2.55	0.47
1:J:233:MET:O	1:J:237:LEU:HG	2.14	0.47
1:N:349:ILE:HA	1:N:352:GLN:HG3	1.95	0.47
1:G:219:PHE:HB3	1:G:317:LEU:HD23	1.97	0.47
1:H:475:ASN:HD21	1:H:489:ILE:HD12	1.79	0.47
1:F:321:LYS:HB3	1:F:334:ASP:HB3	1.95	0.47
1:D:174:VAL:CG2	1:D:370:ALA:O	2.63	0.47
1:E:174:VAL:CG2	1:E:370:ALA:O	2.63	0.47
1:C:37:ASN:O	1:D:518:GLU:HB2	2.15	0.47
1:A:522:THR:HG22	1:A:523:ASP:N	2.30	0.47
1:F:36:ARG:CZ	1:G:113:PRO:HD2	2.45	0.47
1:M:458:CYS:SG	1:M:480:ALA:HB1	2.55	0.47
1:H:349:ILE:HA	1:H:352:GLN:HG3	1.96	0.47
1:E:219:PHE:HB3	1:E:317:LEU:HD23	1.97	0.47
1:K:381:VAL:HG11	1:K:393:LYS:HA	1.97	0.47
1:C:174:VAL:CG2	1:C:370:ALA:O	2.63	0.47
1:N:186:GLU:HB2	1:N:380:LYS:HB2	1.95	0.47
1:D:37:ASN:H	1:E:516:THR:HG22	1.70	0.46
1:E:37:ASN:H	1:F:516:THR:HG22	1.70	0.46
1:E:39:VAL:HG11	1:F:73:MET:SD	2.55	0.46
1:M:245:LYS:HB2	1:M:246:PRO:HD3	1.96	0.46
1:L:458:CYS:SG	1:L:480:ALA:HB1	2.55	0.46
1:A:219:PHE:HB3	1:A:317:LEU:HD23	1.97	0.46
1:F:219:PHE:HB3	1:F:317:LEU:HD23	1.98	0.46
1:F:174:VAL:CG2	1:F:370:ALA:O	2.63	0.46
1:C:321:LYS:HB3	1:C:334:ASP:HB3	1.95	0.46
1:D:522:THR:HG22	1:D:523:ASP:N	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:39:VAL:HG11	1:E:73:MET:SD	2.55	0.46
1:C:522:THR:HG22	1:C:523:ASP:N	2.30	0.46
1:H:522:THR:HG22	1:H:523:ASP:N	2.30	0.46
1:I:458:CYS:SG	1:I:480:ALA:HB1	2.56	0.46
1:H:458:CYS:SG	1:H:480:ALA:HB1	2.55	0.46
1:L:26:ALA:HA	1:M:8:PHE:HE2	1.80	0.46
1:J:381:VAL:HG11	1:J:393:LYS:HA	1.98	0.46
1:G:475:ASN:HD21	1:G:489:ILE:HD12	1.79	0.46
1:A:174:VAL:CG2	1:A:370:ALA:O	2.63	0.46
1:B:458:CYS:SG	1:B:480:ALA:HB1	2.55	0.46
1:A:461:GLU:OE2	1:L:463:SER:HB3	2.16	0.46
1:H:449:ALA:HB3	1:H:450:PRO:HD3	1.95	0.46
1:G:458:CYS:SG	1:G:480:ALA:HB1	2.56	0.46
1:E:37:ASN:O	1:F:518:GLU:HB2	2.15	0.46
1:J:39:VAL:CB	1:K:69:MET:HE1	2.45	0.46
1:E:245:LYS:HB2	1:E:246:PRO:HD3	1.96	0.46
1:C:461:GLU:OE2	1:J:463:SER:HB3	2.16	0.46
1:B:461:GLU:OE2	1:K:463:SER:HB3	2.16	0.46
1:A:516:THR:HG22	1:G:37:ASN:H	1.70	0.46
1:F:47:PRO:CB	1:G:73:MET:HG2	2.42	0.46
1:L:245:LYS:HB2	1:L:246:PRO:HD3	1.96	0.46
1:L:270:ILE:CG2	1:M:229:ASN:CA	2.82	0.46
1:H:39:VAL:CB	1:I:69:MET:HE1	2.46	0.46
1:C:49:ILE:HG21	1:D:513:LEU:CA	2.45	0.46
1:M:36:ARG:HB3	1:N:518:GLU:CB	2.28	0.46
1:H:146:GLN:NE2	1:H:494:LEU:CD1	2.70	0.46
1:J:458:CYS:SG	1:J:480:ALA:HB1	2.55	0.46
1:D:219:PHE:HB3	1:D:317:LEU:HD23	1.97	0.46
1:D:384:ALA:O	1:D:388:GLU:HB2	2.16	0.46
1:A:384:ALA:O	1:A:388:GLU:HB2	2.16	0.46
1:K:475:ASN:HD21	1:K:489:ILE:HD12	1.79	0.46
1:G:461:GLU:OE2	1:M:463:SER:HB3	2.16	0.46
1:B:47:PRO:CB	1:C:73:MET:CG	2.88	0.46
1:A:513:LEU:CD2	1:G:49:ILE:HG13	2.45	0.46
1:A:513:LEU:CA	1:G:49:ILE:HG21	2.45	0.46
1:K:86:GLY:CA	1:K:405:ALA:CB	2.88	0.46
1:K:458:CYS:SG	1:K:480:ALA:HB1	2.56	0.46
1:K:233:MET:O	1:K:237:LEU:HG	2.14	0.46
1:L:381:VAL:HG11	1:L:393:LYS:HA	1.97	0.46
1:F:384:ALA:O	1:F:388:GLU:HB2	2.16	0.46
1:B:145:ALA:O	1:B:149:THR:HG23	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:217:SER:HA	1:I:320:ALA:O	2.14	0.46
1:K:219:PHE:HB3	1:K:317:LEU:HD23	1.97	0.46
1:C:390:LYS:HD2	1:C:390:LYS:N	2.31	0.46
1:E:390:LYS:N	1:E:390:LYS:HD2	2.31	0.46
1:C:47:PRO:HG2	1:D:73:MET:CE	2.45	0.46
1:D:47:PRO:HG2	1:E:73:MET:CE	2.45	0.46
1:A:73:MET:CE	1:G:47:PRO:HG2	2.45	0.46
1:I:270:ILE:HG21	1:J:229:ASN:O	2.00	0.46
1:N:245:LYS:HB2	1:N:246:PRO:HD3	1.96	0.46
1:A:49:ILE:HG13	1:B:513:LEU:CD2	2.45	0.46
1:M:349:ILE:HA	1:M:352:GLN:HG3	1.96	0.46
1:B:219:PHE:HB3	1:B:317:LEU:HD23	1.97	0.46
1:J:219:PHE:HB3	1:J:317:LEU:HD23	1.97	0.46
1:N:381:VAL:HG11	1:N:393:LYS:HA	1.97	0.46
1:N:475:ASN:HD21	1:N:489:ILE:HD12	1.79	0.46
1:J:106:ALA:O	1:J:111:MET:HB2	2.16	0.46
1:E:458:CYS:SG	1:E:480:ALA:HB1	2.56	0.46
1:B:106:ALA:O	1:B:111:MET:HB2	2.16	0.46
1:A:458:CYS:SG	1:A:480:ALA:HB1	2.56	0.46
1:G:106:ALA:O	1:G:111:MET:HB2	2.16	0.46
1:D:458:CYS:SG	1:D:480:ALA:HB1	2.55	0.46
1:B:522:THR:HG22	1:B:523:ASP:N	2.30	0.46
1:E:49:ILE:HG21	1:F:513:LEU:CA	2.45	0.46
1:B:49:ILE:HG13	1:C:513:LEU:CD2	2.45	0.46
1:H:518:GLU:CB	1:N:36:ARG:HB3	2.28	0.46
1:H:272:LYS:HB3	1:H:273:VAL:H	1.51	0.46
1:B:384:ALA:O	1:B:388:GLU:HB2	2.16	0.46
1:E:384:ALA:O	1:E:388:GLU:HB2	2.16	0.46
1:C:475:ASN:HD21	1:C:489:ILE:HD12	1.79	0.46
1:C:145:ALA:O	1:C:149:THR:HG23	2.16	0.46
1:E:36:ARG:CZ	1:F:113:PRO:HD2	2.45	0.46
1:J:182:GLY:N	1:K:283:ASP:HB2	2.25	0.46
1:B:236:VAL:O	1:B:240:VAL:HG23	2.16	0.46
1:C:219:PHE:HB3	1:C:317:LEU:HD23	1.97	0.46
1:M:381:VAL:HG11	1:M:393:LYS:HA	1.98	0.46
1:F:461:GLU:OE2	1:N:463:SER:HB3	2.16	0.46
1:D:461:GLU:OE2	1:I:463:SER:HB3	2.16	0.46
1:B:390:LYS:HD2	1:B:390:LYS:N	2.31	0.46
1:A:47:PRO:HG2	1:B:73:MET:CE	2.45	0.46
1:A:47:PRO:HG2	1:B:73:MET:HE2	1.98	0.46
1:F:47:PRO:HG2	1:G:73:MET:CE	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:386:GLU:CG	1:E:281:PHE:HE2	2.07	0.46
1:K:270:ILE:HD13	1:L:231:ARG:HG3	1.96	0.46
1:L:219:PHE:HB3	1:L:317:LEU:HD23	1.97	0.46
1:I:219:PHE:HB3	1:I:317:LEU:HD23	1.97	0.46
1:H:381:VAL:HG11	1:H:393:LYS:HA	1.97	0.46
1:C:103:GLY:O	1:C:107:VAL:HG23	2.16	0.46
1:A:145:ALA:O	1:A:149:THR:HG23	2.16	0.46
1:B:174:VAL:CG2	1:B:370:ALA:O	2.63	0.46
1:F:458:CYS:SG	1:F:480:ALA:HB1	2.56	0.46
1:F:150:ILE:CG1	1:F:494:LEU:HD12	2.39	0.46
1:L:270:ILE:HD13	1:M:231:ARG:HG3	1.96	0.46
1:B:35:GLY:O	1:C:114:MET:HE1	2.10	0.46
1:I:236:VAL:O	1:I:240:VAL:HG23	2.16	0.46
1:B:103:GLY:O	1:B:107:VAL:HG23	2.16	0.46
1:N:106:ALA:O	1:N:111:MET:HB2	2.16	0.46
1:E:106:ALA:O	1:E:111:MET:HB2	2.16	0.46
1:M:219:PHE:HB3	1:M:317:LEU:HD23	1.97	0.46
1:D:390:LYS:HD2	1:D:390:LYS:N	2.31	0.46
1:D:37:ASN:O	1:E:518:GLU:HB2	2.15	0.45
1:E:47:PRO:HG2	1:F:73:MET:HE2	1.98	0.45
1:E:150:ILE:CD1	1:E:411:VAL:CB	2.87	0.45
1:H:69:MET:HE1	1:N:39:VAL:CB	2.47	0.45
1:L:146:GLN:NE2	1:L:494:LEU:CD1	2.70	0.45
1:K:26:ALA:HA	1:L:8:PHE:HE2	1.80	0.45
1:N:219:PHE:HB3	1:N:317:LEU:HD23	1.98	0.45
1:H:219:PHE:HB3	1:H:317:LEU:HD23	1.97	0.45
1:I:381:VAL:HG11	1:I:393:LYS:HA	1.97	0.45
1:E:461:GLU:OE2	1:H:463:SER:HB3	2.16	0.45
1:L:106:ALA:O	1:L:111:MET:HB2	2.16	0.45
1:M:111:MET:HG3	1:M:435:ASP:OD1	2.17	0.45
1:D:106:ALA:O	1:D:111:MET:HB2	2.16	0.45
1:E:47:PRO:HG2	1:F:73:MET:CE	2.45	0.45
1:F:37:ASN:H	1:G:516:THR:CG2	2.28	0.45
1:F:39:VAL:CA	1:G:517:THR:HG23	2.43	0.45
1:I:182:GLY:N	1:J:283:ASP:HB2	2.25	0.45
1:B:230:ILE:O	1:B:233:MET:HB2	2.17	0.45
1:C:230:ILE:O	1:C:233:MET:HB2	2.17	0.45
1:H:236:VAL:O	1:H:240:VAL:HG23	2.16	0.45
1:L:111:MET:HG3	1:L:435:ASP:OD1	2.17	0.45
1:M:106:ALA:O	1:M:111:MET:HB2	2.16	0.45
1:I:111:MET:HG3	1:I:435:ASP:OD1	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:145:ALA:O	1:F:149:THR:HG23	2.16	0.45
1:E:122:LYS:HE2	1:E:430:ARG:O	2.17	0.45
1:B:47:PRO:HG2	1:C:73:MET:CE	2.45	0.45
1:C:49:ILE:HG13	1:D:513:LEU:CD2	2.45	0.45
1:C:272:LYS:HB3	1:C:273:VAL:H	1.51	0.45
1:E:111:MET:HG3	1:E:435:ASP:OD1	2.17	0.45
1:M:122:LYS:HE2	1:M:430:ARG:O	2.17	0.45
1:E:145:ALA:O	1:E:149:THR:HG23	2.16	0.45
1:H:111:MET:HG3	1:H:435:ASP:OD1	2.16	0.45
1:E:37:ASN:H	1:F:516:THR:CG2	2.28	0.45
1:H:229:ASN:O	1:N:270:ILE:HG21	2.00	0.45
1:J:236:VAL:O	1:J:240:VAL:HG23	2.16	0.45
1:C:236:VAL:O	1:C:240:VAL:HG23	2.16	0.45
1:G:384:ALA:O	1:G:388:GLU:HB2	2.16	0.45
1:L:122:LYS:HE2	1:L:430:ARG:O	2.17	0.45
1:C:458:CYS:SG	1:C:480:ALA:HB1	2.56	0.45
1:H:325:ILE:HG23	1:H:330:THR:OG1	2.17	0.45
1:J:122:LYS:HE2	1:J:430:ARG:O	2.17	0.45
1:K:122:LYS:HE2	1:K:430:ARG:O	2.17	0.45
1:D:230:ILE:O	1:D:233:MET:HB2	2.17	0.45
1:I:90:THR:O	1:I:94:VAL:HG13	2.17	0.45
1:L:90:THR:O	1:L:94:VAL:HG13	2.17	0.45
1:C:384:ALA:O	1:C:388:GLU:HB2	2.16	0.45
1:N:111:MET:HG3	1:N:435:ASP:OD1	2.17	0.45
1:F:122:LYS:HE2	1:F:430:ARG:O	2.17	0.45
1:F:325:ILE:HG23	1:F:330:THR:OG1	2.17	0.45
1:E:47:PRO:CB	1:F:73:MET:HG2	2.41	0.45
1:J:270:ILE:HD13	1:K:231:ARG:HG3	1.96	0.45
1:K:39:VAL:CB	1:L:69:MET:HE1	2.46	0.45
1:J:146:GLN:NE2	1:J:494:LEU:CD1	2.70	0.45
1:N:230:ILE:O	1:N:233:MET:HB2	2.17	0.45
1:J:111:MET:HG3	1:J:435:ASP:OD1	2.17	0.45
1:D:111:MET:HG3	1:D:435:ASP:OD1	2.17	0.45
1:H:106:ALA:O	1:H:111:MET:HB2	2.16	0.45
1:E:90:THR:O	1:E:94:VAL:HG13	2.17	0.45
1:C:325:ILE:HG23	1:C:330:THR:OG1	2.17	0.45
1:K:106:ALA:O	1:K:111:MET:HB2	2.16	0.45
1:F:111:MET:HG3	1:F:435:ASP:OD1	2.17	0.45
1:M:103:GLY:O	1:M:107:VAL:HG23	2.16	0.45
1:E:325:ILE:HG23	1:E:330:THR:OG1	2.17	0.45
1:M:389:MET:SD	1:N:281:PHE:CD2	3.10	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:230:ILE:O	1:K:233:MET:HB2	2.16	0.45
1:E:230:ILE:O	1:E:233:MET:HB2	2.17	0.45
1:A:236:VAL:O	1:A:240:VAL:HG23	2.16	0.45
1:E:236:VAL:O	1:E:240:VAL:HG23	2.16	0.45
1:M:90:THR:O	1:M:94:VAL:HG13	2.17	0.45
1:D:90:THR:O	1:D:94:VAL:HG13	2.17	0.45
1:F:106:ALA:O	1:F:111:MET:HB2	2.16	0.45
1:K:267:MET:O	1:K:268:ARG:HB2	2.17	0.45
1:N:122:LYS:HE2	1:N:430:ARG:O	2.17	0.45
1:D:103:GLY:O	1:D:107:VAL:HG23	2.16	0.45
1:D:325:ILE:HG23	1:D:330:THR:OG1	2.17	0.45
1:I:267:MET:O	1:I:268:ARG:HB2	2.17	0.45
1:J:267:MET:O	1:J:268:ARG:HB2	2.17	0.45
1:H:389:MET:SD	1:I:281:PHE:CD2	3.10	0.45
1:E:386:GLU:CG	1:F:281:PHE:HE2	2.07	0.45
1:A:230:ILE:O	1:A:233:MET:HB2	2.17	0.45
1:L:236:VAL:O	1:L:240:VAL:HG23	2.16	0.45
1:K:236:VAL:O	1:K:240:VAL:HG23	2.16	0.45
1:L:272:LYS:HB3	1:L:273:VAL:H	1.51	0.45
1:K:90:THR:O	1:K:94:VAL:HG13	2.17	0.45
1:L:325:ILE:HG23	1:L:330:THR:OG1	2.17	0.45
1:H:103:GLY:O	1:H:107:VAL:HG23	2.16	0.45
1:G:325:ILE:HG23	1:G:330:THR:OG1	2.17	0.45
1:A:106:ALA:O	1:A:111:MET:HB2	2.16	0.45
1:J:90:THR:O	1:J:94:VAL:HG13	2.17	0.45
1:D:122:LYS:HE2	1:D:430:ARG:O	2.17	0.45
1:J:389:MET:SD	1:K:281:PHE:CD2	3.10	0.45
1:I:389:MET:SD	1:J:281:PHE:CD2	3.10	0.45
1:L:230:ILE:O	1:L:233:MET:HB2	2.17	0.45
1:M:230:ILE:O	1:M:233:MET:HB2	2.17	0.45
1:H:230:ILE:O	1:H:233:MET:HB2	2.17	0.45
1:F:230:ILE:O	1:F:233:MET:HB2	2.17	0.45
1:G:236:VAL:O	1:G:240:VAL:HG23	2.16	0.45
1:K:111:MET:HG3	1:K:435:ASP:OD1	2.17	0.45
1:C:106:ALA:O	1:C:111:MET:HB2	2.16	0.45
1:L:267:MET:O	1:L:268:ARG:HB2	2.17	0.45
1:J:403:THR:O	1:J:407:VAL:HG23	2.17	0.45
1:C:267:MET:O	1:C:268:ARG:HB2	2.17	0.45
1:D:47:PRO:HG2	1:E:73:MET:HE2	1.99	0.45
1:I:270:ILE:HD13	1:J:231:ARG:HG3	1.96	0.45
1:L:270:ILE:HG21	1:M:229:ASN:O	2.00	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:230:ILE:O	1:G:233:MET:HB2	2.17	0.45
1:H:90:THR:O	1:H:94:VAL:HG13	2.17	0.45
1:G:145:ALA:O	1:G:149:THR:HG23	2.16	0.45
1:A:325:ILE:HG23	1:A:330:THR:OG1	2.17	0.45
1:B:325:ILE:HG23	1:B:330:THR:OG1	2.17	0.45
1:N:325:ILE:HG23	1:N:330:THR:OG1	2.17	0.45
1:K:103:GLY:O	1:K:107:VAL:HG23	2.16	0.45
1:A:122:LYS:HE2	1:A:430:ARG:O	2.17	0.45
1:G:390:LYS:HD2	1:G:390:LYS:N	2.31	0.45
1:A:390:LYS:HD2	1:A:390:LYS:N	2.31	0.45
1:H:281:PHE:CD2	1:N:389:MET:SD	3.10	0.44
1:H:270:ILE:HG21	1:I:229:ASN:O	2.00	0.44
1:D:35:GLY:O	1:E:114:MET:HE1	2.10	0.44
1:M:146:GLN:NE2	1:M:494:LEU:CD1	2.70	0.44
1:N:236:VAL:O	1:N:240:VAL:HG23	2.16	0.44
1:J:272:LYS:HB3	1:J:273:VAL:H	1.51	0.44
1:J:103:GLY:O	1:J:107:VAL:HG23	2.16	0.44
1:A:103:GLY:O	1:A:107:VAL:HG23	2.16	0.44
1:G:202:PRO:O	1:G:203:TYR:HB2	2.17	0.44
1:N:103:GLY:O	1:N:107:VAL:HG23	2.17	0.44
1:B:73:MET:O	1:B:76:GLU:HB2	2.18	0.44
1:L:389:MET:SD	1:M:281:PHE:CD2	3.10	0.44
1:K:389:MET:SD	1:L:281:PHE:CD2	3.10	0.44
1:K:270:ILE:CG2	1:L:229:ASN:CA	2.82	0.44
1:L:73:MET:O	1:L:76:GLU:HB2	2.18	0.44
1:D:270:ILE:HG22	1:E:229:ASN:C	2.31	0.44
1:A:434:GLU:O	1:A:438:VAL:HG23	2.18	0.44
1:J:230:ILE:O	1:J:233:MET:HB2	2.17	0.44
1:D:236:VAL:O	1:D:240:VAL:HG23	2.16	0.44
1:L:103:GLY:O	1:L:107:VAL:HG23	2.16	0.44
1:K:403:THR:O	1:K:407:VAL:HG23	2.17	0.44
1:A:202:PRO:O	1:A:203:TYR:HB2	2.17	0.44
1:F:390:LYS:HD2	1:F:390:LYS:N	2.31	0.44
1:E:47:PRO:CB	1:F:73:MET:CG	2.87	0.44
1:C:150:ILE:CG1	1:C:494:LEU:HD12	2.39	0.44
1:D:49:ILE:HG13	1:E:513:LEU:CD2	2.45	0.44
1:H:434:GLU:O	1:H:438:VAL:HG23	2.18	0.44
1:G:111:MET:HG3	1:G:435:ASP:OD1	2.17	0.44
1:A:111:MET:HG3	1:A:435:ASP:OD1	2.17	0.44
1:I:103:GLY:O	1:I:107:VAL:HG23	2.16	0.44
1:F:267:MET:O	1:F:268:ARG:HB2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:267:MET:O	1:H:268:ARG:HB2	2.17	0.44
1:D:145:ALA:O	1:D:149:THR:HG23	2.16	0.44
1:E:73:MET:O	1:E:76:GLU:HB2	2.18	0.44
1:H:26:ALA:HA	1:I:8:PHE:HE2	1.80	0.44
1:M:236:VAL:O	1:M:240:VAL:HG23	2.16	0.44
1:M:325:ILE:HG23	1:M:330:THR:OG1	2.17	0.44
1:D:267:MET:O	1:D:268:ARG:HB2	2.17	0.44
1:I:122:LYS:HE2	1:I:430:ARG:O	2.17	0.44
1:M:267:MET:O	1:M:268:ARG:HB2	2.17	0.44
1:I:325:ILE:HG23	1:I:330:THR:OG1	2.17	0.44
1:B:122:LYS:HE2	1:B:430:ARG:O	2.17	0.44
1:F:103:GLY:O	1:F:107:VAL:HG23	2.16	0.44
1:A:73:MET:O	1:A:76:GLU:HB2	2.18	0.44
1:N:73:MET:O	1:N:76:GLU:HB2	2.18	0.44
1:H:73:MET:O	1:H:76:GLU:HB2	2.18	0.44
1:K:182:GLY:N	1:L:283:ASP:HB2	2.25	0.44
1:N:434:GLU:O	1:N:438:VAL:HG23	2.18	0.44
1:I:230:ILE:O	1:I:233:MET:HB2	2.17	0.44
1:I:434:GLU:O	1:I:438:VAL:HG23	2.18	0.44
1:F:236:VAL:O	1:F:240:VAL:HG23	2.16	0.44
1:B:272:LYS:HB3	1:B:273:VAL:H	1.51	0.44
1:F:461:GLU:HA	1:F:462:PRO:HD2	1.90	0.44
1:I:106:ALA:O	1:I:111:MET:HB2	2.16	0.44
1:N:205:ILE:HA	1:N:213:VAL:HG22	1.99	0.44
1:B:205:ILE:HA	1:B:213:VAL:HG22	1.99	0.44
1:J:202:PRO:O	1:J:203:TYR:HB2	2.18	0.44
1:K:202:PRO:O	1:K:203:TYR:HB2	2.17	0.44
1:C:122:LYS:HE2	1:C:430:ARG:O	2.17	0.44
1:F:202:PRO:O	1:F:203:TYR:HB2	2.17	0.44
1:D:73:MET:O	1:D:76:GLU:HB2	2.18	0.44
1:E:150:ILE:CD1	1:E:494:LEU:CD1	2.94	0.44
1:K:73:MET:O	1:K:76:GLU:HB2	2.18	0.44
1:C:111:MET:HG3	1:C:435:ASP:OD1	2.17	0.44
1:E:267:MET:O	1:E:268:ARG:HB2	2.17	0.44
1:H:205:ILE:HA	1:H:213:VAL:HG22	1.99	0.44
1:E:205:ILE:HA	1:E:213:VAL:HG22	1.99	0.44
1:B:267:MET:O	1:B:268:ARG:HB2	2.17	0.44
1:M:403:THR:O	1:M:407:VAL:HG23	2.17	0.44
1:C:434:GLU:O	1:C:438:VAL:HG23	2.18	0.44
1:M:434:GLU:O	1:M:438:VAL:HG23	2.18	0.44
1:F:90:THR:O	1:F:94:VAL:HG13	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:430:ARG:HA	1:F:430:ARG:HD3	1.84	0.44
1:N:403:THR:O	1:N:407:VAL:HG23	2.17	0.44
1:G:122:LYS:HE2	1:G:430:ARG:O	2.17	0.44
1:D:205:ILE:HA	1:D:213:VAL:HG22	1.99	0.44
1:E:103:GLY:O	1:E:107:VAL:HG23	2.16	0.44
1:G:103:GLY:O	1:G:107:VAL:HG23	2.16	0.44
1:K:325:ILE:HG23	1:K:330:THR:OG1	2.17	0.44
1:C:73:MET:O	1:C:76:GLU:HB2	2.18	0.44
1:G:179:ASP:HB3	1:G:389:MET:HE1	2.00	0.44
1:B:90:THR:O	1:B:94:VAL:HG13	2.17	0.44
1:B:111:MET:HG3	1:B:435:ASP:OD1	2.17	0.44
1:D:202:PRO:O	1:D:203:TYR:HB2	2.17	0.44
1:G:267:MET:O	1:G:268:ARG:HB2	2.17	0.44
1:J:205:ILE:HA	1:J:213:VAL:HG22	1.99	0.44
1:N:267:MET:O	1:N:268:ARG:HB2	2.17	0.44
1:M:205:ILE:HA	1:M:213:VAL:HG22	1.99	0.44
1:G:73:MET:O	1:G:76:GLU:HB2	2.18	0.44
1:I:26:ALA:HA	1:J:8:PHE:HE2	1.80	0.44
1:E:272:LYS:HB3	1:E:273:VAL:H	1.51	0.44
1:A:90:THR:O	1:A:94:VAL:HG13	2.17	0.44
1:B:202:PRO:O	1:B:203:TYR:HB2	2.18	0.44
1:K:16:MET:O	1:K:20:VAL:HG13	2.18	0.44
1:J:16:MET:O	1:J:20:VAL:HG13	2.18	0.44
1:C:205:ILE:HA	1:C:213:VAL:HG22	1.99	0.44
1:I:46:ALA:HA	1:I:47:PRO:HD3	1.89	0.44
1:A:16:MET:O	1:A:20:VAL:HG13	2.18	0.44
1:H:122:LYS:HE2	1:H:430:ARG:O	2.17	0.44
1:J:325:ILE:HG23	1:J:330:THR:OG1	2.17	0.44
1:M:202:PRO:O	1:M:203:TYR:HB2	2.18	0.44
1:C:37:ASN:H	1:D:516:THR:CG2	2.28	0.43
1:F:47:PRO:HG2	1:G:73:MET:HE2	1.98	0.43
1:D:150:ILE:CD1	1:D:494:LEU:CD1	2.94	0.43
1:G:90:THR:O	1:G:94:VAL:HG13	2.17	0.43
1:C:90:THR:O	1:C:94:VAL:HG13	2.17	0.43
1:G:149:THR:HG23	1:G:159:GLY:HA3	2.00	0.43
1:B:430:ARG:HA	1:B:430:ARG:HD3	1.84	0.43
1:D:464:VAL:HG22	1:I:464:VAL:HA	2.00	0.43
1:I:202:PRO:O	1:I:203:TYR:HB2	2.17	0.43
1:N:90:THR:O	1:N:94:VAL:HG13	2.17	0.43
1:I:403:THR:O	1:I:407:VAL:HG23	2.17	0.43
1:N:202:PRO:O	1:N:203:TYR:HB2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:37:ASN:H	1:C:516:THR:CG2	2.28	0.43
1:L:408:GLU:N	1:L:498:LYS:HE2	2.33	0.43
1:M:182:GLY:N	1:N:283:ASP:HB2	2.25	0.43
1:B:434:GLU:O	1:B:438:VAL:HG23	2.18	0.43
1:K:434:GLU:O	1:K:438:VAL:HG23	2.18	0.43
1:L:434:GLU:O	1:L:438:VAL:HG23	2.18	0.43
1:G:205:ILE:HA	1:G:213:VAL:HG22	1.99	0.43
1:L:120:ILE:O	1:L:124:VAL:HG23	2.19	0.43
1:F:205:ILE:HA	1:F:213:VAL:HG22	1.99	0.43
1:I:146:GLN:NE2	1:I:494:LEU:CD1	2.70	0.43
1:J:434:GLU:O	1:J:438:VAL:HG23	2.18	0.43
1:L:149:THR:HG22	1:L:156:GLU:HA	2.01	0.43
1:G:461:GLU:HA	1:G:462:PRO:HD2	1.90	0.43
1:H:120:ILE:O	1:H:124:VAL:HG23	2.18	0.43
1:L:16:MET:O	1:L:20:VAL:HG13	2.18	0.43
1:G:16:MET:O	1:G:20:VAL:HG13	2.18	0.43
1:H:202:PRO:O	1:H:203:TYR:HB2	2.18	0.43
1:M:61:GLU:O	1:N:3:ALA:HA	2.19	0.43
1:A:150:ILE:CG1	1:A:494:LEU:CD1	2.97	0.43
1:I:386:GLU:HB2	1:J:284:ARG:CD	2.40	0.43
1:J:73:MET:O	1:J:76:GLU:HB2	2.18	0.43
1:H:182:GLY:N	1:I:283:ASP:HB2	2.25	0.43
1:M:26:ALA:HA	1:N:8:PHE:CZ	2.54	0.43
1:K:149:THR:HG22	1:K:156:GLU:HA	2.00	0.43
1:B:461:GLU:HA	1:B:462:PRO:HD2	1.90	0.43
1:I:205:ILE:HA	1:I:213:VAL:HG22	1.99	0.43
1:J:120:ILE:O	1:J:124:VAL:HG23	2.19	0.43
1:D:120:ILE:O	1:D:124:VAL:HG23	2.19	0.43
1:E:464:VAL:HG22	1:H:464:VAL:HA	2.00	0.43
1:D:16:MET:O	1:D:20:VAL:HG13	2.18	0.43
1:J:386:GLU:HB2	1:K:284:ARG:CD	2.40	0.43
1:D:305:ILE:HG23	1:D:308:GLU:HG3	2.00	0.43
1:C:149:THR:HG23	1:C:159:GLY:HA3	2.00	0.43
1:N:120:ILE:O	1:N:124:VAL:HG23	2.19	0.43
1:E:350:ARG:O	1:E:353:ILE:HG12	2.19	0.43
1:N:501:ARG:HG3	1:N:502:SER:N	2.34	0.43
1:E:202:PRO:O	1:E:203:TYR:HB2	2.18	0.43
1:B:16:MET:O	1:B:20:VAL:HG13	2.18	0.43
1:K:61:GLU:O	1:L:3:ALA:HA	2.19	0.43
1:H:61:GLU:O	1:I:3:ALA:HA	2.19	0.43
1:K:205:ILE:HA	1:K:213:VAL:HG22	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:47:PRO:CB	1:D:73:MET:CG	2.88	0.43
1:A:229:ASN:C	1:G:270:ILE:HG22	2.31	0.43
1:L:183:LEU:HA	1:L:183:LEU:HD23	1.90	0.43
1:E:305:ILE:HG23	1:E:308:GLU:HG3	2.00	0.43
1:G:434:GLU:O	1:G:438:VAL:HG23	2.18	0.43
1:F:434:GLU:O	1:F:438:VAL:HG23	2.18	0.43
1:M:149:THR:HG22	1:M:156:GLU:HA	2.01	0.43
1:F:149:THR:HG23	1:F:159:GLY:HA3	2.00	0.43
1:C:464:VAL:HG22	1:J:464:VAL:HA	2.00	0.43
1:B:120:ILE:O	1:B:124:VAL:HG23	2.19	0.43
1:F:16:MET:O	1:F:20:VAL:HG13	2.18	0.43
1:C:120:ILE:O	1:C:124:VAL:HG23	2.19	0.43
1:H:350:ARG:O	1:H:353:ILE:HG12	2.19	0.43
1:L:202:PRO:O	1:L:203:TYR:HB2	2.18	0.43
1:I:16:MET:O	1:I:20:VAL:HG13	2.18	0.43
1:F:120:ILE:O	1:F:124:VAL:HG23	2.19	0.43
1:L:403:THR:O	1:L:407:VAL:HG23	2.17	0.43
1:A:150:ILE:CD1	1:A:494:LEU:CD1	2.94	0.43
1:H:386:GLU:HA	1:I:281:PHE:N	2.34	0.43
1:J:245:LYS:CE	1:K:232:GLU:CG	2.91	0.43
1:I:73:MET:O	1:I:76:GLU:HB2	2.18	0.43
1:C:245:LYS:CE	1:D:232:GLU:HG3	2.45	0.43
1:A:229:ASN:C	1:G:270:ILE:HG23	2.30	0.43
1:M:183:LEU:HA	1:M:183:LEU:HD23	1.90	0.43
1:L:26:ALA:HA	1:M:8:PHE:CZ	2.54	0.43
1:L:27:VAL:HG12	1:L:90:THR:HG23	2.01	0.43
1:D:27:VAL:HG12	1:D:90:THR:HG23	2.01	0.43
1:A:461:GLU:HA	1:A:462:PRO:HD2	1.90	0.43
1:A:149:THR:HG23	1:A:159:GLY:HA3	2.00	0.43
1:E:91:THR:O	1:E:94:VAL:HG22	2.19	0.43
1:C:158:VAL:HG21	1:C:395:ARG:HD2	2.01	0.43
1:D:158:VAL:HG21	1:D:395:ARG:HD2	2.01	0.43
1:M:16:MET:O	1:M:20:VAL:HG13	2.18	0.43
1:A:267:MET:O	1:A:268:ARG:HB2	2.17	0.43
1:N:350:ARG:O	1:N:353:ILE:HG12	2.19	0.43
1:N:16:MET:O	1:N:20:VAL:HG13	2.18	0.43
1:I:350:ARG:O	1:I:353:ILE:HG12	2.19	0.43
1:A:150:ILE:CG1	1:A:494:LEU:HD12	2.39	0.43
1:F:73:MET:O	1:F:76:GLU:HB2	2.18	0.43
1:G:150:ILE:CG1	1:G:494:LEU:CD1	2.97	0.43
1:F:150:ILE:CG1	1:F:494:LEU:CD1	2.97	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:281:PHE:N	1:N:386:GLU:HA	2.34	0.43
1:M:73:MET:O	1:M:76:GLU:HB2	2.18	0.43
1:M:408:GLU:N	1:M:498:LYS:HE2	2.33	0.43
1:A:245:LYS:CE	1:B:232:GLU:HG3	2.45	0.43
1:F:91:THR:O	1:F:94:VAL:HG22	2.19	0.43
1:H:403:THR:O	1:H:407:VAL:HG23	2.18	0.43
1:I:61:GLU:O	1:J:3:ALA:HA	2.19	0.43
1:F:436:GLN:O	1:F:440:ILE:HG13	2.19	0.43
1:F:350:ARG:O	1:F:353:ILE:HG12	2.19	0.43
1:G:120:ILE:O	1:G:124:VAL:HG23	2.19	0.43
1:G:436:GLN:O	1:G:440:ILE:HG13	2.19	0.43
1:D:350:ARG:O	1:D:353:ILE:HG12	2.19	0.43
1:A:205:ILE:HA	1:A:213:VAL:HG22	1.99	0.43
1:G:150:ILE:CD1	1:G:494:LEU:CD1	2.94	0.43
1:A:37:ASN:H	1:B:516:THR:CG2	2.28	0.43
1:A:516:THR:CG2	1:G:37:ASN:H	2.28	0.43
1:K:386:GLU:HA	1:L:281:PHE:N	2.34	0.43
1:M:39:VAL:HG11	1:N:69:MET:CE	2.34	0.43
1:I:305:ILE:HG23	1:I:308:GLU:HG3	2.00	0.43
1:E:434:GLU:O	1:E:438:VAL:HG23	2.18	0.43
1:D:149:THR:HG23	1:D:159:GLY:HA3	2.00	0.43
1:I:120:ILE:O	1:I:124:VAL:HG23	2.19	0.43
1:E:158:VAL:HG21	1:E:395:ARG:HD2	2.01	0.43
1:B:418:ALA:O	1:B:422:VAL:HG23	2.19	0.43
1:A:120:ILE:O	1:A:124:VAL:HG23	2.19	0.43
1:D:501:ARG:HG3	1:D:502:SER:N	2.34	0.43
1:C:16:MET:O	1:C:20:VAL:HG13	2.18	0.43
1:C:150:ILE:CG1	1:C:494:LEU:CD1	2.97	0.43
1:D:150:ILE:CD1	1:D:411:VAL:CB	2.87	0.43
1:M:245:LYS:CE	1:N:232:GLU:CG	2.91	0.43
1:N:305:ILE:HG23	1:N:308:GLU:HG3	2.00	0.43
1:J:305:ILE:HG23	1:J:308:GLU:HG3	2.01	0.43
1:D:434:GLU:O	1:D:438:VAL:HG23	2.18	0.43
1:H:91:THR:O	1:H:94:VAL:HG22	2.19	0.43
1:M:27:VAL:HG12	1:M:90:THR:HG23	2.01	0.43
1:B:91:THR:O	1:B:94:VAL:HG22	2.19	0.43
1:C:27:VAL:HG12	1:C:90:THR:HG23	2.01	0.43
1:N:91:THR:O	1:N:94:VAL:HG22	2.19	0.43
1:M:501:ARG:HG3	1:M:502:SER:N	2.34	0.43
1:H:501:ARG:HG3	1:H:502:SER:N	2.34	0.43
1:B:158:VAL:HG21	1:B:395:ARG:HD2	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:443:ALA:O	1:N:447:MET:HG3	2.19	0.43
1:L:61:GLU:O	1:M:3:ALA:HA	2.19	0.43
1:J:443:ALA:O	1:J:447:MET:HG3	2.19	0.43
1:E:150:ILE:CG1	1:E:494:LEU:CD1	2.97	0.42
1:M:387:VAL:HA	1:N:281:PHE:CD1	2.50	0.42
1:H:408:GLU:N	1:H:498:LYS:HE2	2.33	0.42
1:B:49:ILE:CG2	1:C:513:LEU:CD2	2.92	0.42
1:M:168:LYS:CD	1:M:189:VAL:HG23	2.46	0.42
1:G:305:ILE:HG23	1:G:308:GLU:HG3	2.00	0.42
1:J:149:THR:HG22	1:J:156:GLU:HA	2.00	0.42
1:M:91:THR:O	1:M:94:VAL:HG22	2.19	0.42
1:K:91:THR:O	1:K:94:VAL:HG22	2.19	0.42
1:D:91:THR:O	1:D:94:VAL:HG22	2.19	0.42
1:A:91:THR:O	1:A:94:VAL:HG22	2.19	0.42
1:E:436:GLN:O	1:E:440:ILE:HG13	2.19	0.42
1:A:501:ARG:HG3	1:A:502:SER:N	2.34	0.42
1:C:202:PRO:O	1:C:203:TYR:HB2	2.18	0.42
1:H:16:MET:O	1:H:20:VAL:HG13	2.18	0.42
1:H:443:ALA:O	1:H:447:MET:HG3	2.19	0.42
1:K:120:ILE:O	1:K:124:VAL:HG23	2.19	0.42
1:I:443:ALA:O	1:I:447:MET:HG3	2.19	0.42
1:L:205:ILE:HA	1:L:213:VAL:HG22	1.99	0.42
1:H:3:ALA:HA	1:N:61:GLU:O	2.19	0.42
1:J:386:GLU:HA	1:K:281:PHE:N	2.34	0.42
1:I:386:GLU:HA	1:J:281:PHE:N	2.34	0.42
1:I:408:GLU:N	1:I:498:LYS:HE2	2.33	0.42
1:B:49:ILE:HG12	1:C:513:LEU:HD13	1.99	0.42
1:C:49:ILE:CG2	1:D:513:LEU:CD2	2.92	0.42
1:N:408:GLU:N	1:N:498:LYS:HE2	2.33	0.42
1:L:190:VAL:O	1:L:191:GLU:O	2.38	0.42
1:H:26:ALA:HA	1:I:8:PHE:CZ	2.54	0.42
1:H:8:PHE:CZ	1:N:26:ALA:HA	2.54	0.42
1:J:26:ALA:HA	1:K:8:PHE:HE2	1.80	0.42
1:K:350:ARG:O	1:K:353:ILE:HG12	2.19	0.42
1:L:350:ARG:O	1:L:353:ILE:HG12	2.19	0.42
1:A:436:GLN:O	1:A:440:ILE:HG13	2.19	0.42
1:A:350:ARG:O	1:A:353:ILE:HG12	2.19	0.42
1:B:436:GLN:O	1:B:440:ILE:HG13	2.19	0.42
1:F:464:VAL:HG22	1:N:464:VAL:HA	2.00	0.42
1:E:179:ASP:HB3	1:E:389:MET:HE1	2.02	0.42
1:K:190:VAL:O	1:K:191:GLU:O	2.38	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:305:ILE:HG23	1:L:308:GLU:HG3	2.00	0.42
1:H:8:PHE:HE2	1:N:26:ALA:HA	1.80	0.42
1:I:91:THR:O	1:I:94:VAL:HG22	2.19	0.42
1:K:27:VAL:HG12	1:K:90:THR:HG23	2.01	0.42
1:B:27:VAL:HG12	1:B:90:THR:HG23	2.01	0.42
1:B:149:THR:HG23	1:B:159:GLY:HA3	2.00	0.42
1:M:120:ILE:O	1:M:124:VAL:HG23	2.19	0.42
1:E:16:MET:O	1:E:20:VAL:HG13	2.18	0.42
1:L:436:GLN:O	1:L:440:ILE:HG13	2.19	0.42
1:G:418:ALA:O	1:G:422:VAL:HG23	2.19	0.42
1:B:464:VAL:HG22	1:K:464:VAL:HA	2.01	0.42
1:H:418:ALA:O	1:H:422:VAL:HG23	2.19	0.42
1:J:61:GLU:O	1:K:3:ALA:HA	2.19	0.42
1:C:501:ARG:HG3	1:C:502:SER:N	2.34	0.42
1:D:436:GLN:O	1:D:440:ILE:HG13	2.19	0.42
1:D:37:ASN:H	1:E:516:THR:CG2	2.28	0.42
1:A:46:ALA:HA	1:A:47:PRO:HD3	1.89	0.42
1:I:85:ALA:C	1:I:405:ALA:CB	2.50	0.42
1:J:408:GLU:N	1:J:498:LYS:HE2	2.33	0.42
1:E:27:VAL:HG12	1:E:90:THR:HG23	2.01	0.42
1:N:27:VAL:HG12	1:N:90:THR:HG23	2.01	0.42
1:B:350:ARG:O	1:B:353:ILE:HG12	2.19	0.42
1:C:47:PRO:HG2	1:D:73:MET:HE2	2.00	0.42
1:H:386:GLU:HB2	1:I:284:ARG:CD	2.40	0.42
1:M:386:GLU:HA	1:N:281:PHE:N	2.34	0.42
1:A:49:ILE:HG12	1:B:513:LEU:HD13	1.99	0.42
1:F:35:GLY:O	1:G:114:MET:HE1	2.12	0.42
1:M:190:VAL:O	1:M:191:GLU:O	2.38	0.42
1:K:443:ALA:O	1:K:447:MET:HG3	2.19	0.42
1:F:524:LEU:HA	1:F:525:PRO:HD3	1.94	0.42
1:M:436:GLN:O	1:M:440:ILE:HG13	2.19	0.42
1:G:464:VAL:HG22	1:M:464:VAL:HA	2.00	0.42
1:A:464:VAL:HG22	1:L:464:VAL:HA	2.00	0.42
1:N:197:ARG:HD2	1:N:277:LYS:HG3	2.02	0.42
1:H:197:ARG:HD2	1:H:277:LYS:HG3	2.02	0.42
1:C:179:ASP:HB3	1:C:389:MET:HE1	2.02	0.42
1:C:305:ILE:HG23	1:C:308:GLU:HG3	2.00	0.42
1:J:26:ALA:HA	1:K:8:PHE:CZ	2.54	0.42
1:G:91:THR:O	1:G:94:VAL:HG22	2.19	0.42
1:N:436:GLN:O	1:N:440:ILE:HG13	2.19	0.42
1:C:350:ARG:O	1:C:353:ILE:HG12	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:350:ARG:O	1:J:353:ILE:HG12	2.19	0.42
1:K:85:ALA:C	1:K:405:ALA:CB	2.50	0.42
1:A:180:GLY:N	1:A:389:MET:HE1	2.35	0.42
1:A:305:ILE:HG23	1:A:308:GLU:HG3	2.00	0.42
1:F:305:ILE:HG23	1:F:308:GLU:HG3	2.00	0.42
1:H:305:ILE:HG23	1:H:308:GLU:HG3	2.00	0.42
1:K:26:ALA:HA	1:L:8:PHE:CZ	2.54	0.42
1:H:149:THR:HG22	1:H:156:GLU:HA	2.01	0.42
1:I:149:THR:HG22	1:I:156:GLU:HA	2.00	0.42
1:C:91:THR:O	1:C:94:VAL:HG22	2.19	0.42
1:J:91:THR:O	1:J:94:VAL:HG22	2.19	0.42
1:F:158:VAL:HG21	1:F:395:ARG:HD2	2.01	0.42
1:A:418:ALA:O	1:A:422:VAL:HG23	2.19	0.42
1:M:350:ARG:O	1:M:353:ILE:HG12	2.19	0.42
1:I:418:ALA:O	1:I:422:VAL:HG23	2.19	0.42
1:H:436:GLN:O	1:H:440:ILE:HG13	2.19	0.42
1:J:524:LEU:HA	1:J:525:PRO:HD3	1.94	0.42
1:A:158:VAL:HG21	1:A:395:ARG:HD2	2.01	0.42
1:B:47:PRO:HG2	1:C:73:MET:HE2	2.00	0.42
1:L:387:VAL:HA	1:M:281:PHE:CD1	2.50	0.42
1:D:179:ASP:HB3	1:D:389:MET:HE1	2.02	0.42
1:J:190:VAL:O	1:J:191:GLU:O	2.38	0.42
1:N:190:VAL:O	1:N:191:GLU:O	2.38	0.42
1:N:168:LYS:CD	1:N:189:VAL:HG23	2.46	0.42
1:B:305:ILE:HG23	1:B:308:GLU:HG3	2.00	0.42
1:K:305:ILE:HG23	1:K:308:GLU:HG3	2.00	0.42
1:N:149:THR:HG22	1:N:156:GLU:HA	2.01	0.42
1:H:430:ARG:HA	1:H:430:ARG:HD3	1.85	0.42
1:I:197:ARG:HD2	1:I:277:LYS:HG3	2.02	0.42
1:M:443:ALA:O	1:M:447:MET:HG3	2.19	0.42
1:G:350:ARG:O	1:G:353:ILE:HG12	2.19	0.42
1:E:120:ILE:O	1:E:124:VAL:HG23	2.19	0.42
1:D:418:ALA:O	1:D:422:VAL:HG23	2.19	0.42
1:C:443:ALA:O	1:C:447:MET:HG3	2.20	0.42
1:E:501:ARG:HG3	1:E:502:SER:N	2.34	0.42
1:L:386:GLU:HA	1:M:281:PHE:N	2.34	0.42
1:M:39:VAL:HB	1:N:69:MET:HE1	2.02	0.42
1:K:408:GLU:N	1:K:498:LYS:HE2	2.33	0.42
1:L:182:GLY:N	1:M:283:ASP:HB2	2.25	0.42
1:H:27:VAL:HG12	1:H:90:THR:HG23	2.01	0.42
1:A:27:VAL:HG12	1:A:90:THR:HG23	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:149:THR:HG23	1:E:159:GLY:HA3	2.00	0.42
1:I:77:VAL:HG12	1:I:92:ALA:HB1	2.02	0.42
1:N:418:ALA:O	1:N:422:VAL:HG23	2.19	0.42
1:B:443:ALA:O	1:B:447:MET:HG3	2.19	0.42
1:I:436:GLN:O	1:I:440:ILE:HG13	2.19	0.42
1:E:418:ALA:O	1:E:422:VAL:HG23	2.19	0.42
1:G:77:VAL:HG12	1:G:92:ALA:HB1	2.02	0.42
1:C:46:ALA:HA	1:C:47:PRO:HD3	1.89	0.42
1:J:405:ALA:O	1:J:498:LYS:HE3	2.16	0.42
1:B:270:ILE:HD11	1:C:231:ARG:HG3	2.01	0.42
1:I:174:VAL:HG11	1:I:331:THR:HG1	1.74	0.42
1:M:305:ILE:HG23	1:M:308:GLU:HG3	2.00	0.42
1:I:26:ALA:HA	1:J:8:PHE:CZ	2.54	0.42
1:G:27:VAL:HG12	1:G:90:THR:HG23	2.01	0.42
1:M:430:ARG:HD3	1:M:430:ARG:HA	1.85	0.42
1:K:430:ARG:HD3	1:K:430:ARG:HA	1.85	0.42
1:J:197:ARG:HD2	1:J:277:LYS:HG3	2.02	0.42
1:G:501:ARG:HG3	1:G:502:SER:N	2.34	0.42
1:C:436:GLN:O	1:C:440:ILE:HG13	2.19	0.42
1:F:77:VAL:HG12	1:F:92:ALA:HB1	2.01	0.42
1:E:150:ILE:CG1	1:E:494:LEU:HD12	2.39	0.41
1:C:49:ILE:HG12	1:D:513:LEU:HD13	1.99	0.41
1:D:443:ALA:O	1:D:447:MET:HG3	2.19	0.41
1:A:128:VAL:O	1:A:132:LYS:HG2	2.20	0.41
1:L:501:ARG:HG3	1:L:502:SER:N	2.34	0.41
1:K:197:ARG:HD2	1:K:277:LYS:HG3	2.02	0.41
1:F:443:ALA:O	1:F:447:MET:HG3	2.19	0.41
1:H:77:VAL:HG12	1:H:92:ALA:HB1	2.02	0.41
1:A:524:LEU:HA	1:A:525:PRO:HD3	1.94	0.41
1:A:443:ALA:O	1:A:447:MET:HG3	2.20	0.41
1:M:197:ARG:HD2	1:M:277:LYS:HG3	2.02	0.41
1:G:150:ILE:CD1	1:G:411:VAL:HG21	2.50	0.41
1:L:168:LYS:CD	1:L:189:VAL:HG23	2.46	0.41
1:L:91:THR:O	1:L:94:VAL:HG22	2.19	0.41
1:I:430:ARG:HD3	1:I:430:ARG:HA	1.84	0.41
1:M:128:VAL:O	1:M:132:LYS:HG2	2.20	0.41
1:J:40:LEU:HD23	1:K:521:VAL:HB	2.02	0.41
1:K:40:LEU:HD23	1:L:521:VAL:HB	2.02	0.41
1:M:418:ALA:O	1:M:422:VAL:HG23	2.19	0.41
1:I:40:LEU:HD23	1:J:521:VAL:HB	2.02	0.41
1:F:501:ARG:HG3	1:F:502:SER:N	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:443:ALA:O	1:G:447:MET:HG3	2.19	0.41
1:K:436:GLN:O	1:K:440:ILE:HG13	2.19	0.41
1:H:521:VAL:HB	1:N:40:LEU:HD23	2.02	0.41
1:K:128:VAL:O	1:K:132:LYS:HG2	2.20	0.41
1:A:472:GLY:HA3	1:A:476:TYR:CD2	2.56	0.41
1:H:40:LEU:HD23	1:I:521:VAL:HB	2.02	0.41
1:D:524:LEU:HA	1:D:525:PRO:HD3	1.94	0.41
1:B:472:GLY:HA3	1:B:476:TYR:CD2	2.56	0.41
1:J:436:GLN:O	1:J:440:ILE:HG13	2.19	0.41
1:B:150:ILE:CD1	1:B:411:VAL:HG21	2.51	0.41
1:B:245:LYS:CE	1:C:232:GLU:HG3	2.46	0.41
1:D:245:LYS:CE	1:E:232:GLU:HG3	2.46	0.41
1:I:219:PHE:O	1:I:247:LEU:HD12	2.20	0.41
1:I:27:VAL:HG12	1:I:90:THR:HG23	2.01	0.41
1:L:197:ARG:HD2	1:L:277:LYS:HG3	2.02	0.41
1:F:418:ALA:O	1:F:422:VAL:HG23	2.19	0.41
1:I:501:ARG:HG3	1:I:502:SER:N	2.34	0.41
1:G:197:ARG:HD2	1:G:277:LYS:HG3	2.02	0.41
1:J:418:ALA:O	1:J:422:VAL:HG23	2.19	0.41
1:A:197:ARG:HD2	1:A:277:LYS:HG3	2.02	0.41
1:H:281:PHE:CD1	1:N:387:VAL:HA	2.50	0.41
1:I:65:LYS:O	1:I:69:MET:HG3	2.21	0.41
1:B:26:ALA:CB	1:C:8:PHE:CE2	2.77	0.41
1:I:190:VAL:O	1:I:191:GLU:O	2.38	0.41
1:M:272:LYS:HB3	1:M:273:VAL:H	1.51	0.41
1:J:27:VAL:HG12	1:J:90:THR:HG23	2.01	0.41
1:C:472:GLY:HA3	1:C:476:TYR:CD2	2.56	0.41
1:K:472:GLY:HA3	1:K:476:TYR:CD2	2.56	0.41
1:F:472:GLY:HA3	1:F:476:TYR:CD2	2.56	0.41
1:J:77:VAL:HG12	1:J:92:ALA:HB1	2.02	0.41
1:G:472:GLY:HA3	1:G:476:TYR:CD2	2.55	0.41
1:G:158:VAL:HG21	1:G:395:ARG:HD2	2.01	0.41
1:L:418:ALA:O	1:L:422:VAL:HG23	2.19	0.41
1:E:65:LYS:O	1:E:69:MET:HG3	2.21	0.41
1:B:150:ILE:CD1	1:B:494:LEU:CD1	2.94	0.41
1:N:65:LYS:O	1:N:69:MET:HG3	2.21	0.41
1:L:65:LYS:O	1:L:69:MET:HG3	2.21	0.41
1:M:405:ALA:O	1:M:498:LYS:HE3	2.16	0.41
1:H:190:VAL:O	1:H:191:GLU:O	2.38	0.41
1:H:283:ASP:HB2	1:N:182:GLY:N	2.25	0.41
1:H:219:PHE:O	1:H:247:LEU:HD12	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:430:ARG:HD3	1:G:430:ARG:HA	1.84	0.41
1:G:128:VAL:O	1:G:132:LYS:HG2	2.20	0.41
1:N:128:VAL:O	1:N:132:LYS:HG2	2.20	0.41
1:C:77:VAL:HG12	1:C:92:ALA:HB1	2.02	0.41
1:K:46:ALA:HA	1:K:47:PRO:HD3	1.89	0.41
1:L:40:LEU:HD23	1:M:521:VAL:HB	2.02	0.41
1:M:40:LEU:HD23	1:N:521:VAL:HB	2.02	0.41
1:F:197:ARG:HD2	1:F:277:LYS:HG3	2.02	0.41
1:B:222:LEU:HD23	1:B:250:ILE:HB	2.03	0.41
1:J:128:VAL:O	1:J:132:LYS:HG2	2.20	0.41
1:C:418:ALA:O	1:C:422:VAL:HG23	2.19	0.41
1:M:461:GLU:HA	1:M:462:PRO:HD2	1.90	0.41
1:D:77:VAL:HG12	1:D:92:ALA:HB1	2.02	0.41
1:N:461:GLU:HA	1:N:462:PRO:HD2	1.90	0.41
1:K:501:ARG:HG3	1:K:502:SER:N	2.34	0.41
1:B:150:ILE:CG1	1:B:494:LEU:CD1	2.97	0.41
1:C:219:PHE:O	1:C:247:LEU:HD12	2.20	0.41
1:F:27:VAL:HG12	1:F:90:THR:HG23	2.01	0.41
1:B:128:VAL:O	1:B:132:LYS:HG2	2.20	0.41
1:D:128:VAL:O	1:D:132:LYS:HG2	2.20	0.41
1:L:472:GLY:HA3	1:L:476:TYR:CD2	2.56	0.41
1:K:222:LEU:HD23	1:K:250:ILE:HB	2.03	0.41
1:K:418:ALA:O	1:K:422:VAL:HG23	2.19	0.41
1:C:65:LYS:O	1:C:69:MET:HG3	2.21	0.41
1:A:513:LEU:HD13	1:G:49:ILE:HG12	1.99	0.41
1:A:232:GLU:HG3	1:G:245:LYS:CE	2.46	0.41
1:N:85:ALA:C	1:N:405:ALA:CB	2.50	0.41
1:L:321:LYS:CB	1:L:334:ASP:HB3	2.51	0.41
1:K:321:LYS:CB	1:K:334:ASP:HB3	2.51	0.41
1:B:219:PHE:O	1:B:247:LEU:HD12	2.21	0.41
1:G:219:PHE:O	1:G:247:LEU:HD12	2.20	0.41
1:J:219:PHE:O	1:J:247:LEU:HD12	2.21	0.41
1:C:461:GLU:HA	1:C:462:PRO:HD2	1.90	0.41
1:E:443:ALA:O	1:E:447:MET:HG3	2.19	0.41
1:A:77:VAL:HG12	1:A:92:ALA:HB1	2.02	0.41
1:E:472:GLY:HA3	1:E:476:TYR:CD2	2.56	0.41
1:E:46:ALA:HA	1:E:47:PRO:HD3	1.89	0.41
1:D:150:ILE:CD1	1:D:411:VAL:HG21	2.51	0.41
1:J:321:LYS:CB	1:J:334:ASP:HB3	2.51	0.41
1:D:219:PHE:O	1:D:247:LEU:HD12	2.20	0.41
1:G:23:LEU:O	1:G:27:VAL:HG23	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:321:LYS:CB	1:C:334:ASP:HB3	2.51	0.41
1:A:430:ARG:HD3	1:A:430:ARG:HA	1.84	0.41
1:N:222:LEU:HD23	1:N:250:ILE:HB	2.03	0.41
1:H:128:VAL:O	1:H:132:LYS:HG2	2.20	0.41
1:D:472:GLY:HA3	1:D:476:TYR:CD2	2.55	0.41
1:M:524:LEU:HA	1:M:525:PRO:HD3	1.94	0.41
1:B:501:ARG:HG3	1:B:502:SER:N	2.34	0.41
1:J:501:ARG:HG3	1:J:502:SER:N	2.34	0.41
1:L:77:VAL:HG12	1:L:92:ALA:HB1	2.02	0.41
1:C:150:ILE:CD1	1:C:494:LEU:CD1	2.94	0.41
1:A:65:LYS:O	1:A:69:MET:HG3	2.21	0.41
1:D:150:ILE:CG1	1:D:494:LEU:CD1	2.97	0.41
1:I:387:VAL:HA	1:J:281:PHE:CD1	2.50	0.41
1:I:245:LYS:CE	1:J:232:GLU:CG	2.91	0.41
1:K:65:LYS:O	1:K:69:MET:HG3	2.21	0.41
1:F:179:ASP:HB3	1:F:389:MET:HE1	2.03	0.41
1:B:180:GLY:N	1:B:389:MET:HE1	2.36	0.41
1:E:26:ALA:CB	1:F:8:PHE:CE2	2.77	0.41
1:I:321:LYS:CB	1:I:334:ASP:HB3	2.51	0.41
1:K:168:LYS:CD	1:K:189:VAL:HG23	2.46	0.41
1:A:219:PHE:O	1:A:247:LEU:HD12	2.20	0.41
1:L:273:VAL:HG12	1:L:274:ALA:N	2.36	0.41
1:A:23:LEU:O	1:A:27:VAL:HG23	2.21	0.41
1:G:321:LYS:CB	1:G:334:ASP:HB3	2.51	0.41
1:D:321:LYS:CB	1:D:334:ASP:HB3	2.51	0.41
1:E:321:LYS:CB	1:E:334:ASP:HB3	2.51	0.41
1:F:321:LYS:CB	1:F:334:ASP:HB3	2.51	0.41
1:A:222:LEU:HD23	1:A:250:ILE:HB	2.03	0.41
1:B:77:VAL:HG12	1:B:92:ALA:HB1	2.01	0.41
1:J:472:GLY:HA3	1:J:476:TYR:CD2	2.56	0.41
1:E:197:ARG:HD2	1:E:277:LYS:HG3	2.02	0.41
1:I:472:GLY:HA3	1:I:476:TYR:CD2	2.56	0.41
1:F:400:LEU:O	1:F:404:ARG:HG3	2.21	0.41
1:N:77:VAL:HG12	1:N:92:ALA:HB1	2.02	0.41
1:L:222:LEU:HD23	1:L:250:ILE:HB	2.03	0.41
1:L:443:ALA:O	1:L:447:MET:HG3	2.19	0.41
1:N:524:LEU:HA	1:N:525:PRO:HD3	1.94	0.41
1:J:222:LEU:HD23	1:J:250:ILE:HB	2.03	0.41
1:E:222:LEU:HD23	1:E:250:ILE:HB	2.03	0.41
1:A:150:ILE:CD1	1:A:411:VAL:HG21	2.51	0.41
1:G:65:LYS:O	1:G:69:MET:HG3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:245:LYS:HE2	1:M:232:GLU:CD	2.42	0.41
1:E:219:PHE:O	1:E:247:LEU:HD12	2.20	0.41
1:M:273:VAL:HG12	1:M:274:ALA:N	2.36	0.41
1:M:23:LEU:O	1:M:27:VAL:HG23	2.21	0.41
1:D:23:LEU:O	1:D:27:VAL:HG23	2.21	0.41
1:B:321:LYS:CB	1:B:334:ASP:HB3	2.51	0.41
1:D:149:THR:CG2	1:D:159:GLY:HA3	2.52	0.41
1:G:132:LYS:HA	1:G:132:LYS:HD3	1.92	0.41
1:M:77:VAL:HG12	1:M:92:ALA:HB1	2.02	0.41
1:B:400:LEU:O	1:B:404:ARG:HG3	2.21	0.41
1:I:128:VAL:O	1:I:132:LYS:HG2	2.20	0.41
1:E:77:VAL:HG12	1:E:92:ALA:HB1	2.02	0.41
1:E:128:VAL:O	1:E:132:LYS:HG2	2.20	0.41
1:B:197:ARG:HD2	1:B:277:LYS:HG3	2.02	0.41
1:F:128:VAL:O	1:F:132:LYS:HG2	2.20	0.41
1:C:150:ILE:CD1	1:C:411:VAL:CB	2.87	0.40
1:E:150:ILE:CD1	1:E:411:VAL:HG21	2.51	0.40
1:H:65:LYS:O	1:H:69:MET:HG3	2.21	0.40
1:M:321:LYS:CB	1:M:334:ASP:HB3	2.51	0.40
1:F:219:PHE:O	1:F:247:LEU:HD12	2.20	0.40
1:B:273:VAL:HG12	1:B:274:ALA:N	2.36	0.40
1:K:23:LEU:O	1:K:27:VAL:HG23	2.21	0.40
1:E:430:ARG:HA	1:E:430:ARG:HD3	1.84	0.40
1:K:273:VAL:HG12	1:K:274:ALA:N	2.36	0.40
1:C:128:VAL:O	1:C:132:LYS:HG2	2.20	0.40
1:D:82:ASN:O	1:D:86:GLY:HA2	2.22	0.40
1:M:472:GLY:HA3	1:M:476:TYR:CD2	2.56	0.40
1:E:400:LEU:O	1:E:404:ARG:HG3	2.21	0.40
1:K:77:VAL:HG12	1:K:92:ALA:HB1	2.01	0.40
1:N:46:ALA:HA	1:N:47:PRO:HD3	1.89	0.40
1:L:128:VAL:O	1:L:132:LYS:HG2	2.20	0.40
1:G:400:LEU:O	1:G:404:ARG:HG3	2.21	0.40
1:A:82:ASN:O	1:A:86:GLY:HA2	2.22	0.40
1:B:65:LYS:O	1:B:69:MET:HG3	2.21	0.40
1:F:150:ILE:CD1	1:F:494:LEU:CD1	2.94	0.40
1:E:49:ILE:HG12	1:F:513:LEU:HD13	1.99	0.40
1:M:82:ASN:O	1:M:86:GLY:HA2	2.22	0.40
1:N:219:PHE:O	1:N:247:LEU:HD12	2.20	0.40
1:C:273:VAL:HG12	1:C:274:ALA:N	2.36	0.40
1:I:23:LEU:O	1:I:27:VAL:HG23	2.21	0.40
1:G:222:LEU:HD23	1:G:250:ILE:HB	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:461:GLU:HA	1:L:462:PRO:HD2	1.90	0.40
1:D:222:LEU:HD23	1:D:250:ILE:HB	2.03	0.40
1:E:82:ASN:O	1:E:86:GLY:HA2	2.21	0.40
1:M:86:GLY:CA	1:M:405:ALA:HB1	2.52	0.40
1:N:82:ASN:O	1:N:86:GLY:HA2	2.22	0.40
1:E:217:SER:N	1:E:218:PRO:HD3	2.37	0.40
1:F:180:GLY:N	1:F:389:MET:HE1	2.37	0.40
1:J:183:LEU:HA	1:J:183:LEU:HD23	1.90	0.40
1:C:160:LYS:HB3	1:C:160:LYS:HZ2	1.85	0.40
1:L:219:PHE:O	1:L:247:LEU:HD12	2.20	0.40
1:H:23:LEU:O	1:H:27:VAL:HG23	2.21	0.40
1:F:23:LEU:O	1:F:27:VAL:HG23	2.21	0.40
1:L:23:LEU:O	1:L:27:VAL:HG23	2.21	0.40
1:C:149:THR:CG2	1:C:159:GLY:HA3	2.52	0.40
1:M:132:LYS:HD3	1:M:132:LYS:HA	1.92	0.40
1:B:82:ASN:O	1:B:86:GLY:HA2	2.22	0.40
1:I:222:LEU:HD23	1:I:250:ILE:HB	2.03	0.40
1:N:472:GLY:HA3	1:N:476:TYR:CD2	2.56	0.40
1:D:304:GLU:H	1:D:304:GLU:HG2	1.72	0.40
1:D:65:LYS:O	1:D:69:MET:HG3	2.21	0.40
1:H:284:ARG:CD	1:N:386:GLU:HB2	2.40	0.40
1:C:386:GLU:CG	1:D:281:PHE:HE2	2.07	0.40
1:M:65:LYS:O	1:M:69:MET:HG3	2.21	0.40
1:F:49:ILE:HG12	1:G:513:LEU:HD13	1.99	0.40
1:N:86:GLY:CA	1:N:405:ALA:HB1	2.52	0.40
1:E:245:LYS:CE	1:F:232:GLU:HG3	2.45	0.40
1:H:321:LYS:CB	1:H:334:ASP:HB3	2.51	0.40
1:C:23:LEU:O	1:C:27:VAL:HG23	2.21	0.40
1:A:321:LYS:CB	1:A:334:ASP:HB3	2.51	0.40
1:A:400:LEU:O	1:A:404:ARG:HG3	2.21	0.40
1:D:197:ARG:HD2	1:D:277:LYS:HG3	2.02	0.40
1:C:82:ASN:O	1:C:86:GLY:HA2	2.22	0.40
1:C:197:ARG:HD2	1:C:277:LYS:HG3	2.02	0.40
1:D:400:LEU:O	1:D:404:ARG:HG3	2.21	0.40
1:A:273:VAL:HG12	1:A:274:ALA:N	2.36	0.40
1:I:524:LEU:HA	1:I:525:PRO:HD3	1.94	0.40
1:G:82:ASN:O	1:G:86:GLY:HA2	2.21	0.40
1:H:472:GLY:HA3	1:H:476:TYR:CD2	2.56	0.40
1:J:516:THR:O	1:J:516:THR:HG22	2.22	0.40
1:C:150:ILE:CD1	1:C:411:VAL:HG21	2.51	0.40
1:H:217:SER:N	1:H:218:PRO:HD3	2.37	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:82:ASN:O	1:L:86:GLY:HA2	2.22	0.40
1:F:270:ILE:HG23	1:G:229:ASN:C	2.30	0.40
1:F:245:LYS:CE	1:G:232:GLU:HG3	2.45	0.40
1:J:273:VAL:HG12	1:J:274:ALA:N	2.36	0.40
1:G:14:VAL:O	1:G:18:ARG:HG3	2.22	0.40
1:B:23:LEU:O	1:B:27:VAL:HG23	2.21	0.40
1:A:149:THR:CG2	1:A:159:GLY:HA3	2.52	0.40
1:L:430:ARG:HD3	1:L:430:ARG:HA	1.85	0.40
1:F:385:THR:C	1:F:387:VAL:H	2.25	0.40
1:H:461:GLU:HA	1:H:462:PRO:HD2	1.90	0.40

There are no symmetry-related clashes.

6.3 Torsion angles (i)

6.3.1 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	507/547 (93%)	473 (93%)	26 (5%)	8 (2%)	12	56
1	B	507/547 (93%)	473 (93%)	26 (5%)	8 (2%)	12	56
1	C	507/547 (93%)	473 (93%)	26 (5%)	8 (2%)	12	56
1	D	507/547 (93%)	473 (93%)	26 (5%)	8 (2%)	12	56
1	E	507/547 (93%)	473 (93%)	26 (5%)	8 (2%)	12	56
1	F	507/547 (93%)	473 (93%)	26 (5%)	8 (2%)	12	56
1	G	507/547 (93%)	473 (93%)	26 (5%)	8 (2%)	12	56
1	H	507/547 (93%)	469 (92%)	29 (6%)	9 (2%)	11	53
1	I	507/547 (93%)	469 (92%)	29 (6%)	9 (2%)	11	53
1	J	507/547 (93%)	469 (92%)	29 (6%)	9 (2%)	11	53
1	K	507/547 (93%)	469 (92%)	29 (6%)	9 (2%)	11	53
1	L	507/547 (93%)	469 (92%)	29 (6%)	9 (2%)	11	53

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	M	507/547 (93%)	469 (92%)	29 (6%)	9 (2%)	11	53
1	N	507/547 (93%)	469 (92%)	29 (6%)	9 (2%)	11	53
All	All	7098/7658 (93%)	6594 (93%)	385 (5%)	119 (2%)	16	55

All (119) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	185	ASP
1	A	270	ILE
1	A	340	ALA
1	B	185	ASP
1	B	270	ILE
1	B	340	ALA
1	C	185	ASP
1	C	270	ILE
1	C	340	ALA
1	D	185	ASP
1	D	270	ILE
1	D	340	ALA
1	E	185	ASP
1	E	270	ILE
1	E	340	ALA
1	F	185	ASP
1	F	270	ILE
1	F	340	ALA
1	G	185	ASP
1	G	270	ILE
1	G	340	ALA
1	H	270	ILE
1	H	340	ALA
1	H	386	GLU
1	I	270	ILE
1	I	340	ALA
1	I	386	GLU
1	J	270	ILE
1	J	340	ALA
1	J	386	GLU
1	K	270	ILE
1	K	340	ALA
1	K	386	GLU
1	L	270	ILE

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Mol	Chain	Res	Type
1	L	340	ALA
1	L	386	GLU
1	M	270	ILE
1	M	340	ALA
1	M	386	GLU
1	N	270	ILE
1	N	340	ALA
1	N	386	GLU
1	A	334	ASP
1	B	334	ASP
1	C	334	ASP
1	D	334	ASP
1	E	334	ASP
1	F	334	ASP
1	G	334	ASP
1	H	334	ASP
1	H	385	THR
1	I	334	ASP
1	I	385	THR
1	J	334	ASP
1	J	385	THR
1	K	334	ASP
1	K	385	THR
1	L	334	ASP
1	L	385	THR
1	M	334	ASP
1	M	385	THR
1	N	334	ASP
1	N	385	THR
1	A	243	ALA
1	A	337	GLY
1	B	243	ALA
1	B	337	GLY
1	C	243	ALA
1	C	337	GLY
1	D	243	ALA
1	D	337	GLY
1	E	243	ALA
1	E	337	GLY
1	F	243	ALA
1	F	337	GLY
1	G	243	ALA

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Mol	Chain	Res	Type
1	G	337	GLY
1	H	243	ALA
1	H	337	GLY
1	I	243	ALA
1	I	337	GLY
1	J	243	ALA
1	J	337	GLY
1	K	243	ALA
1	K	337	GLY
1	L	243	ALA
1	L	337	GLY
1	M	243	ALA
1	M	337	GLY
1	N	243	ALA
1	N	337	GLY
1	A	202	PRO
1	B	202	PRO
1	C	202	PRO
1	D	202	PRO
1	E	202	PRO
1	F	202	PRO
1	G	202	PRO
1	H	202	PRO
1	I	202	PRO
1	J	202	PRO
1	K	202	PRO
1	L	202	PRO
1	M	202	PRO
1	N	202	PRO
1	A	230	ILE
1	B	230	ILE
1	C	230	ILE
1	F	230	ILE
1	G	230	ILE
1	D	230	ILE
1	E	230	ILE
1	H	230	ILE
1	I	230	ILE
1	J	230	ILE
1	K	230	ILE
1	L	230	ILE
1	M	230	ILE

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Mol	Chain	Res	Type
1	N	230	ILE

6.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	401/414 (97%)	384 (96%)	17 (4%)	36	70
1	B	401/414 (97%)	384 (96%)	17 (4%)	36	70
1	C	401/414 (97%)	384 (96%)	17 (4%)	36	70
1	D	401/414 (97%)	384 (96%)	17 (4%)	36	70
1	E	401/414 (97%)	384 (96%)	17 (4%)	36	70
1	F	401/414 (97%)	384 (96%)	17 (4%)	36	70
1	G	401/414 (97%)	384 (96%)	17 (4%)	36	70
1	H	401/414 (97%)	385 (96%)	16 (4%)	38	71
1	I	401/414 (97%)	385 (96%)	16 (4%)	38	71
1	J	401/414 (97%)	385 (96%)	16 (4%)	38	71
1	K	401/414 (97%)	385 (96%)	16 (4%)	38	71
1	L	401/414 (97%)	385 (96%)	16 (4%)	38	71
1	M	401/414 (97%)	385 (96%)	16 (4%)	38	71
1	N	401/414 (97%)	385 (96%)	16 (4%)	38	71
All	All	5614/5796 (97%)	5383 (96%)	231 (4%)	42	71

All (231) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	111	MET
1	A	138	CYS
1	A	178	GLU
1	A	189	VAL
1	A	231	ARG
1	A	264	VAL

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Mol	Chain	Res	Type
1	A	265	ASN
1	A	270	ILE
1	A	271	VAL
1	A	283	ASP
1	A	290	GLN
1	A	307	MET
1	A	313	THR
1	A	329	THR
1	A	360	TYR
1	A	389	MET
1	A	483	GLU
1	B	111	MET
1	B	138	CYS
1	B	178	GLU
1	B	189	VAL
1	B	231	ARG
1	B	264	VAL
1	B	265	ASN
1	B	270	ILE
1	B	271	VAL
1	B	283	ASP
1	B	290	GLN
1	B	307	MET
1	B	313	THR
1	B	329	THR
1	B	360	TYR
1	B	389	MET
1	B	483	GLU
1	C	111	MET
1	C	138	CYS
1	C	178	GLU
1	C	189	VAL
1	C	231	ARG
1	C	264	VAL
1	C	265	ASN
1	C	270	ILE
1	C	271	VAL
1	C	283	ASP
1	C	290	GLN
1	C	307	MET
1	C	313	THR
1	C	329	THR

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Mol	Chain	Res	Type
1	C	360	TYR
1	C	389	MET
1	C	483	GLU
1	D	111	MET
1	D	138	CYS
1	D	178	GLU
1	D	189	VAL
1	D	231	ARG
1	D	264	VAL
1	D	265	ASN
1	D	270	ILE
1	D	271	VAL
1	D	283	ASP
1	D	290	GLN
1	D	307	MET
1	D	313	THR
1	D	329	THR
1	D	360	TYR
1	D	389	MET
1	D	483	GLU
1	E	111	MET
1	E	138	CYS
1	E	178	GLU
1	E	189	VAL
1	E	231	ARG
1	E	264	VAL
1	E	265	ASN
1	E	270	ILE
1	E	271	VAL
1	E	283	ASP
1	E	290	GLN
1	E	307	MET
1	E	313	THR
1	E	329	THR
1	E	360	TYR
1	E	389	MET
1	E	483	GLU
1	F	111	MET
1	F	138	CYS
1	F	178	GLU
1	F	189	VAL
1	F	231	ARG

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Mol	Chain	Res	Type
1	F	264	VAL
1	F	265	ASN
1	F	270	ILE
1	F	271	VAL
1	F	283	ASP
1	F	290	GLN
1	F	307	MET
1	F	313	THR
1	F	329	THR
1	F	360	TYR
1	F	389	MET
1	F	483	GLU
1	G	111	MET
1	G	138	CYS
1	G	178	GLU
1	G	189	VAL
1	G	231	ARG
1	G	264	VAL
1	G	265	ASN
1	G	270	ILE
1	G	271	VAL
1	G	283	ASP
1	G	290	GLN
1	G	307	MET
1	G	313	THR
1	G	329	THR
1	G	360	TYR
1	G	389	MET
1	G	483	GLU
1	H	111	MET
1	H	156	GLU
1	H	186	GLU
1	H	231	ARG
1	H	264	VAL
1	H	265	ASN
1	H	270	ILE
1	H	271	VAL
1	H	283	ASP
1	H	290	GLN
1	H	307	MET
1	H	313	THR
1	H	329	THR

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Mol	Chain	Res	Type
1	H	360	TYR
1	H	398	ASP
1	H	483	GLU
1	I	111	MET
1	I	156	GLU
1	I	186	GLU
1	I	231	ARG
1	I	264	VAL
1	I	265	ASN
1	I	270	ILE
1	I	271	VAL
1	I	283	ASP
1	I	290	GLN
1	I	307	MET
1	I	313	THR
1	I	329	THR
1	I	360	TYR
1	I	398	ASP
1	I	483	GLU
1	J	111	MET
1	J	156	GLU
1	J	186	GLU
1	J	231	ARG
1	J	264	VAL
1	J	265	ASN
1	J	270	ILE
1	J	271	VAL
1	J	283	ASP
1	J	290	GLN
1	J	307	MET
1	J	313	THR
1	J	329	THR
1	J	360	TYR
1	J	398	ASP
1	J	483	GLU
1	K	111	MET
1	K	156	GLU
1	K	186	GLU
1	K	231	ARG
1	K	264	VAL
1	K	265	ASN
1	K	270	ILE

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Mol	Chain	Res	Type
1	K	271	VAL
1	K	283	ASP
1	K	290	GLN
1	K	307	MET
1	K	313	THR
1	K	329	THR
1	K	360	TYR
1	K	398	ASP
1	K	483	GLU
1	L	111	MET
1	L	156	GLU
1	L	186	GLU
1	L	231	ARG
1	L	264	VAL
1	L	265	ASN
1	L	270	ILE
1	L	271	VAL
1	L	283	ASP
1	L	290	GLN
1	L	307	MET
1	L	313	THR
1	L	329	THR
1	L	360	TYR
1	L	398	ASP
1	L	483	GLU
1	M	111	MET
1	M	156	GLU
1	M	186	GLU
1	M	231	ARG
1	M	264	VAL
1	M	265	ASN
1	M	270	ILE
1	M	271	VAL
1	M	283	ASP
1	M	290	GLN
1	M	307	MET
1	M	313	THR
1	M	329	THR
1	M	360	TYR
1	M	398	ASP
1	M	483	GLU
1	N	111	MET

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Mol	Chain	Res	Type
1	N	156	GLU
1	N	186	GLU
1	N	231	ARG
1	N	264	VAL
1	N	265	ASN
1	N	270	ILE
1	N	271	VAL
1	N	283	ASP
1	N	290	GLN
1	N	307	MET
1	N	313	THR
1	N	329	THR
1	N	360	TYR
1	N	398	ASP
1	N	483	GLU

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

Mol	Chain	Res	Type
1	A	265	ASN
1	A	290	GLN
1	A	366	GLN
1	A	401	HIS
1	A	437	ASN
1	A	453	GLN
1	B	265	ASN
1	B	290	GLN
1	B	366	GLN
1	B	437	ASN
1	B	475	ASN
1	C	265	ASN
1	C	290	GLN
1	C	366	GLN
1	C	437	ASN
1	C	453	GLN
1	D	265	ASN
1	D	290	GLN
1	D	366	GLN
1	D	437	ASN
1	D	453	GLN
1	E	265	ASN
1	E	290	GLN

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Mol	Chain	Res	Type
1	E	366	GLN
1	E	437	ASN
1	E	453	GLN
1	E	475	ASN
1	F	265	ASN
1	F	290	GLN
1	F	366	GLN
1	F	437	ASN
1	F	453	GLN
1	F	475	ASN
1	G	265	ASN
1	G	290	GLN
1	G	366	GLN
1	G	437	ASN
1	G	453	GLN
1	G	475	ASN
1	H	146	GLN
1	H	265	ASN
1	H	290	GLN
1	H	366	GLN
1	H	437	ASN
1	H	453	GLN
1	H	467	ASN
1	H	475	ASN
1	I	146	GLN
1	I	265	ASN
1	I	290	GLN
1	I	366	GLN
1	I	437	ASN
1	I	453	GLN
1	I	467	ASN
1	I	475	ASN
1	J	146	GLN
1	J	265	ASN
1	J	290	GLN
1	J	366	GLN
1	J	437	ASN
1	J	453	GLN
1	J	467	ASN
1	J	475	ASN
1	K	146	GLN
1	K	265	ASN

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Mol	Chain	Res	Type
1	K	290	GLN
1	K	366	GLN
1	K	437	ASN
1	K	453	GLN
1	K	467	ASN
1	K	475	ASN
1	L	146	GLN
1	L	265	ASN
1	L	290	GLN
1	L	366	GLN
1	L	437	ASN
1	L	453	GLN
1	L	467	ASN
1	M	146	GLN
1	M	265	ASN
1	M	290	GLN
1	M	366	GLN
1	M	437	ASN
1	M	453	GLN
1	M	467	ASN
1	M	475	ASN
1	N	146	GLN
1	N	265	ASN
1	N	290	GLN
1	N	366	GLN
1	N	437	ASN
1	N	453	GLN
1	N	467	ASN
1	N	475	ASN

6.3.3 RNA (i)

There are no RNA molecules in this entry.

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

Mogul was not executed - this section is therefore empty.

6.5 Carbohydrates (i)

Mogul was not executed - this section is therefore empty.

6.6 Ligand geometry

Mogul was not executed - this section is therefore empty.

6.7 Other polymers

Mogul was not executed - this section is therefore empty.

6.8 Polymer linkage issues

There are no chain breaks in this entry.