



Full wwPDB X-ray Structure Validation Report ⓘ

Feb 1, 2016 – 09:25 AM GMT

PDB ID : 3IBB
Title : Propionyl-CoA Carboxylase Beta Subunit, D422A
Authors : Diacovich, L.; Arabolaza, A.; Shillito, E.M.; Lin, T.-W.; Mitchell, D.L.; Pham, H.; Melgar, M.M.
Deposited on : 2009-07-15
Resolution : 3.50 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.
We welcome your comments at validation@mail.wwpdb.org
A user guide is available at
<http://wwpdb.org/validation/2016/XrayValidationReportHelp>
with specific help available everywhere you see the ⓘ symbol.

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

MolProbity : 4.02b-467
Mogul : 1.7 (RC4), CSD as536be (2015)
Xtriage (Phenix) : 1.9-1692
EDS : rb-20026688
Percentile statistics : 20151230.v01 (using entries in the PDB archive December 30th 2015)
Refmac : 5.8.0135
CCP4 : 6.5.0
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : trunk26865

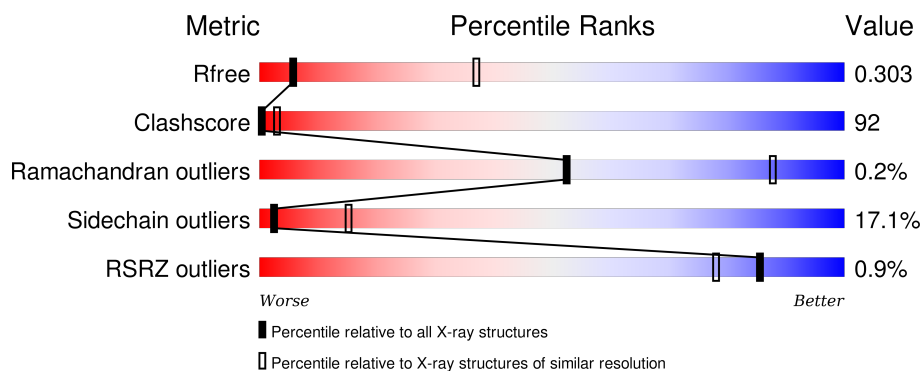
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.50 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	91344	1051 (3.60-3.40)
Clashscore	102246	1157 (3.60-3.40)
Ramachandran outliers	100387	1120 (3.60-3.40)
Sidechain outliers	100360	1121 (3.60-3.40)
RSRZ outliers	91569	1058 (3.60-3.40)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower 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 $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	530	<div> <div></div> <div> <div>22%</div> <div>66%</div> <div>10%</div> <div>.</div> </div> </div>
1	B	530	<div> <div></div> <div> <div>25%</div> <div>61%</div> <div>12%</div> <div>.</div> </div> </div>
1	C	530	<div> <div></div> <div> <div>27%</div> <div>62%</div> <div>9%</div> <div>.</div> </div> </div>
1	D	530	<div> <div></div> <div> <div>23%</div> <div>63%</div> <div>12%</div> <div>.</div> </div> </div>
1	E	530	<div> <div></div> <div> <div>24%</div> <div>64%</div> <div>11%</div> <div>.</div> </div> </div>

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Mol	Chain	Length	Quality of chain
1	F	530	<div><div><div>%</div><div><div></div></div><div>25%</div><div>59%</div><div>13%</div><div></div></div></div>

2 Entry composition

There is only 1 type of molecule in this entry. The entry contains 23700 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, 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 Propionyl-CoA carboxylase complex B subunit.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	521	Total	C	N	O	S	0	0	0
			3950	2480	698	759	13			
1	B	521	Total	C	N	O	S	0	0	0
			3950	2480	698	759	13			
1	C	521	Total	C	N	O	S	0	0	0
			3950	2480	698	759	13			
1	D	521	Total	C	N	O	S	0	0	0
			3950	2480	698	759	13			
1	E	521	Total	C	N	O	S	0	0	0
			3950	2480	698	759	13			
1	F	521	Total	C	N	O	S	0	0	0
			3950	2480	698	759	13			

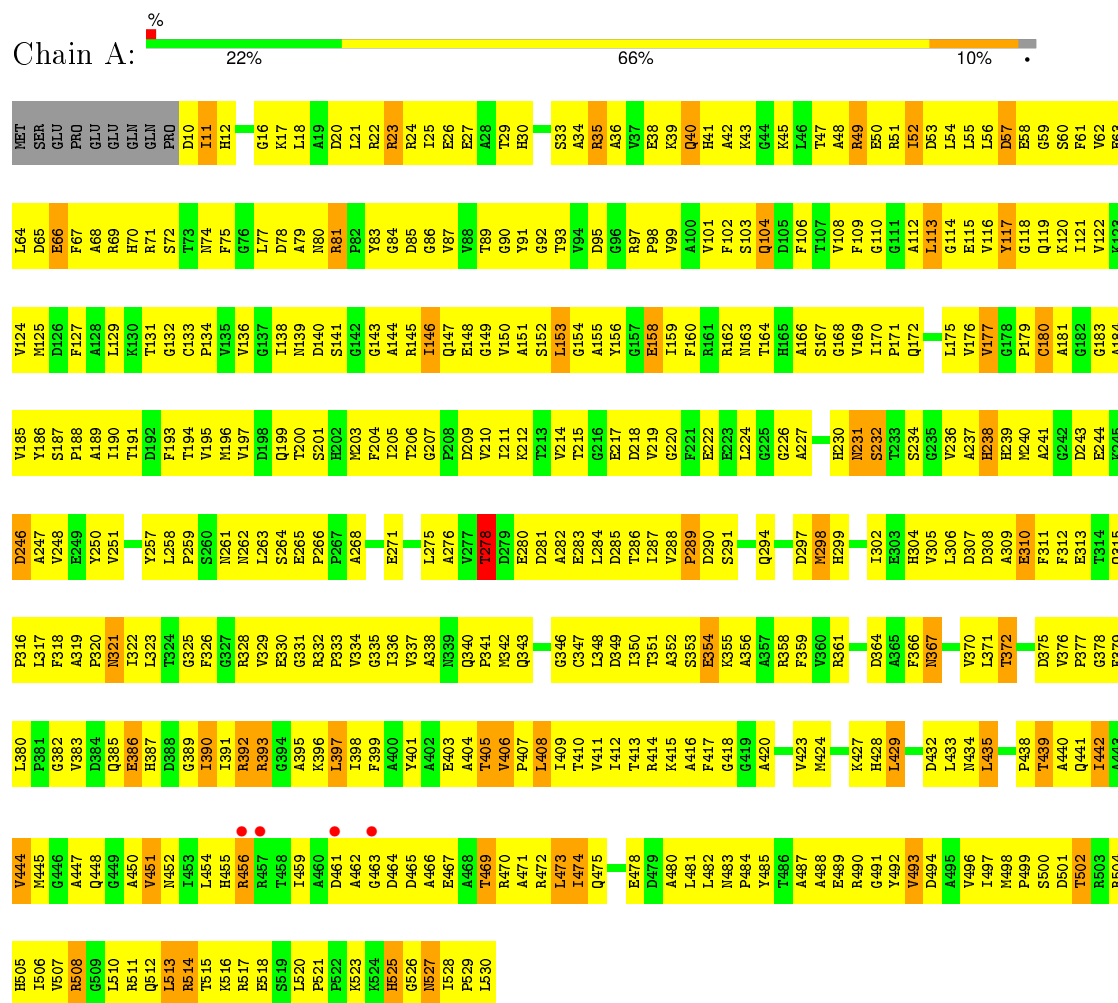
There are 6 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	422	ALA	ASP	ENGINEERED	UNP Q9X4K7
B	422	ALA	ASP	ENGINEERED	UNP Q9X4K7
C	422	ALA	ASP	ENGINEERED	UNP Q9X4K7
D	422	ALA	ASP	ENGINEERED	UNP Q9X4K7
E	422	ALA	ASP	ENGINEERED	UNP Q9X4K7
F	422	ALA	ASP	ENGINEERED	UNP Q9X4K7

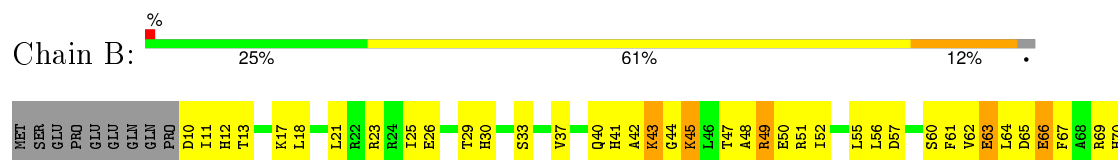
3 Residue-property plots

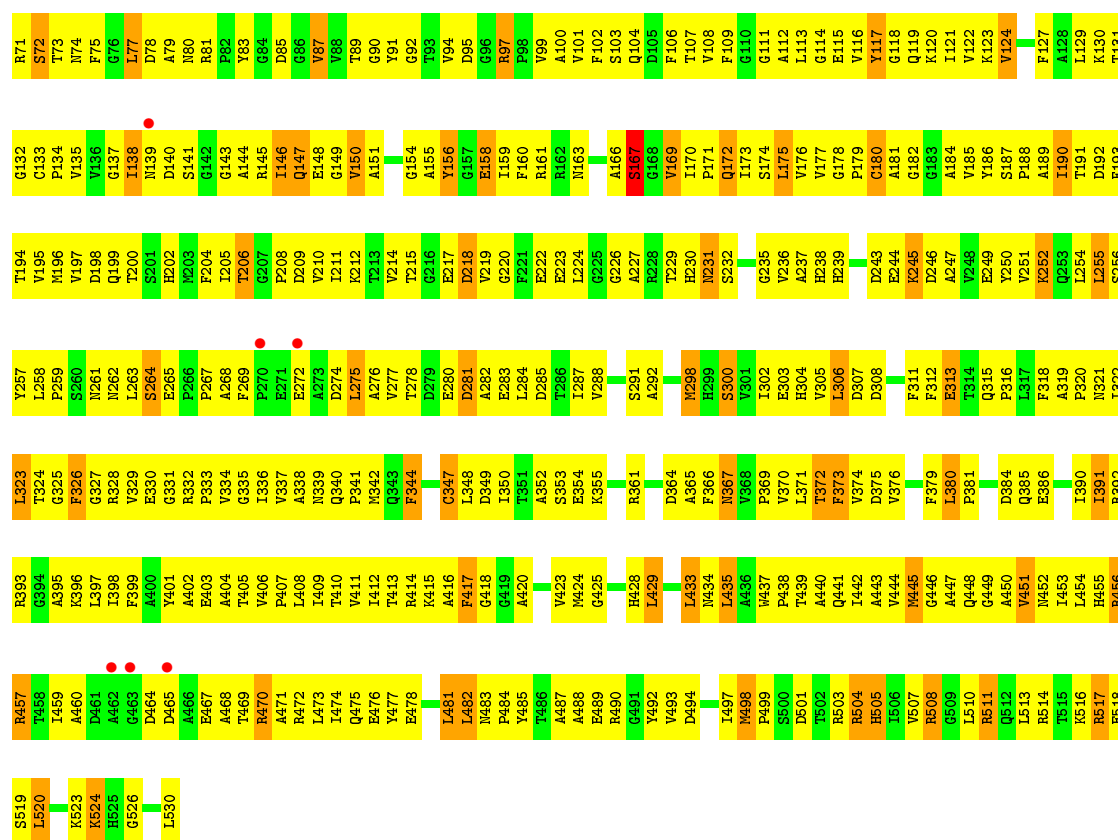
These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red dot above a residue indicates a poor fit to the electron density ($RSRZ > 2$). 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: Propionyl-CoA carboxylase complex B subunit

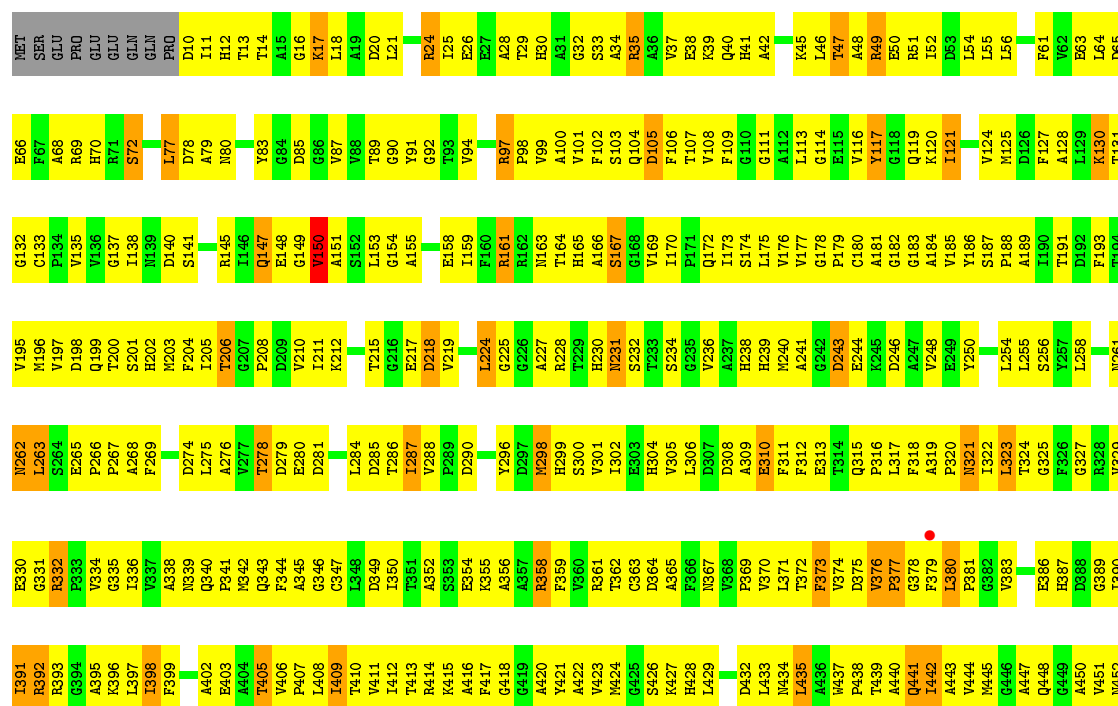


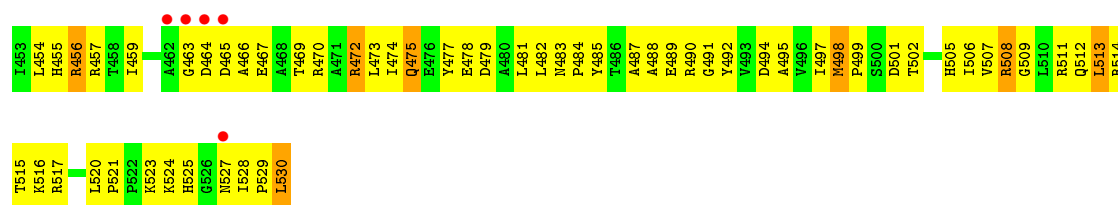
• Molecule 1: Propionyl-CoA carboxylase complex B subunit





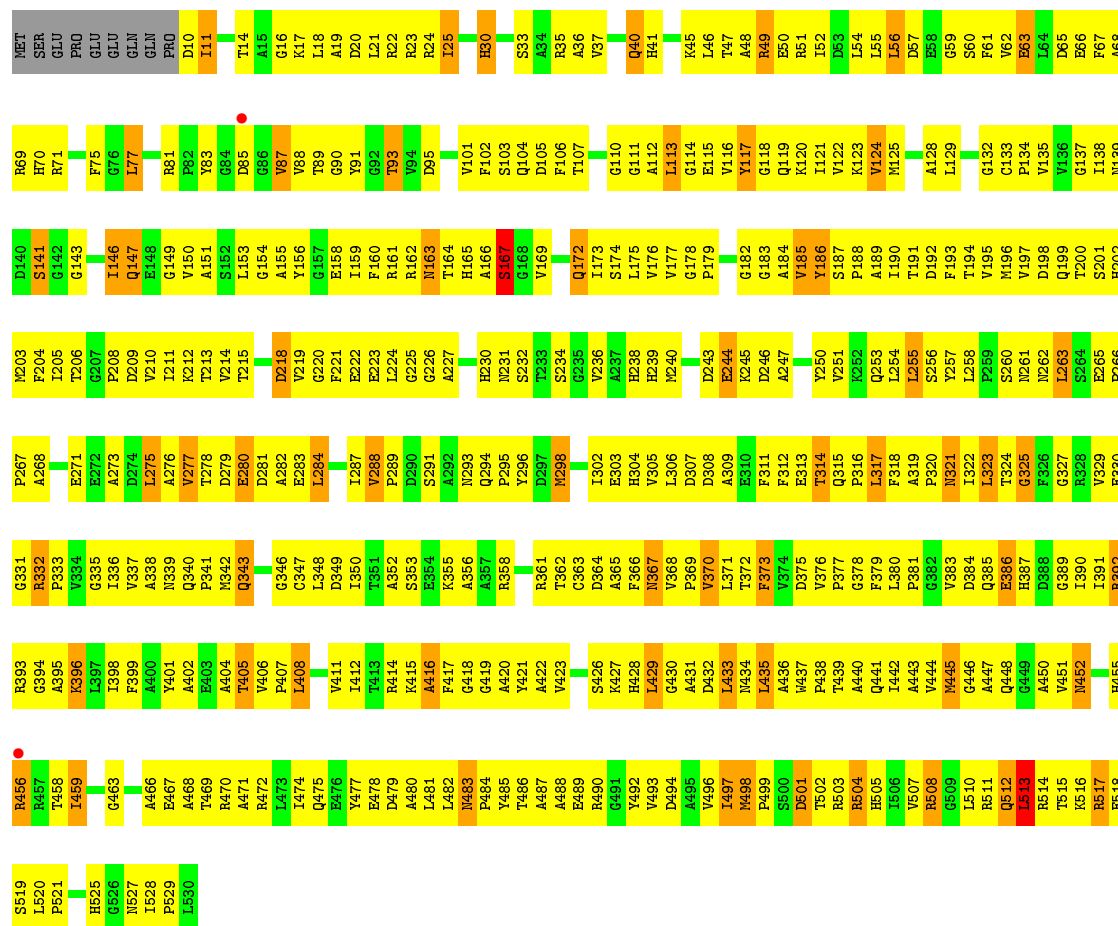
• Molecule 1: Propionyl-CoA carboxylase complex B subunit





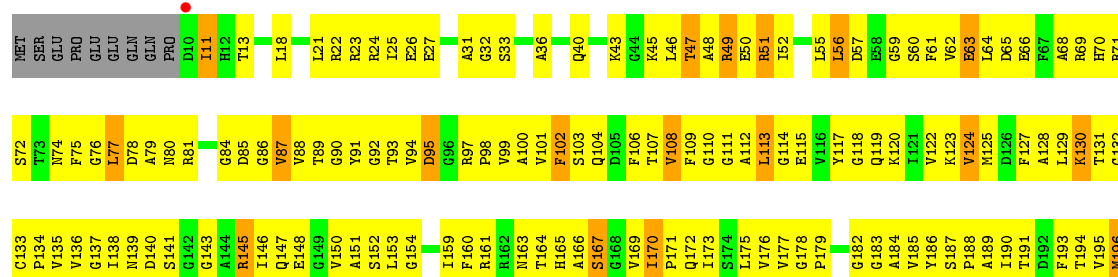
● Molecule 1: Propionyl-CoA carboxylase complex B subunit

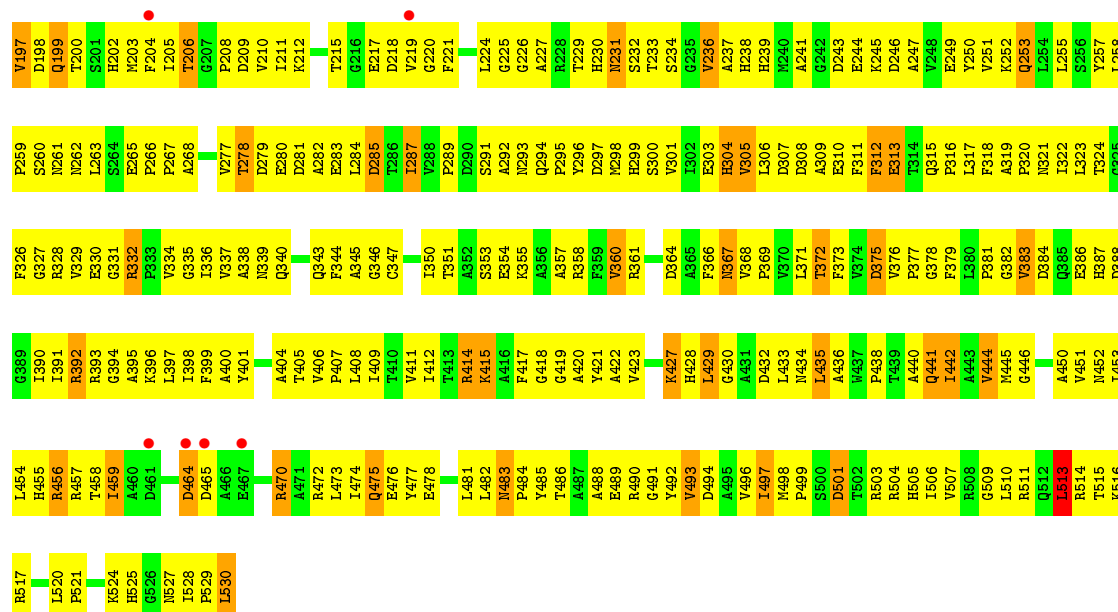
Chain D: 23% 63% 12%



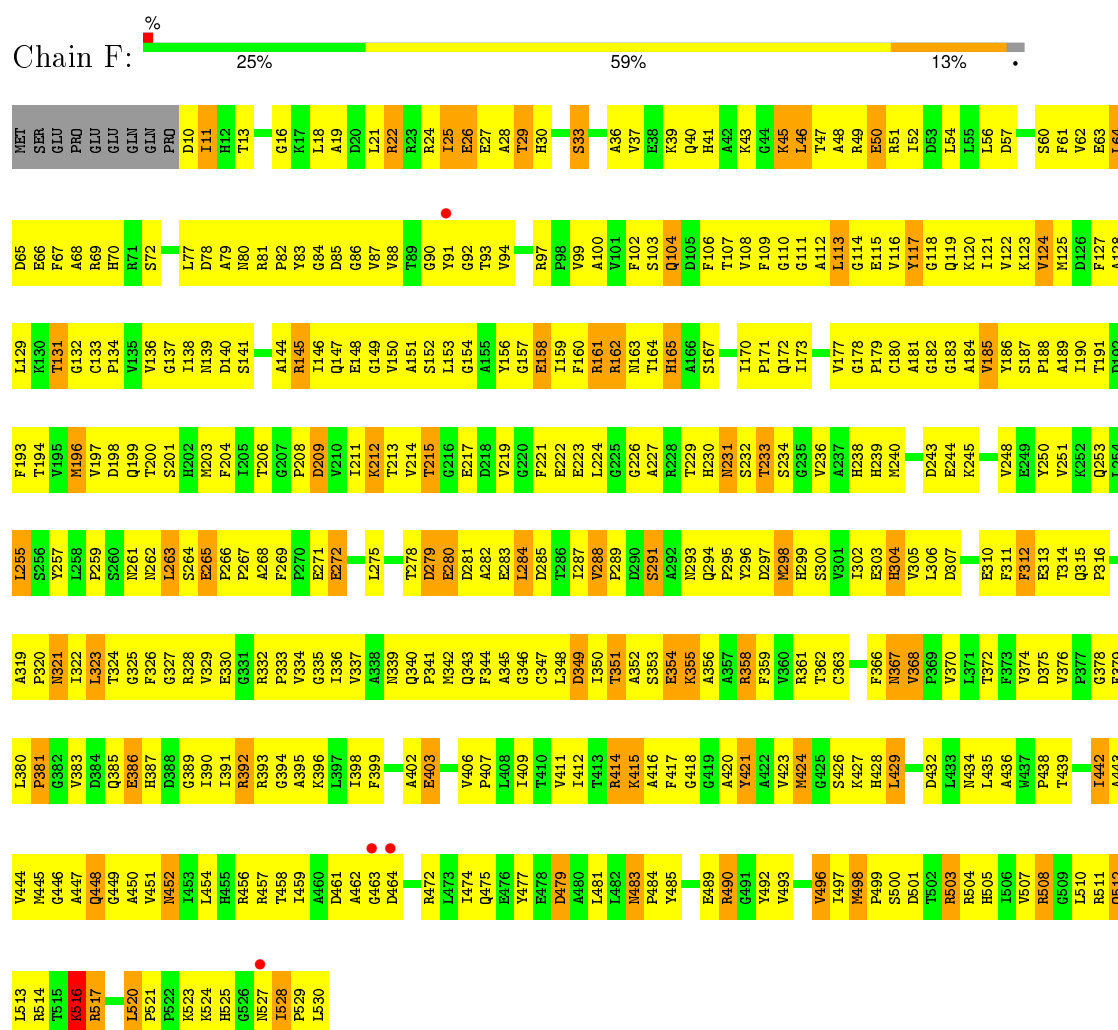
● Molecule 1: Propionyl-CoA carboxylase complex B subunit

Chain E: 24% 64% 11%





● Molecule 1: Propionyl-CoA carboxylase complex B subunit



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	87.06Å 183.33Å 228.71Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	50.00 – 3.50 45.83 – 3.46	Depositor EDS
% Data completeness (in resolution range)	94.4 (50.00-3.50) 94.5 (45.83-3.46)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	5.04 (at 3.48Å)	Xtriage
Refinement program	REFMAC	Depositor
R, R_{free}	0.190 , 0.269 0.286 , 0.303	Depositor DCC
R_{free} test set	2238 reflections (5.00%)	DCC
Wilson B-factor (Å ²)	65.3	Xtriage
Anisotropy	0.084	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.28 , -4.2	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning ²	$\langle L \rangle = 0.49$, $\langle L^2 \rangle = 0.32$	Xtriage
Outliers	1 of 46011 reflections (0.002%)	Xtriage
F_o, F_c correlation	0.81	EDS
Total number of atoms	23700	wwPDB-VP
Average B, all atoms (Å ²)	2.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.47% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.375 respectively for untwinned datasets, and 0.333, 0.2 for perfectly twinned datasets.

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# $ Z > 5$	RMSZ	# $ Z > 5$
1	A	0.45	1/4030 (0.0%)	0.82	5/5474 (0.1%)
1	B	0.39	1/4030 (0.0%)	0.77	2/5474 (0.0%)
1	C	0.37	1/4030 (0.0%)	0.78	2/5474 (0.0%)
1	D	0.41	1/4030 (0.0%)	0.79	5/5474 (0.1%)
1	E	0.39	1/4030 (0.0%)	0.78	5/5474 (0.1%)
1	F	0.37	0/4030	0.74	3/5474 (0.1%)
All	All	0.40	5/24180 (0.0%)	0.78	22/32844 (0.1%)

All (5) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	530	LEU	C-OXT	5.86	1.34	1.23
1	A	238	HIS	C-N	-5.53	1.21	1.34
1	E	414	ARG	C-N	5.39	1.46	1.34
1	D	363	CYS	C-N	5.35	1.46	1.34
1	B	476	GLU	C-N	-5.09	1.22	1.34

All (22) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	108	VAL	CB-CA-C	-5.97	100.06	111.40
1	B	150	VAL	CB-CA-C	-5.94	100.12	111.40
1	D	277	VAL	N-CA-C	-5.83	95.27	111.00
1	D	513	LEU	CB-CA-C	-5.78	99.22	110.20
1	A	278	THR	CB-CA-C	5.72	127.04	111.60
1	D	501	ASP	CB-CA-C	-5.71	98.99	110.40
1	D	325	GLY	N-CA-C	-5.63	99.03	113.10
1	E	225	GLY	N-CA-C	5.61	127.12	113.10
1	C	150	VAL	CB-CA-C	-5.55	100.85	111.40
1	F	349	ASP	CB-CA-C	5.40	121.20	110.40
1	C	380	LEU	N-CA-C	-5.38	96.47	111.00
1	F	380	LEU	C-N-CD	-5.35	108.83	120.60
1	E	375	ASP	CB-CA-C	-5.31	99.77	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	294	GLN	C-N-CD	-5.28	108.98	120.60
1	B	167	SER	N-CA-C	-5.24	96.85	111.00
1	A	57	ASP	CB-CA-C	5.22	120.84	110.40
1	A	59	GLY	N-CA-C	-5.19	100.14	113.10
1	E	513	LEU	CB-CA-C	-5.16	100.40	110.20
1	F	424	MET	CB-CA-C	-5.15	100.10	110.40
1	D	167	SER	N-CA-C	-5.14	97.11	111.00
1	E	278	THR	C-N-CA	-5.06	109.05	121.70
1	A	456	ARG	N-CA-C	-5.02	97.46	111.00

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts

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	3950	0	3880	836	0
1	B	3950	0	3880	780	0
1	C	3950	0	3880	784	0
1	D	3950	0	3881	807	0
1	E	3950	0	3881	772	0
1	F	3950	0	3881	786	0
All	All	23700	0	23283	4332	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 92.

All (4332) 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:F:497:ILE:HD13	1:F:505:HIS:CD2	1.40	1.54
1:C:379:PHE:CE2	1:D:205:ILE:HD11	1.38	1.54
1:A:318:PHE:CZ	1:A:351:THR:HB	1.42	1.53
1:F:311:PHE:CE1	1:F:325:GLY:HA3	1.45	1.49
1:F:215:THR:CG2	1:F:217:GLU:HG2	1.43	1.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:445:MET:SD	1:D:450:ALA:HB2	1.54	1.47
1:C:193:PHE:CZ	1:C:362:THR:HG21	1.50	1.46
1:A:181:ALA:HB2	1:A:204:PHE:CZ	1.51	1.43
1:A:348:LEU:HD13	1:A:379:PHE:CE2	1.55	1.42
1:C:520:LEU:HD23	1:C:521:PRO:N	1.30	1.42
1:E:284:LEU:HD13	1:E:304:HIS:CD2	1.54	1.42
1:C:398:ILE:HD12	1:C:399:PHE:N	1.25	1.40
1:A:211:ILE:HD12	1:A:212:LYS:N	1.32	1.40
1:D:208:PRO:HG2	1:D:221:PHE:CE1	1.55	1.39
1:D:289:PRO:HD2	1:D:414:ARG:NH2	1.40	1.36
1:A:428:HIS:NE2	1:F:154:GLY:HA2	1.39	1.36
1:F:348:LEU:HD23	1:F:379:PHE:CE2	1.61	1.35
1:A:348:LEU:HB3	1:A:379:PHE:CD2	1.63	1.34
1:C:32:GLY:CA	1:C:107:THR:HG21	1.56	1.33
1:D:40:GLN:NE2	1:D:45:LYS:HE2	1.44	1.33
1:B:45:LYS:HD2	1:B:200:THR:CG2	1.57	1.33
1:C:198:ASP:HB2	1:C:240:MET:SD	1.68	1.33
1:E:477:TYR:CE2	1:E:481:LEU:HD12	1.66	1.31
1:C:379:PHE:CZ	1:D:205:ILE:HD11	1.66	1.31
1:E:175:LEU:CD1	1:E:177:VAL:HG13	1.60	1.30
1:A:428:HIS:CE1	1:F:154:GLY:HA2	1.66	1.29
1:C:217:GLU:HG3	1:D:383:VAL:CG2	1.62	1.29
1:B:161:ARG:HG3	1:E:429:LEU:O	1.33	1.28
1:B:250:TYR:CE1	1:B:312:PHE:CZ	2.22	1.28
1:A:35:ARG:HD2	1:A:39:LYS:CE	1.62	1.28
1:B:322:ILE:HG23	1:B:338:ALA:O	1.31	1.28
1:F:332:ARG:NH2	1:F:514:ARG:HG2	1.44	1.27
1:E:375:ASP:CB	1:E:414:ARG:HB2	1.65	1.26
1:D:203:MET:HB2	1:D:230:HIS:NE2	1.49	1.26
1:F:70:HIS:NE2	1:F:77:LEU:HG	1.49	1.26
1:C:302:ILE:CG2	1:C:336:ILE:HD11	1.65	1.26
1:D:445:MET:SD	1:D:450:ALA:CB	2.24	1.26
1:E:497:ILE:HG21	1:E:505:HIS:CE1	1.69	1.25
1:B:519:SER:C	1:B:520:LEU:HD12	1.55	1.25
1:A:146:ILE:CG2	1:F:454:LEU:HD21	1.66	1.25
1:C:250:TYR:CE1	1:C:312:PHE:CZ	2.24	1.24
1:B:428:HIS:HE1	1:B:492:TYR:CD1	1.55	1.23
1:C:181:ALA:HB2	1:C:204:PHE:CE1	1.72	1.23
1:B:45:LYS:CD	1:B:200:THR:HG23	1.69	1.22
1:F:497:ILE:CD1	1:F:505:HIS:HD2	1.52	1.22
1:E:161:ARG:CG	1:E:165:HIS:HE1	1.53	1.22

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:284:LEU:HD12	1:D:287:ILE:CD1	1.70	1.22
1:C:302:ILE:HG23	1:C:336:ILE:CD1	1.70	1.22
1:F:250:TYR:CD1	1:F:312:PHE:CZ	2.27	1.22
1:B:268:ALA:HB1	1:B:331:GLY:O	1.38	1.22
1:A:490:ARG:HD3	1:A:492:TYR:CE2	1.76	1.21
1:E:474:ILE:O	1:E:478:GLU:HG2	1.39	1.21
1:C:250:TYR:CD1	1:C:312:PHE:HZ	1.59	1.21
1:A:281:ASP:O	1:A:284:LEU:HD13	1.38	1.21
1:F:250:TYR:CE1	1:F:312:PHE:CZ	2.28	1.21
1:D:21:LEU:HD12	1:D:22:ARG:N	1.57	1.20
1:D:417:PHE:CZ	1:D:441:GLN:HB3	1.77	1.20
1:B:69:ARG:HD3	1:B:83:TYR:CD2	1.75	1.20
1:C:104:GLN:HG2	1:C:117:TYR:OH	1.41	1.20
1:D:284:LEU:HA	1:D:287:ILE:CD1	1.69	1.20
1:B:490:ARG:HB3	1:B:492:TYR:CE2	1.76	1.20
1:A:432:ASP:CG	1:A:516:LYS:HE2	1.62	1.20
1:B:498:MET:SD	1:D:21:LEU:HD21	1.80	1.20
1:F:91:TYR:HE1	1:F:127:PHE:CZ	1.57	1.20
1:E:130:LYS:HG3	1:E:131:THR:CG2	1.69	1.20
1:A:181:ALA:HB1	1:A:204:PHE:CE1	1.76	1.20
1:F:106:PHE:HB2	1:F:140:ASP:OD2	1.35	1.19
1:A:257:TYR:CE1	1:A:326:PHE:HB3	1.76	1.19
1:F:497:ILE:CD1	1:F:505:HIS:CD2	2.24	1.19
1:E:113:LEU:C	1:E:113:LEU:HD13	1.55	1.19
1:B:490:ARG:CB	1:B:492:TYR:CD2	2.25	1.19
1:A:181:ALA:CB	1:A:204:PHE:CZ	2.26	1.18
1:E:175:LEU:HD13	1:E:177:VAL:HG13	1.24	1.18
1:C:444:VAL:HG21	1:D:149:GLY:HA2	1.22	1.18
1:E:87:VAL:HG12	1:E:117:TYR:CD2	1.78	1.18
1:E:412:ILE:HG21	1:E:440:ALA:CB	1.72	1.18
1:D:146:ILE:H	1:D:146:ILE:CD1	1.53	1.18
1:A:311:PHE:CZ	1:A:325:GLY:HA3	1.80	1.17
1:D:113:LEU:HD13	1:D:114:GLY:H	1.08	1.17
1:F:528:ILE:HD13	1:F:529:PRO:N	1.57	1.17
1:F:348:LEU:CD2	1:F:379:PHE:HE2	1.56	1.17
1:B:348:LEU:HD12	1:B:379:PHE:CZ	1.80	1.17
1:B:250:TYR:CD1	1:B:312:PHE:CZ	2.32	1.16
1:B:457:ARG:HH21	1:B:460:ALA:CB	1.57	1.16
1:C:250:TYR:CD1	1:C:312:PHE:CZ	2.34	1.16
1:E:451:VAL:HG23	1:E:452:ASN:HD22	1.05	1.16
1:C:56:LEU:CD2	1:C:92:GLY:HA3	1.74	1.16

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:61:PHE:HE1	1:A:90:GLY:HA3	0.99	1.15
1:C:379:PHE:CE2	1:D:205:ILE:CD1	2.28	1.15
1:C:398:ILE:HD12	1:C:398:ILE:C	1.61	1.15
1:D:417:PHE:CZ	1:D:441:GLN:CB	2.28	1.15
1:B:217:GLU:OE1	1:E:383:VAL:HG23	1.44	1.15
1:B:277:VAL:HG22	1:B:504:ARG:HD2	1.23	1.15
1:E:451:VAL:HG23	1:E:452:ASN:ND2	1.62	1.15
1:F:327:GLY:O	1:F:334:VAL:HG22	1.44	1.15
1:E:130:LYS:CG	1:E:131:THR:HG23	1.75	1.15
1:A:181:ALA:CB	1:A:204:PHE:CE1	2.29	1.14
1:A:348:LEU:CB	1:A:379:PHE:CD2	2.31	1.14
1:D:146:ILE:N	1:D:146:ILE:HD12	1.56	1.14
1:A:69:ARG:CZ	1:A:83:TYR:CZ	2.30	1.14
1:D:520:LEU:HG	1:D:521:PRO:CD	1.76	1.14
1:C:459:ILE:HD11	1:C:473:LEU:HD12	1.29	1.14
1:A:348:LEU:HD22	1:A:379:PHE:CD2	1.81	1.14
1:F:102:PHE:CZ	1:F:137:GLY:CA	2.30	1.13
1:E:350:ILE:CG2	1:E:393:ARG:CZ	2.25	1.13
1:B:477:TYR:CE2	1:B:481:LEU:HD23	1.83	1.13
1:A:490:ARG:HD3	1:A:492:TYR:CZ	1.82	1.13
1:C:173:ILE:HD12	1:C:254:LEU:HD23	1.13	1.13
1:C:438:PRO:HG3	1:E:21:LEU:HD22	1.28	1.13
1:E:376:VAL:HG21	1:E:420:ALA:HB1	1.21	1.13
1:A:497:ILE:HG21	1:A:505:HIS:NE2	1.64	1.12
1:E:396:LYS:HE2	1:E:529:PRO:O	1.49	1.12
1:D:445:MET:SD	1:D:450:ALA:CA	2.36	1.12
1:C:32:GLY:CA	1:C:107:THR:CG2	2.27	1.12
1:B:51:ARG:CZ	1:B:177:VAL:HG21	1.77	1.12
1:C:217:GLU:HG3	1:D:383:VAL:HG21	1.24	1.12
1:E:375:ASP:HB2	1:E:414:ARG:HB2	1.17	1.12
1:E:161:ARG:HG2	1:E:165:HIS:HE1	1.07	1.12
1:F:215:THR:HG22	1:F:217:GLU:HG2	1.26	1.12
1:A:236:VAL:CG1	1:F:392:ARG:HG2	1.79	1.12
1:A:318:PHE:CZ	1:A:351:THR:CB	2.31	1.12
1:B:70:HIS:HD2	1:B:72:SER:HB2	1.13	1.12
1:B:243:ASP:OD2	1:B:245:LYS:HE3	1.49	1.12
1:A:236:VAL:HG12	1:F:392:ARG:CD	1.80	1.11
1:E:161:ARG:HG2	1:E:165:HIS:CE1	1.84	1.11
1:D:520:LEU:HG	1:D:521:PRO:HD2	1.20	1.11
1:B:490:ARG:HB2	1:B:492:TYR:HD2	1.06	1.11
1:A:106:PHE:HB2	1:A:140:ASP:OD2	1.48	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:347:CYS:HB2	1:A:378:GLY:O	1.47	1.11
1:C:365:ALA:HB2	1:D:525:HIS:CE1	1.85	1.11
1:E:265:GLU:CG	1:E:266:PRO:HD2	1.80	1.10
1:D:289:PRO:CD	1:D:414:ARG:HH22	1.63	1.10
1:C:520:LEU:HD23	1:C:521:PRO:CD	1.80	1.10
1:A:284:LEU:HD11	1:A:304:HIS:CD2	1.87	1.10
1:E:478:GLU:HA	1:E:482:LEU:CD1	1.81	1.10
1:D:69:ARG:HD2	1:D:81:ARG:O	1.50	1.10
1:C:234:SER:OG	1:C:236:VAL:HG23	1.50	1.10
1:A:236:VAL:CG1	1:F:392:ARG:HD3	1.82	1.09
1:B:428:HIS:CE1	1:B:492:TYR:CD1	2.39	1.09
1:B:350:ILE:HD12	1:B:393:ARG:NH1	1.66	1.09
1:F:24:ARG:HG2	1:F:83:TYR:OH	1.48	1.09
1:F:349:ASP:CG	1:F:351:THR:HG23	1.71	1.09
1:A:236:VAL:HG12	1:F:392:ARG:HD3	1.30	1.09
1:E:477:TYR:CZ	1:E:481:LEU:HD12	1.85	1.09
1:C:427:LYS:HD2	1:C:434:ASN:OD1	1.50	1.09
1:E:175:LEU:HD11	1:E:177:VAL:CG1	1.82	1.09
1:A:428:HIS:CE1	1:F:154:GLY:CA	2.36	1.09
1:B:490:ARG:HB2	1:B:492:TYR:CD2	1.85	1.09
1:C:456:ARG:HH11	1:C:456:ARG:HG2	1.00	1.09
1:F:311:PHE:CZ	1:F:325:GLY:HA3	1.86	1.09
1:A:146:ILE:HG21	1:F:454:LEU:HD21	1.31	1.09
1:B:490:ARG:CB	1:B:492:TYR:CE2	2.36	1.08
1:F:48:ALA:HB1	1:F:103:SER:HB3	1.27	1.08
1:F:215:THR:HG21	1:F:217:GLU:CG	1.83	1.08
1:F:209:ASP:HA	1:F:212:LYS:HE3	1.34	1.08
1:F:215:THR:HG21	1:F:217:GLU:HG2	1.16	1.08
1:A:348:LEU:CD2	1:A:379:PHE:HD2	1.66	1.08
1:F:104:GLN:OE1	1:F:139:ASN:HA	1.52	1.08
1:D:102:PHE:CE1	1:D:137:GLY:HA3	1.87	1.08
1:E:193:PHE:HA	1:E:238:HIS:CE1	1.89	1.08
1:A:69:ARG:NH2	1:A:83:TYR:CE1	2.22	1.08
1:B:354:GLU:OE2	1:B:393:ARG:HD3	1.52	1.08
1:F:22:ARG:HH11	1:F:22:ARG:HG2	1.01	1.08
1:F:234:SER:OG	1:F:236:VAL:HG12	1.52	1.08
1:A:350:ILE:HG13	1:A:390:ILE:HD13	1.31	1.08
1:A:490:ARG:CD	1:A:492:TYR:CE2	2.36	1.08
1:C:323:LEU:HD21	1:C:340:GLN:HB2	1.36	1.08
1:F:348:LEU:HD12	1:F:352:ALA:HB3	1.30	1.07
1:D:284:LEU:HD12	1:D:287:ILE:HD12	1.10	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:111:GLY:O	1:D:141:SER:HB2	1.52	1.07
1:B:56:LEU:CD1	1:B:92:GLY:HA3	1.84	1.07
1:D:219:VAL:HG11	1:D:224:LEU:HB2	1.36	1.07
1:C:456:ARG:HH11	1:C:456:ARG:CG	1.67	1.07
1:B:90:GLY:O	1:B:101:VAL:HG12	1.52	1.07
1:C:398:ILE:CD1	1:C:399:PHE:N	2.16	1.07
1:D:364:ASP:OD2	1:D:404:ALA:HA	1.52	1.07
1:D:406:VAL:O	1:D:408:LEU:HD13	1.55	1.07
1:F:72:SER:HB3	1:F:77:LEU:HD23	1.15	1.07
1:F:102:PHE:CZ	1:F:137:GLY:HA3	1.87	1.07
1:D:490:ARG:HD3	1:D:492:TYR:CZ	1.89	1.07
1:F:298:MET:HG2	1:F:339:ASN:O	1.53	1.07
1:D:11:ILE:HD13	1:D:20:ASP:OD2	1.55	1.07
1:A:231:ASN:HB3	1:A:317:LEU:HD12	1.35	1.07
1:D:208:PRO:CG	1:D:221:PHE:CE1	2.37	1.07
1:E:104:GLN:HG2	1:E:117:TYR:OH	1.54	1.07
1:B:350:ILE:HD12	1:B:393:ARG:HH11	0.94	1.07
1:B:56:LEU:HD13	1:B:92:GLY:CA	1.85	1.07
1:E:203:MET:HB2	1:E:230:HIS:NE2	1.70	1.07
1:C:336:ILE:CG2	1:C:371:LEU:HB2	1.83	1.06
1:A:445:MET:SD	1:F:146:ILE:CD1	2.43	1.06
1:E:412:ILE:HG21	1:E:440:ALA:HB1	1.31	1.06
1:B:489:GLU:HA	1:D:68:ALA:HA	1.37	1.06
1:C:21:LEU:HD22	1:F:438:PRO:HG3	1.30	1.06
1:D:456:ARG:CG	1:D:456:ARG:HH11	1.65	1.06
1:C:103:SER:OG	1:C:138:ILE:HD12	1.52	1.06
1:E:475:GLN:HA	1:E:478:GLU:OE1	1.53	1.06
1:E:478:GLU:CA	1:E:482:LEU:HD13	1.83	1.06
1:B:298:MET:HG2	1:B:339:ASN:O	1.52	1.06
1:C:444:VAL:CG2	1:D:149:GLY:HA2	1.85	1.06
1:D:490:ARG:HD3	1:D:492:TYR:CE2	1.90	1.06
1:B:147:GLN:N	1:B:147:GLN:HE21	1.53	1.06
1:B:87:VAL:HG13	1:B:120:LYS:HD3	1.31	1.06
1:C:302:ILE:HG23	1:C:336:ILE:HD11	1.15	1.06
1:C:193:PHE:HZ	1:C:362:THR:CG2	1.67	1.06
1:C:336:ILE:HG22	1:C:371:LEU:CB	1.84	1.06
1:B:489:GLU:O	1:D:68:ALA:HB1	1.54	1.06
1:B:70:HIS:CD2	1:B:72:SER:HB2	1.91	1.06
1:B:181:ALA:HB2	1:B:204:PHE:CZ	1.90	1.06
1:C:198:ASP:CB	1:C:240:MET:SD	2.44	1.05
1:A:490:ARG:CD	1:A:492:TYR:HE2	1.66	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:348:LEU:CD1	1:B:379:PHE:CE2	2.38	1.05
1:B:147:GLN:NE2	1:B:147:GLN:H	1.53	1.05
1:E:412:ILE:CG2	1:E:440:ALA:CB	2.33	1.05
1:B:429:LEU:O	1:E:161:ARG:HD3	1.56	1.05
1:A:61:PHE:CE1	1:A:90:GLY:HA3	1.91	1.05
1:A:455:HIS:HD2	1:A:473:LEU:HD13	1.20	1.05
1:A:414:ARG:HA	1:A:440:ALA:HA	1.37	1.05
1:D:412:ILE:HG21	1:D:440:ALA:HB1	1.32	1.05
1:E:375:ASP:HB2	1:E:414:ARG:CB	1.85	1.05
1:C:459:ILE:HD11	1:C:473:LEU:CD1	1.86	1.05
1:A:455:HIS:CD2	1:A:473:LEU:HD13	1.91	1.05
1:A:398:ILE:CG2	1:A:423:VAL:HG22	1.85	1.05
1:B:326:PHE:HA	1:B:335:GLY:HA2	1.33	1.05
1:B:457:ARG:HH21	1:B:460:ALA:HB3	1.17	1.05
1:E:284:LEU:CD1	1:E:304:HIS:HD2	1.69	1.04
1:A:332:ARG:HG3	1:A:514:ARG:HH12	1.22	1.04
1:A:104:GLN:HG3	1:A:140:ASP:N	1.71	1.04
1:F:311:PHE:CE1	1:F:325:GLY:CA	2.40	1.04
1:D:208:PRO:CG	1:D:221:PHE:HE1	1.70	1.04
1:D:417:PHE:HZ	1:D:441:GLN:HB3	1.09	1.04
1:B:428:HIS:CE1	1:B:492:TYR:HD1	1.72	1.04
1:A:236:VAL:HG12	1:F:392:ARG:CG	1.85	1.04
1:A:432:ASP:OD1	1:A:516:LYS:HE2	1.58	1.04
1:A:87:VAL:HG13	1:A:120:LYS:HD3	1.36	1.04
1:D:455:HIS:HB3	1:D:458:THR:HB	1.40	1.04
1:F:45:LYS:HD2	1:F:200:THR:CG2	1.86	1.04
1:B:478:GLU:HA	1:B:482:LEU:CD1	1.87	1.04
1:E:296:TYR:CE1	1:E:414:ARG:HD3	1.93	1.04
1:F:64:LEU:HD21	1:F:91:TYR:HE2	1.20	1.04
1:A:63:GLU:HG2	1:A:66:GLU:HB2	1.40	1.04
1:E:204:PHE:HE1	1:E:224:LEU:HG	1.18	1.04
1:A:164:THR:HG21	1:F:402:ALA:HB3	1.40	1.03
1:E:102:PHE:CE1	1:E:137:GLY:CA	2.41	1.03
1:E:175:LEU:CD1	1:E:177:VAL:CG1	2.33	1.03
1:C:173:ILE:CD1	1:C:254:LEU:HD23	1.88	1.03
1:B:490:ARG:NH1	1:D:71:ARG:HD3	1.73	1.03
1:D:208:PRO:HG2	1:D:221:PHE:CD1	1.94	1.03
1:A:35:ARG:HD2	1:A:39:LYS:HE2	1.05	1.03
1:B:440:ALA:O	1:B:484:PRO:HD3	1.58	1.03
1:C:428:HIS:CE1	1:D:154:GLY:HA2	1.93	1.03
1:A:262:ASN:O	1:A:263:LEU:HD22	1.57	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:490:ARG:HB3	1:B:492:TYR:CD2	1.92	1.03
1:A:306:LEU:HD13	1:A:310:GLU:O	1.58	1.03
1:E:350:ILE:HG22	1:E:393:ARG:CZ	1.86	1.03
1:E:478:GLU:HA	1:E:482:LEU:HD13	1.05	1.02
1:E:204:PHE:CE1	1:E:224:LEU:HG	1.93	1.02
1:B:250:TYR:CE1	1:B:312:PHE:CE2	2.45	1.02
1:E:427:LYS:HE3	1:E:494:ASP:OD2	1.58	1.02
1:C:434:ASN:O	1:C:435:LEU:HD13	1.59	1.02
1:F:181:ALA:CB	1:F:204:PHE:CE1	2.42	1.02
1:D:508:ARG:O	1:D:508:ARG:HD3	1.58	1.02
1:B:399:PHE:CD1	1:E:164:THR:HG23	1.93	1.02
1:F:215:THR:CG2	1:F:217:GLU:CG	2.37	1.02
1:D:195:VAL:HG13	1:D:239:HIS:HB3	1.42	1.02
1:F:311:PHE:HE1	1:F:325:GLY:CA	1.72	1.02
1:C:181:ALA:CB	1:C:204:PHE:CE1	2.42	1.02
1:C:398:ILE:HD12	1:C:399:PHE:CA	1.90	1.02
1:B:113:LEU:CD1	1:B:117:TYR:CE1	2.43	1.02
1:E:161:ARG:CG	1:E:165:HIS:CE1	2.41	1.02
1:C:478:GLU:HA	1:C:482:LEU:CD1	1.90	1.02
1:A:348:LEU:CD1	1:A:379:PHE:HE2	1.71	1.01
1:C:217:GLU:CG	1:D:383:VAL:CG2	2.38	1.01
1:B:250:TYR:CZ	1:B:312:PHE:CE2	2.48	1.01
1:F:91:TYR:CE1	1:F:127:PHE:CZ	2.47	1.01
1:C:421:TYR:CD1	1:C:442:ILE:HG23	1.96	1.01
1:D:10:ASP:CG	1:D:11:ILE:H	1.58	1.01
1:B:115:GLU:O	1:B:119:GLN:HG3	1.57	1.01
1:B:47:THR:CG2	1:B:50:GLU:HG3	1.90	1.01
1:B:478:GLU:CA	1:B:482:LEU:HD13	1.89	1.01
1:A:348:LEU:CD1	1:A:379:PHE:CE2	2.43	1.01
1:D:284:LEU:HA	1:D:287:ILE:HD12	1.02	1.01
1:D:480:ALA:CB	1:D:481:LEU:HD12	1.90	1.01
1:D:234:SER:OG	1:D:236:VAL:HG23	1.59	1.01
1:B:113:LEU:HD12	1:B:117:TYR:CE1	1.95	1.01
1:B:250:TYR:CD1	1:B:312:PHE:HZ	1.77	1.01
1:A:513:LEU:HG	1:A:516:LYS:HD2	1.38	1.01
1:E:102:PHE:CE1	1:E:137:GLY:HA3	1.96	1.01
1:F:324:THR:HG23	1:F:355:LYS:HE2	1.42	1.01
1:C:56:LEU:HD21	1:C:92:GLY:CA	1.88	1.01
1:A:236:VAL:HG12	1:F:392:ARG:HG2	1.41	1.00
1:C:32:GLY:HA3	1:C:107:THR:CG2	1.90	1.00
1:A:35:ARG:O	1:A:38:GLU:HG3	1.59	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:348:LEU:HD12	1:B:379:PHE:CE2	1.96	1.00
1:B:477:TYR:CE2	1:B:481:LEU:CD2	2.43	1.00
1:D:445:MET:SD	1:D:450:ALA:N	2.34	1.00
1:C:32:GLY:HA3	1:C:107:THR:HG21	1.02	1.00
1:E:513:LEU:HD12	1:E:516:LYS:HE2	1.42	1.00
1:F:56:LEU:HD21	1:F:92:GLY:HA3	1.42	1.00
1:C:478:GLU:CA	1:C:482:LEU:HD13	1.92	1.00
1:B:490:ARG:HH12	1:D:71:ARG:HD3	1.26	1.00
1:D:182:GLY:O	1:D:185:VAL:HG22	1.59	1.00
1:B:454:LEU:HD13	1:E:75:PHE:CZ	1.95	1.00
1:C:217:GLU:HG3	1:D:383:VAL:HG23	1.43	1.00
1:C:250:TYR:CE1	1:C:312:PHE:CE2	2.49	1.00
1:E:130:LYS:HG3	1:E:131:THR:HG23	1.00	1.00
1:C:520:LEU:CD2	1:C:521:PRO:N	2.24	1.00
1:D:284:LEU:CD1	1:D:287:ILE:HD12	1.90	1.00
1:D:417:PHE:HZ	1:D:441:GLN:CB	1.70	1.00
1:C:39:LYS:HD3	1:C:39:LYS:O	1.61	1.00
1:F:510:LEU:O	1:F:514:ARG:HG3	1.62	1.00
1:F:102:PHE:CZ	1:F:137:GLY:HA2	1.95	1.00
1:E:22:ARG:O	1:E:25:ILE:HG22	1.59	1.00
1:A:483:ASN:HB2	1:A:484:PRO:HD2	1.42	0.99
1:B:173:ILE:HD13	1:B:254:LEU:HD23	1.43	0.99
1:C:185:VAL:O	1:C:188:PRO:HD2	1.62	0.99
1:C:498:MET:SD	1:E:18:LEU:HD21	2.03	0.99
1:E:262:ASN:OD1	1:E:263:LEU:HD22	1.60	0.99
1:D:296:TYR:CE1	1:D:414:ARG:NH2	2.28	0.99
1:E:113:LEU:CD1	1:E:113:LEU:C	2.30	0.99
1:C:482:LEU:O	1:C:483:ASN:OD1	1.79	0.99
1:F:358:ARG:HG3	1:F:358:ARG:HH11	1.27	0.99
1:F:11:ILE:HD12	1:F:11:ILE:O	1.61	0.99
1:F:250:TYR:CD1	1:F:312:PHE:HZ	1.74	0.99
1:A:445:MET:SD	1:F:146:ILE:HD13	2.02	0.99
1:F:230:HIS:ND1	1:F:236:VAL:HG11	1.76	0.99
1:D:412:ILE:HG21	1:D:440:ALA:CB	1.93	0.99
1:A:193:PHE:HA	1:A:238:HIS:CE1	1.98	0.99
1:E:108:VAL:HG12	1:E:108:VAL:O	1.60	0.99
1:F:498:MET:HG3	1:F:499:PRO:HD2	1.44	0.99
1:A:211:ILE:CD1	1:A:212:LYS:N	2.26	0.99
1:D:16:GLY:O	1:D:19:ALA:HB3	1.63	0.99
1:C:130:LYS:CG	1:F:516:LYS:HG3	1.91	0.99
1:A:318:PHE:CE2	1:A:351:THR:HB	1.98	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:104:GLN:HG3	1:F:117:TYR:OH	1.61	0.98
1:C:164:THR:HG23	1:D:399:PHE:CD1	1.97	0.98
1:B:278:THR:O	1:B:281:ASP:HB2	1.62	0.98
1:C:457:ARG:HA	1:C:457:ARG:HH11	1.27	0.98
1:A:490:ARG:HD3	1:A:492:TYR:OH	1.62	0.98
1:B:63:GLU:CG	1:B:66:GLU:HG3	1.93	0.98
1:C:56:LEU:HD22	1:C:92:GLY:HA3	1.39	0.98
1:B:236:VAL:CG1	1:E:392:ARG:HB3	1.93	0.98
1:D:417:PHE:CD1	1:D:443:ALA:HB3	1.98	0.98
1:E:412:ILE:CG2	1:E:440:ALA:HB2	1.92	0.98
1:B:428:HIS:HE1	1:B:492:TYR:CE1	1.81	0.98
1:C:193:PHE:CZ	1:C:362:THR:CG2	2.44	0.98
1:A:348:LEU:CG	1:A:379:PHE:HD2	1.76	0.98
1:F:172:GLN:CB	1:F:191:THR:HG23	1.94	0.98
1:C:527:ASN:OD1	1:C:528:ILE:O	1.79	0.98
1:A:428:HIS:NE2	1:F:154:GLY:CA	2.27	0.98
1:E:375:ASP:CB	1:E:414:ARG:CB	2.40	0.98
1:A:104:GLN:HG3	1:A:140:ASP:H	0.85	0.98
1:F:259:PRO:HD3	1:F:266:PRO:HB3	1.45	0.98
1:D:289:PRO:HD2	1:D:414:ARG:HH22	0.86	0.97
1:A:302:ILE:O	1:A:305:VAL:HG22	1.64	0.97
1:F:182:GLY:O	1:F:185:VAL:HG13	1.63	0.97
1:B:519:SER:O	1:B:520:LEU:HD12	1.64	0.97
1:D:193:PHE:HA	1:D:238:HIS:CE1	1.99	0.97
1:A:211:ILE:HD13	1:A:217:GLU:O	1.62	0.97
1:E:376:VAL:HG21	1:E:420:ALA:CB	1.94	0.97
1:D:284:LEU:CD1	1:D:287:ILE:CD1	2.41	0.97
1:E:265:GLU:HG2	1:E:266:PRO:HD2	1.46	0.97
1:D:113:LEU:HD13	1:D:114:GLY:N	1.79	0.97
1:C:56:LEU:CD2	1:C:92:GLY:CA	2.42	0.97
1:D:158:GLU:HG3	1:D:162:ARG:NH1	1.80	0.97
1:F:451:VAL:HG21	1:F:474:ILE:HG13	1.45	0.97
1:B:386:GLU:OE1	1:E:224:LEU:HD11	1.63	0.97
1:C:389:GLY:O	1:C:392:ARG:HG2	1.64	0.97
1:A:132:GLY:O	1:A:261:ASN:HB3	1.64	0.96
1:A:442:ILE:HD12	1:A:442:ILE:N	1.77	0.96
1:F:19:ALA:HA	1:F:22:ARG:HD2	1.45	0.96
1:C:217:GLU:CG	1:D:383:VAL:HG23	1.93	0.96
1:C:428:HIS:CE1	1:D:154:GLY:CA	2.48	0.96
1:F:72:SER:CB	1:F:77:LEU:HD23	1.94	0.96
1:F:22:ARG:CG	1:F:22:ARG:HH11	1.78	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:203:MET:HB2	1:C:230:HIS:NE2	1.79	0.96
1:E:489:GLU:HA	1:F:68:ALA:HA	1.45	0.96
1:D:480:ALA:HB3	1:D:481:LEU:CD1	1.95	0.96
1:F:113:LEU:HD22	1:F:117:TYR:CE1	2.01	0.96
1:B:457:ARG:HE	1:B:457:ARG:HA	1.28	0.96
1:A:35:ARG:CD	1:A:39:LYS:HE2	1.96	0.96
1:A:447:ALA:O	1:A:451:VAL:HG22	1.65	0.96
1:E:113:LEU:O	1:E:113:LEU:HD13	1.65	0.96
1:A:89:THR:HB	1:A:124:VAL:HG21	1.47	0.96
1:F:45:LYS:CD	1:F:200:THR:CG2	2.43	0.96
1:E:434:ASN:C	1:E:435:LEU:HD12	1.86	0.96
1:B:208:PRO:O	1:B:211:ILE:HG12	1.65	0.96
1:F:172:GLN:HB2	1:F:191:THR:HG23	1.47	0.96
1:E:438:PRO:HG2	1:F:18:LEU:HD22	1.48	0.96
1:D:445:MET:CG	1:D:450:ALA:HB2	1.96	0.95
1:C:492:TYR:OH	1:D:151:ALA:HA	1.65	0.95
1:F:451:VAL:HG11	1:F:474:ILE:HA	1.44	0.95
1:A:18:LEU:CD2	1:D:438:PRO:HG2	1.96	0.95
1:A:497:ILE:HG21	1:A:505:HIS:CE1	1.99	0.95
1:B:498:MET:HG3	1:B:499:PRO:HD2	1.49	0.95
1:B:298:MET:HB3	1:B:323:LEU:HD11	1.49	0.95
1:C:399:PHE:CD2	1:C:528:ILE:HG13	2.00	0.95
1:A:146:ILE:HG21	1:F:454:LEU:CD2	1.96	0.95
1:D:417:PHE:CZ	1:D:441:GLN:HB2	2.00	0.95
1:C:490:ARG:HA	1:E:71:ARG:HH12	1.32	0.95
1:B:326:PHE:N	1:B:326:PHE:CD2	2.31	0.95
1:A:57:ASP:O	1:A:60:SER:HB3	1.67	0.95
1:A:441:GLN:C	1:A:442:ILE:HD12	1.86	0.95
1:D:485:TYR:O	1:D:489:GLU:HG3	1.67	0.95
1:E:350:ILE:HG21	1:E:393:ARG:NH1	1.80	0.95
1:C:456:ARG:NH1	1:C:456:ARG:HG2	1.79	0.95
1:D:427:LYS:HD2	1:D:431:ALA:O	1.67	0.95
1:C:477:TYR:CE1	1:C:481:LEU:HD23	2.02	0.95
1:D:63:GLU:HG2	1:D:66:GLU:HB2	1.46	0.95
1:E:204:PHE:HE1	1:E:224:LEU:CG	1.78	0.95
1:B:455:HIS:CG	1:B:473:LEU:HD13	2.02	0.95
1:D:262:ASN:OD1	1:D:263:LEU:HD23	1.67	0.95
1:C:336:ILE:HA	1:C:371:LEU:O	1.67	0.94
1:A:63:GLU:HG2	1:A:66:GLU:CB	1.96	0.94
1:E:503:ARG:O	1:E:507:VAL:HG23	1.67	0.94
1:D:40:GLN:CD	1:D:45:LYS:HE2	1.87	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:490:ARG:HB2	1:A:492:TYR:CE2	2.02	0.94
1:D:478:GLU:HA	1:D:482:LEU:HD13	1.47	0.94
1:D:55:LEU:HG	1:D:56:LEU:HD23	1.46	0.94
1:A:445:MET:SD	1:F:146:ILE:HD11	2.07	0.94
1:A:68:ALA:HB1	1:D:489:GLU:O	1.67	0.94
1:A:395:ALA:O	1:A:398:ILE:HG12	1.68	0.94
1:B:498:MET:HG3	1:B:499:PRO:CD	1.97	0.94
1:F:22:ARG:NH1	1:F:22:ARG:HG2	1.66	0.94
1:C:130:LYS:HG2	1:F:516:LYS:HG3	1.47	0.94
1:F:48:ALA:HB1	1:F:103:SER:CB	1.97	0.94
1:B:530:LEU:HD13	1:E:396:LYS:HD3	1.48	0.94
1:C:34:ALA:O	1:C:37:VAL:HG12	1.67	0.94
1:D:284:LEU:CA	1:D:287:ILE:HD12	1.96	0.94
1:C:114:GLY:O	1:C:117:TYR:HB3	1.68	0.94
1:A:212:LYS:HD3	1:A:212:LYS:C	1.87	0.93
1:D:117:TYR:O	1:D:117:TYR:HD1	1.50	0.93
1:A:63:GLU:CG	1:A:66:GLU:HB2	1.98	0.93
1:E:485:TYR:HE1	1:F:67:PHE:CE2	1.86	0.93
1:C:478:GLU:HA	1:C:482:LEU:HD13	0.95	0.93
1:A:45:LYS:HE2	1:A:200:THR:HG22	1.50	0.93
1:E:94:VAL:C	1:E:95:ASP:OD2	2.06	0.93
1:B:300:SER:O	1:B:304:HIS:CD2	2.21	0.93
1:F:325:GLY:O	1:F:359:PHE:HZ	1.49	0.93
1:C:198:ASP:HB2	1:C:240:MET:CG	1.97	0.93
1:A:257:TYR:CD1	1:A:326:PHE:HB3	2.04	0.93
1:B:56:LEU:HD13	1:B:92:GLY:HA3	0.94	0.93
1:F:323:LEU:HD21	1:F:340:GLN:OE1	1.66	0.93
1:A:398:ILE:HG22	1:A:423:VAL:HG22	1.46	0.93
1:B:63:GLU:CD	1:B:66:GLU:HG3	1.87	0.93
1:A:348:LEU:HD13	1:A:379:PHE:HE2	0.86	0.93
1:E:102:PHE:CE1	1:E:137:GLY:HA2	2.04	0.93
1:F:332:ARG:NH2	1:F:514:ARG:CG	2.30	0.93
1:F:211:ILE:O	1:F:215:THR:HB	1.68	0.93
1:B:302:ILE:HD13	1:B:336:ILE:HG21	1.50	0.93
1:E:415:LYS:HB3	1:E:417:PHE:CE2	2.03	0.92
1:C:193:PHE:HA	1:C:238:HIS:CE1	2.03	0.92
1:B:65:ASP:OD2	1:B:123:LYS:HD2	1.68	0.92
1:F:348:LEU:HD12	1:F:352:ALA:CB	1.99	0.92
1:E:265:GLU:HG3	1:E:266:PRO:HD2	1.47	0.92
1:A:332:ARG:HG3	1:A:514:ARG:NH1	1.84	0.92
1:B:171:PRO:HG3	1:B:366:PHE:CE1	2.03	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:318:PHE:HZ	1:A:351:THR:HB	1.27	0.92
1:A:69:ARG:NH2	1:A:83:TYR:CZ	2.38	0.92
1:E:432:ASP:C	1:E:433:LEU:HD12	1.89	0.92
1:D:102:PHE:CE1	1:D:137:GLY:CA	2.53	0.92
1:D:275:LEU:HD12	1:D:275:LEU:H	1.34	0.92
1:C:485:TYR:CE1	1:E:24:ARG:HD3	2.05	0.92
1:D:104:GLN:OE1	1:D:141:SER:HB3	1.68	0.91
1:A:375:ASP:OD2	1:A:414:ARG:HB3	1.70	0.91
1:C:288:VAL:HG11	1:C:439:THR:HG21	1.49	0.91
1:B:402:ALA:HB3	1:E:164:THR:HG21	1.51	0.91
1:A:212:LYS:HD3	1:A:212:LYS:O	1.70	0.91
1:D:40:GLN:HE22	1:D:45:LYS:CE	1.84	0.91
1:B:483:ASN:OD1	1:B:485:TYR:HB2	1.70	0.91
1:D:219:VAL:HG13	1:D:223:GLU:HG2	1.52	0.91
1:F:332:ARG:HH21	1:F:514:ARG:HG2	1.12	0.91
1:F:414:ARG:HD2	1:F:415:LYS:HG3	1.52	0.91
1:C:398:ILE:C	1:C:398:ILE:CD1	2.33	0.91
1:B:447:ALA:O	1:B:451:VAL:HG22	1.71	0.91
1:A:348:LEU:CB	1:A:379:PHE:HD2	1.76	0.91
1:B:45:LYS:HD2	1:B:200:THR:HG23	0.91	0.91
1:F:46:LEU:HD12	1:F:46:LEU:N	1.85	0.91
1:D:208:PRO:HG2	1:D:221:PHE:HE1	1.11	0.91
1:B:212:LYS:HE2	1:B:218:ASP:HA	1.52	0.91
1:D:367:ASN:HA	1:D:406:VAL:HG11	1.49	0.91
1:D:456:ARG:HG2	1:D:456:ARG:HH11	1.33	0.91
1:B:193:PHE:HA	1:B:238:HIS:CE1	2.05	0.91
1:C:498:MET:SD	1:E:18:LEU:CD2	2.59	0.91
1:F:339:ASN:OD1	1:F:424:MET:HE1	1.71	0.91
1:B:102:PHE:CE1	1:B:137:GLY:HA3	2.05	0.91
1:C:365:ALA:HB2	1:D:525:HIS:NE2	1.86	0.91
1:A:67:PHE:CE2	1:D:485:TYR:HE1	1.88	0.91
1:A:10:ASP:OD1	1:A:11:ILE:N	2.03	0.90
1:B:311:PHE:CE1	1:B:325:GLY:HA3	2.06	0.90
1:D:289:PRO:CD	1:D:414:ARG:NH2	2.29	0.90
1:E:427:LYS:HE2	1:E:434:ASN:HB2	1.52	0.90
1:E:170:ILE:HG22	1:E:261:ASN:HB3	1.51	0.90
1:C:444:VAL:HG21	1:D:149:GLY:CA	1.99	0.90
1:B:457:ARG:NH2	1:B:460:ALA:CB	2.33	0.90
1:D:332:ARG:HH21	1:D:514:ARG:HE	1.16	0.90
1:D:480:ALA:CB	1:D:481:LEU:CD1	2.48	0.90
1:D:49:ARG:HH11	1:D:49:ARG:HB2	1.35	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:68:ALA:HA	1:D:489:GLU:HA	1.53	0.90
1:C:414:ARG:HH11	1:C:415:LYS:NZ	1.68	0.90
1:B:300:SER:O	1:B:304:HIS:HD2	1.55	0.90
1:C:485:TYR:CE1	1:E:24:ARG:CD	2.55	0.90
1:F:215:THR:HG22	1:F:217:GLU:H	1.33	0.90
1:B:212:LYS:HG2	1:B:217:GLU:O	1.70	0.90
1:A:211:ILE:HD12	1:A:211:ILE:C	1.92	0.90
1:E:48:ALA:HB1	1:E:103:SER:OG	1.70	0.90
1:D:147:GLN:H	1:D:147:GLN:HE21	1.15	0.90
1:B:348:LEU:CD1	1:B:379:PHE:CZ	2.55	0.90
1:B:350:ILE:CG2	1:B:390:ILE:HD12	2.01	0.90
1:E:87:VAL:HB	1:E:117:TYR:CE2	2.07	0.89
1:D:89:THR:HB	1:D:124:VAL:HG11	1.54	0.89
1:C:300:SER:O	1:C:304:HIS:CD2	2.25	0.89
1:B:140:ASP:HA	1:B:178:GLY:HA3	1.54	0.89
1:A:112:ALA:HA	1:A:143:GLY:O	1.72	0.89
1:A:162:ARG:HG2	1:A:162:ARG:HH11	1.36	0.89
1:F:56:LEU:CD2	1:F:92:GLY:HA3	2.01	0.89
1:C:173:ILE:HD12	1:C:254:LEU:CD2	2.00	0.89
1:A:463:GLY:O	1:A:464:ASP:OD1	1.89	0.89
1:B:51:ARG:CZ	1:B:177:VAL:CG2	2.51	0.89
1:C:444:VAL:CG2	1:D:149:GLY:CA	2.51	0.89
1:D:89:THR:HG22	1:D:102:PHE:HB2	1.53	0.89
1:D:40:GLN:HE22	1:D:45:LYS:HE2	1.08	0.89
1:F:181:ALA:HB1	1:F:204:PHE:CE1	2.05	0.89
1:D:52:ILE:HG22	1:D:56:LEU:HD11	1.54	0.89
1:F:417:PHE:CD1	1:F:443:ALA:HB3	2.06	0.89
1:C:416:ALA:CB	1:C:421:TYR:HD1	1.86	0.89
1:A:348:LEU:CG	1:A:379:PHE:CD2	2.54	0.89
1:F:64:LEU:HD11	1:F:91:TYR:CE2	2.08	0.89
1:A:513:LEU:O	1:A:516:LYS:HG3	1.71	0.89
1:B:285:ASP:HA	1:B:499:PRO:HG2	1.55	0.89
1:D:477:TYR:CE2	1:D:481:LEU:HD22	2.08	0.89
1:E:427:LYS:CE	1:E:494:ASP:OD2	2.22	0.88
1:E:412:ILE:HG22	1:E:440:ALA:HB2	1.54	0.88
1:E:296:TYR:HE1	1:E:414:ARG:HD3	1.34	0.88
1:E:74:ASN:O	1:E:75:PHE:HB2	1.72	0.88
1:A:265:GLU:HB2	1:A:266:PRO:HD2	1.56	0.88
1:E:140:ASP:OD1	1:E:178:GLY:HA3	1.73	0.88
1:B:147:GLN:HG3	1:E:454:LEU:HD21	1.52	0.88
1:B:87:VAL:CG2	1:B:89:THR:HG23	2.03	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:497:ILE:CG2	1:E:505:HIS:CE1	2.56	0.88
1:A:490:ARG:HB2	1:A:492:TYR:CD2	2.08	0.88
1:B:391:ILE:N	1:B:391:ILE:HD12	1.89	0.88
1:B:113:LEU:HD21	1:B:141:SER:OG	1.73	0.88
1:A:61:PHE:HE1	1:A:90:GLY:CA	1.84	0.88
1:C:438:PRO:CG	1:E:21:LEU:HD22	2.03	0.88
1:A:104:GLN:CG	1:A:140:ASP:H	1.80	0.88
1:D:280:GLU:HA	1:D:280:GLU:OE2	1.72	0.88
1:C:103:SER:OG	1:C:138:ILE:CD1	2.22	0.88
1:C:485:TYR:CE1	1:E:24:ARG:NE	2.42	0.88
1:F:348:LEU:HD23	1:F:379:PHE:HE2	0.91	0.88
1:A:236:VAL:CG1	1:F:392:ARG:CG	2.46	0.88
1:A:211:ILE:HD12	1:A:212:LYS:CA	2.04	0.88
1:A:284:LEU:HD11	1:A:304:HIS:HD2	1.32	0.88
1:D:435:LEU:H	1:D:435:LEU:HD22	1.37	0.88
1:F:497:ILE:HD13	1:F:505:HIS:CG	2.07	0.88
1:E:148:GLU:HB2	1:E:152:SER:HB2	1.53	0.88
1:A:429:LEU:O	1:F:161:ARG:HG3	1.74	0.88
1:E:115:GLU:O	1:E:119:GLN:HG3	1.74	0.88
1:E:104:GLN:HG2	1:E:117:TYR:HH	1.36	0.87
1:A:490:ARG:CB	1:A:492:TYR:CE2	2.57	0.87
1:A:284:LEU:HD22	1:A:500:SER:HA	1.54	0.87
1:D:377:PRO:O	1:D:417:PHE:HB2	1.74	0.87
1:E:434:ASN:O	1:E:435:LEU:HD12	1.74	0.87
1:F:209:ASP:CA	1:F:212:LYS:HE3	2.03	0.87
1:D:414:ARG:HG2	1:D:415:LYS:HG3	1.55	0.87
1:B:490:ARG:CG	1:B:492:TYR:HE2	1.87	0.87
1:B:69:ARG:HD3	1:B:83:TYR:CE2	2.09	0.87
1:D:256:SER:O	1:D:267:PRO:CG	2.22	0.87
1:B:488:ALA:HA	1:B:493:VAL:HG22	1.56	0.87
1:B:449:GLY:O	1:B:453:ILE:HD12	1.75	0.87
1:C:416:ALA:HB1	1:C:421:TYR:HD1	1.38	0.87
1:D:498:MET:HG3	1:D:499:PRO:HD2	1.56	0.87
1:E:412:ILE:CD1	1:E:442:ILE:HD11	2.04	0.87
1:A:69:ARG:CZ	1:A:83:TYR:OH	2.22	0.87
1:E:99:VAL:HG13	1:E:134:PRO:O	1.74	0.87
1:B:236:VAL:HG12	1:E:392:ARG:HB3	1.52	0.87
1:B:238:HIS:HA	1:B:315:GLN:HG2	1.56	0.87
1:E:170:ILE:HG22	1:E:261:ASN:CB	2.05	0.87
1:F:484:PRO:HG3	1:F:496:VAL:HG11	1.56	0.86
1:A:236:VAL:CG1	1:F:392:ARG:CD	2.48	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:348:LEU:CD2	1:A:379:PHE:CD2	2.50	0.86
1:C:365:ALA:CB	1:D:525:HIS:CE1	2.58	0.86
1:D:375:ASP:CG	1:D:414:ARG:HB3	1.95	0.86
1:B:348:LEU:HB2	1:B:379:PHE:CD2	2.09	0.86
1:A:87:VAL:CG1	1:A:120:LYS:HD3	2.03	0.86
1:C:32:GLY:HA2	1:C:107:THR:CG2	2.05	0.86
1:A:306:LEU:CD1	1:A:310:GLU:O	2.23	0.86
1:A:405:THR:CG2	1:A:518:GLU:HB2	2.04	0.86
1:F:140:ASP:OD1	1:F:178:GLY:HA3	1.74	0.86
1:C:391:ILE:HG23	1:D:185:VAL:HB	1.57	0.86
1:B:477:TYR:CZ	1:B:481:LEU:HD23	2.10	0.86
1:B:194:THR:O	1:B:238:HIS:HB2	1.75	0.86
1:F:326:PHE:HE1	1:F:363:CYS:SG	1.98	0.86
1:E:375:ASP:CA	1:E:414:ARG:HB2	2.05	0.86
1:F:64:LEU:HD21	1:F:91:TYR:CE2	2.07	0.86
1:B:45:LYS:CD	1:B:200:THR:CG2	2.42	0.86
1:C:56:LEU:HD21	1:C:92:GLY:HA3	1.46	0.86
1:C:381:PRO:O	1:D:215:THR:HG21	1.75	0.86
1:A:67:PHE:O	1:A:83:TYR:CD2	2.29	0.86
1:B:445:MET:HG2	1:B:450:ALA:HB2	1.56	0.86
1:F:69:ARG:HG2	1:F:82:PRO:O	1.74	0.86
1:F:56:LEU:CD1	1:F:61:PHE:HD1	1.89	0.86
1:D:146:ILE:HD12	1:D:146:ILE:H	0.72	0.86
1:C:262:ASN:HD22	1:C:263:LEU:H	1.21	0.86
1:D:52:ILE:CG2	1:D:56:LEU:HD11	2.05	0.85
1:F:250:TYR:CZ	1:F:312:PHE:CE2	2.64	0.85
1:B:104:GLN:OE1	1:B:141:SER:CB	2.24	0.85
1:C:302:ILE:HG21	1:C:336:ILE:HD11	1.56	0.85
1:B:185:VAL:HB	1:E:391:ILE:HG12	1.58	0.85
1:C:379:PHE:CD2	1:D:205:ILE:HD11	2.10	0.85
1:C:10:ASP:OD1	1:C:11:ILE:N	2.07	0.85
1:E:513:LEU:HD12	1:E:516:LYS:CE	2.05	0.85
1:A:284:LEU:CD1	1:A:304:HIS:CD2	2.58	0.85
1:B:63:GLU:HG3	1:B:66:GLU:HG3	1.57	0.85
1:E:87:VAL:CG1	1:E:117:TYR:CD2	2.58	0.85
1:C:104:GLN:CG	1:C:117:TYR:OH	2.24	0.85
1:C:428:HIS:NE2	1:D:154:GLY:HA2	1.90	0.85
1:A:101:VAL:CG2	1:A:138:ILE:HD11	2.06	0.85
1:D:203:MET:CB	1:D:230:HIS:NE2	2.38	0.85
1:C:459:ILE:CD1	1:C:473:LEU:HD12	2.05	0.85
1:E:219:VAL:HG11	1:E:224:LEU:HB2	1.57	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:298:MET:HG2	1:C:339:ASN:O	1.76	0.85
1:C:520:LEU:CD2	1:C:521:PRO:CD	2.54	0.85
1:F:457:ARG:HH11	1:F:457:ARG:HG2	1.40	0.85
1:A:211:ILE:CD1	1:A:217:GLU:O	2.24	0.85
1:B:457:ARG:NE	1:B:457:ARG:HA	1.90	0.85
1:A:71:ARG:NH2	1:A:116:VAL:HG12	1.91	0.85
1:D:456:ARG:HG3	1:D:456:ARG:HH11	1.41	0.85
1:F:326:PHE:HE1	1:F:363:CYS:HG	1.23	0.85
1:B:277:VAL:HG22	1:B:504:ARG:CD	2.06	0.84
1:C:470:ARG:O	1:C:474:ILE:HG13	1.77	0.84
1:C:498:MET:SD	1:E:18:LEU:HG	2.17	0.84
1:F:266:PRO:HB2	1:F:333:PRO:HG2	1.55	0.84
1:F:69:ARG:HD2	1:F:81:ARG:O	1.76	0.84
1:E:103:SER:HB2	1:E:138:ILE:HD12	1.57	0.84
1:E:241:ALA:HB2	1:E:247:ALA:HB2	1.59	0.84
1:A:146:ILE:HG22	1:F:454:LEU:HD21	1.59	0.84
1:E:350:ILE:HG21	1:E:393:ARG:CZ	2.04	0.84
1:C:414:ARG:HH11	1:C:415:LYS:HZ2	1.25	0.84
1:E:52:ILE:HG23	1:E:56:LEU:HD11	1.60	0.84
1:F:321:ASN:HD21	1:F:349:ASP:HB3	1.42	0.84
1:F:375:ASP:CG	1:F:414:ARG:HB3	1.98	0.84
1:D:87:VAL:HG22	1:D:89:THR:HG23	1.59	0.84
1:F:268:ALA:O	1:F:269:PHE:HD1	1.57	0.84
1:A:527:ASN:HD21	1:F:358:ARG:HD3	1.42	0.84
1:C:381:PRO:HG2	1:D:214:VAL:HG21	1.57	0.84
1:B:391:ILE:HD12	1:B:391:ILE:H	1.42	0.84
1:B:47:THR:HG22	1:B:50:GLU:HG3	1.59	0.84
1:D:322:ILE:CG1	1:D:338:ALA:O	2.26	0.84
1:D:69:ARG:CD	1:D:81:ARG:O	2.26	0.84
1:A:67:PHE:O	1:A:83:TYR:HD2	1.58	0.84
1:D:313:GLU:HA	1:D:325:GLY:HA3	1.59	0.84
1:A:118:GLY:O	1:A:122:VAL:HG23	1.78	0.84
1:D:208:PRO:CD	1:D:221:PHE:HE1	1.90	0.84
1:B:262:ASN:ND2	1:B:263:LEU:CD2	2.40	0.84
1:C:520:LEU:HD23	1:C:521:PRO:CA	2.07	0.84
1:D:212:LYS:HE2	1:D:218:ASP:OD1	1.78	0.84
1:F:327:GLY:O	1:F:334:VAL:CG2	2.24	0.84
1:B:399:PHE:CG	1:E:164:THR:HG23	2.12	0.84
1:A:48:ALA:HB1	1:A:103:SER:OG	1.76	0.84
1:B:328:ARG:HG2	1:B:333:PRO:HA	1.58	0.84
1:A:508:ARG:NH2	1:B:60:SER:HA	1.93	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:154:GLY:HA2	1:D:428:HIS:CE1	2.13	0.84
1:E:412:ILE:CG2	1:E:440:ALA:HB1	2.04	0.83
1:C:321:ASN:H	1:C:321:ASN:ND2	1.76	0.83
1:F:501:ASP:OD2	1:F:504:ARG:HD3	1.78	0.83
1:C:520:LEU:CD2	1:C:521:PRO:HD2	2.07	0.83
1:F:72:SER:HB3	1:F:77:LEU:CD2	2.04	0.83
1:A:298:MET:HG3	1:A:302:ILE:HD11	1.60	0.83
1:A:520:LEU:HG	1:A:521:PRO:HD2	1.57	0.83
1:C:275:LEU:HD11	1:C:508:ARG:NH1	1.93	0.83
1:C:302:ILE:HG12	1:C:336:ILE:HD12	1.58	0.83
1:A:490:ARG:CG	1:A:492:TYR:HE2	1.92	0.83
1:D:322:ILE:HG12	1:D:338:ALA:O	1.78	0.83
1:D:51:ARG:CZ	1:D:177:VAL:HG21	2.08	0.83
1:E:306:LEU:HD13	1:E:327:GLY:HA3	1.60	0.83
1:F:498:MET:HG3	1:F:499:PRO:CD	2.09	0.83
1:C:69:ARG:HD2	1:C:83:TYR:CE1	2.14	0.83
1:B:223:GLU:OE1	1:B:224:LEU:N	2.11	0.83
1:B:12:HIS:O	1:B:17:LYS:HE3	1.76	0.83
1:E:113:LEU:HD13	1:E:114:GLY:N	1.94	0.83
1:C:451:VAL:HG21	1:C:474:ILE:HG12	1.60	0.83
1:E:89:THR:HG23	1:E:120:LYS:HE3	1.60	0.83
1:B:459:ILE:HD12	1:B:470:ARG:HB2	1.58	0.83
1:C:406:VAL:O	1:C:408:LEU:HD13	1.78	0.83
1:B:318:PHE:O	1:B:355:LYS:HD2	1.78	0.83
1:D:63:GLU:OE2	1:D:66:GLU:HG3	1.79	0.83
1:B:146:ILE:N	1:B:146:ILE:HD12	1.93	0.83
1:B:490:ARG:CG	1:B:492:TYR:CE2	2.62	0.83
1:B:350:ILE:HG23	1:B:390:ILE:HD12	1.60	0.83
1:A:18:LEU:HD23	1:D:438:PRO:HG2	1.59	0.83
1:E:247:ALA:O	1:E:251:VAL:HG23	1.78	0.82
1:C:444:VAL:CG2	1:D:149:GLY:C	2.47	0.82
1:B:114:GLY:H	1:B:117:TYR:HB3	1.44	0.82
1:B:350:ILE:CD1	1:B:393:ARG:HH11	1.87	0.82
1:D:335:GLY:O	1:D:370:VAL:HA	1.78	0.82
1:E:104:GLN:CG	1:E:117:TYR:OH	2.27	0.82
1:B:488:ALA:O	1:D:68:ALA:HB2	1.77	0.82
1:B:478:GLU:HA	1:B:482:LEU:HD13	0.93	0.82
1:F:339:ASN:OD1	1:F:424:MET:CE	2.27	0.82
1:D:508:ARG:C	1:D:508:ARG:HD3	1.97	0.82
1:F:56:LEU:CD2	1:F:92:GLY:CA	2.57	0.82
1:D:69:ARG:HA	1:D:85:ASP:OD1	1.78	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:374:VAL:HG21	1:F:424:MET:CB	2.09	0.82
1:B:326:PHE:CA	1:B:334:VAL:O	2.28	0.82
1:F:375:ASP:OD1	1:F:414:ARG:HB3	1.79	0.82
1:D:209:ASP:OD1	1:D:210:VAL:HG23	1.78	0.82
1:F:63:GLU:OE2	1:F:66:GLU:HG3	1.79	0.82
1:B:265:GLU:HA	1:B:265:GLU:OE1	1.79	0.82
1:F:348:LEU:CD2	1:F:379:PHE:CE2	2.42	0.82
1:C:217:GLU:CG	1:D:383:VAL:HG21	2.05	0.82
1:C:217:GLU:CD	1:D:383:VAL:HG23	2.00	0.82
1:C:39:LYS:C	1:C:39:LYS:HD3	1.99	0.82
1:D:155:ALA:O	1:D:159:ILE:HG13	1.78	0.82
1:A:416:ALA:HB3	1:A:442:ILE:HA	1.61	0.82
1:E:350:ILE:HG22	1:E:393:ARG:NH2	1.93	0.82
1:A:222:GLU:OE1	1:A:226:GLY:HA3	1.79	0.82
1:B:175:LEU:HD12	1:B:177:VAL:HG13	1.59	0.82
1:E:51:ARG:NH1	1:E:177:VAL:HG21	1.95	0.82
1:C:181:ALA:HB2	1:C:204:PHE:HE1	1.42	0.82
1:C:455:HIS:HB3	1:C:459:ILE:HG12	1.62	0.82
1:C:358:ARG:HH11	1:C:358:ARG:HG3	1.42	0.82
1:F:349:ASP:H	1:F:352:ALA:HB3	1.45	0.82
1:B:113:LEU:HD23	1:B:143:GLY:O	1.78	0.82
1:E:36:ALA:HB3	1:E:107:THR:HG23	1.62	0.82
1:B:268:ALA:CB	1:B:331:GLY:O	2.27	0.82
1:C:117:TYR:HD1	1:C:117:TYR:O	1.61	0.82
1:B:443:ALA:O	1:E:153:LEU:HD11	1.78	0.82
1:B:348:LEU:HD13	1:B:379:PHE:CE2	2.12	0.82
1:D:10:ASP:CG	1:D:11:ILE:N	2.31	0.82
1:A:10:ASP:CG	1:A:11:ILE:H	1.80	0.82
1:C:262:ASN:HD22	1:C:263:LEU:N	1.76	0.82
1:F:48:ALA:CB	1:F:103:SER:OG	2.28	0.81
1:F:501:ASP:OD2	1:F:504:ARG:HB3	1.80	0.81
1:C:379:PHE:CZ	1:D:205:ILE:CD1	2.57	0.81
1:D:234:SER:CB	1:D:236:VAL:HG23	2.11	0.81
1:D:444:VAL:HG23	1:D:445:MET:HB3	1.60	0.81
1:A:379:PHE:CZ	1:A:420:ALA:HA	2.15	0.81
1:F:528:ILE:HD13	1:F:528:ILE:C	2.00	0.81
1:F:324:THR:CG2	1:F:355:LYS:HE2	2.09	0.81
1:A:103:SER:HA	1:A:138:ILE:HB	1.62	0.81
1:D:37:VAL:HG12	1:D:41:HIS:CE1	2.15	0.81
1:C:287:ILE:O	1:C:287:ILE:HD12	1.80	0.81
1:B:349:ASP:OD1	1:B:352:ALA:HB3	1.80	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:327:GLY:O	1:C:334:VAL:HG23	1.80	0.81
1:E:132:GLY:HA3	1:E:261:ASN:HD22	1.46	0.81
1:E:434:ASN:C	1:E:435:LEU:CD1	2.48	0.81
1:A:459:ILE:HG21	1:A:470:ARG:HE	1.46	0.81
1:F:173:ILE:HD13	1:F:255:LEU:CD1	2.11	0.81
1:C:379:PHE:CD2	1:D:205:ILE:CG1	2.64	0.81
1:B:87:VAL:CG1	1:B:120:LYS:HD3	2.11	0.81
1:A:409:ILE:HD11	1:A:513:LEU:HD22	1.62	0.81
1:F:280:GLU:O	1:F:283:GLU:HG3	1.80	0.81
1:A:236:VAL:HG11	1:F:392:ARG:HG2	1.62	0.81
1:B:104:GLN:NE2	1:B:139:ASN:HB3	1.96	0.81
1:E:87:VAL:HG12	1:E:117:TYR:CE2	2.15	0.81
1:E:204:PHE:HB3	1:E:206:THR:O	1.81	0.81
1:A:35:ARG:CD	1:A:39:LYS:CE	2.53	0.81
1:A:21:LEU:HD13	1:D:496:VAL:HG12	1.62	0.81
1:C:121:ILE:HG21	1:C:159:ILE:HD13	1.60	0.81
1:C:32:GLY:HA2	1:C:107:THR:HG22	1.62	0.81
1:E:373:PHE:CD2	1:E:411:VAL:HB	2.15	0.81
1:F:70:HIS:NE2	1:F:77:LEU:CG	2.39	0.81
1:B:438:PRO:HG3	1:D:21:LEU:HD23	1.61	0.81
1:C:376:VAL:HG21	1:C:420:ALA:HB1	1.63	0.81
1:D:298:MET:HB3	1:D:323:LEU:HD11	1.61	0.81
1:D:375:ASP:OD1	1:D:414:ARG:HB3	1.80	0.81
1:C:181:ALA:CB	1:C:204:PHE:HE1	1.93	0.81
1:E:451:VAL:CG2	1:E:452:ASN:ND2	2.44	0.81
1:C:203:MET:CB	1:C:230:HIS:NE2	2.43	0.81
1:B:275:LEU:HD23	1:B:275:LEU:H	1.44	0.81
1:A:348:LEU:HD13	1:A:379:PHE:CD2	2.16	0.81
1:B:69:ARG:HD3	1:B:83:TYR:CG	2.16	0.81
1:C:173:ILE:CD1	1:C:254:LEU:CD2	2.58	0.81
1:C:376:VAL:HG23	1:C:378:GLY:H	1.44	0.81
1:C:498:MET:SD	1:E:18:LEU:CG	2.69	0.81
1:C:300:SER:O	1:C:304:HIS:CG	2.35	0.80
1:A:364:ASP:HA	1:A:406:VAL:CG1	2.11	0.80
1:B:236:VAL:HG12	1:E:392:ARG:CB	2.10	0.80
1:E:417:PHE:CZ	1:E:441:GLN:HB2	2.16	0.80
1:D:85:ASP:OD2	1:D:116:VAL:HB	1.80	0.80
1:E:477:TYR:CZ	1:E:481:LEU:CD1	2.64	0.80
1:A:117:TYR:HE1	1:A:121:ILE:HD11	1.47	0.80
1:D:456:ARG:NH1	1:D:456:ARG:CG	2.37	0.80
1:E:485:TYR:OH	1:F:21:LEU:HD13	1.82	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:56:LEU:HD22	1:A:92:GLY:HA3	1.64	0.80
1:C:127:PHE:O	1:C:131:THR:HG23	1.80	0.80
1:C:336:ILE:CA	1:C:371:LEU:O	2.30	0.80
1:A:185:VAL:O	1:A:188:PRO:HD2	1.81	0.80
1:C:18:LEU:HD23	1:F:438:PRO:HG2	1.63	0.80
1:C:306:LEU:HD22	1:C:327:GLY:HA3	1.61	0.80
1:F:86:GLY:O	1:F:117:TYR:HE2	1.64	0.80
1:C:455:HIS:CB	1:C:459:ILE:HG12	2.12	0.80
1:B:326:PHE:N	1:B:326:PHE:HD2	1.74	0.80
1:E:262:ASN:OD1	1:E:263:LEU:CD2	2.30	0.80
1:F:451:VAL:HG21	1:F:474:ILE:CG1	2.11	0.80
1:A:56:LEU:HD22	1:A:92:GLY:C	2.01	0.80
1:C:61:PHE:CE1	1:C:90:GLY:HA3	2.16	0.80
1:F:29:THR:HA	1:F:49:ARG:HH12	1.46	0.80
1:E:243:ASP:OD2	1:E:245:LYS:HB2	1.81	0.80
1:C:198:ASP:CG	1:C:240:MET:SD	2.60	0.80
1:C:412:ILE:CD1	1:C:421:TYR:CE1	2.65	0.80
1:F:230:HIS:ND1	1:F:236:VAL:CG1	2.45	0.80
1:D:340:GLN:O	1:D:346:GLY:HA2	1.81	0.80
1:A:250:TYR:CE1	1:A:312:PHE:CZ	2.70	0.80
1:F:374:VAL:HG21	1:F:424:MET:HB2	1.64	0.80
1:C:335:GLY:O	1:C:370:VAL:HA	1.82	0.80
1:A:372:THR:HB	1:A:410:THR:HG23	1.63	0.80
1:D:485:TYR:HA	1:D:488:ALA:HB3	1.64	0.79
1:C:347:CYS:SG	1:C:380:LEU:HB2	2.22	0.79
1:D:481:LEU:C	1:D:482:LEU:HD12	2.02	0.79
1:E:321:ASN:HA	1:E:340:GLN:HB3	1.64	0.79
1:F:219:VAL:HG11	1:F:224:LEU:HB2	1.64	0.79
1:A:268:ALA:HB2	1:A:332:ARG:HA	1.65	0.79
1:E:205:ILE:HG23	1:E:206:THR:OG1	1.81	0.79
1:A:104:GLN:CB	1:A:140:ASP:O	2.30	0.79
1:D:366:PHE:O	1:D:367:ASN:ND2	2.15	0.79
1:B:323:LEU:HD21	1:B:340:GLN:HB2	1.64	0.79
1:F:250:TYR:CE1	1:F:312:PHE:CE2	2.71	0.79
1:B:102:PHE:CE1	1:B:137:GLY:CA	2.66	0.79
1:F:257:TYR:CE1	1:F:328:ARG:CZ	2.65	0.79
1:D:89:THR:HG22	1:D:102:PHE:CB	2.13	0.79
1:C:288:VAL:HG11	1:C:439:THR:CG2	2.12	0.79
1:F:348:LEU:HB3	1:F:379:PHE:CD2	2.18	0.79
1:C:336:ILE:HG22	1:C:371:LEU:HB2	0.90	0.79
1:B:364:ASP:HB3	1:E:525:HIS:HE1	1.47	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:321:ASN:ND2	1:F:352:ALA:HB2	1.98	0.79
1:F:56:LEU:HD22	1:F:92:GLY:CA	2.13	0.79
1:E:161:ARG:HG3	1:E:165:HIS:HE1	1.46	0.79
1:A:257:TYR:CE1	1:A:326:PHE:CB	2.63	0.79
1:C:18:LEU:CD2	1:F:438:PRO:HG2	2.13	0.79
1:E:293:ASN:O	1:E:295:PRO:HD3	1.82	0.79
1:F:127:PHE:O	1:F:131:THR:HG22	1.83	0.79
1:B:138:ILE:N	1:B:138:ILE:HD12	1.97	0.79
1:C:102:PHE:CZ	1:C:137:GLY:HA3	2.18	0.79
1:B:47:THR:HG22	1:B:50:GLU:CG	2.11	0.79
1:C:329:VAL:C	1:C:331:GLY:H	1.80	0.79
1:C:181:ALA:HB2	1:C:204:PHE:CZ	2.17	0.79
1:C:21:LEU:HD22	1:F:438:PRO:CG	2.10	0.79
1:E:52:ILE:HG23	1:E:56:LEU:CD1	2.12	0.79
1:C:520:LEU:HD22	1:C:521:PRO:O	1.82	0.78
1:C:418:GLY:O	1:D:153:LEU:HD13	1.84	0.78
1:E:438:PRO:HG2	1:F:18:LEU:CD2	2.13	0.78
1:B:219:VAL:HG11	1:B:224:LEU:HB2	1.64	0.78
1:A:364:ASP:HA	1:A:406:VAL:HG11	1.64	0.78
1:B:29:THR:HA	1:B:49:ARG:NH1	1.97	0.78
1:D:219:VAL:HG11	1:D:224:LEU:CB	2.13	0.78
1:E:238:HIS:HA	1:E:315:GLN:HG2	1.64	0.78
1:F:127:PHE:O	1:F:131:THR:CG2	2.31	0.78
1:F:325:GLY:O	1:F:359:PHE:CZ	2.35	0.78
1:B:104:GLN:NE2	1:B:139:ASN:CB	2.47	0.78
1:B:161:ARG:CG	1:E:429:LEU:O	2.25	0.78
1:B:70:HIS:HE1	1:B:80:ASN:O	1.65	0.78
1:C:412:ILE:CD1	1:C:421:TYR:HE1	1.95	0.78
1:F:45:LYS:HD2	1:F:200:THR:HG22	1.65	0.78
1:D:313:GLU:HA	1:D:325:GLY:CA	2.13	0.78
1:D:483:ASN:HB2	1:D:484:PRO:HD2	1.65	0.78
1:A:155:ALA:O	1:A:159:ILE:HG13	1.84	0.78
1:F:344:PHE:O	1:F:347:CYS:SG	2.41	0.78
1:C:437:TRP:HZ2	1:C:502:THR:HG21	1.48	0.78
1:B:386:GLU:OE1	1:E:224:LEU:CD1	2.31	0.78
1:B:311:PHE:CE2	1:B:313:GLU:HG2	2.19	0.78
1:F:358:ARG:HG3	1:F:358:ARG:NH1	1.91	0.78
1:E:160:PHE:CE1	1:E:187:SER:HB2	2.19	0.78
1:A:321:ASN:HD22	1:A:321:ASN:N	1.80	0.78
1:B:243:ASP:OD1	1:B:246:ASP:HB2	1.83	0.78
1:A:57:ASP:O	1:A:60:SER:CB	2.30	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:442:ILE:CD1	1:A:442:ILE:N	2.46	0.78
1:E:375:ASP:CG	1:E:414:ARG:CB	2.52	0.78
1:F:56:LEU:HD22	1:F:93:THR:N	1.98	0.78
1:C:10:ASP:CG	1:C:11:ILE:H	1.85	0.78
1:E:70:HIS:NE2	1:E:77:LEU:HD13	1.99	0.78
1:C:327:GLY:O	1:C:334:VAL:CG2	2.31	0.78
1:F:86:GLY:O	1:F:117:TYR:CE2	2.37	0.78
1:B:482:LEU:HD12	1:B:482:LEU:N	1.97	0.78
1:F:125:MET:HE1	1:F:163:ASN:HD21	1.47	0.78
1:A:138:ILE:N	1:A:138:ILE:HD12	1.99	0.78
1:A:56:LEU:HD22	1:A:92:GLY:CA	2.14	0.78
1:E:299:HIS:CD2	1:E:340:GLN:HE22	2.01	0.78
1:A:377:PRO:O	1:A:417:PHE:HB2	1.84	0.78
1:A:284:LEU:HD23	1:A:499:PRO:O	1.83	0.78
1:B:326:PHE:CA	1:B:335:GLY:HA2	2.14	0.78
1:C:94:VAL:CG2	1:C:99:VAL:HG21	2.14	0.78
1:C:324:THR:HG23	1:C:355:LYS:HE2	1.66	0.78
1:E:120:LYS:O	1:E:124:VAL:CG2	2.32	0.77
1:E:161:ARG:HG3	1:E:165:HIS:CE1	2.18	0.77
1:A:268:ALA:HB3	1:A:332:ARG:HD3	1.65	0.77
1:A:311:PHE:CZ	1:A:325:GLY:CA	2.64	0.77
1:B:485:TYR:CZ	1:D:24:ARG:HD2	2.19	0.77
1:D:256:SER:O	1:D:267:PRO:HG2	1.82	0.77
1:B:272:GLU:OE1	1:B:272:GLU:HA	1.81	0.77
1:E:87:VAL:CB	1:E:117:TYR:CE2	2.66	0.77
1:D:111:GLY:O	1:D:141:SER:CB	2.32	0.77
1:F:181:ALA:CB	1:F:204:PHE:CZ	2.67	0.77
1:A:485:TYR:HE1	1:B:67:PHE:CE2	2.01	0.77
1:D:364:ASP:OD2	1:D:404:ALA:CA	2.33	0.77
1:C:288:VAL:CG1	1:C:439:THR:HG21	2.12	0.77
1:B:305:VAL:HG12	1:B:305:VAL:O	1.81	0.77
1:C:498:MET:HG3	1:C:499:PRO:HD2	1.64	0.77
1:F:339:ASN:ND2	1:F:376:VAL:HB	2.00	0.77
1:D:219:VAL:CG1	1:D:224:LEU:HB2	2.14	0.77
1:E:120:LYS:O	1:E:124:VAL:HG23	1.84	0.77
1:A:438:PRO:HG2	1:B:18:LEU:HD23	1.65	0.77
1:B:348:LEU:CB	1:B:379:PHE:CD2	2.68	0.77
1:B:181:ALA:CB	1:B:204:PHE:CZ	2.68	0.77
1:D:477:TYR:CD1	1:D:482:LEU:HD11	2.19	0.77
1:F:54:LEU:HD12	1:F:54:LEU:O	1.85	0.77
1:D:406:VAL:O	1:D:408:LEU:CD1	2.33	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:45:LYS:HD3	1:F:200:THR:HG23	1.66	0.77
1:A:57:ASP:C	1:A:60:SER:HB2	2.04	0.77
1:F:436:ALA:O	1:F:496:VAL:HA	1.84	0.77
1:F:349:ASP:OD2	1:F:351:THR:HG23	1.84	0.77
1:E:170:ILE:CG2	1:E:261:ASN:HB3	2.14	0.77
1:F:48:ALA:CB	1:F:103:SER:CB	2.63	0.77
1:C:421:TYR:CE1	1:C:442:ILE:CG2	2.68	0.77
1:E:113:LEU:O	1:E:113:LEU:CD1	2.30	0.77
1:E:296:TYR:CZ	1:E:414:ARG:HD3	2.20	0.77
1:D:102:PHE:CZ	1:D:137:GLY:HA3	2.20	0.77
1:A:455:HIS:CD2	1:A:473:LEU:CD1	2.68	0.77
1:A:340:GLN:O	1:A:346:GLY:HA2	1.84	0.77
1:B:92:GLY:O	1:B:99:VAL:HB	1.84	0.77
1:E:485:TYR:CE1	1:F:67:PHE:CE2	2.73	0.77
1:E:160:PHE:HE1	1:E:187:SER:HB2	1.50	0.77
1:A:114:GLY:HA2	1:A:148:GLU:OE1	1.85	0.77
1:E:197:VAL:CG2	1:E:200:THR:HB	2.15	0.77
1:F:94:VAL:HG23	1:F:99:VAL:HG21	1.67	0.77
1:E:204:PHE:CE1	1:E:224:LEU:CD2	2.68	0.77
1:C:89:THR:HB	1:C:124:VAL:HG21	1.66	0.77
1:D:311:PHE:CE2	1:D:313:GLU:HB2	2.19	0.77
1:C:490:ARG:HA	1:E:71:ARG:NH1	1.98	0.77
1:E:329:VAL:C	1:E:331:GLY:H	1.86	0.77
1:B:104:GLN:OE1	1:B:141:SER:HB2	1.84	0.76
1:A:35:ARG:HD2	1:A:39:LYS:HE3	1.66	0.76
1:A:146:ILE:CD1	1:A:146:ILE:N	2.48	0.76
1:C:456:ARG:CG	1:C:456:ARG:NH1	2.39	0.76
1:F:268:ALA:O	1:F:269:PHE:CD1	2.38	0.76
1:D:459:ILE:CG2	1:D:470:ARG:HH21	1.98	0.76
1:F:348:LEU:HD23	1:F:379:PHE:CD2	2.21	0.76
1:D:313:GLU:HG2	1:D:316:PRO:HG3	1.67	0.76
1:D:332:ARG:HE	1:D:514:ARG:NH2	1.83	0.76
1:A:379:PHE:HZ	1:A:420:ALA:HA	1.50	0.76
1:E:375:ASP:HB2	1:E:414:ARG:CG	2.15	0.76
1:C:421:TYR:CE1	1:C:442:ILE:HG23	2.20	0.76
1:D:445:MET:SD	1:D:450:ALA:HA	2.24	0.76
1:E:87:VAL:CG1	1:E:117:TYR:CE2	2.68	0.76
1:E:127:PHE:O	1:E:130:LYS:HG2	1.86	0.76
1:F:85:ASP:OD2	1:F:116:VAL:HG12	1.85	0.76
1:E:376:VAL:CG2	1:E:420:ALA:HB1	2.10	0.76
1:D:257:TYR:O	1:D:267:PRO:HD2	1.85	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:203:MET:HB2	1:C:230:HIS:CD2	2.19	0.76
1:C:435:LEU:HD12	1:C:495:ALA:HB3	1.67	0.76
1:B:349:ASP:OD1	1:B:352:ALA:CB	2.34	0.76
1:B:409:ILE:HD11	1:B:513:LEU:HD12	1.67	0.76
1:C:97:ARG:HG3	1:C:98:PRO:HD2	1.67	0.76
1:E:375:ASP:CG	1:E:414:ARG:HB3	2.06	0.76
1:F:173:ILE:HD13	1:F:255:LEU:HD12	1.68	0.76
1:C:302:ILE:CG2	1:C:336:ILE:CD1	2.45	0.76
1:C:376:VAL:CG2	1:C:378:GLY:H	1.97	0.76
1:B:398:ILE:HD11	1:E:186:TYR:CD2	2.21	0.76
1:A:350:ILE:CG1	1:A:390:ILE:HD13	2.13	0.76
1:B:391:ILE:CD1	1:B:391:ILE:H	1.99	0.76
1:A:396:LYS:HD3	1:F:530:LEU:HD13	1.68	0.76
1:B:490:ARG:HG3	1:B:492:TYR:CE2	2.21	0.76
1:E:204:PHE:CE1	1:E:224:LEU:CG	2.62	0.76
1:A:194:THR:O	1:A:238:HIS:HB2	1.86	0.76
1:C:477:TYR:CZ	1:C:481:LEU:HD23	2.21	0.76
1:D:298:MET:HG2	1:D:339:ASN:O	1.86	0.76
1:B:262:ASN:ND2	1:B:263:LEU:HD22	2.00	0.76
1:E:299:HIS:CE1	1:E:323:LEU:HD11	2.20	0.76
1:C:498:MET:HG3	1:C:499:PRO:CD	2.15	0.75
1:D:412:ILE:CG2	1:D:440:ALA:CB	2.64	0.75
1:A:150:VAL:O	1:F:492:TYR:HE1	1.68	0.75
1:B:113:LEU:CD1	1:B:117:TYR:CZ	2.69	0.75
1:E:497:ILE:O	1:E:497:ILE:CD1	2.35	0.75
1:A:490:ARG:CD	1:A:492:TYR:OH	2.34	0.75
1:D:296:TYR:HE1	1:D:414:ARG:HE	1.35	0.75
1:B:520:LEU:HD12	1:B:520:LEU:N	2.01	0.75
1:D:507:VAL:O	1:D:511:ARG:HD3	1.85	0.75
1:F:379:PHE:O	1:F:381:PRO:HD3	1.86	0.75
1:A:497:ILE:HG21	1:A:505:HIS:HE2	1.47	0.75
1:D:320:PRO:HB2	1:D:343:GLN:HG3	1.68	0.75
1:E:196:MET:SD	1:E:227:ALA:HA	2.25	0.75
1:D:517:ARG:O	1:D:518:GLU:HG2	1.86	0.75
1:E:409:ILE:HD11	1:E:510:LEU:HD23	1.68	0.75
1:A:498:MET:HG3	1:A:499:PRO:HD2	1.66	0.75
1:A:508:ARG:HH22	1:B:60:SER:HA	1.51	0.75
1:A:302:ILE:O	1:A:305:VAL:CG2	2.35	0.75
1:A:89:THR:HB	1:A:124:VAL:CG2	2.15	0.75
1:F:125:MET:CE	1:F:163:ASN:HD21	1.99	0.75
1:B:104:GLN:HG2	1:B:117:TYR:OH	1.86	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:45:LYS:HD2	1:F:200:THR:HG21	1.68	0.75
1:F:447:ALA:O	1:F:451:VAL:HG13	1.87	0.75
1:A:520:LEU:CD1	1:A:521:PRO:HD2	2.17	0.75
1:C:350:ILE:HG13	1:C:390:ILE:HD13	1.69	0.75
1:A:21:LEU:HD13	1:D:496:VAL:CG1	2.17	0.75
1:D:480:ALA:HB1	1:D:481:LEU:HD12	1.68	0.75
1:E:52:ILE:O	1:E:56:LEU:HD12	1.85	0.75
1:E:278:THR:O	1:E:279:ASP:C	2.22	0.75
1:D:412:ILE:CG2	1:D:440:ALA:HB1	2.14	0.75
1:D:332:ARG:HH21	1:D:514:ARG:NE	1.85	0.75
1:C:14:THR:HG21	1:F:288:VAL:HG23	1.67	0.75
1:A:268:ALA:CB	1:A:332:ARG:HD3	2.16	0.74
1:A:311:PHE:CE1	1:A:325:GLY:HA3	2.21	0.74
1:C:284:LEU:HD21	1:C:304:HIS:ND1	2.02	0.74
1:A:512:GLN:HG3	1:B:91:TYR:CE1	2.22	0.74
1:B:326:PHE:H	1:B:326:PHE:HD2	1.34	0.74
1:C:106:PHE:O	1:C:106:PHE:CD2	2.40	0.74
1:C:444:VAL:HG22	1:D:149:GLY:C	2.08	0.74
1:C:428:HIS:CE1	1:D:154:GLY:HA3	2.20	0.74
1:F:181:ALA:HB2	1:F:204:PHE:CZ	2.21	0.74
1:D:175:LEU:CD1	1:D:195:VAL:HB	2.17	0.74
1:F:284:LEU:HD13	1:F:304:HIS:CD2	2.22	0.74
1:B:507:VAL:O	1:B:511:ARG:HG2	1.87	0.74
1:D:105:ASP:OD1	1:D:107:THR:HG23	1.87	0.74
1:B:282:ALA:O	1:B:284:LEU:N	2.21	0.74
1:D:21:LEU:HD12	1:D:22:ARG:H	1.52	0.74
1:C:85:ASP:CG	1:C:116:VAL:HB	2.08	0.74
1:B:457:ARG:NH2	1:B:460:ALA:HB3	1.99	0.74
1:B:350:ILE:HG23	1:B:390:ILE:CD1	2.18	0.74
1:B:10:ASP:CG	1:B:11:ILE:H	1.90	0.74
1:F:132:GLY:O	1:F:261:ASN:HB3	1.87	0.74
1:F:102:PHE:CE2	1:F:137:GLY:HA2	2.22	0.74
1:D:121:ILE:O	1:D:124:VAL:HG22	1.88	0.74
1:C:319:ALA:O	1:C:321:ASN:ND2	2.21	0.74
1:C:321:ASN:N	1:C:321:ASN:ND2	2.32	0.74
1:C:61:PHE:HE1	1:C:90:GLY:HA3	1.51	0.74
1:E:79:ALA:C	1:E:80:ASN:HD22	1.91	0.74
1:C:193:PHE:HD1	1:C:238:HIS:NE2	1.86	0.74
1:C:413:THR:O	1:C:440:ALA:N	2.21	0.74
1:A:154:GLY:HA2	1:F:428:HIS:ND1	2.03	0.74
1:B:488:ALA:HA	1:B:493:VAL:CG2	2.17	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:322:ILE:C	1:C:323:LEU:HD23	2.08	0.74
1:B:219:VAL:HG12	1:B:220:GLY:O	1.88	0.74
1:B:146:ILE:H	1:B:146:ILE:CD1	2.01	0.74
1:F:113:LEU:HD13	1:F:114:GLY:H	1.53	0.74
1:C:51:ARG:CZ	1:C:177:VAL:HG21	2.18	0.74
1:D:117:TYR:O	1:D:117:TYR:CD1	2.38	0.74
1:B:70:HIS:CE1	1:B:81:ARG:HG2	2.23	0.74
1:B:445:MET:SD	1:B:450:ALA:HA	2.28	0.74
1:D:128:ALA:HB1	1:D:135:VAL:HG22	1.70	0.74
1:A:49:ARG:O	1:A:52:ILE:HG22	1.87	0.74
1:C:520:LEU:CD2	1:C:521:PRO:O	2.35	0.73
1:D:208:PRO:CG	1:D:221:PHE:CD1	2.67	0.73
1:F:62:VAL:HB	1:F:91:TYR:HB2	1.69	0.73
1:A:520:LEU:CG	1:A:521:PRO:HD2	2.17	0.73
1:F:350:ILE:HG23	1:F:393:ARG:HD3	1.68	0.73
1:A:257:TYR:CZ	1:A:326:PHE:HB3	2.22	0.73
1:A:230:HIS:HA	1:A:234:SER:OG	1.88	0.73
1:C:87:VAL:HG23	1:C:103:SER:O	1.87	0.73
1:D:432:ASP:O	1:D:433:LEU:HD12	1.87	0.73
1:A:398:ILE:HD13	1:F:186:TYR:CD2	2.24	0.73
1:A:257:TYR:CZ	1:A:326:PHE:CB	2.71	0.73
1:E:417:PHE:CE1	1:E:441:GLN:HB2	2.24	0.73
1:A:418:GLY:O	1:F:153:LEU:HD13	1.88	0.73
1:D:265:GLU:HB3	1:D:266:PRO:HD2	1.68	0.73
1:D:379:PHE:CZ	1:D:420:ALA:N	2.55	0.73
1:D:281:ASP:O	1:D:284:LEU:HB2	1.88	0.73
1:E:497:ILE:H	1:E:497:ILE:HD12	1.54	0.73
1:E:299:HIS:CE1	1:E:323:LEU:CD1	2.70	0.73
1:C:68:ALA:HA	1:F:489:GLU:HA	1.68	0.73
1:F:497:ILE:HG21	1:F:505:HIS:NE2	2.04	0.73
1:C:416:ALA:HB1	1:C:421:TYR:CD1	2.22	0.73
1:C:21:LEU:O	1:C:25:ILE:HG13	1.88	0.73
1:E:209:ASP:OD1	1:E:210:VAL:HG23	1.88	0.73
1:F:289:PRO:HB3	1:F:294:GLN:NE2	2.04	0.73
1:E:32:GLY:HA3	1:E:107:THR:HG21	1.70	0.73
1:E:193:PHE:HA	1:E:238:HIS:HE1	1.49	0.73
1:B:519:SER:C	1:B:520:LEU:CD1	2.49	0.73
1:C:321:ASN:N	1:C:321:ASN:HD22	1.85	0.73
1:F:125:MET:HE2	1:F:163:ASN:ND2	2.04	0.73
1:D:250:TYR:CE1	1:D:312:PHE:CZ	2.77	0.73
1:C:391:ILE:CG2	1:D:185:VAL:HB	2.18	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:329:VAL:C	1:C:331:GLY:N	2.39	0.73
1:C:94:VAL:HG21	1:C:99:VAL:HG21	1.71	0.73
1:E:170:ILE:CG2	1:E:261:ASN:CB	2.66	0.73
1:B:428:HIS:CE1	1:B:492:TYR:CE1	2.72	0.73
1:B:69:ARG:CD	1:B:83:TYR:CD2	2.66	0.73
1:D:435:LEU:N	1:D:435:LEU:HD22	2.03	0.73
1:B:275:LEU:CD2	1:B:275:LEU:H	2.02	0.73
1:E:299:HIS:CD2	1:E:340:GLN:NE2	2.56	0.73
1:E:483:ASN:HB2	1:E:484:PRO:HD2	1.70	0.73
1:B:399:PHE:CE1	1:E:164:THR:HG23	2.23	0.73
1:F:350:ILE:CG2	1:F:393:ARG:HD3	2.19	0.73
1:D:87:VAL:CG2	1:D:89:THR:HG23	2.19	0.73
1:C:447:ALA:HB2	1:C:482:LEU:HD21	1.70	0.73
1:B:56:LEU:HD22	1:B:92:GLY:C	2.09	0.73
1:B:47:THR:HG22	1:B:50:GLU:CD	2.09	0.73
1:A:101:VAL:CG2	1:A:138:ILE:CD1	2.67	0.73
1:A:340:GLN:OE1	1:A:341:PRO:HD2	1.89	0.73
1:A:47:THR:OG1	1:A:50:GLU:HG3	1.89	0.73
1:D:353:SER:OG	1:D:394:GLY:HA2	1.87	0.73
1:A:181:ALA:HB1	1:A:204:PHE:HE1	1.51	0.72
1:E:219:VAL:HG12	1:E:220:GLY:O	1.89	0.72
1:B:327:GLY:N	1:B:334:VAL:O	2.21	0.72
1:B:348:LEU:CB	1:B:379:PHE:CE2	2.72	0.72
1:B:454:LEU:CD1	1:E:75:PHE:CZ	2.72	0.72
1:C:158:GLU:CD	1:C:161:ARG:HH21	1.93	0.72
1:F:129:LEU:HD23	1:F:129:LEU:C	2.09	0.72
1:B:236:VAL:HG11	1:E:392:ARG:HB3	1.71	0.72
1:C:498:MET:O	1:C:501:ASP:HB2	1.89	0.72
1:C:256:SER:O	1:C:267:PRO:HG2	1.89	0.72
1:C:365:ALA:CA	1:D:525:HIS:CE1	2.72	0.72
1:A:268:ALA:CB	1:A:332:ARG:HA	2.20	0.72
1:D:332:ARG:HH11	1:D:332:ARG:HB2	1.53	0.72
1:C:14:THR:HG21	1:F:288:VAL:CG2	2.19	0.72
1:C:217:GLU:CD	1:D:383:VAL:CG2	2.56	0.72
1:A:21:LEU:CD1	1:D:496:VAL:HG12	2.19	0.72
1:F:417:PHE:HD1	1:F:443:ALA:HB3	1.52	0.72
1:A:334:VAL:HG21	1:A:371:LEU:CD1	2.18	0.72
1:A:146:ILE:HD12	1:A:146:ILE:N	2.04	0.72
1:D:14:THR:O	1:D:18:LEU:HD12	1.90	0.72
1:B:434:ASN:O	1:B:435:LEU:HD13	1.88	0.72
1:D:330:GLU:OE2	1:D:507:VAL:CG2	2.38	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:113:LEU:HD13	1:B:117:TYR:CZ	2.25	0.72
1:E:33:SER:OG	1:E:36:ALA:HB2	1.90	0.72
1:C:85:ASP:OD2	1:C:117:TYR:N	2.22	0.72
1:A:308:ASP:O	1:A:310:GLU:N	2.22	0.72
1:F:323:LEU:CD2	1:F:340:GLN:OE1	2.37	0.72
1:C:63:GLU:O	1:C:64:LEU:HD12	1.89	0.72
1:D:118:GLY:O	1:D:122:VAL:HG23	1.89	0.72
1:D:61:PHE:CE1	1:D:90:GLY:HA3	2.24	0.72
1:C:40:GLN:HA	1:C:40:GLN:HE21	1.55	0.72
1:E:376:VAL:CG2	1:E:420:ALA:CB	2.66	0.72
1:F:24:ARG:HG2	1:F:83:TYR:HH	1.55	0.72
1:C:396:LYS:HA	1:C:528:ILE:CG2	2.20	0.72
1:C:528:ILE:H	1:C:528:ILE:HD12	1.55	0.72
1:B:144:ALA:HB2	1:B:156:TYR:HE2	1.55	0.72
1:E:175:LEU:HD11	1:E:177:VAL:HG11	1.69	0.72
1:B:236:VAL:HG12	1:E:392:ARG:CG	2.19	0.72
1:B:350:ILE:HG22	1:B:390:ILE:HD12	1.70	0.72
1:E:297:ASP:OD2	1:E:299:HIS:CD2	2.43	0.72
1:D:306:LEU:HD21	1:D:336:ILE:HD11	1.71	0.72
1:C:217:GLU:OE1	1:D:383:VAL:HG23	1.88	0.72
1:F:91:TYR:HE1	1:F:127:PHE:CE1	2.06	0.72
1:B:21:LEU:O	1:B:25:ILE:HG13	1.90	0.72
1:B:417:PHE:CD2	1:B:417:PHE:N	2.58	0.72
1:B:259:PRO:HG3	1:B:366:PHE:O	1.89	0.72
1:B:185:VAL:CB	1:E:391:ILE:HG12	2.20	0.72
1:A:361:ARG:O	1:F:525:HIS:HE1	1.72	0.72
1:E:172:GLN:CB	1:E:191:THR:HG23	2.20	0.72
1:E:284:LEU:CD1	1:E:304:HIS:CD2	2.47	0.71
1:E:412:ILE:CD1	1:E:442:ILE:CD1	2.68	0.71
1:A:75:PHE:CE2	1:F:454:LEU:CD1	2.73	0.71
1:B:490:ARG:HG3	1:B:492:TYR:HE2	1.54	0.71
1:F:85:ASP:OD2	1:F:116:VAL:HB	1.90	0.71
1:B:417:PHE:HD2	1:B:417:PHE:N	1.88	0.71
1:B:398:ILE:CG1	1:B:423:VAL:HG22	2.19	0.71
1:C:323:LEU:HD21	1:C:340:GLN:CB	2.18	0.71
1:B:181:ALA:CB	1:B:204:PHE:CE1	2.73	0.71
1:F:326:PHE:CE1	1:F:363:CYS:SG	2.83	0.71
1:C:102:PHE:CZ	1:C:137:GLY:CA	2.73	0.71
1:C:528:ILE:N	1:C:528:ILE:HD12	2.04	0.71
1:E:70:HIS:CD2	1:E:77:LEU:HD13	2.25	0.71
1:B:322:ILE:CG2	1:B:338:ALA:O	2.26	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:49:ARG:HB2	1:D:49:ARG:NH1	2.05	0.71
1:E:94:VAL:CB	1:E:95:ASP:OD2	2.38	0.71
1:B:447:ALA:HB1	1:B:474:ILE:HG23	1.71	0.71
1:F:54:LEU:HG	1:F:248:VAL:HG11	1.70	0.71
1:A:340:GLN:O	1:A:346:GLY:CA	2.39	0.71
1:B:129:LEU:HD21	1:E:521:PRO:HG2	1.72	0.71
1:D:451:VAL:HG21	1:D:474:ILE:HA	1.70	0.71
1:F:85:ASP:OD2	1:F:116:VAL:CG1	2.38	0.71
1:C:196:MET:HE1	1:C:230:HIS:CD2	2.24	0.71
1:B:275:LEU:HD23	1:B:275:LEU:N	2.03	0.71
1:F:293:ASN:O	1:F:295:PRO:HD3	1.89	0.71
1:F:239:HIS:NE2	1:F:240:MET:O	2.23	0.71
1:D:417:PHE:CE1	1:D:441:GLN:HB3	2.24	0.71
1:E:173:ILE:HG21	1:E:251:VAL:HG13	1.71	0.71
1:E:435:LEU:N	1:E:435:LEU:CD1	2.53	0.71
1:C:512:GLN:OE1	1:E:98:PRO:HB3	1.91	0.71
1:C:520:LEU:HG	1:C:521:PRO:HD2	1.72	0.71
1:E:32:GLY:HA3	1:E:107:THR:CG2	2.20	0.71
1:C:412:ILE:HD13	1:C:421:TYR:HE1	1.54	0.71
1:F:375:ASP:CG	1:F:414:ARG:CB	2.58	0.71
1:D:166:ALA:O	1:D:167:SER:C	2.28	0.71
1:A:35:ARG:O	1:A:38:GLU:CG	2.38	0.71
1:C:447:ALA:O	1:C:451:VAL:HG13	1.90	0.71
1:F:46:LEU:CD1	1:F:46:LEU:N	2.53	0.71
1:E:102:PHE:HE1	1:E:137:GLY:HA3	1.56	0.71
1:E:257:TYR:CD1	1:E:326:PHE:HB3	2.25	0.71
1:C:412:ILE:HD13	1:C:421:TYR:CE1	2.26	0.71
1:A:337:VAL:CG1	1:A:372:THR:HG23	2.21	0.71
1:D:70:HIS:NE2	1:D:77:LEU:HD13	2.06	0.71
1:D:62:VAL:CG1	1:D:91:TYR:CE2	2.74	0.71
1:A:236:VAL:HG13	1:F:392:ARG:HD3	1.72	0.71
1:D:307:ASP:OD2	1:D:330:GLU:N	2.23	0.71
1:B:47:THR:HG23	1:B:50:GLU:HG3	1.70	0.71
1:F:18:LEU:O	1:F:21:LEU:HB3	1.91	0.71
1:B:48:ALA:HB1	1:B:103:SER:HB3	1.71	0.71
1:A:286:THR:O	1:A:286:THR:HG22	1.90	0.71
1:D:417:PHE:CE1	1:D:441:GLN:CB	2.73	0.71
1:E:259:PRO:HD3	1:E:266:PRO:HB3	1.71	0.71
1:B:348:LEU:HD13	1:B:379:PHE:HE2	1.55	0.71
1:A:112:ALA:CA	1:A:143:GLY:O	2.39	0.71
1:D:62:VAL:HG11	1:D:91:TYR:CE2	2.26	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:445:MET:HG2	1:D:450:ALA:HB2	1.72	0.71
1:A:57:ASP:HB2	1:A:93:THR:HG23	1.73	0.71
1:B:370:VAL:HB	1:B:408:LEU:HD13	1.73	0.71
1:C:414:ARG:NH1	1:C:415:LYS:HZ2	1.89	0.70
1:A:57:ASP:CA	1:A:60:SER:HB2	2.21	0.70
1:B:321:ASN:ND2	1:B:349:ASP:OD2	2.24	0.70
1:E:477:TYR:CE2	1:E:481:LEU:CD1	2.60	0.70
1:A:508:ARG:HH22	1:B:60:SER:CA	2.04	0.70
1:D:146:ILE:O	1:D:149:GLY:N	2.24	0.70
1:B:350:ILE:CD1	1:B:393:ARG:NH1	2.49	0.70
1:B:445:MET:CG	1:B:450:ALA:HB2	2.21	0.70
1:E:329:VAL:C	1:E:331:GLY:N	2.45	0.70
1:F:501:ASP:OD2	1:F:504:ARG:CD	2.39	0.70
1:A:366:PHE:O	1:A:367:ASN:ND2	2.24	0.70
1:A:428:HIS:CD2	1:F:154:GLY:HA2	2.25	0.70
1:C:474:ILE:O	1:C:478:GLU:HG2	1.91	0.70
1:F:186:TYR:O	1:F:189:ALA:HB3	1.91	0.70
1:C:189:ALA:O	1:D:529:PRO:HG3	1.90	0.70
1:B:467:GLU:OE1	1:B:467:GLU:HA	1.91	0.70
1:F:348:LEU:HB3	1:F:379:PHE:HD2	1.55	0.70
1:A:284:LEU:CD2	1:A:499:PRO:O	2.39	0.70
1:F:102:PHE:HZ	1:F:137:GLY:HA3	1.52	0.70
1:B:411:VAL:HA	1:B:435:LEU:O	1.90	0.70
1:B:504:ARG:O	1:B:508:ARG:HG3	1.91	0.70
1:D:477:TYR:CD2	1:D:481:LEU:HD22	2.26	0.70
1:D:262:ASN:OD1	1:D:263:LEU:CD2	2.38	0.70
1:E:307:ASP:OD1	1:E:329:VAL:HA	1.92	0.70
1:C:121:ILE:HG21	1:C:159:ILE:CD1	2.22	0.70
1:A:318:PHE:HZ	1:A:351:THR:CB	1.85	0.70
1:A:416:ALA:CB	1:A:442:ILE:HG13	2.21	0.70
1:C:85:ASP:OD2	1:C:116:VAL:HB	1.90	0.70
1:D:379:PHE:O	1:D:381:PRO:HD3	1.91	0.70
1:F:113:LEU:HG	1:F:156:TYR:CE1	2.26	0.70
1:C:455:HIS:ND1	1:C:473:LEU:HD13	2.07	0.70
1:D:10:ASP:OD1	1:D:11:ILE:HG22	1.90	0.70
1:F:45:LYS:HG2	1:F:244:GLU:OE1	1.90	0.70
1:D:158:GLU:HG3	1:D:162:ARG:HH11	1.53	0.70
1:D:332:ARG:NH1	1:D:332:ARG:HB2	2.07	0.70
1:A:318:PHE:HE2	1:A:351:THR:O	1.73	0.70
1:E:296:TYR:CE1	1:E:414:ARG:NH1	2.59	0.70
1:F:91:TYR:HE1	1:F:127:PHE:CE2	2.09	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:85:ASP:OD2	1:F:116:VAL:CB	2.39	0.70
1:B:302:ILE:HG22	1:B:306:LEU:HD11	1.73	0.70
1:C:284:LEU:HD13	1:C:437:TRP:CH2	2.26	0.70
1:C:421:TYR:CD1	1:C:442:ILE:CG2	2.73	0.70
1:C:477:TYR:CZ	1:C:481:LEU:CD2	2.75	0.70
1:F:348:LEU:CD1	1:F:352:ALA:HB3	2.14	0.70
1:A:71:ARG:HH11	1:A:71:ARG:HG3	1.57	0.70
1:C:358:ARG:NH1	1:D:529:PRO:HA	2.06	0.70
1:A:150:VAL:O	1:F:492:TYR:CE1	2.43	0.70
1:F:349:ASP:OD1	1:F:351:THR:HG23	1.90	0.70
1:C:520:LEU:HD23	1:C:520:LEU:C	2.12	0.70
1:A:284:LEU:HD22	1:A:500:SER:CA	2.21	0.70
1:E:297:ASP:OD2	1:E:299:HIS:HD2	1.73	0.70
1:A:454:LEU:CD2	1:F:147:GLN:HG2	2.21	0.70
1:B:280:GLU:O	1:B:283:GLU:HG3	1.92	0.70
1:B:477:TYR:O	1:B:481:LEU:HB2	1.92	0.70
1:C:305:VAL:HG11	1:C:506:ILE:HD13	1.74	0.70
1:C:63:GLU:OE2	1:C:66:GLU:HB2	1.92	0.70
1:A:412:ILE:HG22	1:A:440:ALA:HB1	1.74	0.70
1:C:275:LEU:CD1	1:C:508:ARG:NH1	2.55	0.70
1:E:501:ASP:OD2	1:E:504:ARG:HD3	1.92	0.70
1:B:488:ALA:CA	1:B:493:VAL:HG22	2.22	0.69
1:B:374:VAL:N	1:B:411:VAL:O	2.22	0.69
1:F:160:PHE:HE1	1:F:187:SER:N	1.90	0.69
1:B:326:PHE:CB	1:B:334:VAL:O	2.40	0.69
1:C:186:TYR:O	1:C:189:ALA:N	2.24	0.69
1:B:223:GLU:C	1:B:223:GLU:OE1	2.30	0.69
1:A:299:HIS:CE1	1:A:323:LEU:HD13	2.27	0.69
1:F:311:PHE:HE1	1:F:325:GLY:HA3	0.94	0.69
1:F:349:ASP:H	1:F:352:ALA:CB	2.05	0.69
1:E:265:GLU:CG	1:E:266:PRO:CD	2.66	0.69
1:E:90:GLY:O	1:E:101:VAL:HG12	1.92	0.69
1:A:432:ASP:OD1	1:A:516:LYS:CE	2.39	0.69
1:C:117:TYR:C	1:C:117:TYR:HD1	1.95	0.69
1:F:125:MET:CE	1:F:163:ASN:ND2	2.54	0.69
1:C:365:ALA:CA	1:D:525:HIS:HE1	2.05	0.69
1:E:45:LYS:C	1:E:46:LEU:HD12	2.12	0.69
1:E:296:TYR:OH	1:E:414:ARG:HD3	1.93	0.69
1:D:117:TYR:CD1	1:D:117:TYR:C	2.66	0.69
1:C:56:LEU:CD2	1:C:92:GLY:C	2.60	0.69
1:B:71:ARG:NH2	1:B:115:GLU:OE2	2.24	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:187:SER:HB3	1:D:188:PRO:HD3	1.72	0.69
1:F:517:ARG:HG2	1:F:517:ARG:HH11	1.57	0.69
1:E:94:VAL:HG12	1:E:95:ASP:OD2	1.91	0.69
1:D:340:GLN:HG3	1:D:342:MET:H	1.57	0.69
1:F:25:ILE:O	1:F:29:THR:HG23	1.92	0.69
1:C:469:THR:O	1:C:472:ARG:HB3	1.93	0.69
1:D:279:ASP:O	1:D:282:ALA:HB3	1.92	0.69
1:B:87:VAL:HG21	1:B:89:THR:HG23	1.74	0.69
1:B:307:ASP:O	1:B:308:ASP:HB2	1.92	0.69
1:D:250:TYR:CZ	1:D:312:PHE:HZ	2.11	0.69
1:D:268:ALA:HB1	1:D:332:ARG:HG3	1.74	0.69
1:C:379:PHE:CD2	1:D:205:ILE:HG12	2.27	0.69
1:E:84:GLY:O	1:E:85:ASP:C	2.30	0.69
1:D:104:GLN:NE2	1:D:117:TYR:OH	2.25	0.69
1:E:64:LEU:O	1:E:65:ASP:HB2	1.92	0.69
1:A:101:VAL:HG23	1:A:138:ILE:CD1	2.23	0.69
1:B:149:GLY:O	1:B:151:ALA:N	2.24	0.69
1:F:272:GLU:HG2	1:F:272:GLU:O	1.92	0.69
1:B:112:ALA:HB3	1:B:145:ARG:HG3	1.73	0.69
1:B:45:LYS:CE	1:B:200:THR:HG23	2.22	0.69
1:D:490:ARG:CD	1:D:492:TYR:CZ	2.72	0.69
1:B:13:THR:O	1:B:17:LYS:HG3	1.91	0.69
1:B:146:ILE:N	1:B:146:ILE:CD1	2.55	0.69
1:C:90:GLY:C	1:C:101:VAL:HG12	2.13	0.69
1:E:322:ILE:CG2	1:E:355:LYS:HD3	2.21	0.69
1:A:383:VAL:HB	1:F:217:GLU:OE1	1.92	0.69
1:E:89:THR:CG2	1:E:120:LYS:HE3	2.23	0.69
1:C:231:ASN:HD21	1:C:239:HIS:C	1.95	0.69
1:F:102:PHE:CE1	1:F:137:GLY:CA	2.75	0.69
1:C:322:ILE:HG21	1:C:352:ALA:HB1	1.74	0.69
1:B:485:TYR:CE1	1:D:24:ARG:HD2	2.28	0.69
1:A:361:ARG:O	1:F:525:HIS:CE1	2.45	0.69
1:A:239:HIS:ND1	1:A:250:TYR:CE1	2.61	0.69
1:E:209:ASP:OD1	1:E:210:VAL:N	2.26	0.69
1:F:349:ASP:OD2	1:F:351:THR:CG2	2.41	0.69
1:D:163:ASN:HB3	1:D:190:ILE:HG21	1.75	0.69
1:A:211:ILE:HD12	1:A:212:LYS:H	1.50	0.69
1:B:104:GLN:CD	1:B:139:ASN:CB	2.60	0.69
1:E:171:PRO:HG3	1:E:366:PHE:CE1	2.28	0.69
1:F:528:ILE:HD13	1:F:529:PRO:CD	2.22	0.69
1:B:457:ARG:HE	1:B:457:ARG:CA	2.03	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:161:ARG:HD2	1:D:165:HIS:CE1	2.27	0.69
1:F:160:PHE:CE1	1:F:186:TYR:HB2	2.28	0.69
1:D:312:PHE:O	1:D:325:GLY:CA	2.41	0.69
1:B:451:VAL:HG11	1:B:474:ILE:HG13	1.75	0.69
1:D:498:MET:HG3	1:D:499:PRO:CD	2.22	0.69
1:A:26:GLU:OE1	1:A:26:GLU:HA	1.93	0.69
1:C:278:THR:O	1:C:281:ASP:N	2.26	0.69
1:B:322:ILE:HG12	1:B:339:ASN:HA	1.74	0.69
1:E:516:LYS:NZ	1:F:131:THR:HG22	2.08	0.69
1:A:308:ASP:C	1:A:310:GLU:H	1.97	0.69
1:B:364:ASP:HB3	1:E:525:HIS:CE1	2.27	0.69
1:E:257:TYR:CD1	1:E:326:PHE:CB	2.76	0.69
1:A:348:LEU:O	1:A:380:LEU:N	2.25	0.69
1:B:236:VAL:CG1	1:E:392:ARG:CB	2.69	0.69
1:C:427:LYS:CD	1:C:434:ASN:OD1	2.37	0.69
1:D:11:ILE:CD1	1:D:20:ASP:OD2	2.39	0.69
1:D:379:PHE:CZ	1:D:420:ALA:CA	2.76	0.69
1:F:209:ASP:HA	1:F:212:LYS:CE	2.15	0.68
1:E:315:GLN:N	1:E:316:PRO:HD3	2.08	0.68
1:B:393:ARG:O	1:B:396:LYS:HG3	1.93	0.68
1:B:243:ASP:OD2	1:B:245:LYS:CE	2.35	0.68
1:D:364:ASP:HB2	1:D:404:ALA:HB1	1.75	0.68
1:D:187:SER:O	1:D:191:THR:HG23	1.93	0.68
1:E:501:ASP:O	1:E:504:ARG:N	2.26	0.68
1:B:448:GLN:O	1:B:452:ASN:ND2	2.24	0.68
1:D:283:GLU:O	1:D:287:ILE:HG13	1.92	0.68
1:B:112:ALA:CB	1:B:145:ARG:HG3	2.23	0.68
1:E:46:LEU:HD12	1:E:46:LEU:N	2.07	0.68
1:E:427:LYS:O	1:E:430:GLY:N	2.27	0.68
1:A:488:ALA:HA	1:A:493:VAL:HG23	1.74	0.68
1:C:117:TYR:CD1	1:C:117:TYR:O	2.45	0.68
1:C:432:ASP:OD2	1:C:516:LYS:CD	2.41	0.68
1:D:62:VAL:HB	1:D:91:TYR:CE2	2.29	0.68
1:C:529:PRO:HB3	1:D:358:ARG:NH1	2.08	0.68
1:F:199:GLN:HG2	1:F:222:GLU:CD	2.13	0.68
1:F:322:ILE:HD13	1:F:356:ALA:HB2	1.75	0.68
1:E:284:LEU:HD13	1:E:304:HIS:HD2	0.92	0.68
1:F:332:ARG:HH12	1:F:510:LEU:HB3	1.58	0.68
1:E:306:LEU:CD1	1:E:327:GLY:HA3	2.24	0.68
1:B:292:ALA:HA	1:B:414:ARG:NH1	2.08	0.68
1:C:441:GLN:HG2	1:C:482:LEU:HB3	1.74	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:172:GLN:HB3	1:F:191:THR:HG23	1.73	0.68
1:D:321:ASN:ND2	1:D:352:ALA:HB2	2.08	0.68
1:F:104:GLN:OE1	1:F:139:ASN:CA	2.36	0.68
1:F:113:LEU:CD1	1:F:114:GLY:H	2.07	0.68
1:A:258:LEU:HD12	1:A:258:LEU:N	2.08	0.68
1:B:485:TYR:CE1	1:D:24:ARG:CD	2.76	0.68
1:D:231:ASN:HB3	1:D:317:LEU:CD2	2.24	0.68
1:E:268:ALA:HB1	1:E:332:ARG:HD3	1.74	0.68
1:F:497:ILE:HD12	1:F:505:HIS:HD2	1.50	0.68
1:A:490:ARG:CD	1:A:492:TYR:CZ	2.70	0.68
1:B:386:GLU:OE2	1:E:205:ILE:HG22	1.93	0.68
1:C:154:GLY:CA	1:D:428:HIS:CE1	2.77	0.68
1:B:405:THR:O	1:B:516:LYS:HD3	1.94	0.68
1:E:474:ILE:O	1:E:478:GLU:CG	2.31	0.68
1:A:69:ARG:NH1	1:A:83:TYR:OH	2.26	0.68
1:D:503:ARG:O	1:D:507:VAL:HG12	1.94	0.68
1:D:480:ALA:C	1:D:481:LEU:HD12	2.13	0.68
1:E:321:ASN:O	1:E:340:GLN:N	2.26	0.68
1:E:289:PRO:HB2	1:E:294:GLN:HE21	1.58	0.68
1:F:497:ILE:HG13	1:F:497:ILE:O	1.93	0.68
1:A:234:SER:OG	1:A:236:VAL:HG22	1.94	0.68
1:E:104:GLN:HA	1:E:117:TYR:OH	1.92	0.68
1:E:327:GLY:O	1:E:334:VAL:HG22	1.94	0.68
1:D:481:LEU:N	1:D:481:LEU:HD12	2.08	0.68
1:C:187:SER:HB3	1:C:188:PRO:HD3	1.74	0.68
1:C:485:TYR:HE1	1:E:24:ARG:HD3	1.59	0.68
1:C:396:LYS:HG2	1:C:528:ILE:CG2	2.24	0.68
1:E:36:ALA:CB	1:E:107:THR:HG23	2.23	0.68
1:C:429:LEU:C	1:D:161:ARG:HG3	2.14	0.68
1:E:464:ASP:O	1:E:465:ASP:HB2	1.93	0.68
1:A:508:ARG:HH11	1:A:508:ARG:HB3	1.58	0.68
1:D:138:ILE:HD12	1:D:138:ILE:N	2.08	0.68
1:B:305:VAL:CG1	1:B:305:VAL:O	2.41	0.68
1:F:215:THR:HG22	1:F:217:GLU:N	2.09	0.68
1:B:45:LYS:HB3	1:B:244:GLU:OE1	1.93	0.68
1:B:442:ILE:HG22	1:E:150:VAL:HG11	1.76	0.68
1:A:485:TYR:HA	1:A:488:ALA:HB3	1.76	0.68
1:C:432:ASP:OD2	1:C:516:LYS:HD2	1.94	0.68
1:F:48:ALA:HA	1:F:103:SER:OG	1.93	0.68
1:D:391:ILE:H	1:D:391:ILE:HD12	1.59	0.68
1:C:189:ALA:O	1:D:529:PRO:CG	2.42	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:383:VAL:HG12	1:A:383:VAL:O	1.94	0.67
1:C:199:GLN:HA	1:C:199:GLN:HE21	1.58	0.67
1:C:217:GLU:OE1	1:D:383:VAL:N	2.27	0.67
1:A:69:ARG:NE	1:A:83:TYR:CZ	2.61	0.67
1:F:517:ARG:HG2	1:F:517:ARG:NH1	2.07	0.67
1:B:262:ASN:CG	1:B:263:LEU:HD22	2.15	0.67
1:A:49:ARG:HG3	1:A:49:ARG:HH11	1.60	0.67
1:D:349:ASP:HB2	1:D:385:GLN:OE1	1.95	0.67
1:F:289:PRO:HB3	1:F:294:GLN:HE21	1.59	0.67
1:A:454:LEU:HD23	1:F:147:GLN:HG2	1.76	0.67
1:C:125:MET:CE	1:C:163:ASN:HD21	2.07	0.67
1:C:520:LEU:CG	1:C:521:PRO:HD2	2.23	0.67
1:E:132:GLY:CA	1:E:261:ASN:HD22	2.07	0.67
1:E:373:PHE:HZ	1:E:506:ILE:HD11	1.59	0.67
1:B:414:ARG:HA	1:B:440:ALA:HA	1.76	0.67
1:E:204:PHE:CE1	1:E:224:LEU:HD23	2.29	0.67
1:B:334:VAL:HG11	1:B:371:LEU:CD1	2.24	0.67
1:D:482:LEU:HD12	1:D:482:LEU:N	2.09	0.67
1:B:445:MET:SD	1:B:450:ALA:N	2.67	0.67
1:C:457:ARG:NH1	1:C:457:ARG:HA	2.05	0.67
1:E:324:THR:HA	1:E:336:ILE:O	1.94	0.67
1:E:139:ASN:HB2	1:E:176:VAL:HG22	1.76	0.67
1:E:251:VAL:O	1:E:255:LEU:HB2	1.95	0.67
1:C:300:SER:O	1:C:304:HIS:CE1	2.47	0.67
1:E:102:PHE:CD1	1:E:137:GLY:HA2	2.28	0.67
1:D:158:GLU:HG3	1:D:162:ARG:HH12	1.59	0.67
1:E:163:ASN:HA	1:E:172:GLN:HE22	1.57	0.67
1:D:284:LEU:HD12	1:D:287:ILE:HD13	1.74	0.67
1:E:482:LEU:HD12	1:E:482:LEU:N	2.10	0.67
1:E:197:VAL:HA	1:E:241:ALA:HB3	1.76	0.67
1:A:262:ASN:C	1:A:263:LEU:HD22	2.14	0.67
1:C:161:ARG:HG3	1:D:429:LEU:O	1.95	0.67
1:E:339:ASN:HD22	1:E:375:ASP:C	1.96	0.67
1:C:412:ILE:HG22	1:C:440:ALA:HB1	1.77	0.67
1:F:230:HIS:CE1	1:F:236:VAL:HG11	2.30	0.67
1:C:530:LEU:HB3	1:D:396:LYS:NZ	2.09	0.67
1:D:52:ILE:HG22	1:D:56:LEU:CD1	2.24	0.67
1:D:256:SER:O	1:D:267:PRO:HG3	1.95	0.67
1:C:306:LEU:HD22	1:C:327:GLY:CA	2.25	0.67
1:E:125:MET:CE	1:E:163:ASN:HD21	2.08	0.67
1:B:452:ASN:O	1:B:456:ARG:HB2	1.92	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:268:ALA:HB2	1:C:332:ARG:HD2	1.76	0.67
1:D:296:TYR:HE1	1:D:414:ARG:HH21	1.36	0.67
1:D:40:GLN:NE2	1:D:45:LYS:CE	2.38	0.67
1:E:434:ASN:HB3	1:E:493:VAL:HG22	1.75	0.67
1:F:113:LEU:HD13	1:F:117:TYR:CD1	2.30	0.67
1:D:434:ASN:C	1:D:435:LEU:HD13	2.15	0.67
1:F:36:ALA:O	1:F:39:LYS:HB3	1.94	0.67
1:F:275:LEU:HD12	1:F:275:LEU:N	2.09	0.67
1:A:281:ASP:O	1:A:284:LEU:CD1	2.31	0.67
1:F:163:ASN:ND2	1:F:172:GLN:OE1	2.28	0.67
1:E:57:ASP:OD2	1:E:95:ASP:N	2.27	0.67
1:A:162:ARG:HH11	1:A:162:ARG:CG	2.07	0.67
1:E:196:MET:HG3	1:E:227:ALA:HB1	1.76	0.67
1:B:57:ASP:OD1	1:B:95:ASP:N	2.28	0.67
1:C:290:ASP:OD1	1:E:13:THR:HB	1.95	0.67
1:E:379:PHE:O	1:E:381:PRO:HD3	1.93	0.67
1:C:89:THR:HB	1:C:124:VAL:CG2	2.24	0.67
1:C:99:VAL:HG12	1:C:100:ALA:O	1.94	0.67
1:C:509:GLY:O	1:C:513:LEU:HD23	1.94	0.67
1:F:213:THR:OG1	1:F:214:VAL:HG23	1.94	0.67
1:D:185:VAL:O	1:D:188:PRO:HD2	1.95	0.67
1:E:488:ALA:HB1	1:F:67:PHE:HB2	1.77	0.67
1:A:405:THR:HG22	1:A:518:GLU:HB2	1.76	0.67
1:A:211:ILE:CD1	1:A:211:ILE:C	2.61	0.67
1:C:414:ARG:NH1	1:C:415:LYS:NZ	2.41	0.67
1:C:429:LEU:O	1:D:161:ARG:CG	2.43	0.67
1:C:498:MET:N	1:C:501:ASP:OD2	2.28	0.67
1:A:45:LYS:HE2	1:A:200:THR:CG2	2.25	0.67
1:C:40:GLN:HA	1:C:40:GLN:NE2	2.09	0.67
1:A:171:PRO:HG3	1:A:366:PHE:CE1	2.29	0.67
1:A:320:PRO:O	1:A:322:ILE:N	2.27	0.66
1:E:104:GLN:CB	1:E:117:TYR:OH	2.42	0.66
1:C:429:LEU:HD12	1:C:429:LEU:N	2.10	0.66
1:D:273:ALA:N	1:D:330:GLU:OE1	2.28	0.66
1:F:302:ILE:HD13	1:F:336:ILE:HG21	1.76	0.66
1:C:379:PHE:CD2	1:D:205:ILE:CD1	2.74	0.66
1:B:51:ARG:NE	1:B:177:VAL:HG21	2.11	0.66
1:C:21:LEU:CD2	1:F:438:PRO:HG3	2.18	0.66
1:B:205:ILE:HG21	1:E:390:ILE:HG21	1.77	0.66
1:A:113:LEU:O	1:A:145:ARG:HG3	1.94	0.66
1:E:172:GLN:HB3	1:E:191:THR:HG23	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:113:LEU:HD22	1:B:113:LEU:N	2.09	0.66
1:E:433:LEU:N	1:E:433:LEU:HD12	2.09	0.66
1:B:498:MET:SD	1:D:21:LEU:CD2	2.71	0.66
1:B:181:ALA:HB1	1:B:204:PHE:CE1	2.30	0.66
1:D:175:LEU:HD13	1:D:195:VAL:HB	1.78	0.66
1:E:329:VAL:HG12	1:E:330:GLU:HG3	1.77	0.66
1:C:275:LEU:CD1	1:C:508:ARG:HH12	2.08	0.66
1:C:334:VAL:HG12	1:C:369:PRO:HB2	1.78	0.66
1:C:91:TYR:CE1	1:F:512:GLN:HG3	2.31	0.66
1:A:181:ALA:HB2	1:A:204:PHE:CE2	2.25	0.66
1:F:332:ARG:HH22	1:F:514:ARG:HG2	1.54	0.66
1:C:78:ASP:O	1:C:80:ASN:N	2.28	0.66
1:D:89:THR:OG1	1:D:120:LYS:HE2	1.95	0.66
1:A:350:ILE:HD11	1:A:390:ILE:CA	2.25	0.66
1:F:315:GLN:N	1:F:316:PRO:HD3	2.11	0.66
1:A:101:VAL:HG23	1:A:138:ILE:HD11	1.77	0.66
1:E:307:ASP:HB2	1:E:328:ARG:O	1.95	0.66
1:D:321:ASN:O	1:D:340:GLN:N	2.22	0.66
1:C:258:LEU:O	1:C:267:PRO:HD3	1.95	0.66
1:D:376:VAL:HG21	1:D:420:ALA:HB1	1.76	0.66
1:F:250:TYR:CE1	1:F:312:PHE:CE1	2.83	0.66
1:B:175:LEU:CD1	1:B:177:VAL:HG13	2.25	0.66
1:B:179:PRO:HA	1:B:202:HIS:O	1.96	0.66
1:B:282:ALA:C	1:B:284:LEU:H	1.97	0.66
1:D:87:VAL:CG1	1:D:117:TYR:CD1	2.78	0.66
1:B:414:ARG:O	1:B:441:GLN:N	2.24	0.66
1:C:434:ASN:C	1:C:435:LEU:HD13	2.15	0.66
1:D:455:HIS:O	1:D:458:THR:N	2.24	0.66
1:D:315:GLN:N	1:D:316:PRO:HD3	2.10	0.66
1:E:307:ASP:CB	1:E:328:ARG:O	2.44	0.66
1:B:85:ASP:OD2	1:B:117:TYR:N	2.28	0.66
1:F:70:HIS:CE1	1:F:77:LEU:HG	2.28	0.66
1:A:61:PHE:CE1	1:A:90:GLY:CA	2.68	0.66
1:A:350:ILE:HD11	1:A:390:ILE:HA	1.78	0.66
1:C:320:PRO:HB2	1:C:343:GLN:HG3	1.78	0.66
1:B:173:ILE:HD13	1:B:254:LEU:CD2	2.21	0.66
1:A:313:GLU:HG2	1:A:316:PRO:HG3	1.77	0.66
1:B:42:ALA:O	1:B:44:GLY:N	2.29	0.66
1:C:262:ASN:ND2	1:C:262:ASN:N	2.42	0.66
1:B:319:ALA:HB3	1:B:355:LYS:CD	2.25	0.66
1:A:35:ARG:HA	1:A:38:GLU:CD	2.15	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:127:PHE:CE2	1:F:131:THR:HG21	2.31	0.66
1:A:494:ASP:OD2	1:B:123:LYS:HE2	1.96	0.66
1:A:62:VAL:HB	1:A:91:TYR:CZ	2.30	0.66
1:B:211:ILE:HG22	1:E:382:GLY:H	1.61	0.66
1:D:330:GLU:OE2	1:D:507:VAL:HG21	1.96	0.66
1:A:99:VAL:HG23	1:A:134:PRO:O	1.95	0.66
1:C:193:PHE:HD1	1:C:238:HIS:CD2	2.14	0.66
1:A:146:ILE:CD1	1:A:146:ILE:H	2.08	0.66
1:F:113:LEU:CD1	1:F:114:GLY:N	2.59	0.66
1:E:455:HIS:O	1:E:458:THR:N	2.27	0.66
1:B:173:ILE:CD1	1:B:254:LEU:HD23	2.22	0.66
1:D:427:LYS:CD	1:D:431:ALA:O	2.43	0.66
1:D:322:ILE:HG13	1:D:338:ALA:O	1.96	0.66
1:E:475:GLN:HA	1:E:478:GLU:CD	2.15	0.66
1:E:472:ARG:NH1	1:E:476:GLU:OE2	2.29	0.66
1:F:257:TYR:CE1	1:F:328:ARG:NH2	2.64	0.66
1:A:513:LEU:CG	1:A:516:LYS:HD2	2.21	0.66
1:D:87:VAL:O	1:D:120:LYS:NZ	2.24	0.66
1:B:482:LEU:CD1	1:B:482:LEU:N	2.58	0.66
1:B:243:ASP:OD1	1:B:246:ASP:CB	2.43	0.66
1:C:321:ASN:O	1:C:340:GLN:N	2.22	0.66
1:A:57:ASP:C	1:A:60:SER:CB	2.64	0.66
1:B:418:GLY:C	1:B:420:ALA:N	2.49	0.66
1:C:454:LEU:HD22	1:D:75:PHE:CD2	2.31	0.66
1:A:320:PRO:HB2	1:A:343:GLN:HG3	1.77	0.65
1:A:383:VAL:HG22	1:F:219:VAL:HG21	1.76	0.65
1:E:497:ILE:O	1:E:497:ILE:HD12	1.96	0.65
1:E:350:ILE:CG2	1:E:393:ARG:NE	2.58	0.65
1:B:311:PHE:HE1	1:B:325:GLY:HA3	1.60	0.65
1:E:169:VAL:HG22	1:E:262:ASN:ND2	2.11	0.65
1:D:16:GLY:O	1:D:19:ALA:CB	2.40	0.65
1:F:275:LEU:HD23	1:F:508:ARG:HH22	1.60	0.65
1:E:337:VAL:HG21	1:E:401:TYR:OH	1.96	0.65
1:A:17:LYS:O	1:A:20:ASP:HB3	1.96	0.65
1:D:87:VAL:HG12	1:D:117:TYR:CD1	2.31	0.65
1:D:435:LEU:HB2	1:D:497:ILE:HD13	1.78	0.65
1:E:263:LEU:HD22	1:E:263:LEU:N	2.11	0.65
1:D:332:ARG:HE	1:D:514:ARG:CZ	2.09	0.65
1:B:319:ALA:HB3	1:B:355:LYS:HD3	1.78	0.65
1:F:490:ARG:HH11	1:F:490:ARG:CG	2.09	0.65
1:A:435:LEU:HG	1:A:505:HIS:ND1	2.10	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:231:ASN:HB3	1:D:317:LEU:HD23	1.78	0.65
1:A:56:LEU:HD11	1:A:101:VAL:HG11	1.77	0.65
1:E:113:LEU:CD2	1:E:117:TYR:HD1	2.09	0.65
1:C:114:GLY:O	1:C:117:TYR:CB	2.43	0.65
1:C:178:GLY:O	1:C:179:PRO:O	2.14	0.65
1:F:120:LYS:O	1:F:124:VAL:HG23	1.96	0.65
1:A:483:ASN:HB2	1:A:484:PRO:CD	2.21	0.65
1:B:469:THR:HG23	1:B:470:ARG:N	2.09	0.65
1:A:10:ASP:O	1:A:16:GLY:HA3	1.96	0.65
1:A:112:ALA:CB	1:A:143:GLY:O	2.44	0.65
1:A:401:TYR:CE1	1:A:408:LEU:HD11	2.32	0.65
1:A:379:PHE:CE1	1:A:420:ALA:HB2	2.31	0.65
1:A:428:HIS:CE1	1:F:154:GLY:HA3	2.30	0.65
1:E:475:GLN:O	1:E:478:GLU:HG3	1.97	0.65
1:A:497:ILE:CG2	1:A:505:HIS:CE1	2.77	0.65
1:F:528:ILE:CD1	1:F:528:ILE:C	2.65	0.65
1:D:332:ARG:NE	1:D:514:ARG:NH2	2.44	0.65
1:B:318:PHE:O	1:B:355:LYS:CD	2.45	0.65
1:A:62:VAL:HG11	1:A:91:TYR:OH	1.96	0.65
1:E:114:GLY:HA3	1:E:148:GLU:OE2	1.96	0.65
1:A:490:ARG:CG	1:A:492:TYR:CE2	2.73	0.65
1:D:364:ASP:OD1	1:D:406:VAL:HG13	1.96	0.65
1:F:298:MET:HB3	1:F:323:LEU:HD11	1.79	0.65
1:B:205:ILE:HG23	1:B:206:THR:OG1	1.96	0.65
1:C:392:ARG:HD3	1:D:236:VAL:HG22	1.79	0.65
1:A:315:GLN:HB2	1:A:355:LYS:HE3	1.77	0.65
1:C:262:ASN:N	1:C:262:ASN:HD22	1.94	0.65
1:B:127:PHE:O	1:B:131:THR:HG23	1.97	0.65
1:F:321:ASN:N	1:F:321:ASN:OD1	2.30	0.65
1:E:85:ASP:O	1:E:117:TYR:HD2	1.77	0.65
1:F:374:VAL:CG2	1:F:424:MET:HB3	2.27	0.65
1:D:478:GLU:CA	1:D:482:LEU:HD13	2.25	0.65
1:B:146:ILE:H	1:B:146:ILE:HD12	1.57	0.65
1:A:250:TYR:CE1	1:A:312:PHE:HZ	2.15	0.65
1:B:282:ALA:C	1:B:284:LEU:N	2.40	0.65
1:D:21:LEU:HD12	1:D:21:LEU:C	2.17	0.65
1:D:485:TYR:HA	1:D:488:ALA:CB	2.26	0.65
1:E:202:HIS:HB3	1:E:204:PHE:CE2	2.31	0.65
1:B:326:PHE:HA	1:B:334:VAL:O	1.96	0.65
1:C:39:LYS:C	1:C:39:LYS:CD	2.65	0.65
1:D:475:GLN:NE2	1:D:479:ASP:OD2	2.29	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:321:ASN:ND2	1:A:321:ASN:N	2.43	0.65
1:C:398:ILE:HD12	1:C:399:PHE:HA	1.77	0.65
1:D:296:TYR:HE1	1:D:414:ARG:NE	1.95	0.65
1:B:113:LEU:CD2	1:B:143:GLY:O	2.44	0.65
1:E:398:ILE:HG23	1:E:429:LEU:HD11	1.79	0.65
1:A:375:ASP:HB2	1:A:413:THR:OG1	1.96	0.65
1:F:197:VAL:HG23	1:F:200:THR:HB	1.79	0.65
1:C:164:THR:HG23	1:D:399:PHE:CE1	2.32	0.65
1:A:55:LEU:CD1	1:A:136:VAL:HG11	2.26	0.65
1:F:477:TYR:CZ	1:F:481:LEU:HD22	2.32	0.65
1:A:35:ARG:HG2	1:A:38:GLU:OE2	1.97	0.65
1:F:510:LEU:O	1:F:514:ARG:CG	2.42	0.65
1:D:203:MET:O	1:D:204:PHE:HB3	1.96	0.65
1:C:498:MET:O	1:C:501:ASP:N	2.29	0.65
1:D:432:ASP:OD1	1:D:516:LYS:HE3	1.97	0.65
1:D:193:PHE:HD1	1:D:238:HIS:CD2	2.15	0.65
1:A:523:LYS:NZ	1:F:167:SER:O	2.22	0.65
1:B:395:ALA:O	1:B:398:ILE:N	2.30	0.64
1:B:483:ASN:ND2	1:B:485:TYR:HD2	1.94	0.64
1:D:17:LYS:O	1:D:20:ASP:HB2	1.96	0.64
1:C:358:ARG:HH12	1:D:529:PRO:HA	1.62	0.64
1:C:364:ASP:HA	1:C:406:VAL:HG11	1.79	0.64
1:A:401:TYR:CE1	1:A:408:LEU:CD1	2.80	0.64
1:D:103:SER:HA	1:D:138:ILE:HB	1.79	0.64
1:F:46:LEU:H	1:F:46:LEU:CD1	2.09	0.64
1:B:169:VAL:CG1	1:B:262:ASN:OD1	2.46	0.64
1:A:154:GLY:HA2	1:F:428:HIS:HD1	1.61	0.64
1:C:381:PRO:O	1:D:215:THR:CG2	2.45	0.64
1:F:85:ASP:OD2	1:F:117:TYR:N	2.30	0.64
1:B:507:VAL:O	1:B:511:ARG:CG	2.46	0.64
1:D:504:ARG:O	1:D:507:VAL:CG1	2.45	0.64
1:F:25:ILE:O	1:F:29:THR:CG2	2.44	0.64
1:B:344:PHE:O	1:B:347:CYS:SG	2.54	0.64
1:B:74:ASN:HB3	1:B:75:PHE:HD2	1.61	0.64
1:E:427:LYS:CE	1:E:434:ASN:HB2	2.23	0.64
1:A:508:ARG:NH2	1:B:60:SER:CA	2.61	0.64
1:A:399:PHE:CD2	1:A:528:ILE:HD12	2.32	0.64
1:B:235:GLY:HA3	1:B:318:PHE:CZ	2.33	0.64
1:E:344:PHE:O	1:E:345:ALA:HB3	1.97	0.64
1:F:520:LEU:HD12	1:F:521:PRO:N	2.12	0.64
1:A:209:ASP:OD1	1:A:210:VAL:N	2.30	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:243:ASP:OD2	1:E:245:LYS:N	2.29	0.64
1:F:62:VAL:CG1	1:F:91:TYR:HD2	2.11	0.64
1:D:67:PHE:O	1:D:69:ARG:HG3	1.97	0.64
1:F:102:PHE:CE1	1:F:137:GLY:HA2	2.32	0.64
1:C:315:GLN:N	1:C:316:PRO:HD3	2.12	0.64
1:C:103:SER:HG	1:C:138:ILE:HD12	1.58	0.64
1:C:183:GLY:O	1:C:185:VAL:N	2.30	0.64
1:C:196:MET:HE1	1:C:230:HIS:HB2	1.80	0.64
1:C:69:ARG:HD2	1:C:83:TYR:CD1	2.32	0.64
1:A:146:ILE:CG2	1:F:454:LEU:CD2	2.56	0.64
1:F:396:LYS:HG2	1:F:528:ILE:HD11	1.79	0.64
1:E:498:MET:HE2	1:F:18:LEU:HB3	1.79	0.64
1:A:319:ALA:O	1:A:321:ASN:ND2	2.31	0.64
1:F:311:PHE:CZ	1:F:325:GLY:CA	2.72	0.64
1:F:348:LEU:HD11	1:F:353:SER:N	2.13	0.64
1:D:45:LYS:C	1:D:46:LEU:HD12	2.18	0.64
1:C:113:LEU:HD22	1:C:117:TYR:CG	2.33	0.64
1:C:413:THR:O	1:C:440:ALA:CA	2.45	0.64
1:D:250:TYR:CE1	1:D:312:PHE:HZ	2.16	0.64
1:B:47:THR:HG22	1:B:50:GLU:OE1	1.98	0.64
1:D:47:THR:HB	1:D:50:GLU:CG	2.28	0.64
1:A:250:TYR:CD1	1:A:312:PHE:HZ	2.16	0.64
1:C:166:ALA:O	1:C:167:SER:C	2.33	0.64
1:B:337:VAL:O	1:B:372:THR:HA	1.98	0.64
1:A:212:LYS:CD	1:A:212:LYS:C	2.60	0.64
1:B:175:LEU:HD23	1:B:251:VAL:HG21	1.78	0.64
1:C:78:ASP:O	1:C:79:ALA:C	2.35	0.64
1:C:459:ILE:CD1	1:C:473:LEU:CD1	2.68	0.64
1:B:445:MET:SD	1:B:450:ALA:CA	2.86	0.64
1:A:102:PHE:O	1:A:138:ILE:HD13	1.98	0.64
1:D:30:HIS:N	1:D:30:HIS:ND1	2.46	0.64
1:D:383:VAL:HG12	1:D:383:VAL:O	1.97	0.64
1:C:250:TYR:HE1	1:C:312:PHE:CZ	2.07	0.64
1:B:263:LEU:HD22	1:B:263:LEU:N	2.13	0.64
1:C:268:ALA:CB	1:C:332:ARG:HD2	2.28	0.64
1:C:489:GLU:OE1	1:E:81:ARG:NH2	2.28	0.64
1:B:167:SER:HA	1:B:172:GLN:HE21	1.61	0.64
1:C:527:ASN:HA	1:D:361:ARG:HH12	1.63	0.64
1:A:485:TYR:HE1	1:B:67:PHE:CD2	2.16	0.64
1:F:103:SER:HA	1:F:138:ILE:HB	1.80	0.64
1:F:48:ALA:CB	1:F:103:SER:HB3	2.14	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:398:ILE:HG13	1:F:399:PHE:N	2.12	0.64
1:A:63:GLU:HG2	1:A:66:GLU:HB3	1.78	0.64
1:C:421:TYR:CZ	1:C:442:ILE:HG21	2.33	0.64
1:C:421:TYR:CE1	1:C:442:ILE:HG21	2.33	0.64
1:C:411:VAL:HA	1:C:435:LEU:O	1.97	0.64
1:A:386:GLU:HG3	1:F:224:LEU:HD11	1.79	0.63
1:B:45:LYS:HD2	1:B:200:THR:HG21	1.73	0.63
1:C:198:ASP:O	1:C:199:GLN:HB2	1.97	0.63
1:E:509:GLY:O	1:E:513:LEU:HD22	1.98	0.63
1:C:196:MET:CE	1:C:230:HIS:CD2	2.82	0.63
1:A:405:THR:HG23	1:A:518:GLU:HB2	1.80	0.63
1:C:329:VAL:O	1:C:330:GLU:HB3	1.98	0.63
1:F:261:ASN:O	1:F:263:LEU:N	2.31	0.63
1:A:334:VAL:HG21	1:A:371:LEU:HD12	1.78	0.63
1:E:175:LEU:HD23	1:E:195:VAL:HG23	1.80	0.63
1:A:440:ALA:O	1:A:484:PRO:HD3	1.97	0.63
1:F:46:LEU:H	1:F:46:LEU:HD12	1.60	0.63
1:C:485:TYR:CZ	1:E:24:ARG:CD	2.80	0.63
1:F:132:GLY:O	1:F:261:ASN:ND2	2.25	0.63
1:E:268:ALA:HB1	1:E:332:ARG:CD	2.29	0.63
1:B:517:ARG:HH21	1:D:132:GLY:HA2	1.64	0.63
1:D:419:GLY:O	1:D:423:VAL:HG23	1.98	0.63
1:A:382:GLY:HA3	1:A:385:GLN:HB2	1.81	0.63
1:D:208:PRO:CD	1:D:221:PHE:CE1	2.74	0.63
1:E:134:PRO:HG3	1:E:171:PRO:HD2	1.81	0.63
1:C:117:TYR:C	1:C:117:TYR:CD1	2.68	0.63
1:D:113:LEU:CD1	1:D:114:GLY:N	2.58	0.63
1:E:183:GLY:O	1:E:186:TYR:N	2.27	0.63
1:A:387:HIS:O	1:F:234:SER:HA	1.97	0.63
1:A:56:LEU:HD11	1:A:101:VAL:CG1	2.27	0.63
1:C:463:GLY:O	1:C:466:ALA:HB2	1.99	0.63
1:B:113:LEU:HD13	1:B:117:TYR:CE1	2.33	0.63
1:A:35:ARG:O	1:A:39:LYS:HG2	1.98	0.63
1:B:214:VAL:HG21	1:E:381:PRO:HB2	1.81	0.63
1:C:377:PRO:HA	1:C:417:PHE:CD2	2.33	0.63
1:A:65:ASP:HB2	1:A:120:LYS:HE2	1.80	0.63
1:E:94:VAL:HB	1:E:95:ASP:OD2	1.97	0.63
1:B:250:TYR:CZ	1:B:312:PHE:HE2	2.16	0.63
1:B:374:VAL:HG22	1:B:424:MET:HB3	1.80	0.63
1:B:457:ARG:NH2	1:B:460:ALA:HB1	2.12	0.63
1:C:482:LEU:C	1:C:483:ASN:OD1	2.36	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:117:TYR:CE1	1:A:121:ILE:HD11	2.31	0.63
1:B:40:GLN:OE1	1:B:106:PHE:HD2	1.81	0.63
1:F:385:GLN:O	1:F:390:ILE:HB	1.99	0.63
1:D:208:PRO:HD2	1:D:221:PHE:HE1	1.61	0.63
1:E:197:VAL:HG21	1:E:200:THR:HB	1.80	0.63
1:E:241:ALA:CB	1:E:247:ALA:HB2	2.29	0.63
1:E:497:ILE:HD13	1:E:497:ILE:O	1.97	0.63
1:B:429:LEU:C	1:E:161:ARG:HD3	2.19	0.63
1:A:520:LEU:HG	1:A:521:PRO:CD	2.29	0.63
1:D:459:ILE:HG21	1:D:470:ARG:HH21	1.62	0.63
1:C:509:GLY:O	1:C:513:LEU:CD2	2.47	0.63
1:E:265:GLU:HG2	1:E:266:PRO:CD	2.24	0.63
1:E:412:ILE:HD13	1:E:442:ILE:HD11	1.79	0.63
1:A:231:ASN:CB	1:A:317:LEU:HD12	2.22	0.63
1:E:52:ILE:CG2	1:E:56:LEU:CD1	2.77	0.63
1:C:256:SER:O	1:C:267:PRO:CG	2.47	0.63
1:D:324:THR:HG22	1:D:337:VAL:HG22	1.81	0.63
1:F:118:GLY:O	1:F:122:VAL:HG23	1.99	0.63
1:C:26:GLU:HA	1:C:26:GLU:OE1	1.99	0.63
1:A:146:ILE:HD13	1:A:146:ILE:H	1.64	0.63
1:F:47:THR:HG22	1:F:48:ALA:N	2.12	0.63
1:D:104:GLN:HG3	1:D:139:ASN:HA	1.81	0.63
1:E:102:PHE:HE1	1:E:137:GLY:CA	2.05	0.63
1:D:173:ILE:HG21	1:D:251:VAL:HG13	1.81	0.63
1:D:340:GLN:OE1	1:D:341:PRO:HD2	1.97	0.63
1:D:320:PRO:HG2	1:D:343:GLN:HE21	1.64	0.63
1:D:348:LEU:HD13	1:D:379:PHE:HE2	1.64	0.63
1:E:373:PHE:CZ	1:E:506:ILE:HD11	2.33	0.63
1:C:414:ARG:HG2	1:C:415:LYS:HG3	1.81	0.63
1:D:389:GLY:O	1:D:392:ARG:HG2	1.98	0.63
1:B:485:TYR:CZ	1:D:24:ARG:CD	2.82	0.63
1:C:489:GLU:O	1:E:68:ALA:HA	1.98	0.63
1:B:166:ALA:O	1:B:167:SER:C	2.37	0.63
1:D:112:ALA:HA	1:D:143:GLY:O	1.99	0.63
1:E:265:GLU:HA	1:E:367:ASN:HD22	1.63	0.62
1:F:307:ASP:OD1	1:F:329:VAL:HA	1.99	0.62
1:F:48:ALA:HB2	1:F:103:SER:OG	1.99	0.62
1:A:67:PHE:CE2	1:D:485:TYR:CE1	2.80	0.62
1:B:390:ILE:O	1:B:390:ILE:HG13	1.97	0.62
1:C:524:LYS:NZ	1:D:406:VAL:HG13	2.14	0.62
1:B:334:VAL:HG12	1:B:335:GLY:N	2.12	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:501:ASP:O	1:D:502:THR:C	2.37	0.62
1:F:416:ALA:O	1:F:442:ILE:HA	1.99	0.62
1:E:520:LEU:HD23	1:E:520:LEU:H	1.63	0.62
1:D:85:ASP:CG	1:D:116:VAL:HG21	2.20	0.62
1:B:63:GLU:OE2	1:B:66:GLU:HG3	1.98	0.62
1:C:434:ASN:O	1:C:494:ASP:HB2	1.99	0.62
1:F:297:ASP:OD1	1:F:299:HIS:N	2.23	0.62
1:C:396:LYS:HG2	1:C:528:ILE:HG21	1.82	0.62
1:A:409:ILE:HD11	1:A:513:LEU:CD2	2.28	0.62
1:B:217:GLU:OE1	1:E:383:VAL:CG2	2.33	0.62
1:A:68:ALA:CA	1:D:489:GLU:HA	2.28	0.62
1:F:483:ASN:HB2	1:F:484:PRO:HD2	1.81	0.62
1:C:262:ASN:ND2	1:C:262:ASN:H	1.97	0.62
1:B:490:ARG:HD3	1:D:71:ARG:NH1	2.13	0.62
1:B:498:MET:HE3	1:D:22:ARG:CZ	2.30	0.62
1:A:398:ILE:HG21	1:A:423:VAL:HG22	1.78	0.62
1:B:459:ILE:HD12	1:B:470:ARG:CB	2.27	0.62
1:C:69:ARG:HD2	1:C:83:TYR:HE1	1.59	0.62
1:B:185:VAL:CG2	1:E:391:ILE:HG12	2.29	0.62
1:F:208:PRO:O	1:F:211:ILE:HG12	2.00	0.62
1:D:69:ARG:NE	1:D:83:TYR:CE2	2.68	0.62
1:A:282:ALA:O	1:A:284:LEU:N	2.33	0.62
1:C:196:MET:CE	1:C:230:HIS:CB	2.76	0.62
1:F:343:GLN:OE1	1:F:344:PHE:CE1	2.52	0.62
1:F:411:VAL:HG22	1:F:435:LEU:HD12	1.81	0.62
1:B:264:SER:O	1:B:367:ASN:ND2	2.32	0.62
1:B:26:GLU:HA	1:B:26:GLU:OE1	2.00	0.62
1:A:196:MET:HE3	1:A:203:MET:SD	2.40	0.62
1:A:432:ASP:OD2	1:A:516:LYS:HE2	1.97	0.62
1:B:498:MET:HG3	1:B:499:PRO:HD3	1.81	0.62
1:C:48:ALA:HA	1:C:51:ARG:HD2	1.80	0.62
1:C:320:PRO:CB	1:C:343:GLN:HG3	2.29	0.62
1:B:40:GLN:O	1:B:43:LYS:HB2	2.00	0.62
1:C:308:ASP:O	1:C:309:ALA:C	2.38	0.62
1:F:219:VAL:CG1	1:F:224:LEU:HB2	2.30	0.62
1:A:498:MET:HG3	1:A:499:PRO:CD	2.29	0.62
1:D:456:ARG:NH1	1:D:456:ARG:HG2	2.04	0.62
1:D:308:ASP:O	1:D:309:ALA:C	2.36	0.62
1:B:104:GLN:CD	1:B:139:ASN:HA	2.20	0.62
1:A:508:ARG:NH1	1:A:508:ARG:HB3	2.15	0.62
1:A:190:ILE:HD11	1:F:398:ILE:HD11	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:319:ALA:O	1:C:321:ASN:N	2.33	0.62
1:E:263:LEU:H	1:E:263:LEU:HD22	1.64	0.62
1:E:496:VAL:HG23	1:F:67:PHE:CE1	2.35	0.62
1:C:406:VAL:O	1:C:408:LEU:CD1	2.47	0.62
1:A:348:LEU:CD1	1:A:379:PHE:CD2	2.75	0.62
1:F:490:ARG:HD3	1:F:492:TYR:CZ	2.34	0.62
1:A:219:VAL:HG11	1:A:224:LEU:HB2	1.82	0.62
1:E:317:LEU:HD12	1:E:317:LEU:H	1.65	0.62
1:A:383:VAL:CG2	1:F:217:GLU:CD	2.68	0.62
1:A:204:PHE:HA	1:F:386:GLU:OE2	2.00	0.62
1:C:199:GLN:HA	1:C:199:GLN:NE2	2.15	0.62
1:E:70:HIS:HD2	1:E:72:SER:HB3	1.63	0.62
1:E:84:GLY:O	1:E:86:GLY:N	2.33	0.62
1:E:427:LYS:NZ	1:E:434:ASN:OD1	2.24	0.62
1:A:330:GLU:OE1	1:A:507:VAL:CG1	2.48	0.62
1:C:299:HIS:NE2	1:C:323:LEU:HD13	2.15	0.62
1:A:238:HIS:HA	1:A:315:GLN:HG2	1.82	0.62
1:E:56:LEU:HD22	1:E:92:GLY:HA3	1.82	0.62
1:E:160:PHE:HE1	1:E:187:SER:CB	2.13	0.62
1:E:427:LYS:HE3	1:E:494:ASP:CG	2.20	0.61
1:B:69:ARG:HD2	1:B:81:ARG:O	1.99	0.61
1:B:354:GLU:OE2	1:B:393:ARG:CD	2.37	0.61
1:A:104:GLN:CG	1:A:140:ASP:O	2.47	0.61
1:F:28:ALA:HA	1:F:83:TYR:HD1	1.64	0.61
1:C:322:ILE:CG2	1:C:352:ALA:HB1	2.30	0.61
1:F:374:VAL:CG2	1:F:424:MET:CB	2.78	0.61
1:B:361:ARG:HD2	1:B:403:GLU:OE2	1.99	0.61
1:A:193:PHE:HD1	1:A:238:HIS:CD2	2.18	0.61
1:F:287:ILE:HG13	1:F:296:TYR:CD2	2.35	0.61
1:B:418:GLY:C	1:B:420:ALA:H	2.03	0.61
1:E:475:GLN:HA	1:E:478:GLU:CG	2.30	0.61
1:B:477:TYR:O	1:B:481:LEU:N	2.29	0.61
1:B:477:TYR:CD2	1:B:481:LEU:HD22	2.34	0.61
1:D:161:ARG:HD2	1:D:165:HIS:HE1	1.64	0.61
1:C:183:GLY:O	1:C:184:ALA:C	2.38	0.61
1:A:101:VAL:HG21	1:A:138:ILE:HD11	1.81	0.61
1:D:49:ARG:HA	1:D:52:ILE:HD12	1.83	0.61
1:A:464:ASP:O	1:A:465:ASP:HB2	1.99	0.61
1:A:401:TYR:HE1	1:A:408:LEU:CD1	2.13	0.61
1:E:321:ASN:O	1:E:340:GLN:CB	2.48	0.61
1:A:69:ARG:CZ	1:A:83:TYR:CE1	2.76	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:477:TYR:CE2	1:B:481:LEU:HD22	2.32	0.61
1:C:300:SER:O	1:C:304:HIS:NE2	2.34	0.61
1:C:498:MET:O	1:C:501:ASP:CB	2.47	0.61
1:E:399:PHE:CE2	1:E:528:ILE:HB	2.35	0.61
1:C:196:MET:HE1	1:C:230:HIS:CB	2.29	0.61
1:B:373:PHE:CD1	1:B:373:PHE:N	2.68	0.61
1:E:114:GLY:H	1:E:117:TYR:HB3	1.66	0.61
1:B:292:ALA:HA	1:B:414:ARG:HH12	1.63	0.61
1:A:84:GLY:C	1:A:86:GLY:H	2.02	0.61
1:C:350:ILE:HG21	1:C:393:ARG:HD3	1.81	0.61
1:B:74:ASN:O	1:B:77:LEU:HB2	2.01	0.61
1:A:462:ALA:O	1:A:464:ASP:N	2.26	0.61
1:B:185:VAL:O	1:B:188:PRO:HD2	2.00	0.61
1:B:517:ARG:NH2	1:D:132:GLY:HA2	2.15	0.61
1:F:321:ASN:HD21	1:F:349:ASP:CB	2.12	0.61
1:B:278:THR:O	1:B:281:ASP:N	2.29	0.61
1:F:117:TYR:CD1	1:F:117:TYR:C	2.72	0.61
1:F:160:PHE:CZ	1:F:186:TYR:HB2	2.36	0.61
1:D:128:ALA:CB	1:D:135:VAL:HG22	2.30	0.61
1:A:525:HIS:CE1	1:F:361:ARG:O	2.53	0.61
1:E:113:LEU:HD23	1:E:117:TYR:HD1	1.64	0.61
1:F:113:LEU:HD22	1:F:117:TYR:HE1	1.61	0.61
1:D:117:TYR:C	1:D:117:TYR:HD1	2.00	0.61
1:B:236:VAL:CG1	1:E:392:ARG:CG	2.79	0.61
1:C:323:LEU:N	1:C:323:LEU:HD23	2.16	0.61
1:F:181:ALA:HB2	1:F:204:PHE:CE1	2.27	0.61
1:B:469:THR:CG2	1:B:470:ARG:N	2.64	0.61
1:C:90:GLY:O	1:C:101:VAL:N	2.29	0.61
1:A:113:LEU:HD13	1:A:114:GLY:H	1.65	0.61
1:E:343:GLN:O	1:E:344:PHE:HB2	2.01	0.61
1:E:520:LEU:HD23	1:E:520:LEU:N	2.15	0.61
1:D:417:PHE:CD1	1:D:443:ALA:CB	2.80	0.61
1:D:85:ASP:CG	1:D:116:VAL:CG2	2.69	0.61
1:E:455:HIS:CD2	1:E:473:LEU:HD13	2.36	0.61
1:F:19:ALA:HA	1:F:22:ARG:CD	2.25	0.61
1:F:324:THR:HG21	1:F:355:LYS:HD3	1.83	0.61
1:C:14:THR:HG23	1:F:439:THR:CG2	2.31	0.61
1:A:257:TYR:CZ	1:A:326:PHE:HB2	2.36	0.61
1:D:520:LEU:HG	1:D:521:PRO:HD3	1.79	0.61
1:E:94:VAL:CG1	1:E:95:ASP:OD2	2.48	0.61
1:A:337:VAL:HG12	1:A:372:THR:HG23	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:349:ASP:HB3	1:D:380:LEU:HB3	1.82	0.61
1:A:167:SER:OG	1:F:527:ASN:HB2	2.01	0.61
1:E:319:ALA:N	1:E:320:PRO:HD3	2.14	0.61
1:D:445:MET:HG3	1:D:446:GLY:O	2.01	0.61
1:A:417:PHE:HZ	1:A:441:GLN:NE2	1.98	0.61
1:E:195:VAL:HG12	1:E:239:HIS:HB3	1.81	0.61
1:F:332:ARG:HH21	1:F:514:ARG:CG	2.02	0.61
1:E:459:ILE:HG21	1:E:470:ARG:NH2	2.16	0.61
1:C:284:LEU:O	1:C:285:ASP:C	2.39	0.61
1:C:234:SER:O	1:D:392:ARG:NH1	2.33	0.61
1:D:456:ARG:NH1	1:D:456:ARG:HG3	2.12	0.61
1:F:183:GLY:O	1:F:185:VAL:N	2.34	0.61
1:C:358:ARG:HH11	1:C:358:ARG:CG	2.11	0.61
1:C:364:ASP:OD1	1:C:405:THR:N	2.33	0.61
1:F:49:ARG:HG3	1:F:49:ARG:HH11	1.66	0.61
1:E:289:PRO:HB2	1:E:294:GLN:NE2	2.16	0.61
1:D:371:LEU:HB3	1:D:373:PHE:HE1	1.65	0.61
1:F:199:GLN:HG2	1:F:222:GLU:OE1	2.00	0.61
1:C:104:GLN:HB2	1:C:140:ASP:H	1.65	0.60
1:F:87:VAL:HB	1:F:117:TYR:CE2	2.36	0.60
1:F:87:VAL:HG13	1:F:120:LYS:HD3	1.83	0.60
1:F:266:PRO:CB	1:F:333:PRO:HG2	2.29	0.60
1:E:114:GLY:CA	1:E:148:GLU:OE2	2.49	0.60
1:E:161:ARG:O	1:E:165:HIS:ND1	2.35	0.60
1:F:113:LEU:HD12	1:F:114:GLY:N	2.16	0.60
1:A:74:ASN:O	1:A:77:LEU:HB2	2.01	0.60
1:B:205:ILE:N	1:E:386:GLU:OE2	2.27	0.60
1:B:140:ASP:HA	1:B:178:GLY:CA	2.30	0.60
1:F:330:GLU:OE2	1:F:507:VAL:CG2	2.49	0.60
1:F:458:THR:O	1:F:461:ASP:HB2	2.01	0.60
1:F:250:TYR:CG	1:F:312:PHE:HZ	2.18	0.60
1:B:180:CYS:N	1:B:202:HIS:O	2.35	0.60
1:E:47:THR:O	1:E:50:GLU:N	2.34	0.60
1:B:520:LEU:CD1	1:B:520:LEU:N	2.63	0.60
1:B:498:MET:CG	1:B:499:PRO:HD2	2.29	0.60
1:F:106:PHE:O	1:F:110:GLY:HA2	2.02	0.60
1:A:67:PHE:O	1:A:83:TYR:CB	2.49	0.60
1:E:529:PRO:C	1:E:530:LEU:HD23	2.21	0.60
1:C:456:ARG:HH11	1:C:456:ARG:CB	2.14	0.60
1:D:193:PHE:CD1	1:D:238:HIS:CD2	2.88	0.60
1:B:187:SER:HB3	1:B:188:PRO:HD3	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:100:ALA:O	1:B:135:VAL:HA	2.01	0.60
1:C:32:GLY:C	1:C:107:THR:HG21	2.19	0.60
1:B:138:ILE:N	1:B:138:ILE:CD1	2.65	0.60
1:A:146:ILE:CB	1:F:454:LEU:HD21	2.31	0.60
1:A:329:VAL:C	1:A:331:GLY:N	2.54	0.60
1:A:164:THR:HG23	1:F:399:PHE:CD1	2.35	0.60
1:D:312:PHE:O	1:D:312:PHE:CD2	2.54	0.60
1:B:454:LEU:HD13	1:E:75:PHE:HZ	1.60	0.60
1:E:280:GLU:N	1:E:280:GLU:OE2	2.34	0.60
1:E:208:PRO:O	1:E:211:ILE:HG12	2.02	0.60
1:C:125:MET:HE2	1:C:163:ASN:HD21	1.65	0.60
1:F:145:ARG:HD2	1:F:148:GLU:OE2	2.01	0.60
1:C:524:LYS:NZ	1:D:406:VAL:CG1	2.64	0.60
1:F:46:LEU:HD13	1:F:244:GLU:OE2	2.00	0.60
1:D:480:ALA:HB3	1:D:481:LEU:HD13	1.81	0.60
1:E:329:VAL:O	1:E:330:GLU:HB2	2.01	0.60
1:C:485:TYR:CD1	1:E:24:ARG:NE	2.70	0.60
1:C:268:ALA:CB	1:C:332:ARG:CD	2.79	0.60
1:C:372:THR:HG22	1:C:409:ILE:O	2.01	0.60
1:E:32:GLY:CA	1:E:107:THR:HG21	2.31	0.60
1:A:34:ALA:O	1:A:38:GLU:HG2	2.02	0.60
1:E:296:TYR:OH	1:E:414:ARG:CD	2.50	0.60
1:F:144:ALA:HB2	1:F:156:TYR:HE2	1.67	0.60
1:B:307:ASP:OD2	1:B:330:GLU:N	2.34	0.60
1:A:398:ILE:CD1	1:F:186:TYR:HB3	2.32	0.60
1:A:40:GLN:HA	1:A:43:LYS:HE2	1.83	0.60
1:F:158:GLU:O	1:F:162:ARG:HG3	2.01	0.60
1:F:257:TYR:HE1	1:F:328:ARG:CZ	2.12	0.60
1:F:48:ALA:CA	1:F:103:SER:OG	2.49	0.60
1:A:117:TYR:HD1	1:A:117:TYR:O	1.85	0.60
1:D:411:VAL:HG22	1:D:435:LEU:HD23	1.84	0.60
1:D:340:GLN:HG3	1:D:342:MET:N	2.16	0.60
1:F:288:VAL:HG21	1:F:439:THR:HG21	1.82	0.60
1:A:168:GLY:HA2	1:F:527:ASN:ND2	2.16	0.60
1:D:40:GLN:OE1	1:D:45:LYS:CE	2.50	0.60
1:E:412:ILE:HB	1:E:436:ALA:HA	1.84	0.60
1:A:75:PHE:CD2	1:F:454:LEU:HD13	2.37	0.60
1:A:281:ASP:C	1:A:284:LEU:HD13	2.20	0.60
1:B:281:ASP:O	1:B:284:LEU:HD13	2.01	0.60
1:B:417:PHE:HZ	1:B:441:GLN:OE1	1.84	0.60
1:D:150:VAL:O	1:D:153:LEU:N	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:490:ARG:HD3	1:F:492:TYR:CE2	2.36	0.60
1:A:485:TYR:CE1	1:B:67:PHE:CE2	2.88	0.60
1:A:499:PRO:HD3	1:B:18:LEU:CD2	2.32	0.60
1:F:528:ILE:CD1	1:F:529:PRO:O	2.49	0.60
1:A:71:ARG:NH1	1:A:71:ARG:HG3	2.16	0.60
1:C:422:ALA:HA	1:C:426:SER:OG	2.02	0.60
1:B:451:VAL:HG11	1:B:474:ILE:CG1	2.31	0.60
1:B:262:ASN:ND2	1:B:263:LEU:HD21	2.16	0.60
1:E:311:PHE:CZ	1:E:312:PHE:O	2.55	0.60
1:E:51:ARG:NH1	1:E:177:VAL:CG2	2.65	0.60
1:C:444:VAL:HG22	1:D:149:GLY:O	2.02	0.60
1:E:18:LEU:O	1:E:21:LEU:HB3	2.02	0.60
1:C:477:TYR:C	1:C:477:TYR:CD1	2.75	0.60
1:D:63:GLU:CG	1:D:66:GLU:HB2	2.28	0.60
1:B:455:HIS:CD2	1:B:473:LEU:HD13	2.36	0.60
1:A:259:PRO:HG3	1:A:366:PHE:O	2.01	0.60
1:E:360:VAL:HG12	1:E:400:ALA:HB1	1.82	0.60
1:F:150:VAL:O	1:F:152:SER:N	2.34	0.60
1:E:285:ASP:HA	1:E:499:PRO:HB2	1.84	0.59
1:B:198:ASP:HA	1:B:227:ALA:HB3	1.82	0.59
1:E:241:ALA:HB1	1:E:243:ASP:O	2.01	0.59
1:E:369:PRO:HB3	1:E:407:PRO:HB2	1.83	0.59
1:B:374:VAL:HB	1:B:412:ILE:HG12	1.84	0.59
1:C:340:GLN:CG	1:C:342:MET:HB2	2.31	0.59
1:A:193:PHE:HA	1:A:238:HIS:ND1	2.17	0.59
1:A:162:ARG:NH1	1:A:162:ARG:HG2	2.14	0.59
1:B:196:MET:SD	1:B:227:ALA:HA	2.42	0.59
1:E:412:ILE:HD11	1:E:442:ILE:CD1	2.31	0.59
1:F:56:LEU:HD22	1:F:92:GLY:C	2.21	0.59
1:A:45:LYS:HG2	1:A:200:THR:HG21	1.84	0.59
1:B:146:ILE:HG12	1:E:453:ILE:HG21	1.83	0.59
1:D:442:ILE:HD12	1:D:484:PRO:HA	1.83	0.59
1:E:375:ASP:OD1	1:E:414:ARG:HB3	2.03	0.59
1:B:434:ASN:C	1:B:435:LEU:HD13	2.22	0.59
1:C:437:TRP:CZ2	1:C:502:THR:HG21	2.35	0.59
1:F:28:ALA:HA	1:F:83:TYR:CD1	2.37	0.59
1:C:158:GLU:OE1	1:C:161:ARG:NH2	2.34	0.59
1:E:373:PHE:HZ	1:E:506:ILE:CD1	2.15	0.59
1:D:250:TYR:CZ	1:D:312:PHE:CZ	2.89	0.59
1:B:321:ASN:HB2	1:B:352:ALA:HB2	1.85	0.59
1:F:211:ILE:O	1:F:215:THR:N	2.33	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:198:ASP:HB2	1:C:240:MET:HG3	1.84	0.59
1:E:296:TYR:OH	1:E:414:ARG:HG2	2.03	0.59
1:A:485:TYR:OH	1:B:21:LEU:HD13	2.02	0.59
1:B:65:ASP:OD1	1:B:123:LYS:NZ	2.29	0.59
1:B:398:ILE:CD1	1:E:186:TYR:CD2	2.85	0.59
1:F:374:VAL:HG21	1:F:424:MET:HB3	1.82	0.59
1:D:432:ASP:O	1:D:433:LEU:CD1	2.50	0.59
1:D:435:LEU:HD13	1:D:435:LEU:N	2.18	0.59
1:F:436:ALA:O	1:F:496:VAL:CG1	2.51	0.59
1:F:457:ARG:CG	1:F:457:ARG:HH11	2.10	0.59
1:E:148:GLU:CB	1:E:152:SER:HB2	2.28	0.59
1:F:56:LEU:HD12	1:F:61:PHE:HD1	1.66	0.59
1:C:516:LYS:HZ3	1:E:130:LYS:HB2	1.67	0.59
1:F:106:PHE:O	1:F:110:GLY:CA	2.51	0.59
1:C:455:HIS:CG	1:C:473:LEU:HD13	2.38	0.59
1:B:485:TYR:OH	1:D:24:ARG:HD2	2.02	0.59
1:A:262:ASN:O	1:A:262:ASN:CG	2.39	0.59
1:B:318:PHE:O	1:B:355:LYS:NZ	2.36	0.59
1:A:334:VAL:HG21	1:A:371:LEU:HD11	1.84	0.59
1:A:199:GLN:O	1:A:199:GLN:HG2	2.01	0.59
1:A:471:ALA:O	1:A:474:ILE:HB	2.02	0.59
1:E:173:ILE:HG13	1:E:193:PHE:HB2	1.85	0.59
1:F:91:TYR:CE1	1:F:127:PHE:CE2	2.88	0.59
1:D:14:THR:O	1:D:18:LEU:CD1	2.50	0.59
1:B:348:LEU:HB3	1:B:379:PHE:CE2	2.36	0.59
1:E:219:VAL:CG1	1:E:224:LEU:HB2	2.32	0.59
1:B:450:ALA:O	1:B:454:LEU:HB2	2.02	0.59
1:B:169:VAL:HG13	1:B:262:ASN:OD1	2.02	0.59
1:E:322:ILE:O	1:E:355:LYS:NZ	2.36	0.59
1:E:311:PHE:CE2	1:E:313:GLU:HG2	2.38	0.59
1:A:434:ASN:C	1:A:435:LEU:HD13	2.23	0.59
1:B:62:VAL:HG21	1:B:91:TYR:CZ	2.38	0.59
1:D:330:GLU:OE2	1:D:507:VAL:HG23	2.02	0.59
1:F:483:ASN:ND2	1:F:485:TYR:HD2	2.00	0.59
1:E:299:HIS:CE1	1:E:323:LEU:HD13	2.37	0.59
1:F:227:ALA:O	1:F:231:ASN:HB2	2.02	0.59
1:E:257:TYR:CD1	1:E:326:PHE:HB2	2.38	0.59
1:C:153:LEU:HD11	1:D:444:VAL:HA	1.84	0.59
1:E:364:ASP:OD1	1:E:406:VAL:HG13	2.02	0.59
1:C:200:THR:HG22	1:C:200:THR:O	2.02	0.59
1:E:419:GLY:O	1:E:421:TYR:N	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:193:PHE:HA	1:D:238:HIS:ND1	2.17	0.59
1:D:302:ILE:HG23	1:D:336:ILE:HD13	1.85	0.59
1:E:516:LYS:HZ3	1:F:131:THR:HG22	1.66	0.59
1:A:282:ALA:O	1:A:283:GLU:C	2.41	0.59
1:A:284:LEU:HD12	1:A:284:LEU:N	2.18	0.59
1:B:69:ARG:CD	1:B:83:TYR:CE2	2.83	0.59
1:B:501:ASP:OD1	1:B:504:ARG:CD	2.50	0.59
1:C:429:LEU:HD12	1:C:429:LEU:H	1.68	0.59
1:B:61:PHE:CE1	1:B:90:GLY:HA3	2.37	0.59
1:B:485:TYR:OH	1:D:24:ARG:NH1	2.36	0.59
1:D:412:ILE:CG2	1:D:440:ALA:HB2	2.32	0.59
1:D:147:GLN:N	1:D:147:GLN:HE21	1.94	0.58
1:F:490:ARG:HH11	1:F:490:ARG:HG3	1.68	0.58
1:D:348:LEU:HD13	1:D:379:PHE:CE2	2.38	0.58
1:A:288:VAL:HG11	1:A:439:THR:HG21	1.83	0.58
1:B:144:ALA:HB2	1:B:156:TYR:CE2	2.36	0.58
1:E:46:LEU:HD13	1:E:244:GLU:OE2	2.03	0.58
1:E:339:ASN:ND2	1:E:375:ASP:O	2.37	0.58
1:C:113:LEU:CD2	1:C:117:TYR:CD1	2.86	0.58
1:A:67:PHE:HA	1:A:83:TYR:HB3	1.85	0.58
1:F:305:VAL:HG23	1:F:306:LEU:HG	1.85	0.58
1:F:21:LEU:HD12	1:F:21:LEU:O	2.02	0.58
1:D:62:VAL:HG21	1:D:91:TYR:CZ	2.39	0.58
1:C:513:LEU:O	1:C:514:ARG:C	2.40	0.58
1:D:296:TYR:HE1	1:D:414:ARG:NH2	1.94	0.58
1:A:487:ALA:O	1:A:492:TYR:HD2	1.87	0.58
1:C:429:LEU:H	1:C:429:LEU:CD1	2.16	0.58
1:D:350:ILE:HD12	1:D:393:ARG:CZ	2.34	0.58
1:C:320:PRO:O	1:C:322:ILE:N	2.36	0.58
1:D:504:ARG:C	1:D:507:VAL:HG12	2.23	0.58
1:C:186:TYR:O	1:C:189:ALA:HB3	2.03	0.58
1:C:10:ASP:CG	1:C:11:ILE:N	2.52	0.58
1:A:520:LEU:HD12	1:A:521:PRO:CD	2.32	0.58
1:D:65:ASP:OD1	1:D:123:LYS:NZ	2.37	0.58
1:E:311:PHE:CE2	1:E:312:PHE:O	2.56	0.58
1:A:485:TYR:CE1	1:B:67:PHE:CD2	2.90	0.58
1:F:399:PHE:CE2	1:F:528:ILE:HB	2.38	0.58
1:B:398:ILE:CD1	1:E:186:TYR:CG	2.87	0.58
1:C:90:GLY:C	1:C:101:VAL:CG1	2.72	0.58
1:C:324:THR:CG2	1:C:355:LYS:HE2	2.33	0.58
1:C:243:ASP:OD1	1:C:246:ASP:HB2	2.02	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:513:LEU:O	1:E:514:ARG:C	2.39	0.58
1:B:69:ARG:HG2	1:B:83:TYR:HA	1.85	0.58
1:C:197:VAL:HG21	1:C:244:GLU:HG2	1.86	0.58
1:C:197:VAL:HG11	1:C:200:THR:HB	1.85	0.58
1:A:68:ALA:O	1:A:85:ASP:OD1	2.22	0.58
1:F:297:ASP:OD1	1:F:299:HIS:HD2	1.86	0.58
1:A:138:ILE:N	1:A:138:ILE:CD1	2.65	0.58
1:F:484:PRO:CG	1:F:496:VAL:HG11	2.30	0.58
1:E:459:ILE:HG21	1:E:470:ARG:HH22	1.67	0.58
1:B:396:LYS:HE2	1:B:530:LEU:HA	1.86	0.58
1:A:399:PHE:CD1	1:F:164:THR:HG23	2.39	0.58
1:B:418:GLY:O	1:B:420:ALA:N	2.37	0.58
1:D:308:ASP:O	1:D:309:ALA:HB3	2.02	0.58
1:B:104:GLN:CG	1:B:139:ASN:HA	2.34	0.58
1:B:340:GLN:O	1:B:341:PRO:C	2.39	0.58
1:A:491:GLY:O	1:B:123:LYS:NZ	2.35	0.58
1:A:350:ILE:HD11	1:A:390:ILE:N	2.18	0.58
1:F:339:ASN:HD22	1:F:376:VAL:HB	1.64	0.58
1:C:63:GLU:OE2	1:C:66:GLU:CB	2.50	0.58
1:D:49:ARG:HH11	1:D:49:ARG:CB	2.12	0.58
1:A:122:VAL:HG13	1:A:162:ARG:HG3	1.85	0.58
1:B:219:VAL:CG1	1:B:223:GLU:OE1	2.52	0.58
1:B:117:TYR:CD1	1:B:117:TYR:C	2.77	0.58
1:F:307:ASP:CG	1:F:328:ARG:O	2.42	0.58
1:A:141:SER:OG	1:A:180:CYS:HA	2.03	0.58
1:B:437:TRP:O	1:B:484:PRO:HG3	2.03	0.58
1:A:54:LEU:HD23	1:A:248:VAL:HG21	1.85	0.58
1:E:307:ASP:CG	1:E:328:ARG:O	2.41	0.58
1:B:40:GLN:OE1	1:B:106:PHE:CD2	2.57	0.58
1:D:321:ASN:N	1:D:321:ASN:OD1	2.30	0.58
1:A:49:ARG:CG	1:A:49:ARG:HH11	2.17	0.58
1:A:203:MET:CB	1:A:230:HIS:NE2	2.67	0.58
1:A:230:HIS:HB3	1:A:237:ALA:HB2	1.84	0.58
1:C:398:ILE:CD1	1:C:399:PHE:CA	2.74	0.58
1:E:87:VAL:HB	1:E:117:TYR:CZ	2.38	0.58
1:F:127:PHE:O	1:F:131:THR:HG23	2.02	0.58
1:F:94:VAL:O	1:F:97:ARG:N	2.33	0.58
1:D:85:ASP:OD2	1:D:116:VAL:CB	2.49	0.58
1:D:146:ILE:O	1:D:147:GLN:C	2.42	0.58
1:C:429:LEU:O	1:D:161:ARG:HG3	2.03	0.58
1:D:312:PHE:O	1:D:312:PHE:HD2	1.87	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:461:ASP:O	1:A:462:ALA:HB3	2.04	0.58
1:D:348:LEU:CD1	1:D:379:PHE:CE2	2.87	0.58
1:C:208:PRO:HG3	1:C:224:LEU:HD22	1.86	0.58
1:F:194:THR:O	1:F:238:HIS:HB2	2.02	0.58
1:A:320:PRO:O	1:A:321:ASN:C	2.39	0.58
1:E:87:VAL:HG22	1:E:89:THR:HG23	1.84	0.58
1:F:181:ALA:HB1	1:F:204:PHE:CD1	2.39	0.58
1:B:315:GLN:N	1:B:316:PRO:HD3	2.18	0.58
1:D:321:ASN:ND2	1:D:352:ALA:CB	2.67	0.58
1:B:364:ASP:OD2	1:E:525:HIS:CE1	2.56	0.58
1:C:97:ARG:NH2	1:C:267:PRO:HG3	2.19	0.58
1:A:230:HIS:CE1	1:F:391:ILE:HD12	2.39	0.57
1:E:47:THR:O	1:E:49:ARG:N	2.37	0.57
1:C:232:SER:HA	1:C:318:PHE:HB2	1.85	0.57
1:D:85:ASP:OD2	1:D:116:VAL:CG2	2.51	0.57
1:B:63:GLU:HG3	1:B:66:GLU:CG	2.33	0.57
1:A:512:GLN:HG3	1:B:91:TYR:CD1	2.39	0.57
1:A:23:ARG:HD3	1:A:27:GLU:OE1	2.03	0.57
1:F:503:ARG:HB3	1:F:503:ARG:HH11	1.69	0.57
1:D:21:LEU:CD1	1:D:22:ARG:N	2.50	0.57
1:D:87:VAL:HG23	1:D:103:SER:O	2.04	0.57
1:A:71:ARG:HH22	1:A:116:VAL:HG12	1.67	0.57
1:B:262:ASN:HD21	1:B:263:LEU:HD21	1.69	0.57
1:C:275:LEU:HD13	1:C:508:ARG:HH12	1.69	0.57
1:D:379:PHE:HZ	1:D:420:ALA:N	2.02	0.57
1:F:78:ASP:OD1	1:F:79:ALA:N	2.37	0.57
1:A:164:THR:HG21	1:F:402:ALA:CB	2.25	0.57
1:B:134:PRO:HG3	1:B:171:PRO:HD2	1.86	0.57
1:F:366:PHE:O	1:F:367:ASN:OD1	2.23	0.57
1:C:525:HIS:CE1	1:D:361:ARG:O	2.57	0.57
1:D:18:LEU:O	1:D:21:LEU:HG	2.04	0.57
1:A:189:ALA:O	1:F:529:PRO:HG3	2.04	0.57
1:B:379:PHE:O	1:B:381:PRO:HD3	2.04	0.57
1:C:483:ASN:HB3	1:C:484:PRO:HD2	1.85	0.57
1:D:504:ARG:O	1:D:507:VAL:HG12	2.04	0.57
1:A:57:ASP:HB2	1:A:93:THR:CG2	2.34	0.57
1:D:62:VAL:HG11	1:D:91:TYR:CZ	2.40	0.57
1:A:203:MET:HB2	1:A:230:HIS:NE2	2.18	0.57
1:E:375:ASP:HA	1:E:414:ARG:HB2	1.87	0.57
1:F:56:LEU:CD1	1:F:61:PHE:CD1	2.80	0.57
1:B:70:HIS:CE1	1:B:80:ASN:O	2.55	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:130:LYS:HG3	1:E:131:THR:HG22	1.76	0.57
1:B:441:GLN:HG2	1:B:482:LEU:HB3	1.85	0.57
1:B:210:VAL:O	1:B:214:VAL:HG22	2.05	0.57
1:B:392:ARG:NH1	1:E:354:GLU:OE2	2.27	0.57
1:B:262:ASN:HD21	1:B:263:LEU:CD2	2.16	0.57
1:D:69:ARG:HG2	1:D:83:TYR:HA	1.86	0.57
1:A:498:MET:SD	1:B:18:LEU:HB3	2.45	0.57
1:A:281:ASP:HB3	1:A:500:SER:HB2	1.86	0.57
1:B:454:LEU:CD1	1:E:75:PHE:CE2	2.87	0.57
1:A:11:ILE:HG23	1:A:12:HIS:N	2.18	0.57
1:A:166:ALA:HB3	1:A:172:GLN:NE2	2.19	0.57
1:D:276:ALA:O	1:D:277:VAL:C	2.38	0.57
1:B:215:THR:HG22	1:B:217:GLU:HG3	1.85	0.57
1:C:320:PRO:HB2	1:C:343:GLN:CG	2.33	0.57
1:D:312:PHE:C	1:D:312:PHE:CD2	2.77	0.57
1:E:169:VAL:HG22	1:E:262:ASN:HD21	1.69	0.57
1:F:18:LEU:O	1:F:21:LEU:N	2.37	0.57
1:F:150:VAL:O	1:F:151:ALA:C	2.41	0.57
1:A:78:ASP:N	1:A:78:ASP:OD2	2.38	0.57
1:B:104:GLN:NE2	1:B:139:ASN:HB2	2.20	0.57
1:B:340:GLN:O	1:B:342:MET:N	2.38	0.57
1:A:69:ARG:NH2	1:A:83:TYR:OH	2.36	0.57
1:C:482:LEU:N	1:C:482:LEU:HD12	2.20	0.57
1:C:340:GLN:HG3	1:C:342:MET:HB2	1.86	0.57
1:C:63:GLU:C	1:C:64:LEU:HD12	2.25	0.57
1:D:477:TYR:O	1:D:482:LEU:HD13	2.05	0.57
1:A:194:THR:N	1:A:238:HIS:ND1	2.49	0.57
1:D:193:PHE:HD1	1:D:238:HIS:CG	2.23	0.57
1:F:446:GLY:O	1:F:447:ALA:C	2.43	0.57
1:D:426:SER:O	1:D:429:LEU:HB2	2.04	0.57
1:A:151:ALA:HA	1:F:492:TYR:OH	2.04	0.57
1:C:308:ASP:O	1:C:310:GLU:N	2.37	0.57
1:F:215:THR:HG21	1:F:217:GLU:OE2	2.05	0.57
1:C:365:ALA:HA	1:D:525:HIS:CE1	2.40	0.57
1:D:40:GLN:OE1	1:D:45:LYS:HE2	2.05	0.57
1:E:475:GLN:CA	1:E:478:GLU:OE1	2.42	0.57
1:E:243:ASP:OD1	1:E:246:ASP:HB2	2.05	0.57
1:F:56:LEU:HD12	1:F:61:PHE:CD1	2.40	0.57
1:C:268:ALA:HB2	1:C:332:ARG:CD	2.34	0.57
1:C:54:LEU:HG	1:C:248:VAL:HG11	1.87	0.57
1:D:375:ASP:OD1	1:D:415:LYS:N	2.36	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:45:LYS:CE	1:B:200:THR:CG2	2.79	0.57
1:E:104:GLN:CG	1:E:117:TYR:HH	2.11	0.57
1:B:428:HIS:NE2	1:E:154:GLY:HA2	2.20	0.57
1:D:480:ALA:HB1	1:D:481:LEU:CD1	2.27	0.57
1:A:275:LEU:O	1:A:276:ALA:C	2.42	0.57
1:A:467:GLU:N	1:A:467:GLU:OE1	2.30	0.57
1:C:359:PHE:O	1:C:362:THR:HB	2.05	0.56
1:E:70:HIS:CD2	1:E:77:LEU:CD1	2.88	0.56
1:A:497:ILE:HD13	1:A:501:ASP:HB3	1.86	0.56
1:C:494:ASP:HB3	1:E:64:LEU:HD22	1.86	0.56
1:F:298:MET:CG	1:F:339:ASN:O	2.43	0.56
1:D:422:ALA:O	1:D:429:LEU:HD22	2.04	0.56
1:E:415:LYS:HD2	1:E:441:GLN:OE1	2.05	0.56
1:A:462:ALA:O	1:A:464:ASP:O	2.23	0.56
1:D:289:PRO:HD2	1:D:414:ARG:HH21	1.59	0.56
1:C:416:ALA:CB	1:C:421:TYR:CD1	2.77	0.56
1:B:243:ASP:OD1	1:B:246:ASP:CG	2.43	0.56
1:B:391:ILE:HG21	1:E:236:VAL:HG11	1.87	0.56
1:F:45:LYS:HD3	1:F:200:THR:CG2	2.24	0.56
1:D:265:GLU:HB3	1:D:266:PRO:CD	2.34	0.56
1:A:348:LEU:CB	1:A:379:PHE:CE2	2.87	0.56
1:D:282:ALA:O	1:D:283:GLU:C	2.44	0.56
1:E:327:GLY:O	1:E:334:VAL:CG2	2.53	0.56
1:C:302:ILE:HG23	1:C:336:ILE:HD13	1.77	0.56
1:C:45:LYS:HG3	1:C:200:THR:CG2	2.34	0.56
1:A:187:SER:HB3	1:A:188:PRO:HD3	1.87	0.56
1:A:69:ARG:HD3	1:A:81:ARG:NH1	2.21	0.56
1:C:455:HIS:HB2	1:C:459:ILE:CG1	2.34	0.56
1:B:101:VAL:O	1:B:124:VAL:HG11	2.05	0.56
1:D:367:ASN:HA	1:D:406:VAL:CG1	2.29	0.56
1:F:340:GLN:HE21	1:F:342:MET:HB2	1.70	0.56
1:F:45:LYS:CD	1:F:200:THR:HG21	2.24	0.56
1:D:273:ALA:CB	1:D:330:GLU:OE1	2.54	0.56
1:D:501:ASP:O	1:D:503:ARG:N	2.38	0.56
1:B:255:LEU:O	1:B:256:SER:C	2.41	0.56
1:E:57:ASP:OD1	1:E:94:VAL:HA	2.06	0.56
1:A:145:ARG:NH1	1:A:148:GLU:OE2	2.36	0.56
1:F:61:PHE:CZ	1:F:90:GLY:HA3	2.40	0.56
1:A:499:PRO:HD3	1:B:18:LEU:HD22	1.88	0.56
1:D:18:LEU:HD12	1:D:18:LEU:H	1.70	0.56
1:A:63:GLU:CD	1:A:66:GLU:HB2	2.24	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:236:VAL:CG1	1:E:392:ARG:HG2	2.35	0.56
1:C:299:HIS:HE1	1:C:313:GLU:OE2	1.89	0.56
1:A:122:VAL:CG1	1:A:162:ARG:CZ	2.83	0.56
1:B:10:ASP:OD2	1:B:11:ILE:N	2.38	0.56
1:C:94:VAL:HG23	1:C:99:VAL:CG2	2.35	0.56
1:C:513:LEU:O	1:C:515:THR:N	2.37	0.56
1:F:250:TYR:CG	1:F:312:PHE:CZ	2.91	0.56
1:D:291:SER:HB3	1:D:294:GLN:HB2	1.87	0.56
1:B:104:GLN:CD	1:B:139:ASN:HB2	2.26	0.56
1:B:141:SER:O	1:B:179:PRO:O	2.24	0.56
1:E:173:ILE:HG21	1:E:251:VAL:CG1	2.34	0.56
1:B:438:PRO:CG	1:D:21:LEU:HD23	2.32	0.56
1:B:415:LYS:HA	1:B:417:PHE:HE2	1.70	0.56
1:C:340:GLN:HG3	1:C:342:MET:H	1.70	0.56
1:E:263:LEU:H	1:E:263:LEU:CD2	2.19	0.56
1:B:10:ASP:OD2	1:B:11:ILE:HG22	2.06	0.56
1:C:102:PHE:CZ	1:C:137:GLY:HA2	2.41	0.56
1:B:48:ALA:O	1:B:52:ILE:HG13	2.06	0.56
1:E:86:GLY:O	1:E:117:TYR:HE2	1.88	0.56
1:C:336:ILE:HB	1:C:373:PHE:HE1	1.69	0.56
1:B:348:LEU:HB3	1:B:379:PHE:CD2	2.41	0.56
1:C:284:LEU:HD21	1:C:304:HIS:CE1	2.40	0.56
1:E:419:GLY:O	1:E:420:ALA:C	2.44	0.56
1:B:63:GLU:OE2	1:B:66:GLU:CG	2.54	0.56
1:F:114:GLY:HA2	1:F:148:GLU:OE1	2.06	0.56
1:A:306:LEU:CD1	1:A:311:PHE:HB2	2.36	0.56
1:C:451:VAL:HG11	1:C:474:ILE:HA	1.87	0.56
1:C:499:PRO:O	1:C:502:THR:HG22	2.06	0.56
1:A:413:THR:O	1:A:440:ALA:HB2	2.04	0.56
1:D:329:VAL:HG12	1:D:330:GLU:HG2	1.87	0.56
1:F:447:ALA:O	1:F:450:ALA:HB3	2.06	0.56
1:D:395:ALA:O	1:D:398:ILE:N	2.38	0.56
1:E:226:GLY:O	1:E:229:THR:N	2.38	0.56
1:E:97:ARG:NH1	1:E:267:PRO:HG3	2.21	0.56
1:B:284:LEU:CD2	1:B:499:PRO:O	2.54	0.56
1:A:70:HIS:HA	1:A:116:VAL:HG11	1.87	0.56
1:A:84:GLY:C	1:A:86:GLY:N	2.59	0.56
1:C:494:ASP:HB3	1:E:64:LEU:CD2	2.36	0.56
1:C:299:HIS:CD2	1:C:323:LEU:HD13	2.40	0.56
1:B:334:VAL:CG1	1:B:335:GLY:N	2.68	0.56
1:F:324:THR:HA	1:F:336:ILE:O	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:196:MET:HE1	1:C:230:HIS:CG	2.40	0.56
1:C:28:ALA:HB2	1:C:83:TYR:HD2	1.70	0.56
1:F:194:THR:N	1:F:238:HIS:ND1	2.49	0.56
1:A:383:VAL:CG2	1:F:219:VAL:HG21	2.35	0.56
1:A:209:ASP:OD1	1:A:210:VAL:HG23	2.06	0.56
1:E:285:ASP:OD1	1:E:499:PRO:HD2	2.06	0.56
1:E:435:LEU:N	1:E:435:LEU:HD13	2.21	0.56
1:B:269:PHE:O	1:B:331:GLY:HA3	2.06	0.56
1:A:498:MET:O	1:A:501:ASP:HB2	2.06	0.56
1:A:508:ARG:HH22	1:B:60:SER:C	2.10	0.56
1:A:306:LEU:HB3	1:A:310:GLU:O	2.05	0.56
1:D:102:PHE:CE1	1:D:137:GLY:HA2	2.40	0.56
1:F:297:ASP:OD1	1:F:299:HIS:CD2	2.58	0.56
1:C:185:VAL:O	1:C:188:PRO:CD	2.45	0.56
1:C:185:VAL:C	1:C:188:PRO:HD2	2.26	0.56
1:A:47:THR:O	1:A:50:GLU:HB2	2.06	0.56
1:E:284:LEU:O	1:E:287:ILE:HG22	2.06	0.56
1:A:69:ARG:NE	1:A:83:TYR:CE2	2.74	0.56
1:A:10:ASP:CG	1:A:11:ILE:N	2.51	0.56
1:E:278:THR:O	1:E:280:GLU:N	2.39	0.56
1:F:65:ASP:OD2	1:F:123:LYS:HD2	2.05	0.56
1:F:224:LEU:O	1:F:224:LEU:HD12	2.06	0.55
1:A:376:VAL:HG11	1:A:420:ALA:HB1	1.87	0.55
1:E:296:TYR:OH	1:E:414:ARG:CG	2.54	0.55
1:F:64:LEU:HD11	1:F:91:TYR:CD2	2.41	0.55
1:B:413:THR:O	1:B:439:THR:HB	2.06	0.55
1:B:433:LEU:CD2	1:B:435:LEU:HD21	2.37	0.55
1:C:305:VAL:CG1	1:C:506:ILE:HD13	2.35	0.55
1:A:104:GLN:HB2	1:A:140:ASP:O	2.06	0.55
1:C:524:LYS:NZ	1:D:405:THR:OG1	2.38	0.55
1:C:103:SER:HA	1:C:138:ILE:HB	1.86	0.55
1:D:175:LEU:HD12	1:D:195:VAL:HB	1.87	0.55
1:F:313:GLU:HG2	1:F:316:PRO:HG3	1.87	0.55
1:B:364:ASP:OD2	1:E:525:HIS:HE1	1.89	0.55
1:B:78:ASP:O	1:B:79:ALA:C	2.45	0.55
1:D:186:TYR:O	1:D:189:ALA:HB3	2.06	0.55
1:F:215:THR:HG21	1:F:217:GLU:CD	2.24	0.55
1:D:289:PRO:CG	1:D:414:ARG:HH22	2.20	0.55
1:A:75:PHE:CZ	1:F:454:LEU:HD12	2.41	0.55
1:D:67:PHE:HA	1:D:83:TYR:HB3	1.88	0.55
1:B:498:MET:HE3	1:D:22:ARG:NH2	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:178:GLY:O	1:C:179:PRO:C	2.44	0.55
1:F:104:GLN:OE1	1:F:140:ASP:N	2.40	0.55
1:A:311:PHE:HE1	1:A:336:ILE:HG13	1.72	0.55
1:F:398:ILE:HG13	1:F:399:PHE:H	1.71	0.55
1:D:231:ASN:CB	1:D:317:LEU:HD23	2.36	0.55
1:B:447:ALA:CB	1:B:474:ILE:HG23	2.37	0.55
1:D:348:LEU:HB2	1:D:379:PHE:CD2	2.42	0.55
1:F:141:SER:O	1:F:179:PRO:O	2.24	0.55
1:B:102:PHE:CE1	1:B:137:GLY:HA2	2.40	0.55
1:E:150:VAL:O	1:E:153:LEU:N	2.40	0.55
1:E:373:PHE:HD2	1:E:411:VAL:HB	1.65	0.55
1:E:457:ARG:C	1:E:459:ILE:H	2.09	0.55
1:A:520:LEU:HD12	1:A:521:PRO:HD2	1.86	0.55
1:F:330:GLU:OE2	1:F:507:VAL:HG22	2.06	0.55
1:F:475:GLN:O	1:F:479:ASP:HB2	2.06	0.55
1:A:139:ASN:HB2	1:A:175:LEU:O	2.07	0.55
1:D:40:GLN:NE2	1:D:106:PHE:HD2	2.03	0.55
1:B:137:GLY:C	1:B:138:ILE:HD12	2.26	0.55
1:E:89:THR:HG21	1:E:120:LYS:HB3	1.88	0.55
1:F:61:PHE:CE1	1:F:90:GLY:HA3	2.40	0.55
1:C:497:ILE:HG21	1:C:505:HIS:CD2	2.42	0.55
1:A:350:ILE:HG13	1:A:390:ILE:CD1	2.22	0.55
1:E:307:ASP:O	1:E:308:ASP:HB2	2.07	0.55
1:D:320:PRO:CB	1:D:343:GLN:HG3	2.36	0.55
1:B:231:ASN:HA	1:B:237:ALA:HB3	1.89	0.55
1:E:187:SER:HB3	1:E:188:PRO:HD3	1.88	0.55
1:F:108:VAL:O	1:F:109:PHE:HB2	2.06	0.55
1:E:150:VAL:HG12	1:E:153:LEU:HD12	1.88	0.55
1:D:477:TYR:O	1:D:482:LEU:CD1	2.54	0.55
1:F:375:ASP:OD2	1:F:414:ARG:CB	2.55	0.55
1:A:469:THR:HG23	1:A:472:ARG:HH21	1.71	0.55
1:F:483:ASN:HD22	1:F:483:ASN:C	2.09	0.55
1:C:94:VAL:CG2	1:C:99:VAL:CG2	2.85	0.55
1:D:62:VAL:CB	1:D:91:TYR:CE2	2.89	0.55
1:C:49:ARG:O	1:C:52:ILE:HB	2.07	0.55
1:A:474:ILE:O	1:A:478:GLU:HG2	2.07	0.55
1:B:285:ASP:OD1	1:B:499:PRO:HD2	2.06	0.55
1:E:392:ARG:HG3	1:E:393:ARG:N	2.21	0.55
1:E:202:HIS:HD2	1:E:221:PHE:O	1.89	0.55
1:E:529:PRO:O	1:E:530:LEU:HD23	2.07	0.55
1:D:197:VAL:CG2	1:D:247:ALA:HB2	2.37	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:169:VAL:CG2	1:F:523:LYS:HD3	2.36	0.55
1:F:349:ASP:O	1:F:352:ALA:N	2.40	0.55
1:E:32:GLY:CA	1:E:107:THR:CG2	2.84	0.55
1:C:114:GLY:O	1:C:117:TYR:N	2.40	0.55
1:C:455:HIS:CB	1:C:459:ILE:CG1	2.83	0.55
1:A:117:TYR:CD1	1:A:117:TYR:O	2.60	0.55
1:D:47:THR:HB	1:D:50:GLU:HG3	1.88	0.55
1:C:24:ARG:NH2	1:F:485:TYR:CD2	2.74	0.55
1:B:364:ASP:CB	1:E:525:HIS:HE1	2.17	0.55
1:F:379:PHE:CE1	1:F:420:ALA:HB2	2.41	0.55
1:B:334:VAL:HG11	1:B:371:LEU:HD11	1.89	0.55
1:C:262:ASN:ND2	1:C:263:LEU:N	2.53	0.55
1:A:51:ARG:NH2	1:A:177:VAL:HB	2.22	0.55
1:F:229:THR:O	1:F:233:THR:OG1	2.23	0.55
1:C:193:PHE:CD1	1:C:238:HIS:NE2	2.72	0.55
1:A:416:ALA:HB1	1:A:442:ILE:HG23	1.88	0.55
1:D:284:LEU:CA	1:D:287:ILE:CD1	2.64	0.55
1:B:113:LEU:HD12	1:B:117:TYR:CD1	2.41	0.55
1:E:146:ILE:H	1:E:146:ILE:HD12	1.72	0.55
1:E:398:ILE:HD11	1:E:423:VAL:HG22	1.89	0.55
1:A:330:GLU:OE1	1:A:507:VAL:HG11	2.06	0.55
1:E:470:ARG:HB2	1:E:470:ARG:CZ	2.36	0.55
1:C:120:LYS:O	1:C:124:VAL:HG23	2.06	0.55
1:B:445:MET:SD	1:B:449:GLY:C	2.85	0.55
1:A:56:LEU:CD2	1:A:92:GLY:C	2.73	0.55
1:B:11:ILE:HG23	1:B:12:HIS:N	2.22	0.55
1:C:150:VAL:O	1:C:153:LEU:N	2.39	0.55
1:E:89:THR:HG23	1:E:120:LYS:CE	2.35	0.55
1:E:371:LEU:HD21	1:E:510:LEU:HD21	1.89	0.55
1:E:510:LEU:O	1:E:514:ARG:HG3	2.07	0.55
1:D:69:ARG:NH2	1:D:83:TYR:CE2	2.75	0.55
1:A:513:LEU:O	1:A:514:ARG:C	2.45	0.55
1:D:87:VAL:HG13	1:D:120:LYS:HD3	1.89	0.55
1:B:501:ASP:OD1	1:B:504:ARG:HD3	2.08	0.55
1:C:451:VAL:O	1:C:452:ASN:C	2.40	0.55
1:C:320:PRO:O	1:C:321:ASN:C	2.44	0.55
1:D:234:SER:HB2	1:D:236:VAL:HG23	1.85	0.55
1:F:517:ARG:HH11	1:F:517:ARG:CG	2.19	0.55
1:B:455:HIS:CB	1:B:473:LEU:HD13	2.36	0.55
1:B:364:ASP:OD1	1:B:404:ALA:HA	2.07	0.55
1:F:219:VAL:HG13	1:F:223:GLU:HG2	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:337:VAL:HG11	1:F:356:ALA:HB1	1.88	0.54
1:D:219:VAL:HG12	1:D:220:GLY:N	2.21	0.54
1:E:32:GLY:C	1:E:107:THR:HG21	2.28	0.54
1:F:91:TYR:CE1	1:F:127:PHE:CE1	2.89	0.54
1:C:231:ASN:O	1:C:318:PHE:HB2	2.07	0.54
1:A:117:TYR:CD1	1:A:117:TYR:C	2.81	0.54
1:F:418:GLY:O	1:F:421:TYR:HB3	2.06	0.54
1:D:459:ILE:O	1:D:459:ILE:HD13	2.07	0.54
1:D:266:PRO:HB2	1:D:333:PRO:HG2	1.88	0.54
1:D:166:ALA:O	1:D:169:VAL:HG23	2.07	0.54
1:D:160:PHE:CZ	1:D:186:TYR:HB2	2.41	0.54
1:B:51:ARG:NH1	1:B:177:VAL:CG2	2.70	0.54
1:A:438:PRO:HG3	1:B:21:LEU:HD22	1.89	0.54
1:C:512:GLN:HG3	1:E:91:TYR:CE1	2.42	0.54
1:B:482:LEU:H	1:B:482:LEU:CD1	2.21	0.54
1:F:183:GLY:C	1:F:185:VAL:N	2.59	0.54
1:F:243:ASP:OD1	1:F:245:LYS:HB3	2.08	0.54
1:F:414:ARG:NE	1:F:415:LYS:HE3	2.23	0.54
1:B:231:ASN:O	1:B:318:PHE:HB2	2.07	0.54
1:F:490:ARG:NH1	1:F:490:ARG:CG	2.69	0.54
1:C:278:THR:O	1:C:279:ASP:C	2.43	0.54
1:F:209:ASP:O	1:F:212:LYS:HE3	2.08	0.54
1:F:348:LEU:HD22	1:F:379:PHE:HE2	1.64	0.54
1:D:212:LYS:CE	1:D:218:ASP:OD1	2.51	0.54
1:E:350:ILE:CG2	1:E:393:ARG:NH1	2.51	0.54
1:D:11:ILE:O	1:D:11:ILE:HD12	2.07	0.54
1:E:102:PHE:CZ	1:E:137:GLY:HA3	2.43	0.54
1:C:457:ARG:CA	1:C:457:ARG:HH11	2.10	0.54
1:A:219:VAL:CG1	1:A:224:LEU:HB2	2.37	0.54
1:A:78:ASP:O	1:A:80:ASN:N	2.41	0.54
1:F:51:ARG:CZ	1:F:177:VAL:HG21	2.37	0.54
1:B:384:ASP:OD1	1:B:385:GLN:N	2.41	0.54
1:A:347:CYS:CB	1:A:378:GLY:O	2.40	0.54
1:E:422:ALA:O	1:E:429:LEU:CD2	2.56	0.54
1:D:69:ARG:CZ	1:D:83:TYR:CE2	2.91	0.54
1:A:411:VAL:HA	1:A:435:LEU:O	2.07	0.54
1:E:456:ARG:HG2	1:E:457:ARG:N	2.22	0.54
1:C:165:HIS:HB3	1:D:520:LEU:HD21	1.88	0.54
1:D:481:LEU:N	1:D:481:LEU:CD1	2.71	0.54
1:C:364:ASP:HA	1:C:406:VAL:CG1	2.38	0.54
1:F:29:THR:CA	1:F:49:ARG:HH12	2.19	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:99:VAL:CG1	1:C:100:ALA:O	2.56	0.54
1:C:407:PRO:HB3	1:C:513:LEU:HB3	1.88	0.54
1:F:389:GLY:O	1:F:391:ILE:N	2.40	0.54
1:B:104:GLN:HG3	1:B:138:ILE:O	2.07	0.54
1:E:478:GLU:HB3	1:E:482:LEU:HD22	1.90	0.54
1:A:507:VAL:O	1:A:511:ARG:HG3	2.08	0.54
1:B:375:ASP:OD1	1:B:415:LYS:HB2	2.07	0.54
1:E:452:ASN:N	1:E:452:ASN:HD22	2.04	0.54
1:B:61:PHE:HE1	1:B:90:GLY:HA3	1.71	0.54
1:F:299:HIS:CE1	1:F:323:LEU:HD13	2.43	0.54
1:B:326:PHE:C	1:B:334:VAL:O	2.46	0.54
1:A:315:GLN:N	1:A:316:PRO:HD3	2.23	0.54
1:D:70:HIS:CE1	1:D:77:LEU:HD13	2.42	0.54
1:A:286:THR:O	1:A:286:THR:CG2	2.55	0.54
1:F:520:LEU:HD12	1:F:521:PRO:CD	2.38	0.54
1:D:284:LEU:HD13	1:D:304:HIS:CD2	2.43	0.54
1:B:443:ALA:O	1:E:153:LEU:CD1	2.53	0.54
1:B:433:LEU:HD23	1:B:435:LEU:HD11	1.89	0.54
1:A:69:ARG:NH2	1:A:83:TYR:HE1	1.98	0.54
1:F:374:VAL:CG1	1:F:424:MET:HG3	2.38	0.54
1:D:197:VAL:HG22	1:D:247:ALA:HB2	1.89	0.54
1:C:530:LEU:HB3	1:D:396:LYS:HZ2	1.72	0.54
1:D:47:THR:O	1:D:50:GLU:N	2.40	0.54
1:A:441:GLN:OE1	1:A:482:LEU:HG	2.07	0.54
1:B:111:GLY:O	1:B:141:SER:HA	2.08	0.54
1:B:444:VAL:HG11	1:E:146:ILE:HG13	1.89	0.54
1:B:489:GLU:CA	1:D:68:ALA:HA	2.26	0.54
1:D:146:ILE:N	1:D:146:ILE:CD1	2.31	0.54
1:C:426:SER:HG	1:C:429:LEU:CD1	2.21	0.54
1:B:62:VAL:HG21	1:B:91:TYR:CE1	2.43	0.54
1:D:411:VAL:HG13	1:D:435:LEU:O	2.08	0.54
1:A:55:LEU:HD23	1:A:56:LEU:HG	1.88	0.54
1:C:488:ALA:O	1:C:491:GLY:N	2.40	0.54
1:E:284:LEU:O	1:E:285:ASP:C	2.45	0.54
1:B:247:ALA:O	1:B:251:VAL:HG23	2.07	0.54
1:E:259:PRO:HG3	1:E:366:PHE:O	2.07	0.54
1:B:322:ILE:HG23	1:B:338:ALA:C	2.22	0.54
1:B:328:ARG:HG2	1:B:333:PRO:CA	2.33	0.54
1:A:488:ALA:O	1:A:491:GLY:N	2.36	0.54
1:C:437:TRP:HE1	1:C:502:THR:HB	1.73	0.54
1:D:239:HIS:CD2	1:D:250:TYR:CD1	2.96	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:383:VAL:HG23	1:F:217:GLU:CD	2.27	0.54
1:A:69:ARG:HA	1:A:85:ASP:OD1	2.07	0.54
1:F:183:GLY:O	1:F:184:ALA:C	2.46	0.54
1:C:490:ARG:CA	1:E:71:ARG:HH12	2.13	0.54
1:E:337:VAL:O	1:E:372:THR:HA	2.08	0.54
1:A:232:SER:O	1:A:318:PHE:HD1	1.91	0.54
1:A:320:PRO:CB	1:A:343:GLN:HG3	2.38	0.54
1:E:284:LEU:HD13	1:E:304:HIS:NE2	2.15	0.54
1:D:211:ILE:HD11	1:D:219:VAL:HB	1.90	0.54
1:D:282:ALA:O	1:D:284:LEU:N	2.41	0.54
1:F:409:ILE:HD11	1:F:513:LEU:HD12	1.89	0.54
1:F:47:THR:HB	1:F:50:GLU:HG3	1.89	0.54
1:B:42:ALA:O	1:B:43:LYS:C	2.45	0.54
1:C:91:TYR:HD1	1:F:512:GLN:OE1	1.91	0.54
1:C:350:ILE:CG2	1:C:393:ARG:HD3	2.38	0.54
1:F:428:HIS:CD2	1:F:428:HIS:H	2.26	0.54
1:F:153:LEU:HD23	1:F:153:LEU:N	2.23	0.54
1:C:35:ARG:O	1:C:35:ARG:HG3	2.07	0.54
1:F:215:THR:HG22	1:F:217:GLU:CG	2.18	0.53
1:C:528:ILE:CD1	1:C:528:ILE:H	2.20	0.53
1:D:283:GLU:HB3	1:D:304:HIS:NE2	2.23	0.53
1:F:145:ARG:HD2	1:F:148:GLU:CD	2.28	0.53
1:A:329:VAL:O	1:A:330:GLU:HB2	2.06	0.53
1:D:102:PHE:CD1	1:D:137:GLY:HA2	2.44	0.53
1:B:508:ARG:O	1:B:511:ARG:HB2	2.08	0.53
1:E:399:PHE:CZ	1:E:528:ILE:HB	2.43	0.53
1:C:354:GLU:OE2	1:D:392:ARG:NH2	2.41	0.53
1:A:113:LEU:CD1	1:A:114:GLY:H	2.21	0.53
1:E:337:VAL:HB	1:E:372:THR:HB	1.90	0.53
1:A:525:HIS:HE1	1:F:361:ARG:O	1.91	0.53
1:F:171:PRO:HG3	1:F:366:PHE:CE1	2.43	0.53
1:C:361:ARG:O	1:D:525:HIS:NE2	2.35	0.53
1:D:296:TYR:HE1	1:D:414:ARG:CZ	2.22	0.53
1:C:45:LYS:C	1:C:46:LEU:HD12	2.28	0.53
1:C:78:ASP:OD1	1:C:78:ASP:N	2.41	0.53
1:F:446:GLY:O	1:F:448:GLN:N	2.42	0.53
1:C:24:ARG:HB3	1:C:83:TYR:HE2	1.74	0.53
1:B:262:ASN:CG	1:B:263:LEU:CD2	2.75	0.53
1:B:26:GLU:O	1:B:30:HIS:ND1	2.41	0.53
1:C:205:ILE:HG23	1:C:206:THR:N	2.24	0.53
1:B:55:LEU:O	1:B:94:VAL:HG22	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:170:ILE:CG2	1:E:261:ASN:HB2	2.39	0.53
1:E:301:VAL:O	1:E:305:VAL:HG13	2.08	0.53
1:E:298:MET:HG2	1:E:338:ALA:HB1	1.90	0.53
1:B:284:LEU:HD22	1:B:499:PRO:O	2.08	0.53
1:F:88:VAL:O	1:F:102:PHE:HA	2.08	0.53
1:A:329:VAL:C	1:A:331:GLY:H	2.09	0.53
1:A:141:SER:O	1:A:179:PRO:O	2.26	0.53
1:A:67:PHE:O	1:A:83:TYR:HB3	2.08	0.53
1:C:345:ALA:O	1:C:346:GLY:C	2.47	0.53
1:B:223:GLU:C	1:B:223:GLU:CD	2.66	0.53
1:C:102:PHE:HE1	1:C:135:VAL:HG12	1.73	0.53
1:F:239:HIS:CD2	1:F:240:MET:C	2.82	0.53
1:F:275:LEU:CD1	1:F:275:LEU:N	2.72	0.53
1:E:344:PHE:O	1:E:345:ALA:CB	2.56	0.53
1:D:219:VAL:CG1	1:D:224:LEU:CB	2.83	0.53
1:D:221:PHE:O	1:D:225:GLY:O	2.27	0.53
1:D:40:GLN:HA	1:D:40:GLN:HE21	1.72	0.53
1:B:51:ARG:NH1	1:B:177:VAL:HG21	2.19	0.53
1:C:336:ILE:CB	1:C:371:LEU:O	2.56	0.53
1:A:258:LEU:N	1:A:258:LEU:CD1	2.71	0.53
1:C:524:LYS:HZ2	1:D:406:VAL:HG13	1.73	0.53
1:F:323:LEU:HD21	1:F:340:GLN:CD	2.29	0.53
1:C:196:MET:CE	1:C:230:HIS:CG	2.91	0.53
1:D:55:LEU:HD12	1:D:55:LEU:O	2.07	0.53
1:B:188:PRO:HA	1:B:191:THR:OG1	2.07	0.53
1:E:299:HIS:NE2	1:E:340:GLN:NE2	2.55	0.53
1:A:334:VAL:CG2	1:A:371:LEU:HD12	2.38	0.53
1:E:335:GLY:C	1:E:336:ILE:HG12	2.27	0.53
1:B:323:LEU:CD2	1:B:340:GLN:HB2	2.36	0.53
1:E:433:LEU:CD1	1:E:433:LEU:N	2.72	0.53
1:B:488:ALA:CA	1:B:493:VAL:CG2	2.83	0.53
1:A:485:TYR:OH	1:B:21:LEU:CD1	2.56	0.53
1:A:184:ALA:O	1:A:185:VAL:C	2.45	0.53
1:B:478:GLU:HB2	1:B:482:LEU:HD22	1.89	0.53
1:B:501:ASP:OD1	1:B:504:ARG:HD2	2.08	0.53
1:E:330:GLU:OE2	1:E:507:VAL:O	2.27	0.53
1:F:284:LEU:O	1:F:285:ASP:C	2.46	0.53
1:A:401:TYR:HE1	1:A:408:LEU:HD11	1.70	0.53
1:D:105:ASP:OD2	1:D:107:THR:OG1	2.26	0.53
1:E:118:GLY:O	1:E:122:VAL:HG23	2.07	0.53
1:C:356:ALA:HB3	1:C:397:LEU:HD13	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:89:THR:HG22	1:B:102:PHE:HB3	1.91	0.53
1:B:274:ASP:O	1:B:503:ARG:NH2	2.35	0.53
1:B:510:LEU:O	1:B:514:ARG:HG3	2.08	0.53
1:C:416:ALA:N	1:C:441:GLN:O	2.41	0.53
1:B:398:ILE:HD12	1:E:186:TYR:CG	2.44	0.53
1:C:428:HIS:CD2	1:D:154:GLY:HA2	2.43	0.53
1:F:315:GLN:NE2	1:F:355:LYS:HG2	2.22	0.53
1:C:327:GLY:O	1:C:334:VAL:HG22	2.05	0.53
1:E:141:SER:O	1:E:179:PRO:O	2.27	0.53
1:E:150:VAL:O	1:E:151:ALA:C	2.46	0.53
1:D:477:TYR:CE2	1:D:481:LEU:CD2	2.87	0.53
1:C:187:SER:N	1:C:188:PRO:CD	2.70	0.53
1:C:485:TYR:CZ	1:E:24:ARG:HD3	2.40	0.53
1:E:445:MET:SD	1:E:450:ALA:HA	2.49	0.53
1:F:115:GLU:O	1:F:119:GLN:HG3	2.09	0.53
1:B:155:ALA:O	1:B:159:ILE:HG13	2.08	0.53
1:C:381:PRO:HD2	1:D:214:VAL:HG11	1.90	0.53
1:A:348:LEU:HB3	1:A:379:PHE:CG	2.37	0.53
1:B:104:GLN:CD	1:B:139:ASN:CA	2.77	0.53
1:F:113:LEU:HD13	1:F:114:GLY:N	2.23	0.53
1:C:422:ALA:O	1:C:429:LEU:HD11	2.09	0.53
1:B:530:LEU:CD2	1:E:530:LEU:HD22	2.39	0.53
1:C:319:ALA:O	1:C:320:PRO:C	2.47	0.53
1:F:520:LEU:HD12	1:F:521:PRO:HD2	1.91	0.53
1:C:149:GLY:C	1:C:151:ALA:H	2.12	0.53
1:A:416:ALA:HB3	1:A:442:ILE:CA	2.35	0.53
1:A:416:ALA:HB2	1:A:442:ILE:HG13	1.91	0.53
1:D:163:ASN:HB3	1:D:190:ILE:CG2	2.38	0.53
1:B:104:GLN:OE1	1:B:141:SER:HB3	2.06	0.53
1:E:104:GLN:CA	1:E:117:TYR:OH	2.57	0.53
1:B:158:GLU:HA	1:B:158:GLU:OE1	2.09	0.53
1:A:409:ILE:HG12	1:A:433:LEU:HB2	1.90	0.53
1:D:350:ILE:HD12	1:D:393:ARG:NH1	2.24	0.53
1:A:414:ARG:HA	1:A:440:ALA:CA	2.24	0.53
1:D:307:ASP:OD1	1:D:329:VAL:HA	2.08	0.53
1:D:175:LEU:HD11	1:D:247:ALA:HB1	1.90	0.53
1:D:56:LEU:HD11	1:D:101:VAL:HG11	1.91	0.53
1:F:268:ALA:C	1:F:269:PHE:CD1	2.82	0.53
1:B:223:GLU:O	1:B:229:THR:HG21	2.08	0.53
1:D:379:PHE:CE1	1:D:420:ALA:N	2.76	0.53
1:E:464:ASP:O	1:E:465:ASP:CB	2.55	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:197:VAL:CG2	1:B:247:ALA:HB2	2.39	0.53
1:E:440:ALA:O	1:E:484:PRO:HD3	2.09	0.53
1:B:489:GLU:HA	1:D:68:ALA:CA	2.24	0.53
1:B:396:LYS:HD3	1:E:530:LEU:HB3	1.92	0.53
1:D:407:PRO:C	1:D:408:LEU:HD13	2.30	0.53
1:F:339:ASN:O	1:F:341:PRO:HD3	2.08	0.53
1:E:94:VAL:O	1:E:95:ASP:OD2	2.26	0.53
1:A:459:ILE:O	1:A:466:ALA:HB1	2.08	0.53
1:D:348:LEU:O	1:D:380:LEU:N	2.42	0.53
1:E:360:VAL:CG1	1:E:400:ALA:HB1	2.39	0.53
1:D:160:PHE:CE1	1:D:186:TYR:CB	2.92	0.53
1:E:61:PHE:CE1	1:E:62:VAL:O	2.62	0.53
1:B:97:ARG:NH1	1:B:267:PRO:HG3	2.23	0.53
1:C:383:VAL:HG22	1:D:219:VAL:HG21	1.91	0.52
1:E:258:LEU:HB3	1:E:259:PRO:HD2	1.91	0.52
1:E:406:VAL:O	1:E:408:LEU:HD13	2.08	0.52
1:C:336:ILE:CG2	1:C:371:LEU:HD12	2.40	0.52
1:D:87:VAL:HG11	1:D:117:TYR:CD1	2.44	0.52
1:D:138:ILE:CD1	1:D:138:ILE:N	2.71	0.52
1:A:184:ALA:O	1:A:186:TYR:N	2.42	0.52
1:A:70:HIS:CA	1:A:116:VAL:HG21	2.39	0.52
1:B:398:ILE:HD11	1:B:423:VAL:HG22	1.91	0.52
1:F:181:ALA:CB	1:F:204:PHE:CD1	2.92	0.52
1:D:504:ARG:HA	1:D:507:VAL:CG1	2.39	0.52
1:A:230:HIS:HB3	1:A:237:ALA:CB	2.39	0.52
1:E:259:PRO:HB3	1:E:266:PRO:HA	1.92	0.52
1:F:328:ARG:HA	1:F:332:ARG:O	2.10	0.52
1:A:433:LEU:HA	1:A:494:ASP:OD1	2.09	0.52
1:F:230:HIS:HD1	1:F:236:VAL:CG1	2.20	0.52
1:D:60:SER:OG	1:D:93:THR:N	2.40	0.52
1:F:37:VAL:CG2	1:F:107:THR:HG21	2.39	0.52
1:F:335:GLY:O	1:F:370:VAL:HA	2.09	0.52
1:E:482:LEU:N	1:E:482:LEU:CD1	2.72	0.52
1:E:70:HIS:CD2	1:E:72:SER:HB3	2.44	0.52
1:A:298:MET:CG	1:A:302:ILE:HD11	2.38	0.52
1:C:56:LEU:HD21	1:C:92:GLY:N	2.23	0.52
1:C:56:LEU:HD22	1:C:92:GLY:CA	2.21	0.52
1:B:56:LEU:CD1	1:B:92:GLY:CA	2.66	0.52
1:E:25:ILE:CG2	1:E:26:GLU:N	2.72	0.52
1:B:169:VAL:HG12	1:B:262:ASN:OD1	2.09	0.52
1:A:337:VAL:HG12	1:A:372:THR:CG2	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:231:ASN:HB3	1:E:317:LEU:HD13	1.90	0.52
1:E:445:MET:HG3	1:E:450:ALA:HB2	1.92	0.52
1:C:379:PHE:O	1:C:381:PRO:HD3	2.09	0.52
1:D:417:PHE:CE1	1:D:441:GLN:HB2	2.42	0.52
1:B:175:LEU:HD23	1:B:251:VAL:CG2	2.40	0.52
1:B:433:LEU:HD22	1:B:435:LEU:HD21	1.90	0.52
1:F:203:MET:HB2	1:F:230:HIS:CD2	2.44	0.52
1:C:321:ASN:HD22	1:C:322:ILE:H	1.57	0.52
1:F:297:ASP:OD1	1:F:298:MET:N	2.43	0.52
1:F:69:ARG:HD2	1:F:81:ARG:C	2.30	0.52
1:F:379:PHE:CE1	1:F:420:ALA:HA	2.44	0.52
1:D:415:LYS:HG2	1:D:441:GLN:CG	2.39	0.52
1:C:181:ALA:HB1	1:C:204:PHE:HE1	1.75	0.52
1:A:307:ASP:OD2	1:A:329:VAL:HA	2.10	0.52
1:F:414:ARG:HD2	1:F:415:LYS:CG	2.33	0.52
1:C:12:HIS:O	1:C:17:LYS:NZ	2.40	0.52
1:A:364:ASP:HA	1:A:406:VAL:HG13	1.90	0.52
1:B:370:VAL:HB	1:B:408:LEU:CD1	2.39	0.52
1:A:397:LEU:CD1	1:A:424:MET:SD	2.98	0.52
1:C:198:ASP:OD2	1:C:240:MET:SD	2.67	0.52
1:E:364:ASP:OD2	1:E:404:ALA:HA	2.10	0.52
1:B:236:VAL:HG12	1:E:392:ARG:CD	2.40	0.52
1:F:339:ASN:OD1	1:F:424:MET:HE2	2.07	0.52
1:D:273:ALA:HB3	1:D:330:GLU:OE1	2.10	0.52
1:D:273:ALA:HB3	1:D:330:GLU:OE2	2.09	0.52
1:D:504:ARG:O	1:D:507:VAL:HG13	2.08	0.52
1:D:477:TYR:HD1	1:D:482:LEU:HD11	1.70	0.52
1:F:69:ARG:CD	1:F:81:ARG:O	2.52	0.52
1:C:358:ARG:NH1	1:C:358:ARG:HG3	2.19	0.52
1:B:459:ILE:CD1	1:B:470:ARG:HB2	2.36	0.52
1:A:250:TYR:CD1	1:A:312:PHE:CZ	2.96	0.52
1:A:287:ILE:CG2	1:A:288:VAL:N	2.73	0.52
1:F:13:THR:HG23	1:F:16:GLY:H	1.74	0.52
1:C:108:VAL:HG12	1:C:109:PHE:CD2	2.45	0.52
1:F:250:TYR:CE2	1:F:312:PHE:CE2	2.97	0.52
1:F:349:ASP:N	1:F:352:ALA:HB3	2.20	0.52
1:A:257:TYR:CE2	1:A:326:PHE:HB2	2.44	0.52
1:A:104:GLN:HA	1:A:117:TYR:HH	1.74	0.52
1:A:117:TYR:HD1	1:A:117:TYR:C	2.13	0.52
1:D:273:ALA:HB3	1:D:330:GLU:CD	2.30	0.52
1:F:375:ASP:OD2	1:F:414:ARG:HB2	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:10:ASP:CG	1:B:11:ILE:N	2.63	0.52
1:C:102:PHE:CE2	1:C:137:GLY:CA	2.93	0.52
1:D:483:ASN:ND2	1:D:483:ASN:O	2.42	0.52
1:F:239:HIS:CG	1:F:240:MET:N	2.78	0.52
1:D:276:ALA:O	1:D:278:THR:N	2.43	0.52
1:C:29:THR:OG1	1:C:30:HIS:CD2	2.62	0.52
1:C:398:ILE:HG22	1:C:423:VAL:HG22	1.91	0.52
1:D:40:GLN:OE1	1:D:45:LYS:HE3	2.10	0.52
1:A:306:LEU:CB	1:A:310:GLU:O	2.58	0.52
1:A:63:GLU:CG	1:A:66:GLU:CB	2.72	0.52
1:B:205:ILE:CG2	1:E:390:ILE:HG21	2.39	0.52
1:D:482:LEU:CD1	1:D:482:LEU:N	2.72	0.52
1:C:10:ASP:HB3	1:C:13:THR:OG1	2.10	0.52
1:C:306:LEU:HD22	1:C:327:GLY:C	2.30	0.52
1:F:261:ASN:O	1:F:262:ASN:C	2.47	0.52
1:A:287:ILE:HG23	1:A:288:VAL:N	2.24	0.52
1:A:478:GLU:O	1:A:482:LEU:HB2	2.09	0.52
1:E:128:ALA:HB1	1:E:133:CYS:O	2.09	0.52
1:E:298:MET:C	1:E:300:SER:N	2.63	0.52
1:B:70:HIS:HA	1:B:116:VAL:HG21	1.92	0.52
1:D:138:ILE:CD1	1:D:138:ILE:H	2.23	0.52
1:B:212:LYS:CG	1:B:217:GLU:O	2.50	0.52
1:D:386:GLU:OE2	1:D:391:ILE:HD11	2.09	0.52
1:C:65:ASP:O	1:C:66:GLU:C	2.48	0.52
1:F:182:GLY:C	1:F:184:ALA:N	2.62	0.52
1:D:401:TYR:HB3	1:D:429:LEU:HG	1.92	0.52
1:C:350:ILE:CG1	1:C:390:ILE:HD13	2.37	0.52
1:D:324:THR:CG2	1:D:337:VAL:HG22	2.40	0.52
1:F:211:ILE:O	1:F:215:THR:CB	2.50	0.52
1:D:445:MET:CG	1:D:450:ALA:CB	2.79	0.52
1:A:379:PHE:CZ	1:A:420:ALA:CA	2.92	0.52
1:E:477:TYR:HD1	1:E:482:LEU:HD11	1.75	0.52
1:E:140:ASP:OD1	1:E:178:GLY:CA	2.54	0.52
1:E:432:ASP:CB	1:E:433:LEU:HD12	2.40	0.52
1:B:489:GLU:O	1:D:68:ALA:CB	2.44	0.52
1:A:282:ALA:O	1:A:285:ASP:N	2.34	0.52
1:A:396:LYS:NZ	1:F:530:LEU:HB3	2.25	0.52
1:A:55:LEU:HD13	1:A:136:VAL:HG11	1.92	0.52
1:D:319:ALA:C	1:D:321:ASN:H	2.13	0.52
1:F:173:ILE:HD13	1:F:255:LEU:HD11	1.89	0.52
1:D:483:ASN:C	1:D:483:ASN:HD22	2.13	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:255:LEU:O	1:C:256:SER:C	2.46	0.52
1:F:335:GLY:O	1:F:370:VAL:HG13	2.10	0.52
1:C:374:VAL:HG22	1:C:424:MET:HB3	1.92	0.52
1:A:321:ASN:HD22	1:A:322:ILE:H	1.57	0.51
1:B:139:ASN:ND2	1:B:180:CYS:SG	2.83	0.51
1:A:35:ARG:HA	1:A:38:GLU:CG	2.40	0.51
1:F:97:ARG:NH1	1:F:267:PRO:HG3	2.24	0.51
1:A:284:LEU:H	1:A:284:LEU:CD1	2.23	0.51
1:D:21:LEU:HD12	1:D:22:ARG:CA	2.37	0.51
1:C:456:ARG:NH1	1:C:456:ARG:CB	2.71	0.51
1:E:496:VAL:HG23	1:F:67:PHE:CD1	2.45	0.51
1:C:161:ARG:HD3	1:D:429:LEU:O	2.10	0.51
1:E:415:LYS:CB	1:E:417:PHE:CE2	2.86	0.51
1:B:170:ILE:HG22	1:B:261:ASN:HB3	1.92	0.51
1:B:185:VAL:HG23	1:B:186:TYR:N	2.26	0.51
1:D:323:LEU:HD21	1:D:340:GLN:HB2	1.93	0.51
1:F:477:TYR:O	1:F:481:LEU:HB2	2.10	0.51
1:D:160:PHE:CE1	1:D:186:TYR:HB2	2.45	0.51
1:A:386:GLU:HG3	1:F:224:LEU:CD1	2.40	0.51
1:F:348:LEU:CD1	1:F:352:ALA:CB	2.80	0.51
1:A:417:PHE:CZ	1:A:441:GLN:NE2	2.77	0.51
1:A:407:PRO:HB3	1:A:513:LEU:HB3	1.92	0.51
1:D:138:ILE:HD12	1:D:138:ILE:H	1.75	0.51
1:A:67:PHE:O	1:A:83:TYR:HA	2.10	0.51
1:D:379:PHE:CZ	1:D:420:ALA:HA	2.44	0.51
1:D:70:HIS:CE1	1:D:77:LEU:CD1	2.94	0.51
1:A:383:VAL:CB	1:F:217:GLU:OE1	2.59	0.51
1:B:104:GLN:OE1	1:B:141:SER:N	2.43	0.51
1:B:334:VAL:HG11	1:B:371:LEU:HG	1.91	0.51
1:D:232:SER:O	1:D:318:PHE:HD1	1.93	0.51
1:A:527:ASN:OD1	1:F:362:THR:OG1	2.24	0.51
1:F:436:ALA:O	1:F:496:VAL:CA	2.58	0.51
1:B:223:GLU:O	1:E:387:HIS:CE1	2.63	0.51
1:C:127:PHE:CE2	1:C:131:THR:HG21	2.45	0.51
1:C:91:TYR:CD1	1:F:512:GLN:OE1	2.63	0.51
1:E:322:ILE:C	1:E:323:LEU:HD23	2.31	0.51
1:F:271:GLU:O	1:F:271:GLU:HG2	2.09	0.51
1:A:172:GLN:CB	1:A:191:THR:HG23	2.40	0.51
1:D:282:ALA:C	1:D:284:LEU:N	2.62	0.51
1:B:112:ALA:HB1	1:B:145:ARG:CA	2.41	0.51
1:E:513:LEU:O	1:E:515:THR:N	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:87:VAL:CG2	1:F:88:VAL:N	2.73	0.51
1:C:444:VAL:HG23	1:D:149:GLY:HA2	1.86	0.51
1:C:56:LEU:HD21	1:C:92:GLY:C	2.25	0.51
1:B:147:GLN:N	1:B:147:GLN:NE2	2.30	0.51
1:D:427:LYS:O	1:D:428:HIS:C	2.49	0.51
1:C:409:ILE:HD13	1:C:433:LEU:HB2	1.91	0.51
1:C:228:ARG:CZ	1:C:228:ARG:HB2	2.40	0.51
1:B:108:VAL:HG12	1:B:109:PHE:CD2	2.45	0.51
1:E:108:VAL:O	1:E:108:VAL:CG1	2.33	0.51
1:D:21:LEU:O	1:D:25:ILE:N	2.33	0.51
1:C:429:LEU:CD1	1:C:429:LEU:N	2.73	0.51
1:F:230:HIS:CG	1:F:236:VAL:CG1	2.94	0.51
1:B:147:GLN:HE21	1:B:147:GLN:H	0.72	0.51
1:A:56:LEU:CD1	1:A:101:VAL:HG11	2.39	0.51
1:D:63:GLU:OE2	1:D:66:GLU:CG	2.55	0.51
1:B:365:ALA:HB2	1:E:525:HIS:NE2	2.25	0.51
1:B:109:PHE:CD2	1:B:145:ARG:NH2	2.79	0.51
1:F:257:TYR:HE1	1:F:328:ARG:NH1	2.08	0.51
1:D:87:VAL:CG1	1:D:117:TYR:CE1	2.92	0.51
1:B:435:LEU:HB3	1:B:497:ILE:HD11	1.93	0.51
1:A:104:GLN:HB3	1:A:117:TYR:OH	2.10	0.51
1:B:235:GLY:HA3	1:B:318:PHE:CE2	2.45	0.51
1:E:418:GLY:HA2	1:E:444:VAL:O	2.10	0.51
1:C:386:GLU:OE2	1:D:205:ILE:N	2.32	0.51
1:D:445:MET:HG2	1:D:450:ALA:CB	2.40	0.51
1:B:89:THR:HG22	1:B:102:PHE:CB	2.41	0.51
1:E:477:TYR:O	1:E:481:LEU:HB2	2.10	0.51
1:C:165:HIS:CB	1:D:520:LEU:HD21	2.41	0.51
1:B:311:PHE:CZ	1:B:325:GLY:HA3	2.43	0.51
1:C:28:ALA:HB2	1:C:83:TYR:CD2	2.45	0.51
1:B:219:VAL:CG1	1:B:224:LEU:HB2	2.37	0.51
1:D:373:PHE:N	1:D:373:PHE:CD1	2.78	0.51
1:F:310:GLU:OE1	1:F:310:GLU:HA	2.10	0.51
1:C:33:SER:N	1:C:107:THR:CG2	2.74	0.51
1:E:47:THR:O	1:E:48:ALA:C	2.48	0.51
1:C:181:ALA:HB1	1:C:204:PHE:CE1	2.42	0.51
1:F:138:ILE:O	1:F:138:ILE:HG22	2.10	0.51
1:F:48:ALA:O	1:F:52:ILE:HB	2.10	0.51
1:F:302:ILE:HG23	1:F:336:ILE:HD13	1.93	0.51
1:D:177:VAL:O	1:D:200:THR:HG22	2.11	0.51
1:B:319:ALA:HB3	1:B:355:LYS:HD2	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:173:ILE:CD1	1:F:255:LEU:HD12	2.38	0.51
1:D:62:VAL:CB	1:D:91:TYR:CZ	2.93	0.51
1:A:133:CYS:HB2	1:A:134:PRO:HD2	1.93	0.51
1:F:214:VAL:HG12	1:F:214:VAL:O	2.11	0.51
1:A:176:VAL:HB	1:A:196:MET:HG2	1.93	0.51
1:D:287:ILE:HG22	1:D:296:TYR:CE2	2.46	0.51
1:E:243:ASP:OD1	1:E:246:ASP:CB	2.58	0.51
1:E:411:VAL:HG12	1:E:412:ILE:O	2.11	0.51
1:B:282:ALA:O	1:B:283:GLU:C	2.46	0.51
1:B:511:ARG:HD3	1:B:514:ARG:NH2	2.25	0.51
1:E:415:LYS:HB3	1:E:417:PHE:HE2	1.68	0.51
1:F:193:PHE:HA	1:F:238:HIS:CE1	2.46	0.51
1:C:150:VAL:O	1:C:150:VAL:HG23	2.09	0.51
1:C:365:ALA:N	1:D:525:HIS:HE1	2.09	0.51
1:E:373:PHE:CE2	1:E:411:VAL:HG21	2.46	0.51
1:C:227:ALA:O	1:C:231:ASN:HB2	2.11	0.51
1:C:414:ARG:HG2	1:C:415:LYS:HZ2	1.75	0.51
1:A:104:GLN:CD	1:A:140:ASP:O	2.50	0.51
1:A:391:ILE:HG21	1:F:203:MET:CE	2.41	0.51
1:C:299:HIS:CD2	1:C:323:LEU:CD1	2.94	0.51
1:A:153:LEU:CD2	1:A:153:LEU:N	2.74	0.51
1:F:278:THR:O	1:F:281:ASP:N	2.42	0.51
1:E:231:ASN:ND2	1:E:237:ALA:O	2.42	0.51
1:A:243:ASP:C	1:A:243:ASP:OD1	2.48	0.51
1:A:319:ALA:O	1:A:321:ASN:N	2.44	0.50
1:F:350:ILE:HD11	1:F:385:GLN:O	2.10	0.50
1:C:145:ARG:HG2	1:C:147:GLN:HG2	1.94	0.50
1:C:313:GLU:HG2	1:C:316:PRO:HG3	1.93	0.50
1:C:340:GLN:OE1	1:C:341:PRO:HD2	2.11	0.50
1:A:129:LEU:HA	1:A:170:ILE:HD13	1.93	0.50
1:E:347:CYS:HA	1:E:377:PRO:HD2	1.93	0.50
1:F:287:ILE:HG23	1:F:288:VAL:N	2.27	0.50
1:F:129:LEU:HD23	1:F:129:LEU:O	2.11	0.50
1:C:166:ALA:O	1:C:169:VAL:N	2.43	0.50
1:A:380:LEU:HD23	1:A:385:GLN:CG	2.41	0.50
1:F:62:VAL:O	1:F:90:GLY:CA	2.59	0.50
1:C:455:HIS:HB2	1:C:459:ILE:HG12	1.87	0.50
1:F:374:VAL:O	1:F:412:ILE:HG23	2.11	0.50
1:A:414:ARG:CA	1:A:440:ALA:HA	2.26	0.50
1:F:266:PRO:HG3	1:F:368:VAL:HG23	1.92	0.50
1:F:279:ASP:OD1	1:F:279:ASP:N	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:232:SER:O	1:E:318:PHE:HD1	1.94	0.50
1:F:389:GLY:O	1:F:390:ILE:C	2.49	0.50
1:C:396:LYS:HG2	1:C:528:ILE:HG22	1.92	0.50
1:A:428:HIS:HB3	1:F:157:GLY:HA3	1.93	0.50
1:B:102:PHE:CZ	1:B:137:GLY:HA3	2.43	0.50
1:B:412:ILE:HG22	1:B:440:ALA:HB1	1.93	0.50
1:D:520:LEU:CG	1:D:521:PRO:HD2	2.14	0.50
1:F:28:ALA:HA	1:F:83:TYR:HB2	1.93	0.50
1:B:171:PRO:HG3	1:B:366:PHE:CZ	2.43	0.50
1:D:275:LEU:CD1	1:D:275:LEU:H	2.07	0.50
1:A:337:VAL:O	1:A:372:THR:HA	2.11	0.50
1:A:148:GLU:O	1:A:152:SER:HB2	2.10	0.50
1:A:29:THR:HA	1:A:49:ARG:NH1	2.27	0.50
1:F:149:GLY:O	1:F:151:ALA:N	2.44	0.50
1:A:397:LEU:HD11	1:A:424:MET:SD	2.51	0.50
1:A:321:ASN:ND2	1:A:321:ASN:H	2.09	0.50
1:E:253:GLN:HB3	1:E:312:PHE:CE1	2.47	0.50
1:F:112:ALA:HB1	1:F:145:ARG:CA	2.42	0.50
1:A:72:SER:HB3	1:A:77:LEU:HD23	1.94	0.50
1:A:104:GLN:HA	1:A:117:TYR:OH	2.11	0.50
1:C:323:LEU:CD2	1:C:340:GLN:HB2	2.24	0.50
1:C:340:GLN:HG3	1:C:342:MET:N	2.27	0.50
1:D:437:TRP:CZ2	1:D:502:THR:OG1	2.65	0.50
1:A:10:ASP:O	1:A:16:GLY:CA	2.60	0.50
1:A:259:PRO:CG	1:A:366:PHE:HB3	2.41	0.50
1:C:163:ASN:HA	1:C:172:GLN:HE22	1.77	0.50
1:E:132:GLY:HA3	1:E:261:ASN:ND2	2.21	0.50
1:C:197:VAL:CG1	1:C:200:THR:HB	2.41	0.50
1:B:414:ARG:O	1:B:440:ALA:HA	2.10	0.50
1:A:69:ARG:O	1:A:116:VAL:HG11	2.12	0.50
1:E:292:ALA:HB1	1:E:415:LYS:HE2	1.94	0.50
1:B:193:PHE:CD1	1:B:238:HIS:CD2	3.00	0.50
1:A:162:ARG:NH1	1:A:162:ARG:CG	2.68	0.50
1:A:22:ARG:CZ	1:D:498:MET:HE1	2.42	0.50
1:C:97:ARG:CG	1:C:98:PRO:HD2	2.38	0.50
1:F:239:HIS:CD2	1:F:240:MET:O	2.64	0.50
1:C:372:THR:HG23	1:C:410:THR:HG23	1.93	0.50
1:B:344:PHE:CD1	1:B:344:PHE:N	2.80	0.50
1:C:150:VAL:O	1:C:151:ALA:C	2.50	0.50
1:A:215:THR:OG1	1:A:217:GLU:HG2	2.11	0.50
1:B:114:GLY:O	1:B:117:TYR:N	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:171:PRO:HG3	1:E:366:PHE:CZ	2.46	0.50
1:F:56:LEU:HD22	1:F:93:THR:H	1.72	0.50
1:F:47:THR:HG22	1:F:48:ALA:H	1.77	0.50
1:F:84:GLY:O	1:F:85:ASP:C	2.49	0.50
1:C:63:GLU:CD	1:C:66:GLU:HB2	2.32	0.50
1:F:160:PHE:CE1	1:F:186:TYR:CB	2.94	0.50
1:B:459:ILE:HD12	1:B:470:ARG:HG3	1.92	0.50
1:E:60:SER:HB2	1:E:93:THR:H	1.77	0.50
1:F:29:THR:HA	1:F:49:ARG:NH1	2.23	0.50
1:F:132:GLY:C	1:F:261:ASN:HD22	2.12	0.50
1:F:275:LEU:CD1	1:F:275:LEU:H	2.24	0.50
1:E:360:VAL:HG21	1:E:401:TYR:CZ	2.46	0.50
1:B:104:GLN:OE1	1:B:139:ASN:HB2	2.11	0.50
1:B:87:VAL:HG21	1:B:89:THR:CG2	2.41	0.50
1:E:434:ASN:N	1:E:494:ASP:OD2	2.45	0.50
1:E:496:VAL:CG2	1:F:67:PHE:CE1	2.94	0.50
1:A:58:GLU:C	1:A:60:SER:N	2.63	0.50
1:F:284:LEU:HD13	1:F:304:HIS:NE2	2.27	0.50
1:B:369:PRO:HB3	1:B:407:PRO:HB2	1.94	0.50
1:D:293:ASN:O	1:D:295:PRO:HD3	2.12	0.50
1:A:386:GLU:OE2	1:A:386:GLU:O	2.30	0.50
1:E:104:GLN:HA	1:E:117:TYR:HH	1.76	0.50
1:E:311:PHE:HE2	1:E:313:GLU:HG2	1.77	0.50
1:F:94:VAL:CG2	1:F:99:VAL:HG21	2.39	0.50
1:E:497:ILE:C	1:E:497:ILE:CD1	2.80	0.50
1:C:236:VAL:HG21	1:D:391:ILE:HD13	1.93	0.50
1:C:130:LYS:CD	1:F:516:LYS:HG3	2.40	0.50
1:A:60:SER:OG	1:A:93:THR:N	2.44	0.50
1:C:154:GLY:HA2	1:D:428:HIS:NE2	2.27	0.50
1:B:140:ASP:O	1:B:140:ASP:OD1	2.30	0.50
1:C:127:PHE:CZ	1:C:131:THR:HG21	2.46	0.50
1:F:343:GLN:OE1	1:F:344:PHE:CD1	2.64	0.50
1:B:258:LEU:O	1:B:267:PRO:CD	2.60	0.50
1:A:383:VAL:CG2	1:F:217:GLU:OE1	2.59	0.50
1:F:320:PRO:O	1:F:322:ILE:N	2.44	0.50
1:F:99:VAL:HG12	1:F:100:ALA:N	2.25	0.50
1:C:373:PHE:N	1:C:373:PHE:CD1	2.79	0.50
1:D:69:ARG:NE	1:D:83:TYR:CD2	2.79	0.50
1:A:508:ARG:NH2	1:B:60:SER:O	2.45	0.50
1:C:11:ILE:HG23	1:C:12:HIS:N	2.27	0.50
1:F:501:ASP:OD2	1:F:501:ASP:O	2.30	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:337:VAL:HB	1:A:372:THR:HG23	1.94	0.50
1:F:149:GLY:O	1:F:150:VAL:C	2.49	0.50
1:A:23:ARG:HD2	1:A:23:ARG:C	2.32	0.50
1:D:35:ARG:HG3	1:D:36:ALA:N	2.26	0.50
1:C:525:HIS:HE1	1:D:361:ARG:O	1.94	0.49
1:B:138:ILE:HG13	1:B:175:LEU:HB3	1.94	0.49
1:A:282:ALA:C	1:A:284:LEU:N	2.65	0.49
1:A:311:PHE:CE1	1:A:336:ILE:HG13	2.47	0.49
1:E:457:ARG:C	1:E:459:ILE:N	2.65	0.49
1:F:10:ASP:OD2	1:F:11:ILE:N	2.38	0.49
1:F:49:ARG:HG3	1:F:49:ARG:NH1	2.27	0.49
1:A:172:GLN:O	1:A:191:THR:CG2	2.60	0.49
1:E:527:ASN:OD1	1:E:527:ASN:O	2.30	0.49
1:A:319:ALA:O	1:A:320:PRO:C	2.51	0.49
1:A:321:ASN:HD22	1:A:322:ILE:N	2.10	0.49
1:D:284:LEU:HD13	1:D:304:HIS:NE2	2.27	0.49
1:E:373:PHE:HE2	1:E:411:VAL:HG21	1.77	0.49
1:E:371:LEU:HD13	1:E:506:ILE:CG2	2.42	0.49
1:A:508:ARG:NH2	1:B:60:SER:C	2.66	0.49
1:B:278:THR:O	1:B:281:ASP:CB	2.48	0.49
1:B:284:LEU:HB3	1:B:499:PRO:CB	2.42	0.49
1:B:386:GLU:HA	1:B:390:ILE:HG22	1.93	0.49
1:F:298:MET:HB3	1:F:323:LEU:CD1	2.41	0.49
1:F:374:VAL:HG22	1:F:424:MET:HE2	1.94	0.49
1:A:55:LEU:HD11	1:A:136:VAL:HG11	1.94	0.49
1:B:455:HIS:HB3	1:B:473:LEU:CD1	2.42	0.49
1:F:483:ASN:ND2	1:F:483:ASN:C	2.66	0.49
1:D:51:ARG:CZ	1:D:177:VAL:CG2	2.86	0.49
1:E:48:ALA:HA	1:E:51:ARG:HG3	1.93	0.49
1:B:154:GLY:HA2	1:E:428:HIS:CD2	2.48	0.49
1:B:454:LEU:HD11	1:E:75:PHE:CE2	2.48	0.49
1:B:446:GLY:O	1:B:447:ALA:C	2.50	0.49
1:F:457:ARG:CG	1:F:457:ARG:NH1	2.70	0.49
1:F:262:ASN:O	1:F:263:LEU:C	2.49	0.49
1:C:72:SER:HB2	1:C:148:GLU:OE1	2.11	0.49
1:D:284:LEU:HD13	1:D:287:ILE:CD1	2.37	0.49
1:C:199:GLN:CA	1:C:199:GLN:HE21	2.21	0.49
1:E:373:PHE:CE2	1:E:411:VAL:CG2	2.96	0.49
1:B:487:ALA:O	1:B:490:ARG:HB2	2.12	0.49
1:C:413:THR:HG22	1:C:437:TRP:CE3	2.46	0.49
1:A:120:LYS:O	1:A:124:VAL:HG23	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:432:ASP:OD1	1:F:516:LYS:HE3	2.11	0.49
1:E:498:MET:CE	1:F:18:LEU:HB3	2.42	0.49
1:A:154:GLY:CA	1:F:428:HIS:HD1	2.24	0.49
1:C:40:GLN:CA	1:C:40:GLN:HE21	2.17	0.49
1:D:62:VAL:HB	1:D:91:TYR:CZ	2.47	0.49
1:A:526:GLY:O	1:F:361:ARG:NH2	2.45	0.49
1:F:349:ASP:OD1	1:F:350:ILE:N	2.45	0.49
1:B:113:LEU:CD2	1:B:113:LEU:N	2.75	0.49
1:C:284:LEU:C	1:C:286:THR:N	2.62	0.49
1:C:320:PRO:HB2	1:C:343:GLN:CB	2.43	0.49
1:B:455:HIS:CB	1:B:473:LEU:CD1	2.91	0.49
1:B:40:GLN:NE2	1:B:140:ASP:OD2	2.45	0.49
1:D:324:THR:HG22	1:D:337:VAL:CG2	2.41	0.49
1:B:485:TYR:CE2	1:D:24:ARG:CZ	2.96	0.49
1:C:196:MET:HB3	1:C:201:SER:OG	2.12	0.49
1:B:364:ASP:CG	1:B:404:ALA:HA	2.32	0.49
1:C:268:ALA:CB	1:C:332:ARG:HD3	2.43	0.49
1:C:372:THR:HG23	1:C:410:THR:HA	1.94	0.49
1:E:122:VAL:HG22	1:E:159:ILE:HD13	1.94	0.49
1:F:497:ILE:HG21	1:F:505:HIS:CD2	2.48	0.49
1:D:208:PRO:HD2	1:D:221:PHE:CE1	2.45	0.49
1:E:86:GLY:C	1:E:117:TYR:HE2	2.15	0.49
1:F:315:GLN:HB2	1:F:355:LYS:HE3	1.93	0.49
1:D:122:VAL:HG13	1:D:162:ARG:HD3	1.93	0.49
1:D:332:ARG:NH2	1:D:514:ARG:HE	1.97	0.49
1:A:416:ALA:HB3	1:A:442:ILE:HG13	1.95	0.49
1:D:40:GLN:CD	1:D:45:LYS:CE	2.71	0.49
1:B:51:ARG:NH2	1:B:177:VAL:CG2	2.75	0.49
1:E:146:ILE:O	1:E:147:GLN:C	2.51	0.49
1:B:250:TYR:CG	1:B:312:PHE:HZ	2.28	0.49
1:A:75:PHE:CD2	1:F:454:LEU:CD1	2.96	0.49
1:C:516:LYS:NZ	1:E:130:LYS:HB2	2.26	0.49
1:B:348:LEU:HB2	1:B:379:PHE:CE2	2.42	0.49
1:B:530:LEU:HD21	1:E:530:LEU:HD22	1.93	0.49
1:C:298:MET:HB2	1:C:340:GLN:OE1	2.12	0.49
1:D:504:ARG:HB3	1:D:504:ARG:HH11	1.78	0.49
1:F:483:ASN:HD22	1:F:485:TYR:H	1.59	0.49
1:F:278:THR:O	1:F:279:ASP:C	2.50	0.49
1:C:445:MET:HB2	1:C:450:ALA:HB2	1.94	0.49
1:F:386:GLU:OE1	1:F:391:ILE:CD1	2.61	0.49
1:C:399:PHE:CG	1:C:528:ILE:HG13	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:104:GLN:OE1	1:A:140:ASP:O	2.31	0.49
1:B:47:THR:CG2	1:B:50:GLU:CG	2.71	0.49
1:F:67:PHE:O	1:F:69:ARG:HG3	2.13	0.49
1:D:209:ASP:OD1	1:D:210:VAL:N	2.46	0.49
1:E:125:MET:HE2	1:E:163:ASN:HD21	1.76	0.49
1:B:505:HIS:CE1	1:D:62:VAL:HG13	2.48	0.49
1:A:287:ILE:O	1:A:289:PRO:HD3	2.12	0.49
1:F:444:VAL:HG13	1:F:445:MET:HG2	1.94	0.49
1:C:379:PHE:CG	1:D:205:ILE:HG13	2.47	0.49
1:A:347:CYS:HB3	1:A:377:PRO:HG2	1.95	0.49
1:C:211:ILE:CD1	1:C:217:GLU:O	2.61	0.49
1:A:183:GLY:O	1:A:184:ALA:C	2.50	0.49
1:A:185:VAL:C	1:A:188:PRO:HD2	2.32	0.49
1:C:284:LEU:CD2	1:C:304:HIS:ND1	2.72	0.49
1:F:516:LYS:HG2	1:F:517:ARG:N	2.26	0.49
1:D:173:ILE:HG12	1:D:193:PHE:HB2	1.95	0.49
1:A:57:ASP:OD2	1:A:93:THR:HG23	2.12	0.49
1:C:358:ARG:CG	1:C:358:ARG:NH1	2.71	0.49
1:B:459:ILE:HD11	1:B:473:LEU:HD12	1.94	0.49
1:C:102:PHE:CE1	1:C:135:VAL:HG12	2.48	0.49
1:A:177:VAL:HG12	1:A:244:GLU:OE1	2.13	0.49
1:A:196:MET:HE1	1:A:203:MET:HB2	1.94	0.48
1:F:328:ARG:NH1	1:F:328:ARG:HG3	2.27	0.48
1:E:298:MET:O	1:E:301:VAL:N	2.45	0.48
1:D:69:ARG:CZ	1:D:83:TYR:CZ	2.96	0.48
1:F:87:VAL:HB	1:F:117:TYR:CZ	2.48	0.48
1:A:183:GLY:O	1:A:185:VAL:N	2.46	0.48
1:E:452:ASN:N	1:E:452:ASN:ND2	2.61	0.48
1:A:67:PHE:CD2	1:D:485:TYR:HE1	2.30	0.48
1:C:284:LEU:O	1:C:286:THR:N	2.46	0.48
1:D:52:ILE:HG23	1:D:101:VAL:HG11	1.95	0.48
1:B:42:ALA:C	1:B:44:GLY:N	2.64	0.48
1:F:284:LEU:CD1	1:F:304:HIS:CD2	2.95	0.48
1:C:127:PHE:HZ	1:F:512:GLN:HB3	1.77	0.48
1:E:321:ASN:OD1	1:E:322:ILE:N	2.46	0.48
1:C:330:GLU:OE1	1:C:330:GLU:HA	2.13	0.48
1:A:243:ASP:O	1:A:246:ASP:N	2.46	0.48
1:C:395:ALA:O	1:C:398:ILE:HG13	2.12	0.48
1:D:296:TYR:CD1	1:D:414:ARG:NH2	2.68	0.48
1:B:112:ALA:HB1	1:B:145:ARG:HA	1.96	0.48
1:B:45:LYS:CD	1:B:200:THR:HG21	2.38	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:259:PRO:HA	1:E:267:PRO:HD3	1.95	0.48
1:B:268:ALA:CB	1:B:332:ARG:HA	2.42	0.48
1:A:490:ARG:HD3	1:A:492:TYR:HH	1.72	0.48
1:B:18:LEU:O	1:B:21:LEU:HB3	2.13	0.48
1:B:64:LEU:O	1:B:65:ASP:C	2.51	0.48
1:E:386:GLU:HA	1:E:390:ILE:HG22	1.94	0.48
1:C:161:ARG:CG	1:D:429:LEU:O	2.61	0.48
1:D:319:ALA:C	1:D:321:ASN:N	2.66	0.48
1:F:120:LYS:O	1:F:124:VAL:CG2	2.61	0.48
1:A:329:VAL:CG1	1:A:507:VAL:HG22	2.43	0.48
1:D:117:TYR:HE1	1:D:121:ILE:HD11	1.78	0.48
1:C:421:TYR:O	1:C:426:SER:HB3	2.13	0.48
1:A:395:ALA:O	1:A:396:LYS:C	2.51	0.48
1:F:436:ALA:O	1:F:496:VAL:HG12	2.12	0.48
1:F:279:ASP:O	1:F:282:ALA:N	2.46	0.48
1:C:68:ALA:HA	1:F:489:GLU:CA	2.42	0.48
1:A:197:VAL:N	1:A:201:SER:OG	2.42	0.48
1:B:249:GLU:OE1	1:B:249:GLU:HA	2.13	0.48
1:C:520:LEU:CG	1:C:521:PRO:CD	2.90	0.48
1:E:477:TYR:O	1:E:482:LEU:CD1	2.62	0.48
1:C:300:SER:O	1:C:304:HIS:ND1	2.47	0.48
1:E:263:LEU:CD2	1:E:263:LEU:N	2.76	0.48
1:A:11:ILE:O	1:A:11:ILE:HD12	2.12	0.48
1:F:507:VAL:HG13	1:F:508:ARG:N	2.28	0.48
1:B:523:LYS:O	1:B:524:LYS:C	2.51	0.48
1:C:396:LYS:HA	1:C:528:ILE:HG21	1.91	0.48
1:C:527:ASN:HA	1:D:361:ARG:NH1	2.27	0.48
1:E:398:ILE:CD1	1:E:423:VAL:HG22	2.42	0.48
1:A:38:GLU:O	1:A:39:LYS:C	2.51	0.48
1:C:250:TYR:CZ	1:C:312:PHE:CE2	3.01	0.48
1:A:284:LEU:N	1:A:284:LEU:CD1	2.76	0.48
1:D:117:TYR:CE1	1:D:121:ILE:HD11	2.48	0.48
1:D:139:ASN:HB2	1:D:176:VAL:HG22	1.96	0.48
1:B:414:ARG:CA	1:B:440:ALA:HA	2.42	0.48
1:A:61:PHE:CZ	1:A:63:GLU:HA	2.48	0.48
1:C:377:PRO:HA	1:C:417:PHE:HD2	1.77	0.48
1:C:376:VAL:CG2	1:C:420:ALA:HB1	2.39	0.48
1:F:121:ILE:O	1:F:125:MET:HG3	2.14	0.48
1:F:185:VAL:O	1:F:188:PRO:HD2	2.14	0.48
1:F:187:SER:HB3	1:F:188:PRO:HD3	1.94	0.48
1:D:427:LYS:O	1:D:430:GLY:N	2.36	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:193:PHE:HA	1:B:238:HIS:ND1	2.26	0.48
1:A:250:TYR:CZ	1:A:312:PHE:CZ	3.01	0.48
1:A:163:ASN:O	1:A:167:SER:HB2	2.13	0.48
1:B:464:ASP:O	1:B:465:ASP:C	2.52	0.48
1:F:128:ALA:HB1	1:F:133:CYS:O	2.13	0.48
1:D:205:ILE:HG23	1:D:206:THR:N	2.28	0.48
1:F:379:PHE:HZ	1:F:423:VAL:HG21	1.79	0.48
1:B:280:GLU:HG2	1:B:281:ASP:N	2.28	0.48
1:F:47:THR:CG2	1:F:48:ALA:N	2.75	0.48
1:E:52:ILE:CG2	1:E:56:LEU:HD12	2.44	0.48
1:E:299:HIS:HD2	1:E:340:GLN:HE22	1.58	0.48
1:C:278:THR:HG22	1:C:281:ASP:CG	2.34	0.48
1:A:175:LEU:HD12	1:A:195:VAL:HB	1.95	0.48
1:D:156:TYR:CZ	1:D:184:ALA:HB2	2.49	0.48
1:F:427:LYS:HE2	1:F:434:ASN:ND2	2.28	0.48
1:A:416:ALA:O	1:A:417:PHE:CG	2.66	0.48
1:B:113:LEU:CD2	1:B:141:SER:OG	2.56	0.48
1:C:198:ASP:O	1:C:199:GLN:CB	2.61	0.48
1:E:497:ILE:CG2	1:E:505:HIS:HE1	2.20	0.48
1:C:140:ASP:HB2	1:C:177:VAL:HG23	1.95	0.48
1:E:219:VAL:HG11	1:E:224:LEU:CB	2.36	0.48
1:A:87:VAL:HB	1:A:117:TYR:CZ	2.49	0.48
1:C:187:SER:N	1:C:188:PRO:HD2	2.28	0.48
1:F:11:ILE:O	1:F:11:ILE:CD1	2.49	0.48
1:F:449:GLY:O	1:F:452:ASN:N	2.47	0.48
1:A:57:ASP:OD2	1:A:95:ASP:N	2.46	0.48
1:D:320:PRO:O	1:D:321:ASN:C	2.50	0.48
1:C:97:ARG:HG3	1:C:98:PRO:CD	2.39	0.48
1:A:49:ARG:CG	1:A:49:ARG:NH1	2.75	0.48
1:B:517:ARG:O	1:B:518:GLU:CD	2.52	0.48
1:D:132:GLY:O	1:D:261:ASN:HB3	2.13	0.48
1:A:379:PHE:CE1	1:A:420:ALA:CA	2.96	0.48
1:C:336:ILE:HG13	1:C:336:ILE:O	2.13	0.48
1:A:490:ARG:HD2	1:A:492:TYR:HE2	1.71	0.48
1:C:45:LYS:NZ	1:C:179:PRO:HD3	2.28	0.48
1:A:21:LEU:O	1:A:25:ILE:HG13	2.13	0.48
1:B:398:ILE:HG13	1:B:423:VAL:HG22	1.94	0.48
1:F:28:ALA:HB2	1:F:83:TYR:CD1	2.48	0.48
1:C:340:GLN:O	1:C:346:GLY:CA	2.62	0.48
1:D:411:VAL:HG22	1:D:435:LEU:CD2	2.43	0.48
1:B:470:ARG:O	1:B:471:ALA:C	2.50	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:417:PHE:HZ	1:E:441:GLN:HB2	1.75	0.48
1:D:275:LEU:N	1:D:275:LEU:HD12	2.15	0.48
1:A:11:ILE:CG2	1:A:12:HIS:N	2.76	0.48
1:A:266:PRO:HB2	1:A:333:PRO:HG2	1.96	0.48
1:E:321:ASN:O	1:E:340:GLN:HB3	2.12	0.48
1:A:145:ARG:HD2	1:A:148:GLU:CD	2.34	0.48
1:D:475:GLN:HE21	1:D:479:ASP:CG	2.16	0.48
1:B:517:ARG:O	1:B:518:GLU:OE2	2.32	0.48
1:E:405:THR:O	1:E:405:THR:HG22	2.14	0.48
1:F:350:ILE:HG12	1:F:390:ILE:HG13	1.96	0.48
1:B:428:HIS:CD2	1:E:154:GLY:HA2	2.47	0.48
1:A:307:ASP:O	1:A:308:ASP:C	2.51	0.48
1:D:504:ARG:CA	1:D:507:VAL:HG12	2.43	0.48
1:F:375:ASP:CG	1:F:414:ARG:HB2	2.33	0.48
1:F:457:ARG:NH1	1:F:457:ARG:HG2	2.18	0.48
1:A:147:GLN:O	1:A:149:GLY:N	2.47	0.48
1:B:182:GLY:O	1:B:184:ALA:N	2.47	0.48
1:A:211:ILE:HD11	1:A:217:GLU:O	2.13	0.48
1:E:249:GLU:O	1:E:252:LYS:HB2	2.14	0.48
1:D:69:ARG:CG	1:D:83:TYR:HA	2.43	0.48
1:A:502:THR:O	1:A:506:ILE:HG12	2.14	0.48
1:B:398:ILE:CD1	1:B:423:VAL:HG22	2.44	0.48
1:E:204:PHE:CD1	1:E:224:LEU:HG	2.47	0.48
1:C:494:ASP:OD2	1:E:123:LYS:HE2	2.13	0.48
1:C:65:ASP:HB2	1:C:120:LYS:HE2	1.95	0.48
1:C:164:THR:HG21	1:D:402:ALA:HB3	1.96	0.48
1:F:483:ASN:ND2	1:F:485:TYR:CD2	2.81	0.48
1:C:274:ASP:OD1	1:C:276:ALA:N	2.31	0.48
1:A:239:HIS:CE1	1:A:250:TYR:CE1	3.02	0.48
1:C:102:PHE:CE2	1:C:137:GLY:HA2	2.49	0.48
1:C:98:PRO:HB2	1:C:133:CYS:HB2	1.96	0.48
1:A:349:ASP:OD1	1:A:352:ALA:CB	2.62	0.48
1:D:253:GLN:NE2	1:D:253:GLN:HA	2.28	0.48
1:F:353:SER:OG	1:F:394:GLY:HA2	2.14	0.47
1:E:282:ALA:O	1:E:285:ASP:HB2	2.14	0.47
1:D:303:GLU:O	1:D:304:HIS:C	2.51	0.47
1:E:104:GLN:OE1	1:E:140:ASP:N	2.47	0.47
1:E:200:THR:O	1:E:200:THR:HG22	2.14	0.47
1:B:158:GLU:OE2	1:B:161:ARG:NH2	2.47	0.47
1:F:328:ARG:HH11	1:F:328:ARG:HG3	1.79	0.47
1:D:85:ASP:HB3	1:D:116:VAL:HG23	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:77:LEU:CD2	1:C:147:GLN:HG3	2.44	0.47
1:F:102:PHE:O	1:F:138:ILE:HB	2.13	0.47
1:B:379:PHE:O	1:B:380:LEU:C	2.53	0.47
1:A:121:ILE:HG22	1:A:125:MET:CE	2.44	0.47
1:A:412:ILE:HG22	1:A:440:ALA:CB	2.43	0.47
1:D:234:SER:OG	1:D:236:VAL:CG2	2.47	0.47
1:D:396:LYS:HD2	1:D:529:PRO:O	2.14	0.47
1:D:47:THR:O	1:D:50:GLU:HB2	2.14	0.47
1:A:469:THR:HG23	1:A:472:ARG:NH2	2.29	0.47
1:F:278:THR:O	1:F:280:GLU:N	2.47	0.47
1:A:319:ALA:C	1:A:321:ASN:N	2.66	0.47
1:C:398:ILE:CD1	1:C:399:PHE:HA	2.43	0.47
1:C:398:ILE:CG1	1:C:399:PHE:N	2.77	0.47
1:E:146:ILE:HD12	1:E:146:ILE:N	2.28	0.47
1:E:170:ILE:HG23	1:E:261:ASN:HB2	1.96	0.47
1:E:70:HIS:HB3	1:E:85:ASP:OD1	2.14	0.47
1:B:340:GLN:O	1:B:340:GLN:HG3	2.13	0.47
1:E:412:ILE:HD13	1:E:442:ILE:CD1	2.42	0.47
1:F:56:LEU:CD2	1:F:92:GLY:C	2.82	0.47
1:A:71:ARG:NH2	1:A:116:VAL:CG1	2.72	0.47
1:B:485:TYR:CZ	1:D:24:ARG:CZ	2.97	0.47
1:D:312:PHE:O	1:D:325:GLY:HA2	2.14	0.47
1:D:447:ALA:HB2	1:D:482:LEU:HD21	1.95	0.47
1:C:91:TYR:HE1	1:F:512:GLN:HG3	1.77	0.47
1:A:78:ASP:O	1:A:79:ALA:C	2.52	0.47
1:A:276:ALA:O	1:A:278:THR:HG22	2.14	0.47
1:F:209:ASP:C	1:F:212:LYS:HE3	2.35	0.47
1:C:361:ARG:NH1	1:C:403:GLU:OE2	2.43	0.47
1:B:197:VAL:HG22	1:B:247:ALA:HB2	1.96	0.47
1:E:197:VAL:HG23	1:E:200:THR:HB	1.94	0.47
1:F:62:VAL:O	1:F:90:GLY:HA2	2.14	0.47
1:A:488:ALA:CA	1:A:493:VAL:HG23	2.42	0.47
1:F:106:PHE:O	1:F:110:GLY:C	2.52	0.47
1:C:320:PRO:O	1:C:323:LEU:CD2	2.62	0.47
1:D:48:ALA:HA	1:D:51:ARG:HD2	1.97	0.47
1:D:183:GLY:O	1:D:186:TYR:HB2	2.13	0.47
1:D:467:GLU:H	1:D:467:GLU:CD	2.18	0.47
1:C:396:LYS:CG	1:C:528:ILE:CG2	2.91	0.47
1:D:284:LEU:HD13	1:D:304:HIS:CE1	2.50	0.47
1:C:417:PHE:O	1:C:420:ALA:HB3	2.13	0.47
1:F:28:ALA:CA	1:F:83:TYR:CD1	2.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:452:ASN:O	1:A:456:ARG:HB2	2.13	0.47
1:A:112:ALA:HB1	1:A:144:ALA:C	2.34	0.47
1:F:322:ILE:HD11	1:F:337:VAL:HG12	1.96	0.47
1:E:86:GLY:CA	1:E:108:VAL:HG11	2.44	0.47
1:E:427:LYS:HZ1	1:E:433:LEU:C	2.17	0.47
1:C:177:VAL:O	1:C:200:THR:O	2.33	0.47
1:F:87:VAL:HG22	1:F:88:VAL:N	2.28	0.47
1:A:184:ALA:C	1:A:186:TYR:N	2.63	0.47
1:D:350:ILE:HG21	1:D:393:ARG:HD3	1.96	0.47
1:A:153:LEU:HD22	1:A:153:LEU:N	2.30	0.47
1:F:411:VAL:HA	1:F:435:LEU:O	2.13	0.47
1:B:465:ASP:O	1:B:468:ALA:HB3	2.14	0.47
1:F:426:SER:O	1:F:427:LYS:C	2.52	0.47
1:A:203:MET:HB3	1:A:230:HIS:NE2	2.29	0.47
1:A:217:GLU:CD	1:F:383:VAL:HG23	2.35	0.47
1:D:415:LYS:HG2	1:D:441:GLN:HG3	1.97	0.47
1:E:87:VAL:HG12	1:E:117:TYR:HD2	1.61	0.47
1:D:69:ARG:NH2	1:D:83:TYR:CZ	2.83	0.47
1:D:21:LEU:CD1	1:D:21:LEU:C	2.82	0.47
1:A:84:GLY:O	1:A:85:ASP:HB2	2.14	0.47
1:C:284:LEU:CD2	1:C:304:HIS:CE1	2.97	0.47
1:F:266:PRO:HG3	1:F:368:VAL:CG2	2.44	0.47
1:F:198:ASP:HB2	1:F:240:MET:HE2	1.97	0.47
1:E:61:PHE:CD1	1:E:62:VAL:N	2.82	0.47
1:A:318:PHE:CZ	1:A:351:THR:CA	2.97	0.47
1:E:106:PHE:HB2	1:E:140:ASP:OD2	2.14	0.47
1:E:175:LEU:CD2	1:E:195:VAL:HG23	2.44	0.47
1:E:432:ASP:OD2	1:E:516:LYS:HD3	2.15	0.47
1:C:195:VAL:HG21	1:C:250:TYR:HD2	1.78	0.47
1:B:498:MET:HE3	1:D:22:ARG:NE	2.30	0.47
1:C:113:LEU:HD22	1:C:117:TYR:CD1	2.50	0.47
1:A:257:TYR:CB	1:A:258:LEU:HD12	2.45	0.47
1:E:451:VAL:HG23	1:E:452:ASN:N	2.29	0.47
1:B:211:ILE:HG13	1:B:212:LYS:N	2.30	0.47
1:B:307:ASP:CG	1:B:330:GLU:H	2.18	0.47
1:E:205:ILE:HG23	1:E:206:THR:N	2.30	0.47
1:A:350:ILE:CD1	1:A:390:ILE:HA	2.44	0.47
1:B:325:GLY:C	1:B:326:PHE:CD2	2.88	0.47
1:D:311:PHE:CE1	1:D:325:GLY:HA3	2.50	0.47
1:E:340:GLN:O	1:E:346:GLY:HA2	2.14	0.47
1:A:145:ARG:HD2	1:A:148:GLU:OE2	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:149:GLY:C	1:B:151:ALA:H	2.18	0.47
1:A:97:ARG:HB3	1:A:98:PRO:HD2	1.97	0.47
1:A:169:VAL:HG23	1:F:523:LYS:HD3	1.96	0.47
1:B:118:GLY:HA3	1:B:155:ALA:HB1	1.95	0.47
1:B:195:VAL:HG22	1:B:239:HIS:HB3	1.97	0.47
1:E:11:ILE:O	1:E:11:ILE:HG13	2.12	0.47
1:F:311:PHE:HE1	1:F:325:GLY:C	2.18	0.47
1:C:33:SER:H	1:C:107:THR:CG2	2.27	0.47
1:E:472:ARG:O	1:E:475:GLN:HB3	2.15	0.47
1:E:477:TYR:O	1:E:482:LEU:HD13	2.15	0.47
1:E:373:PHE:HA	1:E:411:VAL:O	2.15	0.47
1:E:516:LYS:HG2	1:F:131:THR:HA	1.96	0.47
1:B:440:ALA:O	1:B:484:PRO:CD	2.47	0.47
1:E:457:ARG:O	1:E:459:ILE:N	2.48	0.47
1:C:321:ASN:HD22	1:C:322:ILE:N	2.12	0.47
1:E:74:ASN:O	1:E:75:PHE:CB	2.49	0.47
1:E:57:ASP:CG	1:E:93:THR:O	2.53	0.47
1:D:209:ASP:OD1	1:D:210:VAL:CG2	2.55	0.47
1:A:62:VAL:HB	1:A:91:TYR:CE2	2.49	0.47
1:E:99:VAL:HG12	1:E:100:ALA:N	2.29	0.47
1:E:490:ARG:HD3	1:E:492:TYR:CE2	2.50	0.47
1:A:434:ASN:C	1:A:435:LEU:CD1	2.83	0.47
1:E:91:TYR:CD2	1:E:127:PHE:CZ	3.03	0.47
1:E:455:HIS:O	1:E:456:ARG:C	2.53	0.47
1:C:284:LEU:HD13	1:C:437:TRP:HH2	1.76	0.47
1:A:106:PHE:HD1	1:A:140:ASP:OD1	1.97	0.47
1:D:487:ALA:HB1	1:D:492:TYR:HB2	1.97	0.47
1:F:358:ARG:CG	1:F:358:ARG:NH1	2.68	0.47
1:D:37:VAL:CG1	1:D:41:HIS:CE1	2.92	0.47
1:F:129:LEU:CD2	1:F:129:LEU:C	2.81	0.47
1:C:278:THR:CG2	1:C:281:ASP:CG	2.83	0.47
1:A:177:VAL:HG12	1:A:244:GLU:CD	2.35	0.47
1:E:87:VAL:HG22	1:E:89:THR:CG2	2.45	0.47
1:B:340:GLN:OE1	1:B:340:GLN:CA	2.63	0.47
1:E:490:ARG:HD3	1:E:492:TYR:CZ	2.50	0.47
1:E:513:LEU:CD1	1:E:516:LYS:CE	2.87	0.47
1:A:445:MET:HB2	1:A:450:ALA:HB2	1.97	0.47
1:D:124:VAL:CG2	1:D:125:MET:N	2.78	0.47
1:B:211:ILE:O	1:B:215:THR:N	2.39	0.47
1:C:524:LYS:CE	1:D:405:THR:OG1	2.63	0.47
1:A:375:ASP:OD1	1:A:375:ASP:O	2.32	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:501:ASP:O	1:D:504:ARG:N	2.48	0.47
1:D:232:SER:HB3	1:D:317:LEU:HB3	1.97	0.47
1:B:40:GLN:O	1:B:43:LYS:CB	2.62	0.47
1:F:343:GLN:OE1	1:F:344:PHE:HE1	1.98	0.47
1:C:290:ASP:OD1	1:E:13:THR:CB	2.63	0.47
1:E:55:LEU:HD21	1:E:136:VAL:HG11	1.96	0.47
1:C:507:VAL:CG1	1:C:511:ARG:HH21	2.28	0.47
1:B:198:ASP:O	1:B:199:GLN:HB2	2.15	0.46
1:E:193:PHE:HA	1:E:238:HIS:ND1	2.26	0.46
1:E:315:GLN:N	1:E:316:PRO:CD	2.77	0.46
1:B:287:ILE:HG23	1:B:288:VAL:N	2.30	0.46
1:A:257:TYR:HB2	1:A:258:LEU:HD12	1.96	0.46
1:B:376:VAL:N	1:B:415:LYS:O	2.46	0.46
1:B:395:ALA:O	1:B:396:LYS:C	2.54	0.46
1:B:121:ILE:HA	1:B:124:VAL:HG23	1.97	0.46
1:A:227:ALA:O	1:A:231:ASN:HB2	2.14	0.46
1:B:147:GLN:CG	1:E:454:LEU:HD21	2.35	0.46
1:D:314:THR:HG23	1:D:325:GLY:HA2	1.96	0.46
1:C:530:LEU:HB3	1:D:396:LYS:HZ3	1.80	0.46
1:A:158:GLU:O	1:A:162:ARG:HG2	2.15	0.46
1:E:391:ILE:O	1:E:395:ALA:HB2	2.14	0.46
1:B:320:PRO:O	1:B:321:ASN:C	2.52	0.46
1:F:54:LEU:C	1:F:54:LEU:HD12	2.35	0.46
1:D:379:PHE:CZ	1:D:420:ALA:HB2	2.50	0.46
1:D:167:SER:HA	1:D:172:GLN:HE22	1.80	0.46
1:E:249:GLU:O	1:E:253:GLN:N	2.42	0.46
1:B:341:PRO:O	1:B:342:MET:C	2.53	0.46
1:E:298:MET:CE	1:E:339:ASN:O	2.63	0.46
1:E:409:ILE:CD1	1:E:510:LEU:HD23	2.42	0.46
1:D:67:PHE:O	1:D:69:ARG:CG	2.63	0.46
1:A:284:LEU:O	1:A:285:ASP:C	2.51	0.46
1:A:485:TYR:O	1:A:489:GLU:N	2.40	0.46
1:A:306:LEU:HD11	1:A:311:PHE:HD1	1.80	0.46
1:A:306:LEU:HD12	1:A:311:PHE:HB2	1.96	0.46
1:F:22:ARG:CG	1:F:22:ARG:NH1	2.47	0.46
1:B:361:ARG:HH11	1:B:403:GLU:CD	2.18	0.46
1:D:243:ASP:O	1:D:244:GLU:C	2.53	0.46
1:C:130:LYS:HG2	1:F:516:LYS:CG	2.33	0.46
1:F:451:VAL:O	1:F:452:ASN:C	2.53	0.46
1:F:475:GLN:OE1	1:F:479:ASP:OD2	2.32	0.46
1:F:389:GLY:C	1:F:391:ILE:N	2.61	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:340:GLN:OE1	1:B:340:GLN:HA	2.15	0.46
1:B:519:SER:O	1:B:520:LEU:CD1	2.51	0.46
1:B:268:ALA:HB2	1:B:332:ARG:HA	1.96	0.46
1:F:113:LEU:CG	1:F:156:TYR:CE1	2.95	0.46
1:F:84:GLY:O	1:F:86:GLY:N	2.49	0.46
1:D:485:TYR:O	1:D:489:GLU:CG	2.51	0.46
1:A:21:LEU:CD1	1:D:485:TYR:OH	2.63	0.46
1:D:480:ALA:CA	1:D:481:LEU:HD12	2.43	0.46
1:E:498:MET:HE2	1:F:18:LEU:HD13	1.96	0.46
1:D:322:ILE:HD13	1:D:356:ALA:HB2	1.97	0.46
1:C:97:ARG:HH11	1:C:97:ARG:HB2	1.80	0.46
1:F:293:ASN:O	1:F:295:PRO:CD	2.61	0.46
1:F:222:GLU:O	1:F:226:GLY:HA3	2.15	0.46
1:A:206:THR:HG22	1:A:207:GLY:N	2.30	0.46
1:F:319:ALA:N	1:F:320:PRO:HD3	2.30	0.46
1:F:348:LEU:HD21	1:F:353:SER:HB3	1.96	0.46
1:A:348:LEU:O	1:A:379:PHE:HA	2.16	0.46
1:F:92:GLY:O	1:F:99:VAL:HB	2.15	0.46
1:C:336:ILE:HB	1:C:371:LEU:O	2.15	0.46
1:A:332:ARG:CG	1:A:514:ARG:NH1	2.68	0.46
1:C:413:THR:O	1:C:440:ALA:HA	2.15	0.46
1:C:311:PHE:HE1	1:C:325:GLY:C	2.18	0.46
1:C:524:LYS:HE2	1:D:405:THR:OG1	2.15	0.46
1:B:205:ILE:HG22	1:E:386:GLU:OE2	2.15	0.46
1:B:334:VAL:HG11	1:B:371:LEU:CG	2.45	0.46
1:D:47:THR:HB	1:D:50:GLU:HG2	1.98	0.46
1:B:186:TYR:HD1	1:E:395:ALA:HB2	1.79	0.46
1:B:319:ALA:O	1:B:320:PRO:C	2.53	0.46
1:F:279:ASP:O	1:F:282:ALA:HB3	2.15	0.46
1:B:29:THR:HA	1:B:49:ARG:CZ	2.45	0.46
1:D:105:ASP:CG	1:D:107:THR:HG1	2.18	0.46
1:A:259:PRO:CD	1:A:366:PHE:HB3	2.45	0.46
1:A:318:PHE:HZ	1:A:351:THR:CA	2.29	0.46
1:F:350:ILE:HG21	1:F:393:ARG:HD3	1.96	0.46
1:B:114:GLY:O	1:B:117:TYR:HB3	2.15	0.46
1:E:478:GLU:CB	1:E:482:LEU:HD22	2.45	0.46
1:E:150:VAL:C	1:E:152:SER:N	2.62	0.46
1:E:491:GLY:O	1:E:492:TYR:C	2.54	0.46
1:B:330:GLU:CD	1:B:511:ARG:HE	2.19	0.46
1:A:70:HIS:HA	1:A:116:VAL:CG1	2.46	0.46
1:C:412:ILE:HD11	1:C:421:TYR:CE1	2.47	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:530:LEU:HD22	1:E:396:LYS:HZ3	1.79	0.46
1:F:182:GLY:C	1:F:184:ALA:H	2.18	0.46
1:B:263:LEU:N	1:B:263:LEU:CD2	2.79	0.46
1:D:348:LEU:HD12	1:D:379:PHE:CE2	2.51	0.46
1:E:145:ARG:O	1:E:145:ARG:HG2	2.14	0.46
1:F:319:ALA:O	1:F:320:PRO:C	2.54	0.46
1:B:87:VAL:HG22	1:B:89:THR:HG23	1.92	0.46
1:B:67:PHE:O	1:B:69:ARG:HG3	2.16	0.46
1:B:302:ILE:HG23	1:B:336:ILE:HG12	1.97	0.46
1:A:104:GLN:HB3	1:A:140:ASP:O	2.13	0.46
1:D:227:ALA:HB1	1:D:240:MET:HG3	1.98	0.46
1:C:176:VAL:HB	1:C:196:MET:HG2	1.98	0.46
1:D:398:ILE:HG23	1:D:429:LEU:HD11	1.97	0.46
1:A:406:VAL:O	1:A:408:LEU:HD23	2.16	0.46
1:A:47:THR:O	1:A:50:GLU:N	2.46	0.46
1:F:239:HIS:CD2	1:F:240:MET:N	2.83	0.46
1:C:38:GLU:O	1:C:42:ALA:N	2.49	0.46
1:F:212:LYS:HG2	1:F:213:THR:N	2.30	0.46
1:C:520:LEU:CD2	1:C:520:LEU:C	2.79	0.46
1:E:101:VAL:O	1:E:124:VAL:HG11	2.16	0.46
1:E:33:SER:OG	1:E:36:ALA:CB	2.61	0.46
1:E:97:ARG:HH12	1:E:267:PRO:HG3	1.80	0.46
1:F:102:PHE:CE2	1:F:137:GLY:CA	2.86	0.46
1:F:395:ALA:O	1:F:396:LYS:C	2.51	0.46
1:A:21:LEU:HD12	1:D:485:TYR:OH	2.16	0.46
1:C:478:GLU:O	1:C:482:LEU:HB2	2.15	0.46
1:D:315:GLN:N	1:D:316:PRO:CD	2.78	0.46
1:B:255:LEU:O	1:B:257:TYR:N	2.49	0.46
1:B:470:ARG:O	1:B:473:LEU:N	2.49	0.46
1:C:287:ILE:HG23	1:C:288:VAL:N	2.30	0.46
1:B:319:ALA:O	1:B:321:ASN:N	2.49	0.46
1:B:364:ASP:OD1	1:B:404:ALA:CA	2.63	0.46
1:D:442:ILE:CD1	1:D:484:PRO:HA	2.46	0.46
1:F:411:VAL:CG2	1:F:435:LEU:HD12	2.45	0.46
1:E:357:ALA:O	1:E:361:ARG:HG3	2.15	0.46
1:A:320:PRO:C	1:A:322:ILE:N	2.66	0.46
1:A:376:VAL:CG1	1:A:420:ALA:HB1	2.46	0.46
1:E:258:LEU:O	1:E:267:PRO:CD	2.64	0.46
1:F:104:GLN:HG3	1:F:117:TYR:HH	1.72	0.46
1:A:329:VAL:O	1:A:331:GLY:N	2.49	0.46
1:A:186:TYR:O	1:A:189:ALA:HB3	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:503:ARG:O	1:B:507:VAL:HG23	2.16	0.46
1:A:58:GLU:C	1:A:60:SER:H	2.17	0.46
1:A:364:ASP:OD2	1:F:525:HIS:CD2	2.69	0.46
1:D:110:GLY:C	1:D:112:ALA:H	2.19	0.46
1:C:464:ASP:OD2	1:C:465:ASP:N	2.48	0.46
1:A:322:ILE:HG13	1:A:338:ALA:O	2.15	0.46
1:F:337:VAL:CG1	1:F:356:ALA:HB1	2.45	0.46
1:E:195:VAL:HG21	1:E:251:VAL:HG22	1.98	0.46
1:D:67:PHE:O	1:D:83:TYR:HA	2.16	0.46
1:C:455:HIS:CE1	1:C:473:LEU:HD13	2.50	0.46
1:C:414:ARG:HH11	1:C:415:LYS:HZ3	1.55	0.46
1:C:442:ILE:HD12	1:C:487:ALA:HB3	1.98	0.46
1:F:230:HIS:CG	1:F:236:VAL:HG11	2.47	0.46
1:D:37:VAL:O	1:D:41:HIS:CG	2.69	0.46
1:A:265:GLU:HB2	1:A:266:PRO:CD	2.36	0.46
1:B:186:TYR:O	1:B:189:ALA:HB3	2.16	0.46
1:D:378:GLY:O	1:D:420:ALA:HB2	2.16	0.46
1:F:293:ASN:O	1:F:294:GLN:C	2.52	0.46
1:C:489:GLU:HG3	1:E:69:ARG:HB2	1.98	0.46
1:F:429:LEU:HA	1:F:429:LEU:HD12	1.74	0.46
1:C:193:PHE:HD1	1:C:238:HIS:HE2	1.61	0.46
1:A:36:ALA:HA	1:A:39:LYS:HG2	1.98	0.46
1:B:487:ALA:HB1	1:B:493:VAL:HG13	1.98	0.46
1:C:47:THR:O	1:C:48:ALA:C	2.54	0.46
1:D:231:ASN:HB3	1:D:317:LEU:HD22	1.96	0.46
1:E:25:ILE:HD12	1:E:66:GLU:OE1	2.16	0.46
1:B:132:GLY:O	1:B:261:ASN:ND2	2.47	0.46
1:D:332:ARG:NH2	1:D:514:ARG:HH21	2.13	0.46
1:B:365:ALA:HB2	1:E:525:HIS:HE2	1.80	0.46
1:B:149:GLY:C	1:B:151:ALA:N	2.67	0.46
1:B:78:ASP:OD2	1:B:79:ALA:N	2.49	0.46
1:D:201:SER:O	1:D:202:HIS:CG	2.69	0.46
1:D:416:ALA:O	1:D:421:TYR:HB2	2.16	0.46
1:F:211:ILE:HD11	1:F:219:VAL:HB	1.97	0.45
1:F:211:ILE:HG13	1:F:212:LYS:N	2.31	0.45
1:F:350:ILE:CG2	1:F:393:ARG:CD	2.93	0.45
1:E:138:ILE:HG23	1:E:175:LEU:HD12	1.98	0.45
1:E:422:ALA:O	1:E:429:LEU:HD21	2.16	0.45
1:A:435:LEU:HD13	1:A:435:LEU:N	2.30	0.45
1:E:354:GLU:OE1	1:E:393:ARG:NE	2.49	0.45
1:C:376:VAL:CG2	1:C:378:GLY:N	2.72	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:230:HIS:HA	1:E:234:SER:OG	2.15	0.45
1:D:455:HIS:CB	1:D:458:THR:HB	2.28	0.45
1:C:389:GLY:O	1:C:392:ARG:CG	2.52	0.45
1:B:12:HIS:O	1:B:17:LYS:CE	2.58	0.45
1:B:318:PHE:O	1:B:355:LYS:CE	2.65	0.45
1:D:468:ALA:O	1:D:471:ALA:HB3	2.16	0.45
1:D:513:LEU:C	1:D:515:THR:N	2.69	0.45
1:C:269:PHE:N	1:C:269:PHE:CD2	2.84	0.45
1:F:379:PHE:CE1	1:F:420:ALA:CA	2.99	0.45
1:E:243:ASP:OD1	1:E:246:ASP:CG	2.55	0.45
1:D:21:LEU:CD1	1:D:22:ARG:HG3	2.46	0.45
1:F:395:ALA:O	1:F:398:ILE:HG13	2.16	0.45
1:F:398:ILE:CG1	1:F:399:PHE:N	2.79	0.45
1:C:478:GLU:CB	1:C:482:LEU:HD22	2.46	0.45
1:C:323:LEU:HD11	1:C:340:GLN:NE2	2.31	0.45
1:B:483:ASN:CG	1:B:485:TYR:CD2	2.90	0.45
1:A:528:ILE:HG13	1:A:529:PRO:HD2	1.98	0.45
1:C:287:ILE:CG2	1:C:288:VAL:N	2.78	0.45
1:F:284:LEU:HD12	1:F:284:LEU:HA	1.81	0.45
1:F:231:ASN:OD1	1:F:239:HIS:O	2.33	0.45
1:A:30:HIS:CD2	1:A:30:HIS:N	2.85	0.45
1:F:319:ALA:O	1:F:321:ASN:N	2.49	0.45
1:B:160:PHE:HB3	1:E:398:ILE:HG21	1.99	0.45
1:E:305:VAL:CG2	1:E:306:LEU:N	2.79	0.45
1:B:284:LEU:O	1:B:287:ILE:HG22	2.16	0.45
1:C:432:ASP:OD2	1:C:516:LYS:HD3	2.16	0.45
1:A:190:ILE:CD1	1:F:398:ILE:HD11	2.45	0.45
1:B:508:ARG:NH2	1:D:59:GLY:O	2.50	0.45
1:A:67:PHE:CD2	1:D:485:TYR:CE1	3.04	0.45
1:D:389:GLY:O	1:D:390:ILE:C	2.55	0.45
1:B:483:ASN:OD1	1:B:485:TYR:CB	2.55	0.45
1:A:315:GLN:O	1:A:316:PRO:C	2.54	0.45
1:D:192:ASP:O	1:D:238:HIS:CE1	2.69	0.45
1:B:193:PHE:HD1	1:B:238:HIS:CD2	2.34	0.45
1:D:298:MET:HB3	1:D:323:LEU:CD1	2.37	0.45
1:B:517:ARG:O	1:B:518:GLU:CG	2.64	0.45
1:A:247:ALA:O	1:A:251:VAL:HG23	2.16	0.45
1:A:356:ALA:O	1:A:359:PHE:HB3	2.17	0.45
1:A:196:MET:CE	1:A:203:MET:SD	3.04	0.45
1:A:416:ALA:O	1:A:417:PHE:CD2	2.69	0.45
1:B:114:GLY:N	1:B:117:TYR:HB3	2.23	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:513:LEU:O	1:F:514:ARG:C	2.54	0.45
1:F:62:VAL:HG11	1:F:91:TYR:CD2	2.52	0.45
1:C:426:SER:HG	1:C:429:LEU:HD11	1.81	0.45
1:D:150:VAL:O	1:D:151:ALA:C	2.55	0.45
1:F:315:GLN:N	1:F:316:PRO:CD	2.77	0.45
1:A:114:GLY:CA	1:A:148:GLU:OE1	2.59	0.45
1:F:275:LEU:HD12	1:F:275:LEU:H	1.80	0.45
1:A:62:VAL:CB	1:A:91:TYR:CZ	2.98	0.45
1:A:379:PHE:O	1:A:380:LEU:C	2.55	0.45
1:E:367:ASN:HA	1:E:406:VAL:CG1	2.47	0.45
1:B:160:PHE:HB3	1:E:398:ILE:CG2	2.46	0.45
1:F:407:PRO:HB3	1:F:513:LEU:HB3	1.99	0.45
1:C:421:TYR:CZ	1:C:442:ILE:HD13	2.52	0.45
1:C:345:ALA:O	1:C:347:CYS:N	2.50	0.45
1:D:243:ASP:O	1:D:246:ASP:N	2.50	0.45
1:A:193:PHE:CD1	1:A:238:HIS:CD2	3.01	0.45
1:A:138:ILE:H	1:A:138:ILE:CD1	2.29	0.45
1:A:55:LEU:HB2	1:A:248:VAL:HG13	1.99	0.45
1:B:140:ASP:CA	1:B:178:GLY:HA3	2.36	0.45
1:A:153:LEU:HD11	1:F:418:GLY:C	2.37	0.45
1:A:98:PRO:HB2	1:A:133:CYS:SG	2.57	0.45
1:B:100:ALA:HB3	1:B:135:VAL:HG22	1.97	0.45
1:F:26:GLU:HG3	1:F:27:GLU:N	2.31	0.45
1:E:282:ALA:O	1:E:283:GLU:C	2.55	0.45
1:C:361:ARG:CZ	1:C:528:ILE:HD11	2.46	0.45
1:C:32:GLY:O	1:C:33:SER:C	2.55	0.45
1:A:491:GLY:C	1:A:493:VAL:N	2.67	0.45
1:D:87:VAL:CG2	1:D:89:THR:CG2	2.93	0.45
1:E:204:PHE:CD1	1:E:224:LEU:CD2	3.00	0.45
1:C:320:PRO:C	1:C:322:ILE:N	2.64	0.45
1:F:374:VAL:HG13	1:F:424:MET:HG3	1.99	0.45
1:A:529:PRO:HA	1:F:358:ARG:NH2	2.31	0.45
1:D:193:PHE:HD1	1:D:238:HIS:CE1	2.35	0.45
1:B:170:ILE:O	1:B:170:ILE:HG13	2.16	0.45
1:C:287:ILE:CD1	1:C:296:TYR:HB2	2.47	0.45
1:A:171:PRO:HA	1:A:366:PHE:CZ	2.51	0.45
1:A:366:PHE:O	1:A:367:ASN:CG	2.55	0.45
1:F:271:GLU:O	1:F:330:GLU:HG2	2.16	0.45
1:A:289:PRO:O	1:A:291:SER:N	2.50	0.45
1:E:446:GLY:O	1:E:450:ALA:N	2.46	0.45
1:C:402:ALA:HB3	1:D:164:THR:HG21	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:149:GLY:C	1:C:151:ALA:N	2.68	0.45
1:C:193:PHE:CD1	1:C:238:HIS:CD2	3.01	0.45
1:F:379:PHE:CZ	1:F:420:ALA:HA	2.51	0.45
1:D:219:VAL:CG1	1:D:220:GLY:N	2.79	0.45
1:E:478:GLU:HA	1:E:482:LEU:CG	2.45	0.45
1:E:306:LEU:HD22	1:E:327:GLY:HA3	1.98	0.45
1:E:427:LYS:HZ2	1:E:427:LYS:HG3	1.63	0.45
1:A:501:ASP:O	1:A:504:ARG:HB3	2.16	0.45
1:F:113:LEU:HB2	1:F:156:TYR:OH	2.17	0.45
1:A:70:HIS:HA	1:A:116:VAL:HG21	1.99	0.45
1:C:487:ALA:O	1:C:492:TYR:HB2	2.16	0.45
1:D:364:ASP:HB2	1:D:404:ALA:CB	2.46	0.45
1:D:20:ASP:HB3	1:D:24:ARG:HH12	1.82	0.45
1:F:172:GLN:O	1:F:191:THR:CG2	2.65	0.45
1:F:243:ASP:O	1:F:244:GLU:C	2.55	0.45
1:F:181:ALA:HB2	1:F:204:PHE:CE2	2.52	0.45
1:D:330:GLU:HA	1:D:330:GLU:OE1	2.16	0.45
1:B:454:LEU:CD2	1:E:75:PHE:CE2	3.00	0.45
1:F:18:LEU:O	1:F:21:LEU:CB	2.64	0.45
1:C:477:TYR:O	1:C:481:LEU:HB3	2.17	0.45
1:C:262:ASN:O	1:C:367:ASN:ND2	2.43	0.45
1:B:185:VAL:HG21	1:E:391:ILE:HG12	1.97	0.45
1:A:289:PRO:O	1:A:290:ASP:C	2.54	0.45
1:D:160:PHE:CE1	1:D:186:TYR:HB3	2.52	0.45
1:A:210:VAL:O	1:A:214:VAL:HG23	2.17	0.45
1:C:396:LYS:HA	1:C:528:ILE:HG23	1.96	0.45
1:E:477:TYR:CD1	1:E:481:LEU:HB2	2.51	0.45
1:F:234:SER:OG	1:F:236:VAL:CG1	2.44	0.45
1:C:87:VAL:HG13	1:C:120:LYS:NZ	2.32	0.45
1:E:307:ASP:OD2	1:E:330:GLU:N	2.49	0.45
1:D:33:SER:O	1:D:37:VAL:HG23	2.17	0.45
1:F:414:ARG:HD2	1:F:415:LYS:CE	2.47	0.45
1:D:319:ALA:O	1:D:321:ASN:N	2.49	0.45
1:E:289:PRO:CB	1:E:294:GLN:HE21	2.29	0.45
1:A:297:ASP:CG	1:A:299:HIS:HB2	2.37	0.45
1:C:396:LYS:CG	1:C:528:ILE:HG21	2.47	0.45
1:B:117:TYR:HD1	1:B:117:TYR:C	2.20	0.45
1:E:412:ILE:HD11	1:E:442:ILE:HD13	1.98	0.45
1:E:490:ARG:CD	1:E:492:TYR:CZ	3.00	0.45
1:A:284:LEU:HD22	1:A:499:PRO:O	2.16	0.45
1:A:504:ARG:O	1:A:508:ARG:HG2	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:498:MET:CE	1:D:22:ARG:NH2	2.80	0.45
1:A:444:VAL:HG21	1:F:146:ILE:HG23	1.98	0.45
1:A:298:MET:HG3	1:A:302:ILE:CD1	2.41	0.45
1:B:329:VAL:HG13	1:B:507:VAL:HG22	1.98	0.45
1:D:485:TYR:O	1:D:486:THR:C	2.53	0.45
1:A:350:ILE:CG1	1:A:390:ILE:HA	2.46	0.45
1:F:376:VAL:O	1:F:376:VAL:HG13	2.17	0.45
1:D:312:PHE:O	1:D:325:GLY:HA3	2.15	0.45
1:C:202:HIS:HB3	1:C:225:GLY:O	2.17	0.45
1:A:18:LEU:HD23	1:D:438:PRO:CG	2.40	0.45
1:C:189:ALA:O	1:D:529:PRO:HG2	2.16	0.45
1:B:459:ILE:HD12	1:B:470:ARG:CG	2.47	0.45
1:C:155:ALA:O	1:C:159:ILE:HG13	2.17	0.45
1:F:262:ASN:N	1:F:262:ASN:OD1	2.50	0.45
1:F:33:SER:HB2	1:F:36:ALA:H	1.82	0.45
1:F:196:MET:HB2	1:F:201:SER:OG	2.16	0.45
1:B:33:SER:O	1:B:37:VAL:HG23	2.17	0.45
1:E:100:ALA:O	1:E:135:VAL:HA	2.17	0.45
1:E:76:GLY:O	1:E:77:LEU:C	2.56	0.45
1:A:36:ALA:O	1:A:39:LYS:HB2	2.16	0.45
1:C:414:ARG:C	1:C:415:LYS:HG3	2.37	0.45
1:B:334:VAL:CG1	1:B:335:GLY:H	2.29	0.45
1:A:132:GLY:O	1:A:170:ILE:HG22	2.17	0.45
1:A:55:LEU:HD23	1:A:56:LEU:N	2.32	0.45
1:C:28:ALA:HA	1:C:83:TYR:HB2	1.97	0.45
1:A:520:LEU:CG	1:A:521:PRO:CD	2.89	0.45
1:B:319:ALA:C	1:B:321:ASN:N	2.69	0.45
1:D:483:ASN:C	1:D:483:ASN:ND2	2.71	0.45
1:E:125:MET:HE1	1:E:163:ASN:HD21	1.79	0.45
1:F:444:VAL:HG13	1:F:445:MET:N	2.32	0.45
1:A:318:PHE:CE2	1:A:351:THR:O	2.63	0.44
1:D:46:LEU:N	1:D:46:LEU:HD12	2.32	0.44
1:E:46:LEU:HB3	1:E:50:GLU:OE1	2.15	0.44
1:E:434:ASN:C	1:E:435:LEU:HD13	2.32	0.44
1:F:64:LEU:CD2	1:F:91:TYR:CE2	2.92	0.44
1:C:302:ILE:CG1	1:C:336:ILE:HD12	2.41	0.44
1:E:497:ILE:HD12	1:E:497:ILE:N	2.20	0.44
1:A:104:GLN:HB2	1:A:140:ASP:HB3	1.98	0.44
1:E:234:SER:OG	1:E:236:VAL:HG23	2.17	0.44
1:A:337:VAL:CB	1:A:372:THR:HG23	2.47	0.44
1:C:329:VAL:O	1:C:331:GLY:N	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:483:ASN:H	1:D:483:ASN:HD22	1.63	0.44
1:A:27:GLU:O	1:A:30:HIS:O	2.35	0.44
1:A:447:ALA:O	1:A:448:GLN:C	2.55	0.44
1:E:99:VAL:CG1	1:E:134:PRO:O	2.56	0.44
1:E:296:TYR:HE1	1:E:414:ARG:CD	2.18	0.44
1:A:490:ARG:HD2	1:A:492:TYR:CE2	2.44	0.44
1:C:77:LEU:O	1:C:78:ASP:C	2.56	0.44
1:C:422:ALA:HA	1:C:426:SER:CB	2.47	0.44
1:E:219:VAL:CG1	1:E:220:GLY:N	2.81	0.44
1:F:46:LEU:HD13	1:F:244:GLU:CD	2.37	0.44
1:D:175:LEU:HD12	1:D:195:VAL:O	2.16	0.44
1:B:238:HIS:O	1:B:315:GLN:N	2.49	0.44
1:A:364:ASP:O	1:F:524:LYS:NZ	2.44	0.44
1:E:278:THR:O	1:E:281:ASP:N	2.50	0.44
1:B:117:TYR:O	1:B:117:TYR:CD1	2.70	0.44
1:B:175:LEU:HD12	1:B:177:VAL:CG1	2.39	0.44
1:B:442:ILE:HG22	1:E:150:VAL:CG1	2.44	0.44
1:E:513:LEU:CD1	1:E:516:LYS:HE2	2.30	0.44
1:E:130:LYS:HG3	1:E:131:THR:N	2.32	0.44
1:C:415:LYS:HE3	1:C:441:GLN:OE1	2.17	0.44
1:E:321:ASN:CA	1:E:340:GLN:HB3	2.42	0.44
1:A:320:PRO:HB2	1:A:343:GLN:CG	2.46	0.44
1:A:319:ALA:HB1	1:A:321:ASN:HD21	1.83	0.44
1:F:211:ILE:CG1	1:F:212:LYS:N	2.81	0.44
1:E:427:LYS:O	1:E:430:GLY:CA	2.66	0.44
1:C:195:VAL:HG22	1:C:239:HIS:HB3	1.99	0.44
1:A:485:TYR:HA	1:A:488:ALA:CB	2.47	0.44
1:C:70:HIS:HA	1:C:116:VAL:HG21	1.98	0.44
1:B:433:LEU:HD23	1:B:435:LEU:CD1	2.48	0.44
1:E:183:GLY:O	1:E:184:ALA:C	2.56	0.44
1:E:204:PHE:HE1	1:E:224:LEU:CD2	2.14	0.44
1:E:204:PHE:HZ	1:E:221:PHE:O	2.01	0.44
1:D:490:ARG:CB	1:D:492:TYR:CD2	3.01	0.44
1:F:374:VAL:HG22	1:F:424:MET:HB3	1.98	0.44
1:D:434:ASN:C	1:D:493:VAL:HG13	2.37	0.44
1:C:457:ARG:NH1	1:C:457:ARG:CA	2.76	0.44
1:A:54:LEU:HD23	1:A:248:VAL:CG2	2.47	0.44
1:A:57:ASP:CA	1:A:60:SER:CB	2.92	0.44
1:A:464:ASP:C	1:A:466:ALA:H	2.18	0.44
1:C:306:LEU:CD2	1:C:327:GLY:HA3	2.41	0.44
1:D:452:ASN:ND2	1:D:470:ARG:NH1	2.65	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:272:GLU:CG	1:F:272:GLU:O	2.64	0.44
1:B:252:LYS:HE2	1:B:252:LYS:HB3	1.38	0.44
1:B:177:VAL:O	1:B:200:THR:HG22	2.17	0.44
1:B:298:MET:CG	1:B:339:ASN:O	2.44	0.44
1:B:288:VAL:HG11	1:B:439:THR:HG21	1.99	0.44
1:B:498:MET:SD	1:D:18:LEU:HD23	2.58	0.44
1:D:508:ARG:CD	1:D:508:ARG:O	2.48	0.44
1:A:60:SER:O	1:A:92:GLY:HA2	2.17	0.44
1:B:185:VAL:HB	1:E:391:ILE:CG1	2.39	0.44
1:A:297:ASP:C	1:A:299:HIS:N	2.67	0.44
1:C:356:ALA:HB3	1:C:397:LEU:CD1	2.48	0.44
1:B:410:THR:HG21	1:B:425:GLY:O	2.18	0.44
1:D:288:VAL:HG11	1:D:439:THR:OG1	2.16	0.44
1:E:258:LEU:O	1:E:267:PRO:HD3	2.17	0.44
1:E:313:GLU:HB3	1:E:316:PRO:HG3	2.00	0.44
1:A:67:PHE:HD1	1:A:67:PHE:HA	1.76	0.44
1:C:429:LEU:CA	1:D:161:ARG:HG3	2.48	0.44
1:D:350:ILE:CG2	1:D:390:ILE:HA	2.47	0.44
1:E:94:VAL:CA	1:E:95:ASP:OD2	2.64	0.44
1:B:140:ASP:OD1	1:B:178:GLY:HA3	2.17	0.44
1:A:337:VAL:CG1	1:A:372:THR:CG2	2.92	0.44
1:F:171:PRO:HG3	1:F:366:PHE:CZ	2.53	0.44
1:A:78:ASP:C	1:A:80:ASN:N	2.70	0.44
1:C:105:ASP:O	1:C:111:GLY:CA	2.65	0.44
1:D:512:GLN:HB3	1:D:512:GLN:HE21	1.50	0.44
1:A:383:VAL:CG1	1:A:383:VAL:O	2.64	0.44
1:A:196:MET:SD	1:A:230:HIS:HD2	2.41	0.44
1:E:478:GLU:HA	1:E:482:LEU:CD2	2.48	0.44
1:E:106:PHE:O	1:E:107:THR:C	2.55	0.44
1:E:375:ASP:HB2	1:E:414:ARG:HG3	1.93	0.44
1:B:429:LEU:HA	1:B:429:LEU:HD12	1.83	0.44
1:A:305:VAL:HG23	1:A:306:LEU:HG	2.00	0.44
1:A:455:HIS:O	1:A:456:ARG:C	2.56	0.44
1:F:414:ARG:NE	1:F:415:LYS:CE	2.81	0.44
1:E:293:ASN:O	1:E:294:GLN:C	2.52	0.44
1:F:427:LYS:HE2	1:F:434:ASN:HD22	1.83	0.44
1:A:481:LEU:N	1:A:481:LEU:HD22	2.33	0.44
1:A:214:VAL:HG11	1:F:381:PRO:HG2	1.99	0.44
1:B:102:PHE:CD1	1:B:137:GLY:HA2	2.53	0.44
1:B:322:ILE:HD11	1:B:339:ASN:ND2	2.33	0.44
1:E:428:HIS:C	1:E:430:GLY:N	2.68	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:284:LEU:CD1	1:A:304:HIS:HD2	2.10	0.44
1:A:435:LEU:CD1	1:A:435:LEU:N	2.81	0.44
1:C:85:ASP:O	1:C:85:ASP:CG	2.55	0.44
1:A:350:ILE:CG1	1:A:390:ILE:CD1	2.89	0.44
1:D:434:ASN:O	1:D:493:VAL:HG13	2.18	0.44
1:E:169:VAL:HA	1:E:262:ASN:ND2	2.33	0.44
1:A:57:ASP:CG	1:A:93:THR:O	2.56	0.44
1:A:122:VAL:HG11	1:A:162:ARG:CZ	2.47	0.44
1:D:280:GLU:OE2	1:D:280:GLU:CA	2.55	0.44
1:B:185:VAL:CG2	1:B:186:TYR:N	2.80	0.44
1:A:520:LEU:CD1	1:A:521:PRO:CD	2.90	0.44
1:A:520:LEU:HD12	1:A:521:PRO:HD3	2.00	0.44
1:E:335:GLY:O	1:E:336:ILE:HD13	2.18	0.44
1:F:349:ASP:C	1:F:352:ALA:H	2.21	0.44
1:E:243:ASP:OD2	1:E:245:LYS:CB	2.58	0.44
1:F:57:ASP:CG	1:F:93:THR:O	2.56	0.44
1:A:513:LEU:O	1:A:515:THR:C	2.56	0.44
1:A:189:ALA:O	1:F:529:PRO:CG	2.66	0.44
1:A:21:LEU:CD1	1:D:496:VAL:CG1	2.87	0.44
1:E:186:TYR:O	1:E:189:ALA:HB3	2.17	0.44
1:D:198:ASP:HA	1:D:227:ALA:CB	2.48	0.44
1:C:186:TYR:O	1:C:189:ALA:CB	2.66	0.44
1:C:102:PHE:HE1	1:C:135:VAL:CG1	2.31	0.44
1:D:451:VAL:HG21	1:D:474:ILE:CA	2.45	0.44
1:A:205:ILE:HG23	1:A:206:THR:N	2.32	0.44
1:E:384:ASP:O	1:E:388:ASP:CG	2.55	0.44
1:A:41:HIS:O	1:A:42:ALA:C	2.56	0.44
1:C:344:PHE:CD1	1:C:344:PHE:N	2.85	0.44
1:D:444:VAL:HG23	1:D:445:MET:N	2.32	0.43
1:E:108:VAL:O	1:E:109:PHE:C	2.57	0.43
1:E:427:LYS:HD2	1:E:492:TYR:O	2.18	0.43
1:B:490:ARG:HD3	1:D:71:ARG:HH12	1.80	0.43
1:F:112:ALA:CB	1:F:145:ARG:HB2	2.47	0.43
1:B:434:ASN:N	1:B:494:ASP:OD1	2.36	0.43
1:D:412:ILE:HG22	1:D:440:ALA:HB2	1.99	0.43
1:B:254:LEU:O	1:B:257:TYR:HB2	2.18	0.43
1:C:182:GLY:O	1:C:183:GLY:C	2.57	0.43
1:C:278:THR:O	1:C:280:GLU:N	2.50	0.43
1:A:172:GLN:HB2	1:A:191:THR:HG23	2.00	0.43
1:B:175:LEU:CD1	1:B:177:VAL:CG1	2.96	0.43
1:E:265:GLU:HG3	1:E:266:PRO:CD	2.31	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:407:PRO:HB3	1:E:513:LEU:HB3	2.00	0.43
1:B:490:ARG:NH1	1:D:71:ARG:CD	2.62	0.43
1:C:311:PHE:CE2	1:C:313:GLU:HB2	2.54	0.43
1:B:485:TYR:CE1	1:D:24:ARG:HD3	2.53	0.43
1:A:412:ILE:CG2	1:A:440:ALA:HB1	2.45	0.43
1:F:306:LEU:HD11	1:F:336:ILE:CD1	2.48	0.43
1:C:130:LYS:HB2	1:C:130:LYS:HE2	1.73	0.43
1:E:293:ASN:O	1:E:295:PRO:CD	2.62	0.43
1:F:344:PHE:O	1:F:345:ALA:C	2.55	0.43
1:F:170:ILE:HG22	1:F:261:ASN:HB3	2.00	0.43
1:D:448:GLN:HA	1:D:474:ILE:HG12	2.00	0.43
1:F:367:ASN:HA	1:F:406:VAL:HG12	2.00	0.43
1:B:118:GLY:O	1:B:122:VAL:HG23	2.18	0.43
1:B:524:LYS:HE3	1:E:405:THR:HB	2.00	0.43
1:C:475:GLN:C	1:C:475:GLN:CD	2.76	0.43
1:A:230:HIS:HA	1:A:234:SER:HG	1.82	0.43
1:E:311:PHE:CE1	1:E:312:PHE:O	2.71	0.43
1:E:259:PRO:CG	1:E:366:PHE:HB3	2.49	0.43
1:B:276:ALA:O	1:B:278:THR:HG23	2.18	0.43
1:D:141:SER:O	1:D:179:PRO:O	2.36	0.43
1:B:501:ASP:HA	1:B:504:ARG:HG3	2.01	0.43
1:D:408:LEU:N	1:D:408:LEU:HD13	2.33	0.43
1:F:10:ASP:CG	1:F:11:ILE:H	2.22	0.43
1:D:341:PRO:O	1:D:342:MET:C	2.55	0.43
1:A:520:LEU:HD21	1:F:165:HIS:O	2.17	0.43
1:A:401:TYR:CD1	1:A:408:LEU:CD1	3.01	0.43
1:D:483:ASN:HD22	1:D:483:ASN:N	2.15	0.43
1:D:452:ASN:HD21	1:D:470:ARG:NH1	2.16	0.43
1:C:278:THR:HG23	1:C:281:ASP:H	1.81	0.43
1:E:520:LEU:CD2	1:E:520:LEU:N	2.80	0.43
1:D:469:THR:O	1:D:472:ARG:HB3	2.19	0.43
1:E:422:ALA:O	1:E:429:LEU:HD22	2.19	0.43
1:F:332:ARG:NH2	1:F:514:ARG:CD	2.81	0.43
1:F:510:LEU:HD23	1:F:510:LEU:HA	1.86	0.43
1:F:99:VAL:CG1	1:F:100:ALA:N	2.81	0.43
1:B:70:HIS:CE1	1:B:81:ARG:HA	2.53	0.43
1:C:45:LYS:HZ1	1:C:179:PRO:HD3	1.82	0.43
1:E:127:PHE:HA	1:E:130:LYS:CD	2.48	0.43
1:E:130:LYS:CG	1:E:131:THR:CG2	2.57	0.43
1:A:258:LEU:H	1:A:258:LEU:CD1	2.32	0.43
1:C:339:ASN:CB	1:C:375:ASP:O	2.67	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:57:ASP:N	1:A:60:SER:CB	2.81	0.43
1:F:483:ASN:HB2	1:F:484:PRO:CD	2.48	0.43
1:C:508:ARG:NH2	1:E:59:GLY:O	2.51	0.43
1:A:361:ARG:HD2	1:A:403:GLU:OE2	2.19	0.43
1:D:289:PRO:HG3	1:D:294:GLN:O	2.18	0.43
1:C:302:ILE:HG12	1:C:336:ILE:CD1	2.38	0.43
1:C:338:ALA:HA	1:C:373:PHE:O	2.18	0.43
1:C:250:TYR:HD1	1:C:312:PHE:CZ	2.23	0.43
1:A:516:LYS:HE3	1:B:130:LYS:HD3	1.99	0.43
1:C:140:ASP:OD1	1:C:140:ASP:C	2.57	0.43
1:A:160:PHE:HB3	1:F:398:ILE:HD13	2.00	0.43
1:A:70:HIS:CD2	1:A:70:HIS:C	2.92	0.43
1:B:204:PHE:HA	1:E:386:GLU:OE2	2.18	0.43
1:A:262:ASN:OD1	1:A:262:ASN:O	2.36	0.43
1:D:255:LEU:O	1:D:256:SER:C	2.56	0.43
1:D:340:GLN:CD	1:D:342:MET:HG2	2.38	0.43
1:E:322:ILE:O	1:E:323:LEU:HD23	2.17	0.43
1:D:306:LEU:HD22	1:D:327:GLY:HA3	1.99	0.43
1:D:110:GLY:C	1:D:112:ALA:N	2.67	0.43
1:D:513:LEU:O	1:D:515:THR:N	2.51	0.43
1:F:48:ALA:O	1:F:52:ILE:HD12	2.19	0.43
1:F:188:PRO:O	1:F:191:THR:HB	2.19	0.43
1:E:25:ILE:HG23	1:E:26:GLU:N	2.34	0.43
1:F:414:ARG:HD2	1:F:415:LYS:HE3	2.01	0.43
1:E:321:ASN:ND2	1:E:347:CYS:O	2.52	0.43
1:F:37:VAL:HG22	1:F:107:THR:HG21	2.00	0.43
1:A:108:VAL:C	1:A:110:GLY:N	2.70	0.43
1:C:386:GLU:HG2	1:D:205:ILE:HG22	2.01	0.43
1:A:318:PHE:CE2	1:A:351:THR:CB	2.84	0.43
1:D:284:LEU:CD1	1:D:287:ILE:HD13	2.40	0.43
1:E:243:ASP:CG	1:E:246:ASP:H	2.22	0.43
1:E:483:ASN:N	1:E:483:ASN:HD22	2.16	0.43
1:B:401:TYR:CB	1:B:429:LEU:HD23	2.48	0.43
1:C:113:LEU:O	1:C:145:ARG:HB2	2.18	0.43
1:D:147:GLN:NE2	1:D:147:GLN:H	1.98	0.43
1:A:329:VAL:HG12	1:A:330:GLU:HG2	1.99	0.43
1:A:330:GLU:OE1	1:A:507:VAL:HG13	2.18	0.43
1:D:87:VAL:CG2	1:D:88:VAL:N	2.81	0.43
1:B:435:LEU:HG	1:B:497:ILE:CD1	2.48	0.43
1:B:396:LYS:CE	1:B:530:LEU:HA	2.46	0.43
1:E:528:ILE:HA	1:E:529:PRO:HD3	1.77	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:87:VAL:CG2	1:C:103:SER:O	2.64	0.43
1:A:395:ALA:O	1:A:398:ILE:CG1	2.54	0.43
1:C:196:MET:HE1	1:C:230:HIS:HD2	1.81	0.43
1:B:219:VAL:HG13	1:B:223:GLU:OE1	2.19	0.43
1:E:340:GLN:O	1:E:346:GLY:CA	2.67	0.43
1:C:125:MET:HE1	1:C:163:ASN:HD21	1.83	0.43
1:C:454:LEU:HD13	1:D:75:PHE:CE2	2.54	0.43
1:A:175:LEU:HD13	1:A:251:VAL:HG21	1.99	0.43
1:E:357:ALA:HA	1:E:397:LEU:HD23	2.00	0.43
1:E:194:THR:N	1:E:238:HIS:ND1	2.58	0.43
1:B:498:MET:CG	1:D:18:LEU:HD23	2.48	0.43
1:F:528:ILE:HD13	1:F:529:PRO:O	2.18	0.43
1:C:378:GLY:HA2	1:C:420:ALA:HB2	2.01	0.43
1:C:494:ASP:OD2	1:E:123:LYS:NZ	2.50	0.43
1:F:346:GLY:O	1:F:376:VAL:HG23	2.18	0.43
1:A:375:ASP:C	1:A:415:LYS:HB2	2.39	0.43
1:E:63:GLU:OE1	1:E:66:GLU:HG3	2.18	0.43
1:D:426:SER:O	1:D:427:LYS:C	2.57	0.43
1:F:199:GLN:CG	1:F:222:GLU:CD	2.84	0.43
1:E:332:ARG:HE	1:E:332:ARG:HB2	1.68	0.43
1:A:108:VAL:O	1:A:109:PHE:C	2.55	0.43
1:D:289:PRO:CG	1:D:414:ARG:NH2	2.81	0.43
1:E:133:CYS:HA	1:E:134:PRO:HD3	1.80	0.43
1:B:501:ASP:CG	1:B:504:ARG:HD3	2.39	0.43
1:D:161:ARG:CD	1:D:165:HIS:HE1	2.29	0.43
1:C:435:LEU:HB3	1:C:497:ILE:HG12	2.00	0.43
1:A:391:ILE:HG21	1:F:203:MET:HE2	2.01	0.43
1:B:483:ASN:OD1	1:B:483:ASN:C	2.57	0.43
1:C:477:TYR:CD1	1:C:477:TYR:O	2.71	0.43
1:B:369:PRO:HG3	1:B:407:PRO:HG2	2.01	0.43
1:F:490:ARG:CD	1:F:492:TYR:CZ	3.02	0.43
1:A:154:GLY:CA	1:F:428:HIS:ND1	2.77	0.43
1:D:373:PHE:N	1:D:373:PHE:HD1	2.15	0.43
1:C:125:MET:CE	1:C:163:ASN:ND2	2.79	0.43
1:C:265:GLU:HB3	1:C:266:PRO:HD2	2.01	0.43
1:B:163:ASN:HB3	1:B:190:ILE:HG21	2.01	0.43
1:A:319:ALA:HB2	1:A:351:THR:OG1	2.19	0.43
1:F:113:LEU:CB	1:F:156:TYR:OH	2.67	0.43
1:E:452:ASN:O	1:E:456:ARG:HB2	2.19	0.43
1:C:284:LEU:HD22	1:C:301:VAL:HG22	2.00	0.43
1:C:305:VAL:HG11	1:C:506:ILE:CD1	2.45	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:364:ASP:CB	1:D:404:ALA:HB1	2.43	0.43
1:D:174:SER:OG	1:D:191:THR:HG21	2.19	0.43
1:C:130:LYS:HG3	1:F:516:LYS:HG3	1.90	0.43
1:D:399:PHE:CE2	1:D:528:ILE:HB	2.53	0.43
1:A:138:ILE:H	1:A:138:ILE:HD12	1.77	0.43
1:C:287:ILE:C	1:C:287:ILE:HD12	2.33	0.43
1:A:10:ASP:C	1:A:16:GLY:HA3	2.39	0.43
1:F:321:ASN:ND2	1:F:349:ASP:CB	2.81	0.42
1:E:284:LEU:CG	1:E:304:HIS:HD2	2.29	0.42
1:B:45:LYS:HE2	1:B:45:LYS:HB2	1.67	0.42
1:E:100:ALA:HB1	1:E:124:VAL:HG12	2.00	0.42
1:E:171:PRO:HA	1:E:366:PHE:HZ	1.83	0.42
1:C:217:GLU:CD	1:D:383:VAL:HB	2.40	0.42
1:E:432:ASP:CB	1:E:433:LEU:CD1	2.97	0.42
1:C:77:LEU:HA	1:C:77:LEU:HD22	1.80	0.42
1:B:348:LEU:HG	1:B:376:VAL:HG21	2.01	0.42
1:A:85:ASP:OD2	1:A:116:VAL:HB	2.18	0.42
1:A:87:VAL:CG1	1:A:120:LYS:CD	2.88	0.42
1:F:346:GLY:O	1:F:376:VAL:HA	2.19	0.42
1:C:16:GLY:O	1:C:17:LYS:C	2.56	0.42
1:A:401:TYR:CD1	1:A:408:LEU:HD11	2.53	0.42
1:D:65:ASP:OD2	1:D:123:LYS:HD2	2.19	0.42
1:B:526:GLY:O	1:E:361:ARG:NH2	2.52	0.42
1:F:320:PRO:O	1:F:321:ASN:C	2.56	0.42
1:E:194:THR:H	1:E:238:HIS:CE1	2.36	0.42
1:E:311:PHE:CD2	1:E:312:PHE:O	2.72	0.42
1:C:210:VAL:O	1:C:211:ILE:C	2.57	0.42
1:B:268:ALA:HB2	1:B:333:PRO:HD3	2.02	0.42
1:B:498:MET:HG3	1:D:18:LEU:HD23	2.00	0.42
1:B:284:LEU:HD23	1:B:499:PRO:O	2.18	0.42
1:C:47:THR:O	1:C:50:GLU:N	2.50	0.42
1:D:114:GLY:O	1:D:115:GLU:C	2.55	0.42
1:C:417:PHE:CD1	1:C:443:ALA:HB3	2.55	0.42
1:C:426:SER:O	1:C:429:LEU:HD13	2.19	0.42
1:A:483:ASN:CB	1:A:484:PRO:HD2	2.27	0.42
1:B:326:PHE:HB3	1:B:334:VAL:O	2.19	0.42
1:B:106:PHE:O	1:B:107:THR:C	2.57	0.42
1:A:153:LEU:O	1:A:156:TYR:HB2	2.19	0.42
1:D:517:ARG:C	1:D:518:GLU:HG2	2.39	0.42
1:D:62:VAL:HB	1:D:91:TYR:CD2	2.54	0.42
1:A:20:ASP:OD1	1:A:20:ASP:O	2.37	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:37:VAL:HG23	1:F:107:THR:HG21	2.01	0.42
1:A:448:GLN:HG2	1:A:474:ILE:HD11	2.01	0.42
1:E:477:TYR:CE1	1:E:481:LEU:CB	3.02	0.42
1:E:76:GLY:C	1:E:78:ASP:N	2.72	0.42
1:C:70:HIS:NE2	1:C:77:LEU:HD12	2.33	0.42
1:A:187:SER:N	1:A:188:PRO:CD	2.82	0.42
1:A:70:HIS:HD2	1:A:72:SER:H	1.67	0.42
1:C:455:HIS:CE1	1:C:473:LEU:HD22	2.54	0.42
1:D:507:VAL:HG13	1:D:508:ARG:N	2.35	0.42
1:A:328:ARG:HG2	1:A:333:PRO:HA	2.01	0.42
1:A:239:HIS:CG	1:A:250:TYR:CE1	3.07	0.42
1:E:209:ASP:O	1:E:212:LYS:HB3	2.19	0.42
1:A:480:ALA:CB	1:A:481:LEU:HD22	2.50	0.42
1:D:271:GLU:HG3	1:D:271:GLU:O	2.18	0.42
1:F:349:ASP:OD2	1:F:351:THR:HG21	2.19	0.42
1:F:350:ILE:HG23	1:F:393:ARG:CD	2.43	0.42
1:F:379:PHE:CE1	1:F:420:ALA:CB	3.02	0.42
1:A:211:ILE:O	1:A:215:THR:N	2.32	0.42
1:E:120:LYS:HB3	1:E:120:LYS:HE3	1.84	0.42
1:A:499:PRO:HD3	1:B:18:LEU:HD21	2.00	0.42
1:A:330:GLU:CG	1:A:507:VAL:HG13	2.49	0.42
1:B:412:ILE:HG22	1:B:440:ALA:CB	2.49	0.42
1:E:294:GLN:HE21	1:E:294:GLN:HB2	1.60	0.42
1:A:115:GLU:N	1:A:148:GLU:OE1	2.52	0.42
1:A:299:HIS:NE2	1:A:323:LEU:HD13	2.34	0.42
1:F:350:ILE:HG13	1:F:385:GLN:NE2	2.35	0.42
1:F:62:VAL:O	1:F:91:TYR:N	2.51	0.42
1:C:232:SER:HB3	1:C:317:LEU:HB3	2.02	0.42
1:D:178:GLY:O	1:D:179:PRO:C	2.58	0.42
1:C:440:ALA:O	1:C:484:PRO:HD3	2.18	0.42
1:A:45:LYS:HG2	1:A:200:THR:CG2	2.47	0.42
1:B:406:VAL:O	1:B:407:PRO:C	2.55	0.42
1:C:14:THR:CG2	1:F:288:VAL:CG2	2.96	0.42
1:D:348:LEU:HB2	1:D:379:PHE:HD2	1.84	0.42
1:B:149:GLY:O	1:B:150:VAL:C	2.58	0.42
1:C:433:LEU:HD12	1:C:433:LEU:HA	1.92	0.42
1:E:318:PHE:O	1:E:319:ALA:C	2.57	0.42
1:A:166:ALA:HB3	1:A:172:GLN:HE22	1.83	0.42
1:F:462:ALA:O	1:F:463:GLY:C	2.54	0.42
1:E:112:ALA:HA	1:E:143:GLY:O	2.19	0.42
1:A:318:PHE:CZ	1:A:351:THR:CG2	2.98	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:386:GLU:OE1	1:F:391:ILE:HG13	2.20	0.42
1:D:417:PHE:CE1	1:D:443:ALA:HB3	2.52	0.42
1:E:87:VAL:CG2	1:E:89:THR:CG2	2.97	0.42
1:B:401:TYR:HB2	1:B:429:LEU:HD23	2.02	0.42
1:C:200:THR:CG2	1:C:200:THR:O	2.68	0.42
1:E:127:PHE:C	1:E:130:LYS:HG2	2.40	0.42
1:A:302:ILE:O	1:A:306:LEU:HG	2.19	0.42
1:C:523:LYS:NZ	1:D:165:HIS:O	2.52	0.42
1:E:376:VAL:HG22	1:E:378:GLY:H	1.84	0.42
1:E:182:GLY:C	1:E:184:ALA:H	2.22	0.42
1:B:61:PHE:CD1	1:B:62:VAL:N	2.88	0.42
1:A:399:PHE:CG	1:F:164:THR:HG23	2.54	0.42
1:D:194:THR:N	1:D:238:HIS:ND1	2.57	0.42
1:B:223:GLU:OE2	1:E:387:HIS:NE2	2.53	0.42
1:A:250:TYR:CZ	1:A:312:PHE:CE2	3.07	0.42
1:D:62:VAL:HG11	1:D:91:TYR:OH	2.20	0.42
1:E:284:LEU:HD23	1:E:499:PRO:O	2.19	0.42
1:C:32:GLY:C	1:C:107:THR:CG2	2.83	0.42
1:F:47:THR:CG2	1:F:48:ALA:H	2.32	0.42
1:B:398:ILE:HG12	1:B:423:VAL:HG22	2.01	0.42
1:F:182:GLY:O	1:F:183:GLY:C	2.57	0.42
1:B:399:PHE:CD2	1:E:164:THR:HG23	2.54	0.42
1:D:231:ASN:HD21	1:D:239:HIS:C	2.23	0.42
1:D:478:GLU:HA	1:D:482:LEU:CD1	2.32	0.42
1:F:259:PRO:HB3	1:F:266:PRO:HA	2.01	0.42
1:A:56:LEU:HD11	1:A:101:VAL:HG12	2.01	0.42
1:D:258:LEU:O	1:D:267:PRO:HD3	2.20	0.42
1:A:22:ARG:HG2	1:D:498:MET:HE1	2.00	0.42
1:C:90:GLY:O	1:C:101:VAL:HG12	2.19	0.42
1:A:171:PRO:HA	1:A:366:PHE:HZ	1.85	0.42
1:A:172:GLN:O	1:A:191:THR:HG22	2.19	0.42
1:D:57:ASP:CG	1:D:93:THR:O	2.58	0.42
1:B:108:VAL:O	1:B:111:GLY:N	2.43	0.42
1:E:87:VAL:CG2	1:E:88:VAL:N	2.83	0.42
1:D:196:MET:HE1	1:D:230:HIS:HD2	1.85	0.42
1:D:196:MET:SD	1:D:230:HIS:CD2	3.13	0.42
1:F:113:LEU:HB3	1:F:156:TYR:CZ	2.55	0.42
1:A:84:GLY:O	1:A:86:GLY:N	2.53	0.42
1:D:455:HIS:O	1:D:456:ARG:C	2.58	0.42
1:D:412:ILE:HB	1:D:436:ALA:HA	2.01	0.42
1:B:402:ALA:CB	1:E:164:THR:HG21	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:232:SER:O	1:D:318:PHE:CD1	2.73	0.42
1:C:387:HIS:O	1:D:234:SER:HA	2.20	0.42
1:C:188:PRO:O	1:C:191:THR:OG1	2.23	0.42
1:E:485:TYR:O	1:E:486:THR:C	2.55	0.42
1:A:58:GLU:OE1	1:A:58:GLU:HA	2.18	0.42
1:A:454:LEU:HD21	1:F:147:GLN:HA	2.01	0.42
1:C:163:ASN:HA	1:C:172:GLN:NE2	2.35	0.42
1:A:525:HIS:ND1	1:F:403:GLU:OE1	2.53	0.42
1:E:27:GLU:O	1:E:31:ALA:N	2.52	0.42
1:C:528:ILE:CD1	1:C:528:ILE:N	2.74	0.42
1:B:196:MET:HG3	1:B:227:ALA:HB1	2.02	0.42
1:E:238:HIS:O	1:E:315:GLN:HA	2.20	0.42
1:E:398:ILE:HG12	1:E:423:VAL:HG22	2.01	0.42
1:C:421:TYR:OH	1:C:442:ILE:HD13	2.20	0.42
1:C:478:GLU:HB3	1:C:482:LEU:HD22	2.01	0.42
1:A:87:VAL:HB	1:A:117:TYR:CE1	2.55	0.42
1:F:374:VAL:HG11	1:F:424:MET:HG3	2.02	0.42
1:D:433:LEU:HB3	1:D:435:LEU:HD11	2.02	0.42
1:D:477:TYR:CE1	1:D:482:LEU:HD11	2.52	0.42
1:D:193:PHE:CD1	1:D:238:HIS:NE2	2.88	0.42
1:B:194:THR:N	1:B:238:HIS:ND1	2.52	0.42
1:C:20:ASP:O	1:C:24:ARG:HG2	2.20	0.42
1:B:364:ASP:OD1	1:B:405:THR:N	2.53	0.42
1:C:219:VAL:CG2	1:C:224:LEU:HB2	2.49	0.42
1:D:418:GLY:O	1:D:421:TYR:HB3	2.20	0.42
1:F:208:PRO:HG2	1:F:221:PHE:CZ	2.55	0.42
1:E:46:LEU:N	1:E:46:LEU:CD1	2.76	0.42
1:A:330:GLU:HG3	1:A:507:VAL:HG13	2.01	0.42
1:A:180:CYS:SG	1:A:185:VAL:HG12	2.60	0.42
1:A:67:PHE:O	1:A:83:TYR:CG	2.71	0.42
1:C:482:LEU:N	1:C:482:LEU:CD1	2.82	0.42
1:C:427:LYS:O	1:C:428:HIS:C	2.56	0.42
1:D:244:GLU:O	1:D:247:ALA:N	2.53	0.42
1:C:261:ASN:OD1	1:C:263:LEU:HB2	2.20	0.42
1:D:62:VAL:CG2	1:D:91:TYR:CZ	3.03	0.42
1:F:507:VAL:O	1:F:511:ARG:HG3	2.20	0.42
1:A:530:LEU:HD11	1:F:361:ARG:HD3	2.01	0.42
1:C:38:GLU:O	1:C:41:HIS:HB2	2.20	0.42
1:E:198:ASP:OD1	1:E:199:GLN:HG2	2.19	0.42
1:A:335:GLY:O	1:A:370:VAL:HA	2.20	0.42
1:A:471:ALA:HA	1:A:474:ILE:HD12	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:395:ALA:HB1	1:D:190:ILE:HD11	2.02	0.41
1:F:61:PHE:HA	1:F:91:TYR:O	2.20	0.41
1:F:144:ALA:O	1:F:146:ILE:N	2.53	0.41
1:B:215:THR:HG22	1:B:215:THR:O	2.20	0.41
1:D:485:TYR:CZ	1:D:496:VAL:HG11	2.55	0.41
1:C:455:HIS:O	1:C:459:ILE:HG12	2.20	0.41
1:C:497:ILE:HG21	1:C:505:HIS:NE2	2.35	0.41
1:B:485:TYR:CZ	1:D:24:ARG:NE	2.88	0.41
1:B:311:PHE:HE2	1:B:313:GLU:HG2	1.81	0.41
1:D:234:SER:HB2	1:D:236:VAL:CG2	2.47	0.41
1:A:340:GLN:O	1:A:346:GLY:HA3	2.17	0.41
1:F:428:HIS:N	1:F:428:HIS:CD2	2.88	0.41
1:D:128:ALA:HB1	1:D:135:VAL:CG2	2.44	0.41
1:F:477:TYR:C	1:F:477:TYR:CD1	2.93	0.41
1:E:353:SER:CB	1:E:394:GLY:HA2	2.50	0.41
1:A:379:PHE:CE1	1:A:420:ALA:CB	3.00	0.41
1:E:367:ASN:HA	1:E:406:VAL:HG11	2.03	0.41
1:C:215:THR:OG1	1:C:217:GLU:HG2	2.20	0.41
1:F:60:SER:CB	1:F:93:THR:OG1	2.68	0.41
1:A:499:PRO:CD	1:B:18:LEU:HD21	2.50	0.41
1:E:205:ILE:HG23	1:E:206:THR:HG1	1.83	0.41
1:E:399:PHE:CE1	1:E:528:ILE:HA	2.55	0.41
1:A:119:GLN:O	1:A:120:LYS:C	2.59	0.41
1:C:427:LYS:HE3	1:E:123:LYS:CE	2.50	0.41
1:D:20:ASP:HB3	1:D:24:ARG:NH1	2.35	0.41
1:A:528:ILE:HA	1:A:529:PRO:HD3	1.76	0.41
1:A:57:ASP:CB	1:A:93:THR:HG23	2.46	0.41
1:B:474:ILE:O	1:B:475:GLN:C	2.57	0.41
1:A:241:ALA:HB3	1:A:247:ALA:HB2	2.02	0.41
1:F:108:VAL:O	1:F:111:GLY:N	2.48	0.41
1:D:510:LEU:HD23	1:D:510:LEU:HA	1.80	0.41
1:F:311:PHE:CE1	1:F:312:PHE:O	2.74	0.41
1:F:389:GLY:C	1:F:391:ILE:H	2.23	0.41
1:D:417:PHE:CE1	1:D:443:ALA:CB	3.04	0.41
1:E:250:TYR:CE1	1:E:312:PHE:CE2	3.08	0.41
1:E:250:TYR:CE1	1:E:312:PHE:CZ	3.08	0.41
1:A:329:VAL:O	1:A:330:GLU:C	2.56	0.41
1:A:67:PHE:O	1:A:83:TYR:CA	2.68	0.41
1:C:416:ALA:O	1:C:417:PHE:CD1	2.73	0.41
1:D:366:PHE:C	1:D:367:ASN:CG	2.79	0.41
1:C:18:LEU:HD23	1:F:438:PRO:CG	2.41	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:498:MET:HA	1:F:499:PRO:HD3	1.85	0.41
1:E:417:PHE:HZ	1:E:441:GLN:NE2	2.19	0.41
1:B:133:CYS:HA	1:B:134:PRO:HD3	1.80	0.41
1:B:42:ALA:C	1:B:44:GLY:H	2.23	0.41
1:A:364:ASP:OD2	1:A:404:ALA:HA	2.20	0.41
1:E:299:HIS:NE2	1:E:323:LEU:HD11	2.35	0.41
1:B:407:PRO:HG3	1:B:513:LEU:O	2.20	0.41
1:C:258:LEU:O	1:C:267:PRO:CD	2.64	0.41
1:E:211:ILE:HG13	1:E:212:LYS:N	2.34	0.41
1:E:326:PHE:CE1	1:E:368:VAL:HG11	2.55	0.41
1:A:319:ALA:C	1:A:321:ASN:H	2.24	0.41
1:D:208:PRO:HA	1:D:211:ILE:HD11	2.02	0.41
1:D:211:ILE:HG13	1:D:212:LYS:N	2.35	0.41
1:D:282:ALA:C	1:D:284:LEU:H	2.21	0.41
1:E:477:TYR:CE1	1:E:481:LEU:HB3	2.56	0.41
1:F:332:ARG:NH1	1:F:510:LEU:HB3	2.29	0.41
1:A:506:ILE:O	1:A:510:LEU:HD12	2.21	0.41
1:B:64:LEU:C	1:B:66:GLU:N	2.70	0.41
1:C:113:LEU:HA	1:C:113:LEU:HD22	1.89	0.41
1:C:147:GLN:HG2	1:C:147:GLN:H	1.47	0.41
1:E:130:LYS:HB3	1:E:130:LYS:HE2	1.60	0.41
1:D:89:THR:CG2	1:D:102:PHE:HB2	2.38	0.41
1:B:214:VAL:HG23	1:B:215:THR:N	2.36	0.41
1:B:330:GLU:OE2	1:B:511:ARG:HD3	2.21	0.41
1:D:520:LEU:CG	1:D:521:PRO:CD	2.71	0.41
1:E:202:HIS:CB	1:E:204:PHE:CE2	3.01	0.41
1:D:435:LEU:CB	1:D:497:ILE:HD13	2.49	0.41
1:F:287:ILE:CG2	1:F:288:VAL:N	2.84	0.41
1:A:27:GLU:O	1:A:30:HIS:C	2.58	0.41
1:F:367:ASN:HA	1:F:406:VAL:CG1	2.50	0.41
1:A:172:GLN:C	1:A:191:THR:HG23	2.41	0.41
1:F:265:GLU:H	1:F:265:GLU:HG3	1.49	0.41
1:F:321:ASN:ND2	1:F:349:ASP:HB3	2.23	0.41
1:B:175:LEU:HD22	1:B:175:LEU:HA	1.96	0.41
1:E:478:GLU:HA	1:E:482:LEU:HD22	2.01	0.41
1:E:49:ARG:HG3	1:E:88:VAL:HG21	2.03	0.41
1:A:500:SER:O	1:A:502:THR:N	2.54	0.41
1:C:421:TYR:CE1	1:C:442:ILE:HD13	2.54	0.41
1:B:245:LYS:HD2	1:B:246:ASP:N	2.36	0.41
1:A:350:ILE:HG21	1:A:393:ARG:CZ	2.51	0.41
1:D:490:ARG:HB3	1:D:492:TYR:CE2	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:18:LEU:HD23	1:C:18:LEU:HA	1.87	0.41
1:A:54:LEU:HD23	1:A:248:VAL:CB	2.51	0.41
1:F:415:LYS:HG3	1:F:415:LYS:H	1.43	0.41
1:F:261:ASN:C	1:F:263:LEU:H	2.23	0.41
1:E:211:ILE:CG1	1:E:212:LYS:N	2.83	0.41
1:A:127:PHE:CE2	1:A:131:THR:HG21	2.56	0.41
1:A:471:ALA:HA	1:A:474:ILE:HB	2.02	0.41
1:B:144:ALA:O	1:B:145:ARG:C	2.58	0.41
1:F:64:LEU:CD1	1:F:91:TYR:CE2	2.92	0.41
1:D:203:MET:O	1:D:204:PHE:CB	2.57	0.41
1:D:67:PHE:O	1:D:68:ALA:C	2.59	0.41
1:D:113:LEU:HD22	1:D:117:TYR:CG	2.56	0.41
1:C:429:LEU:O	1:D:161:ARG:HG2	2.17	0.41
1:C:492:TYR:CZ	1:D:151:ALA:HA	2.51	0.41
1:F:302:ILE:CD1	1:F:336:ILE:HG21	2.47	0.41
1:D:41:HIS:NE2	1:D:47:THR:OG1	2.49	0.41
1:A:466:ALA:HA	1:A:469:THR:OG1	2.21	0.41
1:F:54:LEU:CD2	1:F:248:VAL:HG21	2.50	0.41
1:B:517:ARG:O	1:B:518:GLU:HG2	2.21	0.41
1:C:241:ALA:HB1	1:C:246:ASP:OD2	2.20	0.41
1:F:366:PHE:C	1:F:367:ASN:OD1	2.58	0.41
1:D:222:GLU:O	1:D:226:GLY:HA3	2.20	0.41
1:C:395:ALA:O	1:C:396:LYS:C	2.59	0.41
1:C:396:LYS:CG	1:C:528:ILE:HG22	2.50	0.41
1:B:416:ALA:C	1:B:417:PHE:HD2	2.22	0.41
1:B:412:ILE:CG2	1:B:440:ALA:HB1	2.50	0.41
1:D:364:ASP:O	1:D:365:ALA:C	2.58	0.41
1:B:170:ILE:HA	1:B:171:PRO:HD3	1.79	0.41
1:D:320:PRO:C	1:D:322:ILE:N	2.73	0.41
1:D:340:GLN:O	1:D:346:GLY:CA	2.61	0.41
1:C:275:LEU:O	1:C:276:ALA:C	2.59	0.41
1:B:230:HIS:HB3	1:B:237:ALA:HB2	2.02	0.41
1:C:128:ALA:CB	1:C:135:VAL:HG22	2.51	0.41
1:E:160:PHE:HE1	1:E:187:SER:CA	2.34	0.41
1:E:210:VAL:O	1:E:211:ILE:C	2.59	0.41
1:C:409:ILE:HD11	1:C:513:LEU:HD23	2.03	0.41
1:C:509:GLY:O	1:C:513:LEU:HD22	2.20	0.41
1:C:205:ILE:CG2	1:C:206:THR:N	2.84	0.41
1:C:29:THR:OG1	1:C:30:HIS:HD2	2.02	0.41
1:F:26:GLU:O	1:F:30:HIS:ND1	2.35	0.41
1:F:322:ILE:HD13	1:F:356:ALA:CB	2.47	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:250:TYR:CD2	1:E:250:TYR:C	2.94	0.41
1:E:87:VAL:HG13	1:E:120:LYS:HD3	2.02	0.41
1:D:383:VAL:CG1	1:D:383:VAL:O	2.66	0.41
1:F:56:LEU:HD21	1:F:92:GLY:CA	2.23	0.41
1:B:493:VAL:HG23	1:B:493:VAL:O	2.21	0.41
1:F:528:ILE:HA	1:F:529:PRO:HD3	1.80	0.41
1:E:396:LYS:O	1:E:399:PHE:HB3	2.21	0.41
1:C:427:LYS:HE3	1:E:123:LYS:HE3	2.03	0.41
1:C:203:MET:O	1:C:225:GLY:HA3	2.20	0.41
1:C:154:GLY:HA3	1:D:428:HIS:CE1	2.54	0.41
1:B:219:VAL:HG12	1:B:220:GLY:N	2.36	0.41
1:F:162:ARG:HG3	1:F:162:ARG:HH11	1.86	0.41
1:C:475:GLN:OE1	1:C:479:ASP:OD2	2.39	0.41
1:E:166:ALA:O	1:E:167:SER:C	2.57	0.41
1:D:445:MET:HG3	1:D:446:GLY:N	2.35	0.41
1:F:350:ILE:H	1:F:385:GLN:HE22	1.69	0.41
1:A:416:ALA:CB	1:A:442:ILE:HG23	2.50	0.41
1:E:284:LEU:HD22	1:E:304:HIS:CD2	2.56	0.41
1:E:43:LYS:HB2	1:E:45:LYS:HG3	2.02	0.41
1:E:334:VAL:HG11	1:E:510:LEU:HD11	2.03	0.41
1:E:298:MET:O	1:E:300:SER:N	2.54	0.41
1:A:499:PRO:CD	1:B:18:LEU:CD2	2.98	0.41
1:D:21:LEU:O	1:D:25:ILE:HG13	2.20	0.41
1:A:329:VAL:HG11	1:A:507:VAL:HG22	2.02	0.41
1:B:277:VAL:CG2	1:B:504:ARG:CD	2.91	0.41
1:C:429:LEU:HA	1:D:161:ARG:HG3	2.03	0.41
1:C:448:GLN:HA	1:C:474:ILE:HD13	2.03	0.41
1:C:502:THR:OG1	1:C:506:ILE:HD12	2.20	0.41
1:E:182:GLY:C	1:E:184:ALA:N	2.71	0.41
1:E:182:GLY:O	1:E:185:VAL:HG13	2.20	0.41
1:E:202:HIS:CB	1:E:204:PHE:HE2	2.33	0.41
1:B:147:GLN:O	1:B:148:GLU:C	2.60	0.41
1:D:434:ASN:O	1:D:494:ASP:N	2.53	0.41
1:B:334:VAL:CG1	1:B:371:LEU:HG	2.51	0.41
1:C:130:LYS:HD3	1:F:516:LYS:HE3	2.03	0.41
1:D:158:GLU:CG	1:D:162:ARG:HH12	2.31	0.41
1:D:395:ALA:O	1:D:396:LYS:C	2.58	0.41
1:C:287:ILE:HD13	1:C:287:ILE:HA	1.90	0.41
1:A:144:ALA:HB2	1:A:156:TYR:HE2	1.85	0.41
1:A:118:GLY:O	1:A:122:VAL:CG2	2.58	0.41
1:F:291:SER:HB2	1:F:294:GLN:HB3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:166:ALA:O	1:D:169:VAL:N	2.53	0.41
1:A:23:ARG:HD2	1:A:24:ARG:N	2.36	0.41
1:F:136:VAL:HG11	1:F:251:VAL:HG11	2.02	0.41
1:B:340:GLN:C	1:B:342:MET:N	2.72	0.41
1:E:306:LEU:HD13	1:E:327:GLY:CA	2.41	0.41
1:A:283:GLU:HB2	1:A:304:HIS:NE2	2.36	0.41
1:F:230:HIS:HA	1:F:234:SER:OG	2.20	0.41
1:D:490:ARG:HB2	1:D:492:TYR:CD2	2.55	0.41
1:D:329:VAL:C	1:D:331:GLY:N	2.70	0.41
1:B:315:GLN:N	1:B:316:PRO:CD	2.84	0.41
1:F:283:GLU:HB2	1:F:304:HIS:NE2	2.36	0.41
1:E:160:PHE:CE1	1:E:187:SER:N	2.89	0.41
1:A:297:ASP:HA	1:A:342:MET:HG3	2.03	0.41
1:B:517:ARG:NE	1:D:129:LEU:O	2.50	0.41
1:E:475:GLN:HA	1:E:478:GLU:HG3	2.03	0.40
1:E:109:PHE:C	1:E:111:GLY:N	2.74	0.40
1:E:298:MET:HE3	1:E:339:ASN:O	2.21	0.40
1:C:114:GLY:H	1:C:117:TYR:HB3	1.85	0.40
1:C:78:ASP:C	1:C:80:ASN:N	2.72	0.40
1:A:164:THR:HG23	1:F:399:PHE:CG	2.57	0.40
1:A:68:ALA:HB2	1:D:488:ALA:O	2.22	0.40
1:F:182:GLY:O	1:F:184:ALA:N	2.55	0.40
1:A:529:PRO:CG	1:F:190:ILE:HA	2.51	0.40
1:D:193:PHE:CG	1:D:254:LEU:HD21	2.56	0.40
1:D:49:ARG:O	1:D:50:GLU:C	2.59	0.40
1:C:91:TYR:N	1:C:101:VAL:HG12	2.35	0.40
1:E:299:HIS:ND1	1:E:323:LEU:CD1	2.85	0.40
1:C:97:ARG:HA	1:C:98:PRO:HD3	1.80	0.40
1:B:77:LEU:C	1:B:79:ALA:H	2.23	0.40
1:E:527:ASN:CG	1:E:527:ASN:O	2.59	0.40
1:B:139:ASN:OD1	1:B:176:VAL:HG22	2.20	0.40
1:E:108:VAL:C	1:E:110:GLY:N	2.71	0.40
1:B:397:LEU:HD23	1:B:423:VAL:CG1	2.51	0.40
1:D:436:ALA:HB2	1:D:493:VAL:HG11	2.03	0.40
1:B:232:SER:O	1:B:318:PHE:HD1	2.05	0.40
1:A:239:HIS:NE2	1:A:240:MET:O	2.54	0.40
1:B:405:THR:O	1:B:516:LYS:CD	2.66	0.40
1:C:102:PHE:CE2	1:C:137:GLY:HA3	2.55	0.40
1:D:358:ARG:O	1:D:362:THR:CB	2.69	0.40
1:A:169:VAL:HG22	1:F:523:LYS:HB3	2.02	0.40
1:F:434:ASN:O	1:F:493:VAL:HG13	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:212:LYS:HE3	1:C:218:ASP:OD2	2.22	0.40
1:E:215:THR:CG2	1:E:217:GLU:HG2	2.51	0.40
1:D:134:PRO:HD3	1:D:260:SER:O	2.21	0.40
1:D:463:GLY:HA2	1:D:466:ALA:HB2	2.03	0.40
1:A:417:PHE:O	1:A:420:ALA:HB3	2.22	0.40
1:D:347:CYS:HA	1:D:377:PRO:HD2	2.03	0.40
1:C:336:ILE:CG2	1:C:371:LEU:CD1	2.98	0.40
1:B:63:GLU:CD	1:B:66:GLU:CG	2.75	0.40
1:B:284:LEU:HB3	1:B:499:PRO:HB2	2.03	0.40
1:C:444:VAL:HG11	1:D:146:ILE:HA	2.03	0.40
1:D:243:ASP:N	1:D:243:ASP:OD2	2.54	0.40
1:C:391:ILE:H	1:C:391:ILE:HG12	1.50	0.40
1:D:47:THR:CB	1:D:50:GLU:HG3	2.51	0.40
1:A:461:ASP:O	1:A:462:ALA:CB	2.70	0.40
1:F:289:PRO:CB	1:F:294:GLN:NE2	2.80	0.40
1:D:336:ILE:HA	1:D:371:LEU:O	2.22	0.40
1:A:219:VAL:CG1	1:A:220:GLY:N	2.83	0.40
1:D:57:ASP:OD2	1:D:95:ASP:N	2.54	0.40
1:D:368:VAL:HA	1:D:369:PRO:HD3	1.92	0.40
1:A:392:ARG:H	1:A:392:ARG:HG2	1.60	0.40
1:D:347:CYS:HB3	1:D:377:PRO:HG2	2.04	0.40
1:E:128:ALA:O	1:E:132:GLY:N	2.55	0.40
1:E:104:GLN:HB2	1:E:140:ASP:H	1.86	0.40
1:E:171:PRO:HA	1:E:366:PHE:CZ	2.57	0.40
1:A:409:ILE:CD1	1:A:513:LEU:CD2	2.99	0.40
1:A:496:VAL:CG1	1:B:21:LEU:HD13	2.51	0.40
1:F:145:ARG:HD2	1:F:148:GLU:HG3	2.04	0.40
1:B:416:ALA:C	1:B:417:PHE:CD2	2.94	0.40
1:A:117:TYR:O	1:A:121:ILE:HG13	2.22	0.40
1:A:354:GLU:OE1	1:A:393:ARG:HG2	2.21	0.40
1:C:340:GLN:O	1:C:346:GLY:HA2	2.22	0.40
1:B:399:PHE:CE2	1:B:403:GLU:HB2	2.57	0.40
1:C:132:GLY:O	1:C:261:ASN:HB3	2.22	0.40
1:B:219:VAL:HG11	1:B:223:GLU:OE1	2.22	0.40
1:A:151:ALA:HA	1:F:492:TYR:CE1	2.56	0.40
1:B:222:GLU:O	1:B:226:GLY:HA3	2.21	0.40
1:F:350:ILE:O	1:F:354:GLU:HB2	2.22	0.40
1:B:104:GLN:CD	1:B:141:SER:HB2	2.39	0.40
1:B:198:ASP:C	1:B:200:THR:H	2.24	0.40
1:E:113:LEU:HD22	1:E:114:GLY:N	2.37	0.40
1:E:146:ILE:C	1:E:148:GLU:N	2.74	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:77:LEU:HD23	1:E:77:LEU:HA	1.79	0.40
1:E:371:LEU:HD13	1:E:506:ILE:HG23	2.03	0.40
1:E:428:HIS:C	1:E:430:GLY:H	2.25	0.40
1:F:70:HIS:HE1	1:F:80:ASN:O	2.05	0.40
1:C:317:LEU:N	1:C:317:LEU:HD12	2.37	0.40
1:C:113:LEU:O	1:C:145:ARG:CB	2.69	0.40
1:A:308:ASP:O	1:A:309:ALA:C	2.60	0.40
1:B:306:LEU:O	1:B:307:ASP:C	2.60	0.40
1:B:324:THR:HA	1:B:336:ILE:O	2.21	0.40
1:B:350:ILE:CG2	1:B:390:ILE:CD1	2.83	0.40
1:E:205:ILE:CG2	1:E:206:THR:N	2.83	0.40
1:F:376:VAL:HG22	1:F:378:GLY:O	2.21	0.40
1:D:227:ALA:O	1:D:231:ASN:OD1	2.40	0.40
1:E:308:ASP:O	1:E:309:ALA:C	2.60	0.40
1:B:223:GLU:OE1	1:B:224:LEU:CA	2.68	0.40
1:C:306:LEU:CD2	1:C:327:GLY:C	2.90	0.40
1:F:262:ASN:O	1:F:264:SER:N	2.55	0.40
1:D:128:ALA:CB	1:D:135:VAL:CG2	2.99	0.40
1:F:198:ASP:HA	1:F:227:ALA:HB3	2.04	0.40
1:A:199:GLN:O	1:A:199:GLN:CG	2.67	0.40
1:B:192:ASP:HA	1:E:527:ASN:ND2	2.37	0.40
1:F:133:CYS:HA	1:F:134:PRO:HD3	1.64	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 X-ray entries followed by that with respect to entries of similar resolution.

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	519/530 (98%)	503 (97%)	14 (3%)	2 (0%)	39	81
1	B	519/530 (98%)	501 (96%)	18 (4%)	0	100	100
1	C	519/530 (98%)	501 (96%)	17 (3%)	1 (0%)	52	88

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	D	519/530 (98%)	501 (96%)	17 (3%)	1 (0%)	52	88
1	E	519/530 (98%)	505 (97%)	14 (3%)	0	100	100
1	F	519/530 (98%)	503 (97%)	13 (2%)	3 (1%)	30	75
All	All	3114/3180 (98%)	3014 (97%)	93 (3%)	7 (0%)	52	88

All (7) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	D	416	ALA
1	F	145	ARG
1	F	516	LYS
1	A	389	GLY
1	F	381	PRO
1	A	289	PRO
1	C	377	PRO

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

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	411/420 (98%)	349 (85%)	62 (15%)	3	21
1	B	411/420 (98%)	339 (82%)	72 (18%)	2	14
1	C	411/420 (98%)	353 (86%)	58 (14%)	4	24
1	D	411/420 (98%)	337 (82%)	74 (18%)	2	12
1	E	411/420 (98%)	342 (83%)	69 (17%)	2	15
1	F	411/420 (98%)	325 (79%)	86 (21%)	1	8
All	All	2466/2520 (98%)	2045 (83%)	421 (17%)	2	15

All (421) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	11	ILE

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Mol	Chain	Res	Type
1	A	23	ARG
1	A	33	SER
1	A	35	ARG
1	A	40	GLN
1	A	49	ARG
1	A	52	ILE
1	A	53	ASP
1	A	64	LEU
1	A	66	GLU
1	A	81	ARG
1	A	104	GLN
1	A	113	LEU
1	A	117	TYR
1	A	146	ILE
1	A	153	LEU
1	A	158	GLU
1	A	177	VAL
1	A	180	CYS
1	A	218	ASP
1	A	231	ASN
1	A	232	SER
1	A	246	ASP
1	A	264	SER
1	A	271	GLU
1	A	278	THR
1	A	280	GLU
1	A	298	MET
1	A	310	GLU
1	A	321	ASN
1	A	353	SER
1	A	354	GLU
1	A	358	ARG
1	A	367	ASN
1	A	372	THR
1	A	386	GLU
1	A	390	ILE
1	A	392	ARG
1	A	393	ARG
1	A	397	LEU
1	A	405	THR
1	A	406	VAL
1	A	408	LEU

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Mol	Chain	Res	Type
1	A	427	LYS
1	A	429	LEU
1	A	435	LEU
1	A	439	THR
1	A	442	ILE
1	A	444	VAL
1	A	451	VAL
1	A	469	THR
1	A	473	LEU
1	A	474	ILE
1	A	475	GLN
1	A	493	VAL
1	A	502	THR
1	A	508	ARG
1	A	513	LEU
1	A	514	ARG
1	A	517	ARG
1	A	525	HIS
1	A	527	ASN
1	B	23	ARG
1	B	41	HIS
1	B	43	LYS
1	B	45	LYS
1	B	49	ARG
1	B	63	GLU
1	B	66	GLU
1	B	72	SER
1	B	73	THR
1	B	77	LEU
1	B	87	VAL
1	B	97	ARG
1	B	117	TYR
1	B	124	VAL
1	B	138	ILE
1	B	146	ILE
1	B	147	GLN
1	B	156	TYR
1	B	158	GLU
1	B	167	SER
1	B	169	VAL
1	B	172	GLN
1	B	174	SER

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Mol	Chain	Res	Type
1	B	175	LEU
1	B	180	CYS
1	B	190	ILE
1	B	206	THR
1	B	209	ASP
1	B	218	ASP
1	B	231	ASN
1	B	245	LYS
1	B	252	LYS
1	B	255	LEU
1	B	264	SER
1	B	275	LEU
1	B	281	ASP
1	B	291	SER
1	B	298	MET
1	B	300	SER
1	B	303	GLU
1	B	306	LEU
1	B	313	GLU
1	B	323	LEU
1	B	326	PHE
1	B	344	PHE
1	B	347	CYS
1	B	353	SER
1	B	367	ASN
1	B	372	THR
1	B	373	PHE
1	B	380	LEU
1	B	391	ILE
1	B	417	PHE
1	B	429	LEU
1	B	433	LEU
1	B	435	LEU
1	B	445	MET
1	B	451	VAL
1	B	456	ARG
1	B	457	ARG
1	B	470	ARG
1	B	472	ARG
1	B	481	LEU
1	B	482	LEU
1	B	498	MET

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Mol	Chain	Res	Type
1	B	504	ARG
1	B	505	HIS
1	B	508	ARG
1	B	511	ARG
1	B	517	ARG
1	B	520	LEU
1	B	524	LYS
1	C	17	LYS
1	C	24	ARG
1	C	35	ARG
1	C	47	THR
1	C	49	ARG
1	C	55	LEU
1	C	72	SER
1	C	77	LEU
1	C	97	ARG
1	C	105	ASP
1	C	117	TYR
1	C	119	GLN
1	C	121	ILE
1	C	130	LYS
1	C	141	SER
1	C	147	GLN
1	C	150	VAL
1	C	161	ARG
1	C	167	SER
1	C	170	ILE
1	C	174	SER
1	C	175	LEU
1	C	180	CYS
1	C	206	THR
1	C	218	ASP
1	C	224	LEU
1	C	231	ASN
1	C	243	ASP
1	C	262	ASN
1	C	263	LEU
1	C	278	THR
1	C	287	ILE
1	C	298	MET
1	C	310	GLU
1	C	321	ASN

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Mol	Chain	Res	Type
1	C	323	LEU
1	C	332	ARG
1	C	349	ASP
1	C	358	ARG
1	C	363	CYS
1	C	373	PHE
1	C	376	VAL
1	C	391	ILE
1	C	392	ARG
1	C	398	ILE
1	C	405	THR
1	C	409	ILE
1	C	435	LEU
1	C	441	GLN
1	C	442	ILE
1	C	456	ARG
1	C	467	GLU
1	C	472	ARG
1	C	475	GLN
1	C	498	MET
1	C	508	ARG
1	C	513	LEU
1	C	517	ARG
1	D	11	ILE
1	D	23	ARG
1	D	25	ILE
1	D	30	HIS
1	D	40	GLN
1	D	49	ARG
1	D	54	LEU
1	D	56	LEU
1	D	63	GLU
1	D	77	LEU
1	D	87	VAL
1	D	93	THR
1	D	113	LEU
1	D	117	TYR
1	D	119	GLN
1	D	124	VAL
1	D	133	CYS
1	D	141	SER
1	D	146	ILE

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Mol	Chain	Res	Type
1	D	147	GLN
1	D	163	ASN
1	D	167	SER
1	D	172	GLN
1	D	185	VAL
1	D	186	TYR
1	D	199	GLN
1	D	213	THR
1	D	218	ASP
1	D	244	GLU
1	D	245	LYS
1	D	255	LEU
1	D	263	LEU
1	D	275	LEU
1	D	280	GLU
1	D	284	LEU
1	D	288	VAL
1	D	298	MET
1	D	305	VAL
1	D	314	THR
1	D	317	LEU
1	D	321	ASN
1	D	323	LEU
1	D	332	ARG
1	D	343	GLN
1	D	355	LYS
1	D	367	ASN
1	D	370	VAL
1	D	372	THR
1	D	373	PHE
1	D	384	ASP
1	D	386	GLU
1	D	387	HIS
1	D	392	ARG
1	D	396	LYS
1	D	405	THR
1	D	408	LEU
1	D	429	LEU
1	D	433	LEU
1	D	435	LEU
1	D	445	MET
1	D	452	ASN

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Mol	Chain	Res	Type
1	D	456	ARG
1	D	459	ILE
1	D	483	ASN
1	D	497	ILE
1	D	498	MET
1	D	504	ARG
1	D	505	HIS
1	D	508	ARG
1	D	512	GLN
1	D	513	LEU
1	D	517	ARG
1	D	519	SER
1	D	527	ASN
1	E	11	ILE
1	E	23	ARG
1	E	40	GLN
1	E	47	THR
1	E	49	ARG
1	E	51	ARG
1	E	56	LEU
1	E	63	GLU
1	E	77	LEU
1	E	87	VAL
1	E	95	ASP
1	E	102	PHE
1	E	113	LEU
1	E	124	VAL
1	E	129	LEU
1	E	130	LYS
1	E	145	ARG
1	E	167	SER
1	E	170	ILE
1	E	190	ILE
1	E	196	MET
1	E	197	VAL
1	E	199	GLN
1	E	206	THR
1	E	218	ASP
1	E	231	ASN
1	E	233	THR
1	E	236	VAL
1	E	253	GLN

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Mol	Chain	Res	Type
1	E	260	SER
1	E	277	VAL
1	E	285	ASP
1	E	287	ILE
1	E	291	SER
1	E	303	GLU
1	E	304	HIS
1	E	305	VAL
1	E	310	GLU
1	E	312	PHE
1	E	313	GLU
1	E	332	ARG
1	E	351	THR
1	E	358	ARG
1	E	360	VAL
1	E	367	ASN
1	E	372	THR
1	E	383	VAL
1	E	392	ARG
1	E	415	LYS
1	E	427	LYS
1	E	429	LEU
1	E	435	LEU
1	E	441	GLN
1	E	442	ILE
1	E	444	VAL
1	E	456	ARG
1	E	459	ILE
1	E	464	ASP
1	E	470	ARG
1	E	475	GLN
1	E	483	ASN
1	E	493	VAL
1	E	497	ILE
1	E	501	ASP
1	E	511	ARG
1	E	513	LEU
1	E	517	ARG
1	E	524	LYS
1	E	530	LEU
1	F	11	ILE
1	F	22	ARG

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Mol	Chain	Res	Type
1	F	25	ILE
1	F	26	GLU
1	F	29	THR
1	F	33	SER
1	F	40	GLN
1	F	41	HIS
1	F	43	LYS
1	F	45	LYS
1	F	46	LEU
1	F	50	GLU
1	F	64	LEU
1	F	104	GLN
1	F	113	LEU
1	F	117	TYR
1	F	124	VAL
1	F	131	THR
1	F	158	GLU
1	F	159	ILE
1	F	161	ARG
1	F	162	ARG
1	F	165	HIS
1	F	180	CYS
1	F	185	VAL
1	F	196	MET
1	F	206	THR
1	F	209	ASP
1	F	212	LYS
1	F	215	THR
1	F	231	ASN
1	F	232	SER
1	F	233	THR
1	F	253	GLN
1	F	255	LEU
1	F	263	LEU
1	F	265	GLU
1	F	272	GLU
1	F	279	ASP
1	F	280	GLU
1	F	284	LEU
1	F	288	VAL
1	F	291	SER
1	F	298	MET

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Mol	Chain	Res	Type
1	F	300	SER
1	F	303	GLU
1	F	304	HIS
1	F	312	PHE
1	F	314	THR
1	F	321	ASN
1	F	323	LEU
1	F	351	THR
1	F	354	GLU
1	F	355	LYS
1	F	358	ARG
1	F	367	ASN
1	F	368	VAL
1	F	372	THR
1	F	386	GLU
1	F	387	HIS
1	F	392	ARG
1	F	403	GLU
1	F	414	ARG
1	F	415	LYS
1	F	421	TYR
1	F	429	LEU
1	F	442	ILE
1	F	448	GLN
1	F	452	ASN
1	F	456	ARG
1	F	459	ILE
1	F	464	ASP
1	F	472	ARG
1	F	479	ASP
1	F	483	ASN
1	F	490	ARG
1	F	496	VAL
1	F	498	MET
1	F	500	SER
1	F	503	ARG
1	F	508	ARG
1	F	512	GLN
1	F	516	LYS
1	F	517	ARG
1	F	520	LEU
1	F	528	ILE

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (92) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	30	HIS
1	A	40	GLN
1	A	70	HIS
1	A	74	ASN
1	A	104	GLN
1	A	163	ASN
1	A	172	GLN
1	A	321	ASN
1	A	367	ASN
1	A	455	HIS
1	A	475	GLN
1	A	512	GLN
1	B	40	GLN
1	B	70	HIS
1	B	147	GLN
1	B	304	HIS
1	B	321	ASN
1	B	428	HIS
1	B	505	HIS
1	B	512	GLN
1	B	527	ASN
1	C	30	HIS
1	C	40	GLN
1	C	70	HIS
1	C	147	GLN
1	C	163	ASN
1	C	172	GLN
1	C	199	GLN
1	C	231	ASN
1	C	262	ASN
1	C	294	GLN
1	C	299	HIS
1	C	321	ASN
1	C	428	HIS
1	C	452	ASN
1	C	475	GLN
1	C	525	HIS
1	D	40	GLN
1	D	104	GLN
1	D	147	GLN
1	D	163	ASN

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Mol	Chain	Res	Type
1	D	172	GLN
1	D	231	ASN
1	D	239	HIS
1	D	253	GLN
1	D	343	GLN
1	D	452	ASN
1	D	475	GLN
1	D	483	ASN
1	D	512	GLN
1	E	40	GLN
1	E	70	HIS
1	E	80	ASN
1	E	139	ASN
1	E	163	ASN
1	E	165	HIS
1	E	172	GLN
1	E	199	GLN
1	E	202	HIS
1	E	231	ASN
1	E	261	ASN
1	E	293	ASN
1	E	294	GLN
1	E	299	HIS
1	E	304	HIS
1	E	315	GLN
1	E	339	ASN
1	E	367	ASN
1	E	441	GLN
1	E	452	ASN
1	E	455	HIS
1	E	483	ASN
1	E	505	HIS
1	E	512	GLN
1	F	40	GLN
1	F	70	HIS
1	F	163	ASN
1	F	172	GLN
1	F	199	GLN
1	F	294	GLN
1	F	299	HIS
1	F	315	GLN
1	F	367	ASN

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Mol	Chain	Res	Type
1	F	434	ASN
1	F	448	GLN
1	F	452	ASN
1	F	475	GLN
1	F	483	ASN
1	F	505	HIS
1	F	512	GLN
1	F	525	HIS
1	F	527	ASN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

In the following table, the column labelled ‘#RSRZ> 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled ‘Q< 0.9’ lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	A	521/530 (98%)	-0.05	4 (0%) 87 80	2, 2, 2, 2	0
1	B	521/530 (98%)	0.06	6 (1%) 81 72	2, 2, 2, 16	0
1	C	521/530 (98%)	-0.01	6 (1%) 81 72	2, 2, 2, 14	0
1	D	521/530 (98%)	0.05	2 (0%) 93 90	2, 2, 2, 2	0
1	E	521/530 (98%)	0.05	7 (1%) 79 70	2, 2, 2, 2	0
1	F	521/530 (98%)	-0.01	4 (0%) 87 80	2, 2, 2, 13	0
All	All	3126/3180 (98%)	0.01	29 (0%) 85 78	2, 2, 2, 16	0

All (29) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	F	464	ASP	3.7
1	A	456	ARG	3.3
1	C	463	GLY	3.3
1	C	465	ASP	3.3
1	A	461	ASP	3.0
1	D	456	ARG	2.9
1	E	464	ASP	2.9
1	B	463	GLY	2.9
1	A	463	GLY	2.6
1	C	527	ASN	2.6
1	E	467	GLU	2.6
1	E	10	ASP	2.6
1	F	527	ASN	2.5
1	F	91	TYR	2.5
1	E	461	ASP	2.5
1	E	465	ASP	2.5
1	D	85	ASP	2.4
1	E	204	PHE	2.4
1	B	462	ALA	2.3

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Mol	Chain	Res	Type	RSRZ
1	C	462	ALA	2.3
1	B	270	PRO	2.3
1	A	457	ARG	2.3
1	F	463	GLY	2.2
1	B	139	ASN	2.2
1	B	465	ASP	2.1
1	E	219	VAL	2.1
1	B	272	GLU	2.1
1	C	464	ASP	2.1
1	C	379	PHE	2.0

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

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

6.3 Carbohydrates [i](#)

There are no carbohydrates in this entry.

6.4 Ligands [i](#)

There are no ligands in this entry.

6.5 Other polymers [i](#)

There are no such residues in this entry.