wwPDB EM Map/Model Validation Report (i)

Apr 10, 2016 – 01:42 PM BST

PDB ID	:	3IZO
EMDB ID:	:	EMD-5172
Title	:	Model of the fiber tail and its interactions with the penton base of human adenovirus by cryo-electron microscopy
Authors	:	Liu, H.
Deposited on	:	2010-11-05
Resolution	:	3.60 Å(reported)

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

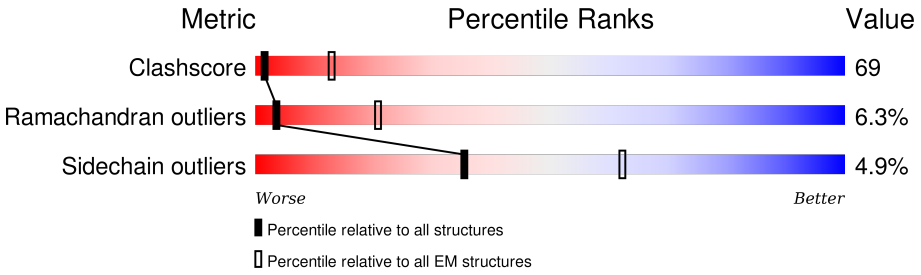
MolProbity	:	4.02b-467
Mogul	:	unknown
Percentile statistics	:	20151230.v01 (using entries in the PDB archive December 30th 2015)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et. al. (1996)
Validation Pipeline (wwPDB-VP)	:	trunk27241

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 3.60 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	114402	924
Ramachandran outliers	111179	726
Sidechain outliers	111093	686

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

Mol	Chain	Length	Quality of chain
1	A	571	38% 36% 6% 20%
1	B	571	37% 37% 5% 20%
1	C	571	37% 37% 5% 20%
1	D	571	39% 36% 5% 20%
1	E	571	38% 36% 5% 20%
2	F	581	98%
2	G	581	98%
2	H	581	98%

2 Entry composition

There are 2 unique types of molecules in this entry. The entry contains 18537 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 Penton protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	455	Total	C	N	O	S	0	0
			3642	2308	632	690	12		
1	B	455	Total	C	N	O	S	0	0
			3642	2308	632	690	12		
1	C	455	Total	C	N	O	S	0	0
			3642	2308	632	690	12		
1	D	455	Total	C	N	O	S	0	0
			3642	2308	632	690	12		
1	E	455	Total	C	N	O	S	0	0
			3642	2308	632	690	12		

- Molecule 2 is a protein called Fiber.

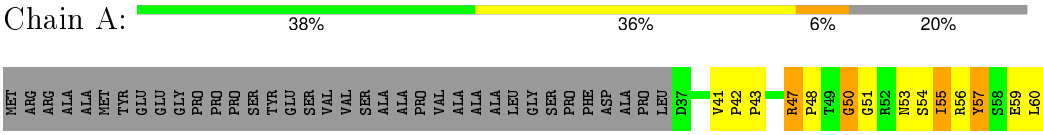
Mol	Chain	Residues	Atoms				AltConf	Trace
2	F	13	Total	C	N	O	0	0
			109	70	14	25		
2	G	13	Total	C	N	O	0	0
			109	70	14	25		
2	H	13	Total	C	N	O	0	0
			109	70	14	25		

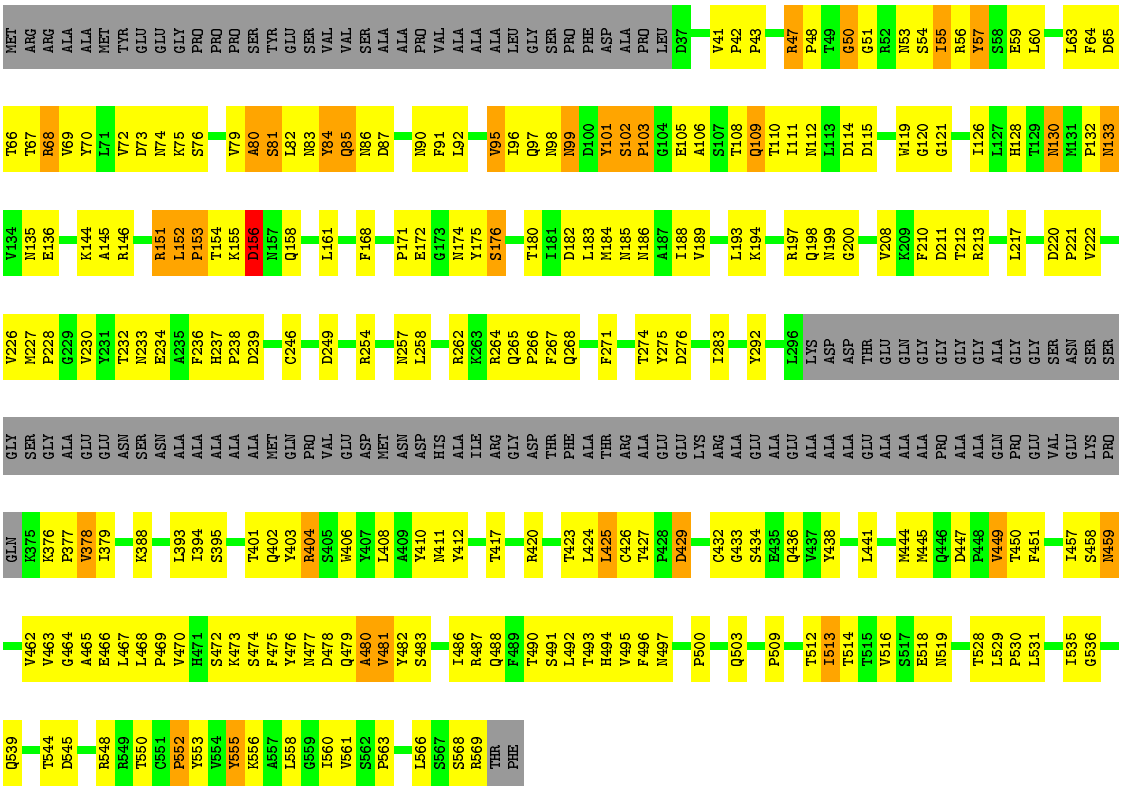
3 Residue-property plots (i)

These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

- Molecule 1: Penton protein

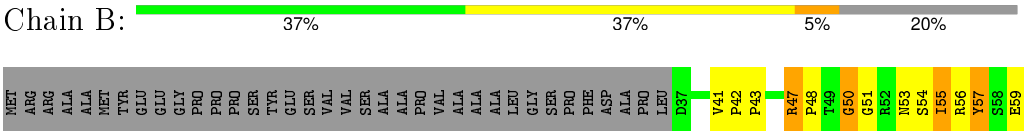
Chain A:

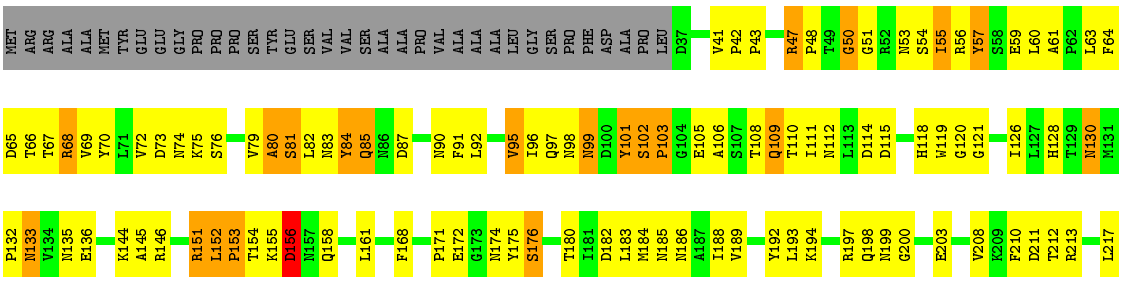


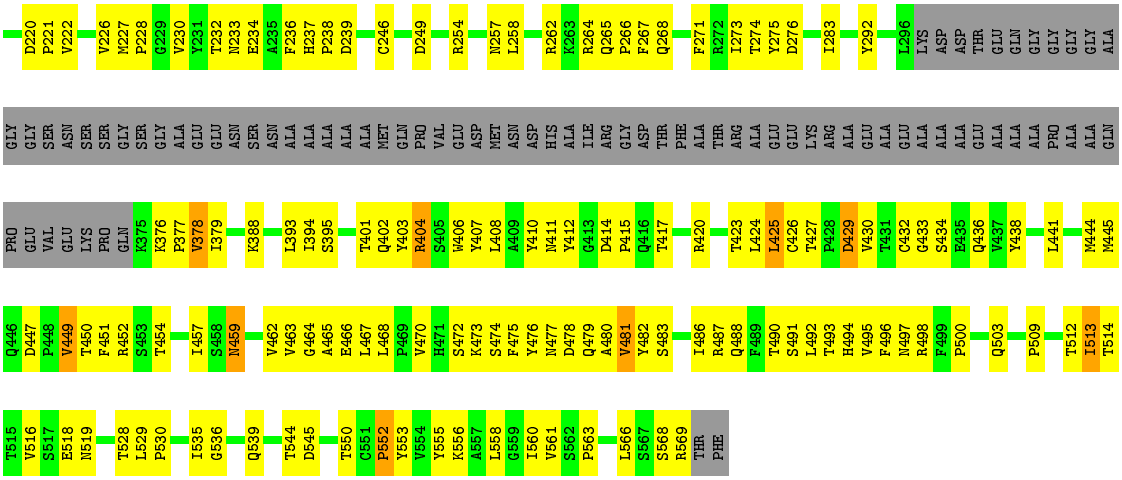


- Molecule 1: Penton protein

Chain B:

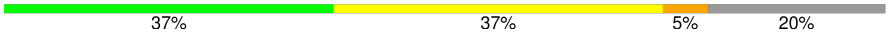


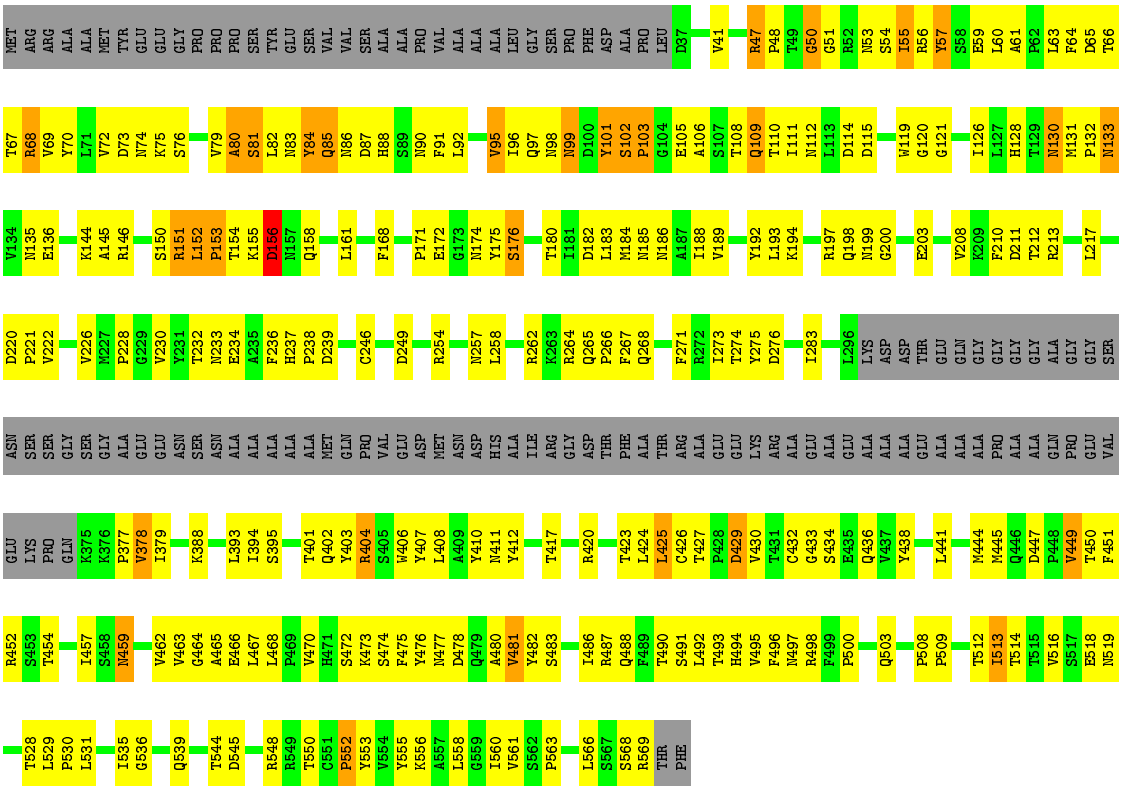




• Molecule 1: Penton protein

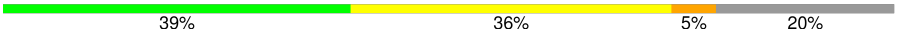
Chain C:

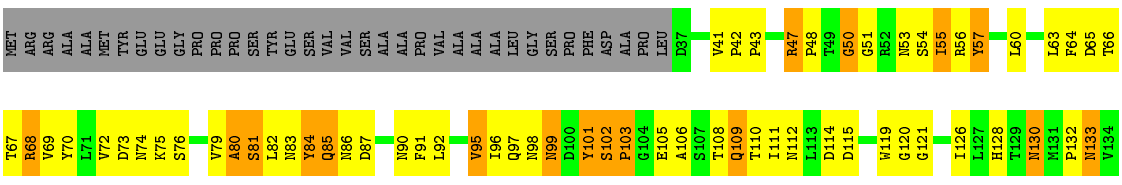


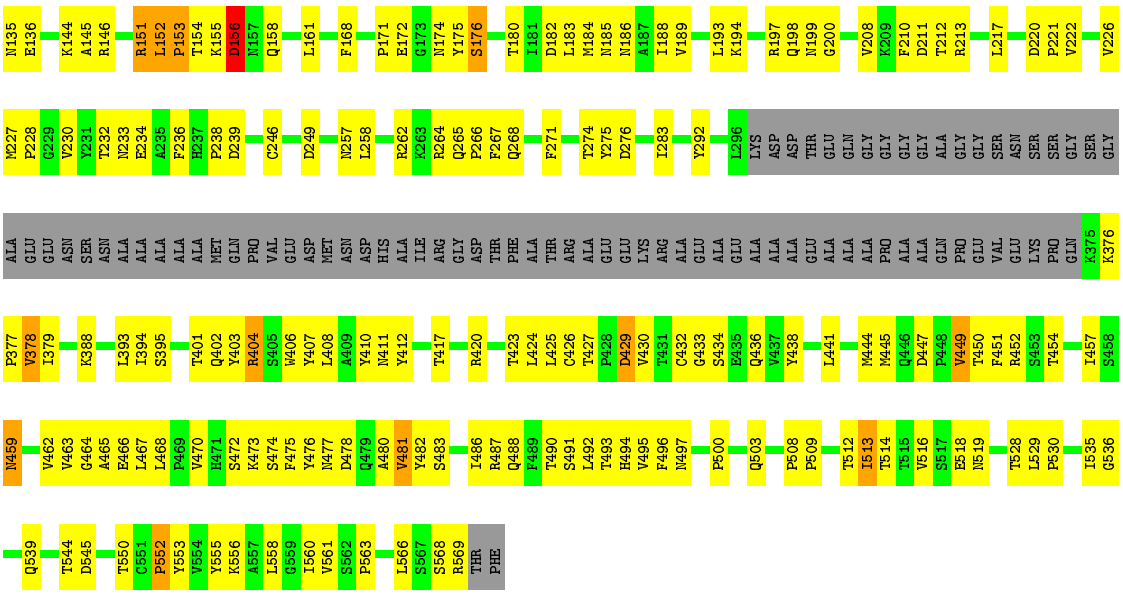


• Molecule 1: Penton protein

Chain D:

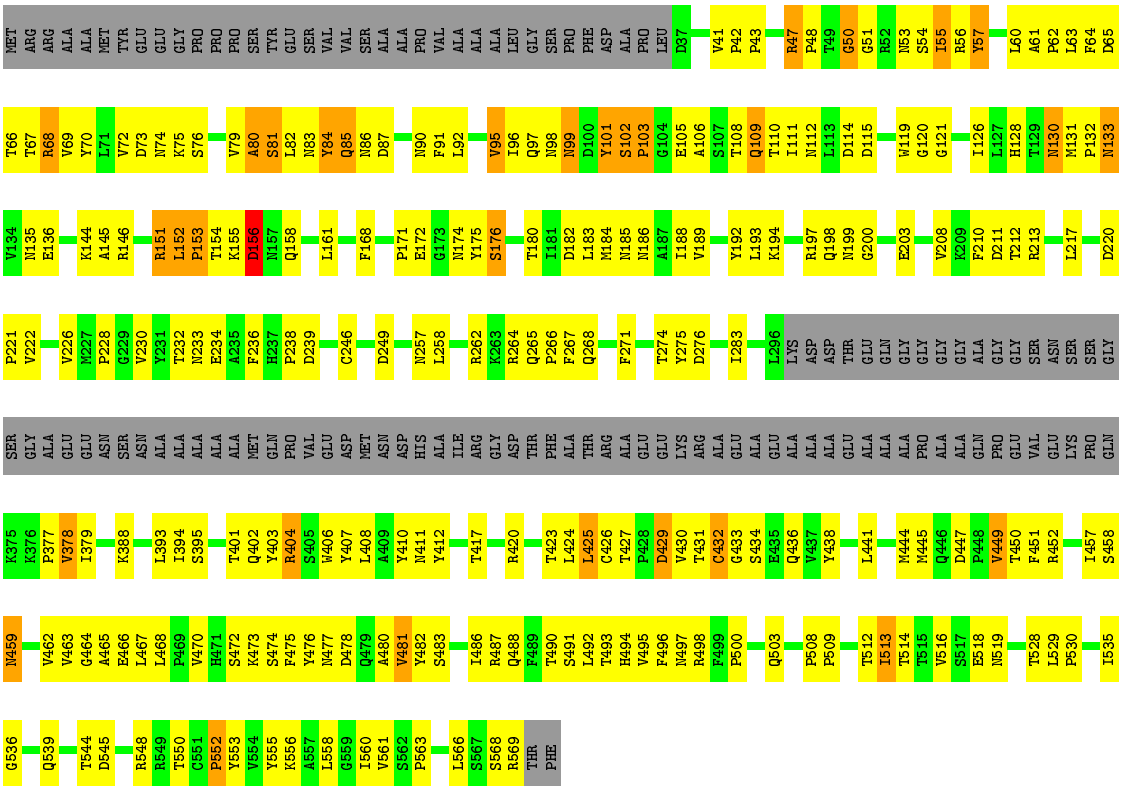






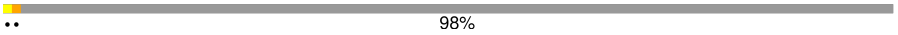
- Molecule 1: Penton protein

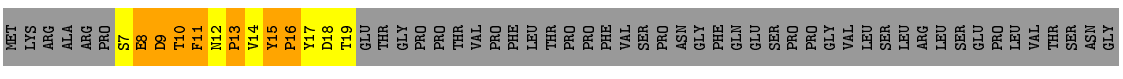
Chain E:

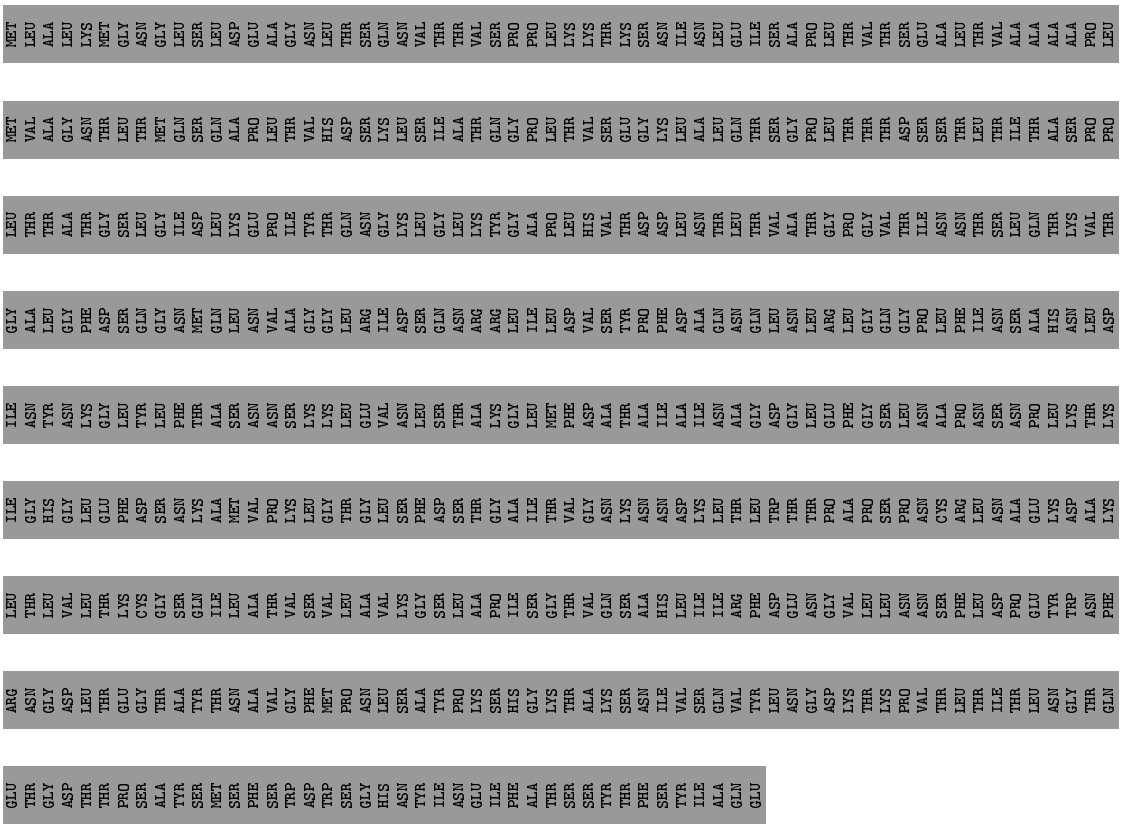


- Molecule 2: Fiber

Chain F:

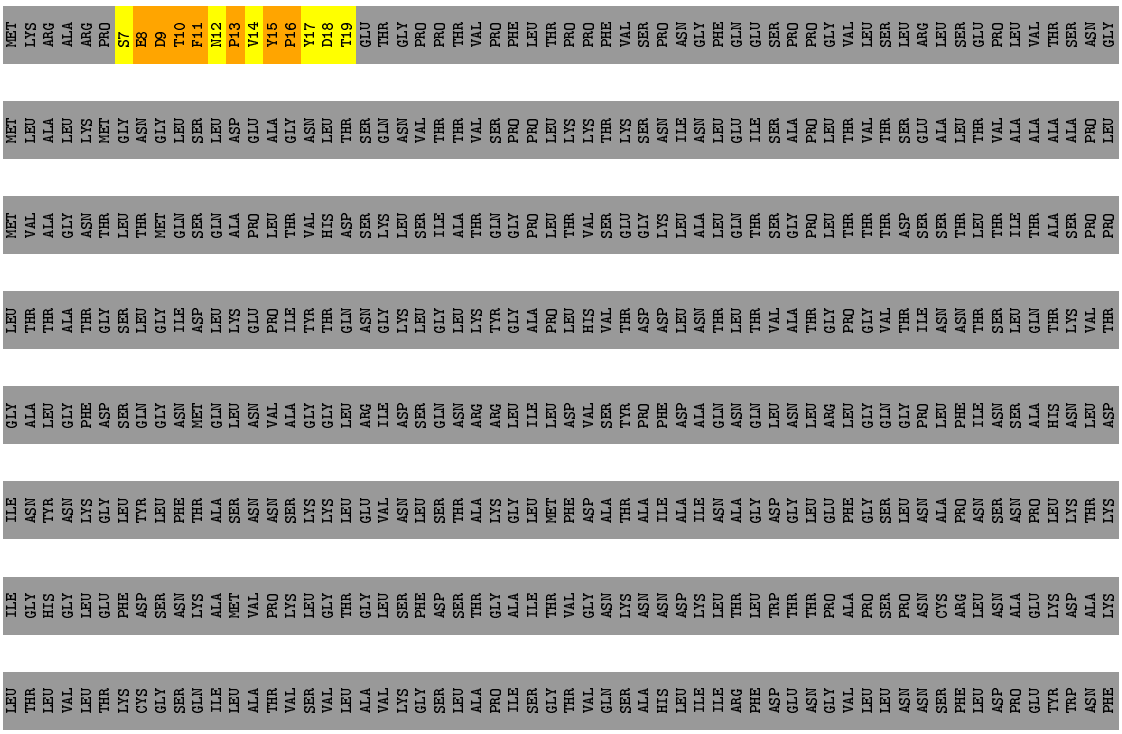


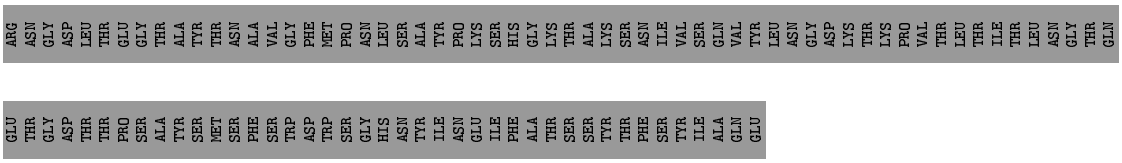




- Molecule 2: Fiber

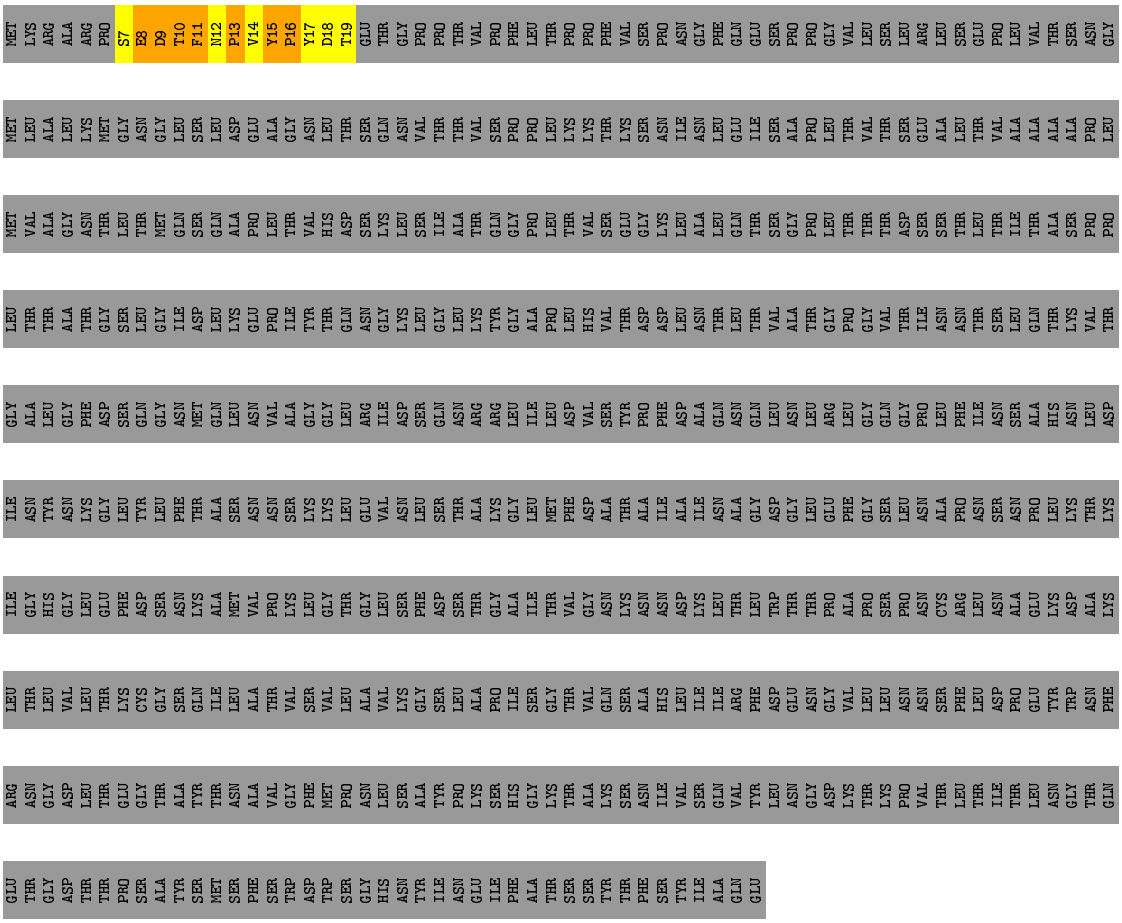
Chain G: 98%





- Molecule 2: Fiber

Chain H: 98%



4 Experimental information (i)

Property	Value	Source
Reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	Depositor
Number of images	Not provided	Depositor
Resolution determination method	Not provided	Depositor
CTF correction method	Not provided	Depositor
Microscope	Titan Krios	Depositor
Voltage (kV)	200	Depositor
Electron dose ($e^-/Å^2$)	Not provided	Depositor
Minimum defocus (nm)	Not provided	Depositor
Maximum defocus (nm)	Not provided	Depositor
Magnification	Not provided	Depositor
Image detector	KODAK SO163 FILM	Depositor

5 Model quality

5.1 Standard geometry

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|>2$	RMSZ	#$\|Z\|>2$
1	A	0.33	0/3733	0.54	0/5088
1	B	0.33	0/3733	0.55	0/5088
1	C	0.33	0/3733	0.55	0/5088
1	D	0.33	0/3733	0.55	0/5088
1	E	0.33	0/3733	0.54	0/5088
2	F	0.22	0/113	0.39	0/156
2	G	0.22	0/113	0.39	0/156
2	H	0.22	0/113	0.39	0/156
All	All	0.33	0/19004	0.54	0/25908

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	2
1	B	0	2
1	C	0	2
1	D	0	2
1	E	0	2
All	All	0	10

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

All (10) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	47	ARG	Sidechain
1	A	68	ARG	Sidechain

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Mol	Chain	Res	Type	Group
1	B	47	ARG	Sidechain
1	B	68	ARG	Sidechain
1	C	47	ARG	Sidechain
1	C	68	ARG	Sidechain
1	D	47	ARG	Sidechain
1	D	68	ARG	Sidechain
1	E	47	ARG	Sidechain
1	E	68	ARG	Sidechain

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	3642	0	3571	777	0
1	B	3642	0	3571	780	0
1	C	3642	0	3571	757	0
1	D	3642	0	3571	735	0
1	E	3642	0	3571	742	0
2	F	109	0	88	55	0
2	G	109	0	88	52	0
2	H	109	0	88	55	0
All	All	18537	0	18119	2535	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 69.

All (2535) 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:D:410:TYR:CE2	1:D:425:LEU:HD12	1.34	1.62
1:D:425:LEU:HD13	1:E:172:GLU:CB	1.27	1.59
1:A:267:PHE:CZ	1:B:80:ALA:HA	1.34	1.58
1:C:450:THR:HG23	1:D:57:TYR:CE1	1.41	1.54
1:A:450:THR:HG23	1:B:57:TYR:CE1	1.45	1.51
1:A:57:TYR:CD1	1:E:450:THR:HG22	1.46	1.51
1:A:172:GLU:CB	1:E:425:LEU:HD13	1.41	1.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:57:TYR:CE2	1:D:60:LEU:HD13	1.47	1.48
1:A:60:LEU:CD2	1:E:452:ARG:HG2	1.41	1.47
1:D:450:THR:HG23	1:E:57:TYR:CE1	1.49	1.46
1:B:450:THR:HG23	1:C:57:TYR:CE1	1.48	1.43
1:A:60:LEU:HD21	1:E:452:ARG:CG	1.48	1.42
1:B:228:PRO:HG3	2:G:15:TYR:CE1	1.56	1.41
1:A:267:PHE:HZ	1:B:80:ALA:CA	1.32	1.40
1:A:228:PRO:HG3	2:F:15:TYR:CE1	1.56	1.40
1:A:57:TYR:HD1	1:E:450:THR:CG2	1.34	1.39
1:D:228:PRO:HG3	2:H:15:TYR:CE1	1.56	1.38
1:A:126:ILE:HD12	1:E:436:GLN:NE2	1.37	1.36
1:B:267:PHE:CE1	1:C:76:SER:HB2	1.59	1.35
1:D:436:GLN:NE2	1:E:126:ILE:HD12	1.37	1.33
1:D:292:TYR:CE1	1:D:376:LYS:HD3	1.63	1.33
1:B:267:PHE:HE1	1:C:76:SER:CB	1.41	1.33
1:A:450:THR:HG23	1:B:57:TYR:CD1	1.63	1.32
1:C:452:ARG:CG	1:D:60:LEU:HD21	1.57	1.32
1:C:425:LEU:HD13	1:D:172:GLU:CB	1.57	1.31
1:A:292:TYR:CE1	1:A:376:LYS:HD3	1.63	1.31
1:B:450:THR:HG23	1:C:57:TYR:CD1	1.63	1.31
1:B:292:TYR:CE1	1:B:376:LYS:HD3	1.63	1.31
1:D:425:LEU:CD1	1:E:172:GLU:HB2	1.62	1.30
1:C:228:PRO:HB3	1:D:493:THR:CG2	1.63	1.28
1:A:172:GLU:HB2	1:E:425:LEU:CD1	1.64	1.28
1:D:410:TYR:CD2	1:D:425:LEU:HD12	1.69	1.27
1:E:410:TYR:CD2	1:E:425:LEU:HD12	1.70	1.27
1:A:493:THR:CG2	1:E:228:PRO:HB3	1.64	1.26
1:C:436:GLN:NE2	1:D:126:ILE:HD12	1.51	1.25
1:C:452:ARG:CD	1:D:60:LEU:HD11	1.64	1.25
1:A:57:TYR:CE2	1:A:60:LEU:HG	1.72	1.25
1:A:60:LEU:HD21	1:E:452:ARG:CD	1.66	1.23
1:D:267:PHE:CE2	1:E:76:SER:HB3	1.73	1.23
1:C:267:PHE:CE2	1:D:76:SER:HB3	1.74	1.22
1:A:493:THR:HG21	1:E:228:PRO:CB	1.70	1.22
1:C:425:LEU:CD1	1:D:172:GLU:HB2	1.70	1.21
1:C:452:ARG:HG2	1:D:60:LEU:CG	1.71	1.21
1:B:410:TYR:CE2	1:C:172:GLU:HG3	1.76	1.20
1:C:228:PRO:CB	1:D:493:THR:HG21	1.70	1.20
1:C:267:PHE:CE2	1:D:76:SER:CB	2.24	1.20
1:C:410:TYR:CE2	1:D:172:GLU:HG3	1.76	1.19
1:A:172:GLU:HG3	1:E:410:TYR:CE2	1.77	1.19

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:410:TYR:HE2	1:E:172:GLU:HG3	1.06	1.19
1:D:267:PHE:CE2	1:E:76:SER:CB	2.24	1.18
1:A:410:TYR:CE2	1:B:172:GLU:HG3	1.78	1.18
1:D:57:TYR:CE2	1:D:60:LEU:CD1	2.27	1.18
1:E:410:TYR:CE2	1:E:425:LEU:HD12	1.77	1.18
1:A:436:GLN:HE21	1:A:465:ALA:HB1	1.07	1.18
1:D:410:TYR:CE2	1:E:172:GLU:HG3	1.79	1.17
1:B:63:LEU:HD22	1:B:67:THR:HG22	1.22	1.17
1:C:452:ARG:HG2	1:D:60:LEU:CD2	1.74	1.17
1:B:425:LEU:HD22	1:C:172:GLU:CB	1.73	1.17
1:B:436:GLN:HE21	1:B:465:ALA:HB1	1.08	1.17
1:A:425:LEU:HD22	1:B:172:GLU:CB	1.73	1.17
1:D:410:TYR:CD2	1:D:425:LEU:CD1	2.27	1.16
1:D:57:TYR:HE2	1:D:60:LEU:CD1	1.58	1.16
1:A:436:GLN:OE1	1:B:126:ILE:HD12	1.43	1.16
1:A:83:ASN:HB3	1:E:267:PHE:CD1	1.79	1.16
1:C:68:ARG:HD3	1:C:70:TYR:CE2	1.80	1.16
1:D:410:TYR:CE2	1:D:425:LEU:CD1	2.28	1.16
1:B:425:LEU:HD22	1:C:172:GLU:HB3	1.24	1.16
1:C:436:GLN:HE22	1:D:558:LEU:HD11	1.04	1.15
1:D:63:LEU:HD22	1:D:67:THR:HG22	1.22	1.15
1:B:410:TYR:HE2	1:C:172:GLU:HG3	1.05	1.15
1:A:60:LEU:HD11	1:E:452:ARG:CG	1.75	1.15
1:A:493:THR:HG21	1:E:228:PRO:HB3	1.15	1.14
1:C:68:ARG:CD	1:C:70:TYR:CE2	2.30	1.14
1:A:68:ARG:CD	1:A:70:TYR:CE2	2.31	1.14
1:C:233:ASN:HB3	1:D:491:SER:HA	1.29	1.14
1:A:410:TYR:HE2	1:B:172:GLU:HG3	1.04	1.14
1:E:68:ARG:CD	1:E:70:TYR:CE2	2.31	1.13
1:D:228:PRO:CG	2:H:15:TYR:HE1	1.62	1.13
1:B:68:ARG:CD	1:B:70:TYR:CE2	2.31	1.13
1:C:63:LEU:HD22	1:C:67:THR:HG22	1.22	1.13
1:B:436:GLN:OE1	1:C:126:ILE:HD12	1.44	1.13
1:A:83:ASN:ND2	1:A:91:PHE:HB2	1.63	1.12
1:A:228:PRO:CG	2:F:15:TYR:HE1	1.62	1.12
1:D:376:LYS:HD2	1:D:378:VAL:CG1	1.80	1.12
1:D:68:ARG:CD	1:D:70:TYR:CE2	2.31	1.12
1:B:433:GLY:HA2	1:C:555:TYR:CE2	1.84	1.12
1:A:433:GLY:HA2	1:B:555:TYR:CE2	1.84	1.12
1:C:436:GLN:NE2	1:D:558:LEU:HD11	1.64	1.12
1:E:83:ASN:ND2	1:E:91:PHE:HB2	1.63	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:83:ASN:ND2	1:B:91:PHE:HB2	1.63	1.12
1:A:376:LYS:HD2	1:A:378:VAL:CG1	1.80	1.12
1:D:556:LYS:HE2	1:D:558:LEU:HD23	1.29	1.12
1:A:63:LEU:HD22	1:A:67:THR:HG22	1.22	1.11
1:A:172:GLU:HG3	1:E:410:TYR:HE2	1.06	1.11
1:B:480:ALA:O	1:B:481:VAL:HG22	1.50	1.11
1:C:83:ASN:ND2	1:C:91:PHE:HB2	1.63	1.11
1:B:267:PHE:CE1	1:C:76:SER:CB	2.25	1.11
1:E:556:LYS:HE2	1:E:558:LEU:HD23	1.29	1.11
1:A:47:ARG:HB2	1:E:569:ARG:CA	1.80	1.11
1:E:63:LEU:HD22	1:E:67:THR:HG22	1.22	1.11
1:B:228:PRO:CG	2:G:15:TYR:HE1	1.62	1.11
1:C:155:LYS:O	1:C:156:ASP:HB2	1.51	1.11
1:A:480:ALA:O	1:A:481:VAL:HG22	1.51	1.11
1:A:569:ARG:CA	1:B:47:ARG:HB2	1.81	1.11
1:D:433:GLY:HA2	1:E:555:TYR:CE2	1.86	1.11
1:C:452:ARG:HG3	1:D:60:LEU:HD21	1.29	1.10
1:C:450:THR:CG2	1:D:57:TYR:CE1	2.33	1.10
1:B:569:ARG:CA	1:C:47:ARG:HB2	1.80	1.10
1:B:376:LYS:HD2	1:B:378:VAL:CG1	1.80	1.10
1:D:83:ASN:ND2	1:D:91:PHE:HB2	1.63	1.10
1:A:486:ILE:CG2	1:E:482:TYR:CE1	2.35	1.10
1:C:410:TYR:HE2	1:D:172:GLU:HG3	1.03	1.10
1:B:155:LYS:O	1:B:156:ASP:HB2	1.51	1.10
1:A:68:ARG:HD3	1:A:70:TYR:CE2	1.83	1.10
1:A:227:MET:HB3	2:F:17:TYR:OH	1.51	1.09
1:D:227:MET:HB3	2:H:17:TYR:OH	1.51	1.09
1:A:556:LYS:HE2	1:A:558:LEU:HD23	1.18	1.09
1:D:569:ARG:CA	1:E:47:ARG:HB2	1.82	1.09
1:D:57:TYR:CE2	1:D:60:LEU:HD22	1.87	1.09
1:B:227:MET:HB3	2:G:17:TYR:OH	1.52	1.09
1:B:68:ARG:HD3	1:B:70:TYR:CE2	1.86	1.09
1:B:436:GLN:HE21	1:B:465:ALA:CB	1.65	1.09
1:A:491:SER:HA	1:E:233:ASN:HB3	1.33	1.09
1:E:473:LYS:HD2	1:E:475:PHE:HE1	1.13	1.09
1:A:60:LEU:HD11	1:E:452:ARG:HG3	1.20	1.08
1:A:473:LYS:HD2	1:A:475:PHE:HE1	1.13	1.08
1:B:459:ASN:HB2	1:C:99:ASN:HB3	1.34	1.08
1:E:68:ARG:HD3	1:E:70:TYR:CE2	1.86	1.08
1:D:473:LYS:HD2	1:D:475:PHE:HE1	1.13	1.08
1:D:155:LYS:O	1:D:156:ASP:HB2	1.51	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:556:LYS:HE2	1:B:558:LEU:HD23	1.29	1.08
1:A:155:LYS:O	1:A:156:ASP:HB2	1.51	1.08
1:D:47:ARG:HG3	1:D:48:PRO:HD2	1.35	1.08
1:E:473:LYS:HD2	1:E:475:PHE:CE1	1.89	1.07
1:D:376:LYS:HD2	1:D:378:VAL:HG13	1.26	1.07
1:D:233:ASN:HB3	1:E:491:SER:HA	1.33	1.07
1:A:233:ASN:HB3	1:B:491:SER:HA	1.30	1.07
1:B:376:LYS:HD2	1:B:378:VAL:HG13	1.26	1.07
1:C:569:ARG:CA	1:D:47:ARG:HB2	1.84	1.07
1:C:473:LYS:HD2	1:C:475:PHE:CE1	1.89	1.07
1:B:425:LEU:HD13	1:C:172:GLU:HB2	1.36	1.07
1:D:473:LYS:HD2	1:D:475:PHE:CE1	1.89	1.07
1:D:68:ARG:HD3	1:D:70:TYR:CE2	1.87	1.06
1:C:228:PRO:HB3	1:D:493:THR:HG21	1.17	1.06
1:C:473:LYS:HD2	1:C:475:PHE:HE1	1.13	1.06
1:A:376:LYS:HD2	1:A:378:VAL:HG13	1.26	1.06
1:A:425:LEU:HD22	1:B:172:GLU:HB3	1.33	1.06
1:B:473:LYS:HD2	1:B:475:PHE:CE1	1.90	1.06
2:H:8:GLU:O	2:H:9:ASP:HB2	1.52	1.06
1:B:473:LYS:HD2	1:B:475:PHE:HE1	1.13	1.06
1:A:473:LYS:HD2	1:A:475:PHE:CE1	1.89	1.06
1:A:558:LEU:HD11	1:E:436:GLN:HE22	1.17	1.05
1:B:436:GLN:OE1	1:C:558:LEU:HD11	1.56	1.05
1:B:57:TYR:CD2	1:B:60:LEU:HB3	1.90	1.05
1:A:450:THR:CG2	1:B:57:TYR:CE1	2.38	1.05
1:D:450:THR:HG23	1:E:57:TYR:CD1	1.91	1.05
1:C:57:TYR:CD2	1:C:60:LEU:HB3	1.90	1.05
1:A:436:GLN:HE21	1:A:465:ALA:CB	1.69	1.05
1:B:233:ASN:HB3	1:C:491:SER:HA	1.32	1.05
2:G:8:GLU:O	2:G:9:ASP:HB2	1.52	1.05
1:C:433:GLY:HA2	1:D:555:TYR:CE2	1.91	1.05
1:C:450:THR:HG23	1:D:57:TYR:CD1	1.90	1.05
1:C:482:TYR:CE1	1:D:486:ILE:CG2	2.40	1.05
2:G:8:GLU:HG3	2:G:9:ASP:H	1.22	1.05
2:F:8:GLU:O	2:F:9:ASP:HB2	1.52	1.05
1:C:452:ARG:HD2	1:D:60:LEU:HD11	1.06	1.04
1:C:436:GLN:HG3	1:C:466:GLU:O	1.57	1.04
1:B:450:THR:CG2	1:C:57:TYR:CE1	2.40	1.04
1:D:436:GLN:HG3	1:D:466:GLU:O	1.56	1.04
1:E:47:ARG:HG3	1:E:48:PRO:HD2	1.35	1.04
1:B:436:GLN:HG3	1:B:466:GLU:O	1.58	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:556:LYS:HE2	1:C:558:LEU:HD23	1.29	1.04
1:D:425:LEU:CD1	1:E:172:GLU:CB	2.24	1.03
1:A:410:TYR:CD2	1:A:425:LEU:CD1	2.41	1.03
1:A:47:ARG:HG3	1:A:48:PRO:HD2	1.35	1.03
1:E:436:GLN:HG3	1:E:466:GLU:O	1.58	1.03
1:B:47:ARG:HG3	1:B:48:PRO:HD2	1.36	1.03
2:F:8:GLU:HG3	2:F:9:ASP:H	1.22	1.03
1:A:558:LEU:HD11	1:E:436:GLN:NE2	1.71	1.03
1:D:459:ASN:HB2	1:E:99:ASN:HB3	1.37	1.03
2:G:14:VAL:HG13	1:C:203:GLU:OE2	1.59	1.03
1:C:481:VAL:HG12	1:D:490:THR:HB	1.41	1.03
1:A:436:GLN:HG3	1:A:466:GLU:O	1.57	1.03
1:A:433:GLY:HA2	1:B:555:TYR:HE2	1.21	1.03
1:D:47:ARG:CG	1:D:48:PRO:HD2	1.89	1.03
1:D:265:GLN:NE2	1:E:85:GLN:HA	1.72	1.03
1:C:265:GLN:NE2	1:D:85:GLN:HA	1.73	1.02
1:E:155:LYS:O	1:E:156:ASP:HB2	1.51	1.02
1:C:47:ARG:CG	1:C:48:PRO:HD2	1.89	1.02
1:E:47:ARG:CG	1:E:48:PRO:HD2	1.89	1.02
1:A:60:LEU:CG	1:E:452:ARG:HG2	1.90	1.02
1:D:436:GLN:HE22	1:E:126:ILE:HD12	0.88	1.02
1:A:292:TYR:HE1	1:A:376:LYS:CD	1.72	1.02
1:A:47:ARG:CG	1:A:48:PRO:HD2	1.89	1.02
1:A:476:TYR:HE2	1:B:477:ASN:HB3	1.23	1.02
1:D:482:TYR:CE1	1:E:486:ILE:CG2	2.42	1.02
1:B:292:TYR:HE1	1:B:376:LYS:CD	1.72	1.01
1:A:265:GLN:NE2	1:B:85:GLN:HA	1.73	1.01
1:A:60:LEU:CD1	1:E:452:ARG:HG2	1.89	1.01
1:A:556:LYS:NZ	1:E:436:GLN:HB2	1.75	1.01
1:D:292:TYR:HE1	1:D:376:LYS:CD	1.72	1.01
1:B:47:ARG:CG	1:B:48:PRO:HD2	1.89	1.01
1:A:490:THR:HB	1:E:481:VAL:HG12	1.41	1.01
1:A:57:TYR:CE2	1:A:60:LEU:CG	2.44	1.01
1:D:450:THR:CG2	1:E:57:TYR:CE1	2.42	1.01
2:F:14:VAL:HG13	1:B:203:GLU:OE2	1.60	1.01
1:D:436:GLN:NE2	1:E:126:ILE:CD1	2.23	1.01
1:B:174:ASN:ND2	1:B:183:LEU:CD1	2.23	1.01
1:A:85:GLN:HA	1:E:265:GLN:NE2	1.75	1.01
1:C:47:ARG:HG3	1:C:48:PRO:HD2	1.36	1.01
2:H:8:GLU:HG3	2:H:9:ASP:H	1.22	1.01
1:D:174:ASN:ND2	1:D:183:LEU:CD1	2.23	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:174:ASN:ND2	1:C:183:LEU:CD1	2.23	1.01
1:A:174:ASN:ND2	1:A:183:LEU:CD1	2.23	1.01
2:H:13:PRO:HA	1:E:197:ARG:HH12	1.24	1.01
1:B:434:SER:HB2	1:C:128:HIS:ND1	1.75	1.01
1:A:47:ARG:HB2	1:E:569:ARG:O	1.61	1.01
1:D:436:GLN:HE22	1:E:558:LEU:HD11	1.25	1.00
1:D:292:TYR:HE1	1:D:376:LYS:HD3	0.84	1.00
1:A:57:TYR:HE2	1:A:60:LEU:HG	1.20	1.00
1:B:436:GLN:N	1:C:556:LYS:HZ1	1.59	1.00
1:E:410:TYR:CD2	1:E:425:LEU:CD1	2.43	1.00
2:H:14:VAL:HG13	1:E:203:GLU:OE2	1.61	1.00
2:H:12:ASN:O	2:H:14:VAL:HG23	1.62	1.00
1:D:481:VAL:HG12	1:E:490:THR:HB	1.44	1.00
1:E:174:ASN:ND2	1:E:183:LEU:CD1	2.23	1.00
1:C:459:ASN:HB2	1:D:99:ASN:HB3	1.38	1.00
2:G:12:ASN:O	2:G:14:VAL:HG23	1.62	0.99
1:C:267:PHE:HE2	1:D:76:SER:CB	1.69	0.99
1:B:265:GLN:NE2	1:C:85:GLN:HA	1.75	0.99
1:A:292:TYR:HE1	1:A:376:LYS:HD3	0.84	0.99
2:F:12:ASN:O	2:F:14:VAL:HG23	1.62	0.99
1:B:476:TYR:HE2	1:C:477:ASN:HB3	1.28	0.99
1:E:84:TYR:O	1:E:85:GLN:HG3	1.63	0.99
1:D:569:ARG:O	1:E:47:ARG:HB2	1.61	0.99
1:D:84:TYR:O	1:D:85:GLN:HG3	1.63	0.99
1:C:452:ARG:CG	1:D:60:LEU:CD2	2.35	0.99
1:C:452:ARG:CG	1:D:60:LEU:HD11	1.93	0.99
1:C:452:ARG:HG2	1:D:60:LEU:HD21	1.32	0.98
1:B:569:ARG:O	1:C:47:ARG:HB2	1.63	0.98
1:B:84:TYR:O	1:B:85:GLN:HG3	1.63	0.98
1:D:267:PHE:HE2	1:E:76:SER:CB	1.68	0.98
1:A:126:ILE:CD1	1:E:436:GLN:NE2	2.25	0.98
1:D:434:SER:HB3	1:E:556:LYS:HB2	1.45	0.98
1:C:569:ARG:O	1:D:47:ARG:HB2	1.64	0.98
1:A:267:PHE:HE2	1:B:84:TYR:CD1	1.81	0.98
2:G:13:PRO:HA	1:C:197:ARG:HH12	1.23	0.98
1:A:569:ARG:O	1:B:47:ARG:HB2	1.62	0.98
1:B:292:TYR:HE1	1:B:376:LYS:HD3	0.84	0.97
1:D:433:GLY:HA2	1:E:555:TYR:HE2	1.23	0.97
1:C:267:PHE:HE2	1:D:76:SER:HB2	1.29	0.97
1:D:434:SER:HB2	1:E:128:HIS:ND1	1.79	0.97
1:C:434:SER:HB2	1:D:128:HIS:ND1	1.78	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:436:GLN:HB2	1:E:556:LYS:NZ	1.80	0.97
1:A:82:LEU:HD13	1:A:92:LEU:HD13	1.46	0.97
1:A:60:LEU:CD1	1:E:452:ARG:CG	2.42	0.97
1:D:228:PRO:CG	2:H:15:TYR:CE1	2.42	0.97
1:D:267:PHE:HE2	1:E:76:SER:HB2	1.29	0.97
1:D:476:TYR:HE2	1:E:477:ASN:HB3	1.28	0.97
1:C:410:TYR:CD2	1:C:425:LEU:HD12	1.99	0.97
1:B:434:SER:HB3	1:C:556:LYS:HB2	1.43	0.97
1:A:228:PRO:CG	2:F:15:TYR:CE1	2.42	0.97
1:A:434:SER:HB2	1:B:128:HIS:ND1	1.78	0.97
1:D:425:LEU:HD13	1:E:172:GLU:CG	1.93	0.97
2:F:13:PRO:HA	1:B:197:ARG:HH12	1.27	0.97
1:E:82:LEU:HD13	1:E:92:LEU:HD13	1.46	0.96
1:A:436:GLN:HB2	1:B:556:LYS:NZ	1.80	0.96
1:C:82:LEU:HD13	1:C:92:LEU:HD13	1.46	0.96
1:B:433:GLY:CA	1:C:555:TYR:HE2	1.78	0.96
1:A:84:TYR:O	1:A:85:GLN:HG3	1.63	0.96
1:B:82:LEU:HD13	1:B:92:LEU:HD13	1.46	0.96
1:A:464:GLY:HA3	1:B:68:ARG:NH1	1.80	0.96
1:B:436:GLN:HB2	1:C:556:LYS:NZ	1.79	0.96
1:C:230:VAL:HG11	1:D:492:LEU:CB	1.96	0.96
1:A:436:GLN:OE1	1:B:558:LEU:HD11	1.66	0.96
1:A:569:ARG:HA	1:B:47:ARG:HB2	1.47	0.96
1:E:57:TYR:O	1:E:57:TYR:CD1	2.19	0.95
1:A:556:LYS:HZ1	1:E:436:GLN:N	1.63	0.95
1:D:436:GLN:NE2	1:E:558:LEU:HD11	1.80	0.95
1:A:476:TYR:CE2	1:B:477:ASN:HB3	2.01	0.95
1:D:57:TYR:O	1:D:57:TYR:CD1	2.19	0.95
1:C:433:GLY:HA2	1:D:555:TYR:HE2	1.29	0.95
1:C:434:SER:HB3	1:D:556:LYS:HB2	1.46	0.95
1:C:436:GLN:HE22	1:D:126:ILE:HD12	1.16	0.95
1:A:230:VAL:HG11	1:B:492:LEU:CB	1.97	0.95
1:C:569:ARG:HA	1:D:47:ARG:HB2	1.49	0.95
1:C:84:TYR:O	1:C:85:GLN:HG3	1.63	0.95
1:A:126:ILE:HD12	1:E:436:GLN:HE22	0.96	0.95
1:A:433:GLY:CA	1:B:555:TYR:HE2	1.78	0.95
1:C:228:PRO:CG	1:D:493:THR:HG21	1.96	0.95
1:B:434:SER:O	1:C:556:LYS:HD3	1.65	0.95
1:A:172:GLU:CG	1:E:425:LEU:HD13	1.95	0.94
1:B:450:THR:CG2	1:C:57:TYR:CD1	2.50	0.94
1:A:434:SER:HB3	1:B:556:LYS:HB2	1.45	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:492:LEU:CB	1:E:230:VAL:HG11	1.97	0.94
1:A:450:THR:CG2	1:B:57:TYR:CD1	2.50	0.94
1:C:425:LEU:HD13	1:D:172:GLU:HB2	0.95	0.94
1:B:433:GLY:HA2	1:C:555:TYR:HE2	1.24	0.94
1:B:376:LYS:CD	1:B:378:VAL:HG13	1.98	0.94
1:A:464:GLY:CA	1:B:68:ARG:NH1	2.30	0.94
1:D:569:ARG:HA	1:E:47:ARG:HB2	1.47	0.94
1:D:376:LYS:CD	1:D:378:VAL:HG13	1.98	0.94
1:C:436:GLN:HB2	1:D:556:LYS:NZ	1.82	0.94
1:D:433:GLY:CA	1:E:555:TYR:HE2	1.81	0.94
1:D:82:LEU:HD13	1:D:92:LEU:HD13	1.46	0.94
1:C:154:THR:O	1:C:155:LYS:HB2	1.68	0.94
1:B:230:VAL:HG11	1:C:492:LEU:CB	1.97	0.94
2:G:15:TYR:HB2	1:C:498:ARG:NH1	1.82	0.94
1:D:434:SER:O	1:E:556:LYS:HD3	1.67	0.94
1:A:555:TYR:CE2	1:E:433:GLY:HA2	2.03	0.94
1:C:452:ARG:HD2	1:D:60:LEU:CD1	1.96	0.94
1:D:57:TYR:HE2	1:D:60:LEU:CD2	1.81	0.94
1:E:174:ASN:ND2	1:E:183:LEU:HD11	1.84	0.93
1:B:57:TYR:CE2	1:B:60:LEU:CB	2.51	0.93
1:C:174:ASN:ND2	1:C:183:LEU:HD11	1.83	0.93
1:B:450:THR:HG23	1:C:57:TYR:HE1	1.23	0.93
1:A:556:LYS:HE2	1:A:558:LEU:CD2	1.97	0.93
1:C:436:GLN:N	1:D:556:LYS:HZ1	1.66	0.93
1:A:60:LEU:CD2	1:E:452:ARG:CG	2.23	0.93
1:C:57:TYR:CE2	1:C:60:LEU:CB	2.51	0.93
1:A:556:LYS:CE	1:A:558:LEU:HD23	1.97	0.93
1:A:63:LEU:HD22	1:A:67:THR:CG2	1.98	0.93
1:A:228:PRO:HG3	2:F:15:TYR:HE1	0.93	0.93
1:A:154:THR:O	1:A:155:LYS:HB2	1.68	0.93
1:A:172:GLU:CB	1:E:425:LEU:CD1	2.35	0.93
1:A:60:LEU:HD21	1:E:452:ARG:HG2	1.04	0.93
1:E:63:LEU:HD22	1:E:67:THR:CG2	1.98	0.93
1:B:569:ARG:HA	1:C:47:ARG:HB2	1.47	0.93
1:B:63:LEU:HD22	1:B:67:THR:CG2	1.98	0.92
1:A:86:ASN:O	1:E:267:PHE:CE1	2.22	0.92
1:C:63:LEU:HD22	1:C:67:THR:CG2	1.98	0.92
1:A:47:ARG:HB2	1:E:569:ARG:HA	1.46	0.92
1:A:556:LYS:HZ1	1:E:436:GLN:CB	1.82	0.92
1:A:436:GLN:N	1:B:556:LYS:HZ1	1.67	0.92
1:B:529:LEU:HD21	1:C:68:ARG:HH11	1.34	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:47:ARG:HB2	1:E:569:ARG:C	1.90	0.92
1:D:174:ASN:ND2	1:D:183:LEU:HD11	1.84	0.92
1:B:154:THR:O	1:B:155:LYS:HB2	1.68	0.92
1:E:154:THR:O	1:E:155:LYS:HB2	1.68	0.92
1:A:376:LYS:CD	1:A:378:VAL:HG13	1.98	0.92
1:A:434:SER:O	1:B:556:LYS:HD3	1.68	0.92
1:E:68:ARG:HD2	1:E:70:TYR:CE2	2.04	0.92
1:B:144:LYS:HB2	1:B:249:ASP:HB3	1.52	0.92
1:C:434:SER:O	1:D:556:LYS:HD3	1.69	0.91
1:A:490:THR:HG21	1:E:482:TYR:HB2	1.50	0.91
2:G:13:PRO:HA	1:C:197:ARG:NH1	1.85	0.91
2:H:15:TYR:HB2	1:E:498:ARG:NH1	1.83	0.91
1:D:63:LEU:HD22	1:D:67:THR:CG2	1.98	0.91
1:D:476:TYR:CE2	1:E:477:ASN:HB3	2.05	0.91
1:C:144:LYS:HB2	1:C:249:ASP:HB3	1.52	0.91
1:A:68:ARG:NH1	1:E:464:GLY:HA3	1.86	0.91
1:A:144:LYS:HB2	1:A:249:ASP:HB3	1.52	0.91
1:B:267:PHE:CE2	1:C:86:ASN:O	2.24	0.91
1:C:450:THR:HG23	1:D:57:TYR:CZ	2.05	0.91
1:A:128:HIS:ND1	1:E:434:SER:HB2	1.85	0.91
1:C:410:TYR:HE2	1:D:172:GLU:CG	1.83	0.91
2:F:15:TYR:HB2	1:B:498:ARG:NH1	1.86	0.91
1:A:450:THR:HG23	1:B:57:TYR:HE1	1.21	0.91
1:D:230:VAL:HG11	1:E:492:LEU:CB	2.00	0.91
1:E:47:ARG:CZ	1:E:53:ASN:HD22	1.83	0.91
1:C:267:PHE:CD1	1:D:83:ASN:HB3	2.06	0.91
1:B:221:PRO:HG3	1:C:194:LYS:HB2	1.53	0.91
1:A:267:PHE:CE1	1:B:76:SER:O	2.23	0.91
1:B:174:ASN:ND2	1:B:183:LEU:HD11	1.84	0.91
1:B:47:ARG:CZ	1:B:53:ASN:HD22	1.84	0.91
1:A:569:ARG:C	1:B:47:ARG:HB2	1.92	0.91
2:H:15:TYR:OH	1:E:493:THR:HB	1.69	0.90
1:B:425:LEU:CD1	1:C:172:GLU:HB2	2.00	0.90
1:B:233:ASN:HB3	1:C:491:SER:CA	2.01	0.90
1:C:47:ARG:CZ	1:C:53:ASN:HD22	1.84	0.90
1:D:47:ARG:CZ	1:D:53:ASN:HD22	1.83	0.90
1:E:144:LYS:HB2	1:E:249:ASP:HB3	1.52	0.90
1:C:452:ARG:HG2	1:D:60:LEU:HG	1.52	0.90
1:B:68:ARG:HD2	1:B:70:TYR:CE2	2.04	0.90
1:A:57:TYR:CD1	1:E:450:THR:HA	2.07	0.90
1:A:493:THR:HG21	1:E:228:PRO:CG	2.01	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:267:PHE:CD1	1:E:83:ASN:HB3	2.05	0.90
1:B:410:TYR:HE2	1:C:172:GLU:CG	1.84	0.90
1:D:68:ARG:HD2	1:D:70:TYR:CE2	2.04	0.90
1:B:476:TYR:CE2	1:C:477:ASN:HB3	2.05	0.90
1:C:82:LEU:HB3	1:C:92:LEU:HD12	1.54	0.90
1:A:425:LEU:HD13	1:B:172:GLU:HB2	1.53	0.90
1:D:154:THR:O	1:D:155:LYS:HB2	1.68	0.90
1:E:174:ASN:HD21	1:E:183:LEU:HD13	1.36	0.90
1:B:228:PRO:CG	2:G:15:TYR:CE1	2.42	0.90
1:A:491:SER:CA	1:E:233:ASN:HB3	2.02	0.90
1:C:476:TYR:HE2	1:D:477:ASN:HB3	1.37	0.90
1:D:174:ASN:HD21	1:D:183:LEU:HD13	1.36	0.90
1:D:228:PRO:HG3	2:H:15:TYR:HE1	0.94	0.90
1:C:174:ASN:HD21	1:C:183:LEU:HD13	1.35	0.90
1:B:450:THR:HG21	1:C:96:ILE:HG23	1.54	0.90
1:B:425:LEU:HD13	1:C:172:GLU:CB	2.00	0.90
1:A:410:TYR:HE2	1:B:172:GLU:CG	1.85	0.90
1:A:47:ARG:CZ	1:A:53:ASN:HD22	1.84	0.89
1:B:556:LYS:CE	1:B:558:LEU:HD23	2.03	0.89
1:A:174:ASN:ND2	1:A:183:LEU:HD11	1.84	0.89
1:A:83:ASN:HB3	1:E:267:PHE:CE1	2.06	0.89
1:A:68:ARG:HD2	1:A:70:TYR:CE2	2.05	0.89
1:D:144:LYS:HB2	1:D:249:ASP:HB3	1.52	0.89
1:A:172:GLU:CG	1:E:410:TYR:HE2	1.85	0.89
1:A:194:LYS:HB2	1:E:221:PRO:HG3	1.51	0.89
1:D:57:TYR:CE2	1:D:60:LEU:CD2	2.54	0.89
1:B:434:SER:O	1:C:556:LYS:CD	2.20	0.89
1:D:482:TYR:HB2	1:E:490:THR:HG21	1.53	0.89
1:B:174:ASN:HD21	1:B:183:LEU:HD13	1.36	0.89
1:E:410:TYR:CE2	1:E:425:LEU:CD1	2.55	0.89
2:F:15:TYR:OH	1:B:493:THR:HB	1.70	0.89
1:C:68:ARG:HD2	1:C:70:TYR:CZ	2.08	0.89
1:D:569:ARG:C	1:E:47:ARG:HB2	1.92	0.89
1:B:267:PHE:CD1	1:C:76:SER:HB2	2.07	0.89
1:C:233:ASN:HB3	1:D:491:SER:CA	2.01	0.89
1:A:60:LEU:HD21	1:E:452:ARG:NE	1.85	0.89
1:C:57:TYR:CE2	1:C:60:LEU:HB2	2.08	0.89
1:B:57:TYR:CE2	1:B:60:LEU:HB2	2.08	0.88
1:A:99:ASN:HB3	1:E:459:ASN:HB3	1.55	0.88
1:D:436:GLN:HE22	1:E:126:ILE:CD1	1.82	0.88
1:D:436:GLN:N	1:E:556:LYS:HZ1	1.72	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:267:PHE:HE1	1:C:76:SER:HB2	0.98	0.88
1:C:556:LYS:CE	1:C:558:LEU:HD23	2.02	0.88
1:B:569:ARG:C	1:C:47:ARG:HB2	1.92	0.88
1:A:555:TYR:OH	1:E:257:ASN:CB	2.21	0.88
1:A:83:ASN:HD21	1:A:91:PHE:HB2	1.35	0.88
1:A:233:ASN:HB3	1:B:491:SER:CA	2.02	0.88
1:E:556:LYS:CE	1:E:558:LEU:HD23	2.03	0.88
1:A:482:TYR:CE1	1:B:486:ILE:CG2	2.55	0.88
1:A:82:LEU:HB3	1:A:92:LEU:HD12	1.54	0.88
1:A:174:ASN:HD21	1:A:183:LEU:HD13	1.36	0.88
1:D:82:LEU:HB3	1:D:92:LEU:HD12	1.54	0.88
1:D:425:LEU:HD13	1:E:172:GLU:HB3	1.54	0.88
1:A:68:ARG:NH1	1:E:464:GLY:CA	2.37	0.88
1:C:267:PHE:CE1	1:D:86:ASN:O	2.27	0.88
1:E:82:LEU:HB3	1:E:92:LEU:HD12	1.54	0.88
1:A:198:GLN:NE2	1:E:222:VAL:HG21	1.89	0.88
1:C:433:GLY:CA	1:D:555:TYR:HE2	1.85	0.88
2:H:13:PRO:HA	1:E:197:ARG:NH1	1.88	0.87
1:D:556:LYS:CE	1:D:558:LEU:HD23	2.03	0.87
1:E:83:ASN:HD21	1:E:91:PHE:HB2	1.35	0.87
1:C:68:ARG:HD2	1:C:70:TYR:CE2	2.07	0.87
1:C:221:PRO:HG3	1:D:194:LYS:HB2	1.55	0.87
1:D:221:PRO:HG3	1:E:194:LYS:HB2	1.56	0.87
1:A:556:LYS:HD3	1:E:434:SER:O	1.74	0.87
1:D:267:PHE:CE1	1:E:86:ASN:O	2.26	0.87
1:C:569:ARG:C	1:D:47:ARG:HB2	1.95	0.87
1:A:267:PHE:HE1	1:B:76:SER:O	1.58	0.87
1:B:82:LEU:HB3	1:B:92:LEU:HD12	1.54	0.87
1:C:83:ASN:HD21	1:C:91:PHE:HB2	1.36	0.87
1:A:57:TYR:CD1	1:E:450:THR:CB	2.57	0.87
1:B:228:PRO:HG3	2:G:15:TYR:CD1	2.10	0.87
1:C:482:TYR:HB2	1:D:490:THR:HG21	1.56	0.87
1:B:227:MET:O	2:G:17:TYR:CE2	2.28	0.87
1:C:233:ASN:CB	1:D:491:SER:HA	2.05	0.87
1:C:174:ASN:ND2	1:C:183:LEU:HD13	1.90	0.87
1:D:57:TYR:HE2	1:D:60:LEU:CG	1.88	0.86
1:A:172:GLU:HB2	1:E:425:LEU:HD13	0.88	0.86
1:B:230:VAL:HG13	1:B:503:GLN:HE22	1.40	0.86
2:G:15:TYR:OH	1:C:493:THR:HB	1.74	0.86
1:A:228:PRO:HG3	2:F:15:TYR:CD1	2.10	0.86
2:H:13:PRO:HB2	2:H:17:TYR:HE1	1.40	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:68:ARG:HD3	1:B:70:TYR:HE2	1.40	0.86
1:A:68:ARG:HD3	1:A:70:TYR:HE2	1.39	0.86
1:A:477:ASN:HB3	1:E:476:TYR:HE2	1.39	0.86
1:A:174:ASN:ND2	1:A:183:LEU:HD13	1.90	0.86
1:A:230:VAL:HG13	1:A:503:GLN:HE22	1.40	0.86
1:A:76:SER:HB3	1:E:267:PHE:CE2	2.10	0.86
1:A:410:TYR:CE2	1:A:425:LEU:HD13	2.10	0.86
1:E:68:ARG:HD3	1:E:70:TYR:HE2	1.40	0.86
1:D:230:VAL:HG13	1:D:503:GLN:HE22	1.40	0.86
1:B:266:PRO:HD3	1:C:87:ASP:HB3	1.57	0.86
1:D:436:GLN:CB	1:E:556:LYS:HZ1	1.88	0.86
1:D:83:ASN:HD21	1:D:91:PHE:HB2	1.35	0.86
1:A:76:SER:CB	1:E:267:PHE:CE2	2.57	0.86
1:A:221:PRO:HG3	1:B:194:LYS:HB2	1.58	0.86
1:D:57:TYR:CZ	1:D:60:LEU:HD13	2.09	0.86
1:A:227:MET:O	2:F:17:TYR:HE2	1.57	0.86
2:F:13:PRO:HA	1:B:197:ARG:NH1	1.91	0.86
1:D:233:ASN:HB3	1:E:491:SER:CA	2.04	0.86
1:A:450:THR:HG21	1:B:96:ILE:HG23	1.56	0.86
1:B:434:SER:HB3	1:C:556:LYS:CB	2.04	0.86
1:B:227:MET:O	2:G:17:TYR:HE2	1.57	0.86
1:A:227:MET:O	2:F:17:TYR:CE2	2.28	0.86
1:D:227:MET:O	2:H:17:TYR:CE2	2.28	0.86
1:D:228:PRO:HG3	2:H:15:TYR:CD1	2.10	0.86
1:A:233:ASN:CB	1:B:491:SER:HA	2.06	0.86
1:E:230:VAL:HG13	1:E:503:GLN:HE22	1.40	0.86
1:D:410:TYR:HE2	1:E:172:GLU:CG	1.86	0.85
1:B:482:TYR:HB2	1:C:490:THR:HG21	1.55	0.85
1:D:434:SER:O	1:E:556:LYS:CD	2.23	0.85
1:B:222:VAL:HG21	1:C:198:GLN:NE2	1.91	0.85
1:E:60:LEU:HG	1:E:61:ALA:H	1.42	0.85
1:A:459:ASN:HB3	1:B:99:ASN:HB3	1.58	0.85
1:E:152:LEU:HB3	1:E:153:PRO:HD2	1.59	0.85
1:C:434:SER:O	1:D:556:LYS:CD	2.24	0.85
1:A:410:TYR:CD2	1:A:425:LEU:HD13	2.12	0.85
1:C:152:LEU:HB3	1:C:153:PRO:HD2	1.59	0.85
1:D:434:SER:HB3	1:E:556:LYS:CB	2.07	0.85
1:C:230:VAL:HG13	1:C:503:GLN:HE22	1.40	0.85
1:A:434:SER:O	1:B:556:LYS:CD	2.23	0.85
1:D:152:LEU:HB3	1:D:153:PRO:HD2	1.59	0.85
1:A:491:SER:HA	1:E:233:ASN:CB	2.06	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:410:TYR:CD2	1:D:425:LEU:HD11	2.10	0.85
2:G:13:PRO:HB2	2:G:17:TYR:HE1	1.40	0.85
1:B:152:LEU:HB3	1:B:153:PRO:HD2	1.59	0.85
1:B:60:LEU:HG	1:B:61:ALA:H	1.42	0.84
1:B:410:TYR:CD2	1:B:425:LEU:CD1	2.59	0.84
1:B:233:ASN:CB	1:C:491:SER:HA	2.05	0.84
1:C:436:GLN:NE2	1:D:126:ILE:CD1	2.40	0.84
1:A:57:TYR:HD1	1:E:450:THR:CB	1.90	0.84
1:D:450:THR:HG21	1:E:96:ILE:HG23	1.57	0.84
1:C:60:LEU:HG	1:C:61:ALA:H	1.42	0.84
1:D:227:MET:O	2:H:17:TYR:HE2	1.57	0.84
1:E:174:ASN:ND2	1:E:183:LEU:HD13	1.90	0.84
1:A:152:LEU:HB3	1:A:153:PRO:HD2	1.59	0.84
1:B:459:ASN:HB2	1:C:99:ASN:CB	2.07	0.84
1:C:425:LEU:O	1:D:132:PRO:HG2	1.77	0.84
1:C:436:GLN:CB	1:D:556:LYS:HZ1	1.90	0.84
1:C:556:LYS:HE2	1:C:558:LEU:CD2	2.07	0.84
1:B:449:VAL:HG13	1:C:55:ILE:HD13	1.58	0.84
1:B:482:TYR:CE1	1:C:486:ILE:CG2	2.60	0.84
1:A:87:ASP:HB3	1:E:266:PRO:HD3	1.57	0.84
2:F:13:PRO:HB2	2:F:17:TYR:HE1	1.40	0.84
1:B:425:LEU:O	1:C:132:PRO:HG2	1.77	0.84
1:A:68:ARG:HD2	1:A:70:TYR:CZ	2.12	0.84
1:C:268:GLN:HE21	1:D:84:TYR:HD2	1.26	0.84
1:A:555:TYR:HE2	1:E:433:GLY:CA	1.90	0.84
1:C:266:PRO:HD3	1:D:87:ASP:HB3	1.59	0.84
1:B:83:ASN:HD21	1:B:91:PHE:HB2	1.35	0.84
1:D:436:GLN:HB2	1:E:556:LYS:HZ1	1.39	0.84
1:C:450:THR:HG21	1:D:96:ILE:HG23	1.58	0.84
1:D:222:VAL:HG21	1:E:198:GLN:NE2	1.93	0.84
2:H:9:ASP:O	2:H:10:THR:HB	1.79	0.83
1:A:434:SER:HB3	1:B:556:LYS:CB	2.07	0.83
1:A:556:LYS:HZ1	1:E:436:GLN:HB2	1.36	0.83
1:B:174:ASN:ND2	1:B:183:LEU:HD13	1.90	0.83
1:E:556:LYS:HE2	1:E:558:LEU:CD2	2.08	0.83
1:C:434:SER:HB3	1:D:556:LYS:CB	2.07	0.83
1:B:425:LEU:CD2	1:C:172:GLU:HB3	2.08	0.83
1:A:486:ILE:HG23	1:E:482:TYR:CE1	2.11	0.83
1:D:266:PRO:HD3	1:E:87:ASP:HB3	1.60	0.83
1:D:556:LYS:HE2	1:D:558:LEU:CD2	2.08	0.83
1:B:436:GLN:NE2	1:B:465:ALA:CB	2.40	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:233:ASN:CB	1:E:491:SER:HA	2.08	0.83
1:D:57:TYR:CD2	1:D:60:LEU:HB2	2.14	0.83
1:E:57:TYR:CD2	1:E:60:LEU:HB3	2.13	0.83
1:C:449:VAL:HG13	1:D:55:ILE:HD13	1.58	0.83
1:D:68:ARG:HD3	1:D:70:TYR:HE2	1.40	0.83
1:A:55:ILE:HD13	1:E:449:VAL:HG13	1.60	0.83
1:A:555:TYR:CE1	1:E:262:ARG:HD2	2.14	0.83
1:A:410:TYR:CD2	1:A:425:LEU:HD12	2.10	0.83
1:A:132:PRO:HG2	1:E:425:LEU:O	1.78	0.82
1:B:266:PRO:CD	1:C:87:ASP:CB	2.57	0.82
1:C:476:TYR:CE2	1:D:477:ASN:HB3	2.13	0.82
1:A:555:TYR:CE2	1:E:433:GLY:CA	2.62	0.82
1:E:82:LEU:HD13	1:E:92:LEU:CD1	2.09	0.82
1:A:436:GLN:NE2	1:A:465:ALA:CB	2.41	0.82
1:C:47:ARG:NH2	1:C:53:ASN:ND2	2.28	0.82
1:A:477:ASN:HB3	1:E:476:TYR:CE2	2.15	0.82
1:B:230:VAL:HG11	1:C:492:LEU:HB3	1.62	0.82
1:A:425:LEU:O	1:B:132:PRO:HG2	1.79	0.82
1:C:68:ARG:HD3	1:C:70:TYR:HE2	1.39	0.82
1:B:425:LEU:CD2	1:C:172:GLU:CB	2.56	0.82
1:D:174:ASN:ND2	1:D:183:LEU:HD13	1.90	0.82
1:C:436:GLN:HB2	1:D:556:LYS:HZ1	1.44	0.82
1:B:556:LYS:HE2	1:B:558:LEU:CD2	2.08	0.82
1:C:82:LEU:HD13	1:C:92:LEU:CD1	2.09	0.82
1:C:267:PHE:CD1	1:D:86:ASN:O	2.33	0.81
1:A:198:GLN:NE2	1:E:222:VAL:CG2	2.43	0.81
1:C:222:VAL:HG21	1:D:198:GLN:NE2	1.95	0.81
1:D:82:LEU:HD13	1:D:92:LEU:CD1	2.09	0.81
1:E:51:GLY:O	1:E:114:ASP:CB	2.28	0.81
1:B:82:LEU:HD13	1:B:92:LEU:CD1	2.09	0.81
1:B:264:ARG:NE	1:B:424:LEU:HD21	1.95	0.81
1:A:47:ARG:CB	1:E:569:ARG:O	2.29	0.81
1:A:492:LEU:HB3	1:E:230:VAL:HG11	1.62	0.81
1:A:222:VAL:HG21	1:B:198:GLN:NE2	1.96	0.81
1:C:51:GLY:O	1:C:114:ASP:CB	2.28	0.81
1:B:57:TYR:CE2	1:B:60:LEU:HB3	2.14	0.81
1:D:449:VAL:HG13	1:E:55:ILE:HD13	1.61	0.81
1:A:264:ARG:NE	1:A:424:LEU:HD21	1.96	0.81
2:F:9:ASP:O	2:F:10:THR:HB	1.79	0.81
1:A:82:LEU:HD13	1:A:92:LEU:CD1	2.09	0.81
1:D:264:ARG:NE	1:D:424:LEU:HD21	1.96	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:449:VAL:HG13	1:B:55:ILE:HD13	1.61	0.81
1:A:57:TYR:HD1	1:E:450:THR:HG22	0.65	0.81
1:A:51:GLY:O	1:A:114:ASP:CB	2.29	0.81
1:A:266:PRO:HD3	1:B:87:ASP:HB3	1.61	0.81
1:D:51:GLY:O	1:D:114:ASP:CB	2.28	0.81
1:B:51:GLY:O	1:B:114:ASP:CB	2.28	0.81
1:C:459:ASN:HB2	1:D:99:ASN:CB	2.10	0.81
1:A:450:THR:HG21	1:B:96:ILE:CG2	2.11	0.81
1:B:450:THR:HG21	1:C:96:ILE:CG2	2.10	0.81
1:D:459:ASN:HB2	1:E:99:ASN:CB	2.10	0.81
1:D:267:PHE:CD1	1:E:86:ASN:O	2.34	0.81
1:A:87:ASP:CB	1:E:266:PRO:CD	2.58	0.81
1:C:264:ARG:NE	1:C:424:LEU:HD21	1.96	0.81
1:E:264:ARG:NE	1:E:424:LEU:HD21	1.96	0.80
1:D:410:TYR:CZ	1:D:425:LEU:HD12	2.11	0.80
1:A:267:PHE:CE2	1:B:84:TYR:CD1	2.69	0.80
1:C:228:PRO:HB3	1:D:493:THR:HG23	1.60	0.80
1:A:425:LEU:CD2	1:B:172:GLU:CB	2.59	0.80
1:A:436:GLN:NE2	1:A:465:ALA:HB1	1.92	0.80
1:B:474:SER:HB3	1:C:473:LYS:HG3	1.63	0.80
1:A:475:PHE:HD2	1:E:476:TYR:CD1	1.99	0.80
1:C:57:TYR:CE2	1:C:60:LEU:HB3	2.13	0.80
1:C:257:ASN:CB	1:D:555:TYR:OH	2.29	0.80
1:B:222:VAL:CG2	1:C:198:GLN:NE2	2.45	0.80
1:D:569:ARG:O	1:E:47:ARG:CB	2.30	0.80
1:C:476:TYR:CD1	1:D:475:PHE:HD2	1.99	0.80
1:A:436:GLN:HB2	1:B:556:LYS:HZ1	1.46	0.80
1:C:234:GLU:HG3	1:D:487:ARG:HH21	1.46	0.80
1:C:425:LEU:HD22	1:D:172:GLU:HB3	1.64	0.80
1:A:410:TYR:CE2	1:A:425:LEU:CD1	2.65	0.80
1:D:425:LEU:O	1:E:132:PRO:HG2	1.80	0.80
1:D:268:GLN:HE21	1:E:84:TYR:HD2	1.26	0.80
1:C:411:ASN:ND2	1:D:172:GLU:H	1.79	0.80
1:A:493:THR:HG23	1:E:228:PRO:HB3	1.60	0.80
1:A:480:ALA:O	1:A:481:VAL:CG2	2.30	0.80
1:A:555:TYR:CD2	1:E:433:GLY:HA2	2.16	0.80
1:A:268:GLN:HE21	1:B:84:TYR:HD2	1.28	0.80
1:B:436:GLN:HG3	1:B:466:GLU:C	2.02	0.80
1:A:84:TYR:HD2	1:E:268:GLN:HE21	1.27	0.80
1:C:266:PRO:CD	1:D:87:ASP:CB	2.60	0.80
1:C:217:LEU:HD12	1:C:232:THR:HG21	1.64	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:436:GLN:HG3	1:D:466:GLU:C	2.02	0.80
1:C:436:GLN:HG3	1:C:466:GLU:C	2.02	0.80
1:A:425:LEU:HD22	1:B:172:GLU:HB2	1.63	0.80
1:A:436:GLN:CB	1:B:556:LYS:HZ1	1.94	0.80
1:B:68:ARG:HD2	1:B:70:TYR:CZ	2.17	0.80
1:B:480:ALA:O	1:B:481:VAL:CG2	2.30	0.80
1:C:452:ARG:CG	1:D:60:LEU:CD1	2.60	0.79
1:B:268:GLN:HE21	1:C:84:TYR:HD2	1.27	0.79
1:B:436:GLN:CB	1:C:556:LYS:HZ1	1.95	0.79
1:A:410:TYR:CG	1:A:425:LEU:HD12	2.16	0.79
1:A:86:ASN:O	1:E:267:PHE:CD1	2.34	0.79
1:B:476:TYR:HB2	1:C:475:PHE:CD2	2.18	0.79
1:C:482:TYR:CE1	1:D:486:ILE:HG23	2.16	0.79
1:B:217:LEU:HD12	1:B:232:THR:HG21	1.64	0.79
1:D:450:THR:HG21	1:E:96:ILE:CG2	2.11	0.79
1:D:217:LEU:HD12	1:D:232:THR:HG21	1.64	0.79
2:G:9:ASP:O	2:G:10:THR:HB	1.79	0.79
1:A:57:TYR:CD1	1:E:450:THR:CA	2.65	0.79
1:A:555:TYR:HE1	1:E:262:ARG:HD2	1.45	0.79
1:D:230:VAL:HG11	1:E:492:LEU:HB3	1.65	0.79
1:A:436:GLN:HG3	1:A:466:GLU:C	2.03	0.79
1:A:486:ILE:CG2	1:E:482:TYR:CD1	2.65	0.79
1:C:474:SER:HB3	1:D:473:LYS:HG3	1.65	0.79
1:A:87:ASP:HB3	1:E:266:PRO:CD	2.13	0.79
1:E:47:ARG:CZ	1:E:53:ASN:ND2	2.45	0.79
1:D:47:ARG:CZ	1:D:53:ASN:ND2	2.45	0.79
1:E:217:LEU:HD12	1:E:232:THR:HG21	1.64	0.79
1:A:57:TYR:CD2	1:A:60:LEU:HB2	2.17	0.79
1:A:464:GLY:HA2	1:B:68:ARG:NH1	1.98	0.79
1:A:569:ARG:O	1:B:47:ARG:CB	2.30	0.79
1:B:47:ARG:CZ	1:B:53:ASN:ND2	2.46	0.79
1:B:569:ARG:O	1:C:47:ARG:CB	2.31	0.79
1:B:266:PRO:CD	1:C:87:ASP:HB3	2.13	0.78
1:A:411:ASN:ND2	1:B:172:GLU:H	1.81	0.78
1:A:464:GLY:HA3	1:B:68:ARG:HH12	1.45	0.78
1:B:436:GLN:HB2	1:C:556:LYS:HZ3	1.46	0.78
1:E:68:ARG:HD2	1:E:70:TYR:CZ	2.17	0.78
1:A:486:ILE:HG22	1:E:482:TYR:CD1	2.18	0.78
1:D:266:PRO:CD	1:E:87:ASP:CB	2.62	0.78
1:B:234:GLU:HG3	1:C:487:ARG:HH21	1.48	0.78
1:C:450:THR:HG21	1:D:96:ILE:CG2	2.13	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:228:PRO:HG3	2:G:15:TYR:HE1	0.93	0.78
1:A:47:ARG:CZ	1:A:53:ASN:ND2	2.46	0.78
1:C:230:VAL:HG11	1:D:492:LEU:HB3	1.61	0.78
1:D:497:ASN:HD21	1:D:500:PRO:HB3	1.49	0.78
1:D:464:GLY:HA3	1:E:68:ARG:NH1	1.98	0.78
1:C:464:GLY:HA3	1:D:68:ARG:NH1	1.98	0.78
1:E:431:THR:O	1:E:432:CYS:HB2	1.81	0.78
1:A:217:LEU:HD12	1:A:232:THR:HG21	1.64	0.78
1:A:473:LYS:HG3	1:E:474:SER:HB3	1.64	0.78
1:B:266:PRO:HD3	1:C:87:ASP:CB	2.14	0.78
1:C:410:TYR:CD2	1:C:425:LEU:CD1	2.66	0.78
1:C:47:ARG:CZ	1:C:53:ASN:ND2	2.46	0.78
1:C:257:ASN:OD1	1:C:432:CYS:HA	1.83	0.78
1:D:425:LEU:CD1	1:E:172:GLU:CG	2.59	0.78
1:D:425:LEU:HD13	1:E:172:GLU:HB2	0.78	0.78
1:A:230:VAL:HG11	1:B:492:LEU:HB3	1.62	0.78
1:D:47:ARG:NH2	1:D:53:ASN:ND2	2.32	0.78
1:A:126:ILE:CD1	1:E:436:GLN:HE22	1.88	0.78
1:B:497:ASN:HD21	1:B:500:PRO:HB3	1.49	0.78
1:E:436:GLN:HG3	1:E:466:GLU:C	2.02	0.77
1:A:482:TYR:HB2	1:B:490:THR:HG21	1.65	0.77
2:F:8:GLU:O	2:F:9:ASP:CB	2.32	0.77
1:E:80:ALA:O	1:E:81:SER:HB3	1.84	0.77
1:A:172:GLU:CG	1:E:410:TYR:CE2	2.63	0.77
1:B:433:GLY:HA2	1:C:555:TYR:CD2	2.20	0.77
1:C:57:TYR:HE2	1:C:60:LEU:HB2	1.48	0.77
1:A:425:LEU:HD13	1:B:172:GLU:CB	2.13	0.77
1:A:482:TYR:CD1	1:B:486:ILE:CG2	2.68	0.77
1:A:475:PHE:CD2	1:E:476:TYR:HB2	2.19	0.77
1:D:482:TYR:CE1	1:E:486:ILE:HG23	2.18	0.77
1:A:234:GLU:HG3	1:B:487:ARG:HH21	1.47	0.77
1:E:497:ASN:HD21	1:E:500:PRO:HB3	1.49	0.77
1:D:68:ARG:HD2	1:D:70:TYR:CZ	2.19	0.77
1:D:257:ASN:CB	1:E:555:TYR:OH	2.33	0.77
2:G:10:THR:O	2:G:10:THR:HG22	1.84	0.77
1:D:411:ASN:ND2	1:E:172:GLU:H	1.82	0.77
1:D:474:SER:HG	1:E:475:PHE:HZ	1.33	0.77
1:A:87:ASP:CB	1:E:266:PRO:HD3	2.15	0.77
1:D:274:THR:HG22	1:D:275:TYR:H	1.50	0.77
1:A:474:SER:HB3	1:B:473:LYS:HG3	1.67	0.77
2:H:8:GLU:O	2:H:9:ASP:CB	2.32	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:274:THR:HG22	1:A:275:TYR:H	1.50	0.77
2:F:10:THR:HG22	2:F:10:THR:O	1.84	0.77
1:C:452:ARG:CG	1:D:60:LEU:CG	2.56	0.77
1:C:57:TYR:HD2	1:C:60:LEU:HB3	1.48	0.77
1:B:257:ASN:CB	1:C:555:TYR:OH	2.33	0.77
1:A:486:ILE:HG21	1:E:482:TYR:CE1	2.19	0.77
1:D:80:ALA:O	1:D:81:SER:HB3	1.84	0.77
1:A:266:PRO:CD	1:B:87:ASP:CB	2.62	0.77
1:A:497:ASN:HD21	1:A:500:PRO:HB3	1.49	0.77
1:A:425:LEU:CD1	1:B:172:GLU:HB2	2.15	0.77
1:D:222:VAL:CG2	1:E:198:GLN:NE2	2.48	0.77
1:B:80:ALA:O	1:B:81:SER:HB3	1.84	0.76
1:B:227:MET:CB	2:G:17:TYR:OH	2.32	0.76
1:A:410:TYR:CE2	1:B:172:GLU:CG	2.64	0.76
1:C:569:ARG:O	1:D:47:ARG:CB	2.32	0.76
2:H:10:THR:O	2:H:10:THR:HG22	1.84	0.76
1:C:497:ASN:HD21	1:C:500:PRO:HB3	1.49	0.76
1:C:425:LEU:HD13	1:D:172:GLU:CG	2.14	0.76
1:D:234:GLU:HG3	1:E:487:ARG:HH21	1.49	0.76
1:B:57:TYR:HD2	1:B:60:LEU:HB3	1.48	0.76
1:A:60:LEU:CD2	1:E:452:ARG:CD	2.59	0.76
1:D:227:MET:CB	2:H:17:TYR:OH	2.32	0.76
1:B:410:TYR:CD2	1:B:425:LEU:HD12	2.21	0.76
1:C:80:ALA:O	1:C:81:SER:HB3	1.84	0.76
1:A:172:GLU:H	1:E:411:ASN:ND2	1.84	0.76
1:A:227:MET:C	2:F:17:TYR:HE2	1.89	0.76
1:D:68:ARG:CD	1:D:70:TYR:HE2	1.94	0.76
1:E:274:THR:HG22	1:E:275:TYR:H	1.50	0.76
1:B:57:TYR:HE2	1:B:60:LEU:HB2	1.49	0.76
1:B:411:ASN:ND2	1:C:172:GLU:H	1.83	0.76
1:C:464:GLY:CA	1:D:68:ARG:NH1	2.49	0.76
1:A:47:ARG:CB	1:E:569:ARG:HA	2.14	0.76
1:D:57:TYR:CD2	1:D:60:LEU:HD22	2.20	0.76
1:E:68:ARG:CD	1:E:70:TYR:HE2	1.95	0.76
1:B:569:ARG:HA	1:C:47:ARG:HD2	1.68	0.76
1:C:262:ARG:HD2	1:D:555:TYR:CE1	2.21	0.76
1:B:463:VAL:C	1:C:70:TYR:OH	2.25	0.75
1:A:569:ARG:HA	1:B:47:ARG:CB	2.15	0.75
1:B:274:THR:HG22	1:B:275:TYR:H	1.49	0.75
1:C:436:GLN:NE2	1:D:558:LEU:HD21	2.00	0.75
2:H:9:ASP:O	2:H:10:THR:CB	2.34	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:555:TYR:CE2	1:E:432:CYS:O	2.39	0.75
1:A:227:MET:CB	2:F:17:TYR:OH	2.32	0.75
2:G:9:ASP:O	2:G:10:THR:CB	2.34	0.75
1:A:80:ALA:O	1:A:81:SER:HB3	1.84	0.75
1:C:266:PRO:HD3	1:D:87:ASP:CB	2.15	0.75
1:B:425:LEU:HD22	1:C:172:GLU:C	2.06	0.75
1:C:482:TYR:CD1	1:D:486:ILE:CG2	2.69	0.75
1:A:47:ARG:HD2	1:E:568:SER:O	1.87	0.75
1:C:265:GLN:NE2	1:D:85:GLN:CA	2.50	0.75
1:A:222:VAL:CG2	1:B:198:GLN:NE2	2.49	0.75
1:C:51:GLY:O	1:C:114:ASP:HB3	1.87	0.75
1:A:487:ARG:HH21	1:E:234:GLU:HG3	1.48	0.75
1:A:68:ARG:CD	1:A:70:TYR:HE2	1.97	0.75
1:A:476:TYR:HB2	1:B:475:PHE:CD2	2.21	0.75
2:H:8:GLU:HG3	2:H:9:ASP:N	2.01	0.75
2:F:8:GLU:HG3	2:F:9:ASP:N	2.01	0.75
1:C:222:VAL:CG2	1:D:198:GLN:NE2	2.49	0.75
1:B:227:MET:C	2:G:17:TYR:HE2	1.89	0.75
1:B:410:TYR:CE2	1:C:172:GLU:CG	2.62	0.75
1:D:464:GLY:CA	1:E:68:ARG:NH1	2.50	0.75
1:D:265:GLN:NE2	1:E:85:GLN:CA	2.50	0.75
1:A:60:LEU:HD22	1:E:452:ARG:HG2	1.64	0.75
1:C:267:PHE:CD2	1:D:76:SER:HB3	2.21	0.75
1:D:474:SER:HB3	1:E:473:LYS:HG3	1.69	0.75
2:F:9:ASP:O	2:F:10:THR:CB	2.34	0.75
1:B:530:PRO:HD3	1:C:66:THR:O	1.87	0.75
1:A:51:GLY:O	1:A:114:ASP:HB3	1.87	0.75
1:D:227:MET:C	2:H:17:TYR:HE2	1.89	0.74
1:A:556:LYS:HZ1	1:E:436:GLN:CA	1.99	0.74
1:A:490:THR:CG2	1:E:482:TYR:HD1	2.00	0.74
1:D:51:GLY:O	1:D:114:ASP:HB3	1.87	0.74
1:D:410:TYR:CE2	1:E:172:GLU:CG	2.65	0.74
1:B:476:TYR:CD1	1:C:475:PHE:HD2	2.05	0.74
1:B:569:ARG:HA	1:C:47:ARG:CB	2.15	0.74
1:D:155:LYS:HB2	1:D:158:GLN:HB2	1.69	0.74
1:E:434:SER:OG	1:E:467:LEU:HD11	1.87	0.74
1:C:266:PRO:CD	1:D:87:ASP:HB3	2.16	0.74
1:A:98:ASN:OD1	1:E:452:ARG:HD3	1.88	0.74
1:B:267:PHE:CD2	1:C:86:ASN:O	2.40	0.74
1:C:452:ARG:CD	1:D:60:LEU:CD1	2.56	0.74
1:B:452:ARG:HD3	1:C:98:ASN:OD1	1.87	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:267:PHE:CD2	1:E:76:SER:HB3	2.22	0.74
2:G:8:GLU:HG3	2:G:9:ASP:N	2.01	0.74
1:C:155:LYS:HB2	1:C:158:GLN:HB2	1.69	0.74
1:A:257:ASN:CB	1:B:555:TYR:OH	2.36	0.74
1:B:51:GLY:O	1:B:114:ASP:HB3	1.87	0.74
1:A:556:LYS:CD	1:E:434:SER:O	2.35	0.74
1:A:492:LEU:HB2	1:E:230:VAL:HG11	1.70	0.74
1:A:265:GLN:NE2	1:B:85:GLN:CA	2.51	0.73
1:C:452:ARG:HG2	1:D:60:LEU:CD1	2.18	0.73
1:C:410:TYR:CE2	1:D:172:GLU:CG	2.62	0.73
1:C:482:TYR:CD1	1:D:486:ILE:HG22	2.23	0.73
1:A:66:THR:O	1:E:530:PRO:HD3	1.88	0.73
1:A:474:SER:HG	1:B:475:PHE:HZ	1.35	0.73
2:H:10:THR:O	2:H:11:PHE:HB2	1.88	0.73
1:A:266:PRO:CD	1:B:87:ASP:HB3	2.18	0.73
1:C:482:TYR:CE1	1:D:486:ILE:HG21	2.23	0.73
1:B:155:LYS:HB2	1:B:158:GLN:HB2	1.69	0.73
1:D:84:TYR:O	1:D:85:GLN:CG	2.36	0.73
1:B:230:VAL:HG11	1:C:492:LEU:HB2	1.70	0.73
1:A:555:TYR:OH	1:E:257:ASN:ND2	2.21	0.73
1:D:433:GLY:HA2	1:E:555:TYR:CD2	2.24	0.73
1:B:568:SER:O	1:C:47:ARG:HD2	1.88	0.73
1:D:476:TYR:HB2	1:E:475:PHE:CD2	2.22	0.73
2:G:8:GLU:O	2:G:9:ASP:CB	2.32	0.73
1:D:266:PRO:CD	1:E:87:ASP:HB3	2.17	0.73
1:D:450:THR:HG23	1:E:57:TYR:CZ	2.22	0.73
1:D:569:ARG:HA	1:E:47:ARG:CB	2.16	0.73
1:A:475:PHE:CZ	1:E:475:PHE:O	2.42	0.73
1:E:51:GLY:O	1:E:114:ASP:HB3	1.87	0.73
1:A:47:ARG:HD2	1:E:569:ARG:HA	1.70	0.73
1:A:155:LYS:HB2	1:A:158:GLN:HB2	1.69	0.73
1:A:495:VAL:HG21	1:E:232:THR:OG1	1.88	0.73
1:A:516:VAL:HG21	1:E:513:ILE:HG12	1.70	0.73
1:B:233:ASN:ND2	1:C:490:THR:O	2.22	0.73
1:B:475:PHE:O	1:C:475:PHE:CZ	2.42	0.73
1:A:84:TYR:O	1:A:85:GLN:CG	2.36	0.73
1:C:436:GLN:NE2	1:D:558:LEU:CD1	2.49	0.73
1:C:274:THR:HG22	1:C:275:TYR:H	1.49	0.73
2:G:14:VAL:HG21	1:C:192:TYR:HE2	1.54	0.73
1:A:433:GLY:HA2	1:B:555:TYR:CD2	2.24	0.73
1:A:475:PHE:CD2	1:E:476:TYR:CD1	2.77	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:476:TYR:HB2	1:D:475:PHE:CD2	2.23	0.73
2:F:10:THR:O	2:F:11:PHE:HB2	1.88	0.73
1:D:266:PRO:HD3	1:E:87:ASP:CB	2.17	0.73
1:A:257:ASN:OD1	1:A:432:CYS:HA	1.89	0.73
1:B:513:ILE:HG12	1:C:516:VAL:HG21	1.71	0.73
1:D:257:ASN:ND2	1:D:432:CYS:O	2.22	0.72
1:E:84:TYR:O	1:E:85:GLN:CG	2.36	0.72
1:A:436:GLN:HB2	1:B:556:LYS:HZ3	1.51	0.72
1:D:57:TYR:CE2	1:D:60:LEU:CG	2.69	0.72
1:B:436:GLN:CB	1:C:558:LEU:HD21	2.19	0.72
1:A:568:SER:O	1:B:47:ARG:HD2	1.88	0.72
1:C:476:TYR:CD1	1:D:475:PHE:CD2	2.76	0.72
1:C:569:ARG:HA	1:D:47:ARG:CB	2.18	0.72
1:C:569:ARG:HA	1:D:47:ARG:HD2	1.72	0.72
1:D:482:TYR:HD1	1:E:490:THR:CG2	2.02	0.72
1:C:84:TYR:O	1:C:85:GLN:CG	2.37	0.72
1:B:376:LYS:HD2	1:B:378:VAL:HG11	1.70	0.72
1:A:475:PHE:CE2	1:E:475:PHE:O	2.43	0.72
1:C:230:VAL:HG11	1:D:492:LEU:HB2	1.70	0.72
1:C:529:LEU:HD21	1:D:68:ARG:HH21	1.55	0.72
1:D:482:TYR:CD1	1:E:486:ILE:CG2	2.72	0.72
1:A:99:ASN:HB3	1:E:459:ASN:CB	2.18	0.72
2:F:15:TYR:O	2:F:17:TYR:CD1	2.42	0.72
1:D:262:ARG:HD2	1:E:555:TYR:CE1	2.25	0.72
1:C:433:GLY:HA2	1:D:555:TYR:CD2	2.25	0.72
1:E:155:LYS:HB2	1:E:158:GLN:HB2	1.69	0.72
1:A:266:PRO:HD3	1:B:87:ASP:CB	2.18	0.72
1:E:83:ASN:OD1	1:E:91:PHE:HA	1.90	0.72
1:D:454:THR:HG21	1:D:459:ASN:OD1	1.90	0.72
1:C:452:ARG:HD3	1:D:98:ASN:OD1	1.89	0.71
1:A:450:THR:CG2	1:B:57:TYR:HE1	1.92	0.71
2:H:15:TYR:O	2:H:17:TYR:CD1	2.42	0.71
1:A:556:LYS:NZ	1:E:436:GLN:N	2.38	0.71
1:D:267:PHE:HE1	1:E:86:ASN:O	1.73	0.71
1:E:47:ARG:NH2	1:E:53:ASN:ND2	2.37	0.71
1:B:84:TYR:O	1:B:85:GLN:CG	2.36	0.71
1:B:454:THR:HG21	1:B:459:ASN:OD1	1.90	0.71
1:A:556:LYS:HB2	1:E:434:SER:HB3	1.71	0.71
1:A:556:LYS:NZ	1:E:434:SER:O	2.21	0.71
1:A:87:ASP:CB	1:E:266:PRO:HD2	2.20	0.71
2:G:10:THR:O	2:G:11:PHE:HB2	1.88	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:232:THR:OG1	1:C:495:VAL:HG21	1.90	0.71
1:A:376:LYS:HD2	1:A:378:VAL:HG11	1.70	0.71
1:C:83:ASN:OD1	1:C:91:PHE:HA	1.90	0.71
1:D:463:VAL:HB	1:D:529:LEU:HD13	1.72	0.71
1:D:482:TYR:CD1	1:E:486:ILE:HG22	2.25	0.71
1:B:265:GLN:NE2	1:C:85:GLN:CA	2.52	0.71
1:C:454:THR:HG21	1:C:459:ASN:OD1	1.90	0.71
2:G:15:TYR:O	2:G:17:TYR:CD1	2.42	0.71
1:C:463:VAL:HB	1:C:529:LEU:HD13	1.73	0.71
1:C:264:ARG:O	1:D:87:ASP:HB3	1.91	0.71
1:C:425:LEU:CD1	1:D:172:GLU:CB	2.46	0.71
1:B:463:VAL:HB	1:B:529:LEU:HD13	1.72	0.71
1:C:530:PRO:HD3	1:D:66:THR:O	1.91	0.71
1:A:68:ARG:HH12	1:E:464:GLY:HA3	1.53	0.71
1:A:569:ARG:HA	1:B:47:ARG:HD2	1.71	0.71
1:B:475:PHE:O	1:C:475:PHE:CE2	2.43	0.71
1:B:266:PRO:HD2	1:C:87:ASP:CB	2.19	0.71
1:B:266:PRO:CD	1:C:87:ASP:HB2	2.21	0.71
1:D:83:ASN:OD1	1:D:91:PHE:HA	1.90	0.71
1:C:449:VAL:CG1	1:D:55:ILE:HD13	2.20	0.71
1:D:568:SER:O	1:E:47:ARG:HD2	1.89	0.71
1:B:57:TYR:HE2	1:B:60:LEU:CB	2.00	0.71
1:A:530:PRO:HD3	1:B:66:THR:O	1.90	0.71
1:C:482:TYR:HD1	1:D:490:THR:CG2	2.04	0.71
1:B:83:ASN:OD1	1:B:91:PHE:HA	1.90	0.71
1:B:474:SER:HG	1:C:475:PHE:HZ	1.39	0.71
1:A:496:PHE:HE1	1:E:234:GLU:OE1	1.74	0.71
1:A:496:PHE:CE1	1:E:234:GLU:OE1	2.44	0.71
1:D:425:LEU:CD1	1:E:172:GLU:HG3	2.19	0.70
1:E:60:LEU:HG	1:E:61:ALA:N	2.06	0.70
1:A:230:VAL:HG11	1:B:492:LEU:HB2	1.72	0.70
1:A:558:LEU:HD21	1:E:436:GLN:CB	2.20	0.70
1:B:482:TYR:CD1	1:C:486:ILE:CG2	2.74	0.70
1:A:47:ARG:NH2	1:A:53:ASN:ND2	2.39	0.70
1:C:568:SER:O	1:D:47:ARG:HD2	1.91	0.70
1:E:57:TYR:HD2	1:E:60:LEU:HB3	1.52	0.70
1:B:450:THR:HG23	1:C:57:TYR:HD1	1.50	0.70
1:D:530:PRO:HD3	1:E:66:THR:O	1.91	0.70
1:A:482:TYR:CE1	1:B:486:ILE:HG23	2.25	0.70
1:C:425:LEU:HD22	1:D:172:GLU:CB	2.22	0.70
1:E:463:VAL:HB	1:E:529:LEU:HD13	1.72	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:569:ARG:HA	1:E:47:ARG:HD2	1.73	0.70
1:D:230:VAL:HG11	1:E:492:LEU:HB2	1.73	0.70
1:B:454:THR:CG2	1:B:459:ASN:OD1	2.40	0.70
1:B:459:ASN:CB	1:C:99:ASN:HB3	2.17	0.70
1:A:464:GLY:HA2	1:B:68:ARG:HH11	1.57	0.70
1:A:83:ASN:OD1	1:A:91:PHE:HA	1.90	0.70
1:A:70:TYR:OH	1:E:463:VAL:C	2.30	0.70
1:B:449:VAL:CG1	1:C:55:ILE:HD13	2.21	0.70
1:A:476:TYR:CD1	1:B:475:PHE:HD2	2.10	0.70
1:A:459:ASN:CB	1:B:99:ASN:HB3	2.20	0.70
1:A:87:ASP:HB2	1:E:266:PRO:CD	2.22	0.70
1:B:234:GLU:OE1	1:C:496:PHE:HE1	1.74	0.70
1:A:171:PRO:HA	1:E:411:ASN:ND2	2.06	0.70
1:B:411:ASN:ND2	1:C:171:PRO:HA	2.06	0.70
1:D:454:THR:CG2	1:D:459:ASN:OD1	2.40	0.70
2:H:13:PRO:CA	1:E:197:ARG:HH12	2.04	0.70
1:A:556:LYS:HZ3	1:E:436:GLN:HB2	1.54	0.70
1:A:425:LEU:HD22	1:B:172:GLU:C	2.11	0.70
1:A:463:VAL:HB	1:A:529:LEU:HD13	1.72	0.70
1:C:454:THR:CG2	1:C:459:ASN:OD1	2.40	0.70
1:D:452:ARG:HD3	1:E:98:ASN:OD1	1.90	0.70
1:C:233:ASN:ND2	1:D:490:THR:O	2.24	0.70
1:A:262:ARG:HD2	1:B:555:TYR:CE1	2.27	0.70
1:B:60:LEU:HG	1:B:61:ALA:N	2.06	0.70
1:C:267:PHE:CE2	1:D:76:SER:HB2	2.10	0.70
1:C:474:SER:HG	1:D:475:PHE:HZ	1.39	0.70
1:A:194:LYS:CB	1:E:221:PRO:HG3	2.19	0.70
1:B:234:GLU:OE1	1:C:496:PHE:CE1	2.45	0.70
1:B:436:GLN:CG	1:B:466:GLU:O	2.39	0.70
1:A:186:ASN:HD21	1:E:217:LEU:HD22	1.57	0.70
1:A:482:TYR:CD1	1:B:486:ILE:HG22	2.27	0.69
1:C:254:ARG:O	1:C:257:ASN:ND2	2.25	0.69
1:D:376:LYS:HD2	1:D:378:VAL:HG11	1.70	0.69
1:C:411:ASN:ND2	1:D:171:PRO:HA	2.06	0.69
1:D:476:TYR:CD1	1:E:475:PHE:HD2	2.09	0.69
1:C:266:PRO:CD	1:D:87:ASP:HB2	2.22	0.69
1:A:51:GLY:O	1:A:114:ASP:CG	2.31	0.69
1:B:410:TYR:CD2	1:B:425:LEU:HD13	2.27	0.69
1:B:434:SER:O	1:C:556:LYS:NZ	2.24	0.69
1:B:436:GLN:N	1:C:556:LYS:NZ	2.39	0.69
1:B:436:GLN:NE2	1:B:465:ALA:HB1	1.93	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:85:GLN:CA	1:E:265:GLN:NE2	2.52	0.69
1:C:266:PRO:HD2	1:D:87:ASP:CB	2.22	0.69
1:A:264:ARG:O	1:B:87:ASP:HB3	1.92	0.69
1:D:51:GLY:O	1:D:114:ASP:CG	2.31	0.69
1:A:228:PRO:HB2	1:B:493:THR:HG21	1.73	0.69
2:H:14:VAL:HG21	1:E:192:TYR:HE2	1.58	0.69
1:A:476:TYR:HE2	1:B:477:ASN:CB	2.03	0.69
1:B:221:PRO:CG	1:C:193:LEU:O	2.40	0.69
1:C:436:GLN:CG	1:C:466:GLU:O	2.39	0.69
1:A:436:GLN:OE1	1:B:126:ILE:CD1	2.33	0.69
1:A:475:PHE:O	1:B:475:PHE:CZ	2.46	0.69
1:A:193:LEU:O	1:E:221:PRO:CG	2.41	0.69
1:C:475:PHE:O	1:D:475:PHE:CZ	2.45	0.69
1:B:217:LEU:HD22	1:C:186:ASN:HD21	1.58	0.69
1:C:60:LEU:HG	1:C:61:ALA:N	2.06	0.69
1:B:529:LEU:HD11	1:C:68:ARG:NH1	2.07	0.69
1:B:262:ARG:HD2	1:C:555:TYR:CE1	2.28	0.69
1:C:436:GLN:CB	1:D:558:LEU:HD21	2.23	0.69
1:A:449:VAL:CG1	1:B:55:ILE:HD13	2.23	0.69
1:E:436:GLN:CG	1:E:466:GLU:O	2.39	0.69
1:C:410:TYR:CE2	1:C:425:LEU:HD12	2.27	0.69
1:C:436:GLN:HE22	1:D:558:LEU:CD1	1.95	0.69
1:A:434:SER:O	1:B:556:LYS:NZ	2.23	0.69
1:B:436:GLN:CD	1:C:558:LEU:HD11	2.12	0.69
1:C:68:ARG:CD	1:C:70:TYR:HE2	1.99	0.69
1:C:264:ARG:O	1:D:87:ASP:CG	2.31	0.69
1:C:51:GLY:O	1:C:114:ASP:CG	2.31	0.69
1:B:51:GLY:O	1:B:114:ASP:CG	2.31	0.69
1:A:267:PHE:CE2	1:B:80:ALA:HA	2.18	0.68
1:B:450:THR:CG2	1:C:57:TYR:HE1	1.95	0.68
1:D:152:LEU:HD21	1:D:199:ASN:O	1.94	0.68
1:E:51:GLY:O	1:E:114:ASP:CG	2.31	0.68
1:D:482:TYR:CE1	1:E:486:ILE:HG21	2.26	0.68
1:A:411:ASN:ND2	1:B:171:PRO:HA	2.08	0.68
1:A:68:ARG:NH1	1:E:464:GLY:HA2	2.05	0.68
1:D:449:VAL:CG1	1:E:55:ILE:HD13	2.23	0.68
1:C:513:ILE:HG12	1:D:516:VAL:HG21	1.75	0.68
1:B:221:PRO:HG3	1:C:194:LYS:CB	2.21	0.68
1:A:152:LEU:HD21	1:A:199:ASN:O	1.94	0.68
2:G:13:PRO:CA	1:C:197:ARG:NH1	2.57	0.68
1:A:228:PRO:CB	1:B:493:THR:HG21	2.23	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:482:TYR:HD1	1:E:490:THR:HG22	1.58	0.68
1:E:152:LEU:HD21	1:E:199:ASN:O	1.93	0.68
1:C:267:PHE:HE1	1:D:86:ASN:O	1.75	0.68
1:A:558:LEU:HD11	1:E:436:GLN:CD	2.13	0.68
1:D:436:GLN:HB2	1:E:556:LYS:HZ3	1.58	0.68
1:C:221:PRO:CG	1:D:193:LEU:O	2.41	0.68
1:D:264:ARG:O	1:E:87:ASP:HB3	1.92	0.68
1:C:234:GLU:OE1	1:D:496:PHE:HE1	1.77	0.68
1:B:267:PHE:HE2	1:C:87:ASP:HA	1.59	0.68
1:C:475:PHE:O	1:D:475:PHE:CE2	2.47	0.68
1:B:152:LEU:HD21	1:B:199:ASN:O	1.94	0.68
1:A:55:ILE:HD13	1:E:449:VAL:CG1	2.23	0.68
1:C:436:GLN:N	1:D:556:LYS:NZ	2.42	0.67
1:D:266:PRO:CD	1:E:87:ASP:HB2	2.24	0.67
1:D:436:GLN:CG	1:D:466:GLU:O	2.38	0.67
1:C:436:GLN:HB2	1:D:556:LYS:HZ3	1.57	0.67
1:B:135:ASN:HA	1:B:172:GLU:OE1	1.95	0.67
1:B:476:TYR:HE2	1:C:477:ASN:CB	2.06	0.67
1:C:152:LEU:HD21	1:C:199:ASN:O	1.94	0.67
1:A:135:ASN:HA	1:A:172:GLU:OE1	1.95	0.67
1:D:475:PHE:O	1:E:475:PHE:CZ	2.47	0.67
1:A:221:PRO:CG	1:B:193:LEU:O	2.42	0.67
1:D:411:ASN:ND2	1:E:171:PRO:HA	2.09	0.67
1:D:425:LEU:HD12	1:E:172:GLU:HG3	1.75	0.67
1:B:436:GLN:HB2	1:C:556:LYS:HZ1	1.50	0.67
1:B:436:GLN:CA	1:C:556:LYS:HZ1	2.06	0.67
1:B:482:TYR:CE1	1:C:486:ILE:HG23	2.29	0.67
1:A:266:PRO:CD	1:B:87:ASP:HB2	2.25	0.67
1:A:450:THR:HG23	1:B:57:TYR:HD1	1.53	0.67
1:A:99:ASN:CB	1:E:459:ASN:HB3	2.24	0.67
1:B:267:PHE:CE1	1:C:76:SER:OG	2.48	0.67
1:D:376:LYS:CD	1:D:378:VAL:CG1	2.66	0.67
1:B:410:TYR:CE2	1:B:425:LEU:HD13	2.29	0.67
1:A:234:GLU:OE1	1:B:496:PHE:HE1	1.78	0.67
1:D:101:TYR:CD2	1:D:105:GLU:HG2	2.29	0.67
1:E:101:TYR:CD2	1:E:105:GLU:HG2	2.29	0.67
1:B:230:VAL:O	1:C:493:THR:HG21	1.95	0.67
1:B:264:ARG:O	1:C:87:ASP:HB3	1.95	0.67
1:C:68:ARG:CD	1:C:70:TYR:CZ	2.73	0.67
1:E:135:ASN:HA	1:E:172:GLU:OE1	1.94	0.67
1:C:459:ASN:CB	1:D:99:ASN:HB3	2.20	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:267:PHE:CE1	1:E:83:ASN:HB3	2.29	0.67
1:D:513:ILE:HG12	1:E:516:VAL:HG21	1.76	0.67
1:A:513:ILE:HG12	1:B:516:VAL:HG21	1.76	0.67
1:C:434:SER:O	1:D:556:LYS:NZ	2.23	0.67
2:F:7:SER:O	2:F:8:GLU:C	2.33	0.67
1:D:266:PRO:HD2	1:E:87:ASP:CB	2.24	0.67
1:A:228:PRO:HB3	1:B:493:THR:CG2	2.25	0.67
1:A:556:LYS:CB	1:E:434:SER:HB3	2.24	0.67
1:B:410:TYR:CG	1:B:425:LEU:HD12	2.29	0.67
1:A:436:GLN:CG	1:A:466:GLU:O	2.38	0.67
1:D:232:THR:OG1	1:E:495:VAL:HG21	1.94	0.67
1:C:57:TYR:HE2	1:C:60:LEU:CB	2.00	0.67
1:D:228:PRO:HB2	1:E:493:THR:HG21	1.76	0.67
1:D:434:SER:O	1:E:556:LYS:NZ	2.24	0.67
1:A:266:PRO:HD2	1:B:87:ASP:CB	2.24	0.67
1:A:232:THR:OG1	1:B:495:VAL:HG21	1.95	0.67
1:E:56:ARG:HB2	1:E:112:ASN:HB2	1.77	0.67
2:G:7:SER:O	2:G:8:GLU:C	2.33	0.66
1:C:234:GLU:OE1	1:D:496:PHE:CE1	2.48	0.66
1:A:101:TYR:CD2	1:A:105:GLU:HG2	2.29	0.66
1:C:101:TYR:CD2	1:C:105:GLU:HG2	2.29	0.66
1:B:264:ARG:O	1:C:87:ASP:CG	2.33	0.66
1:B:476:TYR:CD1	1:C:475:PHE:CD2	2.83	0.66
1:D:459:ASN:CB	1:E:99:ASN:HB3	2.20	0.66
2:G:13:PRO:HB2	2:G:17:TYR:CE1	2.29	0.66
1:D:135:ASN:HA	1:D:172:GLU:OE1	1.94	0.66
1:D:529:LEU:HD21	1:E:68:ARG:HH21	1.59	0.66
1:A:47:ARG:CB	1:E:569:ARG:CA	2.67	0.66
1:A:475:PHE:HZ	1:E:474:SER:HG	1.41	0.66
2:H:13:PRO:CA	1:E:197:ARG:NH1	2.58	0.66
1:D:221:PRO:HG3	1:E:194:LYS:CB	2.25	0.66
1:C:152:LEU:HB3	1:C:153:PRO:CD	2.26	0.66
1:D:264:ARG:O	1:E:87:ASP:CG	2.34	0.66
1:B:101:TYR:CD2	1:B:105:GLU:HG2	2.29	0.66
1:D:56:ARG:HB2	1:D:112:ASN:HB2	1.78	0.66
1:B:56:ARG:HB2	1:B:112:ASN:HB2	1.78	0.66
1:B:264:ARG:CZ	1:B:424:LEU:HD21	2.26	0.66
1:C:436:GLN:CA	1:D:556:LYS:HZ1	2.09	0.66
1:D:152:LEU:HB3	1:D:153:PRO:CD	2.26	0.66
1:A:264:ARG:O	1:B:87:ASP:CG	2.34	0.66
1:B:481:VAL:HG23	1:C:490:THR:CB	2.25	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:221:PRO:CG	1:E:193:LEU:O	2.44	0.66
1:D:234:GLU:OE1	1:E:496:PHE:HE1	1.78	0.66
1:B:393:LEU:HD23	1:B:401:THR:HG22	1.78	0.66
1:A:57:TYR:CD1	1:E:450:THR:CG2	2.26	0.66
2:F:14:VAL:HG21	1:B:192:TYR:HE2	1.60	0.66
1:A:425:LEU:CD2	1:B:172:GLU:HB2	2.22	0.66
2:H:7:SER:O	2:H:8:GLU:C	2.33	0.66
1:E:264:ARG:CZ	1:E:424:LEU:HD21	2.26	0.66
1:C:264:ARG:CZ	1:C:424:LEU:HD21	2.26	0.66
1:B:436:GLN:OE1	1:C:126:ILE:CD1	2.36	0.66
1:A:56:ARG:HB2	1:A:112:ASN:HB2	1.77	0.66
1:C:135:ASN:HA	1:C:172:GLU:OE1	1.95	0.66
1:A:475:PHE:O	1:B:475:PHE:CE2	2.48	0.66
1:A:155:LYS:HG3	1:A:158:GLN:OE1	1.96	0.66
1:A:264:ARG:CZ	1:A:424:LEU:HD21	2.26	0.66
1:B:230:VAL:CG1	1:C:492:LEU:HB2	2.26	0.66
1:D:228:PRO:CB	1:E:493:THR:HG21	2.25	0.66
1:D:234:GLU:OE1	1:E:496:PHE:CE1	2.49	0.66
1:D:57:TYR:OH	1:D:98:ASN:ND2	2.30	0.65
1:D:98:ASN:O	1:D:99:ASN:HB2	1.96	0.65
1:C:155:LYS:HG3	1:C:158:GLN:OE1	1.96	0.65
1:C:232:THR:OG1	1:D:495:VAL:HG21	1.95	0.65
1:C:56:ARG:HB2	1:C:112:ASN:HB2	1.78	0.65
1:B:482:TYR:CD1	1:C:486:ILE:HG22	2.30	0.65
1:B:152:LEU:HB3	1:B:153:PRO:CD	2.26	0.65
1:A:152:LEU:HB3	1:A:153:PRO:CD	2.26	0.65
1:D:264:ARG:CZ	1:D:424:LEU:HD21	2.26	0.65
1:B:228:PRO:HB2	1:C:493:THR:HG21	1.78	0.65
1:A:490:THR:O	1:E:233:ASN:ND2	2.29	0.65
1:C:230:VAL:CG1	1:D:492:LEU:HB2	2.25	0.65
1:A:172:GLU:HB3	1:E:425:LEU:HD13	1.70	0.65
1:B:257:ASN:OD1	1:B:432:CYS:HA	1.97	0.65
1:A:87:ASP:CG	1:E:264:ARG:O	2.34	0.65
1:C:450:THR:O	1:C:450:THR:HG22	1.97	0.65
1:B:292:TYR:CE1	1:B:376:LYS:CD	2.58	0.65
1:D:476:TYR:HE2	1:E:477:ASN:CB	2.07	0.65
1:D:475:PHE:O	1:E:475:PHE:CE2	2.49	0.65
1:C:221:PRO:HG3	1:D:194:LYS:CB	2.25	0.65
1:D:436:GLN:CB	1:E:558:LEU:HD21	2.27	0.65
1:A:425:LEU:CD2	1:B:172:GLU:HB3	2.18	0.65
1:A:490:THR:HG22	1:E:482:TYR:HD1	1.60	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:459:ASN:HB3	1:B:99:ASN:CB	2.27	0.65
1:C:452:ARG:HG3	1:D:60:LEU:CD2	2.15	0.65
1:C:98:ASN:O	1:C:99:ASN:HB2	1.96	0.65
2:F:13:PRO:CA	1:B:197:ARG:HH12	2.07	0.65
1:C:267:PHE:CE1	1:D:83:ASN:HB3	2.32	0.65
1:C:482:TYR:HD1	1:D:490:THR:HG22	1.62	0.65
1:E:155:LYS:HG3	1:E:158:GLN:OE1	1.96	0.65
1:A:87:ASP:HB3	1:E:264:ARG:O	1.95	0.65
1:A:234:GLU:OE1	1:B:496:PHE:CE1	2.49	0.65
1:C:68:ARG:HD2	1:C:70:TYR:OH	1.96	0.65
1:E:154:THR:O	1:E:155:LYS:CB	2.45	0.65
2:F:12:ASN:O	2:F:14:VAL:N	2.30	0.65
1:A:514:THR:HB	1:E:476:TYR:CE1	2.31	0.65
1:A:492:LEU:HB2	1:E:230:VAL:CG1	2.27	0.65
1:C:154:THR:O	1:C:155:LYS:CB	2.45	0.65
1:A:393:LEU:HD23	1:A:401:THR:HG22	1.78	0.65
2:G:12:ASN:O	2:G:14:VAL:N	2.30	0.64
1:B:155:LYS:HG3	1:B:158:GLN:OE1	1.96	0.64
1:D:155:LYS:HG3	1:D:158:GLN:OE1	1.96	0.64
1:A:230:VAL:O	1:B:493:THR:HG21	1.97	0.64
1:D:228:PRO:HB3	1:E:493:THR:CG2	2.28	0.64
1:C:436:GLN:CD	1:D:558:LEU:HD11	2.16	0.64
1:A:436:GLN:CB	1:B:558:LEU:HD21	2.26	0.64
1:A:86:ASN:O	1:E:267:PHE:HE1	1.78	0.64
1:E:393:LEU:HD23	1:E:401:THR:HG22	1.78	0.64
1:A:450:THR:O	1:A:450:THR:HG22	1.97	0.64
1:C:217:LEU:HD22	1:D:186:ASN:HD21	1.61	0.64
1:A:98:ASN:O	1:A:99:ASN:HB2	1.96	0.64
1:E:90:ASN:HD22	1:E:457:ILE:HG21	1.63	0.64
1:E:98:ASN:O	1:E:99:ASN:HB2	1.96	0.64
1:A:376:LYS:CD	1:A:378:VAL:CG1	2.66	0.64
1:B:425:LEU:CD2	1:C:172:GLU:HB2	2.28	0.64
1:B:47:ARG:HG2	1:B:48:PRO:HD2	1.78	0.64
1:E:152:LEU:HB3	1:E:153:PRO:CD	2.26	0.64
1:C:90:ASN:HD22	1:C:457:ILE:HG21	1.63	0.64
1:B:63:LEU:HD23	1:B:64:PHE:O	1.98	0.64
1:D:393:LEU:HD23	1:D:401:THR:HG22	1.78	0.64
2:H:12:ASN:O	2:H:14:VAL:N	2.30	0.64
1:C:393:LEU:HD23	1:C:401:THR:HG22	1.78	0.64
1:A:230:VAL:CG1	1:B:492:LEU:HB2	2.27	0.64
2:H:13:PRO:HB2	2:H:17:TYR:CE1	2.29	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:267:PHE:CE2	1:E:76:SER:HB2	2.11	0.64
1:C:63:LEU:HD23	1:C:64:PHE:O	1.98	0.64
1:A:217:LEU:HD22	1:B:186:ASN:HD21	1.62	0.64
1:B:425:LEU:CD2	1:C:172:GLU:C	2.66	0.64
1:A:63:LEU:HD23	1:A:64:PHE:O	1.98	0.64
1:E:63:LEU:HD23	1:E:64:PHE:O	1.98	0.64
1:D:476:TYR:CD1	1:E:475:PHE:CD2	2.86	0.64
1:C:265:GLN:HE21	1:D:85:GLN:C	2.01	0.64
1:A:90:ASN:HD22	1:A:457:ILE:HG21	1.63	0.64
1:B:425:LEU:HD21	1:C:172:GLU:O	1.98	0.63
1:A:436:GLN:N	1:B:556:LYS:NZ	2.46	0.63
1:D:450:THR:O	1:D:450:THR:HG22	1.97	0.63
1:D:450:THR:CG2	1:E:57:TYR:CD1	2.77	0.63
1:A:230:VAL:HG11	1:B:492:LEU:CD1	2.28	0.63
1:B:426:CYS:SG	1:C:553:TYR:HD2	2.21	0.63
1:A:490:THR:CG2	1:E:482:TYR:CD1	2.81	0.63
1:C:262:ARG:HD2	1:D:555:TYR:HE1	1.60	0.63
1:A:50:GLY:HA2	1:A:54:SER:HB3	1.81	0.63
1:B:450:THR:O	1:B:450:THR:HG22	1.97	0.63
2:F:13:PRO:HB2	2:F:17:TYR:CE1	2.29	0.63
1:D:63:LEU:HD23	1:D:64:PHE:O	1.98	0.63
1:C:47:ARG:HG2	1:C:48:PRO:HD2	1.78	0.63
1:A:267:PHE:CZ	1:B:80:ALA:CA	2.24	0.63
1:B:98:ASN:O	1:B:99:ASN:HB2	1.96	0.63
1:C:425:LEU:HD22	1:D:172:GLU:C	2.18	0.63
1:A:555:TYR:OH	1:E:257:ASN:HB3	1.95	0.63
1:A:221:PRO:HG3	1:B:194:LYS:CB	2.27	0.63
1:B:378:VAL:HG23	1:B:379:ILE:H	1.64	0.63
1:C:476:TYR:CE1	1:D:514:THR:HB	2.34	0.63
1:E:378:VAL:HG23	1:E:379:ILE:H	1.64	0.63
1:D:57:TYR:HD2	1:D:60:LEU:HB2	1.63	0.63
1:A:254:ARG:O	1:A:257:ASN:ND2	2.32	0.63
1:D:217:LEU:HD22	1:E:186:ASN:HD21	1.63	0.63
1:D:90:ASN:HD22	1:D:457:ILE:HG21	1.63	0.63
1:D:436:GLN:CA	1:E:556:LYS:HZ1	2.10	0.63
1:B:425:LEU:HD22	1:C:172:GLU:HB2	1.75	0.63
1:B:480:ALA:O	1:B:482:TYR:N	2.30	0.63
1:A:553:TYR:HD2	1:E:426:CYS:SG	2.22	0.63
1:D:230:VAL:CG1	1:E:492:LEU:HB2	2.29	0.62
1:E:128:HIS:HB3	1:E:556:LYS:HB3	1.81	0.62
1:D:50:GLY:HA2	1:D:54:SER:HB3	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:57:TYR:OH	1:E:98:ASN:ND2	2.33	0.62
1:A:227:MET:HB3	2:F:17:TYR:CZ	2.34	0.62
1:D:378:VAL:HG23	1:D:379:ILE:H	1.64	0.62
1:B:68:ARG:CD	1:B:70:TYR:HE2	1.95	0.62
1:A:426:CYS:HG	1:B:553:TYR:HD2	1.43	0.62
1:C:50:GLY:HA2	1:C:54:SER:HB3	1.81	0.62
1:A:47:ARG:CD	1:E:569:ARG:HA	2.29	0.62
1:D:265:GLN:HE21	1:E:85:GLN:C	2.02	0.62
2:G:13:PRO:CA	1:C:197:ARG:HH12	2.04	0.62
2:H:15:TYR:HD2	2:H:16:PRO:HD2	1.65	0.62
1:A:436:GLN:CD	1:B:558:LEU:HD11	2.19	0.62
1:B:449:VAL:HG13	1:C:55:ILE:CD1	2.30	0.62
1:B:569:ARG:HA	1:C:47:ARG:CD	2.28	0.62
1:C:474:SER:O	1:D:473:LYS:NZ	2.32	0.62
1:D:426:CYS:HG	1:E:553:TYR:HD2	1.46	0.62
1:B:228:PRO:CB	1:C:493:THR:HG21	2.29	0.62
1:C:410:TYR:CG	1:C:425:LEU:HD12	2.34	0.62
1:A:463:VAL:C	1:B:70:TYR:OH	2.38	0.62
1:B:476:TYR:CE1	1:C:514:THR:HB	2.35	0.62
1:A:186:ASN:ND2	1:E:217:LEU:HD22	2.14	0.62
1:A:495:VAL:CG2	1:E:232:THR:OG1	2.47	0.62
1:A:476:TYR:CD1	1:B:475:PHE:CD2	2.87	0.62
1:B:227:MET:HB3	2:G:17:TYR:CZ	2.34	0.62
1:A:292:TYR:CE1	1:A:376:LYS:CD	2.57	0.62
1:E:47:ARG:HG2	1:E:48:PRO:HD2	1.78	0.62
1:A:473:LYS:NZ	1:E:474:SER:O	2.33	0.62
1:C:378:VAL:HG23	1:C:379:ILE:H	1.64	0.62
1:A:97:GLN:OE1	1:E:451:PHE:HZ	1.83	0.62
1:A:436:GLN:CA	1:B:556:LYS:HZ1	2.11	0.62
1:A:83:ASN:O	1:E:267:PHE:HD1	1.82	0.62
1:A:47:ARG:HG2	1:A:48:PRO:HD2	1.78	0.62
1:A:198:GLN:HE21	1:E:222:VAL:HG21	1.65	0.62
1:A:459:ASN:OD1	1:B:99:ASN:HB3	1.99	0.62
1:A:378:VAL:HG23	1:A:379:ILE:H	1.64	0.62
1:B:482:TYR:HD1	1:C:490:THR:CG2	2.11	0.62
1:D:482:TYR:CD1	1:E:490:THR:CG2	2.83	0.62
1:C:230:VAL:HG11	1:D:492:LEU:CD1	2.30	0.62
1:D:436:GLN:CD	1:E:558:LEU:HD11	2.20	0.62
1:B:128:HIS:HB3	1:B:556:LYS:HB3	1.81	0.62
1:B:90:ASN:HD22	1:B:457:ILE:HG21	1.63	0.62
1:E:57:TYR:CE2	1:E:60:LEU:HB2	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:451:PHE:CZ	1:C:97:GLN:OE1	2.52	0.61
2:H:14:VAL:HG12	2:H:14:VAL:O	2.00	0.61
1:B:50:GLY:HA2	1:B:54:SER:HB3	1.81	0.61
1:A:97:GLN:OE1	1:E:451:PHE:CZ	2.53	0.61
2:G:16:PRO:HD3	1:C:498:ARG:O	2.00	0.61
1:D:230:VAL:O	1:E:493:THR:HG21	1.99	0.61
1:A:76:SER:HB2	1:E:267:PHE:CE2	2.36	0.61
1:D:569:ARG:CA	1:E:47:ARG:CB	2.70	0.61
1:B:265:GLN:HE21	1:C:85:GLN:C	2.03	0.61
1:E:257:ASN:ND2	1:E:432:CYS:O	2.33	0.61
1:E:50:GLY:HA2	1:E:54:SER:HB3	1.81	0.61
1:A:99:ASN:HB3	1:E:459:ASN:CG	2.21	0.61
1:B:451:PHE:HZ	1:C:97:GLN:OE1	1.82	0.61
2:G:15:TYR:HD2	2:G:16:PRO:HD2	1.64	0.61
2:F:14:VAL:O	2:F:14:VAL:HG12	1.99	0.61
2:F:15:TYR:HD2	2:F:16:PRO:HD2	1.65	0.61
1:D:227:MET:HB3	2:H:17:TYR:CZ	2.34	0.61
1:D:463:VAL:C	1:E:70:TYR:OH	2.38	0.61
1:B:482:TYR:HB2	1:C:490:THR:CG2	2.29	0.61
1:B:232:THR:OG1	1:C:495:VAL:CG2	2.48	0.61
1:C:72:VAL:HG22	1:C:74:ASN:H	1.66	0.61
1:A:99:ASN:HB3	1:E:459:ASN:OD1	2.01	0.61
1:A:72:VAL:HG22	1:A:74:ASN:H	1.66	0.61
1:E:57:TYR:HE2	1:E:60:LEU:HB2	1.65	0.61
1:D:230:VAL:HG11	1:E:492:LEU:CD1	2.31	0.61
1:B:217:LEU:HD22	1:C:186:ASN:ND2	2.15	0.61
1:A:60:LEU:CD2	1:E:452:ARG:NE	2.62	0.61
1:E:410:TYR:CG	1:E:425:LEU:HD12	2.30	0.61
1:D:83:ASN:CG	1:D:91:PHE:HB2	2.21	0.61
1:E:72:VAL:HG22	1:E:74:ASN:H	1.66	0.61
1:A:265:GLN:HE21	1:B:85:GLN:C	2.03	0.61
1:B:410:TYR:CE2	1:B:425:LEU:CD1	2.83	0.61
1:C:426:CYS:SG	1:D:553:TYR:HD2	2.24	0.61
2:G:14:VAL:HG12	2:G:14:VAL:O	1.99	0.61
1:D:436:GLN:N	1:E:556:LYS:NZ	2.46	0.61
1:B:530:PRO:CD	1:C:66:THR:O	2.48	0.61
1:A:66:THR:O	1:E:530:PRO:CD	2.49	0.61
1:A:183:LEU:HD21	1:E:236:PHE:CE2	2.35	0.61
1:D:264:ARG:HG2	1:D:424:LEU:HD11	1.83	0.61
1:D:233:ASN:ND2	1:E:490:THR:O	2.34	0.61
1:B:267:PHE:CE2	1:C:87:ASP:HA	2.35	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:83:ASN:CG	1:C:91:PHE:HB2	2.21	0.61
1:B:474:SER:O	1:C:473:LYS:NZ	2.32	0.61
1:C:450:THR:CG2	1:D:57:TYR:CD1	2.75	0.60
1:B:228:PRO:HB3	1:C:493:THR:CG2	2.31	0.60
1:D:128:HIS:HB3	1:D:556:LYS:HB3	1.82	0.60
1:C:410:TYR:CE2	1:C:425:LEU:CD1	2.84	0.60
1:C:128:HIS:HB3	1:C:556:LYS:HB3	1.81	0.60
1:C:464:GLY:HA3	1:D:68:ARG:HH12	1.66	0.60
1:A:459:ASN:CG	1:B:99:ASN:HB3	2.21	0.60
1:C:264:ARG:O	1:D:87:ASP:CB	2.49	0.60
2:F:13:PRO:CA	1:B:197:ARG:NH1	2.62	0.60
1:D:376:LYS:HG2	1:D:377:PRO:HD2	1.84	0.60
1:B:236:PHE:CE2	1:C:183:LEU:HD21	2.36	0.60
1:D:264:ARG:CG	1:D:424:LEU:HD21	2.32	0.60
1:D:411:ASN:HD21	1:E:172:GLU:H	1.49	0.60
1:A:558:LEU:HD21	1:E:436:GLN:HB2	1.83	0.60
1:B:436:GLN:HB2	1:C:558:LEU:HD21	1.82	0.60
1:A:63:LEU:HD21	1:E:530:PRO:HG2	1.83	0.60
1:C:80:ALA:O	1:C:81:SER:CB	2.50	0.60
1:A:495:VAL:HG21	1:E:232:THR:CB	2.31	0.60
1:B:257:ASN:ND2	1:B:432:CYS:O	2.35	0.60
1:A:569:ARG:HA	1:B:47:ARG:CD	2.31	0.60
1:B:80:ALA:O	1:B:81:SER:CB	2.50	0.60
1:B:459:ASN:O	1:C:99:ASN:ND2	2.34	0.60
1:B:436:GLN:NE2	1:B:465:ALA:HB3	2.15	0.60
1:A:474:SER:O	1:B:473:LYS:NZ	2.34	0.60
1:A:85:GLN:C	1:E:265:GLN:HE21	2.04	0.60
1:A:555:TYR:OH	1:E:257:ASN:CG	2.39	0.60
2:G:14:VAL:CG1	1:C:203:GLU:OE2	2.45	0.60
1:B:482:TYR:HD1	1:C:490:THR:HG22	1.66	0.60
1:D:47:ARG:HG2	1:D:48:PRO:HD2	1.78	0.60
1:A:264:ARG:CG	1:A:424:LEU:HD21	2.32	0.60
1:A:530:PRO:HG2	1:B:63:LEU:HD21	1.84	0.60
1:A:486:ILE:HG21	1:E:482:TYR:CZ	2.36	0.60
1:A:518:GLU:OE2	1:E:472:SER:O	2.20	0.60
1:D:72:VAL:HG22	1:D:74:ASN:H	1.66	0.60
1:B:436:GLN:OE1	1:C:558:LEU:CD1	2.43	0.60
1:C:464:GLY:HA2	1:D:68:ARG:NH1	2.15	0.60
1:B:264:ARG:CG	1:B:424:LEU:HD21	2.32	0.60
1:A:490:THR:HG22	1:E:482:TYR:CD1	2.37	0.60
1:A:451:PHE:O	1:B:60:LEU:CD2	2.50	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:99:ASN:ND2	1:E:459:ASN:O	2.35	0.59
1:D:451:PHE:O	1:E:60:LEU:CD2	2.50	0.59
1:D:464:GLY:HA2	1:E:68:ARG:NH1	2.17	0.59
1:D:482:TYR:CD1	1:E:490:THR:HG22	2.36	0.59
1:B:72:VAL:HG22	1:B:74:ASN:H	1.66	0.59
1:B:154:THR:O	1:B:155:LYS:CB	2.45	0.59
1:C:569:ARG:HA	1:D:47:ARG:CD	2.33	0.59
1:B:222:VAL:HG21	1:C:198:GLN:HE21	1.66	0.59
1:A:496:PHE:HE1	1:E:234:GLU:CD	2.04	0.59
1:B:472:SER:O	1:C:518:GLU:OE2	2.20	0.59
1:C:57:TYR:O	1:C:57:TYR:CG	2.54	0.59
1:D:530:PRO:HG2	1:E:63:LEU:HD21	1.84	0.59
1:A:490:THR:HG22	1:E:482:TYR:HA	1.84	0.59
1:A:172:GLU:H	1:E:411:ASN:HD21	1.50	0.59
1:B:451:PHE:O	1:C:60:LEU:CD2	2.49	0.59
1:B:530:PRO:HG2	1:C:63:LEU:HD21	1.84	0.59
1:A:569:ARG:CA	1:B:47:ARG:CB	2.68	0.59
1:C:264:ARG:CG	1:C:424:LEU:HD21	2.32	0.59
1:B:232:THR:CB	1:C:495:VAL:HG21	2.32	0.59
1:D:262:ARG:HD2	1:E:555:TYR:HE1	1.63	0.59
1:D:569:ARG:HA	1:E:47:ARG:CD	2.33	0.59
1:E:80:ALA:O	1:E:81:SER:CB	2.50	0.59
1:E:264:ARG:HG2	1:E:424:LEU:HD11	1.83	0.59
1:A:436:GLN:NE2	1:A:465:ALA:HB3	2.16	0.59
1:A:68:ARG:HD2	1:A:70:TYR:OH	2.01	0.59
1:A:262:ARG:HD2	1:B:555:TYR:HE1	1.66	0.59
1:C:264:ARG:HG2	1:C:424:LEU:HD11	1.83	0.59
1:A:451:PHE:CZ	1:B:97:GLN:OE1	2.56	0.59
1:B:57:TYR:CG	1:B:57:TYR:O	2.54	0.59
1:C:411:ASN:HD21	1:D:172:GLU:H	1.47	0.59
1:B:433:GLY:CA	1:C:555:TYR:CE2	2.61	0.59
1:B:233:ASN:HB3	1:C:491:SER:CB	2.33	0.59
1:A:193:LEU:O	1:E:221:PRO:HG2	2.03	0.59
1:D:264:ARG:O	1:E:87:ASP:CB	2.51	0.59
1:B:234:GLU:CD	1:C:496:PHE:HE1	2.06	0.59
1:C:451:PHE:HZ	1:D:97:GLN:OE1	1.86	0.59
1:D:451:PHE:HZ	1:E:97:GLN:OE1	1.86	0.59
1:B:264:ARG:HG2	1:B:424:LEU:HD11	1.83	0.59
1:B:155:LYS:O	1:B:156:ASP:CB	2.37	0.59
1:C:221:PRO:HG2	1:D:193:LEU:O	2.02	0.59
1:E:264:ARG:CG	1:E:424:LEU:HD21	2.32	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:426:CYS:HG	1:C:553:TYR:HD2	1.47	0.59
1:B:411:ASN:HD21	1:C:172:GLU:H	1.50	0.59
1:A:480:ALA:O	1:A:482:TYR:N	2.30	0.59
1:A:482:TYR:CE1	1:B:486:ILE:HG21	2.38	0.59
1:B:569:ARG:CB	1:C:47:ARG:HB2	2.31	0.59
1:D:474:SER:O	1:E:473:LYS:NZ	2.36	0.59
1:C:79:VAL:HG12	1:C:79:VAL:O	2.03	0.59
1:A:555:TYR:HE2	1:E:433:GLY:HA3	1.65	0.59
1:B:376:LYS:HG2	1:B:377:PRO:HD2	1.84	0.59
1:A:411:ASN:HD21	1:B:172:GLU:H	1.49	0.59
1:A:55:ILE:CD1	1:E:449:VAL:HG13	2.32	0.59
1:A:490:THR:HG21	1:E:482:TYR:CB	2.28	0.59
1:D:80:ALA:O	1:D:81:SER:CB	2.50	0.59
1:A:555:TYR:HE2	1:E:432:CYS:O	1.82	0.59
1:A:264:ARG:O	1:B:87:ASP:CB	2.50	0.59
1:D:185:ASN:HD21	1:D:210:PHE:HB2	1.68	0.59
1:B:566:LEU:HB3	1:C:65:ASP:OD2	2.03	0.59
1:D:451:PHE:CZ	1:E:97:GLN:OE1	2.56	0.58
1:A:376:LYS:HG2	1:A:377:PRO:HD2	1.84	0.58
1:A:530:PRO:CD	1:B:66:THR:O	2.51	0.58
1:C:530:PRO:CD	1:D:66:THR:O	2.51	0.58
1:B:47:ARG:NH1	1:B:53:ASN:ND2	2.51	0.58
1:C:474:SER:OG	1:D:475:PHE:HZ	1.86	0.58
1:D:265:GLN:HE21	1:E:85:GLN:CA	2.16	0.58
1:D:426:CYS:SG	1:E:553:TYR:HD2	2.26	0.58
1:B:451:PHE:O	1:C:60:LEU:HD22	2.03	0.58
1:E:83:ASN:CG	1:E:91:PHE:HB2	2.21	0.58
1:B:425:LEU:HD22	1:C:172:GLU:CA	2.33	0.58
1:B:463:VAL:O	1:C:68:ARG:NH1	2.37	0.58
1:B:474:SER:OG	1:C:475:PHE:HZ	1.86	0.58
1:E:79:VAL:HG12	1:E:79:VAL:O	2.03	0.58
1:A:50:GLY:HA2	1:A:54:SER:CB	2.34	0.58
1:A:57:TYR:CG	1:A:57:TYR:O	2.56	0.58
1:A:154:THR:O	1:A:155:LYS:CB	2.45	0.58
1:D:47:ARG:NH2	1:D:53:ASN:HD22	1.98	0.58
1:A:264:ARG:HG2	1:A:424:LEU:HD11	1.83	0.58
1:C:50:GLY:HA2	1:C:54:SER:CB	2.34	0.58
1:E:50:GLY:HA2	1:E:54:SER:CB	2.34	0.58
1:E:185:ASN:HD21	1:E:210:PHE:HB2	1.68	0.58
1:A:482:TYR:HD1	1:B:490:THR:CG2	2.17	0.58
1:E:264:ARG:HG2	1:E:424:LEU:HD21	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:217:LEU:HD22	1:D:186:ASN:ND2	2.18	0.58
1:A:97:GLN:HB3	1:E:451:PHE:CE2	2.38	0.58
1:A:436:GLN:CB	1:B:556:LYS:NZ	2.56	0.58
1:A:491:SER:CB	1:E:233:ASN:HB3	2.32	0.58
1:A:553:TYR:HD2	1:E:426:CYS:HG	1.49	0.58
1:A:65:ASP:OD2	1:E:566:LEU:HB3	2.03	0.58
1:B:451:PHE:CE2	1:C:97:GLN:HB3	2.39	0.58
1:B:376:LYS:CD	1:B:378:VAL:CG1	2.66	0.58
1:A:83:ASN:CB	1:E:267:PHE:CD1	2.72	0.58
1:B:221:PRO:HG2	1:C:193:LEU:O	2.02	0.58
1:B:50:GLY:HA2	1:B:54:SER:CB	2.34	0.58
1:B:185:ASN:HD21	1:B:210:PHE:HB2	1.68	0.58
1:D:451:PHE:O	1:E:60:LEU:HD22	2.04	0.58
2:F:15:TYR:OH	1:B:493:THR:CB	2.48	0.58
1:A:558:LEU:HD21	1:E:436:GLN:NE2	2.18	0.58
1:A:75:LYS:O	1:A:79:VAL:HG23	2.04	0.58
1:D:79:VAL:HG12	1:D:79:VAL:O	2.03	0.58
1:A:221:PRO:HG2	1:B:193:LEU:O	2.04	0.58
1:D:264:ARG:HG2	1:D:424:LEU:HD21	1.86	0.58
1:D:50:GLY:HA2	1:D:54:SER:CB	2.34	0.58
1:E:57:TYR:O	1:E:57:TYR:CG	2.56	0.58
1:D:464:GLY:HA3	1:E:68:ARG:HH12	1.67	0.58
1:A:481:VAL:HG23	1:B:490:THR:CB	2.34	0.58
1:A:569:ARG:CB	1:B:47:ARG:HB2	2.34	0.58
1:A:79:VAL:HG12	1:A:79:VAL:O	2.03	0.58
1:C:426:CYS:HG	1:D:553:TYR:HD2	1.50	0.58
1:C:451:PHE:CZ	1:D:97:GLN:OE1	2.56	0.58
1:A:57:TYR:HD2	1:A:59:GLU:O	1.86	0.58
1:B:264:ARG:HG2	1:B:424:LEU:HD21	1.86	0.58
1:B:47:ARG:NH2	1:B:53:ASN:HB2	2.18	0.58
1:C:257:ASN:HB3	1:D:555:TYR:OH	2.03	0.58
1:D:232:THR:OG1	1:E:495:VAL:CG2	2.52	0.58
1:A:185:ASN:HD21	1:A:210:PHE:HB2	1.68	0.58
1:B:75:LYS:O	1:B:79:VAL:HG23	2.04	0.58
1:A:451:PHE:HZ	1:B:97:GLN:OE1	1.86	0.58
1:B:264:ARG:O	1:C:87:ASP:CB	2.52	0.58
1:C:449:VAL:HG13	1:D:55:ILE:CD1	2.31	0.58
1:A:68:ARG:CD	1:A:70:TYR:CZ	2.78	0.58
1:C:236:PHE:CE2	1:D:183:LEU:HD21	2.39	0.58
1:E:75:LYS:O	1:E:79:VAL:HG23	2.04	0.58
1:C:185:ASN:HD21	1:C:210:PHE:HB2	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:83:ASN:CG	1:B:91:PHE:HB2	2.21	0.57
1:A:83:ASN:CG	1:A:91:PHE:HB2	2.21	0.57
1:B:481:VAL:HG23	1:C:490:THR:HB	1.85	0.57
1:B:47:ARG:NH2	1:B:53:ASN:ND2	2.52	0.57
1:C:47:ARG:CG	1:C:48:PRO:CD	2.76	0.57
1:A:426:CYS:SG	1:B:553:TYR:HD2	2.26	0.57
1:E:57:TYR:CD2	1:E:60:LEU:CB	2.87	0.57
2:H:16:PRO:HD3	1:E:498:ARG:O	2.04	0.57
1:B:463:VAL:O	1:C:70:TYR:OH	2.21	0.57
1:A:264:ARG:HG2	1:A:424:LEU:HD21	1.86	0.57
2:H:15:TYR:OH	1:E:493:THR:CB	2.49	0.57
1:C:436:GLN:HB2	1:D:558:LEU:HD21	1.85	0.57
1:B:434:SER:O	1:C:556:LYS:CG	2.52	0.57
1:C:530:PRO:HG2	1:D:63:LEU:HD21	1.87	0.57
1:A:66:THR:HG21	1:E:528:THR:HB	1.86	0.57
1:A:475:PHE:HZ	1:E:474:SER:OG	1.86	0.57
1:B:79:VAL:HG12	1:B:79:VAL:O	2.03	0.57
1:B:230:VAL:HG11	1:C:492:LEU:CD1	2.34	0.57
2:F:16:PRO:HD3	1:B:498:ARG:O	2.03	0.57
1:B:425:LEU:HD13	1:C:172:GLU:CG	2.34	0.57
1:A:528:THR:HB	1:B:66:THR:HG21	1.87	0.57
1:A:47:ARG:HB2	1:E:569:ARG:CB	2.33	0.57
2:G:15:TYR:CD2	2:G:15:TYR:C	2.78	0.57
1:D:47:ARG:CG	1:D:48:PRO:CD	2.75	0.57
2:H:8:GLU:CG	2:H:9:ASP:H	2.02	0.57
1:C:232:THR:OG1	1:D:495:VAL:CG2	2.52	0.57
1:A:450:THR:HA	1:B:57:TYR:CD1	2.39	0.57
1:C:75:LYS:O	1:C:79:VAL:HG23	2.04	0.57
1:C:230:VAL:HG13	1:C:503:GLN:NE2	2.17	0.57
1:C:264:ARG:HG2	1:C:424:LEU:HD21	1.86	0.57
1:A:145:ALA:HB3	1:A:168:PHE:HE1	1.70	0.57
1:D:434:SER:OG	1:D:467:LEU:HD11	2.05	0.57
1:A:434:SER:OG	1:A:467:LEU:HD11	2.05	0.57
1:D:530:PRO:CD	1:E:66:THR:O	2.53	0.57
1:A:267:PHE:HE2	1:B:84:TYR:HD1	1.47	0.57
1:C:434:SER:OG	1:C:467:LEU:HD11	2.05	0.57
1:B:434:SER:OG	1:B:467:LEU:HD11	2.05	0.57
1:A:555:TYR:OH	1:E:432:CYS:O	2.22	0.57
1:E:257:ASN:OD1	1:E:432:CYS:HA	2.05	0.57
1:C:106:ALA:HA	1:C:109:GLN:NE2	2.20	0.57
1:A:265:GLN:HE21	1:B:85:GLN:CA	2.17	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:262:ARG:HD2	1:C:555:TYR:HE1	1.67	0.57
1:D:528:THR:HB	1:E:66:THR:HG21	1.87	0.57
1:C:476:TYR:HE2	1:D:477:ASN:CB	2.13	0.57
1:A:217:LEU:HD22	1:B:186:ASN:ND2	2.20	0.57
1:D:57:TYR:O	1:D:57:TYR:CG	2.58	0.57
1:A:410:TYR:CE2	1:A:425:LEU:HD12	2.37	0.57
1:B:436:GLN:CB	1:C:556:LYS:NZ	2.53	0.57
1:C:482:TYR:CD1	1:D:490:THR:CG2	2.86	0.57
1:B:449:VAL:HG22	1:C:55:ILE:HD13	1.87	0.57
1:D:257:ASN:OD1	1:D:258:LEU:N	2.38	0.57
1:A:490:THR:CG2	1:E:482:TYR:HB2	2.29	0.57
1:A:232:THR:OG1	1:B:495:VAL:CG2	2.53	0.57
1:C:145:ALA:HB3	1:C:168:PHE:HE1	1.70	0.57
1:B:450:THR:HA	1:C:57:TYR:CD1	2.39	0.56
1:A:558:LEU:HD21	1:E:436:GLN:CD	2.26	0.56
1:E:47:ARG:CG	1:E:48:PRO:CD	2.75	0.56
1:C:569:ARG:CB	1:D:47:ARG:HB2	2.35	0.56
1:A:106:ALA:HA	1:A:109:GLN:NE2	2.20	0.56
1:D:145:ALA:HB3	1:D:168:PHE:HE1	1.70	0.56
1:A:566:LEU:HB3	1:B:65:ASP:OD2	2.05	0.56
1:A:450:THR:CB	1:B:57:TYR:CD1	2.88	0.56
1:A:98:ASN:OD1	1:E:452:ARG:CD	2.53	0.56
1:A:449:VAL:HG13	1:B:55:ILE:CD1	2.33	0.56
1:C:233:ASN:HB3	1:D:491:SER:CB	2.35	0.56
1:C:463:VAL:C	1:D:70:TYR:OH	2.43	0.56
1:D:75:LYS:O	1:D:79:VAL:HG23	2.04	0.56
1:A:555:TYR:HH	1:E:257:ASN:HB3	1.70	0.56
1:D:217:LEU:HD22	1:E:186:ASN:ND2	2.20	0.56
1:E:145:ALA:HB3	1:E:168:PHE:HE1	1.70	0.56
1:C:459:ASN:O	1:D:99:ASN:ND2	2.38	0.56
1:A:558:LEU:CD1	1:E:436:GLN:NE2	2.60	0.56
1:C:482:TYR:CD1	1:D:490:THR:HG22	2.40	0.56
1:A:47:ARG:CA	1:E:569:ARG:O	2.54	0.56
1:C:47:ARG:NH2	1:C:53:ASN:HD22	1.94	0.56
1:C:257:ASN:HB2	1:D:555:TYR:OH	2.04	0.56
1:C:265:GLN:HE21	1:D:85:GLN:CA	2.17	0.56
1:C:232:THR:CB	1:D:495:VAL:HG21	2.36	0.56
1:C:472:SER:O	1:D:518:GLU:OE2	2.24	0.56
1:D:459:ASN:O	1:E:99:ASN:ND2	2.38	0.56
1:C:267:PHE:HD1	1:D:86:ASN:O	1.87	0.56
1:B:425:LEU:CD2	1:C:172:GLU:O	2.53	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:516:VAL:HG21	1:E:513:ILE:CG1	2.34	0.56
1:A:451:PHE:O	1:B:60:LEU:HD22	2.04	0.56
1:B:513:ILE:CG1	1:C:516:VAL:HG21	2.35	0.56
1:E:106:ALA:HA	1:E:109:GLN:NE2	2.20	0.56
1:E:410:TYR:CZ	1:E:425:LEU:HD12	2.39	0.56
1:B:452:ARG:CD	1:C:98:ASN:OD1	2.54	0.56
1:D:106:ALA:HA	1:D:109:GLN:NE2	2.21	0.56
1:A:55:ILE:HD13	1:E:449:VAL:HG22	1.88	0.56
1:B:145:ALA:HB3	1:B:168:PHE:HE1	1.70	0.56
1:A:60:LEU:CG	1:E:452:ARG:CG	2.67	0.56
2:H:15:TYR:CD2	2:H:15:TYR:C	2.78	0.56
1:D:236:PHE:CE2	1:E:183:LEU:HD21	2.41	0.56
1:E:57:TYR:CE2	1:E:60:LEU:CB	2.89	0.56
1:A:83:ASN:O	1:E:267:PHE:CD1	2.59	0.56
1:B:463:VAL:O	1:C:68:ARG:CZ	2.53	0.56
1:D:102:SER:HB3	1:D:103:PRO:HD2	1.88	0.56
1:A:60:LEU:HD21	1:E:452:ARG:HE	1.71	0.56
2:H:14:VAL:CG1	1:E:203:GLU:OE2	2.47	0.56
1:B:436:GLN:CD	1:C:558:LEU:HD21	2.27	0.56
1:B:528:THR:HB	1:C:66:THR:HG21	1.87	0.56
1:D:257:ASN:OD1	1:D:432:CYS:HA	2.06	0.56
1:A:474:SER:OG	1:B:475:PHE:HZ	1.88	0.56
1:A:57:TYR:CE2	1:A:60:LEU:CD1	2.89	0.55
1:D:451:PHE:CE2	1:E:97:GLN:HB3	2.41	0.55
1:A:80:ALA:O	1:A:81:SER:CB	2.50	0.55
1:B:151:ARG:HG3	1:B:161:LEU:CD2	2.37	0.55
1:D:566:LEU:HB3	1:E:65:ASP:OD2	2.06	0.55
1:D:221:PRO:HG2	1:E:193:LEU:O	2.05	0.55
1:E:239:ASP:HB2	1:E:406:TRP:HB3	1.88	0.55
1:A:57:TYR:CE2	1:A:60:LEU:CB	2.89	0.55
1:B:569:ARG:CA	1:C:47:ARG:CB	2.68	0.55
1:D:476:TYR:CE1	1:E:514:THR:HB	2.41	0.55
1:A:459:ASN:O	1:B:99:ASN:ND2	2.38	0.55
1:D:267:PHE:HD1	1:E:86:ASN:O	1.89	0.55
1:C:463:VAL:O	1:D:68:ARG:CZ	2.55	0.55
1:D:449:VAL:HG13	1:E:55:ILE:CD1	2.33	0.55
1:A:477:ASN:CB	1:E:476:TYR:HE2	2.14	0.55
1:C:566:LEU:HB3	1:D:65:ASP:OD2	2.07	0.55
1:C:239:ASP:HB2	1:C:406:TRP:HB3	1.88	0.55
1:E:102:SER:HB3	1:E:103:PRO:HD2	1.88	0.55
1:A:451:PHE:CE2	1:B:97:GLN:HB3	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:233:ASN:HB3	1:B:491:SER:CB	2.37	0.55
1:A:87:ASP:CB	1:E:264:ARG:O	2.53	0.55
1:C:264:ARG:O	1:D:87:ASP:OD2	2.23	0.55
1:C:72:VAL:HG22	1:C:73:ASP:N	2.22	0.55
2:F:15:TYR:O	2:F:17:TYR:N	2.40	0.55
1:D:436:GLN:CD	1:E:558:LEU:HD21	2.27	0.55
1:B:465:ALA:O	1:C:560:ILE:HD11	2.06	0.55
1:B:482:TYR:HA	1:C:490:THR:HG22	1.89	0.55
1:D:569:ARG:CB	1:E:47:ARG:HB2	2.36	0.55
1:D:105:GLU:HG3	1:D:106:ALA:H	1.72	0.55
1:E:72:VAL:HG22	1:E:73:ASP:N	2.22	0.55
1:A:197:ARG:NH2	1:E:220:ASP:OD2	2.39	0.55
1:E:151:ARG:HG3	1:E:161:LEU:CD2	2.37	0.55
1:C:451:PHE:O	1:D:60:LEU:CD2	2.55	0.55
1:B:434:SER:OG	1:C:556:LYS:HG2	2.07	0.55
1:C:528:THR:HB	1:D:66:THR:HG21	1.89	0.55
1:A:47:ARG:CG	1:A:48:PRO:CD	2.75	0.55
1:A:476:TYR:CE1	1:B:514:THR:HB	2.41	0.55
1:B:72:VAL:HG22	1:B:73:ASP:N	2.22	0.55
2:G:18:ASP:HB2	2:G:19:THR:HA	1.88	0.55
2:F:15:TYR:C	2:F:15:TYR:CD2	2.78	0.55
1:B:264:ARG:O	1:C:87:ASP:OD2	2.25	0.55
1:A:449:VAL:HG22	1:B:55:ILE:HD13	1.89	0.55
1:C:222:VAL:HG21	1:D:198:GLN:HE21	1.70	0.55
2:H:18:ASP:HB2	2:H:19:THR:HA	1.89	0.55
1:B:84:TYR:C	1:B:85:GLN:HG3	2.27	0.55
1:A:425:LEU:CD2	1:B:172:GLU:O	2.55	0.55
1:A:434:SER:OG	1:B:556:LYS:HG2	2.07	0.55
1:A:436:GLN:CD	1:B:558:LEU:HD21	2.28	0.55
1:D:154:THR:O	1:D:155:LYS:CB	2.45	0.55
1:A:236:PHE:CE2	1:B:183:LEU:HD21	2.41	0.55
1:C:234:GLU:CD	1:D:496:PHE:HE1	2.10	0.55
1:A:151:ARG:HG3	1:A:161:LEU:CD2	2.36	0.55
1:B:146:ARG:O	1:B:246:CYS:HB2	2.07	0.55
1:D:239:ASP:HB2	1:D:406:TRP:HB3	1.88	0.55
1:A:102:SER:HB3	1:A:103:PRO:HD2	1.88	0.55
1:D:472:SER:O	1:E:518:GLU:OE2	2.25	0.55
1:B:57:TYR:HD2	1:B:59:GLU:O	1.90	0.54
1:B:226:VAL:HG12	1:B:228:PRO:HD2	1.89	0.54
1:B:220:ASP:OD2	1:C:197:ARG:NH2	2.40	0.54
1:A:558:LEU:CD1	1:E:436:GLN:OE1	2.55	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:560:ILE:HD11	1:E:465:ALA:O	2.07	0.54
1:D:434:SER:OG	1:E:556:LYS:HG2	2.07	0.54
1:A:84:TYR:C	1:A:85:GLN:HG3	2.28	0.54
2:G:15:TYR:CD2	2:G:16:PRO:HD2	2.42	0.54
2:H:15:TYR:O	2:H:17:TYR:N	2.40	0.54
1:C:63:LEU:CD2	1:C:67:THR:HG22	2.16	0.54
1:A:492:LEU:CD1	1:E:230:VAL:HG11	2.36	0.54
1:E:105:GLU:HG3	1:E:106:ALA:H	1.72	0.54
1:B:106:ALA:HA	1:B:109:GLN:NE2	2.21	0.54
1:A:72:VAL:HG22	1:A:73:ASP:N	2.22	0.54
1:E:146:ARG:O	1:E:246:CYS:HB2	2.07	0.54
1:C:57:TYR:CD2	1:C:59:GLU:O	2.61	0.54
2:F:15:TYR:CD2	2:F:16:PRO:HD2	2.42	0.54
1:C:482:TYR:CZ	1:D:486:ILE:HG21	2.42	0.54
1:A:264:ARG:O	1:B:87:ASP:OD2	2.25	0.54
1:B:239:ASP:HB2	1:B:406:TRP:HB3	1.88	0.54
1:A:472:SER:O	1:B:518:GLU:OE2	2.25	0.54
1:C:146:ARG:O	1:C:246:CYS:HB2	2.07	0.54
1:C:444:MET:HB2	1:C:539:GLN:HE22	1.72	0.54
1:C:102:SER:HB3	1:C:103:PRO:HD2	1.88	0.54
2:F:18:ASP:HB2	2:F:19:THR:HA	1.88	0.54
1:A:267:PHE:HZ	1:B:80:ALA:N	2.00	0.54
1:C:436:GLN:OE1	1:C:465:ALA:CB	2.55	0.54
1:A:436:GLN:HB2	1:B:558:LEU:HD21	1.88	0.54
1:B:482:TYR:CD1	1:C:490:THR:HG22	2.43	0.54
1:A:480:ALA:C	1:A:482:TYR:H	2.11	0.54
1:A:569:ARG:O	1:B:47:ARG:CA	2.55	0.54
1:D:482:TYR:HA	1:E:490:THR:HG22	1.90	0.54
1:D:234:GLU:CD	1:E:496:PHE:HE1	2.10	0.54
1:A:146:ARG:O	1:A:246:CYS:HB2	2.07	0.54
1:B:102:SER:HB3	1:B:103:PRO:HD2	1.88	0.54
1:C:151:ARG:HG3	1:C:161:LEU:CD2	2.37	0.54
1:C:451:PHE:CE2	1:D:97:GLN:HB3	2.43	0.54
2:G:15:TYR:O	2:G:17:TYR:N	2.40	0.54
1:C:84:TYR:C	1:C:85:GLN:HG3	2.28	0.54
1:D:232:THR:CB	1:E:495:VAL:HG21	2.37	0.54
1:D:72:VAL:HG22	1:D:73:ASP:N	2.22	0.54
1:D:180:THR:O	1:D:184:MET:HG3	2.08	0.54
1:B:450:THR:CB	1:C:57:TYR:CD1	2.90	0.54
1:A:226:VAL:HG12	1:A:228:PRO:HD2	1.89	0.54
1:B:264:ARG:HG3	1:B:424:LEU:HG	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:436:GLN:HB2	1:E:558:LEU:HD21	1.89	0.54
1:C:226:VAL:HG12	1:C:228:PRO:HD2	1.89	0.54
1:A:68:ARG:HH21	1:E:529:LEU:HD21	1.73	0.54
1:D:474:SER:OG	1:E:475:PHE:HZ	1.89	0.54
1:A:87:ASP:OD2	1:E:264:ARG:O	2.26	0.54
1:A:234:GLU:CD	1:B:496:PHE:HE1	2.11	0.54
1:C:105:GLU:HG3	1:C:106:ALA:H	1.72	0.54
1:B:105:GLU:HG3	1:B:106:ALA:H	1.72	0.54
1:A:239:ASP:HB2	1:A:406:TRP:HB3	1.88	0.54
1:C:434:SER:O	1:D:556:LYS:CG	2.56	0.54
1:A:425:LEU:HD13	1:B:172:GLU:CG	2.38	0.54
1:C:569:ARG:CA	1:D:47:ARG:CB	2.72	0.54
1:B:222:VAL:HG22	1:C:198:GLN:NE2	2.23	0.54
1:C:102:SER:HB3	1:C:103:PRO:CD	2.38	0.54
1:B:102:SER:HB3	1:B:103:PRO:CD	2.38	0.54
1:A:180:THR:O	1:A:184:MET:HG3	2.08	0.54
1:D:151:ARG:HG3	1:D:161:LEU:CD2	2.37	0.54
1:D:292:TYR:CE1	1:D:376:LYS:CD	2.57	0.54
1:C:436:GLN:OE1	1:C:465:ALA:HB1	2.08	0.54
1:A:410:TYR:CD1	1:A:425:LEU:HD12	2.43	0.54
1:D:569:ARG:O	1:E:47:ARG:CA	2.55	0.54
1:D:482:TYR:HB2	1:E:490:THR:CG2	2.31	0.54
1:C:236:PHE:CD2	1:D:174:ASN:HB3	2.43	0.54
1:C:264:ARG:HG3	1:C:424:LEU:HG	1.90	0.54
1:D:264:ARG:HG3	1:D:424:LEU:HG	1.90	0.54
1:D:146:ARG:O	1:D:246:CYS:HB2	2.07	0.54
1:B:57:TYR:CD2	1:B:59:GLU:O	2.61	0.54
1:C:57:TYR:HD2	1:C:59:GLU:O	1.90	0.54
1:A:228:PRO:CB	1:B:493:THR:CG2	2.86	0.54
1:C:482:TYR:HA	1:D:490:THR:HG22	1.89	0.54
1:C:262:ARG:HD2	1:D:555:TYR:CD1	2.43	0.54
1:A:85:GLN:CA	1:E:265:GLN:HE21	2.18	0.54
1:B:265:GLN:HE21	1:C:85:GLN:CA	2.18	0.54
1:E:264:ARG:HG3	1:E:424:LEU:HG	1.90	0.54
1:A:264:ARG:HG3	1:A:424:LEU:HG	1.90	0.54
1:B:444:MET:HB2	1:B:539:GLN:HE22	1.72	0.54
1:A:550:THR:O	1:A:552:PRO:HD3	2.08	0.54
1:B:550:THR:O	1:B:552:PRO:HD3	2.08	0.54
1:C:550:THR:O	1:C:552:PRO:HD3	2.08	0.54
1:A:556:LYS:NZ	1:E:436:GLN:CB	2.49	0.54
1:E:226:VAL:HG12	1:E:228:PRO:HD2	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:569:ARG:O	1:C:47:ARG:CA	2.56	0.54
1:A:232:THR:CB	1:B:495:VAL:HG21	2.37	0.54
1:A:516:VAL:HG21	1:E:513:ILE:CD1	2.37	0.54
1:C:450:THR:CG2	1:C:450:THR:O	2.56	0.53
1:C:452:ARG:CD	1:D:98:ASN:OD1	2.56	0.53
1:C:449:VAL:HG22	1:D:55:ILE:HD13	1.90	0.53
1:B:513:ILE:CD1	1:C:516:VAL:HG21	2.37	0.53
1:D:444:MET:HB2	1:D:539:GLN:HE22	1.73	0.53
1:E:68:ARG:HD2	1:E:70:TYR:OH	2.08	0.53
1:D:220:ASP:OD2	1:E:197:ARG:NH2	2.42	0.53
1:D:482:TYR:CB	1:E:490:THR:HG21	2.33	0.53
1:C:230:VAL:CG1	1:D:492:LEU:CB	2.78	0.53
1:A:105:GLU:HG3	1:A:106:ALA:H	1.72	0.53
1:A:444:MET:HB2	1:A:539:GLN:HE22	1.72	0.53
1:D:450:THR:O	1:D:450:THR:CG2	2.56	0.53
1:C:411:ASN:ND2	1:D:172:GLU:N	2.54	0.53
1:A:463:VAL:O	1:B:68:ARG:CZ	2.57	0.53
1:A:68:ARG:HH11	1:E:464:GLY:HA2	1.71	0.53
1:A:555:TYR:CZ	1:E:432:CYS:O	2.61	0.53
1:D:222:VAL:HG21	1:E:198:GLN:HE21	1.69	0.53
1:E:102:SER:HB3	1:E:103:PRO:CD	2.38	0.53
1:A:102:SER:HB3	1:A:103:PRO:CD	2.38	0.53
1:E:444:MET:HB2	1:E:539:GLN:HE22	1.73	0.53
1:C:450:THR:HA	1:D:57:TYR:CG	2.44	0.53
1:B:436:GLN:OE1	1:C:558:LEU:HD21	2.09	0.53
1:A:68:ARG:CZ	1:E:463:VAL:O	2.55	0.53
1:D:482:TYR:CZ	1:E:486:ILE:HG21	2.44	0.53
1:B:180:THR:O	1:B:184:MET:HG3	2.08	0.53
1:A:57:TYR:CE1	1:E:450:THR:HB	2.43	0.53
1:B:450:THR:O	1:B:450:THR:CG2	2.57	0.53
1:C:434:SER:OG	1:D:556:LYS:HG2	2.09	0.53
1:C:436:GLN:CB	1:D:556:LYS:NZ	2.56	0.53
1:B:482:TYR:CD1	1:C:490:THR:CG2	2.92	0.53
1:D:449:VAL:HG22	1:E:55:ILE:HD13	1.90	0.53
1:A:481:VAL:HG23	1:B:490:THR:HG21	1.91	0.53
1:A:555:TYR:OH	1:E:257:ASN:HB2	2.08	0.53
1:E:180:THR:O	1:E:184:MET:HG3	2.08	0.53
1:A:220:ASP:OD2	1:B:197:ARG:NH2	2.42	0.53
2:H:15:TYR:CD2	2:H:16:PRO:HD2	2.42	0.53
1:B:529:LEU:CD2	1:C:68:ARG:HH11	2.14	0.53
1:D:233:ASN:HB3	1:E:491:SER:CB	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:222:VAL:HG21	1:B:198:GLN:HE21	1.70	0.53
1:A:57:TYR:OH	1:A:98:ASN:ND2	2.41	0.53
2:F:15:TYR:OH	1:B:494:HIS:N	2.41	0.53
1:D:436:GLN:OE1	1:E:558:LEU:CD1	2.57	0.53
1:B:68:ARG:HD2	1:B:70:TYR:OH	2.08	0.53
1:B:47:ARG:CG	1:B:48:PRO:CD	2.75	0.53
1:D:264:ARG:O	1:E:87:ASP:OD2	2.26	0.53
1:C:513:ILE:CG1	1:D:516:VAL:HG21	2.38	0.53
1:A:450:THR:O	1:A:450:THR:CG2	2.57	0.53
2:G:15:TYR:OH	1:C:494:HIS:N	2.42	0.53
1:D:102:SER:HB3	1:D:103:PRO:CD	2.38	0.53
1:C:180:THR:O	1:C:184:MET:HG3	2.08	0.53
1:D:257:ASN:HB3	1:E:555:TYR:OH	2.09	0.53
1:D:550:THR:O	1:D:552:PRO:HD3	2.08	0.53
1:D:226:VAL:HG12	1:D:228:PRO:HD2	1.89	0.52
1:C:465:ALA:O	1:D:560:ILE:HD11	2.09	0.52
1:B:436:GLN:H	1:C:556:LYS:HZ1	1.48	0.52
1:B:257:ASN:HB3	1:C:555:TYR:OH	2.08	0.52
1:B:480:ALA:C	1:B:482:TYR:H	2.12	0.52
1:A:70:TYR:OH	1:E:463:VAL:O	2.27	0.52
1:A:482:TYR:HD1	1:B:490:THR:HG22	1.73	0.52
1:C:220:ASP:OD2	1:D:197:ARG:NH2	2.42	0.52
1:C:436:GLN:CD	1:D:558:LEU:HD21	2.30	0.52
1:B:68:ARG:CD	1:B:70:TYR:CZ	2.83	0.52
2:F:10:THR:CG2	2:F:10:THR:O	2.57	0.52
1:A:274:THR:HG22	1:A:275:TYR:N	2.23	0.52
2:F:12:ASN:O	2:F:14:VAL:CG2	2.48	0.52
1:D:434:SER:O	1:E:556:LYS:CG	2.57	0.52
1:B:292:TYR:CD1	1:B:376:LYS:HD3	2.35	0.52
1:A:236:PHE:CD2	1:B:174:ASN:HB3	2.45	0.52
1:A:174:ASN:HB3	1:E:236:PHE:CD2	2.45	0.52
1:E:105:GLU:HG3	1:E:106:ALA:N	2.25	0.52
1:A:172:GLU:HG3	1:E:425:LEU:HD13	1.84	0.52
1:D:105:GLU:HG3	1:D:106:ALA:N	2.25	0.52
1:C:105:GLU:HG3	1:C:106:ALA:N	2.25	0.52
1:E:550:THR:O	1:E:552:PRO:HD3	2.08	0.52
1:C:441:LEU:HB2	1:C:445:MET:HG2	1.91	0.52
1:E:441:LEU:HB2	1:E:445:MET:HG2	1.92	0.52
1:A:267:PHE:CZ	1:B:80:ALA:N	2.78	0.52
1:A:76:SER:HB2	1:E:267:PHE:HE2	1.75	0.52
1:D:463:VAL:O	1:E:68:ARG:CZ	2.58	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:257:ASN:HB2	1:C:555:TYR:OH	2.09	0.52
1:D:84:TYR:C	1:D:85:GLN:HG3	2.27	0.52
1:C:466:GLU:HG2	1:C:467:LEU:N	2.25	0.52
1:B:411:ASN:HD21	1:C:171:PRO:HA	1.74	0.52
1:A:68:ARG:HD2	1:E:463:VAL:O	2.10	0.52
1:A:66:THR:HG23	1:E:528:THR:OG1	2.10	0.52
1:D:257:ASN:HB2	1:E:555:TYR:OH	2.07	0.52
1:E:84:TYR:C	1:E:85:GLN:HG3	2.27	0.52
1:A:425:LEU:CD2	1:B:172:GLU:C	2.76	0.52
1:A:434:SER:O	1:B:556:LYS:CG	2.57	0.52
1:A:465:ALA:O	1:B:560:ILE:HD11	2.10	0.52
1:B:254:ARG:O	1:B:257:ASN:ND2	2.43	0.52
1:B:105:GLU:HG3	1:B:106:ALA:N	2.25	0.52
1:B:106:ALA:HA	1:B:109:GLN:HG3	1.92	0.52
1:A:441:LEU:HB2	1:A:445:MET:HG2	1.92	0.52
1:A:450:THR:CG2	1:B:57:TYR:HD1	2.15	0.52
1:D:452:ARG:CD	1:E:98:ASN:OD1	2.56	0.52
1:A:466:GLU:HG2	1:A:467:LEU:N	2.25	0.52
1:D:528:THR:OG1	1:E:66:THR:HG23	2.10	0.52
1:C:274:THR:HG22	1:C:275:TYR:N	2.22	0.52
1:C:513:ILE:CD1	1:D:516:VAL:HG21	2.39	0.52
1:D:69:VAL:HG23	1:D:561:VAL:HB	1.92	0.52
1:E:556:LYS:CE	1:E:558:LEU:CD2	2.81	0.52
1:A:292:TYR:CD1	1:A:376:LYS:HD3	2.35	0.52
1:C:482:TYR:CB	1:D:490:THR:HG21	2.34	0.52
1:D:68:ARG:CD	1:D:70:TYR:CZ	2.86	0.52
1:D:274:THR:HG22	1:D:275:TYR:N	2.23	0.52
1:D:441:LEU:HB2	1:D:445:MET:HG2	1.92	0.52
2:H:15:TYR:OH	1:E:494:HIS:N	2.43	0.51
1:E:466:GLU:HG2	1:E:467:LEU:N	2.25	0.51
1:A:410:TYR:CG	1:A:425:LEU:CD1	2.83	0.51
1:A:425:LEU:HD22	1:B:172:GLU:CA	2.37	0.51
1:A:528:THR:OG1	1:B:66:THR:HG23	2.10	0.51
1:B:466:GLU:HG2	1:B:467:LEU:N	2.25	0.51
1:C:433:GLY:CA	1:D:555:TYR:CE2	2.68	0.51
1:A:105:GLU:HG3	1:A:106:ALA:N	2.25	0.51
1:B:441:LEU:HB2	1:B:445:MET:HG2	1.92	0.51
1:C:79:VAL:O	1:C:80:ALA:C	2.48	0.51
1:B:274:THR:HG22	1:B:275:TYR:N	2.22	0.51
1:B:420:ARG:NH2	1:C:136:GLU:HB2	2.25	0.51
1:E:69:VAL:HG23	1:E:561:VAL:HB	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:14:VAL:HG22	1:C:203:GLU:CD	2.31	0.51
2:G:15:TYR:HD2	2:G:16:PRO:CD	2.23	0.51
1:A:228:PRO:HB3	1:B:493:THR:HB	1.92	0.51
1:A:490:THR:CG2	1:E:482:TYR:CB	2.87	0.51
1:E:79:VAL:O	1:E:80:ALA:C	2.48	0.51
1:A:198:GLN:NE2	1:E:222:VAL:HG22	2.22	0.51
1:C:420:ARG:NH2	1:D:136:GLU:HB2	2.25	0.51
1:E:95:VAL:HG12	1:E:95:VAL:O	2.11	0.51
1:A:136:GLU:HB2	1:E:420:ARG:NH2	2.26	0.51
2:H:12:ASN:O	2:H:14:VAL:CG2	2.48	0.51
2:H:15:TYR:HD2	2:H:16:PRO:CD	2.24	0.51
1:D:465:ALA:O	1:E:560:ILE:HD11	2.10	0.51
1:B:463:VAL:O	1:C:68:ARG:HD2	2.10	0.51
1:C:95:VAL:O	1:C:95:VAL:HG12	2.11	0.51
1:B:236:PHE:CD2	1:C:174:ASN:HB3	2.44	0.51
1:A:79:VAL:O	1:A:80:ALA:C	2.48	0.51
1:B:275:TYR:CE1	1:B:404:ARG:HD3	2.46	0.51
1:C:106:ALA:HA	1:C:109:GLN:HG3	1.92	0.51
1:B:95:VAL:O	1:B:95:VAL:HG12	2.11	0.51
1:D:63:LEU:CD2	1:D:67:THR:HG22	2.16	0.51
1:D:236:PHE:CD2	1:E:174:ASN:HB3	2.45	0.51
1:E:423:THR:O	1:E:424:LEU:HG	2.10	0.51
1:A:423:THR:O	1:A:424:LEU:HG	2.11	0.51
1:A:69:VAL:HG23	1:A:561:VAL:HB	1.91	0.51
1:B:212:THR:HG22	1:B:238:PRO:HG3	1.93	0.51
1:D:411:ASN:ND2	1:E:172:GLU:N	2.57	0.51
1:C:462:VAL:O	1:D:70:TYR:OH	2.21	0.51
1:A:183:LEU:HD21	1:E:236:PHE:HE2	1.76	0.51
1:A:275:TYR:CE1	1:A:404:ARG:HD3	2.46	0.51
1:A:513:ILE:CD1	1:B:516:VAL:HG21	2.41	0.51
1:D:212:THR:HG22	1:D:238:PRO:HG3	1.93	0.51
1:D:95:VAL:O	1:D:95:VAL:HG12	2.11	0.51
1:C:569:ARG:O	1:D:47:ARG:CA	2.58	0.51
1:B:236:PHE:HE2	1:C:183:LEU:HD21	1.76	0.51
1:E:230:VAL:HG13	1:E:503:GLN:NE2	2.17	0.51
1:D:79:VAL:O	1:D:80:ALA:C	2.48	0.51
2:G:15:TYR:OH	1:C:493:THR:CB	2.53	0.51
1:C:482:TYR:HB2	1:D:490:THR:CG2	2.33	0.51
1:A:433:GLY:CA	1:B:555:TYR:CE2	2.62	0.51
1:C:423:THR:O	1:C:424:LEU:HG	2.11	0.51
1:D:275:TYR:CE1	1:D:404:ARG:HD3	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:69:VAL:HG23	1:B:561:VAL:HB	1.92	0.51
1:C:449:VAL:CG1	1:D:55:ILE:CD1	2.87	0.51
1:B:528:THR:OG1	1:C:66:THR:HG23	2.11	0.51
1:A:55:ILE:CD1	1:E:449:VAL:CG1	2.89	0.51
1:C:222:VAL:HG22	1:D:198:GLN:NE2	2.26	0.51
1:B:79:VAL:O	1:B:80:ALA:C	2.48	0.51
1:D:466:GLU:HG2	1:D:467:LEU:N	2.25	0.51
1:E:212:THR:HG22	1:E:238:PRO:HG3	1.93	0.51
1:C:69:VAL:HG23	1:C:561:VAL:HB	1.92	0.51
1:A:96:ILE:O	1:E:450:THR:OG1	2.24	0.50
2:F:14:VAL:CG1	1:B:203:GLU:OE2	2.46	0.50
1:B:449:VAL:CG1	1:C:55:ILE:CD1	2.86	0.50
1:D:423:THR:O	1:D:424:LEU:HG	2.11	0.50
1:E:275:TYR:CE1	1:E:404:ARG:HD3	2.46	0.50
1:C:275:TYR:CE1	1:C:404:ARG:HD3	2.46	0.50
1:B:426:CYS:SG	1:C:553:TYR:CD2	2.99	0.50
1:D:228:PRO:CB	1:E:493:THR:CG2	2.89	0.50
1:B:267:PHE:HE1	1:C:76:SER:HB3	1.58	0.50
1:D:436:GLN:OE1	1:D:465:ALA:HB1	2.11	0.50
1:D:292:TYR:CD1	1:D:376:LYS:HD3	2.35	0.50
1:A:257:ASN:HB2	1:B:555:TYR:OH	2.11	0.50
1:C:57:TYR:CD2	1:C:60:LEU:CB	2.72	0.50
2:H:13:PRO:CB	2:H:17:TYR:HE1	2.19	0.50
1:E:436:GLN:OE1	1:E:465:ALA:CB	2.60	0.50
1:B:423:THR:O	1:B:424:LEU:HG	2.11	0.50
1:B:425:LEU:CD1	1:C:172:GLU:CB	2.75	0.50
1:E:106:ALA:HA	1:E:109:GLN:HG3	1.92	0.50
1:A:513:ILE:CG1	1:B:516:VAL:HG21	2.40	0.50
1:A:106:ALA:HA	1:A:109:GLN:HG3	1.92	0.50
1:B:427:THR:HG21	1:C:519:ASN:ND2	2.27	0.50
1:E:436:GLN:OE1	1:E:465:ALA:HB1	2.10	0.50
1:D:436:GLN:NE2	1:E:558:LEU:HD21	2.25	0.50
1:A:95:VAL:O	1:A:95:VAL:HG12	2.11	0.50
1:D:262:ARG:HD2	1:E:555:TYR:CD1	2.46	0.50
1:A:212:THR:HG22	1:A:238:PRO:HG3	1.93	0.50
1:C:451:PHE:O	1:D:60:LEU:HD23	2.11	0.50
1:A:60:LEU:HD13	1:E:451:PHE:O	2.12	0.50
1:D:257:ASN:HD21	1:D:432:CYS:HB3	1.76	0.50
1:D:106:ALA:HA	1:D:109:GLN:HG3	1.92	0.50
1:A:57:TYR:CE1	1:E:450:THR:O	2.65	0.50
1:D:449:VAL:CG1	1:E:55:ILE:CD1	2.90	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:15:TYR:HD2	2:F:16:PRO:CD	2.24	0.50
1:D:68:ARG:HD2	1:D:70:TYR:OH	2.11	0.50
1:A:480:ALA:C	1:A:481:VAL:HG22	2.29	0.50
1:A:230:VAL:HG13	1:A:503:GLN:NE2	2.17	0.50
1:A:558:LEU:HD11	1:E:436:GLN:OE1	2.10	0.50
1:D:529:LEU:HD21	1:E:68:ARG:NH2	2.27	0.50
1:B:47:ARG:NH2	1:B:53:ASN:CB	2.75	0.50
1:D:513:ILE:CG1	1:E:516:VAL:HG21	2.40	0.50
2:G:12:ASN:O	2:G:14:VAL:CG2	2.48	0.50
2:H:15:TYR:HD2	2:H:15:TYR:C	2.15	0.50
1:A:425:LEU:HD21	1:B:172:GLU:O	2.12	0.50
1:A:464:GLY:CA	1:B:68:ARG:HH11	2.15	0.50
1:D:155:LYS:O	1:D:156:ASP:CB	2.37	0.50
1:A:492:LEU:CB	1:E:230:VAL:CG1	2.80	0.50
1:B:228:PRO:HB3	1:C:493:THR:HB	1.93	0.49
1:C:425:LEU:CD2	1:D:172:GLU:HB3	2.39	0.49
1:E:274:THR:HG22	1:E:275:TYR:N	2.23	0.49
1:D:444:MET:HB2	1:D:539:GLN:NE2	2.27	0.49
2:F:15:TYR:C	2:F:15:TYR:HD2	2.15	0.49
1:C:444:MET:HB2	1:C:539:GLN:NE2	2.27	0.49
1:A:444:MET:HB2	1:A:539:GLN:NE2	2.27	0.49
1:C:212:THR:HG22	1:C:238:PRO:HG3	1.93	0.49
1:B:452:ARG:HD2	1:C:57:TYR:OH	2.12	0.49
2:G:15:TYR:C	2:G:15:TYR:HD2	2.15	0.49
2:F:14:VAL:HG22	1:B:203:GLU:CD	2.32	0.49
1:B:449:VAL:CG2	1:C:55:ILE:HD13	2.42	0.49
1:A:106:ALA:HA	1:A:109:GLN:HE21	1.77	0.49
1:B:106:ALA:HA	1:B:109:GLN:HE21	1.77	0.49
1:C:427:THR:HG21	1:D:519:ASN:ND2	2.27	0.49
1:A:519:ASN:ND2	1:E:427:THR:HG21	2.27	0.49
1:B:230:VAL:HG13	1:B:503:GLN:NE2	2.17	0.49
1:D:230:VAL:HG13	1:D:503:GLN:NE2	2.18	0.49
1:C:76:SER:HB2	1:C:83:ASN:HD22	1.76	0.49
1:B:482:TYR:CB	1:C:490:THR:CG2	2.90	0.49
1:D:433:GLY:CA	1:E:555:TYR:CE2	2.64	0.49
1:A:155:LYS:O	1:A:156:ASP:CB	2.37	0.49
1:E:106:ALA:HA	1:E:109:GLN:HE21	1.77	0.49
1:D:513:ILE:CD1	1:E:516:VAL:HG21	2.42	0.49
1:D:126:ILE:HD12	1:D:558:LEU:HD11	1.95	0.49
1:A:482:TYR:HA	1:B:490:THR:HG22	1.94	0.49
1:C:528:THR:OG1	1:D:66:THR:HG23	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:262:ARG:HD2	1:C:555:TYR:CD1	2.47	0.49
1:E:110:THR:HG22	1:E:536:GLY:HA2	1.95	0.49
1:A:171:PRO:HA	1:E:411:ASN:HD21	1.74	0.49
1:D:450:THR:HA	1:E:57:TYR:CG	2.47	0.49
1:B:450:THR:CG2	1:C:57:TYR:HD1	2.14	0.49
1:D:257:ASN:ND2	1:E:555:TYR:HH	2.09	0.49
1:B:76:SER:HB2	1:B:83:ASN:HD22	1.77	0.49
1:D:228:PRO:HB3	1:E:493:THR:HB	1.95	0.49
1:B:556:LYS:CE	1:B:558:LEU:CD2	2.81	0.49
1:A:449:VAL:CG1	1:B:55:ILE:CD1	2.89	0.49
1:A:262:ARG:HD2	1:B:555:TYR:CD1	2.47	0.49
1:D:482:TYR:CB	1:E:490:THR:CG2	2.91	0.49
1:A:495:VAL:HG21	1:E:232:THR:HB	1.94	0.49
1:E:434:SER:OG	1:E:467:LEU:CD1	2.60	0.49
1:D:376:LYS:HG2	1:D:377:PRO:CD	2.43	0.49
1:B:135:ASN:CB	1:B:172:GLU:OE1	2.61	0.49
1:B:436:GLN:HB3	1:C:558:LEU:CD2	2.43	0.49
1:D:463:VAL:O	1:E:68:ARG:HD2	2.13	0.49
1:E:135:ASN:CB	1:E:172:GLU:OE1	2.61	0.48
1:D:450:THR:HG21	1:E:96:ILE:HG22	1.94	0.48
1:B:228:PRO:CB	1:C:493:THR:CG2	2.91	0.48
1:D:135:ASN:CB	1:D:172:GLU:OE1	2.61	0.48
1:B:434:SER:O	1:C:556:LYS:HG2	2.13	0.48
1:B:257:ASN:OD1	1:B:258:LEU:N	2.45	0.48
1:A:222:VAL:HG22	1:B:198:GLN:NE2	2.26	0.48
1:D:106:ALA:HA	1:D:109:GLN:HE21	1.77	0.48
1:E:444:MET:HB2	1:E:539:GLN:NE2	2.27	0.48
1:A:483:SER:CB	1:E:478:ASP:OD2	2.61	0.48
1:D:110:THR:HG22	1:D:536:GLY:HA2	1.95	0.48
1:B:230:VAL:CG1	1:C:492:LEU:CB	2.80	0.48
2:F:12:ASN:C	2:F:14:VAL:N	2.67	0.48
1:A:55:ILE:HD13	1:E:449:VAL:CG2	2.43	0.48
2:F:8:GLU:CG	2:F:9:ASP:H	2.02	0.48
1:B:232:THR:HB	1:C:495:VAL:HG21	1.95	0.48
2:G:18:ASP:CB	2:G:19:THR:HA	2.43	0.48
1:D:420:ARG:NH2	1:E:136:GLU:HB2	2.28	0.48
1:D:427:THR:HG21	1:E:519:ASN:ND2	2.28	0.48
1:A:420:ARG:NH2	1:B:136:GLU:HB2	2.28	0.48
1:B:464:GLY:HA2	1:C:70:TYR:HE2	1.77	0.48
1:C:529:LEU:HD21	1:D:68:ARG:NH2	2.25	0.48
1:C:283:ILE:HD12	1:C:403:TYR:HB3	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:57:TYR:CD2	1:B:59:GLU:C	2.87	0.48
1:A:556:LYS:CE	1:A:558:LEU:CD2	2.74	0.48
1:A:376:LYS:HG2	1:A:377:PRO:CD	2.44	0.48
1:E:83:ASN:OD1	1:E:91:PHE:CA	2.61	0.48
1:B:444:MET:HB2	1:B:539:GLN:NE2	2.27	0.48
1:B:220:ASP:CG	1:C:197:ARG:NH2	2.67	0.48
1:C:126:ILE:HD12	1:C:558:LEU:HD11	1.95	0.48
1:C:463:VAL:O	1:D:68:ARG:HD2	2.14	0.48
1:A:197:ARG:NH2	1:E:220:ASP:CG	2.67	0.48
1:B:110:THR:HG22	1:B:536:GLY:HA2	1.95	0.48
2:H:12:ASN:C	2:H:14:VAL:N	2.67	0.48
1:B:411:ASN:ND2	1:C:172:GLU:N	2.57	0.48
1:B:126:ILE:HD12	1:B:558:LEU:HD11	1.95	0.48
1:B:63:LEU:CD2	1:B:67:THR:HG22	2.16	0.48
1:A:257:ASN:ND2	1:A:432:CYS:O	2.47	0.48
1:C:79:VAL:HG11	1:C:82:LEU:HD12	1.96	0.48
1:A:555:TYR:CE2	1:E:433:GLY:HA3	2.43	0.48
2:H:13:PRO:CB	2:H:17:TYR:CE1	2.96	0.48
2:H:14:VAL:HG22	1:E:203:GLU:CD	2.34	0.48
1:B:376:LYS:HG2	1:B:377:PRO:CD	2.44	0.48
1:B:482:TYR:CE1	1:C:486:ILE:HG21	2.46	0.48
1:B:482:TYR:CB	1:C:490:THR:HG21	2.35	0.48
1:A:482:TYR:HB2	1:B:490:THR:CG2	2.39	0.48
1:B:283:ILE:HD12	1:B:403:TYR:HB3	1.95	0.48
1:B:79:VAL:HG11	1:B:82:LEU:HD12	1.96	0.48
1:B:83:ASN:OD1	1:B:91:PHE:CA	2.61	0.48
1:D:436:GLN:OE1	1:E:558:LEU:HD11	2.13	0.48
1:C:411:ASN:HD21	1:D:171:PRO:HA	1.77	0.48
1:B:569:ARG:CB	1:C:47:ARG:CB	2.92	0.48
1:A:490:THR:CB	1:E:481:VAL:HG12	2.29	0.48
1:C:236:PHE:HE2	1:D:183:LEU:HD21	1.79	0.48
1:D:222:VAL:HG22	1:E:198:GLN:NE2	2.26	0.48
1:B:478:ASP:OD2	1:C:483:SER:CB	2.62	0.48
1:C:529:LEU:HD11	1:D:68:ARG:NH2	2.28	0.48
1:D:79:VAL:HG11	1:D:82:LEU:HD12	1.96	0.48
1:A:496:PHE:HE1	1:E:234:GLU:OE2	1.97	0.48
1:D:283:ILE:HD12	1:D:403:TYR:HB3	1.95	0.48
1:A:135:ASN:CB	1:A:172:GLU:OE1	2.61	0.48
1:A:463:VAL:O	1:B:68:ARG:HD2	2.13	0.48
1:C:106:ALA:HA	1:C:109:GLN:HE21	1.77	0.48
1:B:135:ASN:CA	1:B:172:GLU:OE1	2.62	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:447:ASP:O	1:D:63:LEU:CD1	2.62	0.47
1:E:79:VAL:HG11	1:E:82:LEU:HD12	1.95	0.47
1:E:130:ASN:HD22	1:E:130:ASN:C	2.18	0.47
1:B:60:LEU:CG	1:B:61:ALA:N	2.74	0.47
2:F:13:PRO:CB	2:F:17:TYR:CE1	2.96	0.47
1:A:411:ASN:ND2	1:B:172:GLU:N	2.56	0.47
1:A:194:LYS:HG3	1:E:221:PRO:HB2	1.95	0.47
1:A:57:TYR:HD2	1:A:60:LEU:HB2	1.76	0.47
1:A:427:THR:HG21	1:B:519:ASN:ND2	2.28	0.47
1:C:130:ASN:HD22	1:C:130:ASN:C	2.17	0.47
1:C:110:THR:HG22	1:C:536:GLY:HA2	1.95	0.47
1:C:57:TYR:CD2	1:C:59:GLU:C	2.87	0.47
1:C:425:LEU:CD2	1:D:172:GLU:CB	2.91	0.47
1:A:83:ASN:OD1	1:A:91:PHE:CA	2.61	0.47
1:D:268:GLN:HG2	1:E:84:TYR:CE2	2.49	0.47
1:A:72:VAL:HG22	1:A:73:ASP:H	1.80	0.47
1:A:110:THR:HG22	1:A:536:GLY:HA2	1.95	0.47
1:A:283:ILE:HD12	1:A:403:TYR:HB3	1.95	0.47
1:B:432:CYS:O	1:C:555:TYR:OH	2.28	0.47
1:E:72:VAL:HG22	1:E:73:ASP:H	1.80	0.47
1:E:283:ILE:HD12	1:E:403:TYR:HB3	1.95	0.47
1:A:57:TYR:CE1	1:E:450:THR:CB	2.98	0.47
1:A:558:LEU:CD2	1:E:436:GLN:HB3	2.44	0.47
1:D:436:GLN:OE1	1:D:465:ALA:CB	2.62	0.47
1:C:135:ASN:CB	1:C:172:GLU:OE1	2.61	0.47
1:D:497:ASN:ND2	1:D:500:PRO:HB3	2.25	0.47
1:D:72:VAL:HG22	1:D:73:ASP:H	1.80	0.47
1:B:72:VAL:HG22	1:B:73:ASP:H	1.79	0.47
1:A:57:TYR:CD2	1:A:60:LEU:CB	2.96	0.47
1:E:458:SER:O	1:E:459:ASN:CG	2.53	0.47
1:E:60:LEU:CG	1:E:61:ALA:H	2.12	0.47
2:G:13:PRO:CB	2:G:17:TYR:CE1	2.96	0.47
1:A:558:LEU:CD1	1:E:436:GLN:CD	2.83	0.47
1:E:126:ILE:HD12	1:E:558:LEU:HD11	1.95	0.47
1:D:83:ASN:OD1	1:D:91:PHE:CA	2.61	0.47
1:A:449:VAL:CG2	1:B:55:ILE:HD13	2.44	0.47
1:C:449:VAL:CG2	1:D:55:ILE:HD13	2.45	0.47
1:D:449:VAL:CG2	1:E:55:ILE:HD13	2.45	0.47
1:B:221:PRO:HB2	1:C:194:LYS:HG3	1.96	0.47
1:A:458:SER:O	1:A:459:ASN:CG	2.53	0.47
1:A:553:TYR:CD2	1:E:426:CYS:SG	3.00	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:106:ALA:HB2	1:B:109:GLN:NE2	2.30	0.47
1:D:478:ASP:OD2	1:E:483:SER:CB	2.63	0.47
1:A:130:ASN:C	1:A:130:ASN:HD22	2.18	0.47
1:C:482:TYR:CB	1:D:490:THR:CG2	2.93	0.47
1:A:555:TYR:CD1	1:E:262:ARG:HD2	2.50	0.47
1:C:213:ARG:HD3	1:C:509:PRO:HG2	1.97	0.47
1:E:213:ARG:HD3	1:E:509:PRO:HG2	1.98	0.47
1:D:98:ASN:O	1:D:99:ASN:CB	2.63	0.46
1:A:135:ASN:CA	1:A:172:GLU:OE1	2.62	0.46
1:D:230:VAL:CG1	1:E:492:LEU:CB	2.82	0.46
1:A:558:LEU:CD2	1:E:436:GLN:CB	2.93	0.46
1:B:528:THR:O	1:C:66:THR:CG2	2.63	0.46
1:B:480:ALA:C	1:B:481:VAL:HG22	2.30	0.46
1:A:491:SER:HA	1:E:233:ASN:CG	2.35	0.46
1:A:236:PHE:HE2	1:B:183:LEU:HD21	1.80	0.46
1:C:426:CYS:SG	1:D:553:TYR:CD2	3.02	0.46
1:B:213:ARG:HD3	1:B:509:PRO:HG2	1.98	0.46
1:A:76:SER:HB3	1:E:267:PHE:CD2	2.49	0.46
1:A:491:SER:HB2	1:E:233:ASN:HB3	1.97	0.46
1:B:98:ASN:O	1:B:99:ASN:CB	2.63	0.46
1:D:106:ALA:HB2	1:D:109:GLN:NE2	2.30	0.46
1:B:130:ASN:HD22	1:B:130:ASN:C	2.18	0.46
1:C:434:SER:O	1:D:556:LYS:HG2	2.16	0.46
1:A:70:TYR:HE2	1:E:464:GLY:HA2	1.80	0.46
1:B:528:THR:O	1:C:66:THR:HG22	2.16	0.46
1:C:232:THR:HB	1:D:495:VAL:HG21	1.97	0.46
1:E:497:ASN:ND2	1:E:500:PRO:HB3	2.25	0.46
1:D:130:ASN:C	1:D:130:ASN:HD22	2.18	0.46
1:C:478:ASP:OD2	1:D:483:SER:CB	2.64	0.46
1:A:172:GLU:HB3	1:E:425:LEU:HD22	1.98	0.46
2:G:12:ASN:C	2:G:14:VAL:N	2.67	0.46
1:B:464:GLY:HA3	1:C:68:ARG:NH2	2.30	0.46
1:B:257:ASN:HD21	1:B:432:CYS:HB3	1.81	0.46
1:A:63:LEU:CD2	1:A:67:THR:HG22	2.16	0.46
1:A:482:TYR:CD1	1:B:490:THR:CG2	2.98	0.46
1:A:183:LEU:HD21	1:E:236:PHE:CZ	2.50	0.46
1:A:106:ALA:HB2	1:A:109:GLN:NE2	2.31	0.46
1:A:213:ARG:HD3	1:A:509:PRO:HG2	1.97	0.46
1:A:228:PRO:HB3	1:B:493:THR:CB	2.46	0.46
1:C:83:ASN:OD1	1:C:91:PHE:CA	2.61	0.46
1:B:436:GLN:CD	1:C:558:LEU:CD1	2.82	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:447:ASP:O	1:C:63:LEU:CD1	2.64	0.46
1:B:234:GLU:OE2	1:C:496:PHE:HE1	1.99	0.46
1:D:106:ALA:CB	1:D:109:GLN:NE2	2.79	0.46
1:C:106:ALA:HB2	1:C:109:GLN:NE2	2.30	0.46
1:A:268:GLN:HG2	1:B:84:TYR:CE2	2.50	0.46
1:C:436:GLN:H	1:D:556:LYS:HZ1	1.53	0.46
1:A:436:GLN:H	1:B:556:LYS:HZ1	1.56	0.46
1:D:462:VAL:O	1:E:70:TYR:OH	2.27	0.46
1:E:258:LEU:HD13	1:E:430:VAL:HA	1.98	0.46
1:E:106:ALA:CB	1:E:109:GLN:NE2	2.79	0.46
1:E:106:ALA:HB2	1:E:109:GLN:NE2	2.30	0.46
1:A:79:VAL:HG11	1:A:82:LEU:HD12	1.96	0.46
1:B:106:ALA:CB	1:B:109:GLN:NE2	2.79	0.46
1:B:529:LEU:HD11	1:C:68:ARG:HH12	1.79	0.46
1:C:528:THR:O	1:D:66:THR:CG2	2.64	0.46
1:A:257:ASN:HB3	1:B:555:TYR:OH	2.12	0.46
1:A:47:ARG:CB	1:E:569:ARG:CB	2.93	0.46
1:A:482:TYR:CD1	1:B:490:THR:HG22	2.51	0.46
1:E:431:THR:O	1:E:432:CYS:CB	2.57	0.46
1:A:106:ALA:CB	1:A:109:GLN:NE2	2.79	0.46
1:A:230:VAL:CG1	1:B:492:LEU:HD12	2.46	0.46
1:C:436:GLN:NE2	1:D:558:LEU:CD2	2.74	0.46
1:A:47:ARG:NH1	1:A:53:ASN:HB2	2.31	0.46
1:C:220:ASP:CG	1:D:197:ARG:NH2	2.70	0.46
1:D:213:ARG:HD3	1:D:509:PRO:HG2	1.98	0.46
1:D:121:GLY:HA3	1:D:563:PRO:HA	1.98	0.46
1:E:121:GLY:HA3	1:E:563:PRO:HA	1.98	0.46
1:A:569:ARG:CB	1:B:47:ARG:CB	2.94	0.46
1:C:106:ALA:CB	1:C:109:GLN:NE2	2.79	0.46
1:C:450:THR:CG2	1:D:57:TYR:CZ	2.87	0.45
1:E:98:ASN:O	1:E:99:ASN:CB	2.63	0.45
1:A:411:ASN:HD21	1:B:171:PRO:HA	1.79	0.45
1:A:436:GLN:NE2	1:B:558:LEU:CD1	2.79	0.45
1:B:434:SER:O	1:C:556:LYS:CE	2.64	0.45
1:C:556:LYS:CE	1:C:558:LEU:CD2	2.80	0.45
1:D:529:LEU:HD11	1:E:68:ARG:NH2	2.30	0.45
1:A:66:THR:HG22	1:E:528:THR:O	2.16	0.45
1:A:47:ARG:NH1	1:A:53:ASN:ND2	2.64	0.45
1:D:257:ASN:ND2	1:E:555:TYR:OH	2.49	0.45
1:A:84:TYR:CE2	1:E:268:GLN:HG2	2.51	0.45
1:C:135:ASN:HA	1:C:172:GLU:CD	2.36	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:233:ASN:CG	1:C:491:SER:HA	2.36	0.45
1:E:47:ARG:NH1	1:E:53:ASN:HB2	2.31	0.45
1:C:268:GLN:HG2	1:D:84:TYR:CE2	2.52	0.45
1:E:155:LYS:O	1:E:156:ASP:CB	2.37	0.45
1:B:236:PHE:CZ	1:C:183:LEU:HD21	2.51	0.45
1:A:450:THR:CB	1:B:57:TYR:HD1	2.29	0.45
1:A:135:ASN:HA	1:A:172:GLU:CD	2.36	0.45
1:A:172:GLU:N	1:E:411:ASN:ND2	2.58	0.45
1:B:135:ASN:HA	1:B:172:GLU:CD	2.36	0.45
1:A:528:THR:O	1:B:66:THR:CG2	2.65	0.45
1:B:121:GLY:HA3	1:B:563:PRO:HA	1.98	0.45
1:B:481:VAL:HG23	1:B:482:TYR:N	2.30	0.45
1:E:135:ASN:CA	1:E:172:GLU:OE1	2.63	0.45
1:E:135:ASN:HA	1:E:172:GLU:CD	2.36	0.45
1:E:488:GLN:HB3	1:E:494:HIS:NE2	2.32	0.45
1:C:528:THR:O	1:D:66:THR:HG22	2.17	0.45
1:B:268:GLN:HG2	1:C:84:TYR:CE2	2.51	0.45
1:A:128:HIS:HB3	1:A:556:LYS:HB3	1.98	0.45
1:C:436:GLN:HB3	1:D:558:LEU:CD2	2.46	0.45
1:A:66:THR:CG2	1:E:528:THR:O	2.65	0.45
1:B:569:ARG:HG2	1:C:47:ARG:HB3	1.99	0.45
1:D:135:ASN:HA	1:D:172:GLU:CD	2.36	0.45
1:C:476:TYR:HD1	1:D:475:PHE:CD2	2.33	0.45
1:A:79:VAL:O	1:A:81:SER:N	2.50	0.45
1:B:151:ARG:HG3	1:B:161:LEU:HD21	1.99	0.45
1:A:151:ARG:HG3	1:A:161:LEU:HD21	1.99	0.45
1:D:411:ASN:HD21	1:E:171:PRO:HA	1.79	0.45
1:A:230:VAL:CG1	1:B:492:LEU:CD1	2.94	0.45
1:A:434:SER:O	1:B:556:LYS:CE	2.65	0.45
1:A:436:GLN:OE1	1:B:558:LEU:HD21	2.16	0.45
1:E:438:TYR:CD1	1:E:462:VAL:HG11	2.52	0.45
1:A:70:TYR:OH	1:E:462:VAL:O	2.31	0.45
1:D:528:THR:O	1:E:66:THR:HG22	2.17	0.45
1:D:79:VAL:O	1:D:81:SER:N	2.50	0.45
1:C:72:VAL:HG22	1:C:73:ASP:H	1.80	0.45
1:A:478:ASP:OD2	1:B:483:SER:CB	2.64	0.45
1:A:528:THR:O	1:B:66:THR:HG22	2.16	0.45
1:A:47:ARG:NH2	1:A:53:ASN:HD22	2.05	0.45
1:A:481:VAL:HG23	1:B:490:THR:CG2	2.47	0.45
1:C:230:VAL:CG1	1:D:492:LEU:HD12	2.47	0.45
1:D:42:PRO:HA	1:D:43:PRO:HD3	1.87	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:407:TYR:CE1	1:C:172:GLU:O	2.70	0.45
1:B:436:GLN:NE2	1:C:558:LEU:CD1	2.80	0.45
1:A:514:THR:HB	1:E:476:TYR:CZ	2.52	0.45
1:B:90:ASN:ND2	1:B:457:ILE:HG21	2.32	0.45
1:C:151:ARG:HG3	1:C:161:LEU:HD21	1.99	0.45
1:B:79:VAL:O	1:B:81:SER:N	2.50	0.45
1:A:172:GLU:CB	1:E:425:LEU:HD22	2.46	0.45
1:B:467:LEU:HB2	1:C:126:ILE:HG21	1.99	0.45
1:A:481:VAL:HG23	1:B:490:THR:HB	1.98	0.45
1:E:47:ARG:NH1	1:E:53:ASN:ND2	2.64	0.45
1:C:497:ASN:ND2	1:C:500:PRO:HB3	2.25	0.45
1:D:151:ARG:HG3	1:D:161:LEU:HD21	1.99	0.45
1:B:479:GLN:O	1:B:483:SER:N	2.49	0.45
1:B:450:THR:CA	1:C:57:TYR:CD1	3.00	0.44
1:C:98:ASN:O	1:C:99:ASN:CB	2.63	0.44
1:A:220:ASP:CG	1:B:197:ARG:NH2	2.70	0.44
1:B:488:GLN:HB3	1:B:494:HIS:NE2	2.32	0.44
1:A:126:ILE:HD12	1:A:558:LEU:HD11	1.95	0.44
1:D:447:ASP:O	1:E:63:LEU:CD1	2.66	0.44
1:E:257:ASN:OD1	1:E:258:LEU:N	2.50	0.44
1:C:468:LEU:HG	1:C:470:VAL:HG23	1.99	0.44
1:A:450:THR:CA	1:B:57:TYR:CD1	3.00	0.44
1:B:436:GLN:NE2	1:C:558:LEU:HD11	2.32	0.44
1:D:463:VAL:O	1:E:70:TYR:OH	2.35	0.44
1:A:432:CYS:O	1:B:555:TYR:OH	2.28	0.44
1:B:481:VAL:HG23	1:C:490:THR:HG21	1.98	0.44
1:D:236:PHE:HE2	1:E:183:LEU:HD21	1.80	0.44
1:E:79:VAL:O	1:E:81:SER:N	2.50	0.44
1:C:221:PRO:HB2	1:D:194:LYS:HG3	1.99	0.44
1:A:57:TYR:CZ	1:A:60:LEU:HG	2.42	0.44
1:C:434:SER:O	1:D:556:LYS:CE	2.65	0.44
1:B:436:GLN:CB	1:C:558:LEU:CD2	2.92	0.44
1:A:232:THR:HB	1:B:495:VAL:HG21	1.99	0.44
1:B:237:HIS:HA	1:B:238:PRO:HD3	1.87	0.44
1:E:131:MET:HA	1:E:132:PRO:HD3	1.90	0.44
1:A:450:THR:HG21	1:B:96:ILE:HG22	1.93	0.44
1:A:172:GLU:CG	1:E:425:LEU:CD1	2.82	0.44
1:B:267:PHE:HE2	1:C:88:HIS:H	1.64	0.44
1:A:447:ASP:O	1:B:63:LEU:CD1	2.65	0.44
1:C:121:GLY:HA3	1:C:563:PRO:HA	1.98	0.44
1:A:121:GLY:HA3	1:A:563:PRO:HA	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:528:THR:O	1:E:66:THR:CG2	2.66	0.44
1:E:47:ARG:HG2	1:E:48:PRO:CD	2.45	0.44
1:A:497:ASN:ND2	1:A:500:PRO:HB3	2.25	0.44
1:A:101:TYR:CE2	1:A:105:GLU:HG2	2.53	0.44
1:C:101:TYR:CE2	1:C:105:GLU:HG2	2.53	0.44
1:D:488:GLN:HB3	1:D:494:HIS:NE2	2.32	0.44
1:A:438:TYR:CD1	1:A:462:VAL:HG11	2.52	0.44
1:A:544:THR:HG22	1:A:545:ASP:N	2.33	0.44
1:A:267:PHE:CD1	1:B:76:SER:O	2.70	0.44
1:A:172:GLU:HG3	1:E:425:LEU:CD1	2.47	0.44
1:B:267:PHE:HE2	1:C:86:ASN:O	1.92	0.44
1:D:438:TYR:CD1	1:D:462:VAL:HG11	2.52	0.44
1:C:438:TYR:CD1	1:C:462:VAL:HG11	2.52	0.44
1:A:481:VAL:HG23	1:A:482:TYR:N	2.32	0.44
1:C:79:VAL:O	1:C:81:SER:N	2.50	0.44
1:C:377:PRO:O	1:C:379:ILE:N	2.51	0.44
1:A:98:ASN:O	1:A:99:ASN:CB	2.63	0.44
1:D:434:SER:O	1:E:556:LYS:HG2	2.18	0.44
1:A:463:VAL:O	1:B:70:TYR:OH	2.35	0.44
2:H:8:GLU:CG	2:H:9:ASP:N	2.71	0.44
1:C:230:VAL:CG1	1:D:492:LEU:CD1	2.95	0.44
2:H:18:ASP:CB	2:H:19:THR:HA	2.43	0.44
1:E:508:PRO:HA	1:E:509:PRO:HD3	1.92	0.44
1:D:220:ASP:CG	1:E:197:ARG:NH2	2.70	0.44
1:C:135:ASN:CA	1:C:172:GLU:OE1	2.62	0.44
1:A:425:LEU:CD1	1:B:172:GLU:CB	2.87	0.44
1:A:63:LEU:CD1	1:E:447:ASP:O	2.66	0.44
1:B:481:VAL:HG23	1:C:490:THR:CG2	2.48	0.44
1:E:480:ALA:C	1:E:482:TYR:H	2.21	0.44
1:B:101:TYR:CE2	1:B:105:GLU:HG2	2.52	0.44
1:E:394:ILE:HG22	1:E:402:GLN:HG2	2.00	0.44
1:A:468:LEU:HG	1:A:470:VAL:HG23	1.99	0.44
1:C:544:THR:HG22	1:C:545:ASP:N	2.33	0.44
1:D:57:TYR:CE2	1:D:60:LEU:HB2	2.52	0.44
1:D:480:ALA:C	1:D:482:TYR:H	2.21	0.44
1:E:377:PRO:O	1:E:379:ILE:N	2.51	0.44
1:B:438:TYR:CD1	1:B:462:VAL:HG11	2.52	0.44
1:A:126:ILE:HG21	1:E:467:LEU:HB2	1.99	0.44
1:A:47:ARG:HB3	1:E:569:ARG:HG2	2.00	0.44
1:E:55:ILE:HG21	1:E:67:THR:HG21	2.00	0.44
1:D:232:THR:HB	1:E:495:VAL:HG21	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:101:TYR:CE2	1:D:105:GLU:HG2	2.53	0.44
1:E:101:TYR:CE2	1:E:105:GLU:HG2	2.53	0.44
1:B:394:ILE:HG22	1:B:402:GLN:HG2	2.00	0.44
1:C:133:ASN:HB2	1:C:175:TYR:CD2	2.53	0.44
1:B:468:LEU:HG	1:B:470:VAL:HG23	1.99	0.44
1:A:172:GLU:O	1:E:407:TYR:CE1	2.70	0.43
1:D:228:PRO:HB3	1:E:493:THR:CB	2.48	0.43
1:D:230:VAL:CG1	1:E:492:LEU:HD12	2.48	0.43
1:B:377:PRO:O	1:B:379:ILE:N	2.51	0.43
1:D:67:THR:O	1:D:563:PRO:HD2	2.18	0.43
1:C:233:ASN:CG	1:D:491:SER:HA	2.39	0.43
1:C:55:ILE:HG21	1:C:67:THR:HG21	2.00	0.43
1:C:67:THR:O	1:C:563:PRO:HD2	2.18	0.43
1:B:233:ASN:HB3	1:C:491:SER:HB2	1.99	0.43
1:A:569:ARG:HB3	1:B:47:ARG:H	1.83	0.43
1:E:264:ARG:NE	1:E:424:LEU:CD2	2.76	0.43
1:E:468:LEU:HG	1:E:470:VAL:HG23	1.99	0.43
1:D:544:THR:HG22	1:D:545:ASP:N	2.33	0.43
1:A:488:GLN:HB3	1:A:494:HIS:NE2	2.32	0.43
1:D:468:LEU:HG	1:D:470:VAL:HG23	1.99	0.43
1:E:544:THR:HG22	1:E:545:ASP:N	2.32	0.43
1:D:452:ARG:HG2	1:E:60:LEU:HD13	1.99	0.43
1:B:450:THR:HG21	1:C:96:ILE:HG22	1.94	0.43
1:C:57:TYR:O	1:C:57:TYR:CD1	2.71	0.43
1:B:228:PRO:CB	2:G:15:TYR:CE1	2.99	0.43
1:C:411:ASN:HD22	1:D:172:GLU:H	1.64	0.43
1:A:425:LEU:O	1:B:132:PRO:CG	2.60	0.43
1:B:55:ILE:HG21	1:B:67:THR:HG21	2.00	0.43
1:D:55:ILE:HG21	1:D:67:THR:HG21	2.00	0.43
1:A:55:ILE:HG21	1:A:67:THR:HG21	2.00	0.43
1:B:512:THR:HB	1:B:513:ILE:HD12	2.00	0.43
1:A:512:THR:HB	1:A:513:ILE:HD12	2.00	0.43
1:E:151:ARG:HG3	1:E:161:LEU:HD21	1.99	0.43
1:D:408:LEU:O	1:D:412:TYR:HB2	2.18	0.43
1:A:408:LEU:O	1:A:412:TYR:HB2	2.18	0.43
1:C:407:TYR:OH	1:D:172:GLU:O	2.35	0.43
1:A:377:PRO:O	1:A:379:ILE:N	2.51	0.43
1:C:480:ALA:C	1:C:482:TYR:H	2.21	0.43
1:E:67:THR:O	1:E:563:PRO:HD2	2.19	0.43
1:A:514:THR:CB	1:E:476:TYR:CE1	3.00	0.43
1:C:432:CYS:O	1:D:555:TYR:OH	2.36	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:133:ASN:HB2	1:E:175:TYR:CD2	2.53	0.43
1:A:450:THR:OG1	1:B:57:TYR:HD1	2.02	0.43
1:C:488:GLN:HB3	1:C:494:HIS:NE2	2.32	0.43
1:D:228:PRO:CB	2:H:15:TYR:CE1	2.99	0.43
1:A:556:LYS:HZ1	1:E:436:GLN:H	1.57	0.43
1:D:556:LYS:CE	1:D:558:LEU:CD2	2.81	0.43
1:A:425:LEU:HD13	1:B:172:GLU:HG3	2.00	0.43
1:A:47:ARG:H	1:E:569:ARG:HB3	1.83	0.43
1:B:569:ARG:HB3	1:C:47:ARG:H	1.83	0.43
1:D:221:PRO:HB2	1:E:194:LYS:HG3	2.00	0.43
1:D:512:THR:HB	1:D:513:ILE:HD12	2.00	0.43
1:A:133:ASN:HB2	1:A:175:TYR:CD2	2.53	0.43
1:D:133:ASN:HB2	1:D:175:TYR:CD2	2.53	0.43
1:E:408:LEU:O	1:E:412:TYR:HB2	2.18	0.43
1:C:394:ILE:HG22	1:C:402:GLN:HG2	2.00	0.43
2:G:12:ASN:O	2:G:13:PRO:C	2.57	0.43
1:D:434:SER:O	1:E:556:LYS:CE	2.65	0.43
1:A:257:ASN:OD1	1:A:258:LEU:N	2.51	0.43
1:B:544:THR:HG22	1:B:545:ASP:N	2.33	0.43
1:D:57:TYR:HH	1:D:98:ASN:ND2	2.17	0.43
1:C:436:GLN:CD	1:D:558:LEU:CD1	2.86	0.43
1:A:434:SER:O	1:B:556:LYS:HG2	2.17	0.43
1:B:155:LYS:CG	1:B:158:GLN:OE1	2.66	0.43
1:D:394:ILE:HG22	1:D:402:GLN:HG2	2.00	0.43
1:B:408:LEU:O	1:B:412:TYR:HB2	2.18	0.43
1:B:425:LEU:O	1:C:132:PRO:CG	2.59	0.43
1:A:264:ARG:NE	1:A:424:LEU:CD2	2.76	0.43
1:E:512:THR:HB	1:E:513:ILE:HD12	2.00	0.43
1:B:133:ASN:HB2	1:B:175:TYR:CD2	2.53	0.43
1:B:452:ARG:HG2	1:C:60:LEU:HD13	2.00	0.43
1:C:436:GLN:CB	1:D:558:LEU:CD2	2.96	0.43
1:A:436:GLN:OE1	1:B:558:LEU:CD1	2.54	0.43
1:D:569:ARG:CB	1:E:47:ARG:CB	2.96	0.43
1:A:394:ILE:HG22	1:A:402:GLN:HG2	2.00	0.43
1:A:267:PHE:O	1:A:267:PHE:CG	2.71	0.43
1:B:264:ARG:NE	1:B:424:LEU:CD2	2.76	0.43
1:D:135:ASN:CA	1:D:172:GLU:OE1	2.62	0.43
1:D:63:LEU:CD2	1:D:67:THR:CG2	2.86	0.43
1:C:512:THR:HB	1:C:513:ILE:HD12	2.00	0.43
1:A:197:ARG:HH21	1:E:220:ASP:CG	2.22	0.43
1:C:508:PRO:HA	1:C:509:PRO:HD3	1.92	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:377:PRO:O	1:D:379:ILE:N	2.51	0.43
1:C:407:TYR:CE1	1:D:172:GLU:O	2.72	0.43
1:B:480:ALA:C	1:B:482:TYR:N	2.72	0.43
1:A:47:ARG:HG2	1:A:48:PRO:CD	2.45	0.43
1:A:490:THR:HG23	1:E:482:TYR:HD1	1.83	0.43
1:C:569:ARG:CB	1:D:47:ARG:CB	2.96	0.43
1:D:234:GLU:OE2	1:E:496:PHE:HE1	2.02	0.43
1:A:237:HIS:HA	1:A:238:PRO:HD3	1.87	0.43
1:E:42:PRO:HA	1:E:43:PRO:HD3	1.87	0.43
1:A:67:THR:O	1:A:563:PRO:HD2	2.18	0.42
1:C:155:LYS:O	1:C:156:ASP:CB	2.37	0.42
1:E:47:ARG:NH2	1:E:53:ASN:HD22	2.03	0.42
1:B:476:TYR:OH	1:C:514:THR:OG1	2.36	0.42
1:A:90:ASN:ND2	1:A:457:ILE:HG21	2.32	0.42
1:D:184:MET:O	1:D:188:ILE:HG12	2.19	0.42
1:B:184:MET:O	1:B:188:ILE:HG12	2.19	0.42
1:A:468:LEU:HA	1:A:469:PRO:HD3	1.87	0.42
1:B:42:PRO:HA	1:B:43:PRO:HD3	1.87	0.42
1:A:172:GLU:C	1:E:425:LEU:HD22	2.39	0.42
1:B:228:PRO:HB3	1:C:493:THR:CB	2.49	0.42
1:C:131:MET:HA	1:C:132:PRO:HD3	1.90	0.42
1:C:408:LEU:O	1:C:412:TYR:HB2	2.18	0.42
1:B:450:THR:CB	1:C:57:TYR:HD1	2.29	0.42
1:A:230:VAL:CG1	1:B:492:LEU:CB	2.79	0.42
2:F:12:ASN:O	2:F:13:PRO:C	2.57	0.42
1:C:410:TYR:CZ	1:C:425:LEU:HB2	2.54	0.42
1:B:174:ASN:O	1:B:174:ASN:OD1	2.37	0.42
1:C:174:ASN:O	1:C:174:ASN:OD1	2.37	0.42
1:D:230:VAL:CG1	1:E:492:LEU:CD1	2.97	0.42
1:A:464:GLY:HA2	1:B:70:TYR:HE2	1.85	0.42
1:A:68:ARG:NH2	1:E:529:LEU:HD21	2.33	0.42
1:E:63:LEU:CD2	1:E:67:THR:HG22	2.16	0.42
1:D:508:PRO:HA	1:D:509:PRO:HD3	1.92	0.42
2:F:15:TYR:OH	1:B:493:THR:CA	2.68	0.42
1:B:67:THR:O	1:B:563:PRO:HD2	2.19	0.42
1:D:569:ARG:HB3	1:E:47:ARG:H	1.84	0.42
1:A:60:LEU:CD2	1:E:452:ARG:HE	2.30	0.42
2:H:12:ASN:O	2:H:13:PRO:C	2.57	0.42
1:B:410:TYR:CZ	1:B:425:LEU:HB2	2.54	0.42
1:A:436:GLN:HB3	1:B:558:LEU:CD2	2.50	0.42
1:A:569:ARG:HG2	1:B:47:ARG:HB3	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:174:ASN:O	1:D:174:ASN:OD1	2.38	0.42
1:A:426:CYS:SG	1:B:553:TYR:CD2	3.04	0.42
1:C:425:LEU:O	1:D:132:PRO:CG	2.58	0.42
1:A:233:ASN:CG	1:B:491:SER:HA	2.40	0.42
1:C:184:MET:O	1:C:188:ILE:HG12	2.19	0.42
1:A:57:TYR:CG	1:E:450:THR:HA	2.51	0.42
1:B:530:PRO:CG	1:C:66:THR:O	2.68	0.42
1:C:155:LYS:CG	1:C:158:GLN:OE1	2.66	0.42
1:A:475:PHE:CD2	1:E:476:TYR:HD1	2.34	0.42
1:C:569:ARG:HG2	1:D:47:ARG:HB3	2.02	0.42
1:E:174:ASN:OD1	1:E:174:ASN:O	2.37	0.42
1:C:266:PRO:HD3	1:D:87:ASP:HB2	1.93	0.42
1:A:184:MET:O	1:A:188:ILE:HG12	2.19	0.42
1:A:378:VAL:HG23	1:A:379:ILE:N	2.34	0.42
1:B:425:LEU:CG	1:C:172:GLU:CB	2.98	0.42
1:A:482:TYR:CB	1:B:490:THR:HG21	2.43	0.42
1:A:174:ASN:OD1	1:A:174:ASN:O	2.38	0.42
1:C:234:GLU:OE2	1:D:496:PHE:HE1	2.03	0.42
1:B:497:ASN:ND2	1:B:500:PRO:HB3	2.25	0.42
1:B:457:ILE:H	1:B:457:ILE:HG13	1.60	0.42
1:E:184:MET:O	1:E:188:ILE:HG12	2.19	0.42
1:A:42:PRO:HA	1:A:43:PRO:HD3	1.87	0.42
1:B:57:TYR:CD1	1:B:57:TYR:O	2.72	0.42
1:B:220:ASP:CG	1:C:197:ARG:HH21	2.23	0.42
1:A:228:PRO:CB	2:F:15:TYR:CE1	2.99	0.42
1:A:528:THR:CB	1:B:66:THR:HG21	2.50	0.42
1:A:68:ARG:NH2	1:E:529:LEU:HD11	2.35	0.42
1:A:66:THR:HG21	1:E:528:THR:CB	2.50	0.42
1:A:221:PRO:HB2	1:B:194:LYS:HG3	2.02	0.42
1:A:57:TYR:CD2	1:A:59:GLU:C	2.93	0.41
1:E:155:LYS:CG	1:E:158:GLN:OE1	2.66	0.41
1:E:106:ALA:CB	1:E:109:GLN:CD	2.89	0.41
1:D:426:CYS:SG	1:E:553:TYR:CD2	3.04	0.41
1:C:237:HIS:HA	1:C:238:PRO:HD3	1.87	0.41
1:B:230:VAL:HB	1:C:493:THR:HG23	2.01	0.41
1:D:436:GLN:NE2	1:E:558:LEU:CD1	2.69	0.41
1:D:464:GLY:HA2	1:E:70:TYR:HE2	1.85	0.41
1:E:152:LEU:CB	1:E:153:PRO:CD	2.89	0.41
1:B:106:ALA:CB	1:B:109:GLN:CD	2.89	0.41
1:C:111:ILE:HB	1:C:535:ILE:HB	2.03	0.41
1:D:378:VAL:HG23	1:D:379:ILE:N	2.33	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:70:TYR:O	1:B:95:VAL:HG13	2.21	0.41
1:B:258:LEU:HD13	1:B:430:VAL:HA	2.03	0.41
1:B:481:VAL:CG2	1:B:482:TYR:N	2.83	0.41
1:C:106:ALA:CB	1:C:109:GLN:CD	2.89	0.41
1:C:258:LEU:HD13	1:C:430:VAL:HA	2.02	0.41
1:B:378:VAL:HG23	1:B:379:ILE:N	2.34	0.41
1:C:236:PHE:CZ	1:D:183:LEU:HD21	2.55	0.41
1:A:185:ASN:O	1:A:189:VAL:HG23	2.21	0.41
1:C:133:ASN:HB2	1:C:175:TYR:HD2	1.86	0.41
1:E:111:ILE:HB	1:E:535:ILE:HB	2.03	0.41
1:B:111:ILE:HB	1:B:535:ILE:HB	2.03	0.41
1:C:436:GLN:OE1	1:D:558:LEU:HD11	2.21	0.41
1:A:436:GLN:NE2	1:B:558:LEU:HD11	2.34	0.41
1:C:70:TYR:O	1:C:95:VAL:HG13	2.21	0.41
1:D:258:LEU:HD13	1:D:430:VAL:HA	2.03	0.41
1:D:569:ARG:HG2	1:E:47:ARG:HB3	2.02	0.41
1:B:454:THR:HG21	1:B:459:ASN:CG	2.40	0.41
1:A:70:TYR:O	1:A:95:VAL:HG13	2.21	0.41
1:E:68:ARG:CD	1:E:70:TYR:CZ	2.83	0.41
1:B:47:ARG:HG2	1:B:48:PRO:CD	2.45	0.41
1:C:264:ARG:NE	1:C:424:LEU:CD2	2.76	0.41
1:B:513:ILE:HD11	1:C:516:VAL:HG21	2.03	0.41
1:E:133:ASN:HB2	1:E:175:TYR:HD2	1.85	0.41
1:A:111:ILE:HB	1:A:535:ILE:HB	2.03	0.41
1:A:132:PRO:CG	1:E:425:LEU:O	2.60	0.41
1:D:436:GLN:HB3	1:E:558:LEU:CD2	2.50	0.41
1:C:425:LEU:HD21	1:D:172:GLU:O	2.21	0.41
1:A:66:THR:O	1:E:530:PRO:CG	2.69	0.41
1:A:47:ARG:HA	1:E:569:ARG:O	2.20	0.41
1:D:106:ALA:CB	1:D:109:GLN:CD	2.89	0.41
1:A:106:ALA:CB	1:A:109:GLN:CD	2.89	0.41
1:D:457:ILE:H	1:D:457:ILE:HG13	1.60	0.41
1:B:118:HIS:NE2	1:C:65:ASP:OD1	2.49	0.41
1:C:185:ASN:O	1:C:189:VAL:HG23	2.21	0.41
1:C:467:LEU:HB2	1:D:126:ILE:HG21	2.03	0.41
1:D:70:TYR:O	1:D:95:VAL:HG13	2.21	0.41
1:B:481:VAL:CG2	1:C:490:THR:CB	2.98	0.41
1:C:47:ARG:HG2	1:C:48:PRO:CD	2.45	0.41
1:D:111:ILE:HB	1:D:535:ILE:HB	2.03	0.41
1:A:267:PHE:HD2	1:B:84:TYR:HA	1.86	0.41
1:C:450:THR:HG21	1:D:96:ILE:HG22	1.95	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:454:THR:HG21	1:C:459:ASN:CG	2.41	0.41
1:A:99:ASN:CB	1:E:459:ASN:OD1	2.68	0.41
1:A:135:ASN:HA	1:A:172:GLU:OE2	2.21	0.41
1:A:556:LYS:HB3	1:E:434:SER:HB3	2.02	0.41
1:D:436:GLN:OE1	1:E:558:LEU:HD13	2.21	0.41
1:C:410:TYR:CE2	1:C:425:LEU:HD13	2.56	0.41
1:B:135:ASN:HA	1:B:172:GLU:OE2	2.21	0.41
1:B:434:SER:CB	1:C:556:LYS:CB	2.89	0.41
1:C:119:TRP:CE3	1:C:563:PRO:HB2	2.56	0.41
1:B:257:ASN:ND2	1:C:555:TYR:OH	2.54	0.41
1:B:257:ASN:CG	1:C:555:TYR:OH	2.59	0.41
1:A:257:ASN:HD21	1:A:432:CYS:HB3	1.85	0.41
1:A:119:TRP:CE3	1:A:563:PRO:HB2	2.56	0.41
1:E:119:TRP:CE3	1:E:563:PRO:HB2	2.56	0.41
1:A:479:GLN:O	1:A:480:ALA:O	2.39	0.41
1:D:47:ARG:HG2	1:D:48:PRO:CD	2.45	0.41
1:D:264:ARG:NE	1:D:424:LEU:CD2	2.75	0.41
1:E:185:ASN:O	1:E:189:VAL:HG23	2.21	0.41
1:B:185:ASN:O	1:B:189:VAL:HG23	2.21	0.41
1:A:151:ARG:O	1:A:151:ARG:HG2	2.21	0.41
1:A:558:LEU:HD13	1:E:436:GLN:OE1	2.20	0.41
1:C:135:ASN:HA	1:C:172:GLU:OE2	2.21	0.41
1:B:528:THR:CB	1:C:66:THR:HG21	2.51	0.41
1:A:480:ALA:C	1:A:482:TYR:N	2.72	0.41
1:B:155:LYS:CB	1:B:158:GLN:HB2	2.47	0.41
1:C:476:TYR:CE1	1:D:514:THR:CB	3.04	0.41
1:D:476:TYR:CE2	1:E:477:ASN:CB	2.91	0.41
1:C:569:ARG:HB3	1:D:47:ARG:H	1.86	0.41
1:D:482:TYR:CZ	1:E:486:ILE:CG2	3.00	0.41
1:C:236:PHE:HE2	1:D:174:ASN:HD22	1.66	0.41
1:B:414:ASP:HA	1:B:415:PRO:HD3	1.88	0.41
1:D:407:TYR:CE1	1:E:172:GLU:O	2.74	0.40
1:A:57:TYR:CE2	1:A:60:LEU:HD12	2.54	0.40
1:B:230:VAL:CG1	1:C:492:LEU:HD12	2.51	0.40
1:B:119:TRP:CE3	1:B:563:PRO:HB2	2.56	0.40
1:B:463:VAL:CA	1:C:70:TYR:OH	2.70	0.40
1:C:476:TYR:CZ	1:D:514:THR:HB	2.56	0.40
1:A:155:LYS:CB	1:A:158:GLN:HB2	2.47	0.40
1:B:273:ILE:O	1:B:273:ILE:HG23	2.22	0.40
1:A:475:PHE:CD2	1:E:476:TYR:CG	3.09	0.40
1:A:194:LYS:HG3	1:E:221:PRO:CB	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:90:ASN:ND2	1:E:457:ILE:HG21	2.32	0.40
1:B:230:VAL:CG1	1:C:492:LEU:CD1	2.99	0.40
1:D:119:TRP:CE3	1:D:563:PRO:HB2	2.56	0.40
1:D:47:ARG:NH1	1:D:53:ASN:HB2	2.36	0.40
1:D:233:ASN:CG	1:E:491:SER:HA	2.41	0.40
1:A:174:ASN:HD22	1:E:236:PHE:HE2	1.66	0.40
1:A:516:VAL:HG21	1:E:513:ILE:HD11	2.02	0.40
2:F:18:ASP:CB	2:F:19:THR:HA	2.43	0.40
1:C:151:ARG:O	1:C:151:ARG:HG2	2.21	0.40
1:B:450:THR:OG1	1:C:57:TYR:HD1	2.05	0.40
1:B:266:PRO:HD3	1:C:87:ASP:HB2	1.94	0.40
1:A:531:LEU:HD11	1:A:563:PRO:HB3	2.04	0.40
1:D:185:ASN:O	1:D:189:VAL:HG23	2.21	0.40
1:B:151:ARG:HG2	1:B:151:ARG:O	2.21	0.40
1:C:544:THR:CG2	1:C:548:ARG:HA	2.52	0.40
1:E:61:ALA:HA	1:E:62:PRO:HD3	1.96	0.40
1:A:529:LEU:HA	1:A:530:PRO:HD3	1.93	0.40
1:C:447:ASP:O	1:D:63:LEU:HD13	2.21	0.40
1:C:481:VAL:CG1	1:D:490:THR:HB	2.30	0.40
1:C:531:LEU:HD11	1:C:563:PRO:HB3	2.04	0.40
1:D:236:PHE:HE2	1:E:174:ASN:HD22	1.66	0.40
1:C:150:SER:HB3	1:C:199:ASN:HB3	2.04	0.40
1:D:266:PRO:HD2	1:E:87:ASP:HB2	1.97	0.40
1:E:151:ARG:O	1:E:151:ARG:HG2	2.20	0.40
1:A:544:THR:CG2	1:A:548:ARG:HA	2.52	0.40
1:E:544:THR:CG2	1:E:548:ARG:HA	2.52	0.40
1:C:273:ILE:HG23	1:C:273:ILE:O	2.22	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	451/571 (79%)	341 (76%)	84 (19%)	26 (6%)	2 25
1	B	451/571 (79%)	341 (76%)	85 (19%)	25 (6%)	2 26
1	C	451/571 (79%)	341 (76%)	85 (19%)	25 (6%)	2 26
1	D	451/571 (79%)	341 (76%)	85 (19%)	25 (6%)	2 26
1	E	451/571 (79%)	340 (75%)	85 (19%)	26 (6%)	2 25
2	F	11/581 (2%)	3 (27%)	2 (18%)	6 (54%)	0 0
2	G	11/581 (2%)	3 (27%)	2 (18%)	6 (54%)	0 0
2	H	11/581 (2%)	3 (27%)	2 (18%)	6 (54%)	0 0
All	All	2288/4598 (50%)	1713 (75%)	430 (19%)	145 (6%)	3 23

All (145) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	81	SER
1	A	156	ASP
1	A	378	VAL
2	F	8	GLU
2	F	9	ASP
2	F	10	THR
2	F	11	PHE
1	B	81	SER
1	B	156	ASP
1	B	378	VAL
2	G	8	GLU
2	G	9	ASP
2	G	10	THR
2	G	11	PHE
1	C	81	SER
1	C	156	ASP
1	C	378	VAL
1	D	81	SER
1	D	156	ASP
1	D	378	VAL
2	H	8	GLU
2	H	9	ASP
2	H	10	THR
2	H	11	PHE
1	E	81	SER
1	E	156	ASP
1	E	378	VAL

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Mol	Chain	Res	Type
1	A	80	ALA
1	A	85	GLN
1	A	99	ASN
1	A	103	PRO
1	A	153	PRO
1	A	449	VAL
1	A	480	ALA
2	F	16	PRO
1	B	80	ALA
1	B	85	GLN
1	B	99	ASN
1	B	103	PRO
1	B	153	PRO
1	B	449	VAL
2	G	16	PRO
1	C	80	ALA
1	C	85	GLN
1	C	99	ASN
1	C	103	PRO
1	C	153	PRO
1	C	449	VAL
1	D	80	ALA
1	D	85	GLN
1	D	99	ASN
1	D	103	PRO
1	D	153	PRO
1	D	449	VAL
2	H	16	PRO
1	E	80	ALA
1	E	85	GLN
1	E	99	ASN
1	E	103	PRO
1	E	153	PRO
1	E	449	VAL
1	A	208	VAL
1	A	429	ASP
1	B	208	VAL
1	B	429	ASP
1	C	208	VAL
1	C	429	ASP
1	D	208	VAL
1	D	429	ASP

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Mol	Chain	Res	Type
1	E	208	VAL
1	E	429	ASP
1	A	151	ARG
1	A	552	PRO
2	F	13	PRO
1	B	151	ARG
1	B	552	PRO
2	G	13	PRO
1	C	151	ARG
1	C	552	PRO
1	D	151	ARG
1	D	552	PRO
2	H	13	PRO
1	E	151	ARG
1	E	552	PRO
1	A	41	VAL
1	A	102	SER
1	A	152	LEU
1	A	176	SER
1	A	388	LYS
1	B	41	VAL
1	B	102	SER
1	B	152	LEU
1	B	176	SER
1	B	388	LYS
1	B	459	ASN
1	C	41	VAL
1	C	102	SER
1	C	152	LEU
1	C	176	SER
1	C	388	LYS
1	C	459	ASN
1	D	41	VAL
1	D	102	SER
1	D	152	LEU
1	D	176	SER
1	D	388	LYS
1	E	41	VAL
1	E	102	SER
1	E	152	LEU
1	E	176	SER
1	E	388	LYS

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Mol	Chain	Res	Type
1	E	432	CYS
1	E	459	ASN
1	A	120	GLY
1	A	200	GLY
1	A	459	ASN
1	A	513	ILE
1	B	120	GLY
1	B	200	GLY
1	B	513	ILE
1	C	120	GLY
1	C	200	GLY
1	C	513	ILE
1	D	120	GLY
1	D	200	GLY
1	D	459	ASN
1	D	513	ILE
1	E	120	GLY
1	E	200	GLY
1	E	513	ILE
1	A	481	VAL
1	C	481	VAL
1	B	481	VAL
1	D	481	VAL
1	E	481	VAL
1	A	50	GLY
1	A	95	VAL
1	B	50	GLY
1	B	95	VAL
1	C	50	GLY
1	C	95	VAL
1	D	50	GLY
1	D	95	VAL
1	E	50	GLY
1	E	95	VAL

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	412/489 (84%)	391 (95%)	21 (5%)	29	70
1	B	412/489 (84%)	392 (95%)	20 (5%)	31	71
1	C	412/489 (84%)	392 (95%)	20 (5%)	31	71
1	D	412/489 (84%)	393 (95%)	19 (5%)	33	73
1	E	412/489 (84%)	392 (95%)	20 (5%)	31	71
2	F	13/489 (3%)	12 (92%)	1 (8%)	16	56
2	G	13/489 (3%)	12 (92%)	1 (8%)	16	56
2	H	13/489 (3%)	12 (92%)	1 (8%)	16	56
All	All	2099/3912 (54%)	1996 (95%)	103 (5%)	35	71

All (103) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	55	ILE
1	A	57	TYR
1	A	84	TYR
1	A	101	TYR
1	A	108	THR
1	A	109	GLN
1	A	115	ASP
1	A	130	ASN
1	A	133	ASN
1	A	156	ASP
1	A	176	SER
1	A	182	ASP
1	A	211	ASP
1	A	271	PHE
1	A	276	ASP
1	A	395	SER
1	A	404	ARG
1	A	417	THR
1	A	425	LEU
1	A	429	ASP
1	A	555	TYR
2	F	15	TYR
1	B	55	ILE
1	B	57	TYR
1	B	84	TYR
1	B	101	TYR
1	B	108	THR

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Mol	Chain	Res	Type
1	B	109	GLN
1	B	115	ASP
1	B	130	ASN
1	B	133	ASN
1	B	156	ASP
1	B	176	SER
1	B	182	ASP
1	B	211	ASP
1	B	271	PHE
1	B	276	ASP
1	B	395	SER
1	B	404	ARG
1	B	417	THR
1	B	425	LEU
1	B	429	ASP
2	G	15	TYR
1	C	55	ILE
1	C	57	TYR
1	C	84	TYR
1	C	101	TYR
1	C	108	THR
1	C	109	GLN
1	C	115	ASP
1	C	130	ASN
1	C	133	ASN
1	C	156	ASP
1	C	176	SER
1	C	182	ASP
1	C	211	ASP
1	C	271	PHE
1	C	276	ASP
1	C	395	SER
1	C	404	ARG
1	C	417	THR
1	C	425	LEU
1	C	429	ASP
1	D	55	ILE
1	D	57	TYR
1	D	84	TYR
1	D	101	TYR
1	D	108	THR
1	D	109	GLN

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Mol	Chain	Res	Type
1	D	115	ASP
1	D	130	ASN
1	D	133	ASN
1	D	156	ASP
1	D	176	SER
1	D	182	ASP
1	D	211	ASP
1	D	271	PHE
1	D	276	ASP
1	D	395	SER
1	D	404	ARG
1	D	417	THR
1	D	429	ASP
2	H	15	TYR
1	E	55	ILE
1	E	57	TYR
1	E	84	TYR
1	E	101	TYR
1	E	108	THR
1	E	109	GLN
1	E	115	ASP
1	E	130	ASN
1	E	133	ASN
1	E	156	ASP
1	E	176	SER
1	E	182	ASP
1	E	211	ASP
1	E	271	PHE
1	E	276	ASP
1	E	395	SER
1	E	404	ARG
1	E	417	THR
1	E	425	LEU
1	E	429	ASP

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (71) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	53	ASN
1	A	109	GLN
1	A	130	ASN
1	A	133	ASN

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Mol	Chain	Res	Type
1	A	174	ASN
1	A	186	ASN
1	A	198	GLN
1	A	265	GLN
1	A	293	GLN
1	A	411	ASN
1	A	436	GLN
1	A	497	ASN
1	A	503	GLN
1	A	519	ASN
1	B	53	ASN
1	B	98	ASN
1	B	109	GLN
1	B	130	ASN
1	B	133	ASN
1	B	174	ASN
1	B	186	ASN
1	B	198	GLN
1	B	265	GLN
1	B	293	GLN
1	B	411	ASN
1	B	436	GLN
1	B	477	ASN
1	B	497	ASN
1	B	503	GLN
1	B	519	ASN
1	C	53	ASN
1	C	88	HIS
1	C	109	GLN
1	C	130	ASN
1	C	133	ASN
1	C	174	ASN
1	C	186	ASN
1	C	198	GLN
1	C	265	GLN
1	C	411	ASN
1	C	497	ASN
1	C	503	GLN
1	C	519	ASN
1	D	53	ASN
1	D	88	HIS
1	D	109	GLN

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Mol	Chain	Res	Type
1	D	130	ASN
1	D	133	ASN
1	D	174	ASN
1	D	186	ASN
1	D	198	GLN
1	D	257	ASN
1	D	265	GLN
1	D	293	GLN
1	D	411	ASN
1	D	497	ASN
1	D	503	GLN
1	D	519	ASN
1	E	53	ASN
1	E	109	GLN
1	E	130	ASN
1	E	133	ASN
1	E	174	ASN
1	E	186	ASN
1	E	198	GLN
1	E	257	ASN
1	E	265	GLN
1	E	411	ASN
1	E	497	ASN
1	E	503	GLN
1	E	519	ASN

5.3.3 RNA

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates

There are no carbohydrates in this entry.

5.6 Ligand geometry

There are no ligands in this entry.

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.