



Full wwPDB X-ray Structure Validation Report ⓘ

Jan 4, 2023 – 01:37 pm GMT

PDB ID : 8BBL
Title : SGL a GH20 family sulfoglycosidase
Authors : Dong, M.D.; Roth, C.R.; Jin, Y.J.
Deposited on : 2022-10-13
Resolution : 2.71 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

<https://www.wwpdb.org/validation/2017/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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

MolProbity : 4.02b-467
Xtriage (Phenix) : 1.13
EDS : 2.31.3
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac : 5.8.0158
CCP4 : 7.0.044 (Gargrove)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.31.3

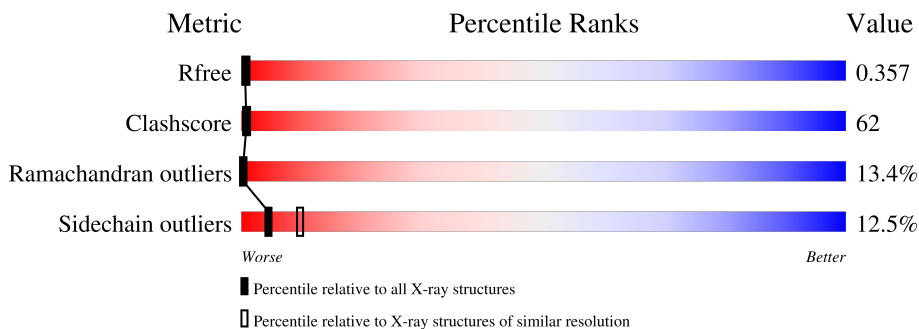
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.71 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.



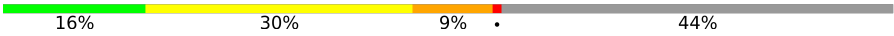
Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	3359 (2.74-2.70)
Clashscore	141614	3686 (2.74-2.70)
Ramachandran outliers	138981	3622 (2.74-2.70)
Sidechain outliers	138945	3623 (2.74-2.70)

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 of the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$

Mol	Chain	Length	Quality of chain
1	A	901	9% 33% 13% . 43%
1	B	901	16% 29% 9% . 44%
1	C	901	15% 29% 10% . 45%
1	D	901	13% 31% 9% . 45%
1	E	901	16% 29% 10% . 45%
1	F	901	15% 31% 9% . 45%
1	G	901	15% 31% 9% . 45%

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Mol	Chain	Length	Quality of chain
1	H	901	 16% 30% 9% 44%

2 Entry composition [i](#)

There are 2 unique types of molecules in this entry. The entry contains 31772 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 Beta-N-acetylhexosaminidase.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	515	4061	2584	691	764	22	0	0	0
1	B	501	3959	2521	671	745	22	0	0	0
1	C	500	3955	2519	670	744	22	0	0	0
1	D	500	3955	2519	670	744	22	0	0	0
1	E	500	3955	2519	670	744	22	0	0	0
1	F	500	3955	2519	670	744	22	0	0	0
1	H	501	3959	2521	671	745	22	0	0	0
1	G	500	3955	2519	670	744	22	0	0	0

- Molecule 2 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
2	A	10	Total	O	0	0
			10	10		
2	B	4	Total	O	0	0
			4	4		
2	C	4	Total	O	0	0
			4	4		

4 Data and refinement statistics

Property	Value	Source
Space group	P 1	Depositor
Cell constants a, b, c, α , β , γ	132.95Å 133.42Å 225.37Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	94.18 – 2.71 94.18 – 2.71	Depositor EDS
% Data completeness (in resolution range)	96.6 (94.18-2.71) 99.2 (94.18-2.71)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	2.02 (at 2.73Å)	Xtriage
Refinement program	REFMAC 5.8.0352	Depositor
R, R_{free}	0.283 , 0.319 0.333 , 0.357	Depositor DCC
R_{free} test set	21126 reflections (5.07%)	wwPDB-VP
Wilson B-factor (Å ²)	47.0	Xtriage
Anisotropy	0.089	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.25 , 39.8	EDS
L-test for twinning ²	$\langle L \rangle = 0.51$, $\langle L^2 \rangle = 0.34$	Xtriage
Estimated twinning fraction	0.000 for k,-h,l 0.000 for -k,h,l 0.055 for h,-k,-l 0.054 for -h,k,-l 0.040 for -h,-k,l 0.000 for k,h,-l 0.000 for -k,-h,-l	Xtriage
Reported twinning fraction	0.182 for H, K, L 0.177 for h,-k,-l 0.179 for -H, K, -L 0.177 for -h,-k,l 0.071 for K, H, -L 0.071 for k,-h,l 0.070 for -K, H, L 0.072 for -K, -H, -L	Depositor
Outliers	0 of 416904 reflections	Xtriage
F_o, F_c correlation	0.74	EDS
Total number of atoms	31772	wwPDB-VP
Average B, all atoms (Å ²)	26.0	wwPDB-VP

¹Intensities estimated from amplitudes.

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

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 6.27% of the height of the origin peak. No significant pseudotranslation is detected.*

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	0.56	0/4169	1.11	13/5666 (0.2%)
1	B	0.48	0/4062	0.93	1/5514 (0.0%)
1	C	0.49	1/4058 (0.0%)	0.93	3/5509 (0.1%)
1	D	0.47	0/4058	0.90	2/5509 (0.0%)
1	E	0.48	0/4058	0.93	2/5509 (0.0%)
1	F	0.47	0/4058	0.92	2/5509 (0.0%)
1	G	0.47	0/4058	0.88	4/5509 (0.1%)
1	H	0.49	0/4062	0.94	5/5514 (0.1%)
All	All	0.49	1/32583 (0.0%)	0.94	32/44239 (0.1%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	33
1	B	0	13
1	C	0	14
1	D	0	18
1	E	0	13
1	F	0	12
1	G	0	11
1	H	0	16
All	All	0	130

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	131	GLU	CD-OE2	-5.24	1.19	1.25

All (32) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	658	ASN	CB-CA-C	-8.04	94.31	110.40
1	A	279	ASP	CB-CG-OD2	-7.27	111.75	118.30
1	F	627	TYR	CB-CG-CD1	7.12	125.27	121.00
1	F	627	TYR	CB-CG-CD2	-6.62	117.03	121.00
1	A	132	THR	N-CA-C	-6.31	93.95	111.00
1	C	485	ARG	NE-CZ-NH1	-6.31	117.15	120.30
1	A	220	GLU	CB-CG-CD	-6.19	97.48	114.20
1	H	238	THR	CA-CB-OG1	-6.09	96.20	109.00
1	E	459	ASP	CB-CG-OD2	-6.06	112.85	118.30
1	D	665	ASP	CB-CA-C	5.96	122.31	110.40
1	C	498	PHE	CB-CG-CD1	5.87	124.91	120.80
1	G	365	TYR	CB-CG-CD1	5.87	124.52	121.00
1	H	370	ASP	CB-CG-OD1	-5.79	113.09	118.30
1	C	382	ARG	NE-CZ-NH2	5.78	123.19	120.30
1	A	270	ARG	CG-CD-NE	5.72	123.81	111.80
1	A	379	ALA	N-CA-CB	-5.71	102.10	110.10
1	H	238	THR	CA-CB-CG2	5.70	120.38	112.40
1	A	170	TYR	CB-CA-C	5.58	121.55	110.40
1	E	244	TYR	CB-CG-CD1	5.57	124.34	121.00
1	D	170	TYR	CB-CG-CD1	5.56	124.34	121.00
1	A	165	ASN	CB-CA-C	5.50	121.40	110.40
1	A	327	THR	CA-CB-OG1	-5.47	97.52	109.00
1	B	655	ARG	NE-CZ-NH2	5.36	122.98	120.30
1	A	670	TYR	CB-CG-CD2	-5.36	117.79	121.00
1	A	670	TYR	CB-CG-CD1	5.29	124.18	121.00
1	G	616	THR	CA-CB-OG1	-5.27	97.93	109.00
1	H	519	ASP	CB-CG-OD2	-5.22	113.60	118.30
1	H	519	ASP	CB-CG-OD1	5.19	122.97	118.30
1	A	602	GLU	CB-CA-C	5.18	120.76	110.40
1	G	365	TYR	CB-CG-CD2	-5.18	117.89	121.00
1	A	673	HIS	CB-CA-C	5.10	120.59	110.40
1	A	635	CYS	CA-CB-SG	-5.02	104.96	114.00

There are no chirality outliers.

All (130) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	130	ASP	Peptide
1	A	132	THR	Mainchain
1	A	148	ASN	Peptide
1	A	150	ASN	Peptide
1	A	152	SER	Peptide
1	A	171	ILE	Peptide

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Mol	Chain	Res	Type	Group
1	A	187	ILE	Peptide
1	A	192	ARG	Sidechain
1	A	274	ARG	Sidechain
1	A	321	ARG	Sidechain
1	A	351	TRP	Peptide
1	A	363	GLY	Peptide
1	A	365	TYR	Peptide
1	A	370	ASP	Peptide
1	A	372	MET	Mainchain
1	A	382	ARG	Sidechain
1	A	384	ILE	Mainchain
1	A	408	CYS	Peptide
1	A	440	ASN	Mainchain
1	A	470	ASP	Peptide
1	A	482	THR	Peptide
1	A	486	GLN	Peptide
1	A	502	LYS	Peptide
1	A	515	ALA	Peptide
1	A	525	GLN	Peptide
1	A	528	SER	Peptide
1	A	541	ALA	Peptide
1	A	562	GLY	Peptide
1	A	567	ARG	Sidechain
1	A	573	TYR	Peptide
1	A	641	TRP	Mainchain
1	A	653	ARG	Sidechain
1	A	656	LEU	Peptide
1	B	147	LEU	Peptide
1	B	173	LYS	Peptide
1	B	176	GLU	Peptide
1	B	204	LEU	Peptide
1	B	351	TRP	Peptide
1	B	373	ARG	Sidechain
1	B	384	ILE	Mainchain
1	B	485	ARG	Sidechain
1	B	501	THR	Peptide
1	B	531	MET	Peptide
1	B	546	LYS	Peptide
1	B	603	GLN	Peptide
1	B	668	TYR	Mainchain
1	C	145	LYS	Peptide
1	C	180	ALA	Peptide

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Mol	Chain	Res	Type	Group
1	C	181	VAL	Mainchain
1	C	207	MET	Peptide
1	C	274	ARG	Sidechain
1	C	359	GLY	Mainchain
1	C	365	TYR	Mainchain
1	C	380	LYS	Mainchain
1	C	412	ARG	Sidechain
1	C	481	LEU	Peptide
1	C	485	ARG	Sidechain
1	C	501	THR	Peptide
1	C	580	GLY	Peptide
1	C	603	GLN	Peptide
1	D	172	TYR	Peptide
1	D	176	GLU	Peptide
1	D	227	ILE	Mainchain
1	D	270	ARG	Sidechain
1	D	296	ILE	Mainchain
1	D	316	ARG	Sidechain
1	D	351	TRP	Peptide
1	D	362	TYR	Peptide
1	D	372	MET	Mainchain
1	D	412	ARG	Sidechain
1	D	437	PHE	Mainchain
1	D	485	ARG	Sidechain
1	D	501	THR	Peptide
1	D	531	MET	Peptide
1	D	597	GLY	Peptide
1	D	652	PHE	Mainchain
1	D	653	ARG	Sidechain
1	D	672	ARG	Sidechain
1	E	131	GLU	Peptide
1	E	145	LYS	Peptide
1	E	194	ALA	Peptide
1	E	201	ARG	Sidechain
1	E	274	ARG	Sidechain
1	E	299	ARG	Sidechain
1	E	312	ASP	Peptide
1	E	313	GLN	Mainchain
1	E	351	TRP	Peptide
1	E	409	ASN	Peptide
1	E	470	ASP	Peptide
1	E	501	THR	Peptide

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Mol	Chain	Res	Type	Group
1	E	577	SER	Peptide
1	F	180	ALA	Peptide
1	F	192	ARG	Peptide,Sidechain
1	F	201	ARG	Sidechain
1	F	256	ASN	Peptide
1	F	270	ARG	Sidechain
1	F	299	ARG	Sidechain
1	F	373	ARG	Sidechain
1	F	411	SER	Peptide
1	F	501	THR	Peptide
1	F	552	ILE	Peptide
1	F	597	GLY	Peptide
1	G	194	ALA	Peptide
1	G	270	ARG	Sidechain
1	G	373	ARG	Sidechain
1	G	500	ALA	Peptide
1	G	501	THR	Peptide
1	G	514	THR	Peptide
1	G	544	VAL	Mainchain
1	G	567	ARG	Sidechain
1	G	603	GLN	Peptide
1	G	615	TRP	Mainchain
1	G	672	ARG	Sidechain
1	H	131	GLU	Peptide
1	H	147	LEU	Peptide
1	H	173	LYS	Peptide
1	H	180	ALA	Peptide
1	H	258	GLU	Peptide
1	H	299	ARG	Sidechain
1	H	386	VAL	Mainchain
1	H	413	ALA	Peptide
1	H	481	LEU	Peptide
1	H	485	ARG	Sidechain
1	H	501	THR	Peptide
1	H	514	THR	Peptide
1	H	531	MET	Peptide
1	H	580	GLY	Peptide
1	H	598	MET	Peptide
1	H	603	GLN	Peptide

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	4061	0	3877	681	0
1	B	3959	0	3785	454	0
1	C	3955	0	3782	463	0
1	D	3955	0	3782	460	0
1	E	3955	0	3782	453	0
1	F	3955	0	3782	478	0
1	G	3955	0	3782	434	0
1	H	3959	0	3785	469	0
2	A	10	0	0	2	0
2	B	4	0	0	2	0
2	C	4	0	0	0	0
All	All	31772	0	30357	3847	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 62.

All (3847) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:295:ASP:HA	1:C:382:ARG:NH1	1.39	1.35
1:F:537:GLN:N	1:H:192:ARG:HG2	1.37	1.34
1:A:528:SER:O	1:A:549:LEU:HD22	1.31	1.29
1:A:631:PRO:O	1:A:634:ILE:HD12	1.19	1.27
1:B:131:GLU:HG3	1:B:659:GLN:OE1	1.36	1.23
1:A:525:GLN:O	1:A:526:THR:O	1.60	1.15
1:A:146:TYR:O	1:A:152:SER:OG	1.66	1.14
1:C:282:ARG:HB3	1:C:350:TYR:OH	1.44	1.14
1:H:463:THR:HG23	1:H:485:ARG:HH21	1.07	1.14
1:F:526:THR:HG21	1:F:547:LEU:HB3	1.27	1.13
1:A:243:PHE:CE2	1:A:383:HIS:NE2	2.16	1.13
1:A:243:PHE:CZ	1:A:383:HIS:NE2	2.16	1.12
1:A:295:ASP:HA	1:A:382:ARG:HH12	1.04	1.11
1:D:282:ARG:O	1:D:350:TYR:OH	1.64	1.11
1:F:262:LEU:O	1:F:263:VAL:HG13	1.52	1.10
1:C:295:ASP:CA	1:C:382:ARG:NH1	2.14	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:130:ASP:OD1	1:A:252:LEU:HG	1.49	1.09
1:C:476:TYR:OH	1:C:487:LEU:N	1.86	1.08
1:F:586:VAL:CG1	1:F:635:CYS:SG	2.41	1.08
1:D:363:GLY:H	1:D:364:PRO:HD2	1.15	1.07
1:H:476:TYR:OH	1:H:487:LEU:N	1.85	1.07
1:E:220:GLU:HA	1:E:238:THR:OG1	1.53	1.07
1:A:303:ASN:O	1:A:384:ILE:HA	1.53	1.06
1:C:443:ASP:HA	1:C:446:CYS:SG	1.94	1.06
1:A:406:TYR:O	1:A:407:SER:O	1.72	1.05
1:G:208:ASP:OD2	1:G:211:SER:OG	1.74	1.05
1:A:332:ARG:CZ	1:A:350:TYR:OH	2.05	1.05
1:D:262:LEU:O	1:D:263:VAL:HG13	1.56	1.04
1:C:295:ASP:CB	1:C:382:ARG:HH12	1.69	1.04
1:F:428:ASN:ND2	1:F:469:ASN:OD1	1.90	1.04
1:E:131:GLU:HB2	1:E:251:GLN:HE22	1.21	1.04
1:E:674:TRP:HB2	1:E:675:MET:SD	1.99	1.03
1:A:350:TYR:HA	1:A:418:THR:O	1.56	1.03
1:A:540:VAL:HG21	1:A:552:ILE:O	1.58	1.03
1:A:590:TYR:O	2:A:1001:HOH:O	1.77	1.03
1:B:147:LEU:HD11	1:F:239:GLU:H	1.24	1.02
1:B:544:VAL:HG11	1:B:547:LEU:HD12	1.38	1.01
1:G:486:GLN:O	1:G:490:HIS:ND1	1.93	1.01
1:E:131:GLU:CB	1:E:251:GLN:HE22	1.74	1.01
1:F:586:VAL:HG12	1:F:635:CYS:SG	1.99	1.01
1:A:566:CYS:O	1:A:566:CYS:SG	2.17	1.01
1:C:253:ALA:HB2	1:C:260:LEU:HD21	1.43	1.00
1:A:327:THR:O	1:A:328:VAL:HG23	1.61	1.00
1:A:590:TYR:HB3	1:A:649:TRP:CZ2	1.97	1.00
1:D:470:ASP:O	1:D:474:GLN:NE2	1.95	0.99
1:F:537:GLN:H	1:H:192:ARG:CG	1.74	0.99
1:C:486:GLN:O	1:C:490:HIS:ND1	1.95	0.99
1:H:469:ASN:OD1	1:H:472:CYS:SG	2.20	0.99
1:H:486:GLN:O	1:H:490:HIS:ND1	1.95	0.99
1:G:282:ARG:O	1:G:283:HIS:CD2	2.15	0.99
1:A:631:PRO:O	1:A:634:ILE:CD1	2.10	0.98
1:A:486:GLN:O	1:A:490:HIS:ND1	1.96	0.98
1:C:674:TRP:HB2	1:C:675:MET:SD	2.04	0.98
1:E:469:ASN:OD1	1:E:472:CYS:SG	2.20	0.97
1:B:131:GLU:CG	1:B:659:GLN:OE1	2.12	0.97
1:A:282:ARG:NE	1:A:313:GLN:OE1	1.97	0.97
1:B:402:ALA:O	1:B:403:TYR:CD1	2.17	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:543:ALA:HA	1:E:544:VAL:HG22	1.46	0.97
1:F:270:ARG:HH22	1:F:604:MET:CE	1.77	0.97
1:A:533:TRP:HB2	1:A:560:ASP:OD1	1.63	0.97
1:H:192:ARG:HD2	1:H:193:GLY:N	1.80	0.96
1:A:295:ASP:HB3	1:A:668:TYR:OH	1.63	0.96
1:B:282:ARG:O	1:B:283:HIS:CD2	2.17	0.96
1:A:623:GLU:HA	1:A:669:VAL:HG21	1.45	0.96
1:D:543:ALA:HA	1:D:544:VAL:HG22	1.45	0.95
1:D:662:TRP:HE3	1:D:666:HIS:HE2	1.01	0.95
1:G:277:MET:SD	1:G:306:HIS:ND1	2.40	0.95
1:H:543:ALA:HA	1:H:544:VAL:HG22	1.47	0.95
1:D:662:TRP:HE3	1:D:666:HIS:NE2	1.64	0.95
1:F:543:ALA:HA	1:F:544:VAL:HG22	1.49	0.95
1:H:289:GLU:O	1:H:292:LYS:N	2.00	0.94
1:G:543:ALA:HA	1:G:544:VAL:HG22	1.47	0.94
1:A:204:LEU:O	1:A:208:ASP:HB2	1.68	0.94
1:D:625:LEU:HD12	1:D:625:LEU:O	1.67	0.94
1:B:543:ALA:HA	1:B:544:VAL:HG22	1.47	0.94
1:G:282:ARG:O	1:G:283:HIS:HD2	1.50	0.94
1:F:537:GLN:N	1:H:192:ARG:CG	2.27	0.94
1:F:486:GLN:O	1:F:490:HIS:ND1	2.01	0.94
1:C:282:ARG:CB	1:C:350:TYR:OH	2.16	0.93
1:D:291:LYS:HD3	1:D:378:TYR:CE2	2.02	0.93
1:A:394:GLY:HA2	1:A:426:VAL:HG12	1.47	0.93
1:A:569:GLN:OE1	1:A:632:ARG:NE	2.01	0.93
1:E:513:ILE:HD11	1:E:530:ILE:HG13	1.50	0.93
1:B:144:THR:HG22	1:B:260:LEU:HB2	1.49	0.93
1:F:674:TRP:HB2	1:F:675:MET:SD	2.09	0.93
1:H:286:SER:O	1:H:290:VAL:HG23	1.68	0.93
1:E:566:CYS:O	1:E:566:CYS:SG	2.27	0.93
1:H:662:TRP:HE3	1:H:666:HIS:HE2	0.93	0.93
1:D:363:GLY:N	1:D:364:PRO:HD2	1.84	0.93
1:H:463:THR:HG23	1:H:485:ARG:NH2	1.84	0.93
1:H:277:MET:SD	1:H:306:HIS:ND1	2.42	0.92
1:C:295:ASP:HA	1:C:382:ARG:HH11	1.19	0.92
1:A:525:GLN:C	1:A:526:THR:O	2.04	0.92
1:A:316:ARG:NH1	1:A:330:ALA:O	2.04	0.91
1:F:662:TRP:HE3	1:F:666:HIS:NE2	1.66	0.91
1:H:590:TYR:HB2	1:H:635:CYS:SG	2.10	0.91
1:A:351:TRP:HE1	1:A:357:LYS:HE3	1.36	0.91
1:B:313:GLN:HE22	1:B:420:GLY:HA2	1.36	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:483:SER:O	1:A:486:GLN:OE1	1.87	0.91
1:A:248:SER:OG	1:A:301:LYS:NZ	2.04	0.91
1:D:315:TRP:HZ3	1:D:396:PHE:CZ	1.88	0.91
1:F:277:MET:SD	1:F:306:HIS:ND1	2.44	0.91
1:G:513:ILE:HD12	1:G:543:ALA:HB1	1.50	0.91
1:C:131:GLU:HG3	1:C:659:GLN:OE1	1.69	0.90
1:B:379:ALA:HB1	1:B:384:ILE:O	1.71	0.90
1:H:662:TRP:HE3	1:H:666:HIS:NE2	1.68	0.90
1:B:476:TYR:OH	1:B:487:LEU:N	2.05	0.90
1:E:553:VAL:O	1:E:558:LYS:N	2.05	0.90
1:A:394:GLY:O	1:A:396:PHE:N	2.04	0.90
1:F:626:GLU:O	1:F:630:LEU:HD12	1.70	0.90
1:E:533:TRP:CE2	1:E:534:ASN:OD1	2.25	0.90
1:B:253:ALA:HB2	1:B:260:LEU:CD2	2.02	0.90
1:B:469:ASN:OD1	1:B:472:CYS:SG	2.28	0.90
1:A:285:PHE:O	1:A:286:SER:OG	1.90	0.90
1:B:148:ASN:OD1	1:F:237:SER:O	1.89	0.90
1:B:313:GLN:NE2	1:B:420:GLY:HA2	1.87	0.90
1:B:553:VAL:O	1:B:558:LYS:N	2.05	0.90
1:H:662:TRP:CE3	1:H:666:HIS:NE2	2.39	0.90
1:A:155:ALA:HB2	1:A:208:ASP:OD1	1.70	0.89
1:H:539:GLY:O	1:H:543:ALA:HB3	1.72	0.89
1:A:154:ASN:OD1	1:A:155:ALA:N	2.05	0.89
1:A:193:GLY:O	1:A:195:GLU:OE2	1.89	0.89
1:A:430:ALA:HB3	1:A:472:CYS:SG	2.12	0.89
1:G:590:TYR:HB2	1:G:635:CYS:SG	2.12	0.89
1:A:280:VAL:O	1:A:280:VAL:CG1	2.21	0.89
1:B:662:TRP:CE3	1:B:666:HIS:NE2	2.39	0.89
1:H:372:MET:O	1:H:376:VAL:HG23	1.72	0.89
1:D:291:LYS:HD3	1:D:378:TYR:CD2	2.07	0.89
1:C:553:VAL:O	1:C:558:LYS:N	2.06	0.89
1:A:151:THR:CG2	1:A:195:GLU:O	2.21	0.88
1:B:625:LEU:HD12	1:B:625:LEU:O	1.72	0.88
1:D:553:VAL:O	1:D:558:LYS:N	2.06	0.88
1:E:277:MET:SD	1:E:306:HIS:CE1	2.66	0.88
1:A:332:ARG:NH1	1:A:350:TYR:OH	2.06	0.88
1:C:566:CYS:O	1:C:566:CYS:SG	2.31	0.88
1:C:590:TYR:C	1:C:592:TYR:H	1.72	0.88
1:D:277:MET:SD	1:D:306:HIS:CE1	2.67	0.88
1:F:662:TRP:HE3	1:F:666:HIS:HE2	1.14	0.88
1:G:324:LYS:HA	1:G:327:THR:OG1	1.73	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:289:GLU:O	1:B:292:LYS:N	2.07	0.88
1:A:295:ASP:HA	1:A:382:ARG:NH1	1.89	0.87
1:E:672:ARG:NH2	1:E:676:PRO:O	2.07	0.87
1:H:146:TYR:CE1	1:H:260:LEU:HD11	2.09	0.87
1:E:295:ASP:CG	1:E:382:ARG:HH12	1.78	0.87
1:H:131:GLU:HG3	1:H:659:GLN:OE1	1.74	0.87
1:C:543:ALA:HA	1:C:544:VAL:HG22	1.53	0.87
1:A:365:TYR:HB3	1:A:366:PHE:HD1	1.38	0.87
1:B:277:MET:SD	1:B:306:HIS:ND1	2.48	0.87
1:D:545:LYS:CE	1:D:607:VAL:HG23	2.03	0.87
1:B:277:MET:SD	1:B:306:HIS:CE1	2.68	0.87
1:B:542:LYS:O	1:B:544:VAL:HG13	1.75	0.87
1:C:531:MET:SD	1:C:558:LYS:NZ	2.48	0.87
1:G:469:ASN:OD1	1:G:472:CYS:SG	2.31	0.87
1:A:289:GLU:O	1:A:292:LYS:N	2.08	0.86
1:F:476:TYR:OH	1:F:487:LEU:N	2.07	0.86
1:F:661:GLN:O	1:F:665:ASP:OD1	1.92	0.86
1:C:661:GLN:O	1:C:665:ASP:OD1	1.94	0.86
1:E:324:LYS:HA	1:E:327:THR:OG1	1.75	0.86
1:A:426:VAL:CG1	1:A:461:CYS:SG	2.63	0.86
1:C:662:TRP:CE3	1:C:666:HIS:NE2	2.42	0.86
1:H:566:CYS:SG	1:H:566:CYS:O	2.33	0.86
1:G:476:TYR:OH	1:G:487:LEU:N	2.08	0.86
1:G:662:TRP:CE3	1:G:666:HIS:NE2	2.43	0.86
1:D:392:MET:SD	1:D:396:PHE:CE2	2.68	0.86
1:F:590:TYR:CD2	1:F:649:TRP:HD1	1.93	0.86
1:H:277:MET:SD	1:H:306:HIS:CE1	2.68	0.86
1:G:256:ASN:HD22	1:G:662:TRP:HZ2	1.23	0.86
1:D:289:GLU:O	1:D:292:LYS:N	2.09	0.86
1:D:545:LYS:HE2	1:D:607:VAL:HG23	1.56	0.86
1:D:277:MET:SD	1:D:306:HIS:ND1	2.48	0.86
1:G:289:GLU:O	1:G:292:LYS:N	2.09	0.86
1:A:194:ALA:HB1	1:A:196:LEU:HD22	1.56	0.86
1:A:202:LEU:O	1:A:208:ASP:OD2	1.94	0.86
1:A:473:GLN:O	1:A:477:LYS:HE3	1.75	0.86
1:B:350:TYR:HE2	1:B:617:GLU:HA	1.40	0.86
1:G:277:MET:SD	1:G:306:HIS:CE1	2.69	0.86
1:E:544:VAL:HG11	1:E:547:LEU:HD12	1.56	0.85
1:D:539:GLY:O	1:D:543:ALA:HB3	1.75	0.85
1:D:587:GLU:C	1:D:591:ASN:ND2	2.30	0.85
1:E:144:THR:HG21	1:E:227:ILE:HG23	1.57	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:539:GLY:O	1:B:543:ALA:HB3	1.75	0.85
1:A:531:MET:SD	1:A:558:LYS:NZ	2.49	0.85
1:C:539:GLY:O	1:C:543:ALA:N	2.08	0.85
1:B:662:TRP:HE3	1:B:666:HIS:HE2	1.21	0.85
1:C:277:MET:SD	1:C:306:HIS:ND1	2.50	0.85
1:G:542:LYS:O	1:G:544:VAL:HG13	1.77	0.85
1:A:280:VAL:O	1:A:280:VAL:HG13	1.75	0.85
1:A:294:ILE:HG23	1:A:384:ILE:HD13	1.56	0.85
1:E:643:PRO:O	1:E:645:VAL:N	2.10	0.85
1:F:277:MET:SD	1:F:306:HIS:CE1	2.70	0.85
1:B:291:LYS:HE2	1:B:378:TYR:HD2	1.41	0.85
1:E:289:GLU:O	1:E:292:LYS:N	2.09	0.85
1:F:662:TRP:CE3	1:F:666:HIS:NE2	2.41	0.85
1:A:312:ASP:OD1	1:A:395:HIS:ND1	2.09	0.84
1:E:589:CYS:O	1:E:589:CYS:SG	2.35	0.84
1:F:349:VAL:N	1:F:358:THR:HG1	1.73	0.84
1:C:289:GLU:O	1:C:292:LYS:N	2.10	0.84
1:A:295:ASP:CA	1:A:382:ARG:HH12	1.90	0.84
1:A:372:MET:O	1:A:375:VAL:N	2.10	0.84
1:D:324:LYS:HA	1:D:327:THR:OG1	1.76	0.84
1:D:486:GLN:O	1:D:490:HIS:ND1	2.09	0.84
1:D:542:LYS:O	1:D:544:VAL:HG13	1.78	0.84
1:C:575:GLU:OE2	1:C:673:HIS:NE2	2.09	0.84
1:E:539:GLY:O	1:E:543:ALA:HB3	1.77	0.84
1:B:590:TYR:HB2	1:B:635:CYS:SG	2.17	0.84
1:H:589:CYS:SG	1:H:589:CYS:O	2.35	0.84
1:A:656:LEU:O	1:A:656:LEU:HD13	1.78	0.84
1:C:324:LYS:HA	1:C:327:THR:OG1	1.78	0.84
1:E:662:TRP:CE3	1:E:666:HIS:NE2	2.44	0.84
1:F:559:GLY:O	1:F:562:GLY:N	2.10	0.84
1:G:589:CYS:O	1:G:589:CYS:SG	2.36	0.84
1:A:580:GLY:O	1:A:581:TYR:CG	2.30	0.84
1:B:566:CYS:O	1:B:566:CYS:SG	2.36	0.84
1:E:277:MET:SD	1:E:306:HIS:ND1	2.50	0.84
1:F:324:LYS:HA	1:F:327:THR:OG1	1.78	0.84
1:A:331:THR:HG22	1:A:365:TYR:CZ	2.12	0.84
1:A:603:GLN:O	1:A:607:VAL:HG23	1.78	0.84
1:B:404:PRO:O	1:B:407:SER:OG	1.94	0.84
1:F:537:GLN:H	1:H:192:ARG:HG2	1.04	0.84
1:H:575:GLU:OE2	1:H:673:HIS:NE2	2.09	0.84
1:C:145:LYS:HD2	1:E:216:PRO:HG3	1.57	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:539:GLY:O	1:E:543:ALA:N	2.10	0.83
1:H:262:LEU:O	1:H:263:VAL:HG13	1.78	0.83
1:H:324:LYS:HA	1:H:327:THR:OG1	1.78	0.83
1:B:324:LYS:HA	1:B:327:THR:OG1	1.78	0.83
1:F:544:VAL:HG23	1:F:549:LEU:HD12	1.58	0.83
1:F:566:CYS:O	1:F:566:CYS:SG	2.36	0.83
1:G:566:CYS:O	1:G:566:CYS:SG	2.36	0.83
1:C:392:MET:SD	1:C:427:LEU:HD13	2.19	0.83
1:E:590:TYR:HB2	1:E:635:CYS:SG	2.18	0.83
1:G:539:GLY:O	1:G:543:ALA:N	2.12	0.83
1:F:289:GLU:O	1:F:292:LYS:N	2.11	0.83
1:B:531:MET:SD	1:B:558:LYS:NZ	2.52	0.83
1:A:225:LEU:HD22	1:A:245:ALA:O	1.78	0.82
1:B:262:LEU:O	1:B:263:VAL:HG13	1.79	0.82
1:E:542:LYS:O	1:E:544:VAL:HG13	1.79	0.82
1:H:277:MET:CE	1:H:613:THR:HG22	2.08	0.82
1:D:566:CYS:O	1:D:566:CYS:SG	2.36	0.82
1:G:539:GLY:O	1:G:543:ALA:HB3	1.79	0.82
1:A:209:ASN:O	1:A:231:GLY:HA3	1.79	0.82
1:A:672:ARG:O	1:A:675:MET:N	2.13	0.82
1:F:539:GLY:O	1:F:543:ALA:HB3	1.79	0.82
1:G:531:MET:HG3	1:G:558:LYS:HZ3	1.45	0.82
1:E:295:ASP:HA	1:E:382:ARG:NH1	1.95	0.82
1:A:331:THR:HG22	1:A:365:TYR:CE1	2.14	0.82
1:C:501:THR:HG23	1:C:502:LYS:H	1.43	0.82
1:D:291:LYS:O	1:D:295:ASP:OD1	1.98	0.82
1:C:559:GLY:O	1:C:562:GLY:N	2.12	0.82
1:F:253:ALA:HB2	1:F:260:LEU:HD22	1.62	0.82
1:F:531:MET:SD	1:F:558:LYS:NZ	2.52	0.82
1:F:534:ASN:HB3	1:F:535:PRO:HD2	1.59	0.82
1:H:672:ARG:NH1	1:H:675:MET:O	2.12	0.82
1:C:443:ASP:CA	1:C:446:CYS:SG	2.68	0.81
1:D:539:GLY:O	1:D:543:ALA:N	2.13	0.81
1:A:305:PHE:O	1:A:386:VAL:HA	1.79	0.81
1:C:539:GLY:O	1:C:543:ALA:HB3	1.80	0.81
1:F:412:ARG:O	1:F:414:PRO:HD3	1.79	0.81
1:F:526:THR:CG2	1:F:547:LEU:HB3	2.09	0.81
1:F:539:GLY:O	1:F:543:ALA:N	2.13	0.81
1:H:531:MET:SD	1:H:558:LYS:NZ	2.52	0.81
1:G:534:ASN:O	1:G:535:PRO:C	2.19	0.81
1:B:440:ASN:HA	1:B:443:ASP:OD2	1.80	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:662:TRP:HE3	1:E:666:HIS:HE2	1.23	0.81
1:A:149:THR:O	1:A:150:ASN:HB2	1.81	0.81
1:C:280:VAL:HG12	1:C:308:HIS:O	1.81	0.81
1:C:406:TYR:HB3	1:C:431:ASN:ND2	1.96	0.81
1:C:589:CYS:O	1:C:589:CYS:SG	2.39	0.81
1:E:131:GLU:HB2	1:E:251:GLN:NE2	1.96	0.81
1:E:476:TYR:OH	1:E:487:LEU:N	2.13	0.81
1:A:151:THR:HG21	1:A:195:GLU:O	1.80	0.81
1:D:194:ALA:HB1	1:D:197:ASN:OD1	1.81	0.81
1:D:315:TRP:HZ3	1:D:396:PHE:CE1	1.99	0.81
1:E:262:LEU:O	1:E:263:VAL:HG13	1.81	0.81
1:A:174:VAL:O	1:A:188:ILE:C	2.18	0.81
1:B:256:ASN:HD22	1:B:662:TRP:HZ2	1.29	0.81
1:A:649:TRP:O	1:A:652:PHE:N	2.13	0.80
1:D:589:CYS:O	1:D:589:CYS:SG	2.39	0.80
1:C:315:TRP:CE3	1:C:399:ALA:HB2	2.15	0.80
1:B:147:LEU:HD11	1:F:239:GLU:N	1.97	0.80
1:A:379:ALA:HB1	1:A:384:ILE:O	1.82	0.80
1:D:476:TYR:OH	1:D:487:LEU:N	2.14	0.80
1:D:363:GLY:H	1:D:364:PRO:CD	1.92	0.80
1:F:392:MET:SD	1:F:396:PHE:CE2	2.75	0.80
1:C:569:GLN:NE2	1:C:671:ALA:HB3	1.95	0.80
1:H:545:LYS:HE3	1:H:607:VAL:HG23	1.62	0.80
1:A:276:PHE:HE1	1:A:565:ILE:HD11	1.47	0.80
1:D:513:ILE:HD11	1:D:530:ILE:HG13	1.61	0.80
1:F:542:LYS:O	1:F:544:VAL:HG13	1.81	0.80
1:A:308:HIS:CE1	1:A:311:ASP:OD2	2.35	0.80
1:B:539:GLY:O	1:B:543:ALA:N	2.15	0.79
1:F:534:ASN:O	1:F:535:PRO:C	2.18	0.79
1:F:536:CYS:C	1:H:192:ARG:HG2	2.02	0.79
1:E:534:ASN:O	1:E:535:PRO:C	2.20	0.79
1:A:296:ILE:HG21	1:A:633:LEU:HD21	1.64	0.79
1:B:350:TYR:CE2	1:B:617:GLU:HA	2.17	0.79
1:C:375:VAL:O	1:C:377:ALA:N	2.16	0.79
1:A:625:LEU:HD23	1:A:626:GLU:N	1.98	0.79
1:H:534:ASN:O	1:H:535:PRO:C	2.21	0.79
1:H:590:TYR:HD2	1:H:649:TRP:CD1	2.00	0.79
1:B:363:GLY:N	1:B:364:PRO:HD2	1.96	0.79
1:D:375:VAL:O	1:D:377:ALA:N	2.14	0.79
1:G:672:ARG:O	1:G:675:MET:N	2.16	0.79
1:A:252:LEU:HD11	1:A:265:ILE:CD1	2.13	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:502:LYS:O	1:D:503:ASN:ND2	2.13	0.79
1:B:429:VAL:CG2	1:B:487:LEU:HD13	2.13	0.79
1:D:145:LYS:HD2	1:D:147:LEU:HD13	1.63	0.79
1:E:559:GLY:O	1:E:562:GLY:N	2.16	0.79
1:H:565:ILE:HG22	1:H:632:ARG:HD2	1.64	0.79
1:A:534:ASN:HB3	1:A:535:PRO:HD2	1.65	0.79
1:C:238:THR:O	1:C:241:GLY:N	2.16	0.79
1:D:406:TYR:HD1	1:D:431:ASN:HD21	1.30	0.79
1:H:539:GLY:O	1:H:543:ALA:N	2.16	0.79
1:A:150:ASN:O	1:A:151:THR:OG1	2.01	0.79
1:D:325:LEU:HD22	1:D:399:ALA:HB1	1.65	0.79
1:F:295:ASP:HA	1:F:382:ARG:NH1	1.97	0.79
1:H:396:PHE:O	1:H:400:MET:HG2	1.82	0.79
1:G:262:LEU:O	1:G:263:VAL:HG13	1.83	0.79
1:A:569:GLN:OE1	1:A:632:ARG:CZ	2.31	0.79
1:G:396:PHE:CD1	1:G:399:ALA:HB3	2.17	0.78
1:A:580:GLY:O	1:A:581:TYR:CD2	2.37	0.78
1:B:400:MET:SD	1:B:427:LEU:HD23	2.22	0.78
1:C:282:ARG:O	1:C:350:TYR:OH	2.00	0.78
1:H:302:MET:SD	1:H:637:ALA:HB2	2.24	0.78
1:H:139:CYS:SG	1:H:263:VAL:HG12	2.23	0.78
1:A:566:CYS:SG	1:A:615:TRP:HB2	2.24	0.78
1:C:429:VAL:CG2	1:C:487:LEU:HD13	2.13	0.78
1:F:238:THR:O	1:F:241:GLY:N	2.17	0.78
1:G:238:THR:O	1:G:241:GLY:N	2.17	0.78
1:A:308:HIS:HE1	1:A:311:ASP:OD2	1.66	0.78
1:F:429:VAL:HG23	1:F:487:LEU:HD13	1.66	0.78
1:F:672:ARG:O	1:F:675:MET:N	2.16	0.78
1:A:146:TYR:OH	1:A:249:LEU:HD21	1.83	0.78
1:A:670:TYR:OH	1:A:672:ARG:CZ	2.32	0.78
1:D:317:ALA:HA	1:D:372:MET:HE2	1.66	0.78
1:H:180:ALA:HB3	1:H:256:ASN:HD21	1.48	0.78
1:E:429:VAL:CG2	1:E:487:LEU:HD13	2.13	0.78
1:F:280:VAL:HG12	1:F:308:HIS:O	1.84	0.78
1:H:307:TRP:CZ3	1:H:372:MET:SD	2.77	0.78
1:A:243:PHE:CE2	1:A:383:HIS:CD2	2.72	0.77
1:D:672:ARG:O	1:D:675:MET:N	2.16	0.77
1:D:575:GLU:OE2	1:D:673:HIS:NE2	2.16	0.77
1:H:277:MET:HE2	1:H:613:THR:HG22	1.64	0.77
1:A:534:ASN:O	1:A:535:PRO:C	2.22	0.77
1:A:566:CYS:SG	1:A:615:TRP:O	2.42	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:544:VAL:CG2	1:C:549:LEU:HD12	2.14	0.77
1:E:284:PHE:O	1:E:285:PHE:CG	2.37	0.77
1:C:540:VAL:HG21	1:C:553:VAL:HG22	1.66	0.77
1:H:284:PHE:CD2	1:H:364:PRO:O	2.37	0.77
1:A:540:VAL:O	1:A:545:LYS:HE3	1.85	0.77
1:C:145:LYS:HD3	1:E:216:PRO:HD3	1.66	0.77
1:G:662:TRP:HE3	1:G:666:HIS:HE2	1.31	0.77
1:B:412:ARG:O	1:B:414:PRO:HD3	1.85	0.77
1:A:324:LYS:HA	1:A:327:THR:OG1	1.84	0.77
1:C:295:ASP:CB	1:C:382:ARG:NH1	2.44	0.77
1:C:534:ASN:O	1:C:535:PRO:C	2.22	0.77
1:H:280:VAL:HG12	1:H:308:HIS:O	1.83	0.77
1:H:534:ASN:HB3	1:H:535:PRO:HD2	1.66	0.77
1:H:429:VAL:CG2	1:H:487:LEU:HD13	2.15	0.77
1:A:540:VAL:HG13	1:A:551:ALA:CB	2.15	0.77
1:A:656:LEU:HD22	1:A:659:GLN:HB2	1.65	0.77
1:G:295:ASP:HA	1:G:382:ARG:NH1	2.00	0.77
1:D:534:ASN:HB3	1:D:535:PRO:HD2	1.67	0.77
1:H:256:ASN:HB2	1:H:662:TRP:HZ2	1.48	0.77
1:A:238:THR:O	1:A:241:GLY:N	2.18	0.76
1:A:429:VAL:CG2	1:A:487:LEU:HD13	2.14	0.76
1:C:443:ASP:O	1:C:446:CYS:SG	2.43	0.76
1:D:429:VAL:CG2	1:D:487:LEU:HD13	2.13	0.76
1:B:238:THR:O	1:B:241:GLY:N	2.18	0.76
1:C:253:ALA:HB2	1:C:260:LEU:CD2	2.14	0.76
1:F:586:VAL:HG13	1:F:635:CYS:SG	2.24	0.76
1:E:280:VAL:HG13	1:E:316:ARG:HG3	1.67	0.76
1:H:192:ARG:HD2	1:H:193:GLY:H	1.47	0.76
1:H:238:THR:O	1:H:241:GLY:N	2.18	0.76
1:A:493:LYS:HD2	1:A:520:LEU:O	1.86	0.76
1:A:509:TRP:CZ3	1:A:558:LYS:HD2	2.20	0.76
1:B:534:ASN:O	1:B:535:PRO:C	2.22	0.76
1:E:672:ARG:O	1:E:675:MET:N	2.18	0.76
1:H:476:TYR:HE1	1:H:486:GLN:HB2	1.48	0.76
1:G:544:VAL:HG23	1:G:549:LEU:HD12	1.65	0.76
1:A:528:SER:O	1:A:549:LEU:CD2	2.25	0.76
1:D:534:ASN:O	1:D:535:PRO:C	2.23	0.76
1:F:430:ALA:HB3	1:F:472:CYS:SG	2.25	0.76
1:G:208:ASP:CG	1:G:211:SER:OG	2.24	0.76
1:A:262:LEU:O	1:A:263:VAL:HG13	1.85	0.76
1:B:351:TRP:CD1	1:B:357:LYS:HG3	2.21	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:180:ALA:HB1	1:G:256:ASN:OD1	1.86	0.76
1:B:672:ARG:O	1:B:675:MET:N	2.17	0.76
1:D:238:THR:O	1:D:241:GLY:N	2.19	0.76
1:H:376:VAL:HG13	1:H:451:TYR:HE2	1.50	0.76
1:H:363:GLY:N	1:H:364:PRO:HD2	2.01	0.76
1:H:559:GLY:O	1:H:562:GLY:N	2.19	0.76
1:H:584:ASP:O	1:H:632:ARG:NH1	2.19	0.76
1:H:590:TYR:CD2	1:H:649:TRP:HD1	2.04	0.76
1:A:327:THR:O	1:A:328:VAL:CG2	2.34	0.75
1:B:285:PHE:O	1:B:286:SER:OG	2.04	0.75
1:B:534:ASN:HB3	1:B:535:PRO:HD2	1.69	0.75
1:B:144:THR:CG2	1:B:260:LEU:HB2	2.16	0.75
1:D:302:MET:SD	1:D:637:ALA:HB2	2.26	0.75
1:D:324:LYS:HA	1:D:327:THR:HG1	1.51	0.75
1:B:180:ALA:HB1	1:B:256:ASN:HD21	1.51	0.75
1:C:295:ASP:CA	1:C:382:ARG:HH12	1.88	0.75
1:C:672:ARG:O	1:C:675:MET:N	2.16	0.75
1:F:531:MET:SD	1:F:558:LYS:CE	2.75	0.75
1:H:491:PHE:O	1:H:495:LEU:CD1	2.33	0.75
1:B:486:GLN:O	1:B:490:HIS:ND1	2.18	0.75
1:C:412:ARG:O	1:C:414:PRO:HD3	1.86	0.75
1:F:325:LEU:O	1:F:326:THR:HG23	1.86	0.75
1:D:593:VAL:HG13	1:D:644:GLN:NE2	2.01	0.75
1:B:593:VAL:HG13	1:B:644:GLN:NE2	2.02	0.75
1:A:470:ASP:O	1:A:470:ASP:OD2	2.04	0.75
1:C:252:LEU:O	1:C:254:GLU:N	2.20	0.75
1:F:291:LYS:O	1:F:295:ASP:OD1	2.04	0.75
1:F:589:CYS:O	1:F:589:CYS:SG	2.45	0.75
1:G:375:VAL:O	1:G:377:ALA:N	2.20	0.75
1:D:412:ARG:O	1:D:414:PRO:HD3	1.87	0.75
1:E:238:THR:O	1:E:241:GLY:N	2.20	0.75
1:A:350:TYR:HD1	1:A:418:THR:O	1.69	0.74
1:A:589:CYS:O	1:A:589:CYS:SG	2.45	0.74
1:C:379:ALA:HB1	1:C:384:ILE:O	1.85	0.74
1:C:534:ASN:HB3	1:C:535:PRO:HD2	1.68	0.74
1:G:534:ASN:HB3	1:G:535:PRO:HD2	1.69	0.74
1:F:404:PRO:O	1:F:410:PRO:HB3	1.87	0.74
1:C:302:MET:SD	1:C:637:ALA:HB2	2.27	0.74
1:F:363:GLY:N	1:F:364:PRO:HD2	2.03	0.74
1:G:412:ARG:O	1:G:414:PRO:HD3	1.87	0.74
1:B:545:LYS:CE	1:B:607:VAL:HG23	2.16	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:499:VAL:C	1:B:502:LYS:HB3	2.08	0.74
1:H:177:GLU:O	1:H:181:VAL:HG23	1.88	0.74
1:H:291:LYS:O	1:H:295:ASP:OD1	2.05	0.74
1:C:145:LYS:NZ	1:C:229:ALA:O	2.19	0.74
1:C:192:ARG:HD3	1:C:193:GLY:N	2.03	0.74
1:C:392:MET:SD	1:C:427:LEU:CD1	2.76	0.74
1:H:513:ILE:O	1:H:513:ILE:HG22	1.86	0.74
1:G:244:TYR:HA	1:G:247:GLN:HG3	1.68	0.74
1:D:249:LEU:HD23	1:D:249:LEU:C	2.07	0.74
1:E:390:VAL:HG23	1:E:445:LEU:HD11	1.69	0.74
1:H:351:TRP:O	1:H:352:THR:HG23	1.87	0.74
1:C:391:ASP:O	1:C:396:PHE:CE2	2.41	0.74
1:C:470:ASP:O	1:C:474:GLN:HG3	1.87	0.74
1:E:130:ASP:OD1	1:E:134:SER:OG	2.04	0.74
1:E:391:ASP:O	1:E:396:PHE:CE2	2.41	0.74
1:E:375:VAL:O	1:E:377:ALA:N	2.20	0.74
1:A:273:TYR:CD2	1:A:552:ILE:HD11	2.23	0.74
1:A:331:THR:CG2	1:A:365:TYR:CZ	2.70	0.74
1:F:375:VAL:O	1:F:377:ALA:N	2.21	0.74
1:G:319:ILE:HB	1:G:325:LEU:HD12	1.70	0.74
1:F:429:VAL:CG2	1:F:487:LEU:HD13	2.18	0.73
1:H:391:ASP:O	1:H:396:PHE:CE2	2.41	0.73
1:A:591:ASN:O	1:A:593:VAL:HG23	1.86	0.73
1:D:435:VAL:O	1:D:438:ALA:N	2.22	0.73
1:H:543:ALA:HA	1:H:544:VAL:CG2	2.17	0.73
1:A:670:TYR:OH	1:A:672:ARG:NH2	2.21	0.73
1:F:590:TYR:HB2	1:F:635:CYS:SG	2.28	0.73
1:B:139:CYS:O	1:B:140:GLN:OE1	2.06	0.73
1:E:533:TRP:CZ2	1:E:534:ASN:OD1	2.41	0.73
1:H:545:LYS:HE3	1:H:607:VAL:CG2	2.17	0.73
1:G:253:ALA:HB2	1:G:260:LEU:HD21	1.71	0.73
1:G:392:MET:SD	1:G:427:LEU:HD13	2.28	0.73
1:H:375:VAL:O	1:H:377:ALA:N	2.22	0.73
1:G:232:ILE:HG22	1:G:232:ILE:O	1.89	0.73
1:D:499:VAL:C	1:D:502:LYS:HB3	2.08	0.73
1:D:544:VAL:HG11	1:D:547:LEU:HB2	1.71	0.73
1:F:672:ARG:NH1	1:F:675:MET:O	2.21	0.73
1:C:544:VAL:HG11	1:C:547:LEU:CG	2.19	0.73
1:D:559:GLY:O	1:D:562:GLY:N	2.21	0.73
1:G:312:ASP:O	1:G:398:ALA:HB2	1.89	0.73
1:A:189:PRO:C	1:A:191:PRO:HD2	2.07	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:300:TYR:HE1	1:A:659:GLN:OE1	1.72	0.73
1:C:363:GLY:N	1:C:364:PRO:HD2	2.04	0.72
1:H:212:PHE:HZ	1:H:246:LEU:HD11	1.54	0.72
1:A:149:THR:O	1:A:150:ASN:CB	2.37	0.72
1:C:324:LYS:HB2	1:C:403:TYR:CZ	2.24	0.72
1:E:363:GLY:N	1:E:364:PRO:HD2	2.04	0.72
1:F:499:VAL:HG11	1:F:504:LYS:O	1.89	0.72
1:F:544:VAL:HG21	1:F:547:LEU:HD12	1.71	0.72
1:A:234:VAL:HG12	1:A:242:LYS:HE2	1.71	0.72
1:A:350:TYR:CD1	1:A:418:THR:O	2.41	0.72
1:A:476:TYR:CZ	1:A:487:LEU:HG	2.25	0.72
1:B:220:GLU:HA	1:B:238:THR:OG1	1.88	0.72
1:B:363:GLY:H	1:B:364:PRO:HD2	1.51	0.72
1:C:426:VAL:HG23	1:C:466:TRP:HE1	1.53	0.72
1:D:358:THR:O	1:D:360:LYS:N	2.22	0.72
1:E:553:VAL:O	1:E:553:VAL:HG12	1.89	0.72
1:A:451:TYR:O	1:A:504:LYS:HE2	1.88	0.72
1:A:492:ILE:HG22	1:A:520:LEU:HD11	1.72	0.72
1:H:215:ASP:O	1:H:217:ALA:N	2.21	0.72
1:H:222:ALA:HB1	1:H:268:LYS:HE2	1.69	0.72
1:H:295:ASP:HA	1:H:382:ARG:NH1	2.04	0.72
1:G:358:THR:O	1:G:360:LYS:N	2.23	0.72
1:A:277:MET:HB3	1:A:613:THR:HG22	1.70	0.72
1:C:282:ARG:O	1:C:283:HIS:CD2	2.42	0.72
1:F:553:VAL:CG2	1:F:607:VAL:HG13	2.18	0.72
1:G:201:ARG:CB	1:G:204:LEU:HD12	2.20	0.72
1:G:316:ARG:NH1	1:G:363:GLY:O	2.22	0.72
1:A:324:LYS:O	1:A:326:THR:N	2.22	0.72
1:E:312:ASP:O	1:E:398:ALA:HB2	1.90	0.72
1:A:351:TRP:H	1:A:419:GLY:HA2	1.54	0.72
1:F:456:VAL:O	1:F:456:VAL:HG12	1.89	0.72
1:A:159:TYR:O	1:A:160:ALA:C	2.26	0.72
1:A:358:THR:O	1:A:360:LYS:N	2.23	0.72
1:C:440:ASN:HA	1:C:443:ASP:OD2	1.89	0.72
1:H:384:ILE:HG22	1:H:384:ILE:O	1.89	0.72
1:C:502:LYS:O	1:C:503:ASN:ND2	2.22	0.72
1:H:539:GLY:O	1:H:543:ALA:CB	2.38	0.72
1:G:291:LYS:O	1:G:295:ASP:OD1	2.07	0.72
1:G:544:VAL:HG11	1:G:547:LEU:HD12	1.72	0.72
1:C:256:ASN:HB2	1:C:662:TRP:HZ2	1.55	0.71
1:A:656:LEU:CD2	1:A:659:GLN:HB2	2.20	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:210:ILE:O	1:H:210:ILE:HG22	1.88	0.71
1:A:315:TRP:CE3	1:A:399:ALA:HB2	2.25	0.71
1:A:663:LEU:HD13	1:A:670:TYR:HB3	1.70	0.71
1:A:162:GLY:O	1:A:163:ASN:C	2.28	0.71
1:G:319:ILE:HG23	1:G:444:GLU:HG3	1.71	0.71
1:A:375:VAL:O	1:A:377:ALA:N	2.23	0.71
1:A:545:LYS:HE2	1:A:607:VAL:HG22	1.73	0.71
1:B:375:VAL:O	1:B:377:ALA:N	2.23	0.71
1:B:559:GLY:O	1:B:562:GLY:N	2.23	0.71
1:A:174:VAL:O	1:A:188:ILE:O	2.09	0.71
1:B:291:LYS:HE2	1:B:378:TYR:CD2	2.24	0.71
1:B:358:THR:O	1:B:360:LYS:N	2.23	0.71
1:C:277:MET:SD	1:C:306:HIS:CE1	2.84	0.71
1:C:400:MET:SD	1:C:427:LEU:HD23	2.31	0.71
1:E:324:LYS:HB2	1:E:403:TYR:CZ	2.25	0.71
1:A:553:VAL:O	1:A:610:VAL:HA	1.90	0.71
1:E:358:THR:O	1:E:360:LYS:N	2.24	0.71
1:G:400:MET:SD	1:G:427:LEU:HD23	2.30	0.71
1:A:549:LEU:O	1:A:550:PRO:O	2.09	0.71
1:G:253:ALA:HB2	1:G:260:LEU:CD2	2.21	0.71
1:G:294:ILE:HD11	1:G:375:VAL:HG13	1.73	0.71
1:G:559:GLY:O	1:G:562:GLY:N	2.24	0.71
1:B:513:ILE:HD12	1:B:543:ALA:HB1	1.71	0.70
1:C:429:VAL:HG23	1:C:487:LEU:HD13	1.72	0.70
1:E:220:GLU:CA	1:E:238:THR:OG1	2.34	0.70
1:H:223:TYR:CZ	1:H:267:ASP:HB3	2.26	0.70
1:H:456:VAL:O	1:H:456:VAL:HG12	1.89	0.70
1:G:192:ARG:HD3	1:G:193:GLY:N	2.06	0.70
1:G:531:MET:SD	1:G:558:LYS:CE	2.79	0.70
1:A:424:SER:O	1:A:424:SER:OG	2.06	0.70
1:D:674:TRP:HB2	1:D:675:MET:SD	2.31	0.70
1:F:499:VAL:CG1	1:F:504:LYS:O	2.39	0.70
1:H:139:CYS:SG	1:H:263:VAL:CG1	2.79	0.70
1:A:648:ASN:OD1	1:A:650:ASP:CG	2.28	0.70
1:E:308:HIS:CE1	1:E:389:GLU:OE2	2.44	0.70
1:G:638:GLU:O	1:G:641:TRP:N	2.24	0.70
1:A:303:ASN:O	1:A:384:ILE:CA	2.36	0.70
1:E:499:VAL:C	1:E:502:LYS:HB3	2.10	0.70
1:G:326:THR:HB	1:G:366:PHE:CD2	2.26	0.70
1:G:351:TRP:O	1:G:352:THR:HG23	1.90	0.70
1:G:502:LYS:O	1:G:503:ASN:ND2	2.20	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:535:PRO:HB3	1:G:538:GLU:HB2	1.73	0.70
1:C:396:PHE:CD1	1:C:427:LEU:HD11	2.26	0.70
1:H:542:LYS:O	1:H:544:VAL:HG13	1.91	0.70
1:H:513:ILE:CD1	1:H:543:ALA:HB1	2.21	0.70
1:G:513:ILE:HD12	1:G:543:ALA:CB	2.22	0.70
1:A:193:GLY:O	1:A:195:GLU:N	2.24	0.70
1:C:139:CYS:SG	1:C:263:VAL:HG12	2.32	0.70
1:C:476:TYR:HH	1:C:487:LEU:H	1.36	0.70
1:E:593:VAL:HG13	1:E:644:GLN:NE2	2.06	0.70
1:A:616:THR:O	1:A:617:GLU:C	2.30	0.70
1:F:537:GLN:H	1:H:192:ARG:CD	2.05	0.70
1:F:638:GLU:O	1:F:641:TRP:N	2.24	0.70
1:H:324:LYS:HB2	1:H:403:TYR:CZ	2.27	0.70
1:H:351:TRP:HE1	1:H:357:LYS:HE3	1.57	0.70
1:C:295:ASP:HB3	1:C:382:ARG:HH12	1.57	0.70
1:A:163:ASN:HB3	1:A:239:GLU:OE2	1.92	0.70
1:A:485:ARG:HH11	1:A:488:GLN:HE21	1.37	0.70
1:C:590:TYR:C	1:C:592:TYR:N	2.45	0.70
1:F:278:LEU:CD2	1:F:290:VAL:HG22	2.22	0.70
1:F:358:THR:O	1:F:360:LYS:N	2.25	0.70
1:G:543:ALA:HA	1:G:544:VAL:CG2	2.22	0.70
1:A:273:TYR:HD2	1:A:552:ILE:HD11	1.55	0.69
1:A:401:ALA:HA	1:A:414:PRO:HG2	1.73	0.69
1:A:540:VAL:HG13	1:A:551:ALA:HB3	1.72	0.69
1:A:566:CYS:SG	1:A:615:TRP:N	2.63	0.69
1:C:435:VAL:O	1:C:438:ALA:N	2.24	0.69
1:C:544:VAL:HG11	1:C:547:LEU:CD1	2.22	0.69
1:C:622:ASN:O	1:C:623:GLU:C	2.30	0.69
1:D:545:LYS:CE	1:D:607:VAL:CG2	2.70	0.69
1:A:390:VAL:O	1:A:392:MET:HG2	1.91	0.69
1:F:302:MET:SD	1:F:637:ALA:HB2	2.32	0.69
1:H:470:ASP:O	1:H:473:GLN:N	2.24	0.69
1:A:507:VAL:O	1:A:508:CYS:SG	2.49	0.69
1:D:638:GLU:O	1:D:641:TRP:N	2.24	0.69
1:E:284:PHE:O	1:E:285:PHE:CD2	2.44	0.69
1:E:435:VAL:O	1:E:438:ALA:N	2.25	0.69
1:F:590:TYR:CD2	1:F:649:TRP:CD1	2.79	0.69
1:H:390:VAL:HG23	1:H:445:LEU:HD11	1.74	0.69
1:B:400:MET:CE	1:B:407:SER:CB	2.70	0.69
1:B:435:VAL:O	1:B:438:ALA:N	2.25	0.69
1:C:283:HIS:NE2	1:C:350:TYR:HE1	1.91	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:542:LYS:O	1:C:544:VAL:HG13	1.92	0.69
1:E:643:PRO:O	1:E:644:GLN:C	2.31	0.69
1:G:324:LYS:HB2	1:G:403:TYR:CZ	2.28	0.69
1:G:559:GLY:O	1:G:561:GLY:N	2.26	0.69
1:B:280:VAL:HG21	1:B:367:TYR:OH	1.92	0.69
1:C:253:ALA:O	1:C:257:ALA:HA	1.92	0.69
1:E:513:ILE:HG22	1:E:513:ILE:O	1.91	0.69
1:F:202:LEU:H	1:F:202:LEU:HD12	1.57	0.69
1:F:270:ARG:HH22	1:F:604:MET:HE2	1.57	0.69
1:G:256:ASN:ND2	1:G:662:TRP:HZ2	1.91	0.69
1:G:544:VAL:HG11	1:G:547:LEU:CG	2.21	0.69
1:A:304:VAL:HA	1:A:385:GLU:O	1.91	0.69
1:B:284:PHE:HE1	1:B:367:TYR:CZ	2.10	0.69
1:E:534:ASN:HB3	1:E:535:PRO:HD2	1.74	0.69
1:E:539:GLY:O	1:E:543:ALA:CB	2.40	0.69
1:F:252:LEU:HD11	1:F:265:ILE:HD11	1.75	0.69
1:C:544:VAL:HG11	1:C:547:LEU:HD12	1.72	0.69
1:E:502:LYS:O	1:E:503:ASN:ND2	2.18	0.69
1:F:210:ILE:O	1:F:210:ILE:HG22	1.92	0.69
1:F:533:TRP:CE3	1:F:534:ASN:OD1	2.46	0.69
1:G:379:ALA:HB1	1:G:384:ILE:O	1.93	0.69
1:A:476:TYR:CE1	1:A:484:TYR:HA	2.26	0.69
1:B:543:ALA:HA	1:B:544:VAL:CG2	2.21	0.69
1:C:249:LEU:C	1:C:249:LEU:HD23	2.13	0.69
1:C:672:ARG:NH1	1:C:675:MET:O	2.26	0.69
1:D:201:ARG:CB	1:D:204:LEU:HD12	2.22	0.69
1:F:507:VAL:O	1:F:508:CYS:SG	2.51	0.69
1:H:638:GLU:O	1:H:641:TRP:N	2.24	0.69
1:G:215:ASP:O	1:G:217:ALA:N	2.25	0.69
1:A:140:GLN:HB2	1:A:262:LEU:HB2	1.74	0.69
1:B:502:LYS:O	1:B:503:ASN:ND2	2.24	0.69
1:F:131:GLU:HG3	1:F:659:GLN:OE1	1.93	0.69
1:C:675:MET:SD	1:C:675:MET:N	2.66	0.69
1:F:253:ALA:O	1:F:257:ALA:HA	1.92	0.69
1:H:463:THR:HG21	1:H:484:TYR:HB2	1.74	0.69
1:H:593:VAL:HG13	1:H:644:GLN:NE2	2.08	0.69
1:A:396:PHE:HE2	1:A:427:LEU:HD12	1.59	0.68
1:A:630:LEU:HD21	1:A:633:LEU:HD23	1.75	0.68
1:B:456:VAL:O	1:B:456:VAL:HG12	1.92	0.68
1:D:437:PHE:O	1:D:441:ILE:HG13	1.94	0.68
1:D:543:ALA:HA	1:D:544:VAL:CG2	2.21	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:537:GLN:HB2	1:H:192:ARG:HD3	1.73	0.68
1:A:155:ALA:HB3	1:A:211:SER:HA	1.73	0.68
1:B:334:ASP:O	1:B:335:ASN:O	2.10	0.68
1:C:365:TYR:O	1:C:366:PHE:O	2.11	0.68
1:F:499:VAL:C	1:F:502:LYS:HB3	2.14	0.68
1:F:535:PRO:HB3	1:F:538:GLU:HB2	1.75	0.68
1:H:493:LYS:O	1:H:494:ASP:C	2.31	0.68
1:B:208:ASP:CG	1:B:211:SER:OG	2.32	0.68
1:B:313:GLN:NE2	1:B:420:GLY:CA	2.56	0.68
1:B:351:TRP:O	1:B:352:THR:HG23	1.93	0.68
1:C:312:ASP:O	1:C:398:ALA:HB2	1.94	0.68
1:D:493:LYS:O	1:D:494:ASP:C	2.31	0.68
1:D:539:GLY:O	1:D:543:ALA:CB	2.40	0.68
1:D:544:VAL:HG11	1:D:547:LEU:HD12	1.75	0.68
1:E:543:ALA:HA	1:E:544:VAL:CG2	2.20	0.68
1:G:499:VAL:C	1:G:502:LYS:HB3	2.13	0.68
1:B:638:GLU:O	1:B:641:TRP:N	2.25	0.68
1:F:223:TYR:CZ	1:F:267:ASP:HB3	2.28	0.68
1:F:319:ILE:HG23	1:F:444:GLU:HG3	1.75	0.68
1:A:533:TRP:CE3	1:A:534:ASN:ND2	2.62	0.68
1:C:493:LYS:O	1:C:494:ASP:C	2.32	0.68
1:E:638:GLU:O	1:E:641:TRP:N	2.27	0.68
1:G:302:MET:SD	1:G:637:ALA:HB2	2.34	0.68
1:A:412:ARG:O	1:A:414:PRO:HD3	1.93	0.68
1:C:543:ALA:HA	1:C:544:VAL:CG2	2.24	0.68
1:A:529:THR:HG22	1:A:529:THR:O	1.93	0.68
1:A:631:PRO:C	1:A:634:ILE:HD12	2.12	0.68
1:A:663:LEU:HD13	1:A:670:TYR:CB	2.23	0.68
1:B:400:MET:HE3	1:B:407:SER:HB2	1.75	0.68
1:B:586:VAL:HG13	1:B:635:CYS:SG	2.34	0.68
1:C:638:GLU:O	1:C:641:TRP:N	2.26	0.68
1:F:543:ALA:HA	1:F:544:VAL:CG2	2.22	0.68
1:A:435:VAL:O	1:A:438:ALA:N	2.26	0.68
1:B:215:ASP:O	1:B:217:ALA:N	2.25	0.68
1:B:294:ILE:HG23	1:B:384:ILE:HD13	1.76	0.68
1:B:315:TRP:CE3	1:B:399:ALA:HB2	2.29	0.68
1:C:295:ASP:HA	1:C:382:ARG:HH12	1.46	0.68
1:C:507:VAL:O	1:C:508:CYS:SG	2.52	0.68
1:F:592:TYR:HE1	1:H:192:ARG:HH22	1.41	0.68
1:A:189:PRO:O	1:A:191:PRO:HD2	1.94	0.68
1:F:284:PHE:HE1	1:F:367:TYR:CZ	2.12	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:531:MET:SD	1:G:558:LYS:HE2	2.34	0.68
1:A:130:ASP:OD2	1:A:252:LEU:HD21	1.94	0.68
1:C:262:LEU:O	1:C:263:VAL:HG13	1.93	0.68
1:C:294:ILE:HD11	1:C:375:VAL:HG13	1.75	0.68
1:C:476:TYR:OH	1:C:486:GLN:C	2.32	0.68
1:E:351:TRP:O	1:E:352:THR:HG23	1.93	0.68
1:A:485:ARG:NH1	1:A:488:GLN:NE2	2.42	0.67
1:B:539:GLY:O	1:B:543:ALA:CB	2.40	0.67
1:C:358:THR:O	1:C:360:LYS:N	2.27	0.67
1:D:672:ARG:O	1:D:673:HIS:C	2.32	0.67
1:F:544:VAL:HG11	1:F:547:LEU:HD12	1.76	0.67
1:F:218:LEU:HB2	1:F:237:SER:HB2	1.74	0.67
1:H:540:VAL:HG21	1:H:553:VAL:HG22	1.75	0.67
1:G:672:ARG:O	1:G:673:HIS:C	2.32	0.67
1:A:131:GLU:HB2	1:A:659:GLN:HE22	1.59	0.67
1:A:487:LEU:O	1:A:491:PHE:N	2.27	0.67
1:F:513:ILE:O	1:F:513:ILE:HG22	1.94	0.67
1:G:531:MET:CG	1:G:558:LYS:HZ3	2.07	0.67
1:A:276:PHE:CE1	1:A:565:ILE:HD11	2.30	0.67
1:A:533:TRP:CZ3	1:A:534:ASN:ND2	2.61	0.67
1:B:201:ARG:HH11	1:B:207:MET:CE	2.07	0.67
1:C:145:LYS:CD	1:E:216:PRO:HD3	2.24	0.67
1:E:513:ILE:HD12	1:E:543:ALA:HB1	1.75	0.67
1:H:429:VAL:HG21	1:H:487:LEU:HB3	1.76	0.67
1:G:280:VAL:HG13	1:G:316:ARG:HG3	1.76	0.67
1:A:215:ASP:O	1:A:217:ALA:N	2.28	0.67
1:B:622:ASN:O	1:B:623:GLU:C	2.32	0.67
1:D:315:TRP:CZ3	1:D:396:PHE:CE1	2.82	0.67
1:D:531:MET:SD	1:D:558:LYS:NZ	2.61	0.67
1:F:435:VAL:O	1:F:438:ALA:N	2.28	0.67
1:H:476:TYR:HH	1:H:487:LEU:H	1.41	0.67
1:A:509:TRP:CZ3	1:A:558:LYS:CD	2.78	0.67
1:B:488:GLN:O	1:B:492:ILE:HD12	1.94	0.67
1:C:470:ASP:OD2	1:C:473:GLN:OE1	2.12	0.67
1:E:240:LYS:HA	1:E:383:HIS:ND1	2.10	0.67
1:E:256:ASN:HB2	1:E:662:TRP:CZ2	2.30	0.67
1:E:215:ASP:O	1:E:217:ALA:N	2.26	0.67
1:E:285:PHE:O	1:E:286:SER:OG	2.08	0.67
1:F:212:PHE:CZ	1:F:246:LEU:HD11	2.30	0.67
1:B:228:THR:HA	1:B:262:LEU:HD22	1.75	0.67
1:B:333:SER:O	1:B:334:ASP:CG	2.32	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:456:VAL:O	1:C:456:VAL:HG12	1.95	0.67
1:F:390:VAL:CG2	1:F:445:LEU:HD11	2.25	0.67
1:A:148:ASN:N	1:A:148:ASN:OD1	2.25	0.67
1:A:485:ARG:NH1	1:A:488:GLN:HE21	1.93	0.67
1:A:513:ILE:O	1:A:515:ALA:N	2.28	0.67
1:B:402:ALA:O	1:B:403:TYR:HD1	1.75	0.67
1:B:479:LEU:CD1	1:B:490:HIS:CE1	2.77	0.67
1:C:545:LYS:HE3	1:C:607:VAL:CG2	2.25	0.67
1:H:502:LYS:O	1:H:503:ASN:ND2	2.24	0.67
1:A:332:ARG:NH2	1:A:350:TYR:OH	2.27	0.67
1:A:533:TRP:HE3	1:A:560:ASP:OD1	1.78	0.67
1:C:283:HIS:HE2	1:C:350:TYR:HE1	1.43	0.67
1:D:317:ALA:HA	1:D:372:MET:CE	2.24	0.67
1:E:282:ARG:HA	1:E:350:TYR:OH	1.95	0.67
1:E:294:ILE:HD11	1:E:375:VAL:HG13	1.77	0.67
1:E:372:MET:O	1:E:376:VAL:HG23	1.95	0.67
1:H:271:PHE:CD1	1:H:640:GLY:O	2.48	0.67
1:A:198:GLY:O	1:A:199:GLU:C	2.33	0.66
1:A:313:GLN:HG2	1:A:350:TYR:CE1	2.29	0.66
1:C:250:ALA:O	1:C:254:GLU:O	2.13	0.66
1:E:130:ASP:OD2	1:E:248:SER:HA	1.95	0.66
1:H:435:VAL:O	1:H:438:ALA:N	2.28	0.66
1:G:435:VAL:O	1:G:438:ALA:N	2.28	0.66
1:G:622:ASN:O	1:G:623:GLU:C	2.33	0.66
1:B:198:GLY:O	1:B:199:GLU:C	2.34	0.66
1:B:253:ALA:HB2	1:B:260:LEU:HD23	1.77	0.66
1:B:302:MET:SD	1:B:637:ALA:HB2	2.34	0.66
1:F:593:VAL:HG13	1:F:644:GLN:NE2	2.10	0.66
1:H:443:ASP:HA	1:H:446:CYS:SG	2.35	0.66
1:A:307:TRP:CZ3	1:A:375:VAL:HG11	2.30	0.66
1:A:351:TRP:O	1:A:352:THR:HG23	1.95	0.66
1:A:531:MET:SD	1:A:558:LYS:CE	2.84	0.66
1:B:139:CYS:C	1:B:140:GLN:OE1	2.33	0.66
1:C:544:VAL:HG11	1:C:547:LEU:HG	1.75	0.66
1:E:520:LEU:HD21	1:E:528:SER:HB2	1.77	0.66
1:H:303:ASN:O	1:H:384:ILE:HG23	1.95	0.66
1:A:324:LYS:O	1:A:327:THR:N	2.28	0.66
1:C:147:LEU:HD12	1:E:215:ASP:OD1	1.95	0.66
1:D:296:ILE:HG12	1:D:668:TYR:CZ	2.31	0.66
1:D:587:GLU:CG	1:D:591:ASN:HD21	2.09	0.66
1:D:652:PHE:O	1:D:653:ARG:C	2.33	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:537:GLN:HB2	1:H:192:ARG:HB2	1.77	0.66
1:F:672:ARG:O	1:F:673:HIS:C	2.34	0.66
1:A:603:GLN:O	1:A:607:VAL:CG2	2.43	0.66
1:B:553:VAL:HG23	1:B:607:VAL:HG13	1.77	0.66
1:B:672:ARG:O	1:B:673:HIS:C	2.33	0.66
1:C:319:ILE:HG23	1:C:444:GLU:HG3	1.77	0.66
1:D:256:ASN:HB2	1:D:662:TRP:HZ2	1.59	0.66
1:F:539:GLY:O	1:F:543:ALA:CB	2.43	0.66
1:G:286:SER:O	1:G:290:VAL:HG23	1.95	0.66
1:E:285:PHE:CE2	1:E:616:THR:HG21	2.30	0.66
1:A:244:TYR:HA	1:A:247:GLN:HG3	1.77	0.66
1:C:660:THR:HG21	1:C:675:MET:HG3	1.75	0.66
1:F:471:LEU:HA	1:F:474:GLN:OE1	1.95	0.66
1:F:493:LYS:O	1:F:494:ASP:C	2.33	0.66
1:H:531:MET:HG2	1:H:531:MET:O	1.95	0.66
1:H:622:ASN:O	1:H:623:GLU:C	2.34	0.66
1:A:531:MET:O	1:A:531:MET:HG2	1.95	0.66
1:E:281:SER:OG	1:E:311:ASP:HB2	1.96	0.66
1:C:215:ASP:O	1:C:217:ALA:N	2.24	0.66
1:C:223:TYR:CZ	1:C:267:ASP:HB3	2.30	0.66
1:D:146:TYR:N	1:D:146:TYR:CD1	2.64	0.66
1:G:539:GLY:O	1:G:543:ALA:CB	2.44	0.66
1:A:156:THR:HA	1:A:212:PHE:HB2	1.78	0.66
1:B:277:MET:CE	1:B:613:THR:HG22	2.26	0.66
1:D:470:ASP:O	1:D:474:GLN:CD	2.34	0.66
1:B:429:VAL:HG21	1:B:487:LEU:HB3	1.78	0.65
1:E:429:VAL:HG23	1:E:487:LEU:HD13	1.78	0.65
1:H:672:ARG:O	1:H:674:TRP:N	2.29	0.65
1:G:357:LYS:HD3	1:G:418:THR:HB	1.78	0.65
1:G:544:VAL:HG11	1:G:547:LEU:CD1	2.25	0.65
1:A:593:VAL:HG13	1:A:644:GLN:NE2	2.11	0.65
1:C:130:ASP:OD1	1:C:131:GLU:N	2.29	0.65
1:F:622:ASN:O	1:F:623:GLU:C	2.34	0.65
1:C:282:ARG:NH1	1:C:617:GLU:OE2	2.29	0.65
1:D:642:THR:O	1:D:647:LYS:HE2	1.96	0.65
1:F:215:ASP:O	1:F:217:ALA:N	2.28	0.65
1:H:247:GLN:OE1	1:H:299:ARG:HA	1.97	0.65
1:G:439:LYS:HE2	1:G:498:PHE:CD2	2.31	0.65
1:A:288:ALA:O	1:A:292:LYS:HG3	1.94	0.65
1:A:393:PRO:HG3	1:A:429:VAL:HG11	1.78	0.65
1:A:488:GLN:O	1:A:492:ILE:HD12	1.96	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:358:THR:O	1:C:359:GLY:C	2.35	0.65
1:C:539:GLY:O	1:C:543:ALA:CB	2.44	0.65
1:D:622:ASN:O	1:D:623:GLU:C	2.34	0.65
1:F:262:LEU:O	1:F:263:VAL:CG1	2.38	0.65
1:B:593:VAL:HG13	1:B:644:GLN:HE21	1.60	0.65
1:G:674:TRP:HB2	1:G:675:MET:SD	2.36	0.65
1:D:278:LEU:CD2	1:D:290:VAL:HG22	2.27	0.65
1:E:173:LYS:HD2	1:E:196:LEU:HB2	1.77	0.65
1:F:284:PHE:CB	1:F:364:PRO:O	2.44	0.65
1:F:312:ASP:O	1:F:398:ALA:HB2	1.97	0.65
1:F:475:LYS:HG2	1:F:487:LEU:HD21	1.79	0.65
1:H:490:HIS:CD2	1:H:519:ASP:HB3	2.31	0.65
1:H:661:GLN:O	1:H:665:ASP:OD1	2.15	0.65
1:A:243:PHE:HZ	1:A:383:HIS:HE2	1.31	0.65
1:A:249:LEU:HD23	1:A:249:LEU:C	2.17	0.65
1:C:500:ALA:HA	1:C:502:LYS:HG2	1.78	0.65
1:D:406:TYR:HD1	1:D:431:ASN:ND2	1.95	0.65
1:F:333:SER:O	1:F:334:ASP:OD2	2.15	0.65
1:F:379:ALA:HB1	1:F:384:ILE:O	1.97	0.65
1:G:276:PHE:HE1	1:G:565:ILE:HD11	1.62	0.65
1:A:674:TRP:HB2	1:A:675:MET:SD	2.37	0.65
1:B:485:ARG:HG2	1:B:514:THR:O	1.97	0.65
1:F:253:ALA:CB	1:F:260:LEU:HD22	2.26	0.65
1:H:544:VAL:HG11	1:H:547:LEU:HD12	1.77	0.65
1:A:193:GLY:O	1:A:195:GLU:HG2	1.96	0.65
1:A:675:MET:N	1:A:675:MET:SD	2.70	0.65
1:B:201:ARG:HG2	1:F:503:ASN:OD1	1.96	0.65
1:B:493:LYS:O	1:B:494:ASP:C	2.34	0.65
1:E:473:GLN:O	1:E:477:LYS:HE3	1.96	0.65
1:F:429:VAL:HG21	1:F:487:LEU:HB3	1.79	0.65
1:B:391:ASP:O	1:B:396:PHE:CE2	2.50	0.64
1:B:545:LYS:NZ	1:B:604:MET:SD	2.70	0.64
1:B:672:ARG:NH1	1:B:675:MET:O	2.29	0.64
1:C:501:THR:HG23	1:C:502:LYS:N	2.11	0.64
1:D:253:ALA:O	1:D:257:ALA:HA	1.97	0.64
1:E:672:ARG:O	1:E:673:HIS:C	2.35	0.64
1:F:531:MET:SD	1:F:558:LYS:HE2	2.37	0.64
1:F:531:MET:O	1:F:531:MET:HG2	1.96	0.64
1:H:379:ALA:HB1	1:H:384:ILE:O	1.96	0.64
1:H:487:LEU:O	1:H:491:PHE:N	2.30	0.64
1:A:282:ARG:C	1:A:332:ARG:HH12	2.00	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:622:ASN:O	1:A:623:GLU:C	2.34	0.64
1:D:198:GLY:O	1:D:199:GLU:C	2.35	0.64
1:A:169:PHE:O	1:A:172:TYR:N	2.31	0.64
1:A:385:GLU:OE2	1:A:451:TYR:HD1	1.79	0.64
1:B:487:LEU:O	1:B:491:PHE:N	2.29	0.64
1:C:502:LYS:O	1:C:503:ASN:CG	2.35	0.64
1:D:313:GLN:NE2	1:D:419:GLY:O	2.30	0.64
1:E:675:MET:SD	1:E:675:MET:N	2.69	0.64
1:H:180:ALA:HB1	1:H:256:ASN:OD1	1.98	0.64
1:H:271:PHE:HD1	1:H:640:GLY:O	1.80	0.64
1:G:223:TYR:HH	1:G:248:SER:HG	1.44	0.64
1:G:249:LEU:HD23	1:G:249:LEU:C	2.17	0.64
1:G:295:ASP:CG	1:G:382:ARG:HH12	2.00	0.64
1:B:312:ASP:O	1:B:398:ALA:HB2	1.98	0.64
1:D:282:ARG:C	1:D:350:TYR:OH	2.35	0.64
1:F:220:GLU:HA	1:F:238:THR:OG1	1.98	0.64
1:F:553:VAL:HG23	1:F:607:VAL:HG13	1.80	0.64
1:H:491:PHE:O	1:H:495:LEU:HD12	1.98	0.64
1:A:318:GLU:OE1	1:A:369:GLN:HG3	1.97	0.64
1:A:546:LYS:HG3	1:A:603:GLN:HE21	1.63	0.64
1:C:351:TRP:O	1:C:352:THR:HG23	1.96	0.64
1:D:220:GLU:HA	1:D:238:THR:OG1	1.96	0.64
1:H:476:TYR:CE1	1:H:486:GLN:HB2	2.32	0.64
1:G:220:GLU:HA	1:G:238:THR:OG1	1.97	0.64
1:G:493:LYS:O	1:G:494:ASP:C	2.34	0.64
1:A:332:ARG:NH1	1:A:350:TYR:HH	1.94	0.64
1:B:400:MET:SD	1:B:427:LEU:CD2	2.85	0.64
1:C:672:ARG:O	1:C:673:HIS:C	2.36	0.64
1:D:513:ILE:CD1	1:D:543:ALA:HB1	2.27	0.64
1:F:553:VAL:O	1:F:558:LYS:N	2.29	0.64
1:H:198:GLY:O	1:H:199:GLU:C	2.35	0.64
1:H:392:MET:SD	1:H:427:LEU:HD13	2.38	0.64
1:A:324:LYS:HG3	1:A:403:TYR:OH	1.98	0.64
1:B:323:PRO:O	1:B:327:THR:OG1	2.16	0.64
1:D:513:ILE:O	1:D:513:ILE:HG22	1.97	0.64
1:D:662:TRP:CE3	1:D:666:HIS:NE2	2.50	0.64
1:H:179:ILE:O	1:H:180:ALA:HB2	1.98	0.64
1:H:505:HIS:C	1:H:506:LEU:HD23	2.18	0.64
1:D:442:LEU:O	1:D:446:CYS:SG	2.56	0.64
1:E:549:LEU:O	1:E:550:PRO:O	2.15	0.64
1:A:312:ASP:OD2	1:A:423:SER:CB	2.46	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:569:GLN:OE1	1:A:628:LEU:O	2.16	0.64
1:A:586:VAL:O	1:A:649:TRP:CZ2	2.51	0.64
1:B:386:VAL:HB	1:B:451:TYR:CE2	2.33	0.64
1:D:406:TYR:HB3	1:D:434:ALA:HB2	1.79	0.64
1:E:198:GLY:O	1:E:199:GLU:C	2.35	0.64
1:F:282:ARG:NH1	1:F:617:GLU:OE2	2.30	0.64
1:G:179:ILE:HG22	1:G:179:ILE:O	1.97	0.64
1:G:312:ASP:OD2	1:G:423:SER:CB	2.46	0.64
1:A:386:VAL:HB	1:A:451:TYR:CE2	2.33	0.64
1:A:408:CYS:SG	1:A:428:ASN:HB2	2.38	0.64
1:B:485:ARG:HG3	1:B:515:ALA:HB2	1.79	0.64
1:C:220:GLU:HA	1:C:238:THR:OG1	1.98	0.64
1:D:575:GLU:OE2	1:D:673:HIS:CE1	2.51	0.64
1:F:502:LYS:O	1:F:503:ASN:ND2	2.21	0.64
1:A:196:LEU:O	1:A:197:ASN:C	2.36	0.63
1:A:672:ARG:O	1:A:673:HIS:C	2.35	0.63
1:H:276:PHE:CE2	1:H:293:MET:HE2	2.33	0.63
1:H:513:ILE:HD11	1:H:530:ILE:HG13	1.80	0.63
1:D:587:GLU:O	1:D:589:CYS:N	2.31	0.63
1:F:295:ASP:CG	1:F:382:ARG:HH12	2.01	0.63
1:G:567:ARG:HG2	1:G:579:ALA:HB3	1.80	0.63
1:A:363:GLY:C	1:A:365:TYR:H	2.01	0.63
1:A:155:ALA:HB2	1:A:208:ASP:CG	2.18	0.63
1:B:253:ALA:O	1:B:257:ALA:HA	1.98	0.63
1:B:587:GLU:O	1:B:589:CYS:N	2.31	0.63
1:G:579:ALA:O	1:G:580:GLY:O	2.17	0.63
1:A:166:TRP:O	1:A:170:TYR:N	2.30	0.63
1:A:252:LEU:HD11	1:A:265:ILE:HD11	1.80	0.63
1:A:307:TRP:CH2	1:A:375:VAL:HG11	2.34	0.63
1:A:662:TRP:O	1:A:665:ASP:N	2.32	0.63
1:B:526:THR:HG21	1:B:547:LEU:HB3	1.81	0.63
1:C:426:VAL:CG2	1:C:466:TRP:HE1	2.11	0.63
1:E:204:LEU:CD2	1:E:206:ALA:HB3	2.28	0.63
1:E:493:LYS:O	1:E:494:ASP:C	2.35	0.63
1:A:312:ASP:OD2	1:A:423:SER:HB3	1.97	0.63
1:C:291:LYS:O	1:C:295:ASP:OD1	2.16	0.63
1:C:400:MET:HE2	1:C:427:LEU:HA	1.80	0.63
1:C:569:GLN:NE2	1:C:671:ALA:CB	2.61	0.63
1:D:312:ASP:O	1:D:398:ALA:HB2	1.99	0.63
1:D:603:GLN:O	1:D:606:LEU:N	2.31	0.63
1:F:180:ALA:HB1	1:F:256:ASN:ND2	2.12	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:315:TRP:CE3	1:H:399:ALA:HB2	2.34	0.63
1:H:471:LEU:HA	1:H:474:GLN:OE1	1.99	0.63
1:G:487:LEU:O	1:G:491:PHE:N	2.30	0.63
1:C:237:SER:O	1:C:238:THR:OG1	2.15	0.63
1:E:131:GLU:HB3	1:E:251:GLN:HE22	1.59	0.63
1:F:390:VAL:HG23	1:F:445:LEU:HD11	1.78	0.63
1:C:469:ASN:OD1	1:C:472:CYS:SG	2.57	0.63
1:D:429:VAL:HG21	1:D:487:LEU:HB3	1.80	0.63
1:F:325:LEU:HD22	1:F:399:ALA:HB1	1.80	0.63
1:C:195:GLU:HG2	1:C:196:LEU:H	1.63	0.63
1:D:295:ASP:CG	1:D:382:ARG:HH12	2.02	0.63
1:E:435:VAL:O	1:E:436:GLU:C	2.37	0.63
1:E:456:VAL:HG12	1:E:456:VAL:O	1.99	0.63
1:F:590:TYR:HB2	1:F:635:CYS:HB3	1.81	0.63
1:A:638:GLU:O	1:A:641:TRP:N	2.30	0.62
1:B:435:VAL:O	1:B:436:GLU:C	2.37	0.62
1:C:586:VAL:HG13	1:C:635:CYS:SG	2.39	0.62
1:D:232:ILE:HG22	1:D:232:ILE:O	1.98	0.62
1:D:553:VAL:HG11	1:D:594:PRO:HB3	1.81	0.62
1:E:539:GLY:O	1:E:543:ALA:CA	2.47	0.62
1:E:586:VAL:HG13	1:E:635:CYS:SG	2.39	0.62
1:F:260:LEU:HB2	1:F:261:PRO:CD	2.29	0.62
1:F:324:LYS:HA	1:F:327:THR:HG1	1.63	0.62
1:F:435:VAL:O	1:F:436:GLU:C	2.37	0.62
1:H:192:ARG:CD	1:H:193:GLY:N	2.58	0.62
1:A:170:TYR:O	1:A:174:VAL:HG23	2.00	0.62
1:B:256:ASN:ND2	1:B:662:TRP:HZ2	1.97	0.62
1:B:400:MET:CE	1:B:407:SER:HB2	2.30	0.62
1:C:315:TRP:HZ3	1:C:396:PHE:CE1	2.17	0.62
1:D:333:SER:O	1:D:334:ASP:CG	2.37	0.62
1:F:476:TYR:CZ	1:F:487:LEU:HG	2.34	0.62
1:G:195:GLU:N	1:G:195:GLU:OE2	2.32	0.62
1:B:544:VAL:HB	1:B:549:LEU:HB2	1.79	0.62
1:C:431:ASN:O	1:C:433:GLN:N	2.32	0.62
1:C:528:SER:O	1:C:549:LEU:HD22	1.99	0.62
1:H:569:GLN:HB3	1:H:632:ARG:NH2	2.13	0.62
1:A:520:LEU:O	1:A:525:GLN:NE2	2.33	0.62
1:A:529:THR:O	1:A:530:ILE:O	2.17	0.62
1:C:232:ILE:O	1:C:232:ILE:HG22	1.98	0.62
1:C:487:LEU:O	1:C:491:PHE:N	2.29	0.62
1:C:544:VAL:HG21	1:C:547:LEU:HD12	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:223:TYR:HB2	1:D:245:ALA:HB2	1.81	0.62
1:H:590:TYR:HE2	1:H:649:TRP:HA	1.63	0.62
1:G:197:ASN:OD1	1:G:198:GLY:N	2.31	0.62
1:G:544:VAL:HG11	1:G:547:LEU:HG	1.81	0.62
1:G:544:VAL:HG21	1:G:547:LEU:HD12	1.80	0.62
1:A:146:TYR:C	1:A:152:SER:OG	2.36	0.62
1:A:429:VAL:HG23	1:A:487:LEU:HD13	1.80	0.62
1:B:372:MET:O	1:B:376:VAL:HG23	1.98	0.62
1:C:435:VAL:O	1:C:436:GLU:C	2.38	0.62
1:F:533:TRP:CZ3	1:F:534:ASN:OD1	2.52	0.62
1:H:531:MET:SD	1:H:558:LYS:CE	2.87	0.62
1:H:539:GLY:O	1:H:543:ALA:CA	2.48	0.62
1:A:282:ARG:HE	1:A:313:GLN:CD	2.02	0.62
1:A:302:MET:CE	1:A:633:LEU:CD1	2.78	0.62
1:A:540:VAL:O	1:A:540:VAL:HG12	2.00	0.62
1:A:649:TRP:O	1:A:651:ASN:N	2.33	0.62
1:E:406:TYR:HD1	1:E:431:ASN:HD21	1.42	0.62
1:H:249:LEU:HD23	1:H:249:LEU:C	2.19	0.62
1:H:435:VAL:O	1:H:436:GLU:C	2.37	0.62
1:G:131:GLU:HG3	1:G:659:GLN:OE1	2.00	0.62
1:D:297:MET:HB3	1:D:302:MET:HB2	1.81	0.62
1:E:513:ILE:HD11	1:E:530:ILE:CG1	2.26	0.62
1:H:232:ILE:O	1:H:232:ILE:HG22	1.99	0.62
1:H:672:ARG:O	1:H:675:MET:N	2.28	0.62
1:H:672:ARG:O	1:H:673:HIS:C	2.36	0.62
1:G:476:TYR:CE1	1:G:487:LEU:HG	2.34	0.62
1:A:545:LYS:HD3	1:A:603:GLN:HB3	1.80	0.62
1:C:133:ARG:O	1:C:134:SER:O	2.17	0.62
1:E:293:MET:SD	1:E:296:ILE:HD12	2.40	0.62
1:F:590:TYR:HB2	1:F:635:CYS:CB	2.28	0.62
1:G:324:LYS:HA	1:G:327:THR:HG1	1.65	0.62
1:G:391:ASP:O	1:G:396:PHE:CE2	2.52	0.62
1:A:586:VAL:O	1:A:649:TRP:CH2	2.52	0.62
1:C:662:TRP:HE3	1:C:666:HIS:HE2	1.36	0.62
1:D:587:GLU:C	1:D:591:ASN:HD22	2.01	0.62
1:H:569:GLN:HB3	1:H:632:ARG:HH22	1.64	0.62
1:A:435:VAL:O	1:A:436:GLU:C	2.37	0.62
1:B:133:ARG:O	1:B:134:SER:O	2.17	0.62
1:C:544:VAL:HG23	1:C:549:LEU:HD12	1.82	0.62
1:D:351:TRP:O	1:D:352:THR:HG23	1.99	0.62
1:E:253:ALA:O	1:E:257:ALA:HA	2.00	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:531:MET:CG	1:H:558:LYS:HZ3	2.13	0.62
1:G:253:ALA:O	1:G:257:ALA:HA	2.00	0.62
1:G:267:ASP:OD1	1:G:268:LYS:N	2.32	0.62
1:A:571:ASN:OD1	1:A:582:GLY:N	2.33	0.61
1:D:262:LEU:O	1:D:263:VAL:CG1	2.40	0.61
1:D:379:ALA:HB1	1:D:384:ILE:O	2.00	0.61
1:D:424:SER:O	1:D:465:GLN:HG3	2.00	0.61
1:H:491:PHE:O	1:H:495:LEU:HD11	1.99	0.61
1:H:499:VAL:O	1:H:499:VAL:HG12	2.00	0.61
1:G:363:GLY:N	1:G:364:PRO:HD2	2.13	0.61
1:A:267:ASP:OD1	1:A:268:LYS:N	2.32	0.61
1:A:485:ARG:HH11	1:A:488:GLN:NE2	1.97	0.61
1:C:144:THR:CG2	1:C:145:LYS:H	2.13	0.61
1:D:528:SER:O	1:D:549:LEU:HD22	1.98	0.61
1:H:490:HIS:NE2	1:H:519:ASP:OD2	2.33	0.61
1:G:299:ARG:NH2	1:G:662:TRP:O	2.31	0.61
1:G:672:ARG:O	1:G:674:TRP:N	2.33	0.61
1:A:243:PHE:CZ	1:A:383:HIS:CD2	2.87	0.61
1:B:232:ILE:O	1:B:232:ILE:HG22	1.99	0.61
1:B:267:ASP:OD1	1:B:268:LYS:N	2.32	0.61
1:B:332:ARG:NH2	1:B:335:ASN:O	2.33	0.61
1:C:333:SER:O	1:C:334:ASP:CG	2.38	0.61
1:H:228:THR:HA	1:H:262:LEU:HD22	1.83	0.61
1:H:379:ALA:O	1:H:383:HIS:N	2.33	0.61
1:B:291:LYS:CE	1:B:378:TYR:HD2	2.12	0.61
1:C:195:GLU:N	1:C:195:GLU:OE2	2.34	0.61
1:E:192:ARG:HD3	1:E:193:GLY:N	2.16	0.61
1:E:593:VAL:HG13	1:E:644:GLN:HE22	1.65	0.61
1:F:133:ARG:O	1:F:134:SER:O	2.17	0.61
1:G:312:ASP:OD2	1:G:423:SER:HB2	1.99	0.61
1:A:150:ASN:O	1:A:151:THR:HG23	1.99	0.61
1:A:193:GLY:O	1:A:194:ALA:C	2.37	0.61
1:B:469:ASN:HB3	1:B:472:CYS:SG	2.39	0.61
1:C:295:ASP:CG	1:C:382:ARG:HH12	2.03	0.61
1:C:442:LEU:HD23	1:C:442:LEU:N	2.15	0.61
1:C:445:LEU:O	1:C:446:CYS:C	2.39	0.61
1:E:531:MET:SD	1:E:558:LYS:NZ	2.65	0.61
1:F:469:ASN:OD1	1:F:472:CYS:SG	2.57	0.61
1:F:499:VAL:O	1:F:499:VAL:HG12	2.00	0.61
1:A:130:ASP:OD1	1:A:252:LEU:CG	2.37	0.61
1:A:648:ASN:OD1	1:A:650:ASP:OD2	2.18	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:256:ASN:HB2	1:B:662:TRP:CZ2	2.35	0.61
1:C:171:ILE:C	1:C:175:SER:OG	2.39	0.61
1:C:391:ASP:O	1:C:396:PHE:HE2	1.83	0.61
1:A:396:PHE:CE2	1:A:427:LEU:HD12	2.35	0.61
1:A:552:ILE:CG2	1:A:553:VAL:N	2.63	0.61
1:C:499:VAL:C	1:C:502:LYS:HB3	2.21	0.61
1:E:379:ALA:HB1	1:E:384:ILE:O	2.01	0.61
1:E:502:LYS:HD2	1:E:503:ASN:HA	1.83	0.61
1:F:197:ASN:OD1	1:F:198:GLY:N	2.28	0.61
1:A:326:THR:O	1:A:330:ALA:HB3	2.01	0.61
1:B:431:ASN:O	1:B:433:GLN:N	2.34	0.61
1:C:168:THR:O	1:C:171:ILE:HG12	2.00	0.61
1:C:332:ARG:NH2	1:C:335:ASN:O	2.34	0.61
1:D:487:LEU:O	1:D:491:PHE:N	2.30	0.61
1:E:406:TYR:HA	1:E:431:ASN:ND2	2.16	0.61
1:F:431:ASN:O	1:F:433:GLN:N	2.32	0.61
1:H:284:PHE:HE1	1:H:367:TYR:CE1	2.19	0.61
1:H:579:ALA:O	1:H:580:GLY:O	2.18	0.61
1:G:442:LEU:O	1:G:446:CYS:SG	2.59	0.61
1:A:363:GLY:C	1:A:365:TYR:N	2.55	0.61
1:A:485:ARG:HG2	1:A:515:ALA:HB2	1.83	0.61
1:A:672:ARG:O	1:A:674:TRP:N	2.33	0.61
1:C:277:MET:CE	1:C:613:THR:HG22	2.31	0.61
1:C:587:GLU:HG2	1:C:588:GLY:N	2.16	0.61
1:G:275:GLY:C	1:G:611:GLN:HG3	2.21	0.61
1:G:394:GLY:CA	1:G:461:CYS:SG	2.89	0.61
1:G:439:LYS:HE2	1:G:498:PHE:HD2	1.66	0.61
1:A:154:ASN:OD1	1:A:202:LEU:HD13	2.00	0.61
1:A:164:GLY:HA3	1:A:239:GLU:HB3	1.82	0.61
1:A:426:VAL:HG12	1:A:461:CYS:SG	2.39	0.61
1:A:426:VAL:HG11	1:A:461:CYS:SG	2.40	0.61
1:C:144:THR:HG23	1:C:145:LYS:H	1.64	0.61
1:D:601:GLN:N	1:D:601:GLN:HE21	1.99	0.61
1:F:198:GLY:O	1:F:199:GLU:C	2.37	0.61
1:F:232:ILE:O	1:F:232:ILE:HG22	2.01	0.61
1:F:333:SER:O	1:F:334:ASP:CG	2.39	0.61
1:F:372:MET:O	1:F:376:VAL:HG23	2.01	0.61
1:F:544:VAL:HG11	1:F:547:LEU:CD1	2.31	0.61
1:H:253:ALA:O	1:H:257:ALA:HA	2.01	0.61
1:H:513:ILE:HD13	1:H:543:ALA:HB1	1.82	0.61
1:A:164:GLY:HA3	1:A:239:GLU:CG	2.31	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:372:MET:O	1:A:374:GLU:N	2.34	0.60
1:A:445:LEU:O	1:A:446:CYS:C	2.39	0.60
1:E:223:TYR:CZ	1:E:267:ASP:HB3	2.36	0.60
1:E:445:LEU:O	1:E:446:CYS:C	2.40	0.60
1:F:315:TRP:CE3	1:F:399:ALA:HB2	2.36	0.60
1:F:512:ALA:O	1:F:513:ILE:HG12	2.01	0.60
1:F:539:GLY:O	1:F:543:ALA:CA	2.49	0.60
1:H:179:ILE:O	1:H:179:ILE:HG22	2.00	0.60
1:H:408:CYS:CB	1:H:465:GLN:HE21	2.13	0.60
1:H:525:GLN:NE2	1:H:527:GLN:OE1	2.34	0.60
1:G:400:MET:SD	1:G:427:LEU:CD2	2.89	0.60
1:A:333:SER:O	1:A:334:ASP:CG	2.39	0.60
1:C:400:MET:SD	1:C:427:LEU:CD2	2.89	0.60
1:C:539:GLY:O	1:C:543:ALA:CA	2.50	0.60
1:D:180:ALA:HB1	1:D:256:ASN:OD1	2.01	0.60
1:E:235:ALA:O	1:E:236:SER:OG	2.19	0.60
1:F:282:ARG:HA	1:F:350:TYR:OH	2.01	0.60
1:F:379:ALA:O	1:F:383:HIS:N	2.34	0.60
1:H:267:ASP:OD1	1:H:641:TRP:NE1	2.29	0.60
1:H:453:TYR:CD1	1:H:505:HIS:HB2	2.36	0.60
1:G:223:TYR:CZ	1:G:267:ASP:HB3	2.36	0.60
1:G:228:THR:HA	1:G:262:LEU:HD22	1.83	0.60
1:G:277:MET:CE	1:G:613:THR:HG22	2.31	0.60
1:C:590:TYR:HB2	1:C:635:CYS:SG	2.41	0.60
1:D:507:VAL:O	1:D:508:CYS:SG	2.58	0.60
1:E:256:ASN:HB2	1:E:662:TRP:HZ2	1.67	0.60
1:F:526:THR:O	1:F:549:LEU:HD23	2.00	0.60
1:H:445:LEU:O	1:H:446:CYS:C	2.38	0.60
1:H:544:VAL:CG1	1:H:547:LEU:HD12	2.32	0.60
1:G:225:LEU:HG	1:G:234:VAL:HG22	1.83	0.60
1:A:280:VAL:O	1:A:316:ARG:HG3	2.02	0.60
1:B:147:LEU:HD11	1:F:239:GLU:HG3	1.83	0.60
1:B:445:LEU:O	1:B:446:CYS:C	2.39	0.60
1:F:195:GLU:O	1:F:196:LEU:HB2	2.00	0.60
1:H:431:ASN:O	1:H:433:GLN:N	2.32	0.60
1:G:252:LEU:HD11	1:G:265:ILE:HD11	1.82	0.60
1:G:297:MET:HB3	1:G:302:MET:HB2	1.84	0.60
1:G:559:GLY:O	1:G:560:ASP:C	2.38	0.60
1:A:552:ILE:HG22	1:A:553:VAL:N	2.15	0.60
1:B:400:MET:CE	1:B:407:SER:HB3	2.32	0.60
1:B:454:ILE:HG12	1:B:504:LYS:HD3	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:672:ARG:O	1:B:674:TRP:N	2.34	0.60
1:D:513:ILE:HD11	1:D:530:ILE:CG1	2.31	0.60
1:D:544:VAL:HG12	1:D:547:LEU:N	2.16	0.60
1:E:296:ILE:HG21	1:E:630:LEU:HD21	1.83	0.60
1:F:513:ILE:HD11	1:F:530:ILE:HD11	1.83	0.60
1:H:313:GLN:HG2	1:H:350:TYR:CE1	2.35	0.60
1:H:400:MET:HE1	1:H:407:SER:HA	1.83	0.60
1:H:476:TYR:OH	1:H:486:GLN:C	2.39	0.60
1:A:324:LYS:HB2	1:A:403:TYR:CE2	2.37	0.60
1:A:526:THR:O	1:A:527:GLN:C	2.39	0.60
1:A:531:MET:HG2	1:A:558:LYS:HD2	1.83	0.60
1:B:221:GLU:OE2	1:B:274:ARG:NH2	2.30	0.60
1:B:284:PHE:HB2	1:B:316:ARG:NH1	2.17	0.60
1:B:507:VAL:O	1:B:508:CYS:SG	2.57	0.60
1:E:672:ARG:O	1:E:674:TRP:N	2.34	0.60
1:F:295:ASP:CA	1:F:382:ARG:NH1	2.64	0.60
1:H:277:MET:CE	1:H:613:THR:CG2	2.79	0.60
1:C:146:TYR:OH	1:C:249:LEU:HD11	2.00	0.60
1:D:435:VAL:O	1:D:436:GLU:C	2.38	0.60
1:D:593:VAL:HG13	1:D:644:GLN:HE21	1.67	0.60
1:E:131:GLU:OE1	1:E:132:THR:N	2.35	0.60
1:E:318:GLU:OE1	1:E:369:GLN:HG3	2.01	0.60
1:H:282:ARG:NH1	1:H:617:GLU:OE2	2.34	0.60
1:G:507:VAL:O	1:G:508:CYS:SG	2.60	0.60
1:G:651:ASN:O	1:G:655:ARG:HG3	2.01	0.60
1:A:130:ASP:CG	1:A:252:LEU:HG	2.20	0.60
1:F:212:PHE:HZ	1:F:246:LEU:HD11	1.66	0.60
1:A:252:LEU:HD11	1:A:265:ILE:HD12	1.84	0.60
1:A:540:VAL:CG1	1:A:551:ALA:HB3	2.32	0.60
1:B:499:VAL:HG12	1:B:499:VAL:O	2.02	0.60
1:C:662:TRP:HE3	1:C:666:HIS:NE2	1.90	0.60
1:D:315:TRP:CZ3	1:D:396:PHE:CZ	2.80	0.60
1:E:351:TRP:HE1	1:E:357:LYS:CE	2.15	0.60
1:E:406:TYR:HB3	1:E:434:ALA:HB2	1.83	0.60
1:F:559:GLY:O	1:F:560:ASP:C	2.40	0.60
1:F:565:ILE:O	1:F:565:ILE:HG13	2.02	0.60
1:F:672:ARG:O	1:F:674:TRP:N	2.34	0.60
1:A:255:GLY:O	1:A:662:TRP:CZ2	2.55	0.60
1:B:364:PRO:HA	1:B:365:TYR:HB2	1.83	0.60
1:B:485:ARG:CG	1:B:515:ALA:HB2	2.31	0.60
1:C:532:SER:O	1:C:536:CYS:SG	2.47	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:553:VAL:HG23	1:D:607:VAL:HG13	1.83	0.60
1:E:565:ILE:HG13	1:E:565:ILE:O	2.02	0.60
1:G:379:ALA:O	1:G:383:HIS:N	2.35	0.60
1:A:531:MET:SD	1:A:558:LYS:HE3	2.42	0.59
1:D:278:LEU:HD21	1:D:290:VAL:HG22	1.83	0.59
1:D:291:LYS:HD3	1:D:378:TYR:HE2	1.62	0.59
1:D:445:LEU:O	1:D:446:CYS:C	2.39	0.59
1:D:483:SER:HB3	1:D:486:GLN:HE21	1.67	0.59
1:D:559:GLY:O	1:D:560:ASP:C	2.40	0.59
1:E:282:ARG:CA	1:E:350:TYR:OH	2.49	0.59
1:F:267:ASP:OD1	1:F:268:LYS:N	2.34	0.59
1:F:617:GLU:CB	1:F:618:HIS:HD2	2.15	0.59
1:G:168:THR:O	1:G:171:ILE:HG12	2.02	0.59
1:G:499:VAL:O	1:G:499:VAL:HG12	2.02	0.59
1:C:296:ILE:HD11	1:C:668:TYR:CE1	2.37	0.59
1:D:227:ILE:HD12	1:D:263:VAL:CG2	2.32	0.59
1:F:249:LEU:C	1:F:249:LEU:HD23	2.22	0.59
1:F:442:LEU:HD23	1:F:442:LEU:N	2.16	0.59
1:G:445:LEU:O	1:G:446:CYS:C	2.39	0.59
1:A:550:PRO:O	1:A:551:ALA:HB2	2.02	0.59
1:C:531:MET:SD	1:C:558:LYS:CE	2.90	0.59
1:C:587:GLU:O	1:C:589:CYS:N	2.34	0.59
1:D:197:ASN:O	1:D:199:GLU:N	2.35	0.59
1:D:294:ILE:CG2	1:D:384:ILE:HD13	2.31	0.59
1:D:499:VAL:O	1:D:499:VAL:HG12	2.03	0.59
1:D:539:GLY:O	1:D:543:ALA:CA	2.49	0.59
1:E:587:GLU:O	1:E:589:CYS:N	2.35	0.59
1:H:428:ASN:HD21	1:H:431:ASN:HB2	1.67	0.59
1:G:431:ASN:O	1:G:433:GLN:N	2.34	0.59
1:A:141:ALA:O	1:A:142:GLY:O	2.20	0.59
1:A:202:LEU:C	1:A:202:LEU:HD12	2.22	0.59
1:A:303:ASN:O	1:A:384:ILE:HG12	2.03	0.59
1:C:282:ARG:CA	1:C:350:TYR:OH	2.50	0.59
1:F:531:MET:CG	1:F:558:LYS:HD2	2.33	0.59
1:F:579:ALA:O	1:F:580:GLY:O	2.20	0.59
1:B:539:GLY:O	1:B:543:ALA:CA	2.49	0.59
1:D:267:ASP:OD1	1:D:268:LYS:N	2.35	0.59
1:G:276:PHE:CE1	1:G:565:ILE:HD11	2.37	0.59
1:G:393:PRO:HB3	1:G:491:PHE:CE2	2.37	0.59
1:G:435:VAL:O	1:G:436:GLU:C	2.39	0.59
1:A:459:ASP:O	1:A:460:GLU:C	2.41	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:487:LEU:O	1:A:490:HIS:N	2.36	0.59
1:B:282:ARG:HA	1:B:350:TYR:OH	2.03	0.59
1:B:626:GLU:OE1	1:B:668:TYR:HD1	1.86	0.59
1:E:230:ASP:C	1:E:230:ASP:OD1	2.41	0.59
1:E:584:ASP:HB3	1:E:632:ARG:NH1	2.17	0.59
1:F:168:THR:O	1:F:171:ILE:HG12	2.02	0.59
1:F:270:ARG:HH22	1:F:604:MET:HE3	1.64	0.59
1:F:445:LEU:O	1:F:446:CYS:C	2.40	0.59
1:H:181:VAL:HB	1:H:182:PRO:HD3	1.85	0.59
1:G:333:SER:O	1:G:334:ASP:CG	2.41	0.59
1:G:539:GLY:O	1:G:543:ALA:CA	2.50	0.59
1:C:198:GLY:O	1:C:199:GLU:C	2.40	0.59
1:F:487:LEU:O	1:F:491:PHE:N	2.30	0.59
1:H:350:TYR:CD2	1:H:617:GLU:O	2.56	0.59
1:H:559:GLY:O	1:H:560:ASP:C	2.41	0.59
1:A:303:ASN:O	1:A:384:ILE:CG1	2.50	0.59
1:C:568:LYS:O	1:C:582:GLY:HA2	2.02	0.59
1:H:591:ASN:O	1:H:593:VAL:HG23	2.03	0.59
1:G:544:VAL:O	1:G:549:LEU:O	2.21	0.59
1:A:427:LEU:HD11	1:A:437:PHE:CD1	2.38	0.59
1:B:284:PHE:HB3	1:B:364:PRO:O	2.03	0.59
1:C:295:ASP:CA	1:C:382:ARG:HH11	1.94	0.59
1:F:253:ALA:HB2	1:F:260:LEU:CD2	2.32	0.59
1:F:408:CYS:CB	1:F:465:GLN:HE21	2.16	0.59
1:H:400:MET:CE	1:H:407:SER:HA	2.33	0.59
1:G:280:VAL:HG13	1:G:280:VAL:O	2.02	0.59
1:G:333:SER:O	1:G:334:ASP:OD1	2.20	0.59
1:A:213:THR:O	1:A:242:LYS:NZ	2.36	0.59
1:A:431:ASN:O	1:A:433:GLN:N	2.36	0.59
1:B:144:THR:CG2	1:B:260:LEU:HD12	2.33	0.59
1:B:146:TYR:CE1	1:B:260:LEU:HD11	2.38	0.59
1:B:429:VAL:HG23	1:B:487:LEU:HD13	1.83	0.59
1:H:507:VAL:O	1:H:508:CYS:SG	2.59	0.59
1:G:282:ARG:HA	1:G:350:TYR:OH	2.03	0.59
1:A:571:ASN:ND2	1:A:582:GLY:HA3	2.18	0.58
1:A:590:TYR:OH	1:A:647:LYS:HA	2.02	0.58
1:A:625:LEU:HD23	1:A:625:LEU:C	2.24	0.58
1:D:586:VAL:HG13	1:D:635:CYS:SG	2.43	0.58
1:E:431:ASN:O	1:E:433:GLN:N	2.36	0.58
1:H:493:LYS:O	1:H:495:LEU:N	2.35	0.58
1:G:662:TRP:HE3	1:G:666:HIS:NE2	1.91	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:430:ALA:HB3	1:D:472:CYS:SG	2.43	0.58
1:E:559:GLY:O	1:E:560:ASP:C	2.41	0.58
1:F:139:CYS:HA	1:F:263:VAL:HG12	1.85	0.58
1:F:544:VAL:CG2	1:F:549:LEU:HD12	2.32	0.58
1:H:575:GLU:OE2	1:H:673:HIS:CE1	2.56	0.58
1:G:197:ASN:O	1:G:199:GLU:N	2.36	0.58
1:A:189:PRO:C	1:A:191:PRO:CD	2.72	0.58
1:A:252:LEU:C	1:A:253:ALA:O	2.42	0.58
1:C:499:VAL:O	1:C:499:VAL:HG12	2.03	0.58
1:D:558:LYS:HZ1	1:D:611:GLN:CD	2.07	0.58
1:E:543:ALA:N	1:E:544:VAL:HA	2.18	0.58
1:H:222:ALA:CB	1:H:268:LYS:HE2	2.33	0.58
1:A:159:TYR:O	1:A:161:GLY:N	2.36	0.58
1:A:537:GLN:NE2	1:A:596:GLN:HB2	2.19	0.58
1:B:282:ARG:NH1	1:B:617:GLU:OE2	2.36	0.58
1:B:531:MET:SD	1:B:558:LYS:CE	2.90	0.58
1:B:590:TYR:C	1:B:590:TYR:CD1	2.77	0.58
1:C:624:TYR:HA	1:C:627:TYR:HB3	1.86	0.58
1:D:313:GLN:HG2	1:D:350:TYR:HE2	1.67	0.58
1:G:198:GLY:O	1:G:199:GLU:C	2.42	0.58
1:A:302:MET:CE	1:A:633:LEU:HD13	2.33	0.58
1:A:540:VAL:CG1	1:A:551:ALA:CB	2.80	0.58
1:C:672:ARG:O	1:C:674:TRP:N	2.36	0.58
1:D:294:ILE:HG23	1:D:384:ILE:HD13	1.85	0.58
1:D:334:ASP:O	1:D:335:ASN:O	2.21	0.58
1:D:590:TYR:C	1:D:590:TYR:CD1	2.76	0.58
1:E:267:ASP:OD1	1:E:268:LYS:N	2.36	0.58
1:F:388:PRO:HB3	1:F:449:PHE:CE2	2.38	0.58
1:F:463:THR:HG22	1:F:466:TRP:CE3	2.38	0.58
1:F:544:VAL:HG11	1:F:547:LEU:CG	2.33	0.58
1:H:142:GLY:O	1:H:261:PRO:HA	2.04	0.58
1:G:256:ASN:ND2	1:G:662:TRP:CZ2	2.71	0.58
1:G:587:GLU:O	1:G:589:CYS:N	2.33	0.58
1:A:392:MET:SD	1:A:396:PHE:CZ	2.97	0.58
1:B:559:GLY:O	1:B:560:ASP:C	2.41	0.58
1:C:230:ASP:C	1:C:230:ASP:OD1	2.42	0.58
1:E:441:ILE:O	1:E:444:GLU:N	2.37	0.58
1:F:244:TYR:HA	1:F:247:GLN:HG3	1.85	0.58
1:H:415:GLN:O	1:H:417:TRP:N	2.37	0.58
1:C:294:ILE:HG23	1:C:384:ILE:HD13	1.85	0.58
1:F:351:TRP:O	1:F:352:THR:HG23	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:535:PRO:HA	1:H:192:ARG:HB3	1.84	0.58
1:A:150:ASN:O	1:A:151:THR:CB	2.52	0.58
1:A:558:LYS:HE2	1:A:613:THR:HG23	1.85	0.58
1:A:590:TYR:CD1	1:A:590:TYR:C	2.77	0.58
1:B:565:ILE:CD1	1:B:633:LEU:HD12	2.33	0.58
1:C:145:LYS:HD2	1:E:216:PRO:CG	2.30	0.58
1:C:392:MET:SD	1:C:396:PHE:CE2	2.97	0.58
1:D:543:ALA:N	1:D:544:VAL:HA	2.18	0.58
1:E:483:SER:HB3	1:E:486:GLN:HE21	1.69	0.58
1:H:558:LYS:HB3	1:H:564:TYR:HE1	1.68	0.58
1:G:310:THR:OG1	1:G:396:PHE:CZ	2.54	0.58
1:A:169:PHE:O	1:A:172:TYR:CA	2.52	0.58
1:A:187:ILE:C	1:A:188:ILE:HG12	2.24	0.58
1:A:427:LEU:O	1:A:428:ASN:C	2.43	0.58
1:B:303:ASN:O	1:B:384:ILE:HG23	2.04	0.58
1:D:223:TYR:CZ	1:D:267:ASP:HB3	2.39	0.58
1:D:379:ALA:O	1:D:383:HIS:N	2.37	0.58
1:D:456:VAL:O	1:D:456:VAL:HG12	2.02	0.58
1:E:280:VAL:CG1	1:E:316:ARG:HG3	2.34	0.58
1:E:442:LEU:O	1:E:446:CYS:SG	2.62	0.58
1:H:587:GLU:O	1:H:589:CYS:N	2.37	0.58
1:A:485:ARG:HG2	1:A:514:THR:O	2.04	0.58
1:C:363:GLY:O	1:C:364:PRO:C	2.41	0.58
1:D:215:ASP:O	1:D:217:ALA:N	2.35	0.58
1:E:168:THR:O	1:E:171:ILE:HG12	2.03	0.58
1:E:315:TRP:CZ3	1:E:396:PHE:CE1	2.92	0.58
1:H:499:VAL:C	1:H:502:LYS:HB3	2.24	0.58
1:C:281:SER:OG	1:C:311:ASP:HB2	2.03	0.57
1:D:471:LEU:HA	1:D:474:GLN:OE1	2.04	0.57
1:D:672:ARG:O	1:D:674:TRP:N	2.36	0.57
1:E:251:GLN:NE2	1:E:659:GLN:OE1	2.37	0.57
1:E:261:PRO:O	1:E:262:LEU:HD23	2.04	0.57
1:E:622:ASN:O	1:E:623:GLU:C	2.40	0.57
1:H:285:PHE:O	1:H:286:SER:OG	2.18	0.57
1:G:441:ILE:O	1:G:444:GLU:N	2.37	0.57
1:G:531:MET:SD	1:G:558:LYS:NZ	2.76	0.57
1:A:499:VAL:O	1:A:499:VAL:HG12	2.03	0.57
1:B:526:THR:O	1:B:549:LEU:HD23	2.04	0.57
1:C:391:ASP:O	1:C:396:PHE:CD2	2.57	0.57
1:D:532:SER:O	1:D:536:CYS:SG	2.49	0.57
1:D:544:VAL:HG12	1:D:547:LEU:H	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:456:VAL:O	1:E:456:VAL:CG1	2.52	0.57
1:F:553:VAL:HG21	1:F:607:VAL:HG13	1.83	0.57
1:A:173:LYS:O	1:A:194:ALA:CB	2.52	0.57
1:B:544:VAL:HG11	1:B:547:LEU:CD1	2.23	0.57
1:C:267:ASP:OD1	1:C:268:LYS:N	2.37	0.57
1:C:493:LYS:O	1:C:495:LEU:N	2.37	0.57
1:C:559:GLY:O	1:C:560:ASP:C	2.41	0.57
1:C:579:ALA:O	1:C:580:GLY:O	2.22	0.57
1:D:401:ALA:HA	1:D:414:PRO:HG2	1.85	0.57
1:E:248:SER:O	1:E:252:LEU:HD23	2.04	0.57
1:E:575:GLU:OE2	1:E:673:HIS:NE2	2.36	0.57
1:H:292:LYS:HA	1:H:295:ASP:OD2	2.04	0.57
1:H:372:MET:HB3	1:H:448:ILE:HG21	1.86	0.57
1:A:296:ILE:CG2	1:A:633:LEU:HD21	2.33	0.57
1:C:145:LYS:O	1:C:146:TYR:HD1	1.86	0.57
1:C:284:PHE:CE1	1:C:367:TYR:CZ	2.93	0.57
1:C:459:ASP:HB3	1:C:509:TRP:CD1	2.40	0.57
1:E:499:VAL:O	1:E:499:VAL:HG12	2.03	0.57
1:H:566:CYS:HB3	1:H:614:PHE:CD1	2.40	0.57
1:G:526:THR:O	1:G:549:LEU:HD23	2.05	0.57
1:G:586:VAL:HG23	1:G:674:TRP:CE2	2.40	0.57
1:B:212:PHE:CZ	1:B:246:LEU:HD11	2.39	0.57
1:D:303:ASN:O	1:D:384:ILE:HG23	2.04	0.57
1:D:393:PRO:HB3	1:D:491:PHE:CE2	2.40	0.57
1:E:212:PHE:CZ	1:E:246:LEU:HD11	2.40	0.57
1:E:295:ASP:CA	1:E:382:ARG:NH1	2.67	0.57
1:G:392:MET:SD	1:G:427:LEU:CD1	2.92	0.57
1:A:284:PHE:CE1	1:A:286:SER:HA	2.39	0.57
1:B:400:MET:HE1	1:B:407:SER:CB	2.34	0.57
1:E:144:THR:CG2	1:E:227:ILE:HG23	2.33	0.57
1:E:249:LEU:HD23	1:E:249:LEU:C	2.25	0.57
1:G:513:ILE:HG22	1:G:513:ILE:O	2.04	0.57
1:A:249:LEU:C	1:A:249:LEU:CD2	2.73	0.57
1:A:332:ARG:CZ	1:A:350:TYR:HH	2.12	0.57
1:A:351:TRP:N	1:A:419:GLY:HA2	2.19	0.57
1:A:509:TRP:HZ3	1:A:558:LYS:CD	2.17	0.57
1:A:544:VAL:CG1	1:A:551:ALA:HB2	2.35	0.57
1:B:280:VAL:O	1:B:280:VAL:HG13	2.04	0.57
1:B:463:THR:HG22	1:B:466:TRP:CE3	2.39	0.57
1:D:212:PHE:CZ	1:D:246:LEU:HD11	2.38	0.57
1:E:131:GLU:CD	1:E:656:LEU:HD21	2.25	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:133:ARG:O	1:E:134:SER:O	2.22	0.57
1:F:210:ILE:CD1	1:F:232:ILE:HB	2.34	0.57
1:F:285:PHE:O	1:F:286:SER:OG	2.19	0.57
1:H:513:ILE:HD13	1:H:543:ALA:CB	2.35	0.57
1:G:303:ASN:O	1:G:384:ILE:HG23	2.04	0.57
1:G:544:VAL:CG2	1:G:549:LEU:HD12	2.35	0.57
1:G:565:ILE:HD12	1:G:629:ALA:HA	1.85	0.57
1:A:173:LYS:H	1:A:187:ILE:HD11	1.70	0.57
1:A:247:GLN:HB2	1:A:301:LYS:HE2	1.86	0.57
1:A:297:MET:SD	1:A:304:VAL:O	2.63	0.57
1:B:282:ARG:CA	1:B:350:TYR:OH	2.53	0.57
1:C:372:MET:O	1:C:376:VAL:HG23	2.05	0.57
1:E:351:TRP:HE1	1:E:357:LYS:HE3	1.69	0.57
1:F:325:LEU:O	1:F:326:THR:CG2	2.51	0.57
1:F:617:GLU:HB3	1:F:618:HIS:HD2	1.68	0.57
1:F:642:THR:O	1:F:647:LYS:HE2	2.05	0.57
1:H:408:CYS:O	1:H:469:ASN:ND2	2.38	0.57
1:G:394:GLY:HA2	1:G:461:CYS:SG	2.45	0.57
1:A:189:PRO:O	1:A:191:PRO:CD	2.53	0.57
1:E:303:ASN:O	1:E:384:ILE:HG23	2.05	0.57
1:E:392:MET:SD	1:E:396:PHE:CE2	2.97	0.57
1:E:579:ALA:O	1:E:580:GLY:O	2.23	0.57
1:E:624:TYR:HA	1:E:627:TYR:HB3	1.87	0.57
1:F:282:ARG:CA	1:F:350:TYR:OH	2.53	0.57
1:F:297:MET:HB3	1:F:302:MET:HB2	1.85	0.57
1:H:294:ILE:HG23	1:H:384:ILE:HD13	1.85	0.57
1:H:313:GLN:HG2	1:H:350:TYR:HE1	1.70	0.57
1:H:553:VAL:HG23	1:H:607:VAL:CG1	2.34	0.57
1:G:415:GLN:O	1:G:417:TRP:N	2.38	0.57
1:C:256:ASN:HB2	1:C:662:TRP:CZ2	2.39	0.57
1:C:275:GLY:C	1:C:611:GLN:HG3	2.25	0.57
1:D:431:ASN:O	1:D:433:GLN:N	2.36	0.57
1:E:390:VAL:CG2	1:E:445:LEU:HD11	2.35	0.57
1:F:260:LEU:HB2	1:F:261:PRO:HD2	1.85	0.57
1:H:192:ARG:HH21	1:H:193:GLY:HA2	1.70	0.57
1:G:131:GLU:OE1	1:G:132:THR:N	2.38	0.57
1:A:558:LYS:N	1:A:611:GLN:O	2.37	0.56
1:B:441:ILE:O	1:B:444:GLU:N	2.38	0.56
1:D:247:GLN:OE1	1:D:299:ARG:HA	2.05	0.56
1:F:520:LEU:HB3	1:F:525:GLN:N	2.20	0.56
1:G:289:GLU:O	1:G:290:VAL:C	2.43	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:491:PHE:O	1:A:491:PHE:CD1	2.58	0.56
1:A:674:TRP:CB	1:A:675:MET:SD	2.94	0.56
1:C:137:ILE:O	1:C:138:THR:OG1	2.18	0.56
1:D:285:PHE:O	1:D:286:SER:OG	2.19	0.56
1:E:280:VAL:HG13	1:E:280:VAL:O	2.05	0.56
1:E:486:GLN:O	1:E:490:HIS:ND1	2.38	0.56
1:F:431:ASN:O	1:F:431:ASN:OD1	2.24	0.56
1:A:510:ASN:O	1:A:513:ILE:HD12	2.05	0.56
1:A:526:THR:O	1:A:549:LEU:HD21	2.05	0.56
1:B:248:SER:O	1:B:252:LEU:HD23	2.05	0.56
1:C:147:LEU:CD1	1:E:215:ASP:OD1	2.53	0.56
1:C:278:LEU:CD2	1:C:290:VAL:HG22	2.36	0.56
1:C:390:VAL:HG23	1:C:445:LEU:HD11	1.87	0.56
1:C:415:GLN:O	1:C:417:TRP:N	2.37	0.56
1:C:656:LEU:CD2	1:C:659:GLN:OE1	2.53	0.56
1:D:133:ARG:O	1:D:134:SER:O	2.22	0.56
1:D:282:ARG:CA	1:D:350:TYR:OH	2.54	0.56
1:D:283:HIS:CD2	1:D:619:VAL:O	2.58	0.56
1:D:292:LYS:HA	1:D:295:ASP:OD2	2.06	0.56
1:D:319:ILE:HG23	1:D:444:GLU:HG3	1.86	0.56
1:D:363:GLY:O	1:D:364:PRO:C	2.43	0.56
1:D:545:LYS:NZ	1:D:598:MET:HE3	2.20	0.56
1:E:391:ASP:OD1	1:E:457:GLY:HA3	2.04	0.56
1:F:351:TRP:HE1	1:F:357:LYS:HE3	1.70	0.56
1:F:537:GLN:CB	1:H:192:ARG:HD3	2.35	0.56
1:B:143:GLY:O	1:F:167:SER:N	2.39	0.56
1:C:333:SER:O	1:C:334:ASP:OD1	2.24	0.56
1:D:493:LYS:O	1:D:495:LEU:N	2.38	0.56
1:D:544:VAL:HG23	1:D:549:LEU:HD12	1.87	0.56
1:E:642:THR:O	1:E:647:LYS:HE2	2.06	0.56
1:G:456:VAL:CG1	1:G:456:VAL:O	2.54	0.56
1:A:289:GLU:O	1:A:290:VAL:C	2.44	0.56
1:B:144:THR:HB	1:B:261:PRO:O	2.05	0.56
1:B:265:ILE:O	1:B:265:ILE:HG22	2.04	0.56
1:C:180:ALA:O	1:C:181:VAL:C	2.43	0.56
1:C:401:ALA:HA	1:C:414:PRO:HG2	1.86	0.56
1:C:553:VAL:HG23	1:C:607:VAL:CG1	2.36	0.56
1:E:363:GLY:O	1:E:364:PRO:C	2.44	0.56
1:F:415:GLN:O	1:F:417:TRP:N	2.38	0.56
1:F:537:GLN:HB2	1:H:192:ARG:CD	2.35	0.56
1:H:590:TYR:CE2	1:H:649:TRP:HA	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:493:LYS:O	1:G:495:LEU:N	2.38	0.56
1:A:308:HIS:O	1:A:310:THR:N	2.39	0.56
1:B:277:MET:HE2	1:B:613:THR:HG22	1.87	0.56
1:B:525:GLN:O	1:B:526:THR:HG23	2.06	0.56
1:D:526:THR:O	1:D:549:LEU:HD23	2.05	0.56
1:H:249:LEU:C	1:H:249:LEU:CD2	2.74	0.56
1:H:289:GLU:O	1:H:290:VAL:C	2.43	0.56
1:H:505:HIS:O	1:H:506:LEU:HD23	2.05	0.56
1:G:249:LEU:HD23	1:G:249:LEU:O	2.06	0.56
1:A:302:MET:CE	1:A:637:ALA:HB2	2.35	0.56
1:A:559:GLY:O	1:A:560:ASP:C	2.43	0.56
1:B:310:THR:OG1	1:B:396:PHE:CZ	2.58	0.56
1:D:630:LEU:CD2	1:D:633:LEU:HD22	2.35	0.56
1:D:662:TRP:HE3	1:D:666:HIS:CD2	2.23	0.56
1:E:173:LYS:CD	1:E:196:LEU:HB2	2.36	0.56
1:E:379:ALA:O	1:E:383:HIS:N	2.38	0.56
1:F:270:ARG:NH2	1:F:604:MET:CE	2.60	0.56
1:F:324:LYS:HB2	1:F:403:TYR:CZ	2.41	0.56
1:F:442:LEU:O	1:F:446:CYS:SG	2.63	0.56
1:G:393:PRO:O	1:G:427:LEU:HB2	2.04	0.56
1:B:544:VAL:HG23	1:B:549:LEU:HD12	1.87	0.56
1:C:197:ASN:O	1:C:199:GLU:N	2.38	0.56
1:E:487:LEU:O	1:E:490:HIS:N	2.39	0.56
1:F:493:LYS:O	1:F:495:LEU:N	2.39	0.56
1:H:280:VAL:HG13	1:H:316:ARG:HG3	1.87	0.56
1:G:315:TRP:CE3	1:G:399:ALA:HB2	2.41	0.56
1:A:131:GLU:O	1:A:132:THR:OG1	2.19	0.56
1:A:590:TYR:HB3	1:A:649:TRP:CE2	2.40	0.56
1:C:351:TRP:NE1	1:C:357:LYS:HG3	2.21	0.56
1:D:280:VAL:HG13	1:D:280:VAL:O	2.05	0.56
1:D:459:ASP:O	1:D:460:GLU:C	2.43	0.56
1:E:197:ASN:OD1	1:E:198:GLY:N	2.39	0.56
1:E:204:LEU:HD22	1:E:206:ALA:HB3	1.86	0.56
1:E:249:LEU:C	1:E:249:LEU:CD2	2.75	0.56
1:H:445:LEU:HD12	1:H:454:ILE:HG23	1.88	0.56
1:G:282:ARG:NH1	1:G:617:GLU:OE2	2.39	0.56
1:A:148:ASN:HA	1:A:151:THR:HA	1.86	0.56
1:A:318:GLU:OE1	1:A:369:GLN:CG	2.54	0.56
1:C:406:TYR:CB	1:C:431:ASN:ND2	2.67	0.56
1:E:289:GLU:O	1:E:290:VAL:C	2.44	0.56
1:E:532:SER:O	1:E:536:CYS:SG	2.53	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:249:LEU:C	1:F:249:LEU:CD2	2.74	0.56
1:F:313:GLN:NE2	1:F:419:GLY:O	2.32	0.56
1:F:587:GLU:O	1:F:589:CYS:N	2.33	0.56
1:F:675:MET:SD	1:F:675:MET:N	2.79	0.56
1:H:334:ASP:O	1:H:362:TYR:HB3	2.06	0.56
1:G:363:GLY:O	1:G:364:PRO:C	2.44	0.56
1:G:390:VAL:HG23	1:G:445:LEU:HD11	1.86	0.56
1:G:406:TYR:HB3	1:G:434:ALA:HB2	1.87	0.56
1:A:249:LEU:HA	1:A:252:LEU:HD12	1.88	0.55
1:E:493:LYS:O	1:E:495:LEU:N	2.39	0.55
1:F:287:VAL:O	1:F:291:LYS:CG	2.55	0.55
1:F:537:GLN:HB2	1:H:192:ARG:CB	2.35	0.55
1:G:443:ASP:HA	1:G:446:CYS:SG	2.46	0.55
1:A:279:ASP:OD2	1:A:615:TRP:CZ3	2.60	0.55
1:D:406:TYR:CD1	1:D:431:ASN:ND2	2.70	0.55
1:D:443:ASP:HA	1:D:446:CYS:SG	2.45	0.55
1:H:267:ASP:OD1	1:H:268:LYS:N	2.38	0.55
1:H:315:TRP:CZ2	1:H:325:LEU:HD13	2.41	0.55
1:H:363:GLY:O	1:H:364:PRO:C	2.44	0.55
1:H:531:MET:SD	1:H:558:LYS:HE2	2.45	0.55
1:G:499:VAL:O	1:G:502:LYS:HG2	2.07	0.55
1:B:379:ALA:O	1:B:383:HIS:N	2.39	0.55
1:C:284:PHE:HE1	1:C:367:TYR:CZ	2.24	0.55
1:C:298:ALA:O	1:C:299:ARG:C	2.45	0.55
1:C:369:GLN:NE2	1:C:448:ILE:HD11	2.21	0.55
1:C:543:ALA:N	1:C:544:VAL:HA	2.21	0.55
1:D:195:GLU:N	1:D:195:GLU:OE2	2.37	0.55
1:D:587:GLU:CG	1:D:591:ASN:ND2	2.70	0.55
1:E:590:TYR:CD1	1:E:590:TYR:C	2.80	0.55
1:F:227:ILE:HD12	1:F:263:VAL:CG2	2.37	0.55
1:H:143:GLY:O	1:H:229:ALA:HB2	2.06	0.55
1:H:500:ALA:HA	1:H:502:LYS:HG2	1.87	0.55
1:G:491:PHE:O	1:G:495:LEU:HD23	2.05	0.55
1:A:649:TRP:CZ3	1:A:652:PHE:CD2	2.94	0.55
1:B:579:ALA:O	1:B:580:GLY:O	2.24	0.55
1:D:456:VAL:O	1:D:456:VAL:CG1	2.54	0.55
1:F:280:VAL:HG21	1:F:367:TYR:OH	2.07	0.55
1:F:363:GLY:O	1:F:364:PRO:C	2.44	0.55
1:G:227:ILE:HD12	1:G:263:VAL:CG2	2.37	0.55
1:G:466:TRP:O	1:G:467:GLU:C	2.45	0.55
1:A:309:LEU:HD22	1:A:317:ALA:HB2	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:256:ASN:ND2	1:B:662:TRP:CZ2	2.72	0.55
1:C:145:LYS:CD	1:E:216:PRO:CD	2.84	0.55
1:C:487:LEU:O	1:C:490:HIS:N	2.40	0.55
1:D:235:ALA:O	1:D:236:SER:OG	2.20	0.55
1:F:392:MET:SD	1:F:427:LEU:HD12	2.45	0.55
1:F:456:VAL:O	1:F:456:VAL:CG1	2.54	0.55
1:H:298:ALA:O	1:H:299:ARG:C	2.45	0.55
1:H:315:TRP:CZ3	1:H:396:PHE:CE1	2.95	0.55
1:A:154:ASN:O	1:A:202:LEU:O	2.25	0.55
1:A:173:LYS:O	1:A:174:VAL:O	2.25	0.55
1:A:295:ASP:O	1:A:298:ALA:HB3	2.07	0.55
1:D:590:TYR:HB2	1:D:635:CYS:SG	2.46	0.55
1:E:662:TRP:HE3	1:E:666:HIS:NE2	1.93	0.55
1:F:275:GLY:C	1:F:611:GLN:HG3	2.27	0.55
1:F:372:MET:HB3	1:F:448:ILE:HG21	1.88	0.55
1:F:466:TRP:O	1:F:467:GLU:C	2.45	0.55
1:G:459:ASP:O	1:G:460:GLU:C	2.43	0.55
1:B:454:ILE:CG1	1:B:504:LYS:HD3	2.37	0.55
1:B:476:TYR:CZ	1:B:487:LEU:HG	2.42	0.55
1:C:131:GLU:OE1	1:C:132:THR:N	2.40	0.55
1:E:277:MET:HE2	1:E:613:THR:HG22	1.89	0.55
1:E:513:ILE:CD1	1:E:543:ALA:HB1	2.37	0.55
1:F:662:TRP:HE3	1:F:666:HIS:CD2	2.24	0.55
1:H:316:ARG:HB3	1:H:367:TYR:CD1	2.42	0.55
1:H:614:PHE:CE2	1:H:625:LEU:HD12	2.41	0.55
1:G:282:ARG:CA	1:G:350:TYR:OH	2.55	0.55
1:A:193:GLY:O	1:A:195:GLU:CG	2.53	0.55
1:A:312:ASP:O	1:A:398:ALA:HB2	2.07	0.55
1:B:223:TYR:HE1	1:B:265:ILE:HG22	1.72	0.55
1:C:292:LYS:HA	1:C:295:ASP:OD2	2.07	0.55
1:C:512:ALA:O	1:C:513:ILE:HG12	2.06	0.55
1:D:579:ALA:O	1:D:580:GLY:O	2.24	0.55
1:E:243:PHE:CE2	1:E:381:GLU:O	2.60	0.55
1:F:195:GLU:O	1:F:196:LEU:CB	2.55	0.55
1:F:428:ASN:C	1:F:428:ASN:OD1	2.45	0.55
1:F:537:GLN:CG	1:H:192:ARG:HD3	2.36	0.55
1:A:327:THR:O	1:A:328:VAL:CB	2.54	0.55
1:B:225:LEU:HD21	1:B:227:ILE:HD11	1.88	0.55
1:B:298:ALA:O	1:B:299:ARG:C	2.45	0.55
1:B:428:ASN:C	1:B:428:ASN:OD1	2.45	0.55
1:B:456:VAL:O	1:B:456:VAL:CG1	2.55	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:289:GLU:O	1:C:290:VAL:C	2.44	0.55
1:E:197:ASN:O	1:E:199:GLU:N	2.40	0.55
1:E:294:ILE:CG2	1:E:384:ILE:HD13	2.37	0.55
1:F:473:GLN:O	1:F:477:LYS:HE3	2.07	0.55
1:F:537:GLN:HG3	1:H:192:ARG:HE	1.71	0.55
1:H:543:ALA:N	1:H:544:VAL:HA	2.22	0.55
1:G:590:TYR:C	1:G:590:TYR:CD1	2.81	0.55
1:A:351:TRP:HE1	1:A:357:LYS:CE	2.15	0.55
1:A:563:TYR:HE1	1:A:589:CYS:O	1.90	0.55
1:B:363:GLY:N	1:B:364:PRO:CD	2.69	0.55
1:B:415:GLN:O	1:B:417:TRP:N	2.40	0.55
1:C:443:ASP:C	1:C:446:CYS:SG	2.85	0.55
1:D:130:ASP:O	1:D:655:ARG:NH1	2.39	0.55
1:D:466:TRP:O	1:D:467:GLU:C	2.45	0.55
1:D:565:ILE:O	1:D:565:ILE:HG13	2.07	0.55
1:E:415:GLN:O	1:E:417:TRP:N	2.40	0.55
1:E:544:VAL:HG11	1:E:547:LEU:CD1	2.31	0.55
1:F:192:ARG:HD3	1:F:193:GLY:CA	2.36	0.55
1:F:222:ALA:HB1	1:F:268:LYS:HG2	1.89	0.55
1:F:313:GLN:HG2	1:F:350:TYR:CE1	2.42	0.55
1:H:357:LYS:HE2	1:H:418:THR:OG1	2.08	0.55
1:H:441:ILE:O	1:H:444:GLU:N	2.40	0.55
1:A:160:ALA:O	1:A:161:GLY:C	2.46	0.54
1:A:364:PRO:O	1:A:366:PHE:N	2.40	0.54
1:A:380:LYS:NZ	1:A:385:GLU:OE1	2.39	0.54
1:B:144:THR:HG21	1:B:227:ILE:HG23	1.90	0.54
1:D:178:GLN:HE22	1:D:182:PRO:HD3	1.72	0.54
1:D:536:CYS:SG	1:D:559:GLY:HA2	2.46	0.54
1:D:584:ASP:O	1:D:585:GLY:O	2.25	0.54
1:D:587:GLU:HG2	1:D:588:GLY:N	2.21	0.54
1:E:435:VAL:HG22	1:E:491:PHE:HE1	1.71	0.54
1:H:239:GLU:HA	1:H:242:LYS:HD2	1.87	0.54
1:H:642:THR:O	1:H:647:LYS:HE2	2.08	0.54
1:G:144:THR:HB	1:G:262:LEU:HD23	1.87	0.54
1:A:428:ASN:C	1:A:428:ASN:OD1	2.45	0.54
1:A:616:THR:O	1:A:619:VAL:N	2.39	0.54
1:B:282:ARG:O	1:B:283:HIS:CG	2.59	0.54
1:B:349:VAL:CG2	1:B:356:ALA:O	2.55	0.54
1:B:442:LEU:O	1:B:446:CYS:SG	2.65	0.54
1:C:285:PHE:O	1:C:289:GLU:HB3	2.07	0.54
1:C:466:TRP:O	1:C:467:GLU:C	2.45	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:325:LEU:HD22	1:D:399:ALA:CB	2.36	0.54
1:D:513:ILE:HD13	1:D:543:ALA:HA	1.89	0.54
1:E:442:LEU:HD22	1:E:454:ILE:HD13	1.89	0.54
1:F:294:ILE:HD11	1:F:375:VAL:HG13	1.89	0.54
1:H:256:ASN:HB2	1:H:662:TRP:CZ2	2.35	0.54
1:H:295:ASP:CA	1:H:382:ARG:NH1	2.70	0.54
1:A:441:ILE:O	1:A:444:GLU:N	2.39	0.54
1:B:168:THR:O	1:B:171:ILE:HG12	2.06	0.54
1:B:244:TYR:HA	1:B:247:GLN:HG3	1.90	0.54
1:B:487:LEU:O	1:B:490:HIS:N	2.41	0.54
1:B:544:VAL:HG12	1:B:547:LEU:H	1.72	0.54
1:C:459:ASP:O	1:C:460:GLU:C	2.46	0.54
1:E:536:CYS:O	1:E:539:GLY:N	2.39	0.54
1:G:282:ARG:O	1:G:283:HIS:CG	2.58	0.54
1:A:389:GLU:O	1:A:390:VAL:HG23	2.08	0.54
1:A:599:TYR:O	1:A:603:GLN:HB2	2.07	0.54
1:B:204:LEU:HD11	1:F:503:ASN:CG	2.27	0.54
1:C:590:TYR:C	1:C:590:TYR:CD1	2.79	0.54
1:D:366:PHE:HD1	1:D:366:PHE:C	2.10	0.54
1:D:384:ILE:O	1:D:384:ILE:HG22	2.06	0.54
1:E:298:ALA:O	1:E:299:ARG:C	2.46	0.54
1:F:408:CYS:HB2	1:F:465:GLN:NE2	2.22	0.54
1:H:197:ASN:O	1:H:199:GLU:N	2.41	0.54
1:H:466:TRP:O	1:H:467:GLU:C	2.46	0.54
1:H:603:GLN:O	1:H:605:ALA:N	2.40	0.54
1:G:434:ALA:O	1:G:437:PHE:HB3	2.06	0.54
1:G:536:CYS:O	1:G:540:VAL:N	2.40	0.54
1:A:270:ARG:HH11	1:A:270:ARG:CG	2.21	0.54
1:A:494:ASP:O	1:A:498:PHE:HD2	1.91	0.54
1:B:304:VAL:CG1	1:B:387:LEU:HG	2.38	0.54
1:B:513:ILE:HG22	1:B:513:ILE:O	2.08	0.54
1:B:543:ALA:N	1:B:544:VAL:HA	2.22	0.54
1:C:294:ILE:HD12	1:C:378:TYR:HB3	1.90	0.54
1:C:379:ALA:O	1:C:383:HIS:N	2.40	0.54
1:C:456:VAL:O	1:C:456:VAL:CG1	2.55	0.54
1:C:575:GLU:OE2	1:C:673:HIS:CE1	2.60	0.54
1:E:319:ILE:HG13	1:E:325:LEU:HD12	1.90	0.54
1:F:536:CYS:O	1:F:539:GLY:N	2.40	0.54
1:H:319:ILE:HG23	1:H:444:GLU:HG3	1.89	0.54
1:G:393:PRO:HB3	1:G:491:PHE:HE2	1.73	0.54
1:A:151:THR:HG22	1:A:195:GLU:O	2.05	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:270:ARG:HH11	1:A:270:ARG:HG3	1.71	0.54
1:A:315:TRP:CZ3	1:A:399:ALA:HB2	2.42	0.54
1:A:324:LYS:HB3	1:A:324:LYS:NZ	2.23	0.54
1:D:289:GLU:O	1:D:290:VAL:C	2.44	0.54
1:D:318:GLU:OE1	1:D:369:GLN:HG3	2.08	0.54
1:E:220:GLU:HA	1:E:238:THR:HG1	1.70	0.54
1:E:227:ILE:HD12	1:E:263:VAL:CG2	2.38	0.54
1:E:384:ILE:O	1:E:384:ILE:HG22	2.08	0.54
1:E:466:TRP:O	1:E:467:GLU:C	2.45	0.54
1:F:487:LEU:O	1:F:490:HIS:N	2.41	0.54
1:F:544:VAL:HG11	1:F:547:LEU:HG	1.89	0.54
1:H:221:GLU:OE2	1:H:274:ARG:NH2	2.41	0.54
1:G:130:ASP:OD2	1:G:134:SER:OG	2.22	0.54
1:B:146:TYR:HE1	1:B:260:LEU:HD11	1.70	0.54
1:C:249:LEU:C	1:C:249:LEU:CD2	2.76	0.54
1:C:282:ARG:O	1:C:283:HIS:CG	2.61	0.54
1:D:270:ARG:HH11	1:D:270:ARG:HG3	1.72	0.54
1:D:472:CYS:C	1:D:474:GLN:H	2.10	0.54
1:D:504:LYS:O	1:D:505:HIS:CD2	2.60	0.54
1:D:536:CYS:O	1:D:539:GLY:N	2.39	0.54
1:E:277:MET:CE	1:E:613:THR:HG22	2.37	0.54
1:F:303:ASN:O	1:F:384:ILE:HG23	2.08	0.54
1:F:543:ALA:N	1:F:544:VAL:HA	2.23	0.54
1:H:350:TYR:HD2	1:H:617:GLU:O	1.90	0.54
1:H:456:VAL:O	1:H:456:VAL:CG1	2.53	0.54
1:H:459:ASP:O	1:H:460:GLU:C	2.46	0.54
1:H:536:CYS:O	1:H:539:GLY:N	2.39	0.54
1:G:132:THR:O	1:G:133:ARG:C	2.45	0.54
1:A:351:TRP:NE1	1:A:357:LYS:HG3	2.23	0.54
1:B:147:LEU:HG	1:F:238:THR:HA	1.90	0.54
1:C:262:LEU:O	1:C:263:VAL:CG1	2.55	0.54
1:C:634:ILE:O	1:C:637:ALA:N	2.40	0.54
1:D:277:MET:CE	1:D:613:THR:HG22	2.37	0.54
1:D:333:SER:O	1:D:334:ASP:OD1	2.26	0.54
1:G:180:ALA:O	1:G:181:VAL:C	2.46	0.54
1:G:298:ALA:O	1:G:299:ARG:C	2.45	0.54
1:A:298:ALA:O	1:A:299:ARG:C	2.46	0.54
1:B:316:ARG:HB3	1:B:367:TYR:CD1	2.43	0.54
1:B:379:ALA:CB	1:B:384:ILE:O	2.52	0.54
1:B:400:MET:HE3	1:B:407:SER:CB	2.35	0.54
1:B:563:TYR:CD1	1:B:636:VAL:HG22	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:283:HIS:CD2	1:C:350:TYR:HE1	2.25	0.54
1:C:334:ASP:O	1:C:335:ASN:O	2.26	0.54
1:C:513:ILE:O	1:C:513:ILE:HG22	2.06	0.54
1:D:132:THR:O	1:D:133:ARG:C	2.45	0.54
1:D:487:LEU:O	1:D:490:HIS:N	2.40	0.54
1:E:132:THR:O	1:E:133:ARG:C	2.46	0.54
1:F:195:GLU:N	1:F:195:GLU:OE2	2.38	0.54
1:G:172:TYR:OH	1:G:243:PHE:O	2.26	0.54
1:G:315:TRP:HE3	1:G:399:ALA:HB2	1.72	0.54
1:A:172:TYR:HA	1:A:187:ILE:N	2.23	0.54
1:A:476:TYR:OH	1:A:487:LEU:HG	2.08	0.54
1:B:132:THR:O	1:B:133:ARG:C	2.46	0.54
1:B:148:ASN:ND2	1:F:216:PRO:O	2.40	0.54
1:B:201:ARG:NH1	1:B:207:MET:SD	2.81	0.54
1:B:220:GLU:O	1:B:238:THR:OG1	2.25	0.54
1:B:363:GLY:O	1:B:364:PRO:C	2.45	0.54
1:B:466:TRP:O	1:B:467:GLU:C	2.45	0.54
1:C:179:ILE:O	1:C:179:ILE:HG22	2.08	0.54
1:D:174:VAL:O	1:D:175:SER:C	2.46	0.54
1:D:249:LEU:C	1:D:249:LEU:CD2	2.77	0.54
1:D:363:GLY:N	1:D:364:PRO:CD	2.60	0.54
1:D:366:PHE:C	1:D:366:PHE:CD1	2.81	0.54
1:D:441:ILE:O	1:D:444:GLU:N	2.41	0.54
1:E:324:LYS:HA	1:E:327:THR:HG1	1.69	0.54
1:F:130:ASP:O	1:F:655:ARG:NH1	2.41	0.54
1:F:537:GLN:H	1:H:192:ARG:NE	2.05	0.54
1:G:198:GLY:O	1:G:200:GLY:N	2.41	0.54
1:A:277:MET:HG2	1:A:278:LEU:N	2.21	0.53
1:A:299:ARG:NH1	1:A:662:TRP:CD2	2.76	0.53
1:A:616:THR:O	1:A:618:HIS:N	2.40	0.53
1:B:443:ASP:HA	1:B:446:CYS:SG	2.48	0.53
1:C:132:THR:O	1:C:133:ARG:C	2.45	0.53
1:C:311:ASP:O	1:C:312:ASP:C	2.46	0.53
1:C:441:ILE:O	1:C:444:GLU:N	2.40	0.53
1:F:289:GLU:O	1:F:290:VAL:C	2.44	0.53
1:B:531:MET:CG	1:B:558:LYS:HD2	2.38	0.53
1:E:131:GLU:CB	1:E:251:GLN:NE2	2.57	0.53
1:E:246:LEU:HA	1:E:249:LEU:HB3	1.89	0.53
1:H:438:ALA:O	1:H:441:ILE:N	2.39	0.53
1:H:487:LEU:O	1:H:490:HIS:N	2.40	0.53
1:A:144:THR:HG23	1:A:229:ALA:HA	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:454:ILE:CG1	1:A:504:LYS:HD3	2.38	0.53
1:A:466:TRP:O	1:A:467:GLU:C	2.45	0.53
1:B:131:GLU:OE1	1:B:132:THR:N	2.42	0.53
1:B:147:LEU:CD1	1:F:239:GLU:HG3	2.38	0.53
1:B:208:ASP:CG	1:B:211:SER:HG	2.07	0.53
1:B:589:CYS:O	1:B:589:CYS:SG	2.67	0.53
1:C:212:PHE:CZ	1:C:246:LEU:HD11	2.43	0.53
1:C:277:MET:HB2	1:C:306:HIS:HB3	1.90	0.53
1:C:297:MET:HB3	1:C:302:MET:HB2	1.89	0.53
1:C:476:TYR:HE2	1:C:486:GLN:HB2	1.73	0.53
1:E:324:LYS:HB2	1:E:403:TYR:CE2	2.44	0.53
1:E:350:TYR:HD2	1:E:617:GLU:O	1.91	0.53
1:H:197:ASN:OD1	1:H:198:GLY:N	2.42	0.53
1:H:363:GLY:H	1:H:364:PRO:HD2	1.74	0.53
1:H:393:PRO:HB3	1:H:491:PHE:CE2	2.44	0.53
1:H:544:VAL:HG12	1:H:547:LEU:HB2	1.89	0.53
1:G:587:GLU:C	1:G:589:CYS:H	2.11	0.53
1:A:232:ILE:HG22	1:A:232:ILE:O	2.08	0.53
1:A:480:GLY:HA2	2:A:1003:HOH:O	2.08	0.53
1:B:431:ASN:O	1:B:431:ASN:OD1	2.27	0.53
1:C:351:TRP:HE1	1:C:357:LYS:CE	2.22	0.53
1:F:607:VAL:O	1:F:607:VAL:HG12	2.08	0.53
1:H:471:LEU:HA	1:H:474:GLN:CD	2.28	0.53
1:H:545:LYS:CE	1:H:607:VAL:HG23	2.37	0.53
1:G:324:LYS:HB2	1:G:403:TYR:CE2	2.44	0.53
1:G:326:THR:O	1:G:330:ALA:HB3	2.08	0.53
1:G:487:LEU:O	1:G:490:HIS:N	2.41	0.53
1:A:169:PHE:O	1:A:172:TYR:HB2	2.09	0.53
1:B:319:ILE:HB	1:B:325:LEU:HD12	1.91	0.53
1:C:384:ILE:O	1:C:384:ILE:HG22	2.07	0.53
1:C:396:PHE:O	1:C:400:MET:HG3	2.09	0.53
1:D:168:THR:O	1:D:171:ILE:HG12	2.08	0.53
1:D:299:ARG:HH22	1:D:662:TRP:HB3	1.74	0.53
1:D:586:VAL:HG23	1:D:674:TRP:CZ2	2.44	0.53
1:E:180:ALA:HB1	1:E:256:ASN:HD21	1.72	0.53
1:E:584:ASP:HB3	1:E:632:ARG:HH11	1.72	0.53
1:F:321:ARG:HD2	1:F:440:ASN:HB3	1.89	0.53
1:F:364:PRO:HA	1:F:365:TYR:HB2	1.90	0.53
1:F:431:ASN:OD1	1:F:431:ASN:C	2.47	0.53
1:G:201:ARG:HB2	1:G:204:LEU:HD12	1.89	0.53
1:G:212:PHE:CZ	1:G:246:LEU:HD11	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:277:MET:SD	1:G:613:THR:HG22	2.48	0.53
1:G:438:ALA:O	1:G:441:ILE:N	2.38	0.53
1:G:501:THR:C	1:G:502:LYS:HG3	2.28	0.53
1:A:252:LEU:O	1:A:253:ALA:O	2.26	0.53
1:A:253:ALA:CA	1:A:260:LEU:HD23	2.38	0.53
1:A:333:SER:O	1:A:334:ASP:OD1	2.27	0.53
1:A:633:LEU:O	1:A:636:VAL:HG22	2.09	0.53
1:B:253:ALA:HB2	1:B:260:LEU:HD21	1.87	0.53
1:B:459:ASP:O	1:B:460:GLU:C	2.47	0.53
1:C:372:MET:HB3	1:C:448:ILE:HG21	1.89	0.53
1:C:400:MET:HE2	1:C:426:VAL:O	2.08	0.53
1:C:438:ALA:O	1:C:441:ILE:N	2.41	0.53
1:C:493:LYS:HE3	1:C:497:ASP:OD2	2.08	0.53
1:D:146:TYR:HD1	1:D:146:TYR:H	1.56	0.53
1:D:275:GLY:C	1:D:611:GLN:HG3	2.29	0.53
1:D:289:GLU:OE2	1:D:622:ASN:CG	2.47	0.53
1:E:431:ASN:O	1:E:431:ASN:OD1	2.26	0.53
1:E:502:LYS:HD2	1:E:503:ASN:CA	2.39	0.53
1:E:526:THR:O	1:E:549:LEU:HD23	2.08	0.53
1:E:596:GLN:O	1:E:598:MET:HG2	2.09	0.53
1:F:354:ASN:O	1:F:355:GLY:C	2.47	0.53
1:F:398:ALA:HA	1:F:416:VAL:HG13	1.90	0.53
1:F:651:ASN:O	1:F:655:ARG:HG3	2.09	0.53
1:G:275:GLY:HA3	1:G:611:GLN:HG3	1.90	0.53
1:G:586:VAL:HG12	1:G:635:CYS:SG	2.49	0.53
1:G:672:ARG:HH12	1:G:676:PRO:C	2.11	0.53
1:A:385:GLU:CD	1:A:451:TYR:HD1	2.12	0.53
1:A:533:TRP:CD2	1:A:534:ASN:ND2	2.77	0.53
1:D:180:ALA:O	1:D:181:VAL:C	2.47	0.53
1:D:544:VAL:CG2	1:D:549:LEU:HD12	2.39	0.53
1:D:544:VAL:HB	1:D:549:LEU:HB2	1.91	0.53
1:D:568:LYS:HB2	1:D:581:TYR:O	2.08	0.53
1:E:181:VAL:HB	1:E:182:PRO:HD3	1.89	0.53
1:E:544:VAL:CG2	1:E:549:LEU:HD12	2.39	0.53
1:E:626:GLU:O	1:E:630:LEU:HD12	2.09	0.53
1:F:277:MET:CE	1:F:613:THR:HG22	2.39	0.53
1:F:441:ILE:O	1:F:444:GLU:N	2.39	0.53
1:H:284:PHE:CE1	1:H:367:TYR:CE1	2.97	0.53
1:H:509:TRP:CZ3	1:H:531:MET:HG2	2.44	0.53
1:G:476:TYR:CZ	1:G:487:LEU:HG	2.43	0.53
1:A:282:ARG:O	1:A:332:ARG:NH1	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:385:GLU:CD	1:A:451:TYR:CD1	2.82	0.53
1:C:400:MET:CE	1:C:427:LEU:HA	2.39	0.53
1:D:244:TYR:HA	1:D:247:GLN:HG3	1.89	0.53
1:D:438:ALA:O	1:D:441:ILE:N	2.39	0.53
1:E:130:ASP:O	1:E:655:ARG:NH1	2.42	0.53
1:E:173:LYS:HG2	1:E:196:LEU:HB2	1.91	0.53
1:E:174:VAL:O	1:E:175:SER:C	2.46	0.53
1:E:459:ASP:O	1:E:460:GLU:C	2.47	0.53
1:F:132:THR:O	1:F:133:ARG:C	2.46	0.53
1:F:281:SER:OG	1:F:311:ASP:HB2	2.08	0.53
1:F:672:ARG:HH12	1:F:676:PRO:C	2.12	0.53
1:H:192:ARG:CD	1:H:193:GLY:H	2.18	0.53
1:G:334:ASP:O	1:G:335:ASN:O	2.26	0.53
1:G:672:ARG:CZ	1:G:675:MET:O	2.57	0.53
1:A:169:PHE:O	1:A:172:TYR:C	2.47	0.53
1:D:238:THR:O	1:D:239:GLU:C	2.47	0.53
1:D:284:PHE:HB2	1:D:316:ARG:NH1	2.24	0.53
1:E:491:PHE:O	1:E:495:LEU:HD23	2.09	0.53
1:F:131:GLU:OE1	1:F:132:THR:N	2.41	0.53
1:F:334:ASP:O	1:F:335:ASN:O	2.27	0.53
1:F:394:GLY:O	1:F:395:HIS:C	2.47	0.53
1:F:430:ALA:CB	1:F:472:CYS:SG	2.97	0.53
1:H:284:PHE:HB2	1:H:316:ARG:NH1	2.24	0.53
1:A:396:PHE:O	1:A:425:ASP:O	2.27	0.53
1:B:400:MET:CE	1:B:427:LEU:HA	2.39	0.53
1:C:174:VAL:O	1:C:175:SER:C	2.48	0.53
1:C:520:LEU:HB3	1:C:525:GLN:N	2.24	0.53
1:F:174:VAL:O	1:F:175:SER:C	2.47	0.53
1:F:537:GLN:HG3	1:H:192:ARG:NE	2.24	0.53
1:H:168:THR:O	1:H:171:ILE:HG12	2.09	0.53
1:G:301:LYS:HD3	1:G:641:TRP:CH2	2.43	0.53
1:A:310:THR:HG23	1:A:390:VAL:HG22	1.90	0.52
1:A:442:LEU:HD11	1:A:495:LEU:HD13	1.91	0.52
1:B:180:ALA:O	1:B:181:VAL:C	2.47	0.52
1:B:600:THR:O	1:B:602:GLU:O	2.27	0.52
1:E:393:PRO:HB3	1:E:491:PHE:CE2	2.44	0.52
1:F:180:ALA:O	1:F:181:VAL:C	2.47	0.52
1:H:531:MET:HG3	1:H:558:LYS:HZ3	1.73	0.52
1:A:164:GLY:HA3	1:A:239:GLU:CB	2.40	0.52
1:A:414:PRO:O	1:A:415:GLN:HG3	2.09	0.52
1:A:605:ALA:O	1:A:606:LEU:HD23	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:319:ILE:HG23	1:B:444:GLU:HG3	1.90	0.52
1:B:438:ALA:O	1:B:441:ILE:N	2.39	0.52
1:B:493:LYS:O	1:B:495:LEU:N	2.42	0.52
1:B:513:ILE:CD1	1:B:543:ALA:HB1	2.37	0.52
1:D:307:TRP:O	1:D:389:GLU:HB3	2.09	0.52
1:D:544:VAL:HG11	1:D:547:LEU:CB	2.39	0.52
1:E:302:MET:CE	1:E:637:ALA:HB2	2.40	0.52
1:F:284:PHE:HE1	1:F:367:TYR:CE1	2.26	0.52
1:F:285:PHE:O	1:F:289:GLU:HB3	2.10	0.52
1:G:431:ASN:O	1:G:431:ASN:OD1	2.27	0.52
1:G:563:TYR:CD1	1:G:636:VAL:HG22	2.44	0.52
1:A:239:GLU:HB2	1:A:243:PHE:HE2	1.74	0.52
1:A:284:PHE:CE1	1:A:286:SER:N	2.77	0.52
1:A:533:TRP:CE3	1:A:560:ASP:OD1	2.60	0.52
1:A:537:GLN:OE1	1:A:596:GLN:CD	2.47	0.52
1:A:545:LYS:CD	1:A:603:GLN:HB3	2.39	0.52
1:A:565:ILE:O	1:A:565:ILE:HG13	2.08	0.52
1:B:315:TRP:CZ2	1:B:325:LEU:HD13	2.44	0.52
1:B:536:CYS:O	1:B:540:VAL:N	2.40	0.52
1:C:586:VAL:HG23	1:C:674:TRP:CZ2	2.44	0.52
1:D:145:LYS:CD	1:D:147:LEU:HD13	2.36	0.52
1:E:180:ALA:O	1:E:181:VAL:C	2.46	0.52
1:F:198:GLY:O	1:F:200:GLY:N	2.42	0.52
1:F:459:ASP:O	1:F:460:GLU:C	2.47	0.52
1:H:218:LEU:O	1:H:237:SER:OG	2.25	0.52
1:G:192:ARG:HD3	1:G:193:GLY:H	1.75	0.52
1:G:294:ILE:HG23	1:G:384:ILE:HD13	1.90	0.52
1:A:223:TYR:HB2	1:A:245:ALA:HB2	1.90	0.52
1:A:277:MET:SD	1:A:613:THR:HG22	2.49	0.52
1:A:318:GLU:HA	1:A:326:THR:HG21	1.92	0.52
1:A:388:PRO:HB3	1:A:449:PHE:CE2	2.44	0.52
1:B:180:ALA:CB	1:B:256:ASN:HD21	2.20	0.52
1:B:238:THR:O	1:B:239:GLU:C	2.48	0.52
1:B:377:ALA:O	1:B:378:TYR:C	2.48	0.52
1:B:544:VAL:HG12	1:B:547:LEU:N	2.25	0.52
1:C:146:TYR:CE1	1:C:210:ILE:HD11	2.45	0.52
1:C:392:MET:HG2	1:C:396:PHE:CE2	2.45	0.52
1:D:177:GLU:O	1:D:181:VAL:HG23	2.08	0.52
1:D:192:ARG:HG2	1:D:193:GLY:N	2.24	0.52
1:D:274:ARG:NE	1:D:301:LYS:O	2.42	0.52
1:D:354:ASN:O	1:D:355:GLY:C	2.48	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:509:TRP:CE3	1:D:533:TRP:CD1	2.97	0.52
1:E:334:ASP:HB3	1:E:357:LYS:HB3	1.90	0.52
1:E:536:CYS:O	1:E:540:VAL:N	2.40	0.52
1:F:453:TYR:CD1	1:F:505:HIS:HB2	2.44	0.52
1:F:563:TYR:CD1	1:F:636:VAL:HG22	2.44	0.52
1:G:174:VAL:O	1:G:175:SER:C	2.48	0.52
1:A:491:PHE:CD1	1:A:491:PHE:C	2.82	0.52
1:B:181:VAL:HB	1:B:182:PRO:HD3	1.90	0.52
1:B:225:LEU:HD21	1:B:227:ILE:CD1	2.39	0.52
1:B:265:ILE:O	1:B:265:ILE:CG2	2.58	0.52
1:C:316:ARG:HB3	1:C:367:TYR:CD1	2.45	0.52
1:C:540:VAL:CG2	1:C:553:VAL:HG22	2.37	0.52
1:E:589:CYS:O	1:E:635:CYS:HB3	2.09	0.52
1:F:298:ALA:O	1:F:299:ARG:C	2.48	0.52
1:F:324:LYS:HB2	1:F:403:TYR:CE2	2.43	0.52
1:F:509:TRP:CE3	1:F:533:TRP:CD1	2.97	0.52
1:F:531:MET:HG3	1:F:558:LYS:HD2	1.91	0.52
1:H:144:THR:HA	1:H:229:ALA:HA	1.91	0.52
1:G:247:GLN:OE1	1:G:299:ARG:O	2.27	0.52
1:G:270:ARG:HH11	1:G:270:ARG:HG3	1.74	0.52
1:G:513:ILE:HD11	1:G:530:ILE:HG13	1.92	0.52
1:G:675:MET:N	1:G:675:MET:SD	2.82	0.52
1:A:189:PRO:O	1:A:191:PRO:N	2.42	0.52
1:A:234:VAL:CG1	1:A:242:LYS:HE2	2.38	0.52
1:A:354:ASN:O	1:A:355:GLY:C	2.48	0.52
1:B:195:GLU:OE2	1:B:195:GLU:N	2.42	0.52
1:B:301:LYS:HB3	1:B:641:TRP:CZ3	2.44	0.52
1:B:642:THR:O	1:B:647:LYS:HE2	2.10	0.52
1:D:392:MET:SD	1:D:427:LEU:HD13	2.49	0.52
1:D:587:GLU:HG3	1:D:591:ASN:HD21	1.73	0.52
1:E:492:ILE:O	1:E:493:LYS:C	2.48	0.52
1:E:517:GLY:O	1:E:520:LEU:HB2	2.08	0.52
1:F:384:ILE:O	1:F:384:ILE:HG22	2.09	0.52
1:F:652:PHE:O	1:F:653:ARG:C	2.48	0.52
1:H:333:SER:O	1:H:334:ASP:OD1	2.26	0.52
1:G:372:MET:O	1:G:376:VAL:HG23	2.09	0.52
1:A:164:GLY:N	1:A:239:GLU:OE2	2.43	0.52
1:A:428:ASN:O	1:A:434:ALA:CB	2.57	0.52
1:B:531:MET:SD	1:B:558:LYS:HE2	2.50	0.52
1:E:247:GLN:O	1:E:248:SER:C	2.48	0.52
1:E:247:GLN:OE1	1:E:299:ARG:HA	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:180:ALA:O	1:H:181:VAL:C	2.47	0.52
1:G:192:ARG:HH21	1:G:193:GLY:HA2	1.75	0.52
1:G:295:ASP:CA	1:G:382:ARG:NH1	2.72	0.52
1:A:281:SER:OG	1:A:311:ASP:HB2	2.10	0.52
1:B:204:LEU:O	1:B:206:ALA:N	2.43	0.52
1:D:513:ILE:HD12	1:D:543:ALA:HB1	1.91	0.52
1:D:542:LYS:C	1:D:544:VAL:HA	2.30	0.52
1:E:513:ILE:HD13	1:E:544:VAL:HG22	1.92	0.52
1:E:634:ILE:O	1:E:637:ALA:N	2.43	0.52
1:F:197:ASN:O	1:F:199:GLU:N	2.43	0.52
1:F:249:LEU:HD23	1:F:249:LEU:O	2.09	0.52
1:F:537:GLN:HB2	1:H:192:ARG:CG	2.40	0.52
1:H:307:TRP:CH2	1:H:372:MET:SD	3.03	0.52
1:H:531:MET:O	1:H:531:MET:CG	2.58	0.52
1:G:536:CYS:O	1:G:539:GLY:N	2.39	0.52
1:G:603:GLN:O	1:G:605:ALA:N	2.42	0.52
1:G:624:TYR:HA	1:G:627:TYR:HB3	1.91	0.52
1:A:172:TYR:HA	1:A:187:ILE:CG1	2.40	0.52
1:A:202:LEU:HD12	1:A:203:ALA:N	2.25	0.52
1:A:246:LEU:HA	1:A:249:LEU:HB3	1.92	0.52
1:B:270:ARG:CG	1:B:270:ARG:HH11	2.23	0.52
1:D:170:TYR:O	1:D:173:LYS:O	2.28	0.52
1:D:298:ALA:O	1:D:299:ARG:C	2.48	0.52
1:D:328:VAL:O	1:D:329:GLY:C	2.48	0.52
1:E:487:LEU:O	1:E:491:PHE:N	2.29	0.52
1:F:210:ILE:O	1:F:210:ILE:CG2	2.57	0.52
1:F:553:VAL:HG21	1:F:607:VAL:CG1	2.40	0.52
1:F:662:TRP:CE3	1:F:666:HIS:CD2	2.97	0.52
1:H:453:TYR:HE1	1:H:505:HIS:ND1	2.08	0.52
1:A:153:ASN:O	1:A:210:ILE:HB	2.10	0.52
1:B:277:MET:HB2	1:B:306:HIS:HB3	1.92	0.52
1:B:565:ILE:HG13	1:B:565:ILE:O	2.10	0.52
1:C:326:THR:O	1:C:330:ALA:HB3	2.09	0.52
1:C:429:VAL:HG21	1:C:487:LEU:HB3	1.91	0.52
1:C:644:GLN:O	1:C:645:VAL:C	2.49	0.52
1:D:634:ILE:O	1:D:637:ALA:N	2.42	0.52
1:E:223:TYR:HB2	1:E:245:ALA:HB2	1.91	0.52
1:H:354:ASN:O	1:H:355:GLY:C	2.47	0.52
1:A:191:PRO:O	1:A:192:ARG:HB2	2.10	0.51
1:A:289:GLU:OE1	1:A:622:ASN:HB3	2.10	0.51
1:A:315:TRP:CZ3	1:A:396:PHE:CE1	2.98	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:390:VAL:HG21	1:B:445:LEU:HD11	1.92	0.51
1:B:536:CYS:O	1:B:539:GLY:N	2.40	0.51
1:C:319:ILE:HB	1:C:325:LEU:HD12	1.92	0.51
1:D:247:GLN:O	1:D:248:SER:C	2.48	0.51
1:D:324:LYS:HB2	1:D:403:TYR:CZ	2.45	0.51
1:E:196:LEU:HD22	1:E:210:ILE:HD12	1.91	0.51
1:H:335:ASN:ND2	1:H:358:THR:OG1	2.43	0.51
1:H:542:LYS:C	1:H:544:VAL:HA	2.30	0.51
1:H:634:ILE:O	1:H:637:ALA:N	2.43	0.51
1:A:332:ARG:NH2	1:A:350:TYR:CZ	2.77	0.51
1:A:462:PRO:HB2	1:A:464:THR:HG23	1.92	0.51
1:A:566:CYS:CB	1:A:615:TRP:H	2.23	0.51
1:B:230:ASP:C	1:B:230:ASP:OD1	2.48	0.51
1:B:544:VAL:CG2	1:B:549:LEU:HD12	2.39	0.51
1:B:545:LYS:HE2	1:B:607:VAL:HG23	1.90	0.51
1:C:247:GLN:O	1:C:248:SER:C	2.49	0.51
1:C:536:CYS:O	1:C:539:GLY:N	2.40	0.51
1:C:536:CYS:O	1:C:540:VAL:N	2.40	0.51
1:D:377:ALA:O	1:D:378:TYR:C	2.48	0.51
1:E:357:LYS:HD3	1:E:418:THR:HB	1.92	0.51
1:E:513:ILE:HD12	1:E:543:ALA:CB	2.39	0.51
1:E:544:VAL:HB	1:E:549:LEU:HB2	1.92	0.51
1:F:280:VAL:HG13	1:F:280:VAL:O	2.10	0.51
1:F:326:THR:O	1:F:330:ALA:HB3	2.09	0.51
1:F:559:GLY:O	1:F:561:GLY:N	2.44	0.51
1:H:280:VAL:HG13	1:H:280:VAL:O	2.09	0.51
1:H:282:ARG:O	1:H:283:HIS:CG	2.63	0.51
1:H:513:ILE:HD12	1:H:543:ALA:HB1	1.93	0.51
1:G:281:SER:OG	1:G:311:ASP:HB2	2.11	0.51
1:A:247:GLN:O	1:A:248:SER:C	2.48	0.51
1:A:300:TYR:CE2	1:A:634:ILE:HG13	2.45	0.51
1:A:630:LEU:CD2	1:A:633:LEU:HD23	2.40	0.51
1:A:657:ALA:HA	1:A:675:MET:HE3	1.93	0.51
1:B:212:PHE:HZ	1:B:246:LEU:HD11	1.75	0.51
1:B:249:LEU:HD21	1:B:260:LEU:CD1	2.39	0.51
1:B:284:PHE:CB	1:B:364:PRO:O	2.58	0.51
1:B:291:LYS:CE	1:B:378:TYR:CD2	2.91	0.51
1:B:393:PRO:HB3	1:B:491:PHE:CE2	2.45	0.51
1:B:501:THR:C	1:B:502:LYS:HG3	2.30	0.51
1:B:531:MET:HG2	1:B:558:LYS:HD2	1.93	0.51
1:C:354:ASN:O	1:C:355:GLY:C	2.48	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:531:MET:HG2	1:C:558:LYS:HD2	1.91	0.51
1:D:651:ASN:O	1:D:655:ARG:HG3	2.10	0.51
1:F:131:GLU:O	1:F:132:THR:OG1	2.23	0.51
1:H:470:ASP:O	1:H:473:GLN:HB2	2.10	0.51
1:H:536:CYS:O	1:H:540:VAL:N	2.42	0.51
1:H:652:PHE:O	1:H:653:ARG:C	2.49	0.51
1:A:133:ARG:HA	1:A:655:ARG:HH12	1.76	0.51
1:A:379:ALA:O	1:A:383:HIS:N	2.43	0.51
1:A:631:PRO:HB2	1:A:634:ILE:HD13	1.93	0.51
1:B:277:MET:SD	1:B:613:THR:HG22	2.50	0.51
1:C:133:ARG:HD2	1:C:646:PHE:HB3	1.91	0.51
1:C:227:ILE:HG22	1:C:262:LEU:HA	1.92	0.51
1:C:274:ARG:NE	1:C:301:LYS:O	2.43	0.51
1:C:296:ILE:CG2	1:C:633:LEU:HD23	2.39	0.51
1:C:431:ASN:C	1:C:431:ASN:OD1	2.48	0.51
1:D:131:GLU:OE1	1:D:132:THR:N	2.44	0.51
1:D:536:CYS:O	1:D:540:VAL:N	2.40	0.51
1:D:563:TYR:CD1	1:D:636:VAL:HG22	2.45	0.51
1:E:238:THR:O	1:E:239:GLU:C	2.47	0.51
1:E:509:TRP:CE3	1:E:533:TRP:CD1	2.99	0.51
1:F:502:LYS:HD2	1:F:503:ASN:HA	1.93	0.51
1:G:384:ILE:O	1:G:384:ILE:HG22	2.10	0.51
1:G:390:VAL:CG2	1:G:445:LEU:HD11	2.40	0.51
1:G:456:VAL:O	1:G:456:VAL:HG12	2.10	0.51
1:A:209:ASN:OD1	1:A:209:ASN:N	2.43	0.51
1:A:311:ASP:O	1:A:312:ASP:C	2.49	0.51
1:B:197:ASN:O	1:B:199:GLU:N	2.44	0.51
1:B:247:GLN:O	1:B:248:SER:C	2.49	0.51
1:B:249:LEU:HD21	1:B:260:LEU:HD13	1.93	0.51
1:B:363:GLY:H	1:B:364:PRO:CD	2.21	0.51
1:C:282:ARG:CZ	1:C:311:ASP:OD2	2.59	0.51
1:D:324:LYS:NZ	1:D:328:VAL:HG23	2.26	0.51
1:D:350:TYR:CE1	1:D:617:GLU:O	2.64	0.51
1:E:227:ILE:HD12	1:E:263:VAL:HG22	1.93	0.51
1:F:590:TYR:HD2	1:F:649:TRP:CD1	2.29	0.51
1:H:328:VAL:O	1:H:329:GLY:C	2.48	0.51
1:H:431:ASN:C	1:H:431:ASN:OD1	2.49	0.51
1:G:375:VAL:C	1:G:377:ALA:N	2.64	0.51
1:G:532:SER:O	1:G:536:CYS:SG	2.49	0.51
1:G:559:GLY:O	1:G:561:GLY:C	2.49	0.51
1:A:365:TYR:HB3	1:A:366:PHE:CD1	2.30	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:545:LYS:HE2	1:A:607:VAL:CG2	2.40	0.51
1:B:256:ASN:HB2	1:B:662:TRP:HZ2	1.75	0.51
1:B:354:ASN:O	1:B:355:GLY:C	2.47	0.51
1:D:178:GLN:NE2	1:D:182:PRO:HD3	2.26	0.51
1:D:210:ILE:HG12	1:D:232:ILE:HB	1.93	0.51
1:D:434:ALA:O	1:D:437:PHE:HB3	2.11	0.51
1:E:326:THR:O	1:E:330:ALA:HB3	2.11	0.51
1:F:247:GLN:O	1:F:248:SER:C	2.49	0.51
1:H:377:ALA:O	1:H:378:TYR:C	2.49	0.51
1:H:540:VAL:CG2	1:H:553:VAL:HG22	2.41	0.51
1:G:638:GLU:O	1:G:639:ALA:C	2.49	0.51
1:G:652:PHE:O	1:G:653:ARG:C	2.49	0.51
1:A:438:ALA:O	1:A:441:ILE:N	2.38	0.51
1:A:457:GLY:HA2	1:A:509:TRP:CD1	2.46	0.51
1:B:208:ASP:OD2	1:B:211:SER:OG	2.28	0.51
1:B:390:VAL:CG2	1:B:445:LEU:HD11	2.41	0.51
1:B:542:LYS:C	1:B:544:VAL:HA	2.31	0.51
1:B:634:ILE:O	1:B:637:ALA:N	2.43	0.51
1:C:297:MET:HE2	1:C:302:MET:HB3	1.93	0.51
1:C:324:LYS:HA	1:C:327:THR:HG1	1.76	0.51
1:C:328:VAL:O	1:C:329:GLY:C	2.49	0.51
1:D:587:GLU:HG2	1:D:591:ASN:ND2	2.25	0.51
1:E:297:MET:HE3	1:E:302:MET:SD	2.50	0.51
1:E:626:GLU:OE1	1:E:668:TYR:HD1	1.93	0.51
1:F:328:VAL:O	1:F:329:GLY:C	2.49	0.51
1:F:438:ALA:O	1:F:441:ILE:N	2.40	0.51
1:F:495:LEU:N	1:F:495:LEU:HD23	2.25	0.51
1:G:531:MET:O	1:G:531:MET:HG2	2.11	0.51
1:A:257:ALA:O	1:A:258:GLU:HB3	2.11	0.51
1:B:247:GLN:OE1	1:B:299:ARG:HA	2.11	0.51
1:B:431:ASN:OD1	1:B:431:ASN:C	2.49	0.51
1:B:513:ILE:HD13	1:B:544:VAL:HG22	1.92	0.51
1:D:198:GLY:O	1:D:200:GLY:N	2.44	0.51
1:E:218:LEU:O	1:E:237:SER:OG	2.29	0.51
1:E:315:TRP:CZ2	1:E:325:LEU:HD13	2.46	0.51
1:E:644:GLN:O	1:E:645:VAL:C	2.49	0.51
1:E:649:TRP:O	1:E:652:PHE:HB3	2.10	0.51
1:F:210:ILE:HD13	1:F:232:ILE:HB	1.92	0.51
1:F:492:ILE:O	1:F:493:LYS:C	2.49	0.51
1:H:590:TYR:CD2	1:H:649:TRP:CD1	2.83	0.51
1:G:256:ASN:HB2	1:G:662:TRP:CZ2	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:277:MET:HB2	1:G:306:HIS:HB3	1.93	0.51
1:A:357:LYS:HE2	1:A:418:THR:OG1	2.11	0.51
1:A:400:MET:CE	1:A:427:LEU:HA	2.41	0.51
1:A:456:VAL:O	1:A:456:VAL:CG1	2.58	0.51
1:B:174:VAL:O	1:B:175:SER:C	2.49	0.51
1:C:145:LYS:O	1:C:146:TYR:CD1	2.64	0.51
1:C:394:GLY:O	1:C:395:HIS:C	2.48	0.51
1:C:565:ILE:O	1:C:565:ILE:HG13	2.10	0.51
1:C:603:GLN:O	1:C:605:ALA:N	2.44	0.51
1:D:400:MET:CE	1:D:427:LEU:HA	2.41	0.51
1:D:560:ASP:OD1	1:D:564:TYR:CE2	2.64	0.51
1:E:438:ALA:O	1:E:441:ILE:N	2.40	0.51
1:F:638:GLU:O	1:F:639:ALA:C	2.49	0.51
1:H:174:VAL:O	1:H:175:SER:C	2.48	0.51
1:G:232:ILE:O	1:G:232:ILE:CG2	2.59	0.51
1:G:428:ASN:C	1:G:428:ASN:OD1	2.48	0.51
1:A:150:ASN:O	1:A:151:THR:CG2	2.59	0.51
1:C:396:PHE:O	1:C:400:MET:CG	2.59	0.51
1:D:396:PHE:O	1:D:400:MET:CG	2.59	0.51
1:D:492:ILE:O	1:D:493:LYS:C	2.49	0.51
1:E:333:SER:O	1:E:334:ASP:OD1	2.28	0.51
1:E:372:MET:HB3	1:E:448:ILE:HG21	1.92	0.51
1:H:223:TYR:HB2	1:H:245:ALA:HB2	1.92	0.51
1:H:295:ASP:CG	1:H:382:ARG:HH12	2.12	0.51
1:G:431:ASN:OD1	1:G:431:ASN:C	2.49	0.51
1:A:173:LYS:O	1:A:174:VAL:C	2.49	0.50
1:A:194:ALA:HB1	1:A:196:LEU:CD2	2.34	0.50
1:A:558:LYS:HE2	1:A:613:THR:CG2	2.41	0.50
1:C:235:ALA:O	1:C:236:SER:OG	2.26	0.50
1:C:285:PHE:O	1:C:286:SER:OG	2.21	0.50
1:C:404:PRO:HB3	1:C:414:PRO:HG3	1.93	0.50
1:C:545:LYS:NZ	1:C:604:MET:SD	2.81	0.50
1:C:638:GLU:O	1:C:639:ALA:C	2.49	0.50
1:D:454:ILE:CG1	1:D:504:LYS:HD3	2.41	0.50
1:D:469:ASN:OD1	1:D:472:CYS:SG	2.67	0.50
1:E:614:PHE:CE2	1:E:625:LEU:HD13	2.46	0.50
1:F:643:PRO:O	1:F:644:GLN:C	2.49	0.50
1:H:270:ARG:HH12	1:H:604:MET:CE	2.23	0.50
1:H:630:LEU:HD12	1:H:669:VAL:O	2.11	0.50
1:H:633:LEU:C	1:H:633:LEU:HD12	2.32	0.50
1:G:295:ASP:OD1	1:G:382:ARG:NH1	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:282:ARG:NH1	1:A:617:GLU:OE2	2.44	0.50
1:A:499:VAL:CG1	1:A:504:LYS:HB2	2.41	0.50
1:A:567:ARG:HB2	1:A:584:ASP:OD2	2.12	0.50
1:B:603:GLN:O	1:B:606:LEU:N	2.45	0.50
1:C:544:VAL:HG12	1:C:547:LEU:H	1.76	0.50
1:D:391:ASP:O	1:D:396:PHE:CE2	2.65	0.50
1:E:284:PHE:CB	1:E:364:PRO:O	2.58	0.50
1:E:429:VAL:HG21	1:E:487:LEU:HB3	1.93	0.50
1:E:500:ALA:HA	1:E:502:LYS:HG2	1.93	0.50
1:E:587:GLU:OE1	1:E:649:TRP:CH2	2.64	0.50
1:G:354:ASN:O	1:G:355:GLY:C	2.48	0.50
1:G:509:TRP:CE3	1:G:533:TRP:CD1	2.99	0.50
1:A:129:ALA:HB1	1:A:655:ARG:CD	2.41	0.50
1:A:492:ILE:O	1:A:493:LYS:C	2.50	0.50
1:B:172:TYR:OH	1:B:243:PHE:O	2.24	0.50
1:B:311:ASP:O	1:B:312:ASP:C	2.49	0.50
1:B:400:MET:HE2	1:B:426:VAL:O	2.11	0.50
1:D:375:VAL:C	1:D:377:ALA:N	2.64	0.50
1:D:638:GLU:O	1:D:639:ALA:C	2.49	0.50
1:E:638:GLU:O	1:E:639:ALA:C	2.49	0.50
1:F:282:ARG:CZ	1:F:311:ASP:OD2	2.59	0.50
1:H:180:ALA:HB3	1:H:256:ASN:ND2	2.21	0.50
1:H:247:GLN:O	1:H:248:SER:C	2.49	0.50
1:H:638:GLU:O	1:H:639:ALA:C	2.50	0.50
1:G:525:GLN:O	1:G:526:THR:HG23	2.12	0.50
1:G:543:ALA:N	1:G:544:VAL:HA	2.25	0.50
1:A:630:LEU:HD21	1:A:633:LEU:CD2	2.41	0.50
1:A:638:GLU:O	1:A:639:ALA:C	2.49	0.50
1:B:225:LEU:HD23	1:B:225:LEU:O	2.12	0.50
1:C:181:VAL:HB	1:C:182:PRO:HD3	1.94	0.50
1:C:282:ARG:C	1:C:350:TYR:HH	2.09	0.50
1:C:536:CYS:O	1:C:537:GLN:C	2.50	0.50
1:D:271:PHE:HB2	1:D:640:GLY:O	2.12	0.50
1:D:389:GLU:HA	1:D:455:HIS:O	2.12	0.50
1:D:415:GLN:O	1:D:417:TRP:N	2.43	0.50
1:D:544:VAL:CG1	1:D:547:LEU:HB2	2.40	0.50
1:E:249:LEU:HD23	1:E:249:LEU:O	2.11	0.50
1:E:262:LEU:O	1:E:263:VAL:CG1	2.57	0.50
1:E:285:PHE:CZ	1:E:616:THR:HG21	2.46	0.50
1:E:476:TYR:CE2	1:E:487:LEU:HD12	2.46	0.50
1:E:628:LEU:O	1:E:629:ALA:C	2.50	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:324:LYS:NZ	1:F:328:VAL:HG23	2.26	0.50
1:F:565:ILE:CD1	1:F:633:LEU:HA	2.41	0.50
1:H:532:SER:O	1:H:536:CYS:SG	2.51	0.50
1:G:227:ILE:HD12	1:G:263:VAL:HG23	1.92	0.50
1:G:400:MET:CE	1:G:427:LEU:HA	2.41	0.50
1:A:296:ILE:O	1:A:297:MET:C	2.49	0.50
1:A:427:LEU:CD2	1:A:434:ALA:HB1	2.41	0.50
1:B:559:GLY:O	1:B:561:GLY:N	2.45	0.50
1:C:526:THR:O	1:C:549:LEU:HD23	2.12	0.50
1:D:632:ARG:O	1:D:633:LEU:C	2.50	0.50
1:E:313:GLN:HA	1:E:417:TRP:O	2.12	0.50
1:E:542:LYS:C	1:E:544:VAL:HA	2.32	0.50
1:G:238:THR:O	1:G:239:GLU:C	2.49	0.50
1:G:282:ARG:CZ	1:G:311:ASP:OD2	2.60	0.50
1:A:375:VAL:C	1:A:377:ALA:N	2.65	0.50
1:A:456:VAL:O	1:A:456:VAL:HG12	2.11	0.50
1:B:261:PRO:O	1:B:262:LEU:HD23	2.12	0.50
1:B:509:TRP:CE3	1:B:533:TRP:CD1	2.98	0.50
1:B:638:GLU:O	1:B:639:ALA:C	2.50	0.50
1:C:375:VAL:C	1:C:377:ALA:N	2.64	0.50
1:C:568:LYS:HB2	1:C:581:TYR:O	2.11	0.50
1:D:513:ILE:HD13	1:D:543:ALA:CB	2.41	0.50
1:E:282:ARG:O	1:E:283:HIS:CG	2.65	0.50
1:E:295:ASP:CA	1:E:382:ARG:HH12	2.25	0.50
1:E:319:ILE:CG1	1:E:325:LEU:HD12	2.41	0.50
1:E:627:TYR:O	1:E:628:LEU:C	2.49	0.50
1:F:538:GLU:H	1:H:192:ARG:HB2	1.76	0.50
1:G:290:VAL:HG11	1:G:375:VAL:HG21	1.94	0.50
1:A:302:MET:HE3	1:A:633:LEU:HD13	1.94	0.50
1:A:566:CYS:SG	1:A:615:TRP:CA	2.99	0.50
1:A:652:PHE:O	1:A:653:ARG:C	2.49	0.50
1:B:235:ALA:O	1:B:236:SER:OG	2.29	0.50
1:B:375:VAL:C	1:B:377:ALA:N	2.64	0.50
1:C:194:ALA:HA	1:C:195:GLU:OE2	2.12	0.50
1:C:492:ILE:O	1:C:493:LYS:C	2.50	0.50
1:C:652:PHE:O	1:C:653:ARG:C	2.49	0.50
1:D:400:MET:HE1	1:D:427:LEU:HA	1.93	0.50
1:D:463:THR:HG22	1:D:466:TRP:CE3	2.47	0.50
1:E:389:GLU:OE2	1:E:391:ASP:HB2	2.12	0.50
1:E:652:PHE:O	1:E:653:ARG:C	2.49	0.50
1:F:280:VAL:HG13	1:F:316:ARG:HG3	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:396:PHE:O	1:H:400:MET:CG	2.58	0.50
1:H:431:ASN:O	1:H:431:ASN:OD1	2.29	0.50
1:A:480:GLY:O	1:A:481:LEU:HG	2.12	0.50
1:B:536:CYS:SG	1:B:559:GLY:HA2	2.52	0.50
1:C:431:ASN:O	1:C:431:ASN:OD1	2.30	0.50
1:C:627:TYR:O	1:C:628:LEU:C	2.50	0.50
1:D:144:THR:HG22	1:D:260:LEU:HB2	1.93	0.50
1:E:328:VAL:O	1:E:329:GLY:C	2.48	0.50
1:F:181:VAL:HB	1:F:182:PRO:HD3	1.92	0.50
1:F:375:VAL:C	1:F:377:ALA:N	2.64	0.50
1:F:434:ALA:O	1:F:437:PHE:HB3	2.12	0.50
1:F:603:GLN:O	1:F:605:ALA:N	2.45	0.50
1:H:632:ARG:O	1:H:633:LEU:C	2.49	0.50
1:G:429:VAL:HG23	1:G:487:LEU:HD13	1.94	0.50
1:G:628:LEU:O	1:G:629:ALA:C	2.50	0.50
1:B:326:THR:HB	1:B:366:PHE:CD2	2.46	0.50
1:B:500:ALA:HA	1:B:502:LYS:HG2	1.93	0.50
1:E:175:SER:O	1:E:179:ILE:HG13	2.12	0.50
1:E:282:ARG:NH1	1:E:617:GLU:OE2	2.45	0.50
1:E:350:TYR:CE2	1:E:617:GLU:HA	2.47	0.50
1:E:442:LEU:CD2	1:E:454:ILE:HD13	2.42	0.50
1:E:507:VAL:O	1:E:508:CYS:SG	2.70	0.50
1:E:530:ILE:HG21	1:E:543:ALA:HB1	1.93	0.50
1:F:238:THR:O	1:F:239:GLU:C	2.50	0.50
1:H:198:GLY:O	1:H:200:GLY:N	2.44	0.50
1:A:389:GLU:HG3	1:A:390:VAL:N	2.27	0.49
1:A:534:ASN:HD22	1:A:534:ASN:H	1.59	0.49
1:C:280:VAL:HG13	1:C:316:ARG:HG3	1.93	0.49
1:D:311:ASP:O	1:D:312:ASP:C	2.50	0.49
1:D:588:GLY:N	1:D:591:ASN:HD22	2.10	0.49
1:E:198:GLY:O	1:E:200:GLY:N	2.45	0.49
1:E:275:GLY:C	1:E:611:GLN:HG3	2.32	0.49
1:E:490:HIS:NE2	1:E:519:ASP:OD2	2.36	0.49
1:E:501:THR:C	1:E:502:LYS:HG3	2.33	0.49
1:F:236:SER:HB2	1:F:242:LYS:HE3	1.93	0.49
1:H:139:CYS:SG	1:H:140:GLN:N	2.85	0.49
1:G:630:LEU:HD12	1:G:669:VAL:O	2.12	0.49
1:A:335:ASN:O	1:A:349:VAL:N	2.45	0.49
1:B:225:LEU:HD23	1:B:225:LEU:C	2.32	0.49
1:B:652:PHE:O	1:B:653:ARG:C	2.48	0.49
1:D:375:VAL:O	1:D:378:TYR:N	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:431:ASN:O	1:D:431:ASN:OD1	2.30	0.49
1:D:605:ALA:O	1:D:606:LEU:HD23	2.12	0.49
1:E:375:VAL:C	1:E:377:ALA:N	2.65	0.49
1:E:463:THR:HG22	1:E:466:TRP:HE3	1.76	0.49
1:F:644:GLN:O	1:F:645:VAL:C	2.49	0.49
1:H:295:ASP:CB	1:H:382:ARG:NH1	2.75	0.49
1:H:311:ASP:O	1:H:312:ASP:C	2.49	0.49
1:H:334:ASP:O	1:H:335:ASN:O	2.29	0.49
1:H:644:GLN:HA	1:H:647:LYS:HE3	1.94	0.49
1:G:270:ARG:HH22	1:G:604:MET:CE	2.25	0.49
1:G:634:ILE:O	1:G:637:ALA:N	2.43	0.49
1:A:168:THR:HG21	1:A:243:PHE:CZ	2.47	0.49
1:A:173:LYS:O	1:A:194:ALA:HB2	2.13	0.49
1:A:429:VAL:HG22	1:A:487:LEU:HD13	1.92	0.49
1:A:549:LEU:C	1:A:550:PRO:O	2.48	0.49
1:B:197:ASN:OD1	1:B:198:GLY:N	2.45	0.49
1:B:328:VAL:O	1:B:329:GLY:C	2.48	0.49
1:B:427:LEU:O	1:B:428:ASN:C	2.50	0.49
1:B:587:GLU:HB2	1:B:649:TRP:CZ2	2.47	0.49
1:B:603:GLN:O	1:B:605:ALA:N	2.45	0.49
1:C:551:ALA:O	1:C:608:LYS:N	2.46	0.49
1:D:644:GLN:HA	1:D:647:LYS:HE3	1.93	0.49
1:E:129:ALA:HB1	1:E:655:ARG:CD	2.42	0.49
1:E:354:ASN:O	1:E:355:GLY:C	2.49	0.49
1:E:575:GLU:O	1:E:576:PRO:O	2.30	0.49
1:F:223:TYR:HB2	1:F:245:ALA:HB2	1.93	0.49
1:F:235:ALA:O	1:F:236:SER:OG	2.24	0.49
1:F:495:LEU:O	1:F:499:VAL:HG23	2.13	0.49
1:F:567:ARG:H	1:F:632:ARG:HH22	1.61	0.49
1:H:351:TRP:CE3	1:H:355:GLY:O	2.65	0.49
1:H:373:ARG:NE	1:H:448:ILE:HD13	2.27	0.49
1:H:536:CYS:O	1:H:537:GLN:C	2.51	0.49
1:A:249:LEU:HD23	1:A:249:LEU:O	2.12	0.49
1:A:331:THR:HG21	1:A:365:TYR:CZ	2.47	0.49
1:A:379:ALA:CB	1:A:384:ILE:O	2.57	0.49
1:B:326:THR:O	1:B:330:ALA:HB3	2.11	0.49
1:B:517:GLY:O	1:B:520:LEU:HB2	2.13	0.49
1:B:530:ILE:HG12	1:B:549:LEU:HD13	1.94	0.49
1:B:644:GLN:O	1:B:645:VAL:C	2.49	0.49
1:C:541:ALA:HB2	1:C:598:MET:SD	2.52	0.49
1:D:295:ASP:HA	1:D:382:ARG:NH1	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:332:ARG:NH2	1:E:335:ASN:O	2.45	0.49
1:E:393:PRO:HB3	1:E:491:PHE:HE2	1.77	0.49
1:E:549:LEU:C	1:E:550:PRO:O	2.51	0.49
1:F:363:GLY:H	1:F:364:PRO:HD2	1.77	0.49
1:G:280:VAL:O	1:G:280:VAL:CG1	2.60	0.49
1:G:375:VAL:C	1:G:377:ALA:H	2.15	0.49
1:G:586:VAL:CG1	1:G:635:CYS:SG	3.00	0.49
1:G:605:ALA:O	1:G:606:LEU:HD23	2.13	0.49
1:G:641:TRP:O	1:G:641:TRP:CD1	2.65	0.49
1:A:163:ASN:O	1:A:167:SER:HB2	2.11	0.49
1:C:178:GLN:OE1	1:C:182:PRO:HG2	2.12	0.49
1:C:563:TYR:CD1	1:C:636:VAL:HG22	2.47	0.49
1:D:493:LYS:HE3	1:D:497:ASP:OD2	2.13	0.49
1:D:512:ALA:C	1:D:513:ILE:HG13	2.33	0.49
1:D:587:GLU:C	1:D:589:CYS:H	2.15	0.49
1:E:290:VAL:HG11	1:E:375:VAL:HG21	1.94	0.49
1:E:551:ALA:O	1:E:608:LYS:N	2.45	0.49
1:F:284:PHE:HB3	1:F:364:PRO:O	2.12	0.49
1:F:536:CYS:O	1:F:537:GLN:C	2.51	0.49
1:F:587:GLU:C	1:F:589:CYS:H	2.16	0.49
1:H:238:THR:O	1:H:239:GLU:C	2.50	0.49
1:H:274:ARG:NE	1:H:301:LYS:O	2.44	0.49
1:H:544:VAL:HB	1:H:549:LEU:HB2	1.93	0.49
1:A:545:LYS:HD3	1:A:603:GLN:CB	2.43	0.49
1:B:274:ARG:NE	1:B:301:LYS:O	2.43	0.49
1:C:198:GLY:O	1:C:200:GLY:N	2.45	0.49
1:C:304:VAL:O	1:C:304:VAL:HG12	2.12	0.49
1:C:575:GLU:O	1:C:576:PRO:O	2.29	0.49
1:C:653:ARG:O	1:C:654:THR:C	2.50	0.49
1:F:273:TYR:HD2	1:F:304:VAL:HG21	1.78	0.49
1:H:277:MET:HB2	1:H:306:HIS:HB3	1.94	0.49
1:H:390:VAL:CG2	1:H:445:LEU:HD11	2.41	0.49
1:H:428:ASN:C	1:H:428:ASN:OD1	2.51	0.49
1:H:463:THR:HG22	1:H:466:TRP:CE3	2.48	0.49
1:H:589:CYS:SG	1:H:632:ARG:HG2	2.52	0.49
1:H:624:TYR:HA	1:H:627:TYR:HB3	1.95	0.49
1:G:247:GLN:O	1:G:248:SER:C	2.49	0.49
1:G:328:VAL:O	1:G:329:GLY:C	2.51	0.49
1:G:358:THR:O	1:G:359:GLY:C	2.50	0.49
1:A:434:ALA:O	1:A:437:PHE:HB3	2.13	0.49
1:B:201:ARG:NH1	1:B:207:MET:CE	2.74	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:256:ASN:CB	1:B:662:TRP:CZ2	2.96	0.49
1:C:238:THR:O	1:C:239:GLU:C	2.50	0.49
1:D:246:LEU:HA	1:D:249:LEU:HB3	1.94	0.49
1:D:281:SER:OG	1:D:311:ASP:HB2	2.12	0.49
1:D:501:THR:C	1:D:502:LYS:HG3	2.32	0.49
1:E:248:SER:C	1:E:252:LEU:HD23	2.32	0.49
1:E:394:GLY:O	1:E:395:HIS:C	2.50	0.49
1:E:520:LEU:CD2	1:E:528:SER:HB2	2.43	0.49
1:E:566:CYS:HB3	1:E:614:PHE:CD1	2.47	0.49
1:H:513:ILE:O	1:H:513:ILE:CG2	2.55	0.49
1:G:372:MET:HB3	1:G:448:ILE:HG21	1.95	0.49
1:G:492:ILE:O	1:G:493:LYS:C	2.50	0.49
1:G:644:GLN:O	1:G:645:VAL:C	2.51	0.49
1:A:130:ASP:O	1:A:655:ARG:NH1	2.46	0.49
1:A:196:LEU:HD13	1:A:196:LEU:N	2.26	0.49
1:A:238:THR:O	1:A:239:GLU:C	2.50	0.49
1:A:634:ILE:HD12	1:A:634:ILE:H	1.77	0.49
1:B:285:PHE:O	1:B:286:SER:CB	2.60	0.49
1:B:435:VAL:CG1	1:B:439:LYS:HE3	2.42	0.49
1:B:517:GLY:C	1:B:519:ASP:H	2.15	0.49
1:D:431:ASN:OD1	1:D:431:ASN:C	2.50	0.49
1:D:531:MET:CG	1:D:558:LYS:HD2	2.43	0.49
1:E:194:ALA:C	1:E:195:GLU:O	2.49	0.49
1:E:284:PHE:HE1	1:E:367:TYR:CZ	2.31	0.49
1:E:358:THR:O	1:E:359:GLY:C	2.50	0.49
1:F:294:ILE:HG23	1:F:384:ILE:HD13	1.95	0.49
1:H:299:ARG:NH2	1:H:662:TRP:O	2.45	0.49
1:H:375:VAL:C	1:H:377:ALA:N	2.65	0.49
1:H:492:ILE:O	1:H:493:LYS:C	2.51	0.49
1:G:485:ARG:HG2	1:G:515:ALA:HB2	1.95	0.49
1:G:632:ARG:O	1:G:633:LEU:C	2.50	0.49
1:A:324:LYS:HB2	1:A:403:TYR:CZ	2.47	0.49
1:A:351:TRP:CE3	1:A:355:GLY:O	2.65	0.49
1:A:389:GLU:CG	1:A:390:VAL:N	2.76	0.49
1:B:315:TRP:CE3	1:B:399:ALA:CB	2.94	0.49
1:C:277:MET:SD	1:C:613:THR:HG22	2.52	0.49
1:C:302:MET:CE	1:C:637:ALA:HB2	2.43	0.49
1:C:303:ASN:O	1:C:384:ILE:HG23	2.12	0.49
1:D:222:ALA:HB1	1:D:268:LYS:HG2	1.94	0.49
1:E:137:ILE:HD11	1:E:263:VAL:HG11	1.94	0.49
1:E:144:THR:OG1	1:E:228:THR:O	2.29	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:632:ARG:O	1:E:633:LEU:C	2.50	0.49
1:F:363:GLY:N	1:F:364:PRO:CD	2.74	0.49
1:H:287:VAL:O	1:H:291:LYS:HG3	2.12	0.49
1:A:632:ARG:O	1:A:633:LEU:C	2.51	0.49
1:C:147:LEU:HD11	1:E:217:ALA:HB2	1.95	0.49
1:C:350:TYR:CE1	1:C:617:GLU:O	2.66	0.49
1:C:544:VAL:HG23	1:C:549:LEU:CD1	2.42	0.49
1:D:351:TRP:HA	1:D:355:GLY:O	2.13	0.49
1:D:392:MET:SD	1:D:427:LEU:CD1	3.01	0.49
1:D:653:ARG:O	1:D:654:THR:C	2.51	0.49
1:E:334:ASP:O	1:E:335:ASN:O	2.31	0.49
1:E:533:TRP:CD2	1:E:534:ASN:OD1	2.64	0.49
1:E:590:TYR:HB2	1:E:635:CYS:HG	1.75	0.49
1:F:536:CYS:O	1:F:540:VAL:N	2.41	0.49
1:G:222:ALA:HB1	1:G:268:LYS:HG2	1.94	0.49
1:G:551:ALA:O	1:G:608:LYS:N	2.46	0.49
1:A:187:ILE:O	1:A:188:ILE:HG12	2.12	0.48
1:A:332:ARG:NH2	1:A:350:TYR:HH	2.10	0.48
1:B:262:LEU:O	1:B:263:VAL:CG1	2.57	0.48
1:B:267:ASP:OD1	1:B:267:ASP:C	2.52	0.48
1:B:513:ILE:HD11	1:B:530:ILE:CD1	2.42	0.48
1:C:652:PHE:CZ	1:C:656:LEU:HD12	2.48	0.48
1:F:536:CYS:CA	1:H:192:ARG:HG2	2.42	0.48
1:H:643:PRO:O	1:H:644:GLN:C	2.52	0.48
1:G:295:ASP:CB	1:G:382:ARG:HH12	2.26	0.48
1:A:172:TYR:HA	1:A:187:ILE:HG13	1.95	0.48
1:B:289:GLU:O	1:B:290:VAL:C	2.51	0.48
1:B:295:ASP:OD1	1:B:382:ARG:NH1	2.46	0.48
1:B:649:TRP:O	1:B:652:PHE:HB3	2.14	0.48
1:B:654:THR:O	1:B:657:ALA:N	2.44	0.48
1:C:280:VAL:HG13	1:C:280:VAL:O	2.12	0.48
1:C:553:VAL:HG23	1:C:607:VAL:HG11	1.94	0.48
1:D:536:CYS:O	1:D:537:GLN:C	2.51	0.48
1:E:131:GLU:O	1:E:132:THR:OG1	2.28	0.48
1:E:294:ILE:HG23	1:E:384:ILE:HD13	1.93	0.48
1:E:396:PHE:O	1:E:400:MET:CG	2.62	0.48
1:E:653:ARG:O	1:E:654:THR:C	2.52	0.48
1:F:227:ILE:HD12	1:F:263:VAL:HG23	1.96	0.48
1:F:309:LEU:HD22	1:F:372:MET:HE2	1.95	0.48
1:F:389:GLU:HA	1:F:455:HIS:O	2.13	0.48
1:F:408:CYS:HB2	1:F:465:GLN:HE21	1.76	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:427:LEU:O	1:F:428:ASN:C	2.51	0.48
1:F:587:GLU:OE1	1:F:649:TRP:CH2	2.66	0.48
1:H:144:THR:CG2	1:H:260:LEU:HD12	2.44	0.48
1:H:587:GLU:C	1:H:589:CYS:H	2.17	0.48
1:H:672:ARG:HB3	1:H:672:ARG:CZ	2.42	0.48
1:G:627:TYR:O	1:G:628:LEU:C	2.50	0.48
1:B:394:GLY:O	1:B:395:HIS:C	2.52	0.48
1:B:435:VAL:O	1:B:437:PHE:N	2.46	0.48
1:C:544:VAL:HG21	1:C:549:LEU:HD12	1.93	0.48
1:C:632:ARG:O	1:C:633:LEU:C	2.51	0.48
1:D:375:VAL:C	1:D:377:ALA:H	2.17	0.48
1:D:427:LEU:O	1:D:428:ASN:C	2.50	0.48
1:E:427:LEU:O	1:E:428:ASN:C	2.52	0.48
1:E:536:CYS:O	1:E:537:GLN:C	2.52	0.48
1:E:563:TYR:CD1	1:E:636:VAL:HG22	2.47	0.48
1:F:442:LEU:HD11	1:F:495:LEU:HD13	1.94	0.48
1:F:644:GLN:HA	1:F:647:LYS:HE3	1.95	0.48
1:H:130:ASP:O	1:H:655:ARG:NH1	2.45	0.48
1:H:218:LEU:HB2	1:H:237:SER:OG	2.13	0.48
1:H:225:LEU:HD22	1:H:227:ILE:CG1	2.44	0.48
1:G:275:GLY:O	1:G:611:GLN:HA	2.14	0.48
1:G:653:ARG:O	1:G:654:THR:C	2.52	0.48
1:A:279:ASP:OD2	1:A:615:TRP:CE3	2.67	0.48
1:A:476:TYR:HA	1:A:479:LEU:CD1	2.44	0.48
1:B:335:ASN:HA	1:B:362:TYR:HB2	1.95	0.48
1:B:571:ASN:ND2	1:B:582:GLY:O	2.44	0.48
1:E:181:VAL:HG22	1:E:257:ALA:HB3	1.95	0.48
1:E:278:LEU:HD11	1:E:625:LEU:HD21	1.96	0.48
1:F:351:TRP:CE3	1:F:355:GLY:O	2.67	0.48
1:F:377:ALA:O	1:F:378:TYR:C	2.50	0.48
1:H:384:ILE:O	1:H:384:ILE:CG2	2.57	0.48
1:H:394:GLY:O	1:H:395:HIS:C	2.51	0.48
1:H:654:THR:O	1:H:657:ALA:N	2.43	0.48
1:G:275:GLY:CA	1:G:611:GLN:HG3	2.43	0.48
1:G:427:LEU:O	1:G:428:ASN:C	2.52	0.48
1:G:643:PRO:O	1:G:644:GLN:C	2.51	0.48
1:G:654:THR:O	1:G:657:ALA:N	2.46	0.48
1:A:234:VAL:HG22	1:A:245:ALA:HB1	1.94	0.48
1:A:297:MET:HE1	1:A:305:PHE:HB2	1.95	0.48
1:A:483:SER:CB	1:A:486:GLN:OE1	2.61	0.48
1:A:483:SER:C	1:A:486:GLN:OE1	2.52	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:533:TRP:CH2	1:A:534:ASN:ND2	2.81	0.48
1:A:537:GLN:HE22	1:A:596:GLN:HB2	1.78	0.48
1:A:584:ASP:O	1:A:585:GLY:O	2.31	0.48
1:B:492:ILE:O	1:B:493:LYS:C	2.51	0.48
1:B:653:ARG:O	1:B:654:THR:C	2.52	0.48
1:C:404:PRO:O	1:C:410:PRO:HB3	2.13	0.48
1:D:282:ARG:NH1	1:D:617:GLU:OE2	2.46	0.48
1:D:332:ARG:NH2	1:D:335:ASN:O	2.46	0.48
1:D:627:TYR:O	1:D:628:LEU:C	2.52	0.48
1:F:274:ARG:NE	1:F:301:LYS:O	2.42	0.48
1:H:649:TRP:O	1:H:652:PHE:HB3	2.13	0.48
1:G:292:LYS:HA	1:G:295:ASP:OD2	2.12	0.48
1:A:274:ARG:HE	1:A:302:MET:HA	1.78	0.48
1:A:509:TRP:CZ3	1:A:558:LYS:HD3	2.48	0.48
1:A:566:CYS:SG	1:A:615:TRP:CB	2.98	0.48
1:B:249:LEU:CD2	1:B:260:LEU:HD22	2.44	0.48
1:E:335:ASN:HB2	1:E:349:VAL:N	2.28	0.48
1:F:375:VAL:O	1:F:378:TYR:N	2.47	0.48
1:F:634:ILE:O	1:F:637:ALA:N	2.42	0.48
1:H:290:VAL:HG11	1:H:375:VAL:HG21	1.96	0.48
1:H:295:ASP:OD1	1:H:382:ARG:NH1	2.47	0.48
1:G:262:LEU:O	1:G:263:VAL:CG1	2.57	0.48
1:G:375:VAL:O	1:G:378:TYR:N	2.47	0.48
1:G:470:ASP:O	1:G:474:GLN:HG3	2.13	0.48
1:B:375:VAL:C	1:B:377:ALA:H	2.17	0.48
1:C:282:ARG:C	1:C:350:TYR:OH	2.51	0.48
1:C:559:GLY:O	1:C:561:GLY:N	2.47	0.48
1:C:586:VAL:CG1	1:C:635:CYS:SG	3.01	0.48
1:D:212:PHE:HZ	1:D:246:LEU:HD11	1.79	0.48
1:D:476:TYR:HH	1:D:487:LEU:H	1.60	0.48
1:F:551:ALA:O	1:F:608:LYS:N	2.45	0.48
1:H:262:LEU:O	1:H:263:VAL:CG1	2.56	0.48
1:H:312:ASP:O	1:H:398:ALA:HB2	2.14	0.48
1:H:326:THR:O	1:H:330:ALA:HB3	2.13	0.48
1:H:427:LEU:O	1:H:428:ASN:C	2.51	0.48
1:G:435:VAL:CG1	1:G:439:LYS:HE3	2.44	0.48
1:G:526:THR:HG21	1:G:547:LEU:HB3	1.94	0.48
1:G:586:VAL:HG23	1:G:674:TRP:CZ2	2.48	0.48
1:A:295:ASP:CB	1:A:668:TYR:OH	2.50	0.48
1:A:377:ALA:O	1:A:378:TYR:C	2.52	0.48
1:A:431:ASN:C	1:A:431:ASN:OD1	2.51	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:559:GLY:O	1:A:561:GLY:N	2.47	0.48
1:B:170:TYR:CD1	1:B:170:TYR:C	2.87	0.48
1:C:363:GLY:N	1:C:364:PRO:CD	2.75	0.48
1:D:326:THR:O	1:D:330:ALA:HB3	2.14	0.48
1:D:435:VAL:O	1:D:437:PHE:N	2.47	0.48
1:D:626:GLU:OE1	1:D:668:TYR:HD1	1.97	0.48
1:E:284:PHE:HB2	1:E:316:ARG:NH1	2.28	0.48
1:E:334:ASP:OD2	1:E:418:THR:CG2	2.62	0.48
1:E:431:ASN:OD1	1:E:431:ASN:C	2.50	0.48
1:E:435:VAL:CG1	1:E:439:LYS:HE3	2.43	0.48
1:F:315:TRP:HZ3	1:F:396:PHE:CE1	2.32	0.48
1:F:533:TRP:O	1:F:534:ASN:O	2.32	0.48
1:F:631:PRO:O	1:F:634:ILE:N	2.46	0.48
1:H:354:ASN:O	1:H:355:GLY:O	2.32	0.48
1:G:210:ILE:HG12	1:G:232:ILE:HB	1.96	0.48
1:G:212:PHE:HZ	1:G:246:LEU:HD11	1.78	0.48
1:G:565:ILE:HG13	1:G:565:ILE:O	2.13	0.48
1:A:136:TRP:O	1:A:266:ALA:O	2.31	0.48
1:A:187:ILE:O	1:A:188:ILE:CG1	2.61	0.48
1:A:239:GLU:HB2	1:A:243:PHE:CE2	2.49	0.48
1:A:297:MET:HE3	1:A:384:ILE:HG12	1.96	0.48
1:A:312:ASP:OD2	1:A:397:VAL:HG23	2.13	0.48
1:B:284:PHE:HB2	1:B:316:ARG:HH11	1.78	0.48
1:B:536:CYS:O	1:B:537:GLN:C	2.52	0.48
1:C:531:MET:CG	1:C:558:LYS:HD2	2.44	0.48
1:C:586:VAL:HG23	1:C:674:TRP:CE2	2.49	0.48
1:C:654:THR:O	1:C:657:ALA:N	2.46	0.48
1:D:236:SER:HB2	1:D:242:LYS:HE3	1.96	0.48
1:D:277:MET:HB2	1:D:306:HIS:HB3	1.95	0.48
1:D:287:VAL:HG13	1:D:375:VAL:CG2	2.44	0.48
1:D:304:VAL:HG13	1:D:387:LEU:HG	1.96	0.48
1:D:531:MET:HG2	1:D:558:LYS:HD2	1.95	0.48
1:D:630:LEU:HD21	1:D:633:LEU:HD22	1.94	0.48
1:E:375:VAL:O	1:E:376:VAL:C	2.52	0.48
1:F:291:LYS:HB3	1:F:378:TYR:CE2	2.49	0.48
1:F:627:TYR:O	1:F:628:LEU:C	2.52	0.48
1:F:653:ARG:O	1:F:654:THR:C	2.52	0.48
1:H:201:ARG:H	1:H:201:ARG:HD3	1.78	0.48
1:H:466:TRP:O	1:H:469:ASN:N	2.43	0.48
1:H:587:GLU:OE1	1:H:649:TRP:CH2	2.66	0.48
1:G:133:ARG:O	1:G:134:SER:O	2.30	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:326:THR:HB	1:G:366:PHE:CE2	2.48	0.48
1:A:375:VAL:C	1:A:377:ALA:H	2.17	0.48
1:A:463:THR:HG22	1:A:466:TRP:CE3	2.49	0.48
1:B:389:GLU:HA	1:B:455:HIS:O	2.14	0.48
1:C:427:LEU:O	1:C:428:ASN:C	2.52	0.48
1:D:545:LYS:HZ2	1:D:598:MET:HE3	1.78	0.48
1:E:277:MET:HB2	1:E:306:HIS:HB3	1.96	0.48
1:E:428:ASN:C	1:E:428:ASN:OD1	2.52	0.48
1:F:628:LEU:O	1:F:629:ALA:C	2.50	0.48
1:H:222:ALA:HB1	1:H:268:LYS:HG2	1.95	0.48
1:H:539:GLY:C	1:H:543:ALA:HB3	2.34	0.48
1:H:559:GLY:O	1:H:561:GLY:N	2.47	0.48
1:G:491:PHE:O	1:G:491:PHE:CD1	2.67	0.48
1:A:262:LEU:O	1:A:263:VAL:CG1	2.57	0.47
1:A:315:TRP:HZ3	1:A:396:PHE:CE1	2.32	0.47
1:A:319:ILE:HG23	1:A:444:GLU:HG3	1.96	0.47
1:A:545:LYS:O	1:A:606:LEU:CD1	2.62	0.47
1:A:654:THR:OG1	1:A:655:ARG:N	2.47	0.47
1:B:463:THR:HG22	1:B:466:TRP:HE3	1.79	0.47
1:C:143:GLY:HA2	1:C:261:PRO:HA	1.96	0.47
1:C:228:THR:HA	1:C:262:LEU:HD22	1.96	0.47
1:C:308:HIS:NE2	1:C:615:TRP:HZ3	2.12	0.47
1:D:295:ASP:OD1	1:D:382:ARG:NH1	2.47	0.47
1:D:454:ILE:HG12	1:D:504:LYS:HD3	1.96	0.47
1:E:544:VAL:HG23	1:E:549:LEU:HD12	1.96	0.47
1:F:284:PHE:C	1:F:285:PHE:CD1	2.88	0.47
1:F:297:MET:HE2	1:F:302:MET:HB3	1.96	0.47
1:F:639:ALA:HA	1:F:647:LYS:HD3	1.95	0.47
1:H:146:TYR:CZ	1:H:260:LEU:HD11	2.47	0.47
1:H:304:VAL:O	1:H:304:VAL:HG12	2.13	0.47
1:H:392:MET:SD	1:H:427:LEU:CD1	3.02	0.47
1:H:499:VAL:O	1:H:502:LYS:HG2	2.14	0.47
1:G:626:GLU:OE1	1:G:668:TYR:HD1	1.96	0.47
1:A:273:TYR:HD2	1:A:552:ILE:CD1	2.24	0.47
1:A:462:PRO:CB	1:A:464:THR:HG23	2.44	0.47
1:B:130:ASP:OD2	1:B:134:SER:OG	2.26	0.47
1:B:198:GLY:O	1:B:200:GLY:N	2.47	0.47
1:B:282:ARG:CB	1:B:350:TYR:OH	2.62	0.47
1:C:170:TYR:CD1	1:C:170:TYR:C	2.88	0.47
1:C:279:ASP:CG	1:C:616:THR:OG1	2.53	0.47
1:D:513:ILE:HD13	1:D:543:ALA:HB1	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:281:SER:OG	1:H:311:ASP:HB2	2.14	0.47
1:H:389:GLU:HA	1:H:455:HIS:O	2.15	0.47
1:A:202:LEU:HD12	1:A:203:ALA:CA	2.44	0.47
1:A:349:VAL:CG2	1:A:358:THR:HG23	2.44	0.47
1:B:248:SER:C	1:B:252:LEU:HD23	2.33	0.47
1:C:351:TRP:CD1	1:C:357:LYS:HG2	2.49	0.47
1:C:435:VAL:O	1:C:437:PHE:N	2.47	0.47
1:C:649:TRP:O	1:C:652:PHE:HB3	2.14	0.47
1:D:394:GLY:O	1:D:395:HIS:C	2.52	0.47
1:E:201:ARG:HB3	1:E:204:LEU:HD12	1.97	0.47
1:F:311:ASP:O	1:F:312:ASP:C	2.49	0.47
1:H:414:PRO:HB3	1:H:425:ASP:OD2	2.15	0.47
1:G:536:CYS:O	1:G:537:GLN:C	2.52	0.47
1:G:540:VAL:CG2	1:G:553:VAL:HG22	2.44	0.47
1:G:542:LYS:C	1:G:544:VAL:HA	2.35	0.47
1:A:188:ILE:HG13	1:A:191:PRO:HG3	1.96	0.47
1:A:533:TRP:CE3	1:A:560:ASP:OD2	2.68	0.47
1:B:220:GLU:CA	1:B:238:THR:OG1	2.61	0.47
1:B:284:PHE:CD2	1:B:364:PRO:O	2.67	0.47
1:B:605:ALA:O	1:B:606:LEU:HD23	2.14	0.47
1:C:145:LYS:CD	1:E:216:PRO:HG3	2.37	0.47
1:C:180:ALA:HB2	1:C:256:ASN:HD21	1.79	0.47
1:D:146:TYR:N	1:D:146:TYR:HD1	2.07	0.47
1:E:559:GLY:O	1:E:561:GLY:N	2.48	0.47
1:F:236:SER:OG	1:F:242:LYS:HG2	2.13	0.47
1:F:315:TRP:CD1	1:F:325:LEU:O	2.68	0.47
1:F:565:ILE:HD13	1:F:633:LEU:HA	1.97	0.47
1:F:614:PHE:CZ	1:F:625:LEU:HD12	2.50	0.47
1:C:279:ASP:O	1:C:616:THR:OG1	2.21	0.47
1:E:270:ARG:HG3	1:E:270:ARG:HH11	1.80	0.47
1:E:273:TYR:HD2	1:E:304:VAL:HG21	1.79	0.47
1:E:553:VAL:O	1:E:553:VAL:CG1	2.56	0.47
1:E:587:GLU:HG3	1:E:591:ASN:HD22	1.79	0.47
1:F:375:VAL:C	1:F:377:ALA:H	2.17	0.47
1:F:571:ASN:ND2	1:F:582:GLY:O	2.47	0.47
1:G:140:GLN:HB2	1:G:262:LEU:HB2	1.95	0.47
1:G:270:ARG:HH11	1:G:270:ARG:CG	2.27	0.47
1:A:240:LYS:O	1:A:244:TYR:HD1	1.96	0.47
1:B:208:ASP:HB3	1:B:211:SER:OG	2.14	0.47
1:B:302:MET:CE	1:B:637:ALA:HB2	2.45	0.47
1:B:502:LYS:HD2	1:B:503:ASN:HA	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:218:LEU:O	1:C:237:SER:OG	2.31	0.47
1:C:315:TRP:CZ3	1:C:399:ALA:CB	2.98	0.47
1:C:487:LEU:O	1:C:488:GLN:C	2.53	0.47
1:D:201:ARG:HB3	1:D:204:LEU:HD12	1.97	0.47
1:D:208:ASP:CG	1:D:211:SER:OG	2.53	0.47
1:D:256:ASN:HB2	1:D:662:TRP:CZ2	2.46	0.47
1:E:313:GLN:HG2	1:E:350:TYR:CE1	2.49	0.47
1:E:435:VAL:O	1:E:437:PHE:N	2.48	0.47
1:E:545:LYS:HE2	1:E:607:VAL:CG2	2.44	0.47
1:F:590:TYR:CE2	1:F:649:TRP:HD1	2.33	0.47
1:F:660:THR:CG2	1:F:675:MET:HG3	2.45	0.47
1:H:299:ARG:HH22	1:H:662:TRP:HB3	1.78	0.47
1:G:223:TYR:OH	1:G:248:SER:OG	2.19	0.47
1:A:198:GLY:O	1:A:200:GLY:N	2.48	0.47
1:A:225:LEU:CD2	1:A:245:ALA:O	2.56	0.47
1:A:334:ASP:OD2	1:A:418:THR:CG2	2.62	0.47
1:A:375:VAL:O	1:A:378:TYR:N	2.48	0.47
1:A:534:ASN:O	1:A:535:PRO:O	2.33	0.47
1:B:560:ASP:OD1	1:B:564:TYR:CE2	2.68	0.47
1:C:139:CYS:SG	1:C:263:VAL:CG1	3.01	0.47
1:C:284:PHE:HE1	1:C:367:TYR:CE1	2.33	0.47
1:C:388:PRO:HB3	1:C:449:PHE:CE2	2.49	0.47
1:C:643:PRO:O	1:C:644:GLN:C	2.53	0.47
1:D:213:THR:HG22	1:D:214:THR:H	1.79	0.47
1:D:445:LEU:O	1:D:447:ASP:N	2.48	0.47
1:D:500:ALA:HA	1:D:502:LYS:HG2	1.96	0.47
1:D:585:GLY:O	1:D:632:ARG:HD3	2.14	0.47
1:D:603:GLN:O	1:D:605:ALA:N	2.47	0.47
1:D:628:LEU:O	1:D:629:ALA:C	2.53	0.47
1:E:277:MET:HA	1:E:306:HIS:O	2.15	0.47
1:E:350:TYR:CD2	1:E:617:GLU:O	2.68	0.47
1:F:295:ASP:CB	1:F:382:ARG:HH12	2.28	0.47
1:H:131:GLU:O	1:H:132:THR:OG1	2.30	0.47
1:H:369:GLN:O	1:H:372:MET:HB2	2.15	0.47
1:H:412:ARG:O	1:H:414:PRO:HD3	2.14	0.47
1:H:434:ALA:O	1:H:437:PHE:HB3	2.13	0.47
1:H:633:LEU:C	1:H:633:LEU:CD1	2.83	0.47
1:G:170:TYR:CD1	1:G:170:TYR:C	2.87	0.47
1:G:284:PHE:HE1	1:G:367:TYR:CZ	2.31	0.47
1:G:289:GLU:OE2	1:G:625:LEU:HD23	2.14	0.47
1:G:394:GLY:O	1:G:395:HIS:C	2.53	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:429:VAL:CG2	1:G:487:LEU:HD13	2.44	0.47
1:A:486:GLN:HA	1:A:489:ALA:H	1.79	0.47
1:B:533:TRP:O	1:B:534:ASN:O	2.33	0.47
1:C:301:LYS:HD3	1:C:641:TRP:CH2	2.49	0.47
1:C:375:VAL:O	1:C:378:TYR:N	2.48	0.47
1:C:389:GLU:HA	1:C:455:HIS:O	2.15	0.47
1:C:587:GLU:C	1:C:589:CYS:H	2.18	0.47
1:D:528:SER:H	1:D:549:LEU:CD2	2.28	0.47
1:D:586:VAL:HG23	1:D:674:TRP:CE2	2.50	0.47
1:H:627:TYR:O	1:H:628:LEU:C	2.52	0.47
1:A:309:LEU:HB3	1:A:317:ALA:HB2	1.97	0.47
1:B:511:GLU:C	1:B:513:ILE:H	2.19	0.47
1:C:495:LEU:N	1:C:495:LEU:HD23	2.30	0.47
1:D:332:ARG:NH1	1:D:362:TYR:HD1	2.13	0.47
1:D:553:VAL:HG11	1:D:594:PRO:CB	2.45	0.47
1:E:280:VAL:CG1	1:E:280:VAL:O	2.63	0.47
1:E:400:MET:HE1	1:E:407:SER:HA	1.97	0.47
1:H:400:MET:CE	1:H:427:LEU:HA	2.45	0.47
1:H:560:ASP:OD1	1:H:564:TYR:CE2	2.67	0.47
1:G:144:THR:HG22	1:G:260:LEU:HB2	1.97	0.47
1:G:304:VAL:HG13	1:G:387:LEU:HG	1.96	0.47
1:G:389:GLU:HA	1:G:455:HIS:O	2.14	0.47
1:G:487:LEU:O	1:G:488:GLN:C	2.53	0.47
1:A:158:GLN:NE2	1:A:159:TYR:H	2.13	0.47
1:A:169:PHE:O	1:A:172:TYR:O	2.32	0.47
1:A:571:ASN:OD1	1:A:581:TYR:C	2.53	0.47
1:B:358:THR:O	1:B:359:GLY:C	2.52	0.47
1:B:627:TYR:O	1:B:628:LEU:C	2.52	0.47
1:C:145:LYS:HG2	1:E:216:PRO:CD	2.44	0.47
1:C:249:LEU:HD23	1:C:249:LEU:O	2.15	0.47
1:D:201:ARG:HB2	1:D:204:LEU:HD12	1.96	0.47
1:D:291:LYS:CD	1:D:378:TYR:CD2	2.90	0.47
1:D:495:LEU:N	1:D:495:LEU:HD23	2.28	0.47
1:E:293:MET:HA	1:E:296:ILE:HG13	1.97	0.47
1:E:369:GLN:O	1:E:372:MET:HB2	2.15	0.47
1:E:654:THR:O	1:E:657:ALA:N	2.46	0.47
1:F:350:TYR:HE2	1:F:617:GLU:HA	1.79	0.47
1:F:531:MET:O	1:F:531:MET:CG	2.61	0.47
1:F:542:LYS:C	1:F:544:VAL:HA	2.35	0.47
1:H:132:THR:O	1:H:133:ARG:C	2.53	0.47
1:G:181:VAL:HB	1:G:182:PRO:HD3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:400:MET:HE1	1:G:427:LEU:HA	1.97	0.47
1:A:222:ALA:HB1	1:A:268:LYS:HE2	1.97	0.46
1:A:551:ALA:N	1:A:606:LEU:O	2.48	0.46
1:C:396:PHE:CG	1:C:427:LEU:HD12	2.50	0.46
1:D:428:ASN:C	1:D:428:ASN:OD1	2.53	0.46
1:E:351:TRP:CE3	1:E:355:GLY:O	2.68	0.46
1:E:375:VAL:O	1:E:378:TYR:N	2.48	0.46
1:E:434:ALA:O	1:E:437:PHE:HB3	2.15	0.46
1:F:236:SER:CB	1:F:242:LYS:HG2	2.44	0.46
1:F:560:ASP:OD1	1:F:564:TYR:CE2	2.68	0.46
1:H:136:TRP:O	1:H:266:ALA:O	2.33	0.46
1:H:445:LEU:HD12	1:H:454:ILE:CG2	2.45	0.46
1:H:528:SER:O	1:H:549:LEU:HD22	2.15	0.46
1:H:551:ALA:O	1:H:608:LYS:N	2.46	0.46
1:G:500:ALA:HA	1:G:502:LYS:HG2	1.95	0.46
1:G:545:LYS:CE	1:G:607:VAL:HG22	2.45	0.46
1:A:301:LYS:HB3	1:A:641:TRP:CZ3	2.50	0.46
1:A:324:LYS:HG3	1:A:403:TYR:CZ	2.50	0.46
1:A:509:TRP:HZ3	1:A:558:LYS:HD2	1.70	0.46
1:A:662:TRP:O	1:A:664:ASP:C	2.54	0.46
1:B:315:TRP:CZ3	1:B:399:ALA:CB	2.97	0.46
1:C:425:ASP:OD1	1:C:465:GLN:NE2	2.36	0.46
1:D:517:GLY:O	1:D:520:LEU:HB2	2.15	0.46
1:D:559:GLY:O	1:D:561:GLY:N	2.48	0.46
1:F:277:MET:HA	1:F:306:HIS:O	2.15	0.46
1:F:289:GLU:O	1:F:292:LYS:C	2.53	0.46
1:F:365:TYR:O	1:F:366:PHE:O	2.33	0.46
1:H:210:ILE:HD13	1:H:232:ILE:HB	1.97	0.46
1:H:334:ASP:OD2	1:H:418:THR:CG2	2.63	0.46
1:G:294:ILE:CG2	1:G:384:ILE:HD13	2.45	0.46
1:G:311:ASP:O	1:G:312:ASP:C	2.50	0.46
1:A:144:THR:OG1	1:A:228:THR:O	2.30	0.46
1:A:295:ASP:HB3	1:A:668:TYR:HH	1.74	0.46
1:A:598:MET:HA	1:A:598:MET:HE3	1.97	0.46
1:A:628:LEU:O	1:A:629:ALA:C	2.53	0.46
1:B:289:GLU:O	1:B:291:LYS:N	2.49	0.46
1:B:332:ARG:NH1	1:B:362:TYR:HD1	2.14	0.46
1:B:672:ARG:NH2	1:B:675:MET:O	2.48	0.46
1:C:273:TYR:O	1:C:609:GLY:HA3	2.16	0.46
1:E:587:GLU:HG3	1:E:591:ASN:ND2	2.31	0.46
1:F:302:MET:CE	1:F:637:ALA:HB2	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:369:GLN:O	1:F:370:ASP:C	2.53	0.46
1:F:435:VAL:O	1:F:437:PHE:N	2.48	0.46
1:H:316:ARG:HB3	1:H:367:TYR:HD1	1.79	0.46
1:H:435:VAL:O	1:H:437:PHE:N	2.48	0.46
1:H:653:ARG:O	1:H:654:THR:C	2.54	0.46
1:B:587:GLU:C	1:B:589:CYS:H	2.17	0.46
1:C:289:GLU:O	1:C:292:LYS:C	2.53	0.46
1:C:499:VAL:O	1:C:502:LYS:CB	2.63	0.46
1:D:218:LEU:O	1:D:237:SER:OG	2.34	0.46
1:D:393:PRO:HB3	1:D:491:PHE:CD2	2.50	0.46
1:F:273:TYR:CD2	1:F:304:VAL:HG21	2.50	0.46
1:F:364:PRO:HA	1:F:365:TYR:CB	2.45	0.46
1:F:400:MET:CE	1:F:427:LEU:HA	2.46	0.46
1:H:469:ASN:HB3	1:H:472:CYS:SG	2.55	0.46
1:H:517:GLY:C	1:H:519:ASP:H	2.19	0.46
1:G:284:PHE:C	1:G:285:PHE:CD1	2.88	0.46
1:G:545:LYS:HE2	1:G:607:VAL:CG2	2.46	0.46
1:A:172:TYR:CD1	1:A:187:ILE:HG12	2.51	0.46
1:A:328:VAL:O	1:A:329:GLY:C	2.54	0.46
1:B:375:VAL:O	1:B:378:TYR:N	2.49	0.46
1:B:616:THR:HA	1:B:619:VAL:HB	1.97	0.46
1:D:282:ARG:O	1:D:283:HIS:CG	2.69	0.46
1:E:304:VAL:O	1:E:304:VAL:HG12	2.15	0.46
1:F:568:LYS:HG3	1:F:579:ALA:O	2.16	0.46
1:H:445:LEU:O	1:H:447:ASP:N	2.48	0.46
1:H:533:TRP:CE3	1:H:534:ASN:OD1	2.68	0.46
1:G:235:ALA:O	1:G:236:SER:OG	2.25	0.46
1:G:331:THR:O	1:G:416:VAL:HG11	2.15	0.46
1:G:445:LEU:O	1:G:447:ASP:N	2.49	0.46
1:A:287:VAL:O	1:A:288:ALA:C	2.53	0.46
1:A:331:THR:HG22	1:A:365:TYR:CE2	2.51	0.46
1:A:653:ARG:O	1:A:654:THR:C	2.53	0.46
1:B:284:PHE:C	1:B:285:PHE:CD1	2.89	0.46
1:B:545:LYS:HD2	1:B:598:MET:HE3	1.97	0.46
1:C:316:ARG:HB3	1:C:367:TYR:HD1	1.80	0.46
1:C:375:VAL:C	1:C:377:ALA:H	2.19	0.46
1:D:131:GLU:OE2	1:D:656:LEU:HD21	2.15	0.46
1:D:256:ASN:HD22	1:D:256:ASN:HA	1.59	0.46
1:D:280:VAL:O	1:D:280:VAL:CG1	2.64	0.46
1:D:302:MET:SD	1:D:637:ALA:CB	3.01	0.46
1:D:365:TYR:O	1:D:366:PHE:O	2.33	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:625:LEU:HD12	1:D:625:LEU:C	2.33	0.46
1:E:315:TRP:HZ3	1:E:396:PHE:CE1	2.33	0.46
1:F:215:ASP:C	1:F:217:ALA:H	2.17	0.46
1:H:487:LEU:O	1:H:488:GLN:C	2.53	0.46
1:G:214:THR:HG22	1:G:242:LYS:HE2	1.98	0.46
1:G:560:ASP:OD1	1:G:564:TYR:CE2	2.69	0.46
1:A:240:LYS:O	1:A:244:TYR:CD1	2.69	0.46
1:A:389:GLU:HA	1:A:455:HIS:O	2.16	0.46
1:B:532:SER:O	1:B:536:CYS:SG	2.57	0.46
1:C:513:ILE:HD11	1:C:530:ILE:CD1	2.45	0.46
1:D:284:PHE:O	1:D:285:PHE:CD1	2.69	0.46
1:D:324:LYS:HZ2	1:D:328:VAL:HG23	1.81	0.46
1:E:129:ALA:HB1	1:E:655:ARG:HG2	1.98	0.46
1:E:144:THR:HG23	1:E:145:LYS:N	2.31	0.46
1:E:289:GLU:O	1:E:292:LYS:C	2.54	0.46
1:E:513:ILE:O	1:E:513:ILE:CG2	2.62	0.46
1:E:615:TRP:HB3	1:E:617:GLU:OE1	2.16	0.46
1:F:400:MET:HE2	1:F:426:VAL:O	2.16	0.46
1:F:649:TRP:O	1:F:652:PHE:HB3	2.16	0.46
1:H:284:PHE:C	1:H:285:PHE:CD1	2.89	0.46
1:H:373:ARG:HE	1:H:448:ILE:HD13	1.81	0.46
1:G:313:GLN:NE2	1:G:419:GLY:O	2.42	0.46
1:G:490:HIS:NE2	1:G:519:ASP:CB	2.79	0.46
1:A:358:THR:O	1:A:359:GLY:C	2.53	0.46
1:B:275:GLY:HA3	1:B:611:GLN:HG3	1.98	0.46
1:B:376:VAL:HG12	1:B:376:VAL:O	2.16	0.46
1:C:545:LYS:CE	1:C:607:VAL:CG2	2.93	0.46
1:D:289:GLU:O	1:D:292:LYS:C	2.54	0.46
1:D:304:VAL:O	1:D:304:VAL:HG12	2.15	0.46
1:D:511:GLU:C	1:D:513:ILE:H	2.19	0.46
1:D:631:PRO:O	1:D:634:ILE:HD12	2.16	0.46
1:F:287:VAL:O	1:F:291:LYS:HG3	2.16	0.46
1:F:530:ILE:HG12	1:F:549:LEU:HD13	1.98	0.46
1:H:663:LEU:HD13	1:H:670:TYR:HB3	1.97	0.46
1:G:326:THR:CB	1:G:366:PHE:CD2	2.98	0.46
1:A:435:VAL:O	1:A:437:PHE:N	2.49	0.46
1:A:536:CYS:O	1:A:537:GLN:C	2.53	0.46
1:A:626:GLU:HB2	1:A:669:VAL:HB	1.97	0.46
1:A:633:LEU:C	1:A:633:LEU:HD12	2.36	0.46
1:B:284:PHE:O	1:B:285:PHE:CD1	2.69	0.46
1:B:565:ILE:HD12	1:B:633:LEU:HD12	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:147:LEU:HD11	1:E:217:ALA:CB	2.46	0.46
1:C:377:ALA:O	1:C:378:TYR:C	2.53	0.46
1:C:476:TYR:CE2	1:C:486:GLN:HB2	2.51	0.46
1:C:511:GLU:C	1:C:513:ILE:H	2.18	0.46
1:D:396:PHE:O	1:D:400:MET:HG3	2.16	0.46
1:D:487:LEU:O	1:D:488:GLN:C	2.54	0.46
1:D:626:GLU:O	1:D:669:VAL:O	2.34	0.46
1:E:218:LEU:HB2	1:E:237:SER:OG	2.16	0.46
1:E:309:LEU:HD22	1:E:372:MET:HE2	1.98	0.46
1:E:563:TYR:CE2	1:E:610:VAL:HB	2.51	0.46
1:F:170:TYR:CD1	1:F:170:TYR:C	2.89	0.46
1:F:208:ASP:CG	1:F:211:SER:OG	2.54	0.46
1:F:507:VAL:C	1:F:508:CYS:SG	2.95	0.46
1:H:652:PHE:CE1	1:H:656:LEU:HD12	2.51	0.46
1:G:435:VAL:O	1:G:437:PHE:N	2.49	0.46
1:G:511:GLU:C	1:G:513:ILE:H	2.18	0.46
1:A:147:LEU:O	1:A:152:SER:OG	2.34	0.46
1:A:188:ILE:HB	1:A:191:PRO:HD3	1.97	0.46
1:A:267:ASP:OD1	1:A:267:ASP:C	2.54	0.46
1:B:131:GLU:O	1:B:132:THR:OG1	2.27	0.46
1:C:133:ARG:HB2	1:C:655:ARG:HH12	1.80	0.46
1:C:351:TRP:HE1	1:C:357:LYS:HE3	1.80	0.46
1:D:227:ILE:HD12	1:D:263:VAL:HG23	1.97	0.46
1:D:649:TRP:O	1:D:652:PHE:HB3	2.15	0.46
1:D:658:ASN:O	1:D:660:THR:N	2.47	0.46
1:E:284:PHE:O	1:E:285:PHE:CD1	2.69	0.46
1:F:192:ARG:HD3	1:F:192:ARG:C	2.37	0.46
1:F:284:PHE:CD2	1:F:364:PRO:O	2.69	0.46
1:F:354:ASN:O	1:F:355:GLY:O	2.34	0.46
1:H:235:ALA:O	1:H:236:SER:OG	2.29	0.46
1:H:315:TRP:CZ3	1:H:399:ALA:HB2	2.51	0.46
1:G:304:VAL:O	1:G:304:VAL:HG12	2.16	0.46
1:G:377:ALA:O	1:G:378:TYR:C	2.54	0.46
1:G:491:PHE:O	1:G:495:LEU:CD2	2.64	0.46
1:A:140:GLN:HB2	1:A:262:LEU:CB	2.45	0.45
1:A:154:ASN:OD1	1:A:154:ASN:C	2.55	0.45
1:A:253:ALA:HA	1:A:260:LEU:HD23	1.98	0.45
1:A:280:VAL:O	1:A:280:VAL:HG12	2.10	0.45
1:A:445:LEU:O	1:A:447:ASP:N	2.49	0.45
1:A:664:ASP:O	1:A:665:ASP:C	2.54	0.45
1:B:281:SER:OG	1:B:311:ASP:HB2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:513:ILE:HD12	1:B:543:ALA:CB	2.42	0.45
1:D:170:TYR:CD1	1:D:170:TYR:C	2.88	0.45
1:D:282:ARG:HB3	1:D:350:TYR:OH	2.16	0.45
1:D:366:PHE:HD1	1:D:366:PHE:O	2.00	0.45
1:D:372:MET:HB3	1:D:448:ILE:HG21	1.98	0.45
1:D:472:CYS:C	1:D:474:GLN:N	2.69	0.45
1:E:365:TYR:O	1:E:366:PHE:O	2.34	0.45
1:E:437:PHE:O	1:E:441:ILE:HG13	2.16	0.45
1:E:461:CYS:O	1:E:485:ARG:NH1	2.49	0.45
1:F:277:MET:SD	1:F:613:THR:HG22	2.56	0.45
1:H:365:TYR:O	1:H:366:PHE:O	2.34	0.45
1:H:499:VAL:O	1:H:502:LYS:CG	2.64	0.45
1:H:634:ILE:HD13	1:H:656:LEU:HD13	1.98	0.45
1:G:436:GLU:O	1:G:437:PHE:C	2.54	0.45
1:G:499:VAL:O	1:G:502:LYS:CB	2.65	0.45
1:G:590:TYR:CD1	1:G:649:TRP:HD1	2.34	0.45
1:G:663:LEU:HD13	1:G:670:TYR:HB3	1.98	0.45
1:A:302:MET:HE2	1:A:637:ALA:HB2	1.97	0.45
1:C:396:PHE:CG	1:C:427:LEU:CD1	2.99	0.45
1:C:545:LYS:HE3	1:C:607:VAL:HG21	1.98	0.45
1:D:181:VAL:HB	1:D:182:PRO:HD3	1.97	0.45
1:D:512:ALA:O	1:D:513:ILE:HG13	2.16	0.45
1:E:445:LEU:O	1:E:447:ASP:N	2.50	0.45
1:F:525:GLN:O	1:F:526:THR:HG23	2.16	0.45
1:G:351:TRP:CD1	1:G:357:LYS:HG3	2.51	0.45
1:A:307:TRP:CZ3	1:A:372:MET:HE3	2.52	0.45
1:A:324:LYS:CG	1:A:403:TYR:OH	2.65	0.45
1:B:295:ASP:CG	1:B:382:ARG:HH12	2.20	0.45
1:B:465:GLN:O	1:B:469:ASN:HB2	2.16	0.45
1:B:495:LEU:N	1:B:495:LEU:HD23	2.31	0.45
1:B:673:HIS:O	1:B:674:TRP:C	2.54	0.45
1:C:566:CYS:HB3	1:C:614:PHE:CD1	2.52	0.45
1:D:284:PHE:O	1:D:285:PHE:CG	2.69	0.45
1:E:396:PHE:O	1:E:400:MET:HG2	2.15	0.45
1:E:560:ASP:OD1	1:E:564:TYR:CE2	2.70	0.45
1:F:532:SER:O	1:F:536:CYS:SG	2.49	0.45
1:H:284:PHE:CE1	1:H:367:TYR:CZ	3.05	0.45
1:H:586:VAL:HG12	1:H:635:CYS:SG	2.57	0.45
1:G:435:VAL:HG12	1:G:436:GLU:N	2.31	0.45
1:G:435:VAL:HG13	1:G:439:LYS:HE3	1.99	0.45
1:G:545:LYS:CE	1:G:607:VAL:CG2	2.94	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:273:TYR:CE2	1:A:552:ILE:HD11	2.51	0.45
1:A:296:ILE:CD1	1:A:630:LEU:HD11	2.47	0.45
1:A:483:SER:CA	1:A:486:GLN:OE1	2.65	0.45
1:A:564:TYR:CD1	1:A:613:THR:OG1	2.69	0.45
1:B:307:TRP:O	1:B:389:GLU:HB3	2.16	0.45
1:B:461:CYS:O	1:B:485:ARG:NH1	2.42	0.45
1:C:309:LEU:HD22	1:C:372:MET:HE2	1.99	0.45
1:D:223:TYR:HB3	1:D:241:GLY:O	2.17	0.45
1:D:284:PHE:HE1	1:D:367:TYR:CZ	2.35	0.45
1:E:534:ASN:HB3	1:E:535:PRO:CD	2.43	0.45
1:E:584:ASP:O	1:E:632:ARG:NH1	2.50	0.45
1:F:325:LEU:HD22	1:F:399:ALA:CB	2.45	0.45
1:H:492:ILE:HA	1:H:495:LEU:HD13	1.99	0.45
1:H:639:ALA:HA	1:H:647:LYS:HD3	1.99	0.45
1:G:388:PRO:HB3	1:G:449:PHE:CE2	2.51	0.45
1:A:436:GLU:O	1:A:437:PHE:C	2.55	0.45
1:A:546:LYS:O	1:A:547:LEU:HD23	2.17	0.45
1:C:445:LEU:O	1:C:447:ASP:N	2.49	0.45
1:D:358:THR:O	1:D:359:GLY:C	2.55	0.45
1:D:533:TRP:CG	1:D:534:ASN:N	2.85	0.45
1:D:673:HIS:O	1:D:674:TRP:C	2.54	0.45
1:E:473:GLN:O	1:E:477:LYS:CE	2.63	0.45
1:E:625:LEU:HD12	1:E:625:LEU:O	2.17	0.45
1:F:436:GLU:O	1:F:437:PHE:C	2.55	0.45
1:F:533:TRP:C	1:F:534:ASN:O	2.51	0.45
1:H:369:GLN:NE2	1:H:448:ILE:HD11	2.32	0.45
1:H:654:THR:OG1	1:H:655:ARG:N	2.50	0.45
1:A:130:ASP:OD2	1:A:252:LEU:CD2	2.63	0.45
1:A:308:HIS:CE1	1:A:311:ASP:CG	2.90	0.45
1:B:226:ASN:OD1	1:B:264:ARG:HG2	2.16	0.45
1:B:304:VAL:HG13	1:B:387:LEU:HG	1.99	0.45
1:B:445:LEU:O	1:B:447:ASP:N	2.50	0.45
1:B:479:LEU:CD1	1:B:490:HIS:NE2	2.79	0.45
1:C:144:THR:CG2	1:C:145:LYS:N	2.78	0.45
1:C:244:TYR:HA	1:C:247:GLN:HG3	1.98	0.45
1:C:363:GLY:H	1:C:364:PRO:HD2	1.79	0.45
1:F:445:LEU:O	1:F:447:ASP:N	2.50	0.45
1:F:591:ASN:O	1:F:593:VAL:HG23	2.16	0.45
1:H:511:GLU:C	1:H:513:ILE:H	2.20	0.45
1:G:541:ALA:HB2	1:G:598:MET:CE	2.46	0.45
1:A:282:ARG:O	1:A:283:HIS:CG	2.70	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:590:TYR:CD1	1:A:649:TRP:NE1	2.85	0.45
1:A:649:TRP:O	1:A:650:ASP:C	2.54	0.45
1:A:657:ALA:O	1:A:660:THR:HG23	2.17	0.45
1:B:276:PHE:CZ	1:B:293:MET:HE2	2.52	0.45
1:B:282:ARG:CZ	1:B:311:ASP:OD2	2.64	0.45
1:B:533:TRP:CE3	1:B:534:ASN:OD1	2.69	0.45
1:B:631:PRO:O	1:B:634:ILE:N	2.45	0.45
2:B:1003:HOH:O	1:C:373:ARG:HD3	2.17	0.45
1:C:144:THR:HG22	1:C:260:LEU:HD12	1.98	0.45
1:E:454:ILE:CG1	1:E:504:LYS:HD3	2.47	0.45
1:E:502:LYS:HD2	1:E:503:ASN:N	2.31	0.45
1:F:358:THR:O	1:F:359:GLY:C	2.54	0.45
1:F:500:ALA:HA	1:F:502:LYS:HG2	1.99	0.45
1:F:630:LEU:HD21	1:F:633:LEU:HD23	1.98	0.45
1:G:274:ARG:NH2	1:G:301:LYS:O	2.43	0.45
1:G:308:HIS:NE2	1:G:615:TRP:HZ3	2.15	0.45
1:G:531:MET:CG	1:G:558:LYS:HD2	2.47	0.45
1:A:142:GLY:O	1:A:262:LEU:HG	2.17	0.45
1:A:282:ARG:HH21	1:A:313:GLN:HE22	1.63	0.45
1:A:303:ASN:O	1:A:384:ILE:CB	2.64	0.45
1:A:349:VAL:HG21	1:A:358:THR:HG23	1.99	0.45
1:B:365:TYR:O	1:B:366:PHE:O	2.34	0.45
1:C:296:ILE:HG22	1:C:633:LEU:HD23	1.98	0.45
1:D:583:ASN:HD22	1:D:583:ASN:N	2.15	0.45
1:D:654:THR:O	1:D:657:ALA:N	2.44	0.45
1:D:661:GLN:CG	1:D:661:GLN:O	2.64	0.45
1:E:392:MET:HG2	1:E:396:PHE:HE2	1.81	0.45
1:E:530:ILE:HG12	1:E:549:LEU:HD13	1.98	0.45
1:E:533:TRP:C	1:E:534:ASN:O	2.55	0.45
1:E:563:TYR:CZ	1:E:592:TYR:HD2	2.34	0.45
1:F:208:ASP:CG	1:F:211:SER:HG	2.19	0.45
1:F:246:LEU:HD12	1:F:246:LEU:N	2.31	0.45
1:G:568:LYS:HB2	1:G:580:GLY:O	2.17	0.45
1:A:386:VAL:O	1:A:451:TYR:CD2	2.70	0.45
1:A:552:ILE:O	1:A:553:VAL:HG23	2.17	0.45
1:B:313:GLN:HG2	1:B:350:TYR:CE1	2.52	0.45
1:B:318:GLU:HA	1:B:326:THR:HG21	1.99	0.45
1:B:533:TRP:CG	1:B:534:ASN:N	2.85	0.45
1:B:614:PHE:HE1	1:B:619:VAL:HG11	1.82	0.45
1:C:131:GLU:O	1:C:132:THR:OG1	2.26	0.45
1:C:236:SER:OG	1:C:242:LYS:HG2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:295:ASP:OD1	1:E:382:ARG:NH1	2.46	0.45
1:F:313:GLN:OE1	1:F:313:GLN:N	2.48	0.45
1:H:375:VAL:C	1:H:377:ALA:H	2.19	0.45
1:G:326:THR:HG21	1:G:366:PHE:CD2	2.52	0.45
1:G:332:ARG:NH2	1:G:335:ASN:O	2.50	0.45
1:A:365:TYR:CB	1:A:366:PHE:HD1	2.20	0.45
1:A:591:ASN:OD1	1:A:649:TRP:NE1	2.49	0.45
1:A:593:VAL:O	1:A:596:GLN:HG3	2.16	0.45
1:A:624:TYR:HA	1:A:627:TYR:HB3	1.99	0.45
1:B:295:ASP:HA	1:B:382:ARG:NH1	2.32	0.45
1:B:558:LYS:HZ1	1:B:611:GLN:CD	2.21	0.45
1:C:192:ARG:C	1:C:192:ARG:CD	2.86	0.45
1:C:357:LYS:HD3	1:C:418:THR:CB	2.47	0.45
1:D:133:ARG:HD2	1:D:646:PHE:HB3	1.98	0.45
1:E:491:PHE:O	1:E:495:LEU:CD2	2.65	0.45
1:F:332:ARG:NH2	1:F:335:ASN:O	2.50	0.45
1:H:170:TYR:C	1:H:170:TYR:CD1	2.90	0.45
1:H:315:TRP:CZ3	1:H:396:PHE:HE1	2.35	0.45
1:H:634:ILE:HD12	1:H:634:ILE:H	1.81	0.45
1:G:284:PHE:O	1:G:285:PHE:CD1	2.70	0.45
1:B:215:ASP:C	1:B:217:ALA:H	2.17	0.44
1:B:436:GLU:O	1:B:440:ASN:CG	2.55	0.44
1:C:285:PHE:CE2	1:C:616:THR:HG21	2.52	0.44
1:D:545:LYS:HE3	1:D:607:VAL:CG2	2.48	0.44
1:E:295:ASP:CB	1:E:382:ARG:HH12	2.31	0.44
1:F:197:ASN:O	1:F:198:GLY:C	2.55	0.44
1:F:435:VAL:CG1	1:F:439:LYS:HE3	2.47	0.44
1:H:249:LEU:HD23	1:H:249:LEU:O	2.16	0.44
1:H:302:MET:SD	1:H:637:ALA:CB	3.01	0.44
1:H:369:GLN:O	1:H:370:ASP:C	2.56	0.44
1:G:452:PRO:HA	1:G:504:LYS:HG2	2.00	0.44
1:G:673:HIS:O	1:G:674:TRP:C	2.55	0.44
1:A:154:ASN:O	1:A:208:ASP:OD1	2.35	0.44
1:A:431:ASN:O	1:A:431:ASN:OD1	2.35	0.44
1:B:654:THR:OG1	1:B:655:ARG:N	2.50	0.44
1:C:315:TRP:CE3	1:C:399:ALA:CB	2.95	0.44
1:C:436:GLU:O	1:C:440:ASN:CG	2.55	0.44
1:C:517:GLY:C	1:C:519:ASP:H	2.21	0.44
1:D:513:ILE:HD13	1:D:544:VAL:HG22	1.99	0.44
1:E:274:ARG:NE	1:E:301:LYS:O	2.39	0.44
1:E:392:MET:SD	1:E:396:PHE:HE2	2.39	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:585:GLY:O	1:E:632:ARG:HD3	2.16	0.44
1:F:408:CYS:HB3	1:F:465:GLN:HE21	1.82	0.44
1:H:453:TYR:HD1	1:H:505:HIS:HB2	1.80	0.44
1:G:310:THR:HG1	1:G:396:PHE:HZ	1.51	0.44
1:G:437:PHE:CE1	1:G:441:ILE:HD11	2.52	0.44
1:G:520:LEU:CD2	1:G:528:SER:HB2	2.47	0.44
1:A:146:TYR:O	1:A:147:LEU:HB2	2.18	0.44
1:A:157:VAL:HG22	1:A:212:PHE:O	2.18	0.44
1:D:321:ARG:HE	1:D:444:GLU:HG2	1.83	0.44
1:D:391:ASP:O	1:D:396:PHE:HE2	1.98	0.44
1:D:488:GLN:O	1:D:492:ILE:HG13	2.18	0.44
1:E:436:GLU:O	1:E:440:ASN:CG	2.56	0.44
1:E:605:ALA:O	1:E:606:LEU:HD23	2.18	0.44
1:E:654:THR:OG1	1:E:655:ARG:N	2.51	0.44
1:F:132:THR:O	1:F:133:ARG:O	2.36	0.44
1:F:253:ALA:CA	1:F:260:LEU:HD22	2.47	0.44
1:F:287:VAL:O	1:F:291:LYS:HG2	2.17	0.44
1:F:517:GLY:C	1:F:519:ASP:H	2.19	0.44
1:H:284:PHE:O	1:H:285:PHE:CD1	2.70	0.44
1:H:289:GLU:O	1:H:291:LYS:N	2.51	0.44
1:H:436:GLU:O	1:H:440:ASN:CG	2.55	0.44
1:G:249:LEU:C	1:G:249:LEU:CD2	2.86	0.44
1:G:273:TYR:O	1:G:609:GLY:HA3	2.18	0.44
1:G:289:GLU:O	1:G:292:LYS:C	2.56	0.44
1:G:533:TRP:CG	1:G:534:ASN:N	2.85	0.44
1:G:616:THR:HB	1:G:619:VAL:O	2.18	0.44
1:A:454:ILE:HG13	1:A:504:LYS:HD3	1.99	0.44
1:A:520:LEU:C	1:A:525:GLN:HE21	2.21	0.44
1:A:545:LYS:NZ	1:A:607:VAL:CG2	2.81	0.44
1:B:313:GLN:HE21	1:B:419:GLY:C	2.20	0.44
1:B:625:LEU:HD12	1:B:625:LEU:C	2.35	0.44
1:B:660:THR:C	1:B:662:TRP:N	2.71	0.44
1:C:285:PHE:O	1:C:286:SER:O	2.35	0.44
1:C:436:GLU:O	1:C:437:PHE:C	2.56	0.44
1:F:285:PHE:CE1	1:F:616:THR:HG21	2.52	0.44
1:F:426:VAL:HG11	1:F:461:CYS:SG	2.57	0.44
1:F:652:PHE:CZ	1:F:656:LEU:HD12	2.53	0.44
1:F:654:THR:OG1	1:F:655:ARG:N	2.50	0.44
1:H:369:GLN:O	1:H:372:MET:N	2.47	0.44
1:H:673:HIS:O	1:H:674:TRP:C	2.55	0.44
1:G:197:ASN:O	1:G:198:GLY:C	2.56	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:284:PHE:CE1	1:G:367:TYR:CZ	3.05	0.44
1:G:309:LEU:HD22	1:G:372:MET:HE2	1.98	0.44
1:G:436:GLU:O	1:G:440:ASN:CG	2.55	0.44
1:G:545:LYS:HE3	1:G:607:VAL:HG22	1.99	0.44
1:A:193:GLY:O	1:A:195:GLU:CD	2.54	0.44
1:A:294:ILE:CG2	1:A:384:ILE:HD13	2.38	0.44
1:A:430:ALA:CB	1:A:472:CYS:SG	2.96	0.44
1:C:501:THR:CG2	1:C:502:LYS:N	2.78	0.44
1:D:289:GLU:O	1:D:292:LYS:CA	2.65	0.44
1:D:430:ALA:CB	1:D:472:CYS:SG	3.05	0.44
1:E:436:GLU:O	1:E:437:PHE:C	2.55	0.44
1:H:208:ASP:CG	1:H:211:SER:OG	2.56	0.44
1:H:509:TRP:CE3	1:H:533:TRP:CD1	3.05	0.44
1:H:533:TRP:O	1:H:534:ASN:O	2.35	0.44
1:H:672:ARG:CZ	1:H:675:MET:O	2.66	0.44
1:G:280:VAL:CG1	1:G:316:ARG:HG3	2.47	0.44
1:G:354:ASN:O	1:G:355:GLY:O	2.36	0.44
1:G:369:GLN:O	1:G:372:MET:N	2.50	0.44
1:G:376:VAL:O	1:G:376:VAL:HG12	2.17	0.44
1:G:533:TRP:C	1:G:534:ASN:O	2.56	0.44
1:A:296:ILE:C	1:A:298:ALA:N	2.70	0.44
1:A:385:GLU:OE2	1:A:451:TYR:CD1	2.67	0.44
1:A:393:PRO:HB2	1:A:427:LEU:H	1.83	0.44
1:A:492:ILE:O	1:A:493:LYS:O	2.35	0.44
1:B:144:THR:HG21	1:B:260:LEU:HD12	1.99	0.44
1:B:208:ASP:CB	1:B:211:SER:OG	2.66	0.44
1:B:246:LEU:N	1:B:246:LEU:HD12	2.33	0.44
1:B:276:PHE:CD1	1:B:633:LEU:HD11	2.53	0.44
1:B:307:TRP:CH2	1:B:372:MET:SD	3.10	0.44
1:B:354:ASN:O	1:B:355:GLY:O	2.36	0.44
1:B:643:PRO:O	1:B:644:GLN:C	2.56	0.44
1:C:212:PHE:CE2	1:C:246:LEU:HD11	2.52	0.44
1:C:295:ASP:OD1	1:C:382:ARG:NH1	2.51	0.44
1:C:313:GLN:NE2	1:C:419:GLY:O	2.48	0.44
1:D:463:THR:HG22	1:D:466:TRP:HE3	1.82	0.44
1:D:492:ILE:O	1:D:493:LYS:O	2.35	0.44
1:F:222:ALA:HB1	1:F:268:LYS:HE2	2.00	0.44
1:F:275:GLY:CA	1:F:611:GLN:HG3	2.47	0.44
1:F:374:GLU:O	1:F:377:ALA:HB3	2.18	0.44
1:F:475:LYS:O	1:F:478:GLU:CG	2.66	0.44
1:H:253:ALA:HA	1:H:260:LEU:CD2	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:429:VAL:HG23	1:H:487:LEU:HD13	1.93	0.44
1:G:672:ARG:NH1	1:G:675:MET:O	2.50	0.44
1:A:323:PRO:O	1:A:326:THR:OG1	2.32	0.44
1:A:533:TRP:HE3	1:A:560:ASP:CG	2.21	0.44
1:B:280:VAL:HG13	1:B:316:ARG:HG3	2.00	0.44
1:B:586:VAL:CG1	1:B:635:CYS:SG	3.04	0.44
1:C:145:LYS:HG2	1:E:216:PRO:HD2	1.99	0.44
1:C:602:GLU:O	1:C:603:GLN:C	2.56	0.44
1:D:507:VAL:C	1:D:508:CYS:SG	2.96	0.44
1:E:238:THR:HG22	1:E:239:GLU:OE1	2.16	0.44
1:E:284:PHE:CE1	1:E:367:TYR:CZ	3.05	0.44
1:E:293:MET:O	1:E:297:MET:HG3	2.17	0.44
1:F:277:MET:HB2	1:F:306:HIS:HB3	2.00	0.44
1:F:369:GLN:O	1:F:372:MET:HB2	2.17	0.44
1:F:488:GLN:O	1:F:492:ILE:HG13	2.17	0.44
1:F:634:ILE:H	1:F:634:ILE:HD12	1.82	0.44
1:H:313:GLN:OE1	1:H:313:GLN:N	2.49	0.44
1:H:315:TRP:CE3	1:H:396:PHE:HE1	2.36	0.44
1:H:502:LYS:HD2	1:H:503:ASN:N	2.33	0.44
1:G:178:GLN:HE22	1:G:182:PRO:HD3	1.82	0.44
1:A:309:LEU:HD13	1:A:317:ALA:CB	2.48	0.44
1:A:463:THR:HA	1:A:466:TRP:CE3	2.53	0.44
1:A:494:ASP:O	1:A:498:PHE:CD2	2.69	0.44
1:B:179:ILE:HG22	1:B:179:ILE:O	2.17	0.44
1:B:232:ILE:HD13	1:B:249:LEU:HD11	2.00	0.44
1:B:499:VAL:O	1:B:502:LYS:CB	2.66	0.44
1:C:351:TRP:CD1	1:C:357:LYS:CG	3.01	0.44
1:D:464:THR:O	1:D:464:THR:OG1	2.27	0.44
1:E:430:ALA:O	1:E:471:LEU:CB	2.66	0.44
1:E:445:LEU:O	1:E:448:ILE:N	2.51	0.44
1:E:528:SER:O	1:E:549:LEU:HD22	2.18	0.44
1:F:223:TYR:CD1	1:F:223:TYR:C	2.90	0.44
1:F:225:LEU:HD22	1:F:227:ILE:HG13	2.00	0.44
1:H:207:MET:O	1:H:207:MET:HG2	2.16	0.44
1:G:218:LEU:O	1:G:237:SER:OG	2.35	0.44
1:G:222:ALA:HB1	1:G:268:LYS:HE2	1.98	0.44
1:G:368:THR:O	1:G:369:GLN:C	2.56	0.44
1:G:445:LEU:O	1:G:448:ILE:N	2.51	0.44
1:A:136:TRP:CZ3	1:A:137:ILE:O	2.71	0.44
1:A:244:TYR:CD1	1:A:244:TYR:N	2.86	0.44
1:A:277:MET:HA	1:A:306:HIS:O	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:507:VAL:HG11	1:A:531:MET:CE	2.48	0.44
1:B:256:ASN:O	1:B:257:ALA:HB2	2.18	0.44
1:C:533:TRP:O	1:C:534:ASN:O	2.36	0.44
1:C:542:LYS:C	1:C:544:VAL:HA	2.39	0.44
1:D:476:TYR:OH	1:D:486:GLN:N	2.51	0.44
1:D:545:LYS:HD2	1:D:598:MET:CE	2.48	0.44
1:E:406:TYR:HA	1:E:431:ASN:HD22	1.80	0.44
1:E:539:GLY:C	1:E:543:ALA:HB3	2.37	0.44
1:F:173:LYS:HE2	1:F:173:LYS:HB2	1.82	0.44
1:F:279:ASP:C	1:F:279:ASP:OD1	2.56	0.44
1:F:324:LYS:HZ2	1:F:328:VAL:HG23	1.82	0.44
1:F:487:LEU:O	1:F:488:GLN:C	2.55	0.44
1:H:277:MET:HA	1:H:306:HIS:O	2.18	0.44
1:G:569:GLN:O	1:G:570:SER:CB	2.65	0.44
1:A:540:VAL:CG1	1:A:551:ALA:HB1	2.48	0.43
1:B:226:ASN:HB2	1:B:233:SER:OG	2.18	0.43
1:B:386:VAL:O	1:B:451:TYR:CD2	2.71	0.43
1:C:350:TYR:N	1:C:350:TYR:CD1	2.86	0.43
1:C:434:ALA:O	1:C:437:PHE:HB3	2.17	0.43
1:D:315:TRP:CZ2	1:D:325:LEU:HD13	2.52	0.43
1:D:408:CYS:O	1:D:409:ASN:OD1	2.36	0.43
1:D:445:LEU:O	1:D:448:ILE:N	2.51	0.43
1:D:544:VAL:HG11	1:D:547:LEU:CD1	2.44	0.43
1:E:297:MET:CE	1:E:302:MET:SD	3.06	0.43
1:F:445:LEU:O	1:F:448:ILE:N	2.51	0.43
1:F:473:GLN:O	1:F:477:LYS:CE	2.66	0.43
1:H:375:VAL:O	1:H:378:TYR:N	2.50	0.43
1:H:436:GLU:O	1:H:437:PHE:C	2.55	0.43
1:H:502:LYS:HD2	1:H:503:ASN:HA	1.99	0.43
1:H:545:LYS:CE	1:H:607:VAL:CG2	2.91	0.43
1:G:315:TRP:NE1	1:G:317:ALA:O	2.38	0.43
1:G:350:TYR:HD1	1:G:418:THR:O	2.01	0.43
1:A:269:PRO:HB3	1:A:274:ARG:NH1	2.33	0.43
1:A:350:TYR:HD1	1:A:418:THR:C	2.21	0.43
1:A:591:ASN:N	1:A:649:TRP:HE1	2.16	0.43
1:B:291:LYS:HB3	1:B:378:TYR:CE2	2.53	0.43
1:B:436:GLU:O	1:B:437:PHE:C	2.56	0.43
1:C:313:GLN:OE1	1:C:313:GLN:N	2.50	0.43
1:C:535:PRO:HB3	1:C:538:GLU:HB2	2.00	0.43
1:E:369:GLN:O	1:E:370:ASP:C	2.55	0.43
1:E:443:ASP:O	1:E:446:CYS:SG	2.76	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:499:VAL:O	1:E:502:LYS:CB	2.66	0.43
1:F:192:ARG:HD3	1:F:193:GLY:N	2.33	0.43
1:F:391:ASP:O	1:F:396:PHE:CE2	2.71	0.43
1:F:586:VAL:HG21	1:F:631:PRO:HG2	2.00	0.43
1:F:654:THR:O	1:F:657:ALA:N	2.47	0.43
1:H:533:TRP:C	1:H:534:ASN:O	2.56	0.43
1:H:586:VAL:CG1	1:H:635:CYS:SG	3.06	0.43
1:G:304:VAL:HA	1:G:385:GLU:O	2.18	0.43
1:A:315:TRP:CZ3	1:A:399:ALA:CB	3.00	0.43
1:A:324:LYS:C	1:A:326:THR:H	2.18	0.43
1:A:409:ASN:OD1	1:A:465:GLN:NE2	2.51	0.43
1:A:427:LEU:HD22	1:A:434:ALA:HB1	2.00	0.43
1:B:369:GLN:O	1:B:372:MET:HB2	2.18	0.43
1:B:476:TYR:CE2	1:B:487:LEU:HD12	2.53	0.43
1:B:531:MET:CG	1:B:558:LYS:HZ3	2.29	0.43
1:B:533:TRP:C	1:B:534:ASN:O	2.56	0.43
1:B:541:ALA:HB2	1:B:598:MET:SD	2.58	0.43
1:C:512:ALA:C	1:C:513:ILE:HG12	2.38	0.43
1:C:628:LEU:O	1:C:629:ALA:C	2.57	0.43
1:D:210:ILE:O	1:D:210:ILE:HG22	2.17	0.43
1:D:284:PHE:CE1	1:D:367:TYR:CZ	3.06	0.43
1:E:173:LYS:CG	1:E:196:LEU:HB2	2.49	0.43
1:E:228:THR:HA	1:E:262:LEU:HD22	2.00	0.43
1:H:256:ASN:O	1:H:257:ALA:HB2	2.18	0.43
1:H:282:ARG:CZ	1:H:311:ASP:OD2	2.67	0.43
1:H:513:ILE:HD13	1:H:543:ALA:HA	2.00	0.43
1:H:563:TYR:CZ	1:H:592:TYR:HD2	2.36	0.43
1:G:270:ARG:HH22	1:G:604:MET:HE2	1.83	0.43
1:G:369:GLN:O	1:G:372:MET:HB2	2.18	0.43
1:G:649:TRP:O	1:G:652:PHE:HB3	2.18	0.43
1:A:545:LYS:CE	1:A:607:VAL:CG2	2.96	0.43
1:B:280:VAL:O	1:B:280:VAL:CG1	2.65	0.43
1:B:280:VAL:HG12	1:B:308:HIS:O	2.18	0.43
1:B:445:LEU:O	1:B:448:ILE:N	2.51	0.43
1:C:170:TYR:C	1:C:170:TYR:HD1	2.21	0.43
1:C:246:LEU:HD12	1:C:246:LEU:N	2.33	0.43
1:C:277:MET:HA	1:C:306:HIS:O	2.18	0.43
1:C:369:GLN:O	1:C:372:MET:HB2	2.18	0.43
1:C:469:ASN:HB3	1:C:472:CYS:SG	2.58	0.43
1:C:584:ASP:O	1:C:585:GLY:O	2.35	0.43
1:D:390:VAL:O	1:D:390:VAL:HG12	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:531:MET:HG2	1:D:531:MET:O	2.18	0.43
1:D:545:LYS:NZ	1:D:607:VAL:CG2	2.80	0.43
1:E:389:GLU:HA	1:E:455:HIS:O	2.19	0.43
1:H:180:ALA:CB	1:H:256:ASN:OD1	2.63	0.43
1:H:412:ARG:O	1:H:414:PRO:CD	2.67	0.43
1:H:526:THR:O	1:H:549:LEU:HD23	2.19	0.43
1:G:256:ASN:CB	1:G:662:TRP:CZ2	3.01	0.43
1:G:313:GLN:OE1	1:G:313:GLN:N	2.49	0.43
1:G:389:GLU:OE2	1:G:391:ASP:HB2	2.18	0.43
1:B:331:THR:O	1:B:416:VAL:HG11	2.18	0.43
1:B:590:TYR:CE1	1:B:647:LYS:HG2	2.54	0.43
1:D:436:GLU:O	1:D:440:ASN:CG	2.56	0.43
1:D:541:ALA:HB2	1:D:598:MET:CE	2.49	0.43
1:E:146:TYR:HD2	1:E:196:LEU:HD21	1.84	0.43
1:E:533:TRP:O	1:E:534:ASN:O	2.36	0.43
1:F:131:GLU:CG	1:F:659:GLN:OE1	2.66	0.43
1:A:316:ARG:NH1	1:A:365:TYR:O	2.51	0.43
1:B:530:ILE:HG22	1:B:531:MET:N	2.34	0.43
1:C:295:ASP:CG	1:C:382:ARG:NH1	2.69	0.43
1:C:533:TRP:C	1:C:534:ASN:O	2.56	0.43
1:C:630:LEU:HD12	1:C:669:VAL:O	2.19	0.43
1:D:277:MET:HA	1:D:306:HIS:O	2.18	0.43
1:D:533:TRP:O	1:D:534:ASN:O	2.37	0.43
1:D:587:GLU:CA	1:D:591:ASN:HD21	2.31	0.43
1:E:180:ALA:CB	1:E:256:ASN:HD21	2.31	0.43
1:E:304:VAL:HG13	1:E:387:LEU:HG	2.01	0.43
1:E:545:LYS:CE	1:E:607:VAL:CG2	2.95	0.43
1:F:605:ALA:O	1:F:606:LEU:HD23	2.19	0.43
1:H:179:ILE:O	1:H:180:ALA:CB	2.65	0.43
1:H:315:TRP:CZ3	1:H:399:ALA:CB	3.02	0.43
1:H:333:SER:O	1:H:334:ASP:CG	2.57	0.43
1:G:654:THR:OG1	1:G:655:ARG:N	2.51	0.43
1:A:376:VAL:HG13	1:A:451:TYR:OH	2.19	0.43
1:A:545:LYS:HZ1	1:A:607:VAL:CG2	2.31	0.43
1:A:550:PRO:O	1:A:551:ALA:CB	2.67	0.43
1:C:178:GLN:HE22	1:C:182:PRO:CD	2.31	0.43
1:C:654:THR:OG1	1:C:655:ARG:N	2.51	0.43
1:D:131:GLU:OE1	1:D:131:GLU:C	2.57	0.43
1:D:302:MET:CE	1:D:637:ALA:HB2	2.48	0.43
1:D:400:MET:HE1	1:D:407:SER:HA	2.00	0.43
1:E:131:GLU:OE1	1:E:131:GLU:C	2.57	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:212:PHE:CE2	1:E:246:LEU:HD11	2.53	0.43
1:E:333:SER:O	1:E:334:ASP:CG	2.56	0.43
1:E:607:VAL:O	1:E:607:VAL:HG12	2.19	0.43
1:E:673:HIS:O	1:E:674:TRP:C	2.56	0.43
1:F:436:GLU:O	1:F:440:ASN:CG	2.57	0.43
1:H:139:CYS:SG	1:H:263:VAL:HG13	2.56	0.43
1:H:454:ILE:HD11	1:H:504:LYS:HD2	2.01	0.43
1:H:476:TYR:OH	1:H:486:GLN:N	2.52	0.43
1:H:628:LEU:O	1:H:629:ALA:C	2.56	0.43
1:G:226:ASN:O	1:G:232:ILE:HA	2.19	0.43
1:G:544:VAL:HB	1:G:549:LEU:HB2	2.00	0.43
1:A:154:ASN:CG	1:A:155:ALA:N	2.72	0.43
1:A:227:ILE:HD12	1:A:263:VAL:CG2	2.49	0.43
1:A:274:ARG:NE	1:A:301:LYS:O	2.51	0.43
1:A:472:CYS:O	1:A:476:TYR:HD2	2.01	0.43
1:B:249:LEU:HD21	1:B:260:LEU:CD2	2.49	0.43
1:B:303:ASN:O	1:B:305:PHE:N	2.52	0.43
1:B:351:TRP:NE1	1:B:357:LYS:HG3	2.33	0.43
1:B:654:THR:O	1:B:656:LEU:N	2.52	0.43
1:C:131:GLU:OE1	1:C:131:GLU:C	2.56	0.43
1:C:390:VAL:CG2	1:C:445:LEU:HD11	2.48	0.43
1:C:542:LYS:O	1:C:544:VAL:HG22	2.19	0.43
1:D:351:TRP:HE1	1:D:357:LYS:HG2	1.83	0.43
1:D:549:LEU:HD23	1:D:549:LEU:HA	1.87	0.43
1:D:586:VAL:CG1	1:D:635:CYS:SG	3.07	0.43
1:E:533:TRP:CG	1:E:534:ASN:N	2.85	0.43
1:F:531:MET:CG	1:F:558:LYS:HZ3	2.30	0.43
1:H:507:VAL:C	1:H:508:CYS:SG	2.97	0.43
1:G:401:ALA:HA	1:G:414:PRO:HG2	2.01	0.43
1:A:275:GLY:HA3	1:A:611:GLN:HE21	1.84	0.43
1:A:478:GLU:O	1:A:479:LEU:C	2.57	0.43
1:A:566:CYS:HB2	1:A:614:PHE:CG	2.54	0.43
1:B:310:THR:OG1	1:B:396:PHE:HZ	1.99	0.43
1:B:545:LYS:HE3	1:B:607:VAL:HG23	1.97	0.43
1:C:406:TYR:CB	1:C:431:ASN:HD21	2.30	0.43
1:C:644:GLN:HA	1:C:647:LYS:HE3	2.00	0.43
1:D:256:ASN:O	1:D:257:ALA:HB2	2.18	0.43
1:D:295:ASP:CB	1:D:382:ARG:HH12	2.32	0.43
1:D:499:VAL:O	1:D:502:LYS:CB	2.67	0.43
1:E:244:TYR:HA	1:E:247:GLN:HG3	1.99	0.43
1:E:246:LEU:HD12	1:E:246:LEU:N	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:256:ASN:CB	1:E:662:TRP:CZ2	2.99	0.43
1:E:492:ILE:O	1:E:493:LYS:O	2.36	0.43
1:F:304:VAL:O	1:F:304:VAL:HG12	2.17	0.43
1:F:308:HIS:NE2	1:F:615:TRP:HZ3	2.17	0.43
1:F:350:TYR:CE2	1:F:617:GLU:HA	2.54	0.43
1:H:227:ILE:HD12	1:H:263:VAL:CG2	2.49	0.43
1:H:303:ASN:HA	1:H:384:ILE:HA	2.00	0.43
1:H:313:GLN:NE2	1:H:419:GLY:O	2.42	0.43
1:G:428:ASN:OD1	1:G:430:ALA:C	2.57	0.43
1:A:369:GLN:O	1:A:372:MET:HB2	2.18	0.43
1:B:131:GLU:OE1	1:B:131:GLU:C	2.58	0.43
1:B:400:MET:O	1:B:404:PRO:N	2.52	0.43
1:B:540:VAL:HG12	1:B:598:MET:HE1	2.01	0.43
1:C:294:ILE:CG2	1:C:384:ILE:HD13	2.48	0.43
1:D:196:LEU:HD11	1:D:210:ILE:HD12	2.01	0.43
1:D:285:PHE:CZ	1:D:616:THR:HG21	2.54	0.43
1:E:131:GLU:CG	1:E:656:LEU:HD21	2.49	0.43
1:E:332:ARG:NH1	1:E:362:TYR:HD1	2.17	0.43
1:F:416:VAL:O	1:F:417:TRP:C	2.55	0.43
1:F:630:LEU:CD2	1:F:633:LEU:HD23	2.49	0.43
1:H:363:GLY:N	1:H:364:PRO:CD	2.75	0.43
1:H:461:CYS:O	1:H:485:ARG:NH1	2.51	0.43
1:H:490:HIS:CE1	1:H:519:ASP:OD2	2.72	0.43
1:A:595:VAL:HG12	1:A:595:VAL:O	2.19	0.42
1:B:593:VAL:HG11	1:B:596:GLN:CD	2.39	0.42
1:C:351:TRP:HE1	1:C:357:LYS:HG3	1.83	0.42
1:C:397:VAL:HG11	1:C:415:GLN:O	2.19	0.42
1:C:499:VAL:O	1:C:502:LYS:CG	2.66	0.42
1:D:513:ILE:HD11	1:D:530:ILE:CD1	2.48	0.42
1:D:563:TYR:CZ	1:D:592:TYR:HD2	2.35	0.42
1:E:201:ARG:H	1:E:201:ARG:HD3	1.83	0.42
1:E:374:GLU:O	1:E:377:ALA:HB3	2.19	0.42
1:E:412:ARG:O	1:E:413:ALA:C	2.56	0.42
1:E:513:ILE:HD13	1:E:544:VAL:CG2	2.49	0.42
1:F:219:ALA:O	1:F:237:SER:OG	2.36	0.42
1:F:292:LYS:HA	1:F:295:ASP:CG	2.39	0.42
1:F:390:VAL:HG21	1:F:445:LEU:HD11	2.01	0.42
1:F:537:GLN:CB	1:H:192:ARG:CD	2.95	0.42
1:F:566:CYS:HB2	1:F:614:PHE:CE1	2.54	0.42
1:H:445:LEU:O	1:H:448:ILE:N	2.52	0.42
1:H:492:ILE:HA	1:H:495:LEU:CD1	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:544:VAL:CG1	1:H:547:LEU:HB2	2.48	0.42
1:G:168:THR:O	1:G:169:PHE:C	2.57	0.42
1:G:351:TRP:HE1	1:G:357:LYS:HE3	1.83	0.42
1:G:507:VAL:C	1:G:508:CYS:SG	2.97	0.42
1:A:270:ARG:NH1	1:A:271:PHE:CE1	2.87	0.42
1:A:281:SER:HB2	1:A:311:ASP:N	2.34	0.42
1:A:540:VAL:CG2	1:A:551:ALA:HB1	2.49	0.42
1:A:545:LYS:HD3	1:A:603:GLN:CA	2.48	0.42
1:A:631:PRO:CB	1:A:634:ILE:HD13	2.48	0.42
2:B:1003:HOH:O	1:C:373:ARG:CD	2.67	0.42
1:C:389:GLU:OE2	1:C:391:ASP:HB2	2.19	0.42
1:D:195:GLU:HG2	1:D:196:LEU:H	1.84	0.42
1:D:583:ASN:N	1:D:583:ASN:ND2	2.67	0.42
1:D:654:THR:OG1	1:D:655:ARG:N	2.52	0.42
1:E:256:ASN:O	1:E:257:ALA:HB2	2.19	0.42
1:E:289:GLU:O	1:E:292:LYS:CA	2.67	0.42
1:E:487:LEU:O	1:E:488:GLN:C	2.56	0.42
1:F:385:GLU:OE1	1:F:451:TYR:CD1	2.71	0.42
1:H:194:ALA:HB1	1:H:197:ASN:OD1	2.19	0.42
1:H:226:ASN:OD1	1:H:264:ARG:HG2	2.18	0.42
1:H:374:GLU:O	1:H:377:ALA:HB3	2.19	0.42
1:A:316:ARG:HH11	1:A:330:ALA:HB1	1.84	0.42
1:A:373:ARG:HG2	1:A:448:ILE:HG23	2.00	0.42
1:A:505:HIS:O	1:A:506:LEU:HD23	2.19	0.42
1:A:533:TRP:C	1:A:534:ASN:O	2.55	0.42
1:B:147:LEU:HD21	1:F:238:THR:HG23	2.00	0.42
1:B:513:ILE:HD13	1:B:544:VAL:CG2	2.48	0.42
1:C:208:ASP:CG	1:C:211:SER:OG	2.57	0.42
1:C:292:LYS:HA	1:C:295:ASP:CG	2.40	0.42
1:D:300:TYR:OH	1:D:659:GLN:NE2	2.47	0.42
1:E:220:GLU:O	1:E:238:THR:OG1	2.36	0.42
1:E:364:PRO:HA	1:E:365:TYR:HB2	2.02	0.42
1:F:278:LEU:HD23	1:F:290:VAL:HG22	2.00	0.42
1:F:282:ARG:CB	1:F:350:TYR:OH	2.68	0.42
1:F:513:ILE:O	1:F:513:ILE:CG2	2.64	0.42
1:H:282:ARG:O	1:H:283:HIS:CD2	2.72	0.42
1:H:607:VAL:O	1:H:607:VAL:HG12	2.19	0.42
1:G:215:ASP:C	1:G:217:ALA:H	2.16	0.42
1:G:285:PHE:O	1:G:289:GLU:HB3	2.19	0.42
1:G:658:ASN:O	1:G:660:THR:N	2.52	0.42
1:A:324:LYS:C	1:A:326:THR:N	2.72	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:369:GLN:HB3	1:A:448:ILE:HD11	2.02	0.42
1:B:662:TRP:HE3	1:B:666:HIS:NE2	1.95	0.42
1:C:168:THR:O	1:C:169:PHE:C	2.56	0.42
1:C:445:LEU:O	1:C:448:ILE:N	2.52	0.42
1:C:575:GLU:CD	1:C:627:TYR:HH	2.22	0.42
1:D:533:TRP:C	1:D:534:ASN:O	2.57	0.42
1:F:544:VAL:O	1:F:549:LEU:N	2.50	0.42
1:F:553:VAL:C	1:F:558:LYS:N	2.73	0.42
1:H:140:GLN:HB2	1:H:262:LEU:HB2	2.01	0.42
1:H:502:LYS:HD2	1:H:503:ASN:CA	2.49	0.42
1:G:428:ASN:HD21	1:G:431:ASN:HB2	1.84	0.42
1:G:607:VAL:O	1:G:608:LYS:C	2.57	0.42
1:A:234:VAL:O	1:A:242:LYS:CE	2.67	0.42
1:A:253:ALA:N	1:A:260:LEU:HD23	2.34	0.42
1:A:544:VAL:O	1:A:549:LEU:N	2.52	0.42
1:A:566:CYS:CB	1:A:614:PHE:HA	2.49	0.42
1:A:631:PRO:CB	1:A:634:ILE:CD1	2.97	0.42
1:B:277:MET:HB3	1:B:613:THR:HA	2.00	0.42
1:B:374:GLU:O	1:B:377:ALA:HB3	2.19	0.42
1:C:435:VAL:HG22	1:C:491:PHE:HE1	1.85	0.42
1:C:507:VAL:C	1:C:508:CYS:SG	2.98	0.42
1:C:525:GLN:HB2	1:C:526:THR:H	1.60	0.42
1:D:408:CYS:SG	1:D:426:VAL:HG23	2.59	0.42
1:D:593:VAL:HG12	1:D:596:GLN:H	1.83	0.42
1:E:239:GLU:HB2	1:E:383:HIS:CE1	2.55	0.42
1:E:335:ASN:HA	1:E:362:TYR:HB2	2.01	0.42
1:E:392:MET:HE1	1:E:437:PHE:HE1	1.84	0.42
1:F:404:PRO:O	1:F:407:SER:N	2.53	0.42
1:H:168:THR:O	1:H:169:PHE:C	2.56	0.42
1:H:212:PHE:CZ	1:H:246:LEU:HD11	2.43	0.42
1:H:223:TYR:CD1	1:H:223:TYR:C	2.93	0.42
1:G:173:LYS:NZ	1:G:196:LEU:O	2.42	0.42
1:G:326:THR:CG2	1:G:366:PHE:CD2	3.03	0.42
1:B:144:THR:HG21	1:B:227:ILE:CG2	2.48	0.42
1:B:168:THR:O	1:B:169:PHE:C	2.57	0.42
1:C:428:ASN:C	1:C:428:ASN:OD1	2.57	0.42
1:D:324:LYS:HB2	1:D:403:TYR:CE2	2.55	0.42
1:D:408:CYS:SG	1:D:426:VAL:CG2	3.08	0.42
1:D:435:VAL:HG11	1:D:439:LYS:NZ	2.34	0.42
1:F:170:TYR:C	1:F:170:TYR:HD1	2.22	0.42
1:F:225:LEU:HD11	1:F:249:LEU:HB2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:294:ILE:HD11	1:H:375:VAL:HG13	2.01	0.42
1:H:315:TRP:HZ3	1:H:396:PHE:CE1	2.37	0.42
1:G:192:ARG:CD	1:G:193:GLY:N	2.79	0.42
1:G:284:PHE:HB2	1:G:316:ARG:NH1	2.33	0.42
1:G:575:GLU:O	1:G:576:PRO:O	2.37	0.42
1:A:334:ASP:OD2	1:A:418:THR:HG21	2.20	0.42
1:A:445:LEU:O	1:A:448:ILE:N	2.52	0.42
1:A:649:TRP:CE3	1:A:652:PHE:CD2	3.07	0.42
1:B:296:ILE:HD13	1:B:630:LEU:HD11	2.01	0.42
1:C:256:ASN:O	1:C:257:ALA:HB2	2.19	0.42
1:C:289:GLU:O	1:C:292:LYS:CA	2.67	0.42
1:C:531:MET:HG2	1:C:531:MET:O	2.19	0.42
1:D:369:GLN:O	1:D:370:ASP:C	2.57	0.42
1:D:549:LEU:C	1:D:550:PRO:O	2.58	0.42
1:D:571:ASN:HD21	1:D:582:GLY:HA3	1.84	0.42
1:E:195:GLU:OE2	1:E:195:GLU:N	2.32	0.42
1:E:218:LEU:O	1:E:237:SER:CB	2.67	0.42
1:E:223:TYR:CD1	1:E:223:TYR:C	2.93	0.42
1:E:310:THR:HB	1:E:396:PHE:HE1	1.85	0.42
1:F:220:GLU:CA	1:F:238:THR:OG1	2.66	0.42
1:F:517:GLY:O	1:F:519:ASP:N	2.52	0.42
1:H:181:VAL:HB	1:H:182:PRO:CD	2.49	0.42
1:H:282:ARG:NE	1:H:311:ASP:OD2	2.52	0.42
1:H:285:PHE:O	1:H:289:GLU:HB3	2.18	0.42
1:H:584:ASP:C	1:H:585:GLY:O	2.57	0.42
1:G:204:LEU:C	1:G:206:ALA:H	2.22	0.42
1:G:350:TYR:CD1	1:G:418:THR:O	2.73	0.42
1:G:454:ILE:HD11	1:G:504:LYS:HD2	2.01	0.42
1:G:530:ILE:HG12	1:G:549:LEU:HD13	2.00	0.42
1:A:285:PHE:O	1:A:286:SER:CB	2.60	0.42
1:A:327:THR:O	1:A:327:THR:OG1	2.29	0.42
1:A:331:THR:HG22	1:A:365:TYR:CD1	2.55	0.42
1:A:507:VAL:C	1:A:508:CYS:SG	2.97	0.42
1:A:534:ASN:HD22	1:A:534:ASN:N	2.17	0.42
1:A:545:LYS:CE	1:A:607:VAL:HG22	2.47	0.42
1:B:513:ILE:HD11	1:B:530:ILE:HG13	2.00	0.42
1:C:225:LEU:HD22	1:C:227:ILE:CG1	2.50	0.42
1:D:375:VAL:O	1:D:376:VAL:C	2.57	0.42
1:D:404:PRO:O	1:D:407:SER:OG	2.27	0.42
1:D:566:CYS:HB2	1:D:614:PHE:CE1	2.55	0.42
1:E:499:VAL:O	1:E:502:LYS:HG2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:239:GLU:H	1:F:239:GLU:HG3	1.67	0.42
1:F:284:PHE:O	1:F:285:PHE:CD1	2.72	0.42
1:F:303:ASN:O	1:F:305:PHE:N	2.53	0.42
1:H:284:PHE:HE1	1:H:367:TYR:CZ	2.38	0.42
1:H:376:VAL:HG13	1:H:451:TYR:CE2	2.41	0.42
1:H:569:GLN:O	1:H:570:SER:HB2	2.19	0.42
1:G:277:MET:HA	1:G:306:HIS:O	2.19	0.42
1:G:292:LYS:HA	1:G:295:ASP:CG	2.40	0.42
1:G:513:ILE:HD13	1:G:544:VAL:HG22	2.02	0.42
1:A:269:PRO:CB	1:A:274:ARG:NH1	2.83	0.42
1:A:592:TYR:CD2	1:A:592:TYR:O	2.73	0.42
1:C:400:MET:CE	1:C:426:VAL:O	2.68	0.42
1:D:225:LEU:HD13	1:D:265:ILE:HD12	2.02	0.42
1:D:246:LEU:N	1:D:246:LEU:HD12	2.35	0.42
1:D:308:HIS:CE1	1:D:389:GLU:OE2	2.73	0.42
1:D:388:PRO:HB3	1:D:449:PHE:CE2	2.54	0.42
1:D:663:LEU:HD13	1:D:670:TYR:CB	2.50	0.42
1:E:643:PRO:HG2	1:E:646:PHE:CD2	2.54	0.42
1:F:146:TYR:CE1	1:F:210:ILE:HG13	2.54	0.42
1:F:227:ILE:HG22	1:F:262:LEU:HA	2.01	0.42
1:F:316:ARG:NH1	1:F:330:ALA:HB1	2.35	0.42
1:F:672:ARG:NH2	1:F:676:PRO:O	2.53	0.42
1:H:358:THR:O	1:H:359:GLY:C	2.58	0.42
1:H:416:VAL:O	1:H:417:TRP:C	2.57	0.42
1:G:570:SER:HB3	1:G:673:HIS:NE2	2.34	0.42
1:A:172:TYR:HD1	1:A:187:ILE:HG12	1.84	0.42
1:A:475:LYS:O	1:A:479:LEU:HG	2.19	0.42
1:A:511:GLU:O	1:A:514:THR:OG1	2.11	0.42
1:B:443:ASP:O	1:B:447:ASP:OD2	2.37	0.42
1:C:285:PHE:HE2	1:C:616:THR:HG21	1.84	0.42
1:D:194:ALA:HB1	1:D:197:ASN:CG	2.38	0.42
1:D:218:LEU:O	1:D:237:SER:CB	2.68	0.42
1:D:643:PRO:HB2	1:D:646:PHE:H	1.83	0.42
1:F:247:GLN:OE1	1:F:299:ARG:HA	2.20	0.42
1:F:416:VAL:O	1:F:417:TRP:O	2.38	0.42
1:H:401:ALA:HA	1:H:414:PRO:HG2	2.02	0.42
1:H:651:ASN:O	1:H:655:ARG:HG3	2.19	0.42
1:G:131:GLU:OE1	1:G:131:GLU:C	2.58	0.42
1:G:297:MET:HE2	1:G:302:MET:HB3	2.01	0.42
1:G:365:TYR:O	1:G:366:PHE:O	2.38	0.42
1:G:463:THR:O	1:G:465:GLN:N	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:492:ILE:O	1:G:493:LYS:O	2.38	0.42
1:A:284:PHE:CE1	1:A:286:SER:CA	3.03	0.41
1:A:302:MET:HE1	1:A:633:LEU:CD1	2.49	0.41
1:A:305:PHE:HB3	1:A:386:VAL:HG22	2.02	0.41
1:A:306:HIS:HE2	1:A:389:GLU:HB2	1.84	0.41
1:A:430:ALA:CB	1:A:472:CYS:HA	2.50	0.41
1:A:455:HIS:CD2	1:A:531:MET:CE	3.03	0.41
1:A:529:THR:O	1:A:529:THR:CG2	2.62	0.41
1:A:552:ILE:O	1:A:553:VAL:CG2	2.68	0.41
1:B:276:PHE:CE1	1:B:633:LEU:HD11	2.53	0.41
1:B:408:CYS:HA	1:B:428:ASN:HB2	2.02	0.41
1:B:429:VAL:HG21	1:B:487:LEU:CB	2.47	0.41
1:D:291:LYS:HD3	1:D:378:TYR:HD2	1.70	0.41
1:D:476:TYR:OH	1:D:486:GLN:C	2.56	0.41
1:D:588:GLY:HA2	1:D:591:ASN:HD22	1.84	0.41
1:E:212:PHE:HZ	1:E:246:LEU:HD11	1.80	0.41
1:E:443:ASP:HA	1:E:446:CYS:SG	2.60	0.41
1:E:507:VAL:C	1:E:508:CYS:SG	2.98	0.41
1:E:599:TYR:O	1:E:603:GLN:OE1	2.38	0.41
1:F:260:LEU:CB	1:F:261:PRO:CD	2.97	0.41
1:F:476:TYR:CE2	1:F:487:LEU:HG	2.54	0.41
1:H:376:VAL:O	1:H:376:VAL:HG12	2.20	0.41
1:H:492:ILE:O	1:H:493:LYS:O	2.37	0.41
1:G:289:GLU:O	1:G:292:LYS:CA	2.68	0.41
1:G:476:TYR:HE2	1:G:486:GLN:HB2	1.85	0.41
1:G:483:SER:HB3	1:G:486:GLN:HE21	1.84	0.41
1:G:539:GLY:C	1:G:543:ALA:HB3	2.39	0.41
1:A:135:PHE:HB3	1:A:267:ASP:HA	2.03	0.41
1:A:363:GLY:CA	1:A:365:TYR:H	2.33	0.41
1:A:374:GLU:O	1:A:377:ALA:HB3	2.20	0.41
1:A:660:THR:HG21	1:A:675:MET:HG2	2.02	0.41
1:B:369:GLN:O	1:B:372:MET:N	2.52	0.41
1:C:283:HIS:NE2	1:C:350:TYR:CE1	2.80	0.41
1:C:296:ILE:HD11	1:C:668:TYR:CD1	2.54	0.41
1:C:375:VAL:O	1:C:376:VAL:C	2.58	0.41
1:C:492:ILE:O	1:C:493:LYS:O	2.37	0.41
1:E:368:THR:O	1:E:369:GLN:C	2.59	0.41
1:E:416:VAL:O	1:E:417:TRP:C	2.58	0.41
1:E:442:LEU:HD23	1:E:442:LEU:HA	1.81	0.41
1:E:531:MET:CG	1:E:558:LYS:HD2	2.50	0.41
1:E:631:PRO:O	1:E:634:ILE:N	2.49	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:284:PHE:CG	1:F:364:PRO:O	2.73	0.41
1:H:131:GLU:CD	1:H:656:LEU:HD21	2.41	0.41
1:H:246:LEU:HA	1:H:249:LEU:HB3	2.02	0.41
1:H:499:VAL:O	1:H:502:LYS:CB	2.68	0.41
1:A:164:GLY:HA2	1:A:168:THR:HG23	2.01	0.41
1:A:202:LEU:CD1	1:A:203:ALA:HB2	2.49	0.41
1:A:261:PRO:O	1:A:262:LEU:HD23	2.21	0.41
1:A:369:GLN:O	1:A:372:MET:N	2.53	0.41
1:A:631:PRO:CA	1:A:634:ILE:CD1	2.99	0.41
1:C:204:LEU:C	1:C:206:ALA:H	2.24	0.41
1:C:470:ASP:CG	1:C:473:GLN:OE1	2.58	0.41
1:C:517:GLY:O	1:C:519:ASP:N	2.52	0.41
1:D:313:GLN:OE1	1:D:313:GLN:N	2.49	0.41
1:D:429:VAL:HG21	1:D:487:LEU:HD13	1.98	0.41
1:D:465:GLN:HE21	1:D:465:GLN:HB3	1.74	0.41
1:D:562:GLY:O	1:D:589:CYS:SG	2.78	0.41
1:D:654:THR:O	1:D:655:ARG:C	2.58	0.41
1:F:475:LYS:O	1:F:478:GLU:HG2	2.20	0.41
1:H:284:PHE:CG	1:H:364:PRO:O	2.72	0.41
1:H:319:ILE:HB	1:H:325:LEU:HD12	2.02	0.41
1:G:672:ARG:NH2	1:G:675:MET:O	2.53	0.41
1:A:590:TYR:HB3	1:A:649:TRP:HZ2	1.73	0.41
1:A:634:ILE:O	1:A:637:ALA:N	2.52	0.41
1:A:641:TRP:O	1:A:642:THR:C	2.59	0.41
1:B:332:ARG:NH1	1:B:362:TYR:CD1	2.89	0.41
1:B:672:ARG:CZ	1:B:675:MET:O	2.69	0.41
1:C:422:ILE:H	1:C:422:ILE:HD12	1.85	0.41
1:C:517:GLY:O	1:C:520:LEU:HB2	2.20	0.41
1:C:531:MET:SD	1:C:558:LYS:HE2	2.61	0.41
1:C:563:TYR:CZ	1:C:592:TYR:HD2	2.37	0.41
1:D:322:TYR:N	1:D:323:PRO:HD3	2.36	0.41
1:D:389:GLU:OE2	1:D:391:ASP:HB2	2.18	0.41
1:D:463:THR:HG21	1:D:484:TYR:C	2.40	0.41
1:D:531:MET:CG	1:D:558:LYS:HZ3	2.31	0.41
1:E:178:GLN:HE22	1:E:182:PRO:CD	2.34	0.41
1:E:401:ALA:HA	1:E:414:PRO:HG2	2.03	0.41
1:F:168:THR:O	1:F:169:PHE:C	2.58	0.41
1:H:228:THR:CA	1:H:262:LEU:HD22	2.49	0.41
1:H:558:LYS:HZ1	1:H:611:GLN:CD	2.24	0.41
1:G:170:TYR:C	1:G:170:TYR:HD1	2.23	0.41
1:A:134:SER:O	1:A:135:PHE:C	2.59	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:187:ILE:O	1:A:188:ILE:HD13	2.21	0.41
1:A:331:THR:CG2	1:A:365:TYR:CE2	3.03	0.41
1:B:661:GLN:O	1:B:665:ASP:CG	2.58	0.41
1:D:571:ASN:HD21	1:D:582:GLY:CA	2.33	0.41
1:E:215:ASP:C	1:E:217:ALA:H	2.21	0.41
1:F:256:ASN:HB2	1:F:662:TRP:HZ2	1.85	0.41
1:H:584:ASP:HB3	1:H:632:ARG:HH11	1.86	0.41
1:G:426:VAL:HG23	1:G:466:TRP:HE1	1.84	0.41
1:A:187:ILE:HB	1:A:188:ILE:H	1.75	0.41
1:A:223:TYR:CD1	1:A:223:TYR:C	2.94	0.41
1:A:270:ARG:HG3	1:A:270:ARG:NH1	2.35	0.41
1:A:431:ASN:ND2	1:A:434:ALA:HB2	2.36	0.41
1:A:463:THR:HG22	1:A:466:TRP:HE3	1.83	0.41
1:A:649:TRP:CE3	1:A:652:PHE:HD2	2.39	0.41
1:B:351:TRP:HD1	1:B:357:LYS:HG3	1.78	0.41
1:B:551:ALA:O	1:B:608:LYS:N	2.46	0.41
1:B:627:TYR:O	1:B:630:LEU:N	2.53	0.41
1:C:639:ALA:HA	1:C:647:LYS:HD3	2.02	0.41
1:D:364:PRO:HA	1:D:365:TYR:CB	2.50	0.41
1:D:654:THR:O	1:D:656:LEU:N	2.53	0.41
1:E:520:LEU:HB3	1:E:525:GLN:N	2.35	0.41
1:F:479:LEU:CD1	1:F:490:HIS:CD2	3.04	0.41
1:F:499:VAL:O	1:F:502:LYS:CB	2.69	0.41
1:F:654:THR:O	1:F:655:ARG:C	2.59	0.41
1:G:131:GLU:O	1:G:132:THR:OG1	2.31	0.41
1:G:429:VAL:HG21	1:G:487:LEU:HB3	2.03	0.41
1:G:531:MET:HG2	1:G:558:LYS:HD2	2.01	0.41
1:G:533:TRP:O	1:G:534:ASN:O	2.38	0.41
1:A:202:LEU:HD11	1:A:203:ALA:HB2	2.03	0.41
1:A:391:ASP:OD2	1:A:459:ASP:OD1	2.38	0.41
1:A:559:GLY:C	1:A:561:GLY:N	2.73	0.41
1:B:530:ILE:CG1	1:B:549:LEU:HD13	2.50	0.41
1:B:587:GLU:HG2	1:B:588:GLY:N	2.36	0.41
1:C:569:GLN:O	1:C:570:SER:HB2	2.21	0.41
1:D:275:GLY:HA3	1:D:611:GLN:HG3	2.01	0.41
1:D:426:VAL:CG1	1:D:461:CYS:SG	3.08	0.41
1:E:544:VAL:HG12	1:E:547:LEU:H	1.86	0.41
1:E:565:ILE:HG21	1:E:632:ARG:HB3	2.02	0.41
1:E:587:GLU:C	1:E:589:CYS:H	2.24	0.41
1:F:308:HIS:NE2	1:F:311:ASP:OD1	2.53	0.41
1:F:335:ASN:HA	1:F:362:TYR:CB	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:400:MET:CE	1:F:426:VAL:O	2.68	0.41
1:F:539:GLY:C	1:F:543:ALA:HB3	2.39	0.41
1:F:673:HIS:O	1:F:674:TRP:C	2.57	0.41
1:H:221:GLU:HB2	1:H:269:PRO:HG3	2.03	0.41
1:H:350:TYR:CD1	1:H:418:THR:O	2.74	0.41
1:H:545:LYS:HE2	1:H:603:GLN:HB3	2.01	0.41
1:H:562:GLY:O	1:H:589:CYS:SG	2.75	0.41
1:G:287:VAL:O	1:G:291:LYS:HG3	2.20	0.41
1:A:273:TYR:HB2	1:A:608:LYS:O	2.21	0.41
1:B:129:ALA:N	1:B:252:LEU:HD13	2.36	0.41
1:B:147:LEU:HD21	1:F:238:THR:CG2	2.50	0.41
1:B:369:GLN:O	1:B:370:ASP:C	2.57	0.41
1:C:174:VAL:O	1:C:176:GLU:N	2.54	0.41
1:C:303:ASN:O	1:C:305:PHE:N	2.53	0.41
1:C:603:GLN:O	1:C:606:LEU:N	2.54	0.41
1:D:392:MET:SD	1:D:396:PHE:CD2	3.13	0.41
1:D:587:GLU:CA	1:D:591:ASN:ND2	2.83	0.41
1:E:369:GLN:O	1:E:372:MET:N	2.50	0.41
1:E:388:PRO:HB3	1:E:449:PHE:CE2	2.56	0.41
1:E:654:THR:O	1:E:655:ARG:C	2.59	0.41
1:F:178:GLN:OE1	1:F:182:PRO:HG2	2.21	0.41
1:F:368:THR:O	1:F:369:GLN:C	2.59	0.41
1:F:486:GLN:HG2	1:F:516:GLY:H	1.86	0.41
1:H:294:ILE:CG2	1:H:384:ILE:HD13	2.50	0.41
1:G:400:MET:O	1:G:404:PRO:N	2.54	0.41
1:G:454:ILE:HG12	1:G:504:LYS:HD3	2.01	0.41
1:A:132:THR:HG21	1:A:300:TYR:O	2.20	0.41
1:A:284:PHE:CD2	1:A:367:TYR:CZ	3.09	0.41
1:A:309:LEU:HD13	1:A:317:ALA:HB2	2.03	0.41
1:A:325:LEU:HD22	1:A:399:ALA:CB	2.50	0.41
1:A:349:VAL:HB	1:A:350:TYR:H	1.73	0.41
1:A:389:GLU:C	1:A:390:VAL:HG23	2.40	0.41
1:A:486:GLN:HB3	1:A:489:ALA:HB3	2.02	0.41
1:A:487:LEU:O	1:A:488:GLN:C	2.58	0.41
1:A:549:LEU:HD23	1:A:549:LEU:HA	1.96	0.41
1:A:566:CYS:HB2	1:A:614:PHE:HA	2.01	0.41
1:A:591:ASN:OD1	1:A:649:TRP:CD1	2.74	0.41
1:A:591:ASN:H	1:A:649:TRP:HE1	1.69	0.41
1:A:654:THR:O	1:A:655:ARG:C	2.59	0.41
1:B:237:SER:O	1:B:238:THR:OG1	2.39	0.41
1:B:240:LYS:O	1:B:244:TYR:CD2	2.74	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:296:ILE:CD1	1:B:630:LEU:HD11	2.51	0.41
1:B:499:VAL:C	1:B:502:LYS:CB	2.86	0.41
1:B:634:ILE:O	1:B:635:CYS:C	2.59	0.41
1:C:247:GLN:OE1	1:C:299:ARG:HA	2.21	0.41
1:C:284:PHE:CE1	1:C:367:TYR:CE1	3.09	0.41
1:C:326:THR:HB	1:C:366:PHE:CD2	2.56	0.41
1:D:226:ASN:OD1	1:D:264:ARG:HG2	2.20	0.41
1:D:303:ASN:O	1:D:305:PHE:N	2.54	0.41
1:D:354:ASN:O	1:D:355:GLY:O	2.38	0.41
1:D:544:VAL:HG11	1:D:547:LEU:CG	2.50	0.41
1:E:562:GLY:O	1:E:589:CYS:HB2	2.21	0.41
1:E:633:LEU:HD12	1:E:633:LEU:HA	1.95	0.41
1:E:647:LYS:HB2	1:E:647:LYS:HE3	1.81	0.41
1:F:607:VAL:O	1:F:608:LYS:C	2.60	0.41
1:H:391:ASP:O	1:H:396:PHE:HE2	1.97	0.41
1:H:408:CYS:CB	1:H:465:GLN:NE2	2.83	0.41
1:H:488:GLN:O	1:H:492:ILE:HG13	2.20	0.41
1:H:583:ASN:N	1:H:583:ASN:HD22	2.19	0.41
1:H:607:VAL:O	1:H:608:LYS:C	2.59	0.41
1:G:295:ASP:HA	1:G:382:ARG:CZ	2.51	0.41
1:G:351:TRP:HA	1:G:355:GLY:O	2.20	0.41
1:G:373:ARG:HG2	1:G:448:ILE:HG23	2.03	0.41
1:G:534:ASN:O	1:G:535:PRO:O	2.38	0.41
1:G:562:GLY:O	1:G:589:CYS:SG	2.78	0.41
1:A:225:LEU:HD21	1:A:249:LEU:HB2	2.03	0.41
1:A:497:ASP:HA	1:A:500:ALA:HB3	2.03	0.41
1:A:502:LYS:O	1:A:503:ASN:HB2	2.21	0.41
1:B:228:THR:CA	1:B:262:LEU:HD22	2.48	0.41
1:B:394:GLY:HA3	1:B:461:CYS:SG	2.61	0.41
1:B:499:VAL:O	1:B:502:LYS:HG2	2.20	0.41
1:B:569:GLN:O	1:B:570:SER:CB	2.69	0.41
1:C:284:PHE:O	1:C:285:PHE:CD1	2.73	0.41
1:C:664:ASP:O	1:C:665:ASP:C	2.60	0.41
1:C:672:ARG:CZ	1:C:675:MET:O	2.68	0.41
1:D:569:GLN:O	1:D:570:SER:CB	2.69	0.41
1:E:436:GLU:O	1:E:440:ASN:N	2.47	0.41
1:E:602:GLU:O	1:E:603:GLN:C	2.58	0.41
1:E:634:ILE:H	1:E:634:ILE:HD12	1.86	0.41
1:G:223:TYR:CD1	1:G:223:TYR:C	2.95	0.41
1:G:293:MET:O	1:G:297:MET:HG3	2.21	0.41
1:G:378:TYR:O	1:G:379:ALA:C	2.59	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:488:GLN:O	1:G:492:ILE:HG13	2.20	0.41
1:G:540:VAL:HG22	1:G:553:VAL:HG22	2.03	0.41
1:A:168:THR:HG21	1:A:243:PHE:HZ	1.86	0.40
1:A:318:GLU:HG3	1:A:366:PHE:HE2	1.86	0.40
1:A:495:LEU:HD23	1:A:495:LEU:HA	1.88	0.40
1:A:516:GLY:C	1:A:518:ALA:H	2.22	0.40
1:B:192:ARG:HD3	1:B:192:ARG:C	2.41	0.40
1:B:201:ARG:HD3	1:B:207:MET:SD	2.61	0.40
1:C:435:VAL:CG1	1:C:439:LYS:HE3	2.51	0.40
1:C:634:ILE:O	1:C:635:CYS:C	2.60	0.40
1:C:673:HIS:O	1:C:674:TRP:C	2.60	0.40
1:D:207:MET:O	1:D:207:MET:CG	2.69	0.40
1:D:276:PHE:HE1	1:D:614:PHE:HB2	1.86	0.40
1:D:513:ILE:HD13	1:D:543:ALA:CA	2.49	0.40
1:E:282:ARG:CB	1:E:350:TYR:OH	2.69	0.40
1:E:392:MET:SD	1:E:427:LEU:HD12	2.61	0.40
1:E:398:ALA:HA	1:E:416:VAL:HG22	2.03	0.40
1:E:429:VAL:HG21	1:E:487:LEU:HD13	2.01	0.40
1:E:586:VAL:CG1	1:E:635:CYS:SG	3.06	0.40
1:F:400:MET:HE2	1:F:427:LEU:HA	2.02	0.40
1:F:624:TYR:HA	1:F:627:TYR:HB3	2.01	0.40
1:F:664:ASP:O	1:F:665:ASP:C	2.59	0.40
1:H:313:GLN:HG2	1:H:350:TYR:OH	2.21	0.40
1:G:315:TRP:CD1	1:G:325:LEU:O	2.74	0.40
1:G:659:GLN:HE21	1:G:659:GLN:HB2	1.67	0.40
1:A:134:SER:HB3	1:A:267:ASP:HB2	2.03	0.40
1:A:166:TRP:O	1:A:169:PHE:HB3	2.21	0.40
1:A:332:ARG:CZ	1:A:350:TYR:CZ	3.01	0.40
1:B:277:MET:HA	1:B:306:HIS:O	2.21	0.40
1:B:313:GLN:OE1	1:B:313:GLN:N	2.49	0.40
1:B:507:VAL:C	1:B:508:CYS:SG	3.00	0.40
1:B:569:GLN:HA	1:B:584:ASP:O	2.21	0.40
1:C:280:VAL:HG21	1:C:367:TYR:OH	2.20	0.40
1:C:296:ILE:HG21	1:C:633:LEU:HD23	2.02	0.40
1:C:545:LYS:HD3	1:C:603:GLN:HG2	2.02	0.40
1:C:569:GLN:HE22	1:C:671:ALA:HB3	1.83	0.40
1:D:208:ASP:CG	1:D:211:SER:HG	2.23	0.40
1:D:517:GLY:C	1:D:519:ASP:H	2.24	0.40
1:D:631:PRO:O	1:D:634:ILE:N	2.51	0.40
1:E:400:MET:CE	1:E:427:LEU:HA	2.51	0.40
1:E:602:GLU:O	1:E:604:MET:N	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:289:GLU:O	1:F:292:LYS:CA	2.67	0.40
1:F:549:LEU:C	1:F:550:PRO:O	2.59	0.40
1:G:247:GLN:OE1	1:G:299:ARG:HA	2.22	0.40
1:G:513:ILE:HD13	1:G:544:VAL:CG2	2.51	0.40
1:G:553:VAL:O	1:G:558:LYS:N	2.54	0.40
1:G:634:ILE:O	1:G:635:CYS:C	2.60	0.40
1:G:664:ASP:O	1:G:665:ASP:C	2.60	0.40
1:A:146:TYR:OH	1:A:249:LEU:CD2	2.64	0.40
1:A:199:GLU:C	1:A:199:GLU:OE2	2.59	0.40
1:A:227:ILE:CD1	1:A:252:LEU:HD13	2.51	0.40
1:A:470:ASP:O	1:A:474:GLN:HG3	2.22	0.40
1:B:502:LYS:HD2	1:B:503:ASN:N	2.36	0.40
1:B:546:LYS:NZ	1:B:546:LYS:CB	2.84	0.40
1:B:584:ASP:O	1:B:632:ARG:NH1	2.52	0.40
1:C:476:TYR:HE1	1:C:487:LEU:HD12	1.86	0.40
1:D:223:TYR:CD1	1:D:223:TYR:C	2.94	0.40
1:D:292:LYS:HA	1:D:295:ASP:CG	2.42	0.40
1:D:661:GLN:O	1:D:665:ASP:HB2	2.21	0.40
1:E:513:ILE:CD1	1:E:543:ALA:CB	2.99	0.40
1:E:607:VAL:O	1:E:608:LYS:C	2.59	0.40
1:F:192:ARG:CZ	1:F:193:GLY:HA2	2.51	0.40
1:F:240:LYS:H	1:F:240:LYS:HG3	1.73	0.40
1:F:389:GLU:OE2	1:F:391:ASP:HB2	2.21	0.40
1:F:492:ILE:O	1:F:493:LYS:O	2.39	0.40
1:H:668:TYR:O	1:H:670:TYR:HD1	2.04	0.40
1:G:201:ARG:H	1:G:201:ARG:HD3	1.85	0.40
1:A:388:PRO:HB3	1:A:449:PHE:CD2	2.57	0.40
1:A:458:GLY:HA3	1:A:488:GLN:OE1	2.22	0.40
1:B:174:VAL:O	1:B:176:GLU:N	2.54	0.40
1:C:215:ASP:C	1:C:217:ALA:H	2.18	0.40
1:C:223:TYR:CD1	1:C:223:TYR:C	2.94	0.40
1:C:374:GLU:O	1:C:377:ALA:HB3	2.21	0.40
1:C:535:PRO:O	1:C:539:GLY:HA3	2.22	0.40
1:D:282:ARG:CZ	1:D:311:ASP:OD2	2.70	0.40
1:D:296:ILE:HG12	1:D:668:TYR:CE1	2.55	0.40
1:D:393:PRO:O	1:D:427:LEU:HD12	2.21	0.40
1:D:553:VAL:CG2	1:D:607:VAL:HG13	2.50	0.40
1:D:634:ILE:O	1:D:635:CYS:C	2.60	0.40
1:F:501:THR:C	1:F:502:LYS:HG3	2.41	0.40
1:F:569:GLN:O	1:F:570:SER:HB2	2.21	0.40
1:F:631:PRO:O	1:F:632:ARG:C	2.60	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:175:SER:O	1:H:179:ILE:HD12	2.22	0.40
1:H:634:ILE:O	1:H:635:CYS:C	2.59	0.40
1:H:664:ASP:O	1:H:665:ASP:C	2.60	0.40
1:G:369:GLN:O	1:G:370:ASP:C	2.57	0.40
1:A:157:VAL:HG13	1:A:212:PHE:O	2.22	0.40
1:B:644:GLN:O	1:B:647:LYS:N	2.52	0.40
1:C:275:GLY:CA	1:C:611:GLN:HG3	2.51	0.40
1:C:492:ILE:HG23	1:C:506:LEU:HD13	2.03	0.40
1:E:227:ILE:HG22	1:E:262:LEU:HA	2.02	0.40
1:E:363:GLY:N	1:E:364:PRO:CD	2.77	0.40
1:E:445:LEU:HD23	1:E:445:LEU:N	2.37	0.40
1:E:569:GLN:O	1:E:570:SER:CB	2.69	0.40
1:F:172:TYR:OH	1:F:243:PHE:O	2.24	0.40
1:H:307:TRP:O	1:H:389:GLU:HB3	2.21	0.40
1:H:535:PRO:O	1:H:539:GLY:HA3	2.21	0.40
1:G:246:LEU:HD12	1:G:246:LEU:N	2.37	0.40
1:G:399:ALA:O	1:G:400:MET:HG2	2.22	0.40
1:G:631:PRO:O	1:G:634:ILE:HD12	2.21	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	505/901 (56%)	297 (59%)	127 (25%)	81 (16%)	0	0
1	B	489/901 (54%)	301 (62%)	126 (26%)	62 (13%)	0	0
1	C	488/901 (54%)	295 (60%)	123 (25%)	70 (14%)	0	0
1	D	488/901 (54%)	292 (60%)	133 (27%)	63 (13%)	0	0
1	E	488/901 (54%)	294 (60%)	130 (27%)	64 (13%)	0	0
1	F	488/901 (54%)	288 (59%)	137 (28%)	63 (13%)	0	0

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	G	488/901 (54%)	300 (62%)	127 (26%)	61 (12%)	0	0
1	H	489/901 (54%)	293 (60%)	134 (27%)	62 (13%)	0	0
All	All	3923/7208 (54%)	2360 (60%)	1037 (26%)	526 (13%)	0	0

All (526) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	149	THR
1	A	150	ASN
1	A	151	THR
1	A	190	ALA
1	A	194	ALA
1	A	199	GLU
1	A	253	ALA
1	A	258	GLU
1	A	325	LEU
1	A	328	VAL
1	A	359	GLY
1	A	364	PRO
1	A	395	HIS
1	A	407	SER
1	A	502	LYS
1	A	503	ASN
1	A	514	THR
1	A	526	THR
1	A	530	ILE
1	A	535	PRO
1	A	536	CYS
1	A	550	PRO
1	A	560	ASP
1	A	601	GLN
1	A	617	GLU
1	A	623	GLU
1	A	664	ASP
1	A	673	HIS
1	B	132	THR
1	B	134	SER
1	B	175	SER
1	B	199	GLU
1	B	359	GLY
1	B	366	PHE

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Mol	Chain	Res	Type
1	B	376	VAL
1	B	416	VAL
1	B	535	PRO
1	B	536	CYS
1	B	550	PRO
1	B	587	GLU
1	B	628	LEU
1	B	673	HIS
1	C	132	THR
1	C	134	SER
1	C	175	SER
1	C	199	GLU
1	C	216	PRO
1	C	237	SER
1	C	253	ALA
1	C	352	THR
1	C	359	GLY
1	C	366	PHE
1	C	376	VAL
1	C	416	VAL
1	C	432	PRO
1	C	503	ASN
1	C	535	PRO
1	C	580	GLY
1	C	623	GLU
1	C	673	HIS
1	D	134	SER
1	D	175	SER
1	D	199	GLU
1	D	351	TRP
1	D	352	THR
1	D	359	GLY
1	D	366	PHE
1	D	376	VAL
1	D	416	VAL
1	D	535	PRO
1	D	536	CYS
1	D	550	PRO
1	D	570	SER
1	D	580	GLY
1	D	587	GLU
1	D	599	TYR

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Mol	Chain	Res	Type
1	D	653	ARG
1	D	673	HIS
1	E	132	THR
1	E	134	SER
1	E	175	SER
1	E	195	GLU
1	E	199	GLU
1	E	352	THR
1	E	366	PHE
1	E	376	VAL
1	E	416	VAL
1	E	432	PRO
1	E	535	PRO
1	E	536	CYS
1	E	550	PRO
1	E	576	PRO
1	E	580	GLY
1	E	603	GLN
1	E	673	HIS
1	F	134	SER
1	F	175	SER
1	F	196	LEU
1	F	198	GLY
1	F	199	GLU
1	F	352	THR
1	F	359	GLY
1	F	366	PHE
1	F	376	VAL
1	F	416	VAL
1	F	503	ASN
1	F	535	PRO
1	F	536	CYS
1	F	550	PRO
1	F	560	ASP
1	F	570	SER
1	F	580	GLY
1	F	585	GLY
1	F	587	GLU
1	F	673	HIS
1	H	132	THR
1	H	134	SER
1	H	175	SER

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Mol	Chain	Res	Type
1	H	180	ALA
1	H	199	GLU
1	H	352	THR
1	H	366	PHE
1	H	376	VAL
1	H	535	PRO
1	H	580	GLY
1	H	585	GLY
1	H	587	GLU
1	H	601	GLN
1	H	673	HIS
1	H	676	PRO
1	G	134	SER
1	G	175	SER
1	G	199	GLU
1	G	352	THR
1	G	359	GLY
1	G	366	PHE
1	G	376	VAL
1	G	416	VAL
1	G	503	ASN
1	G	534	ASN
1	G	535	PRO
1	G	536	CYS
1	G	550	PRO
1	G	560	ASP
1	G	570	SER
1	G	576	PRO
1	G	580	GLY
1	G	587	GLU
1	G	673	HIS
1	A	135	PHE
1	A	142	GLY
1	A	155	ALA
1	A	160	ALA
1	A	161	GLY
1	A	192	ARG
1	A	351	TRP
1	A	352	THR
1	A	365	TYR
1	A	376	VAL
1	A	435	VAL

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Mol	Chain	Res	Type
1	A	493	LYS
1	A	559	GLY
1	A	576	PRO
1	A	581	TYR
1	A	597	GLY
1	A	671	ALA
1	B	174	VAL
1	B	197	ASN
1	B	198	GLY
1	B	216	PRO
1	B	237	SER
1	B	329	GLY
1	B	352	THR
1	B	355	GLY
1	B	395	HIS
1	B	503	ASN
1	B	560	ASP
1	B	570	SER
1	B	576	PRO
1	B	580	GLY
1	B	582	GLY
1	B	623	GLU
1	C	168	THR
1	C	174	VAL
1	C	198	GLY
1	C	254	GLU
1	C	304	VAL
1	C	329	GLY
1	C	364	PRO
1	C	395	HIS
1	C	435	VAL
1	C	536	CYS
1	C	576	PRO
1	C	585	GLY
1	C	587	GLU
1	C	603	GLN
1	C	664	ASP
1	D	132	THR
1	D	168	THR
1	D	174	VAL
1	D	198	GLY
1	D	257	ALA

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Mol	Chain	Res	Type
1	D	263	VAL
1	D	327	THR
1	D	329	GLY
1	D	364	PRO
1	D	435	VAL
1	D	503	ASN
1	D	560	ASP
1	D	585	GLY
1	D	664	ASP
1	E	168	THR
1	E	174	VAL
1	E	198	GLY
1	E	327	THR
1	E	329	GLY
1	E	355	GLY
1	E	359	GLY
1	E	435	VAL
1	E	503	ASN
1	E	560	ASP
1	E	587	GLU
1	E	588	GLY
1	E	601	GLN
1	E	644	GLN
1	E	664	ASP
1	F	132	THR
1	F	174	VAL
1	F	197	ASN
1	F	254	GLU
1	F	257	ALA
1	F	263	VAL
1	F	327	THR
1	F	329	GLY
1	F	355	GLY
1	F	364	PRO
1	F	432	PRO
1	F	435	VAL
1	F	493	LYS
1	F	588	GLY
1	F	603	GLN
1	F	623	GLU
1	F	664	ASP
1	H	174	VAL

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Mol	Chain	Res	Type
1	H	197	ASN
1	H	198	GLY
1	H	216	PRO
1	H	329	GLY
1	H	355	GLY
1	H	359	GLY
1	H	416	VAL
1	H	435	VAL
1	H	503	ASN
1	H	504	LYS
1	H	536	CYS
1	H	623	GLU
1	H	664	ASP
1	G	132	THR
1	G	168	THR
1	G	174	VAL
1	G	198	GLY
1	G	256	ASN
1	G	257	ALA
1	G	283	HIS
1	G	329	GLY
1	G	355	GLY
1	G	364	PRO
1	G	435	VAL
1	G	493	LYS
1	G	512	ALA
1	G	533	TRP
1	G	585	GLY
1	G	664	ASP
1	A	163	ASN
1	A	167	SER
1	A	189	PRO
1	A	195	GLU
1	A	201	ARG
1	A	261	PRO
1	A	329	GLY
1	A	428	ASN
1	A	432	PRO
1	A	504	LYS
1	A	654	THR
1	B	238	THR
1	B	256	ASN

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Mol	Chain	Res	Type
1	B	261	PRO
1	B	327	THR
1	B	364	PRO
1	B	375	VAL
1	B	432	PRO
1	B	435	VAL
1	B	493	LYS
1	B	494	ASP
1	B	518	ALA
1	B	581	TYR
1	B	588	GLY
1	B	664	ASP
1	C	180	ALA
1	C	327	THR
1	C	428	ASN
1	C	493	LYS
1	C	494	ASP
1	C	518	ALA
1	C	550	PRO
1	C	560	ASP
1	C	570	SER
1	C	591	ASN
1	D	207	MET
1	D	254	GLU
1	D	355	GLY
1	D	378	TYR
1	D	428	ASN
1	D	473	GLN
1	D	493	LYS
1	D	576	PRO
1	D	582	GLY
1	D	603	GLN
1	E	147	LEU
1	E	197	ASN
1	E	216	PRO
1	E	285	PHE
1	E	364	PRO
1	E	413	ALA
1	E	428	ASN
1	E	493	LYS
1	E	494	ASP
1	E	570	SER

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Mol	Chain	Res	Type
1	F	168	THR
1	F	216	PRO
1	F	256	ASN
1	F	258	GLU
1	F	261	PRO
1	F	467	GLU
1	F	494	ASP
1	F	518	ALA
1	F	533	TRP
1	F	562	GLY
1	F	582	GLY
1	H	168	THR
1	H	261	PRO
1	H	327	THR
1	H	364	PRO
1	H	428	ASN
1	H	432	PRO
1	H	493	LYS
1	H	518	ALA
1	H	560	ASP
1	H	570	SER
1	H	576	PRO
1	G	197	ASN
1	G	216	PRO
1	G	237	SER
1	G	254	GLU
1	G	261	PRO
1	G	327	THR
1	G	428	ASN
1	G	432	PRO
1	G	494	ASP
1	G	528	SER
1	G	623	GLU
1	A	147	LEU
1	A	159	TYR
1	A	191	PRO
1	A	193	GLY
1	A	413	ALA
1	A	460	GLU
1	A	462	PRO
1	A	570	SER
1	A	672	ARG

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Mol	Chain	Res	Type
1	B	168	THR
1	B	219	ALA
1	B	248	SER
1	B	428	ASN
1	B	436	GLU
1	B	460	GLU
1	B	603	GLN
1	C	197	ASN
1	C	236	SER
1	C	355	GLY
1	C	365	TYR
1	C	460	GLU
1	C	478	GLU
1	C	533	TRP
1	C	581	TYR
1	C	596	GLN
1	C	602	GLU
1	D	216	PRO
1	D	236	SER
1	D	256	ASN
1	D	261	PRO
1	D	432	PRO
1	D	436	GLU
1	D	460	GLU
1	D	494	ASP
1	D	604	MET
1	E	237	SER
1	E	248	SER
1	E	254	GLU
1	E	256	ASN
1	E	258	GLU
1	E	351	TRP
1	E	436	GLU
1	E	467	GLU
1	E	602	GLU
1	F	209	ASN
1	F	428	ASN
1	F	460	GLU
1	F	534	ASN
1	F	596	GLN
1	H	220	GLU
1	H	237	SER

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Mol	Chain	Res	Type
1	H	254	GLU
1	H	436	GLU
1	H	464	THR
1	H	467	GLU
1	H	494	ASP
1	H	550	PRO
1	H	588	GLY
1	G	464	THR
1	G	467	GLU
1	G	478	GLU
1	A	197	ASN
1	A	236	SER
1	A	297	MET
1	A	517	GLY
1	B	254	GLU
1	B	351	TRP
1	B	529	THR
1	B	534	ASN
1	B	653	ARG
1	C	205	SER
1	C	258	GLU
1	C	261	PRO
1	C	351	TRP
1	C	534	ASN
1	D	237	SER
1	D	304	VAL
1	D	395	HIS
1	D	445	LEU
1	D	512	ALA
1	D	581	TYR
1	E	219	ALA
1	E	257	ALA
1	E	261	PRO
1	E	460	GLU
1	E	534	ASN
1	E	581	TYR
1	E	582	GLY
1	E	627	TYR
1	E	628	LEU
1	F	133	ARG
1	F	351	TRP
1	F	395	HIS

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Mol	Chain	Res	Type
1	F	464	THR
1	F	639	ALA
1	H	194	ALA
1	H	248	SER
1	H	257	ALA
1	H	445	LEU
1	H	512	ALA
1	H	534	ASN
1	H	582	GLY
1	H	638	GLU
1	H	653	ARG
1	G	205	SER
1	G	588	GLY
1	G	602	GLU
1	G	603	GLN
1	A	166	TRP
1	A	216	PRO
1	A	232	ILE
1	A	290	VAL
1	A	436	GLU
1	A	653	ARG
1	B	304	VAL
1	B	445	LEU
1	C	562	GLY
1	C	599	TYR
1	C	638	GLU
1	D	533	TRP
1	D	534	ASN
1	E	623	GLU
1	F	238	THR
1	F	375	VAL
1	H	375	VAL
1	G	248	SER
1	G	258	GLU
1	G	290	VAL
1	G	375	VAL
1	G	513	ILE
1	A	375	VAL
1	A	565	ILE
1	C	559	GLY
1	A	416	VAL
1	B	562	GLY

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Mol	Chain	Res	Type
1	B	607	VAL
1	C	375	VAL
1	C	565	ILE
1	C	588	GLY
1	D	588	GLY
1	E	304	VAL
1	E	375	VAL
1	E	562	GLY
1	F	576	PRO
1	H	263	VAL
1	G	200	GLY
1	G	562	GLY
1	G	582	GLY
1	A	355	GLY
1	A	585	GLY
1	B	565	ILE
1	C	263	VAL
1	D	375	VAL
1	D	562	GLY
1	F	513	ILE
1	H	562	GLY
1	A	390	VAL
1	B	559	GLY
1	C	513	ILE
1	D	513	ILE
1	C	193	GLY
1	C	388	PRO
1	C	582	GLY
1	F	388	PRO
1	H	290	VAL

5.3.2 Protein sidechains [i](#)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all 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	420/737 (57%)	354 (84%)	66 (16%)	2 6

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	B	410/737 (56%)	363 (88%)	47 (12%)	5	12
1	C	410/737 (56%)	358 (87%)	52 (13%)	4	9
1	D	410/737 (56%)	352 (86%)	58 (14%)	3	7
1	E	410/737 (56%)	361 (88%)	49 (12%)	5	11
1	F	410/737 (56%)	363 (88%)	47 (12%)	5	12
1	G	410/737 (56%)	364 (89%)	46 (11%)	6	13
1	H	410/737 (56%)	364 (89%)	46 (11%)	6	13
All	All	3290/5896 (56%)	2879 (88%)	411 (12%)	4	10

All (411) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	133	ARG
1	A	134	SER
1	A	144	THR
1	A	148	ASN
1	A	152	SER
1	A	154	ASN
1	A	158	GLN
1	A	168	THR
1	A	170	TYR
1	A	187	ILE
1	A	188	ILE
1	A	196	LEU
1	A	201	ARG
1	A	205	SER
1	A	207	MET
1	A	208	ASP
1	A	209	ASN
1	A	218	LEU
1	A	225	LEU
1	A	234	VAL
1	A	247	GLN
1	A	249	LEU
1	A	254	GLU
1	A	260	LEU
1	A	267	ASP
1	A	270	ARG
1	A	277	MET
1	A	280	VAL

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Mol	Chain	Res	Type
1	A	293	MET
1	A	297	MET
1	A	302	MET
1	A	324	LYS
1	A	349	VAL
1	A	364	PRO
1	A	372	MET
1	A	382	ARG
1	A	396	PHE
1	A	400	MET
1	A	411	SER
1	A	424	SER
1	A	425	ASP
1	A	431	ASN
1	A	442	LEU
1	A	472	CYS
1	A	483	SER
1	A	485	ARG
1	A	488	GLN
1	A	501	THR
1	A	502	LYS
1	A	526	THR
1	A	538	GLU
1	A	558	LYS
1	A	566	CYS
1	A	569	GLN
1	A	590	TYR
1	A	598	MET
1	A	600	THR
1	A	604	MET
1	A	608	LYS
1	A	622	ASN
1	A	625	LEU
1	A	633	LEU
1	A	648	ASN
1	A	650	ASP
1	A	674	TRP
1	A	675	MET
1	B	131	GLU
1	B	135	PHE
1	B	139	CYS
1	B	144	THR

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Mol	Chain	Res	Type
1	B	168	THR
1	B	170	TYR
1	B	176	GLU
1	B	192	ARG
1	B	201	ARG
1	B	204	LEU
1	B	238	THR
1	B	239	GLU
1	B	248	SER
1	B	265	ILE
1	B	267	ASP
1	B	270	ARG
1	B	280	VAL
1	B	295	ASP
1	B	310	THR
1	B	312	ASP
1	B	327	THR
1	B	332	ARG
1	B	357	LYS
1	B	366	PHE
1	B	378	TYR
1	B	396	PHE
1	B	415	GLN
1	B	417	TRP
1	B	440	ASN
1	B	441	ILE
1	B	446	CYS
1	B	472	CYS
1	B	488	GLN
1	B	494	ASP
1	B	495	LEU
1	B	497	ASP
1	B	501	THR
1	B	502	LYS
1	B	546	LYS
1	B	584	ASP
1	B	590	TYR
1	B	601	GLN
1	B	608	LYS
1	B	613	THR
1	B	625	LEU
1	B	647	LYS

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Mol	Chain	Res	Type
1	B	673	HIS
1	C	131	GLU
1	C	134	SER
1	C	135	PHE
1	C	139	CYS
1	C	144	THR
1	C	170	TYR
1	C	176	GLU
1	C	192	ARG
1	C	196	LEU
1	C	201	ARG
1	C	204	LEU
1	C	208	ASP
1	C	225	LEU
1	C	230	ASP
1	C	233	SER
1	C	238	THR
1	C	239	GLU
1	C	258	GLU
1	C	270	ARG
1	C	280	VAL
1	C	295	ASP
1	C	310	THR
1	C	318	GLU
1	C	332	ARG
1	C	365	TYR
1	C	374	GLU
1	C	378	TYR
1	C	396	PHE
1	C	417	TRP
1	C	442	LEU
1	C	446	CYS
1	C	463	THR
1	C	470	ASP
1	C	483	SER
1	C	485	ARG
1	C	488	GLN
1	C	495	LEU
1	C	497	ASP
1	C	502	LYS
1	C	513	ILE
1	C	535	PRO

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Mol	Chain	Res	Type
1	C	566	CYS
1	C	572	ASP
1	C	598	MET
1	C	600	THR
1	C	601	GLN
1	C	608	LYS
1	C	613	THR
1	C	616	THR
1	C	644	GLN
1	C	673	HIS
1	C	675	MET
1	D	131	GLU
1	D	134	SER
1	D	135	PHE
1	D	139	CYS
1	D	144	THR
1	D	145	LYS
1	D	146	TYR
1	D	170	TYR
1	D	173	LYS
1	D	176	GLU
1	D	195	GLU
1	D	201	ARG
1	D	207	MET
1	D	220	GLU
1	D	233	SER
1	D	239	GLU
1	D	249	LEU
1	D	252	LEU
1	D	256	ASN
1	D	258	GLU
1	D	280	VAL
1	D	289	GLU
1	D	295	ASP
1	D	296	ILE
1	D	310	THR
1	D	324	LYS
1	D	332	ARG
1	D	365	TYR
1	D	366	PHE
1	D	370	ASP
1	D	378	TYR

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Mol	Chain	Res	Type
1	D	395	HIS
1	D	396	PHE
1	D	417	TRP
1	D	437	PHE
1	D	443	ASP
1	D	463	THR
1	D	465	GLN
1	D	468	HIS
1	D	495	LEU
1	D	497	ASP
1	D	501	THR
1	D	502	LYS
1	D	503	ASN
1	D	535	PRO
1	D	566	CYS
1	D	570	SER
1	D	572	ASP
1	D	583	ASN
1	D	590	TYR
1	D	600	THR
1	D	601	GLN
1	D	608	LYS
1	D	613	THR
1	D	625	LEU
1	D	665	ASP
1	D	673	HIS
1	D	675	MET
1	E	130	ASP
1	E	131	GLU
1	E	135	PHE
1	E	144	THR
1	E	169	PHE
1	E	176	GLU
1	E	201	ARG
1	E	204	LEU
1	E	207	MET
1	E	208	ASP
1	E	211	SER
1	E	220	GLU
1	E	225	LEU
1	E	230	ASP
1	E	233	SER

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Mol	Chain	Res	Type
1	E	238	THR
1	E	239	GLU
1	E	249	LEU
1	E	258	GLU
1	E	280	VAL
1	E	287	VAL
1	E	295	ASP
1	E	312	ASP
1	E	316	ARG
1	E	332	ARG
1	E	365	TYR
1	E	396	PHE
1	E	417	TRP
1	E	424	SER
1	E	445	LEU
1	E	446	CYS
1	E	461	CYS
1	E	463	THR
1	E	495	LEU
1	E	497	ASP
1	E	501	THR
1	E	502	LYS
1	E	531	MET
1	E	535	PRO
1	E	536	CYS
1	E	566	CYS
1	E	572	ASP
1	E	589	CYS
1	E	598	MET
1	E	601	GLN
1	E	608	LYS
1	E	613	THR
1	E	673	HIS
1	E	675	MET
1	F	131	GLU
1	F	135	PHE
1	F	146	TYR
1	F	169	PHE
1	F	170	TYR
1	F	173	LYS
1	F	192	ARG
1	F	201	ARG

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Mol	Chain	Res	Type
1	F	210	ILE
1	F	225	LEU
1	F	238	THR
1	F	239	GLU
1	F	249	LEU
1	F	256	ASN
1	F	258	GLU
1	F	260	LEU
1	F	270	ARG
1	F	280	VAL
1	F	295	ASP
1	F	310	THR
1	F	318	GLU
1	F	324	LYS
1	F	332	ARG
1	F	365	TYR
1	F	370	ASP
1	F	378	TYR
1	F	396	PHE
1	F	417	TRP
1	F	427	LEU
1	F	468	HIS
1	F	470	ASP
1	F	497	ASP
1	F	501	THR
1	F	502	LYS
1	F	513	ILE
1	F	531	MET
1	F	566	CYS
1	F	572	ASP
1	F	584	ASP
1	F	590	TYR
1	F	600	THR
1	F	608	LYS
1	F	613	THR
1	F	627	TYR
1	F	633	LEU
1	F	649	TRP
1	F	675	MET
1	H	131	GLU
1	H	134	SER
1	H	135	PHE

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Mol	Chain	Res	Type
1	H	147	LEU
1	H	169	PHE
1	H	170	TYR
1	H	201	ARG
1	H	204	LEU
1	H	220	GLU
1	H	225	LEU
1	H	239	GLU
1	H	249	LEU
1	H	256	ASN
1	H	258	GLU
1	H	260	LEU
1	H	280	VAL
1	H	295	ASP
1	H	310	THR
1	H	327	THR
1	H	334	ASP
1	H	365	TYR
1	H	378	TYR
1	H	396	PHE
1	H	417	TRP
1	H	443	ASP
1	H	463	THR
1	H	471	LEU
1	H	479	LEU
1	H	485	ARG
1	H	497	ASP
1	H	501	THR
1	H	502	LYS
1	H	519	ASP
1	H	566	CYS
1	H	568	LYS
1	H	572	ASP
1	H	583	ASN
1	H	600	THR
1	H	608	LYS
1	H	613	THR
1	H	632	ARG
1	H	633	LEU
1	H	664	ASP
1	H	672	ARG
1	H	673	HIS

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Mol	Chain	Res	Type
1	H	674	TRP
1	G	131	GLU
1	G	134	SER
1	G	135	PHE
1	G	144	THR
1	G	147	LEU
1	G	169	PHE
1	G	170	TYR
1	G	176	GLU
1	G	192	ARG
1	G	201	ARG
1	G	204	LEU
1	G	210	ILE
1	G	211	SER
1	G	238	THR
1	G	239	GLU
1	G	251	GLN
1	G	258	GLU
1	G	260	LEU
1	G	280	VAL
1	G	295	ASP
1	G	310	THR
1	G	332	ARG
1	G	365	TYR
1	G	374	GLU
1	G	378	TYR
1	G	395	HIS
1	G	396	PHE
1	G	417	TRP
1	G	425	ASP
1	G	443	ASP
1	G	446	CYS
1	G	488	GLN
1	G	495	LEU
1	G	497	ASP
1	G	501	THR
1	G	502	LYS
1	G	566	CYS
1	G	572	ASP
1	G	600	THR
1	G	608	LYS
1	G	613	THR

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Mol	Chain	Res	Type
1	G	633	LEU
1	G	672	ARG
1	G	673	HIS
1	G	674	TRP
1	G	675	MET

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (65) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	158	GLN
1	A	283	HIS
1	A	308	HIS
1	A	409	ASN
1	A	465	GLN
1	A	469	ASN
1	A	534	ASN
1	A	603	GLN
1	B	256	ASN
1	B	283	HIS
1	B	335	ASN
1	B	465	GLN
1	B	525	GLN
1	B	603	GLN
1	B	618	HIS
1	C	209	ASN
1	C	369	GLN
1	C	409	ASN
1	C	488	GLN
1	C	503	ASN
1	C	569	GLN
1	D	209	ASN
1	D	256	ASN
1	D	465	GLN
1	D	569	GLN
1	D	571	ASN
1	D	583	ASN
1	D	591	ASN
1	D	601	GLN
1	D	659	GLN
1	E	178	GLN
1	E	209	ASN
1	E	251	GLN

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Mol	Chain	Res	Type
1	E	468	HIS
1	E	534	ASN
1	E	571	ASN
1	E	591	ASN
1	E	659	GLN
1	F	256	ASN
1	F	409	ASN
1	F	465	GLN
1	F	488	GLN
1	F	571	ASN
1	F	583	ASN
1	F	618	HIS
1	F	673	HIS
1	H	178	GLN
1	H	209	ASN
1	H	283	HIS
1	H	335	ASN
1	H	369	GLN
1	H	465	GLN
1	H	488	GLN
1	H	525	GLN
1	H	583	ASN
1	H	601	GLN
1	H	618	HIS
1	H	644	GLN
1	H	659	GLN
1	G	209	ASN
1	G	283	HIS
1	G	395	HIS
1	G	465	GLN
1	G	525	GLN
1	G	659	GLN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

Unable to reproduce the depositors R factor - this section is therefore empty.

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

Unable to reproduce the depositors R factor - this section is therefore empty.

6.3 Carbohydrates

Unable to reproduce the depositors R factor - this section is therefore empty.

6.4 Ligands

Unable to reproduce the depositors R factor - this section is therefore empty.

6.5 Other polymers

Unable to reproduce the depositors R factor - this section is therefore empty.