Full wwPDB EM Validation Report (i)

Nov 19, 2022 – 10:48 PM EST

PDB ID	:	3J26
EMDB ID	:	EMD-5495
Title	:	The 3.5 A resolution structure of the Sputnik virophage by cryo-EM
Authors	:	Zhang, X.Z.
Deposited on	:	2012-09-18
Resolution	:	3.50 Å(reported)

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

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/EMValidationReportHelp
with specific help available everywhere you see the (i) 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 (i)) were used in the production of this report:

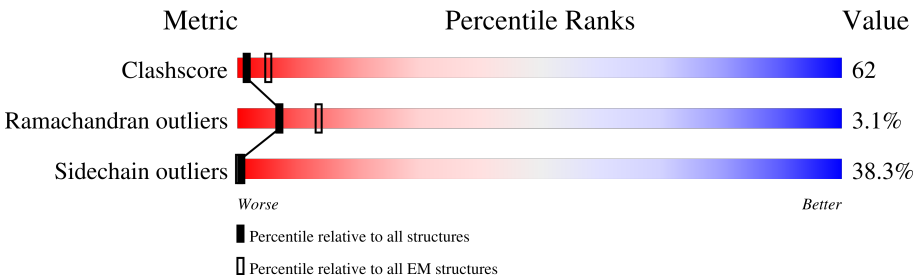
EMDB validation analysis	:	0.0.1.dev43
MolProbity	:	4.02b-467
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	1.9.9
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.31.3

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 3.50 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	A	508	36% 39% 23%
1	B	508	32% 41% 25%
1	C	508	30% 43% 27%
1	D	508	34% 40% 25%
1	E	508	34% 44% 21%
1	F	508	36% 41% 22%
1	G	508	37% 40% 21%
1	H	508	34% 43% 22%

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Mol	Chain	Length	Quality of chain
1	I	508	32% 40% 27%
1	J	508	33% 41% 24%
1	K	508	37% 40% 23%
1	L	508	35% 41% 23%
1	M	508	34% 42% 23%
2	N	378	26% 42% 25%

2 Entry composition (i)

There are 2 unique types of molecules in this entry. The entry contains 54479 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 capsid protein V20.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	A	508	3968	2516	672	769	11	0	0
1	B	508	3968	2516	672	769	11	0	0
1	C	508	3968	2516	672	769	11	0	0
1	D	508	3968	2516	672	769	11	0	0
1	E	508	3968	2516	672	769	11	0	0
1	F	508	3968	2516	672	769	11	0	0
1	G	508	3968	2516	672	769	11	0	0
1	H	508	3968	2516	672	769	11	0	0
1	I	508	3968	2516	672	769	11	0	0
1	J	508	3968	2516	672	769	11	0	0
1	K	508	3968	2516	672	769	11	0	0
1	L	508	3968	2516	672	769	11	0	0
1	M	508	3968	2516	672	769	11	0	0

- Molecule 2 is a protein called Minor virion protein.

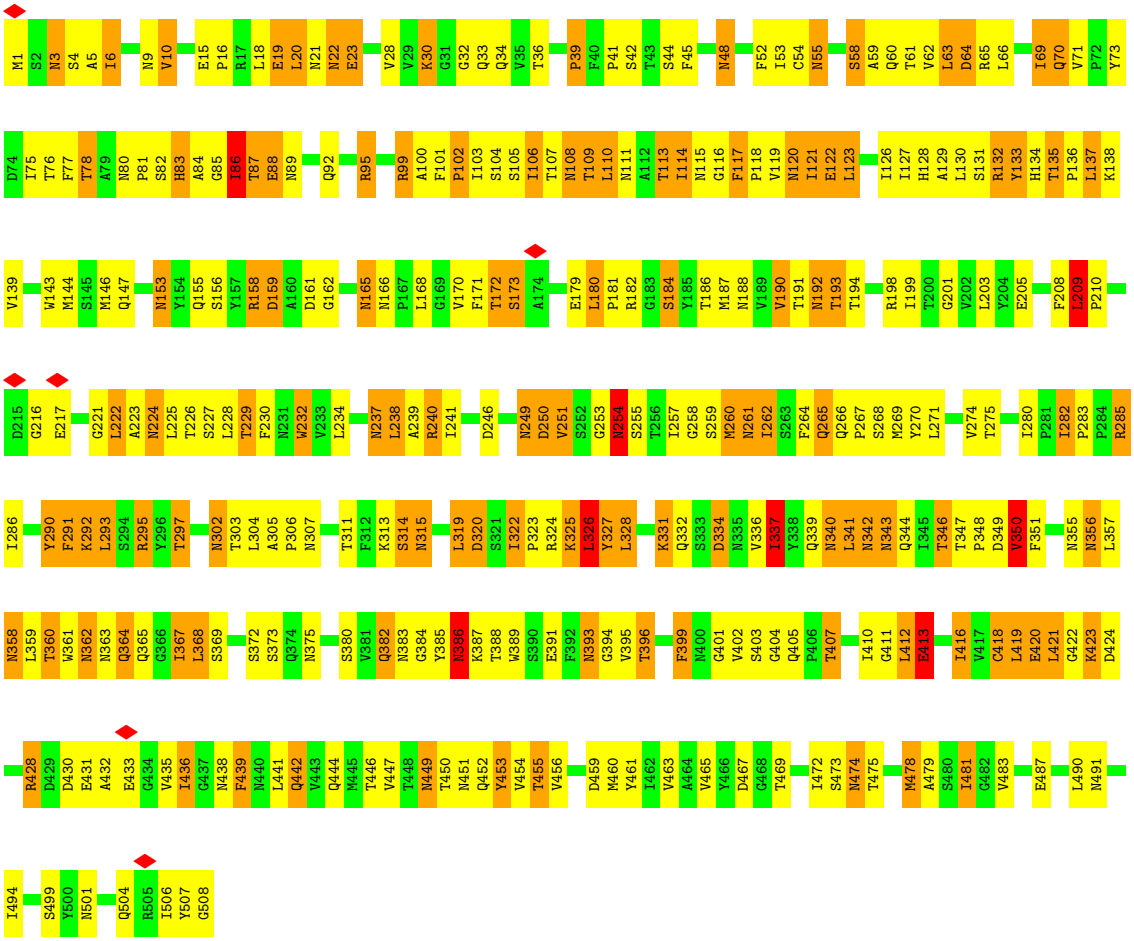
Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	N	362	2895	1889	451	549	6	0	0

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.

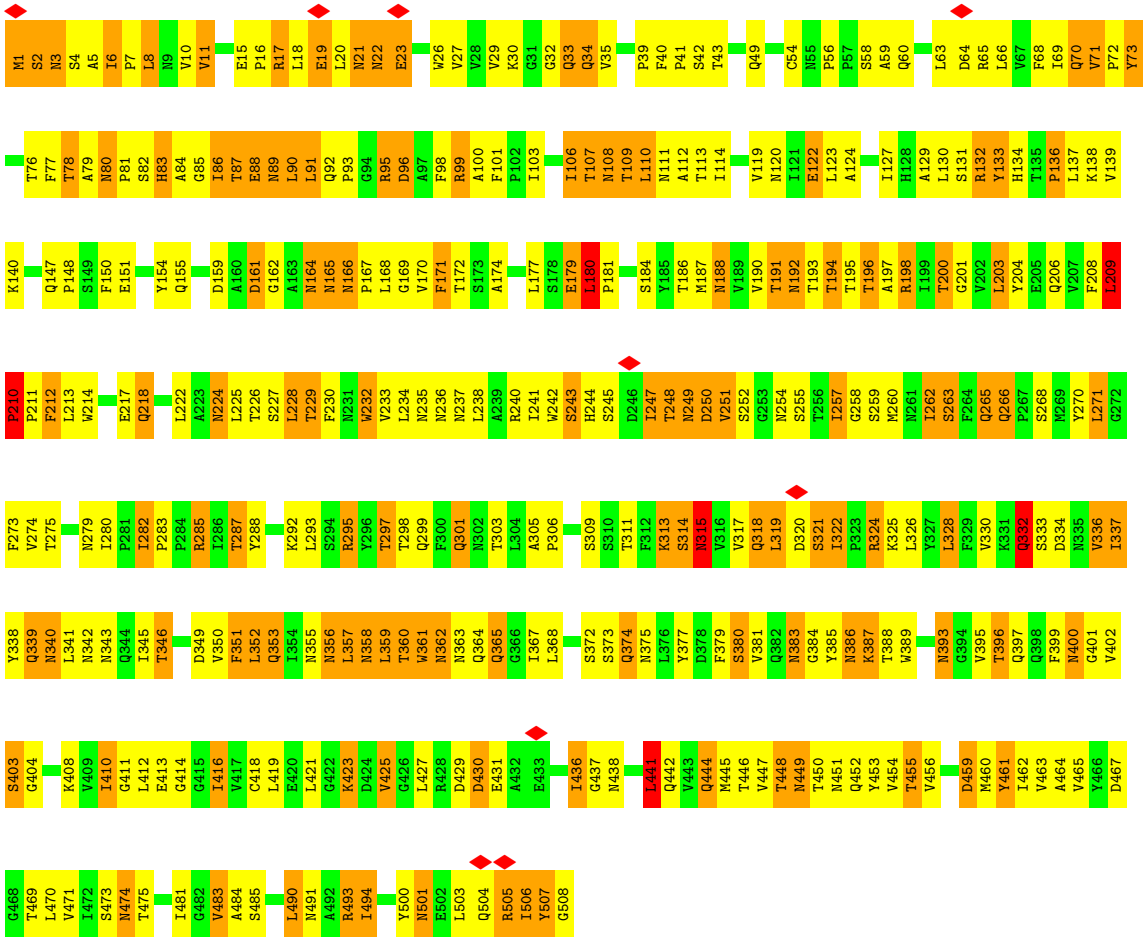
- Molecule 1: capsid protein V20

Chain A: 36% 39% 23%



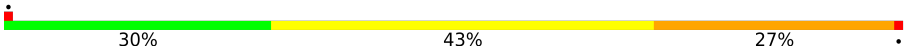
- Molecule 1: capsid protein V20

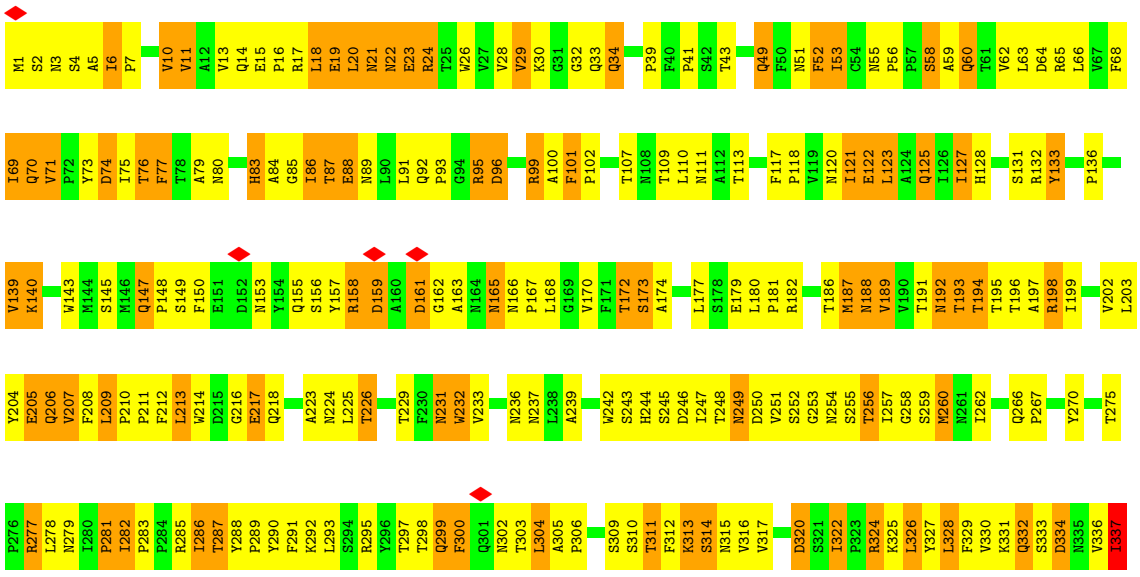
Chain B: 32% 41% 25%

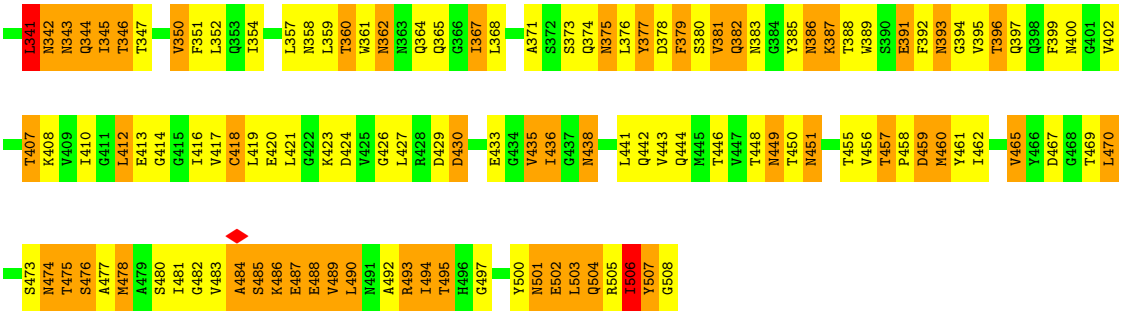


- Molecule 1: capsid protein V20

Chain C:

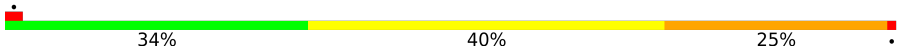


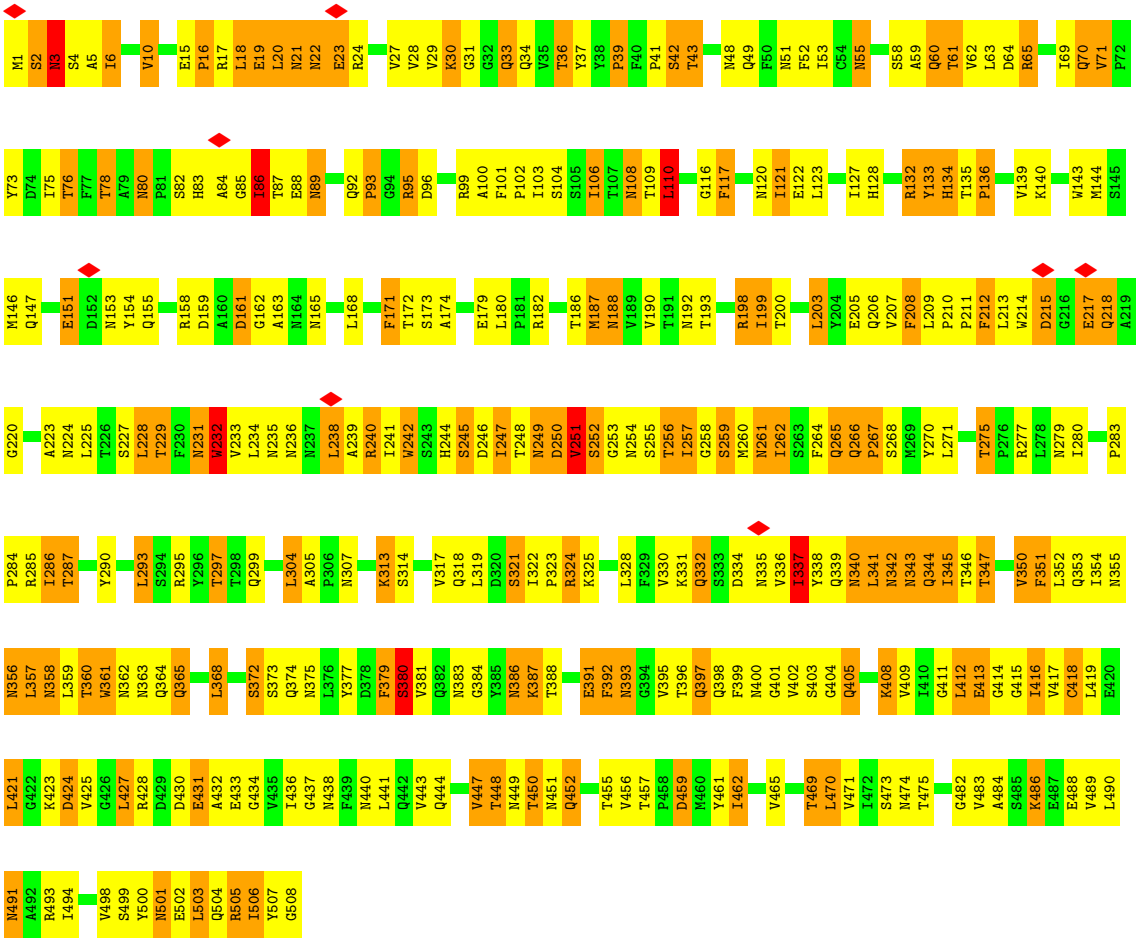




- Molecule 1: capsid protein V20

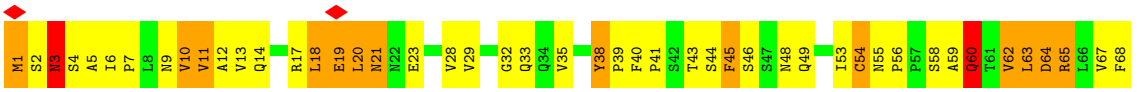
Chain D:

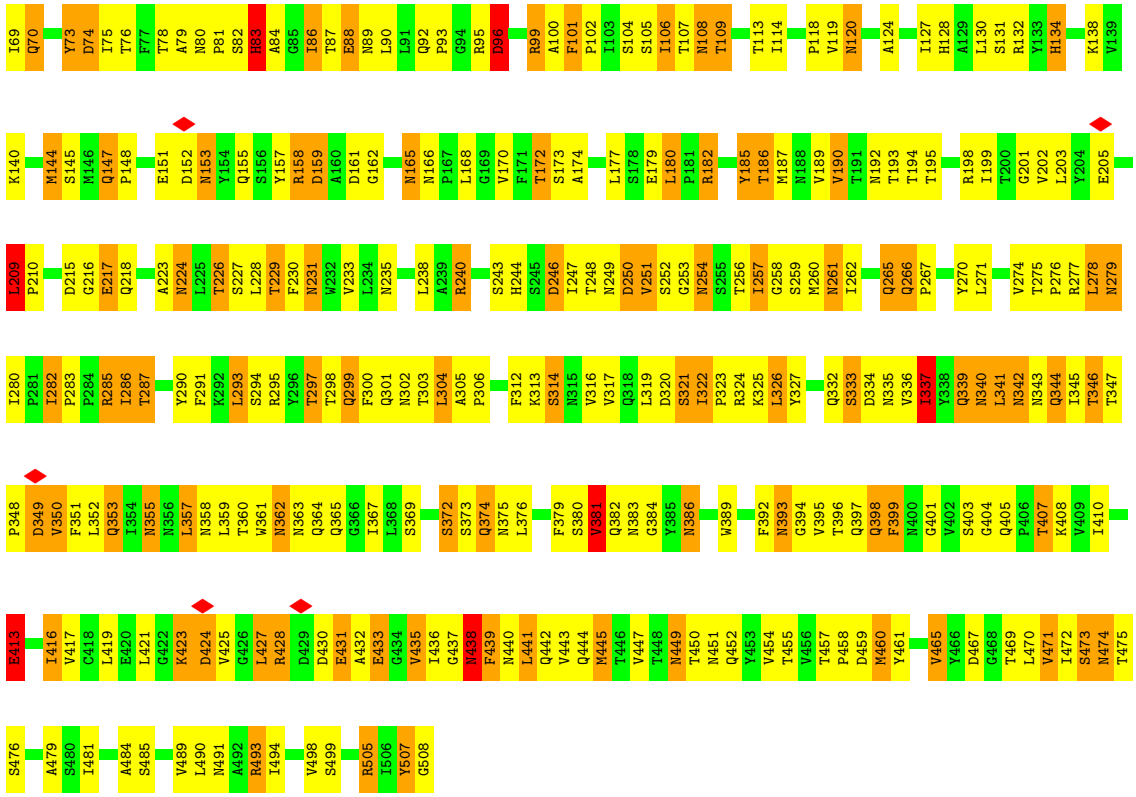




- Molecule 1: capsid protein V20

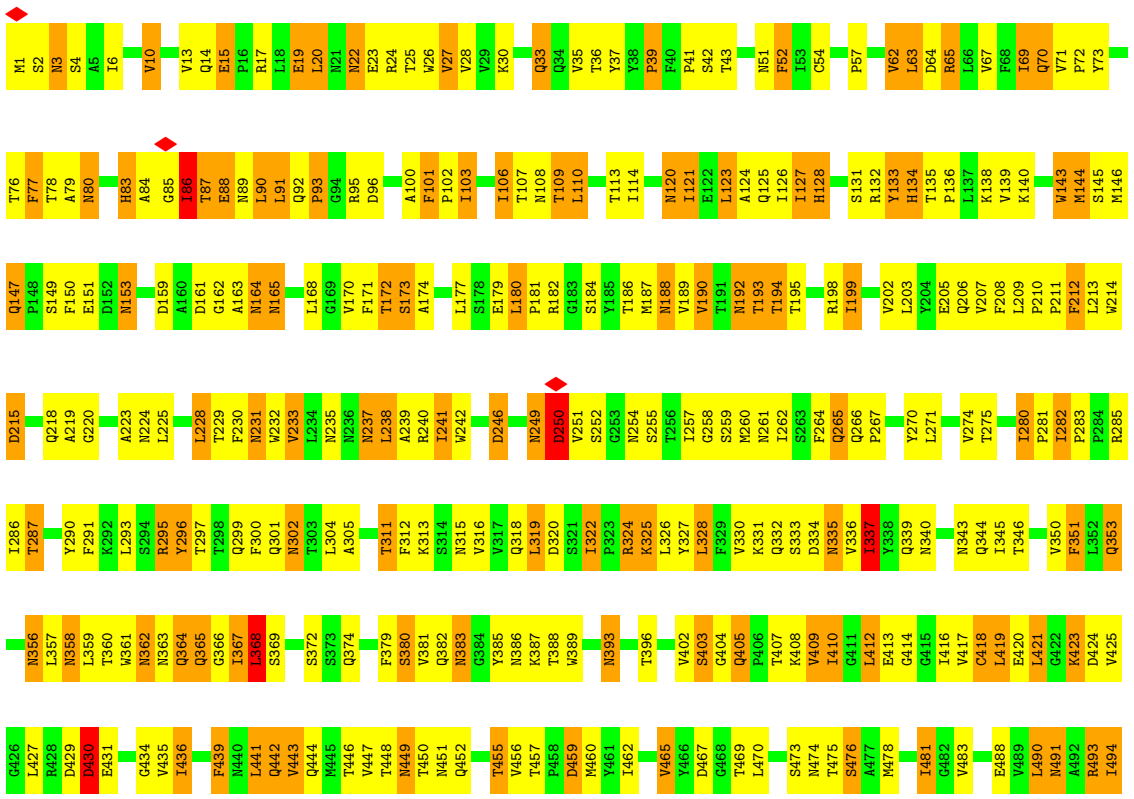
Chain E:

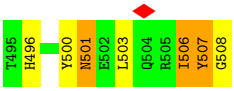




- Molecule 1: capsid protein V20

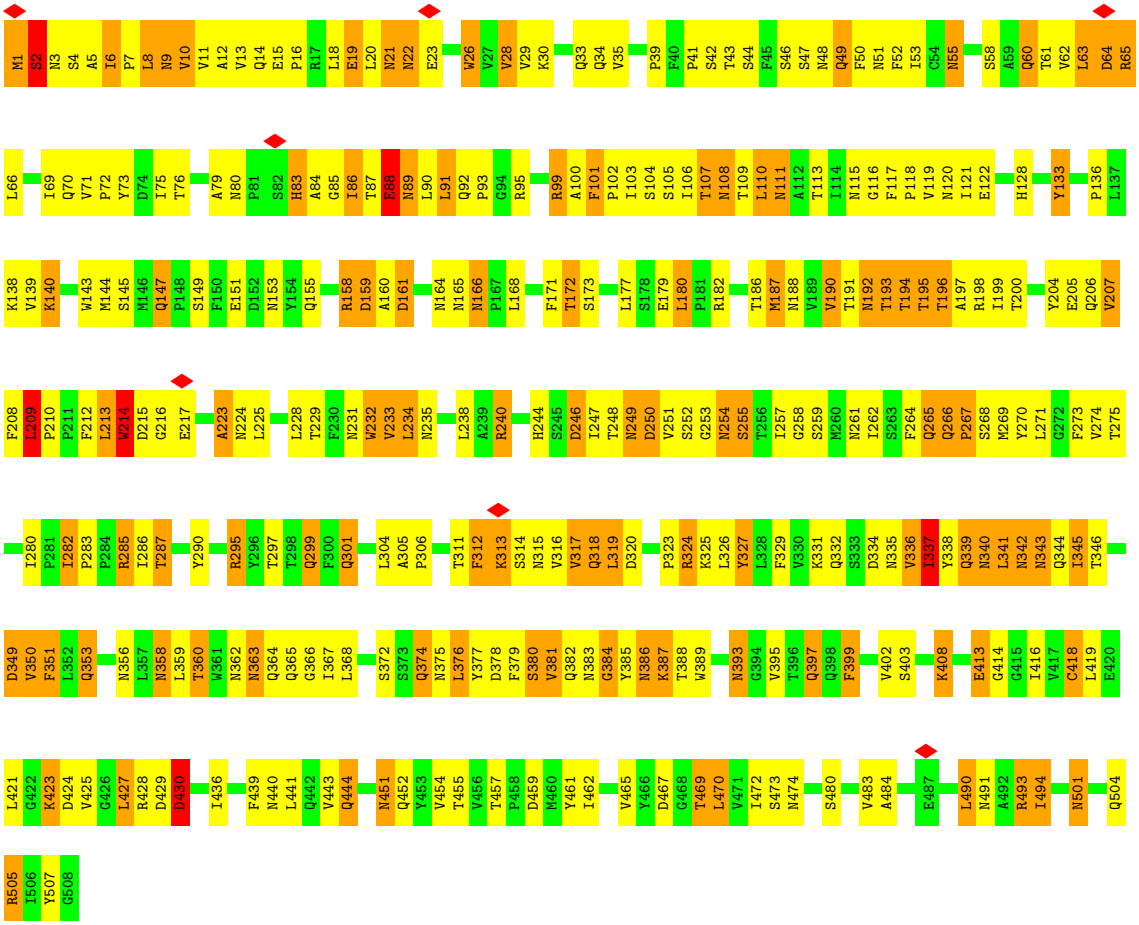
Chain F:





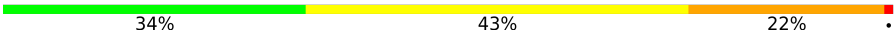
• Molecule 1: capsid protein V20

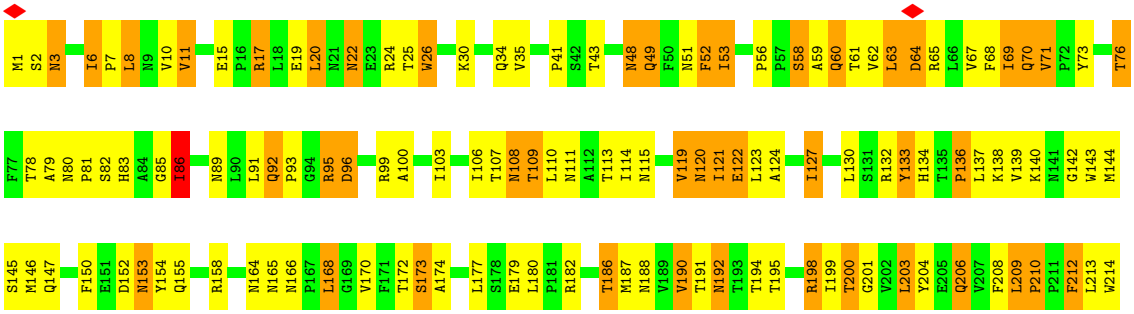
Chain G:

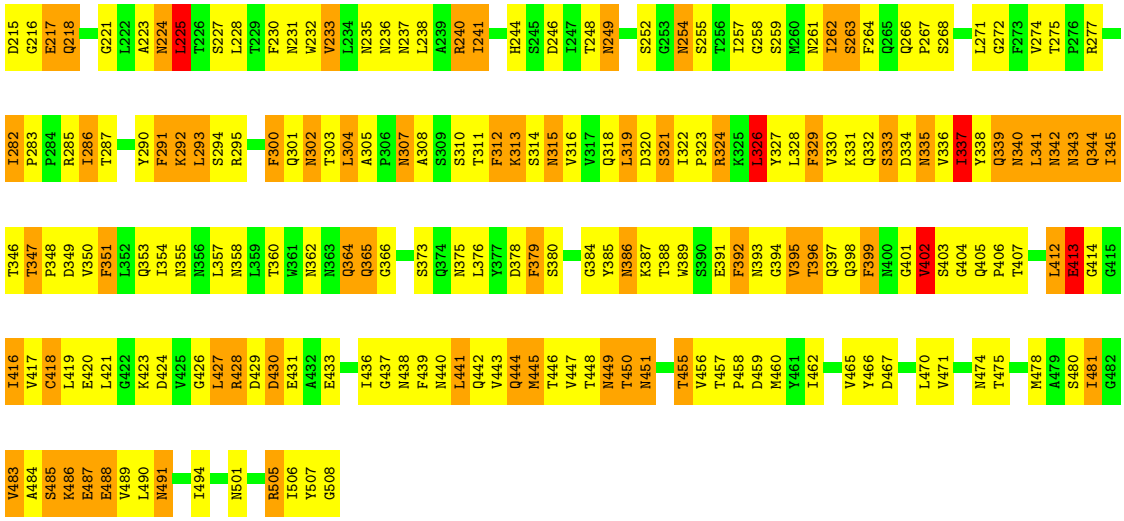


• Molecule 1: capsid protein V20

Chain H:

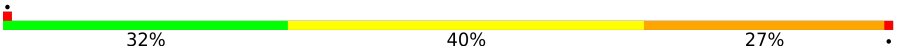


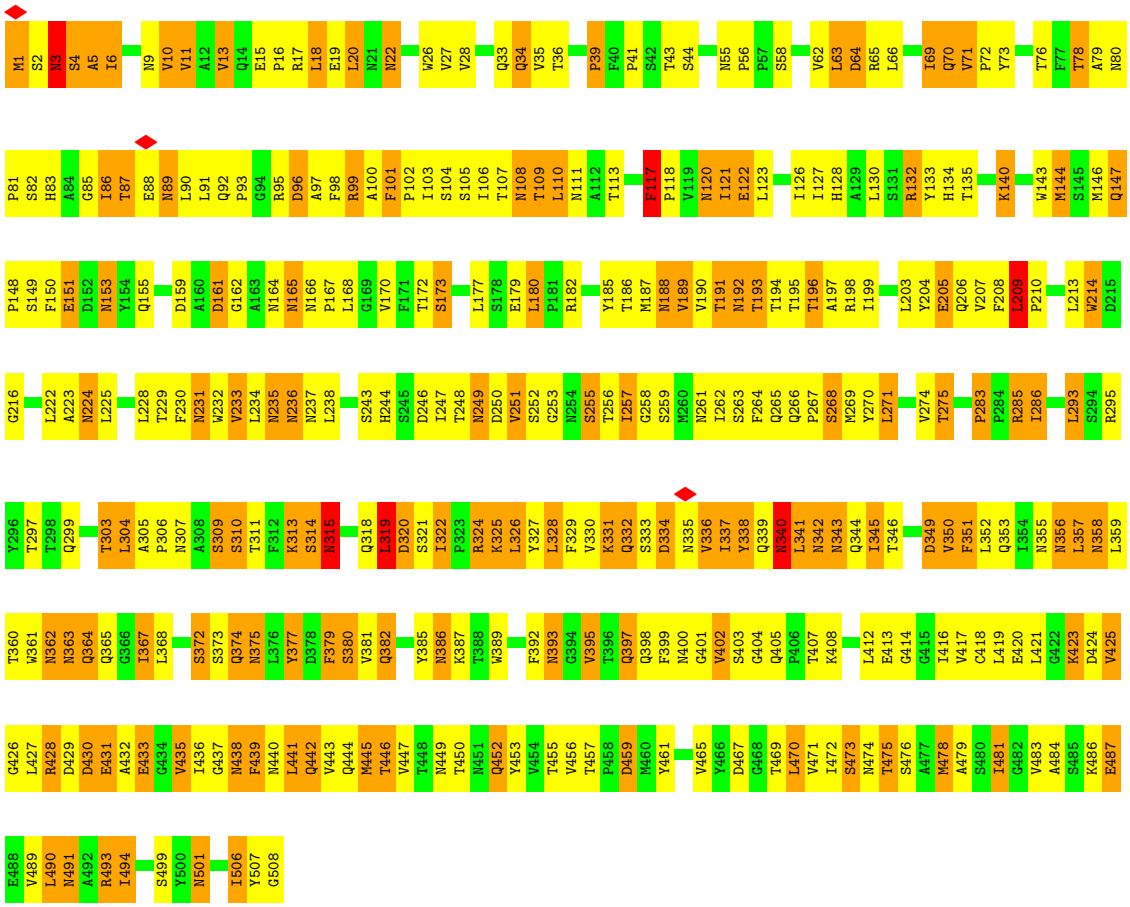




- Molecule 1: capsid protein V20

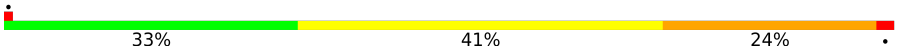
Chain I:

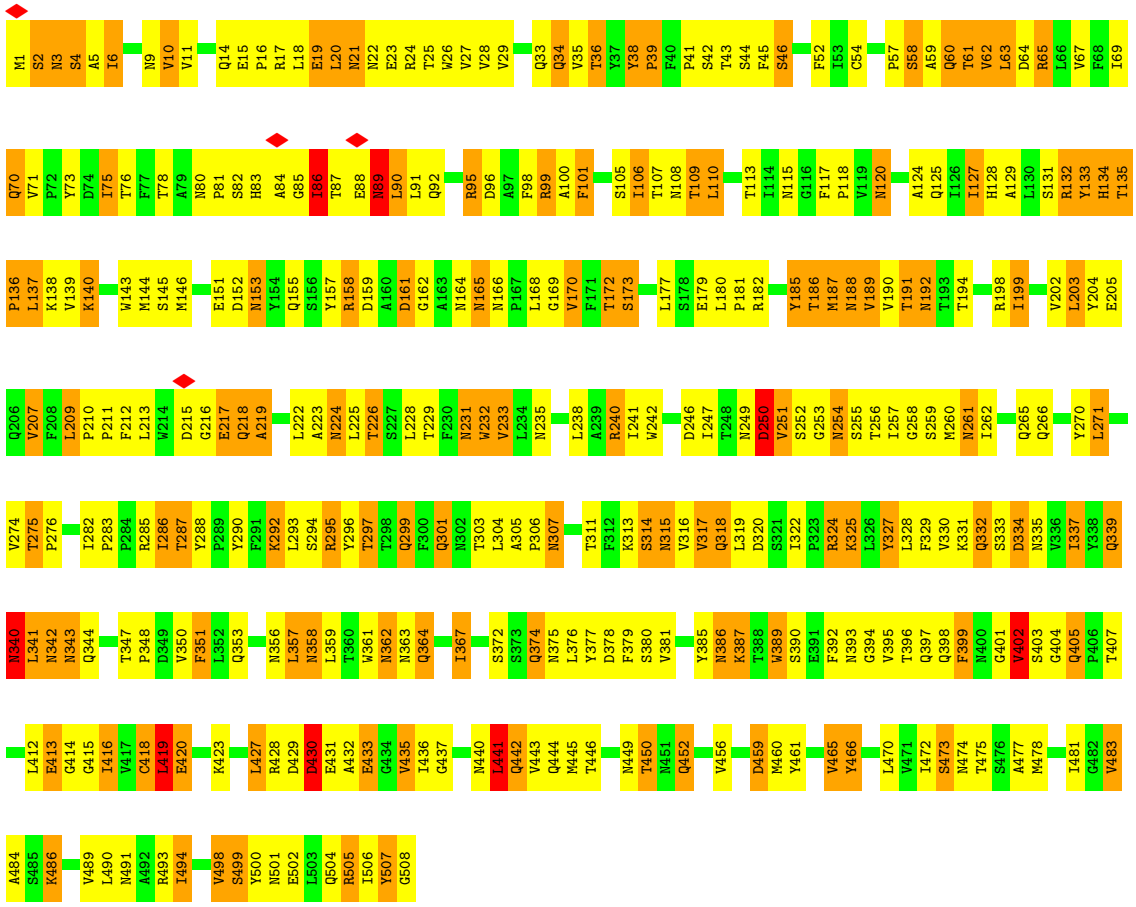




- Molecule 1: capsid protein V20

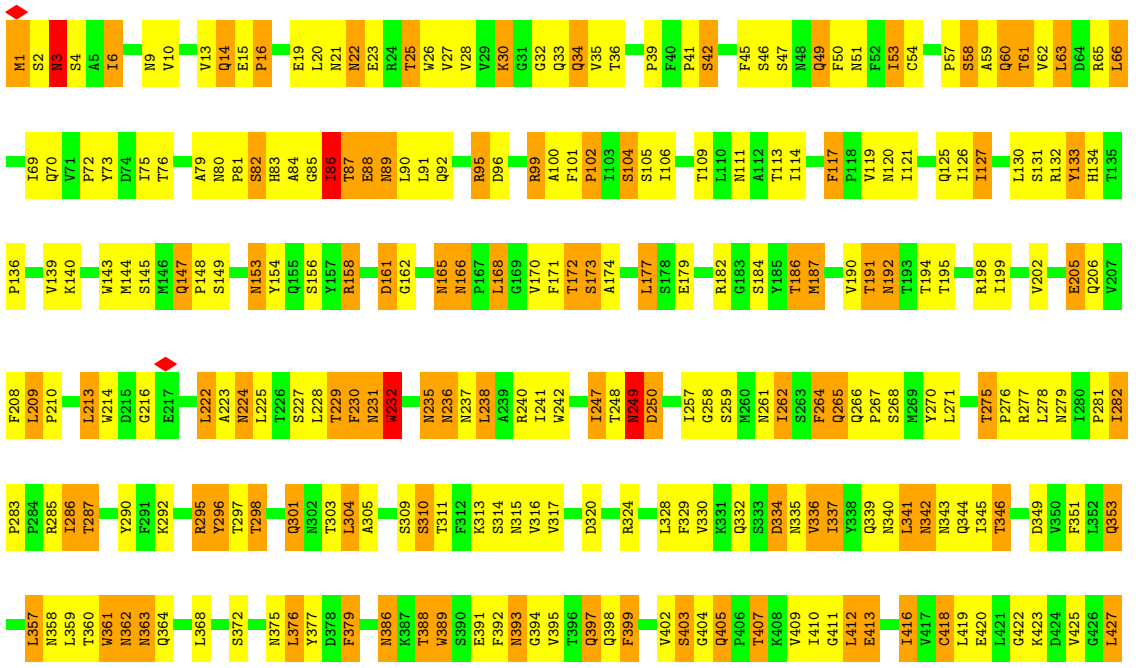
Chain J:

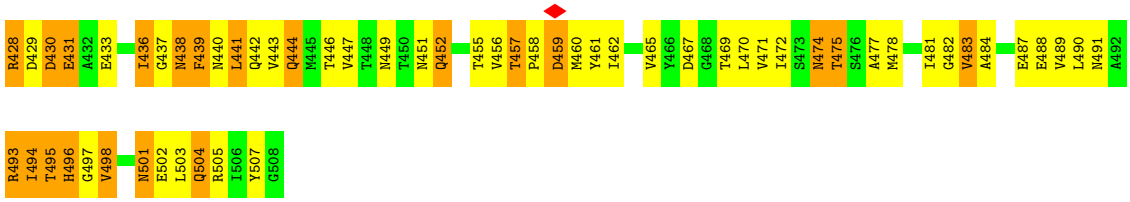




- Molecule 1: capsid protein V20

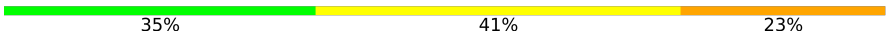
Chain K:

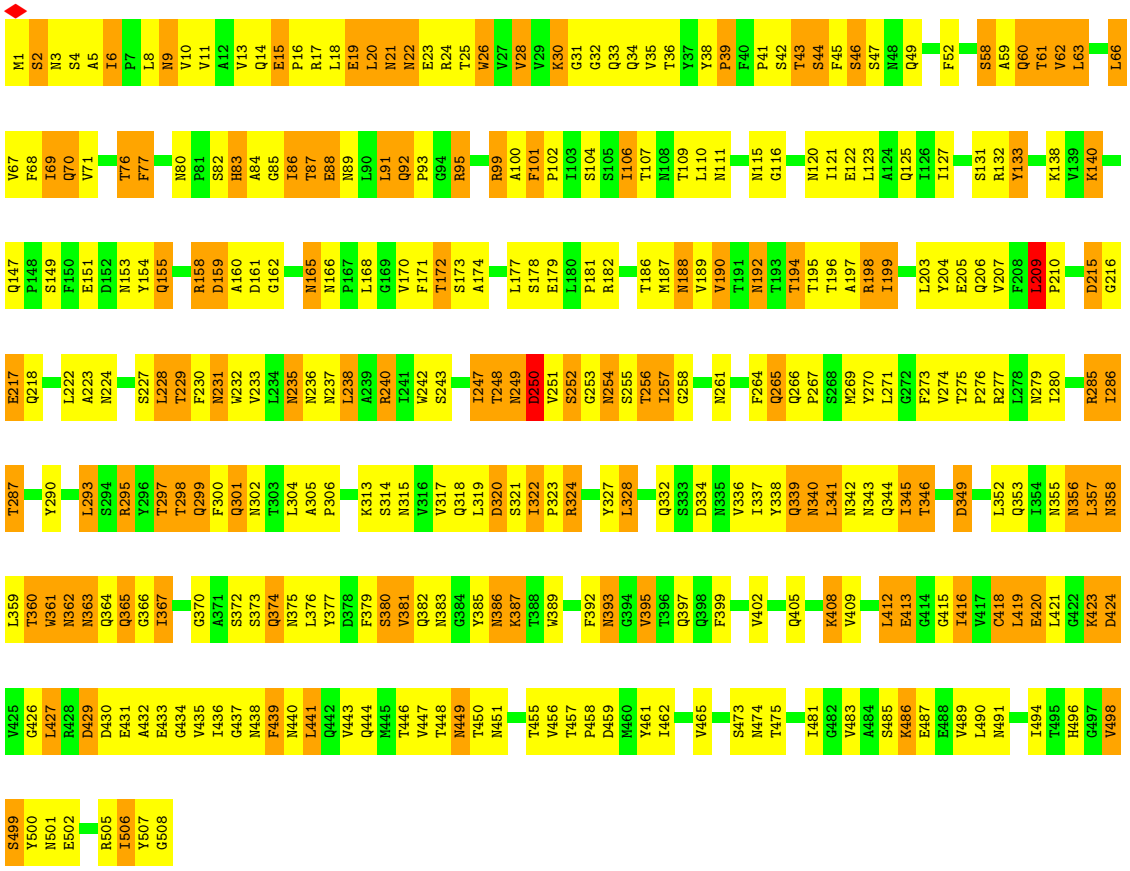




- Molecule 1: capsid protein V20

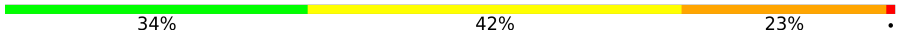
Chain L:

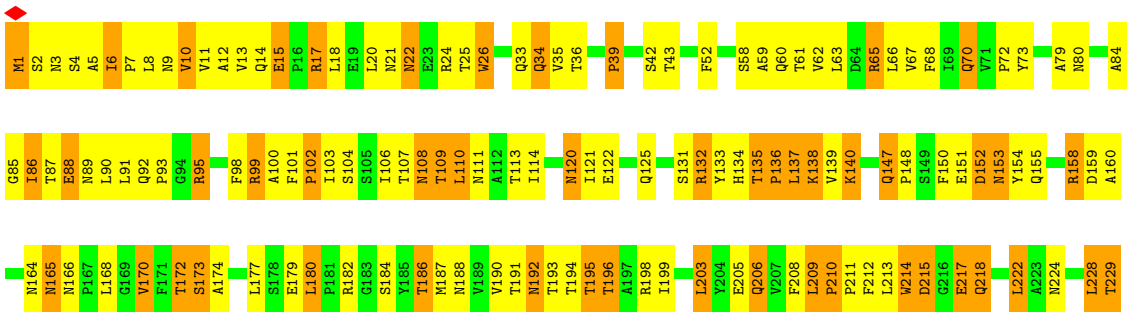


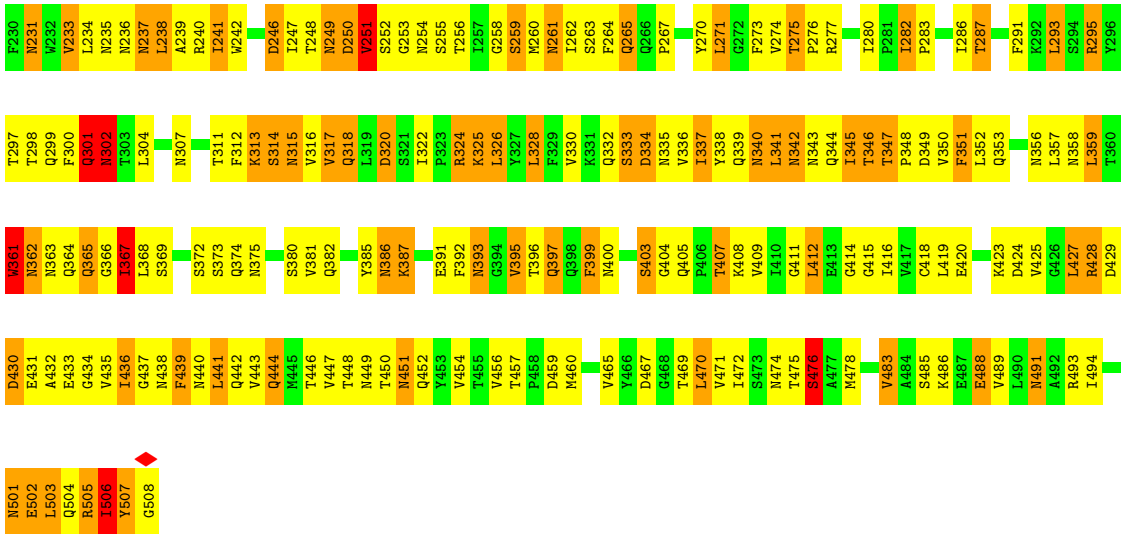


- Molecule 1: capsid protein V20

Chain M:

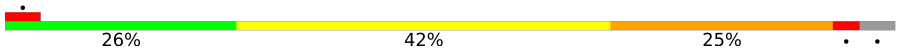


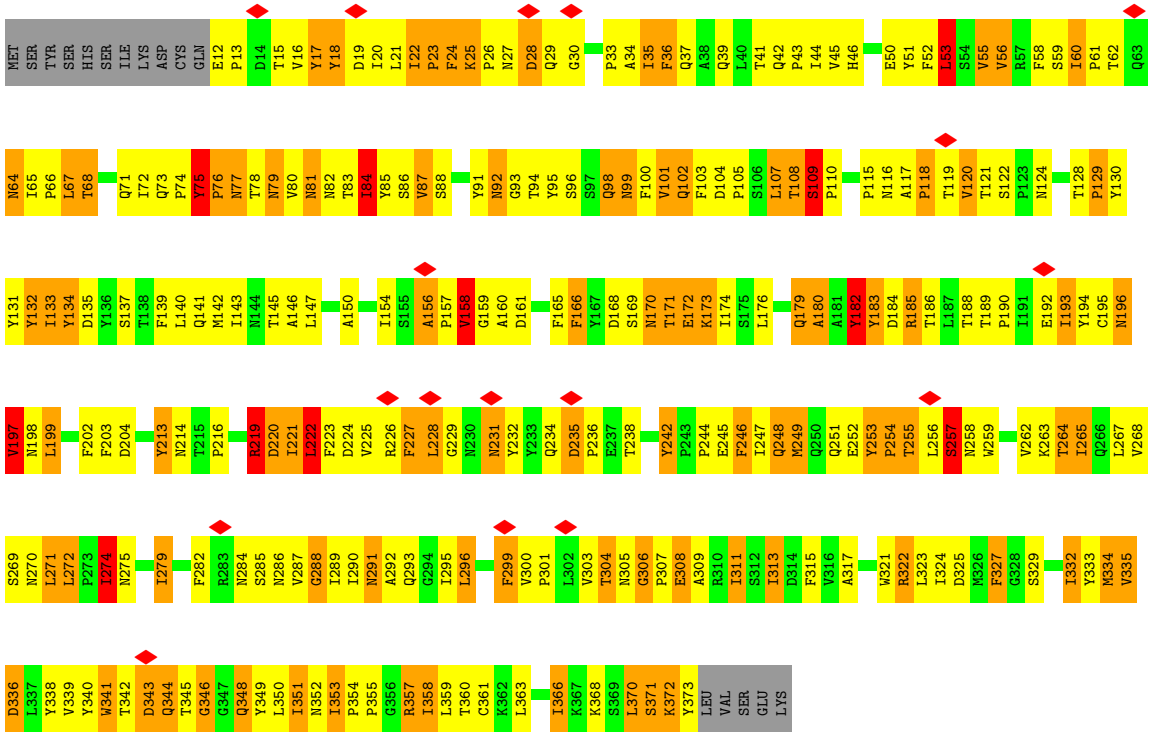




- Molecule 2: Minor virion protein

Chain N:





4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, I	Depositor
Number of particles used	12000	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 ($e^-/Å^2$)	22	Depositor
Minimum defocus (nm)	1100	Depositor
Maximum defocus (nm)	2400	Depositor
Magnification	59000	Depositor
Image detector	KODAK SO-163 FILM	Depositor
Maximum map value	21.700	Depositor
Minimum map value	-2.144	Depositor
Average map value	0.109	Depositor
Map value standard deviation	1.242	Depositor
Recommended contour level	2.0	Depositor
Map size (Å)	844.80005, 844.80005, 422.40002	wwPDB
Map dimensions	768, 768, 384	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.1, 1.1, 1.1	Depositor

5 Model quality (i)

5.1 Standard geometry (i)

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	A	0.57	2/4060 (0.0%)	0.77	3/5551 (0.1%)
1	B	0.57	2/4060 (0.0%)	0.75	5/5551 (0.1%)
1	C	0.57	1/4060 (0.0%)	0.78	2/5551 (0.0%)
1	D	0.56	1/4060 (0.0%)	0.73	1/5551 (0.0%)
1	E	0.58	2/4060 (0.0%)	0.76	3/5551 (0.1%)
1	F	0.57	1/4060 (0.0%)	0.73	3/5551 (0.1%)
1	G	0.57	2/4060 (0.0%)	0.74	3/5551 (0.1%)
1	H	0.59	1/4060 (0.0%)	0.76	5/5551 (0.1%)
1	I	0.61	3/4060 (0.1%)	0.77	5/5551 (0.1%)
1	J	0.60	1/4060 (0.0%)	0.78	5/5551 (0.1%)
1	K	0.56	1/4060 (0.0%)	0.73	1/5551 (0.0%)
1	L	0.57	1/4060 (0.0%)	0.74	3/5551 (0.1%)
1	M	0.56	2/4060 (0.0%)	0.80	7/5551 (0.1%)
2	N	0.58	1/2986 (0.0%)	0.77	3/4103 (0.1%)
All	All	0.57	21/55766 (0.0%)	0.76	49/76266 (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	A	0	1
1	B	0	3
1	C	0	1
1	D	0	1
1	E	0	1
1	F	0	1
1	L	0	1
1	M	0	1
All	All	0	10

All (21) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	I	117	PHE	CG-CD2	8.70	1.51	1.38
1	E	473	SER	CB-OG	8.12	1.52	1.42
1	I	117	PHE	CE1-CZ	8.06	1.52	1.37
2	N	341	TRP	CD2-CE2	5.93	1.48	1.41
1	M	361	TRP	CD2-CE2	5.72	1.48	1.41
1	C	232	TRP	CD2-CE2	5.31	1.47	1.41
1	L	242	TRP	CD2-CE2	5.30	1.47	1.41
1	M	26	TRP	CD2-CE2	5.29	1.47	1.41
1	A	389	TRP	CD2-CE2	5.29	1.47	1.41
1	K	232	TRP	CD2-CE2	5.29	1.47	1.41
1	I	214	TRP	CD2-CE2	5.28	1.47	1.41
1	B	361	TRP	CD2-CE2	5.28	1.47	1.41
1	B	232	TRP	CD2-CE2	5.25	1.47	1.41
1	J	507	TYR	CG-CD1	5.22	1.46	1.39
1	F	143	TRP	CD2-CE2	5.21	1.47	1.41
1	D	232	TRP	CD2-CE2	5.20	1.47	1.41
1	A	232	TRP	CD2-CE2	5.17	1.47	1.41
1	G	26	TRP	CD2-CE2	5.16	1.47	1.41
1	E	389	TRP	CD2-CE2	5.11	1.47	1.41
1	H	26	TRP	CD2-CE2	5.11	1.47	1.41
1	G	232	TRP	CD2-CE2	5.08	1.47	1.41

All (49) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	M	302	ASN	N-CA-CB	14.64	136.95	110.60
1	C	506	ILE	N-CA-CB	-9.54	88.85	110.80
1	M	301	GLN	N-CA-C	-8.64	87.68	111.00
1	A	326	LEU	CA-CB-CG	7.07	131.57	115.30
1	L	209	LEU	CA-CB-CG	7.03	131.47	115.30
1	H	326	LEU	CA-CB-CG	6.80	130.94	115.30
1	M	326	LEU	CA-CB-CG	6.77	130.88	115.30
1	J	419	LEU	CA-CB-CG	6.76	130.85	115.30
1	M	301	GLN	CB-CA-C	-6.72	96.95	110.40
1	A	209	LEU	CA-CB-CG	6.63	130.54	115.30
1	D	110	LEU	CA-CB-CG	6.27	129.72	115.30
1	I	117	PHE	CB-CG-CD1	-6.22	116.44	120.80
1	J	89	ASN	N-CA-C	-6.21	94.22	111.00
2	N	253	TYR	C-N-CD	-6.17	107.03	120.60
1	B	210	PRO	C-N-CD	-6.14	107.08	120.60
1	B	441	LEU	CA-CB-CG	5.93	128.93	115.30
1	I	209	LEU	CA-CB-CG	5.91	128.90	115.30
1	I	319	LEU	CA-CB-CG	5.78	128.60	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	L	63	LEU	CA-CB-CG	5.74	128.50	115.30
1	F	381	VAL	N-CA-C	-5.69	95.63	111.00
1	F	441	LEU	CA-CB-CG	5.68	128.37	115.30
1	L	238	LEU	CA-CB-CG	5.63	128.25	115.30
2	N	53	LEU	CA-CB-CG	5.63	128.24	115.30
1	H	225	LEU	CA-CB-CG	5.61	128.21	115.30
1	H	20	LEU	CA-CB-CG	5.55	128.06	115.30
1	M	441	LEU	CA-CB-CG	5.52	128.00	115.30
1	J	89	ASN	N-CA-CB	5.51	120.52	110.60
1	K	66	LEU	CA-CB-CG	5.45	127.84	115.30
1	B	180	LEU	CA-CB-CG	5.43	127.80	115.30
1	E	96	ASP	N-CA-C	5.41	125.61	111.00
1	J	441	LEU	CA-CB-CG	5.36	127.63	115.30
1	M	506	ILE	N-CA-C	-5.27	96.76	111.00
1	H	334	ASP	CB-CG-OD2	5.27	123.05	118.30
1	I	334	ASP	CB-CG-OD2	5.26	123.04	118.30
1	F	334	ASP	CB-CG-OD2	5.25	123.03	118.30
1	G	223	ALA	N-CA-C	-5.25	96.84	111.00
1	M	334	ASP	CB-CG-OD2	5.24	123.02	118.30
1	E	381	VAL	N-CA-C	5.21	125.08	111.00
1	I	180	LEU	CA-CB-CG	5.21	127.29	115.30
1	B	250	ASP	CB-CG-OD2	5.21	122.99	118.30
1	G	334	ASP	CB-CG-OD2	5.20	122.98	118.30
1	E	334	ASP	CB-CG-OD2	5.20	122.98	118.30
1	C	334	ASP	CB-CG-OD2	5.19	122.97	118.30
1	A	334	ASP	CB-CG-OD2	5.18	122.96	118.30
1	B	130	LEU	CA-CB-CG	5.15	127.14	115.30
1	J	334	ASP	CB-CG-OD2	5.13	122.91	118.30
1	G	490	LEU	CA-CB-CG	5.12	127.09	115.30
2	N	222	LEU	CA-CB-CG	5.08	126.98	115.30
1	H	119	VAL	CB-CA-C	-5.03	101.84	111.40

There are no chirality outliers.

All (10) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	340	ASN	Peptide
1	B	132	ARG	Peptide
1	B	332	GLN	Peptide
1	B	380	SER	Peptide
1	C	341	LEU	Peptide
1	D	380	SER	Peptide

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Mol	Chain	Res	Type	Group
1	E	83	HIS	Peptide
1	F	380	SER	Peptide
1	L	58	SER	Peptide
1	M	250	ASP	Peptide

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	3968	0	3871	408	0
1	B	3968	0	3871	627	0
1	C	3968	0	3871	631	0
1	D	3968	0	3871	619	0
1	E	3968	0	3871	509	0
1	F	3968	0	3871	429	0
1	G	3968	0	3871	497	0
1	H	3968	0	3871	523	0
1	I	3968	0	3871	521	0
1	J	3968	0	3871	525	0
1	K	3968	0	3871	401	0
1	L	3968	0	3871	492	0
1	M	3968	0	3871	524	0
2	N	2895	0	2810	508	0
All	All	54479	0	53133	6718	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 62.

All (6718) 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:B:396:THR:CA	1:B:410:ILE:HD11	1.25	1.67
2:N:173:LYS:HD3	2:N:254:PRO:CG	1.22	1.62
1:C:376:LEU:HA	1:C:379:PHE:CE2	1.34	1.61
2:N:173:LYS:CD	2:N:254:PRO:HG3	1.24	1.60
2:N:186:THR:CG2	2:N:226:ARG:HD3	1.27	1.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:208:PHE:CD1	1:M:214:TRP:CD1	1.85	1.59
2:N:186:THR:HG22	2:N:226:ARG:CD	1.34	1.55
2:N:256:LEU:HD22	2:N:307:PRO:CG	1.11	1.55
2:N:227:PHE:CZ	2:N:232:TYR:HE2	1.21	1.53
1:B:396:THR:HB	1:B:410:ILE:CG1	1.36	1.51
1:A:53:ILE:HD11	1:E:41:PRO:CB	1.39	1.50
2:N:36:PHE:CZ	2:N:335:VAL:HG11	1.47	1.48
1:J:498:VAL:CG2	1:J:499:SER:HB2	1.42	1.47
2:N:36:PHE:CZ	2:N:335:VAL:CG1	1.93	1.47
1:C:237:ASN:ND2	1:C:344:GLN:HE22	1.13	1.46
1:J:87:THR:CG2	1:J:88:GLU:HG3	1.46	1.45
1:E:258:GLY:HA2	1:E:341:LEU:CD1	1.44	1.45
1:J:341:LEU:HD13	1:J:342:ASN:N	1.20	1.45
1:C:84:ALA:CB	1:C:86:ILE:HB	1.45	1.45
2:N:227:PHE:CE1	2:N:232:TYR:HE2	1.33	1.45
1:D:343:ASN:HD22	1:D:344:GLN:N	0.97	1.44
2:N:256:LEU:CD2	2:N:307:PRO:HG2	1.46	1.44
1:E:303:THR:HG22	1:E:457:THR:CA	1.48	1.43
1:H:238:LEU:CD2	1:H:262:ILE:HG13	1.48	1.43
1:I:110:LEU:HD23	1:I:111:ASN:N	1.11	1.43
1:L:83:HIS:HB3	1:L:84:ALA:CA	1.43	1.42
1:I:41:PRO:HB2	1:I:266:GLN:NE2	1.32	1.41
1:F:250:ASP:CG	1:F:251:VAL:HA	1.33	1.41
1:J:84:ALA:HB1	1:J:86:ILE:CB	1.49	1.41
1:J:108:ASN:HB2	1:J:235:ASN:ND2	1.36	1.41
2:N:227:PHE:CZ	2:N:232:TYR:CE2	2.08	1.41
1:M:208:PHE:CD1	1:M:214:TRP:NE1	1.87	1.40
1:B:337:ILE:HD13	1:B:338:TYR:N	1.37	1.39
2:N:255:THR:CG2	2:N:257:SER:HB2	1.52	1.39
1:E:48:ASN:HD21	1:J:295:ARG:NH2	1.16	1.39
1:A:108:ASN:ND2	1:A:109:THR:HG22	1.36	1.38
1:B:190:VAL:CG2	1:B:198:ARG:HB3	1.51	1.38
1:A:341:LEU:HD13	1:A:342:ASN:N	1.39	1.37
1:D:61:THR:HG23	1:D:275:THR:CG2	1.54	1.37
2:N:227:PHE:CE1	2:N:232:TYR:CE2	2.10	1.37
1:B:396:THR:C	1:B:410:ILE:HD11	1.42	1.37
2:N:173:LYS:CD	2:N:254:PRO:CG	1.88	1.37
1:D:341:LEU:HD23	1:D:342:ASN:N	1.35	1.36
1:E:258:GLY:CA	1:E:341:LEU:HD11	1.54	1.36
1:F:264:PHE:C	1:F:265:GLN:HE21	1.26	1.35
2:N:370:LEU:HD12	2:N:371:SER:N	1.38	1.35

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:215:ASP:OD1	1:D:217:GLU:HG2	1.26	1.34
1:G:1:MET:N	1:G:2:SER:HB3	1.35	1.34
1:G:264:PHE:C	1:G:265:GLN:HE21	1.30	1.34
2:N:109:SER:HB2	2:N:110:PRO:CA	1.42	1.34
2:N:255:THR:HG23	2:N:257:SER:CB	1.57	1.34
1:J:498:VAL:CB	1:J:499:SER:HB2	1.55	1.33
1:I:326:LEU:HD12	1:I:421:LEU:CD1	1.58	1.33
1:E:341:LEU:HD23	1:E:342:ASN:N	1.44	1.33
1:B:363:ASN:HB3	1:B:364:GLN:NE2	1.43	1.32
1:D:343:ASN:O	1:D:347:THR:HG22	1.15	1.32
2:N:255:THR:CG2	2:N:257:SER:CB	2.06	1.32
1:B:396:THR:CB	1:B:410:ILE:CD1	2.06	1.32
1:D:250:ASP:O	1:D:251:VAL:HG13	1.18	1.32
2:N:333:TYR:C	2:N:334:MET:SD	2.08	1.32
1:A:254:ASN:HD22	1:A:255:SER:N	1.27	1.31
1:M:88:GLU:O	1:M:194:THR:HG22	1.19	1.31
1:H:428:ARG:HD3	1:H:428:ARG:C	1.47	1.31
1:J:84:ALA:CB	1:J:86:ILE:HB	1.58	1.31
1:D:261:ASN:C	1:D:262:ILE:HD13	1.50	1.31
1:B:186:THR:HA	1:D:397:GLN:OE1	1.21	1.30
1:D:78:THR:HG23	1:D:259:SER:OG	1.28	1.30
1:J:498:VAL:HG23	1:J:499:SER:CB	1.59	1.30
1:E:324:ARG:HA	1:E:433:GLU:OE1	1.14	1.30
1:D:357:LEU:HD12	1:D:358:ASN:N	1.42	1.30
1:J:341:LEU:HD13	1:J:341:LEU:C	1.51	1.30
1:I:110:LEU:CD2	1:I:111:ASN:N	1.95	1.29
1:L:83:HIS:HB3	1:L:84:ALA:CB	1.60	1.29
1:D:343:ASN:ND2	1:D:344:GLN:N	1.81	1.29
1:I:441:LEU:HD13	1:I:442:GLN:N	1.47	1.29
1:F:382:GLN:NE2	1:F:423:LYS:HZ1	1.25	1.29
1:B:396:THR:CA	1:B:410:ILE:CD1	2.10	1.29
2:N:256:LEU:CA	2:N:257:SER:HB3	1.61	1.28
1:C:377:TYR:CE2	1:C:381:VAL:HG12	1.68	1.28
1:G:209:LEU:O	1:G:209:LEU:HD23	1.33	1.28
1:K:1:MET:CE	1:L:26:TRP:HB3	1.59	1.28
1:A:53:ILE:CD1	1:E:41:PRO:HB3	1.62	1.28
1:A:481:ILE:HG21	1:F:365:GLN:CG	1.64	1.28
1:C:327:TYR:C	1:C:328:LEU:HD23	1.50	1.28
1:E:303:THR:CG2	1:E:457:THR:HA	1.64	1.28
1:I:340:ASN:ND2	1:I:343:ASN:HB3	1.45	1.28
1:K:179:GLU:OE2	1:M:177:LEU:HD22	1.32	1.28

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:396:THR:HB	1:B:410:ILE:CD1	1.63	1.27
1:C:482:GLY:C	1:C:484:ALA:HB3	1.53	1.27
1:J:57:PRO:HB3	1:L:363:ASN:CG	1.50	1.27
1:M:313:LYS:HZ2	1:M:313:LYS:CB	1.46	1.27
1:A:253:GLY:HA3	1:A:254:ASN:CG	1.51	1.27
1:B:332:GLN:NE2	1:B:333:SER:HB3	1.49	1.27
1:J:85:GLY:HA2	1:J:86:ILE:CB	1.51	1.27
1:J:108:ASN:CB	1:J:235:ASN:ND2	1.97	1.27
1:H:430:ASP:OD2	1:H:489:VAL:HG13	1.35	1.27
1:M:507:TYR:CE1	1:M:508:GLY:O	1.87	1.27
1:G:39:PRO:HD2	1:L:49:GLN:NE2	1.48	1.27
1:H:335:ASN:HD22	1:H:336:VAL:N	1.30	1.27
1:H:430:ASP:OD1	1:H:490:LEU:HB2	1.33	1.27
1:K:85:GLY:HA2	1:K:86:ILE:CB	1.60	1.27
2:N:45:VAL:H	2:N:332:ILE:CD1	1.49	1.26
1:B:357:LEU:C	1:B:357:LEU:HD12	1.55	1.26
1:B:385:TYR:CE2	1:B:387:LYS:HB2	1.68	1.26
1:A:481:ILE:HG23	1:F:365:GLN:CB	1.64	1.26
1:B:337:ILE:HD11	1:B:338:TYR:CD2	1.70	1.26
1:D:357:LEU:HD12	1:D:357:LEU:C	1.52	1.26
1:E:401:GLY:HA2	1:G:89:ASN:OD1	1.26	1.26
1:H:217:GLU:OE2	1:H:505:ARG:HD3	1.36	1.26
2:N:91:TYR:OH	2:N:157:PRO:HG3	1.27	1.26
1:C:237:ASN:ND2	1:C:344:GLN:NE2	1.84	1.25
1:G:1:MET:HB3	1:G:2:SER:CB	1.66	1.25
1:B:89:ASN:HD21	1:D:402:VAL:C	1.38	1.25
1:D:264:PHE:C	1:D:265:GLN:HE21	1.39	1.25
1:M:507:TYR:HE1	1:M:508:GLY:O	1.14	1.25
1:M:386:ASN:HD21	1:M:387:LYS:CE	1.48	1.25
2:N:255:THR:C	2:N:257:SER:HB2	1.54	1.25
1:I:140:LYS:HG2	1:I:179:GLU:OE2	1.17	1.25
1:H:480:SER:C	1:H:481:ILE:HD12	1.56	1.25
1:M:313:LYS:HB3	1:M:313:LYS:NZ	1.49	1.25
1:F:264:PHE:C	1:F:265:GLN:NE2	1.88	1.24
1:G:1:MET:CA	1:G:2:SER:HB3	1.63	1.24
1:G:213:LEU:CA	1:G:214:TRP:HB2	1.63	1.24
1:H:428:ARG:HD3	1:H:429:ASP:N	1.52	1.24
1:B:247:ILE:O	1:B:247:ILE:HD13	1.34	1.24
1:D:215:ASP:OD1	1:D:217:GLU:CG	1.86	1.24
1:H:311:THR:C	1:H:312:PHE:HD2	1.42	1.23
1:K:247:ILE:C	1:K:247:ILE:HD13	1.54	1.23

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:140:LYS:HD2	1:M:179:GLU:CD	1.57	1.23
1:B:461:TYR:O	1:B:462:ILE:HD12	1.36	1.23
1:E:365:GLN:HB3	1:L:122:GLU:OE2	1.32	1.23
1:I:85:GLY:C	1:I:86:ILE:HD13	1.58	1.23
1:I:190:VAL:HG22	1:I:198:ARG:O	1.36	1.23
1:B:90:LEU:HD12	1:B:90:LEU:O	1.34	1.22
1:C:494:ILE:HD13	1:C:495:THR:N	1.51	1.22
1:F:507:TYR:CD1	1:F:508:GLY:HA3	1.72	1.22
2:N:256:LEU:CD2	2:N:307:PRO:CG	2.07	1.22
1:C:485:SER:O	1:C:489:VAL:HG12	1.04	1.22
1:M:102:PRO:HB2	1:M:241:ILE:CD1	1.69	1.22
1:B:89:ASN:OD1	1:D:401:GLY:HA2	1.39	1.22
1:E:324:ARG:CA	1:E:433:GLU:OE1	1.88	1.22
1:I:340:ASN:HD21	1:I:343:ASN:CB	1.50	1.22
1:J:85:GLY:HA2	1:J:86:ILE:CG2	1.70	1.22
1:D:6:ILE:H	1:D:6:ILE:CD1	1.49	1.22
1:A:341:LEU:O	1:A:341:LEU:HD22	1.40	1.21
1:J:498:VAL:HA	1:J:499:SER:OG	1.37	1.21
1:K:179:GLU:OE2	1:M:177:LEU:CD2	1.86	1.21
1:E:304:LEU:HD23	1:E:304:LEU:O	1.39	1.21
1:I:379:PHE:CD2	1:I:424:ASP:OD2	1.93	1.21
1:B:411:GLY:O	1:B:412:LEU:HD12	1.35	1.21
1:D:250:ASP:O	1:D:251:VAL:CG1	1.89	1.21
2:N:171:THR:CB	2:N:173:LYS:H	1.53	1.21
1:G:359:LEU:O	1:G:367:ILE:HD13	1.35	1.20
1:H:140:LYS:HG2	1:H:179:GLU:OE2	1.39	1.20
1:J:140:LYS:HG2	1:J:179:GLU:OE2	1.40	1.20
1:M:208:PHE:CE1	1:M:214:TRP:HD1	1.58	1.20
1:G:264:PHE:C	1:G:265:GLN:NE2	1.94	1.20
1:H:441:LEU:O	1:H:441:LEU:HD13	1.34	1.20
1:J:209:LEU:O	1:J:209:LEU:HD23	1.38	1.20
1:B:166:ASN:CG	1:B:167:PRO:HD2	1.62	1.20
1:M:209:LEU:C	1:M:209:LEU:HD12	1.49	1.20
2:N:173:LYS:CG	2:N:254:PRO:HG3	1.70	1.20
1:B:333:SER:HB2	1:B:336:VAL:CG2	1.70	1.20
1:J:87:THR:HG22	1:J:88:GLU:CG	1.71	1.20
1:B:209:LEU:C	1:B:209:LEU:HD23	1.62	1.20
1:D:427:LEU:HD12	1:D:431:GLU:OE1	1.41	1.20
2:N:168:ASP:OD1	2:N:171:THR:HG23	1.40	1.20
1:A:341:LEU:HD22	1:A:341:LEU:C	1.60	1.19
1:I:86:ILE:HD13	1:I:86:ILE:N	1.55	1.19

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:239:ALA:HB3	1:D:344:GLN:NE2	1.53	1.19
1:H:293:LEU:N	1:H:293:LEU:HD23	1.56	1.19
1:M:324:ARG:HG2	1:M:324:ARG:HH11	1.03	1.19
1:I:41:PRO:CB	1:I:266:GLN:HE22	1.56	1.19
1:K:140:LYS:HD2	1:K:179:GLU:OE2	1.40	1.19
1:M:437:GLY:C	1:M:439:PHE:HE2	1.46	1.19
2:N:370:LEU:HD12	2:N:370:LEU:C	1.57	1.19
1:D:423:LYS:HG2	1:D:424:ASP:OD1	1.40	1.19
1:M:208:PHE:CE1	1:M:214:TRP:CD1	2.29	1.19
1:M:209:LEU:HD12	1:M:210:PRO:N	1.55	1.19
1:C:324:ARG:HG2	1:C:324:ARG:HH11	1.07	1.18
1:I:341:LEU:HD13	1:I:341:LEU:O	1.41	1.18
1:K:85:GLY:CA	1:K:86:ILE:HB	1.71	1.18
2:N:235:ASP:CB	2:N:236:PRO:HA	1.73	1.18
1:F:443:VAL:CG1	1:F:462:ILE:HD11	1.72	1.18
1:B:209:LEU:HD23	1:B:210:PRO:N	1.57	1.18
1:E:303:THR:CG2	1:E:457:THR:HG22	1.72	1.18
1:M:334:ASP:O	1:M:337:ILE:HG13	1.40	1.18
1:E:300:PHE:HZ	1:E:313:LYS:O	1.23	1.18
1:G:312:PHE:HA	1:G:313:LYS:HB2	1.24	1.18
1:I:379:PHE:CE2	1:I:424:ASP:OD2	1.96	1.18
1:M:140:LYS:HD2	1:M:179:GLU:OE2	1.44	1.18
1:C:208:PHE:O	1:C:214:TRP:CZ3	1.96	1.17
1:K:247:ILE:HD13	1:K:248:THR:N	1.55	1.17
2:N:180:ALA:HB2	2:N:246:PHE:HA	1.27	1.17
1:A:481:ILE:CG2	1:F:365:GLN:CG	2.22	1.17
1:C:123:LEU:HD21	1:C:127:ILE:HG12	1.17	1.17
1:C:485:SER:O	1:C:489:VAL:CG1	1.92	1.17
1:D:48:ASN:ND2	2:N:348:GLN:HB3	1.59	1.17
1:M:337:ILE:HD12	1:M:338:TYR:CE2	1.78	1.17
1:K:265:GLN:HE21	1:K:265:GLN:CA	1.55	1.17
1:L:264:PHE:C	1:L:265:GLN:HE21	1.48	1.17
2:N:168:ASP:CG	2:N:171:THR:HG23	1.63	1.17
1:H:6:ILE:N	1:H:6:ILE:HD12	1.53	1.17
2:N:184:ASP:OD1	2:N:226:ARG:HB2	1.43	1.17
1:F:250:ASP:OD2	1:F:251:VAL:HA	1.45	1.17
1:G:140:LYS:HG2	1:G:179:GLU:OE2	1.44	1.16
1:C:376:LEU:CA	1:C:379:PHE:HE2	1.57	1.16
1:H:328:LEU:CD2	1:H:462:ILE:HD13	1.74	1.16
1:I:430:ASP:OD2	1:I:490:LEU:HD12	1.40	1.16
1:M:208:PHE:HD1	1:M:214:TRP:NE1	1.25	1.16

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:507:TYR:HD1	1:M:508:GLY:N	1.40	1.16
1:M:507:TYR:CD1	1:M:508:GLY:CA	2.28	1.16
1:K:436:ILE:CG2	1:K:482:GLY:HA3	1.75	1.16
1:C:376:LEU:CA	1:C:379:PHE:CE2	2.29	1.15
1:D:260:MET:C	1:D:261:ASN:HD22	1.47	1.15
1:H:486:LYS:HB2	1:H:486:LYS:NZ	1.48	1.15
2:N:36:PHE:HZ	2:N:335:VAL:CG1	1.42	1.15
1:B:187:MET:H	1:D:397:GLN:CD	1.50	1.15
1:B:396:THR:CB	1:B:410:ILE:HD11	1.68	1.15
1:C:377:TYR:CE2	1:C:381:VAL:CG1	2.30	1.15
1:D:1:MET:SD	1:D:10:VAL:HB	1.85	1.15
1:J:341:LEU:CD1	1:J:342:ASN:N	2.07	1.15
1:C:226:THR:HG21	1:C:475:THR:HB	1.18	1.15
1:A:305:ALA:HB1	1:A:306:PRO:HA	1.27	1.15
1:H:206:GLN:HG3	1:H:208:PHE:CE2	1.82	1.15
1:C:123:LEU:CD2	1:C:127:ILE:HG12	1.77	1.14
1:I:191:THR:HG23	1:I:192:ASN:H	0.99	1.14
1:B:86:ILE:O	1:B:86:ILE:HG12	1.43	1.14
1:B:337:ILE:CD1	1:B:338:TYR:CD2	2.30	1.14
1:K:238:LEU:HD12	1:K:238:LEU:O	1.44	1.14
1:E:48:ASN:ND2	1:J:295:ARG:NH2	1.93	1.14
1:F:507:TYR:CD1	1:F:508:GLY:CA	2.30	1.14
1:G:41:PRO:HG2	1:L:44:SER:O	1.45	1.14
1:K:86:ILE:HD12	1:K:86:ILE:O	1.46	1.14
1:C:413:GLU:HG3	1:C:414:GLY:N	1.45	1.14
1:L:83:HIS:CB	1:L:84:ALA:HA	1.75	1.14
2:N:168:ASP:HB3	2:N:171:THR:CG2	1.75	1.14
1:A:250:ASP:O	1:A:251:VAL:HG13	1.47	1.13
1:H:313:LYS:HB2	1:H:313:LYS:NZ	1.40	1.13
1:A:481:ILE:HG23	1:F:365:GLN:HB3	1.15	1.13
1:I:357:LEU:C	1:I:357:LEU:HD13	1.69	1.13
1:M:237:ASN:HD22	1:M:238:LEU:N	1.44	1.13
1:A:110:LEU:C	1:A:110:LEU:HD12	1.68	1.13
1:A:1:MET:HG3	1:A:10:VAL:HG13	1.14	1.13
1:B:247:ILE:HD13	1:B:247:ILE:C	1.64	1.13
1:E:100:ALA:HB2	1:E:182:ARG:HD3	1.28	1.13
1:K:95:ARG:HG2	1:K:95:ARG:HH11	1.13	1.13
1:L:99:ARG:HG2	1:L:99:ARG:HH11	1.08	1.13
2:N:271:LEU:HG	2:N:336:ASP:CG	1.67	1.13
1:D:61:THR:CG2	1:D:275:THR:HG23	1.79	1.13
1:G:41:PRO:HD2	1:L:44:SER:O	1.48	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:179:GLU:OE1	1:J:177:LEU:HD21	1.49	1.13
1:J:341:LEU:HA	1:J:344:GLN:HE21	1.06	1.12
1:B:396:THR:O	1:B:410:ILE:CD1	1.97	1.12
1:H:430:ASP:OD1	1:H:490:LEU:CB	1.97	1.12
1:I:1:MET:HG3	1:I:10:VAL:HB	1.29	1.12
1:I:493:ARG:HH11	1:I:493:ARG:HG3	0.95	1.12
1:I:493:ARG:HH11	1:I:493:ARG:CG	1.62	1.12
1:M:507:TYR:CE1	1:M:508:GLY:C	2.23	1.12
1:C:478:MET:SD	1:L:34:GLN:NE2	2.22	1.12
1:E:140:LYS:HD2	1:E:179:GLU:OE2	1.49	1.12
1:L:35:VAL:HG22	1:L:274:VAL:HG23	1.18	1.12
1:A:481:ILE:HG21	1:F:365:GLN:HG2	1.32	1.12
1:D:405:GLN:NE2	1:D:405:GLN:HA	1.47	1.12
1:H:350:VAL:CG1	1:H:413:GLU:HB2	1.78	1.12
1:G:6:ILE:H	1:G:6:ILE:HD12	1.10	1.12
1:I:326:LEU:CD1	1:I:421:LEU:HD11	1.78	1.12
2:N:168:ASP:CB	2:N:171:THR:HG23	1.80	1.12
1:C:412:LEU:C	1:C:412:LEU:HD12	1.68	1.11
1:E:96:ASP:OD1	1:E:244:HIS:HA	1.46	1.11
1:G:246:ASP:O	1:G:249:ASN:ND2	1.82	1.11
1:I:377:TYR:HE2	1:I:381:VAL:CG2	1.63	1.11
1:C:209:LEU:HD12	1:C:210:PRO:O	1.46	1.11
1:C:490:LEU:HD12	1:C:490:LEU:O	1.50	1.11
1:F:382:GLN:NE2	1:F:423:LYS:NZ	1.98	1.11
1:H:350:VAL:CG1	1:H:413:GLU:CB	2.29	1.11
1:J:364:GLN:HE21	1:J:367:ILE:HD11	1.15	1.11
1:J:436:ILE:HG13	1:J:437:GLY:HA3	1.32	1.11
2:N:173:LYS:CD	2:N:254:PRO:CD	2.27	1.11
1:B:110:LEU:C	1:B:110:LEU:HD12	1.71	1.11
1:B:228:LEU:CD1	1:B:230:PHE:CE2	2.32	1.11
1:C:304:LEU:HD13	1:C:310:SER:OG	1.47	1.11
1:D:265:GLN:HE21	1:D:265:GLN:N	1.46	1.11
1:E:74:ASP:OD1	1:E:75:ILE:N	1.82	1.11
1:F:210:PRO:HB2	1:F:211:PRO:HD3	1.29	1.11
1:M:59:ALA:O	1:M:60:GLN:HG2	1.50	1.11
1:B:396:THR:CB	1:B:410:ILE:HG12	1.80	1.11
1:F:322:ILE:H	1:F:322:ILE:CD1	1.61	1.11
1:I:433:GLU:OE2	1:I:433:GLU:HA	1.46	1.11
1:D:257:ILE:HD13	1:D:257:ILE:O	1.48	1.11
1:D:83:HIS:CE1	1:D:256:THR:HG22	1.87	1.10
1:H:179:GLU:OE1	1:J:177:LEU:CD2	1.98	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:498:VAL:HA	1:J:499:SER:CB	1.78	1.10
1:K:483:VAL:HG11	1:L:4:SER:HB3	1.11	1.10
1:B:396:THR:N	1:B:410:ILE:CD1	2.14	1.10
1:D:140:LYS:HG2	1:D:179:GLU:OE2	1.51	1.10
1:G:265:GLN:HE21	1:G:265:GLN:N	1.48	1.10
1:B:324:ARG:HG2	1:B:324:ARG:HH11	1.01	1.10
1:C:316:VAL:CG2	1:C:442:GLN:OE1	1.98	1.10
1:G:41:PRO:CD	1:L:44:SER:O	2.00	1.10
1:H:121:ILE:HD11	1:H:293:LEU:HG	1.10	1.10
1:M:132:ARG:HH11	1:M:132:ARG:CG	1.57	1.10
1:D:78:THR:CG2	1:D:259:SER:OG	1.99	1.10
1:D:286:ILE:HD12	1:D:287:THR:H	1.16	1.10
1:G:9:ASN:HD22	1:G:10:VAL:N	1.49	1.10
1:I:41:PRO:CB	1:I:266:GLN:NE2	2.14	1.10
1:K:471:VAL:HG21	1:L:5:ALA:CB	1.82	1.10
2:N:168:ASP:CB	2:N:171:THR:CG2	2.30	1.10
2:N:219:ARG:HG2	2:N:219:ARG:HH11	1.14	1.10
1:C:413:GLU:CG	1:C:414:GLY:H	1.57	1.09
1:F:506:ILE:HD12	1:F:506:ILE:O	1.47	1.09
1:G:6:ILE:HD12	1:G:6:ILE:N	1.60	1.09
1:G:41:PRO:CG	1:L:44:SER:O	2.00	1.09
1:M:503:LEU:O	1:M:503:LEU:HD22	1.52	1.09
2:N:357:ARG:HH11	2:N:357:ARG:CG	1.64	1.09
1:D:41:PRO:HB2	1:D:266:GLN:HE22	1.11	1.09
1:E:340:ASN:O	1:E:344:GLN:HG2	1.52	1.09
1:G:343:ASN:HD22	1:G:344:GLN:N	1.51	1.09
1:L:217:GLU:O	1:L:218:GLN:HG2	1.52	1.09
1:M:92:GLN:HB2	1:M:95:ARG:HB2	1.32	1.09
2:N:171:THR:HB	2:N:173:LYS:H	1.07	1.09
2:N:173:LYS:HD2	2:N:254:PRO:CD	1.81	1.09
1:E:299:GLN:HE22	1:J:46:SER:HA	1.14	1.09
1:E:303:THR:HG21	1:E:457:THR:HG22	1.28	1.09
1:G:1:MET:CB	1:G:2:SER:CB	2.30	1.09
1:M:59:ALA:C	1:M:60:GLN:HG2	1.71	1.09
2:N:256:LEU:HA	2:N:257:SER:CB	1.81	1.09
1:G:367:ILE:HG22	1:G:368:LEU:HD12	1.24	1.09
1:G:376:LEU:H	1:G:376:LEU:HD13	1.18	1.09
1:H:339:GLN:O	1:H:340:ASN:HB2	1.42	1.09
1:J:322:ILE:HG22	1:J:361:TRP:CZ2	1.87	1.09
1:J:498:VAL:CA	1:J:499:SER:CB	2.30	1.09
2:N:91:TYR:OH	2:N:157:PRO:CG	1.99	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:385:TYR:HE2	1:B:387:LYS:CB	1.66	1.09
1:I:326:LEU:HD12	1:I:421:LEU:HD13	1.30	1.09
1:M:102:PRO:CB	1:M:241:ILE:CD1	2.30	1.09
1:M:386:ASN:HD21	1:M:387:LYS:HE3	1.03	1.09
2:N:20:ILE:HG23	2:N:36:PHE:CE1	1.88	1.09
2:N:348:GLN:HE21	2:N:348:GLN:HA	0.95	1.09
1:A:85:GLY:CA	1:A:86:ILE:HB	1.81	1.08
1:A:114:ILE:C	1:A:116:GLY:HA2	1.73	1.08
1:A:135:THR:HG22	1:A:139:VAL:CG1	1.83	1.08
1:D:6:ILE:HD13	1:D:6:ILE:N	1.57	1.08
1:E:45:PHE:C	1:E:45:PHE:HD1	1.56	1.08
1:K:85:GLY:HA3	1:K:86:ILE:HG22	1.32	1.08
1:D:503:LEU:HD23	1:D:503:LEU:N	1.55	1.08
1:E:99:ARG:HG2	1:E:99:ARG:HH11	0.98	1.08
1:F:250:ASP:CG	1:F:251:VAL:CA	2.22	1.08
1:H:6:ILE:H	1:H:6:ILE:CD1	1.64	1.08
1:M:136:PRO:HD2	1:M:139:VAL:HB	1.34	1.08
1:M:367:ILE:HG22	1:M:368:LEU:HD12	1.09	1.08
2:N:256:LEU:HD22	2:N:307:PRO:HG3	1.16	1.08
1:C:478:MET:HE2	1:C:478:MET:HA	1.24	1.08
1:E:48:ASN:ND2	1:J:295:ARG:HH22	1.49	1.08
1:L:324:ARG:HG2	1:L:324:ARG:HH11	1.13	1.08
1:B:192:ASN:HD22	1:B:193:THR:N	1.50	1.08
1:D:96:ASP:OD2	1:D:244:HIS:HA	1.51	1.08
1:D:351:PHE:O	1:D:414:GLY:HA3	1.51	1.08
1:E:87:THR:O	1:E:88:GLU:HB2	1.51	1.08
1:H:1:MET:HG3	1:H:10:VAL:HB	1.35	1.08
1:H:430:ASP:OD2	1:H:489:VAL:CG1	2.01	1.08
1:I:437:GLY:HA2	1:I:439:PHE:HE2	1.17	1.08
2:N:227:PHE:HA	2:N:228:LEU:HB2	1.36	1.08
1:B:396:THR:CB	1:B:410:ILE:CG1	2.28	1.08
1:F:443:VAL:HG11	1:F:462:ILE:HD11	1.28	1.08
1:G:85:GLY:HA2	1:G:86:ILE:HB	1.25	1.08
1:I:364:GLN:OE1	1:I:364:GLN:HA	1.49	1.08
1:J:15:GLU:HG2	1:J:16:PRO:HD2	1.09	1.08
1:J:324:ARG:HG2	1:J:324:ARG:HH11	1.12	1.08
1:J:498:VAL:CA	1:J:499:SER:HB2	1.84	1.08
1:H:335:ASN:ND2	1:H:336:VAL:N	2.02	1.07
1:I:471:VAL:HG21	1:J:5:ALA:HB3	1.28	1.07
1:L:89:ASN:HB3	1:L:192:ASN:HD21	1.16	1.07
2:N:255:THR:HG22	2:N:257:SER:HB2	1.35	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:357:LEU:HD12	1:B:358:ASN:N	1.69	1.07
1:B:410:ILE:HD12	1:B:410:ILE:H	0.98	1.07
1:G:85:GLY:HA3	1:G:86:ILE:HG22	1.27	1.07
1:J:57:PRO:HB3	1:L:363:ASN:OD1	1.54	1.07
1:L:198:ARG:HG2	1:L:198:ARG:HH11	1.02	1.07
1:D:110:LEU:HD11	1:D:209:LEU:CD2	1.84	1.07
1:I:374:GLN:HA	1:I:374:GLN:HE21	1.04	1.07
1:M:386:ASN:ND2	1:M:387:LYS:HD3	1.68	1.07
2:N:353:ILE:HD11	2:N:357:ARG:O	1.51	1.07
1:D:61:THR:HG23	1:D:275:THR:HG23	1.12	1.07
1:D:260:MET:HG2	1:D:262:ILE:HD11	1.33	1.07
1:D:380:SER:OG	1:D:383:ASN:HB2	1.54	1.07
1:I:325:LYS:NZ	1:I:327:TYR:HE2	1.51	1.07
1:I:377:TYR:HE2	1:I:381:VAL:HG23	1.04	1.07
1:I:490:LEU:HD23	1:I:491:ASN:N	1.70	1.07
1:K:59:ALA:HB1	1:K:60:GLN:NE2	1.68	1.07
2:N:255:THR:HG23	2:N:257:SER:CA	1.83	1.07
1:G:1:MET:HB3	1:G:2:SER:HB2	1.35	1.07
1:L:34:GLN:HG3	1:L:34:GLN:O	1.52	1.07
1:L:265:GLN:HE21	1:L:265:GLN:N	1.53	1.07
1:C:99:ARG:HG2	1:C:99:ARG:HH11	1.13	1.06
1:D:257:ILE:HD12	1:D:257:ILE:N	1.58	1.06
1:I:350:VAL:HB	1:I:413:GLU:HB2	1.34	1.06
1:A:117:PHE:O	1:A:117:PHE:HD1	1.39	1.06
1:A:135:THR:HG22	1:A:139:VAL:HG11	1.33	1.06
1:D:110:LEU:HD11	1:D:209:LEU:HD23	1.37	1.06
1:K:436:ILE:HG22	1:K:482:GLY:HA3	1.32	1.06
1:A:481:ILE:CG2	1:F:365:GLN:CB	2.34	1.06
1:B:166:ASN:OD1	1:B:167:PRO:HD2	1.53	1.06
1:D:436:ILE:CG1	1:D:437:GLY:HA2	1.86	1.06
1:K:60:GLN:O	1:K:276:PRO:HD2	1.54	1.06
1:M:102:PRO:HB2	1:M:241:ILE:HD11	1.27	1.06
1:C:313:LYS:HZ2	1:C:313:LYS:HB3	1.17	1.06
1:D:252:SER:CB	1:D:253:GLY:HA2	1.81	1.06
1:E:173:SER:HA	1:F:164:ASN:OD1	1.55	1.06
1:C:426:GLY:HA3	1:D:33:GLN:O	1.56	1.06
1:E:45:PHE:CD2	1:E:266:GLN:HA	1.90	1.06
1:E:140:LYS:CD	1:E:179:GLU:OE2	2.03	1.06
1:E:303:THR:HG21	1:E:457:THR:CG2	1.85	1.06
1:I:285:ARG:HB2	1:I:473:SER:OG	1.53	1.06
1:J:330:VAL:HG22	1:J:459:ASP:O	1.54	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:156:ALA:HB1	2:N:157:PRO:HA	1.09	1.06
1:C:84:ALA:CB	1:C:86:ILE:CB	2.33	1.05
1:E:299:GLN:NE2	1:J:46:SER:HA	1.70	1.05
1:E:300:PHE:CZ	1:E:313:LYS:O	2.09	1.05
1:G:89:ASN:HB3	1:G:192:ASN:HD21	1.14	1.05
1:I:1:MET:CG	1:I:10:VAL:HB	1.86	1.05
1:L:83:HIS:CB	1:L:84:ALA:CA	2.30	1.05
1:G:39:PRO:HB3	1:G:270:TYR:CE1	1.91	1.05
1:G:376:LEU:HA	1:G:379:PHE:CD2	1.92	1.05
1:H:340:ASN:O	1:H:344:GLN:HG2	1.53	1.05
1:I:314:SER:O	1:I:315:ASN:HB2	1.55	1.05
1:K:1:MET:SD	1:L:26:TRP:CG	2.49	1.05
1:B:89:ASN:OD1	1:D:401:GLY:CA	2.04	1.05
1:C:244:HIS:HB3	1:C:345:ILE:HD11	1.34	1.05
1:D:357:LEU:CD1	1:D:358:ASN:N	2.20	1.05
1:G:194:THR:O	1:G:195:THR:HG23	1.56	1.05
1:J:85:GLY:HA2	1:J:86:ILE:HB	1.11	1.05
1:J:87:THR:HG22	1:J:88:GLU:HG3	1.12	1.05
2:N:179:GLN:HA	2:N:180:ALA:HB3	1.37	1.05
1:B:228:LEU:HD11	1:B:230:PHE:CE2	1.89	1.05
1:M:437:GLY:C	1:M:439:PHE:CE2	2.30	1.05
1:D:262:ILE:HD13	1:D:262:ILE:N	1.56	1.05
1:D:264:PHE:C	1:D:265:GLN:NE2	2.11	1.05
1:F:507:TYR:HD1	1:F:508:GLY:HA3	1.04	1.05
1:L:341:LEU:HD12	1:L:341:LEU:O	1.57	1.04
1:M:249:ASN:HB2	1:M:255:SER:HA	1.36	1.04
2:N:85:TYR:O	2:N:100:PHE:HA	1.55	1.04
2:N:109:SER:CB	2:N:110:PRO:HA	1.85	1.04
1:D:339:GLN:HB2	2:N:28:ASP:H	1.13	1.04
1:G:87:THR:O	1:G:88:GLU:HG2	1.57	1.04
1:M:140:LYS:CD	1:M:179:GLU:OE2	2.04	1.04
1:A:85:GLY:HA2	1:A:86:ILE:HB	1.36	1.04
1:D:171:PHE:C	1:D:171:PHE:HD1	1.58	1.04
1:C:86:ILE:HG23	1:C:86:ILE:O	1.57	1.04
1:D:324:ARG:HG2	1:D:324:ARG:HH11	1.18	1.04
1:J:15:GLU:CG	1:J:16:PRO:HD2	1.86	1.04
1:J:132:ARG:HG3	1:J:132:ARG:HH21	1.22	1.04
2:N:27:ASN:HB2	2:N:29:GLN:O	1.58	1.04
1:H:238:LEU:HD21	1:H:262:ILE:CG1	1.87	1.04
1:M:386:ASN:O	1:M:387:LYS:HD3	1.58	1.04
2:N:45:VAL:H	2:N:332:ILE:HD11	1.15	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:253:GLY:HA2	1:A:254:ASN:HB3	1.40	1.03
1:C:313:LYS:HZ3	1:C:313:LYS:CA	1.69	1.03
1:D:323:PRO:HG2	1:D:421:LEU:HD13	1.35	1.03
1:D:405:GLN:HA	1:D:405:GLN:HE21	1.01	1.03
1:H:427:LEU:HB3	1:H:431:GLU:HG3	1.37	1.03
1:L:83:HIS:HB3	1:L:84:ALA:HA	1.09	1.03
1:G:194:THR:C	1:G:195:THR:HG23	1.74	1.03
2:N:348:GLN:HA	2:N:348:GLN:NE2	1.68	1.03
2:N:357:ARG:HH11	2:N:357:ARG:HG2	1.23	1.03
1:D:505:ARG:HG2	1:D:505:ARG:HH11	1.17	1.03
1:F:364:GLN:HG3	1:F:367:ILE:HD12	1.37	1.03
1:I:336:VAL:HG22	1:I:337:ILE:H	1.17	1.03
1:J:498:VAL:HG23	1:J:499:SER:HB2	1.04	1.03
1:M:507:TYR:HD1	1:M:507:TYR:C	1.59	1.03
2:N:252:GLU:C	2:N:254:PRO:HD2	1.77	1.03
2:N:333:TYR:CB	2:N:334:MET:SD	2.47	1.03
1:I:491:ASN:C	1:I:491:ASN:HD22	1.60	1.03
1:J:134:HIS:O	1:J:135:THR:HG23	1.59	1.03
2:N:256:LEU:CA	2:N:257:SER:CB	2.30	1.03
1:B:228:LEU:CD1	1:B:230:PHE:HE2	1.67	1.03
1:B:337:ILE:HD13	1:B:337:ILE:C	1.78	1.03
1:B:438:ASN:OD1	1:G:318:GLN:NE2	1.90	1.03
1:E:235:ASN:ND2	1:J:108:ASN:ND2	2.06	1.03
1:H:365:GLN:HE21	1:L:370:GLY:HA3	1.23	1.03
1:I:190:VAL:CG2	1:I:198:ARG:O	2.07	1.03
2:N:109:SER:CB	2:N:110:PRO:CA	2.34	1.03
1:B:194:THR:O	1:B:195:THR:HG22	1.57	1.02
1:C:483:VAL:N	1:C:484:ALA:HB3	1.72	1.02
1:D:110:LEU:HD12	1:D:123:LEU:HD11	1.41	1.02
1:I:194:THR:O	1:I:195:THR:HG23	1.56	1.02
1:I:262:ILE:HG22	1:I:263:SER:H	1.20	1.02
1:K:158:ARG:HH11	1:K:158:ARG:HB2	1.18	1.02
1:M:365:GLN:HE21	1:M:365:GLN:C	1.62	1.02
2:N:235:ASP:HB3	2:N:236:PRO:HA	1.38	1.02
1:B:186:THR:CA	1:D:397:GLN:OE1	2.06	1.02
1:B:332:GLN:HB2	1:B:456:VAL:CG2	1.88	1.02
1:D:187:MET:SD	1:D:187:MET:N	2.30	1.02
1:G:2:SER:OG	1:G:3:ASN:N	1.87	1.02
1:I:140:LYS:CG	1:I:179:GLU:OE2	2.07	1.02
1:I:191:THR:HG23	1:I:192:ASN:N	1.66	1.02
1:J:341:LEU:HA	1:J:344:GLN:NE2	1.72	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:490:LEU:HD23	1:I:490:LEU:C	1.78	1.02
1:B:190:VAL:HG21	1:B:198:ARG:HB3	1.02	1.02
1:D:507:TYR:CD2	1:D:508:GLY:C	2.32	1.02
1:F:212:PHE:N	1:F:212:PHE:HD2	1.58	1.02
1:F:322:ILE:H	1:F:322:ILE:HD13	0.88	1.02
2:N:271:LEU:HG	2:N:336:ASP:OD1	1.60	1.02
1:B:26:TRP:HB3	1:C:1:MET:CE	1.90	1.02
1:B:313:LYS:HZ1	1:B:444:GLN:NE2	1.56	1.02
1:C:362:ASN:HD22	1:C:362:ASN:H	1.04	1.02
1:D:343:ASN:O	1:D:347:THR:CG2	2.08	1.02
1:I:377:TYR:CE2	1:I:381:VAL:HG23	1.93	1.02
1:L:229:THR:O	1:L:230:PHE:CD2	2.11	1.02
1:B:396:THR:H	1:B:410:ILE:CD1	1.73	1.01
1:E:303:THR:CG2	1:E:457:THR:CA	2.31	1.01
1:F:106:ILE:HD12	1:F:241:ILE:HG12	1.41	1.01
1:G:374:GLN:HE21	1:G:375:ASN:HA	1.21	1.01
1:M:195:THR:HG23	1:M:196:THR:HG22	1.03	1.01
1:M:507:TYR:CD1	1:M:508:GLY:N	2.28	1.01
1:B:6:ILE:CD1	1:C:285:ARG:HD2	1.90	1.01
1:B:132:ARG:NH2	1:B:413:GLU:OE2	1.94	1.01
1:I:1:MET:CE	1:J:26:TRP:HB3	1.90	1.01
1:K:1:MET:HE1	1:L:26:TRP:HB3	1.09	1.01
1:B:462:ILE:O	1:B:462:ILE:HG22	1.56	1.01
1:H:238:LEU:CD2	1:H:262:ILE:CG1	2.36	1.01
1:H:365:GLN:NE2	1:L:370:GLY:HA3	1.76	1.01
1:I:341:LEU:HD13	1:I:341:LEU:C	1.80	1.01
2:N:186:THR:HG23	2:N:226:ARG:HB2	1.39	1.01
1:J:85:GLY:CA	1:J:86:ILE:CB	2.39	1.01
1:K:85:GLY:CA	1:K:86:ILE:CB	2.30	1.01
1:L:357:LEU:CD1	1:L:357:LEU:C	2.30	1.01
2:N:173:LYS:HD3	2:N:254:PRO:HG2	1.38	1.01
1:A:490:LEU:HD22	1:A:491:ASN:HD22	1.22	1.00
1:M:195:THR:CG2	1:M:196:THR:HG22	1.90	1.00
2:N:109:SER:HB2	2:N:110:PRO:C	1.82	1.00
1:B:190:VAL:CG2	1:B:198:ARG:CB	2.38	1.00
1:D:261:ASN:C	1:D:262:ILE:CD1	2.30	1.00
1:F:322:ILE:HD13	1:F:322:ILE:N	1.73	1.00
1:G:376:LEU:H	1:G:376:LEU:CD1	1.74	1.00
1:I:326:LEU:CD1	1:I:421:LEU:CD1	2.36	1.00
1:K:80:ASN:HB3	1:K:258:GLY:HA2	1.43	1.00
2:N:334:MET:SD	2:N:334:MET:N	2.30	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:110:LEU:C	1:A:110:LEU:CD1	2.30	1.00
1:C:84:ALA:HB2	1:C:86:ILE:CB	1.90	1.00
1:C:328:LEU:HD23	1:C:328:LEU:N	1.75	1.00
1:E:45:PHE:HD2	1:E:266:GLN:HA	1.24	1.00
1:E:304:LEU:H	1:E:304:LEU:HD22	1.27	1.00
1:I:493:ARG:HG3	1:I:493:ARG:NH1	1.61	1.00
1:M:140:LYS:HD2	1:M:179:GLU:CG	1.91	1.00
1:E:438:ASN:ND2	1:L:318:GLN:HE21	1.57	1.00
1:H:487:GLU:HG3	1:H:488:GLU:N	1.74	1.00
1:I:441:LEU:C	1:I:441:LEU:CD1	2.29	1.00
1:K:265:GLN:HE21	1:K:265:GLN:HA	1.22	1.00
1:H:394:GLY:O	1:H:412:LEU:CD1	2.08	1.00
1:I:85:GLY:C	1:I:86:ILE:CD1	2.30	1.00
1:I:85:GLY:HA3	1:I:86:ILE:HG23	1.41	1.00
1:I:490:LEU:C	1:I:490:LEU:CD2	2.30	1.00
1:C:374:GLN:NE2	1:C:378:ASP:OD1	1.94	1.00
1:E:303:THR:CG2	1:E:457:THR:CG2	2.39	1.00
1:G:208:PHE:O	1:G:209:LEU:HB3	1.56	1.00
1:I:55:ASN:HB2	1:I:56:PRO:HD2	1.41	1.00
1:J:85:GLY:CA	1:J:86:ILE:HG22	1.91	1.00
1:J:351:PHE:N	1:J:351:PHE:HD1	1.60	1.00
1:B:150:PHE:HE1	1:B:179:GLU:OE2	1.44	0.99
1:E:1:MET:HG3	1:E:10:VAL:HB	1.43	0.99
1:E:45:PHE:C	1:E:45:PHE:CD1	2.30	0.99
1:G:376:LEU:HA	1:G:379:PHE:CE2	1.95	0.99
1:I:189:VAL:O	1:I:189:VAL:HG12	1.59	0.99
1:J:108:ASN:HB2	1:J:235:ASN:HD22	0.83	0.99
1:L:250:ASP:OD2	1:L:251:VAL:N	1.95	0.99
1:B:6:ILE:HD11	1:C:285:ARG:CD	1.92	0.99
1:B:19:GLU:HB2	1:B:20:LEU:HA	1.42	0.99
1:C:65:ARG:HB3	1:C:213:LEU:HD23	1.43	0.99
2:N:348:GLN:HE21	2:N:348:GLN:CA	1.75	0.99
1:B:396:THR:N	1:B:410:ILE:HD11	1.75	0.99
1:C:316:VAL:HG22	1:C:442:GLN:OE1	1.59	0.99
1:F:208:PHE:O	1:F:209:LEU:HD12	1.61	0.99
1:H:351:PHE:CD2	1:H:416:ILE:HG22	1.97	0.99
1:J:85:GLY:CA	1:J:86:ILE:HB	1.92	0.99
2:N:24:PHE:CE2	2:N:355:PRO:HA	1.97	0.99
1:B:333:SER:HB2	1:B:336:VAL:HG22	1.41	0.99
1:E:182:ARG:HG3	1:E:182:ARG:HH11	1.25	0.99
1:H:311:THR:C	1:H:312:PHE:CD2	2.35	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:253:GLY:CA	1:A:254:ASN:CG	2.30	0.99
1:I:83:HIS:CD2	1:I:256:THR:HG22	1.97	0.99
1:B:337:ILE:HD13	1:B:338:TYR:CA	1.93	0.99
1:D:343:ASN:HD22	1:D:343:ASN:C	1.60	0.99
2:N:370:LEU:C	2:N:370:LEU:CD1	2.30	0.99
1:C:84:ALA:HB2	1:C:86:ILE:HB	1.00	0.99
1:C:327:TYR:C	1:C:328:LEU:CD2	2.30	0.99
1:H:428:ARG:HG3	1:H:431:GLU:OE1	1.63	0.99
1:C:412:LEU:C	1:C:412:LEU:CD1	2.31	0.99
1:C:412:LEU:HD12	1:C:413:GLU:N	1.76	0.99
1:D:343:ASN:HD22	1:D:344:GLN:H	0.99	0.99
1:H:313:LYS:HB2	1:H:313:LYS:HZ2	1.17	0.99
1:J:213:LEU:O	1:J:213:LEU:HD12	1.62	0.99
1:C:490:LEU:HD12	1:C:490:LEU:C	1.81	0.99
1:I:108:ASN:OD1	1:I:235:ASN:HB2	1.62	0.99
1:J:299:GLN:HE21	1:J:335:ASN:ND2	1.60	0.99
2:N:36:PHE:CZ	2:N:335:VAL:HG13	1.94	0.99
1:E:341:LEU:HD23	1:E:342:ASN:H	0.87	0.99
1:F:364:GLN:HG3	1:F:367:ILE:CD1	1.90	0.99
1:B:333:SER:O	1:B:337:ILE:HG22	1.62	0.98
1:C:386:ASN:C	1:C:386:ASN:HD22	1.65	0.98
1:E:45:PHE:HE2	1:E:266:GLN:N	1.60	0.98
1:H:238:LEU:HD23	1:H:238:LEU:O	1.62	0.98
1:M:332:GLN:HE22	1:M:336:VAL:HG11	1.28	0.98
2:N:255:THR:HG22	2:N:257:SER:CB	1.83	0.98
1:A:53:ILE:HD11	1:E:41:PRO:HB2	1.40	0.98
1:B:396:THR:O	1:B:410:ILE:HD11	1.55	0.98
1:B:505:ARG:HG2	1:B:505:ARG:HH11	1.28	0.98
1:C:438:ASN:N	1:C:438:ASN:HD22	1.60	0.98
1:G:264:PHE:O	1:G:265:GLN:NE2	1.96	0.98
1:I:377:TYR:CE2	1:I:381:VAL:CG2	2.46	0.98
2:N:184:ASP:OD1	2:N:226:ARG:CB	2.11	0.98
1:D:257:ILE:HD12	1:D:257:ILE:H	1.15	0.98
1:B:208:PHE:HE1	1:B:214:TRP:CG	1.81	0.98
1:J:1:MET:HG3	1:J:10:VAL:HG22	1.44	0.98
1:J:57:PRO:CB	1:L:363:ASN:OD1	2.10	0.98
1:B:89:ASN:ND2	1:D:402:VAL:C	2.17	0.98
1:H:340:ASN:C	1:H:344:GLN:HE21	1.65	0.98
1:J:341:LEU:HD13	1:J:342:ASN:CA	1.93	0.98
1:L:35:VAL:HG22	1:L:274:VAL:CG2	1.91	0.98
2:N:226:ARG:HG3	2:N:228:LEU:HD12	1.45	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:153:ASN:O	1:C:412:LEU:CD1	2.10	0.98
1:B:305:ALA:CB	1:B:455:THR:HB	1.92	0.98
1:B:332:GLN:NE2	1:B:456:VAL:HG23	1.78	0.98
1:L:357:LEU:C	1:L:357:LEU:HD12	1.84	0.98
1:M:437:GLY:CA	1:M:439:PHE:HE2	1.77	0.98
1:I:490:LEU:CD2	1:I:491:ASN:HB3	1.92	0.98
2:N:322:ARG:CB	2:N:322:ARG:HH11	1.77	0.98
1:A:253:GLY:CA	1:A:254:ASN:CB	2.41	0.98
1:D:255:SER:HB2	1:D:257:ILE:HD11	1.42	0.98
1:E:235:ASN:HD22	1:J:108:ASN:ND2	1.62	0.98
1:E:433:GLU:HA	1:E:433:GLU:OE2	1.63	0.98
1:F:324:ARG:HB2	1:F:467:ASP:OD1	1.62	0.98
1:G:209:LEU:HD23	1:G:209:LEU:C	1.78	0.98
1:J:65:ARG:HG3	1:J:65:ARG:HH11	1.25	0.98
1:B:333:SER:HB2	1:B:336:VAL:HG21	1.44	0.97
1:M:367:ILE:HD12	1:M:367:ILE:H	1.27	0.97
1:B:423:LYS:HA	1:D:15:GLU:OE2	1.64	0.97
1:D:85:GLY:HA2	1:D:86:ILE:HB	1.46	0.97
1:H:486:LYS:HB2	1:H:486:LYS:HZ2	1.11	0.97
1:M:88:GLU:O	1:M:194:THR:CG2	2.12	0.97
1:A:481:ILE:CG2	1:F:365:GLN:HG3	1.92	0.97
1:M:155:GLN:HG2	1:M:412:LEU:O	1.62	0.97
2:N:91:TYR:CZ	2:N:157:PRO:HD3	2.00	0.97
1:B:35:VAL:HG23	1:B:274:VAL:HG22	1.44	0.97
1:E:340:ASN:O	1:E:344:GLN:CG	2.12	0.97
1:G:324:ARG:HG2	1:G:324:ARG:HH11	1.26	0.97
1:H:293:LEU:HD23	1:H:293:LEU:H	1.29	0.97
1:M:252:SER:H	1:M:253:GLY:HA2	1.29	0.97
1:A:341:LEU:HD13	1:A:342:ASN:H	1.20	0.97
1:B:461:TYR:C	1:B:462:ILE:HD12	1.84	0.97
1:D:171:PHE:C	1:D:171:PHE:CD1	2.30	0.97
1:D:250:ASP:C	1:D:251:VAL:CG1	2.25	0.97
1:E:86:ILE:HD11	1:E:194:THR:OG1	1.60	0.97
1:K:247:ILE:C	1:K:247:ILE:CD1	2.30	0.97
1:B:110:LEU:C	1:B:110:LEU:CD1	2.30	0.97
1:C:237:ASN:HD22	1:C:344:GLN:NE2	1.61	0.97
1:M:59:ALA:O	1:M:60:GLN:CG	2.11	0.97
1:M:365:GLN:HE21	1:M:366:GLY:N	1.60	0.97
2:N:171:THR:HB	2:N:173:LYS:N	1.79	0.97
1:B:247:ILE:C	1:B:247:ILE:CD1	2.30	0.97
1:C:313:LYS:HZ3	1:C:313:LYS:HA	1.25	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:394:GLY:O	1:H:412:LEU:HD11	1.65	0.97
1:I:132:ARG:HG3	1:I:132:ARG:HH11	1.30	0.97
1:L:253:GLY:N	1:L:254:ASN:HA	1.75	0.97
1:I:325:LYS:NZ	1:I:327:TYR:CE2	2.32	0.97
1:J:140:LYS:HE2	1:J:179:GLU:OE2	1.64	0.97
1:B:363:ASN:HB3	1:B:364:GLN:HE22	0.98	0.97
1:G:79:ALA:HB2	1:G:195:THR:HA	1.45	0.97
1:D:436:ILE:HG13	1:D:437:GLY:HA2	1.46	0.96
1:I:341:LEU:C	1:I:341:LEU:CD1	2.30	0.96
1:J:33:GLN:O	1:J:34:GLN:HB2	1.61	0.96
1:A:110:LEU:HD12	1:A:111:ASN:N	1.80	0.96
1:A:254:ASN:HD22	1:A:254:ASN:C	1.66	0.96
1:A:254:ASN:ND2	1:A:255:SER:N	2.12	0.96
1:A:115:ASN:N	1:A:116:GLY:HA2	1.75	0.96
1:C:172:THR:O	1:C:173:SER:HB3	1.63	0.96
1:F:212:PHE:N	1:F:212:PHE:CD2	2.30	0.96
1:G:41:PRO:O	1:L:44:SER:HA	1.65	0.96
1:H:1:MET:CG	1:H:10:VAL:HB	1.95	0.96
1:H:428:ARG:C	1:H:428:ARG:CD	2.30	0.96
1:K:332:GLN:HG2	1:K:456:VAL:HG23	1.46	0.96
2:N:227:PHE:HA	2:N:228:LEU:CB	1.91	0.96
1:E:313:LYS:HE2	1:E:442:GLN:NE2	1.80	0.96
1:G:301:GLN:H	1:G:301:GLN:CD	1.68	0.96
1:H:351:PHE:HE2	1:H:416:ILE:HG21	1.26	0.96
1:K:136:PRO:HD2	1:K:139:VAL:HB	1.42	0.96
1:D:391:GLU:OE1	1:D:413:GLU:HB2	1.63	0.96
1:M:295:ARG:CG	1:M:295:ARG:HH11	1.78	0.96
1:B:305:ALA:HB3	1:B:455:THR:HB	1.47	0.96
1:M:265:GLN:O	1:M:267:PRO:HD3	1.66	0.96
2:N:333:TYR:CA	2:N:334:MET:SD	2.53	0.96
1:G:213:LEU:HA	1:G:214:TRP:HB2	0.97	0.96
1:K:409:VAL:HB	1:K:452:GLN:OE1	1.64	0.96
1:G:213:LEU:HA	1:G:214:TRP:CB	1.94	0.96
1:H:133:TYR:OH	1:H:418:CYS:HB3	1.64	0.96
1:I:351:PHE:CD1	1:I:351:PHE:N	2.30	0.96
1:M:301:GLN:N	1:M:301:GLN:HE21	1.60	0.96
1:C:429:ASP:O	1:C:430:ASP:HB3	1.60	0.96
1:G:99:ARG:HH11	1:G:99:ARG:HB2	1.30	0.96
1:I:88:GLU:HB3	1:J:403:SER:HB3	1.47	0.96
1:F:1:MET:HE1	1:G:26:TRP:HB3	1.45	0.96
1:G:318:GLN:HA	1:G:440:ASN:HB3	1.46	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:158:ARG:HB3	1:H:246:ASP:HB2	1.48	0.96
1:M:132:ARG:HH11	1:M:132:ARG:HG2	1.26	0.96
1:B:166:ASN:CG	1:B:167:PRO:CD	2.33	0.95
1:C:121:ILE:HD11	1:C:293:LEU:HB2	1.48	0.95
1:J:15:GLU:HG2	1:J:16:PRO:CD	1.96	0.95
1:L:426:GLY:O	1:L:427:LEU:HD13	1.66	0.95
1:B:212:PHE:HD1	1:B:212:PHE:N	1.62	0.95
1:M:439:PHE:N	1:M:439:PHE:HD2	1.63	0.95
1:B:108:ASN:C	1:B:108:ASN:HD22	1.69	0.95
1:D:507:TYR:CE2	1:D:508:GLY:C	2.40	0.95
1:H:350:VAL:C	1:H:351:PHE:HD1	1.69	0.95
1:B:209:LEU:CD2	1:B:210:PRO:N	2.30	0.95
1:C:494:ILE:CD1	1:C:495:THR:N	2.29	0.95
1:D:75:ILE:CG1	1:D:262:ILE:HG23	1.96	0.95
1:G:85:GLY:HA2	1:G:86:ILE:CB	1.97	0.95
1:J:498:VAL:CB	1:J:499:SER:CB	2.45	0.95
2:N:235:ASP:HB2	2:N:236:PRO:HA	1.47	0.95
1:A:108:ASN:HD22	1:A:108:ASN:C	1.70	0.95
1:D:351:PHE:CD1	1:D:351:PHE:N	2.30	0.95
1:L:83:HIS:HB3	1:L:84:ALA:HB2	1.45	0.95
1:B:110:LEU:CD1	1:B:111:ASN:N	2.29	0.95
1:F:324:ARG:HG2	1:F:324:ARG:HH11	1.28	0.95
1:H:206:GLN:HG3	1:H:208:PHE:HE2	1.30	0.95
1:C:494:ILE:CD1	1:C:494:ILE:C	2.30	0.95
1:D:372:SER:O	1:D:375:ASN:N	1.99	0.95
1:I:439:PHE:H	1:I:439:PHE:HD2	1.15	0.95
1:L:1:MET:SD	1:M:26:TRP:CG	2.60	0.95
1:A:332:GLN:HE21	1:A:456:VAL:HG23	1.31	0.95
1:C:313:LYS:CA	1:C:313:LYS:NZ	2.30	0.95
1:C:377:TYR:CD2	1:C:381:VAL:HG12	2.01	0.95
1:E:341:LEU:CD2	1:E:342:ASN:N	2.30	0.95
1:G:208:PHE:CE1	1:G:214:TRP:NE1	2.35	0.95
1:H:17:ARG:HG2	1:H:17:ARG:HH11	1.28	0.95
1:K:483:VAL:CG1	1:L:4:SER:HB3	1.96	0.95
2:N:85:TYR:HA	2:N:196:ASN:ND2	1.81	0.95
1:A:106:ILE:HD11	1:A:238:LEU:HA	1.48	0.95
1:B:26:TRP:HB3	1:C:1:MET:HE1	1.46	0.95
1:I:194:THR:C	1:I:195:THR:HG23	1.85	0.95
1:M:324:ARG:HG2	1:M:324:ARG:NH1	1.78	0.95
1:M:386:ASN:ND2	1:M:387:LYS:CE	2.30	0.95
2:N:156:ALA:HB1	2:N:157:PRO:CA	1.97	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:110:LEU:CD1	1:A:111:ASN:N	2.30	0.95
1:B:87:THR:HB	1:B:88:GLU:OE1	1.66	0.95
1:G:1:MET:N	1:G:2:SER:CB	2.30	0.95
1:J:100:ALA:HB2	1:J:182:ARG:HD3	1.48	0.95
1:M:209:LEU:C	1:M:209:LEU:CD1	2.30	0.95
2:N:357:ARG:HH11	2:N:357:ARG:CB	1.79	0.95
2:N:370:LEU:CD1	2:N:371:SER:N	2.30	0.95
1:B:313:LYS:NZ	1:B:444:GLN:NE2	2.15	0.94
1:C:483:VAL:N	1:C:484:ALA:CB	2.29	0.94
1:D:340:ASN:HB2	2:N:28:ASP:OD1	1.66	0.94
1:E:99:ARG:HG2	1:E:99:ARG:NH1	1.77	0.94
1:H:313:LYS:HB2	1:H:313:LYS:HZ3	1.18	0.94
1:J:57:PRO:HB3	1:L:363:ASN:ND2	1.82	0.94
1:K:59:ALA:CB	1:K:60:GLN:NE2	2.30	0.94
1:L:99:ARG:HD3	1:L:243:SER:HB3	1.49	0.94
1:M:429:ASP:OD2	1:M:430:ASP:N	1.99	0.94
2:N:99:ASN:HD21	2:N:150:ALA:HB2	1.31	0.94
2:N:227:PHE:CA	2:N:228:LEU:HB2	1.97	0.94
1:D:260:MET:C	1:D:261:ASN:ND2	2.21	0.94
1:D:262:ILE:N	1:D:262:ILE:CD1	2.30	0.94
1:H:312:PHE:HD2	1:H:312:PHE:N	1.63	0.94
1:H:351:PHE:CE2	1:H:416:ILE:CG2	2.50	0.94
1:I:357:LEU:HD13	1:I:357:LEU:O	1.67	0.94
1:I:441:LEU:CD1	1:I:442:GLN:N	2.30	0.94
1:M:108:ASN:HD22	1:M:109:THR:HG22	1.31	0.94
1:A:253:GLY:HA3	1:A:254:ASN:OD1	1.66	0.94
1:H:428:ARG:O	1:H:431:GLU:HG2	1.65	0.94
1:K:209:LEU:HD12	1:K:210:PRO:O	1.67	0.94
2:N:256:LEU:N	2:N:257:SER:CB	2.31	0.94
1:B:89:ASN:HD21	1:D:402:VAL:CA	1.79	0.94
1:B:363:ASN:CB	1:B:364:GLN:NE2	2.30	0.94
1:C:412:LEU:CD1	1:C:413:GLU:N	2.30	0.94
1:C:482:GLY:C	1:C:484:ALA:CB	2.36	0.94
1:D:6:ILE:H	1:D:6:ILE:HD13	0.78	0.94
1:D:503:LEU:HD23	1:D:503:LEU:H	1.21	0.94
1:M:386:ASN:ND2	1:M:387:LYS:CD	2.30	0.94
2:N:357:ARG:CB	2:N:357:ARG:NH1	2.30	0.94
1:A:341:LEU:CD1	1:A:342:ASN:N	2.30	0.94
1:B:337:ILE:CD1	1:B:338:TYR:N	2.30	0.94
1:H:324:ARG:HG2	1:H:324:ARG:HH11	1.30	0.94
1:I:191:THR:CG2	1:I:192:ASN:N	2.30	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:364:GLN:HE21	1:J:367:ILE:CD1	1.80	0.94
1:B:396:THR:HB	1:B:410:ILE:HG12	0.96	0.94
1:G:254:ASN:N	1:G:254:ASN:HD22	1.66	0.94
1:I:108:ASN:OD1	1:I:235:ASN:CB	2.16	0.94
1:K:1:MET:HE1	1:L:26:TRP:CB	1.97	0.94
1:K:238:LEU:HD12	1:K:238:LEU:C	1.86	0.94
1:K:247:ILE:CD1	1:K:248:THR:N	2.30	0.94
2:N:271:LEU:HD12	2:N:334:MET:HG2	1.50	0.94
1:A:108:ASN:ND2	1:A:109:THR:CG2	2.30	0.94
1:B:357:LEU:C	1:B:357:LEU:CD1	2.30	0.94
1:C:80:ASN:HB3	1:C:258:GLY:O	1.68	0.94
1:C:84:ALA:HB1	1:C:86:ILE:HB	1.49	0.94
1:D:257:ILE:N	1:D:257:ILE:CD1	2.30	0.94
1:E:258:GLY:HA2	1:E:341:LEU:HD11	0.95	0.94
1:G:21:ASN:H	1:G:21:ASN:HD22	1.06	0.94
1:J:108:ASN:CB	1:J:235:ASN:HD22	1.68	0.94
1:K:1:MET:CE	1:L:26:TRP:CB	2.46	0.94
1:K:265:GLN:HE21	1:K:265:GLN:N	1.64	0.94
1:A:380:SER:HG	1:A:384:GLY:N	1.66	0.94
1:B:203:LEU:HD23	1:B:203:LEU:N	1.83	0.94
1:D:134:HIS:HE1	1:D:508:GLY:C	1.70	0.94
1:E:438:ASN:ND2	1:L:318:GLN:NE2	2.15	0.94
1:E:441:LEU:HD23	1:E:442:GLN:N	1.82	0.94
1:G:108:ASN:HB2	1:G:235:ASN:OD1	1.66	0.94
1:H:6:ILE:HD12	1:H:6:ILE:H	0.78	0.94
1:H:428:ARG:CD	1:H:429:ASP:N	2.29	0.94
1:B:357:LEU:CD1	1:B:358:ASN:N	2.30	0.94
1:D:250:ASP:C	1:D:251:VAL:HG12	1.86	0.94
1:H:238:LEU:HD21	1:H:262:ILE:HG13	0.97	0.94
1:H:350:VAL:HG12	1:H:413:GLU:HB2	1.47	0.94
1:M:295:ARG:HH11	1:M:295:ARG:HG2	1.31	0.94
1:E:301:GLN:HB2	1:E:302:ASN:HD22	1.31	0.94
1:G:254:ASN:HD22	1:G:254:ASN:H	1.16	0.94
1:M:158:ARG:HG2	1:M:158:ARG:HH11	1.32	0.94
2:N:20:ILE:CG2	2:N:36:PHE:CE1	2.51	0.94
1:A:117:PHE:CD1	1:A:117:PHE:C	2.36	0.93
1:D:341:LEU:CD2	1:D:342:ASN:N	2.30	0.93
1:F:212:PHE:HD2	1:F:212:PHE:H	1.08	0.93
1:L:15:GLU:HG3	1:L:16:PRO:HD2	1.49	0.93
1:K:59:ALA:CB	1:K:60:GLN:HE21	1.81	0.93
1:F:443:VAL:HG11	1:F:462:ILE:CD1	1.98	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:503:LEU:HA	1:F:506:ILE:CG2	1.99	0.93
1:G:265:GLN:O	1:G:267:PRO:HD3	1.67	0.93
1:H:136:PRO:HD2	1:H:139:VAL:HB	1.49	0.93
1:H:436:ILE:HG13	1:H:437:GLY:HA2	1.49	0.93
1:J:322:ILE:HG22	1:J:361:TRP:HZ2	1.25	0.93
2:N:156:ALA:CB	2:N:157:PRO:HA	1.99	0.93
2:N:255:THR:C	2:N:257:SER:CB	2.36	0.93
1:A:115:ASN:HD22	1:A:472:ILE:HG23	1.29	0.93
1:C:299:GLN:HE21	1:C:299:GLN:H	1.09	0.93
1:D:503:LEU:N	1:D:503:LEU:CD2	2.32	0.93
1:K:85:GLY:CA	1:K:86:ILE:CG2	2.46	0.93
1:M:1:MET:HG3	1:M:10:VAL:HB	1.48	0.93
1:M:209:LEU:CD1	1:M:210:PRO:N	2.30	0.93
1:G:1:MET:CA	1:G:2:SER:CB	2.44	0.93
1:G:65:ARG:HH11	1:G:65:ARG:HG3	1.32	0.93
1:H:293:LEU:N	1:H:293:LEU:CD2	2.30	0.93
1:M:332:GLN:HE22	1:M:336:VAL:CG1	1.81	0.93
1:A:108:ASN:HD21	1:A:109:THR:HG22	1.33	0.93
1:C:60:GLN:OE1	1:C:60:GLN:HA	1.67	0.93
1:D:405:GLN:HE21	1:D:405:GLN:CA	1.81	0.93
1:J:85:GLY:CA	1:J:86:ILE:CG2	2.46	0.93
1:K:224:ASN:H	1:K:224:ASN:HD22	1.07	0.93
1:B:324:ARG:HG2	1:B:324:ARG:NH1	1.77	0.93
1:G:85:GLY:CA	1:G:86:ILE:HG22	1.99	0.93
1:K:33:GLN:HG2	1:K:34:GLN:HG2	1.51	0.93
2:N:103:PHE:HE1	2:N:131:TYR:HD1	1.13	0.93
1:B:6:ILE:CD1	1:C:285:ARG:CD	2.47	0.93
1:D:427:LEU:CD1	1:D:431:GLU:OE1	2.16	0.93
1:M:211:PRO:O	1:M:212:PHE:CD2	2.21	0.93
1:A:1:MET:CG	1:A:10:VAL:HG13	1.98	0.93
1:B:314:SER:O	1:B:315:ASN:HB2	1.64	0.93
1:B:332:GLN:HB2	1:B:456:VAL:HG23	1.51	0.93
1:H:80:ASN:HB2	1:H:258:GLY:O	1.68	0.93
1:H:99:ARG:HH22	1:H:240:ARG:HE	1.15	0.93
1:K:437:GLY:C	1:K:439:PHE:CE2	2.41	0.93
1:C:217:GLU:C	1:C:218:GLN:HE21	1.72	0.93
1:D:342:ASN:HD22	1:D:342:ASN:C	1.71	0.93
1:F:507:TYR:HD1	1:F:508:GLY:CA	1.74	0.93
1:H:481:ILE:N	1:H:481:ILE:CD1	2.30	0.93
1:L:83:HIS:CB	1:L:84:ALA:CB	2.47	0.93
1:C:313:LYS:NZ	1:C:313:LYS:CB	2.30	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:505:ARG:HG2	1:D:505:ARG:NH1	1.80	0.92
1:G:192:ASN:C	1:G:192:ASN:HD22	1.71	0.92
1:C:313:LYS:HZ2	1:C:313:LYS:CB	1.83	0.92
1:E:1:MET:CG	1:E:10:VAL:HB	1.98	0.92
1:E:45:PHE:CE2	1:E:266:GLN:N	2.37	0.92
1:E:340:ASN:HD22	1:E:340:ASN:N	1.63	0.92
1:E:423:LYS:HE3	1:F:17:ARG:HD2	1.49	0.92
1:F:180:LEU:HD23	1:F:180:LEU:H	1.34	0.92
1:G:89:ASN:HB3	1:G:192:ASN:ND2	1.85	0.92
1:H:217:GLU:OE2	1:H:505:ARG:CD	2.16	0.92
2:N:272:LEU:H	2:N:272:LEU:HD12	1.33	0.92
1:B:39:PRO:HB3	1:B:270:TYR:CE1	2.04	0.92
1:J:393:ASN:HB3	1:J:394:GLY:HA2	1.51	0.92
1:K:73:TYR:HE2	1:K:199:ILE:CD1	1.82	0.92
1:A:117:PHE:HD1	1:A:117:PHE:C	1.70	0.92
1:C:362:ASN:HD22	1:C:362:ASN:N	1.64	0.92
1:J:108:ASN:CB	1:J:235:ASN:HD21	1.76	0.92
1:M:367:ILE:CG2	1:M:368:LEU:HD12	1.99	0.92
1:C:313:LYS:HE3	1:C:442:GLN:HE21	1.33	0.92
1:G:6:ILE:N	1:G:6:ILE:CD1	2.30	0.92
1:M:386:ASN:ND2	1:M:387:LYS:HE3	1.83	0.92
1:C:438:ASN:HD22	1:C:438:ASN:H	1.13	0.92
1:H:99:ARG:HH12	1:H:240:ARG:CZ	1.81	0.92
1:H:328:LEU:HD23	1:H:462:ILE:HD13	1.51	0.92
1:F:501:ASN:H	1:F:501:ASN:HD22	1.09	0.92
1:G:39:PRO:HD2	1:L:49:GLN:HE22	1.27	0.92
1:I:359:LEU:HB2	1:I:443:VAL:HG22	1.51	0.92
1:M:194:THR:O	1:M:195:THR:HG22	1.70	0.92
1:M:195:THR:HG23	1:M:196:THR:CG2	1.98	0.92
2:N:353:ILE:CD1	2:N:357:ARG:O	2.17	0.92
1:G:6:ILE:O	1:G:6:ILE:HD13	1.70	0.92
1:K:495:THR:CG2	1:L:11:VAL:HB	2.00	0.92
1:M:439:PHE:N	1:M:439:PHE:CD2	2.30	0.92
2:N:109:SER:HB2	2:N:110:PRO:HA	0.95	0.92
2:N:118:PRO:HB2	2:N:122:SER:O	1.67	0.92
1:G:340:ASN:HD21	1:G:342:ASN:HD22	1.12	0.92
1:K:436:ILE:O	1:K:436:ILE:HD13	1.68	0.92
1:B:484:ALA:HA	1:D:1:MET:N	1.86	0.91
1:E:339:GLN:HB2	1:E:340:ASN:ND2	1.85	0.91
1:J:299:GLN:NE2	1:J:335:ASN:ND2	2.17	0.91
1:M:85:GLY:HA2	1:M:86:ILE:HB	1.50	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:132:ARG:HH11	1:M:132:ARG:HG3	1.35	0.91
1:E:278:LEU:H	1:E:278:LEU:HD12	1.35	0.91
1:E:322:ILE:HD11	1:E:435:VAL:HG12	1.51	0.91
1:G:1:MET:CB	1:G:2:SER:HB3	1.95	0.91
1:G:89:ASN:CB	1:G:192:ASN:HD21	1.83	0.91
1:I:110:LEU:HD23	1:I:110:LEU:C	1.81	0.91
1:K:85:GLY:HA3	1:K:86:ILE:CG2	1.98	0.91
2:N:45:VAL:N	2:N:332:ILE:HD11	1.85	0.91
1:F:180:LEU:HD21	1:G:388:THR:HG21	1.50	0.91
1:G:378:ASP:O	1:G:381:VAL:HG13	1.71	0.91
1:H:486:LYS:NZ	1:H:486:LYS:CB	2.30	0.91
1:K:59:ALA:HB1	1:K:60:GLN:HE22	1.35	0.91
1:A:325:LYS:HZ1	1:A:327:TYR:HE2	1.19	0.91
1:B:164:ASN:HD22	1:C:173:SER:C	1.73	0.91
1:H:155:GLN:CG	1:H:451:ASN:HB3	2.00	0.91
1:I:87:THR:HB	1:I:88:GLU:HG2	1.52	0.91
2:N:107:LEU:H	2:N:107:LEU:HD12	1.36	0.91
2:N:179:GLN:HA	2:N:180:ALA:CB	2.00	0.91
1:G:359:LEU:O	1:G:367:ILE:CD1	2.19	0.91
1:L:218:GLN:NE2	1:M:382:GLN:OE1	2.03	0.91
1:H:351:PHE:HE2	1:H:416:ILE:CG2	1.82	0.91
1:J:84:ALA:CB	1:J:86:ILE:HG12	2.01	0.91
1:J:140:LYS:CE	1:J:179:GLU:OE2	2.19	0.91
1:L:198:ARG:HG2	1:L:198:ARG:NH1	1.82	0.91
1:M:237:ASN:ND2	1:M:238:LEU:H	1.67	0.91
1:B:410:ILE:CD1	1:B:410:ILE:H	1.83	0.91
1:C:3:ASN:HB2	1:D:483:VAL:O	1.71	0.91
1:D:75:ILE:HG13	1:D:262:ILE:HG23	1.53	0.91
1:G:1:MET:H3	1:G:2:SER:HB3	1.24	0.91
1:M:411:GLY:O	1:M:412:LEU:HD12	1.69	0.91
1:E:2:SER:O	1:E:3:ASN:HB3	1.70	0.91
1:E:401:GLY:CA	1:G:89:ASN:OD1	2.17	0.91
1:J:339:GLN:O	1:J:340:ASN:HB3	1.68	0.91
1:J:84:ALA:HB1	1:J:86:ILE:CG1	2.00	0.91
2:N:256:LEU:N	2:N:257:SER:HB2	1.86	0.91
1:C:153:ASN:O	1:C:412:LEU:HD13	1.70	0.91
1:C:377:TYR:HE2	1:C:381:VAL:HG12	1.22	0.91
1:C:478:MET:HA	1:C:478:MET:CE	2.00	0.91
1:H:351:PHE:CE2	1:H:416:ILE:HG22	2.06	0.91
1:H:313:LYS:HG3	1:H:444:GLN:CG	2.01	0.90
1:J:351:PHE:N	1:J:351:PHE:CD1	2.36	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:332:GLN:HG3	1:B:333:SER:OG	1.70	0.90
1:F:250:ASP:CB	1:F:251:VAL:HA	1.99	0.90
1:H:480:SER:C	1:H:481:ILE:CD1	2.39	0.90
1:J:88:GLU:O	1:J:194:THR:HB	1.70	0.90
1:J:140:LYS:CG	1:J:179:GLU:OE2	2.20	0.90
1:C:41:PRO:O	1:G:44:SER:HB2	1.71	0.90
1:F:1:MET:CE	1:G:26:TRP:HB3	2.00	0.90
1:I:110:LEU:CD2	1:I:110:LEU:C	2.30	0.90
1:K:100:ALA:HB2	1:K:182:ARG:HD3	1.52	0.90
1:L:249:ASN:HB2	1:L:254:ASN:O	1.72	0.90
2:N:171:THR:CB	2:N:173:LYS:N	2.33	0.90
1:D:341:LEU:HD23	1:D:342:ASN:H	1.34	0.90
1:K:471:VAL:HG21	1:L:5:ALA:HB2	1.53	0.90
1:M:507:TYR:CD1	1:M:507:TYR:C	2.35	0.90
2:N:173:LYS:HD2	2:N:251:GLN:O	1.71	0.90
2:N:197:VAL:HG11	2:N:220:ASP:OD2	1.71	0.90
1:H:480:SER:O	1:H:481:ILE:HD12	1.72	0.90
1:J:187:MET:SD	1:J:187:MET:O	2.30	0.90
1:B:21:ASN:H	1:B:21:ASN:HD22	1.18	0.90
1:K:41:PRO:HB2	1:K:266:GLN:NE2	1.87	0.90
2:N:45:VAL:N	2:N:332:ILE:CD1	2.34	0.90
1:A:132:ARG:HG2	1:A:132:ARG:HH11	1.36	0.90
1:B:89:ASN:OD1	1:D:402:VAL:N	2.04	0.90
1:B:337:ILE:HD11	1:B:338:TYR:HD2	1.34	0.90
1:D:187:MET:SD	1:D:187:MET:O	2.30	0.90
1:H:155:GLN:HG3	1:H:451:ASN:HB3	1.54	0.90
1:J:324:ARG:HG2	1:J:324:ARG:NH1	1.75	0.90
1:K:265:GLN:CA	1:K:265:GLN:NE2	2.31	0.90
1:L:83:HIS:CB	1:L:84:ALA:HB2	2.01	0.90
1:C:483:VAL:HG23	1:C:483:VAL:O	1.70	0.90
1:G:1:MET:HB3	1:G:2:SER:CA	2.01	0.90
1:D:405:GLN:NE2	1:D:405:GLN:CA	2.30	0.90
1:J:84:ALA:HB2	1:J:86:ILE:HG12	1.53	0.89
1:J:367:ILE:HD13	1:J:367:ILE:N	1.86	0.89
2:N:226:ARG:CG	2:N:228:LEU:CD1	2.50	0.89
1:A:332:GLN:HG2	1:A:456:VAL:CG2	2.02	0.89
1:G:9:ASN:HD22	1:G:10:VAL:H	1.14	0.89
1:H:1:MET:CE	1:I:26:TRP:HB3	2.02	0.89
1:M:501:ASN:HD22	1:M:501:ASN:C	1.70	0.89
2:N:168:ASP:HB3	2:N:171:THR:OG1	1.71	0.89
1:C:413:GLU:HG3	1:C:414:GLY:H	0.74	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:140:LYS:HE2	1:J:179:GLU:CD	1.93	0.89
1:A:481:ILE:HG21	1:F:365:GLN:HG3	1.52	0.89
1:B:410:ILE:HD12	1:B:410:ILE:N	1.78	0.89
1:E:362:ASN:O	1:E:363:ASN:HB2	1.71	0.89
1:F:443:VAL:CG1	1:F:462:ILE:CD1	2.50	0.89
1:H:302:ASN:HB3	1:K:265:GLN:HG3	1.52	0.89
1:H:335:ASN:HD22	1:H:336:VAL:H	1.09	0.89
1:L:1:MET:SD	1:M:26:TRP:CD2	2.66	0.89
1:C:187:MET:O	1:C:187:MET:SD	2.30	0.89
1:D:132:ARG:HH11	1:D:132:ARG:HG3	1.38	0.89
1:J:87:THR:CG2	1:J:88:GLU:CG	2.36	0.89
1:A:135:THR:CG2	1:A:139:VAL:HG11	2.03	0.89
1:A:326:LEU:HD13	1:A:421:LEU:HD11	1.53	0.89
1:C:494:ILE:HD13	1:C:494:ILE:C	1.91	0.89
1:D:78:THR:HG23	1:D:259:SER:HG	1.11	0.89
1:I:324:ARG:HH11	1:I:324:ARG:HG2	1.38	0.89
1:M:507:TYR:CD1	1:M:508:GLY:HA3	2.05	0.89
2:N:256:LEU:HA	2:N:257:SER:HB3	0.89	0.89
1:D:357:LEU:HD12	1:D:358:ASN:CA	2.02	0.89
1:E:341:LEU:O	1:E:345:ILE:HG23	1.72	0.89
1:I:106:ILE:HD11	1:I:238:LEU:HA	1.54	0.89
1:I:430:ASP:C	1:I:431:GLU:OE2	2.11	0.89
1:K:147:GLN:HG2	1:K:205:GLU:HG2	1.53	0.89
1:B:8:LEU:HD12	1:B:8:LEU:O	1.73	0.89
1:G:376:LEU:CD1	1:G:376:LEU:N	2.35	0.89
1:H:486:LYS:HB2	1:H:486:LYS:HZ3	1.35	0.89
1:L:84:ALA:HB1	1:L:85:GLY:O	1.73	0.89
1:C:123:LEU:CD2	1:C:127:ILE:CG1	2.51	0.89
1:D:351:PHE:O	1:D:414:GLY:CA	2.19	0.89
1:L:140:LYS:HE3	1:L:140:LYS:HA	1.54	0.89
1:L:264:PHE:C	1:L:265:GLN:NE2	2.26	0.89
2:N:235:ASP:CB	2:N:236:PRO:CA	2.51	0.89
1:C:165:ASN:HB3	1:D:174:ALA:O	1.73	0.89
1:I:121:ILE:HG22	1:I:123:LEU:HD12	1.54	0.89
1:I:314:SER:CB	1:I:443:VAL:H	1.85	0.89
1:A:121:ILE:HD11	1:A:293:LEU:HG	1.53	0.88
1:D:58:SER:O	1:D:61:THR:OG1	1.91	0.88
1:J:218:GLN:O	1:J:219:ALA:HB2	1.74	0.88
1:M:341:LEU:CD1	1:M:341:LEU:C	2.40	0.88
2:N:255:THR:CG2	2:N:257:SER:OG	2.19	0.88
1:B:110:LEU:HD12	1:B:111:ASN:N	1.87	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:19:GLU:HB2	1:G:20:LEU:HA	1.55	0.88
1:G:386:ASN:HD22	1:G:386:ASN:C	1.76	0.88
1:C:304:LEU:CD1	1:C:310:SER:OG	2.21	0.88
1:H:312:PHE:CD2	1:H:312:PHE:N	2.30	0.88
1:J:84:ALA:CB	1:J:86:ILE:CG1	2.51	0.88
1:L:332:GLN:HG2	1:L:456:VAL:CG2	2.03	0.88
1:M:411:GLY:C	1:M:412:LEU:HD13	1.94	0.88
2:N:157:PRO:O	2:N:158:VAL:HG23	1.74	0.88
2:N:370:LEU:HD12	2:N:371:SER:CA	2.03	0.88
1:A:132:ARG:HH11	1:A:132:ARG:CG	1.85	0.88
1:A:158:ARG:HB3	1:A:246:ASP:HB3	1.53	0.88
1:C:316:VAL:HG23	1:C:442:GLN:OE1	1.72	0.88
1:K:324:ARG:HB2	1:K:467:ASP:OD1	1.74	0.88
1:B:365:GLN:NE2	1:G:295:ARG:H	1.70	0.88
1:G:194:THR:OG1	1:G:195:THR:HG23	1.72	0.88
1:I:437:GLY:HA2	1:I:439:PHE:CE2	2.06	0.88
1:K:85:GLY:CA	1:K:86:ILE:HG22	2.04	0.88
1:K:222:LEU:HD23	1:K:222:LEU:H	1.37	0.88
2:N:226:ARG:HG3	2:N:228:LEU:CD1	2.03	0.88
1:B:386:ASN:O	1:B:387:LYS:HD3	1.74	0.88
1:C:5:ALA:HB3	1:D:471:VAL:HG21	1.53	0.88
1:C:330:VAL:HG22	1:C:460:MET:HA	1.56	0.88
1:D:339:GLN:HB2	2:N:28:ASP:N	1.89	0.88
1:H:1:MET:SD	1:H:10:VAL:HB	2.13	0.88
1:K:1:MET:SD	1:L:26:TRP:CD2	2.67	0.88
1:L:21:ASN:H	1:L:21:ASN:HD22	1.19	0.88
1:B:190:VAL:HG21	1:B:198:ARG:CB	1.96	0.88
1:B:385:TYR:HE2	1:B:387:LYS:HB2	0.75	0.88
1:D:41:PRO:HB2	1:D:266:GLN:NE2	1.89	0.88
1:H:351:PHE:N	1:H:351:PHE:CD1	2.40	0.88
1:M:502:GLU:C	1:M:502:GLU:CD	2.30	0.88
2:N:333:TYR:HB2	2:N:334:MET:SD	2.11	0.88
1:E:231:ASN:HD22	1:E:231:ASN:N	1.68	0.88
1:C:83:HIS:HB2	1:C:254:ASN:HB3	1.56	0.88
1:C:481:ILE:O	1:M:363:ASN:ND2	2.06	0.88
1:H:481:ILE:HD12	1:H:481:ILE:N	1.85	0.88
1:J:386:ASN:C	1:J:386:ASN:HD22	1.76	0.88
1:L:436:ILE:HG23	1:L:437:GLY:HA3	1.56	0.88
1:D:501:ASN:ND2	1:D:501:ASN:H	1.71	0.88
1:E:493:ARG:HG2	1:E:493:ARG:HH11	1.37	0.88
2:N:333:TYR:HB2	2:N:334:MET:CE	2.04	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:80:ASN:HB3	1:A:258:GLY:O	1.74	0.87
1:H:343:ASN:O	1:H:347:THR:HG22	1.72	0.87
1:K:100:ALA:HB2	1:K:182:ARG:CD	2.04	0.87
1:A:89:ASN:HB3	1:A:192:ASN:HD21	1.38	0.87
1:B:90:LEU:HD12	1:B:90:LEU:C	1.92	0.87
1:D:351:PHE:N	1:D:351:PHE:HD1	1.69	0.87
1:E:254:ASN:ND2	1:E:254:ASN:H	1.67	0.87
1:I:367:ILE:HG22	1:I:368:LEU:HD12	1.56	0.87
1:J:395:VAL:HG22	1:J:450:THR:HG21	1.53	0.87
2:N:44:ILE:HB	2:N:332:ILE:HD11	1.55	0.87
1:F:364:GLN:OE1	1:F:364:GLN:HA	1.73	0.87
1:I:326:LEU:HD13	1:I:421:LEU:HD11	1.53	0.87
1:L:158:ARG:HG3	1:L:159:ASP:N	1.90	0.87
1:E:341:LEU:CD2	1:E:342:ASN:H	1.83	0.87
1:M:265:GLN:CA	1:M:265:GLN:HE21	1.87	0.87
1:M:507:TYR:CD1	1:M:508:GLY:C	2.47	0.87
1:H:140:LYS:HG2	1:H:179:GLU:CD	1.95	0.87
1:H:313:LYS:NZ	1:H:313:LYS:CB	2.30	0.87
1:B:190:VAL:HG22	1:B:198:ARG:O	1.74	0.87
1:B:365:GLN:HE22	1:G:295:ARG:H	0.90	0.87
1:E:365:GLN:CB	1:L:122:GLU:OE2	2.21	0.87
1:B:251:VAL:O	1:B:251:VAL:HG22	1.73	0.87
1:H:339:GLN:O	1:H:340:ASN:CB	2.22	0.87
1:K:179:GLU:CD	1:M:177:LEU:HD22	1.95	0.87
1:L:154:TYR:CD2	1:L:160:ALA:HB2	2.10	0.87
2:N:184:ASP:HA	2:N:225:VAL:CG1	2.04	0.87
1:B:1:MET:SD	1:B:7:PRO:HB2	2.15	0.87
1:D:252:SER:OG	1:D:253:GLY:HA2	1.72	0.87
1:E:436:ILE:HG13	1:E:437:GLY:HA3	1.54	0.87
1:G:208:PHE:HE1	1:G:214:TRP:NE1	1.72	0.87
1:I:430:ASP:OD2	1:I:490:LEU:CD1	2.22	0.87
1:L:83:HIS:CG	1:L:84:ALA:HA	2.09	0.87
2:N:104:ASP:O	2:N:107:LEU:HD13	1.74	0.87
1:G:299:GLN:OE1	1:G:335:ASN:ND2	2.08	0.86
1:J:205:GLU:OE1	1:J:232:TRP:HZ3	1.57	0.86
1:L:99:ARG:HH22	1:L:240:ARG:NH2	1.73	0.86
1:C:460:MET:HG3	1:C:461:TYR:N	1.88	0.86
1:E:293:LEU:HD22	1:E:465:VAL:HB	1.56	0.86
1:H:59:ALA:O	1:H:60:GLN:CG	2.23	0.86
1:I:350:VAL:HB	1:I:413:GLU:CB	2.05	0.86
1:I:374:GLN:HA	1:I:374:GLN:NE2	1.88	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:438:ASN:OD1	1:F:318:GLN:NE2	2.07	0.86
1:D:239:ALA:HB3	1:D:344:GLN:HE21	1.33	0.86
1:J:498:VAL:HA	1:J:499:SER:HG	1.31	0.86
1:M:237:ASN:HD22	1:M:238:LEU:H	0.88	0.86
2:N:255:THR:HG22	2:N:257:SER:OG	1.74	0.86
1:B:365:GLN:HE22	1:G:295:ARG:N	1.73	0.86
1:I:430:ASP:CG	1:I:490:LEU:HD12	1.94	0.86
1:C:84:ALA:HB1	1:C:86:ILE:CB	2.03	0.86
1:H:484:ALA:HA	1:I:1:MET:H1	1.39	0.86
1:J:260:MET:C	1:J:261:ASN:HD22	1.76	0.86
1:J:486:LYS:HA	1:J:486:LYS:NZ	1.90	0.86
1:E:303:THR:HG23	1:E:457:THR:HG22	1.58	0.86
1:F:153:ASN:O	1:F:412:LEU:O	1.94	0.86
1:F:295:ARG:HH11	1:F:295:ARG:CG	1.89	0.86
1:H:140:LYS:CG	1:H:179:GLU:OE2	2.22	0.86
1:I:441:LEU:HD13	1:I:441:LEU:C	1.91	0.86
1:B:208:PHE:CE1	1:B:214:TRP:CG	2.64	0.86
1:B:474:ASN:C	1:B:474:ASN:HD22	1.79	0.86
1:C:350:VAL:CG2	1:C:413:GLU:O	2.24	0.86
1:L:228:LEU:O	1:L:229:THR:HG22	1.76	0.86
1:A:34:GLN:NE2	1:J:364:GLN:HB3	1.90	0.86
1:E:342:ASN:O	1:E:346:THR:HG23	1.76	0.86
1:L:228:LEU:HD13	1:L:230:PHE:HE2	1.41	0.86
1:C:83:HIS:HD2	1:C:256:THR:HA	1.41	0.86
1:M:341:LEU:C	1:M:341:LEU:HD12	1.94	0.86
1:G:85:GLY:HA3	1:G:86:ILE:CG2	2.06	0.85
1:J:19:GLU:HG2	1:J:19:GLU:O	1.76	0.85
1:K:388:THR:HG21	1:M:180:LEU:HD21	1.55	0.85
2:N:170:ASN:HD22	2:N:170:ASN:C	1.78	0.85
1:C:364:GLN:HG2	1:C:367:ILE:HD11	1.58	0.85
1:C:377:TYR:HD2	1:C:377:TYR:O	1.59	0.85
1:E:322:ILE:HD13	1:E:439:PHE:CZ	2.10	0.85
1:D:342:ASN:C	1:D:342:ASN:ND2	2.30	0.85
1:E:174:ALA:O	1:F:165:ASN:HB3	1.76	0.85
1:F:3:ASN:C	1:F:3:ASN:HD22	1.77	0.85
1:G:351:PHE:HD1	1:G:351:PHE:H	1.25	0.85
1:I:55:ASN:HB2	1:I:56:PRO:CD	2.04	0.85
1:M:1:MET:CG	1:M:10:VAL:HB	2.05	0.85
1:M:102:PRO:CB	1:M:241:ILE:HD11	2.02	0.85
1:F:361:TRP:HB3	1:F:364:GLN:HB2	1.59	0.85
1:H:397:GLN:OE1	1:J:189:VAL:N	2.09	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:85:GLY:HA3	1:J:86:ILE:HG22	1.57	0.85
1:K:429:ASP:O	1:K:430:ASP:OD1	1.94	0.85
1:L:301:GLN:N	1:L:301:GLN:HE21	1.73	0.85
2:N:287:VAL:HA	2:N:288:GLY:O	1.75	0.85
1:A:507:TYR:CD1	1:A:508:GLY:HA3	2.11	0.85
1:B:1:MET:N	1:B:7:PRO:CB	2.38	0.85
1:B:1:MET:N	1:B:7:PRO:HB3	1.91	0.85
1:B:257:ILE:H	1:B:257:ILE:HD12	1.41	0.85
1:G:208:PHE:HE1	1:G:214:TRP:CD1	1.92	0.85
1:K:438:ASN:C	1:K:438:ASN:ND2	2.30	0.85
1:M:100:ALA:CB	1:M:182:ARG:HD3	2.07	0.85
1:M:485:SER:HA	1:M:486:LYS:HZ2	1.40	0.85
2:N:235:ASP:HB3	2:N:236:PRO:CA	2.06	0.85
1:C:377:TYR:CD2	1:C:377:TYR:O	2.30	0.85
1:C:488:GLU:CD	1:C:489:VAL:N	2.30	0.85
1:F:507:TYR:CE1	1:F:508:GLY:O	2.30	0.85
1:K:332:GLN:HG2	1:K:456:VAL:CG2	2.05	0.85
1:K:437:GLY:O	1:K:439:PHE:CE2	2.30	0.85
1:L:155:GLN:HA	1:L:155:GLN:HE21	1.40	0.85
2:N:271:LEU:HD12	2:N:334:MET:CG	2.05	0.85
1:B:35:VAL:HG13	1:B:35:VAL:O	1.74	0.85
1:C:26:TRP:HB3	1:D:1:MET:CE	2.06	0.85
1:D:260:MET:HG2	1:D:262:ILE:CD1	2.05	0.85
1:E:45:PHE:CD1	1:E:45:PHE:O	2.30	0.85
1:I:235:ASN:ND2	1:I:237:ASN:H	1.75	0.85
1:I:325:LYS:HZ2	1:I:327:TYR:HE2	1.24	0.85
1:J:140:LYS:HG2	1:J:179:GLU:CD	1.96	0.85
1:A:136:PRO:HD2	1:A:139:VAL:HB	1.58	0.85
1:C:217:GLU:C	1:C:218:GLN:NE2	2.30	0.85
1:E:428:ARG:HG2	1:E:428:ARG:HH11	1.39	0.85
1:I:140:LYS:HA	1:I:140:LYS:HE3	1.59	0.85
1:J:392:PHE:O	1:J:392:PHE:CD1	2.30	0.85
1:M:211:PRO:O	1:M:212:PHE:HD2	1.59	0.85
1:B:188:ASN:HD21	1:B:200:THR:HG22	1.40	0.85
1:M:438:ASN:C	1:M:439:PHE:CD2	2.50	0.85
1:A:53:ILE:HD11	1:E:41:PRO:HB3	0.86	0.84
1:B:396:THR:N	1:B:410:ILE:HD13	1.91	0.84
1:L:341:LEU:HD12	1:L:341:LEU:C	1.97	0.84
1:L:357:LEU:HD13	1:L:358:ASN:N	1.89	0.84
1:M:135:THR:HG23	1:M:386:ASN:OD1	1.77	0.84
2:N:227:PHE:CD2	2:N:229:GLY:O	2.30	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:83:HIS:CE1	1:D:256:THR:CG2	2.60	0.84
1:E:339:GLN:C	1:E:340:ASN:ND2	2.30	0.84
1:E:342:ASN:C	1:E:342:ASN:ND2	2.30	0.84
1:A:108:ASN:O	1:A:122:GLU:OE2	1.94	0.84
1:C:65:ARG:CB	1:C:213:LEU:HD23	2.07	0.84
1:D:244:HIS:HB3	1:D:346:THR:HG22	1.59	0.84
1:H:244:HIS:HB3	1:H:346:THR:HG22	1.59	0.84
1:I:328:LEU:HD12	1:I:328:LEU:N	1.92	0.84
1:I:374:GLN:HE21	1:I:374:GLN:CA	1.83	0.84
1:L:34:GLN:O	1:L:34:GLN:CG	2.24	0.84
1:H:335:ASN:ND2	1:H:335:ASN:C	2.30	0.84
1:J:322:ILE:CG2	1:J:361:TRP:HZ2	1.90	0.84
1:L:332:GLN:HG2	1:L:456:VAL:HG23	1.59	0.84
1:M:320:ASP:O	1:M:437:GLY:O	1.96	0.84
2:N:255:THR:HG23	2:N:257:SER:HA	1.59	0.84
1:B:19:GLU:HB2	1:B:20:LEU:CA	2.07	0.84
1:D:73:TYR:CE1	1:D:203:LEU:HD21	2.13	0.84
1:E:322:ILE:HG13	1:E:432:ALA:O	1.77	0.84
1:J:45:PHE:CD1	1:J:45:PHE:O	2.30	0.84
1:K:436:ILE:HG21	1:K:482:GLY:HA3	1.60	0.84
1:L:337:ILE:HD12	1:L:338:TYR:CD2	2.13	0.84
1:M:104:SER:HB2	1:M:205:GLU:OE1	1.76	0.84
1:M:386:ASN:ND2	1:M:386:ASN:C	2.30	0.84
2:N:103:PHE:CE1	2:N:131:TYR:HD1	1.96	0.84
1:A:34:GLN:HE22	1:J:364:GLN:CB	1.90	0.84
1:A:305:ALA:HB3	1:A:455:THR:CG2	2.08	0.84
1:B:363:ASN:C	1:B:364:GLN:NE2	2.30	0.84
1:C:503:LEU:O	1:C:503:LEU:HD22	1.77	0.84
1:F:3:ASN:C	1:F:3:ASN:ND2	2.30	0.84
1:F:173:SER:HA	1:G:164:ASN:HB2	1.57	0.84
1:J:341:LEU:O	1:J:341:LEU:HD22	1.77	0.84
1:A:253:GLY:HA2	1:A:254:ASN:CB	2.06	0.84
1:A:341:LEU:C	1:A:341:LEU:CD2	2.35	0.84
1:I:377:TYR:C	1:I:377:TYR:CD2	2.50	0.84
2:N:91:TYR:HH	2:N:157:PRO:HG3	1.04	0.84
1:B:1:MET:N	1:B:2:SER:HA	1.91	0.84
1:B:224:ASN:HD22	1:B:224:ASN:N	1.76	0.84
1:C:84:ALA:HB1	1:C:85:GLY:C	1.98	0.84
1:E:2:SER:O	1:E:3:ASN:CB	2.25	0.84
1:G:379:PHE:CE1	1:G:424:ASP:OD2	2.31	0.84
1:K:265:GLN:HA	1:K:265:GLN:NE2	1.92	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:239:ALA:HB3	1:A:344:GLN:NE2	1.91	0.84
1:B:380:SER:OG	1:B:383:ASN:N	2.11	0.84
1:C:361:TRP:HZ3	1:C:441:LEU:HD23	1.42	0.84
1:E:324:ARG:N	1:E:433:GLU:OE1	2.10	0.84
1:E:484:ALA:HA	1:F:1:MET:N	1.92	0.84
1:F:382:GLN:HG2	1:F:423:LYS:NZ	1.92	0.84
1:H:30:LYS:HD2	1:H:277:ARG:NH1	1.92	0.84
1:I:377:TYR:O	1:I:377:TYR:HD2	1.61	0.84
1:K:436:ILE:HG22	1:K:482:GLY:CA	2.08	0.84
1:C:83:HIS:C	1:C:83:HIS:ND1	2.30	0.83
1:E:441:LEU:HD23	1:E:441:LEU:C	1.98	0.83
1:I:357:LEU:C	1:I:357:LEU:CD1	2.44	0.83
1:M:85:GLY:HA2	1:M:86:ILE:CB	2.07	0.83
1:B:332:GLN:NE2	1:B:333:SER:CB	2.38	0.83
1:F:494:ILE:HD13	1:F:494:ILE:H	1.43	0.83
1:J:65:ARG:HG3	1:J:65:ARG:NH1	1.92	0.83
1:J:87:THR:HG23	1:J:88:GLU:HG3	1.59	0.83
1:B:92:GLN:HB3	1:B:95:ARG:HB2	1.57	0.83
1:B:170:VAL:HG11	1:D:398:GLN:HG3	1.61	0.83
1:B:187:MET:N	1:D:397:GLN:CD	2.31	0.83
1:F:187:MET:O	1:G:397:GLN:HG3	1.78	0.83
1:L:99:ARG:HG2	1:L:99:ARG:NH1	1.85	0.83
1:M:411:GLY:C	1:M:412:LEU:CD1	2.47	0.83
1:E:235:ASN:HD22	1:J:108:ASN:HD21	1.25	0.83
1:J:190:VAL:HG23	1:J:191:THR:HG23	1.58	0.83
1:K:437:GLY:C	1:K:439:PHE:HE2	1.81	0.83
1:L:35:VAL:CG2	1:L:274:VAL:HG23	2.06	0.83
2:N:81:ASN:ND2	2:N:103:PHE:O	2.10	0.83
1:B:212:PHE:N	1:B:212:PHE:CD1	2.30	0.83
1:D:350:VAL:HB	1:D:413:GLU:HG2	1.61	0.83
1:D:379:PHE:CD2	1:D:379:PHE:O	2.30	0.83
1:G:343:ASN:HD22	1:G:343:ASN:C	1.79	0.83
1:H:73:TYR:CE1	1:H:203:LEU:HD21	2.14	0.83
1:H:342:ASN:HD22	1:H:342:ASN:N	1.76	0.83
1:H:441:LEU:HD13	1:H:441:LEU:C	1.96	0.83
1:H:449:ASN:HD22	1:H:450:THR:N	1.76	0.83
1:I:265:GLN:O	1:I:267:PRO:HD3	1.77	0.83
1:I:499:SER:HB2	1:I:501:ASN:HD21	1.43	0.83
1:J:85:GLY:HA2	1:J:86:ILE:HG22	1.53	0.83
1:B:333:SER:CB	1:B:336:VAL:CG2	2.56	0.83
1:G:351:PHE:CE2	1:G:416:ILE:CG2	2.62	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:351:PHE:H	1:I:351:PHE:HD1	0.88	0.83
2:N:173:LYS:HD2	2:N:254:PRO:HD3	1.59	0.83
1:C:501:ASN:C	1:C:501:ASN:HD22	1.81	0.83
1:L:125:GLN:OE1	1:L:295:ARG:NH1	2.11	0.83
1:M:208:PHE:HB3	1:M:214:TRP:HE1	1.42	0.83
1:H:351:PHE:HD1	1:H:351:PHE:N	1.75	0.83
1:J:109:THR:HG23	1:J:233:VAL:HG22	1.60	0.83
1:K:140:LYS:HD2	1:K:179:GLU:CD	1.98	0.83
1:K:140:LYS:CD	1:K:179:GLU:OE2	2.23	0.83
2:N:173:LYS:CG	2:N:254:PRO:CG	2.42	0.83
1:B:363:ASN:CB	1:B:364:GLN:HE22	1.89	0.83
1:C:226:THR:CG2	1:C:475:THR:HB	2.07	0.83
1:H:8:LEU:N	1:H:8:LEU:HD23	1.92	0.83
1:E:258:GLY:CA	1:E:341:LEU:CD1	2.32	0.83
1:G:318:GLN:HA	1:G:440:ASN:CB	2.09	0.83
1:H:364:GLN:O	1:H:365:GLN:HB3	1.79	0.83
1:A:34:GLN:NE2	1:J:364:GLN:CB	2.42	0.82
1:F:493:ARG:H	1:F:493:ARG:HD2	1.44	0.82
1:G:213:LEU:CA	1:G:214:TRP:CB	2.50	0.82
1:L:430:ASP:OD2	1:L:489:VAL:C	2.18	0.82
1:C:249:ASN:C	1:C:249:ASN:ND2	2.30	0.82
1:C:367:ILE:HD13	1:C:367:ILE:N	1.94	0.82
1:L:430:ASP:OD2	1:L:490:LEU:N	2.11	0.82
2:N:183:TYR:O	2:N:225:VAL:HG11	1.79	0.82
1:B:333:SER:CB	1:B:336:VAL:HG22	2.09	0.82
1:M:22:ASN:HD22	1:M:22:ASN:N	1.77	0.82
1:A:380:SER:HA	1:A:382:GLN:H	1.43	0.82
1:H:345:ILE:HG12	1:H:346:THR:HG23	1.59	0.82
1:B:150:PHE:CE1	1:B:179:GLU:OE2	2.32	0.82
1:C:89:ASN:ND2	1:C:192:ASN:HD22	1.77	0.82
1:D:5:ALA:CB	1:D:6:ILE:HD13	2.08	0.82
1:D:208:PHE:HE1	1:D:214:TRP:CG	1.97	0.82
1:H:218:GLN:OE1	1:H:218:GLN:HA	1.77	0.82
1:H:430:ASP:OD1	1:H:490:LEU:CA	2.26	0.82
1:I:41:PRO:HB2	1:I:266:GLN:HE22	0.76	0.82
2:N:185:ARG:HG3	2:N:224:ASP:OD1	1.80	0.82
1:D:106:ILE:HD11	1:D:238:LEU:HA	1.62	0.82
2:N:17:TYR:HD2	2:N:17:TYR:N	1.76	0.82
2:N:168:ASP:HB3	2:N:171:THR:CB	2.09	0.82
1:G:337:ILE:O	1:G:338:TYR:HD2	1.62	0.82
1:H:26:TRP:HB3	1:J:1:MET:CE	2.08	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:224:ASN:N	1:H:224:ASN:HD22	1.77	0.82
2:N:171:THR:N	2:N:172:GLU:HA	1.92	0.82
2:N:226:ARG:HG2	2:N:228:LEU:HD13	1.62	0.82
1:G:374:GLN:HE21	1:G:375:ASN:CA	1.92	0.82
1:H:282:ILE:HD12	1:H:283:PRO:HD2	1.59	0.82
1:I:173:SER:C	1:J:164:ASN:OD1	2.18	0.82
1:J:108:ASN:CG	1:J:235:ASN:HD21	1.82	0.82
1:M:134:HIS:HD2	1:M:507:TYR:CD2	1.98	0.82
1:B:429:ASP:O	1:B:430:ASP:HB3	1.78	0.82
1:M:501:ASN:C	1:M:501:ASN:ND2	2.30	0.82
1:D:239:ALA:CB	1:D:344:GLN:NE2	2.41	0.81
1:G:367:ILE:HG22	1:G:368:LEU:CD1	2.09	0.81
1:K:61:THR:HG23	1:K:275:THR:HG22	1.60	0.81
1:K:179:GLU:CD	1:M:177:LEU:CD2	2.46	0.81
1:L:249:ASN:HD22	1:L:250:ASP:H	1.24	0.81
1:M:428:ARG:HG3	1:M:429:ASP:N	1.93	0.81
2:N:173:LYS:HG3	2:N:254:PRO:HG3	1.57	0.81
1:A:108:ASN:ND2	1:A:108:ASN:C	2.30	0.81
1:C:251:VAL:O	1:C:252:SER:HB2	1.80	0.81
1:F:382:GLN:HE21	1:F:423:LYS:HZ1	0.83	0.81
1:F:430:ASP:OD1	1:F:490:LEU:HD13	1.80	0.81
1:K:398:GLN:HG3	1:M:170:VAL:HG11	1.61	0.81
1:L:439:PHE:HD2	1:L:439:PHE:H	1.26	0.81
1:A:297:THR:HG23	1:F:302:ASN:HD21	1.43	0.81
1:B:192:ASN:ND2	1:B:192:ASN:C	2.30	0.81
1:H:206:GLN:CG	1:H:208:PHE:HE2	1.92	0.81
1:I:110:LEU:HD23	1:I:111:ASN:H	1.02	0.81
1:I:441:LEU:HD13	1:I:442:GLN:CA	2.08	0.81
1:J:299:GLN:NE2	1:J:335:ASN:HD22	1.74	0.81
1:K:411:GLY:O	1:K:412:LEU:HD23	1.78	0.81
1:L:15:GLU:HG3	1:L:16:PRO:CD	2.10	0.81
1:M:72:PRO:HG2	1:M:265:GLN:HB2	1.61	0.81
1:M:140:LYS:HD2	1:M:179:GLU:HG2	1.60	0.81
2:N:84:ILE:HD12	2:N:198:ASN:HD22	1.45	0.81
2:N:109:SER:CB	2:N:110:PRO:C	2.49	0.81
1:B:110:LEU:HD13	1:B:111:ASN:N	1.94	0.81
1:C:95:ARG:HD2	1:C:248:THR:HG23	1.63	0.81
1:F:382:GLN:CD	1:F:423:LYS:NZ	2.34	0.81
1:I:89:ASN:HD21	1:J:401:GLY:HA2	1.45	0.81
1:I:100:ALA:HB2	1:I:182:ARG:HD3	1.62	0.81
1:L:297:THR:HB	1:L:461:TYR:CE1	2.15	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:91:TYR:CE2	2:N:157:PRO:HD3	2.14	0.81
2:N:107:LEU:HD12	2:N:107:LEU:N	1.94	0.81
1:A:135:THR:CG2	1:A:139:VAL:CG1	2.59	0.81
1:C:89:ASN:ND2	1:C:193:THR:HA	1.95	0.81
1:C:209:LEU:O	1:C:209:LEU:HG	1.80	0.81
1:D:341:LEU:HD23	1:D:341:LEU:C	2.00	0.81
1:D:377:TYR:HD2	1:D:392:PHE:CD2	1.97	0.81
1:F:188:ASN:ND2	1:F:188:ASN:C	2.31	0.81
1:G:85:GLY:CA	1:G:86:ILE:CG2	2.57	0.81
1:I:322:ILE:HD11	1:I:432:ALA:O	1.80	0.81
1:J:413:GLU:HG2	1:J:414:GLY:H	1.43	0.81
1:L:140:LYS:HG2	1:L:179:GLU:OE2	1.81	0.81
1:L:353:GLN:HE21	1:L:355:ASN:HD21	1.28	0.81
1:A:380:SER:OG	1:A:384:GLY:N	2.13	0.81
1:B:192:ASN:HD22	1:B:192:ASN:C	1.80	0.81
1:D:286:ILE:HD12	1:D:287:THR:N	1.94	0.81
1:H:407:THR:HG21	1:J:189:VAL:HG12	1.61	0.81
1:J:140:LYS:HG2	1:J:179:GLU:CG	2.11	0.81
1:L:337:ILE:HD11	1:L:338:TYR:CE2	2.15	0.81
2:N:255:THR:HG23	2:N:257:SER:HB2	1.22	0.81
1:C:324:ARG:HG2	1:C:324:ARG:NH1	1.83	0.81
1:F:501:ASN:HD22	1:F:501:ASN:N	1.78	0.81
1:G:109:THR:HG22	1:G:110:LEU:N	1.94	0.81
1:B:305:ALA:HB2	1:B:455:THR:HA	1.61	0.81
1:D:48:ASN:ND2	2:N:348:GLN:CB	2.41	0.81
1:D:83:HIS:NE2	1:D:256:THR:HG22	1.94	0.81
1:D:171:PHE:CD1	1:D:171:PHE:O	2.34	0.81
1:G:39:PRO:HD2	1:L:49:GLN:HE21	1.40	0.81
1:K:469:THR:HG21	1:L:4:SER:HB2	1.62	0.81
1:M:265:GLN:HE21	1:M:265:GLN:N	1.79	0.81
1:M:265:GLN:N	1:M:265:GLN:NE2	2.29	0.81
2:N:173:LYS:CD	2:N:254:PRO:HD3	2.09	0.81
2:N:186:THR:CG2	2:N:226:ARG:CD	2.16	0.81
1:C:377:TYR:CE2	1:C:381:VAL:HG11	2.15	0.81
1:D:85:GLY:HA2	1:D:86:ILE:CB	2.11	0.81
1:F:264:PHE:O	1:F:265:GLN:NE2	2.04	0.81
1:H:224:ASN:HD22	1:H:224:ASN:H	1.29	0.81
1:J:324:ARG:HH11	1:J:324:ARG:CG	1.94	0.81
1:K:248:THR:O	1:K:249:ASN:HB3	1.80	0.81
1:A:305:ALA:HB1	1:A:306:PRO:CA	2.10	0.81
1:G:351:PHE:N	1:G:351:PHE:CD1	2.46	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:350:VAL:CG1	1:H:413:GLU:HB3	2.09	0.81
1:J:1:MET:SD	1:J:10:VAL:HG13	2.21	0.81
1:K:495:THR:HG23	1:L:11:VAL:HB	1.61	0.81
1:M:208:PHE:CB	1:M:214:TRP:HE1	1.93	0.81
1:B:164:ASN:ND2	1:C:173:SER:C	2.34	0.80
1:B:190:VAL:HG23	1:B:198:ARG:HB3	1.59	0.80
1:G:1:MET:H2	1:G:2:SER:HB3	1.45	0.80
1:G:58:SER:OG	1:L:116:GLY:HA2	1.81	0.80
1:G:340:ASN:HD21	1:G:342:ASN:ND2	1.79	0.80
1:H:26:TRP:HB3	1:J:1:MET:HE1	1.61	0.80
1:H:345:ILE:CG1	1:H:346:THR:CG2	2.59	0.80
1:K:264:PHE:C	1:K:265:GLN:NE2	2.34	0.80
1:B:228:LEU:HD13	1:B:230:PHE:CE2	2.15	0.80
1:B:358:ASN:OD1	1:B:359:LEU:N	2.14	0.80
1:C:412:LEU:HD12	1:C:413:GLU:HB3	1.63	0.80
1:M:208:PHE:CG	1:M:214:TRP:NE1	2.50	0.80
1:M:502:GLU:O	1:M:505:ARG:HD2	1.82	0.80
2:N:171:THR:OG1	2:N:173:LYS:N	2.14	0.80
1:E:505:ARG:HG2	1:E:505:ARG:HH11	1.46	0.80
1:J:60:GLN:O	1:J:276:PRO:HD2	1.82	0.80
1:L:364:GLN:NE2	1:L:365:GLN:N	2.30	0.80
1:L:429:ASP:OD2	1:L:430:ASP:CA	2.30	0.80
1:A:53:ILE:CD1	1:E:41:PRO:CB	2.35	0.80
1:C:237:ASN:HD21	1:C:344:GLN:HE22	1.28	0.80
1:C:488:GLU:CD	1:C:488:GLU:C	2.39	0.80
1:E:127:ILE:HG23	1:E:128:HIS:N	1.96	0.80
1:G:312:PHE:CA	1:G:313:LYS:HB2	2.07	0.80
1:G:341:LEU:HD12	1:G:345:ILE:CG2	2.12	0.80
1:M:61:THR:CG2	1:M:273:PHE:HB3	2.11	0.80
1:M:437:GLY:CA	1:M:439:PHE:CE2	2.62	0.80
1:C:313:LYS:NZ	1:C:314:SER:N	2.30	0.80
1:C:402:VAL:HA	1:D:88:GLU:OE1	1.81	0.80
1:F:265:GLN:NE2	1:F:265:GLN:N	2.30	0.80
1:G:336:VAL:HA	1:G:339:GLN:HE21	1.46	0.80
1:J:84:ALA:CB	1:J:86:ILE:CB	2.33	0.80
1:K:26:TRP:HB3	1:M:1:MET:CE	2.11	0.80
1:M:341:LEU:CD1	1:M:341:LEU:O	2.30	0.80
1:B:224:ASN:N	1:B:224:ASN:ND2	2.30	0.80
1:C:85:GLY:O	1:C:86:ILE:HG22	1.82	0.80
1:C:153:ASN:O	1:C:412:LEU:HD11	1.80	0.80
1:C:326:LEU:O	1:C:327:TYR:HD1	1.65	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:357:LEU:O	1:I:357:LEU:CD1	2.30	0.80
1:K:60:GLN:NE2	1:K:60:GLN:N	2.30	0.80
2:N:179:GLN:CA	2:N:180:ALA:HB3	2.12	0.80
1:B:89:ASN:OD1	1:D:401:GLY:C	2.19	0.80
1:E:45:PHE:HD1	1:E:45:PHE:O	1.64	0.80
1:G:85:GLY:CA	1:G:86:ILE:CB	2.59	0.80
1:G:429:ASP:O	1:G:430:ASP:HB2	1.79	0.80
1:H:59:ALA:O	1:H:60:GLN:NE2	2.15	0.80
1:H:350:VAL:HG11	1:H:413:GLU:HB3	1.63	0.80
1:J:207:VAL:O	1:J:207:VAL:CG1	2.30	0.80
1:A:61:THR:OG1	1:A:274:VAL:O	1.98	0.80
1:A:254:ASN:C	1:A:254:ASN:ND2	2.30	0.80
1:C:60:GLN:OE1	1:C:60:GLN:CA	2.30	0.80
1:H:428:ARG:CG	1:H:431:GLU:OE1	2.30	0.80
1:I:106:ILE:CD1	1:I:238:LEU:HA	2.12	0.80
1:J:499:SER:O	1:J:502:GLU:HB3	1.82	0.80
1:K:438:ASN:C	1:K:438:ASN:HD22	1.85	0.80
1:M:503:LEU:O	1:M:503:LEU:CD2	2.30	0.80
2:N:61:PRO:HB3	2:N:357:ARG:NH1	1.95	0.80
1:C:140:LYS:HG3	1:C:179:GLU:OE1	1.82	0.80
1:C:226:THR:HG21	1:C:475:THR:CB	2.08	0.80
1:G:73:TYR:HD2	1:G:75:ILE:CD1	1.94	0.80
1:G:85:GLY:CA	1:G:86:ILE:HB	2.10	0.80
1:I:265:GLN:N	1:I:265:GLN:NE2	2.30	0.80
1:J:134:HIS:C	1:J:135:THR:HG23	2.03	0.80
1:M:334:ASP:O	1:M:337:ILE:CG1	2.27	0.80
1:A:250:ASP:O	1:A:251:VAL:CG1	2.30	0.80
1:C:350:VAL:HG23	1:C:413:GLU:O	1.82	0.80
1:C:501:ASN:ND2	1:C:502:GLU:N	2.30	0.80
1:K:1:MET:HE2	1:L:26:TRP:HB3	1.61	0.80
2:N:75:TYR:HA	2:N:76:PRO:C	2.02	0.80
1:C:92:GLN:NE2	1:C:248:THR:CG2	2.44	0.79
1:D:342:ASN:ND2	1:D:343:ASN:N	2.30	0.79
1:D:501:ASN:ND2	1:D:501:ASN:N	2.30	0.79
1:F:208:PHE:O	1:F:209:LEU:CD1	2.30	0.79
1:H:305:ALA:HB3	1:H:455:THR:CG2	2.11	0.79
1:K:436:ILE:O	1:K:436:ILE:CD1	2.30	0.79
1:L:83:HIS:CD2	1:L:85:GLY:HA3	2.16	0.79
1:L:265:GLN:N	1:L:265:GLN:NE2	2.30	0.79
1:B:332:GLN:CG	1:B:333:SER:OG	2.30	0.79
1:H:30:LYS:HD2	1:H:277:ARG:HH11	1.44	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:99:ARG:HH12	1:H:240:ARG:NH2	1.80	0.79
1:I:351:PHE:N	1:I:351:PHE:HD1	1.73	0.79
1:M:386:ASN:HD21	1:M:387:LYS:CD	1.91	0.79
1:C:313:LYS:HB3	1:C:313:LYS:NZ	1.92	0.79
1:E:73:TYR:HE1	1:E:201:GLY:N	1.81	0.79
1:F:188:ASN:C	1:F:188:ASN:HD22	1.86	0.79
1:H:340:ASN:O	1:H:344:GLN:CG	2.30	0.79
1:I:62:VAL:HA	1:I:223:ALA:HB3	1.65	0.79
1:K:95:ARG:HG2	1:K:95:ARG:NH1	1.91	0.79
1:L:192:ASN:C	1:L:192:ASN:HD22	1.85	0.79
1:B:35:VAL:O	1:B:35:VAL:CG1	2.30	0.79
1:D:342:ASN:O	1:D:345:ILE:HG23	1.82	0.79
1:E:433:GLU:OE2	1:E:433:GLU:CA	2.30	0.79
1:G:87:THR:CB	1:G:88:GLU:OE2	2.30	0.79
1:G:378:ASP:O	1:G:381:VAL:CG1	2.30	0.79
1:G:416:ILE:HG13	1:G:416:ILE:O	1.79	0.79
1:B:166:ASN:OD1	1:B:167:PRO:CD	2.30	0.79
1:B:332:GLN:HB2	1:B:456:VAL:HG21	1.62	0.79
1:D:436:ILE:HG12	1:D:437:GLY:HA2	1.64	0.79
1:F:3:ASN:HD22	1:F:4:SER:N	1.80	0.79
1:I:262:ILE:CG2	1:I:263:SER:H	1.95	0.79
1:K:209:LEU:CD1	1:K:210:PRO:O	2.30	0.79
1:K:224:ASN:HD22	1:K:224:ASN:N	1.77	0.79
1:M:194:THR:O	1:M:195:THR:CG2	2.30	0.79
2:N:180:ALA:CB	2:N:246:PHE:HA	2.11	0.79
1:C:244:HIS:CB	1:C:345:ILE:HD11	2.13	0.79
1:D:110:LEU:CD1	1:D:209:LEU:CD2	2.60	0.79
1:D:380:SER:OG	1:D:383:ASN:CB	2.30	0.79
1:G:194:THR:O	1:G:195:THR:CG2	2.30	0.79
1:G:337:ILE:O	1:G:337:ILE:HG12	1.82	0.79
1:H:484:ALA:HA	1:I:1:MET:N	1.97	0.79
1:I:147:GLN:HG2	1:I:205:GLU:HA	1.65	0.79
1:L:249:ASN:ND2	1:L:250:ASP:N	2.30	0.79
1:D:239:ALA:HB3	1:D:344:GLN:HE22	1.47	0.79
1:D:304:LEU:HD23	1:D:449:ASN:HB2	1.65	0.79
1:E:46:SER:OG	1:J:297:THR:HG23	1.82	0.79
1:E:362:ASN:HD22	1:E:362:ASN:N	1.78	0.79
1:E:437:GLY:O	1:E:438:ASN:HB3	1.81	0.79
1:F:296:TYR:N	1:F:296:TYR:HD2	1.81	0.79
1:F:365:GLN:OE1	1:F:365:GLN:CA	2.31	0.79
1:G:87:THR:O	1:G:88:GLU:CG	2.30	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:179:GLU:OE1	1:J:177:LEU:HD23	1.79	0.79
1:L:87:THR:O	1:L:88:GLU:CG	2.30	0.79
1:L:341:LEU:O	1:L:341:LEU:CD1	2.30	0.79
1:M:33:GLN:OE1	1:M:33:GLN:N	2.14	0.79
1:A:61:THR:HG23	1:A:61:THR:O	1.82	0.79
1:B:108:ASN:ND2	1:B:109:THR:HG22	1.98	0.79
1:C:123:LEU:HD21	1:C:127:ILE:CG1	2.07	0.79
1:D:251:VAL:CG2	1:D:251:VAL:O	2.30	0.79
1:E:11:VAL:HG22	1:F:27:VAL:CG2	2.13	0.79
1:E:342:ASN:O	1:E:346:THR:CG2	2.30	0.79
1:F:409:VAL:C	1:F:410:ILE:HD13	2.03	0.79
1:H:336:VAL:HG22	1:H:337:ILE:H	1.48	0.79
1:I:95:ARG:HH11	1:I:95:ARG:HG3	1.48	0.79
1:L:449:ASN:HD22	1:L:450:THR:N	1.81	0.79
1:A:332:GLN:HG2	1:A:456:VAL:HG21	1.63	0.79
1:B:88:GLU:CA	1:B:88:GLU:OE2	2.30	0.79
1:B:251:VAL:O	1:B:251:VAL:CG2	2.30	0.79
1:D:505:ARG:HH11	1:D:505:ARG:CG	1.96	0.79
1:E:339:GLN:HB2	1:E:340:ASN:HD21	1.46	0.79
1:E:340:ASN:N	1:E:340:ASN:ND2	2.30	0.79
1:G:198:ARG:HG2	1:G:198:ARG:HH11	1.47	0.79
1:G:324:ARG:HH11	1:G:324:ARG:CG	1.96	0.79
1:G:342:ASN:ND2	1:G:343:ASN:N	2.30	0.79
1:G:505:ARG:HB2	1:G:505:ARG:HH11	1.48	0.79
1:I:191:THR:HG22	1:I:197:ALA:HA	1.64	0.79
1:K:87:THR:O	1:K:88:GLU:HG2	1.82	0.79
1:K:88:GLU:O	1:K:194:THR:HG22	1.82	0.79
1:B:88:GLU:OE2	1:B:88:GLU:HA	1.83	0.79
1:B:339:GLN:O	1:B:340:ASN:HB2	1.81	0.79
1:K:132:ARG:NE	1:K:413:GLU:OE1	2.15	0.79
1:L:217:GLU:O	1:L:218:GLN:CG	2.30	0.79
1:B:209:LEU:C	1:B:209:LEU:CD2	2.41	0.78
1:C:362:ASN:H	1:C:362:ASN:ND2	1.81	0.78
1:D:500:TYR:O	1:D:504:GLN:HG2	1.81	0.78
1:G:194:THR:C	1:G:195:THR:CG2	2.48	0.78
1:G:343:ASN:ND2	1:G:344:GLN:N	2.30	0.78
1:I:491:ASN:C	1:I:491:ASN:ND2	2.30	0.78
1:J:134:HIS:O	1:J:135:THR:CG2	2.30	0.78
1:A:111:ASN:HB3	1:A:120:ASN:HB2	1.63	0.78
1:G:100:ALA:HB2	1:G:182:ARG:HD2	1.65	0.78
1:K:34:GLN:OE1	1:K:34:GLN:HA	1.83	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:35:VAL:HG21	1:M:17:ARG:HH22	1.47	0.78
1:L:364:GLN:NE2	1:L:365:GLN:H	1.80	0.78
2:N:36:PHE:CZ	2:N:335:VAL:HG12	2.15	0.78
2:N:170:ASN:C	2:N:170:ASN:ND2	2.36	0.78
1:A:481:ILE:CG2	1:F:365:GLN:HB3	2.03	0.78
1:B:190:VAL:HG23	1:B:198:ARG:CB	2.12	0.78
1:B:194:THR:O	1:B:195:THR:CG2	2.30	0.78
1:I:62:VAL:HA	1:I:223:ALA:CB	2.14	0.78
1:I:189:VAL:O	1:I:189:VAL:CG1	2.30	0.78
1:K:265:GLN:N	1:K:265:GLN:NE2	2.30	0.78
1:L:337:ILE:HD12	1:L:338:TYR:HD2	1.48	0.78
1:M:301:GLN:N	1:M:301:GLN:NE2	2.30	0.78
1:M:386:ASN:C	1:M:386:ASN:HD22	1.84	0.78
1:B:188:ASN:ND2	1:B:200:THR:HG22	1.99	0.78
1:D:353:GLN:HG2	1:D:448:THR:HG22	1.64	0.78
1:F:324:ARG:HG2	1:F:324:ARG:NH1	1.97	0.78
1:I:325:LYS:HZ1	1:I:327:TYR:HE2	1.26	0.78
1:I:484:ALA:HA	1:J:1:MET:N	1.98	0.78
1:K:264:PHE:C	1:K:265:GLN:HE21	1.86	0.78
1:F:210:PRO:HB2	1:F:211:PRO:CD	2.11	0.78
1:F:382:GLN:HG2	1:F:423:LYS:HZ2	1.46	0.78
1:I:99:ARG:HG2	1:I:99:ARG:HH11	1.47	0.78
1:L:87:THR:O	1:L:88:GLU:CB	2.30	0.78
1:M:365:GLN:NE2	1:M:366:GLY:N	2.30	0.78
1:A:325:LYS:NZ	1:A:327:TYR:HE2	1.80	0.78
1:D:258:GLY:O	1:D:259:SER:HB3	1.81	0.78
1:E:323:PRO:HD2	1:E:421:LEU:HD22	1.66	0.78
1:H:208:PHE:O	1:H:209:LEU:CD1	2.31	0.78
1:I:83:HIS:CD2	1:I:86:ILE:HG23	2.18	0.78
1:B:88:GLU:CD	1:B:88:GLU:N	2.33	0.78
1:G:351:PHE:HD1	1:G:351:PHE:N	1.79	0.78
1:G:351:PHE:CD2	1:G:416:ILE:HG22	2.19	0.78
1:H:108:ASN:HA	1:H:235:ASN:OD1	1.84	0.78
1:H:350:VAL:HG11	1:H:413:GLU:CB	2.12	0.78
2:N:17:TYR:N	2:N:17:TYR:CD2	2.49	0.78
2:N:84:ILE:C	2:N:85:TYR:HD2	1.87	0.78
1:B:35:VAL:CG2	1:B:274:VAL:HG22	2.14	0.78
1:D:239:ALA:CB	1:D:344:GLN:HE21	1.97	0.78
1:D:507:TYR:CE2	1:D:508:GLY:O	2.36	0.78
1:G:103:ILE:HB	1:G:205:GLU:HG3	1.66	0.78
1:G:376:LEU:HA	1:G:379:PHE:HD2	1.48	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:222:LEU:HD23	1:M:222:LEU:H	1.48	0.78
1:M:485:SER:HA	1:M:486:LYS:NZ	1.99	0.78
2:N:173:LYS:HG2	2:N:254:PRO:HD3	1.64	0.78
2:N:226:ARG:CG	2:N:228:LEU:HD13	2.14	0.78
1:D:342:ASN:HA	1:D:345:ILE:CG2	2.13	0.78
1:E:158:ARG:CB	1:E:158:ARG:HH11	1.97	0.78
1:F:364:GLN:OE1	1:F:364:GLN:CA	2.30	0.78
1:I:194:THR:O	1:I:195:THR:CG2	2.30	0.78
1:L:43:THR:O	1:L:44:SER:CB	2.32	0.78
1:M:22:ASN:N	1:M:22:ASN:ND2	2.30	0.78
1:C:209:LEU:CD1	1:C:210:PRO:O	2.30	0.78
1:C:478:MET:CE	1:L:34:GLN:HE22	1.96	0.78
1:F:1:MET:SD	1:F:10:VAL:HB	2.24	0.78
1:F:325:LYS:HZ2	1:F:420:GLU:HG2	1.49	0.78
1:H:17:ARG:HG2	1:H:17:ARG:NH1	1.95	0.78
1:I:235:ASN:C	1:I:235:ASN:HD22	1.87	0.78
1:I:377:TYR:HE1	1:I:389:TRP:HB2	1.48	0.78
1:J:84:ALA:HB1	1:J:86:ILE:HB	0.78	0.78
1:B:192:ASN:ND2	1:B:193:THR:N	2.30	0.77
1:C:99:ARG:CD	1:C:243:SER:HB3	2.14	0.77
1:H:332:GLN:HG2	1:H:456:VAL:HG23	1.66	0.77
1:H:441:LEU:HD12	1:H:441:LEU:H	1.48	0.77
1:H:486:LYS:O	1:H:489:VAL:HG12	1.84	0.77
1:L:228:LEU:CD1	1:L:230:PHE:HE2	1.97	0.77
1:M:209:LEU:HD12	1:M:210:PRO:CA	2.14	0.77
1:C:218:GLN:HE21	1:C:218:GLN:N	1.83	0.77
1:E:3:ASN:ND2	1:E:4:SER:N	2.33	0.77
1:E:74:ASP:O	1:E:75:ILE:HG13	1.84	0.77
1:F:396:THR:HG23	1:F:412:LEU:HD22	1.66	0.77
2:N:253:TYR:N	2:N:254:PRO:HD2	1.96	0.77
1:D:71:VAL:HB	1:D:267:PRO:HB3	1.65	0.77
1:J:332:GLN:HG2	1:J:456:VAL:HG23	1.65	0.77
1:L:92:GLN:HG3	1:L:93:PRO:HD2	1.66	0.77
1:H:345:ILE:CG1	1:H:346:THR:HG23	2.14	0.77
1:L:187:MET:SD	1:L:199:ILE:HD13	2.24	0.77
1:C:490:LEU:O	1:C:490:LEU:CD1	2.30	0.77
1:D:500:TYR:HA	1:D:503:LEU:HG	1.66	0.77
1:E:286:ILE:HD13	1:E:287:THR:H	1.49	0.77
1:G:342:ASN:ND2	1:G:343:ASN:H	1.80	0.77
1:G:351:PHE:CE2	1:G:416:ILE:HG22	2.18	0.77
1:G:377:TYR:CE1	1:G:389:TRP:HB2	2.20	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:328:LEU:CD2	1:H:462:ILE:CD1	2.59	0.77
1:J:45:PHE:O	1:J:45:PHE:CG	2.37	0.77
1:A:341:LEU:HD13	1:A:341:LEU:C	1.93	0.77
1:B:228:LEU:HD11	1:B:230:PHE:CZ	2.19	0.77
1:C:95:ARG:HH11	1:C:95:ARG:CG	1.98	0.77
1:D:83:HIS:NE2	1:D:256:THR:CG2	2.48	0.77
1:F:382:GLN:CG	1:F:423:LYS:NZ	2.48	0.77
1:G:209:LEU:HD21	1:G:212:PHE:HD2	1.49	0.77
1:H:153:ASN:HD22	1:H:154:TYR:H	1.31	0.77
1:I:262:ILE:HG22	1:I:263:SER:N	1.95	0.77
1:J:205:GLU:OE2	1:J:232:TRP:CH2	2.36	0.77
1:M:386:ASN:C	1:M:387:LYS:HD3	2.04	0.77
2:N:84:ILE:O	2:N:85:TYR:HD2	1.68	0.77
1:C:249:ASN:C	1:C:249:ASN:HD22	1.86	0.77
1:D:48:ASN:HD22	2:N:348:GLN:CG	1.98	0.77
1:D:337:ILE:O	1:D:337:ILE:HG12	1.82	0.77
1:E:224:ASN:H	1:E:224:ASN:ND2	1.81	0.77
1:E:365:GLN:HB3	1:L:122:GLU:CD	2.04	0.77
1:G:209:LEU:HD21	1:G:212:PHE:CD2	2.19	0.77
1:I:452:GLN:HA	1:I:452:GLN:HE21	1.49	0.77
1:K:85:GLY:HA2	1:K:86:ILE:HB	0.80	0.77
1:M:437:GLY:HA3	1:M:439:PHE:CE2	2.19	0.77
2:N:173:LYS:CG	2:N:254:PRO:HD3	2.13	0.77
1:B:1:MET:H3	1:B:7:PRO:CB	1.96	0.77
1:B:92:GLN:CB	1:B:95:ARG:HB2	2.15	0.77
1:D:377:TYR:CD2	1:D:392:PHE:CD2	2.73	0.77
1:H:351:PHE:HB2	1:H:414:GLY:O	1.83	0.77
1:K:416:ILE:O	1:K:416:ILE:HG12	1.83	0.77
1:L:1:MET:N	1:L:10:VAL:HG12	1.98	0.77
1:L:170:VAL:HG12	1:L:171:PHE:H	1.48	0.77
2:N:91:TYR:CZ	2:N:157:PRO:CD	2.67	0.77
1:B:396:THR:CB	1:B:410:ILE:HD13	2.15	0.77
1:C:361:TRP:CD1	1:C:362:ASN:ND2	2.53	0.77
1:D:257:ILE:O	1:D:257:ILE:CD1	2.32	0.77
1:G:196:THR:HG23	1:G:197:ALA:N	1.98	0.77
1:I:336:VAL:HG22	1:I:337:ILE:N	1.98	0.77
1:J:299:GLN:HE21	1:J:335:ASN:HD21	1.31	0.77
1:L:228:LEU:HD22	1:L:229:THR:H	1.50	0.77
1:M:140:LYS:CG	1:M:179:GLU:OE2	2.33	0.77
2:N:168:ASP:HB3	2:N:171:THR:HG21	1.65	0.77
2:N:226:ARG:CG	2:N:228:LEU:HD12	2.15	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:412:LEU:O	1:A:413:GLU:HG3	1.85	0.77
1:B:322:ILE:HD11	1:B:431:GLU:OE1	1.83	0.77
1:E:96:ASP:CG	1:E:244:HIS:HA	2.04	0.77
1:E:152:ASP:OD1	1:E:348:PRO:HB3	1.85	0.77
1:G:282:ILE:HD12	1:G:283:PRO:HD2	1.67	0.77
1:H:208:PHE:O	1:H:209:LEU:HD13	1.85	0.77
1:H:336:VAL:HG22	1:H:337:ILE:N	2.00	0.77
1:H:365:GLN:HE21	1:L:370:GLY:CA	1.98	0.77
1:J:436:ILE:HG13	1:J:437:GLY:CA	2.14	0.77
1:L:324:ARG:HG2	1:L:324:ARG:NH1	1.88	0.77
1:L:357:LEU:HD12	1:L:357:LEU:O	1.84	0.77
2:N:256:LEU:CD2	2:N:307:PRO:HG3	1.94	0.77
1:B:187:MET:H	1:D:397:GLN:NE2	1.83	0.76
1:C:76:THR:O	1:C:260:MET:HB2	1.85	0.76
1:C:155:GLN:HB3	1:C:451:ASN:HB3	1.66	0.76
1:C:313:LYS:NZ	1:C:313:LYS:C	2.39	0.76
1:D:134:HIS:CE1	1:D:508:GLY:C	2.58	0.76
1:E:342:ASN:C	1:E:342:ASN:HD22	1.87	0.76
1:H:305:ALA:HB3	1:H:455:THR:HG22	1.66	0.76
1:I:1:MET:HE3	1:J:26:TRP:HB3	1.67	0.76
1:K:158:ARG:HH11	1:K:158:ARG:CB	1.98	0.76
1:L:439:PHE:CD2	1:L:439:PHE:N	2.52	0.76
1:B:2:SER:O	1:C:483:VAL:O	2.03	0.76
1:C:376:LEU:HD23	1:C:379:PHE:HZ	1.49	0.76
1:E:158:ARG:HH11	1:E:158:ARG:CG	1.98	0.76
1:H:474:ASN:OD1	1:H:475:THR:HB	1.85	0.76
1:I:340:ASN:HD21	1:I:343:ASN:HB3	0.64	0.76
1:K:179:GLU:OE2	1:M:177:LEU:HD23	1.81	0.76
1:M:61:THR:HG21	1:M:273:PHE:HB3	1.67	0.76
1:M:362:ASN:H	1:M:362:ASN:HD22	1.32	0.76
1:C:133:TYR:OH	1:C:418:CYS:HB3	1.85	0.76
1:D:336:VAL:HG22	1:D:337:ILE:H	1.48	0.76
1:D:379:PHE:HE1	1:D:424:ASP:HB3	1.49	0.76
1:J:1:MET:HG3	1:J:10:VAL:CG2	2.15	0.76
1:M:339:GLN:O	1:M:340:ASN:HB2	1.83	0.76
2:N:227:PHE:HZ	2:N:232:TYR:CE2	2.02	0.76
1:A:253:GLY:CA	1:A:254:ASN:OD1	2.31	0.76
1:D:343:ASN:ND2	1:D:344:GLN:H	1.65	0.76
1:M:59:ALA:O	1:M:60:GLN:CB	2.33	0.76
1:F:330:VAL:HG22	1:F:460:MET:HG2	1.68	0.76
1:G:87:THR:HB	1:G:88:GLU:OE2	1.85	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:78:THR:HG22	1:H:259:SER:O	1.85	0.76
1:A:380:SER:HA	1:A:382:GLN:N	1.99	0.76
1:A:490:LEU:HD22	1:A:491:ASN:ND2	2.00	0.76
1:J:84:ALA:HB1	1:J:85:GLY:HA2	1.66	0.76
1:L:249:ASN:HD22	1:L:250:ASP:N	1.83	0.76
1:F:365:GLN:OE1	1:F:365:GLN:HA	1.85	0.76
1:G:19:GLU:CB	1:G:20:LEU:HA	2.14	0.76
1:G:99:ARG:HH11	1:G:99:ARG:CB	1.98	0.76
1:J:412:LEU:O	1:J:413:GLU:HB2	1.84	0.76
1:K:86:ILE:O	1:K:86:ILE:CD1	2.30	0.76
1:M:332:GLN:NE2	1:M:336:VAL:HG11	2.00	0.76
1:D:255:SER:CB	1:D:257:ILE:HD11	2.16	0.76
1:D:350:VAL:C	1:D:351:PHE:HD1	1.89	0.76
1:F:250:ASP:OD2	1:F:251:VAL:CA	2.29	0.76
1:K:248:THR:O	1:K:249:ASN:CB	2.34	0.76
2:N:86:SER:HB2	2:N:98:GLN:HB2	1.66	0.76
2:N:168:ASP:CB	2:N:171:THR:HG21	2.16	0.76
2:N:184:ASP:HA	2:N:225:VAL:HG11	1.67	0.76
1:A:83:HIS:HB3	1:A:254:ASN:HD21	1.51	0.76
1:B:436:ILE:HG12	1:B:437:GLY:HA2	1.66	0.76
1:C:99:ARG:HG2	1:C:99:ARG:NH1	1.93	0.76
1:C:377:TYR:O	1:C:381:VAL:HG13	1.86	0.76
1:D:502:GLU:OE2	1:D:503:LEU:CD2	2.34	0.76
1:E:86:ILE:O	1:E:86:ILE:HG13	1.84	0.76
1:G:140:LYS:CG	1:G:179:GLU:OE2	2.29	0.76
1:G:252:SER:HB3	1:G:253:GLY:HA2	1.67	0.76
1:M:337:ILE:HD12	1:M:338:TYR:HE2	1.48	0.76
1:M:341:LEU:O	1:M:341:LEU:HD13	1.86	0.76
1:M:502:GLU:CD	1:M:503:LEU:N	2.39	0.76
2:N:186:THR:HG23	2:N:226:ARG:CB	2.14	0.76
1:C:331:LYS:NZ	1:C:334:ASP:OD1	2.18	0.76
1:D:377:TYR:CD2	1:D:392:PHE:HD2	2.04	0.76
1:F:76:THR:HG22	1:F:198:ARG:HG3	1.66	0.76
1:H:351:PHE:O	1:H:414:GLY:N	2.16	0.76
1:I:314:SER:HB2	1:I:443:VAL:H	1.49	0.76
1:K:238:LEU:O	1:K:238:LEU:CD1	2.30	0.76
1:K:247:ILE:HD13	1:K:248:THR:CA	2.15	0.76
1:A:341:LEU:O	1:A:341:LEU:CD2	2.30	0.75
1:C:478:MET:HE2	1:C:478:MET:CA	2.11	0.75
1:E:244:HIS:HB2	1:E:345:ILE:HG13	1.68	0.75
1:L:357:LEU:CD1	1:L:358:ASN:N	2.47	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:135:THR:CG2	1:M:386:ASN:OD1	2.34	0.75
2:N:103:PHE:HE1	2:N:131:TYR:CD1	2.02	0.75
2:N:256:LEU:HD22	2:N:307:PRO:HG2	0.77	0.75
2:N:271:LEU:HG	2:N:336:ASP:OD2	1.84	0.75
1:I:470:LEU:HD11	1:I:472:ILE:HG13	1.68	0.75
1:I:484:ALA:HA	1:J:1:MET:H1	1.48	0.75
1:J:132:ARG:HG3	1:J:132:ARG:NH2	1.98	0.75
1:J:218:GLN:O	1:J:219:ALA:CB	2.34	0.75
1:L:496:HIS:CE1	1:M:22:ASN:HB3	2.22	0.75
1:M:411:GLY:O	1:M:412:LEU:CD1	2.34	0.75
1:H:350:VAL:HG13	1:H:413:GLU:HB2	1.67	0.75
1:D:324:ARG:HG2	1:D:324:ARG:NH1	1.88	0.75
1:E:258:GLY:HA2	1:E:341:LEU:HD13	1.65	0.75
1:F:435:VAL:HG22	1:F:436:ILE:H	1.50	0.75
1:G:318:GLN:CA	1:G:440:ASN:HB3	2.16	0.75
1:H:99:ARG:NH2	1:H:240:ARG:HE	1.84	0.75
1:J:108:ASN:CA	1:J:235:ASN:ND2	2.49	0.75
1:M:252:SER:N	1:M:253:GLY:HA2	1.98	0.75
1:D:73:TYR:OH	1:D:199:ILE:HD11	1.86	0.75
1:G:65:ARG:HG3	1:G:65:ARG:NH1	1.91	0.75
1:I:104:SER:HB2	1:I:123:LEU:HD23	1.68	0.75
1:I:106:ILE:HD11	1:I:238:LEU:CA	2.16	0.75
1:I:110:LEU:HD23	1:I:111:ASN:CA	2.15	0.75
1:M:217:GLU:O	1:M:218:GLN:HB2	1.85	0.75
1:I:267:PRO:O	1:I:268:SER:OG	2.04	0.75
1:L:229:THR:C	1:L:230:PHE:CD2	2.60	0.75
1:M:140:LYS:HG2	1:M:179:GLU:OE2	1.86	0.75
1:M:506:ILE:O	1:M:506:ILE:HG12	1.87	0.75
2:N:36:PHE:HZ	2:N:335:VAL:HG11	0.63	0.75
1:B:1:MET:H3	1:B:7:PRO:HB2	1.50	0.75
1:B:196:THR:CG2	1:B:197:ALA:N	2.49	0.75
1:C:83:HIS:C	1:C:83:HIS:HD1	1.88	0.75
1:D:423:LYS:CG	1:D:424:ASP:OD1	2.30	0.75
1:E:3:ASN:HD22	1:E:4:SER:N	1.83	0.75
2:N:168:ASP:HB3	2:N:171:THR:HG1	1.49	0.75
1:A:117:PHE:O	1:A:117:PHE:CD1	2.29	0.75
1:A:305:ALA:CB	1:A:455:THR:HA	2.16	0.75
1:D:1:MET:SD	1:D:10:VAL:CB	2.71	0.75
1:F:192:ASN:HD22	1:F:192:ASN:C	1.90	0.75
1:G:367:ILE:CG2	1:G:368:LEU:HD12	2.12	0.75
1:H:121:ILE:CD1	1:H:293:LEU:HG	2.05	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:249:ASN:HB2	1:H:255:SER:HA	1.68	0.75
1:I:364:GLN:OE1	1:I:364:GLN:CA	2.30	0.75
1:M:100:ALA:HB2	1:M:182:ARG:HD3	1.69	0.75
1:M:140:LYS:CD	1:M:179:GLU:HG2	2.16	0.75
1:M:324:ARG:HH11	1:M:324:ARG:CG	1.93	0.75
1:E:317:VAL:O	1:E:317:VAL:HG22	1.87	0.75
1:H:76:THR:HB	1:H:198:ARG:HG2	1.68	0.75
1:J:89:ASN:HB2	1:J:192:ASN:HD21	1.52	0.75
1:A:83:HIS:HB3	1:A:254:ASN:ND2	2.00	0.74
1:C:172:THR:O	1:C:173:SER:CB	2.35	0.74
1:C:438:ASN:N	1:C:438:ASN:ND2	2.35	0.74
1:D:379:PHE:CE1	1:D:424:ASP:HB3	2.21	0.74
1:F:506:ILE:O	1:F:506:ILE:CD1	2.30	0.74
1:G:194:THR:OG1	1:G:195:THR:CG2	2.35	0.74
1:K:437:GLY:O	1:K:439:PHE:HE2	1.70	0.74
1:A:87:THR:C	1:A:88:GLU:CD	2.45	0.74
1:A:114:ILE:O	1:A:116:GLY:HA2	1.86	0.74
1:A:115:ASN:HD22	1:A:472:ILE:CG2	1.99	0.74
1:D:265:GLN:N	1:D:265:GLN:NE2	2.30	0.74
1:D:341:LEU:HD23	1:D:342:ASN:CA	2.17	0.74
1:G:374:GLN:NE2	1:G:375:ASN:HA	1.99	0.74
1:I:441:LEU:C	1:I:441:LEU:HD12	2.06	0.74
1:K:224:ASN:H	1:K:224:ASN:ND2	1.84	0.74
1:M:367:ILE:H	1:M:367:ILE:CD1	1.99	0.74
1:A:285:ARG:HB2	1:A:473:SER:HB2	1.70	0.74
1:A:324:ARG:HG3	1:A:325:LYS:HG2	1.68	0.74
1:B:171:PHE:C	1:B:171:PHE:CD1	2.61	0.74
1:B:208:PHE:HE1	1:B:214:TRP:CD1	2.04	0.74
1:C:377:TYR:CE1	1:C:389:TRP:HB2	2.23	0.74
1:D:261:ASN:HD22	1:D:261:ASN:N	1.83	0.74
1:E:357:LEU:HB3	1:E:376:LEU:HD11	1.69	0.74
1:G:9:ASN:ND2	1:G:10:VAL:N	2.30	0.74
1:L:249:ASN:ND2	1:L:250:ASP:H	1.85	0.74
1:M:295:ARG:HG2	1:M:295:ARG:NH1	2.02	0.74
2:N:36:PHE:CE2	2:N:335:VAL:CG1	2.70	0.74
2:N:274:ILE:HG23	2:N:275:ASN:N	2.02	0.74
1:C:96:ASP:HB3	1:C:242:TRP:CZ2	2.23	0.74
1:D:261:ASN:ND2	1:D:261:ASN:N	2.30	0.74
1:E:39:PRO:HB3	1:E:270:TYR:CE1	2.21	0.74
1:I:88:GLU:O	1:I:194:THR:HB	1.87	0.74
1:J:341:LEU:C	1:J:341:LEU:CD1	2.30	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:507:TYR:CD1	1:L:508:GLY:HA3	2.23	0.74
1:B:258:GLY:HA2	1:B:341:LEU:HD23	1.70	0.74
1:B:357:LEU:HD12	1:B:357:LEU:O	1.87	0.74
1:G:336:VAL:HA	1:G:339:GLN:NE2	2.02	0.74
1:H:349:ASP:O	1:H:350:VAL:HG22	1.86	0.74
1:J:86:ILE:HD12	1:J:86:ILE:O	1.86	0.74
1:L:104:SER:HB3	1:L:205:GLU:OE1	1.87	0.74
2:N:252:GLU:O	2:N:254:PRO:HD2	1.86	0.74
1:F:296:TYR:N	1:F:296:TYR:CD2	2.55	0.74
1:H:99:ARG:HH22	1:H:240:ARG:NE	1.86	0.74
1:I:425:VAL:HG12	1:I:426:GLY:N	2.00	0.74
1:K:59:ALA:O	1:K:60:GLN:HB2	1.85	0.74
1:K:92:GLN:HB2	1:K:95:ARG:HB2	1.68	0.74
1:M:412:LEU:CD1	1:M:412:LEU:N	2.51	0.74
1:M:451:ASN:HD21	1:M:454:VAL:HG22	1.52	0.74
2:N:173:LYS:CG	2:N:254:PRO:CD	2.65	0.74
1:B:1:MET:H1	1:B:2:SER:HA	1.53	0.74
1:I:1:MET:HG3	1:I:10:VAL:CB	2.14	0.74
1:I:204:TYR:CE1	1:J:374:GLN:HG2	2.22	0.74
1:J:61:THR:HG23	1:J:275:THR:HB	1.70	0.74
1:K:1:MET:SD	1:L:26:TRP:CD1	2.80	0.74
1:A:110:LEU:HD13	1:A:111:ASN:N	2.02	0.74
1:B:337:ILE:HD11	1:B:338:TYR:CE2	2.23	0.74
1:C:123:LEU:HD23	1:C:127:ILE:HB	1.70	0.74
1:C:500:TYR:O	1:C:503:LEU:HB3	1.87	0.74
1:E:45:PHE:CE2	1:E:266:GLN:CA	2.71	0.74
1:H:392:PHE:HD1	1:H:393:ASN:N	1.85	0.74
1:J:364:GLN:NE2	1:J:367:ILE:HD11	1.98	0.74
1:M:412:LEU:HD13	1:M:412:LEU:N	1.99	0.74
1:B:285:ARG:HH11	1:B:285:ARG:HG3	1.53	0.74
1:J:136:PRO:HD2	1:J:139:VAL:HB	1.70	0.74
1:J:486:LYS:HA	1:J:486:LYS:HZ3	1.52	0.74
1:K:342:ASN:O	1:K:346:THR:CG2	2.35	0.74
1:M:151:GLU:CD	1:M:151:GLU:H	1.87	0.74
1:B:461:TYR:C	1:B:462:ILE:CD1	2.55	0.74
1:C:412:LEU:HD12	1:C:413:GLU:CB	2.18	0.74
1:D:92:GLN:HB2	1:D:95:ARG:HB2	1.68	0.74
1:L:228:LEU:HD13	1:L:230:PHE:CE2	2.23	0.74
1:L:228:LEU:C	1:L:229:THR:HG22	2.06	0.74
1:C:478:MET:SD	1:L:34:GLN:OE1	2.46	0.73
1:D:380:SER:CB	1:D:383:ASN:H	2.00	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1:MET:CB	1:G:2:SER:HB2	2.07	0.73
1:G:324:ARG:HB2	1:G:467:ASP:OD1	1.87	0.73
1:H:106:ILE:CD1	1:H:241:ILE:HG13	2.18	0.73
1:H:324:ARG:HG2	1:H:324:ARG:NH1	2.03	0.73
1:B:196:THR:HG23	1:B:197:ALA:N	2.03	0.73
1:B:362:ASN:OD1	1:B:363:ASN:HB2	1.88	0.73
1:G:58:SER:OG	1:L:116:GLY:CA	2.37	0.73
1:H:395:VAL:HG12	1:H:450:THR:HG22	1.68	0.73
1:K:60:GLN:O	1:K:276:PRO:CD	2.35	0.73
1:K:222:LEU:HD23	1:K:222:LEU:N	2.02	0.73
1:L:253:GLY:H	1:L:254:ASN:HA	1.51	0.73
1:M:158:ARG:HH11	1:M:158:ARG:CG	2.01	0.73
1:A:89:ASN:OD1	1:A:192:ASN:ND2	2.21	0.73
1:A:305:ALA:HB3	1:A:455:THR:HG22	1.70	0.73
1:C:490:LEU:C	1:C:490:LEU:CD1	2.53	0.73
1:E:32:GLY:HA2	1:E:277:ARG:HG3	1.69	0.73
1:E:303:THR:CG2	1:E:457:THR:CB	2.66	0.73
1:H:345:ILE:HG13	1:H:346:THR:HG22	1.67	0.73
1:L:266:GLN:HG3	1:L:266:GLN:O	1.87	0.73
2:N:227:PHE:CE2	2:N:229:GLY:O	2.41	0.73
1:B:21:ASN:H	1:B:21:ASN:ND2	1.85	0.73
1:E:493:ARG:HH11	1:E:493:ARG:CG	2.00	0.73
1:F:106:ILE:HD13	1:F:238:LEU:HD12	1.69	0.73
1:I:377:TYR:CD2	1:I:377:TYR:O	2.41	0.73
1:J:386:ASN:C	1:J:386:ASN:ND2	2.40	0.73
1:K:342:ASN:O	1:K:346:THR:HG22	1.88	0.73
1:M:121:ILE:HD13	1:M:209:LEU:HB2	1.70	0.73
1:M:386:ASN:O	1:M:387:LYS:CD	2.36	0.73
1:B:505:ARG:HH11	1:B:505:ARG:CG	1.99	0.73
1:C:75:ILE:HG22	1:C:76:THR:N	2.03	0.73
1:C:86:ILE:O	1:C:86:ILE:CG2	2.30	0.73
1:C:377:TYR:CD2	1:C:377:TYR:C	2.55	0.73
1:F:2:SER:O	1:F:3:ASN:CB	2.36	0.73
1:C:322:ILE:HG22	1:C:421:LEU:HD23	1.71	0.73
1:D:380:SER:CB	1:D:383:ASN:HB2	2.19	0.73
1:H:238:LEU:HD23	1:H:262:ILE:HG13	1.64	0.73
1:L:253:GLY:N	1:L:254:ASN:CA	2.50	0.73
2:N:168:ASP:OD1	2:N:171:THR:CG2	2.30	0.73
1:B:190:VAL:O	1:B:191:THR:HG22	1.87	0.73
1:D:252:SER:CB	1:D:253:GLY:CA	2.65	0.73
1:J:205:GLU:OE1	1:J:232:TRP:CZ3	2.42	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:361:TRP:HA	1:L:361:TRP:CE3	2.22	0.73
1:C:299:GLN:HE21	1:C:299:GLN:N	1.85	0.73
1:G:172:THR:O	1:G:173:SER:CB	2.36	0.73
1:G:254:ASN:N	1:G:254:ASN:ND2	2.36	0.73
1:H:326:LEU:CD2	1:H:328:LEU:HD21	2.18	0.73
1:H:441:LEU:HD12	1:H:441:LEU:N	2.04	0.73
1:L:337:ILE:CD1	1:L:338:TYR:CD2	2.71	0.73
2:N:72:ILE:HD11	2:N:131:TYR:CZ	2.24	0.73
1:A:253:GLY:CA	1:A:254:ASN:HB3	2.09	0.73
1:D:83:HIS:HE1	1:D:256:THR:HG22	1.52	0.73
1:G:345:ILE:HG12	1:G:346:THR:N	2.00	0.73
1:G:374:GLN:NE2	1:G:374:GLN:C	2.42	0.73
1:J:328:LEU:CD2	1:J:443:VAL:HG21	2.19	0.73
1:M:194:THR:O	1:M:195:THR:CB	2.35	0.73
1:B:27:VAL:HG22	1:C:11:VAL:HG23	1.70	0.73
1:E:73:TYR:CE1	1:E:201:GLY:O	2.41	0.73
1:E:259:SER:HA	1:E:341:LEU:CD1	2.18	0.73
1:G:108:ASN:CB	1:G:235:ASN:OD1	2.37	0.73
1:A:428:ARG:CB	1:A:428:ARG:HH11	2.02	0.72
1:C:327:TYR:O	1:C:328:LEU:CD2	2.37	0.72
1:C:478:MET:SD	1:L:34:GLN:CD	2.66	0.72
1:E:78:THR:HG22	1:E:259:SER:O	1.89	0.72
1:F:180:LEU:HD23	1:F:180:LEU:N	2.02	0.72
1:F:295:ARG:HH11	1:F:295:ARG:HG2	1.54	0.72
1:F:503:LEU:HA	1:F:506:ILE:HG21	1.68	0.72
1:K:73:TYR:HE2	1:K:199:ILE:HD12	1.54	0.72
1:K:87:THR:O	1:K:88:GLU:CB	2.37	0.72
1:A:192:ASN:C	1:A:192:ASN:HD22	1.93	0.72
1:D:1:MET:CG	1:D:10:VAL:HB	2.19	0.72
1:D:136:PRO:HD2	1:D:139:VAL:HB	1.69	0.72
1:D:392:PHE:CE1	1:D:415:GLY:HA3	2.23	0.72
1:F:83:HIS:ND1	1:F:250:ASP:O	2.21	0.72
1:G:265:GLN:HE21	1:G:265:GLN:CA	2.01	0.72
1:I:439:PHE:CD2	1:I:439:PHE:N	2.54	0.72
1:M:6:ILE:HD13	1:M:6:ILE:H	1.54	0.72
1:B:190:VAL:CG2	1:B:198:ARG:O	2.36	0.72
1:B:324:ARG:HG3	1:B:325:LYS:HG3	1.71	0.72
1:E:153:ASN:HD22	1:E:153:ASN:N	1.86	0.72
1:H:313:LYS:HZ2	1:H:313:LYS:CB	2.00	0.72
1:K:89:ASN:HD22	1:K:89:ASN:N	1.87	0.72
1:C:494:ILE:C	1:C:494:ILE:HD12	2.10	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:382:GLN:HE21	1:F:423:LYS:NZ	1.72	0.72
1:H:305:ALA:CB	1:H:455:THR:HA	2.20	0.72
1:K:428:ARG:HG2	1:K:428:ARG:HH11	1.53	0.72
1:M:313:LYS:HZ2	1:M:313:LYS:HB3	0.61	0.72
1:E:48:ASN:HD21	1:J:295:ARG:HH22	0.73	0.72
1:E:235:ASN:ND2	1:J:108:ASN:HD22	1.87	0.72
1:H:238:LEU:CD2	1:H:238:LEU:O	2.36	0.72
1:I:377:TYR:CE1	1:I:389:TRP:HB2	2.24	0.72
1:J:1:MET:CG	1:J:10:VAL:HG22	2.19	0.72
2:N:99:ASN:ND2	2:N:150:ALA:HB2	2.02	0.72
1:B:305:ALA:CB	1:B:455:THR:CB	2.67	0.72
1:H:1:MET:HE1	1:I:26:TRP:HB3	1.70	0.72
1:I:332:GLN:OE1	1:I:333:SER:N	2.22	0.72
1:K:117:PHE:HB3	1:K:477:ALA:HB3	1.72	0.72
1:M:102:PRO:HB2	1:M:241:ILE:HD12	1.66	0.72
2:N:255:THR:O	2:N:257:SER:HB2	1.88	0.72
1:A:22:ASN:N	1:A:22:ASN:HD22	1.87	0.72
1:B:89:ASN:HD21	1:D:403:SER:N	1.88	0.72
1:C:99:ARG:HH11	1:C:99:ARG:CG	1.97	0.72
1:F:39:PRO:HB3	1:F:270:TYR:CE1	2.24	0.72
1:F:187:MET:HB2	1:F:199:ILE:HD13	1.72	0.72
1:G:155:GLN:HG2	1:G:451:ASN:HB2	1.72	0.72
1:H:328:LEU:HD22	1:H:462:ILE:HD13	1.68	0.72
1:H:412:LEU:O	1:H:413:GLU:HG3	1.88	0.72
1:K:95:ARG:HH12	1:K:248:THR:CG2	2.02	0.72
1:L:341:LEU:C	1:L:341:LEU:CD1	2.58	0.72
1:M:208:PHE:CG	1:M:214:TRP:CD1	2.73	0.72
1:A:106:ILE:HG13	1:A:241:ILE:HG13	1.72	0.72
1:B:5:ALA:HB1	1:C:285:ARG:HH11	1.54	0.72
1:B:305:ALA:CB	1:B:455:THR:HA	2.18	0.72
1:C:92:GLN:NE2	1:C:248:THR:HG22	2.04	0.72
1:D:73:TYR:HD2	1:D:75:ILE:HD12	1.54	0.72
1:D:295:ARG:NH1	1:D:297:THR:HG21	2.05	0.72
1:E:441:LEU:C	1:E:441:LEU:CD2	2.58	0.72
1:H:486:LYS:CB	1:H:486:LYS:HZ3	2.00	0.72
1:K:437:GLY:CA	1:K:439:PHE:HE2	2.03	0.72
2:N:299:PHE:HZ	2:N:313:ILE:HG13	1.55	0.72
1:B:208:PHE:O	1:B:209:LEU:HB3	1.88	0.72
1:G:505:ARG:HH11	1:G:505:ARG:CB	2.02	0.72
1:M:301:GLN:NE2	1:M:301:GLN:CA	2.53	0.72
1:B:507:TYR:CD1	1:B:508:GLY:HA3	2.24	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:171:PHE:HD1	1:D:171:PHE:O	1.71	0.72
1:E:240:ARG:HH11	1:E:240:ARG:HG2	1.54	0.72
1:H:342:ASN:HD22	1:H:342:ASN:H	1.38	0.72
1:K:89:ASN:HB3	1:K:192:ASN:ND2	2.05	0.72
1:B:2:SER:C	1:B:3:ASN:CG	2.48	0.71
1:B:79:ALA:HB2	1:B:195:THR:HA	1.71	0.71
1:B:493:ARG:HG3	1:B:493:ARG:HH11	1.55	0.71
1:C:350:VAL:HG21	1:C:413:GLU:O	1.90	0.71
1:H:99:ARG:NH1	1:H:240:ARG:NH2	2.38	0.71
1:H:337:ILE:O	1:H:337:ILE:HG12	1.89	0.71
1:J:367:ILE:HD13	1:J:367:ILE:H	1.55	0.71
2:N:92:ASN:N	2:N:93:GLY:HA2	2.05	0.71
2:N:272:LEU:H	2:N:272:LEU:CD1	2.03	0.71
1:B:17:ARG:HD2	1:D:218:GLN:NE2	2.04	0.71
1:B:462:ILE:O	1:B:462:ILE:CG2	2.30	0.71
1:C:478:MET:CE	1:C:478:MET:CA	2.66	0.71
1:E:380:SER:HA	1:E:382:GLN:N	2.05	0.71
1:H:206:GLN:CG	1:H:208:PHE:CE2	2.66	0.71
1:I:189:VAL:HG22	1:I:199:ILE:HG22	1.70	0.71
1:I:342:ASN:C	1:I:342:ASN:OD1	2.29	0.71
1:J:59:ALA:O	1:J:60:GLN:HB2	1.90	0.71
1:M:132:ARG:HD3	1:M:132:ARG:N	2.05	0.71
2:N:270:ASN:O	2:N:271:LEU:HD22	1.88	0.71
1:B:358:ASN:OD1	1:B:358:ASN:C	2.29	0.71
1:C:396:THR:HG23	1:C:410:ILE:HB	1.73	0.71
1:D:2:SER:O	1:D:3:ASN:CB	2.38	0.71
1:D:116:GLY:O	2:N:327:PHE:CD2	2.43	0.71
1:G:5:ALA:HA	1:G:6:ILE:C	2.09	0.71
1:K:264:PHE:O	1:K:265:GLN:NE2	2.23	0.71
2:N:91:TYR:O	2:N:92:ASN:HB2	1.89	0.71
2:N:105:PRO:O	2:N:108:THR:O	2.07	0.71
2:N:184:ASP:HA	2:N:225:VAL:HG13	1.71	0.71
1:B:332:GLN:CD	1:B:333:SER:HB3	2.10	0.71
1:B:396:THR:O	1:B:410:ILE:HD12	1.91	0.71
1:C:89:ASN:HB3	1:C:192:ASN:HD21	1.56	0.71
1:C:313:LYS:HE3	1:C:442:GLN:NE2	2.06	0.71
1:D:116:GLY:O	2:N:327:PHE:HD2	1.73	0.71
1:F:396:THR:CG2	1:F:412:LEU:HD22	2.20	0.71
1:H:351:PHE:HD2	1:H:416:ILE:HG22	1.53	0.71
1:I:3:ASN:HD22	1:I:3:ASN:C	1.94	0.71
1:I:336:VAL:CG2	1:I:337:ILE:H	2.00	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:437:GLY:CA	1:I:439:PHE:HE2	1.97	0.71
1:J:209:LEU:HD23	1:J:209:LEU:C	2.07	0.71
1:C:140:LYS:CG	1:C:179:GLU:OE1	2.38	0.71
1:C:251:VAL:HG23	1:C:252:SER:N	2.04	0.71
1:F:172:THR:O	1:F:173:SER:CB	2.37	0.71
1:H:313:LYS:HG3	1:H:444:GLN:HB2	1.71	0.71
2:N:186:THR:HG23	2:N:226:ARG:HD3	1.64	0.71
1:A:253:GLY:HA3	1:A:254:ASN:CB	2.15	0.71
1:A:332:GLN:HG2	1:A:456:VAL:HG23	1.71	0.71
1:B:186:THR:HA	1:D:397:GLN:CD	2.07	0.71
1:B:410:ILE:HD13	1:B:410:ILE:O	1.91	0.71
1:F:123:LEU:HD12	1:F:127:ILE:HG12	1.72	0.71
1:G:318:GLN:HB2	1:G:440:ASN:HB3	1.73	0.71
1:I:314:SER:HB2	1:I:443:VAL:N	2.05	0.71
1:M:33:GLN:HG2	1:M:34:GLN:HG2	1.70	0.71
1:C:328:LEU:N	1:C:328:LEU:CD2	2.47	0.71
1:D:61:THR:HG23	1:D:275:THR:HG22	1.71	0.71
1:I:490:LEU:HD23	1:I:491:ASN:HB3	1.70	0.71
1:J:57:PRO:CB	1:L:363:ASN:CG	2.42	0.71
2:N:91:TYR:CZ	2:N:157:PRO:CG	2.73	0.71
2:N:227:PHE:HE1	2:N:232:TYR:CE2	2.06	0.71
1:B:249:ASN:ND2	1:B:249:ASN:C	2.42	0.71
1:C:65:ARG:CB	1:C:213:LEU:CD2	2.68	0.71
1:C:291:PHE:CE2	1:C:508:GLY:HA2	2.25	0.71
1:C:299:GLN:H	1:C:299:GLN:NE2	1.86	0.71
1:C:460:MET:HG3	1:C:461:TYR:H	1.53	0.71
1:E:3:ASN:ND2	1:E:3:ASN:C	2.44	0.71
1:F:106:ILE:CD1	1:F:241:ILE:HG12	2.18	0.71
1:F:265:GLN:HE21	1:F:265:GLN:N	1.85	0.71
1:G:21:ASN:HD22	1:G:21:ASN:N	1.80	0.71
1:G:213:LEU:CB	1:G:214:TRP:HB2	2.21	0.71
1:H:351:PHE:CE2	1:H:416:ILE:HG21	2.14	0.71
1:K:172:THR:O	1:K:173:SER:CB	2.37	0.71
1:L:87:THR:O	1:L:88:GLU:HG3	1.90	0.71
1:M:120:ASN:C	1:M:121:ILE:HD12	2.11	0.71
2:N:17:TYR:HD2	2:N:17:TYR:H	1.38	0.71
1:C:23:GLU:OE2	1:C:23:GLU:HA	1.91	0.71
1:D:393:ASN:O	1:D:393:ASN:CG	2.29	0.71
1:E:1:MET:CE	1:E:10:VAL:HA	2.20	0.71
1:E:285:ARG:HG3	1:F:6:ILE:HD11	1.73	0.71
1:E:304:LEU:HD23	1:E:304:LEU:C	2.08	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:313:LYS:HE2	1:E:442:GLN:CD	2.11	0.71
1:I:322:ILE:CD1	1:I:432:ALA:O	2.39	0.71
1:L:305:ALA:HB2	1:L:455:THR:HA	1.73	0.71
1:B:166:ASN:OD1	1:B:166:ASN:C	2.30	0.71
1:D:416:ILE:O	1:D:416:ILE:CG1	2.38	0.71
1:H:302:ASN:N	1:H:302:ASN:HD22	1.86	0.71
1:L:228:LEU:C	1:L:229:THR:CG2	2.59	0.71
1:M:108:ASN:ND2	1:M:109:THR:HG22	2.03	0.71
1:B:224:ASN:ND2	1:B:224:ASN:H	1.89	0.70
1:C:286:ILE:HD11	1:C:288:TYR:CZ	2.25	0.70
1:D:343:ASN:ND2	1:D:343:ASN:C	2.30	0.70
1:E:250:ASP:C	1:E:250:ASP:OD1	2.30	0.70
1:G:340:ASN:ND2	1:G:342:ASN:HD22	1.86	0.70
1:H:428:ARG:O	1:H:431:GLU:CG	2.39	0.70
1:L:249:ASN:HB2	1:L:255:SER:HA	1.73	0.70
1:M:502:GLU:OE1	1:M:503:LEU:HA	1.90	0.70
1:M:503:LEU:HD22	1:M:503:LEU:C	2.10	0.70
1:B:136:PRO:HD2	1:B:139:VAL:HB	1.71	0.70
1:B:385:TYR:CE2	1:B:387:LYS:CB	2.54	0.70
1:C:381:VAL:HG22	1:C:382:GLN:N	2.05	0.70
1:D:502:GLU:OE2	1:D:502:GLU:C	2.30	0.70
1:F:501:ASN:H	1:F:501:ASN:ND2	1.87	0.70
1:H:1:MET:HG3	1:H:10:VAL:CB	2.19	0.70
1:M:132:ARG:HG2	1:M:132:ARG:NH1	2.00	0.70
2:N:128:THR:C	2:N:130:TYR:H	1.92	0.70
1:A:85:GLY:HA3	1:A:86:ILE:HB	1.70	0.70
1:A:428:ARG:HH11	1:A:428:ARG:HB3	1.56	0.70
1:B:459:ASP:C	1:B:459:ASP:OD2	2.30	0.70
1:C:376:LEU:HD23	1:C:379:PHE:CZ	2.25	0.70
1:D:3:ASN:CG	1:D:3:ASN:O	2.30	0.70
1:D:363:ASN:C	1:D:364:GLN:OE1	2.30	0.70
1:E:21:ASN:CG	1:E:21:ASN:O	2.30	0.70
1:E:48:ASN:ND2	1:J:295:ARG:HH21	1.86	0.70
1:F:363:ASN:CG	1:F:363:ASN:O	2.30	0.70
1:G:192:ASN:C	1:G:192:ASN:ND2	2.45	0.70
1:H:392:PHE:CD1	1:H:393:ASN:N	2.60	0.70
1:L:486:LYS:H	1:L:486:LYS:HD2	1.54	0.70
1:M:315:ASN:C	1:M:315:ASN:OD1	2.29	0.70
1:A:305:ALA:HB3	1:A:455:THR:HA	1.72	0.70
1:B:155:GLN:HG3	1:B:412:LEU:H	1.57	0.70
1:C:377:TYR:CD2	1:C:381:VAL:CG1	2.65	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:210:PRO:CB	1:F:211:PRO:HD3	2.14	0.70
1:I:110:LEU:CD2	1:I:111:ASN:CA	2.70	0.70
1:K:25:THR:CG2	1:M:9:ASN:HB3	2.21	0.70
1:K:39:PRO:HB3	1:K:270:TYR:CE1	2.26	0.70
1:L:87:THR:O	1:L:88:GLU:HB2	1.91	0.70
1:M:208:PHE:CD1	1:M:214:TRP:HD1	1.56	0.70
2:N:227:PHE:HD2	2:N:229:GLY:O	1.73	0.70
1:A:87:THR:C	1:A:88:GLU:OE1	2.30	0.70
1:A:264:PHE:C	1:A:265:GLN:HE21	1.94	0.70
1:B:19:GLU:CB	1:B:20:LEU:HA	2.14	0.70
1:B:86:ILE:O	1:B:86:ILE:CG1	2.30	0.70
1:B:363:ASN:C	1:B:364:GLN:CD	2.49	0.70
1:C:206:GLN:NE2	1:C:208:PHE:CE1	2.59	0.70
1:D:73:TYR:CD1	1:D:203:LEU:HD21	2.26	0.70
1:F:237:ASN:HB2	1:F:344:GLN:OE1	1.91	0.70
1:H:73:TYR:HE1	1:H:203:LEU:CD2	2.05	0.70
1:H:110:LEU:CD2	1:H:232:TRP:CE2	2.74	0.70
1:H:238:LEU:HD23	1:H:238:LEU:C	2.11	0.70
1:J:18:LEU:O	1:J:19:GLU:CD	2.30	0.70
1:J:87:THR:CG2	1:J:88:GLU:HA	2.21	0.70
1:J:231:ASN:C	1:J:231:ASN:OD1	2.30	0.70
1:K:439:PHE:N	1:K:439:PHE:CD2	2.59	0.70
1:L:89:ASN:CB	1:L:192:ASN:HD21	2.00	0.70
1:L:358:ASN:C	1:L:358:ASN:OD1	2.29	0.70
1:L:429:ASP:OD2	1:L:430:ASP:HB2	1.90	0.70
1:A:34:GLN:HE22	1:J:364:GLN:HB2	1.56	0.70
1:B:165:ASN:CG	1:B:165:ASN:O	2.30	0.70
1:C:51:ASN:CB	1:C:231:ASN:HB2	2.21	0.70
1:C:73:TYR:HE2	1:C:199:ILE:CD1	2.04	0.70
1:D:261:ASN:CA	1:D:262:ILE:HD13	2.22	0.70
1:F:172:THR:O	1:F:173:SER:HB3	1.89	0.70
1:G:87:THR:C	1:G:88:GLU:OE2	2.30	0.70
1:G:376:LEU:N	1:G:376:LEU:HD12	2.06	0.70
1:I:343:ASN:C	1:I:343:ASN:OD1	2.30	0.70
1:L:257:ILE:H	1:L:257:ILE:HD12	1.54	0.70
1:M:215:ASP:C	1:M:215:ASP:OD1	2.30	0.70
1:M:362:ASN:HD22	1:M:362:ASN:N	1.89	0.70
1:C:217:GLU:O	1:C:217:GLU:CD	2.30	0.70
1:D:340:ASN:CG	1:D:340:ASN:O	2.30	0.70
1:E:1:MET:SD	1:E:10:VAL:HB	2.32	0.70
1:E:250:ASP:OD2	1:E:254:ASN:CG	2.30	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:333:SER:HB2	1:F:459:ASP:HB3	1.72	0.70
1:H:313:LYS:HG3	1:H:444:GLN:CB	2.20	0.70
1:I:251:VAL:HG13	1:I:252:SER:H	1.57	0.70
1:M:431:GLU:HB2	1:M:435:VAL:HG21	1.74	0.70
1:D:356:ASN:C	1:D:356:ASN:OD1	2.30	0.70
1:D:361:TRP:CE3	1:D:362:ASN:OD1	2.45	0.70
1:E:286:ILE:CD1	1:E:287:THR:H	2.05	0.70
1:F:507:TYR:CD1	1:F:508:GLY:N	2.60	0.70
1:H:133:TYR:CZ	1:H:418:CYS:HB3	2.26	0.70
1:I:1:MET:SD	1:I:10:VAL:HB	2.31	0.70
2:N:84:ILE:O	2:N:84:ILE:HD13	1.91	0.70
2:N:91:TYR:CZ	2:N:157:PRO:HG3	2.27	0.70
1:C:459:ASP:OD2	1:C:459:ASP:C	2.30	0.70
1:C:502:GLU:OE2	1:C:502:GLU:C	2.30	0.70
1:D:252:SER:HB2	1:D:253:GLY:HA2	1.71	0.70
1:H:59:ALA:O	1:H:60:GLN:CD	2.30	0.70
1:H:313:LYS:CD	1:H:444:GLN:HG3	2.21	0.70
1:I:96:ASP:C	1:I:96:ASP:OD2	2.29	0.70
1:L:249:ASN:O	1:L:250:ASP:CG	2.30	0.70
1:L:377:TYR:O	1:L:381:VAL:HG12	1.92	0.70
1:M:165:ASN:H	1:M:165:ASN:HD22	1.39	0.70
1:M:337:ILE:CD1	1:M:338:TYR:CE2	2.69	0.70
1:A:342:ASN:C	1:A:342:ASN:OD1	2.30	0.70
1:B:401:GLY:O	1:B:402:VAL:HG23	1.91	0.70
1:C:1:MET:N	1:D:484:ALA:HA	2.07	0.70
1:E:299:GLN:NE2	1:J:46:SER:CA	2.51	0.70
1:F:507:TYR:CD1	1:F:508:GLY:O	2.45	0.70
1:G:92:GLN:HB2	1:G:95:ARG:HB2	1.74	0.70
1:I:362:ASN:CG	1:I:362:ASN:O	2.30	0.70
1:J:140:LYS:CG	1:J:179:GLU:HG2	2.20	0.70
1:J:205:GLU:OE2	1:J:232:TRP:CZ3	2.45	0.70
2:N:169:SER:O	2:N:170:ASN:CG	2.30	0.70
1:B:111:ASN:OD1	1:B:111:ASN:C	2.29	0.69
1:B:357:LEU:HD12	1:B:358:ASN:CA	2.21	0.69
1:B:396:THR:OG1	1:B:412:LEU:HD13	1.92	0.69
1:C:386:ASN:C	1:C:386:ASN:ND2	2.38	0.69
1:C:488:GLU:C	1:C:488:GLU:OE1	2.30	0.69
1:D:404:GLY:O	1:D:405:GLN:CD	2.30	0.69
1:E:484:ALA:HA	1:F:1:MET:H1	1.55	0.69
1:F:92:GLN:HB3	1:F:93:PRO:HD2	1.74	0.69
1:G:349:ASP:CG	1:G:349:ASP:O	2.30	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:376:LEU:CA	1:G:379:PHE:CE2	2.75	0.69
1:H:3:ASN:HB2	1:J:483:VAL:O	1.91	0.69
1:H:343:ASN:O	1:H:347:THR:CG2	2.40	0.69
1:H:379:PHE:C	1:H:379:PHE:CD2	2.66	0.69
1:K:84:ALA:HA	1:K:86:ILE:HB	1.73	0.69
1:M:136:PRO:O	1:M:137:LEU:C	2.29	0.69
1:C:343:ASN:C	1:C:343:ASN:OD1	2.30	0.69
1:D:73:TYR:CD2	1:D:75:ILE:HD12	2.27	0.69
1:E:362:ASN:N	1:E:362:ASN:ND2	2.36	0.69
1:G:108:ASN:C	1:G:108:ASN:OD1	2.30	0.69
1:H:436:ILE:CG1	1:H:437:GLY:HA2	2.22	0.69
1:L:188:ASN:C	1:L:188:ASN:OD1	2.30	0.69
1:M:100:ALA:HB3	1:M:182:ARG:HD3	1.74	0.69
1:M:265:GLN:HE21	1:M:265:GLN:HA	1.55	0.69
1:M:475:THR:O	1:M:476:SER:HB3	1.92	0.69
2:N:271:LEU:CG	2:N:336:ASP:OD1	2.40	0.69
1:B:2:SER:O	1:B:3:ASN:CG	2.30	0.69
1:B:332:GLN:CD	1:B:333:SER:OG	2.30	0.69
1:B:367:ILE:HG22	1:B:368:LEU:HD12	1.72	0.69
1:D:249:ASN:OD1	1:D:253:GLY:HA3	1.92	0.69
1:E:1:MET:N	1:G:484:ALA:HA	2.07	0.69
1:F:2:SER:O	1:F:3:ASN:HB3	1.91	0.69
1:F:364:GLN:HG3	1:F:367:ILE:HD11	1.74	0.69
1:F:490:LEU:C	1:F:491:ASN:ND2	2.45	0.69
1:I:120:ASN:C	1:I:120:ASN:HD22	1.95	0.69
1:I:349:ASP:C	1:I:349:ASP:OD2	2.30	0.69
1:I:490:LEU:O	1:I:491:ASN:CG	2.30	0.69
1:K:483:VAL:O	1:L:3:ASN:HB2	1.92	0.69
1:L:110:LEU:HD11	1:L:207:VAL:HG13	1.72	0.69
1:L:215:ASP:C	1:L:215:ASP:OD1	2.30	0.69
1:L:250:ASP:OD2	1:L:250:ASP:C	2.31	0.69
2:N:173:LYS:HD3	2:N:254:PRO:HG3	0.71	0.69
1:B:332:GLN:CD	1:B:333:SER:CB	2.61	0.69
1:D:61:THR:CG2	1:D:275:THR:CG2	2.45	0.69
1:G:341:LEU:HD12	1:G:345:ILE:HG22	1.74	0.69
1:H:350:VAL:HG12	1:H:413:GLU:CB	2.12	0.69
1:J:292:LYS:HE3	1:J:294:SER:HB3	1.73	0.69
1:L:155:GLN:HA	1:L:155:GLN:NE2	2.08	0.69
1:L:349:ASP:OD2	1:L:349:ASP:N	2.25	0.69
1:M:114:ILE:HG21	1:M:472:ILE:HD11	1.74	0.69
2:N:157:PRO:C	2:N:158:VAL:CG2	2.60	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:356:ASN:C	1:B:356:ASN:OD1	2.30	0.69
1:C:412:LEU:HD13	1:C:413:GLU:N	2.08	0.69
1:D:208:PHE:CE1	1:D:214:TRP:CG	2.81	0.69
1:F:87:THR:O	1:F:88:GLU:HG3	1.92	0.69
1:G:265:GLN:NE2	1:G:265:GLN:N	2.30	0.69
1:H:393:ASN:CG	1:H:393:ASN:O	2.29	0.69
1:I:72:PRO:HG2	1:I:265:GLN:HB2	1.73	0.69
1:I:100:ALA:CB	1:I:182:ARG:HD3	2.22	0.69
1:I:235:ASN:HD22	1:I:237:ASN:H	1.40	0.69
1:I:356:ASN:C	1:I:356:ASN:OD1	2.30	0.69
1:I:386:ASN:HD22	1:I:386:ASN:C	1.95	0.69
1:J:59:ALA:O	1:J:60:GLN:CD	2.30	0.69
1:K:14:GLN:OE1	1:K:14:GLN:HA	1.91	0.69
1:K:334:ASP:C	1:K:334:ASP:OD2	2.30	0.69
1:L:154:TYR:CD2	1:L:160:ALA:CB	2.75	0.69
1:L:356:ASN:C	1:L:356:ASN:OD1	2.30	0.69
1:L:359:LEU:HD23	1:L:367:ILE:HG22	1.75	0.69
1:C:474:ASN:C	1:C:474:ASN:OD1	2.30	0.69
1:C:482:GLY:O	1:C:484:ALA:HB3	1.89	0.69
1:F:215:ASP:OD2	1:F:215:ASP:C	2.30	0.69
1:I:386:ASN:O	1:I:386:ASN:ND2	2.18	0.69
1:J:322:ILE:HG22	1:J:361:TRP:CH2	2.27	0.69
1:K:238:LEU:C	1:K:238:LEU:CD1	2.59	0.69
1:K:249:ASN:C	1:K:249:ASN:OD1	2.30	0.69
1:L:337:ILE:CD1	1:L:338:TYR:CE2	2.76	0.69
1:L:423:LYS:HG2	1:M:15:GLU:OE1	1.93	0.69
1:M:428:ARG:HG3	1:M:429:ASP:H	1.57	0.69
2:N:28:ASP:C	2:N:28:ASP:OD2	2.30	0.69
2:N:227:PHE:CZ	2:N:232:TYR:CD2	2.79	0.69
1:B:209:LEU:HD23	1:B:210:PRO:CA	2.22	0.69
1:C:92:GLN:NE2	1:C:248:THR:HG21	2.07	0.69
1:E:438:ASN:CG	1:E:438:ASN:O	2.30	0.69
1:F:488:GLU:HA	1:F:488:GLU:OE2	1.93	0.69
1:G:60:GLN:O	1:G:60:GLN:HG2	1.93	0.69
1:G:451:ASN:HD21	1:G:454:VAL:HG22	1.57	0.69
1:K:87:THR:O	1:K:88:GLU:CG	2.40	0.69
1:K:437:GLY:CA	1:K:439:PHE:CE2	2.75	0.69
1:L:100:ALA:H	1:L:182:ARG:NH1	1.89	0.69
1:M:429:ASP:OD2	1:M:429:ASP:C	2.30	0.69
1:A:111:ASN:CB	1:A:120:ASN:HB2	2.22	0.69
1:B:15:GLU:CD	1:B:16:PRO:HD2	2.13	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:73:TYR:CE2	1:B:201:GLY:N	2.60	0.69
1:B:386:ASN:O	1:B:386:ASN:CG	2.30	0.69
1:C:501:ASN:HD22	1:C:502:GLU:N	1.89	0.69
1:D:48:ASN:HD22	2:N:348:GLN:HB3	1.54	0.69
1:E:74:ASP:OD1	1:E:74:ASP:C	2.30	0.69
1:E:127:ILE:CG2	1:E:128:HIS:N	2.54	0.69
1:E:303:THR:HG22	1:E:457:THR:HA	0.72	0.69
1:E:369:SER:HG	1:L:109:THR:HG1	1.33	0.69
1:F:37:TYR:CD2	1:G:375:ASN:ND2	2.60	0.69
1:F:211:PRO:HB2	1:F:212:PHE:CD2	2.28	0.69
1:F:365:GLN:OE1	1:F:365:GLN:C	2.30	0.69
1:G:43:THR:HG23	1:L:44:SER:H	1.55	0.69
1:H:170:VAL:HG11	1:I:398:GLN:HG3	1.75	0.69
1:H:357:LEU:HD12	1:H:358:ASN:H	1.57	0.69
1:H:430:ASP:OD2	1:H:486:LYS:O	2.11	0.69
1:K:61:THR:CG2	1:K:275:THR:HG22	2.23	0.69
1:K:286:ILE:CG2	1:K:287:THR:N	2.56	0.69
1:M:59:ALA:C	1:M:60:GLN:CG	2.49	0.69
1:M:102:PRO:CB	1:M:241:ILE:HD13	2.22	0.69
1:M:342:ASN:C	1:M:342:ASN:OD1	2.30	0.69
2:N:128:THR:O	2:N:130:TYR:N	2.26	0.69
1:B:99:ARG:NH1	1:B:243:SER:HB2	2.08	0.69
1:B:400:ASN:C	1:B:400:ASN:OD1	2.30	0.69
1:D:80:ASN:HB2	1:D:258:GLY:CA	2.22	0.69
1:I:155:GLN:HG2	1:I:413:GLU:H	1.56	0.69
1:J:340:ASN:C	1:J:340:ASN:OD1	2.30	0.69
1:M:318:GLN:N	1:M:318:GLN:HE21	1.91	0.69
1:M:505:ARG:HG2	1:M:506:ILE:N	2.06	0.69
1:G:408:LYS:NZ	1:G:408:LYS:H	1.91	0.69
1:I:1:MET:HE1	1:J:26:TRP:HB3	1.71	0.69
1:K:361:TRP:HZ3	1:K:441:LEU:HB2	1.58	0.69
1:A:83:HIS:CB	1:A:254:ASN:HD21	2.06	0.68
1:A:113:THR:HG23	1:A:229:THR:HG23	1.74	0.68
1:B:305:ALA:HB2	1:B:455:THR:HB	1.72	0.68
1:C:21:ASN:HD22	1:C:21:ASN:H	1.40	0.68
1:C:125:GLN:HE21	1:C:125:GLN:H	1.38	0.68
1:C:165:ASN:CB	1:D:174:ALA:O	2.41	0.68
1:C:460:MET:CG	1:C:461:TYR:N	2.56	0.68
1:D:251:VAL:O	1:D:251:VAL:HG23	1.93	0.68
1:D:351:PHE:CE2	1:D:416:ILE:HG21	2.29	0.68
1:D:502:GLU:OE2	1:D:503:LEU:HD23	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:282:ILE:HD12	1:E:283:PRO:HD2	1.75	0.68
1:F:211:PRO:HB2	1:F:212:PHE:CE2	2.27	0.68
1:G:155:GLN:HG2	1:G:451:ASN:CB	2.22	0.68
1:H:153:ASN:HD22	1:H:154:TYR:N	1.91	0.68
1:K:26:TRP:HB3	1:M:1:MET:HE3	1.73	0.68
1:K:341:LEU:HA	1:K:344:GLN:HE21	1.57	0.68
2:N:157:PRO:C	2:N:158:VAL:HG23	2.13	0.68
1:E:43:THR:O	1:E:44:SER:OG	2.07	0.68
1:E:172:THR:O	1:E:173:SER:CB	2.40	0.68
1:G:255:SER:OG	1:G:342:ASN:HB2	1.93	0.68
1:H:58:SER:OG	1:H:60:GLN:NE2	2.22	0.68
1:I:71:VAL:HG13	1:I:205:GLU:OE2	1.93	0.68
1:I:251:VAL:HG13	1:I:252:SER:N	2.08	0.68
1:J:301:GLN:H	1:J:301:GLN:CD	1.95	0.68
1:L:430:ASP:C	1:L:430:ASP:OD1	2.30	0.68
2:N:45:VAL:HG23	2:N:332:ILE:HD12	1.75	0.68
1:B:208:PHE:O	1:B:209:LEU:CB	2.40	0.68
1:B:461:TYR:O	1:B:462:ILE:CD1	2.30	0.68
1:C:163:ALA:HB2	1:D:172:THR:HB	1.74	0.68
1:C:362:ASN:N	1:C:362:ASN:ND2	2.37	0.68
1:D:210:PRO:HA	1:D:211:PRO:C	2.14	0.68
1:E:87:THR:O	1:E:88:GLU:CB	2.33	0.68
1:F:136:PRO:HD2	1:F:139:VAL:HB	1.75	0.68
1:H:240:ARG:O	1:H:240:ARG:HG3	1.92	0.68
1:B:155:GLN:HG3	1:B:412:LEU:N	2.08	0.68
1:B:209:LEU:CG	1:B:210:PRO:N	2.56	0.68
1:B:461:TYR:CD2	1:B:461:TYR:N	2.62	0.68
1:C:237:ASN:HD21	1:C:344:GLN:NE2	1.81	0.68
1:C:329:PHE:HB3	1:C:416:ILE:HG13	1.74	0.68
1:D:5:ALA:HB3	1:D:6:ILE:HD13	1.75	0.68
1:D:501:ASN:N	1:D:501:ASN:HD22	1.92	0.68
1:G:350:VAL:HB	1:G:413:GLU:HB2	1.74	0.68
1:H:143:TRP:CZ3	1:H:216:GLY:HA2	2.29	0.68
1:H:155:GLN:HG2	1:H:451:ASN:HB3	1.75	0.68
1:H:216:GLY:O	1:H:217:GLU:C	2.30	0.68
1:B:337:ILE:HD13	1:B:338:TYR:HA	1.74	0.68
1:C:41:PRO:O	1:G:44:SER:CB	2.41	0.68
1:C:507:TYR:CD2	1:C:508:GLY:HA3	2.28	0.68
1:F:143:TRP:O	1:F:145:SER:N	2.27	0.68
1:H:8:LEU:HD23	1:H:8:LEU:H	1.59	0.68
1:I:85:GLY:O	1:I:86:ILE:HD13	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:345:ILE:HG22	1:I:346:THR:N	2.07	0.68
1:J:107:THR:HG1	1:J:232:TRP:HE3	1.40	0.68
1:K:33:GLN:O	1:K:34:GLN:HB2	1.93	0.68
1:K:224:ASN:N	1:K:224:ASN:ND2	2.40	0.68
1:M:158:ARG:HG3	1:M:159:ASP:N	2.06	0.68
1:B:89:ASN:ND2	1:D:403:SER:N	2.40	0.68
1:B:401:GLY:HA2	1:C:89:ASN:HB2	1.75	0.68
1:C:293:LEU:HD23	1:C:465:VAL:HB	1.74	0.68
1:E:130:LEU:O	1:E:130:LEU:HD23	1.93	0.68
1:H:313:LYS:CG	1:H:444:GLN:HG3	2.22	0.68
1:K:436:ILE:O	1:K:436:ILE:CG1	2.40	0.68
1:B:228:LEU:HD22	1:B:229:THR:H	1.57	0.68
1:C:322:ILE:HG22	1:C:421:LEU:CD2	2.24	0.68
1:E:45:PHE:CE2	1:E:266:GLN:HA	2.29	0.68
1:E:353:GLN:HG3	1:E:353:GLN:O	1.93	0.68
1:G:65:ARG:HH11	1:G:65:ARG:CG	2.07	0.68
1:H:345:ILE:HG13	1:H:346:THR:CG2	2.21	0.68
1:I:345:ILE:CG2	1:I:346:THR:N	2.56	0.68
1:K:174:ALA:O	1:L:165:ASN:HB3	1.92	0.68
1:K:357:LEU:HD11	1:K:359:LEU:HD23	1.74	0.68
1:G:337:ILE:O	1:G:338:TYR:CD2	2.46	0.68
1:I:87:THR:CB	1:I:88:GLU:HG2	2.23	0.68
1:I:95:ARG:HG3	1:I:95:ARG:NH1	2.07	0.68
1:I:249:ASN:HB3	1:I:255:SER:HA	1.76	0.68
1:J:136:PRO:O	1:J:138:LYS:N	2.26	0.68
1:L:33:GLN:HB2	1:M:427:LEU:O	1.94	0.68
1:L:327:TYR:HD1	1:L:416:ILE:HD11	1.58	0.68
2:N:61:PRO:HB3	2:N:357:ARG:HH12	1.57	0.68
1:A:265:GLN:O	1:A:267:PRO:HD3	1.94	0.68
1:E:304:LEU:H	1:E:304:LEU:CD2	2.04	0.68
1:F:409:VAL:O	1:F:410:ILE:HD13	1.94	0.68
1:H:292:LYS:O	1:H:292:LYS:HG3	1.94	0.68
1:I:83:HIS:HD2	1:I:256:THR:HG22	1.55	0.68
1:I:155:GLN:NE2	1:I:350:VAL:HG23	2.08	0.68
1:J:87:THR:HG22	1:J:88:GLU:CD	2.13	0.68
1:K:85:GLY:HA2	1:K:86:ILE:CG2	2.18	0.68
1:K:247:ILE:HD13	1:K:247:ILE:O	1.93	0.68
1:K:422:GLY:HA2	1:K:427:LEU:HD22	1.76	0.68
1:M:65:ARG:HG3	1:M:65:ARG:HH11	1.59	0.68
1:B:6:ILE:HD11	1:C:285:ARG:HD3	1.74	0.68
1:B:171:PHE:HE1	1:D:154:TYR:CZ	2.12	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:19:GLU:CD	1:C:19:GLU:N	2.47	0.68
1:C:218:GLN:NE2	1:C:218:GLN:N	2.42	0.68
1:D:132:ARG:HH11	1:D:132:ARG:CG	2.07	0.68
1:E:216:GLY:O	1:E:217:GLU:HB3	1.94	0.68
1:E:438:ASN:HD21	1:L:318:GLN:HB2	1.59	0.68
1:F:503:LEU:HD23	1:F:506:ILE:HG21	1.76	0.68
1:H:313:LYS:HG3	1:H:444:GLN:HG3	1.75	0.68
1:I:69:ILE:HG23	1:I:205:GLU:HG2	1.75	0.68
1:I:501:ASN:N	1:I:501:ASN:ND2	2.41	0.68
1:K:469:THR:HG21	1:L:4:SER:CB	2.24	0.68
1:M:137:LEU:CD2	1:M:137:LEU:O	2.41	0.68
2:N:357:ARG:HG2	2:N:357:ARG:NH1	2.00	0.68
1:A:293:LEU:HB3	1:A:465:VAL:HG12	1.73	0.67
1:B:250:ASP:HB3	1:B:251:VAL:HB	1.75	0.67
1:D:70:GLN:O	1:D:70:GLN:HG2	1.94	0.67
1:E:304:LEU:O	1:E:304:LEU:CD2	2.30	0.67
1:F:65:ARG:HH11	1:F:65:ARG:HG3	1.59	0.67
1:L:323:PRO:HD2	1:L:421:LEU:HD22	1.76	0.67
1:L:361:TRP:HA	1:L:361:TRP:HE3	1.58	0.67
1:M:1:MET:HG3	1:M:10:VAL:CB	2.22	0.67
1:M:100:ALA:HB2	1:M:182:ARG:CD	2.24	0.67
1:B:363:ASN:HB3	1:B:364:GLN:HE21	1.55	0.67
1:C:3:ASN:CB	1:D:483:VAL:O	2.41	0.67
1:D:490:LEU:C	1:D:491:ASN:HD22	1.96	0.67
1:F:80:ASN:HB3	1:F:258:GLY:O	1.94	0.67
1:F:481:ILE:HD13	1:F:481:ILE:H	1.58	0.67
1:H:282:ILE:HD12	1:H:283:PRO:CD	2.24	0.67
1:J:362:ASN:C	1:J:362:ASN:HD22	1.96	0.67
1:K:95:ARG:NH1	1:K:248:THR:HG23	2.09	0.67
1:L:172:THR:O	1:L:173:SER:CB	2.41	0.67
1:M:367:ILE:HG22	1:M:368:LEU:CD1	2.05	0.67
1:B:17:ARG:HD2	1:D:218:GLN:HE21	1.59	0.67
1:B:355:ASN:O	1:B:373:SER:HB3	1.93	0.67
1:C:217:GLU:C	1:C:217:GLU:CD	2.53	0.67
1:D:71:VAL:HA	1:D:267:PRO:HB3	1.76	0.67
1:C:73:TYR:CD1	1:C:203:LEU:CD2	2.77	0.67
1:C:298:THR:OG1	1:C:315:ASN:ND2	2.27	0.67
1:I:235:ASN:HD22	1:I:236:ASN:N	1.92	0.67
1:L:353:GLN:HE21	1:L:355:ASN:ND2	1.91	0.67
1:B:165:ASN:HB2	1:C:174:ALA:O	1.94	0.67
1:B:166:ASN:ND2	1:B:167:PRO:HD2	2.09	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2:SER:O	1:D:3:ASN:HB3	1.94	0.67
1:E:44:SER:HB3	1:J:317:VAL:HG23	1.76	0.67
1:G:341:LEU:CD1	1:G:345:ILE:HG22	2.24	0.67
1:I:359:LEU:CB	1:I:443:VAL:HG22	2.23	0.67
1:J:108:ASN:CG	1:J:235:ASN:ND2	2.43	0.67
1:J:249:ASN:O	1:J:250:ASP:CB	2.40	0.67
1:J:249:ASN:O	1:J:250:ASP:HB3	1.91	0.67
1:K:496:HIS:CD2	1:K:496:HIS:O	2.48	0.67
2:N:171:THR:OG1	2:N:172:GLU:HA	1.93	0.67
1:A:115:ASN:N	1:A:116:GLY:CA	2.54	0.67
1:B:155:GLN:HG2	1:B:412:LEU:O	1.94	0.67
1:D:377:TYR:HD2	1:D:392:PHE:HD2	1.35	0.67
1:G:493:ARG:HB2	1:G:493:ARG:HH11	1.58	0.67
1:J:105:SER:HB2	1:J:128:HIS:HE1	1.59	0.67
1:M:98:PHE:O	1:M:182:ARG:HD2	1.95	0.67
2:N:219:ARG:HG2	2:N:219:ARG:NH1	1.93	0.67
1:C:367:ILE:HD13	1:C:367:ILE:H	1.57	0.67
1:C:435:VAL:HG22	1:C:486:LYS:HE3	1.75	0.67
1:D:51:ASN:HD22	2:N:293:GLN:HB3	1.60	0.67
1:H:345:ILE:CG1	1:H:346:THR:N	2.58	0.67
1:L:334:ASP:C	1:L:334:ASP:OD2	2.32	0.67
1:A:58:SER:O	1:A:59:ALA:HB3	1.93	0.67
1:C:26:TRP:HB3	1:D:1:MET:HE3	1.77	0.67
1:C:249:ASN:HD22	1:C:250:ASP:N	1.91	0.67
1:D:3:ASN:C	1:D:3:ASN:ND2	2.46	0.67
1:E:99:ARG:HH11	1:E:99:ARG:CG	1.90	0.67
1:E:350:VAL:HG21	1:E:413:GLU:HA	1.77	0.67
1:I:471:VAL:CG2	1:J:5:ALA:HB3	2.17	0.67
1:J:110:LEU:HD11	1:J:207:VAL:HG22	1.75	0.67
1:L:430:ASP:OD2	1:L:489:VAL:HB	1.95	0.67
2:N:186:THR:CG2	2:N:226:ARG:CG	2.72	0.67
1:C:392:PHE:O	1:C:393:ASN:ND2	2.25	0.67
1:G:190:VAL:HG22	1:G:191:THR:HG23	1.75	0.67
1:L:161:ASP:CG	1:L:162:GLY:H	1.98	0.67
1:M:85:GLY:HA2	1:M:86:ILE:CG2	2.24	0.67
2:N:84:ILE:C	2:N:85:TYR:CD2	2.67	0.67
1:A:336:VAL:HA	1:A:339:GLN:HE21	1.60	0.67
1:B:108:ASN:HD22	1:B:109:THR:HG22	1.57	0.67
1:B:192:ASN:O	1:B:193:THR:HG22	1.95	0.67
1:B:299:GLN:OE1	1:B:299:GLN:HA	1.93	0.67
1:B:386:ASN:O	1:B:387:LYS:CD	2.42	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:480:SER:HB2	1:M:363:ASN:O	1.95	0.67
1:D:249:ASN:ND2	1:D:253:GLY:HA3	2.09	0.67
1:E:45:PHE:CD2	1:E:266:GLN:CA	2.72	0.67
1:E:228:LEU:O	1:E:229:THR:HG22	1.94	0.67
1:F:507:TYR:HE1	1:F:508:GLY:O	1.75	0.67
1:G:158:ARG:HB2	1:G:158:ARG:HH11	1.60	0.67
1:J:134:HIS:HD2	1:J:507:TYR:CG	2.12	0.67
1:K:41:PRO:HB2	1:K:266:GLN:HE21	1.60	0.67
1:K:59:ALA:C	1:K:60:GLN:NE2	2.48	0.67
1:L:45:PHE:CE2	1:L:266:GLN:HB3	2.30	0.67
1:M:237:ASN:ND2	1:M:238:LEU:N	2.30	0.67
1:C:65:ARG:HB2	1:C:213:LEU:CD2	2.25	0.66
1:H:106:ILE:HD11	1:H:241:ILE:HG13	1.76	0.66
1:J:209:LEU:O	1:J:209:LEU:CD2	2.30	0.66
1:M:172:THR:O	1:M:173:SER:CB	2.43	0.66
1:D:171:PHE:HD1	1:D:172:THR:N	1.94	0.66
1:E:45:PHE:HE2	1:E:266:GLN:H	1.43	0.66
1:F:364:GLN:CG	1:F:367:ILE:HD12	2.20	0.66
1:M:132:ARG:HG3	1:M:132:ARG:NH1	2.00	0.66
1:B:147:GLN:HE22	1:B:206:GLN:HG2	1.58	0.66
1:C:324:ARG:HH11	1:C:324:ARG:CG	1.97	0.66
1:E:1:MET:CE	1:F:26:TRP:HB3	2.26	0.66
1:E:153:ASN:HD22	1:E:153:ASN:H	1.42	0.66
1:E:430:ASP:HB3	1:E:490:LEU:HD12	1.76	0.66
1:G:107:THR:OG1	1:G:234:LEU:HD22	1.94	0.66
1:H:59:ALA:O	1:H:60:GLN:CB	2.40	0.66
1:H:89:ASN:HB3	1:H:192:ASN:HD21	1.60	0.66
1:I:191:THR:O	1:I:192:ASN:HB2	1.96	0.66
1:I:285:ARG:CB	1:I:473:SER:OG	2.37	0.66
1:K:132:ARG:O	1:K:386:ASN:ND2	2.28	0.66
1:L:1:MET:SD	1:M:26:TRP:CD1	2.88	0.66
1:L:332:GLN:HG2	1:L:456:VAL:HG21	1.76	0.66
1:A:61:THR:O	1:A:61:THR:CG2	2.43	0.66
1:C:65:ARG:HB2	1:C:213:LEU:HD21	1.76	0.66
1:C:251:VAL:O	1:C:252:SER:CB	2.44	0.66
1:C:381:VAL:CG2	1:C:382:GLN:N	2.57	0.66
1:C:495:THR:C	1:C:497:GLY:H	1.97	0.66
1:E:140:LYS:CG	1:E:179:GLU:OE2	2.44	0.66
1:G:23:GLU:HA	1:G:23:GLU:OE2	1.93	0.66
1:G:41:PRO:O	1:L:44:SER:CA	2.41	0.66
1:H:350:VAL:C	1:H:351:PHE:CD1	2.60	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:441:LEU:CD1	1:I:442:GLN:CA	2.73	0.66
1:J:87:THR:HG23	1:J:88:GLU:HA	1.77	0.66
1:K:15:GLU:CD	1:K:16:PRO:HD2	2.16	0.66
1:K:46:SER:OG	1:K:47:SER:N	2.28	0.66
1:K:427:LEU:O	1:M:33:GLN:HB3	1.95	0.66
1:L:339:GLN:O	1:L:340:ASN:CB	2.43	0.66
2:N:274:ILE:HD11	2:N:296:LEU:HD22	1.77	0.66
1:A:337:ILE:O	1:A:337:ILE:HG12	1.94	0.66
1:B:6:ILE:HD11	1:C:285:ARG:CG	2.26	0.66
1:B:171:PHE:HE1	1:D:154:TYR:HH	1.41	0.66
1:C:88:GLU:O	1:C:194:THR:HG23	1.95	0.66
1:C:95:ARG:HH11	1:C:95:ARG:HG2	1.61	0.66
1:C:255:SER:HB2	1:C:342:ASN:ND2	2.11	0.66
1:D:48:ASN:HD22	2:N:348:GLN:CB	2.06	0.66
1:D:108:ASN:OD1	1:D:235:ASN:HA	1.96	0.66
1:D:132:ARG:HH12	1:D:151:GLU:CG	2.08	0.66
1:E:258:GLY:N	1:E:341:LEU:HD11	2.09	0.66
1:E:321:SER:HB3	1:E:435:VAL:O	1.94	0.66
1:G:42:SER:O	1:G:266:GLN:OE1	2.13	0.66
1:G:151:GLU:HA	1:G:151:GLU:OE2	1.94	0.66
1:H:349:ASP:C	1:H:350:VAL:CG2	2.63	0.66
1:K:73:TYR:HE2	1:K:199:ILE:HD11	1.60	0.66
1:K:296:TYR:CD2	1:K:296:TYR:N	2.63	0.66
1:M:249:ASN:CB	1:M:255:SER:HA	2.18	0.66
2:N:22:ILE:HG23	2:N:359:LEU:HB3	1.77	0.66
2:N:129:PRO:HA	2:N:132:TYR:CE2	2.30	0.66
1:A:89:ASN:OD1	1:A:193:THR:HA	1.96	0.66
1:D:42:SER:CB	1:D:52:PHE:CE1	2.78	0.66
1:F:84:ALA:HA	1:F:86:ILE:HB	1.78	0.66
1:H:449:ASN:HD22	1:H:450:THR:H	1.41	0.66
1:I:108:ASN:OD1	1:I:235:ASN:HB3	1.95	0.66
1:A:350:VAL:HB	1:A:413:GLU:HB2	1.78	0.66
1:B:95:ARG:O	1:B:168:LEU:HD11	1.95	0.66
1:C:99:ARG:HD3	1:C:243:SER:HB3	1.78	0.66
1:C:286:ILE:HD11	1:C:288:TYR:CE2	2.31	0.66
1:E:127:ILE:HG23	1:E:128:HIS:ND1	2.10	0.66
1:F:409:VAL:O	1:F:410:ILE:CD1	2.44	0.66
1:H:490:LEU:HB3	1:H:491:ASN:HD22	1.59	0.66
1:I:349:ASP:OD2	1:I:350:VAL:HA	1.95	0.66
1:K:2:SER:O	1:K:3:ASN:HB3	1.95	0.66
1:K:437:GLY:O	1:K:439:PHE:CD2	2.49	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:442:GLN:HG3	1:K:442:GLN:O	1.96	0.66
1:B:96:ASP:OD1	1:B:244:HIS:CD2	2.49	0.66
1:B:155:GLN:CG	1:B:412:LEU:N	2.59	0.66
1:B:396:THR:H	1:B:410:ILE:HD13	1.51	0.66
1:C:70:GLN:HE21	1:C:70:GLN:C	1.99	0.66
1:D:208:PHE:O	1:D:214:TRP:CZ3	2.49	0.66
1:D:507:TYR:CZ	1:D:508:GLY:O	2.49	0.66
1:E:231:ASN:N	1:E:231:ASN:ND2	2.40	0.66
1:H:328:LEU:HD22	1:H:462:ILE:CD1	2.25	0.66
1:H:428:ARG:HD3	1:H:428:ARG:O	1.94	0.66
1:I:431:GLU:OE2	1:I:431:GLU:N	2.29	0.66
1:K:483:VAL:HG11	1:L:4:SER:CB	2.07	0.66
1:B:89:ASN:ND2	1:B:89:ASN:H	1.92	0.66
1:B:295:ARG:HH11	1:B:295:ARG:HG3	1.60	0.66
1:B:333:SER:CB	1:B:336:VAL:HG21	2.22	0.66
1:E:1:MET:HE3	1:F:26:TRP:HB3	1.77	0.66
1:E:158:ARG:HH11	1:E:158:ARG:HG2	1.61	0.66
1:E:399:PHE:HA	1:E:407:THR:HB	1.78	0.66
1:L:356:ASN:OD1	1:L:357:LEU:N	2.29	0.66
1:A:34:GLN:NE2	1:J:364:GLN:HB2	2.10	0.66
1:A:361:TRP:HA	1:A:361:TRP:CE3	2.29	0.66
1:C:150:PHE:HD1	1:C:179:GLU:HG2	1.61	0.66
1:D:133:TYR:HB2	1:D:134:HIS:HA	1.76	0.66
1:D:140:LYS:HG2	1:D:179:GLU:CD	2.16	0.66
1:D:427:LEU:HD12	1:D:431:GLU:CD	2.15	0.66
1:E:303:THR:HG22	1:E:457:THR:N	2.09	0.66
1:G:15:GLU:OE1	1:G:16:PRO:HD2	1.96	0.66
1:H:121:ILE:HB	1:H:209:LEU:HD11	1.78	0.66
1:H:336:VAL:CG2	1:H:337:ILE:H	2.09	0.66
1:I:328:LEU:HD12	1:I:328:LEU:H	1.61	0.66
1:M:330:VAL:HG21	1:M:447:VAL:HG11	1.78	0.66
1:B:87:THR:O	1:B:88:GLU:HB2	1.95	0.65
1:B:203:LEU:HD23	1:B:203:LEU:H	1.61	0.65
1:D:452:GLN:CA	1:D:452:GLN:HE21	2.09	0.65
1:E:165:ASN:H	1:E:165:ASN:HD22	1.42	0.65
1:E:322:ILE:HD13	1:E:439:PHE:HZ	1.59	0.65
1:G:376:LEU:CA	1:G:379:PHE:CD2	2.76	0.65
1:I:340:ASN:ND2	1:I:340:ASN:O	2.30	0.65
1:L:437:GLY:O	1:L:438:ASN:HB2	1.96	0.65
2:N:227:PHE:CD1	2:N:227:PHE:O	2.49	0.65
2:N:272:LEU:O	2:N:274:ILE:HB	1.96	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:51:ASN:HB3	1:C:231:ASN:HB2	1.76	0.65
1:C:438:ASN:ND2	1:M:318:GLN:OE1	2.29	0.65
1:E:11:VAL:HG22	1:F:27:VAL:HG22	1.79	0.65
1:E:337:ILE:O	1:E:337:ILE:HG12	1.96	0.65
1:F:351:PHE:N	1:F:351:PHE:CD1	2.63	0.65
1:J:45:PHE:CD1	1:J:45:PHE:C	2.69	0.65
1:J:207:VAL:O	1:J:207:VAL:HG13	1.95	0.65
1:K:430:ASP:CG	1:K:430:ASP:O	2.30	0.65
1:L:231:ASN:HD22	1:L:231:ASN:N	1.94	0.65
1:B:430:ASP:C	1:B:430:ASP:OD2	2.34	0.65
1:C:257:ILE:HD12	1:C:258:GLY:H	1.59	0.65
1:D:431:GLU:HG2	1:D:432:ALA:N	2.10	0.65
1:E:62:VAL:HA	1:E:223:ALA:HB2	1.77	0.65
1:F:421:LEU:HD12	1:F:425:VAL:HG21	1.77	0.65
1:G:1:MET:H3	1:G:2:SER:CB	2.00	0.65
1:G:159:ASP:OD2	1:G:160:ALA:N	2.30	0.65
1:H:212:PHE:CD1	1:H:212:PHE:N	2.58	0.65
1:H:429:ASP:OD2	1:H:430:ASP:N	2.29	0.65
1:I:362:ASN:O	1:I:362:ASN:ND2	2.30	0.65
1:J:153:ASN:ND2	1:J:153:ASN:H	1.94	0.65
1:M:237:ASN:O	1:M:239:ALA:N	2.30	0.65
1:M:385:TYR:O	1:M:386:ASN:ND2	2.30	0.65
1:B:21:ASN:HD22	1:B:21:ASN:N	1.88	0.65
1:C:84:ALA:CB	1:C:85:GLY:C	2.64	0.65
1:C:206:GLN:NE2	1:C:208:PHE:CZ	2.65	0.65
1:D:132:ARG:HH12	1:D:151:GLU:HG2	1.62	0.65
1:F:65:ARG:HG3	1:F:65:ARG:NH1	2.11	0.65
1:F:188:ASN:ND2	1:F:188:ASN:O	2.30	0.65
1:G:88:GLU:OE2	1:G:88:GLU:N	2.30	0.65
1:G:378:ASP:OD2	1:G:379:PHE:N	2.30	0.65
1:H:330:VAL:CG1	1:H:331:LYS:N	2.59	0.65
1:H:394:GLY:O	1:H:412:LEU:HD13	1.96	0.65
1:H:401:GLY:O	1:H:402:VAL:HB	1.95	0.65
1:I:372:SER:O	1:I:375:ASN:HB2	1.96	0.65
1:J:3:ASN:O	1:J:3:ASN:ND2	2.30	0.65
1:J:140:LYS:CG	1:J:179:GLU:CG	2.75	0.65
1:M:264:PHE:C	1:M:265:GLN:NE2	2.50	0.65
1:M:507:TYR:CD1	1:M:508:GLY:O	2.46	0.65
2:N:256:LEU:HD22	2:N:307:PRO:CB	2.19	0.65
1:B:80:ASN:HB2	1:B:258:GLY:O	1.96	0.65
1:B:108:ASN:C	1:B:108:ASN:ND2	2.41	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:337:ILE:O	1:B:343:ASN:HB3	1.96	0.65
1:C:206:GLN:O	1:C:206:GLN:HG2	1.95	0.65
1:C:216:GLY:O	1:C:218:GLN:NE2	2.30	0.65
1:C:383:ASN:HD21	1:C:420:GLU:HG3	1.61	0.65
1:D:341:LEU:O	1:D:345:ILE:HG22	1.96	0.65
1:D:356:ASN:OD1	1:D:357:LEU:N	2.30	0.65
1:E:73:TYR:HE1	1:E:201:GLY:H	1.43	0.65
1:E:250:ASP:OD2	1:E:254:ASN:ND2	2.30	0.65
1:F:423:LYS:HG2	1:G:15:GLU:OE1	1.96	0.65
1:G:208:PHE:O	1:G:209:LEU:CB	2.37	0.65
1:G:376:LEU:HA	1:G:379:PHE:HE2	1.57	0.65
1:H:385:TYR:CE2	1:H:387:LYS:HB2	2.31	0.65
1:J:16:PRO:O	1:J:19:GLU:OE1	2.15	0.65
1:L:82:SER:O	1:L:83:HIS:C	2.35	0.65
1:M:336:VAL:HA	1:M:339:GLN:HE21	1.62	0.65
1:M:342:ASN:OD1	1:M:343:ASN:N	2.30	0.65
1:M:399:PHE:HA	1:M:407:THR:HB	1.78	0.65
1:M:438:ASN:C	1:M:439:PHE:HD2	1.97	0.65
1:M:502:GLU:OE2	1:M:503:LEU:N	2.30	0.65
2:N:66:PRO:HG3	2:N:132:TYR:CD1	2.32	0.65
2:N:132:TYR:N	2:N:132:TYR:HD2	1.95	0.65
2:N:256:LEU:CG	2:N:307:PRO:HG2	2.26	0.65
1:A:362:ASN:HB3	1:A:439:PHE:HB3	1.78	0.65
1:B:33:GLN:OE1	1:B:33:GLN:N	2.30	0.65
1:E:9:ASN:HB2	1:F:25:THR:HG22	1.78	0.65
1:F:490:LEU:O	1:F:491:ASN:ND2	2.30	0.65
1:G:21:ASN:H	1:G:21:ASN:ND2	1.88	0.65
1:G:250:ASP:OD1	1:G:251:VAL:N	2.30	0.65
1:I:381:VAL:HG12	1:I:382:GLN:N	2.10	0.65
1:J:132:ARG:HH21	1:J:132:ARG:CG	2.05	0.65
1:L:161:ASP:OD2	1:L:162:GLY:N	2.30	0.65
1:L:198:ARG:HH11	1:L:198:ARG:CG	1.93	0.65
1:L:215:ASP:OD1	1:L:217:GLU:N	2.30	0.65
1:A:332:GLN:NE2	1:A:456:VAL:HG23	2.08	0.65
1:C:218:GLN:HB2	1:D:16:PRO:HB2	1.78	0.65
1:E:73:TYR:HD1	1:E:73:TYR:H	1.43	0.65
1:F:33:GLN:OE1	1:F:33:GLN:N	2.30	0.65
1:G:73:TYR:CD2	1:G:75:ILE:CD1	2.78	0.65
1:H:73:TYR:CE1	1:H:203:LEU:CD2	2.79	0.65
1:H:330:VAL:HG12	1:H:331:LYS:N	2.12	0.65
1:I:452:GLN:HA	1:I:452:GLN:NE2	2.12	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:59:ALA:O	1:J:60:GLN:CB	2.44	0.65
1:M:367:ILE:HD12	1:M:367:ILE:N	2.07	0.65
1:B:429:ASP:OD2	1:B:430:ASP:N	2.30	0.65
1:C:286:ILE:HD12	1:C:287:THR:N	2.10	0.65
1:D:323:PRO:HG2	1:D:421:LEU:CD1	2.19	0.65
1:I:349:ASP:OD2	1:I:350:VAL:N	2.30	0.65
1:I:493:ARG:HH11	1:I:493:ARG:CB	2.10	0.65
1:K:153:ASN:ND2	1:K:153:ASN:H	1.91	0.65
1:L:362:ASN:O	1:L:362:ASN:ND2	2.30	0.65
1:M:215:ASP:OD1	1:M:217:GLU:N	2.30	0.65
1:M:236:ASN:O	1:M:236:ASN:ND2	2.30	0.65
1:B:87:THR:CB	1:B:88:GLU:OE1	2.42	0.65
1:C:217:GLU:N	1:C:217:GLU:OE2	2.30	0.65
1:C:502:GLU:OE2	1:C:503:LEU:N	2.30	0.65
1:E:127:ILE:CG2	1:E:128:HIS:ND1	2.60	0.65
1:E:250:ASP:OD2	1:E:254:ASN:N	2.30	0.65
1:E:441:LEU:HD21	1:E:443:VAL:HG23	1.78	0.65
1:I:192:ASN:O	1:I:192:ASN:ND2	2.30	0.65
1:I:342:ASN:OD1	1:I:343:ASN:N	2.30	0.65
1:I:425:VAL:CG1	1:I:426:GLY:N	2.59	0.65
1:I:501:ASN:ND2	1:I:501:ASN:H	1.94	0.65
1:J:115:ASN:OD1	1:J:226:THR:HG23	1.97	0.65
1:J:252:SER:O	1:J:254:ASN:N	2.30	0.65
1:L:339:GLN:OE1	1:L:339:GLN:N	2.30	0.65
1:L:364:GLN:NE2	1:L:365:GLN:O	2.30	0.65
1:M:159:ASP:OD1	1:M:160:ALA:N	2.30	0.65
1:M:209:LEU:CD1	1:M:210:PRO:C	2.65	0.65
1:B:108:ASN:ND2	1:B:108:ASN:O	2.30	0.65
1:C:377:TYR:O	1:C:381:VAL:CG1	2.44	0.65
1:H:212:PHE:HE2	1:H:230:PHE:CZ	2.15	0.65
1:L:257:ILE:HD13	1:L:345:ILE:HD11	1.79	0.65
1:M:332:GLN:OE1	1:M:333:SER:N	2.30	0.65
1:M:386:ASN:ND2	1:M:386:ASN:O	2.30	0.65
1:M:493:ARG:HH11	1:M:493:ARG:HG3	1.60	0.65
2:N:185:ARG:CG	2:N:224:ASP:OD1	2.45	0.65
1:B:386:ASN:O	1:B:386:ASN:ND2	2.30	0.64
1:C:208:PHE:O	1:C:214:TRP:HZ3	1.69	0.64
1:C:374:GLN:NE2	1:C:374:GLN:O	2.30	0.64
1:D:3:ASN:O	1:D:3:ASN:ND2	2.30	0.64
1:D:486:LYS:HD3	1:D:486:LYS:N	2.10	0.64
1:F:91:LEU:HA	1:F:96:ASP:OD2	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:441:LEU:N	1:H:441:LEU:CD1	2.58	0.64
1:J:21:ASN:O	1:J:21:ASN:ND2	2.30	0.64
1:J:59:ALA:O	1:J:60:GLN:NE2	2.30	0.64
1:J:231:ASN:OD1	1:J:232:TRP:N	2.30	0.64
1:B:208:PHE:CE1	1:B:214:TRP:CB	2.80	0.64
1:C:84:ALA:CB	1:C:86:ILE:N	2.59	0.64
1:C:332:GLN:HG2	1:C:456:VAL:CG2	2.28	0.64
1:C:429:ASP:OD2	1:C:430:ASP:N	2.30	0.64
1:D:2:SER:O	1:D:3:ASN:ND2	2.30	0.64
1:E:428:ARG:HG2	1:E:428:ARG:NH1	2.01	0.64
1:G:39:PRO:CD	1:L:49:GLN:NE2	2.44	0.64
1:H:340:ASN:O	1:H:344:GLN:NE2	2.30	0.64
1:H:345:ILE:CG1	1:H:346:THR:HG22	2.24	0.64
1:H:489:VAL:HG23	1:J:28:VAL:HG21	1.79	0.64
1:I:132:ARG:HG3	1:I:132:ARG:NH1	2.08	0.64
1:I:331:LYS:NZ	1:I:334:ASP:OD1	2.28	0.64
1:I:445:MET:O	1:I:445:MET:HG2	1.97	0.64
1:L:62:VAL:HB	1:L:223:ALA:HB2	1.77	0.64
1:M:217:GLU:O	1:M:218:GLN:CB	2.46	0.64
2:N:335:VAL:CG1	2:N:335:VAL:O	2.44	0.64
1:C:95:ARG:HD2	1:C:248:THR:CG2	2.28	0.64
1:C:187:MET:SD	1:C:187:MET:N	2.70	0.64
1:C:377:TYR:HE1	1:C:389:TRP:HB2	1.59	0.64
1:C:461:TYR:O	1:C:462:ILE:HG13	1.97	0.64
1:C:490:LEU:HD11	1:D:279:ASN:ND2	2.12	0.64
1:D:23:GLU:HA	1:D:23:GLU:OE2	1.96	0.64
1:F:249:ASN:O	1:F:250:ASP:HB3	1.98	0.64
1:G:109:THR:CG2	1:G:110:LEU:N	2.60	0.64
1:H:407:THR:HG23	1:H:407:THR:O	1.97	0.64
1:H:428:ARG:N	1:H:431:GLU:OE1	2.30	0.64
1:J:498:VAL:HG23	1:J:499:SER:HB3	1.73	0.64
1:K:25:THR:HG22	1:M:9:ASN:HB3	1.78	0.64
1:K:438:ASN:ND2	1:K:438:ASN:O	2.30	0.64
2:N:357:ARG:NH1	2:N:357:ARG:HB3	2.11	0.64
1:B:299:GLN:OE1	1:B:459:ASP:HB2	1.98	0.64
1:B:383:ASN:N	1:B:383:ASN:OD1	2.30	0.64
1:C:438:ASN:H	1:C:438:ASN:ND2	1.91	0.64
1:D:324:ARG:HH11	1:D:324:ARG:CG	2.04	0.64
1:D:424:ASP:OD1	1:D:424:ASP:N	2.30	0.64
1:E:250:ASP:OD1	1:E:252:SER:N	2.30	0.64
1:E:398:GLN:HE21	1:E:398:GLN:C	2.01	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:438:ASN:ND2	1:E:438:ASN:O	2.30	0.64
1:J:18:LEU:O	1:J:19:GLU:CB	2.43	0.64
1:L:99:ARG:HH11	1:L:99:ARG:CG	1.97	0.64
1:A:110:LEU:HD12	1:A:111:ASN:CA	2.28	0.64
1:A:237:ASN:OD1	1:A:237:ASN:N	2.30	0.64
1:A:250:ASP:N	1:A:250:ASP:OD1	2.30	0.64
1:B:88:GLU:OE2	1:B:88:GLU:N	2.30	0.64
1:B:228:LEU:HD22	1:B:229:THR:N	2.13	0.64
1:B:353:GLN:HG2	1:B:353:GLN:O	1.96	0.64
1:B:357:LEU:HD13	1:B:358:ASN:O	1.98	0.64
1:D:380:SER:OG	1:D:383:ASN:N	2.30	0.64
1:E:254:ASN:ND2	1:E:254:ASN:N	2.40	0.64
1:F:358:ASN:C	1:F:358:ASN:OD1	2.35	0.64
1:G:374:GLN:NE2	1:G:374:GLN:O	2.30	0.64
1:I:356:ASN:OD1	1:I:357:LEU:N	2.30	0.64
1:J:84:ALA:CA	1:J:86:ILE:HB	2.26	0.64
1:M:92:GLN:HB3	1:M:93:PRO:HD2	1.78	0.64
1:M:217:GLU:N	1:M:217:GLU:OE1	2.30	0.64
2:N:179:GLN:CA	2:N:180:ALA:CB	2.74	0.64
1:B:155:GLN:HB2	1:B:411:GLY:C	2.18	0.64
1:C:55:ASN:HB2	1:G:53:ILE:HD13	1.80	0.64
1:C:92:GLN:HE22	1:C:248:THR:HG22	1.61	0.64
1:F:1:MET:CG	1:F:10:VAL:HB	2.28	0.64
1:F:282:ILE:HD12	1:F:283:PRO:HD2	1.80	0.64
1:G:246:ASP:OD1	1:G:346:THR:HG21	1.98	0.64
1:H:313:LYS:CG	1:H:444:GLN:CG	2.76	0.64
1:H:393:ASN:O	1:H:393:ASN:ND2	2.30	0.64
1:K:166:ASN:HD21	1:K:168:LEU:HD12	1.63	0.64
1:A:87:THR:N	1:A:88:GLU:OE1	2.30	0.64
1:A:326:LEU:HD13	1:A:421:LEU:CD1	2.28	0.64
1:B:35:VAL:HG21	1:C:17:ARG:NH2	2.13	0.64
1:B:166:ASN:OD1	1:B:168:LEU:N	2.30	0.64
1:C:75:ILE:HG22	1:C:76:THR:H	1.62	0.64
1:C:88:GLU:OE1	1:C:88:GLU:N	2.30	0.64
1:E:180:LEU:H	1:E:180:LEU:HD22	1.62	0.64
1:F:83:HIS:HB2	1:F:254:ASN:HB3	1.79	0.64
1:H:96:ASP:N	1:H:96:ASP:OD1	2.30	0.64
1:I:83:HIS:CD2	1:I:86:ILE:CG2	2.80	0.64
1:I:195:THR:C	1:I:196:THR:HG22	2.18	0.64
1:I:363:ASN:O	1:I:363:ASN:ND2	2.30	0.64
1:K:95:ARG:NH1	1:K:248:THR:CG2	2.61	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:362:ASN:ND2	1:K:362:ASN:O	2.30	0.64
1:C:232:TRP:N	1:C:232:TRP:CD1	2.66	0.64
1:D:55:ASN:OD1	1:D:55:ASN:N	2.30	0.64
1:D:106:ILE:CD1	1:D:238:LEU:HA	2.26	0.64
1:E:65:ARG:HG3	1:E:65:ARG:NH1	2.12	0.64
1:E:306:PRO:O	1:E:449:ASN:ND2	2.30	0.64
1:E:339:GLN:CB	1:E:340:ASN:ND2	2.61	0.64
1:E:349:ASP:OD2	1:E:349:ASP:N	2.30	0.64
1:E:428:ARG:CG	1:E:431:GLU:OE1	2.45	0.64
1:F:73:TYR:HD1	1:F:203:LEU:HD22	1.63	0.64
1:G:327:TYR:CD2	1:G:327:TYR:N	2.65	0.64
1:J:498:VAL:HG23	1:J:499:SER:CA	2.25	0.64
1:K:143:TRP:O	1:K:145:SER:N	2.30	0.64
1:K:467:ASP:HB3	1:M:26:TRP:HH2	1.62	0.64
1:L:355:ASN:O	1:L:373:SER:HB3	1.97	0.64
2:N:55:VAL:HG11	2:N:296:LEU:HD11	1.79	0.64
1:D:172:THR:O	1:D:173:SER:CB	2.46	0.64
1:D:393:ASN:O	1:D:393:ASN:ND2	2.30	0.64
1:G:70:GLN:HG2	1:G:270:TYR:HE2	1.62	0.64
1:G:158:ARG:HG3	1:G:159:ASP:N	2.11	0.64
1:G:342:ASN:CG	1:G:343:ASN:N	2.50	0.64
1:J:205:GLU:CD	1:J:232:TRP:CZ3	2.71	0.64
1:B:2:SER:HB3	1:B:3:ASN:ND2	2.13	0.64
1:B:339:GLN:OE1	1:B:340:ASN:ND2	2.30	0.64
1:B:429:ASP:O	1:B:430:ASP:CB	2.46	0.64
1:D:299:GLN:OE1	1:D:335:ASN:ND2	2.31	0.64
1:E:65:ARG:HG3	1:E:65:ARG:HH11	1.63	0.64
1:E:428:ARG:HG2	1:E:431:GLU:OE1	1.98	0.64
1:G:351:PHE:CE2	1:G:416:ILE:HG21	2.32	0.64
1:H:1:MET:N	1:J:484:ALA:HA	2.13	0.64
1:H:106:ILE:HD12	1:H:241:ILE:HD11	1.79	0.64
1:H:305:ALA:HB2	1:H:455:THR:HA	1.80	0.64
1:I:222:LEU:O	1:I:222:LEU:HG	1.96	0.64
1:I:433:GLU:OE2	1:I:433:GLU:CA	2.30	0.64
1:J:416:ILE:O	1:J:416:ILE:HG12	1.98	0.64
2:N:44:ILE:CB	2:N:332:ILE:HD11	2.25	0.64
2:N:168:ASP:OD2	2:N:169:SER:N	2.30	0.64
2:N:173:LYS:HG2	2:N:251:GLN:HG2	1.80	0.64
2:N:322:ARG:HH11	2:N:322:ARG:CG	2.09	0.64
1:A:428:ARG:HH11	1:A:428:ARG:CG	2.12	0.63
1:B:332:GLN:CD	1:B:456:VAL:HG23	2.18	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:380:SER:OG	1:E:384:GLY:N	2.31	0.63
1:F:507:TYR:CD1	1:F:508:GLY:C	2.71	0.63
1:G:158:ARG:HH11	1:G:158:ARG:CB	2.11	0.63
1:H:108:ASN:C	1:H:108:ASN:HD22	2.02	0.63
1:I:83:HIS:CD2	1:I:256:THR:CG2	2.80	0.63
1:L:21:ASN:H	1:L:21:ASN:ND2	1.95	0.63
1:L:43:THR:O	1:L:44:SER:HB2	1.96	0.63
1:B:187:MET:N	1:D:397:GLN:NE2	2.45	0.63
1:C:494:ILE:HD13	1:C:495:THR:H	1.54	0.63
1:E:23:GLU:CD	1:E:23:GLU:H	2.01	0.63
1:G:106:ILE:HD12	1:G:240:ARG:HB3	1.80	0.63
1:H:405:GLN:HE21	1:H:406:PRO:HD2	1.62	0.63
1:I:121:ILE:CG2	1:I:123:LEU:HD12	2.26	0.63
1:M:341:LEU:HD12	1:M:341:LEU:O	1.96	0.63
1:B:76:THR:HG22	1:B:198:ARG:HD3	1.79	0.63
1:C:326:LEU:C	1:C:327:TYR:HD1	2.01	0.63
1:E:295:ARG:HH11	1:E:297:THR:CG2	2.11	0.63
1:G:374:GLN:C	1:G:374:GLN:CD	2.56	0.63
1:I:155:GLN:NE2	1:I:350:VAL:CG2	2.61	0.63
1:I:190:VAL:CG2	1:I:198:ARG:HB3	2.28	0.63
1:L:80:ASN:HB3	1:L:258:GLY:O	1.98	0.63
2:N:75:TYR:CD2	2:N:76:PRO:HA	2.33	0.63
1:A:474:ASN:CG	1:A:474:ASN:O	2.37	0.63
1:B:190:VAL:C	1:B:191:THR:HG22	2.16	0.63
1:C:95:ARG:CD	1:C:248:THR:HG23	2.28	0.63
1:C:147:GLN:HG2	1:C:205:GLU:HA	1.81	0.63
1:F:379:PHE:O	1:F:379:PHE:CG	2.51	0.63
1:H:428:ARG:CB	1:H:431:GLU:OE1	2.47	0.63
1:I:91:LEU:HB2	1:I:192:ASN:ND2	2.13	0.63
1:I:490:LEU:O	1:I:490:LEU:HD22	1.97	0.63
1:J:87:THR:HG21	1:J:88:GLU:HG3	1.69	0.63
1:M:264:PHE:C	1:M:265:GLN:HE21	2.01	0.63
2:N:24:PHE:C	2:N:24:PHE:CD1	2.71	0.63
2:N:55:VAL:HG11	2:N:296:LEU:CD1	2.28	0.63
1:A:101:PHE:HB3	1:A:147:GLN:HG3	1.79	0.63
1:A:137:LEU:O	1:A:137:LEU:HD22	1.97	0.63
1:B:212:PHE:HD1	1:B:212:PHE:H	0.77	0.63
1:C:188:ASN:OD1	1:C:188:ASN:N	2.30	0.63
1:C:402:VAL:HA	1:D:88:GLU:CD	2.19	0.63
1:D:380:SER:CB	1:D:383:ASN:CB	2.77	0.63
1:I:499:SER:CB	1:I:501:ASN:HD21	2.11	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:57:PRO:CB	1:L:363:ASN:ND2	2.59	0.63
1:K:73:TYR:CE2	1:K:199:ILE:CD1	2.73	0.63
1:M:361:TRP:CH2	1:M:427:LEU:HD12	2.33	0.63
2:N:24:PHE:HE2	2:N:355:PRO:HA	1.58	0.63
1:A:83:HIS:HB2	1:A:251:VAL:HG21	1.81	0.63
1:C:332:GLN:HG2	1:C:456:VAL:HG23	1.79	0.63
1:D:436:ILE:HG12	1:D:437:GLY:CA	2.29	0.63
1:G:365:GLN:O	1:G:365:GLN:HG2	1.99	0.63
1:H:341:LEU:O	1:H:345:ILE:HG23	1.99	0.63
1:L:429:ASP:OD2	1:L:430:ASP:N	2.31	0.63
1:M:334:ASP:HA	1:M:337:ILE:HG12	1.79	0.63
1:M:503:LEU:O	1:M:506:ILE:HG23	1.99	0.63
2:N:36:PHE:CE1	2:N:335:VAL:HG13	2.32	0.63
2:N:336:ASP:OD2	2:N:336:ASP:N	2.30	0.63
1:B:111:ASN:OD1	1:B:112:ALA:N	2.31	0.63
1:B:351:PHE:CD1	1:B:351:PHE:N	2.67	0.63
1:C:483:VAL:N	1:C:484:ALA:HB2	2.11	0.63
1:D:95:ARG:HH12	1:D:247:ILE:HD12	1.63	0.63
1:E:301:GLN:HB2	1:E:302:ASN:HA	1.81	0.63
1:G:106:ILE:HG12	1:G:238:LEU:HD12	1.80	0.63
1:G:216:GLY:HA2	1:G:217:GLU:C	2.19	0.63
1:G:318:GLN:CB	1:G:440:ASN:HB3	2.28	0.63
1:G:341:LEU:CD1	1:G:345:ILE:CG2	2.76	0.63
1:I:194:THR:C	1:I:195:THR:CG2	2.58	0.63
1:K:30:LYS:O	1:K:30:LYS:HG3	1.99	0.63
1:L:498:VAL:CG2	1:L:499:SER:N	2.61	0.63
1:A:155:GLN:HG2	1:A:413:GLU:H	1.62	0.63
1:B:167:PRO:HD2	1:B:168:LEU:H	1.63	0.63
1:C:488:GLU:OE2	1:C:489:VAL:CA	2.46	0.63
1:D:215:ASP:OD1	1:D:217:GLU:HG3	1.94	0.63
1:E:350:VAL:CG2	1:E:413:GLU:HA	2.28	0.63
1:H:341:LEU:HA	1:H:344:GLN:HG3	1.80	0.63
1:I:351:PHE:O	1:I:414:GLY:N	2.31	0.63
1:M:209:LEU:HD12	1:M:209:LEU:O	1.95	0.63
1:A:342:ASN:O	1:A:346:THR:HG23	1.99	0.63
1:A:380:SER:OG	1:A:383:ASN:N	2.31	0.63
1:B:5:ALA:HB1	1:C:285:ARG:NH1	2.13	0.63
1:C:381:VAL:HA	1:C:385:TYR:HB3	1.81	0.63
1:D:427:LEU:CG	1:D:431:GLU:OE1	2.45	0.63
1:F:305:ALA:HB2	1:F:455:THR:HA	1.80	0.63
1:G:107:THR:HG22	1:G:107:THR:O	1.99	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:324:ARG:HG2	1:G:324:ARG:NH1	1.97	0.63
1:L:429:ASP:OD2	1:L:430:ASP:CB	2.46	0.63
1:M:137:LEU:O	1:M:137:LEU:HD22	1.98	0.63
1:A:133:TYR:CZ	1:A:418:CYS:HB3	2.34	0.62
1:B:73:TYR:HD2	1:B:73:TYR:C	2.02	0.62
1:C:39:PRO:HB3	1:C:270:TYR:CZ	2.34	0.62
1:C:426:GLY:CA	1:D:33:GLN:O	2.40	0.62
1:D:80:ASN:HB2	1:D:258:GLY:HA3	1.79	0.62
1:F:109:THR:HG23	1:F:233:VAL:HG13	1.80	0.62
1:G:196:THR:CG2	1:G:197:ALA:N	2.62	0.62
1:I:43:THR:O	1:I:44:SER:HB3	1.97	0.62
1:A:226:THR:HG21	1:A:475:THR:CG2	2.29	0.62
1:D:334:ASP:O	1:D:336:VAL:O	2.16	0.62
1:G:378:ASP:HA	1:G:381:VAL:CG1	2.28	0.62
1:H:302:ASN:HD22	1:H:302:ASN:H	1.47	0.62
1:H:416:ILE:O	1:H:416:ILE:HG12	1.98	0.62
1:I:359:LEU:HD21	1:I:419:LEU:HD11	1.80	0.62
2:N:104:ASP:HB2	2:N:107:LEU:HD11	1.80	0.62
2:N:308:GLU:HB2	2:N:311:ILE:HB	1.82	0.62
2:N:335:VAL:HG12	2:N:335:VAL:O	1.99	0.62
1:A:122:GLU:O	1:A:126:ILE:HB	1.99	0.62
1:A:393:ASN:CG	1:A:393:ASN:O	2.37	0.62
1:C:84:ALA:HB1	1:C:86:ILE:CG2	2.29	0.62
1:D:132:ARG:NH1	1:D:151:GLU:HG2	2.14	0.62
1:D:155:GLN:OE1	1:D:451:ASN:HB2	2.00	0.62
1:D:501:ASN:HD22	1:D:502:GLU:H	1.47	0.62
1:E:295:ARG:HH11	1:E:297:THR:HG21	1.65	0.62
1:F:266:GLN:OE1	1:F:266:GLN:HA	1.99	0.62
1:F:421:LEU:HD12	1:F:425:VAL:CG2	2.29	0.62
1:G:76:THR:HG22	1:G:198:ARG:HG3	1.82	0.62
1:A:190:VAL:HG23	1:A:191:THR:HG23	1.81	0.62
1:A:401:GLY:O	1:A:402:VAL:HG22	1.99	0.62
1:B:188:ASN:C	1:B:188:ASN:OD1	2.37	0.62
1:B:305:ALA:HB2	1:B:455:THR:CA	2.28	0.62
1:E:21:ASN:O	1:E:21:ASN:ND2	2.32	0.62
1:E:107:THR:O	1:E:124:ALA:HB2	1.99	0.62
1:E:323:PRO:C	1:E:433:GLU:OE1	2.37	0.62
1:F:33:GLN:HB3	1:G:427:LEU:O	2.00	0.62
1:I:326:LEU:CD1	1:I:421:LEU:CD2	2.77	0.62
1:K:19:GLU:HB3	1:K:20:LEU:HA	1.80	0.62
1:M:470:LEU:HG	1:M:470:LEU:O	1.98	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:357:ARG:NH1	2:N:357:ARG:HB2	2.15	0.62
1:A:401:GLY:O	1:A:402:VAL:CG2	2.47	0.62
1:A:449:ASN:HD22	1:A:450:THR:N	1.97	0.62
1:B:169:GLY:H	1:B:181:PRO:HB2	1.64	0.62
1:C:87:THR:O	1:C:88:GLU:HB2	1.99	0.62
1:C:89:ASN:HB3	1:C:192:ASN:ND2	2.14	0.62
1:E:235:ASN:ND2	1:J:108:ASN:HD21	1.85	0.62
1:H:73:TYR:CE1	1:H:201:GLY:O	2.51	0.62
1:I:435:VAL:HG21	1:I:486:LYS:HG3	1.82	0.62
1:L:21:ASN:HD22	1:L:21:ASN:N	1.95	0.62
1:L:423:LYS:HA	1:M:15:GLU:OE2	2.00	0.62
2:N:185:ARG:HB3	2:N:226:ARG:NH2	2.14	0.62
1:E:314:SER:O	1:E:442:GLN:NE2	2.30	0.62
1:E:359:LEU:HB2	1:E:443:VAL:HG22	1.81	0.62
1:F:92:GLN:HB2	1:F:95:ARG:HB2	1.82	0.62
1:I:28:VAL:HG23	1:J:432:ALA:CB	2.30	0.62
1:I:326:LEU:CD1	1:I:421:LEU:HD21	2.30	0.62
1:J:339:GLN:O	1:J:339:GLN:CG	2.47	0.62
1:J:498:VAL:HB	1:J:499:SER:HB2	1.73	0.62
1:K:179:GLU:CD	1:M:177:LEU:HD23	2.19	0.62
1:L:429:ASP:CB	1:L:430:ASP:HA	2.28	0.62
1:A:172:THR:O	1:A:173:SER:HB2	2.00	0.62
1:C:118:PRO:HG2	1:M:369:SER:HB2	1.82	0.62
1:C:327:TYR:O	1:C:328:LEU:HD22	1.96	0.62
1:C:342:ASN:N	1:C:342:ASN:OD1	2.30	0.62
1:D:5:ALA:HB1	1:D:6:ILE:HD13	1.80	0.62
1:F:87:THR:O	1:F:88:GLU:CG	2.48	0.62
1:G:100:ALA:HB2	1:G:182:ARG:CD	2.28	0.62
1:H:152:ASP:OD1	1:H:348:PRO:HB2	2.00	0.62
1:H:212:PHE:N	1:H:212:PHE:HD1	1.96	0.62
1:J:65:ARG:HH11	1:J:65:ARG:CG	2.09	0.62
1:M:92:GLN:CB	1:M:95:ARG:HB2	2.20	0.62
2:N:73:GLN:HG3	2:N:77:ASN:OD1	1.99	0.62
2:N:231:ASN:ND2	2:N:248:GLN:O	2.33	0.62
2:N:322:ARG:HH11	2:N:322:ARG:HB3	1.63	0.62
1:A:62:VAL:HA	1:A:223:ALA:HB2	1.81	0.62
1:C:377:TYR:HE2	1:C:381:VAL:CG1	1.90	0.62
1:F:295:ARG:HH11	1:F:295:ARG:HG3	1.65	0.62
1:G:155:GLN:OE1	1:G:350:VAL:HG21	2.00	0.62
1:H:221:GLY:O	1:J:20:LEU:HD11	1.99	0.62
1:H:224:ASN:N	1:H:224:ASN:ND2	2.47	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:412:LEU:HD12	1:H:412:LEU:N	2.15	0.62
1:I:501:ASN:N	1:I:501:ASN:HD22	1.97	0.62
1:J:387:LYS:HZ3	1:J:387:LYS:HA	1.64	0.62
1:L:6:ILE:O	1:L:6:ILE:HG12	1.99	0.62
1:M:307:ASN:HA	1:M:449:ASN:O	1.99	0.62
2:N:64:ASN:O	2:N:65:ILE:HG13	2.00	0.62
2:N:322:ARG:HH11	2:N:322:ARG:HB2	1.62	0.62
2:N:332:ILE:O	2:N:332:ILE:HG12	2.00	0.62
1:C:336:VAL:HG22	1:C:337:ILE:N	2.14	0.62
1:E:484:ALA:HA	1:F:1:MET:H2	1.64	0.62
1:G:301:GLN:CD	1:G:301:GLN:N	2.45	0.62
1:H:405:GLN:NE2	1:H:406:PRO:HD2	2.12	0.62
1:H:485:SER:OG	1:H:488:GLU:HB2	2.00	0.62
1:I:353:GLN:HG3	1:I:353:GLN:O	2.00	0.62
1:J:341:LEU:C	1:J:341:LEU:HD22	2.19	0.62
1:K:125:GLN:NE2	1:K:295:ARG:HH12	1.98	0.62
1:K:361:TRP:HA	1:K:361:TRP:CE3	2.34	0.62
1:M:151:GLU:CD	1:M:151:GLU:N	2.52	0.62
1:M:337:ILE:HD12	1:M:338:TYR:CD2	2.34	0.62
2:N:77:ASN:HD22	2:N:77:ASN:C	2.02	0.62
2:N:357:ARG:HH11	2:N:357:ARG:HB3	1.62	0.62
1:C:92:GLN:HE21	1:C:248:THR:HG21	1.65	0.62
1:C:305:ALA:CB	1:C:455:THR:HA	2.30	0.62
1:C:342:ASN:O	1:C:345:ILE:HG23	1.98	0.62
1:D:502:GLU:OE2	1:D:503:LEU:HD22	2.00	0.62
1:F:79:ALA:HB3	1:F:195:THR:HA	1.82	0.62
1:F:405:GLN:CD	1:F:405:GLN:H	2.02	0.62
1:L:385:TYR:CE2	1:L:387:LYS:HB3	2.34	0.62
1:M:395:VAL:HG13	1:M:450:THR:HB	1.82	0.62
1:B:461:TYR:H	1:B:461:TYR:HD2	1.47	0.61
1:C:23:GLU:OE2	1:C:23:GLU:CA	2.48	0.61
1:F:192:ASN:C	1:F:192:ASN:ND2	2.52	0.61
1:I:283:PRO:HG2	1:I:286:ILE:HG22	1.82	0.61
1:J:158:ARG:CG	1:J:158:ARG:HH11	2.12	0.61
1:L:83:HIS:HD2	1:L:85:GLY:HA3	1.62	0.61
1:M:172:THR:O	1:M:173:SER:HB2	2.00	0.61
2:N:185:ARG:HB3	2:N:226:ARG:HH21	1.65	0.61
1:A:420:GLU:HB3	1:A:423:LYS:HB3	1.81	0.61
1:D:71:VAL:CB	1:D:267:PRO:HB3	2.30	0.61
1:D:249:ASN:HD21	1:D:253:GLY:HA3	1.63	0.61
1:E:1:MET:H1	1:G:484:ALA:HA	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:49:GLN:HG2	1:H:232:TRP:O	2.00	0.61
1:J:18:LEU:HD22	1:J:18:LEU:N	2.15	0.61
1:K:59:ALA:C	1:K:60:GLN:HE21	2.02	0.61
1:C:327:TYR:CA	1:C:328:LEU:HD23	2.30	0.61
1:E:235:ASN:HD21	1:J:108:ASN:ND2	1.96	0.61
1:E:324:ARG:HD3	1:E:467:ASP:OD1	2.00	0.61
1:F:285:ARG:HH11	1:F:285:ARG:HG3	1.65	0.61
1:H:155:GLN:HG3	1:H:451:ASN:CB	2.30	0.61
1:H:172:THR:O	1:H:173:SER:HB2	2.00	0.61
1:H:318:GLN:HG3	1:H:440:ASN:HB3	1.83	0.61
1:K:391:GLU:O	1:K:413:GLU:O	2.18	0.61
1:L:229:THR:O	1:L:230:PHE:CG	2.53	0.61
1:M:313:LYS:CE	1:M:442:GLN:NE2	2.63	0.61
1:B:87:THR:O	1:B:88:GLU:CB	2.46	0.61
1:E:1:MET:SD	1:E:10:VAL:HA	2.41	0.61
1:E:182:ARG:HH11	1:E:182:ARG:CG	2.08	0.61
1:F:1:MET:HG3	1:F:10:VAL:HB	1.82	0.61
1:F:325:LYS:NZ	1:F:420:GLU:OE2	2.32	0.61
1:H:63:LEU:HD11	1:H:271:LEU:HD12	1.80	0.61
1:I:264:PHE:C	1:I:265:GLN:NE2	2.54	0.61
1:I:377:TYR:CE2	1:I:381:VAL:HG21	2.32	0.61
1:J:134:HIS:O	1:J:135:THR:CB	2.48	0.61
1:L:332:GLN:CG	1:L:456:VAL:HG23	2.30	0.61
1:L:506:ILE:O	1:L:506:ILE:HG22	2.00	0.61
1:A:251:VAL:HG23	1:A:253:GLY:CA	2.30	0.61
1:F:19:GLU:HB2	1:F:20:LEU:HA	1.83	0.61
1:G:366:GLY:C	1:G:367:ILE:HD12	2.20	0.61
2:N:272:LEU:HD12	2:N:272:LEU:N	2.09	0.61
1:A:250:ASP:C	1:A:251:VAL:HG22	2.21	0.61
1:D:106:ILE:HD11	1:D:238:LEU:CA	2.30	0.61
1:D:108:ASN:O	1:D:122:GLU:OE2	2.18	0.61
1:D:432:ALA:HB2	1:D:489:VAL:HG11	1.82	0.61
1:E:374:GLN:HG2	1:G:204:TYR:CE1	2.35	0.61
1:I:428:ARG:HG2	1:I:428:ARG:HH11	1.65	0.61
1:J:250:ASP:C	1:J:250:ASP:OD1	2.39	0.61
1:L:486:LYS:H	1:L:486:LYS:CD	2.14	0.61
1:M:158:ARG:HB2	1:M:246:ASP:HB3	1.81	0.61
2:N:85:TYR:O	2:N:100:PHE:CA	2.41	0.61
1:B:4:SER:O	1:B:5:ALA:C	2.39	0.61
1:B:89:ASN:ND2	1:D:402:VAL:CA	2.60	0.61
1:B:328:LEU:HD12	1:B:328:LEU:H	1.66	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:480:SER:CB	1:M:363:ASN:O	2.49	0.61
1:D:502:GLU:OE2	1:D:503:LEU:N	2.34	0.61
1:E:259:SER:HA	1:E:341:LEU:HD12	1.83	0.61
1:F:110:LEU:HD13	1:F:209:LEU:HD13	1.81	0.61
1:G:180:LEU:H	1:G:180:LEU:CD2	2.13	0.61
1:G:327:TYR:N	1:G:327:TYR:HD2	1.98	0.61
1:G:375:ASN:C	1:G:375:ASN:OD1	2.39	0.61
1:G:379:PHE:HE1	1:G:424:ASP:OD2	1.83	0.61
1:H:99:ARG:NH2	1:H:240:ARG:HH21	1.99	0.61
1:M:436:ILE:HG23	1:M:436:ILE:O	1.99	0.61
1:M:491:ASN:HD22	1:M:491:ASN:H	1.47	0.61
2:N:68:THR:HG23	2:N:133:ILE:HG22	1.83	0.61
1:B:249:ASN:ND2	1:B:254:ASN:O	2.33	0.61
1:B:353:GLN:HB2	1:B:393:ASN:HA	1.83	0.61
1:B:364:GLN:HB2	1:B:367:ILE:HD11	1.83	0.61
1:F:89:ASN:HD21	1:G:403:SER:HA	1.66	0.61
1:G:136:PRO:HD2	1:G:139:VAL:HB	1.81	0.61
1:G:367:ILE:HD12	1:G:367:ILE:N	2.15	0.61
1:H:441:LEU:H	1:H:441:LEU:CD1	2.12	0.61
1:J:98:PHE:HE1	1:J:203:LEU:HD13	1.64	0.61
1:J:395:VAL:HG22	1:J:450:THR:CG2	2.28	0.61
1:L:285:ARG:HB2	1:L:473:SER:HB2	1.81	0.61
1:A:153:ASN:HA	1:A:413:GLU:HG2	1.81	0.61
1:A:479:ALA:O	1:F:365:GLN:O	2.18	0.61
1:C:292:LYS:NZ	1:M:365:GLN:OE1	2.27	0.61
1:E:362:ASN:ND2	1:E:362:ASN:H	1.97	0.61
1:F:430:ASP:CG	1:F:490:LEU:HD13	2.21	0.61
1:F:503:LEU:HA	1:F:506:ILE:HG23	1.81	0.61
1:I:341:LEU:C	1:I:341:LEU:HD12	2.20	0.61
1:L:1:MET:H2	1:L:10:VAL:HG12	1.63	0.61
1:M:65:ARG:HG3	1:M:65:ARG:NH1	2.15	0.61
1:M:102:PRO:HB3	1:M:241:ILE:CD1	2.28	0.61
1:M:194:THR:O	1:M:195:THR:HB	2.00	0.61
1:A:305:ALA:CB	1:A:306:PRO:HA	2.17	0.61
1:B:346:THR:O	1:B:346:THR:OG1	2.14	0.61
1:E:240:ARG:HH11	1:E:240:ARG:CG	2.14	0.61
1:I:3:ASN:C	1:I:3:ASN:ND2	2.54	0.61
1:I:28:VAL:CG2	1:J:432:ALA:CB	2.79	0.61
1:J:293:LEU:HD22	1:J:465:VAL:HB	1.82	0.61
1:K:282:ILE:HD12	1:K:283:PRO:HD2	1.81	0.61
1:M:352:LEU:HD11	1:M:456:VAL:HG21	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:20:ILE:CG2	2:N:36:PHE:HE1	2.12	0.61
2:N:251:GLN:CG	2:N:254:PRO:HD3	2.31	0.61
1:A:122:GLU:OE2	1:A:122:GLU:HA	2.01	0.60
1:C:15:GLU:OE2	1:D:423:LYS:HB2	2.01	0.60
1:E:376:LEU:HD22	1:E:417:VAL:HG11	1.83	0.60
1:F:135:THR:O	1:F:386:ASN:ND2	2.29	0.60
1:G:213:LEU:CB	1:G:214:TRP:CB	2.79	0.60
1:H:342:ASN:N	1:H:342:ASN:ND2	2.48	0.60
1:L:249:ASN:O	1:L:250:ASP:CB	2.49	0.60
1:M:85:GLY:CA	1:M:86:ILE:HG22	2.31	0.60
1:M:137:LEU:C	1:M:137:LEU:CD2	2.70	0.60
1:M:362:ASN:H	1:M:362:ASN:ND2	1.99	0.60
1:A:89:ASN:OD1	1:A:193:THR:CA	2.49	0.60
1:B:342:ASN:O	1:B:346:THR:HG23	2.01	0.60
1:B:363:ASN:O	1:B:364:GLN:CD	2.39	0.60
1:C:386:ASN:HD22	1:C:387:LYS:N	1.98	0.60
1:E:413:GLU:HG3	1:E:413:GLU:O	2.01	0.60
1:F:331:LYS:HG2	1:F:332:GLN:N	2.15	0.60
1:H:208:PHE:O	1:H:209:LEU:HD12	2.00	0.60
1:J:115:ASN:OD1	1:J:226:THR:CG2	2.49	0.60
1:K:361:TRP:HA	1:K:361:TRP:HE3	1.66	0.60
1:L:209:LEU:HD13	1:L:210:PRO:O	2.01	0.60
1:M:34:GLN:HB2	1:M:275:THR:HG23	1.83	0.60
1:M:351:PHE:HD1	1:M:414:GLY:O	1.83	0.60
1:C:412:LEU:CD1	1:C:413:GLU:CB	2.79	0.60
1:D:352:LEU:HD11	1:D:456:VAL:HG11	1.83	0.60
1:E:13:VAL:HG12	1:E:14:GLN:N	2.17	0.60
1:G:109:THR:OG1	1:G:122:GLU:OE1	2.18	0.60
1:H:341:LEU:HD22	1:H:344:GLN:HG3	1.82	0.60
1:H:428:ARG:CD	1:H:429:ASP:O	2.49	0.60
1:J:18:LEU:O	1:J:19:GLU:HB3	2.00	0.60
1:J:285:ARG:HG2	1:J:286:ILE:N	2.16	0.60
2:N:128:THR:OG1	2:N:130:TYR:HB3	2.00	0.60
2:N:132:TYR:N	2:N:132:TYR:CD2	2.66	0.60
2:N:185:ARG:C	2:N:226:ARG:HE	2.03	0.60
1:A:41:PRO:HB2	1:A:266:GLN:NE2	2.17	0.60
1:C:117:PHE:CB	1:C:477:ALA:HB3	2.32	0.60
1:D:452:GLN:HE21	1:D:452:GLN:HA	1.66	0.60
1:E:74:ASP:OD1	1:E:75:ILE:CA	2.49	0.60
1:E:118:PRO:HG2	1:J:118:PRO:HD2	1.83	0.60
1:E:244:HIS:HB2	1:E:345:ILE:CG1	2.31	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:279:ASN:N	1:E:279:ASN:HD22	2.00	0.60
1:E:323:PRO:HD2	1:E:421:LEU:CD2	2.31	0.60
1:F:100:ALA:HB2	1:F:182:ARG:HD3	1.82	0.60
1:I:28:VAL:HG23	1:J:432:ALA:HB1	1.82	0.60
1:I:341:LEU:O	1:I:341:LEU:CD1	2.30	0.60
1:K:353:GLN:HG3	1:K:353:GLN:O	2.01	0.60
1:B:339:GLN:O	1:B:340:ASN:CB	2.49	0.60
1:C:26:TRP:HB3	1:D:1:MET:HE1	1.83	0.60
1:C:305:ALA:HB2	1:C:455:THR:HA	1.83	0.60
1:C:486:LYS:O	1:C:489:VAL:HG13	2.01	0.60
1:E:19:GLU:HB2	1:E:20:LEU:HA	1.84	0.60
1:H:438:ASN:C	1:H:439:PHE:CD2	2.75	0.60
1:I:99:ARG:HG2	1:I:99:ARG:NH1	2.12	0.60
1:K:286:ILE:HG22	1:K:287:THR:N	2.16	0.60
1:L:18:LEU:HD12	1:L:18:LEU:O	2.00	0.60
2:N:180:ALA:CB	2:N:245:GLU:O	2.50	0.60
1:A:85:GLY:CA	1:A:86:ILE:CB	2.67	0.60
1:D:432:ALA:HB2	1:D:489:VAL:CG1	2.31	0.60
1:G:377:TYR:O	1:G:381:VAL:HG12	2.02	0.60
1:H:62:VAL:HA	1:H:223:ALA:HB2	1.83	0.60
1:H:395:VAL:HG23	1:H:396:THR:N	2.16	0.60
1:I:110:LEU:C	1:I:110:LEU:HD22	2.18	0.60
1:J:189:VAL:HG23	1:J:199:ILE:HG22	1.82	0.60
1:K:177:LEU:HD21	1:L:387:LYS:HZ1	1.67	0.60
1:M:346:THR:CG2	1:M:347:THR:N	2.64	0.60
2:N:104:ASP:CB	2:N:107:LEU:HD11	2.31	0.60
1:C:21:ASN:H	1:C:21:ASN:ND2	1.99	0.60
1:D:244:HIS:HB2	1:D:345:ILE:HD11	1.84	0.60
1:E:327:TYR:HD1	1:E:416:ILE:HD11	1.64	0.60
1:G:1:MET:HB3	1:G:2:SER:HA	1.83	0.60
1:H:313:LYS:HZ3	1:H:313:LYS:CB	2.02	0.60
1:H:389:TRP:H	1:J:145:SER:HB3	1.67	0.60
1:H:399:PHE:CD2	1:J:91:LEU:HB3	2.36	0.60
1:H:420:GLU:HB3	1:H:423:LYS:HB3	1.83	0.60
1:I:120:ASN:C	1:I:120:ASN:ND2	2.54	0.60
1:I:494:ILE:HD13	1:I:494:ILE:H	1.66	0.60
1:J:134:HIS:CD2	1:J:507:TYR:CG	2.89	0.60
1:K:1:MET:CE	1:L:26:TRP:CG	2.84	0.60
1:K:89:ASN:HB3	1:K:192:ASN:HD21	1.64	0.60
1:L:231:ASN:N	1:L:231:ASN:ND2	2.50	0.60
1:M:503:LEU:CD2	1:M:503:LEU:C	2.69	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:20:ILE:HG21	2:N:36:PHE:CE1	2.35	0.60
1:A:82:SER:OG	1:A:83:HIS:HA	2.01	0.60
1:D:19:GLU:H	1:D:20:LEU:HA	1.67	0.60
1:D:61:THR:HG23	1:D:275:THR:HG21	1.74	0.60
1:D:71:VAL:HB	1:D:267:PRO:CB	2.32	0.60
1:F:87:THR:O	1:F:88:GLU:CB	2.49	0.60
1:F:328:LEU:HD12	1:F:417:VAL:HB	1.81	0.60
1:H:35:VAL:HG22	1:H:274:VAL:HG13	1.84	0.60
1:I:92:GLN:HB3	1:I:93:PRO:HD2	1.83	0.60
1:J:232:TRP:N	1:J:232:TRP:CD1	2.70	0.60
1:K:332:GLN:CG	1:K:456:VAL:HG23	2.27	0.60
1:M:338:TYR:CD2	1:M:338:TYR:N	2.68	0.60
1:A:108:ASN:CG	1:A:109:THR:HG22	2.15	0.60
1:C:249:ASN:ND2	1:C:250:ASP:O	2.35	0.60
1:D:82:SER:O	1:D:83:HIS:ND1	2.35	0.60
1:D:87:THR:O	1:D:88:GLU:HB2	2.02	0.60
1:H:59:ALA:O	1:H:60:GLN:HG2	2.01	0.60
1:H:442:GLN:HG3	1:H:442:GLN:O	2.01	0.60
1:I:107:THR:HG23	1:I:109:THR:O	2.01	0.60
1:I:322:ILE:HD11	1:I:433:GLU:C	2.22	0.60
1:J:99:ARG:HH21	1:J:240:ARG:HE	1.49	0.60
2:N:128:THR:C	2:N:130:TYR:N	2.55	0.60
1:A:251:VAL:HG23	1:A:253:GLY:H	1.65	0.60
1:B:313:LYS:HZ1	1:B:444:GLN:CD	2.05	0.60
1:C:379:PHE:CD1	1:C:424:ASP:OD2	2.55	0.60
1:E:451:ASN:HD21	1:E:454:VAL:HG13	1.66	0.60
1:F:322:ILE:CD1	1:F:322:ILE:N	2.41	0.60
1:H:133:TYR:HH	1:H:418:CYS:HB3	1.67	0.60
1:I:257:ILE:O	1:I:258:GLY:C	2.40	0.60
1:I:469:THR:HG22	1:I:483:VAL:HG11	1.84	0.60
1:J:387:LYS:HA	1:J:387:LYS:NZ	2.16	0.60
1:K:95:ARG:HH12	1:K:248:THR:HG23	1.65	0.60
1:K:186:THR:HB	1:L:395:VAL:O	2.01	0.60
1:M:502:GLU:O	1:M:505:ARG:CD	2.50	0.60
1:B:190:VAL:C	1:B:191:THR:CG2	2.70	0.59
1:C:77:PHE:HA	1:C:260:MET:HB2	1.84	0.59
1:C:87:THR:HG22	1:C:88:GLU:OE1	2.02	0.59
1:C:330:VAL:HG22	1:C:460:MET:CA	2.32	0.59
1:H:52:PHE:N	1:H:52:PHE:CD2	2.69	0.59
1:I:155:GLN:CD	1:I:350:VAL:HG21	2.22	0.59
1:I:235:ASN:ND2	1:I:235:ASN:C	2.55	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:59:ALA:HB3	1:K:60:GLN:HE21	1.65	0.59
1:K:83:HIS:CE1	1:K:249:ASN:HA	2.37	0.59
1:L:393:ASN:ND2	1:L:393:ASN:C	2.55	0.59
1:A:251:VAL:HG23	1:A:253:GLY:HA3	1.83	0.59
1:C:435:VAL:CG2	1:C:486:LYS:HE3	2.32	0.59
1:C:449:ASN:ND2	1:C:450:THR:N	2.50	0.59
1:F:423:LYS:CG	1:G:15:GLU:OE1	2.50	0.59
1:I:16:PRO:O	1:I:19:GLU:HG2	2.01	0.59
1:I:63:LEU:HD22	1:I:64:ASP:O	2.01	0.59
1:J:330:VAL:HG12	1:J:330:VAL:O	2.00	0.59
1:K:60:GLN:N	1:K:60:GLN:CD	2.54	0.59
1:M:237:ASN:HB2	1:M:344:GLN:OE1	2.01	0.59
2:N:271:LEU:CG	2:N:336:ASP:CG	2.58	0.59
1:A:222:LEU:H	1:A:222:LEU:HD12	1.67	0.59
1:B:410:ILE:CD1	1:B:410:ILE:O	2.49	0.59
1:B:505:ARG:HG2	1:B:505:ARG:NH1	2.08	0.59
1:D:208:PHE:HE1	1:D:214:TRP:CB	2.15	0.59
1:E:380:SER:HA	1:E:382:GLN:H	1.66	0.59
1:F:356:ASN:C	1:F:356:ASN:OD1	2.40	0.59
1:J:301:GLN:CD	1:J:301:GLN:N	2.55	0.59
1:L:32:GLY:HA2	1:L:277:ARG:HG3	1.85	0.59
1:M:4:SER:O	1:M:5:ALA:C	2.41	0.59
2:N:255:THR:HG21	2:N:258:ASN:H	1.67	0.59
1:A:239:ALA:HB3	1:A:344:GLN:HE21	1.64	0.59
1:B:26:TRP:CB	1:C:1:MET:HE1	2.26	0.59
1:C:84:ALA:HB1	1:C:85:GLY:O	2.02	0.59
1:D:117:PHE:CD1	1:D:117:PHE:C	2.75	0.59
1:D:249:ASN:CG	1:D:253:GLY:HA3	2.23	0.59
1:E:244:HIS:CB	1:E:345:ILE:HG13	2.32	0.59
1:E:251:VAL:CG1	1:E:252:SER:N	2.65	0.59
1:F:79:ALA:CB	1:F:195:THR:HA	2.32	0.59
1:F:121:ILE:HD13	1:F:210:PRO:HD3	1.84	0.59
1:F:127:ILE:HG22	1:F:128:HIS:N	2.16	0.59
1:G:301:GLN:H	1:G:301:GLN:NE2	1.99	0.59
1:H:399:PHE:N	1:H:399:PHE:CD1	2.69	0.59
1:K:87:THR:O	1:K:88:GLU:HB3	2.03	0.59
1:L:39:PRO:HB3	1:L:270:TYR:CE1	2.37	0.59
1:L:494:ILE:HA	1:M:12:ALA:O	2.02	0.59
2:N:195:CYS:HB2	2:N:199:LEU:HD22	1.85	0.59
1:B:110:LEU:HD12	1:B:111:ASN:CA	2.33	0.59
1:B:503:LEU:O	1:B:506:ILE:HG22	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:282:ILE:HD12	1:C:283:PRO:HD2	1.83	0.59
1:E:118:PRO:HD3	1:J:117:PHE:CE2	2.36	0.59
1:F:171:PHE:HB2	1:F:184:SER:HB2	1.84	0.59
1:G:71:VAL:HG12	1:G:267:PRO:HB2	1.85	0.59
1:H:291:PHE:HD1	1:H:467:ASP:CG	2.06	0.59
1:I:314:SER:O	1:I:315:ASN:CB	2.41	0.59
1:K:65:ARG:HH11	1:K:213:LEU:CD2	2.16	0.59
1:M:295:ARG:CG	1:M:295:ARG:NH1	2.49	0.59
2:N:53:LEU:HD21	2:N:363:LEU:HD11	1.82	0.59
1:A:385:TYR:CE2	1:A:387:LYS:HB2	2.37	0.59
1:B:385:TYR:HD2	1:B:387:LYS:H	1.48	0.59
1:D:351:PHE:CE2	1:D:416:ILE:CG2	2.86	0.59
1:E:173:SER:CA	1:F:164:ASN:OD1	2.41	0.59
1:G:318:GLN:HG3	1:G:318:GLN:O	2.00	0.59
1:H:430:ASP:OD2	1:H:489:VAL:HG12	1.98	0.59
1:I:33:GLN:O	1:I:34:GLN:HB2	2.02	0.59
1:I:324:ARG:HG2	1:I:324:ARG:NH1	2.06	0.59
1:K:133:TYR:CZ	1:K:418:CYS:HB3	2.36	0.59
1:L:228:LEU:HD22	1:L:229:THR:N	2.18	0.59
1:L:359:LEU:CD2	1:L:367:ILE:HG22	2.32	0.59
2:N:88:SER:HB2	2:N:194:TYR:HB2	1.83	0.59
1:C:19:GLU:H	1:C:20:LEU:HA	1.67	0.59
1:E:438:ASN:HD21	1:L:318:GLN:CB	2.15	0.59
1:F:85:GLY:HA2	1:F:86:ILE:HG22	1.84	0.59
1:F:503:LEU:C	1:F:506:ILE:HG23	2.22	0.59
1:G:49:GLN:HG3	1:G:233:VAL:HA	1.85	0.59
1:H:1:MET:H1	1:J:484:ALA:HA	1.67	0.59
1:H:127:ILE:HD11	1:H:208:PHE:CD1	2.37	0.59
1:H:291:PHE:N	1:H:291:PHE:CD2	2.70	0.59
1:L:1:MET:H1	1:L:10:VAL:HG12	1.67	0.59
1:L:155:GLN:HE21	1:L:155:GLN:CA	2.08	0.59
1:L:228:LEU:CD1	1:L:230:PHE:CE2	2.82	0.59
1:D:188:ASN:OD1	1:D:188:ASN:N	2.30	0.59
1:D:190:VAL:CG2	1:D:198:ARG:HB3	2.33	0.59
1:G:121:ILE:HD13	1:G:209:LEU:HB2	1.84	0.59
1:G:493:ARG:HB2	1:G:493:ARG:NH1	2.18	0.59
1:H:397:GLN:HG2	1:H:398:GLN:N	2.17	0.59
1:I:330:VAL:O	1:I:330:VAL:HG12	2.03	0.59
1:J:261:ASN:HD22	1:J:261:ASN:N	1.98	0.59
1:K:26:TRP:HB3	1:M:1:MET:HE1	1.83	0.59
2:N:107:LEU:H	2:N:107:LEU:CD1	2.11	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:173:LYS:HG3	2:N:254:PRO:CG	2.21	0.59
2:N:370:LEU:HD12	2:N:371:SER:HA	1.81	0.59
1:A:44:SER:HB2	1:E:265:GLN:HG3	1.83	0.59
1:B:314:SER:O	1:B:315:ASN:CB	2.43	0.59
1:D:73:TYR:CE1	1:D:203:LEU:CD2	2.84	0.59
1:D:295:ARG:O	1:D:295:ARG:HG2	2.02	0.59
1:E:153:ASN:H	1:E:153:ASN:ND2	2.00	0.59
1:F:250:ASP:CB	1:F:251:VAL:CA	2.74	0.59
1:I:507:TYR:CD1	1:I:508:GLY:N	2.71	0.59
1:J:134:HIS:CD2	1:J:507:TYR:CD1	2.91	0.59
1:C:244:HIS:HB3	1:C:345:ILE:CD1	2.21	0.59
1:E:254:ASN:N	1:E:254:ASN:HD22	2.00	0.59
1:F:242:TRP:HD1	1:F:345:ILE:HD11	1.68	0.59
1:J:218:GLN:NE2	1:J:218:GLN:HA	2.16	0.59
1:K:222:LEU:N	1:K:222:LEU:CD2	2.65	0.59
1:M:318:GLN:HG3	1:M:440:ASN:HB3	1.84	0.59
1:A:63:LEU:HD22	1:A:64:ASP:O	2.03	0.58
1:B:150:PHE:HE1	1:B:179:GLU:CD	2.04	0.58
1:B:332:GLN:HE21	1:B:333:SER:HB3	1.56	0.58
1:C:313:LYS:HZ3	1:C:314:SER:N	1.99	0.58
1:E:428:ARG:HH11	1:E:428:ARG:CG	2.15	0.58
1:I:379:PHE:HD1	1:I:380:SER:N	2.01	0.58
1:K:42:SER:OG	1:K:45:PHE:HB3	2.03	0.58
1:B:73:TYR:C	1:B:73:TYR:CD2	2.74	0.58
1:C:473:SER:O	1:C:476:SER:N	2.36	0.58
1:D:106:ILE:HD13	1:D:241:ILE:HG12	1.85	0.58
1:D:358:ASN:C	1:D:358:ASN:OD1	2.41	0.58
1:F:295:ARG:C	1:F:296:TYR:HD2	2.05	0.58
1:F:421:LEU:CD1	1:F:425:VAL:HG21	2.33	0.58
1:F:481:ILE:HD13	1:F:481:ILE:N	2.17	0.58
1:F:507:TYR:CG	1:F:508:GLY:HA3	2.33	0.58
1:J:357:LEU:HD11	1:J:359:LEU:HD23	1.84	0.58
1:B:167:PRO:CD	1:B:168:LEU:H	2.16	0.58
1:D:355:ASN:O	1:D:373:SER:HB3	2.04	0.58
1:D:501:ASN:O	1:D:504:GLN:HB2	2.03	0.58
1:E:340:ASN:O	1:E:344:GLN:CD	2.40	0.58
1:G:194:THR:O	1:G:195:THR:CB	2.51	0.58
1:J:207:VAL:HG23	1:J:232:TRP:CZ2	2.38	0.58
1:M:159:ASP:OD1	1:M:159:ASP:C	2.42	0.58
1:A:41:PRO:HB2	1:A:266:GLN:HE22	1.68	0.58
1:A:320:ASP:OD1	1:A:320:ASP:N	2.30	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:73:TYR:CD1	1:C:203:LEU:HD23	2.39	0.58
1:F:72:PRO:HD2	1:F:265:GLN:O	2.03	0.58
1:F:121:ILE:HD13	1:F:210:PRO:CD	2.33	0.58
1:F:126:ILE:HD11	1:F:295:ARG:HB3	1.85	0.58
1:G:172:THR:O	1:G:173:SER:HB2	2.03	0.58
1:J:222:LEU:HD23	1:J:222:LEU:H	1.69	0.58
1:J:401:GLY:O	1:J:402:VAL:HB	2.02	0.58
1:L:429:ASP:OD2	1:L:430:ASP:HA	2.01	0.58
2:N:44:ILE:CA	2:N:332:ILE:HD11	2.33	0.58
2:N:251:GLN:HG2	2:N:254:PRO:HD3	1.85	0.58
1:E:99:ARG:HH22	1:E:240:ARG:NH2	2.00	0.58
1:E:365:GLN:HB3	1:L:122:GLU:CG	2.33	0.58
1:F:295:ARG:CG	1:F:295:ARG:NH1	2.59	0.58
1:H:336:VAL:CG2	1:H:337:ILE:N	2.66	0.58
1:J:21:ASN:ND2	1:J:21:ASN:C	2.55	0.58
1:J:367:ILE:CD1	1:J:367:ILE:N	2.59	0.58
1:M:324:ARG:HD3	1:M:433:GLU:OE1	2.04	0.58
2:N:185:ARG:HE	2:N:226:ARG:NH2	2.01	0.58
1:B:3:ASN:OD1	1:C:483:VAL:O	2.22	0.58
1:B:154:TYR:OH	1:B:165:ASN:ND2	2.36	0.58
1:B:332:GLN:NE2	1:B:456:VAL:CG2	2.59	0.58
1:C:133:TYR:CZ	1:C:418:CYS:HB3	2.37	0.58
1:C:449:ASN:HD22	1:C:450:THR:N	2.02	0.58
1:D:255:SER:HB2	1:D:257:ILE:CD1	2.25	0.58
1:E:397:GLN:HG3	1:G:187:MET:O	2.04	0.58
1:F:417:VAL:HG12	1:F:418:CYS:H	1.68	0.58
1:G:413:GLU:HG3	1:G:414:GLY:O	2.04	0.58
1:H:140:LYS:HG2	1:H:179:GLU:CG	2.33	0.58
1:I:155:GLN:CD	1:I:350:VAL:CG2	2.72	0.58
1:I:326:LEU:HD11	1:I:421:LEU:HD21	1.84	0.58
1:L:305:ALA:CB	1:L:455:THR:HA	2.33	0.58
1:M:214:TRP:CD2	1:M:214:TRP:N	2.72	0.58
1:C:83:HIS:CE1	1:C:85:GLY:HA3	2.38	0.58
1:D:416:ILE:O	1:D:416:ILE:HG13	2.02	0.58
1:E:470:LEU:HD13	1:E:479:ALA:HB2	1.84	0.58
1:F:419:LEU:HD12	1:F:425:VAL:HG22	1.86	0.58
1:I:430:ASP:O	1:I:431:GLU:OE2	2.21	0.58
1:J:19:GLU:O	1:J:19:GLU:CG	2.48	0.58
1:M:136:PRO:O	1:M:138:LYS:N	2.37	0.58
1:B:26:TRP:HB3	1:C:1:MET:SD	2.43	0.58
1:B:96:ASP:OD1	1:B:244:HIS:HA	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:333:SER:O	1:B:336:VAL:HG22	2.04	0.58
1:D:412:LEU:H	1:D:412:LEU:HD12	1.67	0.58
1:E:364:GLN:CB	1:E:367:ILE:HD11	2.34	0.58
1:H:379:PHE:C	1:H:379:PHE:HD2	2.07	0.58
1:J:87:THR:CG2	1:J:88:GLU:CA	2.82	0.58
1:J:250:ASP:CG	1:J:251:VAL:N	2.55	0.58
1:L:99:ARG:CD	1:L:243:SER:HB3	2.28	0.58
2:N:180:ALA:HB1	2:N:245:GLU:O	2.03	0.58
2:N:255:THR:O	2:N:257:SER:CB	2.48	0.58
1:B:357:LEU:CD1	1:B:358:ASN:C	2.73	0.58
1:B:396:THR:O	1:B:410:ILE:CG1	2.52	0.58
1:F:382:GLN:CD	1:F:423:LYS:HZ3	2.07	0.58
1:H:292:LYS:C	1:H:293:LEU:HD23	2.20	0.58
1:I:314:SER:CB	1:I:443:VAL:O	2.51	0.58
1:J:57:PRO:CA	1:L:363:ASN:OD1	2.52	0.58
1:K:496:HIS:O	1:K:496:HIS:HD2	1.86	0.58
1:L:279:ASN:C	1:L:279:ASN:OD1	2.41	0.58
1:L:436:ILE:CG2	1:L:437:GLY:HA3	2.33	0.58
1:M:121:ILE:CD1	1:M:209:LEU:HB2	2.33	0.58
1:B:208:PHE:HE1	1:B:214:TRP:CB	2.16	0.58
1:B:209:LEU:HD21	1:B:210:PRO:O	2.03	0.58
1:D:380:SER:HB2	1:D:383:ASN:H	1.69	0.58
1:H:215:ASP:OD1	1:H:216:GLY:N	2.37	0.58
1:H:449:ASN:ND2	1:H:450:THR:N	2.49	0.58
1:A:132:ARG:HG2	1:A:132:ARG:NH1	2.14	0.57
1:B:155:GLN:HB2	1:B:411:GLY:HA3	1.86	0.57
1:B:410:ILE:CD1	1:B:410:ILE:N	2.48	0.57
1:D:305:ALA:HB2	1:D:455:THR:HG23	1.86	0.57
1:D:503:LEU:O	1:D:506:ILE:HG12	2.03	0.57
1:E:386:ASN:O	1:E:386:ASN:ND2	2.31	0.57
1:J:2:SER:O	1:J:3:ASN:CB	2.48	0.57
1:K:423:LYS:HB2	1:L:15:GLU:OE1	2.04	0.57
1:M:109:THR:HG23	1:M:233:VAL:HG13	1.84	0.57
2:N:36:PHE:CE2	2:N:335:VAL:HG12	2.38	0.57
2:N:287:VAL:HA	2:N:288:GLY:C	2.24	0.57
1:B:309:SER:HA	1:B:448:THR:OG1	2.04	0.57
1:B:356:ASN:OD1	1:B:357:LEU:N	2.36	0.57
1:H:481:ILE:N	1:H:481:ILE:HD13	2.16	0.57
1:I:194:THR:O	1:I:195:THR:CB	2.52	0.57
2:N:279:ILE:HG22	2:N:295:ILE:HD12	1.85	0.57
1:C:39:PRO:HB3	1:C:270:TYR:CE1	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:326:LEU:C	1:C:327:TYR:CD1	2.77	0.57
1:D:249:ASN:OD1	1:D:253:GLY:CA	2.52	0.57
1:E:70:GLN:O	1:E:70:GLN:HG2	2.03	0.57
1:E:254:ASN:H	1:E:254:ASN:HD22	1.47	0.57
1:E:340:ASN:O	1:E:344:GLN:OE1	2.22	0.57
1:G:60:GLN:O	1:G:60:GLN:CG	2.52	0.57
1:H:224:ASN:H	1:H:224:ASN:ND2	1.98	0.57
1:H:330:VAL:HG22	1:H:460:MET:HB3	1.85	0.57
1:J:187:MET:HG2	1:J:199:ILE:HD13	1.85	0.57
1:J:217:GLU:O	1:J:218:GLN:HB2	2.03	0.57
1:K:172:THR:O	1:K:173:SER:HB2	2.04	0.57
1:K:471:VAL:HG21	1:L:5:ALA:HB3	1.80	0.57
1:M:85:GLY:HA2	1:M:86:ILE:HG22	1.85	0.57
1:B:155:GLN:HG2	1:B:412:LEU:C	2.25	0.57
1:B:190:VAL:HG22	1:B:198:ARG:C	2.23	0.57
1:E:83:HIS:C	1:E:83:HIS:ND1	2.57	0.57
1:H:313:LYS:HD2	1:H:444:GLN:HG3	1.87	0.57
1:I:191:THR:CG2	1:I:197:ALA:HA	2.34	0.57
1:I:318:GLN:NE2	1:I:440:ASN:OD1	2.36	0.57
1:J:143:TRP:CZ3	1:J:216:GLY:HA2	2.40	0.57
1:J:339:GLN:O	1:J:339:GLN:HG3	2.04	0.57
1:M:332:GLN:HG2	1:M:456:VAL:HG23	1.87	0.57
2:N:171:THR:H	2:N:172:GLU:HA	1.67	0.57
1:A:449:ASN:HD22	1:A:449:ASN:C	2.06	0.57
1:C:150:PHE:HE2	1:C:167:PRO:HA	1.69	0.57
1:D:80:ASN:HB2	1:D:258:GLY:HA2	1.85	0.57
1:D:332:GLN:HG2	1:D:456:VAL:HG13	1.84	0.57
1:E:56:PRO:O	1:E:56:PRO:CD	2.52	0.57
1:I:1:MET:SD	1:I:10:VAL:HA	2.43	0.57
1:I:437:GLY:CA	1:I:439:PHE:CE2	2.82	0.57
1:K:125:GLN:CD	1:K:295:ARG:NH1	2.58	0.57
1:A:121:ILE:CG2	1:A:123:LEU:HD12	2.34	0.57
1:B:2:SER:HB3	1:B:3:ASN:HD21	1.69	0.57
1:B:17:ARG:CD	1:D:218:GLN:NE2	2.66	0.57
1:B:171:PHE:HB2	1:B:184:SER:HB2	1.87	0.57
1:B:330:VAL:HG12	1:B:352:LEU:HD22	1.87	0.57
1:C:412:LEU:CD1	1:C:413:GLU:HB3	2.32	0.57
1:F:85:GLY:HA2	1:F:86:ILE:CB	2.35	0.57
1:H:350:VAL:HG13	1:H:413:GLU:CB	2.26	0.57
1:L:125:GLN:HB2	1:L:295:ARG:NH1	2.20	0.57
1:L:252:SER:H	1:L:254:ASN:ND2	2.03	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:449:ASN:HD22	1:L:450:THR:H	1.53	0.57
1:M:231:ASN:HD22	1:M:231:ASN:N	2.02	0.57
2:N:256:LEU:HD21	2:N:307:PRO:HG2	1.74	0.57
1:A:254:ASN:HD22	1:A:255:SER:CA	2.14	0.57
1:A:323:PRO:HG2	1:A:421:LEU:HD22	1.87	0.57
1:B:483:VAL:O	1:D:3:ASN:ND2	2.38	0.57
1:C:470:LEU:C	1:C:470:LEU:HD12	2.25	0.57
1:C:481:ILE:C	1:M:363:ASN:ND2	2.57	0.57
1:F:132:ARG:CZ	1:F:413:GLU:OE2	2.53	0.57
1:G:79:ALA:CB	1:G:195:THR:HA	2.27	0.57
1:H:99:ARG:NH1	1:H:240:ARG:CZ	2.63	0.57
1:I:360:THR:CG2	1:I:361:TRP:O	2.52	0.57
1:I:490:LEU:HD23	1:I:491:ASN:CA	2.35	0.57
1:I:493:ARG:O	1:I:493:ARG:CD	2.52	0.57
1:J:136:PRO:O	1:J:137:LEU:C	2.41	0.57
1:A:282:ILE:HD12	1:A:283:PRO:HD2	1.86	0.57
1:C:361:TRP:CZ3	1:C:441:LEU:HD23	2.31	0.57
1:D:247:ILE:O	1:D:249:ASN:N	2.38	0.57
1:E:491:ASN:O	1:E:491:ASN:ND2	2.38	0.57
1:H:73:TYR:CD2	1:H:73:TYR:C	2.78	0.57
1:I:85:GLY:CA	1:I:86:ILE:HG23	2.25	0.57
1:I:89:ASN:HB2	1:I:192:ASN:O	2.04	0.57
1:J:61:THR:HG22	1:J:274:VAL:O	2.05	0.57
1:K:100:ALA:HB2	1:K:182:ARG:HD2	1.85	0.57
1:L:192:ASN:C	1:L:192:ASN:ND2	2.53	0.57
1:M:208:PHE:CB	1:M:214:TRP:NE1	2.64	0.57
1:A:251:VAL:HG23	1:A:253:GLY:N	2.20	0.57
1:A:341:LEU:HA	1:A:344:GLN:HG3	1.85	0.57
1:A:438:ASN:OD1	1:A:438:ASN:N	2.38	0.57
1:B:194:THR:O	1:B:195:THR:CB	2.52	0.57
1:C:51:ASN:HB2	1:C:231:ASN:HB2	1.86	0.57
1:C:255:SER:CB	1:C:342:ASN:ND2	2.67	0.57
1:C:364:GLN:CG	1:C:367:ILE:HD11	2.32	0.57
1:D:299:GLN:CD	1:D:335:ASN:ND2	2.59	0.57
1:G:340:ASN:ND2	1:G:340:ASN:O	2.37	0.57
1:I:483:VAL:O	1:J:3:ASN:OD1	2.23	0.57
1:B:187:MET:N	1:D:397:GLN:OE1	2.38	0.57
1:D:71:VAL:CA	1:D:267:PRO:HB3	2.35	0.57
1:E:148:PRO:HG3	1:E:185:TYR:HD1	1.69	0.57
1:F:286:ILE:CG2	1:F:287:THR:N	2.68	0.57
1:I:190:VAL:HG23	1:I:198:ARG:HB3	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:372:SER:O	1:K:375:ASN:N	2.38	0.57
1:L:336:VAL:O	1:L:339:GLN:NE2	2.36	0.57
1:B:49:GLN:HB2	1:B:232:TRP:O	2.05	0.56
1:C:100:ALA:HB2	1:C:182:ARG:HD3	1.87	0.56
1:D:65:ARG:HH12	1:D:213:LEU:HD23	1.70	0.56
1:H:507:TYR:CG	1:H:508:GLY:N	2.72	0.56
1:I:55:ASN:CB	1:I:56:PRO:CD	2.73	0.56
1:I:490:LEU:HD23	1:I:491:ASN:CB	2.34	0.56
1:J:100:ALA:HB2	1:J:182:ARG:CD	2.27	0.56
1:M:136:PRO:O	1:M:139:VAL:N	2.35	0.56
2:N:24:PHE:CE2	2:N:355:PRO:CA	2.83	0.56
1:A:285:ARG:HB2	1:A:473:SER:CB	2.34	0.56
1:C:83:HIS:CD2	1:C:256:THR:HA	2.30	0.56
1:G:133:TYR:CZ	1:G:418:CYS:HB3	2.40	0.56
1:H:340:ASN:C	1:H:344:GLN:NE2	2.48	0.56
1:A:336:VAL:O	1:A:337:ILE:HD13	2.05	0.56
1:B:96:ASP:OD1	1:B:244:HIS:HD2	1.87	0.56
1:B:282:ILE:HD12	1:B:283:PRO:HD2	1.86	0.56
1:B:333:SER:O	1:B:337:ILE:CG2	2.48	0.56
1:C:59:ALA:C	1:C:60:GLN:OE1	2.44	0.56
1:C:501:ASN:O	1:C:504:GLN:HB2	2.05	0.56
1:D:75:ILE:CD1	1:D:262:ILE:HG23	2.34	0.56
1:D:351:PHE:CD2	1:D:416:ILE:HG22	2.40	0.56
1:D:397:GLN:CD	1:D:397:GLN:H	2.08	0.56
1:E:17:ARG:HH12	1:G:423:LYS:HZ3	1.51	0.56
1:E:96:ASP:OD1	1:E:244:HIS:CA	2.38	0.56
1:E:342:ASN:HD22	1:E:346:THR:CG2	2.17	0.56
1:F:143:TRP:CZ3	1:F:215:ASP:O	2.58	0.56
1:G:109:THR:HG22	1:G:110:LEU:H	1.71	0.56
1:H:120:ASN:C	1:H:120:ASN:ND2	2.59	0.56
1:H:428:ARG:NE	1:H:429:ASP:N	2.53	0.56
1:J:207:VAL:O	1:J:207:VAL:HG12	2.05	0.56
1:J:341:LEU:HD13	1:J:342:ASN:HA	1.87	0.56
1:J:486:LYS:HA	1:J:486:LYS:HZ2	1.70	0.56
1:K:286:ILE:HG23	1:K:287:THR:H	1.71	0.56
1:K:379:PHE:CD1	1:K:379:PHE:C	2.79	0.56
1:K:469:THR:CG2	1:L:4:SER:HB2	2.33	0.56
1:L:45:PHE:CD1	1:L:45:PHE:C	2.77	0.56
1:M:133:TYR:CE1	1:M:418:CYS:HB3	2.40	0.56
1:M:137:LEU:O	1:M:137:LEU:HD23	2.05	0.56
2:N:18:TYR:CD1	2:N:19:ASP:N	2.73	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:91:TYR:C	2:N:93:GLY:HA2	2.26	0.56
2:N:184:ASP:CG	2:N:226:ARG:HA	2.25	0.56
2:N:184:ASP:OD2	2:N:226:ARG:HA	2.05	0.56
2:N:197:VAL:CG1	2:N:220:ASP:OD2	2.51	0.56
1:A:291:PHE:N	1:A:291:PHE:CD1	2.74	0.56
1:A:325:LYS:HB2	1:A:325:LYS:HZ3	1.69	0.56
1:C:117:PHE:HB2	1:C:477:ALA:HB3	1.87	0.56
1:C:413:GLU:CG	1:C:414:GLY:N	2.30	0.56
1:D:92:GLN:HB3	1:D:93:PRO:CD	2.35	0.56
1:D:295:ARG:O	2:N:39:GLN:HG3	2.05	0.56
1:D:354:ILE:HA	1:D:447:VAL:HG23	1.87	0.56
1:D:404:GLY:O	1:D:405:GLN:NE2	2.39	0.56
1:G:247:ILE:CG2	1:G:248:THR:N	2.67	0.56
1:H:345:ILE:HG13	1:H:346:THR:N	2.20	0.56
1:K:143:TRP:C	1:K:145:SER:H	2.09	0.56
1:L:465:VAL:HG23	1:L:465:VAL:O	2.05	0.56
1:M:89:ASN:HB3	1:M:192:ASN:ND2	2.20	0.56
2:N:333:TYR:O	2:N:334:MET:SD	2.60	0.56
1:A:89:ASN:HB3	1:A:192:ASN:ND2	2.15	0.56
1:A:290:TYR:OH	1:A:292:LYS:NZ	2.37	0.56
1:B:35:VAL:HG21	1:C:17:ARG:HH21	1.70	0.56
1:B:357:LEU:HD13	1:B:358:ASN:N	2.16	0.56
1:C:140:LYS:NZ	1:C:149:SER:O	2.36	0.56
1:D:59:ALA:HB1	1:D:60:GLN:HE21	1.71	0.56
1:F:475:THR:O	1:F:476:SER:HB3	2.05	0.56
1:G:171:PHE:CD1	1:G:171:PHE:C	2.78	0.56
1:H:423:LYS:HA	1:I:15:GLU:CD	2.26	0.56
1:J:132:ARG:NH2	1:J:132:ARG:CG	2.67	0.56
1:L:1:MET:SD	1:M:26:TRP:CE2	2.98	0.56
1:L:15:GLU:CG	1:L:16:PRO:HD2	2.31	0.56
1:A:481:ILE:HG23	1:F:365:GLN:HB2	1.78	0.56
1:C:123:LEU:HD23	1:C:127:ILE:HG12	1.83	0.56
1:F:250:ASP:CG	1:F:251:VAL:N	2.53	0.56
1:F:264:PHE:CA	1:F:265:GLN:NE2	2.69	0.56
1:G:461:TYR:O	1:G:462:ILE:HG13	2.05	0.56
1:H:401:GLY:O	1:H:402:VAL:CB	2.54	0.56
1:H:428:ARG:HD2	1:H:429:ASP:O	2.05	0.56
1:J:172:THR:O	1:J:173:SER:CB	2.53	0.56
1:J:392:PHE:CD1	1:J:392:PHE:C	2.78	0.56
1:J:507:TYR:CD2	1:J:508:GLY:N	2.74	0.56
1:L:170:VAL:HG12	1:L:171:PHE:N	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:89:ASN:CB	1:A:192:ASN:HD21	2.14	0.56
1:B:360:THR:HG23	1:B:442:GLN:O	2.05	0.56
1:D:133:TYR:HA	1:D:135:THR:H	1.71	0.56
1:E:145:SER:HB3	1:F:389:TRP:H	1.71	0.56
1:E:493:ARG:HG2	1:E:493:ARG:NH1	2.14	0.56
1:F:443:VAL:HG13	1:F:462:ILE:HD11	1.78	0.56
1:G:84:ALA:HA	1:G:86:ILE:HB	1.87	0.56
1:G:305:ALA:HB1	1:G:306:PRO:HA	1.86	0.56
1:H:326:LEU:HD21	1:H:328:LEU:HD21	1.87	0.56
1:I:86:ILE:HG21	1:I:256:THR:HG21	1.88	0.56
1:J:224:ASN:H	1:J:224:ASN:ND2	2.03	0.56
1:K:351:PHE:CE1	1:K:413:GLU:OE2	2.58	0.56
1:K:411:GLY:C	1:K:412:LEU:HD23	2.26	0.56
1:L:133:TYR:CZ	1:L:418:CYS:HB3	2.40	0.56
1:L:430:ASP:OD2	1:L:489:VAL:CB	2.54	0.56
2:N:44:ILE:HB	2:N:332:ILE:CD1	2.31	0.56
1:A:324:ARG:HD2	1:A:467:ASP:OD1	2.06	0.56
1:B:89:ASN:ND2	1:B:89:ASN:N	2.53	0.56
1:B:133:TYR:O	1:B:384:GLY:O	2.24	0.56
1:B:217:GLU:O	1:B:218:GLN:CB	2.54	0.56
1:C:84:ALA:CA	1:C:85:GLY:C	2.74	0.56
1:C:89:ASN:HD21	1:C:193:THR:HA	1.71	0.56
1:C:488:GLU:OE2	1:C:489:VAL:HA	2.05	0.56
1:D:59:ALA:HB1	1:D:60:GLN:NE2	2.21	0.56
1:E:505:ARG:HG2	1:E:505:ARG:NH1	2.20	0.56
1:H:217:GLU:OE2	1:H:505:ARG:CG	2.54	0.56
1:I:189:VAL:HG13	1:I:191:THR:O	2.05	0.56
1:I:471:VAL:HG21	1:J:5:ALA:CB	2.19	0.56
1:I:481:ILE:HD13	1:I:481:ILE:N	2.20	0.56
1:J:327:TYR:CD2	1:J:327:TYR:N	2.74	0.56
1:L:82:SER:O	1:L:84:ALA:HB2	2.06	0.56
1:L:235:ASN:HD22	1:L:235:ASN:N	2.02	0.56
1:M:2:SER:HB3	1:M:7:PRO:HB3	1.88	0.56
1:M:502:GLU:C	1:M:502:GLU:OE1	2.44	0.56
2:N:185:ARG:H	2:N:225:VAL:HG13	1.71	0.56
1:B:393:ASN:CG	1:B:393:ASN:O	2.44	0.56
1:B:411:GLY:O	1:B:412:LEU:CD1	2.30	0.56
1:C:313:LYS:HZ3	1:C:313:LYS:C	2.03	0.56
1:E:379:PHE:CG	1:E:379:PHE:O	2.58	0.56
1:F:35:VAL:O	1:F:36:THR:CG2	2.54	0.56
1:G:372:SER:O	1:G:376:LEU:HD13	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:493:ARG:CG	1:I:493:ARG:NH1	2.34	0.56
1:J:249:ASN:OD1	1:J:255:SER:HA	2.04	0.56
1:M:150:PHE:HE1	1:M:179:GLU:OE1	1.89	0.56
1:M:295:ARG:HH11	1:M:295:ARG:HG3	1.66	0.56
1:M:428:ARG:O	1:M:431:GLU:OE1	2.24	0.56
2:N:357:ARG:HB2	2:N:357:ARG:CZ	2.35	0.56
1:B:357:LEU:HB2	1:B:445:MET:HB2	1.88	0.56
1:D:339:GLN:HB3	2:N:27:ASN:HA	1.88	0.56
1:E:339:GLN:C	1:E:340:ASN:HD22	1.96	0.56
1:F:35:VAL:HG12	1:F:36:THR:N	2.21	0.56
1:F:494:ILE:H	1:F:494:ILE:CD1	2.17	0.56
1:H:1:MET:SD	1:H:10:VAL:CB	2.93	0.56
1:J:286:ILE:CG2	1:J:288:TYR:CE2	2.89	0.56
1:J:385:TYR:CE2	1:J:387:LYS:HB3	2.41	0.56
1:K:165:ASN:HB3	1:M:174:ALA:O	2.05	0.56
1:K:286:ILE:CG2	1:K:287:THR:H	2.19	0.56
2:N:18:TYR:CD1	2:N:18:TYR:C	2.79	0.56
1:B:110:LEU:HD12	1:B:110:LEU:O	2.03	0.55
1:C:75:ILE:CG2	1:C:76:THR:N	2.69	0.55
1:E:6:ILE:HG22	1:E:7:PRO:O	2.06	0.55
1:F:435:VAL:HG22	1:F:436:ILE:N	2.19	0.55
1:G:115:ASN:ND2	1:G:225:LEU:HA	2.21	0.55
1:G:252:SER:N	1:G:253:GLY:CA	2.69	0.55
1:H:110:LEU:HD13	1:H:111:ASN:N	2.20	0.55
1:H:355:ASN:O	1:H:373:SER:HB3	2.06	0.55
1:H:428:ARG:CA	1:H:431:GLU:OE1	2.54	0.55
1:I:470:LEU:HG	1:I:470:LEU:O	2.06	0.55
1:J:413:GLU:HG2	1:J:414:GLY:N	2.17	0.55
1:K:209:LEU:HD12	1:K:210:PRO:CD	2.36	0.55
1:M:366:GLY:O	1:M:367:ILE:C	2.44	0.55
2:N:34:ALA:CB	2:N:351:ILE:HG23	2.36	0.55
1:A:372:SER:O	1:A:375:ASN:N	2.39	0.55
1:E:44:SER:HB3	1:J:317:VAL:CG2	2.36	0.55
1:E:423:LYS:CE	1:F:17:ARG:HD2	2.28	0.55
1:E:449:ASN:C	1:E:449:ASN:HD22	2.09	0.55
1:F:143:TRP:C	1:F:145:SER:N	2.60	0.55
1:F:295:ARG:HG2	1:F:295:ARG:NH1	2.20	0.55
1:G:9:ASN:HD22	1:G:9:ASN:C	2.02	0.55
1:G:143:TRP:O	1:G:145:SER:N	2.39	0.55
1:I:101:PHE:O	1:I:105:SER:HB3	2.06	0.55
1:J:60:GLN:O	1:J:276:PRO:CD	2.50	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:362:ASN:HD22	1:L:362:ASN:N	2.03	0.55
1:M:436:ILE:O	1:M:436:ILE:CG2	2.53	0.55
1:A:249:ASN:HB2	1:A:255:SER:CB	2.37	0.55
1:C:393:ASN:ND2	1:C:393:ASN:C	2.59	0.55
1:C:410:ILE:N	1:C:410:ILE:HD12	2.21	0.55
1:D:208:PHE:CE1	1:D:214:TRP:CB	2.88	0.55
1:F:19:GLU:CB	1:F:20:LEU:HA	2.36	0.55
1:H:186:THR:HB	1:I:395:VAL:O	2.07	0.55
1:I:361:TRP:HA	1:I:361:TRP:CE3	2.41	0.55
1:J:286:ILE:HG23	1:J:287:THR:N	2.21	0.55
1:M:14:GLN:OE1	1:M:14:GLN:HA	2.06	0.55
1:B:334:ASP:CG	1:B:461:TYR:HH	2.10	0.55
1:C:73:TYR:HE2	1:C:199:ILE:HD12	1.70	0.55
1:D:42:SER:HB3	1:D:52:PHE:CE1	2.40	0.55
1:E:82:SER:O	1:E:83:HIS:C	2.44	0.55
1:E:104:SER:OG	1:E:127:ILE:HD13	2.06	0.55
1:F:364:GLN:CG	1:F:367:ILE:CD1	2.75	0.55
1:F:417:VAL:HG12	1:F:418:CYS:N	2.21	0.55
1:G:70:GLN:HG3	1:G:70:GLN:O	2.06	0.55
1:G:313:LYS:H	1:G:444:GLN:HG2	1.70	0.55
1:G:505:ARG:HB2	1:G:505:ARG:NH1	2.20	0.55
1:H:305:ALA:HB3	1:H:455:THR:HG23	1.87	0.55
1:I:231:ASN:HD22	1:I:231:ASN:N	2.05	0.55
1:I:431:GLU:OE2	1:I:431:GLU:CA	2.54	0.55
1:L:323:PRO:HD2	1:L:421:LEU:CD2	2.36	0.55
2:N:55:VAL:CG1	2:N:296:LEU:HD11	2.37	0.55
1:A:291:PHE:N	1:A:291:PHE:HD1	2.04	0.55
1:A:325:LYS:NZ	1:A:327:TYR:CE2	2.60	0.55
1:B:171:PHE:CD1	1:B:171:PHE:O	2.59	0.55
1:B:345:ILE:HG23	1:B:346:THR:HG22	1.87	0.55
1:C:99:ARG:HD2	1:C:243:SER:HB3	1.89	0.55
1:E:147:GLN:HG2	1:E:205:GLU:HG2	1.89	0.55
1:E:182:ARG:HG3	1:E:182:ARG:NH1	2.05	0.55
1:E:342:ASN:ND2	1:E:346:THR:HG21	2.21	0.55
1:G:372:SER:O	1:G:376:LEU:CD1	2.54	0.55
1:H:353:GLN:HG3	1:H:353:GLN:O	2.06	0.55
1:I:360:THR:HG22	1:I:361:TRP:O	2.07	0.55
1:J:62:VAL:HA	1:J:223:ALA:HB2	1.88	0.55
1:K:301:GLN:CD	1:K:301:GLN:H	2.10	0.55
1:M:214:TRP:N	1:M:214:TRP:CE3	2.59	0.55
1:M:334:ASP:HA	1:M:337:ILE:CG1	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:141:GLN:O	2:N:141:GLN:HG2	2.06	0.55
1:A:105:SER:HB3	1:A:128:HIS:CE1	2.42	0.55
1:A:325:LYS:HB3	1:A:420:GLU:HA	1.89	0.55
1:C:19:GLU:N	1:C:20:LEU:HA	2.22	0.55
1:D:461:TYR:O	1:D:462:ILE:HG13	2.07	0.55
1:E:80:ASN:HB3	1:E:258:GLY:O	2.06	0.55
1:E:218:GLN:HG3	1:F:382:GLN:HE22	1.70	0.55
1:E:261:ASN:HD22	1:E:261:ASN:N	2.03	0.55
1:F:35:VAL:O	1:F:36:THR:HG22	2.06	0.55
1:G:87:THR:C	1:G:88:GLU:CG	2.71	0.55
1:H:439:PHE:CD2	1:H:439:PHE:N	2.74	0.55
1:K:104:SER:HB3	1:K:205:GLU:OE1	2.07	0.55
1:K:247:ILE:HD12	1:K:248:THR:HG23	1.88	0.55
1:L:66:LEU:C	1:L:66:LEU:HD23	2.27	0.55
1:M:80:ASN:HB3	1:M:258:GLY:O	2.07	0.55
1:M:209:LEU:CD1	1:M:211:PRO:O	2.55	0.55
2:N:255:THR:HG22	2:N:255:THR:O	2.06	0.55
1:A:78:THR:HG23	1:A:259:SER:O	2.07	0.55
1:A:87:THR:O	1:A:88:GLU:CD	2.44	0.55
1:C:49:GLN:HG3	1:C:232:TRP:O	2.05	0.55
1:C:101:PHE:CE1	1:C:149:SER:OG	2.59	0.55
1:G:159:ASP:OD2	1:G:159:ASP:C	2.45	0.55
1:H:164:ASN:HD22	1:H:164:ASN:N	2.03	0.55
1:J:42:SER:OG	1:J:45:PHE:HB3	2.06	0.55
1:K:27:VAL:HG23	1:M:11:VAL:HG23	1.89	0.55
1:K:361:TRP:CG	1:K:362:ASN:N	2.75	0.55
1:M:505:ARG:HG2	1:M:506:ILE:H	1.72	0.55
2:N:182:TYR:CD2	2:N:182:TYR:C	2.79	0.55
1:B:150:PHE:CE1	1:B:179:GLU:CD	2.80	0.55
1:C:74:ASP:C	1:C:74:ASP:OD1	2.45	0.55
1:E:408:LYS:HE2	1:E:410:ILE:HD11	1.89	0.55
1:G:254:ASN:H	1:G:254:ASN:ND2	1.93	0.55
1:G:324:ARG:HB3	1:G:465:VAL:HG23	1.88	0.55
1:H:445:MET:SD	1:H:445:MET:C	2.85	0.55
1:J:286:ILE:HG22	1:J:288:TYR:CE2	2.41	0.55
1:L:19:GLU:CD	1:L:19:GLU:N	2.59	0.55
1:M:314:SER:HB3	1:M:443:VAL:O	2.07	0.55
1:A:172:THR:O	1:A:173:SER:CB	2.55	0.55
1:A:449:ASN:C	1:A:449:ASN:ND2	2.60	0.55
1:C:1:MET:C	1:C:3:ASN:H	2.11	0.55
1:C:59:ALA:O	1:C:60:GLN:OE1	2.24	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:36:THR:OG1	1:D:37:TYR:N	2.39	0.55
1:D:51:ASN:ND2	2:N:293:GLN:HB3	2.22	0.55
1:D:451:ASN:C	1:D:451:ASN:OD1	2.45	0.55
1:E:444:GLN:O	1:E:444:GLN:HG3	2.05	0.55
1:H:64:ASP:OD2	1:H:272:GLY:HA3	2.06	0.55
1:I:303:THR:OG1	1:I:455:THR:HG22	2.07	0.55
1:J:34:GLN:O	1:J:36:THR:HG22	2.07	0.55
1:K:140:LYS:CD	1:K:179:GLU:CD	2.72	0.55
1:K:399:PHE:HA	1:K:407:THR:HB	1.88	0.55
1:L:485:SER:O	1:L:489:VAL:HG23	2.07	0.55
1:M:437:GLY:O	1:M:439:PHE:CE2	2.60	0.55
2:N:299:PHE:CZ	2:N:313:ILE:HG13	2.40	0.55
1:A:297:THR:HG23	1:F:302:ASN:ND2	2.20	0.55
1:B:164:ASN:ND2	1:C:173:SER:O	2.39	0.55
1:D:4:SER:O	1:D:5:ALA:C	2.44	0.55
1:D:235:ASN:HD22	1:D:236:ASN:H	1.54	0.55
1:D:490:LEU:O	1:D:491:ASN:ND2	2.28	0.55
1:G:386:ASN:C	1:G:386:ASN:ND2	2.51	0.55
1:J:372:SER:HB3	1:J:375:ASN:HB2	1.89	0.55
1:K:342:ASN:O	1:K:346:THR:HG23	2.07	0.55
1:M:341:LEU:C	1:M:341:LEU:HD13	2.24	0.55
1:A:250:ASP:O	1:A:251:VAL:HG22	2.07	0.54
1:C:291:PHE:HE2	1:C:508:GLY:HA2	1.68	0.54
1:D:187:MET:SD	1:D:187:MET:C	2.77	0.54
1:D:353:GLN:HG3	1:D:353:GLN:O	2.06	0.54
1:E:73:TYR:CE1	1:E:201:GLY:N	2.68	0.54
1:H:212:PHE:HE2	1:H:230:PHE:CE1	2.25	0.54
1:I:120:ASN:ND2	1:I:120:ASN:O	2.40	0.54
1:J:89:ASN:HB2	1:J:192:ASN:ND2	2.21	0.54
1:K:100:ALA:CB	1:K:182:ARG:HD3	2.33	0.54
1:L:21:ASN:HB3	1:M:283:PRO:HD3	1.89	0.54
1:L:456:VAL:O	1:L:456:VAL:HG13	2.07	0.54
1:M:103:ILE:O	1:M:103:ILE:HG13	2.07	0.54
2:N:173:LYS:CD	2:N:251:GLN:O	2.51	0.54
1:B:208:PHE:CE1	1:B:214:TRP:CD1	2.92	0.54
1:C:187:MET:SD	1:C:187:MET:C	2.82	0.54
1:C:336:VAL:HG22	1:C:337:ILE:H	1.71	0.54
1:E:342:ASN:ND2	1:E:346:THR:CG2	2.70	0.54
1:E:363:ASN:ND2	1:L:320:ASP:OD2	2.40	0.54
1:E:437:GLY:O	1:E:438:ASN:CB	2.55	0.54
1:H:407:THR:O	1:H:407:THR:CG2	2.54	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:327:TYR:N	1:J:327:TYR:HD2	2.05	0.54
1:L:440:ASN:OD1	1:L:440:ASN:N	2.40	0.54
2:N:115:PRO:HG3	2:N:128:THR:HG21	1.89	0.54
1:A:34:GLN:HE22	1:J:364:GLN:HB3	1.59	0.54
1:A:322:ILE:HG12	1:A:439:PHE:CE2	2.42	0.54
1:B:322:ILE:HG23	1:B:421:LEU:HD23	1.89	0.54
1:C:89:ASN:ND2	1:C:192:ASN:ND2	2.52	0.54
1:D:357:LEU:CD1	1:D:358:ASN:CA	2.80	0.54
1:E:45:PHE:HD1	1:E:46:SER:N	2.02	0.54
1:F:143:TRP:C	1:F:145:SER:H	2.10	0.54
1:F:209:LEU:HG	1:F:210:PRO:HD2	1.88	0.54
1:F:249:ASN:HB2	1:F:255:SER:HA	1.89	0.54
1:G:5:ALA:HA	1:G:7:PRO:N	2.21	0.54
1:G:180:LEU:H	1:G:180:LEU:HD23	1.73	0.54
1:J:153:ASN:O	1:J:412:LEU:O	2.25	0.54
1:J:158:ARG:HH11	1:J:158:ARG:CB	2.20	0.54
1:J:322:ILE:HD11	1:J:432:ALA:C	2.28	0.54
1:L:339:GLN:O	1:L:340:ASN:HB2	2.07	0.54
2:N:300:VAL:HB	2:N:301:PRO:HD2	1.90	0.54
2:N:333:TYR:HB3	2:N:334:MET:SD	2.44	0.54
1:B:4:SER:HB2	1:B:6:ILE:O	2.07	0.54
1:B:459:ASP:OD2	1:B:461:TYR:CE2	2.60	0.54
1:C:186:THR:HG23	1:C:186:THR:O	2.08	0.54
1:C:379:PHE:HB2	1:C:423:LYS:NZ	2.23	0.54
1:C:380:SER:OG	1:C:385:TYR:HB2	2.07	0.54
1:D:85:GLY:HA2	1:D:86:ILE:CG2	2.37	0.54
1:F:249:ASN:O	1:F:250:ASP:CB	2.54	0.54
1:F:313:LYS:HG2	1:F:442:GLN:OE1	2.08	0.54
1:H:2:SER:HA	1:H:7:PRO:HA	1.90	0.54
1:I:491:ASN:ND2	1:I:491:ASN:O	2.30	0.54
1:K:73:TYR:CE2	1:K:199:ILE:HD11	2.40	0.54
1:K:104:SER:HB3	1:K:205:GLU:CD	2.28	0.54
2:N:255:THR:CG2	2:N:258:ASN:H	2.20	0.54
1:C:251:VAL:CG2	1:C:252:SER:N	2.70	0.54
1:C:279:ASN:O	1:C:281:PRO:HD3	2.08	0.54
1:D:42:SER:HB2	1:D:52:PHE:CE1	2.42	0.54
1:D:286:ILE:CD1	1:D:287:THR:H	2.03	0.54
1:F:328:LEU:CD1	1:F:417:VAL:HB	2.37	0.54
1:F:367:ILE:O	1:F:369:SER:N	2.40	0.54
1:F:379:PHE:O	1:F:379:PHE:CD1	2.60	0.54
1:G:469:THR:HG23	1:G:483:VAL:HG11	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:140:LYS:HG3	1:I:179:GLU:HG2	1.90	0.54
1:I:326:LEU:O	1:I:327:TYR:HD2	1.91	0.54
1:I:341:LEU:HD12	1:I:342:ASN:N	2.22	0.54
1:K:34:GLN:OE1	1:K:34:GLN:CA	2.55	0.54
1:K:428:ARG:HB2	1:K:431:GLU:OE2	2.07	0.54
1:L:250:ASP:OD2	1:L:251:VAL:C	2.46	0.54
2:N:263:LYS:HG3	2:N:344:GLN:HG3	1.90	0.54
1:A:33:GLN:O	1:A:34:GLN:HB2	2.08	0.54
1:A:65:ARG:HG3	1:A:221:GLY:HA2	1.90	0.54
1:B:222:LEU:HA	1:B:288:TYR:OH	2.08	0.54
1:B:305:ALA:HB2	1:B:455:THR:CB	2.35	0.54
1:D:343:ASN:ND2	1:D:344:GLN:CA	2.69	0.54
1:E:45:PHE:HE2	1:E:266:GLN:CA	2.15	0.54
1:E:68:PHE:CZ	1:F:374:GLN:HG3	2.43	0.54
1:E:265:GLN:HE21	1:E:265:GLN:HA	1.72	0.54
1:F:147:GLN:NE2	1:F:206:GLN:HB2	2.22	0.54
1:F:359:LEU:O	1:F:367:ILE:N	2.40	0.54
1:G:305:ALA:HB2	1:G:455:THR:HA	1.90	0.54
1:G:340:ASN:O	1:G:342:ASN:N	2.40	0.54
1:K:72:PRO:HD2	1:K:266:GLN:O	2.08	0.54
1:K:133:TYR:OH	1:K:418:CYS:HB3	2.07	0.54
2:N:196:ASN:C	2:N:198:ASN:H	2.11	0.54
1:B:132:ARG:O	1:B:386:ASN:OD1	2.26	0.54
1:B:192:ASN:C	1:B:193:THR:CG2	2.76	0.54
1:D:92:GLN:HB3	1:D:93:PRO:HD2	1.88	0.54
1:E:313:LYS:HG3	1:E:314:SER:N	2.22	0.54
1:F:41:PRO:HB2	1:F:266:GLN:NE2	2.23	0.54
1:G:19:GLU:CB	1:G:20:LEU:CA	2.84	0.54
1:J:75:ILE:HG23	1:J:262:ILE:HG13	1.90	0.54
1:L:379:PHE:C	1:L:379:PHE:CD1	2.81	0.54
1:L:426:GLY:C	1:L:427:LEU:HD13	2.28	0.54
1:M:501:ASN:ND2	1:M:501:ASN:O	2.30	0.54
2:N:84:ILE:O	2:N:84:ILE:CD1	2.55	0.54
2:N:103:PHE:CE1	2:N:131:TYR:CD1	2.85	0.54
2:N:160:ALA:HB2	2:N:182:TYR:CE2	2.42	0.54
1:A:19:GLU:H	1:A:20:LEU:HA	1.73	0.54
1:B:6:ILE:HD13	1:C:285:ARG:HD2	1.86	0.54
1:B:396:THR:OG1	1:B:410:ILE:HD13	2.08	0.54
1:C:495:THR:OG1	1:C:497:GLY:N	2.40	0.54
1:F:85:GLY:HA2	1:F:86:ILE:HB	1.88	0.54
1:F:174:ALA:HB2	1:F:181:PRO:HD3	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:207:VAL:O	1:G:207:VAL:CG1	2.54	0.54
1:G:282:ILE:HD12	1:G:283:PRO:CD	2.36	0.54
1:G:331:LYS:HG2	1:G:332:GLN:N	2.23	0.54
1:I:386:ASN:C	1:I:386:ASN:ND2	2.57	0.54
1:K:436:ILE:O	1:K:436:ILE:HG12	2.04	0.54
1:L:365:GLN:HG3	1:L:366:GLY:N	2.23	0.54
1:M:85:GLY:CA	1:M:86:ILE:CB	2.85	0.54
1:M:386:ASN:O	1:M:386:ASN:CG	2.46	0.54
1:A:1:MET:SD	1:A:10:VAL:HA	2.47	0.54
1:A:89:ASN:OD1	1:A:192:ASN:O	2.26	0.54
1:A:305:ALA:HB3	1:A:455:THR:HG23	1.88	0.54
1:G:393:ASN:CG	1:G:393:ASN:O	2.46	0.54
1:I:22:ASN:N	1:I:22:ASN:HD22	2.06	0.54
1:I:117:PHE:CD1	1:I:117:PHE:C	2.79	0.54
1:I:349:ASP:OD2	1:I:350:VAL:CA	2.56	0.54
1:K:230:PHE:C	1:K:231:ASN:ND2	2.61	0.54
1:M:437:GLY:HA3	1:M:439:PHE:CZ	2.42	0.54
2:N:140:LEU:HD11	2:N:174:ILE:HG12	1.90	0.54
2:N:227:PHE:CE1	2:N:232:TYR:CZ	2.86	0.54
1:C:360:THR:HG23	1:C:442:GLN:O	2.08	0.54
1:D:1:MET:CE	1:D:10:VAL:HA	2.38	0.54
1:E:132:ARG:HH11	1:E:132:ARG:HG3	1.73	0.54
1:G:101:PHE:CD2	1:G:101:PHE:N	2.76	0.54
1:G:158:ARG:HD3	1:G:247:ILE:HD12	1.90	0.54
1:I:11:VAL:HG23	1:J:27:VAL:HG22	1.90	0.54
1:J:416:ILE:O	1:J:416:ILE:CG1	2.56	0.54
1:K:16:PRO:HG3	1:M:423:LYS:HZ3	1.73	0.54
1:B:6:ILE:HD11	1:C:285:ARG:HG2	1.90	0.53
1:B:257:ILE:H	1:B:257:ILE:CD1	2.08	0.53
1:B:305:ALA:CB	1:B:455:THR:CA	2.86	0.53
1:B:471:VAL:HG21	1:D:5:ALA:CB	2.38	0.53
1:C:5:ALA:CB	1:D:471:VAL:HG21	2.32	0.53
1:C:208:PHE:O	1:C:214:TRP:CE3	2.54	0.53
1:C:412:LEU:HD12	1:C:413:GLU:CA	2.36	0.53
1:D:5:ALA:HB1	1:D:6:ILE:CD1	2.37	0.53
1:H:79:ALA:CB	1:H:195:THR:HA	2.38	0.53
1:I:379:PHE:CZ	1:I:419:LEU:CD2	2.91	0.53
1:J:117:PHE:HB2	1:J:477:ALA:HB3	1.89	0.53
1:J:340:ASN:OD1	1:J:342:ASN:N	2.40	0.53
1:L:77:PHE:CD2	1:L:77:PHE:N	2.76	0.53
1:L:256:THR:OG1	1:L:257:ILE:N	2.39	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:181:PRO:O	1:A:184:SER:HB3	2.09	0.53
1:B:164:ASN:HD22	1:C:173:SER:CA	2.21	0.53
1:B:192:ASN:O	1:B:193:THR:CG2	2.57	0.53
1:B:226:THR:HG23	1:B:474:ASN:HD21	1.72	0.53
1:B:337:ILE:CD1	1:B:338:TYR:CA	2.80	0.53
1:C:122:GLU:OE2	1:C:125:GLN:NE2	2.40	0.53
1:C:150:PHE:CE2	1:C:167:PRO:HA	2.43	0.53
1:C:229:THR:HG21	1:L:41:PRO:HG2	1.89	0.53
1:D:5:ALA:CB	1:D:6:ILE:CD1	2.85	0.53
1:E:172:THR:HB	1:F:163:ALA:HB2	1.89	0.53
1:G:393:ASN:O	1:G:393:ASN:ND2	2.41	0.53
1:J:188:ASN:OD1	1:J:188:ASN:N	2.30	0.53
1:M:241:ILE:HG22	1:M:242:TRP:N	2.23	0.53
1:M:249:ASN:HB2	1:M:255:SER:CA	2.25	0.53
2:N:95:TYR:C	2:N:154:ILE:HD11	2.29	0.53
1:B:99:ARG:HB3	1:B:241:ILE:O	2.09	0.53
1:C:379:PHE:HD1	1:C:424:ASP:OD2	1.92	0.53
1:D:244:HIS:CG	1:D:345:ILE:HD11	2.42	0.53
1:D:251:VAL:O	1:D:251:VAL:HG22	2.07	0.53
1:D:368:LEU:CD2	1:D:379:PHE:HZ	2.20	0.53
1:F:250:ASP:OD2	1:F:251:VAL:HG22	2.09	0.53
1:G:341:LEU:O	1:G:345:ILE:HG23	2.07	0.53
1:H:165:ASN:O	1:H:166:ASN:C	2.46	0.53
1:K:59:ALA:O	1:K:60:GLN:CB	2.51	0.53
1:L:28:VAL:HG23	1:M:432:ALA:CB	2.38	0.53
1:L:161:ASP:CG	1:L:162:GLY:N	2.61	0.53
1:M:1:MET:HG3	1:M:10:VAL:CG2	2.38	0.53
1:M:438:ASN:N	1:M:439:PHE:CE2	2.77	0.53
1:M:474:ASN:OD1	1:M:475:THR:OG1	2.20	0.53
1:A:83:HIS:CB	1:A:254:ASN:ND2	2.69	0.53
1:A:135:THR:CG2	1:A:139:VAL:HG12	2.38	0.53
1:A:474:ASN:C	1:A:474:ASN:OD1	2.46	0.53
1:B:196:THR:HG23	1:B:197:ALA:H	1.71	0.53
1:B:209:LEU:O	1:B:212:PHE:O	2.26	0.53
1:D:339:GLN:CB	2:N:28:ASP:H	2.04	0.53
1:E:65:ARG:HH11	1:E:65:ARG:CG	2.21	0.53
1:E:172:THR:HB	1:F:163:ALA:CB	2.38	0.53
1:E:246:ASP:OD2	1:E:249:ASN:ND2	2.41	0.53
1:E:380:SER:HB2	1:E:383:ASN:HD22	1.74	0.53
1:F:24:ARG:NH1	1:G:286:ILE:HD11	2.24	0.53
1:F:89:ASN:HD21	1:G:403:SER:CA	2.20	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:120:ASN:HD22	1:F:120:ASN:N	2.07	0.53
1:F:490:LEU:HB3	1:F:491:ASN:ND2	2.23	0.53
1:H:133:TYR:O	1:H:384:GLY:O	2.25	0.53
1:H:246:ASP:HA	1:H:249:ASN:ND2	2.24	0.53
1:K:423:LYS:HG3	1:L:15:GLU:OE2	2.09	0.53
1:L:4:SER:O	1:L:5:ALA:C	2.42	0.53
1:L:15:GLU:HG3	1:L:16:PRO:N	2.23	0.53
1:L:230:PHE:CD2	1:L:269:MET:HE1	2.44	0.53
2:N:169:SER:O	2:N:170:ASN:CB	2.56	0.53
1:A:367:ILE:HG22	1:A:368:LEU:HD12	1.91	0.53
1:C:96:ASP:HB3	1:C:242:TRP:HZ2	1.68	0.53
1:D:85:GLY:CA	1:D:86:ILE:HB	2.29	0.53
1:D:106:ILE:HG23	1:D:106:ILE:O	2.08	0.53
1:D:215:ASP:OD1	1:D:217:GLU:CD	2.45	0.53
1:E:341:LEU:CD2	1:E:341:LEU:N	2.71	0.53
1:I:166:ASN:C	1:I:166:ASN:OD1	2.46	0.53
1:I:328:LEU:HD12	1:I:417:VAL:O	2.08	0.53
1:M:102:PRO:C	1:M:241:ILE:HD11	2.28	0.53
1:M:125:GLN:NE2	1:M:334:ASP:OD2	2.42	0.53
1:M:474:ASN:CG	1:M:475:THR:OG1	2.47	0.53
2:N:20:ILE:HG21	2:N:36:PHE:HE1	1.71	0.53
2:N:65:ILE:HG21	2:N:262:VAL:HG23	1.89	0.53
2:N:226:ARG:HG2	2:N:228:LEU:CD1	2.28	0.53
1:A:36:THR:HG21	1:J:363:ASN:O	2.09	0.53
1:A:88:GLU:CD	1:A:88:GLU:N	2.62	0.53
1:B:68:PHE:CZ	1:D:374:GLN:HG3	2.43	0.53
1:B:380:SER:HB2	1:B:383:ASN:CG	2.29	0.53
1:C:53:ILE:O	1:C:53:ILE:HG13	2.09	0.53
1:C:332:GLN:OE1	1:C:333:SER:N	2.41	0.53
1:E:92:GLN:HB2	1:E:95:ARG:HG2	1.90	0.53
1:E:304:LEU:CD2	1:E:304:LEU:N	2.65	0.53
1:F:325:LYS:NZ	1:F:420:GLU:HG2	2.20	0.53
1:G:49:GLN:HG2	1:G:232:TRP:O	2.08	0.53
1:G:158:ARG:O	1:G:247:ILE:HD13	2.08	0.53
1:H:218:GLN:OE1	1:H:218:GLN:CA	2.48	0.53
1:I:358:ASN:C	1:I:358:ASN:OD1	2.46	0.53
1:I:377:TYR:C	1:I:377:TYR:HD2	1.96	0.53
1:J:33:GLN:O	1:J:34:GLN:CB	2.45	0.53
1:K:6:ILE:HD13	1:K:6:ILE:H	1.74	0.53
1:L:100:ALA:H	1:L:182:ARG:HH11	1.55	0.53
1:B:484:ALA:HA	1:D:1:MET:H2	1.68	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:341:LEU:HB3	1:C:344:GLN:OE1	2.09	0.53
1:C:387:LYS:HA	1:C:387:LYS:HZ3	1.73	0.53
1:E:166:ASN:C	1:E:166:ASN:OD1	2.47	0.53
1:E:172:THR:O	1:E:173:SER:HB2	2.09	0.53
1:E:467:ASP:HB3	1:G:26:TRP:HH2	1.72	0.53
1:G:501:ASN:N	1:G:501:ASN:ND2	2.56	0.53
1:J:341:LEU:CD1	1:J:342:ASN:CA	2.72	0.53
1:J:358:ASN:C	1:J:358:ASN:OD1	2.47	0.53
1:K:84:ALA:HB1	1:K:86:ILE:HG21	1.89	0.53
1:K:399:PHE:O	1:M:93:PRO:HA	2.08	0.53
1:M:99:ARG:HB3	1:M:241:ILE:O	2.09	0.53
1:M:318:GLN:HE21	1:M:318:GLN:H	1.57	0.53
1:M:322:ILE:HD12	1:M:322:ILE:H	1.74	0.53
2:N:62:THR:HG23	2:N:65:ILE:HD12	1.90	0.53
1:B:313:LYS:HZ3	1:B:444:GLN:NE2	2.06	0.53
1:B:361:TRP:CG	1:B:362:ASN:N	2.77	0.53
1:C:255:SER:OG	1:C:342:ASN:ND2	2.42	0.53
1:C:367:ILE:HG22	1:C:368:LEU:HD13	1.90	0.53
1:F:353:GLN:HB2	1:F:393:ASN:HA	1.90	0.53
1:F:421:LEU:HA	1:F:425:VAL:HG23	1.90	0.53
1:G:265:GLN:O	1:G:266:GLN:C	2.45	0.53
1:H:110:LEU:HD21	1:H:232:TRP:CE2	2.43	0.53
1:I:1:MET:SD	1:J:26:TRP:HD1	2.31	0.53
1:I:246:ASP:OD1	1:I:346:THR:HG21	2.09	0.53
1:I:303:THR:OG1	1:I:455:THR:CG2	2.57	0.53
1:J:353:GLN:O	1:J:353:GLN:HG2	2.07	0.53
1:K:340:ASN:O	1:K:342:ASN:N	2.42	0.53
1:L:133:TYR:OH	1:L:418:CYS:HB3	2.09	0.53
1:L:155:GLN:HG2	1:L:451:ASN:HA	1.90	0.53
1:M:134:HIS:CD2	1:M:507:TYR:CD2	2.88	0.53
1:M:362:ASN:O	1:M:363:ASN:CB	2.56	0.53
2:N:173:LYS:HD2	2:N:254:PRO:HD2	1.86	0.53
1:A:22:ASN:N	1:A:22:ASN:ND2	2.53	0.53
1:C:324:ARG:HB2	1:C:467:ASP:OD1	2.09	0.53
1:D:190:VAL:HG22	1:D:198:ARG:HB3	1.90	0.53
1:D:322:ILE:HG21	1:D:433:GLU:OE2	2.09	0.53
1:D:461:TYR:O	1:D:462:ILE:CG1	2.57	0.53
1:F:295:ARG:H	1:F:295:ARG:HD3	1.74	0.53
1:G:73:TYR:HD2	1:G:75:ILE:HD12	1.74	0.53
1:G:380:SER:O	1:G:383:ASN:HB2	2.08	0.53
1:H:41:PRO:CB	1:H:266:GLN:HE21	2.22	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:336:VAL:HG13	1:M:337:ILE:N	2.23	0.53
1:M:474:ASN:CG	1:M:475:THR:HG1	2.09	0.53
2:N:25:LYS:HZ1	2:N:26:PRO:HD2	1.73	0.53
2:N:79:ASN:C	2:N:81:ASN:H	2.11	0.53
2:N:160:ALA:HB2	2:N:182:TYR:HE2	1.73	0.53
1:D:250:ASP:HB2	1:D:251:VAL:HG12	1.91	0.53
1:D:252:SER:HB2	1:D:253:GLY:CA	2.35	0.53
1:D:507:TYR:CG	1:D:508:GLY:C	2.80	0.53
1:E:1:MET:HE2	1:E:10:VAL:HA	1.89	0.53
1:E:467:ASP:HB3	1:G:26:TRP:CH2	2.44	0.53
1:G:378:ASP:HA	1:G:381:VAL:HG12	1.90	0.53
1:H:387:LYS:HE3	1:H:391:GLU:CD	2.29	0.53
1:I:89:ASN:ND2	1:J:401:GLY:HA2	2.20	0.53
1:I:195:THR:C	1:I:196:THR:CG2	2.77	0.53
1:I:320:ASP:O	1:I:437:GLY:HA3	2.08	0.53
1:J:134:HIS:C	1:J:135:THR:CG2	2.74	0.53
1:J:286:ILE:HG21	1:J:288:TYR:CZ	2.43	0.53
1:L:151:GLU:OE2	1:L:151:GLU:HA	2.09	0.53
2:N:143:ILE:HG12	2:N:203:PHE:HZ	1.74	0.53
1:A:89:ASN:CG	1:A:192:ASN:ND2	2.63	0.52
1:B:364:GLN:C	1:B:365:GLN:HG3	2.27	0.52
1:C:19:GLU:HB2	1:C:20:LEU:C	2.30	0.52
1:C:84:ALA:HB1	1:C:86:ILE:N	2.21	0.52
1:C:383:ASN:ND2	1:C:420:GLU:OE2	2.42	0.52
1:D:51:ASN:HD21	2:N:292:ALA:C	2.12	0.52
1:D:122:GLU:OE2	1:D:122:GLU:HA	2.09	0.52
1:E:265:GLN:HE21	1:E:265:GLN:CA	2.23	0.52
1:I:264:PHE:C	1:I:265:GLN:CD	2.67	0.52
1:J:394:GLY:O	1:J:395:VAL:HG22	2.09	0.52
1:K:22:ASN:HD22	1:K:22:ASN:N	2.07	0.52
1:L:45:PHE:CE2	1:L:266:GLN:CB	2.92	0.52
1:L:140:LYS:HG3	1:L:179:GLU:HG2	1.91	0.52
1:L:174:ALA:O	1:M:165:ASN:HB3	2.09	0.52
1:M:313:LYS:HE2	1:M:442:GLN:CD	2.30	0.52
2:N:159:GLY:O	2:N:182:TYR:OH	2.27	0.52
2:N:196:ASN:C	2:N:197:VAL:HG13	2.28	0.52
1:A:239:ALA:HB3	1:A:344:GLN:HE22	1.73	0.52
1:A:350:VAL:HG21	1:A:413:GLU:HA	1.92	0.52
1:A:396:THR:OG1	1:A:412:LEU:HG	2.09	0.52
1:C:75:ILE:CG2	1:C:76:THR:H	2.22	0.52
1:F:250:ASP:OD1	1:F:251:VAL:N	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:266:GLN:N	1:F:267:PRO:CD	2.72	0.52
1:G:340:ASN:O	1:G:341:LEU:HB3	2.07	0.52
1:I:191:THR:O	1:I:192:ASN:CB	2.56	0.52
1:I:372:SER:O	1:I:375:ASN:N	2.42	0.52
1:I:506:ILE:HG23	1:I:507:TYR:H	1.74	0.52
1:J:70:GLN:HB3	1:J:204:TYR:CD1	2.45	0.52
1:J:189:VAL:CG1	1:J:189:VAL:O	2.57	0.52
1:K:95:ARG:NH1	1:K:95:ARG:CG	2.67	0.52
1:K:484:ALA:HB2	1:L:1:MET:HG2	1.92	0.52
1:L:305:ALA:HB1	1:L:306:PRO:HA	1.92	0.52
1:M:396:THR:HG23	1:M:412:LEU:CD2	2.38	0.52
2:N:12:GLU:N	2:N:13:PRO:CD	2.71	0.52
1:B:155:GLN:HB2	1:B:411:GLY:CA	2.39	0.52
1:B:301:GLN:HE21	1:G:301:GLN:HB3	1.74	0.52
1:B:474:ASN:C	1:B:474:ASN:ND2	2.52	0.52
1:C:283:PRO:HD3	1:D:21:ASN:HB3	1.92	0.52
1:D:76:THR:HB	1:D:198:ARG:HG2	1.92	0.52
1:D:293:LEU:HD22	1:D:465:VAL:HG12	1.92	0.52
1:F:77:PHE:N	1:F:77:PHE:CD2	2.77	0.52
1:G:329:PHE:HB2	1:G:351:PHE:HD2	1.74	0.52
1:G:429:ASP:O	1:G:430:ASP:CB	2.54	0.52
1:H:121:ILE:HD11	1:H:293:LEU:CG	2.06	0.52
1:I:172:THR:O	1:I:173:SER:CB	2.57	0.52
1:M:190:VAL:HG23	1:M:191:THR:HG23	1.90	0.52
1:A:297:THR:HB	1:A:461:TYR:CE1	2.44	0.52
1:C:95:ARG:HB3	1:C:245:SER:HB3	1.92	0.52
1:C:99:ARG:NH2	1:C:347:THR:O	2.42	0.52
1:D:127:ILE:HG23	1:D:128:HIS:N	2.24	0.52
1:E:3:ASN:HD22	1:E:4:SER:H	1.56	0.52
1:F:73:TYR:CD1	1:F:203:LEU:HD22	2.44	0.52
1:F:87:THR:C	1:F:88:GLU:CG	2.77	0.52
1:F:210:PRO:CB	1:F:211:PRO:CD	2.78	0.52
1:G:362:ASN:C	1:G:362:ASN:OD1	2.48	0.52
1:H:188:ASN:OD1	1:H:200:THR:O	2.28	0.52
1:H:310:SER:O	1:H:312:PHE:HE2	1.92	0.52
1:H:330:VAL:CG1	1:H:331:LYS:H	2.22	0.52
1:I:41:PRO:CB	1:I:266:GLN:HE21	2.19	0.52
1:K:62:VAL:HA	1:K:223:ALA:HB2	1.90	0.52
1:L:76:THR:HB	1:L:198:ARG:HG3	1.91	0.52
1:L:82:SER:O	1:L:84:ALA:CB	2.58	0.52
1:L:101:PHE:CD2	1:L:101:PHE:N	2.77	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:92:GLN:HB3	1:A:95:ARG:HD3	1.91	0.52
1:B:180:LEU:H	1:B:180:LEU:HD22	1.75	0.52
1:C:494:ILE:CD1	1:C:495:THR:C	2.78	0.52
1:E:155:GLN:HG3	1:E:451:ASN:HB2	1.92	0.52
1:E:304:LEU:C	1:E:304:LEU:CD2	2.77	0.52
1:E:380:SER:HG	1:E:384:GLY:N	2.08	0.52
1:G:80:ASN:HB2	1:G:258:GLY:O	2.08	0.52
1:G:343:ASN:HA	1:G:346:THR:OG1	2.10	0.52
1:I:127:ILE:HG23	1:I:128:HIS:N	2.24	0.52
1:I:305:ALA:HB1	1:I:306:PRO:HA	1.91	0.52
1:I:487:GLU:O	1:I:490:LEU:O	2.26	0.52
1:I:490:LEU:CD2	1:I:491:ASN:CB	2.79	0.52
1:I:499:SER:HB2	1:I:501:ASN:ND2	2.20	0.52
1:J:133:TYR:CE2	1:J:416:ILE:HG12	2.44	0.52
1:L:84:ALA:HB1	1:L:85:GLY:C	2.28	0.52
1:M:231:ASN:N	1:M:231:ASN:ND2	2.57	0.52
1:M:300:PHE:C	1:M:301:GLN:HE21	2.11	0.52
1:M:352:LEU:HD21	1:M:456:VAL:HG11	1.92	0.52
2:N:257:SER:OG	2:N:258:ASN:N	2.40	0.52
1:A:108:ASN:ND2	1:A:108:ASN:O	2.30	0.52
1:C:123:LEU:HD23	1:C:127:ILE:CB	2.38	0.52
1:D:211:PRO:O	1:D:212:PHE:C	2.45	0.52
1:G:87:THR:O	1:G:88:GLU:CB	2.58	0.52
1:G:147:GLN:HE21	1:G:206:GLN:H	1.58	0.52
1:H:187:MET:H	1:I:397:GLN:HG2	1.74	0.52
1:H:428:ARG:HD3	1:H:429:ASP:CA	2.36	0.52
1:I:265:GLN:N	1:I:265:GLN:CD	2.63	0.52
1:I:377:TYR:HD1	1:I:389:TRP:HE3	1.57	0.52
1:I:490:LEU:C	1:I:490:LEU:HD22	2.21	0.52
1:J:265:GLN:HG2	1:L:302:ASN:HB3	1.92	0.52
1:J:441:LEU:HD22	1:J:442:GLN:N	2.24	0.52
1:M:150:PHE:CE1	1:M:179:GLU:OE1	2.62	0.52
1:M:385:TYR:O	1:M:386:ASN:CB	2.58	0.52
2:N:85:TYR:CD2	2:N:85:TYR:N	2.77	0.52
2:N:156:ALA:CB	2:N:157:PRO:CA	2.72	0.52
2:N:322:ARG:CG	2:N:322:ARG:NH1	2.68	0.52
1:A:449:ASN:HD21	1:A:451:ASN:HB3	1.74	0.52
1:B:423:LYS:CA	1:D:15:GLU:OE2	2.48	0.52
1:B:484:ALA:HA	1:D:1:MET:H1	1.73	0.52
1:E:9:ASN:HB2	1:F:25:THR:CG2	2.37	0.52
1:I:1:MET:SD	1:I:10:VAL:CB	2.98	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:170:VAL:HG11	1:J:398:GLN:HG3	1.91	0.52
1:I:322:ILE:HD11	1:I:433:GLU:O	2.09	0.52
1:I:363:ASN:O	1:I:363:ASN:CG	2.48	0.52
1:J:38:TYR:N	1:J:38:TYR:CD2	2.77	0.52
1:J:45:PHE:CE2	1:J:266:GLN:HB2	2.45	0.52
1:K:484:ALA:N	1:L:1:MET:HB3	2.25	0.52
1:L:6:ILE:H	1:L:6:ILE:HD13	1.73	0.52
1:L:232:TRP:N	1:L:232:TRP:CD1	2.78	0.52
1:M:137:LEU:C	1:M:137:LEU:HD22	2.30	0.52
2:N:357:ARG:CB	2:N:357:ARG:CZ	2.87	0.52
1:A:132:ARG:CG	1:A:132:ARG:NH1	2.55	0.52
1:A:210:PRO:HG2	1:A:291:PHE:HB2	1.91	0.52
1:E:279:ASN:HD22	1:E:279:ASN:H	1.56	0.52
1:E:335:ASN:OD1	1:J:238:LEU:HD23	2.09	0.52
1:E:380:SER:HB2	1:E:383:ASN:ND2	2.25	0.52
1:F:63:LEU:HD22	1:F:64:ASP:N	2.24	0.52
1:G:505:ARG:HH11	1:G:505:ARG:CG	2.22	0.52
1:H:109:THR:HG23	1:H:233:VAL:HG13	1.91	0.52
1:J:84:ALA:HA	1:J:85:GLY:C	2.29	0.52
1:J:158:ARG:HH11	1:J:158:ARG:HG3	1.73	0.52
1:J:314:SER:O	1:J:315:ASN:HB3	2.09	0.52
1:M:72:PRO:HG2	1:M:265:GLN:CB	2.37	0.52
1:M:504:GLN:O	1:M:506:ILE:O	2.27	0.52
2:N:50:GLU:N	2:N:50:GLU:OE1	2.43	0.52
2:N:66:PRO:HG3	2:N:132:TYR:CG	2.45	0.52
2:N:291:ASN:HD22	2:N:292:ALA:N	2.08	0.52
1:E:99:ARG:NH2	1:E:347:THR:O	2.43	0.52
1:E:105:SER:HB2	1:E:128:HIS:HE1	1.74	0.52
1:F:37:TYR:CG	1:G:375:ASN:ND2	2.78	0.52
1:F:52:PHE:CD2	1:F:52:PHE:N	2.77	0.52
1:F:100:ALA:HB2	1:F:182:ARG:CD	2.40	0.52
1:I:143:TRP:HB3	1:I:206:GLN:HE22	1.74	0.52
1:J:251:VAL:CG2	1:J:252:SER:N	2.72	0.52
1:K:231:ASN:ND2	1:K:231:ASN:N	2.57	0.52
1:M:353:GLN:HG3	1:M:353:GLN:O	2.09	0.52
2:N:61:PRO:HD2	2:N:359:LEU:HG	1.91	0.52
2:N:274:ILE:CG2	2:N:275:ASN:N	2.71	0.52
2:N:324:ILE:HG22	2:N:325:ASP:N	2.25	0.52
1:A:69:ILE:HG22	1:A:269:MET:SD	2.49	0.52
1:A:226:THR:HG21	1:A:475:THR:HG22	1.91	0.52
1:C:314:SER:OG	1:C:443:VAL:O	2.27	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:235:ASN:HD22	1:D:236:ASN:N	2.06	0.52
1:D:498:VAL:HG22	1:D:499:SER:N	2.25	0.52
1:E:83:HIS:ND1	1:E:84:ALA:N	2.58	0.52
1:E:364:GLN:HB3	1:E:367:ILE:HD11	1.92	0.52
1:E:493:ARG:CG	1:E:493:ARG:NH1	2.69	0.52
1:F:108:ASN:HB2	1:F:235:ASN:OD1	2.09	0.52
1:F:413:GLU:CG	1:F:414:GLY:N	2.72	0.52
1:F:429:ASP:O	1:F:430:ASP:HB2	2.07	0.52
1:I:209:LEU:O	1:I:209:LEU:HD12	2.10	0.52
1:J:63:LEU:HD22	1:J:64:ASP:O	2.09	0.52
1:J:205:GLU:CD	1:J:232:TRP:CH2	2.83	0.52
1:K:132:ARG:HH21	1:K:413:GLU:CD	2.13	0.52
1:L:46:SER:OG	1:L:47:SER:N	2.42	0.52
1:M:22:ASN:ND2	1:M:22:ASN:H	2.06	0.52
1:E:165:ASN:OD1	1:G:171:PHE:HE1	1.94	0.51
1:E:230:PHE:C	1:E:231:ASN:HD22	2.13	0.51
1:H:100:ALA:HB2	1:H:182:ARG:HD2	1.91	0.51
1:H:302:ASN:N	1:H:302:ASN:ND2	2.56	0.51
1:H:302:ASN:H	1:H:302:ASN:ND2	2.07	0.51
1:I:358:ASN:HA	1:I:368:LEU:O	2.10	0.51
1:I:493:ARG:CG	1:I:493:ARG:O	2.57	0.51
1:K:25:THR:HG21	1:M:9:ASN:HB3	1.92	0.51
1:K:336:VAL:O	1:K:339:GLN:HG2	2.10	0.51
1:L:92:GLN:HG2	1:L:95:ARG:HE	1.75	0.51
1:M:73:TYR:HD1	1:M:203:LEU:HD22	1.75	0.51
2:N:193:ILE:HG13	2:N:223:PHE:HB2	1.92	0.51
1:A:208:PHE:O	1:A:209:LEU:HG	2.10	0.51
1:A:322:ILE:HG12	1:A:439:PHE:HE2	1.75	0.51
1:B:337:ILE:CD1	1:B:337:ILE:C	2.50	0.51
1:C:210:PRO:HA	1:C:211:PRO:C	2.30	0.51
1:E:2:SER:O	1:E:3:ASN:CG	2.49	0.51
1:E:43:THR:C	1:E:44:SER:HG	2.10	0.51
1:G:501:ASN:ND2	1:G:501:ASN:H	2.08	0.51
1:I:39:PRO:HB3	1:I:270:TYR:CE1	2.45	0.51
1:I:400:ASN:ND2	1:I:405:GLN:HB3	2.25	0.51
1:J:57:PRO:HA	1:L:363:ASN:HD21	1.75	0.51
1:K:26:TRP:HD1	1:M:1:MET:SD	2.32	0.51
1:K:402:VAL:HG13	1:K:405:GLN:OE1	2.10	0.51
1:K:443:VAL:HG22	1:K:444:GLN:N	2.25	0.51
1:L:19:GLU:CB	1:L:20:LEU:HA	2.39	0.51
1:M:136:PRO:HD2	1:M:139:VAL:CB	2.23	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:8:LEU:O	1:B:8:LEU:CD1	2.51	0.51
1:B:505:ARG:CG	1:B:505:ARG:NH1	2.67	0.51
1:C:73:TYR:CD1	1:C:203:LEU:HD22	2.44	0.51
1:D:400:ASN:CG	1:D:400:ASN:O	2.49	0.51
1:D:470:LEU:C	1:D:470:LEU:HD12	2.31	0.51
1:E:436:ILE:HG13	1:E:437:GLY:CA	2.32	0.51
1:F:90:LEU:O	1:F:91:LEU:HB2	2.11	0.51
1:F:250:ASP:HA	1:F:251:VAL:C	2.30	0.51
1:G:49:GLN:CG	1:G:232:TRP:O	2.59	0.51
1:I:490:LEU:O	1:I:491:ASN:CB	2.56	0.51
1:K:75:ILE:HG13	1:K:262:ILE:HG23	1.92	0.51
1:K:230:PHE:CD2	1:K:230:PHE:N	2.79	0.51
1:L:59:ALA:O	1:L:60:GLN:HB2	2.09	0.51
1:L:360:THR:HB	1:L:365:GLN:HA	1.93	0.51
2:N:267:LEU:HD21	2:N:361:CYS:SG	2.50	0.51
2:N:357:ARG:HG3	2:N:358:ILE:H	1.75	0.51
1:A:319:LEU:N	1:A:319:LEU:CD1	2.73	0.51
1:C:89:ASN:HD22	1:C:193:THR:HA	1.71	0.51
1:E:101:PHE:CD2	1:E:101:PHE:N	2.78	0.51
1:E:295:ARG:NH1	1:E:297:THR:HG21	2.25	0.51
1:E:322:ILE:HD13	1:E:322:ILE:H	1.74	0.51
1:E:341:LEU:HD23	1:E:341:LEU:N	2.22	0.51
1:E:428:ARG:HG3	1:E:431:GLU:OE1	2.10	0.51
1:F:51:ASN:C	1:F:51:ASN:OD1	2.49	0.51
1:F:324:ARG:HH11	1:F:324:ARG:CG	2.12	0.51
1:H:69:ILE:HG12	1:H:70:GLN:N	2.25	0.51
1:I:76:THR:HG22	1:I:198:ARG:HG3	1.93	0.51
1:M:313:LYS:NZ	1:M:442:GLN:NE2	2.58	0.51
2:N:65:ILE:HG22	2:N:66:PRO:O	2.11	0.51
1:A:336:VAL:HG22	1:A:337:ILE:N	2.24	0.51
1:A:449:ASN:ND2	1:A:451:ASN:H	2.07	0.51
1:B:174:ALA:O	1:D:165:ASN:HB2	2.10	0.51
1:B:357:LEU:CD1	1:B:358:ASN:CA	2.84	0.51
1:C:33:GLN:O	1:C:34:GLN:HB3	2.10	0.51
1:C:62:VAL:HA	1:C:223:ALA:HB2	1.92	0.51
1:C:87:THR:O	1:C:88:GLU:CB	2.59	0.51
1:D:48:ASN:HD21	2:N:348:GLN:HB3	1.62	0.51
1:E:341:LEU:O	1:E:344:GLN:HG3	2.11	0.51
1:F:501:ASN:N	1:F:501:ASN:ND2	2.50	0.51
1:G:99:ARG:HB2	1:G:99:ARG:NH1	2.12	0.51
1:G:250:ASP:O	1:G:253:GLY:HA3	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:349:ASP:C	1:H:350:VAL:HG23	2.30	0.51
1:H:362:ASN:CG	1:H:362:ASN:O	2.49	0.51
1:H:483:VAL:HA	1:I:3:ASN:HD21	1.75	0.51
1:J:427:LEU:HB3	1:J:431:GLU:HG2	1.93	0.51
1:J:466:TYR:N	1:J:466:TYR:CD2	2.77	0.51
1:M:84:ALA:HA	1:M:86:ILE:HB	1.93	0.51
1:M:158:ARG:HG2	1:M:158:ARG:NH1	2.11	0.51
2:N:171:THR:OG1	2:N:172:GLU:CA	2.59	0.51
2:N:256:LEU:CG	2:N:307:PRO:CG	2.84	0.51
1:A:53:ILE:HD12	1:E:41:PRO:HB3	1.81	0.51
1:B:460:MET:HG3	1:B:460:MET:O	2.10	0.51
1:C:2:SER:OG	1:C:7:PRO:HB3	2.09	0.51
1:C:375:ASN:O	1:C:379:PHE:HD2	1.94	0.51
1:D:207:VAL:HG22	1:D:232:TRP:HH2	1.75	0.51
1:D:244:HIS:CB	1:D:345:ILE:HD11	2.41	0.51
1:D:391:GLU:OE1	1:D:413:GLU:CB	2.50	0.51
1:D:432:ALA:CB	1:D:489:VAL:HG11	2.40	0.51
1:F:190:VAL:HG22	1:F:198:ARG:HB3	1.91	0.51
1:G:133:TYR:OH	1:G:418:CYS:HB3	2.10	0.51
1:G:286:ILE:HD12	1:G:287:THR:H	1.76	0.51
1:I:173:SER:CA	1:J:164:ASN:OD1	2.59	0.51
1:J:92:GLN:HB2	1:J:95:ARG:HB2	1.90	0.51
1:J:328:LEU:HD23	1:J:443:VAL:HG21	1.93	0.51
1:K:143:TRP:C	1:K:145:SER:N	2.64	0.51
1:L:345:ILE:HG12	1:L:346:THR:HG22	1.93	0.51
2:N:24:PHE:C	2:N:24:PHE:HD1	2.13	0.51
2:N:171:THR:N	2:N:172:GLU:CA	2.65	0.51
1:A:430:ASP:OD1	1:A:490:LEU:HD12	2.10	0.51
1:C:1:MET:H2	1:D:484:ALA:HA	1.75	0.51
1:C:89:ASN:HD22	1:C:193:THR:CA	2.24	0.51
1:C:237:ASN:O	1:C:239:ALA:N	2.43	0.51
1:D:203:LEU:N	1:D:203:LEU:HD23	2.25	0.51
1:D:210:PRO:HA	1:D:212:PHE:O	2.11	0.51
1:F:210:PRO:HB3	1:F:291:PHE:O	2.10	0.51
1:F:351:PHE:HD1	1:F:414:GLY:HA3	1.76	0.51
1:F:364:GLN:OE1	1:F:364:GLN:C	2.49	0.51
1:G:208:PHE:CE1	1:G:214:TRP:CD1	2.83	0.51
1:H:172:THR:O	1:H:173:SER:CB	2.57	0.51
1:J:87:THR:HG22	1:J:88:GLU:CA	2.41	0.51
1:J:158:ARG:HG3	1:J:158:ARG:NH1	2.26	0.51
1:L:251:VAL:C	1:L:252:SER:OG	2.48	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:461:TYR:O	1:L:462:ILE:HG13	2.09	0.51
2:N:66:PRO:HA	2:N:134:TYR:CD1	2.46	0.51
2:N:227:PHE:O	2:N:227:PHE:CG	2.63	0.51
1:B:6:ILE:HD12	1:C:285:ARG:HD2	1.89	0.51
1:B:364:GLN:CD	1:B:364:GLN:N	2.63	0.51
1:B:500:TYR:CE1	1:B:504:GLN:NE2	2.78	0.51
1:D:245:SER:HB2	1:D:247:ILE:HG22	1.92	0.51
1:D:341:LEU:O	1:D:344:GLN:N	2.43	0.51
1:D:408:LYS:NZ	1:D:408:LYS:HB3	2.26	0.51
1:E:304:LEU:HD22	1:E:304:LEU:N	2.04	0.51
1:E:324:ARG:HB2	1:E:467:ASP:OD1	2.11	0.51
1:F:285:ARG:HG3	1:F:285:ARG:NH1	2.26	0.51
1:H:127:ILE:HD11	1:H:208:PHE:CE1	2.45	0.51
1:I:69:ILE:HG23	1:I:205:GLU:CG	2.41	0.51
1:I:267:PRO:C	1:I:268:SER:HG	2.09	0.51
1:J:505:ARG:CZ	1:J:505:ARG:HB3	2.39	0.51
1:K:132:ARG:NH2	1:K:413:GLU:OE2	2.40	0.51
1:K:209:LEU:HD12	1:K:210:PRO:HD2	1.93	0.51
1:K:493:ARG:O	1:K:495:THR:HG22	2.11	0.51
1:L:251:VAL:O	1:L:251:VAL:HG13	2.10	0.51
1:M:111:ASN:C	1:M:111:ASN:OD1	2.48	0.51
1:M:362:ASN:O	1:M:363:ASN:HB3	2.11	0.51
2:N:229:GLY:HA3	2:N:231:ASN:HB2	1.92	0.51
1:B:190:VAL:CG2	1:B:198:ARG:C	2.79	0.51
1:C:84:ALA:HB1	1:C:86:ILE:HG22	1.91	0.51
1:C:474:ASN:O	1:C:474:ASN:CG	2.50	0.51
1:D:331:LYS:HE3	1:D:461:TYR:HE2	1.76	0.51
1:F:121:ILE:HD13	1:F:210:PRO:CG	2.40	0.51
1:F:140:LYS:HG2	1:F:179:GLU:OE2	2.10	0.51
1:F:237:ASN:ND2	1:F:238:LEU:H	2.09	0.51
1:G:86:ILE:O	1:G:86:ILE:HG12	2.11	0.51
1:G:440:ASN:N	1:G:440:ASN:OD1	2.43	0.51
1:H:187:MET:CG	1:H:187:MET:O	2.59	0.51
1:H:209:LEU:O	1:H:212:PHE:O	2.29	0.51
1:H:310:SER:O	1:H:312:PHE:CE2	2.64	0.51
1:I:88:GLU:HB3	1:J:403:SER:CB	2.32	0.51
1:I:109:THR:HG23	1:I:233:VAL:HG13	1.93	0.51
1:I:267:PRO:C	1:I:268:SER:OG	2.47	0.51
1:J:165:ASN:ND2	1:J:165:ASN:H	2.07	0.51
1:M:336:VAL:CG1	1:M:337:ILE:N	2.73	0.51
2:N:186:THR:HG23	2:N:226:ARG:CD	2.30	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:110:LEU:HD12	1:A:110:LEU:O	2.07	0.51
1:B:1:MET:N	1:B:2:SER:CA	2.70	0.51
1:B:222:LEU:HA	1:B:288:TYR:CZ	2.46	0.51
1:C:486:LYS:HA	1:C:489:VAL:CG1	2.41	0.51
1:C:488:GLU:OE2	1:C:489:VAL:N	2.44	0.51
1:D:416:ILE:O	1:D:416:ILE:HG12	2.10	0.51
1:E:369:SER:OG	1:L:109:THR:OG1	2.10	0.51
1:G:376:LEU:CA	1:G:379:PHE:HE2	2.21	0.51
1:I:309:SER:OG	1:I:310:SER:N	2.43	0.51
1:J:305:ALA:HB1	1:J:306:PRO:HD2	1.92	0.51
1:K:264:PHE:N	1:K:264:PHE:CD1	2.78	0.51
1:L:198:ARG:NH1	1:L:198:ARG:CG	2.63	0.51
1:A:401:GLY:C	1:A:402:VAL:HG23	2.31	0.50
1:C:83:HIS:CE1	1:C:84:ALA:HA	2.47	0.50
1:C:310:SER:HB2	1:C:312:PHE:CZ	2.46	0.50
1:C:430:ASP:O	1:C:430:ASP:OD2	2.29	0.50
1:D:499:SER:O	1:D:501:ASN:ND2	2.43	0.50
1:E:158:ARG:CB	1:E:158:ARG:NH1	2.72	0.50
1:F:65:ARG:HH11	1:F:65:ARG:CG	2.24	0.50
1:F:293:LEU:HD22	1:F:465:VAL:HB	1.92	0.50
1:F:382:GLN:O	1:F:382:GLN:HG3	2.10	0.50
1:F:503:LEU:CA	1:F:506:ILE:HG23	2.40	0.50
1:H:10:VAL:CG2	1:H:11:VAL:N	2.74	0.50
1:H:49:GLN:HE21	1:H:49:GLN:C	2.14	0.50
1:H:56:PRO:HG3	1:H:225:LEU:HD22	1.92	0.50
1:I:507:TYR:CG	1:I:508:GLY:N	2.78	0.50
1:J:325:LYS:HG3	1:J:327:TYR:HE2	1.76	0.50
1:K:170:VAL:HG23	1:K:172:THR:O	2.11	0.50
1:K:449:ASN:HD21	1:K:451:ASN:HB3	1.74	0.50
1:L:217:GLU:O	1:L:218:GLN:CB	2.59	0.50
1:A:304:LEU:HG	1:A:304:LEU:O	2.12	0.50
1:B:168:LEU:HD12	1:B:168:LEU:O	2.10	0.50
1:B:334:ASP:CG	1:B:461:TYR:OH	2.50	0.50
1:C:331:LYS:HG2	1:C:461:TYR:HE2	1.77	0.50
1:D:85:GLY:CA	1:D:86:ILE:CB	2.87	0.50
1:D:350:VAL:HG23	1:D:351:PHE:N	2.26	0.50
1:E:92:GLN:HB2	1:E:95:ARG:HB2	1.94	0.50
1:E:189:VAL:HG22	1:E:199:ILE:HG22	1.93	0.50
1:F:322:ILE:HD12	1:F:431:GLU:OE2	2.12	0.50
1:G:91:LEU:HB2	1:G:192:ASN:OD1	2.12	0.50
1:G:341:LEU:HD12	1:G:341:LEU:O	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:208:PHE:HD1	1:M:214:TRP:CD1	1.69	0.50
2:N:253:TYR:N	2:N:254:PRO:CD	2.73	0.50
2:N:269:SER:OG	2:N:296:LEU:HD23	2.11	0.50
1:A:359:LEU:HD21	1:A:419:LEU:HD11	1.93	0.50
1:A:441:LEU:HD23	1:A:442:GLN:H	1.76	0.50
1:B:235:ASN:ND2	1:B:237:ASN:H	2.09	0.50
1:B:295:ARG:HH11	1:B:295:ARG:CG	2.23	0.50
1:B:314:SER:OG	1:B:315:ASN:O	2.30	0.50
1:C:329:PHE:HB3	1:C:416:ILE:CG1	2.39	0.50
1:D:100:ALA:HB2	1:D:182:ARG:CD	2.41	0.50
1:E:358:ASN:C	1:E:358:ASN:OD1	2.49	0.50
1:G:252:SER:CB	1:G:253:GLY:HA2	2.32	0.50
1:G:313:LYS:H	1:G:444:GLN:HA	1.76	0.50
1:G:381:VAL:O	1:G:381:VAL:CG2	2.57	0.50
1:H:43:THR:HG21	1:H:53:ILE:HG23	1.94	0.50
1:H:164:ASN:N	1:H:164:ASN:ND2	2.58	0.50
1:H:376:LEU:HD13	1:H:417:VAL:HG21	1.93	0.50
1:I:172:THR:O	1:I:173:SER:HB2	2.11	0.50
1:I:490:LEU:CD2	1:I:490:LEU:O	2.53	0.50
1:J:246:ASP:OD1	1:J:249:ASN:HB3	2.11	0.50
1:K:41:PRO:CB	1:K:266:GLN:HE21	2.25	0.50
1:L:101:PHE:HZ	1:L:131:SER:HB2	1.76	0.50
1:L:358:ASN:OD1	1:L:359:LEU:N	2.44	0.50
1:M:4:SER:O	1:M:6:ILE:O	2.30	0.50
2:N:263:LYS:HA	2:N:263:LYS:HE2	1.94	0.50
2:N:270:ASN:O	2:N:271:LEU:CD2	2.59	0.50
1:A:315:ASN:ND2	1:A:315:ASN:H	2.07	0.50
1:B:3:ASN:OD1	1:C:483:VAL:C	2.49	0.50
1:B:99:ARG:HG3	1:B:100:ALA:N	2.27	0.50
1:B:155:GLN:CG	1:B:412:LEU:O	2.59	0.50
1:B:165:ASN:O	1:B:165:ASN:OD1	2.30	0.50
1:D:380:SER:CB	1:D:383:ASN:CG	2.80	0.50
1:F:503:LEU:O	1:F:506:ILE:HG23	2.12	0.50
1:G:39:PRO:CD	1:L:49:GLN:HE21	2.18	0.50
1:G:108:ASN:OD1	1:G:108:ASN:O	2.30	0.50
1:G:337:ILE:O	1:G:337:ILE:CG1	2.57	0.50
1:G:452:GLN:NE2	1:G:452:GLN:HA	2.25	0.50
1:H:142:GLY:O	1:H:143:TRP:C	2.48	0.50
1:J:393:ASN:CB	1:J:394:GLY:HA2	2.23	0.50
1:K:376:LEU:HD23	1:K:379:PHE:CZ	2.47	0.50
1:L:444:GLN:HG3	1:L:444:GLN:O	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:251:GLN:O	2:N:251:GLN:HG2	2.11	0.50
1:A:224:ASN:N	1:A:224:ASN:ND2	2.59	0.50
1:B:203:LEU:N	1:B:203:LEU:CD2	2.57	0.50
1:B:380:SER:OG	1:B:383:ASN:CA	2.60	0.50
1:C:125:GLN:HE21	1:C:125:GLN:N	2.09	0.50
1:C:457:THR:O	1:C:457:THR:OG1	2.30	0.50
1:D:83:HIS:CE1	1:D:256:THR:HA	2.46	0.50
1:D:244:HIS:CB	1:D:346:THR:HG22	2.38	0.50
1:D:362:ASN:OD1	1:D:362:ASN:O	2.30	0.50
1:F:187:MET:O	1:G:397:GLN:CG	2.55	0.50
1:G:75:ILE:HG13	1:G:262:ILE:HG23	1.93	0.50
1:G:109:THR:CG2	1:G:110:LEU:H	2.25	0.50
1:G:198:ARG:HG2	1:G:198:ARG:NH1	2.18	0.50
1:G:408:LYS:H	1:G:408:LYS:HZ1	1.57	0.50
1:H:416:ILE:O	1:H:416:ILE:CG1	2.60	0.50
1:J:67:VAL:HG22	1:J:271:LEU:HB3	1.94	0.50
1:J:86:ILE:O	1:J:86:ILE:HG23	2.11	0.50
1:K:172:THR:O	1:K:173:SER:OG	2.30	0.50
1:K:303:THR:HG22	1:K:457:THR:HB	1.92	0.50
1:K:392:PHE:CD1	1:K:393:ASN:N	2.79	0.50
1:L:1:MET:H1	1:L:10:VAL:CG1	2.24	0.50
1:A:474:ASN:O	1:A:474:ASN:OD1	2.30	0.50
1:B:56:PRO:HD2	1:B:226:THR:O	2.12	0.50
1:B:209:LEU:HG	1:B:210:PRO:N	2.26	0.50
1:B:367:ILE:O	1:B:368:LEU:HB2	2.12	0.50
1:B:449:ASN:HD22	1:B:450:THR:H	1.59	0.50
1:C:3:ASN:HB3	1:D:483:VAL:HA	1.93	0.50
1:C:393:ASN:CG	1:C:393:ASN:O	2.50	0.50
1:D:4:SER:O	1:D:6:ILE:O	2.30	0.50
1:D:208:PHE:HD1	1:D:214:TRP:CE3	2.30	0.50
1:D:400:ASN:O	1:D:400:ASN:OD1	2.30	0.50
1:E:67:VAL:HG12	1:E:68:PHE:N	2.26	0.50
1:E:92:GLN:HB3	1:E:93:PRO:HD2	1.93	0.50
1:E:372:SER:HB3	1:E:375:ASN:H	1.76	0.50
1:F:73:TYR:C	1:F:73:TYR:CD2	2.83	0.50
1:F:494:ILE:HA	1:G:12:ALA:O	2.12	0.50
1:G:161:ASP:OD1	1:G:161:ASP:O	2.30	0.50
1:G:244:HIS:CB	1:G:345:ILE:HG13	2.42	0.50
1:G:313:LYS:N	1:G:444:GLN:HG2	2.27	0.50
1:G:339:GLN:O	1:G:340:ASN:OD1	2.30	0.50
1:G:374:GLN:HG3	1:G:375:ASN:N	2.25	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:70:GLN:HB2	1:H:204:TYR:CD1	2.47	0.50
1:H:174:ALA:O	1:I:165:ASN:HB3	2.11	0.50
1:H:443:VAL:CG1	1:H:462:ILE:HD11	2.42	0.50
1:J:329:PHE:CE2	1:J:461:TYR:CD2	3.00	0.50
1:J:498:VAL:CG2	1:J:499:SER:CB	2.30	0.50
1:K:428:ARG:HG2	1:K:428:ARG:NH1	2.25	0.50
1:M:209:LEU:O	1:M:211:PRO:O	2.30	0.50
1:M:313:LYS:HE2	1:M:442:GLN:NE2	2.26	0.50
1:A:115:ASN:OD1	1:A:115:ASN:O	2.30	0.50
1:C:69:ILE:HG21	1:C:232:TRP:CZ2	2.46	0.50
1:C:311:THR:O	1:C:312:PHE:CD2	2.64	0.50
1:C:449:ASN:ND2	1:C:449:ASN:C	2.65	0.50
1:D:61:THR:HA	1:D:275:THR:HG22	1.93	0.50
1:D:199:ILE:HD12	1:D:200:THR:N	2.27	0.50
1:E:158:ARG:HG2	1:E:158:ARG:NH1	2.24	0.50
1:E:323:PRO:CD	1:E:421:LEU:HD22	2.37	0.50
1:H:494:ILE:HD12	1:H:494:ILE:N	2.27	0.50
1:I:314:SER:OG	1:I:443:VAL:O	2.26	0.50
1:J:89:ASN:HA	1:J:194:THR:HA	1.93	0.50
1:J:500:TYR:C	1:J:500:TYR:CD1	2.84	0.50
1:L:4:SER:O	1:L:6:ILE:O	2.30	0.50
1:L:218:GLN:HE22	1:M:382:GLN:CD	2.12	0.50
1:L:249:ASN:O	1:L:250:ASP:OD1	2.30	0.50
2:N:20:ILE:HG23	2:N:36:PHE:CD1	2.44	0.50
2:N:60:ILE:HD12	2:N:313:ILE:CG2	2.42	0.50
2:N:169:SER:O	2:N:170:ASN:OD1	2.30	0.50
2:N:267:LEU:CD2	2:N:361:CYS:SG	3.00	0.50
1:A:402:VAL:HG12	1:A:403:SER:N	2.27	0.50
1:B:151:GLU:HA	1:B:151:GLU:OE2	2.12	0.50
1:B:363:ASN:CA	1:B:364:GLN:NE2	2.74	0.50
1:D:30:LYS:HG2	1:D:30:LYS:O	2.11	0.50
1:E:35:VAL:HG22	1:E:274:VAL:HG13	1.93	0.50
1:E:44:SER:HB3	1:J:317:VAL:CB	2.42	0.50
1:E:423:LYS:HE3	1:F:17:ARG:CD	2.34	0.50
1:F:503:LEU:CA	1:F:506:ILE:CG2	2.84	0.50
1:H:106:ILE:HD12	1:H:241:ILE:CD1	2.42	0.50
1:I:441:LEU:HD12	1:I:441:LEU:O	2.11	0.50
1:J:328:LEU:HD21	1:J:443:VAL:HG21	1.93	0.50
1:K:190:VAL:CG2	1:K:198:ARG:HB3	2.42	0.50
1:L:110:LEU:HB3	1:L:123:LEU:HD13	1.94	0.50
1:M:152:ASP:OD1	1:M:152:ASP:N	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:282:ILE:HD12	1:M:283:PRO:HD2	1.93	0.50
1:B:245:SER:O	1:B:248:THR:HG23	2.11	0.50
1:B:481:ILE:C	1:B:481:ILE:HD12	2.33	0.50
1:C:73:TYR:HD1	1:C:203:LEU:HD23	1.74	0.50
1:C:102:PRO:HG2	1:C:203:LEU:HD12	1.93	0.50
1:C:125:GLN:H	1:C:125:GLN:NE2	2.08	0.50
1:D:153:ASN:O	1:D:412:LEU:O	2.29	0.50
1:D:351:PHE:HE2	1:D:416:ILE:HG21	1.75	0.50
1:E:13:VAL:HG12	1:E:14:GLN:H	1.76	0.50
1:E:18:LEU:HD12	1:E:18:LEU:O	2.12	0.50
1:E:287:THR:HB	1:E:471:VAL:HG23	1.93	0.50
1:G:41:PRO:HG2	1:L:45:PHE:C	2.32	0.50
1:G:209:LEU:CD2	1:G:212:PHE:HD2	2.21	0.50
1:I:96:ASP:OD2	1:I:96:ASP:O	2.30	0.50
1:J:2:SER:O	1:J:3:ASN:OD1	2.30	0.50
1:L:249:ASN:CB	1:L:254:ASN:O	2.55	0.50
1:L:301:GLN:HE21	1:L:301:GLN:CA	2.24	0.50
1:L:423:LYS:CG	1:M:15:GLU:OE1	2.60	0.50
1:L:498:VAL:HG22	1:L:499:SER:N	2.26	0.50
1:L:499:SER:O	1:L:500:TYR:C	2.50	0.50
1:M:286:ILE:HG13	1:M:287:THR:N	2.27	0.50
1:M:324:ARG:HG3	1:M:325:LYS:HD2	1.94	0.50
1:M:502:GLU:O	1:M:502:GLU:OE1	2.30	0.50
1:A:87:THR:O	1:A:88:GLU:OE2	2.30	0.49
1:A:325:LYS:HB3	1:A:420:GLU:HG2	1.94	0.49
1:B:396:THR:OG1	1:B:410:ILE:CD1	2.58	0.49
1:C:507:TYR:CD2	1:C:508:GLY:CA	2.95	0.49
1:E:87:THR:O	1:E:88:GLU:OE1	2.30	0.49
1:F:1:MET:HE3	1:G:26:TRP:HB3	1.91	0.49
1:G:2:SER:O	1:G:3:ASN:HB2	2.10	0.49
1:G:87:THR:OG1	1:G:88:GLU:OE2	2.30	0.49
1:G:362:ASN:OD1	1:G:362:ASN:O	2.30	0.49
1:H:192:ASN:ND2	1:H:192:ASN:C	2.65	0.49
1:H:349:ASP:O	1:H:350:VAL:CG2	2.56	0.49
1:I:78:THR:HG23	1:I:259:SER:O	2.11	0.49
1:I:100:ALA:HB2	1:I:182:ARG:CD	2.39	0.49
1:I:194:THR:HG23	1:I:195:THR:HG23	1.93	0.49
1:I:255:SER:HB3	1:I:342:ASN:HB2	1.94	0.49
1:I:362:ASN:O	1:I:363:ASN:OD1	2.30	0.49
1:J:20:LEU:O	1:J:24:ARG:NH1	2.45	0.49
1:L:188:ASN:OD1	1:L:188:ASN:O	2.30	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:184:ASP:OD1	2:N:226:ARG:CA	2.60	0.49
1:A:100:ALA:HB2	1:A:182:ARG:CD	2.42	0.49
1:A:192:ASN:ND2	1:A:192:ASN:C	2.64	0.49
1:C:313:LYS:HZ1	1:C:314:SER:N	2.06	0.49
1:C:420:GLU:HB2	1:C:423:LYS:HB3	1.94	0.49
1:D:30:LYS:O	1:D:30:LYS:CG	2.60	0.49
1:D:80:ASN:CB	1:D:258:GLY:CA	2.90	0.49
1:D:95:ARG:CG	1:D:95:ARG:HH11	2.25	0.49
1:D:363:ASN:O	1:D:364:GLN:OE1	2.30	0.49
1:D:436:ILE:CG1	1:D:437:GLY:CA	2.74	0.49
1:F:85:GLY:HA2	1:F:86:ILE:CG2	2.42	0.49
1:G:9:ASN:ND2	1:G:10:VAL:H	1.96	0.49
1:G:108:ASN:HB2	1:G:235:ASN:CG	2.33	0.49
1:G:128:HIS:HB3	1:G:349:ASP:OD1	2.11	0.49
1:H:106:ILE:CD1	1:H:241:ILE:CG1	2.89	0.49
1:H:238:LEU:O	1:H:238:LEU:CG	2.60	0.49
1:H:397:GLN:CG	1:H:398:GLN:N	2.76	0.49
1:H:428:ARG:O	1:H:431:GLU:OE1	2.30	0.49
1:I:83:HIS:HE1	1:I:250:ASP:HB2	1.76	0.49
1:I:326:LEU:HD12	1:I:421:LEU:CD2	2.41	0.49
1:J:314:SER:O	1:J:315:ASN:CB	2.59	0.49
1:J:322:ILE:HD13	1:J:431:GLU:HG3	1.93	0.49
1:J:325:LYS:HG2	1:J:465:VAL:HG13	1.94	0.49
1:L:393:ASN:ND2	1:L:393:ASN:O	2.46	0.49
1:M:332:GLN:OE1	1:M:333:SER:O	2.30	0.49
2:N:225:VAL:HG22	2:N:247:ILE:CD1	2.42	0.49
2:N:232:TYR:HD1	2:N:244:PRO:HB2	1.75	0.49
1:C:92:GLN:HB3	1:C:93:PRO:HD2	1.92	0.49
1:C:117:PHE:HB3	1:C:477:ALA:HB3	1.94	0.49
1:D:1:MET:HG3	1:D:10:VAL:HB	1.94	0.49
1:D:343:ASN:C	1:D:347:THR:HG22	2.16	0.49
1:D:361:TRP:CZ3	1:D:427:LEU:HD11	2.47	0.49
1:E:342:ASN:O	1:E:346:THR:HG22	2.12	0.49
1:F:380:SER:HB2	1:F:383:ASN:ND2	2.27	0.49
1:G:92:GLN:HB3	1:G:93:PRO:HD2	1.94	0.49
1:G:172:THR:O	1:G:173:SER:OG	2.30	0.49
1:I:85:GLY:HA3	1:I:86:ILE:CG2	2.29	0.49
1:K:286:ILE:HD12	1:M:20:LEU:HD12	1.94	0.49
1:L:58:SER:HB3	1:L:59:ALA:O	2.12	0.49
1:L:172:THR:O	1:L:173:SER:OG	2.30	0.49
1:L:230:PHE:C	1:L:231:ASN:ND2	2.65	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:315:ASN:OD1	1:M:316:VAL:O	2.30	0.49
2:N:227:PHE:HD2	2:N:229:GLY:C	2.16	0.49
1:A:87:THR:O	1:A:87:THR:OG1	2.30	0.49
1:B:462:ILE:CD1	1:B:462:ILE:N	2.76	0.49
1:D:324:ARG:HG3	1:D:325:LYS:HG2	1.94	0.49
1:D:351:PHE:CD2	1:D:416:ILE:CG2	2.96	0.49
1:D:433:GLU:OE2	1:D:433:GLU:HA	2.12	0.49
1:E:227:SER:O	1:E:228:LEU:HG	2.13	0.49
1:H:107:THR:HG22	1:H:123:LEU:HB3	1.93	0.49
1:H:210:PRO:HG2	1:H:291:PHE:O	2.12	0.49
1:I:363:ASN:O	1:I:364:GLN:OE1	2.30	0.49
1:K:99:ARG:HH21	1:K:240:ARG:HE	1.60	0.49
1:K:153:ASN:H	1:K:153:ASN:HD22	1.61	0.49
1:L:45:PHE:HE2	1:L:266:GLN:HB3	1.76	0.49
1:L:59:ALA:O	1:L:60:GLN:CB	2.60	0.49
1:L:304:LEU:HD23	1:L:304:LEU:H	1.76	0.49
1:M:235:ASN:O	1:M:238:LEU:HD22	2.13	0.49
1:A:295:ARG:HB2	1:A:463:VAL:HG22	1.93	0.49
1:A:401:GLY:C	1:A:402:VAL:CG2	2.80	0.49
1:B:21:ASN:ND2	1:B:21:ASN:N	2.53	0.49
1:B:249:ASN:C	1:B:249:ASN:HD22	2.14	0.49
1:B:337:ILE:CD1	1:B:338:TYR:CG	2.93	0.49
1:B:459:ASP:OD2	1:B:459:ASP:O	2.30	0.49
1:B:490:LEU:HD22	1:B:491:ASN:N	2.27	0.49
1:E:33:GLN:OE1	1:E:33:GLN:N	2.43	0.49
1:E:75:ILE:HG22	1:E:76:THR:N	2.28	0.49
1:E:99:ARG:NH1	1:E:99:ARG:CG	2.59	0.49
1:G:4:SER:O	1:G:6:ILE:O	2.30	0.49
1:G:71:VAL:HG23	1:G:71:VAL:O	2.13	0.49
1:H:440:ASN:O	1:H:440:ASN:OD1	2.30	0.49
1:J:140:LYS:CD	1:J:179:GLU:OE2	2.61	0.49
1:K:232:TRP:N	1:K:232:TRP:CD1	2.80	0.49
1:K:334:ASP:HA	1:K:337:ILE:HD12	1.95	0.49
1:L:173:SER:HA	1:M:164:ASN:HB2	1.95	0.49
1:L:334:ASP:OD2	1:L:334:ASP:O	2.30	0.49
1:M:341:LEU:CD1	1:M:345:ILE:CG2	2.90	0.49
1:A:364:GLN:HE21	1:A:367:ILE:CD1	2.25	0.49
1:A:367:ILE:O	1:A:369:SER:N	2.46	0.49
1:B:242:TRP:HD1	1:B:345:ILE:HD11	1.78	0.49
1:C:73:TYR:HE2	1:C:199:ILE:HD11	1.77	0.49
1:C:163:ALA:CB	1:D:172:THR:HB	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:326:LEU:HD23	1:C:328:LEU:HD21	1.93	0.49
1:C:377:TYR:CD1	1:C:389:TRP:HB2	2.47	0.49
1:C:400:ASN:N	1:C:407:THR:OG1	2.41	0.49
1:E:118:PRO:HG2	1:J:118:PRO:HG2	1.94	0.49
1:E:357:LEU:HA	1:E:445:MET:HB2	1.94	0.49
1:F:33:GLN:OE1	1:F:33:GLN:CA	2.60	0.49
1:G:375:ASN:OD1	1:G:375:ASN:O	2.30	0.49
1:H:79:ALA:HB2	1:H:195:THR:HA	1.95	0.49
1:I:18:LEU:HD21	1:J:276:PRO:HB3	1.95	0.49
1:J:262:ILE:N	1:J:262:ILE:HD12	2.28	0.49
1:J:395:VAL:HG13	1:J:450:THR:HG22	1.95	0.49
1:K:86:ILE:O	1:K:86:ILE:HG23	2.12	0.49
1:K:165:ASN:H	1:K:165:ASN:HD22	1.61	0.49
1:K:187:MET:H	1:L:397:GLN:HG3	1.77	0.49
1:L:71:VAL:HB	1:L:267:PRO:HB3	1.95	0.49
1:M:359:LEU:HB2	1:M:443:VAL:HG22	1.95	0.49
2:N:52:PHE:CE2	2:N:368:LYS:HE2	2.47	0.49
1:B:70:GLN:O	1:B:70:GLN:HG2	2.12	0.49
1:B:114:ILE:HA	1:B:228:LEU:HD23	1.95	0.49
1:B:209:LEU:HG	1:B:210:PRO:CD	2.43	0.49
1:B:374:GLN:HG2	1:C:204:TYR:CE1	2.47	0.49
1:C:22:ASN:HD22	1:C:22:ASN:N	2.11	0.49
1:C:155:GLN:HA	1:C:350:VAL:HG11	1.94	0.49
1:C:379:PHE:HD2	1:C:379:PHE:H	1.60	0.49
1:D:357:LEU:C	1:D:357:LEU:CD1	2.30	0.49
1:D:449:ASN:HD22	1:D:450:THR:H	1.60	0.49
1:E:355:ASN:O	1:E:373:SER:HB3	2.13	0.49
1:E:364:GLN:HB2	1:E:367:ILE:HD11	1.95	0.49
1:H:48:ASN:C	1:H:48:ASN:HD22	2.16	0.49
1:K:35:VAL:HG21	1:M:17:ARG:NH2	2.21	0.49
1:L:324:ARG:NH1	1:L:324:ARG:CG	2.69	0.49
1:L:357:LEU:C	1:L:357:LEU:HD13	2.16	0.49
1:M:333:SER:O	1:M:336:VAL:HG12	2.12	0.49
1:B:363:ASN:O	1:B:364:GLN:OE1	2.30	0.49
1:B:385:TYR:O	1:B:386:ASN:OD1	2.30	0.49
1:C:83:HIS:NE2	1:C:256:THR:HG23	2.27	0.49
1:C:249:ASN:ND2	1:C:249:ASN:O	2.46	0.49
1:C:354:ILE:CD1	1:C:417:VAL:HG23	2.42	0.49
1:C:364:GLN:HG2	1:C:367:ILE:CD1	2.38	0.49
1:D:392:PHE:HD1	1:D:393:ASN:H	1.58	0.49
1:E:73:TYR:N	1:E:73:TYR:CD1	2.79	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:303:THR:CG2	1:E:457:THR:N	2.73	0.49
1:F:33:GLN:OE1	1:F:33:GLN:O	2.30	0.49
1:F:62:VAL:HB	1:F:223:ALA:HB2	1.95	0.49
1:F:170:VAL:O	1:F:172:THR:O	2.31	0.49
1:F:364:GLN:OE1	1:F:364:GLN:O	2.30	0.49
1:G:325:LYS:HE3	1:G:327:TYR:OH	2.13	0.49
1:G:364:GLN:HA	1:G:364:GLN:OE1	2.12	0.49
1:H:8:LEU:N	1:H:8:LEU:CD2	2.66	0.49
1:I:55:ASN:OD1	1:I:55:ASN:N	2.46	0.49
1:J:2:SER:O	1:J:3:ASN:HB3	2.11	0.49
1:J:501:ASN:OD1	1:J:504:GLN:NE2	2.45	0.49
1:K:377:TYR:CZ	1:K:389:TRP:HB2	2.48	0.49
1:K:437:GLY:N	1:K:439:PHE:HE2	2.10	0.49
1:M:155:GLN:HB3	1:M:451:ASN:HB2	1.95	0.49
1:M:332:GLN:OE1	1:M:332:GLN:C	2.51	0.49
1:B:1:MET:N	1:B:7:PRO:HB2	2.15	0.49
1:B:100:ALA:HB2	1:B:148:PRO:HB2	1.94	0.49
1:B:416:ILE:O	1:B:416:ILE:HG12	2.10	0.49
1:C:359:LEU:HD13	1:C:443:VAL:HG22	1.95	0.49
1:C:459:ASP:OD2	1:C:460:MET:O	2.30	0.49
1:C:488:GLU:OE1	1:C:488:GLU:O	2.30	0.49
1:D:19:GLU:N	1:D:20:LEU:HA	2.25	0.49
1:D:140:LYS:CG	1:D:179:GLU:HG2	2.42	0.49
1:F:121:ILE:HD13	1:F:210:PRO:HG3	1.95	0.49
1:G:4:SER:O	1:G:4:SER:OG	2.30	0.49
1:G:285:ARG:CB	1:G:473:SER:HB2	2.42	0.49
1:H:41:PRO:CB	1:H:266:GLN:NE2	2.76	0.49
1:H:313:LYS:CD	1:H:444:GLN:CG	2.91	0.49
1:H:354:ILE:HD12	1:H:417:VAL:HG23	1.95	0.49
1:J:33:GLN:OE1	1:J:33:GLN:N	2.46	0.49
1:L:106:ILE:HD11	1:L:238:LEU:HA	1.94	0.49
1:M:318:GLN:H	1:M:318:GLN:NE2	2.11	0.49
2:N:185:ARG:CB	2:N:224:ASP:OD1	2.60	0.49
2:N:265:ILE:HG12	2:N:340:TYR:O	2.13	0.49
1:A:39:PRO:HB3	1:A:270:TYR:CE1	2.48	0.49
1:B:2:SER:O	1:B:3:ASN:OD1	2.30	0.49
1:B:81:PRO:HA	1:B:82:SER:HA	1.52	0.49
1:B:313:LYS:NZ	1:B:444:GLN:CD	2.65	0.49
1:C:122:GLU:HG3	1:C:123:LEU:N	2.23	0.49
1:D:322:ILE:CG2	1:D:433:GLU:OE2	2.60	0.49
1:D:340:ASN:O	1:D:340:ASN:OD1	2.30	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:433:GLU:OE2	1:E:433:GLU:O	2.30	0.49
1:F:127:ILE:HG22	1:F:128:HIS:ND1	2.27	0.49
1:F:419:LEU:HD12	1:F:425:VAL:CG2	2.42	0.49
1:I:193:THR:O	1:I:196:THR:O	2.30	0.49
1:I:459:ASP:OD2	1:I:461:TYR:CE2	2.65	0.49
1:J:83:HIS:CE1	1:J:256:THR:HG22	2.47	0.49
1:J:251:VAL:HG23	1:J:252:SER:N	2.27	0.49
1:K:153:ASN:ND2	1:K:153:ASN:N	2.59	0.49
1:K:430:ASP:O	1:K:430:ASP:OD2	2.30	0.49
1:L:229:THR:C	1:L:230:PHE:HD2	2.15	0.49
1:M:435:VAL:HB	1:M:486:LYS:HE3	1.95	0.49
2:N:132:TYR:HD2	2:N:132:TYR:H	1.61	0.49
1:A:108:ASN:C	1:A:109:THR:HG22	2.33	0.48
1:B:33:GLN:OE1	1:B:33:GLN:O	2.30	0.48
1:B:73:TYR:HE2	1:B:200:THR:HA	1.77	0.48
1:B:379:PHE:CG	1:B:379:PHE:O	2.65	0.48
1:C:117:PHE:HB3	1:C:477:ALA:CB	2.43	0.48
1:C:412:LEU:HD21	1:D:171:PHE:CE2	2.48	0.48
1:D:242:TRP:HA	1:D:242:TRP:CE3	2.48	0.48
1:D:317:VAL:O	1:D:440:ASN:HB2	2.13	0.48
1:E:1:MET:SD	1:F:26:TRP:HD1	2.36	0.48
1:E:73:TYR:HD1	1:E:73:TYR:N	2.10	0.48
1:E:244:HIS:HB2	1:E:345:ILE:CD1	2.43	0.48
1:F:362:ASN:HD22	1:F:439:PHE:HB3	1.78	0.48
1:G:73:TYR:HD2	1:G:75:ILE:HD11	1.73	0.48
1:H:342:ASN:H	1:H:342:ASN:ND2	2.06	0.48
1:I:195:THR:OG1	1:I:196:THR:HG22	2.13	0.48
1:I:265:GLN:O	1:I:266:GLN:C	2.51	0.48
1:J:306:PRO:O	1:J:307:ASN:HB2	2.13	0.48
1:J:350:VAL:C	1:J:351:PHE:HD1	2.15	0.48
1:K:106:ILE:O	1:K:235:ASN:HB3	2.12	0.48
1:L:89:ASN:HB3	1:L:192:ASN:ND2	2.02	0.48
1:L:125:GLN:OE1	1:L:295:ARG:CZ	2.60	0.48
1:M:39:PRO:HB3	1:M:270:TYR:CZ	2.48	0.48
1:M:102:PRO:CB	1:M:241:ILE:HD12	2.29	0.48
1:C:89:ASN:ND2	1:C:193:THR:CA	2.72	0.48
1:C:391:GLU:O	1:C:394:GLY:N	2.47	0.48
1:D:172:THR:O	1:D:173:SER:HB2	2.13	0.48
1:E:140:LYS:CD	1:E:179:GLU:CD	2.80	0.48
1:E:279:ASN:ND2	1:E:280:ILE:H	2.11	0.48
1:E:362:ASN:O	1:E:362:ASN:ND2	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:449:ASN:ND2	1:E:449:ASN:C	2.66	0.48
1:H:399:PHE:HD2	1:J:91:LEU:HB3	1.77	0.48
1:J:18:LEU:O	1:J:19:GLU:OE1	2.30	0.48
1:J:134:HIS:HD2	1:J:507:TYR:CD1	2.29	0.48
1:J:224:ASN:ND2	1:J:224:ASN:N	2.60	0.48
1:K:497:GLY:O	1:K:498:VAL:C	2.51	0.48
1:L:372:SER:O	1:L:375:ASN:N	2.45	0.48
1:M:471:VAL:O	1:M:471:VAL:HG12	2.12	0.48
1:B:96:ASP:CG	1:B:244:HIS:HA	2.33	0.48
1:C:1:MET:SD	1:C:10:VAL:HB	2.53	0.48
1:C:217:GLU:O	1:C:217:GLU:OE1	2.30	0.48
1:C:374:GLN:O	1:C:374:GLN:CD	2.52	0.48
1:D:452:GLN:HA	1:D:452:GLN:NE2	2.27	0.48
1:E:190:VAL:HG23	1:E:198:ARG:O	2.12	0.48
1:E:320:ASP:O	1:E:321:SER:OG	2.29	0.48
1:G:41:PRO:HA	1:G:268:SER:HB3	1.95	0.48
1:H:344:GLN:HG2	1:H:344:GLN:H	1.34	0.48
1:H:407:THR:HG21	1:J:189:VAL:CG1	2.36	0.48
1:I:207:VAL:HG22	1:I:232:TRP:CZ2	2.48	0.48
1:L:190:VAL:HG13	1:L:198:ARG:HB3	1.93	0.48
1:B:6:ILE:CD1	1:C:285:ARG:HD3	2.34	0.48
1:B:73:TYR:CE2	1:B:200:THR:HA	2.49	0.48
1:C:157:TYR:HE2	1:C:346:THR:O	1.97	0.48
1:D:19:GLU:N	1:D:19:GLU:CD	2.66	0.48
1:D:231:ASN:OD1	2:N:270:ASN:ND2	2.45	0.48
1:E:393:ASN:CG	1:E:393:ASN:O	2.52	0.48
1:E:460:MET:HG3	1:E:461:TYR:N	2.27	0.48
1:I:13:VAL:HG12	1:J:29:VAL:HG22	1.95	0.48
1:I:165:ASN:HD22	1:I:165:ASN:H	1.61	0.48
1:I:345:ILE:HG22	1:I:346:THR:HG23	1.95	0.48
1:J:52:PHE:CD2	1:J:52:PHE:N	2.81	0.48
1:J:110:LEU:CD1	1:J:207:VAL:HG22	2.44	0.48
1:J:288:TYR:HE2	1:J:472:ILE:HG22	1.77	0.48
1:J:359:LEU:HB2	1:J:443:VAL:HG22	1.93	0.48
1:K:397:GLN:NE2	1:K:397:GLN:H	2.11	0.48
1:L:328:LEU:HD23	1:L:443:VAL:HG21	1.93	0.48
1:L:346:THR:O	1:L:346:THR:OG1	2.19	0.48
2:N:60:ILE:HD13	2:N:265:ILE:HD12	1.94	0.48
1:A:129:ALA:HB1	1:A:416:ILE:HD12	1.96	0.48
1:A:364:GLN:O	1:A:365:GLN:CB	2.60	0.48
1:C:1:MET:C	1:C:3:ASN:N	2.65	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:42:SER:HB3	1:D:267:PRO:O	2.13	0.48
1:E:474:ASN:C	1:E:474:ASN:OD1	2.52	0.48
1:F:237:ASN:ND2	1:F:238:LEU:N	2.62	0.48
1:G:85:GLY:HA2	1:G:86:ILE:CG2	2.32	0.48
1:G:158:ARG:HD3	1:G:247:ILE:CD1	2.43	0.48
1:G:349:ASP:O	1:G:349:ASP:OD2	2.30	0.48
1:G:374:GLN:NE2	1:G:375:ASN:CA	2.70	0.48
1:G:399:PHE:CD2	1:G:399:PHE:N	2.77	0.48
1:G:490:LEU:HD22	1:G:491:ASN:OD1	2.13	0.48
1:H:51:ASN:HB3	1:H:231:ASN:OD1	2.14	0.48
1:H:427:LEU:CB	1:H:431:GLU:HG3	2.27	0.48
1:I:2:SER:O	1:I:3:ASN:CB	2.61	0.48
1:I:34:GLN:HB2	1:I:275:THR:HG23	1.95	0.48
1:I:231:ASN:N	1:I:231:ASN:ND2	2.60	0.48
1:I:379:PHE:CZ	1:I:419:LEU:HD22	2.49	0.48
1:I:506:ILE:HG23	1:I:507:TYR:N	2.29	0.48
1:J:18:LEU:O	1:J:19:GLU:CG	2.62	0.48
1:J:187:MET:SD	1:J:187:MET:N	2.87	0.48
1:J:325:LYS:HG2	1:J:465:VAL:CG1	2.43	0.48
1:J:433:GLU:N	1:J:433:GLU:OE2	2.46	0.48
1:K:209:LEU:HD12	1:K:210:PRO:N	2.29	0.48
1:K:247:ILE:HD13	1:K:248:THR:HA	1.91	0.48
1:L:339:GLN:O	1:L:339:GLN:OE1	2.30	0.48
2:N:24:PHE:HE2	2:N:355:PRO:CA	2.23	0.48
2:N:182:TYR:CD2	2:N:182:TYR:O	2.67	0.48
2:N:231:ASN:CG	2:N:248:GLN:O	2.52	0.48
2:N:305:ASN:O	2:N:306:GLY:O	2.30	0.48
1:B:33:GLN:O	1:B:34:GLN:HB2	2.13	0.48
1:B:249:ASN:HD22	1:B:250:ASP:N	2.11	0.48
1:C:16:PRO:HD3	1:D:500:TYR:CD1	2.49	0.48
1:C:158:ARG:HG2	1:C:158:ARG:HH11	1.79	0.48
1:F:380:SER:OG	1:F:383:ASN:N	2.43	0.48
1:H:140:LYS:HG2	1:H:179:GLU:HG2	1.96	0.48
1:H:427:LEU:HB3	1:H:431:GLU:CG	2.26	0.48
1:I:117:PHE:HD1	1:I:118:PRO:HD2	1.77	0.48
1:J:286:ILE:HD13	1:J:286:ILE:HA	1.66	0.48
1:J:359:LEU:HD21	1:J:419:LEU:HD11	1.96	0.48
1:K:410:ILE:HG22	1:K:411:GLY:O	2.13	0.48
1:L:83:HIS:CD2	1:L:86:ILE:HB	2.49	0.48
2:N:45:VAL:H	2:N:332:ILE:HD12	1.61	0.48
2:N:80:VAL:HG13	2:N:131:TYR:OH	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:96:SER:N	2:N:154:ILE:HD11	2.28	0.48
1:B:319:LEU:HD13	1:B:319:LEU:H	1.79	0.48
1:B:436:ILE:HG12	1:B:437:GLY:CA	2.42	0.48
1:C:492:ALA:O	1:C:493:ARG:C	2.49	0.48
1:D:228:LEU:O	1:D:229:THR:HG22	2.14	0.48
1:D:235:ASN:ND2	1:D:236:ASN:N	2.61	0.48
1:E:120:ASN:C	1:E:120:ASN:ND2	2.67	0.48
1:H:379:PHE:HD2	1:H:379:PHE:O	1.96	0.48
1:I:9:ASN:HB2	1:J:25:THR:HG22	1.94	0.48
1:I:380:SER:OG	1:I:385:TYR:HB2	2.14	0.48
1:I:473:SER:O	1:I:475:THR:HA	2.14	0.48
1:K:65:ARG:HD3	1:K:222:LEU:HD21	1.94	0.48
1:K:428:ARG:HB2	1:K:431:GLU:CD	2.34	0.48
1:K:495:THR:HG21	1:L:11:VAL:HB	1.91	0.48
1:L:334:ASP:O	1:L:337:ILE:HG13	2.13	0.48
1:A:327:TYR:HD2	1:A:327:TYR:N	2.12	0.48
1:B:99:ARG:HH12	1:B:243:SER:HB2	1.78	0.48
1:B:449:ASN:HD22	1:B:450:THR:N	2.12	0.48
1:C:6:ILE:CG2	1:D:285:ARG:HD2	2.43	0.48
1:C:123:LEU:CD2	1:C:127:ILE:HB	2.43	0.48
1:D:386:ASN:C	1:D:386:ASN:ND2	2.67	0.48
1:E:313:LYS:HG3	1:E:314:SER:H	1.77	0.48
1:F:2:SER:O	1:F:3:ASN:CG	2.52	0.48
1:F:180:LEU:CD2	1:G:388:THR:HG21	2.34	0.48
1:F:237:ASN:O	1:F:239:ALA:N	2.45	0.48
1:I:161:ASP:HA	1:I:162:GLY:HA2	1.52	0.48
1:I:356:ASN:O	1:I:446:THR:HG23	2.14	0.48
1:J:136:PRO:C	1:J:138:LYS:N	2.67	0.48
1:K:32:GLY:HA2	1:K:277:ARG:HB3	1.94	0.48
1:K:153:ASN:ND2	1:K:154:TYR:HD1	2.11	0.48
1:K:171:PHE:CZ	1:L:412:LEU:HD11	2.49	0.48
1:K:190:VAL:HG23	1:K:191:THR:HG22	1.96	0.48
1:K:257:ILE:N	1:K:257:ILE:HD12	2.29	0.48
1:K:461:TYR:C	1:K:462:ILE:HG13	2.34	0.48
1:L:45:PHE:CD1	1:L:45:PHE:O	2.67	0.48
1:L:251:VAL:O	1:L:252:SER:OG	2.30	0.48
2:N:42:GLN:HG2	2:N:43:PRO:HD2	1.95	0.48
2:N:52:PHE:HB3	2:N:323:LEU:HD22	1.95	0.48
2:N:307:PRO:HA	2:N:309:ALA:N	2.29	0.48
2:N:321:TRP:CE3	2:N:321:TRP:HA	2.47	0.48
1:A:99:ARG:HH11	1:A:240:ARG:CZ	2.27	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:299:GLN:HA	1:D:299:GLN:NE2	2.28	0.48
1:D:386:ASN:C	1:D:386:ASN:HD22	2.17	0.48
1:E:4:SER:O	1:E:4:SER:OG	2.30	0.48
1:E:226:THR:HG21	1:E:475:THR:HG23	1.95	0.48
1:G:155:GLN:HG2	1:G:451:ASN:HB3	1.96	0.48
1:H:67:VAL:HG12	1:H:68:PHE:N	2.29	0.48
1:I:173:SER:O	1:J:164:ASN:OD1	2.32	0.48
1:J:169:GLY:H	1:J:181:PRO:HB2	1.78	0.48
1:K:303:THR:CG2	1:K:457:THR:HB	2.43	0.48
1:L:43:THR:O	1:L:44:SER:OG	2.30	0.48
1:L:190:VAL:HG13	1:L:198:ARG:O	2.14	0.48
1:L:319:LEU:O	1:L:438:ASN:HA	2.14	0.48
1:M:313:LYS:CB	1:M:313:LYS:NZ	2.30	0.48
1:M:365:GLN:HE21	1:M:365:GLN:CA	2.26	0.48
1:M:427:LEU:HD12	1:M:427:LEU:HA	1.69	0.48
2:N:53:LEU:C	2:N:53:LEU:HD22	2.34	0.48
1:A:73:TYR:N	1:A:73:TYR:CD1	2.82	0.48
1:A:78:THR:O	1:A:257:ILE:O	2.32	0.48
1:B:17:ARG:CD	1:D:218:GLN:HE21	2.26	0.48
1:B:155:GLN:CB	1:B:411:GLY:HA3	2.43	0.48
1:B:228:LEU:C	1:B:229:THR:HG22	2.34	0.48
1:B:507:TYR:CG	1:B:508:GLY:HA3	2.48	0.48
1:D:161:ASP:HA	1:D:162:GLY:HA2	1.57	0.48
1:D:210:PRO:O	1:D:210:PRO:CD	2.61	0.48
1:D:342:ASN:HA	1:D:345:ILE:HG21	1.95	0.48
1:G:213:LEU:HB2	1:G:214:TRP:CB	2.43	0.48
1:H:10:VAL:HG22	1:H:11:VAL:N	2.28	0.48
1:I:132:ARG:HH11	1:I:132:ARG:CG	2.12	0.48
1:J:399:PHE:CD2	1:J:399:PHE:N	2.80	0.48
1:J:435:VAL:HG21	1:J:486:LYS:NZ	2.28	0.48
1:K:106:ILE:HG12	1:K:238:LEU:HD13	1.95	0.48
1:K:459:ASP:OD2	1:K:460:MET:N	2.47	0.48
1:L:1:MET:N	1:L:10:VAL:CG1	2.74	0.48
1:A:122:GLU:OE2	1:A:122:GLU:CA	2.62	0.47
1:B:330:VAL:HG22	1:B:460:MET:HB3	1.97	0.47
1:C:483:VAL:CA	1:C:484:ALA:HB3	2.43	0.47
1:D:89:ASN:OD1	1:D:192:ASN:ND2	2.46	0.47
1:D:498:VAL:HG22	1:D:503:LEU:HD21	1.95	0.47
1:E:246:ASP:O	1:E:249:ASN:HB2	2.14	0.47
1:F:241:ILE:HD13	1:F:241:ILE:HA	1.68	0.47
1:F:429:ASP:O	1:F:430:ASP:CB	2.62	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:382:GLN:NE2	1:G:423:LYS:HE2	2.29	0.47
1:I:361:TRP:CG	1:I:362:ASN:N	2.82	0.47
1:J:108:ASN:HA	1:J:235:ASN:ND2	2.25	0.47
1:J:490:LEU:HG	1:J:491:ASN:N	2.29	0.47
1:K:104:SER:HB3	1:K:205:GLU:OE2	2.13	0.47
1:K:264:PHE:N	1:K:264:PHE:HD1	2.11	0.47
1:M:73:TYR:CD1	1:M:203:LEU:HD22	2.49	0.47
2:N:108:THR:O	2:N:109:SER:OG	2.30	0.47
1:B:164:ASN:C	1:B:164:ASN:OD1	2.52	0.47
1:B:301:GLN:H	1:B:301:GLN:CD	2.18	0.47
1:B:336:VAL:CG2	1:B:337:ILE:N	2.75	0.47
1:B:453:TYR:CD1	1:B:453:TYR:N	2.81	0.47
1:C:140:LYS:HG2	1:C:179:GLU:OE1	2.12	0.47
1:D:103:ILE:HB	1:D:205:GLU:HG3	1.96	0.47
1:E:180:LEU:HD21	1:F:388:THR:HG21	1.95	0.47
1:E:186:THR:HB	1:F:396:THR:HA	1.95	0.47
1:E:278:LEU:H	1:E:278:LEU:CD1	2.11	0.47
1:F:147:GLN:HE21	1:F:206:GLN:HB2	1.77	0.47
1:G:22:ASN:HD22	1:G:22:ASN:C	2.17	0.47
1:G:317:VAL:CG2	1:G:319:LEU:HD11	2.44	0.47
1:G:341:LEU:HD12	1:G:341:LEU:C	2.35	0.47
1:H:106:ILE:HG22	1:H:107:THR:N	2.28	0.47
1:H:263:SER:C	1:H:264:PHE:HD1	2.17	0.47
1:I:81:PRO:HA	1:I:82:SER:HA	1.59	0.47
1:I:264:PHE:HA	1:I:265:GLN:HE22	1.79	0.47
1:L:140:LYS:CG	1:L:179:GLU:OE2	2.59	0.47
1:L:342:ASN:O	1:L:346:THR:HG22	2.14	0.47
1:L:430:ASP:HB2	1:L:490:LEU:HG	1.95	0.47
1:M:313:LYS:HD2	1:M:444:GLN:HB2	1.96	0.47
1:M:334:ASP:O	1:M:337:ILE:N	2.47	0.47
1:M:416:ILE:O	1:M:416:ILE:HG13	2.12	0.47
2:N:56:VAL:HG12	2:N:317:ALA:HB3	1.95	0.47
2:N:171:THR:CB	2:N:172:GLU:CA	2.91	0.47
2:N:256:LEU:HD13	2:N:307:PRO:CD	2.45	0.47
1:A:361:TRP:HA	1:A:361:TRP:HE3	1.74	0.47
1:B:89:ASN:CG	1:D:402:VAL:N	2.65	0.47
1:C:1:MET:H1	1:D:484:ALA:HA	1.79	0.47
1:C:89:ASN:CB	1:C:192:ASN:ND2	2.77	0.47
1:E:322:ILE:H	1:E:322:ILE:CD1	2.20	0.47
1:F:365:GLN:N	1:F:366:GLY:HA3	2.28	0.47
1:G:382:GLN:CG	1:G:382:GLN:O	2.62	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:362:ASN:C	1:J:362:ASN:ND2	2.67	0.47
1:K:86:ILE:CD1	1:K:86:ILE:C	2.78	0.47
1:M:429:ASP:OD2	1:M:430:ASP:HB3	2.13	0.47
2:N:80:VAL:HG21	2:N:115:PRO:O	2.15	0.47
2:N:227:PHE:HD2	2:N:229:GLY:CA	2.27	0.47
1:A:143:TRP:CE3	1:A:216:GLY:HA2	2.50	0.47
1:A:441:LEU:HD23	1:A:442:GLN:N	2.30	0.47
1:B:21:ASN:C	1:B:22:ASN:HD22	2.17	0.47
1:B:187:MET:O	1:B:188:ASN:C	2.51	0.47
1:B:209:LEU:CD2	1:B:210:PRO:C	2.83	0.47
1:C:189:VAL:HG13	1:C:199:ILE:HG22	1.95	0.47
1:C:212:PHE:CD2	1:C:212:PHE:N	2.76	0.47
1:D:49:GLN:HB2	1:D:232:TRP:O	2.14	0.47
1:D:75:ILE:HD11	1:D:262:ILE:HG23	1.96	0.47
1:E:74:ASP:CG	1:E:75:ILE:N	2.65	0.47
1:E:96:ASP:OD2	1:E:243:SER:C	2.53	0.47
1:E:423:LYS:C	1:E:423:LYS:HE2	2.34	0.47
1:F:1:MET:HG3	1:F:10:VAL:CB	2.45	0.47
1:H:466:TYR:CD2	1:H:466:TYR:N	2.83	0.47
1:J:39:PRO:HB3	1:J:270:TYR:CE1	2.48	0.47
1:J:65:ARG:NH1	1:J:213:LEU:HD23	2.28	0.47
1:J:133:TYR:HE2	1:J:416:ILE:HG12	1.77	0.47
1:J:394:GLY:C	1:J:395:VAL:CG2	2.83	0.47
1:K:23:GLU:OE2	1:K:23:GLU:HA	2.13	0.47
1:K:27:VAL:HG13	1:K:27:VAL:O	2.14	0.47
1:M:140:LYS:CD	1:M:179:GLU:CG	2.73	0.47
1:M:208:PHE:HB3	1:M:214:TRP:NE1	2.19	0.47
2:N:101:VAL:HG23	2:N:146:ALA:HB2	1.97	0.47
2:N:173:LYS:HE2	2:N:173:LYS:HB2	1.34	0.47
2:N:343:ASP:O	2:N:346:GLY:HA2	2.13	0.47
1:A:327:TYR:N	1:A:327:TYR:CD2	2.81	0.47
1:A:403:SER:HA	1:A:404:GLY:HA2	1.53	0.47
1:A:438:ASN:HB3	1:F:316:VAL:HG11	1.96	0.47
1:B:271:LEU:HD13	1:B:273:PHE:HE2	1.78	0.47
1:B:351:PHE:O	1:B:414:GLY:HA3	2.14	0.47
1:B:494:ILE:HD13	1:B:494:ILE:C	2.34	0.47
1:C:158:ARG:HG3	1:C:159:ASP:N	2.29	0.47
1:D:372:SER:O	1:D:373:SER:C	2.51	0.47
1:D:379:PHE:O	1:D:379:PHE:CG	2.66	0.47
1:E:100:ALA:CB	1:E:182:ARG:HD3	2.21	0.47
1:F:250:ASP:OD1	1:F:250:ASP:C	2.52	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:410:ILE:HD13	1:F:410:ILE:N	2.28	0.47
1:H:99:ARG:HH22	1:H:240:ARG:HH21	1.61	0.47
1:H:304:LEU:HD12	1:H:308:ALA:O	2.15	0.47
1:H:341:LEU:HD13	1:H:345:ILE:CG2	2.44	0.47
1:H:357:LEU:HD12	1:H:358:ASN:N	2.26	0.47
1:I:362:ASN:HB2	1:I:440:ASN:H	1.79	0.47
1:I:403:SER:HA	1:I:404:GLY:HA2	1.66	0.47
1:J:172:THR:O	1:J:173:SER:HB2	2.13	0.47
1:J:429:ASP:C	1:J:429:ASP:OD2	2.53	0.47
1:L:92:GLN:HB3	1:L:95:ARG:HB2	1.95	0.47
1:M:33:GLN:O	1:M:34:GLN:HB2	2.15	0.47
1:M:251:VAL:HG13	1:M:251:VAL:O	2.15	0.47
1:M:345:ILE:HG12	1:M:346:THR:N	2.29	0.47
1:M:393:ASN:CG	1:M:393:ASN:O	2.52	0.47
2:N:79:ASN:C	2:N:81:ASN:N	2.67	0.47
1:A:165:ASN:HD22	1:A:165:ASN:H	1.63	0.47
1:D:121:ILE:HG23	1:D:122:GLU:N	2.29	0.47
1:D:392:PHE:O	1:D:393:ASN:ND2	2.30	0.47
1:E:327:TYR:CD2	1:E:327:TYR:N	2.82	0.47
1:E:438:ASN:ND2	1:L:318:GLN:CG	2.77	0.47
1:F:100:ALA:CB	1:F:182:ARG:HD3	2.45	0.47
1:G:374:GLN:HE21	1:G:375:ASN:N	2.12	0.47
1:I:79:ALA:HB2	1:I:195:THR:HA	1.95	0.47
1:I:97:ALA:O	1:I:243:SER:OG	2.30	0.47
1:I:437:GLY:O	1:I:438:ASN:HB2	2.13	0.47
1:J:18:LEU:N	1:J:18:LEU:CD2	2.78	0.47
1:K:92:GLN:CB	1:K:95:ARG:HB2	2.41	0.47
1:L:265:GLN:HE21	1:L:265:GLN:CA	2.26	0.47
2:N:186:THR:HG23	2:N:226:ARG:CG	2.40	0.47
1:A:15:GLU:HB3	1:A:16:PRO:HD2	1.96	0.47
1:A:33:GLN:OE1	1:A:33:GLN:N	2.41	0.47
1:A:75:ILE:HG13	1:A:262:ILE:HG23	1.97	0.47
1:A:325:LYS:NZ	1:A:325:LYS:HB2	2.30	0.47
1:A:336:VAL:CG2	1:A:337:ILE:N	2.78	0.47
1:A:453:TYR:N	1:A:453:TYR:CD1	2.82	0.47
1:B:177:LEU:HD23	1:D:179:GLU:OE2	2.14	0.47
1:B:265:GLN:HE21	1:B:265:GLN:N	2.12	0.47
1:C:34:GLN:HG2	1:G:118:PRO:CG	2.44	0.47
1:C:336:VAL:CG2	1:C:337:ILE:H	2.27	0.47
1:C:336:VAL:CG2	1:C:337:ILE:N	2.77	0.47
1:C:402:VAL:HA	1:D:88:GLU:OE2	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:61:THR:HG22	1:D:275:THR:HG23	1.84	0.47
1:D:265:GLN:HE21	1:D:265:GLN:CA	2.24	0.47
1:D:380:SER:OG	1:D:383:ASN:CA	2.61	0.47
1:E:189:VAL:HG12	1:E:189:VAL:O	2.14	0.47
1:E:313:LYS:CE	1:E:442:GLN:CD	2.80	0.47
1:F:228:LEU:HD22	1:F:230:PHE:CE2	2.50	0.47
1:G:208:PHE:CE1	1:G:214:TRP:CE2	3.01	0.47
1:G:208:PHE:CD1	1:G:214:TRP:CE2	3.03	0.47
1:H:51:ASN:CB	1:H:231:ASN:OD1	2.63	0.47
1:H:106:ILE:O	1:H:235:ASN:HB2	2.15	0.47
1:I:66:LEU:HD21	1:J:378:ASP:OD1	2.14	0.47
1:I:208:PHE:O	1:I:209:LEU:HG	2.15	0.47
1:I:326:LEU:HD11	1:I:421:LEU:CD2	2.43	0.47
1:I:392:PHE:O	1:I:393:ASN:ND2	2.44	0.47
1:I:401:GLY:O	1:I:402:VAL:HG22	2.15	0.47
1:J:98:PHE:CE1	1:J:203:LEU:HD13	2.46	0.47
1:J:140:LYS:HG3	1:J:179:GLU:HG2	1.96	0.47
1:J:494:ILE:HD13	1:J:494:ILE:H	1.80	0.47
1:K:42:SER:HG	1:K:45:PHE:HB3	1.80	0.47
1:K:305:ALA:HB2	1:K:455:THR:HG23	1.97	0.47
1:K:341:LEU:O	1:K:344:GLN:N	2.47	0.47
1:L:91:LEU:HD21	1:L:197:ALA:HB1	1.95	0.47
1:L:125:GLN:HB2	1:L:295:ARG:HH11	1.80	0.47
1:L:408:LYS:NZ	1:L:408:LYS:HB3	2.29	0.47
1:M:35:VAL:HG13	1:M:274:VAL:HG22	1.97	0.47
1:M:261:ASN:HD22	1:M:261:ASN:N	2.12	0.47
1:M:396:THR:HG23	1:M:412:LEU:HD21	1.96	0.47
2:N:104:ASP:O	2:N:107:LEU:CD1	2.53	0.47
1:A:89:ASN:OD1	1:A:192:ASN:C	2.54	0.47
1:A:334:ASP:O	1:A:336:VAL:O	2.33	0.47
1:C:41:PRO:HD2	1:G:44:SER:HB2	1.96	0.47
1:C:495:THR:C	1:C:497:GLY:N	2.63	0.47
1:C:501:ASN:C	1:C:501:ASN:ND2	2.43	0.47
1:D:314:SER:OG	1:D:443:VAL:N	2.47	0.47
1:F:214:TRP:HZ2	1:F:507:TYR:HH	1.62	0.47
1:F:237:ASN:HD22	1:F:238:LEU:N	2.13	0.47
1:F:266:GLN:N	1:F:267:PRO:HD2	2.29	0.47
1:H:187:MET:O	1:I:397:GLN:HG2	2.14	0.47
1:J:42:SER:HB3	1:J:52:PHE:CE1	2.50	0.47
1:J:362:ASN:ND2	1:J:362:ASN:O	2.46	0.47
1:K:305:ALA:HB2	1:K:455:THR:HA	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:61:THR:CG2	1:L:273:PHE:HB3	2.44	0.47
1:M:314:SER:HB3	1:M:443:VAL:C	2.35	0.47
2:N:115:PRO:HG3	2:N:128:THR:CG2	2.45	0.47
2:N:255:THR:CA	2:N:257:SER:HB2	2.41	0.47
1:A:336:VAL:CG2	1:A:337:ILE:H	2.27	0.47
1:C:15:GLU:OE1	1:D:423:LYS:HA	2.15	0.47
1:C:29:VAL:O	1:C:29:VAL:CG1	2.63	0.47
1:D:6:ILE:CD1	1:D:6:ILE:N	2.30	0.47
1:D:80:ASN:CB	1:D:258:GLY:HA3	2.44	0.47
1:D:83:HIS:NE2	1:D:256:THR:HG23	2.28	0.47
1:D:323:PRO:CG	1:D:421:LEU:HD13	2.24	0.47
1:D:417:VAL:HG12	1:D:418:CYS:N	2.30	0.47
1:E:74:ASP:O	1:E:75:ILE:CG1	2.59	0.47
1:E:324:ARG:HB3	1:E:465:VAL:HG22	1.96	0.47
1:F:193:THR:HG22	1:F:194:THR:H	1.80	0.47
1:J:41:PRO:HG2	1:L:315:ASN:HA	1.97	0.47
1:L:265:GLN:O	1:L:266:GLN:C	2.53	0.47
1:M:21:ASN:C	1:M:22:ASN:HD22	2.18	0.47
2:N:256:LEU:CD1	2:N:307:PRO:HG2	2.44	0.47
1:A:114:ILE:O	1:A:117:PHE:N	2.46	0.47
1:A:166:ASN:C	1:A:166:ASN:OD1	2.53	0.47
1:A:362:ASN:N	1:A:362:ASN:HD22	2.13	0.47
1:B:211:PRO:O	1:B:212:PHE:C	2.53	0.47
1:C:1:MET:N	1:D:488:GLU:OE1	2.48	0.47
1:D:321:SER:OG	1:D:436:ILE:HA	2.15	0.47
1:E:3:ASN:ND2	1:G:483:VAL:O	2.48	0.47
1:E:158:ARG:HG3	1:E:159:ASP:N	2.29	0.47
1:E:260:MET:C	1:E:261:ASN:HD22	2.19	0.47
1:E:423:LYS:HD3	1:E:424:ASP:OD2	2.14	0.47
1:F:67:VAL:HG22	1:F:271:LEU:HD13	1.95	0.47
1:F:161:ASP:HA	1:F:162:GLY:HA2	1.65	0.47
1:F:507:TYR:CG	1:F:508:GLY:N	2.81	0.47
1:F:507:TYR:CB	1:F:508:GLY:HA3	2.45	0.47
1:G:83:HIS:ND1	1:G:250:ASP:HB2	2.30	0.47
1:G:106:ILE:HG12	1:G:238:LEU:CD1	2.44	0.47
1:G:358:ASN:C	1:G:358:ASN:OD1	2.53	0.47
1:H:43:THR:HG21	1:H:53:ILE:CG2	2.45	0.47
1:H:329:PHE:N	1:H:329:PHE:CD1	2.83	0.47
1:I:28:VAL:HG21	1:J:489:VAL:HG23	1.97	0.47
1:J:44:SER:O	1:J:44:SER:OG	2.30	0.47
1:J:334:ASP:O	1:J:335:ASN:C	2.54	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:208:PHE:HE1	1:K:214:TRP:CD1	2.33	0.47
1:K:362:ASN:C	1:K:362:ASN:HD22	2.17	0.47
1:A:48:ASN:H	1:A:48:ASN:ND2	2.13	0.46
1:A:319:LEU:N	1:A:319:LEU:HD13	2.30	0.46
1:B:59:ALA:C	1:B:60:GLN:HG2	2.36	0.46
1:B:332:GLN:CB	1:B:456:VAL:HG23	2.34	0.46
1:C:1:MET:O	1:C:3:ASN:N	2.39	0.46
1:D:15:GLU:HB3	1:D:16:PRO:HD2	1.97	0.46
1:D:99:ARG:NH1	1:D:240:ARG:HE	2.13	0.46
1:D:110:LEU:CD1	1:D:209:LEU:HD22	2.43	0.46
1:E:416:ILE:O	1:E:416:ILE:HG12	2.15	0.46
1:F:325:LYS:HZ2	1:F:325:LYS:HB3	1.80	0.46
1:G:35:VAL:HG22	1:G:274:VAL:HG13	1.97	0.46
1:G:49:GLN:HG2	1:G:50:PHE:N	2.29	0.46
1:G:443:VAL:CG1	1:G:444:GLN:N	2.77	0.46
1:H:73:TYR:HE1	1:H:203:LEU:HD23	1.79	0.46
1:H:305:ALA:CB	1:H:455:THR:HG22	2.40	0.46
1:I:73:TYR:HE2	1:I:199:ILE:HD12	1.80	0.46
1:I:122:GLU:O	1:I:126:ILE:HB	2.15	0.46
1:I:186:THR:HG21	1:J:393:ASN:HD22	1.79	0.46
1:J:210:PRO:HA	1:J:211:PRO:C	2.36	0.46
1:K:19:GLU:HB3	1:K:20:LEU:CA	2.44	0.46
1:K:304:LEU:HG	1:K:310:SER:OG	2.14	0.46
1:L:106:ILE:CD1	1:L:238:LEU:HA	2.46	0.46
1:B:1:MET:H1	1:B:7:PRO:HB3	1.76	0.46
1:B:320:ASP:O	1:B:437:GLY:C	2.53	0.46
1:B:326:LEU:HD22	1:B:328:LEU:HG	1.97	0.46
1:C:51:ASN:HB2	1:C:231:ASN:CB	2.45	0.46
1:C:65:ARG:HB3	1:C:213:LEU:CD2	2.26	0.46
1:D:88:GLU:OE2	1:D:88:GLU:HA	2.14	0.46
1:D:92:GLN:CB	1:D:95:ARG:HB2	2.43	0.46
1:D:261:ASN:O	1:D:262:ILE:CD1	2.61	0.46
1:D:317:VAL:HG22	1:D:318:GLN:N	2.30	0.46
1:E:76:THR:HG22	1:E:198:ARG:HG2	1.96	0.46
1:E:89:ASN:HB3	1:E:192:ASN:HD21	1.80	0.46
1:E:172:THR:O	1:E:173:SER:OG	2.30	0.46
1:I:132:ARG:HH12	1:I:151:GLU:HG2	1.79	0.46
1:I:322:ILE:O	1:I:322:ILE:HG12	2.14	0.46
1:J:155:GLN:HA	1:J:350:VAL:HG21	1.97	0.46
1:J:192:ASN:C	1:J:192:ASN:HD22	2.19	0.46
1:J:490:LEU:HG	1:J:491:ASN:HD22	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:471:VAL:CG2	1:L:5:ALA:HB2	2.36	0.46
1:M:351:PHE:CD1	1:M:414:GLY:O	2.66	0.46
1:B:209:LEU:HD21	1:B:210:PRO:C	2.35	0.46
1:B:372:SER:O	1:B:375:ASN:N	2.47	0.46
1:C:383:ASN:ND2	1:C:420:GLU:HG3	2.30	0.46
1:D:65:ARG:HH12	1:D:213:LEU:CD2	2.28	0.46
1:E:17:ARG:NH1	1:G:423:LYS:HZ3	2.14	0.46
1:F:187:MET:HB2	1:F:199:ILE:CD1	2.42	0.46
1:F:368:LEU:O	1:F:368:LEU:HG	2.16	0.46
1:F:393:ASN:CG	1:F:393:ASN:O	2.54	0.46
1:H:107:THR:O	1:H:124:ALA:HB2	2.16	0.46
1:H:209:LEU:O	1:H:214:TRP:HZ3	1.97	0.46
1:H:286:ILE:HD13	1:H:286:ILE:HA	1.72	0.46
1:J:232:TRP:N	1:J:232:TRP:HD1	2.13	0.46
1:J:474:ASN:HA	1:J:475:THR:HA	1.63	0.46
1:K:83:HIS:ND1	1:K:250:ASP:HB2	2.31	0.46
1:M:79:ALA:HB2	1:M:90:LEU:HD11	1.95	0.46
1:M:85:GLY:HA3	1:M:86:ILE:HG22	1.97	0.46
1:M:325:LYS:NZ	1:M:325:LYS:HB3	2.31	0.46
2:N:88:SER:HB2	2:N:194:TYR:CD2	2.50	0.46
2:N:168:ASP:HB2	2:N:171:THR:HG21	1.96	0.46
1:A:55:ASN:OD1	1:A:55:ASN:N	2.47	0.46
1:A:249:ASN:OD1	1:A:254:ASN:O	2.32	0.46
1:B:73:TYR:HE2	1:B:200:THR:CA	2.29	0.46
1:B:84:ALA:HA	1:B:85:GLY:C	2.36	0.46
1:B:161:ASP:HA	1:B:162:GLY:HA2	1.61	0.46
1:B:400:ASN:OD1	1:B:400:ASN:O	2.33	0.46
1:D:84:ALA:HA	1:D:86:ILE:HB	1.97	0.46
1:D:247:ILE:C	1:D:249:ASN:H	2.18	0.46
1:D:386:ASN:ND2	1:D:387:LYS:HE2	2.30	0.46
1:E:92:GLN:CB	1:E:95:ARG:HG2	2.46	0.46
1:E:251:VAL:HG13	1:E:252:SER:N	2.30	0.46
1:E:365:GLN:CB	1:L:122:GLU:CG	2.93	0.46
1:F:421:LEU:HA	1:F:425:VAL:CG2	2.45	0.46
1:H:345:ILE:HD11	1:H:346:THR:CG2	2.46	0.46
1:I:63:LEU:H	1:I:223:ALA:HB2	1.79	0.46
1:J:332:GLN:OE1	1:J:333:SER:N	2.48	0.46
1:K:314:SER:O	1:K:315:ASN:HB2	2.16	0.46
1:L:155:GLN:HE22	1:L:413:GLU:HA	1.81	0.46
1:B:110:LEU:CD1	1:B:111:ASN:CA	2.93	0.46
1:B:401:GLY:O	1:B:402:VAL:CG2	2.62	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:83:HIS:NE2	1:C:256:THR:CG2	2.78	0.46
1:C:336:VAL:O	1:C:337:ILE:CD1	2.63	0.46
1:E:481:ILE:HD13	1:E:481:ILE:HA	1.79	0.46
1:G:386:ASN:ND2	1:G:387:LYS:HD3	2.31	0.46
1:I:2:SER:O	1:I:3:ASN:HB3	2.14	0.46
1:I:188:ASN:HD22	1:I:188:ASN:HA	1.57	0.46
1:I:195:THR:O	1:I:196:THR:HG22	2.16	0.46
1:J:42:SER:OG	1:J:42:SER:O	2.34	0.46
2:N:84:ILE:O	2:N:85:TYR:CD2	2.59	0.46
2:N:295:ILE:O	2:N:295:ILE:HG12	2.15	0.46
1:A:341:LEU:HD22	1:A:342:ASN:N	2.22	0.46
1:B:2:SER:O	1:B:3:ASN:CB	2.64	0.46
1:B:367:ILE:HD13	1:B:367:ILE:N	2.31	0.46
1:D:412:LEU:HD12	1:D:412:LEU:N	2.30	0.46
1:D:449:ASN:HD22	1:D:450:THR:N	2.13	0.46
1:F:69:ILE:HG12	1:F:70:GLN:N	2.31	0.46
1:G:317:VAL:CG2	1:G:319:LEU:CD1	2.93	0.46
1:H:6:ILE:N	1:H:6:ILE:CD1	2.30	0.46
1:H:190:VAL:HG13	1:H:198:ARG:HB3	1.96	0.46
1:J:134:HIS:O	1:J:135:THR:OG1	2.30	0.46
1:K:223:ALA:HA	1:K:224:ASN:HA	1.64	0.46
1:K:320:ASP:O	1:K:437:GLY:O	2.33	0.46
1:M:236:ASN:ND2	1:M:236:ASN:C	2.66	0.46
1:A:107:THR:OG1	1:A:232:TRP:HD1	1.98	0.46
1:A:311:THR:HA	1:A:446:THR:HA	1.97	0.46
1:C:60:GLN:OE1	1:C:60:GLN:N	2.49	0.46
1:C:95:ARG:HH11	1:C:95:ARG:HG3	1.78	0.46
1:C:158:ARG:HB2	1:C:246:ASP:HB3	1.97	0.46
1:C:320:ASP:OD1	1:C:320:ASP:N	2.47	0.46
1:E:29:VAL:HG21	1:F:500:TYR:CE2	2.51	0.46
1:G:265:GLN:O	1:G:267:PRO:CD	2.52	0.46
1:H:110:LEU:HD12	1:H:209:LEU:HD21	1.98	0.46
1:H:244:HIS:CB	1:H:346:THR:HG22	2.38	0.46
1:H:326:LEU:HD23	1:H:328:LEU:HD21	1.97	0.46
1:H:490:LEU:HB3	1:H:491:ASN:ND2	2.28	0.46
1:I:100:ALA:HB3	1:I:182:ARG:HH11	1.80	0.46
1:I:173:SER:HA	1:J:164:ASN:OD1	2.15	0.46
1:I:377:TYR:OH	1:I:381:VAL:HG21	2.16	0.46
1:J:100:ALA:CB	1:J:182:ARG:HD3	2.33	0.46
1:J:286:ILE:CG2	1:J:288:TYR:CZ	2.99	0.46
1:K:397:GLN:H	1:K:397:GLN:HE21	1.64	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:474:ASN:HA	1:K:475:THR:HA	1.45	0.46
2:N:86:SER:OG	2:N:196:ASN:HB3	2.16	0.46
2:N:234:GLN:HA	2:N:245:GLU:HB2	1.97	0.46
1:A:110:LEU:CD2	1:A:232:TRP:CZ2	2.99	0.46
1:B:89:ASN:ND2	1:D:402:VAL:N	2.64	0.46
1:B:172:THR:O	1:D:163:ALA:HB1	2.15	0.46
1:B:402:VAL:HG12	1:B:403:SER:N	2.29	0.46
1:B:441:LEU:HD22	1:B:442:GLN:N	2.31	0.46
1:C:203:LEU:HD23	1:C:203:LEU:H	1.80	0.46
1:C:298:THR:HG22	1:C:300:PHE:CE2	2.51	0.46
1:C:387:LYS:HA	1:C:387:LYS:CE	2.46	0.46
1:D:380:SER:HB2	1:D:383:ASN:CG	2.36	0.46
1:E:81:PRO:HA	1:E:82:SER:HA	1.65	0.46
1:E:165:ASN:OD1	1:G:171:PHE:CE1	2.68	0.46
1:F:311:THR:HB	1:F:446:THR:HG22	1.98	0.46
1:G:319:LEU:CD1	1:G:319:LEU:N	2.78	0.46
1:G:349:ASP:OD2	1:G:349:ASP:C	2.54	0.46
1:I:255:SER:CB	1:I:342:ASN:HB2	2.45	0.46
1:K:3:ASN:O	1:K:3:ASN:ND2	2.48	0.46
1:L:121:ILE:HD11	1:L:293:LEU:HG	1.98	0.46
1:M:262:ILE:N	1:M:262:ILE:HD12	2.30	0.46
1:A:250:ASP:O	1:A:251:VAL:CB	2.64	0.46
1:A:436:ILE:H	1:A:436:ILE:HG13	1.60	0.46
1:B:10:VAL:CG2	1:B:11:VAL:N	2.78	0.46
1:B:171:PHE:HB2	1:B:184:SER:CB	2.45	0.46
1:B:192:ASN:C	1:B:193:THR:HG23	2.36	0.46
1:B:330:VAL:O	1:B:351:PHE:HB3	2.16	0.46
1:C:506:ILE:O	1:C:506:ILE:HG12	2.16	0.46
1:D:244:HIS:HB2	1:D:345:ILE:CD1	2.46	0.46
1:E:19:GLU:CB	1:E:20:LEU:CA	2.94	0.46
1:E:106:ILE:HD11	1:E:238:LEU:H	1.80	0.46
1:E:300:PHE:CE2	1:E:312:PHE:HB3	2.51	0.46
1:E:474:ASN:HA	1:E:475:THR:HA	1.52	0.46
1:F:387:LYS:HA	1:F:387:LYS:HE2	1.98	0.46
1:G:343:ASN:C	1:G:343:ASN:ND2	2.54	0.46
1:H:41:PRO:HB3	1:H:266:GLN:NE2	2.31	0.46
1:I:3:ASN:HD22	1:I:4:SER:N	2.13	0.46
1:I:9:ASN:O	1:J:25:THR:HB	2.16	0.46
1:I:357:LEU:HD13	1:I:358:ASN:N	2.26	0.46
1:I:441:LEU:CD1	1:I:442:GLN:HA	2.46	0.46
1:J:466:TYR:N	1:J:466:TYR:HD2	2.13	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:57:PRO:C	1:K:58:SER:OG	2.54	0.46
1:M:205:GLU:HG2	1:M:206:GLN:N	2.30	0.46
2:N:75:TYR:HA	2:N:77:ASN:N	2.31	0.46
2:N:75:TYR:CA	2:N:76:PRO:C	2.78	0.46
1:A:305:ALA:HB2	1:A:455:THR:HA	1.98	0.46
1:B:15:GLU:HG3	1:D:31:GLY:HA3	1.98	0.46
1:B:21:ASN:ND2	1:B:21:ASN:O	2.49	0.46
1:B:22:ASN:N	1:B:22:ASN:ND2	2.64	0.46
1:B:228:LEU:O	1:B:229:THR:HG22	2.16	0.46
1:B:357:LEU:HD13	1:B:358:ASN:C	2.36	0.46
1:B:372:SER:C	1:B:374:GLN:N	2.70	0.46
1:C:22:ASN:N	1:C:22:ASN:ND2	2.64	0.46
1:D:341:LEU:CD2	1:D:341:LEU:C	2.68	0.46
1:F:134:HIS:CD2	1:F:507:TYR:CD2	3.04	0.46
1:H:238:LEU:HD22	1:H:262:ILE:CG1	2.42	0.46
1:H:336:VAL:O	1:H:337:ILE:HD13	2.16	0.46
1:H:337:ILE:O	1:H:337:ILE:CG1	2.61	0.46
1:H:386:ASN:HD22	1:H:386:ASN:C	2.19	0.46
1:I:223:ALA:HB1	1:I:224:ASN:HA	1.98	0.46
1:I:249:ASN:O	1:I:249:ASN:ND2	2.49	0.46
1:I:429:ASP:OD2	1:I:430:ASP:N	2.49	0.46
1:J:225:LEU:HD23	1:J:228:LEU:HB2	1.98	0.46
1:L:172:THR:O	1:L:173:SER:HB2	2.14	0.46
1:L:299:GLN:HE21	1:L:299:GLN:HB2	1.51	0.46
1:L:499:SER:O	1:L:502:GLU:N	2.41	0.46
1:M:102:PRO:CA	1:M:241:ILE:CD1	2.94	0.46
2:N:20:ILE:CG2	2:N:36:PHE:CD1	2.99	0.46
2:N:74:PRO:O	2:N:75:TYR:HB3	2.14	0.46
2:N:108:THR:O	2:N:109:SER:CB	2.64	0.46
2:N:226:ARG:O	2:N:228:LEU:HB2	2.16	0.46
1:A:341:LEU:O	1:A:344:GLN:N	2.48	0.45
1:B:73:TYR:CD1	1:B:203:LEU:HD21	2.51	0.45
1:B:321:SER:HB3	1:B:436:ILE:HA	1.98	0.45
1:D:360:THR:HB	1:D:365:GLN:HA	1.99	0.45
1:D:361:TRP:CH2	1:D:427:LEU:HD11	2.51	0.45
1:G:155:GLN:CD	1:G:350:VAL:HG21	2.36	0.45
1:H:1:MET:HE3	1:I:26:TRP:HB3	1.92	0.45
1:H:449:ASN:ND2	1:H:449:ASN:C	2.70	0.45
1:H:486:LYS:HZ2	1:H:486:LYS:CB	2.00	0.45
1:I:85:GLY:C	1:I:86:ILE:HD12	2.30	0.45
1:L:67:VAL:HG12	1:L:68:PHE:N	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:359:LEU:HD23	1:L:367:ILE:CG2	2.44	0.45
1:M:251:VAL:O	1:M:251:VAL:CG1	2.63	0.45
2:N:227:PHE:CD2	2:N:229:GLY:N	2.84	0.45
2:N:227:PHE:HE2	2:N:229:GLY:O	1.96	0.45
1:B:2:SER:C	1:B:3:ASN:ND2	2.70	0.45
1:B:187:MET:HE2	1:B:187:MET:HB3	1.72	0.45
1:B:334:ASP:OD1	1:B:461:TYR:OH	2.29	0.45
1:C:343:ASN:OD1	1:C:343:ASN:O	2.32	0.45
1:D:132:ARG:CG	1:D:132:ARG:NH1	2.72	0.45
1:D:507:TYR:CG	1:D:508:GLY:CA	2.99	0.45
1:E:1:MET:HE1	1:F:26:TRP:HB3	1.98	0.45
1:E:75:ILE:HD13	1:E:199:ILE:HD11	1.98	0.45
1:E:83:HIS:HA	1:E:254:ASN:OD1	2.17	0.45
1:E:102:PRO:HD3	1:E:148:PRO:HD2	1.97	0.45
1:E:339:GLN:O	1:E:343:ASN:HB2	2.15	0.45
1:E:423:LYS:HG2	1:F:15:GLU:HB2	1.97	0.45
1:F:35:VAL:CG1	1:F:36:THR:N	2.78	0.45
1:F:313:LYS:HB3	1:F:442:GLN:OE1	2.15	0.45
1:F:336:VAL:O	1:F:337:ILE:HG13	2.16	0.45
1:G:108:ASN:CA	1:G:235:ASN:OD1	2.64	0.45
1:G:265:GLN:NE2	1:G:265:GLN:CA	2.73	0.45
1:G:317:VAL:HG22	1:G:319:LEU:CD1	2.46	0.45
1:H:341:LEU:HA	1:H:344:GLN:CG	2.46	0.45
1:H:442:GLN:O	1:H:442:GLN:CG	2.65	0.45
1:I:86:ILE:HG21	1:I:256:THR:CG2	2.47	0.45
1:J:86:ILE:HD13	1:J:86:ILE:HA	1.77	0.45
1:J:186:THR:O	1:J:186:THR:OG1	2.30	0.45
1:L:257:ILE:H	1:L:257:ILE:CD1	2.13	0.45
1:M:13:VAL:CG1	1:M:14:GLN:N	2.79	0.45
1:M:222:LEU:H	1:M:222:LEU:CD2	2.23	0.45
2:N:242:TYR:CD2	2:N:242:TYR:N	2.84	0.45
1:B:326:LEU:HD23	1:B:326:LEU:C	2.37	0.45
1:B:396:THR:OG1	1:B:412:LEU:CD1	2.63	0.45
1:C:83:HIS:HE1	1:C:85:GLY:HA3	1.78	0.45
1:D:340:ASN:CB	2:N:28:ASP:OD1	2.53	0.45
1:D:351:PHE:O	1:D:414:GLY:N	2.49	0.45
1:E:157:TYR:CD2	1:E:346:THR:O	2.70	0.45
1:E:379:PHE:O	1:E:379:PHE:CD1	2.69	0.45
1:E:438:ASN:HD21	1:L:318:GLN:HE21	1.55	0.45
1:F:409:VAL:O	1:F:410:ILE:HD12	2.16	0.45
1:H:17:ARG:HH11	1:H:17:ARG:CG	2.12	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:412:LEU:CD1	1:H:412:LEU:N	2.78	0.45
1:I:258:GLY:HA2	1:I:259:SER:HA	1.72	0.45
1:I:336:VAL:HG13	1:I:337:ILE:HG23	1.99	0.45
1:J:364:GLN:NE2	1:J:367:ILE:CD1	2.63	0.45
1:J:430:ASP:C	1:J:430:ASP:OD1	2.55	0.45
1:K:231:ASN:N	1:K:231:ASN:HD22	2.14	0.45
1:L:352:LEU:HD12	1:L:352:LEU:N	2.31	0.45
1:L:506:ILE:O	1:L:506:ILE:CG2	2.64	0.45
1:M:214:TRP:H	1:M:214:TRP:HE3	1.51	0.45
1:M:293:LEU:HD22	1:M:465:VAL:HB	1.98	0.45
2:N:98:GLN:NE2	2:N:98:GLN:H	2.13	0.45
2:N:160:ALA:CB	2:N:182:TYR:HE2	2.29	0.45
1:A:89:ASN:CB	1:A:192:ASN:ND2	2.78	0.45
1:B:91:LEU:HD12	1:B:91:LEU:HA	1.50	0.45
1:C:83:HIS:CE1	1:C:250:ASP:OD2	2.70	0.45
1:C:327:TYR:CD1	1:C:327:TYR:N	2.83	0.45
1:D:140:LYS:HG2	1:D:179:GLU:CG	2.46	0.45
1:D:215:ASP:OD1	1:D:217:GLU:OE2	2.34	0.45
1:F:140:LYS:HG2	1:F:179:GLU:HG2	1.99	0.45
1:F:180:LEU:N	1:F:180:LEU:CD2	2.74	0.45
1:F:429:ASP:OD2	1:F:430:ASP:N	2.50	0.45
1:G:99:ARG:HH11	1:G:99:ARG:CG	2.30	0.45
1:G:363:ASN:OD1	1:G:363:ASN:O	2.35	0.45
1:H:81:PRO:HA	1:H:82:SER:HA	1.58	0.45
1:H:313:LYS:HG3	1:H:444:GLN:HG2	1.95	0.45
1:H:426:GLY:C	1:H:427:LEU:HD13	2.37	0.45
1:H:428:ARG:HG3	1:H:431:GLU:CD	2.35	0.45
1:I:1:MET:SD	1:J:26:TRP:HB3	2.56	0.45
1:I:353:GLN:HB2	1:I:393:ASN:HA	1.98	0.45
1:I:490:LEU:HD22	1:I:491:ASN:HB3	1.88	0.45
1:J:143:TRP:C	1:J:145:SER:H	2.18	0.45
1:J:324:ARG:HA	1:J:433:GLU:HB3	1.97	0.45
1:K:102:PRO:HD3	1:K:148:PRO:HG2	1.97	0.45
1:K:317:VAL:HG22	1:K:317:VAL:O	2.17	0.45
1:K:361:TRP:CZ3	1:K:441:LEU:HB2	2.44	0.45
1:K:438:ASN:HD22	1:K:439:PHE:N	2.14	0.45
1:K:441:LEU:HD22	1:K:442:GLN:N	2.31	0.45
1:L:251:VAL:HG13	1:L:252:SER:HG	1.82	0.45
1:L:327:TYR:CD1	1:L:416:ILE:HD11	2.45	0.45
1:L:359:LEU:CD2	1:L:367:ILE:CG2	2.95	0.45
1:M:121:ILE:HD12	1:M:121:ILE:N	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:474:ASN:HA	1:A:475:THR:HA	1.47	0.45
1:B:250:ASP:HA	1:B:251:VAL:HA	1.84	0.45
1:B:360:THR:CG2	1:B:442:GLN:O	2.65	0.45
1:C:68:PHE:HB2	1:C:206:GLN:HA	1.99	0.45
1:D:86:ILE:O	1:D:86:ILE:HG23	2.17	0.45
1:D:357:LEU:HD13	1:D:358:ASN:N	2.26	0.45
1:E:259:SER:HA	1:E:341:LEU:HD13	1.96	0.45
1:E:291:PHE:HD2	1:E:508:GLY:HA3	1.81	0.45
1:F:336:VAL:HG12	1:F:337:ILE:HG23	1.99	0.45
1:H:61:THR:HG23	1:H:275:THR:HB	1.98	0.45
1:H:436:ILE:CG1	1:H:437:GLY:CA	2.93	0.45
1:I:153:ASN:H	1:I:153:ASN:ND2	2.15	0.45
1:J:101:PHE:CD2	1:J:101:PHE:N	2.83	0.45
1:J:107:THR:OG1	1:J:232:TRP:HE3	1.98	0.45
1:J:209:LEU:CD2	1:J:212:PHE:HD2	2.30	0.45
1:K:33:GLN:O	1:K:34:GLN:CB	2.60	0.45
1:L:91:LEU:CD2	1:L:197:ALA:HB1	2.47	0.45
1:M:237:ASN:C	1:M:239:ALA:H	2.17	0.45
2:N:99:ASN:HD21	2:N:150:ALA:CB	2.17	0.45
1:A:84:ALA:HA	1:A:85:GLY:HA2	1.61	0.45
1:A:155:GLN:OE1	1:A:155:GLN:HA	2.17	0.45
1:B:363:ASN:O	1:B:364:GLN:NE2	2.50	0.45
1:D:342:ASN:CA	1:D:345:ILE:CG2	2.89	0.45
1:D:401:GLY:O	1:D:402:VAL:HG23	2.16	0.45
1:E:92:GLN:HB2	1:E:95:ARG:CG	2.46	0.45
1:F:35:VAL:HG22	1:F:274:VAL:HG22	1.98	0.45
1:F:110:LEU:HD13	1:F:209:LEU:CD1	2.46	0.45
1:G:244:HIS:HB2	1:G:345:ILE:HG13	1.97	0.45
1:H:257:ILE:HG21	1:H:345:ILE:CD1	2.47	0.45
1:H:310:SER:C	1:H:312:PHE:HE2	2.20	0.45
1:H:350:VAL:HG12	1:H:413:GLU:CA	2.47	0.45
1:I:106:ILE:HD11	1:I:238:LEU:N	2.32	0.45
1:I:195:THR:OG1	1:I:196:THR:CG2	2.65	0.45
1:I:377:TYR:CZ	1:I:381:VAL:HG21	2.52	0.45
1:J:99:ARG:HG3	1:J:100:ALA:N	2.31	0.45
1:K:96:ASP:OD2	1:K:96:ASP:N	2.49	0.45
1:K:158:ARG:HB2	1:K:158:ARG:NH1	2.04	0.45
1:L:132:ARG:O	1:L:386:ASN:OD1	2.35	0.45
1:L:364:GLN:HE21	1:L:365:GLN:N	2.09	0.45
1:M:341:LEU:O	1:M:345:ILE:HG23	2.17	0.45
1:M:346:THR:HG23	1:M:347:THR:N	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:474:ASN:HA	1:M:475:THR:HA	1.42	0.45
1:A:99:ARG:HH11	1:A:240:ARG:NH2	2.15	0.45
1:A:180:LEU:HD22	1:A:180:LEU:H	1.82	0.45
1:A:343:ASN:O	1:A:347:THR:HG23	2.16	0.45
1:B:83:HIS:HB3	1:B:254:ASN:HB3	1.98	0.45
1:B:287:THR:HB	1:B:471:VAL:HG22	1.98	0.45
1:B:337:ILE:CD1	1:B:338:TYR:HA	2.44	0.45
1:B:345:ILE:CG2	1:B:346:THR:HG22	2.47	0.45
1:D:434:GLY:O	1:D:482:GLY:HA2	2.17	0.45
1:E:44:SER:HB3	1:J:317:VAL:HB	1.97	0.45
1:E:316:VAL:CG1	1:E:440:ASN:HB3	2.46	0.45
1:E:403:SER:HA	1:E:404:GLY:HA2	1.70	0.45
1:F:365:GLN:OE1	1:F:366:GLY:O	2.35	0.45
1:G:62:VAL:HG12	1:G:223:ALA:HB2	1.99	0.45
1:G:378:ASP:O	1:G:381:VAL:HG12	2.14	0.45
1:G:469:THR:CG2	1:G:483:VAL:HG11	2.47	0.45
1:I:87:THR:HA	1:I:88:GLU:HA	1.58	0.45
1:J:96:ASP:HB2	1:J:242:TRP:HE1	1.81	0.45
1:L:26:TRP:CD1	1:L:26:TRP:C	2.90	0.45
1:L:393:ASN:O	1:L:393:ASN:CG	2.55	0.45
1:M:328:LEU:HG	1:M:443:VAL:HG11	1.99	0.45
2:N:87:VAL:HG11	2:N:147:LEU:HD22	1.98	0.45
2:N:271:LEU:CD2	2:N:336:ASP:OD1	2.64	0.45
1:A:171:PHE:HE2	1:A:180:LEU:HD12	1.82	0.45
1:B:92:GLN:HB2	1:B:95:ARG:HB2	1.95	0.45
1:C:217:GLU:O	1:C:217:GLU:OE2	2.35	0.45
1:D:264:PHE:O	1:D:265:GLN:NE2	2.48	0.45
1:D:362:ASN:O	1:D:364:GLN:OE1	2.35	0.45
1:D:387:LYS:HA	1:D:387:LYS:NZ	2.32	0.45
1:D:469:THR:O	1:D:469:THR:CG2	2.64	0.45
1:E:19:GLU:CB	1:E:20:LEU:HA	2.44	0.45
1:E:432:ALA:HB1	1:G:28:VAL:HG23	1.99	0.45
1:G:104:SER:HB3	1:G:205:GLU:OE1	2.17	0.45
1:H:375:ASN:HA	1:H:378:ASP:OD1	2.17	0.45
1:H:395:VAL:CG2	1:H:396:THR:N	2.72	0.45
1:I:428:ARG:HG2	1:I:428:ARG:NH1	2.29	0.45
1:J:129:ALA:HB1	1:J:416:ILE:HD12	1.99	0.45
1:J:386:ASN:ND2	1:J:386:ASN:O	2.48	0.45
1:K:437:GLY:C	1:K:439:PHE:CD2	2.90	0.45
1:M:165:ASN:HD22	1:M:165:ASN:N	2.10	0.45
1:M:318:GLN:HA	1:M:440:ASN:HB3	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:34:ALA:HB3	2:N:351:ILE:HG23	1.98	0.45
2:N:225:VAL:HG22	2:N:247:ILE:HD13	1.99	0.45
2:N:251:GLN:HG3	2:N:254:PRO:HD3	1.99	0.45
2:N:324:ILE:HG22	2:N:325:ASP:H	1.81	0.45
1:A:386:ASN:C	1:A:386:ASN:OD1	2.56	0.45
1:B:362:ASN:OD1	1:B:362:ASN:C	2.54	0.45
1:C:304:LEU:O	1:C:305:ALA:HB2	2.16	0.45
1:D:143:TRP:HB3	1:D:206:GLN:HE22	1.82	0.45
1:D:277:ARG:HG3	1:D:280:ILE:HG22	1.99	0.45
1:F:231:ASN:HD22	1:F:231:ASN:HA	1.60	0.45
1:G:140:LYS:HD3	1:G:140:LYS:HA	1.61	0.45
1:H:326:LEU:HD13	1:H:421:LEU:HD11	1.99	0.45
1:I:437:GLY:O	1:I:438:ASN:CB	2.65	0.45
1:J:393:ASN:HB3	1:J:394:GLY:CA	2.34	0.45
1:K:73:TYR:CD2	1:K:73:TYR:C	2.90	0.45
1:K:190:VAL:HG23	1:K:198:ARG:HB3	1.99	0.45
1:K:316:VAL:HG11	1:K:440:ASN:HD22	1.82	0.45
1:K:494:ILE:HD13	1:L:14:GLN:HG2	1.98	0.45
1:L:106:ILE:HD13	1:L:106:ILE:HA	1.71	0.45
1:M:486:LYS:H	1:M:486:LYS:HZ3	1.64	0.45
2:N:171:THR:HG1	2:N:173:LYS:N	2.12	0.45
1:A:305:ALA:HB3	1:A:455:THR:CA	2.43	0.45
1:B:3:ASN:ND2	1:B:3:ASN:N	2.64	0.45
1:C:75:ILE:O	1:C:198:ARG:HG2	2.16	0.45
1:D:266:GLN:HA	1:D:267:PRO:HD3	1.63	0.45
1:D:330:VAL:HG12	1:D:331:LYS:N	2.32	0.45
1:E:507:TYR:CG	1:E:508:GLY:N	2.85	0.45
1:F:188:ASN:HD22	1:F:189:VAL:N	2.15	0.45
1:G:378:ASP:CA	1:G:381:VAL:HG12	2.47	0.45
1:H:327:TYR:CD2	1:H:418:CYS:HB2	2.52	0.45
1:H:332:GLN:HG2	1:H:456:VAL:CG2	2.44	0.45
1:H:332:GLN:OE1	1:H:333:SER:N	2.50	0.45
1:I:360:THR:HG23	1:I:361:TRP:O	2.16	0.45
1:I:478:MET:H	1:I:478:MET:HG2	1.62	0.45
1:J:224:ASN:H	1:J:224:ASN:HD22	1.65	0.45
1:J:333:SER:O	1:J:337:ILE:HG23	2.17	0.45
1:K:249:ASN:OD1	1:K:250:ASP:N	2.49	0.45
1:L:32:GLY:HA3	1:L:276:PRO:HA	1.99	0.45
1:L:69:ILE:HG12	1:L:70:GLN:N	2.30	0.45
1:L:154:TYR:CG	1:L:160:ALA:HB2	2.51	0.45
1:L:218:GLN:NE2	1:M:382:GLN:CD	2.67	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:265:GLN:O	1:M:267:PRO:CD	2.53	0.45
1:A:117:PHE:HE1	1:A:119:VAL:HG22	1.81	0.44
1:A:249:ASN:HB2	1:A:255:SER:HB2	1.99	0.44
1:A:453:TYR:HA	1:A:454:VAL:HA	1.71	0.44
1:B:305:ALA:HB3	1:B:455:THR:CB	2.32	0.44
1:C:6:ILE:HG23	1:D:285:ARG:CD	2.47	0.44
1:C:373:SER:HA	1:C:376:LEU:HD12	1.99	0.44
1:D:22:ASN:N	1:D:22:ASN:HD22	2.15	0.44
1:D:85:GLY:HA2	1:D:86:ILE:HG22	2.00	0.44
1:D:133:TYR:OH	1:D:418:CYS:HB3	2.16	0.44
1:D:503:LEU:H	1:D:503:LEU:CD2	1.97	0.44
1:F:363:ASN:O	1:F:363:ASN:OD1	2.34	0.44
1:H:71:VAL:HB	1:H:267:PRO:HB3	1.97	0.44
1:H:345:ILE:HG12	1:H:346:THR:N	2.31	0.44
1:H:350:VAL:CG1	1:H:413:GLU:CA	2.93	0.44
1:I:1:MET:SD	1:J:26:TRP:CD1	3.10	0.44
1:I:304:LEU:HD13	1:I:304:LEU:N	2.32	0.44
1:I:367:ILE:CG2	1:I:368:LEU:HD12	2.38	0.44
1:K:242:TRP:HD1	1:K:345:ILE:HD11	1.82	0.44
1:M:6:ILE:H	1:M:6:ILE:CD1	2.15	0.44
1:M:341:LEU:CD1	1:M:345:ILE:HG23	2.47	0.44
1:M:411:GLY:C	1:M:412:LEU:HD12	2.19	0.44
2:N:52:PHE:CZ	2:N:368:LYS:HG3	2.52	0.44
2:N:74:PRO:O	2:N:75:TYR:HD1	2.00	0.44
2:N:104:ASP:HB2	2:N:107:LEU:CD1	2.47	0.44
2:N:185:ARG:HB2	2:N:226:ARG:HB3	1.99	0.44
2:N:185:ARG:HB2	2:N:224:ASP:OD1	2.16	0.44
2:N:242:TYR:N	2:N:242:TYR:HD2	2.15	0.44
2:N:268:VAL:HG13	2:N:338:TYR:HB2	1.97	0.44
2:N:333:TYR:HB2	2:N:334:MET:HE1	1.92	0.44
1:A:52:PHE:CD2	1:A:52:PHE:N	2.85	0.44
1:A:62:VAL:O	1:A:62:VAL:HG22	2.17	0.44
1:B:73:TYR:CE1	1:B:203:LEU:HD22	2.53	0.44
1:C:58:SER:OG	1:G:116:GLY:HA2	2.17	0.44
1:C:286:ILE:HD11	1:C:288:TYR:CE1	2.51	0.44
1:C:383:ASN:HD21	1:C:420:GLU:CG	2.27	0.44
1:D:100:ALA:HA	1:D:101:PHE:HA	1.83	0.44
1:E:60:GLN:O	1:E:60:GLN:HG2	2.18	0.44
1:G:430:ASP:OD1	1:G:490:LEU:HB2	2.16	0.44
1:I:143:TRP:CE3	1:I:216:GLY:HA2	2.52	0.44
1:J:258:GLY:HA2	1:J:259:SER:HA	1.75	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:282:ILE:HB	1:J:283:PRO:HD2	1.99	0.44
1:J:374:GLN:O	1:J:377:TYR:HB3	2.17	0.44
1:L:45:PHE:HA	1:L:49:GLN:O	2.17	0.44
1:M:42:SER:HB2	1:M:52:PHE:CE1	2.52	0.44
2:N:86:SER:N	2:N:196:ASN:OD1	2.42	0.44
2:N:303:VAL:HA	2:N:304:THR:HA	1.62	0.44
1:A:297:THR:HB	1:A:461:TYR:CD1	2.52	0.44
1:A:420:GLU:HB3	1:A:423:LYS:CB	2.47	0.44
1:B:77:PHE:HA	1:B:260:MET:HB3	2.00	0.44
1:B:106:ILE:O	1:B:235:ASN:HB3	2.17	0.44
1:B:317:VAL:C	1:B:318:GLN:HG2	2.36	0.44
1:B:320:ASP:O	1:B:437:GLY:O	2.36	0.44
1:B:411:GLY:C	1:B:412:LEU:HD12	2.26	0.44
1:C:163:ALA:HB1	1:D:173:SER:H	1.81	0.44
1:C:258:GLY:HA2	1:C:259:SER:HA	1.68	0.44
1:C:326:LEU:O	1:C:327:TYR:CD1	2.56	0.44
1:C:367:ILE:O	1:C:368:LEU:HB2	2.17	0.44
1:D:75:ILE:HG12	1:D:262:ILE:HG23	1.94	0.44
1:D:103:ILE:HD13	1:D:103:ILE:HA	1.90	0.44
1:F:302:ASN:OD1	1:F:302:ASN:N	2.50	0.44
1:H:300:PHE:HZ	1:H:460:MET:HG2	1.82	0.44
1:I:357:LEU:HB2	1:I:445:MET:HB2	2.00	0.44
1:I:377:TYR:HE1	1:I:389:TRP:CB	2.25	0.44
1:J:386:ASN:ND2	1:J:387:LYS:HE2	2.33	0.44
1:J:498:VAL:HG23	1:J:499:SER:C	2.37	0.44
1:L:83:HIS:HD2	1:L:86:ILE:HB	1.82	0.44
1:L:189:VAL:HG23	1:L:189:VAL:O	2.17	0.44
1:L:247:ILE:HG22	1:L:248:THR:N	2.33	0.44
1:L:385:TYR:O	1:L:385:TYR:CG	2.70	0.44
1:M:396:THR:CG2	1:M:412:LEU:HD21	2.47	0.44
2:N:77:ASN:C	2:N:77:ASN:ND2	2.71	0.44
2:N:85:TYR:HA	2:N:196:ASN:CG	2.34	0.44
2:N:225:VAL:CG2	2:N:247:ILE:HD12	2.48	0.44
1:B:262:ILE:HG12	1:B:263:SER:N	2.33	0.44
1:D:307:ASN:HA	1:D:449:ASN:O	2.16	0.44
1:D:336:VAL:HG22	1:D:337:ILE:N	2.25	0.44
1:E:1:MET:HE2	1:E:9:ASN:O	2.16	0.44
1:E:132:ARG:HG3	1:E:132:ARG:NH1	2.32	0.44
1:E:314:SER:O	1:E:442:GLN:HG3	2.18	0.44
1:E:438:ASN:CG	1:L:318:GLN:HE21	2.17	0.44
1:G:41:PRO:HA	1:G:268:SER:CB	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:378:ASP:OD2	1:G:378:ASP:C	2.55	0.44
1:G:393:ASN:ND2	1:G:393:ASN:C	2.71	0.44
1:H:324:ARG:O	1:H:324:ARG:HG3	2.18	0.44
1:H:364:GLN:HB3	1:H:365:GLN:H	1.53	0.44
1:H:437:GLY:O	1:H:439:PHE:CE2	2.71	0.44
1:H:494:ILE:HD12	1:H:494:ILE:H	1.82	0.44
1:J:222:LEU:HA	1:J:288:TYR:OH	2.17	0.44
1:K:334:ASP:O	1:K:335:ASN:C	2.55	0.44
1:K:496:HIS:HA	1:K:497:GLY:C	2.38	0.44
1:M:73:TYR:C	1:M:73:TYR:CD2	2.90	0.44
2:N:60:ILE:HD12	2:N:313:ILE:HG21	1.98	0.44
1:A:115:ASN:ND2	1:A:472:ILE:CG2	2.75	0.44
1:B:87:THR:C	1:B:88:GLU:CD	2.74	0.44
1:B:99:ARG:HH21	1:B:240:ARG:NH2	2.15	0.44
1:B:187:MET:HE1	1:B:242:TRP:CH2	2.53	0.44
1:B:326:LEU:CD2	1:B:328:LEU:HG	2.46	0.44
1:C:68:PHE:CB	1:C:206:GLN:HA	2.48	0.44
1:C:451:ASN:HD22	1:C:451:ASN:N	2.16	0.44
1:D:21:ASN:O	1:D:21:ASN:CG	2.54	0.44
1:D:337:ILE:O	1:D:337:ILE:CG1	2.58	0.44
1:E:2:SER:O	1:E:3:ASN:ND2	2.50	0.44
1:H:386:ASN:O	1:H:386:ASN:ND2	2.42	0.44
1:H:403:SER:HA	1:H:404:GLY:HA2	1.56	0.44
1:H:474:ASN:HA	1:H:475:THR:HA	1.44	0.44
1:I:91:LEU:CB	1:I:192:ASN:ND2	2.81	0.44
1:I:484:ALA:HB1	1:I:489:VAL:HG23	1.99	0.44
1:K:317:VAL:O	1:K:317:VAL:CG2	2.66	0.44
1:K:502:GLU:O	1:K:505:ARG:HB3	2.17	0.44
1:L:3:ASN:HD22	1:L:3:ASN:HA	1.52	0.44
1:L:172:THR:C	1:L:173:SER:OG	2.53	0.44
1:L:402:VAL:CG1	1:L:405:GLN:HG3	2.47	0.44
1:M:217:GLU:OE1	1:M:217:GLU:CA	2.65	0.44
1:M:262:ILE:HD12	1:M:262:ILE:H	1.82	0.44
1:M:437:GLY:O	1:M:439:PHE:HE2	1.90	0.44
2:N:129:PRO:HA	2:N:132:TYR:CZ	2.53	0.44
1:A:19:GLU:HB2	1:A:20:LEU:C	2.38	0.44
1:A:380:SER:CB	1:A:383:ASN:H	2.30	0.44
1:B:26:TRP:HA	1:B:26:TRP:CE3	2.52	0.44
1:C:84:ALA:HA	1:C:86:ILE:N	2.32	0.44
1:C:237:ASN:C	1:C:239:ALA:H	2.20	0.44
1:D:62:VAL:HG12	1:D:223:ALA:HB2	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:166:ASN:C	1:G:166:ASN:OD1	2.56	0.44
1:G:376:LEU:CB	1:G:379:PHE:HE2	2.31	0.44
1:I:194:THR:O	1:I:194:THR:HG23	2.18	0.44
1:K:298:THR:O	1:K:298:THR:CG2	2.66	0.44
1:K:397:GLN:HA	1:K:409:VAL:HA	1.99	0.44
1:M:353:GLN:O	1:M:447:VAL:HG23	2.17	0.44
1:A:19:GLU:N	1:A:20:LEU:HA	2.31	0.44
1:A:39:PRO:HB3	1:A:270:TYR:CZ	2.53	0.44
1:A:324:ARG:HG2	1:A:465:VAL:HG23	1.98	0.44
1:B:22:ASN:HD22	1:B:22:ASN:N	2.15	0.44
1:B:167:PRO:CD	1:B:168:LEU:N	2.79	0.44
1:B:252:SER:O	1:B:252:SER:OG	2.30	0.44
1:C:329:PHE:CD1	1:C:329:PHE:N	2.84	0.44
1:E:323:PRO:O	1:E:433:GLU:OE1	2.36	0.44
1:G:71:VAL:HG12	1:G:267:PRO:CB	2.48	0.44
1:G:250:ASP:CG	1:G:251:VAL:N	2.70	0.44
1:G:280:ILE:O	1:G:280:ILE:HG13	2.18	0.44
1:G:376:LEU:HB3	1:G:379:PHE:HE2	1.81	0.44
1:H:436:ILE:HG13	1:H:437:GLY:CA	2.35	0.44
1:I:127:ILE:CG2	1:I:128:HIS:N	2.80	0.44
1:I:270:TYR:C	1:I:271:LEU:HD23	2.38	0.44
1:I:379:PHE:CG	1:I:424:ASP:OD2	2.60	0.44
1:J:252:SER:HB3	1:J:254:ASN:HD21	1.81	0.44
1:K:73:TYR:CE2	1:K:199:ILE:HD12	2.43	0.44
1:M:102:PRO:CA	1:M:241:ILE:HD11	2.46	0.44
1:M:211:PRO:C	1:M:212:PHE:CD2	2.90	0.44
1:M:350:VAL:HG23	1:M:351:PHE:N	2.33	0.44
1:A:170:VAL:HG23	1:A:172:THR:O	2.18	0.44
1:A:260:MET:HE3	1:A:260:MET:HB2	1.84	0.44
1:B:244:HIS:CE1	1:B:257:ILE:HD11	2.53	0.44
1:B:385:TYR:CE2	1:B:387:LYS:CG	3.00	0.44
1:B:385:TYR:CD2	1:B:387:LYS:N	2.86	0.44
1:C:95:ARG:NE	1:C:248:THR:HG23	2.32	0.44
1:C:507:TYR:CD1	1:C:507:TYR:C	2.91	0.44
1:E:320:ASP:C	1:E:321:SER:OG	2.55	0.44
1:F:77:PHE:N	1:F:77:PHE:HD2	2.16	0.44
1:F:103:ILE:HG22	1:F:205:GLU:HG3	1.99	0.44
1:F:367:ILE:C	1:F:369:SER:N	2.71	0.44
1:G:41:PRO:HG3	1:L:46:SER:HB3	2.00	0.44
1:G:55:ASN:N	1:G:55:ASN:OD1	2.51	0.44
1:H:92:GLN:HB3	1:H:95:ARG:HD3	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:6:ILE:H	1:I:6:ILE:HD13	1.82	0.44
1:J:152:ASP:OD1	1:J:348:PRO:HB2	2.17	0.44
1:J:456:VAL:O	1:J:456:VAL:HG13	2.18	0.44
1:K:26:TRP:O	1:M:1:MET:HE1	2.18	0.44
1:L:301:GLN:HE21	1:L:301:GLN:H	1.61	0.44
1:L:321:SER:OG	1:L:434:GLY:O	2.36	0.44
1:L:392:PHE:CD2	1:L:415:GLY:HA3	2.52	0.44
1:M:488:GLU:HG3	1:M:489:VAL:N	2.33	0.44
2:N:315:PHE:CG	2:N:315:PHE:O	2.71	0.44
1:A:106:ILE:CD1	1:A:238:LEU:HG	2.48	0.44
1:A:161:ASP:HA	1:A:162:GLY:HA2	1.55	0.44
1:B:209:LEU:HD23	1:B:209:LEU:O	2.12	0.44
1:B:249:ASN:O	1:B:250:ASP:OD1	2.36	0.44
1:B:301:GLN:NE2	1:G:301:GLN:HB3	2.33	0.44
1:B:403:SER:HA	1:B:404:GLY:HA2	1.53	0.44
1:D:80:ASN:HD21	1:D:254:ASN:HB2	1.82	0.44
1:D:82:SER:C	1:D:254:ASN:HD21	2.22	0.44
1:D:158:ARG:HG3	1:D:247:ILE:HB	1.99	0.44
1:D:360:THR:O	1:D:360:THR:OG1	2.36	0.44
1:E:240:ARG:CG	1:E:240:ARG:NH1	2.78	0.44
1:E:339:GLN:O	1:E:340:ASN:CB	2.65	0.44
1:F:143:TRP:O	1:F:144:MET:C	2.55	0.44
1:F:206:GLN:O	1:F:207:VAL:C	2.56	0.44
1:G:72:PRO:HD2	1:G:266:GLN:O	2.17	0.44
1:G:133:TYR:CD2	1:G:416:ILE:HD11	2.52	0.44
1:H:85:GLY:O	1:H:86:ILE:HB	2.17	0.44
1:H:330:VAL:HG13	1:H:331:LYS:H	1.82	0.44
1:I:150:PHE:CD2	1:I:167:PRO:HA	2.53	0.44
1:I:412:LEU:O	1:I:413:GLU:CB	2.65	0.44
1:J:146:MET:O	1:J:185:TYR:OH	2.19	0.44
1:L:21:ASN:C	1:L:22:ASN:HD22	2.22	0.44
1:L:298:THR:HG21	1:L:314:SER:HB2	1.99	0.44
2:N:33:PRO:HB2	2:N:35:ILE:CD1	2.48	0.44
2:N:77:ASN:HD22	2:N:78:THR:N	2.16	0.44
1:A:22:ASN:HD22	1:A:22:ASN:H	1.61	0.43
1:A:399:PHE:HB3	1:A:407:THR:HB	2.00	0.43
1:B:190:VAL:HG23	1:B:198:ARG:HB2	1.97	0.43
1:B:258:GLY:HA2	1:B:259:SER:HA	1.68	0.43
1:B:421:LEU:O	1:B:425:VAL:HG12	2.18	0.43
1:C:21:ASN:HD22	1:C:21:ASN:N	2.06	0.43
1:C:170:VAL:O	1:C:172:THR:O	2.36	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:258:GLY:O	1:D:259:SER:CB	2.55	0.43
1:D:361:TRP:CZ2	1:D:421:LEU:CD2	3.01	0.43
1:E:257:ILE:HD12	1:E:257:ILE:HA	1.87	0.43
1:F:379:PHE:HA	1:F:380:SER:HA	1.65	0.43
1:F:449:ASN:C	1:F:449:ASN:ND2	2.70	0.43
1:H:41:PRO:HA	1:H:268:SER:HB3	2.00	0.43
1:H:263:SER:O	1:H:264:PHE:HD1	2.00	0.43
1:H:315:ASN:HA	1:K:41:PRO:HG2	1.99	0.43
1:I:286:ILE:H	1:I:286:ILE:HD13	1.82	0.43
1:J:140:LYS:NZ	1:J:179:GLU:OE2	2.51	0.43
1:L:257:ILE:HD13	1:L:345:ILE:CD1	2.46	0.43
1:M:110:LEU:O	1:M:110:LEU:HD13	2.18	0.43
1:M:133:TYR:HE2	1:M:416:ILE:HG13	1.83	0.43
1:M:338:TYR:N	1:M:338:TYR:HD2	2.13	0.43
2:N:64:ASN:HD22	2:N:64:ASN:HA	1.54	0.43
1:A:3:ASN:HD22	1:A:3:ASN:HA	1.60	0.43
1:B:92:GLN:HG3	1:B:93:PRO:HD2	1.99	0.43
1:C:110:LEU:HD23	1:C:232:TRP:CD2	2.53	0.43
1:D:1:MET:SD	1:D:10:VAL:HA	2.58	0.43
1:D:117:PHE:C	1:D:117:PHE:HD1	2.20	0.43
1:D:427:LEU:HA	1:D:427:LEU:HD13	1.62	0.43
1:F:474:ASN:HA	1:F:475:THR:HA	1.62	0.43
1:H:99:ARG:CZ	1:H:240:ARG:HH21	2.31	0.43
1:H:179:GLU:CD	1:J:177:LEU:CD2	2.81	0.43
1:H:386:ASN:C	1:H:386:ASN:ND2	2.72	0.43
1:I:126:ILE:HD13	1:I:293:LEU:HB3	2.01	0.43
1:M:300:PHE:C	1:M:301:GLN:NE2	2.70	0.43
2:N:235:ASP:HB3	2:N:236:PRO:C	2.38	0.43
1:A:108:ASN:HD21	1:A:109:THR:CG2	2.12	0.43
1:A:360:THR:HG23	1:A:442:GLN:HB3	2.00	0.43
1:B:184:SER:O	1:D:396:THR:HG22	2.18	0.43
1:B:192:ASN:HD22	1:B:193:THR:CA	2.29	0.43
1:C:77:PHE:HD2	1:C:197:ALA:HB3	1.83	0.43
1:C:249:ASN:HB2	1:C:255:SER:HA	2.00	0.43
1:D:187:MET:HG2	1:D:199:ILE:HD13	1.98	0.43
1:D:342:ASN:HA	1:D:345:ILE:HG22	1.96	0.43
1:D:379:PHE:HA	1:D:380:SER:HA	1.30	0.43
1:D:461:TYR:C	1:D:462:ILE:HG13	2.37	0.43
1:E:286:ILE:CD1	1:E:287:THR:N	2.77	0.43
1:E:423:LYS:HB3	1:E:424:ASP:OD2	2.19	0.43
1:F:92:GLN:CB	1:F:95:ARG:HD3	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:133:TYR:CZ	1:F:418:CYS:HB3	2.54	0.43
1:F:385:TYR:CE2	1:F:387:LYS:HB2	2.53	0.43
1:G:261:ASN:C	1:G:262:ILE:HD13	2.38	0.43
1:H:258:GLY:HA2	1:H:259:SER:HA	1.71	0.43
1:H:321:SER:O	1:H:322:ILE:C	2.55	0.43
1:H:398:GLN:HG3	1:J:170:VAL:HG11	2.00	0.43
1:I:140:LYS:HG2	1:I:179:GLU:CD	2.18	0.43
1:J:35:VAL:HG22	1:J:274:VAL:HG13	2.00	0.43
1:K:49:GLN:HE21	1:K:51:ASN:ND2	2.16	0.43
1:L:215:ASP:OD1	1:L:216:GLY:N	2.51	0.43
1:M:33:GLN:O	1:M:34:GLN:CB	2.66	0.43
1:A:86:ILE:HD13	1:A:86:ILE:HA	1.85	0.43
1:A:358:ASN:OD1	1:A:358:ASN:C	2.56	0.43
1:A:387:LYS:HD2	1:A:391:GLU:HG2	1.99	0.43
1:B:122:GLU:OE1	1:B:124:ALA:N	2.46	0.43
1:B:396:THR:O	1:B:410:ILE:HG13	2.17	0.43
1:C:374:GLN:NE2	1:D:146:MET:CE	2.81	0.43
1:C:420:GLU:O	1:C:424:ASP:HB3	2.18	0.43
1:E:228:LEU:O	1:E:229:THR:CG2	2.65	0.43
1:E:449:ASN:ND2	1:E:450:THR:N	2.66	0.43
1:F:106:ILE:HD12	1:F:241:ILE:CG1	2.31	0.43
1:F:219:ALA:O	1:F:220:GLY:C	2.57	0.43
1:F:380:SER:CB	1:F:383:ASN:H	2.31	0.43
1:G:63:LEU:HD22	1:G:64:ASP:N	2.33	0.43
1:H:59:ALA:O	1:H:60:GLN:HB3	2.19	0.43
1:H:108:ASN:C	1:H:108:ASN:ND2	2.71	0.43
1:H:217:GLU:H	1:H:217:GLU:HG2	1.49	0.43
1:I:307:ASN:OD1	1:I:307:ASN:N	2.51	0.43
1:I:350:VAL:H	1:I:350:VAL:HG13	1.53	0.43
1:I:379:PHE:HD1	1:I:379:PHE:C	2.22	0.43
1:J:78:THR:HG22	1:J:259:SER:O	2.18	0.43
1:J:86:ILE:O	1:J:86:ILE:CD1	2.61	0.43
1:J:322:ILE:CG2	1:J:361:TRP:CZ2	2.71	0.43
1:L:121:ILE:HG21	1:L:209:LEU:HB3	2.00	0.43
1:M:88:GLU:C	1:M:194:THR:HG22	2.19	0.43
1:M:209:LEU:HD12	1:M:210:PRO:C	2.36	0.43
2:N:29:GLN:C	2:N:29:GLN:CD	2.77	0.43
2:N:158:VAL:HB	2:N:159:GLY:H	1.41	0.43
1:A:113:THR:HA	1:A:118:PRO:HA	2.00	0.43
1:B:285:ARG:HG3	1:B:285:ARG:NH1	2.29	0.43
1:D:83:HIS:HE1	1:D:256:THR:HA	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:122:GLU:OE2	1:D:122:GLU:CA	2.67	0.43
1:D:187:MET:HG2	1:D:199:ILE:CD1	2.49	0.43
1:D:452:GLN:CA	1:D:452:GLN:NE2	2.79	0.43
1:E:108:ASN:C	1:E:108:ASN:ND2	2.71	0.43
1:E:340:ASN:HB2	1:E:343:ASN:H	1.84	0.43
1:F:320:ASP:HB3	1:F:436:ILE:HD13	1.99	0.43
1:F:367:ILE:C	1:F:369:SER:H	2.22	0.43
1:F:474:ASN:OD1	1:F:475:THR:HB	2.19	0.43
1:G:217:GLU:OE1	1:G:505:ARG:HG2	2.18	0.43
1:G:264:PHE:C	1:G:265:GLN:HE22	2.08	0.43
1:G:351:PHE:CD2	1:G:416:ILE:CG2	2.92	0.43
1:H:168:LEU:H	1:H:168:LEU:HG	1.69	0.43
1:H:307:ASN:N	1:H:307:ASN:OD1	2.51	0.43
1:H:311:THR:O	1:H:312:PHE:HD2	1.92	0.43
1:I:121:ILE:HD13	1:I:209:LEU:HB2	2.00	0.43
1:I:230:PHE:C	1:I:231:ASN:ND2	2.72	0.43
1:I:382:GLN:CD	1:I:423:LYS:NZ	2.72	0.43
1:J:306:PRO:HB3	1:J:452:GLN:O	2.18	0.43
1:J:393:ASN:N	1:J:394:GLY:CA	2.81	0.43
1:K:436:ILE:CG2	1:K:482:GLY:CA	2.68	0.43
1:L:2:SER:O	1:L:2:SER:OG	2.30	0.43
1:L:174:ALA:HB2	1:L:181:PRO:HD3	2.00	0.43
1:L:498:VAL:HG23	1:L:499:SER:H	1.83	0.43
2:N:289:ILE:O	2:N:290:ILE:C	2.54	0.43
1:B:108:ASN:O	1:B:122:GLU:OE1	2.37	0.43
1:C:34:GLN:HG2	1:G:118:PRO:HG2	2.01	0.43
1:C:123:LEU:CD2	1:C:127:ILE:CB	2.96	0.43
1:D:65:ARG:HB3	1:D:65:ARG:HH11	1.82	0.43
1:D:155:GLN:HG3	1:D:411:GLY:HA3	2.01	0.43
1:D:317:VAL:CG2	1:D:318:GLN:N	2.81	0.43
1:D:362:ASN:O	1:D:362:ASN:CG	2.57	0.43
1:D:459:ASP:C	1:D:459:ASP:OD2	2.56	0.43
1:E:12:ALA:HB3	1:G:494:ILE:HG22	2.00	0.43
1:E:322:ILE:N	1:E:439:PHE:HE1	2.17	0.43
1:E:494:ILE:H	1:E:494:ILE:HG13	1.58	0.43
1:F:89:ASN:ND2	1:G:402:VAL:C	2.72	0.43
1:F:335:ASN:ND2	1:F:336:VAL:N	2.67	0.43
1:F:380:SER:HB2	1:F:383:ASN:CG	2.39	0.43
1:F:403:SER:HA	1:F:404:GLY:HA2	1.78	0.43
1:G:87:THR:C	1:G:88:GLU:HG2	2.28	0.43
1:G:501:ASN:O	1:G:504:GLN:HB2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:143:TRP:C	1:H:145:SER:H	2.22	0.43
1:H:350:VAL:HG12	1:H:413:GLU:HA	2.00	0.43
1:I:135:THR:HG21	1:I:144:MET:CE	2.48	0.43
1:I:362:ASN:O	1:I:363:ASN:CB	2.65	0.43
1:J:151:GLU:HA	1:J:151:GLU:OE2	2.18	0.43
1:K:41:PRO:HA	1:K:268:SER:HB3	2.00	0.43
1:L:419:LEU:HB2	1:L:424:ASP:HB3	2.00	0.43
1:L:430:ASP:OD1	1:L:431:GLU:N	2.52	0.43
1:M:138:LYS:NZ	1:M:138:LYS:HB2	2.32	0.43
2:N:117:ALA:HA	2:N:118:PRO:HD3	1.71	0.43
1:A:135:THR:HA	1:A:136:PRO:HD3	1.88	0.43
1:B:87:THR:C	1:B:88:GLU:CG	2.86	0.43
1:C:55:ASN:HA	1:C:56:PRO:HD2	1.85	0.43
1:C:374:GLN:NE2	1:D:146:MET:HE2	2.34	0.43
1:C:385:TYR:CE2	1:C:387:LYS:HB3	2.54	0.43
1:E:333:SER:HB3	1:E:457:THR:OG1	2.18	0.43
1:E:336:VAL:HG22	1:E:337:ILE:N	2.34	0.43
1:G:337:ILE:HA	1:G:343:ASN:ND2	2.33	0.43
1:H:99:ARG:HH22	1:H:240:ARG:NH2	2.16	0.43
1:I:393:ASN:O	1:I:393:ASN:CG	2.57	0.43
1:K:63:LEU:C	1:K:63:LEU:HD22	2.39	0.43
1:M:121:ILE:HD13	1:M:209:LEU:HD22	2.00	0.43
1:M:501:ASN:O	1:M:504:GLN:HG2	2.19	0.43
2:N:84:ILE:HG23	2:N:85:TYR:CE2	2.54	0.43
2:N:140:LEU:HD22	2:N:165:PHE:HB3	2.00	0.43
1:A:383:ASN:HA	1:A:504:GLN:OE1	2.18	0.43
1:A:412:LEU:HD23	1:A:412:LEU:HA	1.83	0.43
1:A:428:ARG:HH11	1:A:428:ARG:HG2	1.83	0.43
1:B:93:PRO:HD3	1:D:401:GLY:HA3	2.00	0.43
1:C:52:PHE:CD2	1:C:52:PHE:N	2.87	0.43
1:C:143:TRP:C	1:C:145:SER:H	2.20	0.43
1:C:290:TYR:HB2	1:C:470:LEU:HB3	2.00	0.43
1:E:43:THR:HB	1:J:318:GLN:HB2	1.99	0.43
1:E:341:LEU:CG	1:E:342:ASN:N	2.81	0.43
1:G:43:THR:CG2	1:L:44:SER:H	2.29	0.43
1:H:120:ASN:C	1:H:120:ASN:HD22	2.22	0.43
1:H:437:GLY:O	1:H:439:PHE:CD2	2.71	0.43
1:I:428:ARG:O	1:I:431:GLU:HB2	2.18	0.43
1:J:429:ASP:OD2	1:J:430:ASP:N	2.52	0.43
1:K:69:ILE:HG12	1:K:70:GLN:N	2.34	0.43
1:K:111:ASN:OD1	1:K:111:ASN:C	2.57	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:483:VAL:C	1:L:1:MET:HB3	2.38	0.43
1:L:1:MET:O	1:L:3:ASN:N	2.42	0.43
1:L:412:LEU:O	1:L:413:GLU:HB3	2.19	0.43
1:M:110:LEU:C	1:M:110:LEU:HD22	2.38	0.43
2:N:108:THR:C	2:N:109:SER:OG	2.55	0.43
1:A:347:THR:HA	1:A:348:PRO:HD3	1.91	0.43
1:A:475:THR:HG1	1:E:38:TYR:HE2	1.65	0.43
1:C:262:ILE:HD12	1:C:262:ILE:N	2.34	0.43
1:D:140:LYS:HG3	1:D:179:GLU:HG2	2.00	0.43
1:D:409:VAL:HG11	1:D:452:GLN:OE1	2.18	0.43
1:E:55:ASN:HB3	1:E:56:PRO:HD2	2.00	0.43
1:E:148:PRO:HG3	1:E:185:TYR:CD1	2.52	0.43
1:E:258:GLY:HA2	1:E:341:LEU:HD12	1.74	0.43
1:E:322:ILE:HG21	1:E:427:LEU:HD21	2.01	0.43
1:F:187:MET:O	1:G:397:GLN:HB2	2.19	0.43
1:I:164:ASN:HD22	1:I:164:ASN:HA	1.60	0.43
1:K:61:THR:HG23	1:K:275:THR:CG2	2.40	0.43
1:K:394:GLY:HA3	1:K:412:LEU:HB2	2.01	0.43
1:L:1:MET:CG	1:M:26:TRP:CD1	3.02	0.43
1:L:362:ASN:C	1:L:364:GLN:H	2.21	0.43
1:M:65:ARG:HH11	1:M:65:ARG:CG	2.30	0.43
1:M:252:SER:N	1:M:253:GLY:CA	2.77	0.43
1:M:364:GLN:O	1:M:367:ILE:HD11	2.19	0.43
2:N:267:LEU:HD12	2:N:267:LEU:N	2.34	0.43
1:A:58:SER:O	1:A:59:ALA:CB	2.59	0.43
1:A:155:GLN:HG3	1:A:411:GLY:HA3	2.01	0.43
1:A:251:VAL:C	1:A:253:GLY:H	2.21	0.43
1:B:429:ASP:OD2	1:B:429:ASP:C	2.57	0.43
1:B:501:ASN:HD22	1:B:501:ASN:C	2.23	0.43
1:C:174:ALA:HB2	1:C:181:PRO:HD3	2.00	0.43
1:C:326:LEU:HD23	1:C:462:ILE:HG23	1.99	0.43
1:C:397:GLN:NE2	1:C:407:THR:CG2	2.82	0.43
1:E:73:TYR:CD1	1:E:73:TYR:C	2.89	0.43
1:F:121:ILE:HD11	1:F:293:LEU:H	1.84	0.43
1:F:412:LEU:HD12	1:F:412:LEU:HA	1.68	0.43
1:F:431:GLU:OE2	1:F:439:PHE:CZ	2.71	0.43
1:G:325:LYS:HB2	1:G:325:LYS:HE2	1.81	0.43
1:H:99:ARG:HH22	1:H:240:ARG:CZ	2.31	0.43
1:H:471:VAL:HG21	1:I:5:ALA:HB3	2.01	0.43
1:I:100:ALA:HB1	1:I:148:PRO:O	2.19	0.43
1:I:117:PHE:CE2	1:I:479:ALA:HB2	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:39:PRO:HB3	1:J:270:TYR:CZ	2.54	0.43
1:J:158:ARG:CG	1:J:158:ARG:NH1	2.76	0.43
1:J:189:VAL:O	1:J:189:VAL:HG13	2.19	0.43
1:J:343:ASN:O	1:J:347:THR:HG22	2.18	0.43
1:L:353:GLN:HB2	1:L:393:ASN:HA	2.01	0.43
1:L:380:SER:O	1:L:383:ASN:HB2	2.19	0.43
1:M:332:GLN:HE22	1:M:336:VAL:HG13	1.77	0.43
1:M:403:SER:HA	1:M:404:GLY:HA2	1.63	0.43
2:N:55:VAL:CG1	2:N:296:LEU:CD1	2.96	0.43
1:A:23:GLU:OE2	1:A:23:GLU:HA	2.14	0.42
1:A:100:ALA:HB2	1:A:182:ARG:HD2	2.00	0.42
1:A:304:LEU:O	1:A:305:ALA:HB2	2.19	0.42
1:A:307:ASN:HA	1:A:449:ASN:O	2.19	0.42
1:B:89:ASN:HD21	1:D:402:VAL:N	2.12	0.42
1:B:337:ILE:HD12	1:B:338:TYR:CD2	2.42	0.42
1:C:70:GLN:HE21	1:C:71:VAL:N	2.17	0.42
1:C:333:SER:HB3	1:C:457:THR:O	2.19	0.42
1:D:244:HIS:HD2	1:D:245:SER:O	2.02	0.42
1:E:13:VAL:CG1	1:E:14:GLN:N	2.82	0.42
1:E:99:ARG:HH22	1:E:240:ARG:CZ	2.32	0.42
1:E:293:LEU:N	1:E:293:LEU:HD23	2.34	0.42
1:F:318:GLN:C	1:F:319:LEU:HD23	2.40	0.42
1:G:92:GLN:CB	1:G:95:ARG:HB2	2.46	0.42
1:I:265:GLN:O	1:I:267:PRO:CD	2.58	0.42
1:J:379:PHE:C	1:J:379:PHE:CD2	2.91	0.42
1:K:1:MET:SD	1:L:26:TRP:CE2	3.12	0.42
1:L:88:GLU:O	1:L:194:THR:HB	2.19	0.42
1:L:215:ASP:OD2	1:L:217:GLU:HG2	2.19	0.42
1:L:336:VAL:O	1:L:339:GLN:OE1	2.37	0.42
1:M:147:GLN:O	1:M:148:PRO:C	2.54	0.42
2:N:139:PHE:O	2:N:142:MET:HB2	2.19	0.42
2:N:202:PHE:HB3	2:N:259:TRP:CZ2	2.54	0.42
2:N:231:ASN:OD1	2:N:248:GLN:O	2.37	0.42
1:A:30:LYS:NZ	1:A:30:LYS:HB3	2.34	0.42
1:A:209:LEU:HA	1:A:210:PRO:HD3	1.81	0.42
1:A:331:LYS:HG3	1:A:332:GLN:O	2.19	0.42
1:B:322:ILE:CG2	1:B:421:LEU:HD23	2.49	0.42
1:C:111:ASN:OD1	1:C:111:ASN:C	2.58	0.42
1:D:387:LYS:HA	1:D:387:LYS:HZ3	1.83	0.42
1:E:118:PRO:CD	1:J:117:PHE:CE2	3.01	0.42
1:E:153:ASN:N	1:E:153:ASN:ND2	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:41:PRO:HB2	1:F:266:GLN:HE21	1.84	0.42
1:H:217:GLU:OE2	1:H:505:ARG:HG2	2.18	0.42
1:H:236:ASN:OD1	1:H:237:ASN:OD1	2.36	0.42
1:H:385:TYR:HE2	1:H:387:LYS:HB2	1.83	0.42
1:J:443:VAL:O	1:J:443:VAL:HG12	2.18	0.42
1:K:63:LEU:HD21	1:K:271:LEU:HD12	2.01	0.42
1:L:30:LYS:NZ	1:L:30:LYS:HB3	2.33	0.42
1:L:204:TYR:CE1	1:M:374:GLN:HG2	2.54	0.42
1:L:251:VAL:O	1:L:251:VAL:CG1	2.67	0.42
1:M:291:PHE:HD1	1:M:467:ASP:OD2	2.02	0.42
1:M:392:PHE:CD2	1:M:415:GLY:HA3	2.54	0.42
2:N:12:GLU:N	2:N:13:PRO:HD2	2.33	0.42
2:N:171:THR:CB	2:N:172:GLU:HA	2.46	0.42
1:B:10:VAL:HG22	1:B:11:VAL:N	2.32	0.42
1:B:108:ASN:HB2	1:B:235:ASN:HA	2.02	0.42
1:B:154:TYR:CZ	1:B:165:ASN:ND2	2.88	0.42
1:C:266:GLN:HA	1:C:267:PRO:HD3	1.95	0.42
1:C:436:ILE:O	1:C:436:ILE:HG12	2.19	0.42
1:D:2:SER:O	1:D:3:ASN:CG	2.57	0.42
1:D:22:ASN:N	1:D:22:ASN:ND2	2.67	0.42
1:D:364:GLN:C	1:D:365:GLN:HG2	2.38	0.42
1:F:343:ASN:HD22	1:F:343:ASN:N	2.18	0.42
1:G:207:VAL:O	1:G:207:VAL:HG12	2.19	0.42
1:H:22:ASN:O	1:H:22:ASN:ND2	2.42	0.42
1:H:315:ASN:OD1	1:H:315:ASN:N	2.30	0.42
1:H:365:GLN:HA	1:H:366:GLY:HA2	1.61	0.42
1:L:332:GLN:NE2	1:L:456:VAL:HG23	2.35	0.42
1:L:357:LEU:CD1	1:L:358:ASN:CA	2.96	0.42
1:L:376:LEU:HA	1:L:379:PHE:CE2	2.54	0.42
1:M:217:GLU:N	1:M:217:GLU:CD	2.73	0.42
1:M:507:TYR:CG	1:M:508:GLY:HA3	2.50	0.42
2:N:166:PHE:CD1	2:N:166:PHE:C	2.93	0.42
1:A:230:PHE:CD2	1:A:230:PHE:N	2.87	0.42
1:A:302:ASN:OD1	1:A:302:ASN:N	2.52	0.42
1:A:386:ASN:OD1	1:A:386:ASN:O	2.38	0.42
1:B:41:PRO:HB2	1:B:266:GLN:OE1	2.19	0.42
1:B:377:TYR:CE1	1:B:389:TRP:HB2	2.55	0.42
1:C:310:SER:CB	1:C:312:PHE:CZ	3.02	0.42
1:C:483:VAL:CA	1:C:484:ALA:CB	2.97	0.42
1:D:104:SER:HB3	1:D:205:GLU:OE1	2.19	0.42
1:D:392:PHE:HD1	1:D:393:ASN:N	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:357:LEU:HD11	1:E:359:LEU:HB3	2.01	0.42
1:F:80:ASN:CB	1:F:258:GLY:O	2.66	0.42
1:F:322:ILE:HD11	1:F:435:VAL:HG12	2.01	0.42
1:H:212:PHE:HE2	1:H:230:PHE:HZ	1.63	0.42
1:H:254:ASN:OD1	1:H:254:ASN:N	2.52	0.42
1:H:365:GLN:NE2	1:L:370:GLY:CA	2.62	0.42
1:I:318:GLN:C	1:I:319:LEU:HD13	2.40	0.42
1:I:322:ILE:CD1	1:I:433:GLU:O	2.67	0.42
1:I:332:GLN:HG2	1:I:456:VAL:HG23	2.02	0.42
1:I:350:VAL:HB	1:I:413:GLU:CA	2.50	0.42
1:I:352:LEU:HD11	1:I:456:VAL:HG21	2.01	0.42
1:J:108:ASN:CA	1:J:235:ASN:HD21	2.20	0.42
1:J:157:TYR:CZ	1:J:348:PRO:HB3	2.55	0.42
1:K:494:ILE:O	1:K:494:ILE:HG13	2.18	0.42
1:L:100:ALA:HB2	1:L:182:ARG:HD3	2.01	0.42
1:M:166:ASN:C	1:M:166:ASN:OD1	2.57	0.42
2:N:357:ARG:HG3	2:N:358:ILE:N	2.33	0.42
1:B:32:GLY:H	1:C:18:LEU:HD21	1.84	0.42
1:B:204:TYR:CD1	1:D:374:GLN:HG2	2.55	0.42
1:B:228:LEU:C	1:B:229:THR:CG2	2.85	0.42
1:C:100:ALA:HA	1:C:101:PHE:HA	1.82	0.42
1:C:330:VAL:O	1:C:330:VAL:HG12	2.18	0.42
1:C:486:LYS:HB3	1:C:486:LYS:HE2	1.37	0.42
1:C:488:GLU:CD	1:C:489:VAL:CA	2.85	0.42
1:D:283:PRO:HA	1:D:284:PRO:HD3	1.90	0.42
1:D:334:ASP:O	1:D:335:ASN:C	2.56	0.42
1:E:59:ALA:O	1:E:60:GLN:HB3	2.19	0.42
1:E:108:ASN:C	1:E:108:ASN:HD22	2.21	0.42
1:F:335:ASN:HD21	1:F:336:VAL:HG23	1.84	0.42
1:G:100:ALA:HA	1:G:101:PHE:HA	1.89	0.42
1:G:353:GLN:O	1:G:353:GLN:HG3	2.19	0.42
1:I:110:LEU:HD22	1:I:111:ASN:N	2.14	0.42
1:I:146:MET:O	1:I:185:TYR:HE2	2.03	0.42
1:I:481:ILE:HD13	1:I:481:ILE:H	1.83	0.42
1:J:106:ILE:HD13	1:J:106:ILE:HA	1.78	0.42
1:J:133:TYR:CE2	1:J:418:CYS:HB3	2.55	0.42
1:J:192:ASN:ND2	1:J:192:ASN:C	2.73	0.42
1:J:330:VAL:HG23	1:J:460:MET:HG3	2.00	0.42
1:K:81:PRO:HA	1:K:82:SER:HA	1.79	0.42
1:K:126:ILE:HD11	1:K:295:ARG:HG2	2.01	0.42
1:K:235:ASN:HD21	1:K:237:ASN:HB2	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:351:PHE:HE1	1:K:413:GLU:OE2	2.02	0.42
1:L:99:ARG:NH2	1:L:240:ARG:NH2	2.56	0.42
1:L:332:GLN:CD	1:L:456:VAL:HG23	2.40	0.42
1:L:379:PHE:CD1	1:L:424:ASP:OD2	2.72	0.42
1:M:318:GLN:N	1:M:318:GLN:NE2	2.63	0.42
1:M:364:GLN:C	1:M:367:ILE:HD11	2.40	0.42
1:M:397:GLN:HE21	1:M:397:GLN:C	2.23	0.42
1:M:420:GLU:HB3	1:M:423:LYS:HB3	2.01	0.42
1:M:486:LYS:N	1:M:486:LYS:HD3	2.33	0.42
2:N:182:TYR:HA	2:N:183:TYR:HA	1.75	0.42
2:N:227:PHE:HD2	2:N:229:GLY:N	2.16	0.42
1:A:1:MET:SD	1:A:10:VAL:HG13	2.60	0.42
1:A:41:PRO:HA	1:A:268:SER:HB3	2.01	0.42
1:A:111:ASN:CG	1:A:111:ASN:O	2.57	0.42
1:B:71:VAL:HA	1:B:72:PRO:HD3	1.84	0.42
1:B:103:ILE:O	1:B:103:ILE:HG13	2.19	0.42
1:C:4:SER:OG	1:C:6:ILE:O	2.30	0.42
1:C:507:TYR:CG	1:C:508:GLY:HA3	2.54	0.42
1:D:261:ASN:O	1:D:262:ILE:HD12	2.20	0.42
1:D:373:SER:O	1:D:374:GLN:C	2.58	0.42
1:D:474:ASN:HA	1:D:475:THR:HA	1.45	0.42
1:E:89:ASN:HB3	1:E:192:ASN:ND2	2.34	0.42
1:E:303:THR:HG21	1:E:457:THR:HG23	1.90	0.42
1:E:322:ILE:HD13	1:E:439:PHE:CE1	2.52	0.42
1:F:265:GLN:O	1:F:267:PRO:HD3	2.20	0.42
1:F:396:THR:HG21	1:F:412:LEU:HD22	2.00	0.42
1:G:1:MET:SD	1:G:8:LEU:O	2.78	0.42
1:G:365:GLN:O	1:G:365:GLN:CG	2.66	0.42
1:I:207:VAL:HG22	1:I:232:TRP:HZ2	1.84	0.42
1:I:430:ASP:OD1	1:I:490:LEU:HD12	2.19	0.42
1:J:328:LEU:N	1:J:328:LEU:HD12	2.34	0.42
1:K:330:VAL:HG11	1:K:447:VAL:HG21	2.02	0.42
1:K:362:ASN:N	1:K:362:ASN:HD22	2.18	0.42
1:L:362:ASN:C	1:L:364:GLN:N	2.71	0.42
1:M:59:ALA:O	1:M:60:GLN:HB2	2.15	0.42
2:N:51:TYR:HA	2:N:366:ILE:O	2.18	0.42
2:N:82:ASN:HA	2:N:102:GLN:HA	2.02	0.42
2:N:143:ILE:HG12	2:N:203:PHE:CZ	2.51	0.42
1:B:1:MET:H2	1:B:7:PRO:CB	2.28	0.42
1:B:210:PRO:HA	1:B:211:PRO:C	2.39	0.42
1:B:305:ALA:HB1	1:B:306:PRO:HA	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:385:TYR:CD2	1:B:385:TYR:C	2.93	0.42
1:B:387:LYS:HD2	1:B:387:LYS:HA	1.77	0.42
1:C:15:GLU:OE1	1:D:423:LYS:CB	2.67	0.42
1:C:474:ASN:HA	1:C:475:THR:HA	1.51	0.42
1:E:4:SER:O	1:E:5:ALA:C	2.58	0.42
1:E:43:THR:C	1:E:44:SER:OG	2.57	0.42
1:E:228:LEU:C	1:E:229:THR:CG2	2.87	0.42
1:F:106:ILE:CD1	1:F:238:LEU:HD12	2.45	0.42
1:F:132:ARG:NH1	1:F:413:GLU:OE2	2.53	0.42
1:F:494:ILE:HG21	1:G:14:GLN:HE21	1.84	0.42
1:G:111:ASN:HD22	1:G:231:ASN:HB2	1.85	0.42
1:G:258:GLY:HA2	1:G:259:SER:HA	1.80	0.42
1:H:22:ASN:HD22	1:H:22:ASN:C	2.16	0.42
1:H:100:ALA:HB2	1:H:182:ARG:CD	2.50	0.42
1:H:427:LEU:HD13	1:H:427:LEU:N	2.34	0.42
1:J:81:PRO:HA	1:J:82:SER:HA	1.79	0.42
1:J:135:THR:HA	1:J:136:PRO:HD3	1.55	0.42
1:J:317:VAL:HG22	1:J:319:LEU:HD23	2.01	0.42
1:J:376:LEU:HA	1:J:379:PHE:CE1	2.54	0.42
1:J:405:GLN:HA	1:J:405:GLN:HE21	1.83	0.42
1:K:125:GLN:NE2	1:K:295:ARG:NH1	2.66	0.42
1:L:204:TYR:CD1	1:M:374:GLN:HG2	2.55	0.42
1:L:361:TRP:CZ3	1:L:441:LEU:HB3	2.54	0.42
1:M:60:GLN:O	1:M:276:PRO:HD2	2.20	0.42
1:M:228:LEU:C	1:M:229:THR:HG22	2.40	0.42
1:M:271:LEU:HD23	1:M:271:LEU:N	2.34	0.42
1:A:66:LEU:C	1:A:66:LEU:HD23	2.40	0.42
1:A:87:THR:CA	1:A:88:GLU:OE1	2.68	0.42
1:A:275:THR:OG1	1:J:363:ASN:ND2	2.53	0.42
1:B:19:GLU:N	1:B:19:GLU:CD	2.73	0.42
1:B:39:PRO:HB3	1:B:270:TYR:CZ	2.53	0.42
1:B:89:ASN:OD1	1:D:400:ASN:O	2.37	0.42
1:B:129:ALA:HB1	1:B:416:ILE:HD12	2.01	0.42
1:B:342:ASN:O	1:B:346:THR:CG2	2.67	0.42
1:C:89:ASN:CG	1:C:192:ASN:ND2	2.73	0.42
1:C:161:ASP:HA	1:C:162:GLY:HA2	1.61	0.42
1:C:488:GLU:CG	1:C:489:VAL:N	2.82	0.42
1:D:100:ALA:HB2	1:D:182:ARG:HD3	2.02	0.42
1:D:325:LYS:H	1:D:465:VAL:HG23	1.85	0.42
1:E:399:PHE:O	1:G:93:PRO:HA	2.19	0.42
1:G:5:ALA:CA	1:G:6:ILE:C	2.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:159:ASP:OD2	1:G:160:ALA:HA	2.20	0.42
1:H:80:ASN:CB	1:H:258:GLY:O	2.55	0.42
1:H:95:ARG:HE	1:H:248:THR:HG22	1.84	0.42
1:H:430:ASP:OD1	1:H:490:LEU:HA	2.13	0.42
1:I:35:VAL:HG22	1:I:274:VAL:HG13	2.02	0.42
1:J:57:PRO:C	1:L:363:ASN:OD1	2.58	0.42
1:J:87:THR:HA	1:J:88:GLU:HA	1.68	0.42
1:J:213:LEU:HD12	1:J:213:LEU:C	2.32	0.42
1:M:67:VAL:HG12	1:M:68:PHE:N	2.35	0.42
1:M:258:GLY:HA2	1:M:259:SER:HA	1.83	0.42
1:M:286:ILE:HG13	1:M:287:THR:H	1.85	0.42
1:M:298:THR:HG22	1:M:299:GLN:N	2.34	0.42
1:M:334:ASP:O	1:M:335:ASN:C	2.57	0.42
1:M:503:LEU:HA	1:M:503:LEU:HD23	1.79	0.42
2:N:21:LEU:C	2:N:21:LEU:HD12	2.40	0.42
2:N:225:VAL:O	2:N:249:MET:SD	2.77	0.42
1:A:4:SER:O	1:A:5:ALA:C	2.58	0.42
1:A:328:LEU:HD11	1:A:419:LEU:HD22	2.02	0.42
1:A:355:ASN:O	1:A:373:SER:HB3	2.19	0.42
1:A:428:ARG:CG	1:A:428:ARG:NH1	2.78	0.42
1:B:6:ILE:HD13	1:C:285:ARG:CD	2.43	0.42
1:B:193:THR:O	1:B:194:THR:C	2.55	0.42
1:B:332:GLN:HE21	1:B:456:VAL:HG23	1.77	0.42
1:C:33:GLN:OE1	1:C:33:GLN:N	2.50	0.42
1:C:207:VAL:O	1:C:207:VAL:CG1	2.68	0.42
1:C:313:LYS:HE3	1:C:442:GLN:HG2	2.02	0.42
1:C:374:GLN:O	1:C:378:ASP:OD1	2.38	0.42
1:F:22:ASN:C	1:F:22:ASN:HD22	2.23	0.42
1:F:87:THR:O	1:F:88:GLU:HB2	2.19	0.42
1:F:265:GLN:C	1:F:267:PRO:HD3	2.39	0.42
1:F:506:ILE:CD1	1:F:506:ILE:C	2.79	0.42
1:G:73:TYR:CD2	1:G:75:ILE:HD11	2.52	0.42
1:G:159:ASP:OD2	1:G:160:ALA:CA	2.68	0.42
1:H:114:ILE:HG22	1:H:115:ASN:HB2	2.02	0.42
1:I:262:ILE:CG2	1:I:263:SER:N	2.64	0.42
1:I:474:ASN:HA	1:I:475:THR:HA	1.78	0.42
1:J:1:MET:HE2	1:J:1:MET:HB3	1.94	0.42
1:J:252:SER:C	1:J:254:ASN:H	2.23	0.42
1:K:50:PHE:HZ	1:K:264:PHE:CD2	2.38	0.42
1:L:45:PHE:O	1:L:45:PHE:CG	2.72	0.42
1:L:449:ASN:OD1	1:L:456:VAL:HG12	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:255:THR:CB	2:N:257:SER:HB2	2.39	0.42
1:A:75:ILE:HD13	1:A:199:ILE:HD11	2.02	0.42
1:A:158:ARG:HG3	1:A:159:ASP:N	2.35	0.42
1:A:314:SER:O	1:A:442:GLN:NE2	2.53	0.42
1:B:82:SER:C	1:B:84:ALA:N	2.73	0.42
1:B:83:HIS:NE2	1:B:86:ILE:HB	2.35	0.42
1:B:249:ASN:HB2	1:B:255:SER:HA	2.02	0.42
1:C:6:ILE:HG23	1:D:285:ARG:HD3	2.02	0.42
1:C:291:PHE:N	1:C:291:PHE:CD1	2.88	0.42
1:C:377:TYR:HE1	1:C:389:TRP:CB	2.29	0.42
1:D:80:ASN:OD1	1:D:80:ASN:C	2.58	0.42
1:D:397:GLN:O	1:D:397:GLN:HG2	2.20	0.42
1:E:161:ASP:HA	1:E:162:GLY:HA2	1.63	0.42
1:E:286:ILE:HD13	1:E:287:THR:N	2.26	0.42
1:H:99:ARG:CZ	1:H:240:ARG:NH2	2.82	0.42
1:J:153:ASN:ND2	1:J:153:ASN:N	2.65	0.42
1:J:392:PHE:CD2	1:J:415:GLY:HA2	2.55	0.42
1:K:59:ALA:CA	1:K:60:GLN:HE21	2.31	0.42
1:L:420:GLU:HB3	1:L:423:LYS:HB3	2.01	0.42
1:L:474:ASN:HA	1:L:475:THR:HA	1.58	0.42
1:A:95:ARG:HH11	1:A:95:ARG:CG	2.32	0.41
1:C:33:GLN:O	1:C:34:GLN:CB	2.68	0.41
1:C:73:TYR:CD2	1:C:73:TYR:C	2.93	0.41
1:C:118:PRO:HD2	1:M:369:SER:OG	2.20	0.41
1:C:460:MET:HE2	1:C:460:MET:HB2	1.64	0.41
1:D:96:ASP:OD1	1:D:244:HIS:ND1	2.53	0.41
1:D:505:ARG:HA	1:D:505:ARG:HD3	1.83	0.41
1:F:325:LYS:NZ	1:F:420:GLU:CG	2.82	0.41
1:G:209:LEU:CD2	1:G:209:LEU:N	2.83	0.41
1:G:470:LEU:HD11	1:G:472:ILE:HG13	2.02	0.41
1:G:490:LEU:O	1:G:491:ASN:HB2	2.19	0.41
1:H:73:TYR:O	1:H:200:THR:HG22	2.19	0.41
1:H:93:PRO:HA	1:I:399:PHE:HB2	2.02	0.41
1:H:456:VAL:HG13	1:H:456:VAL:O	2.19	0.41
1:H:487:GLU:CG	1:H:488:GLU:N	2.60	0.41
1:J:209:LEU:HD21	1:J:212:PHE:CD2	2.55	0.41
1:J:327:TYR:O	1:J:328:LEU:HG	2.20	0.41
1:K:363:ASN:HD22	1:K:363:ASN:HA	1.61	0.41
1:K:388:THR:HG23	1:K:391:GLU:CG	2.50	0.41
1:L:115:ASN:OD1	1:L:475:THR:HG23	2.20	0.41
1:L:423:LYS:HA	1:M:15:GLU:CD	2.40	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:449:ASN:HD22	1:L:449:ASN:C	2.14	0.41
1:L:465:VAL:O	1:L:465:VAL:CG2	2.67	0.41
1:M:13:VAL:HG12	1:M:14:GLN:N	2.35	0.41
1:A:135:THR:HG22	1:A:139:VAL:CB	2.48	0.41
1:A:261:ASN:N	1:A:261:ASN:ND2	2.69	0.41
1:A:322:ILE:HD11	1:A:431:GLU:HG2	2.01	0.41
1:A:422:GLY:HA3	1:A:433:GLU:OE2	2.20	0.41
1:A:481:ILE:HG22	1:F:365:GLN:HG3	1.94	0.41
1:B:100:ALA:HB1	1:B:148:PRO:O	2.21	0.41
1:B:244:HIS:CG	1:B:245:SER:H	2.38	0.41
1:B:334:ASP:O	1:B:337:ILE:HG23	2.20	0.41
1:B:379:PHE:HA	1:B:380:SER:HA	1.44	0.41
1:C:375:ASN:ND2	1:C:376:LEU:N	2.68	0.41
1:D:264:PHE:CA	1:D:265:GLN:NE2	2.82	0.41
1:E:344:GLN:HG2	1:E:344:GLN:H	1.45	0.41
1:F:106:ILE:CD1	1:F:238:LEU:HA	2.50	0.41
1:F:361:TRP:CG	1:F:362:ASN:N	2.88	0.41
1:F:379:PHE:CD1	1:F:424:ASP:OD2	2.73	0.41
1:G:198:ARG:NH1	1:G:198:ARG:CG	2.82	0.41
1:G:209:LEU:HA	1:G:210:PRO:HD3	1.89	0.41
1:G:408:LYS:NZ	1:G:408:LYS:N	2.63	0.41
1:H:345:ILE:CD1	1:H:346:THR:HG22	2.50	0.41
1:H:387:LYS:NZ	1:H:391:GLU:OE2	2.40	0.41
1:H:397:GLN:HG2	1:H:398:GLN:H	1.84	0.41
1:I:98:PHE:O	1:I:182:ARG:HD2	2.20	0.41
1:I:209:LEU:HA	1:I:210:PRO:HD3	1.83	0.41
1:J:127:ILE:CG2	1:J:128:HIS:N	2.83	0.41
1:K:2:SER:O	1:K:3:ASN:CB	2.64	0.41
1:K:9:ASN:O	1:L:25:THR:HB	2.19	0.41
1:M:133:TYR:HE2	1:M:416:ILE:CG1	2.33	0.41
1:M:158:ARG:CG	1:M:158:ARG:NH1	2.69	0.41
1:M:341:LEU:HD11	1:M:345:ILE:CG2	2.50	0.41
2:N:194:TYR:CD1	2:N:219:ARG:HB2	2.55	0.41
2:N:234:GLN:HB3	2:N:245:GLU:H	1.85	0.41
2:N:304:THR:HG23	2:N:306:GLY:H	1.85	0.41
1:A:343:ASN:HD22	1:A:343:ASN:HA	1.54	0.41
1:B:101:PHE:HD1	1:B:147:GLN:HG3	1.84	0.41
1:B:111:ASN:HA	1:B:120:ASN:HB2	2.02	0.41
1:B:325:LYS:HB3	1:B:325:LYS:HZ2	1.85	0.41
1:C:478:MET:N	1:C:478:MET:HE3	2.36	0.41
1:D:43:THR:HG21	1:D:53:ILE:CG2	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:252:SER:H	1:D:253:GLY:CA	2.33	0.41
1:D:499:SER:C	1:D:501:ASN:ND2	2.73	0.41
1:E:155:GLN:CG	1:E:451:ASN:HB2	2.50	0.41
1:F:4:SER:HB3	1:F:6:ILE:O	2.21	0.41
1:H:143:TRP:O	1:H:145:SER:N	2.54	0.41
1:H:206:GLN:H	1:H:206:GLN:HG2	1.58	0.41
1:J:4:SER:OG	1:J:6:ILE:O	2.35	0.41
1:K:49:GLN:HE21	1:K:51:ASN:HD21	1.68	0.41
1:K:403:SER:HA	1:K:404:GLY:HA2	1.50	0.41
1:L:251:VAL:O	1:L:252:SER:CB	2.68	0.41
2:N:20:ILE:HD11	2:N:335:VAL:CG2	2.49	0.41
2:N:55:VAL:HG11	2:N:296:LEU:HD12	2.01	0.41
2:N:188:THR:C	2:N:190:PRO:HD3	2.40	0.41
1:A:73:TYR:HE1	1:A:201:GLY:C	2.24	0.41
1:A:133:TYR:OH	1:A:418:CYS:HB3	2.21	0.41
1:A:380:SER:HB3	1:A:385:TYR:HB2	2.02	0.41
1:B:187:MET:CE	1:B:242:TRP:CZ3	3.03	0.41
1:B:244:HIS:CD2	1:B:257:ILE:HG12	2.54	0.41
1:C:143:TRP:CH2	1:C:216:GLY:O	2.73	0.41
1:C:313:LYS:HE3	1:C:442:GLN:CG	2.50	0.41
1:C:423:LYS:HD2	1:C:423:LYS:O	2.20	0.41
1:C:495:THR:OG1	1:C:497:GLY:HA3	2.20	0.41
1:D:357:LEU:HD12	1:D:357:LEU:O	2.06	0.41
1:D:469:THR:HG22	1:D:483:VAL:HG11	2.03	0.41
1:E:56:PRO:O	1:E:56:PRO:CG	2.68	0.41
1:E:475:THR:O	1:E:476:SER:HB3	2.20	0.41
1:F:286:ILE:HG23	1:F:287:THR:N	2.35	0.41
1:G:336:VAL:CG2	1:G:337:ILE:N	2.83	0.41
1:G:430:ASP:OD1	1:G:490:LEU:HD12	2.21	0.41
1:H:17:ARG:NH1	1:H:17:ARG:CG	2.74	0.41
1:I:107:THR:HA	1:I:234:LEU:HA	2.02	0.41
1:I:350:VAL:CG2	1:I:413:GLU:HA	2.51	0.41
1:J:222:LEU:HA	1:J:288:TYR:CZ	2.55	0.41
1:J:231:ASN:C	1:J:232:TRP:CD1	2.93	0.41
1:K:119:VAL:O	1:K:119:VAL:HG12	2.20	0.41
1:K:187:MET:O	1:L:397:GLN:HG3	2.20	0.41
1:L:28:VAL:HG23	1:M:432:ALA:HB1	2.02	0.41
1:L:61:THR:HG21	1:L:273:PHE:HB3	2.02	0.41
1:L:322:ILE:H	1:L:322:ILE:HG12	1.48	0.41
1:L:360:THR:HB	1:L:364:GLN:O	2.21	0.41
1:L:490:LEU:HD23	1:L:490:LEU:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:332:GLN:HG2	1:M:456:VAL:CG2	2.50	0.41
2:N:66:PRO:HA	2:N:134:TYR:HD1	1.84	0.41
2:N:353:ILE:HA	2:N:354:PRO:HD2	1.80	0.41
2:N:372:LYS:O	2:N:373:TYR:C	2.58	0.41
1:A:69:ILE:HG13	1:A:70:GLN:N	2.36	0.41
1:A:490:LEU:HD23	1:A:491:ASN:N	2.36	0.41
1:B:78:THR:HG23	1:B:259:SER:O	2.20	0.41
1:B:186:THR:C	1:D:397:GLN:OE1	2.58	0.41
1:B:230:PHE:CD2	1:B:230:PHE:N	2.88	0.41
1:B:374:GLN:CD	1:B:374:GLN:C	2.78	0.41
1:C:13:VAL:HG12	1:C:14:GLN:N	2.35	0.41
1:C:15:GLU:CD	1:D:423:LYS:HB2	2.40	0.41
1:C:79:ALA:HB3	1:C:195:THR:HA	2.02	0.41
1:C:95:ARG:CG	1:C:95:ARG:NH1	2.67	0.41
1:C:331:LYS:HG2	1:C:461:TYR:CE2	2.54	0.41
1:C:358:ASN:O	1:C:444:GLN:O	2.38	0.41
1:C:371:ALA:HB1	1:C:375:ASN:ND2	2.36	0.41
1:D:52:PHE:HE1	1:D:267:PRO:O	2.03	0.41
1:D:217:GLU:HG2	1:D:217:GLU:H	1.46	0.41
1:D:507:TYR:CG	1:D:508:GLY:HA3	2.55	0.41
1:E:86:ILE:HD11	1:E:194:THR:HG1	1.75	0.41
1:E:148:PRO:HD3	1:E:185:TYR:CE1	2.56	0.41
1:F:89:ASN:HD21	1:G:403:SER:N	2.18	0.41
1:G:374:GLN:CG	1:G:375:ASN:N	2.83	0.41
1:H:341:LEU:HD13	1:H:345:ILE:HG23	2.02	0.41
1:I:1:MET:HE2	1:I:1:MET:HB3	1.90	0.41
1:I:207:VAL:CG2	1:I:232:TRP:HZ2	2.32	0.41
1:J:58:SER:OG	1:J:59:ALA:O	2.37	0.41
1:K:89:ASN:N	1:K:89:ASN:ND2	2.58	0.41
1:L:9:ASN:ND2	1:L:9:ASN:H	2.19	0.41
1:L:250:ASP:OD2	1:L:251:VAL:O	2.39	0.41
1:L:279:ASN:OD1	1:L:279:ASN:O	2.39	0.41
1:L:339:GLN:O	1:L:339:GLN:CG	2.68	0.41
1:L:449:ASN:C	1:L:449:ASN:ND2	2.73	0.41
1:M:505:ARG:O	1:M:506:ILE:C	2.56	0.41
2:N:291:ASN:C	2:N:291:ASN:ND2	2.74	0.41
1:A:77:PHE:HA	1:A:260:MET:HB3	2.03	0.41
1:A:320:ASP:OD1	1:F:442:GLN:NE2	2.44	0.41
1:B:79:ALA:CB	1:B:195:THR:HA	2.46	0.41
1:B:430:ASP:OD2	1:B:431:GLU:N	2.53	0.41
1:C:288:TYR:HB3	1:C:289:PRO:HD2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1:MET:SD	1:D:10:VAL:CA	3.08	0.41
1:D:86:ILE:HD13	1:D:86:ILE:HA	1.88	0.41
1:F:246:ASP:OD1	1:F:246:ASP:C	2.57	0.41
1:G:6:ILE:CD1	1:G:6:ILE:O	2.55	0.41
1:I:379:PHE:CD1	1:I:380:SER:N	2.86	0.41
1:J:389:TRP:O	1:J:389:TRP:CG	2.73	0.41
1:K:161:ASP:HA	1:K:162:GLY:HA2	1.73	0.41
1:K:236:ASN:ND2	1:K:236:ASN:C	2.74	0.41
1:L:286:ILE:HD13	1:L:287:THR:N	2.34	0.41
1:L:393:ASN:C	1:L:393:ASN:HD22	2.22	0.41
1:L:432:ALA:HB3	1:L:435:VAL:HG23	2.01	0.41
1:L:499:SER:O	1:L:501:ASN:N	2.53	0.41
1:M:158:ARG:HB2	1:M:246:ASP:CB	2.48	0.41
2:N:33:PRO:HB2	2:N:35:ILE:HD12	2.02	0.41
2:N:96:SER:HB3	2:N:154:ILE:CD1	2.50	0.41
1:A:380:SER:HB2	1:A:383:ASN:HB2	2.02	0.41
1:B:40:PHE:N	1:B:40:PHE:CD2	2.88	0.41
1:C:101:PHE:HE1	1:C:149:SER:OG	2.02	0.41
1:C:397:GLN:HE21	1:C:407:THR:CG2	2.34	0.41
1:D:73:TYR:CD2	1:D:75:ILE:CD1	3.01	0.41
1:E:134:HIS:CD2	1:E:134:HIS:N	2.88	0.41
1:E:158:ARG:HH11	1:E:158:ARG:HB3	1.80	0.41
1:F:351:PHE:CD1	1:F:414:GLY:HA3	2.56	0.41
1:G:1:MET:CB	1:G:2:SER:CA	2.76	0.41
1:G:353:GLN:HB2	1:G:393:ASN:HA	2.02	0.41
1:G:378:ASP:C	1:G:381:VAL:HG12	2.40	0.41
1:H:146:MET:HB3	1:I:374:GLN:OE1	2.21	0.41
1:H:155:GLN:H	1:H:412:LEU:HA	1.86	0.41
1:H:246:ASP:HA	1:H:249:ASN:HD22	1.83	0.41
1:I:143:TRP:CZ3	1:I:216:GLY:HA2	2.56	0.41
1:J:107:THR:O	1:J:124:ALA:HB2	2.20	0.41
1:J:318:GLN:N	1:J:318:GLN:HE21	2.18	0.41
1:J:322:ILE:CG2	1:J:431:GLU:OE1	2.69	0.41
1:J:403:SER:HA	1:J:404:GLY:HA2	1.70	0.41
1:K:235:ASN:ND2	1:K:237:ASN:H	2.19	0.41
1:K:397:GLN:NE2	1:M:186:THR:HA	2.36	0.41
1:M:111:ASN:HB2	1:M:120:ASN:HB2	2.03	0.41
1:M:153:ASN:ND2	1:M:154:TYR:CD2	2.89	0.41
1:M:336:VAL:HA	1:M:339:GLN:NE2	2.33	0.41
1:M:339:GLN:H	1:M:339:GLN:HG2	1.74	0.41
1:M:372:SER:O	1:M:375:ASN:HB3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:385:TYR:O	1:M:386:ASN:CG	2.59	0.41
1:A:358:ASN:ND2	1:A:444:GLN:HB3	2.36	0.41
1:B:297:THR:OG1	1:B:298:THR:N	2.54	0.41
1:B:324:ARG:NH1	1:B:324:ARG:CG	2.61	0.41
1:C:451:ASN:HD22	1:C:451:ASN:H	1.68	0.41
1:D:361:TRP:CZ3	1:D:427:LEU:CD1	3.04	0.41
1:E:277:ARG:HB3	1:E:279:ASN:ND2	2.36	0.41
1:E:326:LEU:HD21	1:E:441:LEU:HD11	2.03	0.41
1:E:472:ILE:O	1:E:472:ILE:HG13	2.21	0.41
1:F:41:PRO:CB	1:F:266:GLN:HE21	2.34	0.41
1:F:62:VAL:O	1:F:62:VAL:CG2	2.68	0.41
1:F:280:ILE:HA	1:F:281:PRO:HD3	1.92	0.41
1:F:396:THR:HG21	1:F:412:LEU:CD2	2.51	0.41
1:F:436:ILE:O	1:F:436:ILE:HG13	2.20	0.41
1:G:133:TYR:O	1:G:384:GLY:O	2.39	0.41
1:G:209:LEU:C	1:G:209:LEU:CD2	2.54	0.41
1:G:372:SER:O	1:G:375:ASN:HB3	2.21	0.41
1:H:262:ILE:HG22	1:H:263:SER:H	1.85	0.41
1:H:345:ILE:CD1	1:H:346:THR:CG2	2.98	0.41
1:H:412:LEU:HD12	1:H:412:LEU:H	1.84	0.41
1:I:357:LEU:O	1:I:357:LEU:HD12	2.18	0.41
1:K:379:PHE:C	1:K:379:PHE:HD1	2.24	0.41
1:K:397:GLN:NE2	1:K:397:GLN:N	2.69	0.41
1:K:412:LEU:HD22	1:K:412:LEU:HA	1.88	0.41
1:K:427:LEU:HD12	1:K:427:LEU:HA	1.97	0.41
1:K:489:VAL:O	1:K:490:LEU:C	2.59	0.41
1:L:102:PRO:HG2	1:L:203:LEU:HD22	2.02	0.41
2:N:185:ARG:N	2:N:225:VAL:HG13	2.36	0.41
2:N:202:PHE:HB3	2:N:259:TRP:CE2	2.55	0.41
2:N:263:LYS:O	2:N:264:THR:HG22	2.21	0.41
2:N:339:VAL:HB	2:N:351:ILE:CG2	2.50	0.41
1:A:1:MET:HE2	1:A:9:ASN:C	2.41	0.41
1:A:132:ARG:HH11	1:A:132:ARG:HG3	1.76	0.41
1:A:320:ASP:CG	1:F:442:GLN:HE22	2.23	0.41
1:A:432:ALA:HB3	1:A:435:VAL:HG13	2.03	0.41
1:B:187:MET:CE	1:B:242:TRP:CH2	3.04	0.41
1:C:68:PHE:HB3	1:C:206:GLN:HB2	2.03	0.41
1:C:99:ARG:NH1	1:C:99:ARG:CG	2.67	0.41
1:C:136:PRO:HD2	1:C:139:VAL:HB	2.03	0.41
1:C:313:LYS:HZ2	1:C:313:LYS:C	2.19	0.41
1:C:364:GLN:OE1	1:D:34:GLN:NE2	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:487:GLU:H	1:C:487:GLU:HG2	1.56	0.41
1:C:495:THR:OG1	1:C:497:GLY:CA	2.69	0.41
1:C:503:LEU:HD22	1:C:503:LEU:C	2.25	0.41
1:D:423:LYS:C	1:D:424:ASP:OD1	2.58	0.41
1:E:2:SER:C	1:E:3:ASN:HD22	2.24	0.41
1:E:56:PRO:O	1:E:56:PRO:HD2	2.21	0.41
1:E:64:ASP:C	1:E:64:ASP:OD1	2.60	0.41
1:E:258:GLY:HA3	1:E:341:LEU:HD11	1.80	0.41
1:E:301:GLN:HB2	1:E:302:ASN:ND2	2.15	0.41
1:E:423:LYS:CG	1:F:15:GLU:HB2	2.51	0.41
1:F:101:PHE:CD2	1:F:101:PHE:N	2.89	0.41
1:F:207:VAL:HG22	1:F:232:TRP:CZ2	2.56	0.41
1:F:496:HIS:CE1	1:G:22:ASN:HB3	2.55	0.41
1:G:192:ASN:HD22	1:G:193:THR:N	2.16	0.41
1:G:247:ILE:HG23	1:G:248:THR:N	2.35	0.41
1:G:381:VAL:O	1:G:381:VAL:HG22	2.17	0.41
1:H:122:GLU:C	1:H:122:GLU:CD	2.79	0.41
1:H:319:LEU:HD23	1:H:323:PRO:HD3	2.03	0.41
1:I:27:VAL:HG13	1:I:27:VAL:O	2.20	0.41
1:I:69:ILE:HG12	1:I:70:GLN:N	2.36	0.41
1:I:132:ARG:NH1	1:I:132:ARG:CG	2.76	0.41
1:I:313:LYS:HE2	1:I:313:LYS:HB2	1.46	0.41
1:I:328:LEU:O	1:I:329:PHE:HB3	2.20	0.41
1:I:356:ASN:O	1:I:446:THR:CG2	2.69	0.41
1:I:475:THR:O	1:I:475:THR:CG2	2.69	0.41
1:J:73:TYR:CD1	1:J:203:LEU:HD22	2.55	0.41
1:J:90:LEU:HD22	1:J:90:LEU:H	1.86	0.41
1:J:120:ASN:O	1:J:120:ASN:ND2	2.53	0.41
1:K:4:SER:HB3	1:M:483:VAL:HG23	2.02	0.41
1:K:57:PRO:O	1:K:58:SER:OG	2.36	0.41
1:K:114:ILE:CG2	1:K:472:ILE:HD11	2.51	0.41
1:K:439:PHE:N	1:K:439:PHE:HD2	2.13	0.41
1:K:497:GLY:O	1:K:498:VAL:O	2.39	0.41
1:L:374:GLN:HA	1:L:389:TRP:CZ3	2.55	0.41
1:L:432:ALA:HB2	1:L:489:VAL:HG11	2.02	0.41
1:L:498:VAL:HG23	1:L:499:SER:N	2.35	0.41
1:M:140:LYS:HE3	1:M:140:LYS:HB2	1.79	0.41
2:N:213:TYR:CD1	2:N:213:TYR:C	2.92	0.41
1:A:261:ASN:N	1:A:261:ASN:HD22	2.19	0.41
1:A:438:ASN:HB3	1:F:316:VAL:HG21	2.03	0.41
1:C:32:GLY:HA2	1:C:277:ARG:HG2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:41:PRO:HD2	1:G:44:SER:O	2.21	0.41
1:C:310:SER:OG	1:C:312:PHE:CZ	2.71	0.41
1:C:316:VAL:CG1	1:C:317:VAL:N	2.84	0.41
1:D:252:SER:N	1:D:253:GLY:CA	2.82	0.41
1:D:372:SER:O	1:D:375:ASN:CB	2.69	0.41
1:E:339:GLN:C	1:E:340:ASN:CG	2.71	0.41
1:G:285:ARG:HB3	1:G:473:SER:HB2	2.03	0.41
1:H:106:ILE:CD1	1:H:241:ILE:CD1	2.98	0.41
1:J:99:ARG:HH21	1:J:240:ARG:NE	2.17	0.41
1:J:161:ASP:HA	1:J:162:GLY:HA2	1.66	0.41
1:K:238:LEU:HD13	1:K:238:LEU:HA	1.76	0.41
1:K:329:PHE:CE2	1:K:461:TYR:CD2	3.09	0.41
1:L:99:ARG:HD3	1:L:243:SER:CB	2.35	0.41
1:M:70:GLN:O	1:M:70:GLN:HG3	2.21	0.41
1:M:137:LEU:HD23	1:M:137:LEU:HA	1.89	0.41
1:A:100:ALA:HB2	1:A:182:ARG:HD3	2.02	0.40
1:A:137:LEU:HD23	1:A:137:LEU:HA	1.68	0.40
1:A:274:VAL:HG12	1:A:275:THR:N	2.36	0.40
1:B:82:SER:C	1:B:84:ALA:H	2.25	0.40
1:B:107:THR:OG1	1:B:232:TRP:HD1	2.04	0.40
1:B:119:VAL:HG13	1:B:119:VAL:O	2.21	0.40
1:C:20:LEU:O	1:C:24:ARG:NH2	2.54	0.40
1:E:4:SER:O	1:E:6:ILE:O	2.39	0.40
1:E:63:LEU:HD22	1:E:64:ASP:N	2.37	0.40
1:E:109:THR:HG23	1:E:233:VAL:CG1	2.51	0.40
1:F:124:ALA:O	1:F:125:GLN:HB2	2.21	0.40
1:F:350:VAL:HG23	1:F:351:PHE:N	2.35	0.40
1:G:360:THR:O	1:G:360:THR:OG1	2.30	0.40
1:H:1:MET:SD	1:I:26:TRP:HB3	2.61	0.40
1:I:1:MET:SD	1:I:10:VAL:CA	3.08	0.40
1:I:155:GLN:NE2	1:I:350:VAL:HG21	2.35	0.40
1:I:264:PHE:HA	1:I:265:GLN:NE2	2.35	0.40
1:I:338:TYR:HD2	1:I:338:TYR:HA	1.55	0.40
1:J:87:THR:HG22	1:J:88:GLU:CB	2.45	0.40
1:J:89:ASN:O	1:J:90:LEU:C	2.59	0.40
1:J:498:VAL:CG2	1:J:499:SER:CA	2.94	0.40
1:K:15:GLU:HG3	1:L:31:GLY:HA3	2.03	0.40
1:K:53:ILE:HG23	1:K:53:ILE:O	2.21	0.40
1:K:79:ALA:CB	1:K:195:THR:HA	2.51	0.40
1:K:501:ASN:O	1:K:504:GLN:HG3	2.21	0.40
1:L:228:LEU:HD23	1:L:228:LEU:HA	1.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:302:ASN:HD21	1:M:312:PHE:HE2	1.68	0.40
1:M:346:THR:HG22	1:M:347:THR:N	2.35	0.40
2:N:340:TYR:CD1	2:N:350:LEU:HA	2.56	0.40
1:B:11:VAL:HG23	1:D:27:VAL:HG22	2.04	0.40
1:B:352:LEU:HD13	1:B:352:LEU:N	2.36	0.40
1:B:463:VAL:HG13	1:B:464:ALA:N	2.36	0.40
1:C:251:VAL:HG23	1:C:252:SER:H	1.84	0.40
1:C:322:ILE:H	1:C:322:ILE:HG12	1.51	0.40
1:C:478:MET:CE	1:L:34:GLN:NE2	2.74	0.40
1:D:132:ARG:NH1	1:D:151:GLU:CG	2.77	0.40
1:D:247:ILE:O	1:D:250:ASP:OD2	2.39	0.40
1:D:322:ILE:HD12	1:D:432:ALA:O	2.20	0.40
1:E:209:LEU:HA	1:E:210:PRO:HD3	1.82	0.40
1:F:507:TYR:HD1	1:F:508:GLY:C	2.16	0.40
1:G:72:PRO:HB2	1:G:265:GLN:HB2	2.03	0.40
1:G:122:GLU:OE2	1:G:295:ARG:NH1	2.54	0.40
1:G:367:ILE:CD1	1:G:367:ILE:N	2.83	0.40
1:H:25:THR:HB	1:J:9:ASN:O	2.21	0.40
1:H:41:PRO:HB2	1:H:266:GLN:NE2	2.37	0.40
1:H:110:LEU:HD23	1:H:232:TRP:CE2	2.55	0.40
1:H:397:GLN:NE2	1:J:189:VAL:HB	2.36	0.40
1:H:491:ASN:ND2	1:H:491:ASN:N	2.68	0.40
1:I:20:LEU:HD13	1:J:286:ILE:HG13	2.03	0.40
1:I:314:SER:CB	1:I:443:VAL:N	2.63	0.40
1:I:379:PHE:C	1:I:379:PHE:CD1	2.94	0.40
1:J:285:ARG:HB2	1:J:473:SER:OG	2.20	0.40
1:J:399:PHE:HA	1:J:407:THR:HB	2.02	0.40
1:K:428:ARG:HH11	1:K:428:ARG:CG	2.28	0.40
2:N:74:PRO:O	2:N:75:TYR:CB	2.69	0.40
2:N:83:THR:OG1	2:N:101:VAL:HG12	2.21	0.40
2:N:109:SER:HB3	2:N:110:PRO:C	2.37	0.40
1:A:6:ILE:H	1:A:6:ILE:HG13	1.53	0.40
1:A:102:PRO:C	1:A:104:SER:H	2.24	0.40
1:A:137:LEU:HD22	1:A:137:LEU:C	2.42	0.40
1:A:315:ASN:ND2	1:A:315:ASN:N	2.69	0.40
1:C:92:GLN:HE21	1:C:248:THR:CG2	2.23	0.40
1:C:140:LYS:HA	1:C:140:LYS:HD3	1.81	0.40
1:D:16:PRO:O	1:D:18:LEU:N	2.54	0.40
1:D:82:SER:HB2	1:D:254:ASN:CG	2.41	0.40
1:D:503:LEU:O	1:D:506:ILE:CG1	2.66	0.40
1:E:305:ALA:HB2	1:E:455:THR:HG23	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:77:PHE:HD2	1:F:77:PHE:H	1.70	0.40
1:F:483:VAL:O	1:G:3:ASN:HB2	2.22	0.40
1:G:143:TRP:C	1:G:145:SER:N	2.75	0.40
1:I:360:THR:O	1:I:441:LEU:HD22	2.21	0.40
1:J:100:ALA:HA	1:J:101:PHE:HA	1.89	0.40
1:K:147:GLN:NE2	1:K:206:GLN:HG2	2.37	0.40
1:K:238:LEU:O	1:K:238:LEU:CG	2.70	0.40
1:K:329:PHE:CB	1:K:416:ILE:HG22	2.52	0.40
1:L:101:PHE:CZ	1:L:131:SER:HB2	2.54	0.40
1:L:250:ASP:OD2	1:L:251:VAL:CA	2.66	0.40
1:M:2:SER:CB	1:M:7:PRO:HB3	2.51	0.40
1:M:209:LEU:CD1	1:M:210:PRO:CA	2.89	0.40
2:N:104:ASP:CB	2:N:107:LEU:CD1	2.99	0.40
2:N:370:LEU:CD1	2:N:371:SER:CA	2.89	0.40
1:A:32:GLY:HA3	1:A:275:THR:O	2.22	0.40
1:A:36:THR:HG21	1:J:364:GLN:HA	2.02	0.40
1:A:258:GLY:HA2	1:A:259:SER:HA	1.78	0.40
1:A:356:ASN:OD1	1:A:356:ASN:C	2.60	0.40
1:A:364:GLN:HE21	1:A:367:ILE:HD13	1.85	0.40
1:A:474:ASN:HB2	1:A:475:THR:HG22	2.03	0.40
1:B:330:VAL:HG23	1:B:445:MET:CE	2.51	0.40
1:C:84:ALA:HA	1:C:85:GLY:HA3	1.83	0.40
1:C:88:GLU:OE1	1:C:88:GLU:CA	2.69	0.40
1:C:100:ALA:O	1:C:128:HIS:HE1	2.04	0.40
1:C:291:PHE:N	1:C:291:PHE:HD1	2.19	0.40
1:C:396:THR:CG2	1:C:410:ILE:HB	2.46	0.40
1:C:489:VAL:O	1:C:492:ALA:HB2	2.22	0.40
1:C:505:ARG:O	1:C:507:TYR:N	2.47	0.40
1:D:313:LYS:H	1:D:313:LYS:HG2	1.74	0.40
1:E:79:ALA:CB	1:E:195:THR:HA	2.51	0.40
1:E:262:ILE:HD12	1:E:262:ILE:N	2.37	0.40
1:F:313:LYS:CG	1:F:442:GLN:OE1	2.69	0.40
1:G:49:GLN:HE22	1:G:51:ASN:ND2	2.20	0.40
1:G:385:TYR:O	1:G:386:ASN:ND2	2.55	0.40
1:H:111:ASN:OD1	1:H:111:ASN:C	2.59	0.40
1:H:173:SER:HA	1:I:164:ASN:HB2	2.04	0.40
1:H:428:ARG:HE	1:H:429:ASP:H	1.68	0.40
1:I:257:ILE:HG22	1:I:258:GLY:N	2.36	0.40
1:I:361:TRP:HA	1:I:361:TRP:HE3	1.81	0.40
1:K:127:ILE:HD13	1:K:127:ILE:HA	1.91	0.40
2:N:23:PRO:HB2	2:N:24:PHE:H	1.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:96:SER:HB3	2:N:154:ILE:HD11	2.03	0.40
2:N:192:GLU:HG2	2:N:222:LEU:HD11	2.03	0.40
1:A:20:LEU:HA	1:A:20:LEU:HD23	1.91	0.40
1:A:478:MET:HE2	1:A:478:MET:HB2	1.98	0.40
1:C:305:ALA:HB1	1:C:306:PRO:HA	2.03	0.40
1:C:505:ARG:C	1:C:507:TYR:H	2.23	0.40
1:D:39:PRO:HB3	1:D:270:TYR:CE1	2.56	0.40
1:D:255:SER:CB	1:D:257:ILE:CD1	2.92	0.40
1:D:408:LYS:H	1:D:408:LYS:HE2	1.85	0.40
1:E:40:PHE:CD2	1:E:54:CYS:HB3	2.57	0.40
1:F:322:ILE:HG12	1:F:434:GLY:H	1.86	0.40
1:F:421:LEU:HD12	1:F:421:LEU:HA	1.78	0.40
1:G:187:MET:O	1:G:187:MET:HG2	2.21	0.40
1:H:343:ASN:HD22	1:H:343:ASN:HA	1.62	0.40
1:H:395:VAL:HA	1:H:412:LEU:HD12	2.03	0.40
1:I:244:HIS:CE1	1:I:257:ILE:HD12	2.56	0.40
1:J:134:HIS:HD2	1:J:507:TYR:CD2	2.40	0.40
1:J:341:LEU:O	1:J:344:GLN:HG2	2.21	0.40
1:J:420:GLU:HB3	1:J:423:LYS:HB2	2.03	0.40
1:K:1:MET:HA	1:M:483:VAL:O	2.22	0.40
1:K:65:ARG:HH11	1:K:213:LEU:HD23	1.84	0.40
1:K:158:ARG:HH11	1:K:158:ARG:CG	2.34	0.40
1:K:229:THR:C	1:K:230:PHE:CD2	2.95	0.40
1:L:110:LEU:HD23	1:L:111:ASN:N	2.37	0.40
1:L:379:PHE:C	1:L:379:PHE:HD1	2.24	0.40
1:M:1:MET:SD	1:M:10:VAL:HB	2.61	0.40
1:M:260:MET:C	1:M:261:ASN:HD22	2.24	0.40
1:M:443:VAL:O	1:M:443:VAL:HG12	2.22	0.40
2:N:67:LEU:HD11	2:N:259:TRP:HB3	2.03	0.40
2:N:282:PHE:CD2	2:N:282:PHE:N	2.89	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	506/508 (100%)	430 (85%)	61 (12%)	15 (3%)	4	30
1	B	506/508 (100%)	456 (90%)	41 (8%)	9 (2%)	8	41
1	C	506/508 (100%)	433 (86%)	65 (13%)	8 (2%)	9	43
1	D	506/508 (100%)	442 (87%)	48 (10%)	16 (3%)	4	29
1	E	506/508 (100%)	443 (88%)	49 (10%)	14 (3%)	5	32
1	F	506/508 (100%)	431 (85%)	59 (12%)	16 (3%)	4	29
1	G	506/508 (100%)	447 (88%)	45 (9%)	14 (3%)	5	32
1	H	506/508 (100%)	436 (86%)	58 (12%)	12 (2%)	6	35
1	I	506/508 (100%)	424 (84%)	64 (13%)	18 (4%)	3	26
1	J	506/508 (100%)	434 (86%)	54 (11%)	18 (4%)	3	26
1	K	506/508 (100%)	436 (86%)	55 (11%)	15 (3%)	4	30
1	L	506/508 (100%)	449 (89%)	47 (9%)	10 (2%)	7	39
1	M	506/508 (100%)	439 (87%)	49 (10%)	18 (4%)	3	26
2	N	360/378 (95%)	280 (78%)	49 (14%)	31 (9%)	1	9
All	All	6938/6982 (99%)	5980 (86%)	744 (11%)	214 (3%)	7	30

All (214) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	86	ILE
1	A	173	SER
1	A	251	VAL
1	B	209	LEU
1	D	39	PRO
1	D	86	ILE
1	D	251	VAL
1	D	259	SER
1	F	86	ILE
1	F	250	ASP
1	G	2	SER
1	G	86	ILE
1	G	209	LEU
1	G	214	TRP
1	H	60	GLN
1	H	86	ILE

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Mol	Chain	Res	Type
1	H	402	VAL
1	I	34	GLN
1	I	173	SER
1	I	192	ASN
1	I	315	ASN
1	J	34	GLN
1	J	86	ILE
1	J	136	PRO
1	J	173	SER
1	J	219	ALA
1	J	253	GLY
1	J	402	VAL
1	J	413	GLU
1	J	499	SER
1	K	3	ASN
1	K	34	GLN
1	K	86	ILE
1	K	88	GLU
1	K	216	GLY
1	K	341	LEU
1	K	498	VAL
1	L	39	PRO
1	L	88	GLU
1	M	3	ASN
1	M	34	GLN
1	M	86	ILE
1	M	173	SER
1	M	302	ASN
1	M	476	SER
2	N	23	PRO
2	N	109	SER
2	N	120	VAL
2	N	121	THR
2	N	182	TYR
2	N	197	VAL
2	N	235	ASP
2	N	254	PRO
2	N	257	SER
2	N	274	ILE
1	A	340	ASN
1	B	218	GLN
1	C	34	GLN

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Mol	Chain	Res	Type
1	C	337	ILE
1	D	248	THR
1	D	267	PRO
1	D	462	ILE
1	E	60	GLN
1	F	39	PRO
1	F	88	GLU
1	F	102	PRO
1	F	144	MET
1	F	337	ILE
1	F	402	VAL
1	F	476	SER
1	G	267	PRO
1	G	363	ASN
1	H	210	PRO
1	H	340	ASN
1	I	3	ASN
1	I	39	PRO
1	I	253	GLY
1	I	310	SER
1	I	402	VAL
1	J	137	LEU
1	J	250	ASP
1	K	249	ASN
1	K	267	PRO
1	L	483	VAL
1	M	39	PRO
1	M	251	VAL
2	N	92	ASN
2	N	129	PRO
2	N	180	ALA
2	N	221	ILE
2	N	288	GLY
2	N	306	GLY
2	N	346	GLY
1	A	39	PRO
1	A	81	PRO
1	B	23	GLU
1	B	136	PRO
1	B	210	PRO
1	B	315	ASN
1	B	340	ASN

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Mol	Chain	Res	Type
1	C	484	ALA
1	E	253	GLY
1	E	337	ILE
1	E	438	ASN
1	F	368	LEU
1	G	144	MET
1	G	430	ASP
1	H	173	SER
1	H	458	PRO
1	I	5	ALA
1	I	102	PRO
1	I	251	VAL
1	I	337	ILE
1	I	340	ASN
1	J	135	THR
1	J	340	ASN
1	J	430	ASP
1	K	144	MET
1	L	250	ASP
1	L	340	ASN
1	M	136	PRO
1	M	340	ASN
1	M	434	GLY
2	N	118	PRO
2	N	135	ASP
2	N	214	ASN
2	N	219	ARG
1	A	254	ASN
1	A	368	LEU
1	B	34	GLN
1	C	458	PRO
1	D	16	PRO
1	D	102	PRO
1	D	212	PHE
1	D	384	GLY
1	E	3	ASN
1	E	88	GLU
1	E	458	PRO
1	F	91	LEU
1	F	238	LEU
1	F	430	ASP
1	G	88	GLU

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Mol	Chain	Res	Type
1	J	22	ASN
1	J	307	ASN
1	J	315	ASN
1	K	458	PRO
1	L	44	SER
1	L	60	GLN
1	L	458	PRO
1	M	88	GLU
2	N	30	GLY
2	N	158	VAL
2	N	284	ASN
1	A	386	ASN
1	A	413	GLU
1	B	58	SER
1	E	209	LEU
1	E	413	GLU
1	F	340	ASN
1	G	102	PRO
1	G	313	LYS
1	G	337	ILE
1	H	144	MET
1	I	209	LEU
1	I	438	ASN
1	J	39	PRO
1	L	195	THR
1	M	102	PRO
1	M	195	THR
1	M	210	PRO
2	N	156	ALA
1	A	209	LEU
1	A	337	ILE
1	D	3	ASN
1	E	144	MET
1	E	394	GLY
1	G	323	PRO
1	H	365	GLN
1	H	413	GLU
1	K	16	PRO
1	K	173	SER
1	K	281	PRO
1	M	348	PRO
2	N	75	TYR

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Mol	Chain	Res	Type
2	N	84	ILE
2	N	216	PRO
2	N	349	TYR
1	A	102	PRO
1	C	506	ILE
1	D	337	ILE
1	E	276	PRO
1	E	381	VAL
1	F	57	PRO
1	H	136	PRO
1	C	148	PRO
1	C	253	GLY
1	F	93	PRO
1	I	336	VAL
1	M	367	ILE
1	C	281	PRO
1	E	267	PRO
1	H	337	ILE
1	K	102	PRO
1	L	209	LEU
1	A	350	VAL
1	A	394	GLY
1	D	136	PRO
1	D	220	GLY
1	G	384	GLY
1	I	435	VAL
2	N	189	THR
1	D	93	PRO
1	M	317	VAL
2	N	76	PRO

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	A	447/447 (100%)	274 (61%)	173 (39%)	0 1

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	B	447/447 (100%)	263 (59%)	184 (41%)	0	0
1	C	447/447 (100%)	266 (60%)	181 (40%)	0	1
1	D	447/447 (100%)	278 (62%)	169 (38%)	0	1
1	E	447/447 (100%)	284 (64%)	163 (36%)	0	1
1	F	447/447 (100%)	271 (61%)	176 (39%)	0	1
1	G	447/447 (100%)	280 (63%)	167 (37%)	0	1
1	H	447/447 (100%)	284 (64%)	163 (36%)	0	1
1	I	447/447 (100%)	266 (60%)	181 (40%)	0	1
1	J	447/447 (100%)	277 (62%)	170 (38%)	0	1
1	K	447/447 (100%)	276 (62%)	171 (38%)	0	1
1	L	447/447 (100%)	283 (63%)	164 (37%)	0	1
1	M	447/447 (100%)	274 (61%)	173 (39%)	0	1
2	N	328/344 (95%)	212 (65%)	116 (35%)	0	1
All	All	6139/6155 (100%)	3788 (62%)	2351 (38%)	0	1

All (2351) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	3	ASN
1	A	6	ILE
1	A	10	VAL
1	A	18	LEU
1	A	19	GLU
1	A	20	LEU
1	A	21	ASN
1	A	22	ASN
1	A	23	GLU
1	A	28	VAL
1	A	30	LYS
1	A	42	SER
1	A	45	PHE
1	A	48	ASN
1	A	54	CYS
1	A	55	ASN
1	A	58	SER
1	A	60	GLN
1	A	63	LEU

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Mol	Chain	Res	Type
1	A	64	ASP
1	A	69	ILE
1	A	70	GLN
1	A	71	VAL
1	A	76	THR
1	A	78	THR
1	A	83	HIS
1	A	86	ILE
1	A	87	THR
1	A	88	GLU
1	A	95	ARG
1	A	99	ARG
1	A	103	ILE
1	A	106	ILE
1	A	108	ASN
1	A	109	THR
1	A	110	LEU
1	A	113	THR
1	A	114	ILE
1	A	117	PHE
1	A	120	ASN
1	A	121	ILE
1	A	122	GLU
1	A	123	LEU
1	A	127	ILE
1	A	130	LEU
1	A	131	SER
1	A	132	ARG
1	A	133	TYR
1	A	134	HIS
1	A	135	THR
1	A	137	LEU
1	A	138	LYS
1	A	144	MET
1	A	146	MET
1	A	153	ASN
1	A	156	SER
1	A	158	ARG
1	A	159	ASP
1	A	165	ASN
1	A	168	LEU
1	A	172	THR

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Mol	Chain	Res	Type
1	A	179	GLU
1	A	180	LEU
1	A	184	SER
1	A	186	THR
1	A	187	MET
1	A	188	ASN
1	A	190	VAL
1	A	192	ASN
1	A	193	THR
1	A	194	THR
1	A	198	ARG
1	A	203	LEU
1	A	205	GLU
1	A	209	LEU
1	A	217	GLU
1	A	222	LEU
1	A	224	ASN
1	A	225	LEU
1	A	227	SER
1	A	228	LEU
1	A	229	THR
1	A	234	LEU
1	A	237	ASN
1	A	238	LEU
1	A	240	ARG
1	A	249	ASN
1	A	250	ASP
1	A	254	ASN
1	A	260	MET
1	A	261	ASN
1	A	262	ILE
1	A	265	GLN
1	A	271	LEU
1	A	280	ILE
1	A	282	ILE
1	A	285	ARG
1	A	286	ILE
1	A	290	TYR
1	A	291	PHE
1	A	292	LYS
1	A	293	LEU
1	A	295	ARG

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Mol	Chain	Res	Type
1	A	297	THR
1	A	302	ASN
1	A	303	THR
1	A	313	LYS
1	A	314	SER
1	A	315	ASN
1	A	319	LEU
1	A	320	ASP
1	A	322	ILE
1	A	325	LYS
1	A	326	LEU
1	A	327	TYR
1	A	328	LEU
1	A	331	LYS
1	A	337	ILE
1	A	341	LEU
1	A	342	ASN
1	A	343	ASN
1	A	346	THR
1	A	349	ASP
1	A	350	VAL
1	A	351	PHE
1	A	356	ASN
1	A	357	LEU
1	A	358	ASN
1	A	360	THR
1	A	362	ASN
1	A	363	ASN
1	A	364	GLN
1	A	367	ILE
1	A	382	GLN
1	A	386	ASN
1	A	388	THR
1	A	393	ASN
1	A	395	VAL
1	A	396	THR
1	A	399	PHE
1	A	405	GLN
1	A	407	THR
1	A	410	ILE
1	A	412	LEU
1	A	413	GLU

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Mol	Chain	Res	Type
1	A	416	ILE
1	A	418	CYS
1	A	419	LEU
1	A	420	GLU
1	A	421	LEU
1	A	423	LYS
1	A	424	ASP
1	A	428	ARG
1	A	436	ILE
1	A	439	PHE
1	A	442	GLN
1	A	447	VAL
1	A	449	ASN
1	A	452	GLN
1	A	453	TYR
1	A	455	THR
1	A	459	ASP
1	A	460	MET
1	A	469	THR
1	A	474	ASN
1	A	478	MET
1	A	481	ILE
1	A	483	VAL
1	A	487	GLU
1	A	494	ILE
1	A	499	SER
1	A	501	ASN
1	A	506	ILE
1	B	1	MET
1	B	2	SER
1	B	3	ASN
1	B	6	ILE
1	B	8	LEU
1	B	11	VAL
1	B	17	ARG
1	B	18	LEU
1	B	19	GLU
1	B	21	ASN
1	B	22	ASN
1	B	23	GLU
1	B	29	VAL
1	B	30	LYS

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Mol	Chain	Res	Type
1	B	33	GLN
1	B	42	SER
1	B	43	THR
1	B	54	CYS
1	B	63	LEU
1	B	64	ASP
1	B	65	ARG
1	B	66	LEU
1	B	69	ILE
1	B	70	GLN
1	B	71	VAL
1	B	73	TYR
1	B	78	THR
1	B	80	ASN
1	B	83	HIS
1	B	86	ILE
1	B	87	THR
1	B	88	GLU
1	B	89	ASN
1	B	90	LEU
1	B	91	LEU
1	B	95	ARG
1	B	96	ASP
1	B	98	PHE
1	B	99	ARG
1	B	106	ILE
1	B	107	THR
1	B	108	ASN
1	B	109	THR
1	B	110	LEU
1	B	113	THR
1	B	122	GLU
1	B	123	LEU
1	B	127	ILE
1	B	131	SER
1	B	133	TYR
1	B	134	HIS
1	B	137	LEU
1	B	138	LYS
1	B	140	LYS
1	B	159	ASP
1	B	161	ASP

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Mol	Chain	Res	Type
1	B	164	ASN
1	B	165	ASN
1	B	166	ASN
1	B	171	PHE
1	B	179	GLU
1	B	180	LEU
1	B	188	ASN
1	B	191	THR
1	B	192	ASN
1	B	194	THR
1	B	196	THR
1	B	198	ARG
1	B	200	THR
1	B	203	LEU
1	B	209	LEU
1	B	212	PHE
1	B	213	LEU
1	B	224	ASN
1	B	225	LEU
1	B	227	SER
1	B	228	LEU
1	B	229	THR
1	B	233	VAL
1	B	234	LEU
1	B	236	ASN
1	B	238	LEU
1	B	243	SER
1	B	247	ILE
1	B	248	THR
1	B	249	ASN
1	B	251	VAL
1	B	257	ILE
1	B	262	ILE
1	B	263	SER
1	B	265	GLN
1	B	266	GLN
1	B	268	SER
1	B	271	LEU
1	B	275	THR
1	B	279	ASN
1	B	280	ILE
1	B	282	ILE

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Mol	Chain	Res	Type
1	B	285	ARG
1	B	287	THR
1	B	292	LYS
1	B	293	LEU
1	B	295	ARG
1	B	297	THR
1	B	301	GLN
1	B	303	THR
1	B	311	THR
1	B	313	LYS
1	B	314	SER
1	B	315	ASN
1	B	318	GLN
1	B	319	LEU
1	B	321	SER
1	B	322	ILE
1	B	324	ARG
1	B	328	LEU
1	B	332	GLN
1	B	336	VAL
1	B	337	ILE
1	B	339	GLN
1	B	346	THR
1	B	349	ASP
1	B	350	VAL
1	B	351	PHE
1	B	352	LEU
1	B	353	GLN
1	B	356	ASN
1	B	357	LEU
1	B	358	ASN
1	B	359	LEU
1	B	360	THR
1	B	362	ASN
1	B	365	GLN
1	B	374	GLN
1	B	381	VAL
1	B	383	ASN
1	B	386	ASN
1	B	387	LYS
1	B	388	THR
1	B	393	ASN

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Mol	Chain	Res	Type
1	B	395	VAL
1	B	396	THR
1	B	397	GLN
1	B	399	PHE
1	B	400	ASN
1	B	403	SER
1	B	408	LYS
1	B	410	ILE
1	B	416	ILE
1	B	418	CYS
1	B	419	LEU
1	B	423	LYS
1	B	425	VAL
1	B	427	LEU
1	B	430	ASP
1	B	436	ILE
1	B	441	LEU
1	B	444	GLN
1	B	446	THR
1	B	447	VAL
1	B	448	THR
1	B	449	ASN
1	B	451	ASN
1	B	452	GLN
1	B	454	VAL
1	B	455	THR
1	B	459	ASP
1	B	461	TYR
1	B	465	VAL
1	B	467	ASP
1	B	469	THR
1	B	470	LEU
1	B	473	SER
1	B	474	ASN
1	B	475	THR
1	B	483	VAL
1	B	485	SER
1	B	490	LEU
1	B	493	ARG
1	B	494	ILE
1	B	501	ASN
1	B	505	ARG

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Mol	Chain	Res	Type
1	B	506	ILE
1	B	507	TYR
1	C	6	ILE
1	C	10	VAL
1	C	11	VAL
1	C	18	LEU
1	C	19	GLU
1	C	20	LEU
1	C	21	ASN
1	C	22	ASN
1	C	23	GLU
1	C	24	ARG
1	C	28	VAL
1	C	29	VAL
1	C	30	LYS
1	C	43	THR
1	C	49	GLN
1	C	52	PHE
1	C	53	ILE
1	C	58	SER
1	C	60	GLN
1	C	63	LEU
1	C	64	ASP
1	C	66	LEU
1	C	69	ILE
1	C	70	GLN
1	C	71	VAL
1	C	74	ASP
1	C	76	THR
1	C	77	PHE
1	C	83	HIS
1	C	86	ILE
1	C	87	THR
1	C	88	GLU
1	C	91	LEU
1	C	95	ARG
1	C	96	ASP
1	C	99	ARG
1	C	101	PHE
1	C	107	THR
1	C	109	THR
1	C	113	THR

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Mol	Chain	Res	Type
1	C	120	ASN
1	C	121	ILE
1	C	122	GLU
1	C	123	LEU
1	C	125	GLN
1	C	127	ILE
1	C	131	SER
1	C	132	ARG
1	C	133	TYR
1	C	139	VAL
1	C	140	LYS
1	C	147	GLN
1	C	156	SER
1	C	158	ARG
1	C	159	ASP
1	C	161	ASP
1	C	165	ASN
1	C	166	ASN
1	C	168	LEU
1	C	172	THR
1	C	173	SER
1	C	177	LEU
1	C	180	LEU
1	C	187	MET
1	C	188	ASN
1	C	189	VAL
1	C	191	THR
1	C	192	ASN
1	C	193	THR
1	C	194	THR
1	C	196	THR
1	C	198	ARG
1	C	202	VAL
1	C	205	GLU
1	C	206	GLN
1	C	207	VAL
1	C	209	LEU
1	C	213	LEU
1	C	217	GLU
1	C	224	ASN
1	C	225	LEU
1	C	226	THR

Continued on next page...

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Mol	Chain	Res	Type
1	C	231	ASN
1	C	233	VAL
1	C	236	ASN
1	C	247	ILE
1	C	249	ASN
1	C	256	THR
1	C	260	MET
1	C	275	THR
1	C	277	ARG
1	C	278	LEU
1	C	282	ILE
1	C	286	ILE
1	C	287	THR
1	C	295	ARG
1	C	297	THR
1	C	299	GLN
1	C	300	PHE
1	C	302	ASN
1	C	303	THR
1	C	304	LEU
1	C	309	SER
1	C	311	THR
1	C	313	LYS
1	C	314	SER
1	C	320	ASP
1	C	322	ILE
1	C	324	ARG
1	C	325	LYS
1	C	326	LEU
1	C	328	LEU
1	C	332	GLN
1	C	337	ILE
1	C	341	LEU
1	C	342	ASN
1	C	343	ASN
1	C	344	GLN
1	C	345	ILE
1	C	346	THR
1	C	350	VAL
1	C	351	PHE
1	C	352	LEU
1	C	357	LEU

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Mol	Chain	Res	Type
1	C	360	THR
1	C	362	ASN
1	C	365	GLN
1	C	367	ILE
1	C	375	ASN
1	C	377	TYR
1	C	379	PHE
1	C	381	VAL
1	C	382	GLN
1	C	386	ASN
1	C	387	LYS
1	C	388	THR
1	C	391	GLU
1	C	393	ASN
1	C	395	VAL
1	C	396	THR
1	C	399	PHE
1	C	407	THR
1	C	408	LYS
1	C	412	LEU
1	C	418	CYS
1	C	419	LEU
1	C	427	LEU
1	C	430	ASP
1	C	433	GLU
1	C	435	VAL
1	C	436	ILE
1	C	438	ASN
1	C	446	THR
1	C	448	THR
1	C	449	ASN
1	C	451	ASN
1	C	457	THR
1	C	459	ASP
1	C	460	MET
1	C	465	VAL
1	C	469	THR
1	C	470	LEU
1	C	474	ASN
1	C	475	THR
1	C	476	SER
1	C	478	MET

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Mol	Chain	Res	Type
1	C	485	SER
1	C	486	LYS
1	C	487	GLU
1	C	488	GLU
1	C	489	VAL
1	C	490	LEU
1	C	493	ARG
1	C	494	ILE
1	C	495	THR
1	C	501	ASN
1	C	502	GLU
1	C	503	LEU
1	C	504	GLN
1	C	506	ILE
1	C	507	TYR
1	D	2	SER
1	D	3	ASN
1	D	6	ILE
1	D	10	VAL
1	D	17	ARG
1	D	18	LEU
1	D	19	GLU
1	D	20	LEU
1	D	21	ASN
1	D	22	ASN
1	D	23	GLU
1	D	24	ARG
1	D	28	VAL
1	D	29	VAL
1	D	30	LYS
1	D	33	GLN
1	D	36	THR
1	D	42	SER
1	D	43	THR
1	D	55	ASN
1	D	60	GLN
1	D	61	THR
1	D	63	LEU
1	D	64	ASP
1	D	65	ARG
1	D	69	ILE
1	D	70	GLN

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Mol	Chain	Res	Type
1	D	71	VAL
1	D	76	THR
1	D	78	THR
1	D	80	ASN
1	D	86	ILE
1	D	89	ASN
1	D	95	ARG
1	D	106	ILE
1	D	108	ASN
1	D	109	THR
1	D	110	LEU
1	D	117	PHE
1	D	120	ASN
1	D	121	ILE
1	D	132	ARG
1	D	133	TYR
1	D	134	HIS
1	D	144	MET
1	D	147	GLN
1	D	151	GLU
1	D	159	ASP
1	D	161	ASP
1	D	168	LEU
1	D	171	PHE
1	D	180	LEU
1	D	186	THR
1	D	187	MET
1	D	188	ASN
1	D	193	THR
1	D	198	ARG
1	D	199	ILE
1	D	203	LEU
1	D	208	PHE
1	D	215	ASP
1	D	217	GLU
1	D	218	GLN
1	D	224	ASN
1	D	225	LEU
1	D	227	SER
1	D	228	LEU
1	D	229	THR
1	D	231	ASN

Continued on next page...

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Mol	Chain	Res	Type
1	D	232	TRP
1	D	233	VAL
1	D	234	LEU
1	D	238	LEU
1	D	240	ARG
1	D	242	TRP
1	D	245	SER
1	D	246	ASP
1	D	247	ILE
1	D	249	ASN
1	D	250	ASP
1	D	251	VAL
1	D	252	SER
1	D	256	THR
1	D	257	ILE
1	D	261	ASN
1	D	262	ILE
1	D	265	GLN
1	D	266	GLN
1	D	268	SER
1	D	271	LEU
1	D	275	THR
1	D	286	ILE
1	D	287	THR
1	D	290	TYR
1	D	293	LEU
1	D	297	THR
1	D	304	LEU
1	D	313	LYS
1	D	319	LEU
1	D	321	SER
1	D	324	ARG
1	D	328	LEU
1	D	332	GLN
1	D	337	ILE
1	D	338	TYR
1	D	340	ASN
1	D	341	LEU
1	D	342	ASN
1	D	343	ASN
1	D	344	GLN
1	D	345	ILE

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Mol	Chain	Res	Type
1	D	347	THR
1	D	350	VAL
1	D	351	PHE
1	D	356	ASN
1	D	357	LEU
1	D	358	ASN
1	D	359	LEU
1	D	360	THR
1	D	361	TRP
1	D	365	GLN
1	D	368	LEU
1	D	372	SER
1	D	379	PHE
1	D	380	SER
1	D	381	VAL
1	D	386	ASN
1	D	387	LYS
1	D	388	THR
1	D	391	GLU
1	D	392	PHE
1	D	393	ASN
1	D	395	VAL
1	D	397	GLN
1	D	399	PHE
1	D	405	GLN
1	D	408	LYS
1	D	412	LEU
1	D	413	GLU
1	D	416	ILE
1	D	418	CYS
1	D	419	LEU
1	D	421	LEU
1	D	424	ASP
1	D	425	VAL
1	D	427	LEU
1	D	428	ARG
1	D	430	ASP
1	D	431	GLU
1	D	438	ASN
1	D	441	LEU
1	D	444	GLN
1	D	447	VAL

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Mol	Chain	Res	Type
1	D	448	THR
1	D	450	THR
1	D	452	GLN
1	D	457	THR
1	D	459	ASP
1	D	469	THR
1	D	470	LEU
1	D	473	SER
1	D	486	LYS
1	D	491	ASN
1	D	493	ARG
1	D	494	ILE
1	D	501	ASN
1	D	503	LEU
1	D	505	ARG
1	D	506	ILE
1	E	1	MET
1	E	3	ASN
1	E	10	VAL
1	E	11	VAL
1	E	18	LEU
1	E	19	GLU
1	E	20	LEU
1	E	21	ASN
1	E	28	VAL
1	E	38	TYR
1	E	45	PHE
1	E	49	GLN
1	E	53	ILE
1	E	54	CYS
1	E	58	SER
1	E	60	GLN
1	E	62	VAL
1	E	63	LEU
1	E	64	ASP
1	E	65	ARG
1	E	69	ILE
1	E	70	GLN
1	E	73	TYR
1	E	74	ASP
1	E	83	HIS
1	E	86	ILE

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Mol	Chain	Res	Type
1	E	90	LEU
1	E	96	ASP
1	E	99	ARG
1	E	101	PHE
1	E	106	ILE
1	E	108	ASN
1	E	109	THR
1	E	113	THR
1	E	114	ILE
1	E	119	VAL
1	E	120	ASN
1	E	131	SER
1	E	134	HIS
1	E	138	LYS
1	E	144	MET
1	E	147	GLN
1	E	151	GLU
1	E	153	ASN
1	E	158	ARG
1	E	159	ASP
1	E	165	ASN
1	E	168	LEU
1	E	170	VAL
1	E	172	THR
1	E	177	LEU
1	E	180	LEU
1	E	182	ARG
1	E	185	TYR
1	E	186	THR
1	E	187	MET
1	E	190	VAL
1	E	193	THR
1	E	202	VAL
1	E	203	LEU
1	E	209	LEU
1	E	215	ASP
1	E	217	GLU
1	E	224	ASN
1	E	226	THR
1	E	229	THR
1	E	231	ASN
1	E	240	ARG

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Mol	Chain	Res	Type
1	E	246	ASP
1	E	247	ILE
1	E	248	THR
1	E	250	ASP
1	E	251	VAL
1	E	254	ASN
1	E	256	THR
1	E	257	ILE
1	E	261	ASN
1	E	265	GLN
1	E	266	GLN
1	E	271	LEU
1	E	275	THR
1	E	278	LEU
1	E	279	ASN
1	E	282	ILE
1	E	285	ARG
1	E	286	ILE
1	E	287	THR
1	E	290	TYR
1	E	293	LEU
1	E	294	SER
1	E	297	THR
1	E	298	THR
1	E	299	GLN
1	E	304	LEU
1	E	314	SER
1	E	319	LEU
1	E	321	SER
1	E	322	ILE
1	E	325	LYS
1	E	326	LEU
1	E	332	GLN
1	E	333	SER
1	E	337	ILE
1	E	339	GLN
1	E	340	ASN
1	E	341	LEU
1	E	342	ASN
1	E	344	GLN
1	E	346	THR
1	E	349	ASP

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Mol	Chain	Res	Type
1	E	350	VAL
1	E	351	PHE
1	E	352	LEU
1	E	353	GLN
1	E	355	ASN
1	E	357	LEU
1	E	360	THR
1	E	361	TRP
1	E	362	ASN
1	E	372	SER
1	E	374	GLN
1	E	381	VAL
1	E	386	ASN
1	E	392	PHE
1	E	393	ASN
1	E	395	VAL
1	E	396	THR
1	E	398	GLN
1	E	399	PHE
1	E	405	GLN
1	E	407	THR
1	E	413	GLU
1	E	416	ILE
1	E	419	LEU
1	E	423	LYS
1	E	424	ASP
1	E	425	VAL
1	E	427	LEU
1	E	428	ARG
1	E	431	GLU
1	E	433	GLU
1	E	435	VAL
1	E	438	ASN
1	E	439	PHE
1	E	441	LEU
1	E	445	MET
1	E	447	VAL
1	E	449	ASN
1	E	452	GLN
1	E	459	ASP
1	E	460	MET
1	E	465	VAL

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Mol	Chain	Res	Type
1	E	469	THR
1	E	471	VAL
1	E	473	SER
1	E	474	ASN
1	E	485	SER
1	E	489	VAL
1	E	493	ARG
1	E	498	VAL
1	E	499	SER
1	E	505	ARG
1	E	507	TYR
1	F	3	ASN
1	F	10	VAL
1	F	13	VAL
1	F	14	GLN
1	F	15	GLU
1	F	19	GLU
1	F	20	LEU
1	F	22	ASN
1	F	23	GLU
1	F	27	VAL
1	F	28	VAL
1	F	30	LYS
1	F	33	GLN
1	F	42	SER
1	F	43	THR
1	F	52	PHE
1	F	54	CYS
1	F	62	VAL
1	F	63	LEU
1	F	65	ARG
1	F	69	ILE
1	F	70	GLN
1	F	71	VAL
1	F	77	PHE
1	F	78	THR
1	F	80	ASN
1	F	83	HIS
1	F	86	ILE
1	F	87	THR
1	F	90	LEU
1	F	101	PHE

Continued on next page...

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Mol	Chain	Res	Type
1	F	103	ILE
1	F	106	ILE
1	F	107	THR
1	F	109	THR
1	F	110	LEU
1	F	113	THR
1	F	114	ILE
1	F	120	ASN
1	F	121	ILE
1	F	123	LEU
1	F	127	ILE
1	F	128	HIS
1	F	131	SER
1	F	133	TYR
1	F	134	HIS
1	F	138	LYS
1	F	146	MET
1	F	147	GLN
1	F	149	SER
1	F	150	PHE
1	F	151	GLU
1	F	153	ASN
1	F	159	ASP
1	F	164	ASN
1	F	165	ASN
1	F	168	LEU
1	F	172	THR
1	F	173	SER
1	F	177	LEU
1	F	180	LEU
1	F	186	THR
1	F	188	ASN
1	F	190	VAL
1	F	192	ASN
1	F	193	THR
1	F	194	THR
1	F	199	ILE
1	F	202	VAL
1	F	212	PHE
1	F	213	LEU
1	F	215	ASP
1	F	218	GLN

Continued on next page...

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Mol	Chain	Res	Type
1	F	224	ASN
1	F	225	LEU
1	F	228	LEU
1	F	229	THR
1	F	231	ASN
1	F	233	VAL
1	F	237	ASN
1	F	240	ARG
1	F	241	ILE
1	F	246	ASP
1	F	249	ASN
1	F	250	ASP
1	F	252	SER
1	F	257	ILE
1	F	259	SER
1	F	260	MET
1	F	261	ASN
1	F	262	ILE
1	F	265	GLN
1	F	275	THR
1	F	280	ILE
1	F	282	ILE
1	F	287	THR
1	F	290	TYR
1	F	295	ARG
1	F	296	TYR
1	F	297	THR
1	F	299	GLN
1	F	300	PHE
1	F	301	GLN
1	F	302	ASN
1	F	304	LEU
1	F	311	THR
1	F	312	PHE
1	F	315	ASN
1	F	319	LEU
1	F	322	ILE
1	F	324	ARG
1	F	325	LYS
1	F	326	LEU
1	F	327	TYR
1	F	328	LEU

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Mol	Chain	Res	Type
1	F	335	ASN
1	F	337	ILE
1	F	339	GLN
1	F	346	THR
1	F	351	PHE
1	F	353	GLN
1	F	356	ASN
1	F	357	LEU
1	F	358	ASN
1	F	360	THR
1	F	362	ASN
1	F	364	GLN
1	F	365	GLN
1	F	367	ILE
1	F	368	LEU
1	F	372	SER
1	F	383	ASN
1	F	393	ASN
1	F	403	SER
1	F	405	GLN
1	F	407	THR
1	F	408	LYS
1	F	409	VAL
1	F	410	ILE
1	F	412	LEU
1	F	416	ILE
1	F	418	CYS
1	F	419	LEU
1	F	421	LEU
1	F	423	LYS
1	F	427	LEU
1	F	430	ASP
1	F	436	ILE
1	F	439	PHE
1	F	441	LEU
1	F	442	GLN
1	F	443	VAL
1	F	444	GLN
1	F	447	VAL
1	F	448	THR
1	F	449	ASN
1	F	450	THR

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Mol	Chain	Res	Type
1	F	451	ASN
1	F	452	GLN
1	F	455	THR
1	F	456	VAL
1	F	457	THR
1	F	459	ASP
1	F	465	VAL
1	F	469	THR
1	F	470	LEU
1	F	473	SER
1	F	478	MET
1	F	481	ILE
1	F	490	LEU
1	F	491	ASN
1	F	493	ARG
1	F	494	ILE
1	F	501	ASN
1	F	506	ILE
1	F	507	TYR
1	G	1	MET
1	G	2	SER
1	G	6	ILE
1	G	8	LEU
1	G	9	ASN
1	G	10	VAL
1	G	11	VAL
1	G	13	VAL
1	G	18	LEU
1	G	19	GLU
1	G	21	ASN
1	G	22	ASN
1	G	28	VAL
1	G	29	VAL
1	G	30	LYS
1	G	33	GLN
1	G	34	GLN
1	G	46	SER
1	G	47	SER
1	G	48	ASN
1	G	49	GLN
1	G	52	PHE
1	G	55	ASN

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Mol	Chain	Res	Type
1	G	60	GLN
1	G	61	THR
1	G	63	LEU
1	G	64	ASP
1	G	65	ARG
1	G	66	LEU
1	G	69	ILE
1	G	83	HIS
1	G	88	GLU
1	G	89	ASN
1	G	90	LEU
1	G	91	LEU
1	G	99	ARG
1	G	101	PHE
1	G	105	SER
1	G	107	THR
1	G	108	ASN
1	G	110	LEU
1	G	111	ASN
1	G	113	THR
1	G	117	PHE
1	G	119	VAL
1	G	120	ASN
1	G	133	TYR
1	G	138	LYS
1	G	140	LYS
1	G	147	GLN
1	G	149	SER
1	G	153	ASN
1	G	158	ARG
1	G	159	ASP
1	G	161	ASP
1	G	165	ASN
1	G	166	ASN
1	G	168	LEU
1	G	172	THR
1	G	177	LEU
1	G	180	LEU
1	G	186	THR
1	G	187	MET
1	G	188	ASN
1	G	190	VAL

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Mol	Chain	Res	Type
1	G	192	ASN
1	G	193	THR
1	G	194	THR
1	G	195	THR
1	G	196	THR
1	G	199	ILE
1	G	200	THR
1	G	207	VAL
1	G	209	LEU
1	G	213	LEU
1	G	214	TRP
1	G	215	ASP
1	G	224	ASN
1	G	228	LEU
1	G	229	THR
1	G	233	VAL
1	G	234	LEU
1	G	240	ARG
1	G	246	ASP
1	G	249	ASN
1	G	250	ASP
1	G	254	ASN
1	G	255	SER
1	G	257	ILE
1	G	265	GLN
1	G	266	GLN
1	G	269	MET
1	G	271	LEU
1	G	273	PHE
1	G	275	THR
1	G	282	ILE
1	G	285	ARG
1	G	287	THR
1	G	290	TYR
1	G	295	ARG
1	G	297	THR
1	G	299	GLN
1	G	301	GLN
1	G	304	LEU
1	G	311	THR
1	G	312	PHE
1	G	314	SER

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Mol	Chain	Res	Type
1	G	315	ASN
1	G	316	VAL
1	G	317	VAL
1	G	318	GLN
1	G	319	LEU
1	G	320	ASP
1	G	324	ARG
1	G	326	LEU
1	G	327	TYR
1	G	336	VAL
1	G	337	ILE
1	G	339	GLN
1	G	340	ASN
1	G	341	LEU
1	G	342	ASN
1	G	343	ASN
1	G	345	ILE
1	G	349	ASP
1	G	350	VAL
1	G	351	PHE
1	G	353	GLN
1	G	356	ASN
1	G	358	ASN
1	G	360	THR
1	G	374	GLN
1	G	376	LEU
1	G	380	SER
1	G	381	VAL
1	G	386	ASN
1	G	387	LYS
1	G	393	ASN
1	G	395	VAL
1	G	397	GLN
1	G	399	PHE
1	G	408	LYS
1	G	413	GLU
1	G	418	CYS
1	G	419	LEU
1	G	421	LEU
1	G	423	LYS
1	G	425	VAL
1	G	427	LEU

Continued on next page...

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Mol	Chain	Res	Type
1	G	428	ARG
1	G	430	ASP
1	G	436	ILE
1	G	439	PHE
1	G	441	LEU
1	G	444	GLN
1	G	451	ASN
1	G	457	THR
1	G	459	ASP
1	G	469	THR
1	G	470	LEU
1	G	474	ASN
1	G	480	SER
1	G	493	ARG
1	G	494	ILE
1	G	501	ASN
1	G	505	ARG
1	G	507	TYR
1	H	3	ASN
1	H	6	ILE
1	H	8	LEU
1	H	11	VAL
1	H	15	GLU
1	H	17	ARG
1	H	19	GLU
1	H	20	LEU
1	H	22	ASN
1	H	24	ARG
1	H	34	GLN
1	H	48	ASN
1	H	49	GLN
1	H	52	PHE
1	H	53	ILE
1	H	58	SER
1	H	63	LEU
1	H	64	ASP
1	H	65	ARG
1	H	69	ILE
1	H	70	GLN
1	H	71	VAL
1	H	76	THR
1	H	83	HIS

Continued on next page...

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Mol	Chain	Res	Type
1	H	86	ILE
1	H	91	LEU
1	H	92	GLN
1	H	95	ARG
1	H	96	ASP
1	H	103	ILE
1	H	108	ASN
1	H	109	THR
1	H	113	THR
1	H	119	VAL
1	H	120	ASN
1	H	121	ILE
1	H	122	GLU
1	H	127	ILE
1	H	130	LEU
1	H	132	ARG
1	H	133	TYR
1	H	134	HIS
1	H	137	LEU
1	H	138	LYS
1	H	147	GLN
1	H	150	PHE
1	H	153	ASN
1	H	168	LEU
1	H	177	LEU
1	H	180	LEU
1	H	186	THR
1	H	190	VAL
1	H	191	THR
1	H	192	ASN
1	H	194	THR
1	H	198	ARG
1	H	199	ILE
1	H	200	THR
1	H	203	LEU
1	H	206	GLN
1	H	209	LEU
1	H	212	PHE
1	H	213	LEU
1	H	217	GLU
1	H	218	GLN
1	H	224	ASN

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Mol	Chain	Res	Type
1	H	225	LEU
1	H	227	SER
1	H	228	LEU
1	H	233	VAL
1	H	240	ARG
1	H	241	ILE
1	H	249	ASN
1	H	252	SER
1	H	254	ASN
1	H	261	ASN
1	H	262	ILE
1	H	263	SER
1	H	282	ILE
1	H	285	ARG
1	H	286	ILE
1	H	287	THR
1	H	290	TYR
1	H	291	PHE
1	H	292	LYS
1	H	293	LEU
1	H	294	SER
1	H	295	ARG
1	H	300	PHE
1	H	301	GLN
1	H	302	ASN
1	H	303	THR
1	H	304	LEU
1	H	307	ASN
1	H	312	PHE
1	H	313	LYS
1	H	314	SER
1	H	315	ASN
1	H	316	VAL
1	H	319	LEU
1	H	320	ASP
1	H	321	SER
1	H	324	ARG
1	H	326	LEU
1	H	329	PHE
1	H	333	SER
1	H	335	ASN
1	H	337	ILE

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Mol	Chain	Res	Type
1	H	338	TYR
1	H	339	GLN
1	H	341	LEU
1	H	342	ASN
1	H	343	ASN
1	H	344	GLN
1	H	345	ILE
1	H	347	THR
1	H	351	PHE
1	H	360	THR
1	H	364	GLN
1	H	379	PHE
1	H	380	SER
1	H	386	ASN
1	H	388	THR
1	H	392	PHE
1	H	395	VAL
1	H	396	THR
1	H	399	PHE
1	H	402	VAL
1	H	412	LEU
1	H	413	GLU
1	H	416	ILE
1	H	418	CYS
1	H	419	LEU
1	H	424	ASP
1	H	427	LEU
1	H	428	ARG
1	H	430	ASP
1	H	433	GLU
1	H	441	LEU
1	H	444	GLN
1	H	445	MET
1	H	446	THR
1	H	447	VAL
1	H	448	THR
1	H	449	ASN
1	H	450	THR
1	H	451	ASN
1	H	455	THR
1	H	457	THR
1	H	459	ASP

Continued on next page...

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Mol	Chain	Res	Type
1	H	465	VAL
1	H	470	LEU
1	H	478	MET
1	H	481	ILE
1	H	483	VAL
1	H	485	SER
1	H	486	LYS
1	H	487	GLU
1	H	488	GLU
1	H	491	ASN
1	H	501	ASN
1	H	505	ARG
1	H	506	ILE
1	I	1	MET
1	I	3	ASN
1	I	4	SER
1	I	6	ILE
1	I	10	VAL
1	I	11	VAL
1	I	13	VAL
1	I	17	ARG
1	I	18	LEU
1	I	20	LEU
1	I	22	ASN
1	I	36	THR
1	I	58	SER
1	I	63	LEU
1	I	64	ASP
1	I	65	ARG
1	I	69	ILE
1	I	70	GLN
1	I	71	VAL
1	I	78	THR
1	I	80	ASN
1	I	86	ILE
1	I	87	THR
1	I	89	ASN
1	I	90	LEU
1	I	96	ASP
1	I	99	ARG
1	I	101	PHE
1	I	103	ILE

Continued on next page...

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Mol	Chain	Res	Type
1	I	108	ASN
1	I	109	THR
1	I	110	LEU
1	I	113	THR
1	I	117	PHE
1	I	120	ASN
1	I	121	ILE
1	I	122	GLU
1	I	130	LEU
1	I	132	ARG
1	I	133	TYR
1	I	134	HIS
1	I	140	LYS
1	I	144	MET
1	I	147	GLN
1	I	149	SER
1	I	151	GLU
1	I	153	ASN
1	I	159	ASP
1	I	161	ASP
1	I	165	ASN
1	I	168	LEU
1	I	177	LEU
1	I	180	LEU
1	I	187	MET
1	I	188	ASN
1	I	189	VAL
1	I	191	THR
1	I	193	THR
1	I	196	THR
1	I	203	LEU
1	I	205	GLU
1	I	209	LEU
1	I	213	LEU
1	I	214	TRP
1	I	224	ASN
1	I	225	LEU
1	I	228	LEU
1	I	229	THR
1	I	231	ASN
1	I	233	VAL
1	I	235	ASN

Continued on next page...

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Mol	Chain	Res	Type
1	I	236	ASN
1	I	247	ILE
1	I	248	THR
1	I	249	ASN
1	I	255	SER
1	I	257	ILE
1	I	261	ASN
1	I	268	SER
1	I	269	MET
1	I	271	LEU
1	I	275	THR
1	I	283	PRO
1	I	285	ARG
1	I	286	ILE
1	I	293	LEU
1	I	295	ARG
1	I	297	THR
1	I	299	GLN
1	I	303	THR
1	I	304	LEU
1	I	309	SER
1	I	311	THR
1	I	313	LYS
1	I	314	SER
1	I	315	ASN
1	I	319	LEU
1	I	320	ASP
1	I	321	SER
1	I	322	ILE
1	I	324	ARG
1	I	325	LYS
1	I	326	LEU
1	I	328	LEU
1	I	331	LYS
1	I	332	GLN
1	I	335	ASN
1	I	338	TYR
1	I	339	GLN
1	I	340	ASN
1	I	341	LEU
1	I	342	ASN
1	I	343	ASN

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Mol	Chain	Res	Type
1	I	344	GLN
1	I	345	ILE
1	I	349	ASP
1	I	350	VAL
1	I	351	PHE
1	I	355	ASN
1	I	356	ASN
1	I	357	LEU
1	I	358	ASN
1	I	362	ASN
1	I	363	ASN
1	I	364	GLN
1	I	365	GLN
1	I	367	ILE
1	I	372	SER
1	I	373	SER
1	I	374	GLN
1	I	375	ASN
1	I	377	TYR
1	I	379	PHE
1	I	380	SER
1	I	382	GLN
1	I	386	ASN
1	I	387	LYS
1	I	393	ASN
1	I	395	VAL
1	I	397	GLN
1	I	407	THR
1	I	408	LYS
1	I	416	ILE
1	I	418	CYS
1	I	420	GLU
1	I	423	LYS
1	I	425	VAL
1	I	427	LEU
1	I	428	ARG
1	I	430	ASP
1	I	431	GLU
1	I	433	GLU
1	I	436	ILE
1	I	439	PHE
1	I	441	LEU

Continued on next page...

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Mol	Chain	Res	Type
1	I	442	GLN
1	I	444	GLN
1	I	445	MET
1	I	446	THR
1	I	447	VAL
1	I	449	ASN
1	I	450	THR
1	I	452	GLN
1	I	453	TYR
1	I	457	THR
1	I	459	ASP
1	I	465	VAL
1	I	467	ASP
1	I	470	LEU
1	I	473	SER
1	I	475	THR
1	I	476	SER
1	I	478	MET
1	I	481	ILE
1	I	487	GLU
1	I	490	LEU
1	I	491	ASN
1	I	493	ARG
1	I	494	ILE
1	I	501	ASN
1	I	506	ILE
1	J	2	SER
1	J	3	ASN
1	J	4	SER
1	J	6	ILE
1	J	10	VAL
1	J	11	VAL
1	J	14	GLN
1	J	17	ARG
1	J	19	GLU
1	J	20	LEU
1	J	21	ASN
1	J	23	GLU
1	J	36	THR
1	J	38	TYR
1	J	43	THR
1	J	46	SER

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Mol	Chain	Res	Type
1	J	54	CYS
1	J	58	SER
1	J	60	GLN
1	J	61	THR
1	J	62	VAL
1	J	63	LEU
1	J	65	ARG
1	J	69	ILE
1	J	70	GLN
1	J	71	VAL
1	J	75	ILE
1	J	76	THR
1	J	80	ASN
1	J	86	ILE
1	J	89	ASN
1	J	90	LEU
1	J	95	ARG
1	J	99	ARG
1	J	101	PHE
1	J	106	ILE
1	J	109	THR
1	J	110	LEU
1	J	113	THR
1	J	120	ASN
1	J	125	GLN
1	J	127	ILE
1	J	131	SER
1	J	132	ARG
1	J	133	TYR
1	J	134	HIS
1	J	140	LYS
1	J	144	MET
1	J	153	ASN
1	J	158	ARG
1	J	159	ASP
1	J	161	ASP
1	J	165	ASN
1	J	166	ASN
1	J	168	LEU
1	J	170	VAL
1	J	172	THR
1	J	180	LEU

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Mol	Chain	Res	Type
1	J	185	TYR
1	J	186	THR
1	J	187	MET
1	J	188	ASN
1	J	189	VAL
1	J	191	THR
1	J	192	ASN
1	J	198	ARG
1	J	199	ILE
1	J	202	VAL
1	J	203	LEU
1	J	207	VAL
1	J	209	LEU
1	J	215	ASP
1	J	217	GLU
1	J	218	GLN
1	J	224	ASN
1	J	226	THR
1	J	229	THR
1	J	231	ASN
1	J	232	TRP
1	J	233	VAL
1	J	240	ARG
1	J	241	ILE
1	J	247	ILE
1	J	250	ASP
1	J	251	VAL
1	J	254	ASN
1	J	257	ILE
1	J	261	ASN
1	J	271	LEU
1	J	275	THR
1	J	286	ILE
1	J	287	THR
1	J	290	TYR
1	J	292	LYS
1	J	295	ARG
1	J	296	TYR
1	J	297	THR
1	J	299	GLN
1	J	301	GLN
1	J	303	THR

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Mol	Chain	Res	Type
1	J	304	LEU
1	J	311	THR
1	J	313	LYS
1	J	314	SER
1	J	316	VAL
1	J	317	VAL
1	J	318	GLN
1	J	320	ASP
1	J	324	ARG
1	J	325	LYS
1	J	327	TYR
1	J	331	LYS
1	J	332	GLN
1	J	337	ILE
1	J	339	GLN
1	J	340	ASN
1	J	341	LEU
1	J	342	ASN
1	J	343	ASN
1	J	351	PHE
1	J	356	ASN
1	J	357	LEU
1	J	358	ASN
1	J	362	ASN
1	J	364	GLN
1	J	367	ILE
1	J	374	GLN
1	J	380	SER
1	J	381	VAL
1	J	386	ASN
1	J	387	LYS
1	J	389	TRP
1	J	390	SER
1	J	396	THR
1	J	397	GLN
1	J	399	PHE
1	J	402	VAL
1	J	405	GLN
1	J	416	ILE
1	J	418	CYS
1	J	419	LEU
1	J	420	GLU

Continued on next page...

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Mol	Chain	Res	Type
1	J	427	LEU
1	J	428	ARG
1	J	430	ASP
1	J	433	GLU
1	J	435	VAL
1	J	440	ASN
1	J	441	LEU
1	J	442	GLN
1	J	444	GLN
1	J	445	MET
1	J	446	THR
1	J	449	ASN
1	J	450	THR
1	J	452	GLN
1	J	459	ASP
1	J	465	VAL
1	J	466	TYR
1	J	470	LEU
1	J	473	SER
1	J	478	MET
1	J	481	ILE
1	J	483	VAL
1	J	486	LYS
1	J	493	ARG
1	J	494	ILE
1	J	498	VAL
1	J	505	ARG
1	J	506	ILE
1	K	1	MET
1	K	3	ASN
1	K	6	ILE
1	K	10	VAL
1	K	13	VAL
1	K	14	GLN
1	K	21	ASN
1	K	22	ASN
1	K	25	THR
1	K	28	VAL
1	K	30	LYS
1	K	36	THR
1	K	42	SER
1	K	49	GLN

Continued on next page...

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Mol	Chain	Res	Type
1	K	53	ILE
1	K	54	CYS
1	K	58	SER
1	K	60	GLN
1	K	61	THR
1	K	63	LEU
1	K	66	LEU
1	K	76	THR
1	K	82	SER
1	K	86	ILE
1	K	87	THR
1	K	89	ASN
1	K	90	LEU
1	K	91	LEU
1	K	95	ARG
1	K	99	ARG
1	K	101	PHE
1	K	104	SER
1	K	105	SER
1	K	109	THR
1	K	113	THR
1	K	117	PHE
1	K	120	ASN
1	K	121	ILE
1	K	127	ILE
1	K	130	LEU
1	K	131	SER
1	K	133	TYR
1	K	134	HIS
1	K	147	GLN
1	K	149	SER
1	K	153	ASN
1	K	156	SER
1	K	158	ARG
1	K	161	ASP
1	K	165	ASN
1	K	166	ASN
1	K	168	LEU
1	K	172	THR
1	K	177	LEU
1	K	184	SER
1	K	186	THR

Continued on next page...

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Mol	Chain	Res	Type
1	K	187	MET
1	K	191	THR
1	K	192	ASN
1	K	202	VAL
1	K	205	GLU
1	K	209	LEU
1	K	213	LEU
1	K	222	LEU
1	K	224	ASN
1	K	225	LEU
1	K	227	SER
1	K	228	LEU
1	K	229	THR
1	K	230	PHE
1	K	231	ASN
1	K	232	TRP
1	K	235	ASN
1	K	236	ASN
1	K	238	LEU
1	K	241	ILE
1	K	247	ILE
1	K	249	ASN
1	K	250	ASP
1	K	259	SER
1	K	261	ASN
1	K	262	ILE
1	K	264	PHE
1	K	265	GLN
1	K	275	THR
1	K	278	LEU
1	K	279	ASN
1	K	282	ILE
1	K	285	ARG
1	K	286	ILE
1	K	287	THR
1	K	290	TYR
1	K	292	LYS
1	K	295	ARG
1	K	296	TYR
1	K	297	THR
1	K	298	THR
1	K	301	GLN

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Mol	Chain	Res	Type
1	K	304	LEU
1	K	309	SER
1	K	310	SER
1	K	311	THR
1	K	313	LYS
1	K	328	LEU
1	K	334	ASP
1	K	336	VAL
1	K	337	ILE
1	K	342	ASN
1	K	343	ASN
1	K	346	THR
1	K	349	ASP
1	K	353	GLN
1	K	357	LEU
1	K	358	ASN
1	K	360	THR
1	K	361	TRP
1	K	362	ASN
1	K	363	ASN
1	K	364	GLN
1	K	368	LEU
1	K	376	LEU
1	K	379	PHE
1	K	386	ASN
1	K	388	THR
1	K	389	TRP
1	K	393	ASN
1	K	395	VAL
1	K	397	GLN
1	K	399	PHE
1	K	403	SER
1	K	405	GLN
1	K	407	THR
1	K	412	LEU
1	K	413	GLU
1	K	416	ILE
1	K	418	CYS
1	K	419	LEU
1	K	420	GLU
1	K	425	VAL
1	K	427	LEU

Continued on next page...

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Mol	Chain	Res	Type
1	K	428	ARG
1	K	430	ASP
1	K	431	GLU
1	K	433	GLU
1	K	436	ILE
1	K	438	ASN
1	K	439	PHE
1	K	441	LEU
1	K	444	GLN
1	K	446	THR
1	K	452	GLN
1	K	457	THR
1	K	459	ASP
1	K	465	VAL
1	K	470	LEU
1	K	474	ASN
1	K	475	THR
1	K	478	MET
1	K	481	ILE
1	K	483	VAL
1	K	487	GLU
1	K	488	GLU
1	K	491	ASN
1	K	493	ARG
1	K	494	ILE
1	K	495	THR
1	K	496	HIS
1	K	501	ASN
1	K	503	LEU
1	K	504	GLN
1	K	507	TYR
1	L	2	SER
1	L	6	ILE
1	L	8	LEU
1	L	9	ASN
1	L	13	VAL
1	L	15	GLU
1	L	17	ARG
1	L	19	GLU
1	L	20	LEU
1	L	21	ASN
1	L	22	ASN

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Mol	Chain	Res	Type
1	L	23	GLU
1	L	24	ARG
1	L	26	TRP
1	L	28	VAL
1	L	30	LYS
1	L	36	THR
1	L	38	TYR
1	L	42	SER
1	L	43	THR
1	L	46	SER
1	L	52	PHE
1	L	61	THR
1	L	62	VAL
1	L	63	LEU
1	L	66	LEU
1	L	69	ILE
1	L	70	GLN
1	L	76	THR
1	L	77	PHE
1	L	83	HIS
1	L	86	ILE
1	L	87	THR
1	L	91	LEU
1	L	92	GLN
1	L	95	ARG
1	L	99	ARG
1	L	101	PHE
1	L	106	ILE
1	L	107	THR
1	L	120	ASN
1	L	127	ILE
1	L	133	TYR
1	L	138	LYS
1	L	140	LYS
1	L	147	GLN
1	L	149	SER
1	L	153	ASN
1	L	155	GLN
1	L	158	ARG
1	L	159	ASP
1	L	165	ASN
1	L	166	ASN

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Mol	Chain	Res	Type
1	L	168	LEU
1	L	172	THR
1	L	177	LEU
1	L	178	SER
1	L	186	THR
1	L	188	ASN
1	L	190	VAL
1	L	192	ASN
1	L	194	THR
1	L	196	THR
1	L	198	ARG
1	L	199	ILE
1	L	206	GLN
1	L	209	LEU
1	L	215	ASP
1	L	217	GLU
1	L	222	LEU
1	L	224	ASN
1	L	227	SER
1	L	228	LEU
1	L	229	THR
1	L	231	ASN
1	L	233	VAL
1	L	235	ASN
1	L	236	ASN
1	L	237	ASN
1	L	240	ARG
1	L	247	ILE
1	L	248	THR
1	L	249	ASN
1	L	250	ASP
1	L	252	SER
1	L	254	ASN
1	L	256	THR
1	L	257	ILE
1	L	261	ASN
1	L	265	GLN
1	L	271	LEU
1	L	275	THR
1	L	280	ILE
1	L	285	ARG
1	L	286	ILE

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Mol	Chain	Res	Type
1	L	287	THR
1	L	290	TYR
1	L	293	LEU
1	L	295	ARG
1	L	297	THR
1	L	298	THR
1	L	299	GLN
1	L	300	PHE
1	L	301	GLN
1	L	313	LYS
1	L	317	VAL
1	L	320	ASP
1	L	322	ILE
1	L	324	ARG
1	L	328	LEU
1	L	339	GLN
1	L	341	LEU
1	L	343	ASN
1	L	344	GLN
1	L	345	ILE
1	L	346	THR
1	L	349	ASP
1	L	356	ASN
1	L	357	LEU
1	L	358	ASN
1	L	360	THR
1	L	361	TRP
1	L	362	ASN
1	L	363	ASN
1	L	365	GLN
1	L	367	ILE
1	L	374	GLN
1	L	380	SER
1	L	381	VAL
1	L	382	GLN
1	L	386	ASN
1	L	387	LYS
1	L	393	ASN
1	L	395	VAL
1	L	399	PHE
1	L	408	LYS
1	L	409	VAL

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Mol	Chain	Res	Type
1	L	412	LEU
1	L	413	GLU
1	L	416	ILE
1	L	418	CYS
1	L	419	LEU
1	L	420	GLU
1	L	423	LYS
1	L	424	ASP
1	L	427	LEU
1	L	429	ASP
1	L	433	GLU
1	L	439	PHE
1	L	441	LEU
1	L	446	THR
1	L	447	VAL
1	L	448	THR
1	L	449	ASN
1	L	457	THR
1	L	459	ASP
1	L	481	ILE
1	L	486	LYS
1	L	487	GLU
1	L	491	ASN
1	L	498	VAL
1	L	499	SER
1	L	505	ARG
1	L	506	ILE
1	M	1	MET
1	M	6	ILE
1	M	8	LEU
1	M	10	VAL
1	M	15	GLU
1	M	17	ARG
1	M	18	LEU
1	M	22	ASN
1	M	24	ARG
1	M	25	THR
1	M	36	THR
1	M	43	THR
1	M	58	SER
1	M	62	VAL
1	M	63	LEU

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Mol	Chain	Res	Type
1	M	65	ARG
1	M	66	LEU
1	M	70	GLN
1	M	87	THR
1	M	91	LEU
1	M	95	ARG
1	M	99	ARG
1	M	101	PHE
1	M	106	ILE
1	M	107	THR
1	M	108	ASN
1	M	109	THR
1	M	110	LEU
1	M	113	THR
1	M	120	ASN
1	M	122	GLU
1	M	131	SER
1	M	132	ARG
1	M	135	THR
1	M	137	LEU
1	M	138	LYS
1	M	140	LYS
1	M	147	GLN
1	M	152	ASP
1	M	153	ASN
1	M	158	ARG
1	M	165	ASN
1	M	168	LEU
1	M	170	VAL
1	M	172	THR
1	M	180	LEU
1	M	184	SER
1	M	186	THR
1	M	187	MET
1	M	188	ASN
1	M	192	ASN
1	M	193	THR
1	M	196	THR
1	M	198	ARG
1	M	199	ILE
1	M	203	LEU
1	M	206	GLN

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Mol	Chain	Res	Type
1	M	209	LEU
1	M	213	LEU
1	M	214	TRP
1	M	215	ASP
1	M	217	GLU
1	M	218	GLN
1	M	222	LEU
1	M	224	ASN
1	M	228	LEU
1	M	229	THR
1	M	231	ASN
1	M	233	VAL
1	M	234	LEU
1	M	237	ASN
1	M	238	LEU
1	M	240	ARG
1	M	241	ILE
1	M	246	ASP
1	M	247	ILE
1	M	248	THR
1	M	249	ASN
1	M	250	ASP
1	M	251	VAL
1	M	254	ASN
1	M	256	THR
1	M	259	SER
1	M	261	ASN
1	M	263	SER
1	M	265	GLN
1	M	271	LEU
1	M	275	THR
1	M	277	ARG
1	M	280	ILE
1	M	282	ILE
1	M	287	THR
1	M	293	LEU
1	M	295	ARG
1	M	297	THR
1	M	301	GLN
1	M	304	LEU
1	M	311	THR
1	M	313	LYS

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Mol	Chain	Res	Type
1	M	314	SER
1	M	315	ASN
1	M	317	VAL
1	M	318	GLN
1	M	320	ASP
1	M	324	ARG
1	M	325	LYS
1	M	326	LEU
1	M	328	LEU
1	M	333	SER
1	M	337	ILE
1	M	341	LEU
1	M	342	ASN
1	M	345	ILE
1	M	346	THR
1	M	347	THR
1	M	349	ASP
1	M	351	PHE
1	M	356	ASN
1	M	357	LEU
1	M	358	ASN
1	M	359	LEU
1	M	361	TRP
1	M	362	ASN
1	M	365	GLN
1	M	367	ILE
1	M	373	SER
1	M	380	SER
1	M	381	VAL
1	M	386	ASN
1	M	387	LYS
1	M	391	GLU
1	M	393	ASN
1	M	395	VAL
1	M	397	GLN
1	M	399	PHE
1	M	400	ASN
1	M	403	SER
1	M	405	GLN
1	M	407	THR
1	M	408	LYS
1	M	409	VAL

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Mol	Chain	Res	Type
1	M	412	LEU
1	M	419	LEU
1	M	424	ASP
1	M	425	VAL
1	M	427	LEU
1	M	428	ARG
1	M	430	ASP
1	M	436	ILE
1	M	439	PHE
1	M	441	LEU
1	M	444	GLN
1	M	446	THR
1	M	448	THR
1	M	451	ASN
1	M	452	GLN
1	M	457	THR
1	M	459	ASP
1	M	460	MET
1	M	469	THR
1	M	470	LEU
1	M	476	SER
1	M	478	MET
1	M	483	VAL
1	M	488	GLU
1	M	491	ASN
1	M	494	ILE
1	M	501	ASN
1	M	502	GLU
1	M	503	LEU
1	M	505	ARG
1	M	506	ILE
1	M	507	TYR
2	N	15	THR
2	N	16	VAL
2	N	17	TYR
2	N	18	TYR
2	N	22	ILE
2	N	24	PHE
2	N	25	LYS
2	N	28	ASP
2	N	35	ILE
2	N	36	PHE

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Mol	Chain	Res	Type
2	N	37	GLN
2	N	41	THR
2	N	46	HIS
2	N	53	LEU
2	N	55	VAL
2	N	56	VAL
2	N	58	PHE
2	N	59	SER
2	N	60	ILE
2	N	64	ASN
2	N	67	LEU
2	N	68	THR
2	N	71	GLN
2	N	75	TYR
2	N	77	ASN
2	N	79	ASN
2	N	81	ASN
2	N	84	ILE
2	N	87	VAL
2	N	94	THR
2	N	98	GLN
2	N	99	ASN
2	N	101	VAL
2	N	102	GLN
2	N	107	LEU
2	N	108	THR
2	N	109	SER
2	N	116	ASN
2	N	119	THR
2	N	120	VAL
2	N	124	ASN
2	N	132	TYR
2	N	133	ILE
2	N	134	TYR
2	N	137	SER
2	N	145	THR
2	N	158	VAL
2	N	161	ASP
2	N	166	PHE
2	N	170	ASN
2	N	171	THR
2	N	172	GLU

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Mol	Chain	Res	Type
2	N	173	LYS
2	N	176	LEU
2	N	179	GLN
2	N	182	TYR
2	N	183	TYR
2	N	185	ARG
2	N	193	ILE
2	N	196	ASN
2	N	197	VAL
2	N	199	LEU
2	N	204	ASP
2	N	213	TYR
2	N	219	ARG
2	N	220	ASP
2	N	221	ILE
2	N	222	LEU
2	N	227	PHE
2	N	228	LEU
2	N	231	ASN
2	N	238	THR
2	N	242	TYR
2	N	246	PHE
2	N	248	GLN
2	N	249	MET
2	N	255	THR
2	N	257	SER
2	N	264	THR
2	N	265	ILE
2	N	271	LEU
2	N	272	LEU
2	N	274	ILE
2	N	279	ILE
2	N	285	SER
2	N	286	ASN
2	N	291	ASN
2	N	296	LEU
2	N	299	PHE
2	N	304	THR
2	N	308	GLU
2	N	311	ILE
2	N	313	ILE
2	N	322	ARG

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Mol	Chain	Res	Type
2	N	327	PHE
2	N	329	SER
2	N	332	ILE
2	N	334	MET
2	N	335	VAL
2	N	336	ASP
2	N	341	TRP
2	N	342	THR
2	N	343	ASP
2	N	344	GLN
2	N	345	THR
2	N	348	GLN
2	N	351	ILE
2	N	352	ASN
2	N	353	ILE
2	N	357	ARG
2	N	358	ILE
2	N	360	THR
2	N	366	ILE
2	N	370	LEU
2	N	371	SER
2	N	372	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (410) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	3	ASN
1	A	22	ASN
1	A	34	GLN
1	A	48	ASN
1	A	108	ASN
1	A	115	ASN
1	A	128	HIS
1	A	153	ASN
1	A	164	ASN
1	A	165	ASN
1	A	192	ASN
1	A	224	ASN
1	A	254	ASN
1	A	261	ASN
1	A	265	GLN
1	A	266	GLN

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Mol	Chain	Res	Type
1	A	299	GLN
1	A	315	ASN
1	A	332	GLN
1	A	339	GLN
1	A	343	ASN
1	A	344	GLN
1	A	355	ASN
1	A	362	ASN
1	A	363	ASN
1	A	364	GLN
1	A	374	GLN
1	A	397	GLN
1	A	405	GLN
1	A	442	GLN
1	A	449	ASN
1	A	491	ASN
1	A	501	ASN
1	B	21	ASN
1	B	22	ASN
1	B	108	ASN
1	B	120	ASN
1	B	147	GLN
1	B	153	ASN
1	B	164	ASN
1	B	165	ASN
1	B	192	ASN
1	B	224	ASN
1	B	231	ASN
1	B	235	ASN
1	B	244	HIS
1	B	249	ASN
1	B	265	GLN
1	B	279	ASN
1	B	315	ASN
1	B	332	GLN
1	B	340	ASN
1	B	365	GLN
1	B	386	ASN
1	B	405	GLN
1	B	444	GLN
1	B	449	ASN
1	B	474	ASN

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Mol	Chain	Res	Type
1	B	491	ASN
1	B	501	ASN
1	B	504	GLN
1	C	21	ASN
1	C	22	ASN
1	C	70	GLN
1	C	89	ASN
1	C	92	GLN
1	C	120	ASN
1	C	125	GLN
1	C	128	HIS
1	C	192	ASN
1	C	206	GLN
1	C	218	GLN
1	C	237	ASN
1	C	249	ASN
1	C	254	ASN
1	C	299	GLN
1	C	301	GLN
1	C	315	ASN
1	C	353	GLN
1	C	362	ASN
1	C	374	GLN
1	C	375	ASN
1	C	383	ASN
1	C	386	ASN
1	C	397	GLN
1	C	449	ASN
1	C	451	ASN
1	C	501	ASN
1	D	3	ASN
1	D	21	ASN
1	D	22	ASN
1	D	33	GLN
1	D	48	ASN
1	D	60	GLN
1	D	120	ASN
1	D	134	HIS
1	D	164	ASN
1	D	192	ASN
1	D	206	GLN
1	D	218	GLN

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Mol	Chain	Res	Type
1	D	235	ASN
1	D	254	ASN
1	D	261	ASN
1	D	265	GLN
1	D	266	GLN
1	D	335	ASN
1	D	342	ASN
1	D	343	ASN
1	D	344	GLN
1	D	382	GLN
1	D	386	ASN
1	D	405	GLN
1	D	449	ASN
1	D	452	GLN
1	D	491	ASN
1	D	501	ASN
1	E	3	ASN
1	E	21	ASN
1	E	48	ASN
1	E	89	ASN
1	E	115	ASN
1	E	120	ASN
1	E	153	ASN
1	E	165	ASN
1	E	192	ASN
1	E	206	GLN
1	E	224	ASN
1	E	231	ASN
1	E	236	ASN
1	E	249	ASN
1	E	254	ASN
1	E	261	ASN
1	E	265	GLN
1	E	279	ASN
1	E	299	GLN
1	E	301	GLN
1	E	302	ASN
1	E	339	GLN
1	E	340	ASN
1	E	342	ASN
1	E	362	ASN
1	E	383	ASN

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Mol	Chain	Res	Type
1	E	398	GLN
1	E	405	GLN
1	E	438	ASN
1	E	449	ASN
1	F	3	ASN
1	F	21	ASN
1	F	22	ASN
1	F	34	GLN
1	F	70	GLN
1	F	89	ASN
1	F	115	ASN
1	F	120	ASN
1	F	165	ASN
1	F	188	ASN
1	F	192	ASN
1	F	206	GLN
1	F	218	GLN
1	F	231	ASN
1	F	237	ASN
1	F	261	ASN
1	F	265	GLN
1	F	266	GLN
1	F	299	GLN
1	F	335	ASN
1	F	343	ASN
1	F	374	GLN
1	F	382	GLN
1	F	449	ASN
1	F	452	GLN
1	F	491	ASN
1	F	496	HIS
1	F	501	ASN
1	G	9	ASN
1	G	14	GLN
1	G	21	ASN
1	G	22	ASN
1	G	49	GLN
1	G	51	ASN
1	G	111	ASN
1	G	165	ASN
1	G	192	ASN
1	G	206	GLN

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Mol	Chain	Res	Type
1	G	231	ASN
1	G	236	ASN
1	G	249	ASN
1	G	254	ASN
1	G	261	ASN
1	G	265	GLN
1	G	339	GLN
1	G	342	ASN
1	G	343	ASN
1	G	344	GLN
1	G	353	GLN
1	G	363	ASN
1	G	374	GLN
1	G	386	ASN
1	G	397	GLN
1	G	449	ASN
1	G	452	GLN
1	G	501	ASN
1	H	22	ASN
1	H	48	ASN
1	H	49	GLN
1	H	60	GLN
1	H	120	ASN
1	H	147	GLN
1	H	153	ASN
1	H	155	GLN
1	H	164	ASN
1	H	192	ASN
1	H	224	ASN
1	H	236	ASN
1	H	244	HIS
1	H	265	GLN
1	H	266	GLN
1	H	301	GLN
1	H	302	ASN
1	H	335	ASN
1	H	342	ASN
1	H	343	ASN
1	H	344	GLN
1	H	365	GLN
1	H	375	ASN
1	H	393	ASN

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Mol	Chain	Res	Type
1	H	405	GLN
1	H	449	ASN
1	H	491	ASN
1	H	501	ASN
1	I	3	ASN
1	I	9	ASN
1	I	22	ASN
1	I	51	ASN
1	I	70	GLN
1	I	83	HIS
1	I	92	GLN
1	I	120	ASN
1	I	153	ASN
1	I	155	GLN
1	I	164	ASN
1	I	165	ASN
1	I	188	ASN
1	I	192	ASN
1	I	206	GLN
1	I	218	GLN
1	I	231	ASN
1	I	235	ASN
1	I	249	ASN
1	I	261	ASN
1	I	265	GLN
1	I	266	GLN
1	I	315	ASN
1	I	339	GLN
1	I	340	ASN
1	I	344	GLN
1	I	353	GLN
1	I	355	ASN
1	I	362	ASN
1	I	363	ASN
1	I	374	GLN
1	I	375	ASN
1	I	442	GLN
1	I	444	GLN
1	I	452	GLN
1	I	491	ASN
1	I	501	ASN
1	J	3	ASN

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Mol	Chain	Res	Type
1	J	21	ASN
1	J	70	GLN
1	J	108	ASN
1	J	120	ASN
1	J	128	HIS
1	J	134	HIS
1	J	153	ASN
1	J	165	ASN
1	J	192	ASN
1	J	206	GLN
1	J	224	ASN
1	J	235	ASN
1	J	261	ASN
1	J	265	GLN
1	J	266	GLN
1	J	307	ASN
1	J	318	GLN
1	J	335	ASN
1	J	339	GLN
1	J	343	ASN
1	J	344	GLN
1	J	362	ASN
1	J	364	GLN
1	J	365	GLN
1	J	382	GLN
1	J	386	ASN
1	J	405	GLN
1	J	452	GLN
1	J	491	ASN
1	J	504	GLN
1	K	22	ASN
1	K	49	GLN
1	K	60	GLN
1	K	89	ASN
1	K	120	ASN
1	K	128	HIS
1	K	153	ASN
1	K	165	ASN
1	K	166	ASN
1	K	206	GLN
1	K	218	GLN
1	K	224	ASN

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Mol	Chain	Res	Type
1	K	231	ASN
1	K	235	ASN
1	K	236	ASN
1	K	265	GLN
1	K	266	GLN
1	K	302	ASN
1	K	332	GLN
1	K	342	ASN
1	K	343	ASN
1	K	344	GLN
1	K	353	GLN
1	K	362	ASN
1	K	363	ASN
1	K	374	GLN
1	K	393	ASN
1	K	397	GLN
1	K	438	ASN
1	K	449	ASN
1	K	496	HIS
1	K	501	ASN
1	L	3	ASN
1	L	9	ASN
1	L	14	GLN
1	L	21	ASN
1	L	22	ASN
1	L	34	GLN
1	L	55	ASN
1	L	83	HIS
1	L	89	ASN
1	L	153	ASN
1	L	155	GLN
1	L	164	ASN
1	L	165	ASN
1	L	192	ASN
1	L	206	GLN
1	L	218	GLN
1	L	224	ASN
1	L	231	ASN
1	L	235	ASN
1	L	237	ASN
1	L	249	ASN
1	L	254	ASN

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Mol	Chain	Res	Type
1	L	265	GLN
1	L	299	GLN
1	L	301	GLN
1	L	318	GLN
1	L	355	ASN
1	L	362	ASN
1	L	364	GLN
1	L	382	GLN
1	L	393	ASN
1	L	405	GLN
1	L	449	ASN
1	L	452	GLN
1	L	491	ASN
1	L	496	HIS
1	M	21	ASN
1	M	22	ASN
1	M	49	GLN
1	M	60	GLN
1	M	108	ASN
1	M	120	ASN
1	M	134	HIS
1	M	153	ASN
1	M	164	ASN
1	M	165	ASN
1	M	192	ASN
1	M	218	GLN
1	M	231	ASN
1	M	235	ASN
1	M	236	ASN
1	M	237	ASN
1	M	261	ASN
1	M	265	GLN
1	M	301	GLN
1	M	302	ASN
1	M	339	GLN
1	M	353	GLN
1	M	362	ASN
1	M	374	GLN
1	M	386	ASN
1	M	397	GLN
1	M	442	GLN
1	M	449	ASN

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Mol	Chain	Res	Type
1	M	452	GLN
1	M	491	ASN
1	M	501	ASN
2	N	64	ASN
2	N	73	GLN
2	N	98	GLN
2	N	99	ASN
2	N	124	ASN
2	N	170	ASN
2	N	198	ASN
2	N	231	ASN
2	N	291	ASN
2	N	305	ASN
2	N	344	GLN
2	N	348	GLN
2	N	352	ASN

5.3.3 RNA (i)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

There are no ligands in this entry.

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

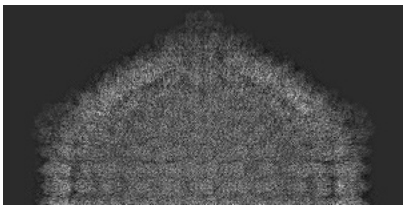
6 Map visualisation (i)

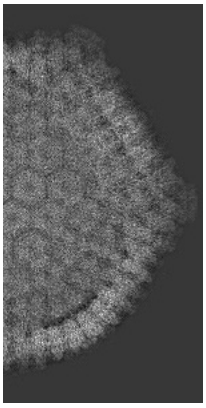
This section contains visualisations of the EMDB entry EMD-5495. These allow visual inspection of the internal detail of the map and identification of artifacts.

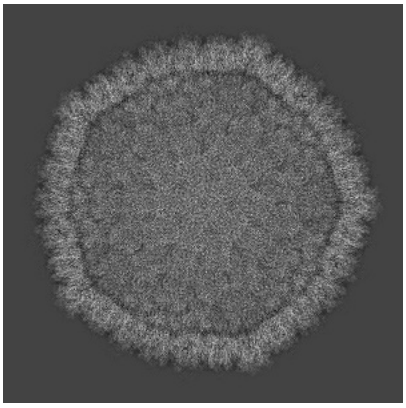
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections (i)

6.1.1 Primary map


X

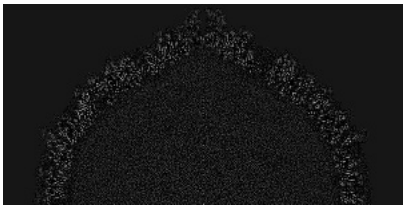

Y

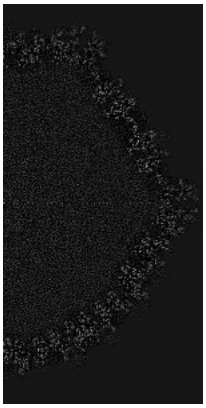

Z

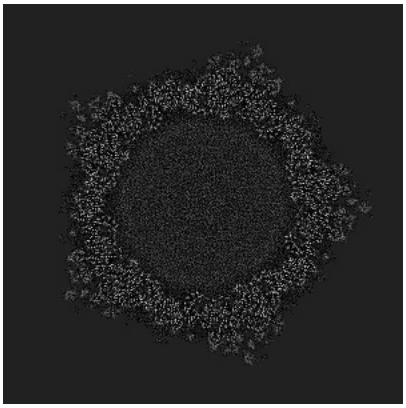
The images above show the map projected in three orthogonal directions.

6.2 Central slices (i)

6.2.1 Primary map


X Index: 384

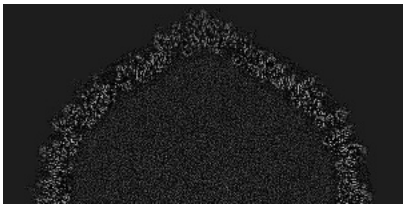

Y Index: 384


Z Index: 192

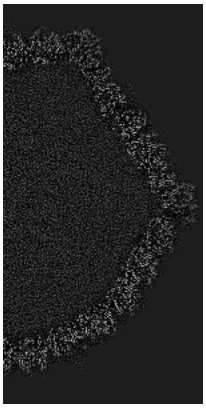
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

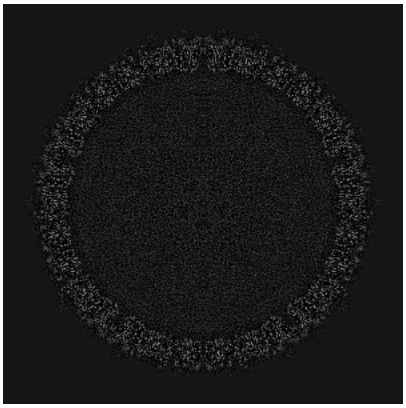
6.3.1 Primary map



X Index: 369



Y Index: 398



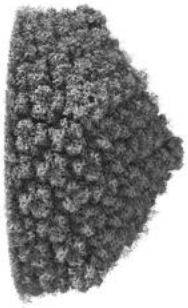
Z Index: 0

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

6.4 Orthogonal surface views (i)

6.4.1 Primary map

X



Y

Z

The images above show the 3D surface view of the map at the recommended contour level 2.0. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

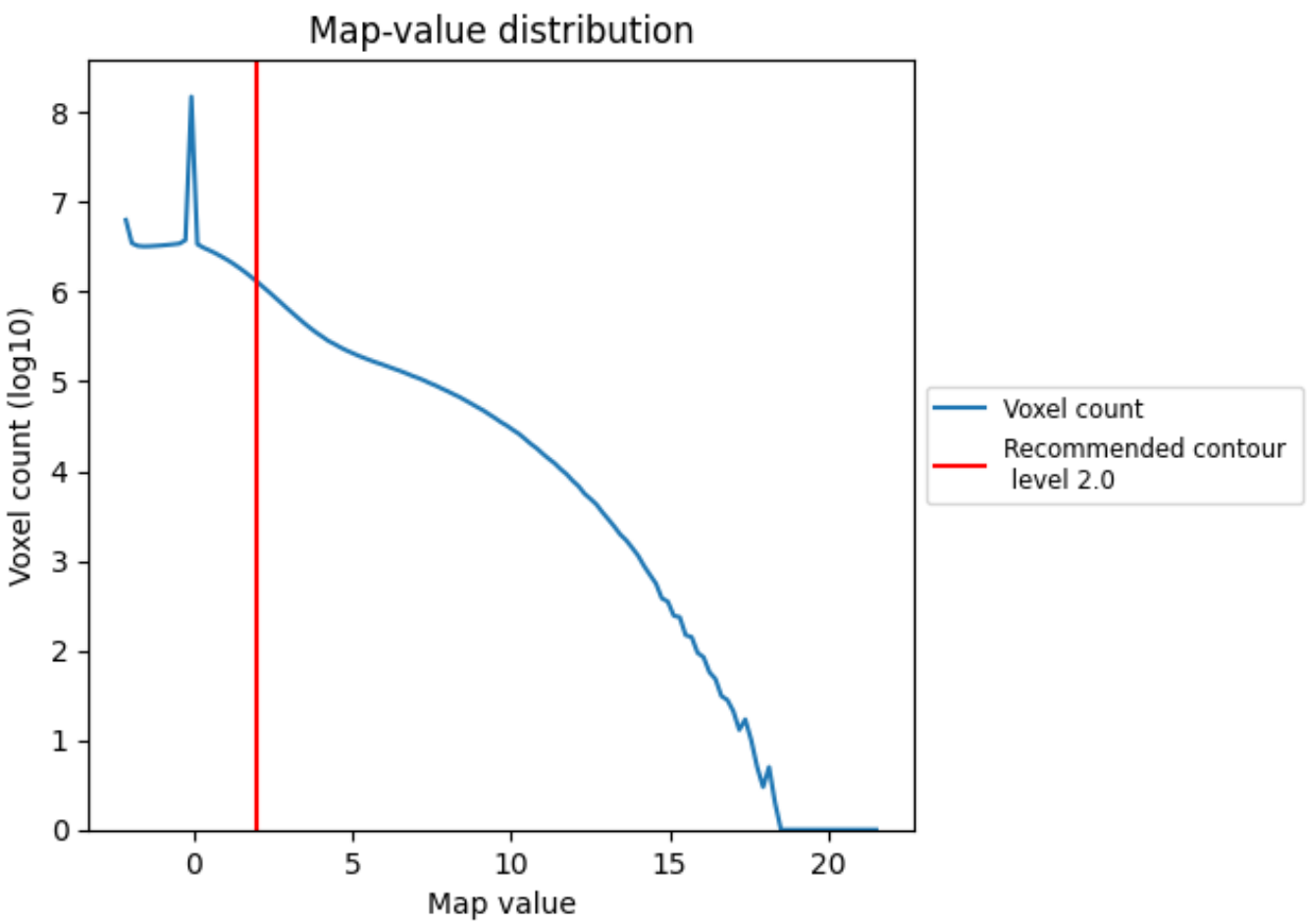
6.5 Mask visualisation (i)

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

7 Map analysis (i)

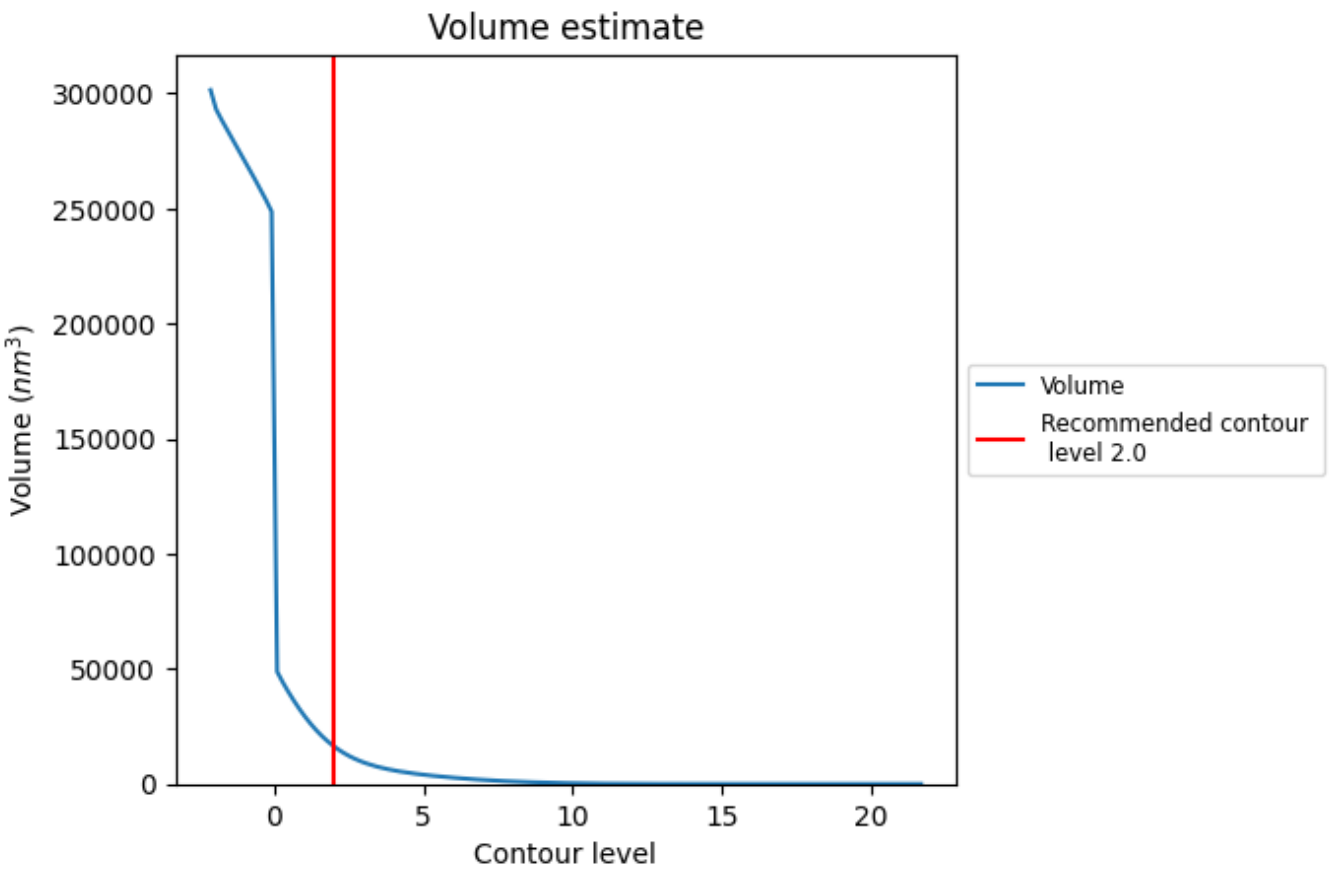
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution (i)



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

7.2 Volume estimate (i)



The volume at the recommended contour level is 16322 nm^3; this corresponds to an approximate mass of 14744 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)

This section was not generated. The rotationally averaged power spectrum is only generated for cubic maps.

8 Fourier-Shell correlation (i)

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

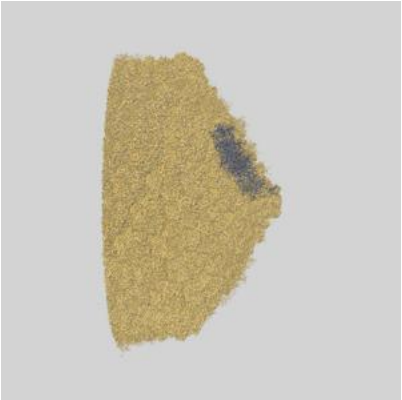
9 Map-model fit (i)

This section contains information regarding the fit between EMDB map EMD-5495 and PDB model 3J26. Per-residue inclusion information can be found in section 3 on page 5.

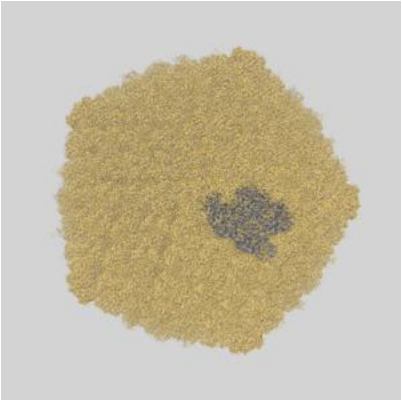
9.1 Map-model overlays

9.1.1 Map-model overlay (i)

X

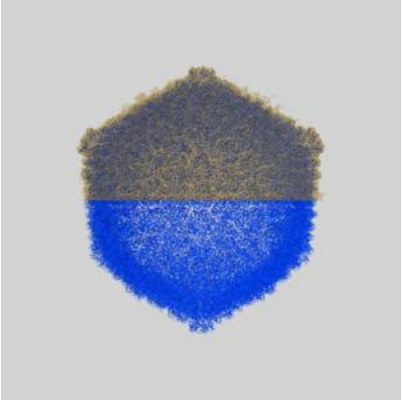


Y

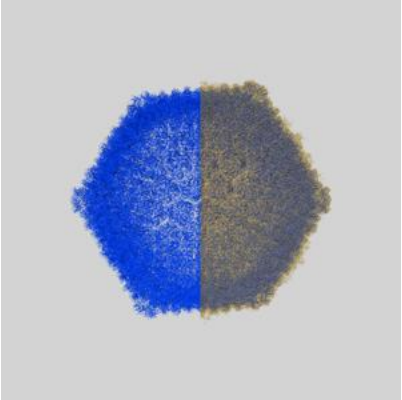


Z

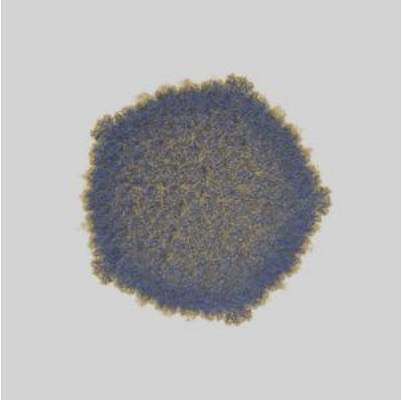
9.1.2 Map-model assembly overlay (i)



X



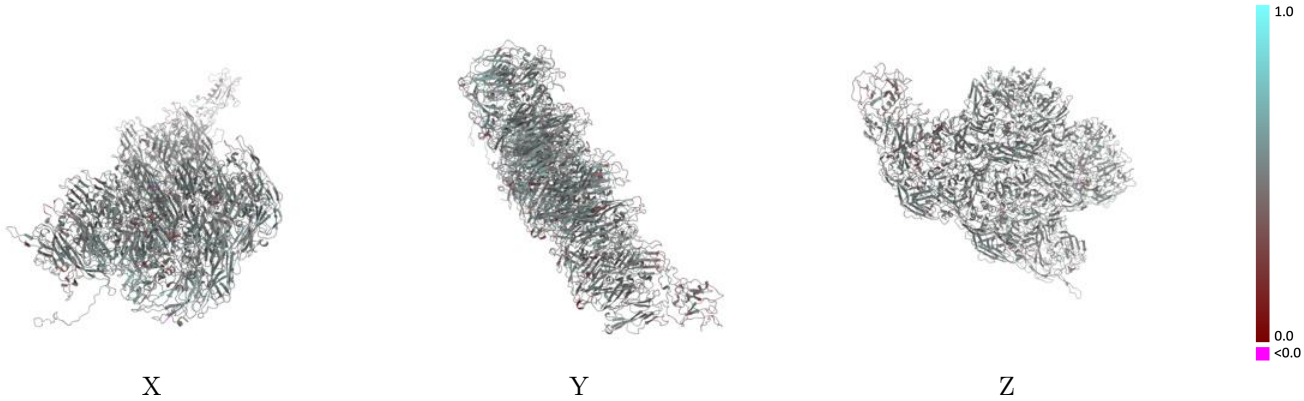
Y



Z

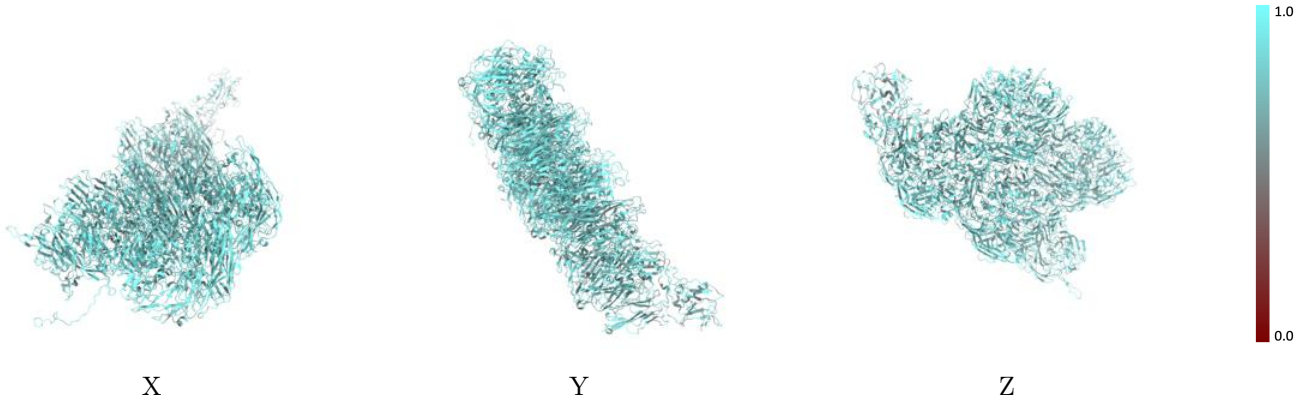
The images above show the 3D surface view of the map at the recommended contour level 2.0 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model (i)



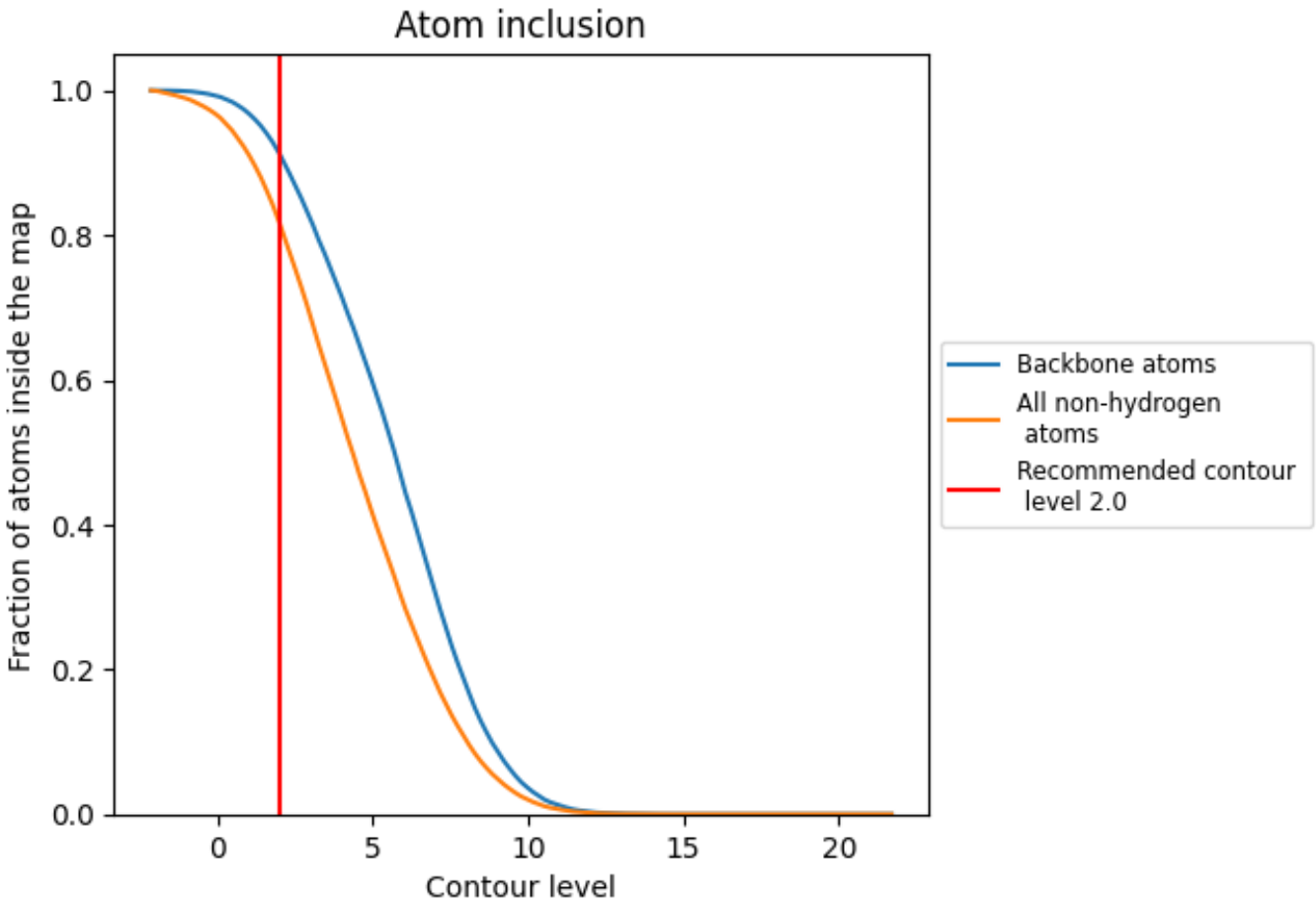
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

9.3 Atom inclusion mapped to coordinate model (i)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (2.0).

9.4 Atom inclusion (i)



At the recommended contour level, 91% of all backbone atoms, 82% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary (i)

The table lists the average atom inclusion at the recommended contour level (2.0) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.8162	0.4880
A	0.8187	0.4840
B	0.8100	0.4850
C	0.8008	0.4860
D	0.7716	0.4720
E	0.8210	0.4900
F	0.8313	0.4900
G	0.8177	0.4940
H	0.8392	0.4980
I	0.8331	0.4930
J	0.8341	0.4960
K	0.8415	0.4980
L	0.8397	0.5000
M	0.8259	0.4920
N	0.7144	0.4460