Full wwPDB EM Validation Report ⓘ

Feb 13, 2024 – 07:35 AM EST

PDB ID	:	3J31
EMDB ID	:	EMD-5584
Title	:	Life in the extremes: atomic structure of Sulfolobus Turreted Icosahedral Virus
Authors	:	Veesler, D.; Ng, T.S.; Sendamarai, A.K.; Eilers, B.J.; Lawrence, C.M.; Lok, S.M.; Young, M.J.; Johnson, J.E.; Fu, C.-Y.
Deposited on	:	2013-02-18
Resolution	:	4.50 Å(reported)
Based on initial models	:	2BBD, 4IL7

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

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

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

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

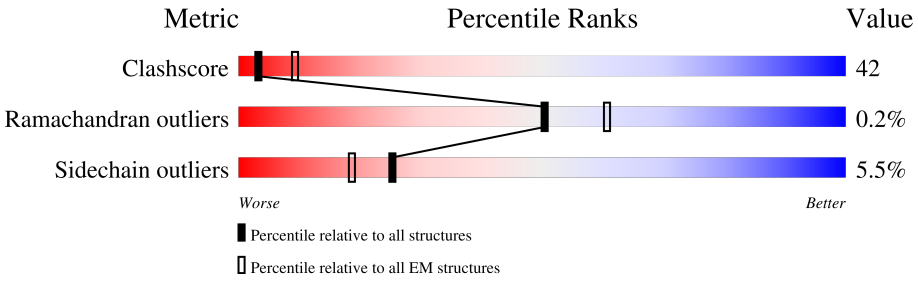
EMDB validation analysis	:	0.0.1.dev70
MolProbity	:	4.02b-467
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	1.9.9
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.36

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 4.50 Å.

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



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

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

Mol	Chain	Length	Quality of chain
1	Q	223	6% 54% 36% 9%
2	R	15	80% 20%
3	A	345	39% 56%
3	B	345	6% 38% 59%
3	C	345	39% 58%
3	D	345	45% 53%
3	E	345	41% 55%
3	F	345	39% 59%

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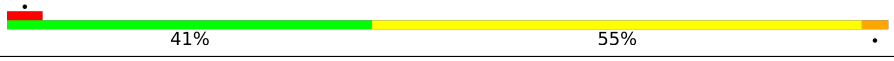
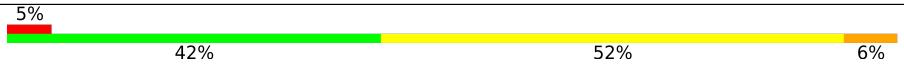
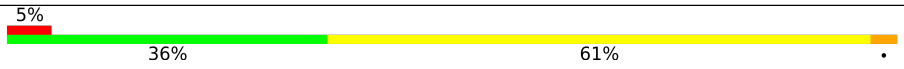
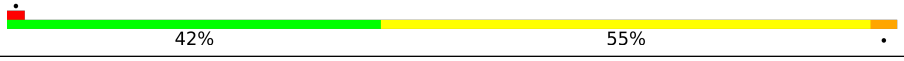
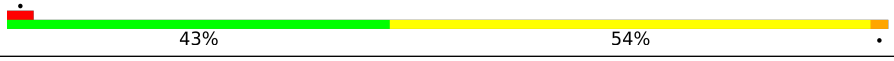
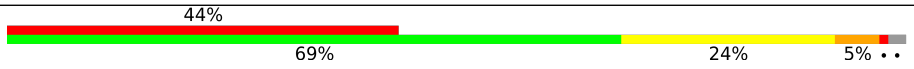
Mol	Chain	Length	Quality of chain
3	G	345	
3	H	345	
3	I	345	
3	J	345	
3	K	345	
3	L	345	
3	M	345	
3	N	345	
3	O	345	
4	P	381	

2 Entry composition (i)

There are 4 unique types of molecules in this entry. The entry contains 44549 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 A223 penton base.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	Q	220	Total	C	N	O	S	0	0
			1594	1031	261	301	1		

- Molecule 2 is a protein called A55 membrane protein.

Mol	Chain	Residues	Atoms				AltConf	Trace
2	R	15	Total	C	N	O	0	0
			75	45	15	15		

- Molecule 3 is a protein called Coat protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	A	344	Total	C	N	O	S	0	0
			2666	1712	439	511	4		
3	B	344	Total	C	N	O	S	0	0
			2666	1712	439	511	4		
3	C	344	Total	C	N	O	S	0	0
			2666	1712	439	511	4		
3	D	344	Total	C	N	O	S	0	0
			2666	1712	439	511	4		
3	E	344	Total	C	N	O	S	0	0
			2666	1712	439	511	4		
3	F	344	Total	C	N	O	S	0	0
			2666	1712	439	511	4		
3	G	344	Total	C	N	O	S	0	0
			2666	1712	439	511	4		
3	H	344	Total	C	N	O	S	0	0
			2666	1712	439	511	4		
3	I	344	Total	C	N	O	S	0	0
			2666	1712	439	511	4		
3	J	344	Total	C	N	O	S	0	0
			2666	1712	439	511	4		
3	K	344	Total	C	N	O	S	0	0
			2666	1712	439	511	4		

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Mol	Chain	Residues	Atoms					AltConf	Trace
3	L	344	Total	C	N	O	S	0	0
			2666	1712	439	511	4		
3	M	344	Total	C	N	O	S	0	0
			2666	1712	439	511	4		
3	N	344	Total	C	N	O	S	0	0
			2666	1712	439	511	4		
3	O	344	Total	C	N	O	S	0	0
			2666	1712	439	511	4		

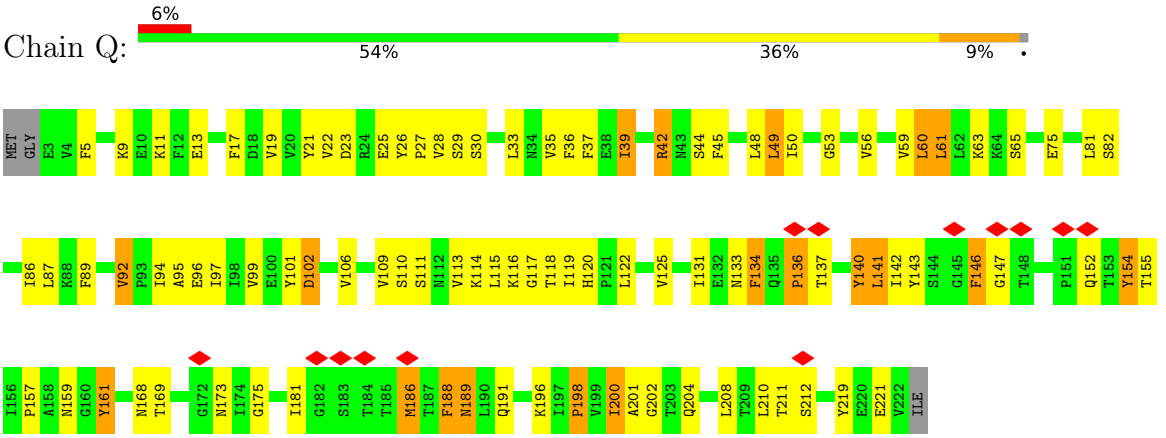
- Molecule 4 is a protein called C381 turret protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	P	373	Total	C	N	O	S	0	0
			2890	1855	462	570	3		

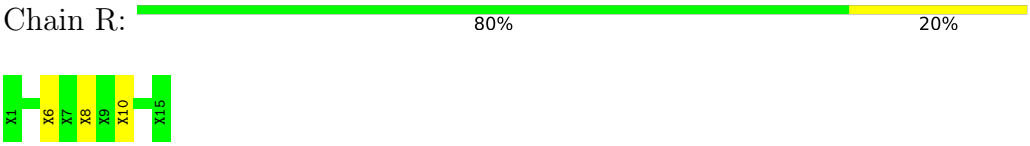
3 Residue-property plots (i)

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

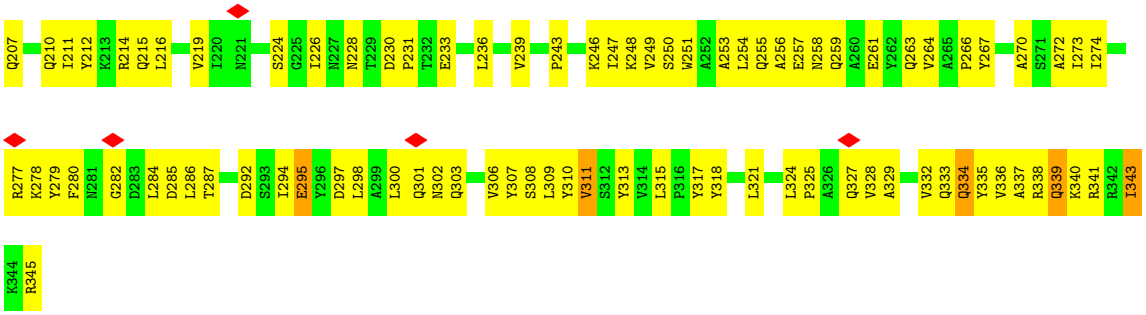
- Molecule 1: A223 penton base



- Molecule 2: A55 membrane protein

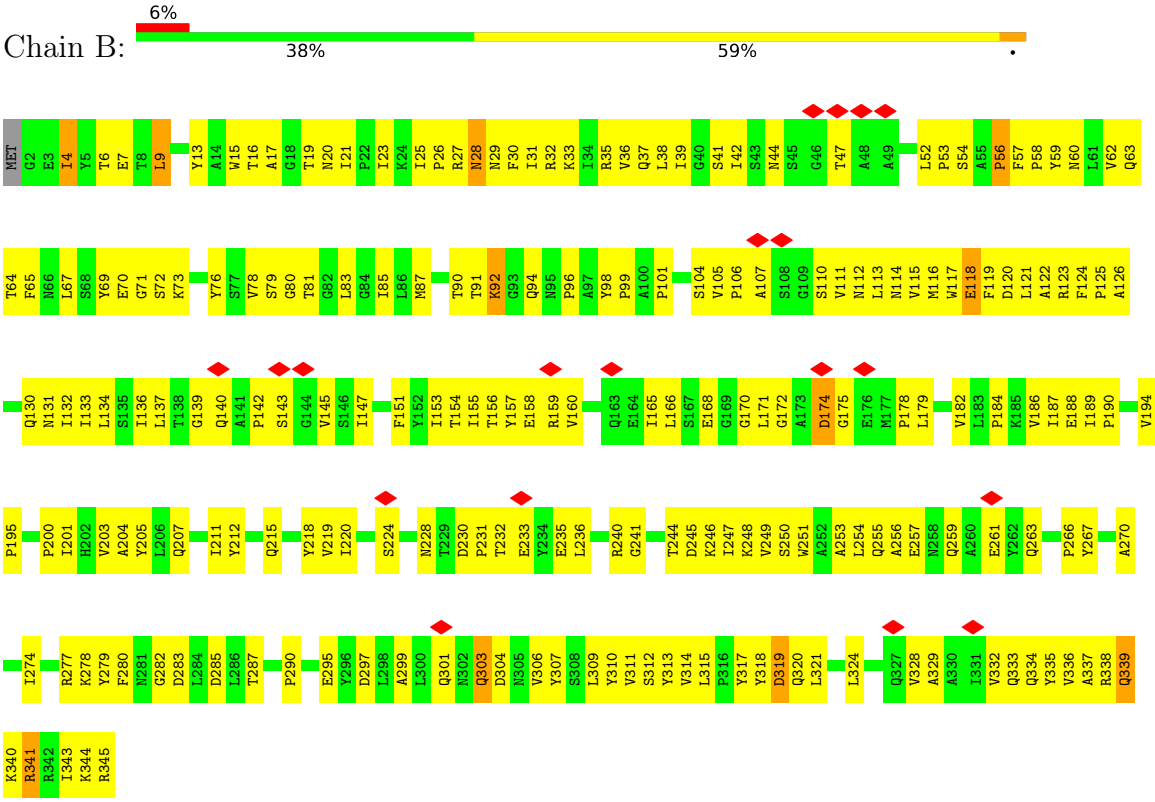


- Molecule 3: Coat protein



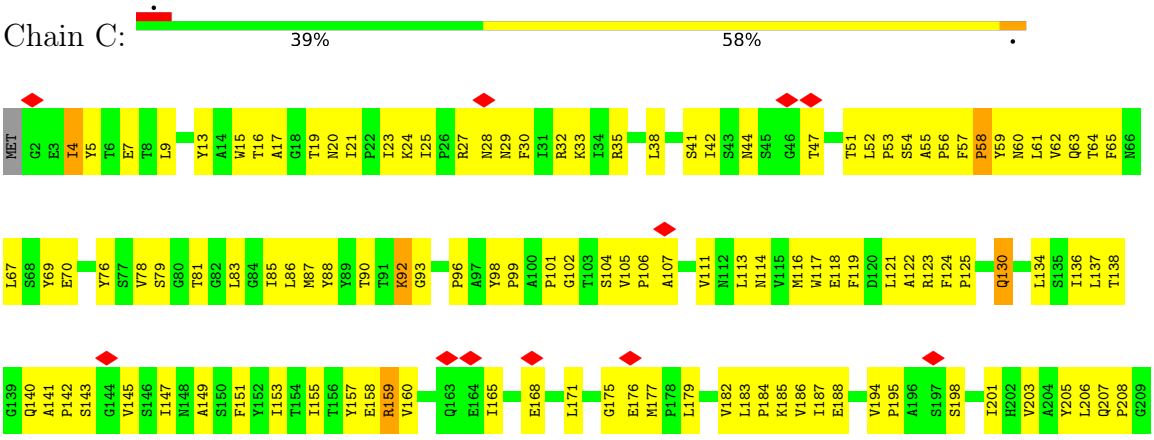
• Molecule 3: Coat protein

Chain B:



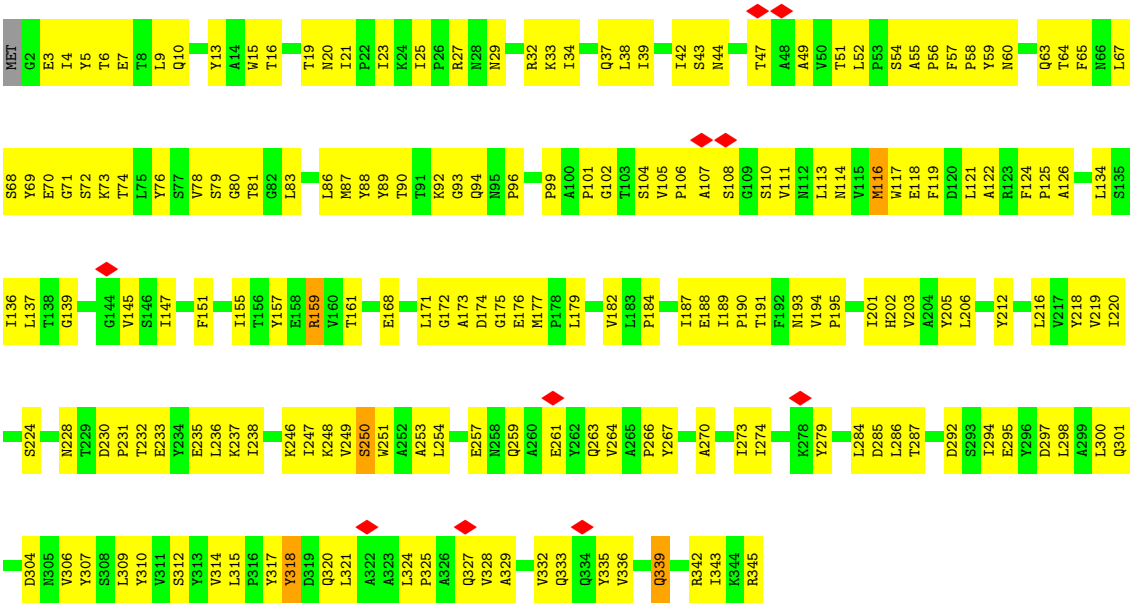
• Molecule 3: Coat protein

Chain C:



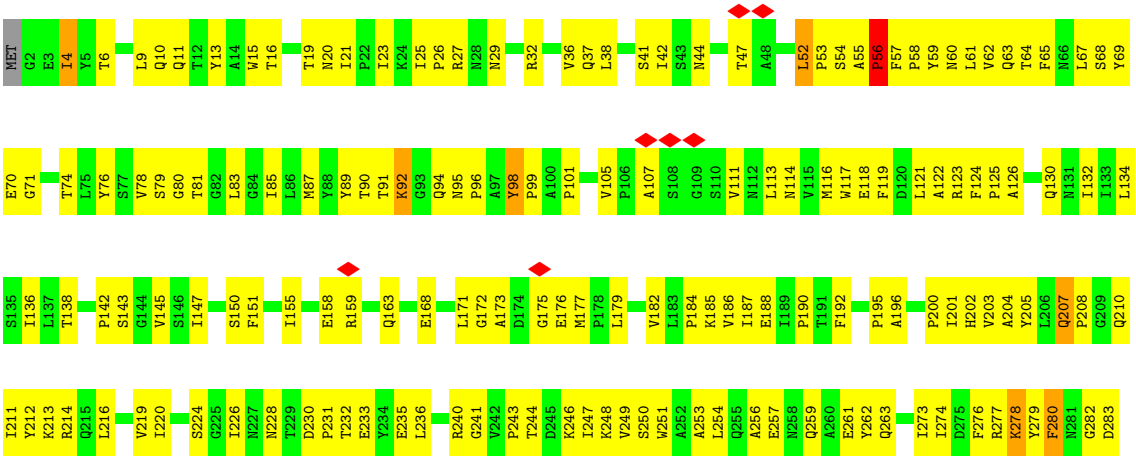
• Molecule 3: Coat protein

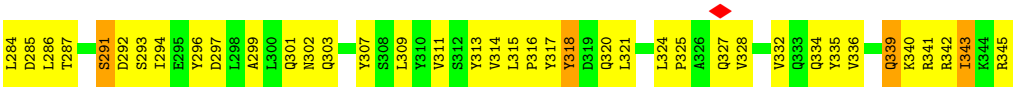
Chain D:



• Molecule 3: Coat protein

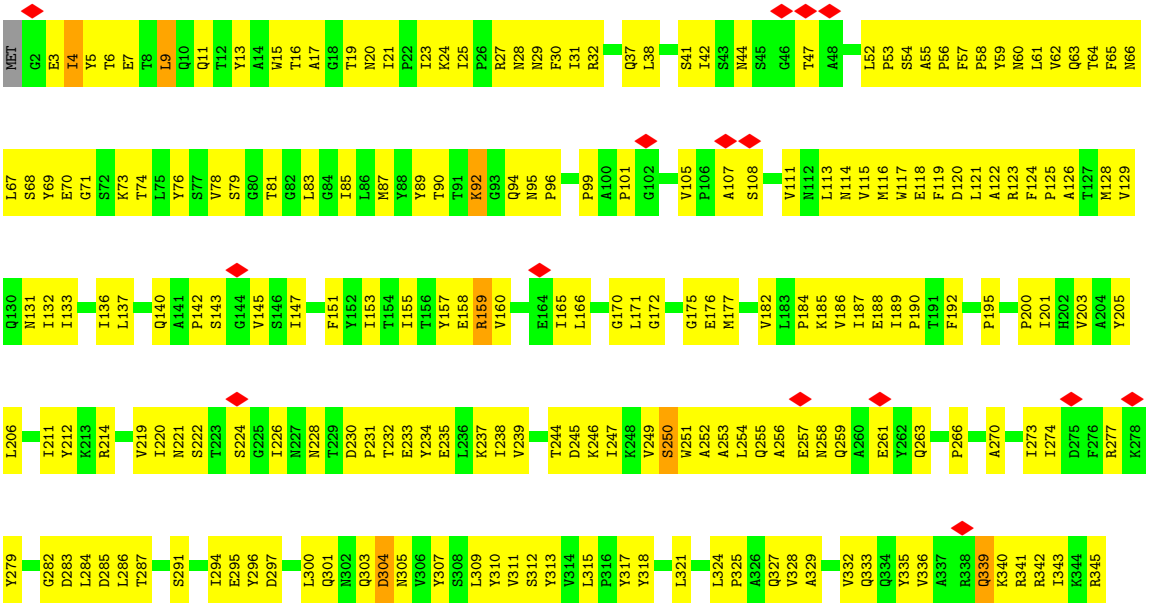
Chain E:





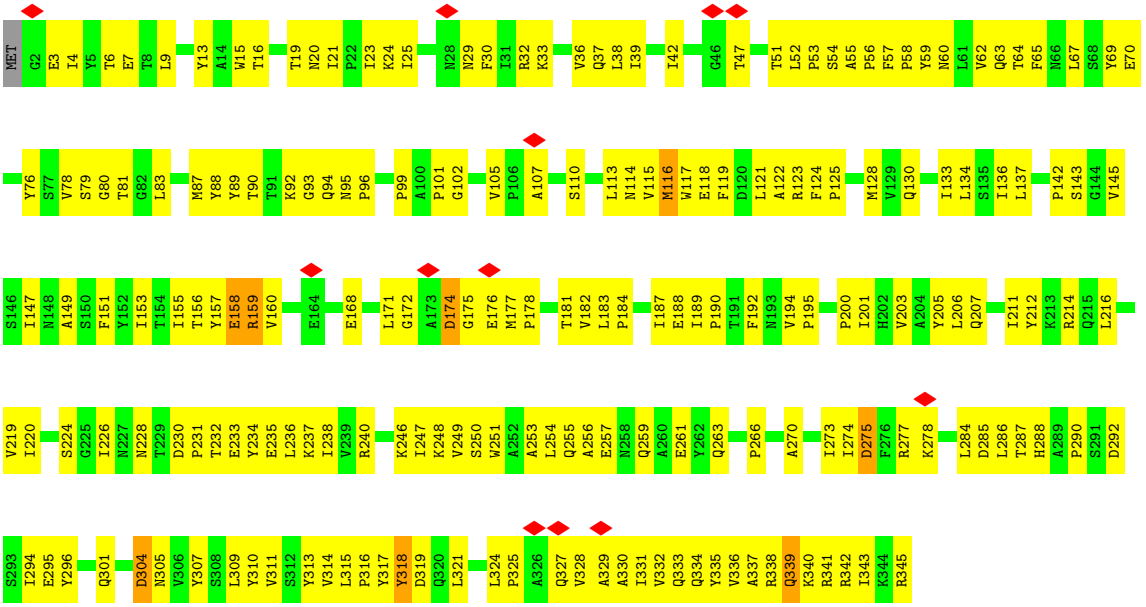
• Molecule 3: Coat protein

Chain F:



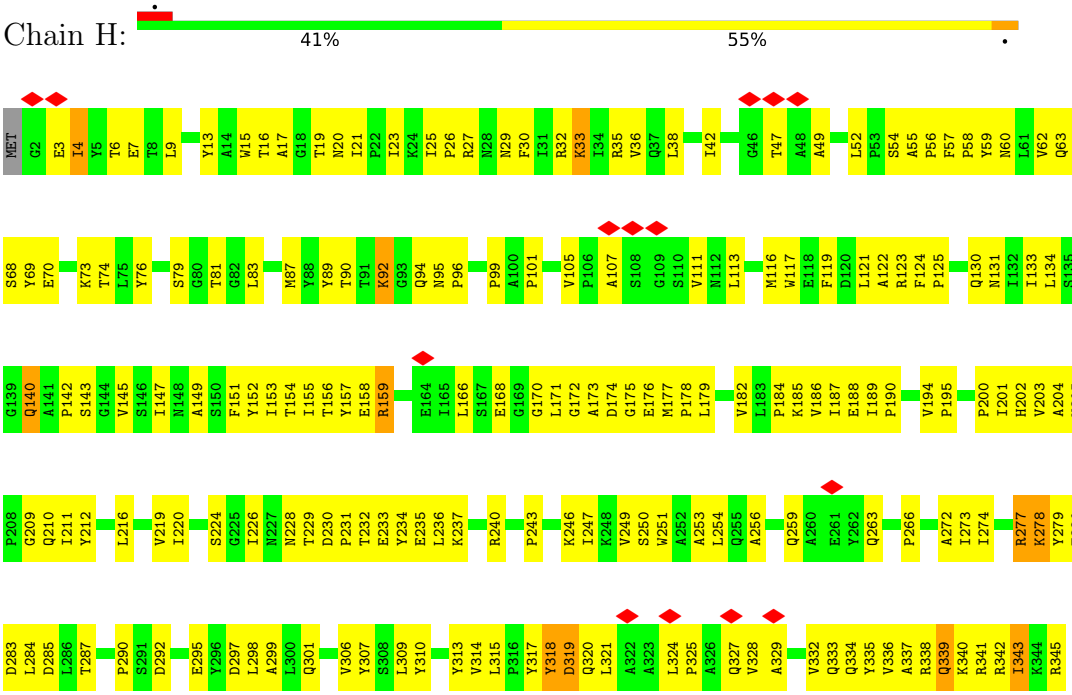
• Molecule 3: Coat protein

Chain G:



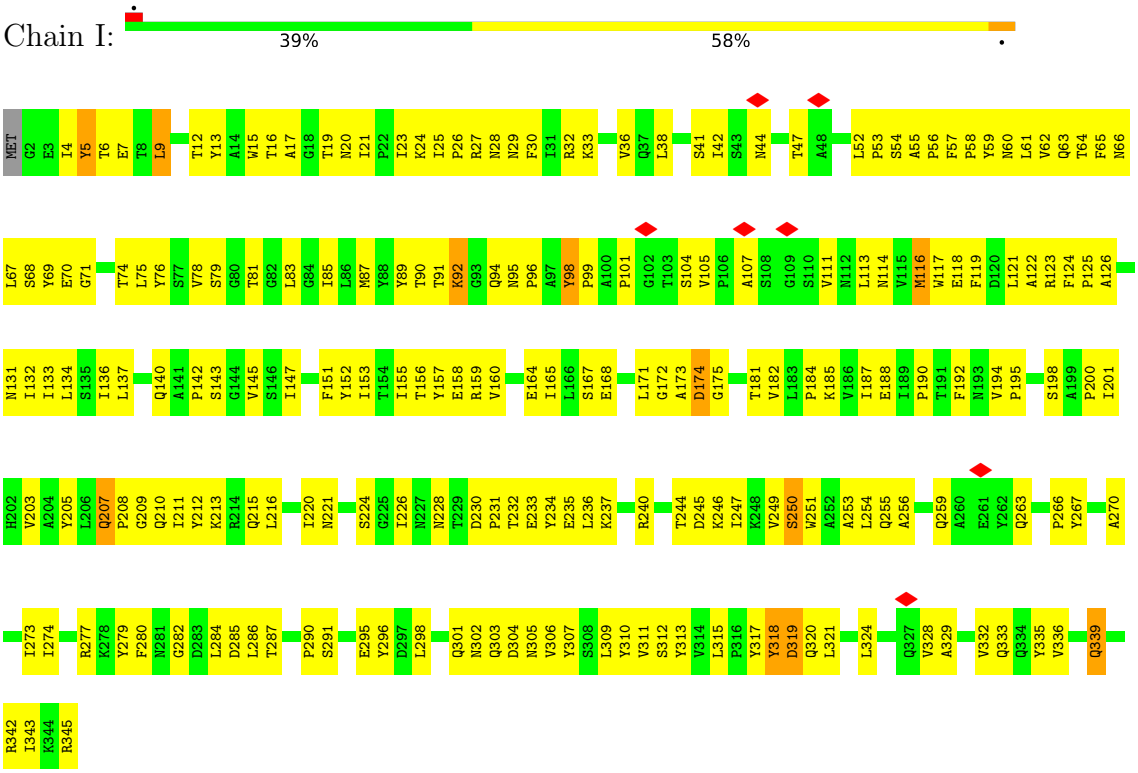
• Molecule 3: Coat protein

Chain H:



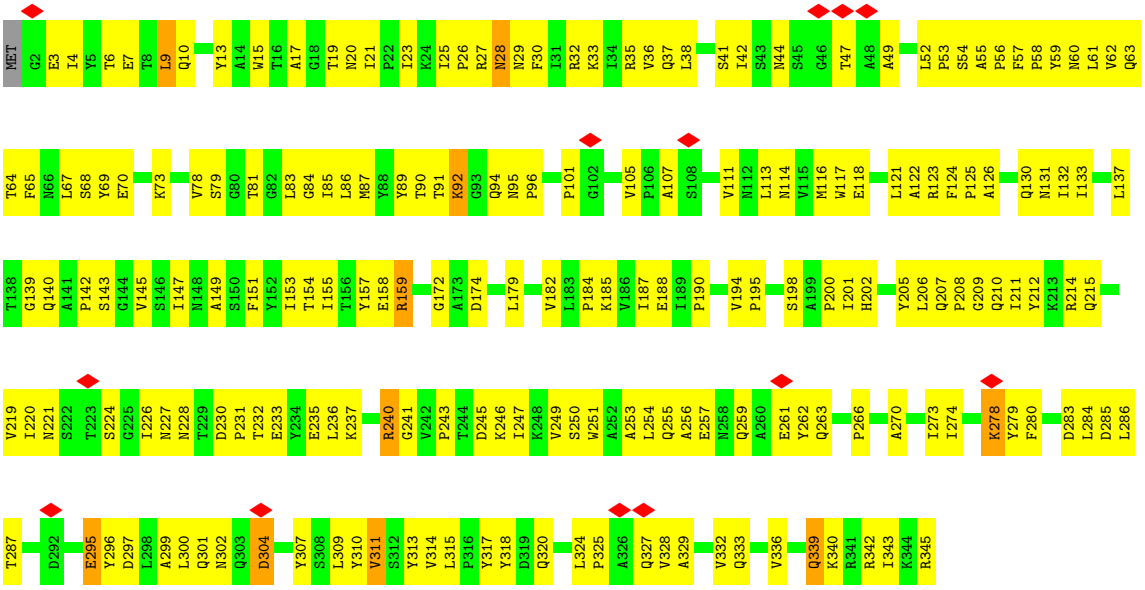
• Molecule 3: Coat protein

Chain I:



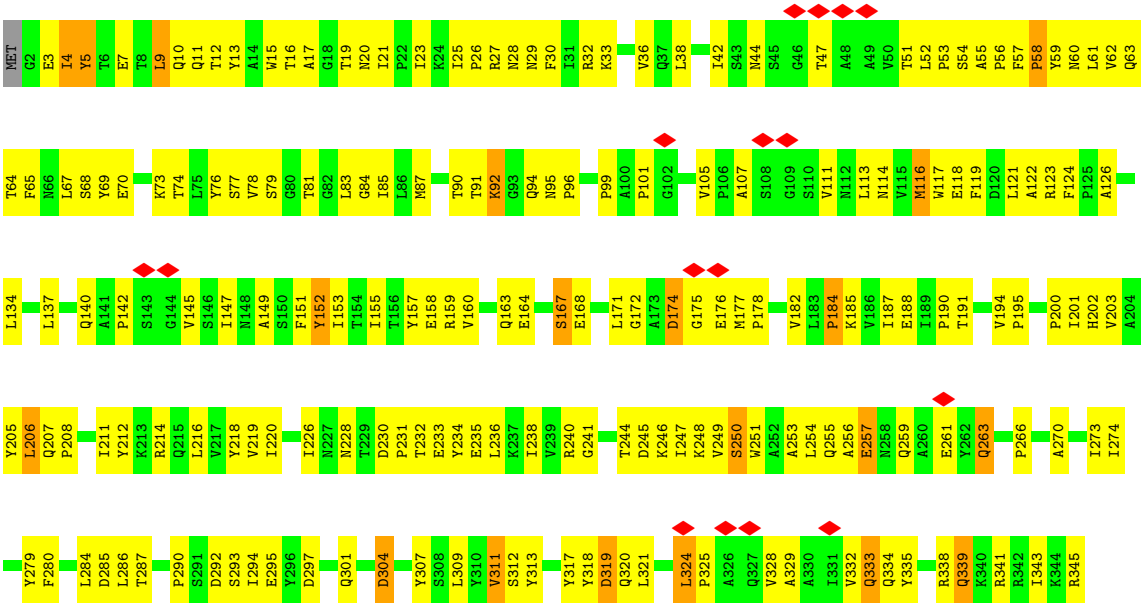
• Molecule 3: Coat protein

Chain J:



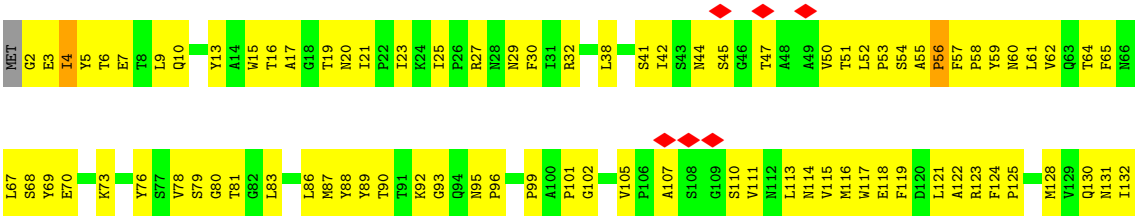
- Molecule 3: Coat protein

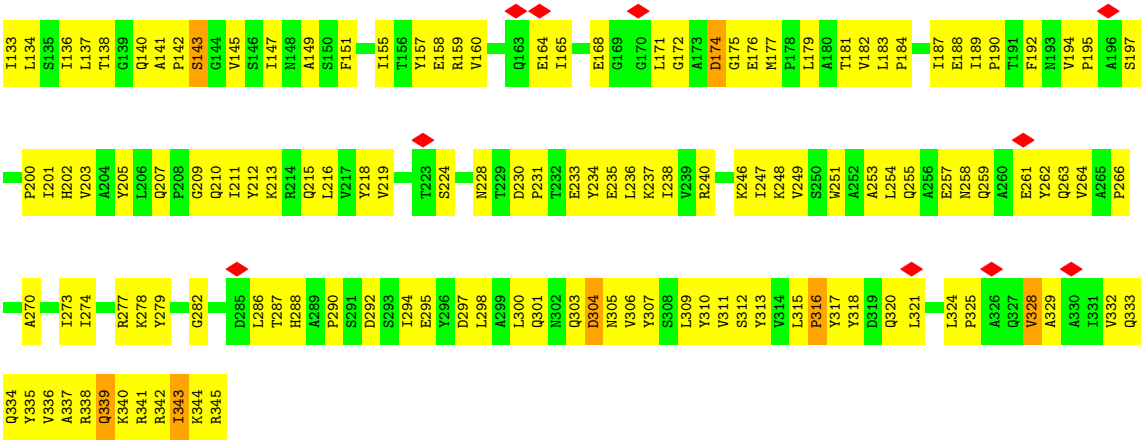
Chain K:



- Molecule 3: Coat protein

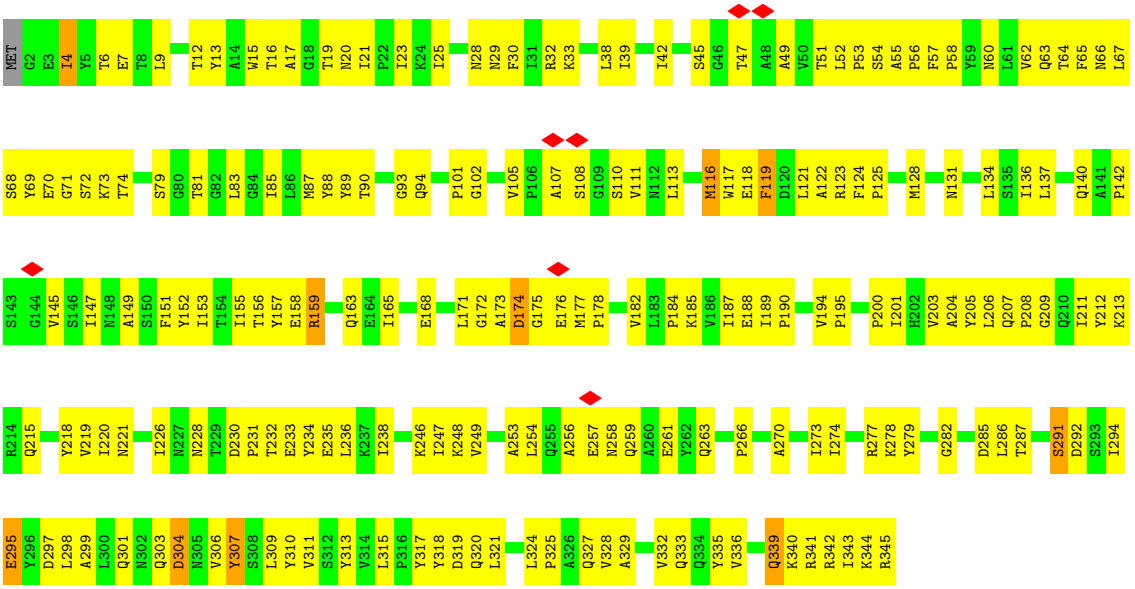
Chain L:





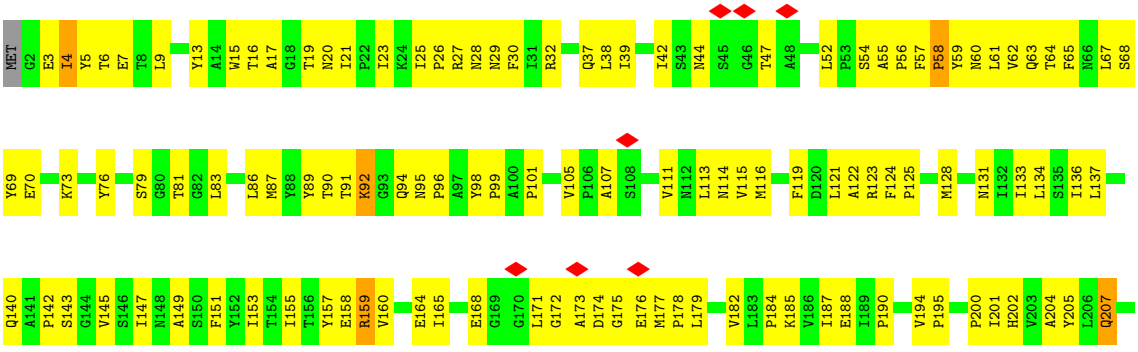
• Molecule 3: Coat protein

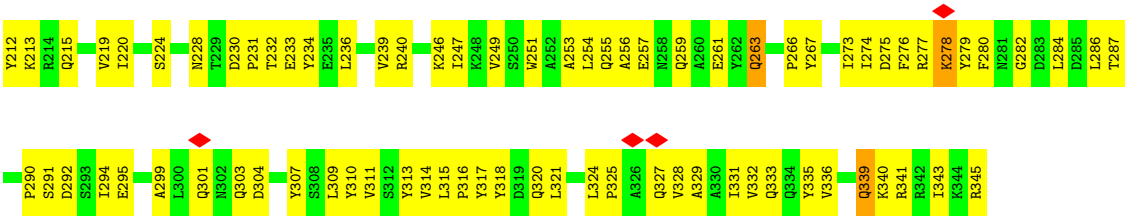
Chain M:



• Molecule 3: Coat protein

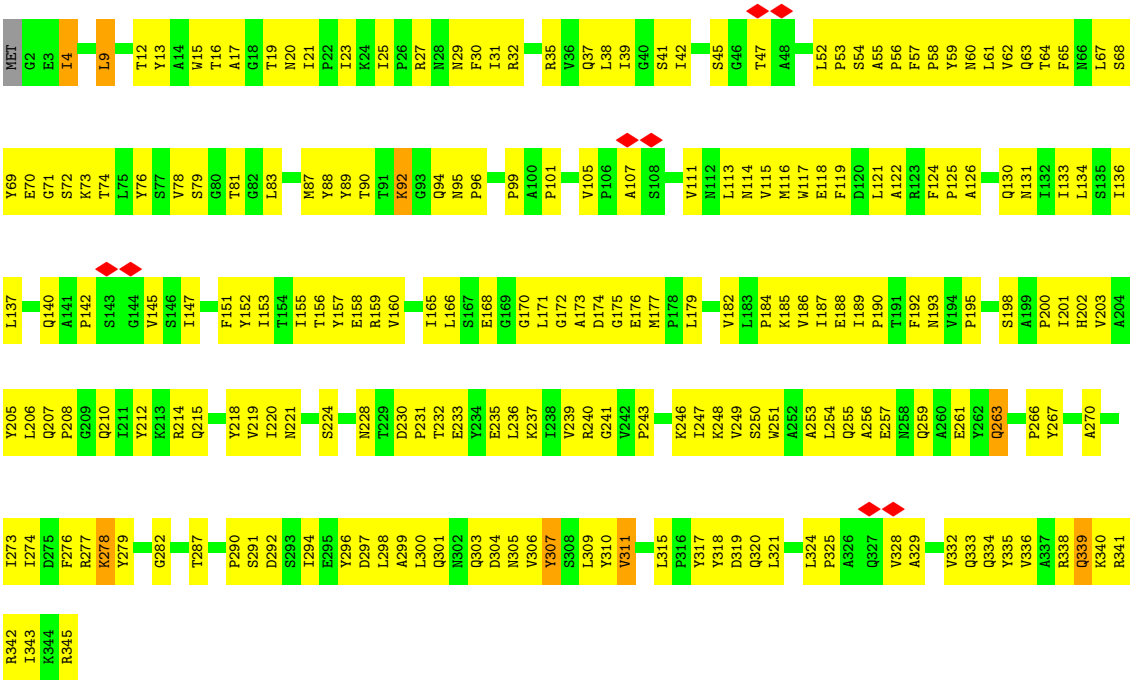
Chain N:





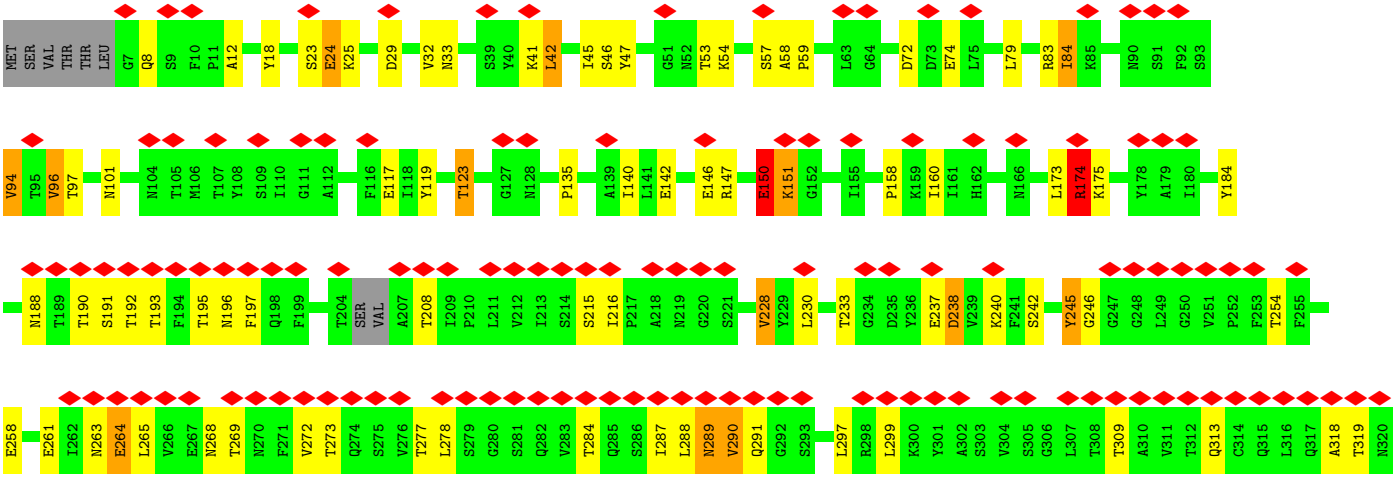
• Molecule 3: Coat protein

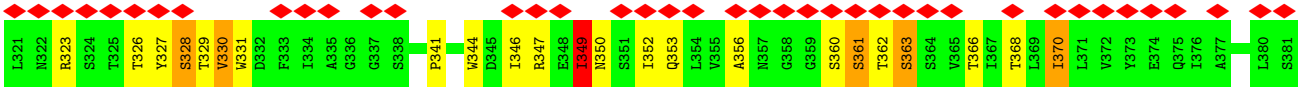
Chain O:



• Molecule 4: C381 turret protein

Chain P:




L321
N322
R323
S324
T325
T326
Y327
S328
T329
V330
W331
D332
F333
I334
A335
G336
G337
S338
P341
W344
D345
I346
R347
E348
K349
N350
S351
I352
Q353
L354
V355
A356
N357
G358
G359
S360
S361
T362
S363
S364
V365
T366
I367
T368
L369
I370
L371
V372
Y373
E374
Q375
I376
A377
L380
S381

4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, I	Depositor
Number of particles used	8903	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	Each particle	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	18	Depositor
Minimum defocus (nm)	800	Depositor
Maximum defocus (nm)	2500	Depositor
Magnification	102189	Depositor
Image detector	FEI FALCON I (4k x 4k)	Depositor
Maximum map value	0.333	Depositor
Minimum map value	-0.191	Depositor
Average map value	-0.001	Depositor
Map value standard deviation	0.014	Depositor
Recommended contour level	0.05	Depositor
Map size (Å)	1402.88, 1402.8801, 1402.88	wwPDB
Map dimensions	1024, 1024, 1024	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.37, 1.3700001, 1.37	Depositor

5 Model quality

5.1 Standard geometry

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	Q	1.43	20/1626 (1.2%)	1.27	14/2223 (0.6%)
3	A	0.60	0/2729	0.78	2/3732 (0.1%)
3	B	0.59	0/2729	0.76	1/3732 (0.0%)
3	C	0.61	0/2729	0.78	1/3732 (0.0%)
3	D	0.57	0/2729	0.77	0/3732
3	E	0.59	0/2729	0.79	3/3732 (0.1%)
3	F	0.58	0/2729	0.76	0/3732
3	G	0.60	0/2729	0.77	2/3732 (0.1%)
3	H	0.57	0/2729	0.78	0/3732
3	I	0.59	0/2729	0.78	0/3732
3	J	0.58	0/2729	0.77	1/3732 (0.0%)
3	K	0.62	2/2729 (0.1%)	0.82	6/3732 (0.2%)
3	L	0.65	0/2729	0.80	1/3732 (0.0%)
3	M	0.58	0/2729	0.75	0/3732
3	N	0.59	0/2729	0.76	0/3732
3	O	0.59	0/2729	0.77	1/3732 (0.0%)
4	P	1.49	23/2950 (0.8%)	1.40	28/4014 (0.7%)
All	All	0.73	45/45511 (0.1%)	0.85	60/62217 (0.1%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	Q	0	1
3	A	0	1
3	C	0	1
3	I	0	1
3	K	0	1
3	M	0	1
3	N	0	1
3	O	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
All	All	0	8

All (45) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Q	212	SER	CB-OG	-21.55	1.14	1.42
1	Q	198	PRO	N-CD	16.47	1.71	1.47
4	P	146	GLU	CG-CD	10.68	1.68	1.51
1	Q	152	GLN	CB-CG	-10.39	1.24	1.52
1	Q	204	GLN	CG-CD	-9.04	1.30	1.51
4	P	146	GLU	CD-OE2	8.46	1.34	1.25
4	P	350	ASN	CB-CG	-8.28	1.31	1.51
4	P	24	GLU	CD-OE2	8.25	1.34	1.25
4	P	41	LYS	CB-CG	7.87	1.73	1.52
4	P	261	GLU	CD-OE1	7.47	1.33	1.25
1	Q	161	TYR	CD1-CE1	7.23	1.50	1.39
1	Q	188	PHE	CE1-CZ	-7.17	1.23	1.37
4	P	238	ASP	N-CA	6.68	1.59	1.46
1	Q	186	MET	SD-CE	6.68	2.15	1.77
1	Q	161	TYR	CB-CG	-6.59	1.41	1.51
1	Q	186	MET	CG-SD	6.50	1.98	1.81
1	Q	221	GLU	CB-CG	-6.34	1.40	1.52
1	Q	154	TYR	CE2-CZ	-6.29	1.30	1.38
3	K	185	LYS	C-N	5.94	1.47	1.34
4	P	264	GLU	CB-CG	5.92	1.63	1.52
4	P	24	GLU	CD-OE1	5.84	1.32	1.25
4	P	258	GLU	CG-CD	5.80	1.60	1.51
4	P	96	VAL	CB-CG1	-5.77	1.40	1.52
4	P	18	TYR	CE1-CZ	5.72	1.46	1.38
1	Q	219	TYR	CE2-CZ	-5.69	1.31	1.38
1	Q	219	TYR	CE1-CZ	-5.63	1.31	1.38
4	P	84	ILE	N-CA	5.62	1.57	1.46
4	P	184	TYR	CB-CG	-5.52	1.43	1.51
1	Q	200	ILE	CB-CG1	-5.46	1.38	1.54
4	P	41	LYS	CD-CE	5.40	1.64	1.51
1	Q	221	GLU	CG-CD	5.37	1.59	1.51
4	P	240	LYS	CE-NZ	5.34	1.62	1.49
1	Q	155	THR	C-O	5.32	1.33	1.23
1	Q	188	PHE	CB-CG	-5.32	1.42	1.51
1	Q	196	LYS	CE-NZ	5.29	1.62	1.49
1	Q	154	TYR	CD2-CE2	-5.28	1.31	1.39
4	P	41	LYS	CE-NZ	5.28	1.62	1.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	P	59	PRO	N-CD	5.21	1.55	1.47
4	P	47	TYR	CD1-CE1	5.17	1.47	1.39
4	P	151	LYS	CD-CE	5.14	1.64	1.51
4	P	74	GLU	CB-CG	-5.14	1.42	1.52
4	P	228	VAL	CB-CG1	-5.10	1.42	1.52
4	P	264	GLU	CG-CD	5.10	1.59	1.51
1	Q	221	GLU	CD-OE1	5.08	1.31	1.25
3	K	257	GLU	CG-CD	5.04	1.59	1.51

All (60) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	P	328	SER	N-CA-CB	-24.24	74.13	110.50
4	P	264	GLU	N-CA-CB	-17.25	79.56	110.60
4	P	8	GLN	N-CA-CB	-16.41	81.07	110.60
4	P	327	TYR	N-CA-CB	-15.55	82.61	110.60
4	P	238	ASP	N-CA-CB	-13.43	86.42	110.60
1	Q	137	THR	N-CA-C	-12.42	77.47	111.00
4	P	361	SER	CB-CA-C	-10.88	89.42	110.10
4	P	264	GLU	N-CA-C	10.82	140.22	111.00
1	Q	136	PRO	N-CA-C	-9.46	87.51	112.10
4	P	84	ILE	N-CA-C	-8.84	87.14	111.00
4	P	196	ASN	N-CA-CB	8.16	125.28	110.60
1	Q	186	MET	CG-SD-CE	7.89	112.83	100.20
4	P	288	LEU	N-CA-C	-7.85	89.79	111.00
4	P	350	ASN	CB-CA-C	-7.62	95.16	110.40
3	K	184	PRO	O-C-N	-7.54	110.63	122.70
1	Q	27	PRO	CB-CA-C	7.24	130.11	112.00
4	P	245	TYR	CB-CA-C	-6.68	97.05	110.40
4	P	83	ARG	O-C-N	-6.66	112.05	122.70
4	P	174	ARG	NE-CZ-NH2	-6.63	116.98	120.30
1	Q	137	THR	C-N-CA	-6.30	105.95	121.70
4	P	72	ASP	CB-CG-OD2	6.28	123.95	118.30
1	Q	35	VAL	N-CA-C	-6.26	94.10	111.00
4	P	362	THR	N-CA-C	-6.11	94.52	111.00
4	P	147	ARG	NE-CZ-NH1	-6.05	117.27	120.30
1	Q	143	TYR	CB-CG-CD2	5.96	124.58	121.00
1	Q	27	PRO	N-CA-C	-5.89	96.78	112.10
1	Q	159	ASN	CB-CG-OD1	5.88	133.36	121.60
4	P	263	ASN	N-CA-C	-5.84	95.23	111.00
3	K	311	VAL	N-CA-C	-5.78	95.40	111.00
3	K	184	PRO	C-N-CA	5.75	136.08	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	P	238	ASP	CB-CG-OD1	5.66	123.39	118.30
4	P	261	GLU	OE1-CD-OE2	5.64	130.07	123.30
3	K	184	PRO	CA-C-N	5.54	129.39	117.20
4	P	58	ALA	C-N-CD	5.53	140.00	128.40
4	P	195	THR	C-N-CA	-5.46	108.04	121.70
3	A	311	VAL	N-CA-C	-5.46	96.26	111.00
3	B	56	PRO	N-CA-C	5.46	126.29	112.10
3	G	311	VAL	N-CA-C	-5.43	96.33	111.00
1	Q	28	VAL	N-CA-CB	5.36	123.29	111.50
3	K	324	LEU	CA-CB-CG	5.31	127.52	115.30
4	P	151	LYS	CD-CE-NZ	5.31	123.91	111.70
4	P	83	ARG	CA-C-N	5.28	128.82	117.20
1	Q	49	LEU	N-CA-C	-5.26	96.80	111.00
1	Q	137	THR	CB-CA-C	5.24	125.76	111.60
3	K	206	LEU	N-CA-C	-5.23	96.87	111.00
3	O	311	VAL	N-CA-C	-5.22	96.92	111.00
1	Q	198	PRO	N-CD-CG	-5.19	95.42	103.20
3	L	56	PRO	N-CA-C	5.18	125.56	112.10
3	J	311	VAL	N-CA-C	-5.12	97.17	111.00
3	G	158	GLU	N-CA-C	-5.12	97.17	111.00
4	P	150	GLU	C-N-CA	-5.12	108.90	121.70
4	P	288	LEU	N-CA-CB	5.12	120.63	110.40
4	P	349	ILE	CA-CB-CG2	5.11	121.12	110.90
3	E	56	PRO	N-CA-C	5.11	125.38	112.10
3	E	52	LEU	CA-CB-CG	-5.10	103.56	115.30
3	A	72	SER	N-CA-C	5.10	124.76	111.00
3	E	280	PHE	N-CA-C	-5.08	97.28	111.00
4	P	84	ILE	CB-CA-C	-5.07	101.46	111.60
3	C	238	ILE	N-CA-C	-5.05	97.36	111.00
1	Q	221	GLU	CA-CB-CG	5.03	124.47	113.40

There are no chirality outliers.

All (8) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
3	A	152	TYR	Sidechain
3	C	307	TYR	Sidechain
3	I	98	TYR	Sidechain
3	K	152	TYR	Sidechain
3	M	307	TYR	Sidechain
3	N	267	TYR	Sidechain
3	O	307	TYR	Sidechain

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Mol	Chain	Res	Type	Group
1	Q	154	TYR	Sidechain

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	Q	1594	0	1530	147	0
2	R	75	0	18	6	0
3	A	2666	0	2661	236	0
3	B	2666	0	2661	255	0
3	C	2666	0	2661	266	0
3	D	2666	0	2661	204	0
3	E	2666	0	2661	258	0
3	F	2666	0	2661	258	0
3	G	2666	0	2661	237	0
3	H	2666	0	2661	240	0
3	I	2666	0	2661	246	0
3	J	2666	0	2661	226	0
3	K	2666	0	2661	229	0
3	L	2666	0	2661	246	0
3	M	2666	0	2661	252	0
3	N	2666	0	2661	236	0
3	O	2666	0	2661	255	0
4	P	2890	0	2865	82	0
All	All	44549	0	44328	3688	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 42.

All (3688) 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:Q:140:TYR:CE1	1:Q:157:PRO:HG3	1.42	1.53
1:Q:198:PRO:CD	1:Q:198:PRO:N	1.70	1.35
1:Q:186:MET:SD	1:Q:186:MET:CE	2.15	1.33
1:Q:140:TYR:CD1	1:Q:157:PRO:HG3	1.65	1.30

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:146:PHE:HD1	1:Q:147:GLY:N	1.34	1.24
3:K:4:ILE:H	3:K:4:ILE:HD12	1.07	1.15
1:Q:140:TYR:CE1	1:Q:157:PRO:CG	2.32	1.12
3:B:259:GLN:HG3	3:C:96:PRO:HG3	1.29	1.12
3:E:4:ILE:H	3:E:4:ILE:HD12	1.16	1.10
1:Q:133:ASN:ND2	1:Q:136:PRO:HG3	1.65	1.10
3:J:56:PRO:HG2	3:J:60:ASN:HD22	1.14	1.09
3:H:4:ILE:H	3:H:4:ILE:HD12	1.06	1.08
1:Q:175:GLY:CA	4:P:42:LEU:HD12	1.81	1.08
1:Q:50:ILE:HG23	1:Q:86:ILE:HD11	1.29	1.08
3:M:4:ILE:H	3:M:4:ILE:HD12	1.07	1.08
1:Q:133:ASN:HD21	1:Q:136:PRO:HG3	1.17	1.04
3:K:56:PRO:HG2	3:K:60:ASN:HD22	1.23	1.03
1:Q:175:GLY:HA2	4:P:42:LEU:CD1	1.88	1.03
3:N:4:ILE:H	3:N:4:ILE:HD12	1.22	1.03
4:P:346:ILE:HG22	4:P:349:ILE:HD12	1.41	1.03
1:Q:146:PHE:CD1	1:Q:147:GLY:N	2.26	1.02
4:P:299:LEU:HD21	4:P:352:ILE:HD11	1.40	1.02
1:Q:146:PHE:CD1	1:Q:146:PHE:C	2.30	1.01
3:C:219:VAL:HG22	3:C:306:VAL:HG22	1.41	1.01
3:H:56:PRO:HG2	3:H:60:ASN:HD22	1.24	1.01
3:G:195:PRO:HG2	3:G:201:ILE:HD12	1.38	1.01
3:A:246:LYS:HE2	3:A:246:LYS:HA	1.41	1.00
3:O:90:THR:OG1	3:O:345:ARG:HG2	1.61	1.00
1:Q:48:LEU:HD22	1:Q:86:ILE:HG21	1.43	0.99
3:A:254:LEU:HD21	3:A:274:ILE:HD11	1.43	0.99
1:Q:211:THR:HG21	4:P:57:SER:HB2	1.44	0.99
3:N:56:PRO:HG2	3:N:60:ASN:HD22	1.22	0.99
3:F:56:PRO:HG2	3:F:60:ASN:HD22	1.28	0.99
1:Q:175:GLY:HA2	4:P:42:LEU:HD12	1.39	0.98
3:I:259:GLN:OE1	3:I:266:PRO:HD3	1.62	0.97
3:K:56:PRO:HG2	3:K:60:ASN:ND2	1.78	0.96
3:L:195:PRO:HG2	3:L:201:ILE:HD12	1.45	0.96
3:L:90:THR:OG1	3:L:345:ARG:HG2	1.66	0.96
3:O:315:LEU:HD12	3:O:318:TYR:HD1	1.28	0.96
3:C:90:THR:OG1	3:C:345:ARG:HG2	1.66	0.95
3:H:246:LYS:HE2	3:H:246:LYS:HA	1.46	0.95
3:D:246:LYS:HE2	3:D:246:LYS:HA	1.49	0.95
3:G:56:PRO:HG2	3:G:60:ASN:HD22	1.31	0.94
3:G:96:PRO:HG3	3:I:259:GLN:HG3	1.47	0.94
3:J:3:GLU:HB2	3:J:159:ARG:HB3	1.47	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:3:GLU:HB2	3:A:159:ARG:HB3	1.49	0.94
3:I:28:ASN:ND2	3:M:70:GLU:HA	1.83	0.94
3:O:4:ILE:HD12	3:O:4:ILE:H	1.26	0.94
3:L:345:ARG:HG3	3:L:345:ARG:HH11	1.32	0.94
1:Q:140:TYR:HE2	1:Q:142:ILE:CG1	1.81	0.93
3:H:90:THR:OG1	3:H:345:ARG:HG2	1.68	0.93
3:C:130:GLN:HA	3:C:130:GLN:HE21	1.34	0.93
3:I:87:MET:CE	3:I:345:ARG:HB3	1.98	0.93
3:G:121:LEU:HA	3:G:184:PRO:HG3	1.51	0.93
1:Q:175:GLY:CA	4:P:42:LEU:CD1	2.45	0.92
3:N:90:THR:OG1	3:N:345:ARG:HG2	1.69	0.92
1:Q:175:GLY:C	4:P:42:LEU:HD12	1.89	0.92
3:A:56:PRO:HG2	3:A:60:ASN:HD22	1.34	0.92
3:C:286:LEU:HD21	3:C:294:ILE:HD12	1.51	0.92
1:Q:140:TYR:CE2	1:Q:142:ILE:CG1	2.52	0.92
1:Q:146:PHE:HD1	1:Q:146:PHE:C	1.70	0.92
3:C:92:LYS:HD2	3:C:92:LYS:N	1.83	0.91
3:I:87:MET:HE2	3:I:345:ARG:HB3	1.49	0.91
3:B:246:LYS:HA	3:B:246:LYS:HE2	1.53	0.91
3:N:56:PRO:HG2	3:N:60:ASN:ND2	1.86	0.91
1:Q:140:TYR:CE2	1:Q:142:ILE:HG12	2.06	0.90
3:G:3:GLU:HB2	3:G:159:ARG:HB3	1.53	0.90
3:I:28:ASN:HD21	3:M:70:GLU:HA	1.34	0.90
3:A:315:LEU:HD12	3:A:318:TYR:HD1	1.34	0.90
3:E:240:ARG:HH21	3:J:208:PRO:HG2	1.36	0.90
3:O:131:ASN:HD22	3:O:133:ILE:HD11	1.34	0.90
1:Q:39:ILE:HG22	1:Q:119:ILE:HD12	1.52	0.90
3:D:56:PRO:HG2	3:D:60:ASN:HD22	1.34	0.90
3:E:56:PRO:HG2	3:E:60:ASN:ND2	1.87	0.90
3:M:4:ILE:H	3:M:4:ILE:CD1	1.82	0.90
3:K:4:ILE:H	3:K:4:ILE:CD1	1.83	0.90
1:Q:186:MET:HG3	1:Q:188:PHE:HE1	1.37	0.90
3:A:121:LEU:HA	3:A:184:PRO:HG3	1.53	0.89
3:D:87:MET:CE	3:D:345:ARG:HB3	2.02	0.89
3:K:87:MET:CE	3:K:345:ARG:HB3	2.01	0.89
3:K:90:THR:OG1	3:K:345:ARG:HG2	1.71	0.89
3:A:87:MET:CE	3:A:345:ARG:HB3	2.02	0.89
4:P:190:THR:HG22	4:P:192:THR:H	1.37	0.89
3:H:195:PRO:HG2	3:H:201:ILE:CD1	2.03	0.89
3:K:190:PRO:HB3	3:K:307:TYR:CD1	2.07	0.89
1:Q:181:ILE:CD1	1:Q:200:ILE:HD11	2.03	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:131:ASN:HD22	3:J:133:ILE:HD11	1.37	0.88
1:Q:133:ASN:HD21	1:Q:136:PRO:CG	1.84	0.88
3:E:247:ILE:CG2	3:E:249:VAL:HG23	2.03	0.88
3:H:87:MET:CE	3:H:345:ARG:HB3	2.02	0.88
3:B:90:THR:OG1	3:B:345:ARG:HG2	1.71	0.88
3:O:56:PRO:HG2	3:O:60:ASN:ND2	1.88	0.88
3:A:329:ALA:O	3:A:333:GLN:HG2	1.73	0.88
3:J:56:PRO:HG2	3:J:60:ASN:ND2	1.87	0.88
1:Q:173:ASN:HB3	4:P:23:SER:O	1.73	0.88
3:B:56:PRO:HG2	3:B:60:ASN:HD22	1.37	0.88
3:G:235:GLU:OE1	3:G:248:LYS:HD3	1.74	0.88
3:O:92:LYS:N	3:O:92:LYS:HD2	1.86	0.88
3:B:54:SER:HA	3:B:101:PRO:HB3	1.56	0.87
3:L:338:ARG:HA	3:L:341:ARG:HH21	1.39	0.87
3:O:315:LEU:HD12	3:O:318:TYR:CD1	2.09	0.87
3:B:42:ILE:HG23	3:B:147:ILE:HD13	1.55	0.87
3:H:324:LEU:HG	3:H:328:VAL:HB	1.56	0.87
3:G:56:PRO:HG2	3:G:60:ASN:ND2	1.89	0.87
3:B:240:ARG:NH1	3:B:290:PRO:HG2	1.90	0.87
3:B:259:GLN:OE1	3:B:266:PRO:HD3	1.74	0.87
3:G:87:MET:CE	3:G:345:ARG:HB3	2.05	0.87
3:H:254:LEU:HD21	3:H:274:ILE:HD11	1.56	0.86
1:Q:186:MET:HG3	1:Q:188:PHE:CE1	2.10	0.86
3:H:56:PRO:HG2	3:H:60:ASN:ND2	1.90	0.86
3:I:90:THR:OG1	3:I:345:ARG:HG2	1.74	0.86
3:I:184:PRO:HB3	3:I:343:ILE:HD12	1.57	0.86
1:Q:140:TYR:CD1	1:Q:157:PRO:CG	2.56	0.86
3:G:90:THR:OG1	3:G:345:ARG:HG2	1.74	0.86
3:M:56:PRO:HG2	3:M:60:ASN:HD22	1.40	0.86
3:E:230:ASP:HA	3:E:301:GLN:HG2	1.59	0.85
3:J:247:ILE:HG12	3:J:279:TYR:CD2	2.10	0.85
3:H:4:ILE:HD12	3:H:4:ILE:N	1.90	0.85
1:Q:173:ASN:CB	4:P:23:SER:O	2.25	0.85
3:A:56:PRO:HG2	3:A:60:ASN:ND2	1.91	0.85
3:F:28:ASN:HD22	3:J:70:GLU:C	1.80	0.85
3:D:259:GLN:OE1	3:D:266:PRO:HD3	1.77	0.85
3:E:343:ILE:O	3:E:343:ILE:HG12	1.73	0.85
3:K:42:ILE:HG23	3:K:147:ILE:HD13	1.59	0.85
3:D:189:ILE:HD12	3:D:310:TYR:HE2	1.41	0.85
3:M:42:ILE:HD11	3:M:113:LEU:HD13	1.59	0.85
3:H:4:ILE:H	3:H:4:ILE:CD1	1.84	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:345:ARG:HH11	3:C:345:ARG:HG3	1.41	0.84
1:Q:208:LEU:HD21	1:Q:210:LEU:HD21	1.57	0.84
3:N:259:GLN:OE1	3:N:266:PRO:HD3	1.77	0.84
3:H:182:VAL:HG21	3:H:339:GLN:HB3	1.59	0.84
3:J:87:MET:CE	3:J:345:ARG:HB3	2.07	0.84
3:L:230:ASP:HA	3:L:301:GLN:HG2	1.59	0.84
3:N:92:LYS:HD2	3:N:92:LYS:N	1.92	0.84
3:F:230:ASP:HA	3:F:301:GLN:HG2	1.59	0.84
3:M:190:PRO:HB3	3:M:307:TYR:CD1	2.12	0.84
3:A:4:ILE:H	3:A:4:ILE:HD12	1.42	0.84
3:M:246:LYS:HA	3:M:246:LYS:HE2	1.59	0.83
1:Q:208:LEU:HD21	1:Q:210:LEU:CD2	2.09	0.83
3:F:87:MET:HE2	3:F:345:ARG:HB3	1.61	0.83
3:M:19:THR:O	3:M:137:LEU:HD12	1.78	0.83
3:M:90:THR:OG1	3:M:345:ARG:HG2	1.79	0.83
3:M:159:ARG:HG2	3:M:159:ARG:HH11	1.43	0.83
1:Q:140:TYR:CE2	1:Q:142:ILE:HG13	2.13	0.83
3:J:257:GLU:O	3:J:261:GLU:HB3	1.79	0.83
3:E:56:PRO:HG2	3:E:60:ASN:HD22	1.43	0.83
3:G:87:MET:HE2	3:G:345:ARG:HB3	1.58	0.83
3:J:90:THR:CB	3:J:345:ARG:HG2	2.09	0.82
3:K:338:ARG:HG2	3:K:338:ARG:HH11	1.43	0.82
3:J:190:PRO:HB3	3:J:307:TYR:CD1	2.14	0.82
3:M:329:ALA:O	3:M:333:GLN:HG2	1.78	0.82
3:N:87:MET:CE	3:N:345:ARG:HB3	2.10	0.82
3:B:87:MET:CE	3:B:345:ARG:HB3	2.09	0.82
3:E:240:ARG:HH21	3:J:208:PRO:CG	1.91	0.82
3:K:4:ILE:HD12	3:K:4:ILE:N	1.92	0.82
3:M:87:MET:CE	3:M:345:ARG:HB3	2.10	0.82
3:N:247:ILE:HG12	3:N:279:TYR:CD2	2.14	0.82
3:C:87:MET:CE	3:C:345:ARG:HB3	2.10	0.82
3:J:240:ARG:NH2	3:O:208:PRO:HG2	1.94	0.82
3:B:247:ILE:HG12	3:B:279:TYR:CD2	2.15	0.81
3:L:90:THR:CB	3:L:345:ARG:HG2	2.10	0.81
3:B:195:PRO:HA	3:B:303:GLN:HB2	1.60	0.81
1:Q:189:ASN:ND2	4:P:29:ASP:HB2	1.95	0.81
3:E:246:LYS:HE2	3:E:246:LYS:HA	1.62	0.81
3:F:90:THR:OG1	3:F:345:ARG:HG2	1.80	0.81
3:C:56:PRO:HG2	3:C:60:ASN:HD22	1.43	0.81
3:I:32:ARG:HD2	3:I:158:GLU:OE1	1.80	0.81
3:O:56:PRO:HG2	3:O:60:ASN:HD22	1.45	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:O:345:ARG:HH11	3:O:345:ARG:HG3	1.45	0.81
1:Q:211:THR:HG21	4:P:57:SER:CB	2.11	0.81
3:M:247:ILE:HG12	3:M:279:TYR:CD2	2.15	0.81
3:A:254:LEU:HD11	3:A:274:ILE:HG13	1.63	0.81
1:Q:22:VAL:HG22	1:Q:117:GLY:O	1.80	0.81
3:E:142:PRO:HD2	3:E:147:ILE:HD11	1.62	0.81
3:N:190:PRO:HB3	3:N:307:TYR:CD1	2.16	0.81
3:C:249:VAL:HG12	3:C:253:ALA:HB3	1.63	0.80
1:Q:140:TYR:HE2	1:Q:142:ILE:HG12	1.41	0.80
3:H:92:LYS:HD2	3:H:92:LYS:N	1.96	0.80
3:H:195:PRO:HG2	3:H:201:ILE:HD12	1.61	0.80
3:K:329:ALA:O	3:K:333:GLN:HG2	1.81	0.80
3:F:345:ARG:HH11	3:F:345:ARG:HG3	1.45	0.80
3:G:42:ILE:HD11	3:G:113:LEU:HD13	1.61	0.80
3:G:42:ILE:HG22	3:G:145:VAL:HB	1.62	0.80
3:H:343:ILE:O	3:H:343:ILE:HG12	1.81	0.80
3:B:87:MET:HE2	3:B:345:ARG:HB3	1.62	0.80
3:E:324:LEU:HG	3:E:328:VAL:HB	1.63	0.80
3:M:68:SER:HB2	3:M:73:LYS:O	1.82	0.80
3:G:184:PRO:HB3	3:G:343:ILE:HD12	1.64	0.80
3:F:92:LYS:HD2	3:F:92:LYS:N	1.97	0.80
3:G:315:LEU:HD12	3:G:318:TYR:HD1	1.47	0.80
4:P:346:ILE:CG2	4:P:349:ILE:HD12	2.12	0.80
3:B:259:GLN:HG3	3:C:96:PRO:CG	2.10	0.79
3:L:190:PRO:HB3	3:L:307:TYR:CD1	2.17	0.79
3:O:90:THR:CB	3:O:345:ARG:HG2	2.12	0.79
3:H:247:ILE:HG12	3:H:279:TYR:CD2	2.16	0.79
3:K:246:LYS:HE2	3:K:246:LYS:HA	1.63	0.79
3:B:92:LYS:N	3:B:92:LYS:HD2	1.97	0.79
3:N:9:LEU:HD21	3:N:26:PRO:HD2	1.63	0.79
3:I:190:PRO:HB3	3:I:307:TYR:CD1	2.17	0.79
3:A:113:LEU:HD23	3:A:149:ALA:HB2	1.64	0.79
3:C:246:LYS:HE2	3:C:246:LYS:HA	1.63	0.79
3:J:254:LEU:HD21	3:J:274:ILE:HD11	1.62	0.79
3:D:32:ARG:HH21	3:D:342:ARG:HD3	1.48	0.79
3:F:4:ILE:H	3:F:4:ILE:HD12	1.46	0.79
3:I:246:LYS:HE2	3:I:246:LYS:HA	1.64	0.79
3:C:42:ILE:HG23	3:C:147:ILE:HD13	1.65	0.79
3:G:338:ARG:HA	3:G:341:ARG:HH21	1.48	0.79
3:K:122:ALA:HB1	3:K:339:GLN:HG3	1.65	0.79
3:I:19:THR:O	3:I:137:LEU:HD12	1.83	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:P:289:ASN:HD22	4:P:290:VAL:N	1.81	0.78
3:L:113:LEU:HD23	3:L:149:ALA:HB2	1.65	0.78
3:N:122:ALA:HB1	3:N:339:GLN:HG2	1.66	0.78
3:F:56:PRO:HG2	3:F:60:ASN:ND2	1.99	0.78
3:L:87:MET:HE2	3:L:345:ARG:HB3	1.65	0.78
3:A:87:MET:HE1	3:A:345:ARG:HB3	1.64	0.78
3:M:4:ILE:HD12	3:M:4:ILE:N	1.93	0.78
1:Q:106:VAL:HG11	1:Q:202:GLY:N	1.97	0.78
3:D:235:GLU:OE1	3:D:248:LYS:HD3	1.84	0.78
3:F:54:SER:HA	3:F:101:PRO:HB3	1.65	0.78
3:M:343:ILE:O	3:M:343:ILE:HG12	1.84	0.78
1:Q:211:THR:OG1	4:P:57:SER:HB3	1.83	0.78
3:L:184:PRO:HB3	3:L:343:ILE:HD12	1.64	0.78
3:A:247:ILE:HG12	3:A:279:TYR:CD2	2.19	0.78
3:B:17:ALA:HB1	3:B:140:GLN:NE2	1.99	0.78
3:K:236:LEU:HB2	3:K:247:ILE:HD12	1.66	0.78
3:F:182:VAL:HG21	3:F:339:GLN:HB3	1.66	0.78
3:L:255:GLN:NE2	3:L:266:PRO:HB3	1.98	0.78
3:O:203:VAL:HG23	3:O:297:ASP:HA	1.66	0.77
1:Q:133:ASN:ND2	1:Q:136:PRO:CG	2.43	0.77
3:E:4:ILE:H	3:E:4:ILE:CD1	1.93	0.77
3:J:259:GLN:OE1	3:J:266:PRO:HD3	1.85	0.77
3:D:87:MET:HE1	3:D:345:ARG:HB3	1.65	0.77
3:D:216:LEU:HD23	3:D:309:LEU:HD13	1.65	0.77
3:C:87:MET:HE2	3:C:345:ARG:HB3	1.65	0.77
3:C:230:ASP:HA	3:C:301:GLN:HG2	1.66	0.77
3:I:184:PRO:CB	3:I:343:ILE:HD12	2.15	0.77
1:Q:140:TYR:C	1:Q:140:TYR:CD2	2.58	0.77
3:F:246:LYS:HE2	3:F:246:LYS:HA	1.66	0.77
3:I:17:ALA:HB1	3:I:140:GLN:HE22	1.50	0.77
3:K:33:LYS:HD2	3:K:118:GLU:OE2	1.85	0.77
3:G:124:PHE:CD1	3:G:125:PRO:HD2	2.19	0.77
3:L:121:LEU:HA	3:L:184:PRO:HG3	1.67	0.77
3:I:253:ALA:O	3:I:256:ALA:HB3	1.83	0.76
3:K:333:GLN:OE1	3:K:333:GLN:HA	1.82	0.76
3:H:19:THR:O	3:H:137:LEU:HD12	1.85	0.76
3:I:28:ASN:ND2	3:M:70:GLU:CA	2.49	0.76
3:J:94:GLN:HG3	3:L:263:GLN:HA	1.67	0.76
3:M:315:LEU:HD12	3:M:318:TYR:HD1	1.51	0.76
3:O:195:PRO:HA	3:O:303:GLN:HG3	1.66	0.76
3:E:247:ILE:HG22	3:E:249:VAL:HG23	1.66	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:H:90:THR:CB	3:H:345:ARG:HG2	2.15	0.76
3:J:87:MET:HE2	3:J:345:ARG:HB3	1.68	0.76
3:L:47:THR:O	3:L:107:ALA:HB1	1.85	0.76
3:N:13:TYR:OH	3:N:23:ILE:HG23	1.85	0.76
3:O:61:LEU:HD21	3:O:142:PRO:HD3	1.65	0.76
3:I:324:LEU:HD21	3:I:332:VAL:HG21	1.66	0.76
3:K:211:ILE:HD12	3:K:313:TYR:CE2	2.21	0.76
3:L:42:ILE:HG23	3:L:147:ILE:HD13	1.64	0.76
3:A:190:PRO:HB3	3:A:307:TYR:CD1	2.20	0.76
3:K:32:ARG:HD2	3:K:158:GLU:OE1	1.86	0.76
3:M:38:LEU:HD13	3:M:151:PHE:CE2	2.21	0.76
3:A:38:LEU:HD13	3:A:151:PHE:CE2	2.21	0.76
3:H:42:ILE:HD11	3:H:113:LEU:HD13	1.68	0.76
3:D:195:PRO:HG2	3:D:201:ILE:CD1	2.15	0.76
3:I:54:SER:HA	3:I:101:PRO:HB3	1.66	0.76
3:K:253:ALA:O	3:K:256:ALA:HB3	1.86	0.76
3:E:211:ILE:HG12	3:E:285:ASP:OD2	1.84	0.76
3:H:277:ARG:CZ	3:H:277:ARG:HB2	2.15	0.76
3:D:90:THR:OG1	3:D:345:ARG:HG2	1.86	0.75
3:E:4:ILE:HD12	3:E:4:ILE:N	1.99	0.75
3:H:247:ILE:HG22	3:H:249:VAL:HG23	1.67	0.75
3:A:17:ALA:HB1	3:A:140:GLN:NE2	2.01	0.75
3:D:64:THR:HA	3:D:79:SER:HA	1.66	0.75
3:D:233:GLU:OE1	3:D:250:SER:HA	1.87	0.75
3:E:236:LEU:HB2	3:E:247:ILE:HD12	1.68	0.75
3:F:131:ASN:HD22	3:F:133:ILE:HD11	1.52	0.75
3:G:96:PRO:CG	3:I:259:GLN:HG3	2.17	0.75
3:B:15:TRP:CE3	3:B:147:ILE:HB	2.22	0.75
3:N:56:PRO:HB3	3:N:81:THR:HG23	1.66	0.75
3:G:47:THR:O	3:G:107:ALA:HB1	1.85	0.75
3:K:96:PRO:HG2	3:K:116:MET:HE3	1.67	0.75
3:N:37:GLN:NE2	3:N:39:ILE:HD11	2.01	0.75
3:N:246:LYS:HE2	3:N:246:LYS:HA	1.67	0.75
3:A:337:ALA:O	3:A:340:LYS:HG2	1.86	0.75
3:C:287:THR:HG21	3:C:318:TYR:CD2	2.22	0.75
3:D:15:TRP:CZ3	3:D:147:ILE:HB	2.22	0.75
3:D:287:THR:HG21	3:D:318:TYR:CD2	2.20	0.75
3:H:38:LEU:HD13	3:H:151:PHE:CE2	2.22	0.75
1:Q:175:GLY:HA2	4:P:42:LEU:HD13	1.68	0.75
3:B:334:GLN:O	3:B:338:ARG:HG3	1.86	0.75
3:E:78:VAL:HG21	3:E:83:LEU:HB2	1.67	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:230:ASP:HA	3:I:301:GLN:HG2	1.68	0.75
3:J:90:THR:HB	3:J:345:ARG:HG2	1.67	0.75
3:J:247:ILE:HG22	3:J:249:VAL:HG23	1.67	0.75
3:M:184:PRO:HB3	3:M:343:ILE:HD12	1.68	0.75
3:A:343:ILE:O	3:A:343:ILE:HG12	1.87	0.75
3:J:25:ILE:HG23	3:J:155:ILE:CD1	2.16	0.75
3:J:90:THR:OG1	3:J:345:ARG:HG2	1.87	0.75
3:J:246:LYS:HA	3:J:246:LYS:HE2	1.66	0.75
3:K:87:MET:HE1	3:K:345:ARG:HB3	1.68	0.75
3:L:194:VAL:HG11	3:L:203:VAL:HG22	1.69	0.75
3:O:64:THR:HA	3:O:79:SER:HA	1.67	0.75
3:N:315:LEU:HB2	3:N:318:TYR:HB2	1.67	0.75
3:O:87:MET:HE2	3:O:345:ARG:HB3	1.67	0.75
3:O:343:ILE:O	3:O:343:ILE:HG12	1.87	0.75
4:P:101:ASN:HD21	4:P:123:THR:HG22	1.52	0.75
3:C:233:GLU:OE1	3:C:250:SER:HA	1.87	0.75
3:G:32:ARG:HB2	3:G:156:THR:HG22	1.69	0.75
3:K:259:GLN:HG3	3:L:96:PRO:HG3	1.69	0.75
3:C:9:LEU:HD11	3:C:155:ILE:HD12	1.69	0.74
3:E:259:GLN:HG3	3:F:96:PRO:CG	2.17	0.74
3:J:17:ALA:HB1	3:J:140:GLN:NE2	2.01	0.74
3:L:15:TRP:CE3	3:L:147:ILE:HB	2.21	0.74
3:N:9:LEU:HD21	3:N:26:PRO:CD	2.17	0.74
3:D:125:PRO:HG3	3:D:177:MET:HG2	1.68	0.74
3:C:56:PRO:HG2	3:C:60:ASN:ND2	2.02	0.74
3:O:200:PRO:HG2	3:O:233:GLU:HG3	1.69	0.74
3:D:49:ALA:N	3:D:107:ALA:HB2	2.01	0.74
3:C:13:TYR:OH	3:C:23:ILE:HG23	1.87	0.74
3:G:287:THR:HG21	3:G:318:TYR:CD2	2.22	0.74
3:K:9:LEU:HD21	3:K:26:PRO:HD2	1.68	0.74
3:A:19:THR:O	3:A:137:LEU:HD12	1.88	0.74
3:E:284:LEU:HD11	3:E:286:LEU:HD21	1.69	0.74
3:G:195:PRO:HG2	3:G:201:ILE:CD1	2.16	0.74
3:L:246:LYS:HE2	3:L:246:LYS:HA	1.69	0.74
3:B:171:LEU:HB3	3:B:175:GLY:HA2	1.68	0.74
3:B:287:THR:HG21	3:B:318:TYR:CD2	2.23	0.74
3:H:247:ILE:HG12	3:H:279:TYR:CE2	2.23	0.74
3:H:329:ALA:O	3:H:333:GLN:HG2	1.86	0.74
3:I:131:ASN:HD22	3:I:133:ILE:HD11	1.52	0.74
3:N:345:ARG:HH11	3:N:345:ARG:HG3	1.53	0.74
4:P:289:ASN:HD22	4:P:289:ASN:C	1.91	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:246:LYS:HE2	3:A:246:LYS:CA	2.16	0.74
3:E:90:THR:CB	3:E:345:ARG:HG2	2.17	0.74
3:M:211:ILE:HD12	3:M:313:TYR:CE2	2.23	0.74
3:E:90:THR:OG1	3:E:345:ARG:HG2	1.88	0.74
3:A:259:GLN:HG3	3:B:96:PRO:HG3	1.70	0.74
3:O:87:MET:CE	3:O:345:ARG:HB3	2.18	0.74
3:L:13:TYR:HB3	3:L:21:ILE:HG21	1.69	0.73
1:Q:48:LEU:HD22	1:Q:86:ILE:CG2	2.17	0.73
3:A:116:MET:HG3	3:A:117:TRP:N	2.02	0.73
3:E:70:GLU:C	3:M:28:ASN:HD22	1.92	0.73
3:O:78:VAL:HG21	3:O:83:LEU:HB2	1.71	0.73
3:O:89:TYR:CD2	3:O:273:ILE:HD11	2.23	0.73
3:C:236:LEU:HD11	3:C:294:ILE:HG22	1.70	0.73
3:A:90:THR:OG1	3:A:345:ARG:HG2	1.89	0.73
3:E:247:ILE:HG23	3:E:249:VAL:HG23	1.69	0.73
1:Q:140:TYR:C	1:Q:140:TYR:HD2	1.91	0.73
3:D:246:LYS:HE2	3:D:246:LYS:CA	2.18	0.73
3:F:324:LEU:HG	3:F:328:VAL:HB	1.70	0.73
3:G:54:SER:HA	3:G:101:PRO:HB3	1.71	0.73
3:M:87:MET:HE1	3:M:345:ARG:HB3	1.68	0.73
3:G:233:GLU:OE1	3:G:250:SER:HA	1.87	0.73
3:D:44:ASN:HD22	3:D:107:ALA:HA	1.51	0.73
3:D:195:PRO:HG2	3:D:201:ILE:HD12	1.69	0.73
3:L:56:PRO:HG2	3:L:60:ASN:HD22	1.53	0.73
3:C:64:THR:HA	3:C:79:SER:HA	1.71	0.73
3:D:37:GLN:NE2	3:D:39:ILE:HD11	2.03	0.73
3:L:54:SER:HA	3:L:101:PRO:HB3	1.71	0.73
3:A:184:PRO:HB3	3:A:343:ILE:HD12	1.70	0.73
3:I:17:ALA:HB1	3:I:140:GLN:NE2	2.04	0.73
3:K:87:MET:HE2	3:K:345:ARG:HB3	1.67	0.72
3:B:91:THR:O	3:B:94:GLN:HB2	1.89	0.72
3:L:238:ILE:HD11	3:L:246:LYS:HD2	1.70	0.72
3:D:54:SER:HA	3:D:101:PRO:HB3	1.70	0.72
3:I:56:PRO:HG2	3:I:60:ASN:HD22	1.55	0.72
3:N:4:ILE:H	3:N:4:ILE:CD1	1.96	0.72
3:K:345:ARG:HH11	3:K:345:ARG:HG3	1.53	0.72
3:M:90:THR:CB	3:M:345:ARG:HG2	2.18	0.72
3:I:174:ASP:OD2	3:I:317:TYR:HE2	1.71	0.72
3:K:63:GLN:HG2	3:K:64:THR:HG23	1.72	0.72
3:C:236:LEU:HD11	3:C:294:ILE:CG2	2.19	0.72
3:D:87:MET:HE2	3:D:345:ARG:HB3	1.70	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:285:ASP:O	3:D:286:LEU:HD23	1.90	0.72
3:L:89:TYR:CD2	3:L:273:ILE:HD11	2.24	0.72
3:A:315:LEU:HD12	3:A:318:TYR:CD1	2.22	0.72
3:C:67:LEU:HB3	3:C:76:TYR:HB2	1.71	0.72
3:H:230:ASP:HA	3:H:301:GLN:HG2	1.72	0.72
3:D:121:LEU:HA	3:D:184:PRO:HG3	1.69	0.72
3:H:277:ARG:CB	3:H:277:ARG:NH1	2.53	0.72
3:K:5:TYR:HE2	3:K:7:GLU:OE2	1.72	0.72
3:M:195:PRO:HA	3:M:303:GLN:HG3	1.71	0.72
3:A:87:MET:HE2	3:A:345:ARG:HB3	1.70	0.72
3:H:240:ARG:NH2	3:M:208:PRO:HG2	2.05	0.72
3:J:211:ILE:HD12	3:J:313:TYR:CE2	2.25	0.72
3:E:13:TYR:OH	3:E:23:ILE:HG23	1.90	0.72
3:L:32:ARG:HD2	3:L:158:GLU:OE1	1.90	0.71
3:N:194:VAL:HG12	3:N:201:ILE:HD11	1.72	0.71
3:O:124:PHE:CD1	3:O:125:PRO:HD2	2.26	0.71
1:Q:61:LEU:HD21	1:Q:89:PHE:HE1	1.53	0.71
3:K:256:ALA:CB	3:L:116:MET:HE1	2.19	0.71
3:N:230:ASP:HA	3:N:301:GLN:CG	2.20	0.71
3:J:224:SER:OG	3:J:228:ASN:HB3	1.89	0.71
3:O:190:PRO:HB3	3:O:307:TYR:CD1	2.25	0.71
3:A:324:LEU:HB3	3:A:329:ALA:HB2	1.72	0.71
3:K:3:GLU:H	3:K:159:ARG:HB3	1.56	0.71
3:A:57:PHE:O	3:A:101:PRO:HG3	1.90	0.71
3:F:238:ILE:HD11	3:F:246:LYS:HD2	1.72	0.71
3:M:190:PRO:HB3	3:M:307:TYR:HD1	1.55	0.71
3:M:345:ARG:HH11	3:M:345:ARG:HG3	1.54	0.71
3:O:42:ILE:HD11	3:O:113:LEU:HD13	1.71	0.71
3:L:56:PRO:HB3	3:L:81:THR:HG23	1.73	0.71
1:Q:33:LEU:HD13	1:Q:101:TYR:HB3	1.72	0.71
1:Q:50:ILE:HA	1:Q:86:ILE:CD1	2.21	0.71
3:B:186:VAL:HG22	3:B:311:VAL:HA	1.73	0.71
3:G:236:LEU:HD11	3:G:294:ILE:CG2	2.19	0.71
3:K:338:ARG:HG2	3:K:338:ARG:NH1	2.05	0.71
3:H:87:MET:HE1	3:H:345:ARG:HB3	1.70	0.71
3:K:67:LEU:HB2	3:K:134:LEU:HD13	1.71	0.71
3:L:343:ILE:O	3:L:343:ILE:HG12	1.89	0.71
3:N:343:ILE:O	3:N:343:ILE:HG12	1.89	0.71
3:O:200:PRO:CG	3:O:233:GLU:HG3	2.21	0.71
3:B:27:ARG:HG2	3:B:132:ILE:HD12	1.73	0.71
3:G:182:VAL:HG21	3:G:339:GLN:HB3	1.71	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:H:33:LYS:HG2	3:H:156:THR:HB	1.71	0.71
3:L:345:ARG:HG3	3:L:345:ARG:NH1	1.98	0.71
3:G:29:ASN:OD1	3:G:159:ARG:HA	1.91	0.70
3:I:42:ILE:HG22	3:I:145:VAL:HB	1.73	0.70
3:I:211:ILE:HD12	3:I:313:TYR:CE2	2.25	0.70
3:C:44:ASN:HB2	3:C:105:VAL:CG1	2.21	0.70
3:C:345:ARG:HG3	3:C:345:ARG:NH1	2.06	0.70
3:L:19:THR:O	3:L:137:LEU:HD12	1.90	0.70
3:C:42:ILE:HG22	3:C:145:VAL:HB	1.73	0.70
3:H:277:ARG:HB2	3:H:277:ARG:NH1	2.06	0.70
3:L:247:ILE:HG23	3:L:249:VAL:HG23	1.74	0.70
3:M:15:TRP:CE3	3:M:147:ILE:HB	2.26	0.70
3:C:4:ILE:H	3:C:4:ILE:HD12	1.57	0.70
3:I:233:GLU:OE1	3:I:250:SER:HA	1.91	0.70
3:L:219:VAL:HG22	3:L:306:VAL:HG22	1.73	0.70
3:N:190:PRO:HB3	3:N:307:TYR:HD1	1.53	0.70
3:D:42:ILE:HD11	3:D:113:LEU:HD13	1.73	0.70
3:E:190:PRO:HB3	3:E:307:TYR:HD1	1.56	0.70
3:K:13:TYR:OH	3:K:23:ILE:HG23	1.92	0.70
3:L:184:PRO:CB	3:L:343:ILE:HD12	2.21	0.70
3:D:105:VAL:HG21	3:D:145:VAL:HG11	1.74	0.70
3:I:25:ILE:HG23	3:I:155:ILE:HD13	1.73	0.70
3:I:195:PRO:HG2	3:I:201:ILE:CD1	2.21	0.70
3:J:194:VAL:HG12	3:J:201:ILE:HD11	1.73	0.70
3:K:28:ASN:ND2	3:O:70:GLU:HA	2.06	0.70
3:L:195:PRO:O	3:L:201:ILE:HD11	1.92	0.70
3:C:123:ARG:HD3	3:C:342:ARG:HH12	1.57	0.70
3:F:124:PHE:CD1	3:F:125:PRO:HD2	2.27	0.70
3:C:15:TRP:CE3	3:C:147:ILE:HB	2.26	0.70
3:C:284:LEU:HD11	3:C:294:ILE:CD1	2.22	0.70
3:E:87:MET:HE2	3:E:345:ARG:HB3	1.74	0.70
3:E:190:PRO:HB3	3:E:307:TYR:CD1	2.26	0.70
3:G:187:ILE:HG22	3:G:188:GLU:N	2.07	0.70
3:G:332:VAL:O	3:G:336:VAL:HG23	1.92	0.70
3:I:57:PHE:CD2	3:I:58:PRO:HA	2.27	0.70
3:F:287:THR:HG21	3:F:318:TYR:CD2	2.27	0.70
3:I:321:LEU:HD22	3:I:332:VAL:HG11	1.72	0.70
1:Q:106:VAL:HG21	1:Q:201:ALA:HB1	1.74	0.69
1:Q:181:ILE:HD11	1:Q:200:ILE:HD11	1.74	0.69
3:E:61:LEU:HD21	3:E:142:PRO:HD3	1.72	0.69
3:I:333:GLN:OE1	3:I:333:GLN:HA	1.90	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:287:THR:HG21	3:J:318:TYR:CD2	2.26	0.69
3:L:87:MET:CE	3:L:345:ARG:HB3	2.22	0.69
3:L:254:LEU:HD21	3:L:274:ILE:HD11	1.73	0.69
3:C:25:ILE:HG23	3:C:155:ILE:HD13	1.74	0.69
3:G:37:GLN:NE2	3:G:39:ILE:HD11	2.07	0.69
3:J:4:ILE:HD12	3:J:4:ILE:H	1.56	0.69
3:K:61:LEU:HD21	3:K:142:PRO:HD3	1.75	0.69
3:L:344:LYS:HD2	3:L:345:ARG:HH12	1.56	0.69
3:M:47:THR:O	3:M:107:ALA:HB1	1.91	0.69
3:F:41:SER:HB2	3:F:111:VAL:O	1.92	0.69
3:I:52:LEU:CD1	3:I:99:PRO:HG3	2.23	0.69
3:N:287:THR:HG21	3:N:318:TYR:CD2	2.27	0.69
3:G:89:TYR:CD2	3:G:273:ILE:HD11	2.28	0.69
3:G:315:LEU:HB2	3:G:318:TYR:HB2	1.74	0.69
3:K:19:THR:O	3:K:137:LEU:HD12	1.92	0.69
3:M:15:TRP:CZ3	3:M:147:ILE:HB	2.27	0.69
3:N:62:VAL:HG13	3:N:136:ILE:HG23	1.72	0.69
3:N:105:VAL:HG21	3:N:145:VAL:HG11	1.74	0.69
3:D:13:TYR:OH	3:D:23:ILE:HG23	1.91	0.69
3:A:286:LEU:HD21	3:A:294:ILE:HD12	1.74	0.69
3:E:315:LEU:HD12	3:E:318:TYR:HD1	1.57	0.69
3:K:42:ILE:HG23	3:K:147:ILE:CD1	2.22	0.69
3:N:47:THR:O	3:N:107:ALA:HB1	1.93	0.69
3:O:184:PRO:HB3	3:O:343:ILE:HD12	1.74	0.69
3:B:315:LEU:HD12	3:B:318:TYR:HD1	1.58	0.69
3:N:87:MET:HE2	3:N:345:ARG:HB3	1.75	0.69
3:A:56:PRO:O	3:A:59:TYR:HB2	1.93	0.69
3:B:17:ALA:HB1	3:B:140:GLN:HE22	1.58	0.69
3:E:200:PRO:HG3	3:E:233:GLU:HG3	1.75	0.69
3:H:124:PHE:CD1	3:H:125:PRO:HD2	2.27	0.69
3:I:142:PRO:HD2	3:I:147:ILE:HD11	1.75	0.69
3:L:176:GLU:O	3:L:177:MET:HG3	1.93	0.69
3:L:235:GLU:OE2	3:L:237:LYS:HE3	1.93	0.69
3:N:87:MET:HE1	3:N:345:ARG:HB3	1.74	0.69
3:H:87:MET:HE2	3:H:345:ARG:HB3	1.72	0.69
3:I:87:MET:HB3	3:I:95:ASN:ND2	2.08	0.69
3:A:54:SER:HA	3:A:101:PRO:HB3	1.75	0.69
3:C:52:LEU:CD1	3:C:99:PRO:HG3	2.23	0.69
3:C:105:VAL:HG21	3:C:145:VAL:HG11	1.74	0.68
3:C:121:LEU:HA	3:C:184:PRO:HG3	1.75	0.68
3:M:238:ILE:HD11	3:M:246:LYS:HD2	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:343:ILE:HG12	3:B:343:ILE:O	1.92	0.68
3:G:42:ILE:HG12	3:G:147:ILE:HD12	1.75	0.68
3:G:90:THR:CB	3:G:345:ARG:HG2	2.23	0.68
3:G:246:LYS:HE2	3:G:246:LYS:HA	1.73	0.68
3:I:63:GLN:HG2	3:I:64:THR:HG23	1.74	0.68
3:E:208:PRO:HG2	3:O:240:ARG:HH21	1.59	0.68
3:I:56:PRO:HG2	3:I:60:ASN:ND2	2.07	0.68
3:I:122:ALA:HB1	3:I:339:GLN:HG3	1.74	0.68
3:J:329:ALA:O	3:J:333:GLN:HG2	1.94	0.68
3:L:195:PRO:HG2	3:L:201:ILE:CD1	2.23	0.68
3:B:13:TYR:OH	3:B:23:ILE:HG23	1.93	0.68
3:C:90:THR:CB	3:C:345:ARG:HG2	2.22	0.68
3:E:200:PRO:CG	3:E:233:GLU:HG3	2.24	0.68
3:N:195:PRO:HA	3:N:303:GLN:HG3	1.74	0.68
3:A:25:ILE:HG23	3:A:155:ILE:HD13	1.75	0.68
3:A:332:VAL:O	3:A:336:VAL:HG23	1.93	0.68
3:B:87:MET:CE	3:B:118:GLU:HB3	2.24	0.68
3:G:235:GLU:OE2	3:G:237:LYS:HE3	1.93	0.68
3:J:47:THR:O	3:J:107:ALA:HB1	1.92	0.68
3:K:230:ASP:O	3:K:232:THR:HG23	1.93	0.68
3:L:236:LEU:HD11	3:L:294:ILE:HG22	1.75	0.68
3:O:47:THR:O	3:O:107:ALA:HB1	1.94	0.68
4:P:101:ASN:ND2	4:P:123:THR:HG22	2.09	0.68
3:D:230:ASP:HA	3:D:301:GLN:HG2	1.75	0.68
3:D:15:TRP:CE3	3:D:147:ILE:HB	2.29	0.68
3:E:92:LYS:N	3:E:92:LYS:HD2	2.07	0.68
3:E:210:GLN:HG3	3:E:212:TYR:CE2	2.29	0.68
3:G:63:GLN:HG2	3:G:64:THR:HG23	1.76	0.68
3:L:42:ILE:HD11	3:L:113:LEU:HD13	1.74	0.68
3:M:254:LEU:HD21	3:M:274:ILE:HD11	1.76	0.68
3:N:65:PHE:CE1	3:N:136:ILE:HG12	2.29	0.68
3:N:230:ASP:HA	3:N:301:GLN:HG2	1.74	0.68
3:K:233:GLU:OE1	3:K:250:SER:HA	1.94	0.68
3:A:57:PHE:CD2	3:A:58:PRO:HA	2.29	0.68
3:F:87:MET:CE	3:F:345:ARG:HB3	2.23	0.68
3:I:28:ASN:HD21	3:M:70:GLU:CA	2.06	0.68
3:M:56:PRO:HG2	3:M:60:ASN:ND2	2.07	0.68
3:C:195:PRO:HA	3:C:303:GLN:HG3	1.75	0.68
3:E:195:PRO:HG2	3:E:201:ILE:HD12	1.76	0.68
3:F:32:ARG:HD2	3:F:158:GLU:OE1	1.93	0.68
3:M:184:PRO:CB	3:M:343:ILE:HD12	2.24	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:O:52:LEU:CD1	3:O:99:PRO:HG3	2.24	0.68
3:A:184:PRO:CB	3:A:343:ILE:HD12	2.23	0.67
3:F:345:ARG:HG3	3:F:345:ARG:NH1	2.04	0.67
3:L:68:SER:HB2	3:L:73:LYS:O	1.94	0.67
3:F:90:THR:CB	3:F:345:ARG:HG2	2.24	0.67
3:F:224:SER:OG	3:F:228:ASN:HB3	1.93	0.67
3:I:13:TYR:OH	3:I:23:ILE:HG23	1.94	0.67
3:O:67:LEU:HD13	3:O:134:LEU:HB2	1.75	0.67
3:E:224:SER:OG	3:E:228:ASN:HB3	1.94	0.67
3:B:190:PRO:HB3	3:B:307:TYR:CD1	2.29	0.67
3:I:47:THR:O	3:I:107:ALA:HB1	1.95	0.67
3:M:116:MET:HE1	3:O:256:ALA:HB2	1.76	0.67
1:Q:106:VAL:HG11	1:Q:202:GLY:CA	2.24	0.67
3:B:189:ILE:HD12	3:B:310:TYR:HE2	1.60	0.67
3:C:184:PRO:HB3	3:C:343:ILE:HD12	1.77	0.67
3:C:273:ILE:C	3:C:274:ILE:HD12	2.15	0.67
3:F:142:PRO:HD2	3:F:147:ILE:HD11	1.76	0.67
3:B:160:VAL:HG12	3:B:165:ILE:HG13	1.76	0.67
3:F:184:PRO:HB3	3:F:343:ILE:HD12	1.76	0.67
3:K:230:ASP:HA	3:K:301:GLN:HG2	1.75	0.67
3:N:52:LEU:HD21	3:N:145:VAL:HG21	1.75	0.67
3:N:56:PRO:CB	3:N:81:THR:HG23	2.25	0.67
3:O:54:SER:HA	3:O:101:PRO:HB3	1.77	0.67
3:C:238:ILE:HD11	3:C:246:LYS:HD2	1.76	0.67
3:D:3:GLU:HB2	3:D:159:ARG:HB3	1.77	0.67
3:G:67:LEU:HB3	3:G:76:TYR:HB2	1.76	0.67
3:H:179:LEU:HG	3:H:321:LEU:HD21	1.77	0.67
3:N:315:LEU:HD12	3:N:318:TYR:HD1	1.60	0.67
3:O:56:PRO:O	3:O:59:TYR:HB2	1.94	0.67
3:B:230:ASP:O	3:B:232:THR:HG23	1.94	0.67
3:B:345:ARG:HH11	3:B:345:ARG:HG3	1.60	0.67
3:D:238:ILE:HD11	3:D:246:LYS:HD2	1.77	0.67
3:G:64:THR:HA	3:G:79:SER:HA	1.75	0.67
3:L:15:TRP:HB2	3:L:38:LEU:HD11	1.76	0.67
3:M:9:LEU:HD11	3:M:155:ILE:HD12	1.76	0.67
3:N:68:SER:HB2	3:N:73:LYS:O	1.95	0.67
3:A:67:LEU:HD13	3:A:134:LEU:HB2	1.76	0.67
3:B:200:PRO:CG	3:B:233:GLU:HG3	2.24	0.67
3:I:92:LYS:HD2	3:I:92:LYS:N	2.09	0.67
3:K:62:VAL:HG11	3:K:65:PHE:CZ	2.29	0.67
3:N:247:ILE:HG22	3:N:249:VAL:HG23	1.75	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:191:GLN:HB3	4:P:25:LYS:CB	2.25	0.67
3:D:315:LEU:HD12	3:D:318:TYR:HD1	1.60	0.67
4:P:245:TYR:CD1	4:P:245:TYR:O	2.48	0.67
1:Q:189:ASN:HD22	4:P:29:ASP:HB2	1.60	0.66
3:A:42:ILE:HG22	3:A:145:VAL:HB	1.77	0.66
3:G:247:ILE:CG2	3:G:249:VAL:HG23	2.25	0.66
3:K:184:PRO:HB3	3:K:343:ILE:HD12	1.77	0.66
3:M:4:ILE:HB	3:O:278:LYS:O	1.94	0.66
3:B:92:LYS:N	3:B:92:LYS:CD	2.57	0.66
3:D:37:GLN:HE22	3:F:252:ALA:HB1	1.59	0.66
3:D:90:THR:CB	3:D:345:ARG:HG2	2.25	0.66
3:H:47:THR:O	3:H:107:ALA:HB1	1.94	0.66
3:H:64:THR:HA	3:H:79:SER:HA	1.77	0.66
4:P:190:THR:HG22	4:P:191:SER:N	2.10	0.66
1:Q:50:ILE:HG23	1:Q:86:ILE:CD1	2.16	0.66
3:A:287:THR:HG21	3:A:318:TYR:CD2	2.31	0.66
3:B:15:TRP:CZ3	3:B:147:ILE:HB	2.31	0.66
3:H:121:LEU:HA	3:H:184:PRO:HG3	1.76	0.66
3:H:176:GLU:O	3:H:177:MET:HG3	1.96	0.66
3:E:182:VAL:HG21	3:E:339:GLN:HB3	1.78	0.66
3:I:32:ARG:HB2	3:I:156:THR:HG22	1.76	0.66
3:M:17:ALA:HB1	3:M:140:GLN:NE2	2.11	0.66
3:N:230:ASP:O	3:N:232:THR:HG23	1.95	0.66
3:N:254:LEU:HD21	3:N:274:ILE:HD11	1.78	0.66
3:B:47:THR:O	3:B:107:ALA:HB1	1.96	0.66
3:F:56:PRO:HB3	3:F:81:THR:HG23	1.77	0.66
3:J:44:ASN:HD22	3:J:107:ALA:HA	1.61	0.66
3:L:15:TRP:CZ3	3:L:147:ILE:HB	2.31	0.66
3:N:259:GLN:HG3	3:O:96:PRO:HG3	1.76	0.66
3:O:68:SER:HB2	3:O:73:LYS:O	1.95	0.66
3:D:32:ARG:HH21	3:D:342:ARG:CD	2.08	0.66
3:E:253:ALA:O	3:E:256:ALA:HB3	1.96	0.66
3:M:247:ILE:HG22	3:M:249:VAL:HG23	1.76	0.66
3:N:236:LEU:HB2	3:N:247:ILE:HD12	1.77	0.66
4:P:318:ALA:HB1	4:P:349:ILE:CD1	2.25	0.66
3:B:249:VAL:HG12	3:B:253:ALA:HB3	1.76	0.66
3:C:15:TRP:HB2	3:C:38:LEU:HD11	1.77	0.66
3:C:47:THR:O	3:C:107:ALA:HB1	1.95	0.66
3:D:137:LEU:O	3:D:137:LEU:HG	1.95	0.66
3:I:249:VAL:HG12	3:I:253:ALA:HB3	1.77	0.66
3:B:337:ALA:O	3:B:340:LYS:HG2	1.95	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:274:ILE:HD12	3:C:274:ILE:N	2.11	0.66
3:I:224:SER:OG	3:I:228:ASN:HB3	1.95	0.66
3:K:9:LEU:HD21	3:K:26:PRO:CD	2.25	0.66
3:O:25:ILE:HG23	3:O:155:ILE:CD1	2.26	0.66
3:O:345:ARG:HG3	3:O:345:ARG:NH1	2.07	0.66
3:C:92:LYS:HD2	3:C:92:LYS:H	1.61	0.66
3:E:32:ARG:HH21	3:E:342:ARG:HD3	1.60	0.66
3:F:3:GLU:HB2	3:F:159:ARG:HB3	1.78	0.66
3:F:42:ILE:HG22	3:F:145:VAL:HB	1.78	0.66
3:M:87:MET:HE2	3:M:345:ARG:HB3	1.77	0.66
3:D:247:ILE:CG2	3:D:249:VAL:HG23	2.26	0.66
3:H:253:ALA:O	3:H:256:ALA:HB3	1.95	0.66
3:J:190:PRO:HB3	3:J:307:TYR:HD1	1.60	0.66
3:M:52:LEU:CD2	3:M:145:VAL:HG21	2.26	0.66
1:Q:61:LEU:HD21	1:Q:89:PHE:CE1	2.30	0.65
3:B:142:PRO:HD2	3:B:147:ILE:HD11	1.78	0.65
3:C:30:PHE:HZ	3:C:165:ILE:HD11	1.60	0.65
3:H:236:LEU:HB2	3:H:247:ILE:HD12	1.78	0.65
3:H:240:ARG:HH12	3:H:290:PRO:HB2	1.60	0.65
3:A:15:TRP:CE3	3:A:147:ILE:HB	2.31	0.65
3:B:56:PRO:HB3	3:B:81:THR:HG23	1.78	0.65
3:L:286:LEU:HD21	3:L:294:ILE:HD12	1.78	0.65
3:O:89:TYR:HD2	3:O:273:ILE:HD11	1.61	0.65
3:J:94:GLN:HG3	3:L:263:GLN:CA	2.27	0.65
3:K:230:ASP:HA	3:K:301:GLN:CG	2.25	0.65
3:K:319:ASP:OD2	3:K:319:ASP:N	2.28	0.65
3:N:62:VAL:CG1	3:N:136:ILE:HG23	2.26	0.65
3:E:90:THR:HB	3:E:345:ARG:HG2	1.78	0.65
3:G:230:ASP:HA	3:G:301:GLN:HG2	1.78	0.65
3:H:247:ILE:CG2	3:H:249:VAL:HG23	2.26	0.65
3:L:52:LEU:HD21	3:L:145:VAL:HG21	1.79	0.65
3:B:87:MET:HE1	3:B:118:GLU:HB3	1.78	0.65
3:G:247:ILE:HG22	3:G:249:VAL:HG23	1.76	0.65
3:H:15:TRP:CZ3	3:H:147:ILE:HB	2.32	0.65
3:J:182:VAL:HG21	3:J:339:GLN:HB3	1.79	0.65
3:O:42:ILE:HG23	3:O:147:ILE:HD13	1.79	0.65
4:P:158:PRO:HG2	4:P:160:ILE:HD12	1.77	0.65
3:F:315:LEU:HD12	3:F:318:TYR:HD1	1.62	0.65
3:G:116:MET:HG3	3:G:117:TRP:N	2.11	0.65
3:I:87:MET:HE1	3:I:345:ARG:HB3	1.78	0.65
3:O:247:ILE:HG12	3:O:279:TYR:CD2	2.31	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:P:289:ASN:ND2	4:P:291:GLN:H	1.95	0.65
3:I:44:ASN:HD22	3:I:107:ALA:HA	1.61	0.65
3:K:195:PRO:HG2	3:K:201:ILE:CD1	2.27	0.65
3:K:343:ILE:O	3:K:343:ILE:HG12	1.95	0.65
3:O:247:ILE:HG22	3:O:249:VAL:HG23	1.78	0.65
1:Q:9:LYS:HB3	2:R:10:UNK:CB	2.27	0.65
3:J:17:ALA:HB1	3:J:140:GLN:HE22	1.62	0.65
3:M:200:PRO:HG3	3:M:233:GLU:HG3	1.78	0.65
3:M:221:ASN:HB2	3:M:228:ASN:HD22	1.61	0.65
3:B:131:ASN:HD22	3:B:133:ILE:HD11	1.62	0.65
3:H:25:ILE:HG23	3:H:155:ILE:CD1	2.26	0.65
3:G:184:PRO:CB	3:G:343:ILE:HD12	2.26	0.64
3:J:56:PRO:HB3	3:J:81:THR:HG23	1.79	0.64
3:K:56:PRO:O	3:K:59:TYR:HB2	1.98	0.64
3:M:259:GLN:OE1	3:M:266:PRO:HD3	1.97	0.64
3:D:159:ARG:NH1	3:D:161:THR:HG22	2.11	0.64
3:H:67:LEU:HD21	3:H:121:LEU:HD21	1.79	0.64
3:M:83:LEU:HD23	3:M:117:TRP:HB3	1.77	0.64
3:F:38:LEU:HD13	3:F:151:PHE:CE2	2.32	0.64
3:H:68:SER:HB2	3:H:73:LYS:O	1.96	0.64
3:L:54:SER:CA	3:L:101:PRO:HB3	2.27	0.64
3:B:30:PHE:CD1	3:B:160:VAL:HG21	2.32	0.64
3:M:52:LEU:HD21	3:M:145:VAL:HG21	1.80	0.64
3:D:171:LEU:HB3	3:D:175:GLY:HA2	1.80	0.64
3:K:121:LEU:HA	3:K:184:PRO:HG3	1.78	0.64
3:O:230:ASP:HA	3:O:301:GLN:HG2	1.80	0.64
3:B:182:VAL:HG21	3:B:339:GLN:HB3	1.78	0.64
3:G:113:LEU:HD22	3:G:147:ILE:HG23	1.79	0.64
3:I:240:ARG:NH2	3:I:290:PRO:HB2	2.13	0.64
3:J:69:TYR:O	3:J:70:GLU:HB2	1.98	0.64
3:L:324:LEU:HD21	3:L:332:VAL:HG21	1.79	0.64
3:L:329:ALA:O	3:L:333:GLN:HG2	1.98	0.64
3:N:200:PRO:HG3	3:N:233:GLU:HG3	1.78	0.64
3:B:42:ILE:HG23	3:B:147:ILE:CD1	2.25	0.64
3:C:255:GLN:NE2	3:C:266:PRO:HB3	2.13	0.64
3:E:208:PRO:HD3	3:E:291:SER:HB3	1.80	0.64
3:H:105:VAL:HG21	3:H:145:VAL:HG11	1.80	0.64
3:J:121:LEU:HA	3:J:184:PRO:HG3	1.80	0.64
3:M:200:PRO:CG	3:M:233:GLU:HG3	2.27	0.64
3:N:185:LYS:HG2	3:N:187:ILE:HG12	1.80	0.64
3:A:230:ASP:HA	3:A:301:GLN:HG2	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:259:GLN:OE1	3:F:266:PRO:HD3	1.98	0.64
3:L:83:LEU:HD23	3:L:117:TRP:HB3	1.79	0.64
3:M:187:ILE:HG22	3:M:188:GLU:N	2.13	0.64
3:N:56:PRO:O	3:N:59:TYR:HB2	1.98	0.64
3:C:230:ASP:HA	3:C:301:GLN:CG	2.28	0.64
3:F:25:ILE:HG23	3:F:155:ILE:CD1	2.28	0.64
3:F:65:PHE:CE1	3:F:136:ILE:HG12	2.32	0.64
3:I:9:LEU:HD11	3:I:155:ILE:HD12	1.79	0.64
3:I:61:LEU:HD21	3:I:142:PRO:HD3	1.79	0.64
3:K:286:LEU:HD21	3:K:294:ILE:HD12	1.79	0.64
3:M:122:ALA:HB1	3:M:339:GLN:HG3	1.80	0.64
3:N:125:PRO:HG3	3:N:177:MET:HG2	1.79	0.64
3:N:236:LEU:HB3	3:N:247:ILE:HG13	1.79	0.64
4:P:318:ALA:HB1	4:P:349:ILE:HD13	1.78	0.64
3:A:4:ILE:HG23	3:A:32:ARG:HD3	1.79	0.64
3:G:274:ILE:HD12	3:G:274:ILE:N	2.13	0.64
3:I:195:PRO:HG2	3:I:201:ILE:HD12	1.80	0.64
3:M:230:ASP:HA	3:M:301:GLN:HG2	1.80	0.64
3:N:83:LEU:HD12	3:N:86:LEU:HD23	1.80	0.64
1:Q:21:TYR:CD1	1:Q:118:THR:HG22	2.32	0.63
3:B:96:PRO:HB3	3:B:114:ASN:HD21	1.63	0.63
3:F:56:PRO:CB	3:F:81:THR:HG23	2.28	0.63
3:G:224:SER:OG	3:G:228:ASN:HB3	1.98	0.63
3:K:259:GLN:OE1	3:K:266:PRO:HD3	1.97	0.63
3:L:159:ARG:HH11	3:L:159:ARG:HG2	1.62	0.63
3:A:190:PRO:HB3	3:A:307:TYR:HD1	1.60	0.63
3:C:324:LEU:HG	3:C:328:VAL:HB	1.79	0.63
3:H:121:LEU:HD12	3:H:121:LEU:N	2.13	0.63
3:J:61:LEU:HD21	3:J:142:PRO:HD3	1.79	0.63
3:A:239:VAL:CG2	3:A:295:GLU:HG2	2.29	0.63
3:H:332:VAL:O	3:H:336:VAL:HG23	1.98	0.63
3:L:236:LEU:HD11	3:L:294:ILE:CG2	2.28	0.63
3:M:172:GLY:HA3	3:M:317:TYR:CE2	2.34	0.63
3:N:176:GLU:O	3:N:177:MET:HG3	1.98	0.63
3:O:37:GLN:NE2	3:O:39:ILE:HD11	2.12	0.63
4:P:245:TYR:O	4:P:245:TYR:CG	2.50	0.63
3:C:61:LEU:HD21	3:C:142:PRO:HD3	1.78	0.63
3:F:255:GLN:O	3:F:259:GLN:HG2	1.99	0.63
3:I:216:LEU:HD23	3:I:309:LEU:HD13	1.80	0.63
3:A:30:PHE:CD1	3:A:160:VAL:HG21	2.33	0.63
3:G:38:LEU:HD13	3:G:151:PHE:CZ	2.33	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:E:247:ILE:HG12	3:E:279:TYR:CD2	2.32	0.63
3:F:159:ARG:HG2	3:F:159:ARG:HH11	1.63	0.63
3:K:247:ILE:HG12	3:K:279:TYR:CD2	2.33	0.63
1:Q:146:PHE:HD1	1:Q:147:GLY:CA	2.10	0.63
3:D:321:LEU:HD22	3:D:332:VAL:HG11	1.80	0.63
3:F:190:PRO:HB3	3:F:307:TYR:CD1	2.34	0.63
3:I:182:VAL:HG21	3:I:339:GLN:HB3	1.79	0.63
3:J:78:VAL:HG21	3:J:83:LEU:HB2	1.81	0.63
3:K:38:LEU:HD13	3:K:151:PHE:CE2	2.32	0.63
3:K:255:GLN:NE2	3:K:266:PRO:HB3	2.14	0.63
3:L:182:VAL:HG22	3:L:336:VAL:HG13	1.81	0.63
3:M:221:ASN:HB2	3:M:228:ASN:ND2	2.13	0.63
3:O:184:PRO:CB	3:O:343:ILE:HD12	2.28	0.63
1:Q:50:ILE:HA	1:Q:86:ILE:HD12	1.80	0.63
3:C:159:ARG:CG	3:C:159:ARG:O	2.46	0.63
3:J:230:ASP:HA	3:J:301:GLN:CG	2.29	0.63
3:K:28:ASN:ND2	3:O:70:GLU:C	2.52	0.63
3:K:256:ALA:HB1	3:L:116:MET:HE1	1.79	0.63
3:D:184:PRO:HB3	3:D:343:ILE:HD12	1.81	0.63
3:E:205:TYR:CD1	3:E:292:ASP:HA	2.34	0.63
3:H:142:PRO:HB2	3:H:145:VAL:CG2	2.29	0.63
3:M:313:TYR:CZ	3:M:340:LYS:HB2	2.34	0.63
3:A:122:ALA:HB1	3:A:339:GLN:HG3	1.80	0.62
3:K:168:GLU:HG2	3:K:335:TYR:CE1	2.34	0.62
3:L:203:VAL:HG21	3:L:298:LEU:HB2	1.80	0.62
1:Q:186:MET:CG	1:Q:188:PHE:HE1	2.09	0.62
3:E:159:ARG:HH11	3:E:159:ARG:HG3	1.63	0.62
3:L:113:LEU:HD23	3:L:149:ALA:CB	2.28	0.62
3:O:57:PHE:CE2	3:O:142:PRO:HG2	2.34	0.62
3:B:122:ALA:HB1	3:B:339:GLN:HG3	1.81	0.62
3:E:195:PRO:HG2	3:E:201:ILE:CD1	2.29	0.62
3:E:208:PRO:CG	3:O:240:ARG:HH21	2.12	0.62
3:E:230:ASP:HA	3:E:301:GLN:CG	2.28	0.62
3:F:52:LEU:CD1	3:F:99:PRO:HG3	2.28	0.62
3:H:142:PRO:HD2	3:H:147:ILE:HD11	1.81	0.62
3:J:247:ILE:CG2	3:J:249:VAL:HG23	2.28	0.62
3:K:285:ASP:O	3:K:286:LEU:HD23	1.99	0.62
3:L:254:LEU:HD21	3:L:274:ILE:CD1	2.29	0.62
3:M:94:GLN:HG3	3:O:263:GLN:C	2.19	0.62
3:C:176:GLU:O	3:C:177:MET:HG3	1.99	0.62
3:M:228:ASN:OD1	3:M:270:ALA:HB2	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:M:258:ASN:HA	3:M:261:GLU:HB3	1.80	0.62
3:O:255:GLN:O	3:O:259:GLN:HG2	1.99	0.62
3:A:83:LEU:HD23	3:A:117:TRP:HB3	1.81	0.62
3:K:56:PRO:HB3	3:K:81:THR:HG23	1.81	0.62
3:A:195:PRO:HA	3:A:303:GLN:HG3	1.81	0.62
3:J:68:SER:HB2	3:J:73:LYS:O	2.00	0.62
3:N:340:LYS:HG3	3:N:341:ARG:N	2.14	0.62
3:O:324:LEU:HD21	3:O:332:VAL:HG21	1.82	0.62
3:B:190:PRO:HB3	3:B:307:TYR:HD1	1.64	0.62
3:C:54:SER:HA	3:C:101:PRO:HB3	1.80	0.62
3:C:236:LEU:CB	3:C:247:ILE:HD12	2.30	0.62
3:C:343:ILE:O	3:C:343:ILE:HG12	1.99	0.62
3:H:287:THR:HG21	3:H:318:TYR:CD2	2.35	0.62
3:L:190:PRO:HB3	3:L:307:TYR:HD1	1.62	0.62
3:N:38:LEU:HD13	3:N:151:PHE:CE2	2.35	0.62
3:G:329:ALA:O	3:G:333:GLN:HG2	1.98	0.62
3:I:41:SER:HB2	3:I:111:VAL:O	2.00	0.62
3:J:62:VAL:HG11	3:J:65:PHE:CZ	2.34	0.62
3:J:236:LEU:HB2	3:J:247:ILE:HD12	1.82	0.62
3:N:42:ILE:HD11	3:N:113:LEU:HD13	1.81	0.62
3:A:216:LEU:HD23	3:A:309:LEU:HD13	1.82	0.62
3:F:274:ILE:HD12	3:F:274:ILE:N	2.15	0.62
3:G:67:LEU:HD13	3:G:134:LEU:HB2	1.81	0.62
3:H:13:TYR:HB3	3:H:21:ILE:HG21	1.82	0.62
3:J:25:ILE:HG23	3:J:155:ILE:HD11	1.80	0.62
3:J:42:ILE:HD11	3:J:113:LEU:HD13	1.81	0.62
3:N:329:ALA:O	3:N:333:GLN:HG2	1.99	0.62
3:B:205:TYR:CD1	3:B:295:GLU:HB3	2.35	0.62
3:F:4:ILE:HG23	3:F:32:ARG:HD3	1.81	0.62
3:G:13:TYR:HB3	3:G:21:ILE:HG21	1.82	0.62
3:G:219:VAL:O	3:G:220:ILE:HD13	2.00	0.62
3:J:38:LEU:HD13	3:J:151:PHE:CZ	2.35	0.62
3:J:87:MET:HE1	3:J:345:ARG:HB3	1.80	0.62
3:L:42:ILE:HG22	3:L:145:VAL:HB	1.82	0.62
3:L:131:ASN:HB3	3:L:133:ILE:HD11	1.82	0.62
3:O:13:TYR:OH	3:O:23:ILE:HG23	1.99	0.62
3:O:235:GLU:OE1	3:O:248:LYS:HD3	2.00	0.62
4:P:150:GLU:OE1	4:P:150:GLU:HA	1.99	0.62
3:A:69:TYR:O	3:A:70:GLU:HB2	1.99	0.61
3:H:54:SER:HA	3:H:101:PRO:HB3	1.82	0.61
1:Q:189:ASN:ND2	4:P:29:ASP:CB	2.63	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:184:PRO:CB	3:F:343:ILE:HD12	2.30	0.61
3:J:253:ALA:O	3:J:256:ALA:HB3	2.01	0.61
3:N:124:PHE:CD1	3:N:125:PRO:HD2	2.35	0.61
1:Q:44:SER:HB2	1:Q:122:LEU:HB2	1.82	0.61
3:B:194:VAL:HG12	3:B:201:ILE:HD11	1.81	0.61
3:C:17:ALA:HB1	3:C:140:GLN:NE2	2.14	0.61
3:D:47:THR:O	3:D:107:ALA:HB1	1.99	0.61
3:D:254:LEU:HD21	3:D:274:ILE:HD11	1.83	0.61
3:E:41:SER:HB2	3:E:111:VAL:O	2.00	0.61
3:E:47:THR:O	3:E:107:ALA:HB1	2.00	0.61
3:F:187:ILE:HG22	3:F:188:GLU:N	2.15	0.61
3:F:257:GLU:O	3:F:261:GLU:HB2	2.00	0.61
3:J:105:VAL:HA	3:J:111:VAL:HG13	1.83	0.61
3:M:253:ALA:O	3:M:256:ALA:HB3	2.00	0.61
3:A:94:GLN:HB3	3:C:259:GLN:HE21	1.66	0.61
3:D:44:ASN:ND2	3:D:107:ALA:HA	2.15	0.61
3:F:3:GLU:H	3:F:159:ARG:HB3	1.65	0.61
3:G:195:PRO:O	3:G:201:ILE:HD11	1.99	0.61
3:J:33:LYS:HD2	3:J:118:GLU:OE2	1.99	0.61
3:K:244:THR:HG22	3:K:245:ASP:N	2.15	0.61
3:O:32:ARG:HA	3:O:122:ALA:O	2.01	0.61
3:B:52:LEU:CD1	3:B:99:PRO:HG3	2.29	0.61
3:D:247:ILE:HG22	3:D:249:VAL:HG23	1.81	0.61
3:E:64:THR:HA	3:E:79:SER:HA	1.81	0.61
1:Q:106:VAL:O	1:Q:109:VAL:HG22	1.99	0.61
3:A:236:LEU:HB2	3:A:247:ILE:HD12	1.81	0.61
3:D:4:ILE:H	3:D:4:ILE:HD12	1.65	0.61
3:E:62:VAL:HG13	3:E:136:ILE:HG23	1.83	0.61
3:F:61:LEU:HD21	3:F:142:PRO:HD3	1.82	0.61
3:J:64:THR:HA	3:J:79:SER:HA	1.82	0.61
3:K:259:GLN:HG3	3:L:96:PRO:CG	2.31	0.61
3:K:345:ARG:HG3	3:K:345:ARG:NH1	2.16	0.61
3:N:257:GLU:O	3:N:261:GLU:CB	2.48	0.61
3:N:280:PHE:CE1	3:N:284:LEU:HD22	2.36	0.61
3:A:324:LEU:HD21	3:A:332:VAL:HG21	1.83	0.61
3:B:211:ILE:HG22	3:B:283:ASP:HB3	1.83	0.61
3:C:254:LEU:HD21	3:C:274:ILE:HD11	1.83	0.61
3:E:321:LEU:HD22	3:E:332:VAL:HG11	1.80	0.61
3:G:236:LEU:HD11	3:G:294:ILE:HG22	1.81	0.61
3:N:257:GLU:O	3:N:261:GLU:HB2	1.99	0.61
3:D:321:LEU:HD22	3:D:332:VAL:CG1	2.31	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:343:ILE:HG12	3:J:343:ILE:O	1.99	0.61
3:N:54:SER:HA	3:N:101:PRO:HB3	1.83	0.61
1:Q:211:THR:CG2	4:P:57:SER:HB2	2.27	0.61
3:B:13:TYR:HB3	3:B:21:ILE:HG21	1.82	0.61
3:B:230:ASP:HA	3:B:301:GLN:HG2	1.81	0.61
3:E:159:ARG:HG3	3:E:159:ARG:NH1	2.15	0.61
3:E:334:GLN:HA	3:E:334:GLN:OE1	2.00	0.61
3:I:215:GLN:HG3	3:I:310:TYR:CE1	2.36	0.61
3:L:205:TYR:CD1	3:L:292:ASP:HA	2.36	0.61
3:M:19:THR:HG22	3:M:20:ASN:N	2.16	0.61
3:M:83:LEU:CD2	3:M:117:TRP:HB3	2.30	0.61
3:N:259:GLN:HG3	3:O:96:PRO:CG	2.31	0.61
1:Q:191:GLN:HB3	4:P:25:LYS:HB2	1.83	0.61
3:D:179:LEU:HG	3:D:321:LEU:HD21	1.83	0.61
3:E:321:LEU:HD22	3:E:332:VAL:CG1	2.31	0.61
3:H:277:ARG:HA	3:H:282:GLY:O	2.00	0.61
3:I:36:VAL:HG21	3:I:134:LEU:HD21	1.82	0.61
3:K:287:THR:HG21	3:K:318:TYR:CD2	2.36	0.61
3:M:39:ILE:HD12	3:M:152:TYR:CD1	2.36	0.61
3:N:61:LEU:HD21	3:N:142:PRO:HD3	1.82	0.61
3:A:64:THR:HA	3:A:79:SER:HA	1.81	0.60
3:B:56:PRO:HG2	3:B:60:ASN:ND2	2.12	0.60
3:C:215:GLN:HG3	3:C:310:TYR:CE1	2.35	0.60
3:F:64:THR:OG1	3:F:137:LEU:HB3	2.01	0.60
3:I:116:MET:HG3	3:I:117:TRP:N	2.15	0.60
3:L:4:ILE:HA	3:L:157:TYR:O	2.01	0.60
3:A:253:ALA:O	3:A:256:ALA:HB3	2.01	0.60
3:C:182:VAL:HG21	3:C:339:GLN:HB3	1.83	0.60
3:I:190:PRO:HB3	3:I:307:TYR:HD1	1.62	0.60
3:K:172:GLY:HA3	3:K:317:TYR:CZ	2.37	0.60
3:L:52:LEU:CD2	3:L:145:VAL:HG21	2.32	0.60
3:M:42:ILE:HG23	3:M:147:ILE:HD13	1.84	0.60
3:M:213:LYS:HB2	3:M:311:VAL:O	2.02	0.60
3:O:63:GLN:O	3:O:79:SER:HB2	2.00	0.60
3:B:168:GLU:HG2	3:B:335:TYR:CE1	2.35	0.60
3:B:200:PRO:HG2	3:B:233:GLU:HG3	1.83	0.60
3:I:67:LEU:HD13	3:I:134:LEU:HB2	1.83	0.60
3:J:25:ILE:HG23	3:J:155:ILE:HD13	1.82	0.60
3:L:69:TYR:O	3:L:70:GLU:HB2	2.01	0.60
3:L:315:LEU:HD12	3:L:318:TYR:HD1	1.66	0.60
3:A:205:TYR:CD1	3:A:295:GLU:HB3	2.36	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:26:PRO:HB2	3:B:157:TYR:OH	2.02	0.60
3:B:67:LEU:HD13	3:B:134:LEU:HB2	1.83	0.60
3:J:315:LEU:HD12	3:J:318:TYR:HD1	1.66	0.60
3:K:202:HIS:HA	3:K:297:ASP:OD2	2.01	0.60
3:N:174:ASP:OD2	3:N:317:TYR:HE2	1.84	0.60
3:A:47:THR:O	3:A:107:ALA:HB1	2.00	0.60
3:E:74:THR:O	3:O:243:PRO:HG2	2.01	0.60
3:F:9:LEU:HD11	3:F:155:ILE:HD12	1.83	0.60
3:F:219:VAL:HG21	3:F:300:LEU:HD21	1.84	0.60
3:G:87:MET:HE1	3:G:345:ARG:HB3	1.84	0.60
3:I:121:LEU:HA	3:I:184:PRO:HG3	1.82	0.60
3:J:187:ILE:HG22	3:J:188:GLU:N	2.17	0.60
3:L:325:PRO:HB2	3:L:328:VAL:HG23	1.82	0.60
3:M:116:MET:HG3	3:M:117:TRP:N	2.15	0.60
3:M:236:LEU:HD11	3:M:294:ILE:CG2	2.31	0.60
3:M:324:LEU:HG	3:M:328:VAL:HB	1.83	0.60
1:Q:56:VAL:O	1:Q:102:ASP:HB2	2.02	0.60
1:Q:186:MET:CG	1:Q:188:PHE:CE1	2.83	0.60
3:C:337:ALA:O	3:C:340:LYS:HG2	2.02	0.60
3:H:200:PRO:HG3	3:H:233:GLU:HG3	1.83	0.60
3:I:285:ASP:O	3:I:286:LEU:HD23	2.01	0.60
3:A:53:PRO:CD	3:A:142:PRO:HB3	2.32	0.60
3:G:29:ASN:CG	3:G:159:ARG:HA	2.21	0.60
3:I:259:GLN:OE1	3:I:266:PRO:CD	2.44	0.60
3:I:274:ILE:HD12	3:I:274:ILE:N	2.17	0.60
3:J:142:PRO:HD2	3:J:147:ILE:HD11	1.83	0.60
3:O:173:ALA:HB2	3:O:320:GLN:NE2	2.17	0.60
1:Q:94:ILE:HG22	1:Q:96:GLU:H	1.66	0.60
3:C:38:LEU:HD13	3:C:151:PHE:CZ	2.37	0.60
3:G:92:LYS:HB3	3:I:263:GLN:HB3	1.82	0.60
3:G:256:ALA:HB2	3:H:116:MET:HE1	1.84	0.60
3:G:286:LEU:HD21	3:G:294:ILE:HD12	1.83	0.60
3:L:87:MET:CE	3:L:118:GLU:HB3	2.32	0.60
3:L:230:ASP:HA	3:L:301:GLN:CG	2.31	0.60
3:M:121:LEU:HA	3:M:184:PRO:HG3	1.84	0.60
3:O:25:ILE:HG23	3:O:155:ILE:HD13	1.84	0.60
3:E:247:ILE:HG23	3:E:249:VAL:CG2	2.31	0.60
3:G:211:ILE:HD12	3:G:313:TYR:CE2	2.37	0.60
3:G:324:LEU:HD21	3:G:332:VAL:HG21	1.83	0.60
3:J:92:LYS:N	3:J:92:LYS:HD2	2.16	0.60
3:J:124:PHE:CD1	3:J:125:PRO:HD2	2.37	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:195:PRO:HG2	3:J:201:ILE:CD1	2.32	0.60
3:L:212:TYR:HA	3:L:312:SER:OG	2.01	0.60
3:M:64:THR:HA	3:M:79:SER:HA	1.82	0.60
3:C:236:LEU:HB2	3:C:247:ILE:HD12	1.84	0.60
3:E:38:LEU:HD13	3:E:151:PHE:CZ	2.37	0.60
3:H:13:TYR:CE2	3:H:23:ILE:HG12	2.37	0.60
3:I:33:LYS:HD2	3:I:118:GLU:OE2	2.02	0.60
3:J:184:PRO:HB3	3:J:343:ILE:HD12	1.83	0.60
3:J:230:ASP:HA	3:J:301:GLN:HG2	1.83	0.60
3:L:324:LEU:HG	3:L:328:VAL:HB	1.84	0.60
3:M:159:ARG:HH11	3:M:159:ARG:CG	2.15	0.60
3:O:173:ALA:HB2	3:O:320:GLN:CD	2.22	0.60
3:B:83:LEU:HD23	3:B:117:TRP:HB3	1.84	0.59
3:B:211:ILE:HG12	3:B:285:ASP:OD2	2.01	0.59
3:C:247:ILE:CD1	3:C:274:ILE:HG21	2.32	0.59
3:D:187:ILE:HG22	3:D:188:GLU:N	2.17	0.59
3:G:125:PRO:HG3	3:G:177:MET:HG2	1.84	0.59
3:H:277:ARG:HB3	3:H:277:ARG:HH11	1.67	0.59
3:I:38:LEU:HD13	3:I:151:PHE:CZ	2.37	0.59
3:I:247:ILE:HG12	3:I:279:TYR:CD2	2.36	0.59
3:K:168:GLU:HG2	3:K:335:TYR:CZ	2.37	0.59
3:L:183:LEU:HD12	3:L:316:PRO:HD3	1.84	0.59
3:M:159:ARG:HG2	3:M:159:ARG:NH1	2.16	0.59
3:M:261:GLU:OE1	3:M:261:GLU:HA	2.02	0.59
3:A:113:LEU:HD23	3:A:149:ALA:CB	2.32	0.59
3:B:19:THR:O	3:B:137:LEU:HD12	2.02	0.59
3:I:67:LEU:HB3	3:I:76:TYR:HB2	1.84	0.59
3:N:57:PHE:CD2	3:N:58:PRO:HA	2.37	0.59
3:N:205:TYR:CD1	3:N:292:ASP:HA	2.37	0.59
3:N:212:TYR:CE2	3:N:286:LEU:HD12	2.37	0.59
3:O:13:TYR:HB3	3:O:21:ILE:HG21	1.84	0.59
3:D:57:PHE:CD2	3:D:58:PRO:HA	2.37	0.59
3:G:259:GLN:OE1	3:G:266:PRO:HD3	2.01	0.59
3:H:259:GLN:O	3:H:263:GLN:HA	2.01	0.59
3:O:159:ARG:NH1	3:O:159:ARG:HG2	2.17	0.59
3:B:182:VAL:HG22	3:B:336:VAL:HG13	1.82	0.59
3:H:230:ASP:HA	3:H:301:GLN:CG	2.33	0.59
3:I:124:PHE:CD1	3:I:125:PRO:HD2	2.37	0.59
3:K:42:ILE:HG22	3:K:145:VAL:HB	1.84	0.59
3:K:64:THR:HA	3:K:79:SER:HA	1.84	0.59
3:M:124:PHE:CD1	3:M:125:PRO:HD2	2.38	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:M:287:THR:HG21	3:M:318:TYR:CD2	2.37	0.59
3:O:195:PRO:HG2	3:O:201:ILE:HD12	1.85	0.59
4:P:188:ASN:OD1	4:P:190:THR:HB	2.03	0.59
3:B:57:PHE:O	3:B:101:PRO:HG3	2.02	0.59
3:C:184:PRO:CB	3:C:343:ILE:HD12	2.33	0.59
3:E:263:GLN:O	3:F:94:GLN:HG3	2.03	0.59
3:F:195:PRO:HA	3:F:303:GLN:HG3	1.83	0.59
3:H:67:LEU:HB3	3:H:76:TYR:HB2	1.83	0.59
3:I:113:LEU:HD22	3:I:147:ILE:HG23	1.83	0.59
3:O:274:ILE:HD12	3:O:274:ILE:N	2.18	0.59
3:A:56:PRO:HB3	3:A:81:THR:HG23	1.85	0.59
3:B:247:ILE:HG22	3:B:249:VAL:HG23	1.84	0.59
3:B:253:ALA:O	3:B:256:ALA:HB3	2.01	0.59
3:C:293:SER:C	3:C:294:ILE:HG13	2.23	0.59
3:C:324:LEU:HD21	3:C:332:VAL:HG21	1.84	0.59
3:F:343:ILE:O	3:F:343:ILE:HG12	2.02	0.59
3:M:215:GLN:HG3	3:M:310:TYR:CE1	2.37	0.59
3:N:32:ARG:HD2	3:N:158:GLU:OE1	2.03	0.59
3:N:173:ALA:HB2	3:N:320:GLN:NE2	2.17	0.59
3:A:277:ARG:HA	3:A:282:GLY:O	2.03	0.59
3:D:124:PHE:CD1	3:D:125:PRO:HD2	2.38	0.59
3:H:17:ALA:HB1	3:H:140:GLN:NE2	2.18	0.59
3:H:57:PHE:O	3:H:101:PRO:HG3	2.01	0.59
3:H:278:LYS:O	3:I:4:ILE:HB	2.03	0.59
3:I:315:LEU:HD12	3:I:318:TYR:HD1	1.67	0.59
3:M:119:PHE:N	3:M:119:PHE:CD1	2.70	0.59
3:N:92:LYS:HD2	3:N:92:LYS:H	1.65	0.59
3:O:88:TYR:CD2	3:O:267:TYR:HB2	2.38	0.59
3:O:210:GLN:HG3	3:O:212:TYR:CE2	2.37	0.59
3:A:51:THR:HG23	3:A:102:GLY:O	2.03	0.59
3:B:54:SER:CA	3:B:101:PRO:HB3	2.29	0.59
3:B:56:PRO:CB	3:B:81:THR:HG23	2.33	0.59
3:D:235:GLU:OE2	3:D:237:LYS:HE3	2.02	0.59
3:E:124:PHE:CD1	3:E:125:PRO:HD2	2.37	0.59
3:F:92:LYS:N	3:F:92:LYS:CD	2.65	0.59
3:I:343:ILE:O	3:I:343:ILE:HG12	2.02	0.59
3:L:25:ILE:HG23	3:L:155:ILE:HD13	1.83	0.59
3:L:287:THR:HG21	3:L:318:TYR:CD2	2.38	0.59
3:N:345:ARG:HG3	3:N:345:ARG:NH1	2.14	0.59
4:P:33:ASN:O	4:P:33:ASN:OD1	2.21	0.59
3:H:15:TRP:CE3	3:H:147:ILE:HB	2.38	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:H:174:ASP:OD2	3:H:317:TYR:HE2	1.85	0.59
3:H:240:ARG:HH12	3:H:290:PRO:CB	2.15	0.59
3:K:247:ILE:CD1	3:K:274:ILE:HG21	2.32	0.59
3:N:321:LEU:HD22	3:N:332:VAL:HG11	1.84	0.59
3:O:9:LEU:HD11	3:O:155:ILE:HD12	1.85	0.59
3:A:15:TRP:CZ3	3:A:147:ILE:HB	2.38	0.59
3:B:319:ASP:OD2	3:B:319:ASP:N	2.36	0.59
3:E:78:VAL:CG2	3:E:83:LEU:HB2	2.33	0.59
3:E:116:MET:HG2	3:E:117:TRP:N	2.18	0.59
3:J:259:GLN:HG3	3:K:96:PRO:HG3	1.84	0.59
3:M:23:ILE:HD13	3:M:153:ILE:HD11	1.85	0.59
3:M:247:ILE:CG2	3:M:249:VAL:HG23	2.32	0.59
3:A:32:ARG:HD2	3:A:158:GLU:OE1	2.03	0.58
3:A:259:GLN:O	3:A:263:GLN:HA	2.03	0.58
3:E:184:PRO:HB3	3:E:343:ILE:HD12	1.83	0.58
3:E:236:LEU:CB	3:E:247:ILE:HD12	2.33	0.58
3:E:247:ILE:CD1	3:E:274:ILE:HG21	2.33	0.58
3:G:38:LEU:HD13	3:G:151:PHE:CE2	2.38	0.58
3:G:56:PRO:O	3:G:59:TYR:HB2	2.02	0.58
3:G:230:ASP:HA	3:G:301:GLN:CG	2.32	0.58
3:G:315:LEU:HD12	3:G:318:TYR:CD1	2.34	0.58
3:G:328:VAL:HA	3:G:331:ILE:HD12	1.84	0.58
3:J:257:GLU:O	3:J:261:GLU:CB	2.50	0.58
3:L:249:VAL:HG12	3:L:253:ALA:HB3	1.85	0.58
3:O:19:THR:HG22	3:O:20:ASN:N	2.17	0.58
3:B:119:PHE:N	3:B:119:PHE:CD1	2.71	0.58
3:B:195:PRO:HG2	3:B:201:ILE:CD1	2.32	0.58
3:B:315:LEU:HB2	3:B:318:TYR:HB2	1.84	0.58
3:D:116:MET:HE1	3:F:256:ALA:HB2	1.85	0.58
3:G:57:PHE:O	3:G:101:PRO:HG3	2.03	0.58
3:H:182:VAL:HG21	3:H:339:GLN:CB	2.33	0.58
3:I:121:LEU:HB3	3:I:124:PHE:HB2	1.85	0.58
3:I:273:ILE:C	3:I:274:ILE:HD12	2.23	0.58
3:J:42:ILE:HG22	3:J:145:VAL:HB	1.84	0.58
3:L:215:GLN:HE21	3:L:310:TYR:HE1	1.50	0.58
3:B:220:ILE:HG13	3:B:307:TYR:HE2	1.69	0.58
3:B:247:ILE:CD1	3:B:274:ILE:HG21	2.33	0.58
3:K:334:GLN:O	3:K:338:ARG:HG3	2.04	0.58
3:M:67:LEU:HD13	3:M:134:LEU:HB2	1.84	0.58
3:M:194:VAL:HG11	3:M:203:VAL:HG22	1.85	0.58
3:N:246:LYS:HD3	3:N:279:TYR:O	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:32:ARG:HB2	3:A:156:THR:HG22	1.85	0.58
3:A:113:LEU:HD22	3:A:147:ILE:HG23	1.84	0.58
3:E:13:TYR:CE2	3:E:23:ILE:HG12	2.38	0.58
3:E:29:ASN:OD1	3:E:159:ARG:HA	2.02	0.58
3:F:123:ARG:HB3	3:F:339:GLN:OE1	2.03	0.58
3:K:200:PRO:CG	3:K:233:GLU:HG3	2.33	0.58
3:A:25:ILE:HG23	3:A:155:ILE:CD1	2.33	0.58
3:B:32:ARG:HD2	3:B:158:GLU:OE1	2.03	0.58
3:C:203:VAL:HG23	3:C:297:ASP:HA	1.86	0.58
3:C:315:LEU:HD12	3:C:318:TYR:HD1	1.69	0.58
3:D:3:GLU:HB2	3:D:159:ARG:CB	2.33	0.58
3:E:32:ARG:HD2	3:E:158:GLU:HB2	1.85	0.58
3:G:240:ARG:HH12	3:G:290:PRO:HB2	1.67	0.58
3:A:29:ASN:HB2	3:A:157:TYR:HB3	1.85	0.58
3:E:87:MET:CE	3:E:345:ARG:HB3	2.34	0.58
3:F:285:ASP:O	3:F:286:LEU:HD23	2.04	0.58
3:G:134:LEU:HG	3:G:134:LEU:O	2.04	0.58
3:J:200:PRO:CG	3:J:233:GLU:HG3	2.34	0.58
3:K:113:LEU:HD23	3:K:149:ALA:HB2	1.84	0.58
3:O:257:GLU:O	3:O:261:GLU:HB3	2.03	0.58
3:A:29:ASN:OD1	3:A:159:ARG:HA	2.03	0.58
3:B:340:LYS:HG3	3:B:341:ARG:N	2.17	0.58
3:B:345:ARG:HG3	3:B:345:ARG:NH1	2.17	0.58
3:E:9:LEU:HD21	3:E:26:PRO:CD	2.33	0.58
3:G:56:PRO:CB	3:G:81:THR:HG23	2.33	0.58
3:H:249:VAL:HG22	3:I:7:GLU:HA	1.86	0.58
3:I:30:PHE:O	3:I:157:TYR:HA	2.04	0.58
3:M:54:SER:HA	3:M:101:PRO:HB3	1.84	0.58
3:N:113:LEU:HD23	3:N:149:ALA:HB2	1.85	0.58
3:A:4:ILE:HG13	3:A:158:GLU:HG3	1.85	0.58
3:B:184:PRO:HB3	3:B:343:ILE:HD12	1.85	0.58
3:F:189:ILE:HD12	3:F:310:TYR:HE2	1.68	0.58
3:G:56:PRO:HB3	3:G:81:THR:HG23	1.86	0.58
3:G:249:VAL:HG12	3:G:253:ALA:HB3	1.86	0.58
3:K:52:LEU:CD1	3:K:99:PRO:HG3	2.34	0.58
3:L:159:ARG:HG2	3:L:159:ARG:NH1	2.18	0.58
3:M:142:PRO:HB2	3:M:145:VAL:CG2	2.33	0.58
3:N:9:LEU:HD11	3:N:155:ILE:HD12	1.86	0.58
3:O:187:ILE:HG22	3:O:188:GLU:N	2.17	0.58
3:J:52:LEU:HD21	3:J:145:VAL:HG21	1.85	0.58
3:N:90:THR:CB	3:N:345:ARG:HG2	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:O:41:SER:HB2	3:O:111:VAL:O	2.04	0.58
1:Q:17:PHE:O	1:Q:17:PHE:CD1	2.57	0.58
1:Q:181:ILE:HD12	1:Q:200:ILE:HD11	1.83	0.58
3:C:195:PRO:O	3:C:201:ILE:HD11	2.03	0.58
3:E:9:LEU:HD11	3:E:155:ILE:HD12	1.86	0.58
3:F:121:LEU:N	3:F:121:LEU:HD12	2.18	0.58
3:F:277:ARG:HA	3:F:282:GLY:O	2.04	0.58
3:G:189:ILE:HD12	3:G:310:TYR:HE2	1.68	0.58
3:G:343:ILE:O	3:G:343:ILE:HG12	2.02	0.58
3:M:29:ASN:HB2	3:M:157:TYR:HB3	1.86	0.58
3:M:90:THR:HB	3:M:345:ARG:HG2	1.85	0.58
3:C:56:PRO:HA	3:C:267:TYR:OH	2.03	0.57
3:I:64:THR:HA	3:I:79:SER:HA	1.85	0.57
3:J:96:PRO:HG3	3:L:259:GLN:HG3	1.86	0.57
3:K:28:ASN:ND2	3:O:70:GLU:CA	2.66	0.57
3:M:33:LYS:HD2	3:M:118:GLU:OE2	2.04	0.57
3:M:190:PRO:HB3	3:M:307:TYR:CE1	2.37	0.57
1:Q:169:THR:O	1:Q:169:THR:HG22	2.04	0.57
3:I:81:THR:O	3:I:85:ILE:HG13	2.04	0.57
3:I:173:ALA:HB2	3:I:320:GLN:NE2	2.19	0.57
3:J:122:ALA:HB1	3:J:339:GLN:HG3	1.86	0.57
3:K:274:ILE:HD12	3:K:274:ILE:N	2.19	0.57
3:L:200:PRO:HG2	3:L:233:GLU:HG3	1.84	0.57
3:M:230:ASP:O	3:M:232:THR:HG23	2.04	0.57
3:O:230:ASP:N	3:O:231:PRO:HD2	2.19	0.57
3:O:324:LEU:HG	3:O:328:VAL:HB	1.85	0.57
3:A:182:VAL:HG22	3:A:336:VAL:HG13	1.87	0.57
3:C:15:TRP:CZ3	3:C:147:ILE:HB	2.39	0.57
3:D:125:PRO:CG	3:D:177:MET:HG2	2.35	0.57
3:E:274:ILE:N	3:E:274:ILE:HD12	2.19	0.57
3:H:259:GLN:HG3	3:I:96:PRO:CG	2.34	0.57
3:J:190:PRO:HB3	3:J:307:TYR:CE1	2.39	0.57
3:K:121:LEU:HD12	3:K:121:LEU:N	2.19	0.57
3:L:332:VAL:O	3:L:336:VAL:HG23	2.04	0.57
3:N:13:TYR:CE2	3:N:23:ILE:HG12	2.38	0.57
3:E:259:GLN:HG3	3:F:96:PRO:HG3	1.86	0.57
3:H:246:LYS:HE2	3:H:246:LYS:CA	2.26	0.57
3:J:49:ALA:N	3:J:107:ALA:HB2	2.19	0.57
3:M:182:VAL:HG22	3:M:336:VAL:HG13	1.84	0.57
3:O:233:GLU:OE1	3:O:250:SER:HA	2.05	0.57
1:Q:99:VAL:HG11	1:Q:113:VAL:HG21	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:263:GLN:NE2	3:B:92:LYS:HG2	2.19	0.57
3:C:187:ILE:HG22	3:C:188:GLU:N	2.20	0.57
3:F:19:THR:O	3:F:137:LEU:HD12	2.04	0.57
3:H:324:LEU:HD21	3:H:332:VAL:HG21	1.87	0.57
3:K:174:ASP:OD2	3:K:317:TYR:HE2	1.87	0.57
3:A:121:LEU:N	3:A:121:LEU:HD12	2.19	0.57
3:E:278:LYS:O	3:F:4:ILE:HB	2.04	0.57
3:F:42:ILE:HG23	3:F:147:ILE:HD13	1.87	0.57
3:F:105:VAL:HA	3:F:111:VAL:HG13	1.84	0.57
3:G:53:PRO:CD	3:G:142:PRO:HB3	2.34	0.57
3:G:259:GLN:HB3	3:H:94:GLN:O	2.03	0.57
3:I:171:LEU:HB3	3:I:175:GLY:HA2	1.86	0.57
3:I:200:PRO:HG3	3:I:233:GLU:HB3	1.86	0.57
3:K:230:ASP:N	3:K:231:PRO:HD2	2.20	0.57
3:M:32:ARG:HD2	3:M:158:GLU:OE1	2.05	0.57
3:M:205:TYR:CD1	3:M:292:ASP:HA	2.40	0.57
3:O:29:ASN:OD1	3:O:159:ARG:HA	2.04	0.57
3:O:236:LEU:HD11	3:O:294:ILE:CG2	2.34	0.57
4:P:299:LEU:CD2	4:P:352:ILE:HD11	2.23	0.57
3:A:171:LEU:HB3	3:A:175:GLY:HA2	1.87	0.57
3:C:57:PHE:O	3:C:101:PRO:HG3	2.05	0.57
3:C:105:VAL:HA	3:C:111:VAL:HG13	1.86	0.57
3:E:15:TRP:CZ3	3:E:147:ILE:HB	2.39	0.57
3:N:23:ILE:HG21	3:N:153:ILE:HG13	1.86	0.57
4:P:360:SER:HB2	4:P:363:SER:H	1.68	0.57
3:A:81:THR:O	3:A:85:ILE:HG13	2.04	0.57
3:A:116:MET:HE1	3:C:256:ALA:HB2	1.86	0.57
3:D:231:PRO:HB2	3:D:251:TRP:CD2	2.40	0.57
3:D:274:ILE:HD12	3:D:274:ILE:N	2.20	0.57
3:G:230:ASP:N	3:G:231:PRO:HD2	2.19	0.57
3:K:54:SER:HA	3:K:101:PRO:HB3	1.86	0.57
3:K:254:LEU:HD21	3:K:274:ILE:HD11	1.87	0.57
3:O:176:GLU:O	3:O:177:MET:HG3	2.05	0.57
3:C:52:LEU:HD13	3:C:99:PRO:HG3	1.87	0.57
3:C:57:PHE:CE2	3:C:142:PRO:HG2	2.39	0.57
3:C:142:PRO:HB2	3:C:145:VAL:CG2	2.35	0.57
3:F:126:ALA:HB1	3:F:132:ILE:CD1	2.34	0.57
3:F:286:LEU:HD21	3:F:294:ILE:HD12	1.85	0.57
3:G:15:TRP:CE3	3:G:147:ILE:HB	2.39	0.57
3:G:324:LEU:CD2	3:G:332:VAL:HG21	2.35	0.57
3:H:25:ILE:HG23	3:H:155:ILE:HD11	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:212:TYR:HA	3:K:312:SER:OG	2.04	0.57
3:L:259:GLN:OE1	3:L:266:PRO:HD3	2.04	0.57
3:N:63:GLN:HG2	3:N:64:THR:HG23	1.87	0.57
3:O:92:LYS:N	3:O:92:LYS:CD	2.65	0.57
3:O:195:PRO:HG2	3:O:201:ILE:CD1	2.35	0.57
3:A:92:LYS:HD2	3:C:263:GLN:HE21	1.70	0.57
3:A:160:VAL:HG12	3:A:165:ILE:HG13	1.87	0.57
3:B:42:ILE:HG22	3:B:145:VAL:HB	1.87	0.57
3:B:62:VAL:HG11	3:B:65:PHE:CZ	2.40	0.57
3:B:67:LEU:HB2	3:B:134:LEU:HD13	1.87	0.57
3:E:257:GLU:O	3:E:261:GLU:CB	2.53	0.57
3:L:64:THR:HA	3:L:79:SER:HA	1.87	0.57
3:M:206:LEU:HB3	3:M:212:TYR:CZ	2.39	0.57
3:N:3:GLU:HB2	3:N:159:ARG:HB3	1.87	0.57
3:N:19:THR:O	3:N:137:LEU:HD12	2.04	0.57
3:N:121:LEU:HD12	3:N:121:LEU:N	2.19	0.57
3:N:131:ASN:HD22	3:N:133:ILE:HD11	1.70	0.57
1:Q:189:ASN:HD21	4:P:29:ASP:CB	2.18	0.56
3:B:9:LEU:HD21	3:B:26:PRO:HD2	1.86	0.56
3:C:4:ILE:HA	3:C:157:TYR:O	2.05	0.56
3:H:9:LEU:HD21	3:H:26:PRO:HD3	1.86	0.56
3:I:221:ASN:HD21	3:I:302:ASN:HD22	1.52	0.56
3:J:3:GLU:HB2	3:J:159:ARG:CB	2.27	0.56
3:K:47:THR:O	3:K:107:ALA:HB1	2.04	0.56
3:L:90:THR:HB	3:L:345:ARG:HG2	1.86	0.56
3:L:274:ILE:HD12	3:L:274:ILE:N	2.19	0.56
3:M:259:GLN:HG3	3:N:96:PRO:HG3	1.87	0.56
3:O:62:VAL:HG13	3:O:136:ILE:HG23	1.86	0.56
3:O:105:VAL:HA	3:O:111:VAL:HG13	1.87	0.56
3:A:259:GLN:OE1	3:A:266:PRO:HD3	2.05	0.56
3:B:124:PHE:CD1	3:B:125:PRO:HD2	2.41	0.56
3:E:247:ILE:HG12	3:E:279:TYR:CE2	2.40	0.56
3:G:190:PRO:HB3	3:G:307:TYR:CD1	2.40	0.56
3:H:67:LEU:HD13	3:H:134:LEU:HB2	1.87	0.56
3:I:213:LYS:HB2	3:I:311:VAL:O	2.05	0.56
3:J:246:LYS:HD3	3:J:279:TYR:O	2.05	0.56
3:J:345:ARG:HH11	3:J:345:ARG:HG3	1.70	0.56
3:L:262:TYR:CE2	3:L:273:ILE:HD12	2.39	0.56
3:N:105:VAL:HA	3:N:111:VAL:HG13	1.87	0.56
3:O:113:LEU:HD22	3:O:147:ILE:HG23	1.87	0.56
1:Q:25:GLU:C	1:Q:26:TYR:HD2	2.09	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:333:GLN:OE1	3:C:333:GLN:HA	2.04	0.56
3:E:53:PRO:CD	3:E:142:PRO:HB3	2.35	0.56
3:E:67:LEU:HB3	3:E:76:TYR:HB2	1.86	0.56
3:H:235:GLU:OE2	3:H:237:LYS:HE3	2.05	0.56
3:I:60:ASN:HB3	3:I:81:THR:OG1	2.05	0.56
3:I:221:ASN:H	3:I:228:ASN:ND2	2.02	0.56
3:J:236:LEU:HB3	3:J:247:ILE:HG13	1.87	0.56
3:M:315:LEU:HD12	3:M:318:TYR:CD1	2.36	0.56
3:N:278:LYS:O	3:O:4:ILE:HB	2.06	0.56
3:O:190:PRO:HB3	3:O:307:TYR:HD1	1.70	0.56
3:O:240:ARG:HH12	3:O:290:PRO:HB2	1.70	0.56
4:P:346:ILE:CG2	4:P:349:ILE:CD1	2.82	0.56
3:C:5:TYR:CE1	3:C:157:TYR:HB2	2.41	0.56
3:C:130:GLN:HE21	3:C:130:GLN:CA	2.08	0.56
3:C:332:VAL:O	3:C:336:VAL:HG23	2.05	0.56
3:E:171:LEU:HB3	3:E:175:GLY:HA2	1.86	0.56
3:M:17:ALA:HB1	3:M:140:GLN:HE22	1.69	0.56
3:M:121:LEU:HB3	3:M:124:PHE:HB2	1.87	0.56
3:N:52:LEU:CD2	3:N:145:VAL:HG21	2.35	0.56
1:Q:106:VAL:HG11	1:Q:201:ALA:C	2.25	0.56
3:B:105:VAL:HA	3:B:111:VAL:HG13	1.87	0.56
3:B:247:ILE:CG2	3:B:249:VAL:HG23	2.36	0.56
3:D:38:LEU:HD13	3:D:151:PHE:CE2	2.40	0.56
3:G:36:VAL:HG11	3:G:136:ILE:HD11	1.87	0.56
3:G:62:VAL:HG11	3:G:65:PHE:CZ	2.41	0.56
3:H:200:PRO:CG	3:H:233:GLU:HG3	2.35	0.56
3:K:255:GLN:O	3:K:259:GLN:HG2	2.05	0.56
3:M:171:LEU:HB3	3:M:175:GLY:HA2	1.87	0.56
3:M:345:ARG:HG3	3:M:345:ARG:NH1	2.16	0.56
3:N:62:VAL:HG13	3:N:136:ILE:CG2	2.35	0.56
3:A:243:PRO:HD3	3:F:185:LYS:HE3	1.88	0.56
3:C:62:VAL:HG13	3:C:136:ILE:CG2	2.35	0.56
3:J:44:ASN:ND2	3:J:107:ALA:HA	2.20	0.56
3:N:17:ALA:HB1	3:N:140:GLN:NE2	2.21	0.56
3:N:89:TYR:CD2	3:N:273:ILE:HD11	2.41	0.56
3:O:159:ARG:HG2	3:O:159:ARG:HH11	1.69	0.56
3:A:4:ILE:CG2	3:A:32:ARG:HD3	2.35	0.56
3:I:56:PRO:O	3:I:59:TYR:HB2	2.05	0.56
3:J:28:ASN:OD1	3:J:28:ASN:N	2.37	0.56
3:N:321:LEU:HD22	3:N:332:VAL:CG1	2.35	0.56
3:A:69:TYR:CE1	3:A:73:LYS:HB2	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:214:ARG:HG2	3:A:311:VAL:HB	1.87	0.56
3:B:87:MET:HE1	3:B:345:ARG:HB3	1.85	0.56
3:E:52:LEU:CD1	3:E:99:PRO:HG3	2.36	0.56
3:F:69:TYR:O	3:F:70:GLU:HB2	2.06	0.56
3:F:233:GLU:OE1	3:F:250:SER:HA	2.05	0.56
3:F:321:LEU:CD2	3:F:332:VAL:HG11	2.36	0.56
3:G:122:ALA:HB1	3:G:339:GLN:HG3	1.85	0.56
3:G:240:ARG:HG2	3:G:240:ARG:HH11	1.71	0.56
3:H:340:LYS:HG3	3:H:341:ARG:N	2.20	0.56
3:K:190:PRO:HB3	3:K:307:TYR:HD1	1.67	0.56
3:N:182:VAL:HG13	3:N:313:TYR:CD2	2.40	0.56
3:O:215:GLN:HG3	3:O:310:TYR:CE1	2.41	0.56
3:O:340:LYS:HG3	3:O:341:ARG:N	2.18	0.56
1:Q:189:ASN:N	1:Q:189:ASN:OD1	2.39	0.56
3:A:98:TYR:CD1	3:A:98:TYR:N	2.73	0.56
3:B:30:PHE:O	3:B:157:TYR:HA	2.05	0.56
3:D:190:PRO:HB3	3:D:307:TYR:HD1	1.71	0.56
3:N:168:GLU:HG2	3:N:335:TYR:CE1	2.41	0.56
1:Q:39:ILE:HD11	1:Q:97:ILE:HG13	1.88	0.56
3:A:63:GLN:O	3:A:79:SER:HB2	2.05	0.56
3:A:94:GLN:HB3	3:C:259:GLN:NE2	2.20	0.56
3:D:33:LYS:HD2	3:D:118:GLU:OE2	2.05	0.56
3:D:92:LYS:O	3:D:92:LYS:HG2	2.05	0.56
3:H:65:PHE:CE1	3:H:136:ILE:HG12	2.41	0.56
3:H:190:PRO:HB3	3:H:307:TYR:CD1	2.41	0.56
3:H:273:ILE:C	3:H:274:ILE:HD12	2.27	0.56
3:I:4:ILE:H	3:I:4:ILE:HD12	1.70	0.56
3:I:32:ARG:HB2	3:I:156:THR:CG2	2.36	0.56
3:J:13:TYR:HB3	3:J:21:ILE:HG21	1.88	0.56
3:L:235:GLU:HB3	3:L:297:ASP:HB2	1.88	0.56
3:L:246:LYS:O	3:L:279:TYR:HD2	1.88	0.56
3:A:32:ARG:HB2	3:A:156:THR:CG2	2.36	0.55
3:D:116:MET:HG3	3:D:117:TRP:N	2.20	0.55
3:G:65:PHE:CE1	3:G:136:ILE:HG12	2.41	0.55
3:I:15:TRP:CE3	3:I:147:ILE:HB	2.41	0.55
3:I:26:PRO:HB3	3:M:131:ASN:ND2	2.21	0.55
3:J:142:PRO:CD	3:J:147:ILE:HD11	2.36	0.55
3:J:231:PRO:HA	3:J:300:LEU:HD23	1.87	0.55
3:L:9:LEU:HD11	3:L:155:ILE:HD12	1.88	0.55
3:L:121:LEU:HB3	3:L:124:PHE:HB2	1.88	0.55
3:L:176:GLU:C	3:L:177:MET:HG3	2.26	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:234:TYR:HB2	3:L:251:TRP:HZ3	1.70	0.55
4:P:140:ILE:HD13	4:P:140:ILE:N	2.20	0.55
3:A:99:PRO:HD3	3:A:112:ASN:O	2.06	0.55
3:B:174:ASP:OD2	3:B:317:TYR:HE2	1.89	0.55
3:B:256:ALA:HB1	3:C:116:MET:CE	2.36	0.55
3:E:96:PRO:HB3	3:E:114:ASN:HD21	1.71	0.55
3:F:27:ARG:HG2	3:F:132:ILE:HD12	1.88	0.55
3:F:28:ASN:ND2	3:J:70:GLU:C	2.57	0.55
3:F:44:ASN:HB2	3:F:105:VAL:CG1	2.35	0.55
3:F:89:TYR:CD2	3:F:273:ILE:HD11	2.40	0.55
3:M:297:ASP:O	3:M:298:LEU:HD23	2.05	0.55
3:B:255:GLN:O	3:B:259:GLN:HG2	2.07	0.55
3:H:230:ASP:N	3:H:231:PRO:HD2	2.21	0.55
3:H:234:TYR:HE2	3:H:247:ILE:HD12	1.70	0.55
3:H:274:ILE:HD12	3:H:274:ILE:N	2.22	0.55
3:H:277:ARG:CZ	3:H:277:ARG:CB	2.84	0.55
3:H:277:ARG:CB	3:H:277:ARG:HH11	2.18	0.55
3:J:29:ASN:HB2	3:J:157:TYR:HB3	1.89	0.55
3:K:184:PRO:CB	3:K:343:ILE:HD12	2.36	0.55
3:N:125:PRO:CG	3:N:177:MET:HG2	2.37	0.55
3:A:340:LYS:HG3	3:A:341:ARG:N	2.21	0.55
3:C:13:TYR:HB3	3:C:21:ILE:HG21	1.88	0.55
3:E:15:TRP:HB2	3:E:38:LEU:HD11	1.87	0.55
3:E:25:ILE:HG23	3:E:155:ILE:HD13	1.88	0.55
3:E:243:PRO:HD3	3:J:185:LYS:HE3	1.88	0.55
3:F:121:LEU:HB3	3:F:124:PHE:HB2	1.88	0.55
3:F:249:VAL:HG12	3:F:253:ALA:HB3	1.88	0.55
3:G:19:THR:O	3:G:137:LEU:HD12	2.06	0.55
3:H:202:HIS:HA	3:H:297:ASP:OD2	2.05	0.55
3:H:259:GLN:HG3	3:I:96:PRO:HG3	1.87	0.55
3:H:319:ASP:OD2	3:H:319:ASP:N	2.38	0.55
3:I:52:LEU:HD12	3:I:99:PRO:HG3	1.87	0.55
3:I:235:GLU:HG3	3:I:247:ILE:O	2.06	0.55
3:J:121:LEU:HB3	3:J:124:PHE:HB2	1.89	0.55
3:M:256:ALA:CB	3:N:116:MET:HE1	2.37	0.55
3:N:224:SER:OG	3:N:228:ASN:HB3	2.07	0.55
3:B:15:TRP:HB2	3:B:38:LEU:HD11	1.89	0.55
3:D:315:LEU:HB2	3:D:318:TYR:HB2	1.89	0.55
3:H:38:LEU:HD13	3:H:151:PHE:CZ	2.40	0.55
3:H:240:ARG:HH21	3:M:208:PRO:HG2	1.72	0.55
3:K:321:LEU:CD2	3:K:332:VAL:HG11	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:29:ASN:CG	3:L:159:ARG:HA	2.27	0.55
3:M:32:ARG:HB2	3:M:156:THR:HG22	1.88	0.55
3:M:185:LYS:HG2	3:M:187:ILE:HG12	1.89	0.55
3:O:174:ASP:OD2	3:O:317:TYR:HE2	1.89	0.55
3:B:194:VAL:HG11	3:B:203:VAL:HG22	1.89	0.55
3:B:333:GLN:HA	3:B:333:GLN:OE1	2.07	0.55
3:C:298:LEU:CD1	3:C:306:VAL:HG11	2.36	0.55
3:D:190:PRO:HB3	3:D:307:TYR:CD1	2.41	0.55
3:E:15:TRP:CE3	3:E:147:ILE:HB	2.40	0.55
3:E:42:ILE:HG22	3:E:145:VAL:HB	1.89	0.55
3:I:54:SER:CA	3:I:101:PRO:HB3	2.36	0.55
3:J:332:VAL:O	3:J:336:VAL:HG23	2.06	0.55
3:K:249:VAL:HG12	3:K:253:ALA:HB3	1.88	0.55
3:O:173:ALA:HA	3:O:320:GLN:HE22	1.70	0.55
3:A:90:THR:CB	3:A:345:ARG:HG2	2.37	0.55
3:B:23:ILE:O	3:B:133:ILE:HG23	2.07	0.55
3:B:91:THR:CG2	3:B:345:ARG:HD3	2.36	0.55
3:E:324:LEU:CD2	3:E:332:VAL:HG21	2.36	0.55
3:F:57:PHE:CD2	3:F:58:PRO:HA	2.41	0.55
3:F:332:VAL:O	3:F:336:VAL:HG23	2.07	0.55
3:H:56:PRO:HB3	3:H:81:THR:HG23	1.88	0.55
3:I:321:LEU:HD22	3:I:332:VAL:CG1	2.37	0.55
3:J:32:ARG:HD2	3:J:158:GLU:OE1	2.06	0.55
3:J:42:ILE:HG23	3:J:147:ILE:HD13	1.89	0.55
3:J:324:LEU:HD21	3:J:332:VAL:HG21	1.89	0.55
3:C:298:LEU:HD11	3:C:306:VAL:HG11	1.88	0.55
3:D:230:ASP:HA	3:D:301:GLN:CG	2.36	0.55
3:F:25:ILE:HG23	3:F:155:ILE:HD13	1.88	0.55
3:F:340:LYS:HG3	3:F:341:ARG:N	2.20	0.55
3:G:330:ALA:O	3:G:334:GLN:HG2	2.05	0.55
3:I:19:THR:CG2	3:I:20:ASN:N	2.70	0.55
3:K:19:THR:CG2	3:K:20:ASN:N	2.69	0.55
3:K:29:ASN:HB2	3:K:157:TYR:HB3	1.87	0.55
3:K:246:LYS:O	3:K:279:TYR:HD2	1.89	0.55
3:L:67:LEU:HB3	3:L:76:TYR:HB2	1.88	0.55
3:M:63:GLN:HG2	3:M:64:THR:HG23	1.88	0.55
4:P:190:THR:HG22	4:P:192:THR:N	2.17	0.55
4:P:299:LEU:HD21	4:P:352:ILE:CD1	2.26	0.55
1:Q:42:ARG:HH11	1:Q:42:ARG:HG3	1.70	0.55
3:A:92:LYS:O	3:A:92:LYS:HG2	2.07	0.55
3:A:321:LEU:HD22	3:A:332:VAL:CG1	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:324:LEU:HG	3:A:328:VAL:HB	1.88	0.55
3:D:13:TYR:HB3	3:D:21:ILE:HG21	1.89	0.55
3:E:27:ARG:NH1	3:E:27:ARG:HB2	2.21	0.55
3:F:62:VAL:HG13	3:F:136:ILE:HG23	1.88	0.55
3:F:255:GLN:NE2	3:F:266:PRO:HB3	2.22	0.55
3:G:263:GLN:CA	3:H:94:GLN:HG3	2.37	0.55
3:H:17:ALA:HB1	3:H:140:GLN:HE22	1.72	0.55
3:H:96:PRO:HG2	3:H:116:MET:HE3	1.88	0.55
3:I:25:ILE:HG23	3:I:155:ILE:CD1	2.35	0.55
3:L:57:PHE:O	3:L:101:PRO:HG3	2.07	0.55
3:L:88:TYR:O	3:L:93:GLY:HA2	2.07	0.55
3:L:277:ARG:HA	3:L:282:GLY:O	2.07	0.55
3:O:87:MET:HB3	3:O:95:ASN:ND2	2.22	0.55
3:A:243:PRO:HD3	3:F:185:LYS:CE	2.38	0.55
3:D:89:TYR:CD2	3:D:273:ILE:HD11	2.42	0.55
3:E:277:ARG:HA	3:E:282:GLY:O	2.07	0.55
3:F:57:PHE:CG	3:F:58:PRO:HA	2.41	0.55
3:G:194:VAL:HG11	3:G:203:VAL:HG22	1.89	0.55
3:I:105:VAL:HG21	3:I:145:VAL:HG11	1.89	0.55
3:I:187:ILE:HG22	3:I:188:GLU:N	2.22	0.55
3:J:29:ASN:OD1	3:J:159:ARG:HA	2.07	0.55
3:J:94:GLN:O	3:L:259:GLN:HB3	2.06	0.55
3:L:17:ALA:HB1	3:L:140:GLN:HE22	1.72	0.55
3:L:56:PRO:HG2	3:L:60:ASN:ND2	2.22	0.55
3:N:29:ASN:HB2	3:N:157:TYR:HB3	1.88	0.55
3:O:230:ASP:O	3:O:232:THR:HG23	2.07	0.55
3:O:332:VAL:O	3:O:336:VAL:HG23	2.06	0.55
3:A:92:LYS:HD2	3:C:263:GLN:NE2	2.22	0.54
3:A:211:ILE:HD12	3:A:313:TYR:CE2	2.43	0.54
3:B:38:LEU:HD13	3:B:151:PHE:CE2	2.42	0.54
3:B:277:ARG:HA	3:B:282:GLY:O	2.07	0.54
3:B:338:ARG:HA	3:B:341:ARG:HH21	1.71	0.54
3:C:69:TYR:O	3:C:70:GLU:HB2	2.05	0.54
3:D:69:TYR:O	3:D:70:GLU:HB2	2.07	0.54
3:D:189:ILE:HD12	3:D:310:TYR:CE2	2.32	0.54
3:E:38:LEU:HD13	3:E:151:PHE:CE2	2.42	0.54
3:E:69:TYR:O	3:E:70:GLU:HB2	2.07	0.54
3:F:65:PHE:HE1	3:F:136:ILE:HG12	1.71	0.54
3:I:208:PRO:HD3	3:I:291:SER:HA	1.89	0.54
3:I:221:ASN:ND2	3:I:302:ASN:HD22	2.05	0.54
3:M:30:PHE:O	3:M:157:TYR:HA	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:37:PHE:CD2	1:Q:115:LEU:HD22	2.42	0.54
3:A:96:PRO:HG3	3:C:259:GLN:HG3	1.88	0.54
3:A:195:PRO:HG2	3:A:201:ILE:CD1	2.37	0.54
3:C:81:THR:O	3:C:85:ILE:HG13	2.07	0.54
3:E:287:THR:HG21	3:E:318:TYR:CD2	2.43	0.54
3:M:68:SER:CB	3:M:74:THR:HA	2.38	0.54
3:M:256:ALA:HB1	3:N:116:MET:HE1	1.89	0.54
3:B:121:LEU:HA	3:B:184:PRO:HG3	1.88	0.54
3:D:195:PRO:HG2	3:D:201:ILE:HD11	1.89	0.54
3:F:78:VAL:HG21	3:F:83:LEU:HB2	1.89	0.54
3:F:171:LEU:HB3	3:F:175:GLY:HA2	1.88	0.54
3:G:52:LEU:CD2	3:G:145:VAL:HG21	2.37	0.54
3:J:200:PRO:HG3	3:J:233:GLU:HG3	1.88	0.54
3:L:41:SER:HB2	3:L:111:VAL:O	2.07	0.54
3:N:179:LEU:HD11	3:N:320:GLN:HB2	1.90	0.54
3:B:259:GLN:O	3:B:263:GLN:HA	2.07	0.54
3:C:261:GLU:HG3	3:C:262:TYR:CE2	2.42	0.54
3:D:38:LEU:HD13	3:D:151:PHE:CZ	2.43	0.54
3:E:62:VAL:HG11	3:E:65:PHE:CZ	2.41	0.54
3:E:68:SER:CB	3:E:74:THR:HA	2.38	0.54
3:E:116:MET:CG	3:E:117:TRP:N	2.70	0.54
3:G:76:TYR:CE2	3:G:119:PHE:HB3	2.42	0.54
3:G:321:LEU:HD22	3:G:332:VAL:CG1	2.37	0.54
3:I:78:VAL:HG21	3:I:83:LEU:HB2	1.88	0.54
3:I:255:GLN:O	3:I:259:GLN:HG2	2.07	0.54
3:L:17:ALA:HB1	3:L:140:GLN:NE2	2.21	0.54
3:O:171:LEU:HB3	3:O:175:GLY:HA2	1.89	0.54
1:Q:61:LEU:HD12	1:Q:61:LEU:N	2.22	0.54
3:A:231:PRO:HA	3:A:300:LEU:HD23	1.89	0.54
3:D:257:GLU:O	3:D:261:GLU:HB2	2.08	0.54
3:E:142:PRO:CD	3:E:147:ILE:HD11	2.36	0.54
3:F:64:THR:HA	3:F:79:SER:HA	1.89	0.54
3:G:32:ARG:HB2	3:G:156:THR:CG2	2.35	0.54
3:G:92:LYS:O	3:G:92:LYS:HG2	2.08	0.54
3:J:220:ILE:HD13	3:J:226:ILE:HA	1.89	0.54
3:K:52:LEU:CD2	3:K:145:VAL:HG21	2.38	0.54
3:N:42:ILE:HG22	3:N:145:VAL:HB	1.89	0.54
3:N:200:PRO:CG	3:N:233:GLU:HG3	2.38	0.54
3:N:309:LEU:HD23	3:N:309:LEU:C	2.28	0.54
4:P:101:ASN:ND2	4:P:123:THR:CG2	2.71	0.54
3:A:67:LEU:HB2	3:A:134:LEU:HD13	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:29:ASN:OD1	3:B:159:ARG:HA	2.07	0.54
3:B:92:LYS:HD2	3:B:92:LYS:H	1.73	0.54
3:E:179:LEU:HG	3:E:321:LEU:CD2	2.37	0.54
3:E:185:LYS:CE	3:O:243:PRO:HD3	2.38	0.54
3:E:324:LEU:HD21	3:E:332:VAL:HG21	1.88	0.54
3:F:176:GLU:O	3:F:177:MET:HG3	2.08	0.54
3:G:253:ALA:O	3:G:256:ALA:HB3	2.07	0.54
3:K:92:LYS:CD	3:K:92:LYS:N	2.70	0.54
3:L:4:ILE:HG23	3:L:32:ARG:HD3	1.88	0.54
3:L:44:ASN:HB2	3:L:105:VAL:CG1	2.38	0.54
3:L:187:ILE:HG22	3:L:188:GLU:N	2.22	0.54
3:N:182:VAL:HG13	3:N:313:TYR:HD2	1.72	0.54
3:A:37:GLN:NE2	3:A:39:ILE:HD11	2.23	0.54
3:B:71:GLY:O	3:J:10:GLN:HG2	2.08	0.54
3:B:233:GLU:OE1	3:B:250:SER:HA	2.08	0.54
3:C:56:PRO:O	3:C:59:TYR:HB2	2.07	0.54
3:C:159:ARG:O	3:C:159:ARG:HG2	2.08	0.54
3:H:205:TYR:CD1	3:H:292:ASP:HA	2.42	0.54
3:K:247:ILE:HG12	3:K:279:TYR:CE2	2.43	0.54
3:O:122:ALA:HB1	3:O:339:GLN:HG3	1.90	0.54
3:B:90:THR:CB	3:B:345:ARG:HG2	2.37	0.54
3:D:92:LYS:HB3	3:F:263:GLN:HB3	1.90	0.54
3:D:176:GLU:O	3:D:177:MET:HG3	2.08	0.54
3:D:202:HIS:HA	3:D:297:ASP:OD2	2.08	0.54
3:E:13:TYR:O	3:E:150:SER:HA	2.07	0.54
3:H:122:ALA:HB1	3:H:339:GLN:HG3	1.89	0.54
3:H:189:ILE:HD12	3:H:310:TYR:HE2	1.71	0.54
3:J:200:PRO:HG3	3:J:233:GLU:CG	2.38	0.54
3:K:42:ILE:HD11	3:K:113:LEU:HD13	1.89	0.54
3:L:123:ARG:HH22	3:L:168:GLU:CD	2.10	0.54
1:Q:49:LEU:HD13	1:Q:59:VAL:HG11	1.90	0.54
1:Q:99:VAL:HG21	1:Q:113:VAL:HG11	1.89	0.54
3:A:168:GLU:HG2	3:A:335:TYR:CE1	2.43	0.54
3:E:83:LEU:HD23	3:E:117:TRP:HB3	1.89	0.54
3:G:51:THR:HG23	3:G:102:GLY:O	2.08	0.54
3:I:19:THR:HG22	3:I:20:ASN:N	2.22	0.54
3:I:244:THR:HG22	3:I:245:ASP:N	2.23	0.54
3:J:54:SER:HA	3:J:101:PRO:HB3	1.89	0.54
3:L:192:PHE:HD1	3:L:305:ASN:OD1	1.90	0.54
3:N:172:GLY:HA3	3:N:317:TYR:CE2	2.43	0.54
3:O:78:VAL:CG2	3:O:83:LEU:HB2	2.38	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:O:205:TYR:CD1	3:O:292:ASP:HA	2.43	0.54
3:B:41:SER:HB2	3:B:111:VAL:O	2.08	0.54
3:F:56:PRO:O	3:F:59:TYR:HB2	2.08	0.54
3:I:57:PHE:O	3:I:101:PRO:HG3	2.08	0.54
3:J:206:LEU:HB3	3:J:212:TYR:CE1	2.42	0.54
3:N:25:ILE:HG23	3:N:155:ILE:HD13	1.89	0.54
1:Q:36:PHE:CZ	3:C:24:LYS:HG3	2.43	0.53
3:C:247:ILE:HD13	3:C:274:ILE:HG21	1.89	0.53
3:E:130:GLN:OE1	3:E:130:GLN:HA	2.08	0.53
3:M:263:GLN:OE1	3:N:92:LYS:HG2	2.08	0.53
3:M:332:VAL:O	3:M:336:VAL:HG23	2.08	0.53
3:N:98:TYR:N	3:N:98:TYR:CD1	2.75	0.53
3:O:298:LEU:HD12	3:O:306:VAL:HG21	1.89	0.53
3:A:259:GLN:HG3	3:B:96:PRO:CG	2.36	0.53
3:D:259:GLN:O	3:D:263:GLN:HA	2.08	0.53
3:D:287:THR:HG21	3:D:318:TYR:CE2	2.41	0.53
3:E:203:VAL:O	3:E:204:ALA:HB2	2.09	0.53
3:G:4:ILE:HA	3:G:157:TYR:O	2.08	0.53
3:G:52:LEU:O	3:G:102:GLY:HA2	2.08	0.53
3:H:13:TYR:CZ	3:H:23:ILE:HG12	2.43	0.53
3:H:55:ALA:N	3:H:101:PRO:HB3	2.23	0.53
3:I:53:PRO:HG2	3:I:57:PHE:CG	2.43	0.53
3:I:92:LYS:N	3:I:92:LYS:CD	2.71	0.53
3:I:215:GLN:HG3	3:I:310:TYR:CD1	2.43	0.53
3:J:219:VAL:CG1	3:J:304:ASP:HB2	2.39	0.53
3:K:11:GLN:NE2	3:K:13:TYR:CE1	2.76	0.53
3:L:62:VAL:HG11	3:L:65:PHE:CZ	2.43	0.53
3:M:42:ILE:HG22	3:M:145:VAL:HB	1.91	0.53
3:M:62:VAL:HG11	3:M:65:PHE:CZ	2.43	0.53
3:N:280:PHE:CD1	3:N:284:LEU:HB2	2.43	0.53
3:N:324:LEU:HG	3:N:325:PRO:HD2	1.90	0.53
3:C:52:LEU:HD13	3:C:99:PRO:CG	2.38	0.53
3:C:284:LEU:HD11	3:C:294:ILE:HD13	1.91	0.53
3:E:70:GLU:HG3	3:E:130:GLN:HB2	1.89	0.53
3:H:9:LEU:HD11	3:H:155:ILE:HD12	1.90	0.53
3:M:194:VAL:HG21	3:M:203:VAL:HG13	1.89	0.53
3:N:277:ARG:HA	3:N:282:GLY:O	2.08	0.53
1:Q:211:THR:CB	4:P:57:SER:HB3	2.38	0.53
3:E:85:ILE:HD11	3:E:226:ILE:CD1	2.38	0.53
3:E:126:ALA:HB1	3:E:132:ILE:HD11	1.90	0.53
3:H:173:ALA:HB2	3:H:320:GLN:NE2	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:28:ASN:HD22	3:O:70:GLU:C	2.12	0.53
3:K:259:GLN:O	3:K:263:GLN:HA	2.08	0.53
3:N:324:LEU:HG	3:N:328:VAL:HB	1.90	0.53
3:A:285:ASP:O	3:A:286:LEU:HD23	2.08	0.53
3:C:116:MET:CG	3:C:117:TRP:N	2.71	0.53
3:D:34:ILE:O	3:D:119:PHE:HD1	1.90	0.53
3:D:333:GLN:OE1	3:D:333:GLN:HA	2.07	0.53
3:E:13:TYR:CZ	3:E:23:ILE:HG12	2.44	0.53
3:G:174:ASP:OD2	3:G:317:TYR:HE2	1.91	0.53
3:G:324:LEU:HG	3:G:328:VAL:HB	1.90	0.53
3:L:13:TYR:CE2	3:L:23:ILE:HG12	2.44	0.53
1:Q:29:SER:HB2	1:Q:110:SER:CB	2.39	0.53
1:Q:106:VAL:CG1	1:Q:202:GLY:CA	2.86	0.53
1:Q:175:GLY:N	4:P:42:LEU:CD1	2.71	0.53
3:C:221:ASN:H	3:C:228:ASN:ND2	2.06	0.53
3:E:85:ILE:HD11	3:E:226:ILE:HD11	1.91	0.53
3:H:9:LEU:HD21	3:H:26:PRO:CD	2.38	0.53
3:L:340:LYS:HG3	3:L:341:ARG:N	2.22	0.53
3:M:230:ASP:N	3:M:231:PRO:HD2	2.24	0.53
3:M:236:LEU:HB3	3:M:247:ILE:HG13	1.91	0.53
3:N:121:LEU:HB3	3:N:124:PHE:HB2	1.91	0.53
3:A:230:ASP:HA	3:A:301:GLN:CG	2.38	0.53
3:C:113:LEU:HD23	3:C:149:ALA:HB2	1.90	0.53
3:E:285:ASP:O	3:E:286:LEU:HD23	2.09	0.53
3:F:113:LEU:HD22	3:F:147:ILE:HG23	1.89	0.53
3:F:247:ILE:HG12	3:F:279:TYR:CD2	2.43	0.53
3:I:205:TYR:CD1	3:I:295:GLU:HB3	2.44	0.53
3:J:13:TYR:OH	3:J:23:ILE:HG23	2.09	0.53
3:K:95:ASN:OD1	3:K:96:PRO:HD2	2.09	0.53
3:N:277:ARG:HG3	3:N:278:LYS:HG2	1.91	0.53
3:A:239:VAL:HG23	3:A:295:GLU:HG2	1.90	0.53
3:B:172:GLY:HA3	3:B:317:TYR:CE2	2.44	0.53
3:E:11:GLN:H	3:I:133:ILE:HD13	1.74	0.53
3:E:259:GLN:HG3	3:F:96:PRO:HG2	1.91	0.53
3:F:3:GLU:HB2	3:F:159:ARG:CB	2.39	0.53
3:F:257:GLU:O	3:F:261:GLU:CB	2.57	0.53
3:K:171:LEU:HB3	3:K:175:GLY:HA2	1.90	0.53
3:M:176:GLU:C	3:M:177:MET:HG3	2.27	0.53
4:P:117:GLU:HG3	4:P:119:TYR:CE2	2.44	0.53
3:A:172:GLY:HA3	3:A:317:TYR:CE2	2.44	0.53
3:A:216:LEU:HD12	3:A:272:ALA:O	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:248:LYS:HB3	3:B:7:GLU:CB	2.39	0.53
3:A:334:GLN:OE1	3:A:334:GLN:HA	2.07	0.53
3:B:121:LEU:HB3	3:B:124:PHE:HB2	1.90	0.53
3:C:121:LEU:HB3	3:C:124:PHE:HB2	1.91	0.53
3:C:205:TYR:CD1	3:C:295:GLU:HB3	2.44	0.53
3:F:13:TYR:HB3	3:F:21:ILE:HG21	1.90	0.53
3:F:17:ALA:HB1	3:F:140:GLN:NE2	2.23	0.53
3:F:219:VAL:HG21	3:F:300:LEU:CD2	2.38	0.53
3:K:254:LEU:HD21	3:K:274:ILE:HG13	1.90	0.53
3:M:200:PRO:HG3	3:M:233:GLU:CG	2.38	0.53
3:M:333:GLN:HA	3:M:333:GLN:OE1	2.09	0.53
3:N:121:LEU:HA	3:N:184:PRO:HG3	1.90	0.53
3:A:41:SER:HB2	3:A:111:VAL:O	2.09	0.53
3:A:57:PHE:CE2	3:A:142:PRO:HG2	2.44	0.53
3:A:321:LEU:HD22	3:A:332:VAL:HG11	1.91	0.53
3:B:212:TYR:HA	3:B:312:SER:OG	2.08	0.53
3:F:309:LEU:HD23	3:F:309:LEU:C	2.29	0.53
3:I:44:ASN:ND2	3:I:107:ALA:HA	2.22	0.53
3:K:30:PHE:CD1	3:K:160:VAL:HG21	2.44	0.53
3:K:218:TYR:HA	3:K:270:ALA:O	2.09	0.53
3:L:55:ALA:N	3:L:101:PRO:HB3	2.24	0.53
3:L:87:MET:HE1	3:L:118:GLU:HB3	1.91	0.53
3:N:64:THR:HA	3:N:79:SER:HA	1.90	0.53
1:Q:45:PHE:HE1	1:Q:89:PHE:CD2	2.27	0.52
3:B:52:LEU:CD2	3:B:145:VAL:HG21	2.39	0.52
3:C:309:LEU:HD23	3:C:310:TYR:N	2.23	0.52
3:C:329:ALA:O	3:C:333:GLN:HG2	2.09	0.52
3:D:343:ILE:O	3:D:343:ILE:HG12	2.09	0.52
3:G:37:GLN:HG2	3:G:116:MET:HE2	1.90	0.52
3:G:87:MET:HB3	3:G:95:ASN:ND2	2.24	0.52
3:G:257:GLU:O	3:G:261:GLU:CB	2.57	0.52
3:I:212:TYR:HA	3:I:312:SER:OG	2.08	0.52
3:J:23:ILE:HD13	3:J:153:ILE:HD11	1.91	0.52
3:J:57:PHE:CD2	3:J:58:PRO:HA	2.44	0.52
3:J:69:TYR:OH	3:J:73:LYS:HD2	2.09	0.52
3:K:247:ILE:HD13	3:K:274:ILE:HG21	1.91	0.52
3:K:320:GLN:O	3:K:324:LEU:HB2	2.09	0.52
3:L:195:PRO:HA	3:L:303:GLN:HG3	1.90	0.52
3:M:13:TYR:OH	3:M:23:ILE:HG23	2.09	0.52
3:C:30:PHE:CZ	3:C:165:ILE:HD11	2.43	0.52
3:D:54:SER:CA	3:D:101:PRO:HB3	2.37	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:219:VAL:HG12	3:D:220:ILE:N	2.24	0.52
3:G:230:ASP:O	3:G:232:THR:HG23	2.10	0.52
3:I:259:GLN:O	3:I:263:GLN:HA	2.10	0.52
3:L:38:LEU:HD13	3:L:151:PHE:CZ	2.44	0.52
3:M:220:ILE:O	3:M:304:ASP:HB3	2.09	0.52
3:O:69:TYR:O	3:O:70:GLU:HB2	2.09	0.52
3:O:202:HIS:HA	3:O:297:ASP:OD2	2.08	0.52
4:P:264:GLU:O	4:P:264:GLU:CG	2.57	0.52
3:B:195:PRO:HG2	3:B:201:ILE:HD12	1.91	0.52
3:D:42:ILE:HG22	3:D:145:VAL:HB	1.91	0.52
3:D:206:LEU:HD12	3:D:294:ILE:HB	1.91	0.52
3:D:298:LEU:HD12	3:D:306:VAL:HG21	1.91	0.52
3:D:321:LEU:CD2	3:D:332:VAL:HG11	2.38	0.52
3:J:278:LYS:O	3:K:4:ILE:HB	2.09	0.52
3:K:19:THR:HG22	3:K:20:ASN:N	2.24	0.52
3:K:68:SER:HB2	3:K:73:LYS:O	2.09	0.52
3:N:42:ILE:HG23	3:N:147:ILE:HD13	1.90	0.52
3:N:233:GLU:HB3	3:N:299:ALA:CB	2.39	0.52
3:A:5:TYR:CE1	3:A:157:TYR:HB2	2.44	0.52
3:A:113:LEU:CD2	3:A:147:ILE:HG23	2.38	0.52
3:B:56:PRO:O	3:B:59:TYR:HB2	2.09	0.52
3:C:4:ILE:HG23	3:C:32:ARG:HD3	1.92	0.52
3:E:25:ILE:HG23	3:E:155:ILE:CD1	2.40	0.52
3:E:36:VAL:O	3:E:116:MET:HG3	2.08	0.52
3:F:38:LEU:O	3:F:114:ASN:HA	2.10	0.52
3:G:95:ASN:OD1	3:G:96:PRO:HD2	2.10	0.52
3:H:32:ARG:HD2	3:H:158:GLU:HB2	1.91	0.52
3:H:187:ILE:HG22	3:H:188:GLU:N	2.25	0.52
3:L:211:ILE:HD12	3:L:313:TYR:CE2	2.45	0.52
3:L:337:ALA:O	3:L:340:LYS:HG2	2.09	0.52
3:O:13:TYR:CZ	3:O:23:ILE:HG12	2.44	0.52
3:B:57:PHE:CE2	3:B:142:PRO:HG2	2.44	0.52
3:B:96:PRO:HB3	3:B:114:ASN:ND2	2.24	0.52
3:B:187:ILE:HG22	3:B:188:GLU:N	2.25	0.52
3:D:13:TYR:CZ	3:D:23:ILE:HG12	2.44	0.52
3:D:29:ASN:OD1	3:D:159:ARG:HA	2.09	0.52
3:E:32:ARG:HH21	3:E:342:ARG:CD	2.22	0.52
3:E:121:LEU:HD12	3:E:121:LEU:N	2.25	0.52
3:F:52:LEU:HD12	3:F:99:PRO:HG3	1.91	0.52
3:H:19:THR:CG2	3:H:20:ASN:N	2.73	0.52
3:K:67:LEU:HB3	3:K:76:TYR:HB2	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:13:TYR:CZ	3:L:23:ILE:HG12	2.44	0.52
3:L:105:VAL:HA	3:L:111:VAL:HG13	1.90	0.52
3:O:190:PRO:HB3	3:O:307:TYR:CE1	2.45	0.52
1:Q:19:VAL:HG23	1:Q:120:HIS:HB3	1.92	0.52
3:A:239:VAL:HG21	3:A:295:GLU:HG2	1.92	0.52
3:B:38:LEU:O	3:B:114:ASN:HA	2.10	0.52
3:E:142:PRO:HB2	3:E:145:VAL:CG2	2.40	0.52
3:E:244:THR:OG1	3:J:73:LYS:HE2	2.10	0.52
3:F:54:SER:CA	3:F:101:PRO:HB3	2.38	0.52
3:G:42:ILE:HG23	3:G:147:ILE:HD13	1.92	0.52
3:H:125:PRO:HG3	3:H:177:MET:HG2	1.91	0.52
3:H:337:ALA:O	3:H:341:ARG:HG2	2.10	0.52
3:I:194:VAL:HG11	3:I:203:VAL:HG22	1.91	0.52
3:J:89:TYR:CD2	3:J:273:ILE:HD11	2.44	0.52
3:M:247:ILE:CD1	3:M:274:ILE:HG21	2.40	0.52
3:N:13:TYR:CZ	3:N:23:ILE:HG12	2.44	0.52
3:O:105:VAL:HG21	3:O:145:VAL:HG11	1.91	0.52
3:A:236:LEU:CB	3:A:247:ILE:HD12	2.40	0.52
3:B:309:LEU:HD23	3:B:310:TYR:N	2.25	0.52
3:C:293:SER:O	3:C:294:ILE:HG13	2.09	0.52
3:F:38:LEU:HD13	3:F:151:PHE:CZ	2.45	0.52
3:H:173:ALA:HB2	3:H:320:GLN:CD	2.29	0.52
3:I:38:LEU:O	3:I:114:ASN:HA	2.09	0.52
3:I:345:ARG:HG3	3:I:345:ARG:HH11	1.74	0.52
3:J:123:ARG:HD2	3:J:158:GLU:OE2	2.09	0.52
3:K:91:THR:HG23	3:K:345:ARG:HD3	1.92	0.52
3:A:246:LYS:HG3	3:A:280:PHE:CZ	2.44	0.52
3:A:257:GLU:O	3:A:261:GLU:CB	2.57	0.52
3:B:57:PHE:CD2	3:B:58:PRO:HA	2.45	0.52
3:E:32:ARG:HA	3:E:122:ALA:O	2.09	0.52
3:E:92:LYS:N	3:E:92:LYS:CD	2.73	0.52
3:F:246:LYS:C	3:F:247:ILE:HG13	2.30	0.52
3:F:321:LEU:CD2	3:F:332:VAL:CG1	2.88	0.52
3:G:187:ILE:CG2	3:G:188:GLU:N	2.72	0.52
3:M:341:ARG:O	3:M:344:LYS:HE3	2.09	0.52
3:O:287:THR:HG21	3:O:318:TYR:CD2	2.44	0.52
3:C:30:PHE:CD1	3:C:160:VAL:HG21	2.45	0.52
3:E:122:ALA:HB1	3:E:339:GLN:HG3	1.92	0.52
3:E:192:PHE:HE2	3:O:201:ILE:HG21	1.75	0.52
3:F:68:SER:HB2	3:F:73:LYS:O	2.09	0.52
3:G:176:GLU:O	3:G:177:MET:HG3	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:190:PRO:CB	3:L:307:TYR:CD1	2.91	0.52
3:L:213:LYS:HB2	3:L:311:VAL:O	2.09	0.52
3:M:25:ILE:HG23	3:M:155:ILE:HD13	1.91	0.52
3:M:69:TYR:O	3:M:70:GLU:HB2	2.10	0.52
1:Q:140:TYR:CD2	1:Q:142:ILE:HG13	2.45	0.52
3:B:332:VAL:O	3:B:336:VAL:HG23	2.10	0.52
3:C:215:GLN:HG3	3:C:310:TYR:CD1	2.45	0.52
3:C:224:SER:OG	3:C:228:ASN:HB3	2.09	0.52
3:E:240:ARG:HD3	3:J:209:GLY:HA3	1.92	0.52
3:G:15:TRP:CZ3	3:G:147:ILE:HB	2.45	0.52
3:G:105:VAL:HG13	3:G:110:SER:HA	1.92	0.52
3:H:105:VAL:HA	3:H:111:VAL:HG13	1.92	0.52
3:I:12:THR:HG21	3:I:152:TYR:CE2	2.45	0.52
3:I:26:PRO:HB3	3:M:131:ASN:HD21	1.75	0.52
3:J:208:PRO:HA	3:J:286:LEU:HB2	1.92	0.52
3:L:105:VAL:HG21	3:L:145:VAL:HG11	1.92	0.52
3:N:25:ILE:HG23	3:N:155:ILE:CD1	2.40	0.52
3:O:240:ARG:NH1	3:O:290:PRO:HB2	2.24	0.52
3:A:257:GLU:O	3:A:261:GLU:HB2	2.10	0.51
3:C:122:ALA:HB1	3:C:339:GLN:HG2	1.90	0.51
3:D:134:LEU:O	3:D:134:LEU:HG	2.08	0.51
3:H:211:ILE:HG12	3:H:285:ASP:OD2	2.09	0.51
3:I:56:PRO:CB	3:I:81:THR:HG23	2.40	0.51
3:J:19:THR:HG22	3:J:20:ASN:N	2.25	0.51
3:J:87:MET:HB3	3:J:95:ASN:ND2	2.24	0.51
3:J:92:LYS:HG3	3:J:262:TYR:O	2.09	0.51
3:K:13:TYR:HB3	3:K:21:ILE:HG21	1.91	0.51
3:K:244:THR:CG2	3:K:245:ASP:N	2.73	0.51
3:O:9:LEU:HD21	3:O:155:ILE:HD11	1.93	0.51
3:A:55:ALA:N	3:A:101:PRO:HB3	2.26	0.51
3:B:62:VAL:O	3:B:80:GLY:HA3	2.10	0.51
3:B:69:TYR:O	3:B:70:GLU:HB2	2.09	0.51
3:D:43:SER:HA	3:D:110:SER:HB2	1.91	0.51
3:F:238:ILE:HD11	3:F:246:LYS:CD	2.37	0.51
3:G:62:VAL:HG13	3:G:136:ILE:HG23	1.92	0.51
3:G:273:ILE:C	3:G:274:ILE:HD12	2.30	0.51
3:H:62:VAL:HG13	3:H:136:ILE:HG23	1.92	0.51
3:I:165:ILE:HA	3:I:168:GLU:OE1	2.09	0.51
3:I:246:LYS:O	3:I:279:TYR:HD2	1.93	0.51
3:L:273:ILE:C	3:L:274:ILE:HD12	2.31	0.51
3:M:174:ASP:OD2	3:M:317:TYR:HE2	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:M:238:ILE:HD11	3:M:246:LYS:CD	2.39	0.51
3:N:240:ARG:HH12	3:N:290:PRO:CB	2.24	0.51
3:O:23:ILE:HG21	3:O:153:ILE:HG13	1.92	0.51
3:O:90:THR:HB	3:O:345:ARG:HG2	1.91	0.51
3:B:52:LEU:HD13	3:B:99:PRO:HG3	1.91	0.51
3:B:64:THR:HA	3:B:79:SER:HA	1.93	0.51
3:C:277:ARG:HA	3:C:282:GLY:O	2.11	0.51
3:E:179:LEU:HG	3:E:321:LEU:HD21	1.93	0.51
3:J:91:THR:O	3:J:94:GLN:HB2	2.10	0.51
3:K:219:VAL:HG12	3:K:220:ILE:N	2.26	0.51
3:K:321:LEU:HD22	3:K:332:VAL:HG11	1.92	0.51
3:L:105:VAL:HG13	3:L:110:SER:HA	1.93	0.51
3:M:194:VAL:HG12	3:M:201:ILE:HD11	1.91	0.51
3:N:57:PHE:O	3:N:101:PRO:HG3	2.10	0.51
3:O:19:THR:O	3:O:137:LEU:HD12	2.10	0.51
3:O:192:PHE:HD1	3:O:305:ASN:OD1	1.93	0.51
3:O:203:VAL:HB	3:O:296:TYR:O	2.10	0.51
3:A:298:LEU:CD1	3:A:306:VAL:HG11	2.40	0.51
3:B:28:ASN:OD1	3:B:28:ASN:N	2.41	0.51
3:C:56:PRO:CB	3:C:81:THR:HG23	2.39	0.51
3:C:130:GLN:HA	3:C:130:GLN:NE2	2.15	0.51
3:D:19:THR:CG2	3:D:20:ASN:N	2.73	0.51
3:D:27:ARG:HD2	3:D:126:ALA:O	2.10	0.51
3:D:93:GLY:HA3	3:D:264:VAL:HG21	1.93	0.51
3:I:56:PRO:HB3	3:I:81:THR:HG23	1.91	0.51
3:J:37:GLN:HG2	3:J:116:MET:HE2	1.92	0.51
3:K:254:LEU:HD21	3:K:274:ILE:CD1	2.41	0.51
3:L:288:HIS:CD2	3:L:318:TYR:HE2	2.29	0.51
1:Q:61:LEU:N	1:Q:61:LEU:CD1	2.73	0.51
3:C:244:THR:HG22	3:C:245:ASP:N	2.25	0.51
3:C:286:LEU:HD21	3:C:294:ILE:CD1	2.34	0.51
3:D:286:LEU:HD21	3:D:294:ILE:HD12	1.92	0.51
3:I:5:TYR:HE2	3:I:7:GLU:OE2	1.94	0.51
3:J:42:ILE:HG21	3:J:52:LEU:HD21	1.93	0.51
3:J:90:THR:HB	3:J:345:ARG:CG	2.37	0.51
3:L:4:ILE:HA	3:L:158:GLU:HA	1.93	0.51
3:M:176:GLU:O	3:M:177:MET:HG3	2.10	0.51
3:M:219:VAL:HG12	3:M:220:ILE:N	2.25	0.51
3:N:240:ARG:HH12	3:N:290:PRO:HB2	1.76	0.51
3:O:55:ALA:N	3:O:101:PRO:HB3	2.25	0.51
3:A:230:ASP:N	3:A:231:PRO:HD2	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:76:TYR:CE2	3:D:119:PHE:HB3	2.46	0.51
3:E:247:ILE:HD13	3:E:274:ILE:HG21	1.91	0.51
3:G:246:LYS:C	3:G:247:ILE:HG13	2.30	0.51
3:H:13:TYR:OH	3:H:23:ILE:HG23	2.09	0.51
3:I:61:LEU:CD2	3:I:142:PRO:HD3	2.40	0.51
3:I:332:VAL:O	3:I:336:VAL:HG23	2.10	0.51
3:J:345:ARG:HG3	3:J:345:ARG:NH1	2.24	0.51
3:K:105:VAL:HA	3:K:111:VAL:HG13	1.93	0.51
3:K:182:VAL:HG21	3:K:339:GLN:HB3	1.91	0.51
3:K:254:LEU:HD21	3:K:274:ILE:CG1	2.41	0.51
3:L:55:ALA:H	3:L:101:PRO:HB3	1.76	0.51
3:L:345:ARG:NH1	3:L:345:ARG:CG	2.72	0.51
3:M:246:LYS:HE2	3:M:246:LYS:CA	2.33	0.51
3:O:338:ARG:O	3:O:341:ARG:HG2	2.09	0.51
3:A:196:ALA:HB2	3:A:302:ASN:C	2.31	0.51
3:C:231:PRO:HB2	3:C:251:TRP:CD2	2.46	0.51
3:F:126:ALA:HA	3:F:129:VAL:HG22	1.92	0.51
3:F:329:ALA:O	3:F:333:GLN:HG2	2.11	0.51
3:I:55:ALA:N	3:I:101:PRO:HB3	2.26	0.51
3:J:35:ARG:HB2	3:J:154:THR:HB	1.93	0.51
3:K:164:GLU:HA	3:K:167:SER:OG	2.11	0.51
3:L:58:PRO:HB2	3:L:115:VAL:HG21	1.93	0.51
1:Q:23:ASP:HA	1:Q:115:LEU:O	2.10	0.51
1:Q:181:ILE:HG23	1:Q:181:ILE:O	2.10	0.51
3:A:38:LEU:HD13	3:A:151:PHE:CZ	2.46	0.51
3:B:123:ARG:HB3	3:B:339:GLN:OE1	2.11	0.51
3:B:324:LEU:HD21	3:B:332:VAL:HG21	1.93	0.51
3:C:98:TYR:N	3:C:98:TYR:CD1	2.78	0.51
3:C:142:PRO:HB2	3:C:145:VAL:HG22	1.92	0.51
3:C:171:LEU:HB3	3:C:175:GLY:HA2	1.91	0.51
3:C:238:ILE:HG13	3:C:246:LYS:HG2	1.92	0.51
3:C:240:ARG:HG2	3:C:241:GLY:N	2.25	0.51
3:F:30:PHE:CD2	3:F:125:PRO:HA	2.46	0.51
3:F:230:ASP:HA	3:F:301:GLN:CG	2.36	0.51
3:H:35:ARG:HB2	3:H:154:THR:HB	1.93	0.51
3:H:90:THR:HB	3:H:345:ARG:HG2	1.90	0.51
3:H:205:TYR:HA	3:H:295:GLU:HA	1.91	0.51
3:H:263:GLN:O	3:I:94:GLN:HG3	2.11	0.51
3:I:113:LEU:CD2	3:I:147:ILE:HG23	2.41	0.51
3:I:172:GLY:HA3	3:I:317:TYR:CE2	2.46	0.51
3:I:247:ILE:HG12	3:I:279:TYR:CE2	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:61:LEU:HD22	3:J:147:ILE:HG13	1.91	0.51
3:J:211:ILE:HD12	3:J:313:TYR:CZ	2.45	0.51
3:K:68:SER:HB3	3:K:74:THR:HA	1.93	0.51
3:L:86:LEU:HD12	3:L:86:LEU:O	2.11	0.51
3:N:65:PHE:HE1	3:N:136:ILE:HG12	1.75	0.51
3:B:189:ILE:HD12	3:B:310:TYR:CE2	2.44	0.51
3:C:56:PRO:HD3	3:C:226:ILE:CG2	2.41	0.51
3:D:4:ILE:HG23	3:D:32:ARG:HD3	1.93	0.51
3:F:230:ASP:O	3:F:232:THR:HG23	2.10	0.51
3:F:235:GLU:HB3	3:F:297:ASP:HB2	1.93	0.51
3:H:280:PHE:CE1	3:H:284:LEU:HD22	2.46	0.51
3:K:263:GLN:HB3	3:L:92:LYS:HB3	1.93	0.51
3:N:65:PHE:CD1	3:N:136:ILE:HG12	2.46	0.51
3:N:240:ARG:NH1	3:N:290:PRO:HB2	2.26	0.51
3:N:309:LEU:HD23	3:N:310:TYR:N	2.26	0.51
3:O:42:ILE:HG22	3:O:145:VAL:HB	1.93	0.51
3:O:52:LEU:CD1	3:O:99:PRO:CG	2.89	0.51
1:Q:60:LEU:HD23	1:Q:60:LEU:N	2.25	0.51
3:E:57:PHE:CE2	3:E:142:PRO:HG2	2.46	0.51
3:E:176:GLU:O	3:E:177:MET:HG3	2.11	0.51
3:E:187:ILE:HG22	3:E:188:GLU:N	2.26	0.51
3:E:195:PRO:HA	3:E:303:GLN:HG3	1.93	0.51
3:E:208:PRO:CD	3:E:291:SER:HB3	2.41	0.51
3:G:94:GLN:O	3:I:259:GLN:NE2	2.44	0.51
3:H:334:GLN:O	3:H:338:ARG:HG3	2.11	0.51
3:I:56:PRO:HA	3:I:267:TYR:OH	2.11	0.51
3:J:206:LEU:HB3	3:J:212:TYR:CZ	2.45	0.51
3:K:200:PRO:HG3	3:K:233:GLU:HG3	1.92	0.51
3:L:200:PRO:CG	3:L:233:GLU:HG3	2.41	0.51
3:M:218:TYR:HA	3:M:270:ALA:O	2.11	0.51
3:N:5:TYR:HE2	3:N:7:GLU:OE2	1.94	0.51
3:O:224:SER:OG	3:O:228:ASN:HB3	2.10	0.51
3:D:184:PRO:CB	3:D:343:ILE:HD12	2.40	0.50
3:E:63:GLN:HG2	3:E:64:THR:HG23	1.93	0.50
3:F:23:ILE:HG21	3:F:153:ILE:HG13	1.91	0.50
3:F:53:PRO:CD	3:F:142:PRO:HB3	2.41	0.50
3:G:168:GLU:HG2	3:G:335:TYR:CE1	2.46	0.50
3:G:256:ALA:CB	3:H:116:MET:CE	2.90	0.50
3:I:90:THR:CB	3:I:345:ARG:HG2	2.42	0.50
3:K:190:PRO:HB3	3:K:307:TYR:CE1	2.46	0.50
3:K:284:LEU:HD11	3:K:294:ILE:CD1	2.40	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:15:TRP:CZ3	3:N:147:ILE:HB	2.46	0.50
3:N:213:LYS:HB2	3:N:311:VAL:O	2.11	0.50
3:N:314:VAL:HG12	3:N:315:LEU:N	2.25	0.50
3:N:321:LEU:CD2	3:N:332:VAL:HG11	2.40	0.50
3:B:35:ARG:HB2	3:B:154:THR:HB	1.93	0.50
3:B:248:LYS:HG3	3:B:248:LYS:O	2.10	0.50
3:B:257:GLU:O	3:B:261:GLU:CB	2.59	0.50
3:C:298:LEU:HD12	3:C:306:VAL:HG21	1.92	0.50
3:F:203:VAL:HG23	3:F:297:ASP:HA	1.93	0.50
3:F:309:LEU:HD23	3:F:310:TYR:N	2.27	0.50
3:I:235:GLU:OE2	3:I:237:LYS:HE3	2.11	0.50
3:N:27:ARG:NH1	3:N:27:ARG:HB2	2.26	0.50
3:N:69:TYR:O	3:N:70:GLU:HB2	2.11	0.50
3:N:253:ALA:O	3:N:256:ALA:HB3	2.11	0.50
1:Q:146:PHE:CD1	1:Q:147:GLY:CA	2.91	0.50
3:A:130:GLN:OE1	3:A:130:GLN:HA	2.10	0.50
3:A:203:VAL:HG23	3:A:297:ASP:HA	1.93	0.50
3:D:236:LEU:HD11	3:D:294:ILE:HG22	1.92	0.50
3:F:205:TYR:CD1	3:F:295:GLU:HB3	2.45	0.50
3:G:263:GLN:HA	3:H:94:GLN:HG3	1.93	0.50
3:H:57:PHE:CD2	3:H:58:PRO:HA	2.46	0.50
3:L:236:LEU:HD12	3:L:295:GLU:O	2.10	0.50
3:M:247:ILE:HD13	3:M:274:ILE:HG21	1.92	0.50
3:N:37:GLN:HB3	3:N:39:ILE:HG13	1.94	0.50
3:O:56:PRO:CB	3:O:81:THR:HG23	2.41	0.50
3:C:62:VAL:HG11	3:C:65:PHE:CZ	2.47	0.50
3:C:92:LYS:N	3:C:92:LYS:CD	2.64	0.50
3:D:90:THR:HB	3:D:345:ARG:HG2	1.94	0.50
3:D:324:LEU:HG	3:D:328:VAL:HB	1.93	0.50
3:I:9:LEU:HD21	3:I:155:ILE:HD11	1.92	0.50
3:I:62:VAL:HG13	3:I:136:ILE:HG23	1.94	0.50
3:O:214:ARG:HG2	3:O:311:VAL:HB	1.92	0.50
3:O:230:ASP:HA	3:O:301:GLN:CG	2.41	0.50
1:Q:9:LYS:CB	2:R:10:UNK:CB	2.89	0.50
1:Q:191:GLN:HB3	4:P:25:LYS:HB3	1.92	0.50
3:C:27:ARG:NH1	3:C:27:ARG:HB2	2.27	0.50
3:C:67:LEU:HD13	3:C:134:LEU:HB2	1.94	0.50
3:D:56:PRO:HB3	3:D:81:THR:HG23	1.92	0.50
3:D:173:ALA:HB2	3:D:320:GLN:OE1	2.10	0.50
3:D:309:LEU:HD23	3:D:310:TYR:N	2.27	0.50
3:G:192:PHE:HD1	3:G:305:ASN:OD1	1.95	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:M:68:SER:HB2	3:M:74:THR:HA	1.94	0.50
3:N:57:PHE:CG	3:N:58:PRO:HA	2.47	0.50
3:C:321:LEU:HD22	3:C:332:VAL:CG1	2.42	0.50
3:D:65:PHE:CE1	3:D:136:ILE:HG12	2.47	0.50
3:E:184:PRO:CB	3:E:343:ILE:HD12	2.41	0.50
3:E:321:LEU:HD13	3:E:336:VAL:HG21	1.94	0.50
3:E:343:ILE:O	3:E:343:ILE:CG1	2.52	0.50
3:H:62:VAL:HG11	3:H:65:PHE:CZ	2.46	0.50
3:I:42:ILE:HD11	3:I:113:LEU:HD13	1.93	0.50
3:J:27:ARG:HB3	3:J:126:ALA:O	2.12	0.50
3:K:187:ILE:HG22	3:K:188:GLU:N	2.27	0.50
3:L:42:ILE:HG23	3:L:147:ILE:CD1	2.37	0.50
3:L:70:GLU:N	3:L:130:GLN:O	2.44	0.50
3:M:57:PHE:O	3:M:101:PRO:HG3	2.12	0.50
3:N:215:GLN:HG3	3:N:310:TYR:CD1	2.47	0.50
3:N:249:VAL:HG12	3:N:253:ALA:HB3	1.93	0.50
3:O:57:PHE:CD2	3:O:58:PRO:HA	2.46	0.50
3:O:257:GLU:O	3:O:261:GLU:CB	2.60	0.50
3:B:23:ILE:HD11	3:B:136:ILE:HD12	1.93	0.50
3:D:121:LEU:N	3:D:121:LEU:HD12	2.26	0.50
3:E:56:PRO:CB	3:E:81:THR:HG23	2.42	0.50
3:E:105:VAL:HG21	3:E:145:VAL:HG11	1.94	0.50
3:E:240:ARG:HD3	3:E:241:GLY:H	1.77	0.50
3:E:257:GLU:O	3:E:261:GLU:HB2	2.12	0.50
3:H:253:ALA:HA	3:H:256:ALA:HB2	1.93	0.50
3:I:236:LEU:HB2	3:I:247:ILE:HD12	1.94	0.50
3:J:56:PRO:CB	3:J:81:THR:HG23	2.41	0.50
3:K:30:PHE:O	3:K:157:TYR:HA	2.12	0.50
3:L:3:GLU:HB2	3:L:159:ARG:HB3	1.94	0.50
3:L:216:LEU:HD23	3:L:309:LEU:HD13	1.94	0.50
3:M:123:ARG:HH22	3:M:168:GLU:CD	2.15	0.50
3:N:236:LEU:CB	3:N:247:ILE:HD12	2.41	0.50
1:Q:106:VAL:CG1	1:Q:202:GLY:HA3	2.42	0.50
1:Q:175:GLY:O	4:P:42:LEU:HD12	2.10	0.50
3:B:26:PRO:HG3	3:F:131:ASN:HD21	1.77	0.50
3:B:246:LYS:HG3	3:B:280:PHE:CE2	2.47	0.50
3:C:64:THR:OG1	3:C:137:LEU:HB3	2.12	0.50
3:C:246:LYS:HE2	3:C:246:LYS:CA	2.39	0.50
3:D:309:LEU:HD23	3:D:309:LEU:C	2.32	0.50
3:E:325:PRO:HB2	3:E:328:VAL:HG23	1.94	0.50
3:G:113:LEU:CD2	3:G:147:ILE:HG23	2.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:26:PRO:CG	3:M:131:ASN:HD21	2.25	0.50
3:K:176:GLU:O	3:K:177:MET:HG3	2.11	0.50
3:M:25:ILE:HG23	3:M:155:ILE:CD1	2.41	0.50
3:N:96:PRO:HB3	3:N:114:ASN:ND2	2.26	0.50
1:Q:11:LYS:HA	2:R:8:UNK:HA	1.94	0.50
3:A:44:ASN:ND2	3:A:107:ALA:HA	2.26	0.50
3:A:92:LYS:HD3	3:C:263:GLN:HB3	1.94	0.50
3:A:280:PHE:CE2	3:A:284:LEU:HD13	2.47	0.50
3:A:321:LEU:CD2	3:A:332:VAL:HG11	2.41	0.50
3:B:220:ILE:HG13	3:B:307:TYR:CE2	2.47	0.50
3:C:63:GLN:O	3:C:79:SER:HB2	2.12	0.50
3:C:195:PRO:HG2	3:C:201:ILE:CD1	2.41	0.50
3:D:249:VAL:HG12	3:D:253:ALA:HB3	1.93	0.50
3:E:126:ALA:CB	3:E:132:ILE:HD11	2.41	0.50
3:E:182:VAL:HG21	3:E:339:GLN:CB	2.42	0.50
3:G:42:ILE:HG12	3:G:147:ILE:CD1	2.42	0.50
3:H:19:THR:HG22	3:H:20:ASN:N	2.27	0.50
3:I:345:ARG:HG3	3:I:345:ARG:NH1	2.27	0.50
3:L:50:VAL:HG11	3:L:143:SER:O	2.12	0.50
3:L:230:ASP:N	3:L:231:PRO:HD2	2.27	0.50
3:O:12:THR:HG21	3:O:152:TYR:CE2	2.47	0.50
4:P:173:LEU:O	4:P:237:GLU:HG2	2.12	0.50
3:A:67:LEU:CD1	3:A:134:LEU:HB2	2.42	0.49
3:A:122:ALA:HB1	3:A:339:GLN:CG	2.42	0.49
3:B:36:VAL:HG21	3:B:134:LEU:HD21	1.93	0.49
3:B:57:PHE:CG	3:B:58:PRO:HA	2.47	0.49
3:B:69:TYR:CE1	3:B:73:LYS:HB2	2.47	0.49
3:B:228:ASN:OD1	3:B:270:ALA:HB2	2.12	0.49
3:C:62:VAL:HG13	3:C:136:ILE:HG23	1.92	0.49
3:C:179:LEU:HD11	3:C:320:GLN:HB2	1.94	0.49
3:G:116:MET:HE1	3:I:256:ALA:CB	2.42	0.49
3:H:277:ARG:NH1	3:H:277:ARG:HB3	2.24	0.49
3:I:205:TYR:HA	3:I:295:GLU:HA	1.94	0.49
3:I:321:LEU:CD2	3:I:332:VAL:HG11	2.41	0.49
3:K:13:TYR:CZ	3:K:23:ILE:HG12	2.47	0.49
3:M:19:THR:C	3:M:137:LEU:HD12	2.30	0.49
3:M:19:THR:CG2	3:M:20:ASN:N	2.75	0.49
3:M:236:LEU:HB2	3:M:247:ILE:HD12	1.93	0.49
3:O:19:THR:CG2	3:O:20:ASN:N	2.75	0.49
3:O:25:ILE:CG2	3:O:155:ILE:HD13	2.42	0.49
3:O:27:ARG:HB3	3:O:126:ALA:O	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:263:GLN:HB3	3:B:94:GLN:HG3	1.93	0.49
3:B:301:GLN:OE1	3:B:301:GLN:HA	2.12	0.49
3:C:33:LYS:HE3	3:C:35:ARG:NH2	2.27	0.49
3:D:332:VAL:O	3:D:336:VAL:HG23	2.12	0.49
3:E:279:TYR:N	3:E:279:TYR:CD1	2.80	0.49
3:F:83:LEU:HD23	3:F:117:TRP:HB3	1.94	0.49
3:F:231:PRO:HB2	3:F:251:TRP:CD2	2.47	0.49
3:G:256:ALA:CB	3:H:116:MET:HE1	2.42	0.49
3:I:38:LEU:HD13	3:I:151:PHE:CE2	2.47	0.49
3:I:319:ASP:OD2	3:I:319:ASP:N	2.45	0.49
3:J:81:THR:O	3:J:85:ILE:HG13	2.12	0.49
3:J:315:LEU:HB2	3:J:318:TYR:HB2	1.94	0.49
3:L:13:TYR:OH	3:L:23:ILE:HG23	2.12	0.49
3:M:189:ILE:HD12	3:M:310:TYR:HE2	1.76	0.49
3:O:67:LEU:CD1	3:O:134:LEU:HB2	2.40	0.49
3:A:254:LEU:HD21	3:A:274:ILE:CD1	2.31	0.49
3:B:98:TYR:O	3:B:113:LEU:HD12	2.12	0.49
3:B:104:SER:O	3:B:106:PRO:HD3	2.12	0.49
3:C:230:ASP:N	3:C:231:PRO:HD2	2.27	0.49
3:C:297:ASP:O	3:C:298:LEU:HD23	2.13	0.49
3:D:116:MET:HG3	3:D:117:TRP:H	1.77	0.49
3:F:47:THR:O	3:F:107:ALA:HB1	2.12	0.49
3:G:38:LEU:O	3:G:114:ASN:HA	2.12	0.49
3:G:128:MET:SD	3:G:178:PRO:HD3	2.52	0.49
3:G:236:LEU:HD12	3:G:295:GLU:O	2.12	0.49
3:K:81:THR:O	3:K:85:ILE:HG13	2.12	0.49
3:L:27:ARG:HG2	3:L:132:ILE:HD12	1.94	0.49
3:N:95:ASN:OD1	3:N:96:PRO:HD2	2.13	0.49
3:O:32:ARG:HD2	3:O:158:GLU:OE1	2.12	0.49
3:O:253:ALA:O	3:O:256:ALA:HB3	2.12	0.49
3:B:6:THR:HG22	3:B:7:GLU:N	2.28	0.49
3:B:44:ASN:HB2	3:B:105:VAL:CG1	2.43	0.49
3:D:5:TYR:CE1	3:D:157:TYR:HB2	2.48	0.49
3:G:54:SER:CA	3:G:101:PRO:HB3	2.40	0.49
3:G:255:GLN:NE2	3:G:266:PRO:HB3	2.27	0.49
3:H:29:ASN:OD1	3:H:159:ARG:HA	2.12	0.49
3:H:76:TYR:CE1	3:H:186:VAL:HB	2.48	0.49
3:I:52:LEU:HB3	3:I:57:PHE:CE1	2.48	0.49
3:I:247:ILE:CG2	3:I:249:VAL:HG23	2.42	0.49
3:J:113:LEU:HD23	3:J:149:ALA:HB2	1.94	0.49
3:K:240:ARG:HG3	3:K:241:GLY:N	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:171:LEU:HB3	3:L:175:GLY:HA2	1.94	0.49
3:N:13:TYR:HB3	3:N:21:ILE:HG21	1.94	0.49
3:N:200:PRO:HG3	3:N:233:GLU:CG	2.42	0.49
4:P:318:ALA:CB	4:P:349:ILE:CD1	2.90	0.49
3:A:56:PRO:CB	3:A:81:THR:HG23	2.42	0.49
3:B:54:SER:HA	3:B:101:PRO:CB	2.36	0.49
3:C:78:VAL:HG21	3:C:83:LEU:HB2	1.94	0.49
3:C:219:VAL:CG1	3:C:304:ASP:HB2	2.43	0.49
3:D:202:HIS:HD2	3:I:207:GLN:HB3	1.78	0.49
3:E:92:LYS:HD2	3:E:92:LYS:H	1.75	0.49
3:F:19:THR:HG22	3:F:20:ASN:N	2.28	0.49
3:F:211:ILE:HD12	3:F:313:TYR:CE2	2.47	0.49
3:G:256:ALA:HB1	3:H:116:MET:CE	2.42	0.49
3:G:340:LYS:HG3	3:G:341:ARG:N	2.26	0.49
3:H:254:LEU:HD11	3:H:274:ILE:HG13	1.93	0.49
3:J:259:GLN:NE2	3:K:94:GLN:O	2.46	0.49
3:L:183:LEU:HD11	3:L:316:PRO:HG3	1.93	0.49
3:M:116:MET:HG3	3:M:117:TRP:H	1.77	0.49
3:N:231:PRO:HB2	3:N:251:TRP:CE2	2.47	0.49
3:A:3:GLU:HB2	3:A:159:ARG:CB	2.32	0.49
3:A:17:ALA:HB1	3:A:140:GLN:HE22	1.76	0.49
3:C:340:LYS:HG3	3:C:341:ARG:N	2.26	0.49
3:D:19:THR:HG22	3:D:20:ASN:N	2.28	0.49
3:F:32:ARG:HH21	3:F:342:ARG:HD3	1.76	0.49
3:F:63:GLN:HG2	3:F:64:THR:HG23	1.94	0.49
3:F:247:ILE:CD1	3:F:274:ILE:HG21	2.42	0.49
3:G:159:ARG:CG	3:G:159:ARG:HH11	2.25	0.49
3:K:247:ILE:CG2	3:K:249:VAL:HG23	2.43	0.49
3:L:56:PRO:CB	3:L:81:THR:HG23	2.41	0.49
3:O:56:PRO:HB3	3:O:81:THR:HG23	1.95	0.49
3:O:87:MET:HE1	3:O:345:ARG:HB3	1.94	0.49
3:O:121:LEU:N	3:O:121:LEU:HD12	2.28	0.49
4:P:331:TRP:CH2	4:P:341:PRO:HD3	2.47	0.49
3:A:345:ARG:HG3	3:A:345:ARG:NH1	2.27	0.49
3:B:32:ARG:HA	3:B:122:ALA:O	2.12	0.49
3:C:44:ASN:HB2	3:C:105:VAL:HG12	1.94	0.49
3:C:121:LEU:HD12	3:C:121:LEU:N	2.28	0.49
3:D:119:PHE:CD1	3:D:119:PHE:N	2.81	0.49
3:D:182:VAL:HG22	3:D:336:VAL:HG13	1.94	0.49
3:E:53:PRO:HD2	3:E:142:PRO:HB3	1.93	0.49
3:E:76:TYR:CD1	3:E:186:VAL:HB	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:230:ASP:O	3:J:232:THR:HG23	2.13	0.49
3:K:55:ALA:N	3:K:101:PRO:HB3	2.28	0.49
3:L:247:ILE:CG2	3:L:249:VAL:HG23	2.40	0.49
3:M:159:ARG:CG	3:M:159:ARG:NH1	2.71	0.49
3:M:195:PRO:HG2	3:M:201:ILE:CD1	2.42	0.49
3:N:6:THR:HG22	3:N:7:GLU:N	2.27	0.49
3:O:182:VAL:HG22	3:O:336:VAL:HG13	1.95	0.49
3:O:255:GLN:NE2	3:O:266:PRO:HB3	2.27	0.49
1:Q:25:GLU:CB	1:Q:114:LYS:HG2	2.43	0.49
1:Q:173:ASN:CB	4:P:23:SER:C	2.81	0.49
3:A:105:VAL:HG21	3:A:145:VAL:HG11	1.94	0.49
3:C:78:VAL:CG2	3:C:83:LEU:HB2	2.43	0.49
3:C:257:GLU:O	3:C:261:GLU:CB	2.60	0.49
3:G:116:MET:CG	3:G:117:TRP:N	2.76	0.49
3:G:248:LYS:HG3	3:G:248:LYS:O	2.12	0.49
3:J:235:GLU:O	3:J:296:TYR:HA	2.13	0.49
3:K:17:ALA:HB1	3:K:140:GLN:NE2	2.27	0.49
3:O:76:TYR:CE1	3:O:186:VAL:HB	2.47	0.49
3:O:218:TYR:HA	3:O:270:ALA:O	2.11	0.49
3:A:187:ILE:HG22	3:A:188:GLU:N	2.28	0.49
3:B:240:ARG:HD3	3:B:241:GLY:H	1.77	0.49
3:C:226:ILE:HG12	3:C:226:ILE:O	2.12	0.49
3:C:319:ASP:OD2	3:C:319:ASP:N	2.44	0.49
3:F:87:MET:CE	3:F:118:GLU:HB3	2.43	0.49
3:F:211:ILE:HG12	3:F:285:ASP:OD2	2.12	0.49
3:H:174:ASP:OD2	3:H:317:TYR:CE2	2.66	0.49
3:I:168:GLU:HB3	3:I:335:TYR:CD1	2.48	0.49
3:J:19:THR:O	3:J:137:LEU:HD12	2.12	0.49
3:J:233:GLU:HB3	3:J:299:ALA:CB	2.43	0.49
3:L:19:THR:CG2	3:L:20:ASN:N	2.76	0.49
3:M:56:PRO:CB	3:M:81:THR:HG23	2.43	0.49
3:M:172:GLY:HA3	3:M:317:TYR:CZ	2.48	0.49
3:O:54:SER:CA	3:O:101:PRO:HB3	2.42	0.49
3:O:185:LYS:HG2	3:O:185:LYS:O	2.13	0.49
3:O:219:VAL:HG12	3:O:220:ILE:N	2.27	0.49
3:O:298:LEU:CD1	3:O:306:VAL:HG11	2.43	0.49
3:A:125:PRO:CG	3:A:177:MET:HG2	2.43	0.49
3:B:240:ARG:HH12	3:B:290:PRO:HG2	1.70	0.49
3:C:13:TYR:CZ	3:C:23:ILE:HG23	2.48	0.49
3:C:56:PRO:HB3	3:C:81:THR:HG23	1.95	0.49
3:C:236:LEU:HB3	3:C:247:ILE:HD12	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:H:339:GLN:O	3:H:342:ARG:HB2	2.13	0.49
3:I:27:ARG:HB3	3:I:126:ALA:O	2.12	0.49
3:K:219:VAL:CG1	3:K:304:ASP:HB2	2.43	0.49
3:K:324:LEU:HD21	3:K:332:VAL:HG21	1.94	0.49
3:L:51:THR:HG23	3:L:102:GLY:O	2.12	0.49
3:L:219:VAL:CG1	3:L:304:ASP:HB2	2.42	0.49
3:L:228:ASN:OD1	3:L:270:ALA:HB2	2.12	0.49
3:L:231:PRO:HA	3:L:300:LEU:HD23	1.95	0.49
3:M:32:ARG:HH21	3:M:342:ARG:CD	2.26	0.49
3:M:57:PHE:CG	3:M:58:PRO:HA	2.47	0.49
3:O:62:VAL:HG11	3:O:65:PHE:CZ	2.47	0.49
3:O:87:MET:CE	3:O:118:GLU:HB3	2.42	0.49
3:O:124:PHE:HD1	3:O:125:PRO:HD2	1.75	0.49
3:C:248:LYS:O	3:C:248:LYS:HG3	2.12	0.48
3:D:67:LEU:HD13	3:D:134:LEU:HB2	1.95	0.48
3:E:207:GLN:OE1	3:O:239:VAL:HG13	2.13	0.48
3:F:321:LEU:HD22	3:F:332:VAL:HG12	1.94	0.48
3:G:65:PHE:HE1	3:G:136:ILE:HG12	1.77	0.48
3:H:76:TYR:CD1	3:H:186:VAL:HB	2.48	0.48
3:H:171:LEU:HB3	3:H:175:GLY:HA2	1.94	0.48
3:I:230:ASP:N	3:I:231:PRO:HD2	2.28	0.48
3:A:345:ARG:HG3	3:A:345:ARG:HH11	1.79	0.48
3:B:236:LEU:HB3	3:B:247:ILE:HG13	1.93	0.48
3:C:246:LYS:O	3:C:279:TYR:HD2	1.96	0.48
3:D:83:LEU:HD12	3:D:86:LEU:HD23	1.95	0.48
3:K:172:GLY:HA3	3:K:317:TYR:CE2	2.48	0.48
3:K:194:VAL:HG11	3:K:203:VAL:HG22	1.93	0.48
3:L:93:GLY:HA3	3:L:264:VAL:HG21	1.94	0.48
3:M:105:VAL:HA	3:M:111:VAL:HG13	1.95	0.48
3:N:321:LEU:HD13	3:N:336:VAL:HG21	1.95	0.48
3:B:31:ILE:CG2	3:B:121:LEU:HD22	2.44	0.48
3:B:81:THR:O	3:B:85:ILE:HG13	2.13	0.48
3:C:124:PHE:CD1	3:C:125:PRO:HD2	2.48	0.48
3:C:238:ILE:HD11	3:C:246:LYS:CD	2.42	0.48
3:F:25:ILE:HG23	3:F:155:ILE:HD11	1.96	0.48
3:G:37:GLN:O	3:G:151:PHE:HA	2.13	0.48
3:J:206:LEU:HD22	3:J:310:TYR:CE1	2.48	0.48
3:J:215:GLN:HG3	3:J:310:TYR:CE1	2.48	0.48
3:J:230:ASP:N	3:J:231:PRO:HD2	2.28	0.48
3:K:69:TYR:O	3:K:70:GLU:HB2	2.13	0.48
3:L:92:LYS:O	3:L:92:LYS:HG2	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:315:LEU:HB2	3:L:318:TYR:HB2	1.95	0.48
3:M:89:TYR:CD2	3:M:273:ILE:HD11	2.48	0.48
3:N:76:TYR:CE2	3:N:119:PHE:HB3	2.47	0.48
3:O:42:ILE:HG23	3:O:147:ILE:CD1	2.42	0.48
3:O:52:LEU:HB3	3:O:57:PHE:CE1	2.48	0.48
4:P:190:THR:CG2	4:P:191:SER:N	2.77	0.48
1:Q:29:SER:HB2	1:Q:110:SER:HB3	1.94	0.48
3:A:120:ASP:OD2	3:A:345:ARG:HB2	2.14	0.48
3:B:160:VAL:CG1	3:B:165:ILE:HG13	2.43	0.48
3:B:259:GLN:OE1	3:B:266:PRO:CD	2.56	0.48
3:B:324:LEU:HG	3:B:328:VAL:HB	1.95	0.48
3:C:44:ASN:HB2	3:C:105:VAL:HG11	1.93	0.48
3:C:87:MET:CE	3:C:118:GLU:HB3	2.43	0.48
3:C:228:ASN:OD1	3:C:270:ALA:HB2	2.13	0.48
3:E:126:ALA:HB1	3:E:132:ILE:CD1	2.43	0.48
3:E:196:ALA:HB2	3:E:302:ASN:C	2.34	0.48
3:F:190:PRO:HB3	3:F:307:TYR:HD1	1.76	0.48
3:G:9:LEU:HD11	3:G:155:ILE:HD12	1.96	0.48
3:H:32:ARG:HH21	3:H:342:ARG:CD	2.26	0.48
3:H:68:SER:HB3	3:H:74:THR:HA	1.95	0.48
3:H:142:PRO:CD	3:H:147:ILE:HD11	2.41	0.48
3:K:55:ALA:H	3:K:101:PRO:HB3	1.78	0.48
3:K:191:THR:HG21	3:K:194:VAL:HG22	1.94	0.48
3:L:89:TYR:CG	3:L:273:ILE:HD11	2.48	0.48
3:L:246:LYS:C	3:L:247:ILE:HG13	2.34	0.48
3:M:49:ALA:N	3:M:107:ALA:HB2	2.27	0.48
3:N:113:LEU:HD23	3:N:149:ALA:CB	2.42	0.48
3:O:212:TYR:HB3	3:O:276:PHE:CD2	2.49	0.48
3:B:240:ARG:NH1	3:B:290:PRO:CG	2.70	0.48
3:D:96:PRO:HB3	3:D:114:ASN:ND2	2.29	0.48
3:D:224:SER:OG	3:D:228:ASN:HB3	2.13	0.48
3:F:123:ARG:HB2	3:F:342:ARG:NH1	2.28	0.48
3:F:195:PRO:HG2	3:F:201:ILE:CD1	2.43	0.48
3:H:56:PRO:CB	3:H:81:THR:HG23	2.43	0.48
3:H:142:PRO:HB2	3:H:145:VAL:HG22	1.96	0.48
3:J:52:LEU:CD2	3:J:145:VAL:HG21	2.43	0.48
3:K:96:PRO:HG2	3:K:116:MET:CE	2.41	0.48
3:N:215:GLN:HG3	3:N:310:TYR:CE1	2.48	0.48
3:O:57:PHE:O	3:O:101:PRO:HG3	2.13	0.48
3:O:121:LEU:HA	3:O:184:PRO:HG3	1.95	0.48
4:P:289:ASN:HD22	4:P:291:GLN:H	1.61	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:19:VAL:HG13	1:Q:19:VAL:O	2.14	0.48
3:B:25:ILE:HG23	3:B:155:ILE:CD1	2.44	0.48
3:B:63:GLN:HB3	3:B:137:LEU:O	2.14	0.48
3:C:51:THR:HG23	3:C:102:GLY:O	2.14	0.48
3:C:53:PRO:CD	3:C:142:PRO:HB3	2.44	0.48
3:C:324:LEU:HB3	3:C:329:ALA:HB2	1.95	0.48
3:D:105:VAL:HA	3:D:111:VAL:HG13	1.96	0.48
3:E:340:LYS:HG3	3:E:341:ARG:N	2.29	0.48
3:G:238:ILE:HD11	3:G:246:LYS:HD2	1.94	0.48
3:H:123:ARG:HD3	3:H:342:ARG:HH12	1.78	0.48
3:I:63:GLN:HB3	3:I:137:LEU:O	2.14	0.48
3:I:68:SER:HB3	3:I:74:THR:HA	1.95	0.48
3:I:244:THR:CG2	3:I:245:ASP:N	2.76	0.48
3:K:212:TYR:CE2	3:K:286:LEU:HD12	2.49	0.48
3:K:247:ILE:HG23	3:K:249:VAL:HG23	1.96	0.48
3:N:184:PRO:CB	3:N:343:ILE:HD12	2.42	0.48
3:O:4:ILE:H	3:O:4:ILE:CD1	2.03	0.48
4:P:245:TYR:O	4:P:246:GLY:C	2.52	0.48
1:Q:33:LEU:CD1	1:Q:101:TYR:HD2	2.26	0.48
3:A:93:GLY:HA3	3:A:264:VAL:HG21	1.96	0.48
3:C:87:MET:HE1	3:C:345:ARG:HB3	1.94	0.48
3:E:56:PRO:HB3	3:E:81:THR:HG23	1.96	0.48
3:G:116:MET:HG3	3:G:117:TRP:H	1.78	0.48
3:G:171:LEU:HB3	3:G:175:GLY:HA2	1.96	0.48
3:G:200:PRO:HG2	3:G:233:GLU:HG3	1.95	0.48
3:H:200:PRO:HG3	3:H:233:GLU:CG	2.44	0.48
3:M:85:ILE:HD11	3:M:226:ILE:CD1	2.43	0.48
3:M:182:VAL:HG21	3:M:339:GLN:HB3	1.95	0.48
3:N:179:LEU:HG	3:N:321:LEU:HD21	1.96	0.48
3:B:28:ASN:ND2	3:F:70:GLU:C	2.67	0.48
3:C:195:PRO:HG2	3:C:201:ILE:HD12	1.95	0.48
3:D:13:TYR:CE2	3:D:23:ILE:HG12	2.48	0.48
3:D:37:GLN:HG2	3:D:116:MET:HE2	1.95	0.48
3:D:63:GLN:O	3:D:79:SER:HB2	2.14	0.48
3:E:9:LEU:HD21	3:E:26:PRO:HD3	1.95	0.48
3:E:32:ARG:HD2	3:E:158:GLU:OE1	2.13	0.48
3:E:54:SER:HA	3:E:101:PRO:HB3	1.96	0.48
3:E:185:LYS:NZ	3:O:241:GLY:O	2.37	0.48
3:E:235:GLU:HB3	3:E:297:ASP:HB2	1.94	0.48
3:F:234:TYR:HB2	3:F:251:TRP:CZ3	2.49	0.48
3:F:273:ILE:C	3:F:274:ILE:HD12	2.34	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:H:42:ILE:HB	3:H:111:VAL:HG22	1.96	0.48
3:J:63:GLN:HB3	3:J:137:LEU:O	2.14	0.48
3:K:235:GLU:HB3	3:K:297:ASP:HB2	1.95	0.48
3:M:30:PHE:HZ	3:M:165:ILE:HD11	1.79	0.48
3:O:259:GLN:O	3:O:263:GLN:HA	2.14	0.48
1:Q:140:TYR:CE1	1:Q:157:PRO:CB	2.94	0.48
3:B:85:ILE:HG12	3:B:267:TYR:CE2	2.49	0.48
3:B:166:LEU:HA	3:B:170:GLY:HA2	1.96	0.48
3:E:185:LYS:HE3	3:O:243:PRO:HD3	1.94	0.48
3:F:172:GLY:HA3	3:F:317:TYR:CE2	2.49	0.48
3:F:211:ILE:HG22	3:F:283:ASP:HB3	1.96	0.48
3:H:113:LEU:HD22	3:H:147:ILE:HG23	1.95	0.48
3:H:168:GLU:HG2	3:H:335:TYR:CE1	2.49	0.48
3:I:9:LEU:N	3:I:9:LEU:CD1	2.77	0.48
3:I:65:PHE:CE1	3:I:136:ILE:HG12	2.49	0.48
3:J:116:MET:HE2	3:J:116:MET:HB2	1.68	0.48
3:K:113:LEU:HD22	3:K:147:ILE:HG23	1.95	0.48
3:N:280:PHE:CZ	3:N:284:LEU:HD13	2.48	0.48
3:O:89:TYR:CD2	3:O:273:ILE:CD1	2.94	0.48
1:Q:173:ASN:HB2	4:P:23:SER:O	2.10	0.48
3:A:181:THR:HG22	3:A:183:LEU:HG	1.96	0.48
3:C:62:VAL:CG1	3:C:136:ILE:HG23	2.44	0.48
3:C:208:PRO:HD3	3:C:291:SER:HA	1.95	0.48
3:D:56:PRO:HG2	3:D:60:ASN:ND2	2.16	0.48
3:E:4:ILE:HG23	3:E:32:ARG:HD3	1.95	0.48
3:E:207:GLN:H	3:E:207:GLN:HG3	1.46	0.48
3:E:233:GLU:OE1	3:E:250:SER:HA	2.13	0.48
3:F:37:GLN:HA	3:F:115:VAL:O	2.14	0.48
3:G:57:PHE:CD2	3:G:58:PRO:HA	2.49	0.48
3:G:123:ARG:HB3	3:G:339:GLN:OE1	2.13	0.48
3:H:3:GLU:HB2	3:H:159:ARG:HB3	1.95	0.48
3:H:194:VAL:HG11	3:H:203:VAL:HG22	1.96	0.48
3:I:195:PRO:O	3:I:201:ILE:HD11	2.14	0.48
3:J:233:GLU:HB3	3:J:299:ALA:HB3	1.96	0.48
3:J:255:GLN:O	3:J:259:GLN:HG2	2.13	0.48
3:M:321:LEU:CD2	3:M:332:VAL:HG11	2.44	0.48
3:N:4:ILE:HG23	3:N:32:ARG:HD3	1.95	0.48
3:N:171:LEU:HB3	3:N:175:GLY:HA2	1.95	0.48
3:O:32:ARG:HH21	3:O:342:ARG:CD	2.27	0.48
3:O:277:ARG:HG3	3:O:278:LYS:HG2	1.95	0.48
3:B:230:ASP:HA	3:B:301:GLN:CG	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:119:PHE:N	3:C:119:PHE:CD1	2.81	0.47
3:C:230:ASP:O	3:C:232:THR:HG23	2.14	0.47
3:C:249:VAL:CG1	3:C:253:ALA:HB3	2.39	0.47
3:D:230:ASP:O	3:D:232:THR:HG23	2.13	0.47
3:E:293:SER:O	3:E:294:ILE:HG13	2.15	0.47
3:E:315:LEU:HD12	3:E:318:TYR:CD1	2.43	0.47
3:F:67:LEU:HB3	3:F:76:TYR:HB2	1.96	0.47
3:F:321:LEU:HD23	3:F:332:VAL:HG11	1.96	0.47
3:H:321:LEU:HD22	3:H:332:VAL:CG1	2.44	0.47
3:J:329:ALA:O	3:J:333:GLN:CG	2.62	0.47
3:K:96:PRO:HB3	3:K:114:ASN:ND2	2.29	0.47
3:M:116:MET:HE1	3:O:256:ALA:CB	2.41	0.47
3:M:163:GLN:OE1	3:M:163:GLN:HA	2.13	0.47
3:O:63:GLN:HG2	3:O:64:THR:HG23	1.96	0.47
3:O:329:ALA:O	3:O:333:GLN:HG2	2.13	0.47
1:Q:42:ARG:HH11	1:Q:42:ARG:CG	2.26	0.47
1:Q:211:THR:CG2	4:P:57:SER:CB	2.87	0.47
3:A:13:TYR:OH	3:A:23:ILE:HG23	2.13	0.47
3:A:116:MET:HE2	3:A:116:MET:HB2	1.67	0.47
3:A:215:GLN:HG3	3:A:310:TYR:CE1	2.50	0.47
3:D:205:TYR:CG	3:D:292:ASP:OD2	2.68	0.47
3:E:98:TYR:N	3:E:98:TYR:CD1	2.82	0.47
3:E:105:VAL:HA	3:E:111:VAL:HG13	1.96	0.47
3:H:87:MET:HB3	3:H:95:ASN:ND2	2.29	0.47
3:J:32:ARG:HD2	3:J:158:GLU:HB2	1.97	0.47
3:J:92:LYS:N	3:J:92:LYS:CD	2.77	0.47
3:J:184:PRO:CB	3:J:343:ILE:HD12	2.44	0.47
3:K:90:THR:CB	3:K:345:ARG:HG2	2.43	0.47
3:K:92:LYS:N	3:K:92:LYS:HD2	2.29	0.47
3:K:121:LEU:HB3	3:K:124:PHE:HB2	1.95	0.47
3:L:32:ARG:HA	3:L:122:ALA:O	2.14	0.47
3:L:95:ASN:OD1	3:L:96:PRO:HD2	2.14	0.47
3:N:255:GLN:O	3:N:259:GLN:HG2	2.15	0.47
3:O:32:ARG:HD2	3:O:158:GLU:HB2	1.96	0.47
4:P:360:SER:O	4:P:361:SER:CB	2.62	0.47
1:Q:39:ILE:HG21	1:Q:45:PHE:HB2	1.96	0.47
3:A:247:ILE:HG12	3:A:279:TYR:HD2	1.78	0.47
3:B:62:VAL:HG13	3:B:136:ILE:HG23	1.96	0.47
3:B:244:THR:HG22	3:B:245:ASP:N	2.29	0.47
3:C:42:ILE:HG23	3:C:147:ILE:CD1	2.41	0.47
3:D:212:TYR:HA	3:D:312:SER:OG	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:E:55:ALA:N	3:E:101:PRO:HB3	2.29	0.47
3:E:233:GLU:HB3	3:E:299:ALA:CB	2.44	0.47
3:E:233:GLU:HB3	3:E:299:ALA:HB3	1.96	0.47
3:E:345:ARG:HG3	3:E:345:ARG:NH1	2.29	0.47
3:F:57:PHE:O	3:F:101:PRO:HG3	2.14	0.47
3:G:234:TYR:HB2	3:G:251:TRP:HZ3	1.80	0.47
3:G:287:THR:HG21	3:G:318:TYR:CE2	2.49	0.47
3:G:345:ARG:HH11	3:G:345:ARG:HG3	1.79	0.47
3:J:15:TRP:CE3	3:J:147:ILE:HB	2.49	0.47
3:J:56:PRO:O	3:J:59:TYR:HB2	2.14	0.47
3:J:243:PRO:HG2	3:O:74:THR:O	2.14	0.47
3:K:280:PHE:CZ	3:K:284:LEU:HD13	2.50	0.47
3:M:29:ASN:OD1	3:M:159:ARG:HA	2.13	0.47
4:P:289:ASN:C	4:P:289:ASN:ND2	2.60	0.47
3:A:92:LYS:HB3	3:C:263:GLN:HB3	1.96	0.47
3:C:57:PHE:CD2	3:C:58:PRO:HA	2.50	0.47
3:D:179:LEU:HG	3:D:321:LEU:CD2	2.44	0.47
3:D:329:ALA:O	3:D:333:GLN:HG2	2.13	0.47
3:E:68:SER:HB2	3:E:74:THR:HA	1.95	0.47
3:E:76:TYR:CE1	3:E:186:VAL:HB	2.49	0.47
3:F:13:TYR:CE2	3:F:23:ILE:HG12	2.49	0.47
3:F:321:LEU:HD22	3:F:332:VAL:CG1	2.44	0.47
3:G:226:ILE:O	3:G:226:ILE:HG12	2.14	0.47
3:I:185:LYS:O	3:I:185:LYS:HG2	2.14	0.47
3:O:168:GLU:HG2	3:O:335:TYR:CZ	2.48	0.47
4:P:117:GLU:HG3	4:P:119:TYR:HE2	1.79	0.47
4:P:330:VAL:HG13	4:P:344:TRP:HZ2	1.79	0.47
3:B:53:PRO:CD	3:B:142:PRO:HB3	2.44	0.47
3:C:15:TRP:CH2	3:C:141:ALA:HB2	2.49	0.47
3:C:309:LEU:HD23	3:C:309:LEU:C	2.35	0.47
3:F:200:PRO:CG	3:F:233:GLU:HG3	2.45	0.47
3:G:30:PHE:O	3:G:157:TYR:HA	2.15	0.47
3:J:15:TRP:HB2	3:J:38:LEU:HD11	1.97	0.47
3:J:30:PHE:O	3:J:157:TYR:HA	2.13	0.47
3:K:12:THR:HG21	3:K:152:TYR:CE2	2.49	0.47
3:K:200:PRO:HG2	3:K:233:GLU:HG3	1.97	0.47
3:L:69:TYR:HA	3:L:131:ASN:O	2.14	0.47
3:L:235:GLU:OE1	3:L:248:LYS:HD3	2.14	0.47
3:N:67:LEU:HD21	3:N:121:LEU:HD21	1.95	0.47
3:O:235:GLU:OE2	3:O:237:LYS:HE3	2.14	0.47
3:O:259:GLN:OE1	3:O:266:PRO:HG3	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:O:309:LEU:HD23	3:O:310:TYR:N	2.29	0.47
3:B:19:THR:CG2	3:B:20:ASN:N	2.78	0.47
3:B:329:ALA:O	3:B:333:GLN:HG2	2.15	0.47
3:C:83:LEU:HD12	3:C:86:LEU:HD23	1.97	0.47
3:C:113:LEU:HD22	3:C:147:ILE:HG23	1.97	0.47
3:C:168:GLU:HG2	3:C:335:TYR:CE1	2.50	0.47
3:C:203:VAL:HG21	3:C:298:LEU:HG	1.96	0.47
3:D:121:LEU:HB3	3:D:124:PHE:HB2	1.95	0.47
3:E:55:ALA:H	3:E:101:PRO:HB3	1.78	0.47
3:F:54:SER:O	3:F:55:ALA:C	2.52	0.47
3:G:122:ALA:HB1	3:G:339:GLN:CG	2.45	0.47
3:I:119:PHE:N	3:I:119:PHE:CD1	2.83	0.47
3:I:203:VAL:HB	3:I:296:TYR:O	2.14	0.47
3:K:57:PHE:CG	3:K:58:PRO:HA	2.49	0.47
3:K:142:PRO:HB2	3:K:145:VAL:CG2	2.44	0.47
3:L:32:ARG:HD2	3:L:158:GLU:HB2	1.95	0.47
3:L:200:PRO:HG3	3:L:233:GLU:HB3	1.96	0.47
3:N:96:PRO:HG2	3:N:116:MET:HE3	1.96	0.47
1:Q:86:ILE:O	1:Q:131:ILE:HA	2.13	0.47
3:A:28:ASN:N	3:A:28:ASN:OD1	2.48	0.47
3:A:70:GLU:HG3	3:A:130:GLN:HB2	1.97	0.47
3:A:123:ARG:HH22	3:A:168:GLU:CD	2.17	0.47
3:A:233:GLU:OE1	3:A:250:SER:HA	2.14	0.47
3:B:200:PRO:HG3	3:B:233:GLU:HG3	1.94	0.47
3:B:247:ILE:HD13	3:B:274:ILE:HG21	1.96	0.47
3:B:274:ILE:N	3:B:274:ILE:HD12	2.30	0.47
3:E:62:VAL:CG1	3:E:136:ILE:HG23	2.45	0.47
3:E:211:ILE:HG22	3:E:283:ASP:HB3	1.95	0.47
3:E:345:ARG:HG3	3:E:345:ARG:HH11	1.80	0.47
3:F:81:THR:O	3:F:85:ILE:HG13	2.14	0.47
3:F:92:LYS:HD2	3:F:92:LYS:H	1.76	0.47
3:G:287:THR:HG22	3:G:288:HIS:CD2	2.49	0.47
3:G:345:ARG:HG3	3:G:345:ARG:NH1	2.30	0.47
3:H:233:GLU:HB3	3:H:299:ALA:CB	2.45	0.47
3:H:315:LEU:HD13	3:H:321:LEU:HD12	1.97	0.47
3:I:89:TYR:CD2	3:I:273:ILE:HD11	2.50	0.47
3:I:230:ASP:O	3:I:232:THR:HG23	2.15	0.47
3:L:5:TYR:CE1	3:L:157:TYR:HB2	2.50	0.47
3:M:32:ARG:HB2	3:M:156:THR:CG2	2.44	0.47
3:M:254:LEU:HD11	3:M:274:ILE:HG13	1.96	0.47
3:N:15:TRP:CE3	3:N:147:ILE:HB	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:29:ASN:OD1	3:N:159:ARG:HA	2.15	0.47
3:N:54:SER:CA	3:N:101:PRO:HB3	2.45	0.47
3:B:219:VAL:CG1	3:B:304:ASP:HB2	2.44	0.47
3:C:182:VAL:HG13	3:C:313:TYR:CD2	2.50	0.47
3:D:15:TRP:HB2	3:D:38:LEU:HD11	1.97	0.47
3:D:187:ILE:CG2	3:D:188:GLU:N	2.78	0.47
3:D:205:TYR:OH	3:I:208:PRO:HG2	2.15	0.47
3:F:52:LEU:CD2	3:F:145:VAL:HG21	2.45	0.47
3:F:121:LEU:HA	3:F:184:PRO:HG3	1.97	0.47
3:F:190:PRO:HB3	3:F:307:TYR:CE1	2.50	0.47
3:F:247:ILE:HG12	3:F:279:TYR:CE2	2.50	0.47
3:I:13:TYR:CZ	3:I:23:ILE:HG12	2.50	0.47
3:I:247:ILE:HG23	3:I:249:VAL:HG23	1.96	0.47
3:J:142:PRO:HB2	3:J:145:VAL:CG2	2.45	0.47
3:K:69:TYR:CE1	3:K:73:LYS:HB2	2.49	0.47
3:K:238:ILE:HD11	3:K:246:LYS:HD2	1.97	0.47
3:L:218:TYR:HA	3:L:270:ALA:O	2.15	0.47
3:L:224:SER:OG	3:L:228:ASN:HB3	2.14	0.47
3:M:208:PRO:HA	3:M:286:LEU:HB2	1.97	0.47
3:M:277:ARG:HA	3:M:282:GLY:O	2.15	0.47
3:O:121:LEU:HB3	3:O:124:PHE:HB2	1.97	0.47
3:A:174:ASP:OD2	3:A:317:TYR:HE2	1.97	0.47
3:C:52:LEU:CD1	3:C:99:PRO:CG	2.93	0.47
3:C:234:TYR:HB2	3:C:251:TRP:HZ3	1.79	0.47
3:D:247:ILE:HG12	3:D:279:TYR:CD2	2.50	0.47
3:G:70:GLU:HG3	3:G:130:GLN:HB2	1.97	0.47
3:H:216:LEU:HD12	3:H:272:ALA:O	2.15	0.47
3:I:6:THR:HG22	3:I:7:GLU:N	2.30	0.47
3:I:28:ASN:HB2	3:I:157:TYR:CE2	2.50	0.47
3:J:202:HIS:HA	3:J:297:ASP:OD2	2.15	0.47
3:M:56:PRO:HB3	3:M:81:THR:HG23	1.97	0.47
3:M:230:ASP:HA	3:M:301:GLN:CG	2.44	0.47
3:N:123:ARG:HB3	3:N:339:GLN:OE1	2.15	0.47
3:A:205:TYR:HA	3:A:295:GLU:HA	1.97	0.47
3:B:233:GLU:HB3	3:B:299:ALA:HB3	1.97	0.47
3:C:70:GLU:HG3	3:C:130:GLN:HB2	1.97	0.47
3:E:52:LEU:CD2	3:E:145:VAL:HG21	2.44	0.47
3:F:247:ILE:CG2	3:F:249:VAL:HG23	2.44	0.47
3:G:19:THR:CG2	3:G:20:ASN:N	2.78	0.47
3:G:55:ALA:N	3:G:101:PRO:HB3	2.29	0.47
3:G:205:TYR:CD1	3:G:292:ASP:HA	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:I:29:ASN:HB2	3:I:157:TYR:HB3	1.96	0.47
3:I:287:THR:HG21	3:I:318:TYR:CD2	2.50	0.47
3:J:247:ILE:HG12	3:J:279:TYR:HD2	1.71	0.47
3:J:324:LEU:HG	3:J:328:VAL:HB	1.97	0.47
3:K:96:PRO:HB3	3:K:114:ASN:HD21	1.80	0.47
3:K:205:TYR:HA	3:K:295:GLU:HA	1.97	0.47
3:L:247:ILE:CD1	3:L:274:ILE:HG21	2.45	0.47
3:M:53:PRO:CD	3:M:142:PRO:HB3	2.45	0.47
3:O:53:PRO:HG2	3:O:57:PHE:CG	2.50	0.47
3:A:9:LEU:HD11	3:A:155:ILE:HD12	1.97	0.46
3:A:62:VAL:HG13	3:A:136:ILE:HG23	1.97	0.46
3:A:76:TYR:CE1	3:A:186:VAL:HB	2.50	0.46
3:A:137:LEU:O	3:A:137:LEU:HG	2.15	0.46
3:A:210:GLN:HG3	3:A:212:TYR:CE2	2.49	0.46
3:C:9:LEU:HD22	3:C:153:ILE:HB	1.96	0.46
3:C:182:VAL:HG22	3:C:336:VAL:HG13	1.97	0.46
3:G:42:ILE:CG2	3:G:145:VAL:HB	2.39	0.46
3:G:176:GLU:C	3:G:177:MET:HG3	2.35	0.46
3:G:220:ILE:O	3:G:304:ASP:HB3	2.15	0.46
3:J:230:ASP:OD1	3:J:302:ASN:ND2	2.48	0.46
3:J:247:ILE:HG12	3:J:279:TYR:CE2	2.50	0.46
3:K:57:PHE:CE2	3:K:142:PRO:HG2	2.50	0.46
3:K:105:VAL:HG21	3:K:145:VAL:HG11	1.96	0.46
3:L:38:LEU:HD13	3:L:151:PHE:CE2	2.50	0.46
3:L:190:PRO:HB3	3:L:307:TYR:CE1	2.50	0.46
3:L:190:PRO:CB	3:L:307:TYR:CE1	2.98	0.46
3:L:203:VAL:CG2	3:L:298:LEU:HB2	2.45	0.46
3:O:30:PHE:O	3:O:157:TYR:HA	2.15	0.46
3:O:38:LEU:HD12	3:O:38:LEU:HA	1.69	0.46
3:O:134:LEU:HG	3:O:134:LEU:O	2.15	0.46
3:O:273:ILE:C	3:O:274:ILE:HD12	2.35	0.46
1:Q:161:TYR:CE1	1:Q:198:PRO:HG3	2.50	0.46
3:A:182:VAL:HG21	3:A:339:GLN:HB3	1.96	0.46
3:B:4:ILE:HG23	3:B:32:ARG:HD3	1.98	0.46
3:B:120:ASP:HB3	3:B:343:ILE:HA	1.96	0.46
3:C:142:PRO:HD2	3:C:147:ILE:HD11	1.96	0.46
3:C:210:GLN:HA	3:C:314:VAL:HG22	1.98	0.46
3:D:9:LEU:HD21	3:D:155:ILE:HD11	1.97	0.46
3:D:345:ARG:NH1	3:D:345:ARG:HG3	2.30	0.46
3:E:9:LEU:HD21	3:E:26:PRO:HD2	1.97	0.46
3:E:19:THR:CG2	3:E:20:ASN:N	2.78	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:E:42:ILE:HD11	3:E:113:LEU:HD13	1.97	0.46
3:F:159:ARG:HH11	3:F:159:ARG:CG	2.28	0.46
3:F:324:LEU:HD12	3:F:325:PRO:HD3	1.96	0.46
3:G:159:ARG:CG	3:G:159:ARG:NH1	2.78	0.46
3:G:190:PRO:HB3	3:G:307:TYR:CE1	2.50	0.46
3:G:206:LEU:HB3	3:G:212:TYR:CZ	2.50	0.46
3:G:284:LEU:HD11	3:G:286:LEU:HD21	1.97	0.46
3:H:67:LEU:CD1	3:H:134:LEU:HB2	2.45	0.46
3:I:62:VAL:HG11	3:I:65:PHE:CZ	2.50	0.46
3:I:240:ARG:NH2	3:I:290:PRO:CB	2.78	0.46
3:J:41:SER:HB2	3:J:111:VAL:O	2.15	0.46
3:J:259:GLN:O	3:J:263:GLN:HA	2.15	0.46
3:K:205:TYR:CD1	3:K:292:ASP:HA	2.50	0.46
3:M:116:MET:HE2	3:M:116:MET:HB2	1.65	0.46
3:N:4:ILE:HA	3:N:157:TYR:O	2.15	0.46
3:N:247:ILE:HG23	3:N:279:TYR:HE2	1.80	0.46
3:O:240:ARG:HH12	3:O:290:PRO:CB	2.27	0.46
1:Q:81:LEU:HD21	1:Q:87:LEU:HB2	1.97	0.46
3:B:218:TYR:HA	3:B:270:ALA:O	2.16	0.46
3:B:247:ILE:HG12	3:B:279:TYR:CE2	2.50	0.46
3:C:235:GLU:OE1	3:C:248:LYS:HD3	2.14	0.46
3:C:240:ARG:HD3	3:C:290:PRO:HD2	1.98	0.46
3:E:113:LEU:CD2	3:E:147:ILE:HG23	2.46	0.46
3:E:121:LEU:HA	3:E:184:PRO:HG3	1.97	0.46
3:F:31:ILE:HG23	3:F:155:ILE:HG23	1.96	0.46
3:F:126:ALA:HB1	3:F:132:ILE:HD11	1.97	0.46
3:H:56:PRO:O	3:H:59:TYR:HB2	2.15	0.46
3:H:259:GLN:OE1	3:H:266:PRO:HD3	2.16	0.46
3:K:13:TYR:CE2	3:K:23:ILE:HG12	2.51	0.46
3:K:53:PRO:CD	3:K:142:PRO:HB3	2.45	0.46
3:K:54:SER:O	3:K:55:ALA:C	2.54	0.46
3:L:278:LYS:HB2	3:L:279:TYR:CD1	2.50	0.46
3:M:12:THR:HG21	3:M:152:TYR:CE2	2.51	0.46
3:M:205:TYR:HA	3:M:295:GLU:HA	1.96	0.46
3:N:159:ARG:HH11	3:N:159:ARG:CG	2.28	0.46
3:N:246:LYS:HE2	3:N:246:LYS:CA	2.40	0.46
3:O:4:ILE:HA	3:O:157:TYR:O	2.15	0.46
3:A:19:THR:CG2	3:A:20:ASN:N	2.79	0.46
3:A:42:ILE:HD11	3:A:113:LEU:HD13	1.97	0.46
3:B:142:PRO:CD	3:B:147:ILE:HD11	2.46	0.46
3:B:246:LYS:O	3:B:279:TYR:HD2	1.99	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D:116:MET:CG	3:D:117:TRP:N	2.79	0.46
3:D:284:LEU:HD11	3:D:294:ILE:CD1	2.45	0.46
3:E:216:LEU:HB3	3:E:309:LEU:HB3	1.97	0.46
3:E:315:LEU:HB2	3:E:318:TYR:HB2	1.97	0.46
3:F:19:THR:CG2	3:F:20:ASN:N	2.79	0.46
3:F:60:ASN:HB3	3:F:81:THR:OG1	2.15	0.46
3:F:185:LYS:O	3:F:185:LYS:HG2	2.16	0.46
3:F:324:LEU:HD21	3:F:332:VAL:HG21	1.97	0.46
3:H:36:VAL:HG13	3:H:153:ILE:CD1	2.45	0.46
3:K:15:TRP:CZ3	3:K:147:ILE:HB	2.50	0.46
3:K:163:GLN:OE1	3:K:163:GLN:HA	2.15	0.46
3:M:315:LEU:HB2	3:M:318:TYR:HB2	1.96	0.46
3:O:277:ARG:HA	3:O:282:GLY:O	2.16	0.46
3:A:19:THR:HG22	3:A:20:ASN:N	2.30	0.46
3:B:182:VAL:HG13	3:B:313:TYR:CD2	2.50	0.46
3:C:123:ARG:HB2	3:C:342:ARG:NH1	2.30	0.46
3:C:210:GLN:HG3	3:C:212:TYR:CE2	2.51	0.46
3:F:231:PRO:HB2	3:F:251:TRP:CE2	2.51	0.46
3:G:321:LEU:CD2	3:G:332:VAL:HG11	2.46	0.46
3:H:52:LEU:CD1	3:H:99:PRO:HG3	2.45	0.46
3:H:243:PRO:HD3	3:M:185:LYS:HD2	1.96	0.46
3:I:240:ARG:HH22	3:I:290:PRO:CB	2.29	0.46
3:I:298:LEU:CD1	3:I:306:VAL:HG11	2.45	0.46
3:J:172:GLY:HA3	3:J:317:TYR:CE2	2.50	0.46
3:K:15:TRP:HE3	3:K:15:TRP:O	1.99	0.46
3:L:6:THR:HG22	3:L:7:GLU:N	2.30	0.46
3:L:38:LEU:HG	3:L:113:LEU:HD21	1.96	0.46
3:N:182:VAL:CG1	3:N:313:TYR:CD2	2.99	0.46
3:O:298:LEU:HD11	3:O:306:VAL:HG11	1.98	0.46
3:A:11:GLN:NE2	3:A:13:TYR:CE1	2.83	0.46
3:A:105:VAL:HA	3:A:111:VAL:HG13	1.97	0.46
3:F:247:ILE:HG23	3:F:249:VAL:HG23	1.97	0.46
3:G:275:ASP:HB3	3:G:278:LYS:HG2	1.96	0.46
3:G:321:LEU:HD22	3:G:332:VAL:HG11	1.96	0.46
3:H:123:ARG:HB3	3:H:339:GLN:OE1	2.15	0.46
3:I:123:ARG:HD2	3:I:160:VAL:CG2	2.46	0.46
3:J:241:GLY:O	3:O:185:LYS:NZ	2.45	0.46
3:K:27:ARG:HB3	3:K:126:ALA:O	2.16	0.46
3:K:76:TYR:CD1	3:K:119:PHE:HD2	2.33	0.46
3:K:91:THR:CG2	3:K:345:ARG:HD3	2.46	0.46
3:K:273:ILE:C	3:K:274:ILE:HD12	2.36	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:240:ARG:NH1	3:L:290:PRO:HB2	2.30	0.46
3:L:247:ILE:HG12	3:L:279:TYR:CE2	2.50	0.46
3:L:279:TYR:CD1	3:L:279:TYR:N	2.83	0.46
3:M:38:LEU:HD13	3:M:151:PHE:CZ	2.50	0.46
3:N:67:LEU:HB2	3:N:134:LEU:HD13	1.98	0.46
3:N:184:PRO:HB3	3:N:343:ILE:HD12	1.97	0.46
3:N:236:LEU:HB3	3:N:247:ILE:CG1	2.45	0.46
3:N:263:GLN:O	3:O:94:GLN:HG3	2.16	0.46
1:Q:22:VAL:O	1:Q:116:LYS:HA	2.16	0.46
1:Q:173:ASN:HB3	4:P:23:SER:C	2.35	0.46
3:A:142:PRO:HD2	3:A:147:ILE:HD11	1.98	0.46
3:B:63:GLN:HB2	3:B:139:GLY:HA2	1.97	0.46
3:D:273:ILE:C	3:D:274:ILE:HD12	2.35	0.46
3:E:38:LEU:HD12	3:E:38:LEU:HA	1.82	0.46
3:F:119:PHE:CD1	3:F:119:PHE:N	2.84	0.46
3:F:244:THR:HG22	3:F:245:ASP:N	2.30	0.46
3:H:206:LEU:HB3	3:H:212:TYR:CZ	2.50	0.46
3:J:187:ILE:CG2	3:J:188:GLU:N	2.79	0.46
3:N:30:PHE:O	3:N:157:TYR:HA	2.15	0.46
3:N:236:LEU:HD11	3:N:294:ILE:CG2	2.46	0.46
3:A:67:LEU:HD21	3:A:121:LEU:HD21	1.97	0.46
3:B:211:ILE:HD12	3:B:313:TYR:CE2	2.50	0.46
3:C:116:MET:HG2	3:C:117:TRP:N	2.31	0.46
3:C:124:PHE:CE1	3:C:183:LEU:CD2	2.99	0.46
3:D:122:ALA:HB1	3:D:339:GLN:HG3	1.98	0.46
3:F:4:ILE:H	3:F:4:ILE:CD1	2.16	0.46
3:F:231:PRO:O	3:F:251:TRP:CG	2.69	0.46
3:G:231:PRO:HB2	3:G:251:TRP:CD2	2.51	0.46
3:K:15:TRP:HB2	3:K:38:LEU:HD11	1.97	0.46
3:L:128:MET:CE	3:L:171:LEU:HD21	2.45	0.46
3:M:51:THR:HG23	3:M:102:GLY:O	2.15	0.46
3:M:70:GLU:C	3:M:72:SER:H	2.17	0.46
3:M:254:LEU:HD21	3:M:274:ILE:CD1	2.44	0.46
3:N:23:ILE:HD13	3:N:153:ILE:HD11	1.98	0.46
3:A:55:ALA:HB1	3:A:267:TYR:OH	2.15	0.46
3:D:6:THR:HG22	3:D:7:GLU:N	2.31	0.46
3:E:42:ILE:HG23	3:E:147:ILE:HD13	1.96	0.46
3:E:57:PHE:CD2	3:E:58:PRO:HA	2.51	0.46
3:E:240:ARG:HD3	3:E:241:GLY:N	2.31	0.46
3:F:17:ALA:HB1	3:F:140:GLN:HE22	1.80	0.46
3:F:29:ASN:H	3:F:157:TYR:HD2	1.64	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:235:GLU:OE2	3:F:237:LYS:HE3	2.15	0.46
3:H:36:VAL:HG22	3:H:153:ILE:HD12	1.97	0.46
3:H:314:VAL:HG12	3:H:315:LEU:N	2.30	0.46
3:L:113:LEU:HD22	3:L:147:ILE:HG23	1.98	0.46
3:L:248:LYS:HG3	3:L:248:LYS:O	2.16	0.46
1:Q:21:TYR:CD1	1:Q:118:THR:CG2	2.98	0.46
3:B:25:ILE:HG23	3:B:155:ILE:HD13	1.96	0.46
3:B:121:LEU:HD12	3:B:121:LEU:N	2.31	0.46
3:D:59:TYR:HB3	3:D:80:GLY:O	2.15	0.46
3:D:63:GLN:HB2	3:D:139:GLY:HA2	1.96	0.46
3:E:261:GLU:HG3	3:E:262:TYR:CD2	2.51	0.46
3:F:259:GLN:OE1	3:F:266:PRO:CD	2.63	0.46
3:K:256:ALA:HB1	3:L:116:MET:CE	2.46	0.46
3:M:65:PHE:CE1	3:M:136:ILE:HG12	2.51	0.46
3:M:340:LYS:HG3	3:M:341:ARG:N	2.30	0.46
3:N:236:LEU:HD22	3:N:276:PHE:HE1	1.81	0.46
3:N:247:ILE:HG23	3:N:279:TYR:CE2	2.51	0.46
3:N:324:LEU:CD2	3:N:332:VAL:HG21	2.45	0.46
3:O:92:LYS:HD2	3:O:92:LYS:H	1.72	0.46
3:B:142:PRO:HB2	3:B:145:VAL:CG2	2.46	0.45
3:B:182:VAL:CG1	3:B:313:TYR:CD2	2.99	0.45
3:C:30:PHE:N	3:C:30:PHE:CD2	2.83	0.45
3:D:321:LEU:HD13	3:D:336:VAL:HG21	1.98	0.45
3:E:62:VAL:O	3:E:80:GLY:HA3	2.15	0.45
3:F:62:VAL:CG1	3:F:136:ILE:HG23	2.46	0.45
3:F:187:ILE:CG2	3:F:188:GLU:N	2.79	0.45
3:F:228:ASN:OD1	3:F:270:ALA:HB2	2.16	0.45
3:F:339:GLN:HE21	3:F:339:GLN:HB2	1.49	0.45
3:G:159:ARG:HH11	3:G:159:ARG:HG2	1.81	0.45
3:H:113:LEU:HD23	3:H:149:ALA:HB2	1.98	0.45
3:K:191:THR:CG2	3:K:194:VAL:HG22	2.46	0.45
3:L:15:TRP:HH2	3:L:141:ALA:HB2	1.81	0.45
3:M:122:ALA:HB1	3:M:339:GLN:CG	2.46	0.45
3:M:195:PRO:HA	3:M:303:GLN:CG	2.44	0.45
3:N:160:VAL:HG13	3:N:164:GLU:OE2	2.16	0.45
3:N:187:ILE:HG22	3:N:188:GLU:N	2.31	0.45
3:O:13:TYR:CE2	3:O:23:ILE:HG12	2.50	0.45
3:O:15:TRP:CE3	3:O:147:ILE:HB	2.51	0.45
3:A:256:ALA:HB1	3:B:116:MET:CE	2.46	0.45
3:A:325:PRO:C	3:A:327:GLN:N	2.69	0.45
3:B:70:GLU:HB3	3:J:28:ASN:HD21	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:131:ASN:ND2	3:B:133:ILE:HD11	2.28	0.45
3:B:194:VAL:HG21	3:B:203:VAL:HG13	1.98	0.45
3:B:230:ASP:N	3:B:231:PRO:HD2	2.31	0.45
3:C:116:MET:HE3	3:C:116:MET:HB2	1.67	0.45
3:C:274:ILE:N	3:C:274:ILE:CD1	2.78	0.45
3:D:230:ASP:N	3:D:231:PRO:HD2	2.30	0.45
3:E:6:THR:HG23	3:E:155:ILE:O	2.15	0.45
3:E:213:LYS:HB2	3:E:311:VAL:O	2.17	0.45
3:G:200:PRO:HG3	3:G:233:GLU:HB3	1.97	0.45
3:J:42:ILE:CD1	3:J:57:PHE:HZ	2.29	0.45
3:J:324:LEU:CD2	3:J:332:VAL:HG21	2.46	0.45
3:M:42:ILE:HG23	3:M:147:ILE:CD1	2.45	0.45
3:M:319:ASP:OD2	3:M:319:ASP:N	2.49	0.45
3:N:113:LEU:HD22	3:N:147:ILE:HG23	1.98	0.45
3:N:256:ALA:CB	3:O:116:MET:HE1	2.47	0.45
1:Q:63:LYS:HB2	1:Q:75:GLU:O	2.15	0.45
3:B:27:ARG:HB3	3:B:126:ALA:O	2.16	0.45
3:C:15:TRP:NE1	3:C:138:THR:HB	2.31	0.45
3:D:56:PRO:CB	3:D:81:THR:HG23	2.46	0.45
3:G:325:PRO:C	3:G:327:GLN:H	2.19	0.45
3:H:190:PRO:HB3	3:H:307:TYR:CE1	2.51	0.45
3:J:25:ILE:CG2	3:J:155:ILE:HD13	2.47	0.45
3:L:53:PRO:HD2	3:L:142:PRO:HB3	1.98	0.45
3:L:235:GLU:OE1	3:L:248:LYS:CD	2.64	0.45
3:M:208:PRO:HD3	3:M:291:SER:HA	1.98	0.45
3:M:329:ALA:O	3:M:333:GLN:CG	2.57	0.45
3:O:62:VAL:CG1	3:O:136:ILE:HG23	2.46	0.45
3:O:319:ASP:OD2	3:O:319:ASP:N	2.49	0.45
3:A:70:GLU:N	3:A:130:GLN:O	2.49	0.45
3:C:218:TYR:HA	3:C:270:ALA:O	2.16	0.45
3:C:314:VAL:HG12	3:C:315:LEU:N	2.30	0.45
3:E:15:TRP:CE3	3:E:15:TRP:O	2.69	0.45
3:E:200:PRO:HG3	3:E:233:GLU:CG	2.44	0.45
3:F:234:TYR:HB2	3:F:251:TRP:HZ3	1.80	0.45
3:G:36:VAL:HG11	3:G:136:ILE:CD1	2.47	0.45
3:H:92:LYS:N	3:H:92:LYS:CD	2.72	0.45
3:H:168:GLU:HG2	3:H:335:TYR:CZ	2.51	0.45
3:H:184:PRO:HB3	3:H:343:ILE:HD12	1.98	0.45
3:I:15:TRP:CZ3	3:I:147:ILE:HB	2.52	0.45
3:I:280:PHE:CE1	3:I:284:LEU:HD22	2.52	0.45
3:K:15:TRP:O	3:K:15:TRP:CE3	2.70	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:M:173:ALA:HA	3:M:320:GLN:HE22	1.81	0.45
3:N:4:ILE:HD12	3:N:4:ILE:N	2.07	0.45
3:N:173:ALA:HB2	3:N:320:GLN:CD	2.37	0.45
3:O:247:ILE:CG2	3:O:249:VAL:HG23	2.45	0.45
1:Q:36:PHE:HZ	3:C:24:LYS:HG3	1.81	0.45
3:A:176:GLU:O	3:A:177:MET:HG3	2.16	0.45
3:A:211:ILE:HG12	3:A:285:ASP:OD2	2.16	0.45
3:B:171:LEU:HA	3:B:178:PRO:HA	1.98	0.45
3:E:37:GLN:O	3:E:151:PHE:HA	2.16	0.45
3:F:192:PHE:HD1	3:F:305:ASN:OD1	1.99	0.45
3:G:4:ILE:HG13	3:G:158:GLU:HG3	1.99	0.45
3:G:317:TYR:O	3:G:319:ASP:N	2.49	0.45
3:H:179:LEU:HG	3:H:321:LEU:CD2	2.46	0.45
3:H:315:LEU:HD12	3:H:318:TYR:HD1	1.81	0.45
3:I:27:ARG:NH1	3:I:27:ARG:HB2	2.32	0.45
3:I:192:PHE:HD1	3:I:305:ASN:OD1	2.00	0.45
3:I:209:GLY:O	3:I:210:GLN:HB3	2.17	0.45
3:J:210:GLN:HG3	3:J:212:TYR:CE2	2.51	0.45
3:K:231:PRO:HG3	3:K:270:ALA:HA	1.98	0.45
3:M:32:ARG:HA	3:M:122:ALA:O	2.17	0.45
3:M:90:THR:HB	3:M:345:ARG:CG	2.47	0.45
3:N:202:HIS:CE1	3:N:204:ALA:CA	3.00	0.45
3:N:219:VAL:HG12	3:N:220:ILE:N	2.31	0.45
3:N:246:LYS:O	3:N:279:TYR:HD2	2.00	0.45
3:O:70:GLU:C	3:O:72:SER:H	2.19	0.45
3:O:119:PHE:CD1	3:O:119:PHE:N	2.84	0.45
3:B:190:PRO:HB3	3:B:307:TYR:CE1	2.52	0.45
3:C:160:VAL:CG1	3:C:165:ILE:HG13	2.46	0.45
3:C:186:VAL:HG22	3:C:311:VAL:HA	1.99	0.45
3:D:298:LEU:CD1	3:D:306:VAL:HG11	2.47	0.45
3:D:324:LEU:HD12	3:D:324:LEU:HA	1.77	0.45
3:E:273:ILE:C	3:E:274:ILE:HD12	2.37	0.45
3:E:276:PHE:O	3:E:280:PHE:HD1	1.99	0.45
3:H:231:PRO:HB2	3:H:251:TRP:CD2	2.52	0.45
3:I:185:LYS:HG2	3:I:187:ILE:HG12	1.99	0.45
3:I:277:ARG:HA	3:I:282:GLY:O	2.17	0.45
3:J:157:TYR:N	3:J:157:TYR:CD1	2.84	0.45
3:L:182:VAL:HG21	3:L:339:GLN:HB3	1.97	0.45
3:M:52:LEU:O	3:M:102:GLY:HA2	2.16	0.45
3:N:32:ARG:HD2	3:N:158:GLU:HB2	1.97	0.45
3:N:37:GLN:O	3:N:151:PHE:HA	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:233:GLU:HB3	3:N:299:ALA:HB3	1.99	0.45
3:A:12:THR:HG21	3:A:152:TYR:CE2	2.52	0.45
3:A:116:MET:CE	3:C:256:ALA:HB2	2.46	0.45
3:A:226:ILE:O	3:A:226:ILE:HG12	2.16	0.45
3:A:247:ILE:CG2	3:A:249:VAL:HG23	2.47	0.45
3:D:25:ILE:HG23	3:D:155:ILE:HD13	1.97	0.45
3:D:96:PRO:HB3	3:D:114:ASN:HD21	1.82	0.45
3:D:203:VAL:HG23	3:D:297:ASP:HA	1.99	0.45
3:F:182:VAL:HG22	3:F:336:VAL:HG13	1.98	0.45
3:F:220:ILE:O	3:F:304:ASP:HB3	2.17	0.45
3:H:30:PHE:O	3:H:157:TYR:HA	2.17	0.45
3:I:309:LEU:HD23	3:I:310:TYR:N	2.32	0.45
3:I:329:ALA:O	3:I:333:GLN:HG2	2.16	0.45
3:J:9:LEU:HD21	3:J:26:PRO:HD2	1.99	0.45
3:K:238:ILE:HD11	3:K:246:LYS:CG	2.47	0.45
3:L:197:SER:HB2	3:L:201:ILE:HD13	1.98	0.45
3:M:187:ILE:CG2	3:M:188:GLU:N	2.78	0.45
3:O:32:ARG:HH21	3:O:342:ARG:HD3	1.81	0.45
3:O:125:PRO:HG3	3:O:177:MET:HG2	1.99	0.45
3:A:42:ILE:HG23	3:A:147:ILE:HD13	1.98	0.45
3:A:324:LEU:CD2	3:A:332:VAL:HG21	2.47	0.45
3:B:70:GLU:N	3:B:130:GLN:O	2.50	0.45
3:B:105:VAL:HG13	3:B:110:SER:HA	1.98	0.45
3:B:219:VAL:HG22	3:B:306:VAL:HG22	1.99	0.45
3:B:257:GLU:O	3:B:261:GLU:HB2	2.17	0.45
3:D:205:TYR:CD1	3:D:292:ASP:HA	2.52	0.45
3:D:205:TYR:CD1	3:D:295:GLU:HB3	2.52	0.45
3:E:203:VAL:HB	3:E:296:TYR:O	2.17	0.45
3:F:235:GLU:O	3:F:296:TYR:HA	2.17	0.45
3:G:259:GLN:O	3:G:263:GLN:HA	2.17	0.45
3:I:116:MET:CG	3:I:117:TRP:N	2.80	0.45
3:I:240:ARG:HH12	3:I:290:PRO:HG2	1.82	0.45
3:K:4:ILE:HA	3:K:157:TYR:O	2.16	0.45
3:L:30:PHE:O	3:L:157:TYR:HA	2.17	0.45
3:N:67:LEU:HD13	3:N:134:LEU:HB2	1.99	0.45
3:N:339:GLN:HE21	3:N:339:GLN:HB2	1.64	0.45
3:O:64:THR:OG1	3:O:137:LEU:HB3	2.17	0.45
3:O:246:LYS:HE2	3:O:246:LYS:HA	1.99	0.45
3:A:36:VAL:HG21	3:A:134:LEU:HD21	1.98	0.45
3:A:44:ASN:HD22	3:A:107:ALA:HA	1.82	0.45
3:E:214:ARG:HE	3:E:214:ARG:HB3	1.57	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:E:259:GLN:O	3:E:263:GLN:HA	2.17	0.45
3:F:121:LEU:N	3:F:121:LEU:CD1	2.80	0.45
3:G:32:ARG:HH21	3:G:342:ARG:HD3	1.81	0.45
3:G:181:THR:HG22	3:G:183:LEU:HG	1.99	0.45
3:H:49:ALA:N	3:H:107:ALA:HB2	2.32	0.45
3:I:343:ILE:O	3:I:343:ILE:HG23	2.17	0.45
3:J:221:ASN:HB2	3:J:228:ASN:ND2	2.32	0.45
3:J:236:LEU:CB	3:J:247:ILE:HD12	2.46	0.45
3:K:84:GLY:O	3:K:87:MET:HB2	2.16	0.45
3:L:53:PRO:CD	3:L:142:PRO:HB3	2.47	0.45
3:L:234:TYR:HB2	3:L:251:TRP:CZ3	2.49	0.45
3:M:121:LEU:HD12	3:M:121:LEU:N	2.32	0.45
3:M:324:LEU:HD12	3:M:325:PRO:HD3	1.99	0.45
3:O:37:GLN:O	3:O:151:PHE:HA	2.17	0.45
1:Q:106:VAL:CG2	1:Q:201:ALA:HB1	2.45	0.45
3:B:63:GLN:HB2	3:B:139:GLY:CA	2.47	0.45
3:B:87:MET:SD	3:B:118:GLU:HB3	2.57	0.45
3:D:254:LEU:HD12	3:D:254:LEU:HA	1.87	0.45
3:E:123:ARG:HD2	3:E:158:GLU:OE2	2.17	0.45
3:E:216:LEU:HD23	3:E:309:LEU:HD13	1.98	0.45
3:F:67:LEU:HD21	3:F:121:LEU:HD21	1.99	0.45
3:F:237:LYS:HG2	3:F:245:ASP:OD2	2.17	0.45
3:G:19:THR:HG22	3:G:20:ASN:N	2.32	0.45
3:G:116:MET:HE2	3:G:116:MET:HB2	1.65	0.45
3:H:56:PRO:HD3	3:H:226:ILE:CG2	2.47	0.45
3:H:68:SER:CB	3:H:74:THR:HA	2.47	0.45
3:J:200:PRO:HG2	3:J:233:GLU:HG3	1.98	0.45
3:K:113:LEU:HD23	3:K:149:ALA:CB	2.46	0.45
3:M:259:GLN:O	3:M:263:GLN:HA	2.17	0.45
3:B:256:ALA:HB1	3:C:116:MET:HE1	1.98	0.44
3:B:344:LYS:HD2	3:B:345:ARG:HH12	1.82	0.44
3:E:168:GLU:HG2	3:E:335:TYR:CZ	2.52	0.44
3:F:68:SER:CB	3:F:74:THR:HA	2.47	0.44
3:F:76:TYR:CE1	3:F:186:VAL:HB	2.52	0.44
3:F:122:ALA:HB1	3:F:339:GLN:HG3	1.99	0.44
3:G:4:ILE:HD12	3:G:4:ILE:H	1.82	0.44
3:G:257:GLU:O	3:G:261:GLU:HB3	2.17	0.44
3:I:13:TYR:HB3	3:I:21:ILE:HG21	1.98	0.44
3:I:236:LEU:H	3:I:247:ILE:HB	1.82	0.44
3:J:63:GLN:HB2	3:J:139:GLY:HA2	1.99	0.44
3:K:341:ARG:HE	3:K:341:ARG:HB2	1.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:30:PHE:CD1	3:L:160:VAL:HG21	2.52	0.44
3:L:247:ILE:HG12	3:L:279:TYR:CD2	2.52	0.44
3:L:258:ASN:HA	3:L:261:GLU:HB3	1.98	0.44
3:L:321:LEU:HD22	3:L:332:VAL:CG1	2.47	0.44
3:N:96:PRO:HB3	3:N:114:ASN:HD21	1.81	0.44
3:O:166:LEU:HA	3:O:170:GLY:HA2	1.98	0.44
3:O:231:PRO:HA	3:O:300:LEU:HD23	1.99	0.44
3:O:231:PRO:HB2	3:O:251:TRP:CD2	2.52	0.44
3:C:44:ASN:HD22	3:C:107:ALA:HA	1.82	0.44
3:C:56:PRO:HD3	3:C:226:ILE:HG22	1.99	0.44
3:E:113:LEU:HD22	3:E:147:ILE:HG23	1.99	0.44
3:E:257:GLU:O	3:E:261:GLU:HB3	2.17	0.44
3:G:38:LEU:HD12	3:G:38:LEU:HA	1.77	0.44
3:G:214:ARG:HE	3:G:214:ARG:HB3	1.62	0.44
3:H:62:VAL:HG13	3:H:136:ILE:CG2	2.47	0.44
3:H:224:SER:OG	3:H:228:ASN:HB3	2.16	0.44
3:J:205:TYR:CD1	3:J:295:GLU:HB3	2.52	0.44
3:K:44:ASN:ND2	3:K:107:ALA:HA	2.32	0.44
3:N:182:VAL:HG22	3:N:336:VAL:HG13	2.00	0.44
3:B:19:THR:HG22	3:B:20:ASN:N	2.33	0.44
3:B:42:ILE:HD11	3:B:113:LEU:HD13	2.00	0.44
3:B:233:GLU:HB3	3:B:299:ALA:CB	2.47	0.44
3:C:25:ILE:CG2	3:C:155:ILE:HD13	2.44	0.44
3:C:30:PHE:N	3:C:30:PHE:HD2	2.16	0.44
3:C:187:ILE:CG2	3:C:188:GLU:N	2.79	0.44
3:C:259:GLN:OE1	3:C:266:PRO:HD3	2.16	0.44
3:C:324:LEU:HD12	3:C:325:PRO:CD	2.47	0.44
3:E:200:PRO:HG2	3:E:233:GLU:HG3	1.97	0.44
3:E:327:GLN:H	3:E:327:GLN:HG3	1.58	0.44
3:G:314:VAL:HG12	3:G:315:LEU:N	2.32	0.44
3:H:219:VAL:HG12	3:H:220:ILE:N	2.31	0.44
3:J:255:GLN:NE2	3:J:266:PRO:HB3	2.33	0.44
3:J:280:PHE:CE1	3:J:284:LEU:HB2	2.53	0.44
3:K:324:LEU:HG	3:K:328:VAL:HB	1.98	0.44
3:N:259:GLN:OE1	3:N:266:PRO:CD	2.56	0.44
3:A:33:LYS:HB2	3:A:118:GLU:OE2	2.17	0.44
3:A:54:SER:CA	3:A:101:PRO:HB3	2.45	0.44
3:D:105:VAL:O	3:D:106:PRO:C	2.56	0.44
3:E:57:PHE:CG	3:E:58:PRO:HA	2.52	0.44
3:E:176:GLU:C	3:E:177:MET:HG3	2.37	0.44
3:F:116:MET:HG2	3:F:117:TRP:N	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:142:PRO:CD	3:F:147:ILE:HD11	2.47	0.44
3:H:232:THR:C	3:H:251:TRP:HB2	2.38	0.44
3:J:83:LEU:HD12	3:J:86:LEU:HD23	1.99	0.44
3:J:224:SER:HB2	3:J:227:ASN:O	2.17	0.44
3:L:15:TRP:CH2	3:L:141:ALA:HB2	2.52	0.44
3:L:179:LEU:HD11	3:L:320:GLN:HB2	1.99	0.44
3:M:65:PHE:CD1	3:M:136:ILE:HG12	2.52	0.44
3:O:25:ILE:HG23	3:O:155:ILE:HD11	1.97	0.44
3:O:56:PRO:HA	3:O:267:TYR:OH	2.18	0.44
3:O:57:PHE:CG	3:O:58:PRO:HA	2.53	0.44
4:P:12:ALA:HA	4:P:33:ASN:O	2.18	0.44
1:Q:140:TYR:CD2	1:Q:141:LEU:N	2.85	0.44
3:A:57:PHE:CG	3:A:58:PRO:HA	2.51	0.44
3:B:287:THR:HG21	3:B:318:TYR:CE2	2.52	0.44
3:C:15:TRP:HH2	3:C:141:ALA:HB2	1.83	0.44
3:D:87:MET:HE1	3:D:345:ARG:CB	2.43	0.44
3:E:65:PHE:CE1	3:E:136:ILE:HG12	2.53	0.44
3:E:246:LYS:HE2	3:E:246:LYS:CA	2.38	0.44
3:F:4:ILE:HA	3:F:158:GLU:HA	2.00	0.44
3:G:57:PHE:CG	3:G:58:PRO:HA	2.53	0.44
3:G:62:VAL:O	3:G:80:GLY:HA3	2.18	0.44
3:G:192:PHE:HA	3:G:305:ASN:OD1	2.18	0.44
3:H:231:PRO:HB2	3:H:251:TRP:CE2	2.53	0.44
3:J:131:ASN:ND2	3:J:133:ILE:HD11	2.19	0.44
3:L:52:LEU:O	3:L:102:GLY:HA2	2.18	0.44
3:M:68:SER:HB2	3:M:73:LYS:C	2.37	0.44
3:M:249:VAL:HG12	3:M:253:ALA:HB3	1.99	0.44
1:Q:56:VAL:HG22	1:Q:82:SER:HA	2.00	0.44
3:C:25:ILE:HG23	3:C:155:ILE:CD1	2.43	0.44
3:D:94:GLN:HG3	3:F:263:GLN:C	2.38	0.44
3:F:87:MET:HB3	3:F:95:ASN:ND2	2.33	0.44
3:F:206:LEU:HB3	3:F:212:TYR:CE1	2.53	0.44
3:H:52:LEU:CD2	3:H:145:VAL:HG21	2.48	0.44
3:H:185:LYS:O	3:H:185:LYS:HG2	2.18	0.44
3:J:233:GLU:OE1	3:J:250:SER:HA	2.17	0.44
3:J:240:ARG:NH2	3:O:208:PRO:CG	2.73	0.44
3:K:293:SER:C	3:K:294:ILE:HG13	2.38	0.44
3:O:32:ARG:HB2	3:O:156:THR:HG22	2.00	0.44
3:O:200:PRO:HG3	3:O:233:GLU:HB3	1.99	0.44
3:E:116:MET:HB2	3:E:116:MET:HE2	1.72	0.44
3:F:30:PHE:CD1	3:F:160:VAL:HG21	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:3:GLU:CB	3:G:159:ARG:HB3	2.37	0.44
3:G:246:LYS:HE2	3:G:246:LYS:CA	2.45	0.44
3:I:124:PHE:HD1	3:I:125:PRO:HD2	1.83	0.44
3:K:226:ILE:O	3:K:226:ILE:HG12	2.18	0.44
3:K:240:ARG:NH2	3:K:290:PRO:HB2	2.32	0.44
3:M:83:LEU:HD23	3:M:117:TRP:CD1	2.52	0.44
3:N:202:HIS:HE1	3:N:204:ALA:CA	2.31	0.44
1:Q:29:SER:OG	1:Q:30:SER:N	2.51	0.44
3:A:226:ILE:HD13	3:A:267:TYR:HE2	1.83	0.44
3:C:41:SER:HB2	3:C:111:VAL:O	2.17	0.44
3:C:122:ALA:HB1	3:C:339:GLN:CG	2.47	0.44
3:C:254:LEU:HD11	3:C:274:ILE:HG13	1.99	0.44
3:D:57:PHE:O	3:D:101:PRO:HG3	2.18	0.44
3:F:116:MET:CG	3:F:117:TRP:N	2.81	0.44
3:F:253:ALA:O	3:F:256:ALA:HB3	2.17	0.44
3:G:52:LEU:CD1	3:G:99:PRO:HG3	2.48	0.44
3:G:121:LEU:N	3:G:121:LEU:HD12	2.32	0.44
3:G:254:LEU:HD12	3:G:254:LEU:HA	1.85	0.44
3:H:211:ILE:HG22	3:H:283:ASP:HB3	2.00	0.44
3:H:321:LEU:HD22	3:H:332:VAL:HG11	2.00	0.44
3:I:57:PHE:CE2	3:I:142:PRO:HG2	2.53	0.44
3:I:62:VAL:CG1	3:I:136:ILE:HG23	2.47	0.44
3:I:200:PRO:HG2	3:I:233:GLU:HG3	2.00	0.44
3:I:221:ASN:HD21	3:I:302:ASN:ND2	2.15	0.44
3:I:298:LEU:HD12	3:I:306:VAL:HG11	1.99	0.44
3:J:83:LEU:HD23	3:J:117:TRP:HB3	1.99	0.44
3:J:285:ASP:O	3:J:286:LEU:HD23	2.17	0.44
3:K:176:GLU:C	3:K:177:MET:HG3	2.38	0.44
3:K:259:GLN:OE1	3:K:266:PRO:CD	2.66	0.44
3:L:78:VAL:HG21	3:L:83:LEU:HB2	1.98	0.44
3:L:124:PHE:CD1	3:L:125:PRO:HD2	2.53	0.44
3:L:181:THR:HG22	3:L:183:LEU:HG	1.99	0.44
3:L:235:GLU:HG3	3:L:247:ILE:O	2.18	0.44
3:M:208:PRO:HB2	3:M:286:LEU:O	2.18	0.44
3:N:219:VAL:CG1	3:N:304:ASP:HB2	2.48	0.44
3:N:328:VAL:HA	3:N:331:ILE:HD12	1.99	0.44
3:O:236:LEU:HB2	3:O:247:ILE:HD12	1.99	0.44
3:A:61:LEU:HD21	3:A:142:PRO:HD3	2.00	0.44
3:A:125:PRO:HG3	3:A:177:MET:HB3	1.99	0.44
3:E:261:GLU:HG3	3:E:262:TYR:CE2	2.52	0.44
3:F:254:LEU:HD12	3:F:254:LEU:HA	1.74	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:3:GLU:HB2	3:G:159:ARG:CB	2.36	0.44
3:G:275:ASP:HB3	3:G:277:ARG:HG2	1.99	0.44
3:I:42:ILE:HG22	3:I:145:VAL:CB	2.44	0.44
3:I:69:TYR:O	3:I:70:GLU:HB2	2.17	0.44
3:I:220:ILE:HG13	3:I:307:TYR:CE2	2.53	0.44
3:K:256:ALA:HB2	3:L:116:MET:HE1	1.99	0.44
3:L:179:LEU:HG	3:L:321:LEU:HD21	2.00	0.44
3:L:211:ILE:O	3:L:312:SER:HB3	2.18	0.44
3:L:238:ILE:HD11	3:L:246:LYS:CD	2.43	0.44
3:M:233:GLU:HB3	3:M:299:ALA:HB3	2.00	0.44
3:N:231:PRO:HB2	3:N:251:TRP:CD2	2.53	0.44
3:N:247:ILE:HG12	3:N:279:TYR:CE2	2.51	0.44
3:N:247:ILE:CG2	3:N:249:VAL:HG23	2.45	0.44
4:P:313:GLN:O	4:P:356:ALA:HA	2.17	0.44
1:Q:13:GLU:CD	2:R:6:UNK:CB	2.86	0.43
1:Q:33:LEU:CD1	1:Q:101:TYR:HB3	2.44	0.43
3:A:116:MET:CE	3:C:256:ALA:CB	2.96	0.43
3:B:13:TYR:CZ	3:B:23:ILE:HG12	2.52	0.43
3:B:236:LEU:HB2	3:B:247:ILE:HD12	2.00	0.43
3:B:254:LEU:HD21	3:B:274:ILE:HD11	1.99	0.43
3:C:19:THR:CG2	3:C:20:ASN:N	2.80	0.43
3:D:9:LEU:CD2	3:D:155:ILE:HD11	2.48	0.43
3:E:188:GLU:OE1	3:E:307:TYR:HB3	2.18	0.43
3:E:210:GLN:HG3	3:E:212:TYR:HE2	1.80	0.43
3:E:254:LEU:HD21	3:E:274:ILE:HD11	1.99	0.43
3:F:105:VAL:HG21	3:F:145:VAL:HG11	2.00	0.43
3:F:113:LEU:CD2	3:F:147:ILE:HG23	2.48	0.43
3:F:246:LYS:O	3:F:279:TYR:HD2	2.00	0.43
3:G:52:LEU:HD21	3:G:145:VAL:HG21	1.99	0.43
3:G:90:THR:HB	3:G:345:ARG:HG2	1.98	0.43
3:G:189:ILE:CD1	3:G:310:TYR:HE2	2.30	0.43
3:H:15:TRP:CE3	3:H:15:TRP:O	2.71	0.43
3:H:29:ASN:HB2	3:H:157:TYR:HB3	1.99	0.43
3:H:42:ILE:HD13	3:H:57:PHE:HZ	1.82	0.43
3:H:134:LEU:HG	3:H:134:LEU:O	2.17	0.43
3:J:6:THR:HG22	3:J:7:GLU:N	2.32	0.43
3:L:168:GLU:HG2	3:L:335:TYR:CZ	2.53	0.43
3:N:179:LEU:HG	3:N:321:LEU:CD2	2.48	0.43
3:O:206:LEU:HB3	3:O:212:TYR:CZ	2.53	0.43
1:Q:11:LYS:CB	2:R:8:UNK:CB	2.96	0.43
1:Q:13:GLU:OE2	2:R:6:UNK:CB	2.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:69:TYR:HA	3:A:131:ASN:O	2.18	0.43
3:A:190:PRO:HB3	3:A:307:TYR:CE1	2.53	0.43
3:B:69:TYR:CZ	3:B:73:LYS:HB2	2.53	0.43
3:B:278:LYS:O	3:C:4:ILE:HB	2.18	0.43
3:C:104:SER:O	3:C:106:PRO:HD3	2.18	0.43
3:C:219:VAL:HG11	3:C:304:ASP:OD2	2.18	0.43
3:C:234:TYR:HB2	3:C:251:TRP:CZ3	2.53	0.43
3:D:52:LEU:HD13	3:D:57:PHE:CE1	2.53	0.43
3:D:206:LEU:HB3	3:D:212:TYR:CZ	2.53	0.43
3:E:95:ASN:OD1	3:E:96:PRO:HD2	2.17	0.43
3:G:123:ARG:HH22	3:G:168:GLU:CD	2.20	0.43
3:G:325:PRO:C	3:G:327:GLN:N	2.72	0.43
3:H:116:MET:HE2	3:H:116:MET:HB2	1.57	0.43
3:H:176:GLU:C	3:H:177:MET:HG3	2.38	0.43
3:H:186:VAL:CG1	3:H:309:LEU:HD21	2.48	0.43
3:I:42:ILE:HG23	3:I:147:ILE:HD13	2.00	0.43
3:J:123:ARG:HD3	3:J:342:ARG:HH12	1.82	0.43
3:J:185:LYS:HG2	3:J:185:LYS:O	2.17	0.43
3:L:209:GLY:O	3:L:210:GLN:HB3	2.18	0.43
3:M:190:PRO:CB	3:M:307:TYR:CE1	3.01	0.43
3:M:309:LEU:HD23	3:M:310:TYR:N	2.34	0.43
3:M:340:LYS:CG	3:M:341:ARG:N	2.81	0.43
3:O:90:THR:HB	3:O:345:ARG:CG	2.49	0.43
3:O:173:ALA:N	3:O:320:GLN:OE1	2.51	0.43
3:B:37:GLN:NE2	3:B:39:ILE:HD11	2.33	0.43
3:B:67:LEU:HB3	3:B:76:TYR:HB2	2.00	0.43
3:C:219:VAL:HG12	3:C:220:ILE:N	2.32	0.43
3:D:57:PHE:CG	3:D:58:PRO:HA	2.52	0.43
3:G:285:ASP:O	3:G:286:LEU:HD23	2.18	0.43
3:H:194:VAL:HG21	3:H:306:VAL:CG2	2.48	0.43
3:J:123:ARG:HB3	3:J:339:GLN:OE1	2.18	0.43
3:K:23:ILE:HD13	3:K:153:ILE:HG13	1.99	0.43
3:K:52:LEU:CD1	3:K:99:PRO:CG	2.96	0.43
3:K:214:ARG:HG2	3:K:311:VAL:HB	1.99	0.43
3:L:298:LEU:CD1	3:L:306:VAL:HG11	2.49	0.43
3:M:185:LYS:HG2	3:M:185:LYS:O	2.17	0.43
3:N:52:LEU:HD12	3:N:99:PRO:HG3	1.99	0.43
3:O:187:ILE:HG22	3:O:188:GLU:H	1.82	0.43
4:P:318:ALA:CB	4:P:349:ILE:HD11	2.48	0.43
3:A:38:LEU:O	3:A:114:ASN:HA	2.19	0.43
3:A:94:GLN:O	3:C:259:GLN:NE2	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:113:LEU:HD22	3:B:147:ILE:HG23	2.01	0.43
3:B:254:LEU:HD12	3:B:254:LEU:HA	1.88	0.43
3:B:314:VAL:HG12	3:B:315:LEU:N	2.33	0.43
3:D:4:ILE:HA	3:D:157:TYR:O	2.19	0.43
3:D:92:LYS:HG3	3:D:263:GLN:O	2.17	0.43
3:D:193:ASN:O	3:D:195:PRO:HD3	2.18	0.43
3:E:87:MET:CE	3:E:118:GLU:HB3	2.48	0.43
3:F:28:ASN:HD22	3:J:70:GLU:CA	2.30	0.43
3:F:32:ARG:HD2	3:F:158:GLU:HB2	2.01	0.43
3:F:160:VAL:HG12	3:F:165:ILE:HG13	2.00	0.43
3:F:335:TYR:O	3:F:339:GLN:HB2	2.18	0.43
3:I:231:PRO:O	3:I:251:TRP:CG	2.71	0.43
3:K:257:GLU:O	3:K:261:GLU:CB	2.67	0.43
3:L:67:LEU:HD13	3:L:134:LEU:HB2	2.01	0.43
3:L:131:ASN:HD22	3:L:133:ILE:HD11	1.84	0.43
3:L:344:LYS:HB2	3:L:345:ARG:NH1	2.33	0.43
3:O:189:ILE:HD12	3:O:310:TYR:HE2	1.83	0.43
3:O:233:GLU:HB3	3:O:299:ALA:CB	2.48	0.43
3:O:324:LEU:CD2	3:O:332:VAL:HG21	2.46	0.43
3:A:279:TYR:N	3:A:279:TYR:CD1	2.86	0.43
3:A:315:LEU:HB2	3:A:318:TYR:HB2	2.00	0.43
3:C:19:THR:HG22	3:C:20:ASN:N	2.32	0.43
3:C:130:GLN:CA	3:C:130:GLN:NE2	2.80	0.43
3:C:254:LEU:HD12	3:C:254:LEU:HA	1.85	0.43
3:D:191:THR:CG2	3:D:194:VAL:HG22	2.49	0.43
3:E:15:TRP:NE1	3:E:138:THR:HB	2.34	0.43
3:E:59:TYR:HB3	3:E:80:GLY:O	2.17	0.43
3:G:33:LYS:HD2	3:G:118:GLU:OE2	2.19	0.43
3:G:263:GLN:C	3:H:94:GLN:HG3	2.39	0.43
3:H:125:PRO:CG	3:H:177:MET:HG2	2.49	0.43
3:I:53:PRO:CD	3:I:142:PRO:HB3	2.48	0.43
3:I:228:ASN:OD1	3:I:270:ALA:HB2	2.18	0.43
3:I:231:PRO:HB2	3:I:251:TRP:CD2	2.54	0.43
3:K:36:VAL:HG13	3:K:153:ILE:CD1	2.47	0.43
3:K:64:THR:OG1	3:K:137:LEU:HB3	2.18	0.43
3:L:73:LYS:HA	3:L:73:LYS:HD3	1.88	0.43
3:L:160:VAL:CG1	3:L:165:ILE:HG13	2.49	0.43
3:M:116:MET:CG	3:M:117:TRP:N	2.80	0.43
3:M:246:LYS:O	3:M:279:TYR:HD2	2.01	0.43
3:A:4:ILE:HG21	3:A:32:ARG:HH11	1.84	0.43
3:C:67:LEU:HB2	3:C:134:LEU:HD13	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:E:13:TYR:HB3	3:E:21:ILE:HG21	1.99	0.43
3:E:89:TYR:CD2	3:E:273:ILE:HD11	2.54	0.43
3:E:212:TYR:N	3:E:212:TYR:CD2	2.87	0.43
3:E:230:ASP:N	3:E:231:PRO:HD2	2.34	0.43
3:F:200:PRO:HG2	3:F:233:GLU:HG3	2.01	0.43
3:G:76:TYR:CD1	3:G:119:PHE:HD2	2.37	0.43
3:G:113:LEU:HD23	3:G:149:ALA:HB2	2.00	0.43
3:G:115:VAL:HG12	3:G:116:MET:N	2.34	0.43
3:G:238:ILE:HD11	3:G:246:LYS:CD	2.49	0.43
3:H:171:LEU:HA	3:H:178:PRO:HA	2.01	0.43
3:H:243:PRO:HD3	3:M:185:LYS:CE	2.49	0.43
3:I:212:TYR:CE2	3:I:286:LEU:HD12	2.53	0.43
3:L:128:MET:HE3	3:L:171:LEU:HD21	2.01	0.43
3:L:174:ASP:CG	3:L:176:GLU:HG2	2.38	0.43
3:M:221:ASN:H	3:M:228:ASN:ND2	2.16	0.43
3:M:231:PRO:HG3	3:M:270:ALA:HA	2.01	0.43
3:N:92:LYS:N	3:N:92:LYS:CD	2.71	0.43
3:N:128:MET:HE1	3:N:165:ILE:HD13	2.00	0.43
3:N:207:GLN:H	3:N:207:GLN:HG3	1.55	0.43
4:P:23:SER:HA	4:P:57:SER:O	2.18	0.43
4:P:160:ILE:HG22	4:P:160:ILE:O	2.17	0.43
3:A:88:TYR:CD2	3:A:267:TYR:HB2	2.53	0.43
3:C:160:VAL:HG12	3:C:165:ILE:HG13	2.00	0.43
3:D:88:TYR:O	3:D:93:GLY:HA2	2.19	0.43
3:D:219:VAL:HG21	3:D:300:LEU:CD2	2.49	0.43
3:D:263:GLN:C	3:E:94:GLN:HG3	2.39	0.43
3:F:90:THR:HB	3:F:345:ARG:HG2	2.01	0.43
3:F:120:ASP:C	3:F:121:LEU:HD12	2.39	0.43
3:F:200:PRO:HG3	3:F:233:GLU:HB3	2.01	0.43
3:F:340:LYS:O	3:F:343:ILE:CG2	2.67	0.43
3:G:23:ILE:HD13	3:G:153:ILE:HD11	2.01	0.43
3:G:69:TYR:O	3:G:70:GLU:HB2	2.17	0.43
3:K:116:MET:HG3	3:K:117:TRP:N	2.33	0.43
3:K:248:LYS:HB3	3:L:7:GLU:HB2	1.98	0.43
3:L:119:PHE:CD1	3:L:119:PHE:N	2.86	0.43
3:L:182:VAL:CG2	3:L:336:VAL:HG13	2.47	0.43
3:M:23:ILE:HG21	3:M:153:ILE:HG13	2.00	0.43
3:M:142:PRO:HB2	3:M:145:VAL:HG22	1.99	0.43
3:M:212:TYR:CE2	3:M:286:LEU:HD12	2.54	0.43
1:Q:53:GLY:HA3	1:Q:111:SER:OG	2.19	0.43
3:B:179:LEU:HD11	3:B:320:GLN:HB2	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:85:ILE:HD11	3:C:226:ILE:CD1	2.49	0.43
3:D:70:GLU:C	3:D:72:SER:H	2.22	0.43
3:D:218:TYR:HA	3:D:270:ALA:O	2.18	0.43
3:D:236:LEU:HD11	3:D:294:ILE:CG2	2.48	0.43
3:D:345:ARG:HG3	3:D:345:ARG:HH11	1.82	0.43
3:E:173:ALA:HB2	3:E:320:GLN:CD	2.39	0.43
3:E:240:ARG:NH2	3:J:208:PRO:CG	2.72	0.43
3:F:185:LYS:N	3:F:312:SER:O	2.41	0.43
3:F:221:ASN:HB2	3:F:228:ASN:ND2	2.34	0.43
3:G:58:PRO:HB2	3:G:115:VAL:HG21	2.01	0.43
3:G:335:TYR:O	3:G:339:GLN:HB2	2.19	0.43
3:H:243:PRO:HD3	3:M:185:LYS:CD	2.49	0.43
3:I:69:TYR:N	3:I:69:TYR:CD1	2.86	0.43
3:I:123:ARG:HD3	3:I:342:ARG:HH12	1.84	0.43
3:J:219:VAL:HG12	3:J:220:ILE:N	2.34	0.43
3:M:200:PRO:HG2	3:M:233:GLU:HG3	1.99	0.43
3:N:257:GLU:O	3:N:261:GLU:HB3	2.18	0.43
1:Q:26:TYR:N	1:Q:26:TYR:CD2	2.87	0.43
1:Q:42:ARG:CZ	1:Q:42:ARG:HB2	2.49	0.43
3:A:37:GLN:O	3:A:151:PHE:HA	2.19	0.43
3:D:107:ALA:O	3:D:108:SER:HB2	2.19	0.43
3:G:248:LYS:O	3:H:7:GLU:HA	2.19	0.43
3:I:62:VAL:HG13	3:I:136:ILE:CG2	2.49	0.43
3:I:192:PHE:CD1	3:I:305:ASN:OD1	2.72	0.43
3:J:105:VAL:HG21	3:J:145:VAL:HG11	2.01	0.43
3:K:216:LEU:HD23	3:K:309:LEU:HD13	2.01	0.43
3:K:257:GLU:O	3:K:261:GLU:HB2	2.19	0.43
3:O:76:TYR:CD1	3:O:186:VAL:HB	2.54	0.43
1:Q:173:ASN:HB2	4:P:23:SER:C	2.39	0.43
3:A:38:LEU:HD12	3:A:38:LEU:HA	1.76	0.43
3:A:63:GLN:HG2	3:A:64:THR:HG23	2.01	0.43
3:A:124:PHE:HD1	3:A:183:LEU:CD2	2.32	0.43
3:B:168:GLU:HG2	3:B:335:TYR:CD1	2.54	0.43
3:B:244:THR:CG2	3:B:245:ASP:N	2.82	0.43
3:C:29:ASN:OD1	3:C:159:ARG:HA	2.19	0.43
3:C:33:LYS:HE3	3:C:35:ARG:HH21	1.84	0.43
3:C:176:GLU:C	3:C:177:MET:HG3	2.37	0.43
3:D:172:GLY:HA3	3:D:317:TYR:CE2	2.54	0.43
3:D:343:ILE:O	3:D:343:ILE:HG23	2.19	0.43
3:F:284:LEU:HD11	3:F:294:ILE:CD1	2.49	0.43
3:G:87:MET:HE1	3:G:118:GLU:HB3	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:H:89:TYR:CD2	3:H:273:ILE:HD11	2.54	0.43
3:J:53:PRO:CD	3:J:142:PRO:HB3	2.49	0.43
3:J:214:ARG:HG2	3:J:311:VAL:HB	2.01	0.43
3:K:171:LEU:HA	3:K:178:PRO:HA	2.01	0.43
3:L:2:GLY:HA3	3:L:159:ARG:O	2.19	0.43
3:N:230:ASP:O	3:N:231:PRO:C	2.54	0.43
3:N:314:VAL:CG1	3:N:315:LEU:N	2.82	0.43
3:O:212:TYR:HB3	3:O:276:PHE:CE2	2.53	0.43
3:O:254:LEU:HD21	3:O:274:ILE:HD11	2.00	0.43
4:P:46:SER:HA	4:P:54:LYS:O	2.19	0.43
3:A:119:PHE:O	3:A:121:LEU:HD12	2.18	0.42
3:A:228:ASN:OD1	3:A:270:ALA:HB2	2.18	0.42
3:E:168:GLU:HG2	3:E:335:TYR:CE1	2.54	0.42
3:E:248:LYS:HG3	3:E:248:LYS:O	2.19	0.42
3:F:15:TRP:HB2	3:F:38:LEU:HD11	2.00	0.42
3:H:42:ILE:HB	3:H:111:VAL:CG2	2.49	0.42
3:H:63:GLN:HG2	3:H:64:THR:HG23	2.00	0.42
3:H:209:GLY:O	3:H:210:GLN:HB3	2.19	0.42
3:H:233:GLU:HB3	3:H:299:ALA:HB3	2.00	0.42
3:I:234:TYR:HE2	3:I:247:ILE:HD12	1.84	0.42
3:J:38:LEU:O	3:J:114:ASN:HA	2.19	0.42
3:J:57:PHE:CG	3:J:58:PRO:HA	2.54	0.42
3:N:159:ARG:HH11	3:N:159:ARG:HG2	1.84	0.42
4:P:289:ASN:HD21	4:P:291:GLN:HB3	1.83	0.42
4:P:370:ILE:HD12	4:P:370:ILE:HG21	1.81	0.42
1:Q:53:GLY:HA3	1:Q:111:SER:HA	2.00	0.42
3:A:70:GLU:C	3:A:72:SER:H	2.23	0.42
3:D:285:ASP:C	3:D:286:LEU:HD23	2.39	0.42
3:E:98:TYR:HB3	3:E:99:PRO:HA	2.01	0.42
3:E:332:VAL:O	3:E:336:VAL:HG23	2.19	0.42
3:F:57:PHE:CE2	3:F:142:PRO:HG2	2.54	0.42
3:F:68:SER:HB3	3:F:74:THR:HA	2.00	0.42
3:I:26:PRO:CB	3:M:131:ASN:HD21	2.32	0.42
3:J:19:THR:CG2	3:J:20:ASN:N	2.82	0.42
3:K:236:LEU:H	3:K:247:ILE:HB	1.84	0.42
3:K:325:PRO:O	3:K:329:ALA:N	2.37	0.42
3:N:254:LEU:HD11	3:N:274:ILE:HG13	2.00	0.42
3:O:193:ASN:O	3:O:195:PRO:HD3	2.19	0.42
3:O:325:PRO:HB2	3:O:328:VAL:HG23	2.00	0.42
1:Q:29:SER:HB2	1:Q:110:SER:HB2	2.01	0.42
1:Q:94:ILE:HG22	1:Q:95:ALA:N	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:65:PHE:CD1	3:A:136:ILE:HG12	2.54	0.42
3:A:157:TYR:CD1	3:A:157:TYR:N	2.87	0.42
3:C:55:ALA:N	3:C:101:PRO:HB3	2.33	0.42
3:C:315:LEU:HD12	3:C:318:TYR:CD1	2.52	0.42
3:D:116:MET:HE2	3:D:116:MET:HB2	1.73	0.42
3:D:254:LEU:HD21	3:D:274:ILE:CD1	2.48	0.42
3:F:166:LEU:HA	3:F:170:GLY:HA2	2.00	0.42
3:H:25:ILE:CG2	3:H:155:ILE:HD13	2.48	0.42
3:H:42:ILE:HG22	3:H:145:VAL:HB	2.02	0.42
3:J:274:ILE:N	3:J:274:ILE:HD12	2.34	0.42
3:L:61:LEU:HD23	3:L:61:LEU:HA	1.88	0.42
3:L:179:LEU:HG	3:L:321:LEU:CD2	2.50	0.42
3:N:257:GLU:HB2	3:O:35:ARG:HH12	1.83	0.42
3:O:30:PHE:CD1	3:O:160:VAL:HG21	2.54	0.42
3:B:9:LEU:HD21	3:B:26:PRO:CD	2.50	0.42
3:D:52:LEU:CD1	3:D:99:PRO:HG3	2.48	0.42
3:E:44:ASN:HB2	3:E:105:VAL:CG1	2.49	0.42
3:E:172:GLY:HA3	3:E:317:TYR:CZ	2.54	0.42
3:E:232:THR:HA	3:E:251:TRP:HB2	2.00	0.42
3:F:313:TYR:CE2	3:F:315:LEU:HD21	2.55	0.42
3:G:30:PHE:CD1	3:G:160:VAL:HG21	2.53	0.42
3:H:121:LEU:N	3:H:121:LEU:CD1	2.81	0.42
3:K:116:MET:HE2	3:K:116:MET:HB2	1.83	0.42
3:L:19:THR:HG22	3:L:20:ASN:N	2.35	0.42
3:O:182:VAL:CG2	3:O:336:VAL:HG13	2.49	0.42
3:O:200:PRO:CG	3:O:233:GLU:CG	2.96	0.42
3:O:254:LEU:HD12	3:O:254:LEU:HA	1.85	0.42
4:P:94:VAL:HG13	4:P:135:PRO:HG3	2.01	0.42
1:Q:140:TYR:CZ	1:Q:157:PRO:HD3	2.54	0.42
1:Q:208:LEU:HD21	1:Q:210:LEU:CG	2.49	0.42
3:A:258:ASN:HA	3:A:261:GLU:HB3	2.01	0.42
3:D:325:PRO:C	3:D:327:GLN:N	2.73	0.42
3:E:202:HIS:CE1	3:E:204:ALA:CA	3.03	0.42
3:G:257:GLU:O	3:G:261:GLU:HB2	2.19	0.42
3:H:62:VAL:HA	3:H:138:THR:HA	2.02	0.42
3:J:54:SER:O	3:J:55:ALA:C	2.57	0.42
3:J:67:LEU:HD11	3:J:132:ILE:CG2	2.49	0.42
3:K:121:LEU:N	3:K:121:LEU:CD1	2.82	0.42
3:K:231:PRO:HB2	3:K:251:TRP:CD2	2.55	0.42
3:L:257:GLU:O	3:L:261:GLU:CB	2.68	0.42
3:M:94:GLN:HG3	3:O:263:GLN:O	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:M:168:GLU:HG2	3:M:335:TYR:CZ	2.53	0.42
3:M:219:VAL:HG22	3:M:306:VAL:HG22	2.00	0.42
3:M:309:LEU:HD23	3:M:309:LEU:C	2.40	0.42
3:O:115:VAL:HG12	3:O:116:MET:N	2.34	0.42
1:Q:37:PHE:HD2	1:Q:115:LEU:HD22	1.85	0.42
3:A:56:PRO:HA	3:A:267:TYR:OH	2.19	0.42
3:A:124:PHE:CD1	3:A:183:LEU:HD22	2.54	0.42
3:A:338:ARG:HA	3:A:341:ARG:HH21	1.85	0.42
3:B:205:TYR:HA	3:B:295:GLU:HA	2.01	0.42
3:B:246:LYS:HE2	3:B:246:LYS:CA	2.34	0.42
3:C:32:ARG:HD2	3:C:158:GLU:OE1	2.19	0.42
3:C:83:LEU:HD12	3:C:83:LEU:HA	1.83	0.42
3:E:19:THR:HG22	3:E:20:ASN:N	2.34	0.42
3:E:121:LEU:HB3	3:E:124:PHE:HB2	2.01	0.42
3:E:236:LEU:H	3:E:247:ILE:HB	1.84	0.42
3:I:230:ASP:HA	3:I:301:GLN:CG	2.46	0.42
3:J:44:ASN:HB2	3:J:105:VAL:CG1	2.49	0.42
3:J:130:GLN:HA	3:J:130:GLN:OE1	2.20	0.42
3:J:237:LYS:HG2	3:J:245:ASP:OD2	2.19	0.42
3:K:25:ILE:HG23	3:K:155:ILE:HD13	2.01	0.42
3:M:263:GLN:CA	3:N:94:GLN:HG3	2.50	0.42
3:N:233:GLU:HB3	3:N:299:ALA:HB2	2.01	0.42
3:O:221:ASN:HB2	3:O:228:ASN:ND2	2.34	0.42
4:P:84:ILE:HA	4:P:142:GLU:O	2.20	0.42
3:C:52:LEU:HD21	3:C:145:VAL:HG21	2.00	0.42
3:D:68:SER:HB2	3:D:73:LYS:O	2.20	0.42
3:E:56:PRO:O	3:E:59:TYR:HB2	2.20	0.42
3:E:70:GLU:C	3:M:28:ASN:ND2	2.67	0.42
3:E:70:GLU:CG	3:E:130:GLN:HB2	2.50	0.42
3:E:96:PRO:HB3	3:E:114:ASN:ND2	2.34	0.42
3:E:195:PRO:O	3:E:201:ILE:HD11	2.18	0.42
3:E:219:VAL:HG12	3:E:220:ILE:N	2.34	0.42
3:E:314:VAL:HG12	3:E:315:LEU:N	2.34	0.42
3:F:52:LEU:HD21	3:F:145:VAL:HG21	2.02	0.42
3:F:62:VAL:HG11	3:F:65:PHE:CZ	2.55	0.42
3:G:13:TYR:CE2	3:G:23:ILE:HG12	2.55	0.42
3:H:172:GLY:HA3	3:H:317:TYR:CE2	2.55	0.42
3:I:192:PHE:HA	3:I:305:ASN:OD1	2.20	0.42
3:J:232:THR:C	3:J:251:TRP:HB2	2.40	0.42
3:M:187:ILE:HG22	3:M:188:GLU:H	1.82	0.42
3:M:203:VAL:O	3:M:204:ALA:HB2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:38:LEU:HA	3:N:38:LEU:HD12	1.77	0.42
3:O:186:VAL:HG13	3:O:309:LEU:HD21	2.02	0.42
3:B:224:SER:OG	3:B:228:ASN:HB3	2.19	0.42
3:C:57:PHE:CE2	3:C:142:PRO:CG	3.03	0.42
3:C:213:LYS:NZ	3:C:340:LYS:O	2.47	0.42
3:D:37:GLN:CD	3:D:39:ILE:HD11	2.40	0.42
3:F:24:LYS:HB3	3:F:24:LYS:HE2	1.91	0.42
3:F:85:ILE:HD11	3:F:226:ILE:CD1	2.50	0.42
3:F:128:MET:HE1	3:F:165:ILE:HD13	2.01	0.42
3:F:258:ASN:HA	3:F:261:GLU:HB3	2.01	0.42
3:G:6:THR:HG22	3:G:7:GLU:N	2.34	0.42
3:I:15:TRP:HB2	3:I:38:LEU:HD11	2.00	0.42
3:I:200:PRO:CG	3:I:233:GLU:HG3	2.49	0.42
3:J:200:PRO:CG	3:J:233:GLU:CG	2.95	0.42
3:J:280:PHE:CD1	3:J:284:LEU:HB2	2.54	0.42
3:J:314:VAL:HG12	3:J:315:LEU:N	2.35	0.42
3:L:4:ILE:HG13	3:L:158:GLU:HG3	2.01	0.42
3:M:15:TRP:HB2	3:M:38:LEU:HD11	2.01	0.42
3:M:285:ASP:O	3:M:286:LEU:HD23	2.19	0.42
3:N:9:LEU:CD1	3:N:155:ILE:HD12	2.49	0.42
3:O:172:GLY:HA3	3:O:317:TYR:CE2	2.54	0.42
3:B:29:ASN:HB2	3:B:157:TYR:HB3	2.01	0.42
3:C:287:THR:HG22	3:C:288:HIS:CD2	2.55	0.42
3:D:76:TYR:CD1	3:D:119:PHE:HD2	2.38	0.42
3:E:67:LEU:HD13	3:E:134:LEU:HB2	2.00	0.42
3:G:13:TYR:CZ	3:G:23:ILE:HG12	2.55	0.42
3:G:94:GLN:HG3	3:I:263:GLN:C	2.40	0.42
3:I:126:ALA:HB1	3:I:132:ILE:HD11	2.02	0.42
3:J:230:ASP:O	3:J:231:PRO:C	2.55	0.42
3:J:259:GLN:HG3	3:K:96:PRO:CG	2.48	0.42
3:K:62:VAL:HG11	3:K:65:PHE:CE2	2.54	0.42
3:K:78:VAL:HG21	3:K:83:LEU:HB2	2.01	0.42
3:L:4:ILE:CG2	3:L:32:ARG:HD3	2.49	0.42
3:L:62:VAL:HG13	3:L:136:ILE:HG23	2.02	0.42
3:M:6:THR:HG22	3:M:7:GLU:N	2.35	0.42
3:O:17:ALA:HB1	3:O:140:GLN:NE2	2.35	0.42
1:Q:5:PHE:O	1:Q:5:PHE:CD1	2.72	0.42
1:Q:42:ARG:HH12	3:C:130:GLN:CG	2.32	0.42
1:Q:131:ILE:HB	1:Q:134:PHE:CZ	2.55	0.42
3:A:280:PHE:O	3:B:4:ILE:CD1	2.68	0.42
3:B:23:ILE:HD13	3:B:153:ILE:HD11	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:184:PRO:CB	3:B:343:ILE:HD12	2.48	0.42
3:C:246:LYS:C	3:C:247:ILE:HG13	2.40	0.42
3:D:159:ARG:C	3:D:159:ARG:HD3	2.39	0.42
3:E:119:PHE:CD1	3:E:119:PHE:N	2.88	0.42
3:F:205:TYR:HA	3:F:295:GLU:HA	2.02	0.42
3:F:232:THR:HG21	3:F:301:GLN:OE1	2.20	0.42
3:G:247:ILE:CD1	3:G:274:ILE:HG21	2.50	0.42
3:H:6:THR:HG22	3:H:7:GLU:N	2.35	0.42
3:I:324:LEU:CD2	3:I:332:VAL:HG21	2.45	0.42
3:J:47:THR:C	3:J:107:ALA:HB1	2.40	0.42
3:K:4:ILE:CD1	3:K:4:ILE:N	2.63	0.42
3:K:228:ASN:OD1	3:K:270:ALA:HB2	2.20	0.42
3:L:123:ARG:HD3	3:L:342:ARG:HH12	1.85	0.42
3:M:42:ILE:HG12	3:M:147:ILE:HD12	2.01	0.42
3:M:257:GLU:O	3:M:261:GLU:HB2	2.19	0.42
3:N:28:ASN:OD1	3:N:28:ASN:N	2.52	0.42
3:N:230:ASP:N	3:N:231:PRO:HD2	2.35	0.42
1:Q:45:PHE:HE1	1:Q:89:PHE:HD2	1.66	0.41
3:A:125:PRO:HG2	3:A:177:MET:HG2	2.02	0.41
3:A:189:ILE:HD12	3:A:310:TYR:HE2	1.85	0.41
3:A:205:TYR:CE1	3:A:292:ASP:HB3	2.55	0.41
3:F:157:TYR:CD1	3:F:157:TYR:N	2.88	0.41
3:G:116:MET:HE1	3:I:256:ALA:HB2	2.02	0.41
3:G:324:LEU:HD12	3:G:325:PRO:CD	2.49	0.41
3:G:337:ALA:O	3:G:340:LYS:HG2	2.19	0.41
3:H:116:MET:HG2	3:H:117:TRP:N	2.35	0.41
3:I:121:LEU:HD23	3:I:124:PHE:CD2	2.55	0.41
3:J:13:TYR:CZ	3:J:23:ILE:HG12	2.55	0.41
3:J:121:LEU:HD12	3:J:121:LEU:N	2.35	0.41
3:J:211:ILE:HG22	3:J:283:ASP:HB3	2.02	0.41
3:J:243:PRO:CG	3:O:74:THR:O	2.68	0.41
3:K:15:TRP:CE3	3:K:147:ILE:HB	2.55	0.41
3:K:57:PHE:CD2	3:K:58:PRO:HA	2.55	0.41
3:L:172:GLY:HA3	3:L:317:TYR:CE2	2.54	0.41
3:M:13:TYR:HB3	3:M:21:ILE:HG21	2.01	0.41
3:M:55:ALA:N	3:M:101:PRO:HB3	2.34	0.41
3:M:107:ALA:O	3:M:108:SER:HB2	2.20	0.41
3:M:173:ALA:HB2	3:M:320:GLN:CD	2.40	0.41
3:O:27:ARG:HD2	3:O:126:ALA:O	2.20	0.41
3:O:249:VAL:HG12	3:O:253:ALA:HB3	2.02	0.41
3:A:4:ILE:H	3:A:4:ILE:CD1	2.10	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:92:LYS:CD	3:C:263:GLN:HE21	2.31	0.41
3:B:52:LEU:HD21	3:B:145:VAL:HG11	2.02	0.41
3:B:321:LEU:CD2	3:B:332:VAL:HG11	2.50	0.41
3:F:4:ILE:CG2	3:F:32:ARG:HD3	2.48	0.41
3:G:54:SER:O	3:G:55:ALA:C	2.59	0.41
3:H:90:THR:HB	3:H:345:ARG:CG	2.50	0.41
3:I:274:ILE:N	3:I:274:ILE:CD1	2.83	0.41
3:J:182:VAL:CG2	3:J:339:GLN:HB3	2.49	0.41
3:K:63:GLN:O	3:K:79:SER:HB2	2.21	0.41
3:M:7:GLU:HB2	3:O:248:LYS:HB3	2.02	0.41
3:M:128:MET:SD	3:M:178:PRO:HD3	2.61	0.41
3:M:219:VAL:CG1	3:M:220:ILE:N	2.83	0.41
3:N:159:ARG:CG	3:N:159:ARG:NH1	2.83	0.41
3:O:315:LEU:HB2	3:O:318:TYR:HB2	2.01	0.41
3:A:89:TYR:CD2	3:A:273:ILE:HD11	2.55	0.41
3:A:251:TRP:O	3:A:255:GLN:HG3	2.20	0.41
3:C:226:ILE:HD13	3:C:267:TYR:HE2	1.84	0.41
3:C:324:LEU:HD12	3:C:325:PRO:HD3	2.03	0.41
3:D:182:VAL:HG21	3:D:339:GLN:HB3	2.03	0.41
3:D:259:GLN:HB3	3:E:94:GLN:O	2.20	0.41
3:D:329:ALA:O	3:D:333:GLN:HB2	2.20	0.41
3:E:61:LEU:HD23	3:E:61:LEU:HA	1.83	0.41
3:E:62:VAL:HG13	3:E:136:ILE:CG2	2.47	0.41
3:F:259:GLN:O	3:F:263:GLN:HA	2.20	0.41
3:G:24:LYS:HD3	3:G:133:ILE:HG12	2.01	0.41
3:G:25:ILE:HG23	3:G:155:ILE:HD13	2.01	0.41
3:H:240:ARG:HH12	3:H:290:PRO:CG	2.33	0.41
3:I:9:LEU:HD22	3:I:153:ILE:HB	2.02	0.41
3:J:89:TYR:CB	3:J:273:ILE:HD11	2.50	0.41
3:J:309:LEU:HD23	3:J:310:TYR:N	2.35	0.41
3:K:17:ALA:HB1	3:K:140:GLN:HE22	1.85	0.41
3:K:28:ASN:HD22	3:O:70:GLU:CA	2.33	0.41
3:K:85:ILE:HD11	3:K:226:ILE:CD1	2.50	0.41
3:M:325:PRO:C	3:M:327:GLN:N	2.72	0.41
3:O:214:ARG:HE	3:O:214:ARG:HB3	1.70	0.41
4:P:197:PHE:CG	4:P:216:ILE:HD12	2.56	0.41
3:A:76:TYR:CG	3:A:119:PHE:HD2	2.39	0.41
3:A:88:TYR:O	3:A:93:GLY:HA2	2.20	0.41
3:A:243:PRO:O	3:F:73:LYS:HA	2.21	0.41
3:A:256:ALA:CB	3:B:116:MET:HE1	2.50	0.41
3:B:65:PHE:HB2	3:B:78:VAL:HG23	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:4:ILE:H	3:C:4:ILE:CD1	2.25	0.41
3:D:105:VAL:CG1	3:D:110:SER:HA	2.51	0.41
3:E:91:THR:O	3:E:94:GLN:HB2	2.20	0.41
3:E:182:VAL:HG13	3:E:313:TYR:CD2	2.55	0.41
3:H:27:ARG:NH1	3:H:27:ARG:HB2	2.36	0.41
3:H:32:ARG:HD2	3:H:158:GLU:OE1	2.21	0.41
3:H:121:LEU:HB3	3:H:124:PHE:HB2	2.02	0.41
3:H:240:ARG:HH12	3:H:290:PRO:HG2	1.85	0.41
3:H:246:LYS:HD3	3:H:279:TYR:O	2.20	0.41
3:I:29:ASN:OD1	3:I:159:ARG:HA	2.19	0.41
3:J:324:LEU:HD12	3:J:324:LEU:HA	1.95	0.41
3:J:325:PRO:C	3:J:327:GLN:N	2.74	0.41
3:L:62:VAL:HA	3:L:138:THR:HA	2.01	0.41
3:L:134:LEU:O	3:L:134:LEU:HG	2.20	0.41
3:L:254:LEU:HD21	3:L:274:ILE:CG1	2.50	0.41
3:M:88:TYR:O	3:M:93:GLY:HA2	2.20	0.41
3:M:236:LEU:CB	3:M:247:ILE:HD12	2.51	0.41
3:O:233:GLU:HB3	3:O:299:ALA:HB2	2.02	0.41
3:A:36:VAL:HG11	3:A:136:ILE:HD11	2.02	0.41
3:B:235:GLU:HB3	3:B:297:ASP:HB2	2.03	0.41
3:B:321:LEU:HD22	3:B:332:VAL:CG1	2.50	0.41
3:D:191:THR:HG22	3:D:194:VAL:HG22	2.03	0.41
3:E:52:LEU:HD13	3:E:99:PRO:HG3	2.02	0.41
3:E:163:GLN:H	3:E:163:GLN:HG3	1.65	0.41
3:F:28:ASN:N	3:F:28:ASN:OD1	2.53	0.41
3:G:52:LEU:HD13	3:G:99:PRO:HG3	2.02	0.41
3:G:116:MET:HE1	3:I:256:ALA:HB1	2.02	0.41
3:G:341:ARG:HE	3:G:341:ARG:HB2	1.68	0.41
3:I:26:PRO:HG3	3:M:131:ASN:HD21	1.84	0.41
3:J:17:ALA:CB	3:J:140:GLN:HE22	2.32	0.41
3:L:2:GLY:N	3:L:164:GLU:OE2	2.54	0.41
3:L:19:THR:C	3:L:137:LEU:HD12	2.41	0.41
3:L:54:SER:HA	3:L:101:PRO:CB	2.46	0.41
3:L:190:PRO:HB2	3:L:307:TYR:CE1	2.56	0.41
3:M:200:PRO:CG	3:M:233:GLU:CG	2.96	0.41
3:A:160:VAL:CG1	3:A:165:ILE:HG13	2.50	0.41
3:B:32:ARG:HB2	3:B:156:THR:CG2	2.50	0.41
3:C:124:PHE:HE1	3:C:183:LEU:CD2	2.32	0.41
3:C:244:THR:CG2	3:C:245:ASP:N	2.84	0.41
3:C:261:GLU:CG	3:C:262:TYR:CE2	3.03	0.41
3:D:78:VAL:HG21	3:D:83:LEU:HB2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:29:ASN:HB2	3:F:157:TYR:HB3	2.01	0.41
3:F:38:LEU:HD12	3:F:38:LEU:HA	1.87	0.41
3:F:42:ILE:HG23	3:F:147:ILE:CD1	2.50	0.41
3:F:159:ARG:HG2	3:F:159:ARG:NH1	2.33	0.41
3:F:189:ILE:HA	3:F:190:PRO:HD2	1.96	0.41
3:F:274:ILE:N	3:F:274:ILE:CD1	2.83	0.41
3:G:321:LEU:HD22	3:G:332:VAL:HG12	2.03	0.41
3:H:54:SER:CA	3:H:101:PRO:HB3	2.48	0.41
3:H:131:ASN:OD1	3:H:133:ILE:HD11	2.20	0.41
3:H:232:THR:CA	3:H:251:TRP:HB2	2.50	0.41
3:H:297:ASP:O	3:H:298:LEU:HD23	2.20	0.41
3:I:44:ASN:HB2	3:I:105:VAL:CG1	2.50	0.41
3:I:210:GLN:HG3	3:I:212:TYR:CE2	2.55	0.41
3:J:15:TRP:CE3	3:J:15:TRP:O	2.74	0.41
3:J:84:GLY:O	3:J:87:MET:HB2	2.21	0.41
3:J:205:TYR:HA	3:J:295:GLU:HA	2.02	0.41
3:K:61:LEU:CD2	3:K:142:PRO:HD3	2.48	0.41
3:L:96:PRO:HG2	3:L:116:MET:HE3	2.02	0.41
3:L:187:ILE:CG2	3:L:188:GLU:N	2.83	0.41
3:M:234:TYR:CD2	3:M:235:GLU:N	2.88	0.41
3:N:19:THR:CG2	3:N:20:ASN:N	2.82	0.41
3:N:83:LEU:CD1	3:N:86:LEU:HD23	2.50	0.41
3:O:113:LEU:CD2	3:O:147:ILE:HG23	2.49	0.41
3:O:202:HIS:NE2	3:O:205:TYR:CE2	2.88	0.41
1:Q:140:TYR:HD2	1:Q:140:TYR:O	2.04	0.41
1:Q:168:ASN:HD22	1:Q:168:ASN:HA	1.73	0.41
3:A:263:GLN:CA	3:B:94:GLN:HG3	2.51	0.41
3:B:33:LYS:HB2	3:B:118:GLU:OE2	2.20	0.41
3:B:62:VAL:HG11	3:B:65:PHE:CE2	2.55	0.41
3:B:91:THR:HG23	3:B:345:ARG:HD3	2.03	0.41
3:C:113:LEU:CD2	3:C:147:ILE:HG23	2.50	0.41
3:C:246:LYS:HG3	3:C:280:PHE:CZ	2.56	0.41
3:D:13:TYR:CB	3:D:21:ILE:HG21	2.50	0.41
3:D:51:THR:HG23	3:D:102:GLY:O	2.20	0.41
3:E:10:GLN:HG2	3:I:71:GLY:HA2	2.02	0.41
3:H:166:LEU:HA	3:H:170:GLY:HA2	2.02	0.41
3:H:182:VAL:HG13	3:H:313:TYR:CD2	2.55	0.41
3:I:137:LEU:O	3:I:137:LEU:HG	2.19	0.41
3:L:38:LEU:O	3:L:114:ASN:HA	2.20	0.41
3:M:220:ILE:HD13	3:M:226:ILE:HA	2.02	0.41
3:M:233:GLU:HB3	3:M:299:ALA:CB	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:O:38:LEU:O	3:O:114:ASN:HA	2.21	0.41
3:O:235:GLU:O	3:O:296:TYR:HA	2.21	0.41
1:Q:42:ARG:HH12	3:C:130:GLN:HG2	1.84	0.41
3:C:38:LEU:O	3:C:114:ASN:HA	2.20	0.41
3:F:5:TYR:HE2	3:F:7:GLU:OE2	2.04	0.41
3:F:126:ALA:CB	3:F:132:ILE:CD1	2.99	0.41
3:G:216:LEU:HD23	3:G:309:LEU:HD13	2.02	0.41
3:G:231:PRO:HG3	3:G:270:ALA:HA	2.03	0.41
3:H:69:TYR:CD2	3:H:70:GLU:OE2	2.74	0.41
3:H:116:MET:CG	3:H:117:TRP:N	2.83	0.41
3:H:130:GLN:OE1	3:H:130:GLN:HA	2.20	0.41
3:H:233:GLU:OE1	3:H:250:SER:HA	2.21	0.41
3:I:91:THR:O	3:I:94:GLN:HB2	2.20	0.41
3:I:126:ALA:CB	3:I:132:ILE:HD11	2.51	0.41
3:J:32:ARG:HH21	3:J:342:ARG:CD	2.34	0.41
3:J:313:TYR:CZ	3:J:340:LYS:HB2	2.56	0.41
3:N:325:PRO:C	3:N:327:GLN:N	2.74	0.41
3:O:235:GLU:HB3	3:O:297:ASP:HB2	2.03	0.41
4:P:287:ILE:HD12	4:P:353:GLN:HA	2.02	0.41
1:Q:42:ARG:HB2	1:Q:42:ARG:NH1	2.36	0.41
1:Q:89:PHE:HB3	1:Q:92:VAL:HG23	2.03	0.41
1:Q:161:TYR:HE1	1:Q:198:PRO:HG3	1.86	0.41
3:A:6:THR:HG22	3:A:7:GLU:N	2.36	0.41
3:A:255:GLN:O	3:A:259:GLN:HG2	2.20	0.41
3:B:203:VAL:O	3:B:204:ALA:HB2	2.21	0.41
3:B:246:LYS:HD3	3:B:279:TYR:O	2.21	0.41
3:C:76:TYR:CE1	3:C:186:VAL:HB	2.55	0.41
3:C:205:TYR:CE1	3:C:295:GLU:HB3	2.56	0.41
3:D:37:GLN:HG2	3:D:116:MET:CE	2.51	0.41
3:D:42:ILE:HB	3:D:111:VAL:HG22	2.03	0.41
3:E:203:VAL:HG23	3:E:297:ASP:HA	2.03	0.41
3:F:214:ARG:HG2	3:F:311:VAL:HB	2.03	0.41
3:G:168:GLU:HG2	3:G:335:TYR:CZ	2.56	0.41
3:H:69:TYR:O	3:H:70:GLU:HB2	2.20	0.41
3:H:179:LEU:HD11	3:H:320:GLN:HB2	2.03	0.41
3:H:182:VAL:CG1	3:H:313:TYR:CD2	3.04	0.41
3:H:202:HIS:CE1	3:H:204:ALA:HA	2.56	0.41
3:I:57:PHE:CG	3:I:58:PRO:HA	2.55	0.41
3:I:160:VAL:HA	3:I:164:GLU:OE2	2.21	0.41
3:I:173:ALA:HA	3:I:320:GLN:HE22	1.86	0.41
3:J:195:PRO:HG2	3:J:201:ILE:HD13	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:36:VAL:HG13	3:K:153:ILE:HD13	2.02	0.41
3:K:116:MET:CG	3:K:117:TRP:N	2.83	0.41
3:K:195:PRO:HG2	3:K:201:ILE:HD12	2.00	0.41
3:K:205:TYR:CD1	3:K:295:GLU:HB3	2.56	0.41
3:K:234:TYR:HB2	3:K:251:TRP:CZ3	2.54	0.41
3:L:19:THR:O	3:L:137:LEU:HA	2.20	0.41
3:L:57:PHE:CG	3:L:58:PRO:HA	2.56	0.41
3:L:59:TYR:HB3	3:L:80:GLY:O	2.20	0.41
3:L:202:HIS:ND1	3:L:295:GLU:OE1	2.54	0.41
3:M:286:LEU:HD21	3:M:294:ILE:HD12	2.03	0.41
3:N:76:TYR:CD1	3:N:119:PHE:HD2	2.39	0.41
3:N:91:THR:CG2	3:N:345:ARG:HD3	2.50	0.41
3:N:157:TYR:CD1	3:N:157:TYR:N	2.88	0.41
3:O:20:ASN:HB2	3:O:137:LEU:HD13	2.02	0.41
3:O:31:ILE:HG13	3:O:126:ALA:HB2	2.02	0.41
3:O:42:ILE:HB	3:O:111:VAL:CG2	2.51	0.41
4:P:174:ARG:H	4:P:174:ARG:HG3	1.58	0.41
4:P:174:ARG:O	4:P:175:LYS:C	2.58	0.41
3:A:215:GLN:HG3	3:A:310:TYR:CD1	2.56	0.41
3:A:219:VAL:HG21	3:A:300:LEU:HD21	2.03	0.41
3:A:248:LYS:HB3	3:B:7:GLU:HB3	2.03	0.41
3:B:231:PRO:HB2	3:B:251:TRP:CD2	2.56	0.41
3:C:88:TYR:CD1	3:C:93:GLY:HA2	2.56	0.41
3:C:206:LEU:HG	3:C:294:ILE:O	2.21	0.41
3:D:83:LEU:HD12	3:D:83:LEU:HA	1.96	0.41
3:D:194:VAL:HG11	3:D:203:VAL:HG22	2.03	0.41
3:F:6:THR:HG22	3:F:7:GLU:N	2.36	0.41
3:F:31:ILE:HG23	3:F:155:ILE:CG2	2.51	0.41
3:F:44:ASN:HD22	3:F:108:SER:H	1.69	0.41
3:F:313:TYR:HE2	3:F:315:LEU:HD21	1.86	0.41
3:G:67:LEU:CD1	3:G:134:LEU:HB2	2.50	0.41
3:G:70:GLU:N	3:G:130:GLN:O	2.53	0.41
3:G:88:TYR:O	3:G:93:GLY:HA2	2.21	0.41
3:G:274:ILE:N	3:G:274:ILE:CD1	2.81	0.41
3:H:16:THR:O	3:H:138:THR:OG1	2.25	0.41
3:H:62:VAL:CG1	3:H:136:ILE:HG23	2.51	0.41
3:J:228:ASN:OD1	3:J:270:ALA:HB2	2.21	0.41
3:L:125:PRO:HG3	3:L:177:MET:HG2	2.03	0.41
3:O:116:MET:HG2	3:O:117:TRP:N	2.36	0.41
3:O:179:LEU:HG	3:O:321:LEU:CD2	2.51	0.41
3:A:69:TYR:CZ	3:A:73:LYS:HB2	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:257:GLU:O	3:B:261:GLU:HB3	2.21	0.40
3:B:341:ARG:HE	3:B:341:ARG:HB2	1.24	0.40
3:C:194:VAL:HB	3:C:300:LEU:CD1	2.51	0.40
3:C:211:ILE:HD12	3:C:313:TYR:CE2	2.56	0.40
3:F:30:PHE:HZ	3:F:165:ILE:HD11	1.86	0.40
3:H:57:PHE:CG	3:H:58:PRO:HA	2.56	0.40
3:I:4:ILE:HA	3:I:158:GLU:HA	2.03	0.40
3:I:254:LEU:HD12	3:I:254:LEU:HA	1.76	0.40
3:J:36:VAL:HG12	3:J:151:PHE:HD2	1.86	0.40
3:K:44:ASN:HD22	3:K:107:ALA:HA	1.85	0.40
3:L:247:ILE:HD13	3:L:274:ILE:CG2	2.51	0.40
3:M:236:LEU:HB3	3:M:247:ILE:CG1	2.51	0.40
3:N:58:PRO:HB2	3:N:115:VAL:HG21	2.02	0.40
3:N:91:THR:O	3:N:94:GLN:HB2	2.21	0.40
3:O:70:GLU:N	3:O:130:GLN:O	2.53	0.40
3:O:160:VAL:HG12	3:O:165:ILE:HG13	2.01	0.40
3:A:9:LEU:N	3:A:9:LEU:CD1	2.84	0.40
3:B:32:ARG:HB2	3:B:156:THR:HG22	2.01	0.40
3:B:115:VAL:HG12	3:B:116:MET:H	1.87	0.40
3:B:236:LEU:H	3:B:247:ILE:HB	1.86	0.40
3:C:17:ALA:HB1	3:C:140:GLN:HE22	1.86	0.40
3:C:321:LEU:HD22	3:C:332:VAL:HG11	2.04	0.40
3:D:88:TYR:CD2	3:D:267:TYR:HB2	2.56	0.40
3:D:248:LYS:O	3:D:248:LYS:HG3	2.21	0.40
3:D:314:VAL:HG12	3:D:315:LEU:N	2.36	0.40
3:F:15:TRP:O	3:F:15:TRP:HE3	2.03	0.40
3:F:28:ASN:H	3:F:157:TYR:HE2	1.69	0.40
3:F:126:ALA:CB	3:F:132:ILE:HD11	2.51	0.40
3:F:325:PRO:C	3:F:327:GLN:N	2.74	0.40
3:G:203:VAL:HB	3:G:296:TYR:O	2.21	0.40
3:H:235:GLU:HB3	3:H:297:ASP:HB2	2.03	0.40
3:H:240:ARG:HD3	3:M:209:GLY:HA3	2.03	0.40
3:H:325:PRO:C	3:H:327:GLN:N	2.75	0.40
3:I:123:ARG:HB3	3:I:339:GLN:OE1	2.21	0.40
3:I:181:THR:HG22	3:I:182:VAL:N	2.36	0.40
3:I:221:ASN:HB2	3:I:228:ASN:ND2	2.35	0.40
3:J:179:LEU:HD11	3:J:320:GLN:HB2	2.04	0.40
3:K:206:LEU:HB3	3:K:212:TYR:CZ	2.56	0.40
3:M:248:LYS:HG3	3:M:248:LYS:O	2.21	0.40
3:M:324:LEU:HD12	3:M:325:PRO:CD	2.51	0.40
3:N:55:ALA:N	3:N:101:PRO:HB3	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:N:113:LEU:CD2	3:N:147:ILE:HG23	2.51	0.40
3:N:116:MET:HE2	3:N:116:MET:HB2	1.77	0.40
3:N:122:ALA:HB1	3:N:339:GLN:CG	2.43	0.40
3:N:341:ARG:HE	3:N:341:ARG:HB3	1.67	0.40
3:O:159:ARG:HH11	3:O:159:ARG:CG	2.34	0.40
1:Q:189:ASN:ND2	4:P:29:ASP:CA	2.84	0.40
3:B:69:TYR:CE2	3:B:73:LYS:HD2	2.56	0.40
3:B:244:THR:HG21	3:B:246:LYS:HE3	2.04	0.40
3:C:15:TRP:CB	3:C:38:LEU:HD11	2.49	0.40
3:D:68:SER:CB	3:D:74:THR:HA	2.51	0.40
3:E:253:ALA:HA	3:E:256:ALA:HB2	2.04	0.40
3:F:61:LEU:HD23	3:F:61:LEU:HA	1.90	0.40
3:F:159:ARG:CG	3:F:159:ARG:NH1	2.82	0.40
3:F:239:VAL:HG23	3:F:295:GLU:HG2	2.03	0.40
3:F:249:VAL:CG1	3:F:253:ALA:HB3	2.50	0.40
3:G:78:VAL:HG21	3:G:83:LEU:HB2	2.03	0.40
3:G:157:TYR:CD1	3:G:157:TYR:N	2.90	0.40
3:H:83:LEU:HD22	3:H:119:PHE:CE2	2.57	0.40
3:I:28:ASN:ND2	3:M:70:GLU:C	2.74	0.40
3:J:236:LEU:HB3	3:J:247:ILE:CG1	2.51	0.40
3:K:38:LEU:HD12	3:K:38:LEU:HA	1.77	0.40
3:K:123:ARG:HB3	3:K:339:GLN:OE1	2.21	0.40
3:L:324:LEU:CD2	3:L:332:VAL:HG21	2.48	0.40
3:M:63:GLN:O	3:M:79:SER:HB2	2.21	0.40
3:M:69:TYR:HA	3:M:131:ASN:O	2.22	0.40
3:M:113:LEU:HD22	3:M:147:ILE:HG23	2.03	0.40
3:N:20:ASN:HA	3:N:137:LEU:HA	2.03	0.40
3:N:29:ASN:H	3:N:157:TYR:HD2	1.68	0.40
3:N:52:LEU:HD23	3:N:52:LEU:HA	1.81	0.40
3:N:89:TYR:HD2	3:N:273:ILE:HD11	1.83	0.40
3:N:256:ALA:HB1	3:O:116:MET:HE1	2.04	0.40
3:N:287:THR:HG21	3:N:318:TYR:CE2	2.57	0.40
3:O:27:ARG:HB2	3:O:27:ARG:NH1	2.37	0.40
3:O:173:ALA:CA	3:O:320:GLN:HE22	2.34	0.40
4:P:297:LEU:HB2	4:P:349:ILE:HG22	2.01	0.40
1:Q:191:GLN:HG2	4:P:25:LYS:HD3	2.03	0.40
3:B:4:ILE:HA	3:B:157:TYR:O	2.21	0.40
3:B:29:ASN:H	3:B:157:TYR:HD2	1.68	0.40
3:B:215:GLN:HG3	3:B:310:TYR:CE1	2.56	0.40
3:D:54:SER:O	3:D:55:ALA:C	2.59	0.40
3:D:168:GLU:HG2	3:D:335:TYR:CE1	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:E:15:TRP:O	3:E:15:TRP:HE3	2.04	0.40
3:F:25:ILE:CG2	3:F:155:ILE:HD13	2.51	0.40
3:F:230:ASP:N	3:F:231:PRO:HD2	2.36	0.40
3:H:152:TYR:N	3:H:152:TYR:CD1	2.90	0.40
3:I:56:PRO:HD3	3:I:226:ILE:CG2	2.51	0.40
3:I:69:TYR:CE1	3:I:75:LEU:HD21	2.56	0.40
3:I:98:TYR:HD1	3:I:114:ASN:HD22	1.68	0.40
3:I:195:PRO:HA	3:I:303:GLN:HG3	2.02	0.40
3:K:200:PRO:HG3	3:K:233:GLU:HB3	2.02	0.40
3:L:257:GLU:O	3:L:261:GLU:HB2	2.21	0.40
3:M:105:VAL:HG13	3:M:110:SER:HA	2.02	0.40
3:M:113:LEU:HD23	3:M:149:ALA:HB2	2.03	0.40
3:N:44:ASN:HD22	3:N:107:ALA:HA	1.86	0.40
3:O:200:PRO:HG3	3:O:233:GLU:HG3	2.00	0.40
4:P:349:ILE:HD13	4:P:349:ILE:HG21	1.65	0.40
3:A:215:GLN:NE2	3:A:308:SER:OG	2.55	0.40
3:B:72:SER:O	3:L:248:LYS:NZ	2.55	0.40
3:C:324:LEU:CD2	3:C:332:VAL:HG21	2.50	0.40
3:D:174:ASP:OD2	3:D:317:TYR:HE2	2.03	0.40
3:E:25:ILE:CG2	3:E:155:ILE:HD13	2.52	0.40
3:E:71:GLY:N	3:M:28:ASN:ND2	2.69	0.40
3:E:340:LYS:CG	3:E:341:ARG:N	2.84	0.40
3:F:176:GLU:C	3:F:177:MET:HG3	2.42	0.40
3:F:315:LEU:HD12	3:F:318:TYR:CD1	2.51	0.40
3:G:172:GLY:HA3	3:G:317:TYR:CE2	2.57	0.40
3:H:38:LEU:HD12	3:H:38:LEU:HA	1.90	0.40
3:I:280:PHE:CE2	3:I:284:LEU:HD13	2.56	0.40
3:J:235:GLU:HB3	3:J:297:ASP:HB2	2.03	0.40
3:K:284:LEU:HD11	3:K:294:ILE:HD13	2.03	0.40
3:L:52:LEU:CD1	3:L:99:PRO:HG3	2.51	0.40
3:L:324:LEU:HD12	3:L:325:PRO:HD3	2.04	0.40
3:N:171:LEU:HA	3:N:178:PRO:HA	2.03	0.40
3:N:234:TYR:HE2	3:N:247:ILE:HD12	1.86	0.40
3:O:186:VAL:HG22	3:O:311:VAL:HA	2.03	0.40
3:O:231:PRO:HG3	3:O:270:ALA:HA	2.03	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	Q	218/223 (98%)	209 (96%)	9 (4%)	0	100	100
3	A	342/345 (99%)	302 (88%)	40 (12%)	0	100	100
3	B	342/345 (99%)	305 (89%)	37 (11%)	0	100	100
3	C	342/345 (99%)	303 (89%)	39 (11%)	0	100	100
3	D	342/345 (99%)	304 (89%)	36 (10%)	2 (1%)	25	65
3	E	342/345 (99%)	304 (89%)	36 (10%)	2 (1%)	25	65
3	F	342/345 (99%)	297 (87%)	44 (13%)	1 (0%)	41	76
3	G	342/345 (99%)	300 (88%)	40 (12%)	2 (1%)	25	65
3	H	342/345 (99%)	302 (88%)	39 (11%)	1 (0%)	41	76
3	I	342/345 (99%)	305 (89%)	36 (10%)	1 (0%)	41	76
3	J	342/345 (99%)	299 (87%)	43 (13%)	0	100	100
3	K	342/345 (99%)	305 (89%)	36 (10%)	1 (0%)	41	76
3	L	342/345 (99%)	307 (90%)	34 (10%)	1 (0%)	41	76
3	M	342/345 (99%)	298 (87%)	43 (13%)	1 (0%)	41	76
3	N	342/345 (99%)	304 (89%)	37 (11%)	1 (0%)	41	76
3	O	342/345 (99%)	301 (88%)	40 (12%)	1 (0%)	41	76
4	P	369/381 (97%)	349 (95%)	20 (5%)	0	100	100
All	All	5717/5779 (99%)	5094 (89%)	609 (11%)	14 (0%)	50	81

All (14) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	F	71	GLY
3	G	318	TYR
3	H	318	TYR
3	E	318	TYR
3	I	318	TYR

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Mol	Chain	Res	Type
3	D	318	TYR
3	N	316	PRO
3	G	316	PRO
3	L	316	PRO
3	E	316	PRO
3	D	71	GLY
3	K	208	PRO
3	M	71	GLY
3	O	71	GLY

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	Q	163/198 (82%)	150 (92%)	13 (8%)	12	38
3	A	289/290 (100%)	272 (94%)	17 (6%)	19	47
3	B	289/290 (100%)	275 (95%)	14 (5%)	25	52
3	C	289/290 (100%)	273 (94%)	16 (6%)	21	49
3	D	289/290 (100%)	281 (97%)	8 (3%)	43	65
3	E	289/290 (100%)	278 (96%)	11 (4%)	33	58
3	F	289/290 (100%)	276 (96%)	13 (4%)	27	54
3	G	289/290 (100%)	280 (97%)	9 (3%)	40	63
3	H	289/290 (100%)	276 (96%)	13 (4%)	27	54
3	I	289/290 (100%)	271 (94%)	18 (6%)	18	45
3	J	289/290 (100%)	276 (96%)	13 (4%)	27	54
3	K	289/290 (100%)	270 (93%)	19 (7%)	16	43
3	L	289/290 (100%)	276 (96%)	13 (4%)	27	54
3	M	289/290 (100%)	275 (95%)	14 (5%)	25	52
3	N	289/290 (100%)	275 (95%)	14 (5%)	25	52
3	O	289/290 (100%)	276 (96%)	13 (4%)	27	54
4	P	326/334 (98%)	281 (86%)	45 (14%)	3	19

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
All	All	4824/4882 (99%)	4561 (94%)	263 (6%)	25 49

All (263) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	Q	39	ILE
1	Q	42	ARG
1	Q	60	LEU
1	Q	61	LEU
1	Q	65	SER
1	Q	92	VAL
1	Q	102	ASP
1	Q	125	VAL
1	Q	134	PHE
1	Q	140	TYR
1	Q	141	LEU
1	Q	146	PHE
1	Q	189	ASN
3	A	4	ILE
3	A	7	GLU
3	A	16	THR
3	A	28	ASN
3	A	45	SER
3	A	98	TYR
3	A	116	MET
3	A	143	SER
3	A	159	ARG
3	A	174	ASP
3	A	207	GLN
3	A	224	SER
3	A	278	LYS
3	A	295	GLU
3	A	334	GLN
3	A	339	GLN
3	A	343	ILE
3	B	4	ILE
3	B	9	LEU
3	B	16	THR
3	B	28	ASN
3	B	92	LYS
3	B	112	ASN
3	B	118	GLU

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Mol	Chain	Res	Type
3	B	143	SER
3	B	174	ASP
3	B	207	GLN
3	B	303	GLN
3	B	319	ASP
3	B	339	GLN
3	B	341	ARG
3	C	4	ILE
3	C	7	GLU
3	C	16	THR
3	C	28	ASN
3	C	58	PRO
3	C	92	LYS
3	C	130	GLN
3	C	143	SER
3	C	159	ARG
3	C	185	LYS
3	C	198	SER
3	C	207	GLN
3	C	229	THR
3	C	291	SER
3	C	304	ASP
3	C	339	GLN
3	D	10	GLN
3	D	16	THR
3	D	104	SER
3	D	116	MET
3	D	159	ARG
3	D	250	SER
3	D	304	ASP
3	D	339	GLN
3	E	4	ILE
3	E	16	THR
3	E	56	PRO
3	E	92	LYS
3	E	98	TYR
3	E	143	SER
3	E	207	GLN
3	E	278	LYS
3	E	291	SER
3	E	339	GLN
3	E	343	ILE

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Mol	Chain	Res	Type
3	F	4	ILE
3	F	9	LEU
3	F	11	GLN
3	F	16	THR
3	F	66	ASN
3	F	92	LYS
3	F	143	SER
3	F	159	ARG
3	F	222	SER
3	F	250	SER
3	F	291	SER
3	F	304	ASP
3	F	339	GLN
3	G	16	THR
3	G	116	MET
3	G	143	SER
3	G	159	ARG
3	G	174	ASP
3	G	207	GLN
3	G	275	ASP
3	G	304	ASP
3	G	339	GLN
3	H	4	ILE
3	H	33	LYS
3	H	92	LYS
3	H	140	GLN
3	H	143	SER
3	H	159	ARG
3	H	207	GLN
3	H	229	THR
3	H	277	ARG
3	H	278	LYS
3	H	319	ASP
3	H	339	GLN
3	H	343	ILE
3	I	5	TYR
3	I	9	LEU
3	I	16	THR
3	I	24	LYS
3	I	66	ASN
3	I	92	LYS
3	I	104	SER

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Mol	Chain	Res	Type
3	I	116	MET
3	I	143	SER
3	I	167	SER
3	I	174	ASP
3	I	198	SER
3	I	207	GLN
3	I	250	SER
3	I	304	ASP
3	I	319	ASP
3	I	328	VAL
3	I	339	GLN
3	J	9	LEU
3	J	28	ASN
3	J	92	LYS
3	J	143	SER
3	J	159	ARG
3	J	174	ASP
3	J	198	SER
3	J	207	GLN
3	J	240	ARG
3	J	278	LYS
3	J	295	GLU
3	J	304	ASP
3	J	339	GLN
3	K	4	ILE
3	K	5	TYR
3	K	9	LEU
3	K	10	GLN
3	K	16	THR
3	K	51	THR
3	K	58	PRO
3	K	77	SER
3	K	92	LYS
3	K	116	MET
3	K	167	SER
3	K	174	ASP
3	K	207	GLN
3	K	250	SER
3	K	263	GLN
3	K	304	ASP
3	K	319	ASP
3	K	333	GLN

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Mol	Chain	Res	Type
3	K	339	GLN
3	L	4	ILE
3	L	10	GLN
3	L	16	THR
3	L	45	SER
3	L	143	SER
3	L	174	ASP
3	L	189	ILE
3	L	207	GLN
3	L	304	ASP
3	L	328	VAL
3	L	334	GLN
3	L	339	GLN
3	L	343	ILE
3	M	4	ILE
3	M	16	THR
3	M	45	SER
3	M	66	ASN
3	M	116	MET
3	M	119	PHE
3	M	159	ARG
3	M	174	ASP
3	M	207	GLN
3	M	278	LYS
3	M	291	SER
3	M	295	GLU
3	M	304	ASP
3	M	339	GLN
3	N	4	ILE
3	N	16	THR
3	N	58	PRO
3	N	92	LYS
3	N	143	SER
3	N	159	ARG
3	N	207	GLN
3	N	239	VAL
3	N	263	GLN
3	N	275	ASP
3	N	278	LYS
3	N	291	SER
3	N	295	GLU
3	N	339	GLN

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Mol	Chain	Res	Type
3	O	4	ILE
3	O	9	LEU
3	O	16	THR
3	O	45	SER
3	O	92	LYS
3	O	198	SER
3	O	207	GLN
3	O	263	GLN
3	O	278	LYS
3	O	291	SER
3	O	304	ASP
3	O	334	GLN
3	O	339	GLN
4	P	24	GLU
4	P	32	VAL
4	P	42	LEU
4	P	45	ILE
4	P	53	THR
4	P	79	LEU
4	P	94	VAL
4	P	96	VAL
4	P	97	THR
4	P	123	THR
4	P	150	GLU
4	P	151	LYS
4	P	174	ARG
4	P	193	THR
4	P	208	THR
4	P	215	SER
4	P	228	VAL
4	P	230	LEU
4	P	233	THR
4	P	238	ASP
4	P	242	SER
4	P	254	THR
4	P	265	LEU
4	P	268	ASN
4	P	269	THR
4	P	272	VAL
4	P	273	THR
4	P	277	THR
4	P	278	LEU

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Mol	Chain	Res	Type
4	P	284	THR
4	P	289	ASN
4	P	290	VAL
4	P	309	THR
4	P	319	THR
4	P	323	ARG
4	P	326	THR
4	P	328	SER
4	P	329	THR
4	P	330	VAL
4	P	347	ARG
4	P	349	ILE
4	P	363	SER
4	P	366	THR
4	P	368	THR
4	P	370	ILE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (112) such sidechains are listed below:

Mol	Chain	Res	Type
1	Q	128	GLN
1	Q	133	ASN
1	Q	168	ASN
1	Q	173	ASN
1	Q	189	ASN
3	A	11	GLN
3	A	37	GLN
3	A	44	ASN
3	A	60	ASN
3	A	63	GLN
3	A	140	GLN
3	A	215	GLN
3	A	263	GLN
3	B	10	GLN
3	B	60	ASN
3	B	63	GLN
3	B	131	ASN
3	B	140	GLN
3	B	263	GLN
3	B	288	HIS
3	B	303	GLN
3	C	60	ASN

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Mol	Chain	Res	Type
3	C	130	GLN
3	C	140	GLN
3	C	228	ASN
3	C	255	GLN
3	C	263	GLN
3	C	288	HIS
3	C	303	GLN
3	D	10	GLN
3	D	11	GLN
3	D	37	GLN
3	D	44	ASN
3	D	60	ASN
3	D	114	ASN
3	D	131	ASN
3	D	202	HIS
3	D	255	GLN
3	D	263	GLN
3	D	288	HIS
3	E	37	GLN
3	E	60	ASN
3	E	114	ASN
3	E	131	ASN
3	E	202	HIS
3	F	28	ASN
3	F	44	ASN
3	F	60	ASN
3	F	131	ASN
3	F	140	GLN
3	F	255	GLN
3	G	60	ASN
3	G	114	ASN
3	G	255	GLN
3	G	288	HIS
3	H	60	ASN
3	H	140	GLN
3	H	202	HIS
3	I	28	ASN
3	I	44	ASN
3	I	60	ASN
3	I	66	ASN
3	I	131	ASN
3	I	140	GLN

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Mol	Chain	Res	Type
3	I	228	ASN
3	I	302	ASN
3	J	20	ASN
3	J	44	ASN
3	J	60	ASN
3	J	131	ASN
3	J	140	GLN
3	J	210	GLN
3	J	255	GLN
3	J	303	GLN
3	K	10	GLN
3	K	11	GLN
3	K	28	ASN
3	K	37	GLN
3	K	44	ASN
3	K	60	ASN
3	K	131	ASN
3	K	140	GLN
3	K	255	GLN
3	K	263	GLN
3	L	10	GLN
3	L	60	ASN
3	L	131	ASN
3	L	140	GLN
3	L	255	GLN
3	M	28	ASN
3	M	60	ASN
3	M	131	ASN
3	M	140	GLN
3	M	228	ASN
3	M	255	GLN
3	M	288	HIS
3	N	44	ASN
3	N	60	ASN
3	N	131	ASN
3	N	140	GLN
3	N	202	HIS
3	N	255	GLN
3	N	263	GLN
3	O	37	GLN
3	O	44	ASN
3	O	60	ASN

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Mol	Chain	Res	Type
3	O	131	ASN
3	O	140	GLN
3	O	255	GLN
3	O	303	GLN
4	P	102	ASN
4	P	289	ASN

5.3.3 RNA

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates

There are no monosaccharides in this entry.

5.6 Ligand geometry

There are no ligands in this entry.

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

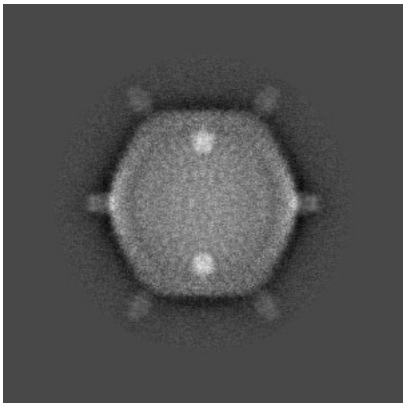
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-5584. These allow visual inspection of the internal detail of the map and identification of artifacts.

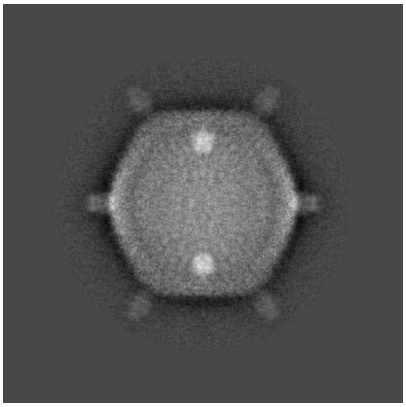
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

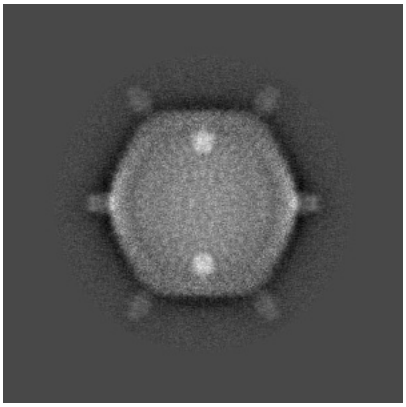
6.1.1 Primary map



X



Y

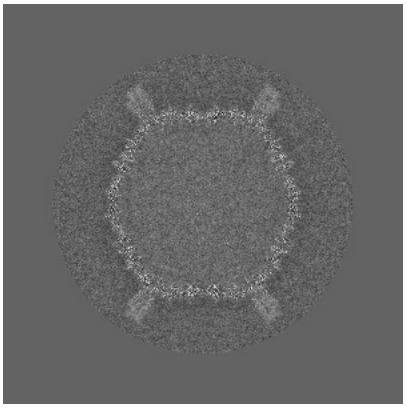


Z

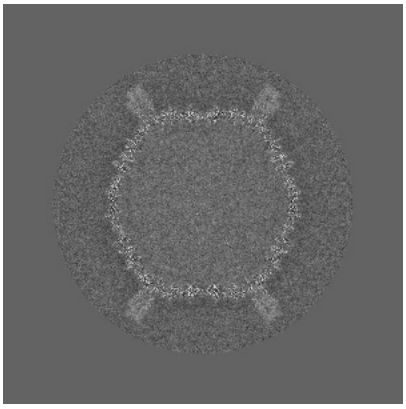
The images above show the map projected in three orthogonal directions.

6.2 Central slices

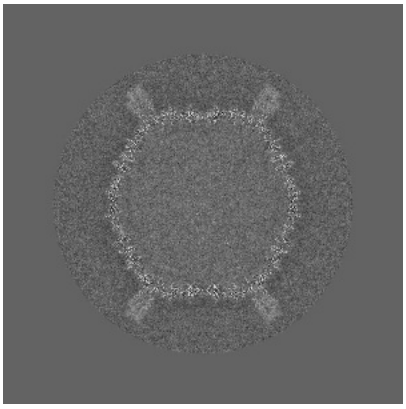
6.2.1 Primary map



X Index: 512



Y Index: 512

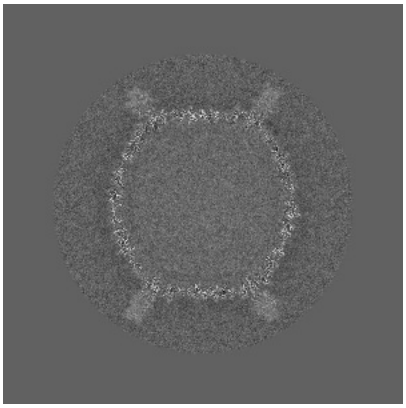


Z Index: 512

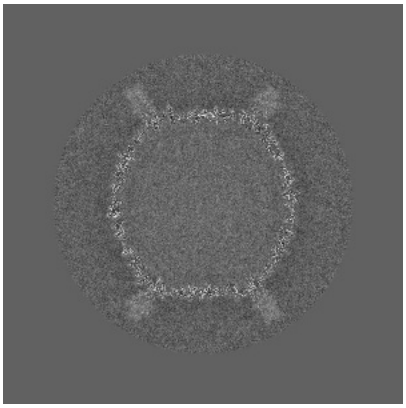
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

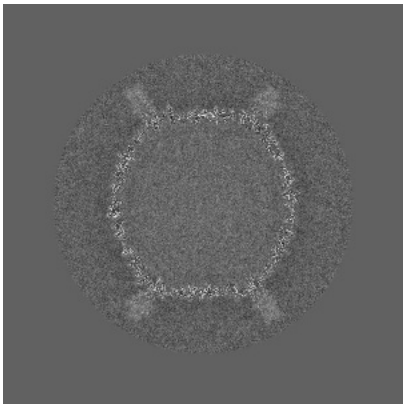
6.3.1 Primary map



X Index: 505



Y Index: 519

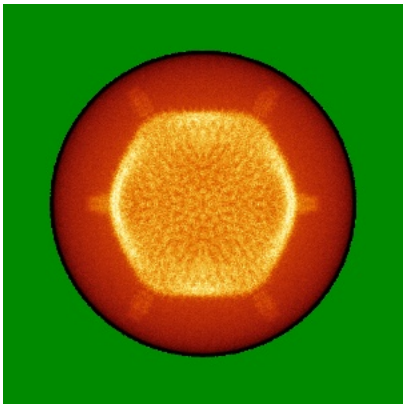


Z Index: 519

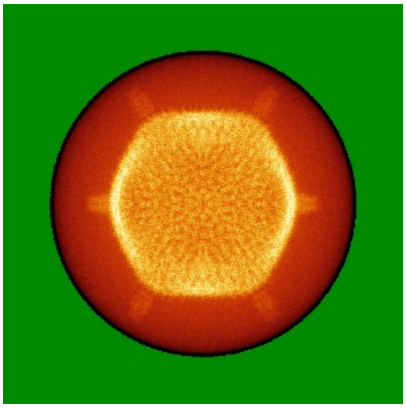
The images above show the largest variance slices of the map in three orthogonal directions.

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

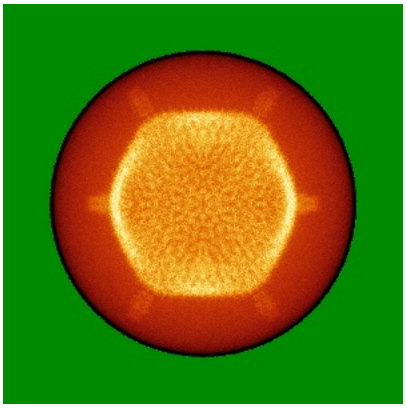
6.4.1 Primary map



X



Y

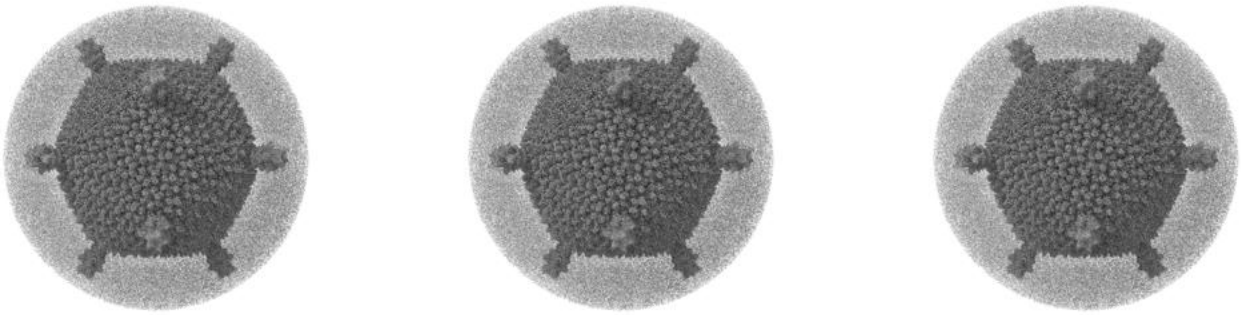


Z

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

6.5 Orthogonal surface views (i)

6.5.1 Primary map



X Y Z

The images above show the 3D surface view of the map at the recommended contour level 0.05. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

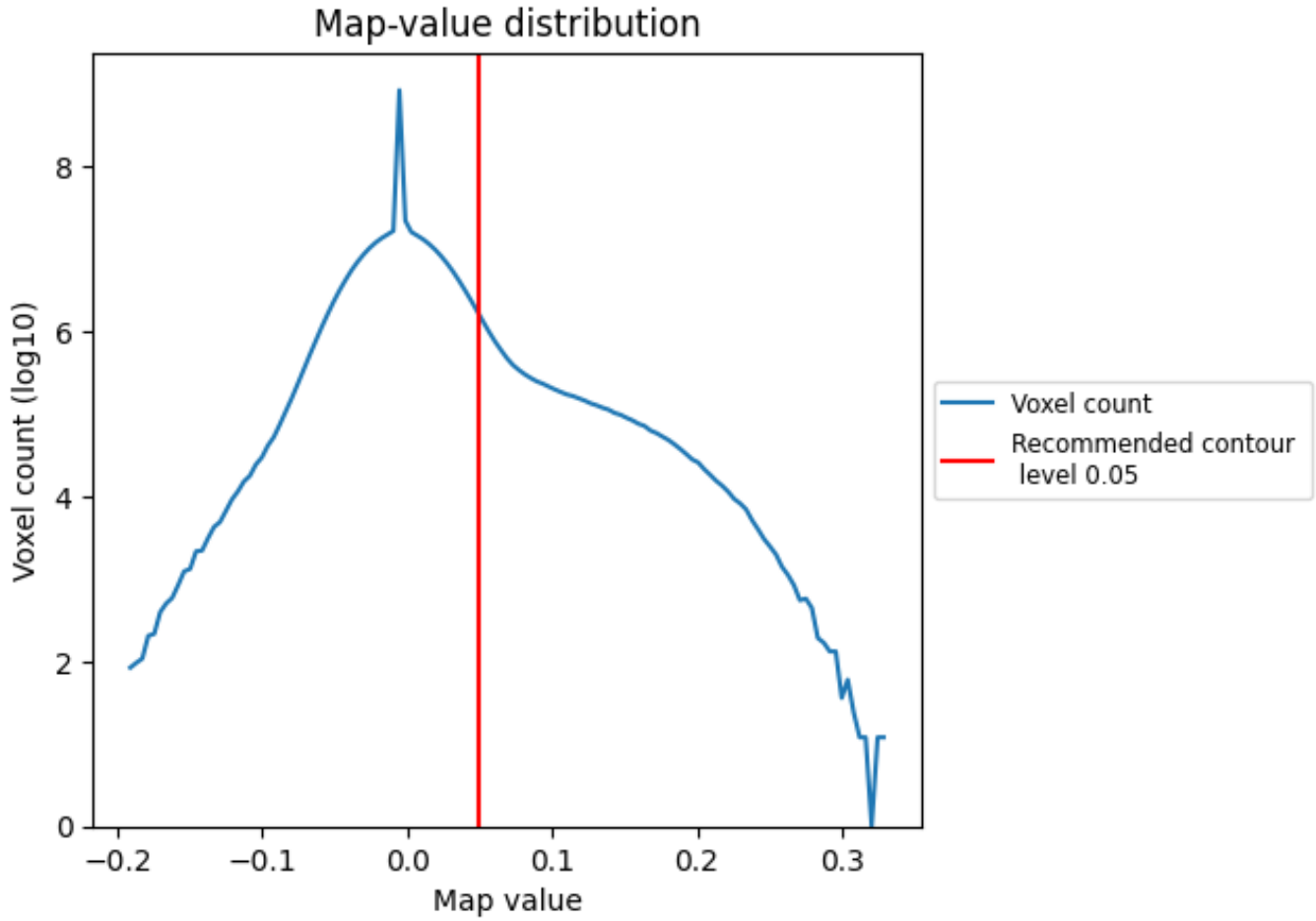
6.6 Mask visualisation (i)

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

7 Map analysis

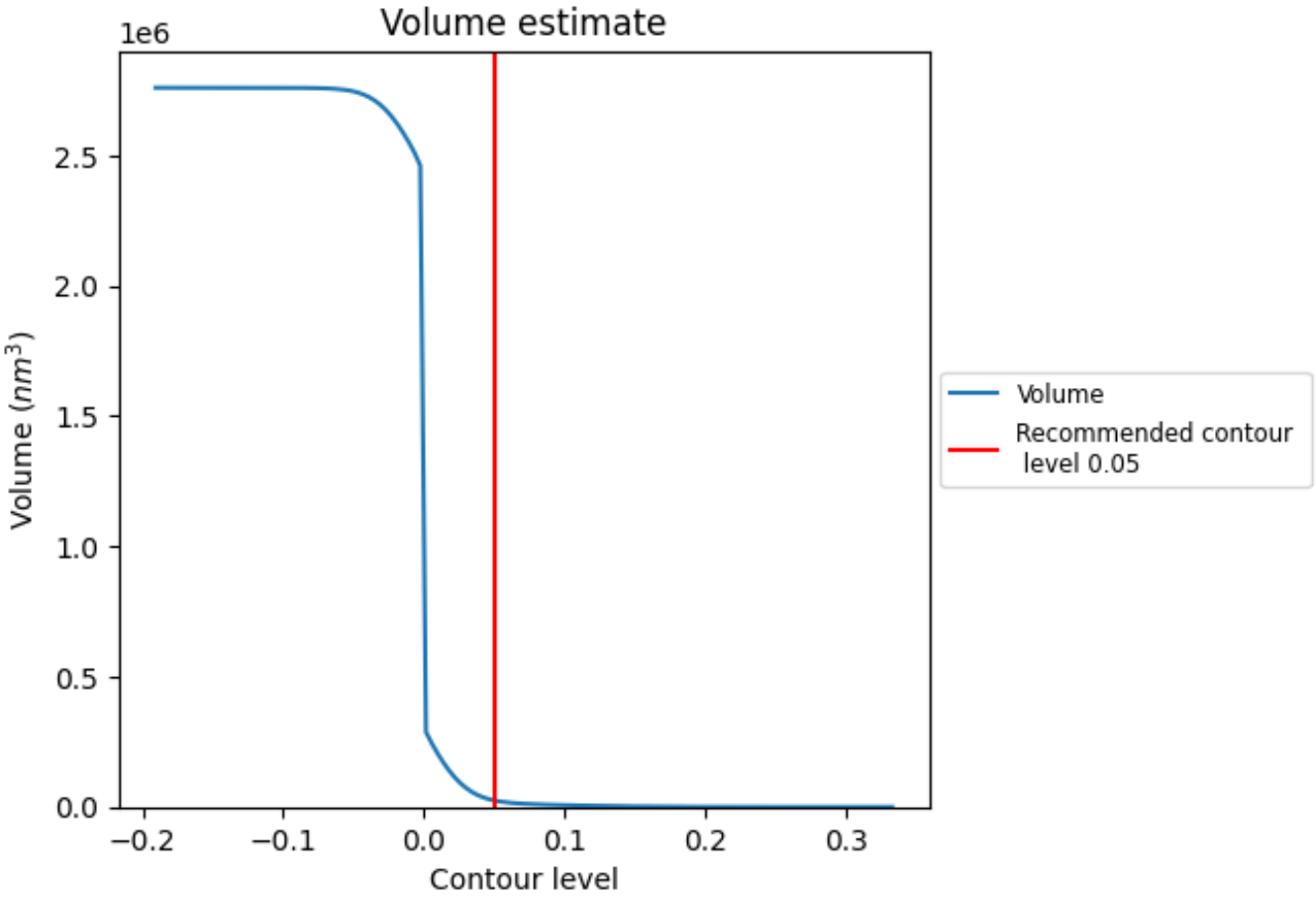
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



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

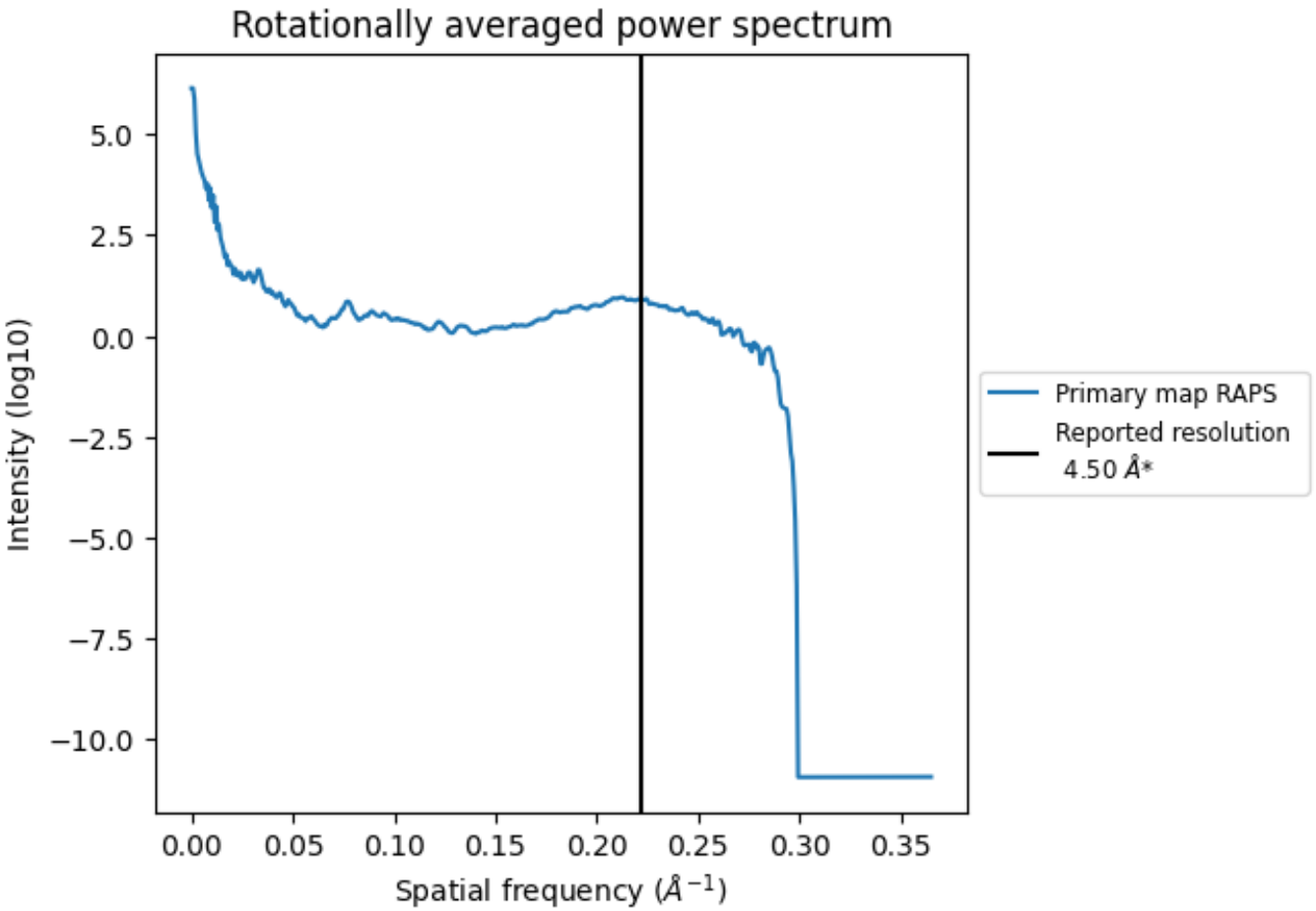
7.2 Volume estimate (i)



The volume at the recommended contour level is 25053 nm^3; this corresponds to an approximate mass of 22631 kDa.

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

7.3 Rotationally averaged power spectrum (i)



*Reported resolution corresponds to spatial frequency of 0.222 $Å^{-1}$

8 Fourier-Shell correlation

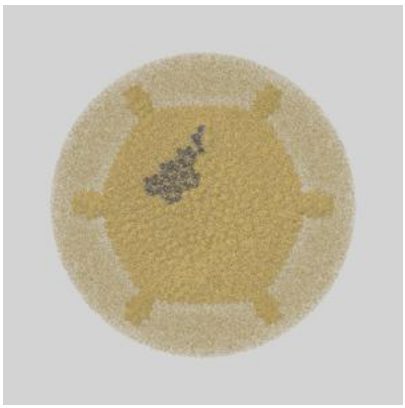
This section was not generated. No FSC curve or half-maps provided.

9 Map-model fit

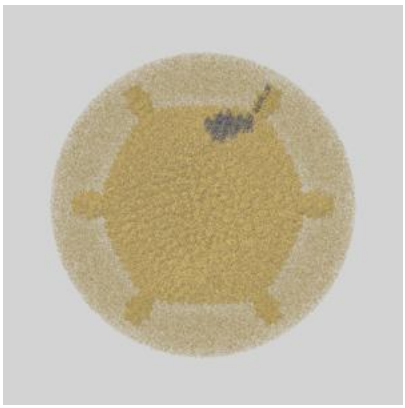
This section contains information regarding the fit between EMDB map EMD-5584 and PDB model 3J31. Per-residue inclusion information can be found in section 3 on page 6.

9.1 Map-model overlays

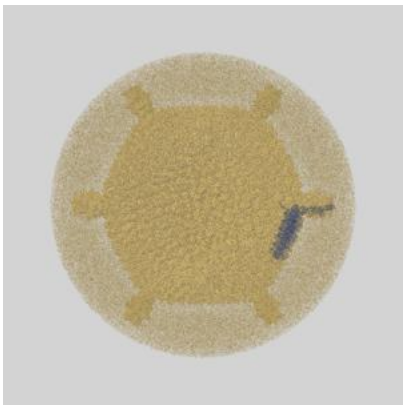
9.1.1 Map-model overlay



X

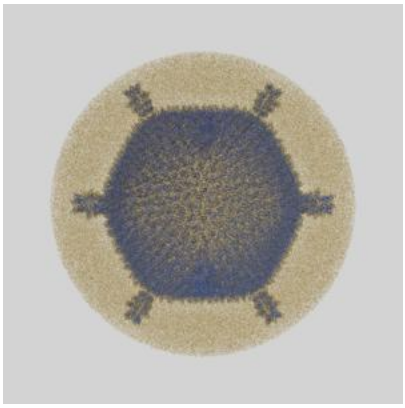


Y

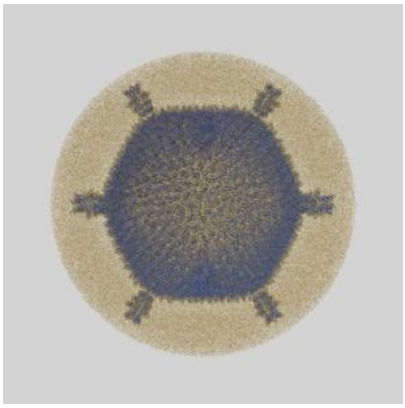


Z

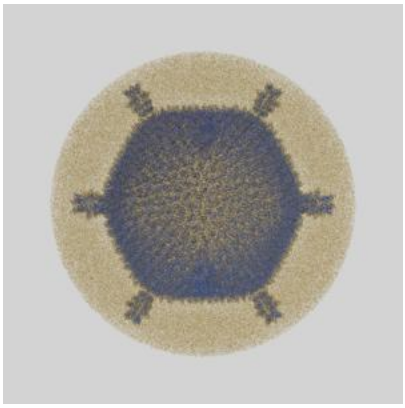
9.1.2 Map-model assembly overlay



X



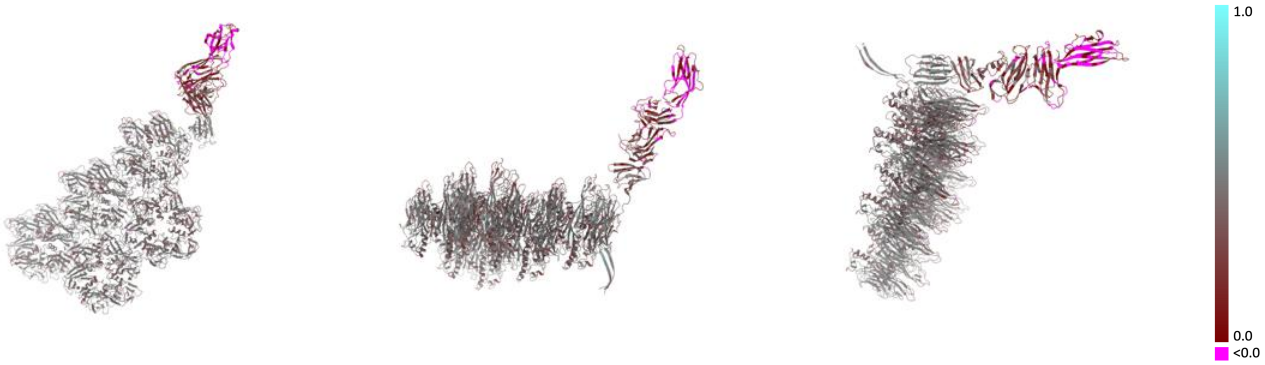
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.05 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

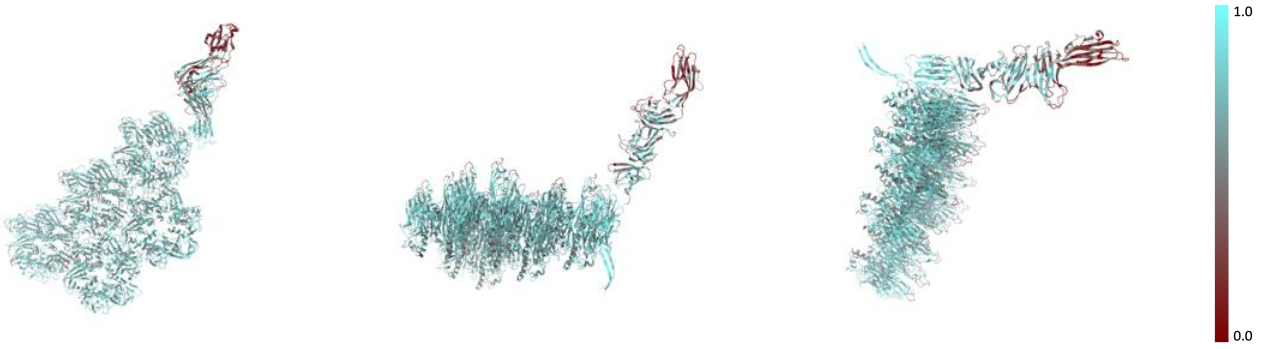
9.2 Q-score mapped to coordinate model



X Y Z

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

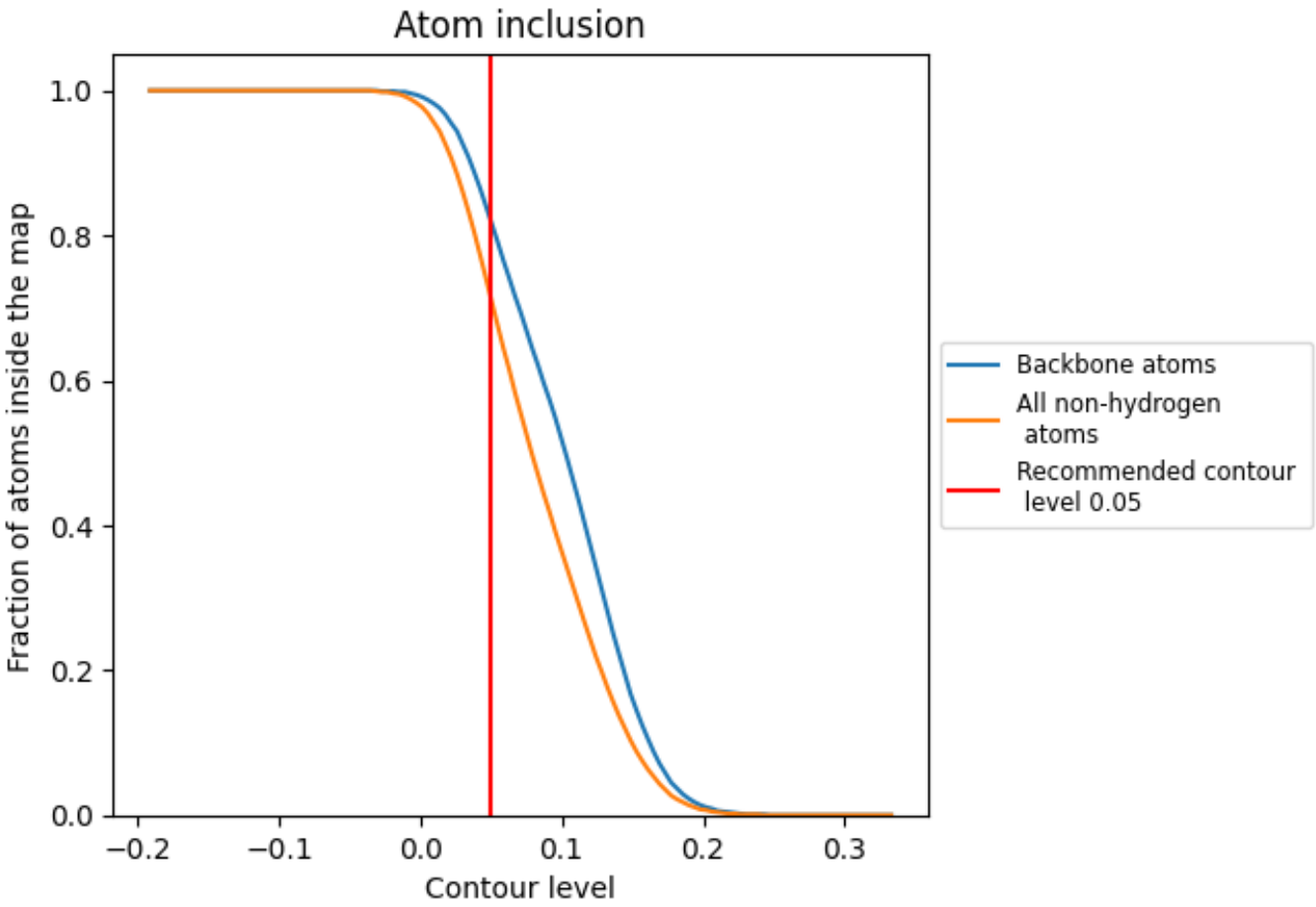
9.3 Atom inclusion mapped to coordinate model



X Y Z

The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.05).

9.4 Atom inclusion (i)



At the recommended contour level, 82% of all backbone atoms, 71% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.05) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.7130	0.4030
A	0.7300	0.4220
B	0.7260	0.4140
C	0.7260	0.4100
D	0.7450	0.4360
E	0.7360	0.4270
F	0.7270	0.4190
G	0.7490	0.4300
H	0.7270	0.4170
I	0.7490	0.4330
J	0.7270	0.4230
K	0.7290	0.4250
L	0.7060	0.4010
M	0.7320	0.4230
N	0.7430	0.4280
O	0.7430	0.4300
P	0.4360	0.1300
Q	0.7080	0.4010
R	0.8670	0.4870